

August 1, 2023

Ms. Hillary Young, P.E.
Chief Engineer
Land Protection Division
Oklahoma Department of Environmental Quality
707 N. Robinson
P.O. Box 1677
Oklahoma City, OK 73162

Re: Fifth Report to Monitor Progress of Semi-Annual CMA Sampling at Landfill CCR Unit
Western Farmers Electric Cooperative (WFEC) - Hugo Power Station, Fort Towson, Oklahoma

Dear Ms. Young:

Enclosed, please find a copy of the above referenced report. This report documents semi-annual sampling conducted in April 2023 and monitors the progress of semi-annual sampling conducted to date. A copy of this report will be placed in the facility's operating record and on the facility's publicly accessible internet web-site.

Data obtained to date is promising in that molybdenum concentrations have gone down for most of the wells sampled. Additionally, molybdenum concentrations at SSLs above the GWPSs are only identified at four wells proximal to the Landfill CCR Unit and such exceedances have not expanded beyond the groundwater monitoring system for the Landfill CCR Unit. Based on these, the proposed corrective action alternative as per the approved Assessment of Corrective Measures Report (enhanced dewatering combined with monitored natural attenuation) appears likely to be an effective remedy to achieve the standards listed in OAC 252:517-9(b) and (c).

The next sampling event is scheduled to occur in October 2023.

Please notify me at 405-247-4298 or at k_fletcher@wfec.com if you have any questions.

Sincerely,



Kent Fletcher
Environmental Coordinator

cc: John McCreight / Western Farmers Electric Cooperation
Chris Schaefer and Bert Smith / Altamira-US, LLC

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Alfalfa Electric Cooperative • Altus Air Force Base • Canadian Valley Electric Cooperative • Central Valley Electric Cooperative •
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Oklahoma Electric Cooperative • Red River Valley Rural Electric Association • Roosevelt County Electric Cooperative •
Rural Electric Cooperative • Southeastern Electric Cooperative • Southwest Rural Electric Association

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Re: Fifth Report to Monitor Progress of Semi-Annual CMA Sampling at Landfill CCR Unit
Western Farmers Electric Cooperative – Hugo Power Station, Fort Towson, Oklahoma

Dear Ms. Young:

Assessment Monitoring at Western Farmers Electric Cooperative's (WFEC's) Hugo Power Station (HPS) has indicated molybdenum at statistically significant levels (SSLs) above established groundwater protection standards (GWPSs) in 4 of 10 downgradient monitoring wells associated with its Landfill Coal Combustion Residuals (CCR) Unit. Molybdenum has been indicated at SSLs above the GWPSs at MW-15A, MW-16, MW-18, and MW-19S.

Laboratory testing has been provided to the Oklahoma Department of Environmental Quality (ODEQ) that shows the molybdenum adsorbs to the native rock material and does not leach from the native rock to groundwater. Furthermore, hydrogeologic characterization performed shows very slow groundwater movement with limited transport of molybdenum that has not, and probably will not, leave the HPS site property boundary at concentrations exceeding the GWPSs. A preliminary risk evaluation was performed and submitted to the ODEQ indicating the groundwater constituents do not pose a hazard to potential on-site or off-site human or ecological receptors.

An Assessment of Corrective Measures Report was submitted to ODEQ on October 27, 2020. Based on evaluations included in the Assessment of Corrective Measures Report, source control via enhanced dewatering combined with monitored natural attenuation (MNA) was proposed as a corrective measure alternative for the molybdenum. A minimum of two years of semi-annual sampling of monitoring wells downgradient of the Landfill CCR Unit was proposed to establish the effectiveness of this alternative prior to selection of a final remedy. The Assessment of Corrective Measures Report and the two-year sample and evaluation period were approved by ODEQ on December 29, 2020, contingent upon submittal of semi-annual reports to ODEQ to monitor progress.

The two-year sampling period was completed in October 2022. Findings from each semi-annual sampling event were reported to the ODEQ, with findings from the final two-year semi-annual sampling event provided to ODEQ in the Fourth Report to Monitor Progress of Semi-Annual Corrective Measures Assessment (CMA) Sampling at Landfill CCR Unit. Data obtained during the two-year semi-annual groundwater sampling is encouraging in that molybdenum concentrations have gone down for most of the wells sampled. Additionally, molybdenum concentrations at SSLs above the GWPSs continue to be identified at only four wells proximal to the Landfill CCR Unit and such exceedances not expanded beyond the groundwater monitoring system for the Landfill CCR Unit. The report proposed an additional two years of semi-annual monitoring and reporting to fully evaluate the proposed remedy and to meet the standards listed in OAC 252:517-9(b) and (c). The report was accepted by ODEQ in its letter dated May 23, 2023.

This submittal constitutes the first semi-annual report for the third year of monitoring (2023) and is the fifth semi-annual report to monitor progress of corrective measure assessment sampling at the Landfill CCR Unit.

ACTIVITIES COMPLETED

- 1) Dewatering of the Landfill CCR Unit was initiated in March 2020 and continues as water accumulates in the Landfill CCR Unit following rainfall events. Standing water that accumulates in the Landfill CCR Unit following rainfall is pumped from the north side of the CCR Unit as practicable and conveyed to Impoundment FO8 pursuant to OPDES permit (OK0035327). The Landfill CCR Unit does not contain sufficient standing water to pump during periods of little or no rainfall. Conversely, several consecutive days of pumping may be required to remove standing water from the Landfill CCR Unit after large rainfall events. From the start of dewatering through July 12, 2023, a total of 1,915.7 hours of pumping have been conducted to prevent standing water from accumulating in the Landfill CCR Unit. WFEC continues to maintain stormwater run-on controls to limit surface water entering into the Landfill CCR Unit.
- 2) The fifth semi-annual sampling of select monitoring wells as proposed in the approved Fourth Report to Monitor Progress of Semi-Annual Corrective Measures Assessment (CMA) Sampling at Landfill CCR Unit was conducted in April 2023. Wells sampled include the 4 wells where molybdenum had been identified at SSLs above the GWPS (MW-15A, MW-16, MW-18, and MW-19S), and monitoring wells MW-5S, MW-7S, MW-15B, MW-17, MW-22A, MW-22B, CM-1A, CM-1B, CM-2, CM-3A, CM-3B, CM-4A, CM-4B, CM-5A, and CM-5B. The approximate locations of monitoring wells sampled are shown on the figure in **Attachment A**. Monitoring well MW-14A was also sampled to evaluate background conditions.

- 3) Each of these wells was purged prior to sampling. Purging was accomplished using dedicated submersible pumps (MW-5S, MW-7S, MW-14A, MW-15A, MW-16, MW-17, MW-18, MW-19S, and MW-22A), dedicated peristaltic pumps (CM-1A, CM-1B, and CM-2), and dedicated bailers (MW-15B, MW-22B, CM-3A, CM-3B, CM-4A, CM-4B, CM-5A, and CM-5B). Field readings of temperature, pH, and conductivity were maintained during purging of the wells. Purging was continued until water was sufficiently clear and field readings stabilized (where using submersible and peristaltic pumps) or until a well was purged dry (when bailing).
- 4) Groundwater samples were collected after purging. The groundwater samples were collected using dedicated submersible pumps, dedicated peristaltic pumps, or dedicated bailers and placed directly into appropriately preserved laboratory-prepared containers. The samples were labeled as to sample location, placed under chain-of-custody control, packed in ice, and shipped to ALS Environmental Laboratories (Oklahoma Certification 2022-141).
- 5) Each of the wells were sampled and the samples analyzed for parameters listed in the approved Assessment of Corrective Measures Report. Sampling parameters included molybdenum, dissolved molybdenum, and CCR Appendix III parameters (boron, chloride, pH, TDS, calcium, fluoride, and sulfate). Additionally, wells were monitored for indicator parameters to evaluate MNA. These indicator parameters included oxidation reduction potential (ORP), pH, specific conductance, total dissolved solids, nitrate, sulfide, total and dissolved iron, total and dissolved ferrous iron (Fe(II)), total and dissolved ferric iron (Fe(III)), dissolved oxygen (DO), and alkalinity. Samples for TDS, sulfide, nitrate, alkalinity, and all of the iron species were analyzed at the laboratory. The ORP and DO for each well were measured in the field. Specific conductance and pH for each well were both measured in the field and analyzed at the laboratory.

EVALUATION OF DATA

Laboratory reports from the April 2023 sampling are included in **Attachment B**. A running and updated tabulation of data to include results from the April 2023 sampling is contained in **Attachment C**. Oxidation-reduction reactions typically dictate molybdenum mobilization with molybdenum increasing in concentration as a result of reducing conditions, pH-induced desorption/dissolution, and microbial dissimilatory processes. Mineral co-precipitation/re-adsorption reactions typically dictate molybdenum immobilization. The data from the April 2023 sampling were compared to previously available data and evaluated to discern changes in molybdenum concentration and changes in the subsurface environment over time and distance. The following observations are made from these evaluations:

- 1) The April 2023 sampling was the fourteenth sampling event for molybdenum (dating to August 2017) at monitoring wells MW-5S, MW-7S, MW-14A, MW-15A, MW-16, MW-17, MW-18, and MW-19S; the thirteenth sampling event for molybdenum (dating to August 2017) at monitoring well MW-22A; the seventh sampling event for molybdenum (dating to July 2020) at monitoring wells MW-15B, MW-22B, CM-1A, CM-1B, CM-2, CM-3A, CM-4A, CM-4B, CM-5A, and CM-5B; and the sixth sampling event for molybdenum at CM-3B (sufficient water was not available to sample CM-3B during the October 2021 sample event). From April 2023 sampling, molybdenum was identified at SSLs above GWPSs at MW-15A, MW-16, MW-18, and MW-19S. Reported molybdenum concentrations at these wells in decreasing order were 0.362 mg/L at MW-19S (east of the southern cell of the Landfill CCR Unit), 0.232 mg/L at MW-18 (east of the southern cell of the Landfill CCR Unit), 0.173 mg/L at MW-15A (north of the northern Landfill CCR Unit), and 0.127 mg/L at MW-16 (east of the northern Landfill CCR Unit). Molybdenum concentrations attenuate significantly with distance from the Landfill CCR Unit. These wells had historically seen molybdenum levels above the GWPSs, and no new exceedances of the GWPSs were identified in any of the other wells.

- 2) Charts showing changes in molybdenum concentration over sampling history for each of the monitoring wells evaluated are included in **Attachment D**. These charts include a line of best fit generated by the Excel Trend Function using the least squares method. In most cases, the molybdenum concentration in site monitoring wells appears to have gone down slightly over the sampling history. The only exception is at monitoring well MW-19S. At MW-19S, the reported molybdenum concentration for April 2023 sampling is slightly lower than that from previous sampling events and is within historical range for molybdenum concentration at this well. At MW-15B, MW-22B, CM-1A, CM-1B, CM-2, CM-3A, CM-4A, CM-4B, CM-5A, and CM-5B interpretation of changes in molybdenum concentrations are based on only seven sampling events conducted between July/August 2020 and April 2023 and at CM-3B interpretation of changes in molybdenum concentrations are based on only six sampling events conducted over this period (sufficient water was not available in October 2021 for sample collection).

For each of the monitoring wells the mean molybdenum concentration from the four most recent sampling events was compared to the mean molybdenum concentration from sampling prior to the four most recent sampling events. The laboratory reporting level was used for determining mean concentrations where molybdenum was not identified. A comparison of mean molybdenum concentration from the four most recent sample events to that for the prior sampling events for wells evaluated is included in **Attachment E**. At all wells evaluated, except at MW-19S, the mean of the four most recent sampling events for molybdenum is lower than the mean from the prior molybdenum data. At MW-19S the mean from the four most recent sampling events is slightly above but similar to that from the previous data.

- MW-5S: Molybdenum concentration from the April 2023 sampling event (0.00211 mg/L) is similar to that reported from the previous sampling event (0.0021 mg/L). These are the lowest molybdenum concentrations reported at this well to date. Over the sampling history, the molybdenum concentration at this well appears to have decreased from 0.00737 mg/L in August 2017 to current levels. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.00266 mg/L) is approximately 38% lower than the mean molybdenum concentration reported from sampling at this well conducted between August 2017 and October 2021 (0.00427 mg/L).
- MW-7S: Molybdenum concentration from April 2023 sampling (0.000973 mg/L) is slightly lower, but similar to, that reported from the previous sampling event (0.00103 mg/L) and is on the low end of concentrations historically reported at this well. Over the sampling history, the molybdenum concentration at this well appears to have decreased from 0.00171 mg/L in August 2017 to current levels. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.00103 mg/L) is approximately 47% lower than the mean molybdenum concentration reported from sampling conducted at this well between August 2017 and March 2021 (0.00196 mg/L).

- MW-14A: This monitoring well is an up-gradient background well. Molybdenum was not observed from April 2023 sampling at a concentration above the Method Detection Level (<0.0006 mg/L). Over the sampling history, the molybdenum at this well has decreased from 0.00223 mg/L in August 2017 to <0.0006 mg/L. Molybdenum has not been identified above the Method Detection Level since June 2020 sampling. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.00060 mg/L) is approximately 79% lower than the mean molybdenum concentration reported from sampling conducted at this well between August 2017 and March 2021 (0.00286 mg/L).
- MW-15A: Molybdenum concentration from April 2023 sampling (0.173 mg/L) is higher than that reported from the previous sampling event (0.149 mg/L) but is on the low end of concentrations historically reported at this well. The highest molybdenum concentrations over the sampling history are 0.269 mg/L in June 2020 and 0.255 mg/L in August 2017. Prior to October 2019 sampling, molybdenum concentrations were typically greater than 0.2 mg/L at this well. Molybdenum concentrations reported since that time have been below 0.2 mg/L with exception of that reported from June 2020 sampling. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.163 mg/L) is approximately 22% lower than the mean molybdenum concentration reported from sampling conducted at this well between August 2017 and March 2021 (0.2096 mg/L).
- MW-15B: The reported concentration from the April 2023 sampling event (0.0016 mg/L) is slightly higher, but similar to that reported from the previous sampling event (0.00153 mg/L). These are the lowest molybdenum concentrations reported at this well to date. This well has been sampled seven times for molybdenum and molybdenum concentrations appear to be decreasing. Molybdenum concentrations through seven sampling events are 0.0109 mg/L in July 2020, 0.00876 mg/L in October 2020, 0.00571 mg/L in March/April 2021, 0.00328 mg/L in October 2021, 0.0037 mg/L in March/April 2022, 0.00153 mg/L in October 2022, and 0.0016 mg/L in April 2023. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four

sampling events at this well (0.00253 mg/L) is approximately 70% lower than the mean molybdenum concentration from the three sampling events conducted at this well prior to October 2021 (0.00846 mg/L).

- MW-16: Molybdenum concentration from April 2023 sampling (0.127 mg/L) is higher than that reported from the previous sampling event but is on the low end of concentrations historically reported at this well. The highest molybdenum concentration to date for this well (0.193 mg/L) occurred in April 2019. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). The mean molybdenum concentration over the past four sampling events at this well (0.13725 mg/L) is approximately 17% lower than the mean molybdenum concentration reported from sampling conducted at this well between August 2017 and April 2021 (0.16580 mg/L).
- MW-17: Molybdenum was not observed above the laboratory reporting level (<0.0060 mg/L) during April 2023 sampling and is not typically observed at concentrations above the laboratory reporting level at this well. Molybdenum was most recently observed above the laboratory reporting level during the March/April 2021 sampling event. A line of best fit over the sampling period indicates a negative slope (apparent downward trend) and the mean molybdenum concentration over the past four sampling events at this well (0.00069 mg/L) is approximately 12% lower than the mean molybdenum concentration reported from sampling conducted at this well between August 2017 and March 2021 (0.00079 mg/L). These differences are due primarily to a decrease in the laboratory reporting level.
- MW-18: Molybdenum concentration from April 2023 sampling (0.232 mg/L) is higher than that reported from the previous sampling event (0.183 mg/L) but is on the low end of those previously reported at this well. Over the sampling history, the molybdenum concentration at this well has decreased from 0.39 mg/L in August 2017 to current levels. Concentrations greater than 0.3 mg/L have not been observed since April 2019. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.20750 mg/L) is approximately 22% lower than the mean molybdenum concentration reported from sampling conducted at this well between August 2017 and March 2021 (0.26530 mg/L).

- MW-19S: Molybdenum concentration from April 2023 sampling (0.362 mg/L) is lower than that from the previous sampling event (0.430 mg/L). The mean molybdenum concentration over the past four sampling events at this well (0.41100 mg/L) is slightly above the mean molybdenum concentration from sampling conducted at this well between August 2017 and March 2021 (0.38820 mg/L). However, the molybdenum concentration at this well has decreased over the sampling history from 0.472 mg/L in January 2019 to current levels and the current reported molybdenum concentration is lower than concentrations generally observed at this well prior to October 2019.
- MW-22A: Molybdenum was not observed above the laboratory reporting level (<0.0060 mg/L) during April 2023 sampling and is not typically observed at concentrations above the laboratory reporting level at this well. Molybdenum was previously observed above the laboratory reporting levels during September 2019 and March/April 2022 sampling events. A line of best fit over the sampling period indicates a negative slope (apparent downward trend) and the mean molybdenum concentration over the past four sampling events at this well (0.00074 mg/L) is slightly lower than the mean molybdenum concentration reported from sampling conducted at this well between August 2017 and March 2021 (0.00075 mg/L). These differences are due primarily to a decrease in the laboratory reporting level.
- MW-22B: Molybdenum concentration from April 2023 sampling (0.00389 mg/L) is higher than that reported from the previous sampling event (0.00105 mg/L) but is on the low end of concentrations historically reported at this well. To date, this well has been sampled seven times for molybdenum. Overall the molybdenum concentrations appear to be decreasing. Molybdenum concentrations through seven sampling events are 0.00878 mg/L in July 2020, 0.00866 mg/L in October 2020, 0.00753 in March/April 2021, 0.00446 mg/L in October 2021, 0.00357 mg/L in March/April 2022, 0.00105 mg/L in October 2022, and 0.00389 mg/L in April 2023. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.00324 mg/L) is approximately 61% lower than the mean molybdenum concentration from the three sampling events conducted at this well prior to October 2021 (0.00832 mg/L).

- CM-1A: Molybdenum was not observed above the laboratory reporting level (<0.0060 mg/L) during April 2023 sampling. This well has been sampled seven times for molybdenum and molybdenum concentrations have decreased (0.0088 mg/L in July 2020, 0.00198 mg/L in October 2020, 0.00132 mg/L in March/April 2021, 0.00127 mg/L in October 2021, <0.0006 mg/L in March/April 2022, <0.0006 mg/L in October 2022, and <0.0006 mg/L in April 2023). A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.00077 mg/L) is approximately 81% lower than the mean molybdenum concentration from the three sampling events conducted at this well prior to October 2021 (0.00403 mg/L).
- CM-1B: The reported concentration from the April 2023 sampling event (0.00488 mg/L) is lower than that reported from the previous sampling event (0.00551 mg/L) and is the lowest molybdenum concentration reported at this well to date. This well has been sampled seven times for molybdenum and molybdenum concentrations appear to be decreasing. Reported molybdenum concentrations through seven sampling events are 0.0133 mg/L in July 2020, 0.0144 mg/L in October 2020, 0.0113 mg/L in March/April 2021, 0.00976 mg/L in October 2021, 0.00696 mg/L in March/April 2022, 0.00551 mg/L in October 2022, and 0.00488 mg/L in April 2023. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.00678 mg/L) is approximately 48% lower than the mean molybdenum concentration from the three sampling events conducted at this well prior to October 2021 (0.01300 mg/L).
- CM-2: Molybdenum concentration from April 2023 sampling (0.00152 mg/L) is higher than that reported from the previous sampling event (<0.0006 mg/L). To date, this well has been sampled seven times for molybdenum. Overall the molybdenum concentrations appear to be decreasing. Molybdenum concentrations through seven sampling events are 0.00209 mg/L in July 2020, 0.00203 mg/L in October 2020, 0.00161 mg/L in March/April 2021, 0.0012 mg/L in October 2021, 0.00082 mg/L in March/April 2022), <0.0006 mg/L in October 2022, and 0.00152 mg/L in April 2023.

A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.00104 mg/L) is approximately 46% lower than the mean molybdenum concentration from the three sampling events conducted at this well prior to October 2021 (0.00191 mg/L).

- CM-3A: Molybdenum concentration from April 2023 sampling (0.00503 mg/L) is higher than that reported from the previous sampling event (0.00155 mg/L). It is on the low end of concentrations historically reported at this well. To date, this well has been sampled seven times for molybdenum. Overall the molybdenum concentrations appear to be decreasing. Molybdenum concentrations through seven sampling events are 0.0457 mg/L in July 2020, 0.0222 mg/L in October 2020, 0.0153 mg/L in March/April 2021, 0.00297 mg/L in October 2021, 0.00656 mg/L in March/April 2022, 0.00155 mg/L in October 2022, and 0.00503 mg/L in April 2023. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.00403 mg/L) is approximately 85% lower than the mean molybdenum concentration from the three sampling events conducted at this well prior to October 2021 (0.02773 mg/L).
- CM-3B: Molybdenum concentration from April 2023 sampling (0.0106 mg/L) is higher than that reported from the previous sampling event (0.00819 mg/L), but is on the low end of concentrations historically reported at this well. To date, this well has been sampled six times for molybdenum. Overall the molybdenum concentrations appear to be decreasing. Molybdenum concentrations through six sampling events are 0.0327 mg/L in August 2020, 0.0318 mg/L in October 2020, 0.0353 mg/L in March/April 2021, 0.0174 mg/L in March/April 2022, 0.00819 mg/L in October 2022, and 0.016 mg/L in April 2023. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.01922 mg/L) is approximately 40% lower than the mean molybdenum concentration from the two sampling events conducted at this well prior to April 2021 (0.03225 mg/L).

- CM-4A: The reported concentration from the April 2023 sampling event (0.00436 mg/L) is slightly lower than that reported from the previous sampling event (0.00449 mg/L) and is the lowest molybdenum concentration reported at this well to date. This well has been sampled seven times for molybdenum and molybdenum concentrations appear to be decreasing. Reported molybdenum concentrations through seven sampling events are 0.0269 mg/L in July 2020, 0.0271 mg/L in October 2020, 0.0212 mg/L in March/April 2021, 0.0105 mg/L in October 2021, 0.00455 mg/L in March/April 2022, 0.00449 mg/L in October 2022, and 0.00436 mg/L in April 2023. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.00598 mg/L) is approximately 76% lower than the mean molybdenum concentration from the three sampling events conducted at this well prior to October 2021 (0.02507 mg/L).
- CM-4B: Molybdenum concentration from April 2023 sampling (0.0123 mg/L) is higher than that reported from the previous sampling event (0.00771 mg/L). It is on the low end of concentrations historically reported at this well. To date, this well has been sampled seven times for molybdenum. Overall the molybdenum concentrations appear to be decreasing. Molybdenum concentrations through seven sampling events are 0.0307 mg/L in July 2020, 0.0306 mg/L in October 2020, 0.0303 mg/L in March/April 2021, 0.0131 mg/L in October 2021, 0.0184 mg/L in March/April 2022, 0.00771 mg/L in October 2022, and 0.0123 mg/L in April 2023. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.01288 mg/L) is approximately 58% lower than the mean molybdenum concentration from the three sampling events conducted at this well prior to October 2021 (0.03053 mg/L).
- CM-5A: The reported concentration from the April 2023 sampling event (0.00276 mg/L) is lower than that reported from the previous sampling event (0.00317 mg/L) and is the lowest molybdenum concentration reported at this well to date. This well has been sampled seven times for molybdenum and molybdenum concentrations appear to be decreasing. Molybdenum concentrations through seven sampling events are 0.0205 mg/L in July 2020, 0.011 mg/L in October 2020, 0.0182 mg/L in March/April 2021, 0.0058 mg/L in October 2021, 0.00351 mg/L in March/April 2022, 0.00317 mg/L in October 2022, and 0.00276 mg/L in April 2023.

A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.00381 mg/L) is approximately 77% lower than the mean molybdenum concentration from the three sampling events conducted at this well prior to October 2021 (0.01657 mg/L).

- CM-5B: The reported concentration from the April 2023 sampling event (0.0126 mg/L) is slightly higher, but similar to that reported from the previous sampling event (0.0102 mg/L). These are the lowest molybdenum concentrations reported at this well to date. This well has been sampled seven times for molybdenum and overall molybdenum concentrations appear to be decreasing. Molybdenum concentrations through seven sampling events are 0.04 mg/L in July 2020, 0.0394 mg/L in October 2020, 0.0536 mg/L in March/April 2021, 0.0448 mg/L in October 2021, 0.0361 mg/L in March/April 2022, 0.0102 mg/L in October 2022, and 0.0126 mg/L in April 2023. A line of best fit over the sampling period indicates a negative slope (apparent downward trend). Also, the mean molybdenum concentration over the past four sampling events at this well (0.02593 mg/L) is approximately 42% lower than the mean molybdenum concentration from the three sampling events conducted at this well prior to October 2021 (0.04433 mg/L).
- 3) The monitoring wells were sampled for CCR Appendix III parameters (boron, chloride, pH, TDS, calcium, fluoride, and sulfate). The April 2023 sampling was the fourteenth sampling event for these compounds when sampled concurrently with molybdenum (dating to August 2017) at monitoring wells MW-5S, MW-7S, MW-14A, MW-15A, MW-16, MW-18, and MW-19S; the thirteenth sampling event for these compounds when sampled concurrently with molybdenum (dating to August 2017) at monitoring well MW-22A; the seventh sampling event for these compounds when sampled concurrently with molybdenum (dating to July 2020) at monitoring wells MW-15B, MW-22B, CM-1A, CM-1B, CM-2, CM-3A, CM-4A, CM-4B, CM-5A, and CM-5B, and the sixth sampling event for these compounds when sampled concurrently with molybdenum (dating to July 2020) at CM-3B (sufficient water was not available to sample CM-3B during the October 2021 sample event).

Because of limited water availability, field pH and/or lab pH could not be obtained during all sampling events at some of the wells (CM-1B, CM-3A, CM-4A, CM-4B, CM-5A, and CM-5B). Also, limited water availability precluded sampling of CM-1B for pH, TDS, fluoride, and sulfate in March/April 2021 and precluded sampling of MW-15B for field pH in April 2023. Charts comparing changes in concentration over time for CCR Appendix III parameters to changes in molybdenum concentration for each of the monitoring wells evaluated are included in **Attachment F**.

Boron: Boron concentration does not appear to correlate to higher or lower molybdenum concentration. Over the sampling period, the five highest average boron concentrations (in order) occur at wells MW-19S, MW-18, CM-5A, MW-15B, and CM-5B. The five highest average molybdenum concentrations (in order) appear at wells MW-19S, MW-18, MW-15A, MW-16, and CM-5B. Wells MW-18, MW-19S, and CM-5B consistently exhibit both relatively high molybdenum and boron concentrations. Wells MW-15B and CM-5A typically exhibit relatively high boron but lower molybdenum concentrations.

At MW-14A, MW-15A, MW-18, and CM-3A the mean boron concentration over the past four sampling events is more than 10% lower than the mean boron concentration from prior sampling (indicating a general overall decrease in boron concentration at these wells). An overall decrease in molybdenum concentration is also indicated at these wells. At MW-15B, MW-22B, CM-1A, CM-3B, CM-4B, CM-5A, and CM-5B the mean boron concentration over the past four sampling events is more than 10% greater than the mean boron concentration from prior sampling (indicating an overall general increase in boron concentration at these wells), even though an overall decrease in molybdenum concentration is indicated at these wells. Molybdenum concentrations appear to be stable or decreasing in nearly all wells regardless of changes in boron concentration.

From **Attachment F-1**, possible correlations between changes in molybdenum and boron concentrations may exist at some of the wells (particularly at MW-14A, MW-15A, MW-19S, CM-2, CM-3A, and CM-3B). Possible inverse correlations may exist at other wells (particularly at CM-4B, CM-5A, and CM-5B).

Chloride: Chloride concentration does not appear to correlate to higher or lower molybdenum concentration. Over the sampling period, the five highest average chloride concentrations (in order) occur at wells CM-5B, CM-5A, CM-1B, CM-4B, and CM-4A. The five highest average molybdenum concentrations (in order) appear at wells MW-19S, MW-18, MW-15A, MW-16, and CM-5B. Only MW-5B consistently exhibits both relatively high molybdenum and boron concentrations. The lowest chloride concentrations typically occur at MW-22A, CM-2, MW-17, and MW-18. Of these, molybdenum concentrations are typically high and indicated at SSLs above the GWPSs at MW-18. Conversely, MW-22A, CM-2, and MW-17 typically do not exhibit high molybdenum concentrations. The highest chloride concentrations consistently occur at wells away from the Landfill CCR Unit where molybdenum has not been indicated at SSLs above the GWPSs.

At MW-14A, MW-18, CM-1A, CM-2, CM-3A, and CM-4A the mean chloride concentration over the past four sampling events is more than 10% lower than the mean chloride concentration from prior sampling (indicating a general overall decrease in chloride concentration at these wells). An overall decrease in molybdenum concentration is also indicated at these wells. At CM-3B and CM-5B the mean chloride concentration over the past four sampling events is more than 10% greater than the mean chloride concentration from prior sampling (indicating an overall general increase in chloride concentration at these wells), even though an overall decrease in molybdenum concentration is indicated at these wells. Molybdenum concentrations appear to be stable or decreasing in nearly all wells regardless of changes in chloride concentration.

From **Attachment F-2**, possible correlations between changes in molybdenum and chloride concentrations may exist at some of the wells (particularly at MW-5S, MW-15A, MW-15B, MW-18, MW-19S, MW-22A, CM-1A, CM-3A, CM-4A, and CM-5A).

pH: pH correlate to higher or lower molybdenum concentration. Monitoring wells MW-18 and MW-19S consistently register pH around 10 Standard Units (both as measured in the field and reported by the laboratory). These monitoring wells also exhibit the highest concentrations for molybdenum. Monitoring wells MW-17, MW-22A, CM-1A, and CM-2 consistently register pH less than 7 Standard Units (as measured in the field). These wells typically contain among the lowest reported concentrations for molybdenum.

From **Attachment F-3A and Attachment F-3B**, possible correlations between changes in molybdenum concentration and pH may exist at some of the wells (particularly at MW-5S, MW-15A, MW-15B, MW-16, MW-17, MW-18, MW-22A, MW-22B, CM-1B, CM-2, CM-3A, CM-4B, and CM-5B for field measured pH (**Attachment F-3A**) and at MW-5S, MW-15A, MW-17, MW-22B, CM-2, CM-3A, CM-4B, and CM-5B for lab measured pH (**Attachment F-3B**)). A decrease in pH generally appears to correlate with a decrease in molybdenum concentration. However, molybdenum concentrations appear to be stable or decreasing in nearly all wells regardless of changes in pH.

TDS: High TDS concentration does not appear to correlate to high molybdenum concentration. Over the sampling period, the five highest average TDS concentrations (in order) occur at wells CM-1B, MW-22B, MW-15B, CM-4B, and CM-1A. None of these wells typically exhibit high molybdenum concentrations. The five highest average molybdenum concentrations (in order) appear at wells MW-19S, MW-18, MW-15A, MW-16, and CM-5B. The lowest TDS concentrations typically occur at MW-5S, MW-7S, MW-18, and MW-16. Of these, molybdenum concentrations are typically high and indicated at SSLs above the GWPSs at MW-18 and MW-16. Conversely, MW-5S and MW-7S typically do not exhibit high molybdenum concentrations. The highest TDS concentrations consistently occur at wells away from the Landfill CCR Unit where molybdenum has not been indicated at SSLs above the GWPSs.

At MW-18, CM-2, and CM-3A the mean TDS concentration over the past four sampling events is more than 10% lower than the mean TDS concentration from prior sampling (indicating a general overall decrease in TDS concentration at these wells). An overall decrease in molybdenum concentration is also indicated at these wells. At MW-15B, MW-22B, CM-3B, and CM-4B the mean TDS concentration over the past four sampling events is more than 10% greater than the mean TDS concentration from prior sampling (indicating an overall general increase in TDS concentration at these wells), even though an overall decrease in molybdenum concentration is indicated at these wells. Molybdenum concentrations appear to be stable or decreasing in nearly all wells regardless of changes in TDS concentration.

From **Attachment F-4**, possible correlations between changes in molybdenum and TDS concentrations may exist at some of the wells (particularly at MW-18, CM-3B, and CM-5A). Possible inverse correlations may exist at other wells (particularly at MW-15B and CM-1B).

Calcium: In general, site monitoring wells with the highest concentrations for molybdenum appear to exhibit lower concentrations of calcium than those at other wells. Similarly, site monitoring wells with the lowest concentrations for molybdenum appear to exhibit higher concentrations of calcium than those at other wells. The five highest average molybdenum concentrations (in order) appear at wells MW-19S, MW-18, MW-15A, MW-16, and CM-5B. Of these, MW18 and MW-19S are among the wells typically exhibiting the lowest calcium concentrations. The five highest average calcium concentrations (in order) occur at wells MW-22A, MW-17, CM-1A, CM-2, and MW-14A. These are among the wells typically exhibiting the lowest molybdenum concentrations.

At MW-5S, MW-14A, MW-16, MW-18, and CM-1B the mean calcium concentration over the past four sampling events is more than 10% lower than the mean calcium concentration from prior sampling (indicating a general overall decrease in calcium concentration at these wells). An overall decrease in molybdenum concentration is indicated at these wells. At MW-7S, MW-15B, MW-22B, CM-1A, CM-4A, CM-4B, and CM-5A the mean calcium concentration over the past four sampling events is more than 10% greater than the mean calcium concentration from prior sampling (indicating an overall general increase in calcium concentration at these wells). An overall decrease in molybdenum concentration is also indicated at these wells. Molybdenum concentrations appear to be stable or decreasing in nearly all wells regardless of changes in calcium concentration.

From **Attachment F-5**, possible correlations between changes in molybdenum and calcium concentrations may exist at some of the wells (particularly at MW-15A, MW-16, MW-18, and MW-19S). Conversely, a possible inverse correlation is suggested at some of the wells (particularly at MW-15B, MW-22B, CM-1A, CM-1B, CM-4B, CM-5A, and CM-5B).

Fluoride: In general, site monitoring wells with the highest concentrations for molybdenum also appear to exhibit higher concentrations of fluoride than those at other wells. Similarly, site monitoring wells with the lowest concentrations for molybdenum appear to exhibit lower concentrations of fluoride than those at other wells. Over the sampling period, the five highest average fluoride concentrations (in order) occur at wells MW-18, CM-3B, MW-19S, MW-5S, and MW-15A. Of these, MW-18, MW-19S, and MW-15A are among the wells exhibiting the highest average molybdenum concentrations. The lowest fluoride concentrations typically occur at MW-14A, MW-17, CM-1A, MW-22A, and CM-2. These are among the wells typically exhibiting the lowest molybdenum concentrations.

At MW-22A and at CM-4B the mean fluoride concentration over the past four sampling events is more than 10% lower than the mean fluoride concentration from prior sampling (indicating a general overall decrease in fluoride concentration at these wells). An overall decrease in molybdenum concentration is indicated at these wells. At MW-16, MW-18, MW-19S, CM-1B, CM-3A, and CM-5B the mean fluoride concentration over the past four sampling events is more than 10% greater than the mean fluoride concentration from prior sampling (indicating an overall general increase in fluoride concentration at these wells). With the exception of MW-19S, an overall decrease in molybdenum concentration is indicated at these wells. Molybdenum concentrations appear to be stable or decreasing in nearly all wells regardless of changes in fluoride concentration.

From **Attachment F-6**, possible correlations between changes in molybdenum and fluoride concentrations may exist at some of the wells (particularly at MW-5S, MW-15A, and MW-17). Conversely, a possible inverse correlation is suggested at some of the wells (particularly at MW-16 and CM-1B).

Sulfate: Sulfate concentration does not appear to correlate to higher or lower molybdenum concentration. Over the sampling period, the five highest average sulfate concentrations (in order) occur at wells CM-1B, MW-22B, MW-22A, CM-1A, and MW-14A. None of these wells on average exhibit high molybdenum concentrations, and MW-22A and CM-1A on average exhibit lower molybdenum concentrations than most other site monitoring wells.

The lowest average sulfate concentrations occur at wells MW-5S, CM-3A, MW-7S, CM-3B, and MW-18. Of these, MW-18 on average exhibits higher molybdenum concentrations than most other site monitoring wells and MW-7S on average exhibits lower molybdenum concentrations than most other site monitoring wells.

At MW-18, CM-2, CM-3A, and CM-5B the mean sulfate concentration over the past four sampling events is more than 10% lower than the mean sulfate concentration from prior sampling (indicating a general overall decrease in sulfate concentration at these wells). An overall decrease in molybdenum concentration is indicated at these wells. At MW-5S, MW-7S, MW-15B, and MW-17 the mean sulfate concentration over the past four sampling events is more than 10% greater than the mean sulfate concentration from prior sampling (indicating an overall general increase in sulfate concentration at these wells). An overall decrease in molybdenum concentration is indicated at these wells. Molybdenum concentrations appear to be stable or decreasing in nearly all wells regardless of changes in sulfate concentration.

From **Attachment F-7**, possible correlations between changes in molybdenum and sulfate concentrations may exist at some of the wells (particularly at MW-16, MW-18, CM-2, CM-3A, CM-3B, CM-4A, and CM-5A). A possible inverse correlation is suggested at MW-15B.

- 4) The monitoring wells were sampled for indicator parameters for MNA including ORP (field measured), DO (field measured), specific conductance (field measured and laboratory reported), nitrate, sulfide, and alkalinity. For ORP, DO, and specific conductance at monitoring wells MW-5S, MW-7S, MW-14A, MW-15A, MW-16, MW-18, MW-19S, and MW-22A the April 2023 sampling was the fourteenth sampling event concurrent with sampling for molybdenum (dating to August 2017). For nitrate at monitoring wells MW-5S, MW-7S, MW-14A, MW-15A, MW-16, MW-18, MW-19S, and MW-22A the April 2023 sampling was the eleventh sampling event concurrent with sampling for molybdenum (dating to October 2018). For alkalinity at monitoring wells MW-5S, MW-7S, MW-14A, MW-15A, MW-16, MW-18, MW-19S, and MW-22A the April 2023 sampling was either the eighth or ninth sampling event concurrent with sampling for molybdenum (dating to August 2017). For the other parameters at MW-15B, MW-22B, CM-1A, CM-1B, CM-2, CM-3A, CM-3B, CM-4A, CM-4B, CM-5A, and CM-5B, the April 2023 sampling event was the seventh sampling concurrent with sampling for molybdenum (dating to July 2020).

Because of limited water availability samples for ORP, DO, specific conductance, nitrate, sulfide, and/or alkalinity could not be obtained during all sampling events at some of the wells (MW-15B, CM-1B, CM-3A, CM-3B, CM-4A, CM-4B, CM-5A, and CM-5B). Charts comparing changes in concentration over time for these parameters to changes in molybdenum concentration for each of the monitoring wells evaluated are included in **Attachment G**.

- Charts comparing changes in field measured ORP to changes in molybdenum concentration are included in **Attachment G-1**. Data to date does not appear to suggest an overall correlation between changes in ORP and changes in molybdenum concentrations, but possible correlations may exist at some of the monitoring wells. The monitoring wells exhibiting the highest concentrations for molybdenum (MW-18 and MW-19S) appear to be more often associated with negative ORP (under reducing conditions) and wells away from the Landfill CCR Unit to the east appear to be more often associated with positive ORP.
- Charts comparing changes in field measured DO to changes in molybdenum concentration are included in **Attachment G-2**. Data to date does not appear to suggest an overall correlation between changes in DO and changes in molybdenum concentration, but possible correlations may exist at some of the monitoring wells. The higher DO concentrations at some wells (MW-15B, CM-3A, CM-4A, CM-4B, CM-5A, and CM-5B) may be associated with the use of bailers for purging/sample collection.
- Charts comparing changes in field measured specific conductance to changes in molybdenum concentration are included in **Attachment G-3A**. Charts comparing changes in lab measured specific conductance to changes in molybdenum concentration are included in **Attachment G-3B**. Data to date appears to suggest possible correlations at some wells between changes in specific conductance and changes in molybdenum concentration (particularly at MW-17, MW-18, MW-22B, CM-3A, and CM-4B for field measured conductance and at MW-19S and CM-3A for laboratory measured conductance).

- Charts comparing changes in nitrate concentration to changes in molybdenum concentration are included in **Attachment G-4**. Data to date does not appear to suggest an overall correlation between changes in nitrate and changes in molybdenum concentrations, but possible correlations may exist at some of the monitoring wells. In many of the wells the nitrate is often not identified above the laboratory reporting levels. In general, higher nitrate concentrations are reported in the monitoring wells MW-15B (north of the Landfill CCR Unit) and at wells away from the Landfill CCR Unit to the east (CM-3A, CM-3B, CM-4A, CM-4B, CM-5A, and CM-5B).
- Charts comparing changes in sulfide concentration to changes in molybdenum concentration are included in **Attachment G-5**. Data to date does not appear to suggest an overall correlation between changes in sulfide and changes in molybdenum concentrations. Sulfide has been detected periodically in several of the monitoring wells, but is generally below laboratory reporting levels (1 mg/L). Sulfide is most frequently observed at MW-15B (north of the Landfill CCR Unit) and in wells and CM-5B (southeast of the Landfill CCR Unit). Sulfide can be indicative of reducing conditions.
- Charts comparing changes in total alkalinity concentration to changes in molybdenum concentration are included in **Attachment G-6**. Data to date does not appear to suggest an overall correlation between changes in total alkalinity and molybdenum concentrations. Monitoring wells exhibiting on average the highest molybdenum concentrations (MW-18, MW-19S, and MW-15A) on average exhibit the lowest total alkalinity concentrations. However, the wells exhibiting on average the lowest molybdenum concentrations do not correlate to wells exhibiting the on average the lowest total alkalinity concentrations. Most of the monitoring wells contain alkalinity only in the bicarbonate form. However, the monitoring wells exhibiting the highest concentrations for molybdenum (MW-18 and MW-19S) typically exhibit elevated pH and as such contain carbonate and/or hydroxide alkalinity and generally do not contain alkalinity in the bicarbonate form. A mix of bicarbonate and carbonate alkalinity have been identified at least once at monitoring wells MW-5S, MW-15B, MW-16, CM-1B, CM-3B, CM-4B, CM-5A, and CM-5B.

5) The wells were sampled for total and dissolved iron, total and dissolved ferrous iron (Fe(II)), and total and dissolved ferric iron (Fe(III)). The April 2023 sampling was the seventh sampling event for total iron, dissolved iron, and total ferrous iron (dating to July 2020). The April 2023 sampling was the fifth sampling event for dissolved ferrous iron and total and dissolved ferric iron. Because of limited water availability, samples for ferrous and or ferric iron could not be obtained during all sampling events at some of the wells. A chart showing changes in iron concentrations over time for each of the monitoring wells evaluated is included in **Attachment H**. Observations from April 2023 sampling of iron are as follows:

- Total iron was reported at concentrations significantly above laboratory reporting limits at MW-14A, MW-15A, MW-15B, MW-16, MW-22A, CM-1B, CM-2, CM-3A, CM-3B, CM-4A, CM-4B, CM-5A, and CM-5B. Of these, molybdenum concentrations are typically high and at SSLs above the GWPSs at MW-15A and MW-16. Total iron concentrations were below or only slightly above laboratory reporting levels in samples collected from MW-5S, MW-7S, MW-17, MW-18, MW-19S, and CM-1A. Of these, molybdenum concentrations are typically high and at SSLs above the GWPSs at MW-18 and MW-19S. At MW-22B the reported total iron concentration was significantly below that reported for dissolved iron, indicating a potential issue with sampling and/or analysis for that sample. Therefore, further evaluation was not conducted for iron at MW-22B from April 2023 sampling.
- Charts comparing changes in dissolved iron concentration to changes in molybdenum concentration are included in **Attachment H-1**. Correlations between changes in molybdenum and dissolved iron concentrations are not apparent at most wells. Dissolved iron was observed MW-14A, MW-15A, MW-22A, CM-1B, CM-2, CM-3B, CM-4A, and CM-5A. At CM-2, CM-4A, and CM-5A less than 10% of the iron reported was in dissolved form (indicating that the iron in these samples may be predominantly insoluble at these locations or associated with sediment entrained in the samples). At MW-14A, MW-15A, MW-22A, CM-1B, and CM-3B more than 10% of the iron identified was in dissolved form, indicating that iron is partly soluble at these locations.
- At CM-1B, CM-2, and CM-3A the observed iron in dissolved form was ferrous iron; which is indicative of iron reducing conditions and is typically soluble under the pH range of 5 to 8 Standard Units.

At MW-14A, MW-22A, CM-3B, and CM-5A the observed iron in dissolved form was predominantly ferric iron, the oxidized form, which is not soluble under natural pH conditions unless exposed to oxygen or another oxidizing agent. A strong mix of dissolved iron in both the ferrous and ferric forms were noted at MW-15A.

Charts comparing changes in dissolved ferrous iron concentration to changes in molybdenum concentration are included in **Attachment H-2**. Charts comparing changes in dissolved ferric iron concentration to changes in molybdenum concentration are included in **Attachment H-3**. From these, correlations between changes in molybdenum and dissolved ferric and/or ferrous iron concentrations are not apparent at most wells.

COMPARISON TO DRINKING WATER STANDARDS AND GROUNDWATER QUALITY

Of the constituents discussed herein, only fluoride has a published Federal Drinking Water Standard / Maximum Contaminant Level (MCL). The MCL for fluoride is 4 mg/L. Secondary MCLs have been published for chloride (250 mg/L), fluoride (2 mg/L), iron (0.3 mg/L), pH (6.5-8.5 Standard Units), sulfate (250 mg/L), and TDS (500 mg/L). The EPA has developed a health-based groundwater protection standard for molybdenum (0.1 mg/L).

In none of the wells discussed herein did the reported fluoride concentration exceed the MCL or the Secondary MCL. Also, chloride was not identified in any of the monitoring wells at concentrations exceeding the Secondary MCL. Sulfate and TDS were above the Secondary MCLs in each of the HPS monitoring wells, including up-gradient background monitoring wells. Measured pH was above the range of the Secondary MCLs at MW-18 and MW-19S (both lab reported and field measured). Reported dissolved iron was at concentrations above the Secondary MCL at MW-15A, MW-22B, CM-1B, and CM-3B. Reported molybdenum was above the health-risk GWPS as established by EPA at MW-15A, MW-16, MW-18, and MW-19S.

Natural groundwater in the region of the HPS is of poor quality. From Hydrologic Atlas Number 9, Reconnaissance of the Water Resources of the McAlester and Texarkana Quadrangles, Southeastern Oklahoma (Marcher, V. Melvin Bergman, L. DeRoy, U.S. Geological Survey, 1983), results from chemical analysis of water from undifferentiated rocks of Cretaceous age in southeastern Oklahoma indicate that sulfate occurs naturally up to concentrations as high as 845 mg/L and that total dissolved solids (TDS) occur naturally up to concentrations of 1,900 mg/L.

These naturally occurring levels for both sulfate and TDS exceed the Secondary Standards for these compounds as established by EPA (250 mg/L for sulfate and 500 mg/L for TDS). WFEC has been monitoring several wells for groundwater quality at its HPS facility as part of its CCR Program. This monitoring consistently yields sulfate at concentrations between 1,300 mg/L and 2,000 mg/L and TDS at concentrations between 2,100 mg/L and 2,700 mg/L in upgradient wells at the HPS. These sulfate and TDS levels are naturally occurring.

GROUNDWATER FLOW AND RISK EVALUATION

As presented in the Assessment of Corrective Measures Report, soils/rock that underlie the HPS are predominantly tight clays and hard shale exhibiting very low horizontal hydraulic conductivities (geometric mean of 3.43×10^{-6} cm/second) and well yields of less than 0.01 gallons per minute. Based on the estimated well yields and hydraulic conductivities it appears that near-surface groundwater at the HPS are perched non-contiguous groundwater zones and well yields are such that formations containing shallow perched groundwater would not generally be considered a usable water bearing unit and not considered a major groundwater aquifer under Oklahoma Standards.

To the southeast, the nearest property boundary is more than 1,000 feet from identified molybdenum in groundwater over the GWPS. To the east and northeast, the nearest property boundaries are at least 7,500 feet from identified molybdenum in groundwater over the GWPS. From the Assessment of Corrective Measures Report, it would take approximately 498 years to reach the nearest property boundary to the southeast and it would take approximately 3,730 years to reach the property boundaries to the northeast and east.

A risk evaluation was previously submitted to the ODEQ (Risk Evaluation for Shallow Perched Groundwater; Planned Impoundment FO-08, Nancy Coleman, March 19, 2020). It concluded that the constituents present in shallow perched groundwater at designated wells downgradient of the Landfill CCR Unit do not pose a hazard to potential on-site or off-site human or ecological receptors.

CONCLUSIONS/RECOMMENDATIONS

Based on evaluations included in the ODEQ approved Assessment of Corrective Measures Report, source control via enhanced dewatering combined with monitored natural attenuation was proposed as a corrective measure alternative for the molybdenum. Dewatering of the Landfill CCR Unit was initiated in March 2020 and continues as water accumulates in the landfill following rainfall events. From the start of dewatering through July 12, 2023, a total of 1,915.7 hours of pumping have been conducted to prevent standing water from accumulating in the Landfill CCR Unit.

A minimum of two years of semi-annual sampling of monitoring wells downgradient of the Landfill CCR Unit was initially proposed to establish the effectiveness of this alternative prior to selection of a final remedy. The two-year sampling period was completed in October 2022. Data obtained during the two-year semi-annual groundwater sampling is encouraging in that molybdenum concentrations have gone down for most of the wells sampled, molybdenum concentrations at SSLs above the GWPSs continue to be identified at only four wells proximate to the Landfill CCR Unit, and the plume has not expanded beyond the groundwater monitoring system for the Landfill CCR Unit.

An additional two years of semi-annual monitoring and reporting was approved by ODEQ to fully evaluate the proposed remedy and to meet the standards listed in OAC 252:517-9(b) and (c). The fifth semi-annual sampling (first semi-annual for the third year of monitoring (2023)) was conducted in April 2023. Wells sampled included MW-5S, MW-7S, MW-14A, MW-15A, MW-15B, MW-16, MW-17, MW-18, MW-19S, MW-22A, MW-22B, CM-1A, CM-1B, CM-2, CM-3A, CM-4A, CM-4B, CM-5A, and CM-5. Samples were collected from each of these wells for analysis of molybdenum. These wells were also sampled for (and/or measured in the field) parameters to facilitate evaluation of MNA. Conclusions from the April 2023 sampling are summarized below:

- 1) Molybdenum was identified at SSLs above GWPSs at four wells proximal to the Landfill CCR Unit (MW-15A, MW-16, MW-18, and MW-19S). This is consistent with previous sampling.
- 2) A comparison of April 2023 data to historic data suggests that molybdenum concentrations have gone down over the sampling history for most of the wells sampled (including MW-15A, MW-16, MW-18, and MW-19S).
- 3) It remains evident that molybdenum concentrations attenuate significantly with increased distance from the CCR Landfill.

- 4) The monitoring wells exhibiting the highest concentrations for molybdenum concentrations (MW-18 and MW-19S) also exhibit the highest pH (consistently above 10 Standard Units) and often exhibit negative ORP.
- 5) Higher concentrations for boron, chloride, TDS, calcium, fluoride, sulfate, and conductivity generally do not appear to correlate to higher or lower molybdenum concentration. However, comparison of April 2023 data to historic data does suggest possible correlations in some wells between changes in molybdenum concentration and changes in concentrations for these compounds. Molybdenum concentrations appear to be stable or decreasing in nearly all wells regardless of changes in concentration for these compounds.
- 6) No new exceedances of the GWPSs were identified in any of the other wells during this latest sampling event.
- 7) Natural groundwater in the region is of poor quality, with sulfate at concentrations between 1,300 mg/L and 2,000 mg/L and TDS at concentrations between 2,100 mg/L and 2,700 mg/L in upgradient wells at the HPS. These sulfate and TDS levels are naturally occurring.
- 8) It appears that near-surface groundwater at the HPS is perched non-contiguous groundwater zones, that it would take molybdenum in groundwater approximately 498 years to reach the nearest property boundary to the southeast and it would take approximately 3,730 years to reach the property boundaries to the northeast and east. and that constituents present in shallow perched groundwater downgradient of the Landfill CCR Unit do not pose a hazard to potential on-site or off-site human or ecological receptors.

It is recommended that WFEC continue with semi-annual sampling as per the approved Fourth Report to Monitor Progress of Semi-Annual Corrective Measures Assessment (CMA) Sampling at Landfill CCR Unit. The sixth semi-annual sampling (second semi-annual for the third year of monitoring (2023)) is scheduled to occur in October 2023.

It is recommended that the data from semi-annual sampling continue to be reviewed and evaluated to identify potential trends, correlations, and/or other information that could aid in determining the fate of molybdenum in the subsurface environment and that a summary report be submitted to ODEQ following evaluation of the data.

It is recommended that WFEC continue with its dewatering of the Landfill CCR Unit as per the approved Assessment of Corrective Measures Report.


At least 30-days prior to selecting a remedy, WFEC will conduct a public meeting to discuss the results of the corrective measures assessment (as required by OAC 252:517-9-7(e)). The Corrective Measures Assessment, supplemental data obtained, and the input received during the public comment period will be used to identify a corrective measure for implementation at the HPS.

Upon selection of a remedy, WFEC will prepare and submit to ODEQ for approval a final report as per OAC 252:517-9-8(a) describing the selected remedy and how it meets the standards specified in OAC 252:517-9-8 (b) and (c). The final report will include a certification from a qualified professional engineer that the remedy selected meets the requirements of the selection criteria and the final report will be placed in the operating record.

As required by OAC 252:517-9-87(d), WFEC will specify as part of the selected remedy a schedule for implementing and completing remedial activities. The schedule will require the completion of remedial activities within a reasonable period of time taking into consideration 1) the extent and nature of molybdenum, 2) reasonable probabilities of remedial technologies in achieving compliance with the GWPS, 3) availability of treatment or disposal capacity for CCR managed during implantation of the remedy, 4) potential risks to human health and the environment from exposure of constituents prior to remedy completion, and 5) resource value of the aquifer. Recordkeeping, notification, and internet requirements as per OAC 252:517 will be complied with during all aspects of this process.

If you have any questions, please feel free to contact me at (405) 842-1066 or at chris.schaefer@altamira-us.com

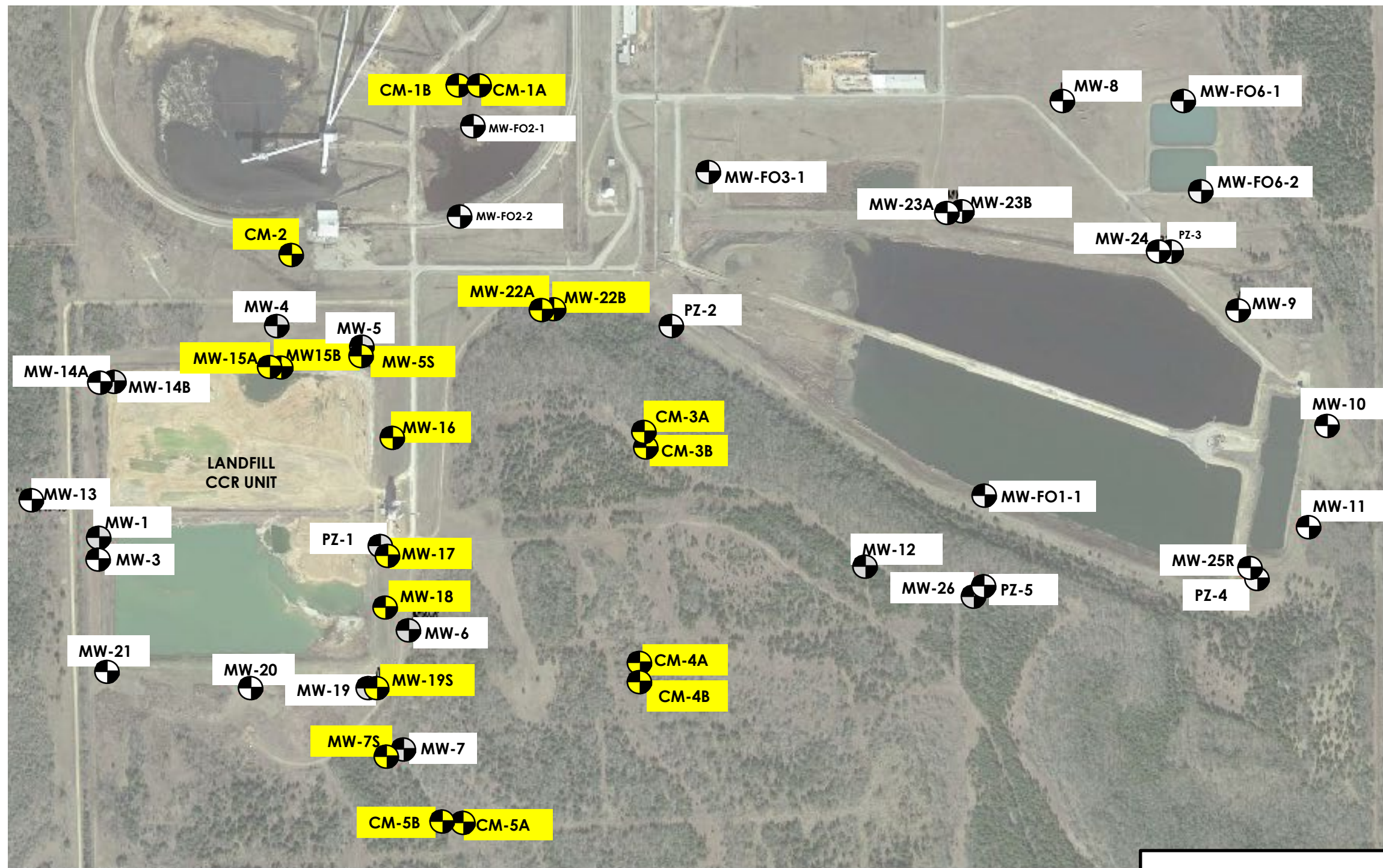
Sincerely,
Altamira-US, LLC.


Christopher S. Schaefer, P.E.
Project Engineer

cc: Kent Flethcer and John McCreight / Western Farmers Electric Cooperation
Chris Schaefer and Bert Smith / Altamira-US, LLC

ATTACHMENT A

MONITORING WELL LOCATION MAP



PROJECT
WESTERN FARMERS ELECTRIC COOPERATIVE

LOCATION
HUGO POWER STATION (HPS)

PREPARED FOR
WESTERN FARMERS ELECTRIC COOPERATIVE

DRAWING TITLE
ATTACHMENT A
LOCATIONS OF MONITORING WELLS SAMPLED TO MONITOR PROPOSED CORRECTIVE MEASURES ALTERNATIVE


Project No.	WFEE160019
Drawn By	CSS
Checked By	BS
Date:	9/7/21
Scale	1" - 500' (Approximate)
Issued For.	Western Farmers Elect. Coop.
Figure No.	


 **ALTAMIRA**


525 Central Park Drive
Suite 500
Oklahoma City, OK 73105
Phone 405.842.1066 Fax 405.843.4687

Base Map: AERIAL PHOTOGRAPH DATED FEBRUARY 1, 2015, GEOREFERENCED SCREEN CAPTURE FROM GOOGLE EARTH PRO

ATTACHMENT A – LOCATIONS OF MONITORING WELLS SAMPLED TO MONITOR PROPOSED CORRECTIVE MEASURES ALTERNATIVE

 Location of monitoring wells sampled semi-annually to monitor proposed corrective measures alternative of source control via enhanced dewatering combined with monitored natural attenuation (Approximate)

 Location of other site monitoring wells/piezometers (Approximate)


One inch approximately 500 ft

ATTACHMENT B

ANALYTICAL REPORTS (APRIL 2023 SAMPLING)

- Included is a condensed report for monitoring wells MW-5S, MW-7S, MW-14A, MW-15A, MW-16, MW-17, MW-18, MW-19S, and MW-22A such to contain only those parameters sampled to evaluate monitored natural attenuation. The laboratory provided analytical report for these wells (which also contained monitoring wells and parameters associated with assessment monitoring) was provided in a previous submittal (Notification of Apparent Exceedances from First 2023 Assessment Monitoring, July 6, 2023)
- Included is the laboratory provided analytical report for monitoring wells sampled to evaluate monitored natural attenuation outside of assessment monitoring CM-1A, CM-1B, CM-2, CM-3A, CM-3B, CM-4A, CM-4B, CM-5A, CM-5B, MW-15B, MW-22B).

Client:	Altamira	ANALYTICAL REPORT
Project:	WFEC / MNA Program	Work Order: HS23040697, HS23040694

Sample ID:	MW-55	Lab ID: HS23040697-02
Sample Date:	4/12/2023	Matrix: Water

ANALYTE	RESULT	UNITS	DILUTION	RESULT		
				REPORTED	MDL	RL
Analysis : SPECIFIC CONDUCTIVITY by SM2540C				Method: M2540C		
Specific Conductivity	1,880	umhos/cm @ 25.0 °C	1	MDL	5.00	5.00
Analysis : SULFIDE by SM500 S2-F				Method: SM4500 S2-F		
Sulfide	<1.70	mg/L	1	MDL	1.70	2.00
Analysis : pH by SM4500H+ B				Method: SM4500H+ B		
pH	7.739 H	pH Units	1	MDL	0.100	0.100
Temp Deg C @pH	21.1 H	pH Units	1	MDL	0	0
Analysis : DISSOLVED SOLIDS by SM2540C				Method: M2540C		
Total Dissolved Solids (Residue, Filterable)	1,100	mg/L	1	MDL	5.00	10.0
Analysis : ANIONS by E300.0				Method: E300		
Chloride	23.8	mg/L	1	MDL	0.200	0.500
Fluoride	1.25	mg/L	1	MDL	0.0500	0.100
Nitrogen, Nitrate (As N)	0.467	mg/L	1	MDL	0.0300	0.100
Sulfate	556	mg/L	20	MDL	4.0	10.0
Analysis : ALKALINITY by SM2320B				Method: SM2320B		
Alkalinity, Bicarbonate (As CaCO3)	292	mg/L	1	MDL	5.00	5.00
Alkalinity, Carbonate (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Hydroxide (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Total (As CaCO3)	292	mg/L	1	MDL	5.00	5.00
Analysis : FERROUS IRON by SM3500 FE B				Method: SM3500FED		
Ferrous Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERROUS IRON by SM3500 FE D				Method: SM3500FED (dissolved)		
Ferrous Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED		
Ferric Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED (dissolved)		
Ferric Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : ICP-MS METALS by SW6020A				Method: SW6020		
Boron	2.21	mg/L	20	MDL	0.220	0.400
Sodium	371	mg/L	20	MDL	0.280	4.00
Potassium	3.84	mg/L	1	MDL	0.0180	0.200
Magnesium	5.72	mg/L	1	MDL	0.0100	0.200
Molybdenum	0.00211 J	mg/L	1	MDL	0.000600	0.00500
Iron	0.0165 J	mg/L	1	MDL	0.0120	0.200
Calcium	37.0	mg/L	1	MDL	0.0340	0.500
Analysis : DISSOLVED METALS by SW6020A				Method: SW6020 (dissolved)		
Molybdenum, Dissolved	0.00207 J	mg/L	1	MDL	0.000600	0.00500
Iron, Dissolved	<0.0120	mg/L	1	MDL	0.0120	0.200

Client:	Altamira	ANALYTICAL REPORT
Project:	WFEC / MNA Program	Work Order: HS23040697, HS23040694

Sample ID:	MW-7S	Lab ID: HS23040697-12
Sample Date:	4/18/2023	Matrix: Water

ANALYTE	RESULT	UNITS	DILUTION	RESULT		
				REPORTED	MDL	RL
Analysis : SPECIFIC CONDUCTIVITY by SM2540C				Method: M2540C		
Specific Conductivity	2,490	umhos/cm @ 25.0 °C	1	MDL	5.00	5.00
Analysis : SULFIDE by SM500 S2-F				Method: SM4500 S2-F		
Sulfide	<1.70	mg/L	1	MDL	1.70	2.00
Analysis : pH by SM4500H+ B				Method: SM4500H+ B		
pH	7.41 H	pH Units	1	MDL	0.100	0.100
Temp Deg C @pH	20.7 H	pH Units	1	MDL	0	0
Analysis : DISSOLVED SOLIDS by SM2540C				Method: M2540C		
Total Dissolved Solids (Residue, Filterable)	1,740	mg/L	1	MDL	5.00	10.0
Analysis : ANIONS by E300.0				Method: E300		
Chloride	18.9	mg/L	1	MDL	0.200	0.500
Fluoride	0.468	mg/L	1	MDL	0.0500	0.100
Nitrogen, Nitrate (As N)	<0.0300	mg/L	1	MDL	0.0300	0.100
Sulfate	1,410	mg/L	20	MDL	4.00	10.00
Analysis : ALKALINITY by SM2320B				Method: SM2320B		
Alkalinity, Bicarbonate (As CaCO3)	190.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Carbonate (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Hydroxide (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Total (As CaCO3)	190.00	mg/L	1	MDL	5.00	5.00
Analysis : FERROUS IRON by SM3500 FE B				Method: SM3500FED		
Ferrous Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERROUS IRON by SM3500 FE D				Method: SM3500FED (dissolved)		
Ferrous Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED		
Ferric Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED (dissolved)		
Ferric Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : ICP-MS METALS by SW6020A				Method: SW6020		
Boron	0.880	mg/L	1	MDL	0.011	0.020
Sodium	277	mg/L	20	MDL	0.280	4.00
Potassium	4.84	mg/L	1	MDL	0.0180	0.200
Magnesium	19.2	mg/L	1	MDL	0.0100	0.200
Molybdenum	0.000973 J	mg/L	1	MDL	0.000600	0.00500
Iron	<0.0120	mg/L	1	MDL	0.0120	0.200
Calcium	228	mg/L	20	MDL	0.680	10.0
Analysis : DISSOLVED METALS by SW6020A				Method: SW6020 (dissolved)		
Molybdenum, Dissolved	0.00110 J	mg/L	1	MDL	0.000600	0.00500
Iron, Dissolved	<0.0120	mg/L	1	MDL	0.0120	0.200

Client:	Altamira	ANALYTICAL REPORT
Project:	WFEC / MNA Program	Work Order: HS23040697, HS23040694

Sample ID:	MW-14A	Lab ID: HS23040697-04
Sample Date:	4/12/2023	Matrix: Water

ANALYTE	RESULT	UNITS	DILUTION	RESULT		
				REPORTED	MDL	RL
Analysis : SPECIFIC CONDUCTIVITY by SM2540C				Method: M2540C		
Specific Conductivity	3,370	umhos/cm @ 25.0 °C	1	MDL	5.00	5.00
Analysis : SULFIDE by SM500 S2-F				Method: SM4500 S2-F		
Sulfide	<1.70	mg/L	1	MDL	1.70	2.00
Analysis : pH by SM4500H+ B				Method: SM4500H+ B		
pH	7.58 H	pH Units	1	MDL	0.100	0.100
Temp Deg C @pH	20.7 H	pH Units	1	MDL	0	0
Analysis : DISSOLVED SOLIDS by SM2540C				Method: M2540C		
Total Dissolved Solids (Residue, Filterable)	2,320	mg/L	1	MDL	5.00	10.0
Analysis : ANIONS by E300.0				Method: E300		
Chloride	12.0	mg/L	1	MDL	0.200	0.500
Fluoride	0.307	mg/L	1	MDL	0.0500	0.100
Nitrogen, Nitrate (As N)	0.220	mg/L	1	MDL	0.0300	0.100
Sulfate	1,760	mg/L	20	MDL	4.00	10.0
Analysis : ALKALINITY by SM2320B				Method: SM2320B		
Alkalinity, Bicarbonate (As CaCO3)	294	mg/L	1	MDL	5.00	5.00
Alkalinity, Carbonate (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Hydroxide (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Total (As CaCO3)	294	mg/L	1	MDL	5.00	5.00
Analysis : FERROUS IRON by SM3500 FE B				Method: SM3500FED		
Ferrous Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERROUS IRON by SM3500 FE D				Method: SM3500FED (dissolved)		
Ferrous Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED		
Ferric Iron	0.126	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED (dissolved)		
Ferric Iron, Dissolved	0.0800	mg/L	1	MDL	0.0200	0.0500
Analysis : ICP-MS METALS by SW6020A				Method: SW6020		
Boron	1.01	mg/L	10	MDL	0.110	0.200
Sodium	469	mg/L	10	MDL	0.140	2.00
Potassium	8.81	mg/L	1	MDL	0.0180	0.200
Magnesium	29.7	mg/L	1	MDL	0.0100	0.200
Molybdenum	<0.000600	mg/L	1	MDL	0.000600	0.00500
Iron	0.126 J	mg/L	1	MDL	0.0120	0.200
Calcium	319	mg/L	10	MDL	0.340	5.00
Analysis : DISSOLVED METALS by SW6020A				Method: SW6020 (dissolved)		
Molybdenum, Dissolved	<0.000600	mg/L	1	MDL	0.000600	0.00500
Iron, Dissolved	0.0795 J	mg/L	1	MDL	0.0120	0.200

Client:	Altamira	ANALYTICAL REPORT
Project:	WFEC / MNA Program	Work Order: HS23040697, HS23040694

Sample ID:	MW-15A	Lab ID: HS23040697-05
Sample Date:	4/12/2023	Matrix: Water

ANALYTE	RESULT	UNITS	DILUTION	RESULT		
				REPORTED	MDL	RL
Analysis : SPECIFIC CONDUCTIVITY by SM2540C				Method: M2540C		
Specific Conductivity	3,470	umhos/cm @ 25.0 °C	1	MDL	5.00	5.00
Analysis : SULFIDE by SM500 S2-F				Method: SM4500 S2-F		
Sulfide	<1.70	mg/L	1	MDL	1.70	2.00
Analysis : pH by SM4500H+ B				Method: SM4500H+ B		
pH	7.77 H	pH Units	1	MDL	0.100	0.100
Temp Deg C @pH	22.8 H	pH Units	1	MDL	0	0
Analysis : DISSOLVED SOLIDS by SM2540C				Method: M2540C		
Total Dissolved Solids (Residue, Filterable)	2,240	mg/L	1	MDL	5.00	10.0
Analysis : ANIONS by E300.0				Method: E300		
Chloride	25.3	mg/L	1	MDL	0.200	0.500
Fluoride	1.24	mg/L	1	MDL	0.0500	0.100
Nitrogen, Nitrate (As N)	0.544	mg/L	1	MDL	0.0300	0.100
Sulfate	1,690	mg/L	20	MDL	4.00	10.0
Analysis : ALKALINITY by SM2320B				Method: SM2320B		
Alkalinity, Bicarbonate (As CaCO3)	180	mg/L	1	MDL	5.00	5.00
Alkalinity, Carbonate (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Hydroxide (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Total (As CaCO3)	180	mg/L	1	MDL	5.00	5.00
Analysis : FERROUS IRON by SM3500 FE B				Method: SM3500FED		
Ferrous Iron	0.238	mg/L	1	MDL	0.0200	0.0500
Analysis : FERROUS IRON by SM3500 FE D				Method: SM3500FED (dissolved)		
Ferrous Iron, Dissolved	0.238	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED		
Ferric Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED (dissolved)		
Ferric Iron, Dissolved	0.133	mg/L	1	MDL	0.0200	0.0500
Analysis : ICP-MS METALS by SW6020A				Method: SW6020		
Boron	3.44	mg/L	20	MDL	0.220	0.400
Sodium	702	mg/L	20	MDL	0.280	4.00
Potassium	5.82	mg/L	1	MDL	0.0180	0.200
Magnesium	12.5	mg/L	1	MDL	0.0100	0.200
Molybdenum	0.173	mg/L	1	MDL	0.000600	0.00500
Iron	0.138 J	mg/L	1	MDL	0.0120	0.200
Calcium	107	mg/L	1	MDL	0.0340	0.500
Analysis : DISSOLVED METALS by SW6020A				Method: SW6020 (dissolved)		
Molybdenum, Dissolved	0.175	mg/L	1	MDL	0.000600	0.00500
Iron, Dissolved	0.371	mg/L	1	MDL	0.0120	0.200

Client:	Altamira	ANALYTICAL REPORT
Project:	WFEC / MNA Program	Work Order: HS23040697, HS23040694

Sample ID:	MW-16	Lab ID: HS23040697-08
Sample Date:	4/12/2023	Matrix: Water

ANALYTE	RESULT	UNITS	DILUTION	RESULT		
				REPORTED	MDL	RL
Analysis : SPECIFIC CONDUCTIVITY by SM2540C				Method: M2540C		
Specific Conductivity	2,340	umhos/cm @ 25.0 °C	1	MDL	5.00	5.00
Analysis : SULFIDE by SM500 S2-F				Method: SM4500 S2-F		
Sulfide	<1.70	mg/L	1	MDL	1.70	2.00
Analysis : pH by SM4500H+ B				Method: SM4500H+ B		
pH	7.78 H	pH Units	1	MDL	0.100	0.100
Temp Deg C @pH	20.9 H	pH Units	1	MDL	0	0
Analysis : DISSOLVED SOLIDS by SM2540C				Method: M2540C		
Total Dissolved Solids (Residue, Filterable)	1,570	mg/L	1	MDL	5.00	10.0
Analysis : ANIONS by E300.0				Method: E300		
Chloride	16.5	mg/L	1	MDL	0.200	0.500
Fluoride	0.908	mg/L	1	MDL	0.0500	0.100
Nitrogen, Nitrate (As N)	0.194	mg/L	1	MDL	0.0300	0.100
Sulfate	986	mg/L	20	MDL	4.00	10.0
Analysis : ALKALINITY by SM2320B				Method: SM2320B		
Alkalinity, Bicarbonate (As CaCO3)	259	mg/L	1	MDL	5.00	5.00
Alkalinity, Carbonate (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Hydroxide (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Total (As CaCO3)	259	mg/L	1	MDL	5.00	5.00
Analysis : FERROUS IRON by SM3500 FE B				Method: SM3500FED		
Ferrous Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERROUS IRON by SM3500 FE D				Method: SM3500FED (dissolved)		
Ferrous Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED		
Ferric Iron	0.0980	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED (dissolved)		
Ferric Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : ICP-MS METALS by SW6020A				Method: SW6020		
Boron	1.80	mg/L	10	MDL	0.110	0.200
Sodium	419	mg/L	10	MDL	0.140	2.00
Potassium	4.12	mg/L	1	MDL	0.0180	0.200
Magnesium	8.22	mg/L	1	MDL	0.0100	0.200
Molybdenum	0.127	mg/L	1	MDL	0.000600	0.00500
Iron	0.0982 J	mg/L	1	MDL	0.0120	0.200
Calcium	118	mg/L	1	MDL	0.0340	0.500
Analysis : DISSOLVED METALS by SW6020A				Method: SW6020 (dissolved)		
Molybdenum, Dissolved	0.127	mg/L	1	MDL	0.000600	0.00500
Iron, Dissolved	<0.0120	mg/L	1	MDL	0.0120	0.200

Client:	Altamira	ANALYTICAL REPORT
Project:	WFEC / MNA Program	Work Order: HS23040697, HS23040694

Sample ID:	MW-17	Lab ID: HS23040697-09
Sample Date:	4/12/2023	Matrix: Water

ANALYTE	RESULT	UNITS	DILUTION	RESULT		
				REPORTED	MDL	RL
Analysis : SPECIFIC CONDUCTIVITY by SM2540C				Method: M2540C		
Specific Conductivity	2,500	umhos/cm @ 25.0 °C	1	MDL	5.00	5.00
Analysis : SULFIDE by SM500 S2-F				Method: SM4500 S2-F		
Sulfide	<1.70	mg/L	1	MDL	1.70	2.00
Analysis : pH by SM4500h+ B				Method: SM4500H+ B		
pH	7.12 H	pH Units	1	MDL	0.100	0.100
Temp Deg C @pH	20.9 H	pH Units	1	MDL	0	0
Analysis : DISSOLVED SOLIDS by SM2540C				Method: M2540C		
Total Dissolved Solids (Residue, Filterable)	2,050	mg/L	1	MDL	5.00	10.0
Analysis : ANIONS by E300.0				Method: E300		
Chloride	4.11	mg/L	1	MDL	0.200	0.500
Fluoride	0.349	mg/L	1	MDL	0.0500	0.100
Nitrogen, Nitrate (As N)	<0.0300	mg/L	1	MDL	0.0300	0.100
Sulfate	1,510	mg/L	20	MDL	4.00	10.0
Analysis : ALKALINITY by SM2320B				Method: SM2320B		
Alkalinity, Bicarbonate (As CaCO3)	230	mg/L	1	MDL	5.00	5.00
Alkalinity, Carbonate (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Hydroxide (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Total (As CaCO3)	230	mg/L	1	MDL	5.00	5.00
Analysis : FERROUS IRON by SM3500 FE B				Method: SM3500FED		
Ferrous Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERROUS IRON by SM3500 FE D				Method: SM3500FED (dissolved)		
Ferrous Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED		
Ferric Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED (dissolved)		
Ferric Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : ICP-MS METALS by SW6020A				Method: SW6020		
Boron	0.739	mg/L	1	MDL	0.0110	0.020
Sodium	40.8	mg/L	1	MDL	0.0140	0.200
Potassium	5.92	mg/L	1	MDL	0.0180	0.200
Magnesium	43.3	mg/L	1	MDL	0.0100	0.200
Molybdenum	<0.000600	mg/L	1	MDL	0.000600	0.00500
Iron	<0.0120	mg/L	1	MDL	0.0120	0.200
Calcium	599	mg/L	20	MDL	0.680	10.00
Analysis : DISSOLVED METALS by SW6020A				Method: SW6020 (dissolved)		
Molybdenum, Dissolved	<0.000600	mg/L	1	MDL	0.000600	0.00500
Iron, Dissolved	<0.0120	mg/L	1	MDL	0.0120	0.200

Client:	Altamira	ANALYTICAL REPORT
Project:	WFEC / MNA Program	Work Order: HS23040697, HS23040694

Sample ID:	DUP -4	Lab ID: HS23040697-11
Sample Date:	4/12/2023	Matrix: Water

ANALYTE	RESULT	UNITS	DILUTION	RESULT		
				REPORTED	MDL	RL
Analysis : SPECIFIC CONDUCTIVITY by SM2540C				Method: M2540C		
Specific Conductivity	2,400	umhos/cm @ 25.0 °C	1	MDL	5.00	5.00
Analysis : SULFIDE by SM500 S2-F				Method: SM4500 S2-F		
Sulfide	<1.70	mg/L	1	MDL	1.70	2.00
Analysis : pH by SM4500h+ B				Method: SM4500H+ B		
pH	7.14 H	pH Units	1	MDL	0.100	0.100
Temp Deg C @pH	20.6 H	pH Units	1	MDL	0	0
Analysis : DISSOLVED SOLIDS by SM2540C				Method: M2540C		
Total Dissolved Solids (Residue, Filterable)	2,210	mg/L	1	MDL	5.00	10.0
Analysis : ANIONS by E300.0				Method: E300		
Chloride	4.1	mg/L	1	MDL	0.200	0.500
Fluoride	0.330	mg/L	1	MDL	0.0500	0.100
Nitrogen, Nitrate (As N)	<0.0300	mg/L	1	MDL	0.0300	0.100
Sulfate	1,510	mg/L	20	MDL	4.00	10.0
Analysis : ALKALINITY by SM2320B				Method: SM2320B		
Alkalinity, Bicarbonate (As CaCO3)	249	mg/L	1	MDL	5.00	5.00
Alkalinity, Carbonate (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Hydroxide (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Total (As CaCO3)	249	mg/L	1	MDL	5.00	5.00
Analysis : FERROUS IRON by SM3500 FE B				Method: SM3500FED		
Ferrous Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERROUS IRON by SM3500 FE D				Method: SM3500FED (dissolved)		
Ferrous Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED		
Ferric Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED (dissolved)		
Ferric Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : ICP-MS METALS by SW6020A				Method: SW6020		
Boron	0.713	mg/L	1	MDL	0.011	0.020
Sodium	36.7	mg/L	1	MDL	0.014	0.20
Potassium	5.34	mg/L	1	MDL	0.0180	0.200
Magnesium	39.0	mg/L	1	MDL	0.0100	0.200
Molybdenum	0.000602 J	mg/L	1	MDL	0.000600	0.00500
Iron	<0.0120	mg/L	1	MDL	0.0120	0.200
Calcium	537	mg/L	20	MDL	0.6800	10.000
Analysis : DISSOLVED METALS by SW6020A				Method: SW6020 (dissolved)		
Molybdenum, Dissolved	0.000660 J	mg/L	1	MDL	0.000600	0.00500
Iron, Dissolved	0.0149 J	mg/L	1	MDL	0.0120	0.200

Client:	Altamira	ANALYTICAL REPORT
Project:	WFEC / MNA Program	Work Order: HS23040697, HS23040694

Sample ID:	MW-18	Lab ID: HS23040697-10
Sample Date:	4/12/2023	Matrix: Water

ANALYTE	RESULT	UNITS	DILUTION	RESULT		
				REPORTED	MDL	RL
Analysis : SPECIFIC CONDUCTIVITY by SM2540C				Method: M2540C		
Specific Conductivity	230	umhos/cm @ 25.0 °C	1	MDL	5.00	5.00
Analysis : SULFIDE by SM500 S2-F				Method: SM4500 S2-F		
Sulfide	<1.70	mg/L	1	MDL	1.70	2.00
Analysis : pH by SM4500H+ B				Method: SM4500H+ B		
pH	9.96 H	pH Units	1	MDL	0.100	0.100
Temp Deg C @pH	20.9 H	pH Units	1	MDL	0	0
Analysis : DISSOLVED SOLIDS by SM2540C				Method: M2540C		
Total Dissolved Solids (Residue, Filterable)	1,280	mg/L	1	MDL	5.00	10.0
Analysis : ANIONS by E300.0				Method: E300		
Chloride	5.70	mg/L	1	MDL	0.200	0.500
Fluoride	1.70	mg/L	1	MDL	0.0500	0.100
Nitrogen, Nitrate (As N)	0.0517 J	mg/L	1	MDL	0.0300	0.100
Sulfate	971	mg/L	20	MDL	4.00	10.0
Analysis : ALKALINITY by SM2320B				Method: SM2320B		
Alkalinity, Bicarbonate (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Carbonate (As CaCO3)	51.6	mg/L	1	MDL	5.00	5.00
Alkalinity, Hydroxide (As CaCO3)	12.2	mg/L	1	MDL	5.00	5.00
Alkalinity, Total (As CaCO3)	63.8	mg/L	1	MDL	5.00	5.00
Analysis : FERROUS IRON by SM3500 FE B				Method: SM3500FED		
Ferrous Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERROUS IRON by SM3500 FE D				Method: SM3500FED (dissolved)		
Ferrous Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED		
Ferric Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED (dissolved)		
Ferric Iron, Dissolved	0.0350 J	mg/L	1	MDL	0.0200	0.0500
Analysis : ICP-MS METALS by SW6020A				Method: SW6020		
Boron	4.75	mg/L	20	MDL	0.220	0.400
Sodium	407	mg/L	20	MDL	0.280	4.00
Potassium	16.1	mg/L	1	MDL	0.0180	0.200
Magnesium	0.241	mg/L	1	MDL	0.0100	0.200
Molybdenum	0.232	mg/L	1	MDL	0.000600	0.00500
Iron	<0.0120	mg/L	1	MDL	0.0120	0.200
Calcium	21.9	mg/L	1	MDL	0.0340	0.500
Analysis : DISSOLVED METALS by SW6020A				Method: SW6020 (dissolved)		
Molybdenum, Dissolved	0.243	mg/L	1	MDL	0.000600	0.00500
Iron, Dissolved	0.0352 J	mg/L	1	MDL	0.0120	0.200

Client:	Altamira	ANALYTICAL REPORT
Project:	WFEC / MNA Program	Work Order: HS23040697, HS23040694

Sample ID:	MW-19S	Lab ID: HS23040697-13
Sample Date:	4/17/2023	Matrix: Water

ANALYTE	RESULT	UNITS	DILUTION	RESULT		
				REPORTED	MDL	RL
Analysis : SPECIFIC CONDUCTIVITY by SM2540C				Method: M2540C		
Specific Conductivity	3,270	umhos/cm @ 25.0 °C	1	MDL	5.00	5.00
Analysis : SULFIDE by SM500 S2-F				Method: SM4500 S2-F		
Sulfide	<1.70	mg/L	1	MDL	1.70	2.00
Analysis : pH by SM4500H+ B				Method: SM4500H+ B		
pH	10.6 H	pH Units	1	MDL	0.100	0.100
Temp Deg C @pH	20.6 H	pH Units	1	MDL	0	0
Analysis : DISSOLVED SOLIDS by SM2540C				Method: M2540C		
Total Dissolved Solids (Residue, Filterable)	2,310	mg/L	1	MDL	5.00	10.0
Analysis : ANIONS by E300.0				Method: E300		
Chloride	12.8	mg/L	1	MDL	0.200	0.500
Fluoride	1.47	mg/L	1	MDL	0.0500	0.100
Nitrogen, Nitrate (As N)	<0.0300	mg/L	1	MDL	0.0300	0.100
Sulfate	1,740	mg/L	20	MDL	4.0	10.0
Analysis : ALKALINITY by SM2320B				Method: SM2320B		
Alkalinity, Bicarbonate (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Carbonate (As CaCO3)	62.4	mg/L	1	MDL	5.00	5.00
Alkalinity, Hydroxide (As CaCO3)	62.0	mg/L	1	MDL	5.00	5.00
Alkalinity, Total (As CaCO3)	124	mg/L	1	MDL	5.00	5.00
Analysis : FERROUS IRON by SM3500 FE B				Method: SM3500FED		
Ferrous Iron	0.0630	mg/L	1	MDL	0.0200	0.0500
Analysis : FERROUS IRON by SM3500 FE D				Method: SM3500FED (dissolved)		
Ferrous Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED		
Ferric Iron	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED (dissolved)		
Ferric Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : ICP-MS METALS by SW6020A				Method: SW6020		
Boron	7.69	mg/L	20	MDL	0.220	0.400
Sodium	662	mg/L	20	MDL	0.280	4.00
Potassium	32.3	mg/L	1	MDL	0.0180	0.200
Magnesium	0.109 J	mg/L	1	MDL	0.0100	0.200
Molybdenum	0.362	mg/L	20	MDL	0.012000	0.10000
Iron	0.0162 J	mg/L	1	MDL	0.0120	0.200
Calcium	38.5	mg/L	1	MDL	0.0340	0.500
Analysis : DISSOLVED METALS by SW6020A				Method: SW6020 (dissolved)		
Molybdenum, Dissolved	0.379	mg/L	1	MDL	0.000600	0.00500
Iron, Dissolved	<0.0120	mg/L	1	MDL	0.0120	0.200

Client:	Altamira	ANALYTICAL REPORT
Project:	WFEC / MNA Program	Work Order: HS23040697, HS23040694

Sample ID:	MW-22A	Lab ID: HS23040694-09
Sample Date:	4/18/2023	Matrix: Water

ANALYTE	RESULT	UNITS	DILUTION	RESULT		
				REPORTED	MDL	RL
Analysis : SPECIFIC CONDUCTIVITY by SM2540C				Method: M2540C		
Specific Conductivity	3,330	umhos/cm @ 25.0 °C	1	MDL	5.00	5.00
Analysis : SULFIDE by SM500 S2-F				Method: SM4500 S2-F		
Sulfide	<0.170	mg/L	1	MDL	1.70	2.00
Analysis : pH by SM4500H+ B				Method: SM4500H+ B		
pH	7.08 H	pH Units	1	MDL	0.100	0.100
Temp Deg C @pH	20.8 H	pH Units	1	MDL	0	0
Analysis : DISSOLVED SOLIDS by SM2540C				Method: M2540C		
Total Dissolved Solids (Residue, Filterable)	3,560	mg/L	1	MDL	5.00	10.0
Analysis : ANIONS by E300.0				Method: E300		
Chloride	2.32	mg/L	1	MDL	0.200	0.500
Fluoride	0.319	mg/L	1	MDL	0.0500	0.100
Nitrogen, Nitrate (As N)	0.0482 J	mg/L	1	MDL	0.0300	0.100
Sulfate	2,270	mg/L	40	MDL	8.00	20.0
Analysis : ALKALINITY by SM2320B				Method: SM2320B		
Alkalinity, Bicarbonate (As CaCO3)	212	mg/L	1	MDL	5.00	5.00
Alkalinity, Carbonate (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Hydroxide (As CaCO3)	<5.00	mg/L	1	MDL	5.00	5.00
Alkalinity, Total (As CaCO3)	212	mg/L	1	MDL	5.00	5.00
Analysis : FERROUS IRON by SM3500 FE B				Method: SM3500FED		
Ferrous Iron	0.0430 J	mg/L	1	MDL	0.0200	0.0500
Analysis : FERROUS IRON by SM3500 FE D				Method: SM3500FED (dissolved)		
Ferrous Iron, Dissolved	<0.0200	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED		
Ferric Iron	0.116	mg/L	1	MDL	0.0200	0.0500
Analysis : FERRIC IRON-BY CALCULATION by SM3500FED				Method: SM3500FED (dissolved)		
Ferric Iron, Dissolved	0.0510	mg/L	1	MDL	0.0200	0.0500
Analysis : ICP-MS METALS by SW6020A				Method: SW6020		
Boron	1.83	mg/L	10	MDL	0.1100	0.200
Sodium	161	mg/L	1	MDL	0.0140	0.200
Potassium	17.1	mg/L	1	MDL	0.0180	0.200
Magnesium	102	mg/L	1	MDL	0.0100	0.200
Molybdenum	<0.000600	mg/L	1	MDL	0.000600	0.00500
Iron	0.159 J	mg/L	1	MDL	0.0120	0.200
Calcium	515	mg/L	10	MDL	0.340	5.00
Analysis : DISSOLVED METALS by SW6020A				Method: SW6020 (dissolved)		
Molybdenum, Dissolved	<0.000600	mg/L	1	MDL	0.000600	0.00500
Iron, Dissolved	0.0511 J	mg/L	1	MDL	0.0120	0.200

Acronyms & Qualifiers

- H : Analyzed outside of holding time. pH is an immediate test.
- H : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
- MDL : Method Detection Limit.
- RL : Reporting Limit.



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June 28, 2023

Heather Tiffany
Altamira
525 central park Dr
Suite 500
Oklahoma City, OK 73013

Work Order: **HS23040620**

Laboratory Results for: **WFEC / MNA**

Dear Heather Tiffany,

ALS Environmental received 12 sample(s) on Apr 12, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL

Anna Kinchen
Project Manager

Client: Altamira
Project: WFEC / MNA
Work Order: HS23040620

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23040620-01	CM-3A	Water		11-Apr-2023 11:55	12-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-02	CM-4A	Water		11-Apr-2023 11:25	12-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-03	CM-4B	Water		11-Apr-2023 11:15	12-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-04	CM-5B	Water		11-Apr-2023 10:40	12-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-05	MW-22B	Water		11-Apr-2023 12:10	12-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-06	CM-1A	Water		11-Apr-2023 16:10	13-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-07	CM-1B	Water		11-Apr-2023 14:50	13-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-08	CM-2	Water		11-Apr-2023 17:50	13-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-09	CM-5A	Water		11-Apr-2023 18:25	13-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-10	MW-15B	Water		12-Apr-2023 09:00	13-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-11	DUP2	Water		11-Apr-2023 16:10	13-Apr-2023 09:00	<input type="checkbox"/>
HS23040620-12	CM-3B	Water		19-Apr-2023 18:30	21-Apr-2023 10:25	<input type="checkbox"/>

Client: Altamira
Project: WFEC / MNA
Work Order: HS23040620

CASE NARRATIVE

Work Order Comments

- Sample received outside method holding time for pH. pH is an immediate test. Sample results are flagged with an "H" qualifier. The temperature at the time of pH is reported. Please note that all pH results are already normalized to a temperature of 25 °C.

Metals by Method SW6020A

Batch ID: 192819

Sample ID: HS23041143-08MS

- MS and MSD are for an unrelated sample

Batch ID: 192834

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Metals by Method SM3500FED

Batch ID: R433648,R433649,R432677,R432681,R432719

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Wet Chemistry by Method E300

Batch ID: R432628

Sample ID: HS23040411-01MS

- MS and MSD are for an unrelated sample

Sample ID: HS23040694-02MS

- MS and MSD are for an unrelated sample

Batch ID: R433374

Sample ID: HS23040458-08MS

- MS and MSD are for an unrelated sample

WetChemistry by Method E300

Batch ID: R432628

Sample ID: CM-1B (HS23040620-07)

- The reporting limit is elevated due to dilution for high concentrations of non-target analytes. (Nitrogen, Nitrate (As N))

Batch ID: R432517

Sample ID: HS23040255-01MS

- MS and MSD are for an unrelated sample

WetChemistry by Method SM4500H+ B

Batch ID: R432558,R433348,R433354

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Client: Altamira
Project: WFEC / MNA
Work Order: HS23040620

CASE NARRATIVE

WetChemistry by Method SM3500FED

Batch ID: R433392

Sample ID: CM-3B (HS23040620-12)

- Sample ran ar 5x due to sample matrix.

Batch ID: R433393

Sample ID: CM-3B (HS23040620-12MS)

- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: CM-3B (HS23040620-12MSD)

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

WetChemistry by Method SM2320B

Batch ID: R433495,R433630

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method SM4500 S2-F

Batch ID: R432840

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method M2510 B

Batch ID: R432718,R433330

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

WetChemistry by Method M2540C

Batch ID: R432693,R432823,R432824,R433640

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-3A
 Collection Date: 11-Apr-2023 11:55

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	2.00		0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	3.40		0.220	0.400	mg/L	20	25-Apr-2023 15:06
Calcium	41.1		0.0340	0.500	mg/L	1	24-Apr-2023 19:49
Iron	2.11		0.0120	0.200	mg/L	1	24-Apr-2023 19:49
Magnesium	8.65		0.0100	0.200	mg/L	1	24-Apr-2023 19:49
Molybdenum	0.00503		0.000600	0.00500	mg/L	1	24-Apr-2023 19:49
Potassium	6.12		0.0180	0.200	mg/L	1	24-Apr-2023 19:49
Sodium	516		0.280	4.00	mg/L	20	25-Apr-2023 15:06
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	U		0.0120	0.200	mg/L	1	25-Apr-2023 13:19
Molybdenum	0.00704		0.000600	0.00500	mg/L	1	25-Apr-2023 13:19
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	24.4		0.200	0.500	mg/L	1	12-Apr-2023 14:12
Fluoride	0.754		0.0500	0.100	mg/L	1	12-Apr-2023 14:12
Nitrogen, Nitrate (As N)	21.8		0.600	2.00	mg/L	20	12-Apr-2023 14:18
Sulfate	594		4.00	10.0	mg/L	20	12-Apr-2023 14:18
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	2,380		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	1,700		5.00	10.0	mg/L	1	13-Apr-2023 14:53
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	566		5.00	5.00	mg/L	1	24-Apr-2023 21:08
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:08
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:08
Alkalinity, Total (As CaCO3)	566		5.00	5.00	mg/L	1	24-Apr-2023 21:08
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron	0.0250	J	0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved	0.0250	J	0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F		Analyst: CD			
Sulfide	U		1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-3A
 Collection Date: 11-Apr-2023 11:55

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-01
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
PH BY SM4500H+ B-2011		Method:SM4500H+ B				Analyst: CD		
pH	7.64	H	0.100	0.100	pH Units	1	13-Apr-2023 12:27	
Temp Deg C @pH	20.8	H	0	0	°C	1	13-Apr-2023 12:27	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-4A
 Collection Date: 11-Apr-2023 11:25

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-02
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	9.50		0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	1.82		0.110	0.200	mg/L	10	25-Apr-2023 15:08
Calcium	78.3		0.0340	0.500	mg/L	1	24-Apr-2023 19:51
Iron	9.50		0.0120	0.200	mg/L	1	24-Apr-2023 19:51
Magnesium	8.00		0.0100	0.200	mg/L	1	24-Apr-2023 19:51
Molybdenum	0.00436	J	0.000600	0.00500	mg/L	1	24-Apr-2023 19:51
Potassium	5.37		0.0180	0.200	mg/L	1	24-Apr-2023 19:51
Sodium	299		0.140	2.00	mg/L	10	25-Apr-2023 15:08
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	0.0178	J	0.0120	0.200	mg/L	1	25-Apr-2023 13:21
Molybdenum	0.00595		0.000600	0.00500	mg/L	1	25-Apr-2023 13:21
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	29.7		0.200	0.500	mg/L	1	12-Apr-2023 14:24
Fluoride	0.718		0.0500	0.100	mg/L	1	12-Apr-2023 14:24
Nitrogen, Nitrate (As N)	4.35		0.0300	0.100	mg/L	1	12-Apr-2023 14:24
Sulfate	438		2.00	5.00	mg/L	10	12-Apr-2023 14:30
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	1,740		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	1,330		5.00	10.0	mg/L	1	13-Apr-2023 14:53
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	416		5.00	5.00	mg/L	1	24-Apr-2023 21:14
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:14
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:14
Alkalinity, Total (As CaCO3)	416		5.00	5.00	mg/L	1	24-Apr-2023 21:14
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron	U		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F		Analyst: CD			
Sulfide	U		1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-4A
 Collection Date: 11-Apr-2023 11:25

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-02
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
PH BY SM4500H+ B-2011		Method:SM4500H+ B				Analyst: CD		
pH	7.70	H	0.100	0.100	pH Units	1	13-Apr-2023 12:27	
Temp Deg C @pH	20.0	H	0	0	°C	1	13-Apr-2023 12:27	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-4B
 Collection Date: 11-Apr-2023 11:15

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	0.503		0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	5.25		0.220	0.400	mg/L	20	25-Apr-2023 15:10
Calcium	55.2		0.0340	0.500	mg/L	1	24-Apr-2023 19:53
Iron	0.503		0.0120	0.200	mg/L	1	24-Apr-2023 19:53
Magnesium	17.4		0.0100	0.200	mg/L	1	24-Apr-2023 19:53
Molybdenum	0.0123		0.000600	0.00500	mg/L	1	24-Apr-2023 19:53
Potassium	8.08		0.0180	0.200	mg/L	1	24-Apr-2023 19:53
Sodium	1,040		0.280	4.00	mg/L	20	25-Apr-2023 15:10
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	U		0.0120	0.200	mg/L	1	25-Apr-2023 13:23
Molybdenum	0.0122		0.000600	0.00500	mg/L	1	25-Apr-2023 13:23
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	51.0		0.200	0.500	mg/L	1	12-Apr-2023 14:36
Fluoride	0.530		0.0500	0.100	mg/L	1	12-Apr-2023 14:36
Nitrogen, Nitrate (As N)	19.0		0.0300	0.100	mg/L	1	12-Apr-2023 14:36
Sulfate	716		4.00	10.0	mg/L	20	12-Apr-2023 14:41
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	4,680		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	4,050		5.00	10.0	mg/L	1	13-Apr-2023 14:53
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	580		5.00	5.00	mg/L	1	24-Apr-2023 21:19
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:19
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:19
Alkalinity, Total (As CaCO3)	580		5.00	5.00	mg/L	1	24-Apr-2023 21:19
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron	U		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F		Analyst: CD			
Sulfide	U		1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-4B
 Collection Date: 11-Apr-2023 11:15

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-03
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
PH BY SM4500H+ B-2011		Method:SM4500H+ B				Analyst: CD		
pH	7.63	H	0.100	0.100	pH Units	1	13-Apr-2023 12:27	
Temp Deg C @pH	20.2	H	0	0	°C	1	13-Apr-2023 12:27	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-5B
 Collection Date: 11-Apr-2023 10:40

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-04
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	5.47		0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	6.08		0.220	0.400	mg/L	20	25-Apr-2023 15:18
Calcium	90.1		0.0340	0.500	mg/L	1	24-Apr-2023 19:55
Iron	5.47		0.0120	0.200	mg/L	1	24-Apr-2023 19:55
Magnesium	21.1		0.0100	0.200	mg/L	1	24-Apr-2023 19:55
Molybdenum	0.0126		0.000600	0.00500	mg/L	1	24-Apr-2023 19:55
Potassium	9.88		0.0180	0.200	mg/L	1	24-Apr-2023 19:55
Sodium	1,000		0.280	4.00	mg/L	20	25-Apr-2023 15:18
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	U		0.0120	0.200	mg/L	1	25-Apr-2023 13:25
Molybdenum	0.0232		0.000600	0.00500	mg/L	1	25-Apr-2023 13:25
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	129		1.00	2.50	mg/L	5	12-Apr-2023 15:16
Fluoride	1.09		0.250	0.500	mg/L	5	12-Apr-2023 15:16
Nitrogen, Nitrate (As N)	89.3		0.150	0.500	mg/L	5	12-Apr-2023 15:16
Sulfate	1,330		10.0	25.0	mg/L	50	12-Apr-2023 15:22
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	4,470		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	3,360		5.00	10.0	mg/L	1	13-Apr-2023 14:53
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	582		5.00	5.00	mg/L	1	24-Apr-2023 21:25
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:25
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:25
Alkalinity, Total (As CaCO3)	582		5.00	5.00	mg/L	1	24-Apr-2023 21:25
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron	U		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F		Analyst: CD			
Sulfide	U		1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-5B
 Collection Date: 11-Apr-2023 10:40

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-04
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PH BY SM4500H+ B-2011		Method:SM4500H+ B			Analyst: CD		
pH	7.60	H	0.100	0.100	pH Units	1	13-Apr-2023 12:27
Temp Deg C @pH	20.2	H	0	0	°C	1	13-Apr-2023 12:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: MW-22B
 Collection Date: 11-Apr-2023 12:10

ANALYTICAL REPORT
 WorkOrder:HS23040620
 Lab ID:HS23040620-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	U		0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved	1.56		0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	4.32		0.220	0.400	mg/L	20	25-Apr-2023 15:20
Calcium	98.1		0.0340	0.500	mg/L	1	24-Apr-2023 19:57
Iron	U		0.0120	0.200	mg/L	1	24-Apr-2023 19:57
Magnesium	28.6		0.0100	0.200	mg/L	1	24-Apr-2023 19:57
Molybdenum	0.00389	J	0.000600	0.00500	mg/L	1	24-Apr-2023 19:57
Potassium	9.61		0.0180	0.200	mg/L	1	24-Apr-2023 19:57
Sodium	1,100		0.280	4.00	mg/L	20	25-Apr-2023 15:20
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	1.56		0.0120	0.200	mg/L	1	25-Apr-2023 13:33
Molybdenum	0.00396	J	0.000600	0.00500	mg/L	1	25-Apr-2023 13:33
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	52.7		0.200	0.500	mg/L	1	12-Apr-2023 15:28
Fluoride	1.16		0.0500	0.100	mg/L	1	12-Apr-2023 15:28
Nitrogen, Nitrate (As N)	1.67		0.0300	0.100	mg/L	1	12-Apr-2023 15:28
Sulfate	2,340		10.0	25.0	mg/L	50	12-Apr-2023 15:33
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	4,900		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	4,180		5.00	10.0	mg/L	1	13-Apr-2023 14:53
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	436		5.00	5.00	mg/L	1	24-Apr-2023 21:30
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:30
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:30
Alkalinity, Total (As CaCO3)	436		5.00	5.00	mg/L	1	24-Apr-2023 21:30
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron	U		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F		Analyst: CD			
Sulfide	U		1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: MW-22B
 Collection Date: 11-Apr-2023 12:10

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-05
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PH BY SM4500H+ B-2011	Method:SM4500H+ B						Analyst: CD
pH	7.58	H	0.100	0.100	pH Units	1	13-Apr-2023 12:27
Temp Deg C @pH	20.1	H	0	0	°C	1	13-Apr-2023 12:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-1A
 Collection Date: 11-Apr-2023 16:10

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-06
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	0.0300	J	0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved		U	0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	0.630		0.0110	0.0200	mg/L	1	24-Apr-2023 20:07
Calcium	497		0.680	10.0	mg/L	20	25-Apr-2023 15:22
Iron	0.0303	J	0.0120	0.200	mg/L	1	24-Apr-2023 20:07
Magnesium	48.8		0.0100	0.200	mg/L	1	24-Apr-2023 20:07
Molybdenum		U	0.000600	0.00500	mg/L	1	24-Apr-2023 20:07
Potassium	6.68		0.0180	0.200	mg/L	1	24-Apr-2023 20:07
Sodium	165		0.0140	0.200	mg/L	1	24-Apr-2023 20:07
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	0.0141	J	0.0120	0.200	mg/L	1	25-Apr-2023 13:35
Molybdenum		U	0.000600	0.00500	mg/L	1	25-Apr-2023 13:35
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	22.6		0.200	0.500	mg/L	1	13-Apr-2023 12:47
Fluoride	0.467		0.0500	0.100	mg/L	1	13-Apr-2023 12:47
Nitrogen, Nitrate (As N)		U	0.0300	0.100	mg/L	1	13-Apr-2023 12:47
Sulfate	2,150		10.0	25.0	mg/L	50	13-Apr-2023 12:52
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	3,310		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	2,960		5.00	10.0	mg/L	1	14-Apr-2023 12:30
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	302		5.00	5.00	mg/L	1	24-Apr-2023 21:36
Alkalinity, Carbonate (As CaCO3)		U	5.00	5.00	mg/L	1	24-Apr-2023 21:36
Alkalinity, Hydroxide (As CaCO3)		U	5.00	5.00	mg/L	1	24-Apr-2023 21:36
Alkalinity, Total (As CaCO3)	302		5.00	5.00	mg/L	1	24-Apr-2023 21:36
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron		U	0.0200	0.0500	mg/L	1	13-Apr-2023 11:47
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved		U	0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F		Analyst: CD			
Sulfide		U	1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-1A
 Collection Date: 11-Apr-2023 16:10

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-06
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PH BY SM4500H+ B-2011		Method:SM4500H+ B			Analyst: CD		
pH	7.30	H	0.100	0.100	pH Units	1	22-Apr-2023 10:59
Temp Deg C @pH	20.8	H	0	0	°C	1	22-Apr-2023 10:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-1B
 Collection Date: 11-Apr-2023 14:50

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	U		0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	4.08		0.220	0.400	mg/L	20	25-Apr-2023 15:24
Calcium	119		0.0340	0.500	mg/L	1	24-Apr-2023 20:09
Iron	0.543		0.0120	0.200	mg/L	1	24-Apr-2023 20:09
Magnesium	40.5		0.0100	0.200	mg/L	1	24-Apr-2023 20:09
Molybdenum	0.00488	J	0.000600	0.00500	mg/L	1	24-Apr-2023 20:09
Potassium	11.5		0.0180	0.200	mg/L	1	24-Apr-2023 20:09
Sodium	1,020		0.280	4.00	mg/L	20	25-Apr-2023 15:24
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	0.496		0.0120	0.200	mg/L	1	25-Apr-2023 13:37
Molybdenum	0.00448	J	0.000600	0.00500	mg/L	1	25-Apr-2023 13:37
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	111		1.00	2.50	mg/L	5	13-Apr-2023 12:35
Fluoride	1.12		0.250	0.500	mg/L	5	13-Apr-2023 12:35
Nitrogen, Nitrate (As N)	U		0.150	0.500	mg/L	5	13-Apr-2023 12:35
Sulfate	2,370		10.0	25.0	mg/L	50	13-Apr-2023 12:41
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	5,020		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	3,900		5.00	10.0	mg/L	1	14-Apr-2023 12:30
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	343		5.00	5.00	mg/L	1	24-Apr-2023 21:42
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:42
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 21:42
Alkalinity, Total (As CaCO3)	343		5.00	5.00	mg/L	1	24-Apr-2023 21:42
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron	0.607		0.0200	0.0500	mg/L	1	13-Apr-2023 11:47
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved	0.615		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F		Analyst: CD			
Sulfide	U		1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-1B
 Collection Date: 11-Apr-2023 14:50

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-07
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PH BY SM4500H+ B-2011		Method:SM4500H+ B			Analyst: CD		
pH	7.64	H	0.100	0.100	pH Units	1	22-Apr-2023 10:59
Temp Deg C @pH	20.8	H	0	0	°C	1	22-Apr-2023 10:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-2
 Collection Date: 11-Apr-2023 17:50

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-08
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	0.874		0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved		U	0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	1.65		0.110	0.200	mg/L	10	25-Apr-2023 15:26
Calcium	533		0.340	5.00	mg/L	10	25-Apr-2023 15:26
Iron	1.72		0.0120	0.200	mg/L	1	24-Apr-2023 20:11
Magnesium	45.1		0.0100	0.200	mg/L	1	24-Apr-2023 20:11
Molybdenum	0.00152	J	0.000600	0.00500	mg/L	1	24-Apr-2023 20:11
Potassium	9.52		0.0180	0.200	mg/L	1	24-Apr-2023 20:11
Sodium	178		0.0140	0.200	mg/L	1	24-Apr-2023 20:11
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	0.157	J	0.0120	0.200	mg/L	1	25-Apr-2023 13:39
Molybdenum		U	0.000600	0.00500	mg/L	1	25-Apr-2023 13:39
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	2.16		0.200	0.500	mg/L	1	13-Apr-2023 13:27
Fluoride	0.488		0.0500	0.100	mg/L	1	13-Apr-2023 13:27
Nitrogen, Nitrate (As N)	0.204		0.0300	0.100	mg/L	1	13-Apr-2023 13:27
Sulfate	1,050		4.00	10.0	mg/L	20	13-Apr-2023 13:33
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	2,110		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	1,560		5.00	10.0	mg/L	1	14-Apr-2023 12:30
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	315		5.00	5.00	mg/L	1	24-Apr-2023 21:47
Alkalinity, Carbonate (As CaCO3)		U	5.00	5.00	mg/L	1	24-Apr-2023 21:47
Alkalinity, Hydroxide (As CaCO3)		U	5.00	5.00	mg/L	1	24-Apr-2023 21:47
Alkalinity, Total (As CaCO3)	315		5.00	5.00	mg/L	1	24-Apr-2023 21:47
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron	0.846		0.0200	0.0500	mg/L	1	13-Apr-2023 11:47
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved	0.194		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F		Analyst: CD			
Sulfide		U	1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-2
 Collection Date: 11-Apr-2023 17:50

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-08
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
PH BY SM4500H+ B-2011		Method:SM4500H+ B			Analyst: CD		
pH	7.54	H	0.100	0.100	pH Units	1	22-Apr-2023 10:59
Temp Deg C @pH	20.8	H	0	0	°C	1	22-Apr-2023 10:59

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-5A
 Collection Date: 11-Apr-2023 18:25

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-09
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED					Analyst: JHD
Ferric Iron	12.3		0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)					Analyst: JHD
Ferric Iron, Dissolved	0.0420	J	0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A				Prep:SW3010A / 24-Apr-2023	Analyst: JC
Boron	6.16		0.220	0.400	mg/L	20	25-Apr-2023 15:28
Calcium	131		0.0340	0.500	mg/L	1	24-Apr-2023 20:13
Iron	16.1		0.0120	0.200	mg/L	1	24-Apr-2023 20:13
Magnesium	20.9		0.0100	0.200	mg/L	1	24-Apr-2023 20:13
Molybdenum	0.00276	J	0.000600	0.00500	mg/L	1	24-Apr-2023 20:13
Potassium	9.91		0.0180	0.200	mg/L	1	24-Apr-2023 20:13
Sodium	804		0.280	4.00	mg/L	20	25-Apr-2023 15:28
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)				Prep:SW3010A / 24-Apr-2023	Analyst: MSC
Iron	0.0420	J	0.0120	0.200	mg/L	1	25-Apr-2023 13:41
Molybdenum	0.00855		0.000600	0.00500	mg/L	1	25-Apr-2023 13:41
ANIONS BY E300.0, REV 2.1, 1993		Method:E300					Analyst: TH
Chloride	101		0.400	1.00	mg/L	2	13-Apr-2023 13:39
Fluoride	0.807		0.100	0.200	mg/L	2	13-Apr-2023 13:39
Nitrogen, Nitrate (As N)	8.85		0.0600	0.200	mg/L	2	13-Apr-2023 13:39
Sulfate	1,210		4.00	10.0	mg/L	20	13-Apr-2023 13:44
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B					Analyst: CD
Specific Conductivity	3,520		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C					Analyst: DC
Total Dissolved Solids (Residue, Filterable)	2,870		5.00	10.0	mg/L	1	14-Apr-2023 12:30
ALKALINITY BY SM 2320B-2011		Method:SM2320B					Analyst: JAC
Alkalinity, Bicarbonate (As CaCO3)	505		5.00	5.00	mg/L	1	24-Apr-2023 22:06
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 22:06
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	24-Apr-2023 22:06
Alkalinity, Total (As CaCO3)	505		5.00	5.00	mg/L	1	24-Apr-2023 22:06
FERROUS IRON BY SM3500 FE B		Method:SM3500FED					Analyst: MZD
Ferrous Iron	3.84		0.200	0.500	mg/L	10	13-Apr-2023 11:47
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)					Analyst: MZD
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F					Analyst: CD
Sulfide	U		1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-5A
 Collection Date: 11-Apr-2023 18:25

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-09
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
PH BY SM4500H+ B-2011		Method:SM4500H+ B				Analyst: CD		
pH	7.60	H	0.100	0.100	pH Units	1	22-Apr-2023 10:59	
Temp Deg C @pH	20.8	H	0	0	°C	1	22-Apr-2023 10:59	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: MW-15B
 Collection Date: 12-Apr-2023 09:00

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-10
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	5.37		0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved	U		0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	5.27		0.220	0.400	mg/L	20	25-Apr-2023 15:30
Calcium	48.8		0.0340	0.500	mg/L	1	24-Apr-2023 20:15
Iron	6.21		0.0120	0.200	mg/L	1	24-Apr-2023 20:15
Magnesium	13.9		0.0100	0.200	mg/L	1	24-Apr-2023 20:15
Molybdenum	0.00160	J	0.000600	0.00500	mg/L	1	24-Apr-2023 20:15
Potassium	6.67		0.0180	0.200	mg/L	1	24-Apr-2023 20:15
Sodium	952		0.280	4.00	mg/L	20	25-Apr-2023 15:30
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	U		0.0120	0.200	mg/L	1	25-Apr-2023 13:43
Molybdenum	0.00426	J	0.000600	0.00500	mg/L	1	25-Apr-2023 13:43
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	54.6		0.400	1.00	mg/L	2	13-Apr-2023 13:50
Fluoride	1.04		0.100	0.200	mg/L	2	13-Apr-2023 13:50
Nitrogen, Nitrate (As N)	23.3		0.0600	0.200	mg/L	2	13-Apr-2023 13:50
Sulfate	1,640		4.00	10.0	mg/L	20	13-Apr-2023 13:56
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	4,530		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	3,570		5.00	10.0	mg/L	1	14-Apr-2023 13:07
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	684		5.00	5.00	mg/L	1	25-Apr-2023 19:00
Alkalinity, Carbonate (As CaCO3)	U		5.00	5.00	mg/L	1	25-Apr-2023 19:00
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	25-Apr-2023 19:00
Alkalinity, Total (As CaCO3)	684		5.00	5.00	mg/L	1	25-Apr-2023 19:00
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron	0.840		0.200	0.500	mg/L	10	13-Apr-2023 11:47
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved	U		0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F		Analyst: CD			
Sulfide	U		1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: MW-15B
 Collection Date: 12-Apr-2023 09:00

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-10
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
PH BY SM4500H+ B-2011		Method:SM4500H+ B				Analyst: CD		
pH	8.05	H	0.100	0.100	pH Units	1	22-Apr-2023 10:59	
Temp Deg C @pH	20.7	H	0	0	°C	1	22-Apr-2023 10:59	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: DUP2
 Collection Date: 11-Apr-2023 16:10

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-11
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	0.0430	J	0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved		U	0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	0.808		0.0110	0.0200	mg/L	1	24-Apr-2023 20:17
Calcium	561		0.680	10.0	mg/L	20	25-Apr-2023 15:31
Iron	0.0427	J	0.0120	0.200	mg/L	1	24-Apr-2023 20:17
Magnesium	54.3		0.0100	0.200	mg/L	1	24-Apr-2023 20:17
Molybdenum		U	0.000600	0.00500	mg/L	1	24-Apr-2023 20:17
Potassium	7.02		0.0180	0.200	mg/L	1	24-Apr-2023 20:17
Sodium	214		0.280	4.00	mg/L	20	25-Apr-2023 15:31
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	0.0135	J	0.0120	0.200	mg/L	1	25-Apr-2023 13:45
Molybdenum		U	0.000600	0.00500	mg/L	1	25-Apr-2023 13:45
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	23.3		0.200	0.500	mg/L	1	13-Apr-2023 14:02
Fluoride	0.463		0.0500	0.100	mg/L	1	13-Apr-2023 14:02
Nitrogen, Nitrate (As N)		U	0.0300	0.100	mg/L	1	13-Apr-2023 14:02
Sulfate	2,180		10.0	25.0	mg/L	50	13-Apr-2023 14:08
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	3,340		5.00	5.00	umhos/cm @ 25.0 °C	1	14-Apr-2023 17:01
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	3,100		5.00	10.0	mg/L	1	14-Apr-2023 12:30
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	295		5.00	5.00	mg/L	1	24-Apr-2023 22:12
Alkalinity, Carbonate (As CaCO3)		U	5.00	5.00	mg/L	1	24-Apr-2023 22:12
Alkalinity, Hydroxide (As CaCO3)		U	5.00	5.00	mg/L	1	24-Apr-2023 22:12
Alkalinity, Total (As CaCO3)	295		5.00	5.00	mg/L	1	24-Apr-2023 22:12
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron		U	0.0200	0.0500	mg/L	1	13-Apr-2023 11:47
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved		U	0.0200	0.0500	mg/L	1	13-Apr-2023 09:10
SULFIDE BY SM4500 S2-F-2011		Method:SM4500 S2-F		Analyst: CD			
Sulfide		U	1.70	2.00	mg/L	1	17-Apr-2023 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: DUP2
 Collection Date: 11-Apr-2023 16:10

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-11
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED	
PH BY SM4500H+ B-2011		Method:SM4500H+ B			Analyst: CD			
pH	7.19	H	0.100	0.100	pH Units	1	22-Apr-2023 10:59	
Temp Deg C @pH	20.5	H	0	0	°C	1	22-Apr-2023 10:59	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Altamira
 Project: WFEC / MNA
 Sample ID: CM-3B
 Collection Date: 19-Apr-2023 18:30

ANALYTICAL REPORT

WorkOrder:HS23040620
 Lab ID:HS23040620-12
 Matrix:Water

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
FERRIC IRON - BY CALCULATION BY SM3500FED		Method:SM3500FED		Analyst: JHD			
Ferric Iron	2.72		0.0200	0.0500	mg/L	1	26-Apr-2023 13:56
FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED		Method:SM3500FED (dissolved)		Analyst: JHD			
Ferric Iron, Dissolved	16.7		0.0200	0.0500	mg/L	1	26-Apr-2023 13:59
ICP-MS METALS BY SW6020A		Method:SW6020A		Prep:SW3010A / 24-Apr-2023		Analyst: JC	
Boron	4.83		0.220	0.400	mg/L	20	25-Apr-2023 15:33
Calcium	33.3		0.0340	0.500	mg/L	1	24-Apr-2023 20:19
Iron	3.96		0.0120	0.200	mg/L	1	24-Apr-2023 20:19
Magnesium	11.1		0.0100	0.200	mg/L	1	24-Apr-2023 20:19
Molybdenum	0.0160		0.000600	0.00500	mg/L	1	24-Apr-2023 20:19
Potassium	7.58		0.0180	0.200	mg/L	1	24-Apr-2023 20:19
Sodium	889		0.280	4.00	mg/L	20	25-Apr-2023 15:33
DISSOLVED METALS BY SW6020A		Method:SW6020A (dissolved)		Prep:SW3010A / 24-Apr-2023		Analyst: MSC	
Iron	16.9		0.0120	0.200	mg/L	1	25-Apr-2023 13:47
Molybdenum	0.00879		0.000600	0.00500	mg/L	1	25-Apr-2023 13:47
ANIONS BY E300.0, REV 2.1, 1993		Method:E300		Analyst: TH			
Chloride	48.7		0.200	0.500	mg/L	1	21-Apr-2023 15:02
Fluoride	1.43		0.0500	0.100	mg/L	1	21-Apr-2023 15:02
Nitrogen, Nitrate (As N)	91.5		0.600	2.00	mg/L	20	21-Apr-2023 15:08
Sulfate	1,220		4.00	10.0	mg/L	20	21-Apr-2023 15:08
SPECIFIC CONDUCTANCE BY SM 2510B-2011		Method:M2510 B		Analyst: CD			
Specific Conductivity	4,330		5.00	5.00	umhos/cm @ 25.0 °C	1	21-Apr-2023 16:54
TOTAL DISSOLVED SOLIDS BY SM2540C-2011		Method:M2540C		Analyst: DC			
Total Dissolved Solids (Residue, Filterable)	4,590		5.00	10.0	mg/L	1	25-Apr-2023 12:25
ALKALINITY BY SM 2320B-2011		Method:SM2320B		Analyst: JAC			
Alkalinity, Bicarbonate (As CaCO3)	693		5.00	5.00	mg/L	1	25-Apr-2023 19:06
Alkalinity, Carbonate (As CaCO3)	35.4		5.00	5.00	mg/L	1	25-Apr-2023 19:06
Alkalinity, Hydroxide (As CaCO3)	U		5.00	5.00	mg/L	1	25-Apr-2023 19:06
Alkalinity, Total (As CaCO3)	729		5.00	5.00	mg/L	1	25-Apr-2023 19:06
FERROUS IRON BY SM3500 FE B		Method:SM3500FED		Analyst: MZD			
Ferrous Iron	1.24		0.100	0.250	mg/L	5	21-Apr-2023 16:17
FERROUS IRON BY SM3500 FE D		Method:SM3500FED (dissolved)		Analyst: MZD			
Ferrous Iron, Dissolved	0.181		0.0200	0.0500	mg/L	1	21-Apr-2023 16:25
PH BY SM4500H+ B-2011		Method:SM4500H+ B		Analyst: MZD			
pH	8.20	H	0.100	0.100	pH Units	1	22-Apr-2023 14:02
Temp Deg C @pH	21.5	H	0	0	°C	1	22-Apr-2023 14:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

Batch ID: 192819 **Start Date:** 24 Apr 2023 08:30 **End Date:** 24 Apr 2023 08:30
Method: WATER - SW3010A **Prep Code:** 3010A

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23040620-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-12		10 (mL)	10 (mL)	1	120 plastic HNO3

Batch ID: 192834 **Start Date:** 24 Apr 2023 13:00 **End Date:** 24 Apr 2023 13:00
Method: DISS METALS PREP - WATER - SW3010A **Prep Code:** 3010A DISS

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23040620-01		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-02		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-03		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-04		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-05		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-06		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-07		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-08		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-09		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-10		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-11		10 (mL)	10 (mL)	1	120 plastic HNO3
HS23040620-12		10 (mL)	10 (mL)	1	120 plastic HNO3

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 192819 (0)		Test Name : ICP-MS METALS BY SW6020A			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55		24 Apr 2023 08:30	25 Apr 2023 15:06	20
HS23040620-01	CM-3A	11 Apr 2023 11:55		24 Apr 2023 08:30	24 Apr 2023 19:49	1
HS23040620-02	CM-4A	11 Apr 2023 11:25		24 Apr 2023 08:30	25 Apr 2023 15:08	10
HS23040620-02	CM-4A	11 Apr 2023 11:25		24 Apr 2023 08:30	24 Apr 2023 19:51	1
HS23040620-03	CM-4B	11 Apr 2023 11:15		24 Apr 2023 08:30	25 Apr 2023 15:10	20
HS23040620-03	CM-4B	11 Apr 2023 11:15		24 Apr 2023 08:30	24 Apr 2023 19:53	1
HS23040620-04	CM-5B	11 Apr 2023 10:40		24 Apr 2023 08:30	25 Apr 2023 15:18	20
HS23040620-04	CM-5B	11 Apr 2023 10:40		24 Apr 2023 08:30	24 Apr 2023 19:55	1
HS23040620-05	MW-22B	11 Apr 2023 12:10		24 Apr 2023 08:30	25 Apr 2023 15:20	20
HS23040620-05	MW-22B	11 Apr 2023 12:10		24 Apr 2023 08:30	24 Apr 2023 19:57	1
HS23040620-06	CM-1A	11 Apr 2023 16:10		24 Apr 2023 08:30	25 Apr 2023 15:22	20
HS23040620-06	CM-1A	11 Apr 2023 16:10		24 Apr 2023 08:30	24 Apr 2023 20:07	1
HS23040620-07	CM-1B	11 Apr 2023 14:50		24 Apr 2023 08:30	25 Apr 2023 15:24	20
HS23040620-07	CM-1B	11 Apr 2023 14:50		24 Apr 2023 08:30	24 Apr 2023 20:09	1
HS23040620-08	CM-2	11 Apr 2023 17:50		24 Apr 2023 08:30	25 Apr 2023 15:26	10
HS23040620-08	CM-2	11 Apr 2023 17:50		24 Apr 2023 08:30	24 Apr 2023 20:11	1
HS23040620-09	CM-5A	11 Apr 2023 18:25		24 Apr 2023 08:30	25 Apr 2023 15:28	20
HS23040620-09	CM-5A	11 Apr 2023 18:25		24 Apr 2023 08:30	24 Apr 2023 20:13	1
HS23040620-10	MW-15B	12 Apr 2023 09:00		24 Apr 2023 08:30	25 Apr 2023 15:30	20
HS23040620-10	MW-15B	12 Apr 2023 09:00		24 Apr 2023 08:30	24 Apr 2023 20:15	1
HS23040620-11	DUP2	11 Apr 2023 16:10		24 Apr 2023 08:30	25 Apr 2023 15:31	20
HS23040620-11	DUP2	11 Apr 2023 16:10		24 Apr 2023 08:30	24 Apr 2023 20:17	1
HS23040620-12	CM-3B	19 Apr 2023 18:30		24 Apr 2023 08:30	25 Apr 2023 15:33	20
HS23040620-12	CM-3B	19 Apr 2023 18:30		24 Apr 2023 08:30	24 Apr 2023 20:19	1
Batch ID: 192834 (0)		Test Name : DISSOLVED METALS BY SW6020A			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55		24 Apr 2023 13:00	25 Apr 2023 13:19	1
HS23040620-02	CM-4A	11 Apr 2023 11:25		24 Apr 2023 13:00	25 Apr 2023 13:21	1
HS23040620-03	CM-4B	11 Apr 2023 11:15		24 Apr 2023 13:00	25 Apr 2023 13:23	1
HS23040620-04	CM-5B	11 Apr 2023 10:40		24 Apr 2023 13:00	25 Apr 2023 13:25	1
HS23040620-05	MW-22B	11 Apr 2023 12:10		24 Apr 2023 13:00	25 Apr 2023 13:33	1
HS23040620-06	CM-1A	11 Apr 2023 16:10		24 Apr 2023 13:00	25 Apr 2023 13:35	1
HS23040620-07	CM-1B	11 Apr 2023 14:50		24 Apr 2023 13:00	25 Apr 2023 13:37	1
HS23040620-08	CM-2	11 Apr 2023 17:50		24 Apr 2023 13:00	25 Apr 2023 13:39	1
HS23040620-09	CM-5A	11 Apr 2023 18:25		24 Apr 2023 13:00	25 Apr 2023 13:41	1
HS23040620-10	MW-15B	12 Apr 2023 09:00		24 Apr 2023 13:00	25 Apr 2023 13:43	1
HS23040620-11	DUP2	11 Apr 2023 16:10		24 Apr 2023 13:00	25 Apr 2023 13:45	1
HS23040620-12	CM-3B	19 Apr 2023 18:30		24 Apr 2023 13:00	25 Apr 2023 13:47	1

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R432517 (0)		Test Name : ANIONS BY E300.0, REV 2.1, 1993			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55			12 Apr 2023 14:18	20
HS23040620-01	CM-3A	11 Apr 2023 11:55			12 Apr 2023 14:12	1
HS23040620-02	CM-4A	11 Apr 2023 11:25			12 Apr 2023 14:30	10
HS23040620-02	CM-4A	11 Apr 2023 11:25			12 Apr 2023 14:24	1
HS23040620-03	CM-4B	11 Apr 2023 11:15			12 Apr 2023 14:41	20
HS23040620-03	CM-4B	11 Apr 2023 11:15			12 Apr 2023 14:36	1
HS23040620-04	CM-5B	11 Apr 2023 10:40			12 Apr 2023 15:22	50
HS23040620-04	CM-5B	11 Apr 2023 10:40			12 Apr 2023 15:16	5
HS23040620-05	MW-22B	11 Apr 2023 12:10			12 Apr 2023 15:33	50
HS23040620-05	MW-22B	11 Apr 2023 12:10			12 Apr 2023 15:28	1
Batch ID: R432558 (0)		Test Name : PH BY SM4500H+ B-2011			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55			13 Apr 2023 12:27	1
HS23040620-02	CM-4A	11 Apr 2023 11:25			13 Apr 2023 12:27	1
HS23040620-03	CM-4B	11 Apr 2023 11:15			13 Apr 2023 12:27	1
HS23040620-04	CM-5B	11 Apr 2023 10:40			13 Apr 2023 12:27	1
HS23040620-05	MW-22B	11 Apr 2023 12:10			13 Apr 2023 12:27	1
Batch ID: R432628 (0)		Test Name : ANIONS BY E300.0, REV 2.1, 1993			Matrix: Water	
HS23040620-06	CM-1A	11 Apr 2023 16:10			13 Apr 2023 12:52	50
HS23040620-06	CM-1A	11 Apr 2023 16:10			13 Apr 2023 12:47	1
HS23040620-07	CM-1B	11 Apr 2023 14:50			13 Apr 2023 12:41	50
HS23040620-07	CM-1B	11 Apr 2023 14:50			13 Apr 2023 12:35	5
HS23040620-08	CM-2	11 Apr 2023 17:50			13 Apr 2023 13:33	20
HS23040620-08	CM-2	11 Apr 2023 17:50			13 Apr 2023 13:27	1
HS23040620-09	CM-5A	11 Apr 2023 18:25			13 Apr 2023 13:44	20
HS23040620-09	CM-5A	11 Apr 2023 18:25			13 Apr 2023 13:39	2
HS23040620-10	MW-15B	12 Apr 2023 09:00			13 Apr 2023 13:56	20
HS23040620-10	MW-15B	12 Apr 2023 09:00			13 Apr 2023 13:50	2
HS23040620-11	DUP2	11 Apr 2023 16:10			13 Apr 2023 14:08	50
HS23040620-11	DUP2	11 Apr 2023 16:10			13 Apr 2023 14:02	1

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R432677 (0)		Test Name : FERROUS IRON BY SM3500 FE D			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55			13 Apr 2023 09:10	1
HS23040620-02	CM-4A	11 Apr 2023 11:25			13 Apr 2023 09:10	1
HS23040620-03	CM-4B	11 Apr 2023 11:15			13 Apr 2023 09:10	1
HS23040620-04	CM-5B	11 Apr 2023 10:40			13 Apr 2023 09:10	1
HS23040620-05	MW-22B	11 Apr 2023 12:10			13 Apr 2023 09:10	1
HS23040620-06	CM-1A	11 Apr 2023 16:10			13 Apr 2023 09:10	1
HS23040620-07	CM-1B	11 Apr 2023 14:50			13 Apr 2023 09:10	1
HS23040620-08	CM-2	11 Apr 2023 17:50			13 Apr 2023 09:10	1
HS23040620-09	CM-5A	11 Apr 2023 18:25			13 Apr 2023 09:10	1
HS23040620-10	MW-15B	12 Apr 2023 09:00			13 Apr 2023 09:10	1
HS23040620-11	DUP2	11 Apr 2023 16:10			13 Apr 2023 09:10	1
Batch ID: R432681 (0)		Test Name : FERROUS IRON BY SM3500 FE B			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55			13 Apr 2023 09:10	1
HS23040620-02	CM-4A	11 Apr 2023 11:25			13 Apr 2023 09:10	1
HS23040620-03	CM-4B	11 Apr 2023 11:15			13 Apr 2023 09:10	1
HS23040620-04	CM-5B	11 Apr 2023 10:40			13 Apr 2023 09:10	1
HS23040620-05	MW-22B	11 Apr 2023 12:10			13 Apr 2023 09:10	1
Batch ID: R432693 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55			13 Apr 2023 14:53	1
HS23040620-02	CM-4A	11 Apr 2023 11:25			13 Apr 2023 14:53	1
HS23040620-03	CM-4B	11 Apr 2023 11:15			13 Apr 2023 14:53	1
HS23040620-04	CM-5B	11 Apr 2023 10:40			13 Apr 2023 14:53	1
HS23040620-05	MW-22B	11 Apr 2023 12:10			13 Apr 2023 14:53	1
Batch ID: R432718 (0)		Test Name : SPECIFIC CONDUCTANCE BY SM 2510B-2011			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55			14 Apr 2023 17:01	1
HS23040620-02	CM-4A	11 Apr 2023 11:25			14 Apr 2023 17:01	1
HS23040620-03	CM-4B	11 Apr 2023 11:15			14 Apr 2023 17:01	1
HS23040620-04	CM-5B	11 Apr 2023 10:40			14 Apr 2023 17:01	1
HS23040620-05	MW-22B	11 Apr 2023 12:10			14 Apr 2023 17:01	1
HS23040620-06	CM-1A	11 Apr 2023 16:10			14 Apr 2023 17:01	1
HS23040620-07	CM-1B	11 Apr 2023 14:50			14 Apr 2023 17:01	1
HS23040620-08	CM-2	11 Apr 2023 17:50			14 Apr 2023 17:01	1
HS23040620-09	CM-5A	11 Apr 2023 18:25			14 Apr 2023 17:01	1
HS23040620-10	MW-15B	12 Apr 2023 09:00			14 Apr 2023 17:01	1
HS23040620-11	DUP2	11 Apr 2023 16:10			14 Apr 2023 17:01	1

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R432719 (0)		Test Name : FERROUS IRON BY SM3500 FE B			Matrix: Water	
HS23040620-06	CM-1A	11 Apr 2023 16:10			13 Apr 2023 11:47	1
HS23040620-07	CM-1B	11 Apr 2023 14:50			13 Apr 2023 11:47	1
HS23040620-08	CM-2	11 Apr 2023 17:50			13 Apr 2023 11:47	1
HS23040620-09	CM-5A	11 Apr 2023 18:25			13 Apr 2023 11:47	10
HS23040620-10	MW-15B	12 Apr 2023 09:00			13 Apr 2023 11:47	10
HS23040620-11	DUP2	11 Apr 2023 16:10			13 Apr 2023 11:47	1
Batch ID: R432823 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Water	
HS23040620-06	CM-1A	11 Apr 2023 16:10			14 Apr 2023 12:30	1
HS23040620-07	CM-1B	11 Apr 2023 14:50			14 Apr 2023 12:30	1
HS23040620-08	CM-2	11 Apr 2023 17:50			14 Apr 2023 12:30	1
HS23040620-09	CM-5A	11 Apr 2023 18:25			14 Apr 2023 12:30	1
HS23040620-11	DUP2	11 Apr 2023 16:10			14 Apr 2023 12:30	1
Batch ID: R432824 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Water	
HS23040620-10	MW-15B	12 Apr 2023 09:00			14 Apr 2023 13:07	1
Batch ID: R432840 (0)		Test Name : SULFIDE BY SM4500 S2-F-2011			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55			17 Apr 2023 14:38	1
HS23040620-02	CM-4A	11 Apr 2023 11:25			17 Apr 2023 14:38	1
HS23040620-03	CM-4B	11 Apr 2023 11:15			17 Apr 2023 14:38	1
HS23040620-04	CM-5B	11 Apr 2023 10:40			17 Apr 2023 14:38	1
HS23040620-05	MW-22B	11 Apr 2023 12:10			17 Apr 2023 14:38	1
HS23040620-06	CM-1A	11 Apr 2023 16:10			17 Apr 2023 14:38	1
HS23040620-07	CM-1B	11 Apr 2023 14:50			17 Apr 2023 14:38	1
HS23040620-08	CM-2	11 Apr 2023 17:50			17 Apr 2023 14:38	1
HS23040620-09	CM-5A	11 Apr 2023 18:25			17 Apr 2023 14:38	1
HS23040620-10	MW-15B	12 Apr 2023 09:00			17 Apr 2023 14:38	1
HS23040620-11	DUP2	11 Apr 2023 16:10			17 Apr 2023 14:38	1
Batch ID: R433330 (0)		Test Name : SPECIFIC CONDUCTANCE BY SM 2510B-2011			Matrix: Water	
HS23040620-12	CM-3B	19 Apr 2023 18:30			21 Apr 2023 16:54	1
Batch ID: R433348 (0)		Test Name : PH BY SM4500H+ B-2011			Matrix: Water	
HS23040620-06	CM-1A	11 Apr 2023 16:10			22 Apr 2023 10:59	1
HS23040620-07	CM-1B	11 Apr 2023 14:50			22 Apr 2023 10:59	1
HS23040620-08	CM-2	11 Apr 2023 17:50			22 Apr 2023 10:59	1
HS23040620-09	CM-5A	11 Apr 2023 18:25			22 Apr 2023 10:59	1
HS23040620-10	MW-15B	12 Apr 2023 09:00			22 Apr 2023 10:59	1
HS23040620-11	DUP2	11 Apr 2023 16:10			22 Apr 2023 10:59	1
Batch ID: R433354 (0)		Test Name : PH BY SM4500H+ B-2011			Matrix: Water	
HS23040620-12	CM-3B	19 Apr 2023 18:30			22 Apr 2023 14:02	1

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R433374 (0)		Test Name : ANIONS BY E300.0, REV 2.1, 1993			Matrix: Water	
HS23040620-12	CM-3B	19 Apr 2023 18:30			21 Apr 2023 15:08	20
HS23040620-12	CM-3B	19 Apr 2023 18:30			21 Apr 2023 15:02	1
Batch ID: R433392 (0)		Test Name : FERROUS IRON BY SM3500 FE B			Matrix: Water	
HS23040620-12	CM-3B	19 Apr 2023 18:30			21 Apr 2023 16:17	5
Batch ID: R433393 (0)		Test Name : FERROUS IRON BY SM3500 FE D			Matrix: Water	
HS23040620-12	CM-3B	19 Apr 2023 18:30			21 Apr 2023 16:25	1
Batch ID: R433495 (0)		Test Name : ALKALINITY BY SM 2320B-2011			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55			24 Apr 2023 21:08	1
HS23040620-02	CM-4A	11 Apr 2023 11:25			24 Apr 2023 21:14	1
HS23040620-03	CM-4B	11 Apr 2023 11:15			24 Apr 2023 21:19	1
HS23040620-04	CM-5B	11 Apr 2023 10:40			24 Apr 2023 21:25	1
HS23040620-05	MW-22B	11 Apr 2023 12:10			24 Apr 2023 21:30	1
HS23040620-06	CM-1A	11 Apr 2023 16:10			24 Apr 2023 21:36	1
HS23040620-07	CM-1B	11 Apr 2023 14:50			24 Apr 2023 21:42	1
HS23040620-08	CM-2	11 Apr 2023 17:50			24 Apr 2023 21:47	1
HS23040620-09	CM-5A	11 Apr 2023 18:25			24 Apr 2023 22:06	1
HS23040620-11	DUP2	11 Apr 2023 16:10			24 Apr 2023 22:12	1
Batch ID: R433630 (0)		Test Name : ALKALINITY BY SM 2320B-2011			Matrix: Water	
HS23040620-10	MW-15B	12 Apr 2023 09:00			25 Apr 2023 19:00	1
HS23040620-12	CM-3B	19 Apr 2023 18:30			25 Apr 2023 19:06	1
Batch ID: R433640 (0)		Test Name : TOTAL DISSOLVED SOLIDS BY SM2540C-2011			Matrix: Water	
HS23040620-12	CM-3B	19 Apr 2023 18:30			25 Apr 2023 12:25	1
Batch ID: R433648 (0)		Test Name : FERRIC IRON - BY CALCULATION BY SM3500FED			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55			26 Apr 2023 13:56	1
HS23040620-02	CM-4A	11 Apr 2023 11:25			26 Apr 2023 13:56	1
HS23040620-03	CM-4B	11 Apr 2023 11:15			26 Apr 2023 13:56	1
HS23040620-04	CM-5B	11 Apr 2023 10:40			26 Apr 2023 13:56	1
HS23040620-05	MW-22B	11 Apr 2023 12:10			26 Apr 2023 13:56	1
HS23040620-06	CM-1A	11 Apr 2023 16:10			26 Apr 2023 13:56	1
HS23040620-07	CM-1B	11 Apr 2023 14:50			26 Apr 2023 13:56	1
HS23040620-08	CM-2	11 Apr 2023 17:50			26 Apr 2023 13:56	1
HS23040620-09	CM-5A	11 Apr 2023 18:25			26 Apr 2023 13:56	1
HS23040620-10	MW-15B	12 Apr 2023 09:00			26 Apr 2023 13:56	1
HS23040620-11	DUP2	11 Apr 2023 16:10			26 Apr 2023 13:56	1
HS23040620-12	CM-3B	19 Apr 2023 18:30			26 Apr 2023 13:56	1

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: R433649 (0)		Test Name : FERRIC IRON (DISS)- BY CALCULATION BY SM3500FED			Matrix: Water	
HS23040620-01	CM-3A	11 Apr 2023 11:55			26 Apr 2023 13:59	1
HS23040620-02	CM-4A	11 Apr 2023 11:25			26 Apr 2023 13:59	1
HS23040620-03	CM-4B	11 Apr 2023 11:15			26 Apr 2023 13:59	1
HS23040620-04	CM-5B	11 Apr 2023 10:40			26 Apr 2023 13:59	1
HS23040620-05	MW-22B	11 Apr 2023 12:10			26 Apr 2023 13:59	1
HS23040620-06	CM-1A	11 Apr 2023 16:10			26 Apr 2023 13:59	1
HS23040620-07	CM-1B	11 Apr 2023 14:50			26 Apr 2023 13:59	1
HS23040620-08	CM-2	11 Apr 2023 17:50			26 Apr 2023 13:59	1
HS23040620-09	CM-5A	11 Apr 2023 18:25			26 Apr 2023 13:59	1
HS23040620-10	MW-15B	12 Apr 2023 09:00			26 Apr 2023 13:59	1
HS23040620-11	DUP2	11 Apr 2023 16:10			26 Apr 2023 13:59	1
HS23040620-12	CM-3B	19 Apr 2023 18:30			26 Apr 2023 13:59	1

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: 192819 (0)	Instrument: ICPMS06	Method: ICP-MS METALS BY SW6020A
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MBLK		Sample ID: MBLK-192819			Units: mg/L		Analysis Date: 24-Apr-2023 19:29			
Client ID:		Run ID: ICPMS06_433413			SeqNo: 7258101		PrepDate: 24-Apr-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	U	0.0200								
Calcium	U	0.500								
Iron	U	0.200								
Magnesium	0.01062	0.200								J
Molybdenum	U	0.00500								
Potassium	0.05702	0.200								J
Sodium	U	0.200								

LCS		Sample ID: LCS-192819			Units: mg/L		Analysis Date: 24-Apr-2023 19:31			
Client ID:		Run ID: ICPMS06_433413			SeqNo: 7258102		PrepDate: 24-Apr-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.4913	0.0200	0.5	0	98.3	80 - 120				
Calcium	4.429	0.500	5	0	88.6	80 - 120				
Iron	4.503	0.200	5	0	90.1	80 - 120				
Magnesium	4.522	0.200	5	0	90.4	80 - 120				
Molybdenum	0.04309	0.00500	0.05	0	86.2	80 - 120				
Potassium	4.613	0.200	5	0	92.3	80 - 120				
Sodium	4.598	0.200	5	0	92.0	80 - 120				

MS		Sample ID: HS23041143-08MS			Units: mg/L		Analysis Date: 24-Apr-2023 19:37			
Client ID:		Run ID: ICPMS06_433413			SeqNo: 7258105		PrepDate: 24-Apr-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6861	0.0200	0.5	0.1647	104	80 - 120				
Calcium	51.95	0.500	5	44.92	141	80 - 120				SO
Iron	11.8	0.200	5	6.609	104	80 - 120				
Magnesium	17.5	0.200	5	12.63	97.4	80 - 120				
Molybdenum	0.04951	0.00500	0.05	0.000752	97.5	80 - 120				
Potassium	5.302	0.200	5	0.3308	99.4	80 - 120				
Sodium	71.29	0.200	5	63.92	147	80 - 120				SO

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: 192819 (0)		Instrument: ICPMS06		Method: ICP-MS METALS BY SW6020A						
MSD		Sample ID: HS23041143-08MSD		Units: mg/L		Analysis Date: 24-Apr-2023 19:39				
Client ID:		Run ID: ICPMS06_433413		SeqNo: 7258106		PrepDate: 24-Apr-2023		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.6968	0.0200	0.5	0.1647	106	80 - 120	0.6861	1.55	20	
Calcium	51.43	0.500	5	44.92	130	80 - 120	51.95	1	20	SO
Iron	11.88	0.200	5	6.609	105	80 - 120	11.8	0.674	20	
Magnesium	17.5	0.200	5	12.63	97.4	80 - 120	17.5	0.00155	20	
Molybdenum	0.04871	0.00500	0.05	0.000752	95.9	80 - 120	0.04951	1.63	20	
Potassium	5.245	0.200	5	0.3308	98.3	80 - 120	5.302	1.09	20	
Sodium	70.86	0.200	5	63.92	139	80 - 120	71.29	0.603	20	SO
PDS		Sample ID: HS23041143-08PDS		Units: mg/L		Analysis Date: 24-Apr-2023 19:41				
Client ID:		Run ID: ICPMS06_433413		SeqNo: 7258107		PrepDate: 24-Apr-2023		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Boron	0.7127	0.0200	0.5	0.1647	110	75 - 125				
Calcium	54.62	0.500	10	44.92	97.0	75 - 125				O
Iron	16.44	0.200	10	6.609	98.3	75 - 125				
Magnesium	21.58	0.200	10	12.63	89.6	75 - 125				
Molybdenum	0.096	0.00500	0.1	0.000752	95.2	75 - 125				
Potassium	9.786	0.200	10	0.3308	94.6	75 - 125				
Sodium	73.11	0.200	10	63.92	92.0	75 - 125				O
SD		Sample ID: HS23041143-08SD		Units: mg/L		Analysis Date: 24-Apr-2023 19:35				
Client ID:		Run ID: ICPMS06_433413		SeqNo: 7258104		PrepDate: 24-Apr-2023		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Boron	0.1812	0.100					0.1647	9.99	10	
Calcium	46.29	2.50					44.92	3.07	10	
Iron	7.017	1.00					6.609	6.18	10	
Magnesium	13.2	1.00					12.63	4.51	10	
Molybdenum	U	0.0250					0.000752	0	10	
Potassium	0.5894	1.00					0.3308	0	10	J
Sodium	66.37	1.00					63.92	3.83	10	

The following samples were analyzed in this batch:

HS23040620-01	HS23040620-02	HS23040620-03	HS23040620-04
HS23040620-05	HS23040620-06	HS23040620-07	HS23040620-08
HS23040620-09	HS23040620-10	HS23040620-11	HS23040620-12

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: 192834 (0)		Instrument: ICPMS05		Method: DISSOLVED METALS BY SW6020A (DISSOLVED)					
MBLK	Sample ID: MBLKF1-192834	Units: mg/L			Analysis Date: 25-Apr-2023 12:42				
Client ID:	Run ID: ICPMS05_433508	SeqNo: 7259702	PrepDate: 24-Apr-2023	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron	U	0.200							
Molybdenum	U	0.00500							

MBLK	Sample ID: MBLK-192834	Units: mg/L			Analysis Date: 25-Apr-2023 12:40				
Client ID:	Run ID: ICPMS05_433508	SeqNo: 7259701	PrepDate: 24-Apr-2023	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron	U	0.200							
Molybdenum	U	0.00500							

LCS	Sample ID: LCS-192834	Units: mg/L			Analysis Date: 25-Apr-2023 12:44				
Client ID:	Run ID: ICPMS05_433508	SeqNo: 7259703	PrepDate: 24-Apr-2023	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron	4.939	0.200	5	0	98.8	80 - 120			
Molybdenum	0.04494	0.00500	0.05	0	89.9	80 - 120			

MS	Sample ID: HS23041141-02MS	Units: mg/L			Analysis Date: 25-Apr-2023 13:13				
Client ID:	Run ID: ICPMS05_433508	SeqNo: 7259792	PrepDate: 24-Apr-2023	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron	4.784	0.200	5	0.005224	95.6	75 - 125			
Molybdenum	0.06035	0.00500	0.05	0.009597	102	75 - 125			

MSD	Sample ID: HS23041141-02MSD	Units: mg/L			Analysis Date: 25-Apr-2023 13:15				
Client ID:	Run ID: ICPMS05_433508	SeqNo: 7259793	PrepDate: 24-Apr-2023	DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Iron	4.067	0.200	5	0.005224	81.2	75 - 125	4.784	16.2	20
Molybdenum	0.05103	0.00500	0.05	0.009597	82.9	75 - 125	0.06035	16.7	20

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: 192834 (0) **Instrument:** ICPMS05 **Method:** DISSOLVED METALS BY SW6020A (DISSOLVED)

PDS		Sample ID: HS23041141-02PDS			Units: mg/L		Analysis Date: 25-Apr-2023 13:17			
Client ID:		Run ID: ICPMS05_433508			SeqNo: 7259794		PrepDate: 24-Apr-2023		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Iron	9.552	0.200	10	0.005224	95.5	75 - 125				
Molybdenum	0.1039	0.00500	0.1	0.009597	94.3	75 - 125				

SD		Sample ID: HS23041141-02SD			Units: mg/L		Analysis Date: 25-Apr-2023 13:08			
Client ID:		Run ID: ICPMS05_433508			SeqNo: 7259790		PrepDate: 24-Apr-2023		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	RPD Limit	Qual
Iron	U	1.00					0.005224	0	10	
Molybdenum	0.009595	0.0250					0.009597	0	10	J

The following samples were analyzed in this batch:

HS23040620-01	HS23040620-02	HS23040620-03	HS23040620-04
HS23040620-05	HS23040620-06	HS23040620-07	HS23040620-08
HS23040620-09	HS23040620-10	HS23040620-11	HS23040620-12

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432517 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MBLK Sample ID: **MBLK** Units: **mg/L** Analysis Date: **12-Apr-2023 12:40**
 Client ID: Run ID: **ICS-Integrion_432517** SeqNo: **7233575** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	U	0.500								
Fluoride	U	0.100								
Nitrogen, Nitrate (As N)	U	0.100								
Nitrogen, Nitrite (As N)	U	0.100								
Sulfate	U	0.500								

LCS Sample ID: **LCS** Units: **mg/L** Analysis Date: **12-Apr-2023 12:46**
 Client ID: Run ID: **ICS-Integrion_432517** SeqNo: **7233576** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	19.66	0.500	20	0	98.3	90 - 110				
Fluoride	4.116	0.100	4	0	103	90 - 110				
Nitrogen, Nitrate (As N)	3.973	0.100	4	0	99.3	90 - 110				
Nitrogen, Nitrite (As N)	3.983	0.100	4	0	99.6	90 - 110				
Sulfate	19.66	0.500	20	0	98.3	90 - 110				

MS Sample ID: **HS23040577-01MS** Units: **mg/L** Analysis Date: **12-Apr-2023 15:57**
 Client ID: Run ID: **ICS-Integrion_432517** SeqNo: **7233602** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Chloride	41.56	0.500	10	33.27	82.9	80 - 120				
Fluoride	2.215	0.100	2	0.1807	102	80 - 120				
Nitrogen, Nitrate (As N)	2.063	0.100	2	0.0904	98.6	80 - 120				
Nitrogen, Nitrite (As N)	1.908	0.100	2	0	95.4	80 - 120				
Sulfate	33.12	0.500	10	25.04	80.8	80 - 120				

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432517 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MS		Sample ID: HS23040255-01MSD		Units: mg/L		Analysis Date: 12-Apr-2023 12:57			
Client ID:		Run ID: ICS-Integrion_432517		SeqNo: 7233578		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	244.9	0.500	10	246.7	-18.0	80 - 120			SEO
Fluoride	2.54	0.100	2	0.4107	106	80 - 120			
Nitrogen, Nitrate (As N)	9.898	0.100	2	7.142	138	80 - 120			S
Nitrogen, Nitrite (As N)	1.366	0.100	2	0	68.3	80 - 120			S
Sulfate	55.97	0.500	10	48.41	75.6	80 - 120			SO

MSD		Sample ID: HS23040577-01MSD		Units: mg/L		Analysis Date: 12-Apr-2023 16:02			
Client ID:		Run ID: ICS-Integrion_432517		SeqNo: 7233603		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	41.46	0.500	10	33.27	82.0	80 - 120	41.56	0.236	20
Fluoride	2.205	0.100	2	0.1807	101	80 - 120	2.215	0.489	20
Nitrogen, Nitrate (As N)	2.063	0.100	2	0.0904	98.6	80 - 120	2.063	0.0194	20
Nitrogen, Nitrite (As N)	1.906	0.100	2	0	95.3	80 - 120	1.908	0.11	20
Sulfate	33.09	0.500	10	25.04	80.5	80 - 120	33.12	0.105	20

MSD		Sample ID: HS23040255-01MSD		Units: mg/L		Analysis Date: 12-Apr-2023 13:03			
Client ID:		Run ID: ICS-Integrion_432517		SeqNo: 7233579		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Chloride	244.3	0.500	10	246.7	-23.4	80 - 120	244.9	0.223	20 SEO
Fluoride	2.516	0.100	2	0.4107	105	80 - 120	2.54	0.989	20
Nitrogen, Nitrate (As N)	9.914	0.100	2	7.142	139	80 - 120	9.898	0.171	20 S
Nitrogen, Nitrite (As N)	1.365	0.100	2	0	68.2	80 - 120	1.366	0.0659	20 S
Sulfate	55.82	0.500	10	48.41	74.1	80 - 120	55.97	0.255	20 SO

The following samples were analyzed in this batch:

HS23040620-01	HS23040620-02	HS23040620-03	HS23040620-04
HS23040620-05			

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432558 (0) **Instrument:** WetChem_HS **Method:** PH BY SM4500H+ B-2011

DUP	Sample ID: HS23040557-01DUP	Units: pH Units		Analysis Date: 13-Apr-2023 12:27					
Client ID:	Run ID: WetChem_HS_432558	SeqNo: 7234428		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
pH	8.22	0.100					8.19	0.366	10
Temp Deg C @pH	20.5	0					20.5	0	10

The following samples were analyzed in this batch:

HS23040620-01	HS23040620-02	HS23040620-03	HS23040620-04
HS23040620-05			

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432628 (0)	Instrument: ICS-Integrion	Method: ANIONS BY E300.0, REV 2.1, 1993
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MBLK	Sample ID: MBLK	Units: mg/L	Analysis Date: 13-Apr-2023 12:00							
Client ID:	Run ID: ICS-Integrion_432628	SeqNo: 7236424	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.500								
Fluoride	U	0.100								
Nitrogen, Nitrate (As N)	U	0.100								
Sulfate	U	0.500								

LCS	Sample ID: LCS	Units: mg/L	Analysis Date: 13-Apr-2023 12:06							
Client ID:	Run ID: ICS-Integrion_432628	SeqNo: 7236425	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.68	0.500	20	0	98.4	90 - 110				
Fluoride	4.036	0.100	4	0	101	90 - 110				
Nitrogen, Nitrate (As N)	3.962	0.100	4	0	99.1	90 - 110				
Sulfate	19.55	0.500	20	0	97.8	90 - 110				

MS	Sample ID: HS23040694-02MS	Units: mg/L	Analysis Date: 13-Apr-2023 12:18							
Client ID:	Run ID: ICS-Integrion_432628	SeqNo: 7236427	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.86	0.500	10	12.16	97.0	80 - 120				
Fluoride	2.095	0.100	2	0.302	89.6	80 - 120				
Nitrogen, Nitrate (As N)	1.827	0.100	2	0	91.3	80 - 120				
Sulfate	1696	0.500	10	1763	-672	80 - 120				SEO

MS	Sample ID: HS23040411-01MS	Units: mg/L	Analysis Date: 13-Apr-2023 17:54							
Client ID:	Run ID: ICS-Integrion_432628	SeqNo: 7236472	PrepDate: DF: 10							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	609.2	5.00	100	536.6	72.6	80 - 120				SO
Fluoride	24.99	1.00	20	4.704	101	80 - 120				
Nitrogen, Nitrate (As N)	29.92	1.00	20	10.5	97.1	80 - 120				
Sulfate	933.2	5.00	100	905	28.3	80 - 120				SO

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432628 (0) **Instrument:** ICS-Integrion **Method:** ANIONS BY E300.0, REV 2.1, 1993

MSD		Sample ID: HS23040694-02MSD		Units: mg/L		Analysis Date: 13-Apr-2023 12:24				
Client ID:		Run ID: ICS-Integrion_432628		SeqNo: 7236428		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.99	0.500	10	12.16	98.3	80 - 120	21.86	0.597	20	
Fluoride	2.345	0.100	2	0.302	102	80 - 120	2.095	11.3	20	
Nitrogen, Nitrate (As N)	1.837	0.100	2	0	91.9	80 - 120	1.827	0.568	20	
Sulfate	1698	0.500	10	1763	-652	80 - 120	1696	0.122	20	SEO

MSD		Sample ID: HS23040411-01MSD		Units: mg/L		Analysis Date: 13-Apr-2023 18:00				
Client ID:		Run ID: ICS-Integrion_432628		SeqNo: 7236473		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	608.9	5.00	100	536.6	72.3	80 - 120	609.2	0.0558	20	SO
Fluoride	25.07	1.00	20	4.704	102	80 - 120	24.99	0.332	20	
Nitrogen, Nitrate (As N)	29.95	1.00	20	10.5	97.2	80 - 120	29.92	0.104	20	
Sulfate	930.2	5.00	100	905	25.2	80 - 120	933.2	0.328	20	SO

The following samples were analyzed in this batch:

HS23040620-06	HS23040620-07	HS23040620-08	HS23040620-09
HS23040620-10	HS23040620-11		

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432677 (0)		Instrument: UV-2450		Method: FERROUS IRON BY SM3500 FE D (DISSOLVED)					
MBLK	Sample ID: MBLK-R432677	Units: mg/L		Analysis Date: 13-Apr-2023 09:10					
Client ID:	Run ID: UV-2450_432677	SeqNo: 7237524		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron, Dissolved U 0.0500

LCS		Sample ID: LCS-R432677		Units: mg/L		Analysis Date: 13-Apr-2023 09:10			
Client ID:	Run ID: UV-2450_432677	SeqNo: 7237523		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron, Dissolved 0.222 0.0500 0.25 0 88.8 80 - 120

MS		Sample ID: HS23040620-03MS		Units: mg/L		Analysis Date: 13-Apr-2023 09:10			
Client ID: CM-4B	Run ID: UV-2450_432677	SeqNo: 7237526		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron, Dissolved 0.238 0.0500 0.25 -0.003 96.4 80 - 120

MSD		Sample ID: HS23040620-03MSD		Units: mg/L		Analysis Date: 13-Apr-2023 09:10			
Client ID: CM-4B	Run ID: UV-2450_432677	SeqNo: 7237525		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron, Dissolved 0.239 0.0500 0.25 -0.003 96.8 80 - 120 0.238 0.419 20

The following samples were analyzed in this batch:	HS23040620-01	HS23040620-02	HS23040620-03	HS23040620-04
	HS23040620-05	HS23040620-06	HS23040620-07	HS23040620-08
	HS23040620-09	HS23040620-10	HS23040620-11	

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432681 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE B

MBLK	Sample ID: MBLK-R432681	Units: mg/L			Analysis Date: 13-Apr-2023 09:10				
Client ID:	Run ID: UV-2450_432681	SeqNo: 7237579		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron U 0.0500 80 - 120

LCS	Sample ID: LCS-R432681	Units: mg/L			Analysis Date: 13-Apr-2023 09:10				
Client ID:	Run ID: UV-2450_432681	SeqNo: 7237578		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron 0.222 0.0500 0.25 0 88.8 80 - 120

MS	Sample ID: HS23040620-03MS	Units: mg/L			Analysis Date: 13-Apr-2023 09:10				
Client ID: CM-4B	Run ID: UV-2450_432681	SeqNo: 7237581		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron 0.238 0.0500 0.25 -0.003 96.4 75 - 125

MSD	Sample ID: HS23040620-03MSD	Units: mg/L			Analysis Date: 13-Apr-2023 09:10				
Client ID: CM-4B	Run ID: UV-2450_432681	SeqNo: 7237580		PrepDate:			DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron 0.239 0.0500 0.25 -0.003 96.8 75 - 125 0.238 0.419 20

The following samples were analyzed in this batch: HS23040620-01 HS23040620-02 HS23040620-03 HS23040620-04
 HS23040620-05

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432693 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK	Sample ID: WBLK-04132023	Units: mg/L			Analysis Date: 13-Apr-2023 14:53				
Client ID:	Run ID: Balance1_432693	SeqNo: 7237852		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable) U 10.0

LCS	Sample ID: LCS-04132023	Units: mg/L			Analysis Date: 13-Apr-2023 14:53				
Client ID:	Run ID: Balance1_432693	SeqNo: 7237851		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable) 1078 10.0 1000 0 108 85 - 115

DUP	Sample ID: HS23040594-01DUP	Units: mg/L			Analysis Date: 13-Apr-2023 14:53				
Client ID:	Run ID: Balance1_432693	SeqNo: 7237838		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable) 456 10.0 458 0.438 20

DUP	Sample ID: HS23040560-01DUP	Units: mg/L			Analysis Date: 13-Apr-2023 14:53				
Client ID:	Run ID: Balance1_432693	SeqNo: 7237830		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Total Dissolved Solids (Residue, Filterable) 836 10.0 838 0.239 20

The following samples were analyzed in this batch: HS23040620-01 HS23040620-02 HS23040620-03 HS23040620-04
 HS23040620-05

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432718 (0) **Instrument:** WetChem_HS **Method:** SPECIFIC CONDUCTANCE BY SM 2510B-2011

MBLK Sample ID: **MBLK-R432718** Units: **umhos/cm @ 25.0 °C** Analysis Date: **14-Apr-2023 17:01**
 Client ID: Run ID: **WetChem_HS_432718** SeqNo: **7238632** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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Specific Conductivity U 5.00

LCS Sample ID: **LCS-R432718** Units: **umhos/cm @ 25.0 °C** Analysis Date: **14-Apr-2023 17:01**
 Client ID: Run ID: **WetChem_HS_432718** SeqNo: **7238631** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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Specific Conductivity 1390 5.00 1413 0 98.4 80 - 120

DUP Sample ID: **HS23040694-02DUP** Units: **umhos/cm @ 25.0 °C** Analysis Date: **14-Apr-2023 17:01**
 Client ID: Run ID: **WetChem_HS_432718** SeqNo: **7238633** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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Specific Conductivity 3310 5.00 3280 0.91 20

The following samples were analyzed in this batch:

HS23040620-01	HS23040620-02	HS23040620-03	HS23040620-04
HS23040620-05	HS23040620-06	HS23040620-07	HS23040620-08
HS23040620-09	HS23040620-10	HS23040620-11	

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432719 (0) **Instrument:** UV-2450 **Method:** FERROUS IRON BY SM3500 FE B

MBLK	Sample ID: MBLK-R432719	Units: mg/L			Analysis Date: 13-Apr-2023 11:47				
Client ID:	Run ID: UV-2450_432719	SeqNo: 7238624		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron U 0.0500 80 - 120

LCS	Sample ID: LCS-R432719	Units: mg/L			Analysis Date: 13-Apr-2023 11:47				
Client ID:	Run ID: UV-2450_432719	SeqNo: 7238623		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron 0.256 0.0500 0.25 0 102 80 - 120

MS	Sample ID: HS23040620-06MS	Units: mg/L			Analysis Date: 13-Apr-2023 11:47				
Client ID: CM-1A	Run ID: UV-2450_432719	SeqNo: 7238626		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron 0.262 0.0500 0.25 0.011 100 75 - 125

MSD	Sample ID: HS23040620-06MSD	Units: mg/L			Analysis Date: 13-Apr-2023 11:47				
Client ID: CM-1A	Run ID: UV-2450_432719	SeqNo: 7238625		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual

Ferrous Iron 0.249 0.0500 0.25 0.011 95.2 75 - 125 0.262 5.09 20

The following samples were analyzed in this batch: HS23040620-06 HS23040620-07 HS23040620-08 HS23040620-09
 HS23040620-10 HS23040620-11

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432823 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK	Sample ID: WBLK-04142023	Units: mg/L		Analysis Date: 14-Apr-2023 12:30						
Client ID:	Run ID: Balance1_432823	SeqNo: 7241619		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable) U 10.0

LCS	Sample ID: LCS-04142023	Units: mg/L		Analysis Date: 14-Apr-2023 12:30						
Client ID:	Run ID: Balance1_432823	SeqNo: 7241618		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable) 1058 10.0 1000 0 106 85 - 115

DUP	Sample ID: HS23040757-09DUP	Units: mg/L		Analysis Date: 14-Apr-2023 12:30						
Client ID:	Run ID: Balance1_432823	SeqNo: 7241614		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable) 1228 10.0 1224 0.326 20

DUP	Sample ID: HS23040620-08DUP	Units: mg/L		Analysis Date: 14-Apr-2023 12:30						
Client ID: CM-2	Run ID: Balance1_432823	SeqNo: 7241599		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable) 1560 10.0 1556 0.257 20

The following samples were analyzed in this batch: HS23040620-06 HS23040620-07 HS23040620-08 HS23040620-09
 HS23040620-11

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432824 (0)		Instrument: Balance1		Method: TOTAL DISSOLVED SOLIDS BY SM2540C-2011						
MBLK	Sample ID: WBLK-04142023	Units: mg/L		Analysis Date: 14-Apr-2023 13:07						
Client ID:	Run ID: Balance1_432824	SeqNo: 7241643		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		U	10.0							
LCS	Sample ID: LCS-04142023	Units: mg/L		Analysis Date: 14-Apr-2023 13:07						
Client ID:	Run ID: Balance1_432824	SeqNo: 7241642		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		1060	10.0	1000	0	106	85 - 115			
DUP	Sample ID: HS23040697-05DUP	Units: mg/L		Analysis Date: 14-Apr-2023 13:07						
Client ID:	Run ID: Balance1_432824	SeqNo: 7241632		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		2240	10.0				2236	0.179	20	
DUP	Sample ID: HS23040694-02DUP	Units: mg/L		Analysis Date: 14-Apr-2023 13:07						
Client ID:	Run ID: Balance1_432824	SeqNo: 7241624		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Total Dissolved Solids (Residue, Filterable)		3240	10.0				3220	0.619	20	

The following samples were analyzed in this batch: HS23040620-10

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R432840 (0) **Instrument:** WetChem_HS **Method:** SULFIDE BY SM4500 S2-F-2011

MBLK Sample ID: **MBLK-R432840** Units: **mg/L** Analysis Date: **17-Apr-2023 14:38**
 Client ID: Run ID: **WetChem_HS_432840** SeqNo: **7242010** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Sulfide U 2.00

LCS Sample ID: **LCS-R432840** Units: **mg/L** Analysis Date: **17-Apr-2023 14:38**
 Client ID: Run ID: **WetChem_HS_432840** SeqNo: **7242009** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Sulfide 21.84 2.00 25 0 87.4 85 - 115

LCSD Sample ID: **LCSD-R432840** Units: **mg/L** Analysis Date: **17-Apr-2023 14:38**
 Client ID: Run ID: **WetChem_HS_432840** SeqNo: **7242008** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Sulfide 21.64 2.00 25 0 86.6 85 - 115 21.84 0.92 20

MS Sample ID: **HS23040620-01MS** Units: **mg/L** Analysis Date: **17-Apr-2023 14:38**
 Client ID: **CM-3A** Run ID: **WetChem_HS_432840** SeqNo: **7242011** PrepDate: DF: **1**
 Analyte Result PQL SPK Val SPK Ref Value %REC Control Limit RPD Ref Value %RPD RPD Limit Qual

Sulfide 21.84 2.00 25 -2.56 97.6 80 - 120

The following samples were analyzed in this batch:

HS23040620-01	HS23040620-02	HS23040620-03	HS23040620-04
HS23040620-05	HS23040620-06	HS23040620-07	HS23040620-08
HS23040620-09	HS23040620-10	HS23040620-11	

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R433330 (0) **Instrument:** WetChem_HS **Method:** SPECIFIC CONDUCTANCE BY SM 2510B-2011

MBLK Sample ID: **MBLK-R433330** Units: **umhos/cm @ 25.0 °C** Analysis Date: **21-Apr-2023 16:54**
 Client ID: Run ID: **WetChem_HS_433330** SeqNo: **7254411** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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Specific Conductivity U 5.00

LCS Sample ID: **LCS-R433330** Units: **umhos/cm @ 25.0 °C** Analysis Date: **21-Apr-2023 16:54**
 Client ID: Run ID: **WetChem_HS_433330** SeqNo: **7254410** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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Specific Conductivity 1370 5.00 1413 0 97.0 80 - 120

DUP Sample ID: **HS23040697-13DUP** Units: **umhos/cm @ 25.0 °C** Analysis Date: **21-Apr-2023 16:54**
 Client ID: Run ID: **WetChem_HS_433330** SeqNo: **7254412** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
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Specific Conductivity 3290 5.00 3270 0.61 20

The following samples were analyzed in this batch: HS23040620-12

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R433348 (0) **Instrument:** WetChem_HS **Method:** PH BY SM4500H+ B-2011

DUP	Sample ID: HS23040616-02DUP	Units: pH Units		Analysis Date: 22-Apr-2023 10:59						
Client ID:	Run ID: WetChem_HS_433348	SeqNo: 7255042	PrepDate:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	6.86	0.100					6.83	0.438	10	
Temp Deg C @pH	20.4	0					20.4	0	10	

The following samples were analyzed in this batch:

HS23040620-06	HS23040620-07	HS23040620-08	HS23040620-09
HS23040620-10	HS23040620-11		

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R433354 (0) **Instrument:** WetChem_HS **Method:** PH BY SM4500H+ B-2011

DUP	Sample ID: HS23040697-13DUP	Units: pH Units		Analysis Date: 22-Apr-2023 14:02						
Client ID:	Run ID: WetChem_HS_433354	SeqNo: 7255166	PrepDate:	DF: 1						
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
pH	10.64	0.100					10.6	0.377	10	
Temp Deg C @pH	20.6	0					20.6	0	10	

The following samples were analyzed in this batch: HS23040620-12

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R433374 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0, REV 2.1, 1993						
MBLK	Sample ID: MBLK	Units: mg/L			Analysis Date: 21-Apr-2023 10:13					
Client ID:	Run ID: ICS-Integrion_433374	SeqNo: 7255646		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Chloride	U	0.500								
Fluoride	U	0.100								
Nitrogen, Nitrate (As N)	U	0.100								
Nitrogen, Nitrite (As N)	U	0.100								
Sulfate	U	0.500								
LCS	Sample ID: LCS	Units: mg/L			Analysis Date: 21-Apr-2023 10:19					
Client ID:	Run ID: ICS-Integrion_433374	SeqNo: 7255647		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Chloride	19.85	0.500	20	0	99.2	90 - 110				
Fluoride	4.125	0.100	4	0	103	90 - 110				
Nitrogen, Nitrate (As N)	4.039	0.100	4	0	101	90 - 110				
Nitrogen, Nitrite (As N)	4.009	0.100	4	0	100	90 - 110				
Sulfate	19.32	0.500	20	0	96.6	90 - 110				
MS	Sample ID: HS23040598-03MS	Units: mg/L			Analysis Date: 21-Apr-2023 13:57					
Client ID:	Run ID: ICS-Integrion_433374	SeqNo: 7255674		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Chloride	23.64	0.500	10	13.7	99.5	80 - 120				
Fluoride	2.249	0.100	2	0.2971	97.6	80 - 120				
Nitrogen, Nitrate (As N)	2.138	0.100	2	0.1025	102	80 - 120				
Nitrogen, Nitrite (As N)	1.76	0.100	2	0.1075	82.6	80 - 120				
Sulfate	397.7	0.500	10	394.3	34.6	80 - 120			SEO	

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R433374 (0)		Instrument: ICS-Integrion		Method: ANIONS BY E300.0, REV 2.1, 1993						
MS		Sample ID: HS23040458-08MS		Units: mg/L		Analysis Date: 21-Apr-2023 12:11				
Client ID:		Run ID: ICS-Integrion_433374		SeqNo: 7255662		PrepDate:		DF: 50		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Chloride	2052	25.0	500	1602	90.0	80 - 120				
Fluoride	110.9	5.00	100	6.59	104	80 - 120				
Nitrogen, Nitrate (As N)	101.4	5.00	100	0	101	80 - 120				
Nitrogen, Nitrite (As N)	96.18	5.00	100	0	96.2	80 - 120				
Sulfate	1280	25.0	500	866.5	82.7	80 - 120				
MSD		Sample ID: HS23040598-03MSD		Units: mg/L		Analysis Date: 21-Apr-2023 14:03				
Client ID:		Run ID: ICS-Integrion_433374		SeqNo: 7255675		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Chloride	23.51	0.500	10	13.7	98.2	80 - 120	23.64	0.551	20	
Fluoride	2.214	0.100	2	0.2971	95.9	80 - 120	2.249	1.54	20	
Nitrogen, Nitrate (As N)	2.131	0.100	2	0.1025	101	80 - 120	2.138	0.305	20	
Nitrogen, Nitrite (As N)	1.755	0.100	2	0.1075	82.4	80 - 120	1.76	0.307	20	
Sulfate	394.4	0.500	10	394.3	1.79	80 - 120	397.7	0.83	20 SEO	
MSD		Sample ID: HS23040458-08MSD		Units: mg/L		Analysis Date: 21-Apr-2023 12:17				
Client ID:		Run ID: ICS-Integrion_433374		SeqNo: 7255663		PrepDate:		DF: 50		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Chloride	2021	25.0	500	1602	83.8	80 - 120	2052	1.52	20	
Fluoride	107.2	5.00	100	6.59	101	80 - 120	110.9	3.39	20	
Nitrogen, Nitrate (As N)	100.5	5.00	100	0	101	80 - 120	101.4	0.887	20	
Nitrogen, Nitrite (As N)	94.84	5.00	100	0	94.8	80 - 120	96.18	1.41	20	
Sulfate	1264	25.0	500	866.5	79.5	80 - 120	1280	1.25	20 S	

The following samples were analyzed in this batch: HS23040620-12

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R433392 (0)		Instrument: UV-2450		Method: FERROUS IRON BY SM3500 FE B						
MBLK	Sample ID: MBLK-R433392	Units: mg/L			Analysis Date: 21-Apr-2023 16:17					
Client ID:		Run ID: UV-2450_433392		SeqNo: 7256190	PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Ferrous Iron	U	0.0500				80 - 120				
LCS	Sample ID: LCS-R433392	Units: mg/L			Analysis Date: 21-Apr-2023 16:17					
Client ID:		Run ID: UV-2450_433392		SeqNo: 7256189	PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Ferrous Iron	0.236	0.0500	0.25	0	94.4	80 - 120				
MS	Sample ID: HS23040620-12MS	Units: mg/L			Analysis Date: 21-Apr-2023 16:17					
Client ID: CM-3B		Run ID: UV-2450_433392		SeqNo: 7256192	PrepDate:		DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Ferrous Iron	2.6	0.250	1.25	1.235	109	75 - 125				
MSD	Sample ID: HS23040620-12MSD	Units: mg/L			Analysis Date: 21-Apr-2023 16:17					
Client ID: CM-3B		Run ID: UV-2450_433392		SeqNo: 7256191	PrepDate:		DF: 5			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	
Ferrous Iron	2.61	0.250	1.25	1.235	110	75 - 125	2.6	0.384	20	

The following samples were analyzed in this batch: HS23040620-12

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R433393 (0)		Instrument: UV-2450		Method: FERROUS IRON BY SM3500 FE D (DISSOLVED)						
MBLK	Sample ID: MBLK-R433393	Units: mg/L		Analysis Date: 21-Apr-2023 16:25						
Client ID:	Run ID: UV-2450_433393	SeqNo: 7256200		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Ferrous Iron, Dissolved	U	0.0500								
LCS	Sample ID: LCS-R433393	Units: mg/L		Analysis Date: 21-Apr-2023 16:25						
Client ID:	Run ID: UV-2450_433393	SeqNo: 7256199		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Ferrous Iron, Dissolved	0.253	0.0500	0.25	0	101	80 - 120				
MS	Sample ID: HS23040620-12MS	Units: mg/L		Analysis Date: 21-Apr-2023 16:25						
Client ID: CM-3B	Run ID: UV-2450_433393	SeqNo: 7256202		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Ferrous Iron, Dissolved	0.514	0.0500	0.25	0.181	133	80 - 120			S	
MSD	Sample ID: HS23040620-12MSD	Units: mg/L		Analysis Date: 21-Apr-2023 16:25						
Client ID: CM-3B	Run ID: UV-2450_433393	SeqNo: 7256201		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	
Ferrous Iron, Dissolved	0.514	0.0500	0.25	0.181	133	80 - 120	0.514	0 20	S	

The following samples were analyzed in this batch: HS23040620-12

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R433495 (0)	Instrument: Skalar 03	Method: ALKALINITY BY SM 2320B-2011
--------------------------------	------------------------------	--

MBLK	Sample ID: MBLK2-04242023	Units: mg/L	Analysis Date: 24-Apr-2023 19:49							
Client ID:	Run ID: Skalar 03_433495	SeqNo: 7259017	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00								
Alkalinity, Carbonate (As CaCO3)	U	5.00								
Alkalinity, Hydroxide (As CaCO3)	U	5.00								
Alkalinity, Total (As CaCO3)	U	5.00								

LCS	Sample ID: LCS2-04242023	Units: mg/L	Analysis Date: 24-Apr-2023 19:26							
Client ID:	Run ID: Skalar 03_433495	SeqNo: 7259014	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (As CaCO3)	911.2	5.00	1000	0	91.1	85 - 115				
Alkalinity, Total (As CaCO3)	931	5.00	1000	0	93.1	85 - 115				

LCSD	Sample ID: LCSD-04242023	Units: mg/L	Analysis Date: 24-Apr-2023 19:32							
Client ID:	Run ID: Skalar 03_433495	SeqNo: 7259015	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (As CaCO3)	910.2	5.00	1000	0	91.0	85 - 115	911.2	0.11	20	
Alkalinity, Total (As CaCO3)	932.7	5.00	1000	0	93.3	85 - 115	931	0.182	20	

DUP	Sample ID: HS23040808-03DUP	Units: mg/L	Analysis Date: 24-Apr-2023 20:00							
Client ID:	Run ID: Skalar 03_433495	SeqNo: 7259019	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	223.6	5.00					225.4	0.802	20	
Alkalinity, Carbonate (As CaCO3)	U	5.00					0	0	20	
Alkalinity, Hydroxide (As CaCO3)	U	5.00					0	0	20	
Alkalinity, Total (As CaCO3)	223.6	5.00					225.4	0.802	20	

The following samples were analyzed in this batch:

HS23040620-01	HS23040620-02	HS23040620-03	HS23040620-04
HS23040620-05	HS23040620-06	HS23040620-07	HS23040620-08
HS23040620-09	HS23040620-11		

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R433630 (0)	Instrument: Skalar 03	Method: ALKALINITY BY SM 2320B-2011
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MBLK	Sample ID: MBLK-04252023	Units: mg/L	Analysis Date: 25-Apr-2023 17:46							
Client ID:	Run ID: Skalar 03_433630	SeqNo: 7262133	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00								
Alkalinity, Carbonate (As CaCO3)	U	5.00								
Alkalinity, Hydroxide (As CaCO3)	U	5.00								
Alkalinity, Total (As CaCO3)	U	5.00								

LCS	Sample ID: LCS-04252023	Units: mg/L	Analysis Date: 25-Apr-2023 17:52							
Client ID:	Run ID: Skalar 03_433630	SeqNo: 7262134	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (As CaCO3)	930.2	5.00	1000	0	93.0	85 - 115				
Alkalinity, Total (As CaCO3)	930.7	5.00	1000	0	93.1	85 - 115				

LCSD	Sample ID: LCSD-04252023	Units: mg/L	Analysis Date: 25-Apr-2023 17:59							
Client ID:	Run ID: Skalar 03_433630	SeqNo: 7262135	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Carbonate (As CaCO3)	927.8	5.00	1000	0	92.8	85 - 115	930.2	0.258	20	
Alkalinity, Total (As CaCO3)	928.6	5.00	1000	0	92.9	85 - 115	930.7	0.226	20	

DUP	Sample ID: HS23040697-13DUP	Units: mg/L	Analysis Date: 25-Apr-2023 18:07							
Client ID:	Run ID: Skalar 03_433630	SeqNo: 7262137	PrepDate: DF: 1							
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.00					0	0	20	
Alkalinity, Carbonate (As CaCO3)	55.4	5.00					62.4	11.9	20	
Alkalinity, Hydroxide (As CaCO3)	64.1	5.00					62	3.33	20	
Alkalinity, Total (As CaCO3)	119.5	5.00					124.4	4.02	20	

The following samples were analyzed in this batch:

HS23040620-10	HS23040620-12
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Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

QC BATCH REPORT

Batch ID: R433640 (0) **Instrument:** Balance1 **Method:** TOTAL DISSOLVED SOLIDS BY SM2540C-2011

MBLK	Sample ID: WBLK-04252023	Units: mg/L		Analysis Date: 25-Apr-2023 12:25						
Client ID:	Run ID: Balance1_433640	SeqNo: 7262345		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable) U 10.0

LCS	Sample ID: LCS-04252023	Units: mg/L		Analysis Date: 25-Apr-2023 12:25						
Client ID:	Run ID: Balance1_433640	SeqNo: 7262344		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable) 1094 10.0 1000 0 109 85 - 115

DUP	Sample ID: HS23041163-07DUP	Units: mg/L		Analysis Date: 25-Apr-2023 12:25						
Client ID:	Run ID: Balance1_433640	SeqNo: 7262337		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable) 820 10.0 816 0.489 20

DUP	Sample ID: HS23041115-01DUP	Units: mg/L		Analysis Date: 25-Apr-2023 12:25						
Client ID:	Run ID: Balance1_433640	SeqNo: 7262328		PrepDate:			DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual	

Total Dissolved Solids (Residue, Filterable) 318 10.0 320 0.627 20

The following samples were analyzed in this batch: HS23040620-12

Client: Altamira
Project: WFEC / MNA
WorkOrder: HS23040620

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	88-00356	27-Mar-2024
California	2919; 2024	30-Apr-2024
Dept of Defense	L23-358	31-May-2025
Florida	E87611-37	30-Jun-2023
Illinois	2000322023-11	30-Jun-2024
Kansas	E-10352; 2022-2023	31-Jul-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-23-31	30-Apr-2024
Utah	TX026932022-13	31-Jul-2023

Sample Receipt Checklist

Work Order ID: HS23040620

Date/Time Received: 12-Apr-2023 09:00

Client Name: Enviro Clean Services-Tulsa

Received by: Corey Grandits

Completed By: /S/ Paresh M. Giga 12-Apr-2023 12:08 Reviewed by: /S/ Anna Kinchen 14-Apr-2023 11:18
eSignature Date/Time eSignature Date/Time

Matrices: Water

Carrier name: FedEx Priority Overnight

- Shipping container/cooler in good condition? Yes [checked] No [] Not Present []
Custody seals intact on shipping container/cooler? Yes [checked] No [] Not Present []
Custody seals intact on sample bottles? Yes [] No [] Not Present [checked]
VOA/TX1005/TX1006 Solids in hermetically sealed vials? Yes [] No [] Not Present [checked]
Chain of custody present? Yes [checked] No [] 1 Page(s)
Chain of custody signed when relinquished and received? Yes [checked] No [] COC IDs:none
Samplers name present on COC? Yes [checked] No []
Chain of custody agrees with sample labels? Yes [checked] No []
Samples in proper container/bottle? Yes [checked] No []
Sample containers intact? Yes [checked] No []
Sufficient sample volume for indicated test? Yes [checked] No []
All samples received within holding time? Yes [checked] No []
Container/Temp Blank temperature in compliance? Yes [checked] No []

Temperature(s)/Thermometer(s): 2.4C/1.9C U/c IR31
Cooler(s)/Kit(s): Blue
Date/Time sample(s) sent to storage: 4/12/23 12:25
Water - VOA vials have zero headspace? Yes [] No [] No VOA vials submitted [checked]
Water - pH acceptable upon receipt? Yes [checked] No [] N/A []
pH adjusted? Yes [] No [checked] N/A []

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments: []

Corrective Action: []

Sample Receipt Checklist

Work Order ID: HS23040620

Date/Time Received: **12-Apr-2023 09:00**

Client Name: Enviro Clean Services-Tulsa

Received by: **Corey Grandits**

Completed By: <u>/S/ Corey Grandits</u>	13-Apr-2023 11:04	Reviewed by: <u>/S/ Anna Kinchen</u>	14-Apr-2023 11:18
eSignature	Date/Time	eSignature	Date/Time

Matrices: **W**

Carrier name: **FedEx**

- | | | | |
|---|---|-----------------------------|---|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| VOA/TX1005/TX1006 Solids in hermetically sealed vials? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | 1 Page(s) |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samplers name present on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |

Temperature(s)/Thermometer(s):	3.8UC/3.3C	IR31
Cooler(s)/Kit(s):	50056	
Date/Time sample(s) sent to storage:	4/12/23	
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/> No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/> N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
pH adjusted by:		

Login Notes:

Client Contacted: _____ Date Contacted: _____ Person Contacted: _____

Contacted By: _____ Regarding: _____

Comments:

Corrective Action:

Sample Receipt Checklist

Work Order ID: HS23040620

Date/Time Received: **12-Apr-2023 09:00**

Client Name: Enviro Clean Services-Tulsa

Received by: **Corey Grandits**

Completed By: <u>/S/ Corey Grandits</u>	21-Apr-2023 13:18	Reviewed by:	
eSignature	Date/Time	eSignature	Date/Time

Matrices: **W**

Carrier name: **FedEx**

- | | | | |
|---|---|--|---|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| VOA/TX1005/TX1006 Solids in hermetically sealed vials? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | 1 Page(s) |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samplers name present on COC? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |

Temperature(s)/Thermometer(s):	3.5UC/3.0C	IR31
Cooler(s)/Kit(s):	50277	
Date/Time sample(s) sent to storage:	4/21/23	
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/> No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/> N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>
pH adjusted by:		

Login Notes: limited unpreserved sample volume received for CM-3B. No volume received for Sulfide analysis.

Client Contacted:	Date Contacted:	Person Contacted:
Contacted By:	Regarding:	
Comments:		
Corrective Action:		

CHAIN OF CUSTODY RECORD



PROJECT NUMBER: WFEE 160023/2001

PROJECT NAME: WFEC / MNA Monitoring Program

COC: 1 of X

CLIENT CONTACT: Heather Tiffany
Bert Smith

CLIENT EMAIL: labdata@altamira-us.com
Heather.Tiffany@altamira-us.com

CLIENT PHONE: 405-618-2021

LABORATORY / LAB PM: ALS

CLIENT ADDRESS: 525 Central Park Dr
Ste 520
OKC, OK 73105

TAT: Standard

LAB ADDRESS: 10450 Stancliff Rd
Ste 210
Houston, TX 77099

SPECIAL INSTRUCTIONS: Short Hold
App. A - B, Ca, Cl, F, PH, SO3, TDS

SHIPMENT METHOD: FedEx

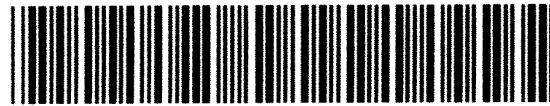
TRACKING: 6230 2997 3500

PARAMETERS

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.	NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	Appendix A	Nitrates as N	Specific Cond.	Fe + Mo Total	Fe, Ferrous + Ferric	Dissolved - Ferrous Fe	Dissolved - Fe, Mo, Ferric	K, Mg, Na	Sulfide	HClO ₂ , CO ₂ , Hydroxide	Alkalinity	HOLD
1	CM-3A	4/11/23	1155	W	1,2,4,9	5	Y	X	X	X	X	X	X	X	X	X	X	X	
2	CM-4A	4/11/23	1125					X	X	X	X	X	X	X	X	X	X	X	
3	CM-4B	4/11/23	1115					X	X	X	X	X	X	X	X	X	X	X	
4	CM-5B	4/11/23	1040					X	X	X	X	X	X	X	X	X	X	X	
5	MW-22B	4/11/23	1210					X	X	X	X	X	X	X	X	X	X	X	
6	MW-15B																		
7	Temp Blank			W		1	Y												
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

HS23040620

Altamira
WFEC / MNA



SAMPLER(S) NAME: Bradley VanCleave

DATE: 4/11/23
TIME: 1400

Total # of Containers:

SAMPLER(S) SIGNATURE: Bradley VanCleave

DATE: 4/11/23
TIME: 1400

RELINQUISHED BY: Bradley VanCleave

DATE: 4/11/23
TIME: 1400

RECEIVED BY: [Signature]

DATE: 4-12-23
TIME: 0900

LOGGED BY: [Signature]

DATE: [Blank]
TIME: [Blank]

COOLER TEMP: [Blank]

PRESERVATION KEY: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7- 4 Degrees C 8-9035 9-Other: None, Zn Ac

POINT OF ORIGIN: Norman Oklahoma City Tulsa Yukon Midland Other

BLUF 2.4° ALTAMIRA-US, LLC
Page 67 of 72

CHAIN OF CUSTODY RECORD



PROJECT NUMBER:
WFEE160023 / 2001

PROJECT NAME:
WFEC / MNA Monitoring

COC: 2 of X

CLIENT CONTACT:
Heather Tiffany / Bert Smith

CLIENT EMAIL: job data
Heather.Tiffany@altamira-us.com

CLIENT PHONE:
405-618-2021

LABORATORY / LAB PM: ALS

CLIENT ADDRESS: 525 Central Park Dr
SK 500
OKC, OK 73105

TAT: Standard

LAB ADDRESS: 10450 Standliff Rd
SK 210
Houston, TX 77099

SPECIAL INSTRUCTIONS:
App A - B, Ca, Cl, F, pH, SO₃, TDS
SHORT Hold - Nitrate + Ferrous Iron

SHIPMENT METHOD:
FedEx

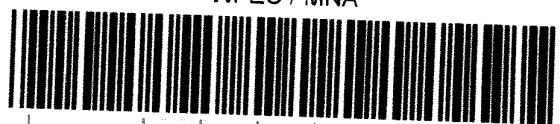
TRACKING:
6230 2997 3511

PARAMETERS														HOLD
NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	Appendix A #	Nitrate as N	Specific Conductivity	Fe + Mo, total	Fe, Ferrous + Ferric	Dissolved: Ferrous Fe	Dissolved: Fe, Mo, Ferric Fe	K, Mg, Na	Sulfide	HCO ₃ , CO ₃ , Hydroxide	Alkalinity		

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.
1	CM-1A	4/11/23	1610	W	2,4,9,1
2	CM-1B	4/11/23	1450		
3	CM-2	4/11/23	1750		
4	CM-5A	4/11/23	1825		
5	MW-15B	4/12/23	900		
6	Temp Blank			W	
7	Dup 2	4/11/23	1610	W	2,4,9,1
8					
9					
10					
11					
12					
13					
14					
15					

HS23040620

Altamira
WFEC / MNA



SAMPLER(S) NAME:
Bradley VanCleave

DATE: 4/12/23
TIME: 1400

Total # of Containers:

SAMPLER(S) SIGNATURE:
Bradley VanCleave

DATE: 4/12/23
TIME: 1400

RELINQUISHED BY:
Bradley VanCleave

RECEIVED BY:

DATE:
TIME:

LOGGED BY:

DATE:
TIME:

COOLER TEMP:

PRESERVATION KEY: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7- 4 Degrees C 8-9035 9-Other: ZnAc & None

POINT OF ORIGIN: Norman Oklahoma City Tulsa Yukon Midland Other

ALTAMIRA-US, LLC

50096 1231 3.8°

CHAIN OF CUSTODY RECORD



PROJECT NUMBER:
WFEE160023 / 2001

PROJECT NAME:
WFEE/MNA Monitoring
COC: 3 of 3

CLIENT CONTACT: Heather T. Flannery
Bert Smith

CLIENT EMAIL: labdata@bakerhughes.com
Heather.T.Flannery
CLIENT PHONE: 405-618-7221

LABORATORY / LAB PM:
ALS Houston

CLIENT ADDRESS: 525 Central Park Dr
Ste 500
OKC, OK 73105

TAT: Standard

LAB ADDRESS: 10450 Stanchiff Rd
Ste 260
Houston TX 77099

SPECIAL INSTRUCTIONS:
APPA - B, Ca, Cl, F, PH, SO3, TDS
Short hold

SHIPMENT METHOD: FEDEX

TRACKING: 6230 2997 3441

NUMBER OF CONTAINERS	FIELD FILTERED (YES / NO)	PARAMETERS													HOLD
		Appendix A *	Nitrate as N	Spec. Cond.	Fe & Mn total	Fe, Ferrus & Femic	Disolved: Ferrus Fe	Disolved Fe, Mn, Ferric	K, Mg / Na	Sulfate	Hlog, Cl3, Hydroxide	Alkalinity			

NO.	SAMPLE DESCRIPTION	DATE	TIME	MATRIX	PRES.
1	CM-3B	4/19/23	1830	W	124.9
2	Temp Blank			W	
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

HS23040620

Altamira
WFEE / MNA



SAMPLER(S) NAME: Bradley VanClen
DATE: 4/20/23
TIME: 1800
Total # of Containers:
SAMPLER(S) SIGNATURE: [Signature]
DATE: 4/20/23
TIME: 1800

RELINQUISHED BY: [Signature]
DATE: 4/20/23
TIME: 1800
RECEIVED BY: [Signature]
DATE: 4/20/23
TIME: 1825
LOGGED BY:
DATE:
TIME:
COOLER TEMP:

PRESERVATION KEY: 1-HCL 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7- 4 Degrees C 8-9035 9-Other :
POINT OF ORIGIN: Norman Oklahoma City Tulsa Yukon Midland Other :

ALS
 10450 Stancliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5856
 Fax. +1 281 530 5887

Date:
 Name:
 Comp:

CUSTODY SEAL		Seal Broken By:
Date: 4/12/23	Time: 1400	CL
Name: Bradley VanCleave		Date: 4/13/23
Company: Altonica		

FedEx

TRK# 6230 2997 3511
 0221

AB SGRA

THU - 13 APR AA
 PRIORITY OVERNIGHT


77099
 TX-US
 IAH




ALS
 10450 Stancliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Date:
 Name:
 Comp:

CUSTODY SEAL		Seal Broken By:
Date: 4/12/23	Time:	CL
Name: Bradley VanCleave		Date: 4/13/23
Company: Altonica		

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>4/11/23</i>	Time: <i>1400</i>	Date: <i>04/12/23</i>
	Name: _____ Company: _____		

Blue APR 12 2023

 ALS 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	CUSTODY SEAL		Seal Broken By: <i>SM</i>
	Date: <i>4/11/23</i>	Time: <i>1400</i>	Date: <i>04/12/23</i>
	Name: _____ Company: _____		



Blue

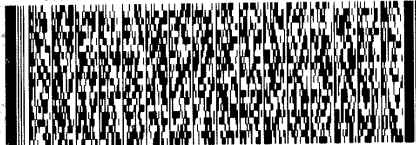
ORIGIN ID: SGRA (918) 794-7828
 HEATHER TIFFANY
 ALTAMIRA
 2670 TRENTON RD
 NORMAN, OK 73069
 UNITED STATES US

SHIP DATE: 28MAR23
 ACTWTG: 1.00 LB MAN
 CAD: 0221247/CAFE3702
 DIMS: 26x14x14 IN

TO SHIPPING DEPT
 ALS LABORATORY GROUP
 10450 STANCLIFF RD
 SUITE 210
 HOUSTON TX 77099

(281) 530-5656
 REF: WFEC=MNA=BO 91860-AK

RMA: ||| ||| |||



FedEx
Express

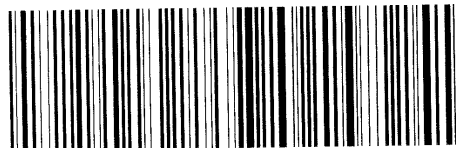


FedEx
TRK#
0221 6230 2997 3500

WED - 12 APR AA
 PRIORITY OVERNIGHT

AB SGRA

77099
 TX-US
 IAH



4969301 11Apr2023 SM1A 581G3/78CF/C088

ALS
 10450 Stancliff Rd., Suite 21
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

By: 10/1 By: 1

CUSTODY SEAL		Seal Broken By:
Date: <u>4/20/23</u>	Time: <u>12:00</u>	Date:
Name: <u>Bully USA</u>	<u>Attorney</u>	
Company:		

FedEx
 TRK# 6230 2997 3441
 0221

FRI - 21 APR 10:30A
PRIORITY OVERNIGHT

AB SGRA

77099
 TX-US IAH

917
 B03

1
 10:30

A
 3441
 0422

10450 Stancliff Rd., Suite 210
 Houston, Texas 77099
 Tel. 281 530 5656
 Fax. 281 530 5887

CUSTODY SEAL		Seal Broken By:
Date: <u>4/20/23</u>	Time: <u>12:00</u>	Date:
Name: <u>Bully USA</u>	<u>Attorney</u>	
Company:		

ATTACHMENT C

TABULATION OF DATA

ATTACHMENT C
TABULATION OF DATA
SEMI-ANNUAL CMA SAMPLING
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING										CMA SAMPLING					
		MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S	MW-5S		MW-5S	MW-5S
		14-Aug-17	22-May-18	1-Aug-18	10-Aug-18	2-Oct-18	10-Jan-19	23-Apr-19	2-Oct-19	18-Jun-20	12-Oct-20	1-Apr-21	14-Oct-21	(SAMPLE) 31-Mar-22	(RESAMPLE) 7-Jun-22	6-Oct-22	12-Apr-23
Total Alkalinity as CaCO3	mg/L	418	---	---	---	---	---	---	---	412	444	405	470	<5.00 ^A	419	430	292
Carbonate Alkalinity as CaCO3	mg/L	<5	---	---	---	---	---	---	---	15	20.5	<5	9.52	<5.00 ^A	<5.00	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	418	---	---	---	---	---	---	---	397	424	405	460	<5.00 ^A	419	430	292
Hydroxide Alkalinity	mg/L	<5	---	---	---	---	---	---	---	<5.00	<5.00	<5	<5.00	<5.00 ^A	<5.00	<5.00	<5.00
Boron	mg/L	1.29	1.05	1.06	3.09	2.82	2.73	1.87	2.49	0.811	2.57	2.04	1.82	1.64	---	2.94	2.21
Calcium	mg/L	46.6	74.7	59.1	24.9 J	25	27.7	57	22.5	68.2	19.6	33.4	21.0	53.8	---	24.1	37
Chloride	mg/L	18.7	25	18.7	26.1	28.3	30.5	21.8	25.1	19.5	25.6	23.9	26.4	23 ^A	24.1	25.6	23.8
Dissolved Oxygen (field)	mg/L	0.05	0.13	5.05	1.37	0.21	0.63	0.85	0.45	1.89	0.32	0.81	0.36	0.31	2.7	0.44	0.37
Fluoride	mg/L	1.17	1.38	1.02	1.5	1.54	1.54	1.11	1.54	0.824	1.51	1.24	1.57	3.24 ^A	1.41	1.4	1.25
Iron, Total	mg/L	---	---	---	---	---	---	---	---	<0.0120	<0.0120	0.0170 J	0.0270 J	0.0435 J ^A	0.0311 J	<0.0120	0.0165 J
Iron, Dissolved	mg/L	---	---	---	---	---	---	---	---	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120 ^A	0.0138 J	<0.0120	<0.0120
Iron, Ferric	mg/L	---	---	---	---	---	---	---	---	---	---	<0.020	0.0270 J	0.0435 J ^A	0.0311 J	<0.0200	<0.0200
Iron, Ferric, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	<0.020	<0.0200	<0.0200 ^A	<0.02	<0.0200	<0.0200
Iron, Ferrous	mg/L	---	---	---	---	---	---	---	---	0.0290 J	<0.0200	<0.020	<0.0200	<0.0200 ^A	<0.02	<0.0200	<0.0200
Iron, Ferrous, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	<0.020	<0.0200 H	<0.0200 ^A	<0.02	<0.0200	<0.0200
Magnesium	mg/L	5.19	---	---	---	---	5.73	---	---	5.16	4.38	4.53	4.60	5.79	---	4.79	5.72
Molybdenum, Total	mg/L	0.00737	---	0.00497	0.00387	<0.005	0.00512	0.00485 J	0.00315 J	0.00361 J	0.00244 J	0.00234 J	0.00387 J	0.00257 J	---	0.00210 J	0.00211 J
Molybdenum, Dissolved	mg/L	---	---	---	---	---	0.00335 J	---	---	0.00308 J	0.00244 J	0.00287 J	0.00296 J	0.00248 J	---	0.00232 J	0.00207 J
Nitrate as N	mg/L	---	---	---	---	0.089 J	0.964	0.665	0.212	<0.0300	<0.0300	0.631	0.0984 J	705 ^A	0.0996 J,H	0.243	0.467
Oxidation-Reduction Potential (field)	mV	21.5	-104.7	142.8	-40.1	-125.1	-30.9	19.7	-54.1	-48.2	168.1	283.3	-59.9	46.2	20.5	-33.9	54.1
pH (laboratory)	S.U.	7.5	7.6	7.7	8	8.7	7.65	8.11	7.55	7.65	8.21	7.9	8.16	1.68 ^A	8.19	7.89	7.73
pH (field)	S.U.	7.79	7.85	7.19	7.62	7.61	7.56	7.95	7.91	7.9	7.83	7.74	7.85	7.77	7.9	7.73	7.61
Potassium	mg/L	4.14	---	---	---	---	4.49	---	---	3.48	3.94	3.25	3.96	3.74	---	4.17	3.84
Sodium	mg/L	307	---	---	---	---	405	---	---	277	335	312	243	341	---	387	371
Specific Conductance (laboratory)	umhos/cm	---	---	---	---	1730	1870	---	---	---	1960	1770	1820	15600 ^A	2,280	1990	1880
Specific Conductance (field)	umhos/cm	1760	1516	1516	1843	1871	1791	1669	1826	1665	1794	1745	1863	1372	1820	1884	1789
Sulfate	mg/L	301	369	294	384	447	457	394	434	408	485	477	499	1540 ^A	503	482	556
Sulfide	mg/L	---	---	---	---	---	---	---	---	<1.00	<1.00	<1.00	<1.00	<1.00 ^A	<1	<1.00	<1.70
Temperature (field)	°C	22.46	20.24	25.07	23.59	25.3	13.4	18.78	25.18	24.37	21.5	14.7	23.7	16.4	19.8	24.9	20.9
Total Dissolved Solids	mg/L	980	950	880	1150	1140	1120	1090	1180	904	1080	1140	1140	1540 ^A	1170	1100	1100
Turbidity (field)	NTU	1.14	0.41	0.02	1.12	3.3	4.51	1.16	0.94	2.88	1.97	2.85	2.16	1.61	1.72	2.71	2.13
Filtered Turbidity (field)	NTU	---	---	---	---	---	1.27	---	---	---	1.97	1.19	1.91	0.61	3	0.93	1.97

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

**ATTACHMENT C
TABULATION OF DATA
SEMI-ANNUAL CMA SAMPLING
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION**

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING										CMA SAMPLING							
		MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S (SAMPLE)	MW-7S (RESAMPLE)	MW-7S	MW-7S (DUP 3)	MW-7S
		10-Aug-17	17-May-18	3-Aug-18	10-Aug-18	4-Oct-18	10-Jan-19	23-Apr-19	1-Oct-19	17-Jun-20	9-Oct-20	30-Mar-21	15-Oct-21	31-Mar-22	Jun-22	5-Oct-22	18-Apr-23		
Total Alkalinity as CaCO3	mg/L	311	---	---	---	---	222	---	---	264	315	180	343	205	---	326	297	190	
Carbonate Alkalinity as CaCO3	mg/L	<5	---	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00	---	<5	7.48	<5.00	
Bicarbonate Alkalinity as CaCO3	mg/L	311	---	---	---	---	222	---	---	264	315	180	343	205	---	326	289	190	
Hydroxide Alkalinity	mg/L	<5	---	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00	---	<5	<5.00	<5.00	
Boron	mg/L	2.21	1.25	0.283	3.31	2.7	0.839	0.848	1.99	1.33	2.29	0.677	2.18	0.646	---	2.7	3.07	0.88	
Calcium	mg/L	80.6	178	90.3	142	76	277	271	81	160	90.2	254	97.1	302	---	100	111	228	
Chloride	mg/L	16.2	17.6	16.4	17	16.1	18.7	19.7	16.3	18	16.9	20.5	16.8	19.9	---	16.9	16.7	18.9	
Dissolved Oxygen (field)	mg/L	0.08	0.22	1.61	2.95	0.45	0.23	0.84	0.51	0.49	0.33	0.31	0.30	0.38	---	0.39	---	0.21	
Fluoride	mg/L	0.744	0.509	0.771	0.664	0.764	0.422	0.376	0.729	0.479	0.713	0.444	0.746	0.515	---	0.711	0.824	0.468	
Iron, Total	mg/L	---	---	---	---	---	---	---	---	0.278	0.111 J	0.0145 J	0.310	<0.0120	---	0.158 J	0.186 J	<0.0120	
Iron, Dissolved	mg/L	---	---	---	---	---	---	---	---	0.0340 J	0.235	0.0154 J	0.134 J	<0.0120	---	0.113 J	0.0883 J	<0.0120	
Iron, Ferric	mg/L	---	---	---	---	---	---	---	---	---	---	---	0.103	<0.0200	---	0.0310 J	0.079	<0.0200	
Iron, Ferric, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	<0.02	0.134	<0.0200	---	<0.0200	0.0883	<0.0200	
Iron, Ferrous	mg/L	---	---	---	---	---	---	---	---	0.306	0.216	<0.02	0.207	<0.0200	---	0.127	0.107	<0.0200	
Iron, Ferrous, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	<0.02	<0.0200 H	<0.0200	---	0.117	<0.02	<0.0200	
Magnesium	mg/L	10.7	---	---	---	---	19	---	---	17.1	12	16.9	12.2	20.0	---	12.2	13.8	19.2	
Molybdenum, Total	mg/L	0.00171 J	---	0.00127 J	<0.001	<0.01	0.00105 J	0.000952 J	0.000798 J	0.00105 J	0.00106 J	0.000755 J	0.00115 J	0.000973 J	---	0.00103 J	0.00134 J	0.000973 J	
Molybdenum, Dissolved	mg/L	---	---	---	---	---	0.00107 J	---	---	0.000987 J	0.00103 J	0.000846 J	0.00121 J	0.000830 J	---	0.00112 J	0.00108 J	0.00110 J	
Nitrate as N	mg/L	---	---	---	---	0.118	0.557	<0.03	<0.03	<0.0300	<0.0300	<0.06	0.0940 J	0.0613 J	---	0.155	0.147	<0.0300	
Oxidation-Reduction Potential (field)	mV	57.6	-58.8	-20.8	-30.7	-129.1	-6.3	-61.6	-133.8	-67.6	-90.1	83.3	-107.8	-30.3	---	-179.9	---	62	
pH (laboratory)	S.U.	7.4	7.6	7.6	7.7	8	7.34	7.82	7.39	7.55	7.79	7.32	7.84	7.88	---	7.81	8.01	7.41	
pH (field)	S.U.	7.22	7.4	6.92	7.22	7.35	7.08	7.42	7.53	7.37	7.52	7.24	7.47	7.32	---	7.37	---	7.22	
Potassium	mg/L	4.95	---	---	---	---	4.67	---	---	5.33	5.1	4.06	5.14	4.56	---	5.34	6	4.84	
Sodium	mg/L	273	---	---	---	---	274	---	---	313	272	230	261	272	---	313	352	277	
Specific Conductance (laboratory)	umhos/cm	---	---	---	---	1610	2240	---	---	---	2110	2380	1860	2530	---	2,000	2050	2490	
Specific Conductance (field)	umhos/cm	1680	2101	1822	1932	1887	2180	2326	1944	2097	1945	2377	1973	2385	---	2015	---	2344	
Sulfate	mg/L	450	860	545	623	1600	1200	1040	633	970	759	1200	690	1190	---	687	687	1410	
Sulfide	mg/L	---	---	---	---	---	---	---	---	<1.00	1.48	<1.00	<1.00	<1.00	---	<1.00	<1.00	<1.70	
Temperature (field)	°C	24.46	19.6	29.34	25.21	25	12.8	17.92	25.27	21.95	23.1	16.8	22.5	14.2	---	26.8	---	18.5	
Total Dissolved Solids	mg/L	1120	1600	1210	1330	1230	1670	1890	1270	1680	1340	2060	1290	1920	---	1350	1260	1740	
Turbidity (field)	NTU	3.45	2.29	3.37	1.76	8.01	0.67	0.71	0.88	2.49	0.85	5.81	3.15	2.42	---	2.91	---	2.12	
Filtered Turbidity (field)	NTU	---	---	---	---	---	0.64	---	---	---	0.85	---	1.83	2.24	---	1.08	---	1.27	

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time.
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

**ATTACHMENT C
TABULATION OF DATA
SEMI-ANNUAL CMA SAMPLING
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION**

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING										CMA SAMPLING					
		MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A	MW-14A		MW-14A	MW-14A
		9-Aug-17	17-May-18	1-Aug-18	9-Aug-18	4-Oct-18	11-Jan-19	24-Apr-19	2-Oct-19	17-Jun-20	8-Oct-20	31-Mar-21	13-Oct-21	(SAMPLE) 30-Mar-22	(RESAMPLE) Jun-22	6-Oct-22	12-Apr-23
Total Alkalinity as CaCO3	mg/L	280	---	---	---	---	---	---	---	327	327	332	348	330	---	321	294
Carbonate Alkalinity as CaCO3	mg/L	<5	---	---	---	---	---	---	---	<5.00	<5.00	<5	<5.00	<5.00	---	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	280	---	---	---	---	---	---	---	327	327	332	348	330	---	321	294
Hydroxide Alkalinity	mg/L	<5	---	---	---	---	---	---	---	<5.00	<5.00	<5	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	0.764	1.14	0.925	1.8	1.18	1.42	1.23	0.98	0.907	0.882	0.839	0.857	0.918	---	1.01	1.01
Calcium	mg/L	672	313	341	746	319	313	402	314	746	319	313	402	314	746	319	313
Chloride	mg/L	13.8	15.3	15	16	14.2	14	13.5	14.2	13.3	14.9	14.3	12.8	13.8	---	12.5	12
Dissolved Oxygen (field)	mg/L	0.1	0.24	252	1.65	0.31	0.19	1.45	0.62	0.79	0.59	0.34	0.40	0.66	---	0.57	0.33
Fluoride	mg/L	0.312	0.292	0.333	0.296	0.281	0.292	0.377 J	0.286	0.23	0.254 J	0.284	0.221	0.406 J	---	0.324	0.307
Iron, Total	mg/L	---	---	---	---	---	---	---	---	0.0771 J	0.236	0.162 J	1.22	0.249	---	0.803	0.126 J
Iron, Dissolved	mg/L	---	---	---	---	---	---	---	---	<0.0120	0.169 J	0.150 J	0.357	0.189 J	---	0.475	0.0795 J
Iron, Ferric	mg/L	---	---	---	---	---	---	---	---	---	---	0.107	0.935	0.119	---	0.225	0.126
Iron, Ferric, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	0.116	0.357	0.0470 J	---	<0.0200	0.08
Iron, Ferrous	mg/L	---	---	---	---	---	---	---	---	0.098	0.184	0.055	0.285	0.130	---	0.578	<0.0200
Iron, Ferrous, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	0.034 J	<0.0200 H	0.142	---	0.489	<0.0200
Magnesium	mg/L	24.4	---	---	---	---	---	---	---	26.6	26.2	25.9	26.5	29.2	---	25.4	29.7
Molybdenum, Total	mg/L	0.00223	---	<0.001	<0.01	<0.01	0.00170 J	0.00104 J	0.000709 J	0.000760 J	<0.000600	<0.000600	<0.000600	<0.000600	---	<0.000600	<0.000600
Molybdenum, Dissolved	mg/L	---	---	---	---	---	0.00143 J	---	---	0.000768 J	0.000621 J	0.00165 J	<0.000600	<0.000600	---	<0.000600	<0.000600
Nitrate as N	mg/L	---	---	---	---	0.087 J	0.478	1.64	<0.03	0.316	<0.150	<0.0600	<0.0600	0.484 J	---	0.0777 J	0.22
Oxidation-Reduction Potential (field)	mV	97.7	-48.5	0.2	68.3	13.1	19.5	4.6	27.7	-45.7	107.1	20.5	-128.9	35.2	---	-70	-49
pH (laboratory)	S.U.	6.9	7.4	7.3	7.1	7.6	7.28	7.61	7.18	7.44	7.41	7.7	6.74	7.99	---	7.06	7.58
pH (field)	S.U.	6.75	7.1	6.82	6.47	6.93	6.9	7.28	7.1	7.04	7.1	7.33	7.00	7.17	---	6.90	7.06
Potassium	mg/L	7.88	---	---	---	---	8.64	---	---	7.66	7.94	7.87	7.84	8.73	---	7.8	8.81
Sodium	mg/L	518	---	---	---	---	516	---	---	382	388	413	388	503	---	424	469
Specific Conductance (laboratory)	umhos/cm	---	---	---	---	3000	3270	---	---	---	3660	3260	3320	3490	---	3540	3370
Specific Conductance (field)	umhos/cm	3186	3301	3415	3410	3491	3251	3386	3435	3107	3394	4453	2989	3300	---	3400	3240
Sulfate	mg/L	1420	1790	1580	1600	1650	1660	1540	1580	1650	1770	1680	1690	1610	---	1600	1760
Sulfide	mg/L	---	---	---	---	---	---	---	---	<1.00	<1.00	<1.00	3.08	<1.00	---	<1.00	<1.70
Temperature (field)	°C	21.41	22.9	25.6	21.33	23.1	16.2	17.75	24.4	21	23.7	15.84	20.0	15.2	---	25.2	18.8
Total Dissolved Solids	mg/L	2680	2700	2700	2730	2710	2590	2680	2750	2780	2630	2680	2630	2690	---	2580	2320
Turbidity (field)	NTU	0.71	0.37	1.53	0.02	3.17	4.89	2.06	3.88	4.71	2.96	3.52	9.38	2.40	---	1.24	3.01
Filtered Turbidity (field)	NTU	---	---	---	---	---	0.94	---	---	---	2.96	---	2.37	2.42	---	0.97	2

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

**ATTACHMENT C
TABULATION OF DATA
SEMI-ANNUAL CMA SAMPLING
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION**

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING										CMA SAMPLING					
		MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A	MW-15A		MW-15A	MW-15A
		9-Aug-17	24-May-18	1-Aug-18	10-Aug-18	2-Oct-18	10-Jan-19	25-Apr-19	2-Oct-19	18-Jun-20	8-Oct-20	31-Mar-21	13-Oct-21	(SAMPLE)	(RESAMPLE)	6-Oct-22	12-Apr-23
Total Alkalinity as CaCO3	mg/L	160	---	---	---	---	149	---	---	209	204	196	226	193	---	189	180
Carbonate Alkalinity as CaCO3	mg/L	<5	---	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00	---	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	130	---	---	---	---	149	---	---	209	204	196	226	193	---	189	180
Hydroxide Alkalinity	mg/L	<5	---	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	3.38	4.83	3.7	4.14	3.76	3.52	3.61	3.19	4.57	3.33	3.35	2.14	3.35	---	3.11	3.44
Calcium	mg/L	156	160	93.4	129	170	129	92	82.4	141	89.8	78.6	96.6	119	---	113	107
Chloride	mg/L	25.7	26.9	26.6	26.5	26.6	26.3	21.9	25.9	26.3	26.5	27.3	25.7	27.0	---	26.2	25.3
Dissolved Oxygen (field)	mg/L	0.06	0.14	1.62	1.23	0.21	0.41	1.24	0.71	1.39	0.28	4.47	0.38	0.51	---	0.4	0.3
Fluoride	mg/L	1.37	1.76	1.2	1.17	1.21	1.22	1.02	1.17	0.86	1.14	1.13	1.01	1.31	---	1.31	1.24
Iron, Total	mg/L	---	---	---	---	---	---	---	---	0.0535 J	0.0496 J	0.0492 J	0.368	0.236	---	0.208	0.138 J
Iron, Dissolved	mg/L	---	---	---	---	---	---	---	---	<0.0120	0.165 J	0.133 J	0.590	0.234	---	0.367	0.371
Iron, Ferric	mg/L	---	---	---	---	---	---	---	---	---	---	<0.02	0.0840	0.0360 J	---	<0.0200	<0.0200
Iron, Ferric, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	0.101	0.590	<0.0200	---	<0.0200	0.133
Iron, Ferrous	mg/L	---	---	---	---	---	---	---	---	0.0410 J	0.0210 J	0.054	0.284	0.200	---	0.089	0.238
Iron, Ferrous, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	0.032 J	<0.0200 H	0.243	---	0.358	0.238
Magnesium	mg/L	9.36	---	---	---	---	12.4	---	---	16.5	11	10.9	10.2	12.3	---	10.3	12.5
Molybdenum, Total	mg/L	0.255	---	0.202	0.182	0.233	0.205	0.219	0.196	0.269	0.167	0.168	0.149	0.181	---	0.149	0.173
Molybdenum, Dissolved	mg/L	---	---	---	---	---	0.244	---	---	0.168	0.153	0.159	0.181	0.159	---	0.149	0.175
Nitrate as N	mg/L	---	---	---	---	0.068 J	1.42	1.72	0.287	<0.0600	<0.150	1.14	0.0704 J	0.894	---	0.246	0.544
Oxidation-Reduction Potential (field)	mV	43.1	-101.3	133.1	140.8	-69.9	98	-22.1	-79.5	-50.3	167.2	13.8	-59.9	93.7	---	-85.1	129.9
pH (laboratory)	S.U.	7.5	7.6	7.8	7.8	8.2	7.02	8.02	7.58	7.68	7.77	7.93	7.45	8.08	---	7.74	7.77
pH (field)	S.U.	7.42	7.72	7.42	7.43	7.53	7.45	7.82	7.71	7.73	7.71	7.82	7.61	7.65	---	7.58	7.58
Potassium	mg/L	5.28	---	---	---	---	5.98	---	---	8.24	5.15	5.47	4.97	5.91	---	4.96	5.82
Sodium	mg/L	541	---	---	---	---	746	---	---	1040	627	594	421	680	---	609	702
Specific Conductance (laboratory)	umhos/cm	---	---	---	---	3490	3540	---	---	---	3780	3400	3370	3620	---	3590	3470
Specific Conductance (field)	umhos/cm	3524	3505	3548	3578	3563	3449	3544	3575	3337	3422	4645	3431	3386	---	3393	3304
Sulfate	mg/L	1720	1690	1510	1490	1570	1610	1310	1510	1680	1650	1590	1580	1540	---	1510	1690
Sulfide	mg/L	---	---	---	---	---	---	---	---	1.12	<1.00	<1.00	<1.00	<1.00	---	<1.00	<1.70
Temperature (field)	°C	22.68	21.24	25.05	23.28	23.1	18.5	20.72	27.05	24.09	22.2	16.37	22.4	18.1	---	25.6	18
Total Dissolved Solids	mg/L	2710	2660	2490	2610	2650	2590	2570	2500	2520	2460	2420	2370	2450	---	2370	2240
Turbidity (field)	NTU	1.31	0.39	5.5	1.68	4.11	1.13	0.55	0.84	2.6	1.73	0.88	3.34	2.38	---	0.9	1.66
Filtered Turbidity (field)	NTU	---	---	---	---	---	1.09	---	---	---	0.61	---	2.23	2.46	---	0.3	1.16

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT C
 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING		CMA SAMPLING					
		MW-15B	MW-15B	MW-15B	MW-15B	MW-15B		MW-15B	MW-15B
		24-Jul-20	13-Oct-20	31-Mar-21	14-Oct-21	(SAMPLE)	(RESAMPLE)	4-Oct-22	12-Apr-23
Total Alkalinity as CaCO3	mg/L	680	724	771	802	768	---	776	684
Carbonate Alkalinity as CaCO3	mg/L	38.1	14.8	<5.00	<5.00	<5.00	---	13.1	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	642	709	771	802	768	---	763	684
Hydroxide Alkalinity	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	4.27	5.08	3.67	4.78	6.08	---	5.58	5.27
Calcium	mg/L	39.3	38.3	35.1	52.8	59.8	---	65.5	48.8
Chloride	mg/L	60.1	57	57.2	56.0	56.7	---	56.8	54.6
Dissolved Oxygen (field)	mg/L	4.21	5.04	2.4	9.52	3.81	---	3.35	***
Fluoride	mg/L	1.23	0.96	1.14	1.15	1.24	---	1	1.04
Iron, Total	mg/L	22.7	1.51	7.89	8.51	3.31	---	12.6	6.21
Iron, Dissolved	mg/L	2.11	<0.0120	0.0212 J	0.0794 J	0.172 J	---	<0.0120	<0.0120
Iron, Ferric	mg/L	---	---	7.21	6.69	2.86	---	6.30	5.37
Iron, Ferric, Dissolved	mg/L	---	---	<0.0200	0.0794	0.172	---	<0.0200	<0.0200
Iron, Ferrous	mg/L	2.67	7.52	0.68	1.82	0.451	---	6.3	0.84
Iron, Ferrous, Dissolved	mg/L	---	---	0.235	<0.0200 H	<0.0200	---	0.0260 J	<0.0200
Magnesium	mg/L	13.2	11.5	10.2	15.9	18.0	---	17.5	13.9
Molybdenum, Total	mg/L	0.0109	0.00876	0.00571	0.00328 J	0.00370 J	---	0.00153 J	0.00160 J
Molybdenum, Dissolved	mg/L	0.016	0.00762	0.00814	0.00679	0.00519	---	0.00501	0.00426 J
Nitrate as N	mg/L	---	36.2	29.4	18.3	23.2	---	19.7	23.3
Oxidation-Reduction Potential (field)	mV	224.1	236.6	211.3	240.1	85.2	---	218.2	***
pH (laboratory)	S.U.	7.66	7.87	7.66	7.59	7.99	---	7.62	8.05
pH (field)	S.U.	7.91	7.88	7.43	7.58	7.56	---	7.42	***
Potassium	mg/L	10.3	6.72	8.19	8.29	8.39	---	8.25	6.67
Sodium	mg/L	713	836	625	866	1220	---	953	952
Specific Conductance (laboratory)	umhos/cm	---	4520	4300	4410	4910	---	5230	4530
Specific Conductance (field)	umhos/cm	3513	2486	4208	4285	4606	---	3927	***
Sulfate	mg/L	1280	1340	1560	1580	1590	---	1530	1640
Sulfide	mg/L	3	5	<1.00	3.31	40.0	---	<1.00	<1.70
Temperature (field)	°C	21.7	20.7	18	20.4	19.7	---	19.8	***
Total Dissolved Solids	mg/L	2390	2940	3080	2990	3380	---	3290	3570
Turbidity (field)	NTU	568	80.1	>1,000	>1000	>1000	---	>1000	>1000
Filtered Turbidity (field)	NTU	0.72	1.69	0.72	22.4	3.16	---	0.87	1.21

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

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TABULATION OF DATA
SEMI-ANNUAL CMA SAMPLING
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING										CMA SAMPLING						
		MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16		MW-16	MW-16	
		11-Aug-17	22-May-18	1-Aug-18	10-Aug-18	2-Oct-18	16-Jan-19	23-Apr-19	3-Oct-19	18-Jun-20	13-Oct-20	1-Apr-21	14-Oct-21	(SAMPLE) 1-Apr-22	(RESAMPLE) 7-Jun-22	6-Oct-22	12-Apr-23	
Total Alkalinity as CaCO3	mg/L	238	---	---	---	---	256	---	---	232	233	228	264	94 [^]	258.0	288.0	259.0	
Carbonate Alkalinity as CaCO3	mg/L	<5	---	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00 [^]	<5	10.7	<5.00	
Bicarbonate Alkalinity as CaCO3	mg/L	238	---	---	---	---	256	---	---	232	233	228	264	94 [^]	258.0	277.0	259.0	
Hydroxide Alkalinity	mg/L	<5	---	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00 [^]	<5	<5.00	<5.00	
Boron	mg/L	1.79	1.95	1.9	2.39 J	2.05	2.23	1.85	1.53	1.43	1.78	1.57	1.61	1.85	---	2.54	1.8	
Calcium	mg/L	238	122	159	185	221	215	192	185	149	186	166	140	158	153	---	132	118
Chloride	mg/L	18	21.3	20.6	29.6	18	19	15.8	23.8	14.7	14.8	14.4	16.2	16.6 [^]	15.0	25.8	16.5	
Dissolved Oxygen (field)	mg/L	0.16	0.37	1.59	2.7	0.25	1.37	0.83	3.67	2.18	1.99	0.46	3.3	1.06	0.42	1.55	0.17	
Fluoride	mg/L	0.817	1.01	0.963	1.17	0.832	0.82	0.741	1.17	1.07	0.694	0.893	0.916	0.964	1.3 [^]	1.01	1.25	0.91
Iron, Total	mg/L	---	---	---	---	---	---	---	---	0.0358 J	0.125 J	0.0536 J	0.369	0.0158 J [^]	0.0145 J	0.0547 J	0.0982 J	
Iron, Dissolved	mg/L	---	---	---	---	---	---	---	---	0.0160 J	0.0694 J	0.0140 J	0.190 J	<0.0120 [^]	<0.0120	0.0203 J	<0.0120	
Iron, Ferric	mg/L	---	---	---	---	---	---	---	---	---	---	0.0536	0.178	<0.0200 [^]	<0.02	0.0547	0.098	
Iron, Ferric, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	<0.02	0.190	<0.0200 [^]	<0.02	0.0203 J	<0.0200	
Iron, Ferrous	mg/L	---	---	---	---	---	---	---	---	0.0380 J	0.0240 J	<0.02	0.191	<0.0200 [^]	<0.02	<0.0200	<0.0200	
Iron, Ferrous, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	<0.02	<0.0200 H	<0.0200 [^]	<0.02	<0.0200	<0.0200	
Magnesium	mg/L	10.3	---	---	---	---	---	---	---	8.44	7.59	7.65	7.38	8.40	---	7.24	8.22	
Molybdenum, Total	mg/L	0.181	---	0.145	0.154	0.169	0.18	0.193	0.149	0.172	0.149	0.166	0.163	0.146	---	0.113	0.127	
Molybdenum, Dissolved	mg/L	---	---	---	---	---	0.18	---	---	0.173	0.16	0.18	0.189	0.131	---	0.112	0.127	
Nitrate as N	mg/L	---	---	---	---	0.133	<0.03	0.854	<0.03	<0.0600	<0.0600	0.687	<0.0300	50.4 [^]	0.0630 J,H	0.127	0.194	
Oxidation-Reduction Potential (field)	mV	60.3	-83.7	186.4	150.4	-131.8	278.9	28.7	-191.5	-56.9	60.2	57.7	-167.2	20.9	-25.9	-51.7	103.1	
pH (laboratory)	S.U.	7.2	7.5	7.5	7.8	8.2	7.33	7.88	7.01	7.6	7.63	7.83	7.75	7.42 [^]	7.92	7.85	7.78	
pH (field)	S.U.	7.09	7.57	7.11	7.3	7.53	7.21	7.56	7.82	7.66	7.69	8.12	7.74	7.67	7.74	7.36	7.5	
Potassium	mg/L	3.33	---	4.18	---	---	4.18	---	---	2.85	3.09	3.12	3.18	3.58	---	3.61	4.12	
Sodium	mg/L	272	---	---	---	---	405	---	---	309	316	325	295	389	---	415	419	
Specific Conductance (laboratory)	umhos/cm	---	---	---	---	2420	2340	---	---	---	2400	2420	2340	2500 [^]	2,910	2650	2340	
Specific Conductance (field)	umhos/cm	2330	2463	2436	2678	2330	2816	2273	2330	2836	2438	2615	3178	2699	1865	2358	2412	2294
Sulfate	mg/L	1020	933	938	998	959	1020	974	1020	1030	929	1070	1110	1100 [^]	1090	996	986	
Sulfide	mg/L	---	---	---	---	---	---	---	---	<1.00	1.4	<1.00	<1.00	<1.00 [^]	<1	<1.00	<1.70	
Temperature (field)	°C	24.61	22.87	23.7	23.74	25.4	14.8	19.31	24.89	21.9	23.5	16.32	23	15.9	20	23.1	20.7	
Total Dissolved Solids	mg/L	1710	1820	1810	1930	1780	1740	1740	1810	1610	1610	1790	1590	1670 [^]	1700	1690	1570	
Turbidity (field)	NTU	1.11	1.21	3.49	2.96	2.89	6.82	2.53	1.48	3.09	0.75	2.16	4.38	0.25	1.84	1.55	3.89	
Filtered Turbidity (field)	NTU	---	---	---	---	---	1.03	---	---	---	0.75	---	2.21	0.16	1.97	---	1.98	

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT C
TABULATION OF DATA
SEMI-ANNUAL CMA SAMPLING
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING										CMA SAMPLING						
		MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17		MW-17	MW-17	MW-17
		10-Aug-17	21-May-18	1-Aug-18	10-Aug-18	3-Oct-18	10-Jan-19	25-Apr-19	3-Oct-19	18-Jun-20	12-Oct-20	31-Mar-21	14-Oct-21	(SAMPLE) 31-Mar-22	(RESAMPLE) 7-Jun-22	6-Oct-22	12-Apr-23	
Total Alkalinity as CaCO3	mg/L	260	---	---	---	---	280	---	---	284	273	269	288	<5.00^	269	276	230	249
Carbonate Alkalinity as CaCO3	mg/L	<5	---	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00^	<5	<5.00	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	260	---	---	---	---	280	---	---	284	273	269	288	<5.00^	269	276	230	249
Hydroxide Alkalinity	mg/L	<5	---	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00^	<5	<5.00	<5.00	<5.00
Boron	mg/L	0.666	0.588	0.659	0.845 J	0.567	0.766	0.796	0.622	0.652	0.64	0.539	0.700	0.593	---	0.902	0.739	0.713
Calcium	mg/L	528	436	549	787	461	591	499	555	494	453	467	428	435	---	541	599	537
Chloride	mg/L	3.28	3.15	3.84	3.27	4.81	3.44	3.65	3.75	4.29	4.04	4.06	4.02	5.24^	4.16	4.25	4.11	4.11
Dissolved Oxygen (field)	mg/L	0.29	0.21	5.57	4.59	0.44	0.51	1.8	0.8	1.35	0.41	0.45	0.52	1.86	0.8	1.94	0.24	---
Fluoride	mg/L	0.328	0.324	0.47	0.317	0.393	0.337	0.392 J	0.37	0.211	0.366	0.412	0.317	<0.250^	0.371	0.34	0.349	0.33
Iron, Total	mg/L	---	---	---	---	---	---	---	---	<0.0120	<0.0120	0.0541 J	<0.0120	0.0325 J ^	<0.0120	<0.0120	<0.0120	<0.0120
Iron, Dissolved	mg/L	---	---	---	---	---	---	---	---	<0.0120	<0.0120	<0.0120^#	0.0198 J	<0.0120^	<0.0120	0.0581 J	<0.0120	0.0149 J
Iron, Ferric	mg/L	---	---	---	---	---	---	---	---	---	---	0.0541^#	<0.0200	0.0325 J ^	<0.02	<0.0200	<0.0200	<0.0200
Iron, Ferric, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	<0.02^#	<0.0200	<0.0200^	<0.02	0.0581	<0.0200	<0.0200
Iron, Ferrous	mg/L	---	---	---	---	---	---	---	---	0.0200 J	<0.0200	<0.02^#	<0.0200	<0.0200^	0.0220 J,H	<0.0200	<0.0200	<0.0200
Iron, Ferrous, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	<0.02^#	<0.0200 H	<0.0200^	<0.02 H	<0.0200	<0.0200	<0.0200
Magnesium	mg/L	36.6	---	---	---	---	38.1	---	---	37.8	30.9	29.3	34.6	30.9	---	33.7	43.3	39
Molybdenum, Total	mg/L	<0.001	---	<0.001	<0.001	<0.001	<0.0006	0.000671 J	<0.0006	<0.000600	<0.000600	0.000950 J	<0.000600	<0.000600	---	<0.000600	<0.000600	0.000602 J
Molybdenum, Dissolved	mg/L	---	---	---	---	---	<0.0006	---	---	0.00123 J	<0.000600	0.00292 J ^#	<0.000600	<0.000600	---	<0.000600	<0.000600	0.000660 J
Nitrate as N	mg/L	---	---	---	0.276	<0.03	<0.150	<0.03	<0.0600	<0.0600	<0.0300	<0.0600	420 H ^	0.0834 J,H	0.0756 J	<0.0300	<0.0300	
Oxidation-Reduction Potential (field)	mV	65.7	-49.2	172.9	209.4	237.5	57.8	2.4	148.3	-28.1	129.9	37.4	61.7	103.6	81.5	37.8	-66.6	---
pH (laboratory)	S.U.	6.9	6.9	7.2	7	7.5	6.59	7.53	6.37	7.38	7.51	7.34	7.12	1.87 ^	7.67	7.04	7.12	7.14
pH (field)	S.U.	6.69	6.92	6.64	6.8	6.7	6.67	7.09	6.88	6.8	6.88	7.14	6.90	7.08	7.04	6.79	6.83	---
Potassium	mg/L	5.15	---	---	---	---	5.37	---	---	5.15	4.42	4.19	4.94	4.50	---	4.99	5.92	5.34
Sodium	mg/L	34.5	---	---	---	---	35.7	---	---	35.6	29.2	28.2	32.5	35.2	---	32.8	40.8	36.7
Specific Conductance (laboratory)	umhos/cm	---	---	---	---	1920	2450	---	---	---	2610	2460	2390	11900^	2,920	2570	2500	2400
Specific Conductance (field)	umhos/cm	2417	2416	2606	2569	2548	2416	2470	2458	2344	2393	3256	2467	1811	2369	2441	2407	---
Sulfate	mg/L	1450	1140	1310	1340	821	1480	1100	1310	1390	1,220 H	1310	1390	1970^	1,460	1320	1510	1510
Sulfide	mg/L	---	---	---	---	---	---	---	---	<1.00	<1.00	<1.00^#	1.12	<1.00^	<1	<1.00	<1.70	<1.70
Temperature (field)	°C	21.98	20.98	25.04	22.3	23.3	15.9	19.26	23.63	21.2	23.2	18.75	22.9	18.3	22.5	25.9	20.6	---
Total Dissolved Solids	mg/L	2140	2360	2340	2380	1670	2300	2400	2160	2230	2160	2200	2210	2340^	2,220	2170	2050	2210
Turbidity (field)	NTU	0.81	0.52	4.63	14.5	5.4	1.24	0.63	0.65	2.28	0.58	0.64	1.80	0.85	1.61	1.94	2.62	---
Filtered Turbidity (field)	NTU	---	---	---	---	---	0.69	---	---	---	0.58	---	---	0.75	---	---	1.54	---

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

**ATTACHMENT C
TABULATION OF DATA
SEMI-ANNUAL CMA SAMPLING
WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION**

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING										CMA SAMPLING						
		MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18			MW-18	MW-18
		10-Aug-17	18-May-18	2-Aug-18	10-Aug-18	3-Oct-18	14-Jan-19	25-Apr-19	1-Oct-19	17-Jun-20	12-Oct-20	31-Mar-21	14-Oct-21	(SAMPLE)	DUP 3	(RESAMPLE)	6-Oct-22	12-Apr-23
Total Alkalinity as CaCO3	mg/L	77.9	---	---	---	---	75.1	---	---	71	69.9	65.5	73.8	63.6	89.1	---	61.6	63.8
Carbonate Alkalinity as CaCO3	mg/L	52.6	---	---	---	---	42.2	---	---	60.6	64.3	46.8	55.8	58.6	64.7	---	56.5	51.6
Bicarbonate Alkalinity as CaCO3	mg/L	<5	---	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00	24.4	---	<5.00	<5.00
Hydroxide Alkalinity	mg/L	25.3	---	---	---	---	32.9	---	---	10.4	5.63	18.7	17.9	<5.00	<5.00	---	5.06	12.2
Boron	mg/L	6.51	6.71	4.86	6.65	5.77	6.89	6.05	5.29	5.49	5.43	4.32	4.61	4.65	5.06	---	5.2	4.75
Calcium	mg/L	28.7	28.1	36.1	31.1	25.1	31.8	33.1	25.6	21.6	20	19.3	19.3	23.9	25.3	---	17.7	21.9
Chloride	mg/L	6.1	5.19	8.04	5.33	5.5	5.59	4.79	5.07	4.06	4.22	4.2	4.39	4.86	4.60	---	3.88	5.7
Dissolved Oxygen (field)	mg/L	0.03	0.17	4.03	0.9	0.21	0.36	1.44	0.33	0.55	0.24	0.39	0.36	0.40	---	---	0.51	0.25
Fluoride	mg/L	1.38	1.37	1.26	1.35	1.37	1.32	1.25	1.47	1.28	1.66	1.71	1.90	2.10	1.92	---	1.84	1.7
Iron, Total	mg/L	---	---	---	---	---	---	---	---	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	---	<0.0120	<0.0120
Iron, Dissolved	mg/L	---	---	---	---	---	---	---	---	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	---	<0.0120	0.0352 J
Iron, Ferric	mg/L	---	---	---	---	---	---	---	---	---	---	<0.02	<0.0200	<0.0200	<0.0200	---	<0.0200	<0.0200
Iron, Ferric, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	<0.02	<0.0200	<0.0200	<0.0200	---	<0.0200	0.0350 J
Iron, Ferrous	mg/L	---	---	---	---	---	---	---	---	0.0200 J	<0.0200	<0.02	<0.0200	<0.0200	<0.0200	---	<0.0200	<0.0200
Iron, Ferrous, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	<0.02	<0.0200 H	<0.0200	<0.0200	---	<0.0200	<0.0200
Magnesium	mg/L	<0.220	---	---	---	---	---	---	---	0.141 J	0.27	0.426	0.152 J	0.559	0.587	---	0.181 J	0.241
Molybdenum, Total	mg/L	0.39	---	0.113	0.319	0.33	0.333	0.342	0.257	0.194	0.18	0.195	0.209	0.206	0.222	---	0.183	0.232
Molybdenum, Dissolved	mg/L	---	---	---	---	---	0.332	---	---	0.18	0.166	0.215	0.211	0.199	0.203	---	0.172	0.243
Nitrate as N	mg/L	---	---	---	---	0.053 J	0.075 J	<0.05	<0.03	<0.0600	<0.0300	<0.0300	0.0606 J	0.712	0.146 J	---	0.0851 J	0.0517 J
Oxidation-Reduction Potential (field)	mV	28.2	-139.8	-65.1	-119.7	130.1	174.9	-152.8	-71.2	-140.3	-80.5	-49.7	-9.7	-0.8	---	---	-72.2	-95
pH (laboratory)	S.U.	10.7	10.1	7.8	10.2	9.8	10.4	10.2	10.3	9.35	10.2	10.5	9.95	9.69	9.30	---	10.2	9.96
pH (field)	S.U.	10.54	10.74	9.71	10.41	10.45	10.47	10.93	10.4	10.65	10.4	10.39	10.46	9.97	---	---	9.96	10.29
Potassium	mg/L	22	---	---	---	---	22.3	---	---	15.9	14.6	13.6	15.0	14.6	15.3	---	14.5	16.1
Sodium	mg/L	523	---	---	---	---	603	---	---	376	348	324	329	391	406	---	381	407
Specific Conductance (laboratory)	umhos/cm	---	---	---	---	2590	2520	---	---	---	2200	2090	2040	2070	2080	---	2090	2030
Specific Conductance (field)	umhos/cm	2716	2530	2568	2658	2632	2442	2486	2350	1998	1986	1999	2041	1962	---	---	1976	2010
Sulfate	mg/L	1070	1120	996	1030	1090	1110	933	1020	888	794	904	896	837	842	---	804	971
Sulfide	mg/L	---	---	---	---	---	---	---	---	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	---	<1.00	<1.70
Temperature (field)	°C	22.11	21.12	24.1	22.37	23.6	14	17.89	24.8	22.45	23.5	17	20.7	17.6	---	---	26	19.9
Total Dissolved Solids	mg/L	1850	1740	1660	1730	1760	1630	1680	1550	1340	1270	1260	1320	1300	1310	---	1250	1280
Turbidity (field)	NTU	1.21	0.22	0.02	0.02	2.04	2.79	0.49	0.92	2.43	0.34	1	1.99	2.53	---	---	2.26	2.44
Filtered Turbidity (field)	NTU	---	---	---	---	---	1.47	---	---	---	0.34	0.62	1.89	2.46	---	---	---	1.16

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT C
 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING											CMA SAMPLING								
		MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	DUP 2	MW-19S	MW-19S		MW-19S	MW-19S		MW-19S	MW-19S
		10-Aug-17	18-May-18	2-Aug-18	10-Aug-18	3-Oct-18	15-Jan-19	25-Apr-19	1-Oct-19	17-Jun-20	12-Oct-20	31-Mar-21	DUP 3	15-Oct-21	(SAMPLE)	(RESAMPLE)	1-Apr-22	Jun-22	6-Oct-22	17-Apr-23	
Total Alkalinity as CaCO3	mg/L	132	---	---	---	---	141	---	---	128	130	132	135	133	150	136	---	130	124		
Carbonate Alkalinity as CaCO3	mg/L	85.8	---	---	---	---	59.8	---	---	92.6	98.7	89.2	63.8	69	77.3	53.6	---	61	62.4		
Bicarbonate Alkalinity as CaCO3	mg/L	<5	---	---	---	---	<5	---	---	<5.00	<5.00	<5.00	<5	<5	<5.00	<5.00	---	<5.00	<5.00		
Hydroxide Alkalinity	mg/L	46.2	---	---	---	---	81.2	---	---	35.1	31.4	42.6	71.6	64.4	73.0	82.4	---	68.7	62		
Boron	mg/L	7.64	8.43	8.64	3.78	10.2	9.79	8.57	6.64	6.8	7.18	6.88	6.86	8.41	5.88	9.73	---	8.43	7.69		
Calcium	mg/L	41.3	45.7	35	24.8	35.3	50	52.4	40.4	43.6	42.1	40.7	42.3	35.3	41.6	44.2	---	40.7	38.5		
Chloride	mg/L	15.7	14.5	15.1	14.9	14.8	14.2	13.7	14.4	13.8	14	14.1	13.7	14	13.6	14.6	---	13.3	12.8		
Dissolved Oxygen (field)	mg/L	0.02	0.24	4.64	1.32	0.33	0.21	1.5	0.5	0.36	---	0.16	0.27	---	0.21	0.27	---	0.32	0.19		
Fluoride	mg/L	1.32	1.3	1.34	1.3	1.24	1.27	1.13	1.37	1.15	1.04	1.38	1.46	1.54	1.57	1.66	---	1.59	1.47		
Iron, Total	mg/L	---	---	---	---	---	---	---	---	0.0153 J	<0.0120	<0.0120	<0.0120	<0.0120	0.0509 J	0.0554 J	---	<0.0120	0.0162 J		
Iron, Dissolved	mg/L	---	---	---	---	---	---	---	---	<0.0120	<0.0120	<0.0120	<0.0120	<0.0120	0.0210 J	<0.0120	---	<0.0120	<0.0120		
Iron, Ferric	mg/L	---	---	---	---	---	---	---	---	---	---	---	<0.02	<0.02	<0.0200	0.0254 J	---	<0.0200	<0.0200		
Iron, Ferric, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	---	<0.02	<0.02	0.0210 J	<0.0200	---	<0.0200	<0.0200		
Iron, Ferrous	mg/L	---	---	---	---	---	---	---	---	0.0430 J	0.0330 J	0.0310 J	<0.02	<0.02	0.0450 J	0.0300 J	---	0.0230 J	0.063		
Iron, Ferrous, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	---	---	<0.02	<0.02	<0.0200 H	0.0290 J	---	<0.0200	<0.0200		
Magnesium	mg/L	<0.220	---	---	---	---	0.121 J	---	---	0.0553 J	0.0510 J	0.0346 J	0.0773 J	0.0681 J	0.0415 J	0.0836 J	---	0.0228 J	0.109 J		
Molybdenum, Total	mg/L	0.469	---	0.384	0.112	0.439	0.472	0.462	0.377	0.402	0.394	0.367	0.398	0.351	0.407	0.445	---	0.43	0.362		
Molybdenum, Dissolved	mg/L	---	---	---	---	---	0.463	---	---	0.373	0.383	0.37	0.457	0.398	0.440	0.406	---	0.413	0.379		
Nitrate as N	mg/L	---	---	---	---	<0.049	<0.03	<0.150	<0.03	<0.0600	<0.0600	<0.150	<0.0600	<0.0600	<0.0600	0.102 J	---	<0.0300	<0.0300		
Oxidation-Reduction Potential (field)	mV	-215.4	-312.1	-227.4	-249	172.1	-162	-281.7	-252.4	-588.1	---	209.2	-191.7	---	-237.2	-244.4	---	-249.1	-58.2		
pH (laboratory)	S.U.	10.8	10.5	9.7	10.5	9.9	10.4	10.5	10.6	10.2	9.88	10.9	10.8	10.6	10.8	10.8	---	10.8	10.6		
pH (field)	S.U.	10.72	11.09	10.55	10.56	10.63	11.01	11.26	10.65	10.97	---	10.92	11.09	---	10.84	10.94	---	10.54	10.78		
Potassium	mg/L	35.9	---	---	---	---	38.2	---	---	35.2	34.1	33.7	33.9	29	34.6	37.0	---	37.7	32.3		
Sodium	mg/L	697	---	---	---	---	801	---	---	644	598	610	639	545	462	723	---	752	662		
Specific Conductance (laboratory)	umhos/cm	---	---	---	---	2470	3530	---	---	---	---	3860	3500	3540	3370	3570	---	3570	3270		
Specific Conductance (field)	umhos/cm	3552	3530	3587	3563	3610	3438	3524	3552	3309	---	3433	3406	---	3342	3309	---	3277	3090		
Sulfate	mg/L	1650	1630	1520	1480	1950	1640	1520	1580	1490	1590	1640	1560	1560	1570	1420	---	1480	1740		
Sulfide	mg/L	---	---	---	---	---	---	---	---	1.52	<1.00	1.8	<1.00	<1.00	<1.00	<1.00	---	<1.00	<1.70		
Temperature (field)	°C	24.37	20.38	26.67	24.71	25.4	13.4	17.92	25.86	22.99	---	23.8	18.3	---	21.8	17.2	---	23.5	20.6		
Total Dissolved Solids	mg/L	2440	2560	2390	2440	2490	2500	2440	2460	2300	2290	2340	2360	2310	2290	2180	---	2210	2310		
Turbidity (field)	NTU	1.26	0.47	0.02	4.16	2.05	5.19	0.57	0.61	2.86	---	1.24	0.73	---	2.77	2.22	---	1.82	3.94		
Filtered Turbidity (field)	NTU	---	---	---	---	---	2.24	---	---	---	---	1.24	0.59	---	1.88	2.33	---	--	1.62		

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT C
 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING									CMA SAMPLING					
		MW-22A	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A	MW-22A		MW-22A	MW-22A
		11-Aug-17	22-May-18	10-Aug-18	3-Oct-18	16-Jan-19	25-Apr-19	30-Sep-19	18-Jun-20	9-Oct-20	31-Mar-21	13-Oct-21	(SAMPLE) 1-Apr-22	(RESAMPLE) 6-Jun-22	4-Oct-22	18-Apr-23
Total Alkalinity as CaCO3	mg/L	231	---	---	---	256	---	---	249	249	232	315	<5.00 ^A	242	262	212
Carbonate Alkalinity as CaCO3	mg/L	<5	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00 ^A	<5	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	231	---	---	---	256	---	---	249	249	232	315	<5.00 ^A	242	262	212
Hydroxide Alkalinity	mg/L	<5	---	---	---	<5	---	---	<5.00	<5.00	<5	<5.00	<5.00 ^A	<5	<5.00	<5.00
Boron	mg/L	1.77	1.74	2.18	1.45	1.78	1.88	1.49	2.82	1.84	1.6	1.76	2.16	---	1.84	1.83
Calcium	mg/L	559	636	697	702	643	636	507	481	754	507	529	515	---	574	515
Chloride	mg/L	2.28	2.6	2.41	2.4	2.24	2.56	2.39	2.34	2.05 J	2.17	2.06 J	2.94 J ^A	2.38	2.46	2.32
Dissolved Oxygen (field)	mg/L	0.43	2.18	2.72	0.44	0.9	4.05	1.23	3.35	0.68	2	0.26	0.19	0.38	0.39	1.07
Fluoride	mg/L	0.341	2.24	0.315	0.329	0.299	0.374 J	0.364	0.237	0.279 J	0.249	0.608	<0.500 ^A	0.329	0.354	0.319
Iron, Total	mg/L	---	---	---	---	---	---	---	0.0509 J	<0.0120	0.0536 J	0.660	0.75 ^A	1.020	0.375	0.159 J
Iron, Dissolved	mg/L	---	---	---	---	---	---	---	<0.0120	0.0121 J	0.0206 J	1.00	0.371 ^A	0.235	1.040	0.0511 J
Iron, Ferric	mg/L	---	---	---	---	---	---	---	---	---	0.0536	<0.0200	0.188 ^A	0.785	<0.0200	0.116
Iron, Ferric, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	0.0206 J	<0.0200	0.699 ^A	0.108	<0.0200	0.051
Iron, Ferrous	mg/L	---	---	---	---	---	---	---	<0.0200	<0.0200	<0.02	0.904	0.051 ^A	0.1180	1.0200	0.0430 J
Iron, Ferrous, Dissolved	mg/L	---	---	---	---	---	---	---	---	---	<0.02	<0.0200 H	0.253 ^A	0.127	1.16	<0.0200
Magnesium	mg/L	87.1	---	---	---	107	---	---	126	85	95	96.2	97.5	---	92.6	102
Molybdenum, Total	mg/L	<0.001	---	<0.001	<0.001	<0.0006	<0.0006	0.000787 J	<0.000600	<0.000600	<0.000600	<0.000600	0.00114 J	---	<0.000600	<0.000600
Molybdenum, Dissolved	mg/L	---	---	---	---	0.000822 J	---	---	0.000773 J	<0.000600	<0.000600	0.0328	0.000982 J	---	<0.000600	<0.000600
Nitrate as N	mg/L	---	---	---	0.458	<0.03	<0.150	0.198	<0.0600	<0.150	<0.0600	<0.150	773 ^A	0.0307 J	0.171	0.0482 J
Oxidation-Reduction Potential (field)	mV	64.2	-14.8	-30.2	275.1	275.6	43.2	-110.1	-36.5	146.4	207.4	-251.1	-77.1	-105.5	-172.7	148.8
pH (laboratory)	S.U.	6.8	7	7.1	7.4	6.49	7.61	6.74	7.08	7.48	7.21	7.32	1.62 ^A	7.41	7.18	7.08
pH (field)	S.U.	6.76	7.01	7.02	6.75	6.75	7.19	7.02	6.97	6.97	7	7.00	7.16	6.91	6.87	6.88
Potassium	mg/L	14.4	---	---	---	17.8	---	---	21.7	13.7	15.2	16.7	16.1	---	14.5	17.1
Sodium	mg/L	140	---	---	---	169	---	---	202	135	147	158	153	---	150	161
Specific Conductance (laboratory)	umhos/cm	---	---	---	3180	3170	---	---	---	3450	3450	3250	21000 ^A	4010	3770	3330
Specific Conductance (field)	umhos/cm	3218	3135	3244	3277	3181	3208	3236	3013	3165	3195	2975	2681	3206	2893	3155
Sulfate	mg/L	2030	1940	1860	1830	1990	1740	1880	2160	2010	2020	1970	3760 ^A	1950	1910	2270
Sulfide	mg/L	---	---	---	---	---	---	---	1.52	<1.00	<1.00	2.08	<1.00 ^A	<1	<1.00	<1.70
Temperature (field)	°C	23.05	20.84	24.37	20.9	13.6	17.89	22.78	23.52	20.7	18.2	23.3	17.8	21.5	21	21.8
Total Dissolved Solids	mg/L	3030	3090	3050	1910	3000	3170	3030	3390	3160	3040	3010	2520 ^A	3090	3230	3560
Turbidity (field)	NTU	5.72	2.09	3.67	2.71	51.5	3.81	1.89	9.49	2.92	18.3	7.88	5.90	13.50	3.10	3.64
Filtered Turbidity (field)	NTU	---	---	---	---	4.9	---	---	---	0.51	---	1.18	1.59	2.89	0.86	1.68

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
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ATTACHMENT C
 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING		CMA SAMPLING					
		MW-22B	MW-22B	MW-22B	MW-22B	MW-22B		MW-22B	MW-22B
		24-Jul-20	13-Oct-20	31-Mar-21	13-Oct-21	(SAMPLE)	(RESAMPLE)	4-Oct-22	11-Apr-23
Total Alkalinity as CaCO3	mg/L	333	364	364	435	435	---	438	436
Carbonate Alkalinity as CaCO3	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	328	364	364	435	435	---	438	436
Hydroxide Alkalinity	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	2.97	3.4	3.14	3.17	4.02	---	3.75	4.32
Calcium	mg/L	90.1	69.8	75.8	82.7	103	---	161	98.1
Chloride	mg/L	55.5	56.1	57.8	55.0	57.8	---	55.4	52.7
Dissolved Oxygen (field)	mg/L	5.05	1.23	5.4	9.27	5.16	---	4.36	4.51
Fluoride	mg/L	1.14	1.05	1.46	1.21	1.08	---	1.32	1.16
Iron, Total	mg/L	11.7	0.282	4.19	6.04	7.27	---	19.3	<0.0120
Iron, Dissolved	mg/L	<0.0120	<0.0120	<0.0120	0.0138 J	0.0136 J	---	<0.0120	1.560
Iron, Ferric	mg/L	---	---	3.23	4.22	5.61	---	7.90	<0.0200
Iron, Ferric, Dissolved	mg/L	---	---	<0.0200	<0.0200	<0.0200	---	<0.0200	1.560
Iron, Ferrous	mg/L	3.06	0.58	0.957	1.82	1.66	---	11.4	<0.0200
Iron, Ferrous, Dissolved	mg/L	---	---	0.53	<0.0200 H	<0.0200	---	0.0260 J	<0.0200
Magnesium	mg/L	24.1	21.7	23.4	26.0	28.4	---	31.2	28.6
Molybdenum, Total	mg/L	0.00878	0.00866	0.00753	0.00446 J	0.00357 J	---	0.00105 J	0.00389 J
Molybdenum, Dissolved	mg/L	0.0111	0.00853	0.00841	0.00723	0.00554	---	0.00393 J	0.00396 J
Nitrate as N	mg/L	---	<0.0600	1.03	0.958	1.38	---	2.15	1.67
Oxidation-Reduction Potential (field)	mV	180.5	235.6	37.4	259.2	132.3	---	99.4	119.8
pH (laboratory)	S.U.	7.57	7.77	7.75	7.59	7.99	---	7.55	7.58
pH (field)	S.U.	7.95	7.64	7.88	7.72	7.67	---	7.63	7.67
Potassium	mg/L	10.3	7.81	8.79	10.2	10.7	---	9.87	9.61
Sodium	mg/L	838	842	846	848	1110	---	918	1100
Specific Conductance (laboratory)	umhos/cm	---	5100	4460	4690	5060	---	5540	4900
Specific Conductance (field)	umhos/cm	4364	4400	6102	4547	4600	---	4113	4612
Sulfate	mg/L	2180	2040	2080	2090	1980	---	1940	2340
Sulfide	mg/L	4	<1.00	<1.00	<1.00	42.2	---	<1.00	<1.70
Temperature (field)	°C	22.3	19.3	17.23	20.7	20.2	---	19.5	19.4
Total Dissolved Solids	mg/L	3000	3340	3280	3290	3430	---	3550	4180
Turbidity (field)	NTU	926	8.67	>1,000	391	806	---	>1000	233
Filtered Turbidity (field)	NTU	1.21	0.21	1.41	2.05	2.78	---	1.23	1.37

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT C
 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING		CMA SAMPLING					
		CM-1A	CM-1A	CM-1A	CM-1A	CM-1A		CM-1A	CM-1A
		24-Jul-20	7-Oct-20	1-Apr-21	14-Oct-21	(SAMPLE)	(RESAMPLE)	4-Oct-22	11-Apr-23
Total Alkalinity as CaCO3	mg/L	326	346	337	356	353	---	318	302
Carbonate Alkalinity as CaCO3	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	326	346	337	356	353	---	318	302
Hydroxide Alkalinity	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	0.748	0.612	0.664	0.883	0.733	---	0.843	0.63
Calcium	mg/L	452	480	464	531	551	---	531	497
Chloride	mg/L	49.5	28.4	26.3	21.2	26.4	---	20.9	22.6
Dissolved Oxygen (field)	mg/L	6	0.59	1.8	0.37	1.9	---	0.33	2.27
Fluoride	mg/L	0.382	<0.500	0.483	0.399	0.390 J	---	0.426	0.467
Iron, Total	mg/L	5.34	0.0215 J	0.0232 J	0.115 J	0.0770 J	---	0.0460 J	0.0303 J
Iron, Dissolved	mg/L	<0.0120	<0.0120	0.0713 J	0.0382 J	0.0224 J	---	0.0380 J	0.0141 J
Iron, Ferric	mg/L	---	---	0.0232 J	0.0640	0.0770	---	0.0460 J	0.0300 J
Iron, Ferric, Dissolved	mg/L	---	---	<0.0200	0.0382 J	0.0220 J	---	<0.0200	<0.0200
Iron, Ferrous	mg/L	0.114	<0.0200	<0.0200	0.051	<0.0200	---	<0.0200	<0.0200
Iron, Ferrous, Dissolved	mg/L	---	---	<0.0200	<0.0200 H	<0.0200	---	0.076	<0.0200
Magnesium	mg/L	65.7	55.4	50.2	77.6	59.4	---	63.1	48.8
Molybdenum, Total	mg/L	0.0088	0.00198 J	0.00132 J	0.00127 J	<0.000600	---	<0.000600	<0.000600
Molybdenum, Dissolved	mg/L	0.00385 J	0.00169 J	0.00159 J	0.00121 J	0.000720 J	---	0.000601 J	<0.000600
Nitrate as N	mg/L	---	<0.300	<0.0600	<0.0300	0.294 J	---	<0.0300	<0.0300
Oxidation-Reduction Potential (field)	mV	301.9	170.1	175.7	-58.0	91.2	---	-7.9	124.5
pH (laboratory)	S.U.	6.52	7.69	7.61	7.73	7.77	---	6.91	7.3
pH (field)	S.U.	6.93	6.84	6.95	6.77	7.04	---	6.74	6.94
Potassium	mg/L	12.4	8.79	7.52	11.9	7.52	---	8.87	6.68
Sodium	mg/L	178	181	170	198	206	---	184	165
Specific Conductance (laboratory)	umhos/cm	---	3620	3180	3300	3410	---	3790	3310
Specific Conductance (field)	umhos/cm	3105	3258	3225	3092	3163	---	3062	3125
Sulfate	mg/L	1970	1810	1910	1940	1770	---	1810	2150
Sulfide	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	---	<1.00	<1.70
Temperature (field)	°C	23.7	22.7	18.7	21.8	17.9	---	22.3	20.3
Total Dissolved Solids	mg/L	2980	3130	3090	3030	2840	---	3210	2960
Turbidity (field)	NTU	31.4	2.91	2.39	15.6	5.72	---	1.78	2.58
Filtered Turbidity (field)	NTU	0.67	0.65	1.1	1.23	2.05	---	0.99	2.59

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
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9. --- : no analysis performed.
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11. ** : Insufficient sample volume for analysis due to well depletion.
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 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING		CMA SAMPLING					
		CM-1B	CM-1B	CM-1B	CM-1B	CM-1B		CM-1B	CM-1B
		24-Jul-20	12-Oct-20	1-Apr-21	14-Oct-21	(SAMPLE)	(RESAMPLE)	4-Oct-22	11-Apr-23
Total Alkalinity as CaCO3	mg/L	432	439	---	424	394	---	362	343
Carbonate Alkalinity as CaCO3	mg/L	<5.00	<5.00	---	<5.00	<5.00	---	6.12	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	432	439	---	424	394	---	356	343
Hydroxide Alkalinity	mg/L	<5.00	<5.00	---	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	3.86	3.84	3.44	3.48	4.06	---	3.86	4.08
Calcium	mg/L	233	128	127	119	123	---	130	119
Chloride	mg/L	107	110	---	113	116	---	112	111
Dissolved Oxygen (field)	mg/L	4.33	---	0.81	0.39	0.60	---	0.3	0.32
Fluoride	mg/L	0.626	0.599	---	0.789	0.828	---	0.786	1.12
Iron, Total	mg/L	47.5	3.89	0.194 J	0.0865 J	0.172 J	---	0.115 J	0.543
Iron, Dissolved	mg/L	0.0150 J	0.0164 J	0.0136 J	<0.0120	0.159 J	---	0.0940 J	0.496
Iron, Ferric	mg/L	---	---	0.112	0.0435 J	0.0870	---	0.0480 J	<0.0200
Iron, Ferric, Dissolved	mg/L	---	---	<0.0200	<0.0200	0.0480 J	---	<0.0200	<0.0200
Iron, Ferrous	mg/L	26	7.3	0.082	0.0430 J	0.0850	---	0.067	0.607
Iron, Ferrous, Dissolved	mg/L	---	---	0.0450 J	<0.0200 H	0.111	---	0.101	0.615
Magnesium	mg/L	50.8	41.7	43.3	45.1	45.2	---	43.7	40.5
Molybdenum, Total	mg/L	0.0133	0.0144	0.0113	0.00976	0.00696 J	---	0.00551	0.00488 J
Molybdenum, Dissolved	mg/L	0.019	0.0155	0.0126	0.0108	0.00727	---	0.00564	0.00448 J
Nitrate as N	mg/L	---	9.85	---	<0.0600	0.232 J	---	<0.0300	<0.150
Oxidation-Reduction Potential (field)	mV	184.2	-80.5	189.3	-70.5	-45.5	---	-109.9	-49.3
pH (laboratory)	S.U.	7.67	8.12	---	8.03	8.03	---	7.52	7.64
pH (field)	S.U.	7.62	10.4	7.45	7.43	7.62	---	7.46	7.53
Potassium	mg/L	19.7	12.3	12.4	13.6	13.1	---	11.9	11.5
Sodium	mg/L	877	881	899	951	1140	---	990	1020
Specific Conductance (laboratory)	umhos/cm	---	5650	---	5110	5370	---	5830	5020
Specific Conductance (field)	umhos/cm	4900	1986	5107	4662	4963	---	4518	4795
Sulfate	mg/L	2490	2290	---	2300	2190	---	2200	2370
Sulfide	mg/L	5	<1.00	<1.00	<1.00	<1.00	---	<1.00	<1.70
Temperature (field)	°C	23.3	23.5	19.9	22.6	16.1	---	21.7	20.2
Total Dissolved Solids	mg/L	3490	3760	---	3670	3770	---	3780	3900
Turbidity (field)	NTU	>1,000	0.34	14.8	18.2	3.93	---	3.18	4.55
Filtered Turbidity (field)	NTU	---	0.34	1.16	1.8	2.29	---	1.05	1.56

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
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ATTACHMENT C
 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING			CMA SAMPLING					
		CM-2	DUP 1	CM-2	CM-2	CM-2	CM-2		CM-2	CM-2
		24-Jul-20	7-Oct-20	1-Apr-21	15-Oct-21	31-Mar-22	(RESAMPLE) Jun-22	6-Oct-22	11-Apr-23	
Total Alkalinity as CaCO3	mg/L	337	347	329	328	353	318	---	337	315
Carbonate Alkalinity as CaCO3	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	337	347	329	328	353	318	---	337	315
Hydroxide Alkalinity	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	0.93	0.941	0.845	0.679	0.744	0.480	---	0.596	1.65
Calcium	mg/L	492	533	491	466	487	467	---	406	533
Chloride	mg/L	3.79	3.12	2.84 J	3.49	3.15	2.87	---	2.49	2.16
Dissolved Oxygen (field)	mg/L	4.62	---	0.27	0.67	0.40	2.08	---	0.23	1.29
Fluoride	mg/L	0.558	0.565	<0.500	0.419	0.526	0.506	---	0.462	0.488
Iron, Total	mg/L	2.78	2.97	0.0482 J	0.132 J	0.232	0.115 J	---	0.175 J	1.72
Iron, Dissolved	mg/L	<0.0120	<0.0120	0.0139 J	0.0386 J	0.237	0.136 J	---	0.0817 J	0.157 J
Iron, Ferric	mg/L	---	---	---	0.132	0.0970	0.0820	---	0.135	0.874
Iron, Ferric, Dissolved	mg/L	---	---	---	<0.0200	0.237	0.0800	---	0.0217 J	<0.0200
Iron, Ferrous	mg/L	0.109	0.146	<0.0200	<0.0200	0.135	0.0330 J	---	0.0400 J	0.846
Iron, Ferrous, Dissolved	mg/L	---	---	---	<0.0200	<0.0200 H	0.0560	---	0.06	0.194
Magnesium	mg/L	31.6	32.8	28.7	24.4	29.5	18.8	---	19.6	45.1
Molybdenum, Total	mg/L	0.00209 J	0.00218 J	0.00203 J	0.00161 J	0.00120 J	0.000820 J	---	<0.000600	0.00152 J
Molybdenum, Dissolved	mg/L	0.00158 J	0.00134 J	0.00177 J	0.00118 J	0.00136 J	0.000820 J	---	0.00105 J	<0.000600
Nitrate as N	mg/L	---	---	<0.300	0.529	0.0497 J	0.256	---	0.194	0.204
Oxidation-Reduction Potential (field)	mV	244.3	---	170.2	72.3	-27.8	44.3	---	-78.3	93.3
pH (laboratory)	S.U.	6.66	6.6	7.91	7.82	7.37	7.79	---	7.09	7.54
pH (field)	S.U.	7.02	---	6.89	6.8	6.80	7.05	---	6.79	6.91
Potassium	mg/L	8.78	8.74	7.09	6.88	7.56	5.01	---	5.69	9.52
Sodium	mg/L	111	116	110	94	107	73.2	---	80.2	178
Specific Conductance (laboratory)	umhos/cm	---	---	3020	2190	2500	2220	---	2420	2110
Specific Conductance (field)	umhos/cm	2713	---	2872	2870	2182	2109	---	2131	2126
Sulfate	mg/L	1680	1730	1590	1210	1370	1010	---	982	1050
Sulfide	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	---	<1.00	<1.70
Temperature (field)	°C	21	---	20.1	17.7	21.4	18.2	---	20.9	19.7
Total Dissolved Solids	mg/L	2490	2660	2690	2060	2210	1780	---	1720	1560
Turbidity (field)	NTU	16	---	18.8	2.32	14.6	2.5	---	12.9	2.01
Filtered Turbidity (field)	NTU	0.47	---	3.91	0.82	2.82	2.71	---	1.37	1.78

Notes:

1. mg/L : milligrams per liter.
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ATTACHMENT C
 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING		CMA SAMPLING					
		CM-3A	CM-3A	CM-3A	CM-3A	CM-3A		CM-3A	CM-3A
		21-Aug-20	13-Oct-20	30-Mar-21	14-Oct-21	(SAMPLE)	(RESAMPLE)	4-Oct-22	11-Apr-23
Total Alkalinity as CaCO3	mg/L	**	616	489	630	602	---	589	566
Carbonate Alkalinity as CaCO3	mg/L	**	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	**	616	489	630	602	---	589	566
Hydroxide Alkalinity	mg/L	**	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	4.84	3.8	2.82	2.72	3.26	---	3	3.4
Calcium	mg/L	50.9	70.3	64.3	67.6	49.9	---	72.8	41.1
Chloride	mg/L	52.9	36.1	54.8	42.5	37.0	---	33.3	24.4
Dissolved Oxygen (field)	mg/L	**	***	3.3	4.96	4.53	---	3.89	9.05
Fluoride	mg/L	0.425	0.699	0.858	0.801	0.870	---	0.816	0.754
Iron, Total	mg/L	2.78	8.53	0.0152 J	6.76	0.971	---	12.9	2.11
Iron, Dissolved	mg/L	<0.0120	<0.0120	0.794	0.0291 J	3.34	---	5.32	<0.0120
Iron, Ferric	mg/L	---	---	<0.0200	5.27	0.209	---	4.17	2.00
Iron, Ferric, Dissolved	mg/L	---	---	0.313	0.0291 J	3.28	---	4.82	<0.0200
Iron, Ferrous	mg/L	**	0.480 J	1.45	1.49	0.762	---	8.73	0.0250 J
Iron, Ferrous, Dissolved	mg/L	---	---	0.481	<0.0200 H	0.0570	---	0.501	0.0250 J
Magnesium	mg/L	6.26	10.4	13.3	10.7	10.4	---	11.1	8.7
Molybdenum, Total	mg/L	0.0457	0.0222	0.0153	0.00297 J	0.00656	---	0.00155 J	0.00503
Molybdenum, Dissolved	mg/L	0.0445	0.0299	0.0157	0.0120	0.00844	---	0.00234 J	0.00704
Nitrate as N	mg/L	1.67	7.55	19.9	7.07	17.1	---	16.2	21.8
Oxidation-Reduction Potential (field)	mV	**	***	212.5	281.8	127.2	---	219.9	110.6
pH (laboratory)	S.U.	8.76	7.82	7.95	7.73	7.82	---	7.62	7.64
pH (field)	S.U.	**	***	7.6	7.37	7.64	---	7.44	7.64
Potassium	mg/L	6.13	7.41	6.68	6.38	5.96	---	6.15	6.12
Sodium	mg/L	429	499	559	447	525	---	518	516
Specific Conductance (laboratory)	umhos/cm	---	2940	2910	2410	2790	---	2390	2380
Specific Conductance (field)	umhos/cm	**	***	3015	2467	2609	---	2088	2266
Sulfate	mg/L	554	749	971	635	677	---	600	594
Sulfide	mg/L	**	<1.00	<1.00	2.12	34.2	---	<1.00	<1.70
Temperature (field)	°C	**	***	18.7	19.7	19.7	---	20.4	20.5
Total Dissolved Solids	mg/L	1700	1840	2330	1560	1710	---	1720	1700
Turbidity (field)	NTU	**	***	>1,000	>1000	>1000	---	>1000	>1000
Filtered Turbidity (field)	NTU	**	***	0.44	1.84	2.00	---	---	1.83

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
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ATTACHMENT C
 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING		CMA SAMPLING					
		CM-3B	CM-3B	CM-3B	CM-3B	CM-3B		CM-3B	CM-3B
		21-Aug-20	15-Oct-20	2-Apr-21	11-Oct-21	(SAMPLE)	(RESAMPLE)	7-Oct-22	19-Apr-23
Total Alkalinity as CaCO3	mg/L	**	413	519	**	753	---	769	729
Carbonate Alkalinity as CaCO3	mg/L	**	16.5	17.6	**	102	---	25	35.4
Bicarbonate Alkalinity as CaCO3	mg/L	**	396	502	**	651	---	744	693
Hydroxide Alkalinity	mg/L	**	<5.00	<5.00	**	<5.00	---	<5.00	<5.00
Boron	mg/L	3.82	3.44	4.73	**	5.14	---	3.3	4.83
Calcium	mg/L	70	62.7	100	**	70.1	---	80.1	33.3
Chloride	mg/L	48.9	28.8	40.2	**	53.0	---	50.5	48.7
Dissolved Oxygen (field)	mg/L	**	***	***	***	2.3	---	***	2.42
Fluoride	mg/L	1.9	1.14	1.52	**	1.51	---	1.68	1.43
Iron, Total	mg/L	23.5	22.8	55.6	**	16.7	---	22.6	3.96
Iron, Dissolved	mg/L	0.0140 J	0.0399 J	0.0419 J	**	46.7	---	0.0127 J	16.9
Iron, Ferric	mg/L	---	---	---	**	16.1	---	16.90	2.72
Iron, Ferric, Dissolved	mg/L	---	---	---	**	45.2	---	<0.0200	16.7
Iron, Ferrous	mg/L	**	**	---	**	0.636	---	5.68	1.24
Iron, Ferrous, Dissolved	mg/L	---	---	---	**	1.45	---	<0.0200	0.181
Magnesium	mg/L	13.6	11.2	23.2	**	13.6	---	11.0	11.1
Molybdenum, Total	mg/L	0.0327	0.0318	0.0353 J	**	0.0174	---	0.00819	0.016
Molybdenum, Dissolved	mg/L	0.0394	0.0355	0.0392	**	0.0256	---	0.0204	0.00879
Nitrate as N	mg/L	<0.0300	4.64	31.3	**	65.6	---	<0.0300	91.5
Oxidation-Reduction Potential (field)	mV	**	***	***	***	86.7	---	***	44.6
pH (laboratory)	S.U.	8.11	8.65	8.24	**	8.51	---	8.23	8.2
pH (field)	S.U.	**	***	***	***	7.48	---	***	7.29
Potassium	mg/L	11.1	9.04	23.6	**	9.25	---	6.25	7.58
Sodium	mg/L	573	603	847	**	948	---	616	889
Specific Conductance (laboratory)	umhos/cm	---	2540	2930	**	4030	---	4640	4330
Specific Conductance (field)	umhos/cm	**	***	***	***	3731	---	***	3477
Sulfate	mg/L	1090	733	942	**	1070	---	684	1220
Sulfide	mg/L	**	**	---	**	**	---	<1.00	***
Temperature (field)	°C	**	***	***	***	20.7	---	***	18.2
Total Dissolved Solids	mg/L	2240	1310	2340	**	3580	---	2810	4590
Turbidity (field)	NTU	**	***	***	***	>1000	---	***	>1000
Filtered Turbidity (field)	NTU	**	***	***	***	---	---	***	***

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
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 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING		CMA SAMPLING					
		CM-4A	CM-4A	CM-4A	CM-4A	CM-4A		CM-4A	CM-4A
		24-Jul-20	8-Oct-20	30-Mar-21	13-Oct-21	(SAMPLE)	(RESAMPLE)	4-Oct-22	11-Apr-23
Total Alkalinity as CaCO3	mg/L	470	557	510	605	619	---	616	416
Carbonate Alkalinity as CaCO3	mg/L	20	5.28	<5.00	<5.00	<5.00	---	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	450	552	510	605	619	---	616	416
Hydroxide Alkalinity	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	3.03	4.42	3.24	3.56	4.69	---	4.12	1.82
Calcium	mg/L	103	71.7	59.1	66.5	162	---	117	78.3
Chloride	mg/L	92.4	105	109	90.2	82.9	---	77.1	29.7
Dissolved Oxygen (field)	mg/L	2.68	***	3.93	5.31	4.31	---	4.15	5.05
Fluoride	mg/L	0.879	0.602	0.947	0.737	0.787	---	0.795	0.718
Iron, Total	mg/L	40	6.78	7.67	4.64	21.6	---	14.2	9.5
Iron, Dissolved	mg/L	0.0205 J	0.0162 J	0.0149 J	<0.0120	0.0901 J	---	0.0782 J	0.0178 J
Iron, Ferric	mg/L	---	---	6.98	4.10	19.5	---	7.36	9.50
Iron, Ferric, Dissolved	mg/L	---	---	<0.0200	<0.0200	<0.0200	---	0.0436 J	<0.0200
Iron, Ferrous	mg/L	1.92	10.3	0.69	0.544	2.14	---	6.84	<0.0200
Iron, Ferrous, Dissolved	mg/L	---	---	0.278	<0.0200 H	0.0720	---	0.0350 J	<0.0200
Magnesium	mg/L	16.7	15.2	13.5	16.4	20.8	---	17.9	8.0
Molybdenum, Total	mg/L	0.0269	0.0271	0.0212	0.0105	0.00455 J	---	0.00449 J	0.00436 J
Molybdenum, Dissolved	mg/L	0.0529	0.0391	0.0255	0.0194	0.0183	---	0.017	0.00595
Nitrate as N	mg/L	---	27	20	21.6	16.4	---	18.3	4.35
Oxidation-Reduction Potential (field)	mV	238.4	***	210.6	111.4	154.2	---	219.8	119.1
pH (laboratory)	S.U.	7.82	7.98	7.64	8.14	7.84	---	7.53	7.7
pH (field)	S.U.	7.6	***	7.74	7.64	7.87	---	7.57	7.69
Potassium	mg/L	14.3	8.13	8.26	7.82	9.42	---	8.43	5.37
Sodium	mg/L	443	654	580	709	772	---	716	299
Specific Conductance (laboratory)	umhos/cm	---	4150	3630	4030	3700	---	4080	1740
Specific Conductance (field)	umhos/cm	2939	***	3612	3240	3489	---	3035	1697
Sulfate	mg/L	1050	1260	1300	1160	1070	---	1100	438
Sulfide	mg/L	4	<1.00	<1.00	<1.00	<1.00	---	2.08	<1.70
Temperature (field)	°C	20.2	***	18.9	21.1	15.8	---	20.2	19.7
Total Dissolved Solids	mg/L	1900	2630	2660	2830	2420	---	2420	1330
Turbidity (field)	NTU	692	***	>1,000	>1000	>1000	---	>1000	>1000
Filtered Turbidity (field)	NTU	0.4	***	0.54	2.13	6.74	---	3.32	1.4

Notes:

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 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING		CMA SAMPLING					
		CM-4B	CM-4B	CM-4B	CM-4B	CM-4B		CM-4B	CM-4B
		24-Jul-20	8-Oct-20	30-Mar-21	13-Oct-21	(SAMPLE)	(RESAMPLE)	4-Oct-22	11-Apr-23
Total Alkalinity as CaCO3	mg/L	436	520	448	589	565	---	587	580
Carbonate Alkalinity as CaCO3	mg/L	15.7	24.5	<5.00	<5.00	<5.00	---	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	420	495	448	589	565	---	583	580
Hydroxide Alkalinity	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	3.14	4.31	3.63	3.79	4.90	---	4.89	5.25
Calcium	mg/L	56.5	47.1	42.1	79.1	56.2	---	86.1	55.2
Chloride	mg/L	69.9	95.3	119	113	112	---	109	51
Dissolved Oxygen (field)	mg/L	2.88	***	5.52	7.70	2.87	---	5.19	6.59
Fluoride	mg/L	1.01	1.07	1.4	1.05	0.944	---	1.23	0.53
Iron, Total	mg/L	4.25	1.27	2.19	13.0	1.15	---	8.11	0.503
Iron, Dissolved	mg/L	0.0123 J	1.56	0.0156 J	0.0134 J	0.0421 J	---	0.459	<0.0120
Iron, Ferric	mg/L	---	---	1.03	11.4	1.02	---	1.95	0.503
Iron, Ferric, Dissolved	mg/L	---	---	<0.0200	<0.0200	<0.0200	---	0.0416 J	<0.0200
Iron, Ferrous	mg/L	19.2	5.17	1.16	1.64	0.134	---	6.16	<0.0200
Iron, Ferrous, Dissolved	mg/L	---	---	0.406	<0.0200 H	0.0750	---	0.0430 J	<0.0200
Magnesium	mg/L	14	12.1	13	17.8	17.5	---	19.5	17.4
Molybdenum, Total	mg/L	0.0307	0.0306	0.0303	0.0131	0.0184	---	0.00771	0.0123
Molybdenum, Dissolved	mg/L	0.0354	0.0271	0.0344	0.0235	0.0194	---	0.0147	0.0122
Nitrate as N	mg/L	---	7.22	17.8	22.2	34.0	---	36	19
Oxidation-Reduction Potential (field)	mV	292.1	***	214.4	63.6	154.2	---	247	108.6
pH (laboratory)	S.U.	7.78	8.32	7.84	8.04	8.01	---	7.67	7.63
pH (field)	S.U.	7.45	***	7.89	7.69	7.99	---	7.57	7.56
Potassium	mg/L	10.2	7.12	7.46	8.42	8.19	---	8.61	8.08
Sodium	mg/L	529	764	769	865	1140	---	963	1040
Specific Conductance (laboratory)	umhos/cm	---	4260	4160	4400	4710	---	5260	4680
Specific Conductance (field)	umhos/cm	3331	***	4107	3801	4207	---	3917	4371
Sulfate	mg/L	1360	1460	1620	1590	1500	---	1560	716
Sulfide	mg/L	5	<1.00	<1.00	<1.00	<1.00	---	5.68	<1.70
Temperature (field)	°C	20.7	***	19.2	21.2	16.7	---	20.7	20.1
Total Dissolved Solids	mg/L	2240	2750	3040	2980	3310	---	3240	4050
Turbidity (field)	NTU	158	***	>1,000	>1000	>1000	---	>1000	>1000
Filtered Turbidity (field)	NTU	---	***	0.5	1.92	1.20	---	30.2	2.01

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT C
 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING		CMA SAMPLING					
		CM-5A	CM-5A	CM-5A	CM-5A	CM-5A		CM-5A	CM-5A
		24-Jul-20	8-Oct-20	30-Mar-21	13-Oct-21	(SAMPLE)	(RESAMPLE)	4-Oct-22	11-Apr-23
Total Alkalinity as CaCO3	mg/L	451	541	445	538	515	---	498	505
Carbonate Alkalinity as CaCO3	mg/L	7.91	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	443	541	445	538	515	---	498	505
Hydroxide Alkalinity	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	3.92	4.67	4.97	4.57	6.34	---	5.44	6.16
Calcium	mg/L	102	86.7	102	143	170	---	135	131
Chloride	mg/L	93.9	130	154	134	115	---	109	101
Dissolved Oxygen (field)	mg/L	3.81	***	3.36	6.35	3.21	---	5.33	3.65
Fluoride	mg/L	1.09	0.602	0.667	0.682	0.852	---	0.748	0.807
Iron, Total	mg/L	28.4	5.43	3.27	13.6	22.3	---	12.3	16.1
Iron, Dissolved	mg/L	<0.0120	<0.0120	0.0799 J	<0.0120	0.876	---	0.150 J	0.0420 J
Iron, Ferric	mg/L	---	---	1.21	10.9	20.8	---	5.64	12.30
Iron, Ferric, Dissolved	mg/L	---	---	<0.0200	<0.0200	0.876	---	0.111	0.0420 J
Iron, Ferrous	mg/L	0.561	4.63	2.06	2.72	1.45	---	6.66	3.84
Iron, Ferrous, Dissolved	mg/L	---	---	0.673	<0.0200 H	<0.0200	---	0.0390 J	<0.0200
Magnesium	mg/L	15.8	18.4	26	29.9	27.8	---	23.8	20.9
Molybdenum, Total	mg/L	0.0205	0.011	0.0182	0.00580	0.00351 J	---	0.00317 J	0.00276 J
Molybdenum, Dissolved	mg/L	0.0352	0.0214	0.0192	0.0165	0.0129	---	0.0105	0.00855
Nitrate as N	mg/L	---	27.4	27.2	24.4	20.2	---	18.6	8.85
Oxidation-Reduction Potential (field)	mV	270.1	***	217.6	126.0	123.3	---	223.9	142.7
pH (laboratory)	S.U.	7.7	7.96	7.46	7.75	7.92	---	7.67	7.6
pH (field)	S.U.	7.4	***	7.35	7.49	7.76	---	7.49	7.51
Potassium	mg/L	13.3	8.41	10.4	11.5	11.1	---	9.73	9.91
Sodium	mg/L	448	632	761	749	791	---	746	804
Specific Conductance (laboratory)	umhos/cm	---	4180	4180	4130	3980	---	4190	3520
Specific Conductance (field)	umhos/cm	2617	***	4132	3626	3736	---	3167	3316
Sulfate	mg/L	808	1290	1540	1480	1250	---	1200	1210
Sulfide	mg/L	<1.00	1.36	1.36	<1.00	<1.00	---	25.2	<1.70
Temperature (field)	°C	22.5	***	19.2	21.0	15.8	---	20.2	19.5
Total Dissolved Solids	mg/L	1840	2680	3260	2900	2620	---	2650	2870
Turbidity (field)	NTU	204	***	>1,000	>1000	>1000	---	>1000	>1000
Filtered Turbidity (field)	NTU	0.61	***	0.86	36.8	4.77	---	2.28	1.53

Notes:

1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
9. --- : no analysis performed.
10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
12. *** : Insufficient sample volume for field measurements.
13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT C
 TABULATION OF DATA
 SEMI-ANNUAL CMA SAMPLING
 WESTERN FARMERS ELECTRIC COOPERATIVE - HUGO POWER STATION

Parameters	Sample ID: Sample Date:	PREVIOUS SAMPLING		CMA SAMPLING					
		CM-5B	CM-5B	CM-5B	CM-5B	CM-5B		CM-5B	CM-5B
		24-Jul-20	9-Oct-20	30-Mar-21	13-Oct-21	(SAMPLE)	(RESAMPLE)	4-Oct-22	11-Apr-23
Total Alkalinity as CaCO3	mg/L	421	525	486	613	594	---	586	582
Carbonate Alkalinity as CaCO3	mg/L	22.6	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Bicarbonate Alkalinity as CaCO3	mg/L	398	520	486	613	594	---	586	582
Hydroxide Alkalinity	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	---	<5.00	<5.00
Boron	mg/L	3.8	4.42	3.86	4.37	5.91	---	4.3	6.08
Calcium	mg/L	115	56.4	46	56.8	59.8	---	92.7	90.1
Chloride	mg/L	107	113	145	141	147	---	134	129
Dissolved Oxygen (field)	mg/L	3.35	***	4.46	3.41	5.38	---	4.66	4.52
Fluoride	mg/L	0.636	0.786	1.15	0.925	0.838	---	1.1	1.09
Iron, Total	mg/L	32.3	1.26	1.73	3.61	0.0358 J	---	9.04	5.47
Iron, Dissolved	mg/L	0.0246 J	1.87	0.214 J	<0.0120	3.16	---	0.0653 J	<0.012
Iron, Ferric	mg/L	---	---	0.47	2.97	<0.0200	---	0.08	5.47
Iron, Ferric, Dissolved	mg/L	---	---	<0.0200	<0.0200	3.16	---	0.0333 J	<0.0200
Iron, Ferrous	mg/L	0.671	10.6	1.26	0.641	2.30	---	8.96	<0.0200
Iron, Ferrous, Dissolved	mg/L	---	---	0.206	<0.0200 H	<0.0200	---	0.0320 J	<0.0200
Magnesium	mg/L	22	15.8	14	18.8	19.5	---	20.3	21.1
Molybdenum, Total	mg/L	0.04	0.0394	0.0536	0.0448	0.0361	---	0.0102	0.0126
Molybdenum, Dissolved	mg/L	0.0515	0.0359	0.0594	0.0418	0.0294	---	0.0233	0.0232
Nitrate as N	mg/L	---	25.8	58.0 H	59.8	66.7	---	76.7	89.3
Oxidation-Reduction Potential (field)	mV	229	***	224.2	50.8	27.2	---	183.4	109.2
pH (laboratory)	S.U.	7.94	7.84	7.67	7.92	7.82	---	7.6	7.6
pH (field)	S.U.	7.53	***	7.8	7.56	7.72	---	7.44	7.51
Potassium	mg/L	15.2	7.73	8	10.1	8.55	---	8.45	9.88
Sodium	mg/L	587	762	671	836	986	---	718	1000
Specific Conductance (laboratory)	umhos/cm	---	4570	4130	4250	4450	---	5030	4470
Specific Conductance (field)	umhos/cm	3617	***	3914	3673	4126	---	3900	4245
Sulfate	mg/L	1470	1430	1330	1310	1170	---	1230	1330
Sulfide	mg/L	8	6.4	<1.00	1.28	39.8	---	<1.00	<1.70
Temperature (field)	°C	21.7	***	18.8	21.0	15.5	---	21.7	21.6
Total Dissolved Solids	mg/L	2570	2910	3120	2910	3060	---	3160	3360
Turbidity (field)	NTU	616	***	>1,000	>1000	>1000	---	>1000	>1000
Filtered Turbidity (field)	NTU	0.25	***	12.1	0.93	3.56	---	8.42	2.52

Notes:

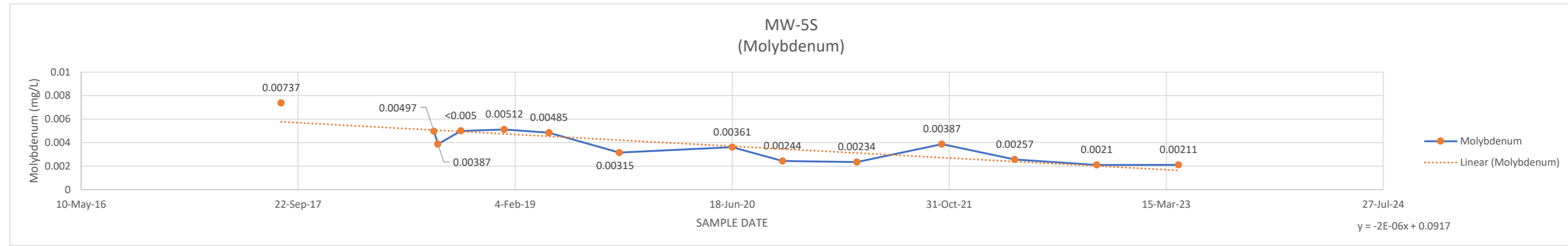
1. mg/L : milligrams per liter.
2. S.U. : Standard Units.
3. °C : degrees Celsius.
4. umhos/cm : micromhos per centimeter.
5. mV : millivolts.
6. NTU : Nephelometric Turbidity Unit.
7. < : Analyte not detected at the laboratory method detection limit (MDL).
8. J : Result is less than the Reporting Limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.
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10. H : Analyzed outside of holding time..
11. ** : Insufficient sample volume for analysis due to well depletion.
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13. ^ : Data for select parameters from the First 2022 Assessment Monitoring were determined to not be valid due to use of inappropriate preservative. Resampling for these was conducted in June 2022. For these, data from June 2022 is appropriate for statistical evaluation.

ATTACHMENT D

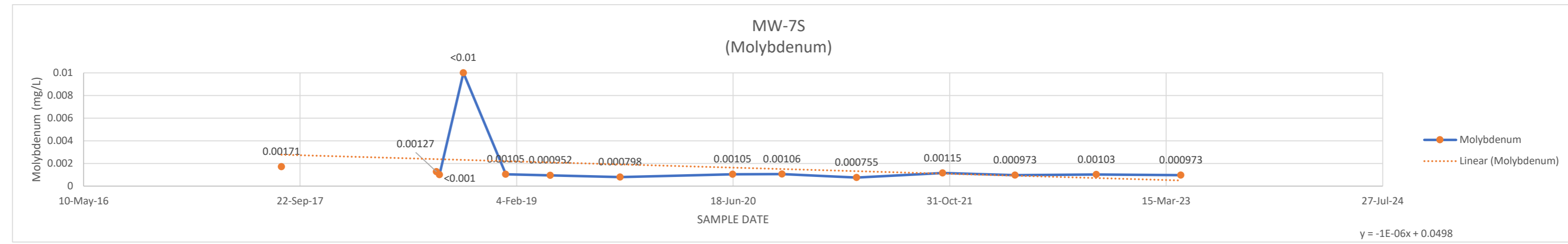
CHANGES IN MOLYBDENUM CONCENTRATION OVER SAMPLING HISTORY

ATTACHMENT D
CHANGES IN MOLYBDENUM CONCENTRATION OVER SAMPLING HISTORY

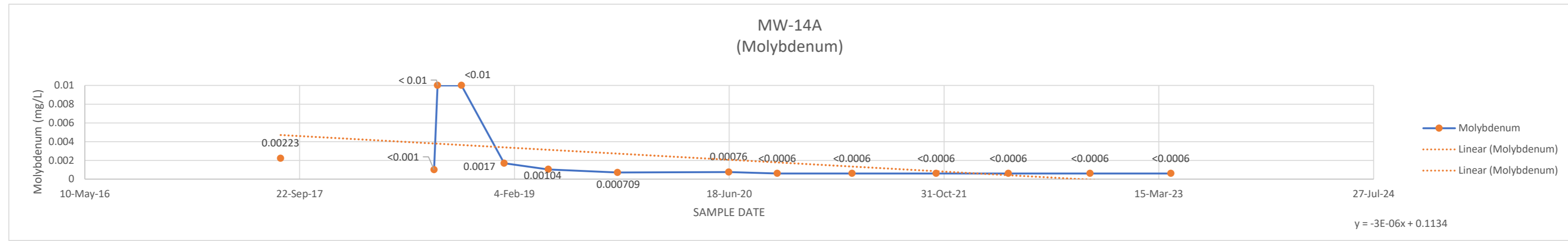
MW-5S	DATE	MOLYBDENUM
	14-Aug-17	0.00737
	22-May-18	
	1-Aug-18	0.00497
	10-Aug-18	0.00387
	2-Oct-18	0.005
	10-Jan-19	0.00512
	23-Apr-19	0.00485
	2-Oct-19	0.00315
	18-Jun-20	0.00361
	12-Oct-20	0.00244
	1-Apr-21	0.00234
	14-Oct-21	0.00387
	31-Mar-22	0.00257
	6-Oct-22	0.0021
	12-Apr-23	0.00211



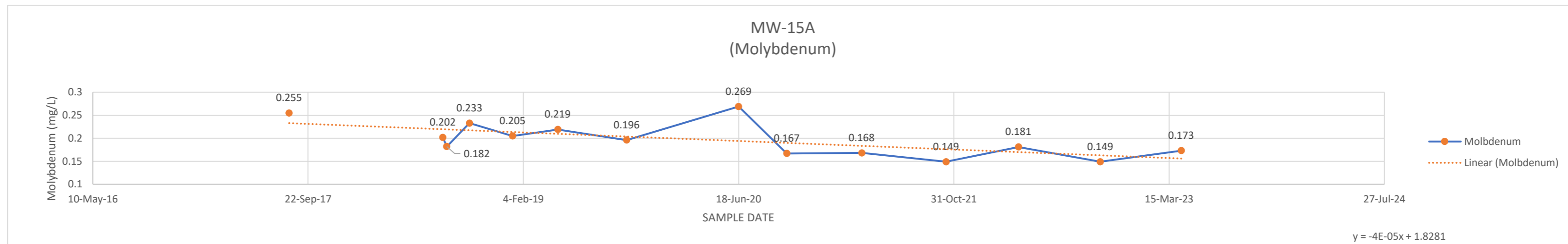
MW-7S	DATE	MOLYBDENUM
	10-Aug-17	0.00171
	17-May-18	
	3-Aug-18	0.00127
	10-Aug-18	0.001
	4-Oct-18	0.01
	10-Jan-19	0.00105
	23-Apr-19	0.000952
	1-Oct-19	0.000798
	17-Jun-20	0.00105
	9-Oct-20	0.00106
	30-Mar-21	0.000755
	15-Oct-21	0.00115
	31-Mar-22	0.000973
	5-Oct-22	0.00103
	18-Apr-23	0.000973



MW-14A	DATE	MOLYBDENUM
	9-Aug-17	0.00223
	17-May-18	
	1-Aug-18	0.001
	9-Aug-18	0.01
	4-Oct-18	0.01
	11-Jan-19	0.0017
	24-Apr-19	0.00104
	2-Oct-19	0.000709
	17-Jun-20	0.00076
	8-Oct-20	0.0006
	31-Mar-21	0.0006
	13-Oct-21	0.0006
	30-Mar-22	0.0006
	6-Oct-22	0.0006
	12-Apr-23	0.0006

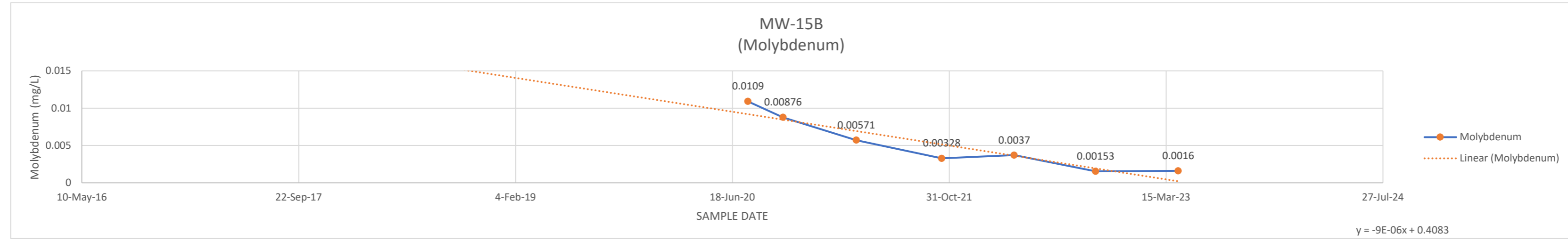


MW-15A	DATE	MOLYBDENUM
	9-Aug-17	0.255
	24-May-18	
	1-Aug-18	0.202
	10-Aug-18	0.182
	2-Oct-18	0.233
	10-Jan-19	0.205
	25-Apr-19	0.219
	2-Oct-19	0.196
	18-Jun-20	0.269
	8-Oct-20	0.167
	31-Mar-21	0.168
	13-Oct-21	0.149
	30-Mar-22	0.181
	6-Oct-22	0.149
	12-Apr-23	0.173

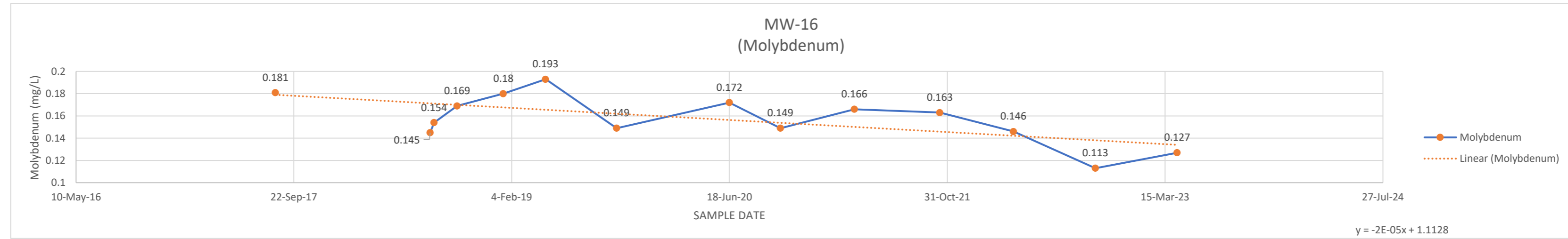


ATTACHMENT D
CHANGES IN MOLYBDENUM CONCENTRATION OVER SAMPLING HISTORY

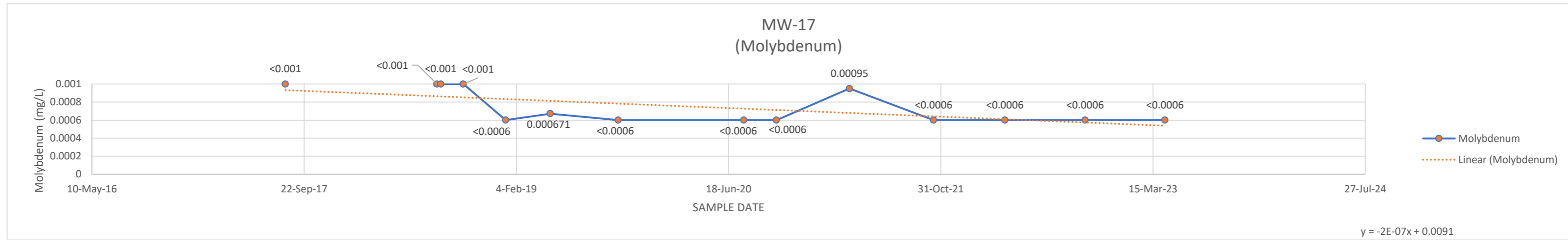
MW-15B	MOLYBDENUM
DATE	
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
24-Jul-20	0.0109
13-Oct-20	0.00876
31-Mar-21	0.00571
14-Oct-21	0.00328
30-Mar-22	0.0037
4-Oct-22	0.00153
12-Apr-23	0.0016



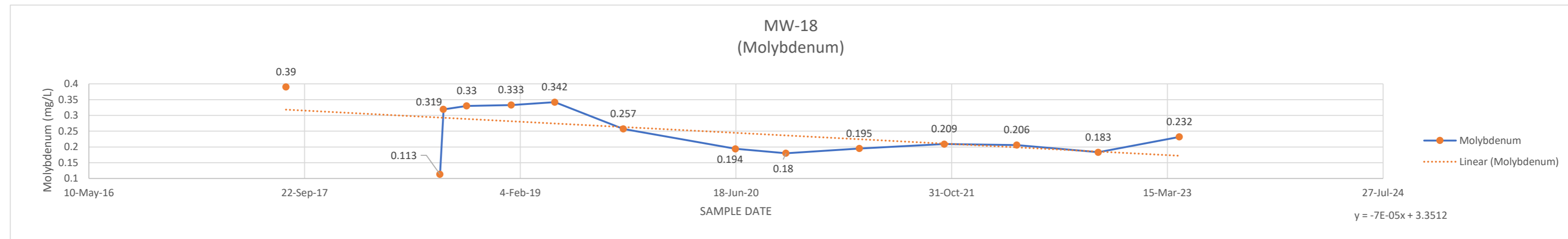
MW-16	MOLYBDENUM
DATE	
11-Aug-17	0.181
22-May-18	
1-Aug-18	0.145
10-Aug-18	0.154
2-Oct-18	0.169
16-Jan-19	0.18
23-Apr-19	0.193
3-Oct-19	0.149
18-Jun-20	0.172
13-Oct-20	0.149
1-Apr-21	0.166
14-Oct-21	0.163
1-Apr-22	0.146
6-Oct-22	0.113
12-Apr-23	0.127



MW-17	MOLYBDENUM
DATE	
9-Aug-17	0.001
24-May-18	
1-Aug-18	0.001
10-Aug-18	0.001
2-Oct-18	0.001
10-Jan-19	0.0006
25-Apr-19	0.000671
2-Oct-19	0.0006
24-Jul-20	0.0006
9-Oct-20	0.0006
30-Mar-21	0.00095
14-Oct-21	0.0006
31-Mar-22	0.0006
6-Oct-22	0.0006
12-Apr-23	0.0006

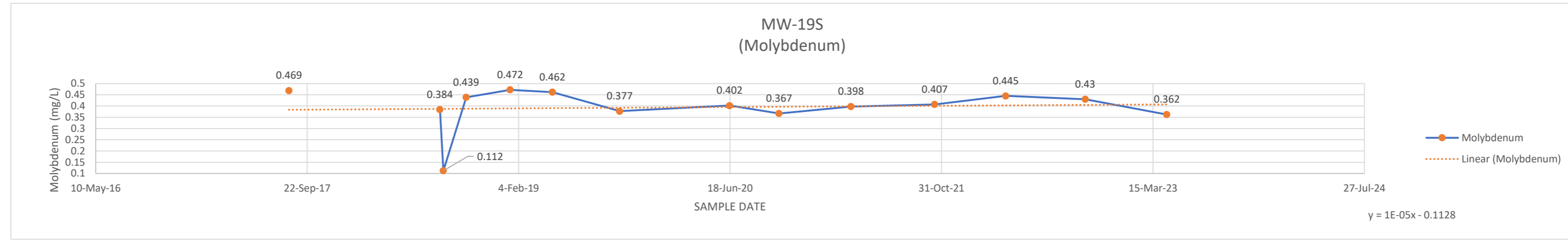


MW-18	MOLYBDENUM
DATE	
10-Aug-17	0.39
18-May-18	
2-Aug-18	0.113
10-Aug-18	0.319
3-Oct-18	0.33
14-Jan-19	0.333
25-Apr-19	0.342
1-Oct-19	0.257
17-Jun-20	0.194
12-Oct-20	0.18
31-Mar-21	0.195
14-Oct-21	0.209
31-Mar-22	0.206
6-Oct-22	0.183
12-Apr-23	0.232

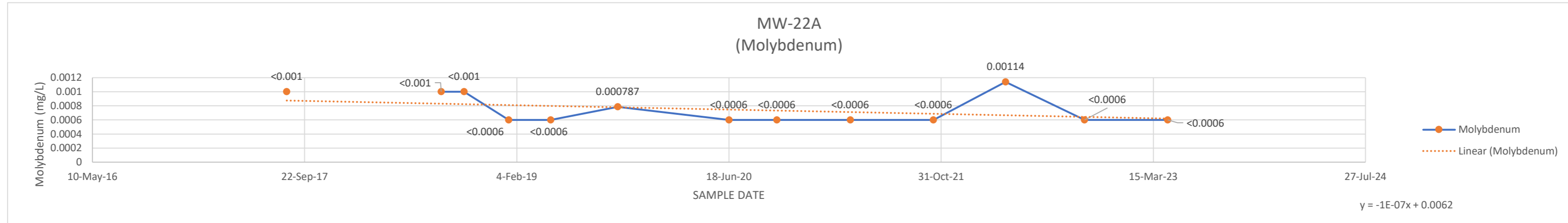


ATTACHMENT D
CHANGES IN MOLYBDENUM CONCENTRATION OVER SAMPLING HISTORY

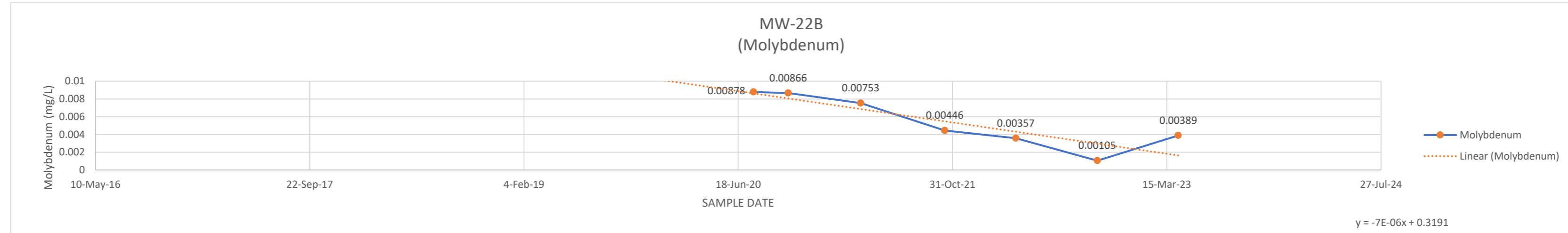
MW-19S	MOLYBDENUM
DATE	
10-Aug-17	0.469
18-May-18	
2-Aug-18	0.384
10-Aug-18	0.112
3-Oct-18	0.439
15-Jan-19	0.472
25-Apr-19	0.462
1-Oct-19	0.377
17-Jun-20	0.402
12-Oct-20	0.367
31-Mar-21	0.398
15-Oct-21	0.407
1-Apr-22	0.445
6-Oct-22	0.43
17-Apr-23	0.362



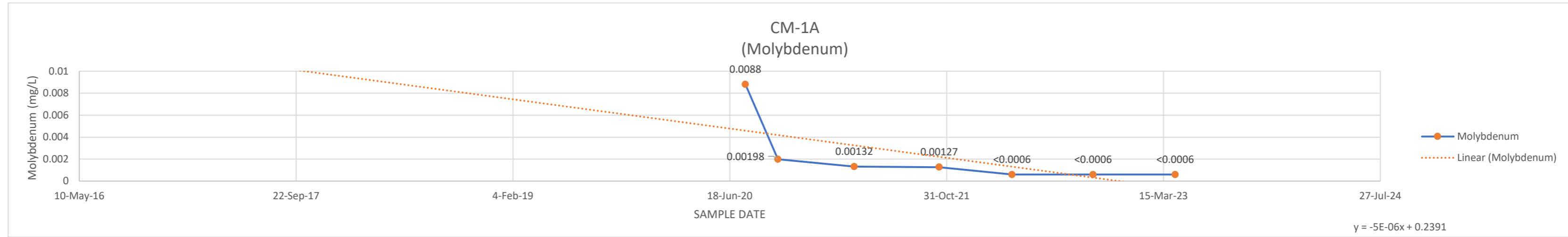
MW-22A	MOLYBDENUM
DATE	
11-Aug-17	0.001
22-May-18	
10-Aug-18	0.001
3-Oct-18	0.001
16-Jan-19	0.0006
25-Apr-19	0.0006
30-Sep-19	0.000787
18-Jun-20	0.0006
9-Oct-20	0.0006
31-Mar-21	0.0006
13-Oct-21	0.0006
1-Apr-22	0.00114
4-Oct-22	0.0006
18-Apr-23	0.0006



MW-22B	MOLYBDENUM
DATE	
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
24-Jul-20	0.00878
13-Oct-20	0.00866
31-Mar-21	0.00753
13-Oct-21	0.00446
28-Mar-22	0.00357
4-Oct-22	0.00105
11-Apr-23	0.00389

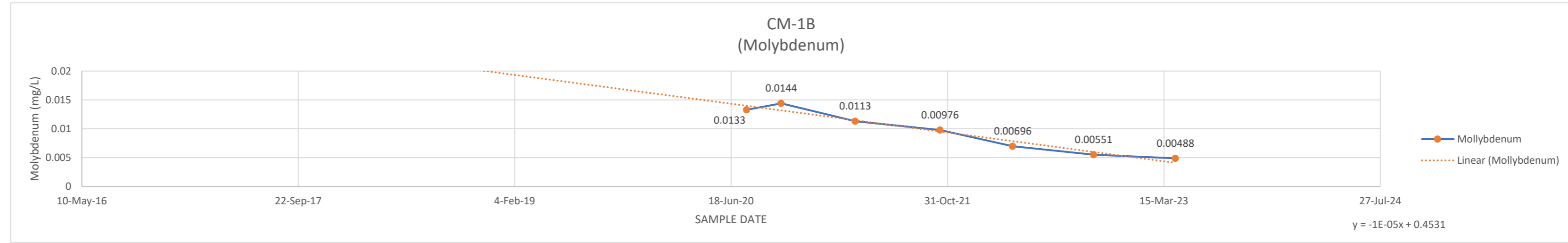


CM-1A	MOLYBDENUM
DATE	
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
24-Jul-20	0.0088
7-Oct-20	0.00198
1-Apr-21	0.00132
14-Oct-21	0.00127
31-Mar-22	0.0006
4-Oct-22	0.0006
11-Apr-23	0.0006

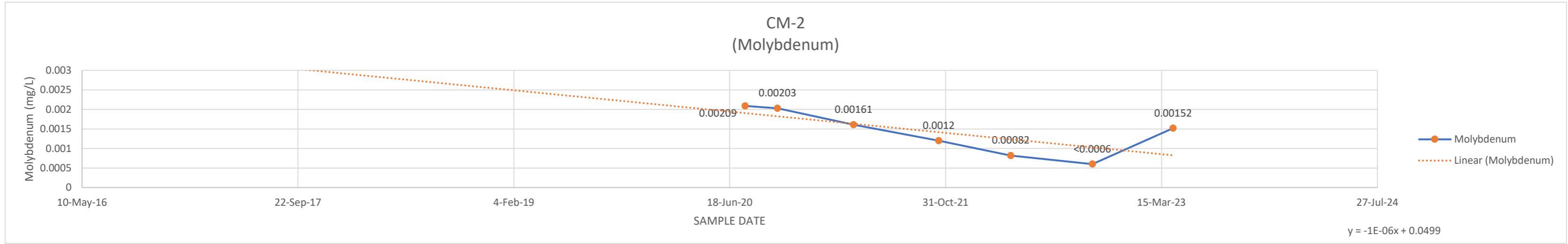


ATTACHMENT D
CHANGES IN MOLYBDENUM CONCENTRATION OVER SAMPLING HISTORY

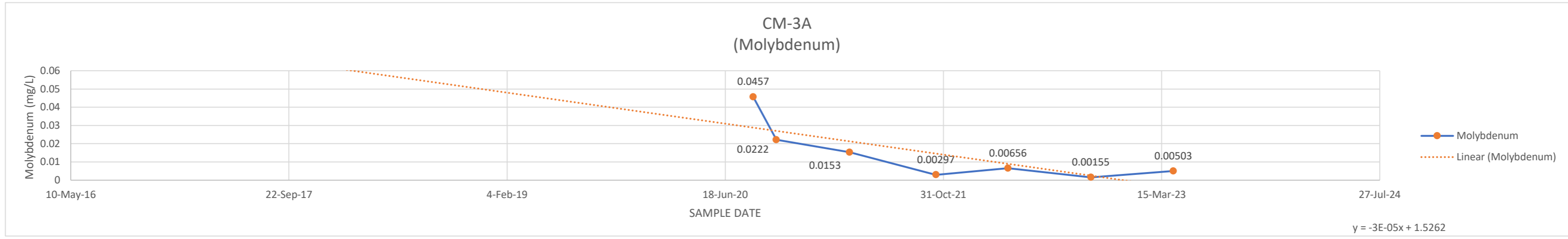
CM-1B DATE	MOLYBDENUM
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
24-Jul-20	0.0133
12-Oct-20	0.0144
1-Apr-21	0.0113
14-Oct-21	0.00976
31-Mar-22	0.00696
4-Oct-22	0.00551
11-Apr-23	0.00488



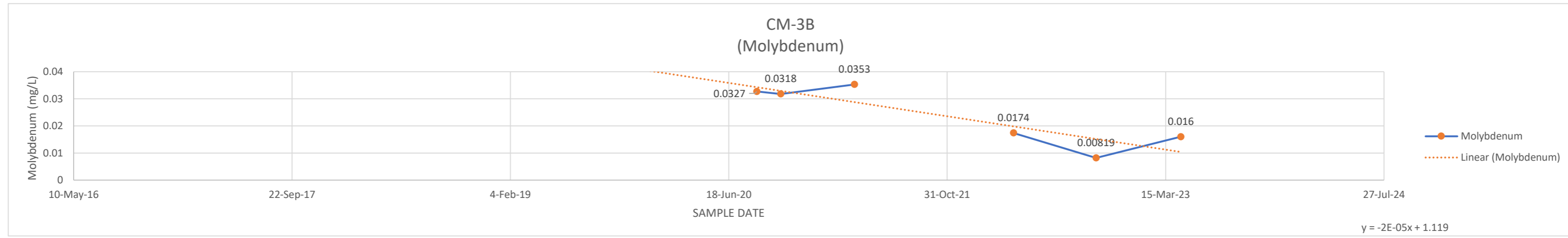
CM-2 DATE	MOLYBDENUM
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
24-Jul-20	0.00209
7-Oct-20	0.00203
1-Apr-21	0.00161
15-Oct-21	0.0012
31-Mar-22	0.00082
6-Oct-22	0.0006
11-Apr-23	0.00152



CM-3A DATE	MOLYBDENUM
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
21-Aug-20	0.0457
13-Oct-20	0.0222
30-Mar-21	0.0153
14-Oct-21	0.00297
28-Mar-22	0.00656
4-Oct-22	0.00155
11-Apr-23	0.00503

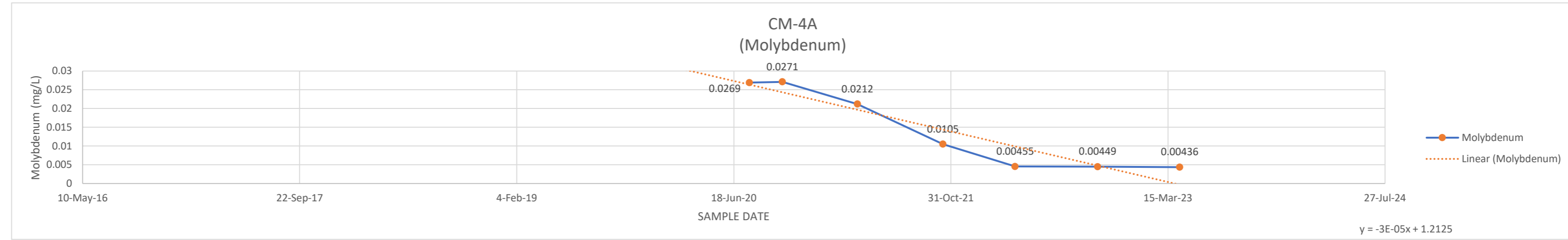


CM-3B DATE	MOLYBDENUM
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
21-Aug-20	0.0327
15-Oct-20	0.0318
2-Apr-21	0.0353
11-Oct-21	
1-Apr-22	0.0174
7-Oct-22	0.00819
19-Apr-23	0.016

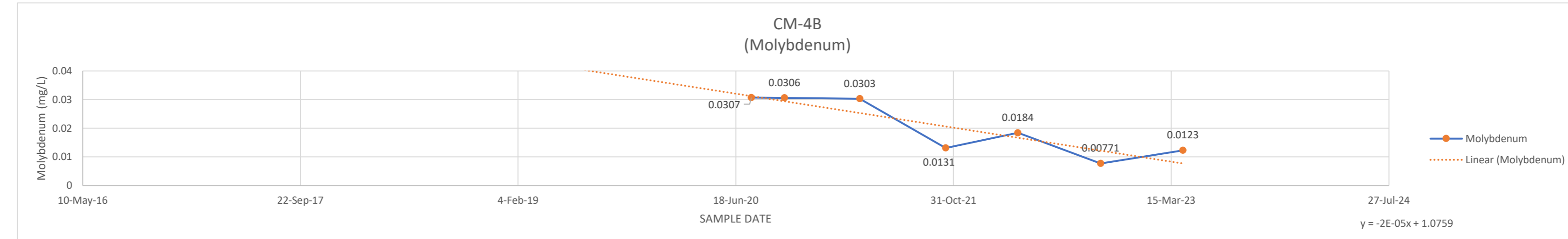


ATTACHMENT D
CHANGES IN MOLYBDENUM CONCENTRATION OVER SAMPLING HISTORY

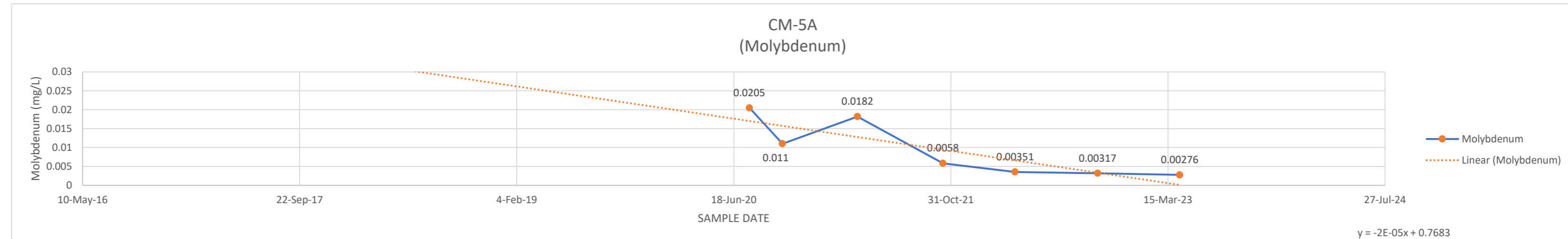
CM-4A DATE	MOLYBDENUM
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
24-Jul-20	0.0269
8-Oct-20	0.0271
30-Mar-21	0.0212
13-Oct-21	0.0105
28-Mar-22	0.00455
4-Oct-22	0.00449
11-Apr-23	0.00436



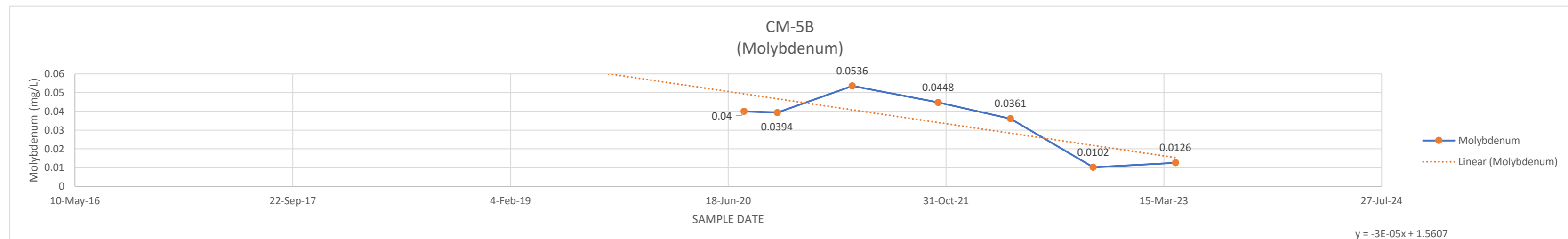
CM-4B DATE	MOLYBDENUM
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
24-Jul-20	0.0307
8-Oct-20	0.0306
30-Mar-21	0.0303
13-Oct-21	0.0131
28-Mar-22	0.0184
4-Oct-22	0.00771
11-Apr-23	0.0123



CM-5A DATE	MOLYBDENUM
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
24-Jul-20	0.0205
8-Oct-20	0.011
30-Mar-21	0.0182
13-Oct-21	0.0058
28-Mar-22	0.00351
4-Oct-22	0.00317
11-Apr-23	0.00276



CM-5B DATE	MOLYBDENUM
9-Aug-17	
24-May-18	
1-Aug-18	
10-Aug-18	
2-Oct-18	
10-Jan-19	
25-Apr-19	
2-Oct-19	
24-Jul-20	0.04
9-Oct-20	0.0394
30-Mar-21	0.0536
13-Oct-21	0.0448
28-Mar-22	0.0361
4-Oct-22	0.0102
11-Apr-23	0.0126



Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT E

COMPARISON OF CHANGES IN MEAN CONCENTRATION FOR MOLOYBDENUM

ATTACHMENT E
COMPARISON OF CHANGES IN MEAN CONCENTRATION FOR MOLYBDENUM

	CONCENTRATION (ENTIRE SAMPLING HISTORY)	MEAN MOLYBDENUM CONCENTRATION (EXCEPT LAST FOUR) ^{1,2}	MEAN MOLYBDENUM CONCENTRATION (LAST FOUR) ³	PERCENT DIFFERENCE ⁴
MW-5S	0.00381	0.00427	0.00266	-37.68
MW-7S	0.00170	0.00196	0.00103	-47.49
MW-14A	0.00222	0.00286	0.00060	-79.05
MW-15A	0.19629	0.20960	0.16300	-22.23
MW-15B	0.00507	0.00846	0.00253	-70.11
MW-16	0.15764	0.16580	0.13725	-17.22
MW-17	0.00076	0.00079	0.00069	-12.49
MW-18	0.24879	0.26530	0.20750	-21.79
MW-19S	0.39471	0.38820	0.41100	5.87
MW-22A	0.00075	0.00075	0.00074	-2.53
MW-22B	0.00542	0.00832	0.00324	-61.04
CM-1A	0.00217	0.00403	0.00077	-80.97
CM-1B	0.00944	0.01300	0.00678	-47.87
CM-2	0.00141	0.00191	0.00104	-45.81
CM-3A	0.01419	0.02773	0.00403	-85.48
CM-3B	0.02357	0.03225	0.01922	-40.40
CM-4A	0.01416	0.02507	0.00598	-76.16
CM-4B	0.02044	0.03053	0.01288	-57.82
CM-5A	0.00928	0.01657	0.00381	-77.00
CM-5B	0.03381	0.04433	0.02593	-41.52

1) Mean Molybdenum Concentration (Except Last Four) is based on sampling conducted from August 2017 through October 2020. It is based on nine sampling events for MW-5S, MW-7S, MW-14A, MW-15A, MW-16, MW-17, MW-18, and MW-19S. It is based on eight sampling events for MW-22A.

2) MW-15B, MW-22B, CM-1A, CM-1B, CM-2, CM-3A, CM-3B, CM-4A, CM-4B, CM-5A, and CM-5B were not sampled for Molybdenum until June/July 2020. Mean Molybdenum Concentration (Except Last Four) for these is based on two sampling events (June/July 2020 and October 2020).

3) Mean Molybdenum Concentration (Last Four) for all wells is based on four sampling events conducted from March/April 2021 through October 2022.

4) Percent difference is the difference between Mean Molybdenum Concentration (Except Last Four) and the Mean Molybdenum Concentration (Last Four). A negative percent difference represents a decrease in Mean Molybdenum concentration from the last four sampling events over the Mean Molybdenum concentration from all previous sampling.

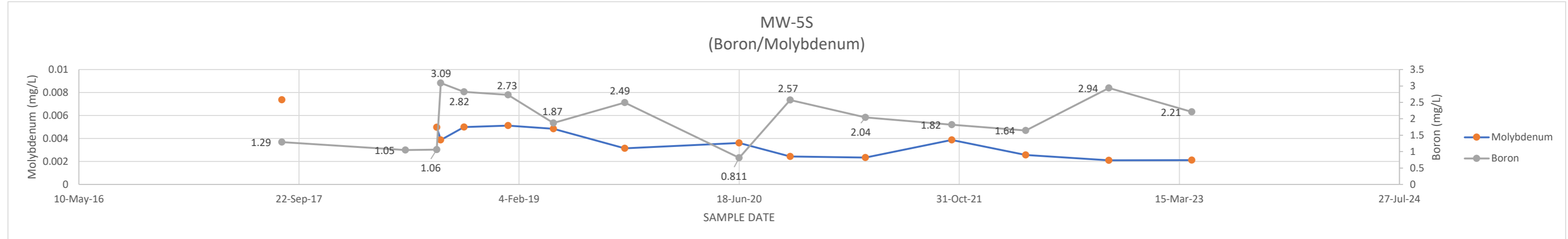
ATTACHMENT F

CHANGES IN CONCENTRATION OF CCR APPENDIX III PARAMETERS COMPARED TO CHANGES IN MOLYBDENUM CONCENTRATION OVER SAMPLING HISTORY

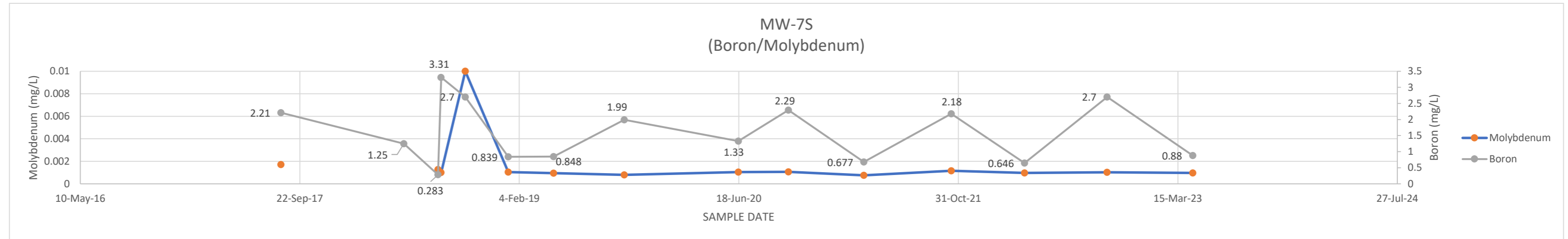
- F-1: CHANGES IN BORON AND MOLYBDENUM CONCENTRATIONS
- F-2: CHANGES IN CHLORIDE AND MOLYBDENUM CONCENTRATIONS
- F-3A: CHANGES IN PH (FIELD) AND MOLYBDENUM CONCENTRATIONS
- F-3B: CHANGES IN PH (LAB) AND MOLYBDENUM CONCENTRATIONS
- F-4: CHANGES IN TDS AND MOLYBDENUM CONCENTRATIONS
- F-5: CHANGES IN CALCIUM AND MOLYBDENUM CONCENTRATIONS
- F-6: CHANGES IN FLUORIDE AND MOLYBDENUM CONCENTRATIONS
- F-7: CHANGES IN SULFATE AND MOLYBDENUM CONCENTRATIONS

ATTACHMENT F-1
CHANGES IN BORON AND MOLYBDENUM CONCENTRATIONS

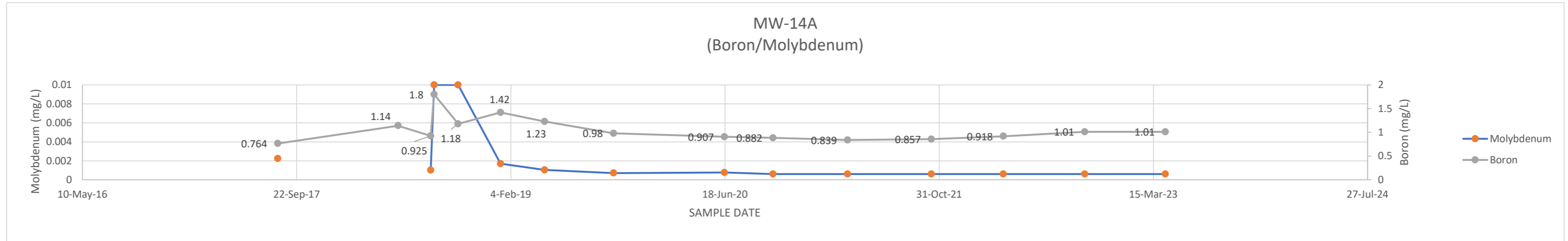
MW-5S		
DATE	BORON	MOLYBDENUM
14-Aug-17	1.29	0.00737
22-May-18	1.05	
1-Aug-18	1.06	0.00497
10-Aug-18	3.09	0.00387
2-Oct-18	2.82	0.005
10-Jan-19	2.73	0.00512
23-Apr-19	1.87	0.00485
2-Oct-19	2.49	0.00315
18-Jun-20	0.811	0.00361
12-Oct-20	2.57	0.00244
1-Apr-21	2.04	0.00234
14-Oct-21	1.82	0.00387
31-Mar-22	1.64	0.00257
6-Oct-22	2.94	0.0021
12-Apr-23	2.21	0.00211



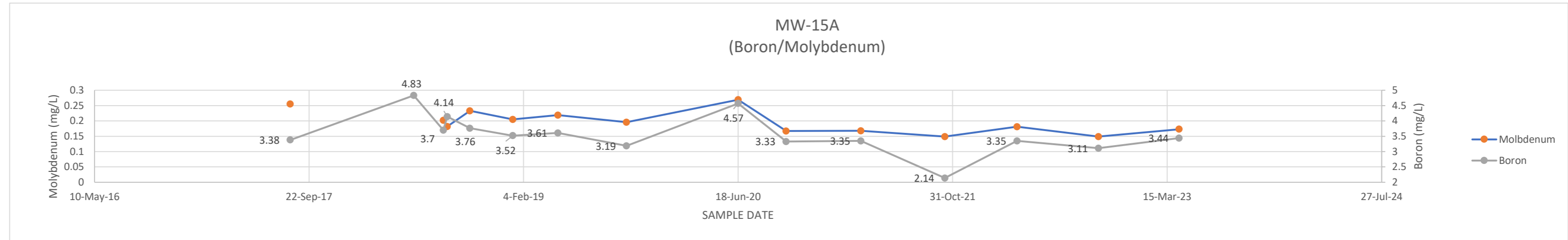
MW-7S		
DATE	BORON	MOLYBDENUM
10-Aug-17	2.21	0.00171
17-May-18	1.25	
3-Aug-18	0.283	0.00127
10-Aug-18	3.31	0.001
4-Oct-18	2.7	0.01
10-Jan-19	0.839	0.00105
23-Apr-19	0.848	0.000952
1-Oct-19	1.99	0.000798
17-Jun-20	1.33	0.00105
9-Oct-20	2.29	0.00106
30-Mar-21	0.677	0.000755
15-Oct-21	2.18	0.00115
31-Mar-22	0.646	0.000973
5-Oct-22	2.7	0.00103
18-Apr-23	0.88	0.000973



MW-14A		
DATE	BORON	MOLYBDENUM
9-Aug-17	0.764	0.00223
17-May-18	1.14	
1-Aug-18	0.925	0.001
9-Aug-18	1.8	0.01
4-Oct-18	1.18	0.01
11-Jan-19	1.42	0.0017
24-Apr-19	1.23	0.00104
2-Oct-19	0.98	0.000709
17-Jun-20	0.907	0.00076
8-Oct-20	0.882	0.0006
31-Mar-21	0.839	0.0006
13-Oct-21	0.857	0.0006
30-Mar-22	0.918	0.0006
6-Oct-22	1.01	0.0006
12-Apr-23	1.01	0.0006

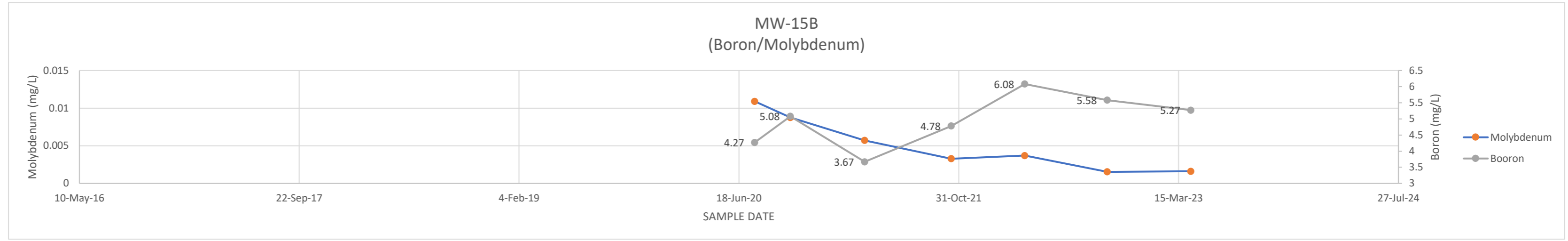


MW-15A		
DATE	BORON	MOLYBDENUM
9-Aug-17	3.38	0.255
24-May-18	4.83	
1-Aug-18	3.7	0.202
10-Aug-18	4.14	0.182
2-Oct-18	3.76	0.233
10-Jan-19	3.52	0.205
25-Apr-19	3.61	0.219
2-Oct-19	3.19	0.196
18-Jun-20	4.57	0.269
8-Oct-20	3.33	0.167
31-Mar-21	3.35	0.168
13-Oct-21	2.14	0.149
30-Mar-22	3.35	0.181
6-Oct-22	3.11	0.149
12-Apr-23	3.44	0.173

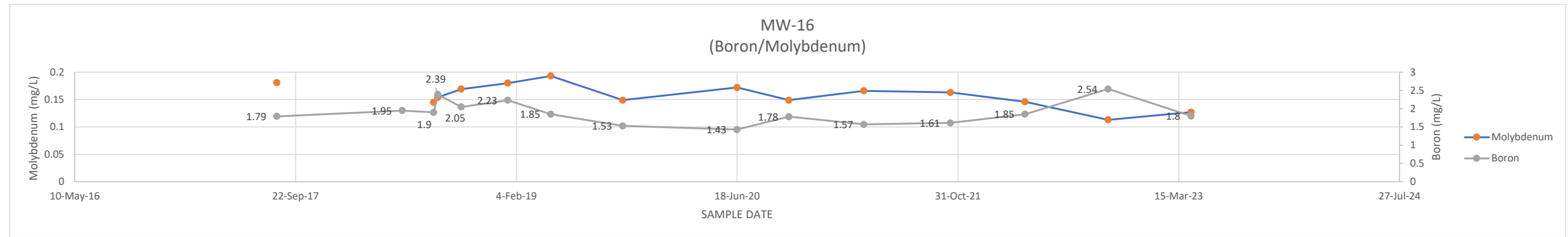


ATTACHMENT F-1
CHANGES IN BORON AND MOLYBDENUM CONCENTRATIONS

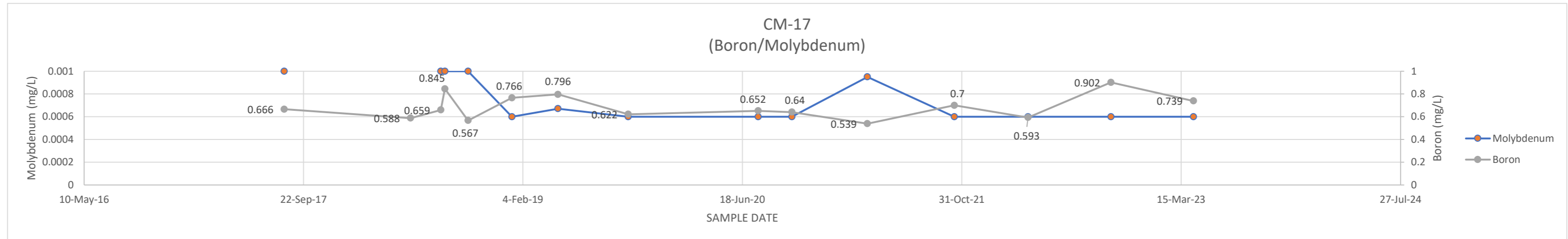
MW-15B DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	4.27	0.0109
13-Oct-20	5.08	0.00876
31-Mar-21	3.67	0.00571
14-Oct-21	4.78	0.00328
30-Mar-22	6.08	0.0037
4-Oct-22	5.58	0.00153
12-Apr-23	5.27	0.0016



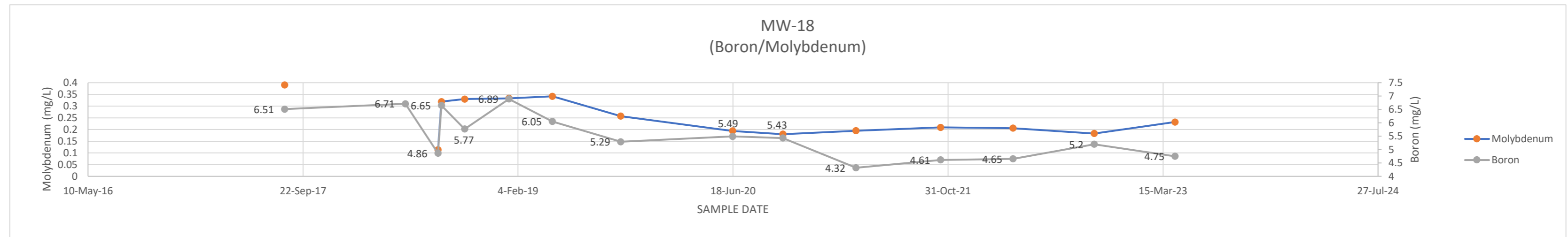
MW-16 DATE	BORON	MOLYBDENUM
11-Aug-17	1.79	0.181
22-May-18	1.95	
1-Aug-18	1.9	0.145
10-Aug-18	2.39	0.154
2-Oct-18	2.05	0.169
16-Jan-19	2.23	0.18
23-Apr-19	1.85	0.193
3-Oct-19	1.53	0.149
18-Jun-20	1.43	0.172
13-Oct-20	1.78	0.149
1-Apr-21	1.57	0.166
14-Oct-21	1.61	0.163
1-Apr-22	1.85	0.146
6-Oct-22	2.54	0.113
12-Apr-23	1.8	0.127



MW-17 DATE	BORON	MOLYBDENUM
9-Aug-17	0.666	0.001
24-May-18	0.588	
1-Aug-18	0.659	0.001
10-Aug-18	0.845	0.001
2-Oct-18	0.567	0.001
10-Jan-19	0.766	0.0006
25-Apr-19	0.796	0.000671
2-Oct-19	0.622	0.0006
24-Jul-20	0.652	0.0006
9-Oct-20	0.64	0.0006
30-Mar-21	0.539	0.00095
14-Oct-21	0.7	0.0006
31-Mar-22	0.593	0.0006
6-Oct-22	0.902	0.0006
12-Apr-23	0.739	0.0006

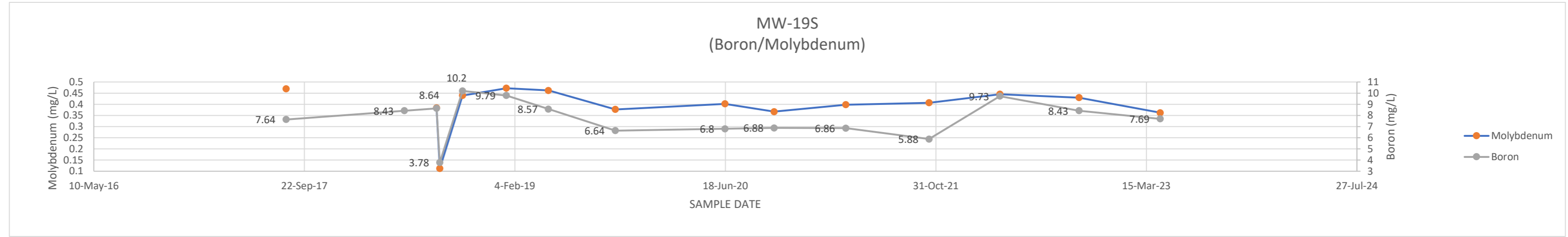


MW-18 DATE	BORON	MOLYBDENUM
10-Aug-17	6.51	0.39
18-May-18	6.71	
2-Aug-18	4.86	0.113
10-Aug-18	6.65	0.319
3-Oct-18	5.77	0.33
14-Jan-19	6.89	0.333
25-Apr-19	6.05	0.342
1-Oct-19	5.29	0.257
17-Jun-20	5.49	0.194
12-Oct-20	5.43	0.18
31-Mar-21	4.32	0.195
14-Oct-21	4.61	0.209
31-Mar-22	4.65	0.206
6-Oct-22	5.2	0.183
12-Apr-23	4.75	0.232

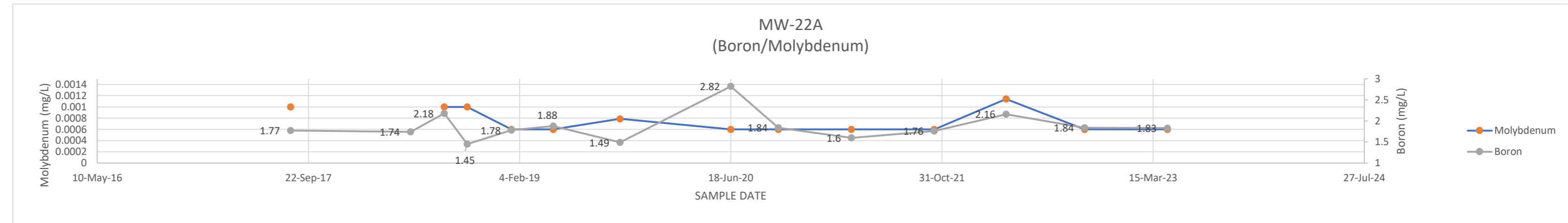


ATTACHMENT F-1
CHANGES IN BORON AND MOLYBDENUM CONCENTRATIONS

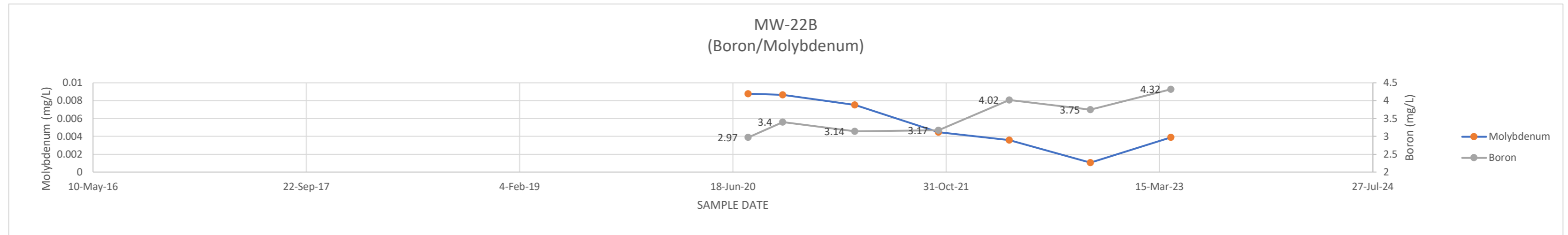
MW-19S DATE	BORON	MOLYBDENUM
10-Aug-17	7.64	0.469
18-May-18	8.43	
2-Aug-18	8.64	0.384
10-Aug-18	3.78	0.112
3-Oct-18	10.2	0.439
15-Jan-19	9.79	0.472
25-Apr-19	8.57	0.462
1-Oct-19	6.64	0.377
17-Jun-20	6.8	0.402
12-Oct-20	6.88	0.367
31-Mar-21	6.86	0.398
15-Oct-21	5.88	0.407
1-Apr-22	9.73	0.445
6-Oct-22	8.43	0.43
17-Apr-23	7.69	0.362



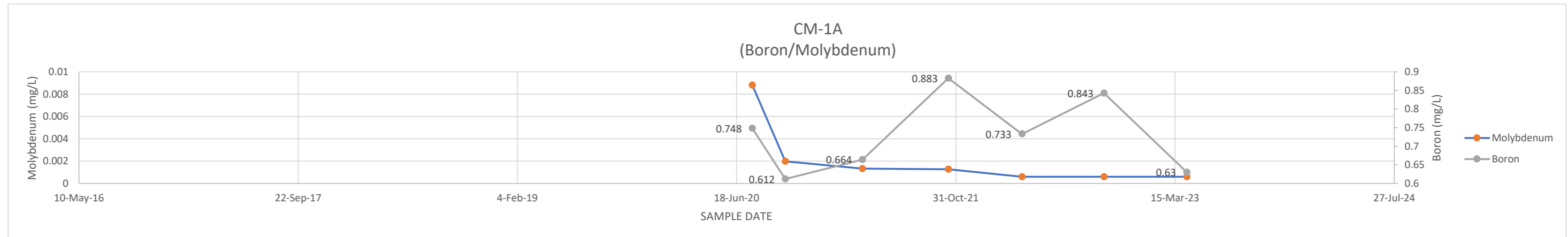
MW-22A DATE	BORON	MOLYBDENUM
11-Aug-17	1.77	0.001
22-May-18	1.74	
10-Aug-18	2.18	0.001
3-Oct-18	1.45	0.001
16-Jan-19	1.78	0.0006
25-Apr-19	1.88	0.0006
30-Sep-19	1.49	0.000787
18-Jun-20	2.82	0.0006
9-Oct-20	1.84	0.0006
31-Mar-21	1.6	0.0006
13-Oct-21	1.76	0.0006
1-Apr-22	2.16	0.00114
4-Oct-22	1.84	0.0006
18-Apr-23	1.83	0.0006



MW-22B DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2.97	0.00878
13-Oct-20	3.4	0.00866
31-Mar-21	3.14	0.00753
13-Oct-21	3.17	0.00446
28-Mar-22	4.02	0.00357
4-Oct-22	3.75	0.00105
11-Apr-23	4.32	0.00389

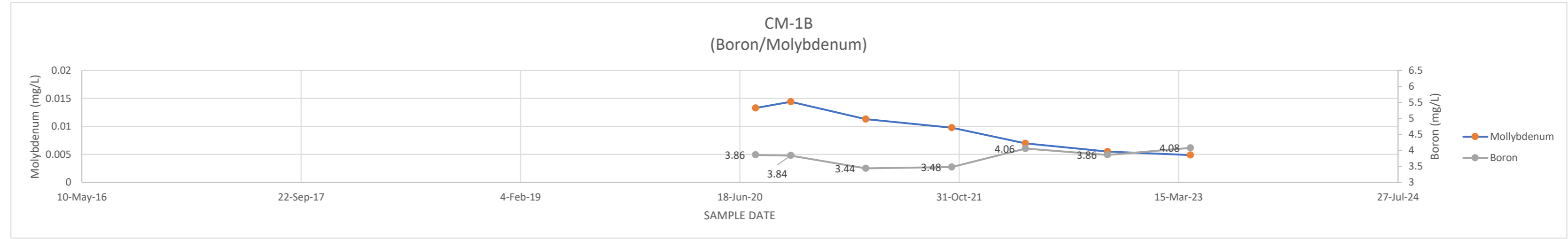


CM-1A DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	0.748	0.0088
7-Oct-20	0.612	0.00198
1-Apr-21	0.664	0.00132
14-Oct-21	0.883	0.00127
31-Mar-22	0.733	0.0006
4-Oct-22	0.843	0.0006
11-Apr-23	0.63	0.0006

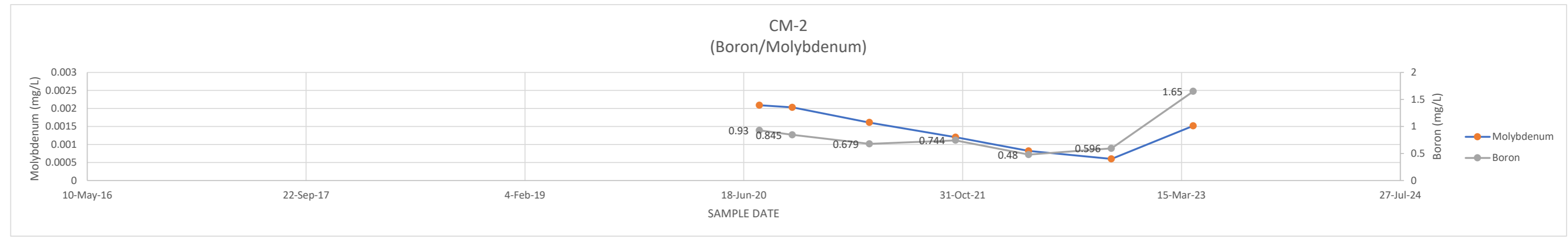


ATTACHMENT F-1
CHANGES IN BORON AND MOLYBDENUM CONCENTRATIONS

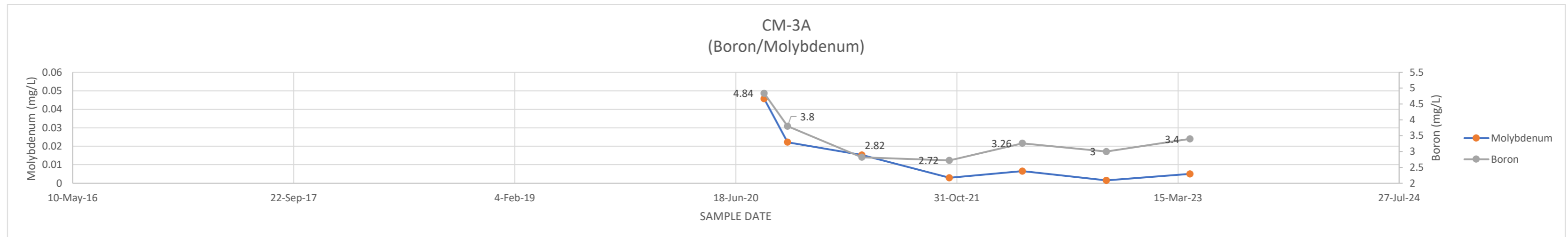
CM-1B DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3.86	0.0133
12-Oct-20	3.84	0.0144
1-Apr-21	3.44	0.0113
14-Oct-21	3.48	0.00976
31-Mar-22	4.06	0.00696
4-Oct-22	3.86	0.00551
11-Apr-23	4.08	0.00488



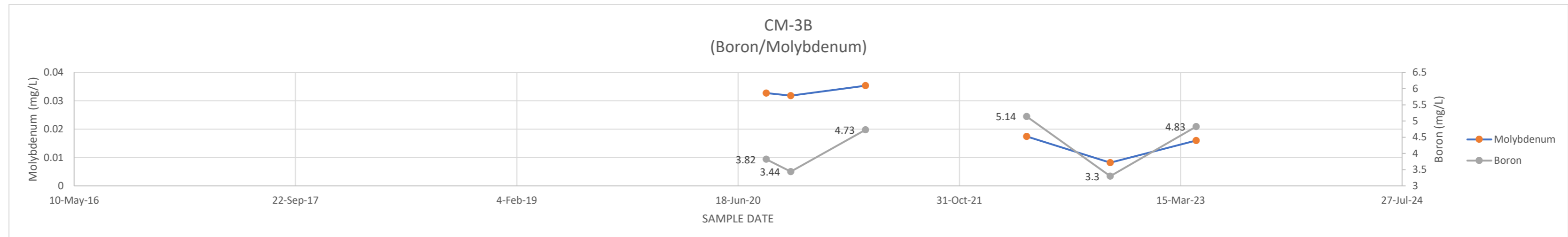
CM-2 DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	0.93	0.00209
7-Oct-20	0.845	0.00203
1-Apr-21	0.679	0.00161
15-Oct-21	0.744	0.0012
31-Mar-22	0.48	0.00082
6-Oct-22	0.596	0.0006
11-Apr-23	1.65	0.00152



CM-3A DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	4.84	0.0457
13-Oct-20	3.8	0.0222
30-Mar-21	2.82	0.0153
14-Oct-21	2.72	0.00297
28-Mar-22	3.26	0.00656
4-Oct-22	3	0.00155
11-Apr-23	3.4	0.00503

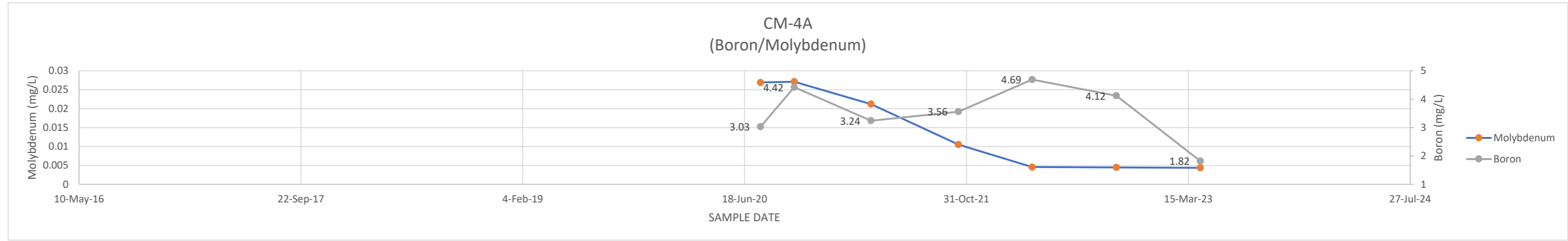


CM-3B DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	3.82	0.0327
15-Oct-20	3.44	0.0318
2-Apr-21	4.73	0.0353
11-Oct-21		
1-Apr-22	5.14	0.0174
7-Oct-22	3.3	0.00819
19-Apr-23	4.83	0.016

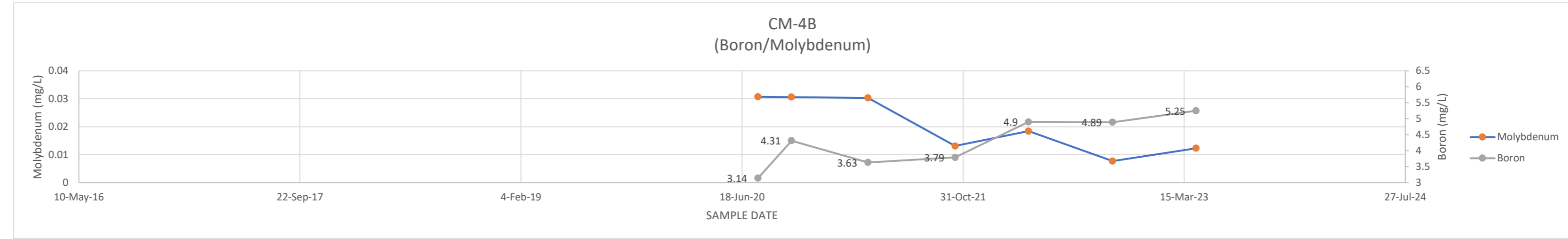


ATTACHMENT F-1
CHANGES IN BORON AND MOLYBDENUM CONCENTRATIONS

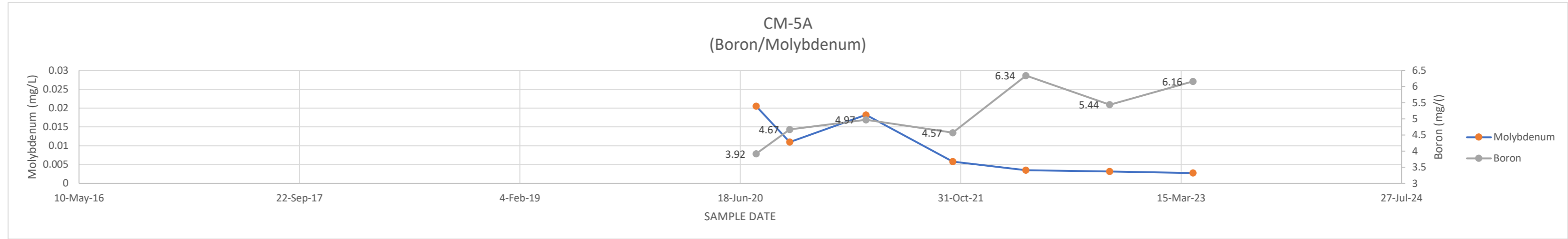
CM-4A DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3.03	0.0269
8-Oct-20	4.42	0.0271
30-Mar-21	3.24	0.0212
13-Oct-21	3.56	0.0105
28-Mar-22	4.69	0.00455
4-Oct-22	4.12	0.00449
11-Apr-23	1.82	0.00436



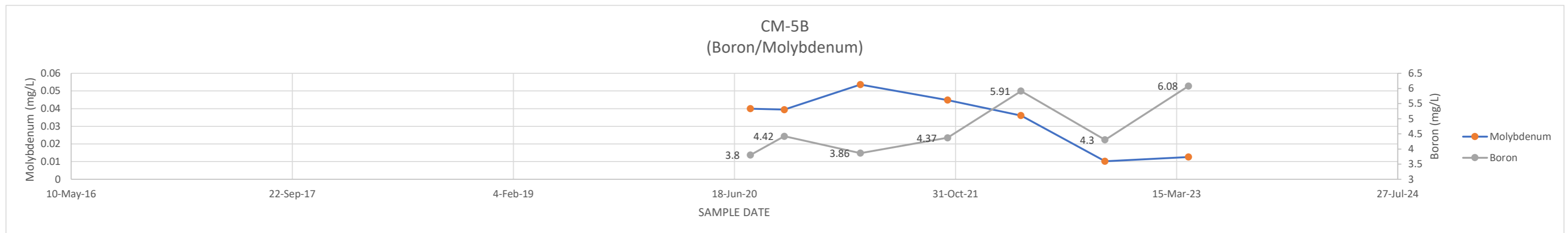
CM-4B DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3.14	0.0307
8-Oct-20	4.31	0.0306
30-Mar-21	3.63	0.0303
13-Oct-21	3.79	0.0131
28-Mar-22	4.9	0.0184
4-Oct-22	4.89	0.00771
11-Apr-23	5.25	0.0123



CM-5A DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3.92	0.0205
8-Oct-20	4.67	0.011
30-Mar-21	4.97	0.0182
13-Oct-21	4.57	0.0058
28-Mar-22	6.34	0.00351
4-Oct-22	5.44	0.00317
11-Apr-23	6.16	0.00276



CM-5B DATE	BORON	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3.8	0.04
9-Oct-20	4.42	0.0394
30-Mar-21	3.86	0.0536
13-Oct-21	4.37	0.0448
28-Mar-22	5.91	0.0361
4-Oct-22	4.3	0.0102
11-Apr-23	6.08	0.0126



Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT F-2
CHANGES IN CHLORIDE AND MOLYBDENUM CONCENTRATIONS

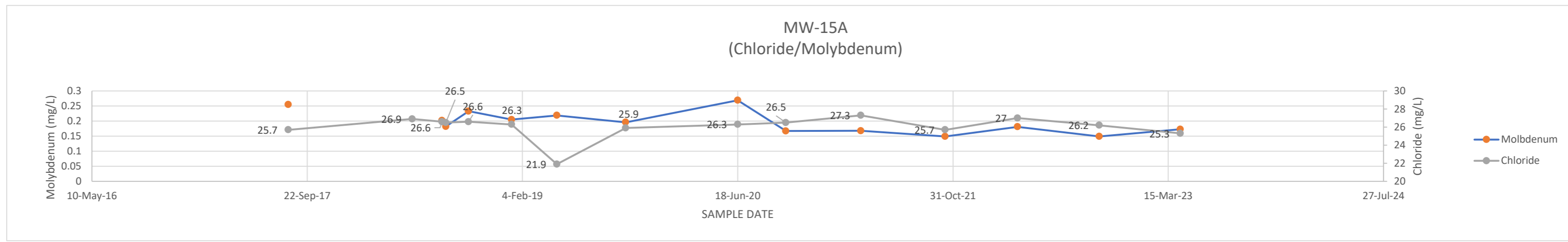
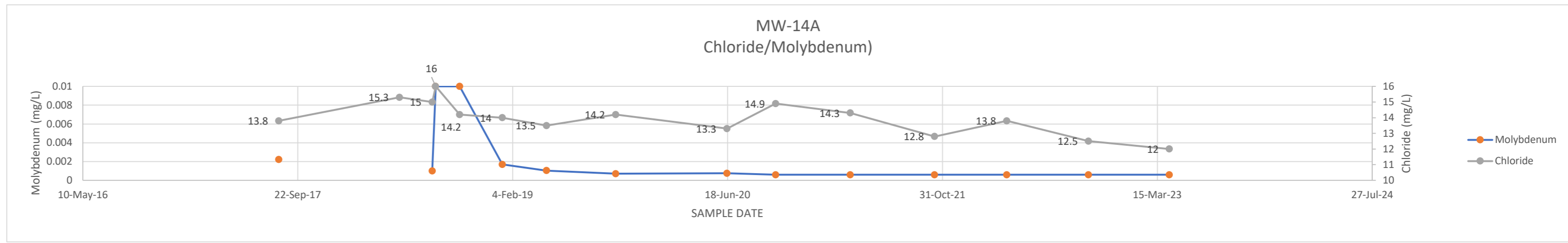
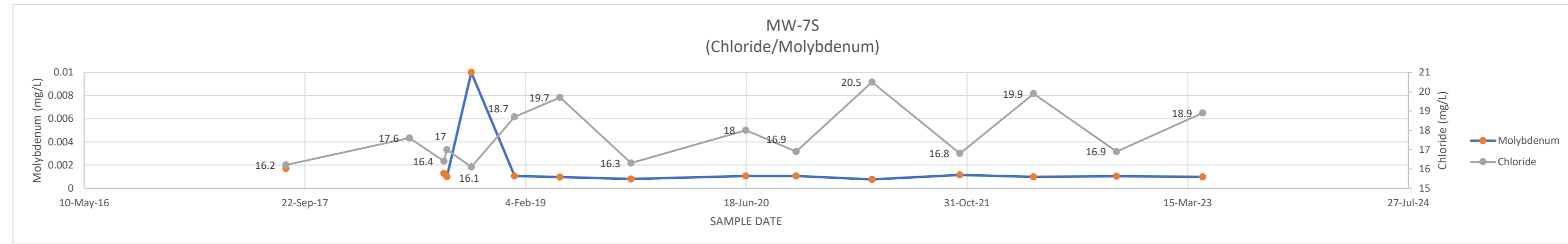
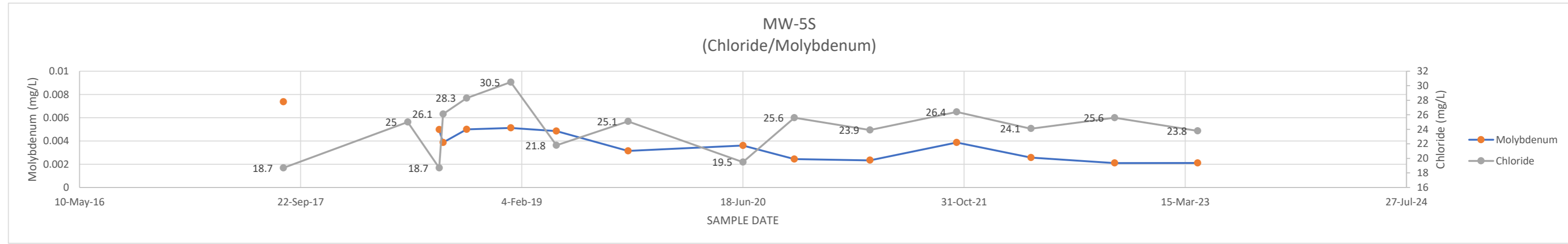
MW-5S	DATE	CHLORIDE	MOLYBDENUM
14-Aug-17	18.7	0.00737	
22-May-18	25		
1-Aug-18	18.7	0.00497	
10-Aug-18	26.1	0.00387	
2-Oct-18	28.3	0.005	
10-Jan-19	30.5	0.00512	
23-Apr-19	21.8	0.00485	
2-Oct-19	25.1	0.00315	
18-Jun-20	19.5	0.00361	
12-Oct-20	25.6	0.00244	
1-Apr-21	23.9	0.00234	
14-Oct-21	26.4	0.00387	
31-Mar-22	24.1	0.00257	
6-Oct-22	25.6	0.0021	
12-Apr-23	23.8	0.00211	

Value denoted in red from June 2022 resample

MW-7S	DATE	CHLORIDE	MOLYBDENUM
10-Aug-17	16.2	0.00171	
17-May-18	17.6		
3-Aug-18	16.4	0.00127	
10-Aug-18	17	0.001	
4-Oct-18	16.1	0.01	
10-Jan-19	18.7	0.00105	
23-Apr-19	19.7	0.000952	
1-Oct-19	16.3	0.000798	
17-Jun-20	18	0.00105	
9-Oct-20	16.9	0.00106	
30-Mar-21	20.5	0.000755	
15-Oct-21	16.8	0.00115	
31-Mar-22	19.9	0.000973	
5-Oct-22	16.9	0.00103	
18-Apr-23	18.9	0.000973	

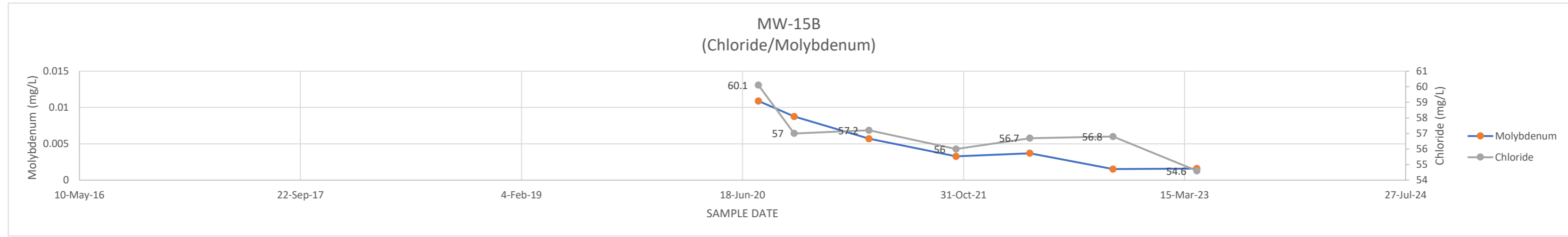
MW-14A	DATE	CHLORIDE	MOLYBDENUM
9-Aug-17	13.8	0.00223	
17-May-18	15.3		
1-Aug-18	15	0.001	
9-Aug-18	16	0.01	
4-Oct-18	14.2	0.01	
11-Jan-19	14	0.0017	
24-Apr-19	13.5	0.00104	
2-Oct-19	14.2	0.000709	
17-Jun-20	13.3	0.00076	
8-Oct-20	14.9	0.0006	
31-Mar-21	14.3	0.0006	
13-Oct-21	12.8	0.0006	
30-Mar-22	13.8	0.0006	
6-Oct-22	12.5	0.0006	
12-Apr-23	12	0.0006	

MW-15A	DATE	CHLORIDE	MOLYBDENUM
9-Aug-17	25.7	0.255	
24-May-18	26.9		
1-Aug-18	26.6	0.202	
10-Aug-18	26.5	0.182	
2-Oct-18	26.6	0.233	
10-Jan-19	26.3	0.205	
25-Apr-19	21.9	0.219	
2-Oct-19	25.9	0.196	
18-Jun-20	26.3	0.269	
8-Oct-20	26.5	0.167	
31-Mar-21	27.3	0.168	
13-Oct-21	25.7	0.149	
30-Mar-22	27	0.181	
6-Oct-22	26.2	0.149	
12-Apr-23	25.3	0.173	

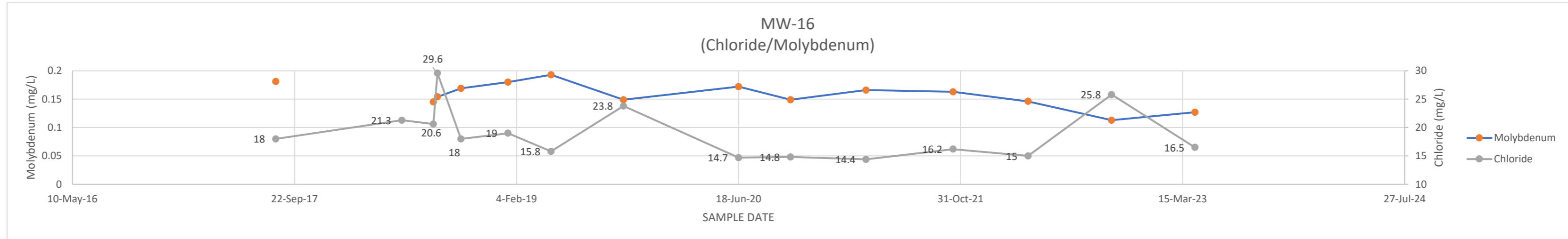


ATTACHMENT F-2
CHANGES IN CHLORIDE AND MOLYBDENUM CONCENTRATIONS

MW-15B	DATE	CHLORIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	60.1	0.0109	
13-Oct-20	57	0.00876	
31-Mar-21	57.2	0.00571	
14-Oct-21	56	0.00328	
30-Mar-22	56.7	0.0037	
4-Oct-22	56.8	0.00153	
12-Apr-23	54.6	0.0016	

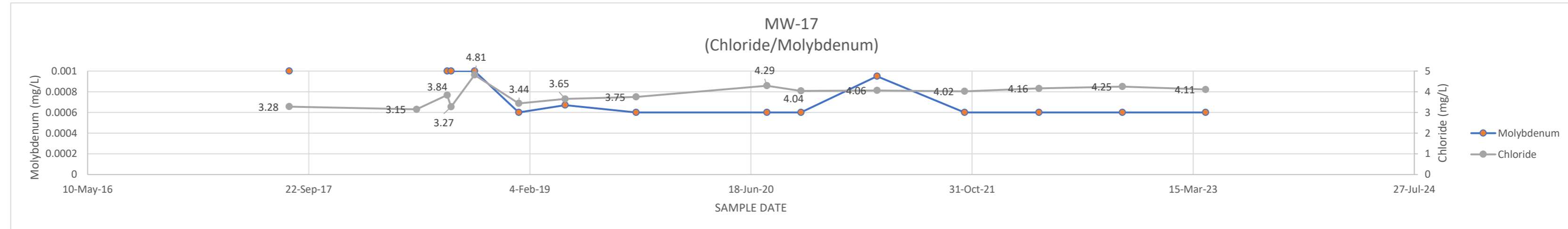


MW-16	DATE	CHLORIDE	MOLYBDENUM
11-Aug-17	18	0.181	
22-May-18	21.3		
1-Aug-18	20.6	0.145	
10-Aug-18	29.6	0.154	
2-Oct-18	18	0.169	
16-Jan-19	19	0.18	
23-Apr-19	15.8	0.193	
3-Oct-19	23.8	0.149	
18-Jun-20	14.7	0.172	
13-Oct-20	14.8	0.149	
1-Apr-21	14.4	0.166	
14-Oct-21	16.2	0.163	
1-Apr-22	15	0.146	
6-Oct-22	25.8	0.113	
12-Apr-23	16.5	0.127	



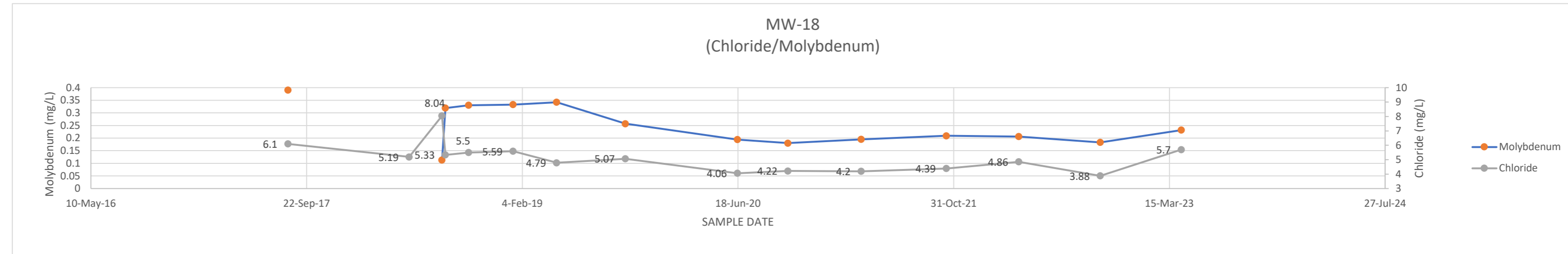
Value denoted in red from June 2022 resample

MW-17	DATE	CHLORIDE	MOLYBDENUM
9-Aug-17	3.28	0.001	
24-May-18	3.15		
1-Aug-18	3.84	0.001	
10-Aug-18	3.27	0.001	
2-Oct-18	4.81	0.001	
10-Jan-19	3.44	0.0006	
25-Apr-19	3.65	0.000671	
2-Oct-19	3.75	0.0006	
24-Jul-20	4.29	0.0006	
9-Oct-20	4.04	0.0006	
30-Mar-21	4.06	0.00095	
14-Oct-21	4.02	0.0006	
31-Mar-22	4.16	0.0006	
6-Oct-22	4.25	0.0006	
12-Apr-23	4.11	0.0006	



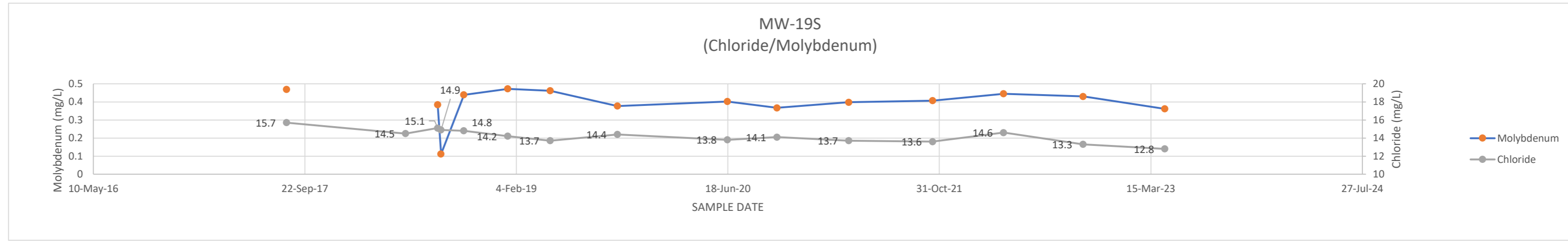
Value denoted in red from June 2022 resample

MW-18	DATE	CHLORIDE	MOLYBDENUM
10-Aug-17	6.1	0.39	
18-May-18	5.19		
2-Aug-18	8.04	0.113	
10-Aug-18	5.33	0.319	
3-Oct-18	5.5	0.33	
14-Jan-19	5.59	0.333	
25-Apr-19	4.79	0.342	
1-Oct-19	5.07	0.257	
17-Jun-20	4.06	0.194	
12-Oct-20	4.22	0.18	
31-Mar-21	4.2	0.195	
14-Oct-21	4.39	0.209	
31-Mar-22	4.86	0.206	
6-Oct-22	3.88	0.183	
12-Apr-23	5.7	0.232	

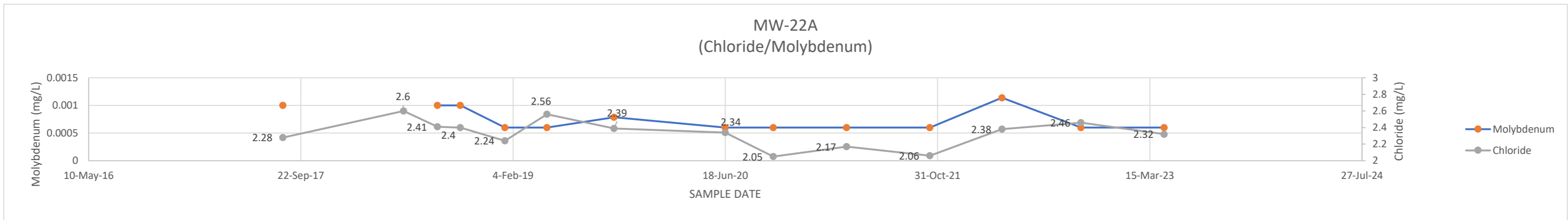


ATTACHMENT F-2
CHANGES IN CHLORIDE AND MOLYBDENUM CONCENTRATIONS

MW-19S	DATE	CHLORIDE	MOLYBDENUM
10-Aug-17	15.7	0.469	
18-May-18	14.5		
2-Aug-18	15.1	0.384	
10-Aug-18	14.9	0.112	
3-Oct-18	14.8	0.439	
15-Jan-19	14.2	0.472	
25-Apr-19	13.7	0.462	
1-Oct-19	14.4	0.377	
17-Jun-20	13.8	0.402	
12-Oct-20	14.1	0.367	
31-Mar-21	13.7	0.398	
15-Oct-21	13.6	0.407	
1-Apr-22	14.6	0.445	
6-Oct-22	13.3	0.43	
17-Apr-23	12.8	0.362	

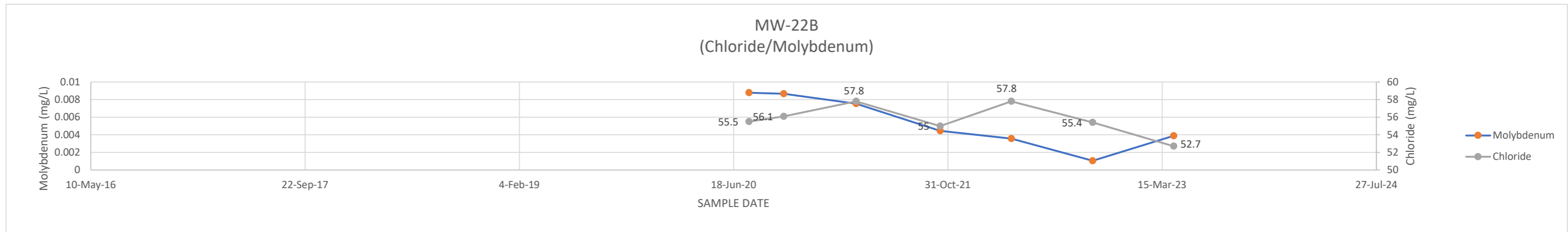


MW-22A	DATE	CHLORIDE	MOLYBDENUM
11-Aug-17	2.28	0.001	
22-May-18	2.6		
10-Aug-18	2.41	0.001	
3-Oct-18	2.4	0.001	
16-Jan-19	2.24	0.0006	
25-Apr-19	2.56	0.0006	
30-Sep-19	2.39	0.000787	
18-Jun-20	2.34	0.0006	
9-Oct-20	2.05	0.0006	
31-Mar-21	2.17	0.0006	
13-Oct-21	2.06	0.0006	
1-Apr-22	2.38	0.00114	
4-Oct-22	2.46	0.0006	
18-Apr-23	2.32	0.0006	

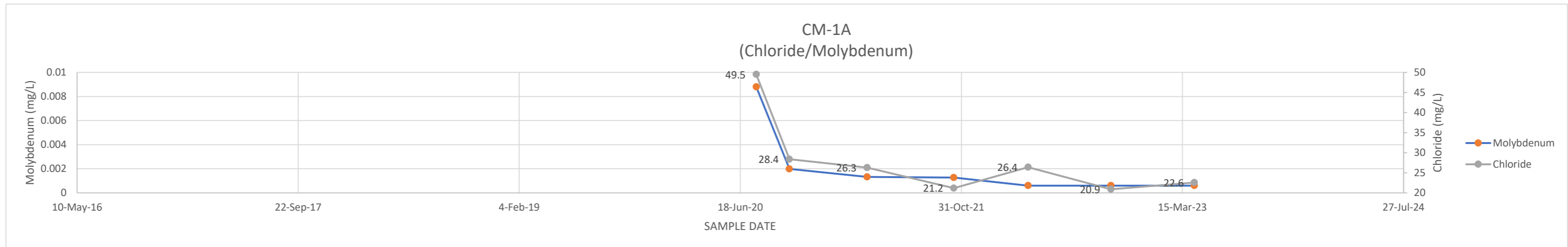


Value denoted in red from June 2022 resample

MW-22B	DATE	CHLORIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	55.5	0.00878	
13-Oct-20	56.1	0.00866	
31-Mar-21	57.8	0.00753	
13-Oct-21	55	0.00446	
28-Mar-22	57.8	0.00357	
4-Oct-22	55.4	0.00105	
11-Apr-23	52.7	0.00389	

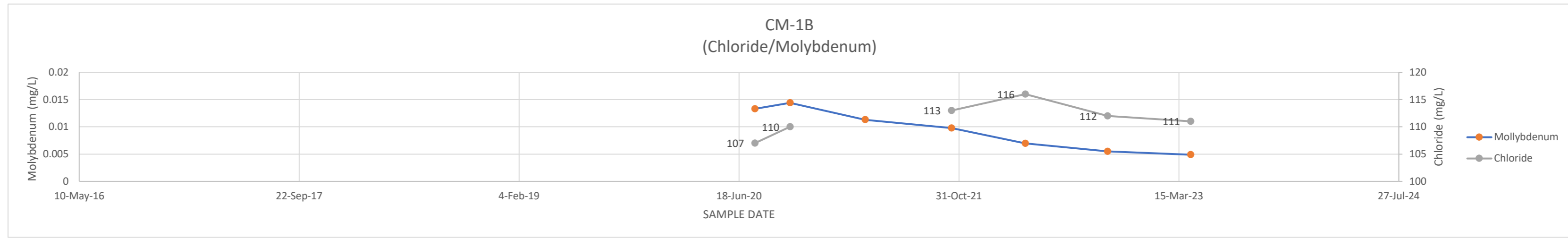


CM-1A	DATE	CHLORIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	49.5	0.0088	
7-Oct-20	28.4	0.00198	
1-Apr-21	26.3	0.00132	
14-Oct-21	21.2	0.00127	
31-Mar-22	26.4	0.0006	
4-Oct-22	20.9	0.0006	
11-Apr-23	22.6	0.0006	

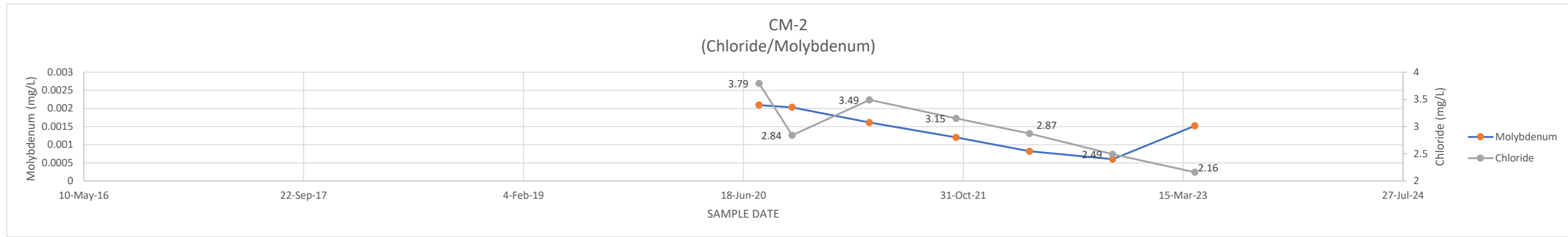


ATTACHMENT F-2
CHANGES IN CHLORIDE AND MOLYBDENUM CONCENTRATIONS

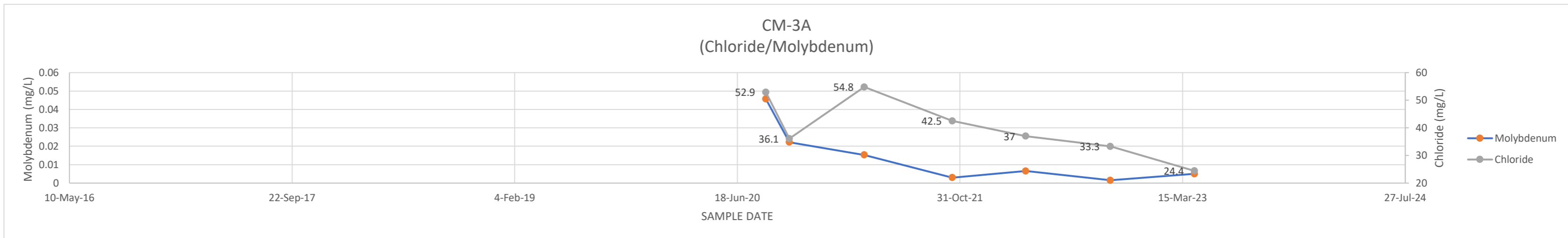
CM-1B DATE	CHLORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	107	0.0133
12-Oct-20	110	0.0144
1-Apr-21		0.0113
14-Oct-21	113	0.00976
31-Mar-22	116	0.00696
4-Oct-22	112	0.00551
11-Apr-23	111	0.00488



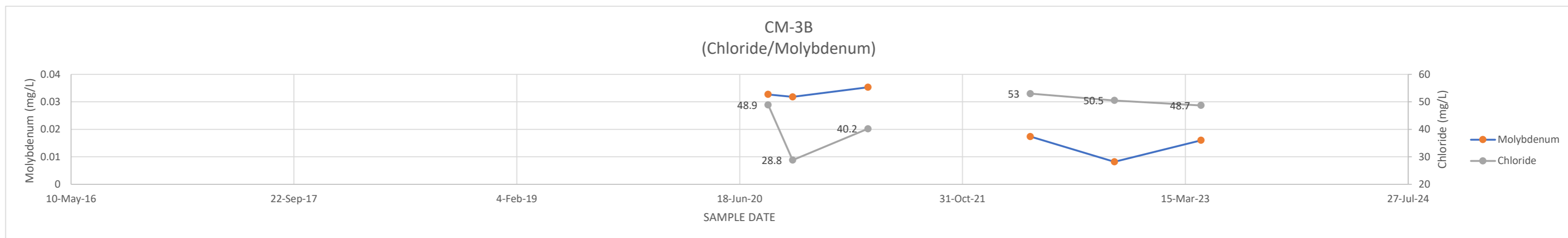
CM-2 DATE	CHLORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3.79	0.00209
7-Oct-20	2.84	0.00203
1-Apr-21	3.49	0.00161
15-Oct-21	3.15	0.0012
31-Mar-22	2.87	0.00082
6-Oct-22	2.49	0.0006
11-Apr-23	2.16	0.00152



CM-3A DATE	CHLORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	52.9	0.0457
13-Oct-20	36.1	0.0222
30-Mar-21	54.8	0.0153
14-Oct-21	42.5	0.00297
28-Mar-22	37	0.00656
4-Oct-22	33.3	0.00155
11-Apr-23	24.4	0.00503

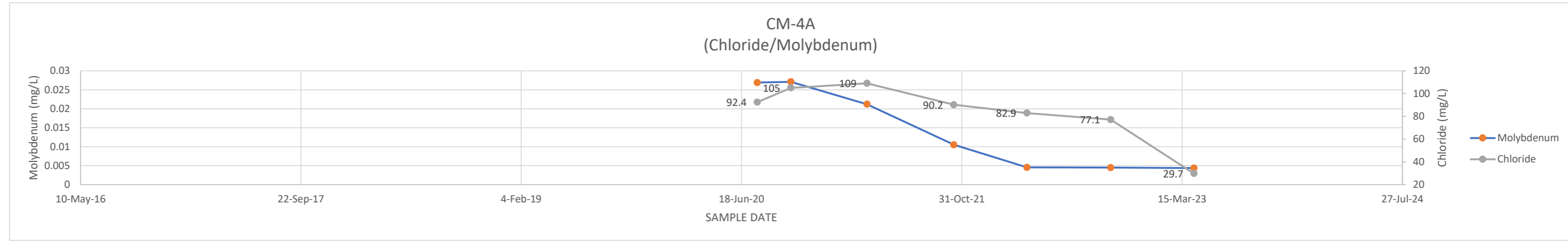


CM-3B DATE	CHLORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	48.9	0.0327
15-Oct-20	28.8	0.0318
2-Apr-21	40.2	0.0353
11-Oct-21		
1-Apr-22	53	0.0174
7-Oct-22	50.5	0.00819
19-Apr-23	48.7	0.016

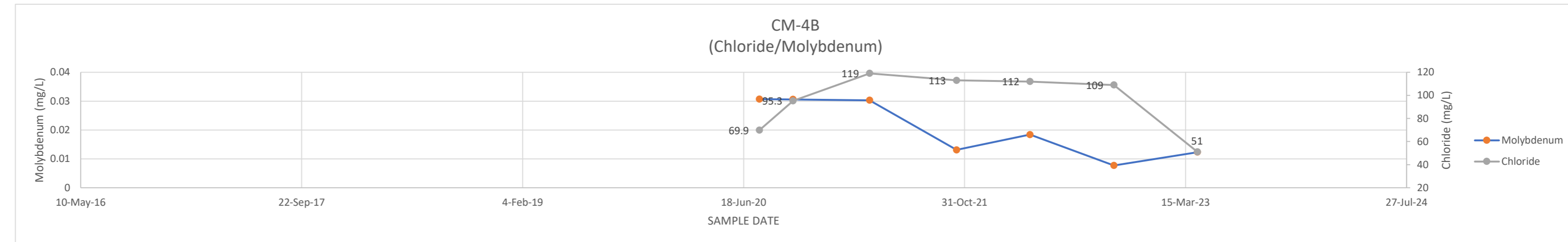


ATTACHMENT F-2
CHANGES IN CHLORIDE AND MOLYBDENUM CONCENTRATIONS

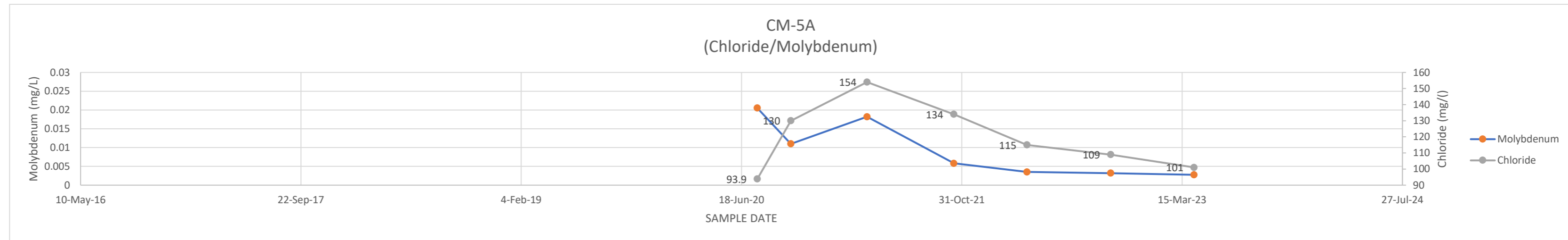
CM-4A	DATE	CHLORIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	92.4	0.0269	
8-Oct-20	105	0.0271	
30-Mar-21	109	0.0212	
13-Oct-21	90.2	0.0105	
28-Mar-22	82.9	0.00455	
4-Oct-22	77.1	0.00449	
11-Apr-23	29.7	0.00436	



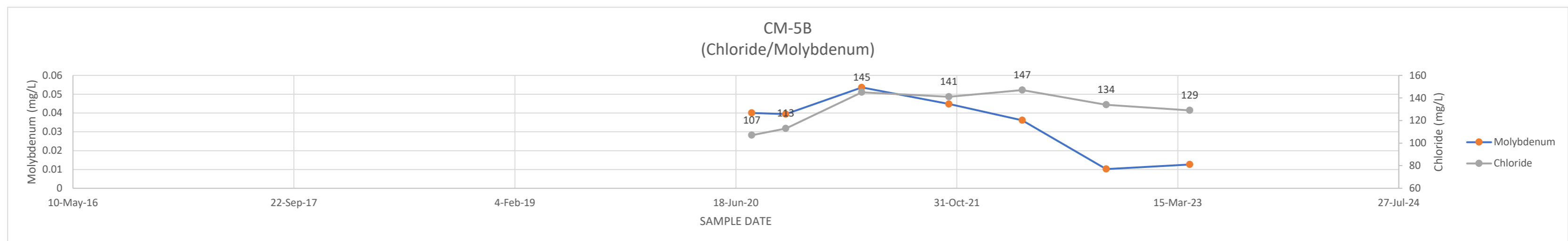
CM-4B	DATE	CHLORIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	69.9	0.0307	
8-Oct-20	95.3	0.0306	
30-Mar-21	119	0.0303	
13-Oct-21	113	0.0131	
28-Mar-22	112	0.0184	
4-Oct-22	109	0.00771	
11-Apr-23	51	0.0123	



CM-5A	DATE	CHLORIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	93.9	0.0205	
8-Oct-20	130	0.011	
30-Mar-21	154	0.0182	
13-Oct-21	134	0.0058	
28-Mar-22	115	0.00351	
4-Oct-22	109	0.00317	
11-Apr-23	101	0.00276	



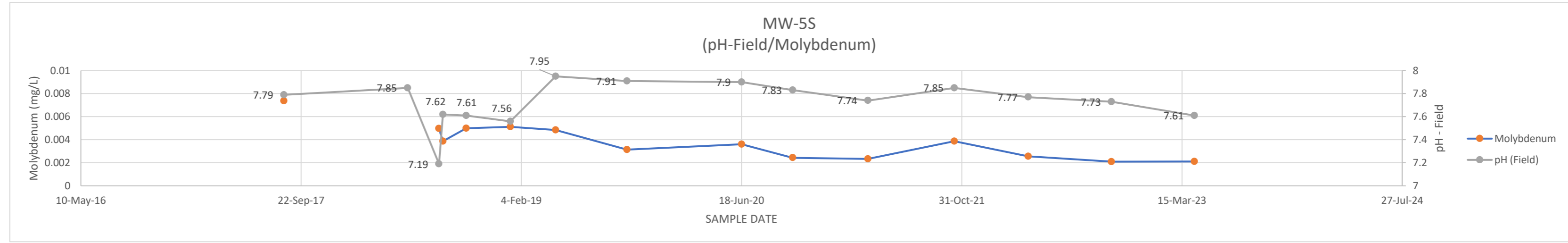
CM-5B	DATE	CHLORIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	107	0.04	
9-Oct-20	113	0.0394	
30-Mar-21	145	0.0536	
13-Oct-21	141	0.0448	
28-Mar-22	147	0.0361	
4-Oct-22	134	0.0102	
11-Apr-23	129	0.0126	



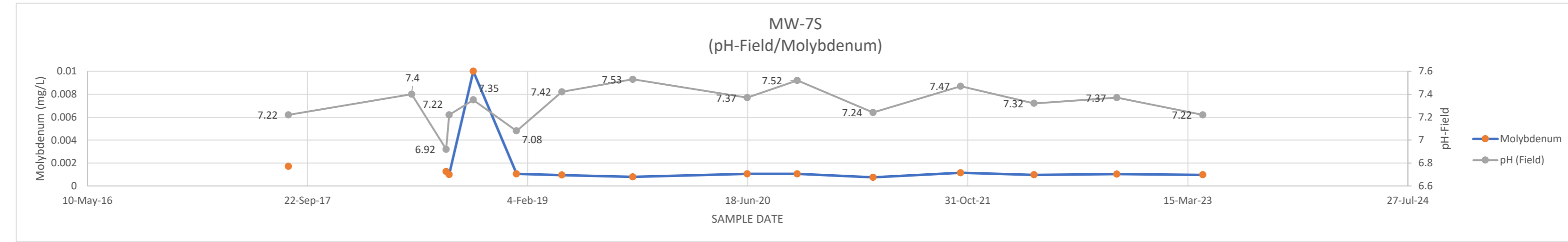
Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT F-3A
CHANGES IN PH (FIELD) AND MOLYBDENUM CONCENTRATIONS

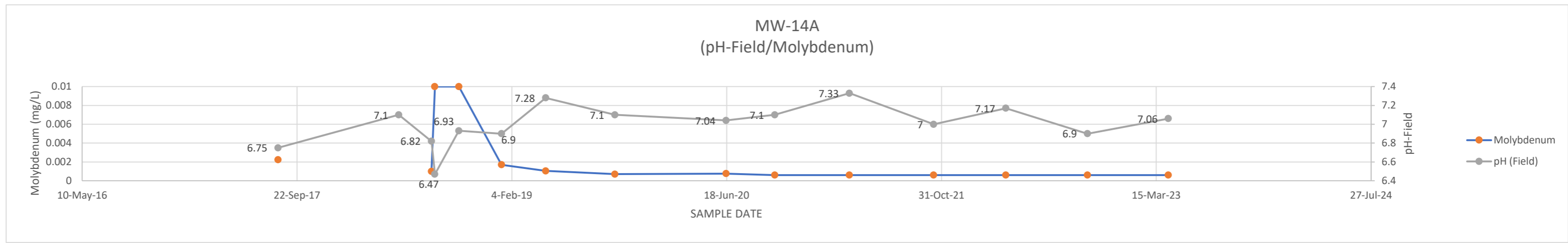
MW-5S		
DATE	pH Field	MOLYBDENUM
14-Aug-17	7.79	0.00737
22-May-18	7.85	
1-Aug-18	7.19	0.00497
10-Aug-18	7.62	0.00387
2-Oct-18	7.61	0.005
10-Jan-19	7.56	0.00512
23-Apr-19	7.95	0.00485
2-Oct-19	7.91	0.00315
18-Jun-20	7.9	0.00361
12-Oct-20	7.83	0.00244
1-Apr-21	7.74	0.00234
14-Oct-21	7.85	0.00387
31-Mar-22	7.77	0.00257
6-Oct-22	7.73	0.0021
12-Apr-23	7.61	0.00211



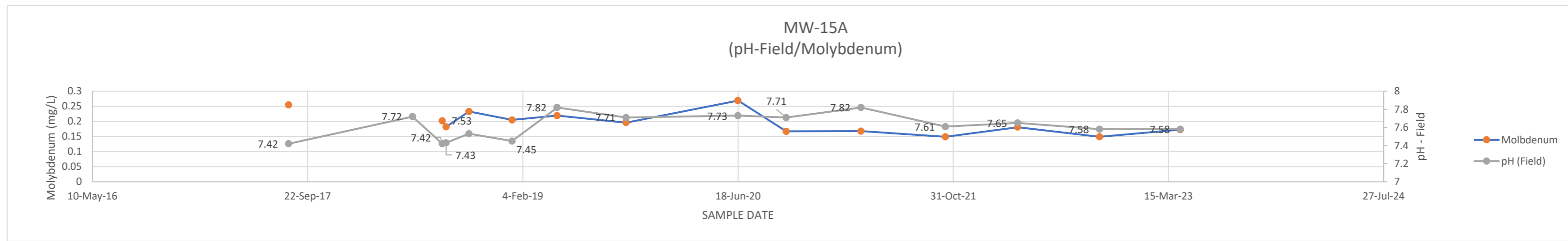
MW-7S		
DATE	pH Field	MOLYBDENUM
10-Aug-17	7.22	0.00171
17-May-18	7.4	
3-Aug-18	6.92	0.00127
10-Aug-18	7.22	0.001
4-Oct-18	7.35	0.01
10-Jan-19	7.08	0.00105
23-Apr-19	7.42	0.000952
1-Oct-19	7.53	0.000798
17-Jun-20	7.37	0.00105
9-Oct-20	7.52	0.00106
30-Mar-21	7.24	0.000755
15-Oct-21	7.47	0.00115
31-Mar-22	7.32	0.000973
5-Oct-22	7.37	0.00103
18-Apr-23	7.22	0.000973



MW-14A		
DATE	pH Field	MOLYBDENUM
9-Aug-17	6.75	0.00223
17-May-18	7.1	
1-Aug-18	6.82	0.001
9-Aug-18	6.47	0.01
4-Oct-18	6.93	0.01
11-Jan-19	6.9	0.0017
24-Apr-19	7.28	0.00104
2-Oct-19	7.1	0.000709
17-Jun-20	7.04	0.00076
8-Oct-20	7.1	0.0006
31-Mar-21	7.33	0.0006
13-Oct-21	7	0.0006
30-Mar-22	7.17	0.0006
6-Oct-22	6.9	0.0006
12-Apr-23	7.06	0.0006

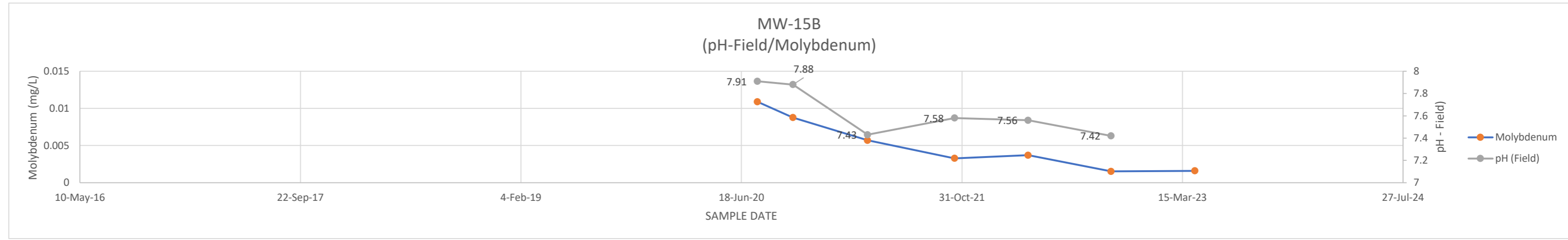


MW-15A		
DATE	pH Field	MOLYBDENUM
9-Aug-17	7.42	0.255
24-May-18	7.72	
1-Aug-18	7.42	0.202
10-Aug-18	7.43	0.182
2-Oct-18	7.53	0.233
10-Jan-19	7.45	0.205
25-Apr-19	7.82	0.219
2-Oct-19	7.71	0.196
18-Jun-20	7.73	0.269
8-Oct-20	7.71	0.167
31-Mar-21	7.82	0.168
13-Oct-21	7.61	0.149
30-Mar-22	7.65	0.181
6-Oct-22	7.58	0.149
12-Apr-23	7.58	0.173

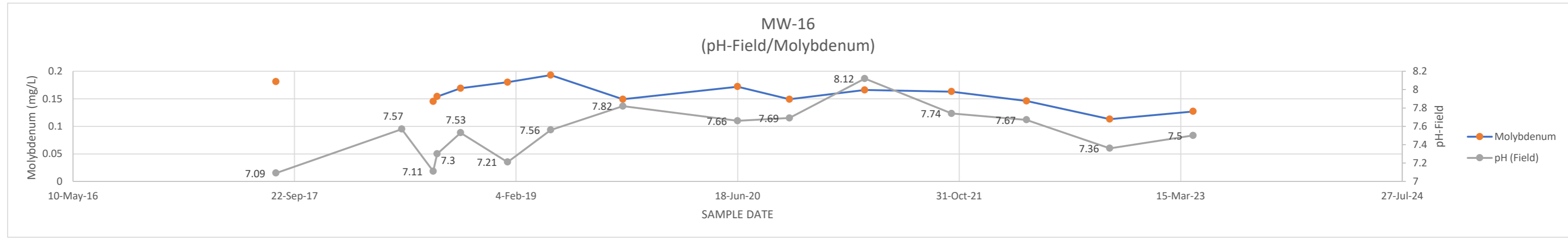


ATTACHMENT F-3A
CHANGES IN PH (FIELD) AND MOLYBDENUM CONCENTRATIONS

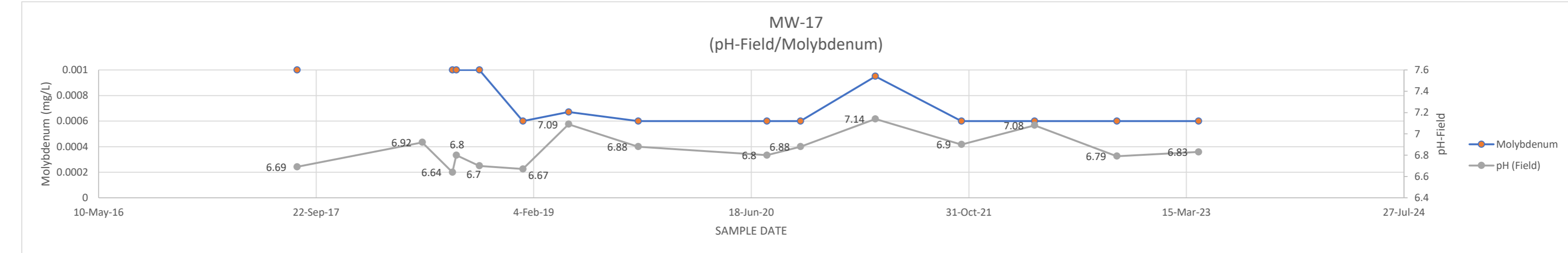
MW-15B	DATE	pH Field	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20	7.91	0.0109
	13-Oct-20	7.88	0.00876
	31-Mar-21	7.43	0.00571
	14-Oct-21	7.58	0.00328
	30-Mar-22	7.56	0.0037
	4-Oct-22	7.42	0.00153
	12-Apr-23		0.0016



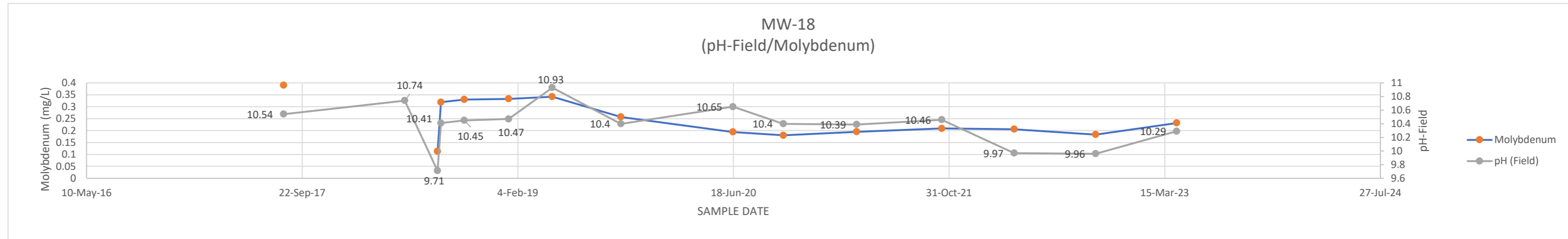
MW-16	DATE	pH Field	MOLYBDENUM
	11-Aug-17	7.09	0.181
	22-May-18	7.57	
	1-Aug-18	7.11	0.145
	10-Aug-18	7.3	0.154
	2-Oct-18	7.53	0.169
	16-Jan-19	7.21	0.18
	23-Apr-19	7.56	0.193
	3-Oct-19	7.82	0.149
	18-Jun-20	7.66	0.172
	13-Oct-20	7.69	0.149
	1-Apr-21	8.12	0.166
	14-Oct-21	7.74	0.163
	1-Apr-22	7.67	0.146
	6-Oct-22	7.36	0.113
	12-Apr-23	7.5	0.127



MW-17	DATE	pH Field	MOLYBDENUM
	9-Aug-17	6.69	0.001
	24-May-18	6.92	
	1-Aug-18	6.64	0.001
	10-Aug-18	6.8	0.001
	2-Oct-18	6.7	0.001
	10-Jan-19	6.67	0.0006
	25-Apr-19	7.09	0.000671
	2-Oct-19	6.88	0.0006
	24-Jul-20	6.8	0.0006
	9-Oct-20	6.88	0.0006
	30-Mar-21	7.14	0.00095
	14-Oct-21	6.9	0.0006
	31-Mar-22	7.08	0.0006
	6-Oct-22	6.79	0.0006
	12-Apr-23	6.83	0.0006

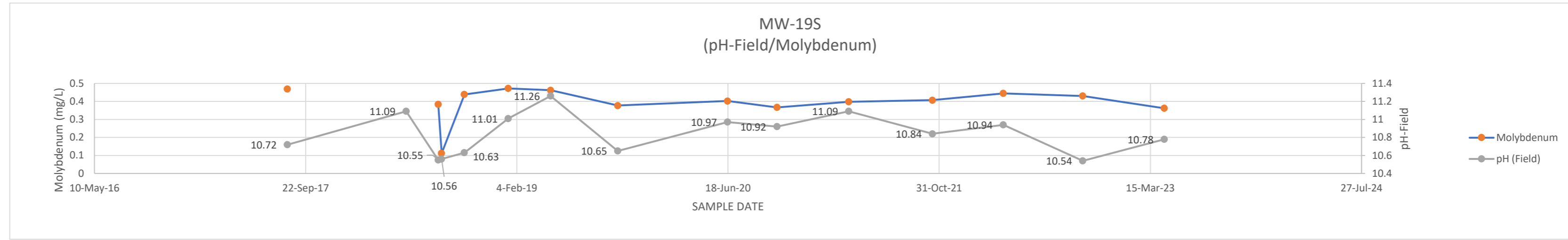


MW-18	DATE	pH Field	MOLYBDENUM
	10-Aug-17	10.54	0.39
	18-May-18	10.74	
	2-Aug-18	9.71	0.113
	10-Aug-18	10.41	0.319
	3-Oct-18	10.45	0.33
	14-Jan-19	10.47	0.333
	25-Apr-19	10.93	0.342
	1-Oct-19	10.4	0.257
	17-Jun-20	10.65	0.194
	12-Oct-20	10.4	0.18
	31-Mar-21	10.39	0.195
	14-Oct-21	10.46	0.209
	31-Mar-22	9.97	0.206
	6-Oct-22	9.96	0.183
	12-Apr-23	10.29	0.232

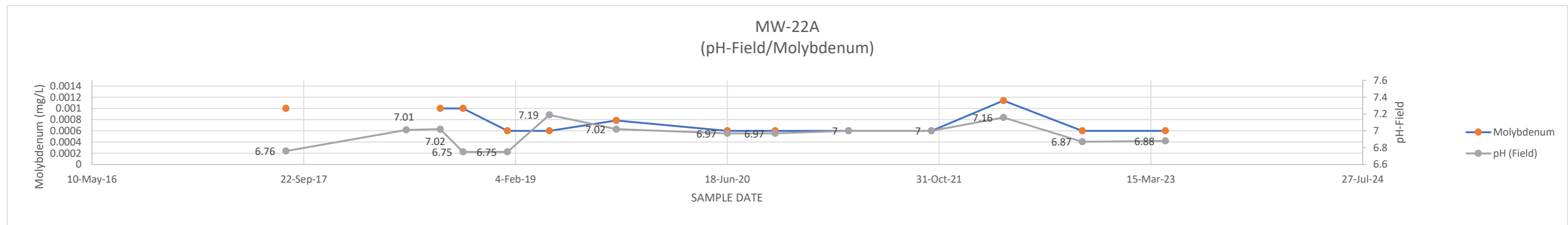


ATTACHMENT F-3A
CHANGES IN PH (FIELD) AND MOLYBDENUM CONCENTRATIONS

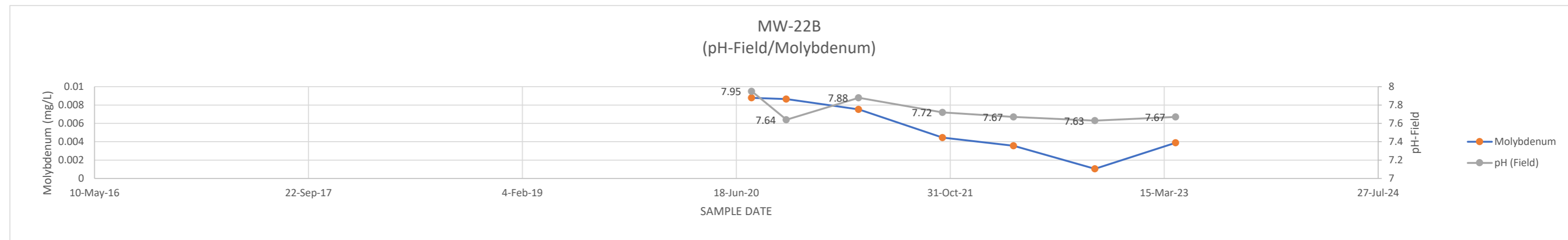
MW-19S	DATE	pH Field	MOLYBDENUM
10-Aug-17	10.72	10.72	0.469
18-May-18	11.09	11.09	
2-Aug-18	10.55	10.55	0.384
10-Aug-18	10.56	10.56	0.112
3-Oct-18	10.63	10.63	0.439
15-Jan-19	11.01	11.01	0.472
25-Apr-19	11.26	11.26	0.462
1-Oct-19	10.65	10.65	0.377
17-Jun-20	10.97	10.97	0.402
12-Oct-20	10.92	10.92	0.367
31-Mar-21	11.09	11.09	0.398
15-Oct-21	10.84	10.84	0.407
1-Apr-22	10.94	10.94	0.445
6-Oct-22	10.54	10.54	0.43
17-Apr-23	10.78	10.78	0.362



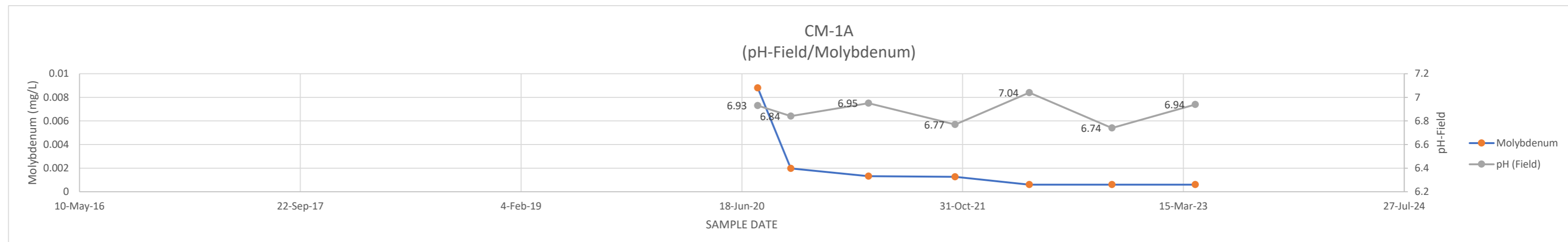
MW-22A	DATE	pH Field	MOLYBDENUM
11-Aug-17	6.76	6.76	0.001
22-May-18	7.01	7.01	
10-Aug-18	7.02	7.02	0.001
3-Oct-18	6.75	6.75	0.001
16-Jan-19	6.75	6.75	0.0006
25-Apr-19	7.19	7.19	0.0006
30-Sep-19	7.02	7.02	0.000787
18-Jun-20	6.97	6.97	0.0006
9-Oct-20	6.97	6.97	0.0006
31-Mar-21	7	7	0.0006
13-Oct-21	7	7	0.0006
1-Apr-22	7.16	7.16	0.00114
4-Oct-22	6.87	6.87	0.0006
18-Apr-23	6.88	6.88	0.0006



MW-22B	DATE	pH Field	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	7.95	7.95	0.00878
13-Oct-20	7.64	7.64	0.00866
31-Mar-21	7.88	7.88	0.00753
13-Oct-21	7.72	7.72	0.00446
28-Mar-22	7.67	7.67	0.00357
4-Oct-22	7.63	7.63	0.00105
11-Apr-23	7.67	7.67	0.00389

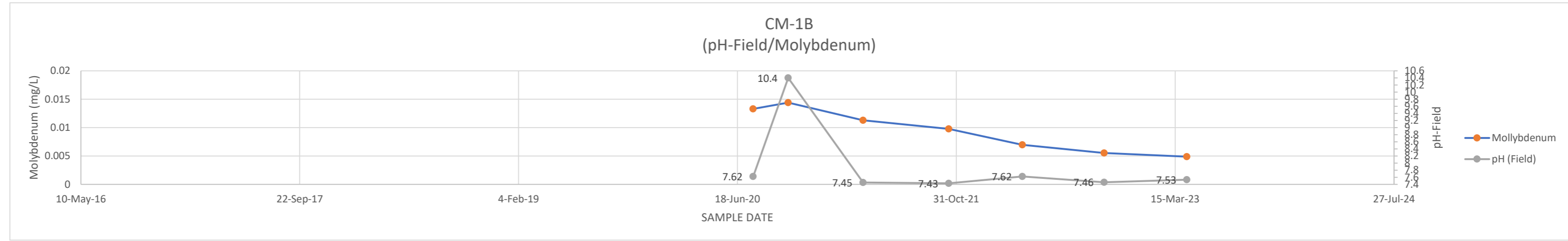


CM-1A	DATE	pH Field	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	6.93	6.93	0.0088
7-Oct-20	6.84	6.84	0.00198
1-Apr-21	6.95	6.95	0.00132
14-Oct-21	6.77	6.77	0.00127
31-Mar-22	7.04	7.04	0.0006
4-Oct-22	6.74	6.74	0.0006
11-Apr-23	6.94	6.94	0.0006

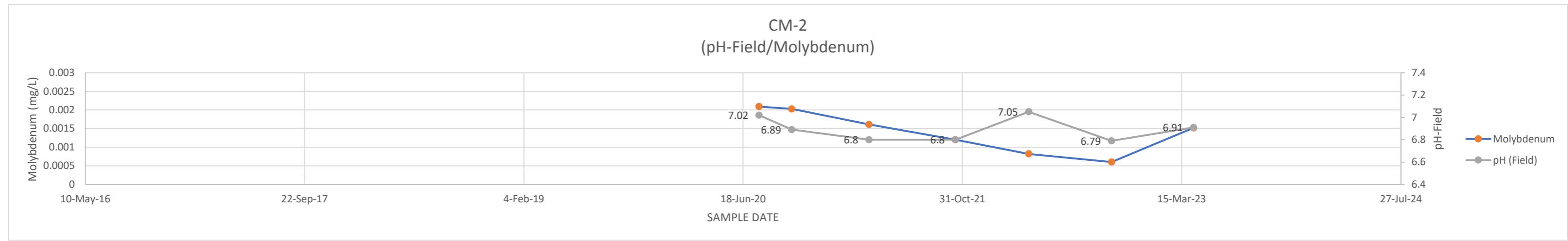


ATTACHMENT F-3A
CHANGES IN PH (FIELD) AND MOLYBDENUM CONCENTRATIONS

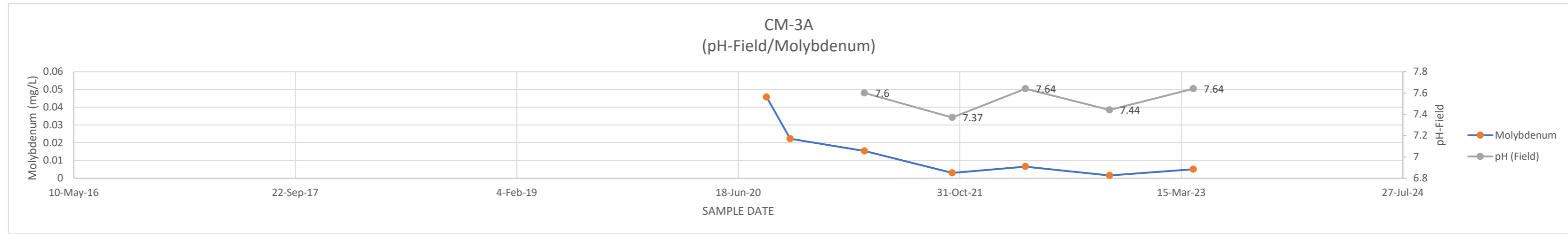
CM-1B DATE	pH Field	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	7.62	0.0133
12-Oct-20	10.4	0.0144
1-Apr-21	7.45	0.0113
14-Oct-21	7.43	0.00976
31-Mar-22	7.62	0.00696
4-Oct-22	7.46	0.00551
11-Apr-23	7.53	0.00488



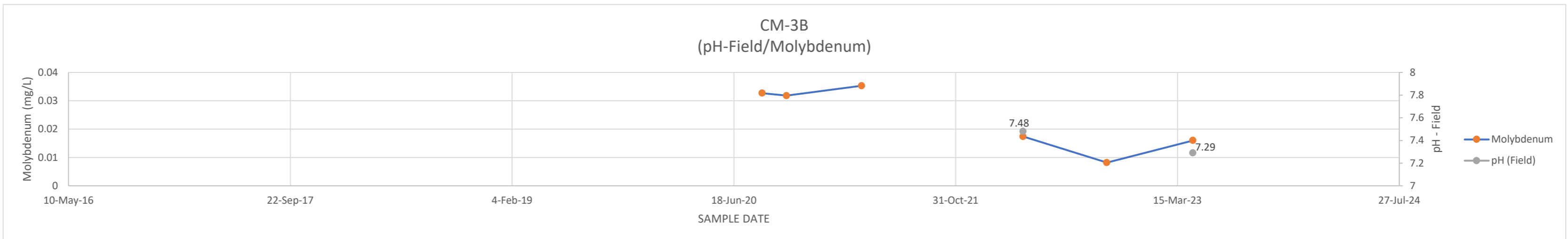
CM-2 DATE	pH Field	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	7.02	0.00209
7-Oct-20	6.89	0.00203
1-Apr-21	6.8	0.00161
15-Oct-21	6.8	0.0012
31-Mar-22	7.05	0.00082
6-Oct-22	6.79	0.0006
11-Apr-23	6.91	0.00152



CM-3A DATE	pH Field	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0457
13-Oct-20		0.0222
30-Mar-21	7.6	0.0153
14-Oct-21	7.37	0.00297
28-Mar-22	7.64	0.00656
4-Oct-22	7.44	0.00155
11-Apr-23	7.64	0.00503

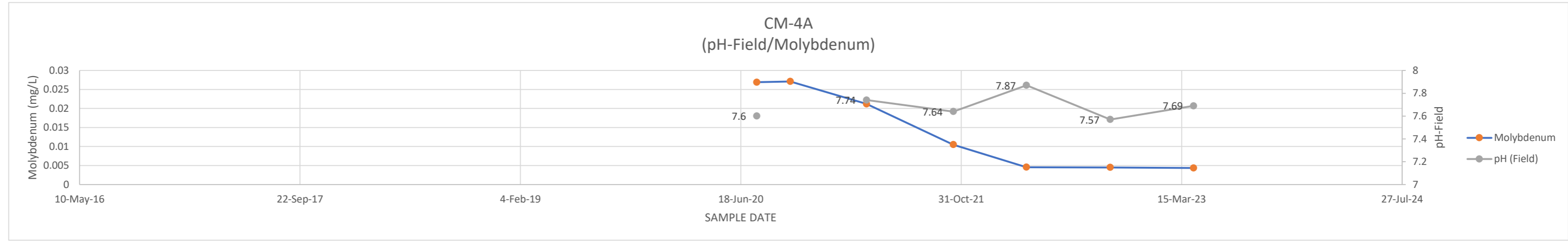


CM-3B DATE	pH Field	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0327
15-Oct-20		0.0318
2-Apr-21		0.0353
11-Oct-21		
1-Apr-22	7.48	0.0174
7-Oct-22		0.00819
19-Apr-23	7.29	0.016

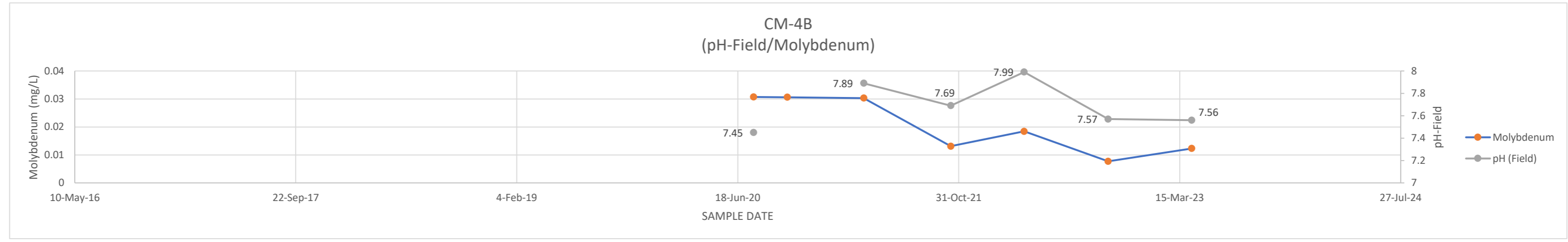


ATTACHMENT F-3A
CHANGES IN PH (FIELD) AND MOLYBDENUM CONCENTRATIONS

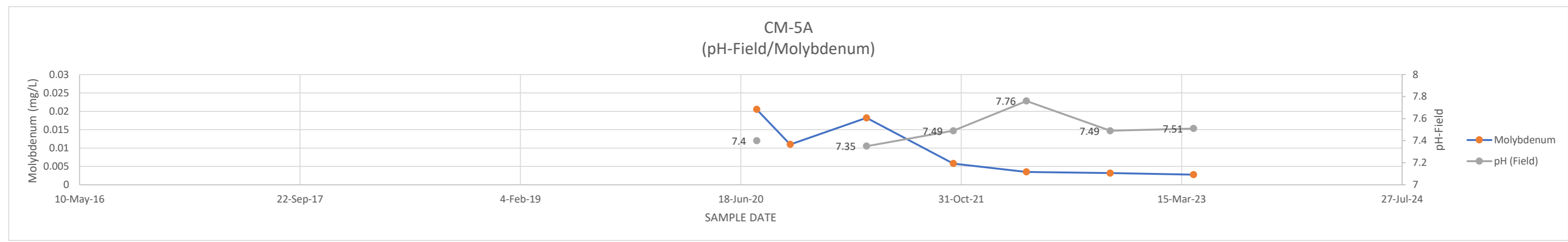
CM-4A	DATE	pH Field	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20	7.6	0.0269
	8-Oct-20		0.0271
	30-Mar-21	7.74	0.0212
	13-Oct-21	7.64	0.0105
	28-Mar-22	7.87	0.00455
	4-Oct-22	7.57	0.00449
	11-Apr-23	7.69	0.00436



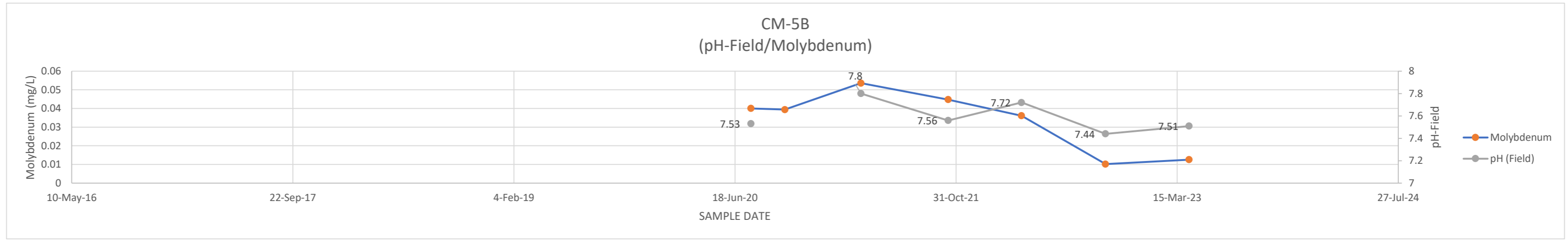
CM-4B	DATE	pH Field	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20	7.45	0.0307
	8-Oct-20		0.0306
	30-Mar-21	7.89	0.0303
	13-Oct-21	7.69	0.0131
	28-Mar-22	7.99	0.0184
	4-Oct-22	7.57	0.00771
	11-Apr-23	7.56	0.0123



CM-5A	DATE	pH Field	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20	7.4	0.0205
	8-Oct-20		0.011
	30-Mar-21	7.35	0.0182
	13-Oct-21	7.49	0.0058
	28-Mar-22	7.76	0.00351
	4-Oct-22	7.49	0.00317
	11-Apr-23	7.51	0.00276



CM-5B	DATE	pH Field	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20	7.53	0.04
	9-Oct-20		0.0394
	30-Mar-21	7.8	0.0536
	13-Oct-21	7.56	0.0448
	28-Mar-22	7.72	0.0361
	4-Oct-22	7.44	0.0102
	11-Apr-23	7.51	0.0126

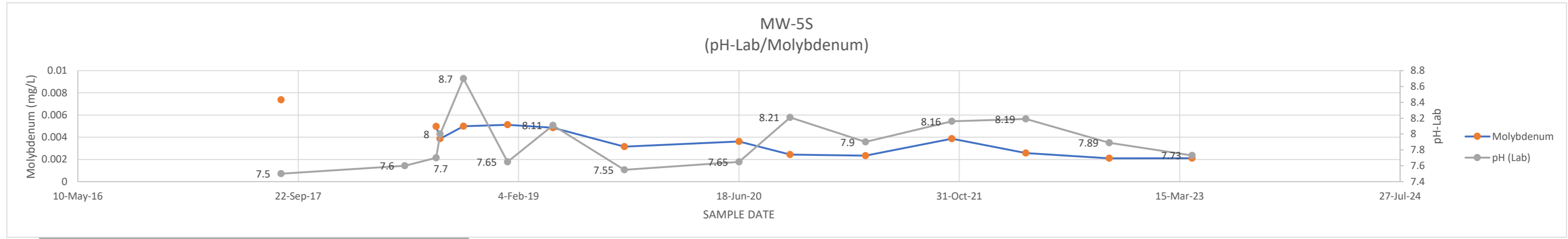


Yellow Indicates Reported Below shown value (MDL)

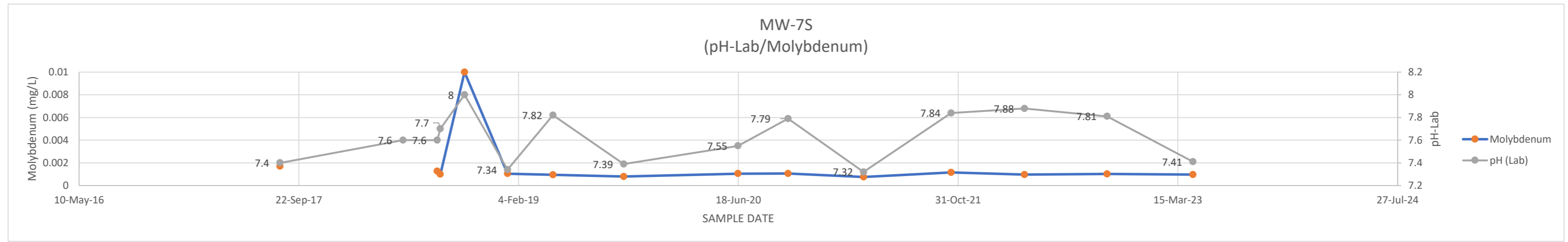
ATTACHMENT F-3B
CHANGES IN PH (LAB) AND MOLYBDENUM CONCENTRATIONS

MW-5S	DATE	pH Lab	MOLYBDENUM
	14-Aug-17	7.5	0.00737
	22-May-18	7.6	
	1-Aug-18	7.7	0.00497
	10-Aug-18	8	0.00387
	2-Oct-18	8.7	0.005
	10-Jan-19	7.65	0.00512
	23-Apr-19	8.11	0.00485
	2-Oct-19	7.55	0.00315
	18-Jun-20	7.65	0.00361
	12-Oct-20	8.21	0.00244
	1-Apr-21	7.9	0.00234
	14-Oct-21	8.16	0.00387
	31-Mar-22	8.19	0.00257
	6-Oct-22	7.89	0.0021
	12-Apr-23	7.73	0.00211

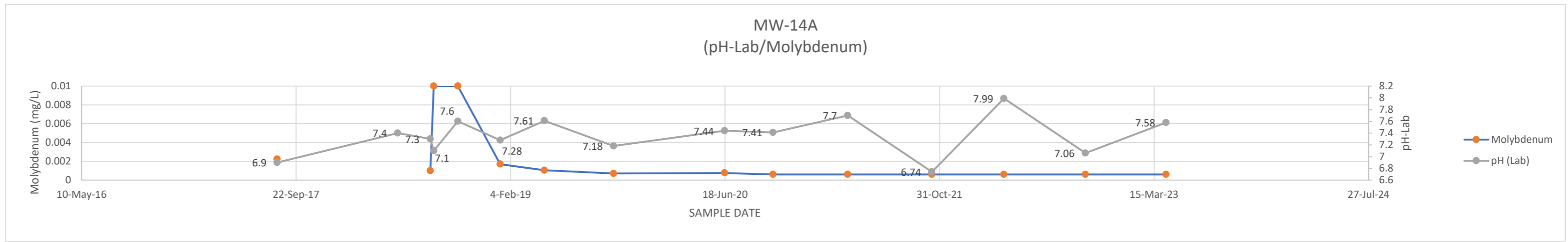
Value denoted in red from June 2022 resample



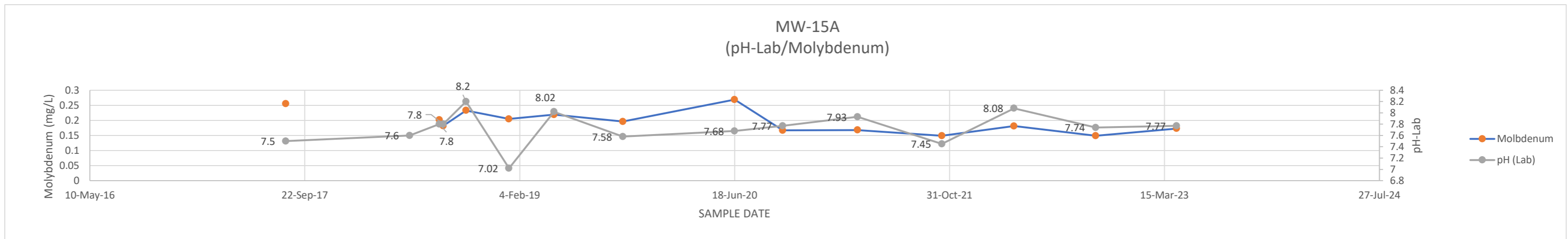
MW-7S	DATE	pH Lab	MOLYBDENUM
	10-Aug-17	7.4	0.00171
	17-May-18	7.6	
	3-Aug-18	7.6	0.00127
	10-Aug-18	7.7	0.001
	4-Oct-18	8	0.01
	10-Jan-19	7.34	0.00105
	23-Apr-19	7.82	0.000952
	1-Oct-19	7.39	0.000798
	17-Jun-20	7.55	0.00105
	9-Oct-20	7.79	0.00106
	30-Mar-21	7.32	0.000755
	15-Oct-21	7.84	0.00115
	31-Mar-22	7.88	0.000973
	5-Oct-22	7.81	0.00103
	18-Apr-23	7.41	0.000973



MW-14A	DATE	pH Lab	MOLYBDENUM
	9-Aug-17	6.9	0.00223
	17-May-18	7.4	
	1-Aug-18	7.3	0.001
	9-Aug-18	7.1	0.01
	4-Oct-18	7.6	0.01
	11-Jan-19	7.28	0.0017
	24-Apr-19	7.61	0.00104
	2-Oct-19	7.18	0.000709
	17-Jun-20	7.44	0.00076
	8-Oct-20	7.41	0.0006
	31-Mar-21	7.7	0.0006
	13-Oct-21	6.74	0.0006
	30-Mar-22	7.99	0.0006
	6-Oct-22	7.06	0.0006
	12-Apr-23	7.58	0.0006

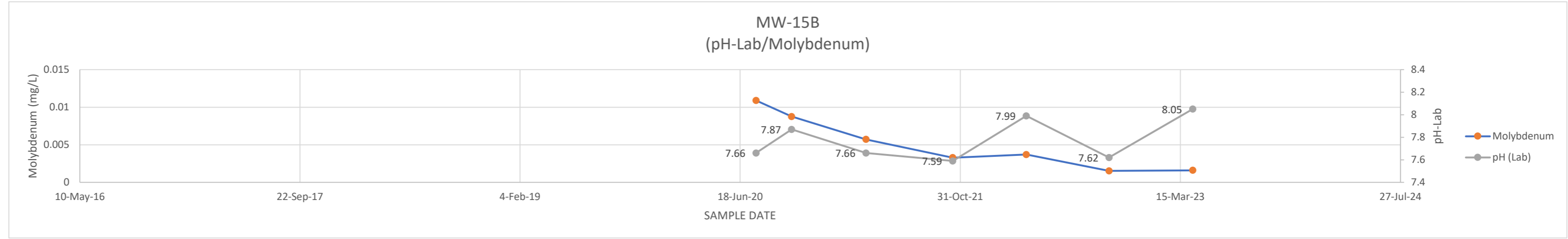


MW-15A	DATE	pH Lab	MOLYBDENUM
	9-Aug-17	7.5	0.255
	24-May-18	7.6	
	1-Aug-18	7.8	0.202
	10-Aug-18	7.8	0.182
	2-Oct-18	8.2	0.233
	10-Jan-19	7.02	0.205
	25-Apr-19	8.02	0.219
	2-Oct-19	7.58	0.196
	18-Jun-20	7.68	0.269
	8-Oct-20	7.77	0.167
	31-Mar-21	7.93	0.168
	13-Oct-21	7.45	0.149
	30-Mar-22	8.08	0.181
	6-Oct-22	7.74	0.149
	12-Apr-23	7.77	0.173

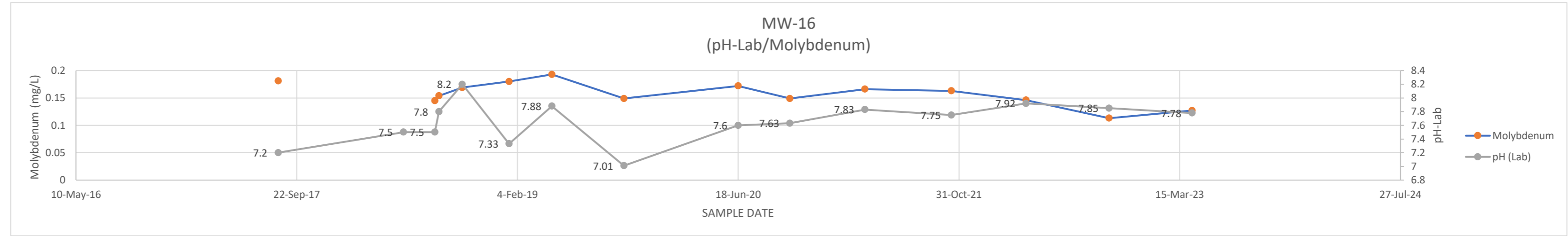


ATTACHMENT F-3B
CHANGES IN PH (LAB) AND MOLYBDENUM CONCENTRATIONS

MW-15B	DATE	pH Lab	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	7.66	0.0109	
13-Oct-20	7.87	0.00876	
31-Mar-21	7.66	0.00571	
14-Oct-21	7.59	0.00328	
30-Mar-22	7.99	0.0037	
4-Oct-22	7.62	0.00153	
12-Apr-23	8.05	0.0016	

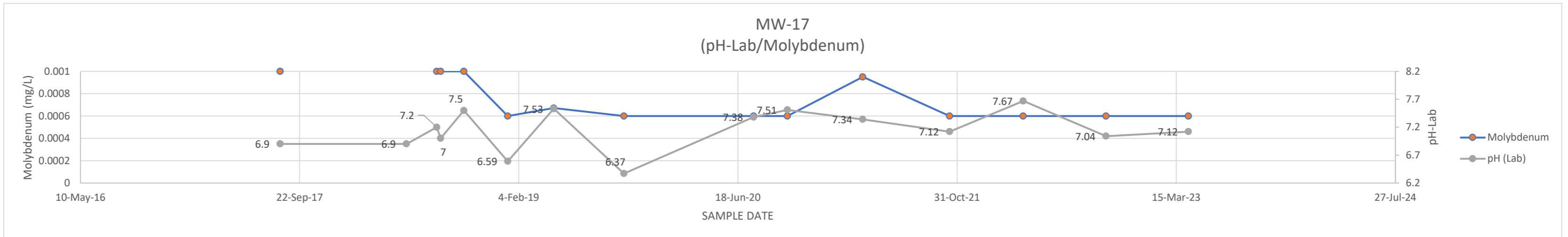


MW-16	DATE	pH Lab	MOLYBDENUM
11-Aug-17	7.2	0.181	
22-May-18	7.5		
1-Aug-18	7.5	0.145	
10-Aug-18	7.8	0.154	
2-Oct-18	8.2	0.169	
16-Jan-19	7.33	0.18	
23-Apr-19	7.88	0.193	
3-Oct-19	7.01	0.149	
18-Jun-20	7.6	0.172	
13-Oct-20	7.63	0.149	
1-Apr-21	7.83	0.166	
14-Oct-21	7.75	0.163	
1-Apr-22	7.92	0.146	
6-Oct-22	7.85	0.113	
12-Apr-23	7.78	0.127	



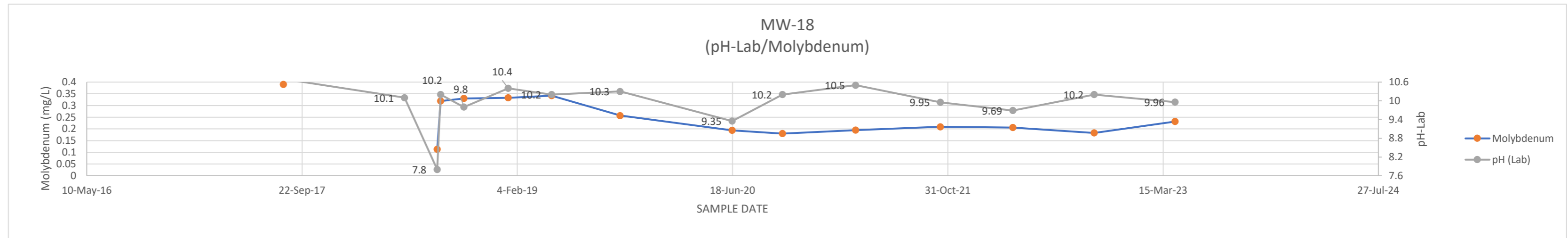
Value denoted in red from June 2022 resample

MW-17	DATE	pH Lab	MOLYBDENUM
9-Aug-17	6.9	0.001	
24-May-18	6.9	0.001	
1-Aug-18	7.2	0.001	
10-Aug-18	7	0.001	
2-Oct-18	7.5	0.001	
10-Jan-19	6.59	0.0006	
25-Apr-19	7.53	0.000671	
2-Oct-19	6.37	0.0006	
24-Jul-20	7.38	0.0006	
9-Oct-20	7.51	0.0006	
30-Mar-21	7.34	0.00095	
14-Oct-21	7.12	0.0006	
31-Mar-22	7.67	0.0006	
6-Oct-22	7.04	0.0006	
12-Apr-23	7.12	0.0006	



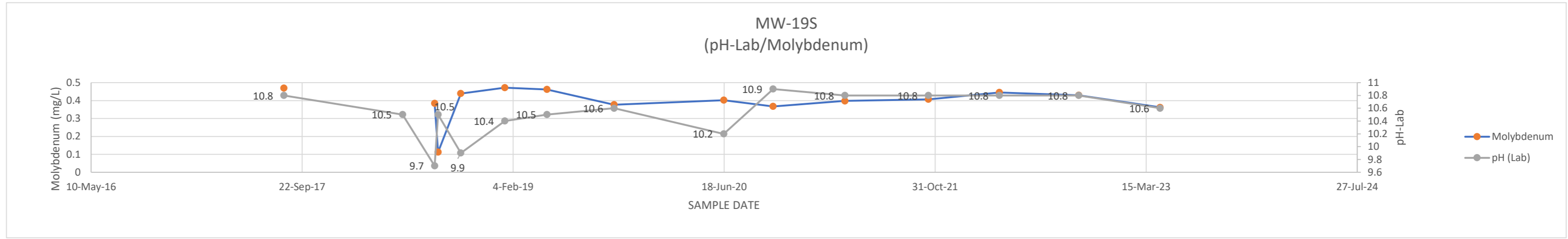
Value denoted in red from June 2022 resample

MW-18	DATE	pH Lab	MOLYBDENUM
10-Aug-17	10.7	0.39	
18-May-18	10.1		
2-Aug-18	7.8	0.113	
10-Aug-18	10.2	0.319	
3-Oct-18	9.8	0.33	
14-Jan-19	10.4	0.333	
25-Apr-19	10.2	0.342	
1-Oct-19	10.3	0.257	
17-Jun-20	9.35	0.194	
12-Oct-20	10.2	0.18	
31-Mar-21	10.5	0.195	
14-Oct-21	9.95	0.209	
31-Mar-22	9.69	0.206	
6-Oct-22	10.2	0.183	
12-Apr-23	9.96	0.232	

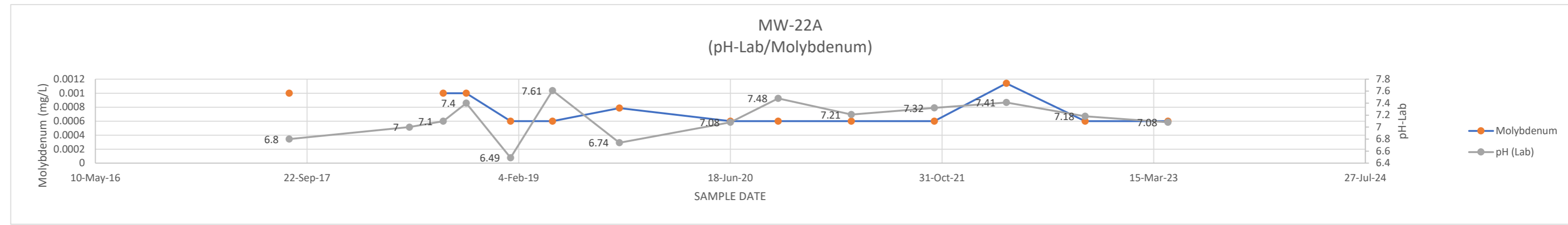


ATTACHMENT F-3B
CHANGES IN PH (LAB) AND MOLYBDENUM CONCENTRATIONS

MW-19S	DATE	pH Lab	MOLYBDENUM
10-Aug-17	10.8	10.8	0.469
18-May-18	10.5	10.5	0.384
2-Aug-18	9.7	9.7	0.112
10-Aug-18	10.5	10.5	0.439
3-Oct-18	9.9	9.9	0.472
15-Jan-19	10.4	10.4	0.462
25-Apr-19	10.5	10.5	0.377
1-Oct-19	10.6	10.6	0.402
17-Jun-20	10.2	10.2	0.367
12-Oct-20	10.9	10.9	0.398
31-Mar-21	10.8	10.8	0.407
15-Oct-21	10.8	10.8	0.445
1-Apr-22	10.8	10.8	0.43
6-Oct-22	10.8	10.8	0.362
17-Apr-23	10.6	10.6	

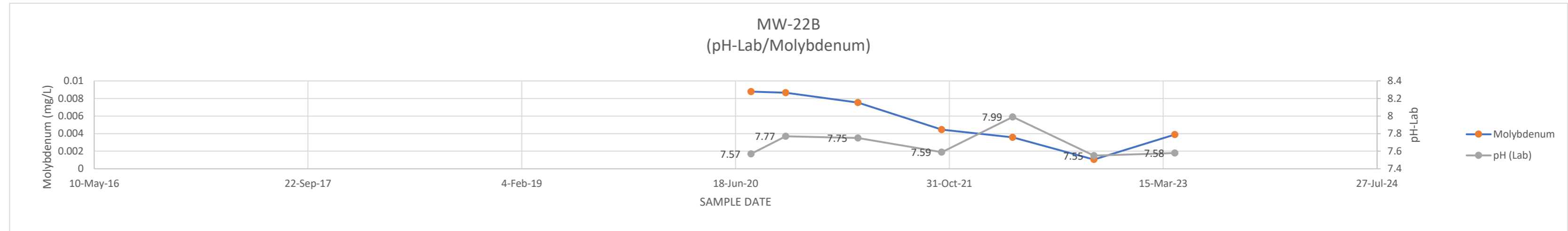


MW-22A	DATE	pH Lab	MOLYBDENUM
11-Aug-17	6.8	6.8	0.001
22-May-18	7	7	
10-Aug-18	7.1	7.1	0.001
3-Oct-18	7.4	7.4	0.001
16-Jan-19	6.49	6.49	0.0006
25-Apr-19	7.61	7.61	0.0006
30-Sep-19	6.74	6.74	0.000787
18-Jun-20	7.08	7.08	0.0006
9-Oct-20	7.48	7.48	0.0006
31-Mar-21	7.21	7.21	0.0006
13-Oct-21	7.32	7.32	0.0006
1-Apr-22	7.41	7.41	0.00114
4-Oct-22	7.18	7.18	0.0006
18-Apr-23	7.08	7.08	0.0006

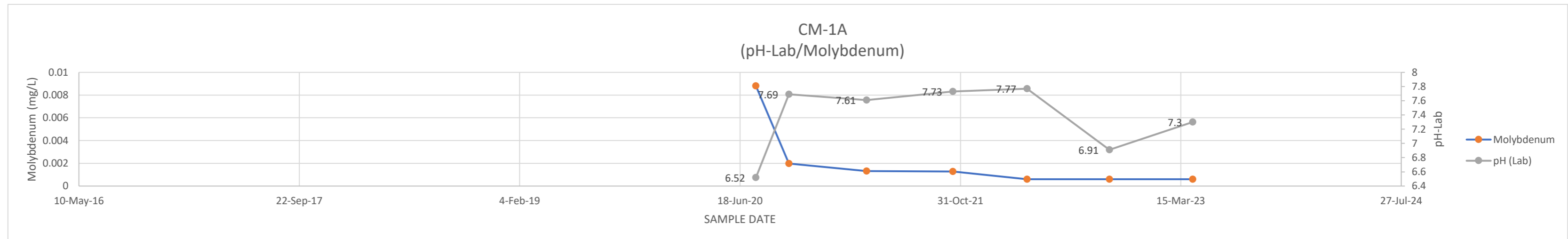


Value denoted in red from June 2022 resample

MW-22B	DATE	pH Lab	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	7.57	7.57	0.00878
13-Oct-20	7.77	7.77	0.00866
31-Mar-21	7.75	7.75	0.00753
13-Oct-21	7.59	7.59	0.00446
28-Mar-22	7.99	7.99	0.00357
4-Oct-22	7.55	7.55	0.00105
11-Apr-23	7.58	7.58	0.00389

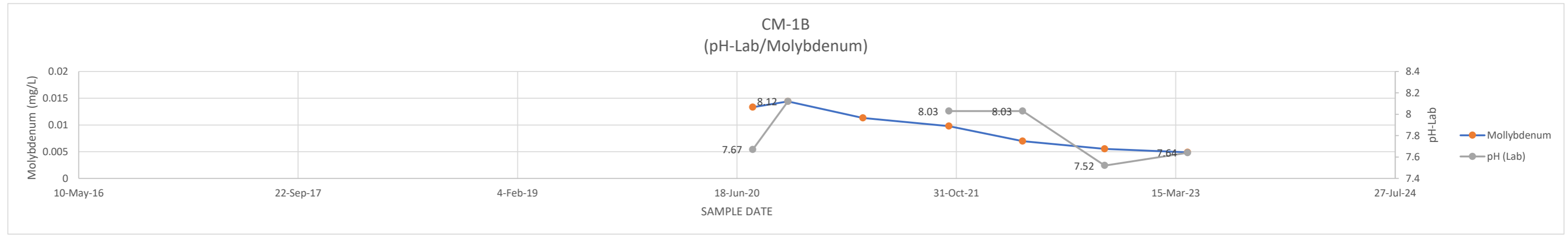


CM-1A	DATE	pH Lab	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	6.52	6.52	0.0088
7-Oct-20	7.69	7.69	0.00198
1-Apr-21	7.61	7.61	0.00132
14-Oct-21	7.73	7.73	0.00127
31-Mar-22	7.77	7.77	0.0006
4-Oct-22	6.91	6.91	0.0006
11-Apr-23	7.3	7.3	0.0006

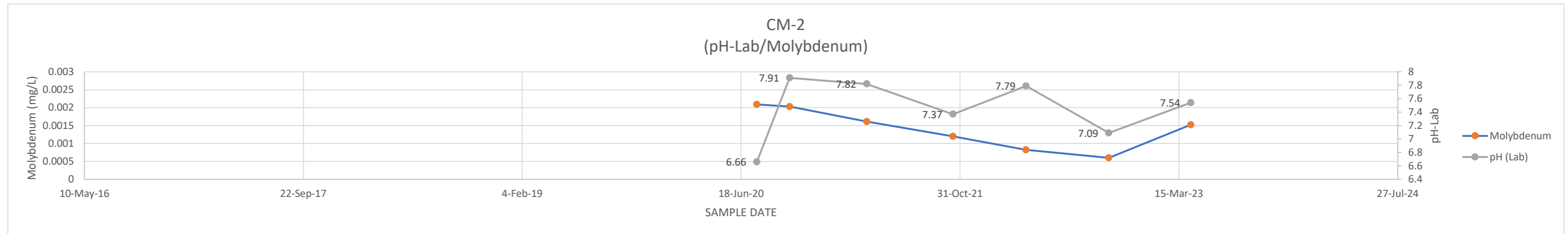


ATTACHMENT F-3B
CHANGES IN PH (LAB) AND MOLYBDENUM CONCENTRATIONS

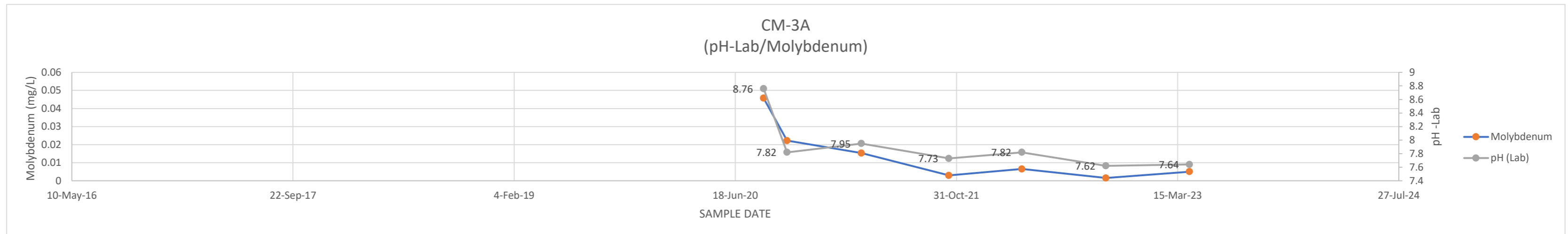
CM-1B DATE	pH Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	7.67	0.0133
12-Oct-20	8.12	0.0144
1-Apr-21		0.0113
14-Oct-21	8.03	0.00976
31-Mar-22	8.03	0.00696
4-Oct-22	7.52	0.00551
11-Apr-23	7.64	0.00488



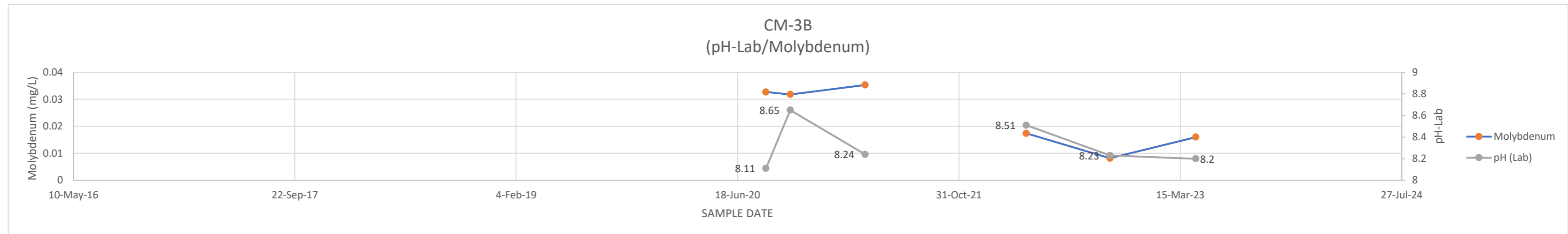
CM-2 DATE	pH Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	6.66	0.00209
7-Oct-20	7.91	0.00203
1-Apr-21	7.82	0.00161
15-Oct-21	7.37	0.0012
31-Mar-22	7.79	0.00082
6-Oct-22	7.09	0.0006
11-Apr-23	7.54	0.00152



CM-3A DATE	pH Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	8.76	0.0457
13-Oct-20	7.82	0.0222
30-Mar-21	7.95	0.0153
14-Oct-21	7.73	0.00297
28-Mar-22	7.82	0.00656
4-Oct-22	7.62	0.00155
11-Apr-23	7.64	0.00503

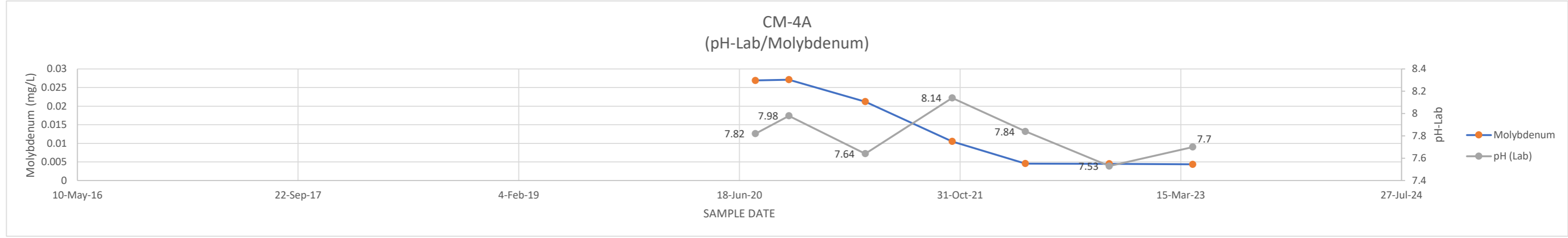


CM-3B DATE	pH Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	8.11	0.0327
15-Oct-20	8.65	0.0318
2-Apr-21	8.24	0.0353
11-Oct-21		
1-Apr-22	8.51	0.0174
7-Oct-22	8.23	0.00819
19-Apr-23	8.2	0.016

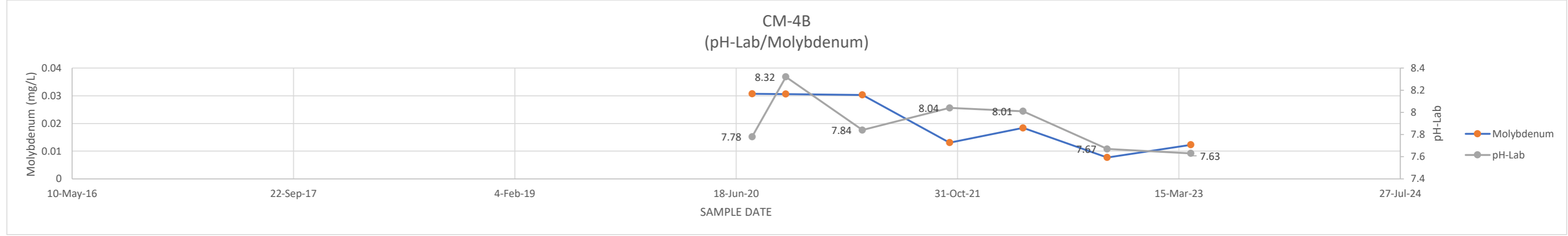


ATTACHMENT F-3B
CHANGES IN PH (LAB) AND MOLYBDENUM CONCENTRATIONS

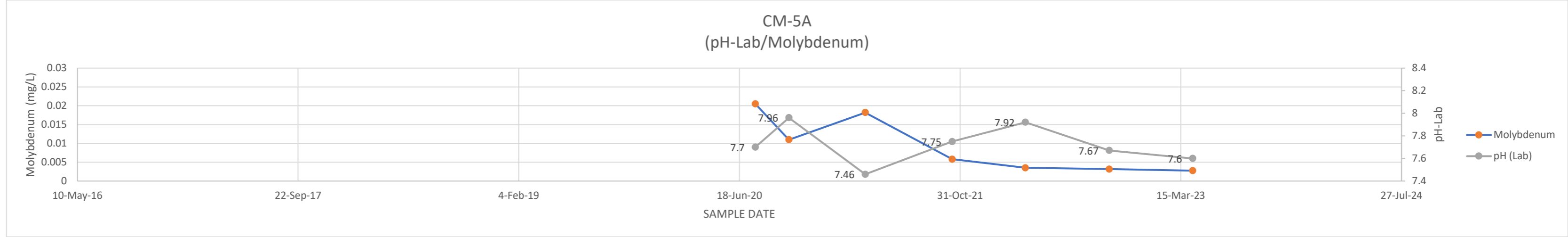
CM-4A DATE	pH Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	7.82	0.0269
8-Oct-20	7.98	0.0271
30-Mar-21	7.64	0.0212
13-Oct-21	8.14	0.0105
28-Mar-22	7.84	0.00455
4-Oct-22	7.53	0.00449
11-Apr-23	7.7	0.00436



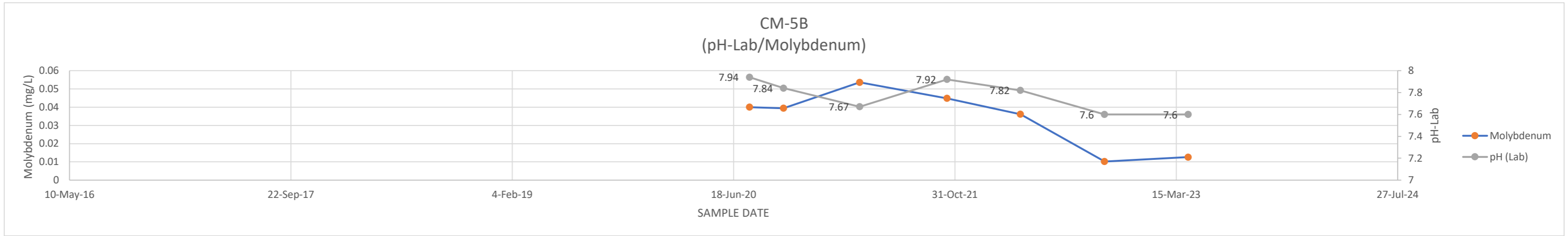
CM-4B DATE	pH Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	7.78	0.0307
8-Oct-20	8.32	0.0306
30-Mar-21	7.84	0.0303
13-Oct-21	8.04	0.0131
28-Mar-22	8.01	0.0184
4-Oct-22	7.67	0.00771
11-Apr-23	7.63	0.0123



CM-5A DATE	pH Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	7.7	0.0205
8-Oct-20	7.96	0.011
30-Mar-21	7.46	0.0182
13-Oct-21	7.75	0.0058
28-Mar-22	7.92	0.00351
4-Oct-22	7.67	0.00317
11-Apr-23	7.6	0.00276



CM-5B DATE	pH Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	7.94	0.04
9-Oct-20	7.84	0.0394
30-Mar-21	7.67	0.0536
13-Oct-21	7.92	0.0448
28-Mar-22	7.82	0.0361
4-Oct-22	7.6	0.0102
11-Apr-23	7.6	0.0126

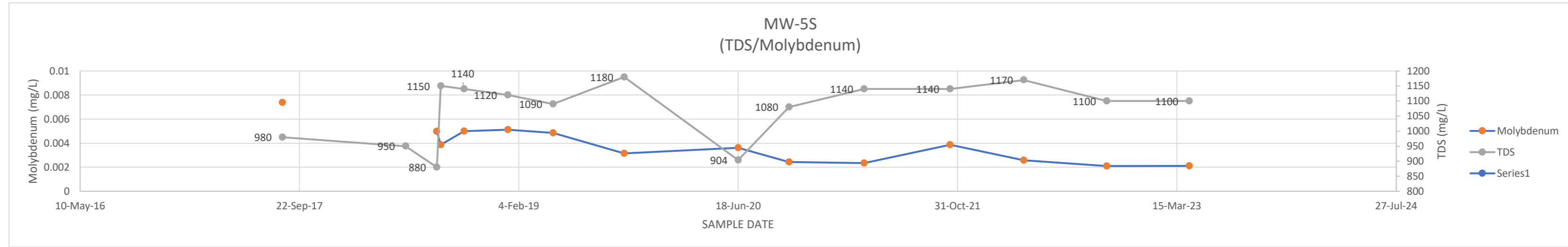


Yellow Indicates Reported Below shown value (MDL)

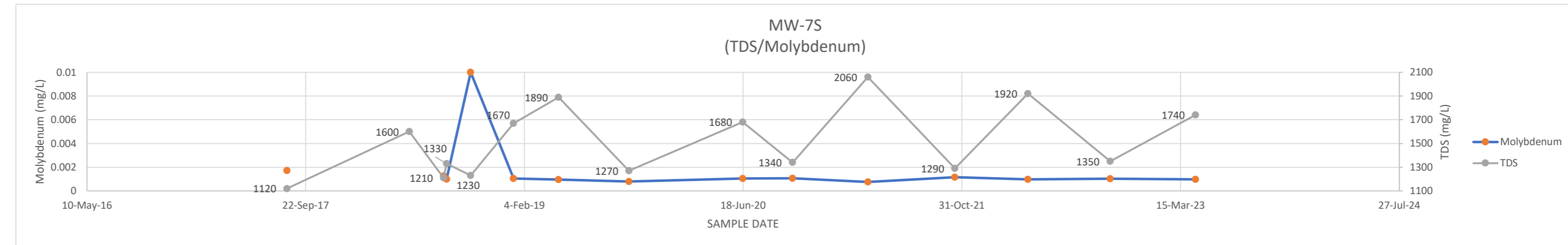
ATTACHMENT F-4
CHANGES IN TDS AND MOLYBDENUM CONCENTRATIONS

MW-5S	DATE	TDS	MOLYBDENUM
	14-Aug-17	980	0.00737
	22-May-18	950	
	1-Aug-18	880	0.00497
	10-Aug-18	1150	0.00387
	2-Oct-18	1140	0.005
	10-Jan-19	1120	0.00512
	23-Apr-19	1090	0.00485
	2-Oct-19	1180	0.00315
	18-Jun-20	904	0.00361
	12-Oct-20	1080	0.00244
	1-Apr-21	1140	0.00234
	14-Oct-21	1140	0.00387
	31-Mar-22	1170	0.00257
	6-Oct-22	1100	0.0021
	12-Apr-23	1100	0.00211

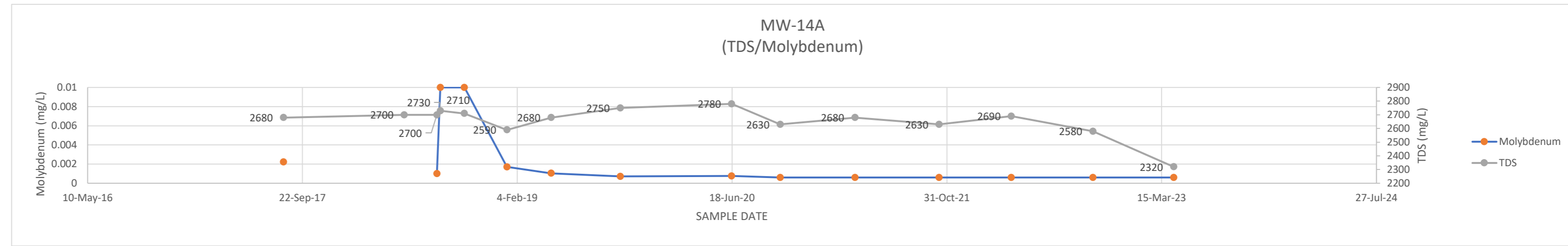
Value denoted in red from June 2022 resample



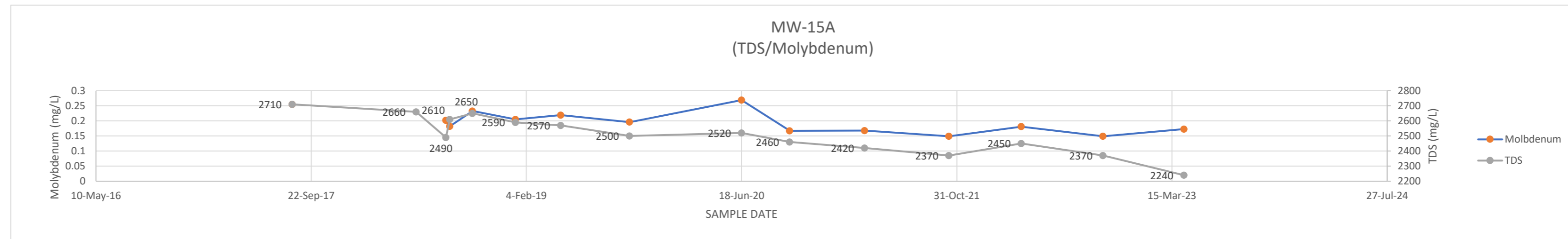
MW-7S	DATE	TDS	MOLYBDENUM
	10-Aug-17	1120	0.00171
	17-May-18	1600	
	3-Aug-18	1210	0.00127
	10-Aug-18	1330	0.001
	4-Oct-18	1230	0.01
	10-Jan-19	1670	0.00105
	23-Apr-19	1890	0.000952
	1-Oct-19	1270	0.000798
	17-Jun-20	1680	0.00105
	9-Oct-20	1340	0.00106
	30-Mar-21	2060	0.000755
	15-Oct-21	1290	0.00115
	31-Mar-22	1920	0.000973
	5-Oct-22	1350	0.00103
	18-Apr-23	1740	0.000973



MW-14A	DATE	TDS	MOLYBDENUM
	9-Aug-17	2680	0.00223
	17-May-18	2700	
	1-Aug-18	2700	0.001
	9-Aug-18	2730	0.01
	4-Oct-18	2710	0.01
	11-Jan-19	2590	0.0017
	24-Apr-19	2680	0.00104
	2-Oct-19	2750	0.000709
	17-Jun-20	2780	0.00076
	8-Oct-20	2630	0.0006
	31-Mar-21	2680	0.0006
	13-Oct-21	2630	0.0006
	30-Mar-22	2690	0.0006
	6-Oct-22	2580	0.0006
	12-Apr-23	2320	0.0006

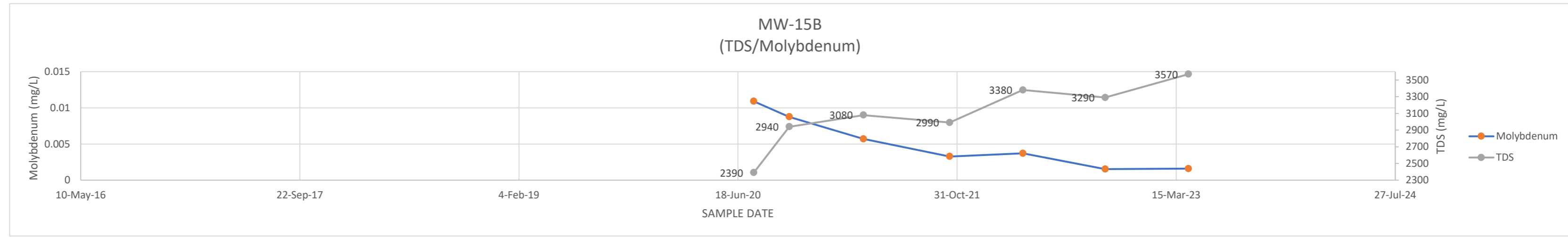


MW-15A	DATE	TDS	MOLYBDENUM
	9-Aug-17	2710	0.255
	24-May-18	2660	
	1-Aug-18	2490	0.202
	10-Aug-18	2610	0.182
	2-Oct-18	2650	0.233
	10-Jan-19	2590	0.205
	25-Apr-19	2570	0.219
	2-Oct-19	2500	0.196
	18-Jun-20	2520	0.269
	8-Oct-20	2460	0.167
	31-Mar-21	2420	0.168
	13-Oct-21	2370	0.149
	30-Mar-22	2450	0.181
	6-Oct-22	2370	0.149
	12-Apr-23	2240	0.173

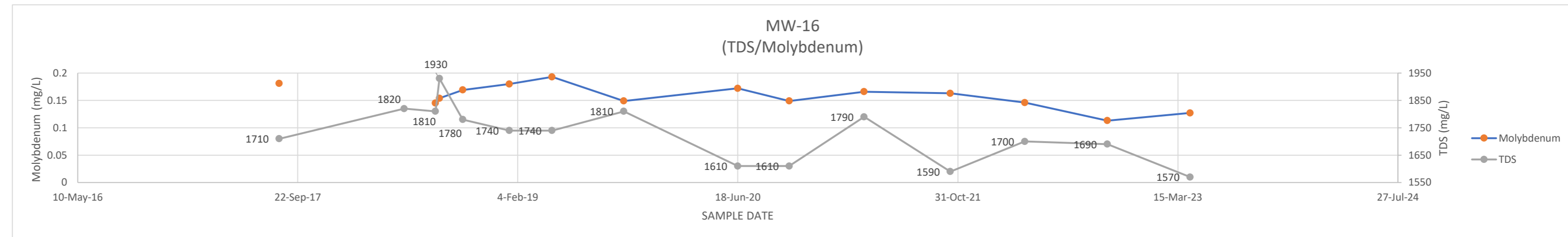


ATTACHMENT F-4
CHANGES IN TDS AND MOLYBDENUM CONCENTRATIONS

MW-15B	TDS	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2390	0.0109
13-Oct-20	2940	0.00876
31-Mar-21	3080	0.00571
14-Oct-21	2990	0.00328
30-Mar-22	3380	0.0037
4-Oct-22	3290	0.00153
12-Apr-23	3570	0.0016

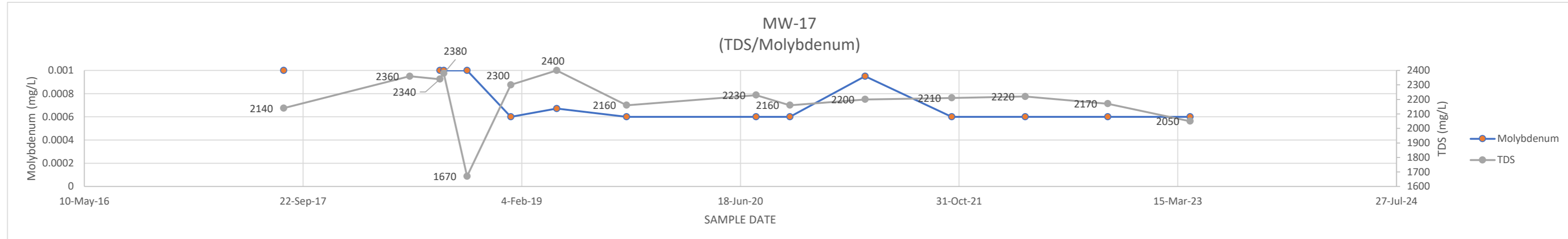


MW-16	TDS	MOLYBDENUM
DATE		
11-Aug-17	1710	0.181
22-May-18	1820	
1-Aug-18	1810	0.145
10-Aug-18	1930	0.154
2-Oct-18	1780	0.169
16-Jan-19	1740	0.18
23-Apr-19	1740	0.193
3-Oct-19	1810	0.149
18-Jun-20	1610	0.172
13-Oct-20	1610	0.149
1-Apr-21	1790	0.166
14-Oct-21	1590	0.163
1-Apr-22	1700	0.146
6-Oct-22	1690	0.113
12-Apr-23	1570	0.127



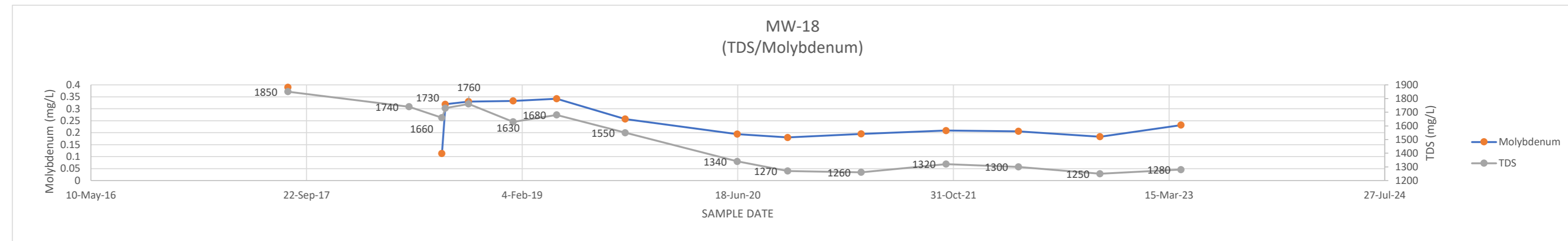
Value denoted in red from June 2022 resample

MW-17	TDS	MOLYBDENUM
DATE		
9-Aug-17	2140	0.001
24-May-18	2360	
1-Aug-18	2340	0.001
10-Aug-18	2380	0.001
2-Oct-18	1670	0.001
10-Jan-19	2300	0.0006
25-Apr-19	2400	0.000671
2-Oct-19	2160	0.0006
24-Jul-20	2230	0.0006
9-Oct-20	2160	0.0006
30-Mar-21	2200	0.00095
14-Oct-21	2210	0.0006
31-Mar-22	2220	0.0006
6-Oct-22	2170	0.0006
12-Apr-23	2050	0.0006



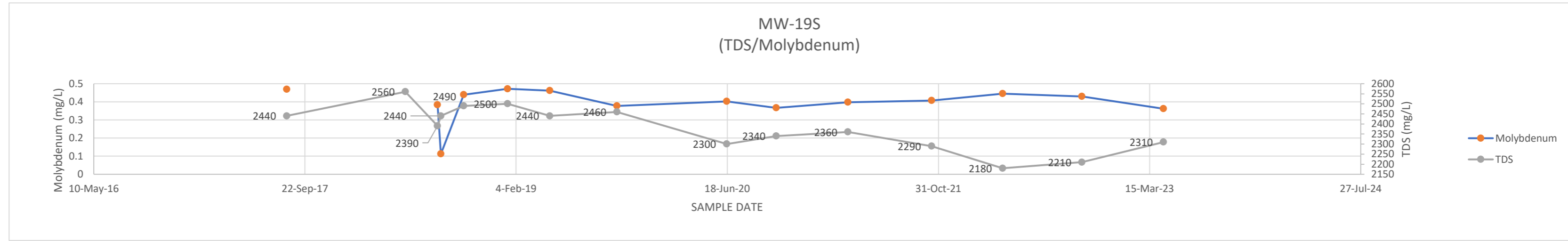
Value denoted in red from June 2022 resample

MW-18	TDS	MOLYBDENUM
DATE		
10-Aug-17	1850	0.39
18-May-18	1740	
2-Aug-18	1660	0.113
10-Aug-18	1730	0.319
3-Oct-18	1760	0.33
14-Jan-19	1630	0.333
25-Apr-19	1680	0.342
1-Oct-19	1550	0.257
17-Jun-20	1340	0.194
12-Oct-20	1270	0.18
31-Mar-21	1260	0.195
14-Oct-21	1320	0.209
31-Mar-22	1300	0.206
6-Oct-22	1250	0.183
12-Apr-23	1280	0.232

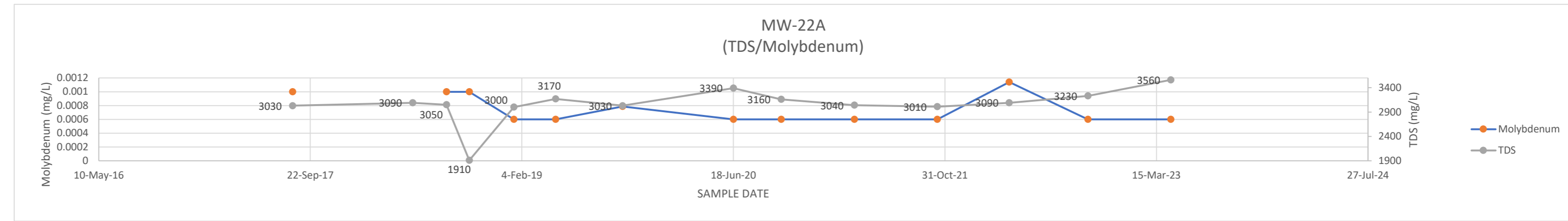


ATTACHMENT F-4
CHANGES IN TDS AND MOLYBDENUM CONCENTRATIONS

MW-19S	TDS	MOLYBDENUM
DATE		
10-Aug-17	2440	0.469
18-May-18	2560	
2-Aug-18	2390	0.384
10-Aug-18	2440	0.112
3-Oct-18	2490	0.439
15-Jan-19	2500	0.472
25-Apr-19	2440	0.462
1-Oct-19	2460	0.377
17-Jun-20	2300	0.402
12-Oct-20	2340	0.367
31-Mar-21	2360	0.398
15-Oct-21	2290	0.407
1-Apr-22	2180	0.445
6-Oct-22	2210	0.43
17-Apr-23	2310	0.362

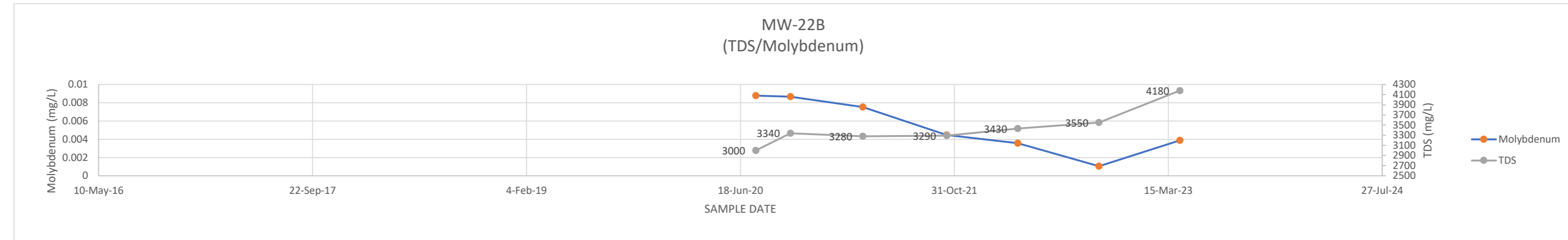


MW-22A	TDS	MOLYBDENUM
DATE		
11-Aug-17	3030	0.001
22-May-18	3090	
10-Aug-18	3050	0.001
3-Oct-18	1910	0.001
16-Jan-19	3000	0.0006
25-Apr-19	3170	0.0006
30-Sep-19	3030	0.000787
18-Jun-20	3390	0.0006
9-Oct-20	3160	0.0006
31-Mar-21	3040	0.0006
13-Oct-21	3010	0.0006
1-Apr-22	3090	0.00114
4-Oct-22	3230	0.0006
18-Apr-23	3560	0.0006

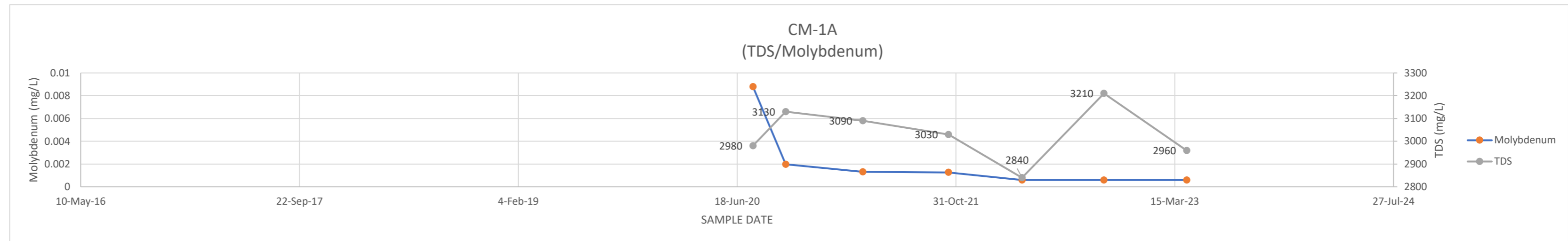


Value denoted in red from June 2022 resample

MW-22B	TDS	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3000	0.00878
13-Oct-20	3340	0.00866
31-Mar-21	3280	0.00753
13-Oct-21	3290	0.00446
28-Mar-22	3430	0.00357
4-Oct-22	3550	0.00105
11-Apr-23	4180	0.00389

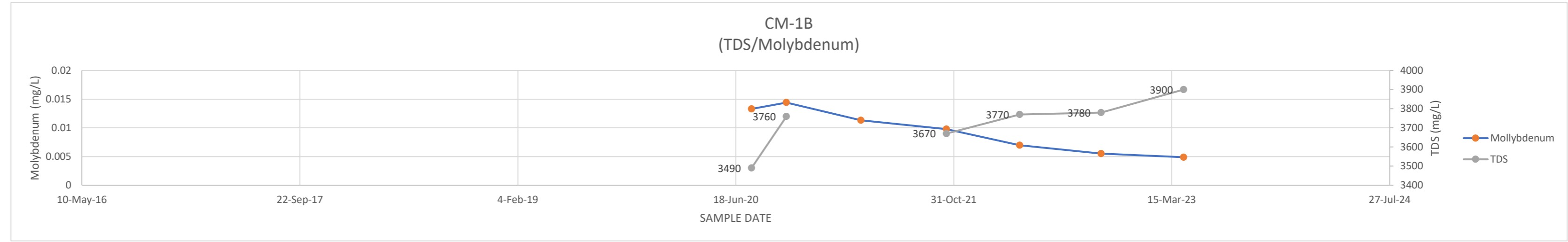


CM-1A	TDS	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2980	0.0088
7-Oct-20	3130	0.00198
1-Apr-21	3090	0.00132
14-Oct-21	3030	0.00127
31-Mar-22	2840	0.0006
4-Oct-22	3210	0.0006
11-Apr-23	2960	0.0006

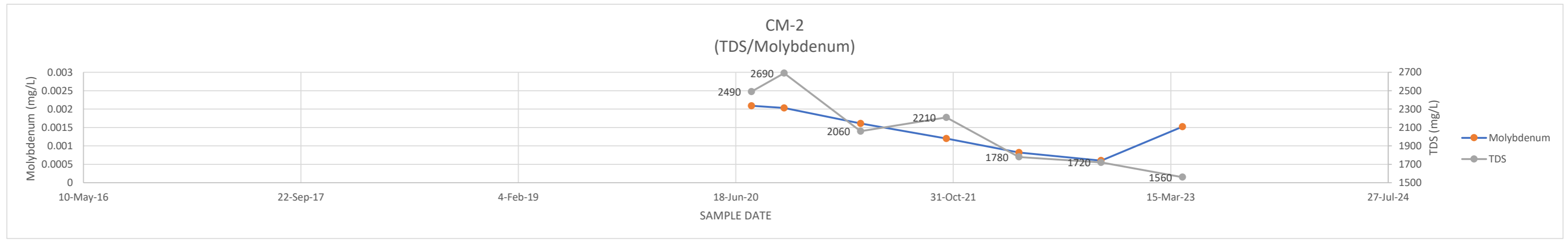


ATTACHMENT F-4
CHANGES IN TDS AND MOLYBDENUM CONCENTRATIONS

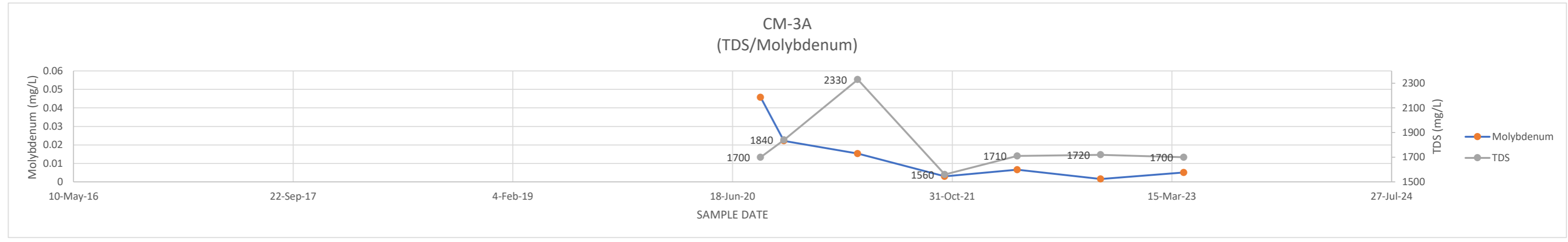
CM-1B DATE	TDS	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3490	0.0133
12-Oct-20	3760	0.0144
1-Apr-21		0.0113
14-Oct-21	3670	0.00976
31-Mar-22	3770	0.00696
4-Oct-22	3780	0.00551
11-Apr-23	3900	0.00488



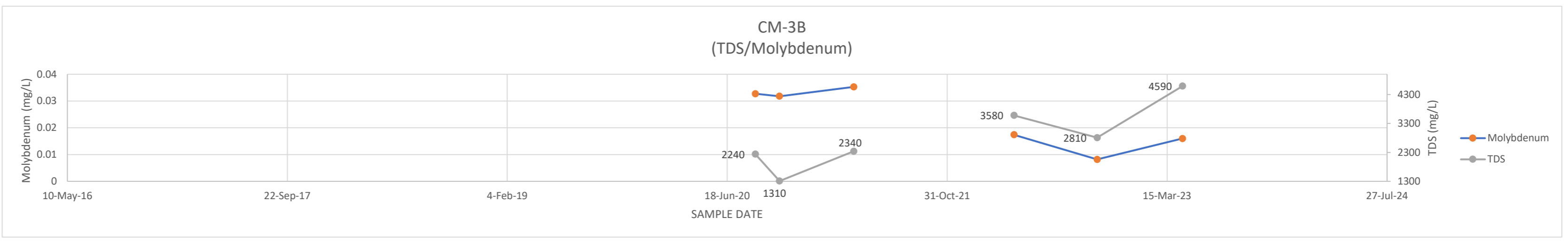
CM-2 DATE	TDS	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2490	0.00209
7-Oct-20	2690	0.00203
1-Apr-21	2060	0.00161
15-Oct-21	2210	0.0012
31-Mar-22	1780	0.00082
6-Oct-22	1720	0.0006
11-Apr-23	1560	0.00152



CM-3A DATE	TDS	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	1700	0.0457
13-Oct-20	1840	0.0222
30-Mar-21	2330	0.0153
14-Oct-21	1560	0.00297
28-Mar-22	1710	0.00656
4-Oct-22	1720	0.00155
11-Apr-23	1700	0.00503

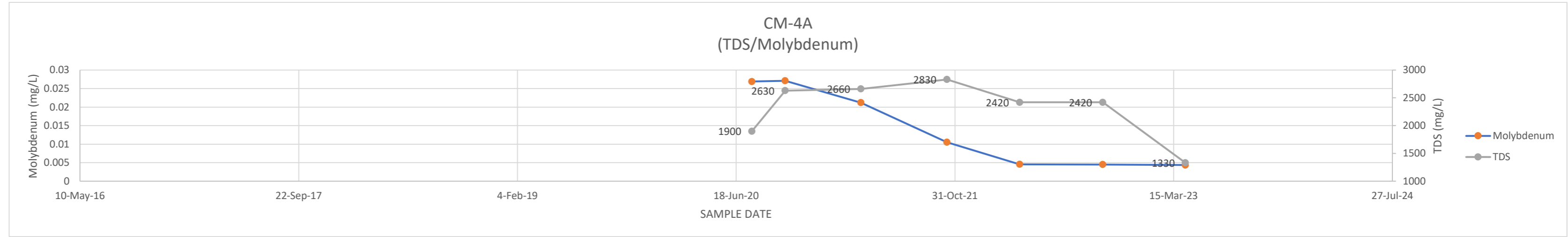


CM-3B DATE	TDS	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	2240	0.0327
15-Oct-20	1310	0.0318
2-Apr-21	2340	0.0353
11-Oct-21		
1-Apr-22	3580	0.0174
7-Oct-22	2810	0.00819
19-Apr-23	4590	0.016

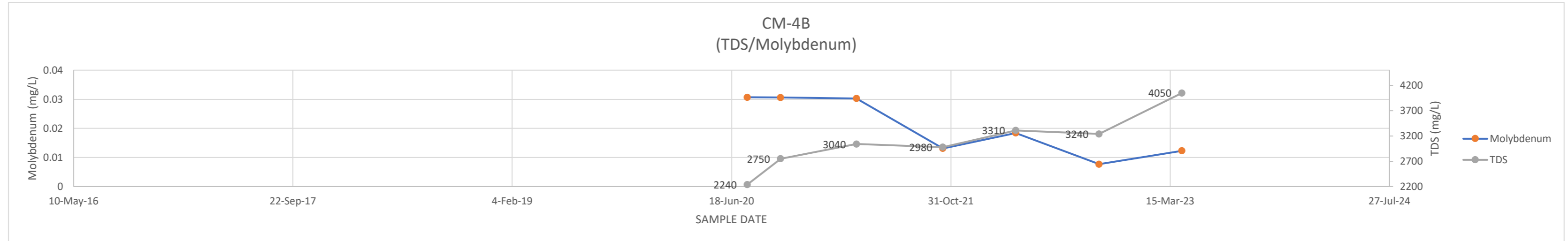


ATTACHMENT F-4
CHANGES IN TDS AND MOLYBDENUM CONCENTRATIONS

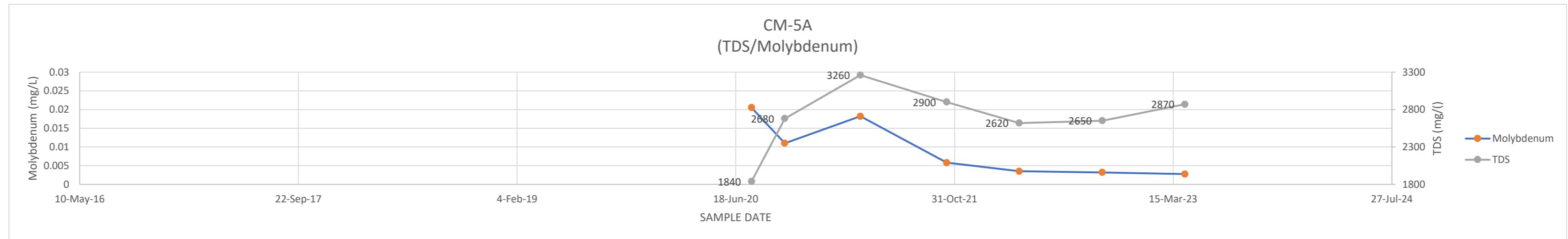
CM-4A DATE	TDS	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1900	0.0269
8-Oct-20	2630	0.0271
30-Mar-21	2660	0.0212
13-Oct-21	2830	0.0105
28-Mar-22	2420	0.00455
4-Oct-22	2420	0.00449
11-Apr-23	1330	0.00436



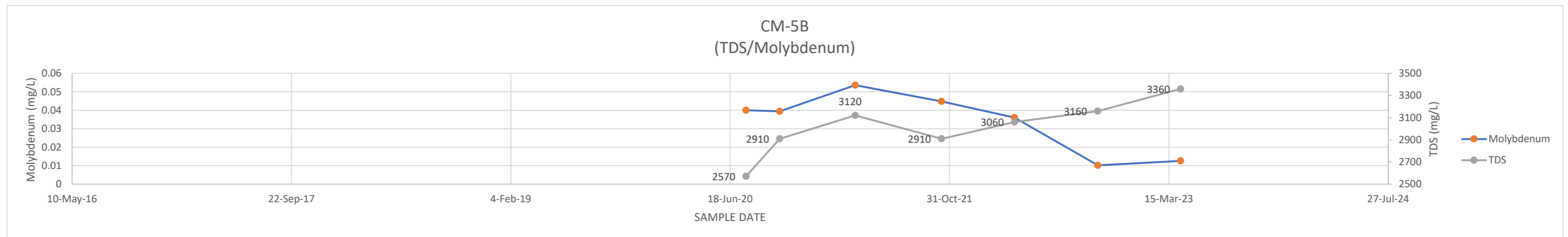
CM-4B DATE	TDS	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2240	0.0307
8-Oct-20	2750	0.0306
30-Mar-21	3040	0.0303
13-Oct-21	2980	0.0131
28-Mar-22	3310	0.0184
4-Oct-22	3240	0.00771
11-Apr-23	4050	0.0123



CM-5A DATE	TDS	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1840	0.0205
8-Oct-20	2680	0.011
30-Mar-21	3260	0.0182
13-Oct-21	2900	0.0058
28-Mar-22	2620	0.00351
4-Oct-22	2650	0.00317
11-Apr-23	2870	0.00276



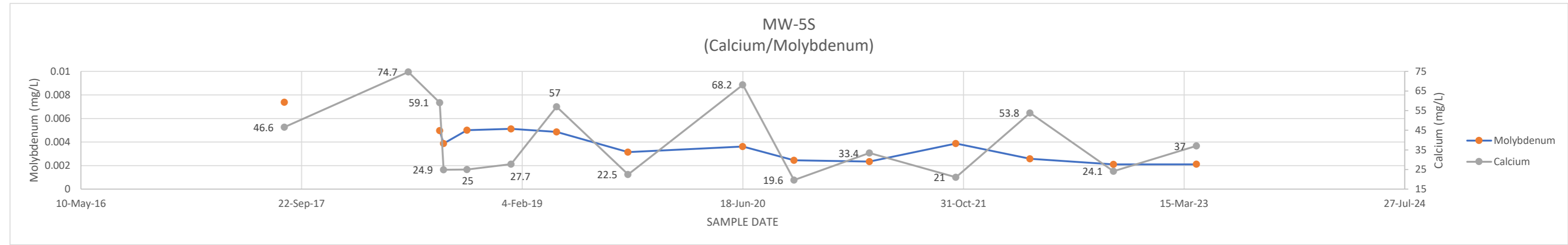
CM-5B DATE	TDS	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2570	0.04
9-Oct-20	2910	0.0394
30-Mar-21	3120	0.0536
13-Oct-21	2910	0.0448
28-Mar-22	3060	0.0361
4-Oct-22	3160	0.0102
11-Apr-23	3360	0.0126



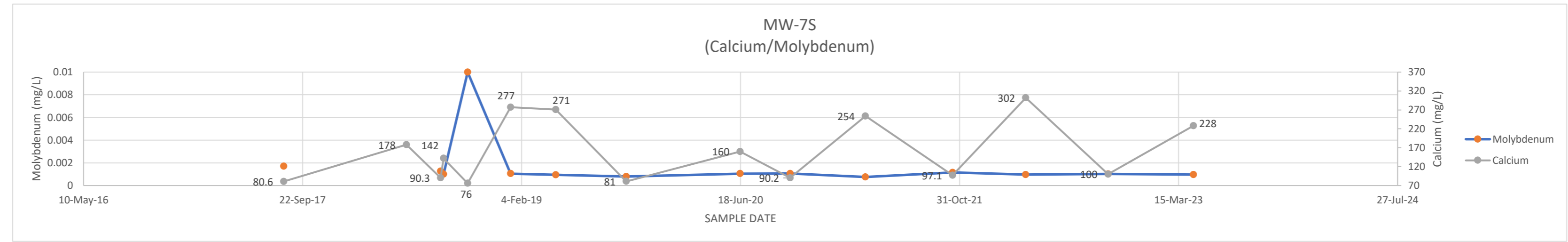
Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT F-5
CHANGES IN CALCIUM AND MOLYBDENUM CONCENTRATIONS

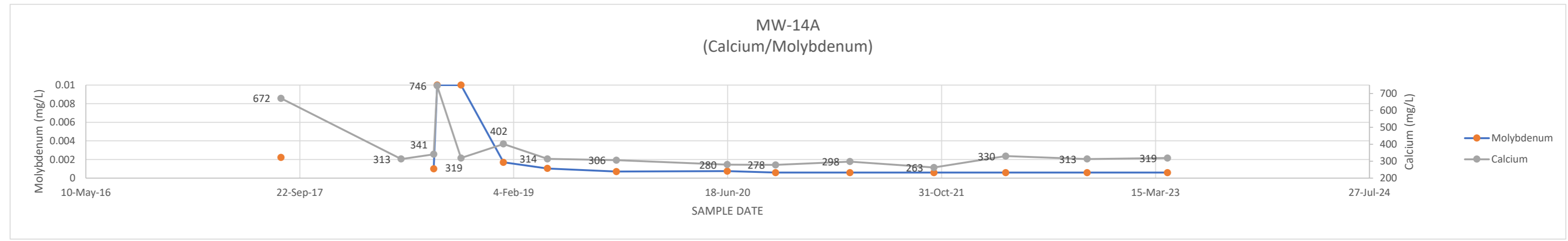
MW-5S	DATE	CALCIUM	MOLYBDENUM
14-Aug-17	46.6	0.00737	
22-May-18	74.7		
1-Aug-18	59.1	0.00497	
10-Aug-18	24.9	0.00387	
2-Oct-18	25	0.005	
10-Jan-19	27.7	0.00512	
23-Apr-19	57	0.00485	
2-Oct-19	22.5	0.00315	
18-Jun-20	68.2	0.00361	
12-Oct-20	19.6	0.00244	
1-Apr-21	33.4	0.00234	
14-Oct-21	21	0.00387	
31-Mar-22	53.8	0.00257	
6-Oct-22	24.1	0.0021	
12-Apr-23	37	0.00211	



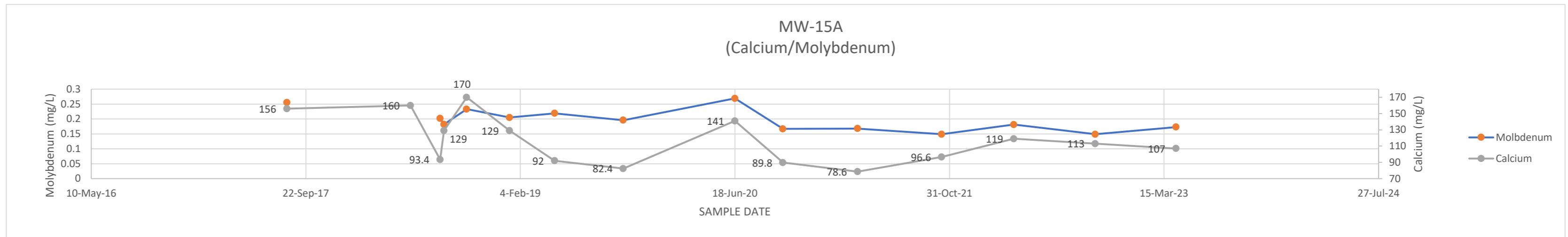
MW-7S	DATE	CALCIUM	MOLYBDENUM
10-Aug-17	80.6	0.00171	
17-May-18	178		
3-Aug-18	90.3	0.00127	
10-Aug-18	142	0.001	
4-Oct-18	76	0.01	
10-Jan-19	277	0.00105	
23-Apr-19	271	0.000952	
1-Oct-19	81	0.000798	
17-Jun-20	160	0.00105	
9-Oct-20	90.2	0.00106	
30-Mar-21	254	0.000755	
15-Oct-21	97.1	0.00115	
31-Mar-22	302	0.000973	
5-Oct-22	100	0.00103	
18-Apr-23	228	0.000973	



MW-14A	DATE	CALCIUM	MOLYBDENUM
9-Aug-17	672	0.00223	
17-May-18	313		
1-Aug-18	341	0.001	
9-Aug-18	746	0.01	
4-Oct-18	319	0.01	
11-Jan-19	402	0.0017	
24-Apr-19	314	0.00104	
2-Oct-19	306	0.000709	
17-Jun-20	280	0.00076	
8-Oct-20	278	0.0006	
31-Mar-21	298	0.0006	
13-Oct-21	263	0.0006	
30-Mar-22	330	0.0006	
6-Oct-22	313	0.0006	
12-Apr-23	319	0.0006	

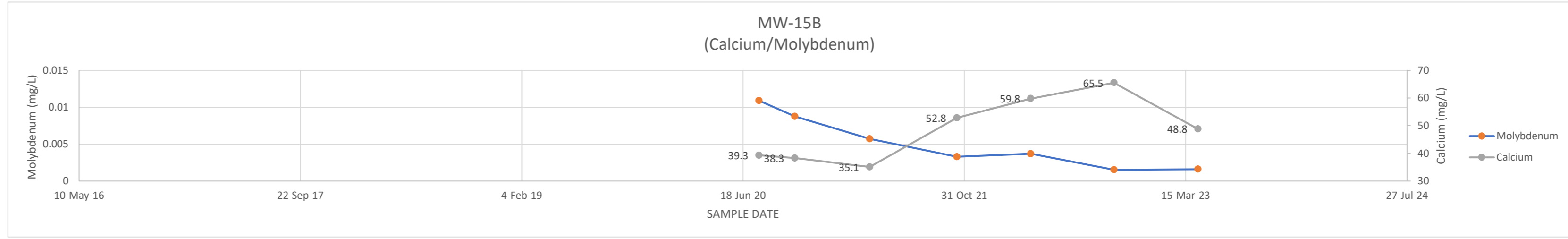


MW-15A	DATE	CALCIUM	MOLYBDENUM
9-Aug-17	156	0.255	
24-May-18	160		
1-Aug-18	93.4	0.202	
10-Aug-18	129	0.182	
2-Oct-18	170	0.233	
10-Jan-19	129	0.205	
25-Apr-19	92	0.219	
2-Oct-19	82.4	0.196	
18-Jun-20	141	0.269	
8-Oct-20	89.8	0.167	
31-Mar-21	78.6	0.168	
13-Oct-21	96.6	0.149	
30-Mar-22	119	0.181	
6-Oct-22	113	0.149	
12-Apr-23	107	0.173	

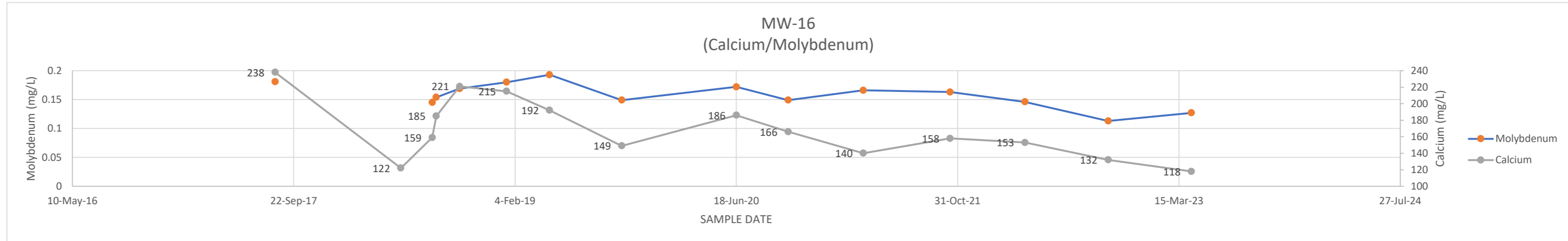


ATTACHMENT F-5
CHANGES IN CALCIUM AND MOLYBDENUM CONCENTRATIONS

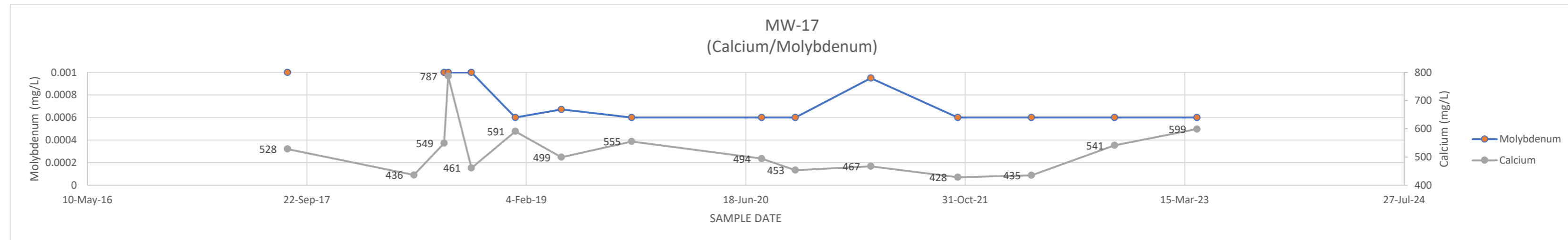
MW-15B	DATE	CALCIUM	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	39.3	0.0109	
13-Oct-20	38.3	0.00876	
31-Mar-21	35.1	0.00571	
14-Oct-21	52.8	0.00328	
30-Mar-22	59.8	0.0037	
4-Oct-22	65.5	0.00153	
12-Apr-23	48.8	0.0016	



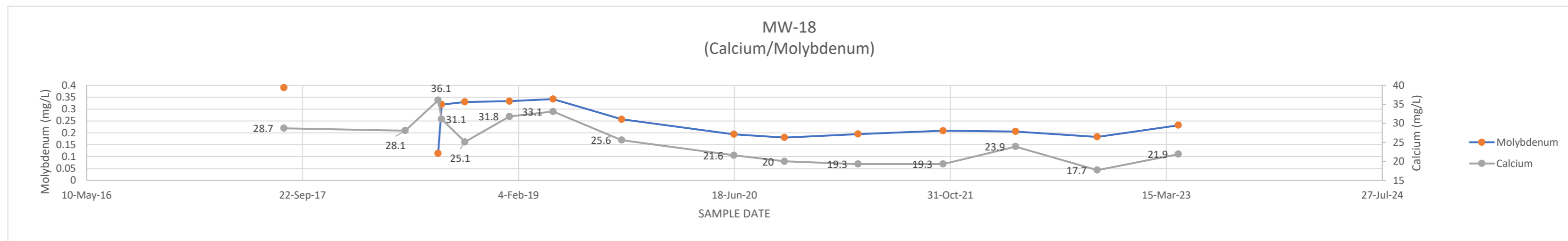
MW-16	DATE	CALCIUM	MOLYBDENUM
11-Aug-17	238	0.181	
22-May-18	122		
1-Aug-18	159	0.145	
10-Aug-18	185	0.154	
2-Oct-18	221	0.169	
16-Jan-19	215	0.18	
23-Apr-19	192	0.193	
3-Oct-19	149	0.149	
18-Jun-20	186	0.172	
13-Oct-20	166	0.149	
1-Apr-21	140	0.166	
14-Oct-21	158	0.163	
1-Apr-22	153	0.146	
6-Oct-22	132	0.113	
12-Apr-23	118	0.127	



MW-17	DATE	CALCIUM	MOLYBDENUM
9-Aug-17	528	0.001	
24-May-18	436		
1-Aug-18	549	0.001	
10-Aug-18	787	0.001	
2-Oct-18	461	0.001	
10-Jan-19	591	0.0006	
25-Apr-19	499	0.000671	
2-Oct-19	555	0.0006	
24-Jul-20	494	0.0006	
9-Oct-20	453	0.0006	
30-Mar-21	467	0.00095	
14-Oct-21	428	0.0006	
31-Mar-22	435	0.0006	
6-Oct-22	541	0.0006	
12-Apr-23	599	0.0006	

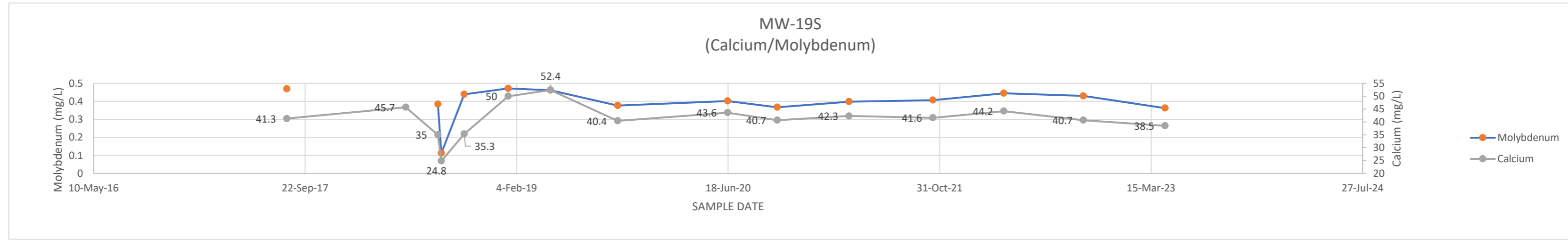


MW-18	DATE	CALCIUM	MOLYBDENUM
10-Aug-17	28.7	0.39	
18-May-18	28.1		
2-Aug-18	36.1	0.113	
10-Aug-18	31.1	0.319	
3-Oct-18	25.1	0.33	
14-Jan-19	31.8	0.333	
25-Apr-19	33.1	0.342	
1-Oct-19	25.6	0.257	
17-Jun-20	21.6	0.194	
12-Oct-20	20	0.18	
31-Mar-21	19.3	0.195	
14-Oct-21	19.3	0.209	
31-Mar-22	23.9	0.206	
6-Oct-22	17.7	0.183	
12-Apr-23	21.9	0.232	

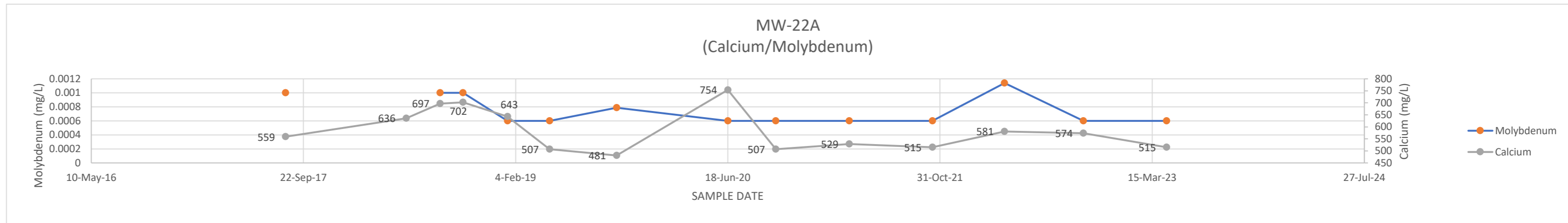


ATTACHMENT F-5
CHANGES IN CALCIUM AND MOLYBDENUM CONCENTRATIONS

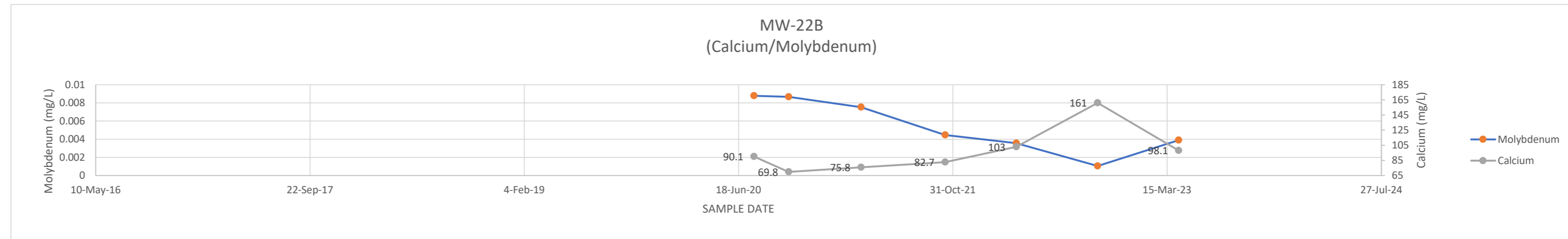
MW-19S			
DATE	CALCIUM	MOLYBDENUM	
10-Aug-17	41.3	0.469	
18-May-18	45.7		
2-Aug-18	35	0.384	
10-Aug-18	24.8	0.112	
3-Oct-18	35.3	0.439	
15-Jan-19	50	0.472	
25-Apr-19	52.4	0.462	
1-Oct-19	40.4	0.377	
17-Jun-20	43.6	0.402	
12-Oct-20	40.7	0.367	
31-Mar-21	42.3	0.398	
15-Oct-21	41.6	0.407	
1-Apr-22	44.2	0.445	
6-Oct-22	40.7	0.43	
17-Apr-23	38.5	0.362	



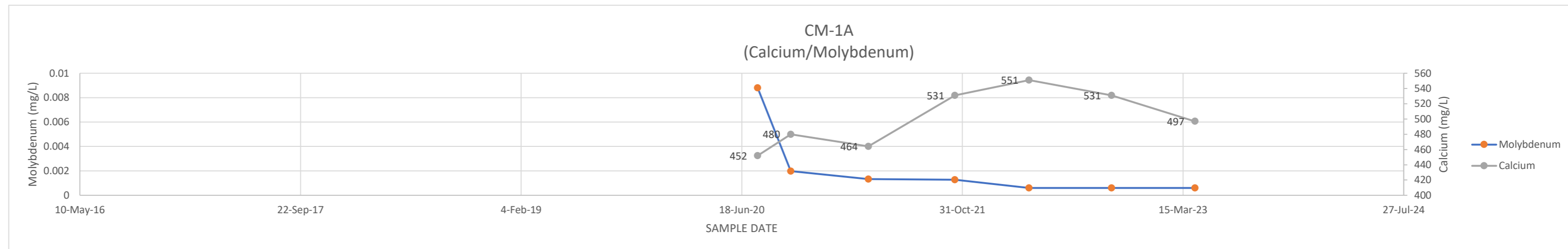
MW-22A			
DATE	CALCIUM	MOLYBDENUM	
11-Aug-17	559	0.001	
22-May-18	636		
10-Aug-18	697	0.001	
3-Oct-18	702	0.001	
16-Jan-19	643	0.0006	
25-Apr-19	507	0.0006	
30-Sep-19	481	0.000787	
18-Jun-20	754	0.0006	
9-Oct-20	507	0.0006	
31-Mar-21	529	0.0006	
13-Oct-21	515	0.0006	
1-Apr-22	581	0.00114	
4-Oct-22	574	0.0006	
18-Apr-23	515	0.0006	



MW-22B			
DATE	CALCIUM	MOLYBDENUM	
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	90.1	0.00878	
13-Oct-20	69.8	0.00866	
31-Mar-21	75.8	0.00753	
13-Oct-21	82.7	0.00446	
28-Mar-22	103	0.00357	
4-Oct-22	161	0.00105	
11-Apr-23	98.1	0.00389	

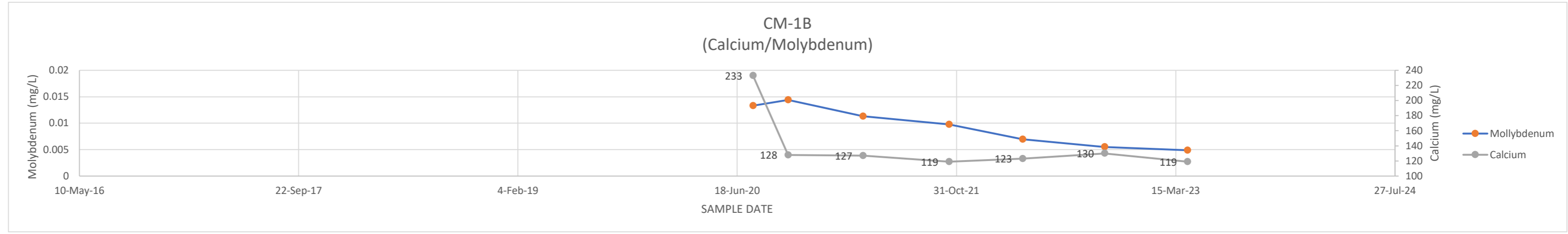


CM-1A			
DATE	CALCIUM	MOLYBDENUM	
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	452	0.0088	
7-Oct-20	480	0.00198	
1-Apr-21	464	0.00132	
14-Oct-21	531	0.00127	
31-Mar-22	551	0.0006	
4-Oct-22	531	0.0006	
11-Apr-23	497	0.0006	

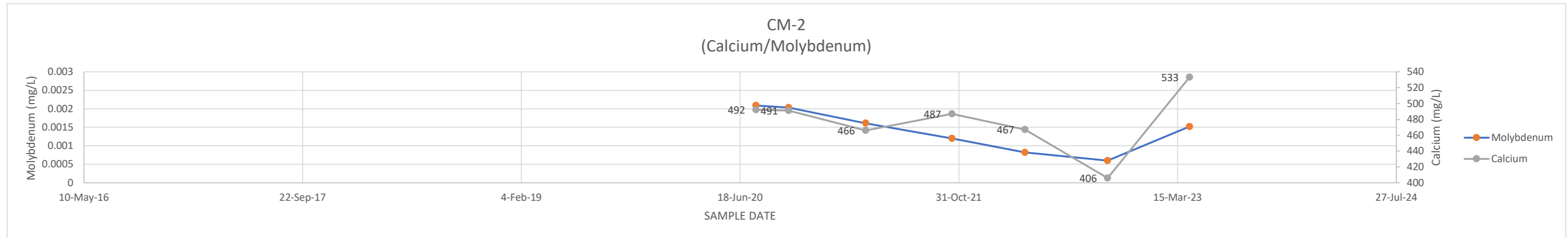


ATTACHMENT F-5
CHANGES IN CALCIUM AND MOLYBDENUM CONCENTRATIONS

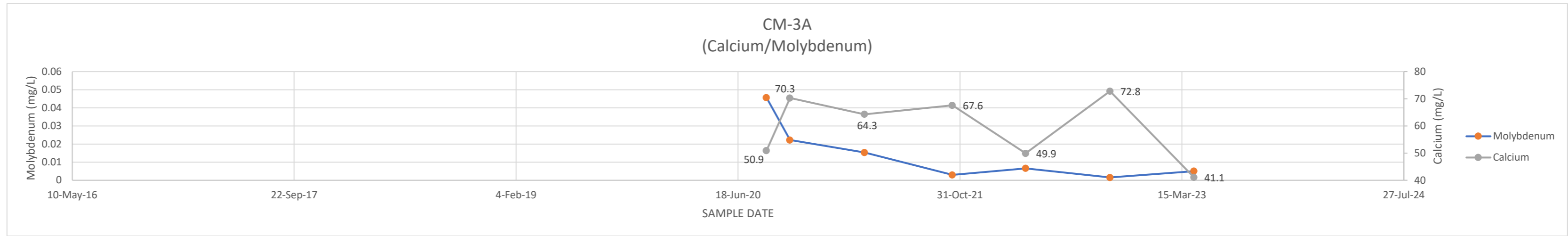
CM-1B DATE	CALCIUM	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	233	0.0133
12-Oct-20	128	0.0144
1-Apr-21	127	0.0113
14-Oct-21	119	0.00976
31-Mar-22	123	0.00696
4-Oct-22	130	0.00551
11-Apr-23	119	0.00488



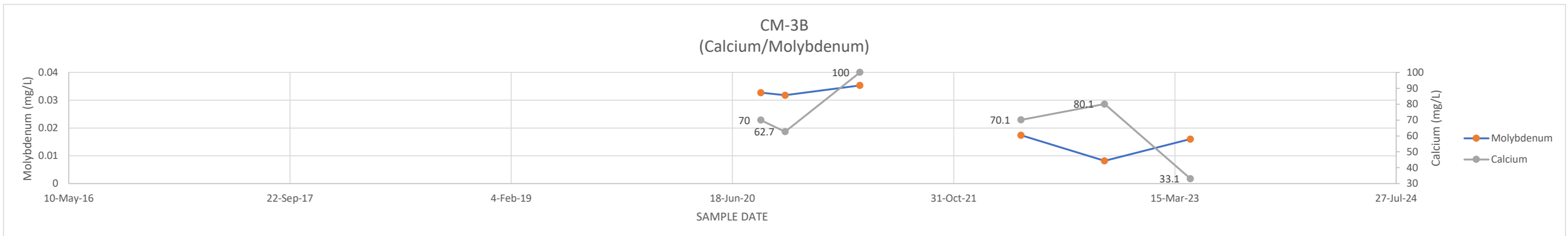
CM-2 DATE	CALCIUM	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	492	0.00209
7-Oct-20	491	0.00203
1-Apr-21	466	0.00161
15-Oct-21	487	0.0012
31-Mar-22	467	0.00082
6-Oct-22	406	0.0006
11-Apr-23	533	0.00152



CM-3A DATE	CALCIUM	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	50.9	0.0457
13-Oct-20	70.3	0.0222
30-Mar-21	64.3	0.0153
14-Oct-21	67.6	0.00297
28-Mar-22	49.9	0.00656
4-Oct-22	72.8	0.00155
11-Apr-23	41.1	0.00503

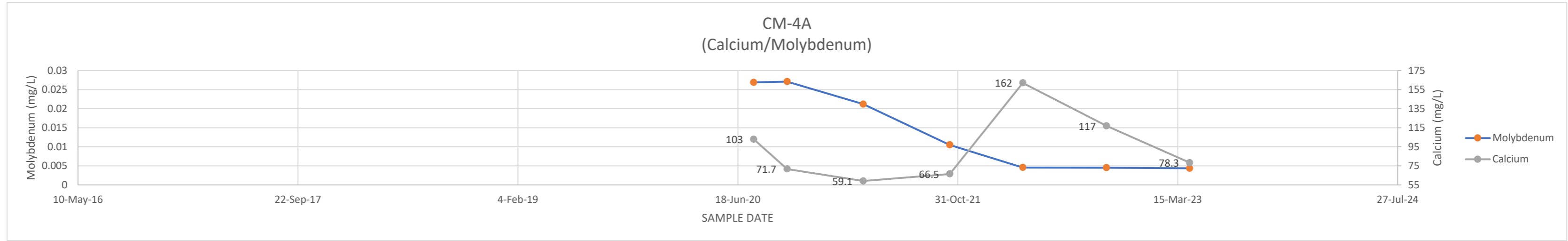


CM-3B DATE	CALCIUM	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	70	0.0327
15-Oct-20	62.7	0.0318
2-Apr-21	100	0.0353
11-Oct-21		
1-Apr-22	70.1	0.0174
7-Oct-22	80.1	0.00819
19-Apr-23	33.1	0.016

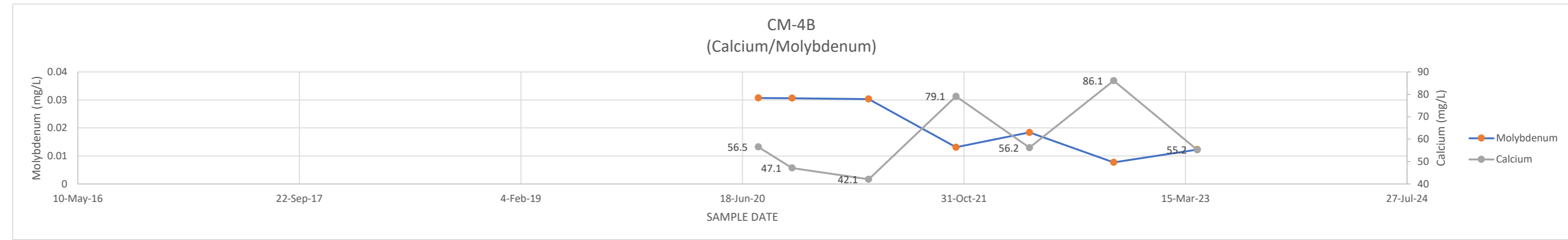


ATTACHMENT F-5
CHANGES IN CALCIUM AND MOLYBDENUM CONCENTRATIONS

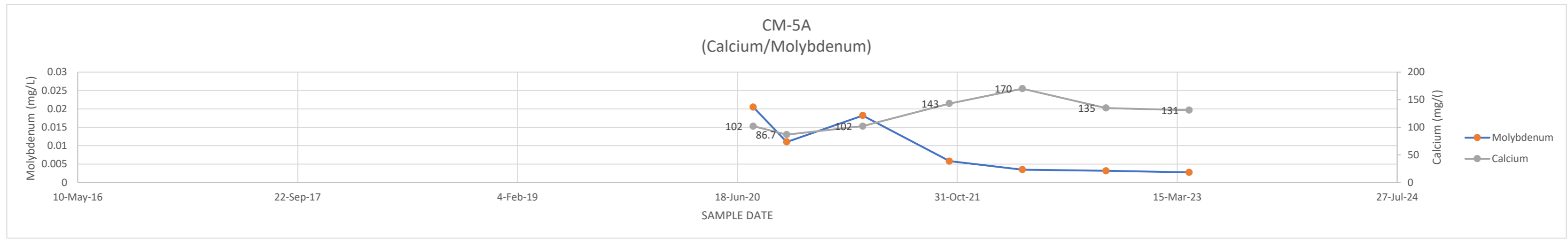
CM-4A DATE	CALCIUM	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	103	0.0269
8-Oct-20	71.7	0.0271
30-Mar-21	59.1	0.0212
13-Oct-21	66.5	0.0105
28-Mar-22	162	0.00455
4-Oct-22	117	0.00449
11-Apr-23	78.3	0.00436



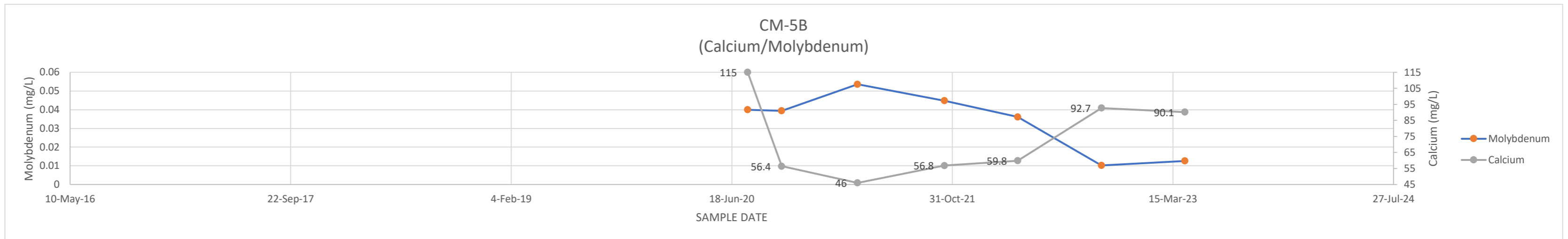
CM-4B DATE	CALCIUM	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	56.5	0.0307
8-Oct-20	47.1	0.0306
30-Mar-21	42.1	0.0303
13-Oct-21	79.1	0.0131
28-Mar-22	56.2	0.0184
4-Oct-22	86.1	0.00771
11-Apr-23	55.2	0.0123



CM-5A DATE	CALCIUM	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	102	0.0205
8-Oct-20	86.7	0.011
30-Mar-21	102	0.0182
13-Oct-21	143	0.0058
28-Mar-22	170	0.00351
4-Oct-22	135	0.00317
11-Apr-23	131	0.00276



CM-5B DATE	CALCIUM	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	115	0.04
9-Oct-20	56.4	0.0394
30-Mar-21	46	0.0536
13-Oct-21	56.8	0.0448
28-Mar-22	59.8	0.0361
4-Oct-22	92.7	0.0102
11-Apr-23	90.1	0.0126

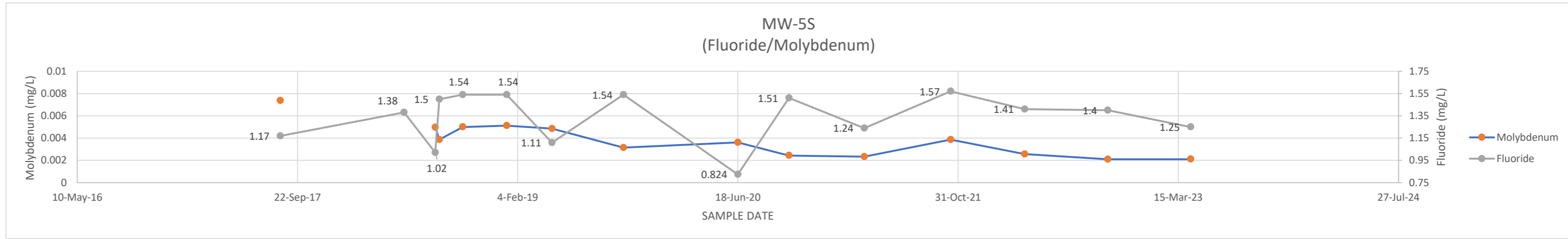


Yellow Indicates Reported Below shown value (MDL)

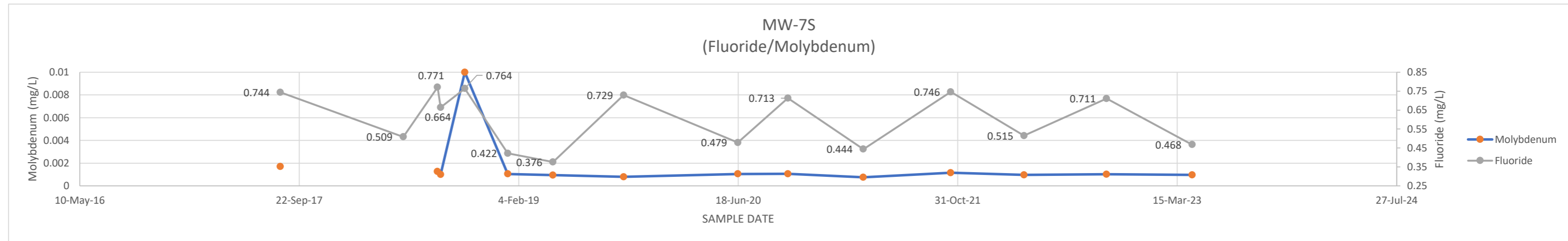
ATTACHMENT F-6
CHANGES IN FLUORIDE AND MOLYBDENUM CONCENTRATIONS

MW-5S DATE	FLUORIDE	MOLYBDENUM
14-Aug-17	1.17	0.00737
22-May-18	1.38	
1-Aug-18	1.02	0.00497
10-Aug-18	1.5	0.00387
2-Oct-18	1.54	0.005
10-Jan-19	1.54	0.00512
23-Apr-19	1.11	0.00485
2-Oct-19	1.54	0.00315
18-Jun-20	0.824	0.00361
12-Oct-20	1.51	0.00244
1-Apr-21	1.24	0.00234
14-Oct-21	1.57	0.00387
31-Mar-22	1.41	0.00257
6-Oct-22	1.4	0.0021
12-Apr-23	1.25	0.00211

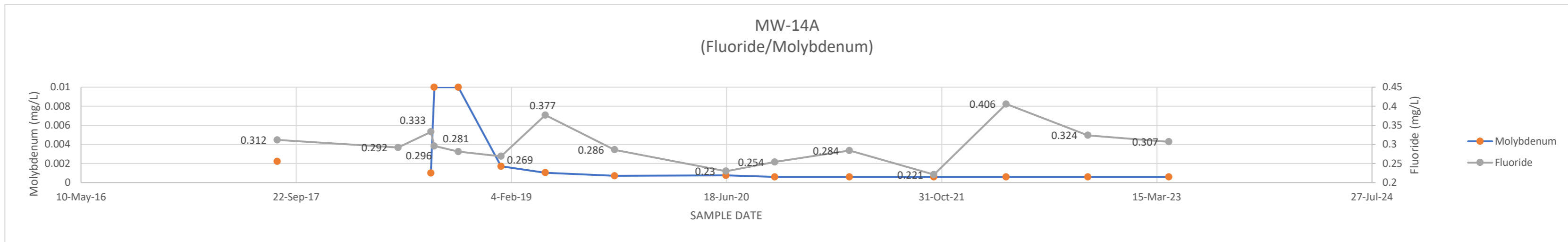
Value denoted in red from June 2022 resample



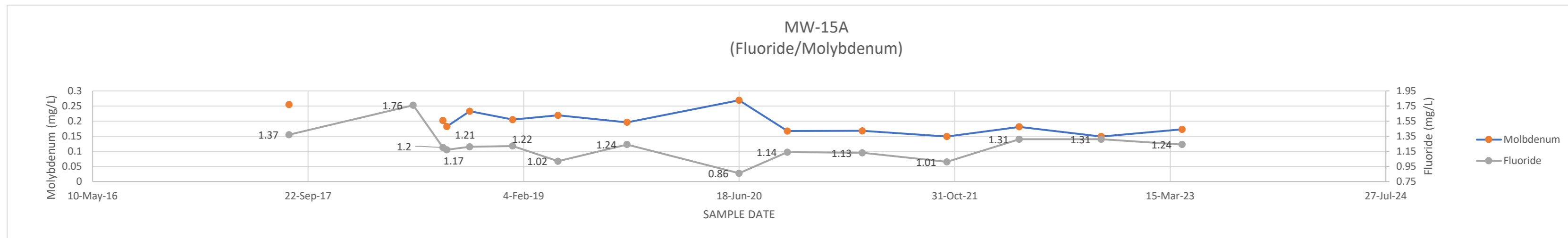
MW-7S DATE	FLUORIDE	MOLYBDENUM
10-Aug-17	0.744	0.00171
17-May-18	0.509	
3-Aug-18	0.771	0.00127
10-Aug-18	0.664	0.001
4-Oct-18	0.764	0.01
10-Jan-19	0.422	0.00105
23-Apr-19	0.376	0.000952
1-Oct-19	0.729	0.000798
17-Jun-20	0.479	0.00105
9-Oct-20	0.713	0.00106
30-Mar-21	0.444	0.000755
15-Oct-21	0.746	0.00115
31-Mar-22	0.515	0.000973
5-Oct-22	0.711	0.00103
18-Apr-23	0.468	0.000973



MW-14A DATE	FLUORIDE	MOLYBDENUM
9-Aug-17	0.312	0.00223
17-May-18	0.292	
1-Aug-18	0.333	0.001
9-Aug-18	0.296	0.01
4-Oct-18	0.281	0.01
11-Jan-19	0.269	0.0017
24-Apr-19	0.377	0.00104
2-Oct-19	0.286	0.000709
17-Jun-20	0.23	0.00076
8-Oct-20	0.254	0.0006
31-Mar-21	0.284	0.0006
13-Oct-21	0.221	0.0006
30-Mar-22	0.406	0.0006
6-Oct-22	0.324	0.0006
12-Apr-23	0.307	0.0006

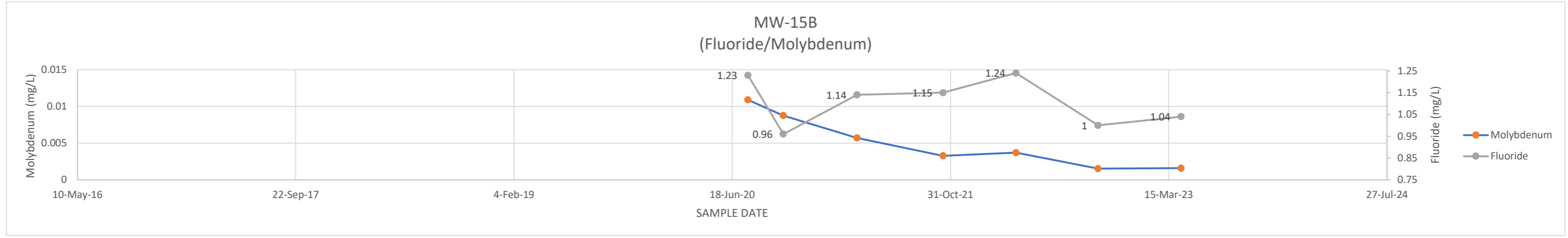


MW-15A DATE	FLUORIDE	MOLYBDENUM
9-Aug-17	1.37	0.255
24-May-18	1.76	
1-Aug-18	1.2	0.202
10-Aug-18	1.17	0.182
2-Oct-18	1.21	0.233
10-Jan-19	1.22	0.205
25-Apr-19	1.02	0.219
2-Oct-19	1.24	0.196
18-Jun-20	0.86	0.269
8-Oct-20	1.14	0.167
31-Mar-21	1.13	0.168
13-Oct-21	1.01	0.149
30-Mar-22	1.31	0.181
6-Oct-22	1.31	0.149
12-Apr-23	1.24	0.173

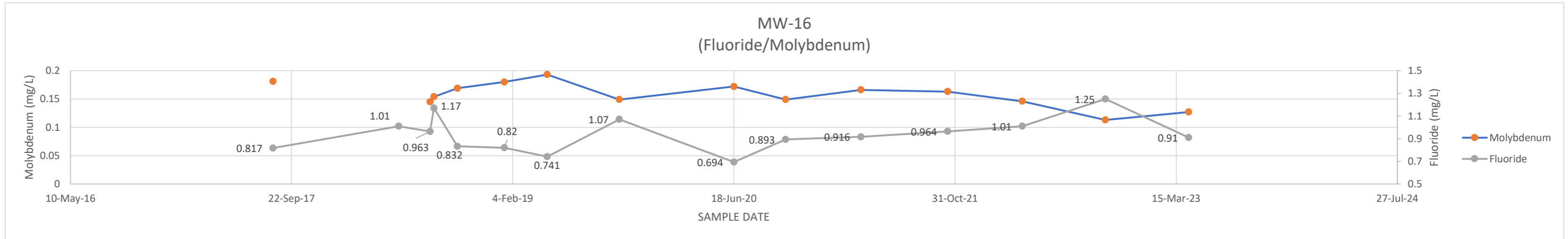


ATTACHMENT F-6
CHANGES IN FLUORIDE AND MOLYBDENUM CONCENTRATIONS

MW-15B	FLUORID	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1.23	0.0109
13-Oct-20	0.96	0.00876
31-Mar-21	1.14	0.00571
14-Oct-21	1.15	0.00328
30-Mar-22	1.24	0.0037
4-Oct-22	1	0.00153
12-Apr-23	1.04	0.0016

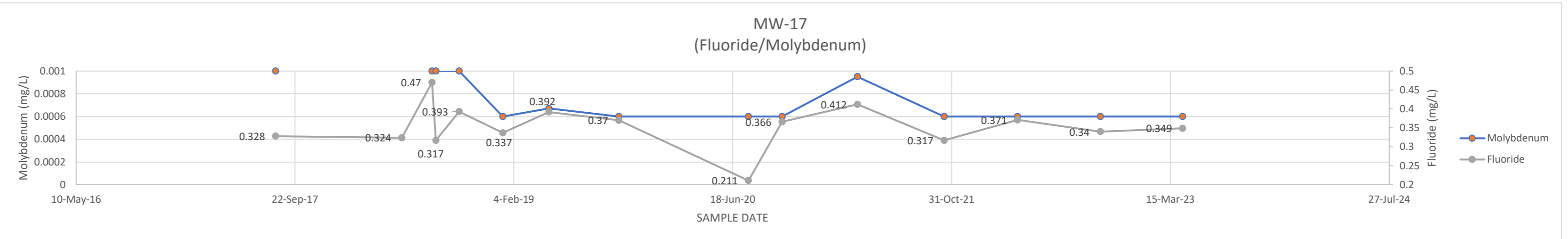


MW-16	FLUORIDE	MOLYBDENUM
DATE		
11-Aug-17	0.817	0.181
22-May-18	1.01	
1-Aug-18	0.963	0.145
10-Aug-18	1.17	0.154
2-Oct-18	0.832	0.169
16-Jan-19	0.82	0.18
23-Apr-19	0.741	0.193
3-Oct-19	1.07	0.149
18-Jun-20	0.694	0.172
13-Oct-20	0.893	0.149
1-Apr-21	0.916	0.166
14-Oct-21	0.964	0.163
1-Apr-22	1.01	0.146
6-Oct-22	1.25	0.113
12-Apr-23	0.91	0.127



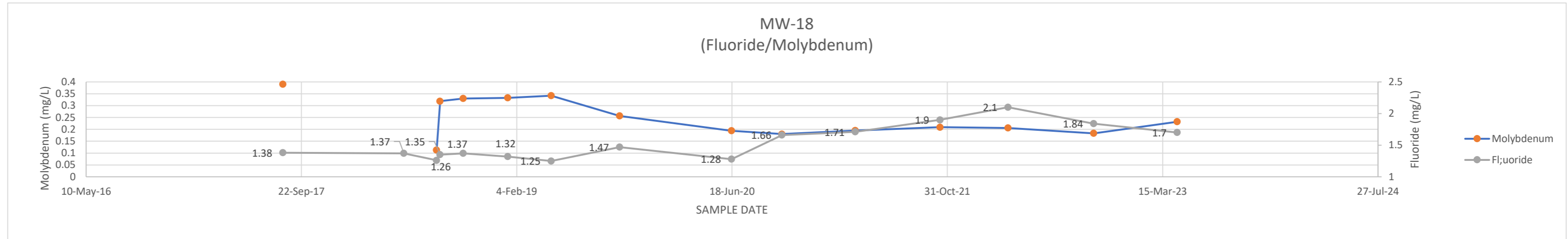
Value denoted in red from June 2022 resample

MW-17	FLUORIDE	MOLYBDENUM
DATE		
9-Aug-17	0.328	0.001
24-May-18	0.324	
1-Aug-18	0.47	0.001
10-Aug-18	0.317	0.001
2-Oct-18	0.393	0.001
10-Jan-19	0.337	0.0006
25-Apr-19	0.392	0.000671
2-Oct-19	0.37	0.0006
24-Jul-20	0.211	0.0006
9-Oct-20	0.366	0.0006
30-Mar-21	0.412	0.00095
14-Oct-21	0.317	0.0006
31-Mar-22	0.371	0.0006
6-Oct-22	0.34	0.0006
12-Apr-23	0.349	0.0006



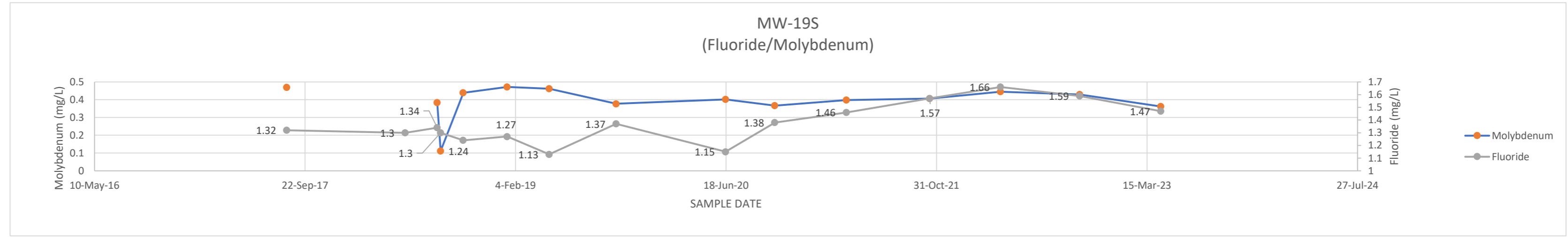
Value denoted in red from June 2022 resample

MW-18	FLUORIDE	MOLYBDENUM
DATE		
10-Aug-17	1.38	0.39
18-May-18	1.37	
2-Aug-18	1.26	0.113
10-Aug-18	1.35	0.319
3-Oct-18	1.37	0.33
14-Jan-19	1.32	0.333
25-Apr-19	1.25	0.342
1-Oct-19	1.47	0.257
17-Jun-20	1.28	0.194
12-Oct-20	1.66	0.18
31-Mar-21	1.71	0.195
14-Oct-21	1.9	0.209
21-Mar-22	2.1	0.206
6-Oct-22	1.84	0.183
18-Apr-23	1.7	0.232

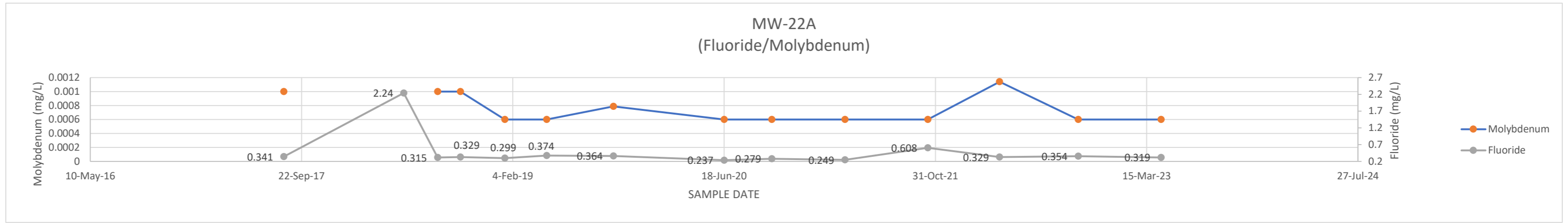


ATTACHMENT F-6
CHANGES IN FLUORIDE AND MOLYBDENUM CONCENTRATIONS

MW-19S DATE	FLUORIDE	MOLYBDENUM
10-Aug-17	1.32	0.469
18-May-18	1.3	
2-Aug-18	1.34	0.384
10-Aug-18	1.3	0.112
3-Oct-18	1.24	0.439
15-Jan-19	1.27	0.472
25-Apr-19	1.13	0.462
1-Oct-19	1.37	0.377
17-Jun-20	1.15	0.402
12-Oct-20	1.38	0.367
31-Mar-21	1.46	0.398
15-Oct-21	1.57	0.407
1-Apr-22	1.66	0.445
6-Oct-22	1.59	0.43
17-Apr-23	1.47	0.362

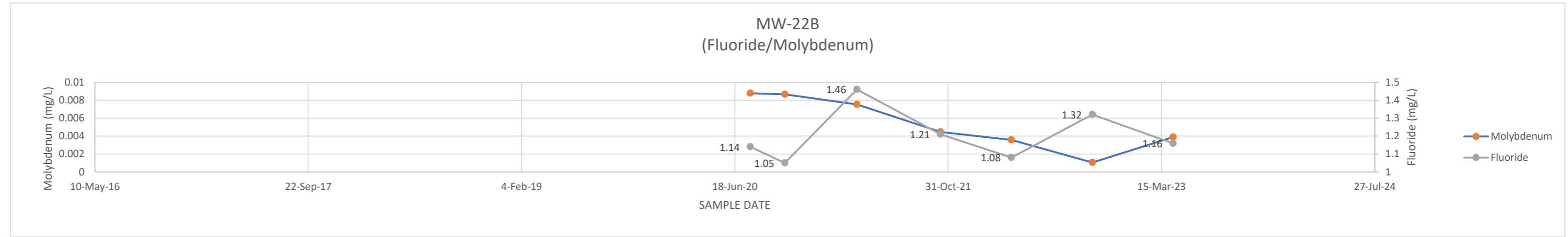


MW-22A DATE	FLUROIDE	MOLYBDENUM
11-Aug-17	0.341	0.001
22-May-18	2.24	
10-Aug-18	0.315	0.001
3-Oct-18	0.329	0.001
16-Jan-19	0.299	0.0006
25-Apr-19	0.374	0.0006
30-Sep-19	0.364	0.000787
18-Jun-20	0.237	0.0006
9-Oct-20	0.279	0.0006
31-Mar-21	0.249	0.0006
13-Oct-21	0.608	0.0006
1-Apr-22	0.329	0.00114
4-Oct-22	0.354	0.0006
18-Apr-23	0.319	0.0006

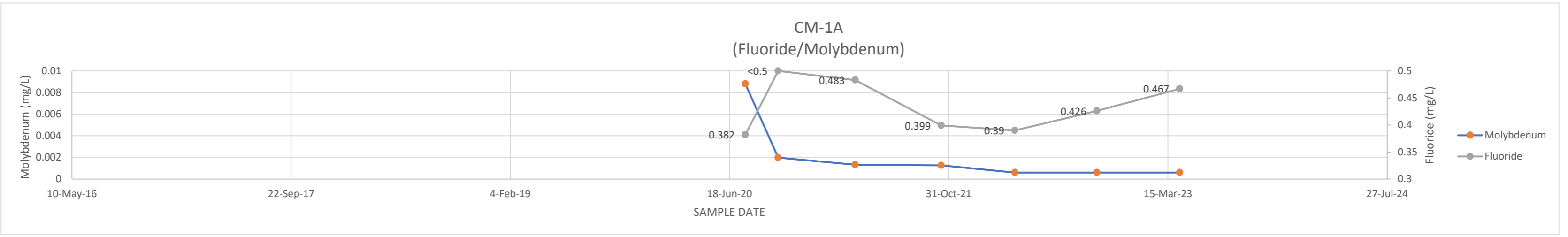


Value denoted in red from June 2022 resample

MW-22B DATE	FLUORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1.14	0.00878
13-Oct-20	1.05	0.00866
31-Mar-21	1.46	0.00753
13-Oct-21	1.21	0.00446
28-Mar-22	1.08	0.00357
4-Oct-22	1.32	0.00105
11-Apr-23	1.16	0.00389

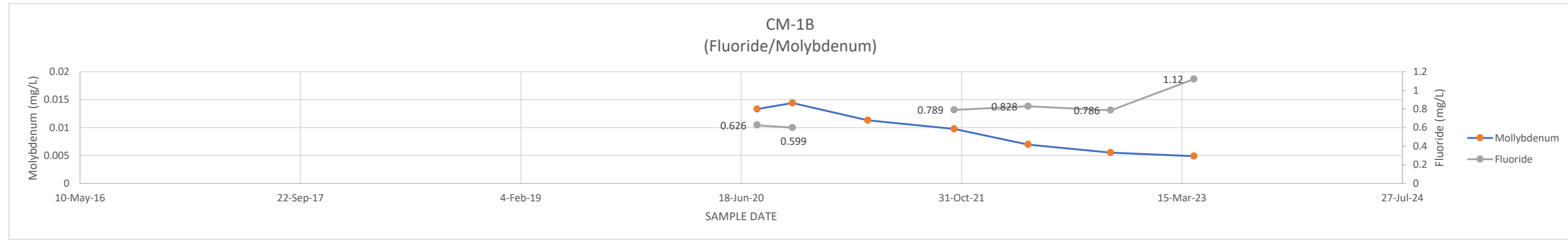


CM-1A DATE	FLUORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	0.382	0.0088
7-Oct-20	0.5	0.00198
1-Apr-21	0.483	0.00132
14-Oct-21	0.399	0.00127
31-Mar-22	0.39	0.0006
4-Oct-22	0.426	0.0006
11-Apr-23	0.467	0.0006

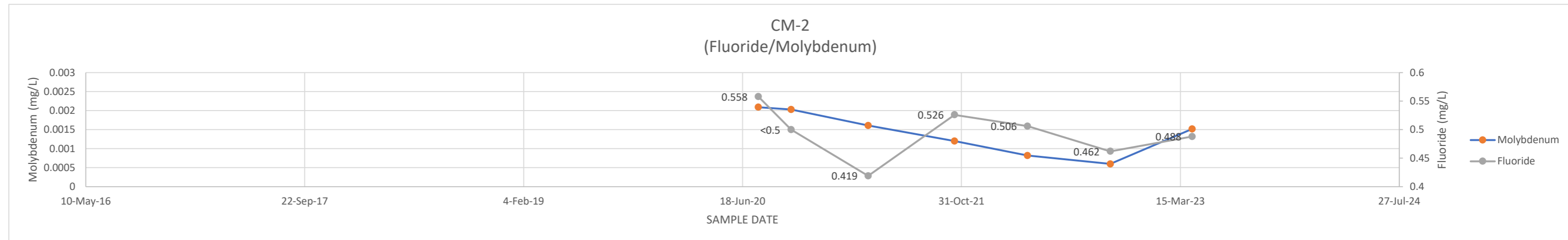


ATTACHMENT F-6
CHANGES IN FLUORIDE AND MOLYBDENUM CONCENTRATIONS

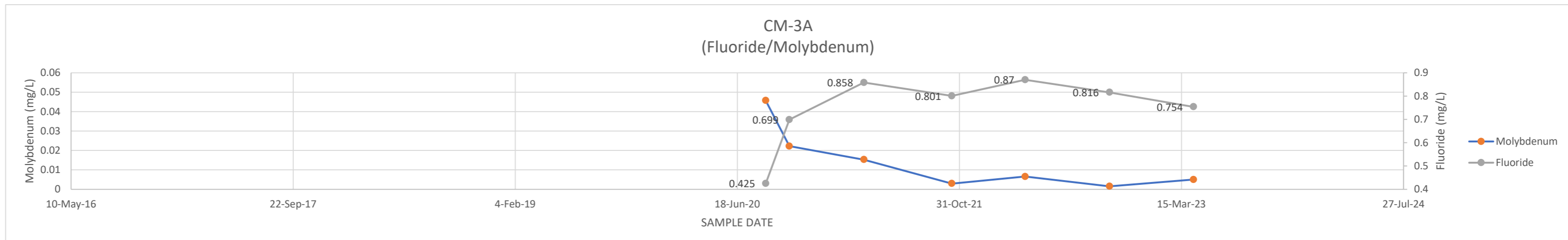
CM-1B DATE	FLUORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	0.626	0.0133
12-Oct-20	0.599	0.0144
1-Apr-21		0.0113
14-Oct-21	0.789	0.00976
31-Mar-22	0.828	0.00696
4-Oct-22	0.786	0.00551
11-Apr-23	1.12	0.00488



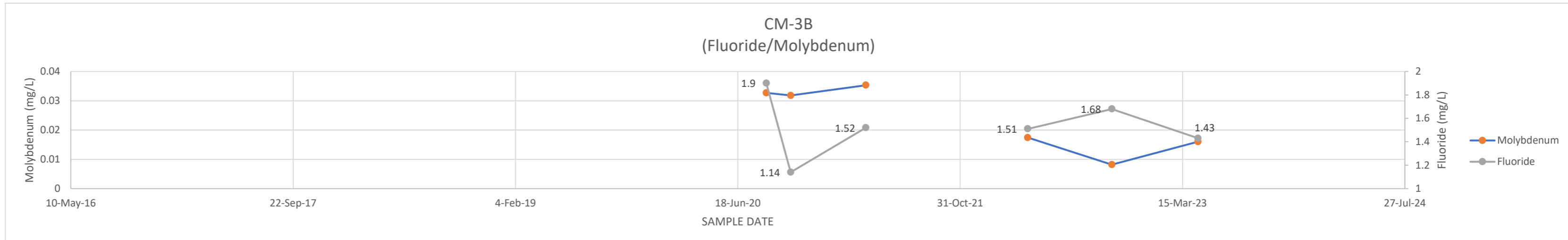
CM-2 DATE	FLUORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	0.558	0.00209
7-Oct-20	0.5	0.00203
1-Apr-21	0.419	0.00161
15-Oct-21	0.526	0.0012
31-Mar-22	0.506	0.00082
6-Oct-22	0.462	0.0006
11-Apr-23	0.488	0.00152



CM-3A DATE	FLUORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	0.425	0.0457
13-Oct-20	0.699	0.0222
30-Mar-21	0.858	0.0153
14-Oct-21	0.801	0.00297
28-Mar-22	0.87	0.00656
4-Oct-22	0.816	0.00155
11-Apr-23	0.754	0.00503

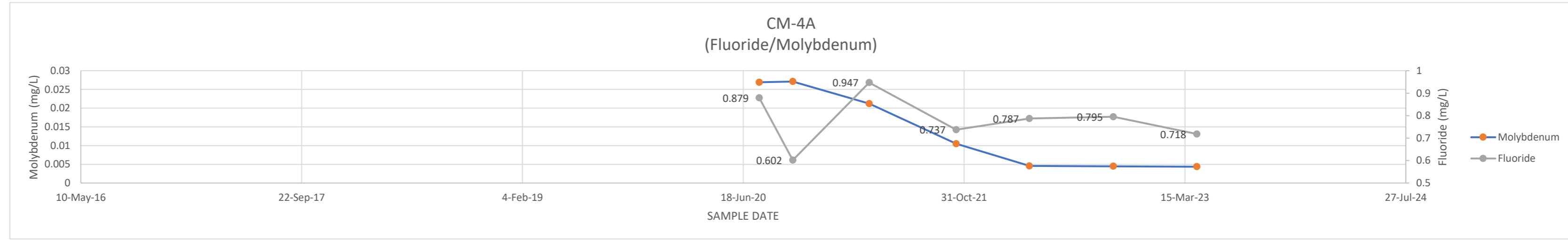


CM-3B DATE	FLUORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	1.9	0.0327
15-Oct-20	1.14	0.0318
2-Apr-21	1.52	0.0353
11-Oct-21		
1-Apr-22	1.51	0.0174
7-Oct-22	1.68	0.00819
19-Apr-23	1.43	0.016

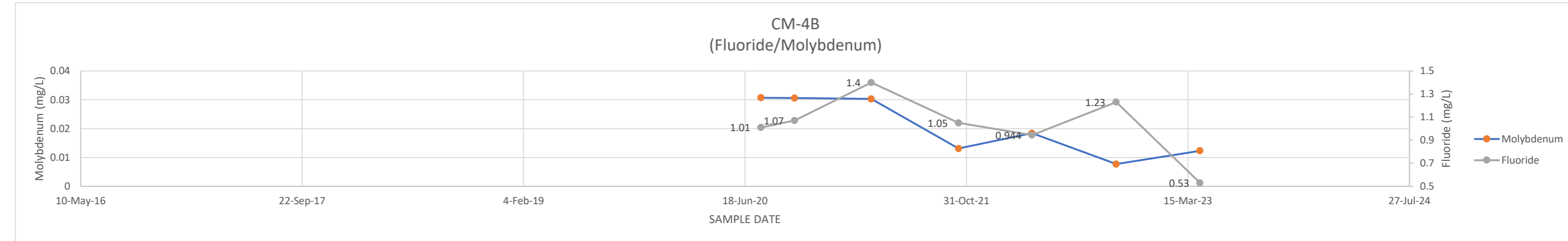


ATTACHMENT F-6
CHANGES IN FLUORIDE AND MOLYBDENUM CONCENTRATIONS

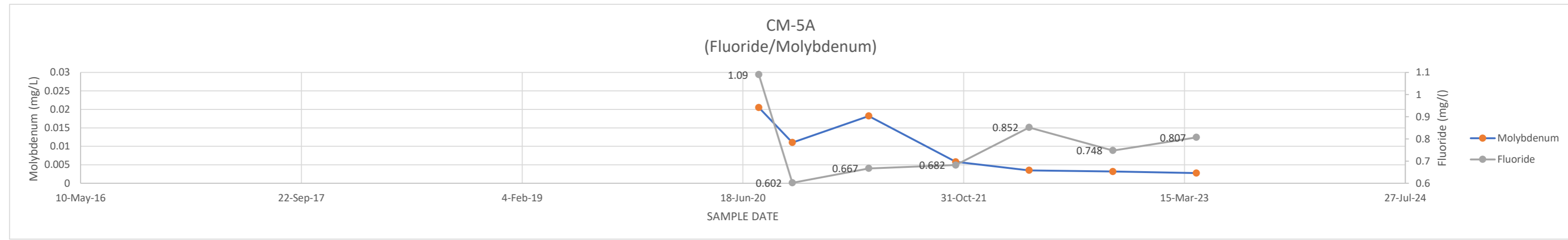
CM-4A DATE	FLUORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	0.879	0.0269
8-Oct-20	0.602	0.0271
30-Mar-21	0.947	0.0212
13-Oct-21	0.737	0.0105
28-Mar-22	0.787	0.00455
4-Oct-22	0.795	0.00449
11-Apr-23	0.718	0.00436



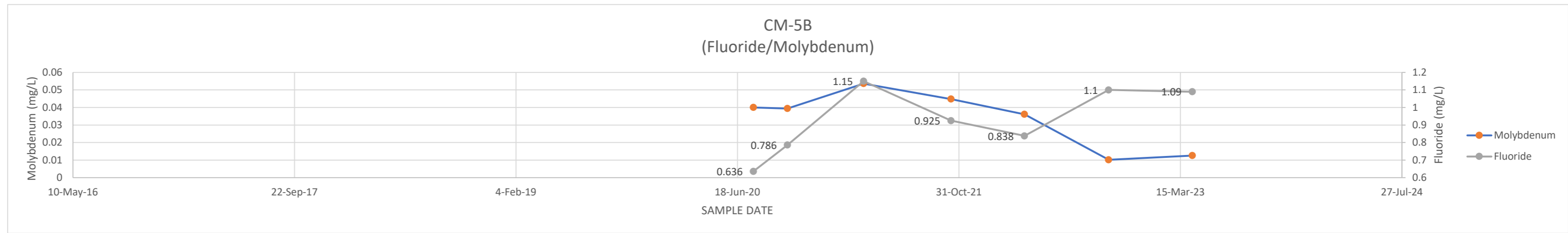
CM-4B DATE	FLUORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1.01	0.0307
8-Oct-20	1.07	0.0306
30-Mar-21	1.4	0.0303
13-Oct-21	1.05	0.0131
28-Mar-22	0.944	0.0184
4-Oct-22	1.23	0.00771
11-Apr-23	0.53	0.0123



CM-5A DATE	FLUORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1.09	0.0205
8-Oct-20	0.602	0.011
30-Mar-21	0.667	0.0182
13-Oct-21	0.682	0.0058
28-Mar-22	0.852	0.00351
4-Oct-22	0.748	0.00317
11-Apr-23	0.807	0.00276



CM-5B DATE	FLUORIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	0.636	0.04
9-Oct-20	0.786	0.0394
30-Mar-21	1.15	0.0536
13-Oct-21	0.925	0.0448
28-Mar-22	0.838	0.0361
4-Oct-22	1.1	0.0102
11-Apr-23	1.09	0.0126

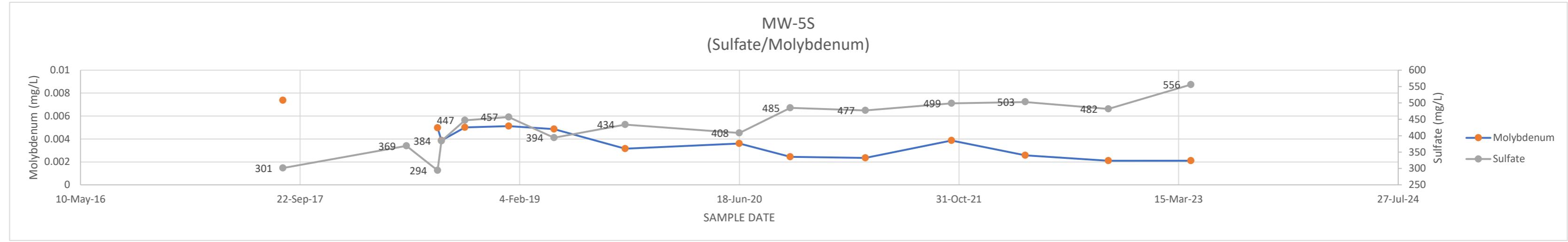


Yellow Indicates Reported Below shown value (MDL)

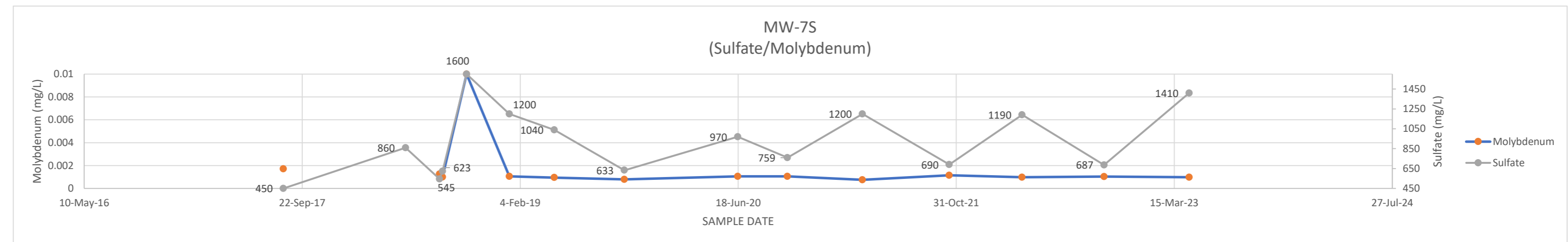
ATTACHMENT F-7
CHANGES IN SULFATE AND MOLYBDENUM CONCENTRATIONS

MW-5S	SULFATE	MOLYBDENUM
DATE		
14-Aug-17	301	0.00737
22-May-18	369	
1-Aug-18	294	0.00497
10-Aug-18	384	0.00387
2-Oct-18	447	0.005
10-Jan-19	457	0.00512
23-Apr-19	394	0.00485
2-Oct-19	434	0.00315
18-Jun-20	408	0.00361
12-Oct-20	485	0.00244
1-Apr-21	477	0.00234
14-Oct-21	499	0.00387
31-Mar-22	503	0.00257
6-Oct-22	482	0.0021
12-Apr-23	556	0.00211

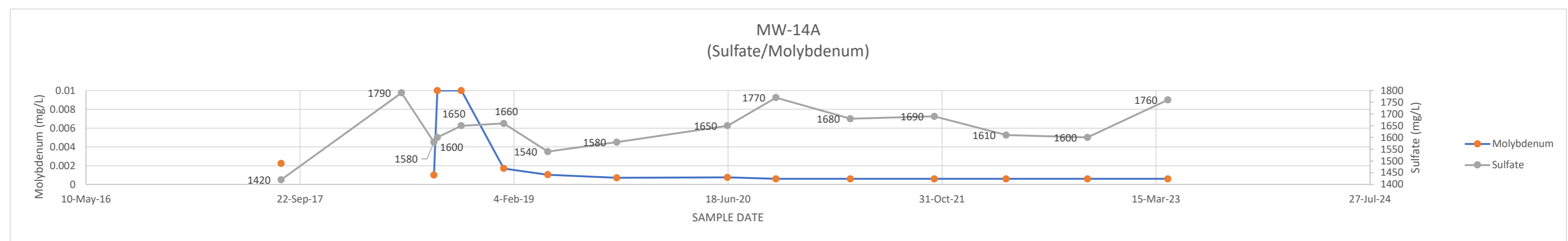
Value denoted in red from June 2022 resample



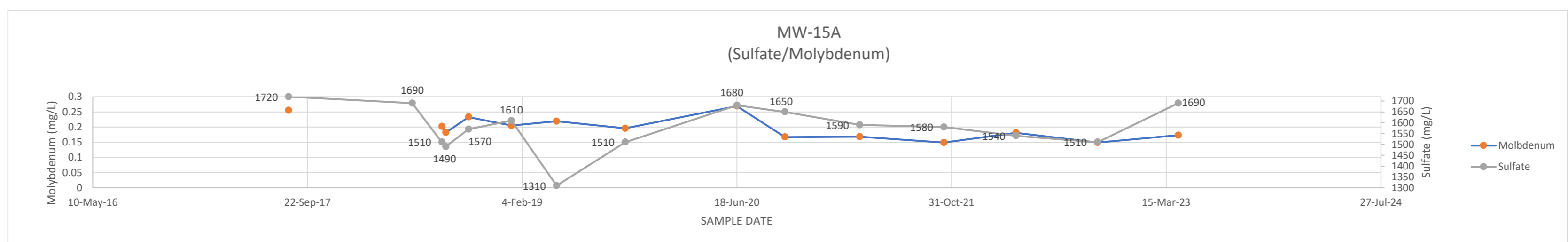
MW-7S	SULFATE	MOLYBDENUM
DATE		
10-Aug-17	450	0.00171
17-May-18	860	
3-Aug-18	545	0.00127
10-Aug-18	623	0.001
4-Oct-18	1600	0.01
10-Jan-19	1200	0.00105
23-Apr-19	1040	0.000952
1-Oct-19	633	0.000798
17-Jun-20	970	0.00105
9-Oct-20	759	0.00106
30-Mar-21	1200	0.000755
15-Oct-21	690	0.00115
31-Mar-22	1190	0.000973
5-Oct-22	687	0.00103
18-Apr-23	1410	0.000973



MW-14A	SULFATE	MOLYBDENUM
DATE		
9-Aug-17	1420	0.00223
17-May-18	1790	
1-Aug-18	1580	0.001
9-Aug-18	1600	0.01
4-Oct-18	1650	0.01
11-Jan-19	1660	0.0017
24-Apr-19	1540	0.00104
2-Oct-19	1580	0.000709
17-Jun-20	1650	0.00076
8-Oct-20	1770	0.0006
31-Mar-21	1680	0.0006
13-Oct-21	1690	0.0006
30-Mar-22	1610	0.0006
6-Oct-22	1600	0.0006
12-Apr-23	1760	0.0006

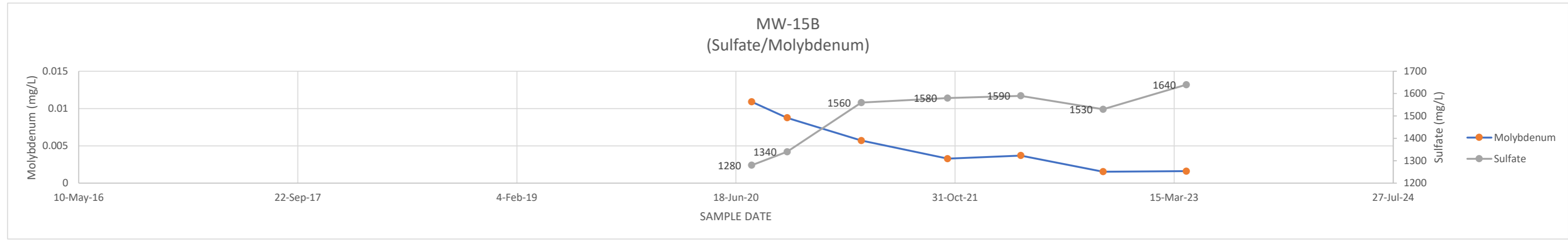


MW-15A	SULFATE	MOLYBDENUM
DATE		
9-Aug-17	1720	0.255
24-May-18	1690	
1-Aug-18	1510	0.202
10-Aug-18	1490	0.182
2-Oct-18	1570	0.233
10-Jan-19	1610	0.205
25-Apr-19	1310	0.219
2-Oct-19	1510	0.196
18-Jun-20	1680	0.269
8-Oct-20	1650	0.167
31-Mar-21	1590	0.168
13-Oct-21	1580	0.149
30-Mar-22	1540	0.181
6-Oct-22	1510	0.149
12-Apr-23	1690	0.173

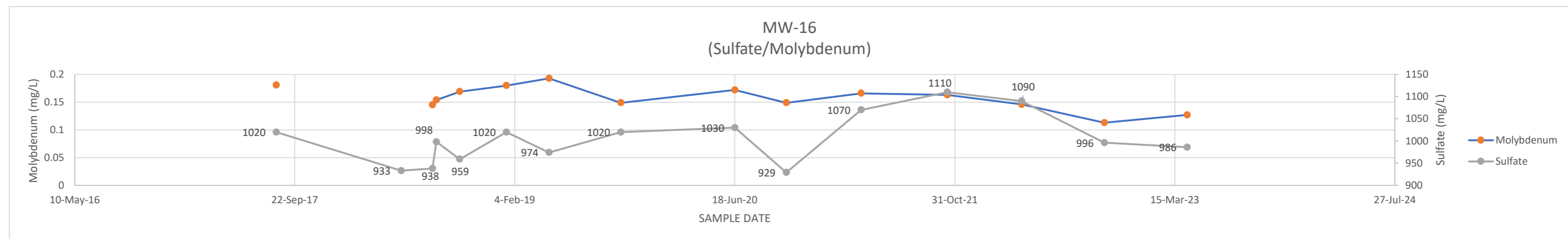


ATTACHMENT F-7
CHANGES IN SULFATE AND MOLYBDENUM CONCENTRATIONS

MW-15B	SULFATE	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1280	0.0109
13-Oct-20	1340	0.00876
31-Mar-21	1560	0.00571
14-Oct-21	1580	0.00328
30-Mar-22	1590	0.0037
4-Oct-22	1530	0.00153
12-Apr-23	1640	0.0016

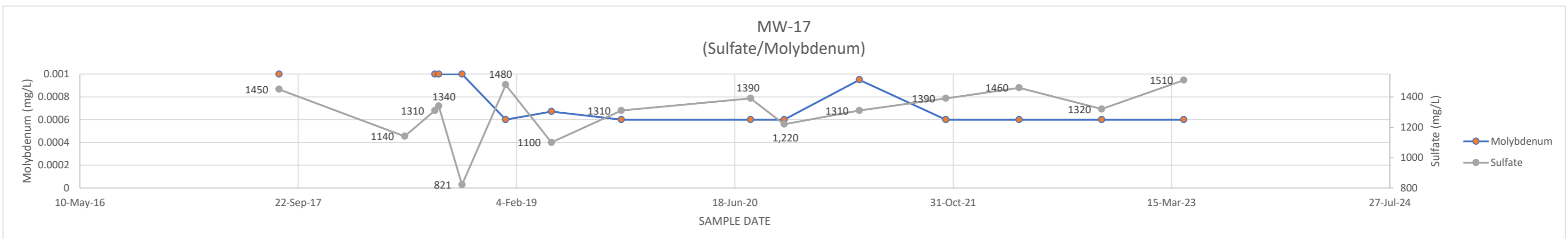


MW-16	SULFATE	MOLYBDENUM
DATE		
11-Aug-17	1020	0.181
22-May-18	933	
1-Aug-18	938	0.145
10-Aug-18	998	0.154
2-Oct-18	959	0.169
16-Jan-19	1020	0.18
23-Apr-19	974	0.193
3-Oct-19	1020	0.149
18-Jun-20	1030	0.172
13-Oct-20	929	0.149
1-Apr-21	1070	0.166
14-Oct-21	1110	0.163
1-Apr-22	1090	0.146
6-Oct-22	996	0.113
12-Apr-23	986	0.127



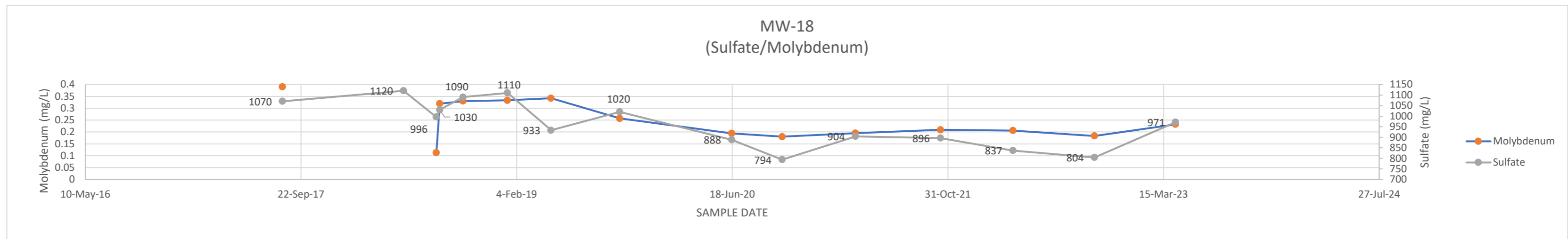
Value denoted in red from June 2022 resample

MW-17	SULFATE	MOLYBDENUM
DATE		
9-Aug-17	1450	0.001
24-May-18	1140	
1-Aug-18	1310	0.001
10-Aug-18	1340	0.001
2-Oct-18	821	0.001
10-Jan-19	1480	0.0006
25-Apr-19	1100	0.000671
2-Oct-19	1310	0.0006
24-Jul-20	1390	0.0006
9-Oct-20	1,220	0.0006
30-Mar-21	1310	0.00095
14-Oct-21	1390	0.0006
31-Mar-22	1460	0.0006
6-Oct-22	1320	0.0006
12-Apr-23	1510	0.0006



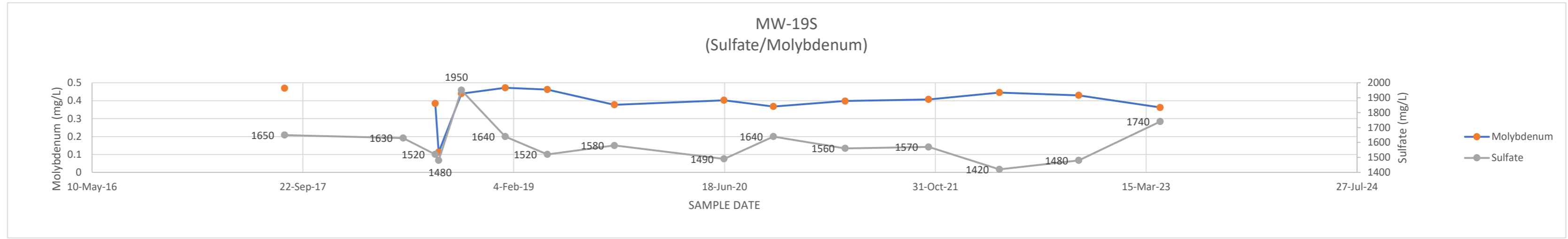
Value denoted in red from June 2022 resample

MW-18	SULFATE	MOLYBDENUM
DATE		
10-Aug-17	1070	0.39
18-May-18	1120	
2-Aug-18	996	0.113
10-Aug-18	1030	0.319
3-Oct-18	1090	0.33
14-Jan-19	1110	0.333
25-Apr-19	933	0.342
1-Oct-19	1020	0.257
17-Jun-20	888	0.194
12-Oct-20	794	0.18
31-Mar-21	904	0.195
14-Oct-21	896	0.209
31-Mar-22	837	0.206
6-Oct-22	804	0.183
12-Apr-23	971	0.232

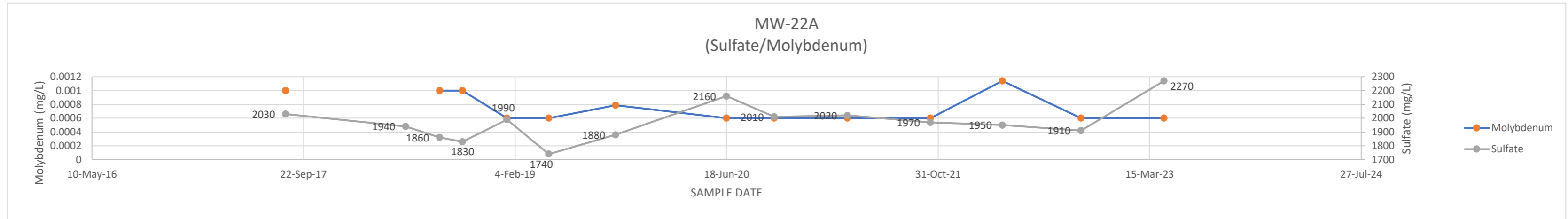


ATTACHMENT F-7
CHANGES IN SULFATE AND MOLYBDENUM CONCENTRATIONS

MW-19S	SULFATE	MOLYBDENUM
DATE		
10-Aug-17	1650	0.469
18-May-18	1630	
2-Aug-18	1520	0.384
10-Aug-18	1480	0.112
3-Oct-18	1950	0.439
15-Jan-19	1640	0.472
25-Apr-19	1520	0.462
1-Oct-19	1580	0.377
17-Jun-20	1490	0.402
12-Oct-20	1640	0.367
31-Mar-21	1560	0.398
15-Oct-21	1570	0.407
1-Apr-22	1420	0.445
6-Oct-22	1480	0.43
17-Apr-23	1740	0.362

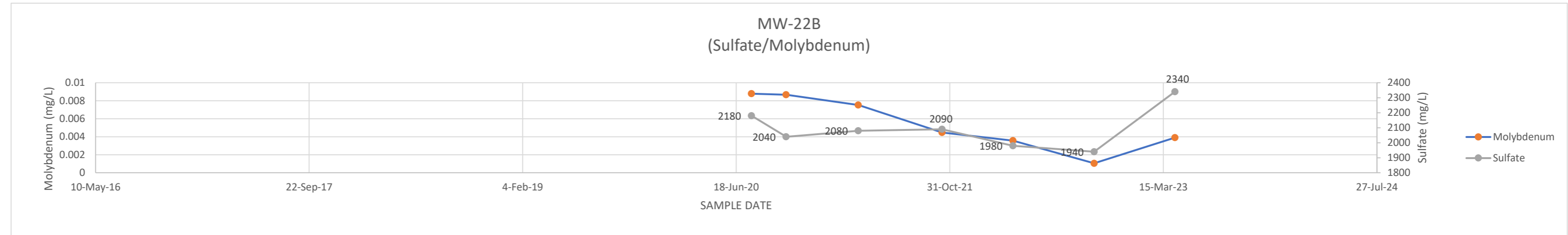


MW-22A	SULFATE	MOLYBDENUM
DATE		
11-Aug-17	2030	0.001
22-May-18	1940	
10-Aug-18	1860	0.001
3-Oct-18	1830	0.001
16-Jan-19	1990	0.0006
25-Apr-19	1740	0.0006
30-Sep-19	1880	0.000787
18-Jun-20	2160	0.0006
9-Oct-20	2010	0.0006
31-Mar-21	2020	0.0006
13-Oct-21	1970	0.0006
1-Apr-22	1950	0.00114
4-Oct-22	1910	0.0006
18-Apr-23	2270	0.0006

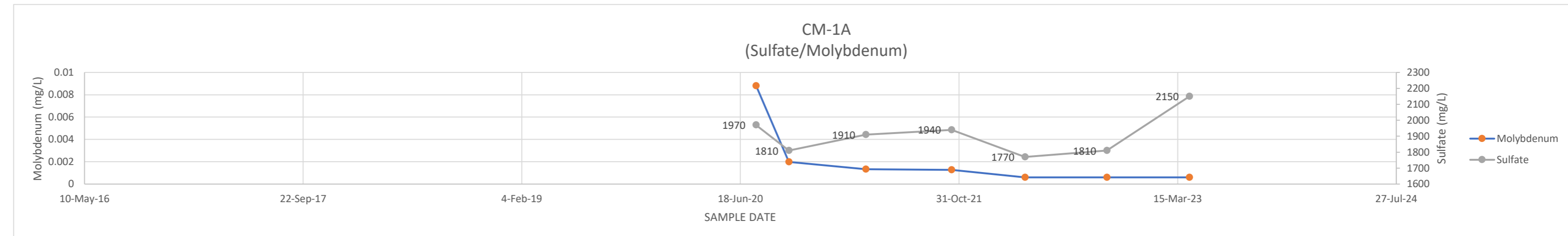


Value denoted in red from June 2022 resample

MW-22B	SULFATE	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2180	0.00878
13-Oct-20	2040	0.00866
31-Mar-21	2080	0.00753
13-Oct-21	2090	0.00446
28-Mar-22	1980	0.00357
4-Oct-22	1940	0.00105
11-Apr-23	2340	0.00389

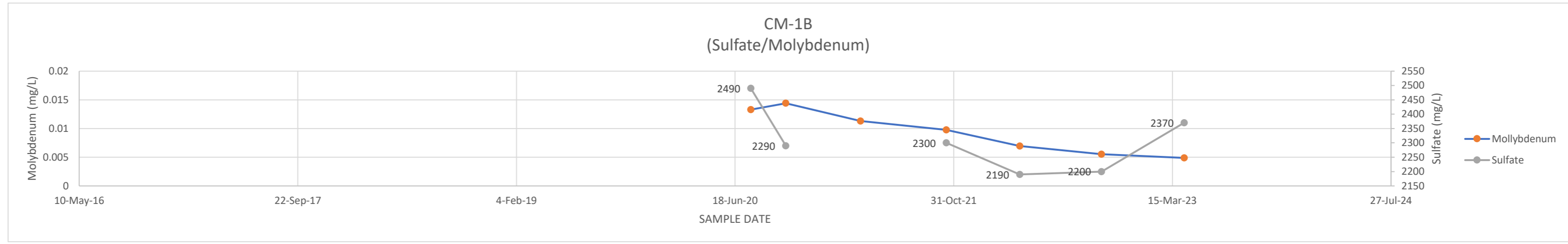


CM-1A	SULFATE	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1970	0.0088
7-Oct-20	1810	0.00198
1-Apr-21	1910	0.00132
14-Oct-21	1940	0.00127
31-Mar-22	1770	0.0006
4-Oct-22	1810	0.0006
11-Apr-23	2150	0.0006

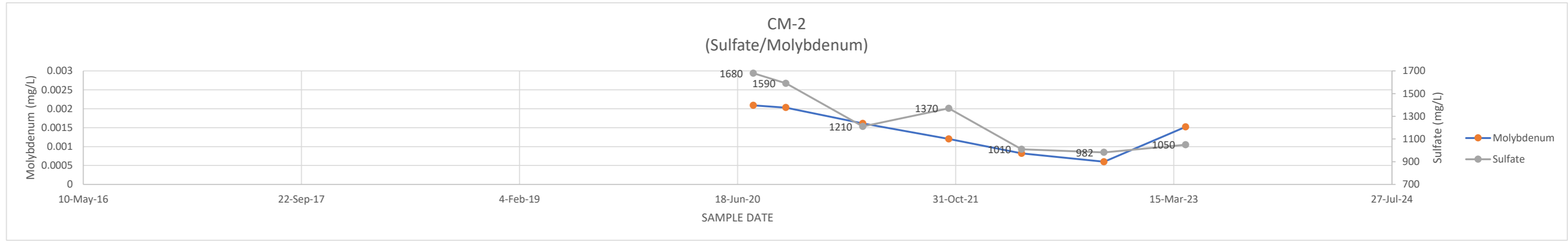


ATTACHMENT F-7
CHANGES IN SULFATE AND MOLYBDENUM CONCENTRATIONS

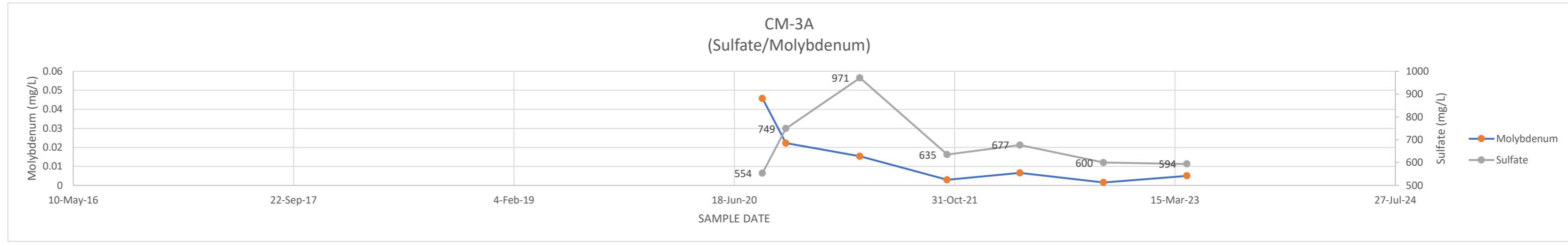
CM-1B DATE	SULFATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2490	0.0133
12-Oct-20	2290	0.0144
1-Apr-21		0.0113
14-Oct-21	2300	0.00976
31-Mar-22	2190	0.00696
4-Oct-22	2200	0.00551
11-Apr-23	2370	0.00488



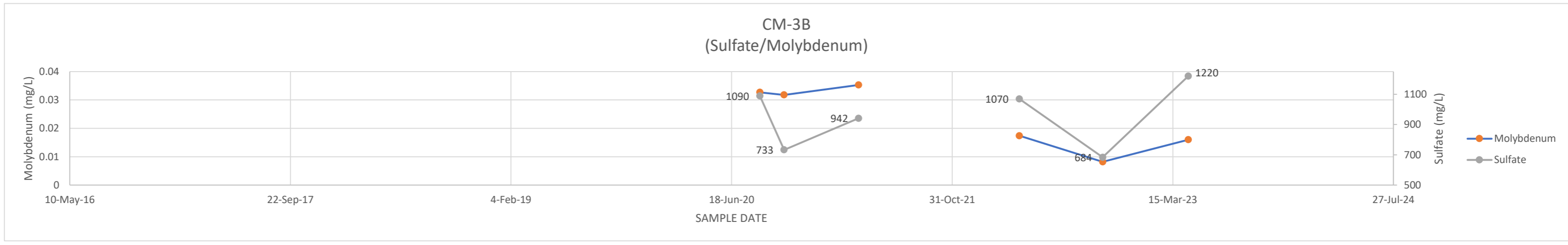
CM-2 DATE	SULFATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1680	0.00209
7-Oct-20	1590	0.00203
1-Apr-21	1210	0.00161
15-Oct-21	1370	0.0012
31-Mar-22	1010	0.00082
6-Oct-22	982	0.0006
11-Apr-23	1050	0.00152



CM-3A DATE	SULFATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	554	0.0457
13-Oct-20	749	0.0222
30-Mar-21	971	0.0153
14-Oct-21	635	0.00297
28-Mar-22	677	0.00656
4-Oct-22	600	0.00155
11-Apr-23	594	0.00503

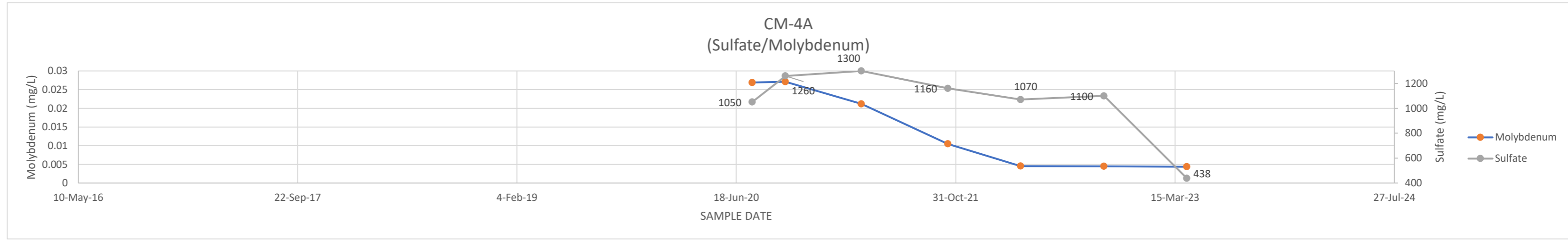


CM-3B DATE	SULFATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	1090	0.0327
15-Oct-20	733	0.0318
2-Apr-21	942	0.0353
11-Oct-21		
1-Apr-22	1070	0.0174
7-Oct-22	684	0.00819
19-Apr-23	1220	0.016

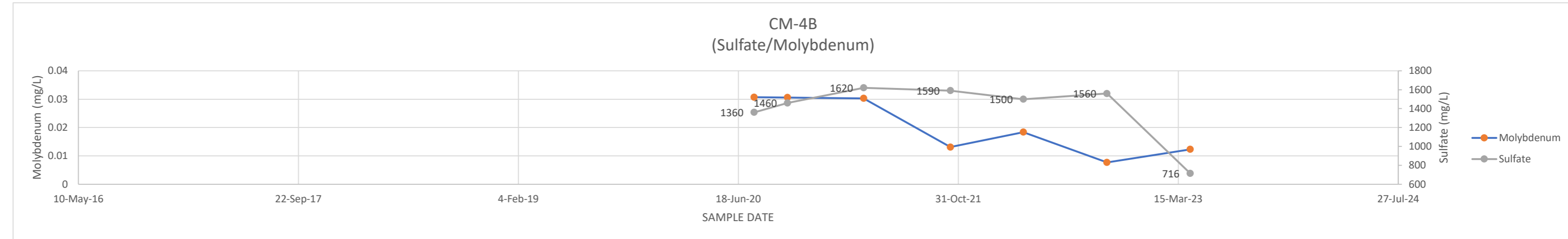


ATTACHMENT F-7
CHANGES IN SULFATE AND MOLYBDENUM CONCENTRATIONS

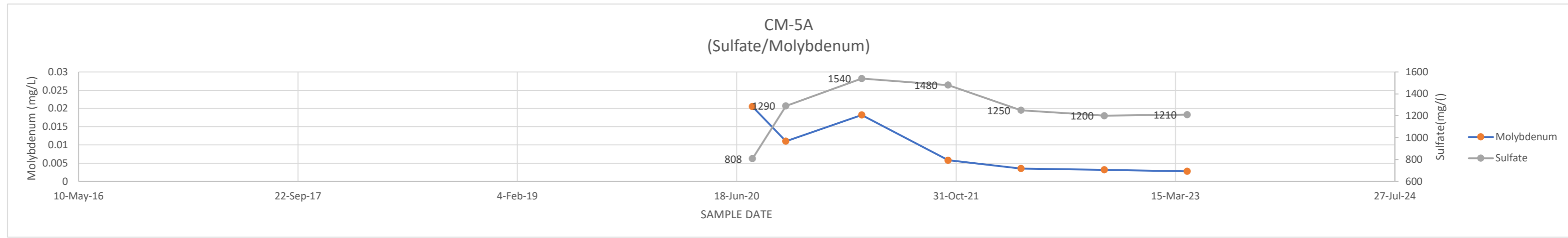
CM-4A DATE	SULFATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1050	0.0269
8-Oct-20	1260	0.0271
30-Mar-21	1300	0.0212
13-Oct-21	1160	0.0105
28-Mar-22	1070	0.00455
4-Oct-22	1100	0.00449
11-Apr-23	438	0.00436



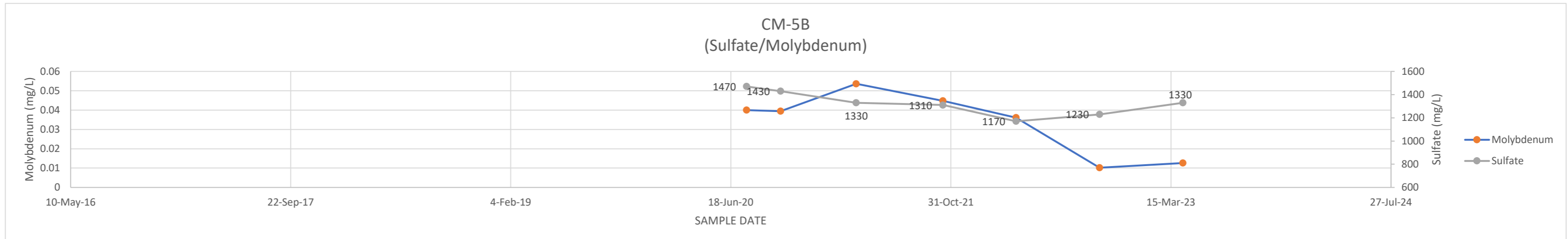
CM-4B DATE	SULFATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1360	0.0307
8-Oct-20	1460	0.0306
30-Mar-21	1620	0.0303
13-Oct-21	1590	0.0131
28-Mar-22	1500	0.0184
4-Oct-22	1560	0.00771
11-Apr-23	716	0.0123



CM-5A DATE	SULFATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	808	0.0205
8-Oct-20	1290	0.011
30-Mar-21	1540	0.0182
13-Oct-21	1480	0.0058
28-Mar-22	1250	0.00351
4-Oct-22	1200	0.00317
11-Apr-23	1210	0.00276



CM-5B DATE	SULFATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1470	0.04
9-Oct-20	1430	0.0394
30-Mar-21	1330	0.0536
13-Oct-21	1310	0.0448
28-Mar-22	1170	0.0361
4-Oct-22	1230	0.0102
11-Apr-23	1330	0.0126



Yellow Indicates Reported Below shown value (MDL)

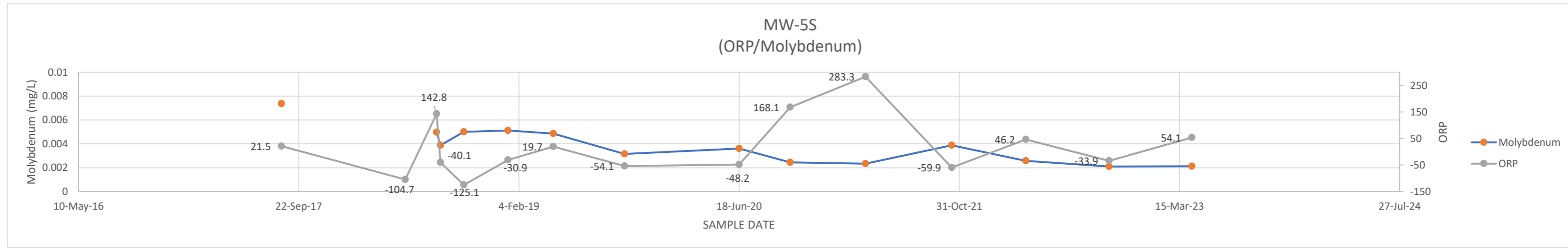
ATTACHMENT G

CHANGES IN CONCENTRATION OF INDICATOR PARAMETERS FOR MNA COMPARED TO CHANGES IN MOLYBDENUM CONCENTRATION OVER SAMPLING HISTORY

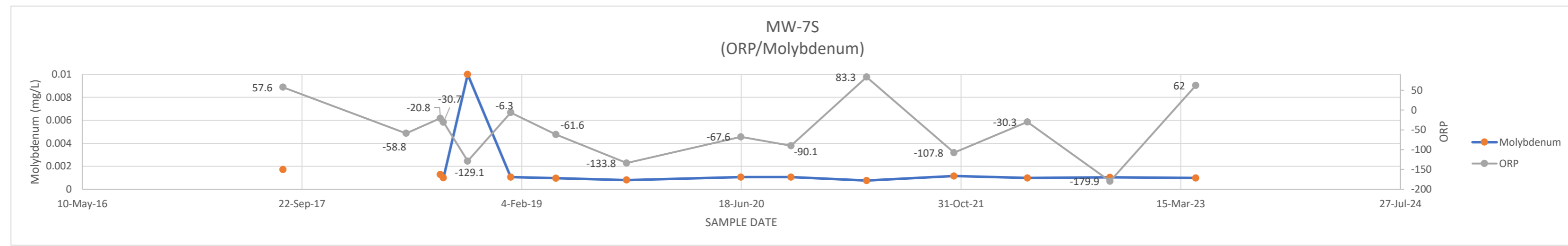
- G-1: CHANGES IN ORP AND MOLYBDENUM CONCENTRATIONS
- G-2: CHANGES IN DO AND MOLYBDENUM CONCENTRATIONS
- G-3A: CHANGES IN CONDUCTANCE (FIELD) AND MOLYBDENUM CONCENTRATIONS
- G-3B: CHANGES IN CONDUCTANCE (LAB) AND MOLYBDENUM CONCENTRATIONS
- G-4: CHANGES IN NITRATE AND MOLYBDENUM CONCENTRATIONS
- G-5: CHANGES IN SULFIDE AND MOLYBDENUM CONCENTRATIONS
- G-6: CHANGES IN ALKALINITY AND MOLYBDENUM CONCENTRATIONS

ATTACHMENT G-1
CHANGES IN ORP AND MOLYBDENUM CONCENTRATIONS

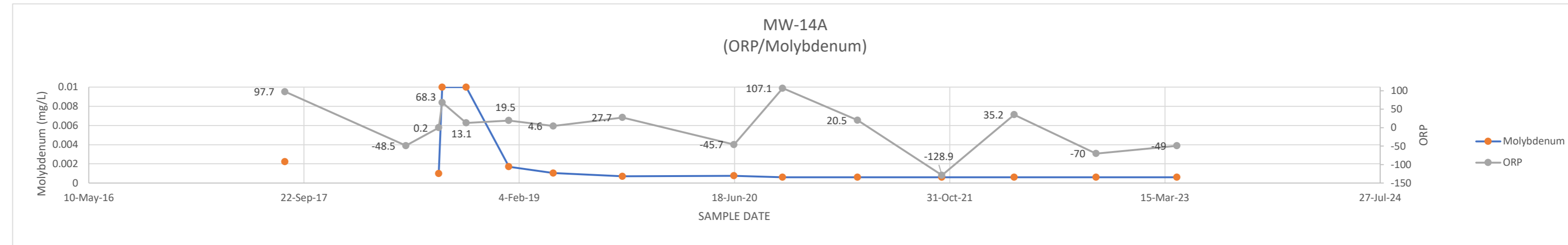
MW-5S	ORP	MOLYBDENUM
DATE		
14-Aug-17	21.5	0.00737
22-May-18	-104.7	
1-Aug-18	142.8	0.00497
10-Aug-18	-40.1	0.00387
2-Oct-18	-125.1	0.005
10-Jan-19	-30.9	0.00512
23-Apr-19	19.7	0.00485
2-Oct-19	-54.1	0.00315
18-Jun-20	-48.2	0.00361
12-Oct-20	168.1	0.00244
1-Apr-21	283.3	0.00234
14-Oct-21	-59.9	0.00387
31-Mar-22	46.2	0.00257
6-Oct-22	-33.9	0.0021
12-Apr-23	54.1	0.00211



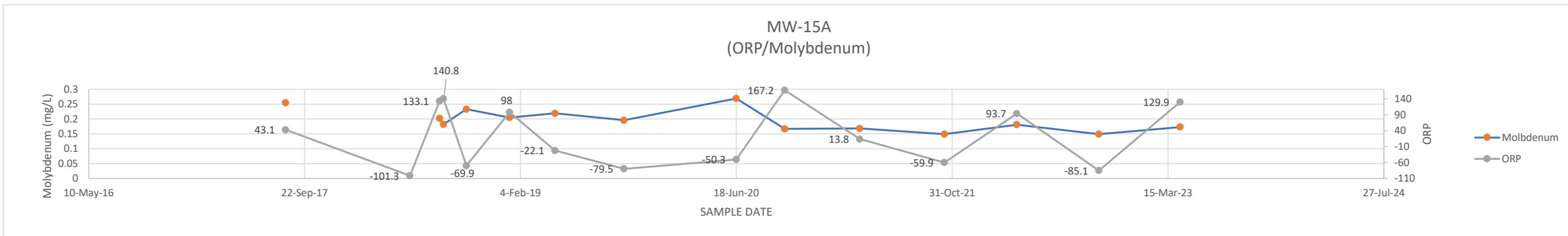
MW-7S	ORP	MOLYBDENUM
DATE		
10-Aug-17	57.6	0.00171
17-May-18	-58.8	
3-Aug-18	-20.8	0.00127
10-Aug-18	-30.7	0.001
4-Oct-18	-129.1	0.01
10-Jan-19	-6.3	0.00105
23-Apr-19	-61.6	0.000952
1-Oct-19	-133.8	0.000798
17-Jun-20	-67.6	0.00105
9-Oct-20	-90.1	0.00106
30-Mar-21	83.3	0.000755
15-Oct-21	-107.8	0.00115
31-Mar-22	-30.3	0.000973
5-Oct-22	-179.9	0.00103
18-Apr-23	62	0.000973



MW-14A	ORP	MOLYBDENUM
DATE		
9-Aug-17	97.7	0.00223
17-May-18	-48.5	
1-Aug-18	0.2	0.001
9-Aug-18	68.3	0.01
4-Oct-18	13.1	0.01
11-Jan-19	19.5	0.0017
24-Apr-19	4.6	0.00104
2-Oct-19	27.7	0.000709
17-Jun-20	-45.7	0.00076
8-Oct-20	107.1	0.0006
31-Mar-21	20.5	0.0006
13-Oct-21	-128.9	0.0006
30-Mar-22	35.2	0.0006
6-Oct-22	-70	0.0006
12-Apr-23	-49	0.0006

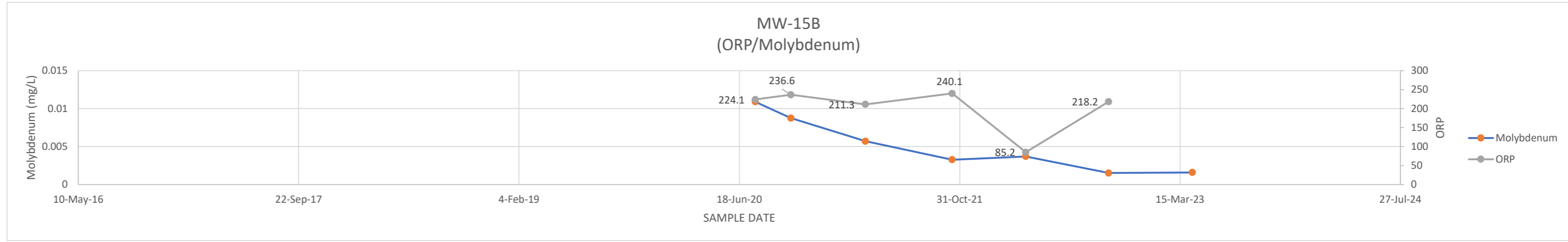


MW-15A	ORP	MOLYBDENUM
DATE		
9-Aug-17	43.1	0.255
24-May-18	-101.3	
1-Aug-18	133.1	0.202
10-Aug-18	140.8	0.182
2-Oct-18	-69.9	0.233
10-Jan-19	98	0.205
25-Apr-19	-22.1	0.219
2-Oct-19	-79.5	0.196
18-Jun-20	-50.3	0.269
8-Oct-20	167.2	0.167
31-Mar-21	13.8	0.168
13-Oct-21	-59.9	0.149
30-Mar-22	93.7	0.181
6-Oct-22	-85.1	0.149
12-Apr-23	129.9	0.173

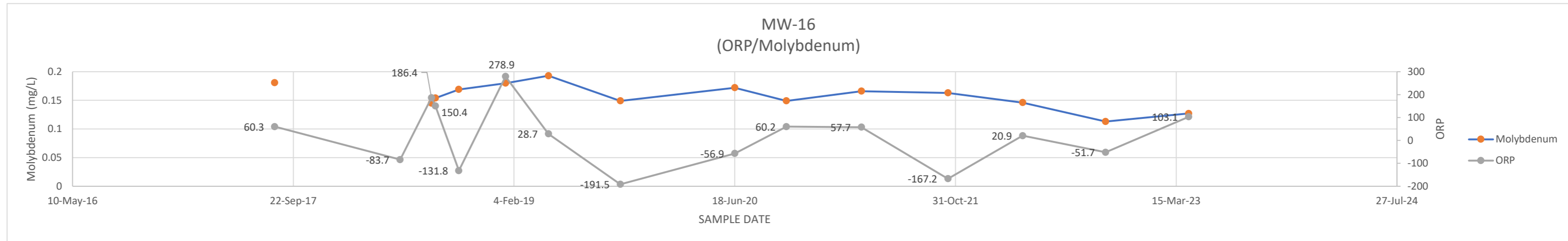


ATTACHMENT G-1
CHANGES IN ORP AND MOLYBDENUM CONCENTRATIONS

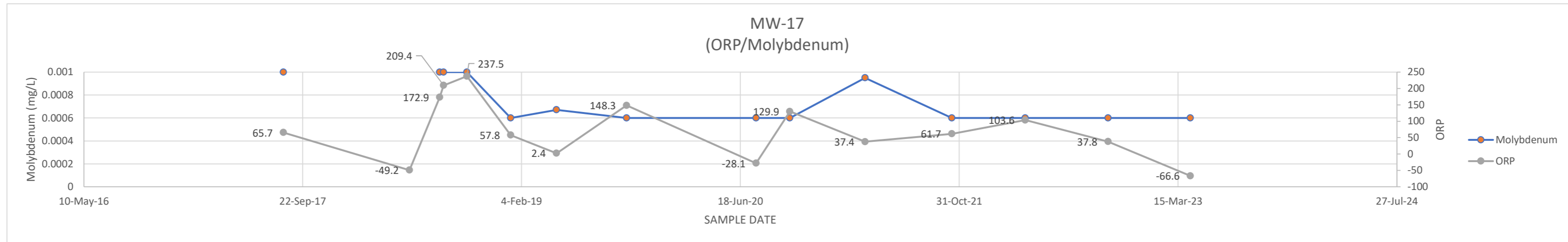
MW-15B	ORP	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	224.1	0.0109
13-Oct-20	236.6	0.00876
31-Mar-21	211.3	0.00571
14-Oct-21	240.1	0.00328
30-Mar-22	85.2	0.0037
4-Oct-22	218.2	0.00153
12-Apr-23		0.0016



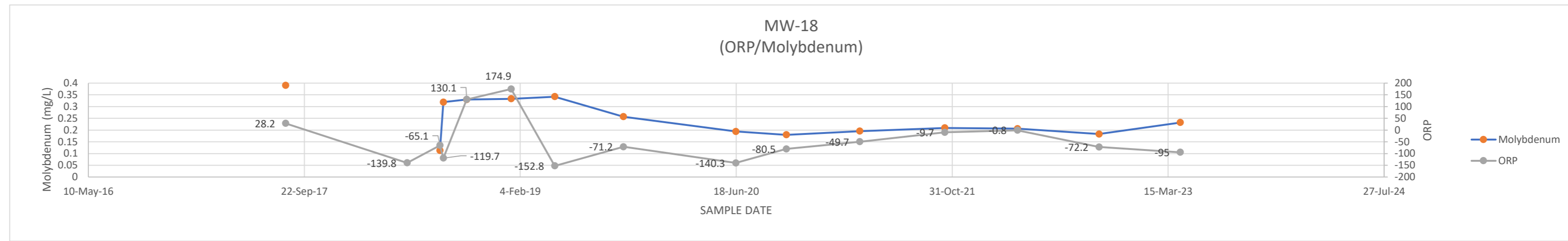
MW-16	ORP	MOLYBDENUM
DATE		
11-Aug-17	60.3	0.181
22-May-18	-83.7	
1-Aug-18	186.4	0.145
10-Aug-18	150.4	0.154
2-Oct-18	-131.8	0.169
16-Jan-19	278.9	0.18
23-Apr-19	28.7	0.193
3-Oct-19	-191.5	0.149
18-Jun-20	-56.9	0.172
13-Oct-20	60.2	0.149
1-Apr-21	57.7	0.166
14-Oct-21	-167.2	0.163
1-Apr-22	20.9	0.146
6-Oct-22	-51.7	0.113
12-Apr-23	103.1	0.127



MW-17	ORP	MOLYBDENUM
DATE		
9-Aug-17	65.7	0.001
24-May-18	-49.2	
1-Aug-18	172.9	0.001
10-Aug-18	209.4	0.001
2-Oct-18	237.5	0.001
10-Jan-19	57.8	0.0006
25-Apr-19	2.4	0.000671
2-Oct-19	148.3	0.0006
24-Jul-20	-28.1	0.0006
9-Oct-20	129.9	0.0006
30-Mar-21	37.4	0.00095
14-Oct-21	61.7	0.0006
31-Mar-22	103.6	0.0006
6-Oct-22	37.8	0.0006
12-Apr-23	-66.6	0.0006

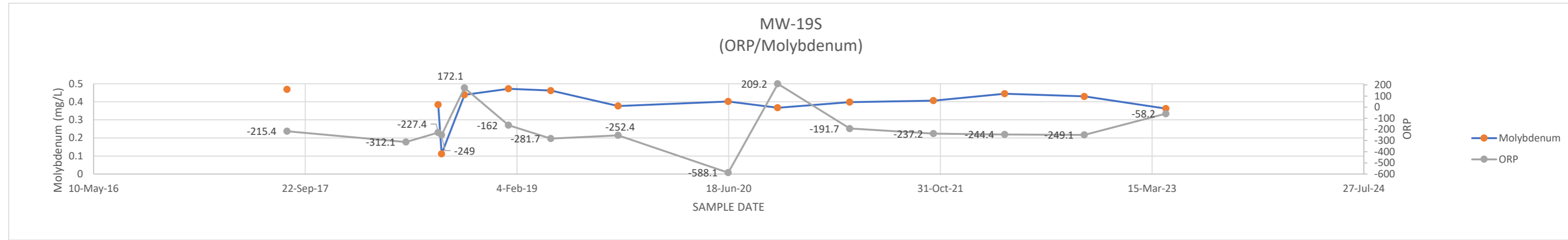


MW-18	ORP	MOLYBDENUM
DATE		
10-Aug-17	28.2	0.39
18-May-18	-139.8	
2-Aug-18	-65.1	0.113
10-Aug-18	-119.7	0.319
3-Oct-18	130.1	0.33
14-Jan-19	174.9	0.333
25-Apr-19	-152.8	0.342
1-Oct-19	-71.2	0.257
17-Jun-20	-140.3	0.194
12-Oct-20	-80.5	0.18
31-Mar-21	-49.7	0.195
14-Oct-21	-9.7	0.209
31-Mar-22	-0.8	0.206
6-Oct-22	-72.2	0.183
12-Apr-23	-95	0.232

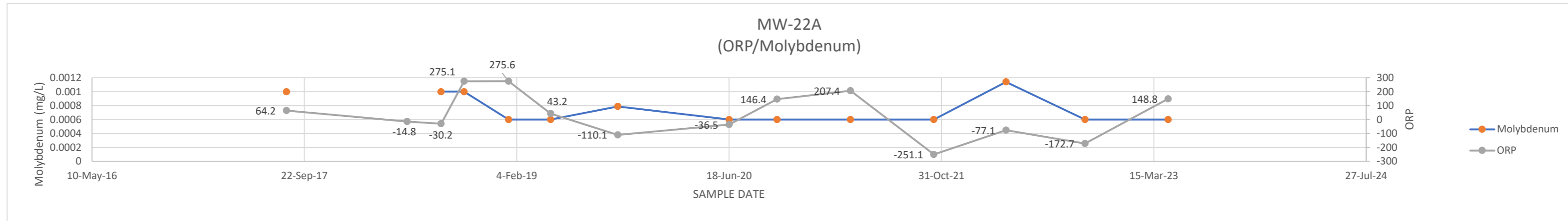


ATTACHMENT G-1
CHANGES IN ORP AND MOLYBDENUM CONCENTRATIONS

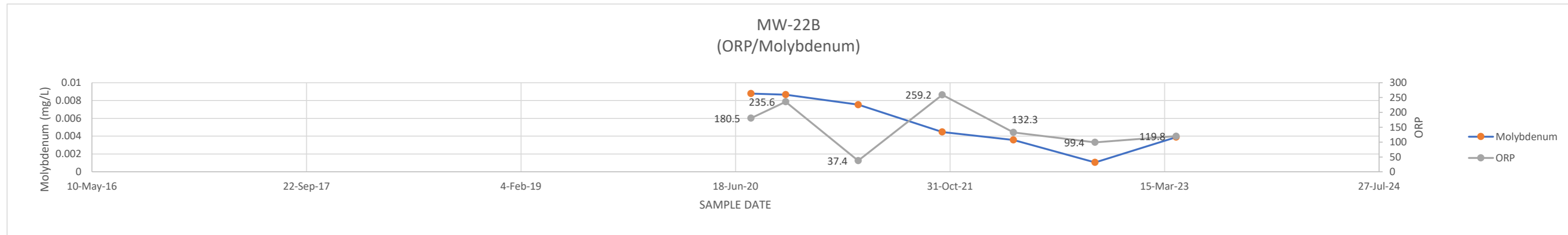
MW-19S	ORP	MOLYBDENUM
DATE		
10-Aug-17	-215.4	0.469
18-May-18	-312.1	
2-Aug-18	-227.4	0.384
10-Aug-18	-249	0.112
3-Oct-18	172.1	0.439
15-Jan-19	-162	0.472
25-Apr-19	-281.7	0.462
1-Oct-19	-252.4	0.377
17-Jun-20	-588.1	0.402
12-Oct-20	209.2	0.367
31-Mar-21	-191.7	0.398
15-Oct-21	-237.2	0.407
1-Apr-22	-244.4	0.445
6-Oct-22	-249.1	0.43
17-Apr-23	-58.2	0.362



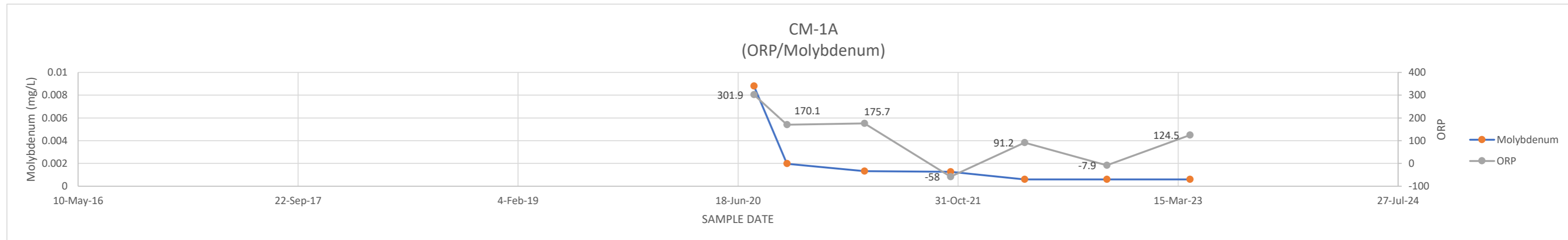
MW-22A	ORP	MOLYBDENUM
DATE		
11-Aug-17	64.2	0.001
22-May-18	-14.8	
10-Aug-18	-30.2	0.001
3-Oct-18	275.1	0.001
16-Jan-19	275.6	0.0006
25-Apr-19	43.2	0.0006
30-Sep-19	-110.1	0.000787
18-Jun-20	-36.5	0.0006
9-Oct-20	146.4	0.0006
31-Mar-21	207.4	0.0006
13-Oct-21	-251.1	0.0006
1-Apr-22	-77.1	0.00114
4-Oct-22	-172.7	0.0006
18-Apr-23	148.8	0.0006



MW-22B	ORP	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	180.5	0.00878
13-Oct-20	235.6	0.00866
31-Mar-21	37.4	0.00753
13-Oct-21	259.2	0.00446
28-Mar-22	132.3	0.00357
4-Oct-22	99.4	0.00105
11-Apr-23	119.8	0.00389

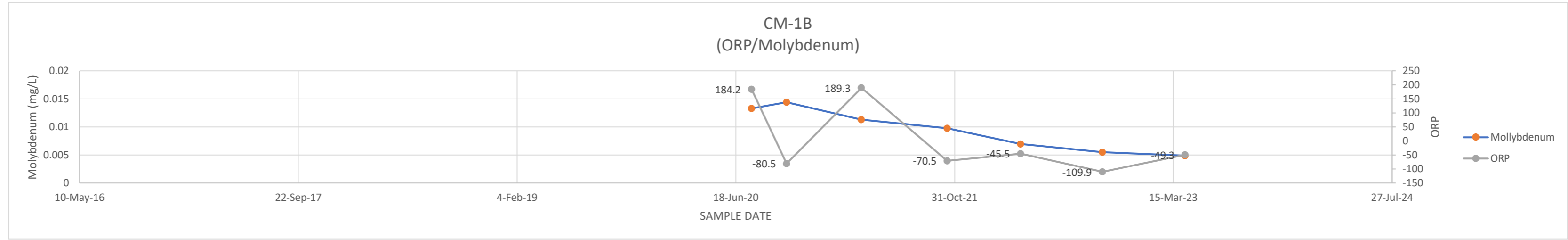


CM-1A	ORP	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	301.9	0.0088
7-Oct-20	170.1	0.00198
1-Apr-21	175.7	0.00132
14-Oct-21	-58	0.00127
31-Mar-22	91.2	0.0006
4-Oct-22	-7.9	0.0006
11-Apr-23	124.5	0.0006

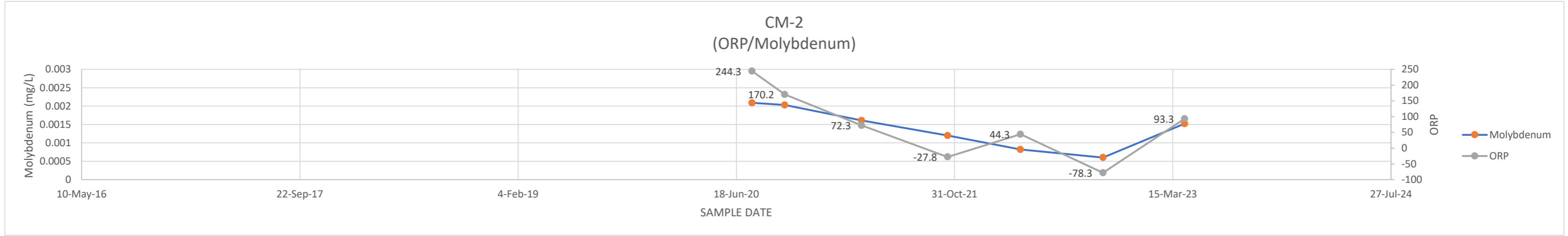


ATTACHMENT G-1
CHANGES IN ORP AND MOLYBDENUM CONCENTRATIONS

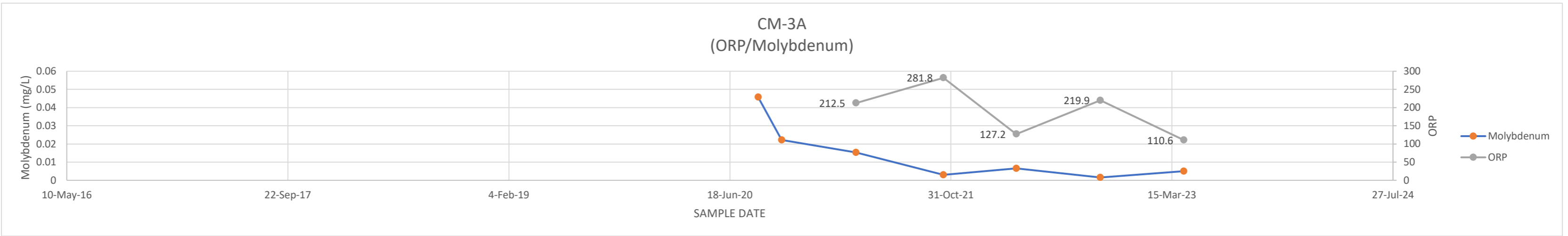
CM-1B DATE	ORP	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	184.2	0.0133
12-Oct-20	-80.5	0.0144
1-Apr-21	189.3	0.0113
14-Oct-21	-70.5	0.00976
31-Mar-22	-45.5	0.00696
4-Oct-22	-109.9	0.00551
11-Apr-23	-49.3	0.00488



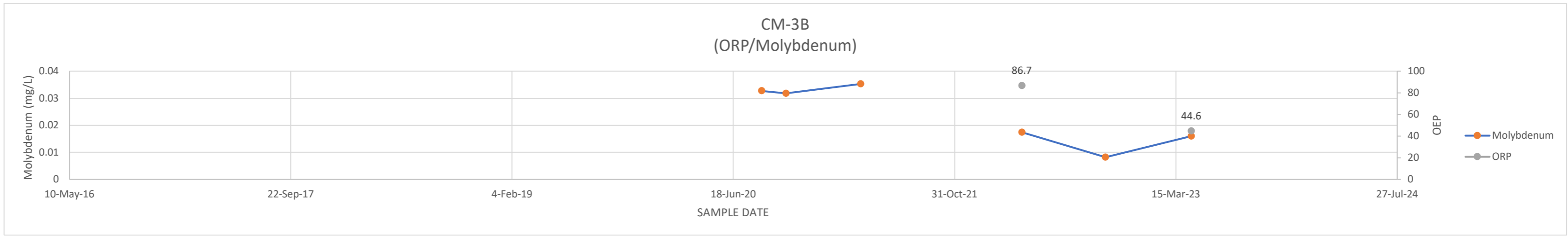
CM-2 DATE	ORP	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	244.3	0.00209
7-Oct-20	170.2	0.00203
1-Apr-21	72.3	0.00161
15-Oct-21	-27.8	0.0012
31-Mar-22	44.3	0.00082
6-Oct-22	-78.3	0.0006
11-Apr-23	93.3	0.00152



CM-3A DATE	ORP	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0457
13-Oct-20		0.0222
30-Mar-21	212.5	0.0153
14-Oct-21	281.8	0.00297
28-Mar-22	127.2	0.00656
4-Oct-22	219.9	0.00155
11-Apr-23	110.6	0.00503

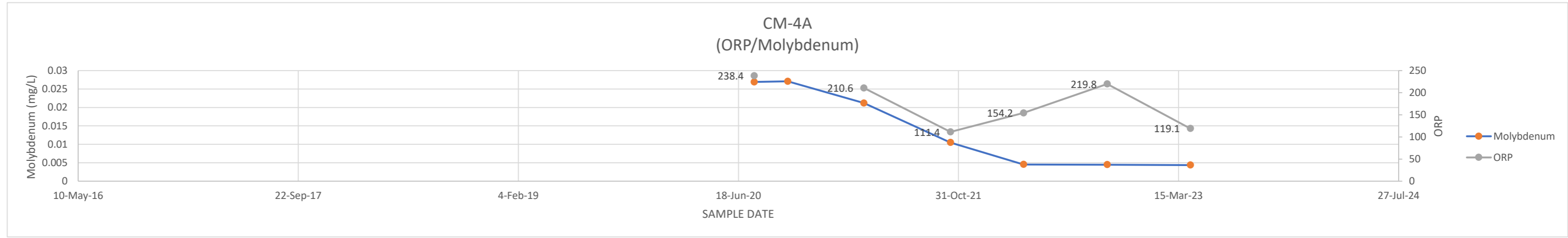


CM-3B DATE	ORP	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0327
15-Oct-20		0.0318
2-Apr-21		0.0353
11-Oct-21		
1-Apr-22	86.7	0.0174
7-Oct-22		0.00819
19-Apr-23	44.6	0.016

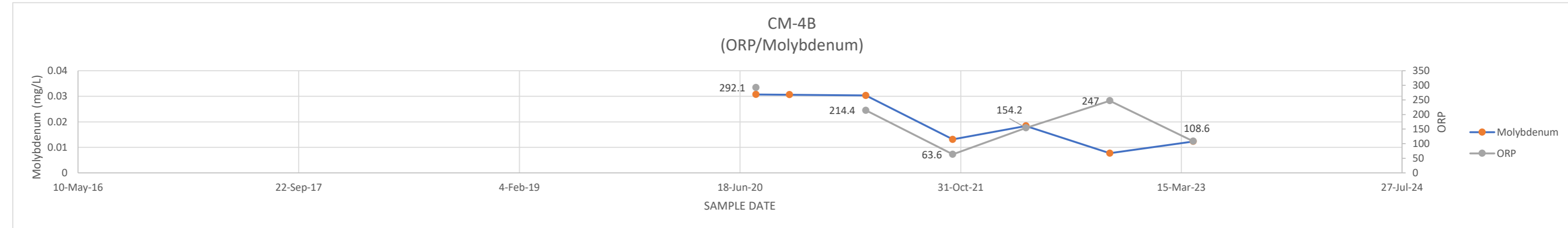


ATTACHMENT G-1
CHANGES IN ORP AND MOLYBDENUM CONCENTRATIONS

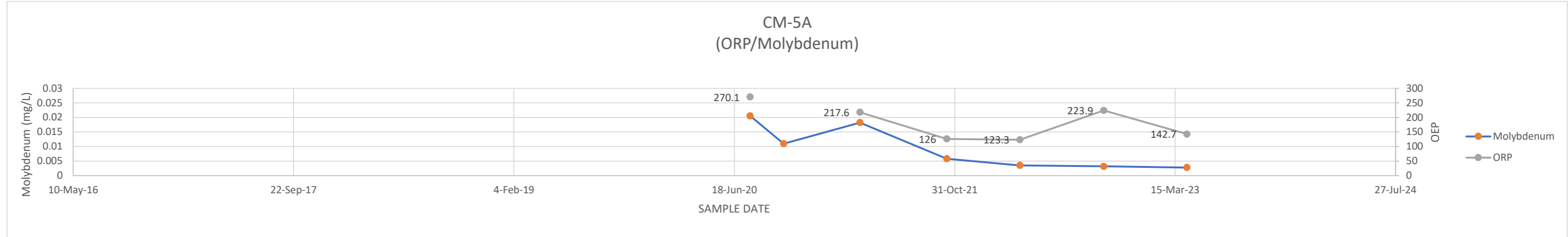
CM-4A DATE	ORP	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	238.4	0.0269
8-Oct-20		0.0271
30-Mar-21	210.6	0.0212
13-Oct-21	111.4	0.0105
28-Mar-22	154.2	0.00455
4-Oct-22	219.8	0.00449
11-Apr-23	119.1	0.00436



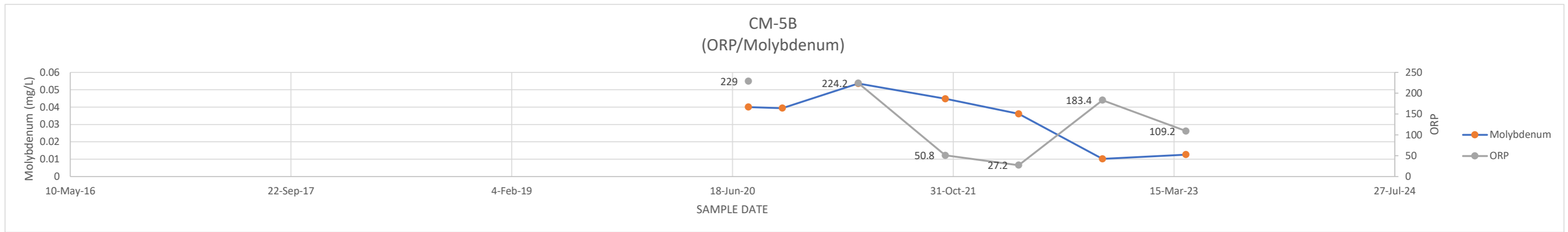
CM-4B DATE	ORP	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	292.1	0.0307
8-Oct-20		0.0306
30-Mar-21	214.4	0.0303
13-Oct-21	63.6	0.0131
28-Mar-22	154.2	0.0184
4-Oct-22	247	0.00771
11-Apr-23	108.6	0.0123



CM-5A DATE	ORP	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	270.1	0.0205
8-Oct-20		0.011
30-Mar-21	217.6	0.0182
13-Oct-21	126	0.0058
28-Mar-22	123.3	0.00351
4-Oct-22	223.9	0.00317
11-Apr-23	142.7	0.00276



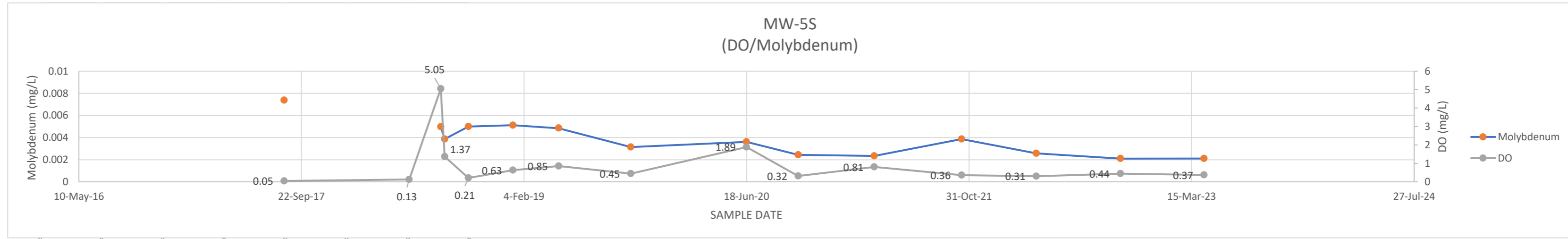
CM-5B DATE	ORP	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	229	0.04
9-Oct-20		0.0394
30-Mar-21	224.2	0.0536
13-Oct-21	50.8	0.0448
28-Mar-22	27.2	0.0361
4-Oct-22	183.4	0.0102
11-Apr-23	109.2	0.0126



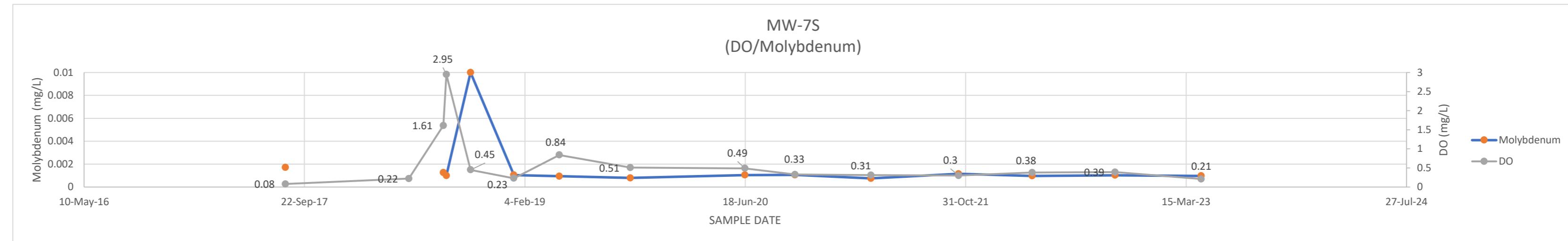
Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT G-2
CHANGES IN DO AND MOLYBDENUM CONCENTRATIONS

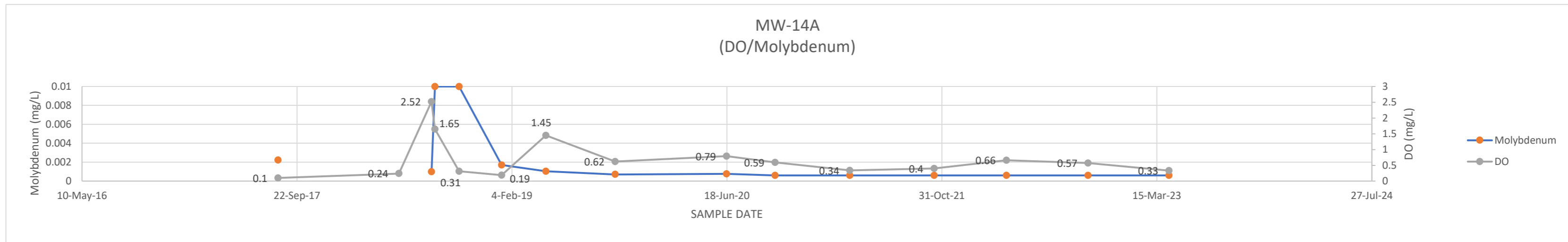
MW-5S	DO	MOLYBDENUM
DATE		
14-Aug-17	0.05	0.00737
22-May-18	0.13	
1-Aug-18	5.05	0.00497
10-Aug-18	1.37	0.00387
2-Oct-18	0.21	0.005
10-Jan-19	0.63	0.00512
23-Apr-19	0.85	0.00485
2-Oct-19	0.45	0.00315
18-Jun-20	1.89	0.00361
12-Oct-20	0.32	0.00244
1-Apr-21	0.81	0.00234
14-Oct-21	0.36	0.00387
31-Mar-22	0.31	0.00257
6-Oct-22	0.44	0.0021
12-Apr-23	0.37	0.00211



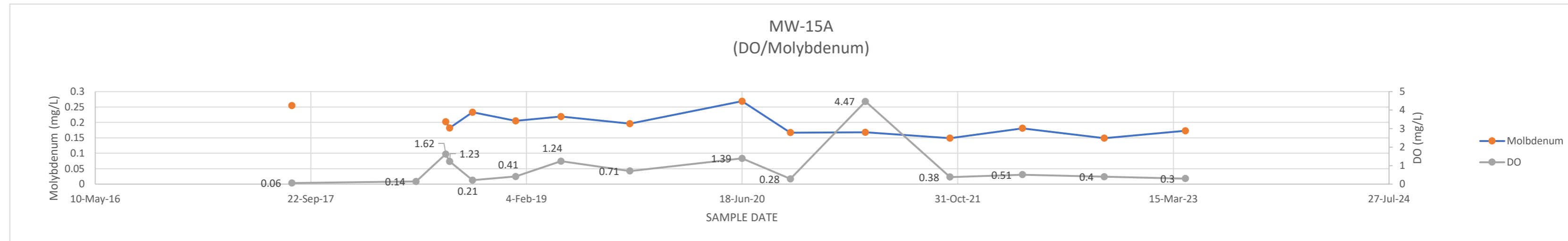
MW-7S	DO	MOLYBDENUM
DATE		
10-Aug-17	0.08	0.00171
17-May-18	0.22	
3-Aug-18	1.61	0.00127
10-Aug-18	2.95	0.001
4-Oct-18	0.45	0.01
10-Jan-19	0.23	0.00105
23-Apr-19	0.84	0.000952
1-Oct-19	0.51	0.000798
17-Jun-20	0.49	0.00105
9-Oct-20	0.33	0.00106
30-Mar-21	0.31	0.000755
15-Oct-21	0.3	0.00115
31-Mar-22	0.38	0.000973
5-Oct-22	0.39	0.00103
18-Apr-23	0.21	0.000973



MW-14A	DO	MOLYBDENUM
DATE		
9-Aug-17	0.1	0.00223
17-May-18	0.24	
1-Aug-18	2.52	0.001
9-Aug-18	1.65	0.01
4-Oct-18	0.31	0.01
11-Jan-19	0.19	0.0017
24-Apr-19	1.45	0.00104
2-Oct-19	0.62	0.000709
17-Jun-20	0.79	0.00076
8-Oct-20	0.59	0.0006
31-Mar-21	0.34	0.0006
13-Oct-21	0.4	0.0006
30-Mar-22	0.66	0.0006
6-Oct-22	0.57	0.0006
12-Apr-23	0.33	0.0006

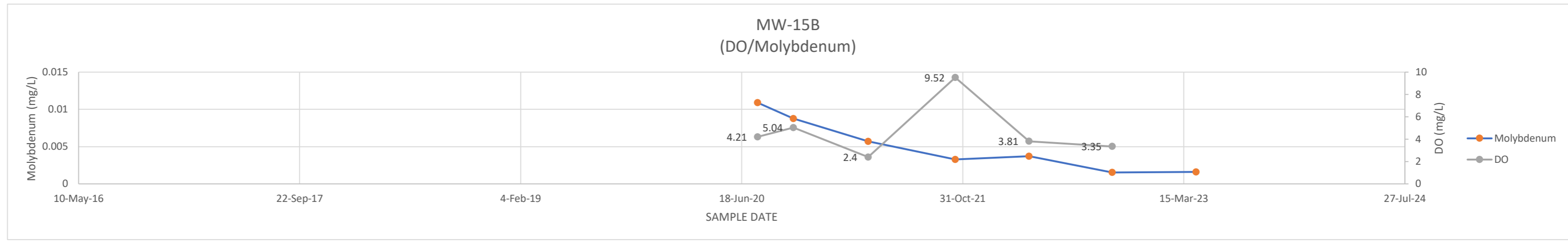


MW-15A	DO	MOLYBDENUM
DATE		
9-Aug-17	0.06	0.255
24-May-18	0.14	
1-Aug-18	1.62	0.202
10-Aug-18	1.23	0.182
2-Oct-18	0.21	0.233
10-Jan-19	0.41	0.205
25-Apr-19	1.24	0.219
2-Oct-19	0.71	0.196
18-Jun-20	1.39	0.269
8-Oct-20	0.28	0.167
31-Mar-21	4.47	0.168
13-Oct-21	0.38	0.149
30-Mar-22	0.51	0.181
6-Oct-22	0.4	0.149
12-Apr-23	0.3	0.173

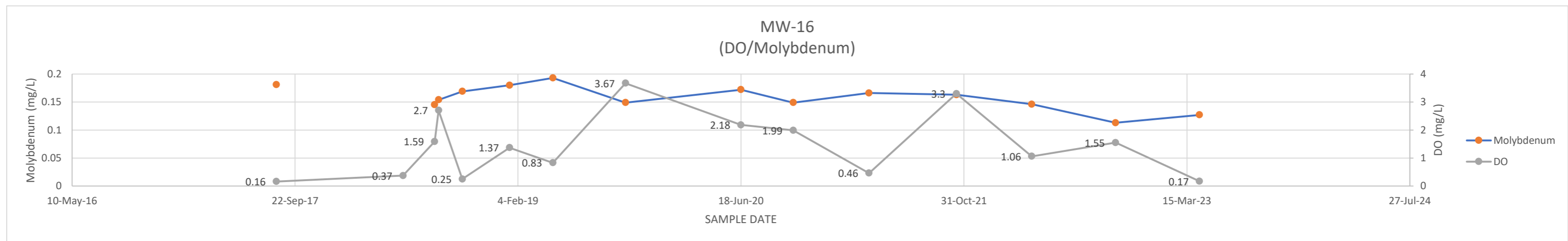


ATTACHMENT G-2
CHANGES IN DO AND MOLYBDENUM CONCENTRATIONS

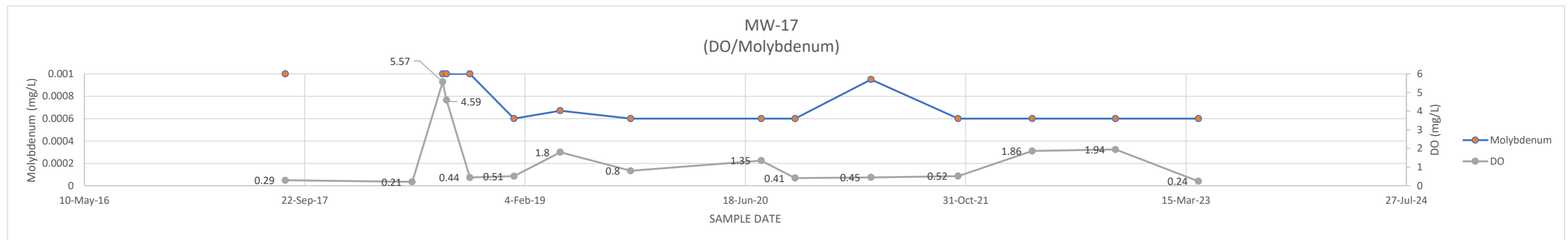
MW-15B	DO	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	4.21	0.0109
13-Oct-20	5.04	0.00876
31-Mar-21	2.4	0.00571
14-Oct-21	9.52	0.00328
30-Mar-22	3.81	0.0037
4-Oct-22	3.35	0.00153
12-Apr-23		0.0016



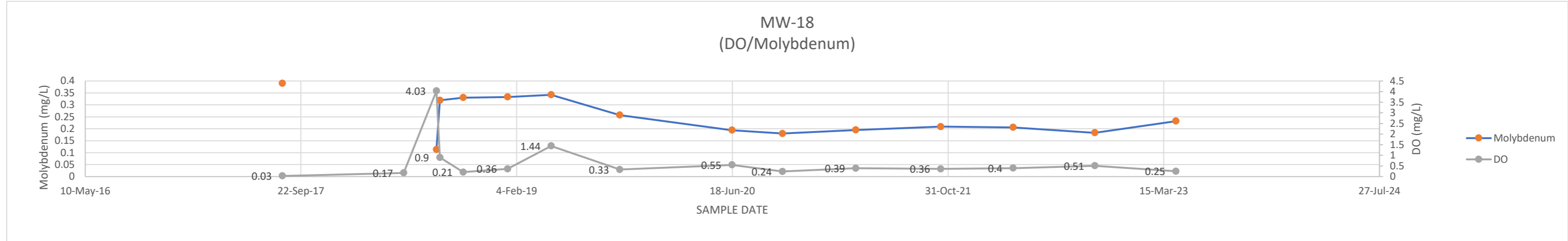
MW-16	DO	MOLYBDENUM
DATE		
11-Aug-17	0.16	0.181
22-May-18	0.37	
1-Aug-18	1.59	0.145
10-Aug-18	2.7	0.154
2-Oct-18	0.25	0.169
16-Jan-19	1.37	0.18
23-Apr-19	0.83	0.193
3-Oct-19	3.67	0.149
18-Jun-20	2.18	0.172
13-Oct-20	1.99	0.149
1-Apr-21	0.46	0.166
14-Oct-21	3.3	0.163
1-Apr-22	1.06	0.146
6-Oct-22	1.55	0.113
12-Apr-23	0.17	0.127



MW-17	DO	MOLYBDENUM
DATE		
9-Aug-17	0.29	0.001
24-May-18	0.21	
1-Aug-18	5.57	0.001
10-Aug-18	4.59	0.001
2-Oct-18	0.44	0.001
10-Jan-19	0.51	0.0006
25-Apr-19	1.8	0.000671
2-Oct-19	0.8	0.0006
24-Jul-20	1.35	0.0006
9-Oct-20	0.41	0.0006
30-Mar-21	0.45	0.00095
14-Oct-21	0.52	0.0006
31-Mar-22	1.86	0.0006
6-Oct-22	1.94	0.0006
12-Apr-23	0.24	0.0006

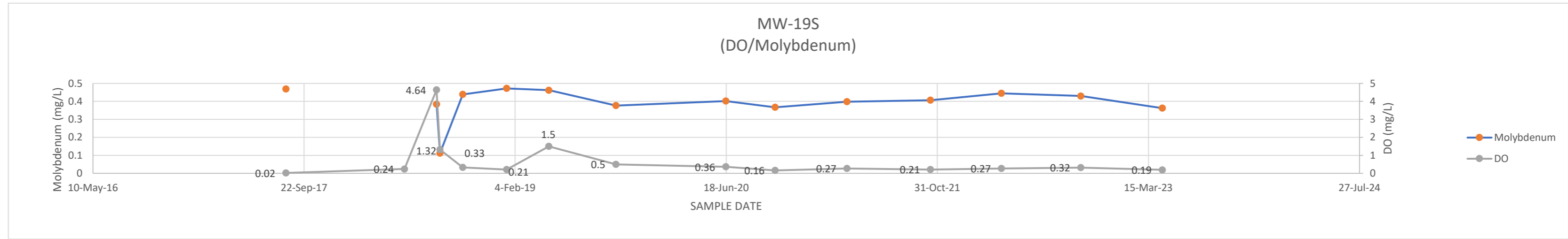


MW-18	ORP	MOLYBDENUM
DATE		
10-Aug-17	0.03	0.39
18-May-18	0.17	
2-Aug-18	4.03	0.113
10-Aug-18	0.9	0.319
3-Oct-18	0.21	0.33
14-Jan-19	0.36	0.333
25-Apr-19	1.44	0.342
1-Oct-19	0.33	0.257
17-Jun-20	0.55	0.194
12-Oct-20	0.24	0.18
31-Mar-21	0.39	0.195
14-Oct-21	0.36	0.209
31-Mar-22	0.4	0.206
6-Oct-22	0.51	0.183
12-Apr-23	0.25	0.232

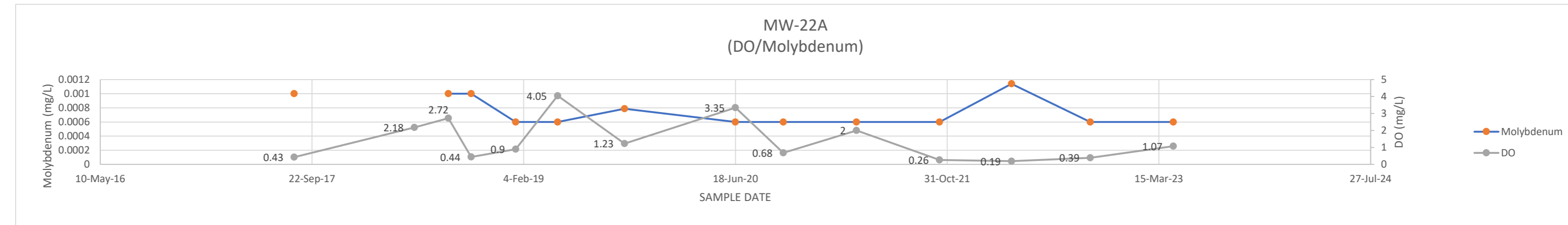


ATTACHMENT G-2
CHANGES IN DO AND MOLYBDENUM CONCENTRATIONS

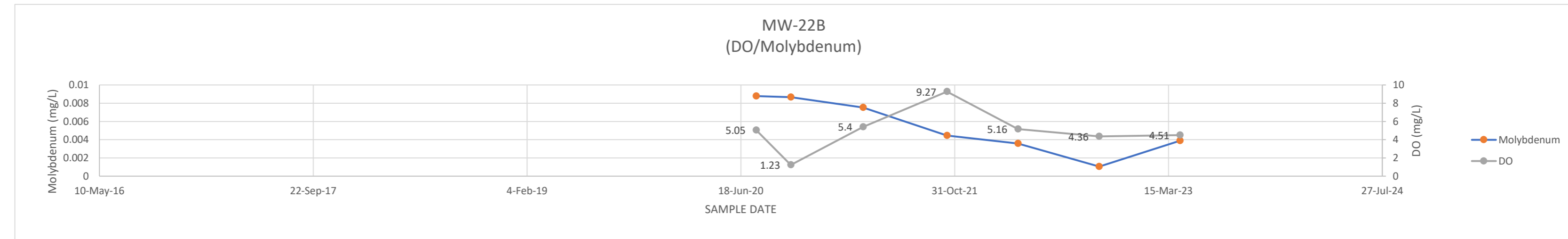
MW-19S	DO	MOLYBDENUM
DATE		
10-Aug-17	0.02	0.469
18-May-18	0.24	
2-Aug-18	4.64	0.384
10-Aug-18	1.32	0.112
3-Oct-18	0.33	0.439
15-Jan-19	0.21	0.472
25-Apr-19	1.5	0.462
1-Oct-19	0.5	0.377
17-Jun-20	0.36	0.402
12-Oct-20	0.16	0.367
31-Mar-21	0.27	0.398
15-Oct-21	0.21	0.407
1-Apr-22	0.27	0.445
6-Oct-22	0.32	0.43
17-Apr-23	0.19	0.362



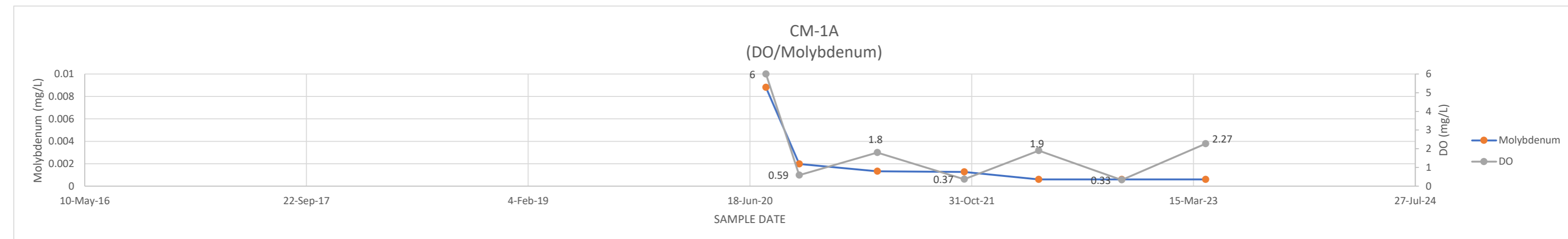
MW-22A	DO	MOLYBDENUM
DATE		
11-Aug-17	0.43	0.001
22-May-18	2.18	
10-Aug-18	2.72	0.001
3-Oct-18	0.44	0.001
16-Jan-19	0.9	0.0006
25-Apr-19	4.05	0.0006
30-Sep-19	1.23	0.000787
18-Jun-20	3.35	0.0006
9-Oct-20	0.68	0.0006
31-Mar-21	2	0.0006
13-Oct-21	0.26	0.0006
1-Apr-22	0.19	0.00114
4-Oct-22	0.39	0.0006
18-Apr-23	1.07	0.0006



MW-22B	DO	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	5.05	0.00878
13-Oct-20	1.23	0.00866
31-Mar-21	5.4	0.00753
13-Oct-21	9.27	0.00446
28-Mar-22	5.16	0.00357
4-Oct-22	4.36	0.00105
11-Apr-23	4.51	0.00389

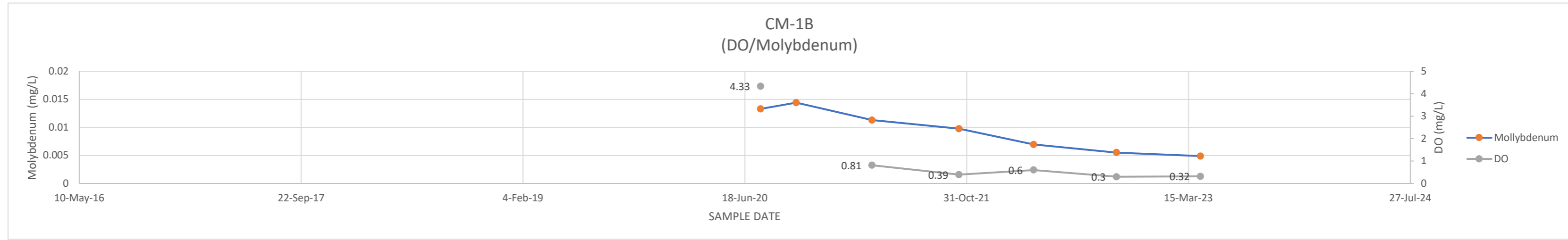


CM-1A	DO	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	6	0.0088
7-Oct-20	0.59	0.00198
1-Apr-21	1.8	0.00132
14-Oct-21	0.37	0.00127
31-Mar-22	1.9	0.0006
4-Oct-22	0.33	0.0006
11-Apr-23	2.27	0.0006

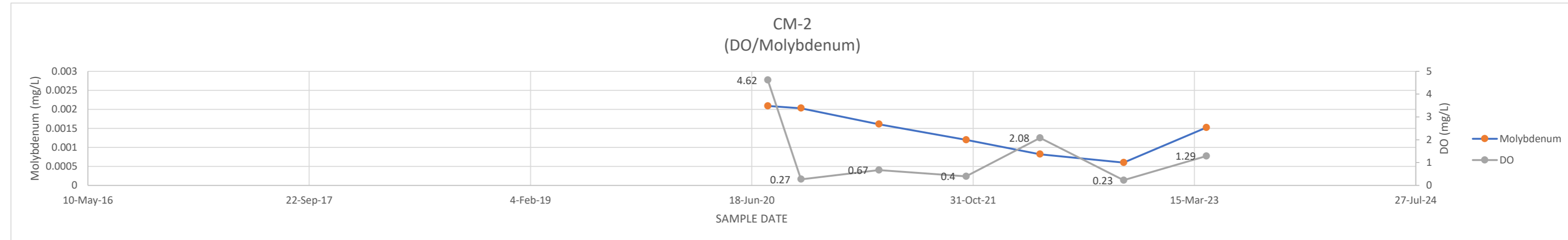


ATTACHMENT G-2
CHANGES IN DO AND MOLYBDENUM CONCENTRATIONS

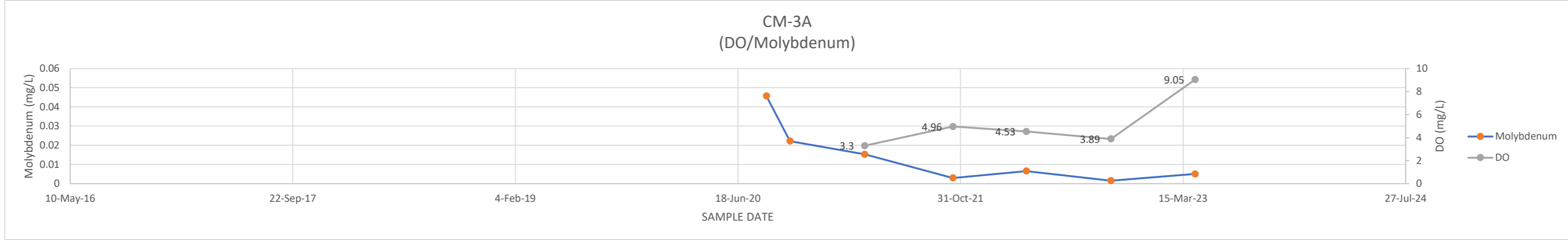
CM-1B DATE	DO	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	4.33	0.0133
12-Oct-20		0.0144
1-Apr-21	0.81	0.0113
14-Oct-21	0.39	0.00976
31-Mar-22	0.6	0.00696
4-Oct-22	0.3	0.00551
11-Apr-23	0.32	0.00488



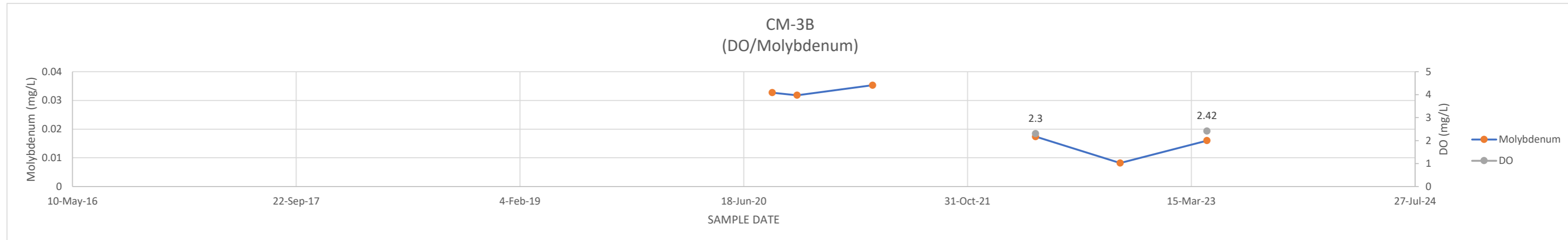
CM-2 DATE	DO	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	4.62	0.00209
7-Oct-20	0.27	0.00203
1-Apr-21	0.67	0.00161
15-Oct-21	0.4	0.0012
31-Mar-22	2.08	0.00082
6-Oct-22	0.23	0.0006
11-Apr-23	1.29	0.00152



CM-3A DATE	DO	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0457
13-Oct-20		0.0222
30-Mar-21	3.3	0.0153
14-Oct-21	4.96	0.00297
28-Mar-22	4.53	0.00656
4-Oct-22	3.89	0.00155
11-Apr-23	9.05	0.00503

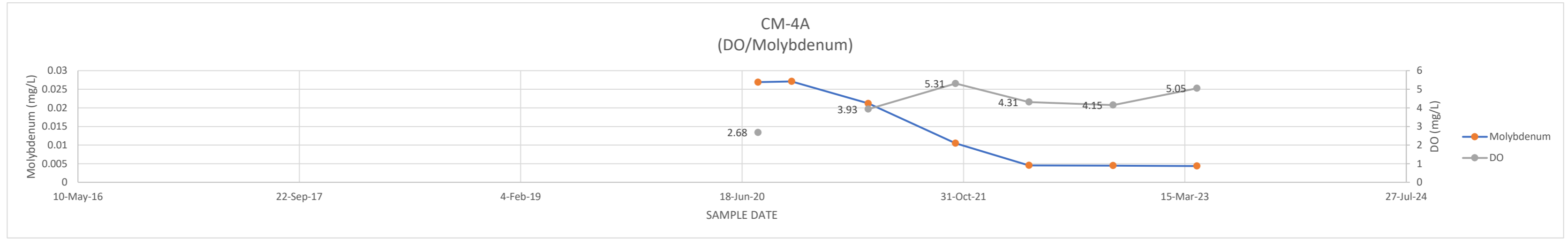


CM-3B DATE	DO	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0327
15-Oct-20		0.0318
2-Apr-21		0.0353
11-Oct-21		
1-Apr-22	2.3	0.0174
7-Oct-22		0.00819
19-Apr-23	2.42	0.016

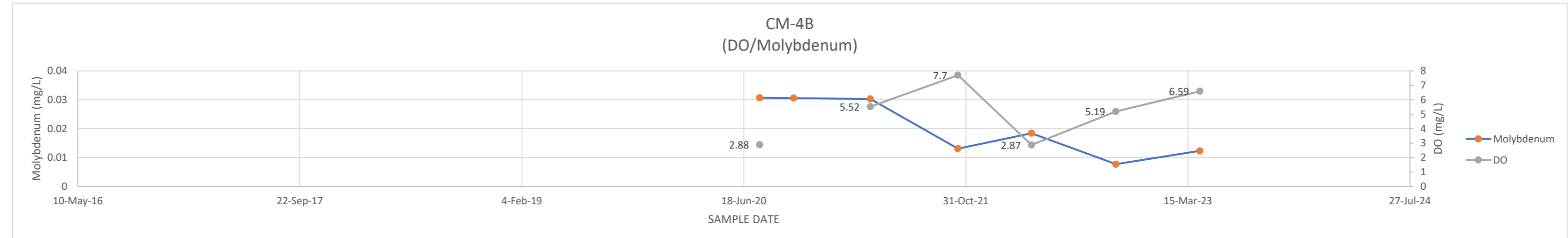


ATTACHMENT G-2
CHANGES IN DO AND MOLYBDENUM CONCENTRATIONS

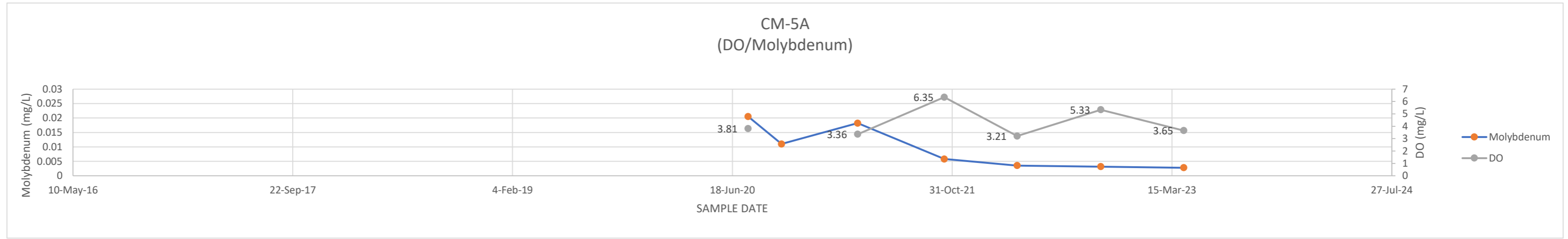
CM-4A DATE	DO	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2.68	0.0269
8-Oct-20		0.0271
30-Mar-21	3.93	0.0212
13-Oct-21	5.31	0.0105
28-Mar-22	4.31	0.00455
4-Oct-22	4.15	0.00449
11-Apr-23	5.05	0.00436



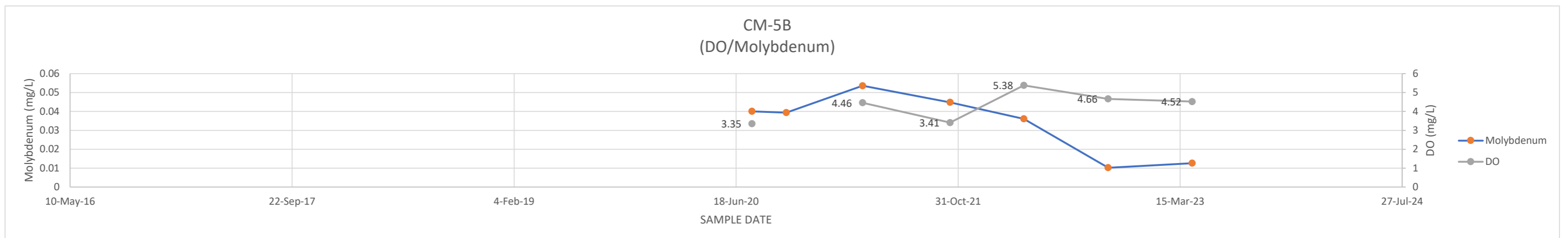
CM-4B DATE	DO	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2.88	0.0307
8-Oct-20		0.0306
30-Mar-21	5.52	0.0303
13-Oct-21	7.7	0.0131
28-Mar-22	2.87	0.0184
4-Oct-22	5.19	0.00771
11-Apr-23	6.59	0.0123



CM-5A DATE	DO	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3.81	0.0205
8-Oct-20		0.011
30-Mar-21	3.36	0.0182
13-Oct-21	6.35	0.0058
28-Mar-22	3.21	0.00351
4-Oct-22	5.33	0.00317
11-Apr-23	3.65	0.00276



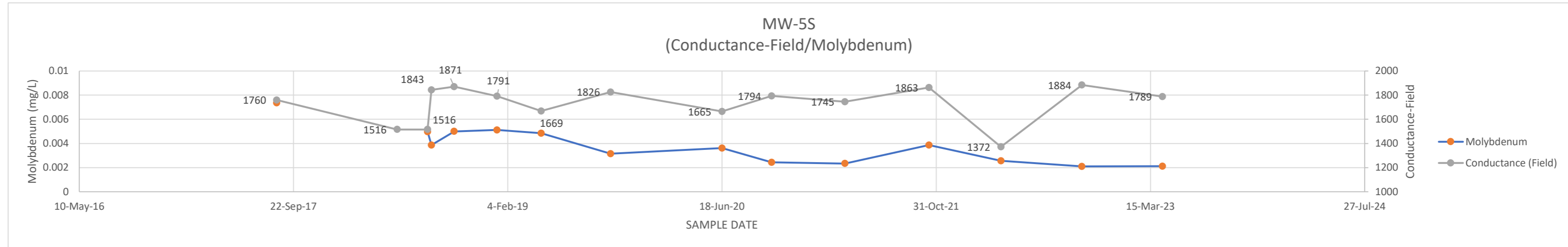
CM-5B DATE	DO	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3.35	0.04
9-Oct-20		0.0394
30-Mar-21	4.46	0.0536
13-Oct-21	3.41	0.0448
28-Mar-22	5.38	0.0361
4-Oct-22	4.66	0.0102
11-Apr-23	4.52	0.0126



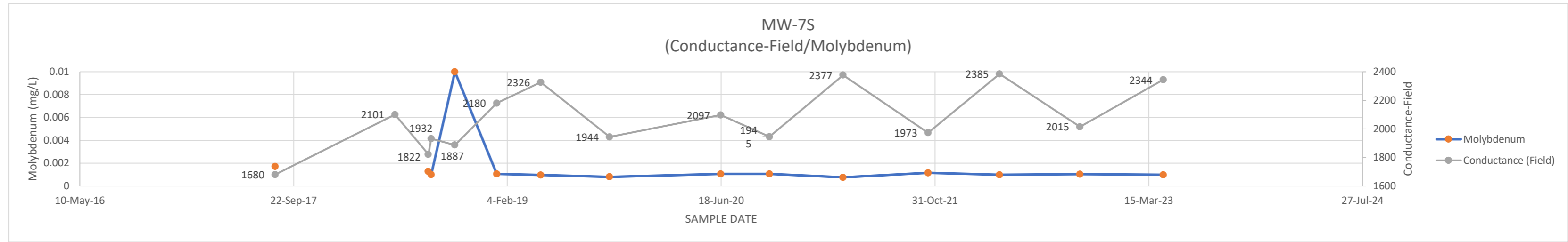
Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT G-3A
CHANGES IN CONDUCTANCE (FIELD) AND MOLYBDENUM CONCENTRATIONS

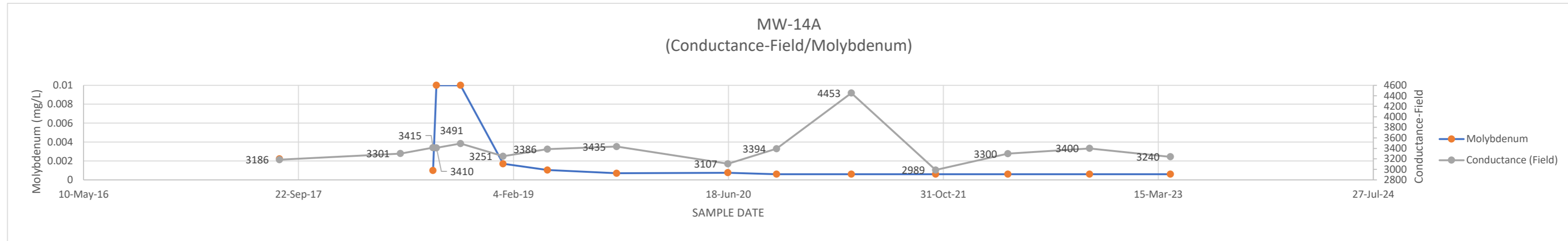
MW-5S	COND-Field	MOLYBDENUM
DATE		
14-Aug-17	1760	0.00737
22-May-18	1516	
1-Aug-18	1516	0.00497
10-Aug-18	1843	0.00387
2-Oct-18	1871	0.005
10-Jan-19	1791	0.00512
23-Apr-19	1669	0.00485
2-Oct-19	1826	0.00315
18-Jun-20	1665	0.00361
12-Oct-20	1794	0.00244
1-Apr-21	1745	0.00234
14-Oct-21	1863	0.00387
31-Mar-22	1372	0.00257
6-Oct-22	1884	0.0021
12-Apr-23	1789	0.00211



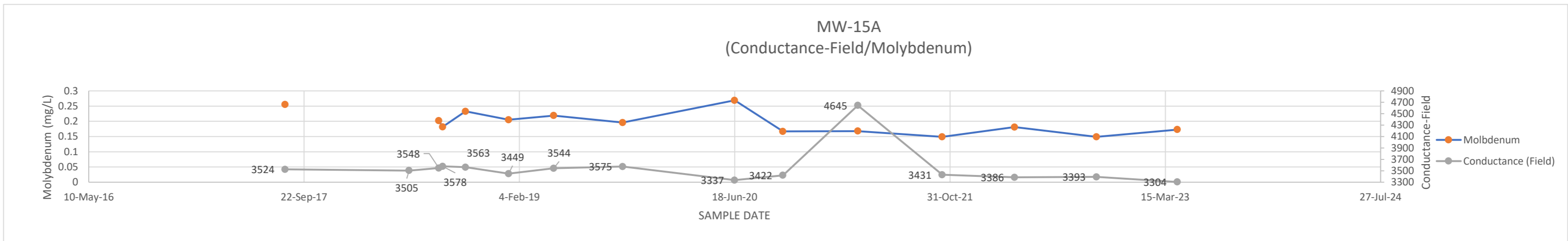
MW-7S	COND-Field	MOLYBDENUM
DATE		
10-Aug-17	1680	0.00171
17-May-18	2101	
3-Aug-18	1822	0.00127
10-Aug-18	1932	0.001
4-Oct-18	1887	0.01
10-Jan-19	2180	0.00105
23-Apr-19	2326	0.000952
1-Oct-19	1944	0.000798
17-Jun-20	2097	0.00105
9-Oct-20	1945	0.00106
30-Mar-21	2377	0.000755
15-Oct-21	1973	0.00115
31-Mar-22	2385	0.000973
5-Oct-22	2015	0.00103
18-Apr-23	2344	0.000973



MW-14A	COND-Field	MOLYBDENUM
DATE		
9-Aug-17	3186	0.00223
17-May-18	3301	
1-Aug-18	3415	0.001
9-Aug-18	3410	0.01
4-Oct-18	3491	0.01
11-Jan-19	3251	0.0017
24-Apr-19	3386	0.00104
2-Oct-19	3435	0.000709
17-Jun-20	3107	0.00076
8-Oct-20	3394	0.0006
31-Mar-21	4453	0.0006
13-Oct-21	2989	0.0006
30-Mar-22	3300	0.0006
6-Oct-22	3400	0.0006
12-Apr-23	3240	0.0006

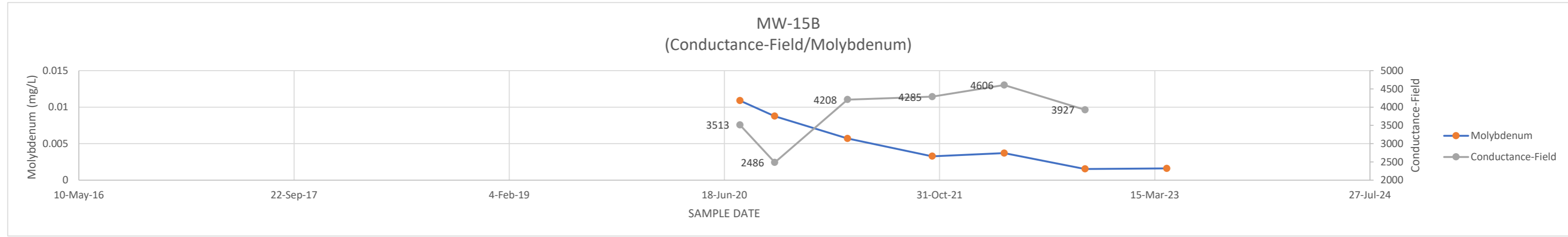


MW-15A	COND-Field	MOLYBDENUM
DATE		
9-Aug-17	3524	0.255
24-May-18	3505	
1-Aug-18	3548	0.202
10-Aug-18	3578	0.182
2-Oct-18	3563	0.233
10-Jan-19	3449	0.205
25-Apr-19	3544	0.219
2-Oct-19	3575	0.196
18-Jun-20	3337	0.269
8-Oct-20	3422	0.167
31-Mar-21	4645	0.168
13-Oct-21	3431	0.149
30-Mar-22	3386	0.181
6-Oct-22	3393	0.149
12-Apr-23	3304	0.173

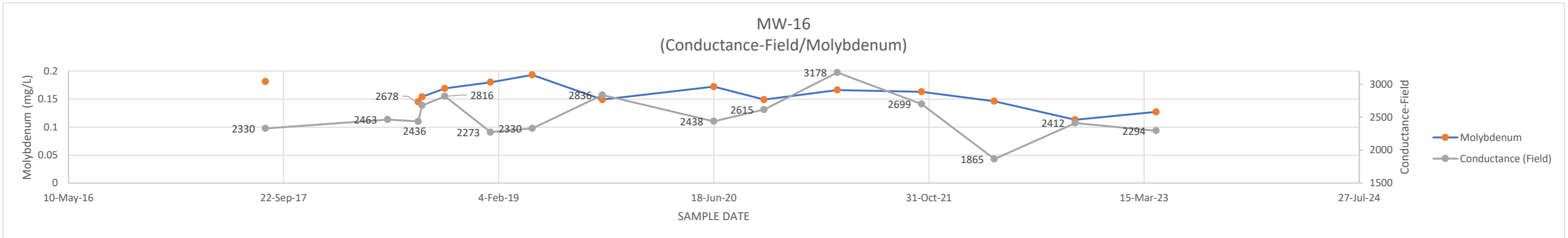


ATTACHMENT G-3A
CHANGES IN CONDUCTANCE (FIELD) AND MOLYBDENUM CONCENTRATIONS

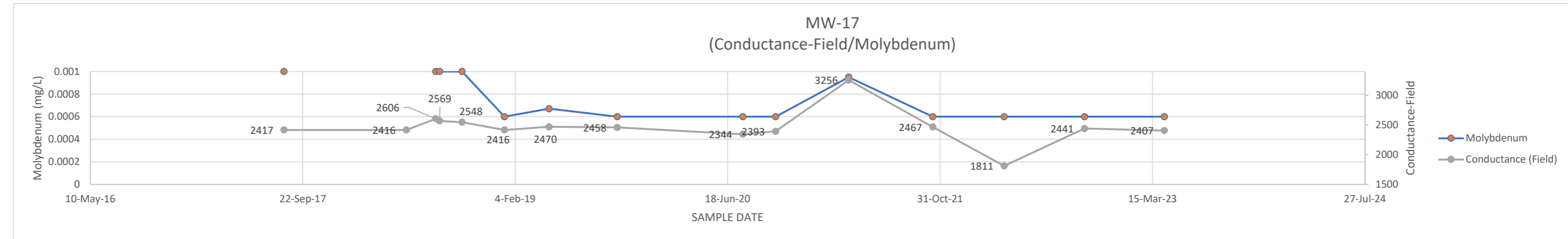
MW-15B	COND-Field	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3513	0.0109
13-Oct-20	2486	0.00876
31-Mar-21	4208	0.00571
14-Oct-21	4285	0.00328
30-Mar-22	4606	0.0037
4-Oct-22	3927	0.00153
12-Apr-23		0.0016



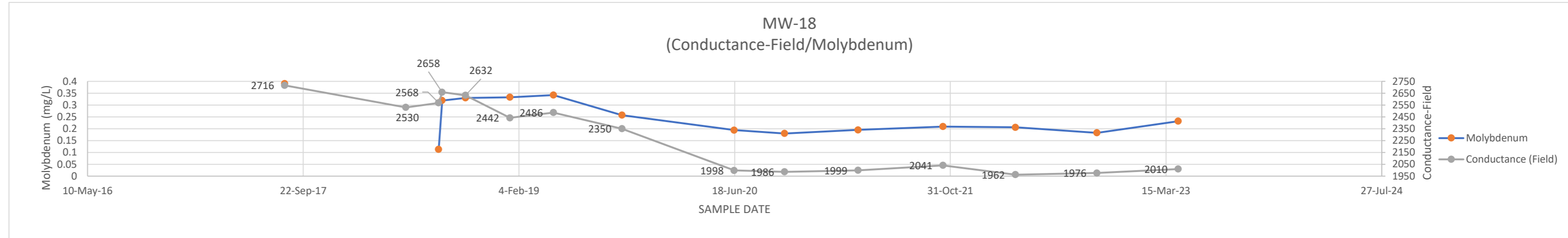
MW-16	COND-Field	MOLYBDENUM
DATE		
11-Aug-17	2330	0.181
22-May-18	2463	
1-Aug-18	2436	0.145
10-Aug-18	2678	0.154
2-Oct-18	2816	0.169
16-Jan-19	2273	0.18
23-Apr-19	2330	0.193
3-Oct-19	2836	0.149
18-Jun-20	2438	0.172
13-Oct-20	2615	0.149
1-Apr-21	3178	0.166
14-Oct-21	2699	0.163
1-Apr-22	1865	0.146
6-Oct-22	2412	0.113
12-Apr-23	2294	0.127



MW-17	COND-Field	MOLYBDENUM
DATE		
9-Aug-17	2417	0.001
24-May-18	2416	
1-Aug-18	2606	0.001
10-Aug-18	2569	0.001
2-Oct-18	2548	0.001
10-Jan-19	2416	0.0006
25-Apr-19	2470	0.000671
2-Oct-19	2458	0.0006
24-Jul-20	2344	0.0006
9-Oct-20	2393	0.0006
30-Mar-21	3256	0.00095
14-Oct-21	2467	0.0006
31-Mar-22	1811	0.0006
6-Oct-22	2441	0.0006
12-Apr-23	2407	0.0006

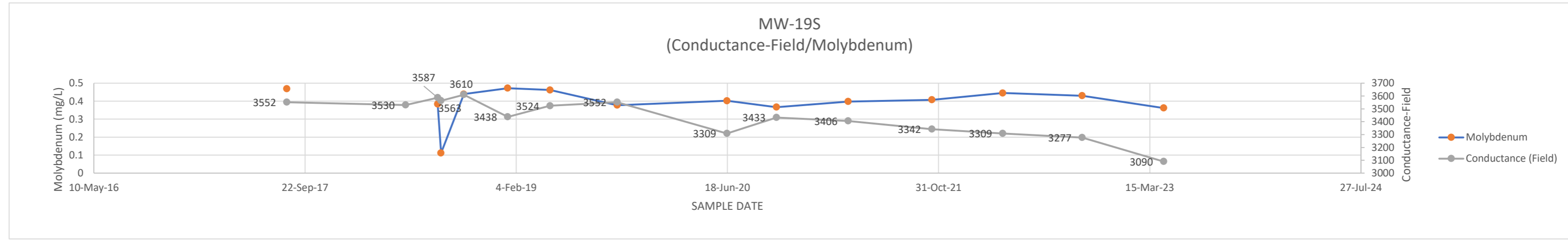


MW-18	COND-Field	MOLYBDENUM
DATE		
10-Aug-17	2716	0.39
18-May-18	2530	
2-Aug-18	2568	0.113
10-Aug-18	2658	0.319
3-Oct-18	2632	0.33
14-Jan-19	2442	0.333
25-Apr-19	2486	0.342
1-Oct-19	2350	0.257
17-Jun-20	1998	0.194
12-Oct-20	1986	0.18
31-Mar-21	1999	0.195
14-Oct-21	2041	0.209
31-Mar-22	1962	0.206
6-Oct-22	1976	0.183
12-Apr-23	2010	0.232

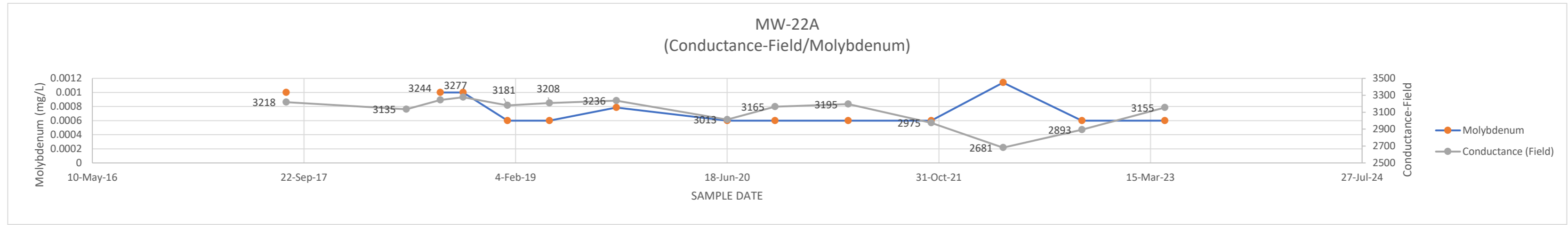


ATTACHMENT G-3A
CHANGES IN CONDUCTANCE (FIELD) AND MOLYBDENUM CONCENTRATIONS

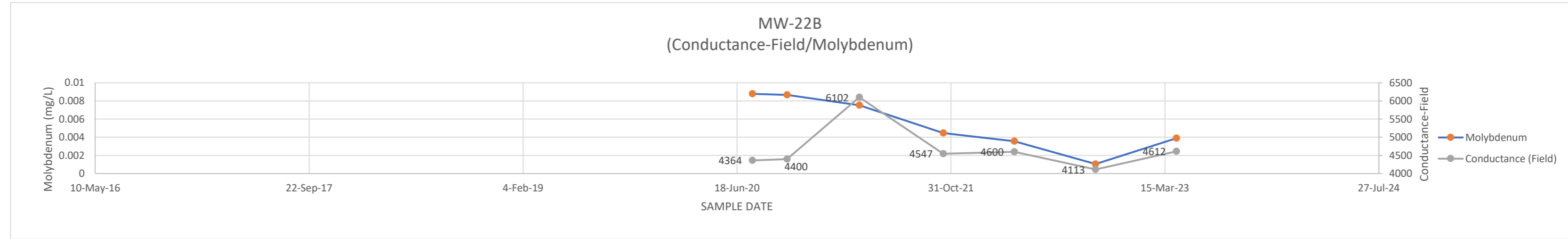
MW-19S	COND-Field	MOLYBDENUM
DATE		
10-Aug-17	3552	0.469
18-May-18	3530	
2-Aug-18	3587	0.384
10-Aug-18	3563	0.112
3-Oct-18	3610	0.439
15-Jan-19	3438	0.472
25-Apr-19	3524	0.462
1-Oct-19	3552	0.377
17-Jun-20	3309	0.402
12-Oct-20	3433	0.367
31-Mar-21	3406	0.398
15-Oct-21	3342	0.407
1-Apr-22	3309	0.445
6-Oct-22	3277	0.43
17-Apr-23	3090	0.362



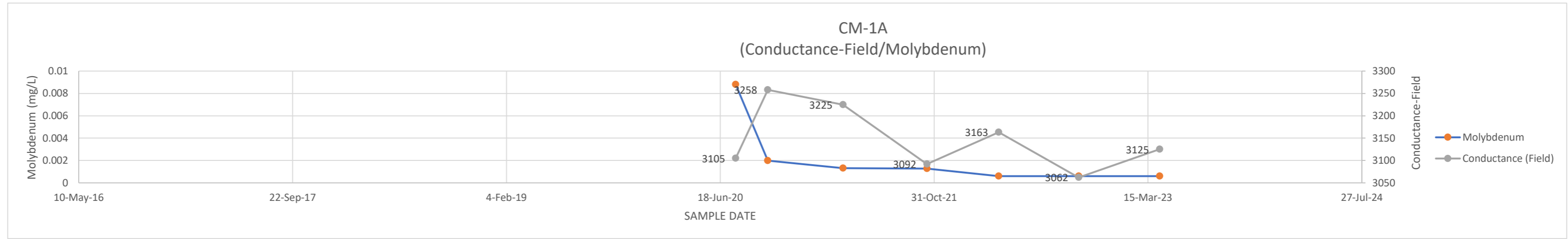
MW-22A	COND-Field	MOLYBDENUM
DATE		
11-Aug-17	3218	0.001
22-May-18	3135	
10-Aug-18	3244	0.001
3-Oct-18	3277	0.001
16-Jan-19	3181	0.0006
25-Apr-19	3208	0.0006
30-Sep-19	3236	0.000787
18-Jun-20	3013	0.0006
9-Oct-20	3165	0.0006
31-Mar-21	3195	0.0006
13-Oct-21	2975	0.0006
1-Apr-22	2681	0.00114
4-Oct-22	2893	0.0006
18-Apr-23	3155	0.0006



MW-22B	COND-Field	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	4364	0.00878
13-Oct-20	4400	0.00866
31-Mar-21	6102	0.00753
13-Oct-21	4547	0.00446
28-Mar-22	4600	0.00357
4-Oct-22	4113	0.00105
11-Apr-23	4612	0.00389

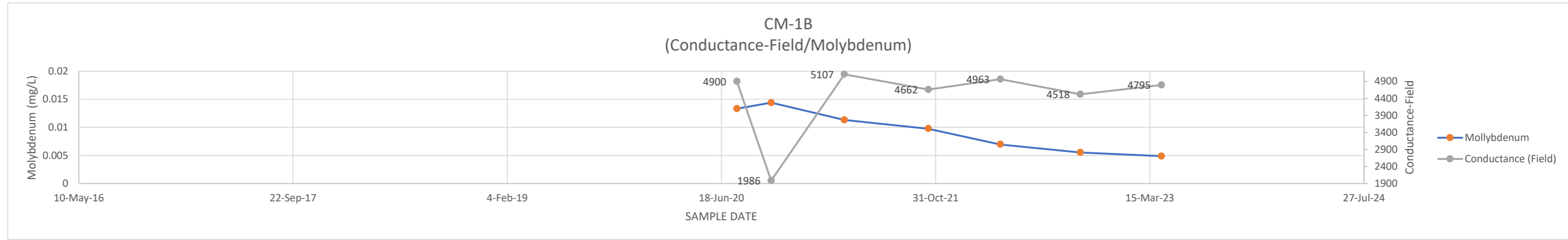


CM-1A	COND-Field	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3105	0.0088
7-Oct-20	3258	0.00198
1-Apr-21	3225	0.00132
14-Oct-21	3092	0.00127
31-Mar-22	3163	0.0006
4-Oct-22	3062	0.0006
11-Apr-23	3125	0.0006

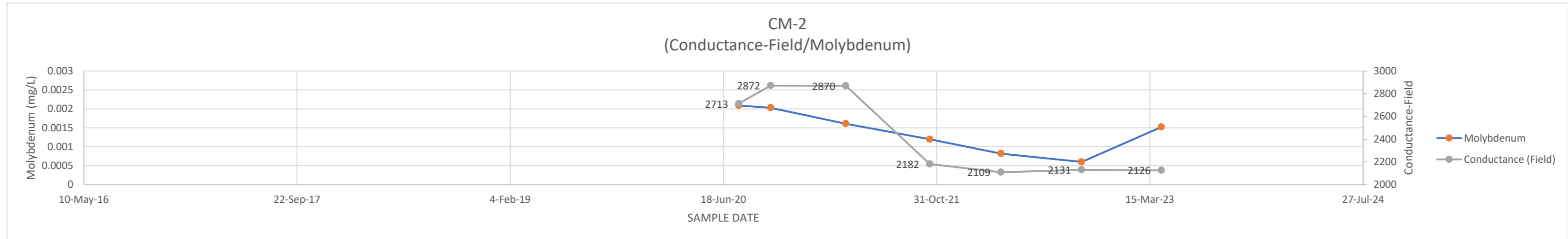


ATTACHMENT G-3A
CHANGES IN CONDUCTANCE (FIELD) AND MOLYBDENUM CONCENTRATIONS

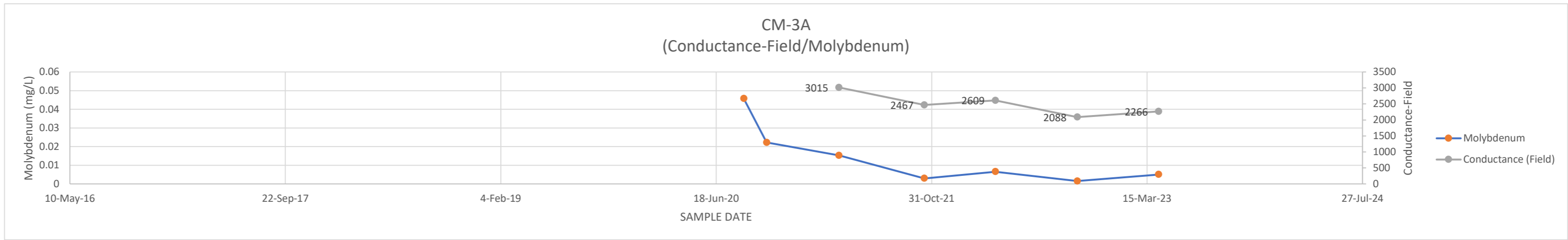
CM-1B	COND-Field	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	4900	0.0133
12-Oct-20	1986	0.0144
1-Apr-21	5107	0.0113
14-Oct-21	4662	0.00976
31-Mar-22	4963	0.00696
4-Oct-22	4518	0.00551
11-Apr-23	4795	0.00488



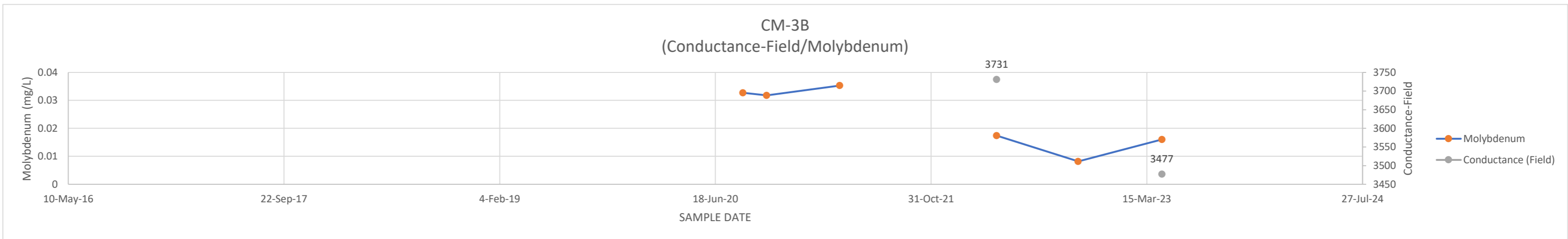
CM-2	COND-Field	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2713	0.00209
7-Oct-20	2872	0.00203
1-Apr-21	2870	0.00161
15-Oct-21	2182	0.0012
31-Mar-22	2109	0.00082
6-Oct-22	2131	0.0006
11-Apr-23	2126	0.00152



CM-3A	COND-Field	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0457
13-Oct-20		0.0222
30-Mar-21	3015	0.0153
14-Oct-21	2467	0.00297
28-Mar-22	2609	0.00656
4-Oct-22	2088	0.00155
11-Apr-23	2266	0.00503

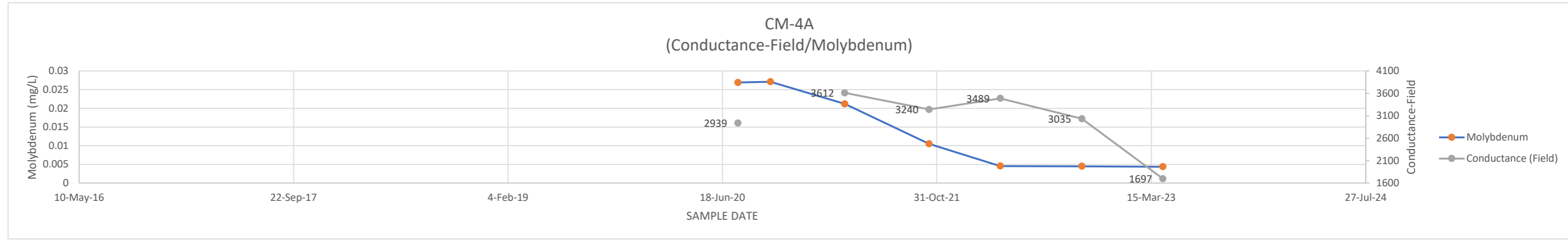


CM-3B	COND-Field	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0327
15-Oct-20		0.0318
2-Apr-21		0.0353
11-Oct-21		
1-Apr-22	3731	0.0174
7-Oct-22		0.00819
19-Apr-23	3477	0.016

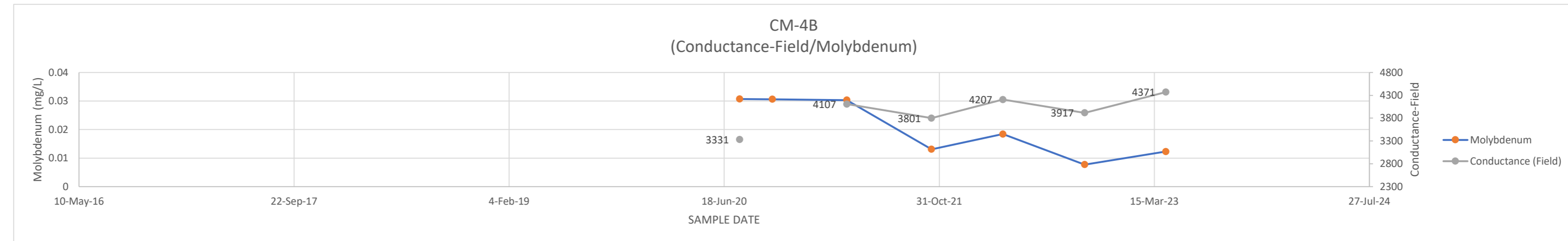


ATTACHMENT G-3A
CHANGES IN CONDUCTANCE (FIELD) AND MOLYBDENUM CONCENTRATIONS

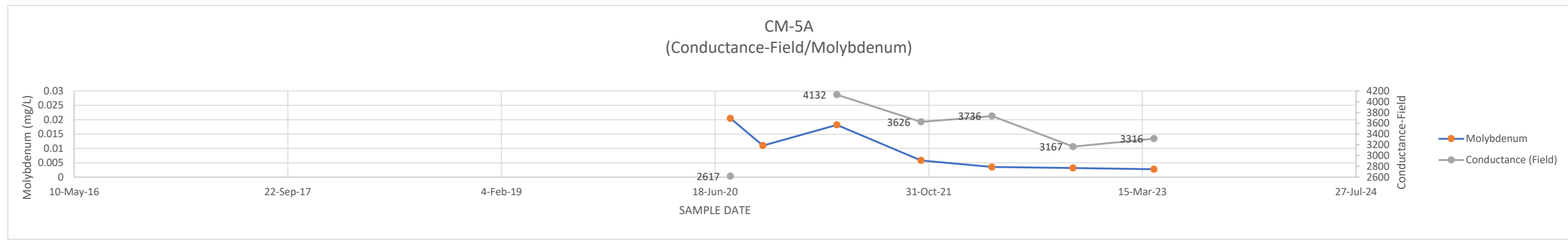
CM-4A DATE	COND-Field	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2939	0.0269
8-Oct-20		0.0271
30-Mar-21	3612	0.0212
13-Oct-21	3240	0.0105
28-Mar-22	3489	0.00455
4-Oct-22	3035	0.00449
11-Apr-23	1697	0.00436



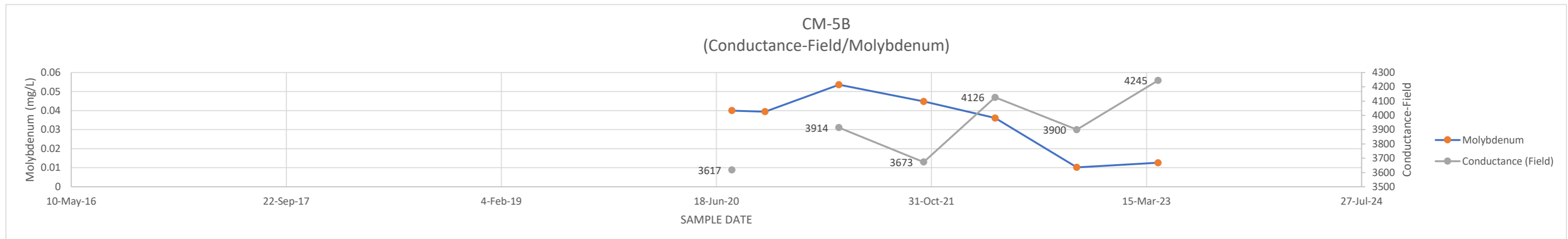
CM-4B DATE	COND-Field	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3331	0.0307
8-Oct-20		0.0306
30-Mar-21	4107	0.0303
13-Oct-21	3801	0.0131
28-Mar-22	4207	0.0184
4-Oct-22	3917	0.00771
11-Apr-23	4371	0.0123



CM-5A DATE	COND-Field	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	2617	0.0205
8-Oct-20		0.011
30-Mar-21	4132	0.0182
13-Oct-21	3626	0.0058
28-Mar-22	3736	0.00351
4-Oct-22	3167	0.00317
11-Apr-23	3316	0.00276



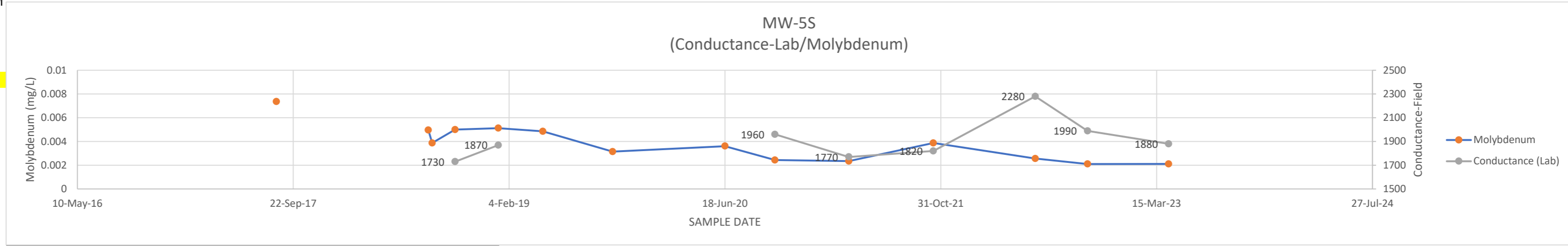
CM-5B DATE	COND-Field	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	3617	0.04
9-Oct-20		0.0394
30-Mar-21	3914	0.0536
13-Oct-21	3673	0.0448
28-Mar-22	4126	0.0361
4-Oct-22	3900	0.0102
11-Apr-23	4245	0.0126



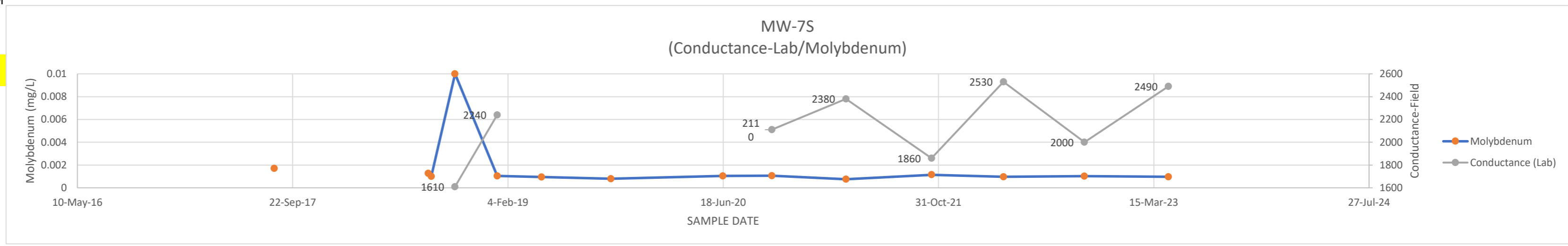
Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT G-3B
CHANGES IN CONDUCTANCE (LAB) AND MOLYBDENUM CONCENTRATIONS

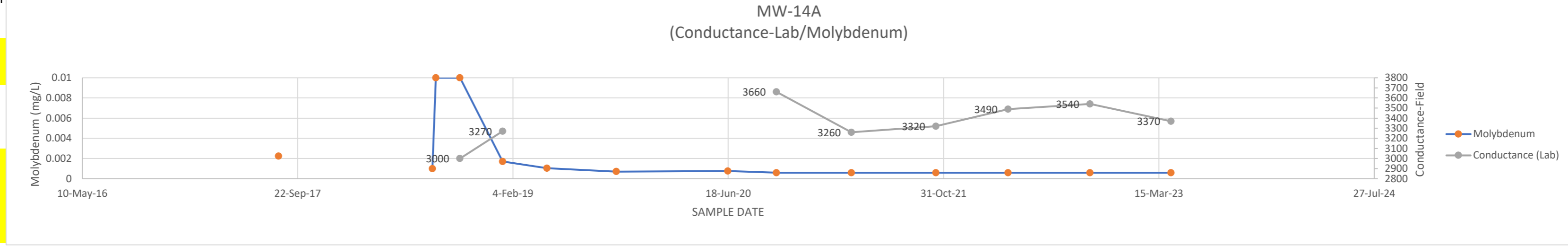
MW-5S DATE	COND-Lab	MOLYBDENUM
14-Aug-17		0.00737
22-May-18		
1-Aug-18		0.00497
10-Aug-18		0.00387
2-Oct-18	1730	0.005
10-Jan-19	1870	0.00512
23-Apr-19		0.00485
2-Oct-19		0.00315
18-Jun-20		0.00361
12-Oct-20	1960	0.00244
1-Apr-21	1770	0.00234
14-Oct-21	1820	0.00387
7-Jun-22	2280	0.00257
6-Oct-22	1990	0.0021
12-Apr-23	1880	0.00211



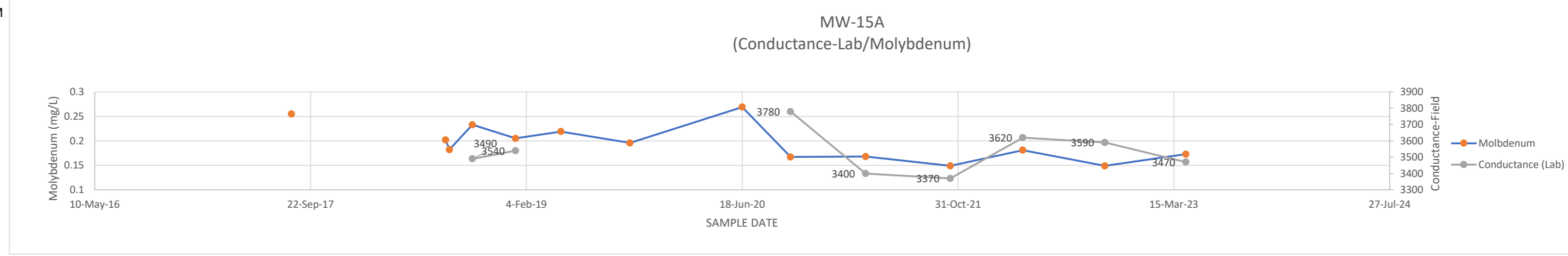
MW-7S DATE	COND-Lab	MOLYBDENUM
10-Aug-17		0.00171
17-May-18		
3-Aug-18		0.00127
10-Aug-18		0.001
4-Oct-18	1610	0.01
10-Jan-19	2240	0.00105
23-Apr-19		0.000952
1-Oct-19		0.000798
17-Jun-20		0.00105
9-Oct-20	2110	0.00106
30-Mar-21	2380	0.000755
15-Oct-21	1860	0.00115
31-Mar-22	2530	0.000973
5-Oct-22	2000	0.00103
18-Apr-23	2490	0.000973



MW-14A DATE	COND-Lab	MOLYBDENUM
9-Aug-17		0.00223
17-May-18		
1-Aug-18		0.001
9-Aug-18		0.01
4-Oct-18	3000	0.01
11-Jan-19	3270	0.0017
24-Apr-19		0.00104
2-Oct-19		0.000709
17-Jun-20		0.00076
8-Oct-20	3660	0.0006
31-Mar-21	3260	0.0006
13-Oct-21	3320	0.0006
30-Mar-22	3490	0.0006
6-Oct-22	3540	0.0006
12-Apr-23	3370	0.0006

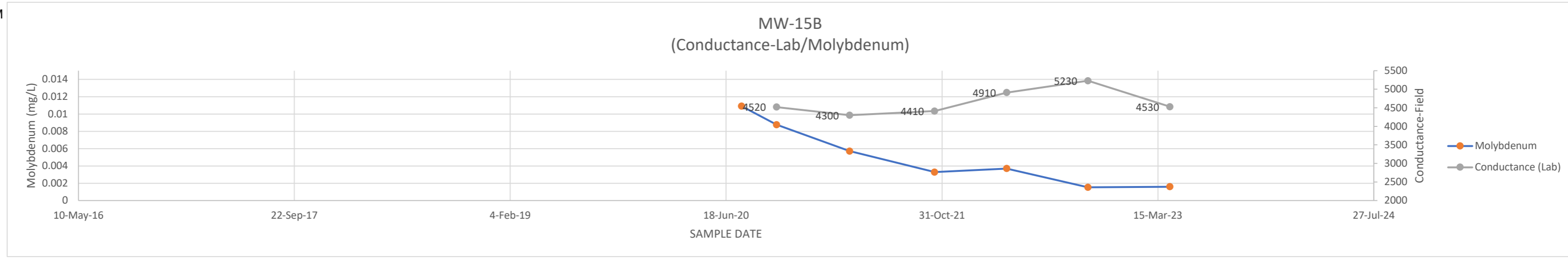


MW-15A DATE	COND-Lab	MOLYBDENUM
9-Aug-17		0.255
24-May-18		
1-Aug-18		0.202
10-Aug-18		0.182
2-Oct-18	3490	0.233
10-Jan-19	3540	0.205
25-Apr-19		0.219
2-Oct-19		0.196
18-Jun-20		0.269
8-Oct-20	3780	0.167
31-Mar-21	3400	0.168
13-Oct-21	3370	0.149
30-Mar-22	3620	0.181
6-Oct-22	3590	0.149
12-Apr-23	3470	0.173

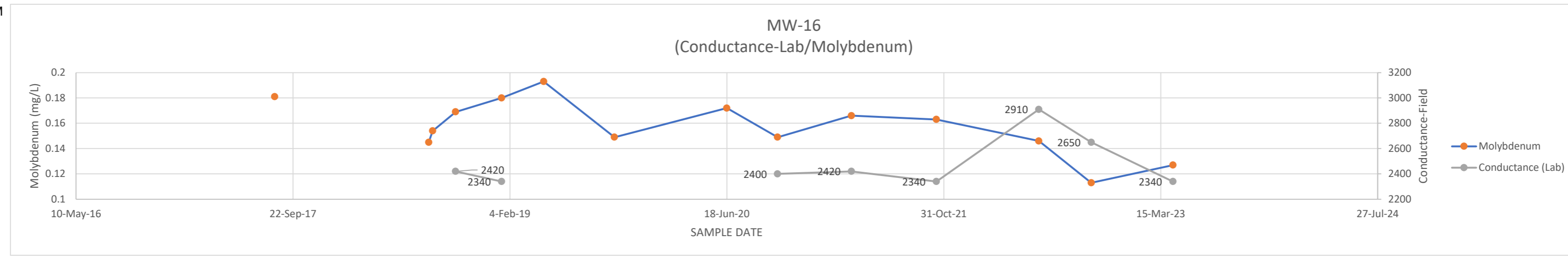


ATTACHMENT G-3B
CHANGES IN CONDUCTANCE (LAB) AND MOLYBDENUM CONCENTRATIONS

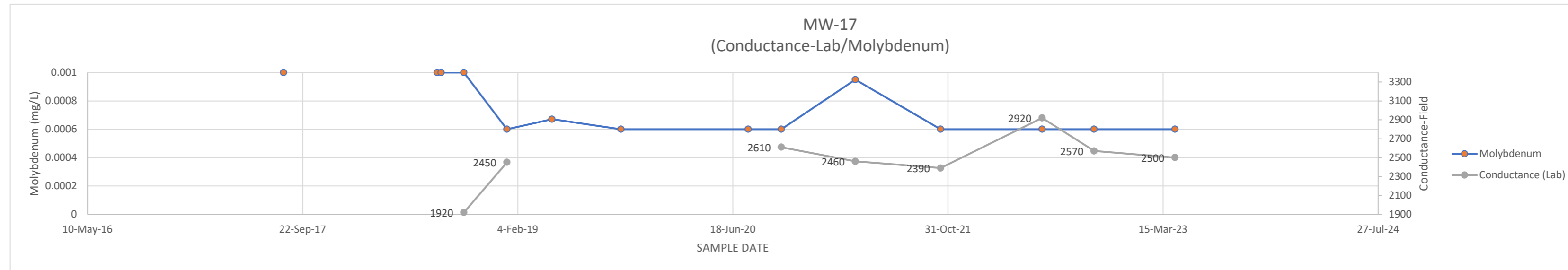
MW-15B	COND-Lab	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0109
13-Oct-20	4520	0.00876
31-Mar-21	4300	0.00571
14-Oct-21	4410	0.00328
30-Mar-22	4910	0.0037
4-Oct-22	5230	0.00153
12-Apr-23	4530	0.0016



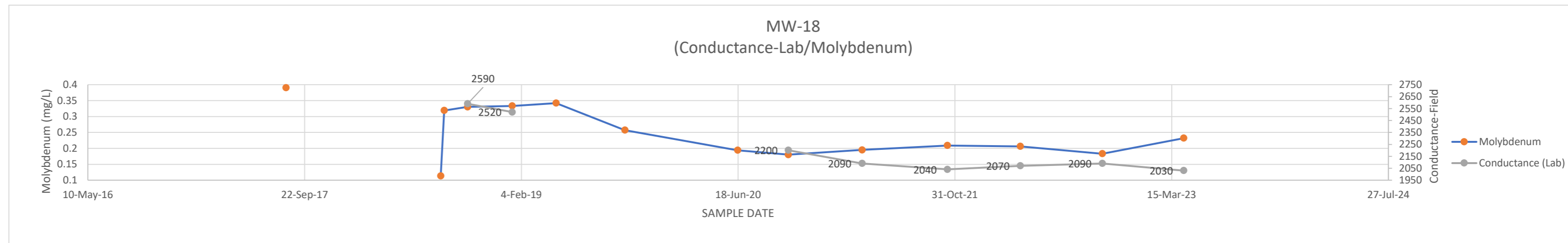
MW-16	COND-Lab	MOLYBDENUM
DATE		
11-Aug-17		0.181
22-May-18		
1-Aug-18		0.145
10-Aug-18		0.154
2-Oct-18	2420	0.169
16-Jan-19	2340	0.18
23-Apr-19		0.193
3-Oct-19		0.149
18-Jun-20		0.172
13-Oct-20	2400	0.149
1-Apr-21	2420	0.166
14-Oct-21	2340	0.163
7-Jun-22	2910	0.146
6-Oct-22	2650	0.113
12-Apr-23	2340	0.127



MW-17	COND-Lab	MOLYBDENUM
DATE		
9-Aug-17		0.001
24-May-18		
1-Aug-18		0.001
10-Aug-18		0.001
2-Oct-18		0.001
10-Jan-19	1920	0.0006
25-Apr-19		0.000671
2-Oct-19		0.0006
24-Jul-20		0.0006
9-Oct-20	2610	0.0006
30-Mar-21	2460	0.00095
14-Oct-21	2390	0.0006
7-Jun-22	2920	0.0006
6-Oct-22	2570	0.0006
12-Apr-23	2500	0.0006



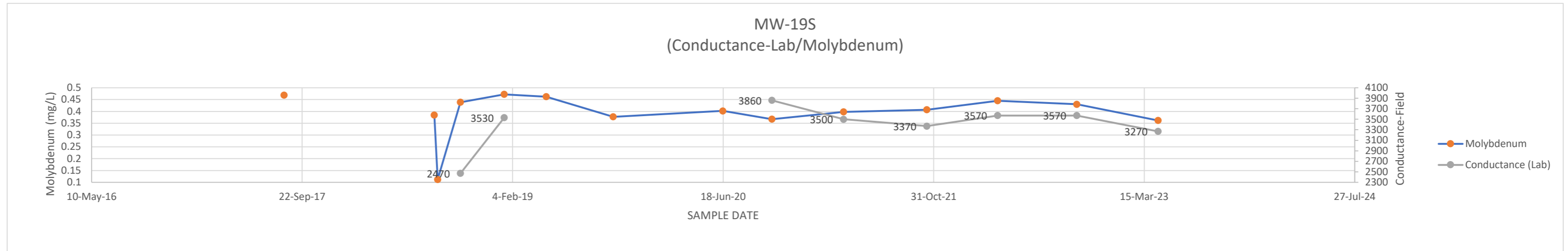
MW-18	COND-Lab	MOLYBDENUM
DATE		
10-Aug-17		0.39
18-May-18		
2-Aug-18		0.113
10-Aug-18		0.319
3-Oct-18	2590	0.33
14-Jan-19	2520	0.333
25-Apr-19		0.342
1-Oct-19		0.257
17-Jun-20		0.194
12-Oct-20	2200	0.18
31-Mar-21	2090	0.195
14-Oct-21	2040	0.209
31-Mar-22	2070	0.206
6-Oct-22	2090	0.183
12-Apr-23	2030	0.232



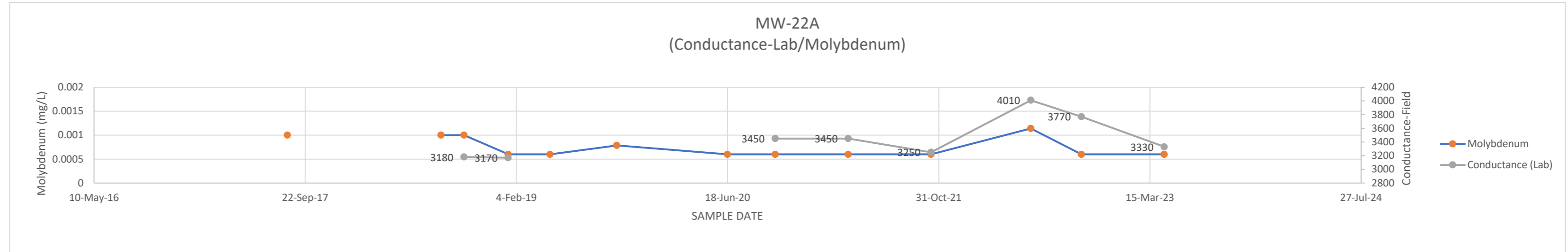
Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT G-3B
CHANGES IN CONDUCTANCE (LAB) AND MOLYBDENUM CONCENTRATIONS

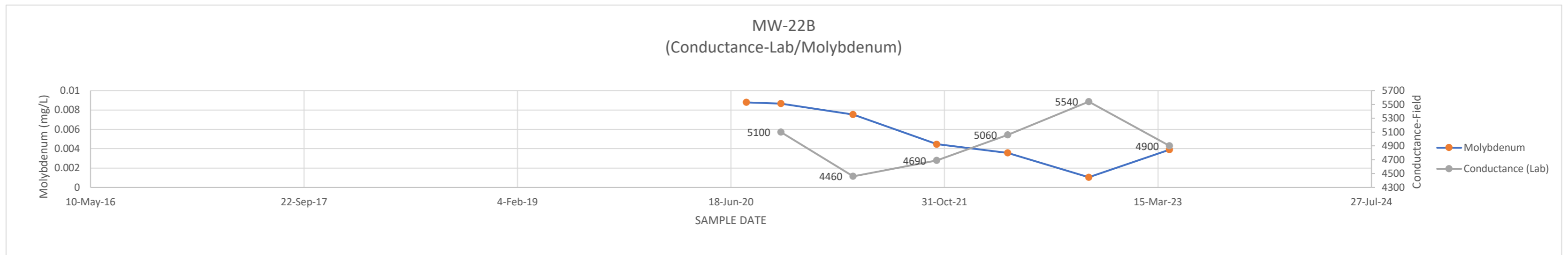
MW-19S DATE	COND-Lab	MOLYBDENUM
10-Aug-17		0.469
18-May-18		
2-Aug-18		0.384
10-Aug-18		0.112
3-Oct-18	2470	0.439
15-Jan-19	3530	0.472
25-Apr-19		0.462
1-Oct-19		0.377
17-Jun-20		0.402
12-Oct-20	3860	0.367
31-Mar-21	3500	0.398
15-Oct-21	3370	0.407
1-Apr-22	3570	0.445
6-Oct-22	3570	0.43
17-Apr-23	3270	0.362



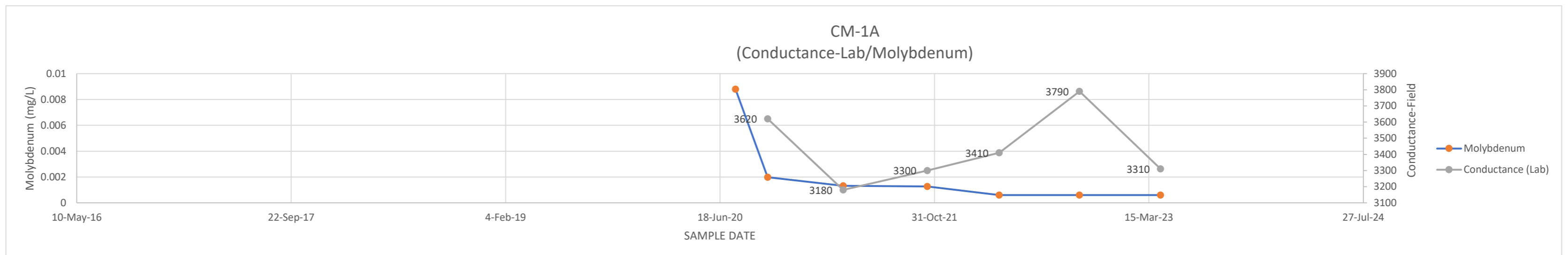
MW-22A DATE	COND-Lab	MOLYBDENUM
11-Aug-17		0.001
22-May-18		
10-Aug-18		0.001
3-Oct-18	3180	0.001
16-Jan-19	3170	0.0006
25-Apr-19		0.0006
30-Sep-19		0.000787
18-Jun-20		0.0006
9-Oct-20	3450	0.0006
31-Mar-21	3450	0.0006
13-Oct-21	3250	0.0006
6-Jun-22	4010	0.00114
4-Oct-22	3770	0.0006
18-Apr-23	3330	0.0006



MW-22B DATE	COND-Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.00878
13-Oct-20	5100	0.00866
31-Mar-21	4460	0.00753
13-Oct-21	4690	0.00446
28-Mar-22	5060	0.00357
4-Oct-22	5540	0.00105
11-Apr-23	4900	0.00389



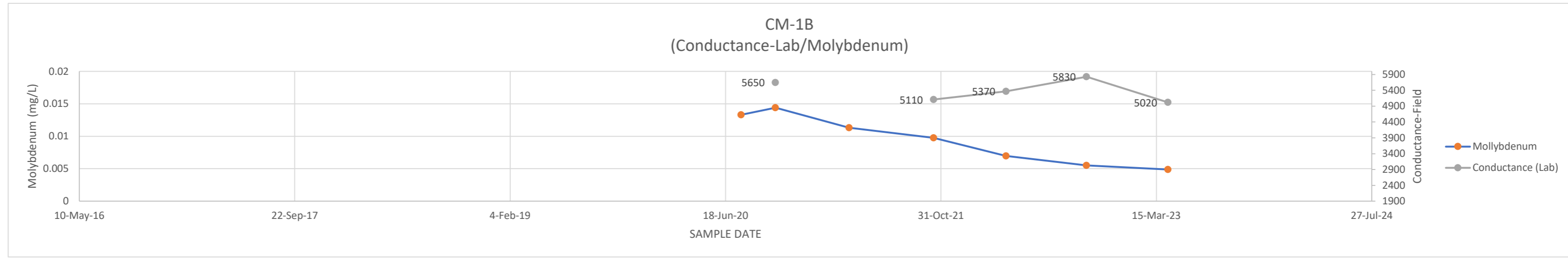
CM-1A DATE	COND-Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0088
7-Oct-20	3620	0.00198
1-Apr-21	3180	0.00132
14-Oct-21	3300	0.00127
31-Mar-22	3410	0.0006
4-Oct-22	3790	0.0006
11-Apr-23	3310	0.0006



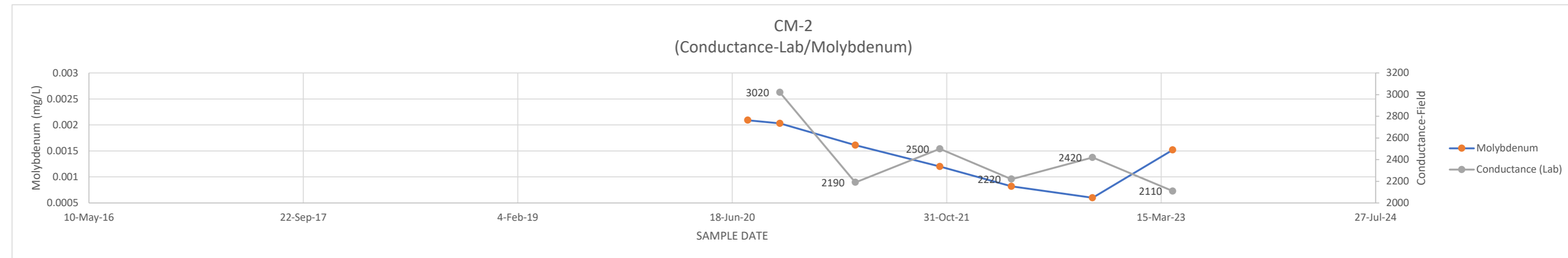
Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT G-3B
CHANGES IN CONDUCTANCE (LAB) AND MOLYBDENUM CONCENTRATIONS

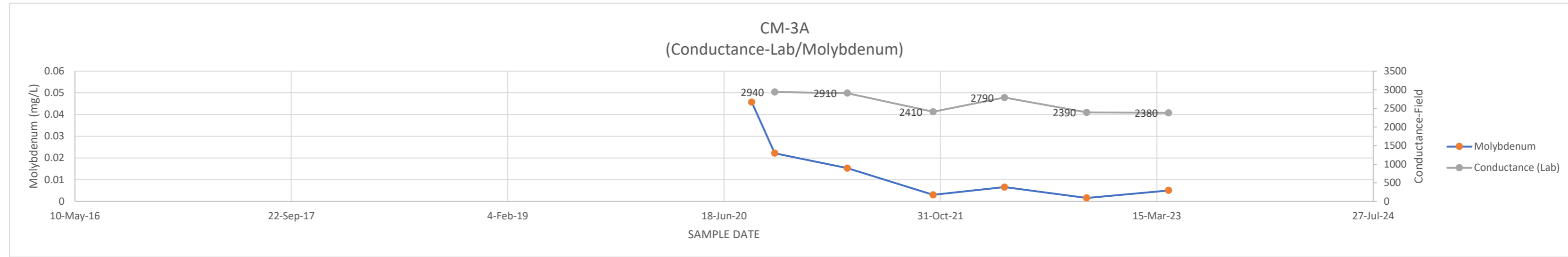
CM-1B DATE	COND-Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		
12-Oct-20	5650	0.0133
1-Apr-21		0.0144
14-Oct-21	5110	0.0113
31-Mar-22	5370	0.00976
4-Oct-22	5830	0.00696
11-Apr-23	5020	0.00551
		0.00488



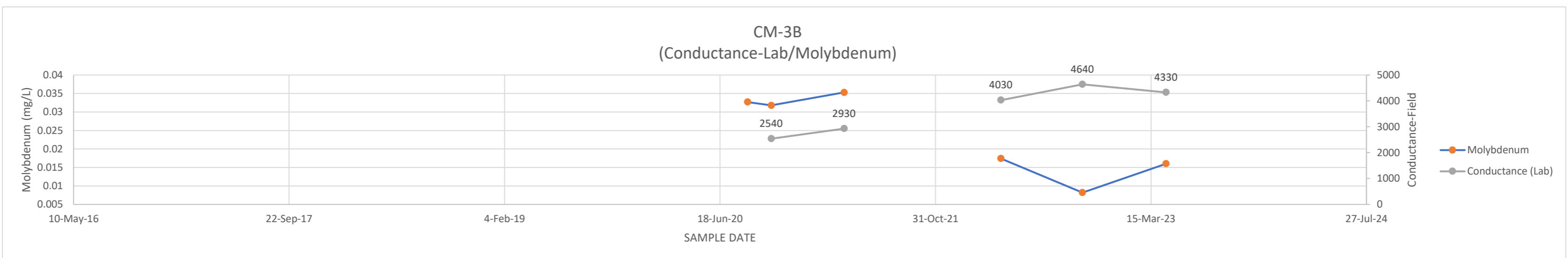
CM-2 DATE	COND-Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.00209
7-Oct-20	3020	0.00203
1-Apr-21	2190	0.00161
15-Oct-21	2500	0.0012
31-Mar-22	2220	0.00082
6-Oct-22	2420	0.0006
11-Apr-23	2110	0.00152



CM-3A DATE	COND-Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0457
13-Oct-20	2940	0.0222
30-Mar-21	2910	0.0153
14-Oct-21	2410	0.00297
28-Mar-22	2790	0.00656
4-Oct-22	2390	0.00155
11-Apr-23	2380	0.00503



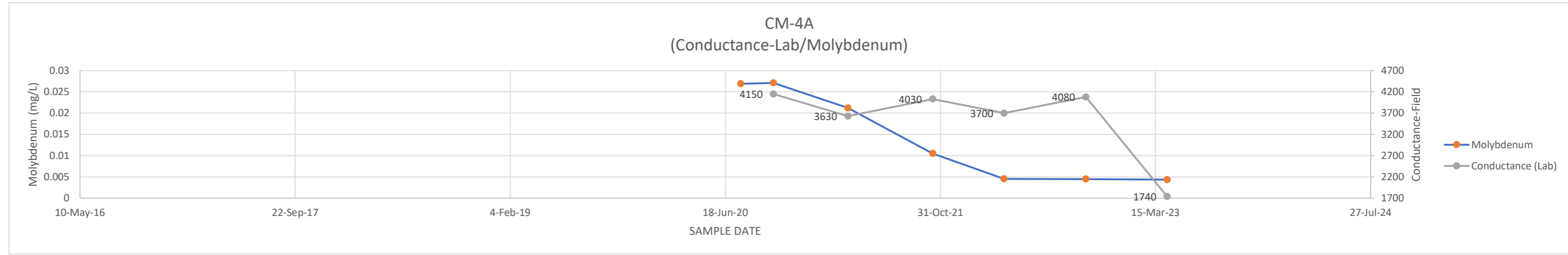
CM-3B DATE	COND-Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0327
15-Oct-20	2540	0.0318
2-Apr-21	2930	0.0353
11-Oct-21		
1-Apr-22	4030	0.0174
7-Oct-22	4640	0.00819
19-Apr-23	4330	0.016



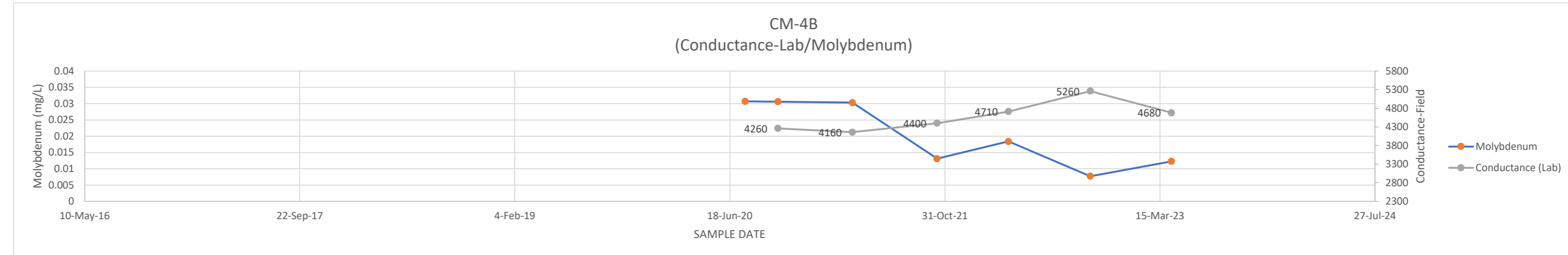
Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT G-3B
CHANGES IN CONDUCTANCE (LAB) AND MOLYBDENUM CONCENTRATIONS

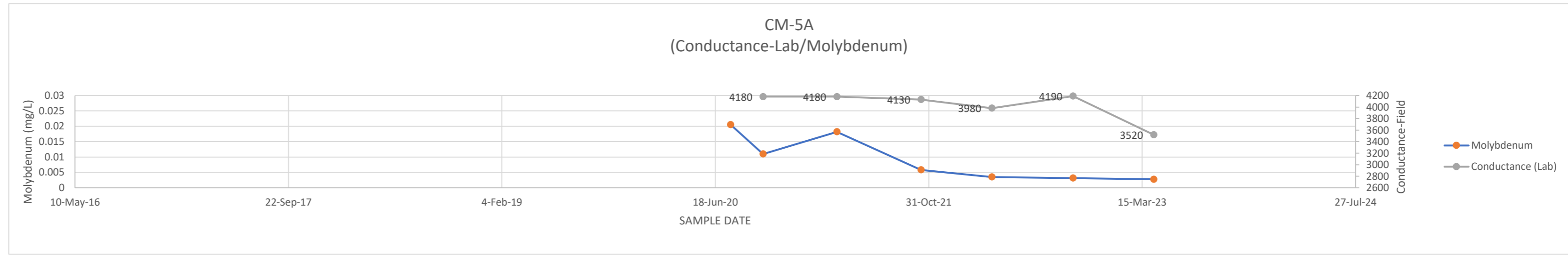
CM-4A DATE	COND-Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0269
8-Oct-20	4150	0.0271
30-Mar-21	3630	0.0212
13-Oct-21	4030	0.0105
28-Mar-22	3700	0.00455
4-Oct-22	4080	0.00449
11-Apr-23	1740	0.00436



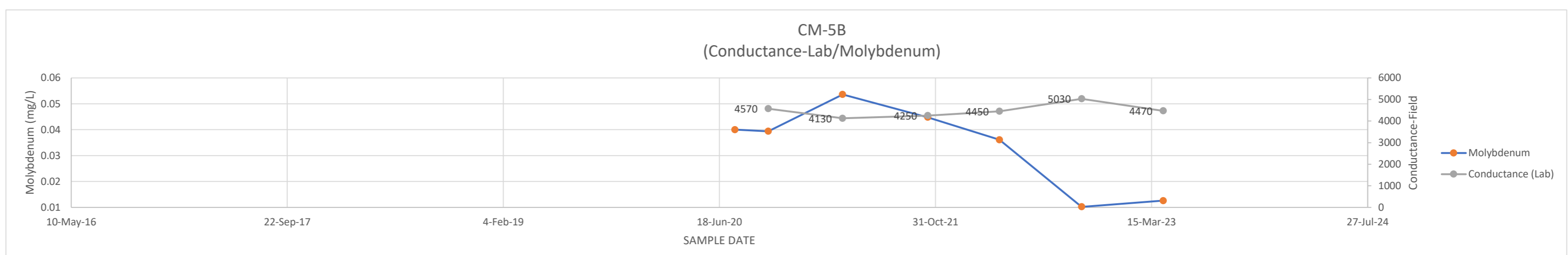
CM-4B DATE	COND-Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0307
8-Oct-20	4260	0.0306
30-Mar-21	4160	0.0303
13-Oct-21	4400	0.0131
28-Mar-22	4710	0.0184
4-Oct-22	5260	0.00771
11-Apr-23	4680	0.0123



CM-5A DATE	COND-Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0205
8-Oct-20	4180	0.011
30-Mar-21	4180	0.0182
13-Oct-21	4130	0.0058
28-Mar-22	3980	0.00351
4-Oct-22	4190	0.00317
11-Apr-23	3520	0.00276



CM-5B DATE	COND-Lab	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.04
9-Oct-20	4570	0.0394
30-Mar-21	4130	0.0536
13-Oct-21	4250	0.0448
28-Mar-22	4450	0.0361
4-Oct-22	5030	0.0102
11-Apr-23	4470	0.0126

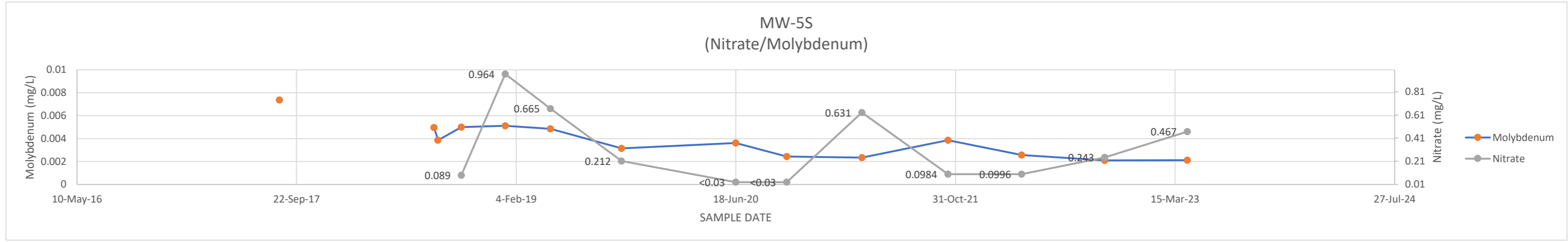


Yellow Indicates Reported Below shown value (MDL)

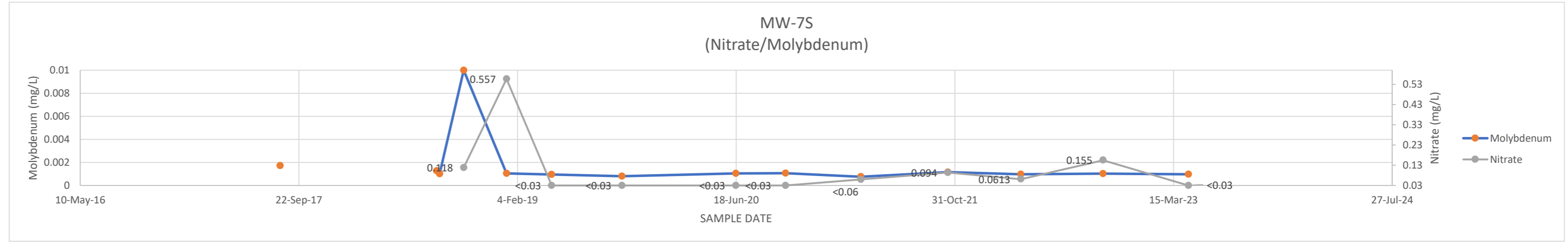
ATTACHMENT G-4
CHANGES IN NITRATE AND MOLYBDENUM CONCENTRATIONS

MW-5S	DATE	NITRATE	MOLYBDENUM
	14-Aug-17		0.00737
	22-May-18		
	1-Aug-18		0.00497
	10-Aug-18		0.00387
	2-Oct-18	0.089	0.005
	10-Jan-19	0.964	0.00512
	23-Apr-19	0.665	0.00485
	2-Oct-19	0.212	0.00315
	18-Jun-20	0.03	0.00361
	12-Oct-20	0.03	0.00244
	1-Apr-21	0.631	0.00234
	14-Oct-21	0.0984	0.00387
	31-Mar-22	0.0996	0.00257
	6-Oct-22	0.243	0.0021
	12-Apr-23	0.467	0.00211

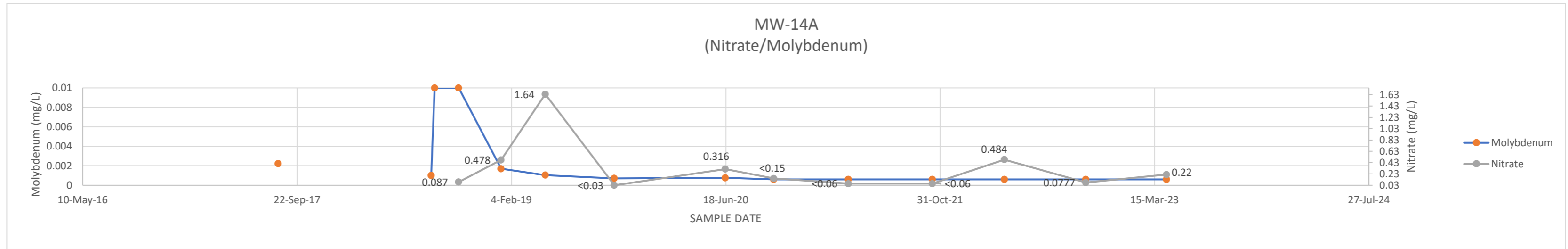
Value denoted in red from June 2022 resample



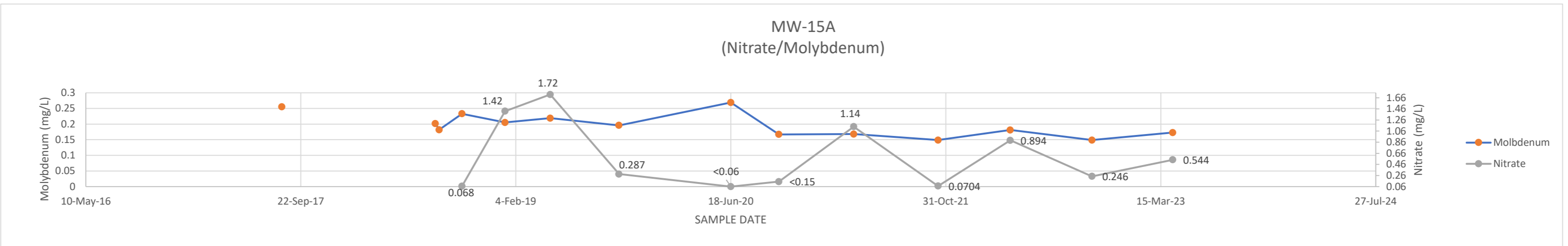
MW-7S	DATE	NITRATE	MOLYBDENUM
	10-Aug-17		0.00171
	17-May-18		
	3-Aug-18		0.00127
	10-Aug-18		0.001
	4-Oct-18	0.118	0.01
	10-Jan-19	0.557	0.00105
	23-Apr-19	0.03	0.000952
	1-Oct-19	0.03	0.000798
	17-Jun-20	0.03	0.00105
	9-Oct-20	0.03	0.00106
	30-Mar-21	0.06	0.000755
	15-Oct-21	0.094	0.00115
	31-Mar-22	0.0613	0.000973
	5-Oct-22	0.155	0.00103
	18-Apr-23	0.03	0.000973



MW-14A	DATE	NITRATE	MOLYBDENUM
	9-Aug-17		0.00223
	17-May-18		
	1-Aug-18		0.001
	9-Aug-18		0.01
	4-Oct-18	0.087	0.01
	11-Jan-19	0.478	0.0017
	24-Apr-19	1.64	0.00104
	2-Oct-19	0.03	0.000709
	17-Jun-20	0.316	0.00076
	8-Oct-20	0.15	0.0006
	31-Mar-21	0.06	0.0006
	13-Oct-21	0.06	0.0006
	30-Mar-22	0.484	0.0006
	6-Oct-22	0.0777	0.0006
	12-Apr-23	0.22	0.0006

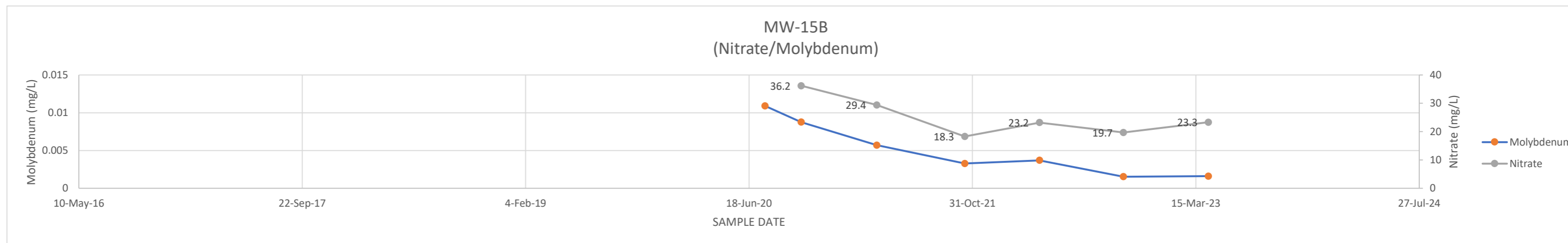


MW-15A	DATE	NITRATE	MOLYBDENUM
	9-Aug-17		0.255
	24-May-18		
	1-Aug-18		0.202
	10-Aug-18		0.182
	2-Oct-18	0.068	0.233
	10-Jan-19	1.42	0.205
	25-Apr-19	1.72	0.219
	2-Oct-19	0.287	0.196
	18-Jun-20	0.06	0.269
	8-Oct-20	0.15	0.167
	31-Mar-21	1.14	0.168
	13-Oct-21	0.0704	0.149
	30-Mar-22	0.894	0.181
	6-Oct-22	0.246	0.149
	12-Apr-23	0.544	0.173

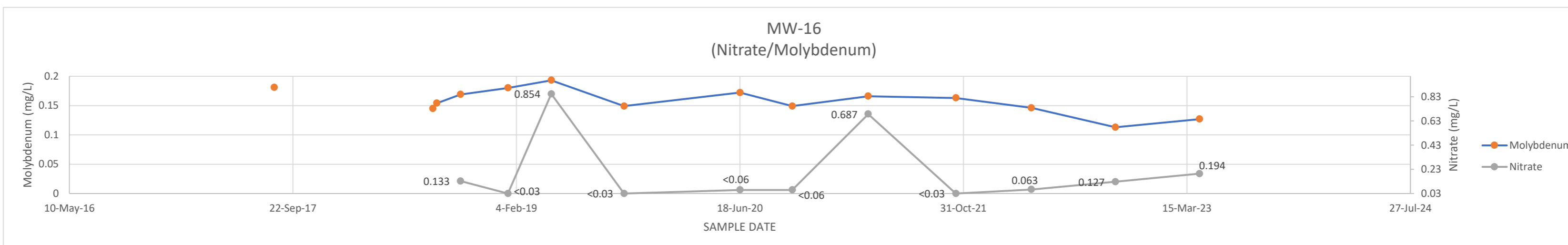


ATTACHMENT G-4
CHANGES IN NITRATE AND MOLYBDENUM CONCENTRATIONS

MW-15B		
DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0109
13-Oct-20	36.2	0.00876
31-Mar-21	29.4	0.00571
14-Oct-21	18.3	0.00328
30-Mar-22	23.2	0.0037
4-Oct-22	19.7	0.00153
12-Apr-23	23.3	0.0016

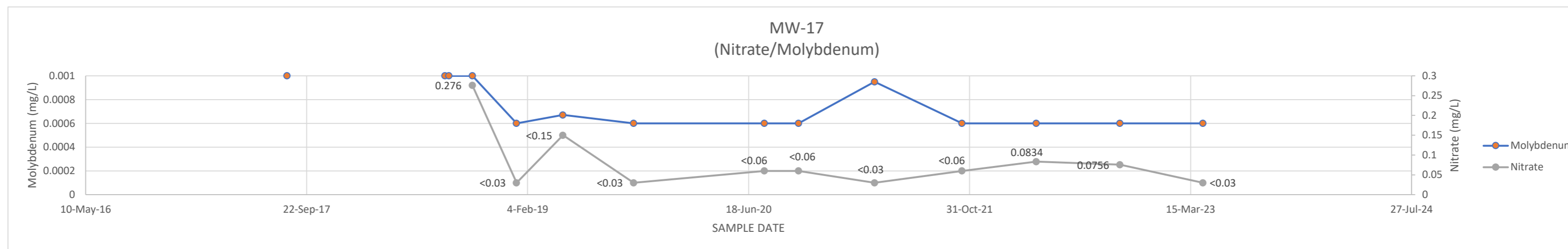


MW-16		
DATE	NITRATE	MOLYBDENUM
11-Aug-17		0.181
22-May-18		
1-Aug-18		0.145
10-Aug-18		0.154
2-Oct-18	0.133	0.169
16-Jan-19	0.03	0.18
23-Apr-19	0.854	0.193
3-Oct-19	0.03	0.149
18-Jun-20	0.06	0.172
13-Oct-20	0.06	0.149
1-Apr-21	0.687	0.166
14-Oct-21	0.03	0.163
1-Apr-22	0.063	0.146
6-Oct-22	0.127	0.113
12-Apr-23	0.194	0.127



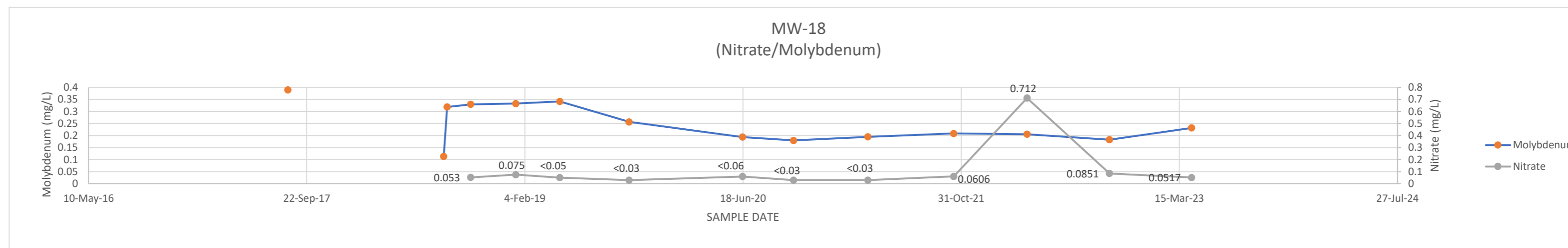
Value denoted in red from June 2022 resample

MW-17		
DATE	NITRATE	MOLYBDENUM
9-Aug-17		0.001
24-May-18		
1-Aug-18		0.001
10-Aug-18		0.001
2-Oct-18	0.276	0.001
10-Jan-19	0.03	0.0006
25-Apr-19	0.15	0.000671
2-Oct-19	0.03	0.0006
24-Jul-20	0.06	0.0006
9-Oct-20	0.06	0.0006
30-Mar-21	0.03	0.00095
14-Oct-21	0.06	0.0006
31-Mar-22	0.0834	0.0006
6-Oct-22	0.0756	0.0006
12-Apr-23	0.03	0.0006



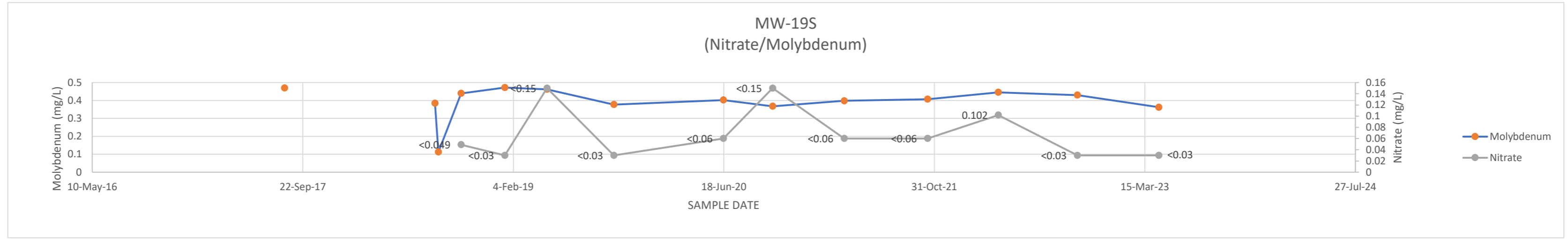
Value denoted in red from June 2022 resample

MW-18		
DATE	NITRATE	MOLYBDENUM
10-Aug-17		0.39
18-May-18		
2-Aug-18		0.113
10-Aug-18		0.319
3-Oct-18	0.053	0.33
14-Jan-19	0.075	0.333
25-Apr-19	0.05	0.342
1-Oct-19	0.03	0.257
17-Jun-20	0.06	0.194
12-Oct-20	0.03	0.18
31-Mar-21	0.03	0.195
14-Oct-21	0.0606	0.209
31-Mar-22	0.712	0.206
6-Oct-22	0.0851	0.183
12-Apr-23	0.0517	0.232

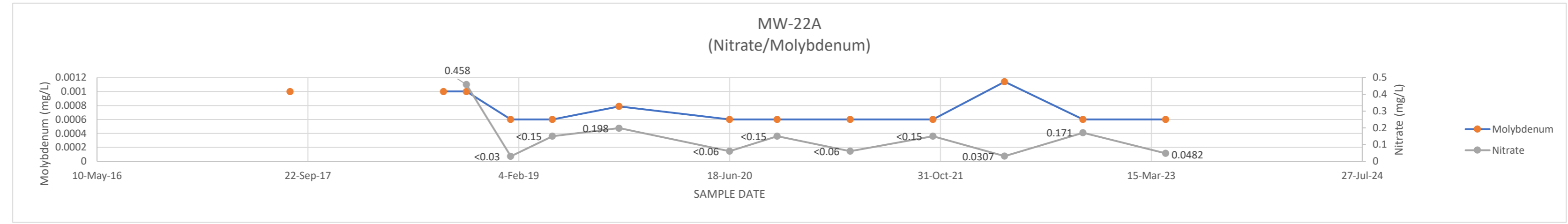


ATTACHMENT G-4
CHANGES IN NITRATE AND MOLYBDENUM CONCENTRATIONS

MW-19S		
DATE	NITRATE	MOLYBDENUM
10-Aug-17		0.469
18-May-18		
2-Aug-18		0.384
10-Aug-18		0.112
3-Oct-18	0.049	0.439
15-Jan-19	0.03	0.472
25-Apr-19	0.15	0.462
1-Oct-19	0.03	0.377
17-Jun-20	0.06	0.402
12-Oct-20	0.15	0.367
31-Mar-21	0.06	0.398
15-Oct-21	0.06	0.407
1-Apr-22	0.102	0.445
6-Oct-22	0.03	0.43
17-Apr-23	0.03	0.362

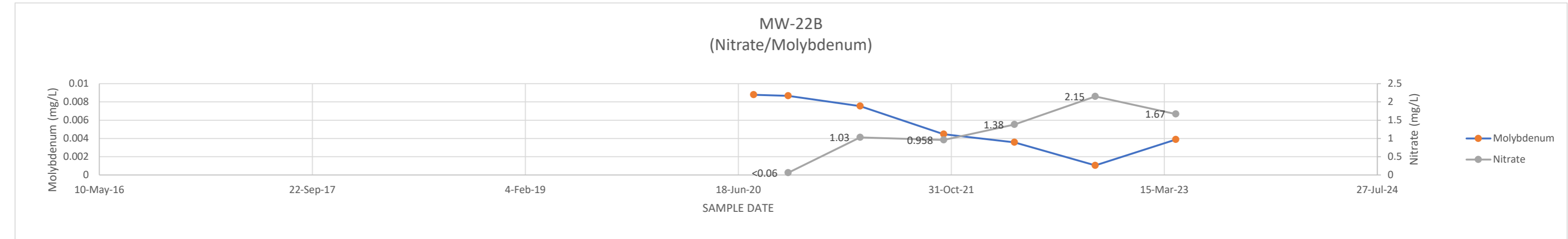


MW-22A		
DATE	NITRATE	MOLYBDENUM
11-Aug-17		0.001
22-May-18		
10-Aug-18		0.001
3-Oct-18	0.458	0.001
16-Jan-19	0.03	0.0006
25-Apr-19	0.15	0.0006
30-Sep-19	0.198	0.000787
18-Jun-20	0.06	0.0006
9-Oct-20	0.15	0.0006
31-Mar-21	0.06	0.0006
13-Oct-21	0.15	0.0006
1-Apr-22	0.0307	0.00114
4-Oct-22	0.171	0.0006
18-Apr-23	0.0482	0.0006

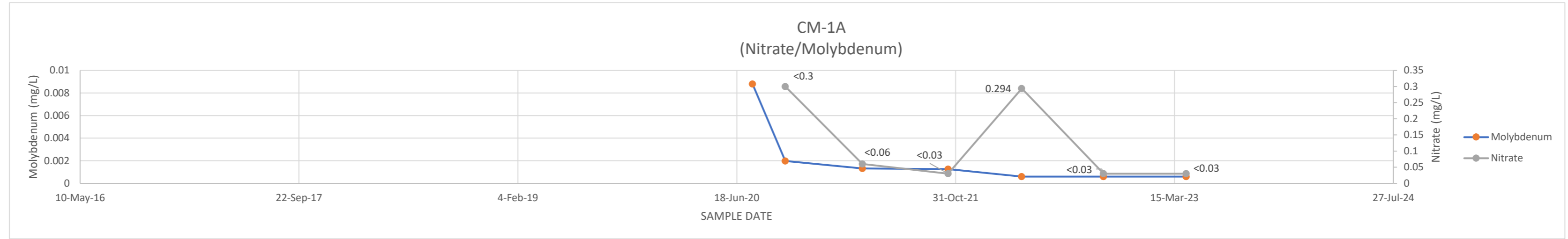


Value denoted in red from June 2022 resample

MW-22B		
DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.00878
13-Oct-20	0.06	0.00866
31-Mar-21	1.03	0.00753
13-Oct-21	0.958	0.00446
28-Mar-22	1.38	0.00357
4-Oct-22	2.15	0.00105
11-Apr-23	1.67	0.00389

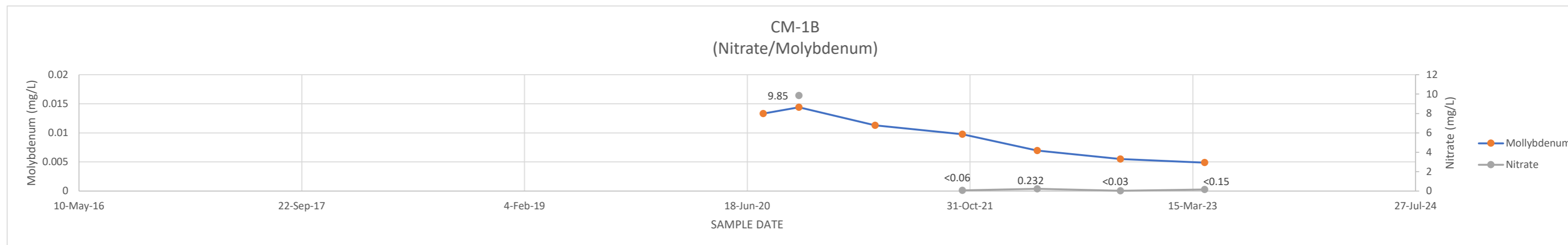


CM-1A		
DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0088
7-Oct-20	0.3	0.00198
1-Apr-21	0.06	0.00132
14-Oct-21	0.03	0.00127
31-Mar-22	0.294	0.0006
4-Oct-22	0.03	0.0006
11-Apr-23	0.03	0.0006

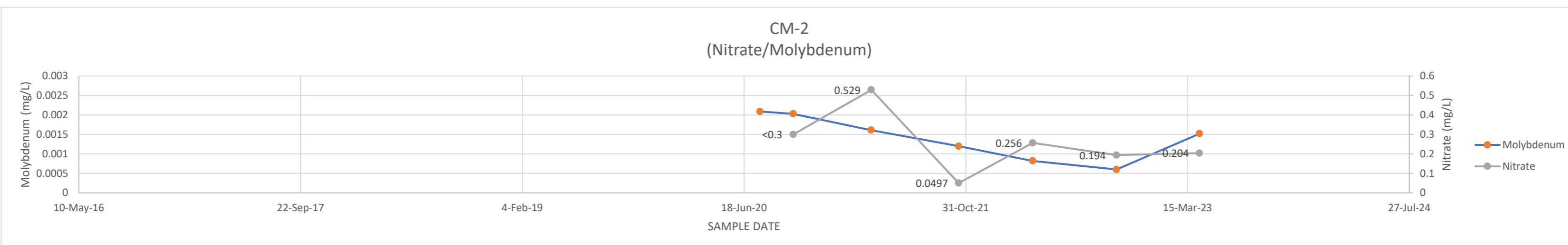


ATTACHMENT G-4
CHANGES IN NITRATE AND MOLYBDENUM CONCENTRATIONS

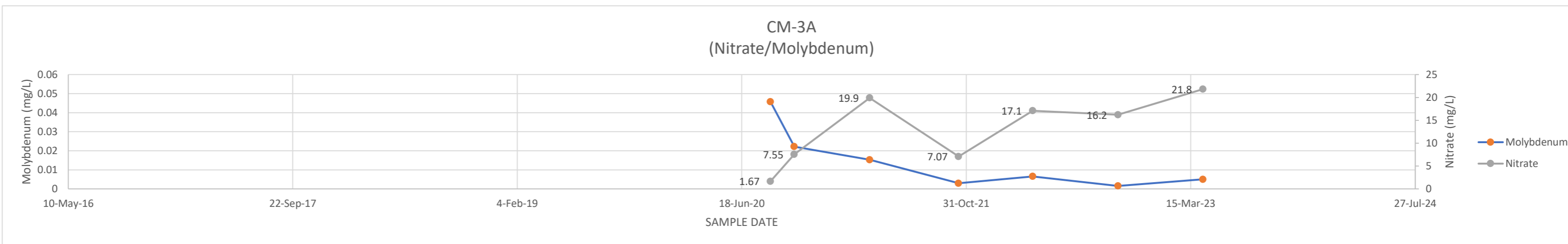
CM-1B DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0133
12-Oct-20	9.85	0.0144
1-Apr-21		0.0113
14-Oct-21	0.06	0.00976
31-Mar-22	0.232	0.00696
4-Oct-22	0.03	0.00551
11-Apr-23	0.15	0.00488



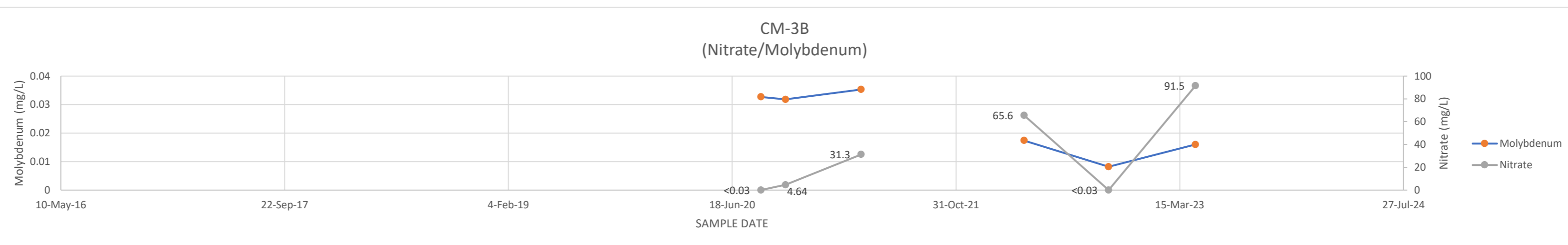
CM-2 DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.00209
7-Oct-20	0.3	0.00203
1-Apr-21	0.529	0.00161
15-Oct-21	0.0497	0.0012
31-Mar-22	0.256	0.00082
6-Oct-22	0.194	0.0006
11-Apr-23	0.204	0.00152



CM-3A DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	1.67	0.0457
13-Oct-20	7.55	0.0222
30-Mar-21	19.9	0.0153
14-Oct-21	7.07	0.00297
28-Mar-22	17.1	0.00656
4-Oct-22	16.2	0.00155
11-Apr-23	21.8	0.00503

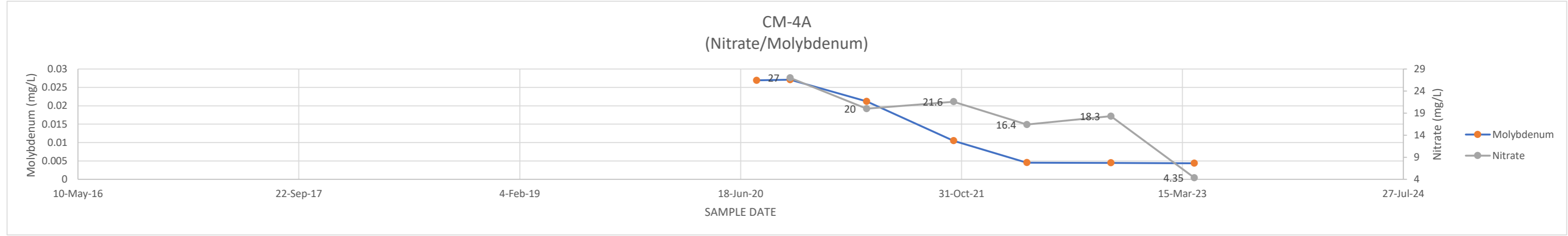


CM-3B DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	0.03	0.0327
15-Oct-20	4.64	0.0318
2-Apr-21	31.3	0.0353
11-Oct-21		
1-Apr-22	65.6	0.0174
7-Oct-22	0.03	0.00819
19-Apr-23	91.5	0.016

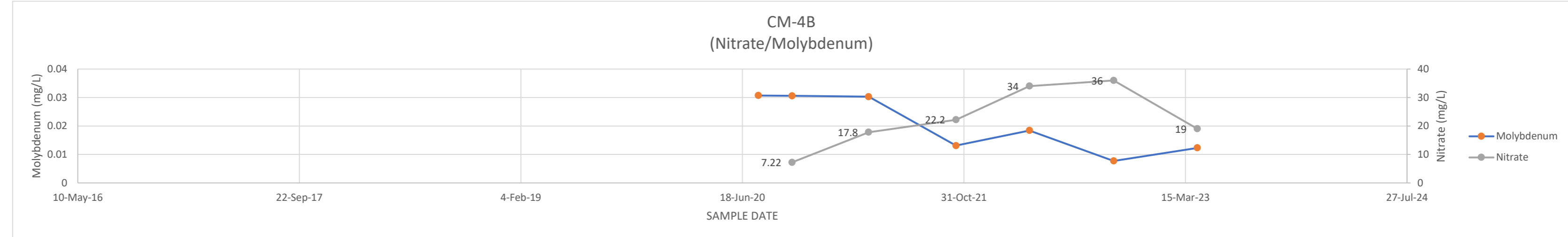


ATTACHMENT G-4
CHANGES IN NITRATE AND MOLYBDENUM CONCENTRATIONS

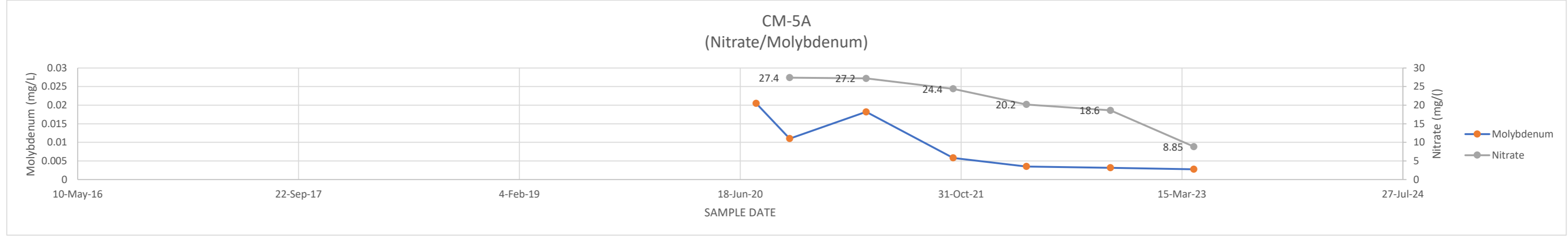
CM-4A		
DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0269
8-Oct-20	27	0.0271
30-Mar-21	20	0.0212
13-Oct-21	21.6	0.0105
28-Mar-22	16.4	0.00455
4-Oct-22	18.3	0.00449
11-Apr-23	4.35	0.00436



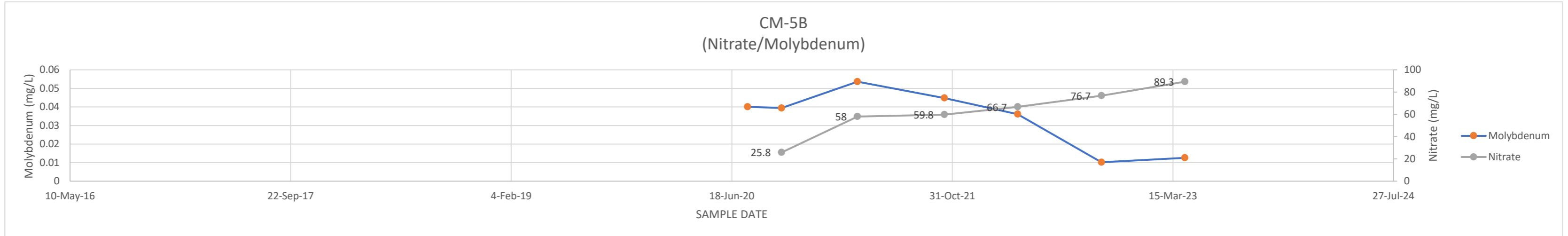
CM-4B		
DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0307
8-Oct-20	7.22	0.0306
30-Mar-21	17.8	0.0303
13-Oct-21	22.2	0.0131
28-Mar-22	34	0.0184
4-Oct-22	36	0.00771
11-Apr-23	19	0.0123



CM-5A		
DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0205
8-Oct-20	27.4	0.011
30-Mar-21	27.2	0.0182
13-Oct-21	24.4	0.0058
28-Mar-22	20.2	0.00351
4-Oct-22	18.6	0.00317
11-Apr-23	8.85	0.00276



CM-5B		
DATE	NITRATE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.04
9-Oct-20	25.8	0.0394
30-Mar-21	58	0.0536
13-Oct-21	59.8	0.0448
28-Mar-22	66.7	0.0361
4-Oct-22	76.7	0.0102
11-Apr-23	89.3	0.0126

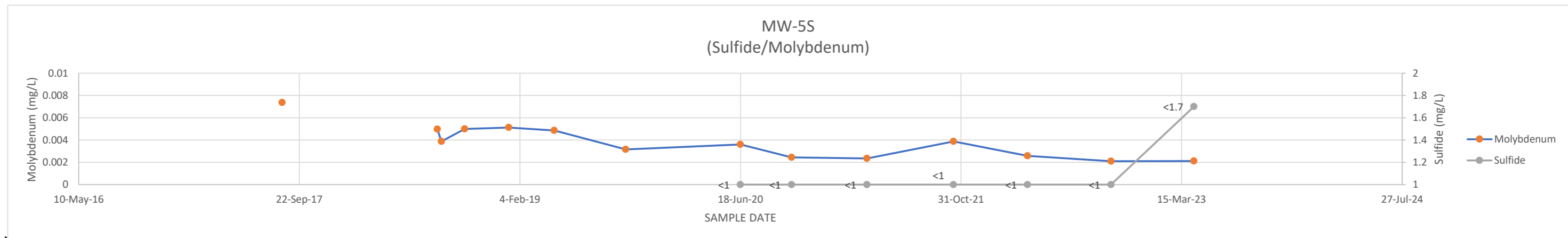


Yellow Indicates Reported Below shown value (MDL)

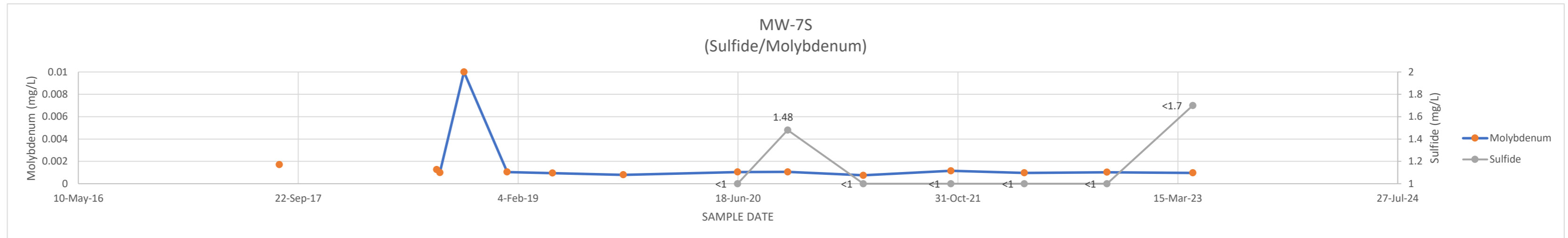
ATTACHMENT G-5
CHANGES IN SULFIDE AND MOLYBDENUM CONCENTRATIONS

MW-5S	DATE	SULFIDE	MOLYBDENUM
	14-Aug-17		0.00737
	22-May-18		
	1-Aug-18		0.00497
	10-Aug-18		0.00387
	2-Oct-18		0.005
	10-Jan-19		0.00512
	23-Apr-19		0.00485
	2-Oct-19		0.00315
	18-Jun-20	1	0.00361
	12-Oct-20	1	0.00244
	1-Apr-21	1	0.00234
	14-Oct-21	1	0.00387
	31-Mar-22	1	0.00257
	6-Oct-22	1	0.0021
	12-Apr-23	1.7	0.00211

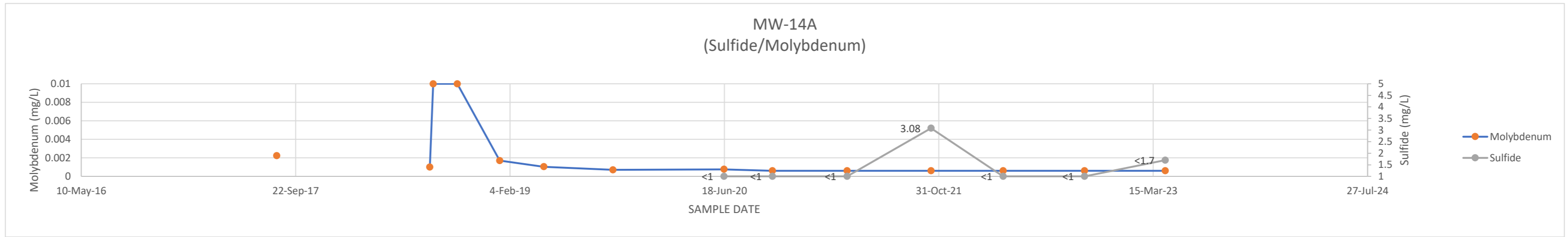
Value denoted in red from June 2022 resample



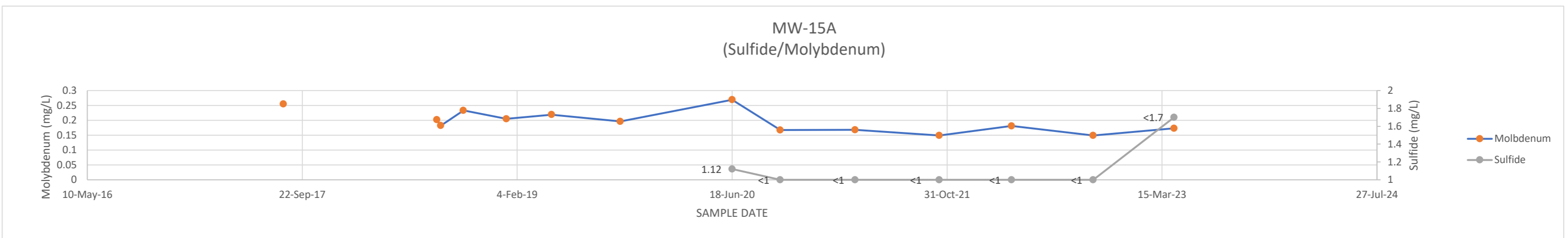
MW-7S	DATE	SULFIDE	MOLYBDENUM
	10-Aug-17		0.00171
	17-May-18		
	3-Aug-18		0.00127
	10-Aug-18		0.001
	4-Oct-18		0.01
	10-Jan-19		0.00105
	23-Apr-19		0.000952
	1-Oct-19		0.000798
	17-Jun-20	1	0.00105
	9-Oct-20	1.48	0.00106
	30-Mar-21	1	0.000755
	15-Oct-21	1	0.00115
	31-Mar-22	1	0.000973
	5-Oct-22	1	0.00103
	18-Apr-23	1.7	0.000973



MW-14A	DATE	SULFIDE	MOLYBDENUM
	9-Aug-17		0.00223
	17-May-18		
	1-Aug-18		0.001
	9-Aug-18		0.01
	4-Oct-18		0.01
	11-Jan-19		0.0017
	24-Apr-19		0.00104
	2-Oct-19		0.000709
	17-Jun-20	1	0.00076
	8-Oct-20	1	0.0006
	31-Mar-21	1	0.0006
	13-Oct-21	3.08	0.0006
	30-Mar-22	1	0.0006
	6-Oct-22	1	0.0006
	12-Apr-23	1.7	0.0006

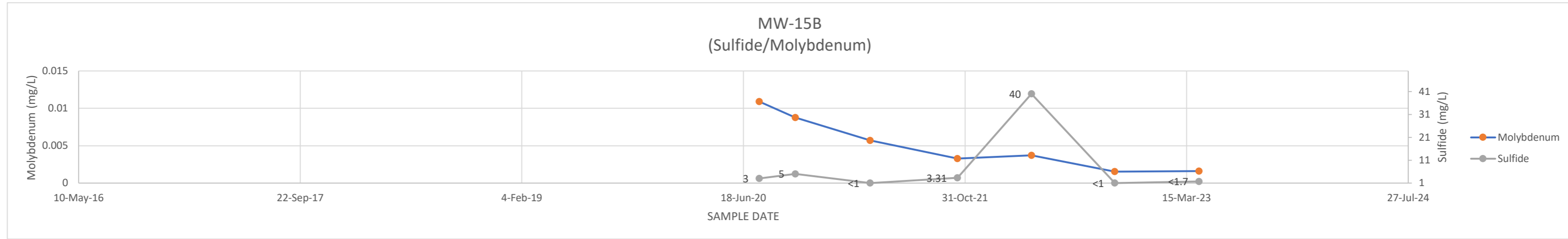


MW-15A	DATE	SULFIDE	MOLYBDENUM
	9-Aug-17		0.255
	24-May-18		
	1-Aug-18		0.202
	10-Aug-18		0.182
	2-Oct-18		0.233
	10-Jan-19		0.205
	25-Apr-19		0.219
	2-Oct-19		0.196
	18-Jun-20	1.12	0.269
	8-Oct-20	1	0.167
	31-Mar-21	1	0.168
	13-Oct-21	1	0.149
	30-Mar-22	1	0.181
	6-Oct-22	1	0.149
	12-Apr-23	1.7	0.173

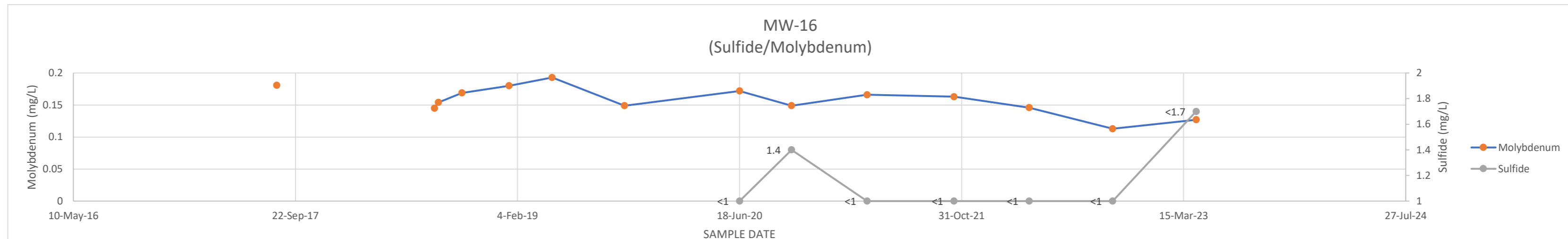


ATTACHMENT G-5
CHANGES IN SULFIDE AND MOLYBDENUM CONCENTRATIONS

MW-15B	DATE	SULFIDE	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20	3	0.0109
	13-Oct-20	5	0.00876
	31-Mar-21	1	0.00571
	14-Oct-21	3.31	0.00328
	30-Mar-22	40	0.0037
	4-Oct-22	1	0.00153
	12-Apr-23	1.7	0.0016

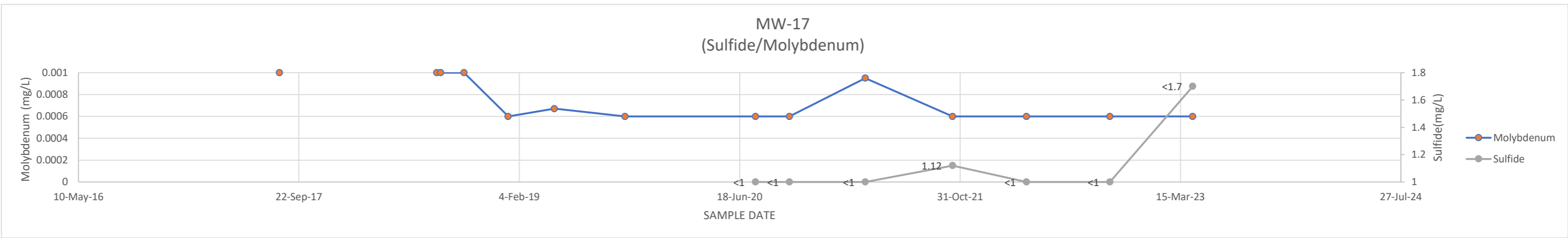


MW-16	DATE	SULFIDE	MOLYBDENUM
	11-Aug-17		0.181
	22-May-18		
	1-Aug-18		0.145
	10-Aug-18		0.154
	2-Oct-18		0.169
	16-Jan-19		0.18
	23-Apr-19		0.193
	3-Oct-19		0.149
	18-Jun-20	1	0.172
	13-Oct-20	1.4	0.149
	1-Apr-21	1	0.166
	14-Oct-21	1	0.163
	1-Apr-22	1	0.146
	6-Oct-22	1	0.113
	12-Apr-23	1.7	0.127



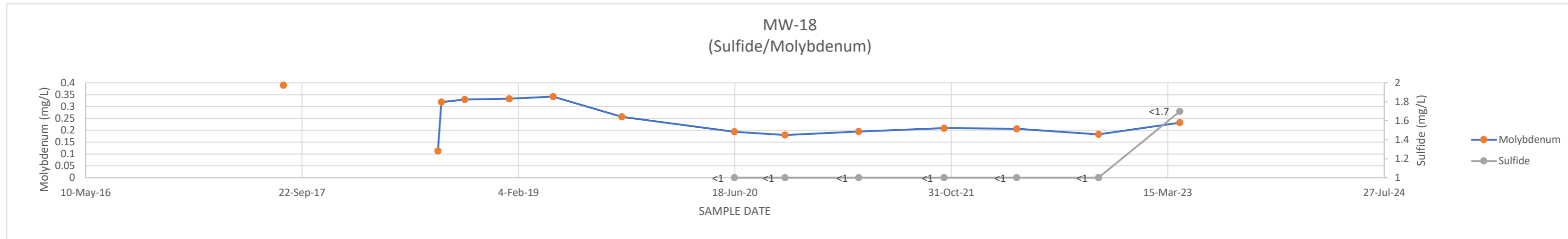
Value denoted in red from June 2022 resample

MW-17	DATE	SULFIDE	MOLYBDENUM
	9-Aug-17		0.001
	24-May-18		
	1-Aug-18		0.001
	10-Aug-18		0.001
	2-Oct-18		0.001
	10-Jan-19		0.0006
	25-Apr-19		0.000671
	2-Oct-19		0.0006
	24-Jul-20	1	0.0006
	9-Oct-20	1	0.0006
	30-Mar-21	1	0.00095
	14-Oct-21	1.12	0.0006
	31-Mar-22	1	0.0006
	6-Oct-22	1	0.0006
	12-Apr-23	1.7	0.0006



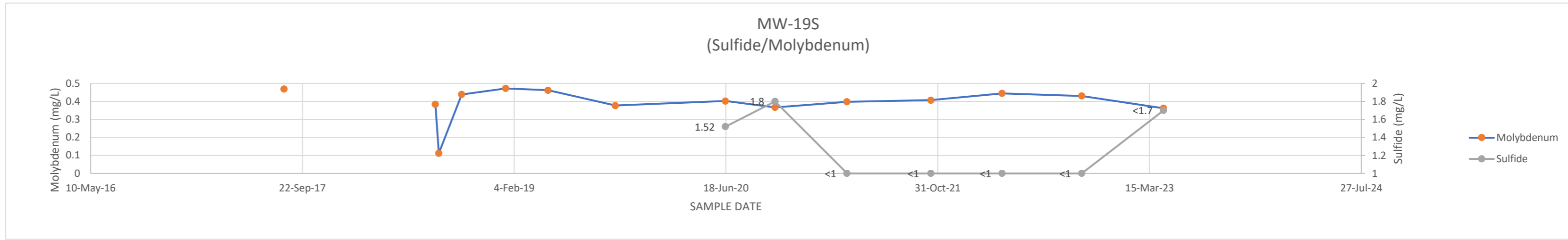
Value denoted in red from June 2022 resample

MW-18	DATE	SULFIDE	MOLYBDENUM
	10-Aug-17		0.39
	18-May-18		
	2-Aug-18		0.113
	10-Aug-18		0.319
	3-Oct-18		0.33
	14-Jan-19		0.333
	25-Apr-19		0.342
	1-Oct-19		0.257
	17-Jun-20	1	0.194
	12-Oct-20	1	0.18
	31-Mar-21	1	0.195
	14-Oct-21	1	0.209
	31-Mar-22	1	0.206
	6-Oct-22	1	0.183
	12-Apr-23	1.7	0.232

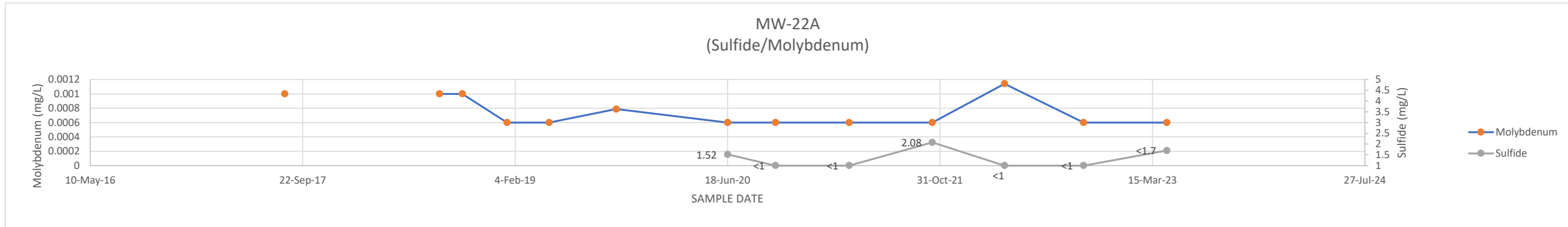


ATTACHMENT G-5
CHANGES IN SULFIDE AND MOLYBDENUM CONCENTRATIONS

MW-19S	SULFIDE	MOLYBDENUM
DATE		
10-Aug-17		0.469
18-May-18		
2-Aug-18		0.384
10-Aug-18		0.112
3-Oct-18		0.439
15-Jan-19		0.472
25-Apr-19		0.462
1-Oct-19		0.377
17-Jun-20	1.52	0.402
12-Oct-20	1.8	0.367
31-Mar-21	1	0.398
15-Oct-21	1	0.407
1-Apr-22	1	0.445
6-Oct-22	1	0.43
17-Apr-23	1.7	0.362

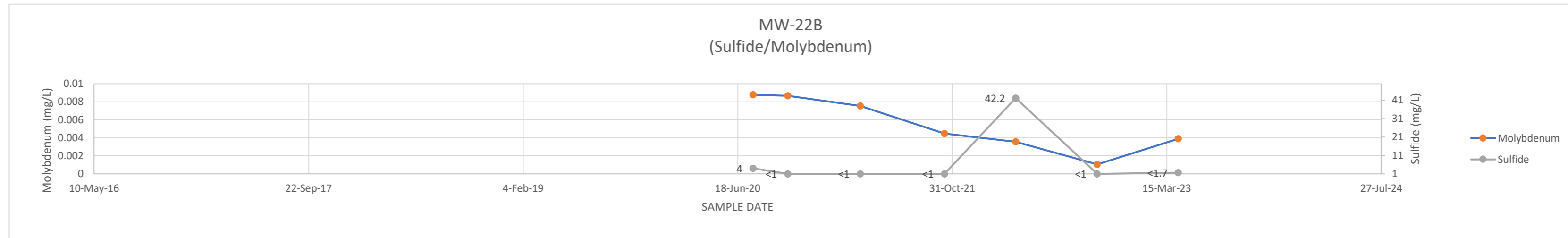


MW-22A	SULFIDE	MOLYBDENUM
DATE		
11-Aug-17		0.001
22-May-18		
10-Aug-18		0.001
3-Oct-18		0.001
16-Jan-19		0.0006
25-Apr-19		0.0006
30-Sep-19		0.000787
18-Jun-20	1.52	0.0006
9-Oct-20	1	0.0006
31-Mar-21	1	0.0006
13-Oct-21	2.08	0.0006
1-Apr-22	1	0.00114
4-Oct-22	1	0.0006
18-Apr-23	1.7	0.0006

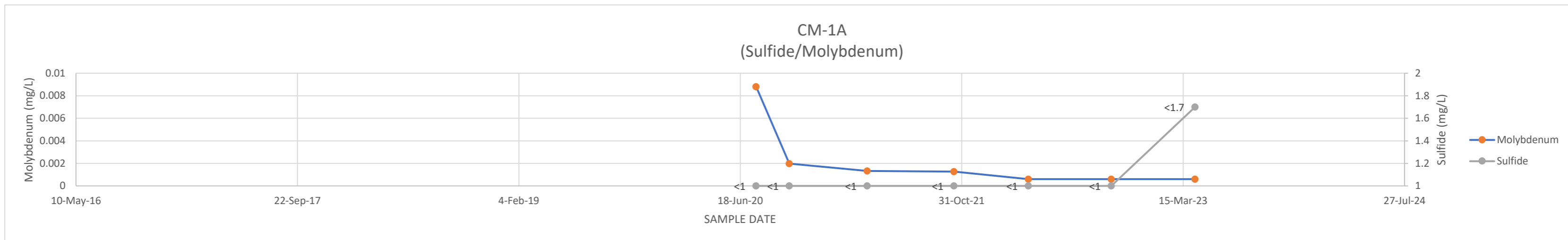


Value denoted in red from June 2022 resample

MW-22B	SULFIDE	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	4	0.00878
13-Oct-20	1	0.00866
31-Mar-21	1	0.00753
13-Oct-21	1	0.00446
28-Mar-22	42.2	0.00357
4-Oct-22	1	0.00105
11-Apr-23	1.7	0.00389

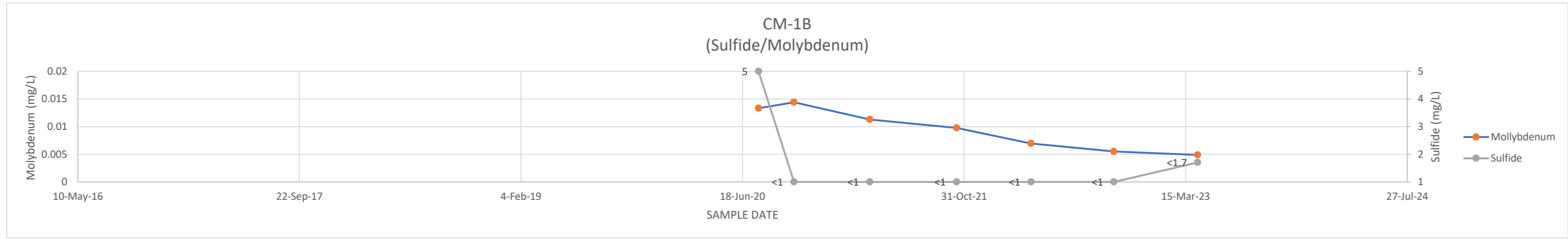


CM-1A	SULFIDE	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1	0.0088
7-Oct-20	1	0.00198
1-Apr-21	1	0.00132
14-Oct-21	1	0.00127
31-Mar-22	1	0.0006
4-Oct-22	1	0.0006
11-Apr-23	1.7	0.0006

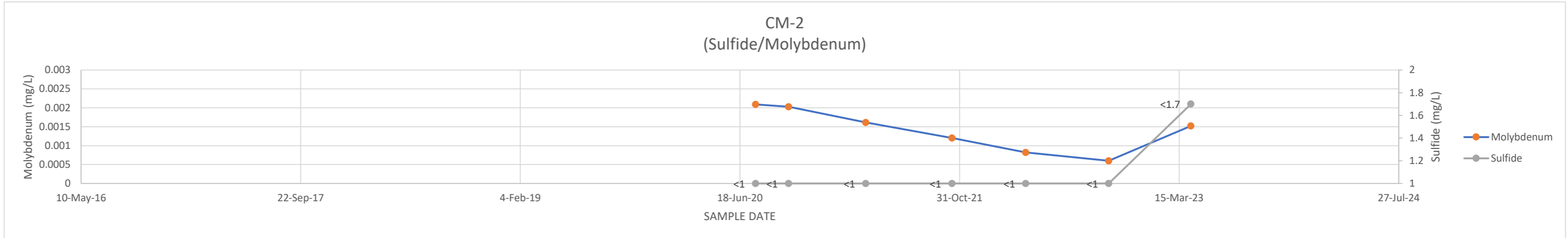


ATTACHMENT G-5
CHANGES IN SULFIDE AND MOLYBDENUM CONCENTRATIONS

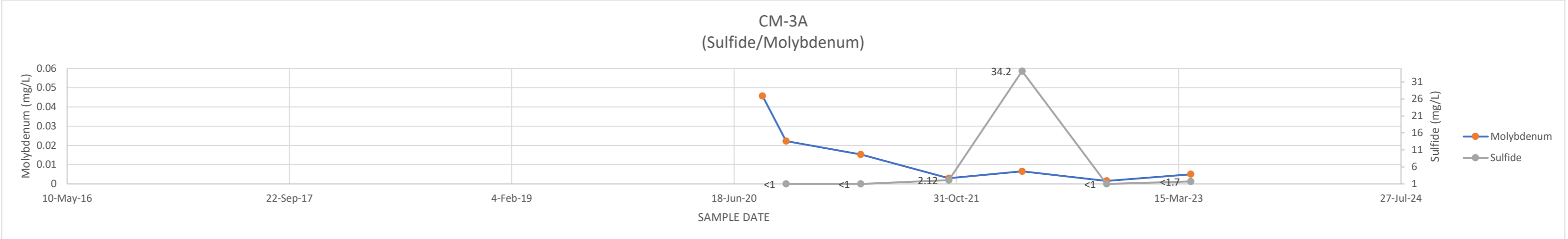
CM-1B DATE	SULFIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	5	0.0133
12-Oct-20	1	0.0144
1-Apr-21	1	0.0113
14-Oct-21	1	0.00976
31-Mar-22	1	0.00696
4-Oct-22	1	0.00551
11-Apr-23	1.7	0.00488



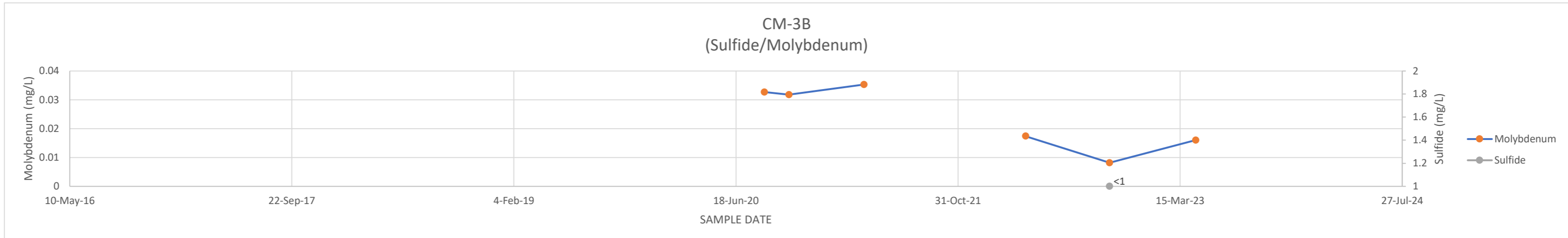
CM-2 DATE	SULFIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	1	0.00209
7-Oct-20	1	0.00203
1-Apr-21	1	0.00161
14-Oct-21	1	0.0012
31-Mar-22	1	0.00082
6-Oct-22	1	0.0006
11-Apr-23	1.7	0.00152



CM-3A DATE	SULFIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0457
13-Oct-20	1	0.0222
30-Mar-21	1	0.0153
14-Oct-21	2.12	0.00297
28-Mar-22	34.2	0.00656
4-Oct-22	1	0.00155
11-Apr-23	1.7	0.00503

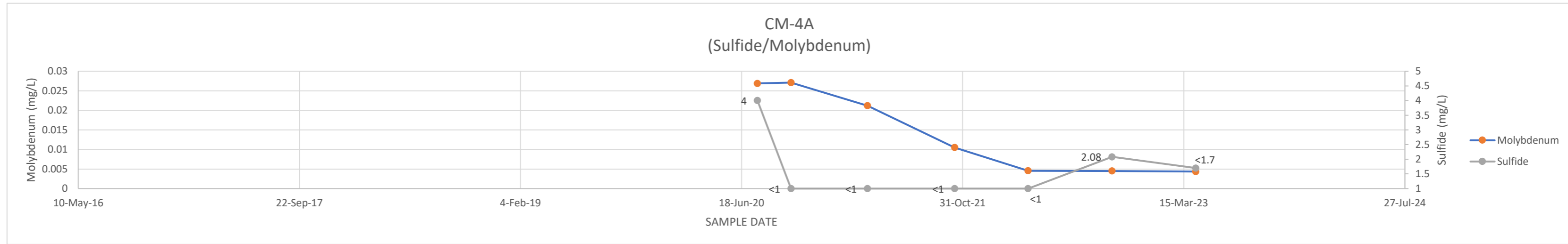


CM-3B DATE	SULFIDE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0327
15-Oct-20		0.0318
2-Apr-21		0.0353
11-Oct-21		
1-Apr-22		0.0174
7-Oct-22	1	0.00819
19-Apr-23		0.016

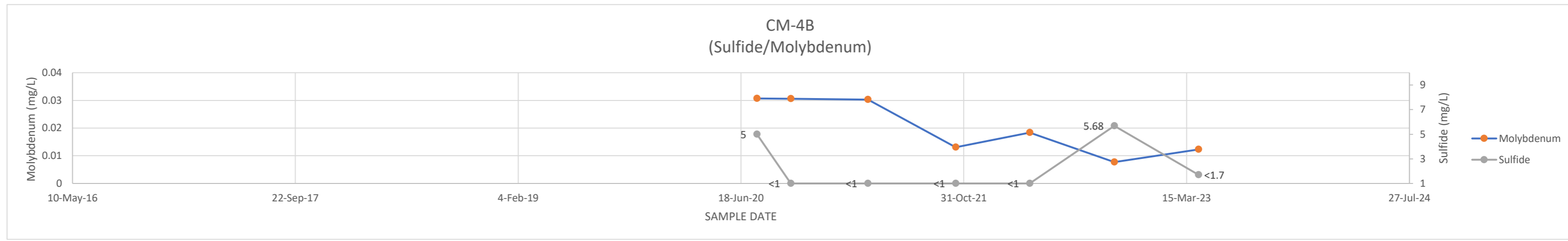


ATTACHMENT G-5
CHANGES IN SULFIDE AND MOLYBDENUM CONCENTRATIONS

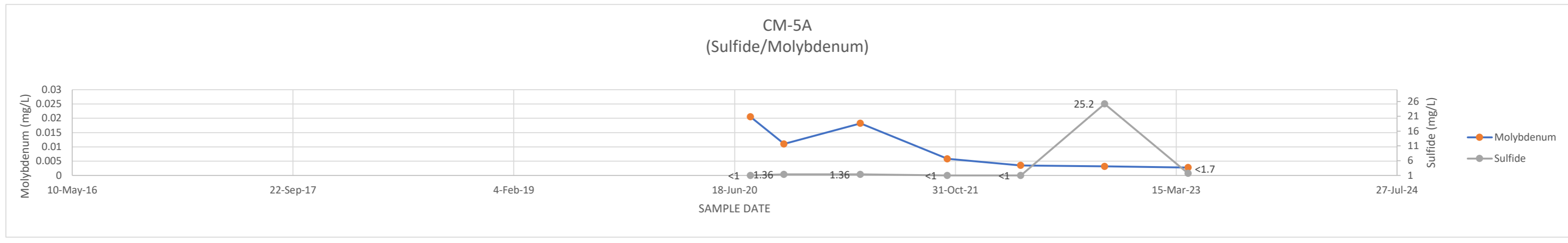
CM-4A	DATE	SULFLIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	4	0.0269	
8-Oct-20	1	0.0271	
30-Mar-21	1	0.0212	
13-Oct-21	1	0.0105	
28-Mar-22	1	0.00455	
4-Oct-22	2.08	0.00449	
11-Apr-23	1.7	0.00436	



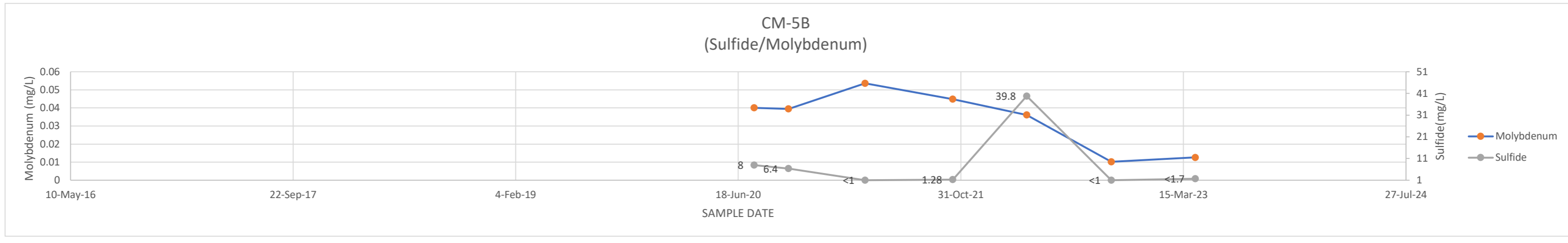
CM-4B	DATE	SULFLIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	5	0.0307	
8-Oct-20	1	0.0306	
30-Mar-21	1	0.0303	
13-Oct-21	1	0.0131	
28-Mar-22	1	0.0184	
4-Oct-22	5.68	0.00771	
11-Apr-23	1.7	0.0123	



CM-5A	DATE	SULFIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	1	0.0205	
8-Oct-20	1.36	0.011	
30-Mar-21	1.36	0.0182	
13-Oct-21	1	0.0058	
28-Mar-22	1	0.00351	
4-Oct-22	25.2	0.00317	
11-Apr-23	1.7	0.00276	



CM-5B	DATE	SULFIDE	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	8	0.04	
9-Oct-20	6.4	0.0394	
30-Mar-21	1	0.0536	
13-Oct-21	1.28	0.0448	
28-Mar-22	39.8	0.0361	
4-Oct-22	1	0.0102	
11-Apr-23	1.7	0.0126	

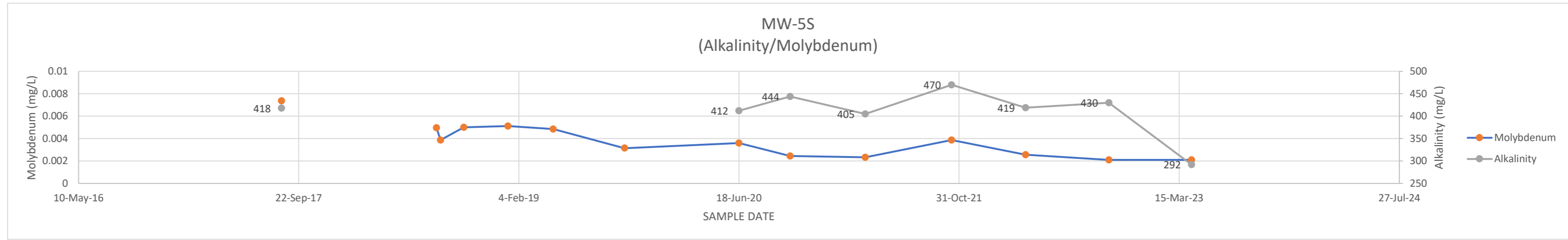


Yellow Indicates Reported Below shown value (MDL)

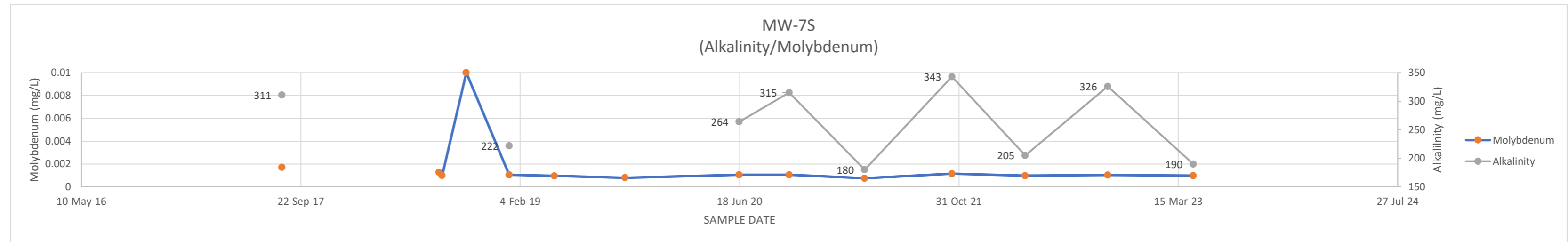
ATTACHMENT G-6
CHANGES IN ALKALINITY AND MOLYBDENUM CONCENTRATIONS

MW-5S DATE	ALKALINITY	MOLYBDENUM
14-Aug-17	418	0.00737
22-May-18		
1-Aug-18		0.00497
10-Aug-18		0.00387
2-Oct-18		0.005
10-Jan-19		0.00512
23-Apr-19		0.00485
2-Oct-19		0.00315
18-Jun-20	412	0.00361
12-Oct-20	444	0.00244
1-Apr-21	405	0.00234
14-Oct-21	470	0.00387
31-Mar-22	419	0.00257
6-Oct-22	430	0.0021
12-Apr-23	292	0.00211

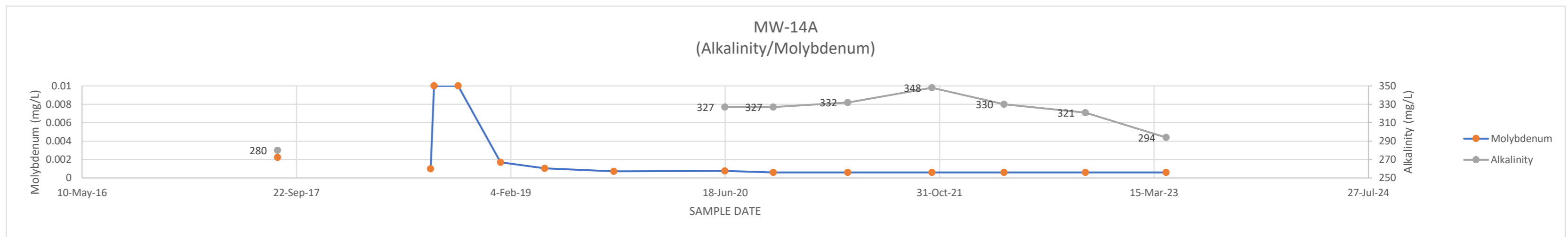
Value denoted in red from June 2022 resample



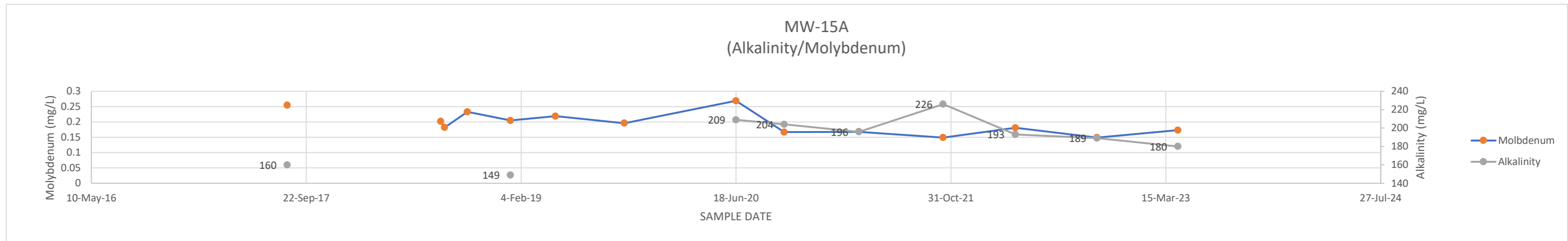
MW-7S DATE	ALKALINITY	MOLYBDENUM
10-Aug-17	311	0.00171
17-May-18		
3-Aug-18		0.00127
10-Aug-18		0.001
4-Oct-18		0.01
10-Jan-19	222	0.00105
23-Apr-19		0.000952
1-Oct-19		0.000798
17-Jun-20	264	0.00105
9-Oct-20	315	0.00106
30-Mar-21	180	0.000755
15-Oct-21	343	0.00115
31-Mar-22	205	0.000973
5-Oct-22	326	0.00103
18-Apr-23	190	0.000973



MW-14A DATE	ALKALINITY	MOLYBDENUM
9-Aug-17	280	0.00223
17-May-18		
1-Aug-18		0.001
9-Aug-18		0.01
4-Oct-18		0.01
11-Jan-19		0.0017
24-Apr-19		0.00104
2-Oct-19		0.000709
17-Jun-20	327	0.00076
8-Oct-20	327	0.0006
31-Mar-21	332	0.0006
13-Oct-21	348	0.0006
30-Mar-22	330	0.0006
6-Oct-22	321	0.0006
12-Apr-23	294	0.0006

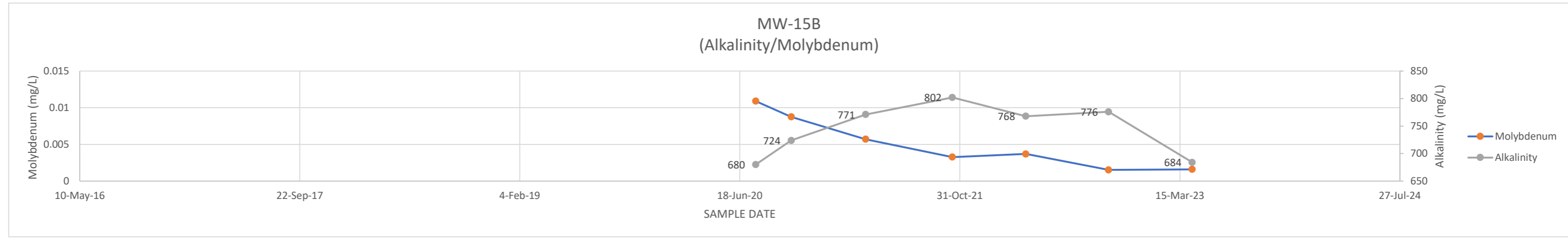


MW-15A DATE	ALKALINITY	MOLYBDENUM
9-Aug-17	160	0.255
24-May-18		
1-Aug-18		0.202
10-Aug-18		0.182
2-Oct-18		0.233
10-Jan-19	149	0.205
25-Apr-19		0.219
2-Oct-19		0.196
18-Jun-20	209	0.269
8-Oct-20	204	0.167
31-Mar-21	196	0.168
13-Oct-21	226	0.149
30-Mar-22	193	0.181
6-Oct-22	189	0.149
12-Apr-23	180	0.173

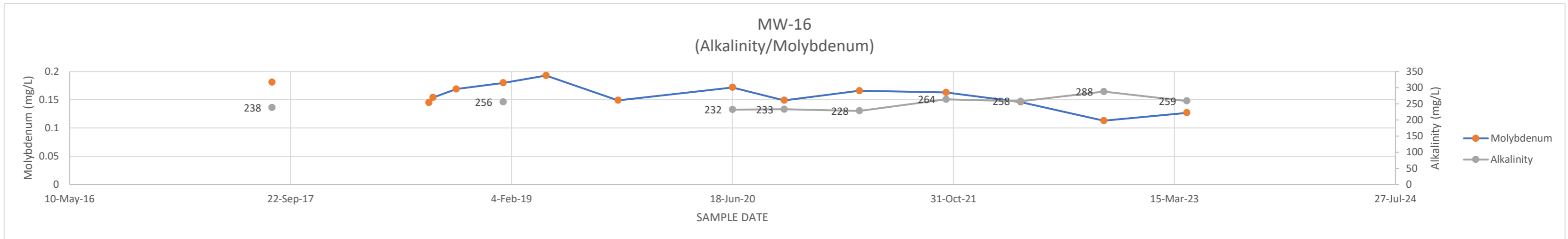


ATTACHMENT G-6
CHANGES IN ALKALINITY AND MOLYBDENUM CONCENTRATIONS

MW-15B	ALKALINITY	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	680	0.0109
13-Oct-20	724	0.00876
31-Mar-21	771	0.00571
14-Oct-21	802	0.00328
30-Mar-22	768	0.0037
4-Oct-22	776	0.00153
12-Apr-23	684	0.0016

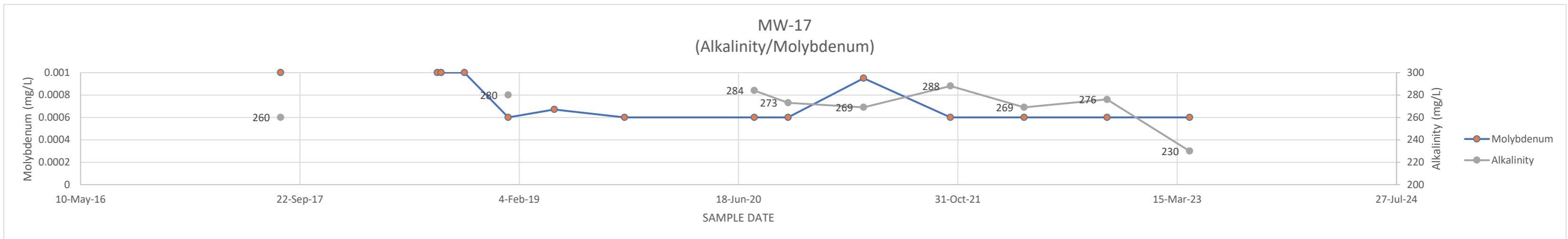


MW-16	ALKALINITY	MOLYBDENUM
DATE		
11-Aug-17	238	0.181
22-May-18		
1-Aug-18		0.145
10-Aug-18		0.154
2-Oct-18		0.169
16-Jan-19	256	0.18
23-Apr-19		0.193
3-Oct-19		0.149
18-Jun-20	232	0.172
13-Oct-20	233	0.149
1-Apr-21	228	0.166
14-Oct-21	264	0.163
1-Apr-22	258	0.146
6-Oct-22	288	0.113
12-Apr-23	259	0.127



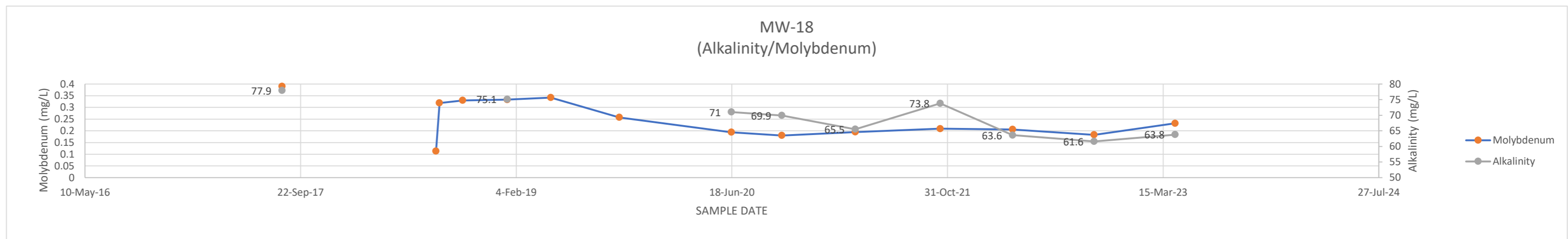
Value denoted in red from June 2022 resample

MW-17	ALKALINITY	MOLYBDENUM
DATE		
9-Aug-17	260	0.001
24-May-18		
1-Aug-18		0.001
10-Aug-18		0.001
2-Oct-18		0.001
10-Jan-19	280	0.0006
25-Apr-19		0.000671
2-Oct-19		0.0006
24-Jul-20	284	0.0006
9-Oct-20	273	0.0006
30-Mar-21	269	0.00095
14-Oct-21	288	0.0006
31-Mar-22	269	0.0006
6-Oct-22	276	0.0006
12-Apr-23	230	0.0006



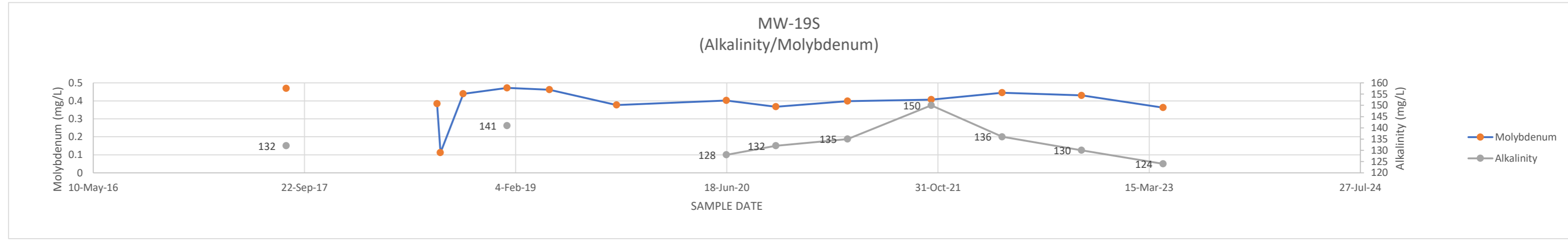
Value denoted in red from June 2022 resample

MW-18	ALKALINITY	MOLYBDENUM
DATE		
10-Aug-17	77.9	0.39
18-May-18		
2-Aug-18		0.113
10-Aug-18		0.319
3-Oct-18		0.33
14-Jan-19	75.1	0.333
25-Apr-19		0.342
1-Oct-19		0.257
17-Jun-20	71	0.194
12-Oct-20	69.9	0.18
31-Mar-21	65.5	0.195
14-Oct-21	73.8	0.209
31-Mar-22	63.6	0.206
6-Oct-22	61.6	0.183
12-Apr-23	63.8	0.232

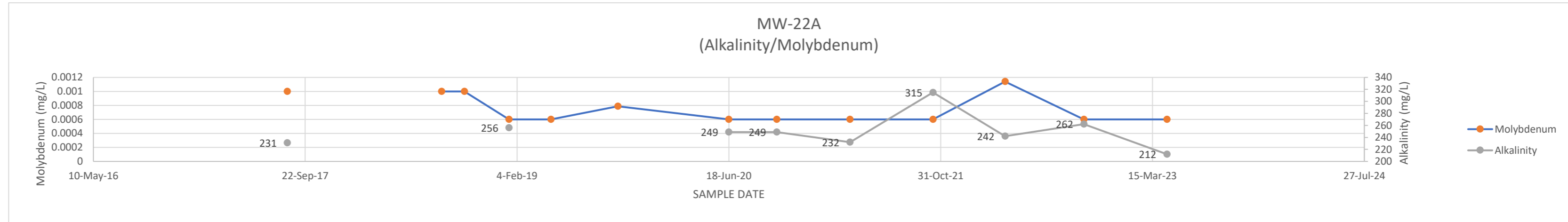


ATTACHMENT G-6
CHANGES IN ALKALINITY AND MOLYBDENUM CONCENTRATIONS

MW-19S	ALKALINITY	MOLYBDENUM
DATE		
10-Aug-17	132	0.469
18-May-18		
2-Aug-18		0.384
10-Aug-18		0.112
3-Oct-18		0.439
15-Jan-19	141	0.472
25-Apr-19		0.462
1-Oct-19		0.377
17-Jun-20	128	0.402
12-Oct-20	132	0.367
31-Mar-21	135	0.398
15-Oct-21	150	0.407
1-Apr-22	136	0.445
6-Oct-22	130	0.43
17-Apr-23	124	0.362

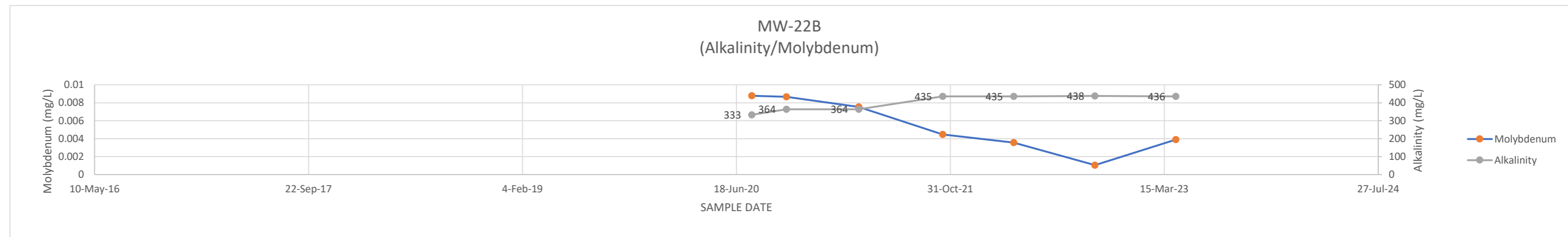


MW-22A	ALKALINITY	MOLYBDENUM
DATE		
11-Aug-17	231	0.001
22-May-18		
10-Aug-18		0.001
3-Oct-18		0.001
16-Jan-19	256	0.0006
25-Apr-19		0.0006
30-Sep-19		0.000787
18-Jun-20	249	0.0006
9-Oct-20	249	0.0006
31-Mar-21	232	0.0006
13-Oct-21	315	0.0006
1-Apr-22	242	0.00114
4-Oct-22	262	0.0006
18-Apr-23	212	0.0006

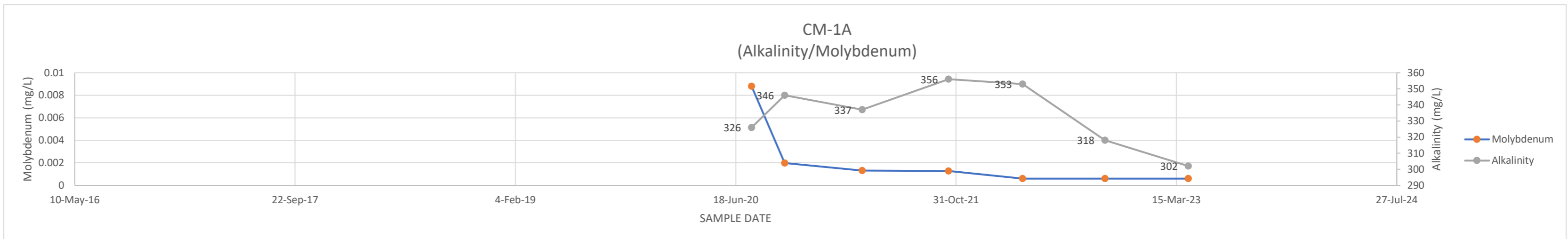


Value denoted in red from June 2022 resample

MW-22B	ALKALINITY	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	333	0.00878
13-Oct-20	364	0.00866
31-Mar-21	364	0.00753
13-Oct-21	435	0.00446
28-Mar-22	435	0.00357
4-Oct-22	438	0.00105
11-Apr-23	436	0.00389

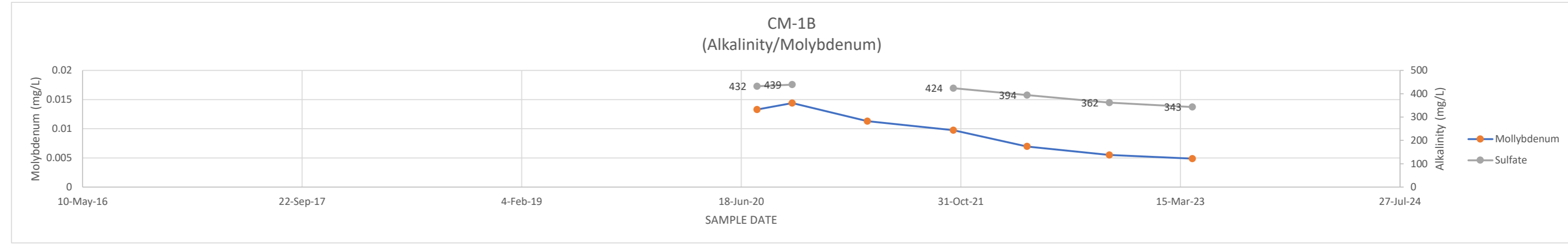


CM-1A	ALKALINITY	MOLYBDENUM
DATE		
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	326	0.0088
7-Oct-20	346	0.00198
1-Apr-21	337	0.00132
14-Oct-21	356	0.00127
31-Mar-22	353	0.0006
4-Oct-22	318	0.0006
11-Apr-23	302	0.0006

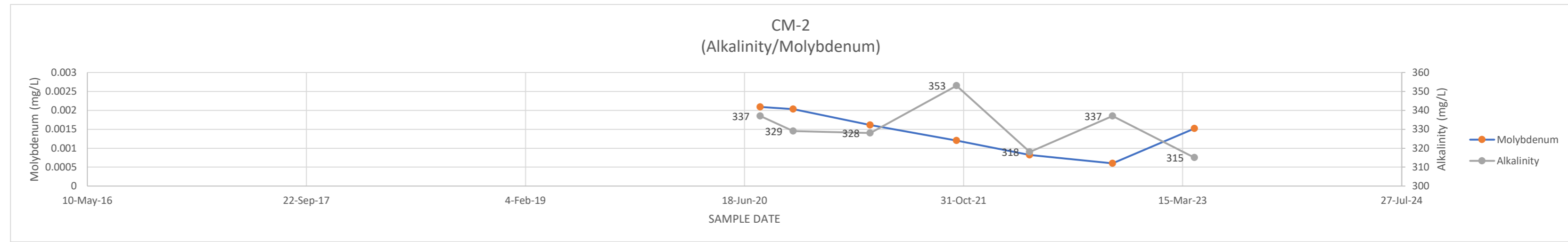


ATTACHMENT G-6
CHANGES IN ALKALINITY AND MOLYBDENUM CONCENTRATIONS

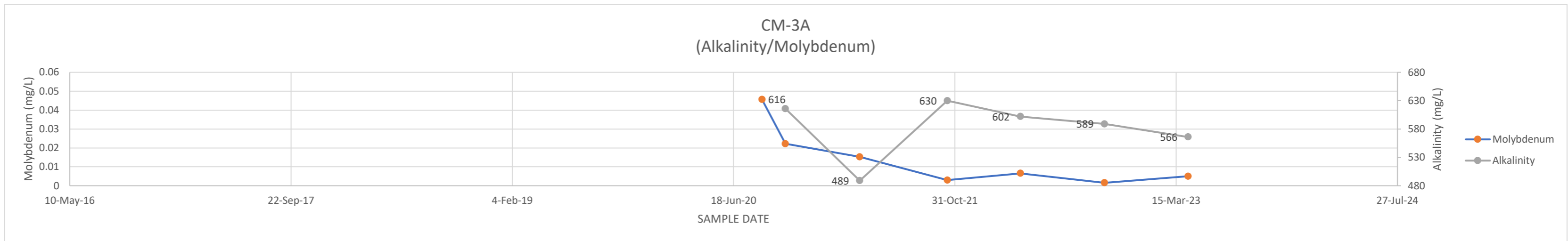
CM-1B DATE	ALKALINITY	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	432	0.0133
12-Oct-20	439	0.0144
1-Apr-21		0.0113
14-Oct-21	424	0.00976
31-Mar-22	394	0.00696
4-Oct-22	362	0.00551
11-Apr-23	343	0.00488



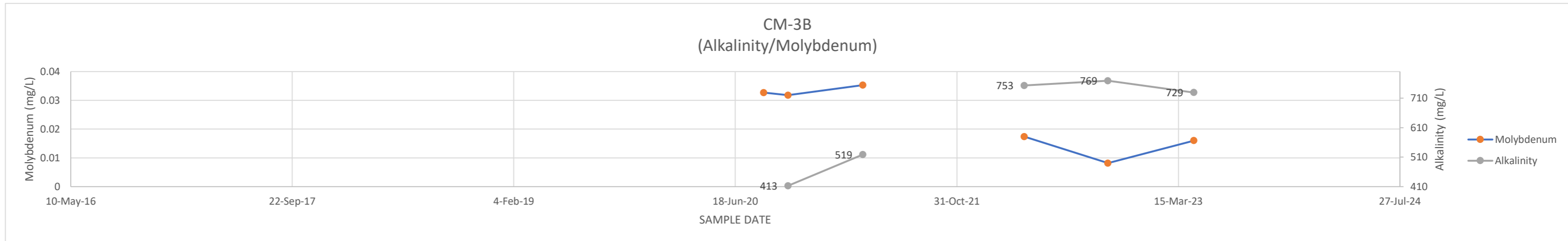
CM-2 DATE	ALKALINITY	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	337	0.00209
7-Oct-20	329	0.00203
1-Apr-21	328	0.00161
15-Oct-21	353	0.0012
31-Mar-22	318	0.00082
6-Oct-22	337	0.0006
11-Apr-23	315	0.00152



CM-3A DATE	ALKALINITY	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0457
13-Oct-20	616	0.0222
30-Mar-21	489	0.0153
14-Oct-21	630	0.00297
28-Mar-22	602	0.00656
4-Oct-22	589	0.00155
11-Apr-23	566	0.00503

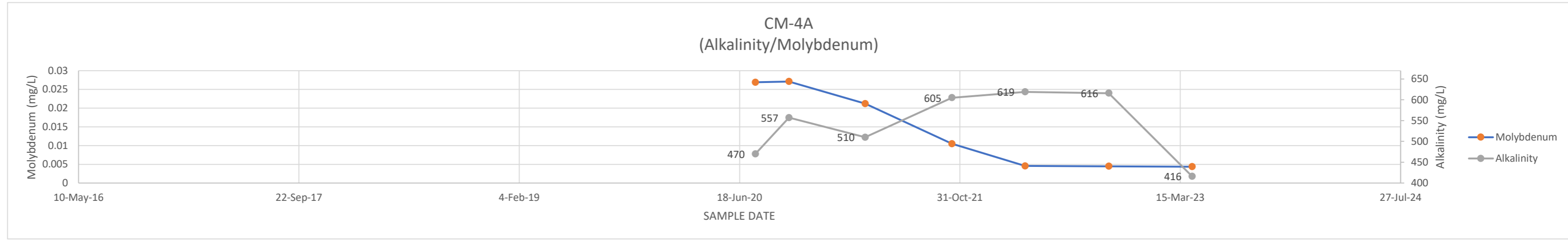


CM-3B DATE	ALKALINITY	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0327
15-Oct-20	413	0.0318
2-Apr-21	519	0.0353
11-Oct-21		
1-Apr-22	753	0.0174
7-Oct-22	769	0.00819
19-Apr-23	729	0.016

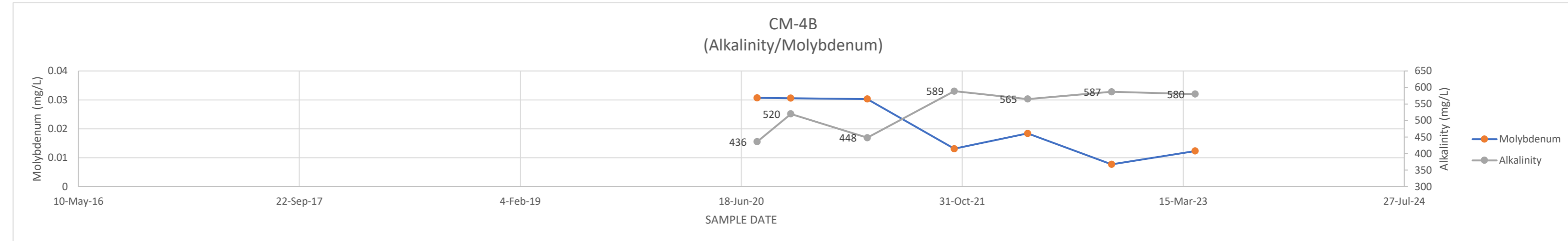


ATTACHMENT G-6
CHANGES IN ALKALINITY AND MOLYBDENUM CONCENTRATIONS

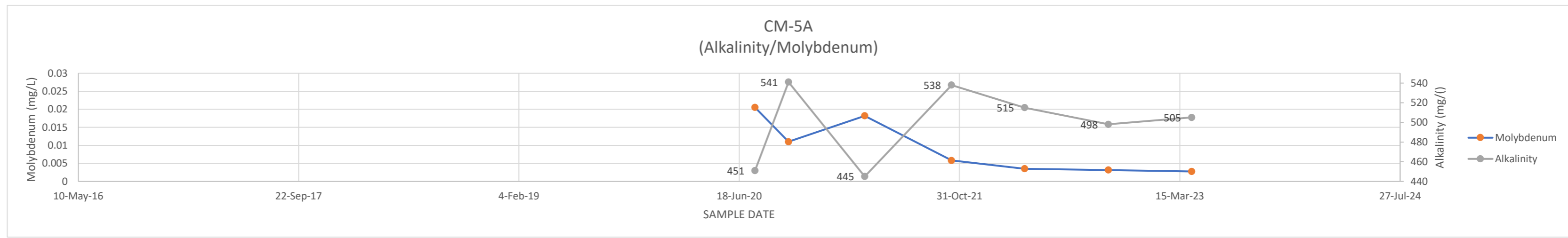
CM-4A DATE	ALKALINITY	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	470	0.0269
8-Oct-20	557	0.0271
30-Mar-21	510	0.0212
13-Oct-21	605	0.0105
28-Mar-22	619	0.00455
4-Oct-22	616	0.00449
11-Apr-23	416	0.00436



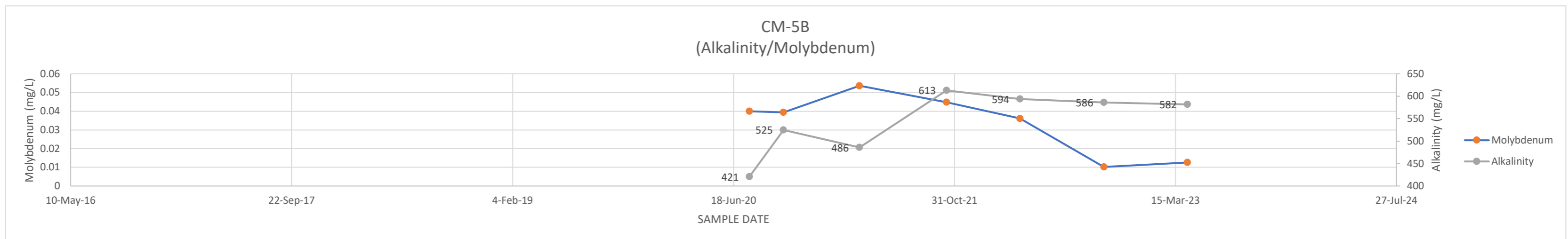
CM-4B DATE	ALKALINITY	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	436	0.0307
8-Oct-20	520	0.0306
30-Mar-21	448	0.0303
13-Oct-21	589	0.0131
28-Mar-22	565	0.0184
4-Oct-22	587	0.00771
11-Apr-23	580	0.0123



CM-5A DATE	ALKALINITY	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	451	0.0205
8-Oct-20	541	0.011
30-Mar-21	445	0.0182
13-Oct-21	538	0.0058
28-Mar-22	515	0.00351
4-Oct-22	498	0.00317
11-Apr-23	505	0.00276



CM-5B DATE	ALKALINITY	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	421	0.04
9-Oct-20	525	0.0394
30-Mar-21	486	0.0536
13-Oct-21	613	0.0448
28-Mar-22	594	0.0361
4-Oct-22	586	0.0102
11-Apr-23	582	0.0126



Yellow Indicates Reported Below shown value (MDL)

ATTACHMENT H

CHANGES IN IRON CONCENTRATION COMPARED TO CHANGES IN MONLYBDENUM CONCENTRATION OVER SAMPLING HISTORY

H-1: CHANGES IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

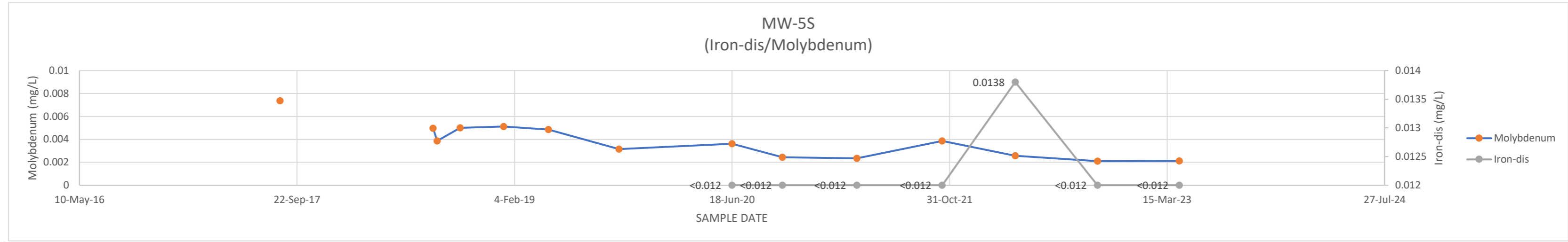
H-2: CHANGES IN FERROUS IRON (DISSOLVED) AND MOLYBDENUM
CONCENTRATIONS

H-3: CHANGES IN FERRIC IRON (DISSOLVED) AND MOLYBDENUM
CONCENTRATIONS

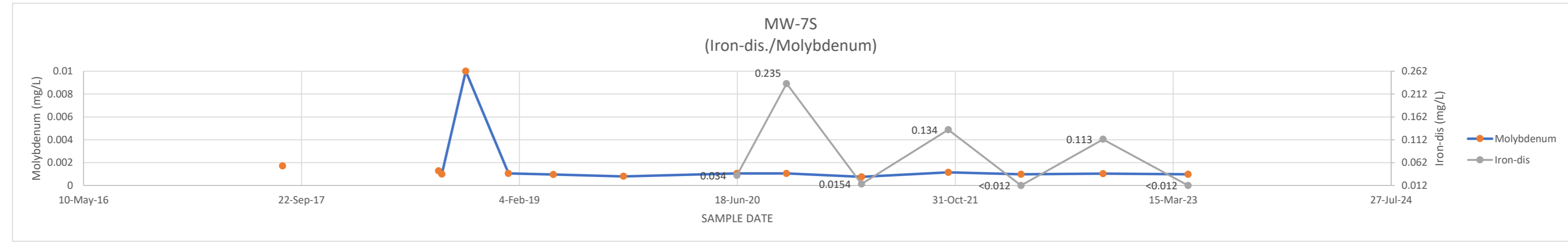
ATTACHMENT H-1
CHANGES IN IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

MW-5S	DATE	DIS FE	MOLYBDENUM
	14-Aug-17		0.00737
	22-May-18		
	1-Aug-18		0.00497
	10-Aug-18		0.00387
	2-Oct-18		0.005
	10-Jan-19		0.00512
	23-Apr-19		0.00485
	2-Oct-19		0.00315
	18-Jun-20	0.012	0.00361
	12-Oct-20	0.012	0.00244
	1-Apr-21	0.012	0.00234
	14-Oct-21	0.012	0.00387
	31-Mar-22	0.0138	0.00257
	6-Oct-22	0.012	0.0021
	12-Apr-23	0.012	0.00211

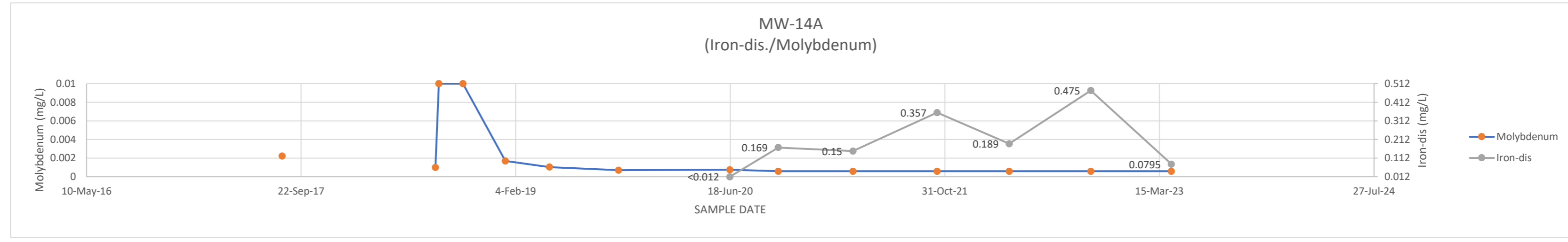
Value denoted in red from June 2022 resample



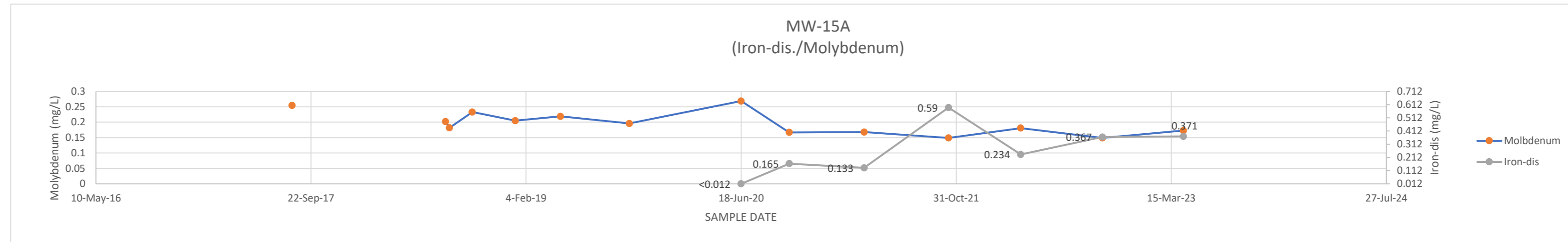
MW-7S	DATE	DIS FE	MOLYBDENUM
	10-Aug-17		0.00171
	17-May-18		
	3-Aug-18		0.00127
	10-Aug-18		0.001
	4-Oct-18		0.01
	10-Jan-19		0.00105
	23-Apr-19		0.000952
	1-Oct-19		0.000798
	17-Jun-20	0.034	0.00105
	9-Oct-20	0.235	0.00106
	30-Mar-21	0.0154	0.000755
	15-Oct-21	0.134	0.00115
	31-Mar-22	0.012	0.000973
	5-Oct-22	0.113	0.00103
	18-Apr-23	0.012	0.000973



MW-14A	DATE	DIS FE	MOLYBDENUM
	9-Aug-17		0.00223
	17-May-18		
	1-Aug-18		0.001
	9-Aug-18		0.01
	4-Oct-18		0.01
	11-Jan-19		0.0017
	24-Apr-19		0.00104
	2-Oct-19		0.000709
	17-Jun-20	0.012	0.00076
	8-Oct-20	0.169	0.0006
	31-Mar-21	0.15	0.0006
	13-Oct-21	0.357	0.0006
	30-Mar-22	0.189	0.0006
	6-Oct-22	0.475	0.0006
	12-Apr-23	0.0795	0.0006

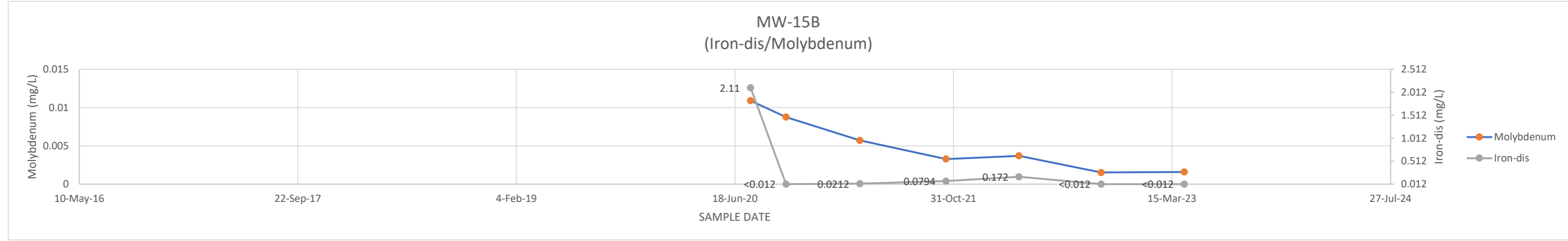


MW-15A	DATE	DIS FE	MOLYBDENUM
	9-Aug-17		0.255
	24-May-18		
	1-Aug-18		0.202
	10-Aug-18		0.182
	2-Oct-18		0.233
	10-Jan-19		0.205
	25-Apr-19		0.219
	2-Oct-19		0.196
	18-Jun-20	0.012	0.269
	8-Oct-20	0.165	0.167
	31-Mar-21	0.133	0.168
	13-Oct-21	0.59	0.149
	30-Mar-22	0.234	0.181
	6-Oct-22	0.367	0.149
	12-Apr-23	0.371	0.173

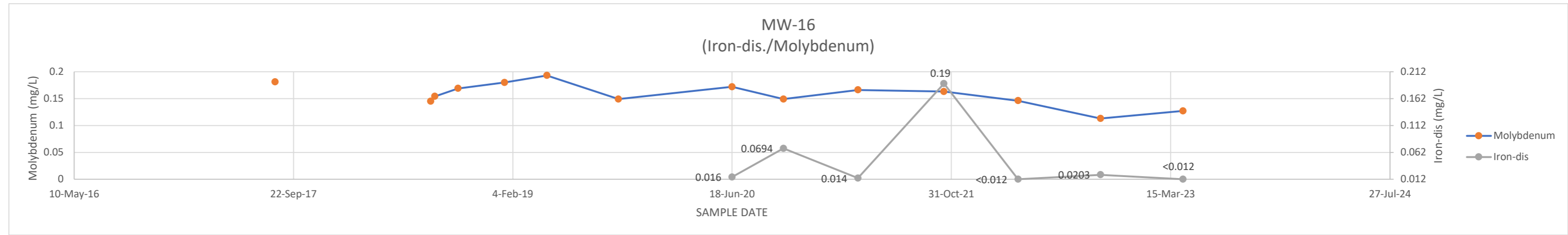


ATTACHMENT H-1
CHANGES IN IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

MW-15B	DATE	DIS FE	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20	2.11	0.0109
	13-Oct-20	0.012	0.00876
	31-Mar-21	0.0212	0.00571
	14-Oct-21	0.0794	0.00328
	30-Mar-22	0.172	0.0037
	4-Oct-22	0.012	0.00153
	12-Apr-23	0.012	0.0016

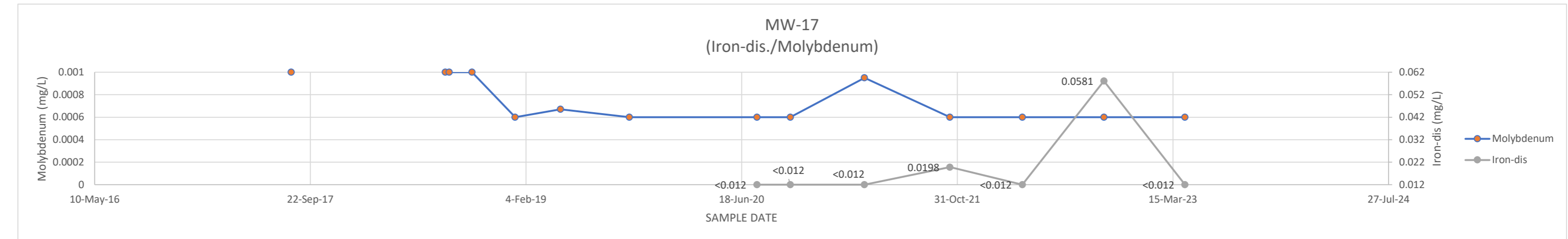


MW-16	DATE	DIS FE	MOLYBDENUM
	11-Aug-17		0.181
	22-May-18		
	1-Aug-18		0.145
	10-Aug-18		0.154
	2-Oct-18		0.169
	16-Jan-19		0.18
	23-Apr-19		0.193
	3-Oct-19		0.149
	18-Jun-20	0.016	0.172
	13-Oct-20	0.0694	0.149
	1-Apr-21	0.014	0.166
	14-Oct-21	0.19	0.163
	1-Apr-22	0.012	0.146
	6-Oct-22	0.0203	0.113
	12-Apr-23	0.012	0.127



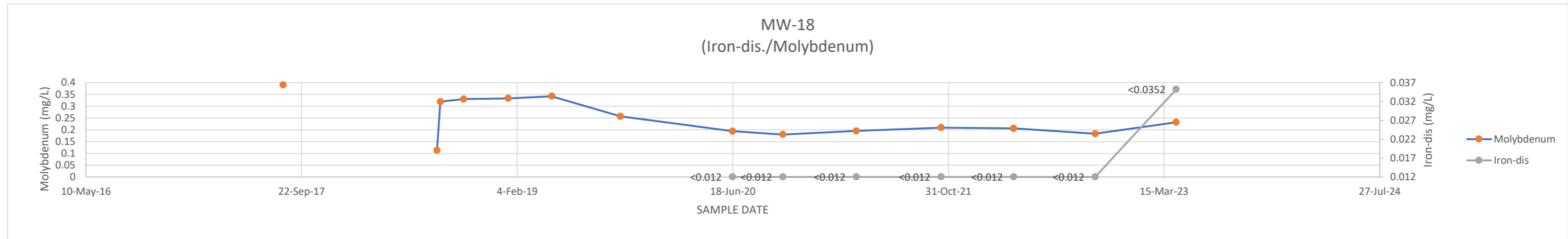
Value denoted in red from June 2022 resample

MW-17	DATE	DIS FE	MOLYBDENUM
	9-Aug-17		0.001
	24-May-18		
	1-Aug-18		0.001
	10-Aug-18		0.001
	2-Oct-18		0.001
	10-Jan-19		0.0006
	25-Apr-19		0.000671
	2-Oct-19		0.0006
	24-Jul-20	0.012	0.0006
	9-Oct-20	0.012	0.0006
	30-Mar-21	0.012	0.00095
	14-Oct-21	0.0198	0.0006
	31-Mar-22	0.012	0.0006
	6-Oct-22	0.0581	0.0006
	12-Apr-23	0.012	0.0006



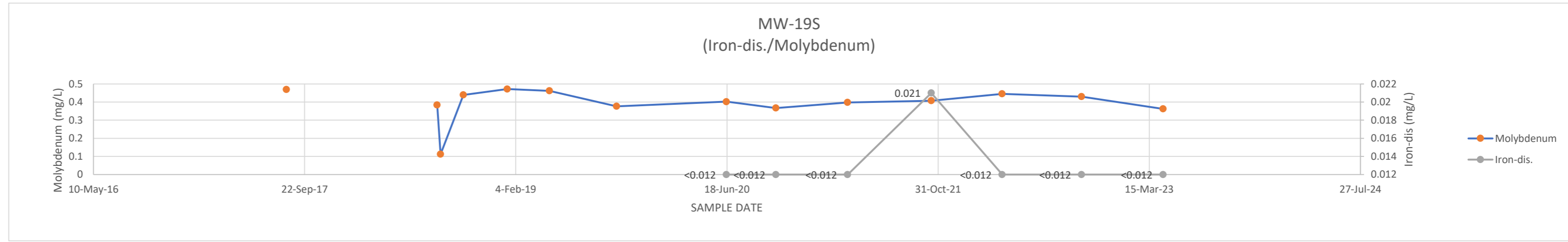
Value denoted in red from June 2022 resample

MW-18	DATE	DIS FE	MOLYBDENUM
	10-Aug-17		0.39
	18-May-18		
	2-Aug-18		0.113
	10-Aug-18		0.319
	3-Oct-18		0.33
	14-Jan-19		0.333
	25-Apr-19		0.342
	1-Oct-19		0.257
	17-Jun-20	0.012	0.194
	12-Oct-20	0.012	0.18
	31-Mar-21	0.012	0.195
	14-Oct-21	0.012	0.209
	31-Mar-22	0.012	0.206
	6-Oct-22	0.012	0.183
	12-Apr-23	0.0352	0.232

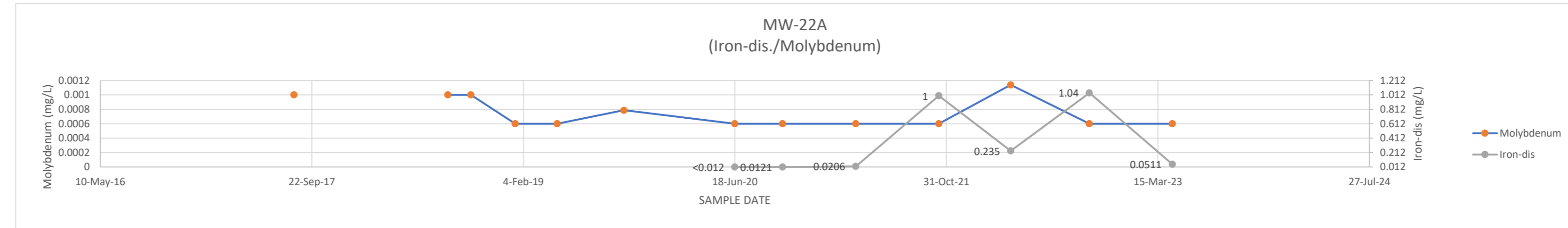


ATTACHMENT H-1
CHANGES IN IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

MW-19S	DATE	DIS FE	MOLYBDENUM
	10-Aug-17		0.469
	18-May-18		
	2-Aug-18		0.384
	10-Aug-18		0.112
	3-Oct-18		0.439
	15-Jan-19		0.472
	25-Apr-19		0.462
	1-Oct-19		0.377
	17-Jun-20	0.012	0.402
	12-Oct-20	0.012	0.367
	31-Mar-21	0.012	0.398
	15-Oct-21	0.021	0.407
	1-Apr-22	0.012	0.445
	6-Oct-22	0.012	0.43
	17-Apr-23	0.012	0.362

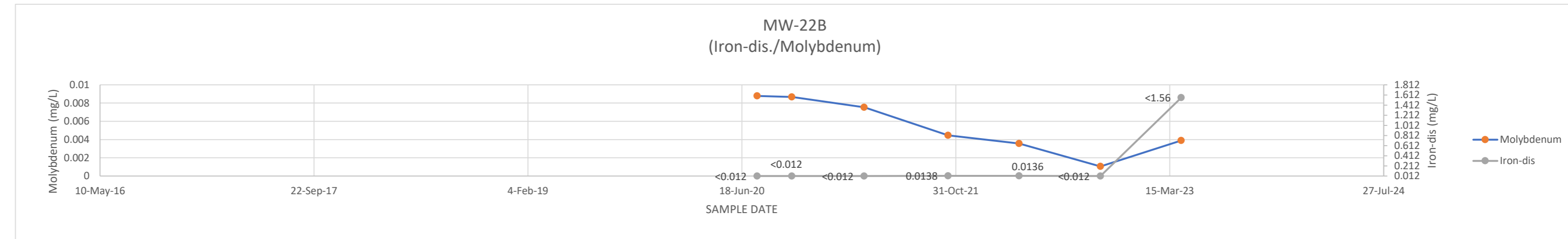


MW-22A	DATE	DIS FE	MOLYBDENUM
	11-Aug-17		0.001
	22-May-18		
	10-Aug-18		0.001
	3-Oct-18		0.001
	16-Jan-19		0.0006
	25-Apr-19		0.0006
	30-Sep-19		0.000787
	18-Jun-20	0.012	0.0006
	9-Oct-20	0.0121	0.0006
	31-Mar-21	0.0206	0.0006
	13-Oct-21	1	0.0006
	1-Apr-22	0.235	0.00114
	4-Oct-22	1.04	0.0006
	18-Apr-23	0.0511	0.0006

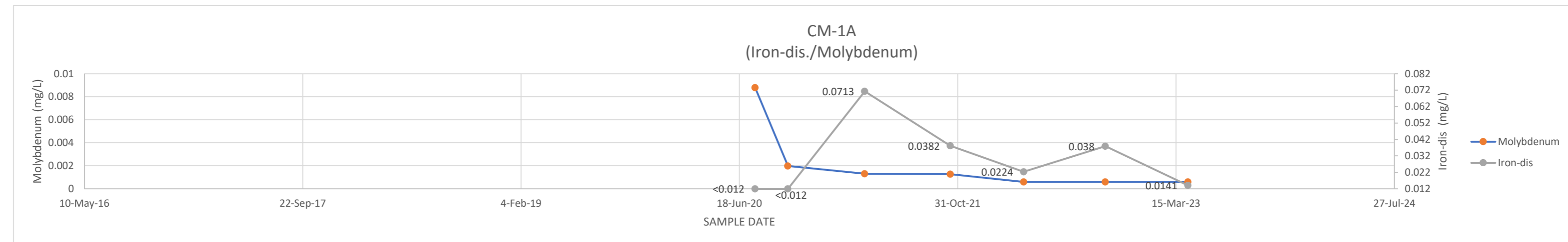


Value denoted in red from June 2022 resample

MW-22B	DATE	DIS FE	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20	0.012	0.00878
	13-Oct-20	0.012	0.00866
	31-Mar-21	0.012	0.00753
	13-Oct-21	0.0138	0.00446
	28-Mar-22	0.0136	0.00357
	4-Oct-22	0.012	0.00105
	11-Apr-23	1.56	0.00389

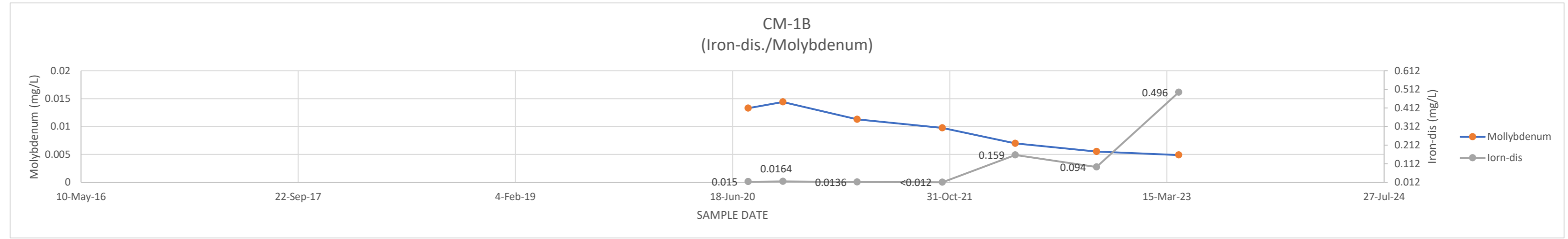


CM-1A	DATE	DIS FE	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20	0.012	0.0088
	7-Oct-20	0.012	0.00198
	1-Apr-21	0.0713	0.00132
	14-Oct-21	0.0382	0.00127
	31-Mar-22	0.0224	0.0006
	4-Oct-22	0.038	0.0006
	11-Apr-23	0.0141	0.0006

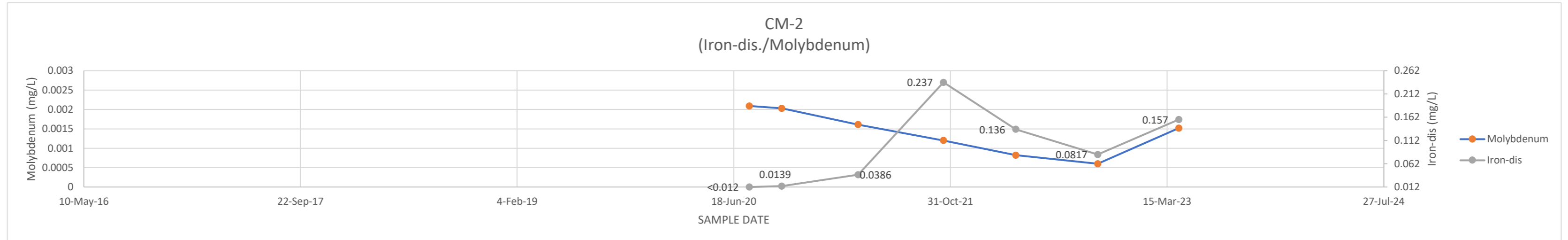


ATTACHMENT H-1
CHANGES IN IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

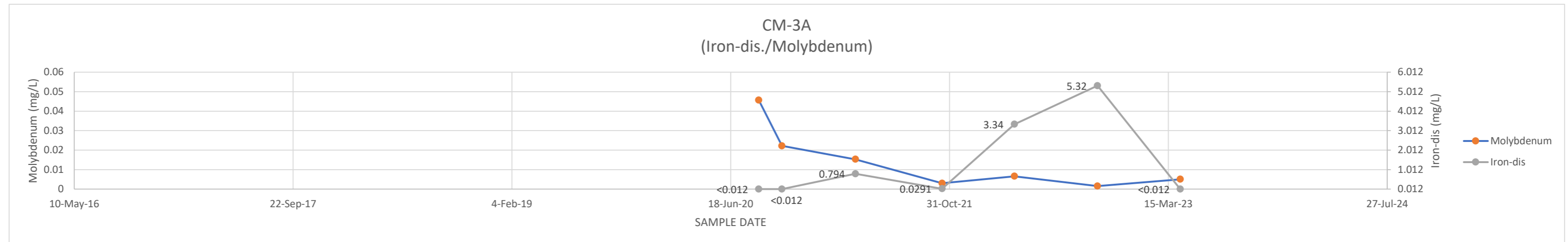
CM-1B DATE	DIS FE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	0.015	0.0133
12-Oct-20	0.0164	0.0144
1-Apr-21	0.0136	0.0113
14-Oct-21	0.012	0.00976
31-Mar-22	0.159	0.00696
4-Oct-22	0.094	0.00551
11-Apr-23	0.496	0.00488



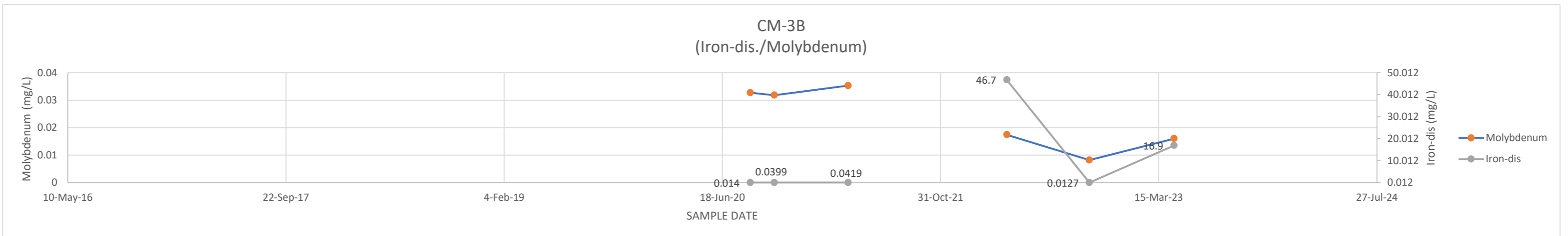
CM-2 DATE	DIS FE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20	0.012	0.00209
7-Oct-20	0.0139	0.00203
1-Apr-21	0.0386	0.00161
15-Oct-21	0.237	0.0012
31-Mar-22	0.136	0.00082
6-Oct-22	0.0817	0.0006
11-Apr-23	0.157	0.00152



CM-3A DATE	DIS FE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	0.012	0.0457
13-Oct-20	0.012	0.0222
30-Mar-21	0.794	0.0153
14-Oct-21	0.0291	0.00297
28-Mar-22	3.34	0.00656
4-Oct-22	5.32	0.00155
11-Apr-23	0.012	0.00503

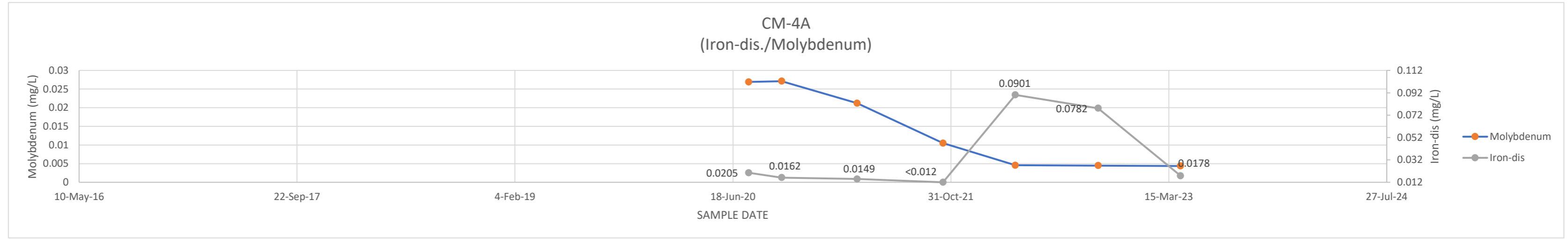


CM-3B DATE	DIS FE	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20	0.014	0.0327
15-Oct-20	0.0399	0.0318
2-Apr-21	0.0419	0.0353
11-Oct-21		
1-Apr-22	46.7	0.0174
7-Oct-22	0.0127	0.00819
19-Apr-23	16.9	0.016

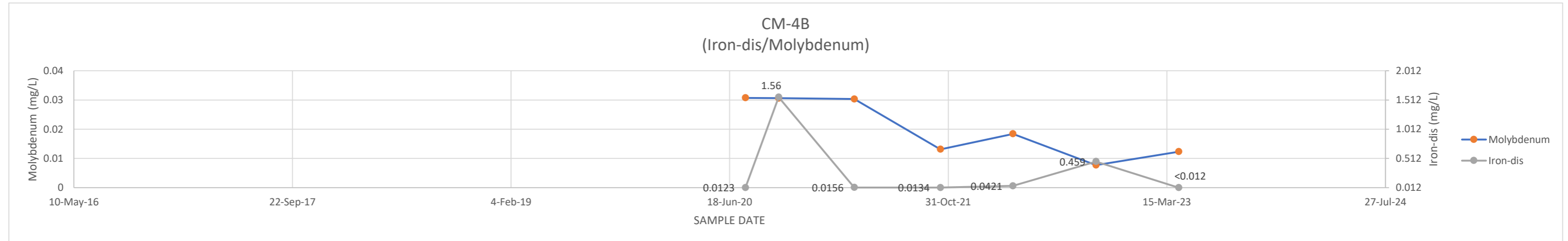


ATTACHMENT H-1
CHANGES IN IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

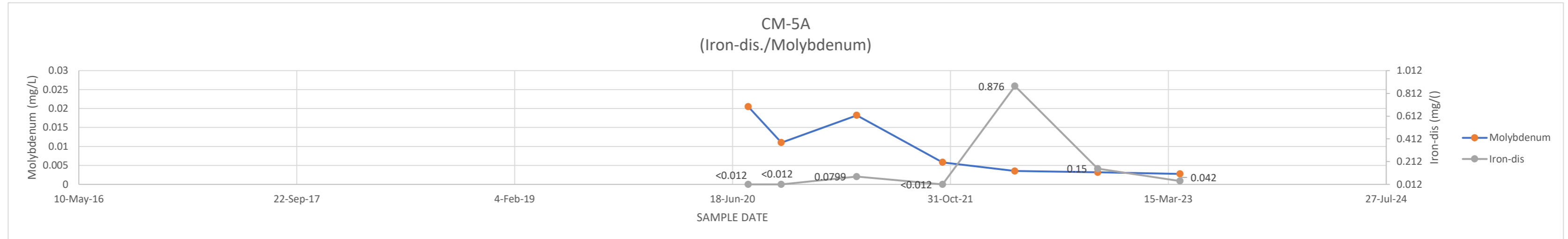
CM-4A	DIS	FE	MOLYBDENUM
DATE			
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	0.0205		0.0269
8-Oct-20	0.0162		0.0271
30-Mar-21	0.0149		0.0212
13-Oct-21	0.012		0.0105
28-Mar-22	0.0901		0.00455
4-Oct-22	0.0782		0.00449
11-Apr-23	0.0178		0.00436



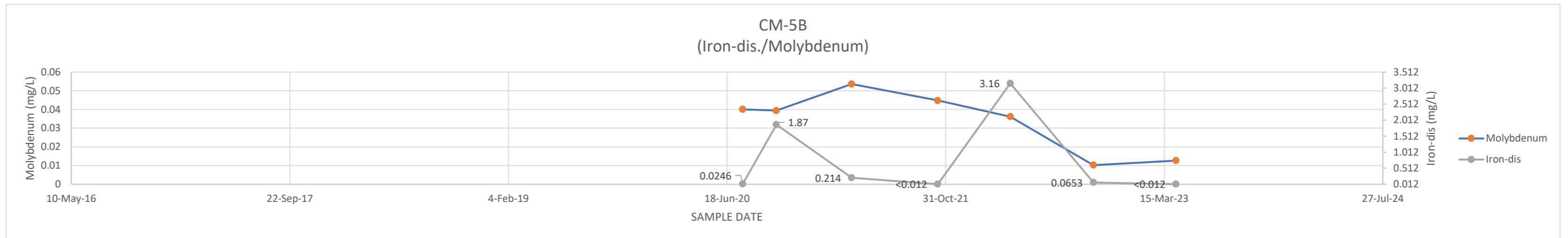
CM-4B	DIS	FE	MOLYBDENUM
DATE			
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	0.0123		0.0307
8-Oct-20	1.56		0.0306
30-Mar-21	0.0156		0.0303
13-Oct-21	0.0134		0.0131
28-Mar-22	0.0421		0.0184
4-Oct-22	0.459		0.00771
11-Apr-23	0.012		0.0123



CM-5A	DIS	FE	MOLYBDENUM
DATE			
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	0.012		0.0205
8-Oct-20	0.012		0.011
30-Mar-21	0.0799		0.0182
13-Oct-21	0.012		0.0058
28-Mar-22	0.876		0.00351
4-Oct-22	0.15		0.00317
11-Apr-23	0.042		0.00276



CM-5B	DIS	FE	MOLYBDENUM
DATE			
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20	0.0246		0.04
9-Oct-20	1.87		0.0394
30-Mar-21	0.214		0.0536
13-Oct-21	0.012		0.0448
28-Mar-22	3.16		0.0361
4-Oct-22	0.0653		0.0102
11-Apr-23	0.012		0.0126

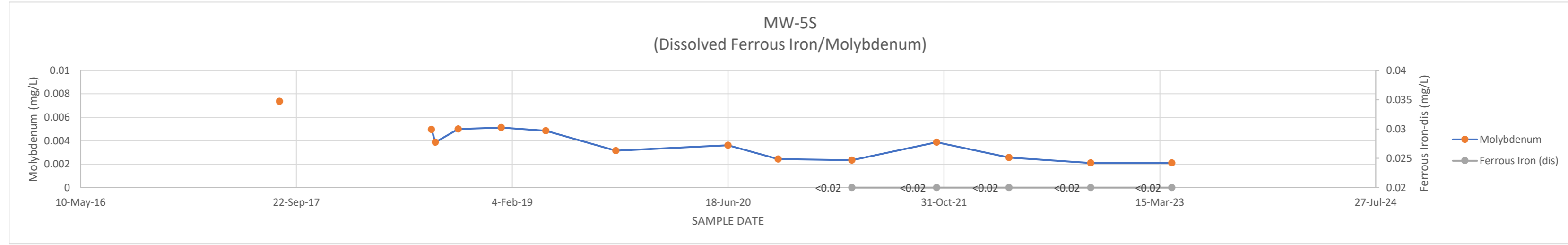


Yellow Indicates Reported Below shown value (MDL)

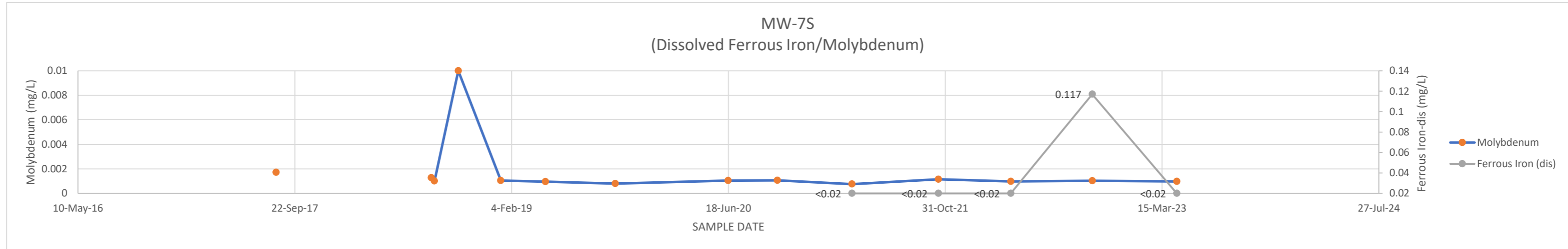
ATTACHMENT H-2
CHANGES IN FERROUS IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

MW-5S	DATE	DIS FE(II)	MOLYBDENUM
	14-Aug-17		0.00737
	22-May-18		
	1-Aug-18		0.00497
	10-Aug-18		0.00387
	2-Oct-18		0.005
	10-Jan-19		0.00512
	23-Apr-19		0.00485
	2-Oct-19		0.00315
	18-Jun-20		0.00361
	12-Oct-20		0.00244
	1-Apr-21	0.02	0.00234
	14-Oct-21	0.02	0.00387
	31-Mar-22	0.02	0.00257
	6-Oct-22	0.02	0.0021
	12-Apr-23	0.02	0.00211

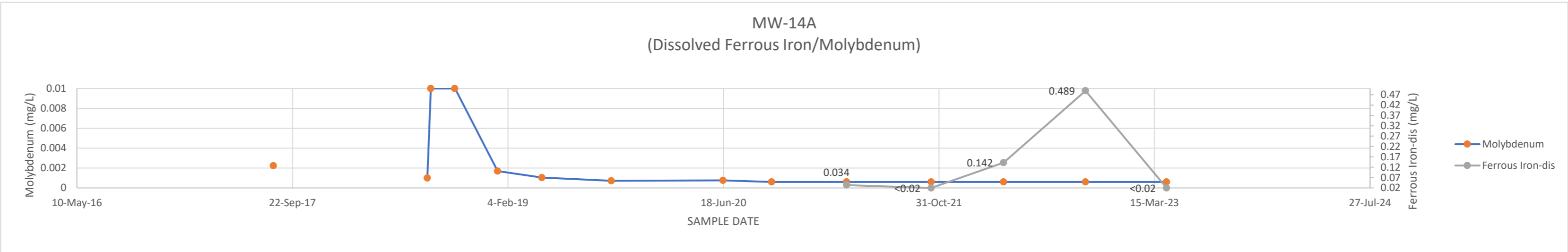
Value denoted in red from June 2022 resample



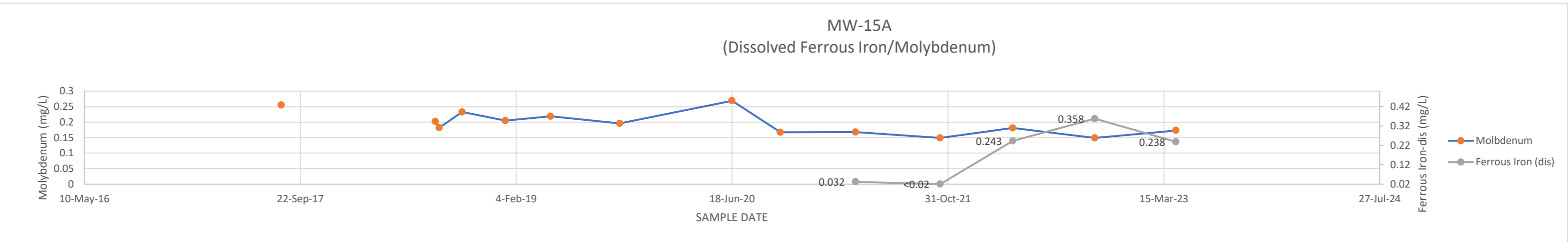
MW-7S	DATE	DIS FE(II)	MOLYBDENUM
	10-Aug-17		0.00171
	17-May-18		
	3-Aug-18		0.00127
	10-Aug-18		0.001
	4-Oct-18		0.01
	10-Jan-19		0.00105
	23-Apr-19		0.000952
	1-Oct-19		0.000798
	17-Jun-20		0.00105
	9-Oct-20		0.00106
	30-Mar-21	0.02	0.000755
	15-Oct-21	0.02	0.00115
	31-Mar-22	0.02	0.000973
	5-Oct-22	0.117	0.00103
	18-Apr-23	0.02	0.000973



MW-14A	DATE	DIS FE(II)	MOLYBDENUM
	9-Aug-17		0.00223
	17-May-18		
	1-Aug-18		0.001
	9-Aug-18		0.01
	4-Oct-18		0.01
	11-Jan-19		0.0017
	24-Apr-19		0.00104
	2-Oct-19		0.000709
	17-Jun-20		0.00076
	8-Oct-20		0.0006
	31-Mar-21	0.034	0.0006
	13-Oct-21	0.02	0.0006
	30-Mar-22	0.142	0.0006
	6-Oct-22	0.489	0.0006
	12-Apr-23	0.02	0.0006

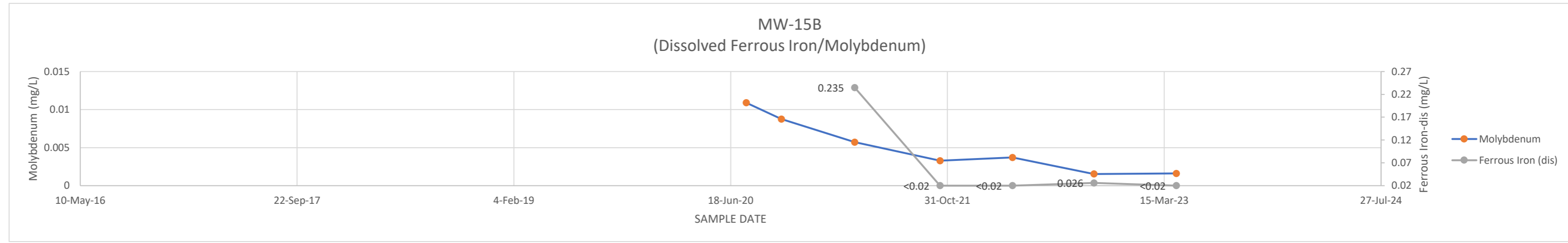


MW-15A	DATE	DIS FE(II)	MOLYBDENUM
	9-Aug-17		0.255
	24-May-18		
	1-Aug-18		0.202
	10-Aug-18		0.182
	2-Oct-18		0.233
	10-Jan-19		0.205
	25-Apr-19		0.219
	2-Oct-19		0.196
	18-Jun-20		0.269
	8-Oct-20		0.167
	31-Mar-21	0.032	0.168
	13-Oct-21	0.02	0.149
	30-Mar-22	0.243	0.181
	6-Oct-22	0.358	0.149
	12-Apr-23	0.238	0.173

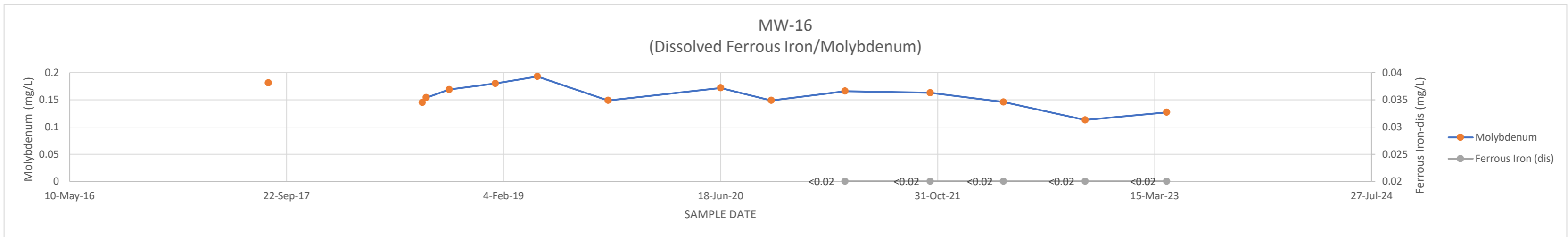


ATTACHMENT H-2
CHANGES IN FERROUS IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

MW-15B	DATE	DIS FE(II)	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20		0.0109
	13-Oct-20		0.00876
	31-Mar-21	0.235	0.00571
	14-Oct-21	0.02	0.00328
	30-Mar-22	0.02	0.0037
	4-Oct-22	0.026	0.00153
	12-Apr-23	0.02	0.0016

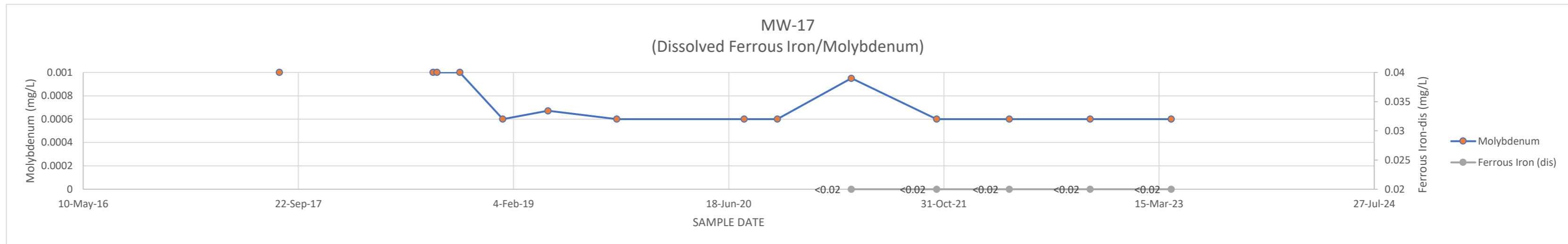


MW-16	DATE	DIS FE(II)	MOLYBDENUM
	11-Aug-17		0.181
	22-May-18		
	1-Aug-18		0.145
	10-Aug-18		0.154
	2-Oct-18		0.169
	16-Jan-19		0.18
	23-Apr-19		0.193
	3-Oct-19		0.149
	18-Jun-20		0.172
	13-Oct-20		0.149
	1-Apr-21	0.02	0.166
	14-Oct-21	0.02	0.163
	1-Apr-22	0.02	0.146
	6-Oct-22	0.02	0.113
	12-Apr-23	0.02	0.127



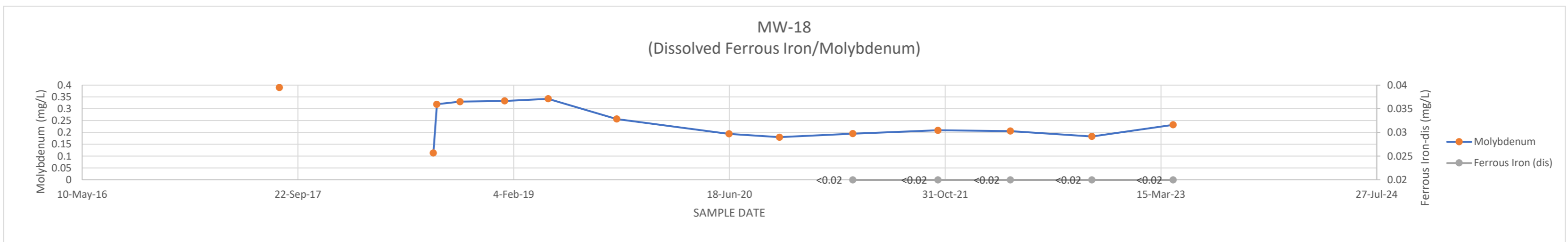
Value denoted in red from June 2022 resample

MW-17	DATE	DIS FE(II)	MOLYBDENUM
	9-Aug-17		0.001
	24-May-18		
	1-Aug-18		0.001
	10-Aug-18		0.001
	2-Oct-18		0.001
	10-Jan-19		0.0006
	25-Apr-19		0.000671
	2-Oct-19		0.0006
	24-Jul-20		0.0006
	9-Oct-20		0.0006
	30-Mar-21	0.02	0.00095
	14-Oct-21	0.02	0.0006
	1-Apr-22	0.02	0.0006
	6-Oct-22	0.02	0.0006
	12-Apr-23	0.02	0.0006



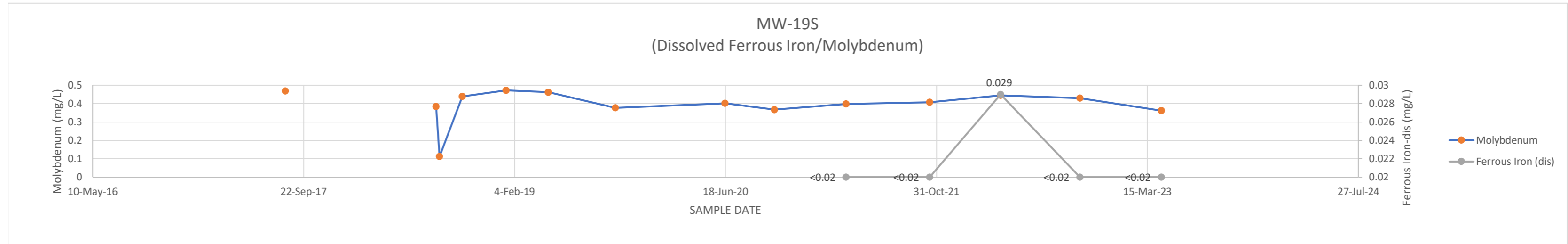
Value denoted in red from June 2022 resample

MW-18	DATE	DIS FE(II)	MOLYBDENUM
	10-Aug-17		0.39
	18-May-18		
	2-Aug-18		0.113
	10-Aug-18		0.319
	3-Oct-18		0.33
	14-Jan-19		0.333
	25-Apr-19		0.342
	1-Oct-19		0.257
	17-Jun-20		0.194
	12-Oct-20		0.18
	31-Mar-21	0.02	0.195
	14-Oct-21	0.02	0.209
	31-Mar-22	0.02	0.206
	6-Oct-22	0.02	0.183
	12-Apr-23	0.02	0.232

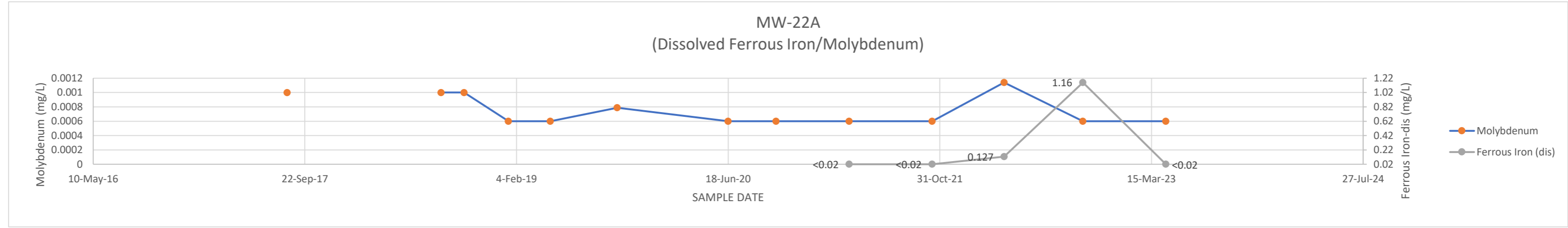


ATTACHMENT H-2
CHANGES IN FERROUS IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

MW-19S	DATE	DIS FE(II)	MOLYBDENUM
	10-Aug-17		0.469
	18-May-18		
	2-Aug-18		0.384
	10-Aug-18		0.112
	3-Oct-18		0.439
	15-Jan-19		0.472
	25-Apr-19		0.462
	1-Oct-19		0.377
	17-Jun-20		0.402
	12-Oct-20		0.367
	31-Mar-21	0.02	0.398
	15-Oct-21	0.02	0.407
	1-Apr-22	0.029	0.445
	6-Oct-22	0.02	0.43
	17-Apr-23	0.02	0.362

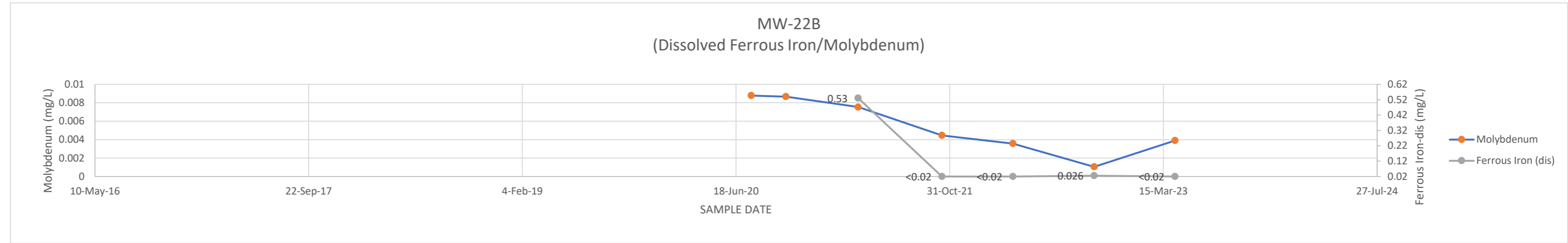


MW-22A	DATE	DIS FE(II)	MOLYBDENUM
	11-Aug-17		0.001
	22-May-18		
	10-Aug-18		0.001
	3-Oct-18		0.001
	16-Jan-19		0.0006
	25-Apr-19		0.0006
	30-Sep-19		0.000787
	18-Jun-20		0.0006
	9-Oct-20		0.0006
	31-Mar-21	0.02	0.0006
	13-Oct-21	0.02	0.0006
	1-Apr-22	0.127	0.00114
	4-Oct-22	1.16	0.0006
	18-Apr-23	0.02	0.0006

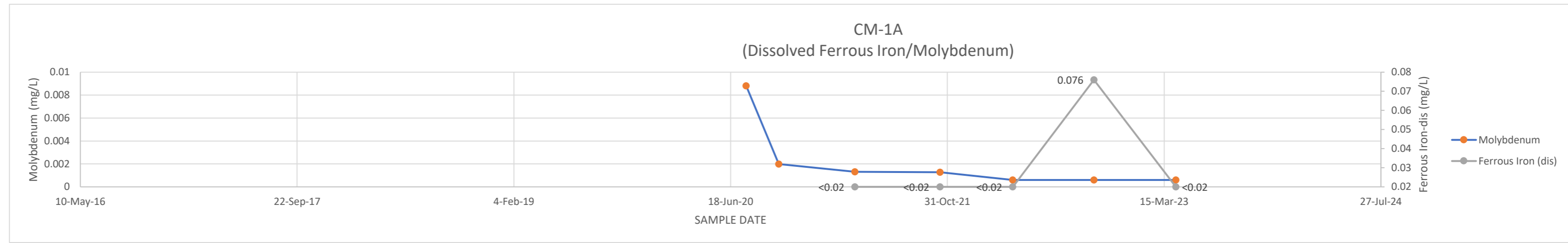


Value denoted in red from June 2022 resample

MW-22B	DATE	DIS FE(II)	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20		0.00878
	13-Oct-20		0.00866
	31-Mar-21	0.53	0.00753
	13-Oct-21	0.02	0.00446
	28-Mar-22	0.02	0.00357
	4-Oct-22	0.026	0.00105
	11-Apr-23	0.02	0.00389

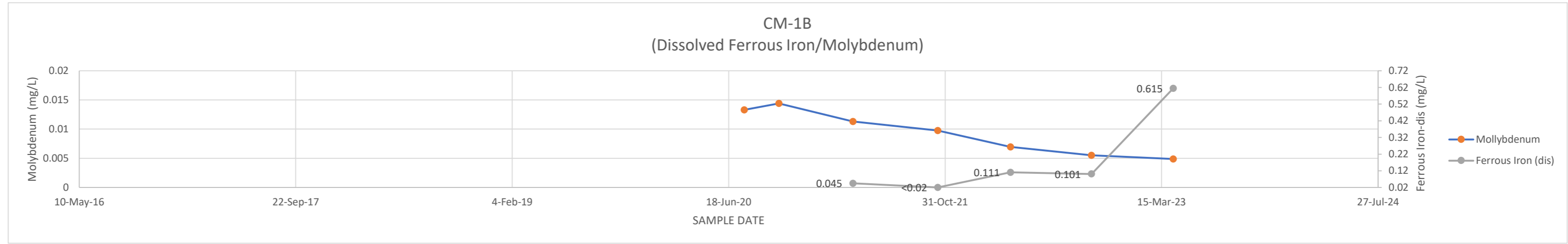


CM-1A	DATE	DIS FE(II)	MOLYBDENUM
	9-Aug-17		
	24-May-18		
	1-Aug-18		
	10-Aug-18		
	2-Oct-18		
	10-Jan-19		
	25-Apr-19		
	2-Oct-19		
	24-Jul-20		0.0088
	7-Oct-20		0.00198
	1-Apr-21	0.02	0.00132
	14-Oct-21	0.02	0.00127
	31-Mar-22	0.02	0.0006
	4-Oct-22	0.076	0.0006
	11-Apr-23	0.02	0.0006

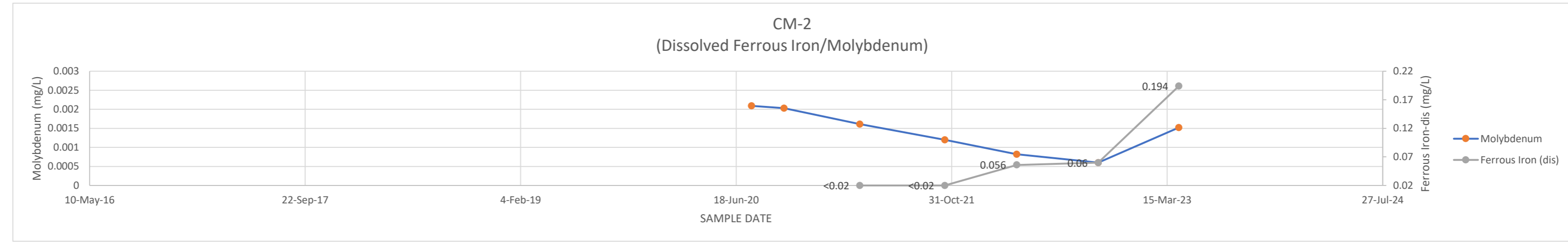


ATTACHMENT H-2
CHANGES IN FERROUS IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

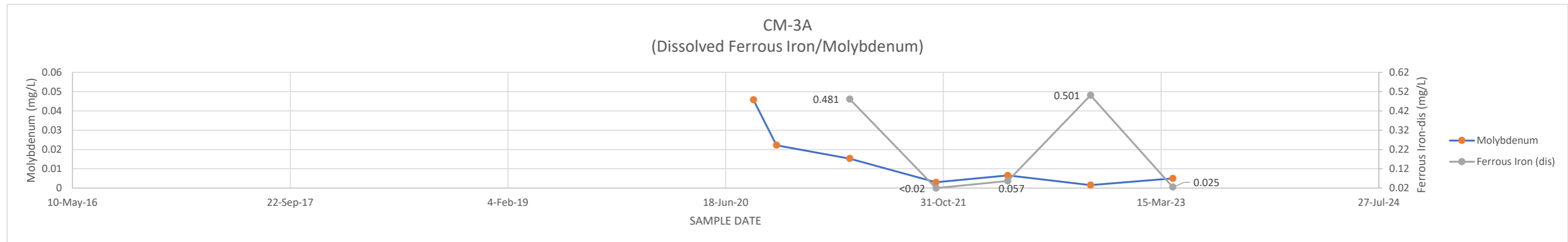
CM-1B	DATE	DIS FE(II)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.0133
12-Oct-20			0.0144
1-Apr-21	0.045		0.0113
14-Oct-21	0.02		0.00976
31-Mar-22	0.111		0.00696
4-Oct-22	0.101		0.00551
11-Apr-23	0.615		0.00488



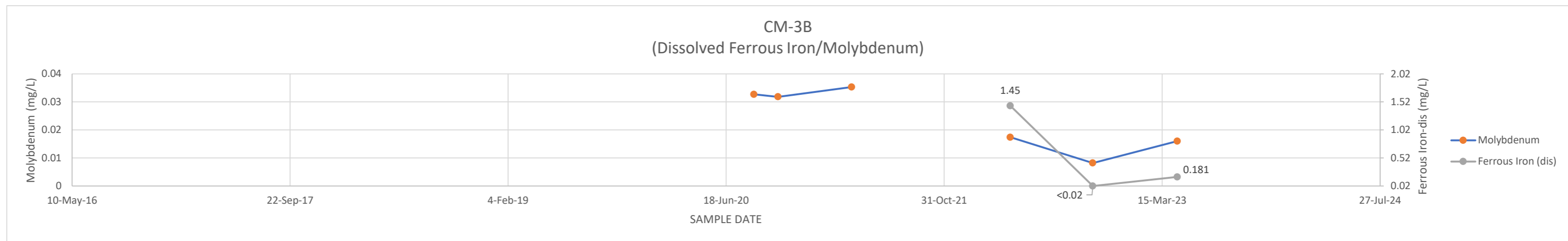
CM-2	DATE	DIS FE(II)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.00209
7-Oct-20			0.00203
1-Apr-21	0.02		0.00161
15-Oct-21	0.02		0.0012
31-Mar-22	0.056		0.00082
6-Oct-22	0.06		0.0006
11-Apr-23	0.194		0.00152



CM-3A	DATE	DIS FE(II)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
21-Aug-20			0.0457
13-Oct-20			0.0222
30-Mar-21	0.481		0.0153
14-Oct-21	0.02		0.00297
28-Mar-22	0.057		0.00656
4-Oct-22	0.501		0.00155
11-Apr-23	0.025		0.00503

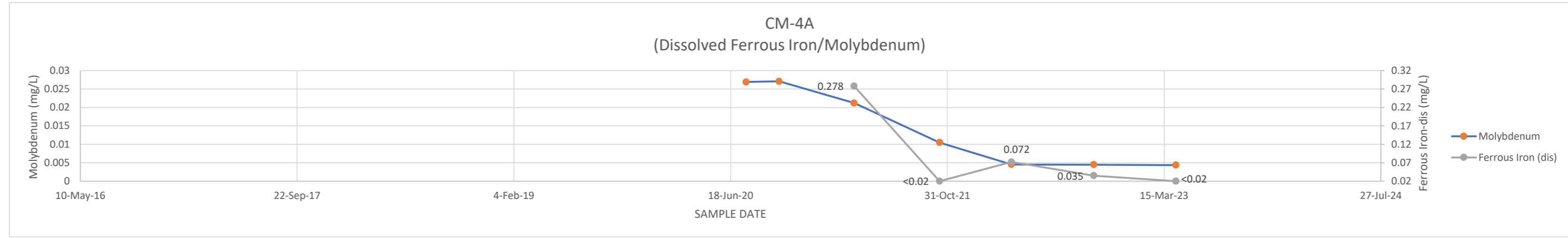


CM-3B	DATE	DIS FE(II)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
21-Aug-20			0.0327
15-Oct-20			0.0318
2-Apr-21			0.0353
11-Oct-21			
1-Apr-22	1.45		0.0174
7-Oct-22	0.02		0.00819
19-Apr-23	0.181		0.016

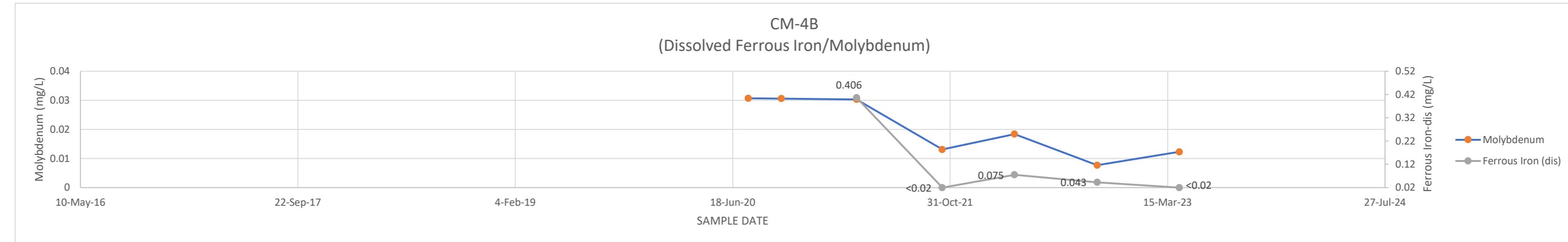


ATTACHMENT H-2
CHANGES IN FERROUS IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

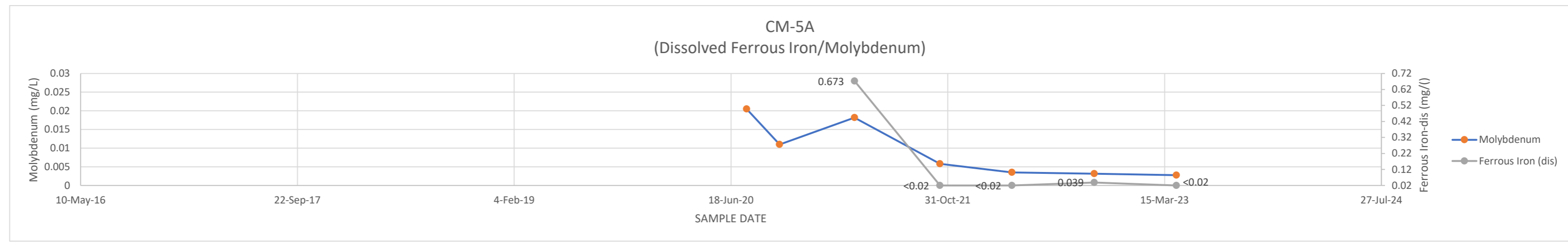
CM-4A	DATE	DIS FE(II)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.0269
8-Oct-20			0.0271
30-Mar-21	0.278		0.0212
13-Oct-21	0.02		0.0105
28-Mar-22	0.072		0.00455
4-Oct-22	0.035		0.00449
11-Apr-23	0.02		0.00436



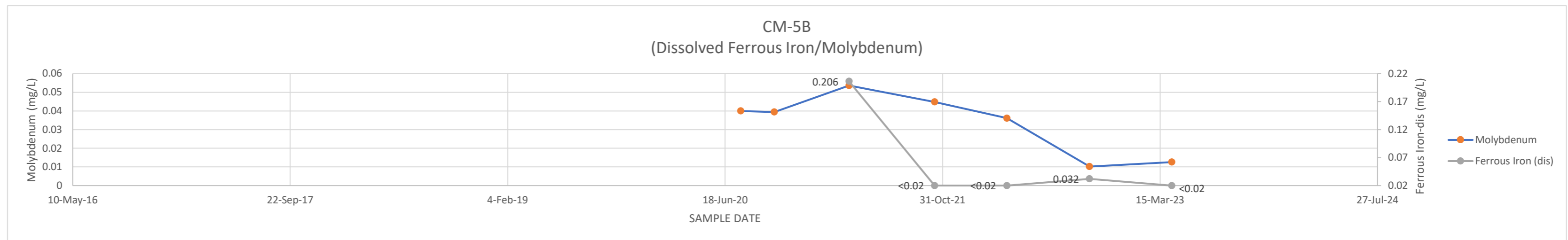
CM-4B	DATE	DIS FE(II)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.0307
8-Oct-20			0.0306
30-Mar-21	0.406		0.0303
13-Oct-21	0.02		0.0131
28-Mar-22	0.075		0.0184
4-Oct-22	0.043		0.00771
11-Apr-23	0.02		0.0123



CM-5A	DATE	DIS FE(II)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.0205
8-Oct-20			0.011
30-Mar-21	0.673		0.0182
13-Oct-21	0.02		0.0058
28-Mar-22	0.02		0.00351
4-Oct-22	0.039		0.00317
11-Apr-23	0.02		0.00276



CM-5B	DATE	DIS FE(II)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.04
9-Oct-20			0.0394
30-Mar-21	0.206		0.0536
13-Oct-21	0.02		0.0448
28-Mar-22	0.02		0.0361
4-Oct-22	0.032		0.0102
11-Apr-23	0.02		0.0126

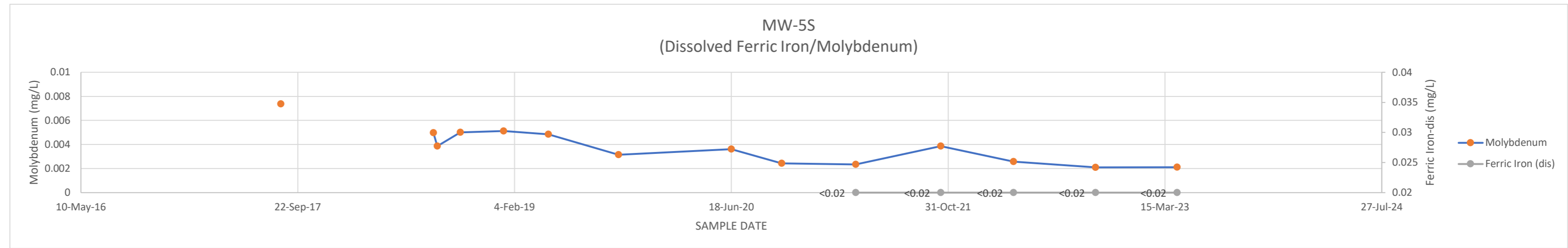


Yellow Indicates Reported Below shown value (MDL)

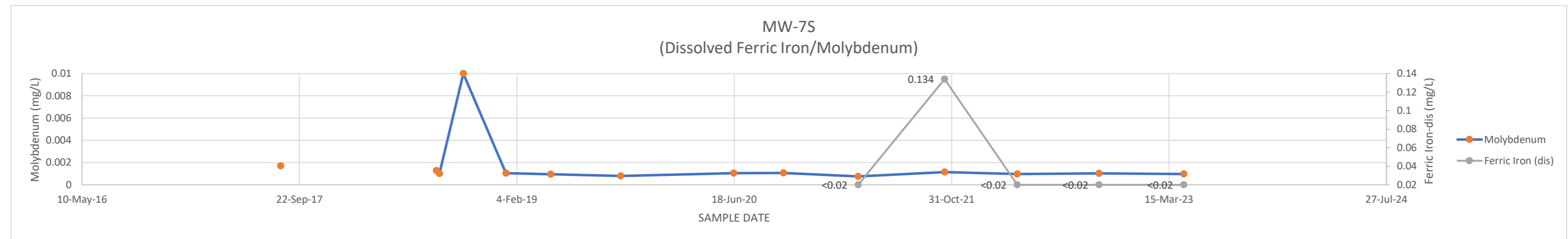
ATTACHMENT H-3
CHANGES IN FERRIC IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

MW-5S	DATE	DIS (III)	MOLYBDENUM
	14-Aug-17		0.00737
	22-May-18		
	1-Aug-18		0.00497
	10-Aug-18		0.00387
	2-Oct-18		0.005
	10-Jan-19		0.00512
	23-Apr-19		0.00485
	2-Oct-19		0.00315
	18-Jun-20		0.00361
	12-Oct-20		0.00244
	1-Apr-21	0.02	0.00234
	14-Oct-21	0.02	0.00387
	31-Mar-22	0.02	0.00257
	6-Oct-22	0.02	0.0021
	12-Apr-23	0.02	0.00211

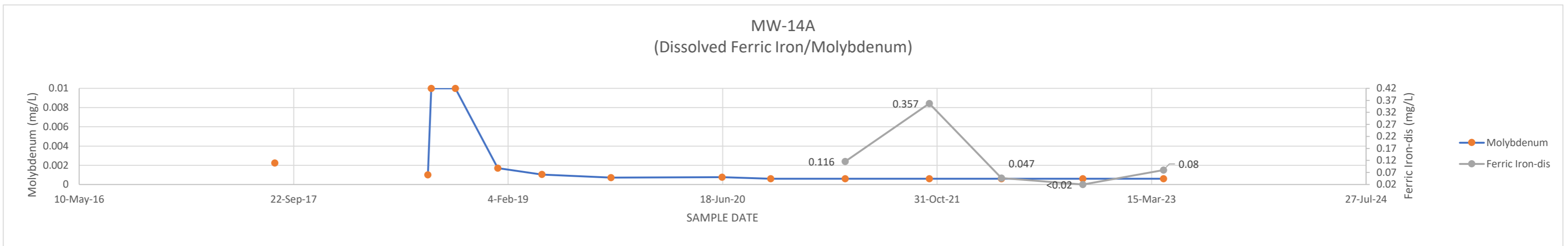
Value denoted in red from June 2022 resample



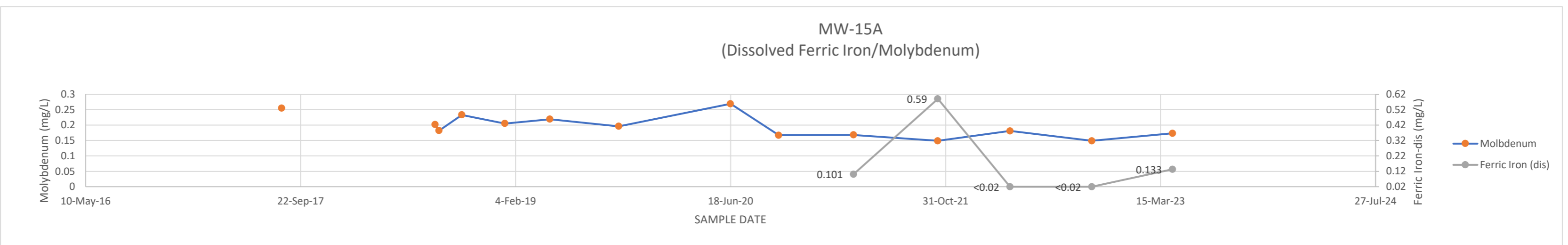
MW-7S	DATE	DIS (III)	MOLYBDENUM
	10-Aug-17		0.00171
	17-May-18		
	3-Aug-18		0.00127
	10-Aug-18		0.001
	4-Oct-18		0.01
	10-Jan-19		0.00105
	23-Apr-19		0.000952
	1-Oct-19		0.000798
	17-Jun-20		0.00105
	9-Oct-20		0.00106
	30-Mar-21	0.02	0.000755
	15-Oct-21	0.134	0.00115
	31-Mar-22	0.02	0.000973
	5-Oct-22	0.02	0.00103
	18-Apr-23	0.02	0.000973



MW-14A	DATE	DIS (III)	MOLYBDENUM
	9-Aug-17		0.00223
	17-May-18		
	1-Aug-18		0.001
	9-Aug-18		0.01
	4-Oct-18		0.01
	11-Jan-19		0.0017
	24-Apr-19		0.00104
	2-Oct-19		0.000709
	17-Jun-20		0.00076
	8-Oct-20		0.0006
	31-Mar-21	0.116	0.0006
	13-Oct-21	0.357	0.0006
	30-Mar-22	0.047	0.0006
	6-Oct-22	0.02	0.0006
	12-Apr-23	0.08	0.0006

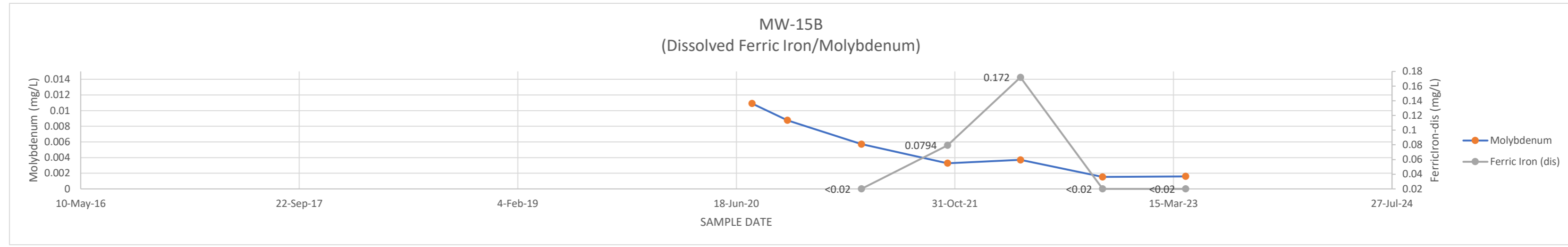


MW-15A	DATE	DIS (III)	MOLYBDENUM
	9-Aug-17		0.255
	24-May-18		
	1-Aug-18		0.202
	10-Aug-18		0.182
	2-Oct-18		0.233
	10-Jan-19		0.205
	25-Apr-19		0.219
	2-Oct-19		0.196
	18-Jun-20		0.269
	8-Oct-20		0.167
	31-Mar-21	0.101	0.168
	13-Oct-21	0.59	0.149
	30-Mar-22	0.02	0.181
	6-Oct-22	0.02	0.149
	12-Apr-23	0.133	0.173

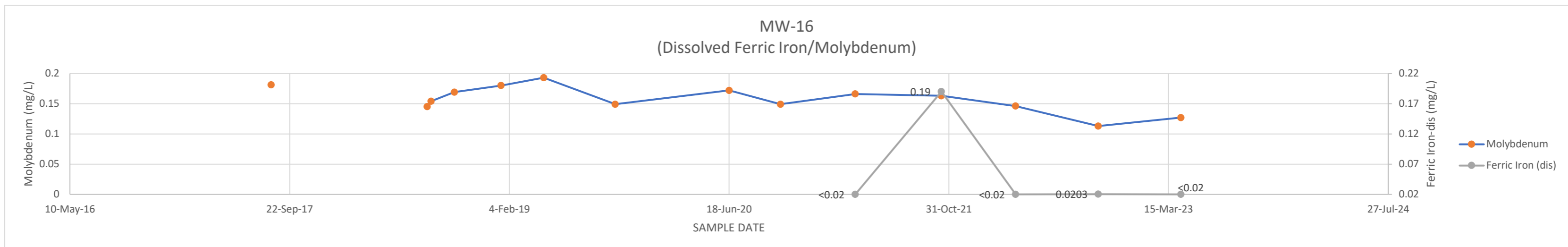


ATTACHMENT H-3
CHANGES IN FERRIC IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

MW-15B	DATE	DIS (III)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.0109
13-Oct-20			0.00876
31-Mar-21		0.02	0.00571
14-Oct-21		0.0794	0.00328
30-Mar-22		0.172	0.0037
4-Oct-22		0.02	0.00153
12-Apr-23		0.02	0.0016

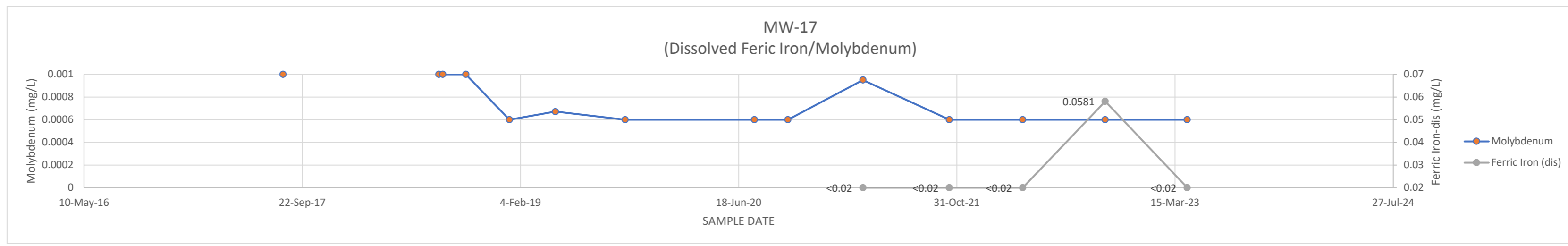


MW-16	DATE	DIS (III)	MOLYBDENUM
11-Aug-17			0.181
22-May-18			
1-Aug-18			0.145
10-Aug-18			0.154
2-Oct-18			0.169
16-Jan-19			0.18
23-Apr-19			0.193
3-Oct-19			0.149
18-Jun-20			0.172
13-Oct-20			0.149
1-Apr-21		0.02	0.166
14-Oct-21		0.19	0.163
1-Apr-22		0.02	0.146
6-Oct-22		0.0203	0.113
12-Apr-23		0.02	0.127



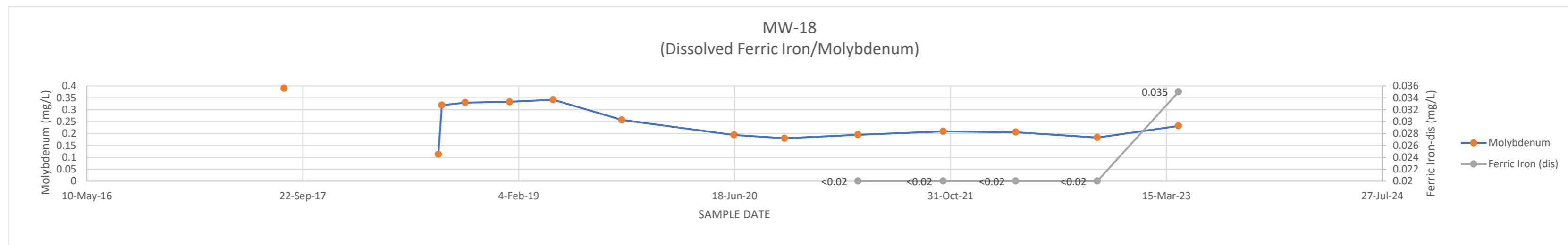
Value denoted in red from June 2022 resample

MW-17	DATE	DIS (III)	MOLYBDENUM
9-Aug-17			0.001
24-May-18			
1-Aug-18			0.001
10-Aug-18			0.001
2-Oct-18			0.001
10-Jan-19			0.0006
25-Apr-19			0.000671
2-Oct-19			0.0006
24-Jul-20			0.0006
9-Oct-20			0.0006
30-Mar-21		0.02	0.00095
14-Oct-21		0.02	0.0006
31-Mar-22		0.02	0.0006
6-Oct-22		0.0581	0.0006
12-Apr-23		0.02	0.0006



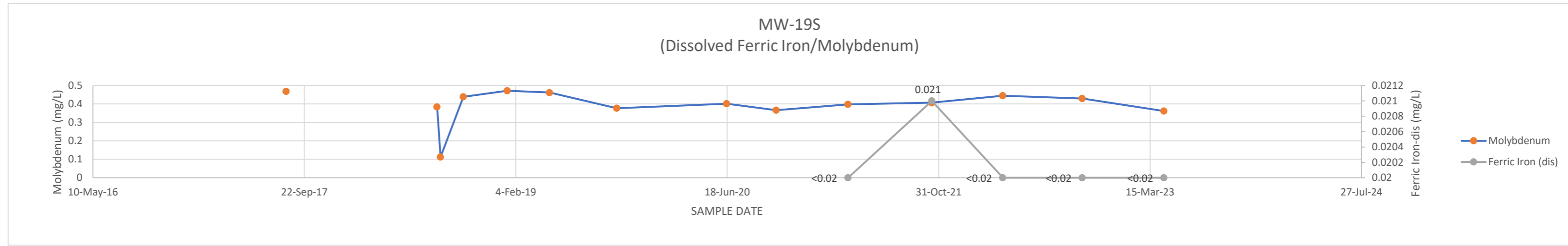
Value denoted in red from June 2022 resample

MW-18	DATE	DIS (III)	MOLYBDENUM
10-Aug-17			0.39
18-May-18			
2-Aug-18			0.113
10-Aug-18			0.319
3-Oct-18			0.33
14-Jan-19			0.333
25-Apr-19			0.342
1-Oct-19			0.257
17-Jun-20			0.194
12-Oct-20			0.18
31-Mar-21		0.02	0.195
14-Oct-21		0.02	0.209
31-Mar-22		0.02	0.206
6-Oct-22		0.02	0.183
12-Apr-23		0.035	0.232

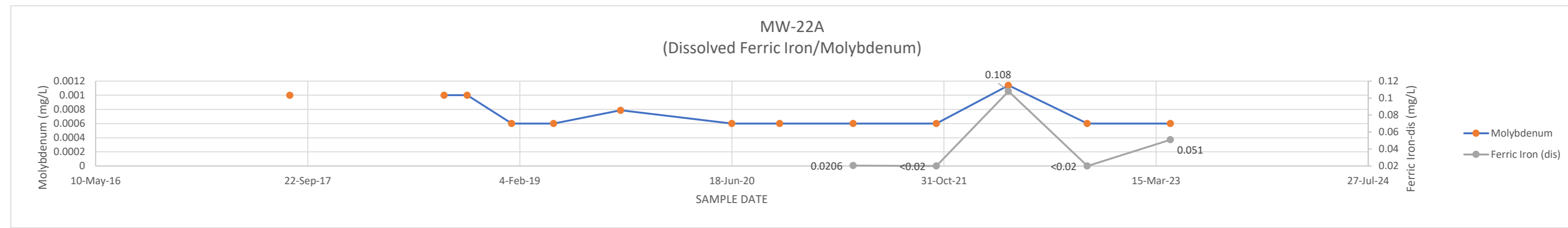


ATTACHMENT H-3
CHANGES IN FERRIC IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

MW-19S	DATE	DIS (III)	MOLYBDENUM
10-Aug-17			0.469
18-May-18			
2-Aug-18			0.384
10-Aug-18			0.112
3-Oct-18			0.439
15-Jan-19			0.472
25-Apr-19			0.462
1-Oct-19			0.377
17-Jun-20			0.402
12-Oct-20			0.367
31-Mar-21		0.02	0.398
15-Oct-21		0.021	0.407
1-Apr-22		0.02	0.445
6-Oct-22		0.02	0.43
17-Apr-23		0.02	0.362

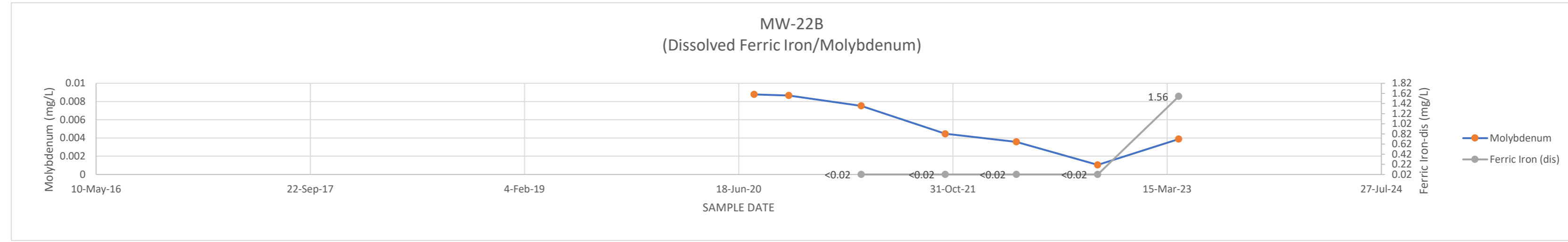


MW-22A	DATE	DIS (III)	MOLYBDENUM
11-Aug-17			0.001
22-May-18			
10-Aug-18			0.001
3-Oct-18			0.001
16-Jan-19			0.0006
25-Apr-19			0.0006
30-Sep-19			0.000787
18-Jun-20			0.0006
9-Oct-20			0.0006
31-Mar-21		0.0206	0.0006
13-Oct-21		0.02	0.0006
1-Apr-22		0.108	0.00114
4-Oct-22		0.02	0.0006
18-Apr-23		0.051	0.0006

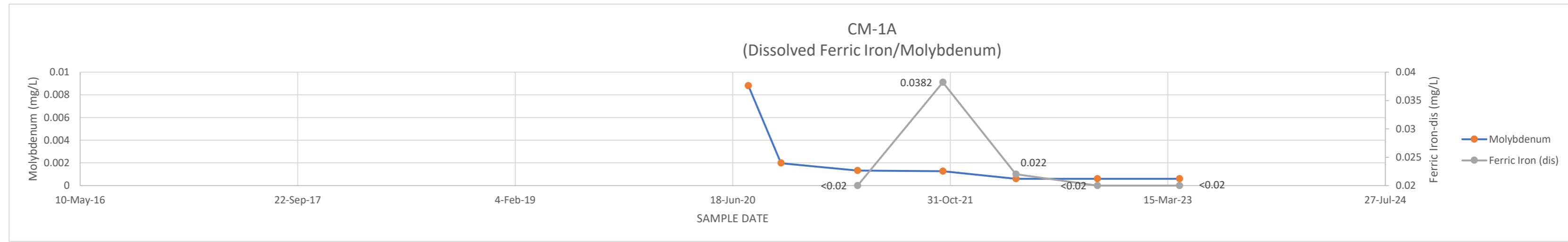


Value denoted in red from June 2022 resample

MW-22B	DATE	DIS (III)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.00878
13-Oct-20			0.00866
31-Mar-21		0.02	0.00753
13-Oct-21		0.02	0.00446
28-Mar-22		0.02	0.00357
4-Oct-22		0.02	0.00105
11-Apr-23		1.56	0.00389

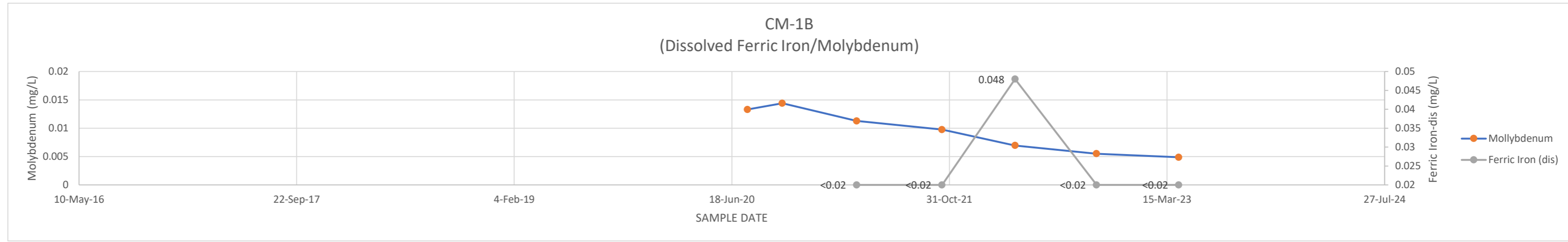


CM-1A	DATE	DIS (III)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.0088
7-Oct-20			0.00198
1-Apr-21		0.02	0.00132
14-Oct-21		0.0382	0.00127
31-Mar-22		0.022	0.0006
4-Oct-22		0.02	0.0006
11-Apr-23		0.02	0.0006

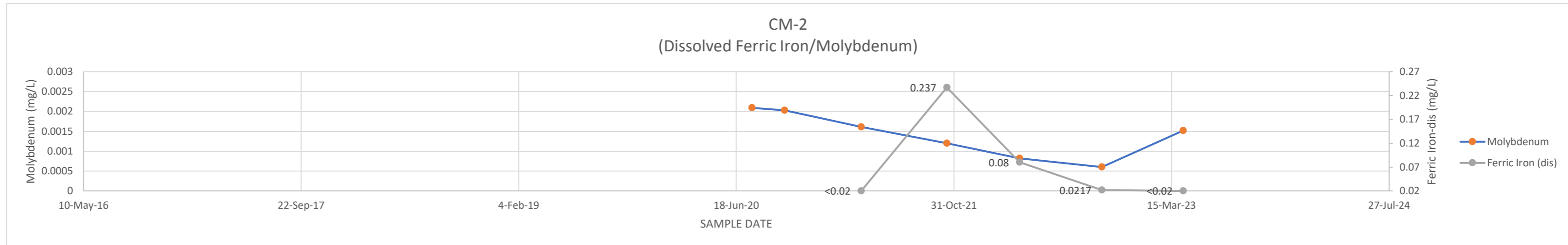


ATTACHMENT H-3
CHANGES IN FERRIC IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

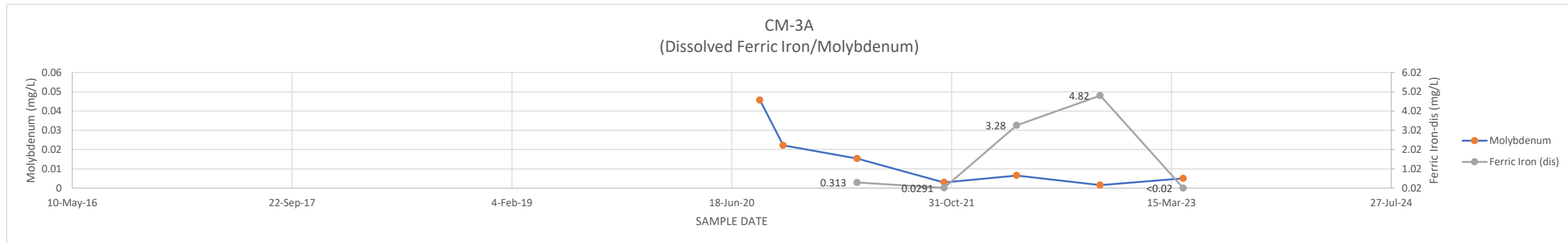
CM-1B DATE	DIS (III)	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.0133
12-Oct-20		0.0144
1-Apr-21	0.02	0.0113
14-Oct-21	0.02	0.00976
31-Mar-22	0.048	0.00696
4-Oct-22	0.02	0.00551
11-Apr-23	0.02	0.00488



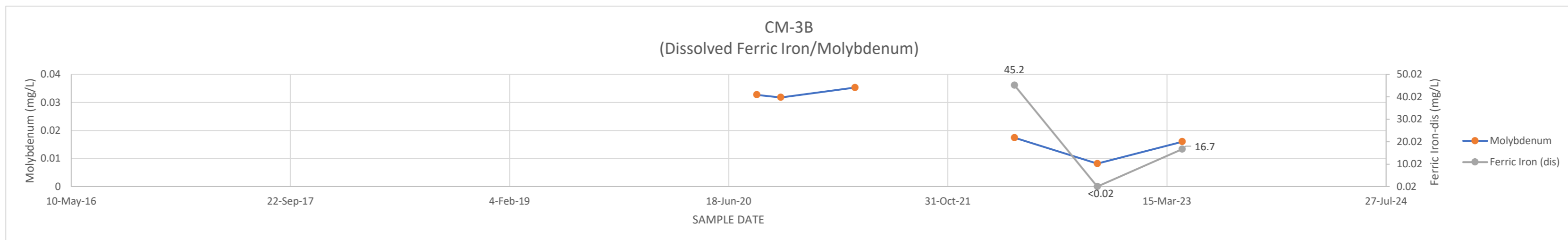
CM-2 DATE	DIS (III)	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
24-Jul-20		0.00209
7-Oct-20		0.00203
1-Apr-21	0.02	0.00161
15-Oct-21	0.237	0.0012
31-Mar-22	0.08	0.00082
6-Oct-22	0.0217	0.0006
11-Apr-23	0.02	0.00152



CM-3A DATE	DIS (III)	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0457
13-Oct-20		0.0222
30-Mar-21	0.313	0.0153
14-Oct-21	0.0291	0.00297
28-Mar-22	3.28	0.00656
4-Oct-22	4.82	0.00155
11-Apr-23	0.02	0.00503

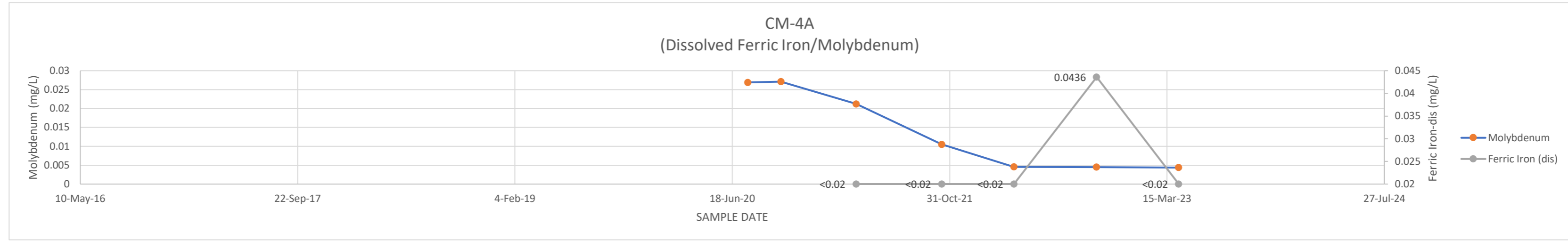


CM-3B DATE	DIS (III)	MOLYBDENUM
9-Aug-17		
24-May-18		
1-Aug-18		
10-Aug-18		
2-Oct-18		
10-Jan-19		
25-Apr-19		
2-Oct-19		
21-Aug-20		0.0327
15-Oct-20		0.0318
2-Apr-21		0.0353
11-Oct-21		
1-Apr-22	45.2	0.0174
7-Oct-22	0.02	0.00819
19-Apr-23	16.7	0.016

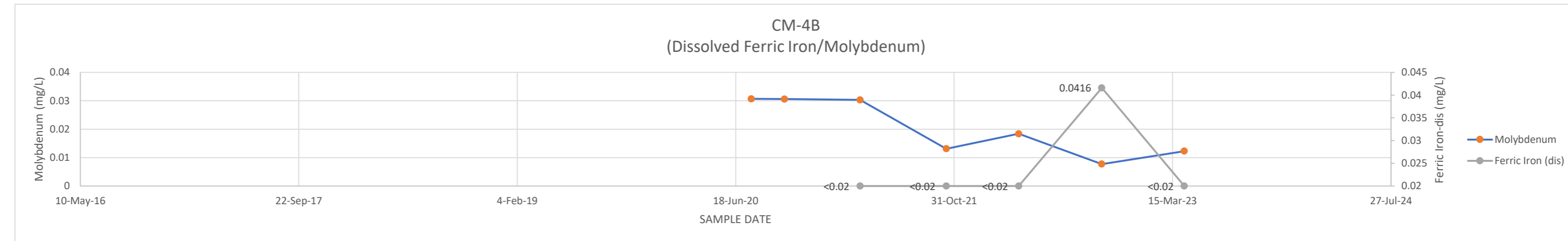


ATTACHMENT H-3
CHANGES IN FERRIC IRON (DISSOLVED) AND MOLYBDENUM CONCENTRATIONS

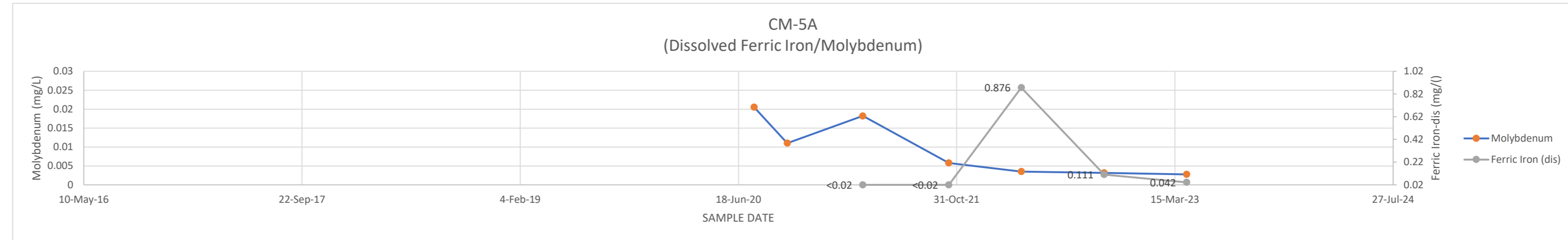
CM-4A	DATE	DIS (III)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.0269
8-Oct-20			0.0271
30-Mar-21		0.02	0.0212
13-Oct-21		0.02	0.0105
28-Mar-22		0.02	0.00455
4-Oct-22		0.0436	0.00449
11-Apr-23		0.02	0.00436



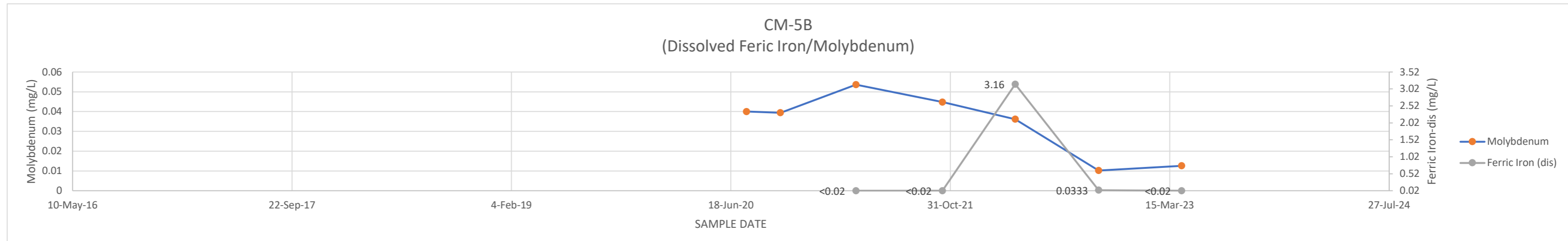
CM-4B	DATE	DIS (III)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.0307
8-Oct-20			0.0306
30-Mar-21		0.02	0.0303
13-Oct-21		0.02	0.0131
28-Mar-22		0.02	0.0184
4-Oct-22		0.0416	0.00771
11-Apr-23		0.02	0.0123



CM-5A	DATE	DIS(III)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.0205
8-Oct-20			0.011
30-Mar-21		0.02	0.0182
13-Oct-21		0.02	0.0058
28-Mar-22		0.876	0.00351
4-Oct-22		0.111	0.00317
11-Apr-23		0.042	0.00276



CM-5B	DATE	DIS (III)	MOLYBDENUM
9-Aug-17			
24-May-18			
1-Aug-18			
10-Aug-18			
2-Oct-18			
10-Jan-19			
25-Apr-19			
2-Oct-19			
24-Jul-20			0.04
9-Oct-20			0.0394
30-Mar-21		0.02	0.0536
13-Oct-21		0.02	0.0448
28-Mar-22		3.16	0.0361
4-Oct-22		0.0333	0.0102
11-Apr-23		0.02	0.0126



Yellow Indicates Reported Below shown value (MDL)