

TECHNICAL MEMORANDUM

**To: Stephen Wilbur
Hugh Coyle - Victoria Gold Corp.**

Date: April 22, 2020

**From: David Flather, M.Sc.
Jorgelina Muscatello, Ph.D. - Lorax**

Subject: Water Quality Summary in Support of QZ14-041-1 Annual Report

1. Introduction

StrataGold Corporation obtained an amended Water Use Licence QZ14-041-1 on August 22, 2019 for their Eagle Gold Mine (Project). Part H of QZ14-041-1 –General Conditions– specifies reporting requirements as outlined in the Environmental Monitoring, Surveillance and Adaptive Management Plan (EMSAMP). Clause 134(e) outlines the requirements for annual reporting of surface water quality monitoring results for the Project. In addition, monitoring locations and frequency; effluent standards and receiving water quality objectives (WQOs) are specified in QZ14-041-1 in the following sections:

- *Schedule 1 B:* specifies monitoring locations, frequency and analytes for Production and Active Closure Phase;
- *Part F, clause 108:* provides a table of the Effluent Quality Standards (EQS) for all project effluent. Concentrations provided are for maximum in a grab sample;
- *Part F, clause 110:* indicates that project WQOs for the receiving environment are defined for stations in Haggart Creek below the confluence with Dublin Gulch at W4, W29, W99 and W23. The project WQOs are summarized in Schedule 3.

The following memorandum provides a summary of the key surface water quality monitoring results for 2019 at the above named four key receiving environment locations in Haggart Creek where WQOs are established for the Project (Section 2). Monitoring results for other receiving environment surface water quality stations for 2019 are presented graphically in Appendix A-1. Appendix A-2 graphically presents monitoring results for all receiving environment stations for the period 2007 to 2019 and provides a historical context to the more recent data.

Monitoring results are also discussed for selected key parameters for mine site monitoring stations that were actively monitored in 2019 (Section 3). Appendix B provides graphical representations of all mine site monitoring data. A summary of the Quality Assurance Quality Control (QAQC) results is presented in Section 4.

For the receiving environment discussion, 2019 monitoring data are the focus of the analysis. Where appropriate, reference to historical results is also provided as a comparison

to pre-development baseline conditions. The exception is with respect to station W99 where monitoring only commenced at this site in 2019.

2. Receiving Environment Compliance Monitoring

As described in the EMSAMP (*Version 2020-01*; February 2020), the surface water quality monitoring program includes monitoring of water quality of watercourses within the Project area at strategic locations and at key water management facilities (Figure 2-1). The water quality monitoring plan has been designed to meet the following objectives:

- Collect water quality data in the receiving environment at stations upstream and downstream of Project influences.
- Collect water quality data to verify compliance with the Effluent Quality Standards (EQSs) at identified compliance discharge locations.
- Collect water quality data at four locations to monitor receiving environment Water Quality Objectives (WQOs) as specified in QZ14-041-1.
- Provide a continuous water quality database to support adaptive management strategies to meet WQOs, criteria and protect aquatic life.

Surface water quality monitoring has two main focuses: compliance monitoring and environmental effects monitoring. This report discusses primarily environmental effects monitoring as there were only two brief events during 2019 where discharges occurred from the Lower Dublin South Pond (LDSP), the principal compliance monitoring station for the Project. Environmental effects monitoring has focused on the following key Project watersheds:

- Haggart Creek from below the confluence of Fisher Gulch (W22, W4, W29, W99) to immediately downstream of the confluence of Lynx Creek (W23); excluding W22 which is the background monitoring location in Haggart Creek, the remaining stations represent the primary receiving environment locations and have specified project water quality objectives.
- Dublin Gulch from Bawn Boy Gulch (W20) to just above its confluence with Stewart Gulch (W1) and just above its confluence with Haggart Creek (W21);
- Eagle Creek (W27 below camp and W45, just above its confluence with Haggart Creek);
- Lynx Creek (W6 just above its confluence with Haggart Creek); and
- South McQuesten River just above the confluence of Haggart Creek (W39)

Surface water quality monitoring in 2019 consisted of monitoring those sites as identified for operations and active closure in the EMSAMP (Table 3.3-3 of *Version 2020-01*) which includes all receiving environment locations specified in the regulatory approvals for the Project that were active (Figure 2-2).

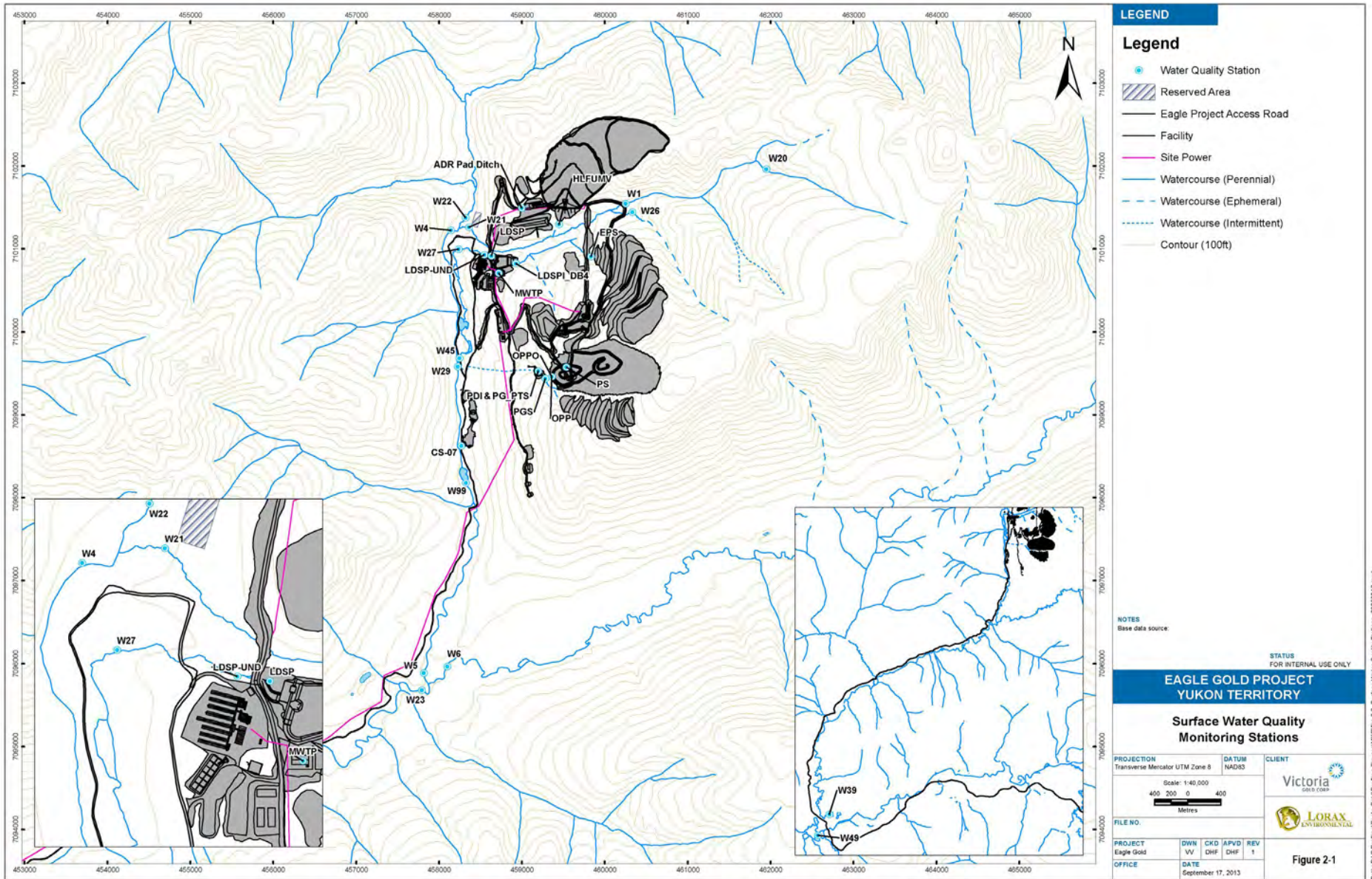


Figure 2-1: Surface Water Quality Monitoring Locations for EMSAMP and QZ14-041-1

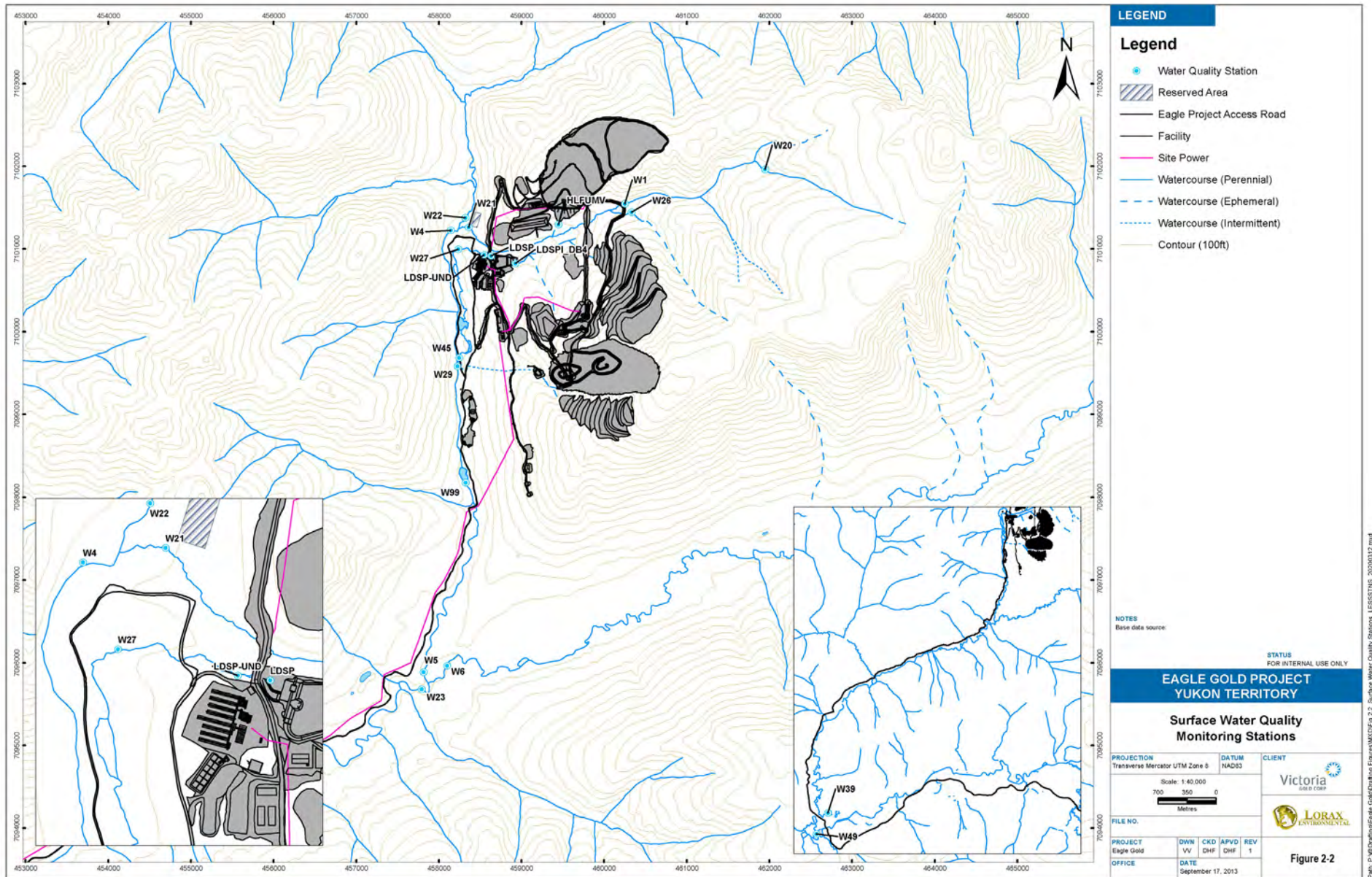


Figure 2-2: 2019 Active Surface Water Quality Monitoring Locations for EMSAMP and QZ14-041-1

2.1 2019 Monitoring Results

2.1.1 Water Quality Objectives in Receiving Waters

The following section focuses on surface water quality monitoring results for locations in Haggart Creek at W4, W29, W99 and W23. To add additional context to the discussion where appropriate, monitoring results from background water quality station W22 in Haggart Creek are also presented.

Based on monitoring results for 2019, dissolved Al, total As, total Cu and total Fe were observed to exceed Schedule 3 QZ14-041-1 WQOs at the four receiving water monitoring stations in Haggart Creek during the early spring period. Table 2-1 summarizes the number of times WQOs were exceeded at the key monitoring locations in Haggart Creek for each water quality parameter stipulated in Schedule 3.

Table 2-1: Number of Sampling Occasions where WQOs were Exceeded in Haggart Creek in 2019

| Parameter List | | WQ Objectives (W4, W29, W99, W23) | W4 | W29 | W99 | W23 |
|--------------------------------|--------------------|--------------------------------------|----|-----|-----|-----|
| Dissolved Parameters | SO ₄ | 309 | 0 | 0 | 0 | 0 |
| | Cl | 150 | 0 | 0 | 0 | 0 |
| | Nitrate-N | 3 | 0 | 0 | 0 | 0 |
| | Nitrite-N | 0.02 | 0 | 0 | 0 | 0 |
| | NH ₃ -N | 1.13 | 0 | 0 | 0 | 0 |
| | CN _{WAD} | 0.005 | 0 | 0 | 0 | 0 |
| | Al (diss) | 0.1 | 3 | 3 | 3 | 2 |
| Total Metalloids and Metals | Sb | 0.02 | 0 | 0 | 0 | 0 |
| | As | 0.0085 | 7 | 8 | 10 | 5 |
| | Cd | 0.000197 | 0 | 0 | 0 | 0 |
| | Cu | 0.005 | 0 | 2 | 0 | 0 |
| | Co | 0.004 | 0 | 0 | 0 | 0 |
| | Fe | 1.0 | 6 | 4 | 5 | 4 |
| | Pb | 0.0077 | 0 | 0 | 0 | 0 |
| | Hg | 0.00002 | 0 | 0 | 0 | 0 |
| | Mn | 1.17 | 0 | 0 | 0 | 0 |
| | Mo | 0.073 | 0 | 0 | 0 | 0 |
| | Ni | 0.116 | 0 | 0 | 0 | 0 |
| | Se | 0.002 | 0 | 0 | 0 | 0 |
| | Ag | 0.0015 | 0 | 0 | 0 | 0 |
| | U | 0.015 | 0 | 0 | 0 | 0 |
| | Zn | 0.038 | 0 | 0 | 0 | 0 |

As presented, most parameters were measured at concentrations below their respective WQO at all locations and at all sampling periods in Haggart Creek (Appendix A-1); only dissolved Al, total As, total Cu and total Fe were measured at concentrations above their respective WQO. As indicated previously, these were limited to the early spring period and Table 2-2 provides a summary of the sampling dates where WQOs were exceeded.

Table 2-2: Dates that WQO's were Exceeded at Haggart Creek Monitoring Stations in 2019.

| Parameter List | W4 | W29 | W99 | W23 |
|-------------------------|---|--|---|--|
| Al (diss) number | 3 | 3 | 3 | 2 |
| Dates | May-12 May-17 May-20 | May-12 May-17 May-20 | May-12 May-17 May-20 | May-12 May-20 |
| As - T number | 7 | 8 | 10 | 5 |
| Dates | April-27 April-28 April-29 May-12 May-17 May-20 Sept-11** | April-15 April-20 April-26 April-27 April-28 April-29 May-12 May-17 | April-14 April-26 April-27 April-28 April-29 May-4 May-12 May-17 May-20 May-27 | May-3 May-8 May-12 May-20 June-2 |
| Cu - T number | 0 | 2 | 0 | 0 |
| Dates | | April-20 May-17 | | |
| Fe - T number | 6 | 4 | 5 | 4 |
| Dates | April-27 April-28 April-29 May-12 May-17 May-20 | April-20 April-27 May-12 May-17 | April-27 May-12 May-17 May-20 May-27 | May-8 May-12 May-20 June-2 |

As illustrated, except for one day in September, WQOs for aluminum, arsenic, copper and iron were not met at various times during the period from April 14 to June 2 2019. Most notably for April 20 and April 26 to April 29, WQOs were not met during two brief discharge events from the LDSP; the details of the LDSP discharges are described in StrataGold (2019). Specifically, during two separate events, and after on-site TSS lab results met discharge criteria, effluent was discharged from the final discharge point of the LDSP (FDP) on April 20, and during the period of April 27 to April 29. Subsequent sampling and later off-site lab analyses indicated that the quality of water deposited through the FDP exceeded MDMER Schedule 4 Authorized Limits of Deleterious Substances for TSS of 30 mg/L. While all other MDMER authorized discharge limits were met during the discharges, the total As concentrations exceeded the EQS of 0.053 mg/L. No subsequent discharges from the LDSP occurred after April 29, 2019 (StrataGold, 2019).

2.1.2 Total Suspended Solids in Project Area Waters

Figure 2-3 illustrates the downstream TSS profile during 2019 and the effect of the natural freshet process and two brief discharge events on TSS concentrations in Haggart Creek. Increases in TSS at background station W22, upstream of the Eagle project, occurred with the onset of freshet in May 2019. Based on TSS values at W22, the onset of freshet for Haggart Creek appears to have occurred around May 6, 2019; TSS concentrations on May 5 and May 7, 2019 were 3 mg/L and 70 mg/L, respectively (Figure 2-3).

However, increases in TSS at downstream locations in Haggart Creek, primarily at W4 and W29 and to a much lesser extent at W99, were observed during late April and generally coincident with the FDP discharges described above. Additional TSS loadings can also be attributed to naturally elevated TSS values in Dublin Gulch during April and May, with values observed at W21 in the range of 200 to 500 mg/L (Figure 2-4). Elevated TSS levels were also observed throughout monitoring locations in Haggart Creek in May and were associated with natural increases in TSS in Haggart Creek as well as increased natural TSS loadings from Dublin Gulch (Figure 2-4).

Sampling at W23 occurred once in April (i.e., April 14) and coincided with low TSS conditions throughout Haggart Creek; unlike the other upstream stations and did not occur later in the month during the FDP discharge. As such, increases in TSS at W23 were only observed during May and were similar in magnitude and concentration (e.g. peak TSS concentrations ranging between roughly 40 mg/L to 80 mg/L) to the upstream locations, including background location W22 (Figure 2-3). Peak TSS concentrations were measured at station W29 on May 7, 2019 of 186 mg/L (Table 2-3). As described above, the elevated TSS concentrations in May were a direct result of freshet conditions and contributions of naturally elevated TSS entering Haggart Creek from Dublin Gulch (Figure 2-4).

Upon cessation of freshet, TSS concentrations decreased at all stations within Haggart Creek as well as those in Dublin Gulch. For the month of June 2019, maximum TSS concentrations were generally less than 20 mg/L at all stations in Haggart Creek, with the exception of W23. Elevated TSS concentrations (75 mg/L) at W23 on June 2 likely reflect the input of high TSS loadings from Lynx Creek (a watercourse unaffected by Project activity) during that time. Station W6 in lower Lynx Creek, immediately upstream of the confluence with Haggart Creek and just upstream of W23, measured 65 mg/L TSS on June 2, 2019.

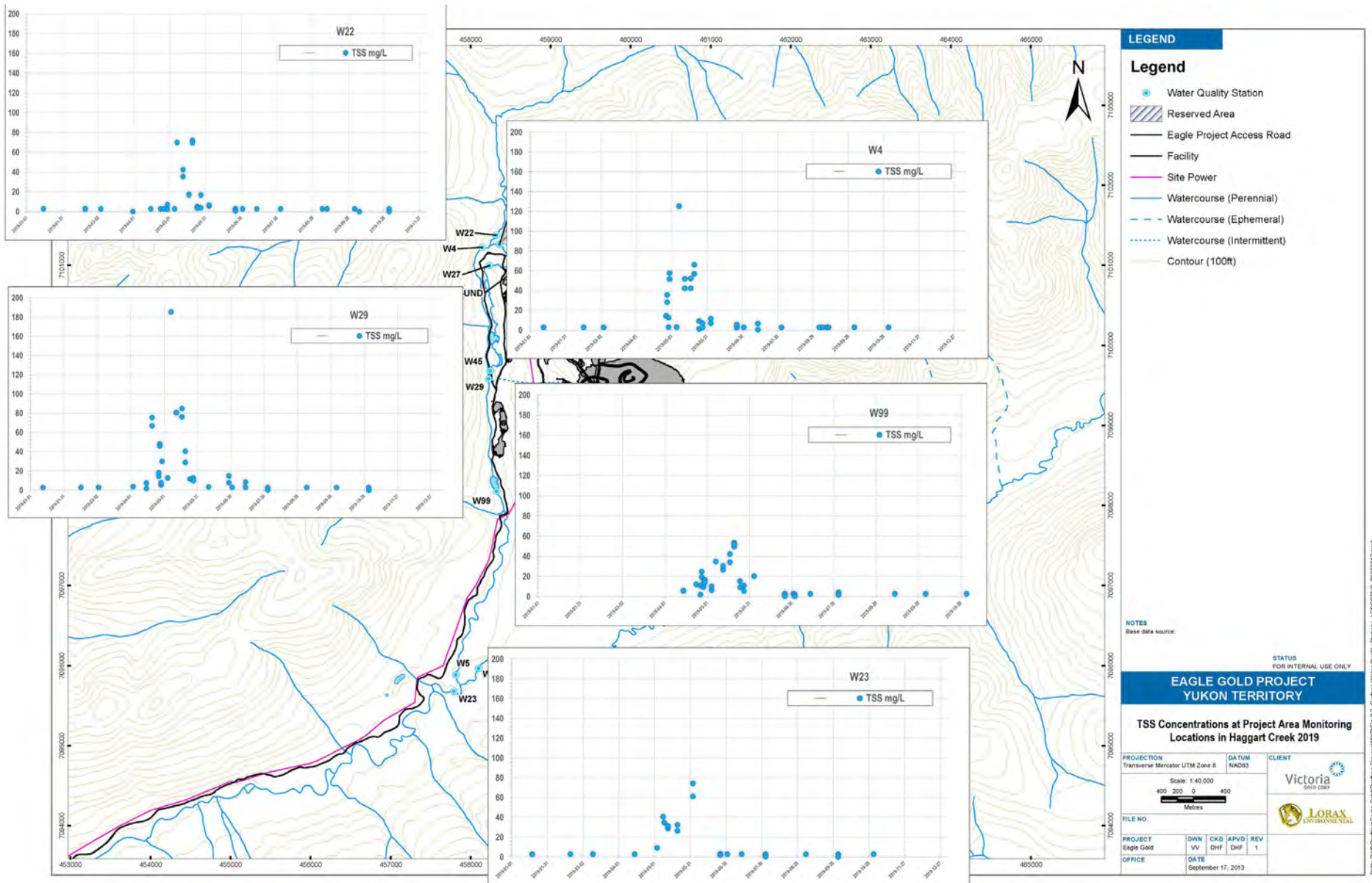


Figure 2-3: Profile of TSS Concentrations in Project Area Monitoring Stations in Haggart Creek – 2019

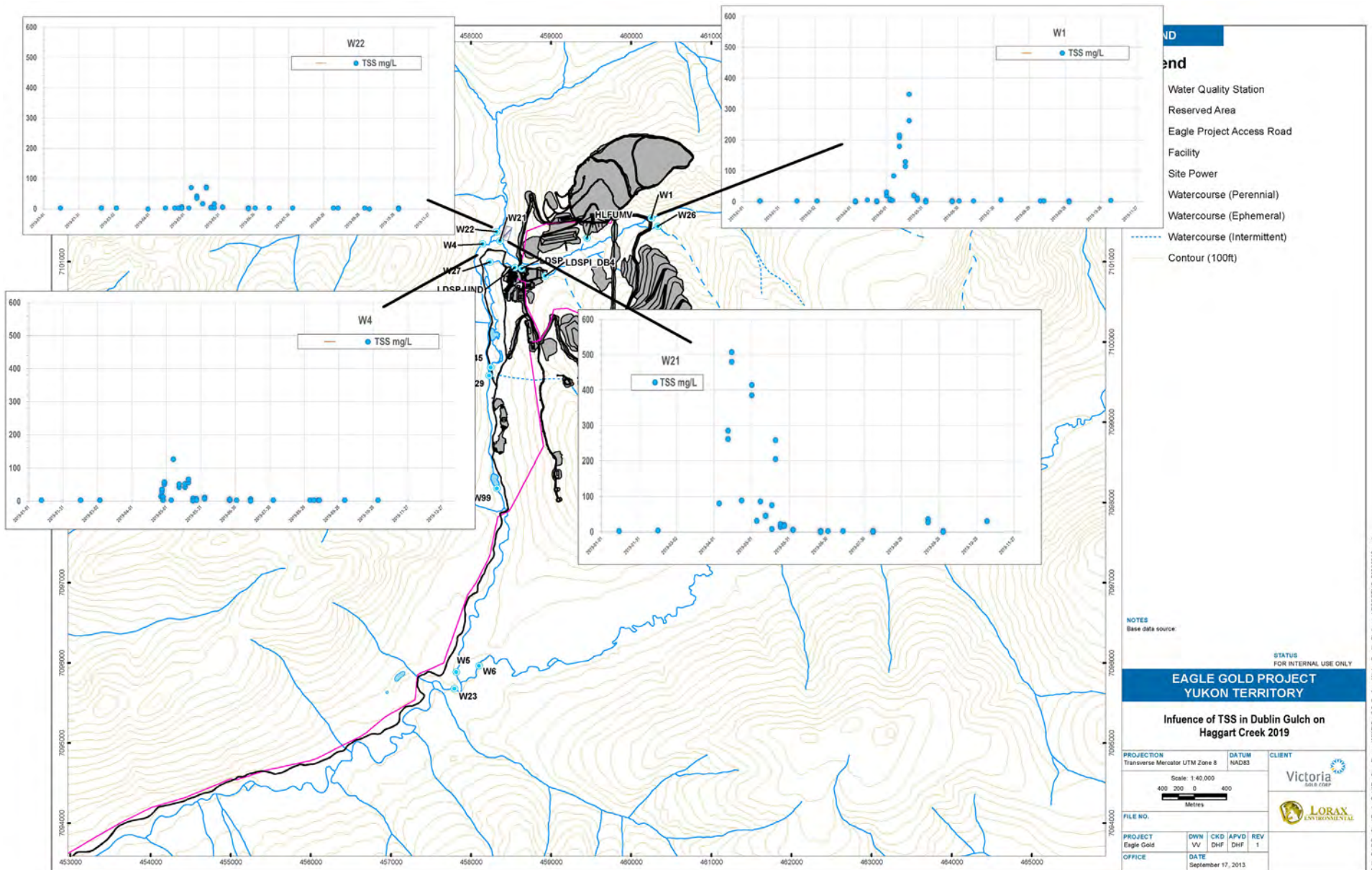


Figure 2-4: Influence of TSS Contributions from Dublin Gulch on Haggart Creek during Freshet May 2019

Table 2-3: Summary of Measured Total Suspended Solids (TSS) Concentration (mg/L) Statistics for Project Area Monitoring Locations in Haggart Creek - 2019

| Station | Parameter | April | | | May | | | June | | | July - December | | |
|---------|-----------|-------|-----|-----|-----|-----|-----|-----------------|-----|-----|-----------------|-----|-----|
| | | Max | Med | Min | Max | Med | Min | Max | Med | Min | Max | Med | Min |
| W22 | TSS mg/L | 7 | 3 | 1 | 72 | 17 | 1 | 7 | 3 | 1 | 3 | 3 | 1 |
| W4 | TSS mg/L | 58 | 29 | 3 | 126 | 43 | 1 | 12 | 6 | 3 | 7 | 3 | 1 |
| W29 | TSS mg/L | 76 | 16 | 2 | 186 | 41 | 10 | 15 | 6 | 1 | 9 | 3 | 1 |
| W99 | TSS mg/L | 25 | 13 | 2 | 53 | 29 | 6 | 21 | 3 | 1 | 5 | 3 | 1 |
| W23 | TSS mg/L | 3 | 2 | 1 | 41 | 31 | 10 | 75 ^a | 3 | 2 | 3 | 3 | 1 |

a: Elevated TSS at W23 on June 2 result of 65 mg/L TSS input from Lynx Creek (station W6) on June 2, 2019

For the period of July to December 2019 the maximum observed TSS concentrations in all the monitoring stations in Haggart Creek did not exceed 10 mg/L, and the median concentrations for all stations were approximately 3 mg/L (Table 2-3).

Elevated total metal and metalloid concentrations including As, Al, Fe and to a lesser extent, Cu typically coincided with elevated TSS concentrations in Haggart Creek. As previously indicated, elevated TSS concentrations were observed during late April to very early June and coincident with both the limited LDSP discharge and naturally elevated TSS during freshet conditions. The following provides brief summaries of the effect of high TSS concentrations on As, Al, Fe and Cu concentrations.

2.1.3 Arsenic

Figure 2-5 illustrates the downstream profile of total and dissolved concentrations of As at W22, W4, W29, W99 and W23. Table 2-4 also provides a statistical summary of As measurements at each of the monitoring locations for 2019.

Stations W4, W29 and W99 recorded the highest total As concentrations in April, with values ranging between approximately 0.021 mg/L (W99) to approximately 0.062 mg/L (W29), well above the WQO of 0.0085 mg/L. The elevated total As concentrations at these locations coincided with discharge periods from the LDSP (April 20 and April 27 – April 29; Figure 2-5). Dissolved As concentrations during this same period were much lower, with maximum measured concentrations ranging between 0.007 mg/L and 0.013 mg/L (Table 2-4) suggesting that the majority of the As loading in Haggart Creek at that time was associated with less bioavailable solid-phase As in suspended solids.

Elevated As concentrations at W4, W29, W99 and W23 were also observed in May with maximum total As concentrations ranging from 0.018 mg/L (W23) to 0.041 mg/L (W4) and well above the WQO. Conversely, corresponding maximum dissolved As concentrations ranged from 0.005 mg/L to 0.014 mg/L. No LDSP discharges occurred to Haggart Creek after the end of April and the increased As concentrations can be attributed to naturally elevated As loadings emanating from Dublin Gulch during this period (Figure 2-6). Naturally elevated As concentrations occur in upper Dublin Gulch with total and dissolved As concentrations typically between 0.05 mg/L and 0.08 mg/L in Bawn Boy (station W20; Figure 2-6). During the May freshet period, total As concentrations in lower Dublin Gulch ranged between approximately 0.1 mg/L to 0.35 mg/L and can account for the significant increase in As concentrations measured at W4.

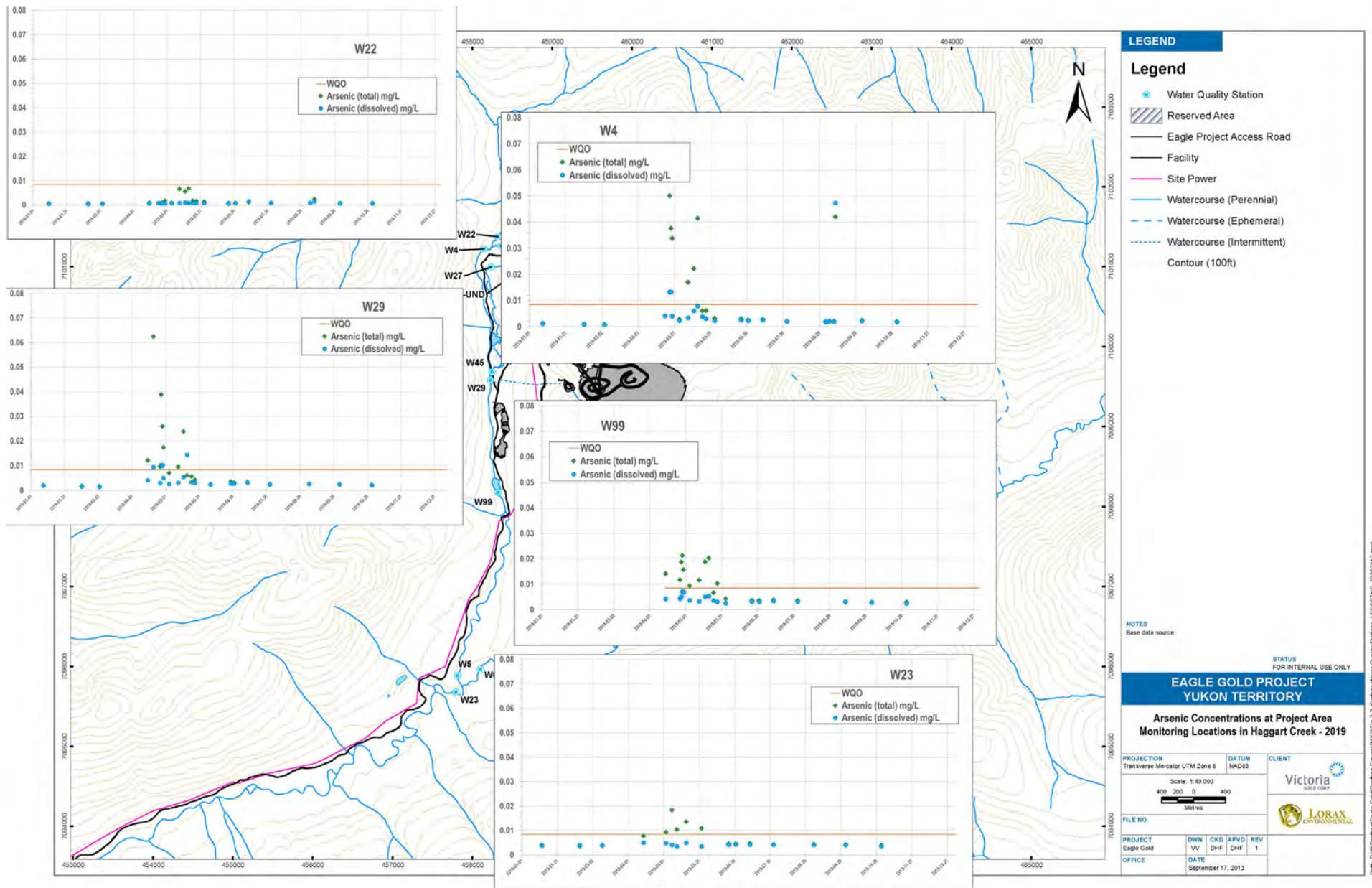


Figure 2-5: Profile of Total and Dissolved Arsenic Concentrations in Haggart Creek – 2019

Table 2-4: Summary of Total and Dissolved As Concentration (mg/L) Statistics for Project Area Monitoring Locations in Haggart Creek - 2019

| Station | Parameter | WQO | April | | | May | | | June | | | July - December | | |
|--|----------------|--------|----------------------|---------------|---------------|---------------|---------------|---------------|--------------|---------|---------|--------------------------|--------|--------|
| | | | Max | Med | Min | Max | Med | Min | Max | Med | Min | Max | Med | Min |
| W22 | As - total | 0.0085 | 0.0019 | 0.0010 | 0.0010 | 0.0068 | 0.0038 | 0.0008 | 0.0014 | 0.0011 | 0.0008 | 0.0025 | 0.0008 | 0.0007 |
| | As - dissolved | | 0.0008 | 0.0007 | 0.0007 | 0.0011 | 0.0009 | 0.0007 | 0.0008 | 0.0008 | 0.0007 | 0.0016 | 0.0008 | 0.0007 |
| W4 | As - total | 0.0085 | 0.0501 | 0.0377 | 0.0338 | 0.0415 | 0.0116 | 0.0028 | 0.0032 | 0.0030 | 0.0030 | 0.042^b | 0.0020 | 0.0019 |
| | As - dissolved | | 0.0133 | 0.0087 | 0.0041 | 0.0078 | 0.0037 | 0.0024 | 0.0027 | 0.0027 | 0.0024 | 0.0473 ^b | 0.0020 | 0.0018 |
| W29 | As - total | 0.0085 | 0.0625 | 0.0217 | 0.0097 | 0.0238 | 0.0067 | 0.0044 | 0.0037 | 0.0031 | 0.0026 | 0.0034 | 0.0026 | 0.0024 |
| | As - dissolved | | 0.0102 | 0.0073 | 0.0031 | 0.0144 | 0.0033 | 0.0027 | 0.0029 | 0.0027 | 0.0025 | 0.0032 | 0.0026 | 0.0021 |
| W99 | As - total | 0.0085 | 0.0213 | 0.0158 | 0.0117 | 0.0203 | 0.0110 | 0.0067 | 0.0042 | 0.0039 | 0.0036 | 0.0038 | 0.0033 | 0.0029 |
| | As - dissolved | | 0.0072 | 0.0060 | 0.0043 | 0.0054 | 0.0037 | 0.0031 | 0.0033 | 0.0029 | 0.0026 | 0.0034 | 0.0031 | 0.0024 |
| W23 | As - total | 0.0085 | 0.00779 ^a | | | 0.0184 | 0.012 | 0.0094 | 0.011 | 0.0078 | 0.0046 | 0.0048 | 0.0043 | 0.0039 |
| | As - dissolved | | 0.0051 ^a | | | 0.0050 | 0.0046 | 0.0036 | 0.00424 | 0.00392 | 0.00359 | 0.0043 | 0.0043 | 0.0036 |
| values in red exceed WQO | | | | | | | | | | | | | | |
| a: n = 1 in that month therefore no statistics calculable | | | | | | | | | | | | | | |
| b: reflects measurement on Sept 11 that is considered an outlier | | | | | | | | | | | | | | |

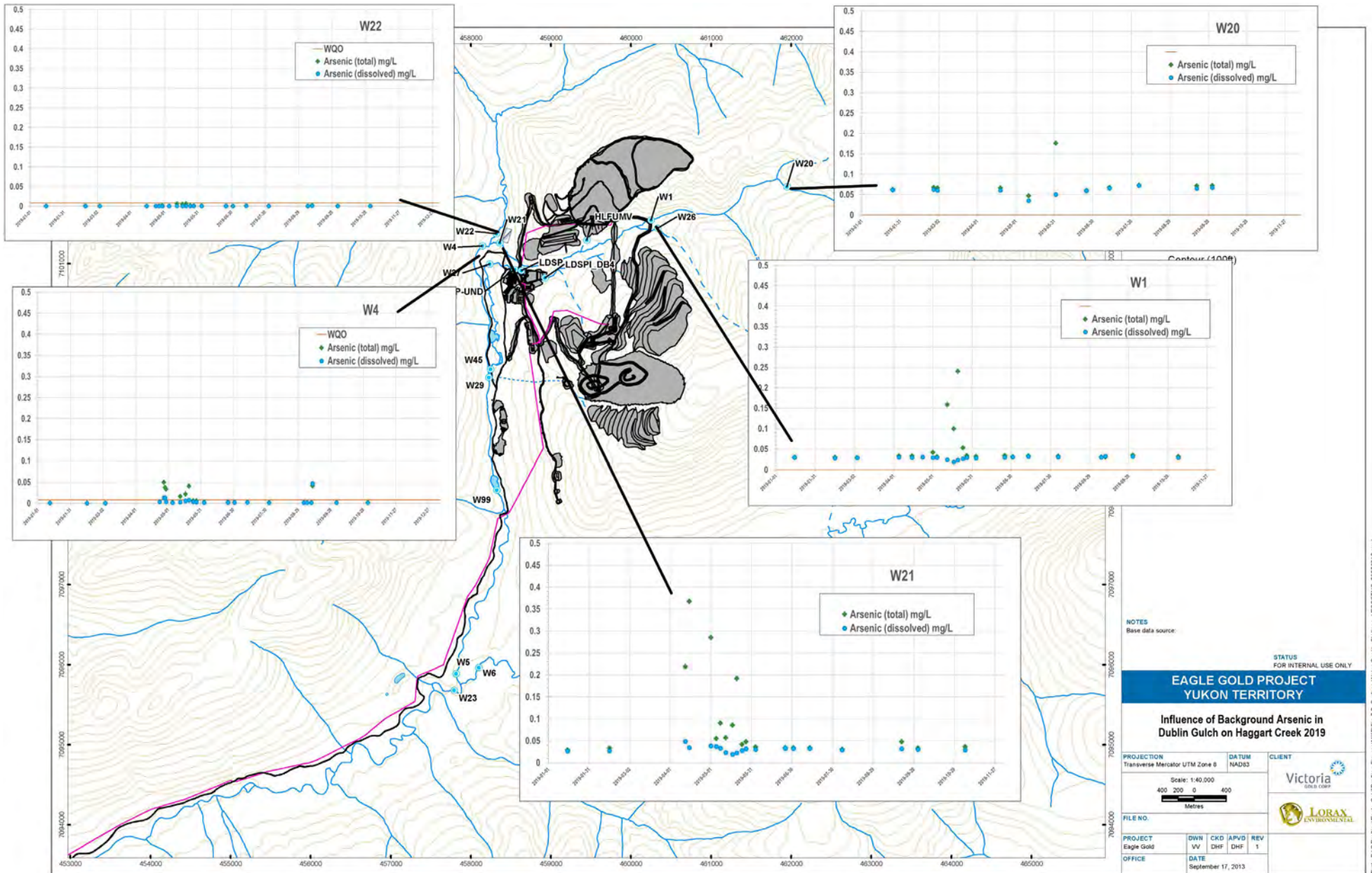


Figure 2-6: Influence of Arsenic Loading Contributions from Dublin Gulch on As Concentrations in Haggart Creek – 2019

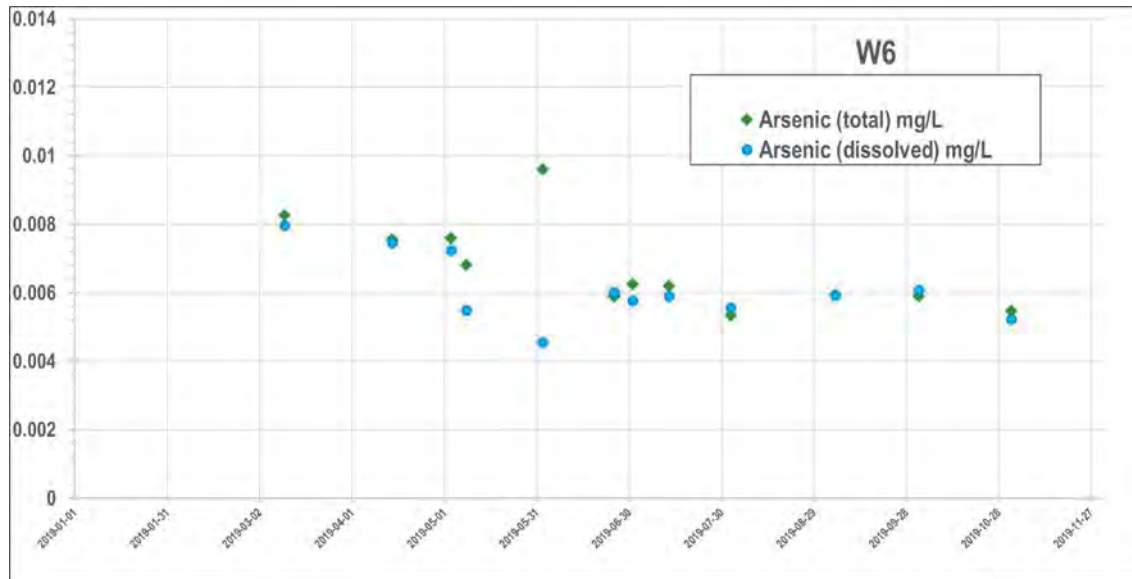


Figure 2-7: Total and Dissolved Arsenic Concentrations in Lynx Creek at W6 – 2019

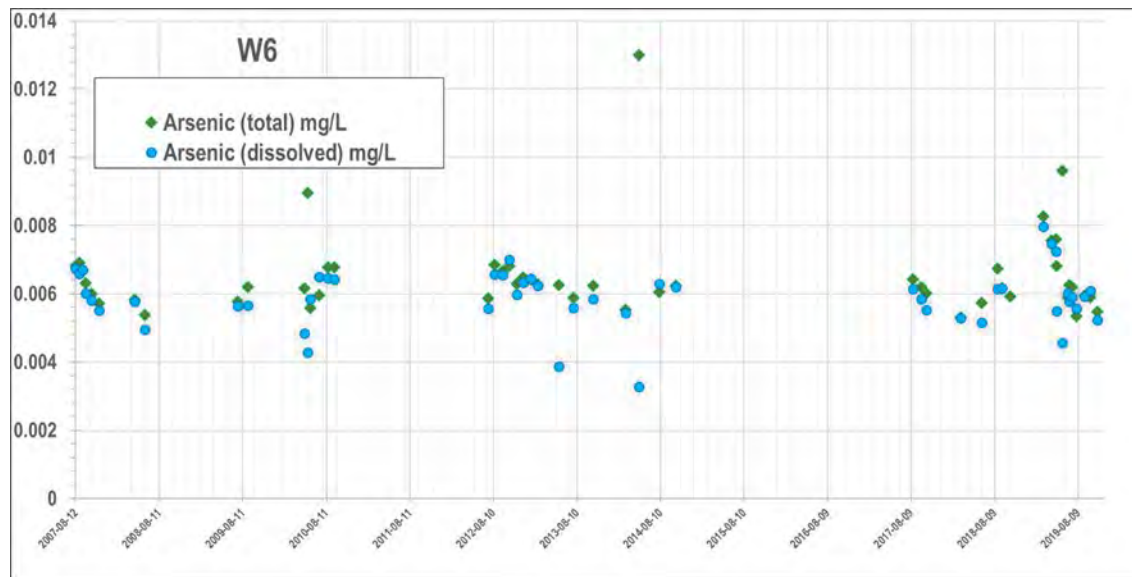


Figure 2-8: Total and Dissolved Arsenic Concentrations in Lynx Creek at W6 (2007 – 2019)

In June, total As concentrations were lower at stations throughout Haggart Creek with the exception of very early June for station W23. On June 2 total As concentrations were approximately 0.011 mg/L at W23. Upstream stations were not sampled on that same date. However, W4 and W99 were sampled on June 3, one day later, and total As values were lower (0.0032 mg/L and 0.0042 mg/L, respectively) suggesting that the elevated concentrations in W23 emanated from Lynx Creek (see Section 2.1.2).

For the remainder of the 2019 monitoring period of July to December, maximum total As concentrations were less than 0.005 mg/L and below the WQO. Moreover, total and dissolved As values were very similar. Total and dissolved As concentrations at stations W4, W29 and W99 were typically between 0.002 mg/L and 0.003 mg/L. Total and dissolved As concentrations increased to values between 0.004 mg/L and 0.005 mg/L at W23 and reflect naturally elevated As loadings from Lynx Creek as measured at station W6 (Figure 2-5). Total and dissolved As concentrations during 2019 in Lynx Creek typically ranged between 0.004 mg/L and 0.008 mg/L (Figure 2-5) and values measured in 2019 are consistent with historical monitoring results for the period of 2007 to 2019 (Figure 2-6). One sampling event on September 11, 2019 returned results indicating elevated total and dissolved As concentrations at station W4 between 0.040 and 0.050 mg/L (Figure 2-4; Table 2-4). Most other measured metals or metalloid parameters were not highly elevated in the W4 September 11 sample (e.g., TSS = 3.0 mg/L; total Al = 0.0084 mg/L). At this time, the results for total and dissolved As are considered potentially erroneous.

2.1.4 Iron

Figure 2-9 illustrates the downstream profile of total and dissolved concentrations of Fe at W4, W29, W99 and W23. Table 2-5 also provides a statistical summary of Fe measurements at each station for 2019.

Similar to As, stations W4, W29 and W99 recorded the highest total Fe concentrations in April with values ranging between approximately 1.1 mg/L (W99) to approximately 3.4 mg/L (W29) (Figure 2-9 and Table 2-5) all above the WQO of 1.0 mg/L. Dissolved Fe concentrations during April were much lower, with maximum measured concentrations ranging between 0.05 mg/L and 0.09 mg/L (Table 2-5) indicating that the majority of the Fe was associated with less bioavailable solid-phase Fe in suspended solids.

Maximum total Fe concentrations measured in May ranged from 1.7 mg/L to 3.3 mg/L throughout all Haggart Creek monitoring stations and occurred over a relatively brief period in mid-May (e.g. May 10 to May 20). Conversely, maximum dissolved Fe concentrations ranged from 0.28 mg/L to 0.73 mg/L, again suggesting that the majority of total Fe measured was associated with the solid phase.

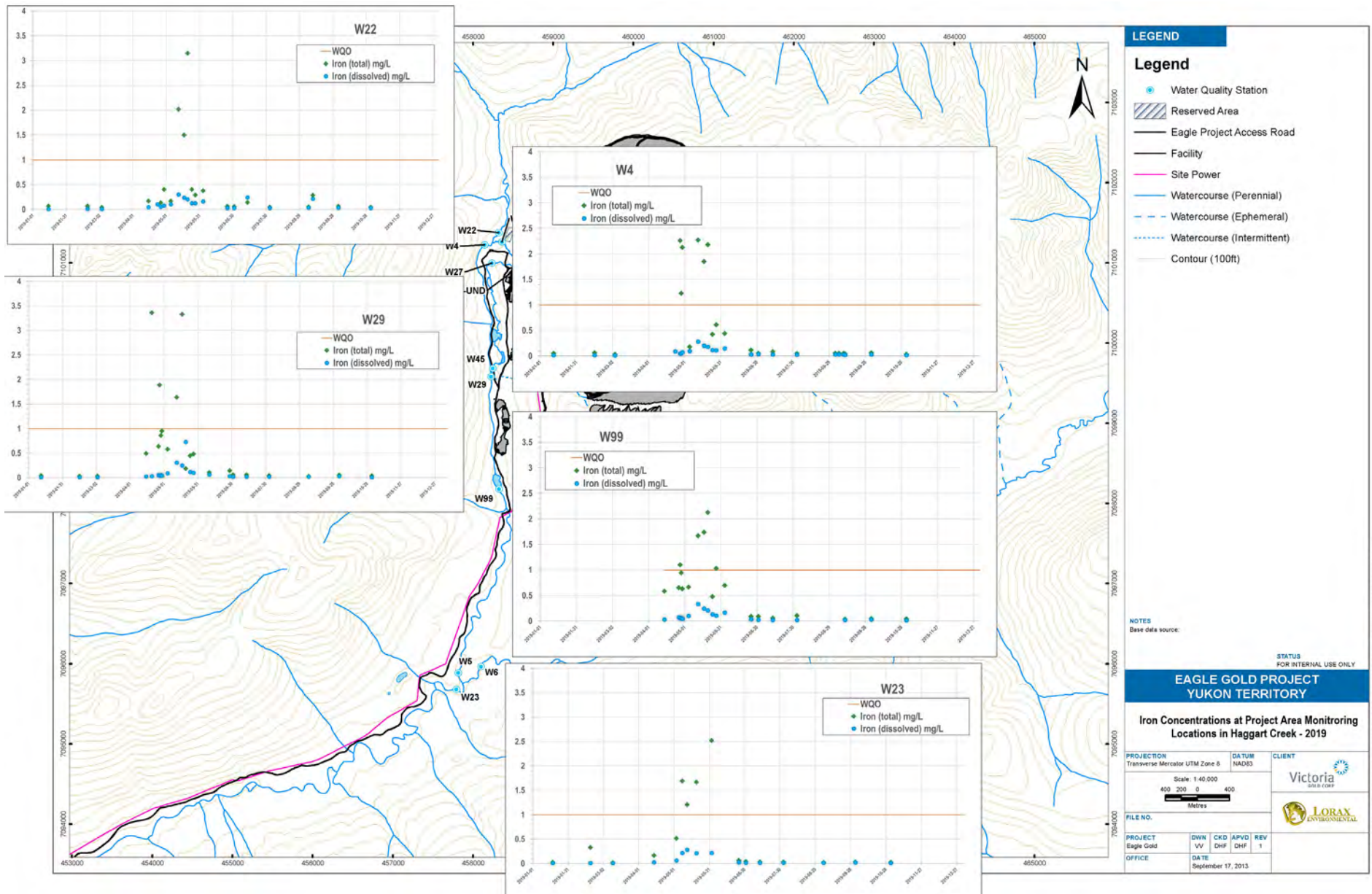


Figure 2-9: Profile of Total and Dissolved Iron Concentrations in Haggart Creek – 2019

Table 2-5: Summary of Total and Dissolved Fe Concentration (mg/L) Statistics for Project Area Monitoring Locations in Haggart Creek- 2019

| Station | Parameter | WQO | April | | | May | | | June | | | July - December | | |
|---|----------------|-----|--------------------|-------------|-------------|-------------|-------------|-------|-------------|-------------|-------|-----------------|-------|-------|
| | | | Max | Med | Min | Max | Med | Min | Max | Med | Min | Max | Med | Min |
| W22 | Fe - total | 1.0 | 0.403 | 0.171 | 0.137 | 3.15 | 0.954 | 0.169 | 0.378 | 0.220 | 0.062 | 0.288 | 0.057 | 0.046 |
| | Fe - dissolved | | 0.109 | 0.068 | 0.050 | 0.304 | 0.168 | 0.108 | 0.166 | 0.099 | 0.032 | 0.247 | 0.036 | 0.031 |
| W4 | Fe - total | 1.0 | 2.26 | 2.13 | 1.23 | 2.27 | 1.23 | 0.181 | 0.442 | 0.120 | 0.120 | 0.088 | 0.053 | 0.035 |
| | Fe - dissolved | | 0.093 | 0.065 | 0.046 | 0.280 | 0.150 | 0.094 | 0.149 | 0.034 | 0.034 | 0.037 | 0.031 | 0.014 |
| W29 | Fe - total | 1.0 | 3.36 | 0.907 | 0.493 | 3.33 | 0.533 | 0.189 | 0.145 | 0.126 | 0.107 | 0.057 | 0.049 | 0.029 |
| | Fe - dissolved | | 0.052 | 0.043 | 0.028 | 0.728 | 0.185 | 0.089 | 0.062 | 0.048 | 0.033 | 0.030 | 0.024 | 0.010 |
| W99 | Fe - total | 1.0 | 1.1 | 0.644 | 0.585 | 2.13 | 1.35 | 0.480 | 0.699 | 0.394 | 0.089 | 0.108 | 0.052 | 0.039 |
| | Fe - dissolved | | 0.077 | 0.054 | 0.035 | 0.338 | 0.171 | 0.101 | 0.168 | 0.102 | 0.036 | 0.031 | 0.023 | 0.019 |
| W23 | Fe - total | 1.0 | 0.163 ^a | | | 1.69 | 1.44 | 0.52 | 2.52 | 1.29 | 0.063 | 0.041 | 0.031 | 0.024 |
| | Fe - dissolved | | 0.028 ^a | | | 0.28 | 0.22 | 0.06 | 0.221 | 0.123 | 0.025 | 0.020 | 0.015 | 0.012 |
| values in red exceed WQO | | | | | | | | | | | | | | |
| a: n = 1 in that month therefore no statistics calculable | | | | | | | | | | | | | | |

For the remainder of the 2019 monitoring period of June to December, maximum total Fe concentrations were well below the WQO of 1.0 mg/L at stations W4, W29 and W99 and typically below 0.1 mg/L. At far-field station W23, total Fe concentrations on June 2, 2019 were approximately 2.5 mg/L and coincide with elevated Fe loadings entering Haggart Creek from Lynx Creek (see Figure 2-9 and Figure 2-10 below).

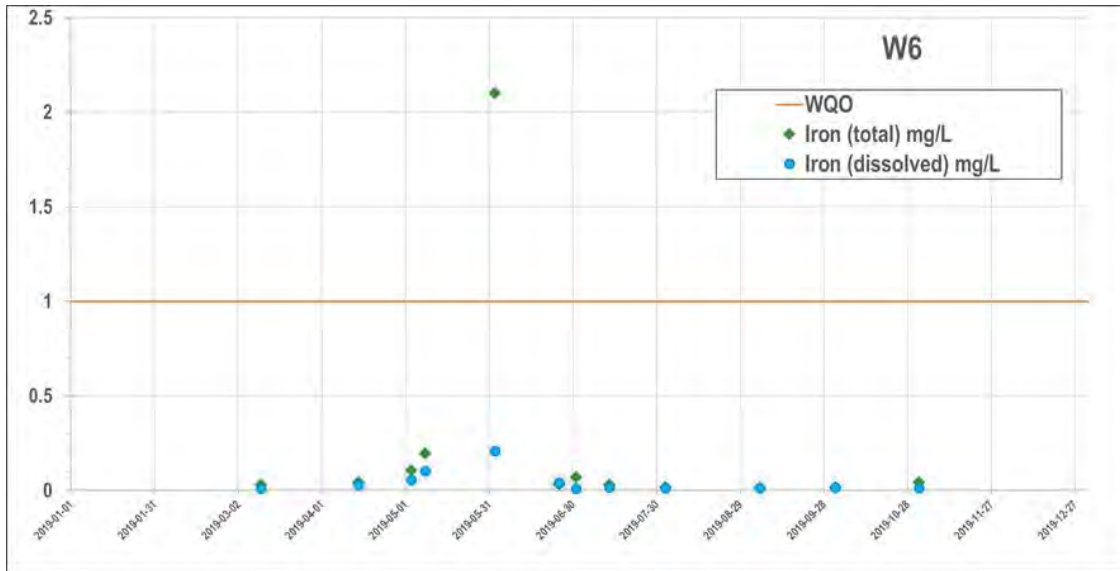


Figure 2-10: Total and Dissolved Iron Concentrations in Lynx Creek at W6 – 2019

2.1.5 Aluminum

Figure 2-11 illustrates the downstream profile of total and dissolved concentrations of Al at W4, W29, W99 and W23 for 2019. Unlike other parameters defined in Schedule 3 of QZ14-041-1, WQOs for Al are based on dissolved not total concentration. As illustrated previously in Table 2-1, the number of sampling events in 2019 with dissolved Al exceedances are much lower than for As and Fe (three or less per station) and were limited to the month of May (see also Figure 2-11). Following cessation of the freshet in late May/early June, dissolved Al concentrations at all stations remained well below 0.01 mg/L. It should be noted, that historically dissolved Al concentrations are often observed at concentrations above the WQO of 0.1 mg/L.

Figure 2-12 provides a detailed view of historical monitoring data for total and dissolved Al concentrations at background station W22 in Haggart Creek. As shown, dissolved Al has been measured at concentrations as high as 0.3 mg/L and it is not uncommon for concentrations to be above the WQO, particularly during the spring freshet period.

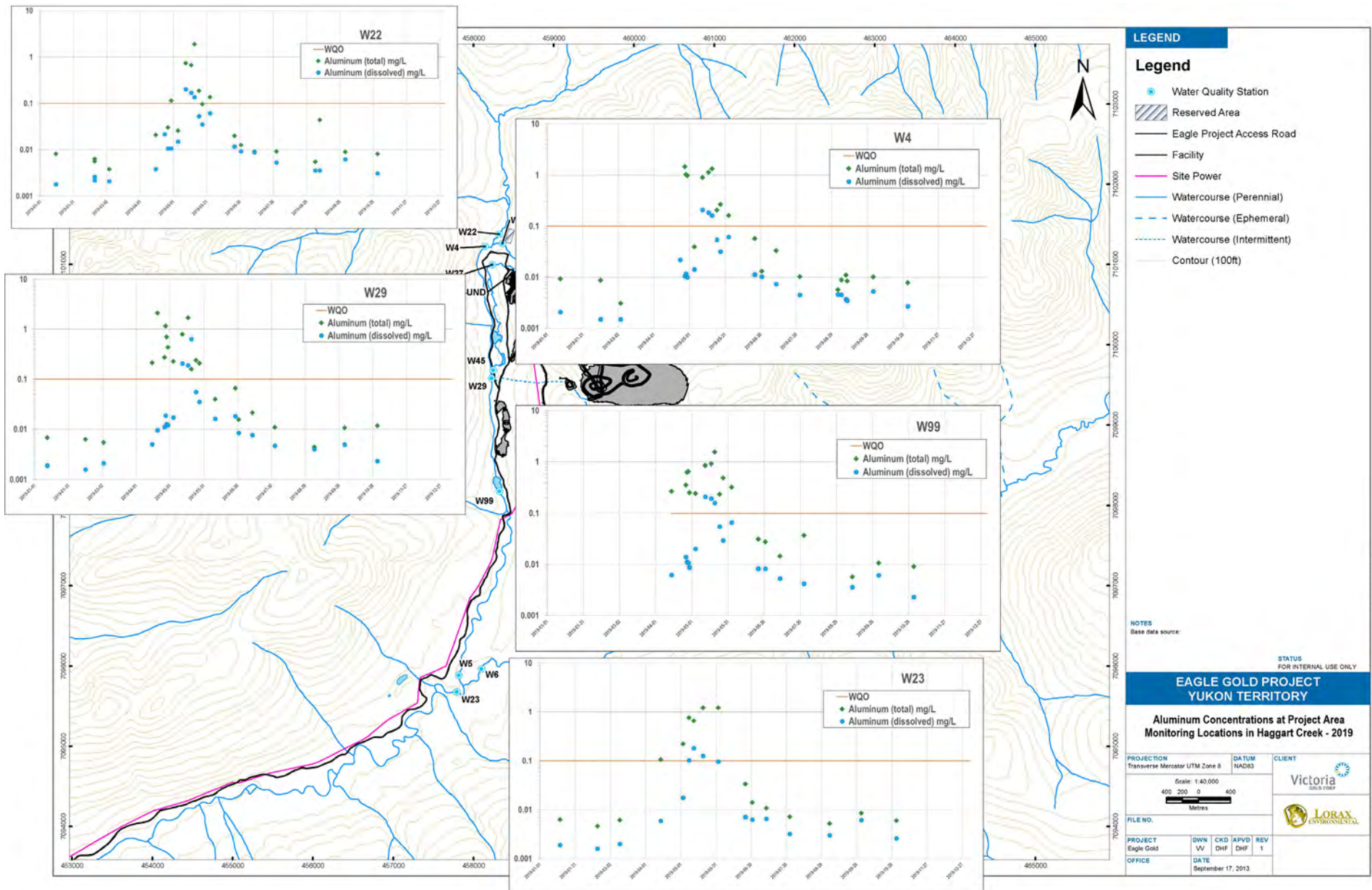


Figure 2-11: Profile of Total and Dissolved Aluminum Concentrations in Haggart Creek – 2019

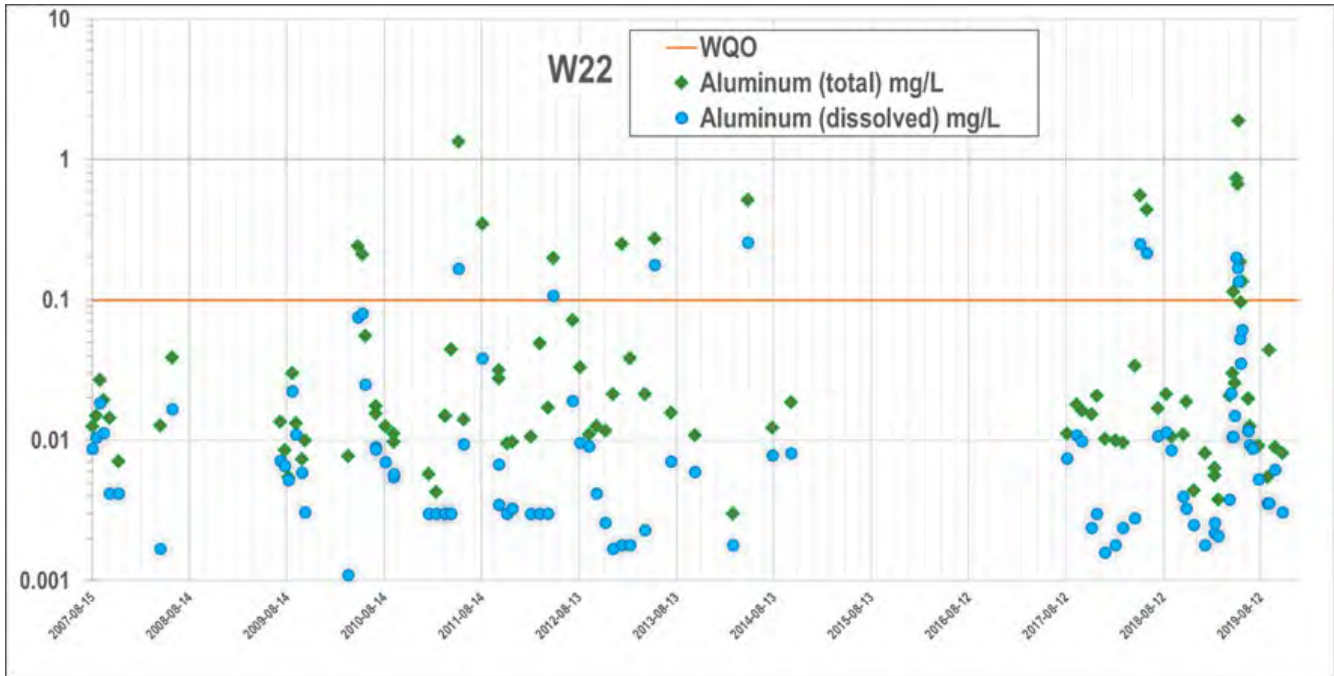


Figure 2-12: Measured Total and Dissolved Aluminum Concentrations at Background Monitoring Station W22 – 2007 to 2019

When Al is viewed in this wider context, and, considering background concentrations at W22 can be above the dissolved Al WQO, it is expected that dissolved Al concentrations will also be above the WQOs at the other downstream stations (W4, W29, W99 and W23). Stated slightly differently, the prevalence of dissolved Al concentrations above the WQO in the background of Haggart Creek suggests that the WQO for Al is too low given the prevalence of background concentrations routinely exceeding the WQO.

Additional historical context for Al monitoring data for Haggart Creek are also provided in Figure 2-13 which illustrates total and dissolved Al concentrations for the full monitoring period of 2007 to 2019 for the other three in Haggart Creek stations. These data also indicate that baseline/background dissolved Al measurements were observed to be greater than 0.1 mg/L (above the WQO) throughout the project area of Haggart Creek on numerous sampling occasions throughout the baseline monitoring period.

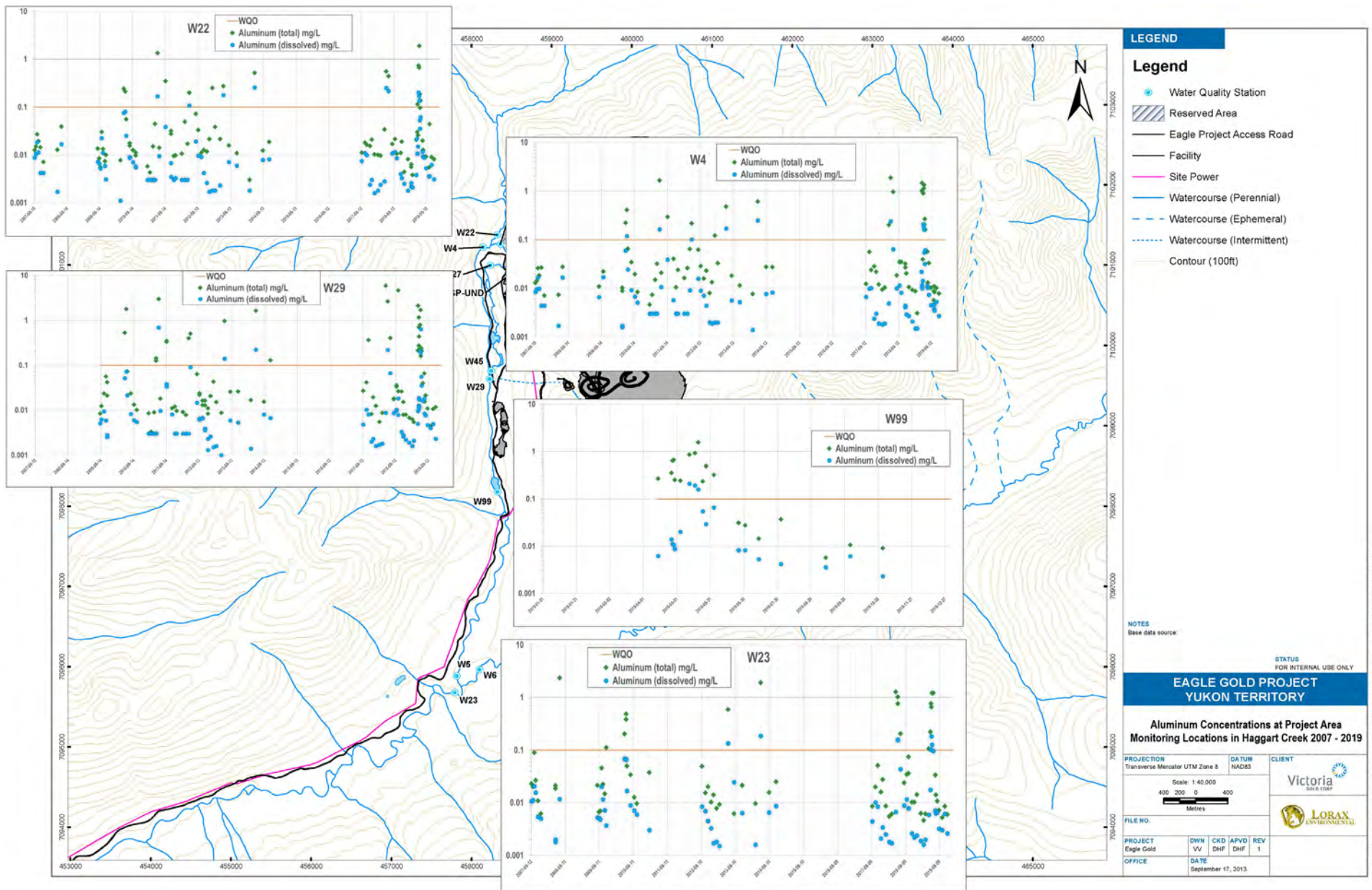


Figure 2-13: Profile of Total and Dissolved Aluminum Concentrations in Haggart Creek – 2007 to 2019

2.1.6 Copper

There were two (2) instances that Cu was recorded above the WQO of 0.005 mg/L, and these occurred at station W29; specifically, on April 20 and May 17, 2019, total Cu concentrations were measured at 0.0057 mg/L and 0.0052 mg/L, respectively. Clearly these represent isolated events and were associated with the elevated TSS concentrations noted above; corresponding dissolved Cu concentrations were much lower and were 0.001 mg/L and 0.0018 mg/L, respectively (Figure 2-14).

2.1.7 Other Parameters

Appendix A-2 provides historical and 2019 water quality data for all receiving environment monitoring stations for the Eagle Project. As shown in Table 2-1, most parameters analyzed have been measured at concentrations well below their respective WQO throughout the entirety of the monitoring period. Provided below is a summary of results for three additional parameters of interest for the Eagle Project and include sulphate, selenium and uranium.

2.1.7.1 Sulphate

The WQO for sulphate is hardness based and for Haggart Creek, with moderately hard waters, the WQO is 309 mg/L (Schedule 3 in QZ14-041-1). Concentrations of sulphate throughout Haggart Creek for the period of 2007 to 2019 are shown in Figure 2-15. Concentration ranges are highly consistent throughout Haggart Creek with strong seasonal signatures, where the minimum concentrations coincide with peak freshet and the maximum concentrations coincide with pre-freshet (sub-ice) conditions reflective of groundwater baseflow. For all stations, freshet minima and winter low flow maxima range from approximately 15 mg/L to 100 mg/L. This same seasonal trend was observed in 2019 for all stations (Figure 2-15; Appendix A-2).

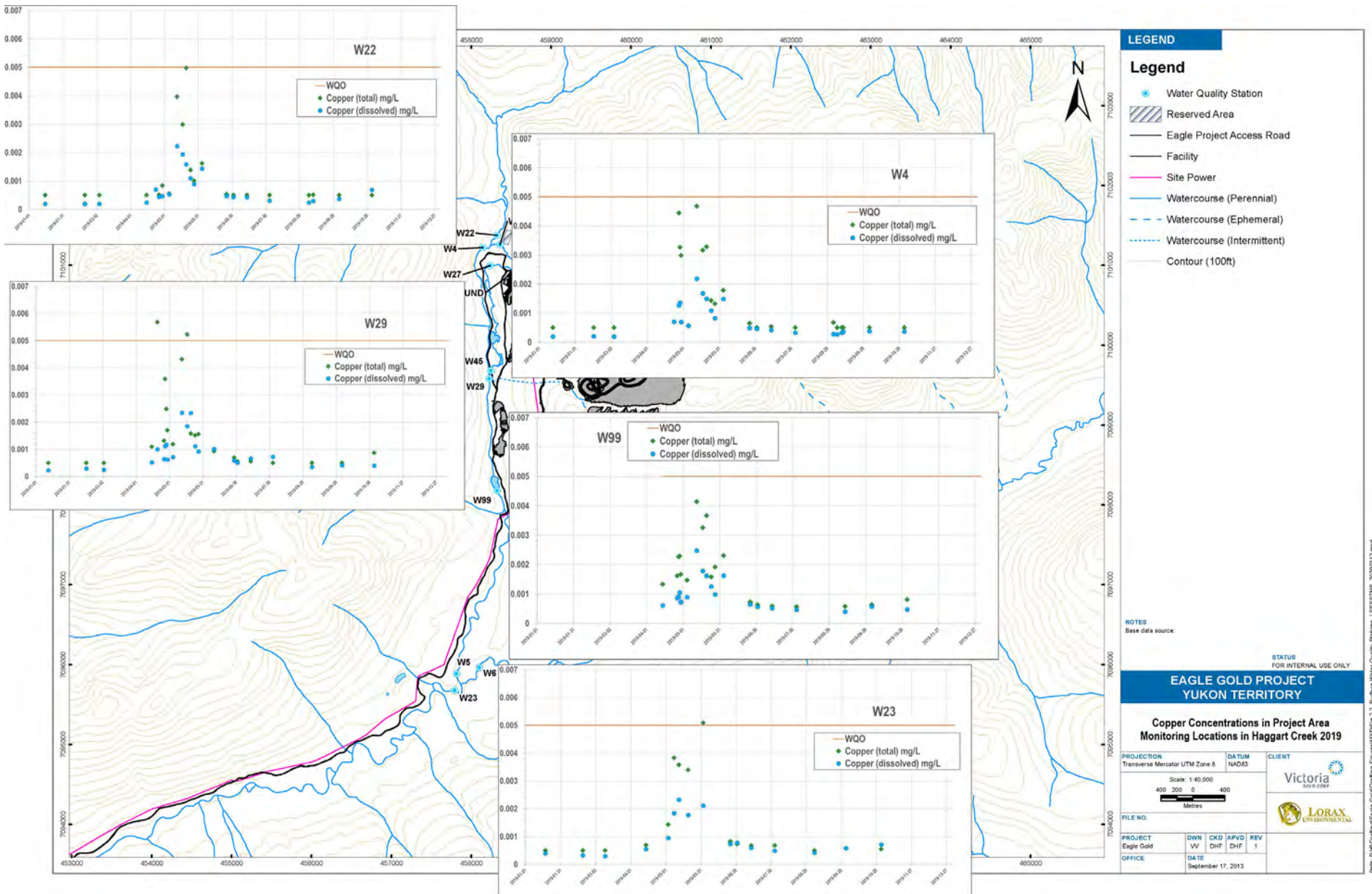


Figure 2-14: Profile of Copper Concentrations in Haggart Creek – 2019

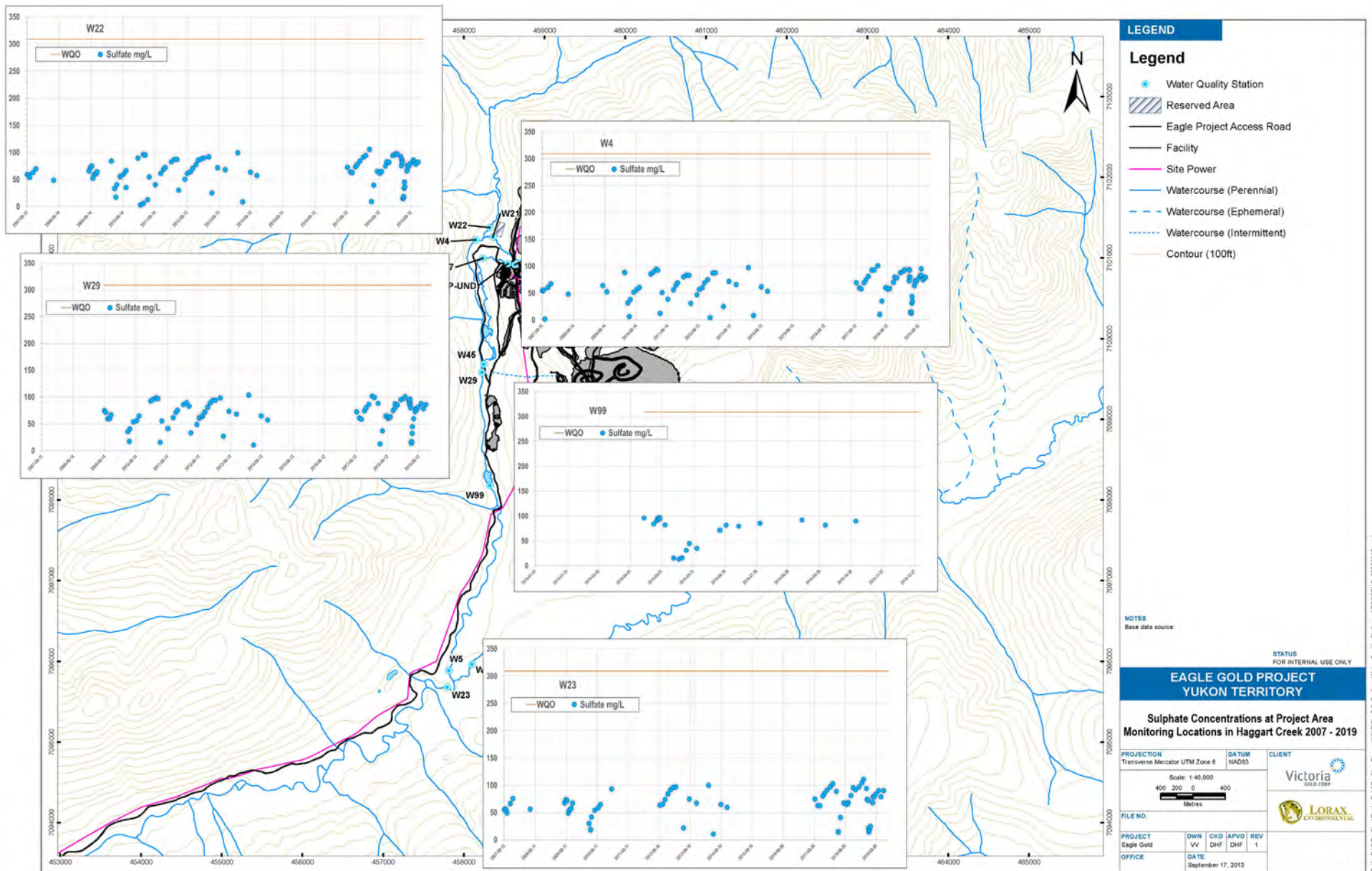


Figure 2-15: Profile of Sulphate Concentrations in Haggart Creek – 2007 to 2019

2.1.7.2 *Selenium*

The WQO for Se for Haggart Creek is 0.002 mg/L (Schedule 3 in QZ14-041-1). Background Se concentrations in Haggart Creek at W22 have consistently been measured well below the WQO between 0.00012 mg/L and 0.00025 mg/L since 2007 to present (Figure 2-16). Very similar concentrations persist throughout Haggart Creek, although downstream concentrations at station W23 are very slightly higher and range between 0.00015 to 0.00048 mg/L. In 2019, these trends continued throughout Haggart Creek at all stations with the exception of one sampling period that measured 0.0008 mg/L on September 11 at station W4 (Figure 2-16; Appendix A-2). As described previously for arsenic, this sampling event results are suspect as an outlier. This notwithstanding, little to no change was observed in total and dissolved Se concentrations in Haggart Creek in 2019 as compared to the baseline condition and all measurements remained well below the water quality objective of 0.002 mg/L.

2.1.7.3 *Uranium*

The WQO for U for Haggart Creek is 0.015 mg/L (Schedule 3 in QZ14-041-1). Background U concentrations in Haggart Creek at W22 exhibit a seasonal signature with the lowest concentrations (e.g., ~0.0002 mg/L) occurring during peak freshet flows in May and maximum concentrations observed during winter low flows of approximately 0.002 mg/L. This same seasonal signature is observed throughout the Haggart Creek monitoring stations and have remained consistent through the monitoring period of 2007 to 2019, although much more apparent in recent years when monitoring frequency was increased (Figure 2-17). The highest recorded total U concentrations in Haggart Creek occurred during the late April 2019 LDSP discharge event which resulted in U concentrations at W4 and W29 of approximately 0.004 mg/L, but well below the WQO of 0.015 mg/L. Similarly, on September 11 at station W4, total and dissolved U concentrations of approximately 0.0035 mg/L were measured; concentrations measured at other times in 2019 were below 0.0015 mg/L (Figure 2-17).

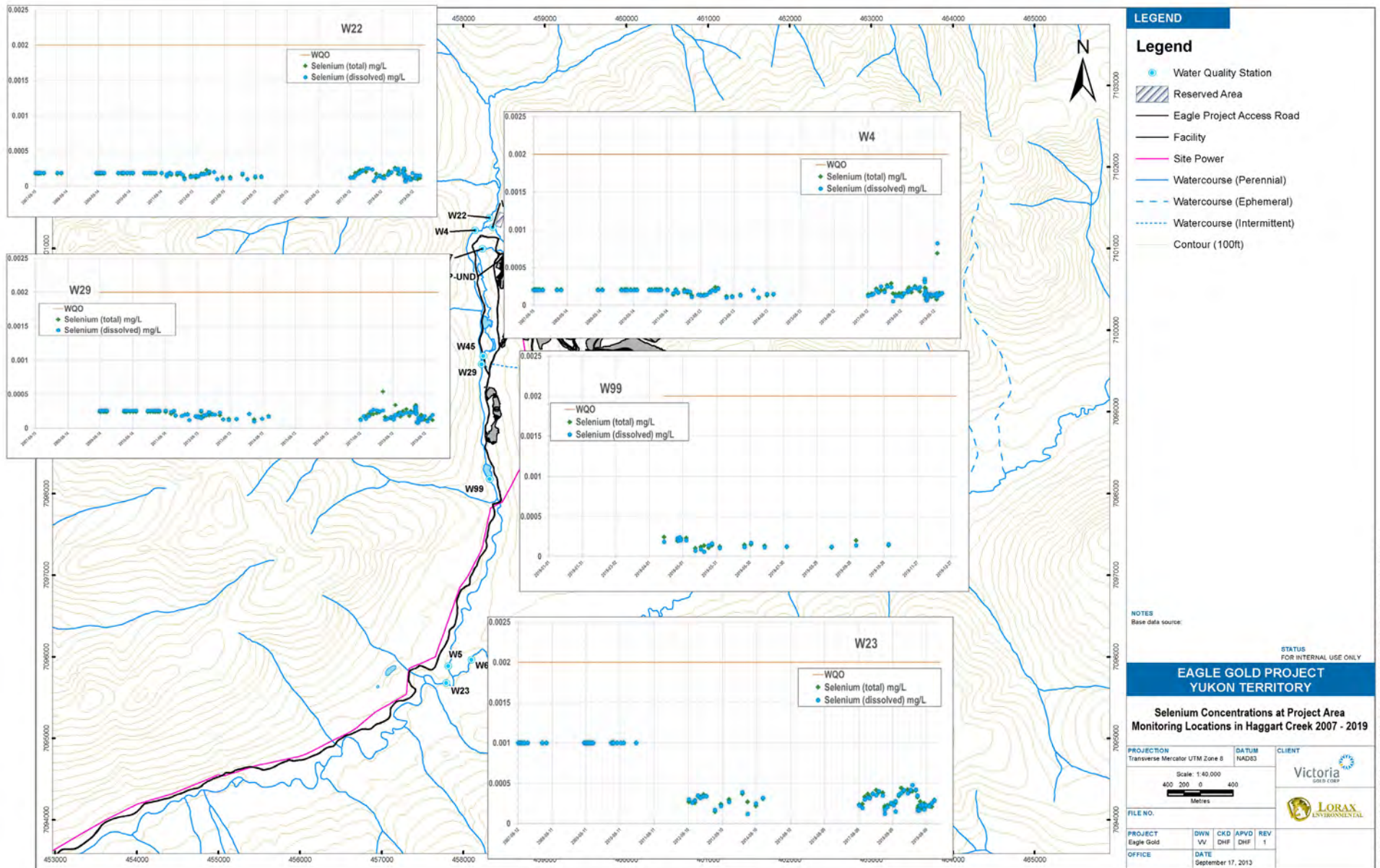


Figure 2-16: Profile of Total and Dissolved Selenium Concentrations in Haggart Creek – 2007 to 2019

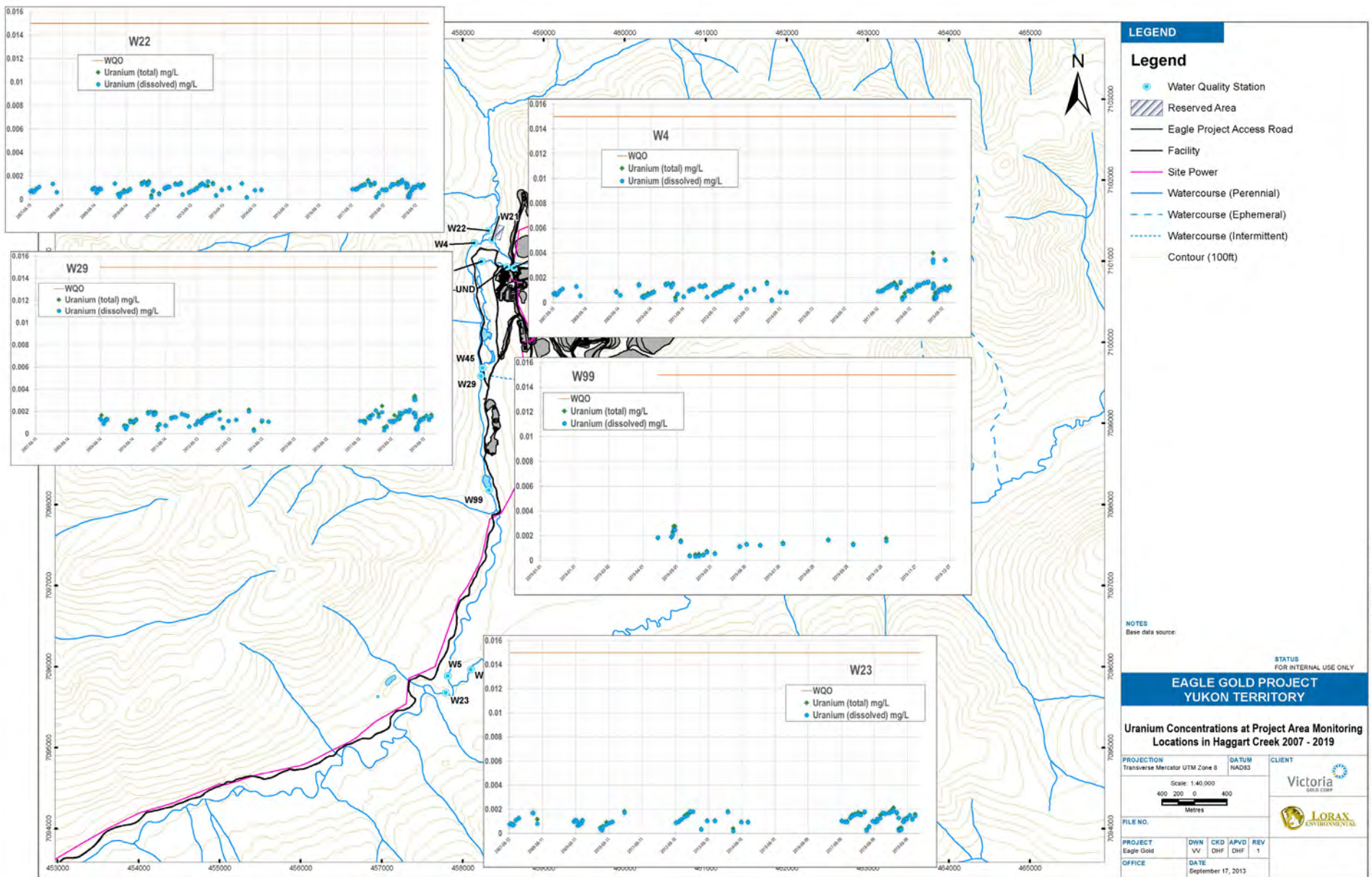


Figure 2-17: Profile of Total and Dissolved Uranium Concentrations in Haggart Creek – 2007 to 2019

3. Mine Site Monitoring Results

Mine site monitoring in 2019 occurred primarily at the Lower Dublin South Pond (aka Control Pond) and Ditches A and B (or the contact water collection ditches that drain into the Control Pond) for TSS. Appendix B provides graphical summaries of water quality data for each mine site monitoring location for 2019.

3.1 Control Pond (LDSP)

Water quality of the Control Pond is measured at several locations (Figure 3-1):

- LDSPs – Along shore of Control Pond (pre-discharge location);
- LLO – Low-level outlet in a perforated pipe (pre-discharge location); and
- LDSP – Outflow discharge sampling location of Control Pond

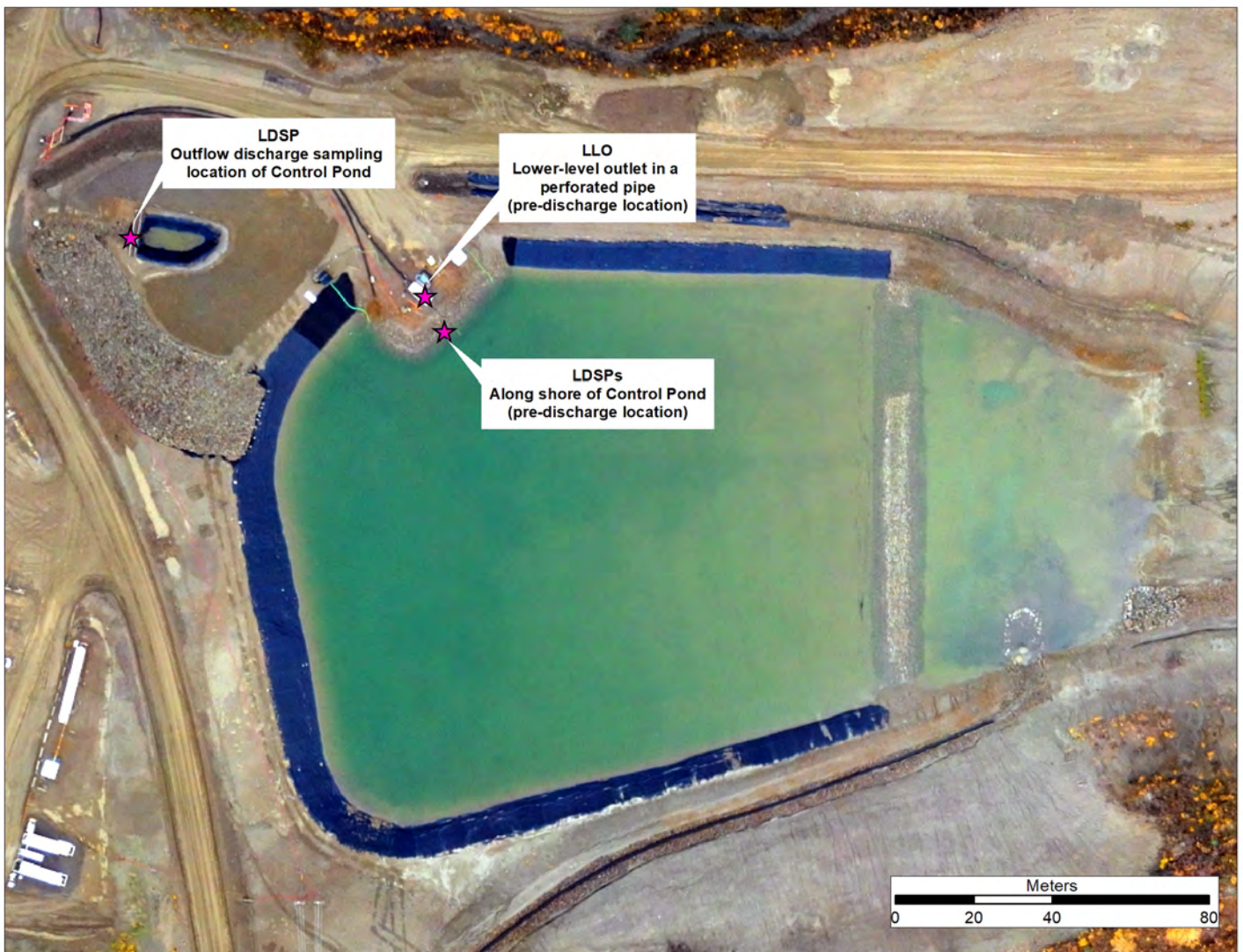


Figure 3-1: Control Pond (Lower Dublin South Pond – LDSP) Sampling Locations

3.1.1 Pre-Discharge LDSP Water Quality

Water quality within the Control Pond (or LDSP) was measured throughout 2019 at stations LDSPs and LLO. Table 3-1 summarizes the number of full analytical suite sampling events for LDSPs and LLO, by month, for 2019. As indicated, a total of 20 and 16 full suite sampling events occurred at LDSPs and LLO, respectively. The highest frequency of sampling occurred in the spring period in April and May, most notably at LDSPs.

Table 3-1: Number of Full Suite Analytical Sampling Events for LDSPs and LLO by Month in 2019

| Month | LDSPs | LLO |
|------------------|-----------|-----------|
| <i>April</i> | 5 | 2 |
| <i>May</i> | 5 | 5 |
| <i>June</i> | 2 | 2 |
| <i>July</i> | 3 | 3 |
| <i>August</i> | 2 | 2 |
| <i>September</i> | 2 | 1 |
| <i>October</i> | 1 | 1 |
| Totals | 20 | 16 |

As previously indicated, *Part F, clause 108* of QZ14-041-1 provides a table of the Effluent Quality Standards (EQS) for project effluent. While LDSPs and LLO sampling locations characterize water chemistry in the LDSP overall, these are pre-discharge sampling locations and direct application of EQS is only for purposes of reference. Most parameters analyzed were present at LDSPs and LLO at concentrations well below their respective EQS limits. The only exceptions were for TSS and total arsenic.

Figure 3-2 illustrates TSS concentrations at the LDSPs and in the LLO and provides the EQS limit of 15 mg/L only for comparative purposes. The highest TSS concentrations were measured at the LDSPs in May with values of 80 mg/L to approximately 100 mg/L being observed. Conversely, maximum measured TSS concentrations in the LLO in May were lower and approximately 30 mg/L (Figure 3-2). The observed same day differences in TSS concentrations likely reflect that the LLO is not in direct connection to the Control Pond, as the water from the pond has to filter through the gravel filter between the pond and the perforated LLO riser pipe.

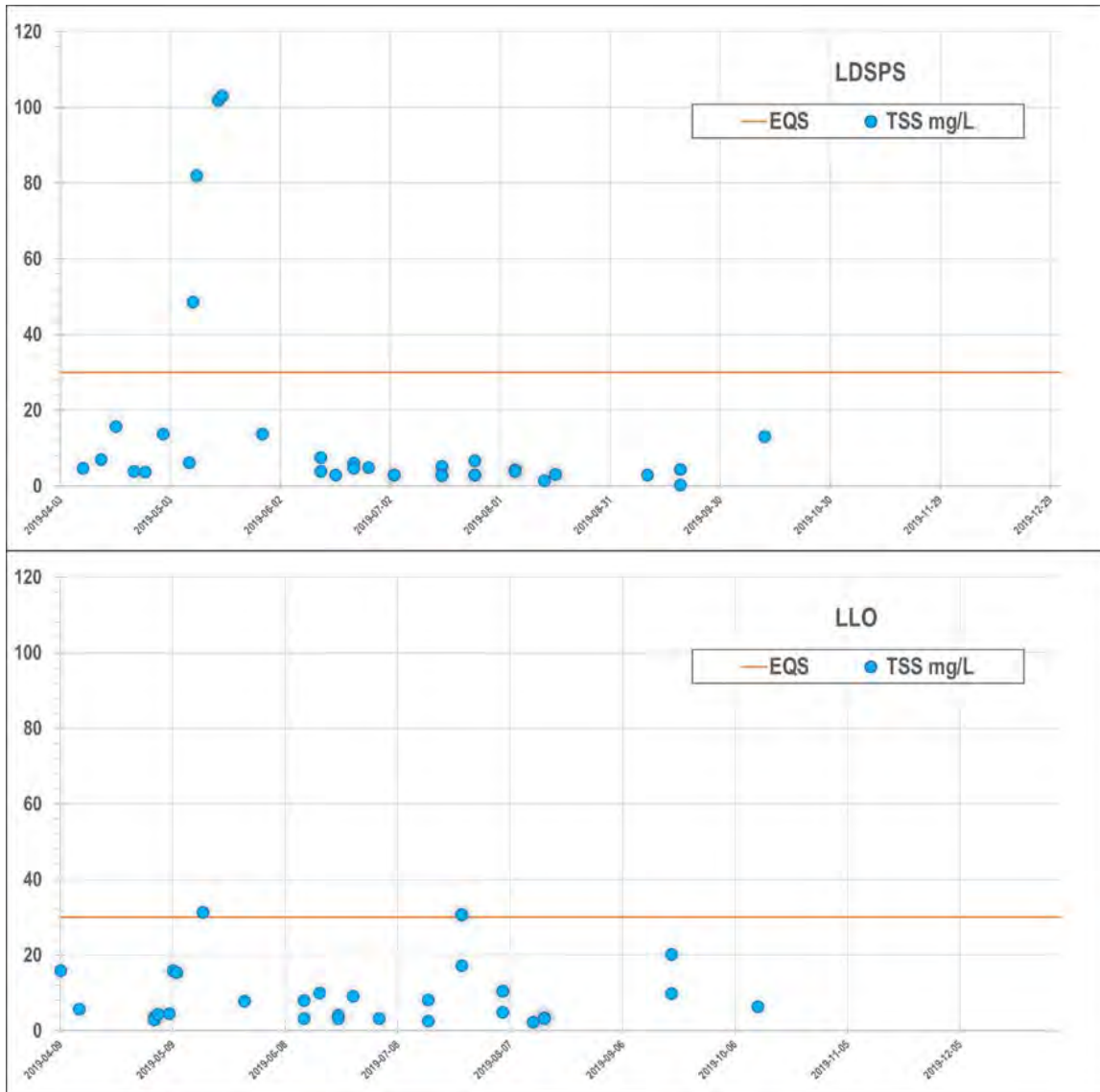


Figure 3-2: Time-series of TSS concentrations in LDSPs and LLO compared to EQS (orange line) for 2019

For station LDSPs, TSS concentrations above 15 mg/L were not observed in any other sampling months in 2019 and most measured concentrations were below 5 mg/L. A few measured TSS concentrations in the LLO greater than 15 mg/L were observed in July and September 2019 (Figure 3-2).

Total and dissolved As concentrations at the LDSPs and in the LLO are summarized in Figure 3-3 for 2019. Sampling collected in April and early May, and spanning (although not directly coincident with) the discharge events from the Control Pond on April 20 and April 27 – April 29, indicated total and dissolved As concentrations below the EQS of 0.053 mg/L. The range in measured total As concentrations at the LDSPs for the period of April 9 to May 8, 2019 was 0.023 mg/L to 0.050 mg/L (Figure 3-3). Similarly, the range

in total As concentrations observed at LLO for the same period was 0.025 mg/L to 0.040 mg/L.

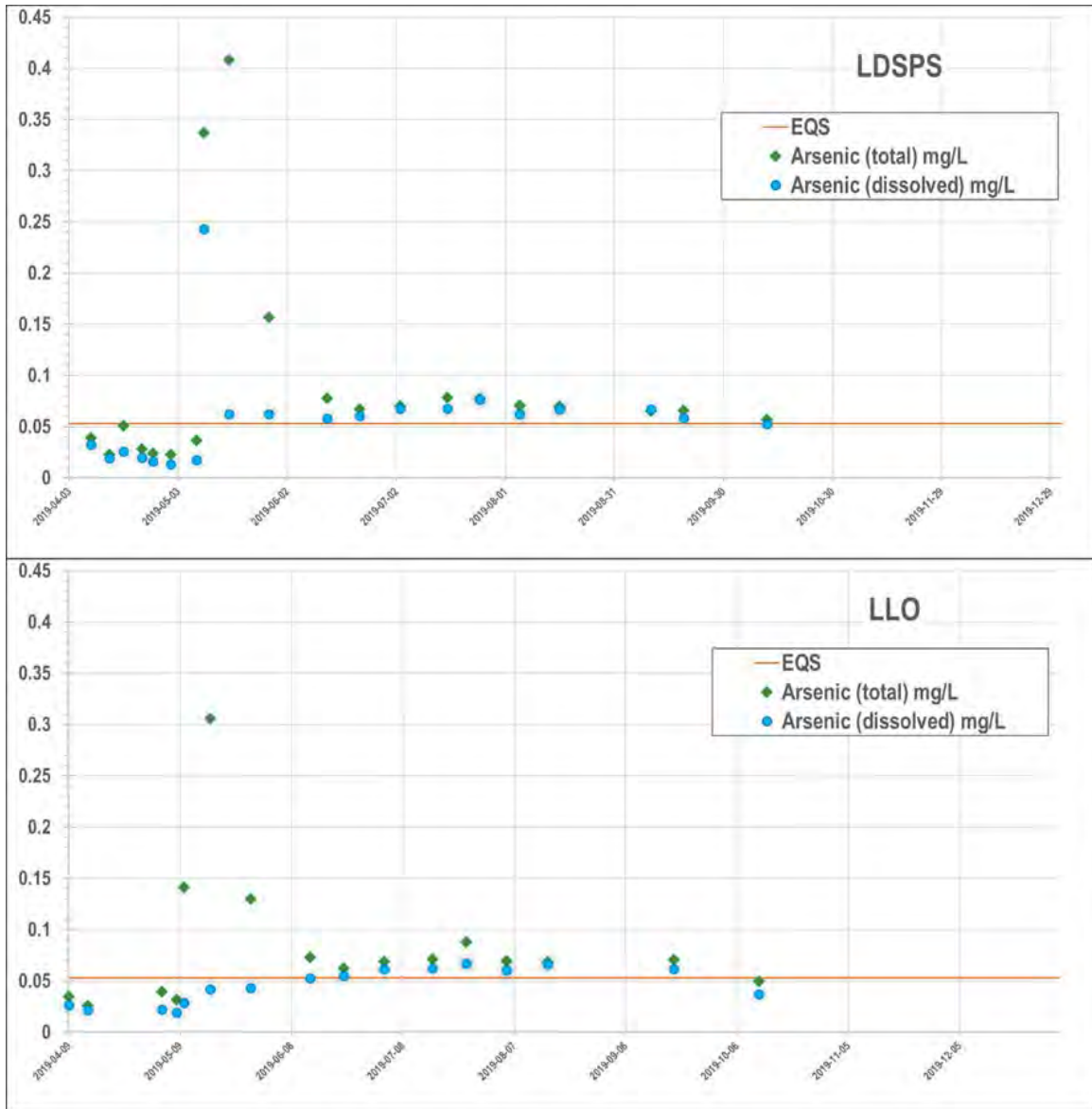


Figure 3-3: Time-series of Total and Dissolved Arsenic concentrations in LDSPs and LLO compared to EQS (orange line) for 2019

After May 8, total and dissolved As concentrations were highest in LDSPs and LLO samples during later May 2019 and remained above the EQS of 0.053 mg/L through to September 2019. Peak total As concentrations at LDSPs and LLO were approximately 0.4 mg/L and 0.3 mg/L, respectively and occurred on May 17, 2019, and reflect the freshet inflow into the pond. Since June, total and dissolved As concentrations at both locations were consistently measured at approximately 0.06 mg/L to 0.08 mg/L reflecting very little additional inflow and likely some settling of the pond solids from the freshet inflow (i.e.,

the difference between total and dissolved solids was greater during late May than during most of the summer). Measurements in October indicated concentrations decreased to values closer to 0.05 mg/L (Figure 3-3).

As previously stated, all other parameters analyzed were present in Control Pond stations LDSPs and LLO at low concentrations and below their respective EQS limit (Appendix B). Figure 3-4 provides an example for total and dissolved Se concentrations at each location. The maximum total Se concentration observed in 2019 was approximately 0.0006 mg/L (roughly 2.4% of the EQS) with most measured values between 0.0002 mg/L and 0.0004 mg/L (from 0.8% to 1.6%, respectively of the EQS) (Figure 3-4).

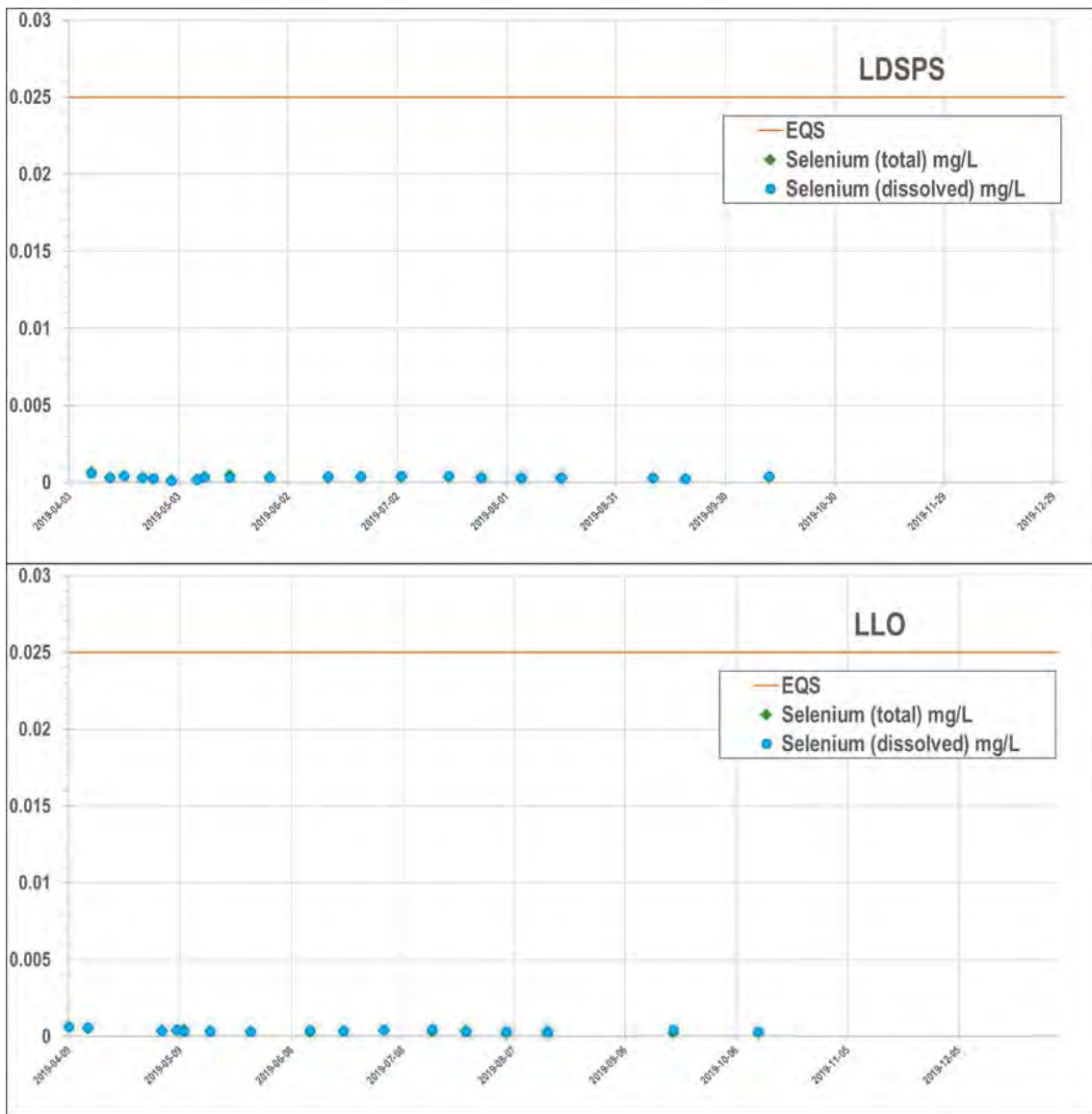


Figure 3-4: Time-series of Total and Dissolved Selenium concentrations in LDSPs and LLO compared to EQS (orange line) for 2019

3.1.2 Discharge LDSP Water Quality

There were two brief discharge events from the LDSP in 2019, for five hours on April 20 and intermittently between April 27 and April 29. Full suite analyses were conducted on LDSP discharge samples on April 20, April 27, 28 and 29, 2019. As described in detail in StrataGold (2019), TSS concentrations measured at LDSP during these discharge events exceeded the MDMER TSS discharge limit of 30 mg/L for a grab sample (Figure 3-5). Discharge from the LDSP did not occur again in 2019.

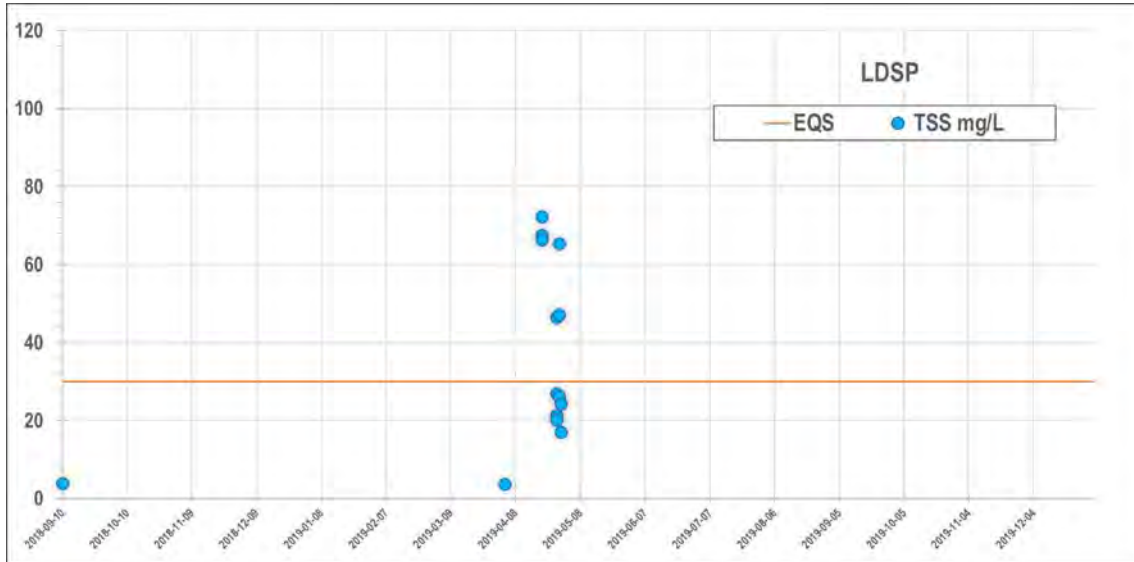


Figure 3-5: Time-series of TSS concentrations LDSP compared to MDMER (orange line) for 2019

As with the other LDSP sampling stations, the only other parameter that was measured at concentrations above the EQS in the LDSP discharge was total As. For the discharge periods, total As was measured consistently between 0.075 mg/L to 0.098 mg/L (Figure 3-6). The elevated concentrations are related to the elevated TSS concentrations present, as dissolved As concentrations were lower and ranged more narrowly between 0.027 mg/L and 0.030 mg/L. Importantly, as noted above in Figure 3-3, pre-discharge samples collected at LDSPs and LLO indicated that total As was below the EQS, and the time period between collecting a water sample during discharge and receiving laboratory analytical results was (and is) several days due to transport time and analytical time. Discharges were ceased when on-site TSS lab data indicated the TSS exceeded the EQS.

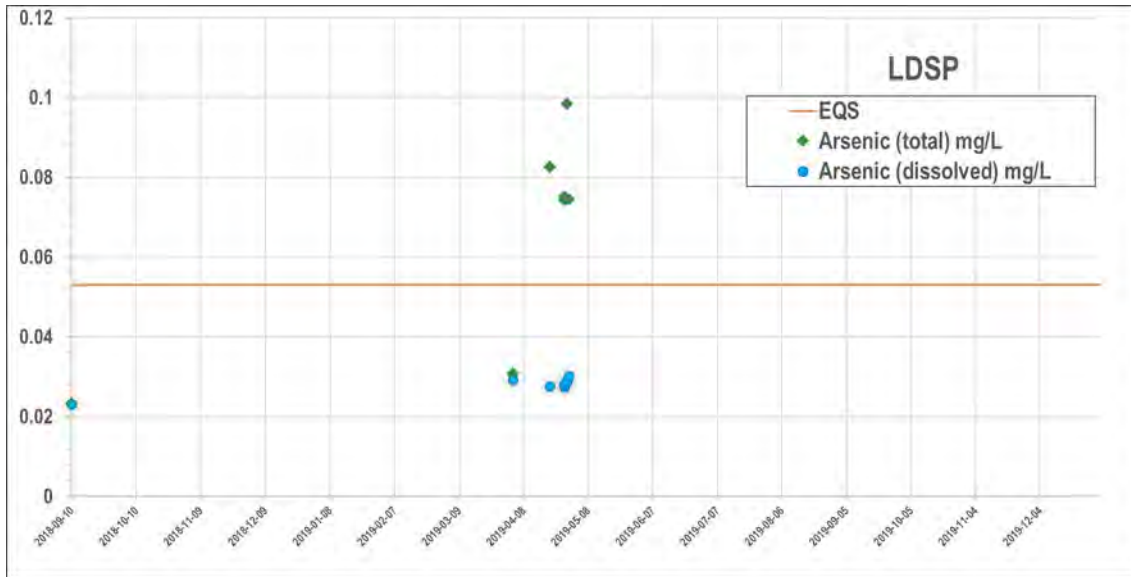


Figure 3-6: Time-series of Total and Dissolved As concentrations at LDSP compared to EQS (orange line) for 2019

No other parameters were present at elevated concentrations in the LDSP discharge (Appendix B). Total and dissolved Se concentrations in LDSP sampling is shown as an example of these observations in Figure 3-7.

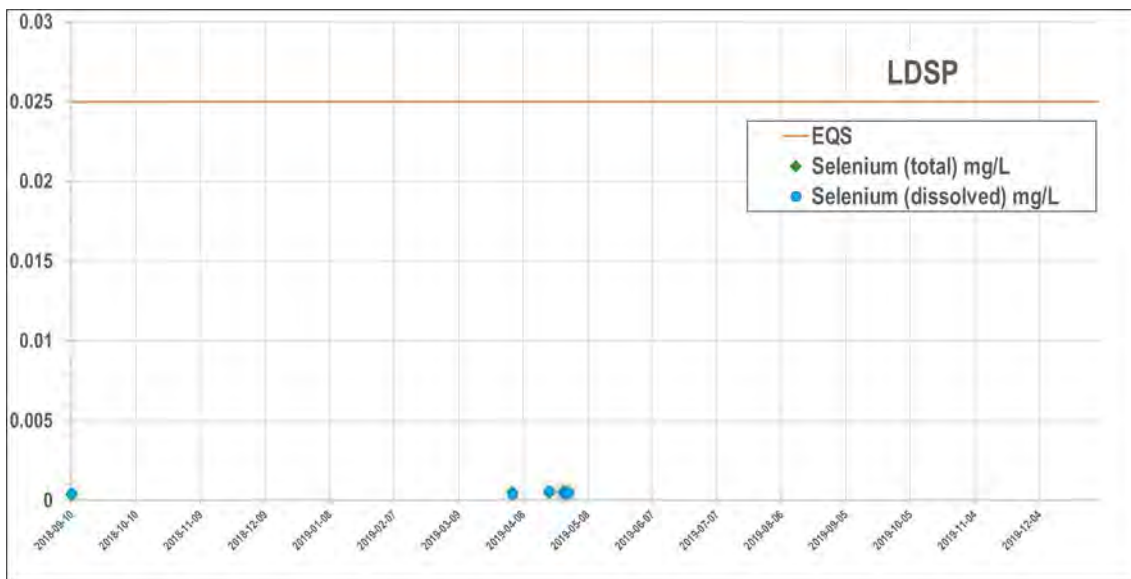


Figure 3-7: Time-series of Total and Dissolved Se concentrations at LDSP compared to EQS (orange line) for 2019

4. Quality Assurance Quality Control

Since 2007, StrataGold has a well-established quality assurance/quality control (QA/QC) program in place to ensure the surface water quality program for the Eagle Gold Project is reliable, representative of the water quality conditions throughout the project area and of the highest quality. This program is intended to validate the monitoring data, and to identify any potential methodological and/or analytical errors in the data set that might require modifications to the program and or laboratory analyses. The following provides a summary of the QA/QC program with respect to field quality, analytical data processing and internal laboratory procedures for 2019.

4.1 QA/QC Methodology – Field Collection

4.1.1 Field Blanks

Field blank samples are analyte-free reagent water samples used to assess the purity of chemical preservatives and potential contamination sources at the sampling location due to the collection method, handling, preservation, and exposure to the environment. Blank samples are generated by pouring de-ionized (DI) water into clean sample bottles in the same environment in which actual samples are collected, and then proceed with the elemental analysis as is routinely performed in the remaining collected samples. Detected values in blanks higher than the proposed criterion were flagged as a sample that may require further investigation.

4.1.2 Travel Blanks

Travel blanks are provided by the analytical laboratory and are used during field surveys to identify potential contamination during storage and transport. These blanks are kept sealed and transported with water collected samples. Concentrations in these blanks are generally below detection limits (DL), however if any measured parameter is detected above detection limit this may suggest a potential contamination during sample handling and transport.

4.1.3 Field Replicates

The British Columbia Field Sampling Manual (Clark 2013) specifies that a relative percent difference (RPD) greater than 20 percent indicates a possible sample contamination. An RPD greater than 50 percent indicates a definite sample integrity problem; however, it is not unusual to find high variability for the field duplicates, especially if the water is turbid (e.g., total suspended solids [TSS] greater than 25 mg/L). Field duplicate samples are generally collected at the same location and time as a site sample to assess the natural variability of the site. For the purpose of this analysis, originals and duplicates are

considered paired replicates collected from the same location sequentially in time and were used to calculate the RPD.

4.2 Analytical QA/QC – Elemental Analysis Quality

All analytical analyses were performed by ALS laboratories (Burnaby, BC) a member of the Canadian Association for Laboratory Accreditation Inc. (CALA). The laboratory QA/QC program included analysis of certified reference materials, laboratory control samples, laboratory duplicates, method blanks and matrix spikes to determine accuracy and precision of instrumentation and methods. The majority of reported data met the laboratory data quality objectives (DQOs). However, in some instances, method recovery was not accurately calculated due to matrix interferences; thus, DLs were adjusted to prevent any influence on analytical results. Overall, reported data were of good quality, reproducible and met the laboratory QA/QC objective.

4.2.1 Dissolved versus Total Metal Analysis

For this QA/QC program, a dissolved metal concentration that was higher than the corresponding total metal concentration was considered an indicator of potential sample contamination and/or analytical error. Samples for total and dissolved metals are collected in separate bottles and are handled differently. For example, samples for dissolved metal analysis are filtered through a 45 µm filter and the filtering process can introduce error or contamination into the sample.

Dissolved metal concentrations were flagged as a potential QA/QC issue if the concentration was >20% higher than the corresponding total metal value in the same sample. Variability of less than 20% is excluded because it generally falls within the analytical margin of uncertainty (or error). Dissolved and total metal pairs are included in this analysis if the dissolved value is greater than five-times its RDL (Clark 2013).

4.3 QA/QC Results and Discussion

This section summarizes the results of the QA/QC program for Eagle Gold. The program included an evaluation of field blanks, replicate samples, and total vs. dissolved metal concentrations. The QA/QC results for the surface water quality sampling program for 2019 provides a reasonable level of confidence in the water quality data set. More importantly, the minor issues noted during the QA/QC assessment are not expected to alter the interpretation of the reported data. Based on the results of field replicates, field blanks, travel blanks, and dissolved vs total metal concentrations, the reported analytical data are considered reproducible, of good quality and representative of current water chemistry in the Project area. A brief description of methodological and analytical QA/QC results is provided below.

4.3.1 Field Blanks

Field blanks were collected and analyzed to assess purity of chemical preservatives and potential contamination sources at the sampling location. Several parameters exceeded the detection limit for a blank collected in February 2019. However, results were only slightly above DLs and therefore not expected to be reflective of faulty methodologies used for sample collection. The remaining field blanks have parameters occasionally exceeding DLs. The concentrations of exceeding parameters rarely occurred at the levels observed in the collected water samples at the monitoring stations with detected values are slightly above detection limits. These suggests that results in the field blanks may be due to matrix interferences within blank sample and the consequently adjustments of DLs by the analytical laboratory (e.g., barium) Appendix C (provided electronically).

4.3.2 Travel Blanks

Travel blank results are also provided in Appendix C. The majority of measured parameters were below DL. These results indicate that good protocols of sample handling and transporting were applied in the field, given all values were reported as non-detects (< DL). Parameters such as ammonia, barium, chromium, phosphorus, manganese and mercury show detected values in travel blanks. For barium, some matrix interferences were detected and thus, these results are indicative of DL adjustment. Results for ammonia, phosphorus, manganese and mercury maybe indicative of cross contamination occurring at sample collection. However, these results are not expected to compromise the quality of the collected samples because the concentrations of detected parameters in blank samples rarely occurred at the levels observed in samples collected at monitoring stations.

4.3.3 Dissolved Metal versus Total Metal Concentrations

Dissolved vs total metal concentrations are presented in Appendix D (provided electronically). Ideally, dissolved concentrations are 100% or less of the corresponding total concentration. The number of analyte pairs with dissolved metal values greater than 120 and 150% of the corresponding total are uncommon (< 3 occurrences of the total collected samples). Parameters such as cadmium, cobalt, copper, mercury, manganese, molybdenum, selenium, silver and sodium showed > 120% exceedances in more than 3 total collected samples representative of matrix interferences, cross contamination or mislabeling of bottles occurring during sample collection or at the laboratory. However, the number of recorded incidents in metal concentrations were generally below the 120% acceptability criteria in most of the analyzed samples and parameters, which reflects reasonable confidence in the reported results.

5. Closure

This memorandum was prepared by the Lorax staff below.

Respectively Submitted,
Lorax Environmental Services Ltd.

Prepared by:

Prepared by:

Original Signed by

Original Signed by



David Flather, M.Sc.
Principal



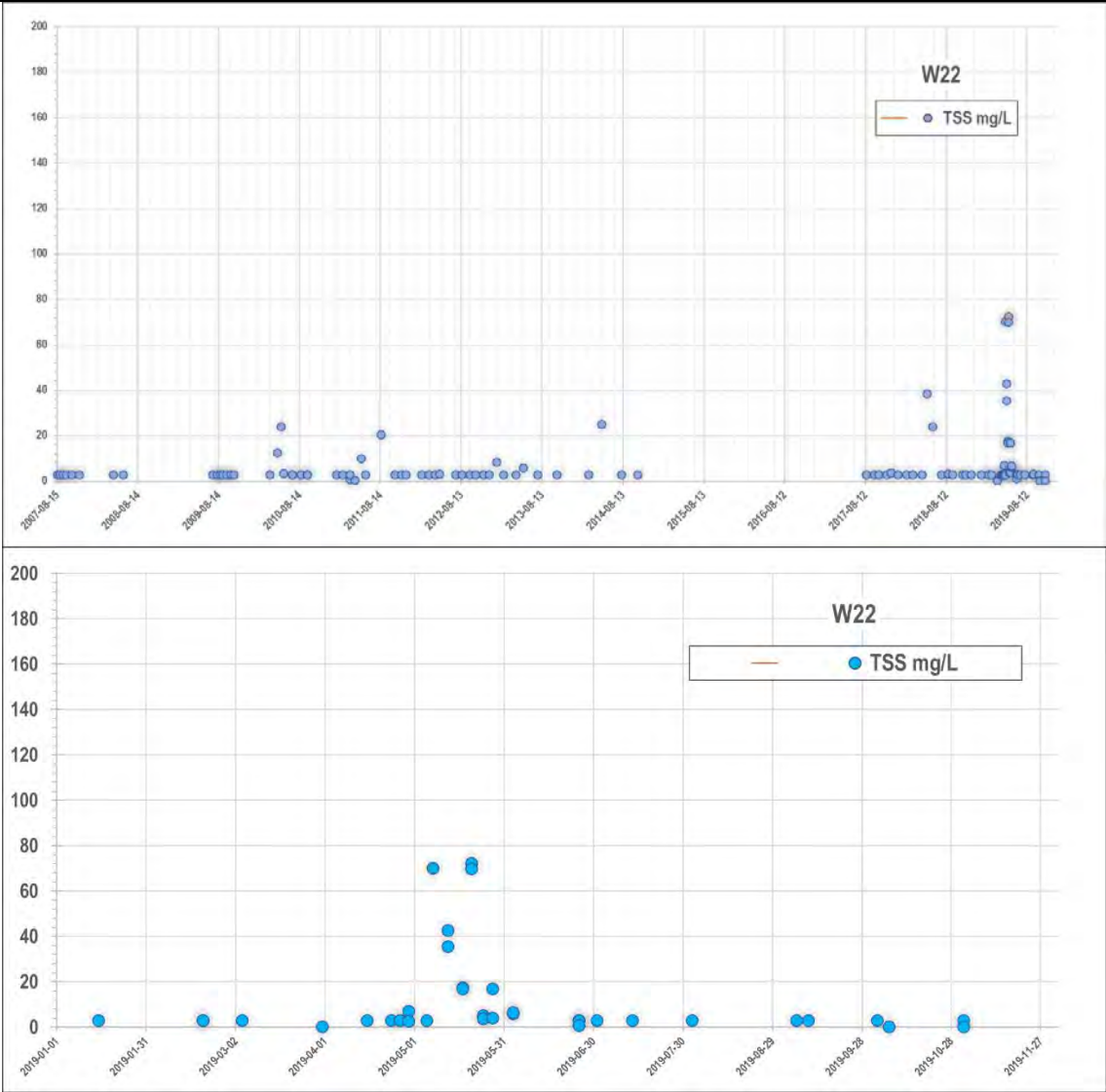
Jorgelina Muscatello, Ph.D., R.P.Bio.
Senior Aquatic Toxicologist

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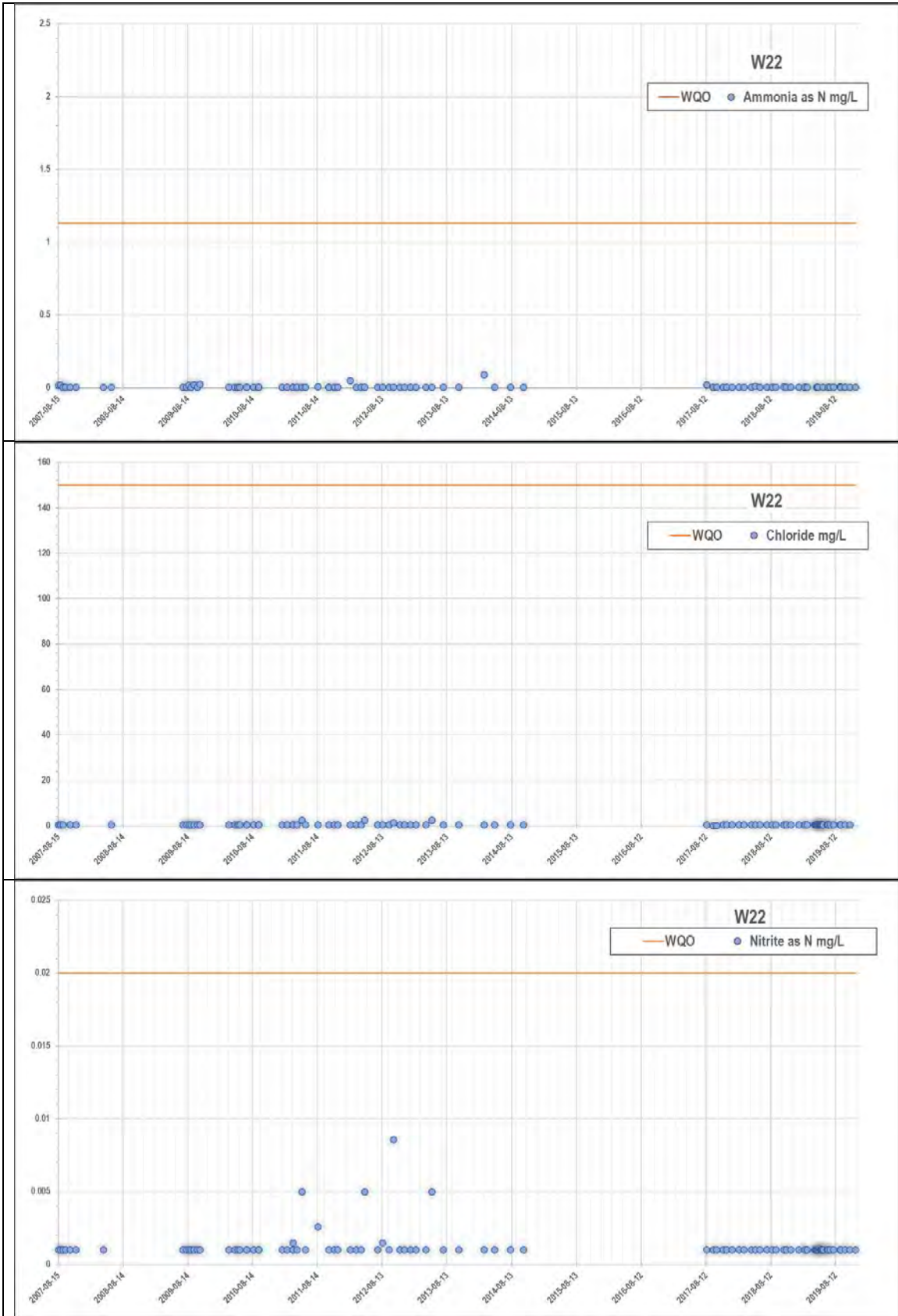
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APPENDIX A: SURFACE WATER QUALITY MONITORING RESULTS RECEIVING ENVIRONMENT

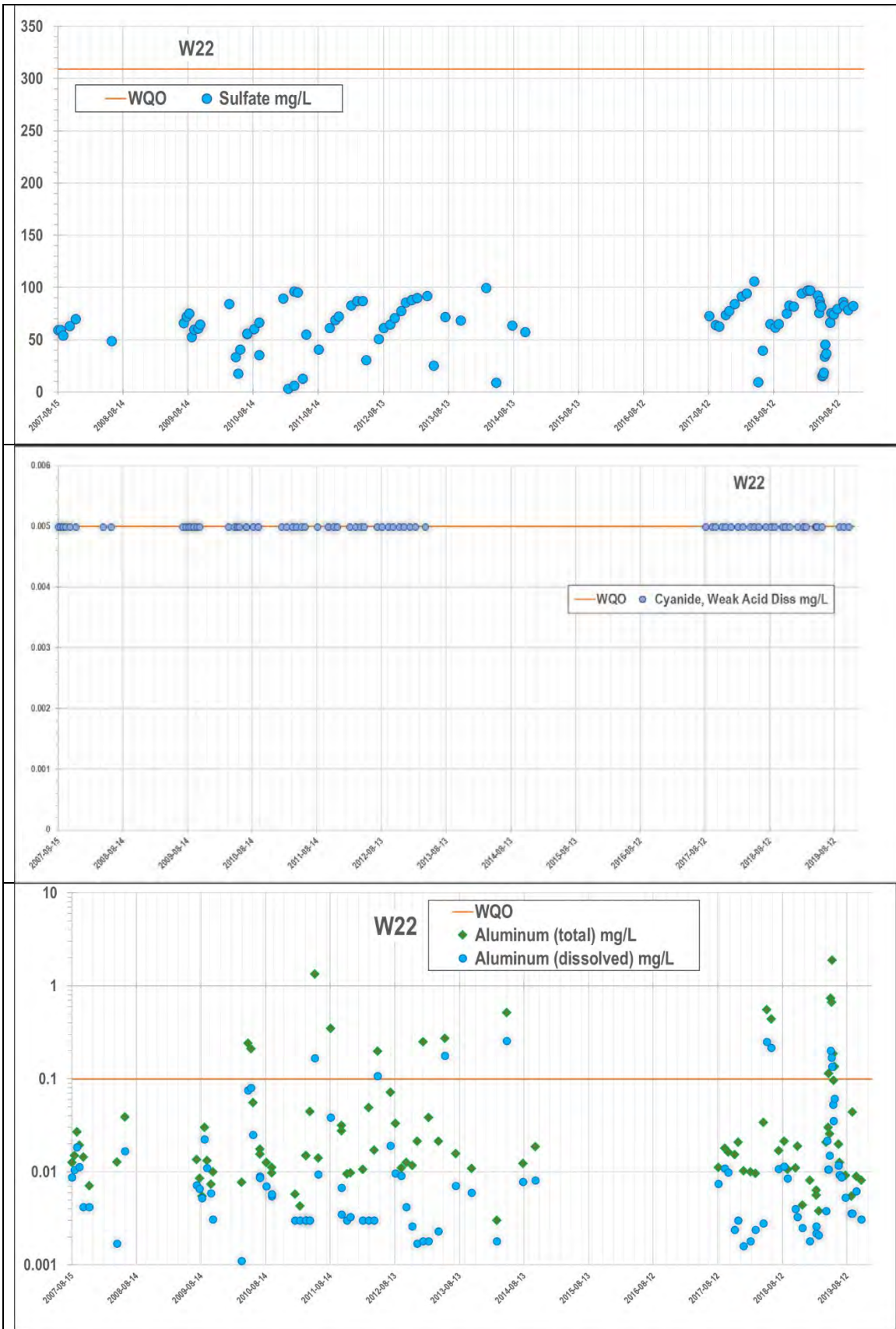
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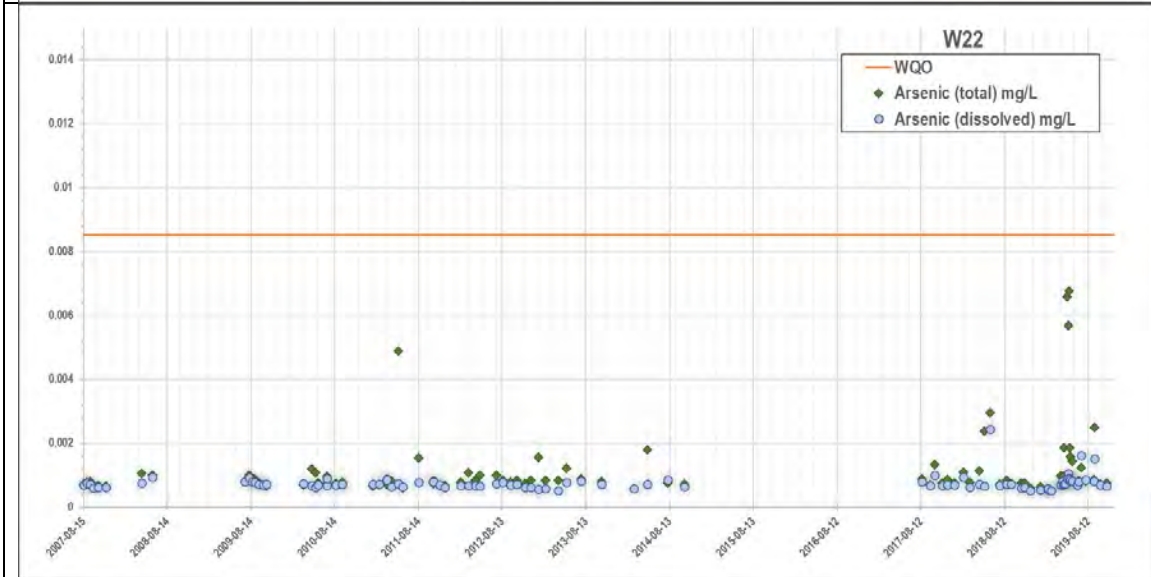
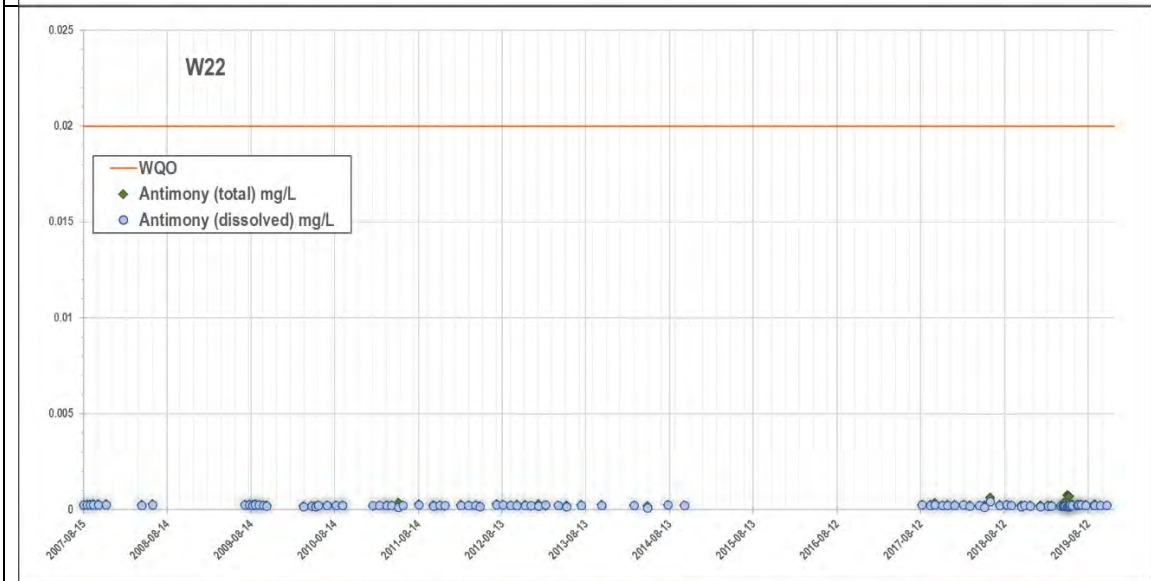
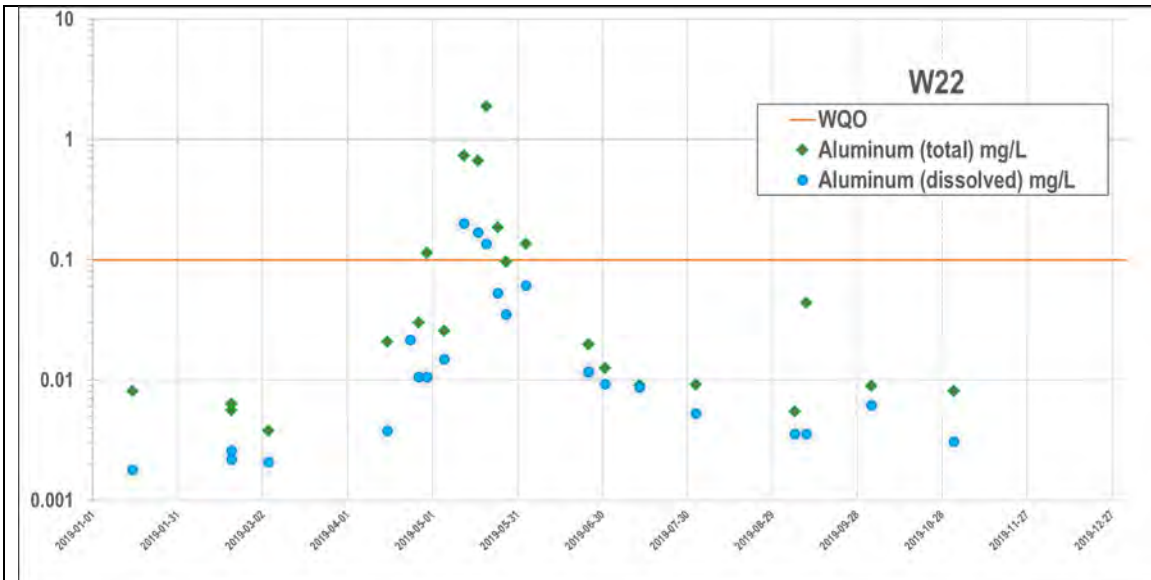
APPENDIX A
 EAGLE GOLD – 2019 SURFACE WATER QUALITY SUMMARY



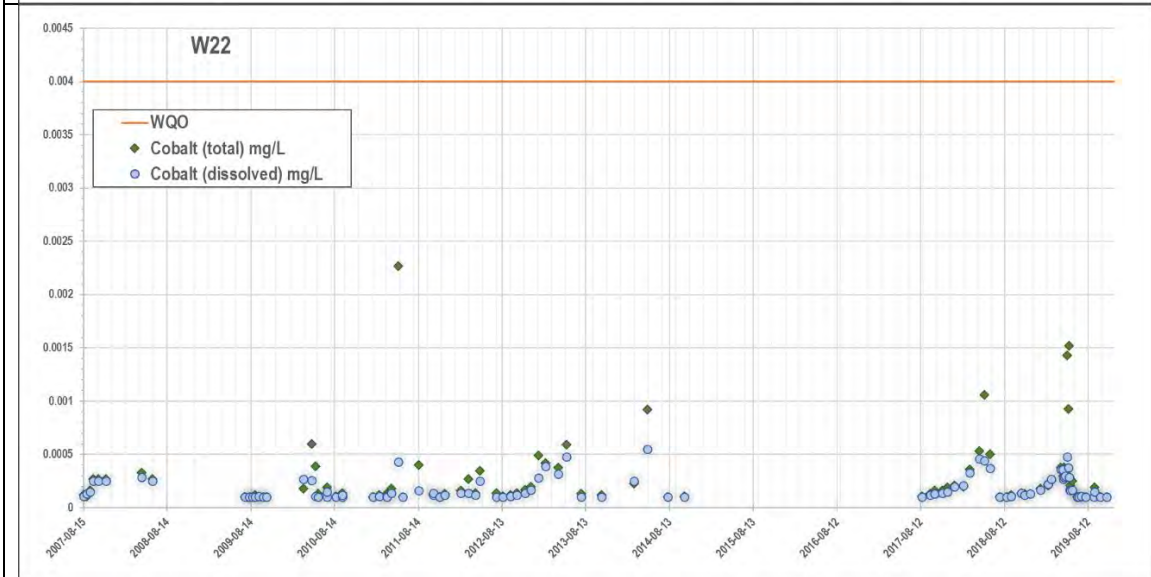
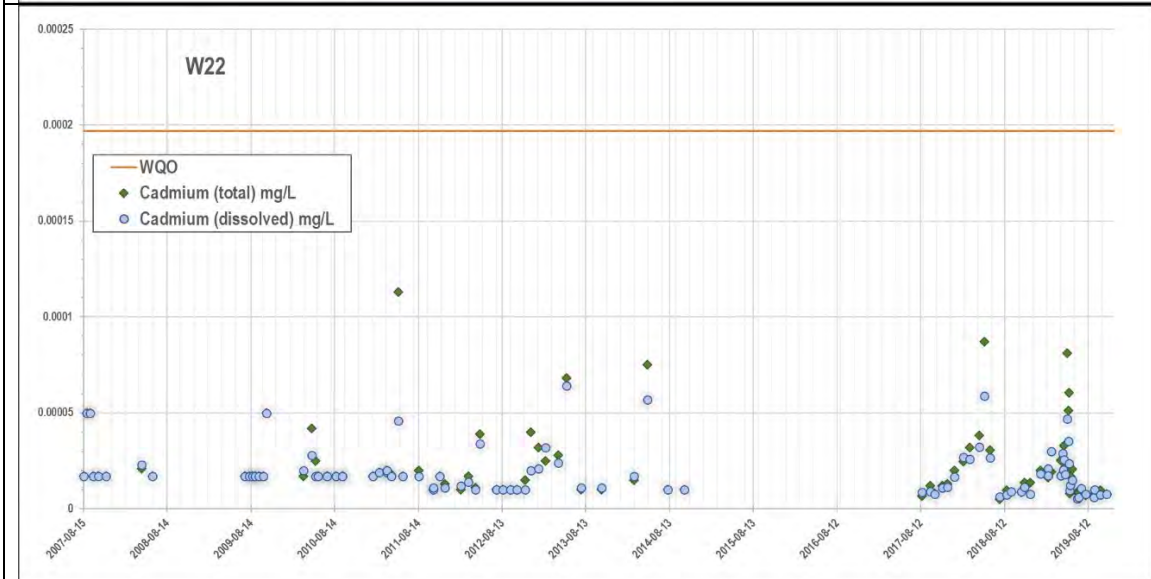
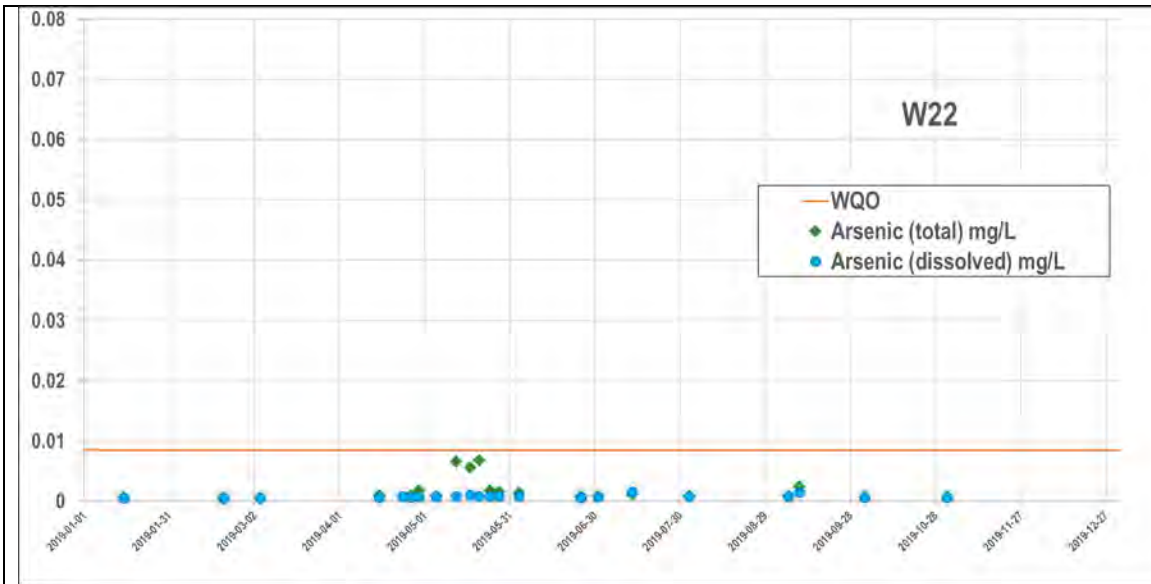
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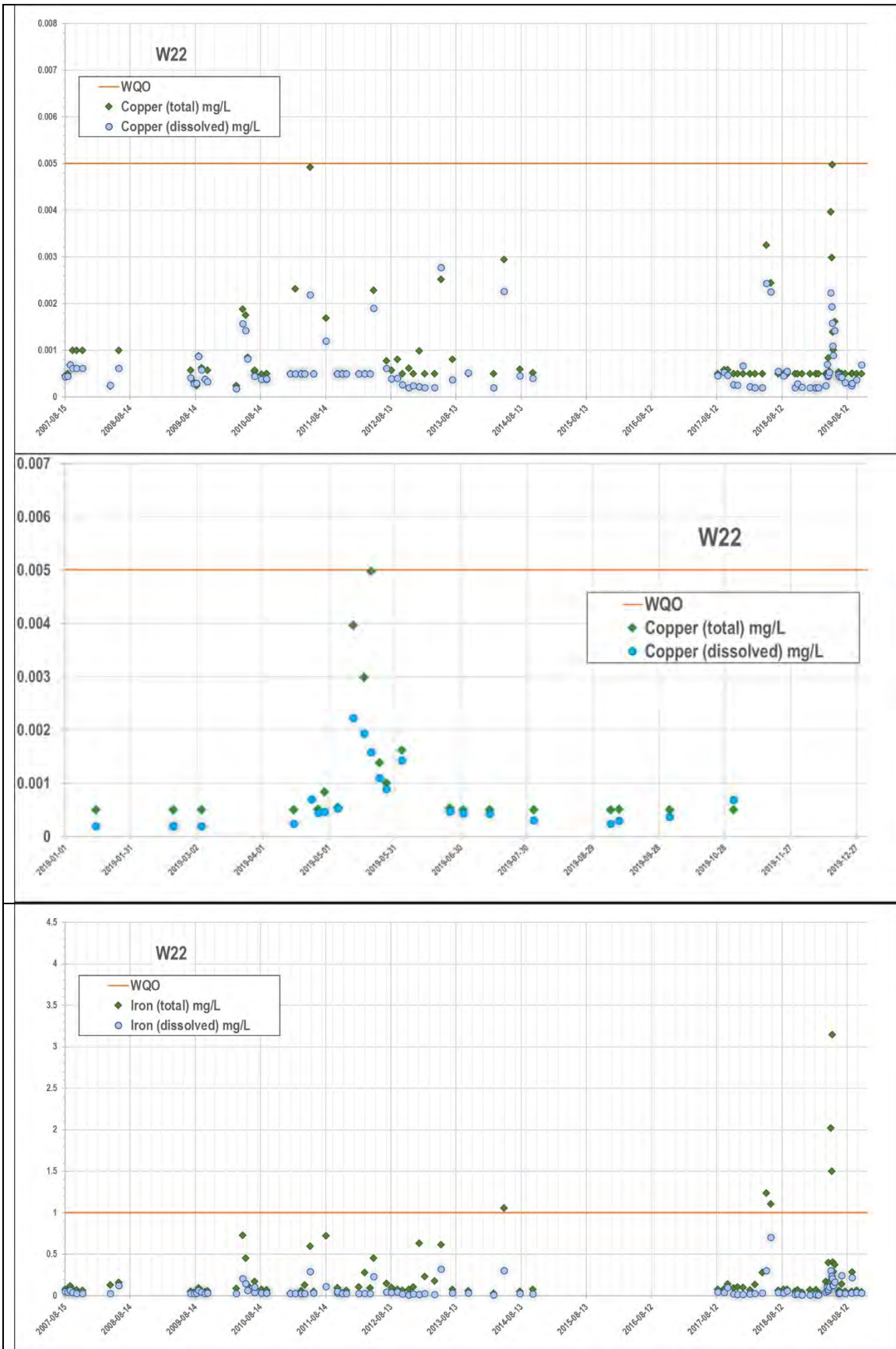
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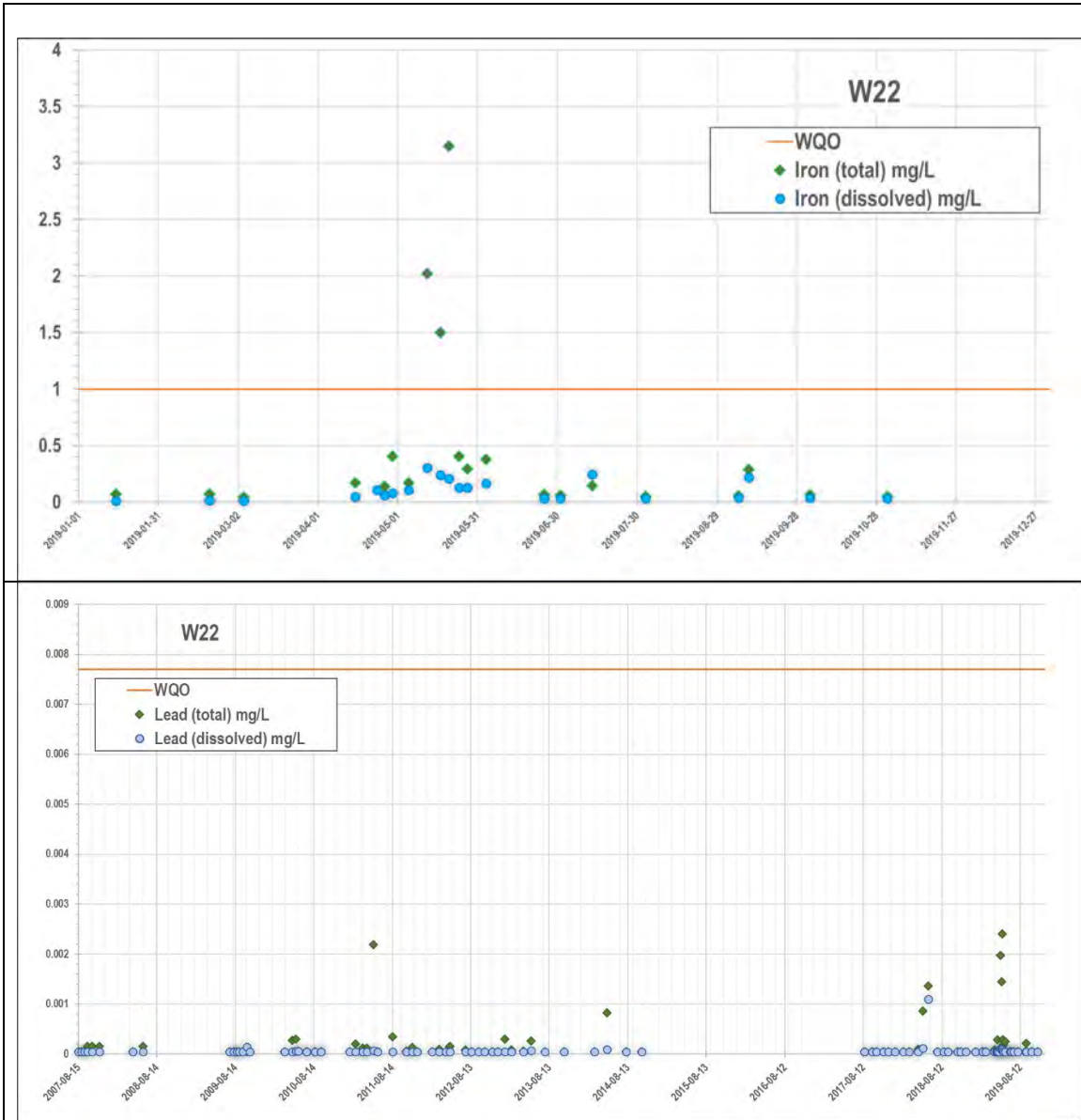
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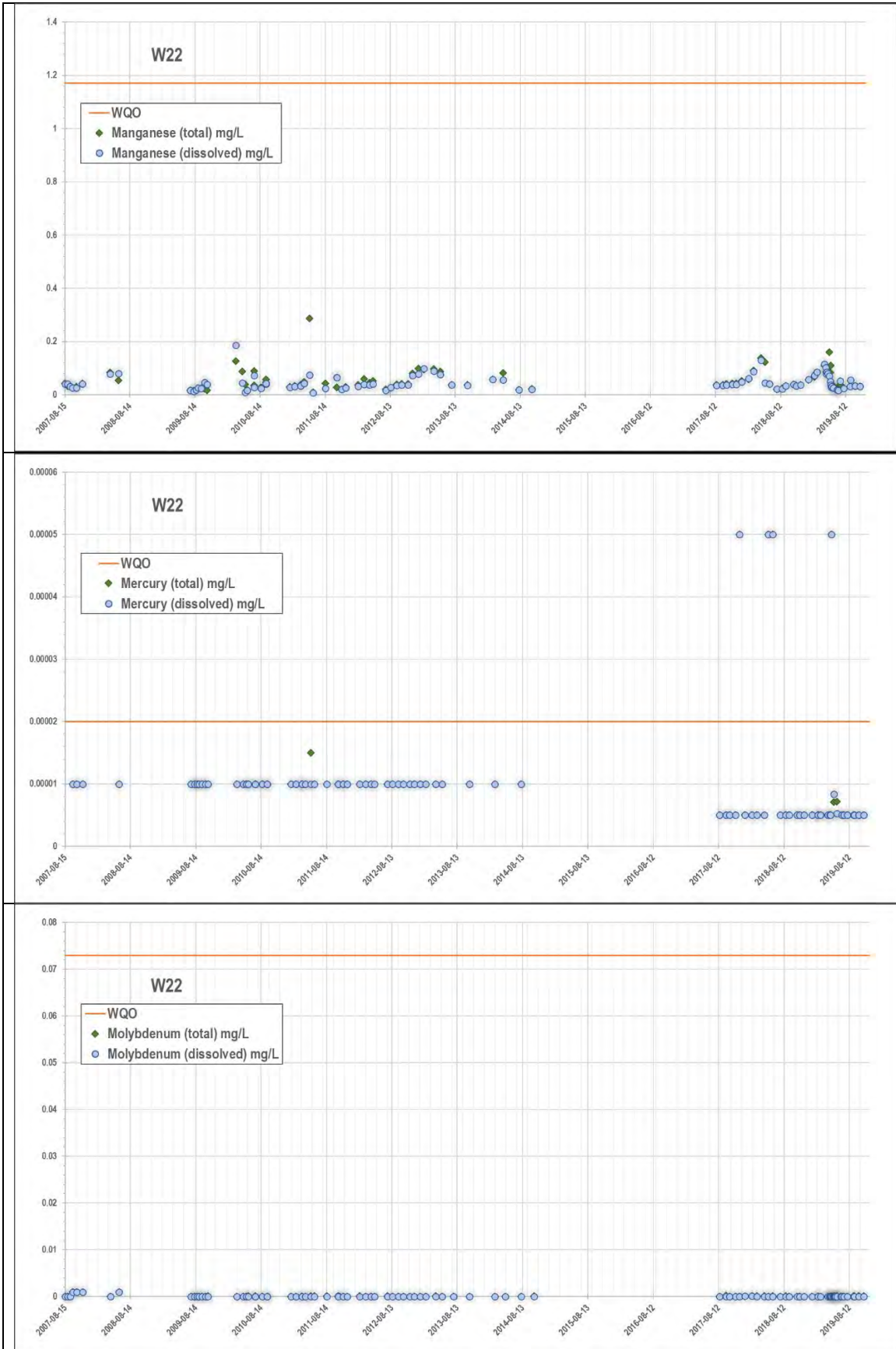
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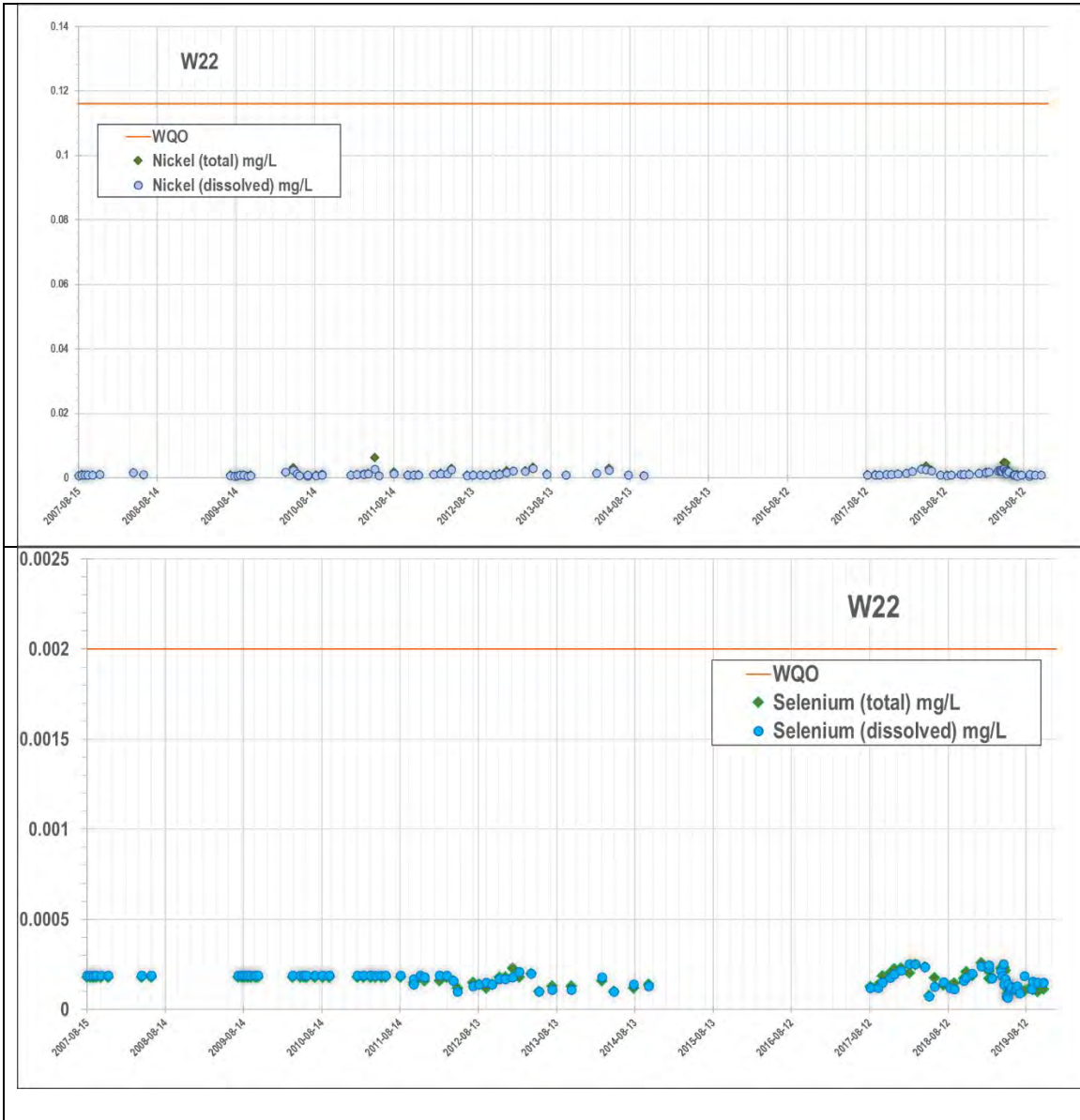
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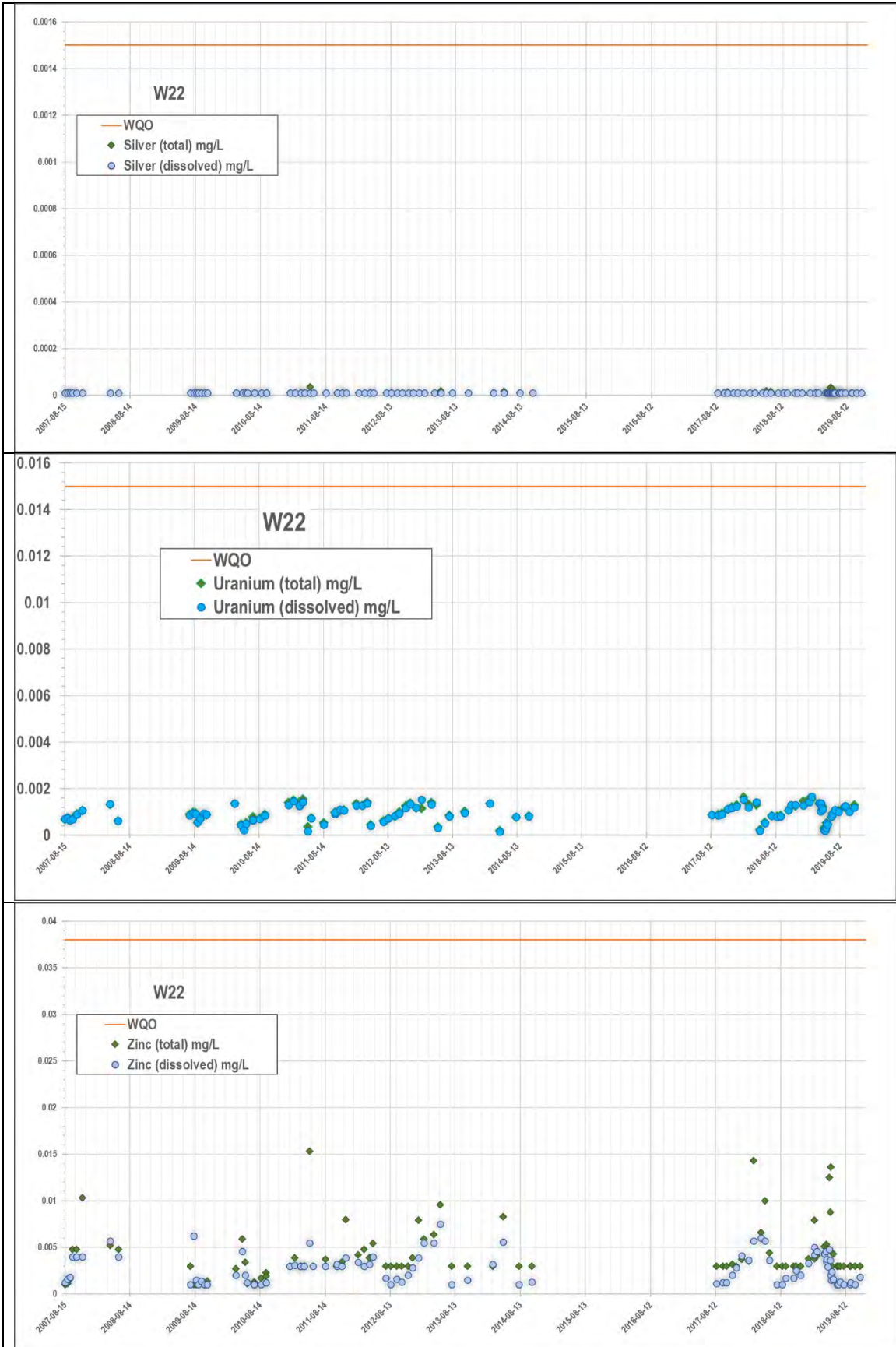
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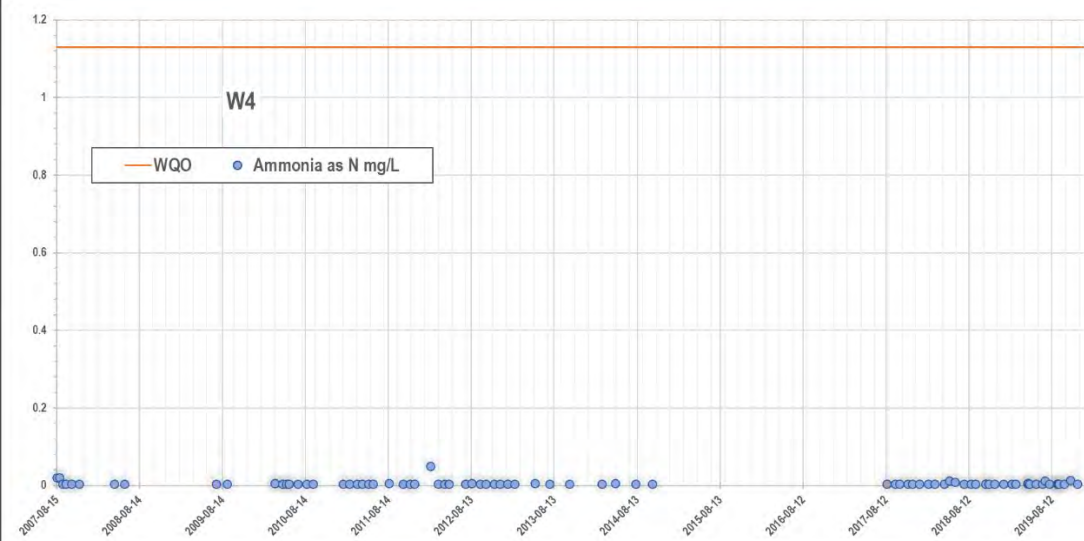
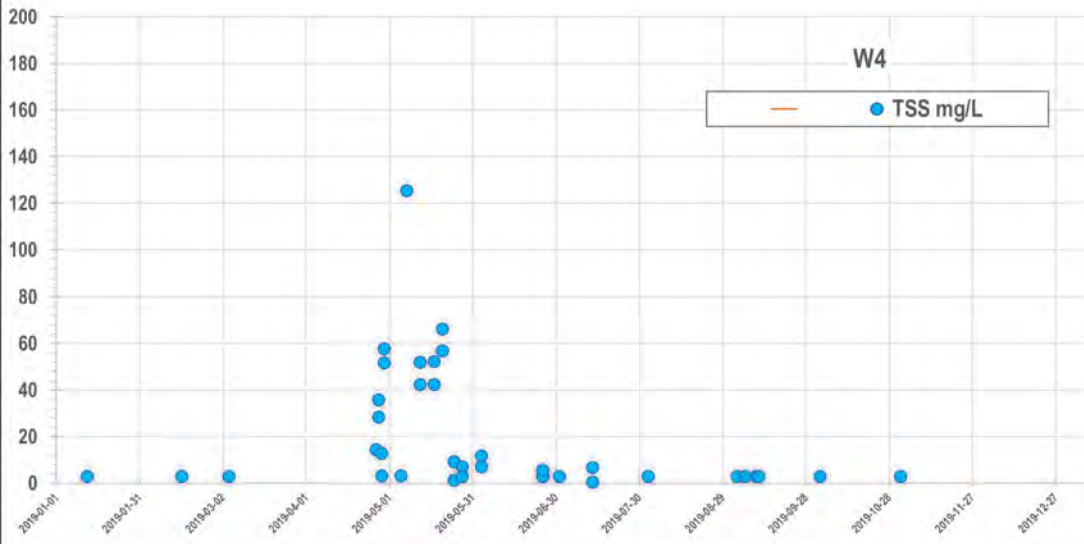
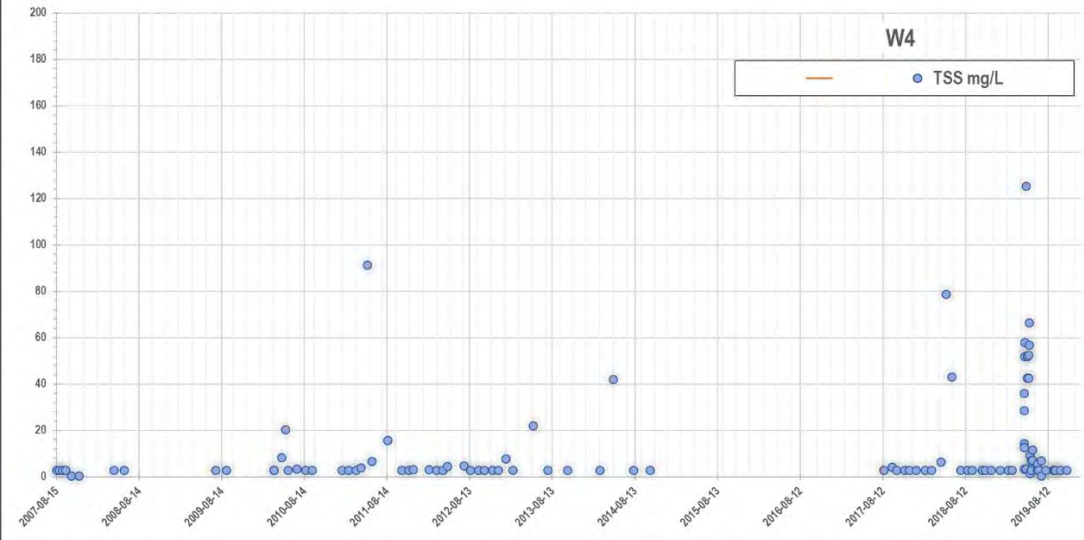
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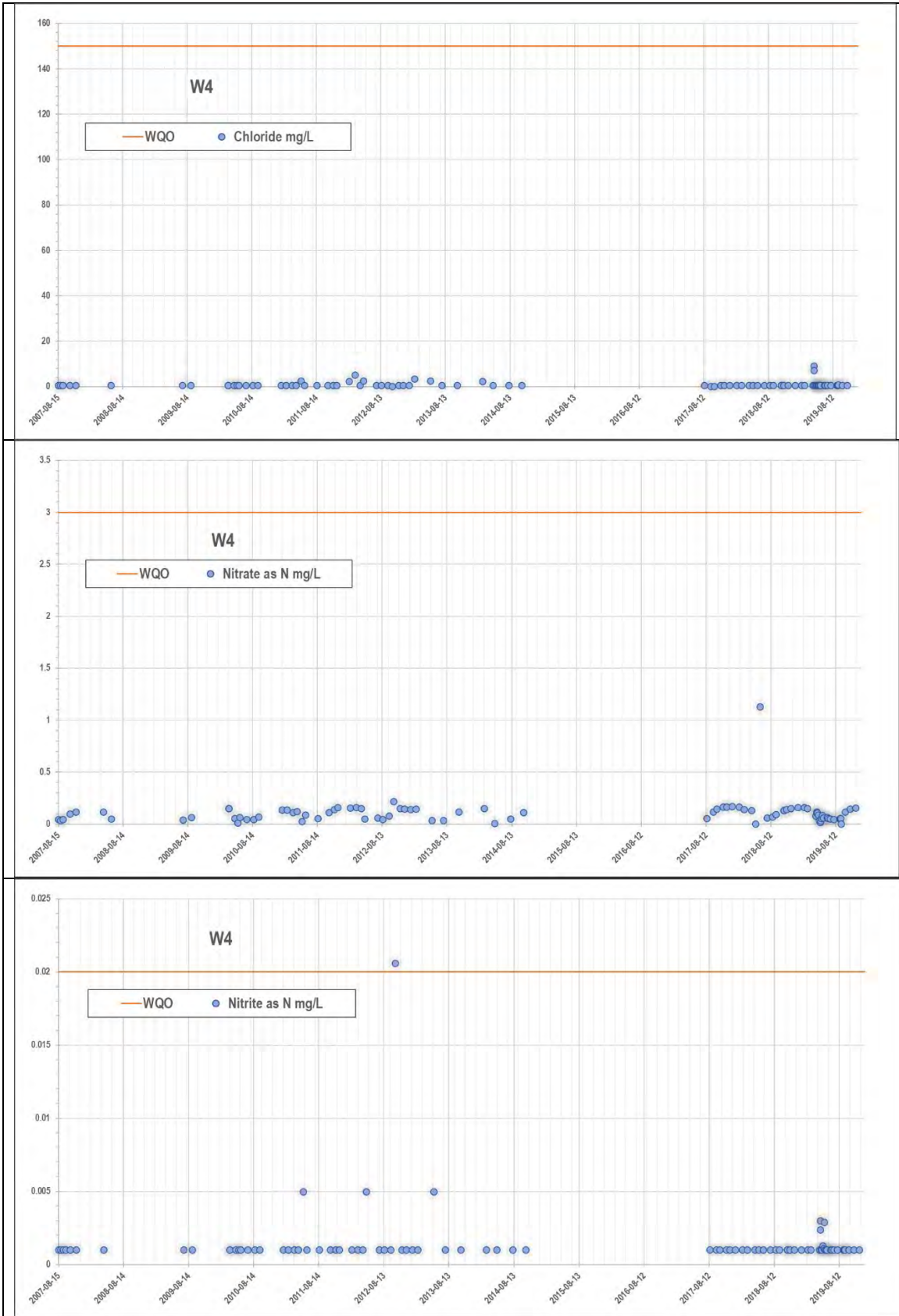
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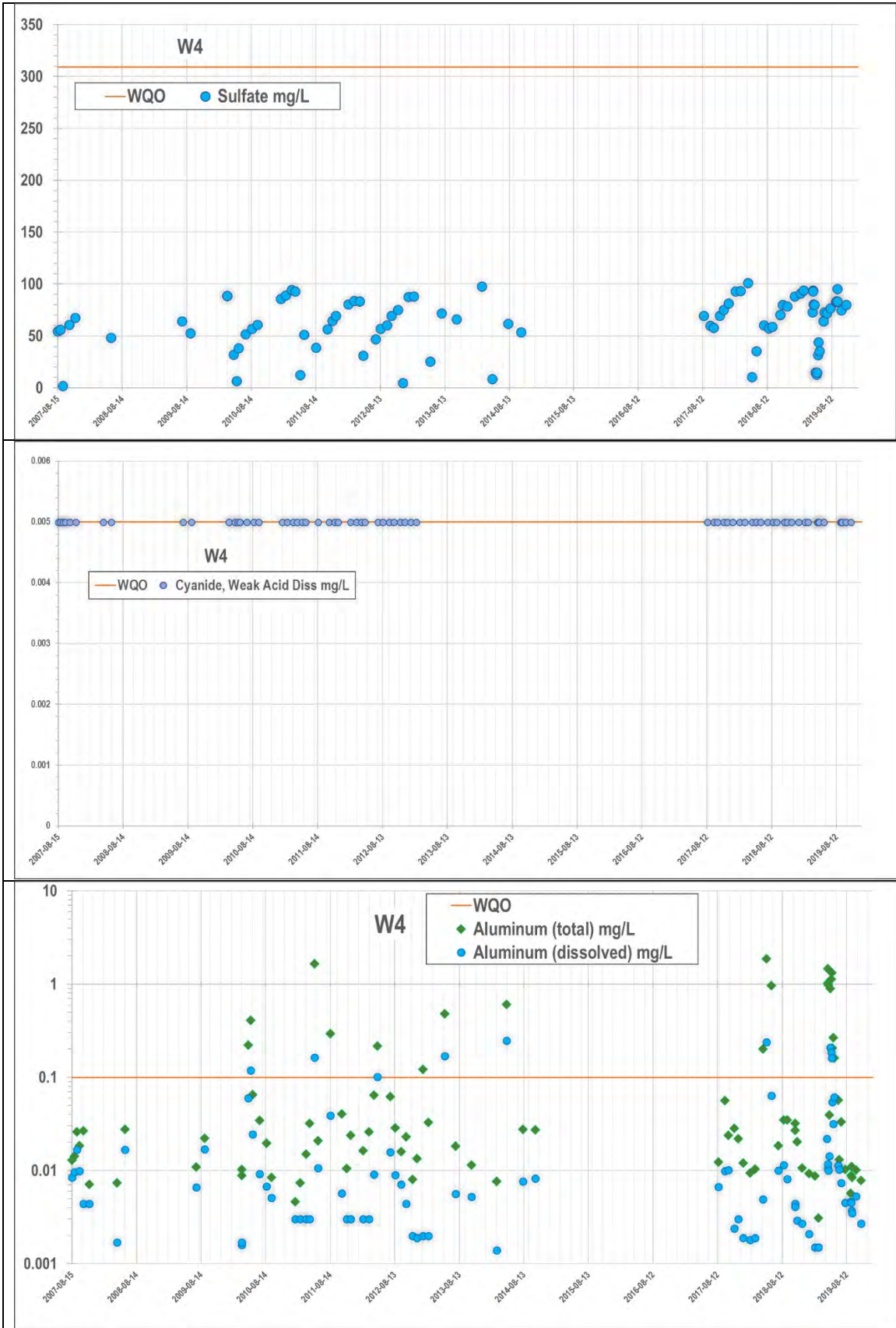
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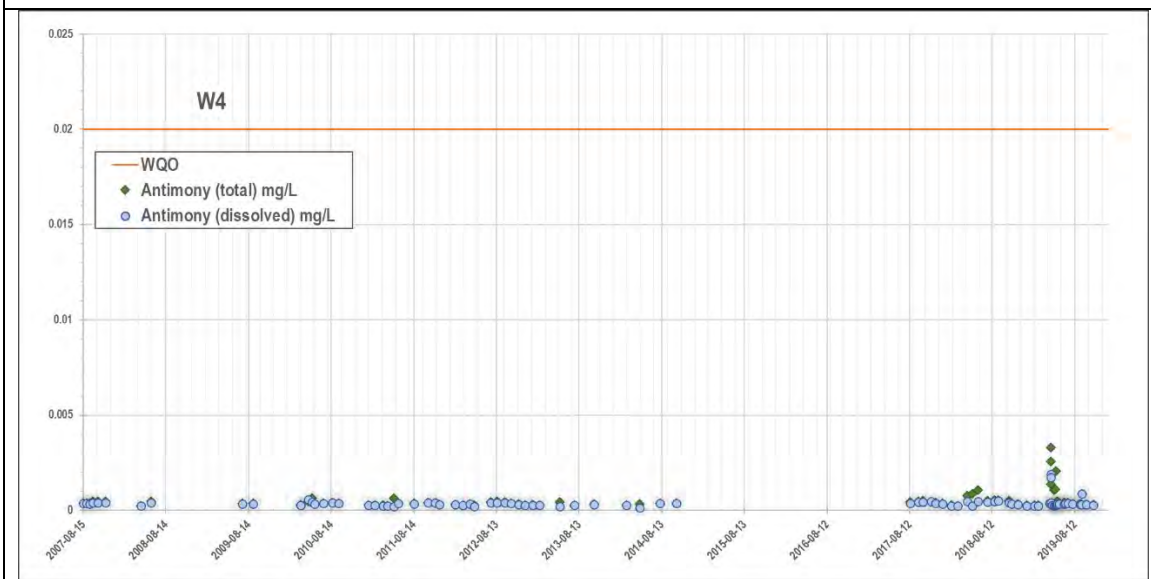
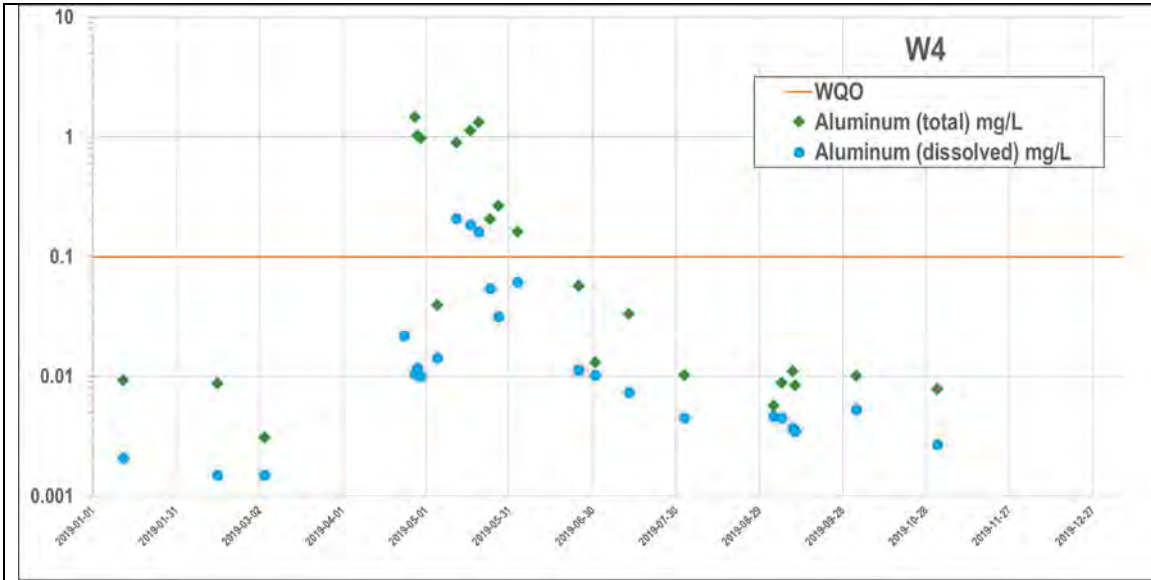
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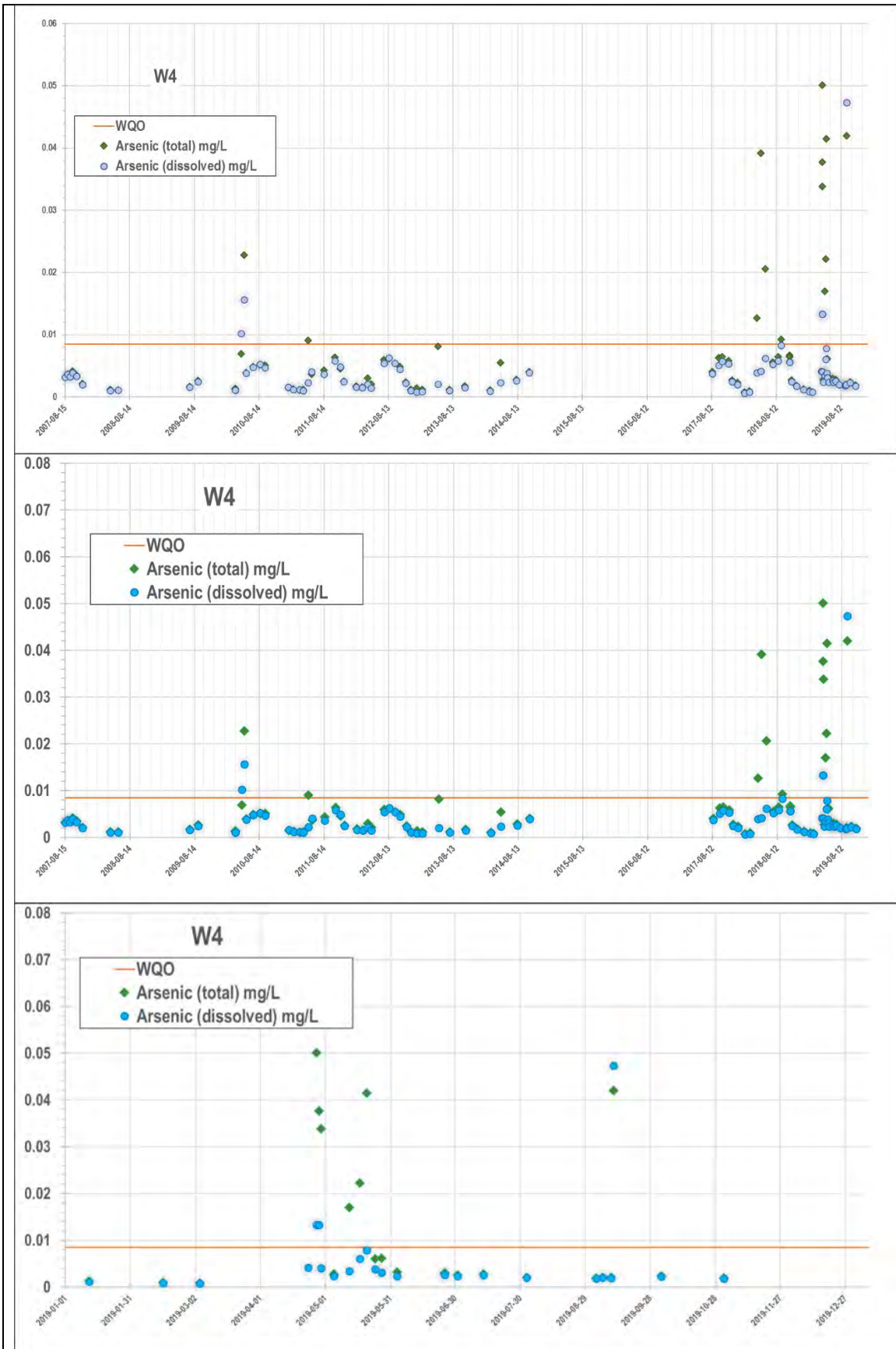
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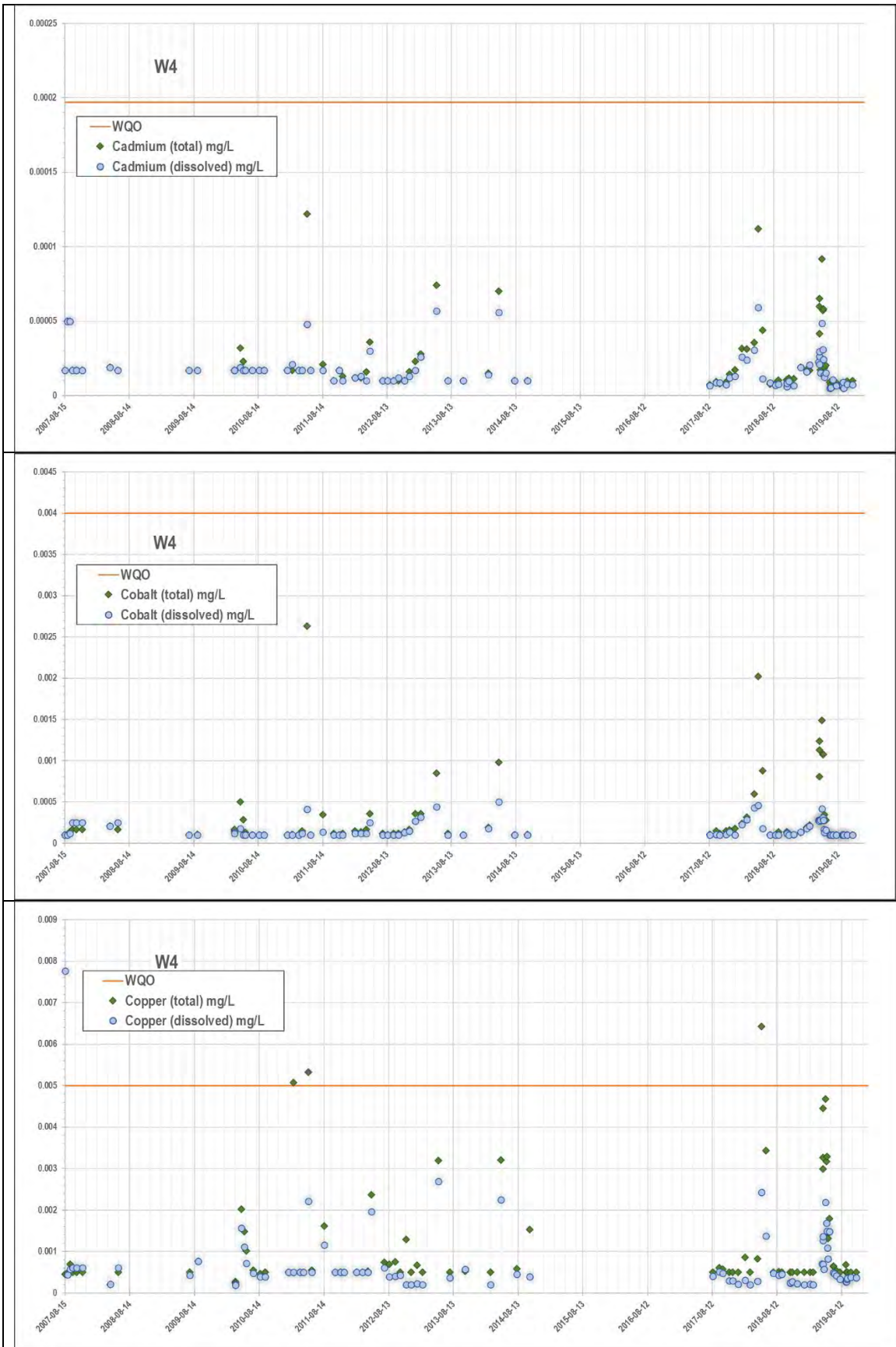
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EAGLE GOLD – 2019 SURFACE WATER QUALITY SUMMARY



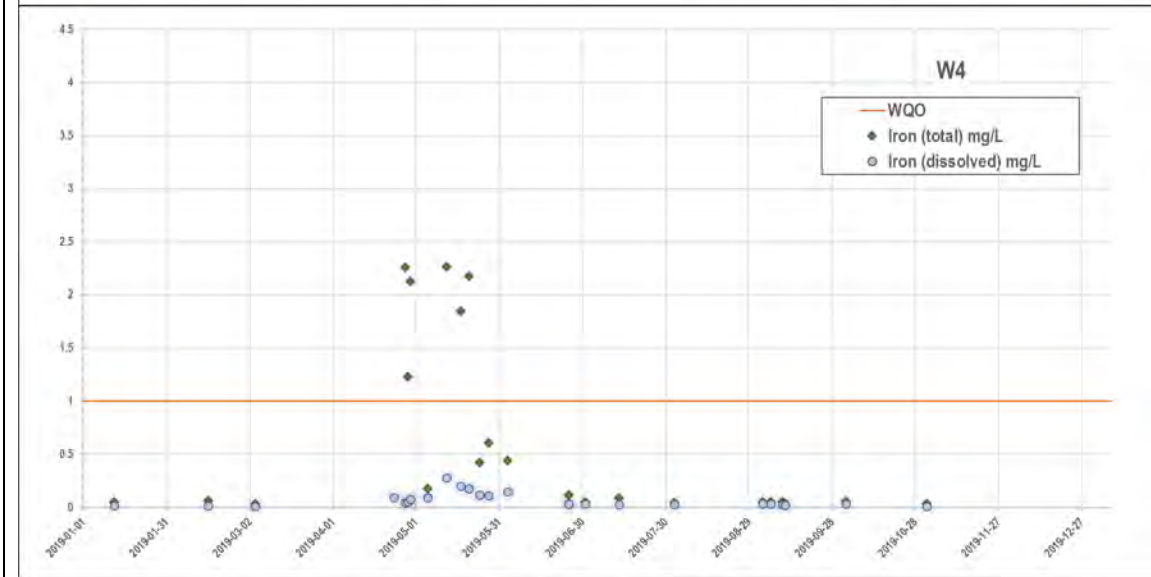
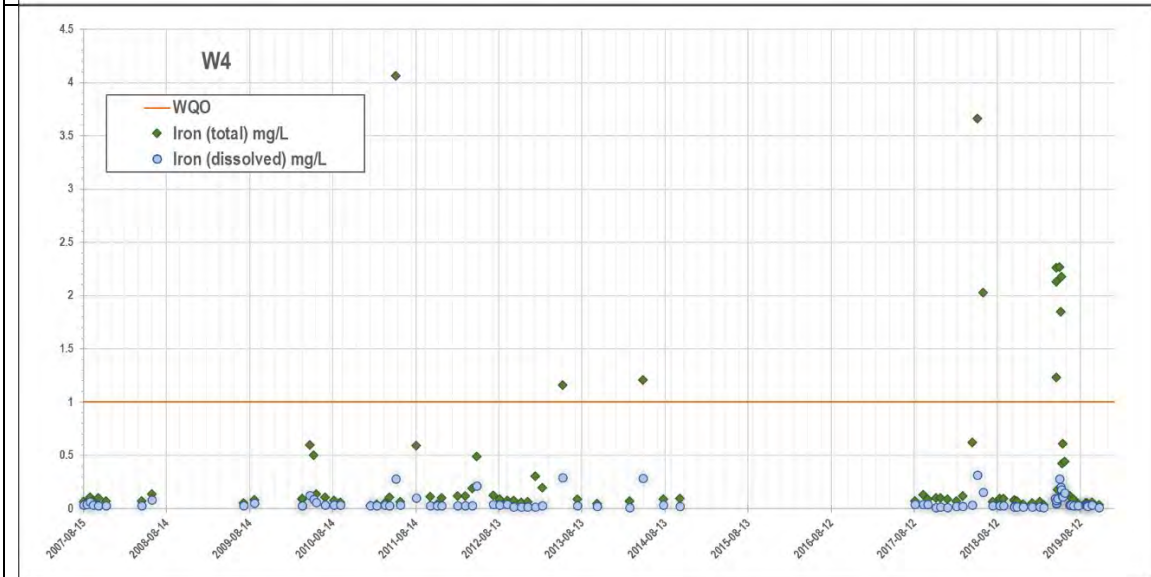
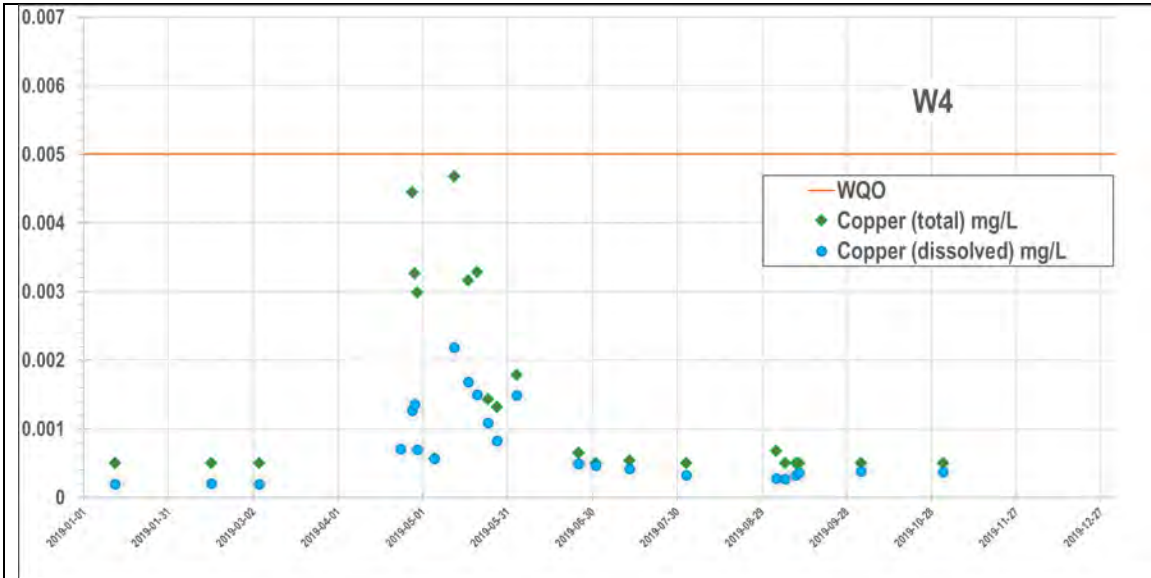
APPENDIX A
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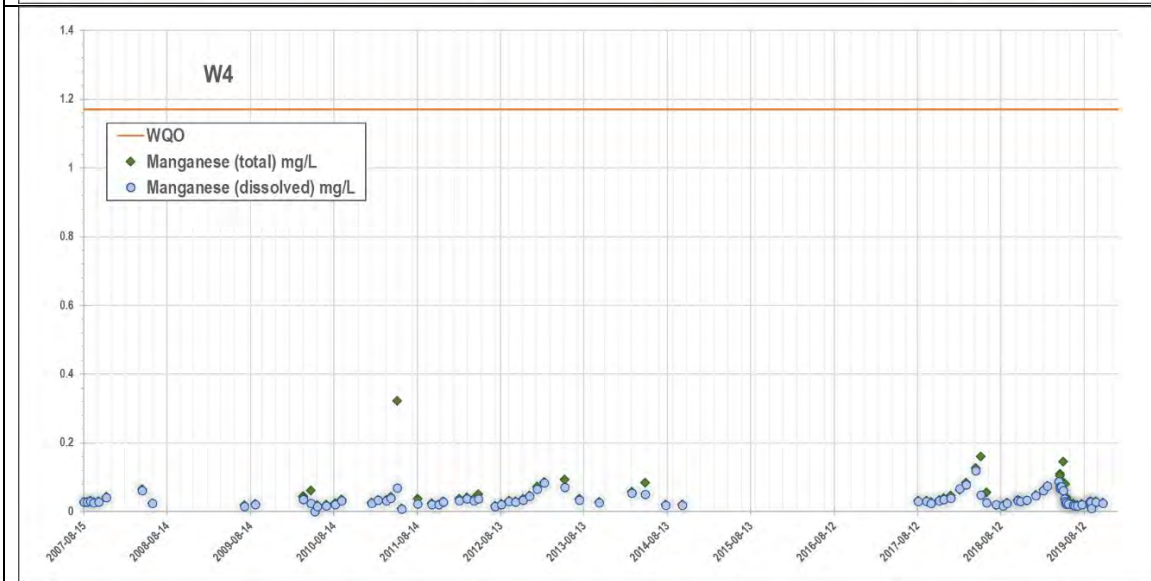
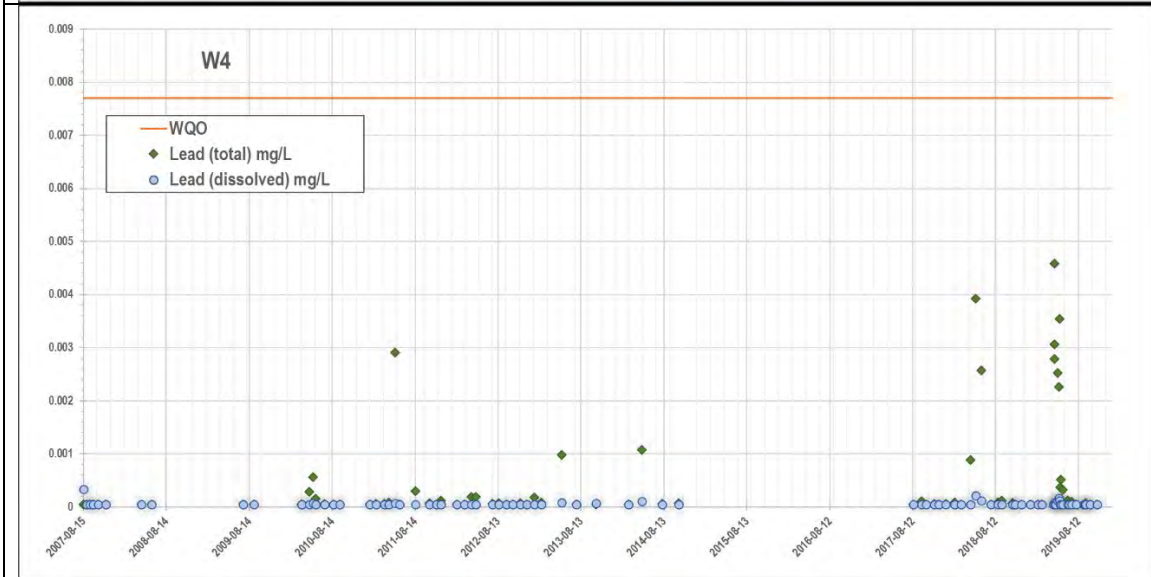
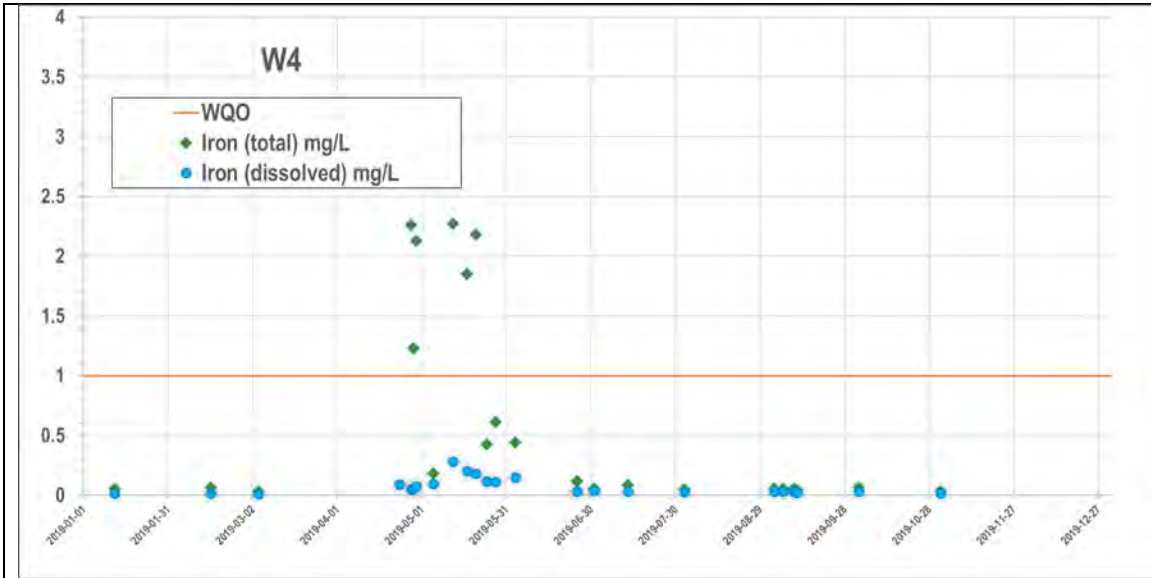
APPENDIX A
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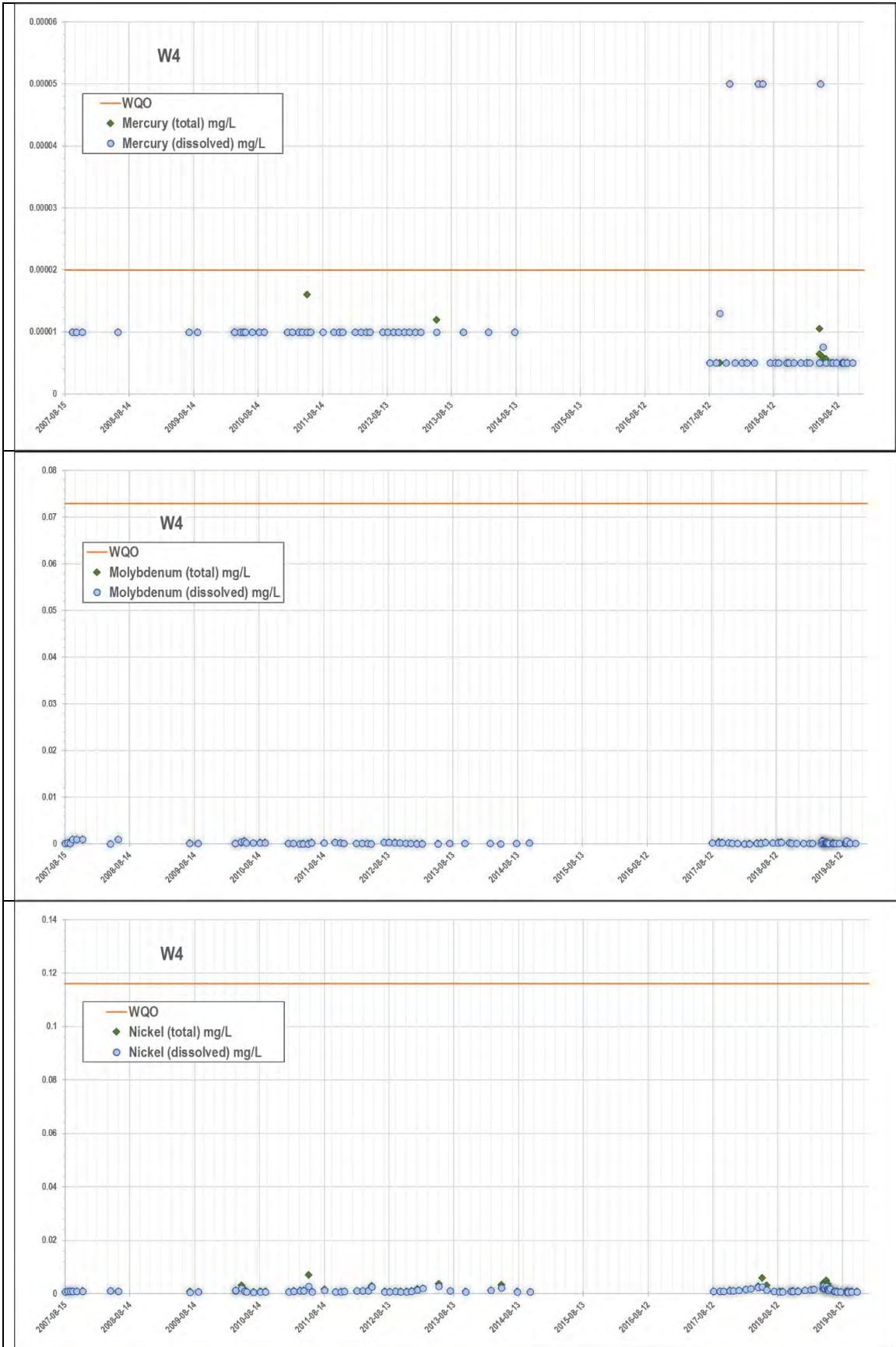
APPENDIX A
 EAGLE GOLD – 2019 SURFACE WATER QUALITY SUMMARY



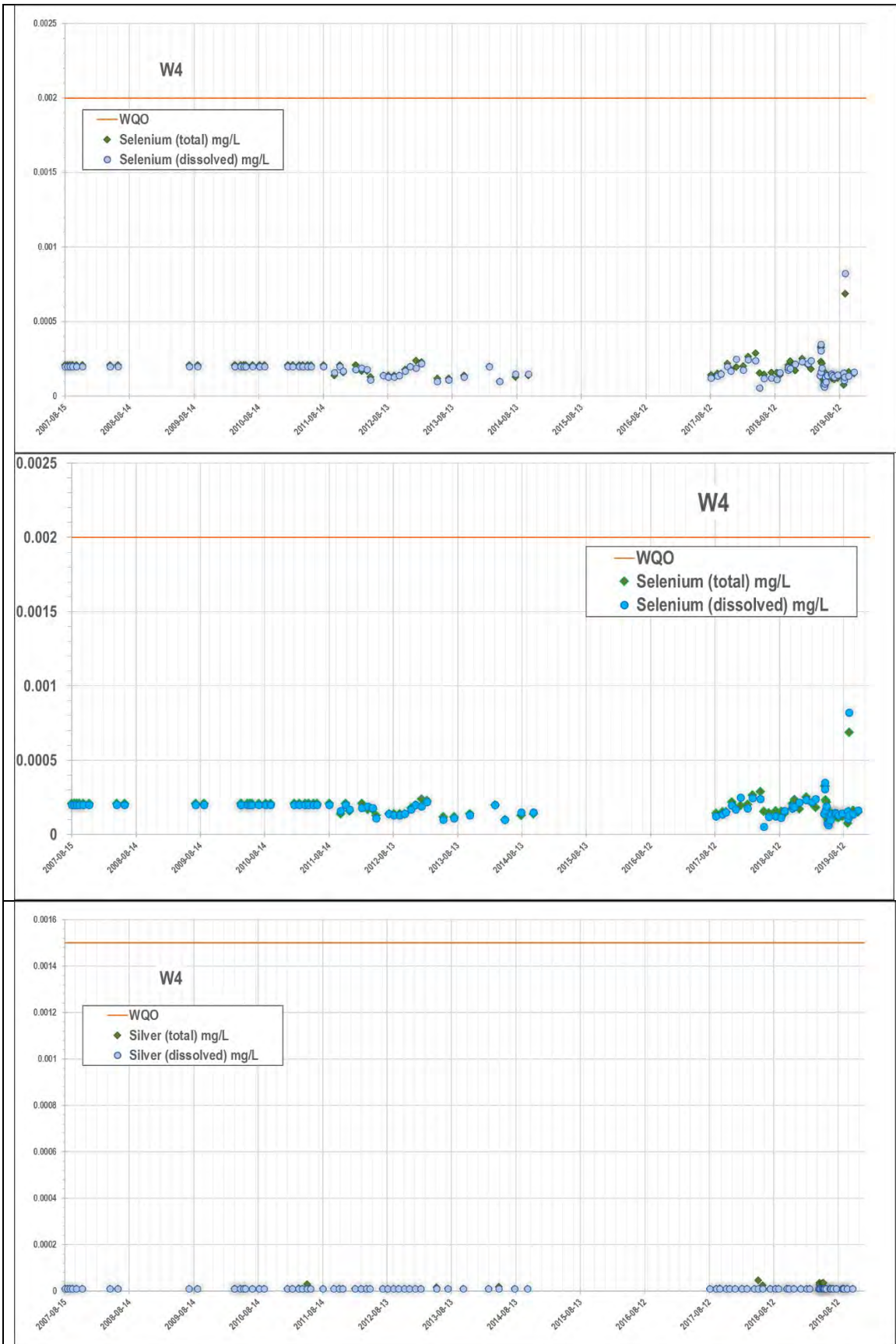
APPENDIX A
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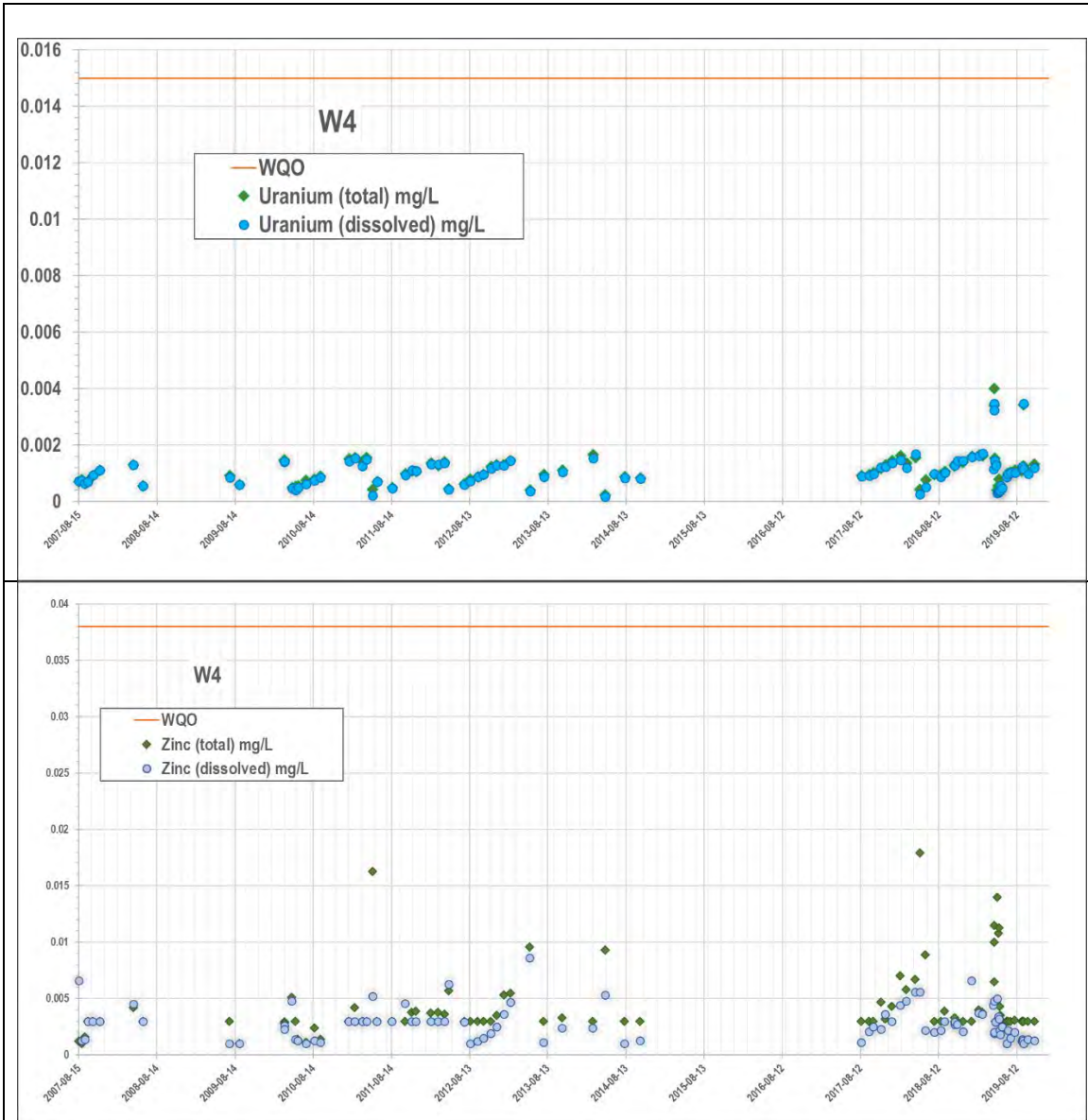
APPENDIX A
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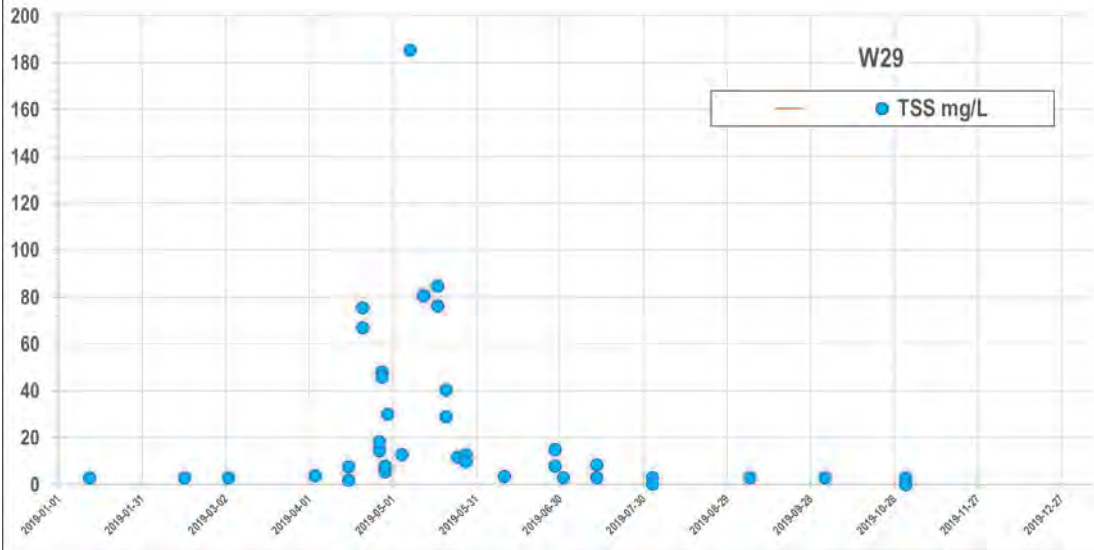
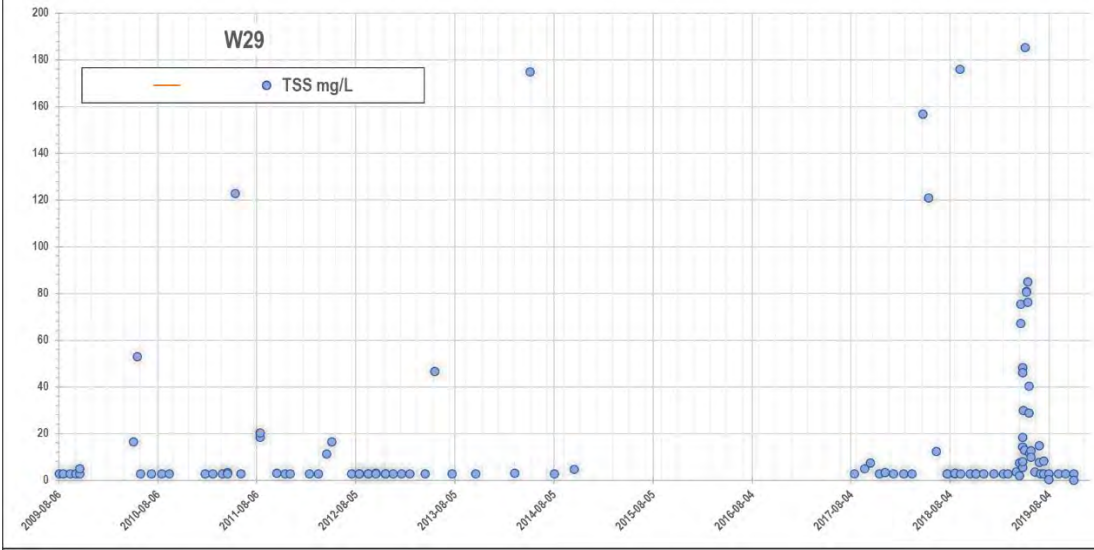
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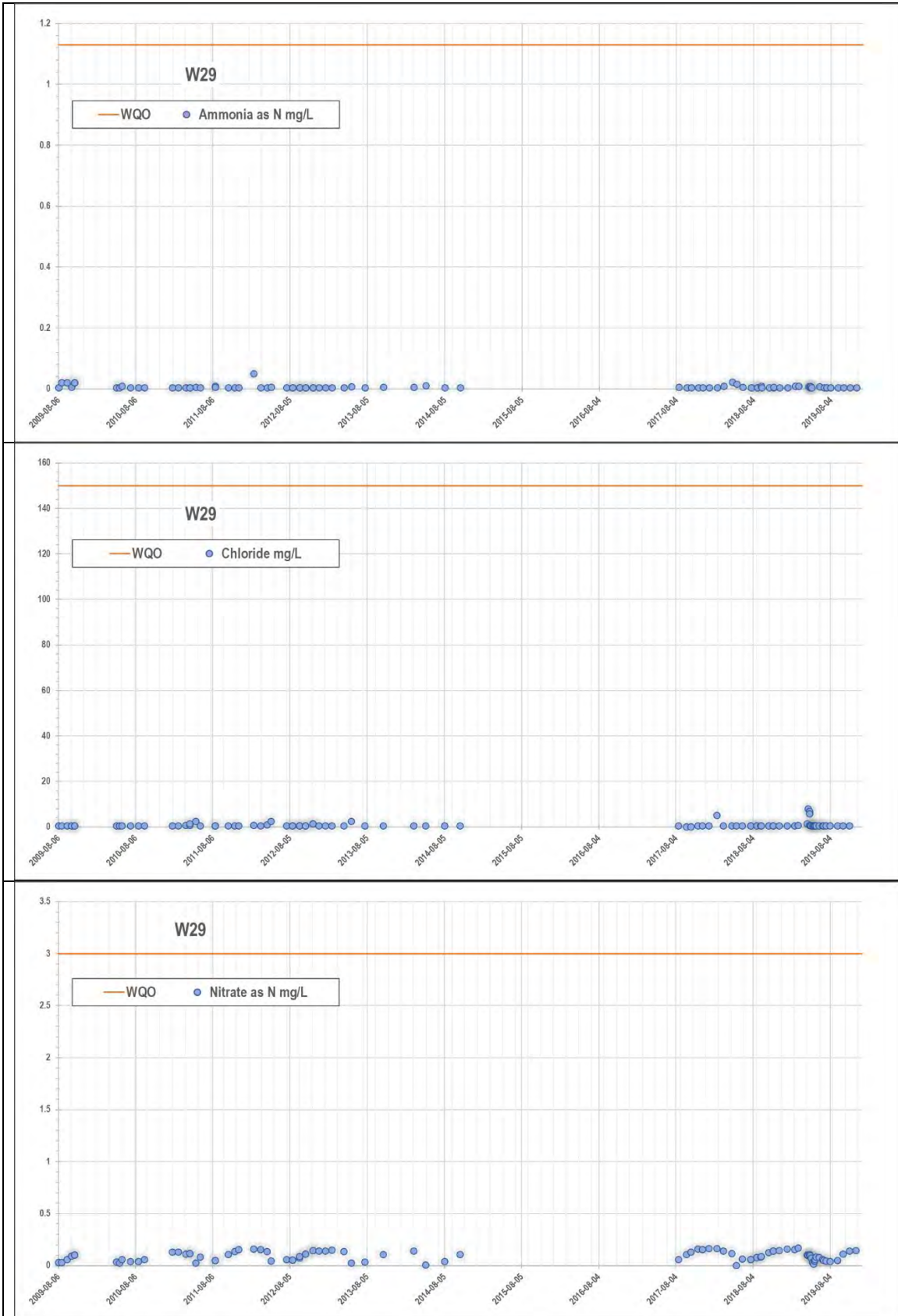
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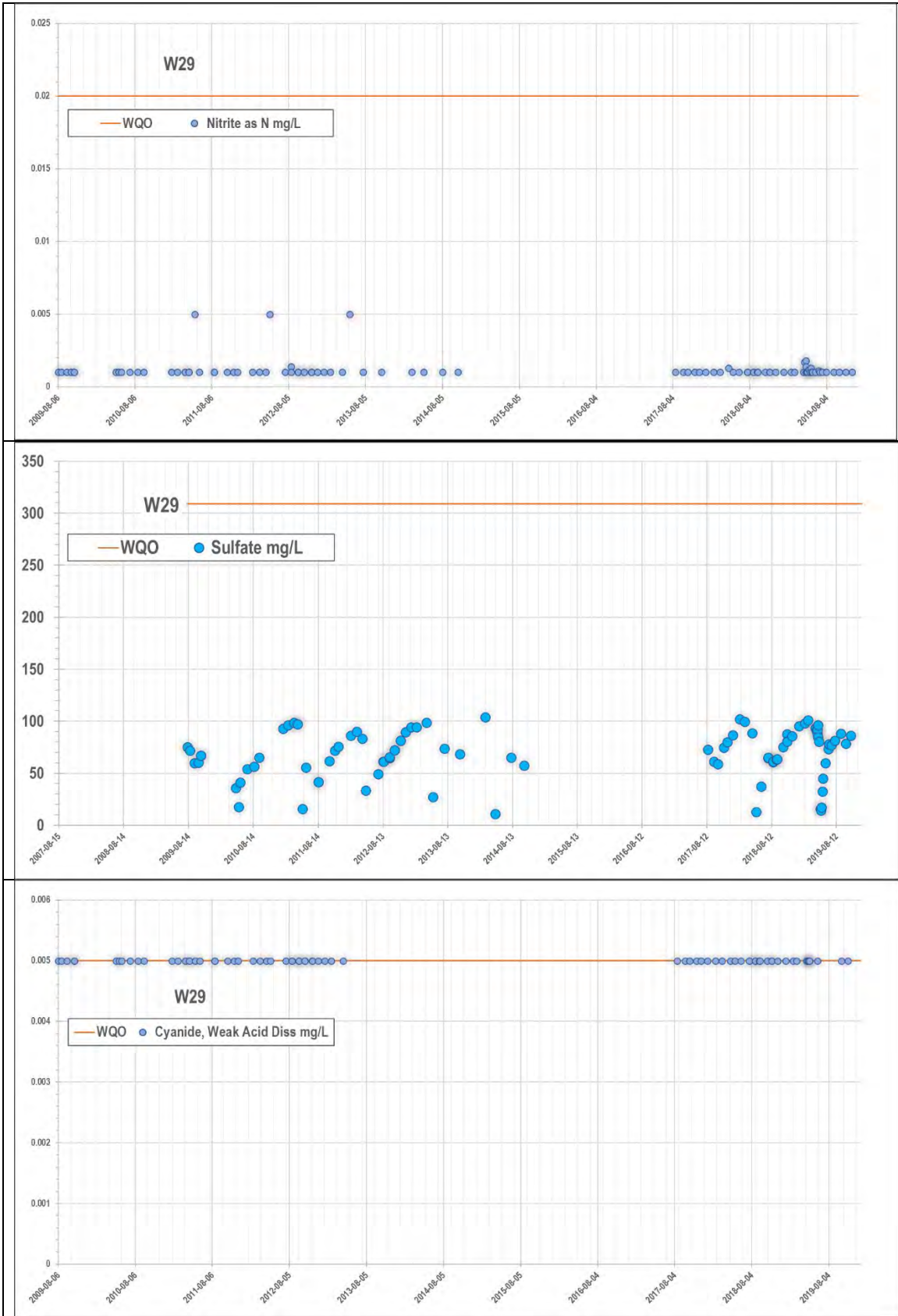
W29



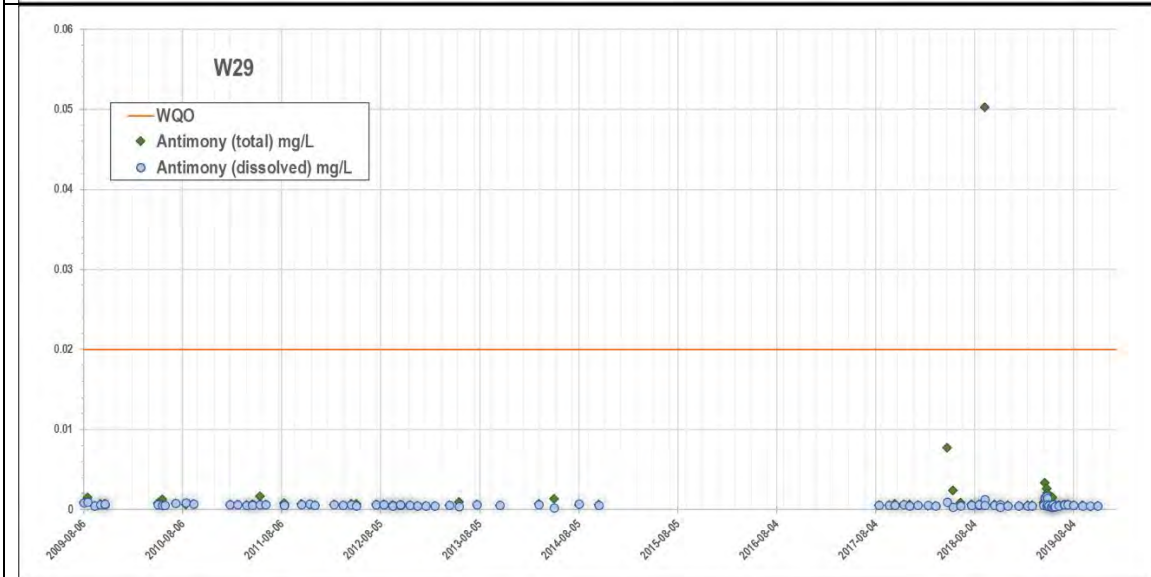
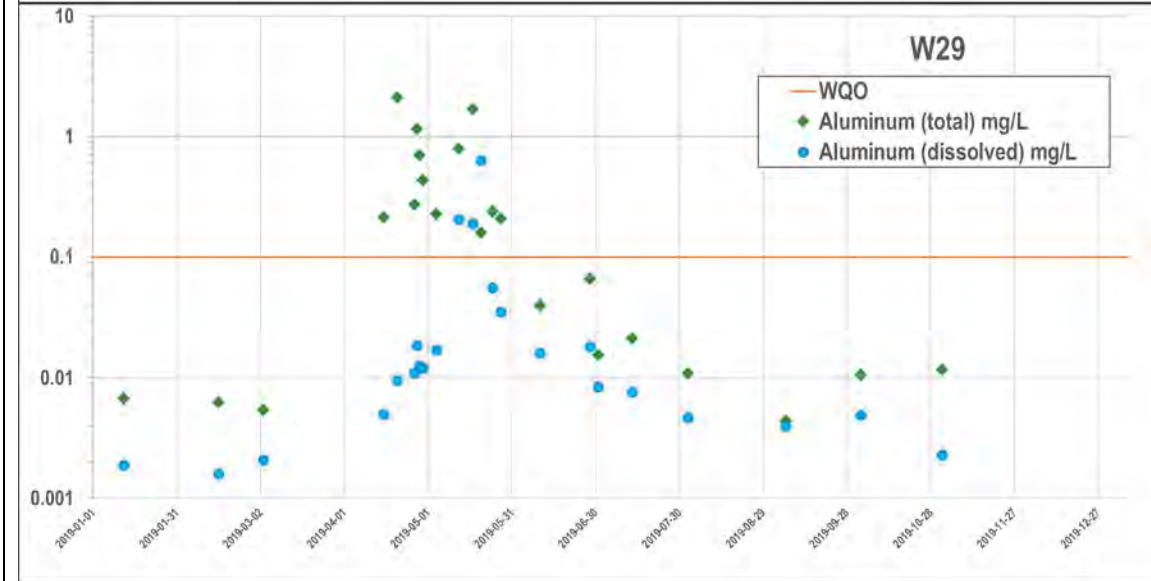
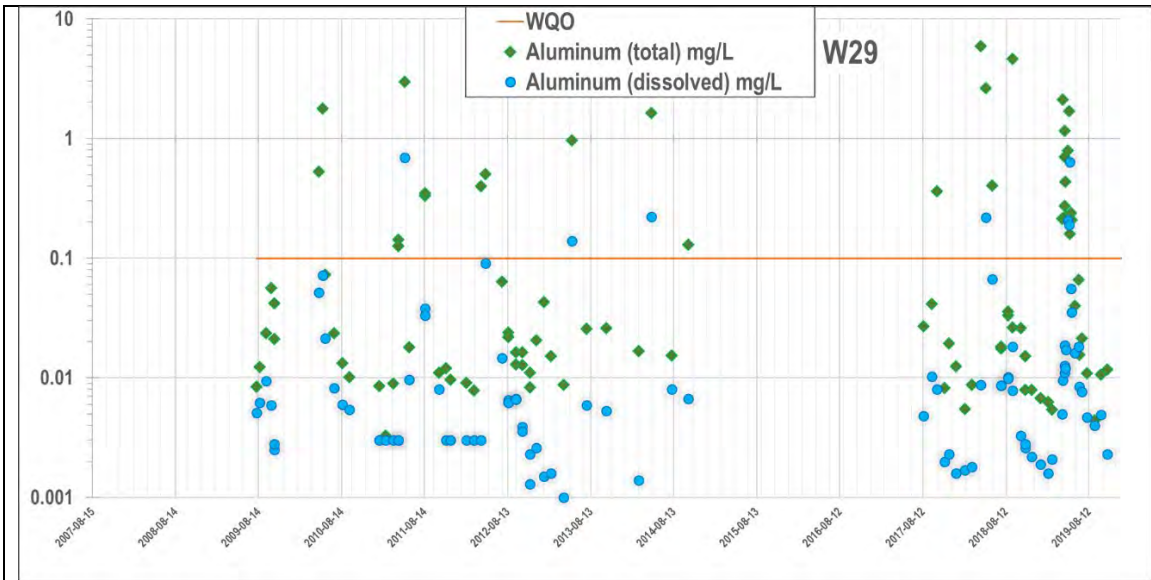
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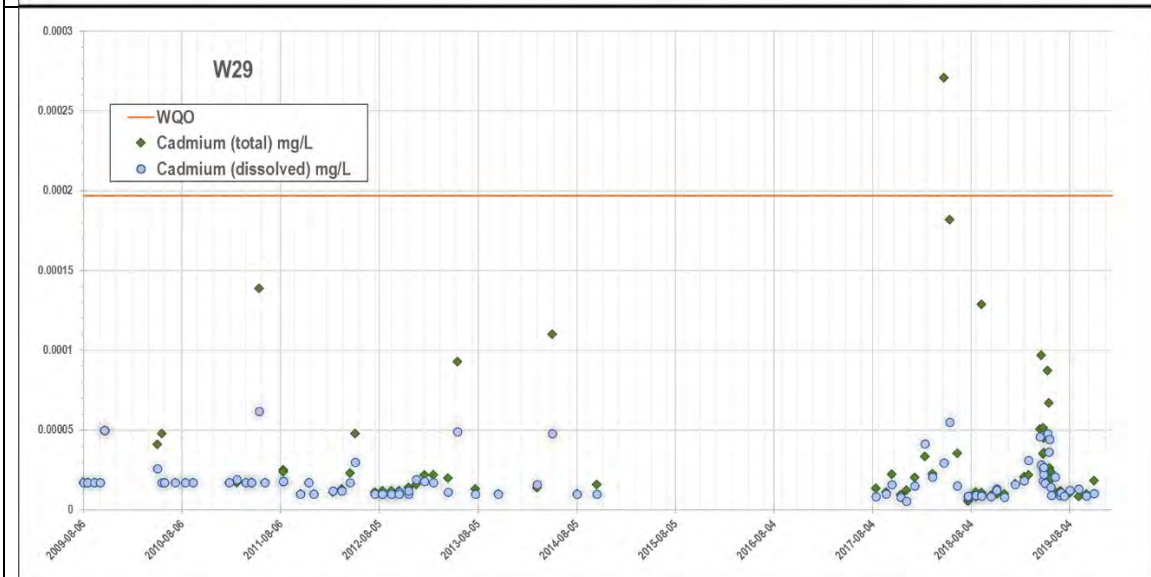
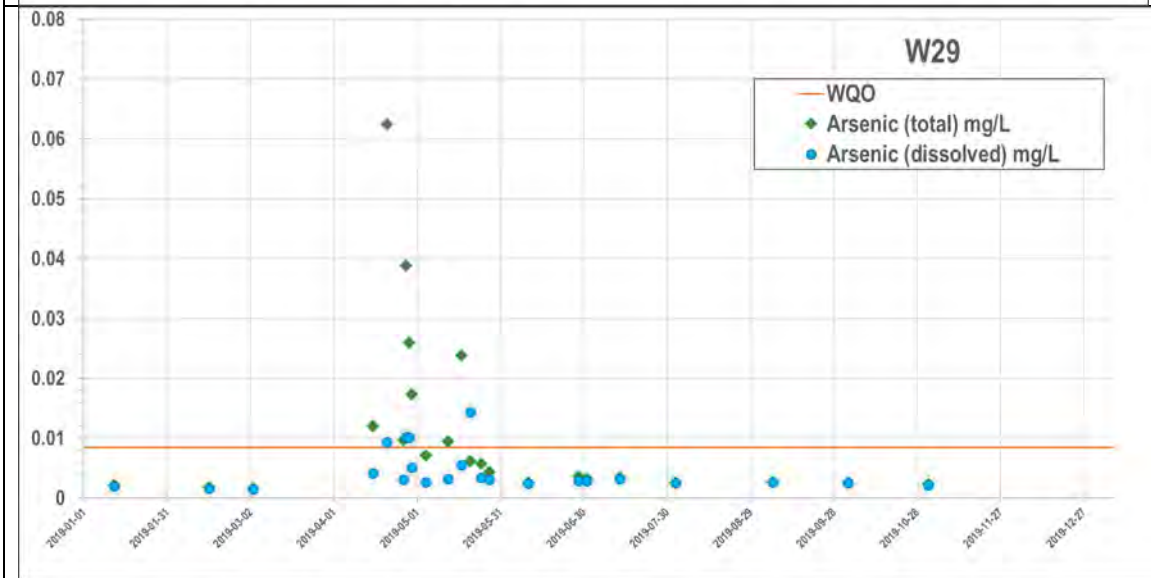
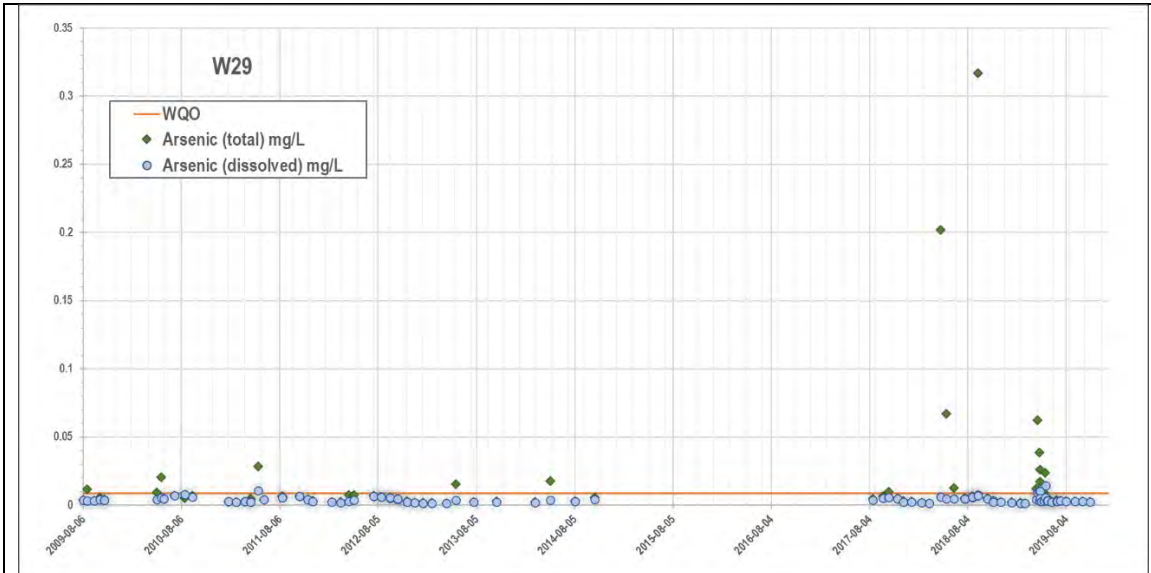
APPENDIX A
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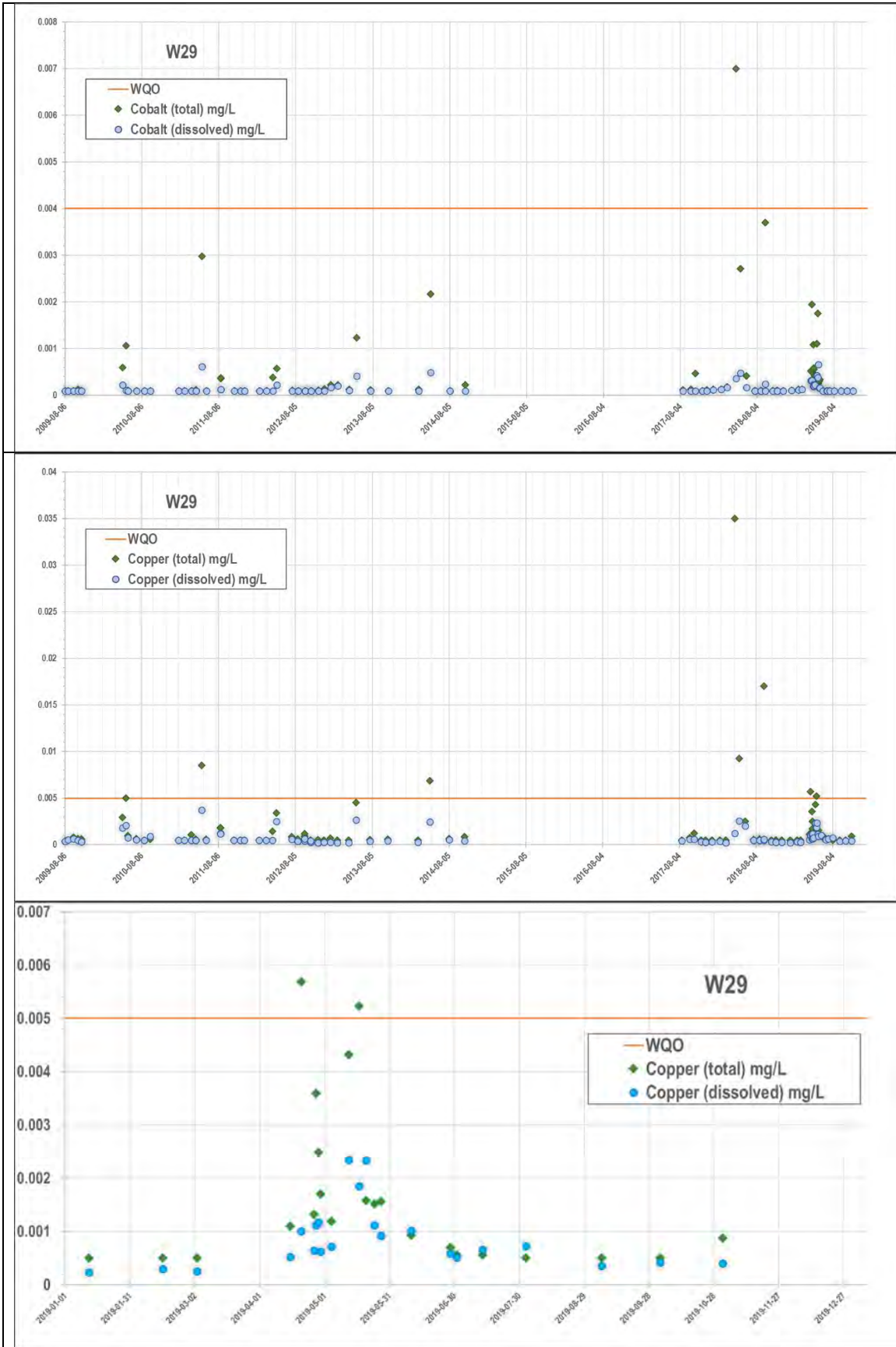
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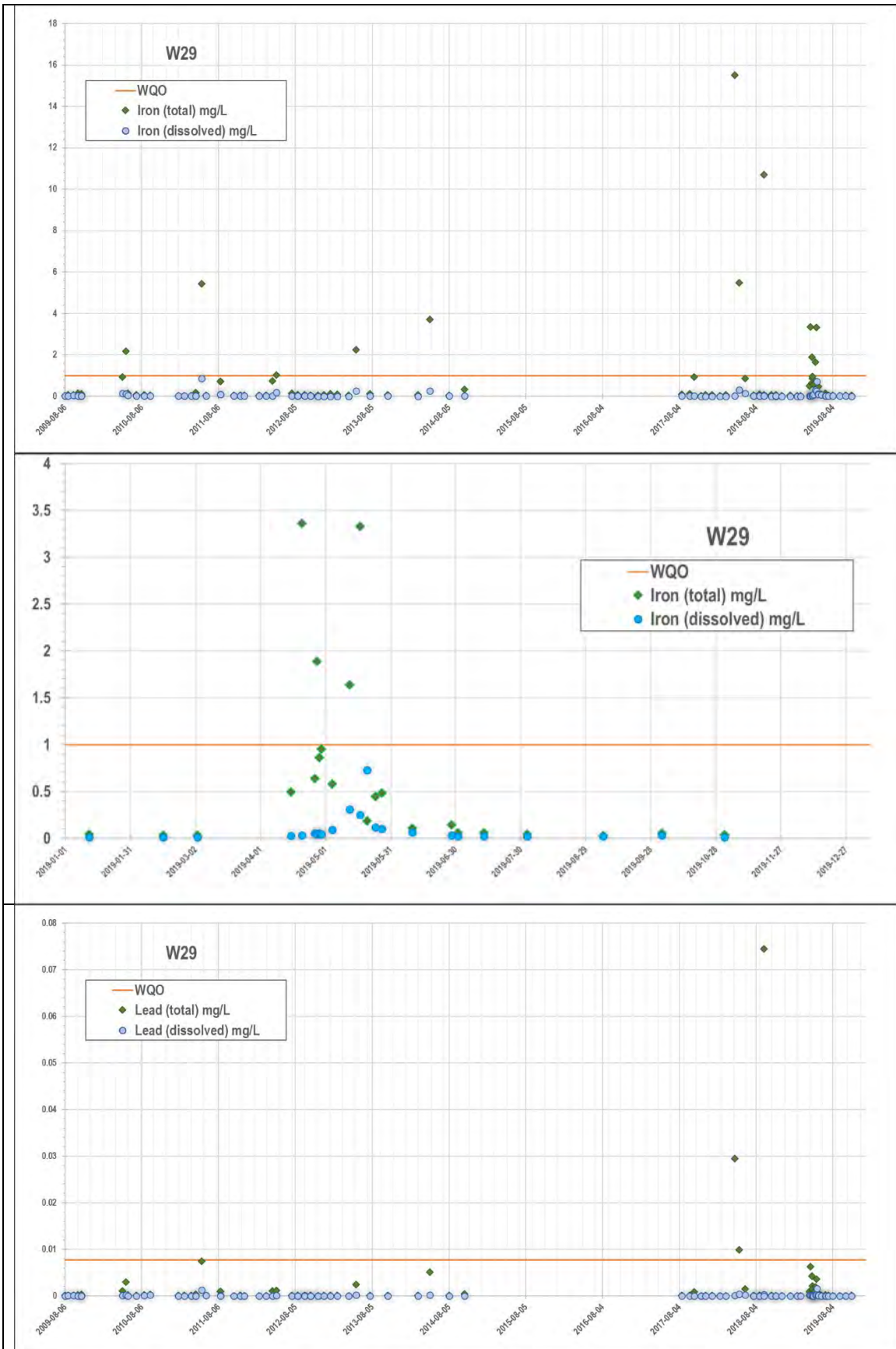
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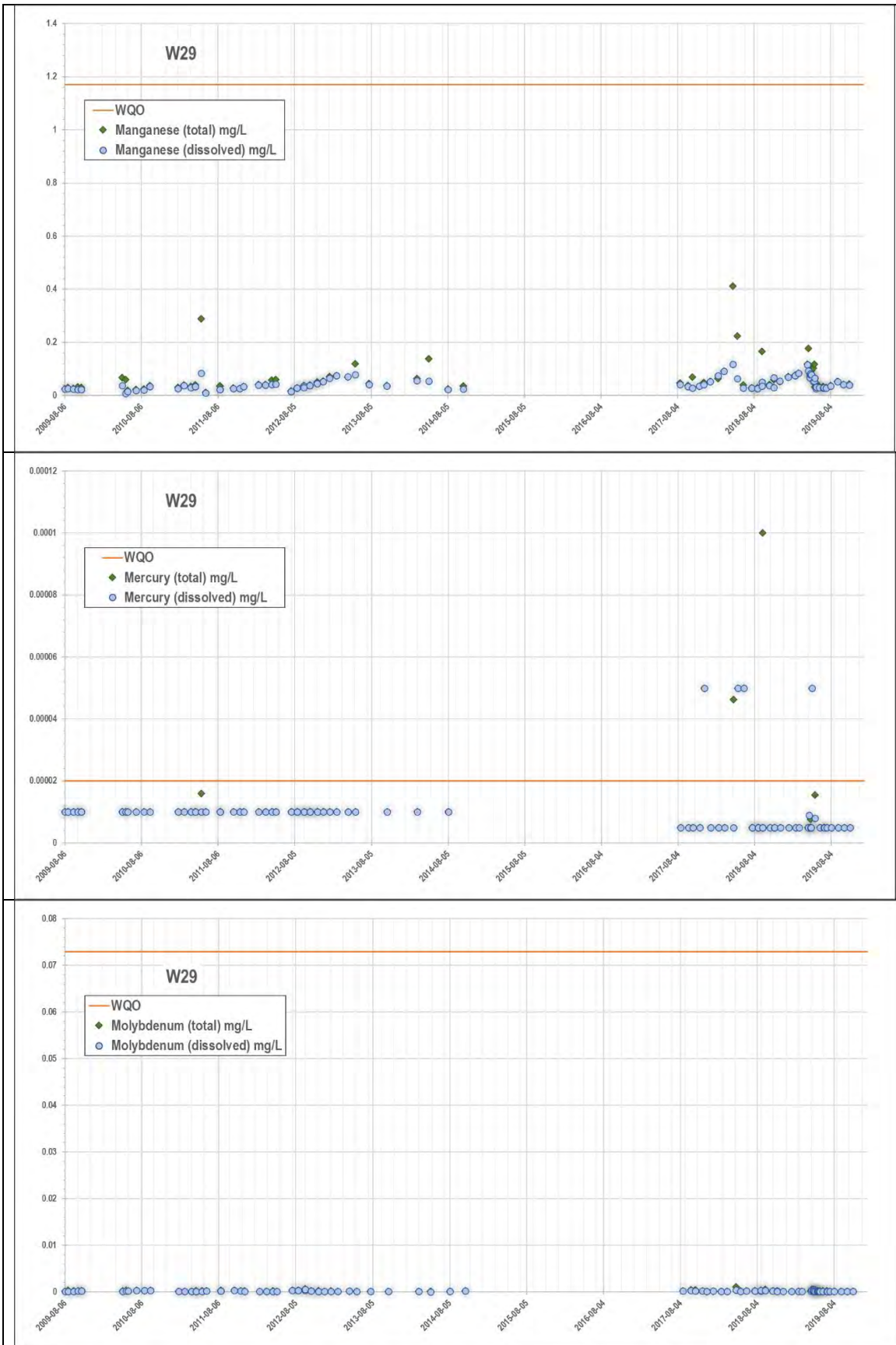
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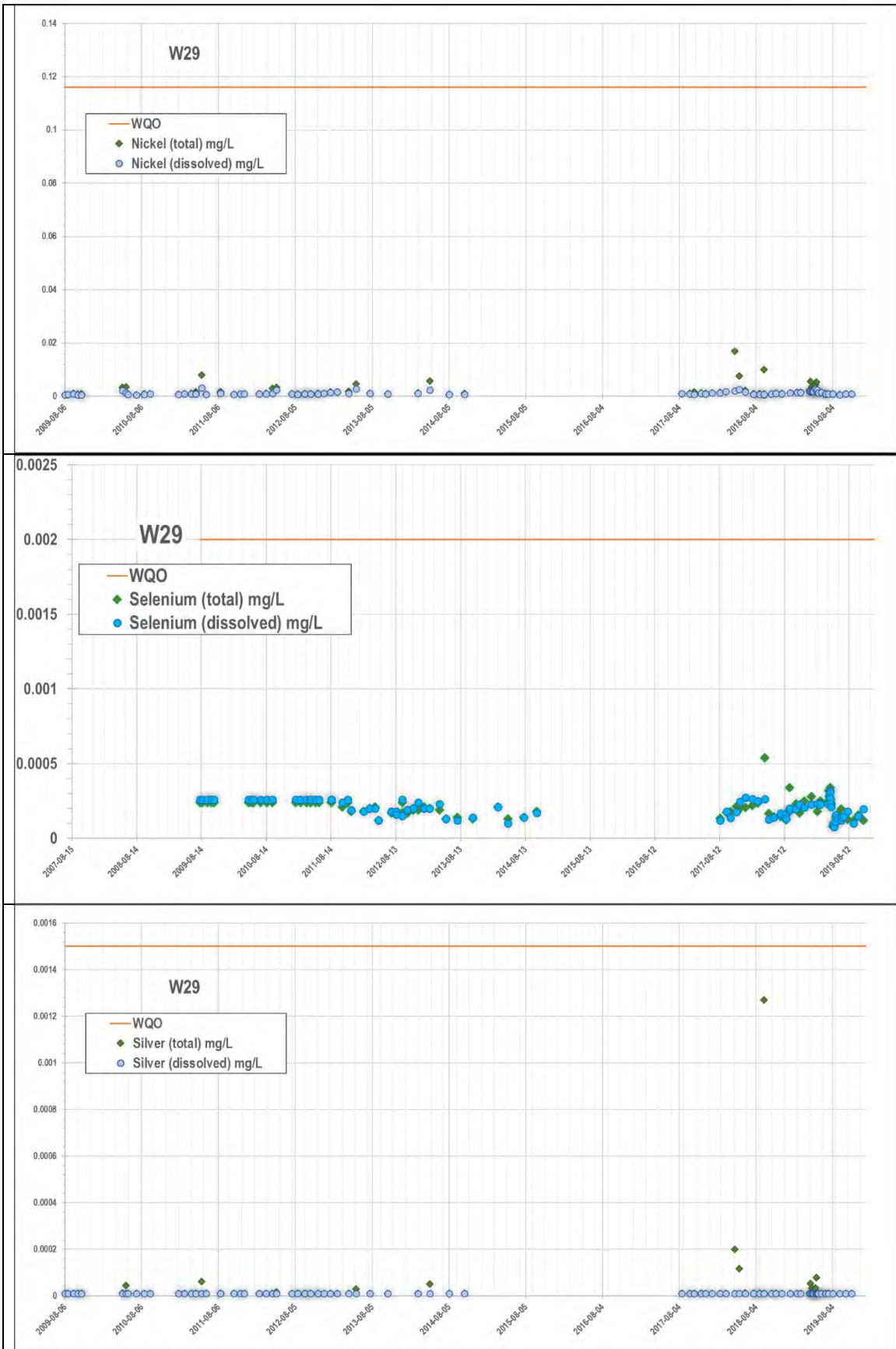
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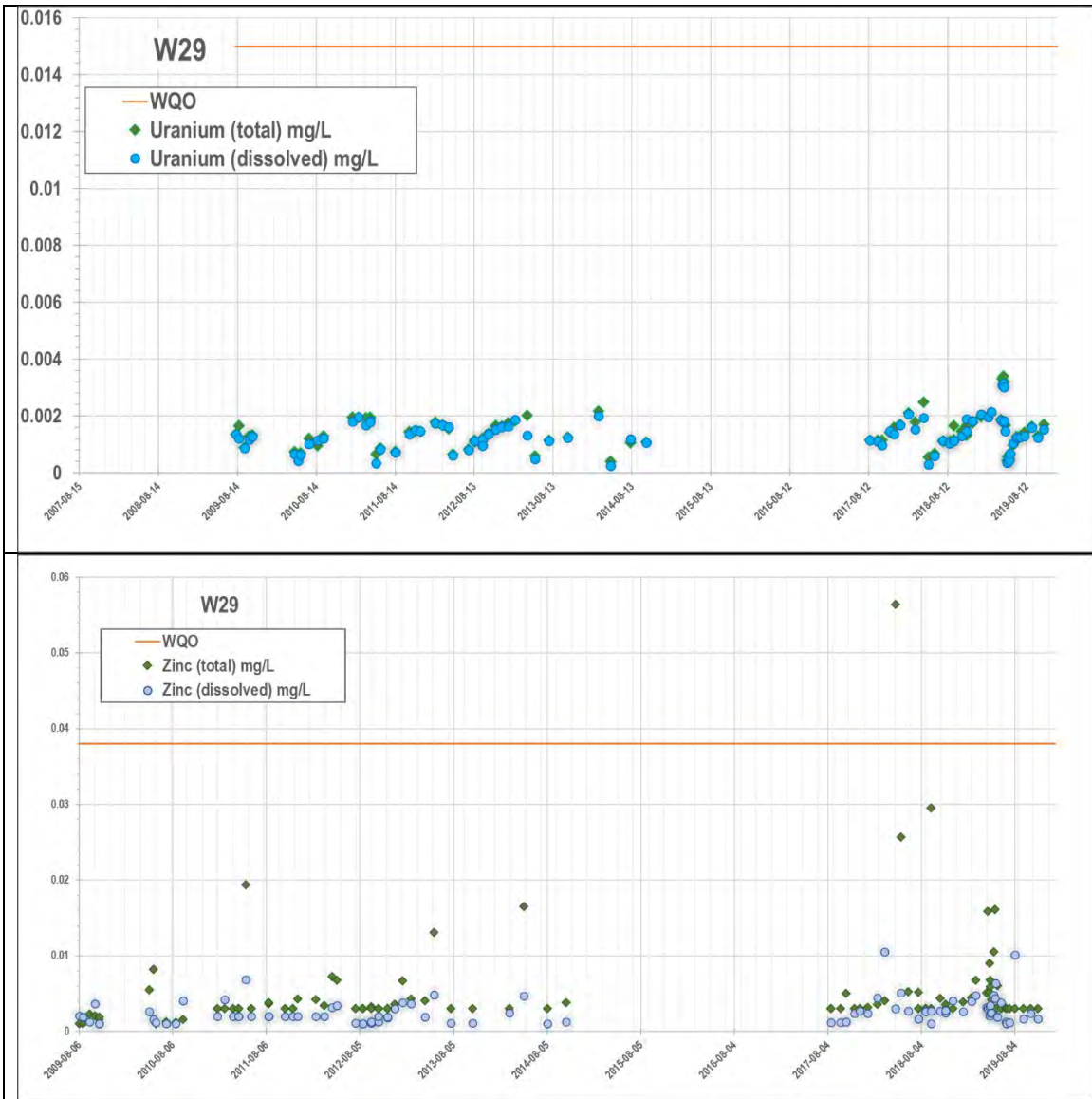
APPENDIX A
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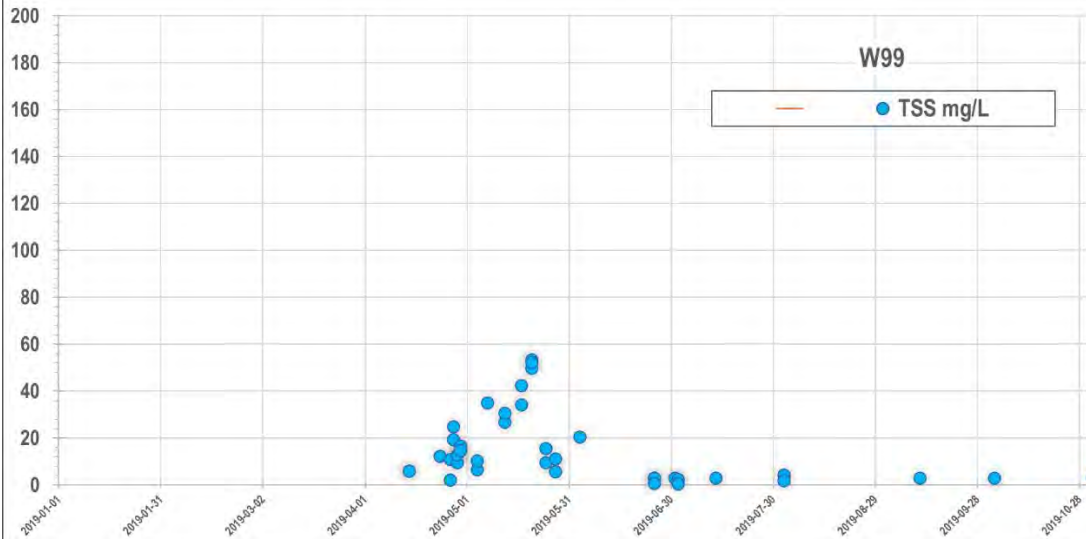
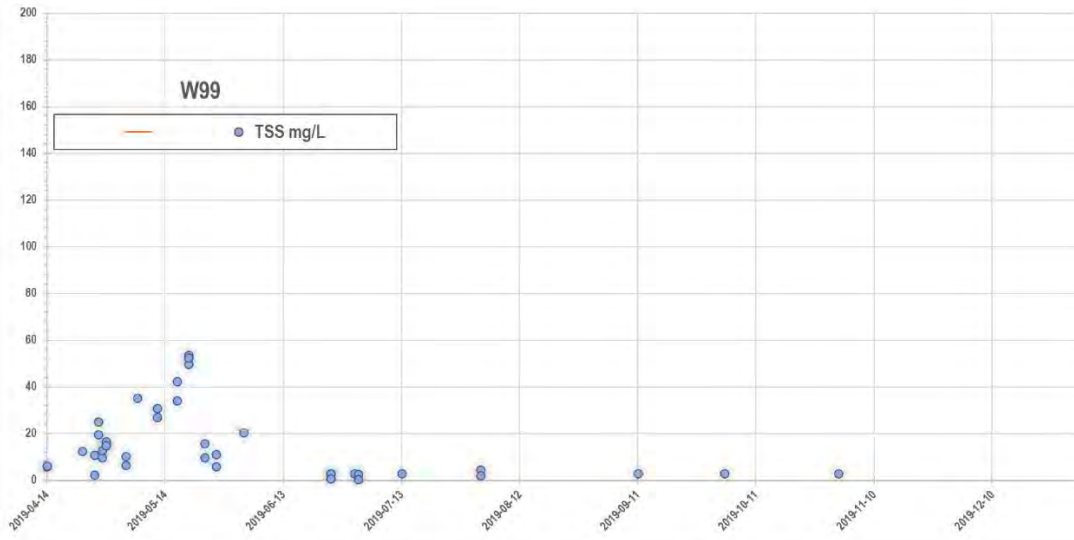
APPENDIX A
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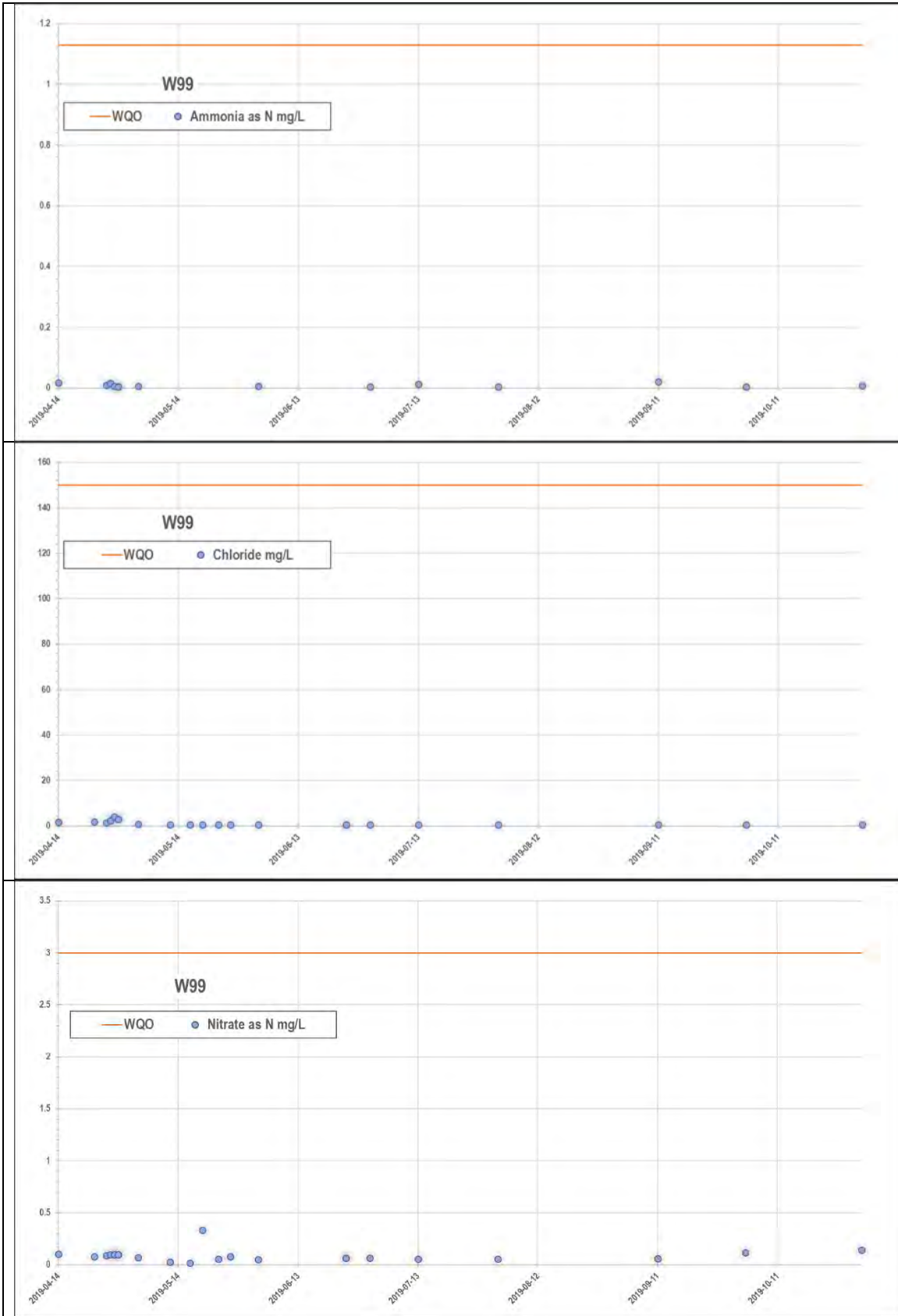
APPENDIX A
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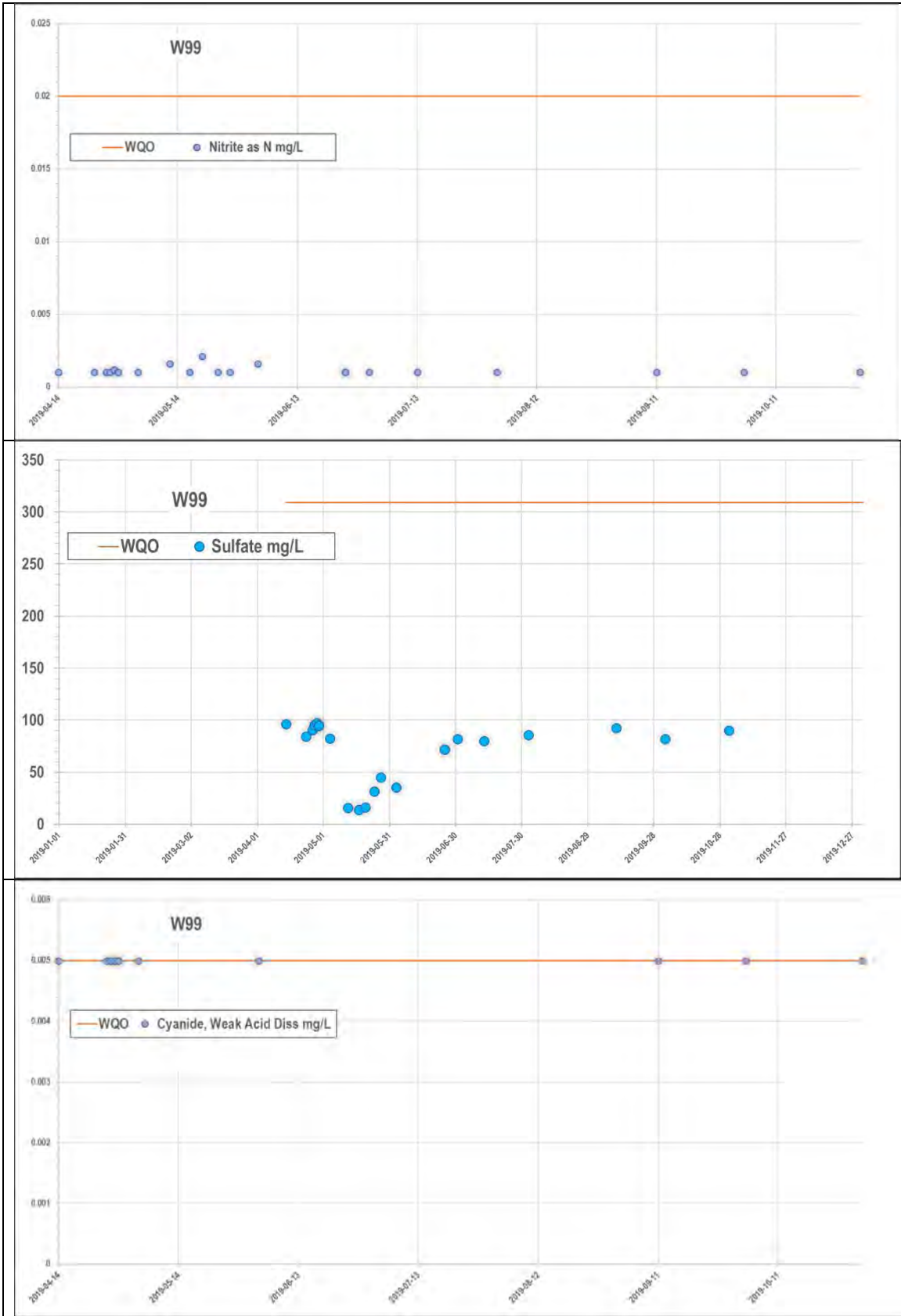
W99



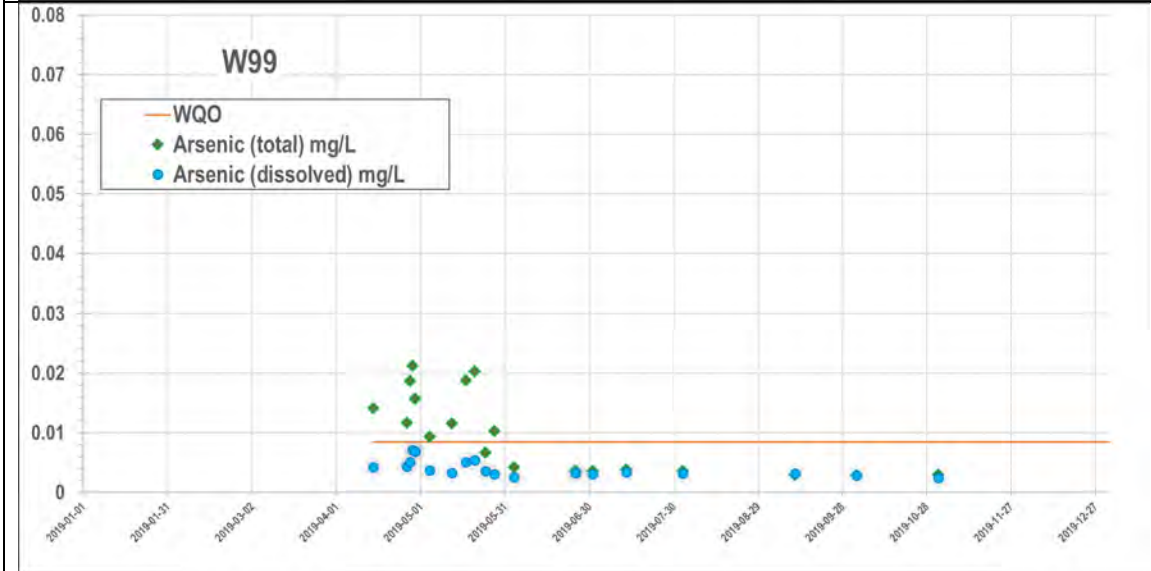
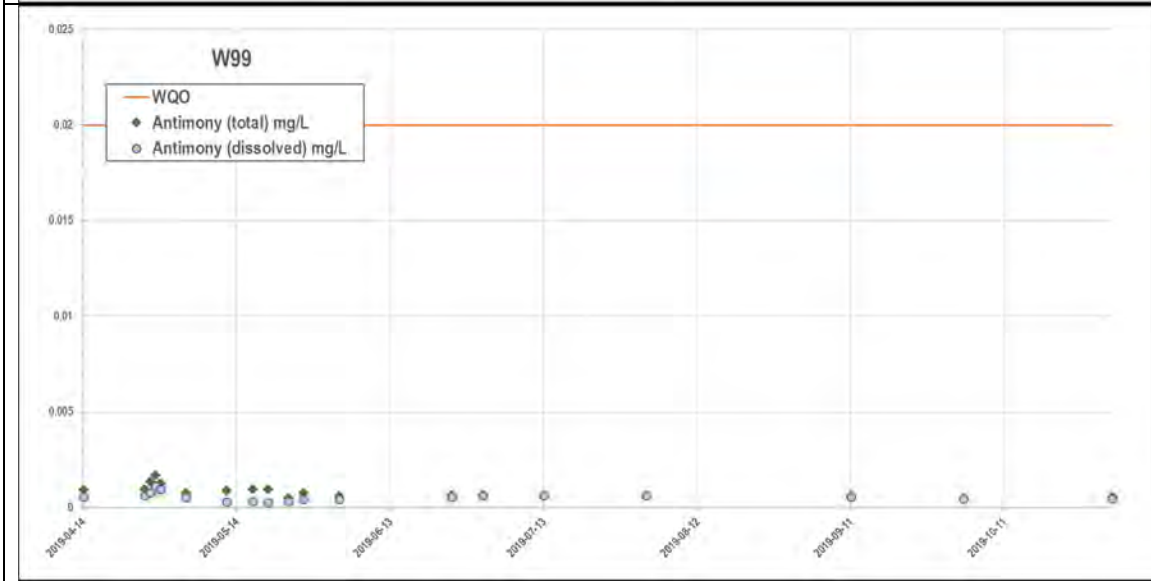
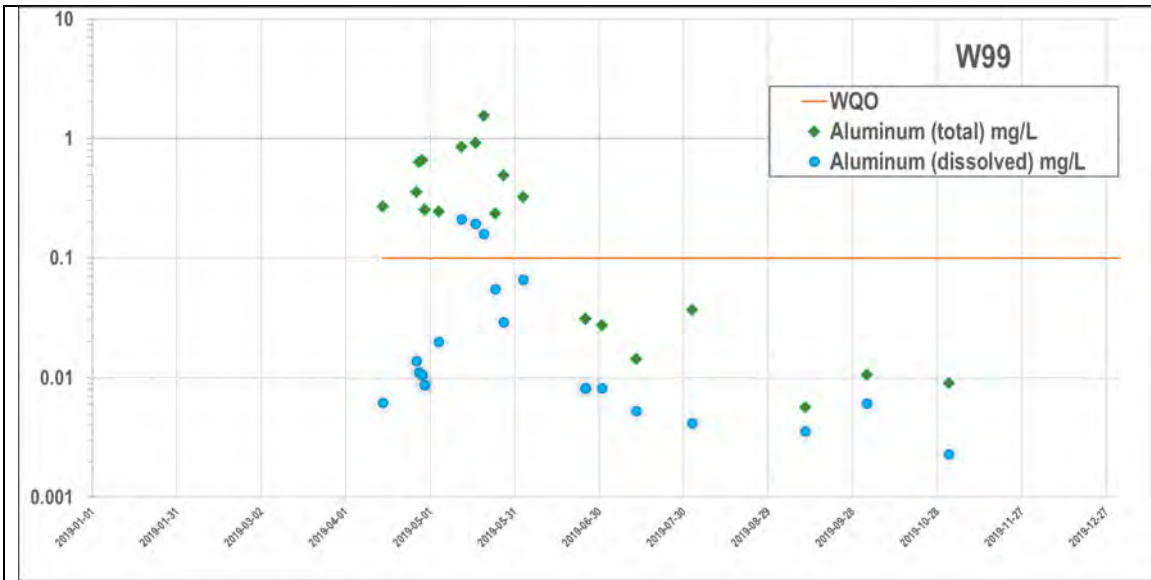
APPENDIX A
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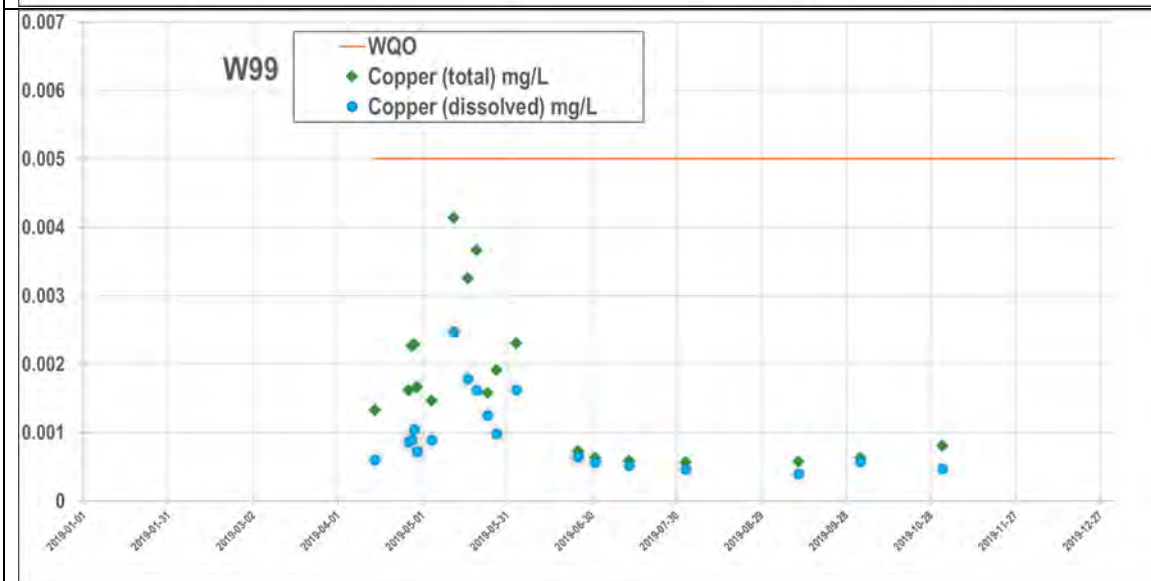
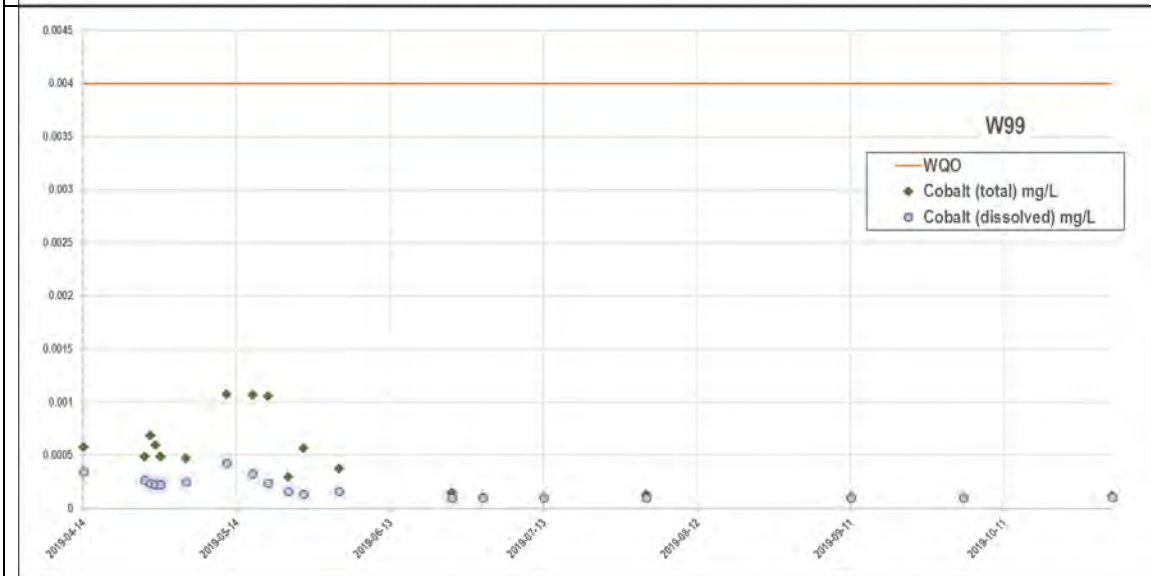
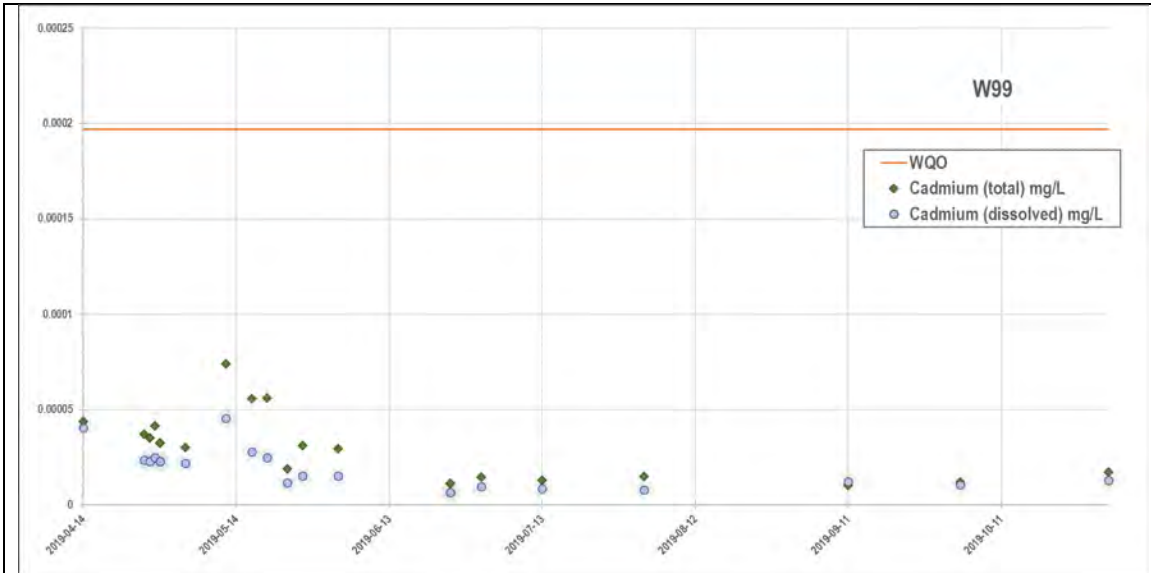
APPENDIX A
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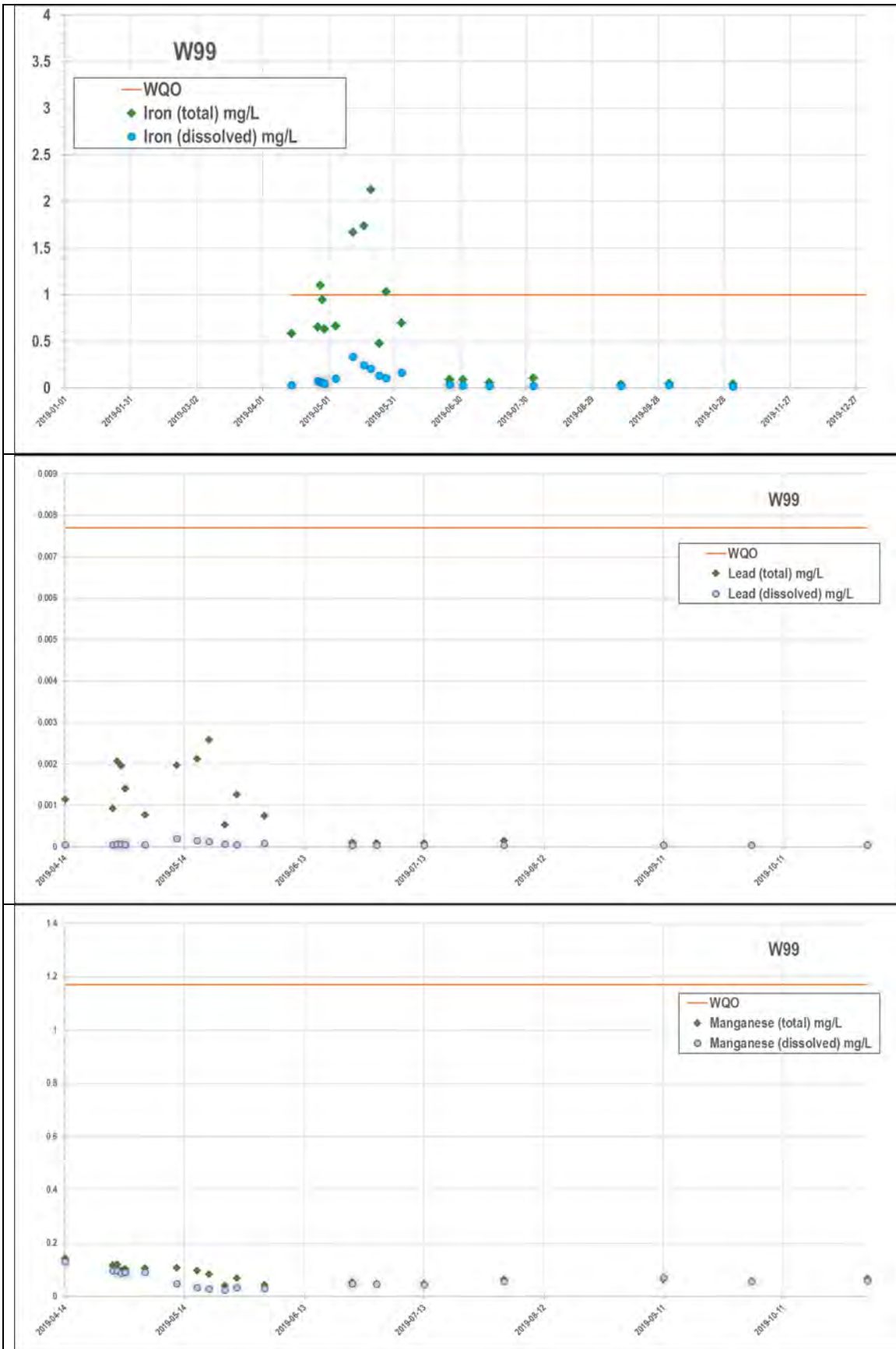
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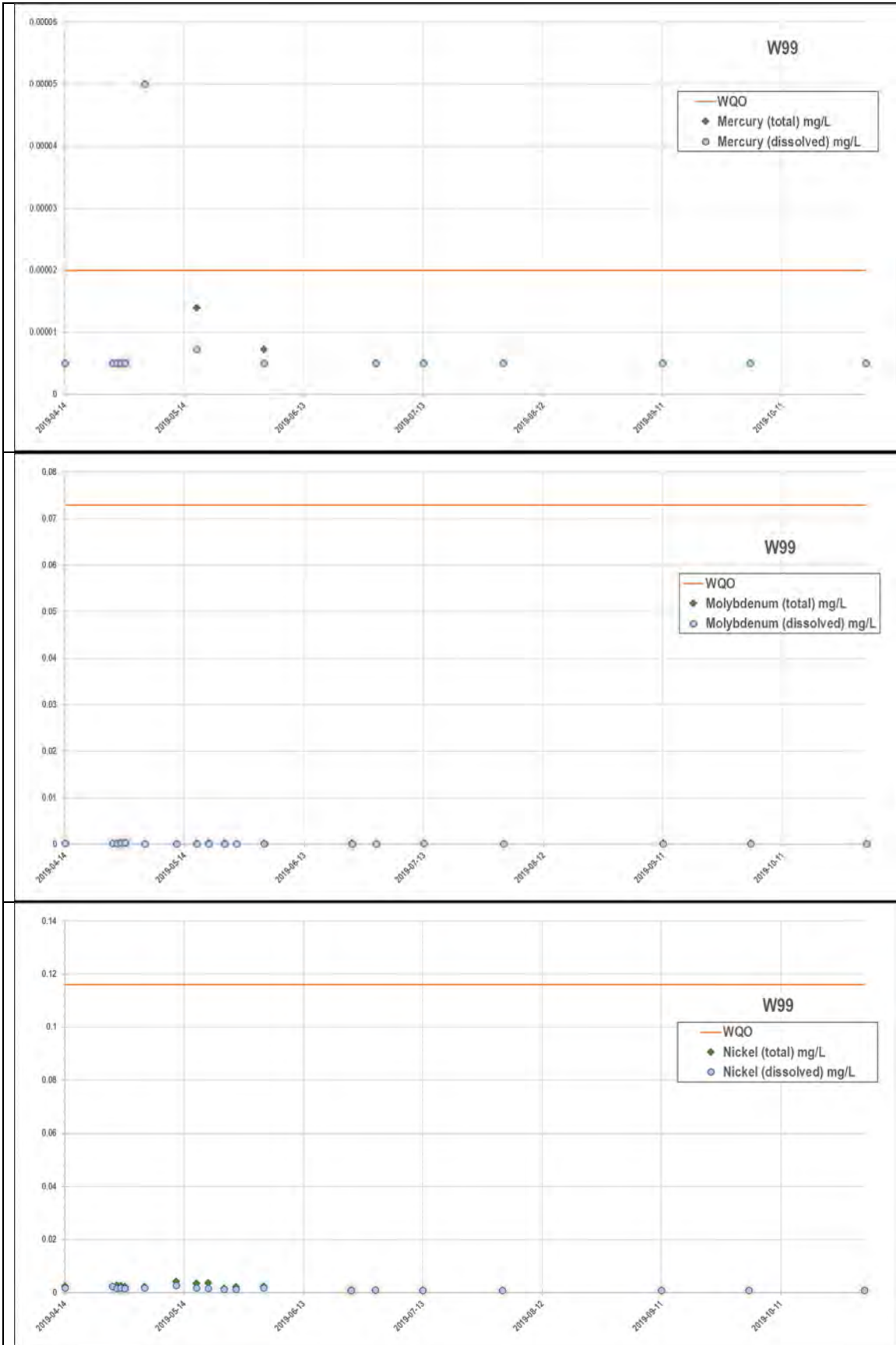
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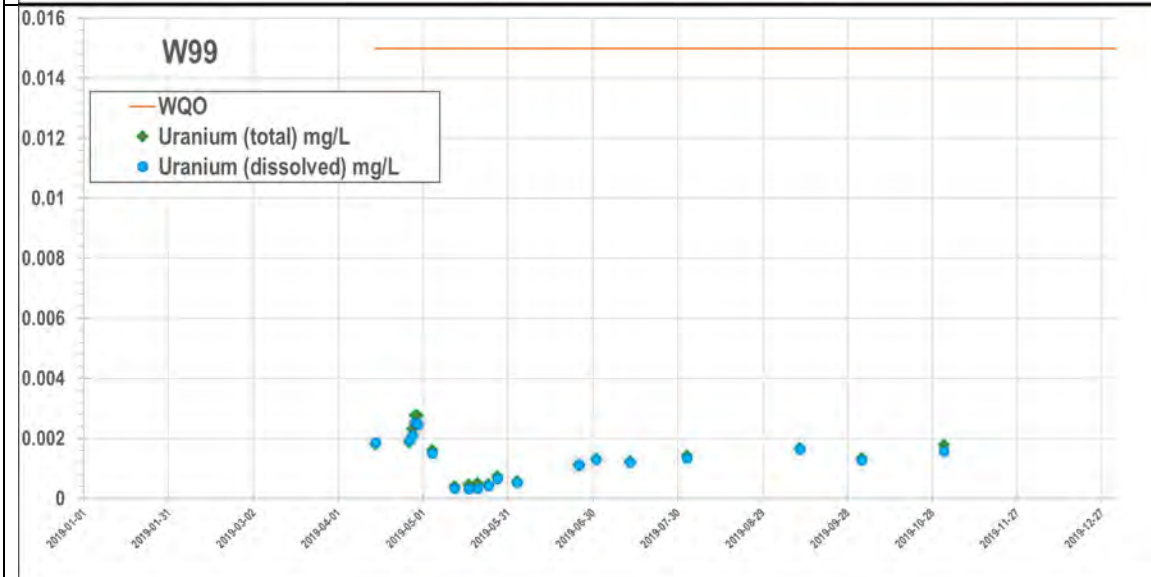
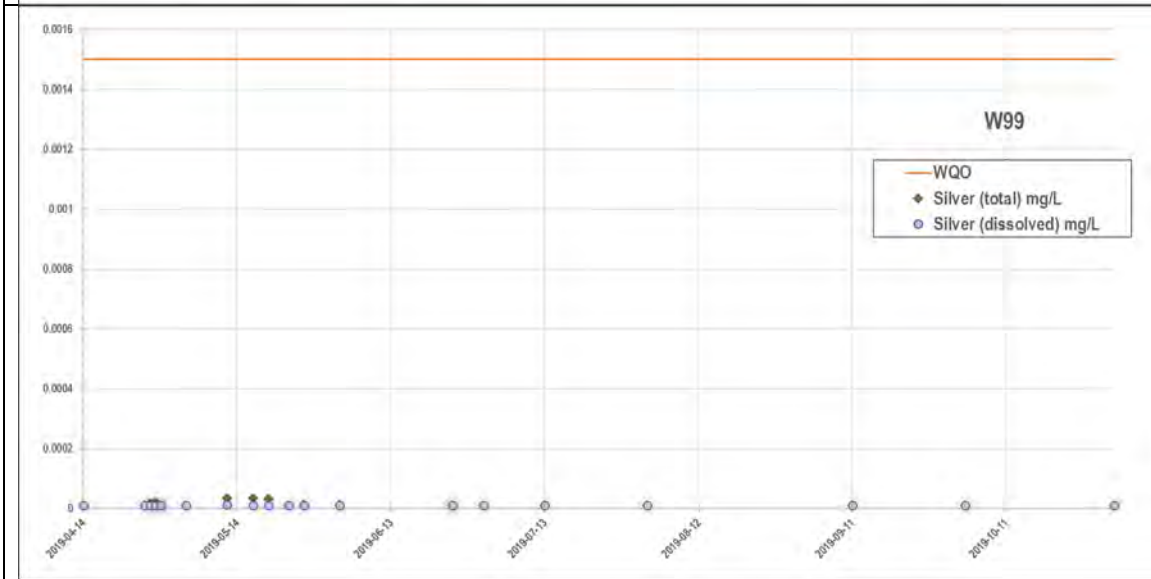
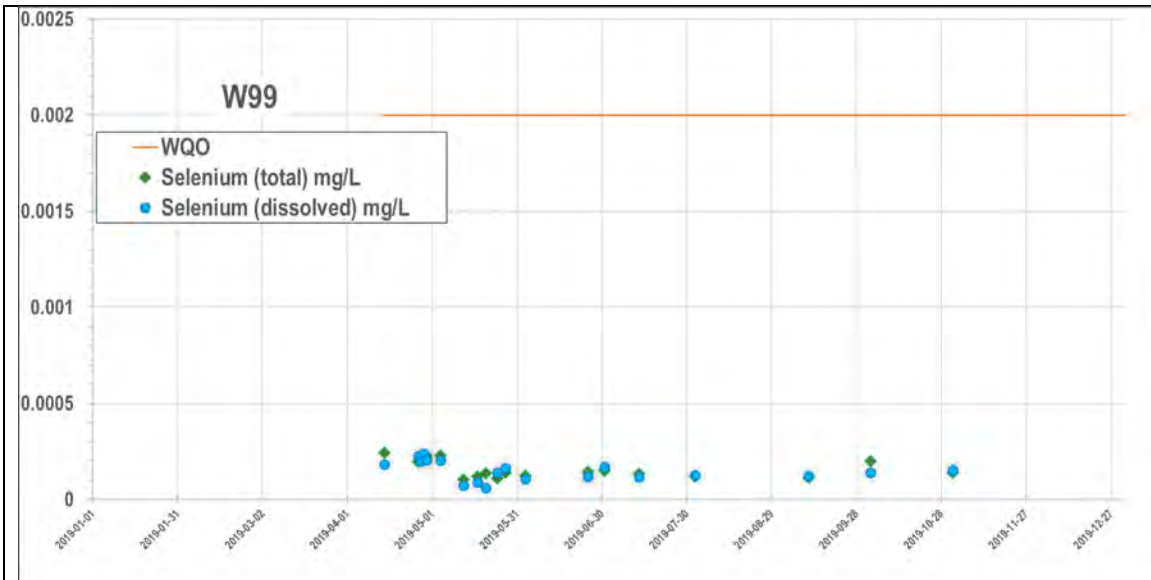
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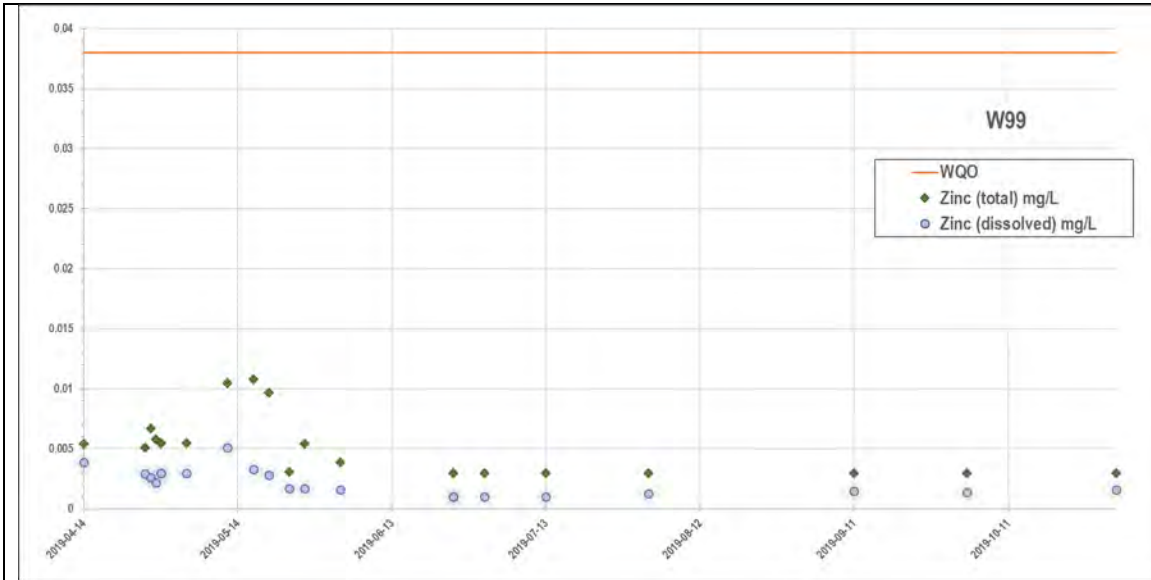
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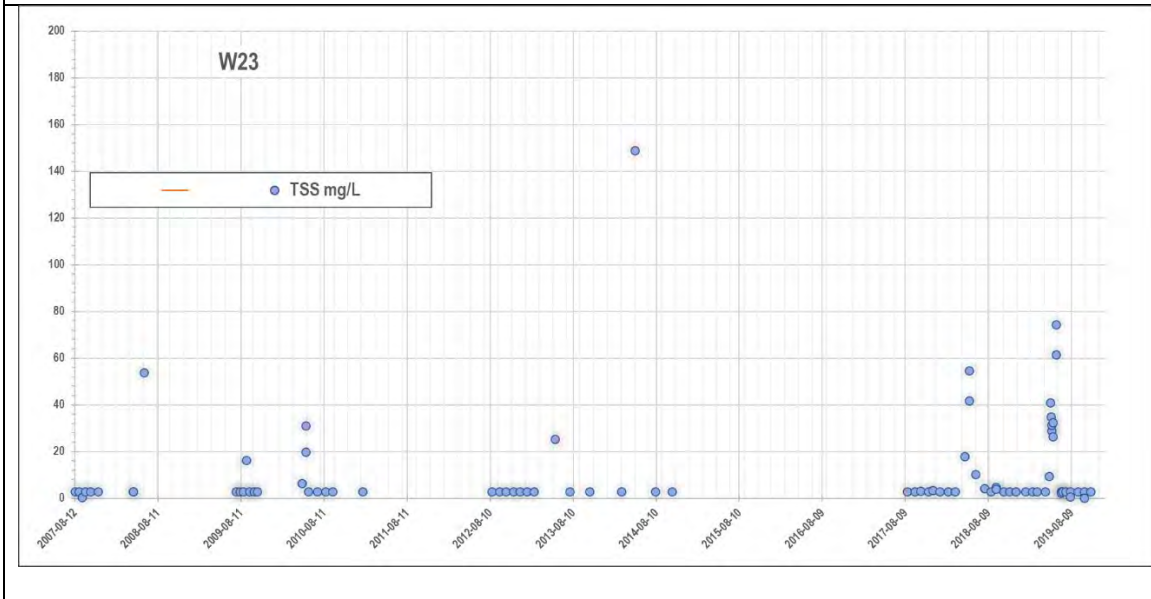
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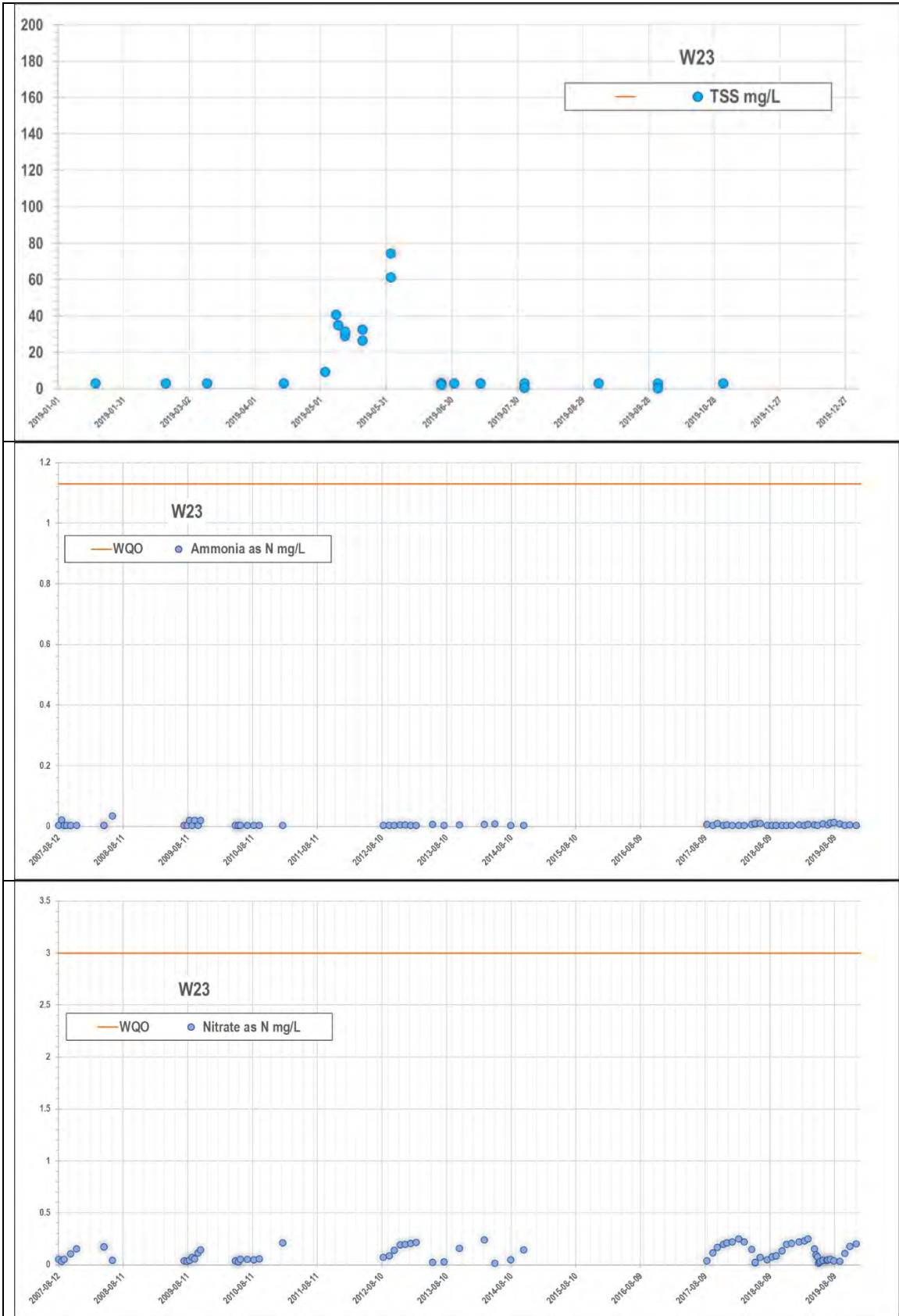
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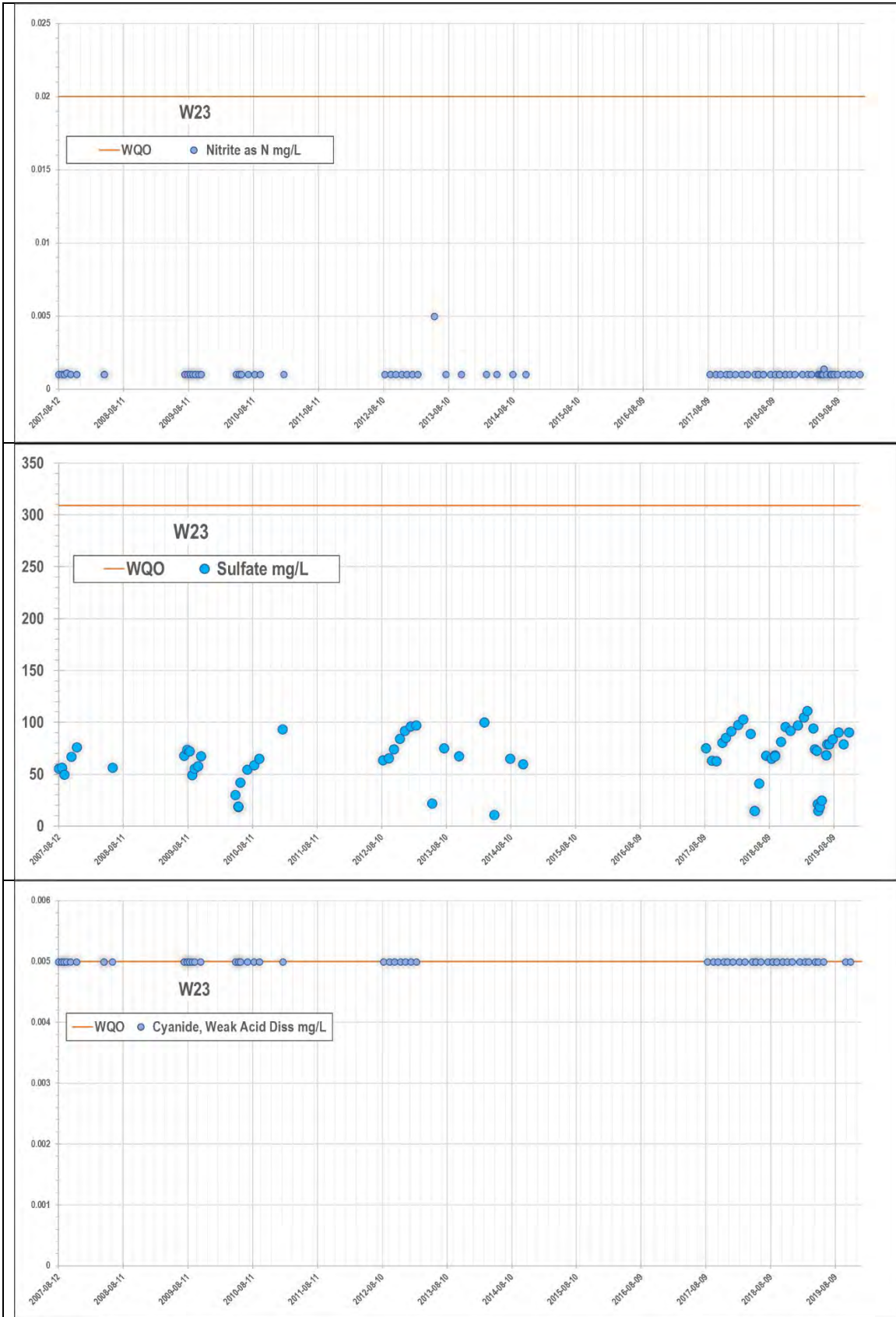
W23



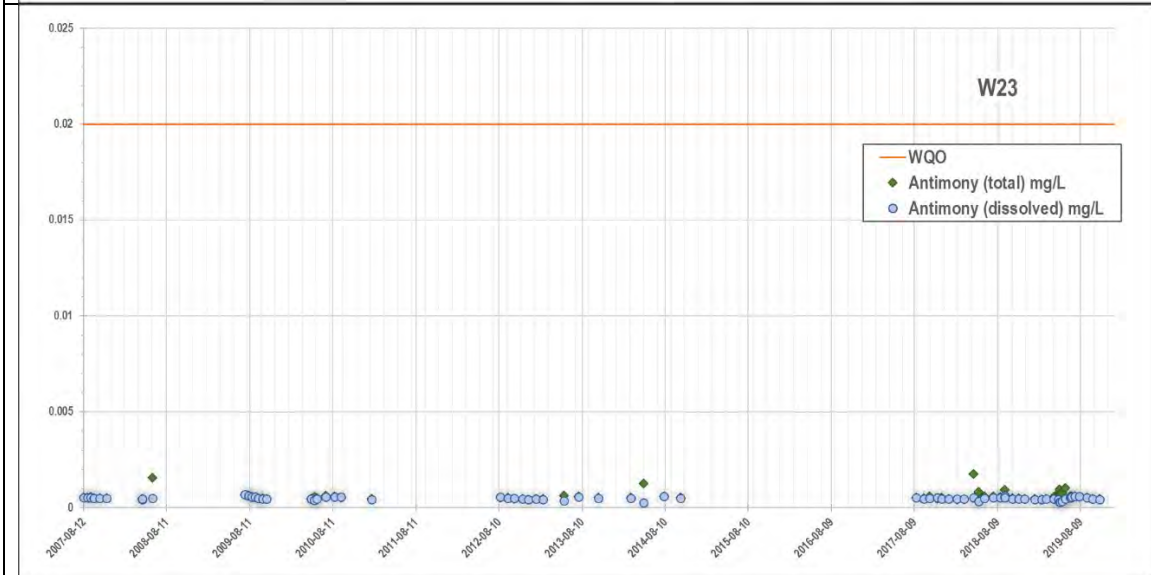
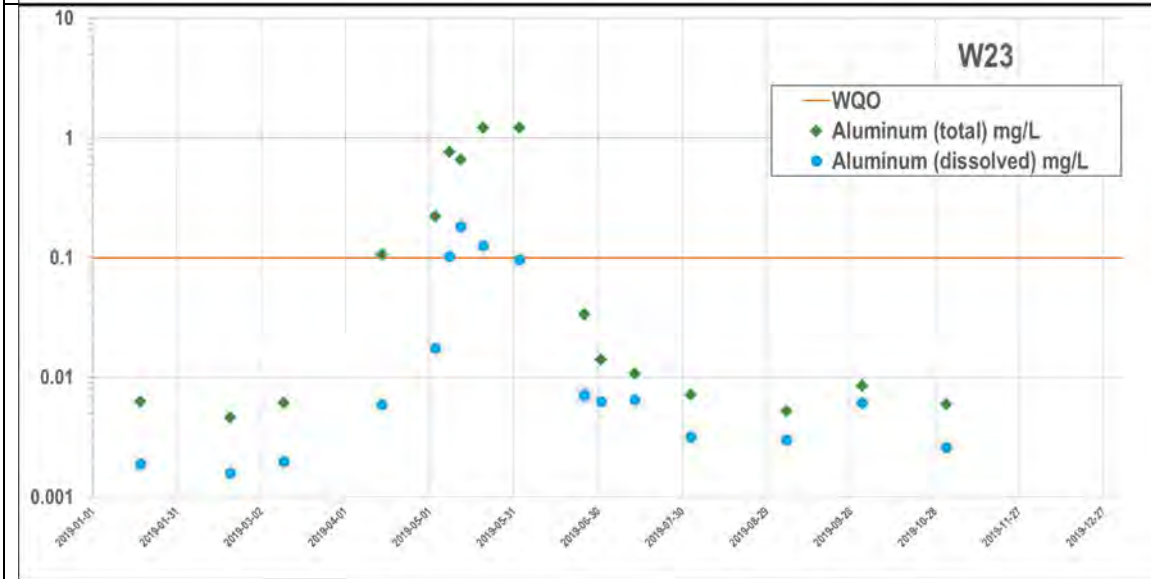
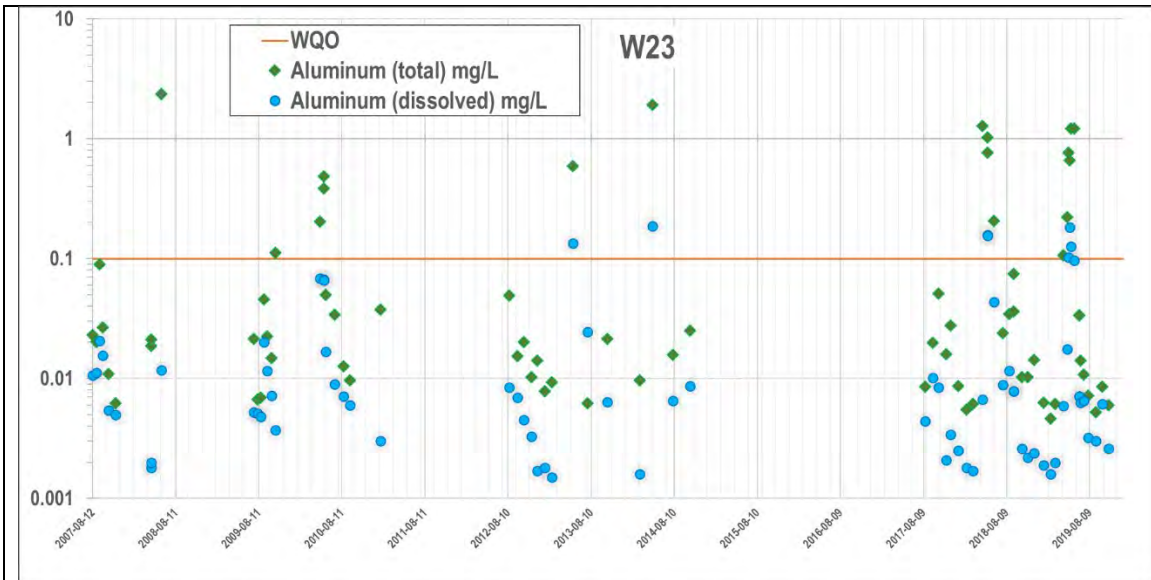
APPENDIX A
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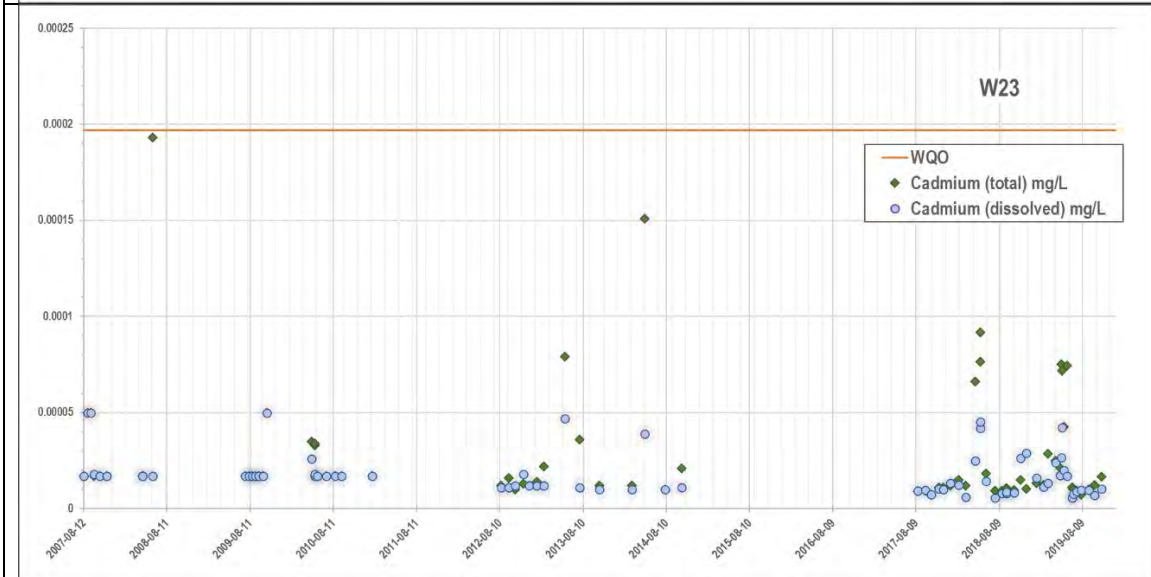
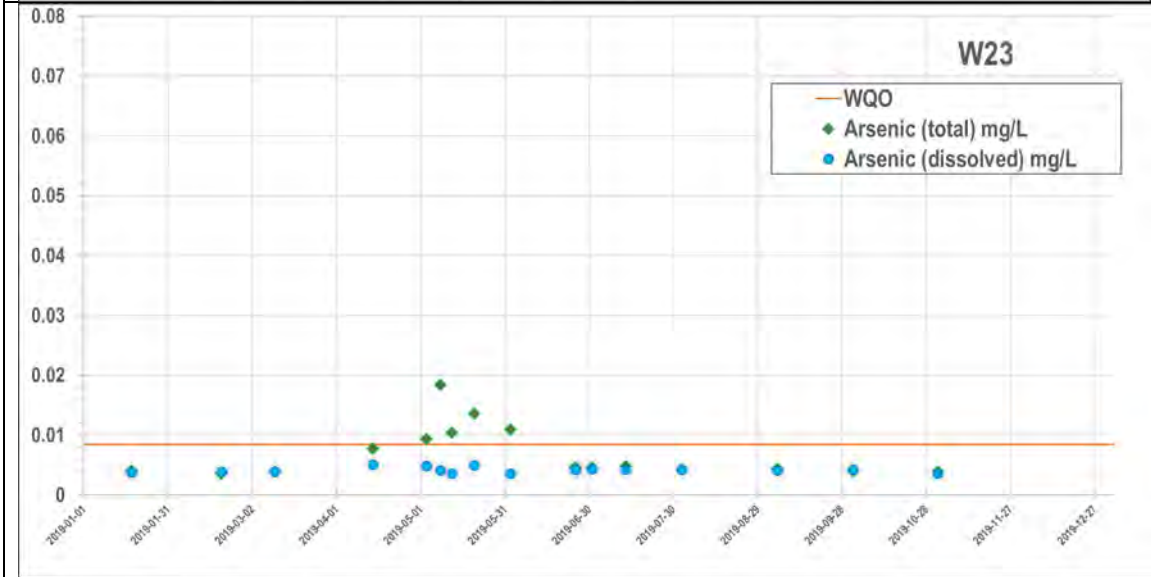
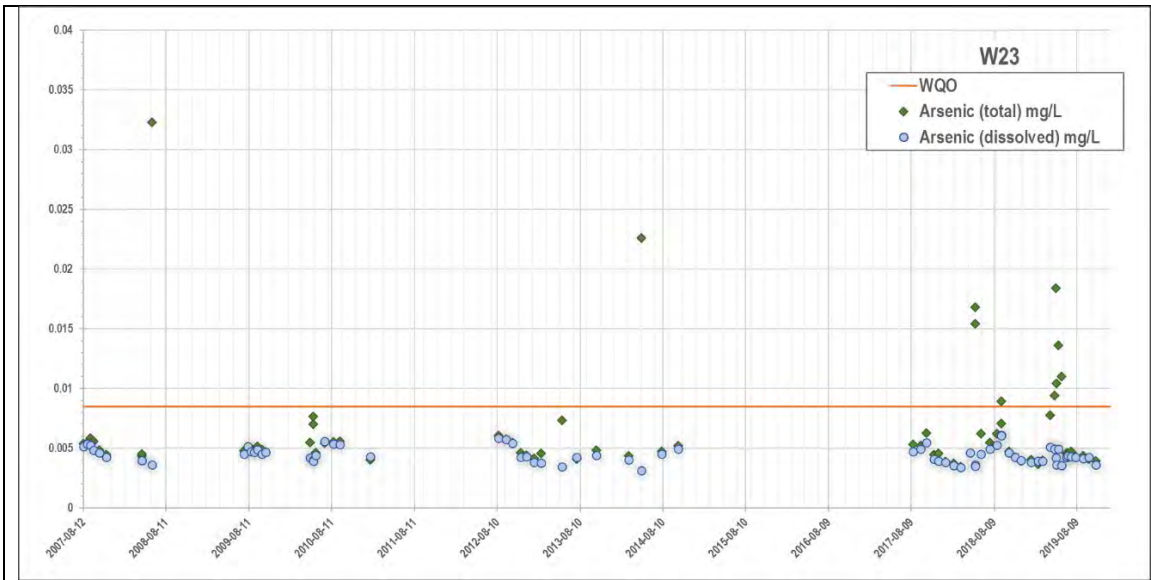
APPENDIX A
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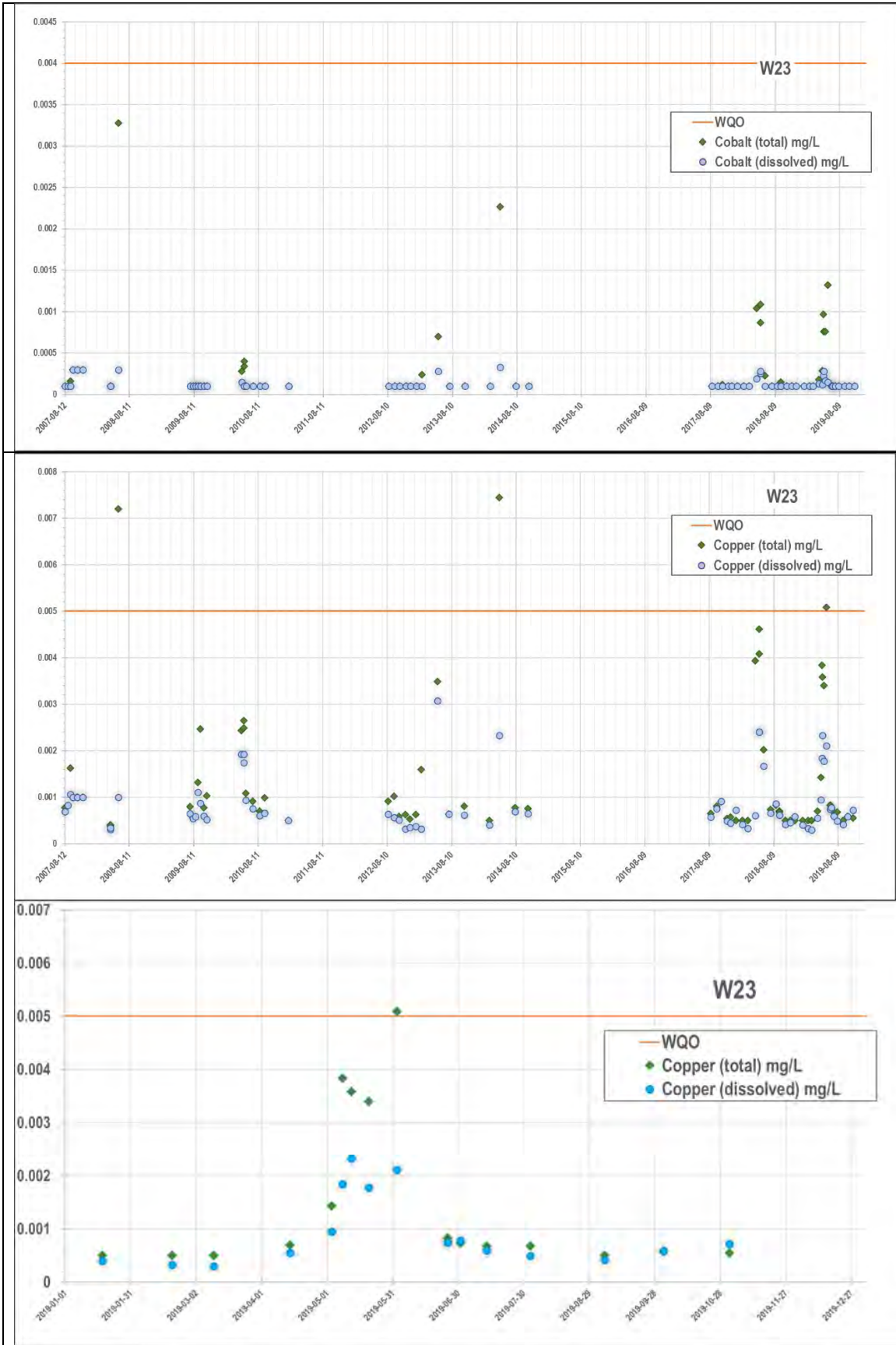
APPENDIX A
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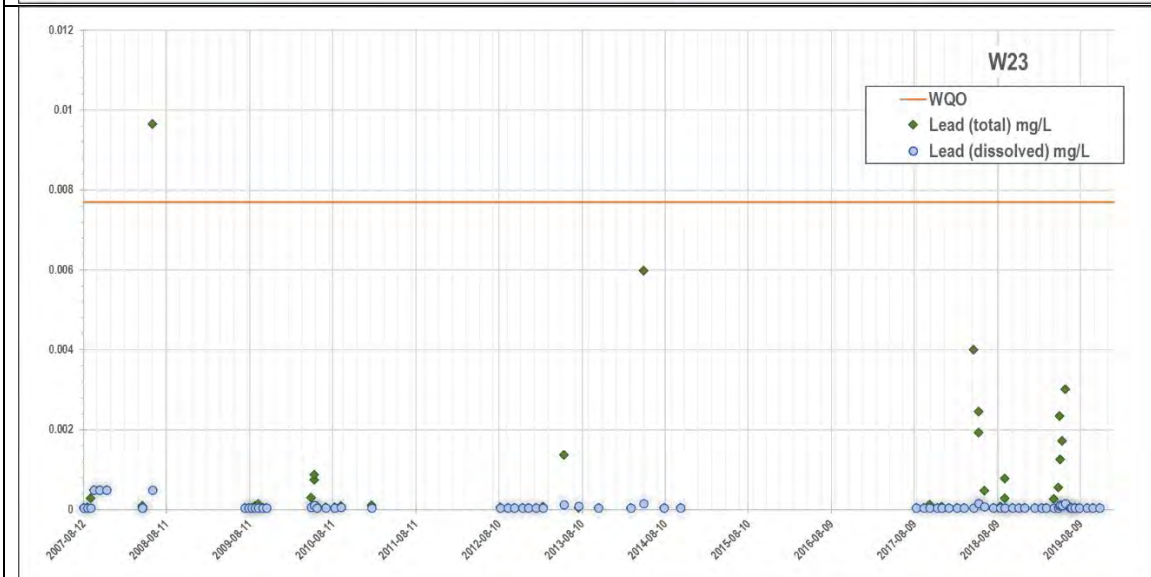
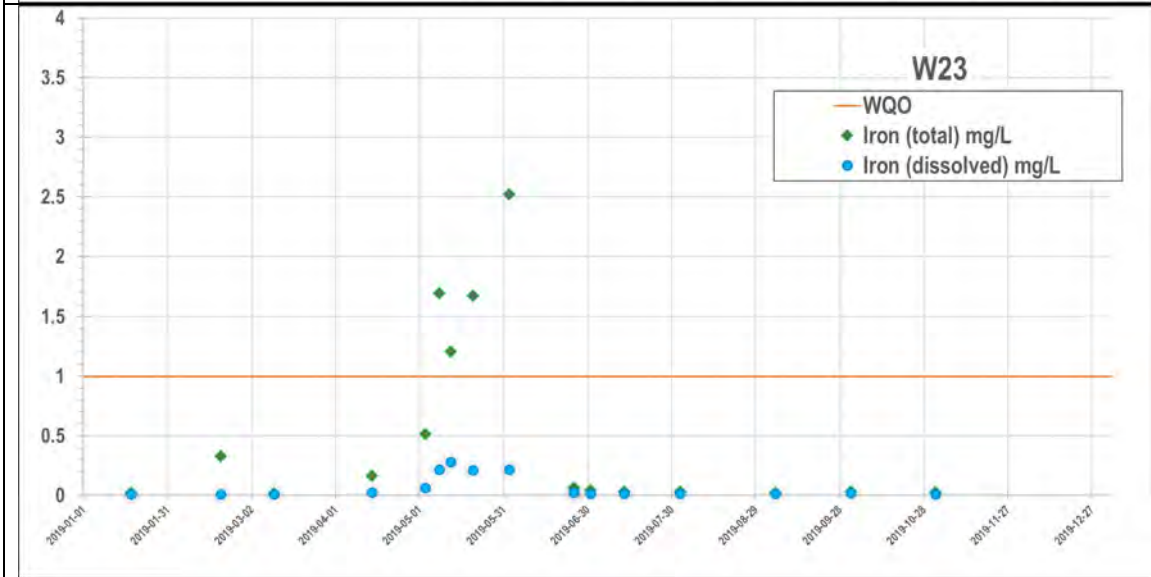
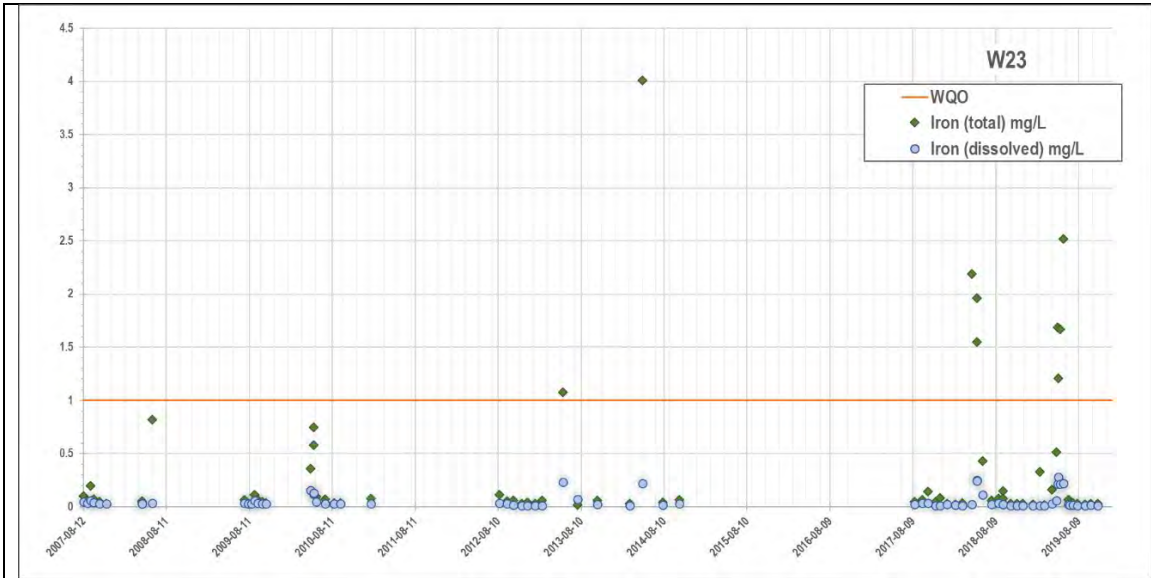
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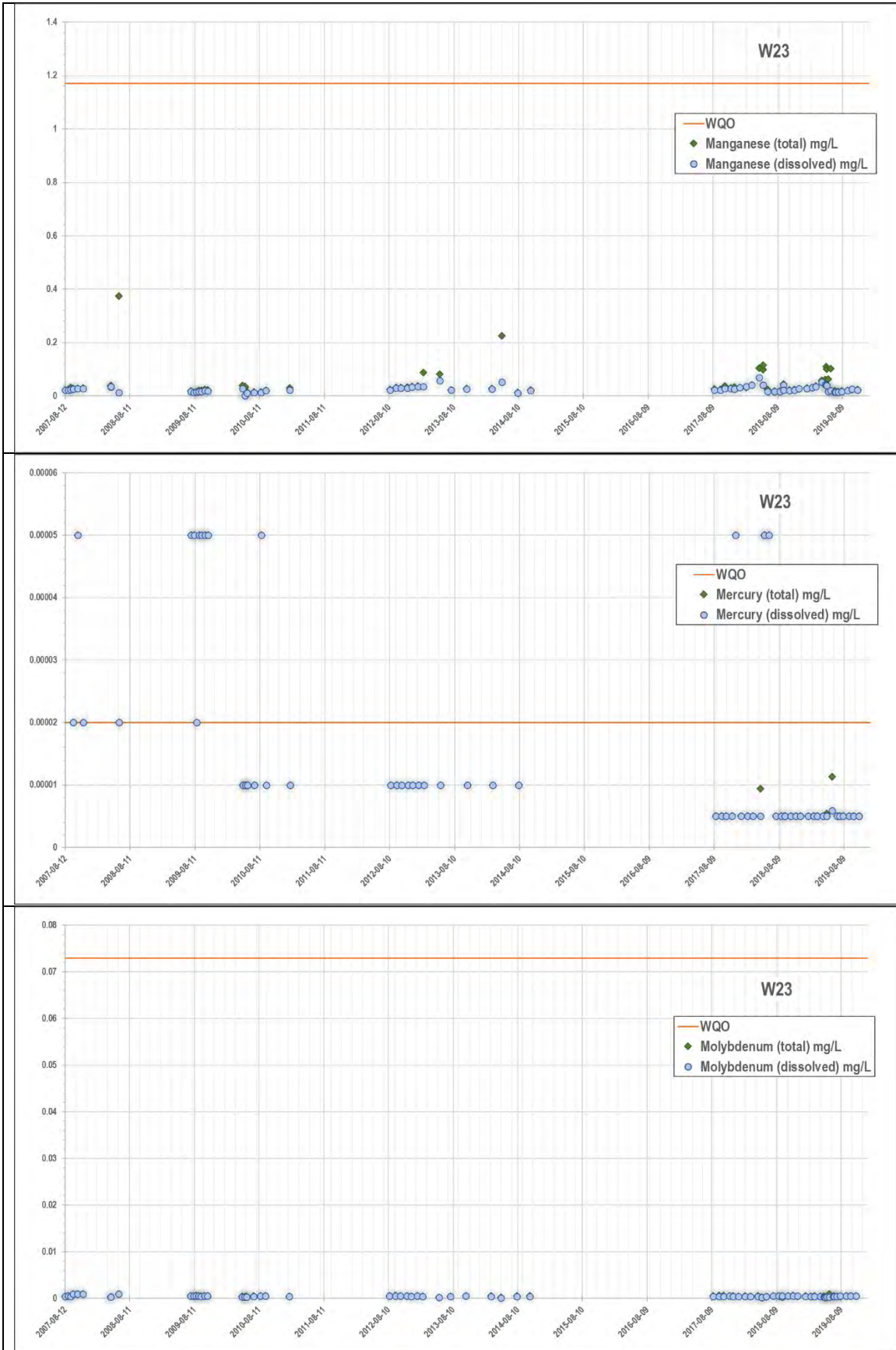
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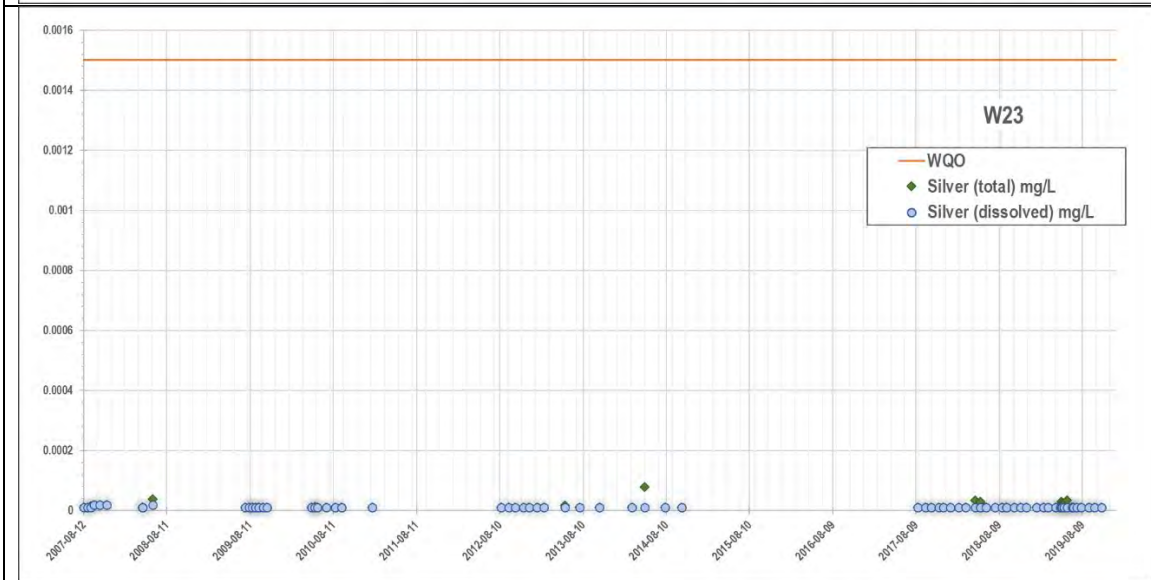
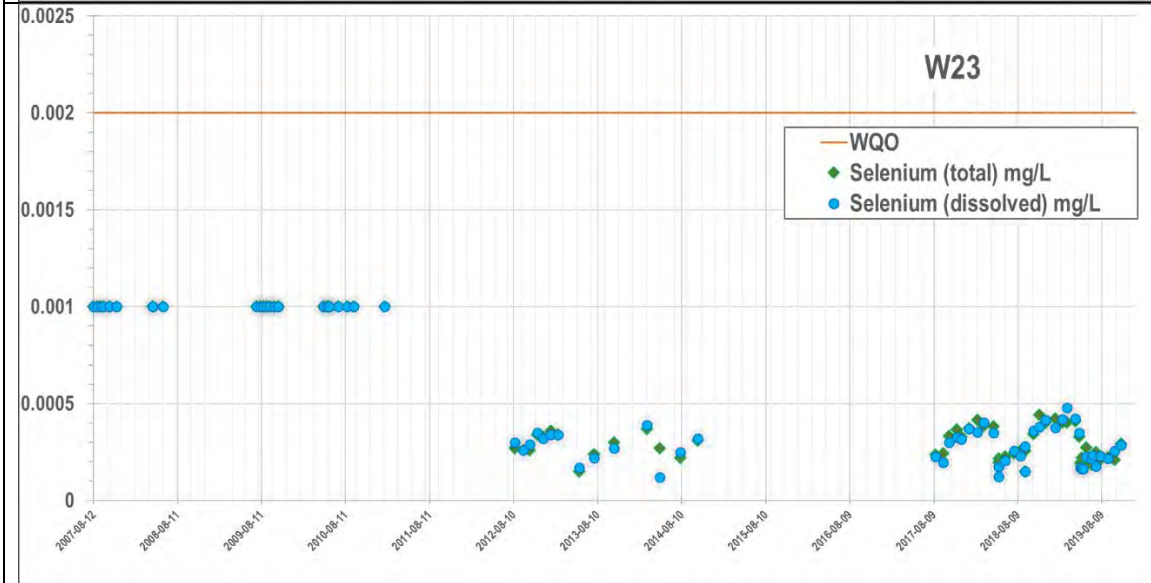
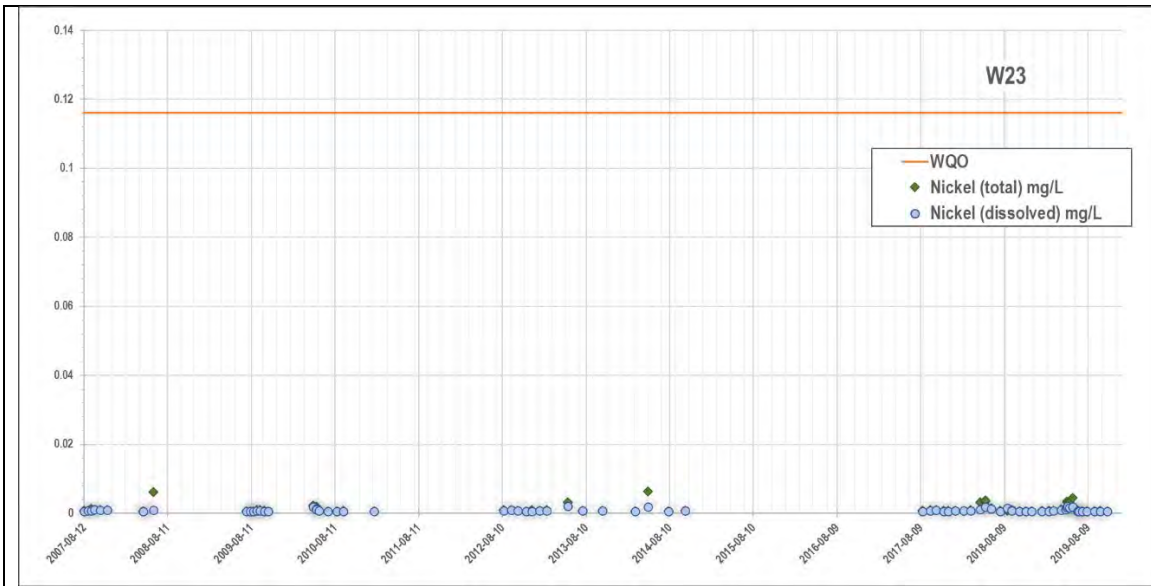
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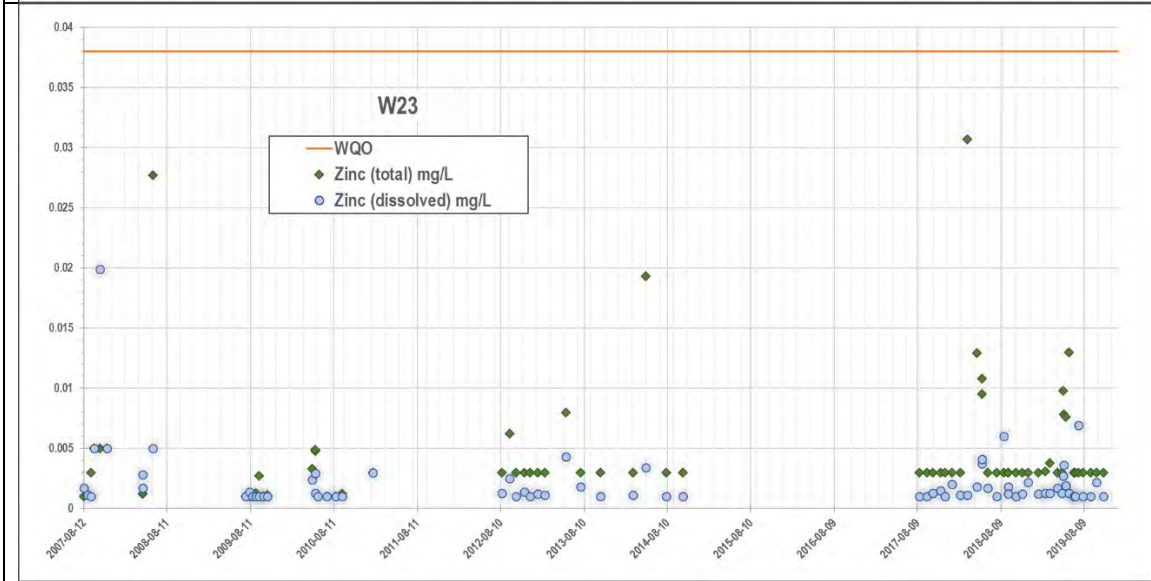
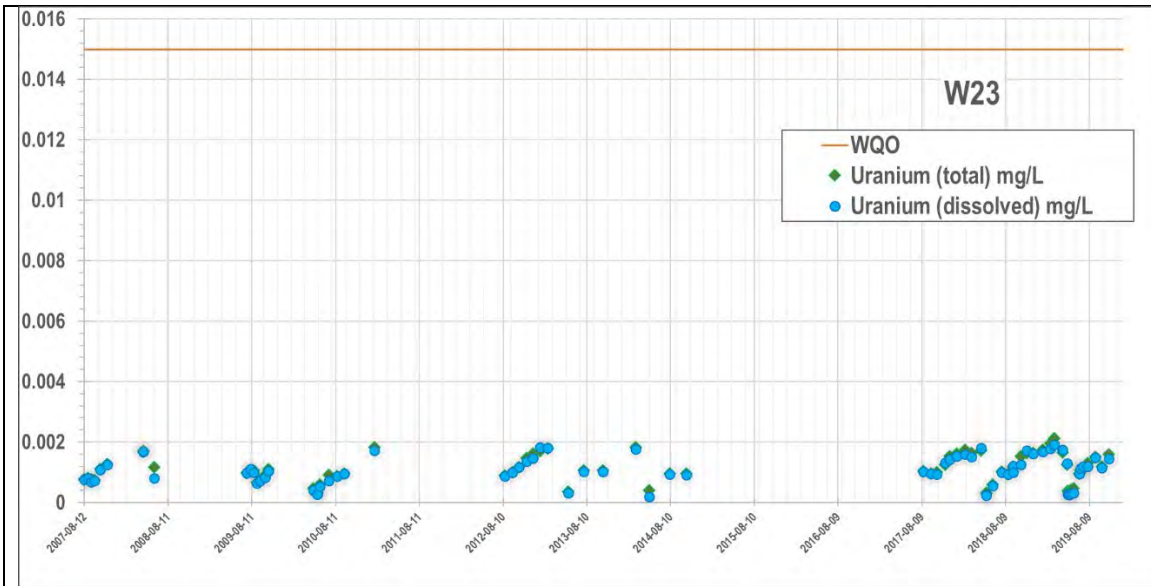
APPENDIX A
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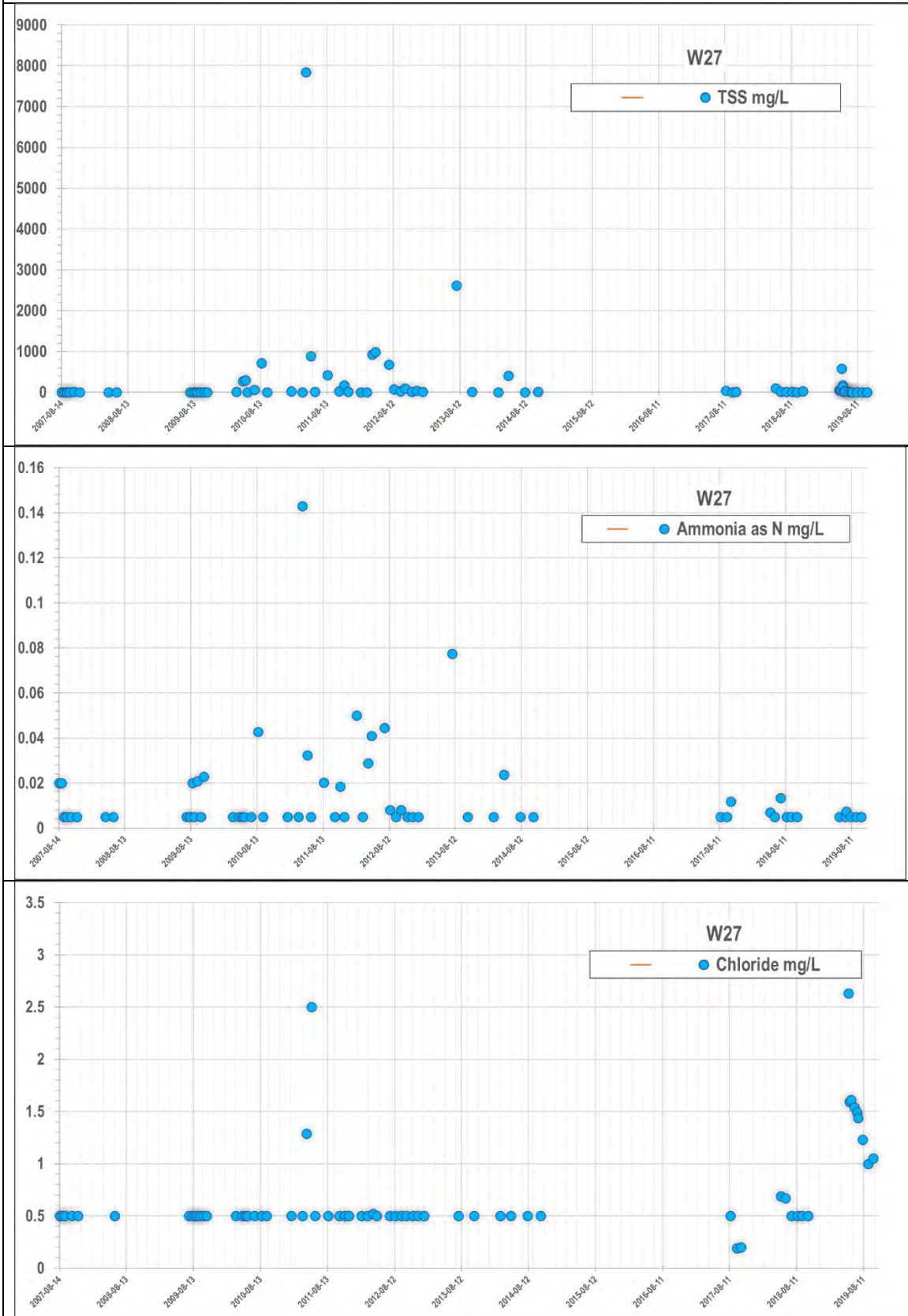
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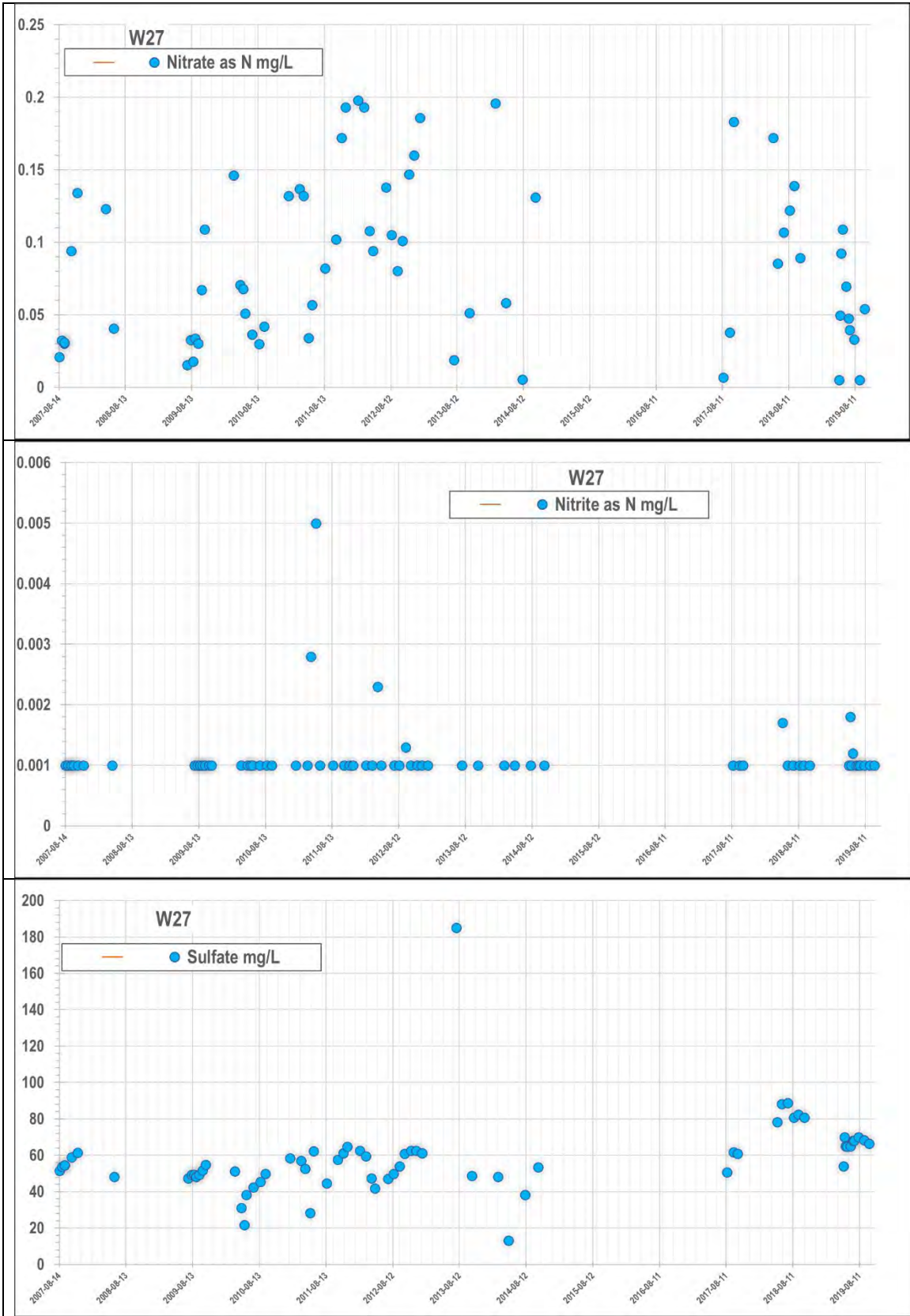
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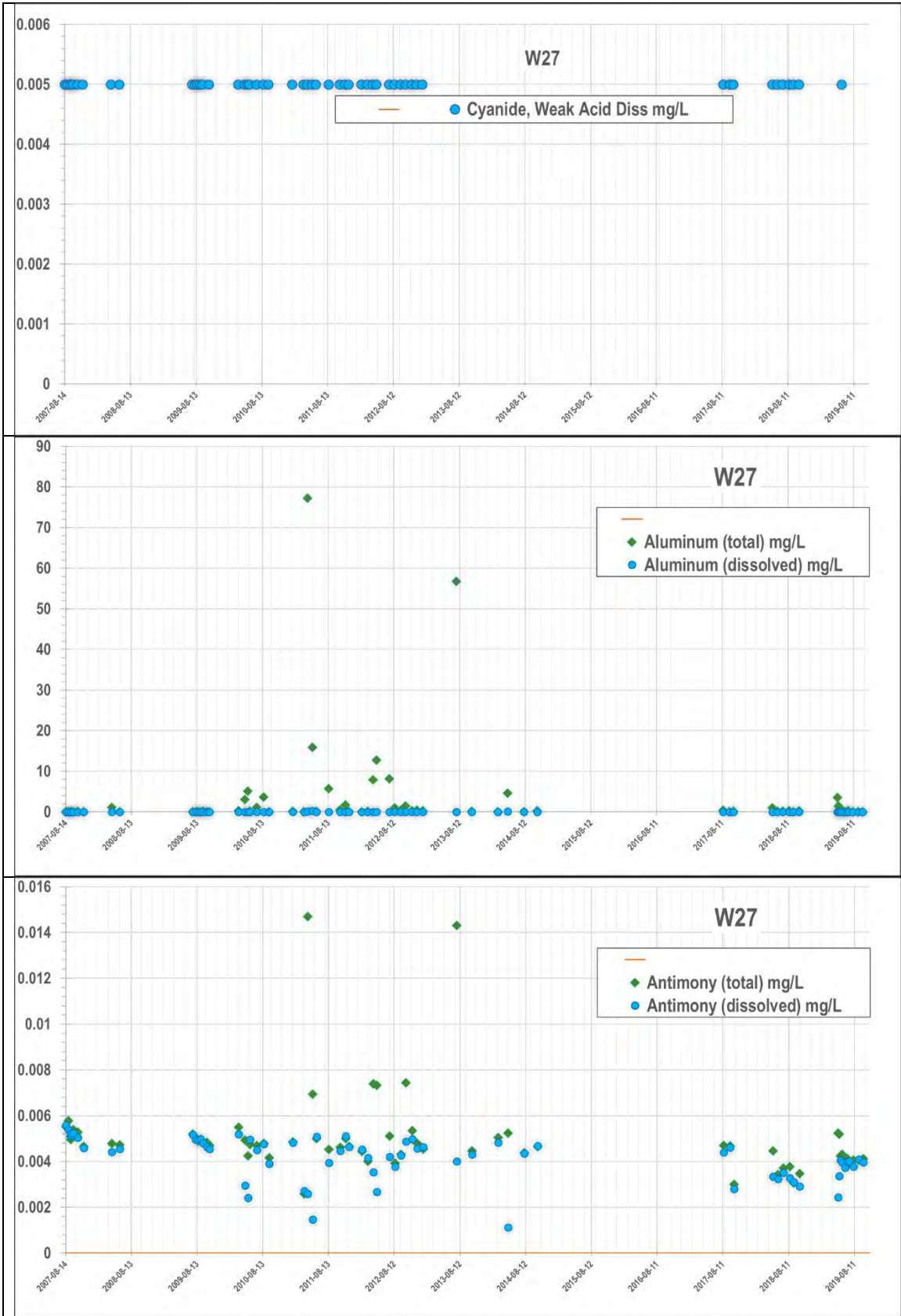
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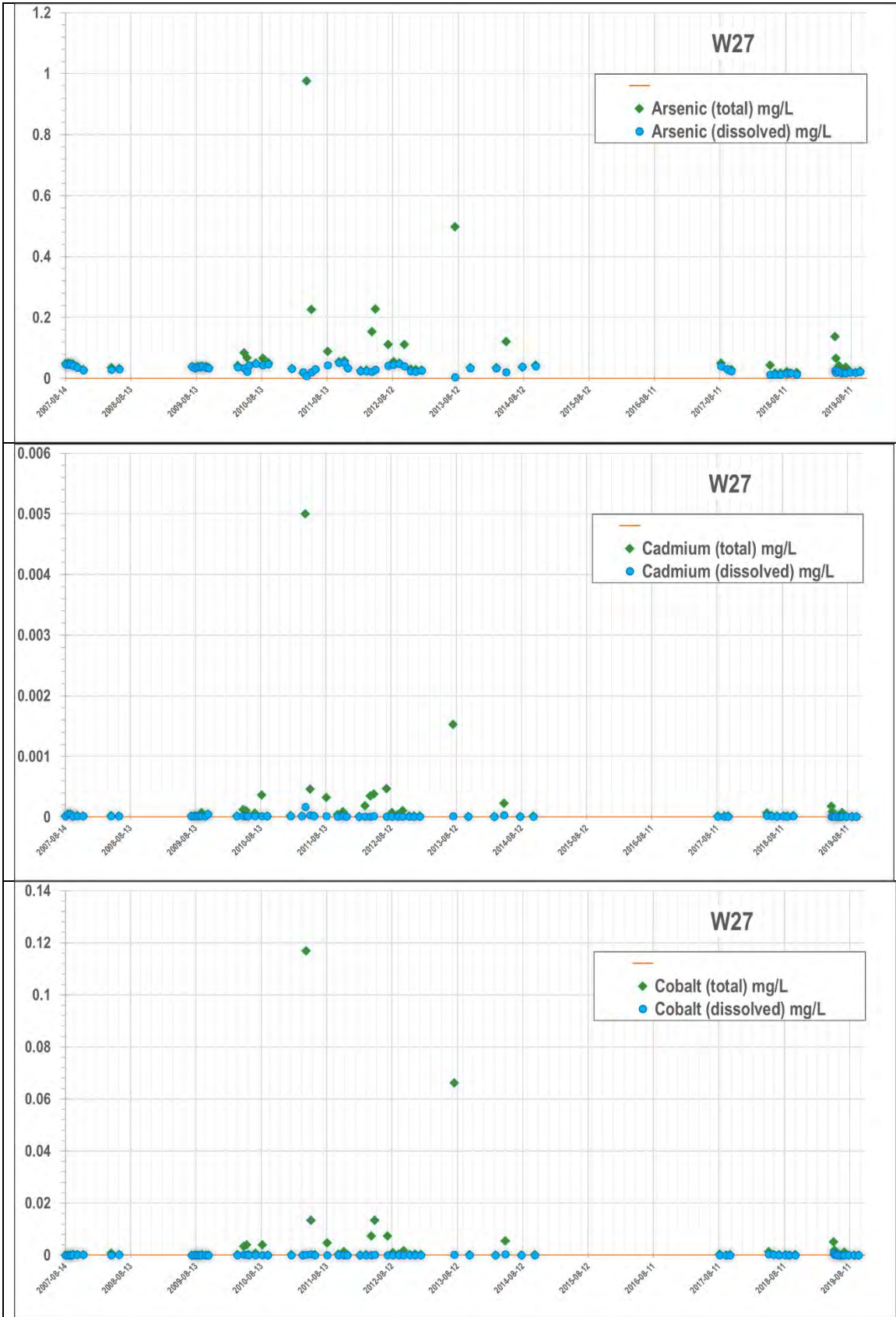
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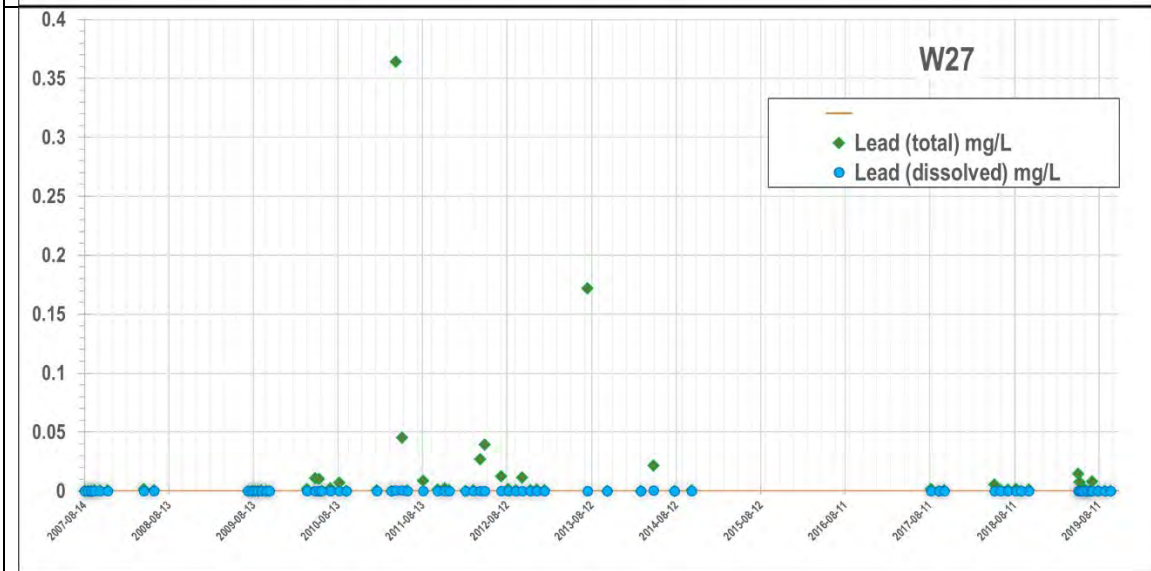
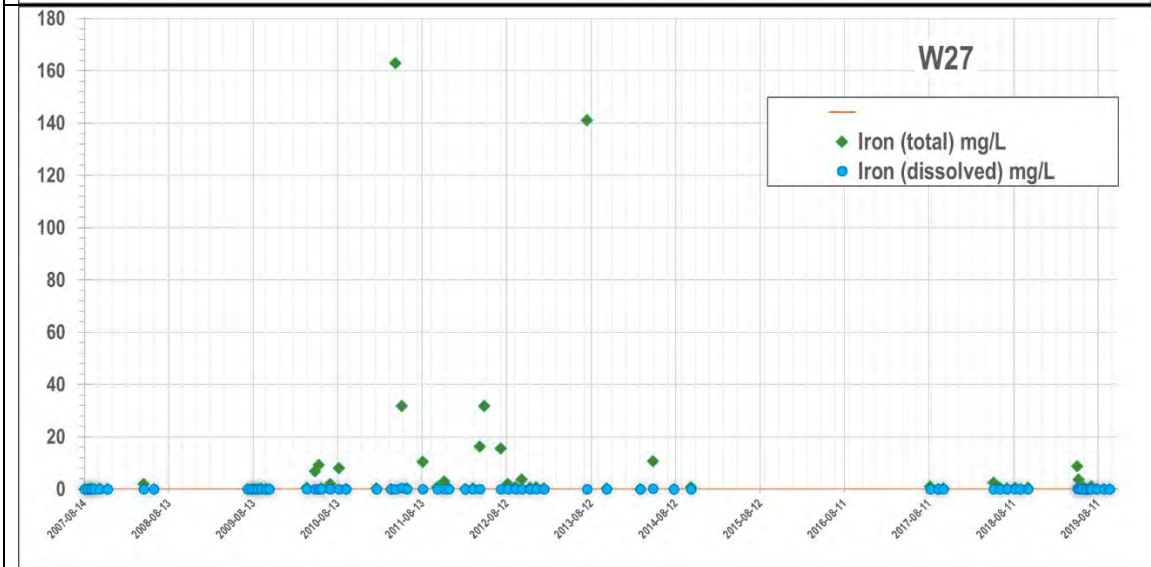
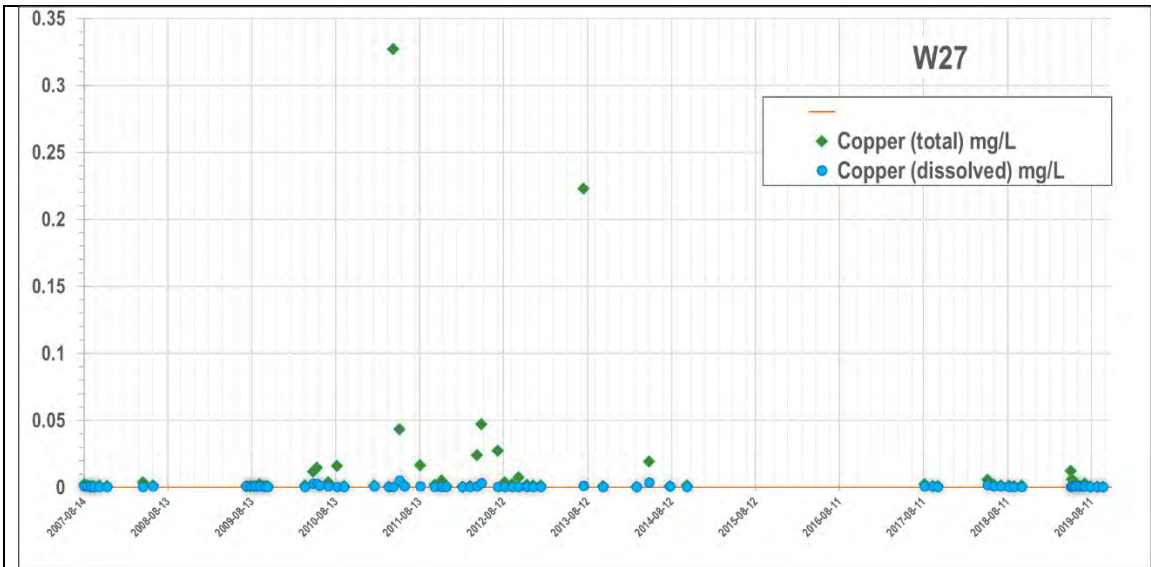
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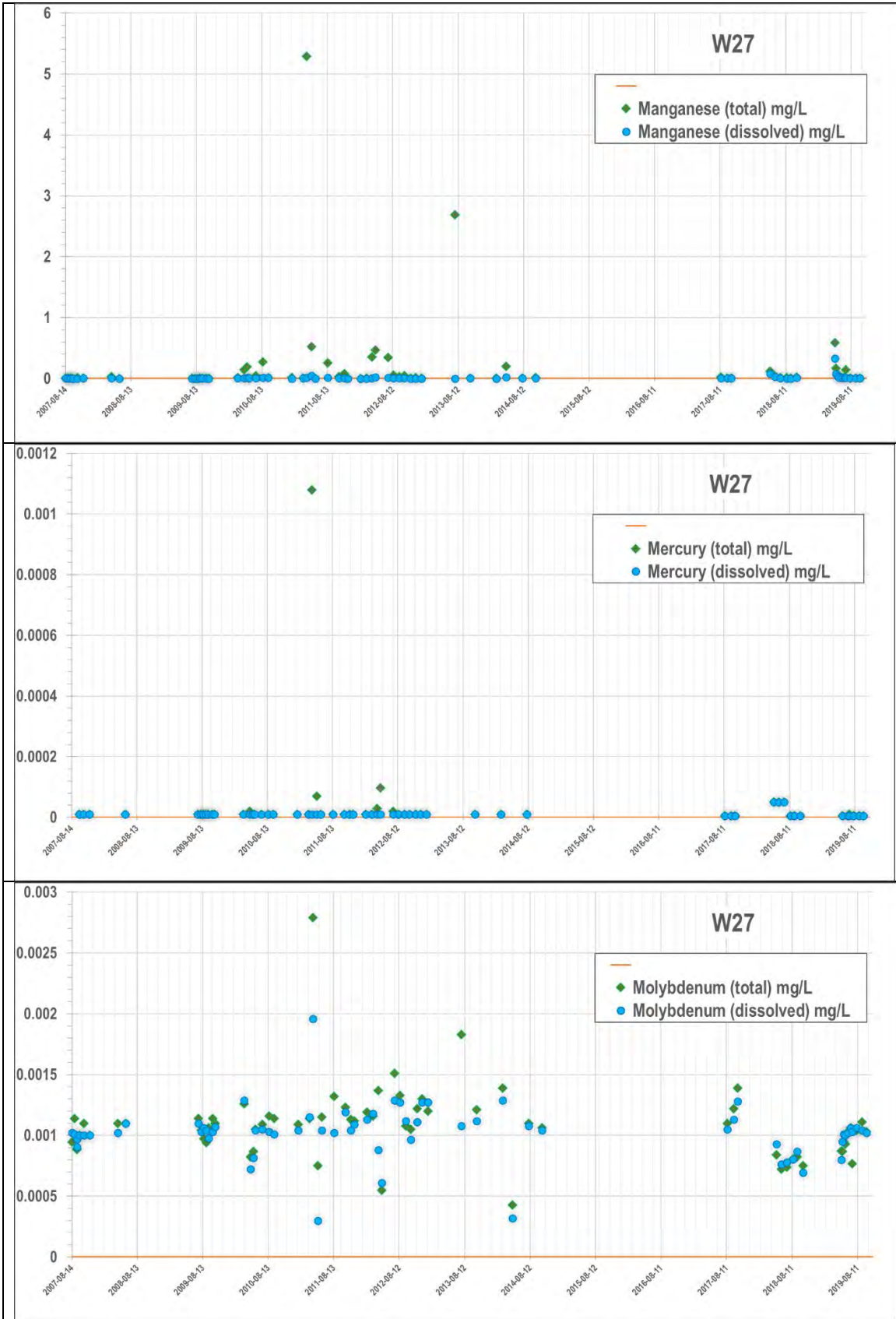
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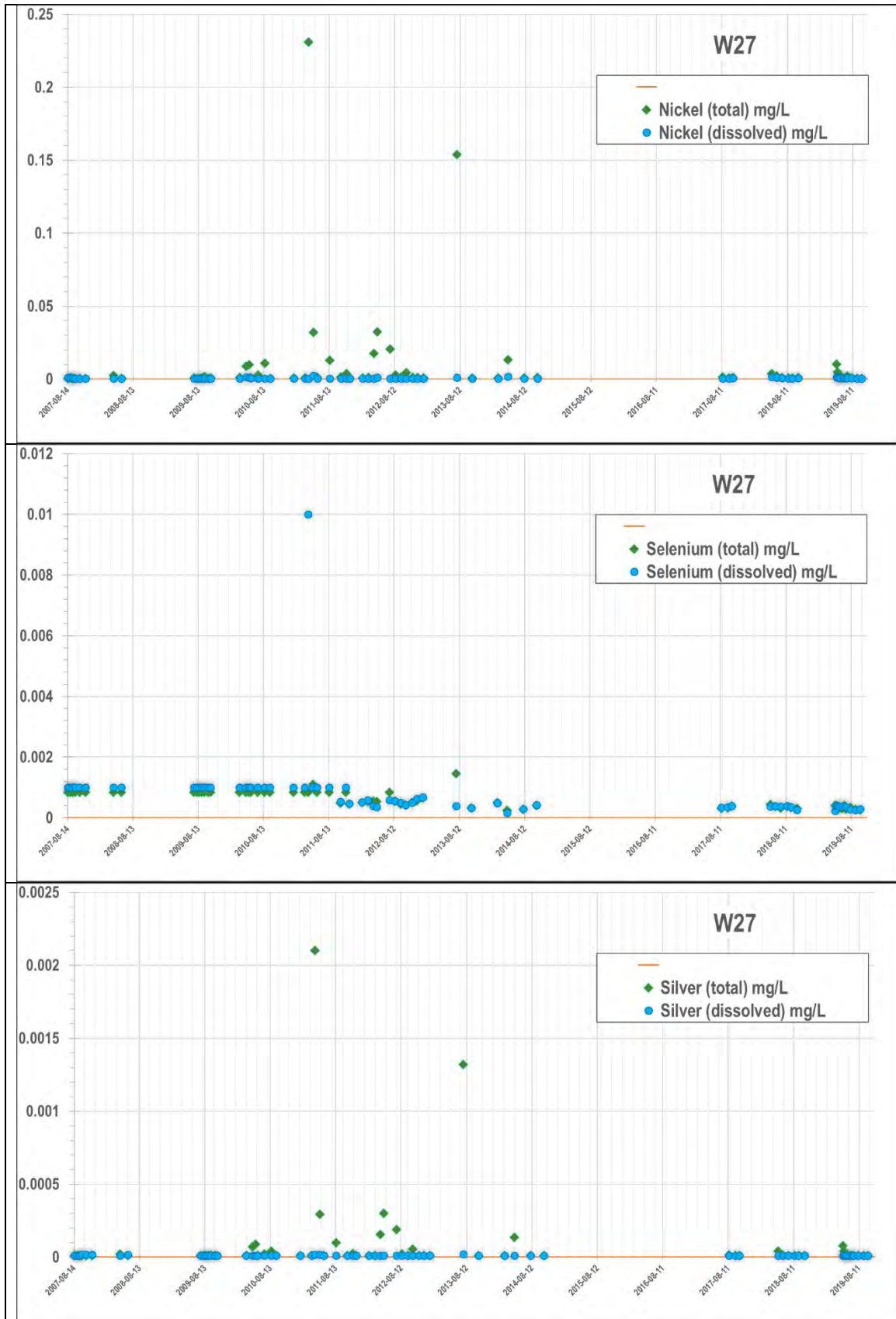
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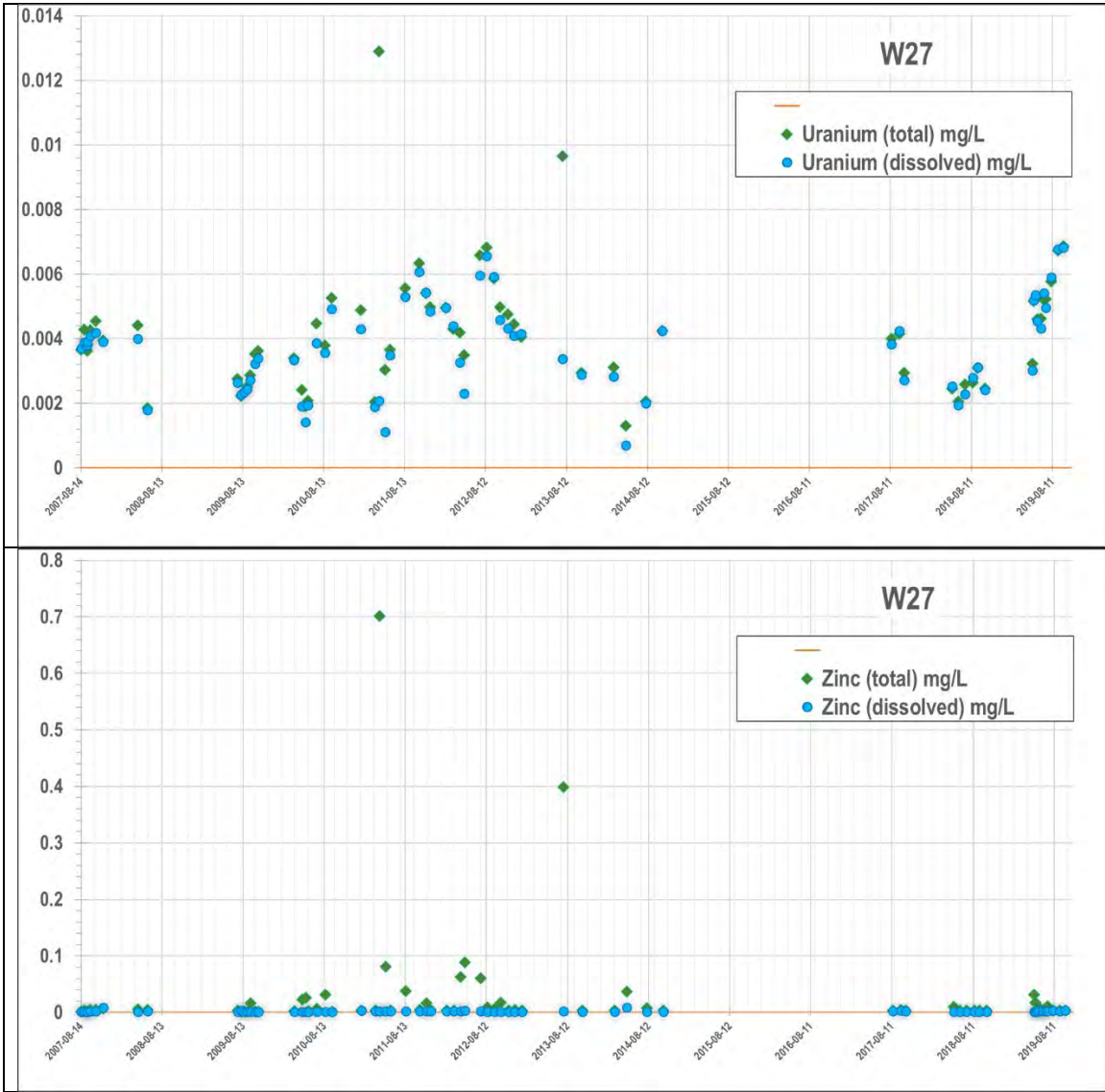
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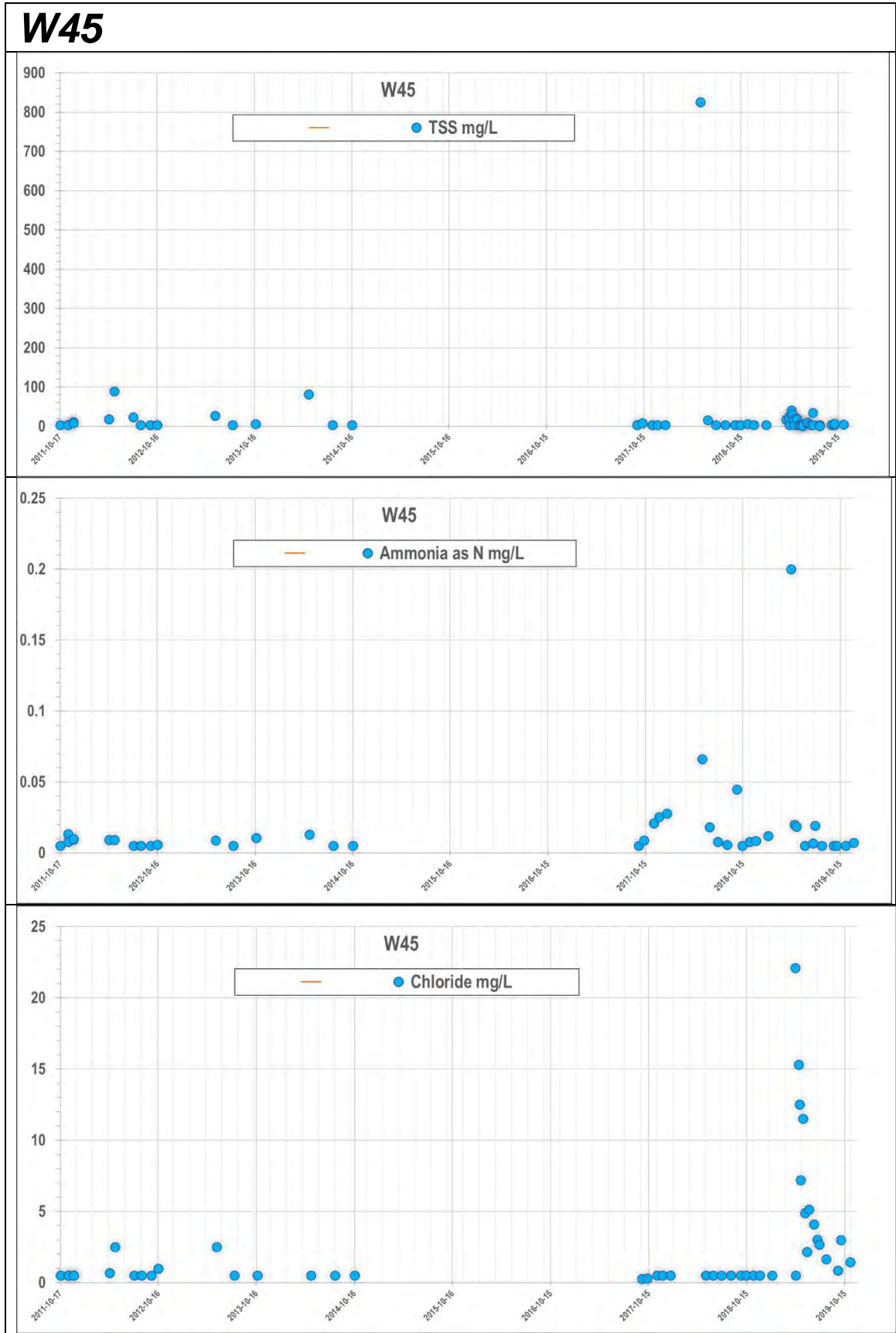


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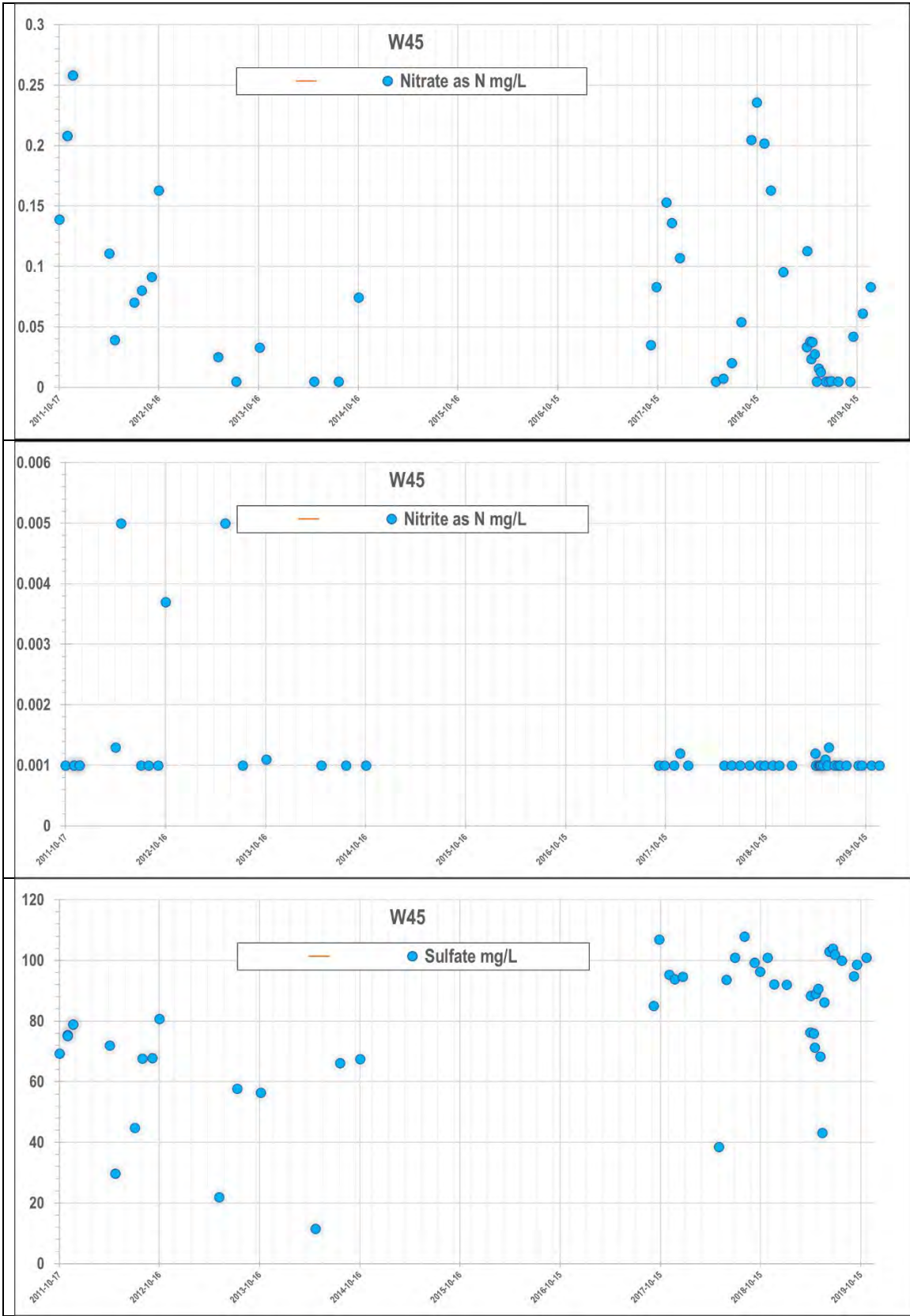


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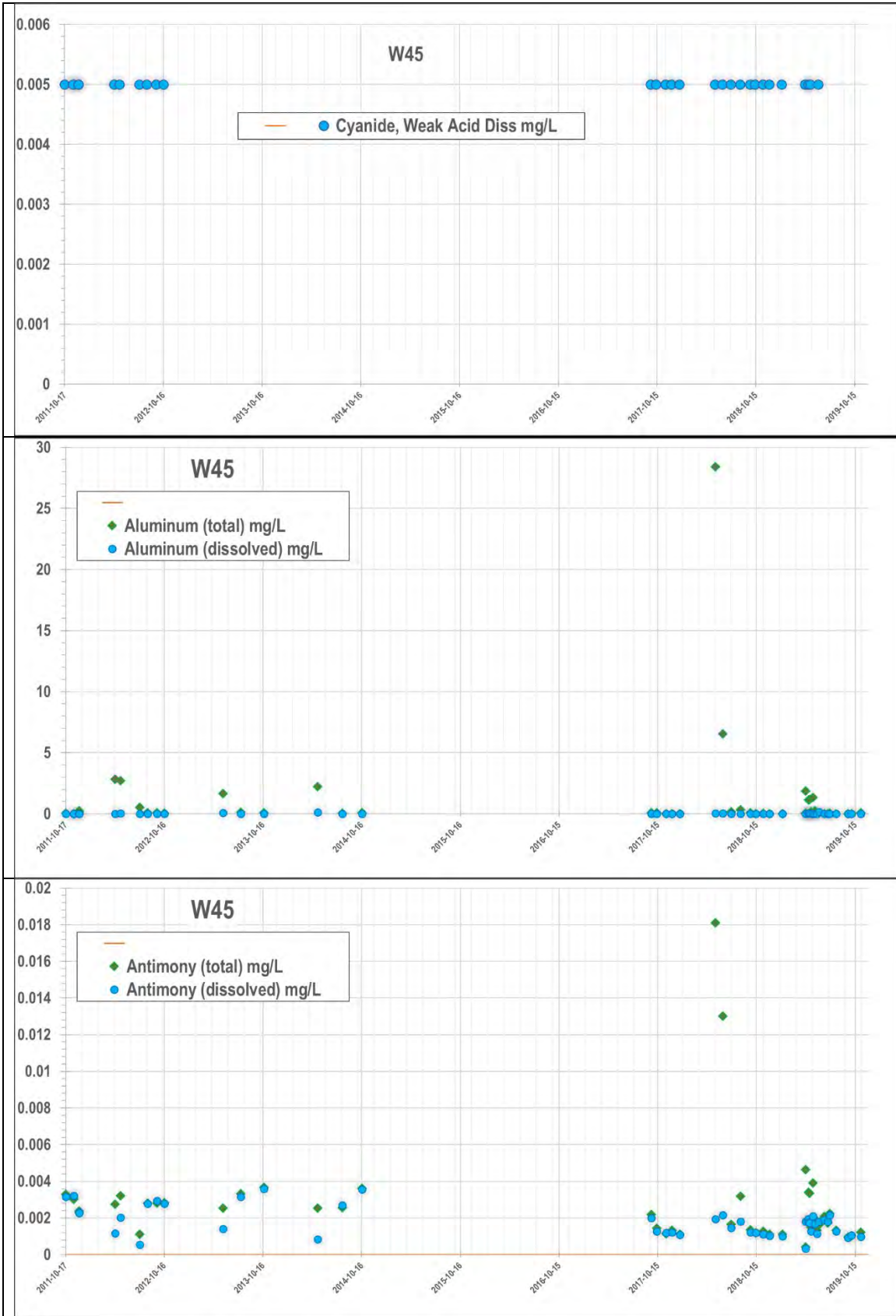




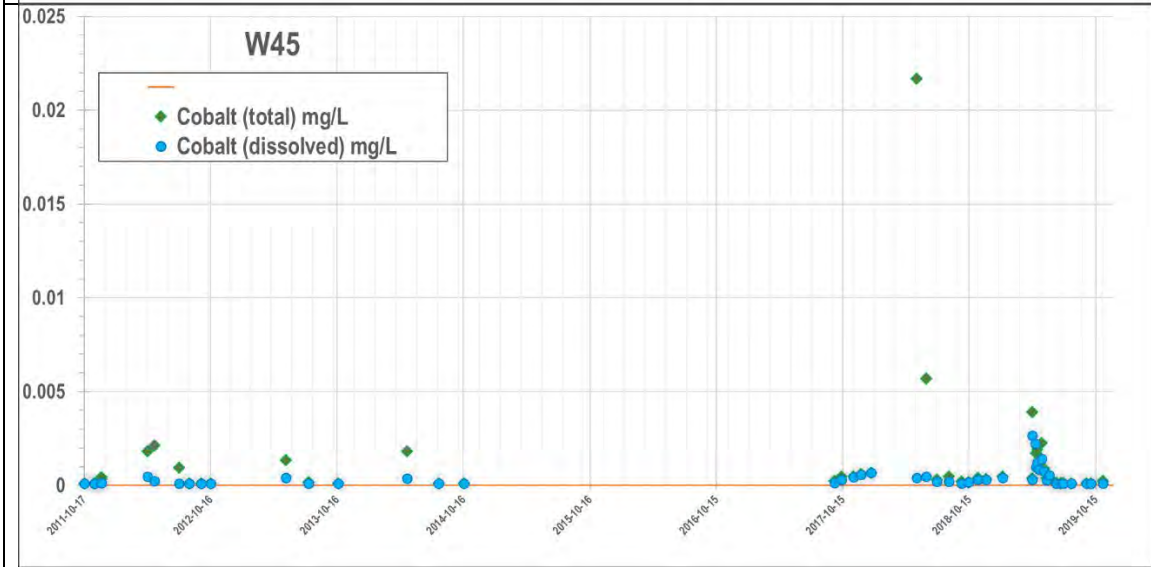
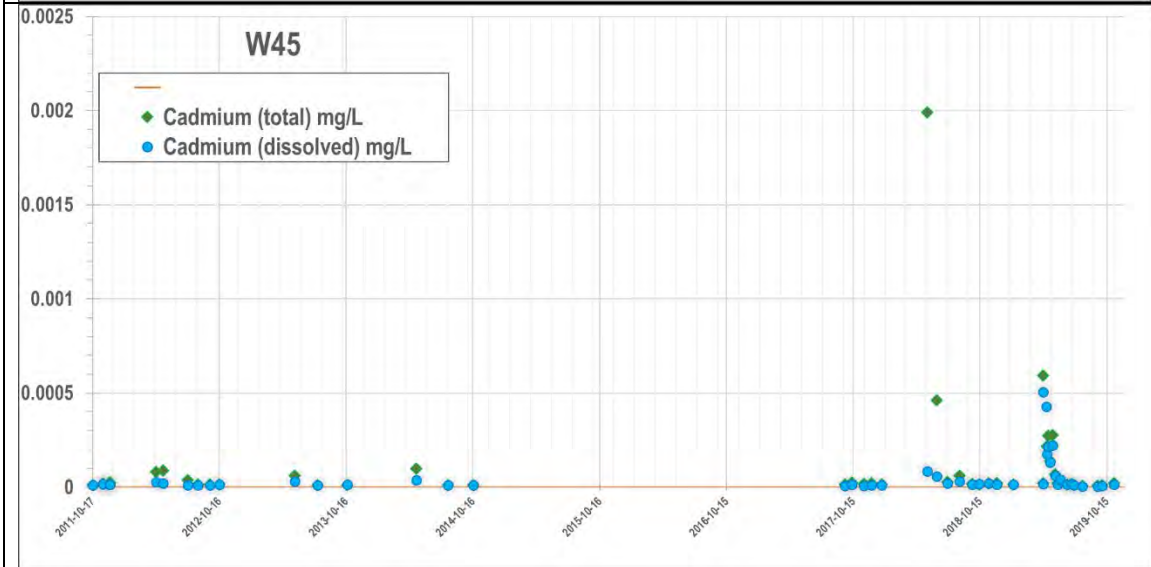
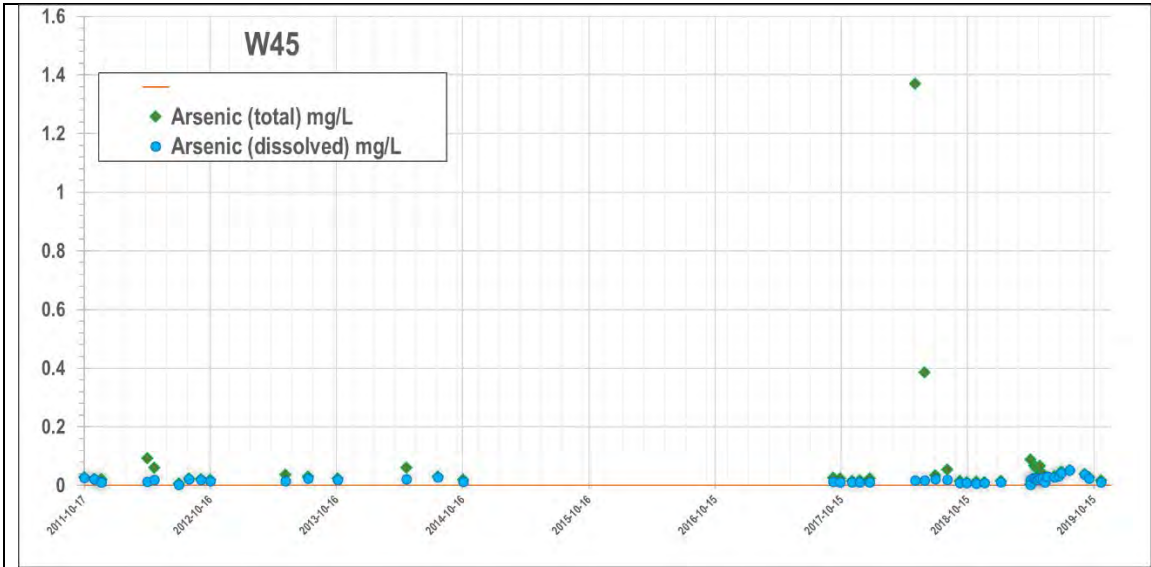
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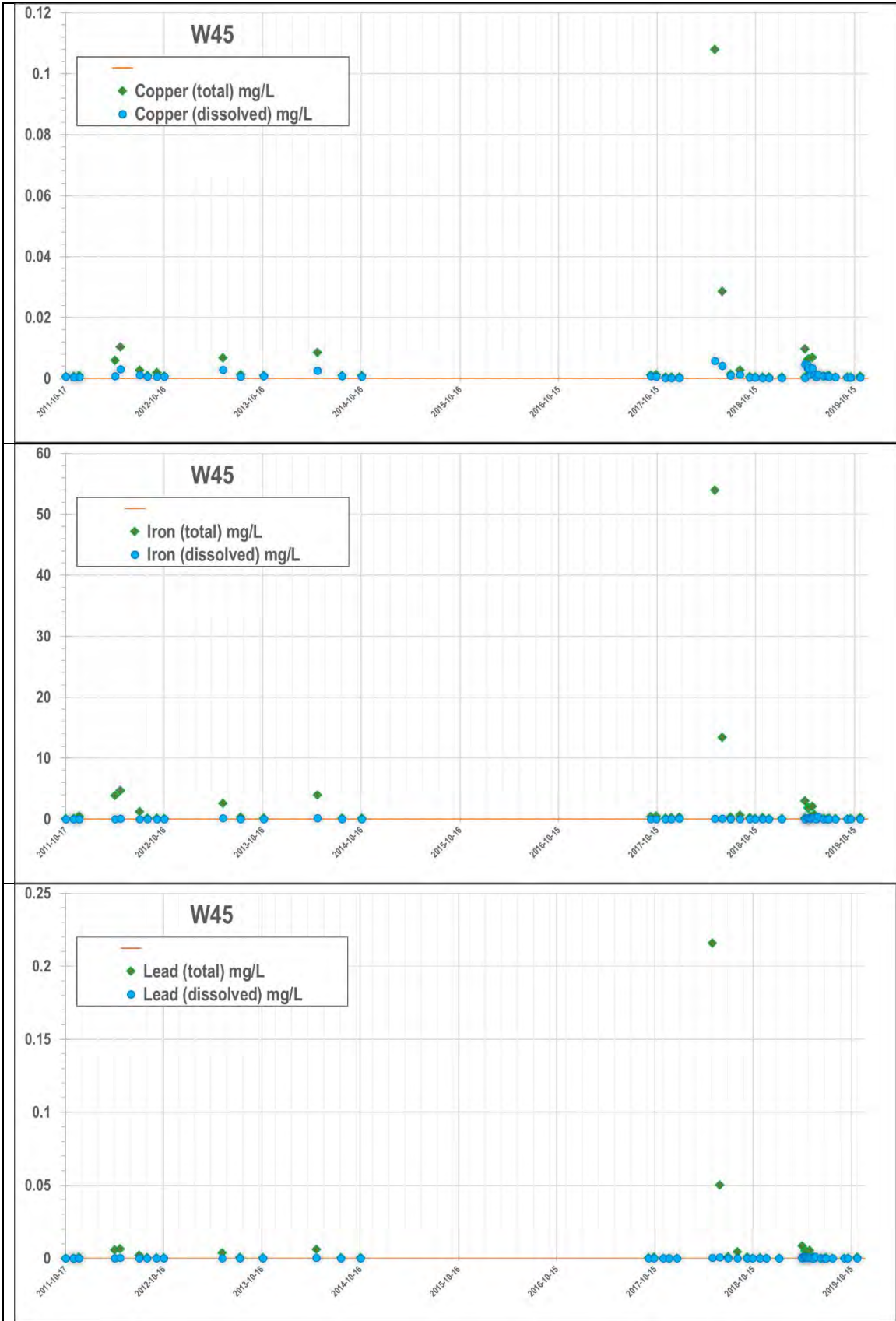
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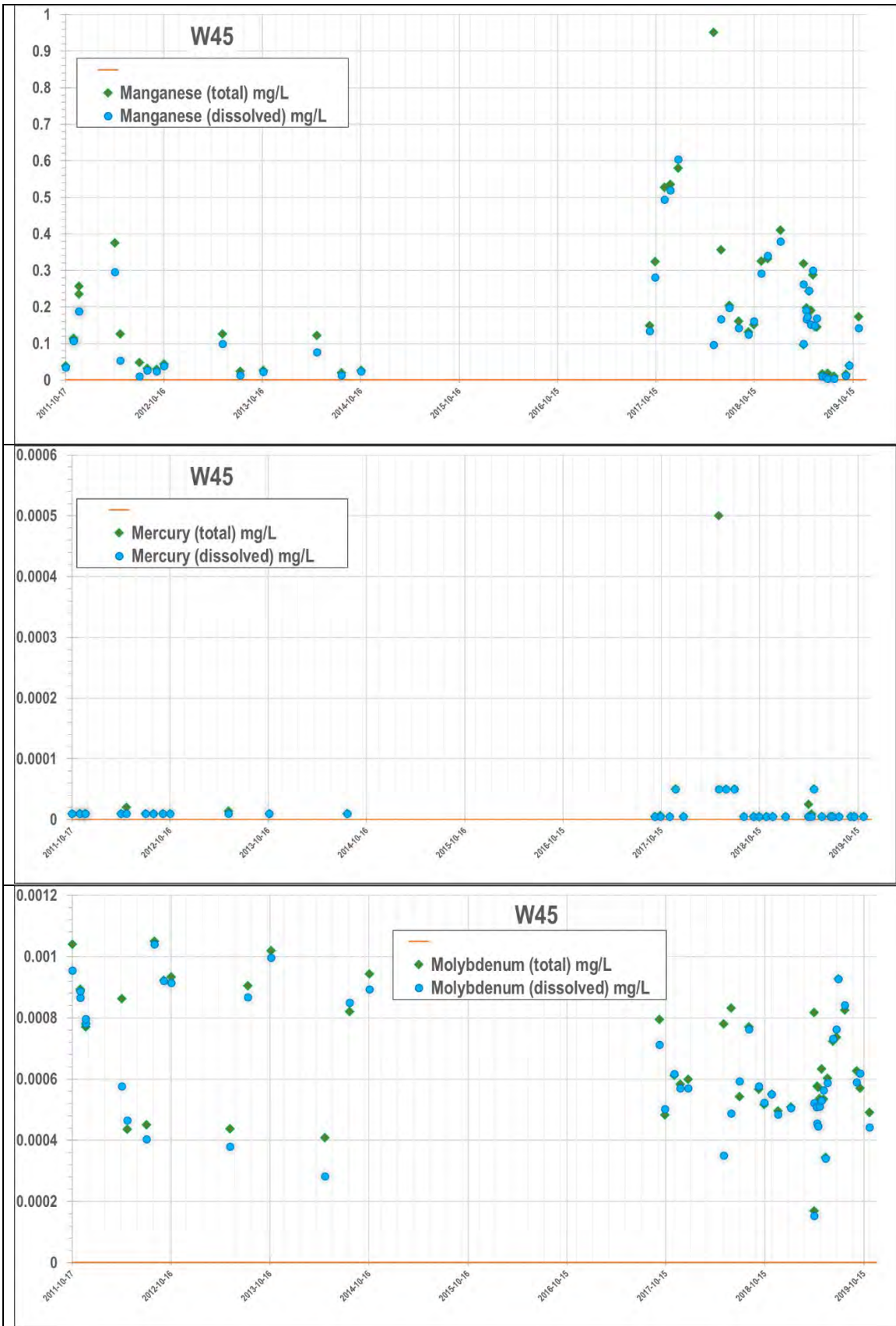
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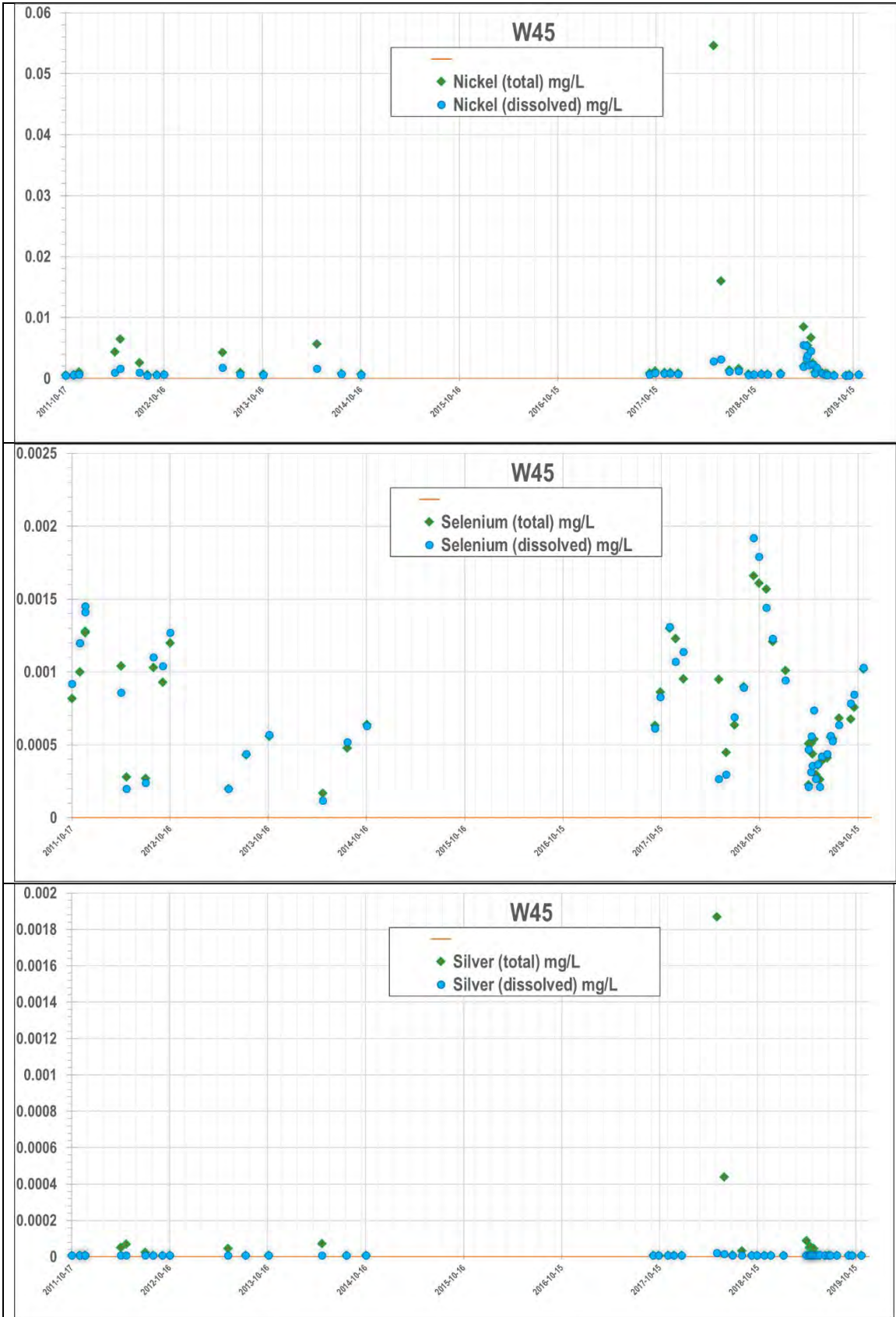
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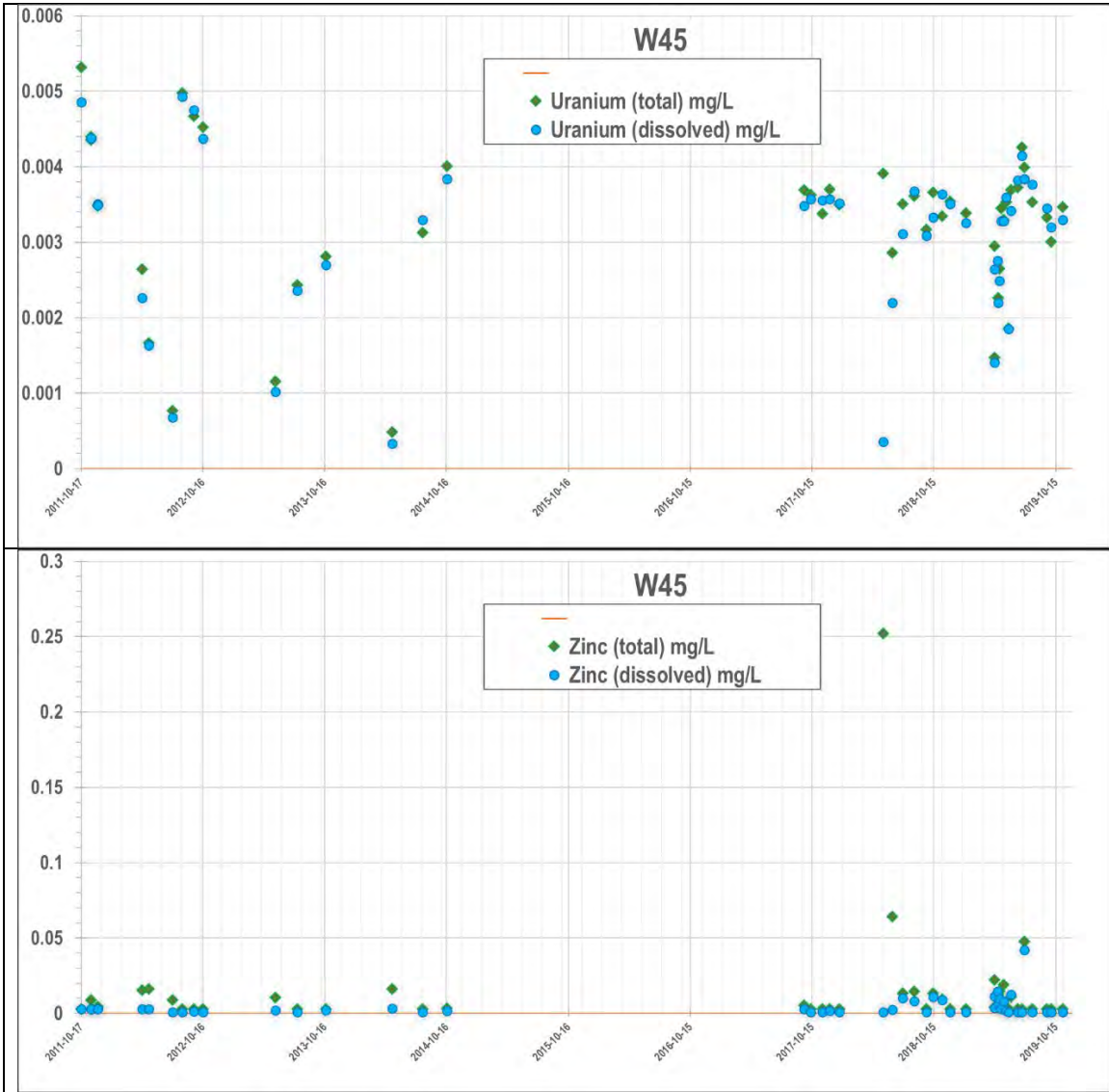
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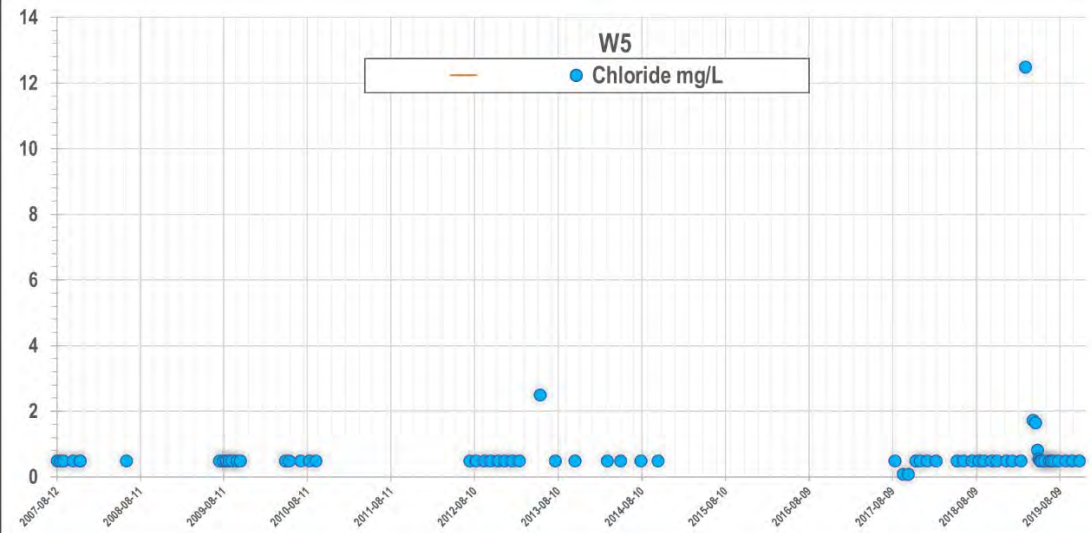
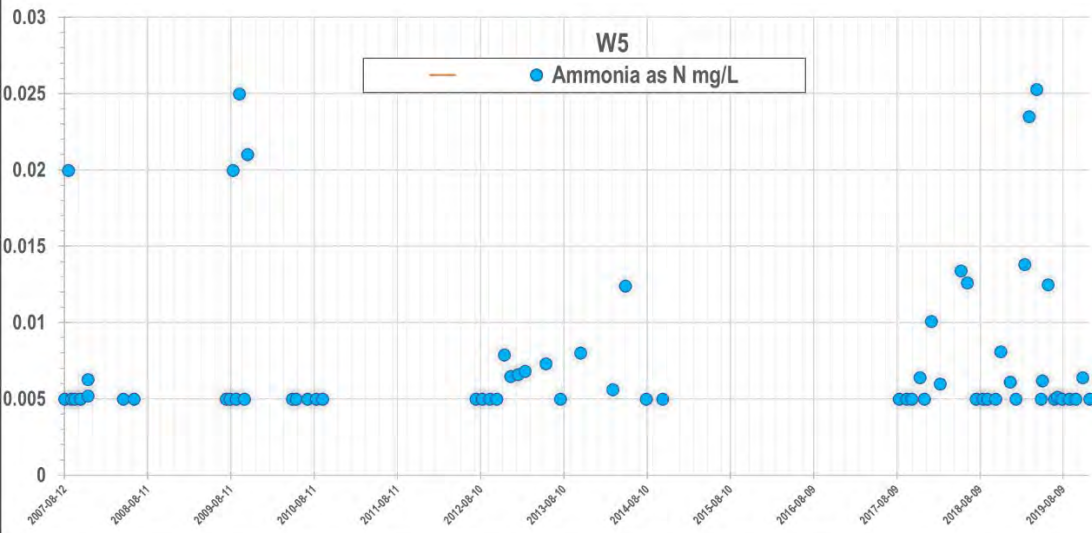
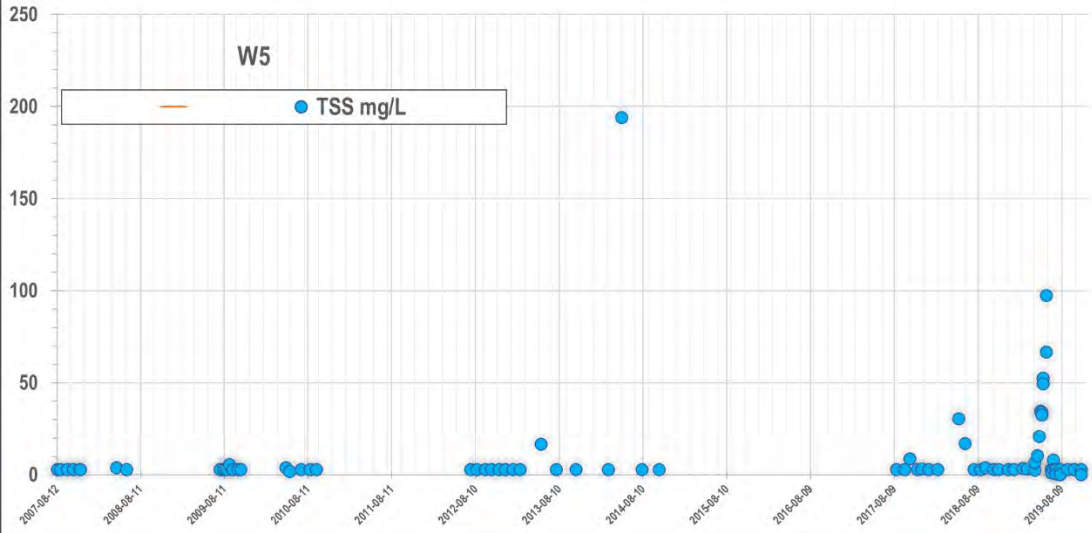
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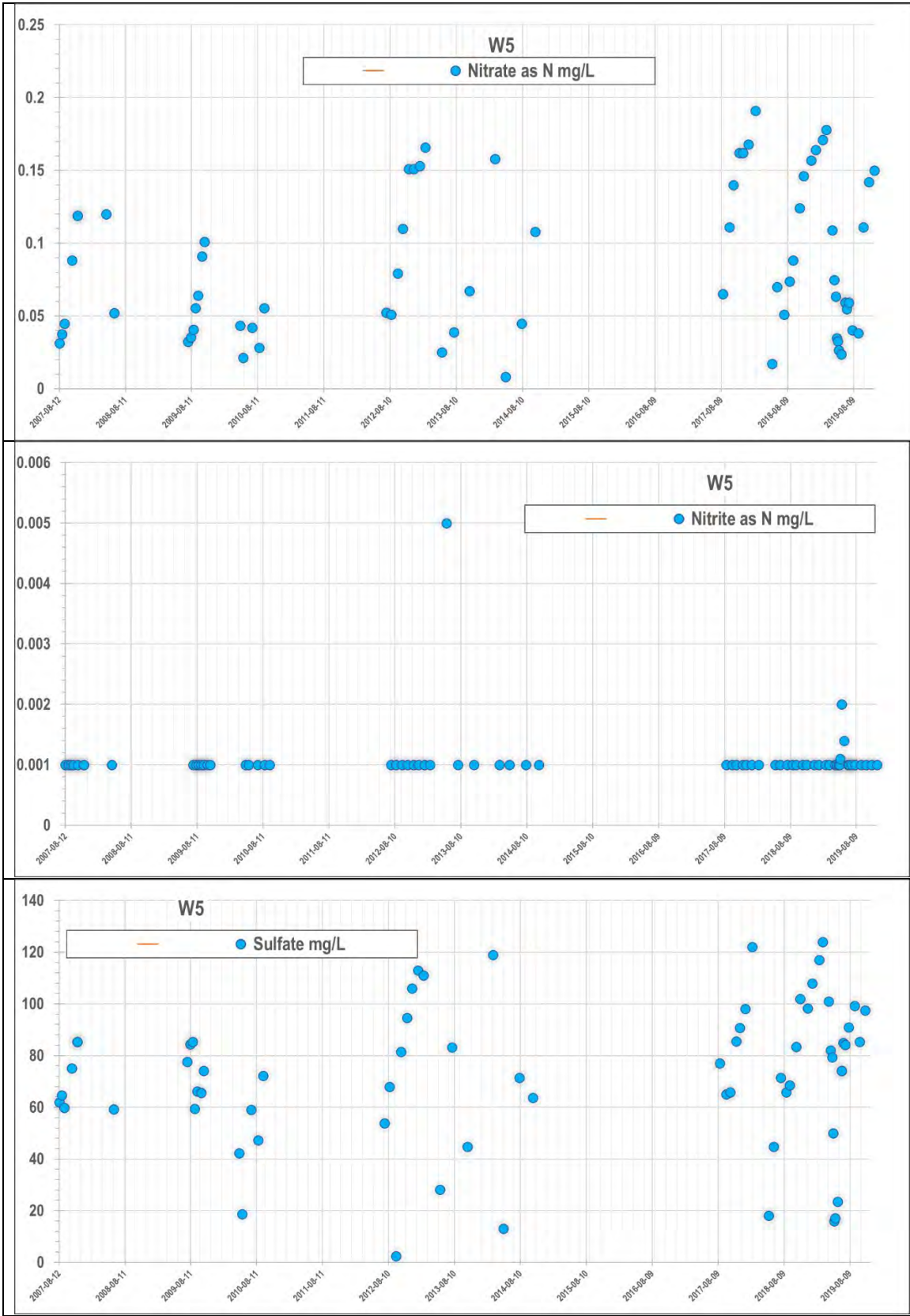
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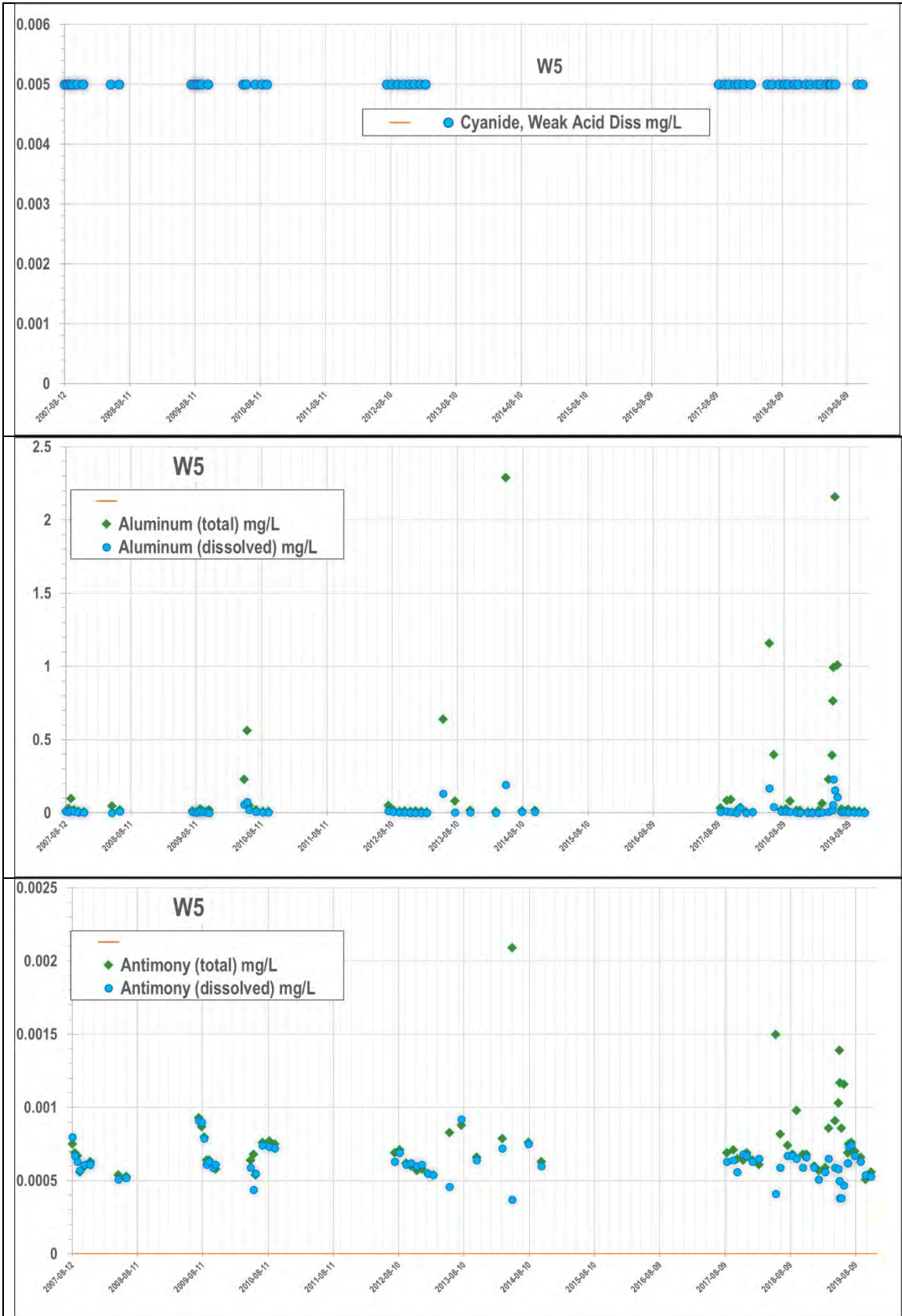
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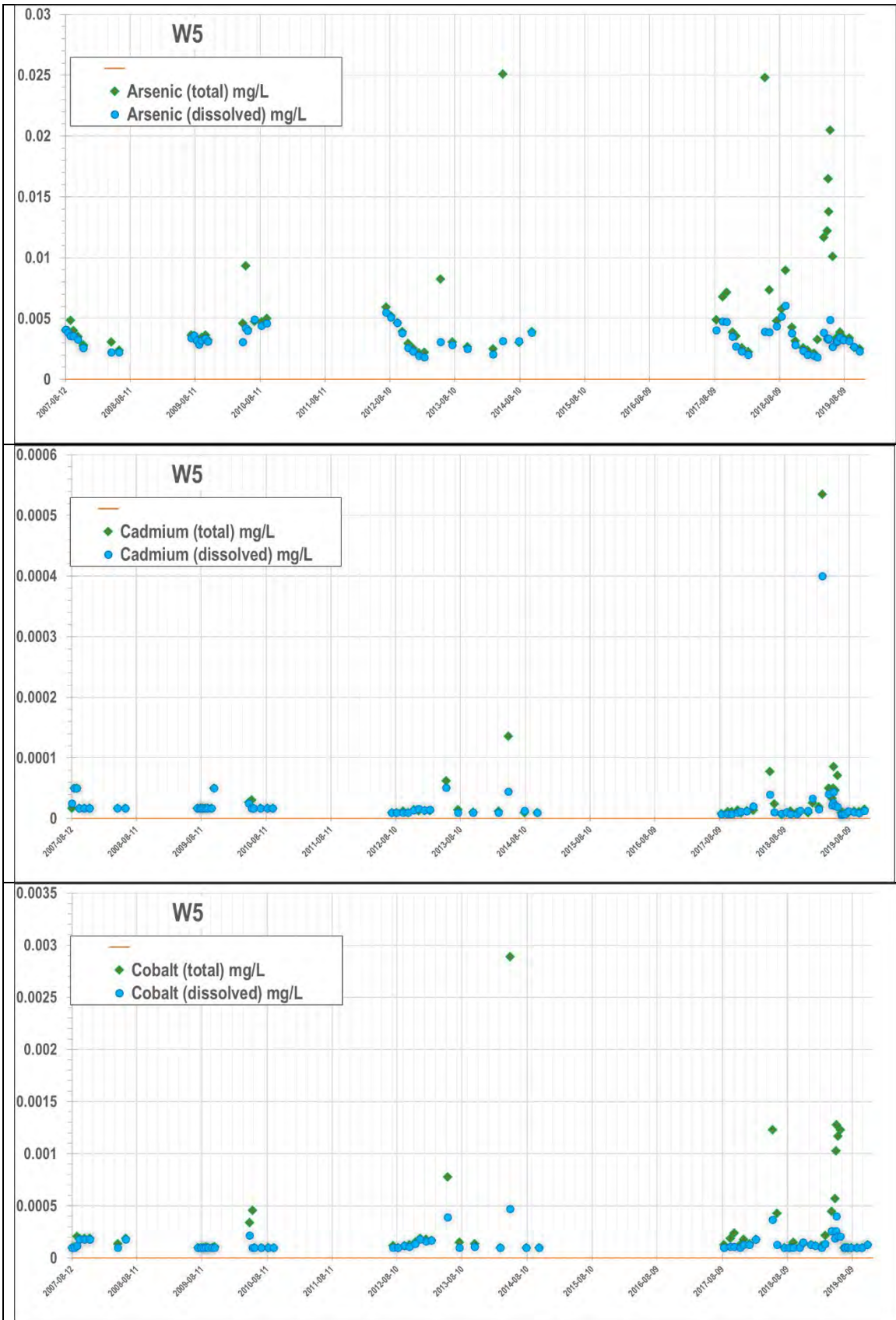
APPENDIX A
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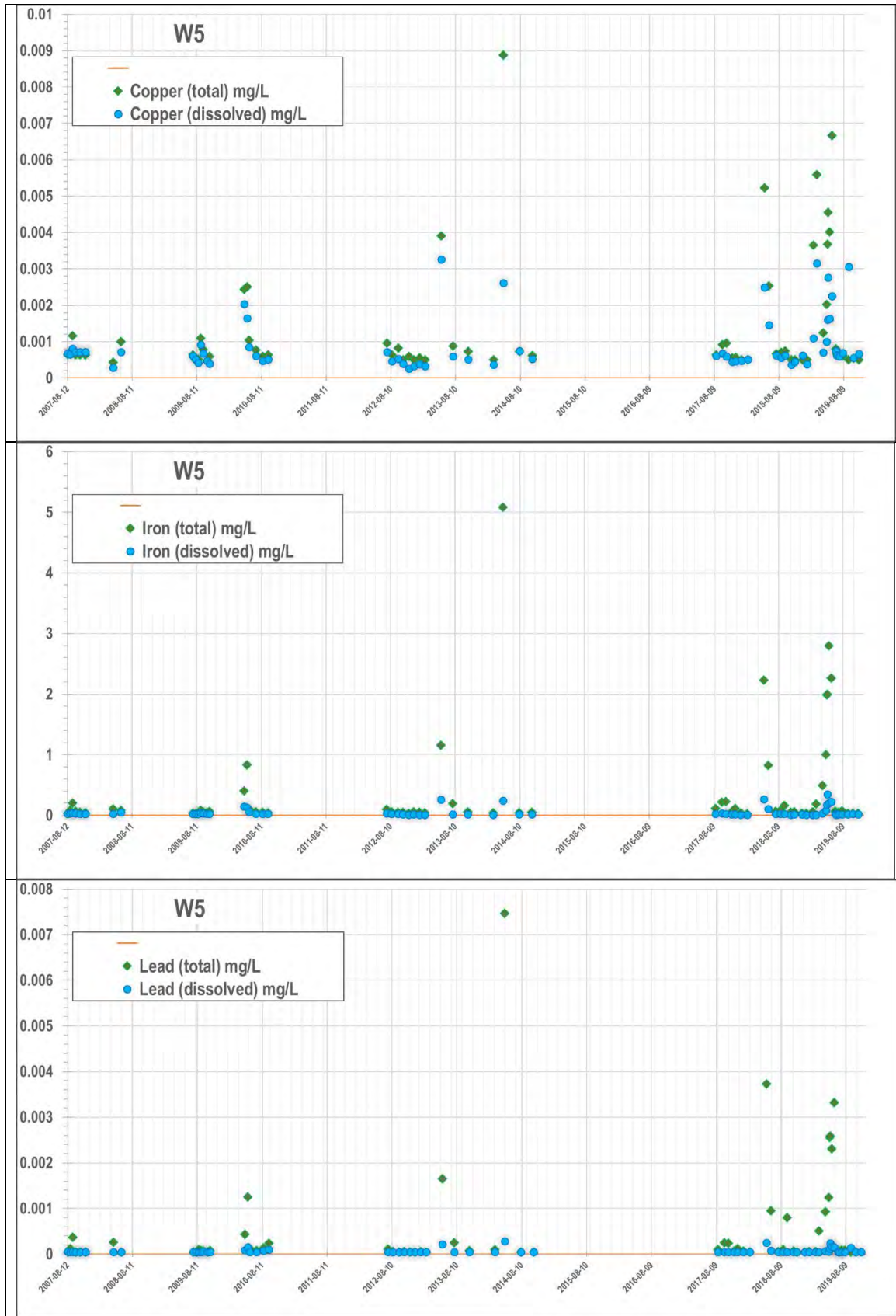
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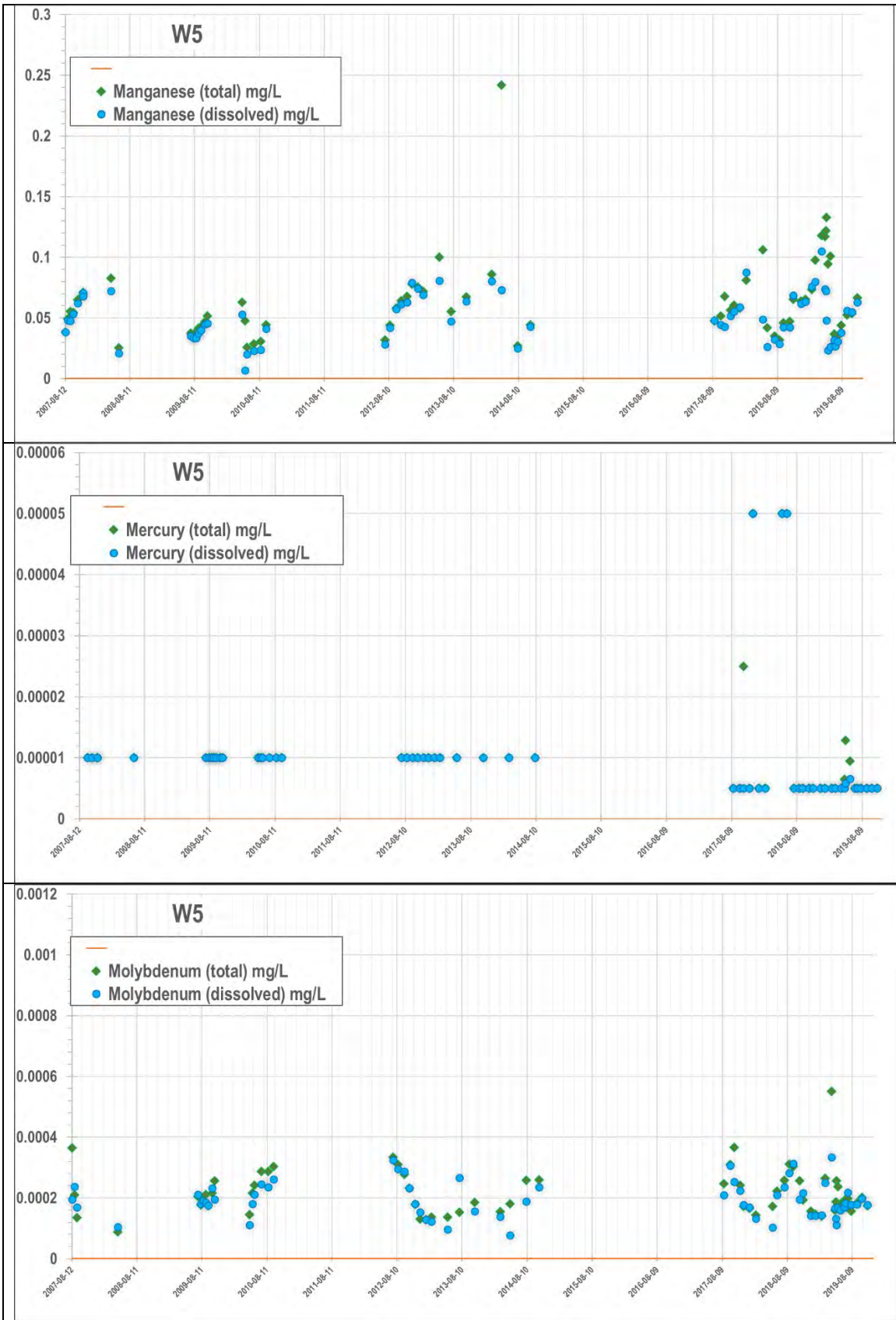
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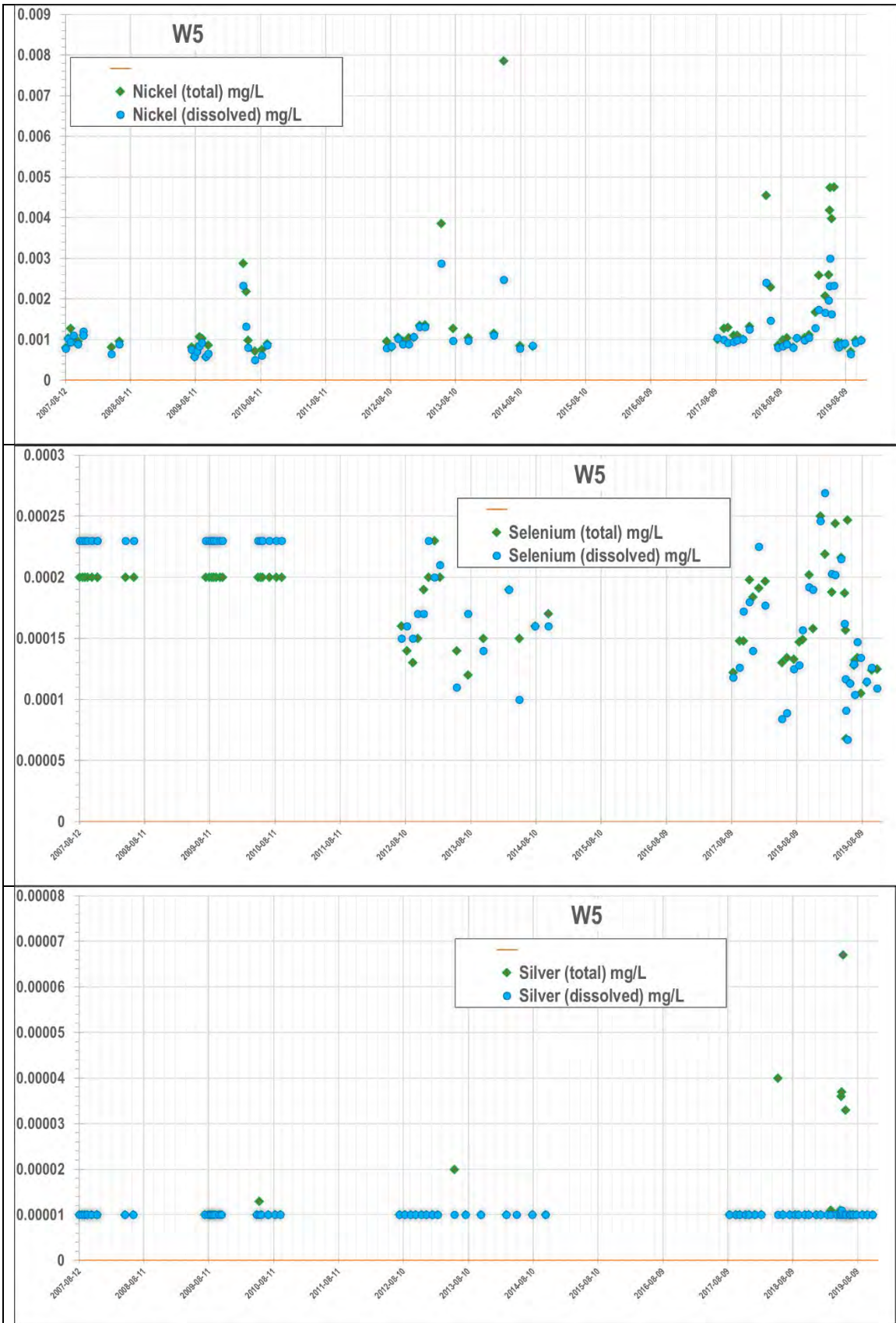
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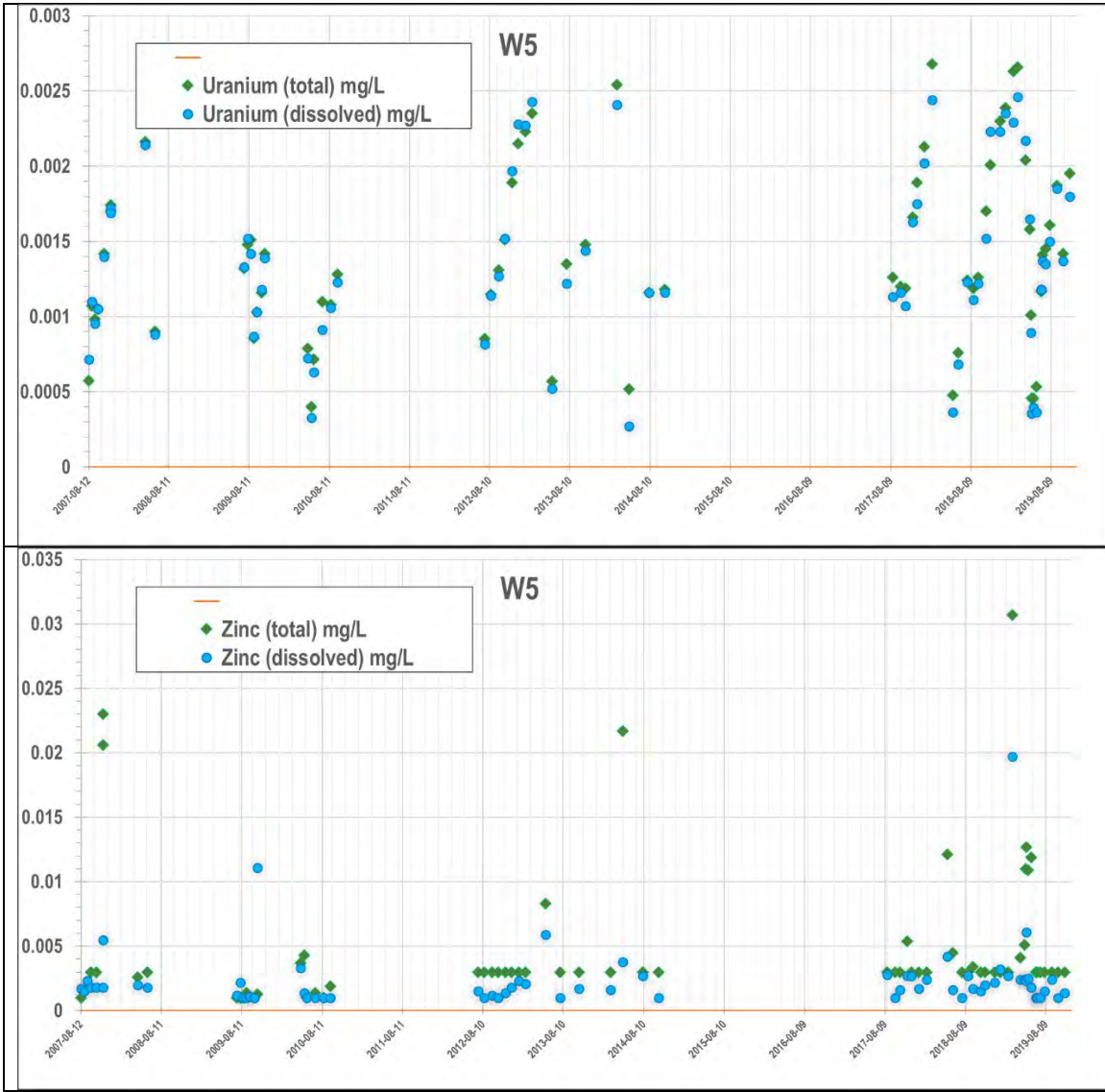
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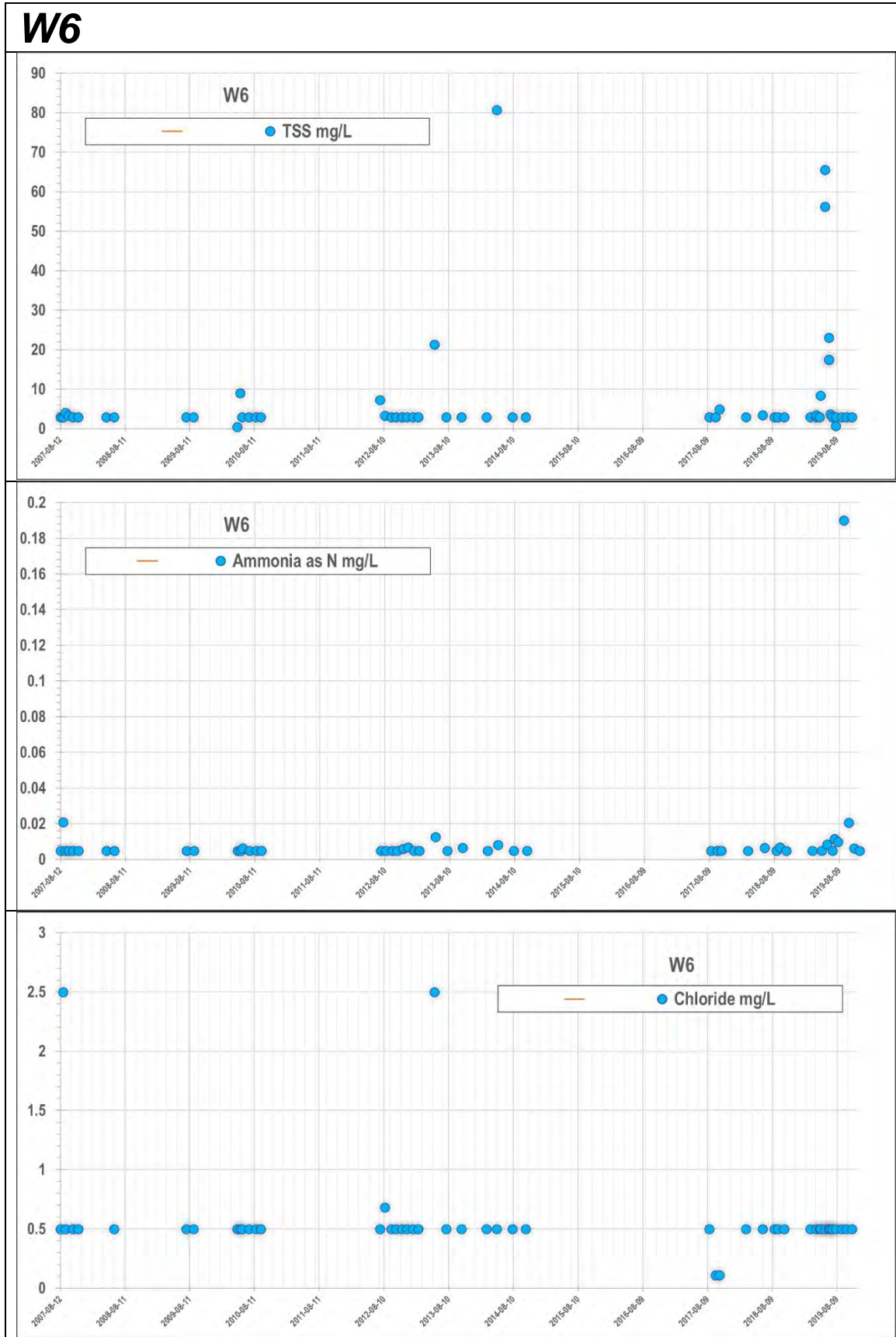


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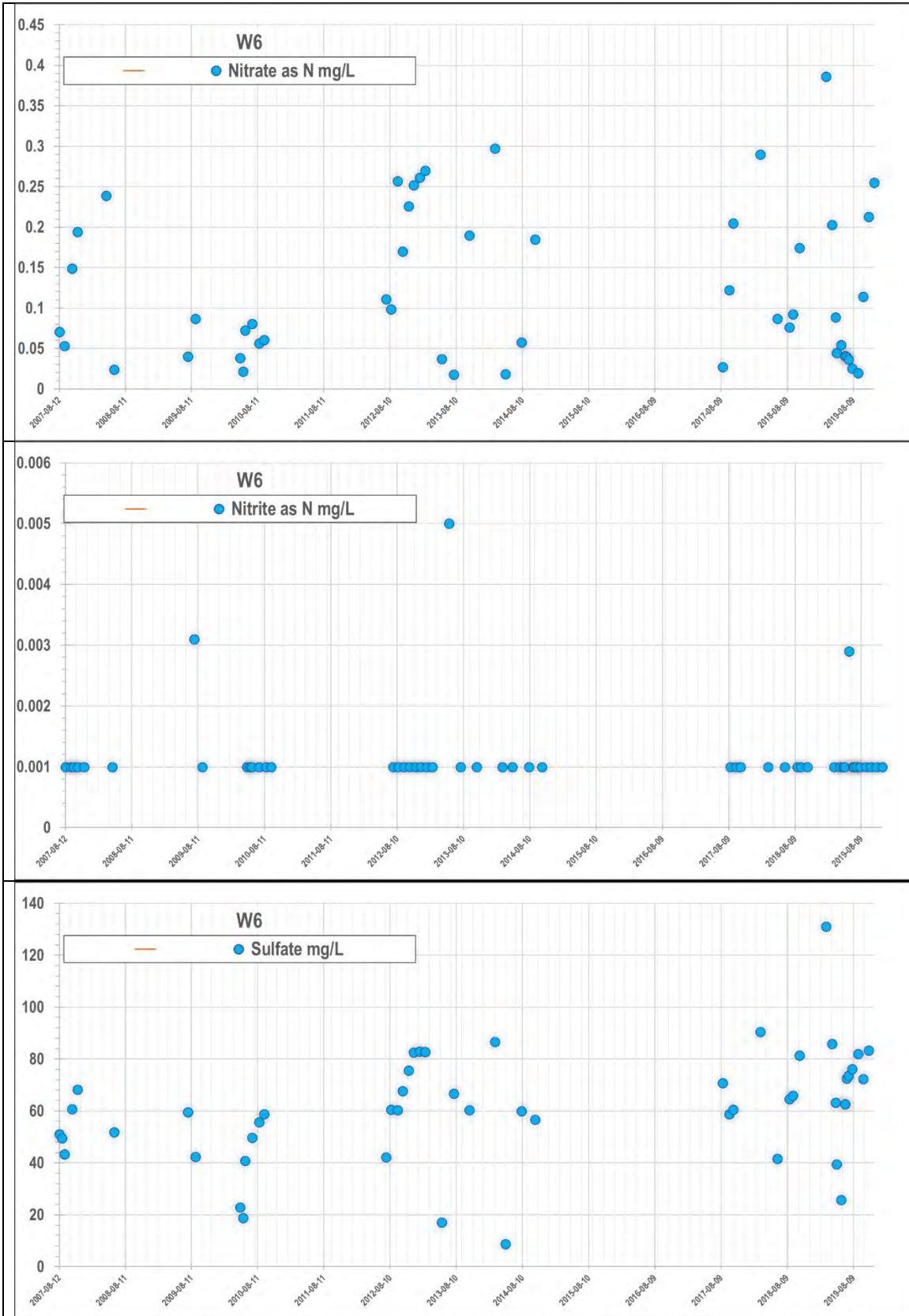


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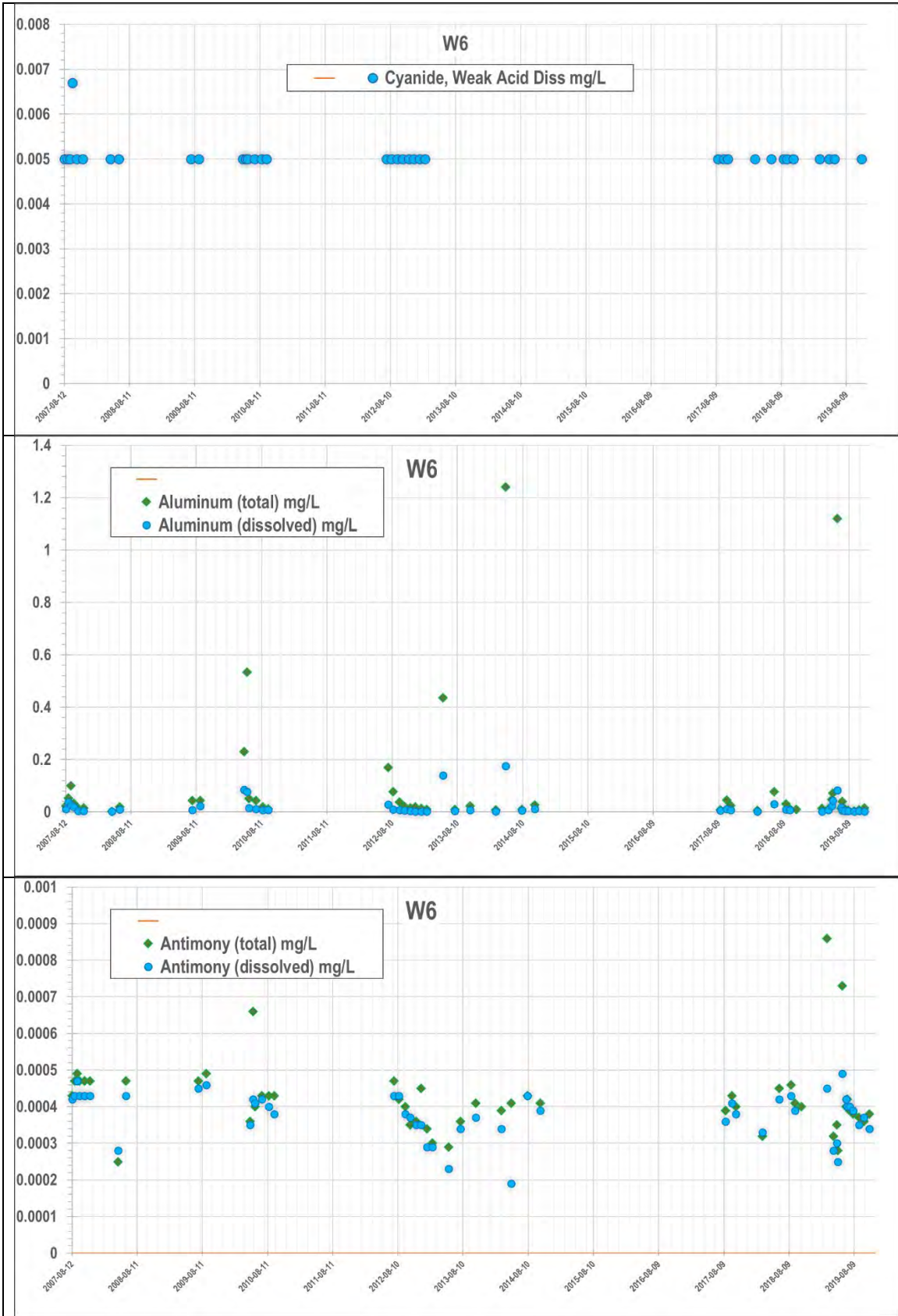




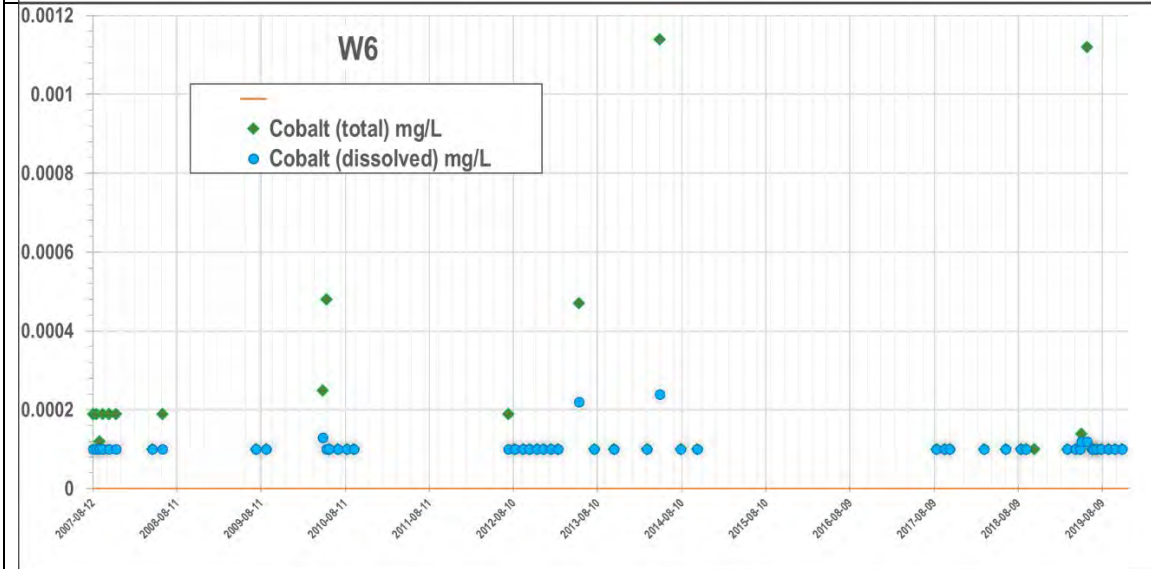
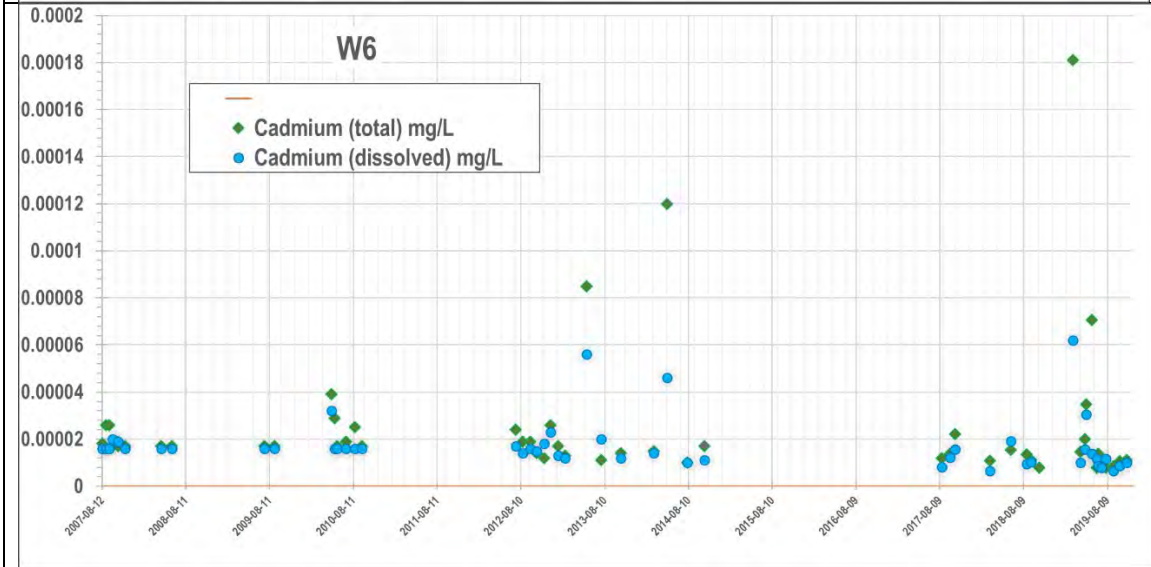
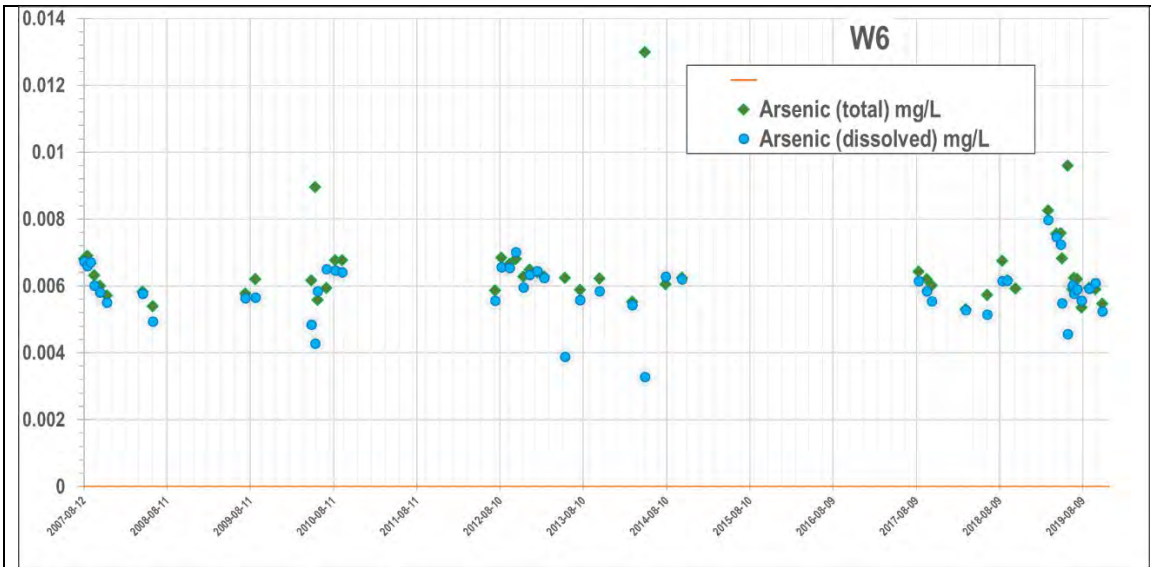
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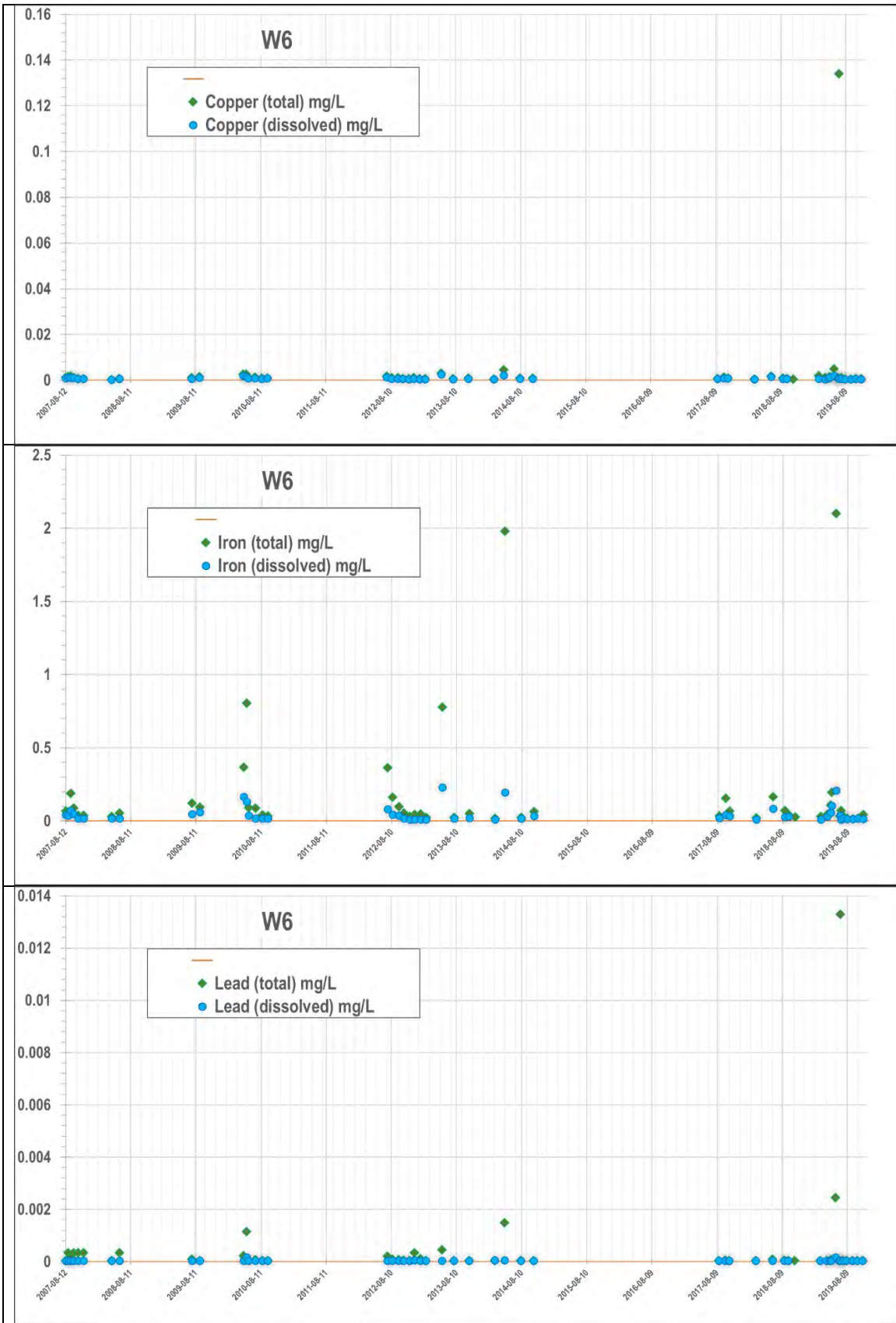
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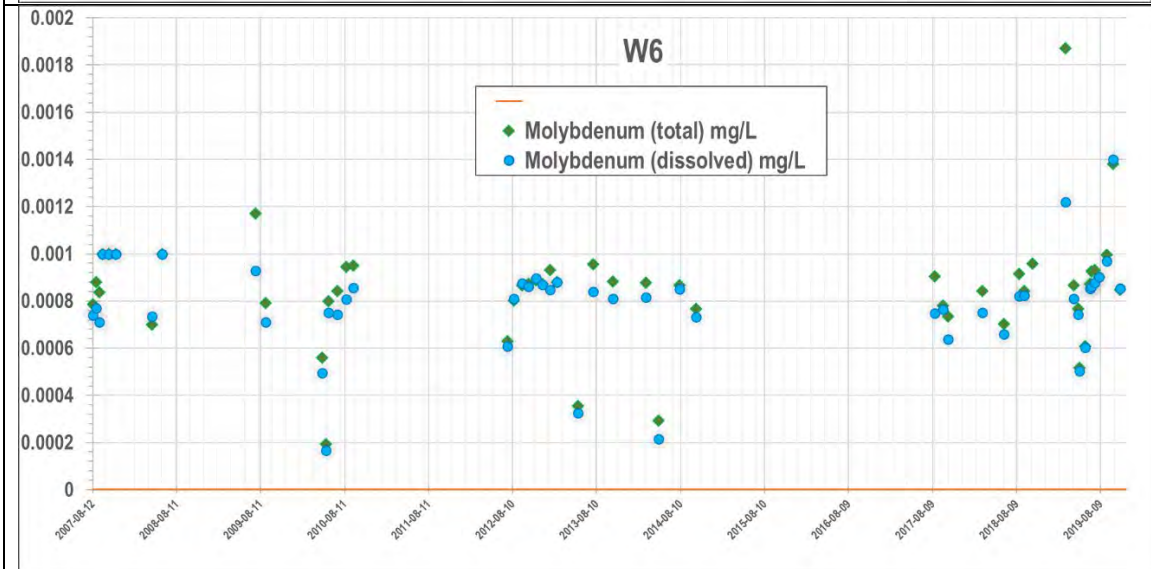
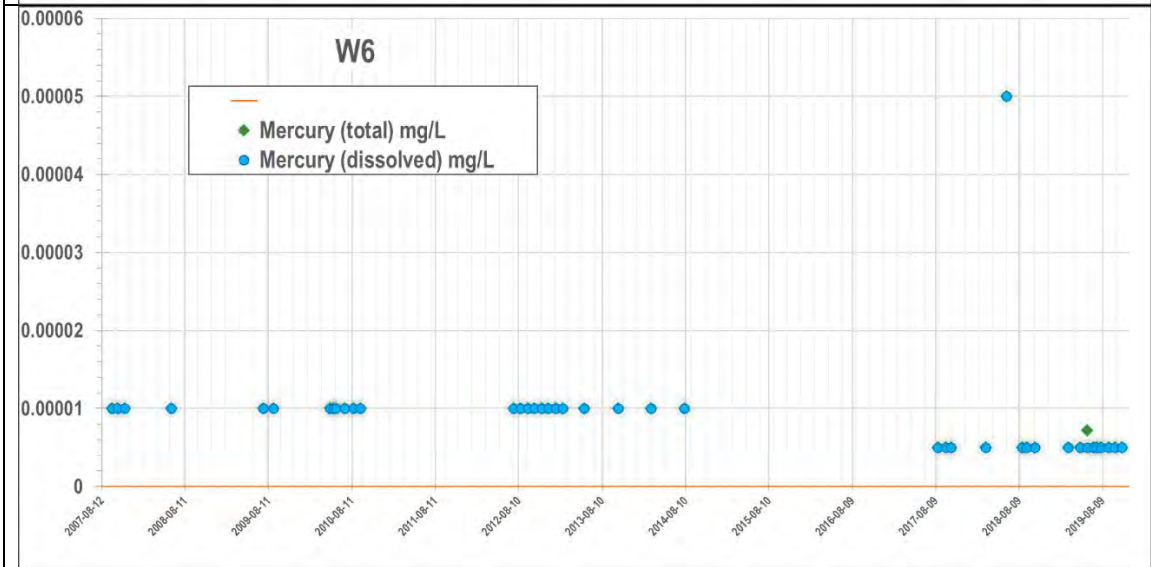
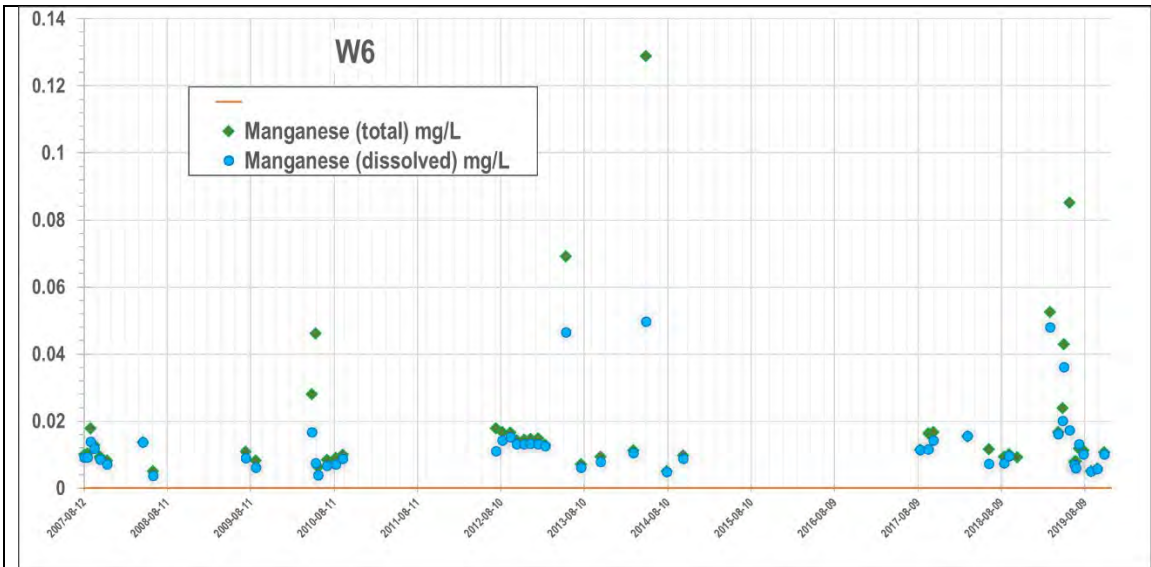
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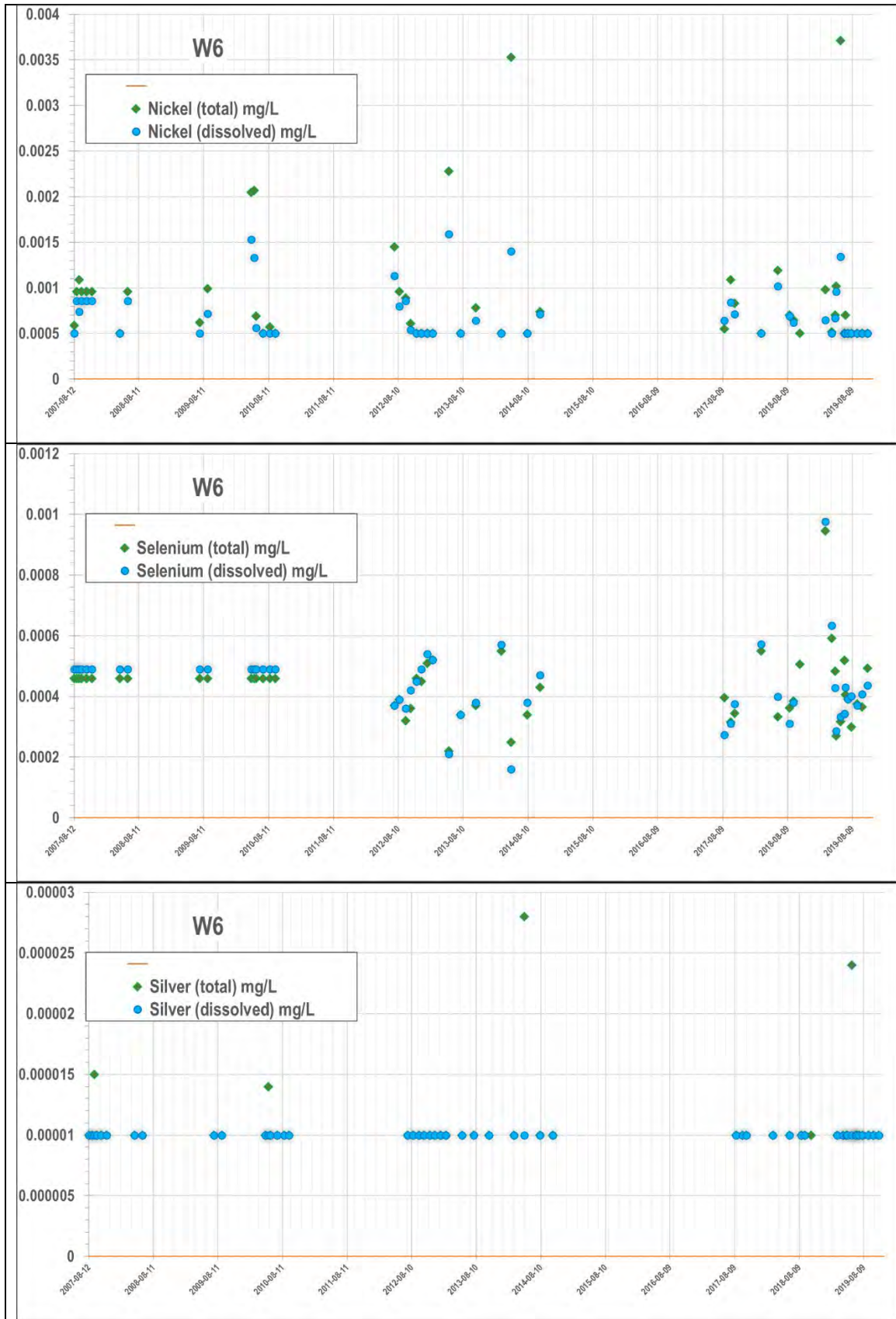
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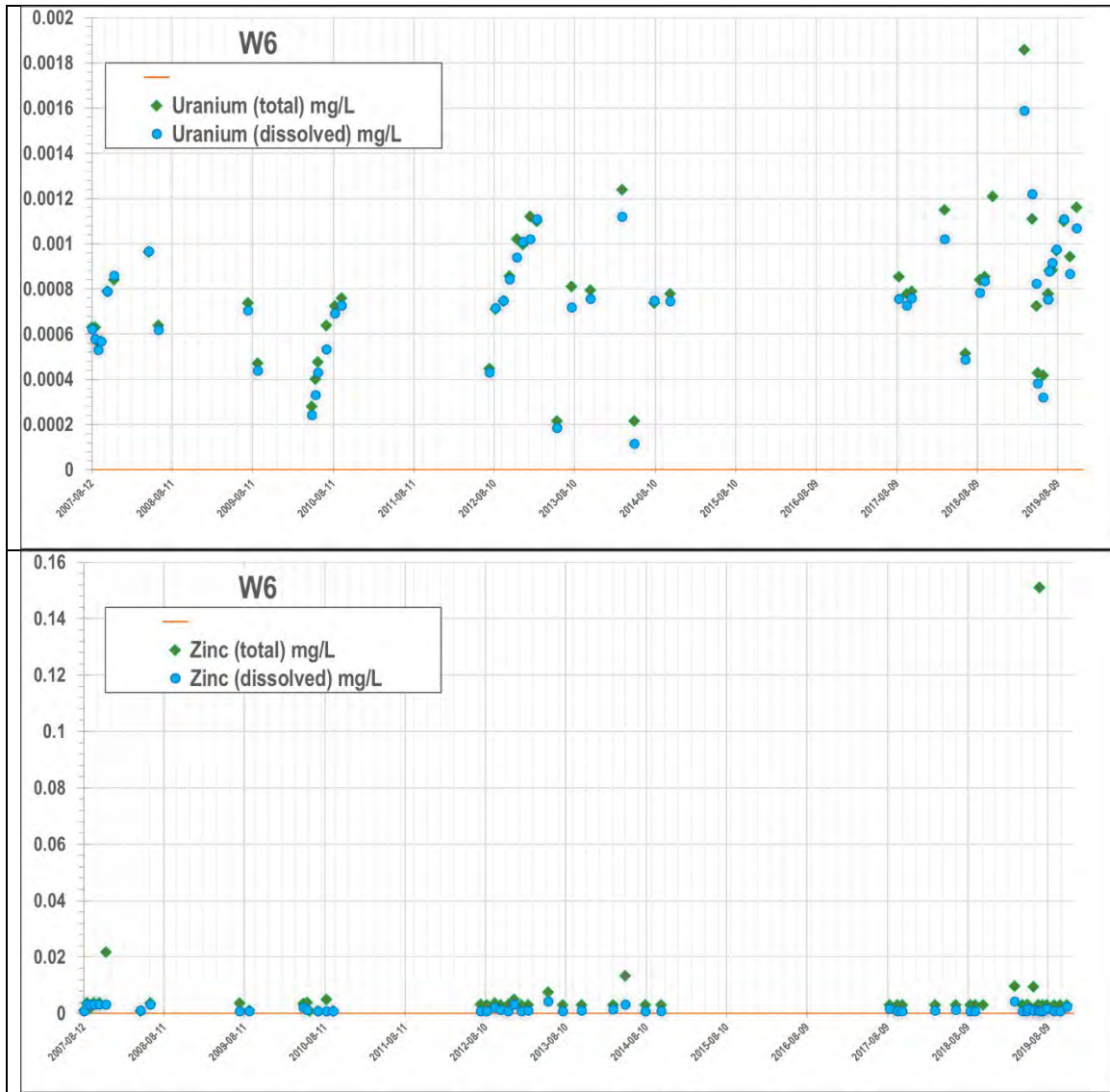
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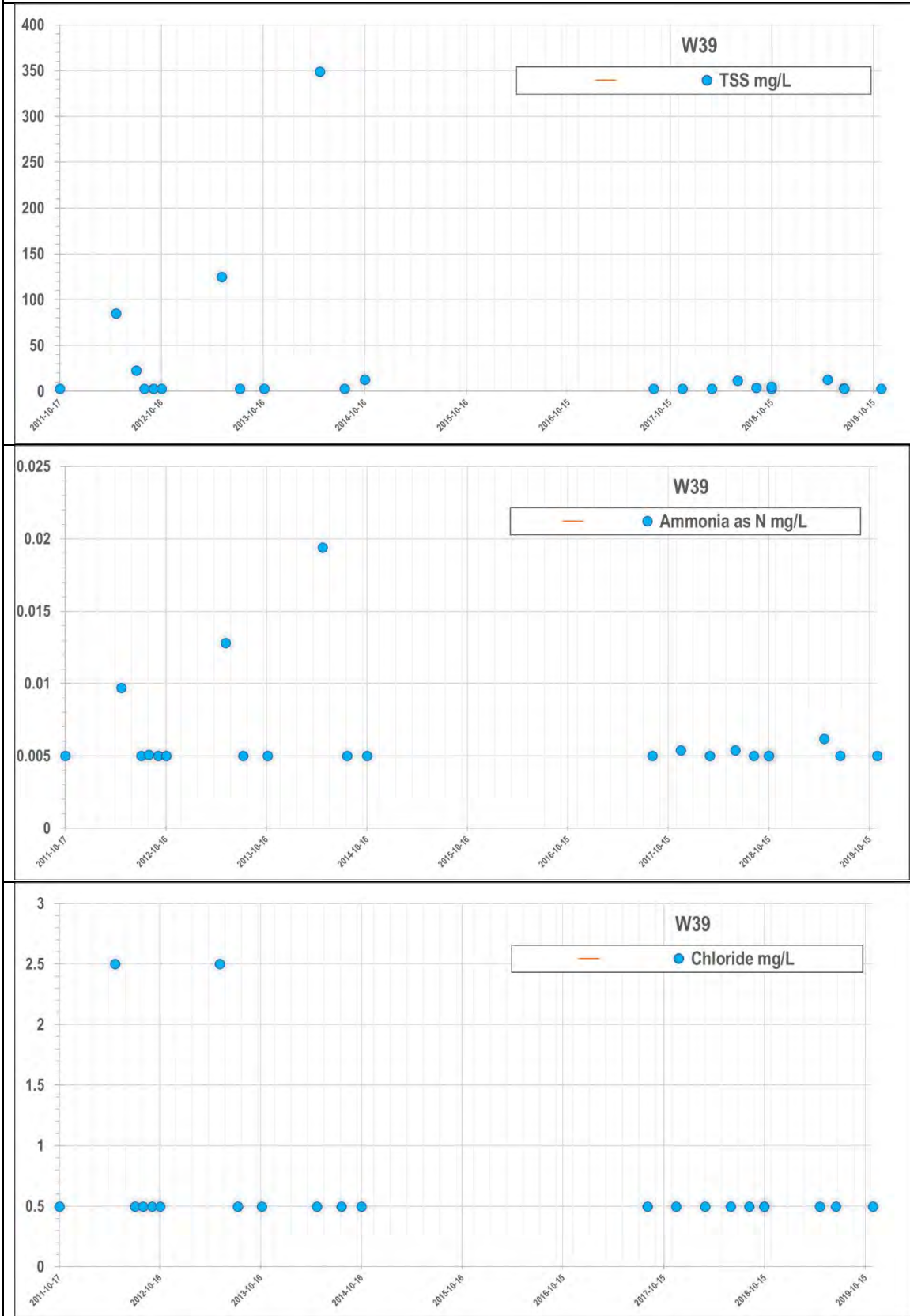
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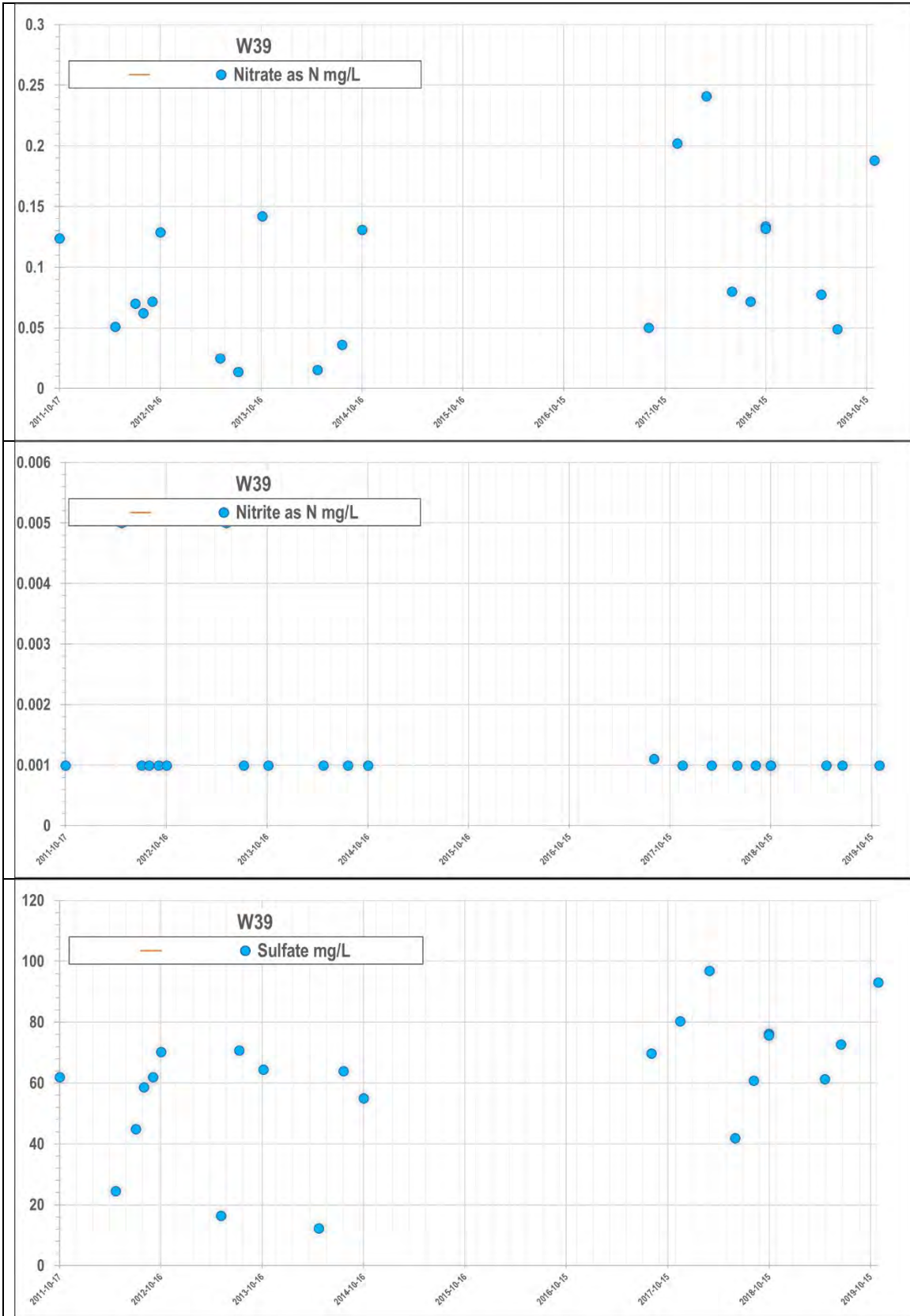
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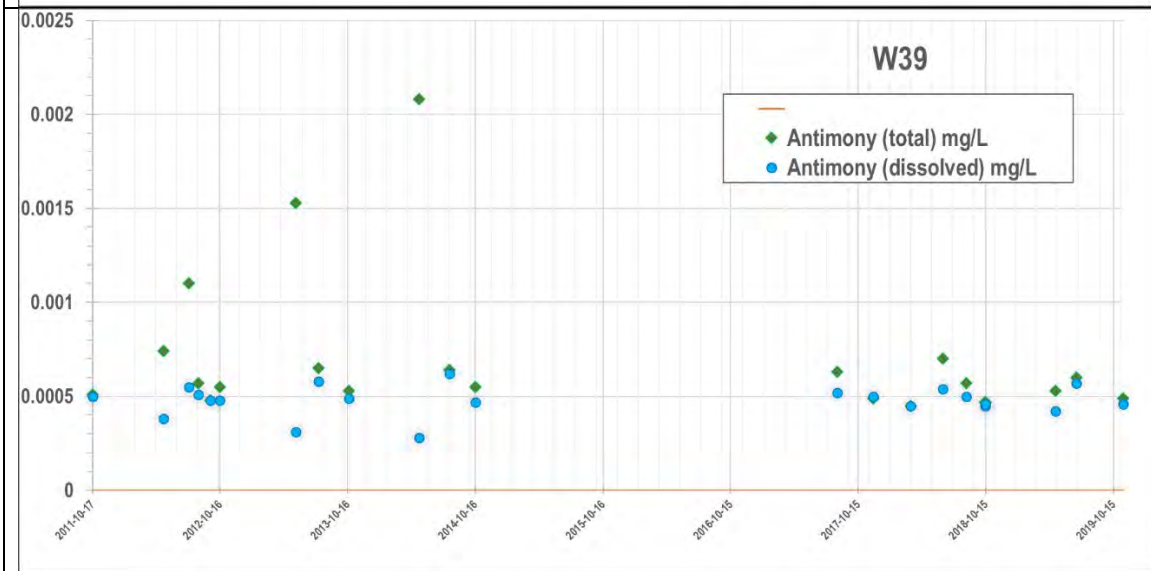
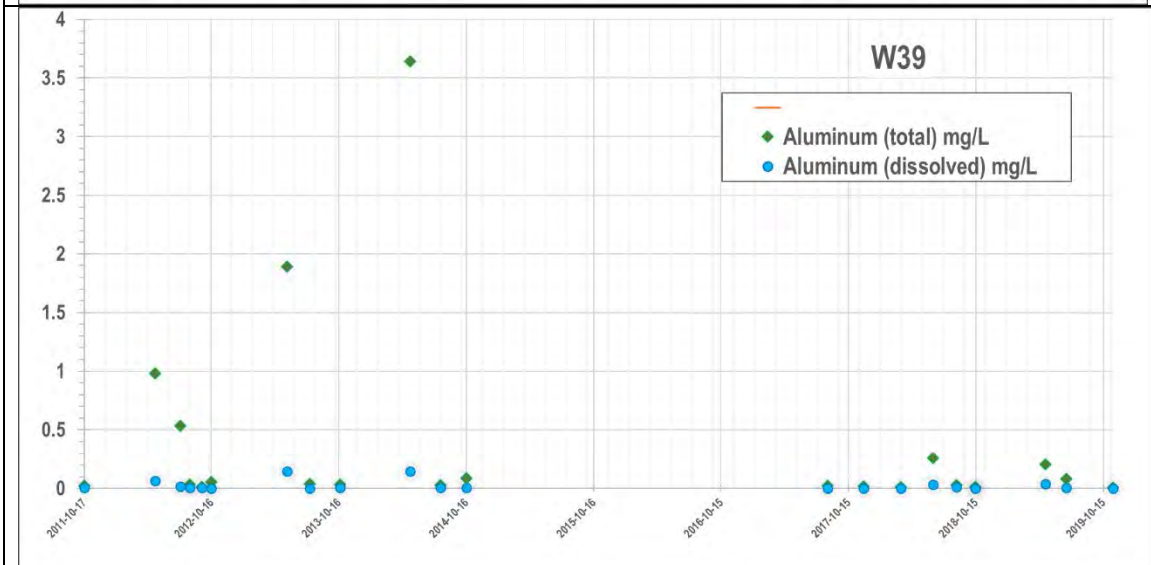
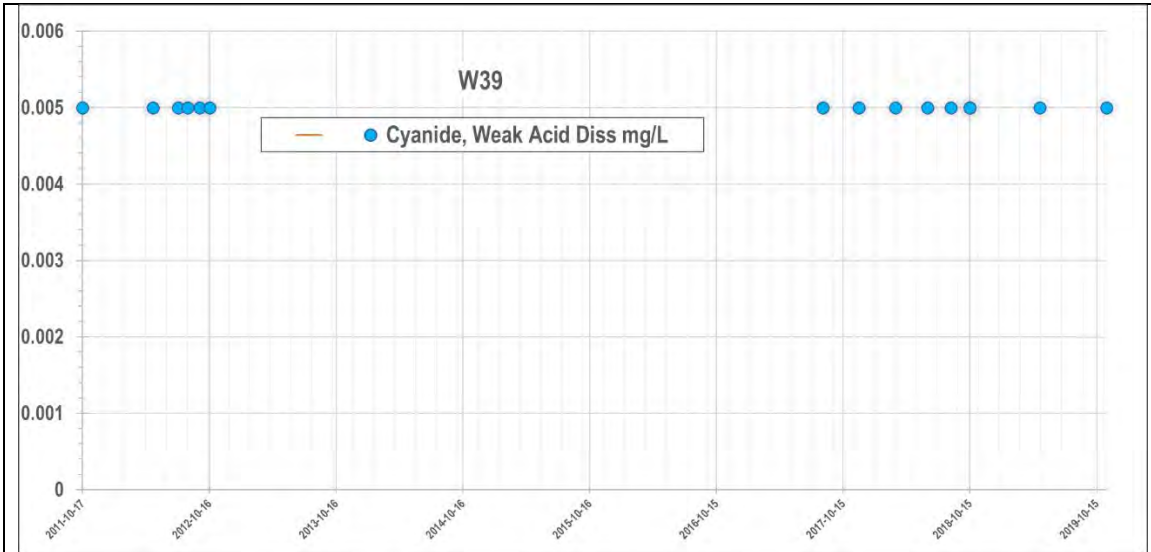
W39



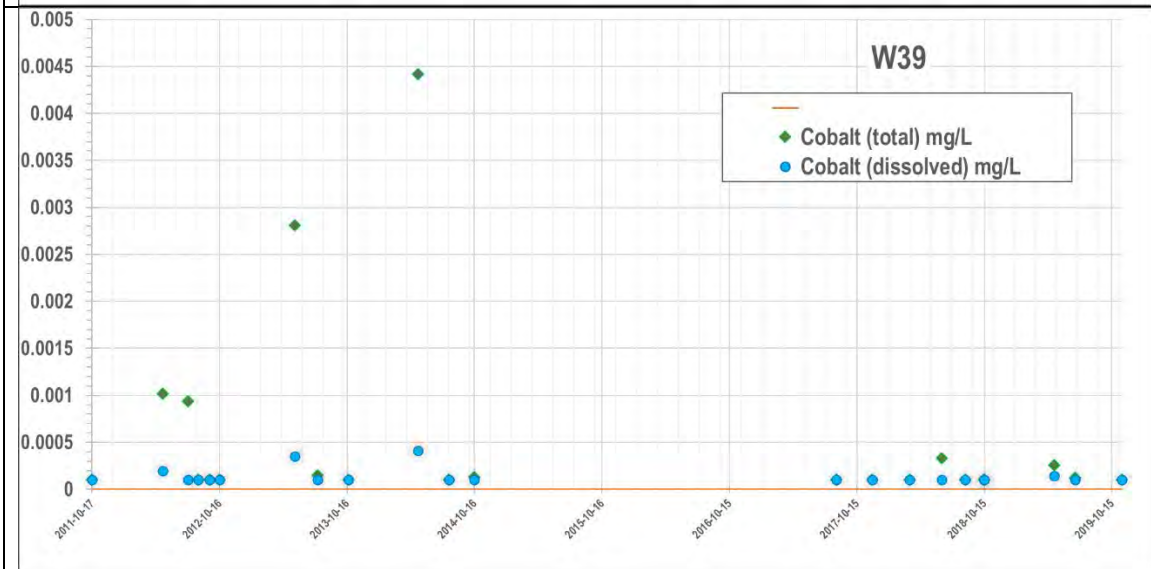
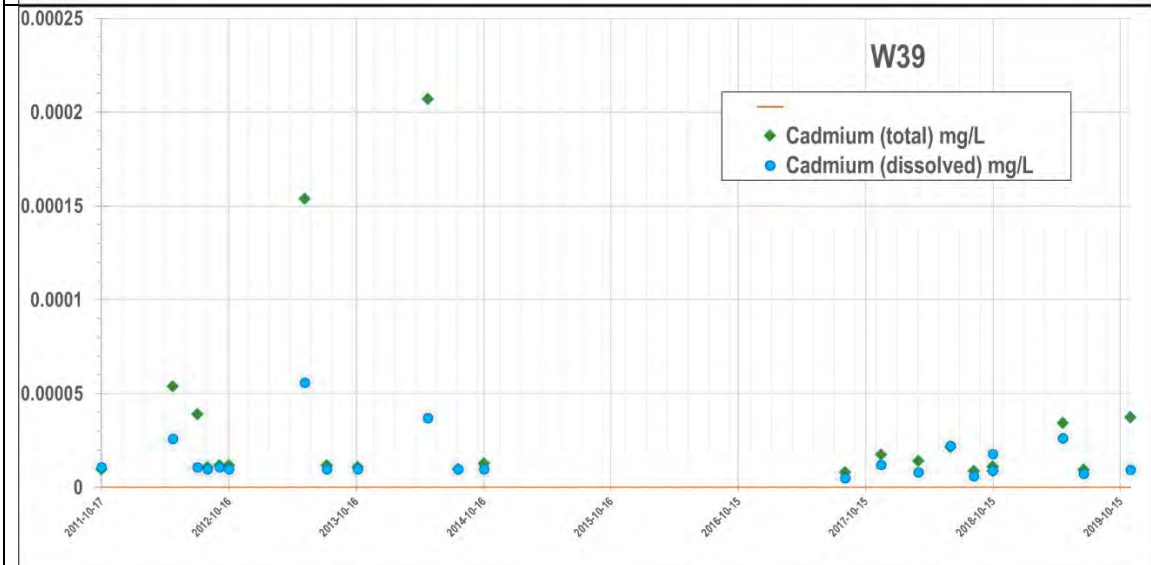
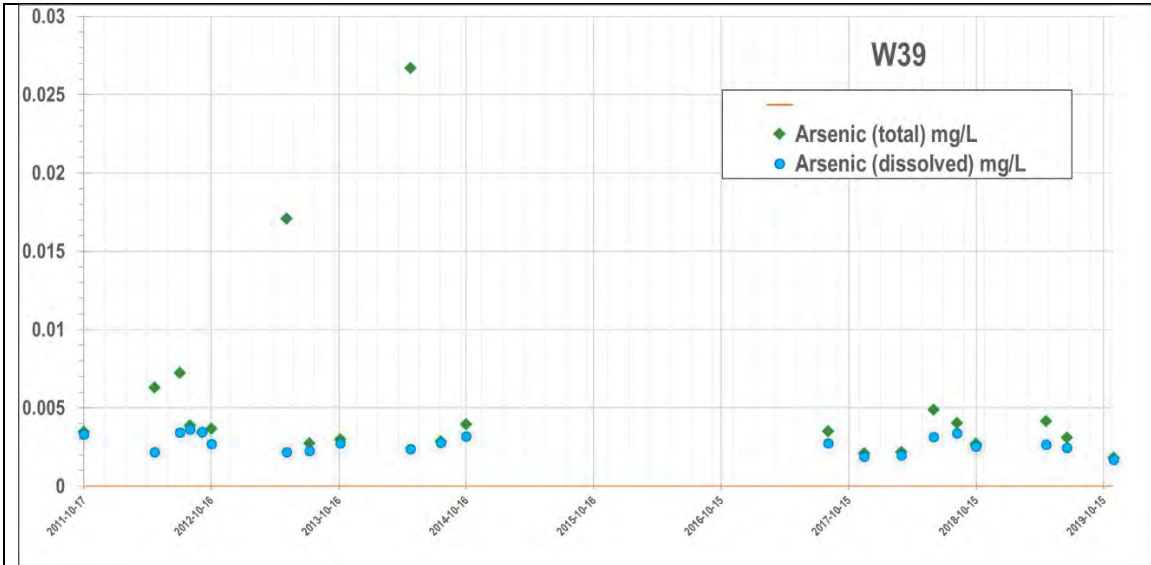
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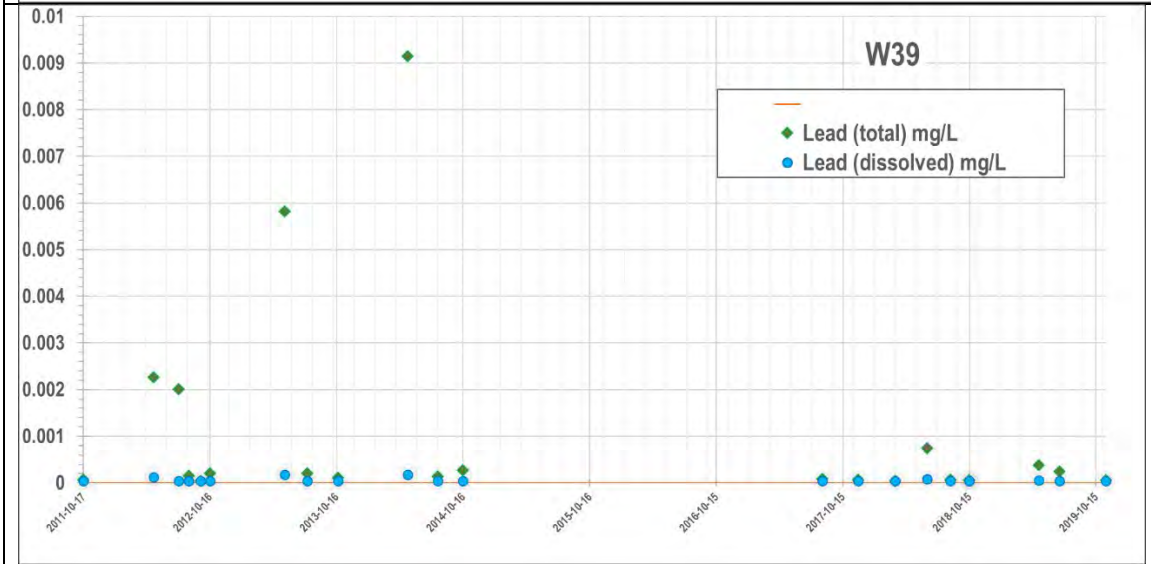
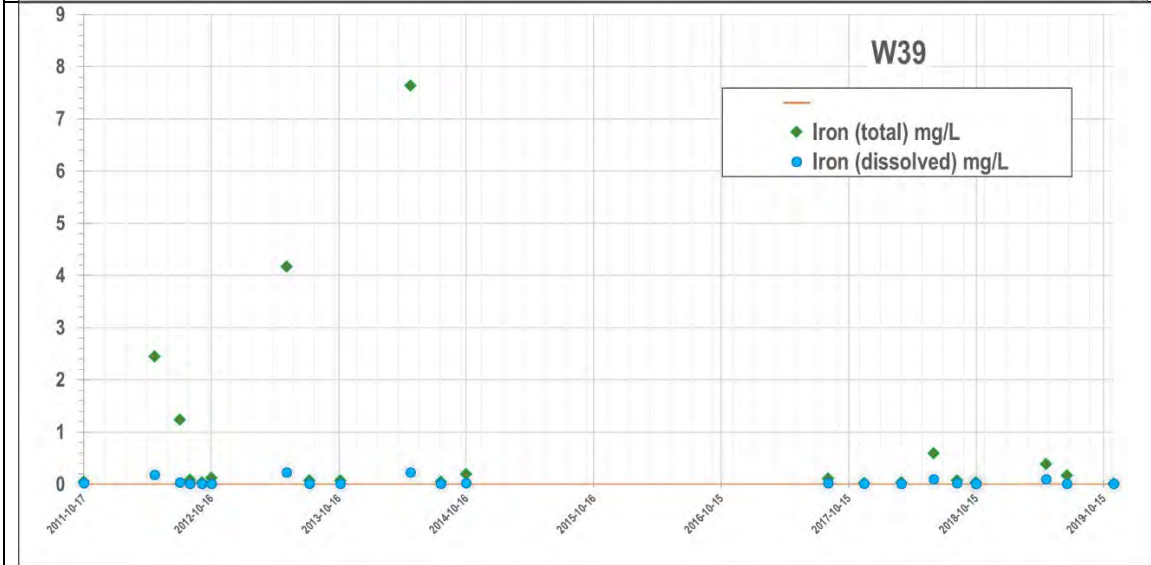
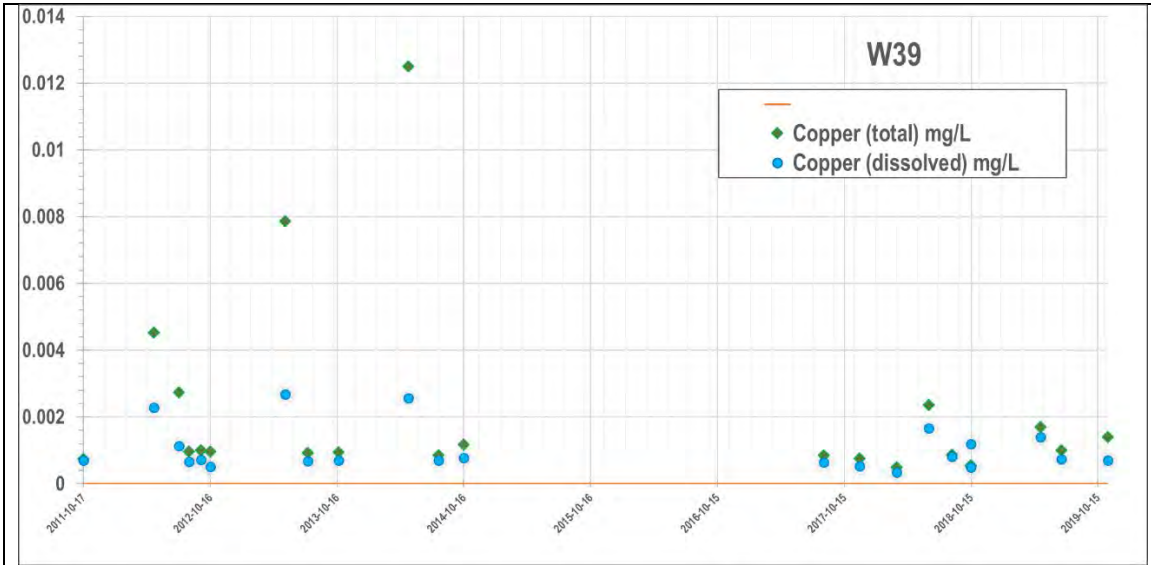
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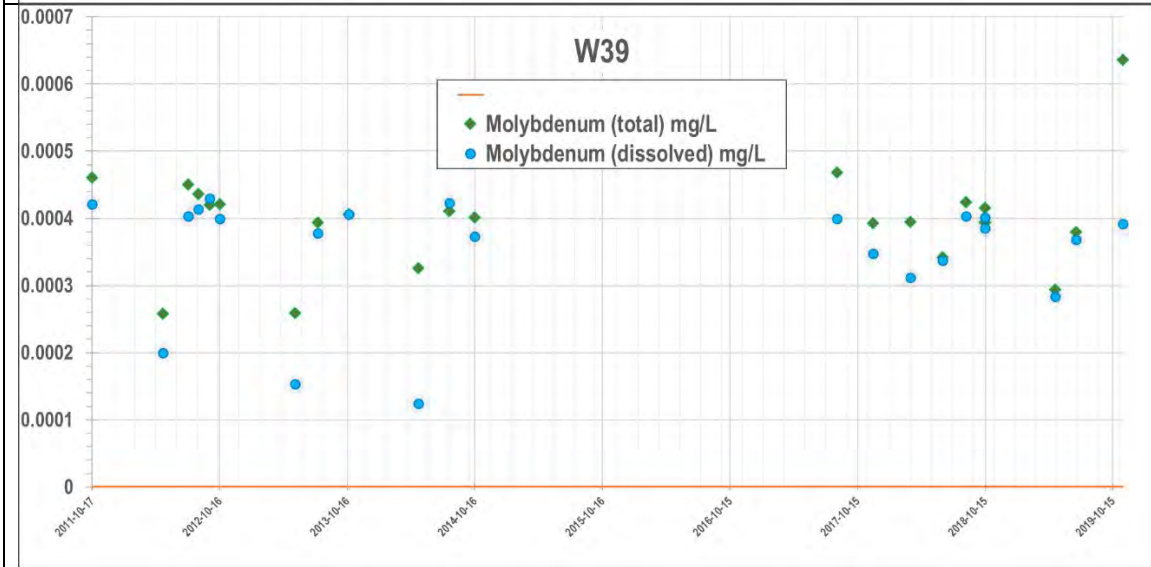
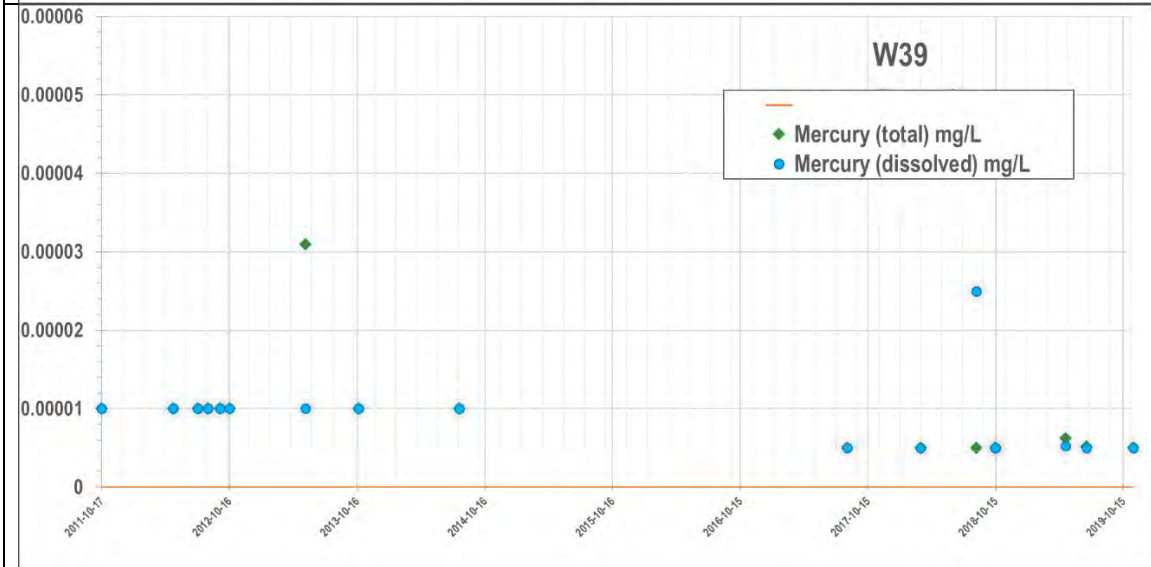
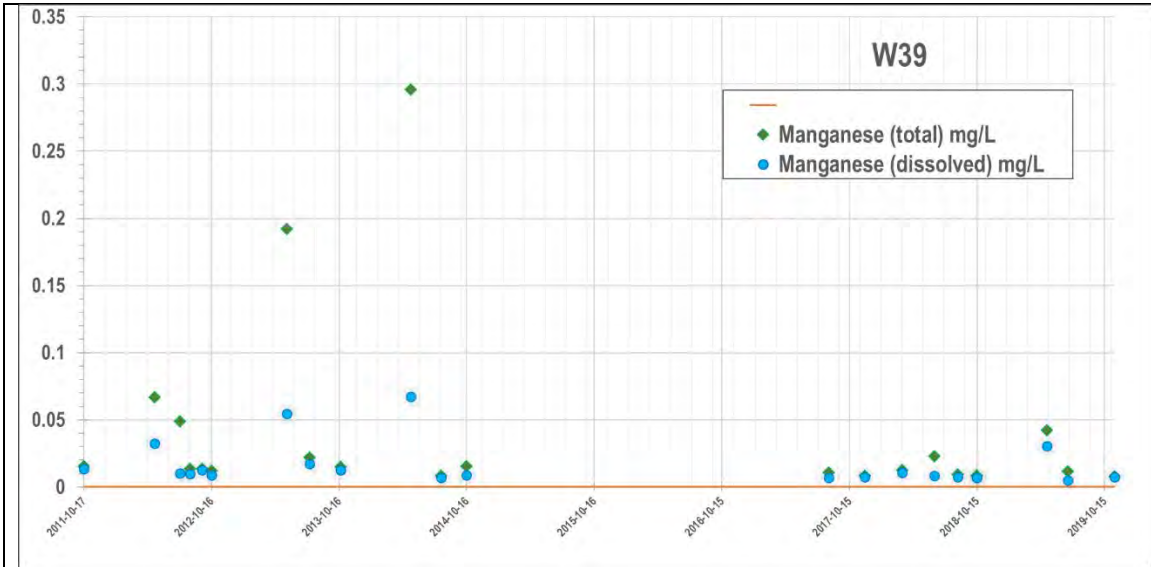
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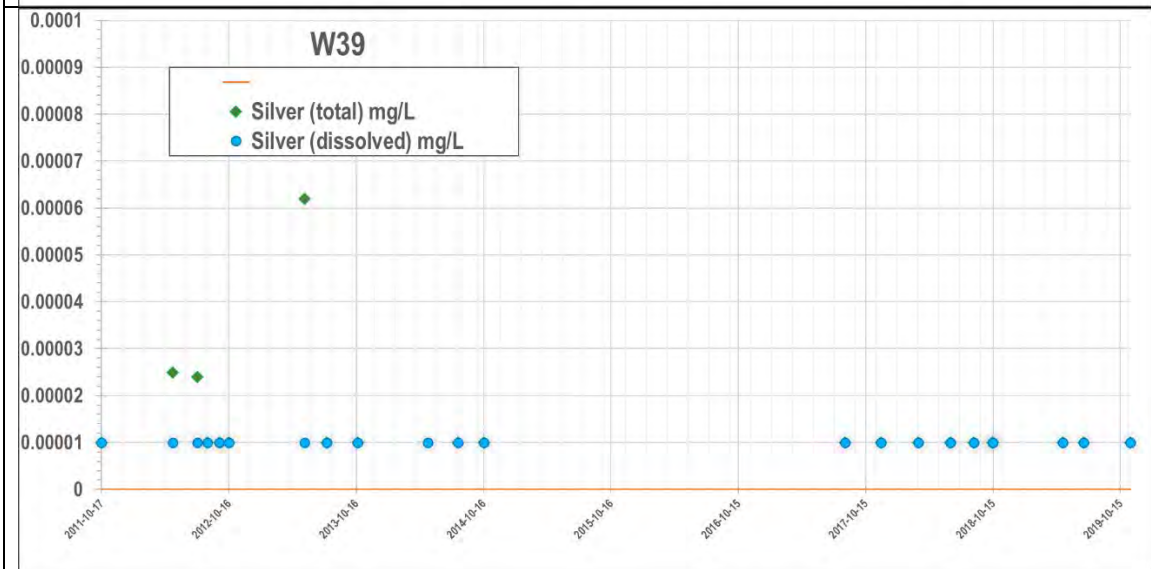
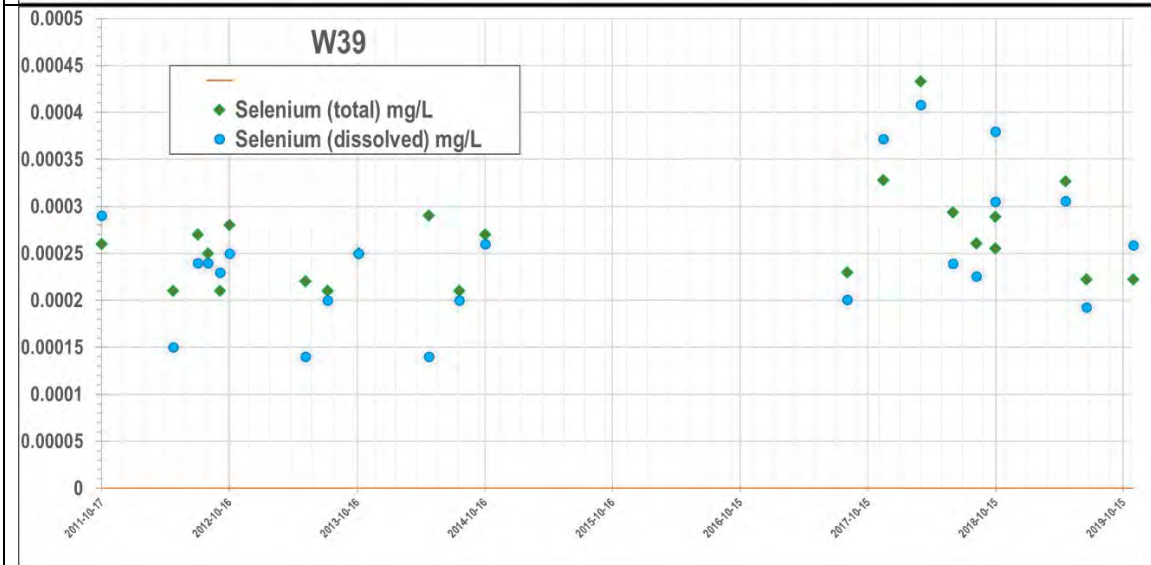
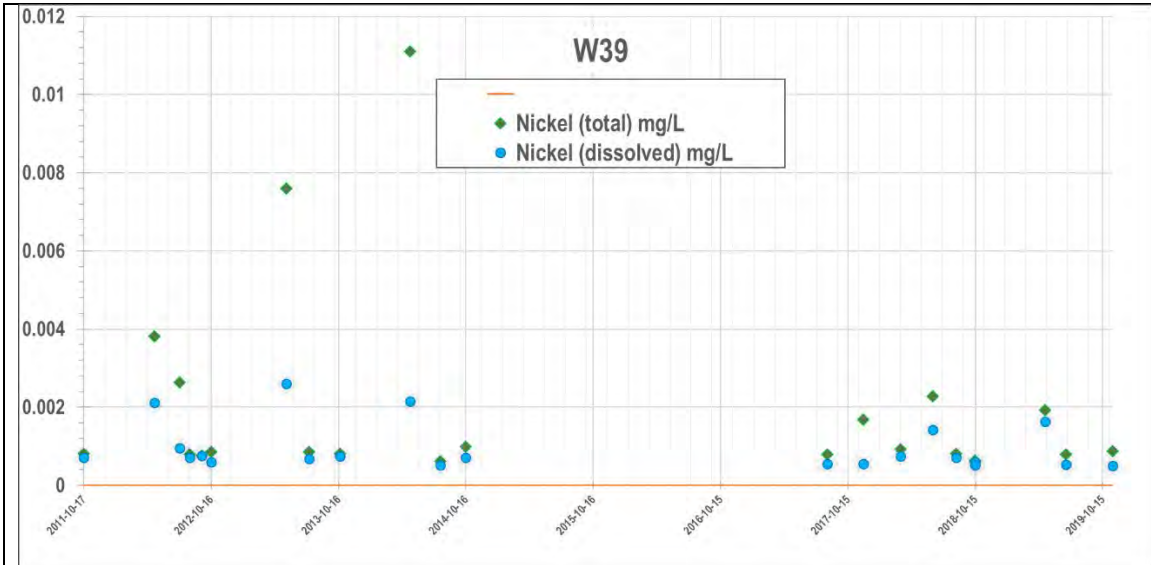
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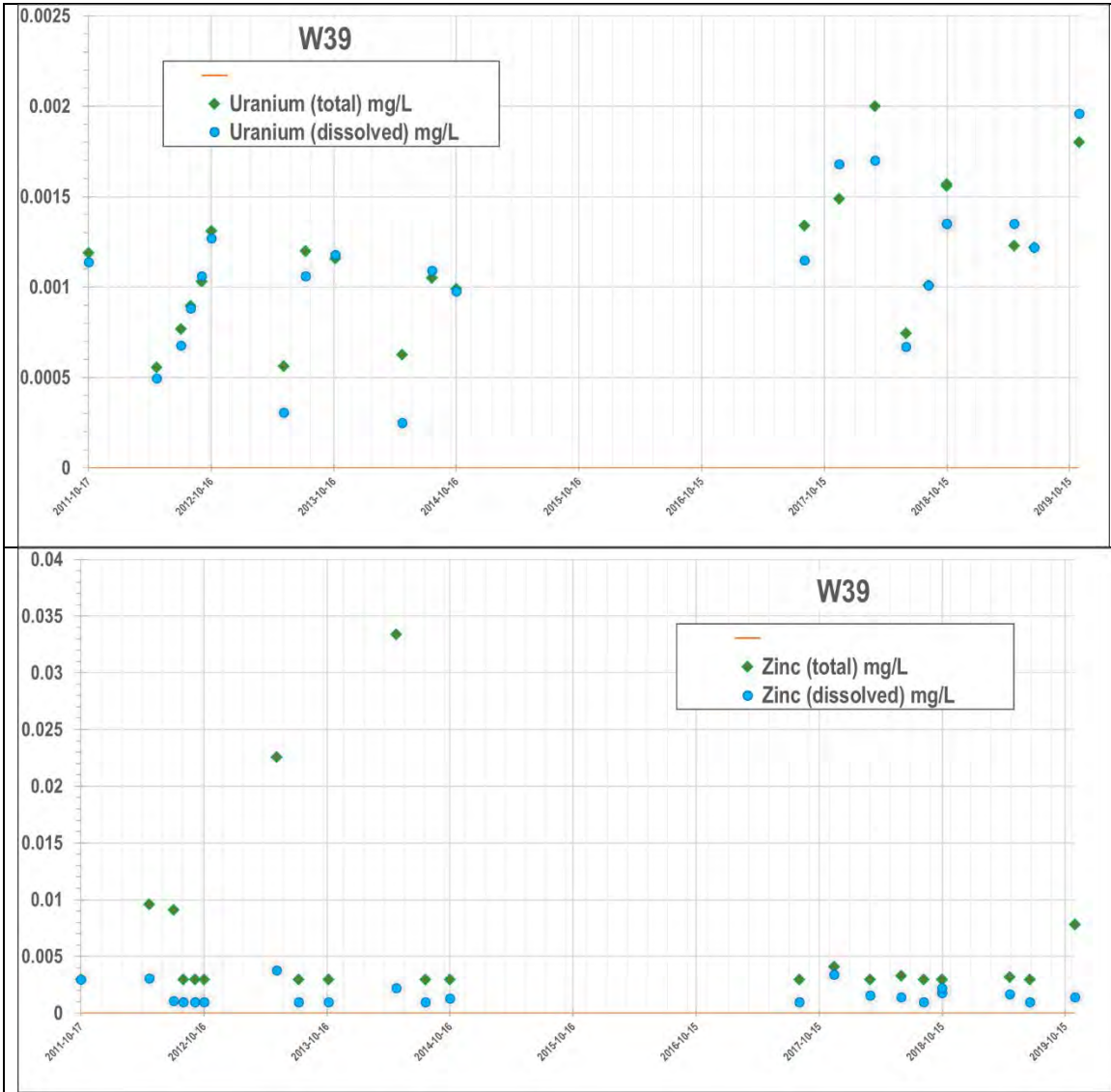
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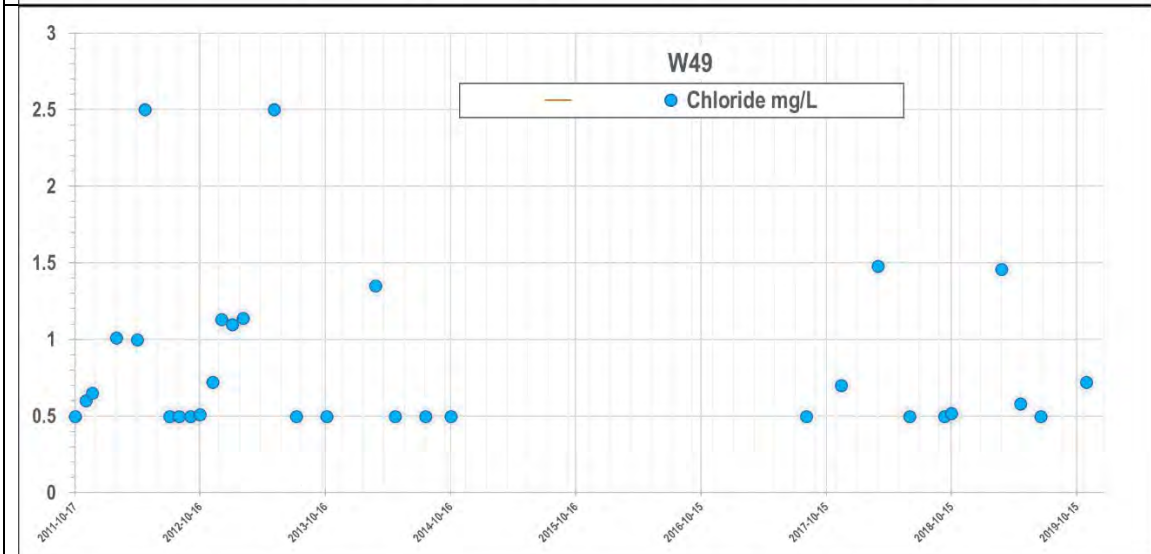
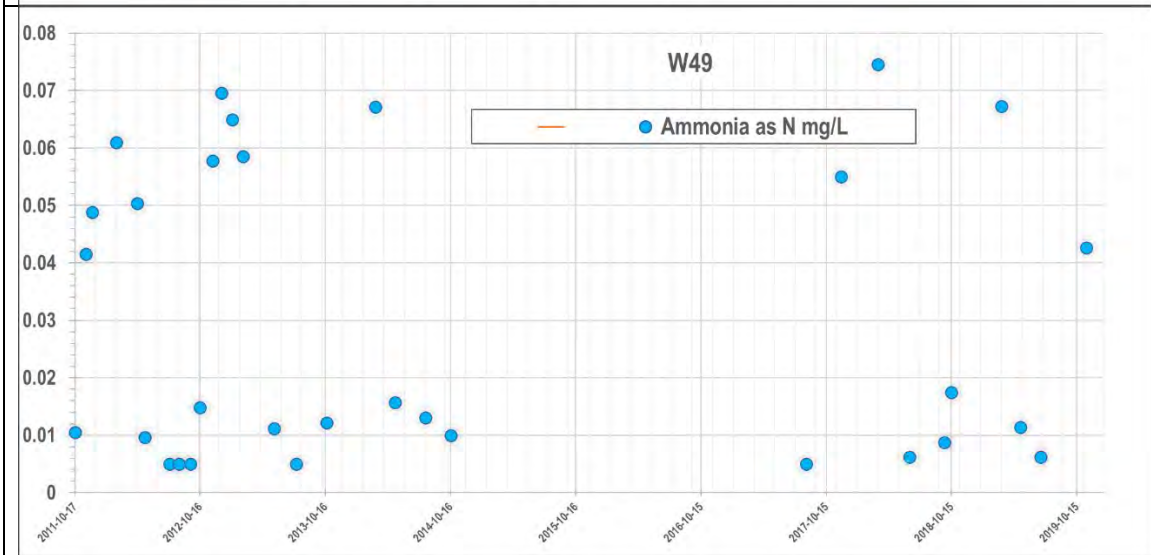
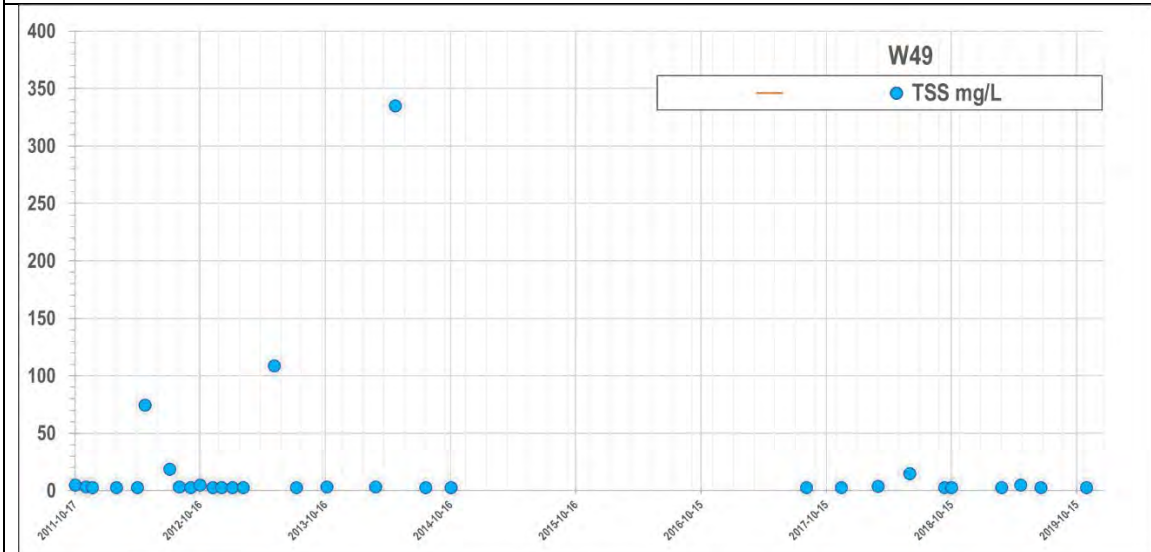
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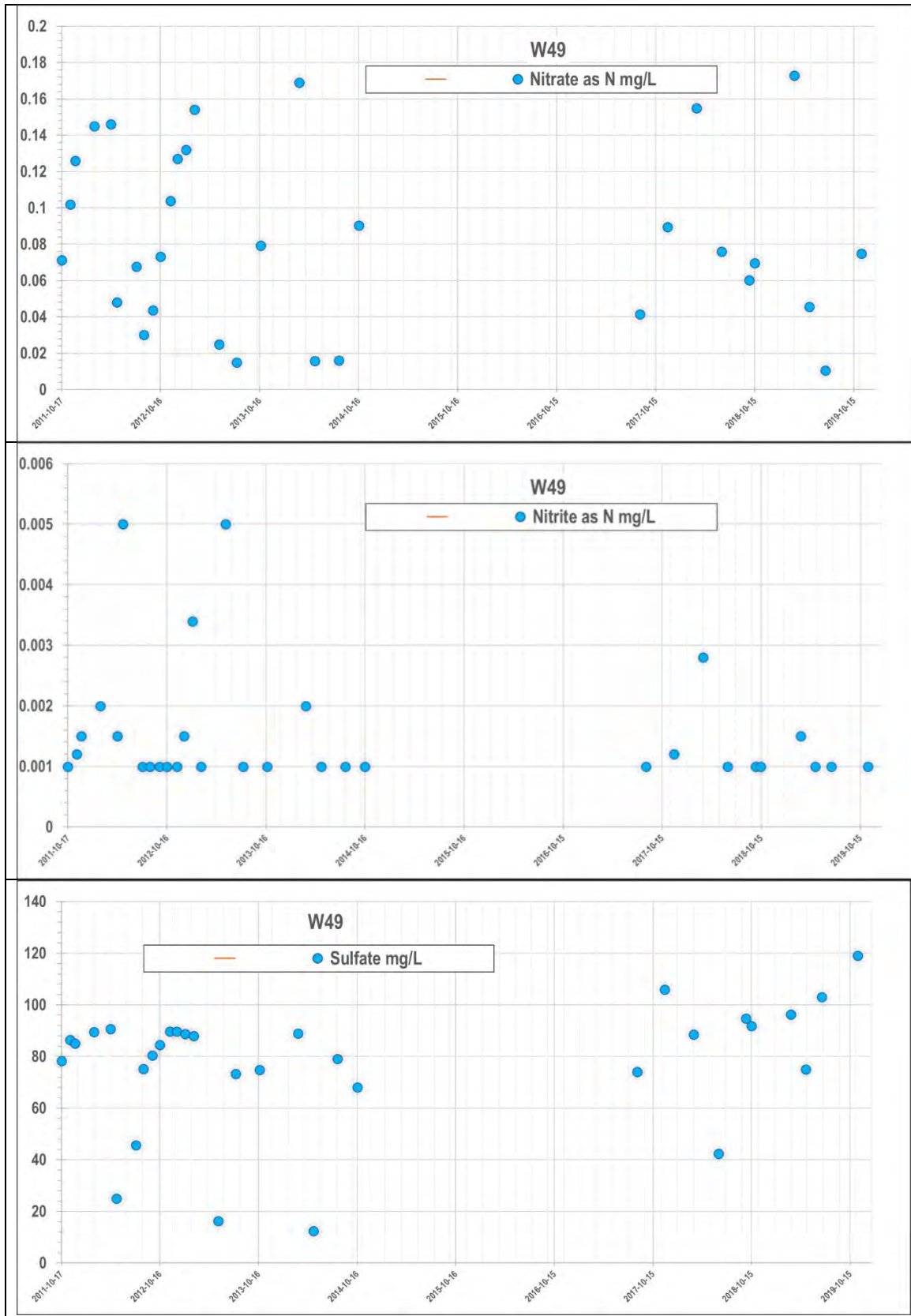
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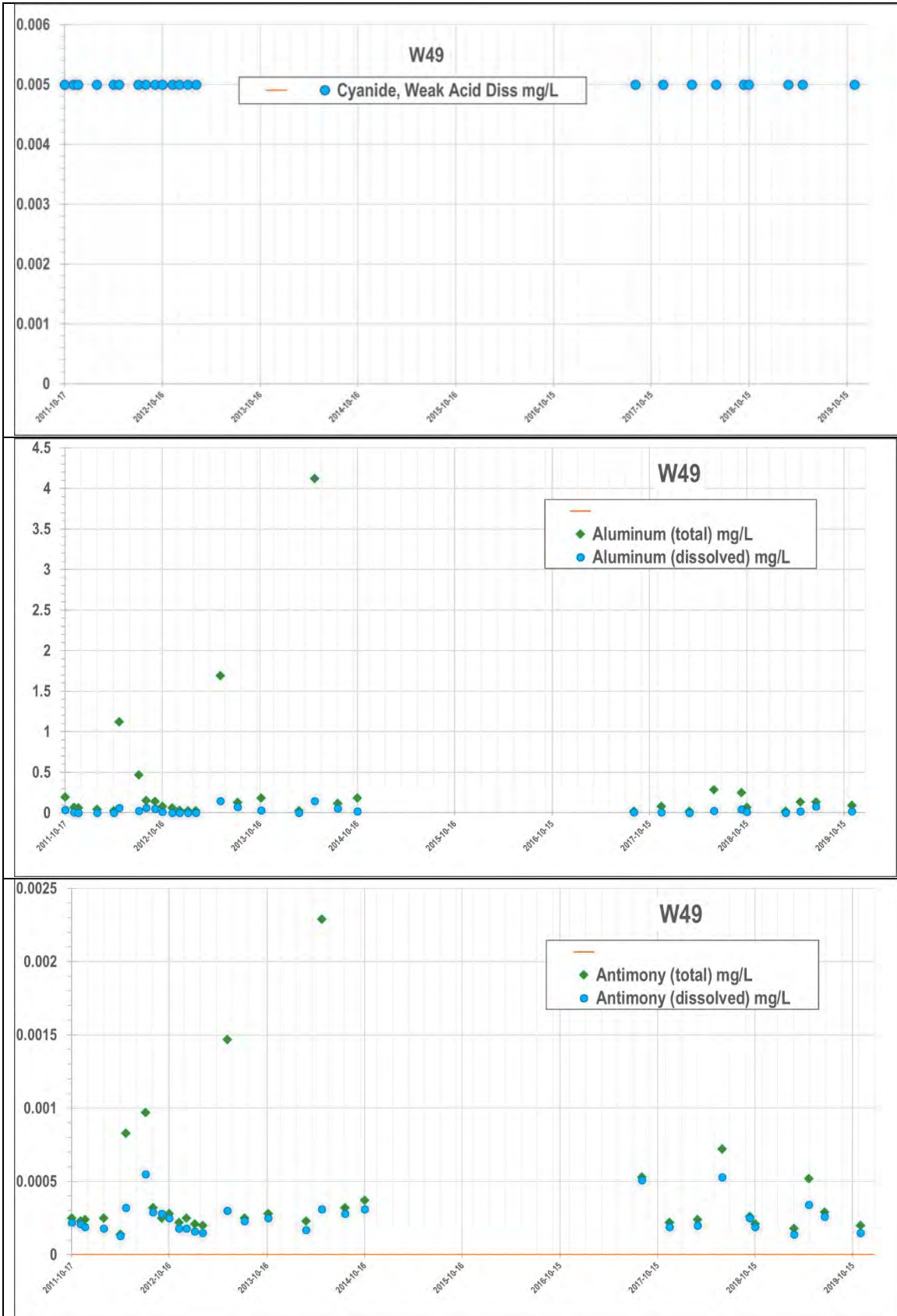
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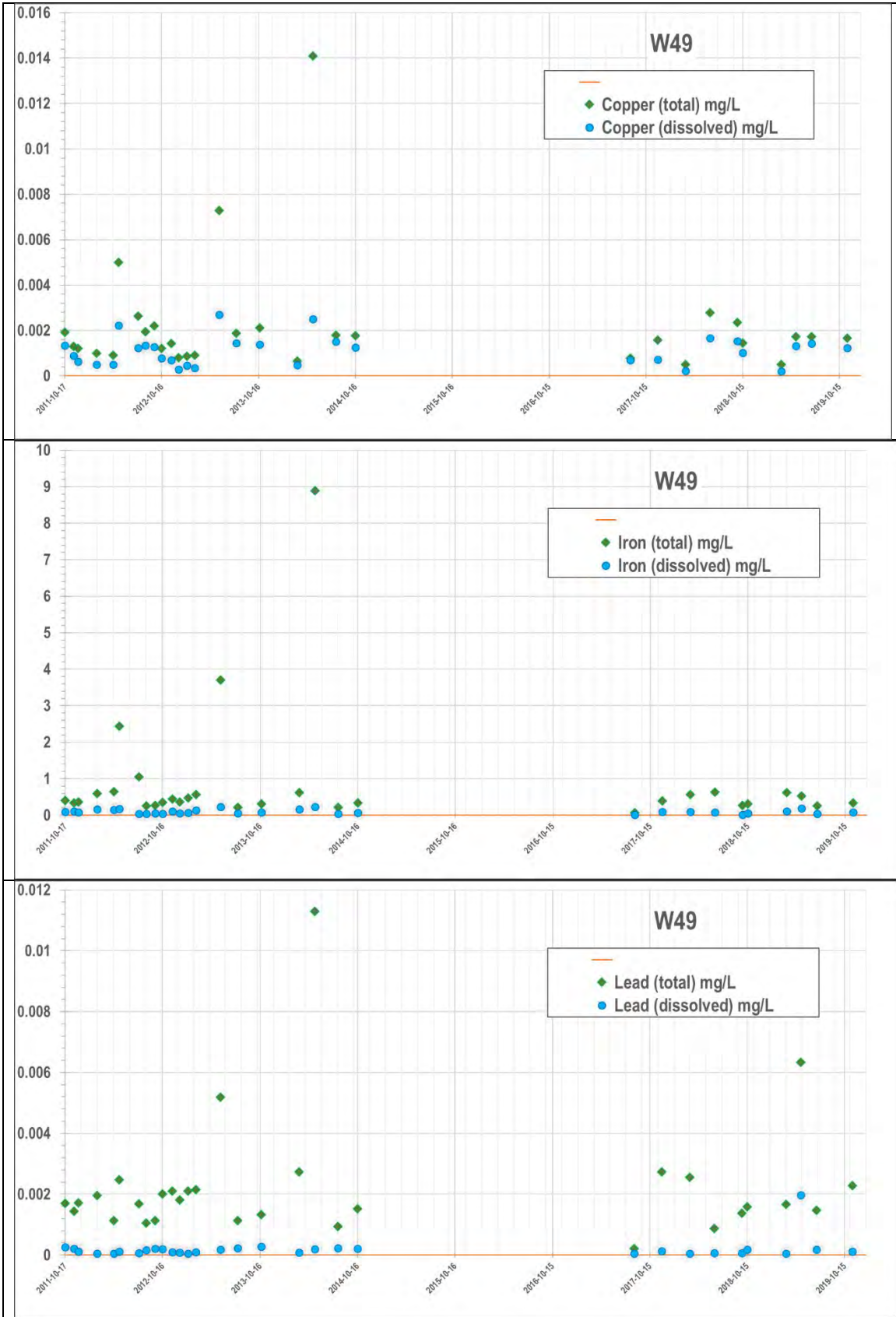
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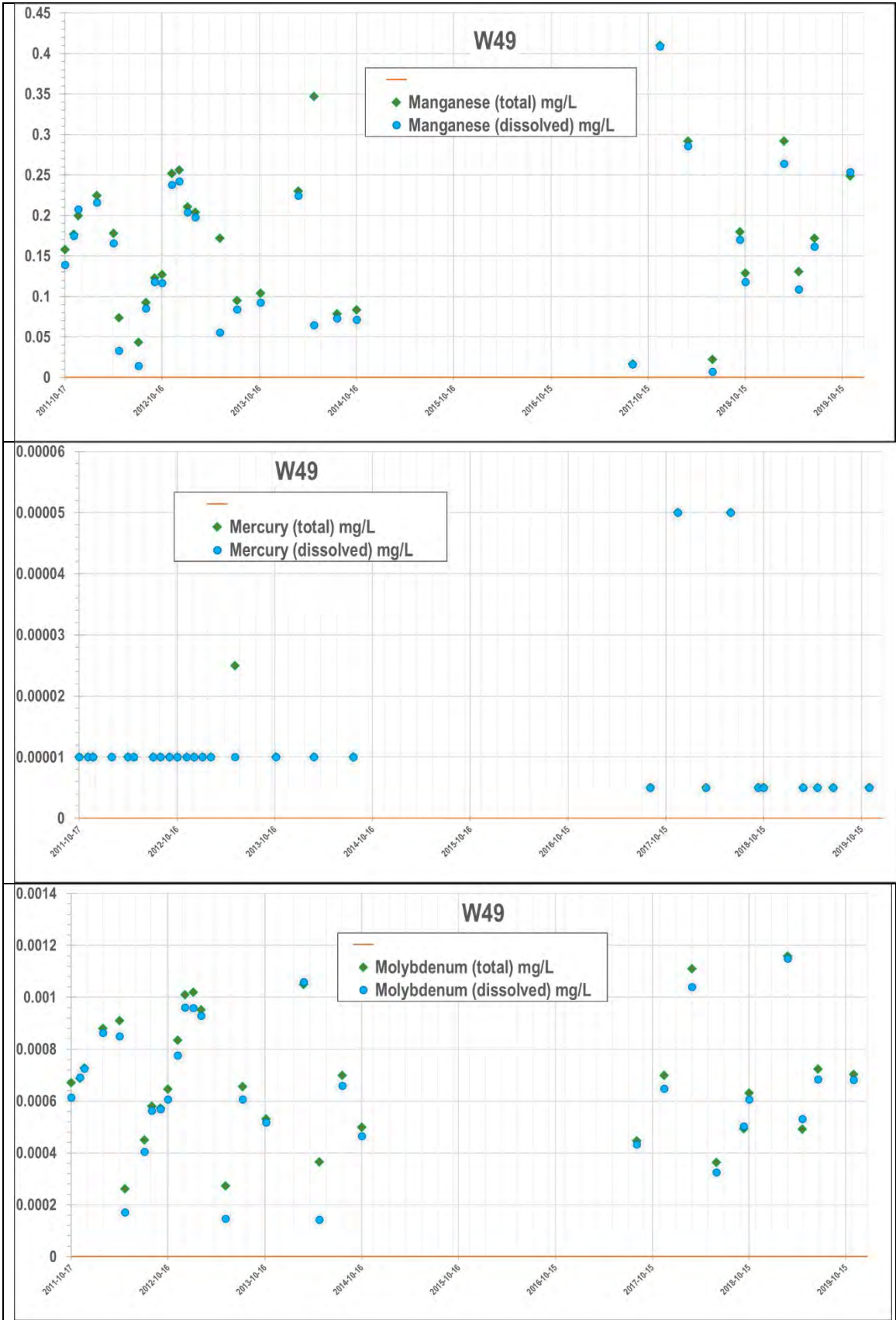
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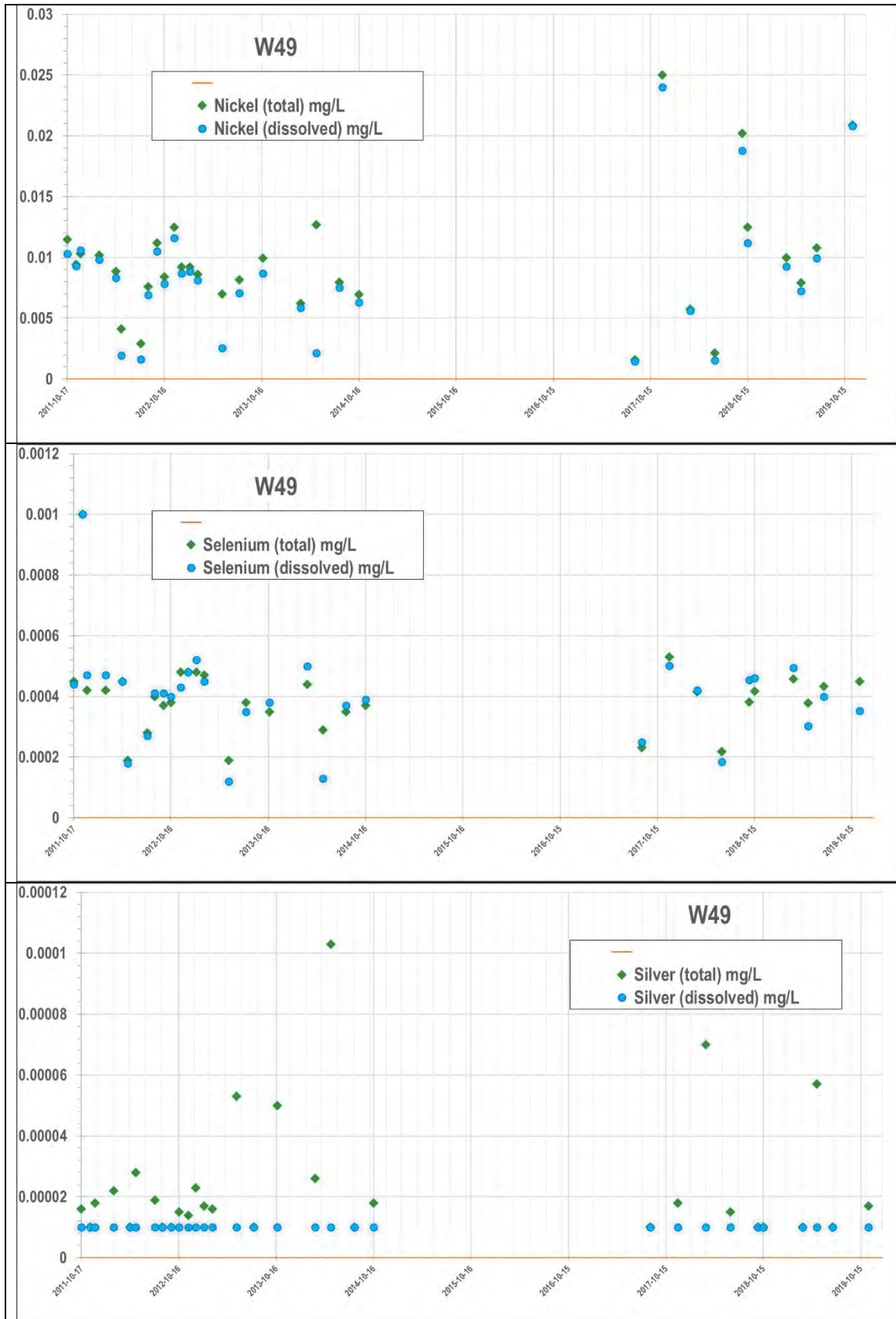
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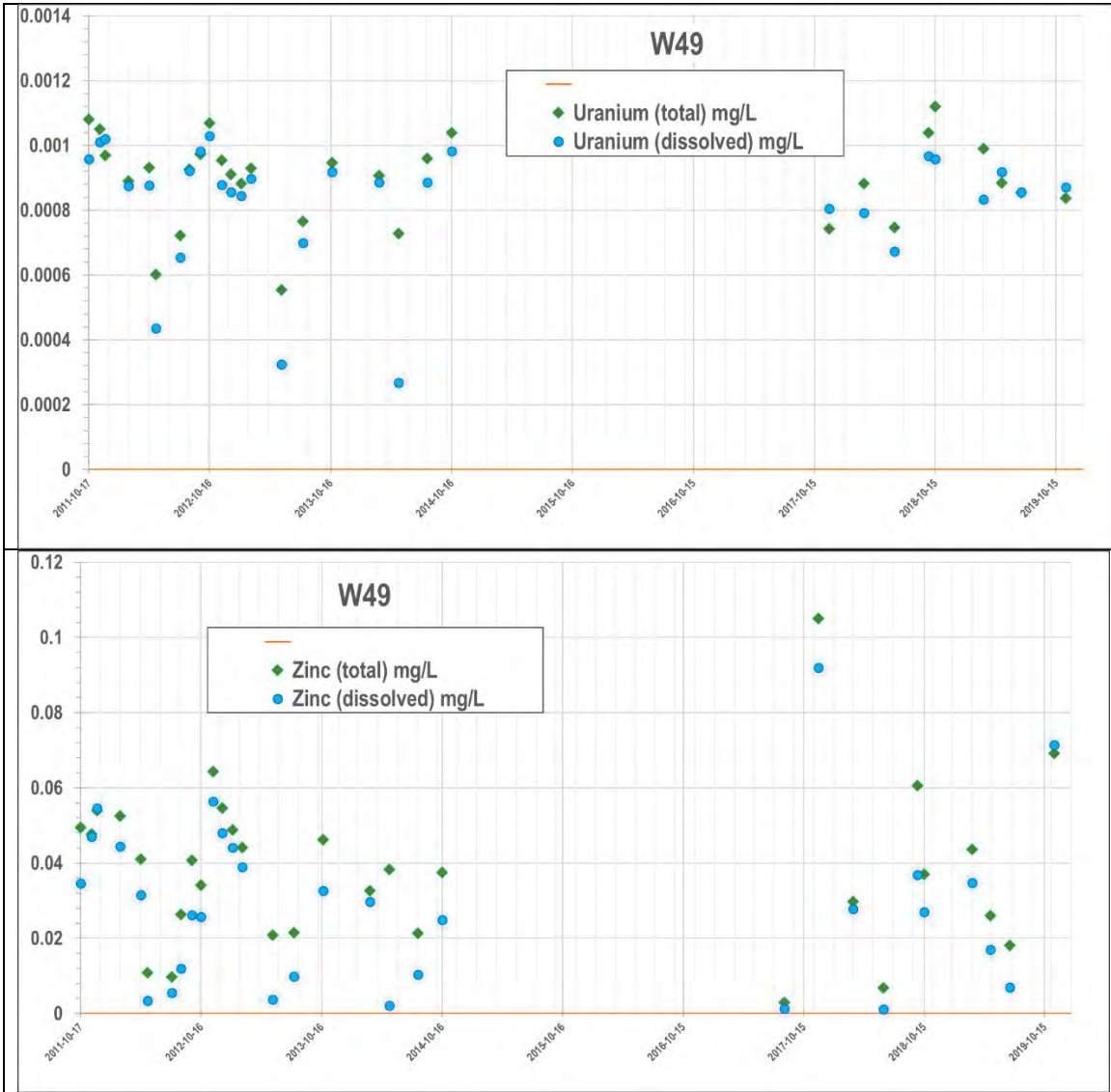
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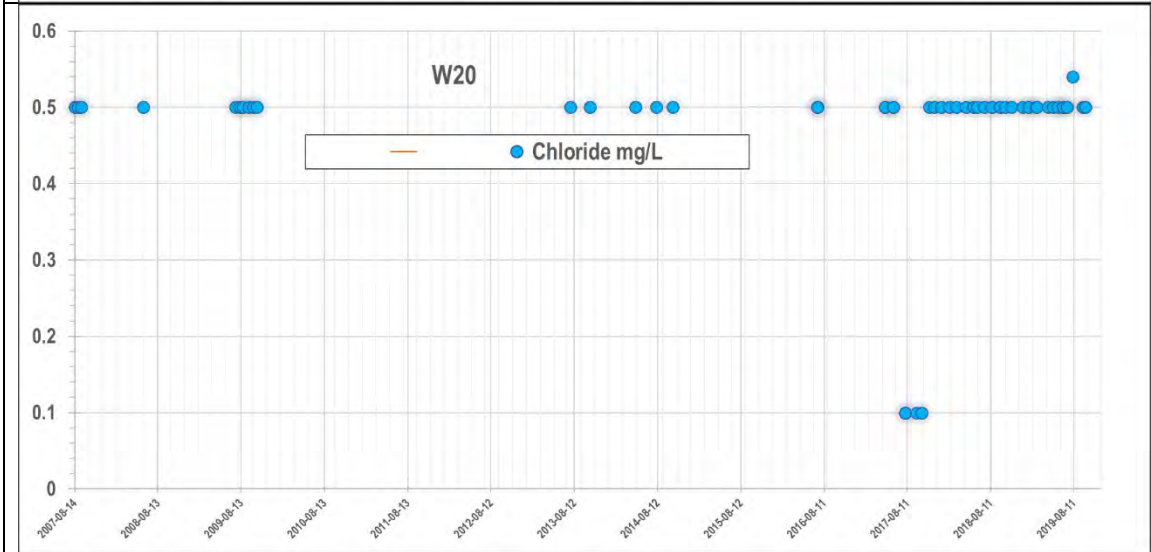
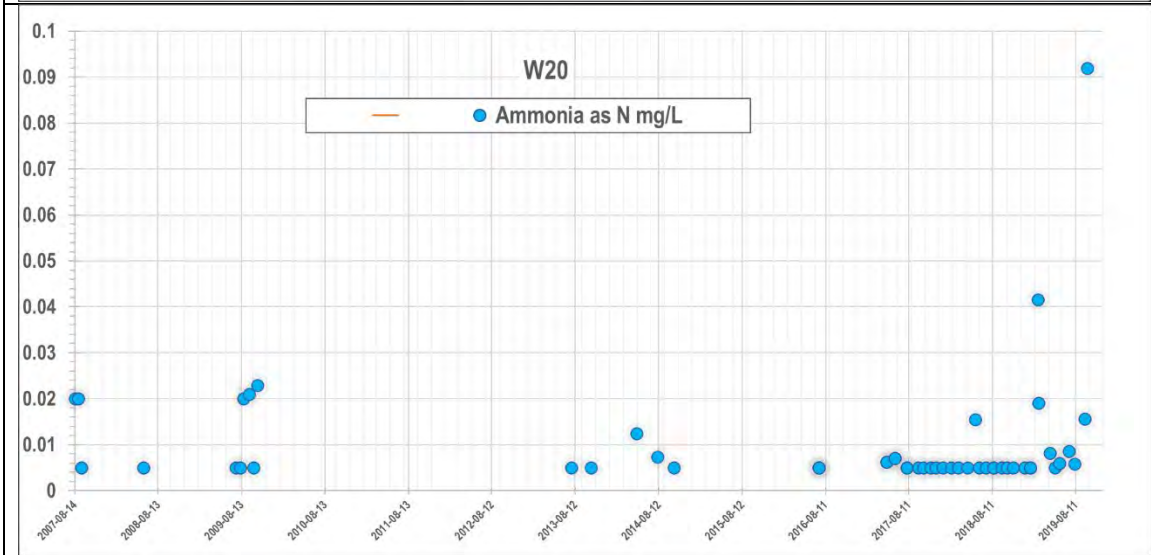
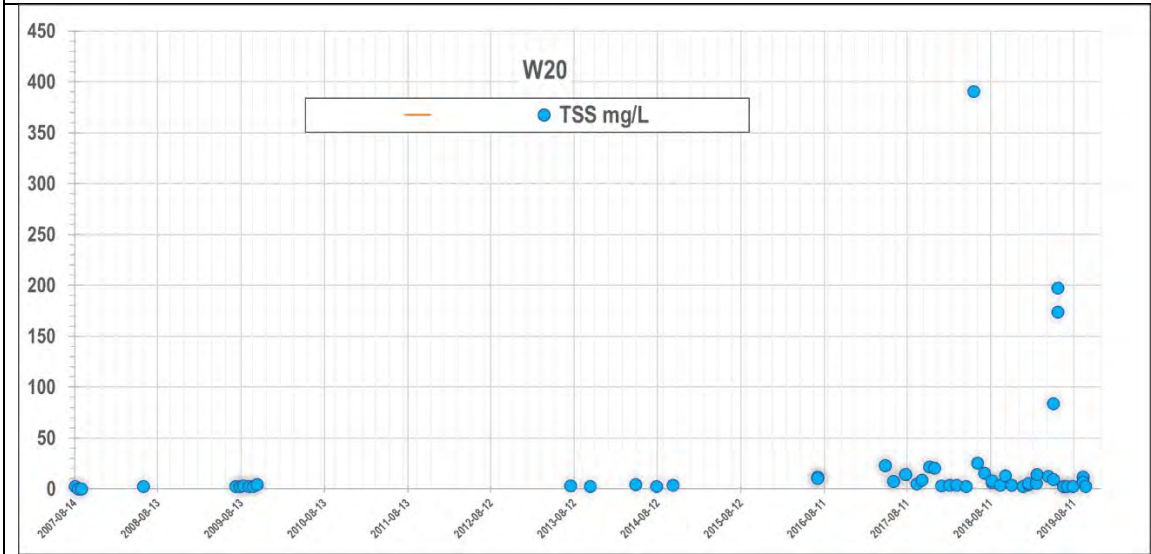
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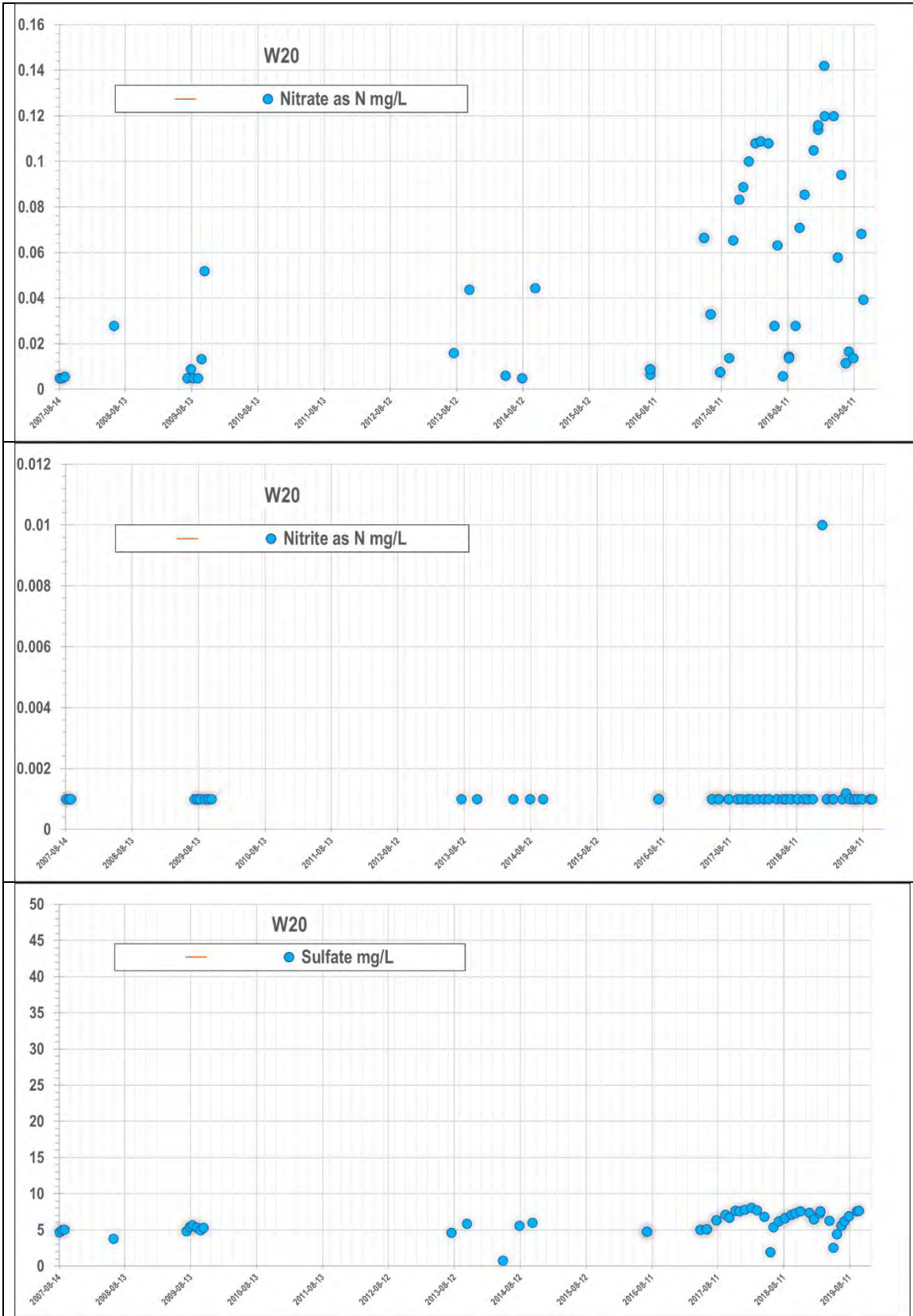
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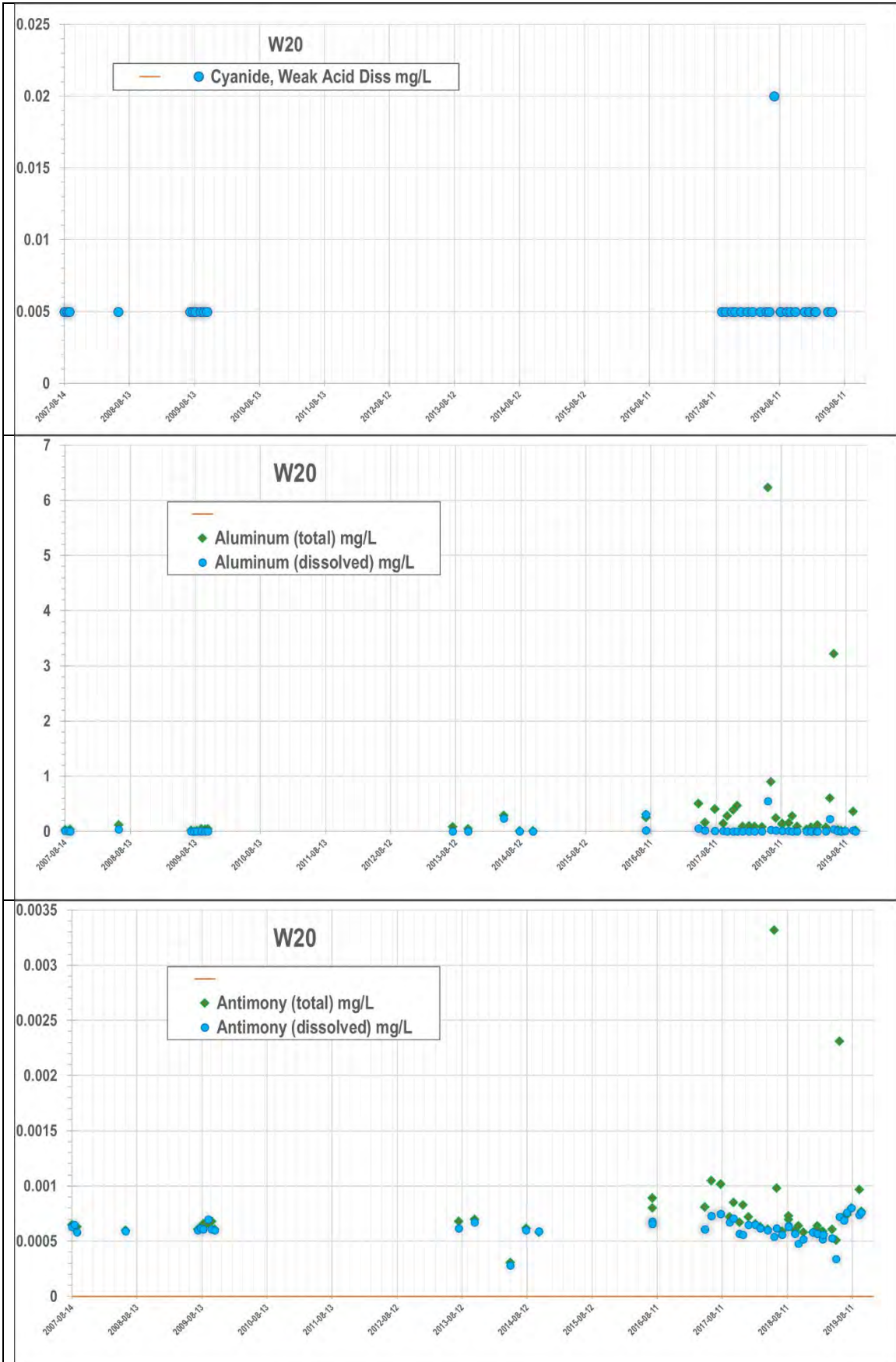
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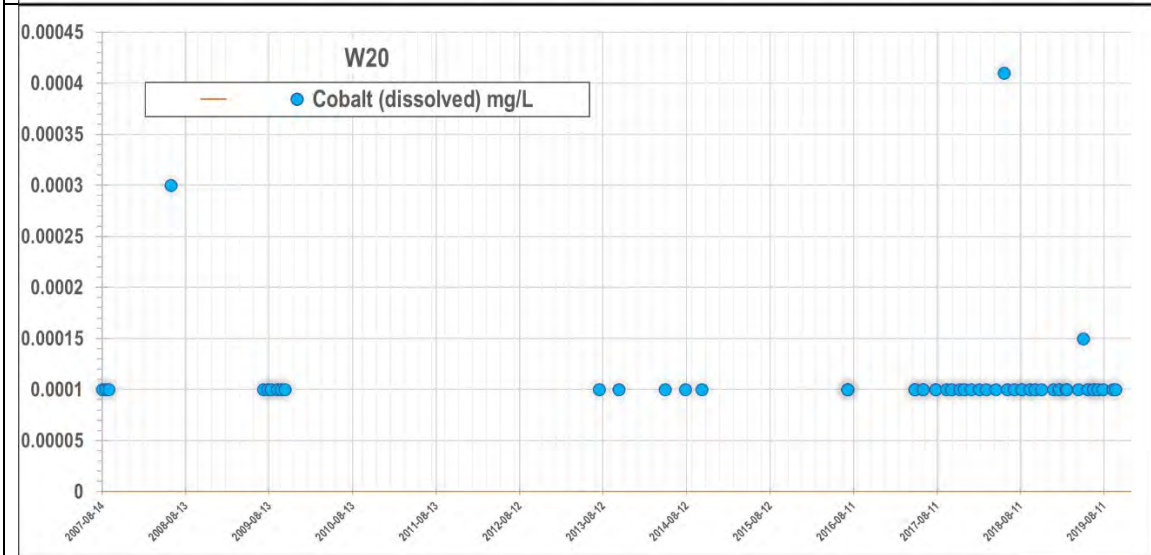
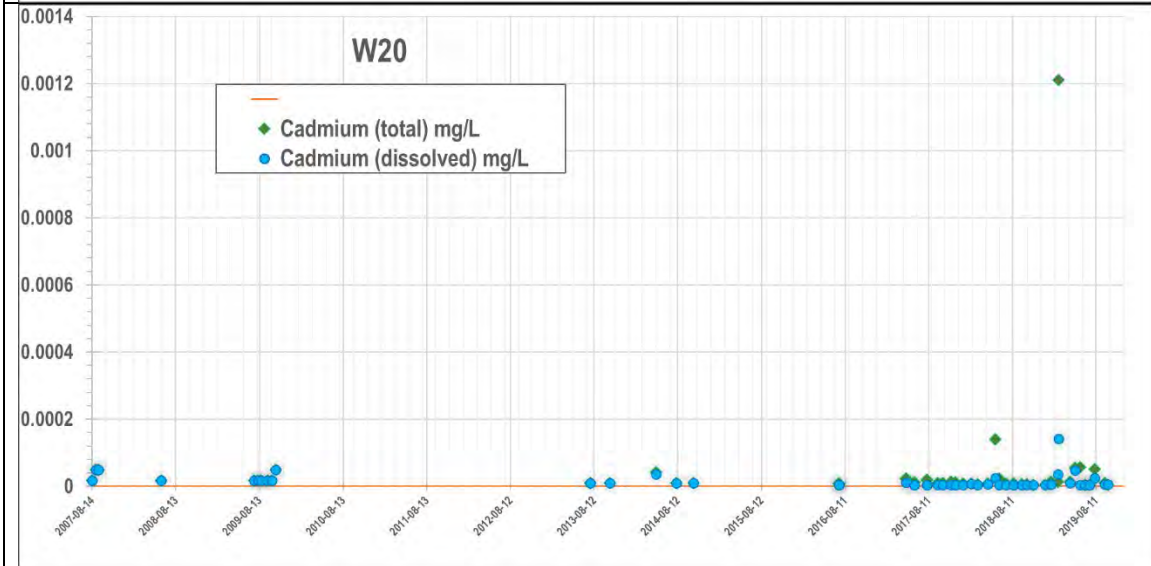
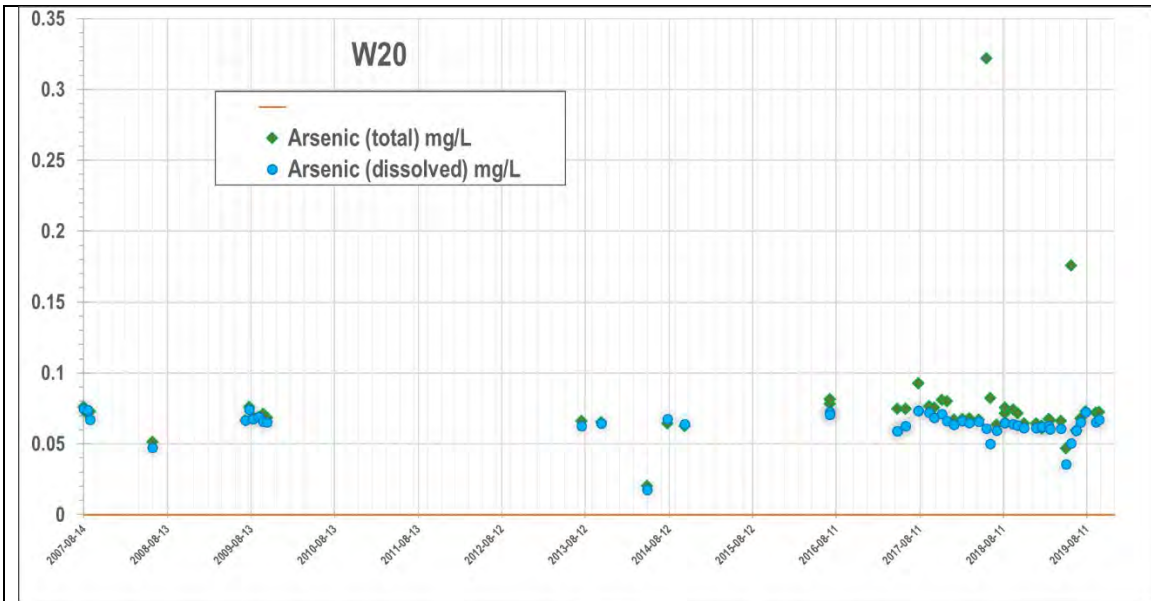
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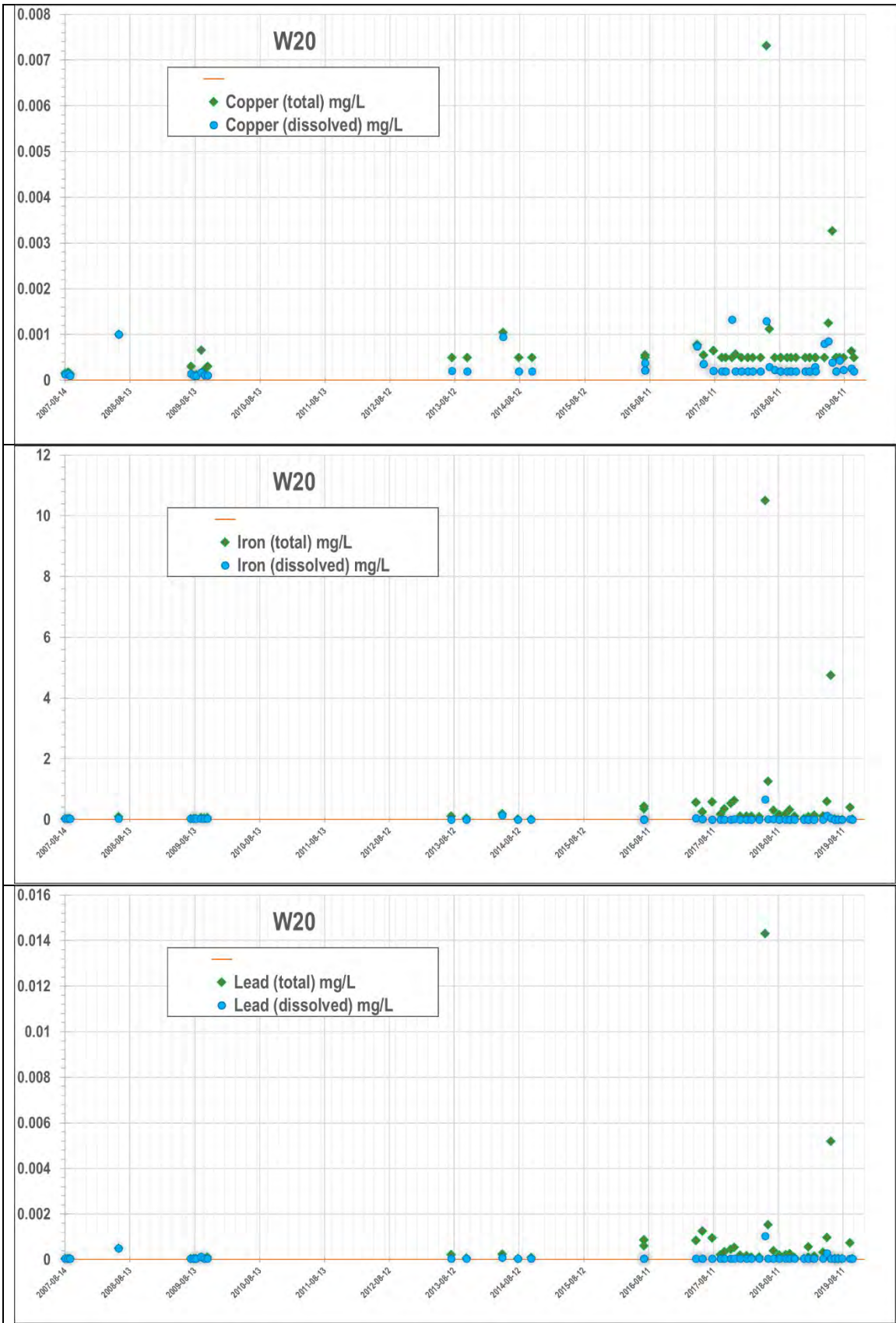
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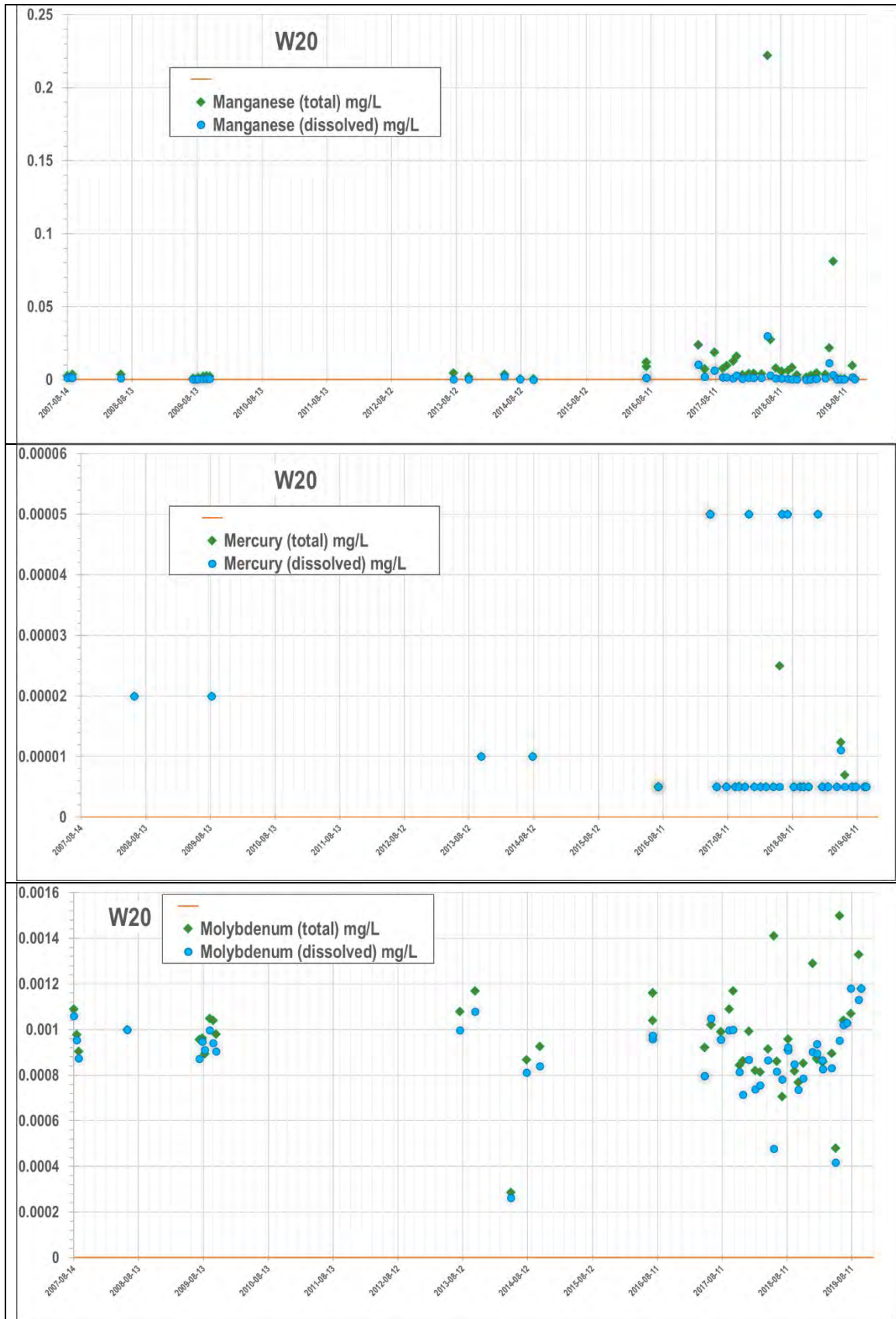
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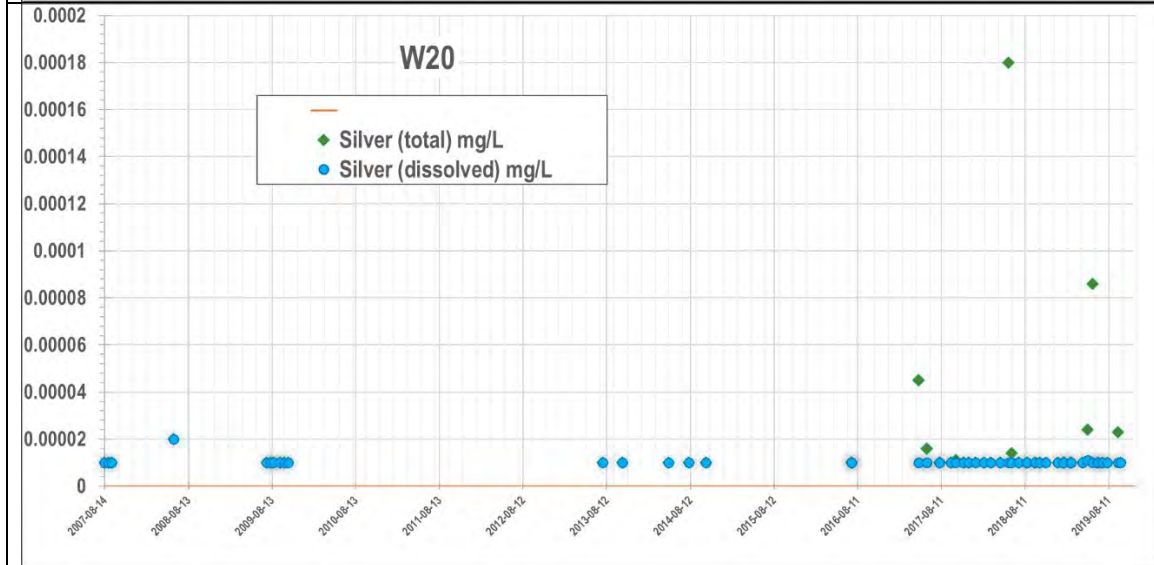
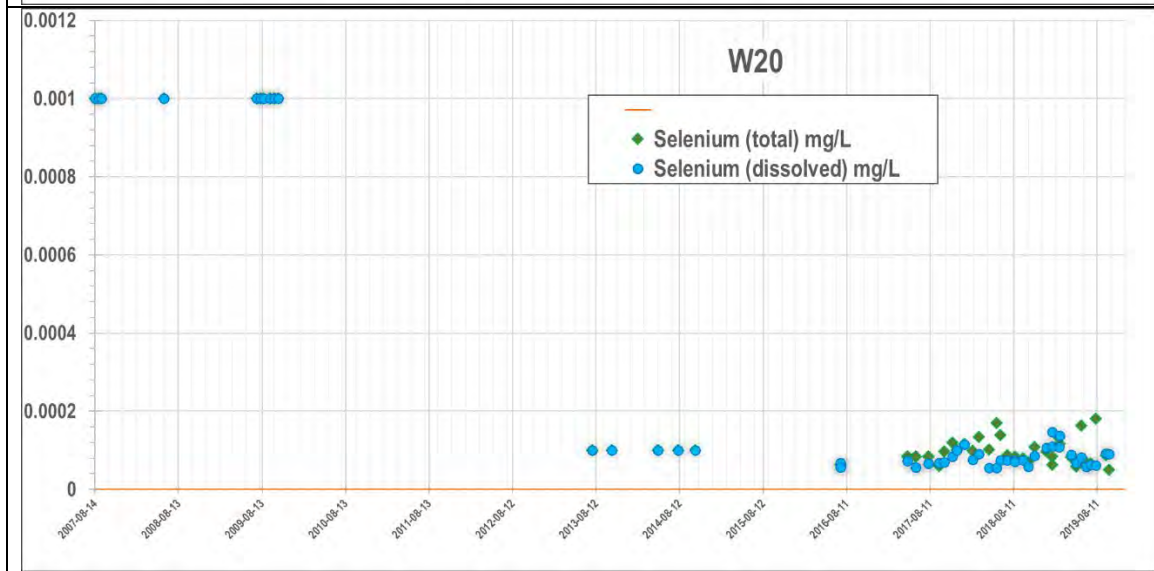
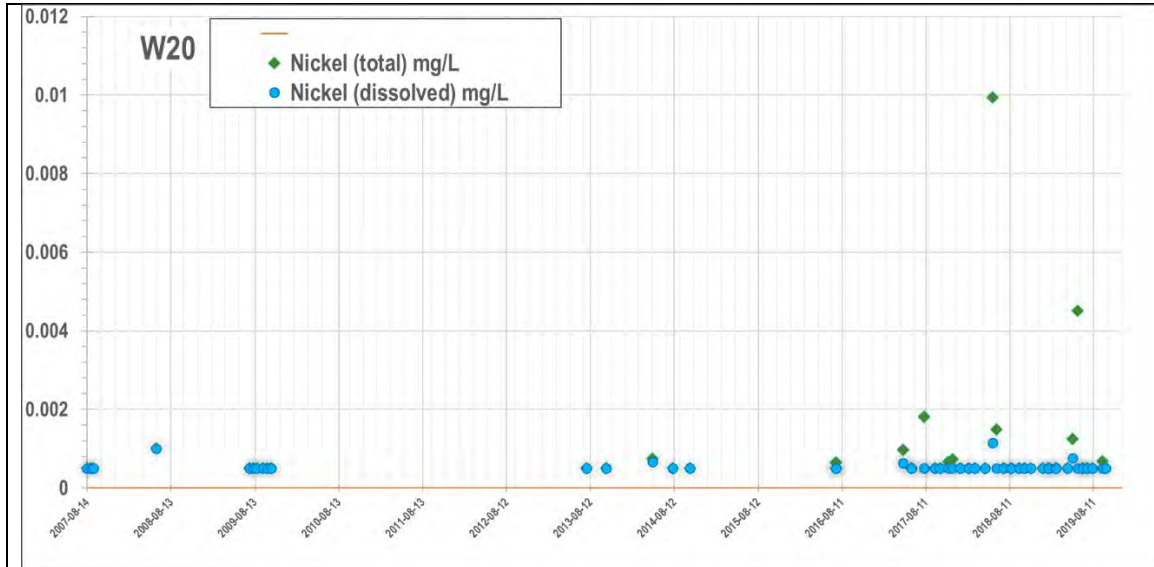
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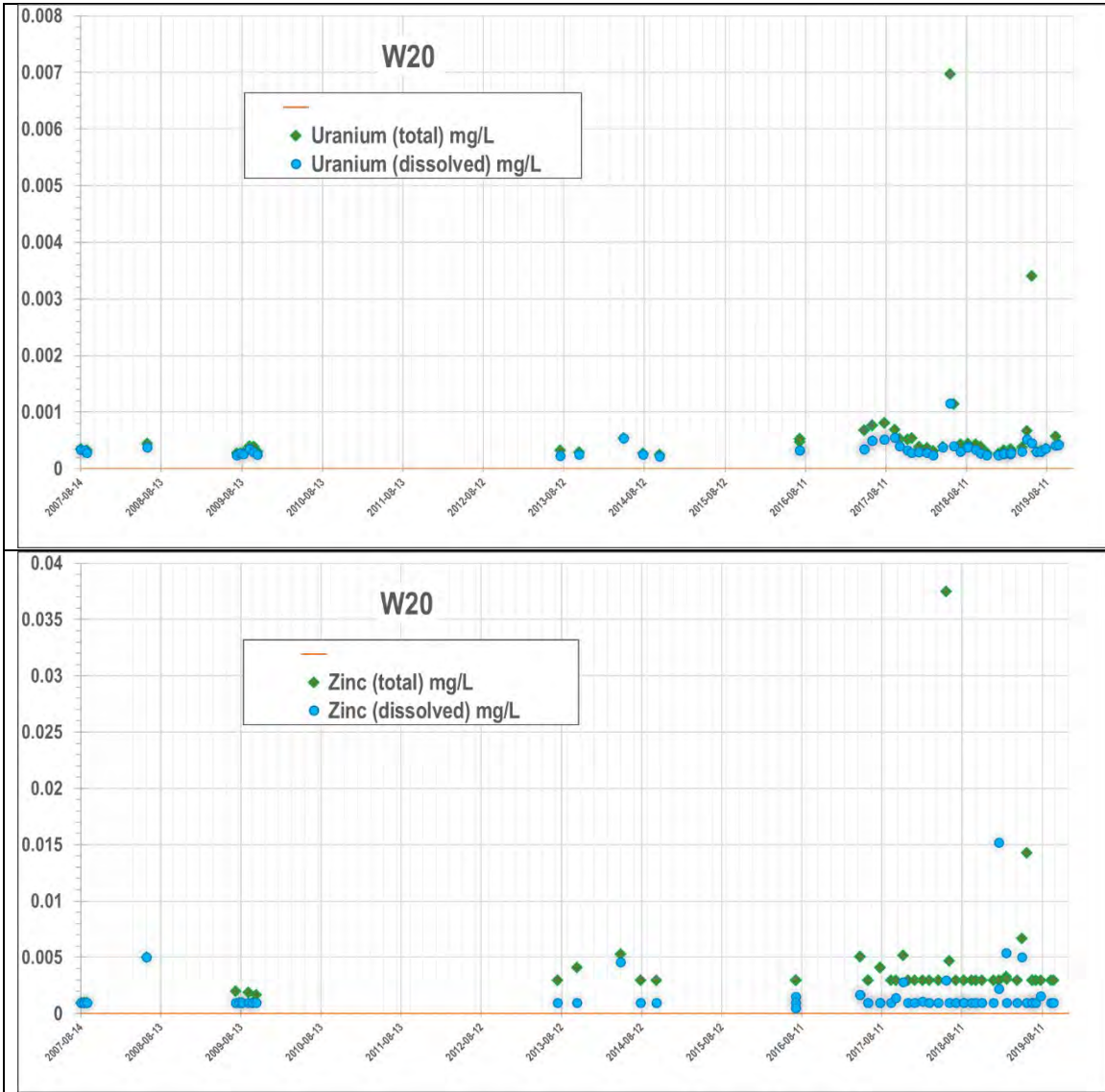
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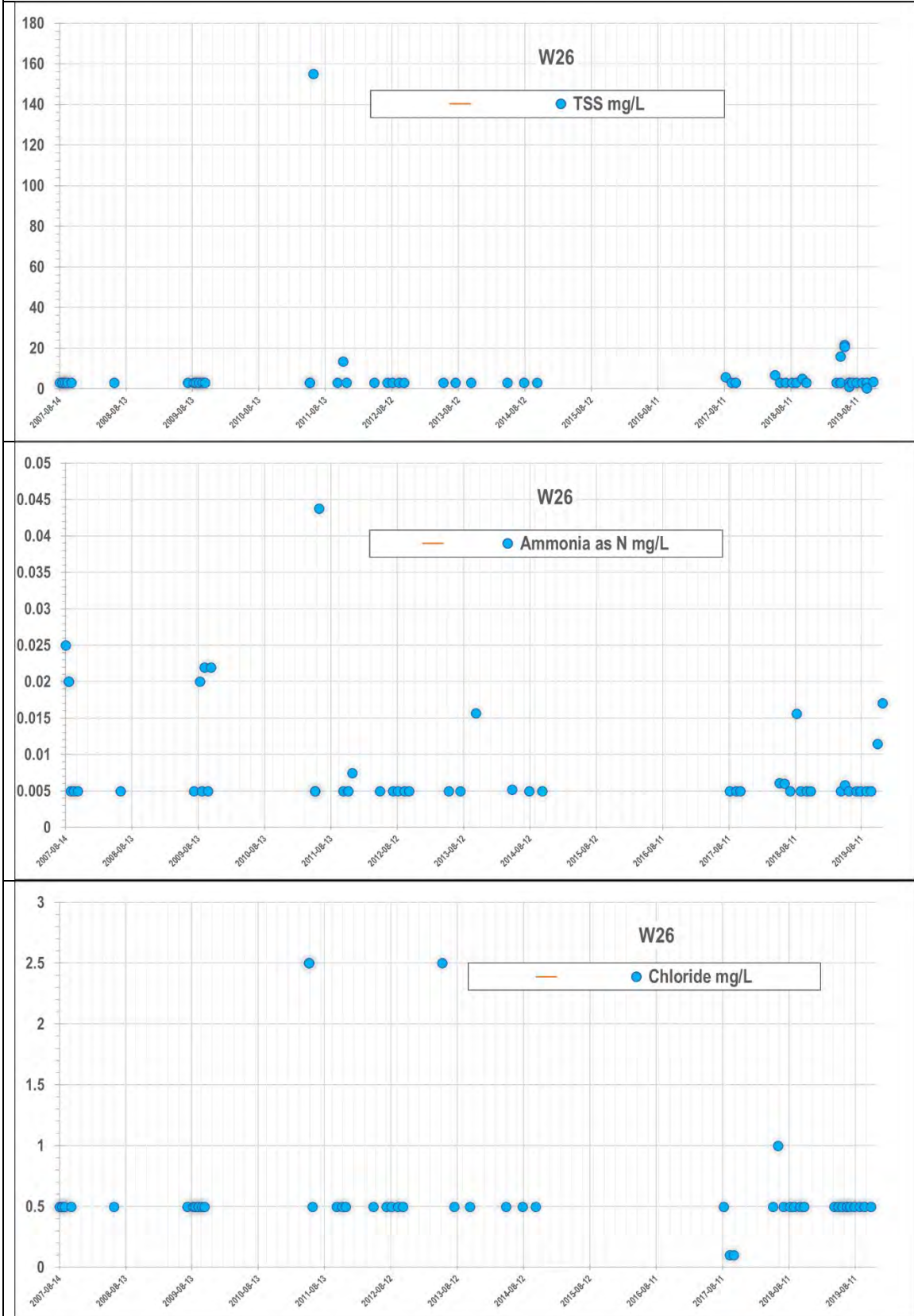
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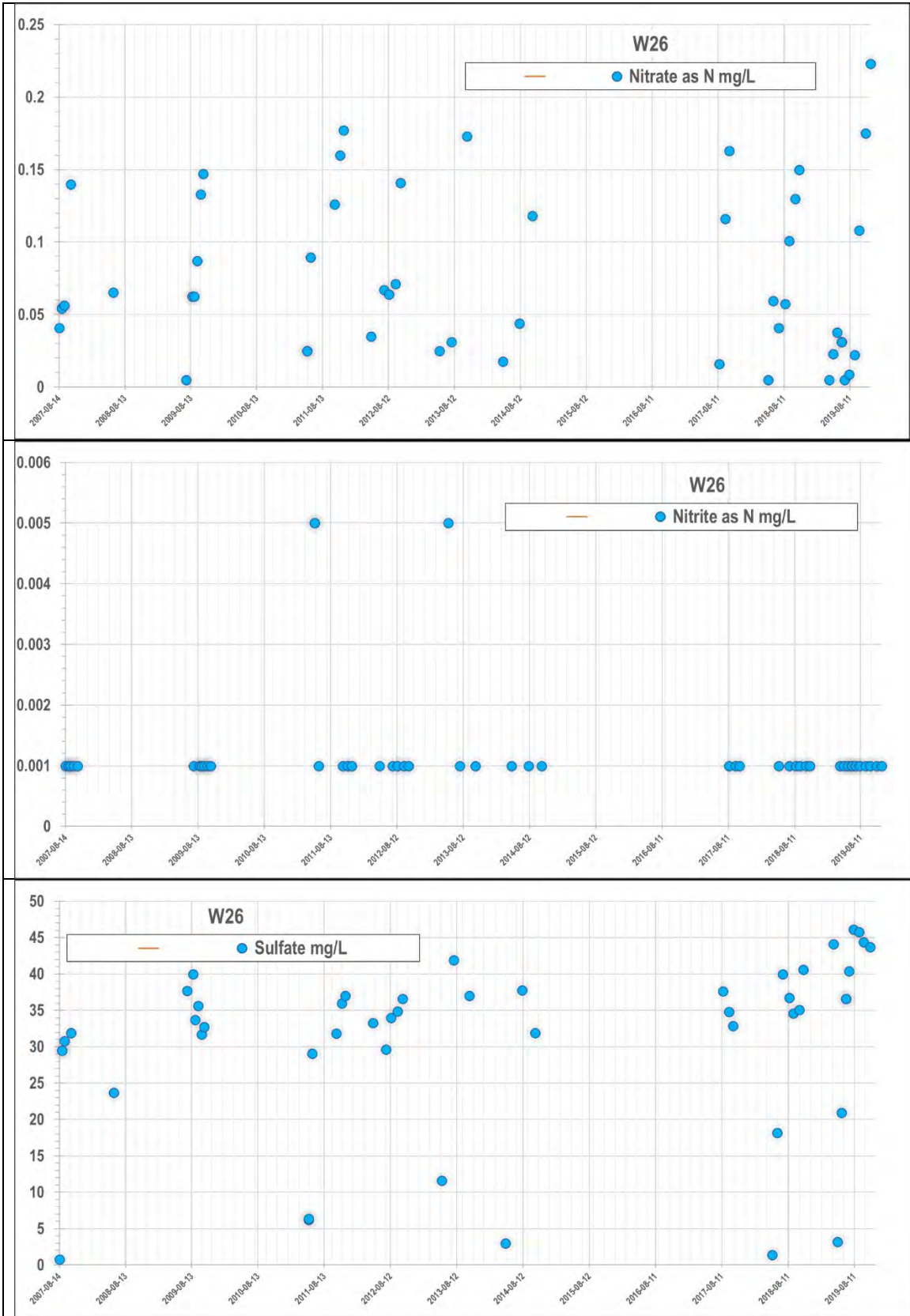
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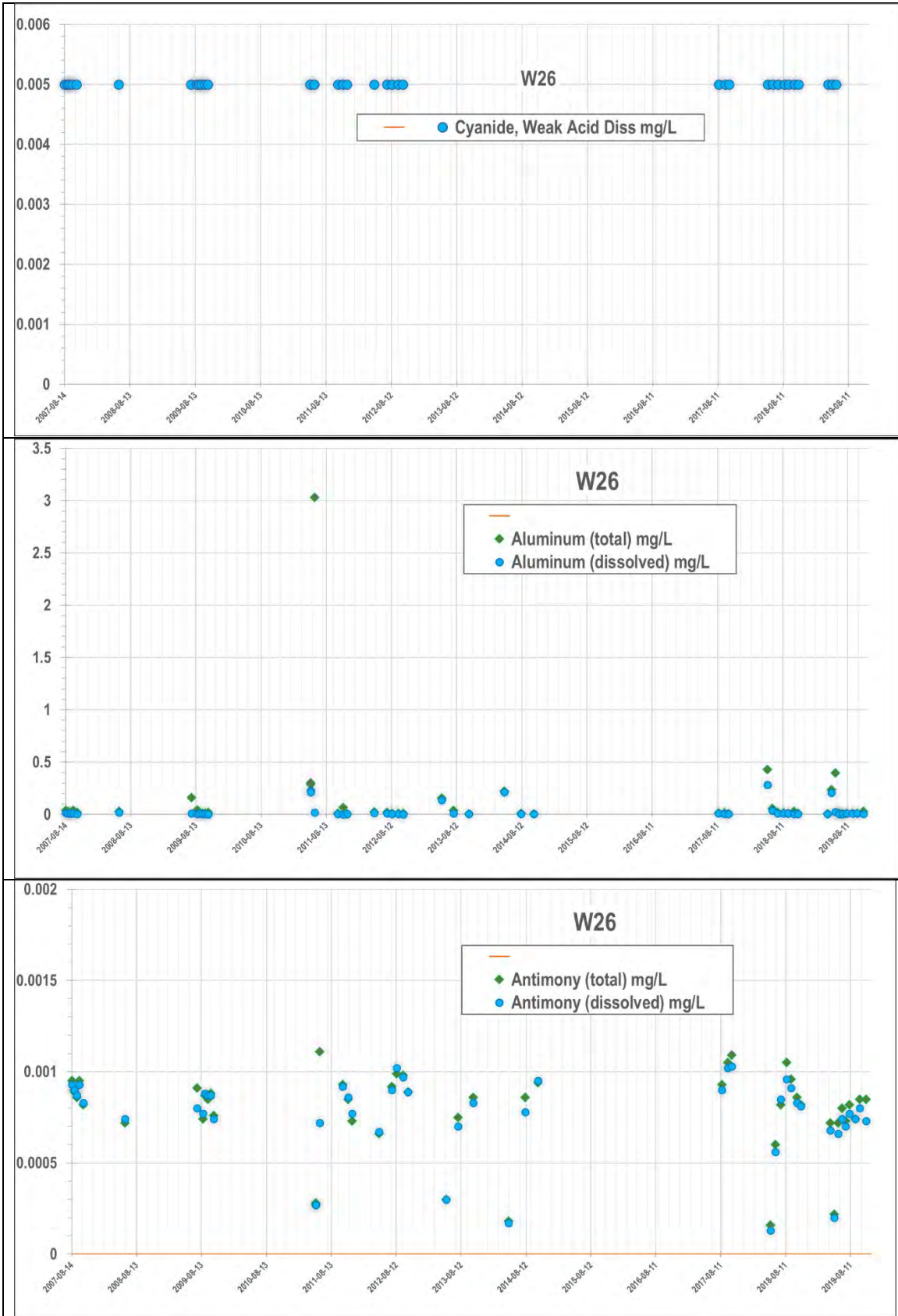
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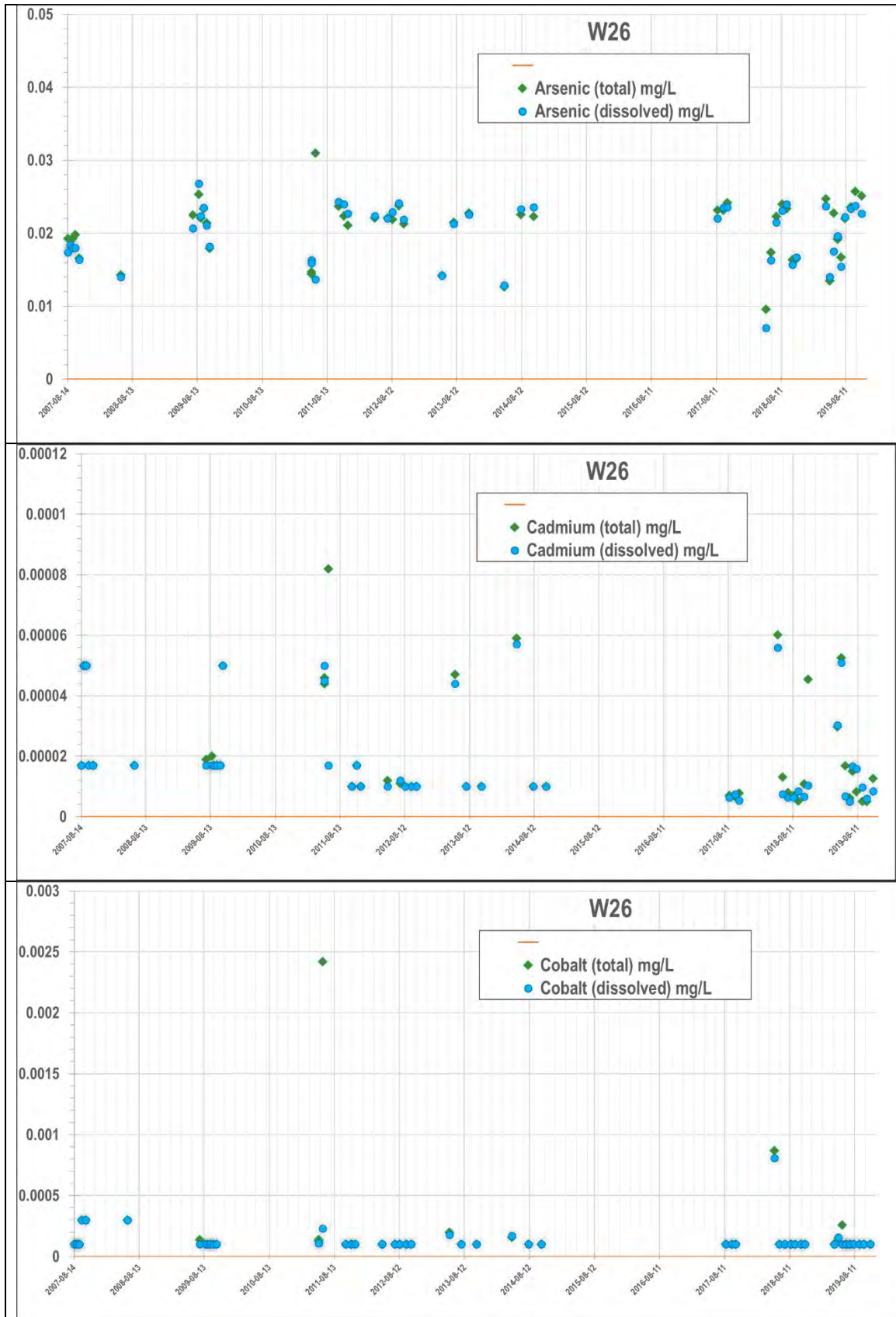
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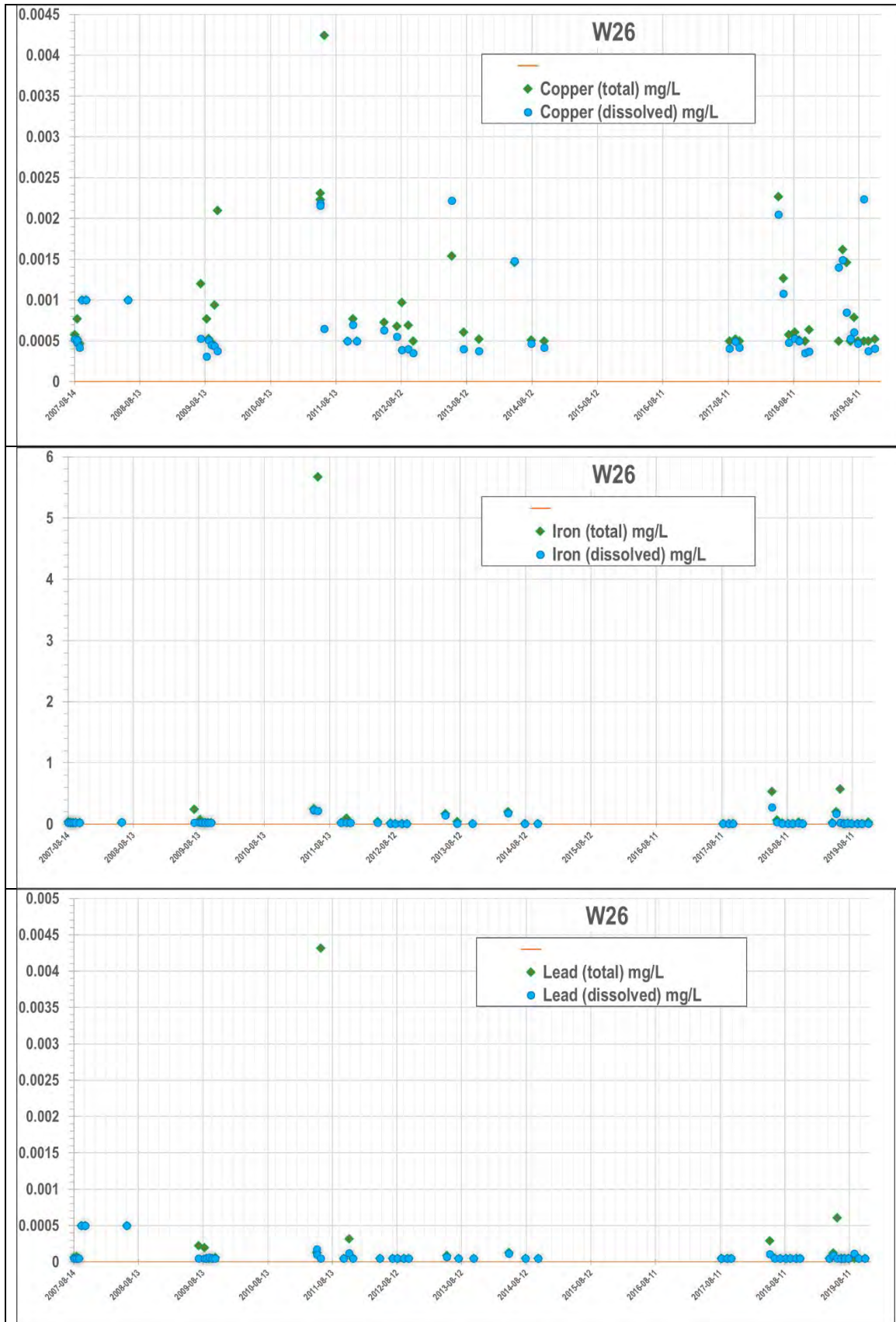
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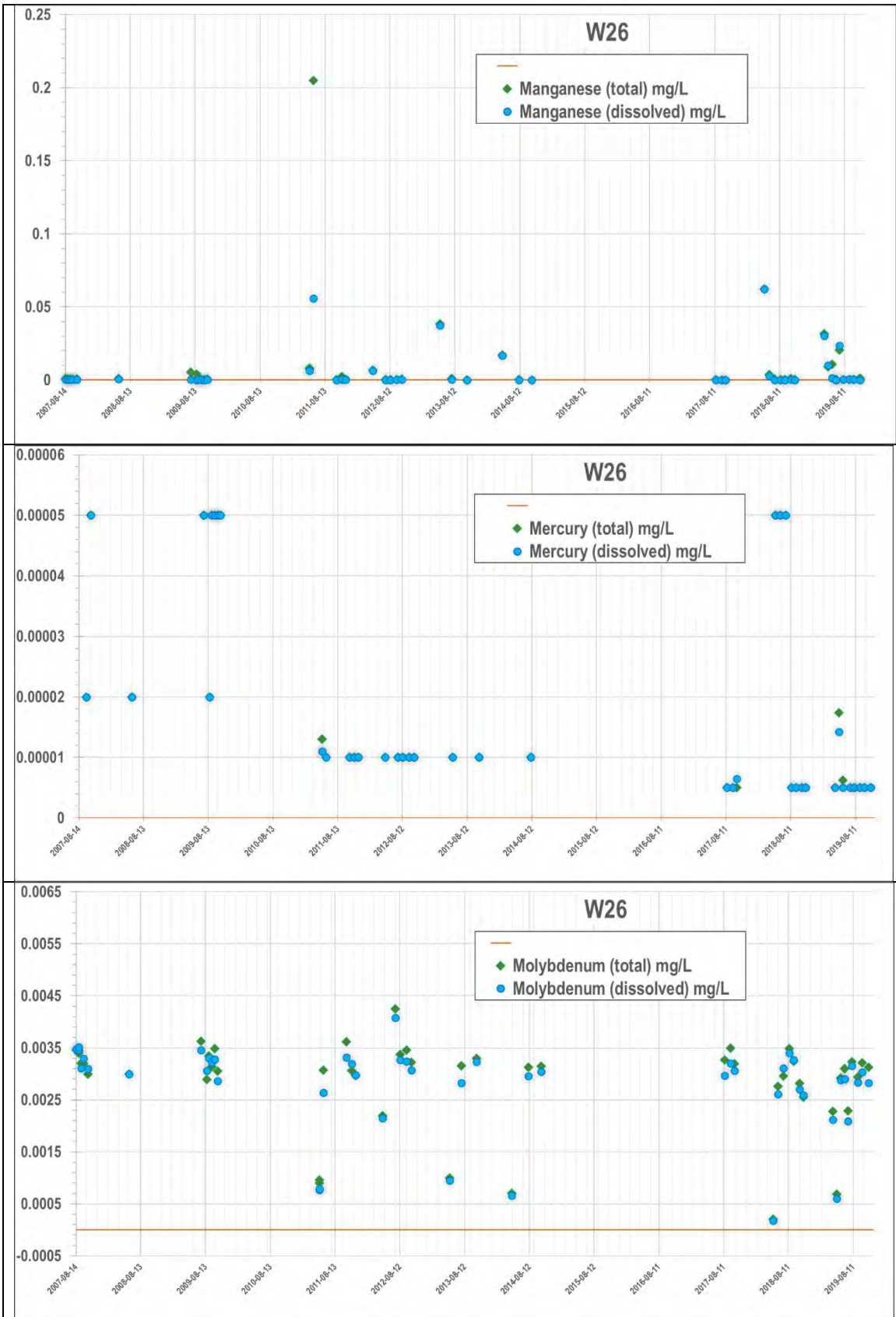
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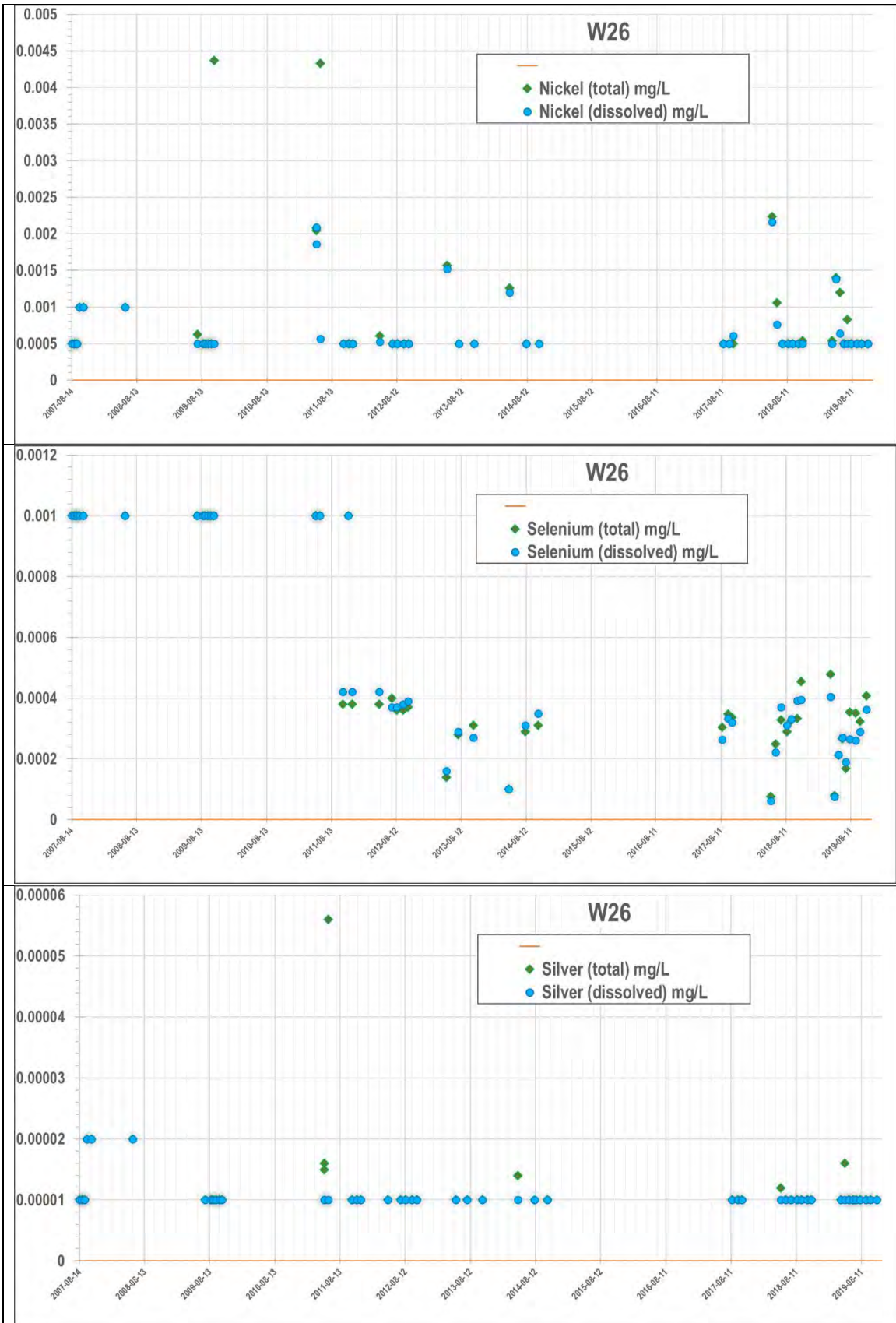
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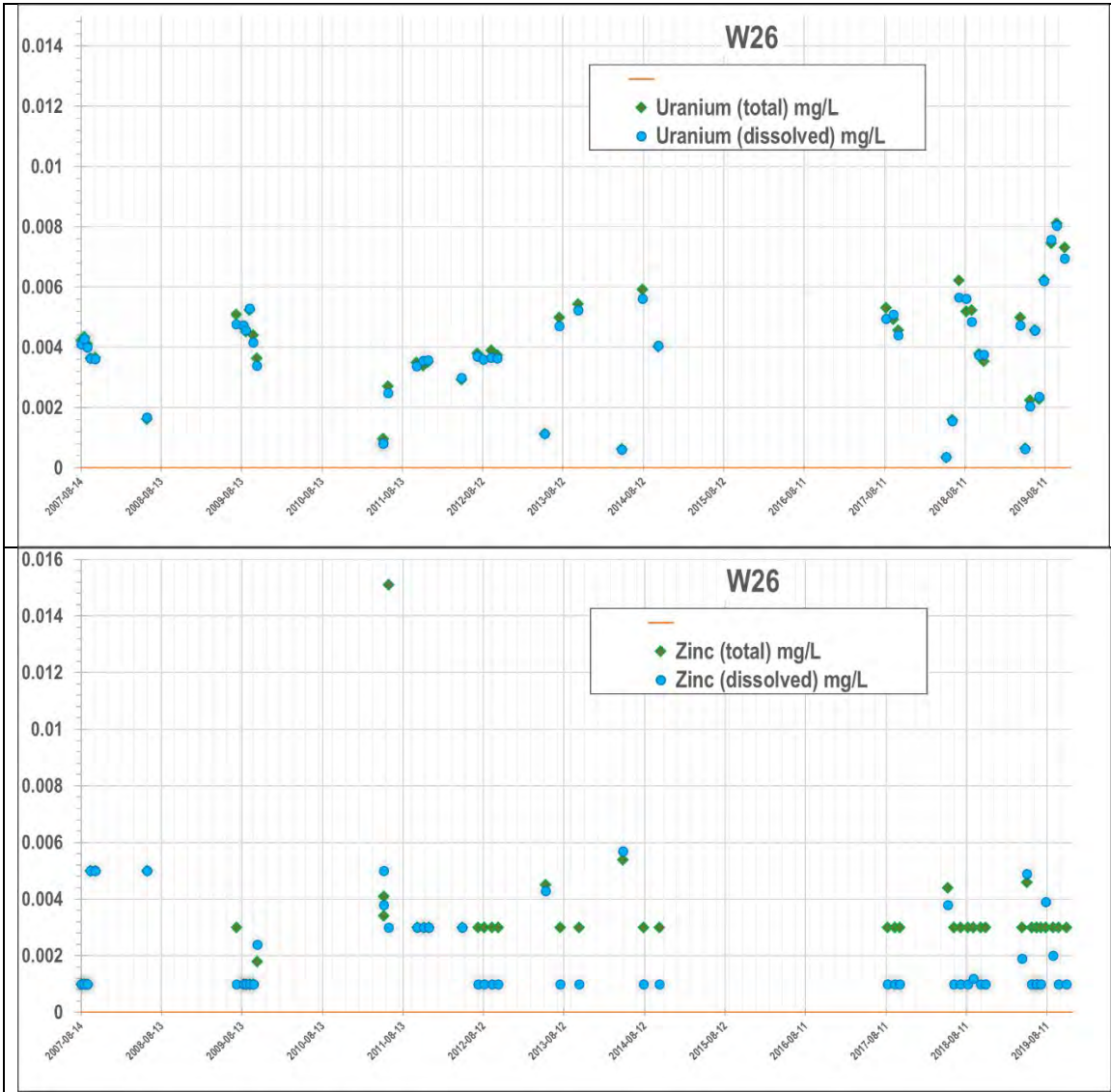
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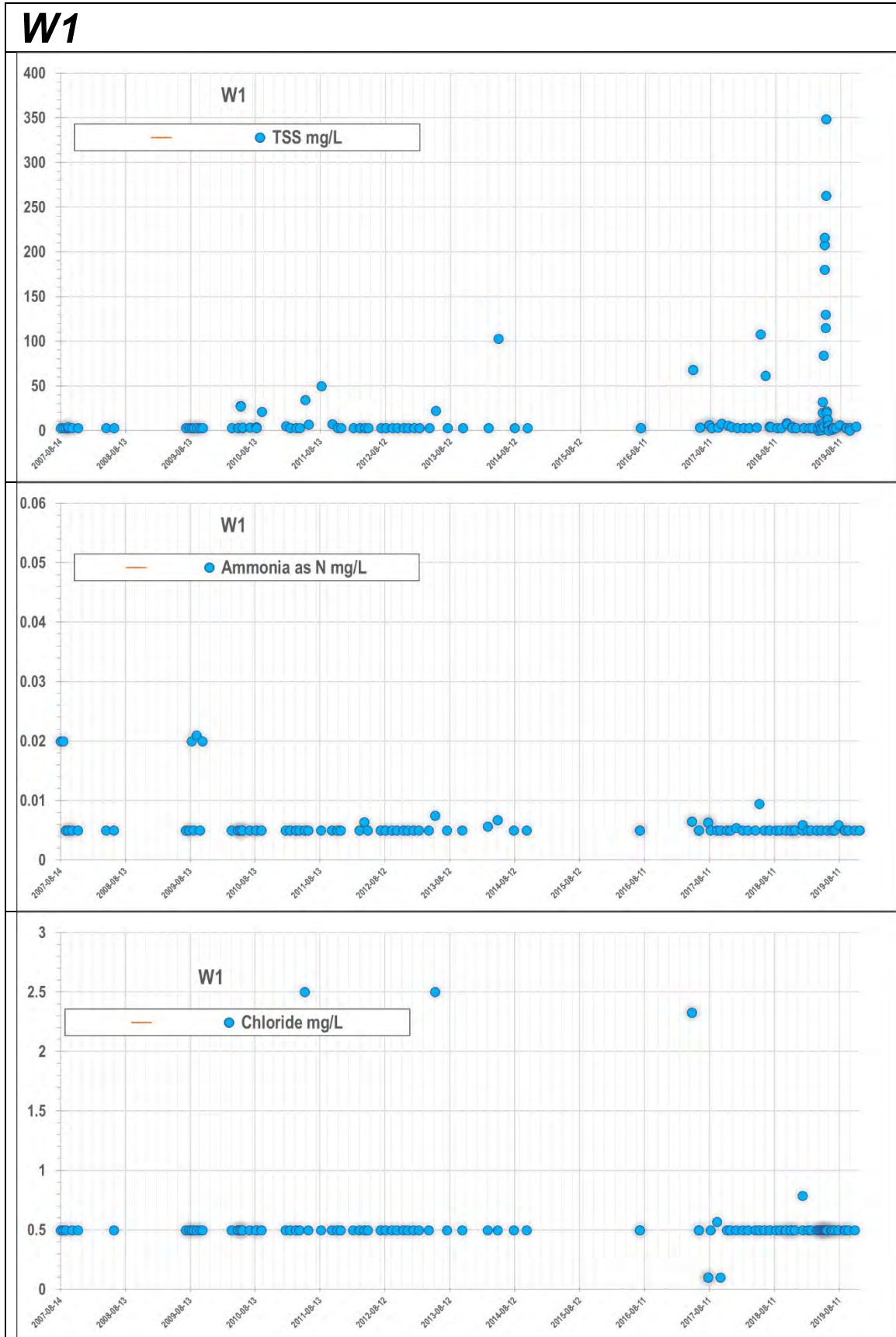


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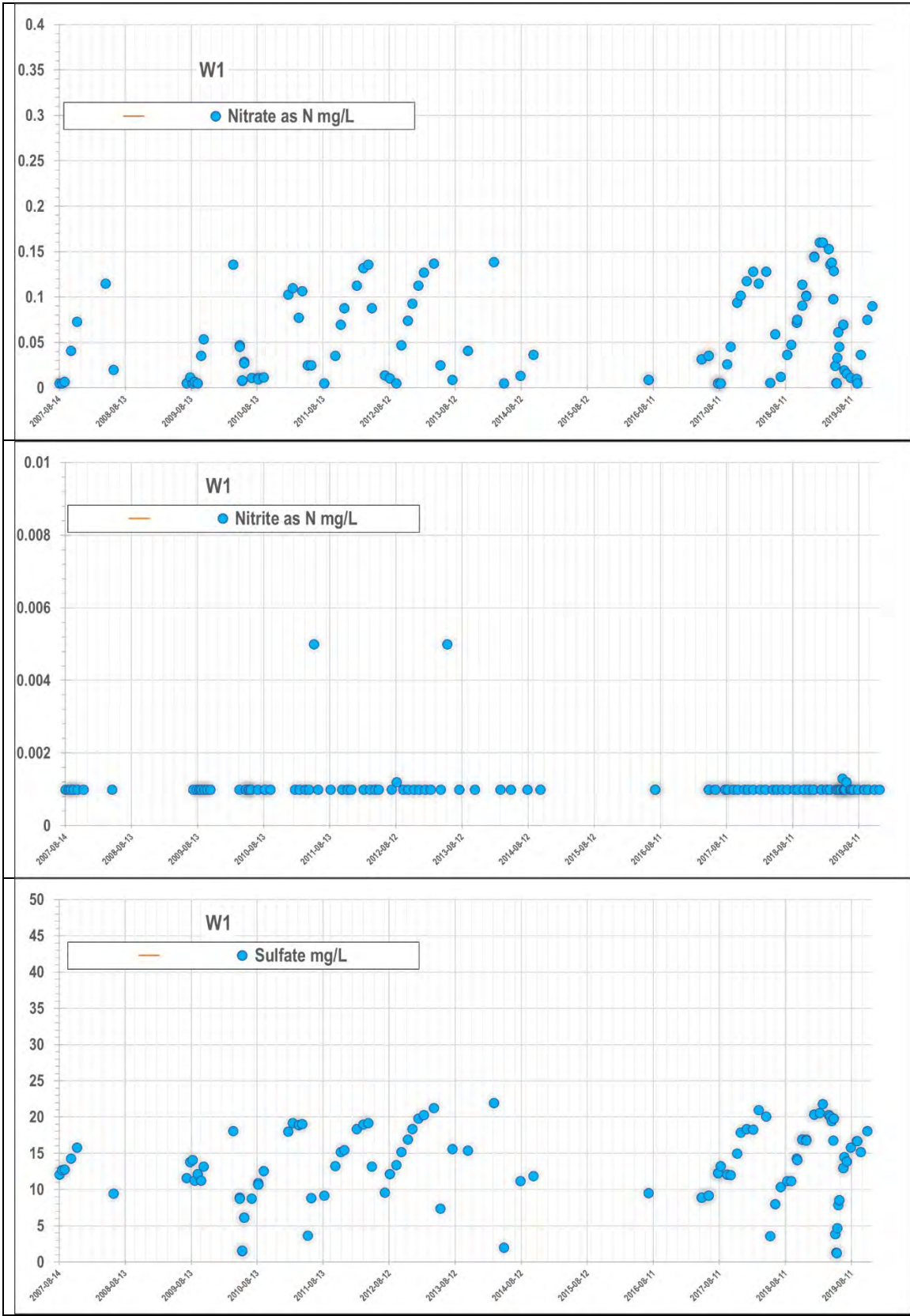


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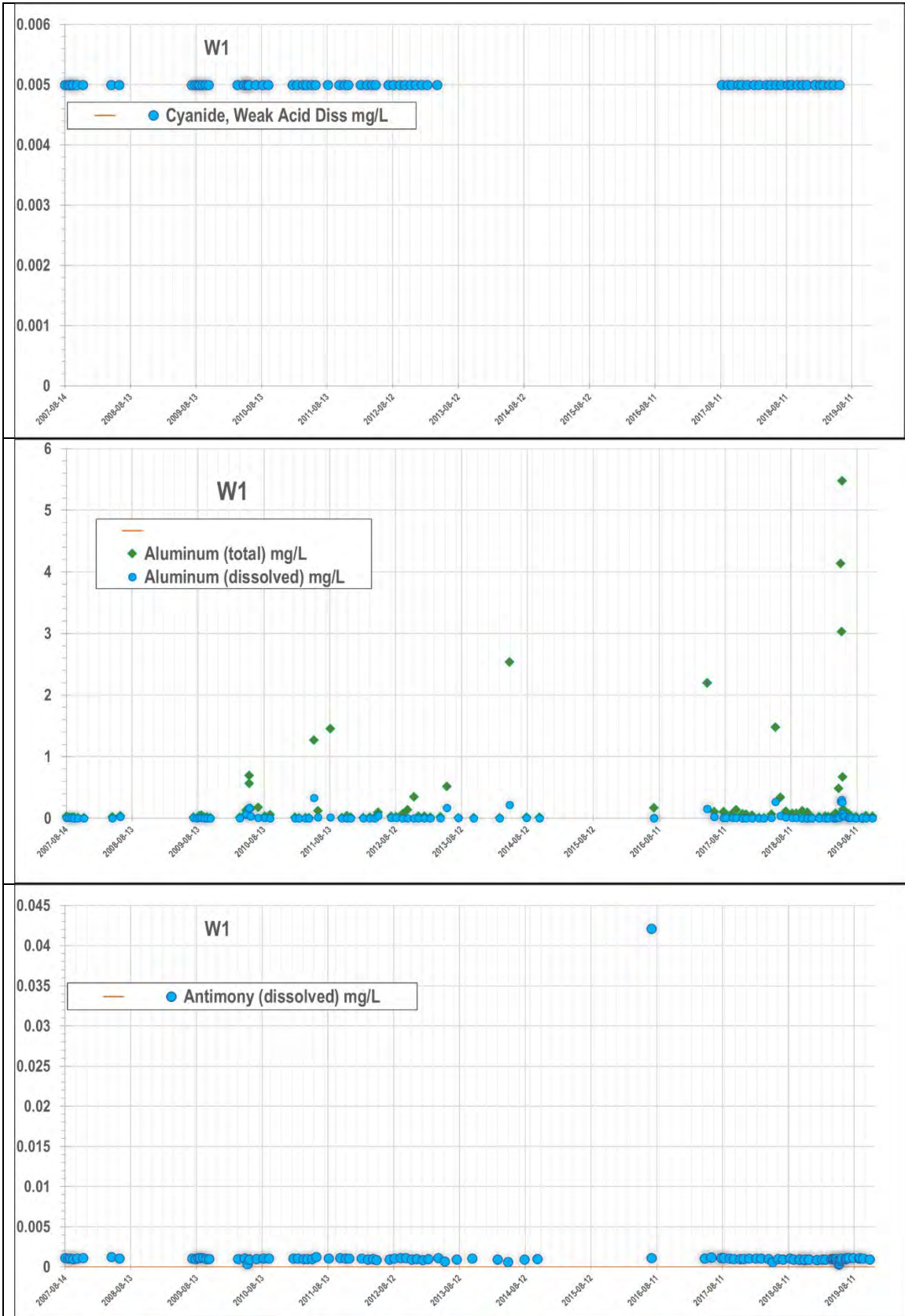




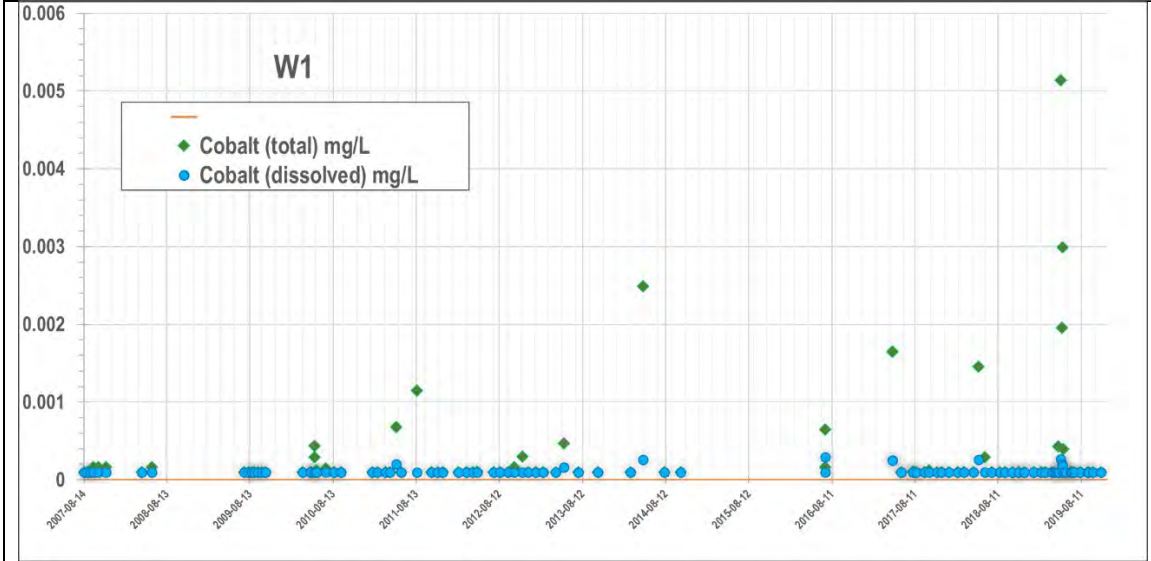
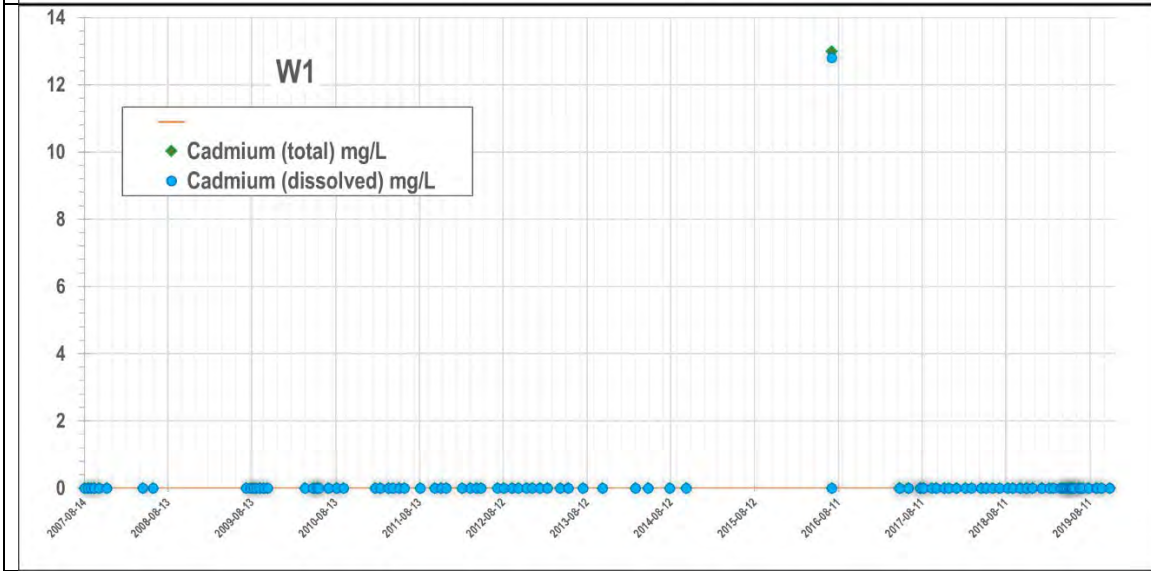
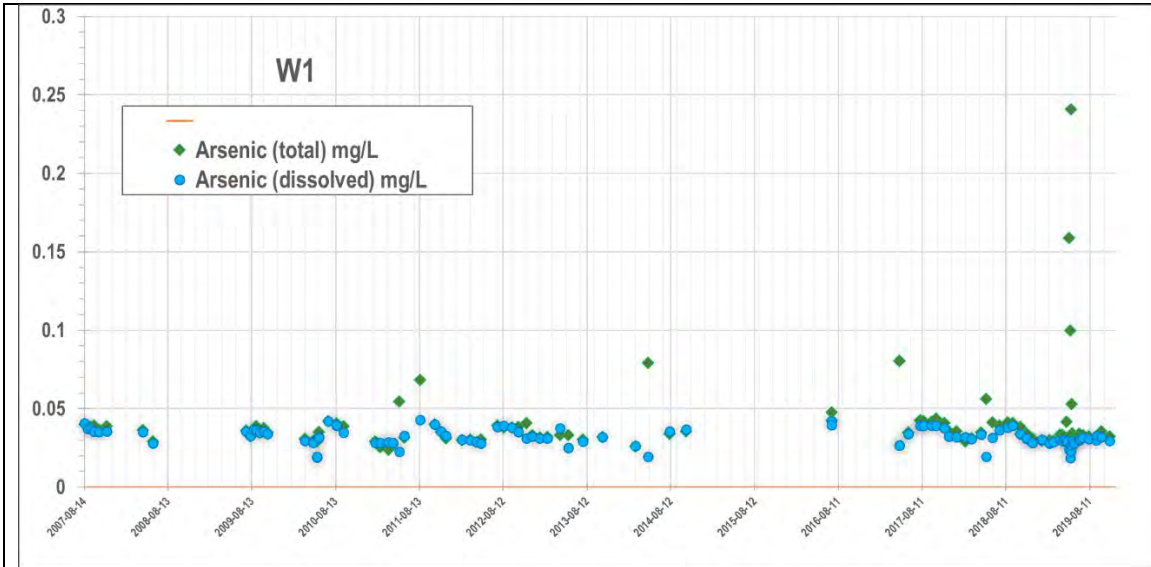
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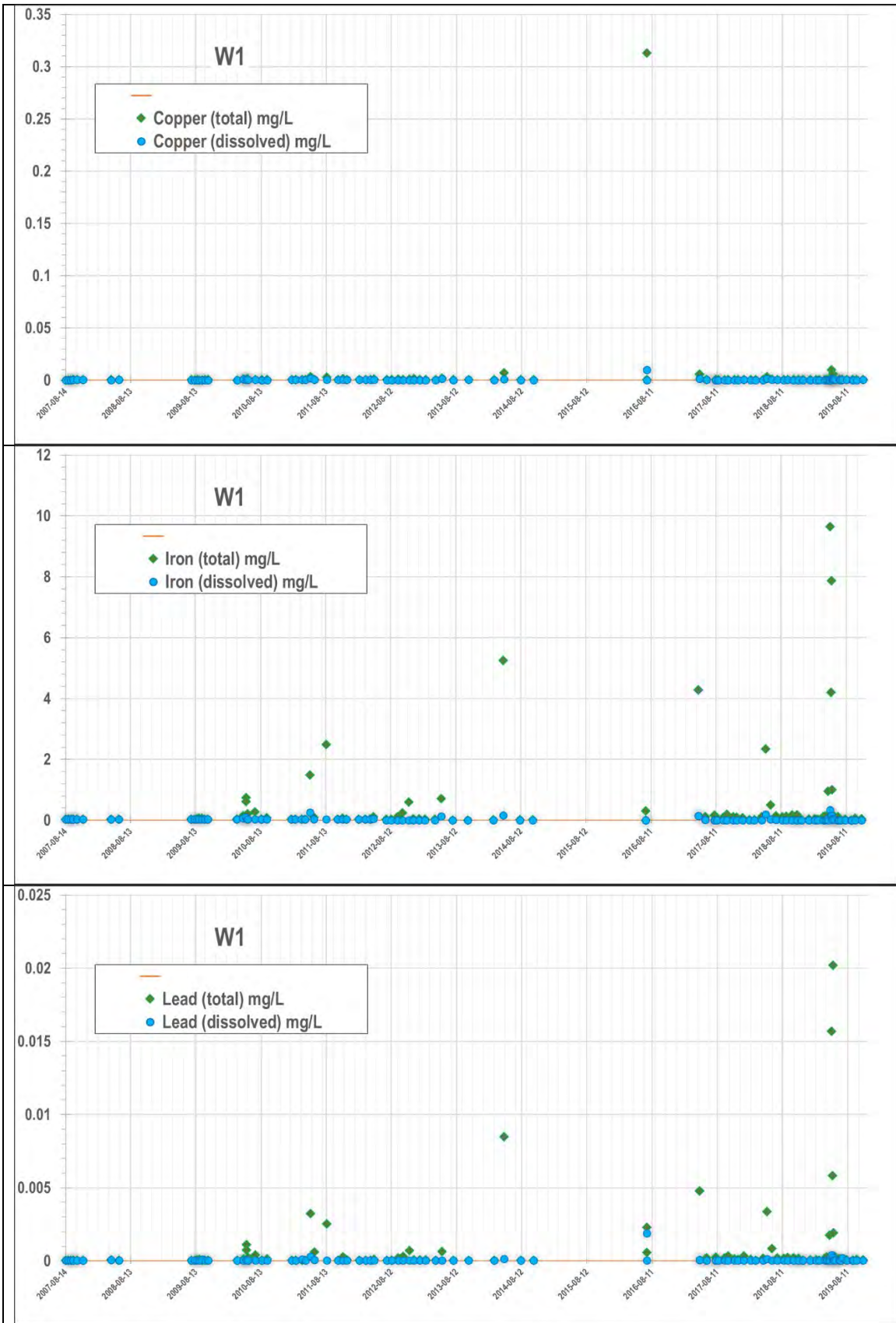
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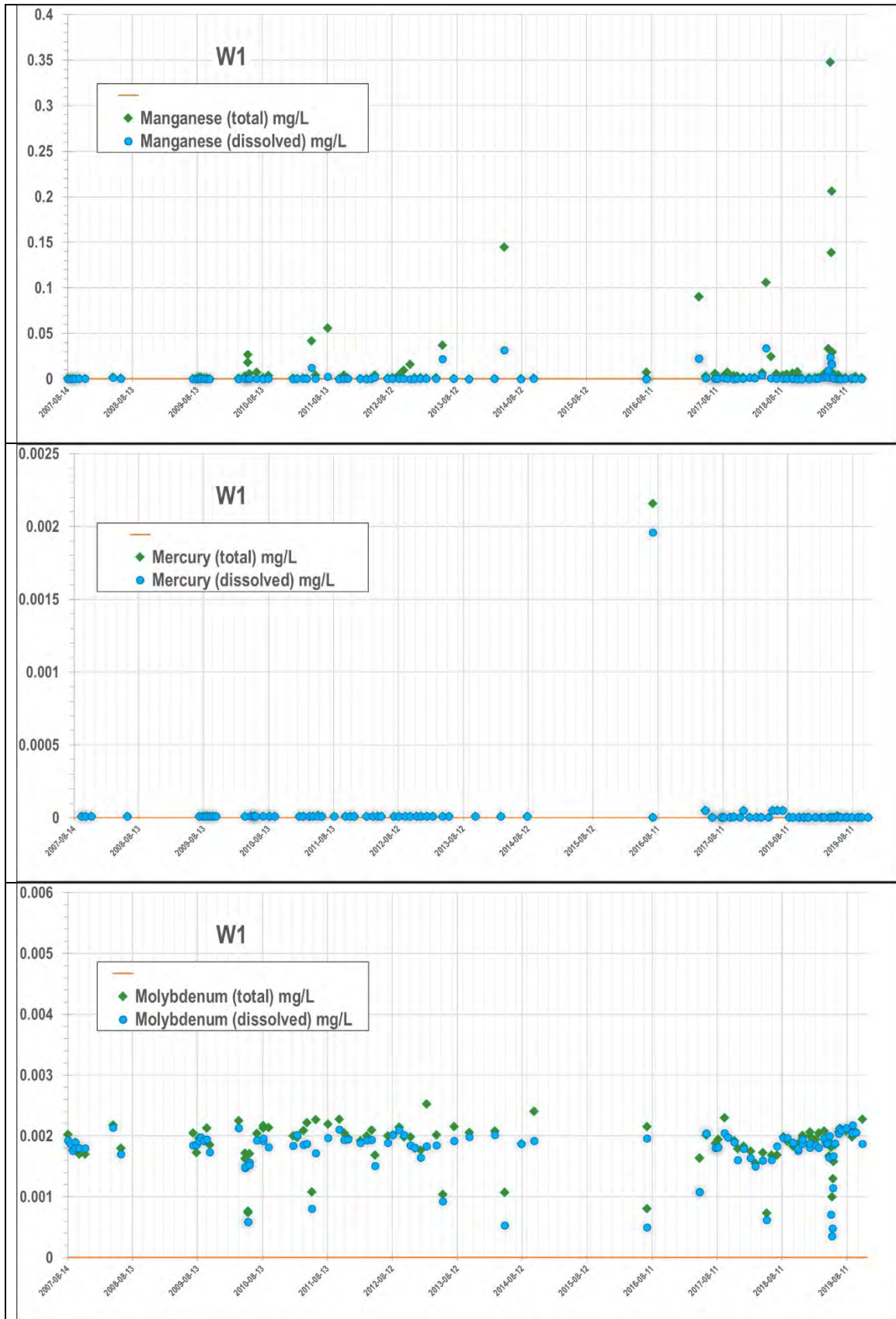
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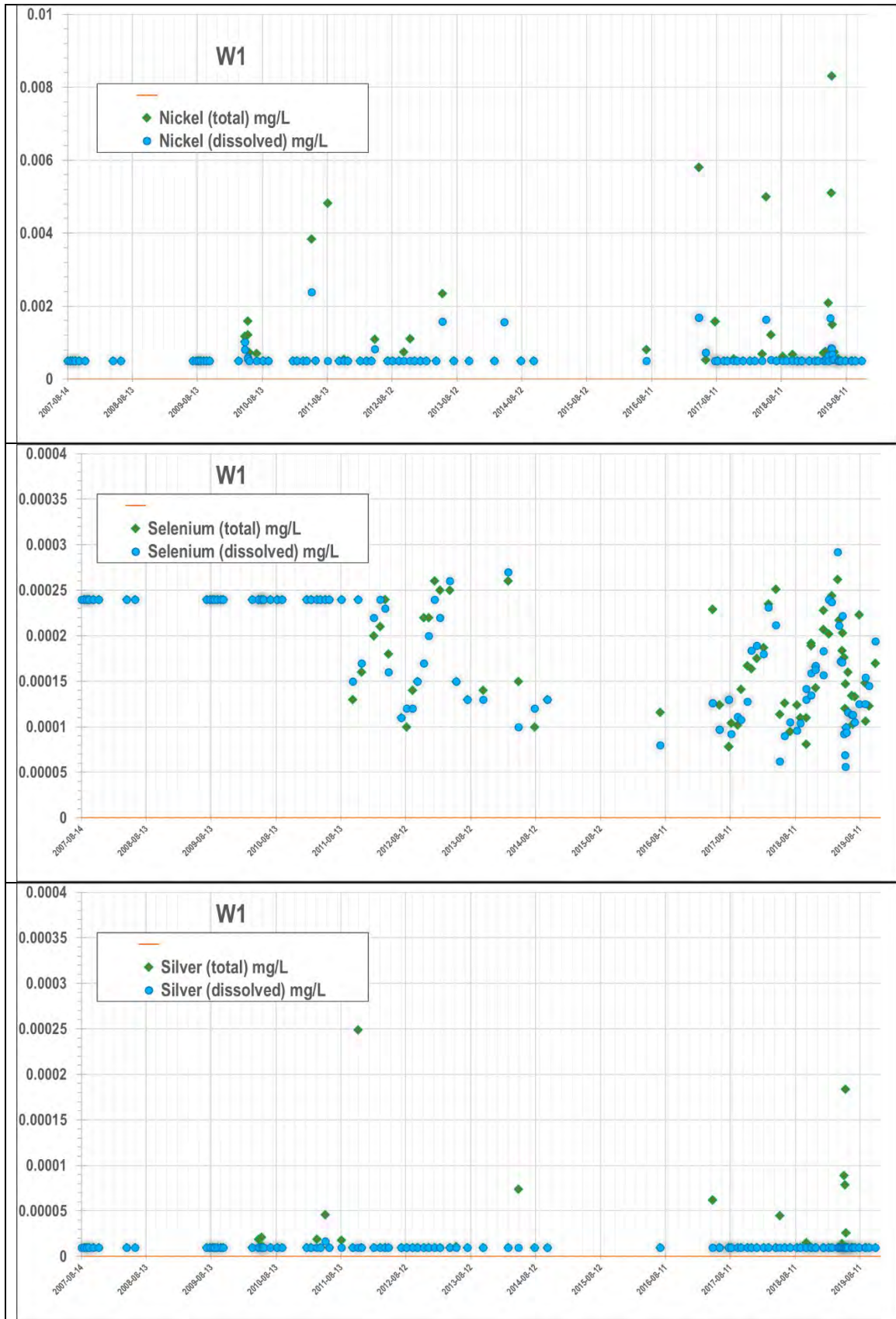
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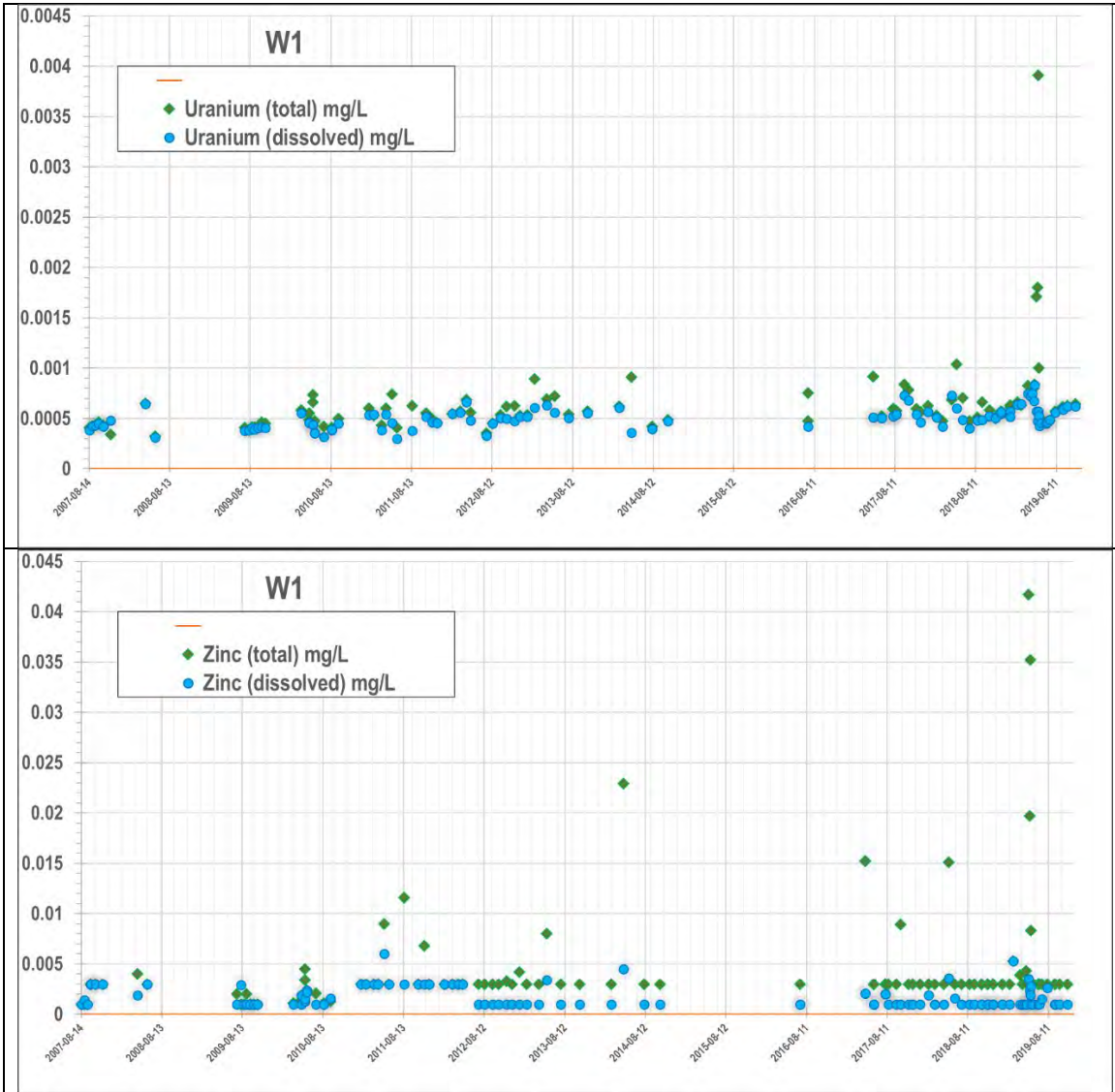
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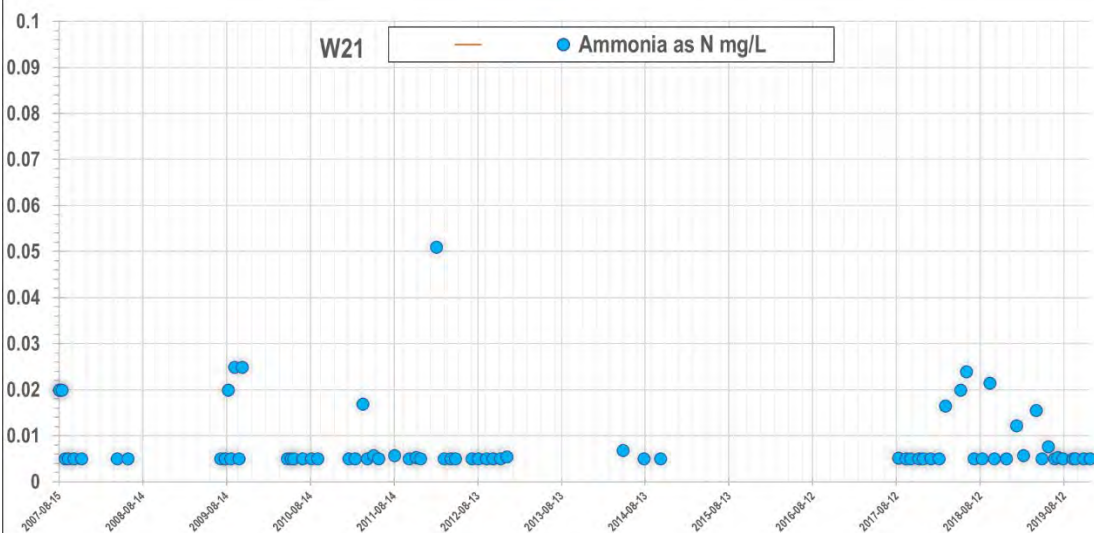
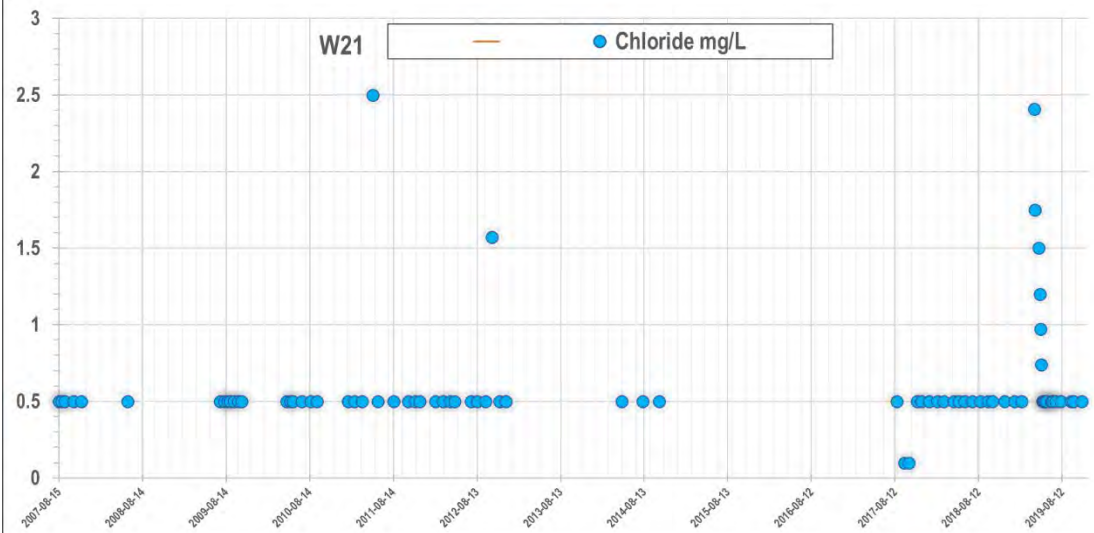
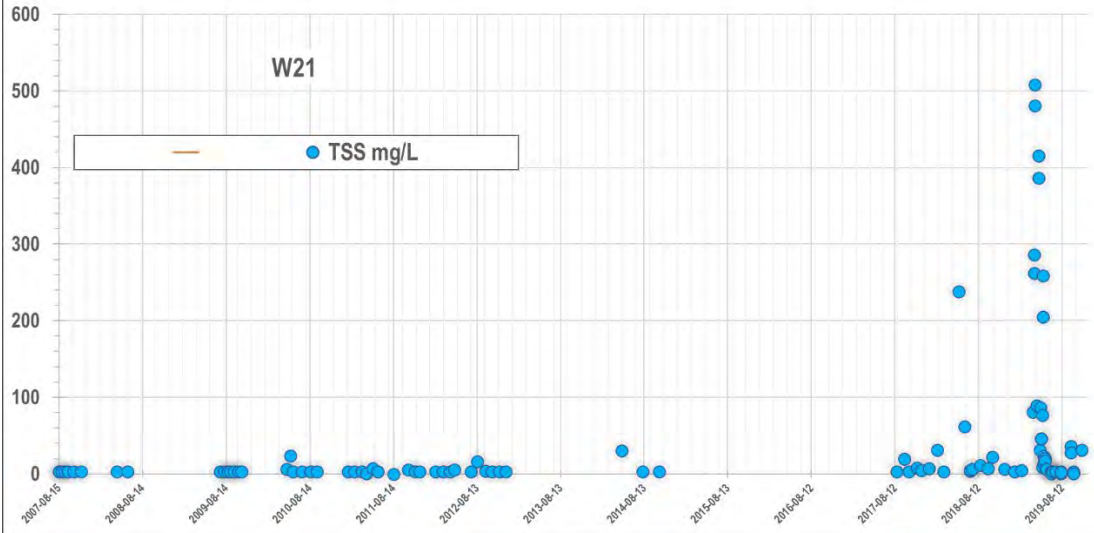
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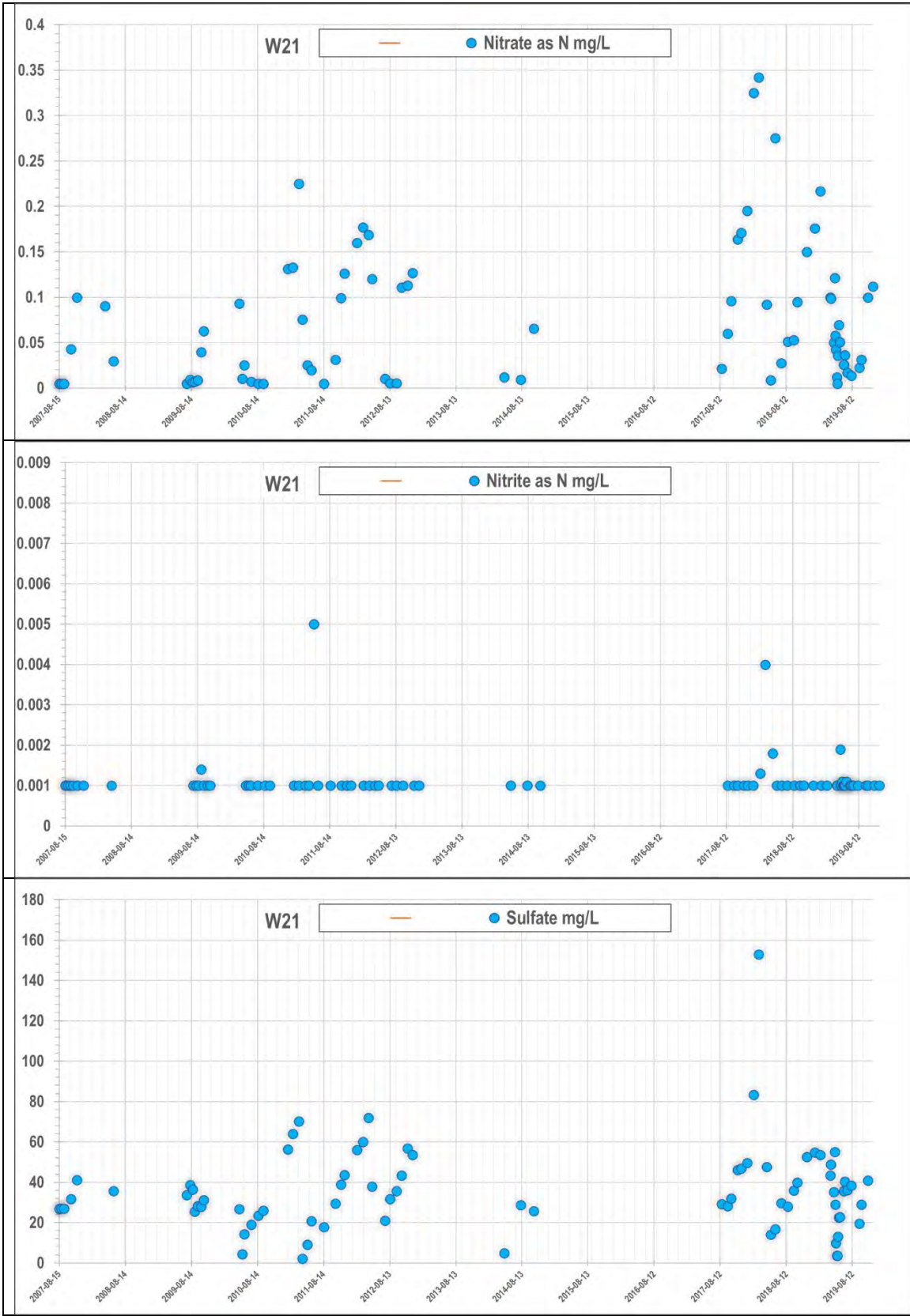
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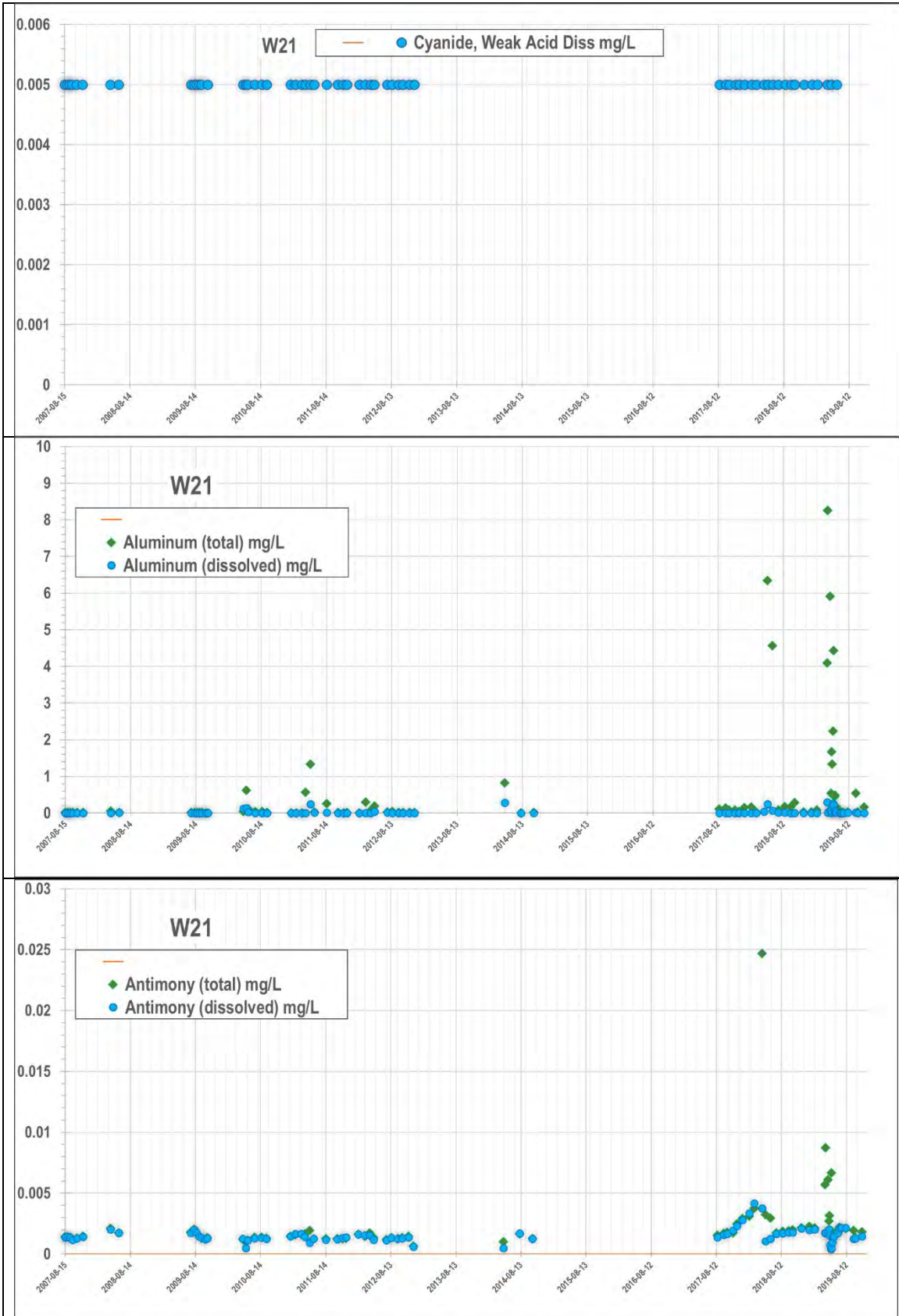
W21



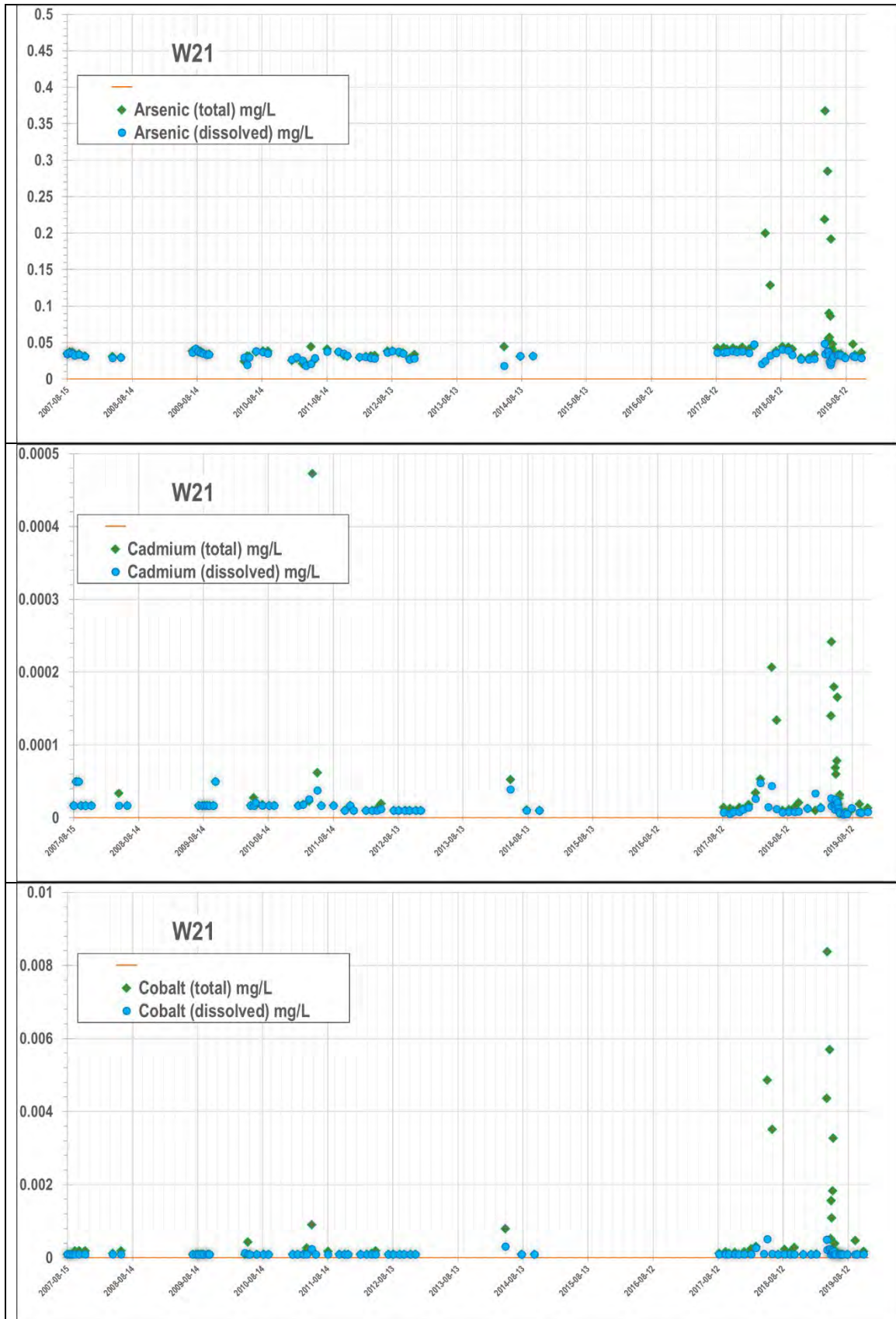
APPENDIX A
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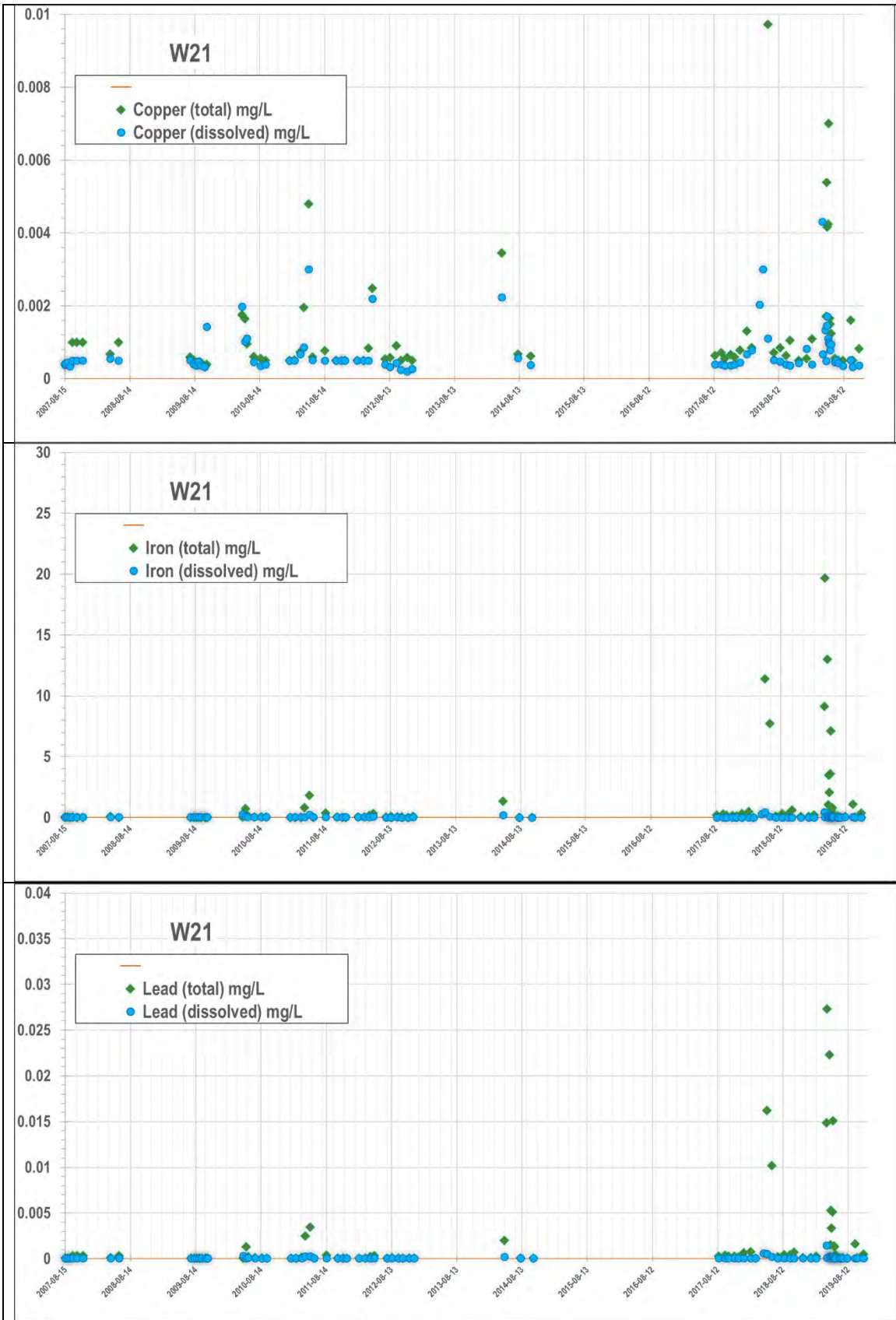
APPENDIX A
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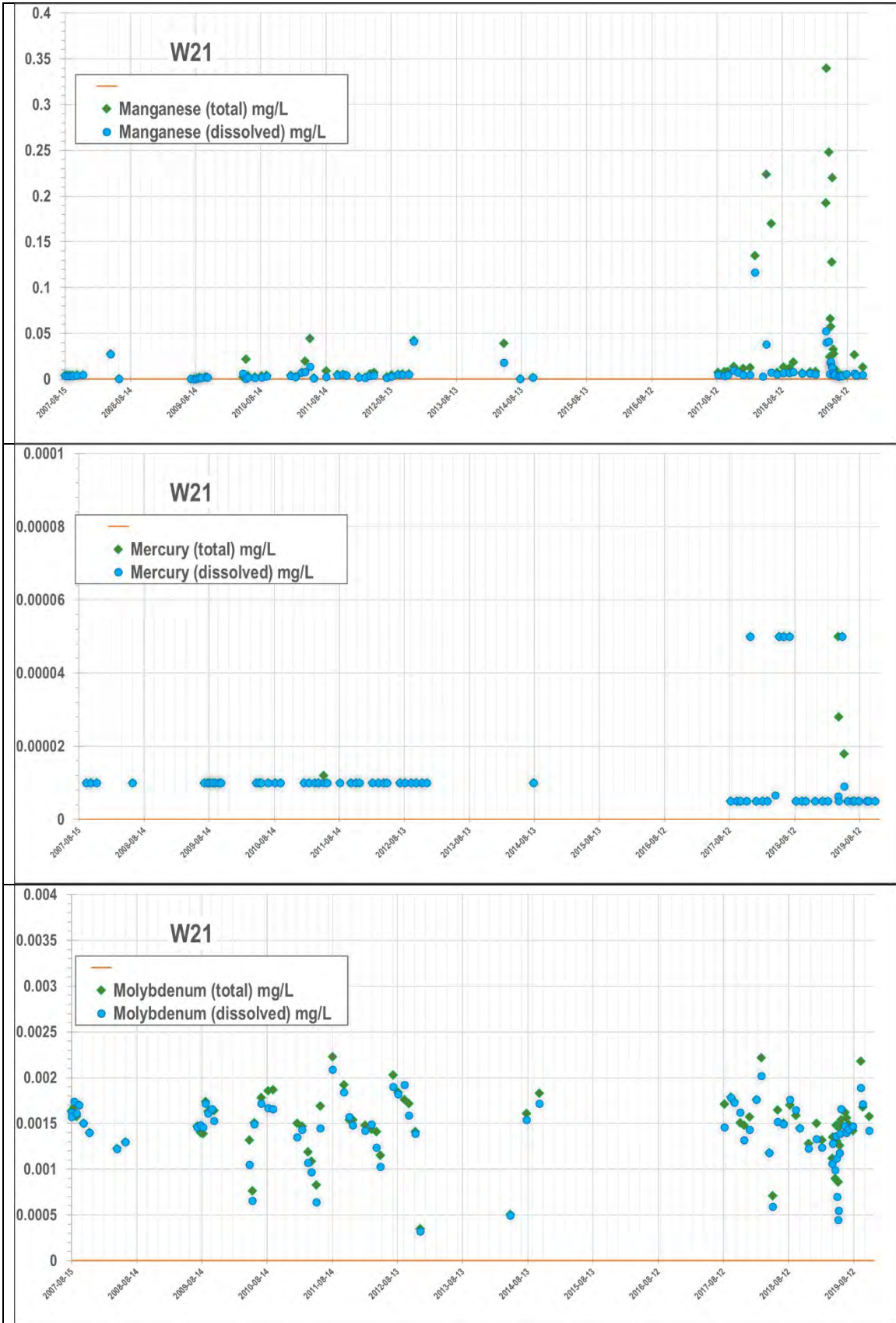
APPENDIX A
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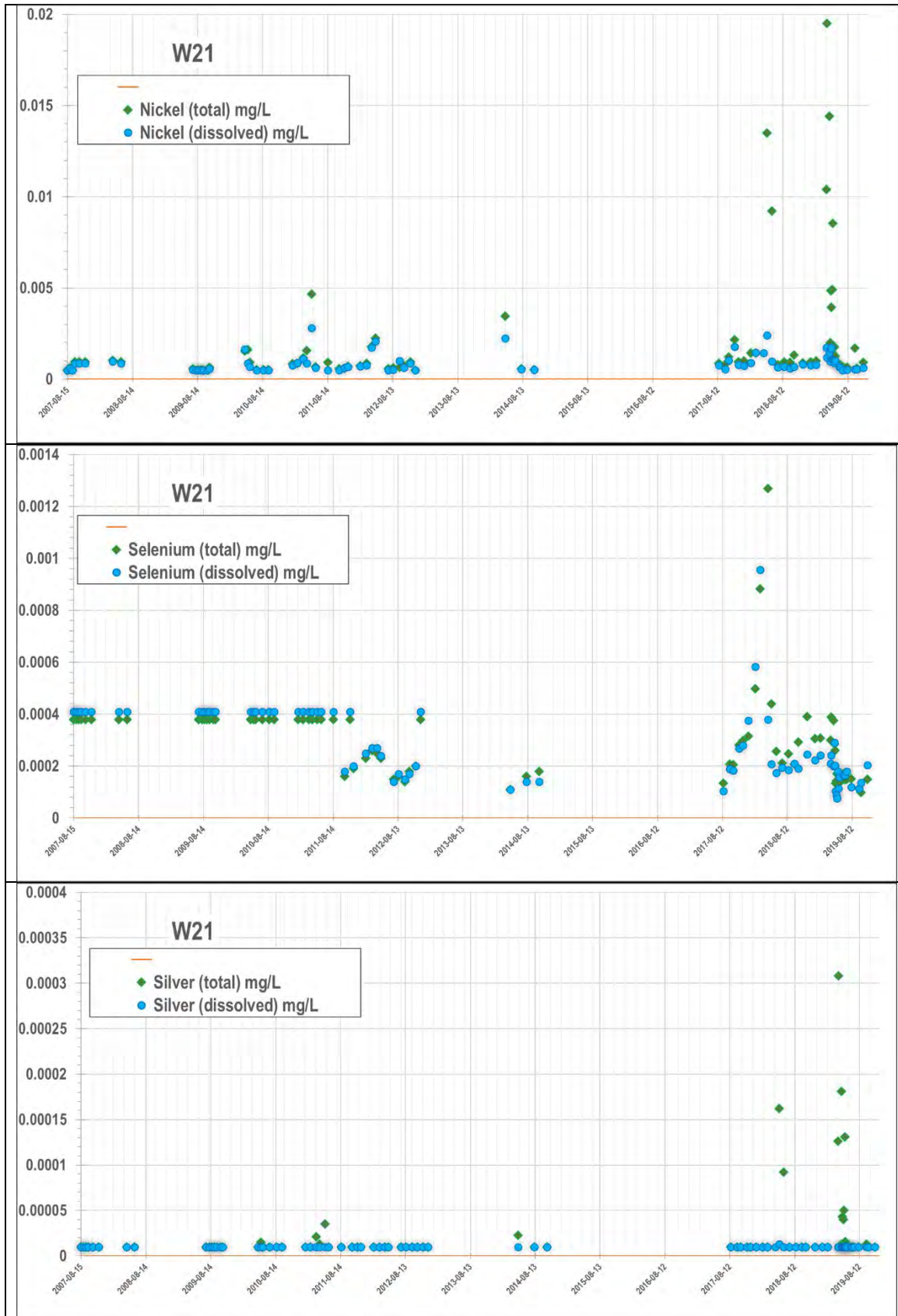
APPENDIX A
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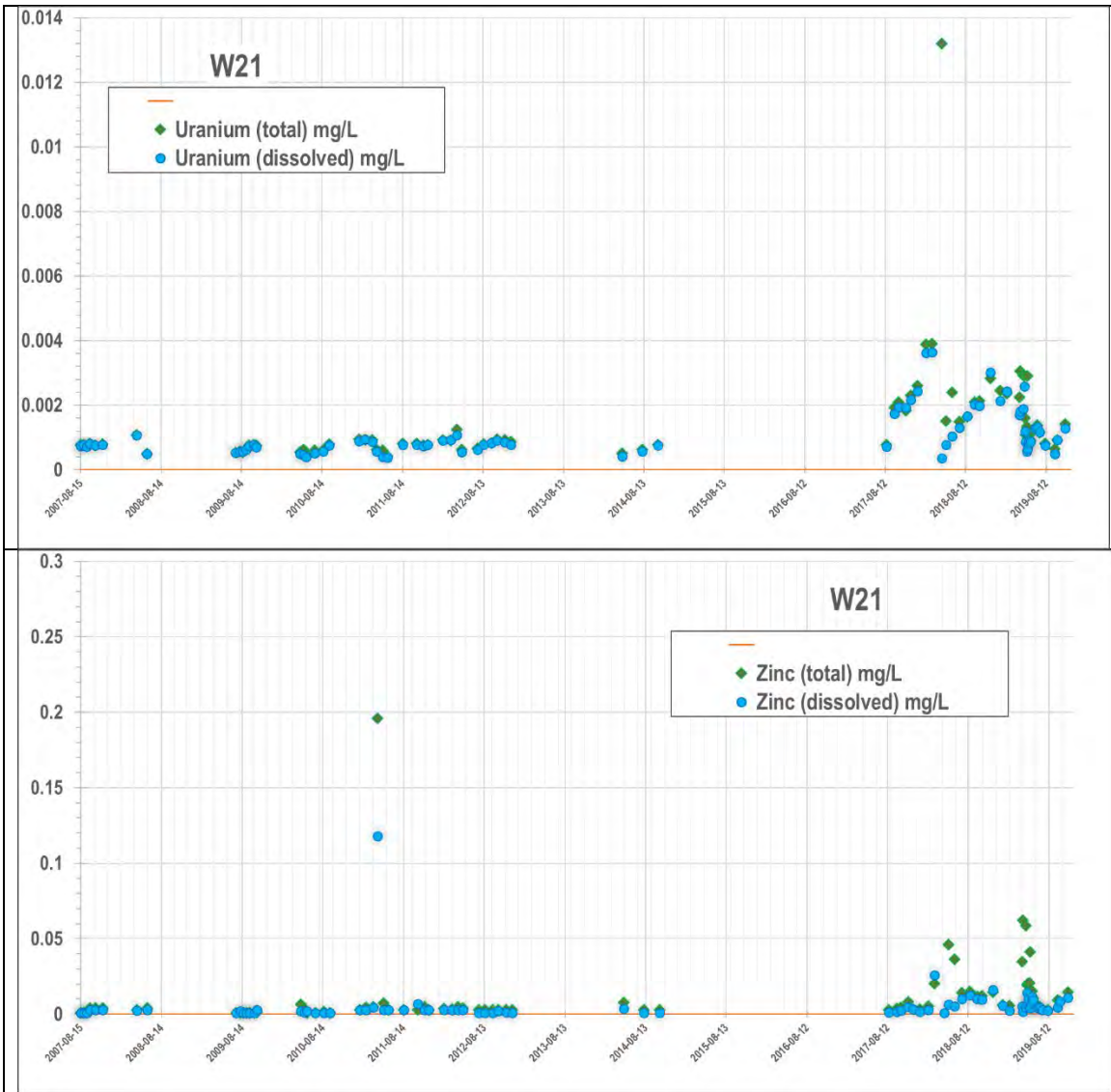
APPENDIX A
EAGLE GOLD – 2019 SURFACE WATER QUALITY SUMMARY



APPENDIX A
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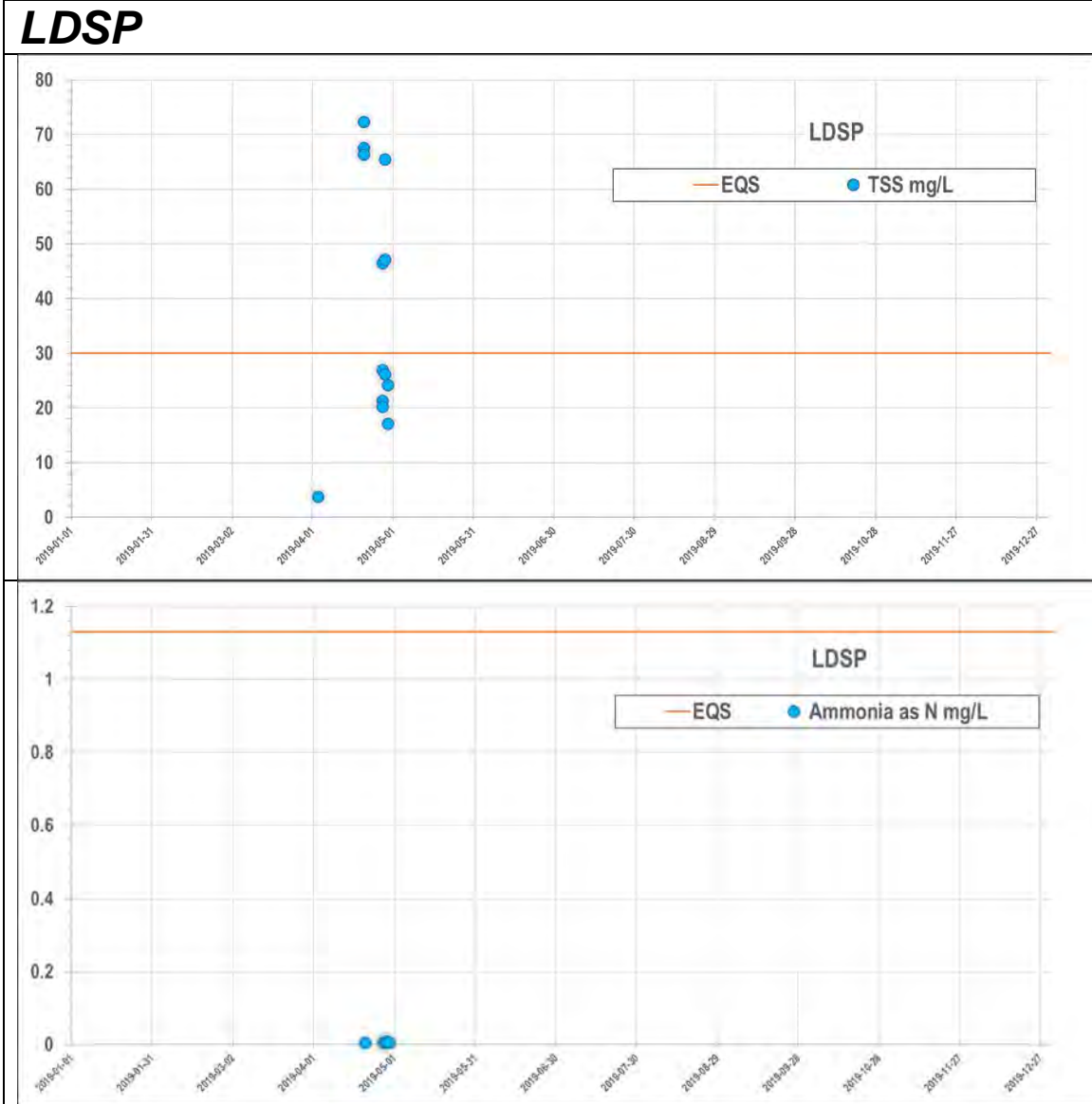


APPENDIX A
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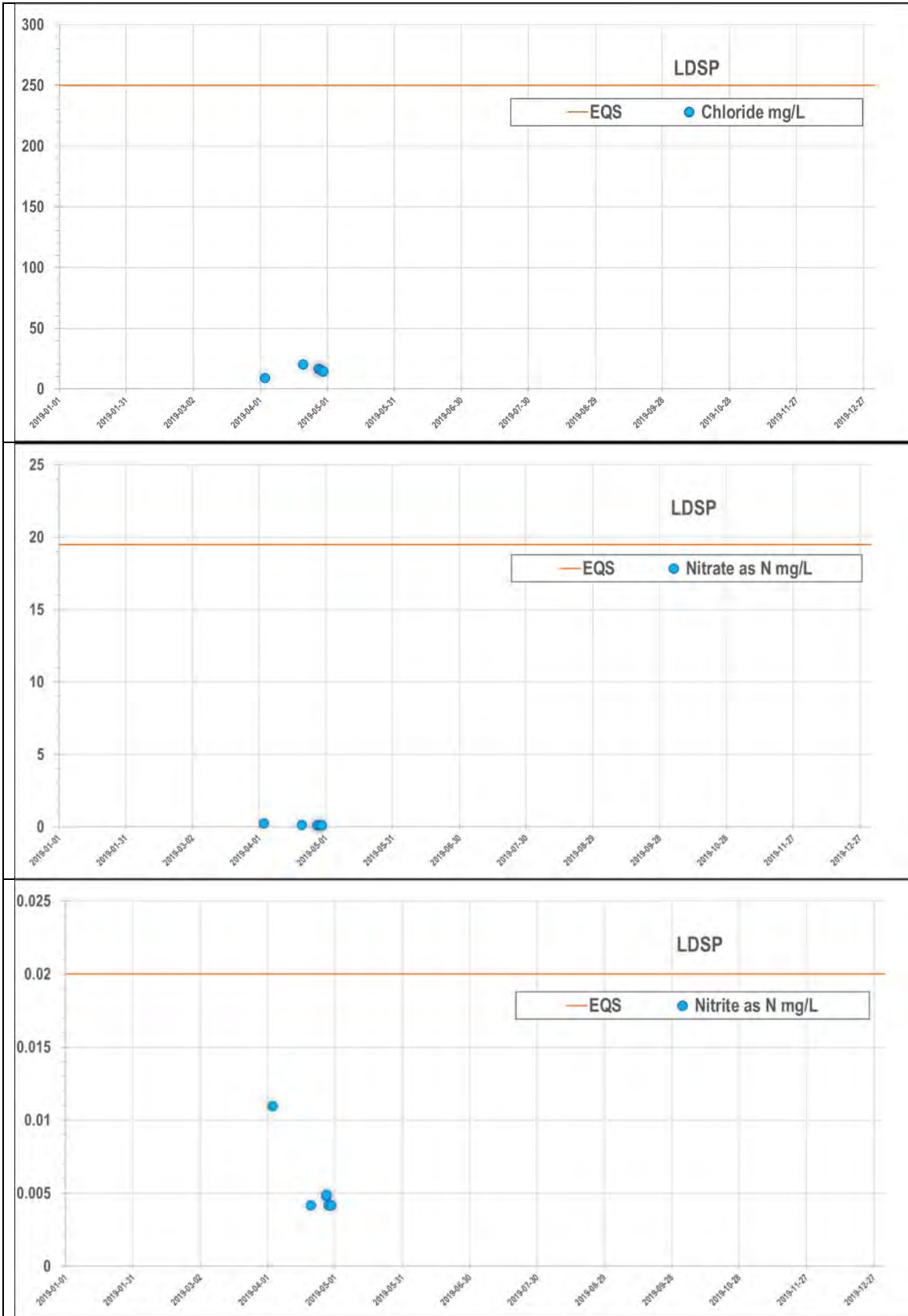


APPENDIX B

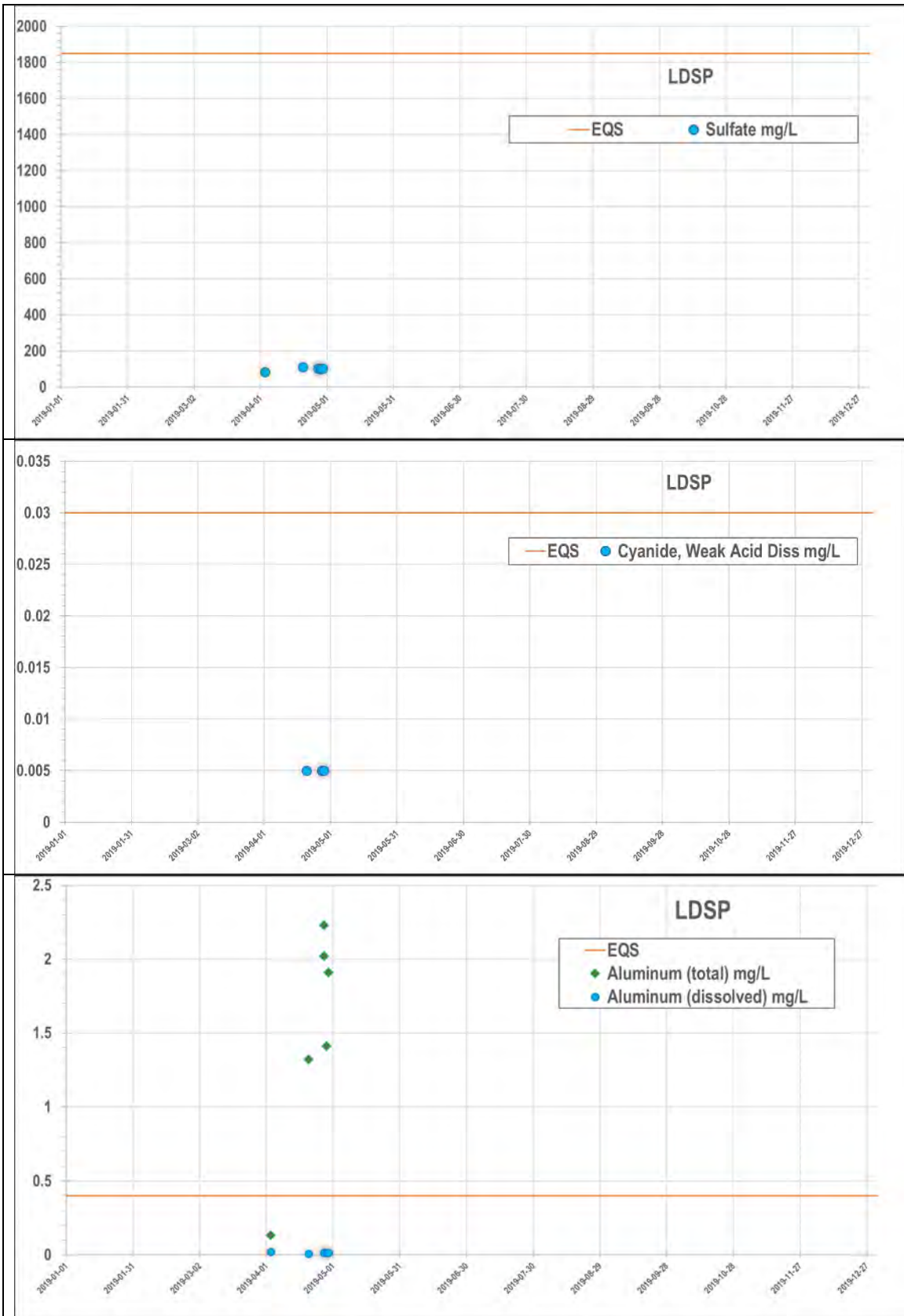
MINE SITE MONITORING RESULTS



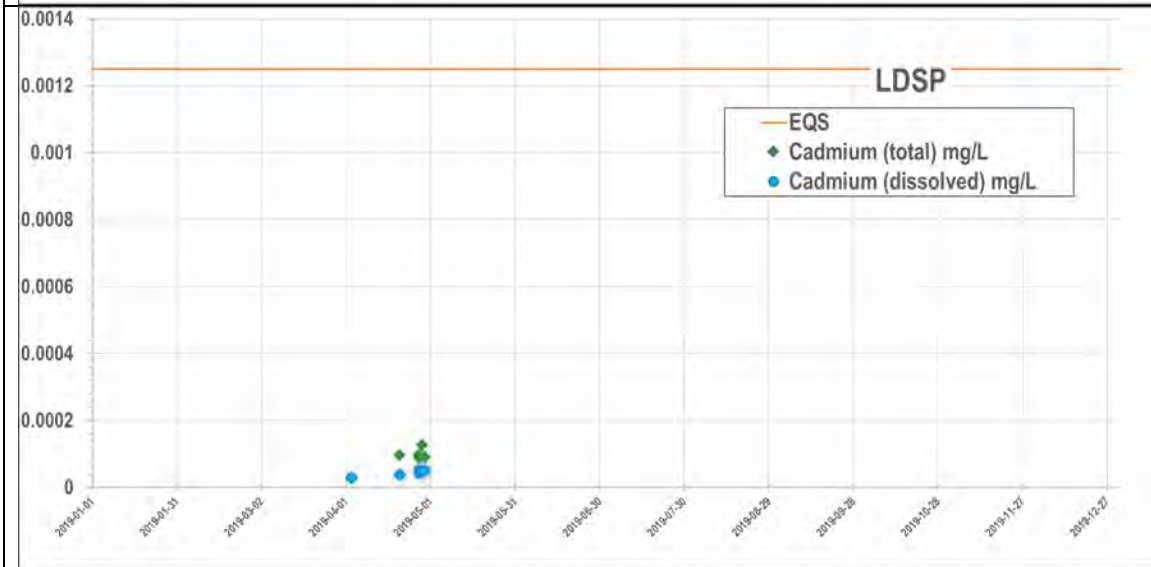
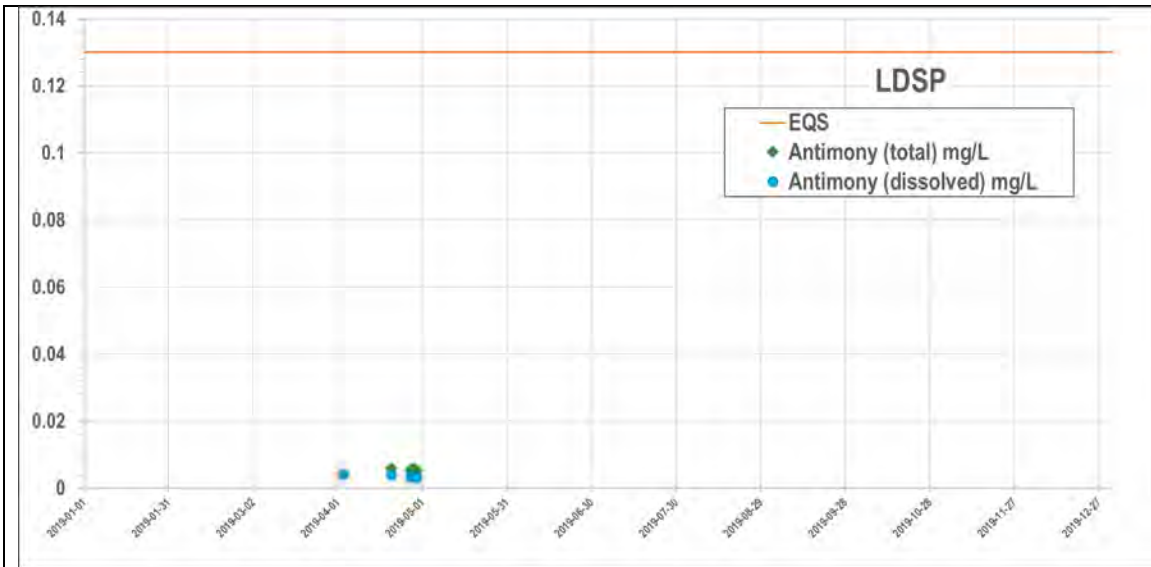
APPENDIX B
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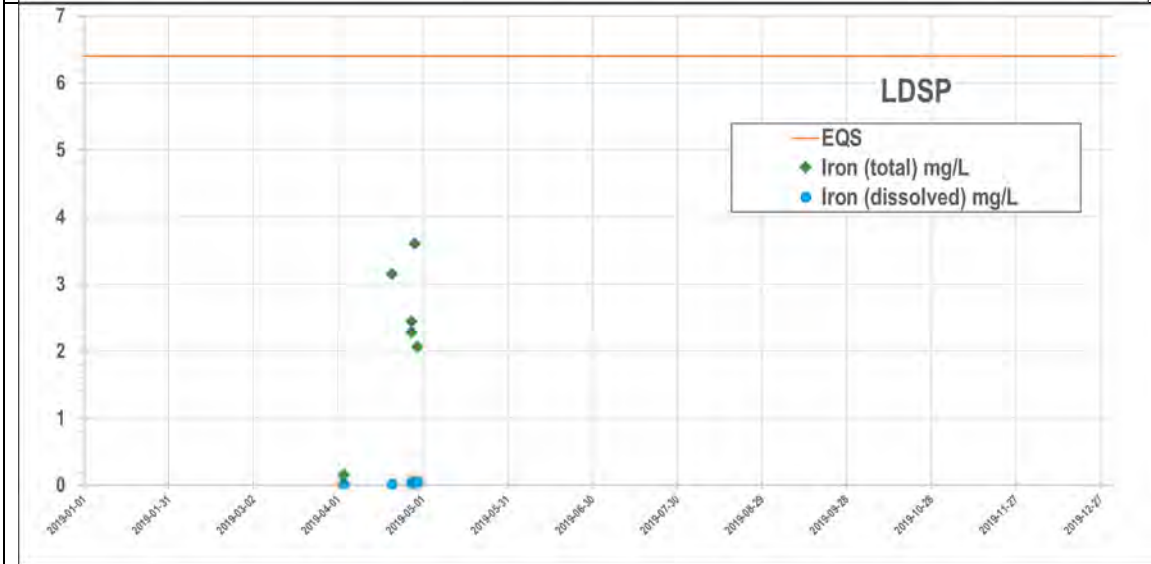
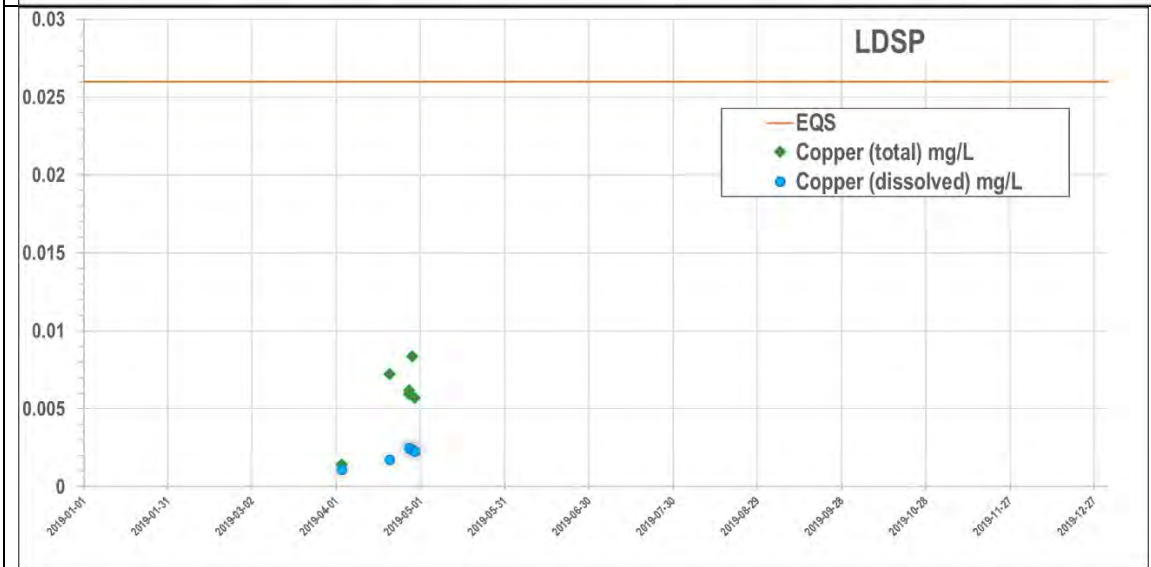
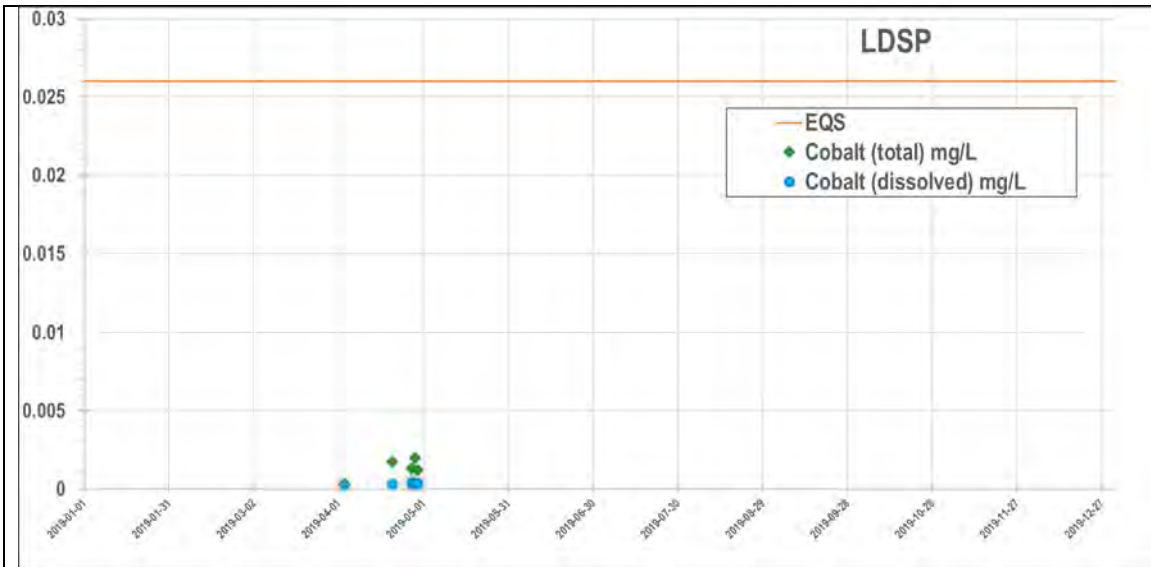
APPENDIX B
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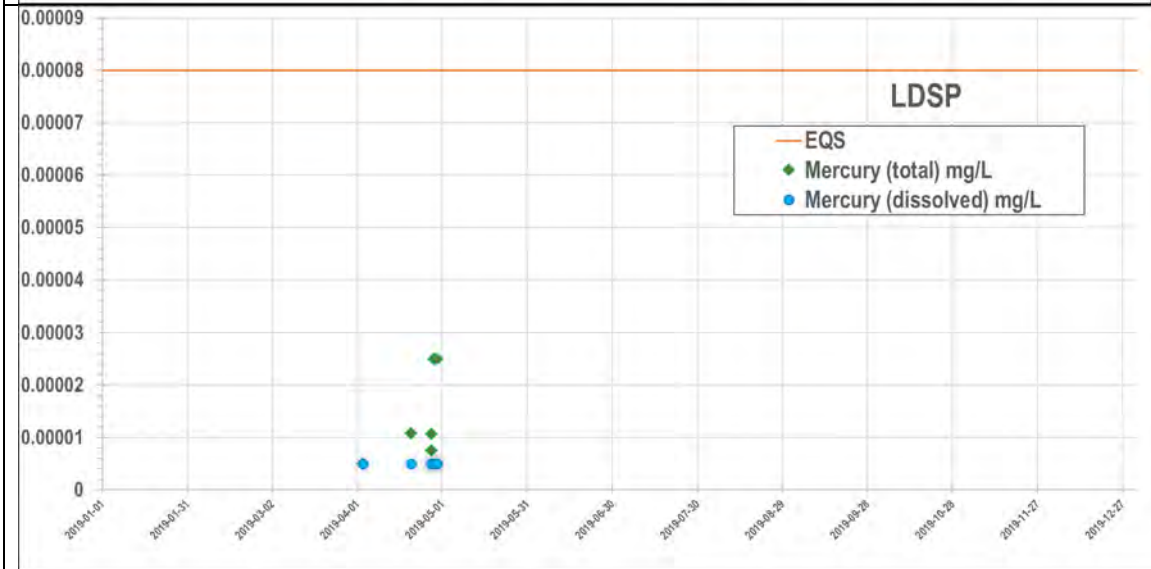
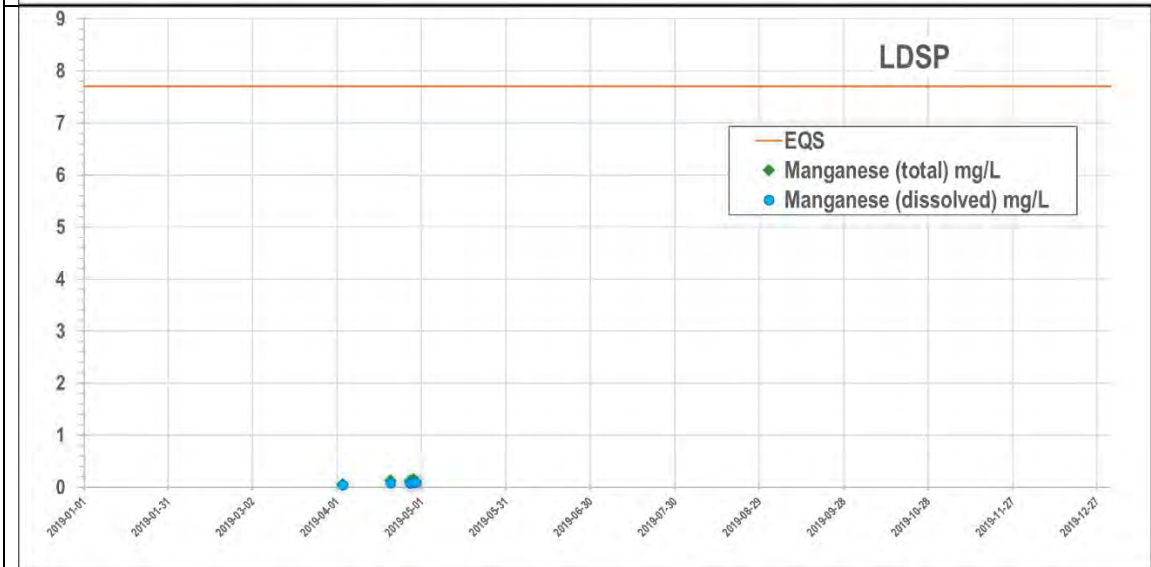
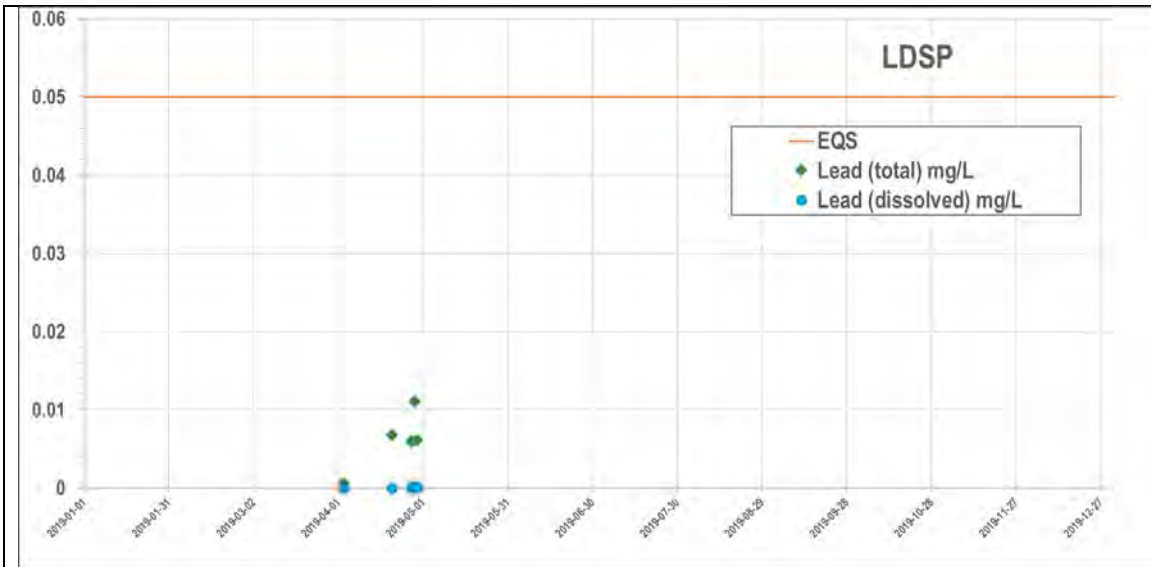
APPENDIX B
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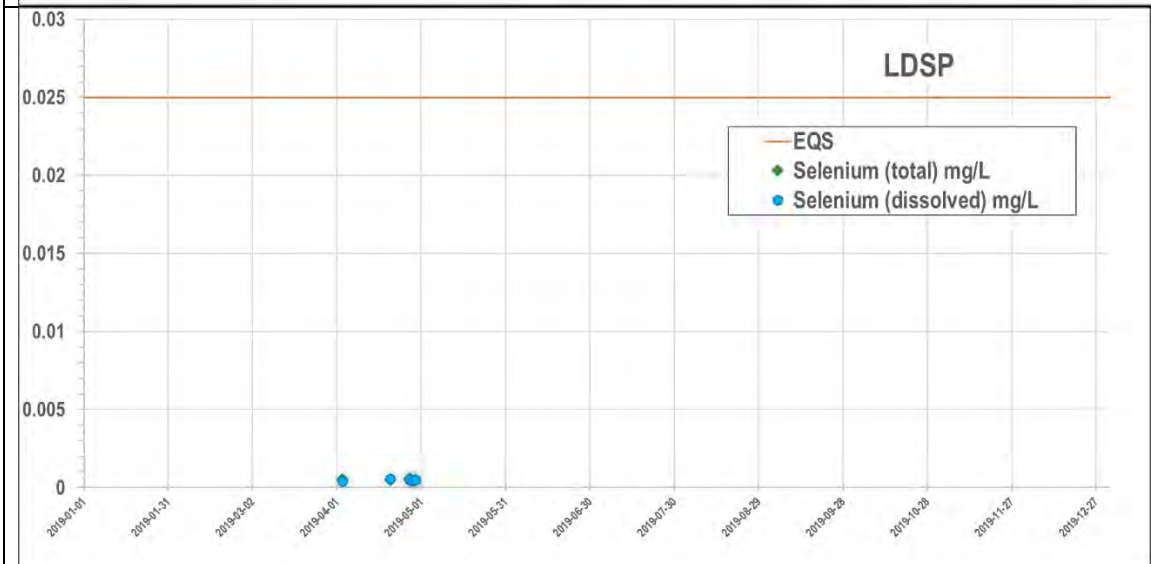
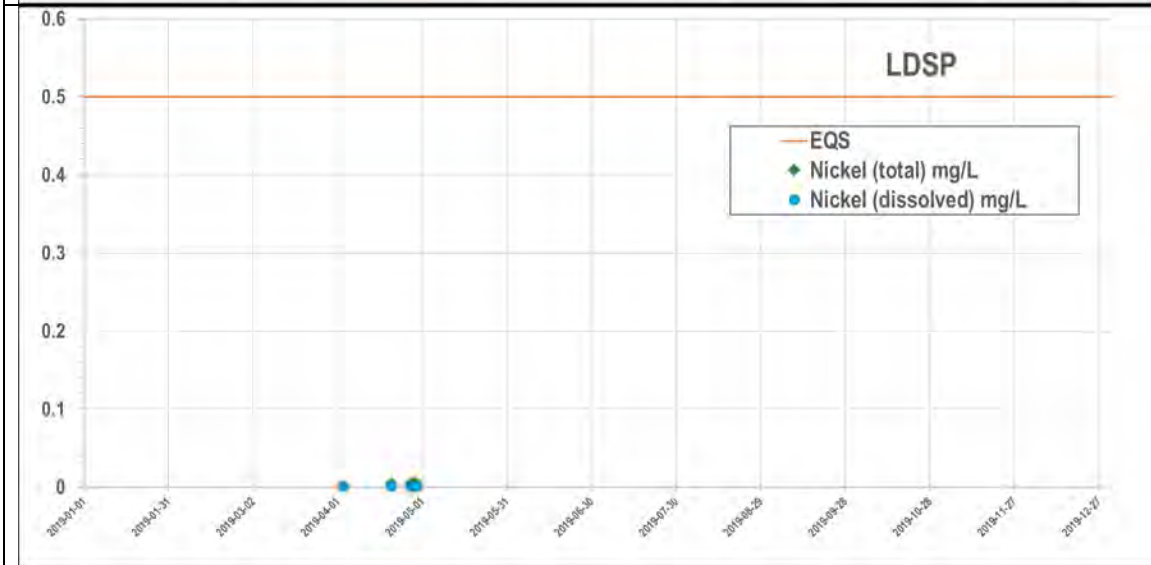
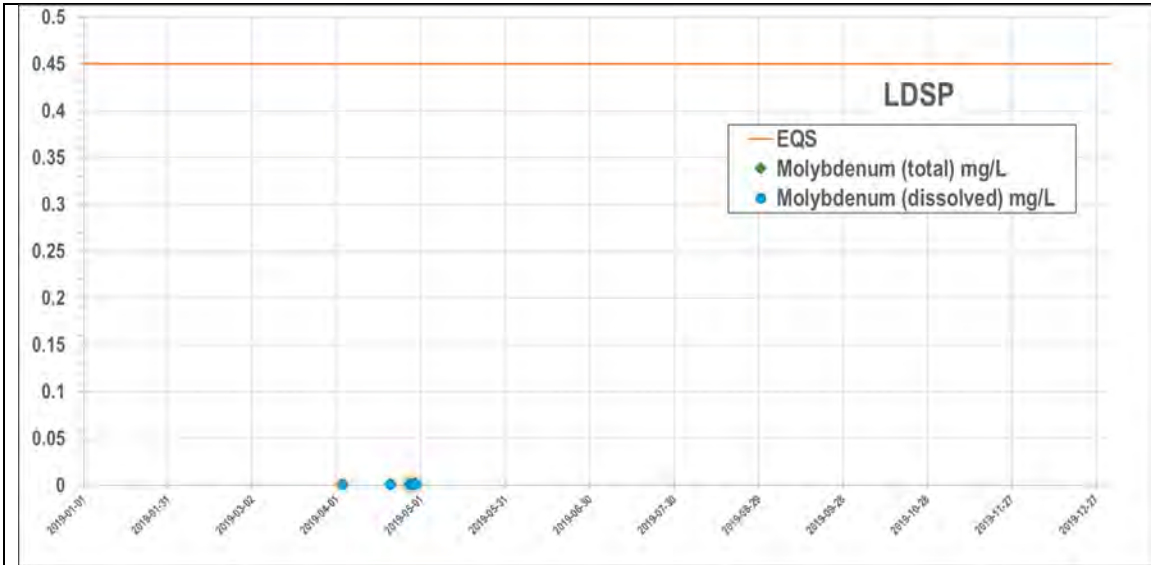
APPENDIX B
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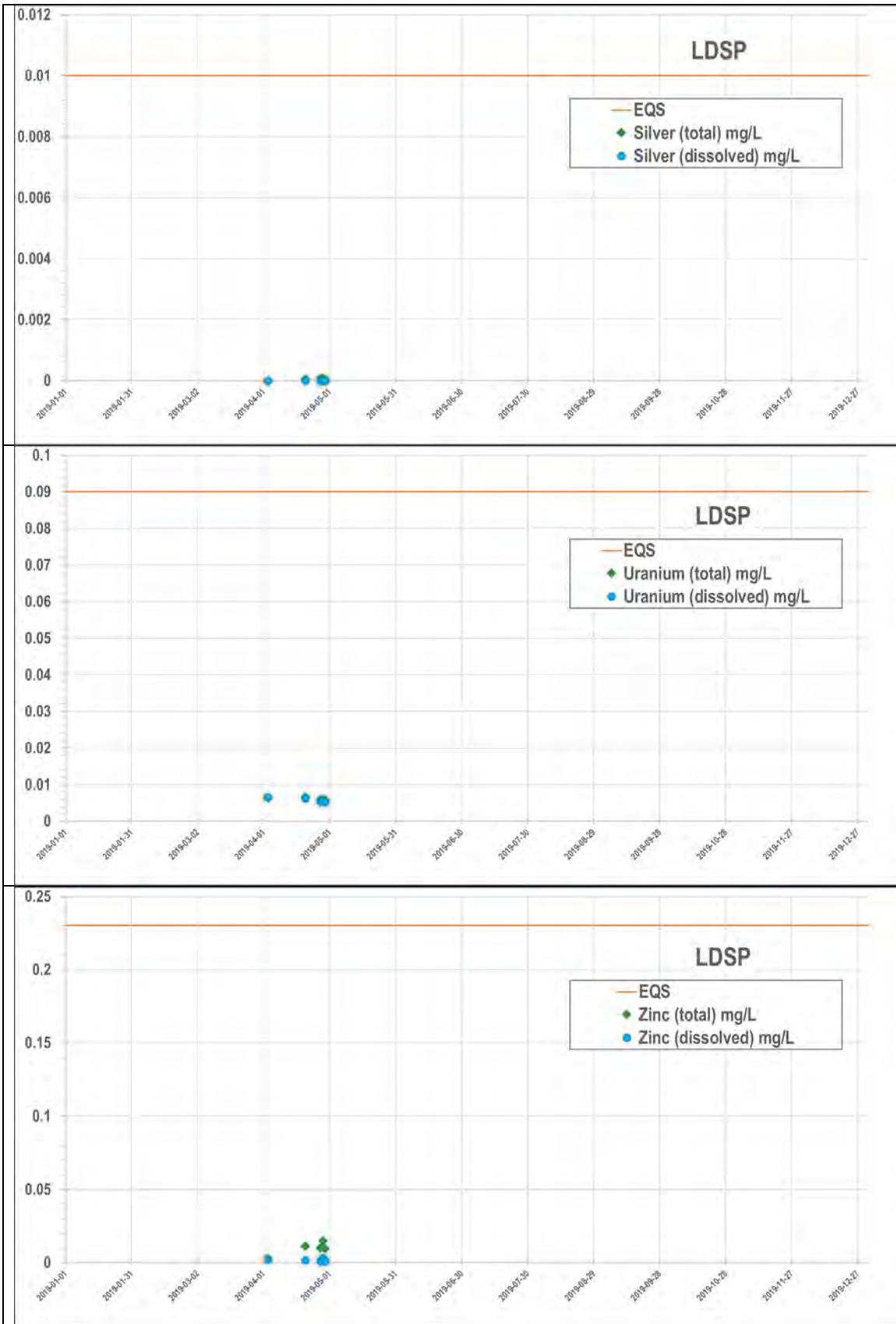
APPENDIX B
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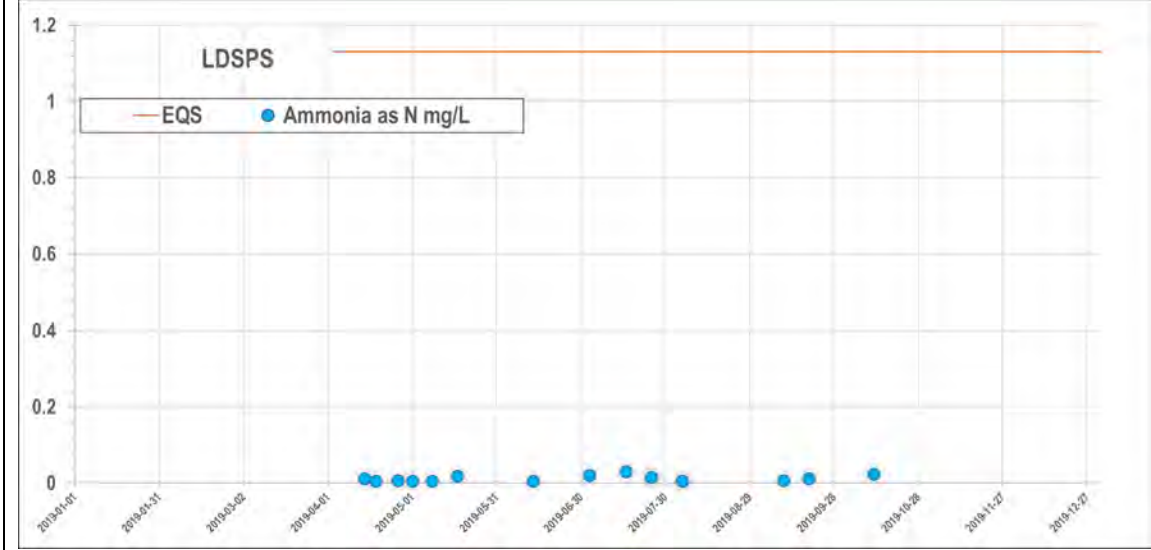
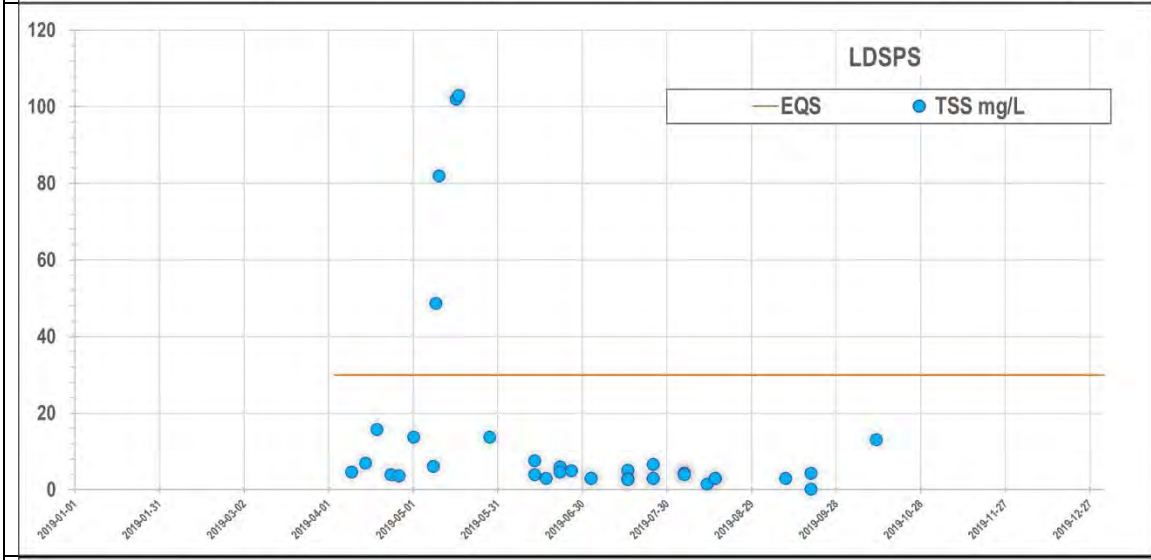
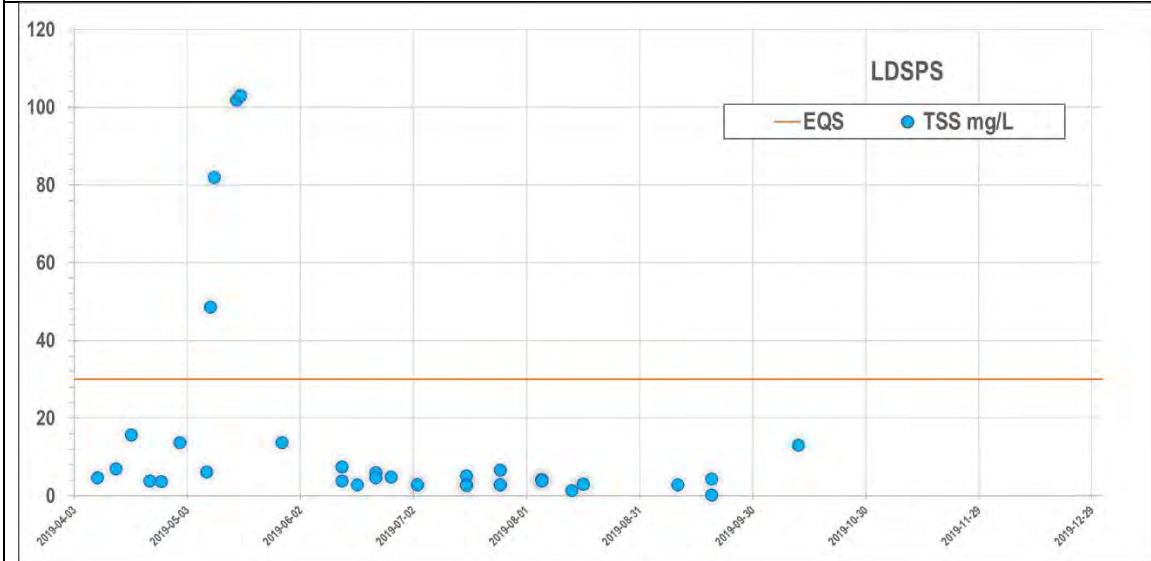
APPENDIX B
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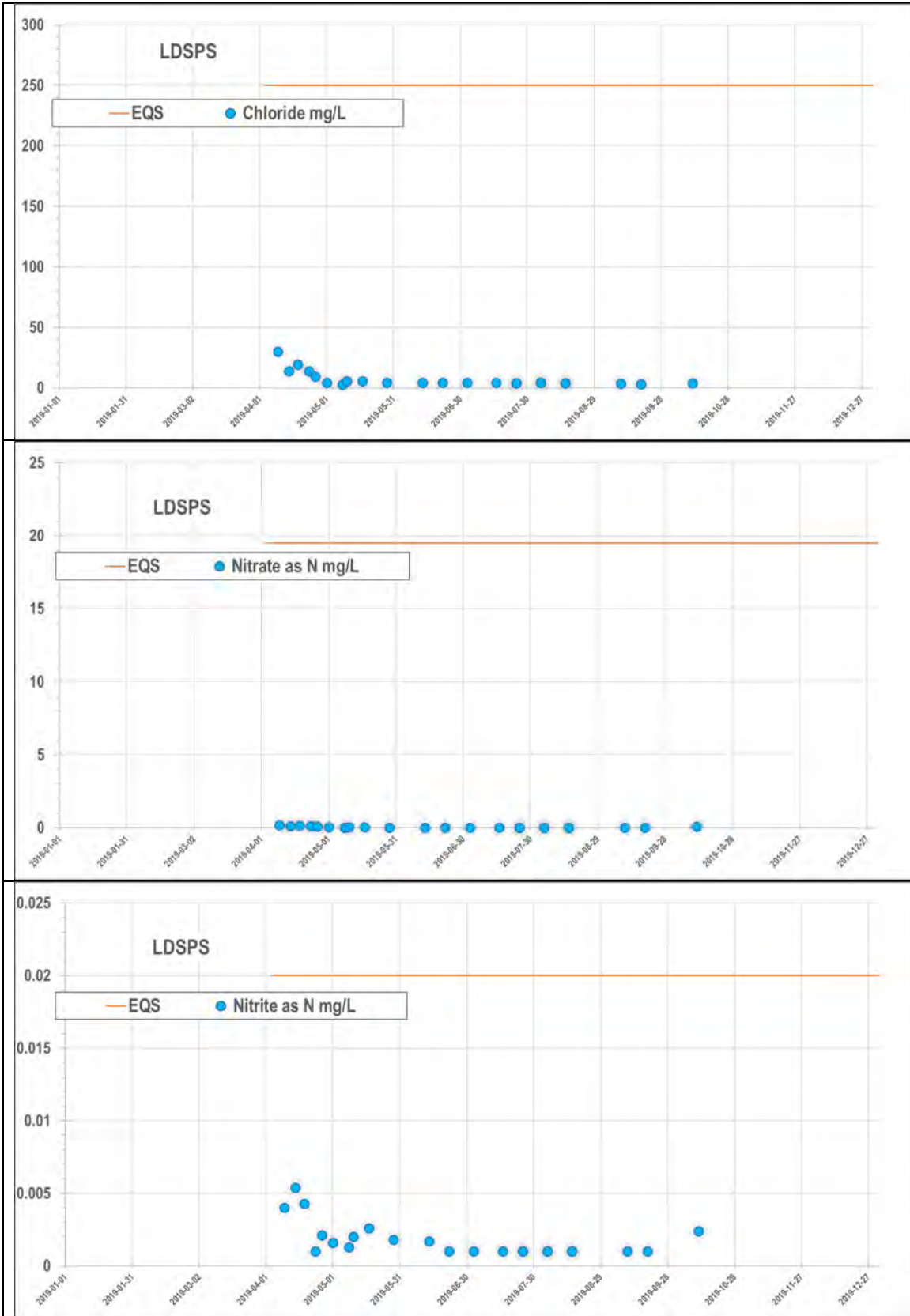
APPENDIX B
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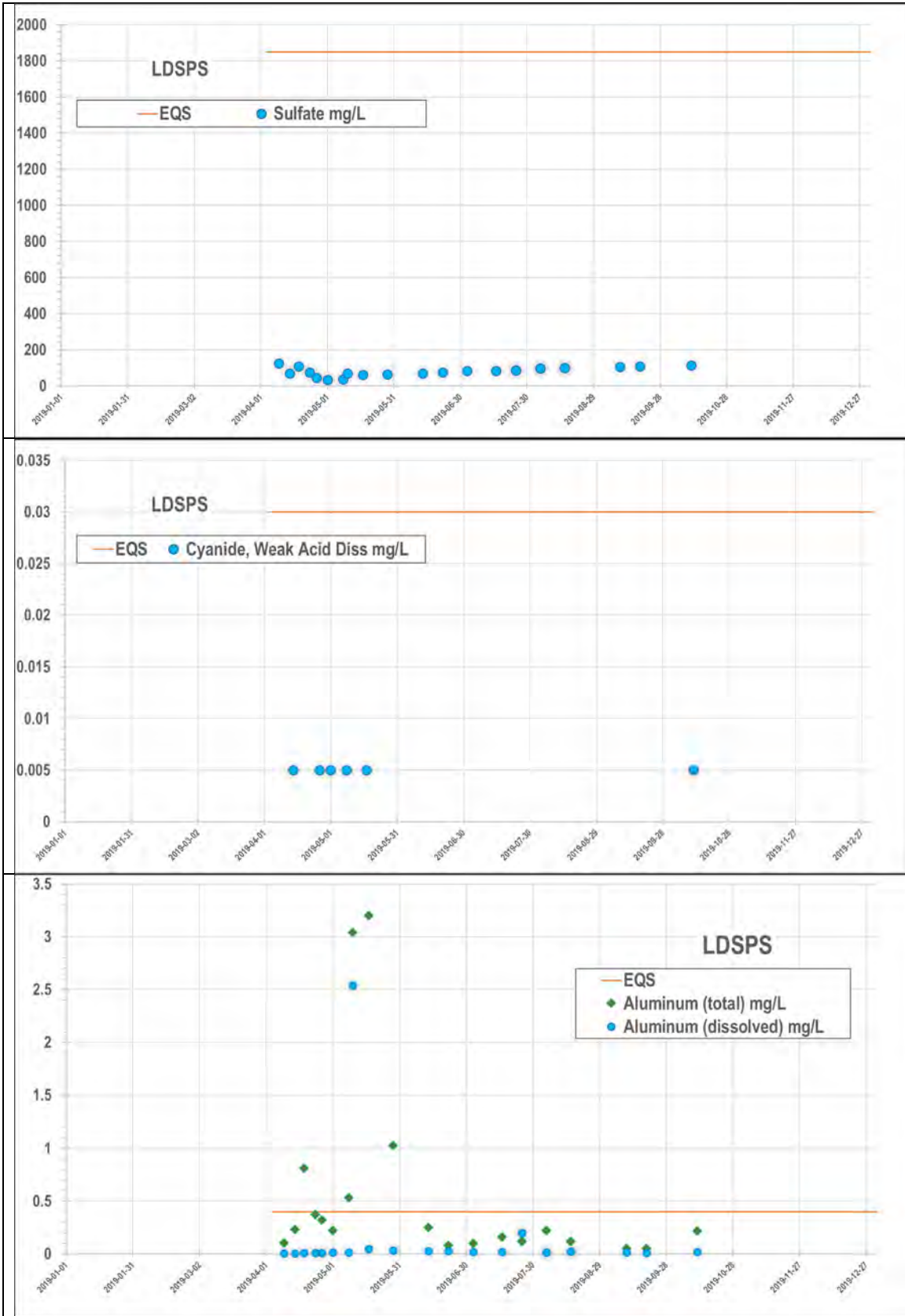
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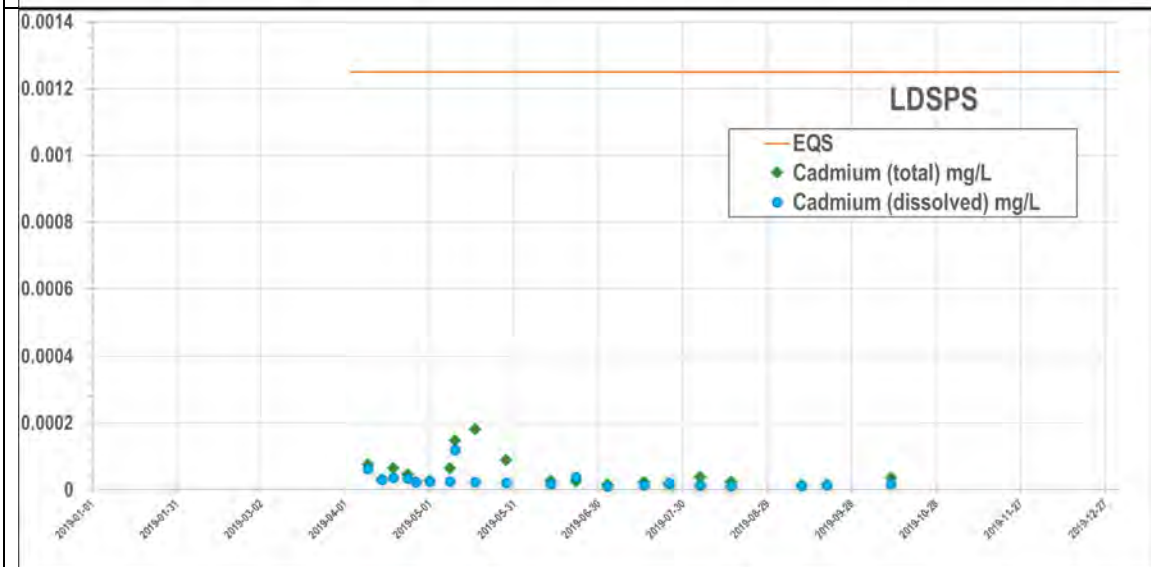
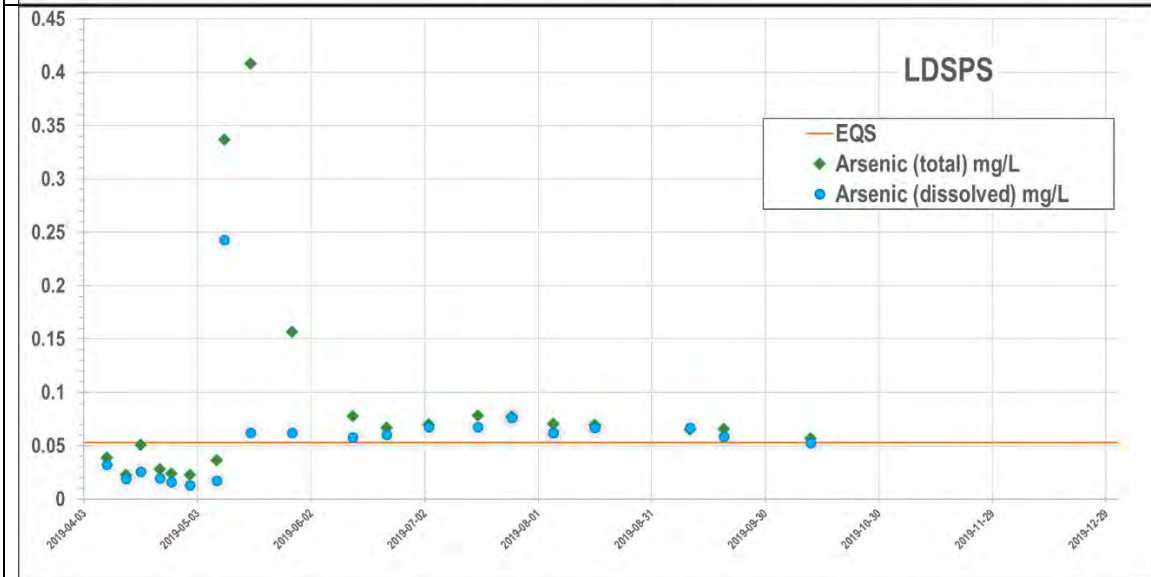
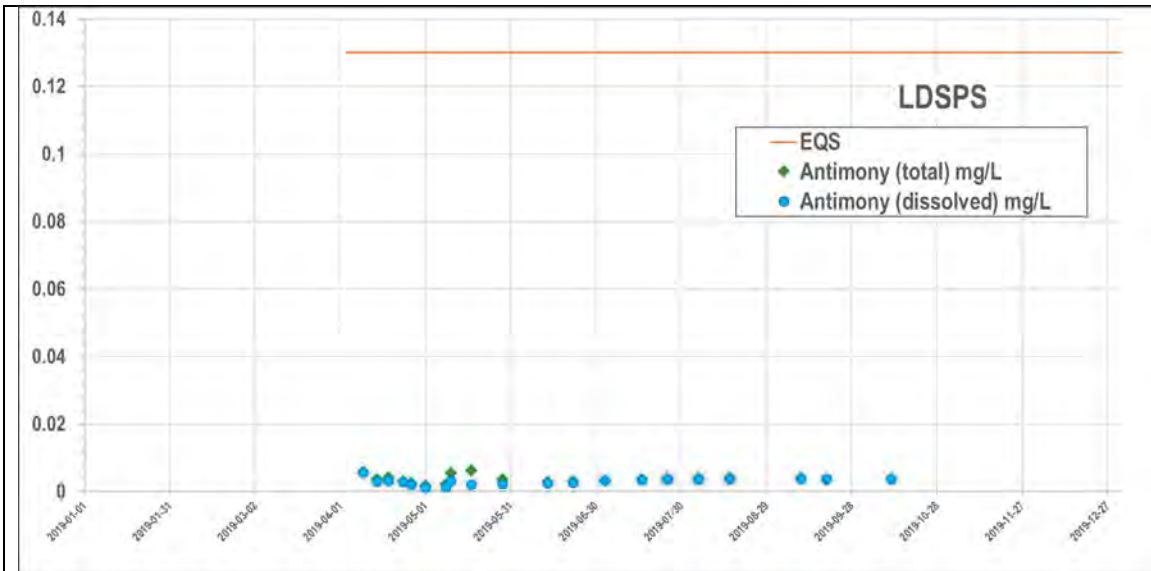
APPENDIX B
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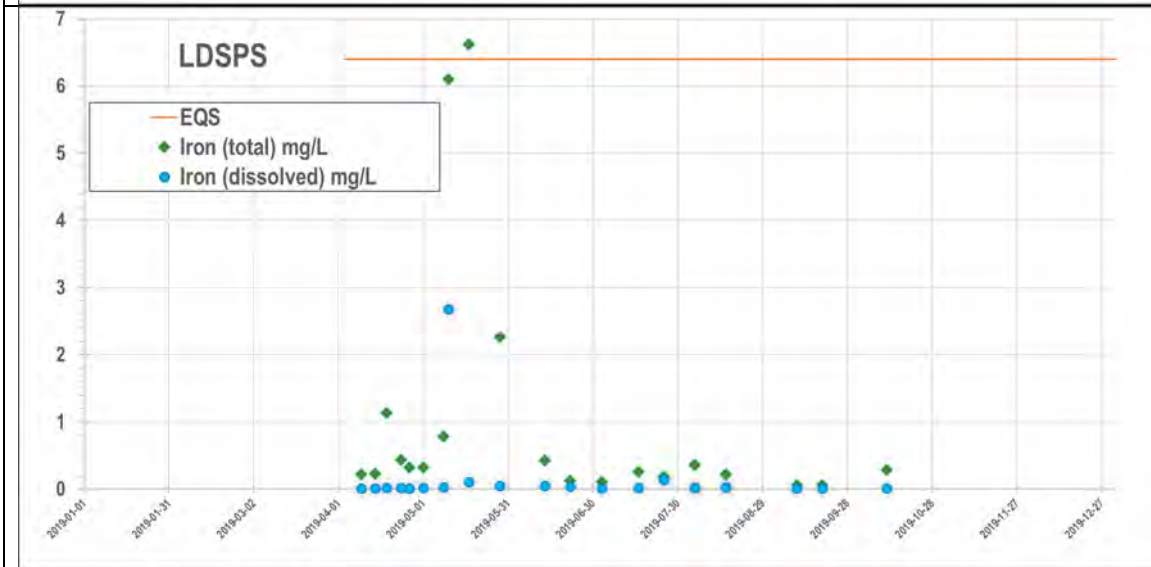
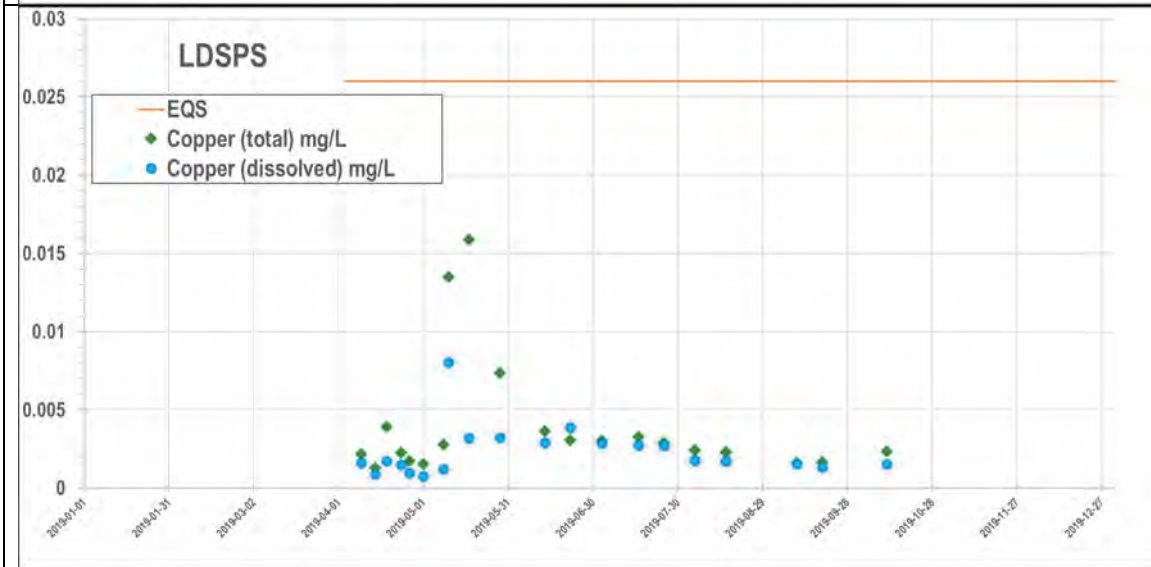
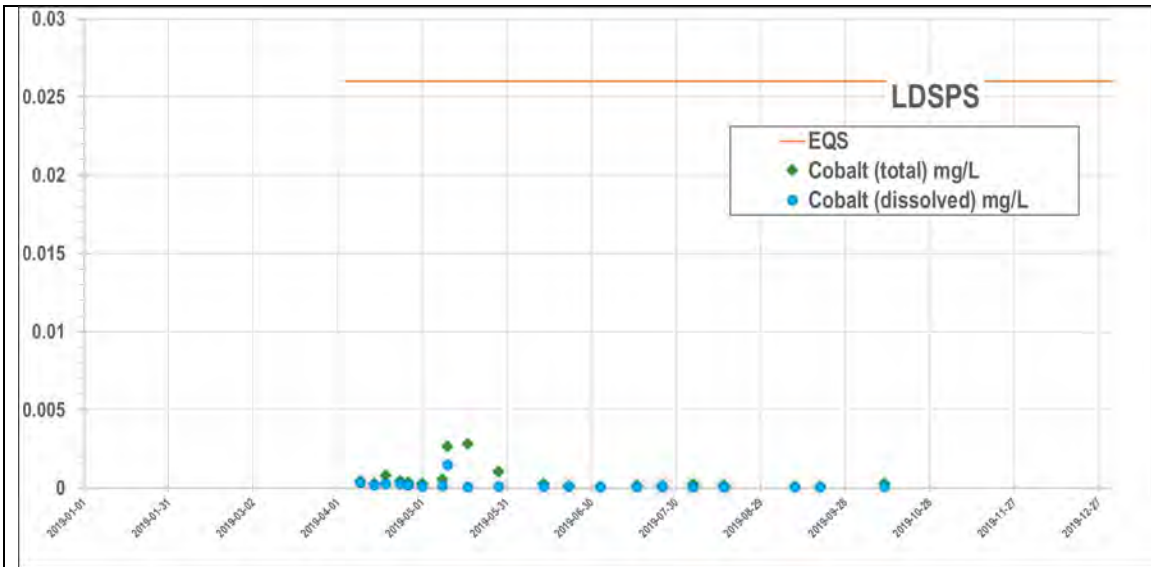
APPENDIX B
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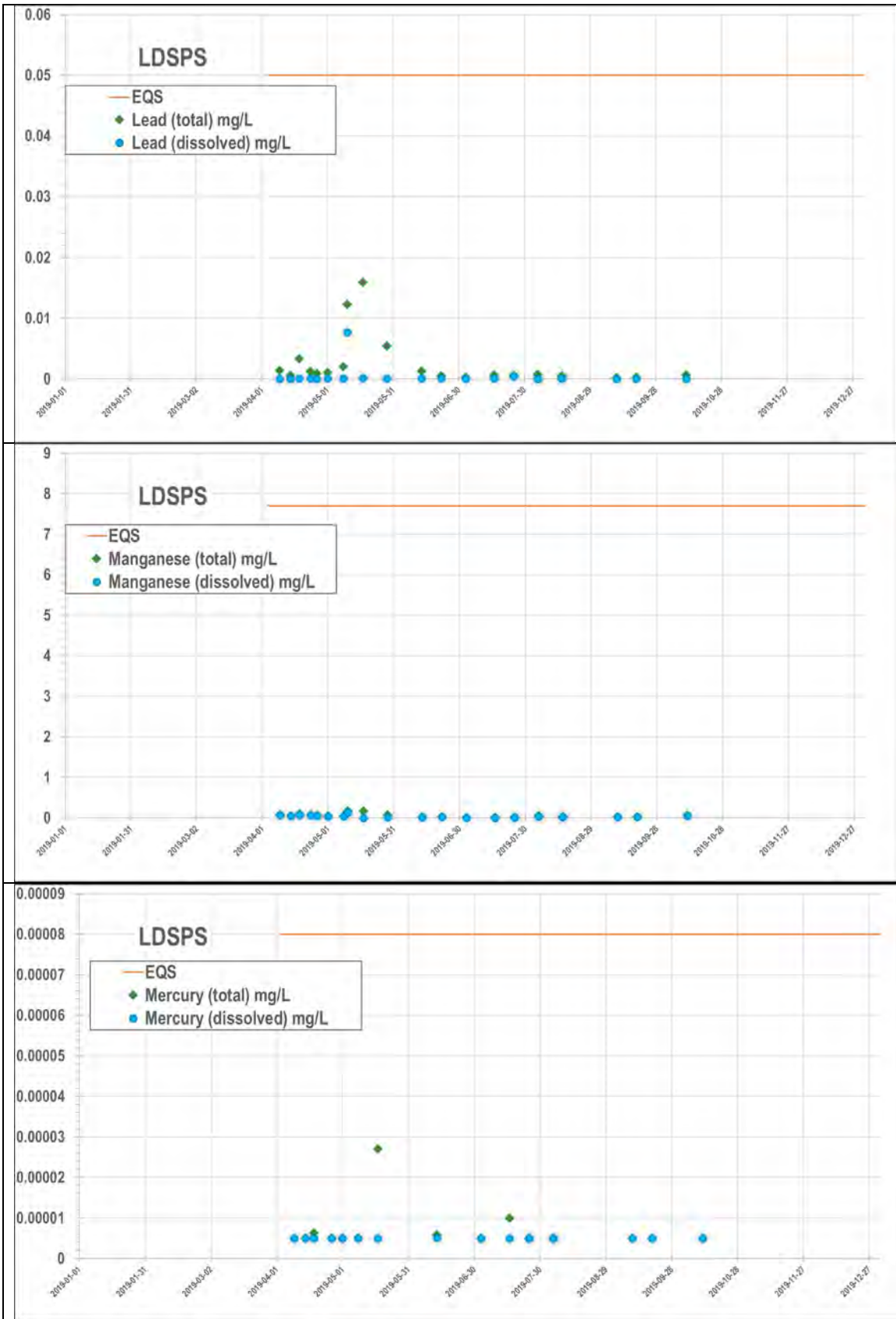
APPENDIX B
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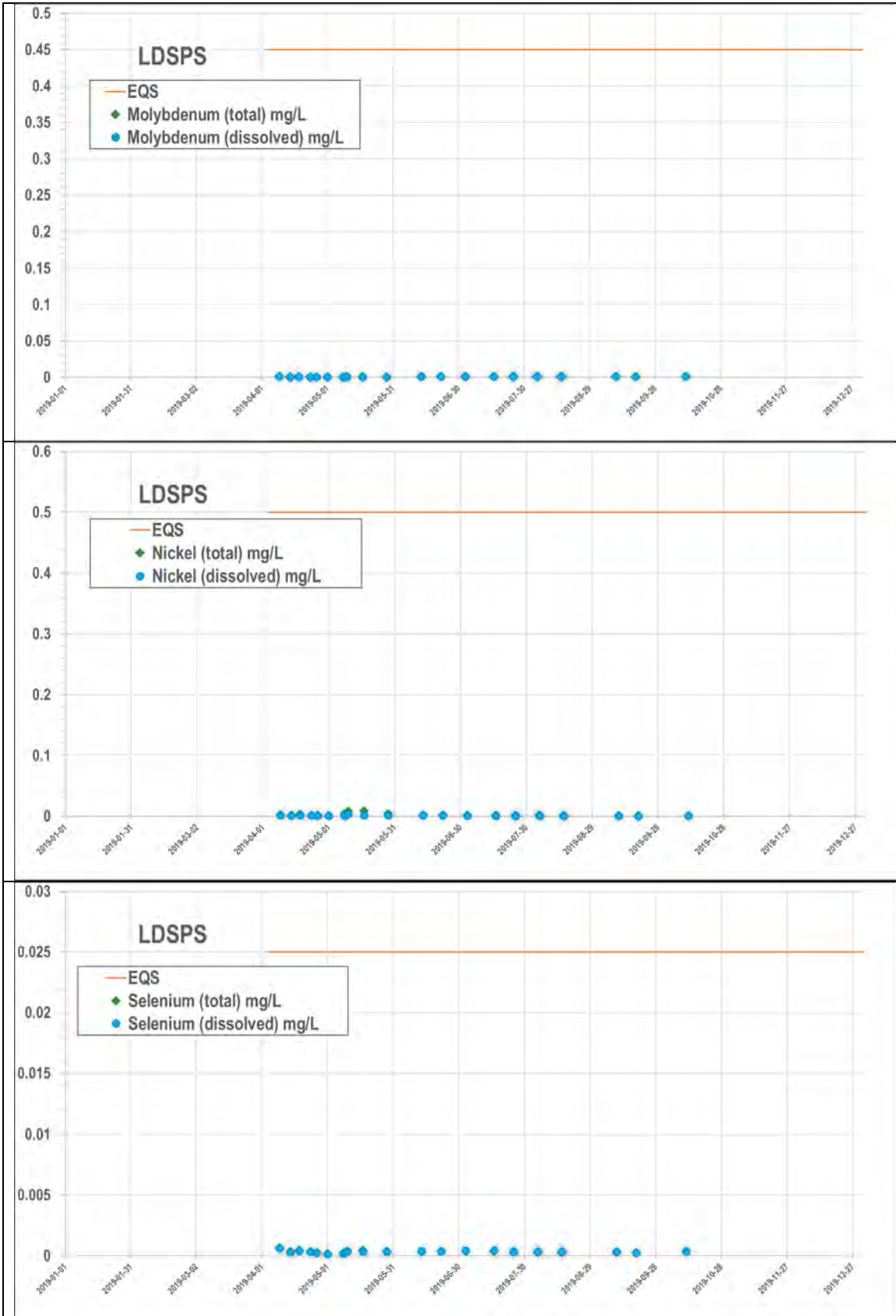
APPENDIX B
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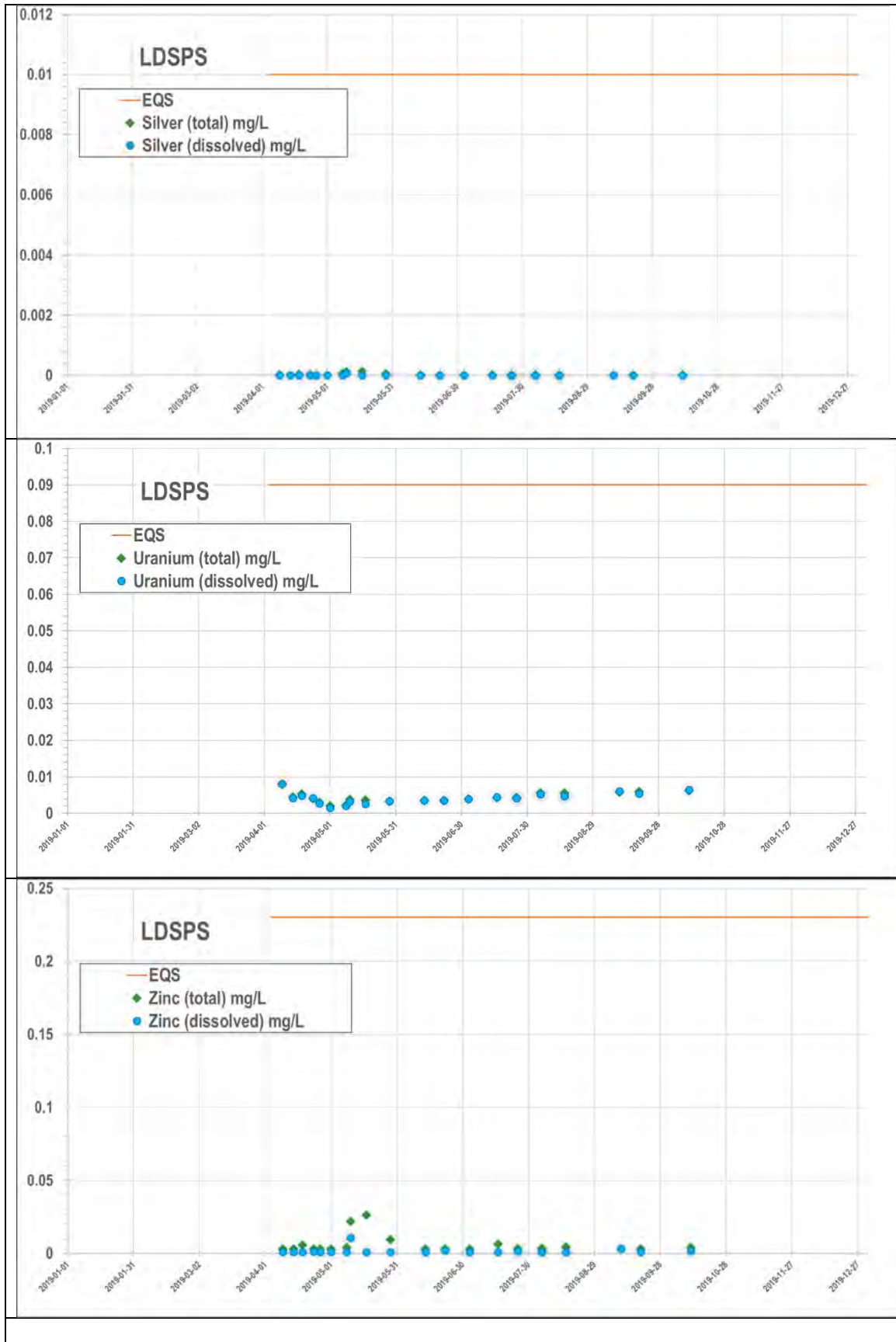
APPENDIX B
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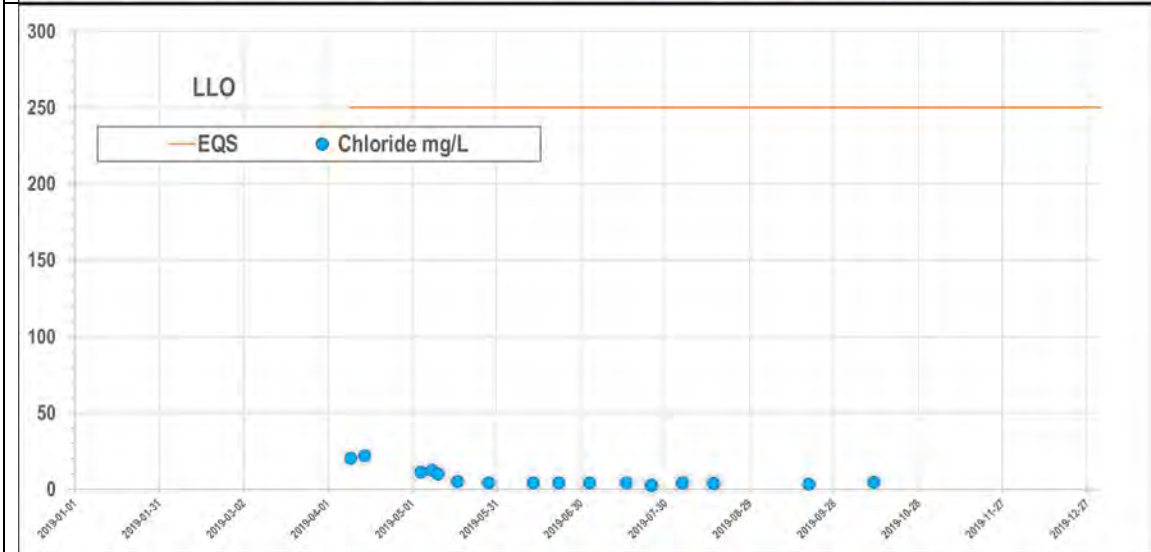
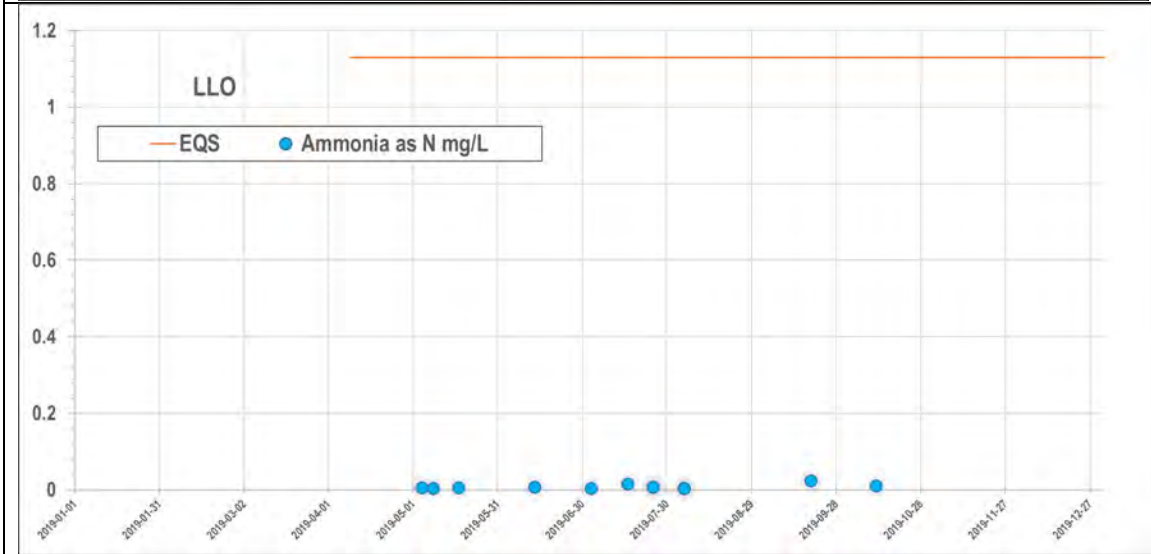
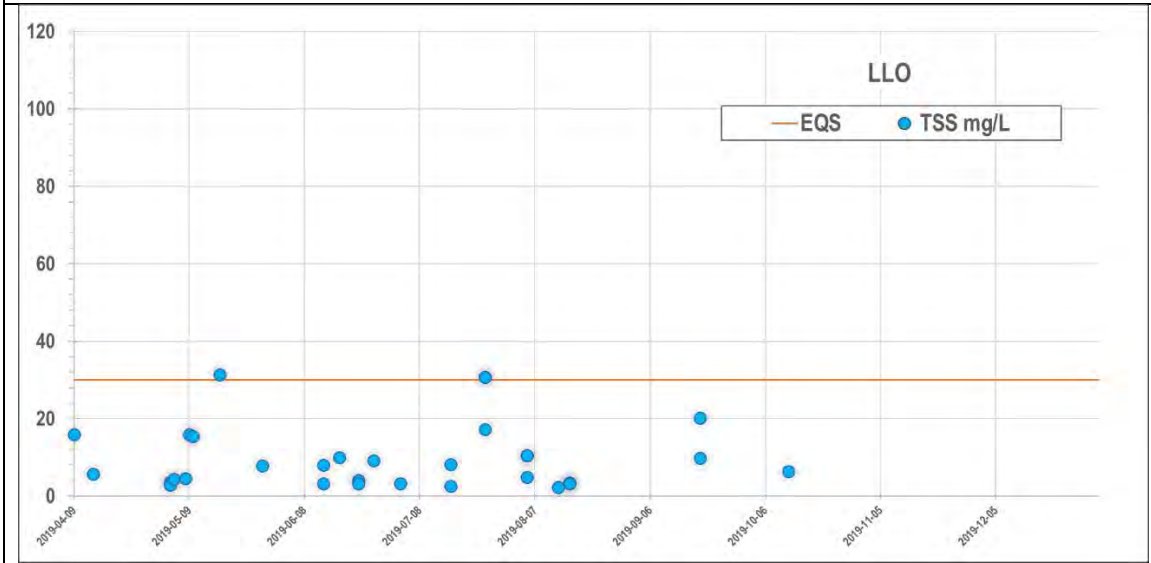
APPENDIX B
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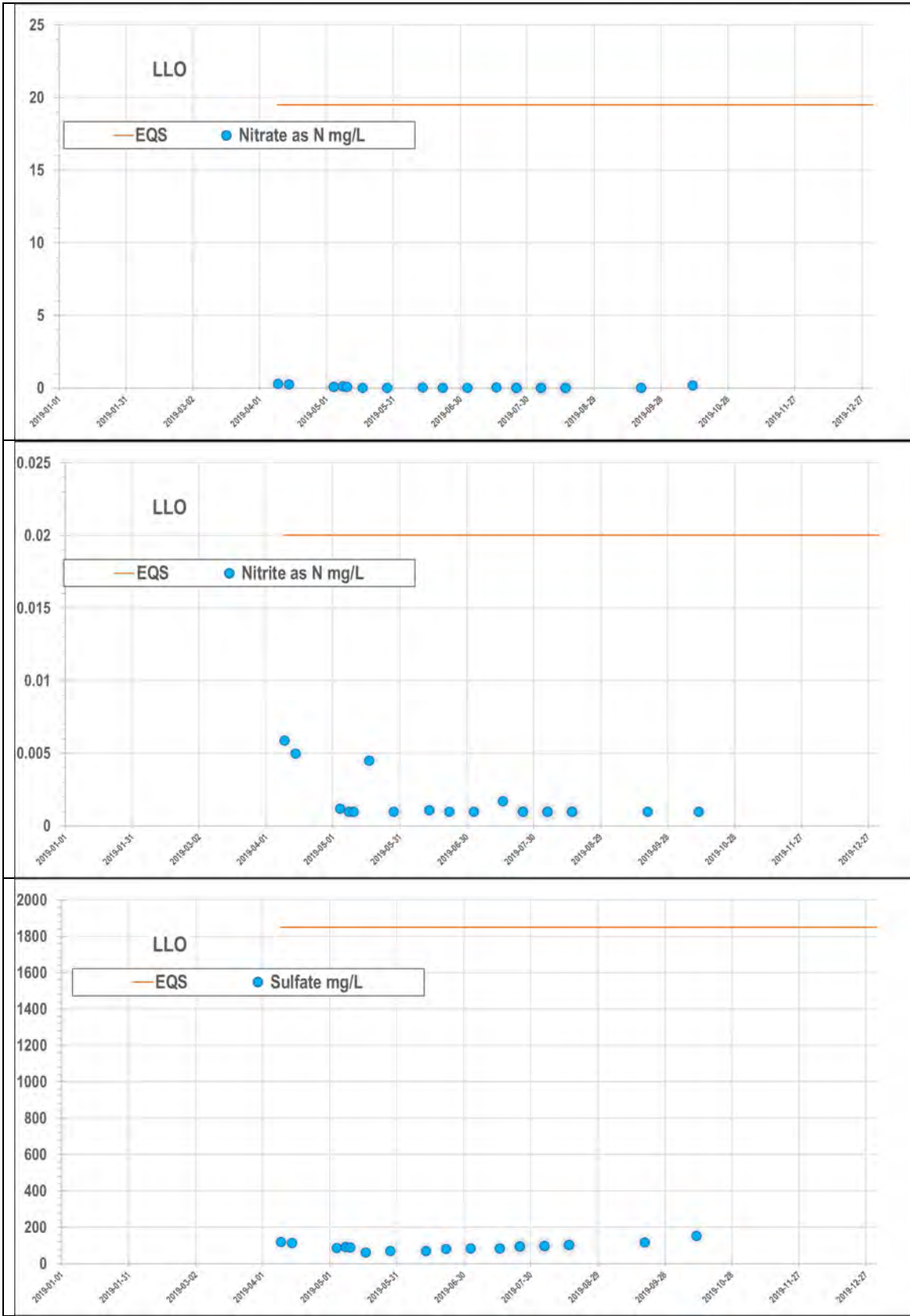
APPENDIX B
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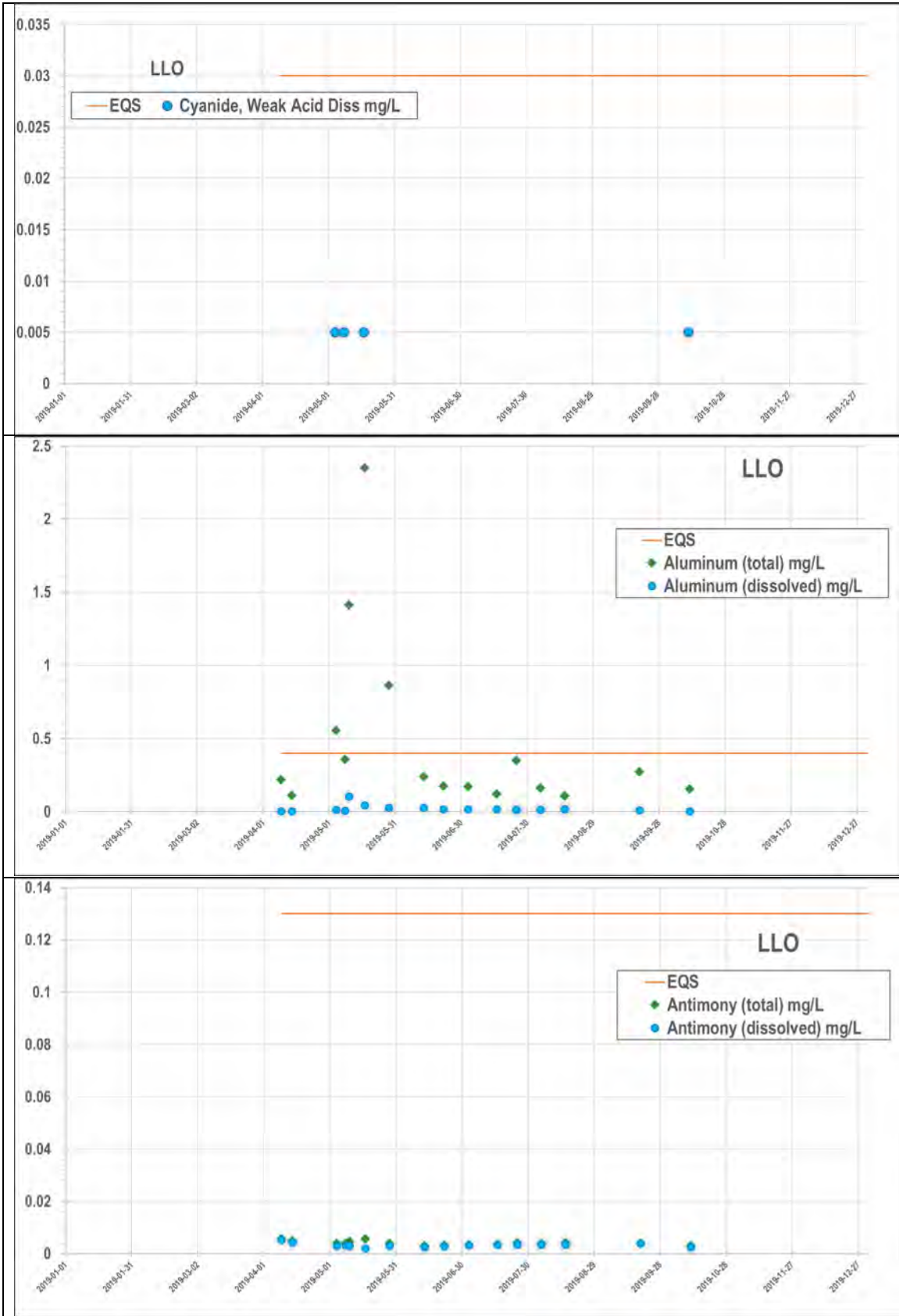
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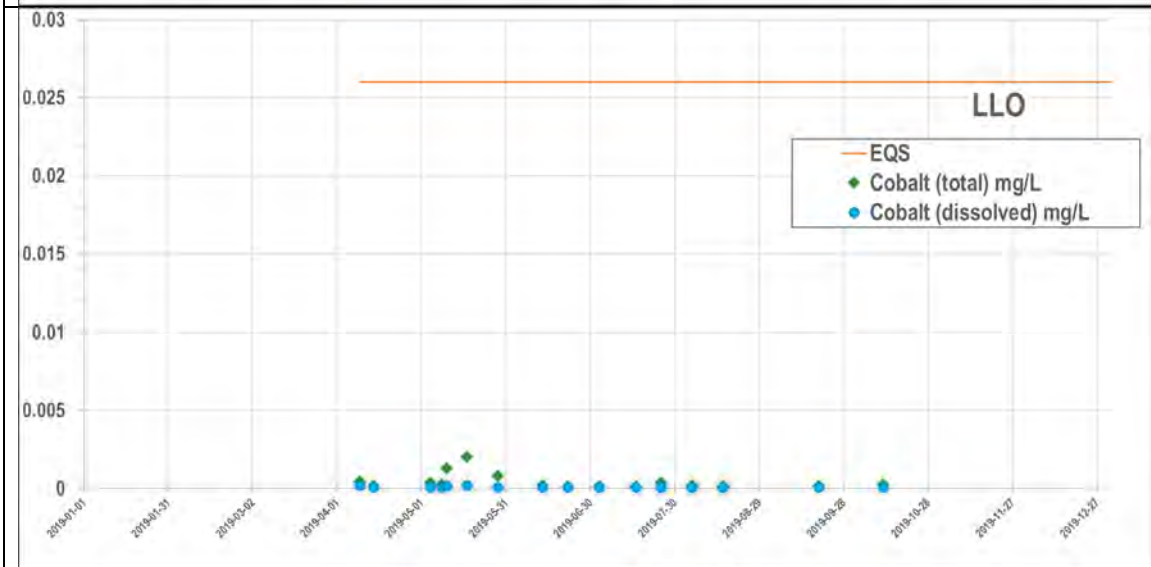
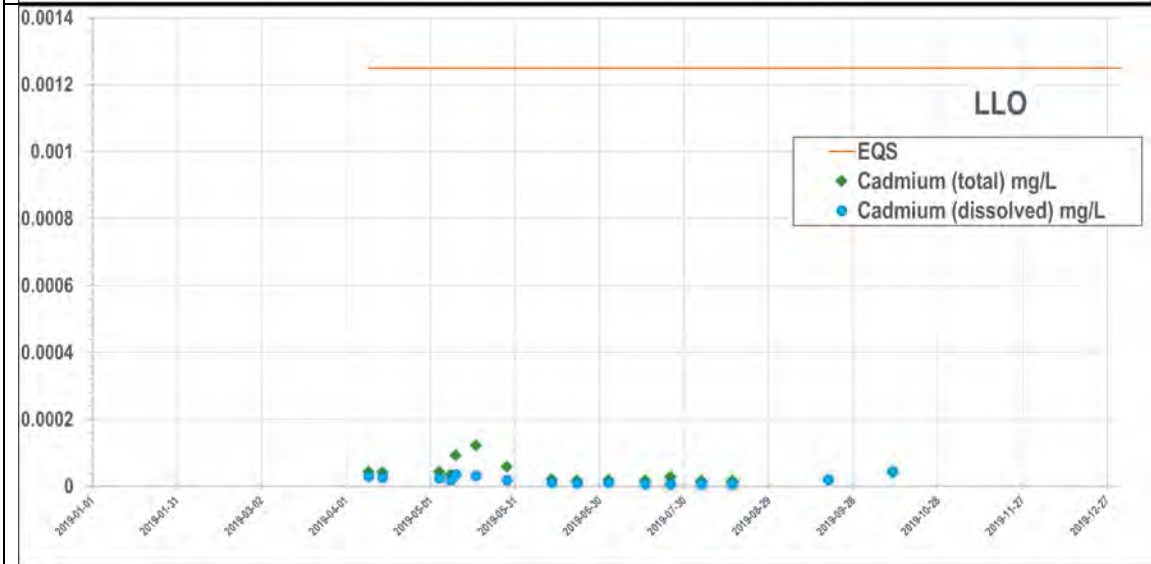
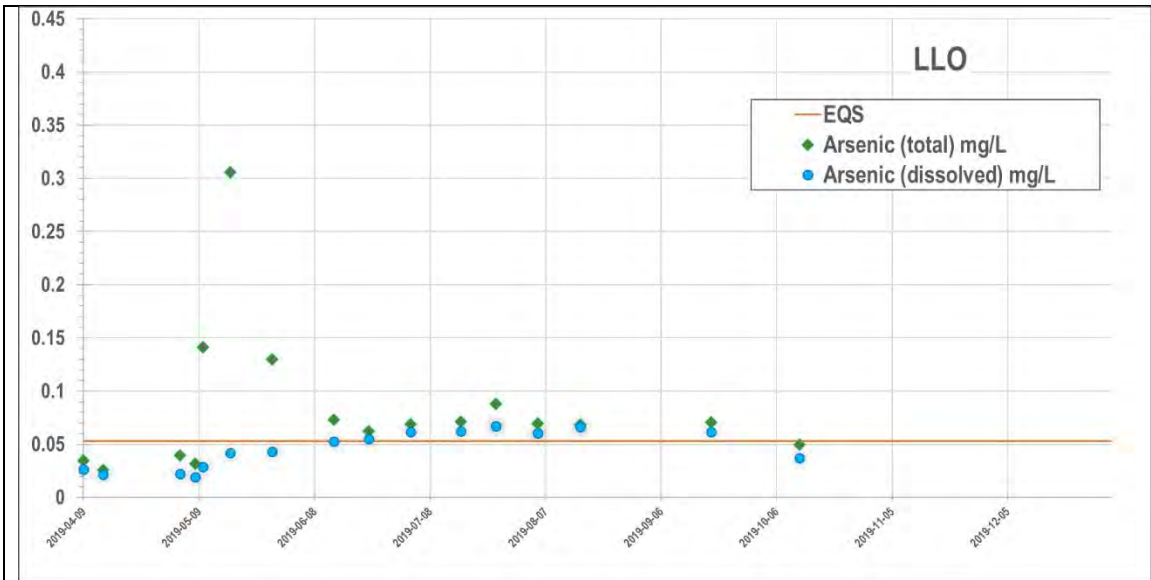
APPENDIX B
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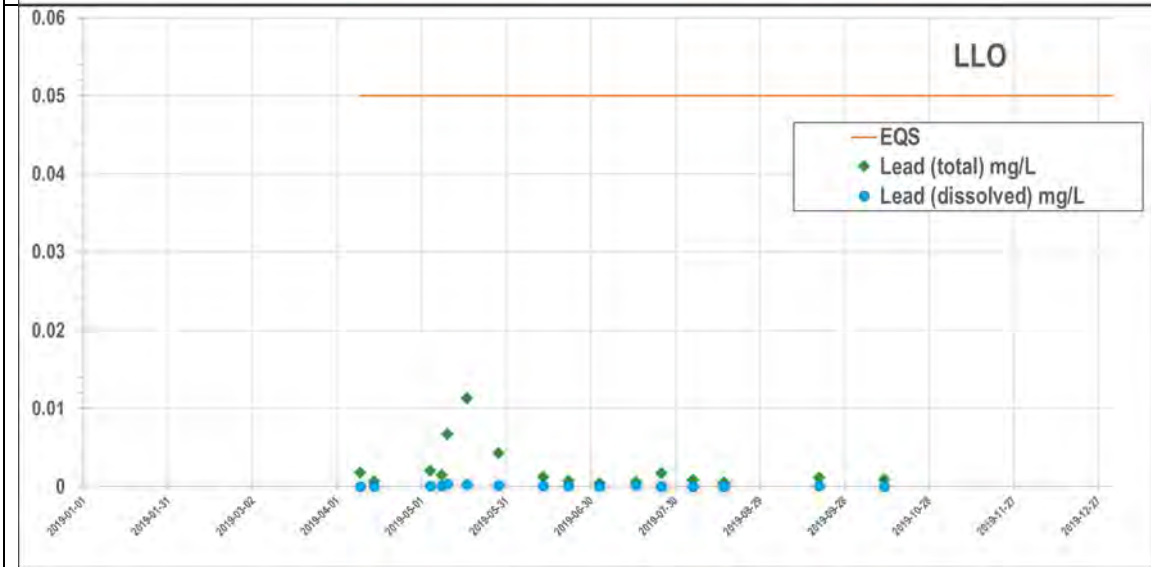
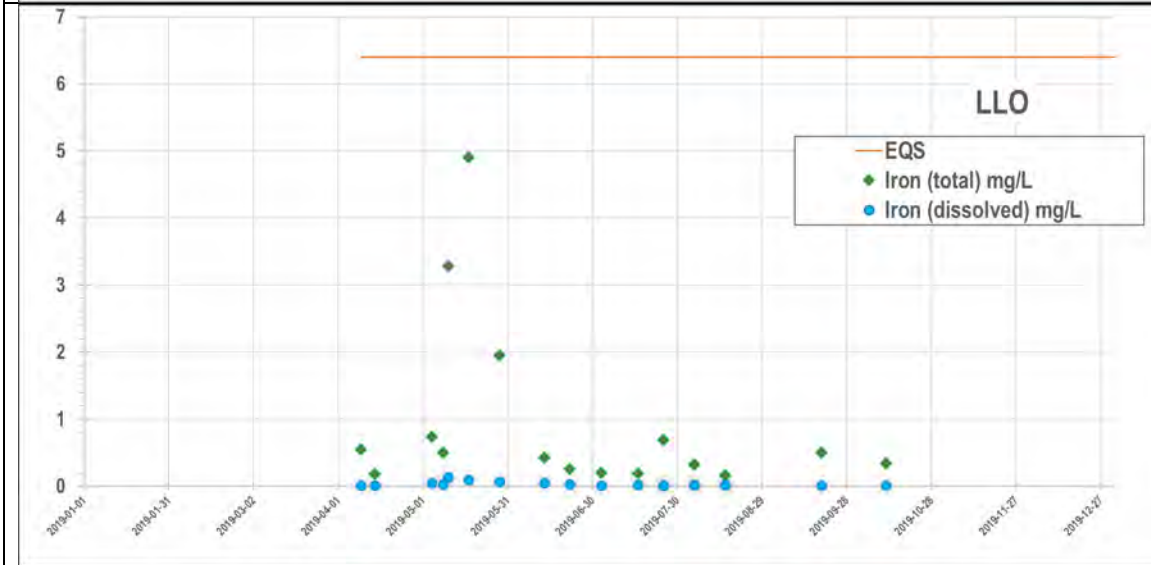
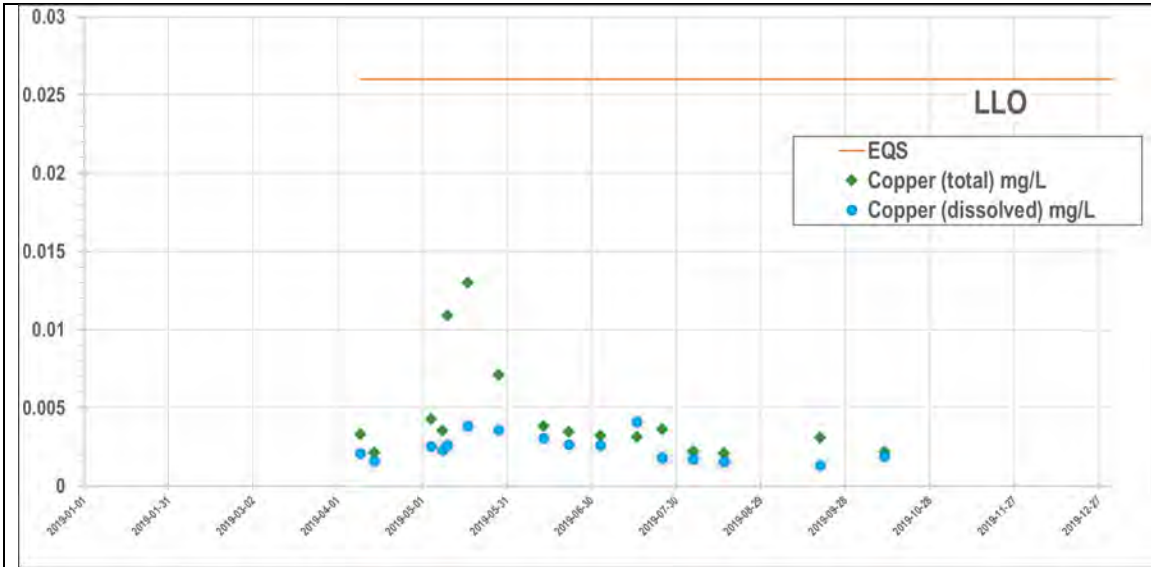
APPENDIX B
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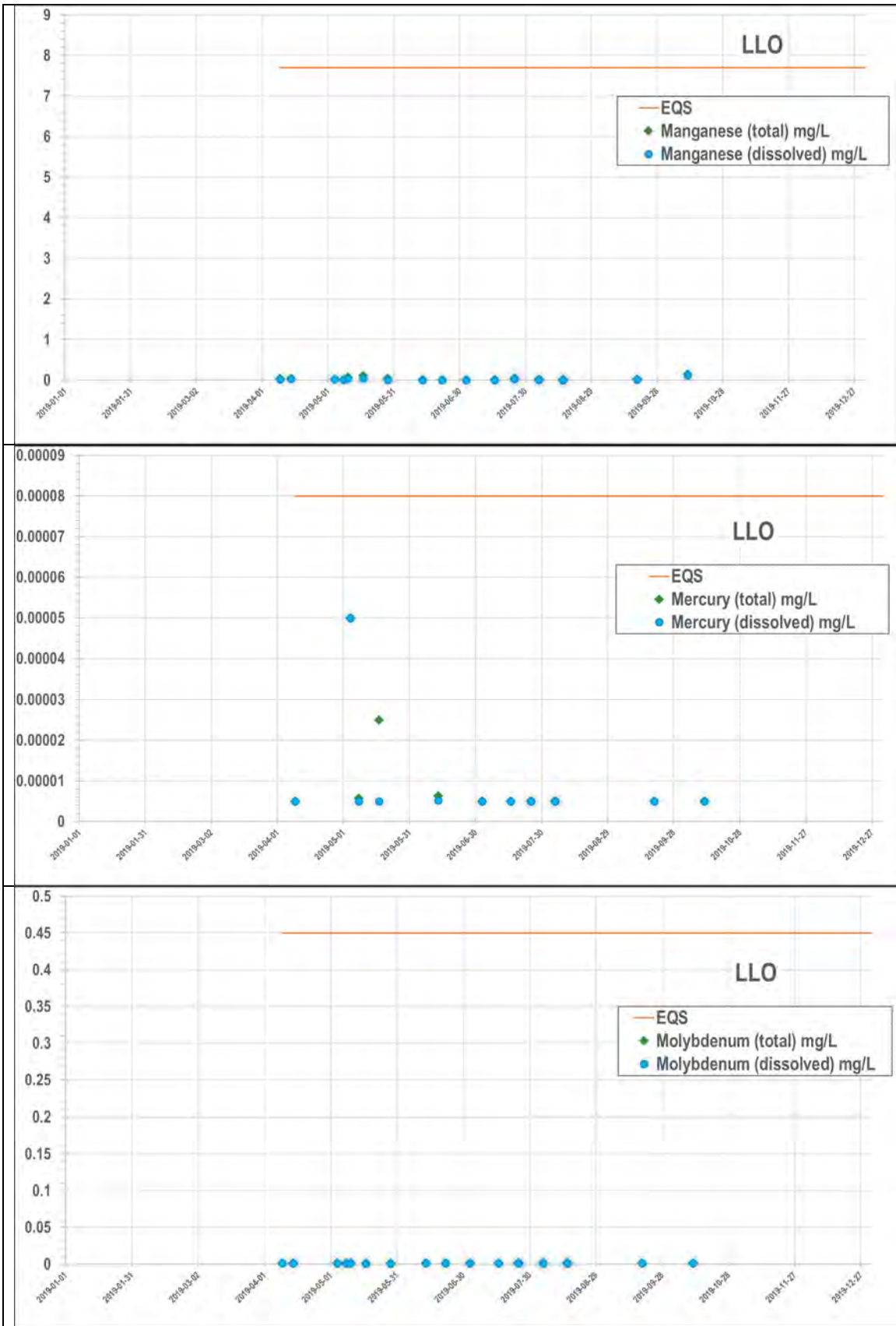
APPENDIX B
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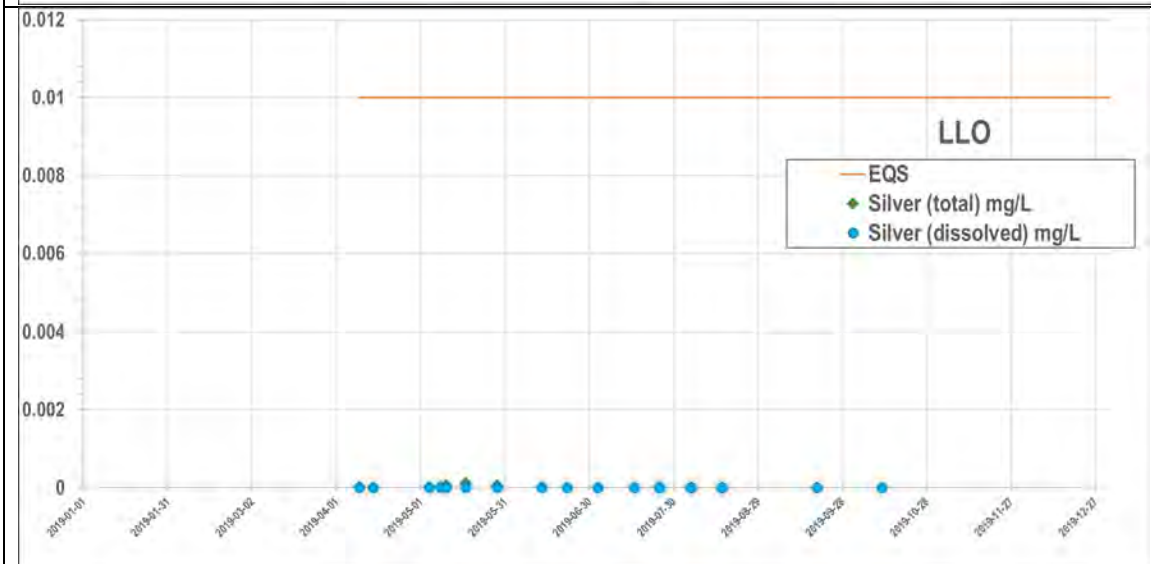
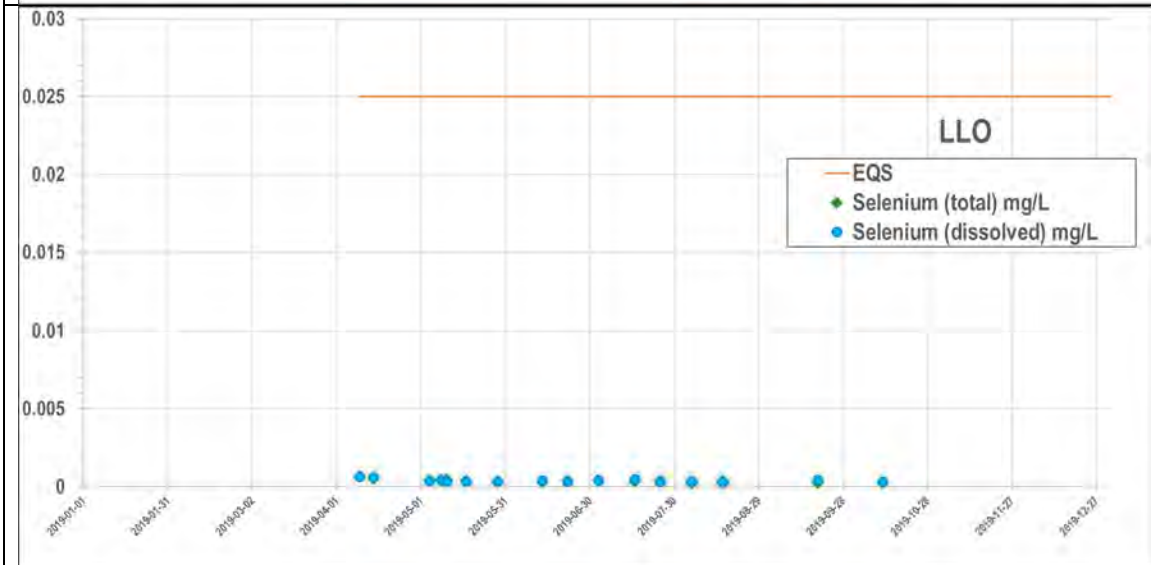
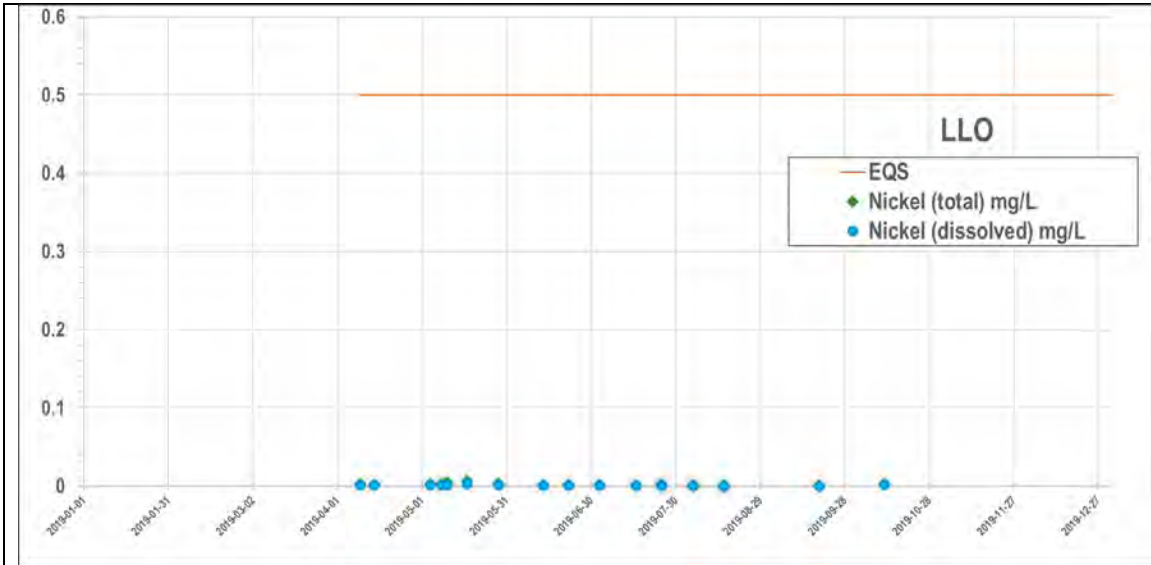
APPENDIX B
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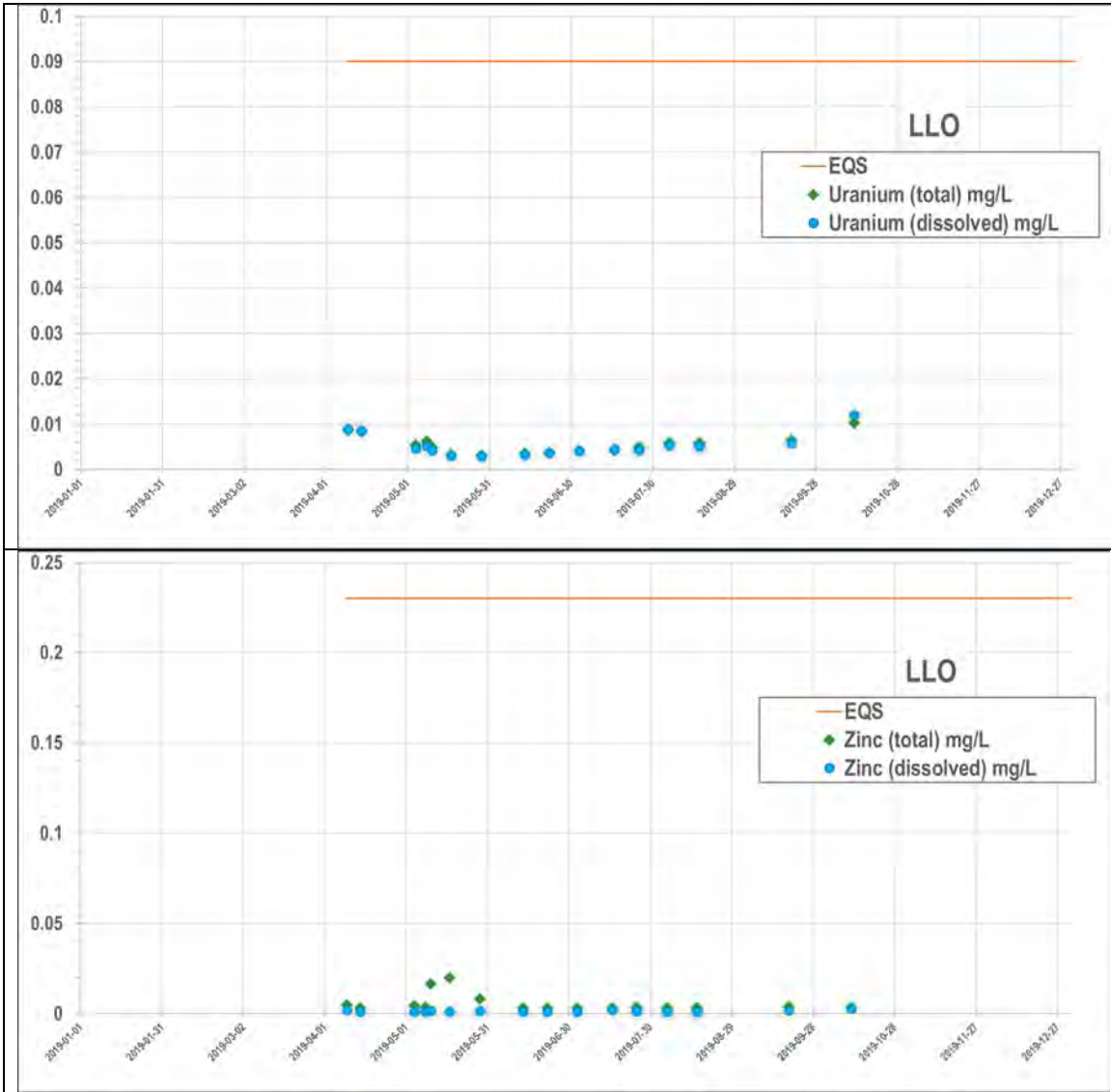
APPENDIX B
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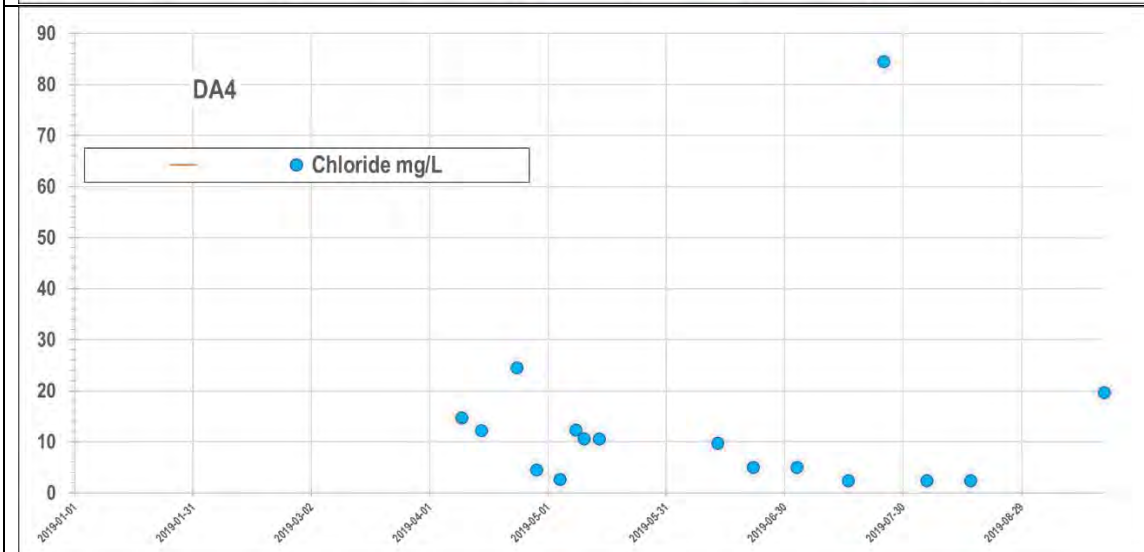
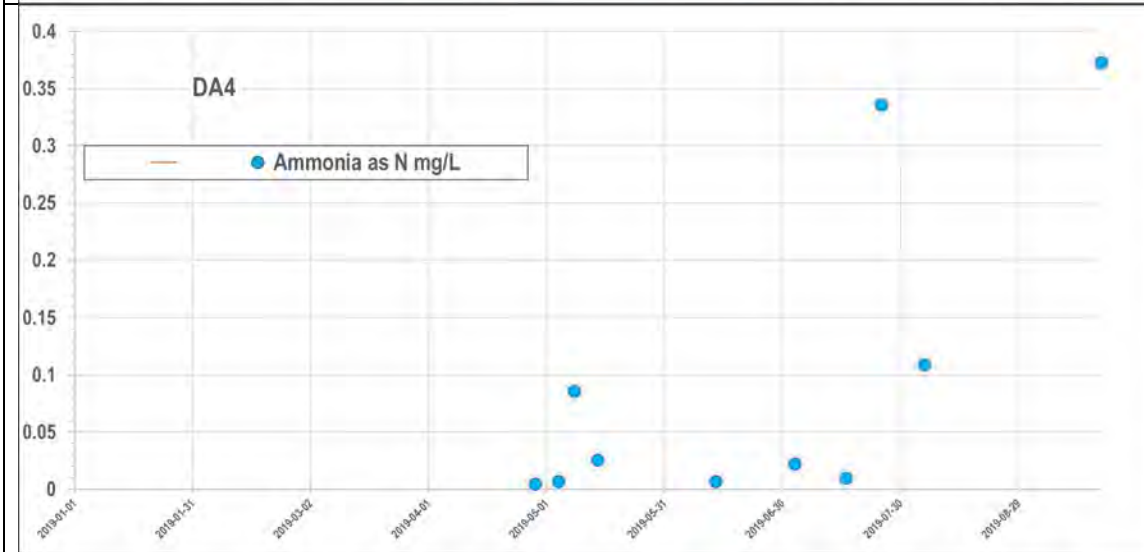
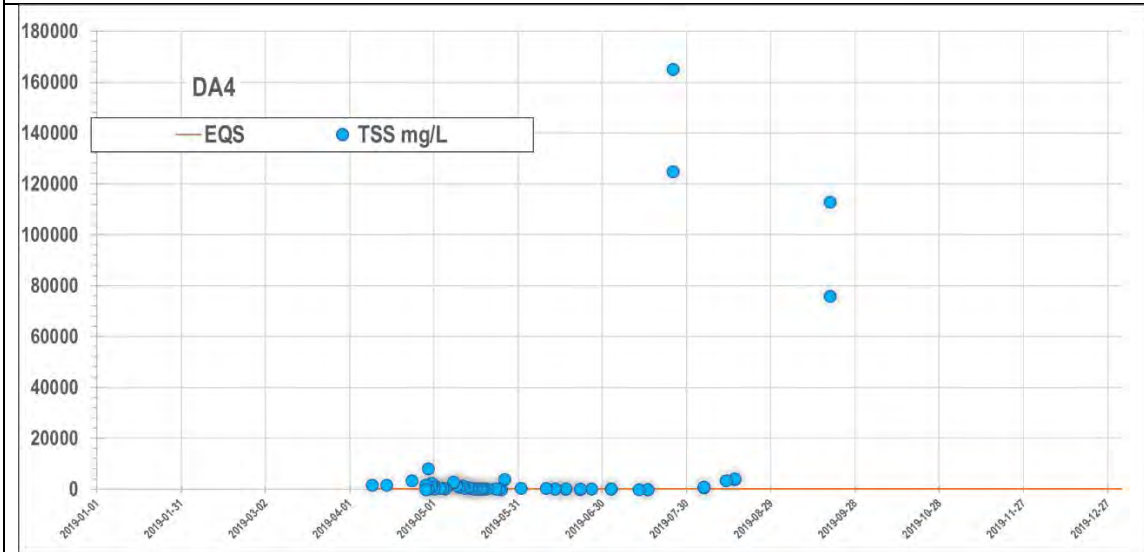
APPENDIX B
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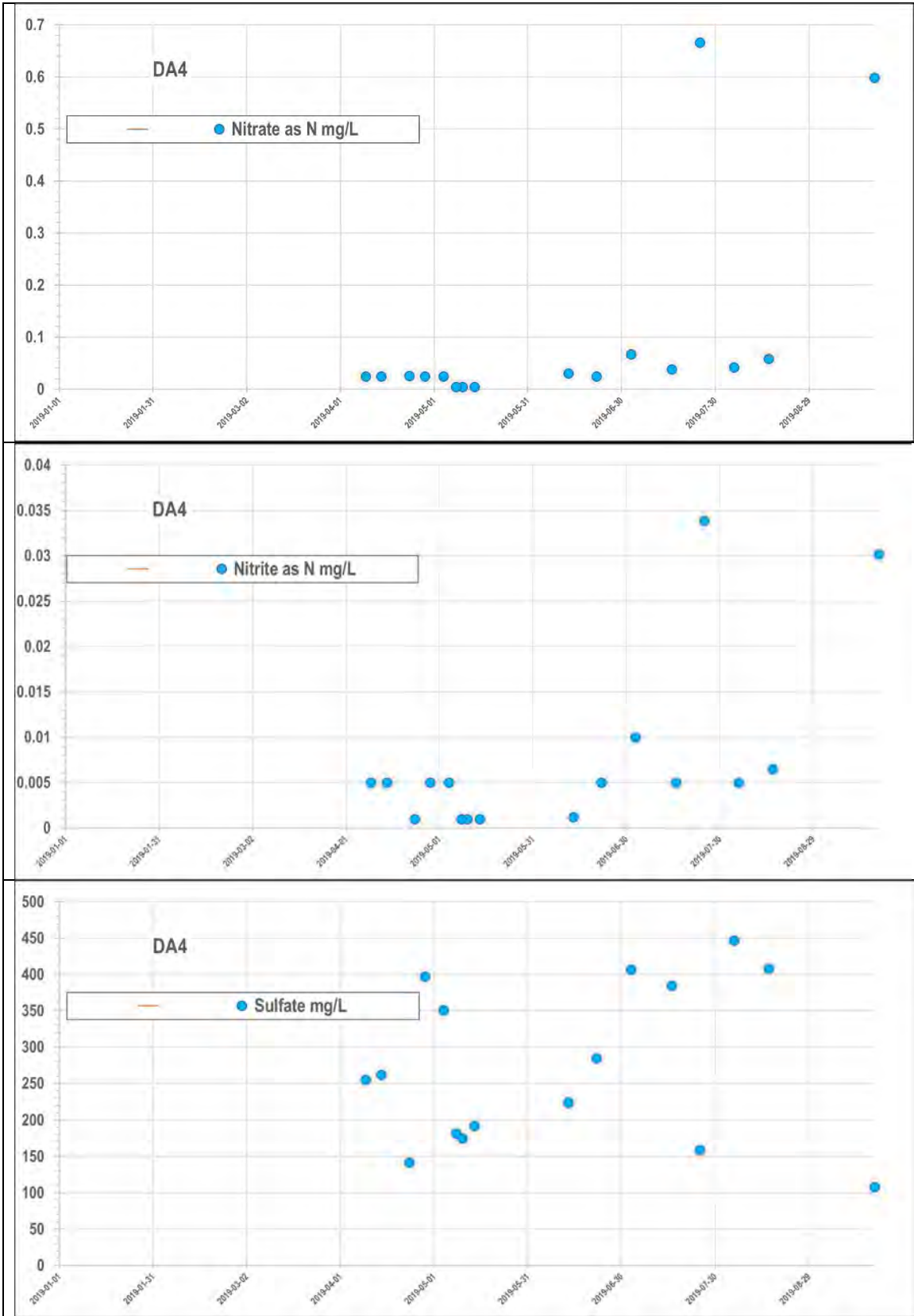
APPENDIX B
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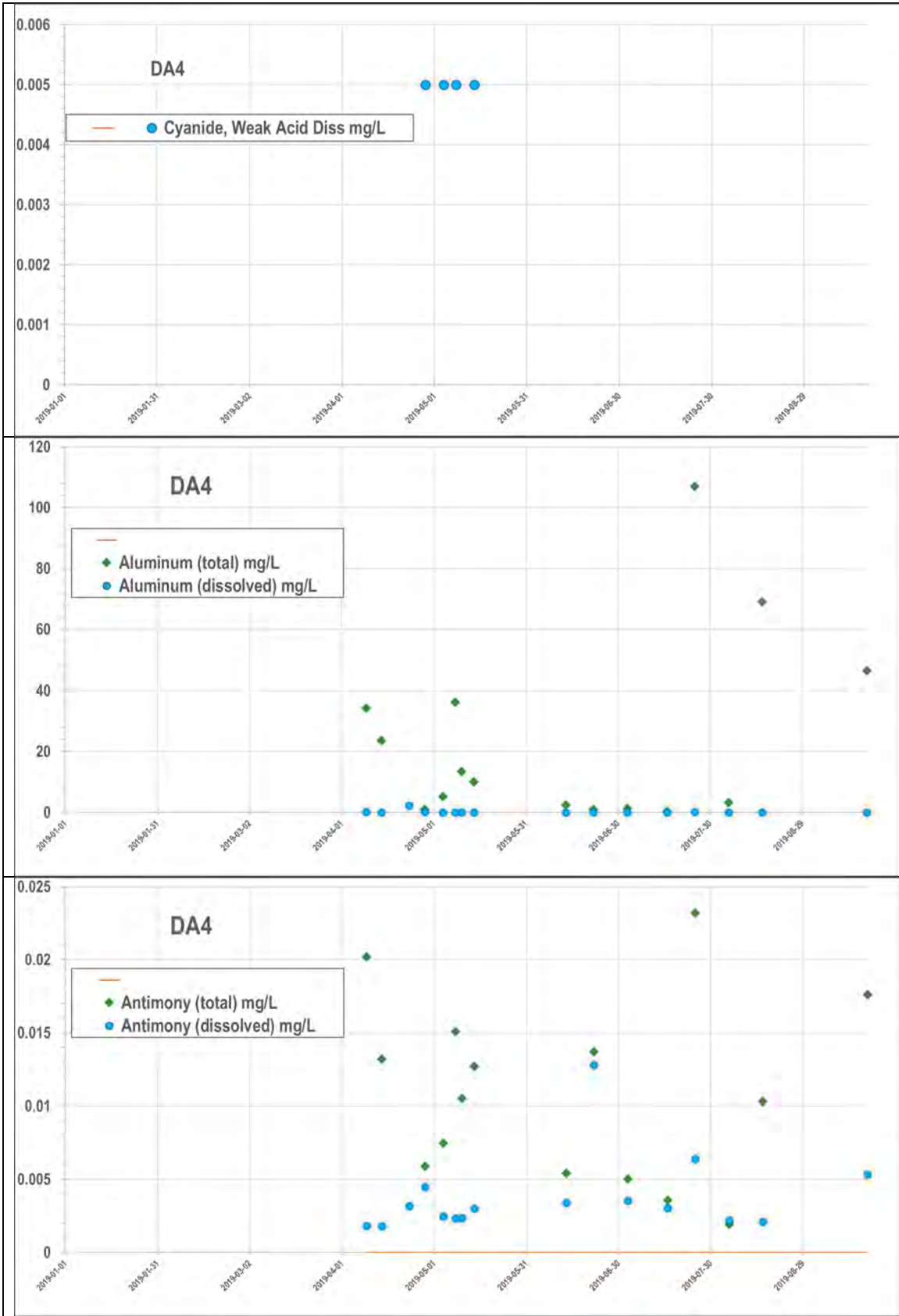
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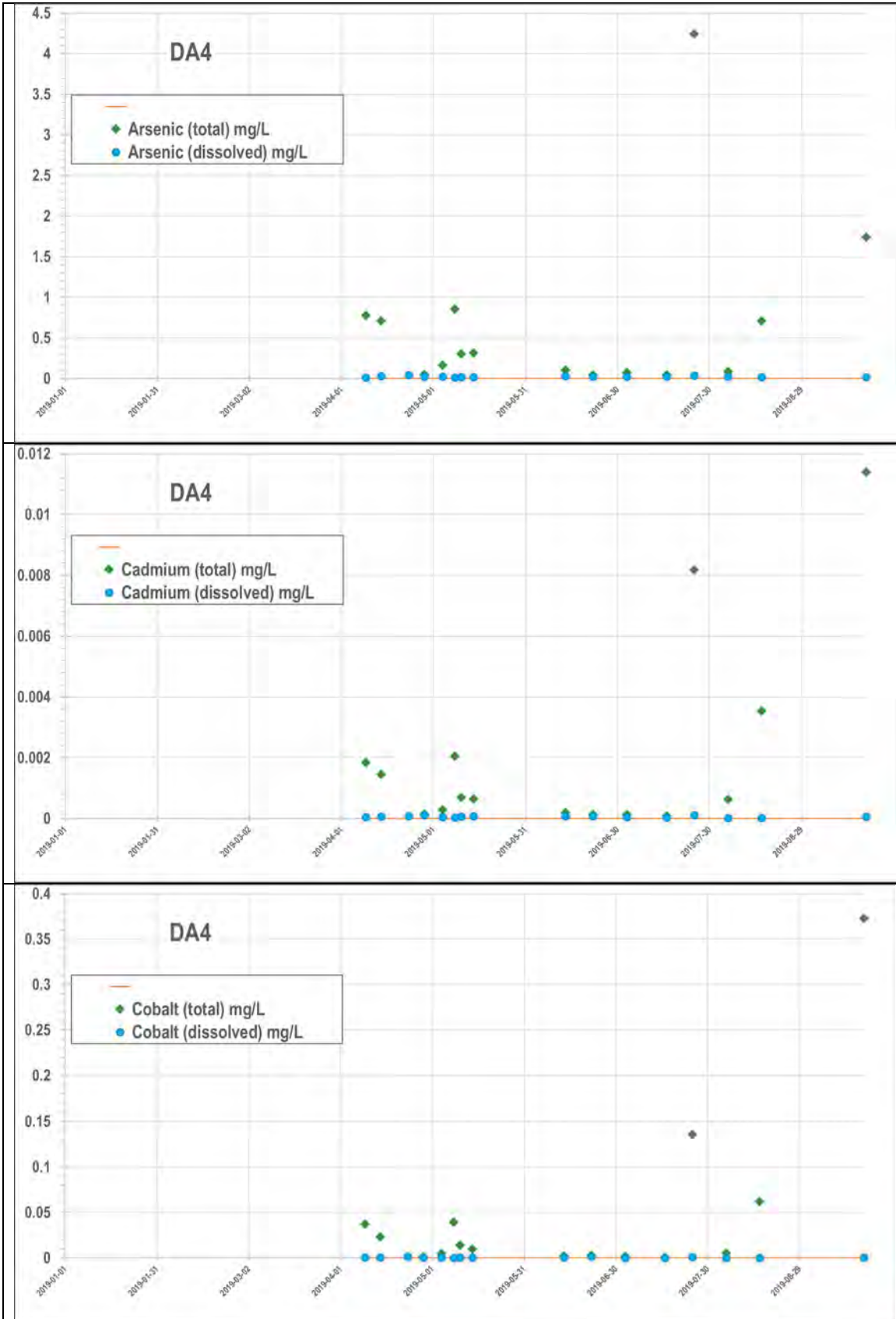
APPENDIX B
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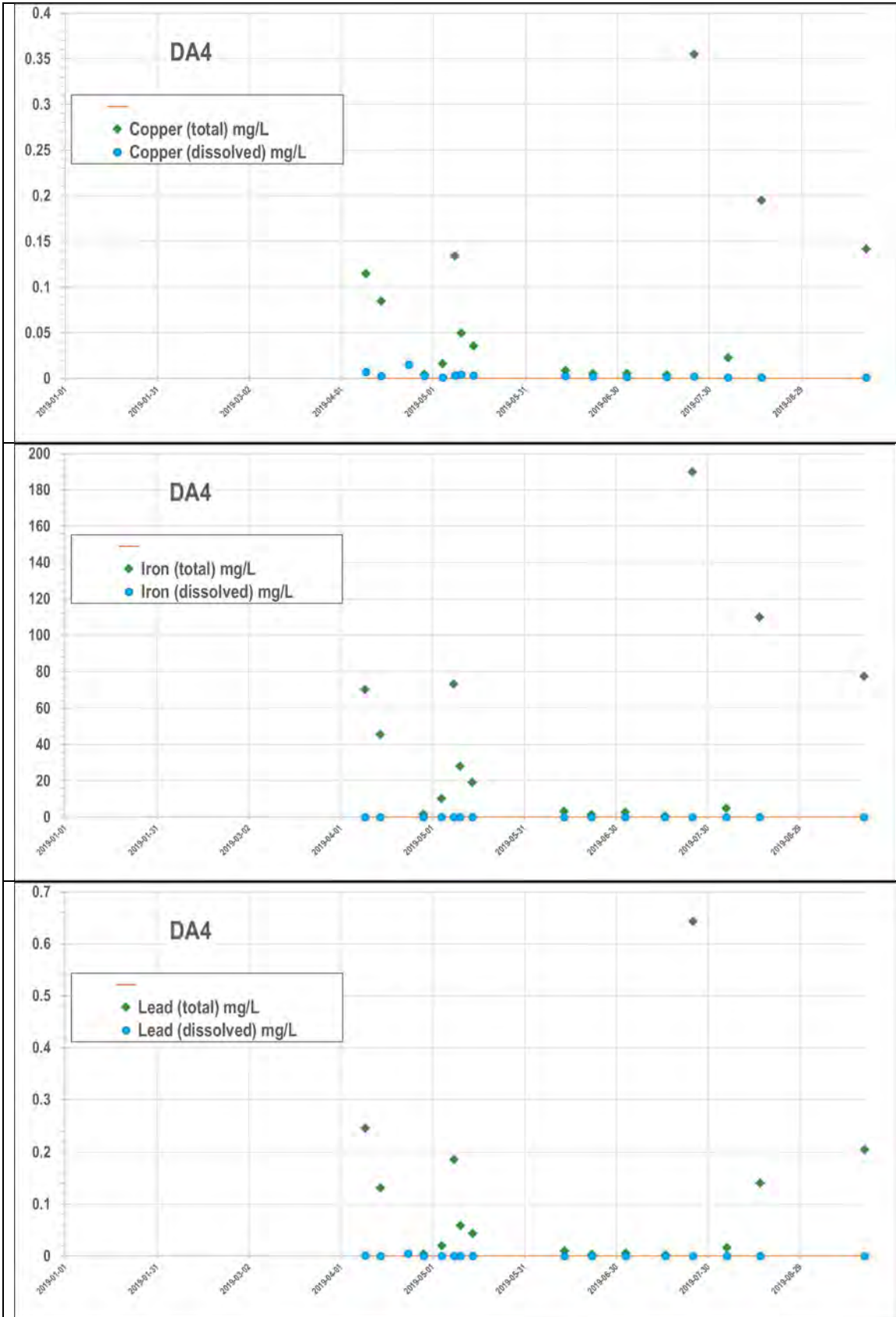
APPENDIX B
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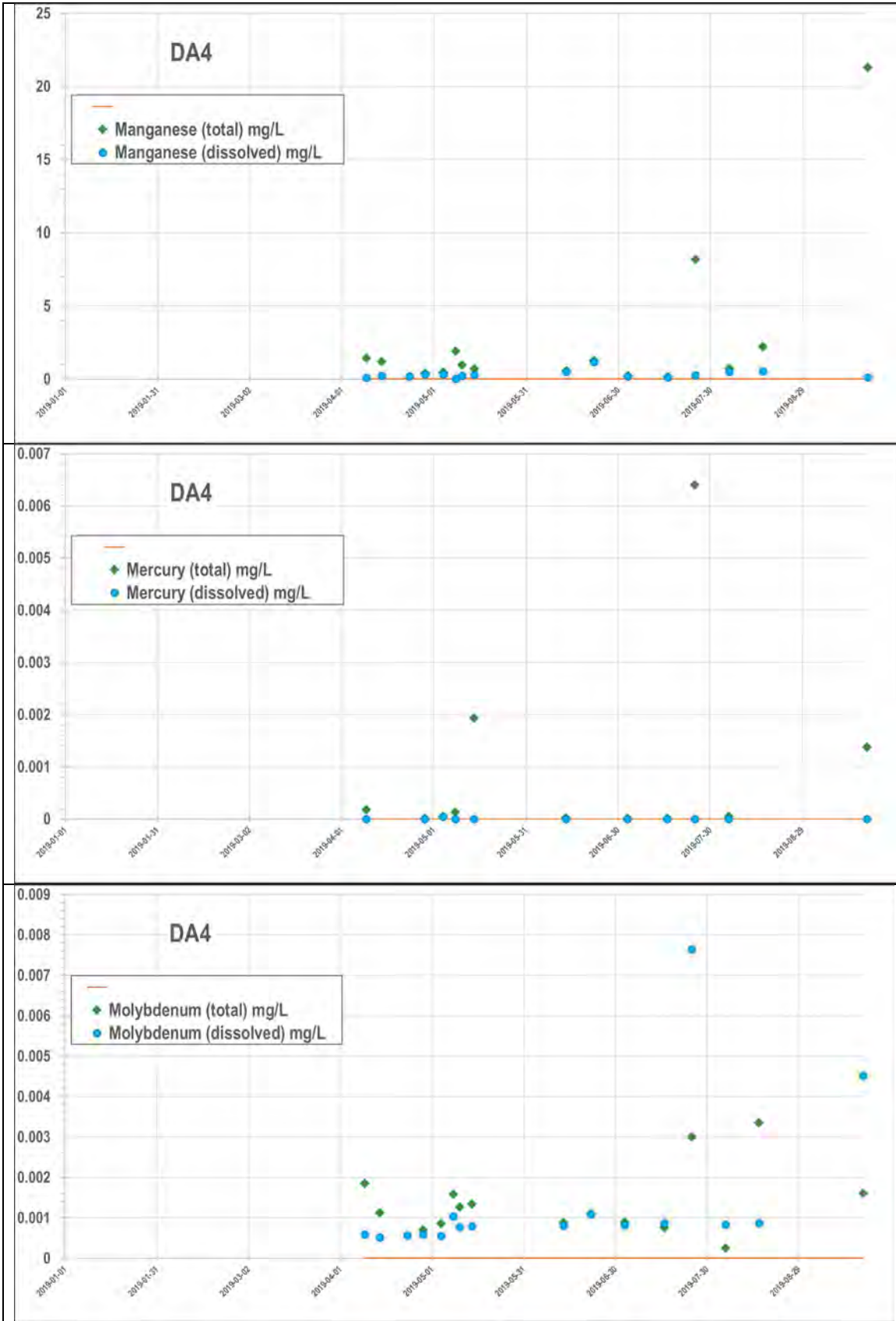
APPENDIX B
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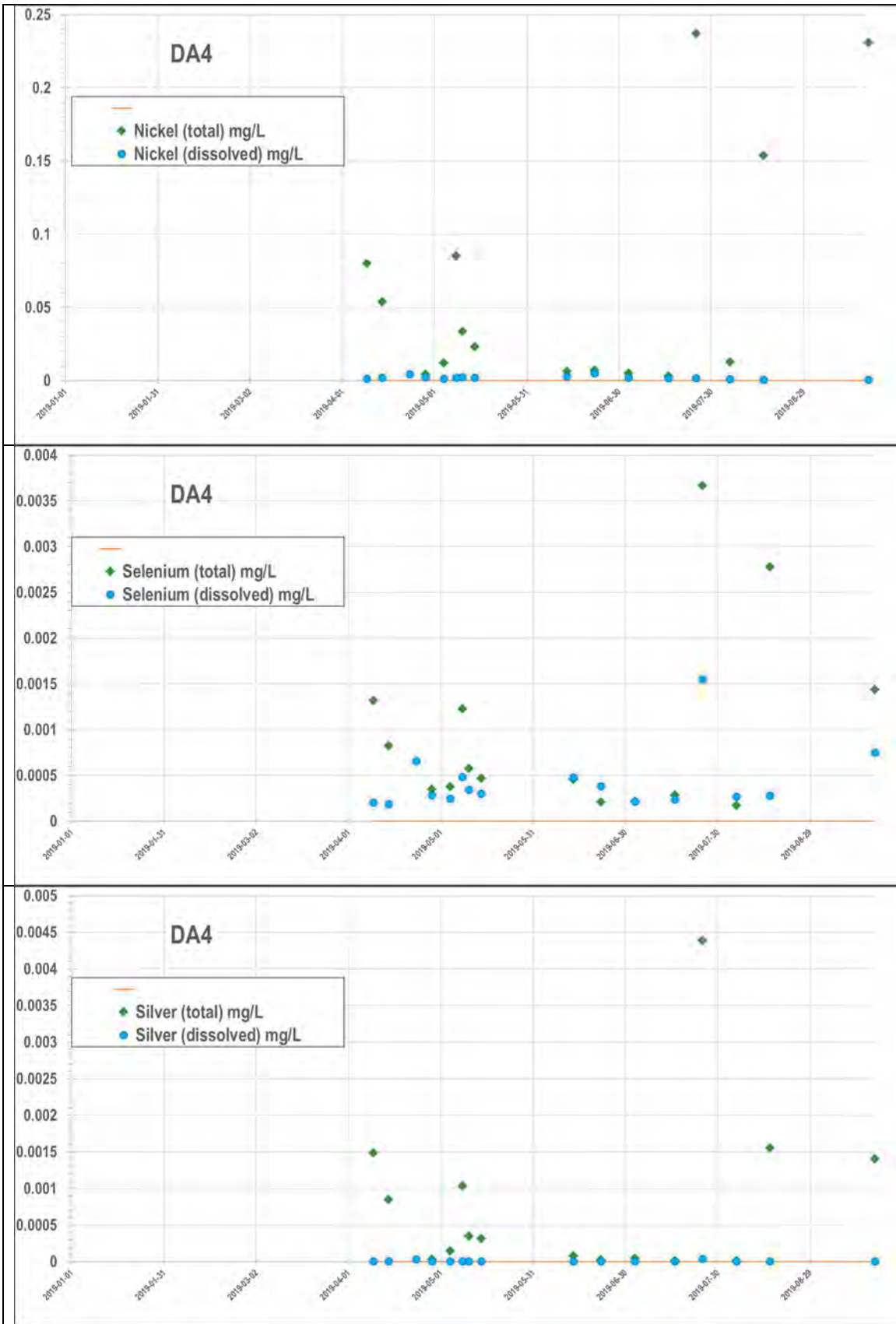
APPENDIX B
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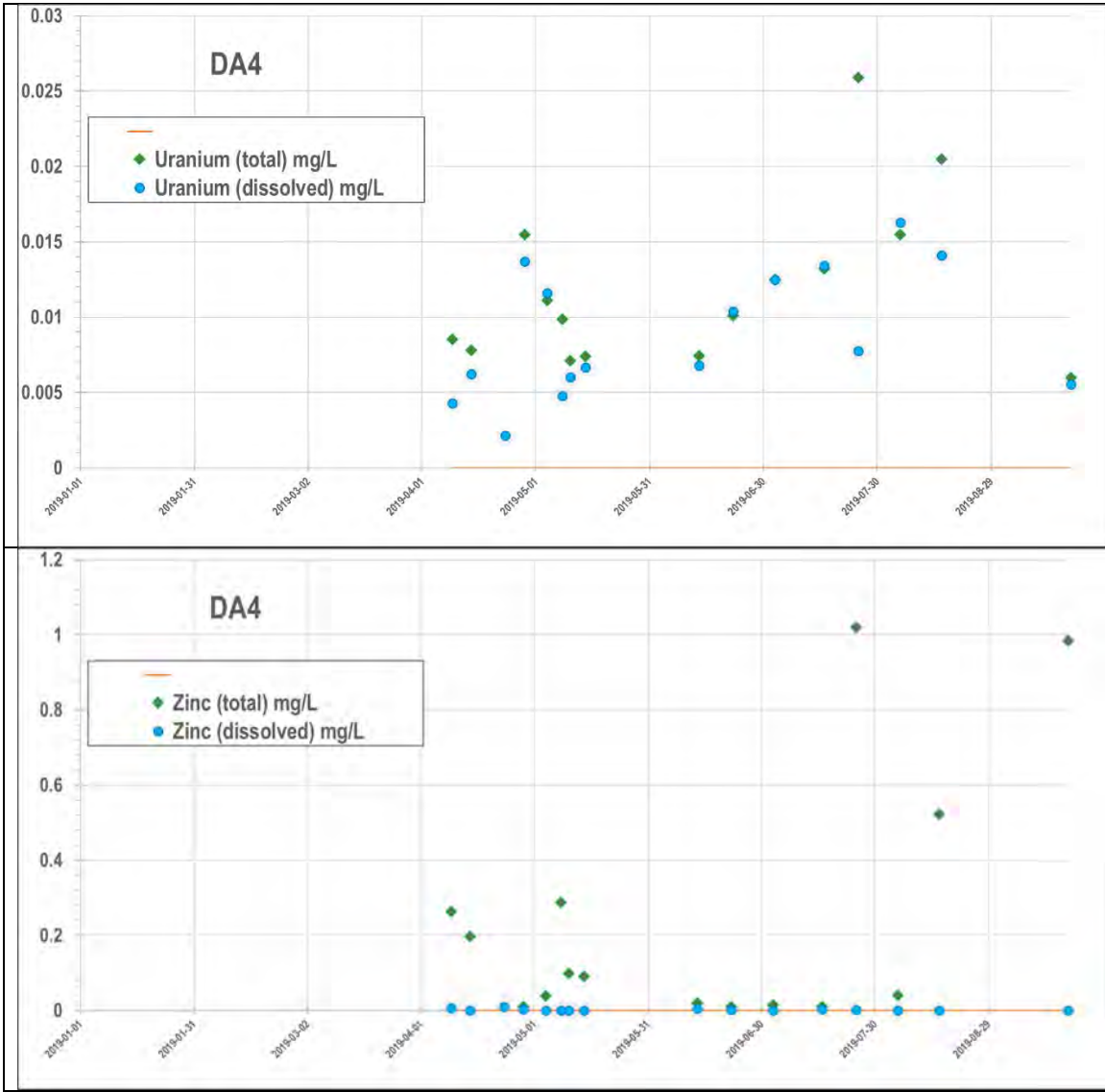
APPENDIX B
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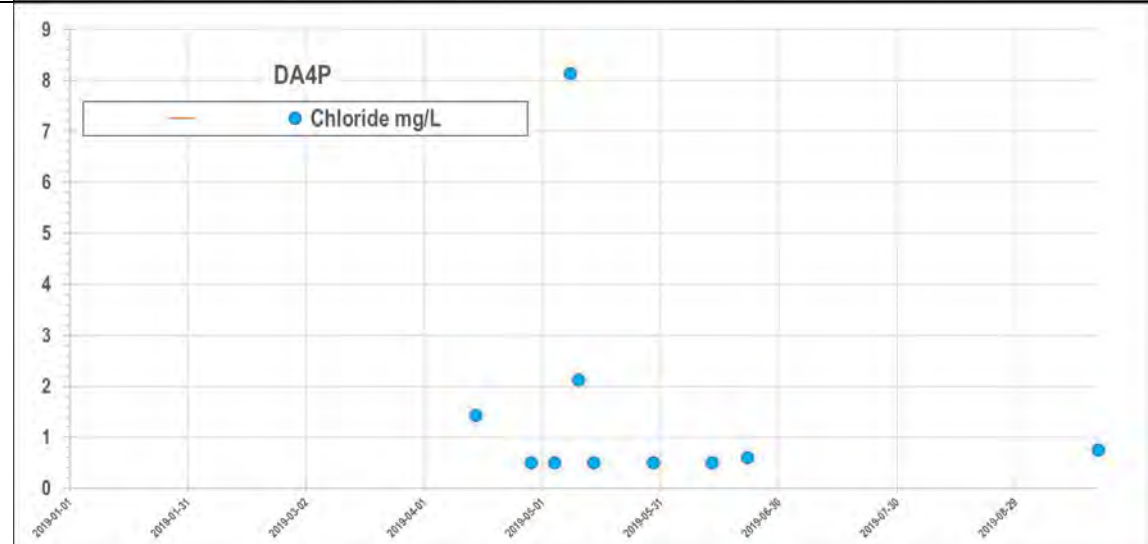
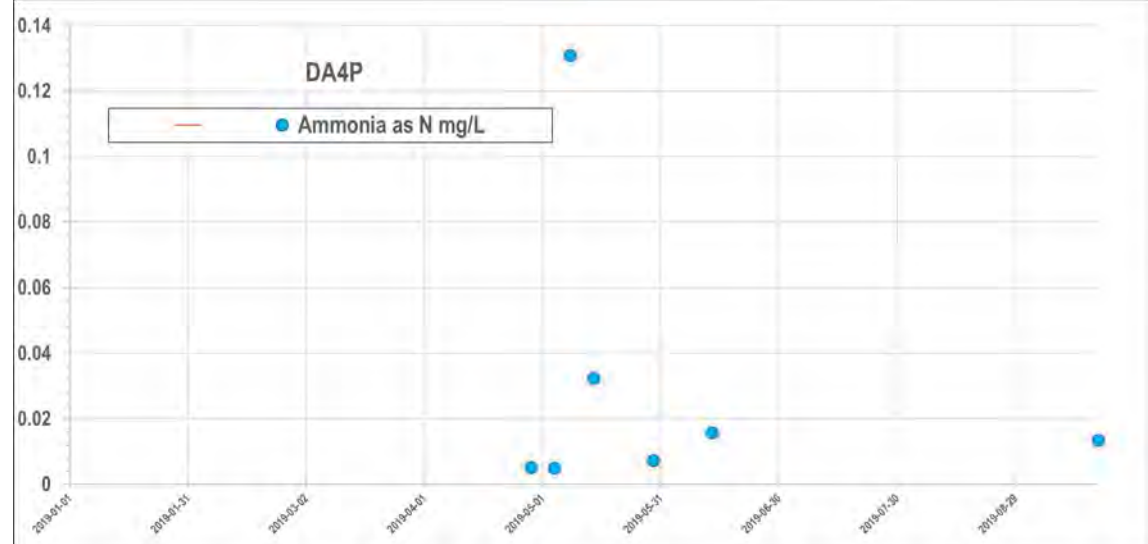
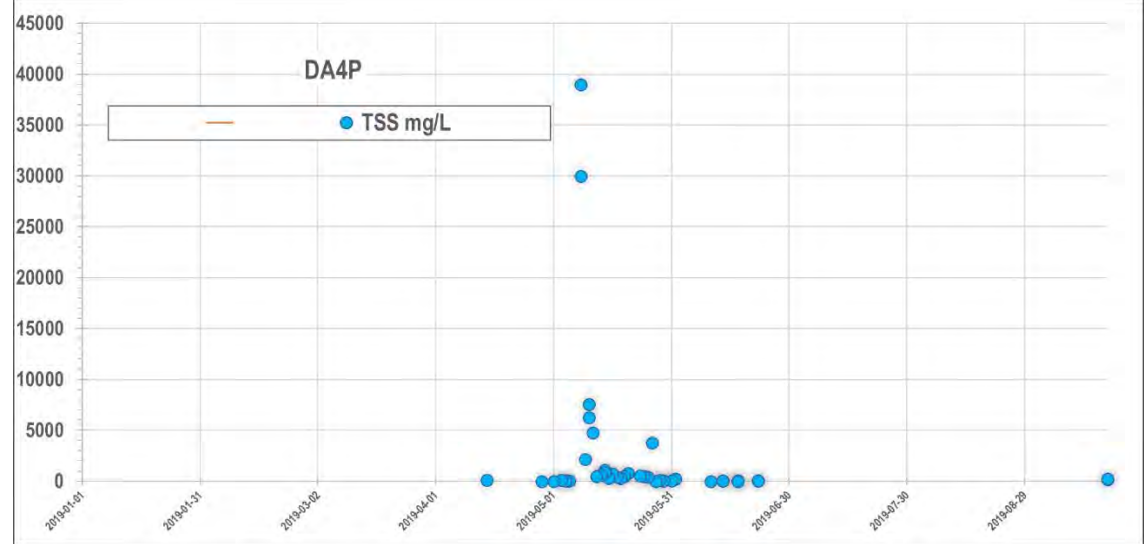
APPENDIX B
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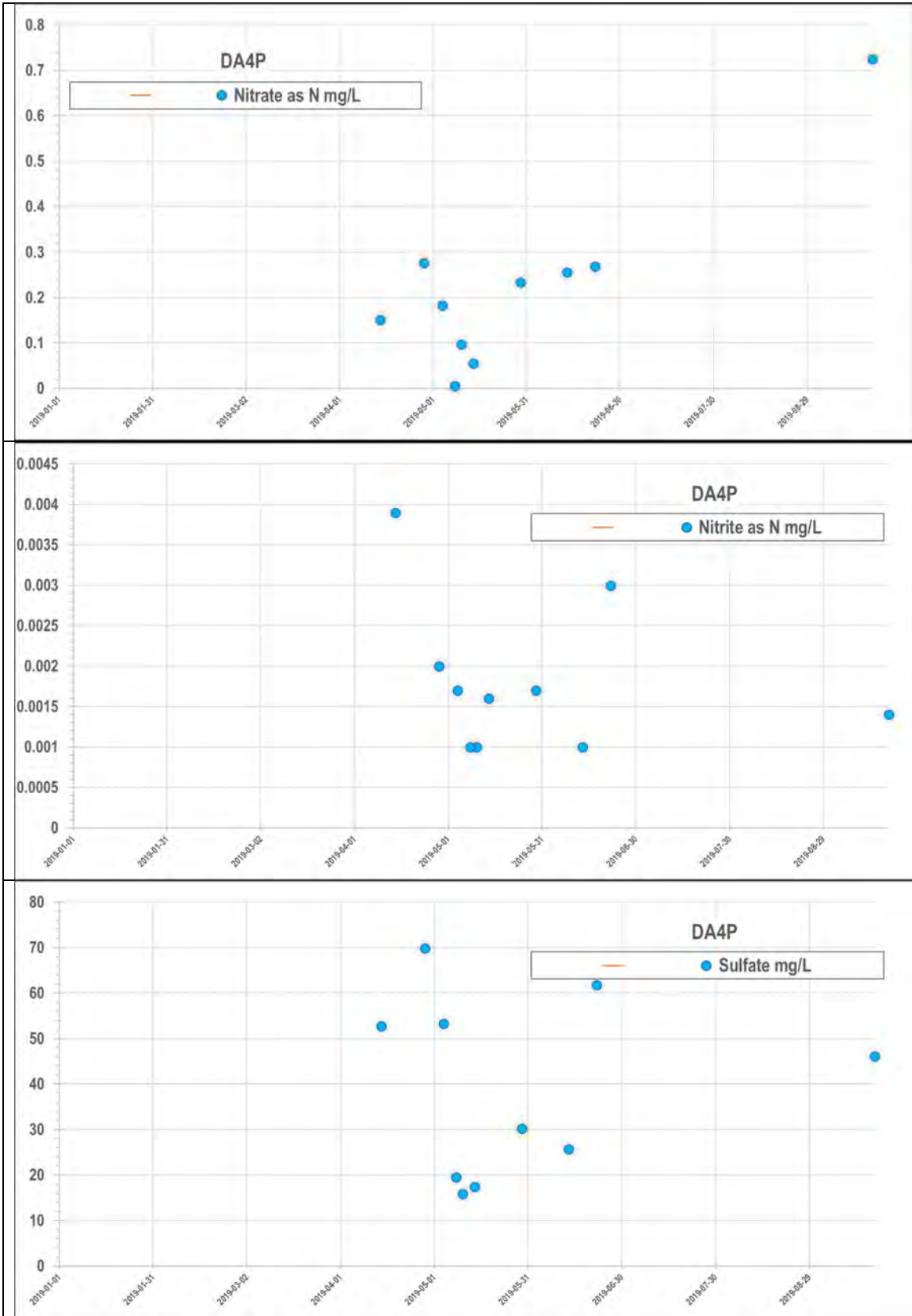
APPENDIX B
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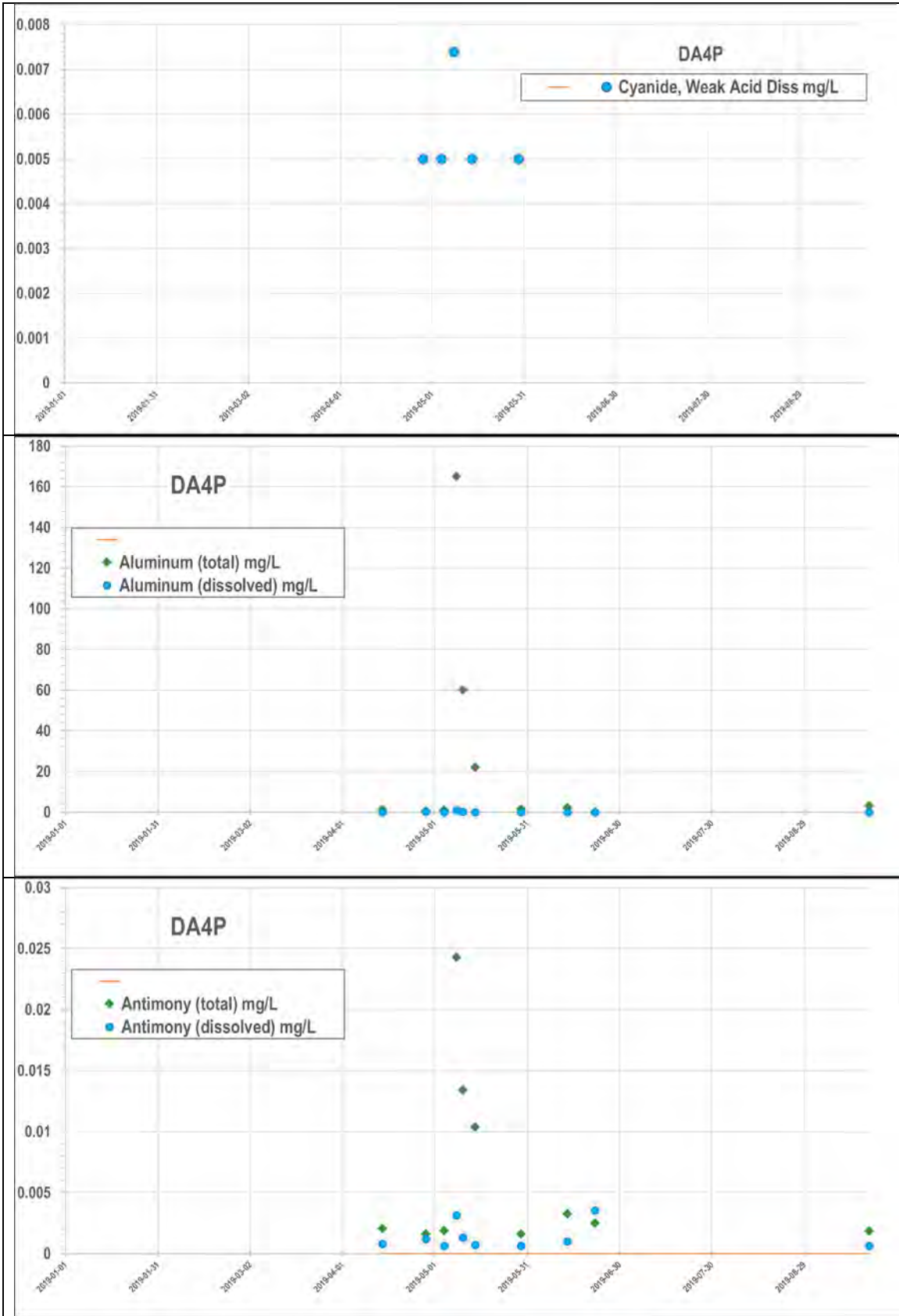
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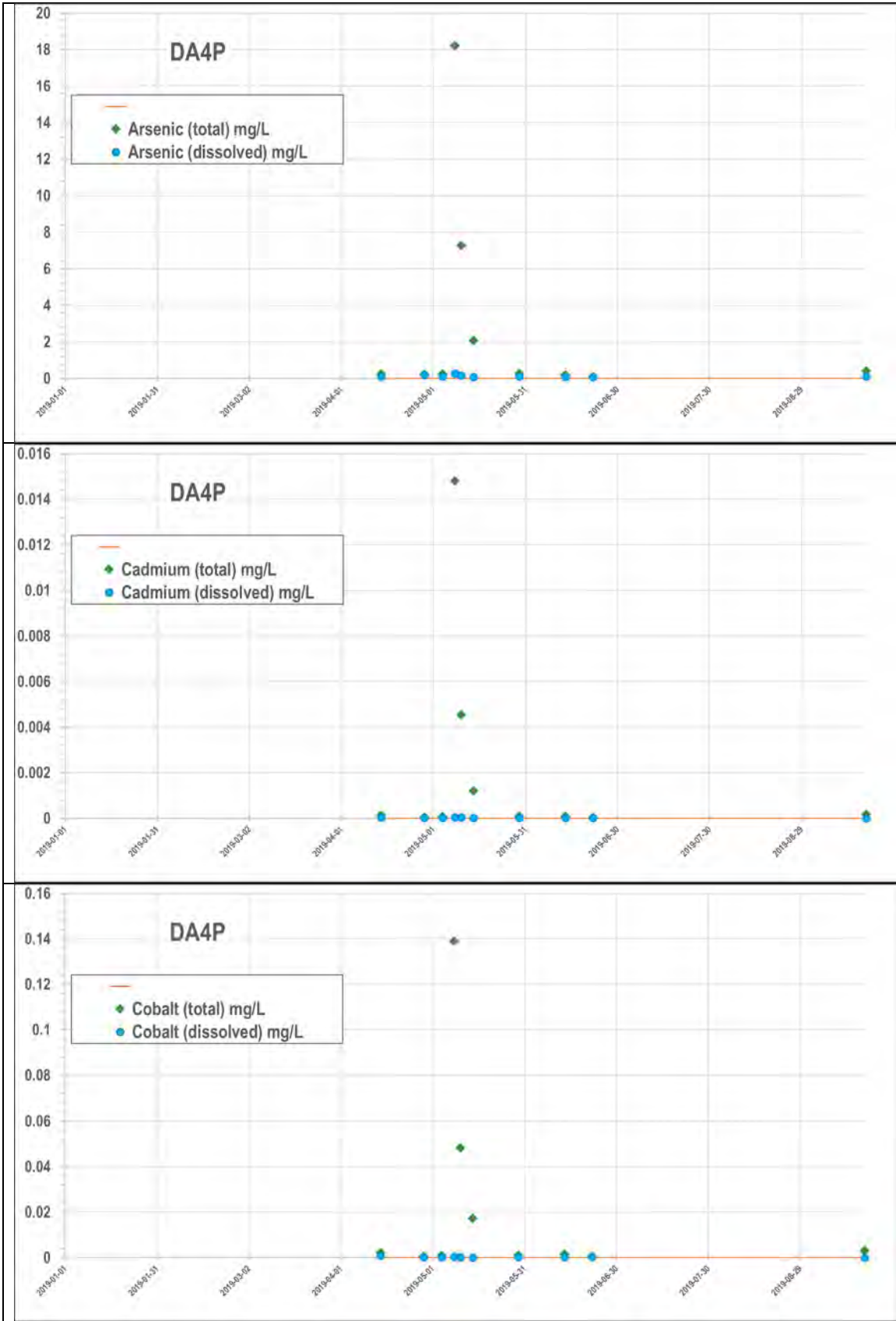
APPENDIX B
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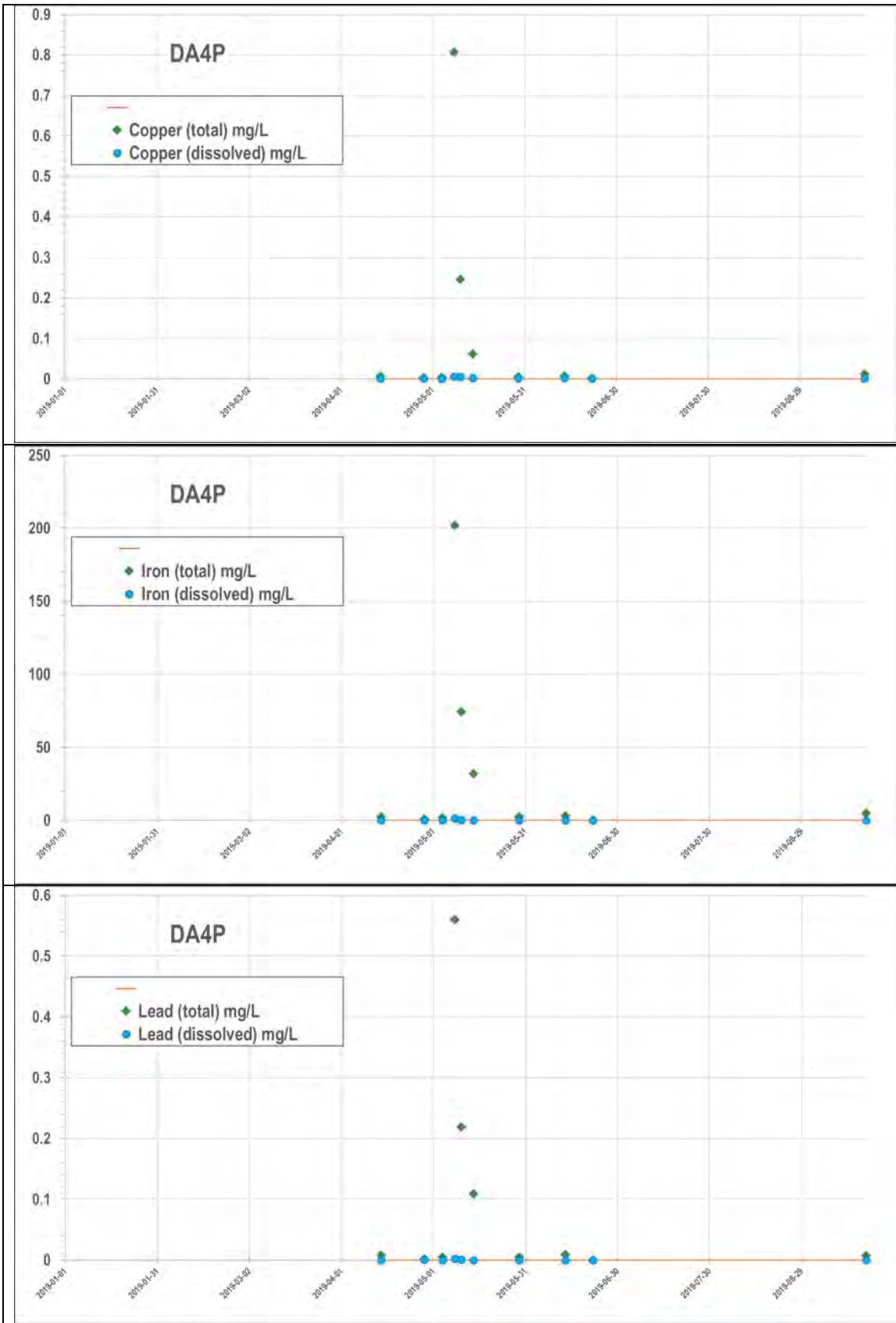
APPENDIX B
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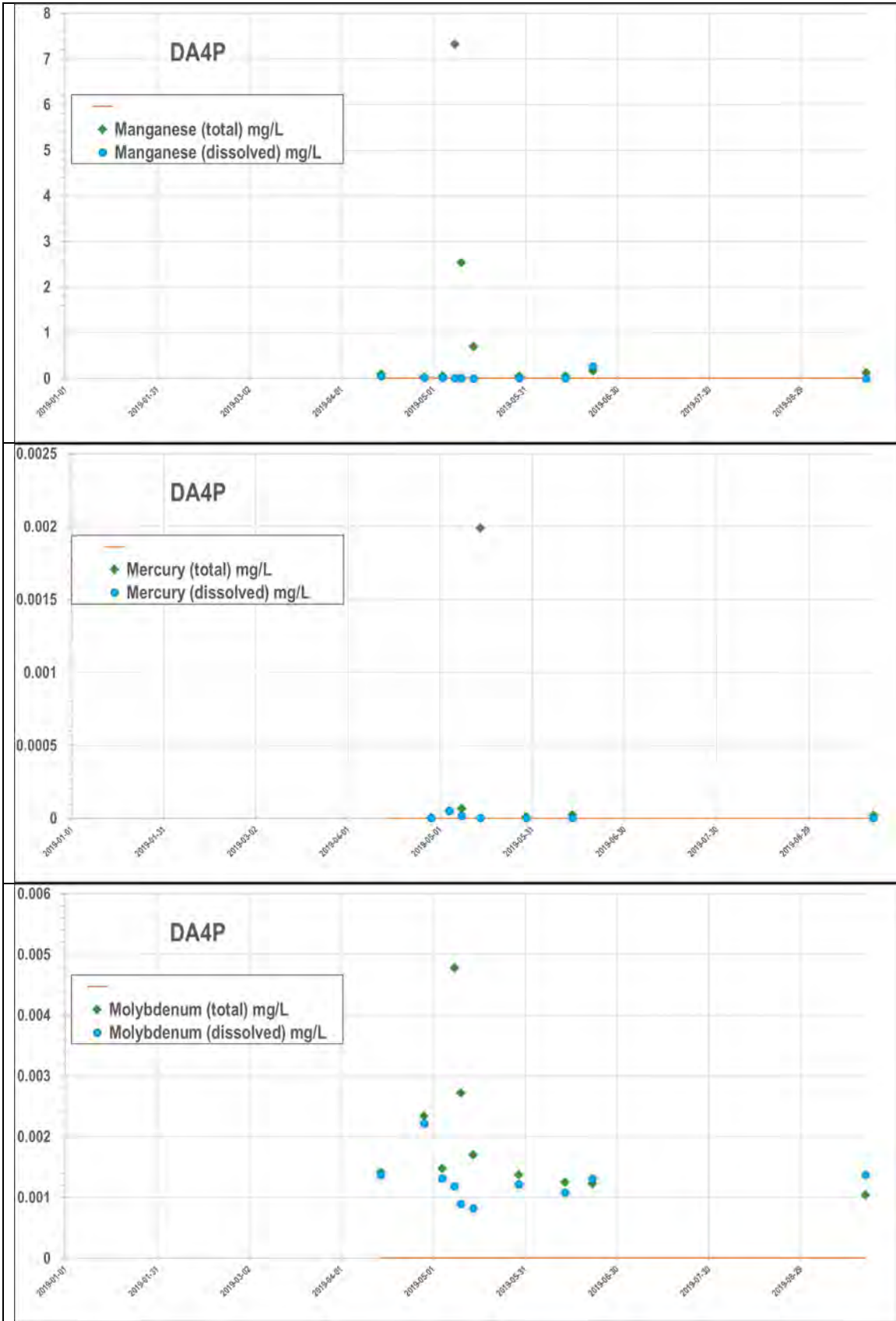
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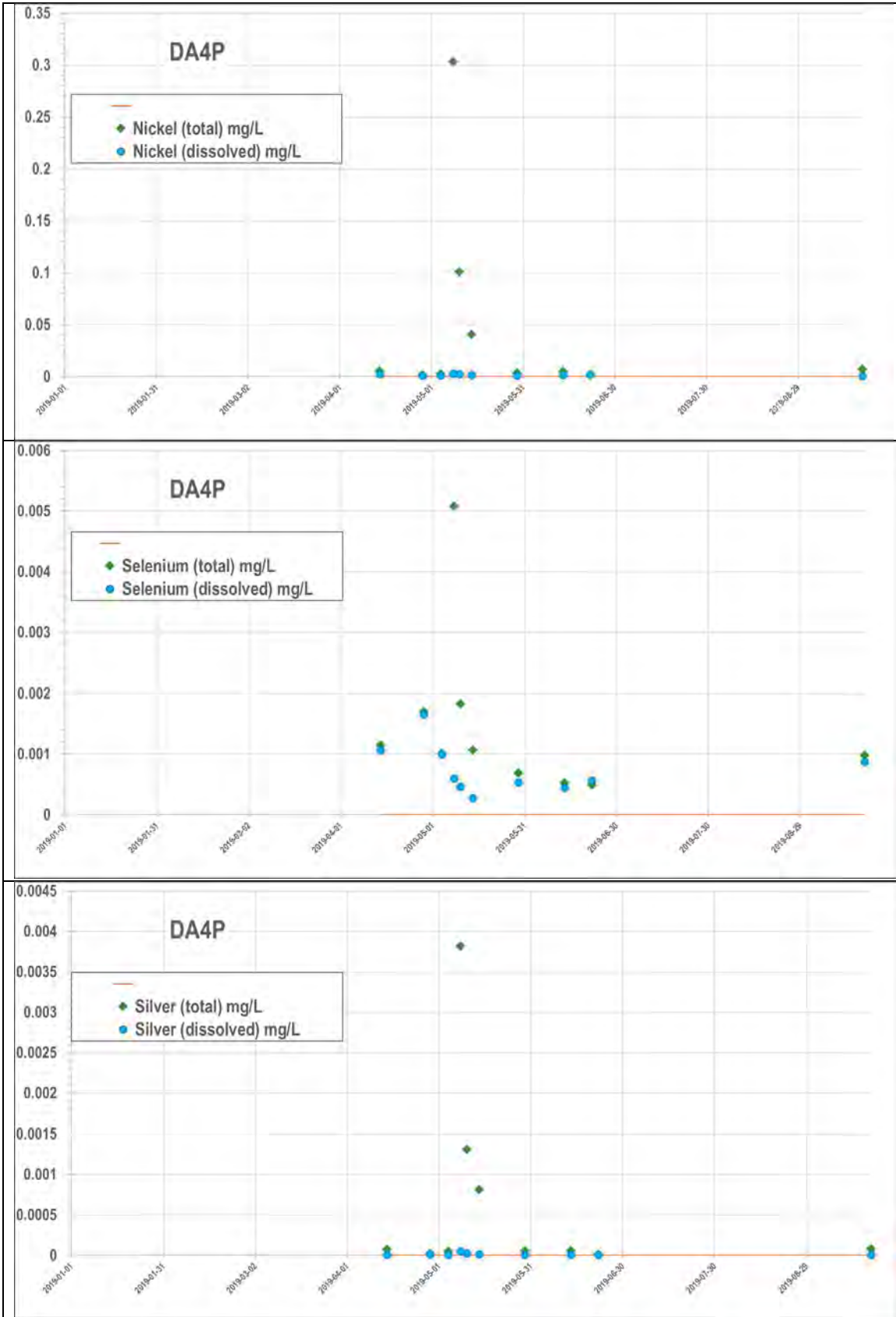
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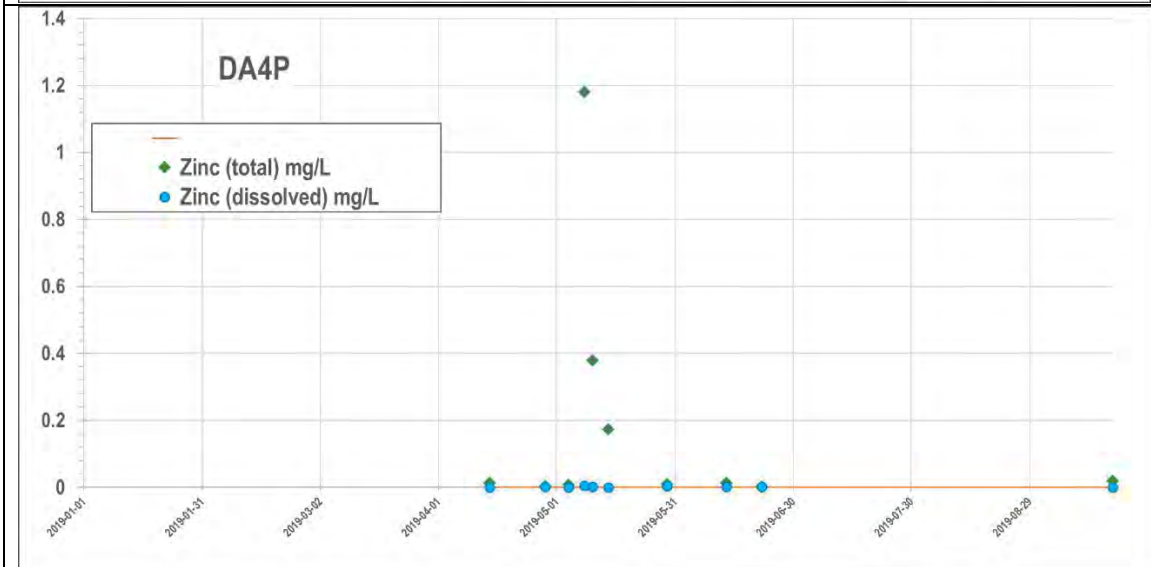
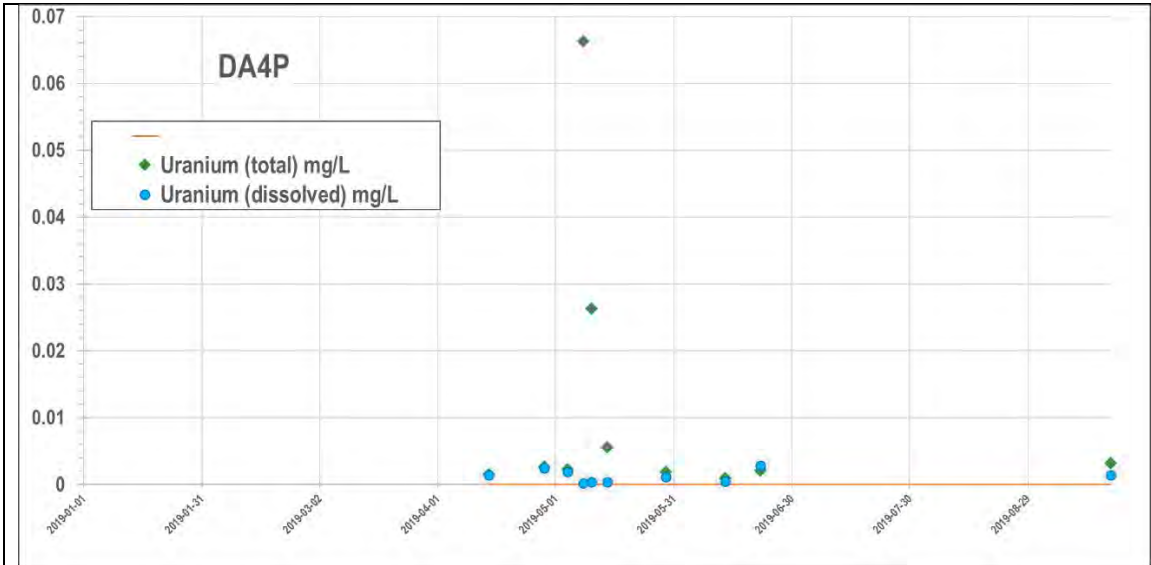
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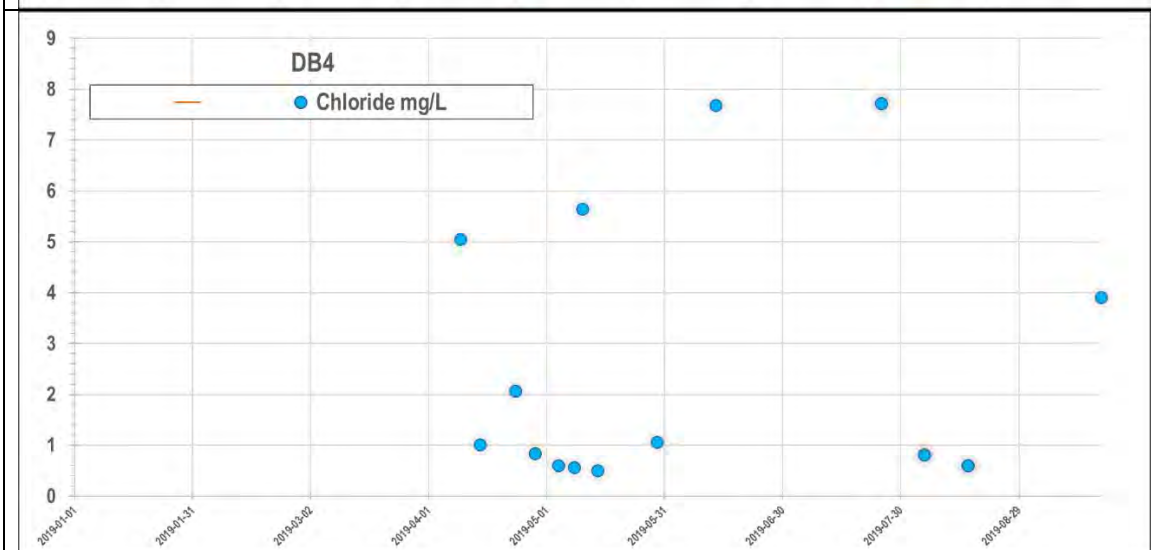
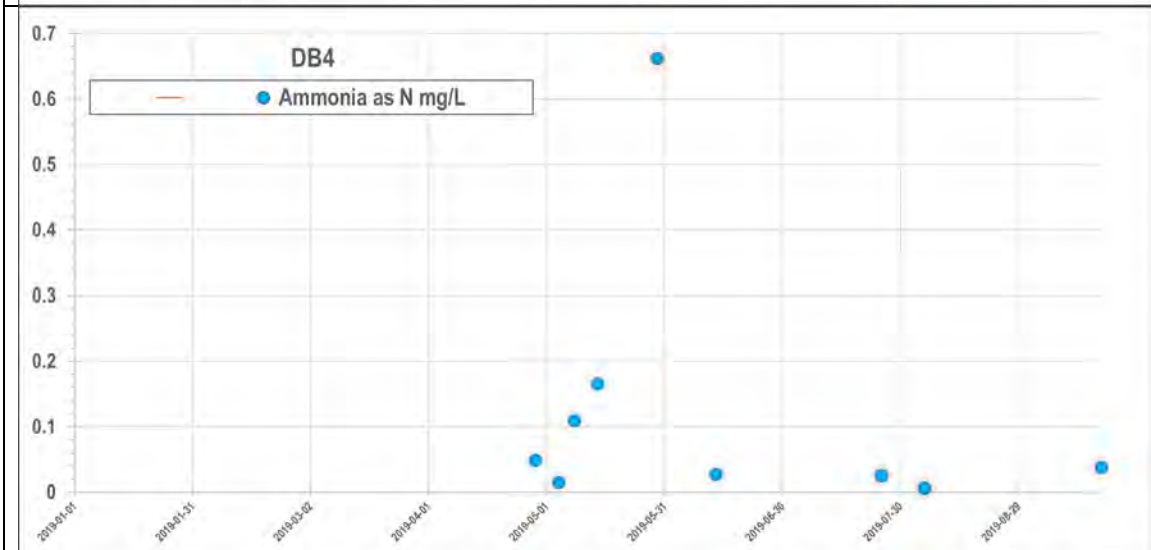
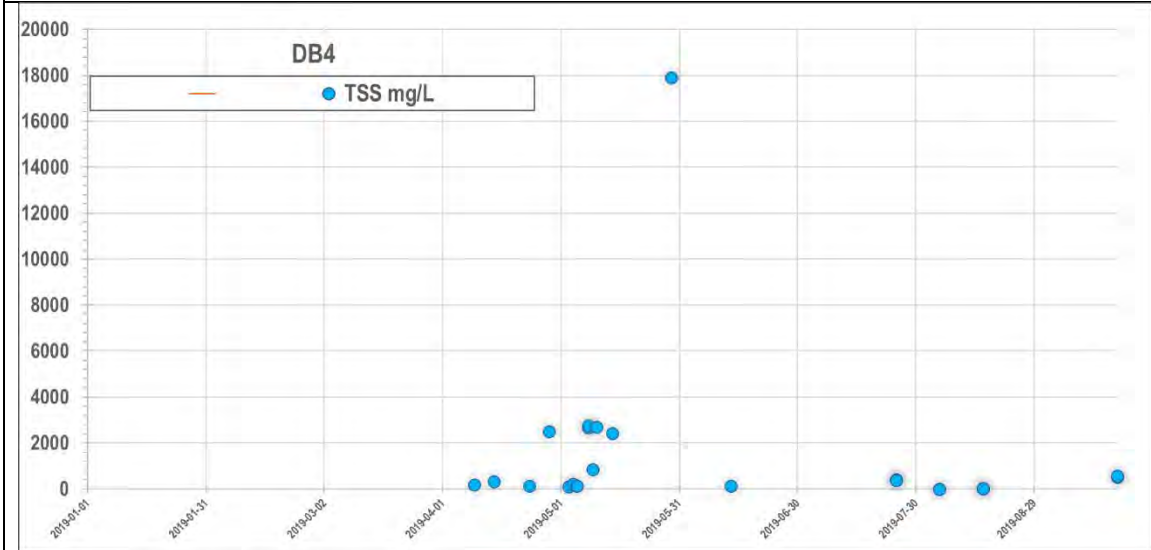
APPENDIX B
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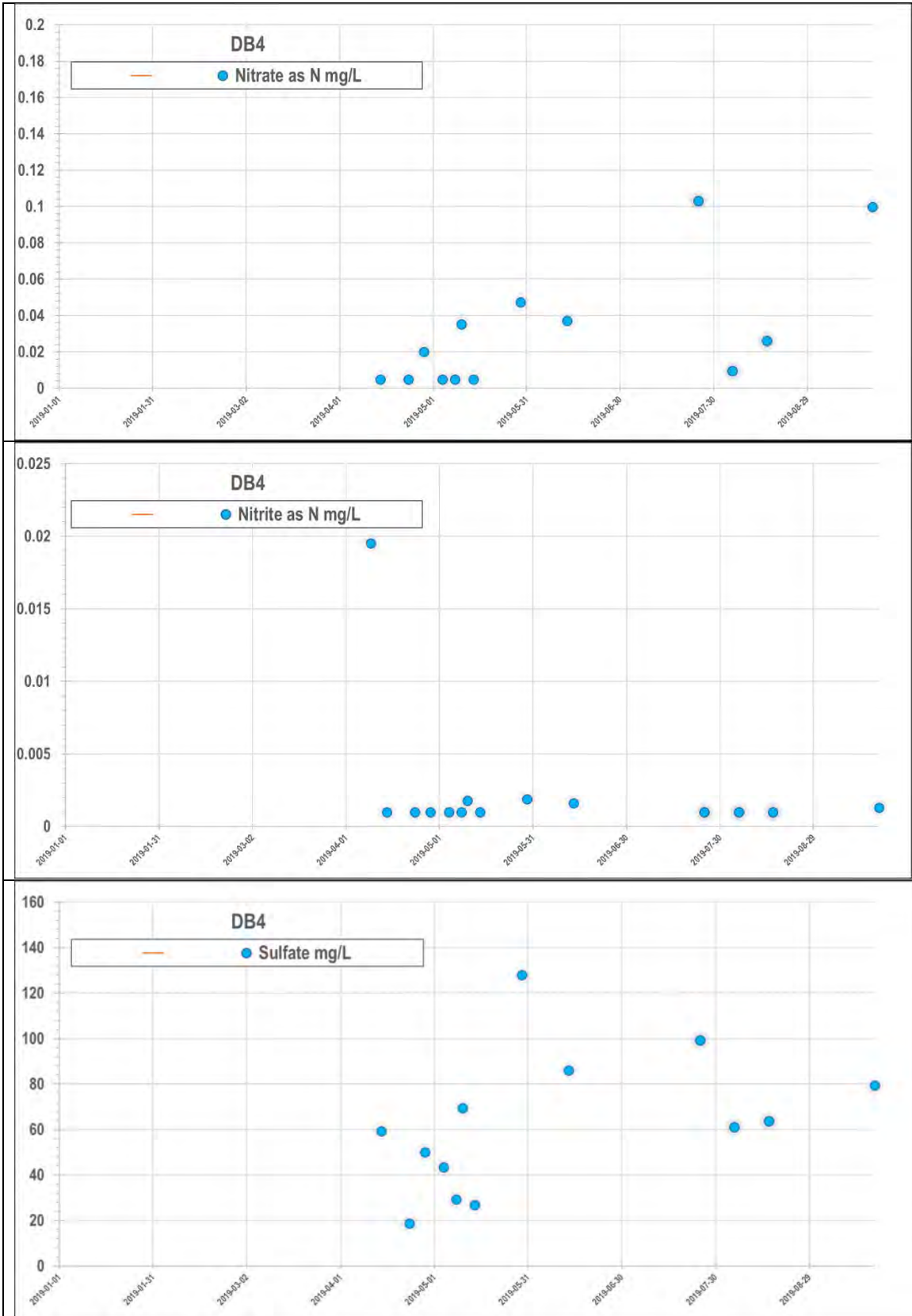
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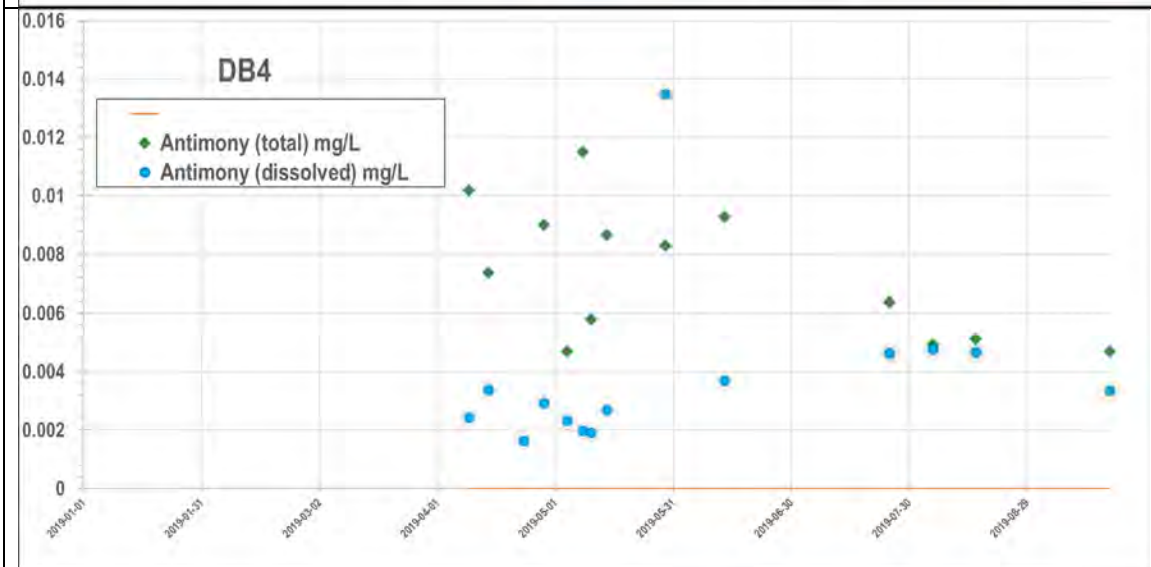
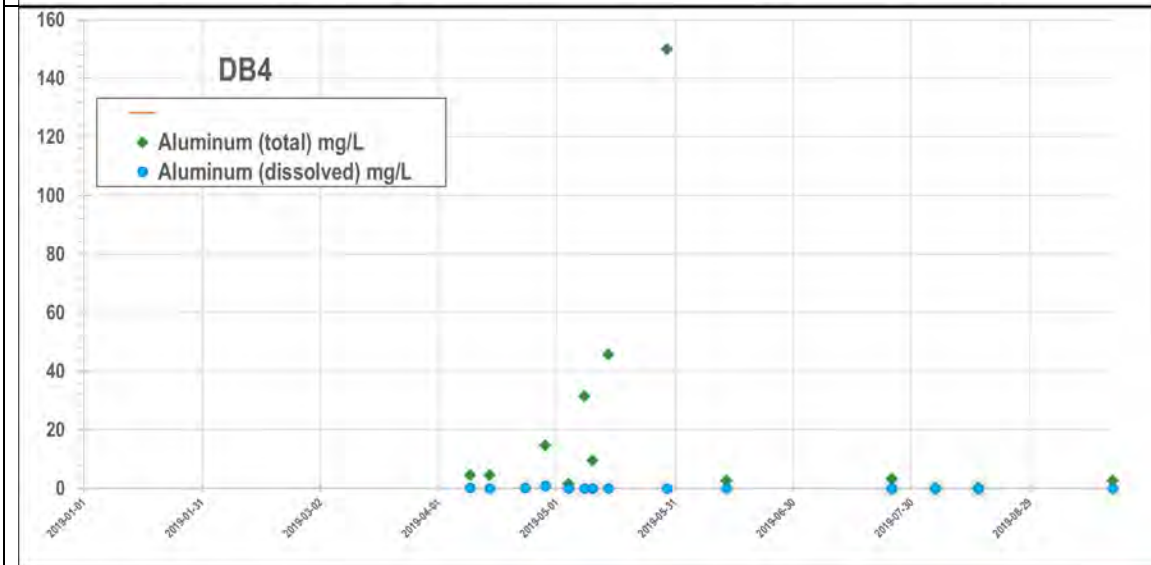
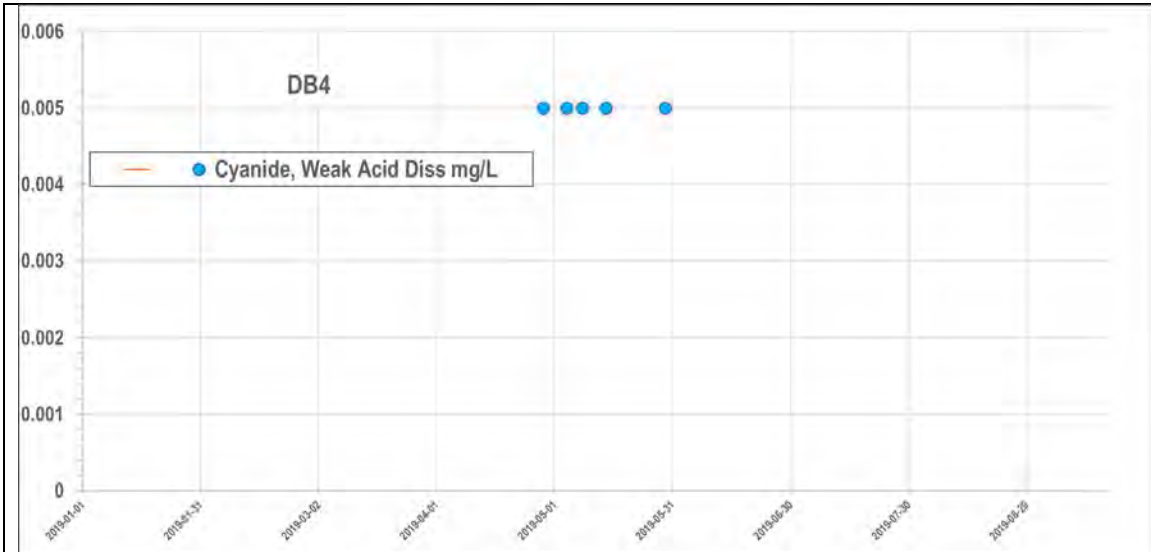
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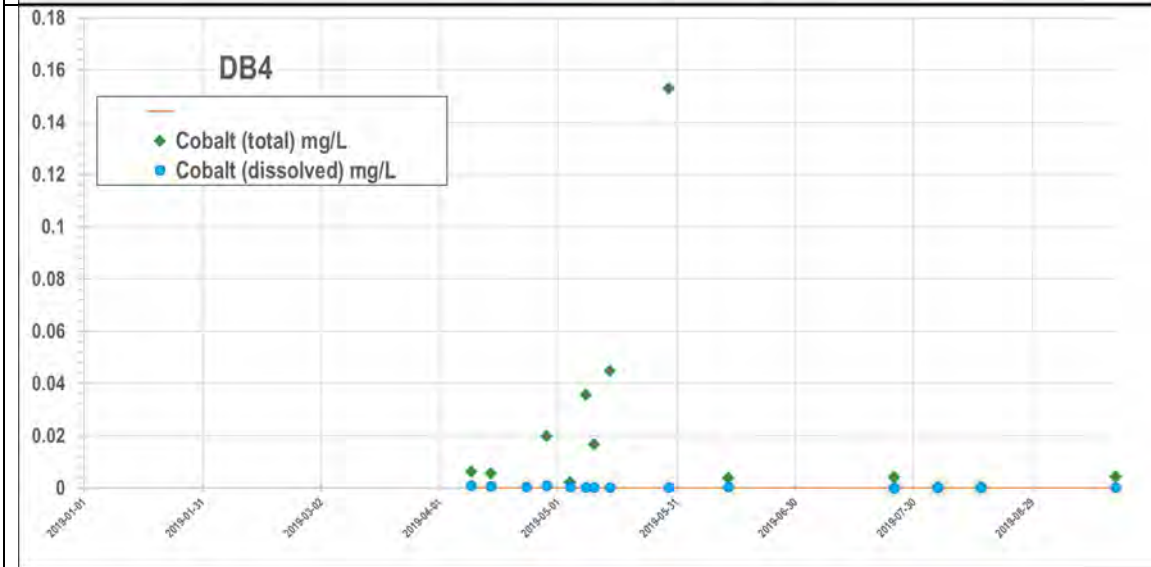
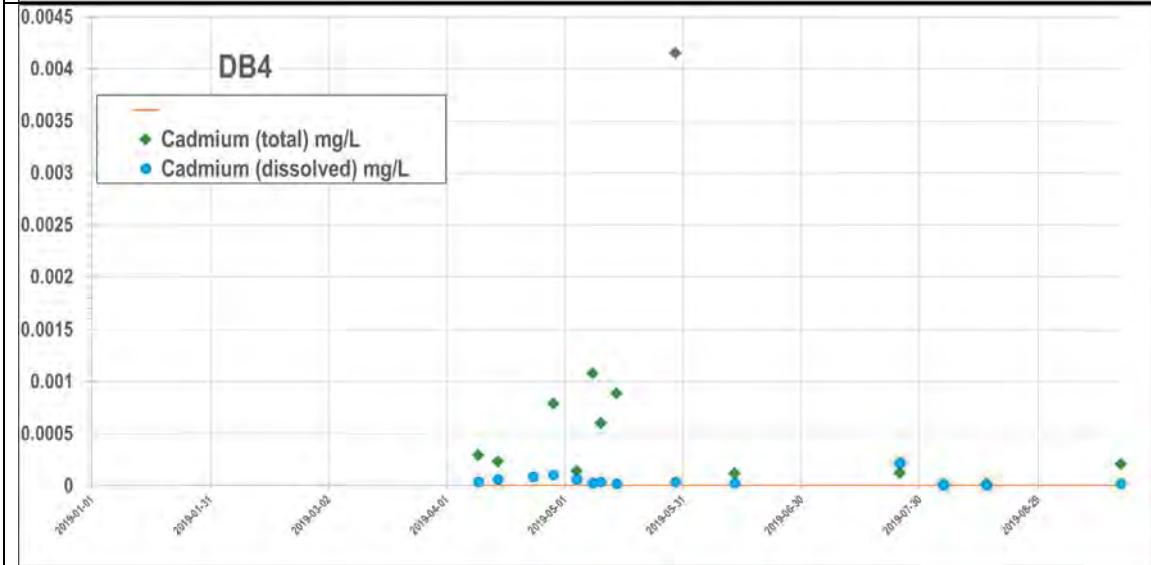
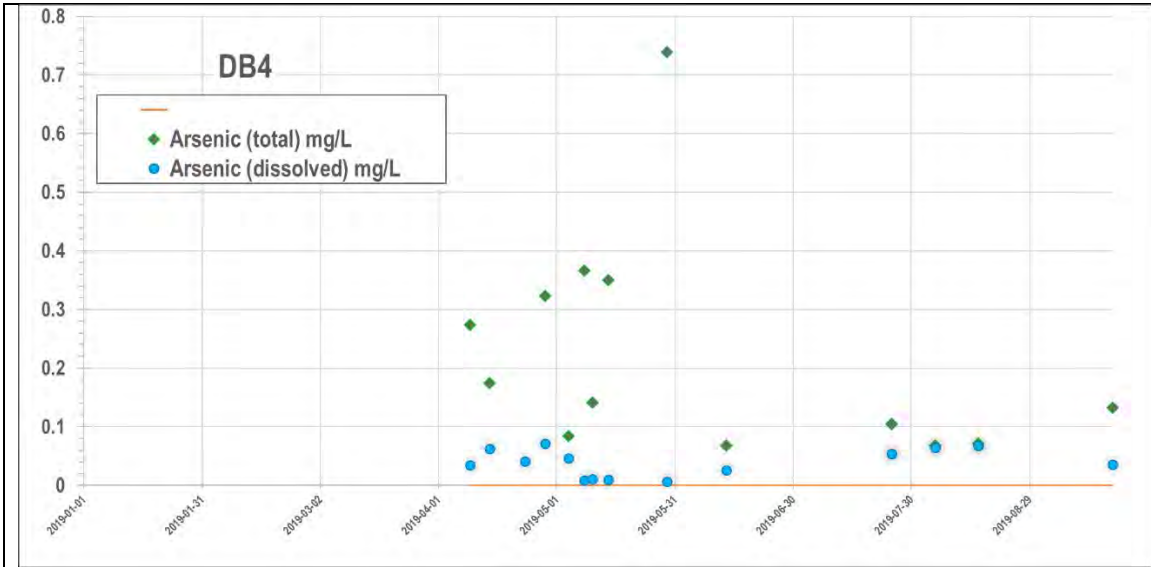
APPENDIX B
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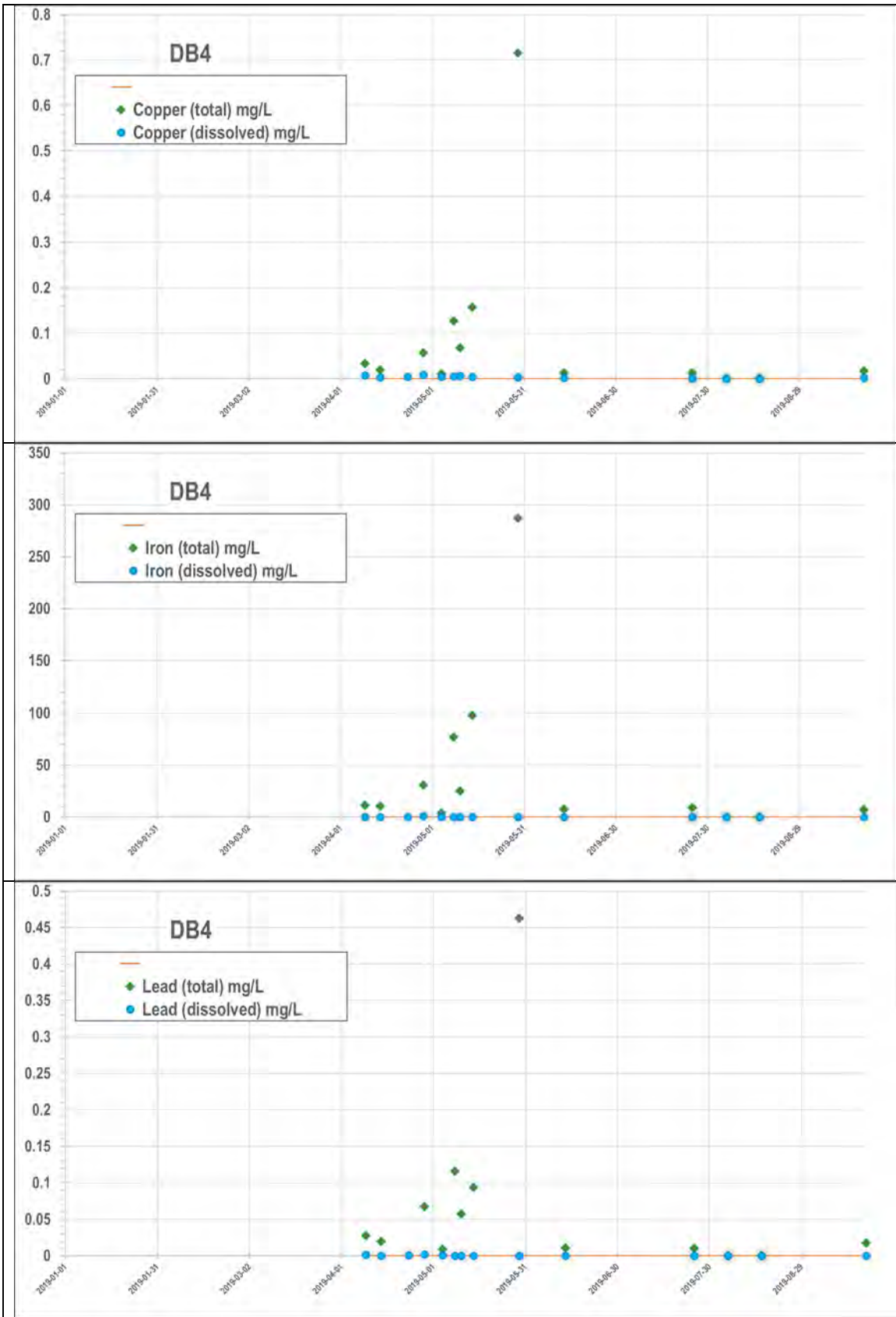
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 EAGLE GOLD – 2019 SURFACE WATER QUALITY SUMMARY



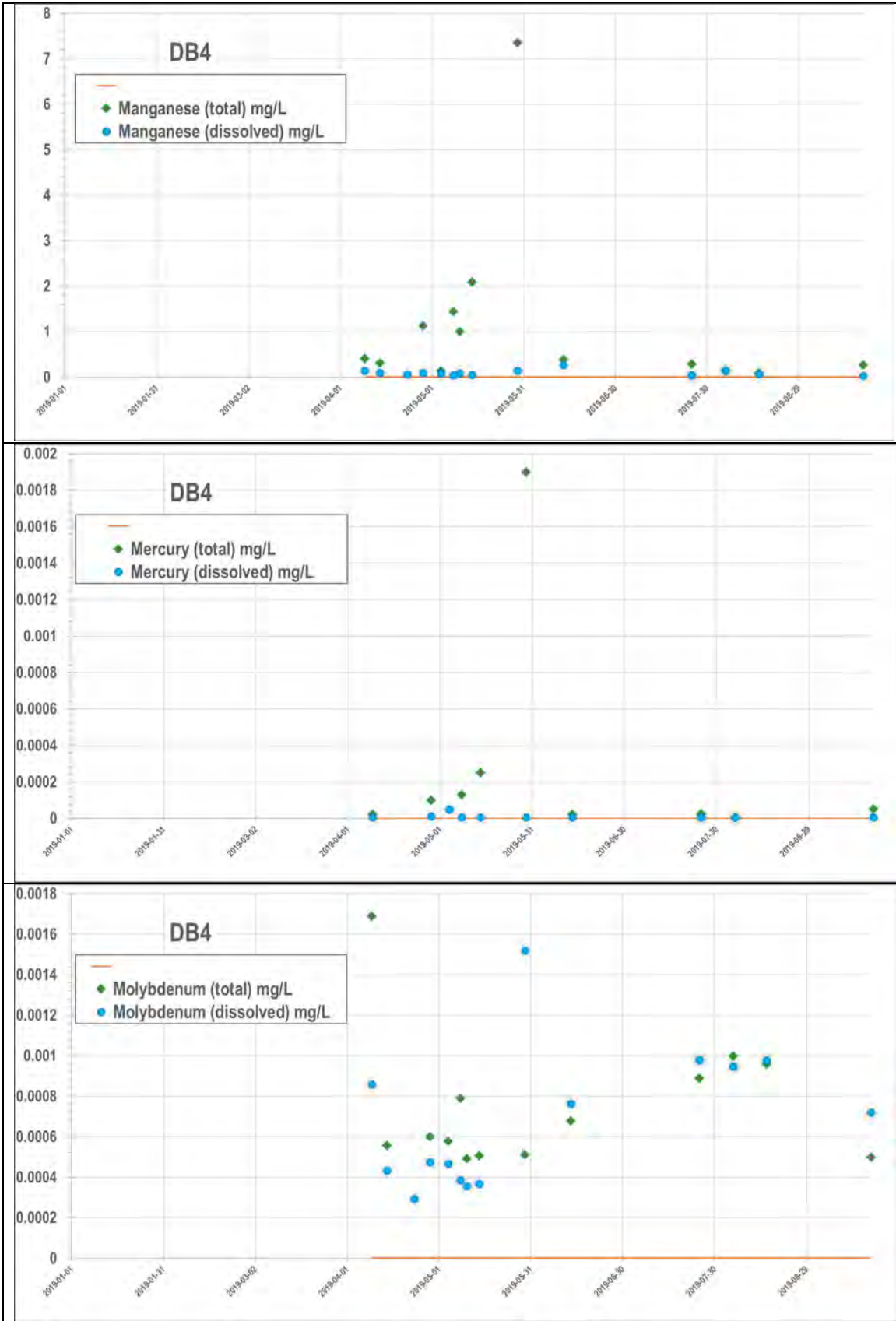
APPENDIX B
 EAGLE GOLD – 2019 SURFACE WATER QUALITY SUMMARY



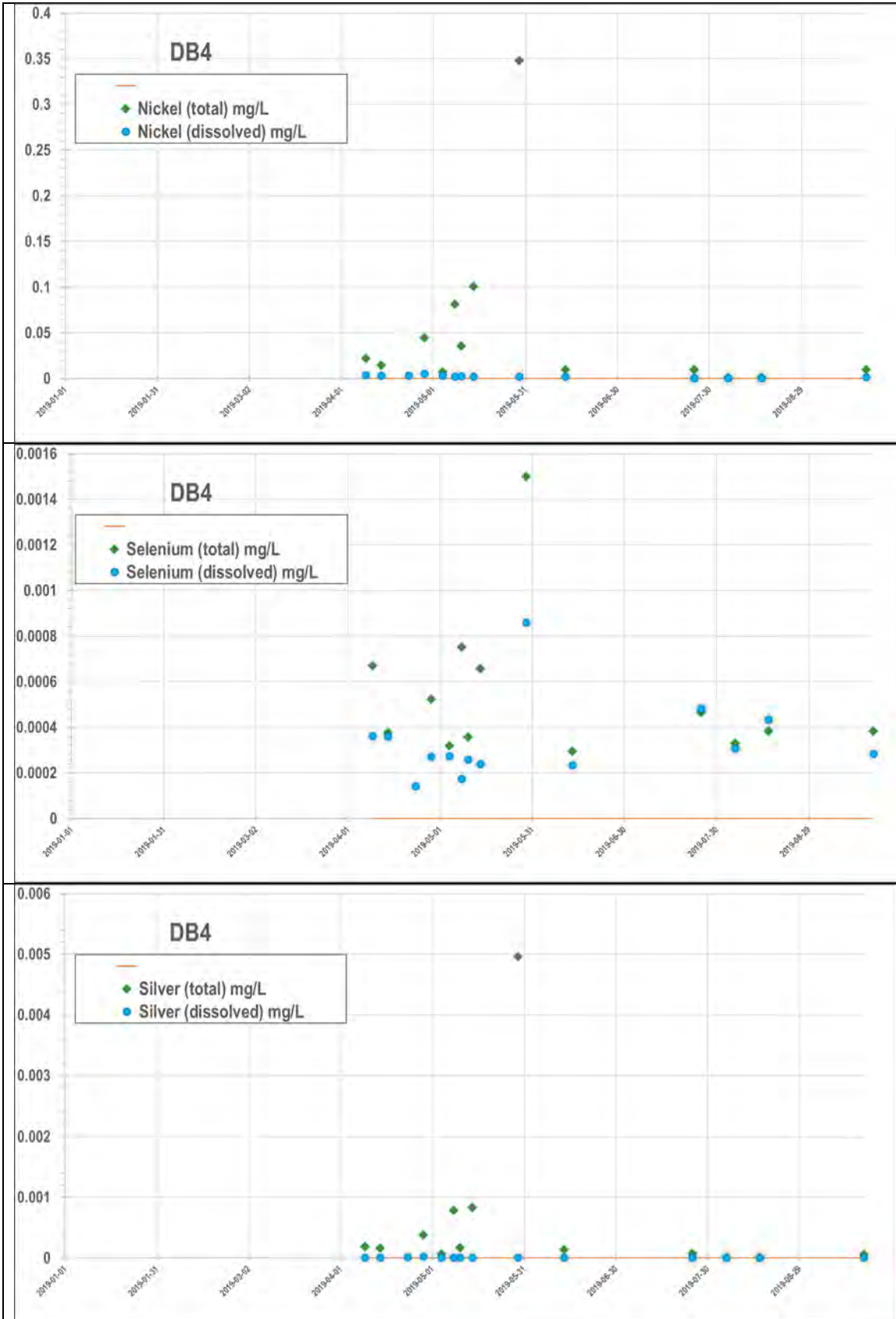
APPENDIX B
 EAGLE GOLD – 2019 SURFACE WATER QUALITY SUMMARY



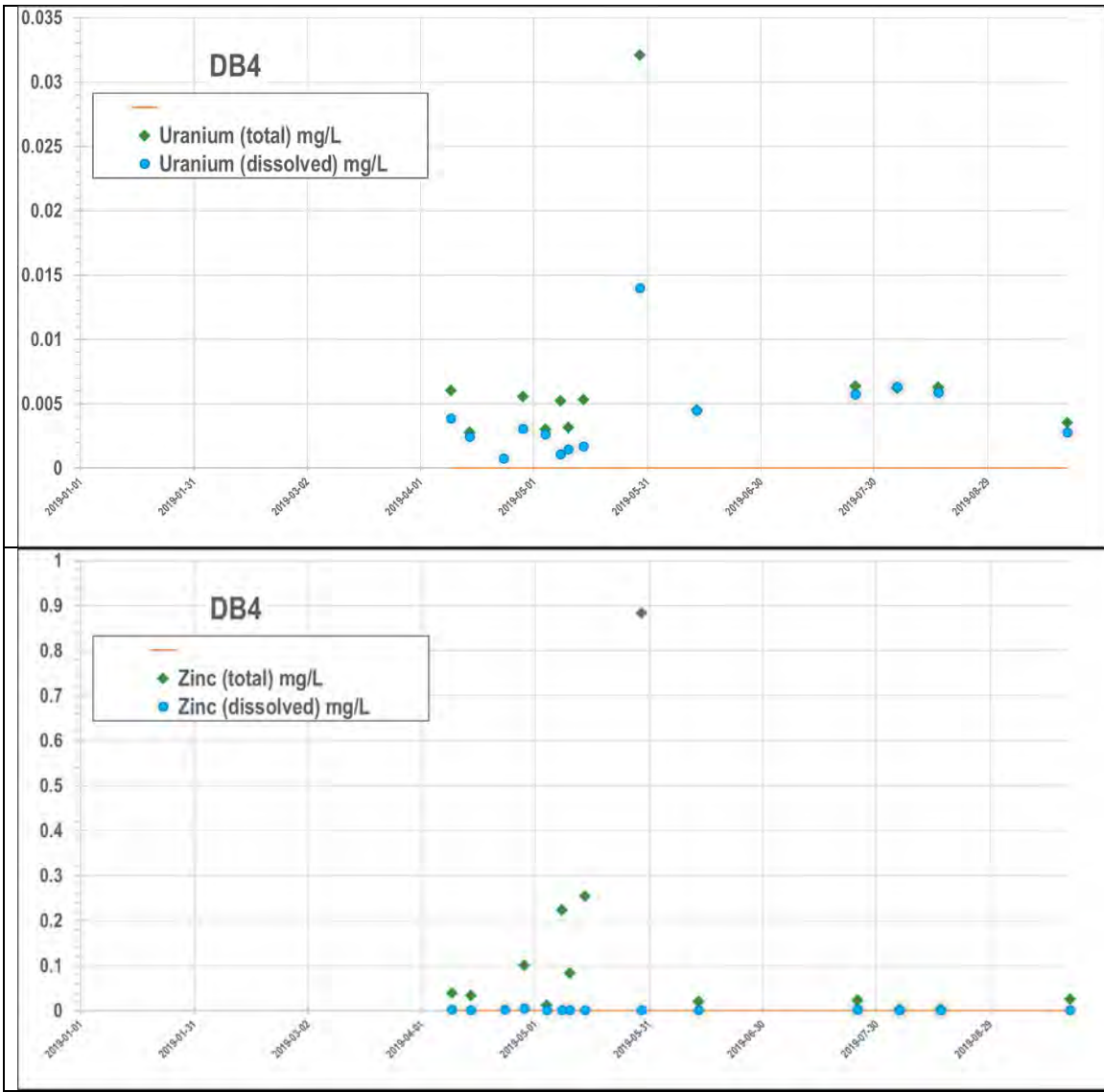
APPENDIX B
 EAGLE GOLD – 2019 SURFACE WATER QUALITY SUMMARY



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APPENDIX C
QA/QC FIELD AND TRAVEL BLANK RESULTS

APPENDIX D
QA/QC DISSOLVED VERSUS TOTAL METALS
