

September 1, 2020

Mr. Leo Hellested, P.E.
Office of Waste Management
Solid Waste Section
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908-5767

Attn: Mr. Robert Schmidt

Re: **Quarterly Monitoring Report**
2nd Quarter (June) 2020, Surface Water and Groundwater Monitoring, Sampling, and Analysis
Tiverton Municipal Sanitary Landfill
Pare Project No.: 94139.24

Dear Mr. Hellested:

Enclosed herewith are results of the statistical analysis of groundwater monitoring data for the second quarterly monitoring round of Year 2020 from the Tiverton Landfill (Landfill). Pare Corporation (Pare) has prepared this report on behalf of the Town of Tiverton (Town). Pare conducted the groundwater sampling on June 24, 2020 at the background wells OW-9, OW-12 and OW-17, and compliance wells OW-7, OW-13, OW-14, OW-15, and OW-16. June 2019 was the first quarterly monitoring period where OW-12 has been designated as a background well. OW-17 was installed as an additional background well in April 2019.

Groundwater samples were analyzed by New England Testing Laboratory (NETLAB) of West Warwick, Rhode Island for the constituents listed in the Rhode Island Department of Environmental Management's (RIDEM's) *Solid Waste Regulations No.2, Solid Waste Landfills (250-RICR-140-05-2), Section 2.3.26, Constituents for Detection Monitoring*. Certified laboratory results data are enclosed as **Attachment 1** and are summarized on attached Table 1.

Groundwater field parameters consisting of temperature, pH, and specific conductivity were measured at each monitoring well, in accordance with the RIDEM-approved Groundwater Monitoring Plan for the Landfill. Field parameters were collected until three successive measurements stabilized within $\pm 3\%$ for temperature, ± 0.1 standard unit for pH, and $\pm 3\%$ for specific conductivity, in accordance with US EPA's Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures. Field parameters are documented on Field Sampling Data Sheets, which are provided as **Attachment 2**.

Combustible gases are monitored at each well and at the top of the Landfill. Each of the well locations, with the exception of OW-15, had no detections of combustible gas observed during this monitoring round. During the June 2020 monitoring round, OW-15 had a methane reading of $>99\%$ the Lower Explosive Limit (LEL). Additionally, a carbon monoxide concentration of 35 ppm was observed at OW-15, and total volatile organic compounds (TVOCs) were detected at 5.3 ppm. Historically, combustible gas monitoring during quarterly groundwater monitoring events had not resulted in detections of LEL exceedances until March 2019, when OW-15 produced a concentration of combustible gases at 44% of the LEL. Subsequent monitoring has resulted in continually increasing LEL fractions being detected, indicating that further assessment is warranted in this area. During this quarterly monitoring round, Pare reinstalled the cap of OW-15's standpipe to allow ventilation until such time that a vented standpipe cap can be obtained, which is anticipated to be received prior to the third quarterly monitoring round (September 2020). The

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only other instrument detections observed during the June 2020 monitoring round were a TVOC concentration of 9.8 ppm at OW-13. LEL monitoring will continue with additional actions recommended if necessary. The results of surface water and groundwater sampling and analysis are summarized in the following section.

HUMAN HEALTH THRESHOLD EVALUATION

Background Well OW-9 – Six (6) target metals were reported in the groundwater sample collected from OW-9 above the laboratory detection limits. None (0) of the detected target metals were reported above their corresponding Safe Drinking Water Act Maximum Contaminant Levels (MCLs) or human health thresholds at OW-9. No (0) target volatile organic compounds (VOCs) were reported above laboratory detection limits at OW-9.

Background Well OW-12 – Six (6) target metals were reported in the groundwater sample collected from OW-12 above the laboratory detection limits. None (0) of the detected target metals were reported above their corresponding MCLs or human health thresholds at OW-12. No (0) target VOCs were reported above laboratory detection limits at OW-12.

Background Well OW-17 – Nine (9) target metals were reported in the groundwater sample collected from OW-17 above the laboratory detection limits. None (0) of the detected target metals were reported above their corresponding MCLs or human health thresholds at OW-17. No (0) target VOCs were reported above laboratory detection limits at OW-17.

Compliance Well OW-7 – Seven (7) target metals were reported in the groundwater sample collected from OW-7 above the laboratory detection limits. None (0) of the detected target metals were reported above their corresponding MCLs or human health thresholds at OW-7. One (1) target VOC, methyl tert-butyl ether (MTBE), was detected above the laboratory detection limits but below the applicable MCL and human health threshold. No (0) other target VOCs were reported above laboratory detection limits at OW-7.

Compliance Well OW-13 – Thirteen (13) target metals were reported in the groundwater sample collected from OW-13 above laboratory detection limits. One target metal, cadmium, was detected above the MCL (0.0095 mg/L detected vs. 0.005 mg/L MCL). The concentration of cadmium at OW-13 appears to vary, with the most recent exceedance of the MCL detected in March 2017 and September 2016 (0.005 mg/L and 0.029 mg/L, respectively). No other detected target metals were reported above their corresponding MCLs or human health thresholds at OW-13. Two (2) target VOCs; chlorobenzene, and MTBE; were detected above of the laboratory detection limits but below the applicable MCLs and human health threshold values. No (0) other target VOCs were reported above laboratory detection limits at OW-13.

Compliance Well OW-14 – Ten (10) target metals were reported in the groundwater sample collected from OW-14 above laboratory detection limits. None (0) of the detected target metals were reported above their corresponding MCLs or human health thresholds at OW-14. Four (4) target VOCs; 1,4-dichlorobenzene, benzene, chlorobenzene, and MTBE; were reported above laboratory detection limits but below their respective MCLs and human health thresholds. No (0) other target VOCs were reported above their laboratory detection limits at OW-14.

Compliance Well OW-15 – Eight (8) target metals were reported in the groundwater sample collected from OW-15 above laboratory detection limits. One (1) of the detected target metals, arsenic, was reported in excess of the MCL (0.0283 mg/L detected vs. 0.01 mg/L MCL). Arsenic has historically been detected at OW-15 at similar concentrations since December 2015. Arsenic concentrations typically range between 0.0066 mg/L (March 2020) to 0.0700 mg/L in September 2016. All other detected target metals were reported below their corresponding MCLs or human health thresholds at OW-15. Three (3) target VOCs; benzene, chlorobenzene, and MTBE were reported above their laboratory detection limits but below their applicable MCLs and human health thresholds. No (0) other target VOCs were reported above their laboratory detection limits at OW-15.



Compliance Well OW-16 – Nine (9) target metals were reported in the groundwater sample collected from OW-16 above laboratory detection limits. None (0) of the detected target metals were reported above their corresponding MCLs or human health thresholds at OW-16. One (1) target VOC, MTBE, was detected above the laboratory detection limits, but below the MCL and human health threshold. No (0) other target VOCs were reported above laboratory detection limits at OW-16.

TOLERANCE INTERVAL STATISTICAL EVALUATION

The Tolerance Interval (TI) approach was used to develop Tolerance Limits (TLs) for each target inorganic constituent (i.e., metals) using the background well analytical results from the eight preceding rounds for which analytical results are available. The data from OW-12, recently designated as a background well, was included in a re-evaluation of background TLs during this monitoring period. Due to occasional inability to sample one or more background wells, data from the present monitoring period through December 2016 were utilized to calculate applicable background TLs. The TI approach is considered inappropriate for analysis of organic constituents due to their presence being the result of anthropogenic activities. The TL for organic constituents is therefore presumed to be zero (i.e., not present); however, laboratory detection limits are unable to reach this level of certainty and as such, this method is not applicable to organic constituents and was therefore not performed to evaluate the results of reported VOCs.

Three (3) metals; arsenic, barium, and cobalt; had reported concentrations that exceeded their corresponding TLs calculated during the June 2020 monitoring round in at least one compliance well. In total, there were five (5) TL exceedances of these metals in this monitoring round. The TLs and the corresponding compliance well data from this monitoring round are presented in Table 2. Barium and cobalt are routinely detected in groundwater beneath the landfill. The concentration of arsenic detected at OW-15 was present in excess of the Site-specific TL and the MCL. Additionally, while compliant with the Site-specific TL, cadmium was detected at one (1) well, OW-13, in excess of the applicable MCL.

CUSUM METHOD STATISTICAL EVALUATION

The Shewhart-CUSUM Method, a supplemental statistical analysis method used in addition to the TI Method, was performed in accordance with the US EPA documents titled "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Interim Final Guidance, April 1989" and "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Addendum to Interim Final Guidance, July, 1992". Graphs of CUSUM values for inorganic metals for each observation well is shown on **Attachment 3**. Due to revised laboratory analytical methodology, the laboratory method detection limits for the parameters have been significantly lowered since the initial calculation of CUSUM parameters. As such, these values were recalculated to adjust for lowered method detection limits, and the CUSUM values for any parameters that exceeded the 1/2 limit of 5 standard deviations were reset to zero at the June 2019 sampling round to evaluate changes to CUSUM values that have occurred within the past year to date. OW-7 and OW-9 have also been incorporated into the Shewhart-CUSUM model.

No compounds exceeded their respective Shewhart-CUSUM thresholds during the June 2020 monitoring round based on the updated parameters to adjust for lowered laboratory method detection limits. The graphs for barium at OW-13 and OW-14, and the graph for arsenic at OW-15 indicate that the CUSUM values are beginning to increase but are well below the threshold.

The Shewhart-CUSUM models between OW-16 and OW-7 indicate a greater variance of impact to OW-7 from metals, specifically arsenic, cadmium, copper, lead and zinc, compared with OW-16. As these wells are located within a wetland area and OW-7 represents overburden groundwater, the metal concentrations observed in this monitoring well may be influenced by anaerobic microbial digestion. No compounds exceeded their respective Shewhart-CUSUM thresholds in these wells. Concentrations of these and remaining targeted metal compounds do



not appear to be significantly different between the two wells. In general, barium, cadmium, chromium, cobalt and nickel have been detected at higher concentrations in OW-7 than in OW-16, however no parameters have exceeded the applicable threshold values since June 2018.

ASSESSMENT MONITORING

The Shewhart-CUSUM analysis is utilized, along with the Tolerance Limits, to identify when Assessment Monitoring should be performed. In accordance with the May 2006 Groundwater Monitoring Plan, Assessment Monitoring is triggered if:

1. An inorganic parameter exceeds the upper Tolerance Limit in two (2) consecutive rounds *and* that parameter exceeds one of the two (2) Shewhart-CUSUM control limits in the latter monitoring round; or
2. An organic parameter exceeds one of the two Shewhart-CUSUM control limits.

During the previous monitoring period, barium, copper, and zinc concentrations were detected at OW-13 in concentrations calculated to exceed the Shewhart-CUSUM thresholds. Copper and zinc were below the Site-specific tolerance limit, and barium was detected in OW-13 at a concentration similar to those observed in previous monitoring rounds. As such, assessment monitoring was not performed during the previous round, and the data does not currently indicate that assessment monitoring is warranted for the September 2020 monitoring round.

SURFACE WATER MONITORING

Per the request of the RIDEM in a letter dated January 31, 2019, the Town began incorporating surface water monitoring at surface water locations SW-1, SW-2, and SW-3 into the existing regular quarterly monitoring program. The parameters for surface water monitoring include: Solid Waste Regulations No. 2, Section 2.3.26: *Detection Monitoring* metals, mercury, tin, iron, calcium, magnesium, ammonia, total Kjeldahl nitrogen (TKN), total nitrogen, total phosphorus, and hardness. Data are summarized in attached Table 3, and the laboratory analytical report is provided as **Attachment 4**. Additionally, field screening was performed at each surface water location to determine temperature, pH, and specific conductivity.

Monitoring Location SW-1 – Eight (8) targeted Detection Monitoring metals were identified in the surface water sample collected at SW-1 above laboratory detection limits. Additional detected targeted metals included calcium, magnesium, and iron. Arsenic, iron, and lead were detected in excess of the Human Health Threshold values, and the concentrations of iron, zinc and lead detected also exceeded the chronic freshwater aquatic life threshold values. Additionally, ammonia, total nitrogen as nitrates and nitrites, and TKN were detected in the samples collected at SW-1; however, they did not exceed their given threshold values, or no threshold values have been established for these parameters. During sample collection, the water was observed to be relatively stagnant where normally a flowing stream is observed. Concentrations detected during this monitoring round may have been affected by the stagnant water.

Monitoring Location SW-2 – Eight (8) targeted Detection Monitoring metals were identified in the surface water sample collected at SW-2 above laboratory detection limits. Additional detected targeted metals included calcium, magnesium, and iron. Arsenic and iron were detected in excess of the Human Health Threshold values, and the concentrations of iron, zinc and lead detected also exceeded the chronic freshwater aquatic life threshold values. Additionally, ammonia, total nitrogen, and TKN were detected in the samples collected at SW-2; although they did not exceed their given threshold values, or no threshold values have been established for these parameters.

Monitoring Location SW-3 – Nine (9) targeted Detection Monitoring metals were identified in the surface water sample collected at SW-3 above laboratory detection limits. Additional detected targeted metals included calcium, magnesium, and iron. Arsenic, barium, iron and lead were detected in excess of the Human Health Threshold values,



and concentrations of chromium, copper, iron, zinc and lead detected also exceeded the chronic freshwater aquatic life threshold values. Additionally, ammonia, total nitrogen, total phosphorus, and TKN were detected in the samples collected at SW-3; total phosphorus (17.3 mg/L) exceeded the human health threshold of 0.025 mg/L, and total nitrogen (97.7 mg/L) exceeded the human health threshold of 10 mg/L. During sample collection, relatively stagnant water and wetland conditions were observed in this area, including plant and animal life commonly found in wetland environments, and a rotten-egg odor when collecting the sample of SW-3. Based on the analytical results for nitrogen and phosphorus, it is possible that the anaerobic conditions typical of wetland biomes have resulted in increased levels of phosphorus and nitrogen being released into the environment. No stressed vegetation or wildlife were observed during sample collection.

Targeted analytes detected above the laboratory detection limit in all three (3) surface water samples appear to be present in higher concentrations than previously observed. Several naturally occurring factors may have contributed to an increase in the concentrations of targeted parameters, including:

- Below average precipitation – According to data maintained by the National Oceanic and Atmospheric Administration (NOAA), the average precipitation in Tiverton for the month of June is 3.88 inches. For the month of June 2020, only 2.63-inches of precipitation were recorded from the station nearest to the Site, with 1.19-inches occurring prior to the date of sample collection. During sample collection, the water bodies from which the surface water samples are collected were observed to be relatively stagnant, where normally flowing water is visible. Stagnant water can lead to anaerobic conditions favorable to microbes present in wetland environments, as observed in the area of SW-3 during this monitoring round. A copy of the station results is provided as **Attachment 5**.
- Anaerobic conditions observed in the field and consistent with below average precipitation – Wetland conditions as described above result in consumption of dissolved oxygen in water through microbial respiration. When dissolved oxygen has been sufficiently depleted, the microbial population adjusts through the use of other oxidized materials such as nitrate, iron, manganese, and sulfates, which may be present in the water or naturally occurring in soils within the wetland. These processes can cause the release of metal cations and the formation of inorganic metal compounds that may be water-soluble or present in the water column.

The increased concentrations of targeted analytes identified in SW-2, previously observed to be located upgradient of the landfill, further support the presence of naturally occurring factors. As the processes occurring in anaerobic conditions encountered in wetlands are often cyclical, a return to similar concentrations as previously observed is expected to occur in the September 2020 monitoring round. Pare will attempt to conduct the September 2020 quarterly monitoring event within 72-hours but not less than 24-hours after a significant storm event to ensure that flow conditions in the surface water sample collection areas are similar to those historically observed. Should conditions continue to exhibit high concentrations of metal compounds, additional analysis may be warranted, including dissolved oxygen, an evaluation of phosphate compounds (natural vs anthropogenic phosphates) and/or analysis of flowing water conditions (i.e. not stagnated by lack of precipitation/sedimentation processes). Graphs depicting historical concentrations of inorganic metals identified in surface water are provided as **Attachment 6**.

MTBE ANALYSIS

Many of the most recent Assessment Monitoring rounds have been conducted due to MTBE concentrations in groundwater. Reported MTBE concentrations have generally risen since September 2006, as depicted in **Attachment 7**. Figure 1 in **Attachment 7** compares the recent increases in reported MTBE data from September 2006 to June 2020, while Figure 2 compares the MTBE concentrations detected at OW-7 and OW-16 since November 2017. MTBE concentrations are compared to historical concentrations and drinking water advisories defined in the US EPA document titled “2011 Edition of the Drinking Water Standards and Health Advisories”.



Although reported MTBE concentrations appeared to be trending slowly upward, MTBE has never been reported above its odor threshold (0.020 mg/L) or its taste threshold (0.040 mg/L). The US EPA has not established a human health advisory concentration for MTBE.

Since the beginning of quarterly monitoring in 2018, concentrations of MTBE now appear to be stabilizing in OW-13, OW-14, and OW-15, with all detected concentrations during the June 2020 round being lower than the highest concentrations historically detected at each well and well below the odor and taste thresholds as well as being below the RIDEM GA Groundwater Objectives. Past Assessment Monitoring performed due to MTBE Shewhart-CUSUM threshold exceedances in these wells has not recently identified detectable concentrations of Section 2.3.27 parameters, and as such, it is Pare's opinion that the increasing trend in MTBE concentrations beneath the Landfill previously observed is an isolated phenomenon and not the result of a significant change in groundwater quality beneath the Landfill.

Despite CUSUM values of MTBE at OW-13, OW-14, and OW-15 remaining above their threshold during the June 2020 monitoring round, Pare does not recommend Assessment Monitoring due to the aforementioned MTBE trend. The lack of Section 2.3.27 parameters in the past suggests that the presence of MTBE trend does not indicate an increased likelihood that Section 2.3.27 parameters would be present beneath the Landfill.

MTBE concentrations at OW-7 and OW-16 appear to be relatively similar and trending toward an overall decrease in concentration. The data appears to indicate a hydrogeological connection between the overburden and bedrock groundwater aquifers in this area, as well as seasonal fluctuations in concentrations of MTBE, which appear to increase during the winter months at OW-16 while decreasing at OW-7, and decrease during the summer months at OW-16 while increasing at OW-7.

CONCLUSIONS AND RECOMMENDATIONS

Currently, the Town conducts Detection Monitoring at the Landfill for the parameters listed in Section 2.3.26 of the State Solid Waste Regulations, as well as mercury and tin. During this monitoring round, three (3) metals; arsenic, barium and cobalt; exceeded their tolerance limits (TLs) in at least one well. Additionally, while compliant with the Site-specific TL, the concentration of cadmium detected at OW-13 exceeded the MCL. Arsenic, barium and cobalt are routinely detected in groundwater at the Site, and past assessment monitoring due to an influx of these compounds in groundwater has not been indicative of the presence of additional Section 2.3.27 parameters. As such, Pare is of the opinion that Assessment Monitoring is not warranted for the September 2020 monitoring round.

Several parameters in surface water were identified during the June 2020 monitoring round in excess of previous concentrations detected as well as applicable human health thresholds and/or freshwater aquatic life criteria. Specifically, arsenic, iron, lead and zinc were detected in excess of one or more criteria in all three (3) surface water samples, and chromium, barium and copper were detected in excess of one or more criteria in SW-3. Concentrations of detected parameters were, on average, higher than previously detected in all three (3) surface water samples. Pare is of the opinion that below average precipitation and the resulting stagnation and anaerobic conditions generated because of the absence of precipitation resulted in excess microbial respiration at the sample locations, which could have resulted in the generation of metal ions and inorganic metal compounds that were subsequently present in the sample at the time of sample collection. To verify if this condition exists, Pare will attempt to conduct the September 2020 monitoring round between 24- and 72-hours after a significant storm event occurs at or near the Site. Based on the data obtained from the September 2020 event, additional evaluation may be warranted.

Pare recommended that wells OW-7 and OW-16 be incorporated into the compliance monitoring regimen in the 2017 Annual Groundwater Monitoring Report. Despite OW-7 having several years of sampling data, the sampling rounds were selected on a rotating basis with wells OW-6 and OW-8 for alternate monitoring. Pare recommended that wells OW-7 and OW-16 be sampled for two years, or eight consecutive monitoring rounds, prior to initiating



Mr. Leo Hellested, P.E.

(7)

September 1, 2020

statistical analysis. The June 2020 monitoring period marks the eighth monitoring round that these wells have been sampled. Samples were not collected from OW-7 and OW-16 in September 2019 due to concerns about Eastern Equine Encephalitis (EEE) and these wells were not sampled in December 2019 due to frozen well conditions. The Shewhart-CUSUM graphs and MTBE concentration graphs for OW-7 and OW-16 are included in this report and will be included and discussed in subsequent reports.

Historically, methane has not been an issue at the Landfill; however, the last four (4) monitoring rounds have seen methane detections at monitoring well OW-15, including a >99% LEL reading in June 2020. Additionally, carbon monoxide was detected at OW-15 during the June 2020 monitoring round at a concentration of 35 ppm. Of note, the manufacturer of the instrument used for gas monitoring at the landfill (RAE Systems MultiRAE multi-gas monitor) indicates that some cross-reactivity of the carbon monoxide sensor may occur with certain compounds, notably hydrogen and ethylene gas, which may be present in landfill gas. Pare is anticipating the installation of a vented standpipe cap at OW-15 during the September 2020 monitoring round and will continue to monitor OW-15 for methane LEL exceedances. If LEL exceedances are still observed upon installation of the vented cap, additional measures will be evaluated to mitigate gas buildup.

Should the RIDEM have any questions regarding this letter or the attached data, please feel free to contact the undersigned at (401) 334-4100, thank you.

Very truly yours,

Timothy P. Thies, P.E.
Senior Vice President

TPT/AWB/abv

Attachments

Figure 1 – Site Plan Depicting Notable Features and Sampling Locations

Table 1 – Historical Analytical Data, Observation Wells

Table 2 – Tolerance Intervals for June 2020 Monitoring Period

Table 3 – Historical Analytical Data, Surface Water Sampling

Attachment 1 – Laboratory Analytical Report, Observation Well Sampling

Attachment 2 – Field Sampling Data Sheets, Surface Water and Observation Water Logs

Attachment 3 – Shewhart/CUSUM Graphs for Inorganic Compounds, Observation Wells

Attachment 4 – Laboratory Analytical Report, Surface Water Sampling

Attachment 5 – June 2020 Precipitation Data, Tiverton, RI

Attachment 6 – Charts of Historical Inorganic Compound Detections, Surface Water Sampling

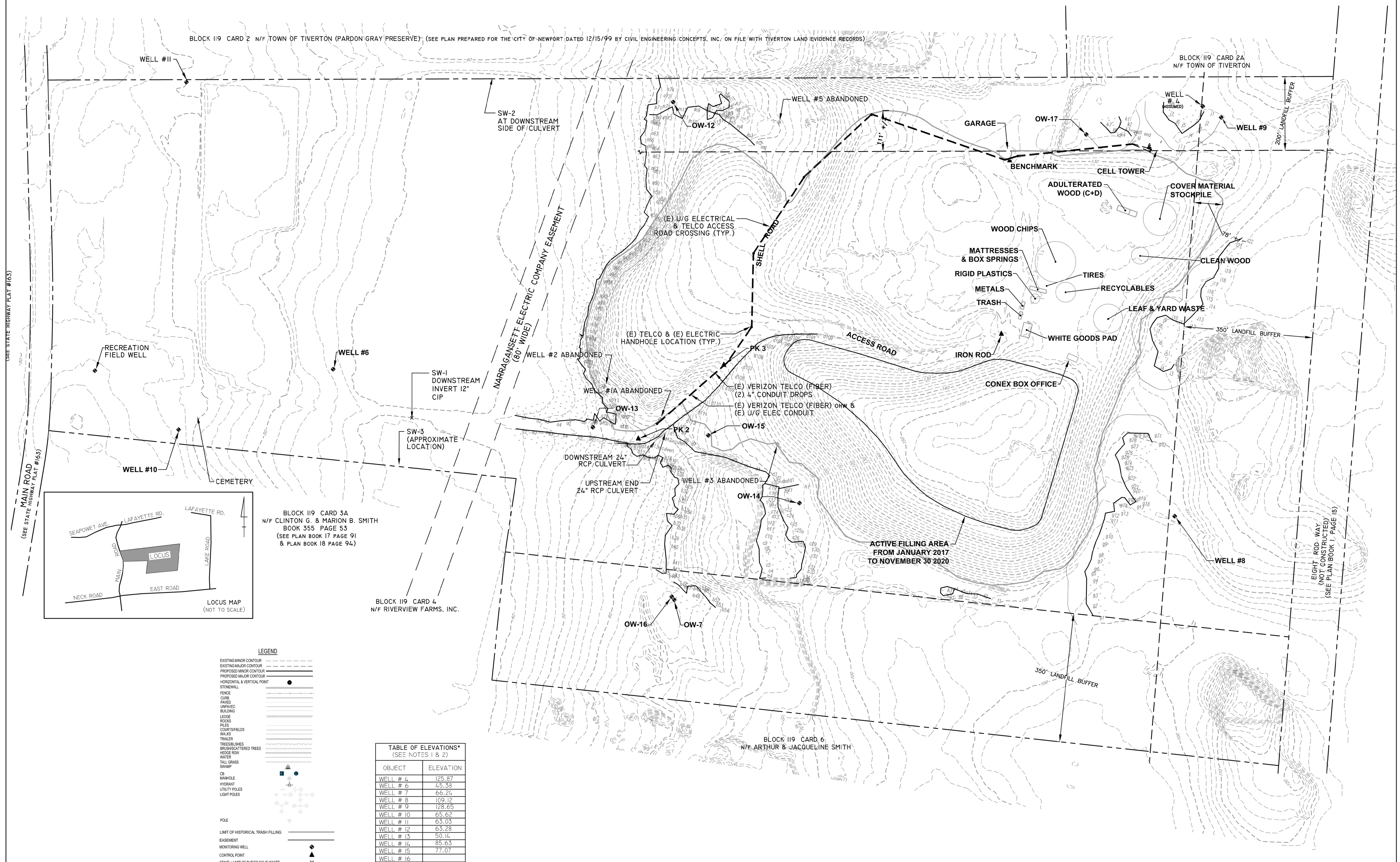
Attachment 7 – MTBE Historical Concentration Graphs

Cc: Richard Rogers, Tiverton Public Works Director (w/encl.)
Jay Lambert, Tiverton Landfill Subcommittee (w/encl.)
Christopher Cotta, Tiverton Town Administrator (w/encl.)
Arianne Barton, Pare Corporation (w/o encl.)

FIGURE 1

Site Plan Depicting Notable Features and Sampling Locations





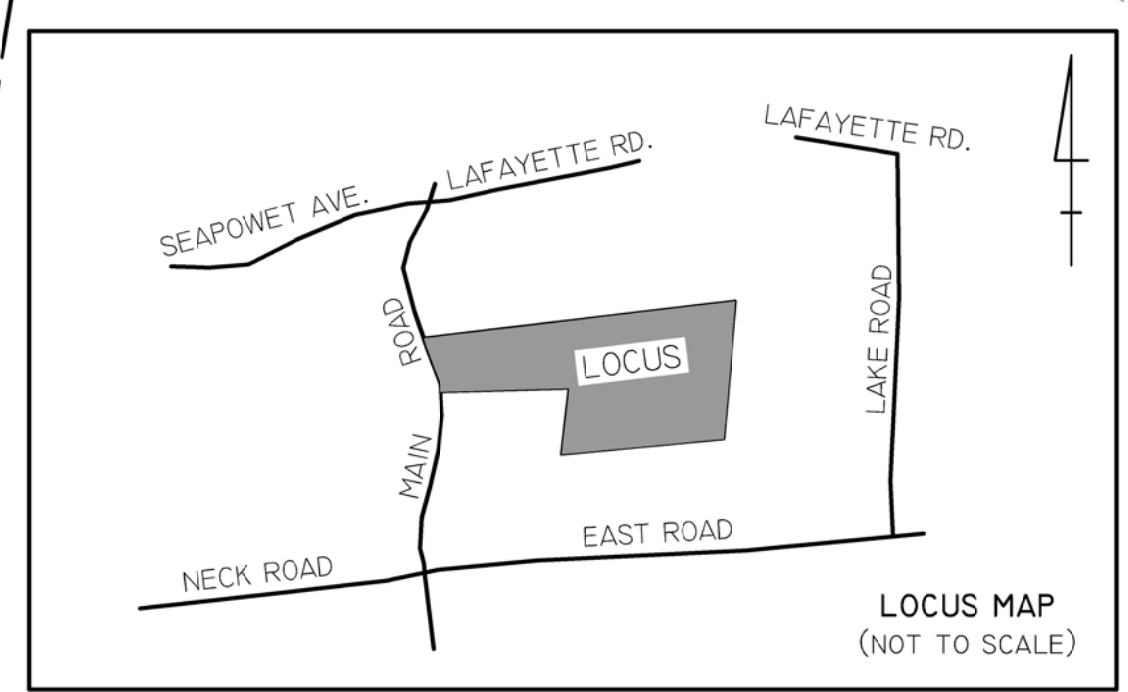
BLOCK 119 CARD 2 N/F TOWN OF TIVERTON (PARDON GRAY PRESERVE) (SEE PLAN PREPARED FOR THE CITY OF NEWPORT DATED 12/15/99 BY CIVIL ENGINEERING CONCEPTS, INC. ON FILE WITH TIVERTON LAND EVIDENCE RECORDS)

BLOCK 119 CARD 2A N/F TOWN OF TIVERTON

BLOCK 119 CARD 3A
N/F CLINTON G. & MARION B. SMITH
BOOK 355 PAGE 53
(SEE PLAN BOOK 17 PAGE 91
& PLAN BOOK 18 PAGE 94)

BLOCK 119 CARD 4
N/F RIVERVIEW FARMS, INC.

BLOCK 119 CARD 6
N/F ARTHUR & JACQUELINE SMITH

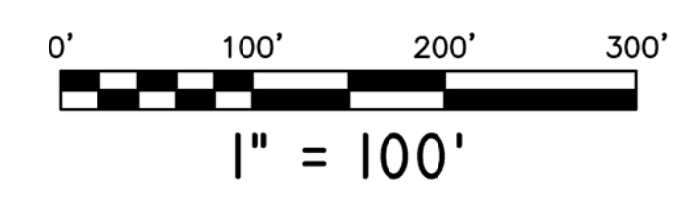


OBJECT	ELEVATION
WELL # 4	125.87
WELL # 6	25.58
WELL # 7	66.26
WELL # 8	109.12
WELL # 9	128.65
WELL # 10	65.62
WELL # 11	65.05
WELL # 12	63.28
WELL # 13	50.14
WELL # 14	85.65
WELL # 15	77.07
WELL # 16	
WELL # 17	
PK NAIL # 2	57.49
PK NAIL # 3	84.11
BENCHMARK	137.96

- LEGEND**
- EXISTING MINOR CONTOUR
 - EXISTING MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - PROPOSED MAJOR CONTOUR
 - HORIZONTAL & VERTICAL POINT
 - STONEWALL
 - FENCE
 - CURB
 - PAVED
 - UNPAVED
 - BUILDING
 - LEDE
 - ROCKS
 - PILES
 - COURTSPLEDS
 - MARKS
 - TRAILER
 - TREES/SHRUBS
 - BUSHES/SCATTERED TREES
 - REDUCE ROW
 - WATER
 - TALL GRASS
 - SWAMP
 - CB
 - MARKS
 - HORIZONTAL
 - UTILITY POLES
 - LIGHT POLES
- POLE
- LIMIT OF HISTORICAL TRASH FILLING
 - EASEMENT
 - MONITORING WELL
 - CONTROL POINT
 - STAKE - LIMIT OF BURIED SOLID WASTE
 - WETLAND
 - 50' PERIMETER WETLAND

* ALL WELL ELEVATIONS ARE TO THE TOP OF THE PVC TUBE INSIDE THE WELL CASING.

DATUM = NGVD 29
BASE SURVEY PREPARED BY AEROTECH CORP. ON MAY 13, 2016,
UPDATED BY PARE ON FEBRUARY 9, 2018.



	DATE
	BY
	DESCRIPTION
	REV#
<p>TIVERTON LANDFILL EXISTING SITE PLAN</p> <p style="text-align: right;">RHODE ISLAND</p> <p style="text-align: right;">TIVERTON</p>	
<p>PROJECT NO. 94139.01/025</p> <p>FIGURE NO. EXC-1</p> <p style="text-align: right;">SHEET 1 OF 1</p>	<p>PROJ. MGR.: TPT</p> <p>DESIGNED: BMB</p> <p>DRAWN: TCJ</p> <p>CHECKED: TPT</p> <p>SCALE: 1"=100'</p> <p>DATE: MARCH 2020</p>

TABLE 1

Historical Analytical Data, Observation Wells



TABLE 1
SUMMARY OF GROUNDWATER MONITORING RESULTS
CONSTITUENTS FOR DETECTION MONITORING
MONITORING WELL OW-7
 Concentration (expressed in same units as Threshold Value)

Parameter	Threshold Value	Jun-20	Mar-20	Dec-19	Jun-19	Mar-19	Dec-18	Sep-18	Jun-18	Mar-18	Nov-17	Sep-17	Mar-17	Mar-16	Sep-16	Mar-15
Metals																
Antimony	0.006 mg/L ¹	ND	ND	NT	0.0002	0.0002	0.001	ND	ND	ND	ND	ND	0.0070	ND	ND	ND
Arsenic	0.010 mg/L ¹	0.0001	ND	NT	0.0001	0.0002	ND	ND	0.0100	ND	ND	ND	ND	0.0070	ND	ND
Barium	2 mg/L ¹	0.025	0.033	NT	0.0270	0.0340	0.0400	0.0540	0.0280	0.0380	0.0350	0.0330	0.0380	0.0390	0.0300	0.0330
Beryllium	0.004 mg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	0.005 mg/L ¹	0.0004	0.0005	NT	0.0005	0.0007	ND	0.004	ND	ND	ND	ND	0.0010	ND	0.0010	ND
Chromium	0.1 mg/L ¹	ND	0.0001	NT	0.0008	0.0011	0.0040	0.0180	0.0040	0.0050	0.0050	0.0040	0.0060	ND	ND	ND
Cobalt	0.73 mg/L ⁵	0.0029	0.0072	NT	0.0078	0.0090	0.0200	0.0220	0.0150	0.0190	0.0180	0.0180	0.0250	0.0280	0.0200	0.0250
Copper	1.3 mg/L ¹	ND	ND	NT	0.002	0.002	ND	0.03	ND	ND	0.0050	ND	0.0060	0.0060	0.0080	0.0250
Lead	0.015 mg/L ¹	0.0011	0.0003	NT	0.0008	0.0013	ND	0.006	ND	ND	ND	ND	ND	ND	0.0010	0.0050
Mercury	0.002 mg/L ¹	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	0.1 mg/L ²	0.004	0.009	NT	0.0090	0.0110	0.0220	0.0320	0.0180	0.0210	0.0210	0.0190	0.0250	ND	0.0200	0.0240
Selenium	0.05 mg/L ¹	ND	ND	NT	ND	ND	0.005	ND	ND	0.0100	ND	0.0030	ND	0.1070	0.0070	0.1880
Silver	0.1 mg/L ^{2,3}	ND	ND	NT	ND	0.0002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002 mg/L ¹	ND	ND	NT	ND	ND	0.0003	ND	ND	0.0003	ND	ND	ND	ND	ND	ND
Tin	22 mg/L ⁵	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	0.26 mg/L ⁵	ND	ND	NT	0.0009	0.0013	ND	0.016	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	2 mg/L ^{2,3}	0.002	0.004	NT	0.0070	0.0060	0.0180	0.0850	0.0140	0.0180	0.0200	0.0120	0.0210	0.0050	0.0120	0.0060
Volatile Organic Compounds																
1,1,1,2-Tetrachloroethane	70 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.2 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5 µg/L ^b	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	7 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.03 µg/L ⁷	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.05 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	µg/L	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	610 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	5.8	ND	ND	ND
Acrylonitrile	0.039 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	90 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	80 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	80 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	10 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	1000 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	80 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	4.6 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	80 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	3 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	70 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.27 µg/L ^{5,a}	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	61 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl butyl ketone (2-Hexanone)	160 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	4000 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl iodide	µg/L	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	20 - 40 µg/L ⁴	2	4	NT	3.01	4.0	6.38	4.87	3.56	6.80	5.9	5.36	10.3	8.8	ND	ND
Methylene chloride	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.9	ND
Tetrachloroethylene (PCE)	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1000 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trans-1,2-Dichloroethylene	100 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.27 µg/L ^{5,a}	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/L	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2000 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	410 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	10000 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

☐ = Concentration exceeds the specified Threshold Value

Note: Low flow purging and sampling used starting with the June 2005 monitoring round

- Threshold value given is the Maximum Contaminant Level (MCL) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
- Threshold value given is the lifetime health advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
- Threshold value given is the Secondary Drinking Water Regulation (SDWR) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
- Threshold value given is the Drinking Water Advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
- Threshold value given is the Preliminary Remedial Goal (PRG) for tap water, as provided in the October 2002 USEPA Region 9 PRGs Table 2002 Update
- Threshold value given is derived from the EPA's National Recommended Water Quality Criteria for Human Health for the consumption of water and organisms, amended 2015.
- Threshold value given is derived from the EPA's Unregulated Contaminant Monitoring Rule's minimum reporting levels.
 - The Threshold value given for these compounds is the threshold value for a mixture of isomers. For example, cis- and trans-1,3-dichloropropylene were not identified as having individual threshold values, however 1,3-dichloropropylene was identified as having a numerical value under the National Recommended Water Quality Criteria for Human Health for consumption of water and organisms. As such, the value for total 1,3-dichloropropylene was used as the threshold value for the cis- and trans- isomers. The total of the two (2) isomers should not exceed this value even if each individual isomer is present at a concentration below the provided threshold value.
 - No threshold value was identified for 1,1-dichloroethane, however due to the molecular similarities between this compound and 1,2-dichloroethane, the threshold value for 1,2-dichloroethane is used for reference purposes.

No threshold value has been provided for parameters not identified in the sources listed above
 * = One half of the laboratory detection limit "DL"
 NT = Not Tested due to dry conditions at well.

TABLE 1
BACKGROUND WELL HISTORICAL RESULTS
CONSTITUENTS FOR DETECTION MONITORING
MONITORING WELL OW-9
 Concentration (Expressed in same units as Threshold Value)

Parameter	Threshold Value	Jun-20	Mar-20	Dec-19	Jun-19	Mar-19	Dec-18	Sep-18	Jun-18	Mar-18	Dec-17	Sep-17	Jun-17	Mar-17	Dec-16	Sep-16	Jun-16	Mar-16	Dec-15	Sep-15	Jun-15	Mar-15
Metals																						
Antimony	0.006 mg/L ¹	ND	ND	ND	ND	0.0001	ND	NT	ND	ND	0.0290	NT	NT	ND	ND	NT	NT	ND	ND	NT	NT	ND
Arsenic	0.010 mg/L ¹	ND	0.0002	0.0001	ND	0.0001	ND	NT	ND	ND	ND	NT	0.0030	ND	NT	NT	NT	ND	ND	NT	NT	ND
Barium	2 mg/L ¹	0.005	0.023	0.011	0.0060	0.0060	0.0320	NT	0.0090	0.0130	0.0410	NT	NT	0.0100	0.0060	NT	NT	0.0110	0.0110	NT	NT	0.0070
Beryllium	0.004 mg/L ¹	ND	ND	ND	0.0001	0.0003	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Cadmium	0.005 mg/L ¹	0.0002	0.0001	0.0002	0.0001	0.0001	ND	NT	ND	0.0020	0.3650	NT	NT	ND	ND	NT	NT	0.0010	ND	NT	NT	ND
Chromium	0.1 mg/L ¹	0.0017	0.0036	0.002	0.0019	0.0019	0.013	NT	0.003	0.0070	0.0300	NT	0.0040	ND	NT	NT	NT	0.0050	0.0070	NT	NT	0.0060
Cobalt	0.73 mg/L ⁵	0.0002	0.0008	0.0004	ND	0.0003	0.0030	NT	ND	0.0010	0.0020	NT	NT	ND	ND	NT	NT	ND	ND	NT	NT	ND
Copper	1.3 mg/L ¹	ND	0.001	ND	ND	ND	0.0080	NT	ND	ND	0.0600	NT	NT	ND	ND	NT	NT	0.0020	ND	NT	NT	0.0020
Lead	0.015 mg/L ¹	0.0013	0.003	0.0031	0.0004	0.0007	0.004	NT	0.001	0.0020	0.1820	NT	NT	0.0020	0.0060	NT	NT	ND	0.0050	NT	NT	0.0010
Mercury	0.002 mg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	ND	NT	NT	ND	ND	NT	NT	ND
Nickel	0.1 mg/L ²	ND	0.002	0.001	ND	0.0010	0.006	NT	0.001	0.0040	0.0240	NT	NT	0.0040	ND	NT	NT	0.0030	0.0030	NT	NT	0.0170
Selenium	0.05 mg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	0.0100	NT	NT	ND	ND	NT	NT	ND
Silver	0.1 mg/L ^{2,3}	ND	ND	ND	ND	0.0005	ND	NT	ND	ND	ND	NT	NT	ND	ND	NT	NT	ND	ND	NT	NT	ND
Thallium	0.002 mg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	ND	NT	NT	ND	ND	NT	NT	ND
Tin	22 mg/L ⁵	ND	0.037	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	ND	NT	NT	ND	ND	NT	NT	ND
Vanadium	0.26 mg/L ⁵	ND	0.0011	0.0005	ND	ND	0.0080	NT	ND	0.0020	ND	NT	NT	ND	ND	NT	NT	0.0010	0.0020	NT	NT	ND
Zinc	2 mg/L ^{2,3}	0.002	0.01	0.001	0.0030	0.0030	0.0250	NT	0.0090	0.0190	11.1000	NT	NT	0.0070	ND	NT	NT	0.0100	0.0050	NT	NT	ND
Volatile Organic Compounds																						
1,1,1,2-Tetrachloroethane	70 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,1,1-Trichloroethane	200 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,1,2,2-Tetrachloroethane	0.2 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,1,2-Trichloroethane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,1-Dichloroethane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,1-Dichloroethylene	7 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,2,3-Trichloropropane	0.03 µg/L ⁷	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,2-Dibromo-3-chloropropane	0.2 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,2-Dibromoethane	0.05 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,2-Dichlorobenzene	600 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,2-Dichloroethane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,2-Dichloropropane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
1,4-Dichlorobenzene	75 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
4-Methyl-2-pentanone	µg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Acetone	610 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Acrylonitrile	0.039 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Benzene	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Bromochloromethane	90 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Bromodichloromethane	80 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Bromofrom	80 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Bromomethane	10 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Carbon disulfide	1000 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Carbon tetrachloride	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Chlorobenzene	100 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Chlorodibromomethane	80 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Chloroethane	4.6 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Chloroform	80 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Chloromethane	3 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
cis-1,2-Dichloroethylene	70 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
cis-1,3-Dichloropropene	0.27 µg/L ^{5 a}	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Dibromomethane	61 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Ethylbenzene	700 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Methyl butyl ketone (2-Hexanone)	160 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Methyl ethyl ketone (2-Butanone)	4000 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Methyl iodide	µg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Methyl tert-butyl ether (MTBE)	20 - 40 µg/L ⁴	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Methylene chloride	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Styrene	100 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Tetrachloroethylene (PCE)	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Toluene	1000 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Trans-1,2-Dichloroethylene	100 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
trans-1,3-Dichloropropene	0.27 µg/L ^{5 a}	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
trans-1,4-Dichloro-2-butene	µg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Trichloroethylene (TCE)	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Trichlorofluoromethane	2000 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT	ND	NT	NT	NT	ND	ND	NT	NT	ND
Vinyl acetate	410 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	NT</									

TABLE 1
BACKGROUND WELL HISTORICAL RESULTS
CONSTITUENTS FOR DETECTION MONITORING
MONITORING WELL OW-12
 Concentration (Expressed in same units as Threshold Value)

Parameter	Threshold Value	Jun-20	Mar-20	Dec-19	Jun-19	Mar-19	Dec-18	Sep-18	Jun-18	Mar-18	Dec-17	Sep-17	Jun-17	Mar-17	Dec-16	Sep-16	Jun-16	Mar-16	Dec-15	Sep-15	Jun-15	Mar-15
Metals																						
Antimony	0.006 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	0.001	ND	0.0210	ND	0.0010	0.0250	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	0.010 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	0.0050	ND	0.0090	ND	0.0090	ND	ND	ND	0.0060	ND	ND	ND	ND	ND
Barium	2 mg/L ¹	0.024	0.024	0.023	0.024	0.02	0.02	0.023	0.02	0.0170	0.0240	0.0260	0.0240	0.0410	0.0260	0.0670	0.0360	0.0200	0.0260	0.0250	0.0190	0.0600
Beryllium	0.004 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0010	ND	ND	ND	ND	ND
Cadmium	0.005 mg/L ¹	0.0018	0.0005	0.0004	0.0004	0.0004	ND	ND	ND	ND	ND	ND	ND	0.0010	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	0.1 mg/L ¹	ND	ND	0.0001	0.0001	ND	ND	0.002	ND	ND	ND	ND	0.0030	0.0010	0.0040	ND	0.0180	0.0130	ND	0.0020	ND	ND
Cobalt	0.73 mg/L ⁴	0.0012	0.0011	0.001	0.0006	0.0005	ND	0.002	ND	ND	ND	ND	0.0020	ND	0.0020	ND	0.0090	0.0080	ND	ND	ND	ND
Copper	1.3 mg/L ¹	ND	ND	ND	ND	ND	0.009	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0200	0.0150	ND	0.0330	ND	ND
Lead	0.015 mg/L ¹	0.0015	0.0004	0.0003	0.0003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0150	0.0120	ND	ND	0.0020	ND	0.0020
Mercury	0.002 mg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	0.1 mg/L ²	0.013	0.011	0.010	0.008	0.01	0.024	0.025	0.025	0.0200	0.0170	0.0140	0.0090	0.0140	0.0070	0.0220	0.0130	0.0060	0.0080	0.0040	0.0060	0.0040
Selenium	0.05 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0100	ND	ND	ND	ND
Silver	0.1 mg/L ²	ND	ND	ND	ND	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0010	ND	ND
Tin	22 mg/L ⁵	ND	ND	ND	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND	ND	0.0980	ND	0.1800	ND	ND	ND	ND
Vanadium	0.26 mg/L ⁵	ND	ND	ND	ND	ND	ND	0.001	ND	ND	ND	0.0030	ND	0.0040	ND	0.0200	ND	0.0200	ND	ND	ND	ND
Zinc	2 mg/L ²	0.001	0.002	ND	0.001	ND	0.007	0.026	0.009	0.0070	0.0060	0.0130	0.0100	0.0220	ND	0.0500	0.0420	ND	ND	0.0050	0.0070	ND
Volatile Organic Compounds																						
1,1,1,2-Tetrachloroethane	70 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.2 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5 µg/L ^b	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	7 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.03 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.05 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	610 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	0.039 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	90 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	80 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	80 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	10 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	1000 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	80 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	4.6 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	80 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	3 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	70 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.27 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	61 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl butyl ketone (2-Hexanone)	160 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	4000 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl iodide	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	20 - 40 µg/L ⁴	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1000 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trans-1,2-Dichloroethylene	100 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.27 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2000 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	410 µg/L ⁵	ND	ND	ND	ND	ND																

TABLE 1
SUMMARY OF GROUNDWATER MONITORING RESULTS
CONSTITUENTS FOR DETECTION MONITORING
MONITORING WELL OW-14

Concentration (Expressed in same units as Threshold Value)

Parameter	Threshold Value	Jun-20	Mar-20	Dec-19	Jun-19	Mar-19	Dec-18	Sep-18	Jun-18	Mar-18	Dec-17	Sep-17	Jun-17	Mar-17	Dec-16	Sep-16	Jun-16	Mar-16	Dec-15	Sep-15	Jun-15	Mar-15
Metals																						
Antimony	0.006 mg/L ¹	0.0002	0.0004	0.0002	0.0001	0.0001	0.005	NT	ND	ND	0.0350	NT	0.0050	0.0410	ND	NT	ND	ND	ND	ND	NT	ND
Arsenic	0.010 mg/L ¹	0.0018	0.0015	0.0004	0.0036	0.0018	ND	NT	0.01	ND	0.0030	NT	0.0200	0.0120	ND	NT	ND	0.0070	0.0050	0.0050	NT	ND
Barium	2 mg/L ¹	0.217	0.19	0.168	0.199	0.202	0.21	NT	0.155	0.2240	0.1990	NT	0.2400	0.2490	0.2290	NT	0.1380	0.1750	0.1980	0.1140	NT	0.2020
Beryllium	0.004 mg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	0.0030	ND	ND	NT	0.0010	0.0010	ND	0.0010	NT	ND
Cadmium	0.005 mg/L ¹	ND	ND	0.0002	ND	ND	0.0020	NT	0.006	0.0050	ND	NT	0.0050	0.0060	ND	NT	ND	0.0070	0.0080	0.0060	NT	ND
Chromium	0.1 mg/L ¹	0.0007	0.0005	0.0003	0.0006	0.0007	ND	NT	0.001	0.0060	0.0020	NT	0.0010	0.0020	ND	NT	0.0110	0.0030	0.0030	0.0170	NT	0.0050
Cobalt	0.73 mg/L ⁵	0.0022	0.0064	0.0036	0.0058	0.0059	0.011	NT	0.006	0.0140	0.0090	NT	0.0140	0.0130	0.0360	NT	0.0100	0.0100	0.0100	0.0120	NT	0.0170
Copper	1.3 mg/L ¹	0.002	ND	0.002	ND	ND	0.007	NT	ND	0.0090	ND	NT	0.0100	ND	0.0200	NT	0.0010	0.0010	ND	0.0170	NT	0.0100
Lead	0.015 mg/L ¹	0.004	0.0003	0.0014	0.0002	0.001	ND	NT	ND	0.0060	ND	NT	0.0170	ND	ND	NT	0.0160	0.0070	ND	0.0090	NT	0.0050
Mercury	0.002 mg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Nickel	0.1 mg/L ²	0.005	0.012	0.007	0.011	0.011	0.019	NT	0.012	0.0220	0.0320	NT	0.0220	0.0470	0.0400	NT	0.0160	0.0160	0.0170	0.0200	NT	0.0270
Selenium	0.05 mg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	0.0350
Silver	0.1 mg/L ^{2,3}	ND	ND	ND	ND	0.0002	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	0.0040	NT	0.0020
Thallium	0.002 mg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	0.0003	0.0003	NT	ND	ND	ND	NT	ND	ND	ND	0.0010	NT	ND
Tin	22 mg/L ⁵	ND	0.055	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	0.0350	ND	0.0070	0.0010	NT	ND
Vanadium	0.26 mg/L ⁵	0.0009	0.0005	ND	0.0006	0.0007	0.004	NT	ND	0.0070	0.0030	NT	0.0070	ND	ND	NT	0.0170	ND	ND	0.0140	NT	0.0080
Zinc	2 mg/L ^{2,3}	0.002	0.003	0.004	0.005	0.004	0.014	NT	0.031	0.0480	0.0160	NT	0.0600	0.0230	0.0300	NT	0.0280	0.0170	0.0140	0.0680	NT	0.0240
Volatile Organic Compounds																						
1,1,1,2-Tetrachloroethane	70 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,1,1-Trichloroethane	200 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,1,2,2-Tetrachloroethane	0.2 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,1,2-Trichloroethane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,1-Dichloroethane	5 µg/L ^{1b}	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,1-Dichloroethylene	7 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,2,3-Trichloropropane	0.03 µg/L ⁷	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,2-Dibromo-3-chloropropane	0.2 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,2-Dibromoethane	0.05 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,2-Dichlorobenzene	600 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,2-Dichloroethane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,2-Dichloropropane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
1,4-Dichlorobenzene	75 µg/L ¹	2	2	2.02	2.04	2.1	2.38	NT	2.62	ND	ND	NT	ND	ND	ND	NT	1.8	ND	ND	2.2	NT	3.3
4-Methyl-2-pentanone	µg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Acetone	610 µg/L ⁵	ND	6	ND	20.96	ND	ND	NT	ND	ND	ND	NT	ND	6.9	ND	NT	ND	ND	ND	ND	NT	ND
Acrylonitrile	0.039 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Benzene	5 µg/L ¹	3	2	1.56	2.24	2.1	2.28	NT	2.77	ND	ND	NT	3.2	4.1	ND	NT	2.7	3.1	3.9	2.0	NT	3.5
Bromochloromethane	90 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Bromodichloromethane	80 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Bromofrom	80 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Bromomethane	10 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Carbon disulfide	1000 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Carbon tetrachloride	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Chlorobenzene	100 µg/L ¹	12	10	8.85	10.74	10.8	11.38	NT	13.3	10.8	ND	NT	13.42	15.6	ND	NT	12.5	13.5	15.4	10.7	NT	16.7
Chlorodibromomethane	80 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Chloroethane	4.6 µg/L ⁵	ND	1	ND	ND	ND	ND	NT	ND	ND	ND	NT	2.27	ND	ND	NT	3.3	ND	2.0	1.5	NT	ND
Chloroform	80 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Chloromethane	3 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
cis-1,2-Dichloroethylene	70 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
cis-1,3-Dichloropropene	0.27 µg/L ^{5, a}	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Dibromomethane	61 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Ethylbenzene	700 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Methyl butyl ketone (2-Hexanone)	160 µg/L ⁵	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Methyl ethyl ketone (2-Butanone)	4000 µg/L ²	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Methyl iodide	µg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Methyl tert-butyl ether (MTBE)	20 - 40 µg/L ⁴	6	6	5.4	5.07	5.0	7.97	NT	6.23	9.4	ND	NT	7.08	16.5	ND	NT	6.7	7.7	12.3	6.9	NT	11.2
Methylene chloride	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Styrene	100 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Tetrachloroethylene (PCE)	5 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Toluene	1000 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Trans-1,2-Dichloroethylene	100 µg/L ¹	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
trans-1,3-Dichloropropene	0.27 µg/L ^{5, a}	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
trans-1,4-Dichloro-2-butene	µg/L	ND	ND	ND	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND	ND	NT	ND
Trichloroethylene (TCE)	5																					

TABLE 1
SUMMARY OF GROUNDWATER MONITORING RESULTS
CONSTITUENTS FOR DETECTION MONITORING
MONITORING WELL OW-15

Concentration (Expressed in same units as Threshold Value)

Parameter	Threshold Value	Jun-20	Mar-20	Dec-19	Jun-19	Mar-19	Dec-18	Sep-18	Jun-18	Mar-18	Dec-17	Sep-17	Jun-17	Mar-17	Dec-16	Sep-16	Jun-16	Mar-16	Dec-15	Sep-15	Jun-15	Mar-15	
Metals																							
Antimony	0.006 mg/L ¹	ND	0.0001	ND	ND	ND	0.0040	0.0040	ND	ND	0.0300	ND	0.0020	0.0340	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	0.010 mg/L ¹	0.0283	0.0066	0.0150	0.0205	0.0352	0.0200	0.0300	0.0300	0.0200	0.0200	0.0300	0.0300	ND	ND	0.0700	0.0130	0.0320	0.0170	ND	ND	ND	0.0160
Barium	2 mg/L ¹	0.093	0.191	0.151	0.148	0.158	0.2120	0.0840	0.0960	0.1280	0.1240	0.0850	0.0890	0.1230	0.1560	0.3100	0.0600	0.1130	0.1840	0.1390	0.2230	0.1260	0.1260
Beryllium	0.004 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0060	ND	ND	ND	ND	ND	ND	ND
Cadmium	0.005 mg/L ¹	ND	ND	ND	ND	ND	0.0080	0.0070	0.0100	0.0090	ND	0.0100	0.0050	0.0100	0.0050	0.0460	ND	0.0100	0.0080	0.0070	ND	ND	ND
Chromium	0.1 mg/L ¹	0.0005	0.0009	0.0010	0.0009	0.0007	ND	ND	ND	ND	ND	0.0030	ND	0.0020	ND	0.1180	0.0020	0.0010	0.0050	0.0020	0.0010	ND	ND
Cobalt	0.73 mg/L ⁵	0.0152	0.0035	0.0066	0.0124	0.0126	0.0080	0.0140	0.0120	0.0100	0.0090	0.0180	0.0130	0.0040	ND	0.2300	0.0080	0.0180	0.0070	0.0040	0.0020	0.0120	0.0120
Copper	1.3 mg/L ¹	ND	ND	0.0030	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.1400	ND	ND	ND	ND	ND	ND	0.0020
Lead	0.015 mg/L ¹	0.0009	0.0003	0.0003	0.0003	0.0003	0.0030	0.0020	ND	0.0020	ND	ND	0.0020	ND	0.0050	0.1350	0.0140	ND	ND	ND	0.0040	0.0020	0.0020
Mercury	0.002 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	0.1 mg/L ²	0.032	0.012	0.016	0.025	0.025	0.0170	0.0290	0.0230	0.0200	0.0510	0.0350	0.0240	0.0520	0.0110	0.6610	0.0140	0.0290	0.0170	0.0100	0.0110	0.0180	0.0180
Selenium	0.05 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0220
Silver	0.1 mg/L ²⁻³	ND	ND	ND	ND	0.0001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0030
Thallium	0.002 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0020	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tin	22 mg/L ⁵	ND	0.0150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0600	ND	ND	0.0470	ND	ND	ND	ND
Vanadium	0.26 mg/L ⁵	0.0007	0.0006	0.0006	0.0007	0.0010	0.0150	0.0110	ND	0.0060	0.0040	0.0110	ND	ND	0.0150	0.1560	0.0050	ND	ND	0.0020	ND	0.0040	0.0040
Zinc	2 mg/L ²⁻³	0.0050	0.0030	0.0100	0.0040	0.0030	0.0150	0.0150	0.0320	0.0210	0.0100	0.0300	0.0200	0.0140	ND	0.9700	ND	0.0120	0.0150	0.0080	ND	ND	ND
Volatile Organic Compounds																							
1,1,1,2-Tetrachloroethane	70 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.2 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5 µg/L ^{1b}	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	7 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.03 µg/L ⁷	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.05 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75 µg/L ¹	ND	2	2.69	2.64	2.1	3.06	ND	ND	ND	2.51	ND	1.6	ND	ND	2.1	ND	ND	3.4	2.9	3.0	3.0	3.0
4-Methyl-2-pentanone	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	610 µg/L ⁵	ND	ND	ND	19.19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.2	ND	ND	6.7	ND	ND	ND	ND
Acrylonitrile	0.039 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	5 µg/L ¹	3	1	1.9	1.94	1.5	1.76	ND	1.67	ND	ND	3.59	2.83	ND	ND	3.4	3.2	2.1	3.2	1.7	2.0	2.8	2.8
Bromochloromethane	90 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	80 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromofrom	80 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	10 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	1000 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100 µg/L ¹	16	15	16.99	14.4	13.2	15.49	14.0	12.72	17	15.2	18.19	21.26	17.4	21.5	16.0	16.8	17.7	18.3	21.0	21.1	19.7	19.7
Chlorodibromomethane	80 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	4.6 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.8	ND	1.9	ND	ND	ND	ND
Chloroform	80 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	3 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	70 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.27 µg/L ^{5 a}	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	61 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl butyl ketone (2-Hexanone)	160 µg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	4000 µg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl iodide	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	20 - 40 µg/L ⁴	6	6	3.67	9.38	7.5	3.69	7.0	6.61	ND	6.3	7.52	7.69	8.5	ND	7.9	7.9	6.8	7.8	6.7	12.2	7.1	7.1
Methylene chloride	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	100 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	5 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1000 µg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trans-1,2-Dichloroethylene	100 µg/L ¹	ND	ND																				

TABLE 1
SUMMARY OF GROUNDWATER MONITORING RESULTS
CONSTITUENTS FOR DETECTION MONITORING
MONITORING WELL OW-16

Concentration (Expressed in same units as Threshold Value)

Parameter	Threshold Value	Jun-20	Mar-20	Dec-19	Jun-19	Mar-19	Dec-18	Sep-18	Jun-18	Mar-18	Nov-17
Metals											
Antimony	0.006 mg/L ¹	0.0002	ND	NT	ND	ND	ND	ND	0.002	ND	ND
Arsenic	0.010 mg/L ¹	0.0001	ND	NT	ND	ND	ND	ND	0.01	ND	ND
Barium	2 mg/L ¹	0.006	0.009	NT	0.008	0.014	0.017	0.027	0.011	0.0190	0.1000
Beryllium	0.004 mg/L ¹	ND	ND	NT	0.0002	0.0001	ND	ND	ND	ND	ND
Cadmium	0.005 mg/L ¹	ND	0.0002	NT	0.0002	0.0003	ND	ND	ND	ND	ND
Chromium	0.1 mg/L ¹	0.0003	ND	NT	ND	ND	0.003	0.003	0.004	0.0060	0.0050
Cobalt	0.73 mg/L ⁵	0.0006	0.0007	NT	0.0009	0.0008	0.006	0.004	0.002	0.0050	0.0050
Copper	1.3 mg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Lead	0.015 mg/L ¹	0.0008	ND	NT	ND	ND	ND	ND	ND	ND	ND
Mercury	0.002 mg/L ¹	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND
Nickel	0.1 mg/L ²	0.002	0.002	NT	0.002	0.002	0.013	0.01	0.009	0.0100	0.0100
Selenium	0.05 mg/L ¹	ND	ND	NT	ND	ND	0.009	0.003	ND	0.0100	0.0050
Silver	0.1 mg/L ²⁻³	0.0001	ND	NT	ND	0.0001	ND	ND	ND	ND	ND
Thallium	0.002 mg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	0.0003	ND
Tin	22 mg/L ⁵	ND	ND	NT	ND	ND	ND	NT	ND	ND	ND
Vanadium	0.26 mg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Zinc	2 mg/L ²⁻³	0.002	0.003	NT	0.004	0.004	0.025	0.019	0.022	0.024	0.0210
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	70 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.2 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5 µg/L ^b	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethylene	7 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.03 µg/L ⁷	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.2 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.05 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	600 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	75 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	µg/L	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Acetone	610 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	0.039 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Benzene	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	90 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	80 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Bromoform	80 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Bromomethane	10 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	1000 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Chlorodibromomethane	80 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Chloroethane	4.6 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Chloroform	80 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Chloromethane	3 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethylene	70 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.27 µg/L ^{6-a}	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	61 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Methyl butyl ketone (2-Hexanone)	160 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone (2-Butanone)	4000 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Methyl iodide	µg/L	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	20 - 40 µg/L ⁴	1	ND	NT	4.9	4.67	3.77	3.42	6.53	7.8	4.6
Methylene chloride	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Styrene	100 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethylene (PCE)	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Toluene	1000 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Trans-1,2-Dichloroethylene	100 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.27 µg/L ^{6-a}	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	µg/L	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Trichloroethylene (TCE)	5 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	2000 µg/L ²	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	410 µg/L ⁵	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND
Xylenes	10000 µg/L ¹	ND	ND	NT	ND	ND	ND	ND	ND	ND	ND

☐ = Concentration exceeds the specified Threshold Value

1. Threshold value given is the Maximum Contaminant Level (MCL) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
2. Threshold value given is the lifetime health advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
3. Threshold value given is the Secondary Drinking Water Regulation (SDWR) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
4. Threshold value given is the Drinking Water Advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
5. Threshold value given is the Preliminary Remedial Goal (PRG) for tap water, as provided in the October 2002 USEPA Region 9 PRGs Table 2002 Update
6. Threshold value given is derived from the EPA's National Recommended Water Quality Criteria for Human Health for the consumption of water and organisms, amended 2015.
7. Threshold value given is derived from the EPA's Unregulated Contaminant Monitoring Rule's minimum reporting levels.

a. The Threshold value given for these compounds is the threshold value for a mixture of isomers. For example, cis- and trans-1,3-dichloropropylene were not identified as having individual threshold values, however 1,3-dichloropropylene was identified as having a numerical value under the National Recommended Water Quality Criteria for Human Health for consumption of water and organisms. As such, the value for total 1,3-dichloropropylene was used as the threshold value for the cis- and trans- isomers. The total of the two (2) isomers should not exceed this value even if each individual isomer is present at a concentration below the provided threshold value.

b. No threshold value was identified for 1,1-dichloroethane, however due to the molecular similarities between this compounds and 1,2-dichloroethane, the threshold value for 1,2-dichloroethane is used for reference purposes.

No threshold value has been provided for parameters not identified in the sources listed above

" " = One half of the laboratory detection limit "DL"

NT = Not Tested due to dry conditions at well.

TABLE 1
SUMMARY OF GROUNDWATER MONITORING RESULTS
APPENDIX A - CONSTITUENTS FOR DETECTION MONITORING
MONITORING WELL OW-17
Concentration (expressed in same units as Threshold Value)

Parameter	Threshold Value	Jun-20	MAR '20
Metals			
Antimony	0.006 mg/L ¹	0.0001	0.0001
Arsenic	0.010 mg/L ¹	0.0002	0.0002
Barium	2 mg/L ¹	0.016	0.018
Beryllium	0.004 mg/L ¹	ND	ND
Cadmium	0.005 mg/L ¹	ND	ND
Chromium	0.1 mg/L ¹	0.0006	0.0006
Cobalt	0.73 mg/L ⁵	0.0005	0.0005
Copper	1.3 mg/L ¹	ND	ND
Lead	0.015 mg/L ¹	0.0052	0.0024
Mercury	0.002 mg/L ¹	ND	ND
Nickel	0.1 mg/L ²	0.001	0.001
Selenium	0.05 mg/L ¹	ND	ND
Silver	0.1 mg/L ²⁻³	ND	ND
Thallium	0.002 mg/L ¹	ND	ND
Tin	22 mg/L ⁵	ND	0.007
Vanadium	0.26 mg/L ⁵	0.0007	0.0006
Zinc	2 mg/L ²⁻³	0.005	0.008
Volatile Organic Compounds			
1,1,1,2-Tetrachloroethane	70 µg/L ²	ND	ND
1,1,1-Trichloroethane	200 µg/L ¹	ND	ND
1,1,2,2-Tetrachloroethane	0.2 µg/L ²	ND	ND
1,1,2-Trichloroethane	5 µg/L ¹	ND	ND
1,1-Dichloroethane	5 µg/L ^b	ND	ND
1,1-Dichloroethylene	7 µg/L ¹	ND	ND
1,2,3-Trichloropropane	0.03 µg/L ⁷	ND	ND
1,2-Dibromo-3-chloropropane	0.2 µg/L ¹	ND	ND
1,2-Dibromoethane	0.05 µg/L ¹	ND	ND
1,2-Dichlorobenzene	600 µg/L ¹	ND	ND
1,2-Dichloroethane	5 µg/L ¹	ND	ND
1,2-Dichloropropane	5 µg/L ¹	ND	ND
1,4-Dichlorobenzene	75 µg/L ¹	ND	ND
4-Methyl-2-pentanone	µg/L	ND	ND
Acetone	610 µg/L ⁵	ND	ND
Acrylonitrile	0.039 µg/L ⁵	ND	ND
Benzene	5 µg/L ¹	ND	ND
Bromochloromethane	90 µg/L ²	ND	ND
Bromodichloromethane	80 µg/L ¹	ND	ND
Bromoform	80 µg/L ¹	ND	ND
Bromomethane	10 µg/L ²	ND	ND
Carbon disulfide	1000 µg/L ⁵	ND	ND
Carbon tetrachloride	5 µg/L ¹	ND	ND
Chlorobenzene	100 µg/L ¹	ND	ND
Chlorodibromomethane	80 µg/L ¹	ND	ND
Chloroethane	4.6 µg/L ⁵	ND	ND
Chloroform	80 µg/L ¹	ND	ND
Chloromethane	3 µg/L ²	ND	ND
cis-1,2-Dichloroethylene	70 µg/L ¹	ND	ND
cis-1,3-Dichloropropene	0.27 µg/L ^{6-a}	ND	ND
Dibromomethane	61 µg/L ⁵	ND	ND
Ethylbenzene	700 µg/L ¹	ND	ND
Methyl butyl ketone (2-Hexanone)	160 µg/L ⁵	ND	ND
Methyl ethyl ketone (2-Butanone)	4000 µg/L ²	ND	ND
Methyl iodide	µg/L	ND	ND
Methyl tert-butyl ether (MTBE)	20 - 40 µg/L ⁴	ND	ND
Methylene chloride	5 µg/L ¹	ND	ND
Styrene	100 µg/L ¹	ND	ND
Tetrachloroethylene (PCE)	5 µg/L ¹	ND	ND
Toluene	1000 µg/L ¹	ND	ND
Trans-1,2-Dichloroethylene	100 µg/L ¹	ND	ND
trans-1,3-Dichloropropene	0.27 µg/L ^{6-a}	ND	ND
trans-1,4-Dichloro-2-butene	µg/L	ND	ND
Trichloroethylene (TCE)	5 µg/L ¹	ND	ND
Trichlorofluoromethane	2000 µg/L ²	ND	ND
Vinyl acetate	410 µg/L ⁵	ND	ND
Vinyl chloride	2 µg/L ¹	ND	ND
Xylenes	10000 µg/L ¹	ND	ND

= Concentration exceeds the specified Threshold Value

1. Threshold value given is the Maximum Contaminant Level (MCL) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
2. Threshold value given is the lifetime health advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
3. Threshold value given is the Secondary Drinking Water Regulation (SDWR) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
4. Threshold value given is the Drinking Water Advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
5. Threshold value given is the Preliminary Remedial Goal (PRG) for tap water, as provided in the October 2002 USEPA Region 9 PRGs Table 2002 Update
6. Threshold value given is derived from the EPA's National Recommended Water Quality Criteria for Human Health for the consumption of water and organisms, amended 2015.
7. Threshold value given is derived from the EPA's Unregulated Contaminant Monitoring Rule's minimum reporting levels.

a. The Threshold value given for these compounds is the threshold value for a mixture of isomers. For example, cis- and trans-1,3-dichloropropylene were not identified as having individual threshold values, however 1,3-dichloropropylene was identified as having a numerical value under the National Recommended Water Quality Criteria for Human Health for consumption of water and organisms. As such, the value for total 1,3-dichloropropylene was used as the threshold value for the cis- and trans- isomers. The total of the two (2) isomers should not exceed this value even if each individual isomer is present at a concentration below the provided threshold value.

b. No threshold value was identified for 1,1-dichloroethane, however due to the molecular similarities between this compounds and 1,2-dichloroethane, the threshold value for 1,2-dichloroethane is used for reference purposes.

No threshold value has been provided for parameters not identified in the sources listed above

"—" = One half of the laboratory detection limit "DL"

NT = Not Tested due to dry conditions at well.

TABLE 2

Tolerance Intervals for June 2020 Monitoring Period



TABLE 2
SUMMARY OF GROUNDWATER MONITORING RESULTS - TOLERANCE INTERVAL COMPARISON
JUNE 2020 - SAMPLE ROUND
 Concentration (units as specified for Threshold Value)

Parameter	OW-9		OW-12		Average of OW-9 & OW-12		OW-17		Threshold Value	Background Wells March, 2020			Compliance Wells March, 2020				
	Tolerance Limit * TL=AVG+K*S		Tolerance Limit * TL=AVG+K*S		Tolerance Limit * TL=AVG+K*S		Tolerance Limit * TL=AVG+K*S			OW-9	OW-12	OW-17	OW-7	OW-13	OW-14	OW-15	OW-16
METALS Antimony	0.0741	mg/L	0.0503	mg/L	0.0622	mg/L	0.0001	mg/L	0.006 mg/L ¹	ND	ND	0.0001	ND	0.0003	0.0002	ND	0.0002
Arsenic	0.0042	mg/L	0.0260	mg/L	0.0151	mg/L	0.0002	mg/L	0.010 mg/L ¹	ND	ND	0.0002	0.0001	0.0057	0.0018	0.0283	0.0001
Barium	0.0486	mg/L	0.0938	mg/L	0.0712	mg/L	0.0554	mg/L	2 mg/L ¹	0.005	0.024	0.016	0.025	0.134	0.217	0.093	0.006
Beryllium	0.0008	mg/L	0.0010	mg/L	0.0009	mg/L	0.0001	mg/L	0.004 mg/L ¹	ND	ND	ND	ND	0.0001	ND	ND	ND
Cadmium	0.2342	mg/L	0.0029	mg/L	0.1185	mg/L	0.0001	mg/L	0.005 mg/L ¹	0.0002	0.0018	ND	0.0004	0.0095	ND	ND	ND
Chromium	0.0250	mg/L	0.0193	mg/L	0.0222	mg/L	0.0006	mg/L	0.1 mg/L ¹	0.0017	ND	0.0006	ND	0.001	0.0007	0.0005	0.0003
Cobalt	0.0043	mg/L	0.0106	mg/L	0.0074	mg/L	0.0005	mg/L	0.73 mg/L ⁵	0.0002	0.0012	0.0005	0.0029	0.0049	0.0022	0.0152	0.0006
Copper	0.0683	mg/L	0.0706	mg/L	0.0694	mg/L	0.0005	mg/L	1.3 mg/L ¹	ND	ND	ND	ND	0.018	0.002	ND	ND
Lead	0.0782	mg/L	0.0173	mg/L	0.0477	mg/L	0.0147	mg/L	0.015 mg/L ¹	0.0013	0.0015	0.0052	0.0011	0.0077	0.004	0.0009	0.0008
Mercury	0.0001	mg/L	0.0001	mg/L	0.0001	mg/L	0.0001	mg/L	0.002 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	0.0234	mg/L	0.0434	mg/L	0.0334	mg/L	0.0010	mg/L	0.1 mg/L ²	ND	0.013	0.001	0.004	0.006	0.005	0.032	0.002
Selenium	0.0100	mg/L	0.0100	mg/L	0.0100	mg/L	0.0025	mg/L	0.05 mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND
Silver	0.0005	mg/L	0.0030	mg/L	0.0018	mg/L	0.0001	mg/L	0.1 mg/L ^{2, 3}	ND	ND	ND	ND	ND	ND	ND	0.0001
Thallium	0.0001	mg/L	0.0010	mg/L	0.0005	mg/L	0.0001	mg/L	0.002 mg/L ¹	ND	ND	ND	ND	0.0001	ND	ND	ND
Tin	0.0370	mg/L	0.5173	mg/L	0.2771	mg/L	0.0070	mg/L	22 mg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	0.0099	mg/L	0.0386	mg/L	0.0243	mg/L	0.0021	mg/L	0.26 mg/L ⁵	ND	ND	0.0007	ND	0.0011	0.0009	0.0007	ND
Zinc	4.7435	mg/L	0.0512	mg/L	2.3973	mg/L	0.0234	mg/L	2 mg/L ^{2, 3}	0.002	0.001	0.005	0.002	0.009	0.002	0.0050	0.002

= Concentration exceeds the Site-specific background Tolerance Limit
 = Concentration exceeds the applicable Threshold Value
 = Concentration exceeds both the applicable Threshold Value and the Site-specific background Tolerance Limit

1. Threshold value given is the Maximum Contaminant Level (MCL) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
2. Threshold value given is the lifetime health advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
3. Threshold value given is the Secondary Drinking Water Regulation (SDWR) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
4. Threshold value given is the Drinking Water Advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
5. Threshold value given is the Preliminary Remedial Goal (PRG) for tap water, as provided in the October 2002 USEPA Region 9 PRGs Table 2002 Update
6. Threshold value given is derived from the EPA's National Recommended Water Quality Criteria for Human Health for the consumption of water and organisms, amended 2015.
7. Threshold value given is derived from the EPA's Unregulated Contaminant Monitoring Rule's minimum reporting levels.

No threshold value has been provided for parameters not identified in the sources listed above
 " — " = One half of the laboratory detection limit "DL"
 NT = Not Tested due to dry conditions at well.

TABLE 3

Historical Analytical Data, Surface Water Sampling



**TABLE 3
SUMMARY OF SURFACE WATER MONITORING RESULTS
SURFACE WATER SW-1
JUNE 2020 MONITORING ROUND**

Concentration (expressed in same units as Human Health Threshold)

Parameter	Human Health	Freshwater Aquatic Life		Units	Jun '20	Mar '20	Dec '19	Jun '19	Mar '19	Dec '18	Sep '18	Jun '18	Mar '18	Dec '17	Sep '17	Jun '17	Mar '17
	Threshold	(Acute)	(Chronic)														
Antimony	0.0056	0.4500	0.0100	mg/L ¹	ND	0.0001	ND	ND	ND	0.002	ND	ND	ND	ND	0.006	0.002	0.006
Arsenic	0.00018	0.3400	0.1500	mg/L ¹	0.0016	0.0002	0.0002	0.0009	0.0002	ND	ND	0.01	0.004	0.004	ND	0.003	ND
Barium	2	--	--	mg/L ¹	0.029	0.017	0.019	0.068	0.023	0.031	0.036	0.04	0.022	0.022	0.473	0.025	0.016
Beryllium	0.004	0.0075	0.00017	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	0.005	0.0011	0.00016	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.08	0.001	ND
Calcium	--	--	--	mg/L	14.2	23.5	35.4	62.2	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	0.1	0.0160	0.0110	mg/L ¹	0.0036	0.0004	0.0004	0.0005	0.0002	ND	ND	ND	ND	ND	0.004	0.001	ND
Cobalt	0.73	--	--	mg/L ⁵	0.0027	0.0002	0.0002	0.0014	0.0002	ND	ND	ND	ND	ND	0.006	0.004	ND
Copper	1.3	0.0072	0.0051	mg/L ¹	ND	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron	0.3	--	1.0000	mg/L ³	15.3	0.304	0.647	10.7	0.521	NT	NT	NT	NT	NT	NT	NT	NT
Lead	0.015	0.0820	0.0032	mg/L ¹	0.0151	0.0005	0.0003	0.0003	0.0003	ND	ND	ND	ND	ND	0.019	0.002	ND
Magnesium	--	--	--	mg/L	3.9	4.98	4.93	11.8	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	0.00014	0.0014	0.00077	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	0.61	0.2671	0.0297	mg/L ²	0.008	0.001	0.003	0.003	0.001	0.002	0.003	0.001	0.003	0.003	0.014	0.005	0.003
Selenium	0.05	0.0200	0.0031	mg/L ⁷	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	0.1	0.0011	--	mg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.00024	0.0460	0.0010	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tin	22	--	--	mg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	0.26	--	--	mg/L ⁵	0.0065	ND	ND	ND	ND	0.001	0.001	ND	ND	ND	0.117	0.006	ND
Zinc	2	0.0668	0.0673	mg/L ³	0.269	0.003	0.005	0.006	0.002	0.012	0.005	0.015	0.009	0.009	0.097	0.02	0.006
Hardness (CaCO ₃)	--	--	< 20	mg/L	51.5	79.3	109	204	112	182	128	166	106	71.8	300	35.2	70.2
Ammonia	30	18.4	5.20	mg/L ²	0.3	ND	0.2	0.1	0.2	NT	NT	NT	NT	NT	NT	NT	NT
TKN	--	--	--	mg/L	3.8	0.4	1.1	0.4	0.4	NT	NT	NT	NT	NT	NT	NT	NT
Total Phosphorus	0.025	--	--	mg/L ⁶	ND	ND	ND	ND	0.05	NT	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen	10	--	--	mg/L ⁹	3.84	0.86	1.15	0.4	1.5	NT	NT	NT	NT	NT	NT	NT	NT

1. Threshold value given is the Maximum Contaminant Level (MCL) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
2. Threshold value given is the lifetime health advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
3. Threshold value given is the Secondary Drinking Water Regulation (SDWR) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
4. Threshold value given is the Drinking Water Advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
5. Threshold value given is the Preliminary Remedial Goal (PRG) for tap water, as provided in the October 2002 USEPA Region 9 PRGs Table 2002 Update
6. Ambient water quality standard.
7. Ambient water quality standard for selenium was selected from the EPA's 2016 Final Guidance for Aquatic Life Ambient Water Quality Criterion for Selenium. This guidance provides four chronic values that are dependent on site conditions, and the Lotic Water Chronic Criterion has been selected as it appears to be most applicable to site conditions.

###	Concentration exceeds the applicable Human Health Criteria
###	Concentration exceeds the applicable Freshwater Acute Exposure Criteria
###	Concentration exceeds the applicable Freshwater Chronic Exposure Criteria
###	Concentration exceeds both the Human Health Criteria and the Freshwater Acute Exposure Criteria
###	Concentration exceeds both the Human Health Criteria and the Freshwater Chronic Exposure Criteria

No threshold value has been provided for parameters not identified in the sources listed above

Aquatic Life criteria provided above from RIDEM Water Quality Regulations or the EPA's National Recommended Water Quality Criteria, Human Health Criteria for Consumption of water and organisms. "--" represents parameters for which no aquatic life criteria has been established.

"O.R." - Threshold value is temperature and/or pH dependent. Temperature and/ or pH was outside of the range for which a threshold value is established.

TABLE 3 (CONT.)
SUMMARY OF SURFACE WATER MONITORING RESULTS
SURFACE WATER SW-2
JUNE 2020 MONITORING ROUND
 Concentration (expressed in same units as Human Health Threshold)

Parameter	Human Health	Freshwater Aquatic Life		Units	Jun '20	Mar '20	Dec '19	Jun '19	Mar '19	Dec '18	Sep '18	Jun '18	Mar '18	Dec '17	Sep '17	Jun '17	Mar '17
	Threshold	(Acute)	(Chronic)														
Antimony	0.0056	0.4500	0.0100	mg/L ¹	ND	ND	ND	ND	ND	0.002	0.003	0.001	ND	0.003	ND	0.002	ND
Arsenic	0.00018	0.3400	0.1500	mg/L ¹	0.0011	0.0002	0.0002	0.0006	0.0003	ND	ND	0.005	ND	ND	ND	ND	ND
Barium	2	--	--	mg/L ¹	0.015	0.007	0.006	0.011	0.006	0.006	0.017	0.011	0.009	0.008	0.013	0.01	0.008
Beryllium	0.004	0.0075	0.00017	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	0.005	0.0005	0.00009	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	--	--	--	mg/L	5.9	3.98	3.34	7.51	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	0.1	0.0160	0.0110	mg/L ¹	0.0025	0.0006	0.0006	0.0007	0.0005	ND	ND	ND	ND	ND	ND	0.001	ND
Cobalt	0.73	--	--	mg/L ⁵	0.0035	0.0012	0.0005	0.0025	0.0002	ND	0.002	ND	ND	ND	0.001	0.002	ND
Copper	1.3	0.0034	0.0026	mg/L ¹	ND	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron	0.3	--	1.0000	mg/L ³	7.08	0.911	0.661	3.05	0.516	NT	NT	NT	NT	NT	NT	NT	NT
Lead	0.015	0.0820	0.0032	mg/L ¹	0.0103	0.0007	0.0006	0.0009	0.0003	ND	ND	ND	ND	ND	ND	0.002	0.002
Magnesium	--	--	--	mg/L	2.13	1.9	1.42	2.75	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	0.00014	0.0014	0.00077	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	0.61	0.1375	0.0153	mg/L ²	0.005	0.002	0.001	0.002	0.001	0.002	0.002	0.003	0.002	0.001	0.002	0.004	0.003
Selenium	0.05	0.0200	0.0031	mg/L ⁷	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	0.1	0.0003	--	mg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.002	ND	ND
Thallium	0.00024	0.0460	0.0010	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tin	22	--	--	mg/L ⁵	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	0.26	--	--	mg/L ⁵	0.0031	0.0007	0.0007	0.0013	0.0006	ND	0.001	0.002	ND	ND	0.002	0.002	0.002
Zinc	2	0.0344	0.0346	mg/L ³	0.095	0.003	0.005	0.006	0.003	0.012	0.006	0.019	0.014	ND	0.006	0.01	0.011
Hardness (CaCO3)	--	--	< 20	mg/L	23.5	17.8	14.2	30.1	20.6	19.5	34.9	17.3	16.2	27.9	20	16.5	18.4
Ammonia	30	18.4	5.20	mg/L ²	0.9	0.1	ND	0.4	ND	NT	NT	NT	NT	NT	NT	NT	NT
TKN	--	--	--	mg/L	4	0.4	1.1	1	0.5	NT	NT	NT	NT	NT	NT	NT	NT
Total Phosphorus	0.025	--	--	mg/L ⁶	ND	ND	ND	ND	ND	NT	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen	10	--	--	mg/L ⁶	4	0.4	1.63	1	0.5	NT	NT	NT	NT	NT	NT	NT	NT

1. Threshold value given is the Maximum Contaminant Level (MCL) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
2. Threshold value given is the lifetime health advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
3. Threshold value given is the Secondary Drinking Water Regulation (SDWR) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
4. Threshold value given is the Drinking Water Advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
5. Threshold value given is the Preliminary Remedial Goal (PRG) for tap water, as provided in the October 2002 USEPA Region 9 PRGs Table 2002 Update
6. Ambient water quality standard.
7. Ambient water quality standard for selenium was selected from the EPA's 2016 Final Guidance for Aquatic Life Ambient Water Quality Criterion for Selenium. This guidance provides four chronic values that are dependent on site conditions, and the Lotic Water Chronic Criterion has been selected as it appears to be most applicable to site conditions.

###	Concentration exceeds the applicable Human Health Criteria
###	Concentration exceeds the applicable Freshwater Acute Exposure Criteria
###	Concentration exceeds the applicable Freshwater Chronic Exposure Criteria
###	Concentration exceeds both the Human Health Criteria and the Freshwater Acute Exposure Criteria
###	Concentration exceeds both the Human Health Criteria and the Freshwater Chronic Exposure Criteria

No threshold value has been provided for parameters not identified in the sources listed above

Aquatic Life criteria provided above from RIDEM Water Quality Regulations or the EPA's National Recommended Water Quality Criteria, Human Health Criteria for Consumption of water and organisms. "--" represents parameters for which no aquatic life criteria has been established.

"O.R." - Threshold value is temperature and/or pH dependent. Temperature and/ or pH was outside of the range for which a threshold value is established.

TABLE 3 (CONT.)
SUMMARY OF SURFACE WATER MONITORING RESULTS
SURFACE WATER SW-3
JUNE 2020 MONITORING ROUND
 Concentration (expressed in same units as Human Health Threshold)

Parameter	Human Health	Freshwater Aquatic Life Threshold		Units	Jun '20	Mar '20	Dec '19	Jun '19	Mar '19	Dec '18	Sep '18	Jun '18	Mar '18	Dec '17	Sep '17	Jun '17	Mar '17
	Threshold	(Acute)	(Chronic)														
Antimony	0.0056	0.4500	0.0100	mg/L ¹	ND	0.0001	ND	ND	ND	0.002	0.003	0.005	ND	0.011	NT	0.02	ND
Arsenic	0.00018	0.3400	0.1500	mg/L ¹	0.0448	0.0002	0.0002	0.0006	0.0002	ND	ND	0.02	ND	ND	NT	ND	ND
Barium	2	--	--	mg/L ¹	2.5	0.019	0.007	0.014	0.007	0.01	0.018	1.66	1.33	0.087	NT	0.211	0.015
Beryllium	0.004	0.0075	0.00017	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND
Cadmium	0.005	0.0146	0.00101	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	0.008	0.051	ND	NT	0.009	ND
Calcium	--	--	--	mg/L	241	23.3	5.54	10.8	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chromium	0.1	0.0160	0.0110	mg/L ¹	0.0906	0.0007	0.0005	0.0007	0.0003	ND	ND	ND	0.249	0.006	NT	0.017	ND
Cobalt	0.73	--	--	mg/L ⁵	0.0427	0.0002	0.0004	0.0023	0.0002	ND	0.004	0.003	0.132	0.006	NT	0.019	ND
Copper	1.3	0.0920	0.0512	mg/L ¹	0.168	0.001	0.002	ND	ND	ND	ND	ND	0.24	ND	NT	ND	ND
Iron	0.3	--	1.0000	mg/L ³	903	1.18	0.788	4.13	0.449	NT	NT	NT	NT	NT	NT	NT	NT
Lead	0.015	0.0820	0.0032	mg/L ¹	0.539	0.0018	0.0003	0.0005	0.0009	ND	ND	ND	0.715	0.011	NT	0.029	ND
Magnesium	--	--	--	mg/L	40.6	5.06	2.18	3.33	NT	NT	NT	NT	NT	NT	NT	NT	NT
Mercury	0.00014	0.0014	0.00077	mg/L ¹	ND	ND	0.0003	ND	ND	ND	ND	ND	0.0013	ND	NT	ND	ND
Nickel	0.61	2.6329	0.2924	mg/L ²	0.107	0.001	0.001	0.002	0.002	0.001	0.006	0.018	0.433	0.01	NT	0.131	0.006
Selenium	0.05	0.0200	0.0031	mg/L ⁷	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND
Silver	0.1	0.1155	--	mg/L ²	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND
Thallium	0.00024	0.0460	0.0010	mg/L ¹	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND
Tin	22	--	--	mg/L ⁵	ND	0.025	ND	ND	ND	ND	ND	ND	ND	ND	NT	ND	ND
Vanadium	0.26	--	--	mg/L ⁵	0.155	0.0006	0.0005	0.0012	ND	ND	0.003	0.004	0.418	0.026	NT	0.028	ND
Zinc	2	0.6607	0.6661	mg/L ³	1.05	0.004	0.007	0.006	0.004	0.007	0.011	0.505	2.52	0.058	NT	0.11	0.016
Hardness (CaCO3)	--	--	< 20	mg/L	770	79	22.8	40.7	23.7	50.7	47.2	79.5	441	65.1	NT	294	47.1
Ammonia	30	18.4	5.20	mg/L ²	0.8	ND	ND	0.2	ND	NT	NT	NT	NT	NT	NT	NT	NT
TKN	--	--	--	mg/L	93.4	0.8	0.4	0.5	0.3	NT	NT	NT	NT	NT	NT	NT	NT
Total Phosphorus	0.025	--	--	mg/L ⁶	17.3	ND	ND	0.22	ND	NT	NT	NT	NT	NT	NT	NT	NT
Total Nitrogen	10	--	--	mg/L ⁶	97.7	1.27	0.53	0.5	0.3	NT	NT	NT	NT	NT	NT	NT	NT

1. Threshold value given is the Maximum Contaminant Level (MCL) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
2. Threshold value given is the lifetime health advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
3. Threshold value given is the Secondary Drinking Water Regulation (SDWR) as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
4. Threshold value given is the Drinking Water Advisory as provided in the USEPA 2018 Edition of the Drinking Water Standards and Health Advisories
5. Threshold value given is the Preliminary Remedial Goal (PRG) for tap water, as provided in the October 2002 USEPA Region 9 PRGs Table 2002 Update
6. Ambient water quality standard.
7. Ambient water quality standard for selenium was selected from the EPA's 2016 Final Guidance for Aquatic Life Ambient Water Quality Criterion for Selenium. This guidance provides four chronic values that are dependent on site conditions, and the Lotic Water Chronic Criterion has been selected as it appears to be most applicable to site conditions.

###	Concentration exceeds the applicable Human Health Criteria
###	Concentration exceeds the applicable Freshwater Acute Exposure Criteria
###	Concentration exceeds the applicable Freshwater Chronic Exposure Criteria
###	Concentration exceeds both the Human Health Criteria and the Freshwater Acute Exposure Criteria
###	Concentration exceeds both the Human Health Criteria and the Freshwater Chronic Exposure Criteria

No threshold value has been provided for parameters not identified in the sources listed above

Aquatic Life criteria provided above from RIDEM Water Quality Regulations or the EPA's National Recommended Water Quality Criteria, Human Health Criteria for Consumption of water and organisms. "-" represents parameters for which no aquatic life criteria has been established.

"O.R." - Threshold value is temperature and/or pH dependent. Temperature and/ or pH was outside of the range for which a threshold value is established.

ATTACHMENT 1

Laboratory Analytical Report, Observation Well Sampling





New England Testing Laboratory, Inc.
(401) 353-3420

REPORT OF ANALYTICAL RESULTS

NETLAB Work Order Number: 0F25068
Client Project: 94139 - Tiverton Landfill

Report Date: 02-July-2020

Prepared for:

Travis Johnson
Pare Corporation
8 Blackstone Valley Place
Lincoln, RI 02865

Richard Warila, Laboratory Director
New England Testing Laboratory, Inc.
59 Greenhill Street
West Warwick, RI 02893
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Samples Submitted :

The samples listed below were submitted to New England Testing Laboratory on 06/25/20. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is 0F25068. Custody records are included in this report.

Lab ID	Sample	Matrix	Date Sampled	Date Received
0F25068-01	OW-7	Water	06/24/2020	06/25/2020
0F25068-02	OW-9	Water	06/24/2020	06/25/2020
0F25068-03	OW-12	Water	06/24/2020	06/25/2020
0F25068-04	OW-13	Water	06/24/2020	06/25/2020
0F25068-05	OW-14	Water	06/24/2020	06/25/2020
0F25068-06	OW-15	Water	06/24/2020	06/25/2020
0F25068-07	OW-16	Water	06/24/2020	06/25/2020
0F25068-08	OW-17	Water	06/24/2020	06/25/2020

Request for Analysis

At the client's request, the analyses presented in the following table were performed on the samples submitted.

OW-12 (Lab Number: 0F25068-03)**Analysis**

Antimony
Appendix A Volatile Organics
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Tin
Vanadium
Zinc

Method

EPA 200.8
EPA 8260C
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 7470A
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8

OW-13 (Lab Number: 0F25068-04)**Analysis**

Antimony
Appendix A Volatile Organics
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Tin
Vanadium
Zinc

Method

EPA 200.8
EPA 8260C
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 7470A
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8

OW-14 (Lab Number: 0F25068-05)**Analysis**

Antimony
Appendix A Volatile Organics
Arsenic
Barium
Beryllium
Cadmium
Chromium

Method

EPA 200.8
EPA 8260C
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8

Request for Analysis (continued)

OW-14 (Lab Number: 0F25068-05) (continued)

Analysis

Cobalt
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Tin
Vanadium
Zinc

Method

EPA 200.8
EPA 200.8
EPA 200.8
EPA 7470A
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8

OW-15 (Lab Number: 0F25068-06)

Analysis

Antimony
Appendix A Volatile Organics
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Tin
Vanadium
Zinc

Method

EPA 200.8
EPA 8260C
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 7470A
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8

OW-16 (Lab Number: 0F25068-07)

Analysis

Antimony
Appendix A Volatile Organics
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Tin
Vanadium
Zinc

Method

EPA 200.8
EPA 8260C
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 7470A
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8

Request for Analysis (continued)

OW-17 (Lab Number: 0F25068-08)

Analysis

Antimony
Appendix A Volatile Organics
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Tin
Vanadium
Zinc

Method

EPA 200.8
EPA 8260C
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 7470A
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8

OW-7 (Lab Number: 0F25068-01)

Analysis

Antimony
Appendix A Volatile Organics
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Tin
Vanadium
Zinc

Method

EPA 200.8
EPA 8260C
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 7470A
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8

Request for Analysis (continued)

OW-9 (Lab Number: 0F25068-02)

Analysis

Antimony
Appendix A Volatile Organics
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Copper
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Tin
Vanadium
Zinc

Method

EPA 200.8
EPA 8260C
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 7470A
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8

Method References

Methods for the Determination of Metals in Environmental Samples EPA-600/R-94/111, USEPA, 1994

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, USEPA

Case Narrative

CASE NARRATIVE:

Sample Receipt

The samples were all appropriately cooled and preserved upon receipt. The samples were received in the appropriate containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Metals

All analyses were performed according to NETLAB's documented Standard Operating Procedures, within all required holding times, and with appropriate quality control measures. All QC was within laboratory established acceptance criteria. The samples were received, processed, and reported with no anomalies.

Volatile Organic Compounds

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria. Those compounds whose names include "TIC" were qualitatively screened via reconstructed ion chromatography and no detections were identified to the listed PQLs.

Results: Total Metals

Sample: OW-7

Lab Number: 0F25068-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Antimony	ND		0.0001	mg/L	06/26/20	06/26/20
Arsenic	0.0001		0.0001	mg/L	06/26/20	06/26/20
Barium	0.025		0.001	mg/l	06/26/20	06/26/20
Beryllium	ND		0.0001	mg/L	06/26/20	06/26/20
Cadmium	0.0004		0.0001	mg/L	06/26/20	06/26/20
Chromium	ND		0.0001	mg/L	06/26/20	06/26/20
Cobalt	0.0029		0.0001	mg/L	06/26/20	06/26/20
Copper	ND		0.001	mg/l	06/26/20	06/26/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	0.004		0.001	mg/l	06/26/20	06/26/20
Selenium	ND		0.005	mg/L	06/26/20	06/26/20
Silver	ND		0.0001	mg/L	06/26/20	06/26/20
Thallium	ND		0.0001	mg/L	06/26/20	06/26/20
Tin	ND		0.005	mg/l	06/26/20	06/26/20
Vanadium	ND		0.0005	mg/L	06/26/20	06/26/20
Zinc	0.002		0.001	mg/l	06/26/20	06/26/20
Lead	0.0011		0.0001	mg/L	06/26/20	06/26/20

Results: Total Metals**Sample: OW-9****Lab Number: 0F25068-02 (Water)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Antimony	ND		0.0001	mg/L	06/26/20	06/26/20
Arsenic	ND		0.0001	mg/L	06/26/20	06/26/20
Barium	0.005		0.001	mg/l	06/26/20	06/26/20
Beryllium	ND		0.0001	mg/L	06/26/20	06/26/20
Cadmium	0.0002		0.0001	mg/L	06/26/20	06/26/20
Chromium	0.0017		0.0001	mg/L	06/26/20	06/26/20
Cobalt	0.0002		0.0001	mg/L	06/26/20	06/26/20
Copper	ND		0.001	mg/l	06/26/20	06/26/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	ND		0.001	mg/l	06/26/20	06/26/20
Selenium	ND		0.005	mg/L	06/26/20	06/26/20
Silver	ND		0.0001	mg/L	06/26/20	06/26/20
Thallium	ND		0.0001	mg/L	06/26/20	06/26/20
Tin	ND		0.005	mg/l	06/26/20	06/26/20
Vanadium	ND		0.0005	mg/L	06/26/20	06/26/20
Zinc	0.002		0.001	mg/l	06/26/20	06/26/20
Lead	0.0013		0.0001	mg/L	06/26/20	06/26/20

Results: Total Metals

Sample: OW-12

Lab Number: 0F25068-03 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Antimony	ND		0.0001	mg/L	06/26/20	06/26/20
Arsenic	ND		0.0001	mg/L	06/26/20	06/26/20
Barium	0.024		0.001	mg/l	06/26/20	06/26/20
Beryllium	ND		0.0001	mg/L	06/26/20	06/26/20
Cadmium	0.0018		0.0001	mg/L	06/26/20	06/26/20
Chromium	ND		0.0001	mg/L	06/26/20	06/26/20
Cobalt	0.0012		0.0001	mg/L	06/26/20	06/26/20
Copper	ND		0.001	mg/l	06/26/20	06/26/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	0.013		0.001	mg/l	06/26/20	06/26/20
Selenium	ND		0.005	mg/L	06/26/20	06/26/20
Silver	ND		0.0001	mg/L	06/26/20	06/26/20
Thallium	ND		0.0001	mg/L	06/26/20	06/26/20
Tin	ND		0.005	mg/l	06/26/20	06/26/20
Vanadium	ND		0.0005	mg/L	06/26/20	06/26/20
Zinc	0.001		0.001	mg/l	06/26/20	06/26/20
Lead	0.0015		0.0001	mg/L	06/26/20	06/26/20

Results: Total Metals**Sample: OW-13****Lab Number: 0F25068-04 (Water)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Antimony	0.0003		0.0001	mg/L	06/26/20	06/26/20
Arsenic	0.0057		0.0001	mg/L	06/26/20	06/26/20
Barium	0.134		0.001	mg/l	06/26/20	06/26/20
Beryllium	0.0001		0.0001	mg/L	06/26/20	06/26/20
Cadmium	0.0095		0.0001	mg/L	06/26/20	06/26/20
Chromium	0.0010		0.0001	mg/L	06/26/20	06/26/20
Cobalt	0.0049		0.0001	mg/L	06/26/20	06/26/20
Copper	0.018		0.001	mg/l	06/26/20	06/26/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	0.006		0.001	mg/l	06/26/20	06/26/20
Selenium	ND		0.005	mg/L	06/26/20	06/26/20
Silver	ND		0.0001	mg/L	06/26/20	06/26/20
Thallium	0.0001		0.0001	mg/L	06/26/20	06/26/20
Tin	ND		0.005	mg/l	06/26/20	06/26/20
Vanadium	0.0011		0.0005	mg/L	06/26/20	06/26/20
Zinc	0.009		0.001	mg/l	06/26/20	06/26/20
Lead	0.0077		0.0001	mg/L	06/26/20	06/26/20

Results: Total Metals**Sample: OW-14****Lab Number: 0F25068-05 (Water)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Antimony	0.0002		0.0001	mg/L	06/26/20	06/26/20
Arsenic	0.0018		0.0001	mg/L	06/26/20	06/26/20
Barium	0.217		0.001	mg/l	06/26/20	06/26/20
Beryllium	ND		0.0001	mg/L	06/26/20	06/26/20
Cadmium	ND		0.0001	mg/L	06/26/20	06/26/20
Chromium	0.0007		0.0001	mg/L	06/26/20	06/26/20
Cobalt	0.0022		0.0001	mg/L	06/26/20	06/26/20
Copper	0.002		0.001	mg/l	06/26/20	06/26/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	0.005		0.001	mg/l	06/26/20	06/26/20
Selenium	ND		0.005	mg/L	06/26/20	06/26/20
Silver	ND		0.0001	mg/L	06/26/20	06/26/20
Thallium	ND		0.0001	mg/L	06/26/20	06/26/20
Tin	ND		0.005	mg/l	06/26/20	06/26/20
Vanadium	0.0009		0.0005	mg/L	06/26/20	06/26/20
Zinc	0.002		0.001	mg/l	06/26/20	06/26/20
Lead	0.0040		0.0001	mg/L	06/26/20	06/26/20

Results: Total Metals**Sample: OW-15****Lab Number: 0F25068-06 (Water)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Antimony	ND		0.0001	mg/L	06/26/20	06/26/20
Arsenic	0.0283		0.0001	mg/L	06/26/20	06/26/20
Barium	0.093		0.001	mg/l	06/26/20	06/26/20
Beryllium	ND		0.0001	mg/L	06/26/20	06/26/20
Cadmium	ND		0.0001	mg/L	06/26/20	06/26/20
Chromium	0.0005		0.0001	mg/L	06/26/20	06/26/20
Cobalt	0.0152		0.0001	mg/L	06/26/20	06/26/20
Copper	ND		0.001	mg/l	06/26/20	06/26/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	0.032		0.001	mg/l	06/26/20	06/26/20
Selenium	ND		0.005	mg/L	06/26/20	06/26/20
Silver	ND		0.0001	mg/L	06/26/20	06/26/20
Thallium	ND		0.0001	mg/L	06/26/20	06/26/20
Tin	ND		0.005	mg/l	06/26/20	06/26/20
Vanadium	0.0007		0.0005	mg/L	06/26/20	06/26/20
Zinc	0.005		0.001	mg/l	06/26/20	06/26/20
Lead	0.0009		0.0001	mg/L	06/26/20	06/26/20

Results: Total Metals**Sample: OW-16****Lab Number: 0F25068-07 (Water)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Antimony	0.0002		0.0001	mg/L	06/26/20	06/26/20
Arsenic	0.0001		0.0001	mg/L	06/26/20	06/26/20
Barium	0.006		0.001	mg/l	06/26/20	06/26/20
Beryllium	ND		0.0001	mg/L	06/26/20	06/26/20
Cadmium	ND		0.0001	mg/L	06/26/20	06/26/20
Chromium	0.0003		0.0001	mg/L	06/26/20	06/26/20
Cobalt	0.0006		0.0001	mg/L	06/26/20	06/26/20
Copper	ND		0.001	mg/l	06/26/20	06/26/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	0.002		0.001	mg/l	06/26/20	06/26/20
Selenium	ND		0.005	mg/L	06/26/20	06/26/20
Silver	0.0001		0.0001	mg/L	06/26/20	06/26/20
Thallium	ND		0.0001	mg/L	06/26/20	06/26/20
Tin	ND		0.005	mg/l	06/26/20	06/26/20
Vanadium	ND		0.0005	mg/L	06/26/20	06/26/20
Zinc	0.002		0.001	mg/l	06/26/20	06/26/20
Lead	0.0008		0.0001	mg/L	06/26/20	06/26/20

Results: Total Metals**Sample: OW-17****Lab Number: 0F25068-08 (Water)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Antimony	0.0001		0.0001	mg/L	06/26/20	06/26/20
Arsenic	0.0002		0.0001	mg/L	06/26/20	06/26/20
Barium	0.016		0.001	mg/l	06/26/20	06/26/20
Beryllium	ND		0.0001	mg/L	06/26/20	06/26/20
Cadmium	ND		0.0001	mg/L	06/26/20	06/26/20
Chromium	0.0006		0.0001	mg/L	06/26/20	06/26/20
Cobalt	0.0005		0.0001	mg/L	06/26/20	06/26/20
Copper	ND		0.001	mg/l	06/26/20	06/26/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	0.001		0.001	mg/l	06/26/20	06/26/20
Selenium	ND		0.005	mg/L	06/26/20	06/26/20
Silver	ND		0.0001	mg/L	06/26/20	06/26/20
Thallium	ND		0.0001	mg/L	06/26/20	06/26/20
Tin	ND		0.005	mg/l	06/26/20	06/26/20
Vanadium	0.0007		0.0005	mg/L	06/26/20	06/26/20
Zinc	0.005		0.001	mg/l	06/26/20	06/26/20
Lead	0.0052		0.0001	mg/L	06/26/20	06/26/20

Results: Volatile Organic Compounds

Sample: OW-7

Lab Number: 0F25068-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1	ug/l	06/30/20	06/30/20
1,1,1-Trichloroethane	ND		1	ug/l	06/30/20	06/30/20
1,1,2,2-Tetrachloroethane	ND		1	ug/l	06/30/20	06/30/20
1,1,2-Trichloroethane	ND		1	ug/l	06/30/20	06/30/20
1,1-Dichloroethane	ND		1	ug/l	06/30/20	06/30/20
1,1-Dichloroethene	ND		1	ug/l	06/30/20	06/30/20
1,1-Dichloropropene	ND		1	ug/l	06/30/20	06/30/20
1,2,3-Trichloropropane	ND		1	ug/l	06/30/20	06/30/20
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l	06/30/20	06/30/20
1,2-Dibromoethane (EDB)	ND		1	ug/l	06/30/20	06/30/20
1,2-Dichloroethane	ND		1	ug/l	06/30/20	06/30/20
1,2-Dichloropropane	ND		1	ug/l	06/30/20	06/30/20
1,3-Dichloropropane	ND		1	ug/l	06/30/20	06/30/20
2,2-Dichloropropane	ND		1	ug/l	06/30/20	06/30/20
2-Hexanone	ND		5	ug/l	06/30/20	06/30/20
4-Methyl-2-pentanone	ND		5	ug/l	06/30/20	06/30/20
Acetone	ND		5	ug/l	06/30/20	06/30/20
Acetonitrile	ND		5	ug/l	06/30/20	06/30/20
Acrolein	ND		5	ug/l	06/30/20	06/30/20
Acrylonitrile	ND		5	ug/l	06/30/20	06/30/20
Allyl chloride (TIC)	ND		5	ug/l	06/30/20	06/30/20
Benzene	ND		1	ug/l	06/30/20	06/30/20
Bromochloromethane	ND		1	ug/l	06/30/20	06/30/20
Bromodichloromethane	ND		1	ug/l	06/30/20	06/30/20
Bromoform	ND		1	ug/l	06/30/20	06/30/20
Carbon Disulfide	ND		1	ug/l	06/30/20	06/30/20
Carbon Tetrachloride	ND		1	ug/l	06/30/20	06/30/20
Chlorobenzene	ND		1	ug/l	06/30/20	06/30/20
Chloroethane	ND		2	ug/l	06/30/20	06/30/20
Chloroform	ND		1	ug/l	06/30/20	06/30/20
Chloroprene (TIC)	ND		1	ug/l	06/30/20	06/30/20
cis-1,2-Dichloroethene	ND		1	ug/l	06/30/20	06/30/20
cis-1,3-Dichloropropene	ND		1	ug/l	06/30/20	06/30/20
Dibromochloromethane	ND		1	ug/l	06/30/20	06/30/20
Dichlorodifluoromethane	ND		1	ug/l	06/30/20	06/30/20
Ethyl Methacrylate (TIC)	ND		5	ug/l	06/30/20	06/30/20
Ethylbenzene	ND		1	ug/l	06/30/20	06/30/20
Isobutyl Alcohol (TIC)	ND		20	ug/l	06/30/20	06/30/20
Isodrin (TIC)	ND		5	ug/l	06/30/20	06/30/20
1,3-Dichlorobenzene	ND		1	ug/l	06/30/20	06/30/20
Methacrylonitrile (TIC)	ND		10	ug/l	06/30/20	06/30/20
Bromomethane	ND		1	ug/l	06/30/20	06/30/20
Chloromethane	ND		1	ug/l	06/30/20	06/30/20
2-Butanone	ND		5	ug/l	06/30/20	06/30/20
Methyl iodide (TIC)	ND		5	ug/l	06/30/20	06/30/20
Methylmethacrylate	ND		10	ug/l	06/30/20	06/30/20
Dibromomethane	ND		1	ug/l	06/30/20	06/30/20
Methylene Chloride	ND		1	ug/l	06/30/20	06/30/20

Results: Volatile Organic Compounds (Continued)

Sample: OW-7 (Continued)

Lab Number: 0F25068-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,2-Dichlorobenzene	ND		1	ug/l	06/30/20	06/30/20
1,4-Dichlorobenzene	ND		1	ug/l	06/30/20	06/30/20
Propionitrile (TIC)	ND		20	ug/l	06/30/20	06/30/20
Styrene	ND		1	ug/l	06/30/20	06/30/20
Tetrachloroethene	ND		1	ug/l	06/30/20	06/30/20
Methyl t-butyl ether (MTBE)	2		1	ug/l	06/30/20	06/30/20
Toluene	ND		1	ug/l	06/30/20	06/30/20
trans-1,2-Dichloroethene	ND		1	ug/l	06/30/20	06/30/20
trans-1,3-Dichloropropene	ND		1	ug/l	06/30/20	06/30/20
trans-1,4-Dichloro-2-Butene (TIC)	ND		5	ug/l	06/30/20	06/30/20
Trichloroethene	ND		1	ug/l	06/30/20	06/30/20
Trichlorofluoromethane	ND		1	ug/l	06/30/20	06/30/20
Vinyl acetate (TIC)	ND		5	ug/l	06/30/20	06/30/20
Vinyl Chloride	ND		1	ug/l	06/30/20	06/30/20
Total xylenes	ND		2	ug/l	06/30/20	06/30/20
Surrogate(s)	Recovery%		Limits			
<i>Toluene-d8</i>	<i>102%</i>		<i>70-130</i>		06/30/20	06/30/20
<i>1,2-Dichloroethane-d4</i>	<i>101%</i>		<i>70-130</i>		06/30/20	06/30/20
<i>4-Bromofluorobenzene</i>	<i>99.1%</i>		<i>70-130</i>		06/30/20	06/30/20

Results: Volatile Organic Compounds

Sample: OW-9

Lab Number: 0F25068-02 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1	ug/l	06/30/20	06/30/20
1,1,1-Trichloroethane	ND		1	ug/l	06/30/20	06/30/20
1,1,2,2-Tetrachloroethane	ND		1	ug/l	06/30/20	06/30/20
1,1,2-Trichloroethane	ND		1	ug/l	06/30/20	06/30/20
1,1-Dichloroethane	ND		1	ug/l	06/30/20	06/30/20
1,1-Dichloroethene	ND		1	ug/l	06/30/20	06/30/20
1,1-Dichloropropene	ND		1	ug/l	06/30/20	06/30/20
1,2,3-Trichloropropane	ND		1	ug/l	06/30/20	06/30/20
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l	06/30/20	06/30/20
1,2-Dibromoethane (EDB)	ND		1	ug/l	06/30/20	06/30/20
1,2-Dichloroethane	ND		1	ug/l	06/30/20	06/30/20
1,2-Dichloropropane	ND		1	ug/l	06/30/20	06/30/20
1,3-Dichloropropane	ND		1	ug/l	06/30/20	06/30/20
2,2-Dichloropropane	ND		1	ug/l	06/30/20	06/30/20
2-Hexanone	ND		5	ug/l	06/30/20	06/30/20
4-Methyl-2-pentanone	ND		5	ug/l	06/30/20	06/30/20
Acetone	ND		5	ug/l	06/30/20	06/30/20
Acetonitrile	ND		5	ug/l	06/30/20	06/30/20
Acrolein	ND		5	ug/l	06/30/20	06/30/20
Acrylonitrile	ND		5	ug/l	06/30/20	06/30/20
Allyl chloride (TIC)	ND		5	ug/l	06/30/20	06/30/20
Benzene	ND		1	ug/l	06/30/20	06/30/20
Bromochloromethane	ND		1	ug/l	06/30/20	06/30/20
Bromodichloromethane	ND		1	ug/l	06/30/20	06/30/20
Bromoform	ND		1	ug/l	06/30/20	06/30/20
Carbon Disulfide	ND		1	ug/l	06/30/20	06/30/20
Carbon Tetrachloride	ND		1	ug/l	06/30/20	06/30/20
Chlorobenzene	ND		1	ug/l	06/30/20	06/30/20
Chloroethane	ND		2	ug/l	06/30/20	06/30/20
Chloroform	ND		1	ug/l	06/30/20	06/30/20
Chloroprene (TIC)	ND		1	ug/l	06/30/20	06/30/20
cis-1,2-Dichloroethene	ND		1	ug/l	06/30/20	06/30/20
cis-1,3-Dichloropropene	ND		1	ug/l	06/30/20	06/30/20
Dibromochloromethane	ND		1	ug/l	06/30/20	06/30/20
Dichlorodifluoromethane	ND		1	ug/l	06/30/20	06/30/20
Ethyl Methacrylate (TIC)	ND		5	ug/l	06/30/20	06/30/20
Ethylbenzene	ND		1	ug/l	06/30/20	06/30/20
Isobutyl Alcohol (TIC)	ND		20	ug/l	06/30/20	06/30/20
Isodrin (TIC)	ND		5	ug/l	06/30/20	06/30/20
1,3-Dichlorobenzene	ND		1	ug/l	06/30/20	06/30/20
Methacrylonitrile (TIC)	ND		10	ug/l	06/30/20	06/30/20
Bromomethane	ND		1	ug/l	06/30/20	06/30/20
Chloromethane	ND		1	ug/l	06/30/20	06/30/20
2-Butanone	ND		5	ug/l	06/30/20	06/30/20
Methyl iodide (TIC)	ND		5	ug/l	06/30/20	06/30/20
Methylmethacrylate	ND		10	ug/l	06/30/20	06/30/20
Dibromomethane	ND		1	ug/l	06/30/20	06/30/20
Methylene Chloride	ND		1	ug/l	06/30/20	06/30/20

Results: Volatile Organic Compounds (Continued)

Sample: OW-9 (Continued)

Lab Number: 0F25068-02 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,2-Dichlorobenzene	ND		1	ug/l	06/30/20	06/30/20
1,4-Dichlorobenzene	ND		1	ug/l	06/30/20	06/30/20
Propionitrile (TIC)	ND		20	ug/l	06/30/20	06/30/20
Styrene	ND		1	ug/l	06/30/20	06/30/20
Tetrachloroethene	ND		1	ug/l	06/30/20	06/30/20
Methyl t-butyl ether (MTBE)	ND		1	ug/l	06/30/20	06/30/20
Toluene	ND		1	ug/l	06/30/20	06/30/20
trans-1,2-Dichloroethene	ND		1	ug/l	06/30/20	06/30/20
trans-1,3-Dichloropropene	ND		1	ug/l	06/30/20	06/30/20
trans-1,4-Dichloro-2-Butene (TIC)	ND		5	ug/l	06/30/20	06/30/20
Trichloroethene	ND		1	ug/l	06/30/20	06/30/20
Trichlorofluoromethane	ND		1	ug/l	06/30/20	06/30/20
Vinyl acetate (TIC)	ND		5	ug/l	06/30/20	06/30/20
Vinyl Chloride	ND		1	ug/l	06/30/20	06/30/20
Total xylenes	ND		2	ug/l	06/30/20	06/30/20
Surrogate(s)	Recovery%		Limits			
<i>Toluene-d8</i>	<i>101%</i>		<i>70-130</i>		06/30/20	06/30/20
<i>1,2-Dichloroethane-d4</i>	<i>102%</i>		<i>70-130</i>		06/30/20	06/30/20
<i>4-Bromofluorobenzene</i>	<i>100%</i>		<i>70-130</i>		06/30/20	06/30/20

Results: Volatile Organic Compounds

Sample: OW-12

Lab Number: 0F25068-03 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,1-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
1,2,3-Trichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromoethane (EDB)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,3-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2-Hexanone	ND		5	ug/l	06/30/20	07/01/20
4-Methyl-2-pentanone	ND		5	ug/l	06/30/20	07/01/20
Acetone	ND		5	ug/l	06/30/20	07/01/20
Acetonitrile	ND		5	ug/l	06/30/20	07/01/20
Acrolein	ND		5	ug/l	06/30/20	07/01/20
Acrylonitrile	ND		5	ug/l	06/30/20	07/01/20
Allyl chloride (TIC)	ND		5	ug/l	06/30/20	07/01/20
Benzene	ND		1	ug/l	06/30/20	07/01/20
Bromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromodichloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromoform	ND		1	ug/l	06/30/20	07/01/20
Carbon Disulfide	ND		1	ug/l	06/30/20	07/01/20
Carbon Tetrachloride	ND		1	ug/l	06/30/20	07/01/20
Chlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Chloroethane	ND		2	ug/l	06/30/20	07/01/20
Chloroform	ND		1	ug/l	06/30/20	07/01/20
Chloroprene (TIC)	ND		1	ug/l	06/30/20	07/01/20
cis-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
cis-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
Dibromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Dichlorodifluoromethane	ND		1	ug/l	06/30/20	07/01/20
Ethyl Methacrylate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Ethylbenzene	ND		1	ug/l	06/30/20	07/01/20
Isobutyl Alcohol (TIC)	ND		20	ug/l	06/30/20	07/01/20
Isodrin (TIC)	ND		5	ug/l	06/30/20	07/01/20
1,3-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Methacrylonitrile (TIC)	ND		10	ug/l	06/30/20	07/01/20
Bromomethane	ND		1	ug/l	06/30/20	07/01/20
Chloromethane	ND		1	ug/l	06/30/20	07/01/20
2-Butanone	ND		5	ug/l	06/30/20	07/01/20
Methyl iodide (TIC)	ND		5	ug/l	06/30/20	07/01/20
Methylmethacrylate	ND		10	ug/l	06/30/20	07/01/20
Dibromomethane	ND		1	ug/l	06/30/20	07/01/20
Methylene Chloride	ND		1	ug/l	06/30/20	07/01/20

Results: Volatile Organic Compounds (Continued)

Sample: OW-12 (Continued)

Lab Number: 0F25068-03 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,2-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
1,4-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Propionitrile (TIC)	ND		20	ug/l	06/30/20	07/01/20
Styrene	ND		1	ug/l	06/30/20	07/01/20
Tetrachloroethene	ND		1	ug/l	06/30/20	07/01/20
Methyl t-butyl ether (MTBE)	ND		1	ug/l	06/30/20	07/01/20
Toluene	ND		1	ug/l	06/30/20	07/01/20
trans-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
trans-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
trans-1,4-Dichloro-2-Butene (TIC)	ND		5	ug/l	06/30/20	07/01/20
Trichloroethene	ND		1	ug/l	06/30/20	07/01/20
Trichlorofluoromethane	ND		1	ug/l	06/30/20	07/01/20
Vinyl acetate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Vinyl Chloride	ND		1	ug/l	06/30/20	07/01/20
Total xylenes	ND		2	ug/l	06/30/20	07/01/20
Surrogate(s)	Recovery%		Limits			
<i>Toluene-d8</i>	<i>101%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>1,2-Dichloroethane-d4</i>	<i>99.3%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>4-Bromofluorobenzene</i>	<i>99.2%</i>		<i>70-130</i>		06/30/20	07/01/20

Results: Volatile Organic Compounds

Sample: OW-13

Lab Number: 0F25068-04 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,1-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
1,2,3-Trichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromoethane (EDB)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,3-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2-Hexanone	ND		5	ug/l	06/30/20	07/01/20
4-Methyl-2-pentanone	ND		5	ug/l	06/30/20	07/01/20
Acetone	ND		5	ug/l	06/30/20	07/01/20
Acetonitrile	ND		5	ug/l	06/30/20	07/01/20
Acrolein	ND		5	ug/l	06/30/20	07/01/20
Acrylonitrile	ND		5	ug/l	06/30/20	07/01/20
Allyl chloride (TIC)	ND		5	ug/l	06/30/20	07/01/20
Benzene	ND		1	ug/l	06/30/20	07/01/20
Bromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromodichloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromoform	ND		1	ug/l	06/30/20	07/01/20
Carbon Disulfide	ND		1	ug/l	06/30/20	07/01/20
Carbon Tetrachloride	ND		1	ug/l	06/30/20	07/01/20
Chlorobenzene	5		1	ug/l	06/30/20	07/01/20
Chloroethane	ND		2	ug/l	06/30/20	07/01/20
Chloroform	ND		1	ug/l	06/30/20	07/01/20
Chloroprene (TIC)	ND		1	ug/l	06/30/20	07/01/20
cis-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
cis-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
Dibromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Dichlorodifluoromethane	ND		1	ug/l	06/30/20	07/01/20
Ethyl Methacrylate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Ethylbenzene	ND		1	ug/l	06/30/20	07/01/20
Isobutyl Alcohol (TIC)	ND		20	ug/l	06/30/20	07/01/20
Isodrin (TIC)	ND		5	ug/l	06/30/20	07/01/20
1,3-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Methacrylonitrile (TIC)	ND		10	ug/l	06/30/20	07/01/20
Bromomethane	ND		1	ug/l	06/30/20	07/01/20
Chloromethane	ND		1	ug/l	06/30/20	07/01/20
2-Butanone	ND		5	ug/l	06/30/20	07/01/20
Methyl iodide (TIC)	ND		5	ug/l	06/30/20	07/01/20
Methylmethacrylate	ND		10	ug/l	06/30/20	07/01/20
Dibromomethane	ND		1	ug/l	06/30/20	07/01/20
Methylene Chloride	ND		1	ug/l	06/30/20	07/01/20

Results: Volatile Organic Compounds (Continued)

Sample: OW-13 (Continued)

Lab Number: 0F25068-04 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,2-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
1,4-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Propionitrile (TIC)	ND		20	ug/l	06/30/20	07/01/20
Styrene	ND		1	ug/l	06/30/20	07/01/20
Tetrachloroethene	ND		1	ug/l	06/30/20	07/01/20
Methyl t-butyl ether (MTBE)	3		1	ug/l	06/30/20	07/01/20
Toluene	ND		1	ug/l	06/30/20	07/01/20
trans-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
trans-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
trans-1,4-Dichloro-2-Butene (TIC)	ND		5	ug/l	06/30/20	07/01/20
Trichloroethene	ND		1	ug/l	06/30/20	07/01/20
Trichlorofluoromethane	ND		1	ug/l	06/30/20	07/01/20
Vinyl acetate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Vinyl Chloride	ND		1	ug/l	06/30/20	07/01/20
Total xylenes	ND		2	ug/l	06/30/20	07/01/20
Surrogate(s)	Recovery%		Limits			
<i>Toluene-d8</i>	<i>100%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>1,2-Dichloroethane-d4</i>	<i>98.7%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>4-Bromofluorobenzene</i>	<i>100%</i>		<i>70-130</i>		06/30/20	07/01/20

Results: Volatile Organic Compounds

Sample: OW-14

Lab Number: 0F25068-05 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,1-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
1,2,3-Trichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromoethane (EDB)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,3-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2-Hexanone	ND		5	ug/l	06/30/20	07/01/20
4-Methyl-2-pentanone	ND		5	ug/l	06/30/20	07/01/20
Acetone	ND		5	ug/l	06/30/20	07/01/20
Acetonitrile	ND		5	ug/l	06/30/20	07/01/20
Acrolein	ND		5	ug/l	06/30/20	07/01/20
Acrylonitrile	ND		5	ug/l	06/30/20	07/01/20
Allyl chloride (TIC)	ND		5	ug/l	06/30/20	07/01/20
Benzene	3		1	ug/l	06/30/20	07/01/20
Bromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromodichloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromoform	ND		1	ug/l	06/30/20	07/01/20
Carbon Disulfide	ND		1	ug/l	06/30/20	07/01/20
Carbon Tetrachloride	ND		1	ug/l	06/30/20	07/01/20
Chlorobenzene	12		1	ug/l	06/30/20	07/01/20
Chloroethane	ND		2	ug/l	06/30/20	07/01/20
Chloroform	ND		1	ug/l	06/30/20	07/01/20
Chloroprene (TIC)	ND		1	ug/l	06/30/20	07/01/20
cis-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
cis-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
Dibromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Dichlorodifluoromethane	ND		1	ug/l	06/30/20	07/01/20
Ethyl Methacrylate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Ethylbenzene	ND		1	ug/l	06/30/20	07/01/20
Isobutyl Alcohol (TIC)	ND		20	ug/l	06/30/20	07/01/20
Isodrin (TIC)	ND		5	ug/l	06/30/20	07/01/20
1,3-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Methacrylonitrile (TIC)	ND		10	ug/l	06/30/20	07/01/20
Bromomethane	ND		1	ug/l	06/30/20	07/01/20
Chloromethane	ND		1	ug/l	06/30/20	07/01/20
2-Butanone	ND		5	ug/l	06/30/20	07/01/20
Methyl iodide (TIC)	ND		5	ug/l	06/30/20	07/01/20
Methylmethacrylate	ND		10	ug/l	06/30/20	07/01/20
Dibromomethane	ND		1	ug/l	06/30/20	07/01/20
Methylene Chloride	ND		1	ug/l	06/30/20	07/01/20

Results: Volatile Organic Compounds (Continued)

Sample: OW-14 (Continued)

Lab Number: 0F25068-05 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,2-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
1,4-Dichlorobenzene	2		1	ug/l	06/30/20	07/01/20
Propionitrile (TIC)	ND		20	ug/l	06/30/20	07/01/20
Styrene	ND		1	ug/l	06/30/20	07/01/20
Tetrachloroethene	ND		1	ug/l	06/30/20	07/01/20
Methyl t-butyl ether (MTBE)	6		1	ug/l	06/30/20	07/01/20
Toluene	ND		1	ug/l	06/30/20	07/01/20
trans-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
trans-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
trans-1,4-Dichloro-2-Butene (TIC)	ND		5	ug/l	06/30/20	07/01/20
Trichloroethene	ND		1	ug/l	06/30/20	07/01/20
Trichlorofluoromethane	ND		1	ug/l	06/30/20	07/01/20
Vinyl acetate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Vinyl Chloride	ND		1	ug/l	06/30/20	07/01/20
Total xylenes	ND		2	ug/l	06/30/20	07/01/20
Surrogate(s)	Recovery%		Limits			
<i>Toluene-d8</i>	<i>102%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>1,2-Dichloroethane-d4</i>	<i>101%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>4-Bromofluorobenzene</i>	<i>100%</i>		<i>70-130</i>		06/30/20	07/01/20

Results: Volatile Organic Compounds

Sample: OW-15

Lab Number: 0F25068-06 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,1-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
1,2,3-Trichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromoethane (EDB)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,3-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2-Hexanone	ND		5	ug/l	06/30/20	07/01/20
4-Methyl-2-pentanone	ND		5	ug/l	06/30/20	07/01/20
Acetone	ND		5	ug/l	06/30/20	07/01/20
Acetonitrile	ND		5	ug/l	06/30/20	07/01/20
Acrolein	ND		5	ug/l	06/30/20	07/01/20
Acrylonitrile	ND		5	ug/l	06/30/20	07/01/20
Allyl chloride (TIC)	ND		5	ug/l	06/30/20	07/01/20
Benzene	3		1	ug/l	06/30/20	07/01/20
Bromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromodichloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromoform	ND		1	ug/l	06/30/20	07/01/20
Carbon Disulfide	ND		1	ug/l	06/30/20	07/01/20
Carbon Tetrachloride	ND		1	ug/l	06/30/20	07/01/20
Chlorobenzene	16		1	ug/l	06/30/20	07/01/20
Chloroethane	ND		1	ug/l	06/30/20	07/01/20
Chloroform	ND		1	ug/l	06/30/20	07/01/20
Chloroprene (TIC)	ND		1	ug/l	06/30/20	07/01/20
cis-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
cis-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
Dibromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Dichlorodifluoromethane	ND		1	ug/l	06/30/20	07/01/20
Ethyl Methacrylate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Ethylbenzene	ND		1	ug/l	06/30/20	07/01/20
Isobutyl Alcohol (TIC)	ND		20	ug/l	06/30/20	07/01/20
Isodrin (TIC)	ND		5	ug/l	06/30/20	07/01/20
1,3-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Methacrylonitrile (TIC)	ND		10	ug/l	06/30/20	07/01/20
Bromomethane	ND		1	ug/l	06/30/20	07/01/20
Chloromethane	ND		1	ug/l	06/30/20	07/01/20
2-Butanone	ND		5	ug/l	06/30/20	07/01/20
Methyl iodide (TIC)	ND		5	ug/l	06/30/20	07/01/20
Methylmethacrylate	ND		10	ug/l	06/30/20	07/01/20
Dibromomethane	ND		1	ug/l	06/30/20	07/01/20
Methylene Chloride	ND		1	ug/l	06/30/20	07/01/20

Results: Volatile Organic Compounds (Continued)

Sample: OW-15 (Continued)

Lab Number: 0F25068-06 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,2-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
1,4-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Propionitrile (TIC)	ND		20	ug/l	06/30/20	07/01/20
Styrene	ND		1	ug/l	06/30/20	07/01/20
Tetrachloroethene	ND		1	ug/l	06/30/20	07/01/20
Methyl t-butyl ether (MTBE)	6		1	ug/l	06/30/20	07/01/20
Toluene	ND		1	ug/l	06/30/20	07/01/20
trans-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
trans-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
trans-1,4-Dichloro-2-Butene (TIC)	ND		5	ug/l	06/30/20	07/01/20
Trichloroethene	ND		1	ug/l	06/30/20	07/01/20
Trichlorofluoromethane	ND		1	ug/l	06/30/20	07/01/20
Vinyl acetate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Vinyl Chloride	ND		1	ug/l	06/30/20	07/01/20
Total xylenes	ND		2	ug/l	06/30/20	07/01/20
Surrogate(s)	Recovery%		Limits			
<i>Toluene-d8</i>	<i>102%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>1,2-Dichloroethane-d4</i>	<i>104%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>4-Bromofluorobenzene</i>	<i>99.4%</i>		<i>70-130</i>		06/30/20	07/01/20

Results: Volatile Organic Compounds

Sample: OW-16

Lab Number: 0F25068-07 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,1-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
1,2,3-Trichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromoethane (EDB)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,3-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2-Hexanone	ND		5	ug/l	06/30/20	07/01/20
4-Methyl-2-pentanone	ND		5	ug/l	06/30/20	07/01/20
Acetone	ND		5	ug/l	06/30/20	07/01/20
Acetonitrile	ND		5	ug/l	06/30/20	07/01/20
Acrolein	ND		5	ug/l	06/30/20	07/01/20
Acrylonitrile	ND		5	ug/l	06/30/20	07/01/20
Allyl chloride (TIC)	ND		5	ug/l	06/30/20	07/01/20
Benzene	ND		1	ug/l	06/30/20	07/01/20
Bromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromodichloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromoform	ND		1	ug/l	06/30/20	07/01/20
Carbon Disulfide	ND		1	ug/l	06/30/20	07/01/20
Carbon Tetrachloride	ND		1	ug/l	06/30/20	07/01/20
Chlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Chloroethane	ND		2	ug/l	06/30/20	07/01/20
Chloroform	ND		1	ug/l	06/30/20	07/01/20
Chloroprene (TIC)	ND		1	ug/l	06/30/20	07/01/20
cis-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
cis-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
Dibromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Dichlorodifluoromethane	ND		1	ug/l	06/30/20	07/01/20
Ethyl Methacrylate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Ethylbenzene	ND		1	ug/l	06/30/20	07/01/20
Isobutyl Alcohol (TIC)	ND		20	ug/l	06/30/20	07/01/20
Isodrin (TIC)	ND		5	ug/l	06/30/20	07/01/20
1,3-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Methacrylonitrile (TIC)	ND		10	ug/l	06/30/20	07/01/20
Bromomethane	ND		1	ug/l	06/30/20	07/01/20
Chloromethane	ND		1	ug/l	06/30/20	07/01/20
2-Butanone	ND		5	ug/l	06/30/20	07/01/20
Methyl iodide (TIC)	ND		5	ug/l	06/30/20	07/01/20
Methylmethacrylate	ND		10	ug/l	06/30/20	07/01/20
Dibromomethane	ND		1	ug/l	06/30/20	07/01/20
Methylene Chloride	ND		1	ug/l	06/30/20	07/01/20

Results: Volatile Organic Compounds (Continued)

Sample: OW-16 (Continued)

Lab Number: 0F25068-07 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,2-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
1,4-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Propionitrile (TIC)	ND		20	ug/l	06/30/20	07/01/20
Styrene	ND		1	ug/l	06/30/20	07/01/20
Tetrachloroethene	ND		1	ug/l	06/30/20	07/01/20
Methyl t-butyl ether (MTBE)	1		1	ug/l	06/30/20	07/01/20
Toluene	ND		1	ug/l	06/30/20	07/01/20
trans-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
trans-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
trans-1,4-Dichloro-2-Butene (TIC)	ND		5	ug/l	06/30/20	07/01/20
Trichloroethene	ND		1	ug/l	06/30/20	07/01/20
Trichlorofluoromethane	ND		1	ug/l	06/30/20	07/01/20
Vinyl acetate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Vinyl Chloride	ND		1	ug/l	06/30/20	07/01/20
Total xylenes	ND		2	ug/l	06/30/20	07/01/20
Surrogate(s)	Recovery%		Limits			
<i>Toluene-d8</i>	<i>101%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>1,2-Dichloroethane-d4</i>	<i>101%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>4-Bromofluorobenzene</i>	<i>100%</i>		<i>70-130</i>		06/30/20	07/01/20

Results: Volatile Organic Compounds

Sample: OW-17

Lab Number: 0F25068-08 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,1-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2,2-Tetrachloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1,2-Trichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
1,1-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
1,2,3-Trichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dibromoethane (EDB)	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloroethane	ND		1	ug/l	06/30/20	07/01/20
1,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
1,3-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2,2-Dichloropropane	ND		1	ug/l	06/30/20	07/01/20
2-Hexanone	ND		5	ug/l	06/30/20	07/01/20
4-Methyl-2-pentanone	ND		5	ug/l	06/30/20	07/01/20
Acetone	ND		5	ug/l	06/30/20	07/01/20
Acetonitrile	ND		5	ug/l	06/30/20	07/01/20
Acrolein	ND		5	ug/l	06/30/20	07/01/20
Acrylonitrile	ND		5	ug/l	06/30/20	07/01/20
Allyl chloride (TIC)	ND		5	ug/l	06/30/20	07/01/20
Benzene	ND		1	ug/l	06/30/20	07/01/20
Bromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromodichloromethane	ND		1	ug/l	06/30/20	07/01/20
Bromoform	ND		1	ug/l	06/30/20	07/01/20
Carbon Disulfide	ND		1	ug/l	06/30/20	07/01/20
Carbon Tetrachloride	ND		1	ug/l	06/30/20	07/01/20
Chlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Chloroethane	ND		2	ug/l	06/30/20	07/01/20
Chloroform	ND		1	ug/l	06/30/20	07/01/20
Chloroprene (TIC)	ND		1	ug/l	06/30/20	07/01/20
cis-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
cis-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
Dibromochloromethane	ND		1	ug/l	06/30/20	07/01/20
Dichlorodifluoromethane	ND		1	ug/l	06/30/20	07/01/20
Ethyl Methacrylate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Ethylbenzene	ND		1	ug/l	06/30/20	07/01/20
Isobutyl Alcohol (TIC)	ND		20	ug/l	06/30/20	07/01/20
Isodrin (TIC)	ND		5	ug/l	06/30/20	07/01/20
1,3-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Methacrylonitrile (TIC)	ND		10	ug/l	06/30/20	07/01/20
Bromomethane	ND		1	ug/l	06/30/20	07/01/20
Chloromethane	ND		1	ug/l	06/30/20	07/01/20
2-Butanone	ND		5	ug/l	06/30/20	07/01/20
Methyl iodide (TIC)	ND		5	ug/l	06/30/20	07/01/20
Methylmethacrylate	ND		10	ug/l	06/30/20	07/01/20
Dibromomethane	ND		1	ug/l	06/30/20	07/01/20
Methylene Chloride	ND		1	ug/l	06/30/20	07/01/20

Results: Volatile Organic Compounds (Continued)

Sample: OW-17 (Continued)

Lab Number: 0F25068-08 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
1,2-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
1,4-Dichlorobenzene	ND		1	ug/l	06/30/20	07/01/20
Propionitrile (TIC)	ND		20	ug/l	06/30/20	07/01/20
Styrene	ND		1	ug/l	06/30/20	07/01/20
Tetrachloroethene	ND		1	ug/l	06/30/20	07/01/20
Methyl t-butyl ether (MTBE)	ND		1	ug/l	06/30/20	07/01/20
Toluene	ND		1	ug/l	06/30/20	07/01/20
trans-1,2-Dichloroethene	ND		1	ug/l	06/30/20	07/01/20
trans-1,3-Dichloropropene	ND		1	ug/l	06/30/20	07/01/20
trans-1,4-Dichloro-2-Butene (TIC)	ND		5	ug/l	06/30/20	07/01/20
Trichloroethene	ND		1	ug/l	06/30/20	07/01/20
Trichlorofluoromethane	ND		1	ug/l	06/30/20	07/01/20
Vinyl acetate (TIC)	ND		5	ug/l	06/30/20	07/01/20
Vinyl Chloride	ND		1	ug/l	06/30/20	07/01/20
Total xylenes	ND		2	ug/l	06/30/20	07/01/20
Surrogate(s)	Recovery%		Limits			
<i>Toluene-d8</i>	<i>102%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>1,2-Dichloroethane-d4</i>	<i>99.3%</i>		<i>70-130</i>		06/30/20	07/01/20
<i>4-Bromofluorobenzene</i>	<i>99.4%</i>		<i>70-130</i>		06/30/20	07/01/20

Quality Control

Total Metals

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0F1167 - Metals Digestion Waters										
Blank (B0F1167-BLK1)					Prepared & Analyzed: 06/26/20					
Tin	ND		0.005	mg/l						
Selenium	ND		0.005	mg/L						
Antimony	ND		0.0001	mg/L						
Nickel	ND		0.001	mg/l						
Copper	ND		0.001	mg/l						
Chromium	ND		0.0001	mg/L						
Cobalt	ND		0.0001	mg/L						
Cadmium	ND		0.0001	mg/L						
Beryllium	ND		0.0001	mg/L						
Barium	ND		0.001	mg/l						
Zinc	ND		0.001	mg/l						
Arsenic	ND		0.0001	mg/L						
Thallium	ND		0.0001	mg/L						
Silver	ND		0.0001	mg/L						
Vanadium	ND		0.0005	mg/L						
Lead	ND		0.0001	mg/L						
LCS (B0F1167-BS2)					Prepared & Analyzed: 06/26/20					
Antimony	0.0200		0.0001	mg/L	0.0200		100	85-115		
Thallium	0.0197		0.0001	mg/L	0.0200		98.5	85-115		
Tin	0.020		0.005	mg/l	0.0200		102	85-115		
Nickel	0.194		0.001	mg/l	0.200		97.2	85-115		
Copper	0.188		0.001	mg/l	0.200		93.8	85-115		
Arsenic	0.0199		0.0001	mg/L	0.0200		99.6	85-115		
Chromium	0.0203		0.0001	mg/L	0.0200		102	85-115		
Selenium	0.020		0.005	mg/L	0.0200		101	85-115		
Cobalt	0.0193		0.0001	mg/L	0.0200		96.5	85-115		
Zinc	0.200		0.001	mg/l	0.200		99.9	85-115		
Cadmium	0.0191		0.0001	mg/L	0.0200		95.4	85-115		
Beryllium	0.0200		0.0001	mg/L	0.0200		100	85-115		
Silver	0.0206		0.0001	mg/L	0.0200		103	85-115		
Barium	0.197		0.001	mg/l	0.200		98.3	85-115		
Vanadium	0.0200		0.0005	mg/L	0.0200		99.8	85-115		
Lead	0.0197		0.0001	mg/L	0.0200		98.7	85-115		

Quality Control
(Continued)

Total Metals (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0F1238 - Metals Cold-Vapor Mercury										
Blank (B0F1238-BLK1)										
Mercury	ND		0.0002	mg/L						
					Prepared: 06/30/20 Analyzed: 06/29/20					
LCS (B0F1238-BS1)										
Mercury	0.0010		0.0002	mg/L	0.00100		103	85-115		
					Prepared: 06/30/20 Analyzed: 06/29/20					

Quality Control
(Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0G0018 - Purge-Trap					Prepared & Analyzed: 06/30/20					
Blank (B0G0018-BLK1)										
1,1,1,2-Tetrachloroethane	ND		1	ug/l						
1,1,1-Trichloroethane	ND		1	ug/l						
1,1,2,2-Tetrachloroethane	ND		1	ug/l						
1,1,2-Trichloroethane	ND		1	ug/l						
1,1-Dichloroethane	ND		1	ug/l						
1,1-Dichloroethene	ND		1	ug/l						
1,1-Dichloropropene	ND		1	ug/l						
1,2,3-Trichloropropane	ND		1	ug/l						
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l						
1,2-Dibromoethane (EDB)	ND		1	ug/l						
1,2-Dichloroethane	ND		1	ug/l						
1,2-Dichloropropane	ND		1	ug/l						
1,3-Dichloropropane	ND		1	ug/l						
2,2-Dichloropropane	ND		1	ug/l						
2-Hexanone	ND		5	ug/l						
4-Methyl-2-pentanone	ND		5	ug/l						
Acetone	ND		5	ug/l						
Acetonitrile	ND		5	ug/l						
Acrolein	ND		5	ug/l						
Acrylonitrile	ND		5	ug/l						
Allyl chloride (TIC)	ND		5	ug/l						
Benzene	ND		1	ug/l						
Bromochloromethane	ND		1	ug/l						
Bromodichloromethane	ND		1	ug/l						
Bromoform	ND		1	ug/l						
Carbon Disulfide	ND		1	ug/l						
Carbon Tetrachloride	ND		1	ug/l						
Chlorobenzene	ND		1	ug/l						
Chloroethane	ND		1	ug/l						
Chloroform	ND		1	ug/l						
Chloroprene (TIC)	ND		1	ug/l						
cis-1,2-Dichloroethene	ND		1	ug/l						
cis-1,3-Dichloropropene	ND		1	ug/l						
Dibromochloromethane	ND		1	ug/l						
Dichlorodifluoromethane	ND		1	ug/l						
Ethyl Methacrylate (TIC)	ND		5	ug/l						
Ethylbenzene	ND		1	ug/l						
Isobutyl Alcohol (TIC)	ND		20	ug/l						
Isodrin (TIC)	ND		5	ug/l						
1,3-Dichlorobenzene	ND		1	ug/l						
Methacrylonitrile (TIC)	ND		10	ug/l						
Bromomethane	ND		1	ug/l						
Chloromethane	ND		1	ug/l						
2-Butanone	ND		5	ug/l						
Methyl iodide (TIC)	ND		5	ug/l						
Methylmethacrylate	ND		10	ug/l						
Dibromomethane	ND		1	ug/l						
Methylene Chloride	ND		1	ug/l						
1,2-Dichlorobenzene	ND		1	ug/l						
1,4-Dichlorobenzene	ND		1	ug/l						
Propionitrile (TIC)	ND		20	ug/l						
Styrene	ND		1	ug/l						
Tetrachloroethene	ND		1	ug/l						
Methyl t-butyl ether (MTBE)	ND		1	ug/l						
Toluene	ND		1	ug/l						
trans-1,2-Dichloroethene	ND		1	ug/l						
trans-1,3-Dichloropropene	ND		1	ug/l						

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0G0018 - Purge-Trap (Continued)										
Blank (B0G0018-BLK1)					Prepared & Analyzed: 06/30/20					
trans-1,4-Dichloro-2-Butene (TIC)	ND		5	ug/l						
Trichloroethene	ND		1	ug/l						
Trichlorofluoromethane	ND		1	ug/l						
Vinyl acetate (TIC)	ND		5	ug/l						
Vinyl Chloride	ND		1	ug/l						
Total xylenes	ND		2	ug/l						
<hr/>										
<i>Surrogate: Toluene-d8</i>			<i>50.6</i>	<i>ug/l</i>	<i>50.0</i>		<i>101</i>	<i>70-130</i>		
<i>Surrogate: 1,2-Dichloroethane-d4</i>			<i>50.7</i>	<i>ug/l</i>	<i>50.0</i>		<i>101</i>	<i>70-130</i>		
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>50.3</i>	<i>ug/l</i>	<i>50.0</i>		<i>101</i>	<i>70-130</i>		
<hr/>										
LCS (B0G0018-BS1)					Prepared & Analyzed: 06/30/20					
1,1,1,2-Tetrachloroethane	48			ug/l	50.0		95.3	70-130		
1,1,1-Trichloroethane	50			ug/l	50.0		100	70-130		
1,1,2,2-Tetrachloroethane	48			ug/l	50.0		95.3	70-130		
1,1,2-Trichloroethane	48			ug/l	50.0		95.6	70-130		
1,1-Dichloroethane	50			ug/l	50.0		99.4	70-130		
1,1-Dichloroethene	47			ug/l	50.0		95.0	70-130		
1,1-Dichloropropene	50			ug/l	50.0		101	70-130		
1,2,3-Trichloropropane	49			ug/l	50.0		98.0	70-130		
1,2-Dibromo-3-chloropropane (DBCP)	48			ug/l	50.0		95.6	70-130		
1,2-Dibromoethane (EDB)	50			ug/l	50.0		101	70-130		
1,2-Dichloroethane	51			ug/l	50.0		101	70-130		
1,2-Dichloropropane	49			ug/l	50.0		98.9	70-130		
1,3-Dichloropropane	50			ug/l	50.0		101	70-130		
2,2-Dichloropropane	49			ug/l	50.0		97.4	70-130		
2-Hexanone	53			ug/l	50.0		106	70-130		
4-Methyl-2-pentanone	50			ug/l	50.0		101	70-130		
Acetone	56			ug/l	50.0		112	70-130		
Acrolein	ND		5	ug/l				60-140		
Benzene	49			ug/l	50.0		98.2	70-130		
Bromochloromethane	50			ug/l	50.0		99.1	70-130		
Bromodichloromethane	50			ug/l	50.0		99.3	70-130		
Bromoform	51			ug/l	50.0		102	70-130		
Carbon Disulfide	55			ug/l	50.0		110	70-130		
Carbon Tetrachloride	52			ug/l	50.0		104	70-130		
Chlorobenzene	50			ug/l	50.0		101	70-130		
Chloroethane	57			ug/l	50.0		114	70-130		
Chloroform	47			ug/l	50.0		93.5	70-130		
cis-1,2-Dichloroethene	49			ug/l	50.0		97.6	70-130		
cis-1,3-Dichloropropene	50			ug/l	50.0		99.6	70-130		
Dibromochloromethane	52			ug/l	50.0		103	70-130		
Dichlorodifluoromethane	32			ug/l	50.0		64.6	70-130		
Ethylbenzene	50			ug/l	50.0		101	70-130		
1,3-Dichlorobenzene	51			ug/l	50.0		102	70-130		
Bromomethane	58			ug/l	50.0		116	70-130		
Chloromethane	42			ug/l	50.0		84.9	70-130		
2-Butanone	51			ug/l	50.0		102	70-130		
Dibromomethane	49			ug/l	50.0		97.8	70-130		
Methylene Chloride	46			ug/l	50.0		91.1	70-130		
1,2-Dichlorobenzene	51			ug/l	50.0		102	70-130		
1,4-Dichlorobenzene	51			ug/l	50.0		101	70-130		
Styrene	50			ug/l	50.0		99.3	70-130		
Tetrachloroethene	52			ug/l	50.0		105	70-130		
Methyl t-butyl ether (MTBE)	53			ug/l	50.0		107	70-130		
Toluene	50			ug/l	50.0		99.5	70-130		
trans-1,2-Dichloroethene	48			ug/l	50.0		95.2	70-130		
trans-1,3-Dichloropropene	50			ug/l	50.0		99.4	70-130		

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0G0018 - Purge-Trap (Continued)										
LCS (B0G0018-BS1)					Prepared & Analyzed: 06/30/20					
Trichloroethene	48			ug/l	50.0		95.1	70-130		
Trichlorofluoromethane	58			ug/l	50.0		116	70-130		
Vinyl Chloride	48			ug/l	50.0		96.1	70-130		
<hr/>										
Surrogate: Toluene-d8			50.0	ug/l	50.0		100	70-130		
Surrogate: 1,2-Dichloroethane-d4			53.0	ug/l	50.0		106	70-130		
Surrogate: 4-Bromofluorobenzene			49.2	ug/l	50.0		98.3	70-130		
<hr/>										
LCS Dup (B0G0018-BSD1)					Prepared & Analyzed: 06/30/20					
1,1,1,2-Tetrachloroethane	48			ug/l	50.0		95.6	70-130	0.335	200
1,1,1-Trichloroethane	51			ug/l	50.0		101	70-130	1.09	200
1,1,2,2-Tetrachloroethane	48			ug/l	50.0		95.6	70-130	0.335	200
1,1,2-Trichloroethane	48			ug/l	50.0		96.8	70-130	1.16	200
1,1-Dichloroethane	50			ug/l	50.0		99.0	70-130	0.363	200
1,1-Dichloroethene	47			ug/l	50.0		94.3	70-130	0.719	200
1,1-Dichloropropene	50			ug/l	50.0		100	70-130	0.617	200
1,2,3-Trichloropropane	50			ug/l	50.0		99.6	70-130	1.68	200
1,2-Dibromo-3-chloropropane (DBCP)	48			ug/l	50.0		95.9	70-130	0.334	200
1,2-Dibromoethane (EDB)	51			ug/l	50.0		102	70-130	1.52	200
1,2-Dichloroethane	50			ug/l	50.0		101	70-130	0.615	200
1,2-Dichloropropane	50			ug/l	50.0		100	70-130	1.50	200
1,3-Dichloropropane	51			ug/l	50.0		101	70-130	0.712	200
2,2-Dichloropropane	48			ug/l	50.0		95.9	70-130	1.57	200
2-Hexanone	54			ug/l	50.0		108	70-130	2.17	200
4-Methyl-2-pentanone	51			ug/l	50.0		103	70-130	2.12	200
Acetone	56			ug/l	50.0		112	70-130	0.196	200
Acrolein	ND		5	ug/l				60-140		200
Benzene	49			ug/l	50.0		98.5	70-130	0.366	200
Bromochloromethane	50			ug/l	50.0		99.7	70-130	0.603	200
Bromodichloromethane	50			ug/l	50.0		99.0	70-130	0.282	200
Bromoform	51			ug/l	50.0		102	70-130	0.215	200
Carbon Disulfide	56			ug/l	50.0		112	70-130	1.17	200
Carbon Tetrachloride	53			ug/l	50.0		105	70-130	1.42	200
Chlorobenzene	51			ug/l	50.0		102	70-130	1.15	200
Chloroethane	58			ug/l	50.0		115	70-130	1.19	200
Chloroform	47			ug/l	50.0		93.6	70-130	0.171	200
cis-1,2-Dichloroethene	49			ug/l	50.0		97.1	70-130	0.555	200
cis-1,3-Dichloropropene	50			ug/l	50.0		100	70-130	0.800	200
Dibromochloromethane	53			ug/l	50.0		105	70-130	1.84	200
Dichlorodifluoromethane	32			ug/l	50.0		64.1	70-130	0.777	200
Ethylbenzene	50			ug/l	50.0		101	70-130	0.0796	200
1,3-Dichlorobenzene	52			ug/l	50.0		103	70-130	0.897	200
Bromomethane	63			ug/l	50.0		126	70-130	8.28	200
Chloromethane	43			ug/l	50.0		85.6	70-130	0.868	200
2-Butanone	51			ug/l	50.0		103	70-130	0.292	200
Dibromomethane	48			ug/l	50.0		96.8	70-130	1.01	200
Methylene Chloride	46			ug/l	50.0		91.5	70-130	0.504	200
1,2-Dichlorobenzene	50			ug/l	50.0		101	70-130	1.01	200
1,4-Dichlorobenzene	51			ug/l	50.0		102	70-130	0.374	200
Styrene	50			ug/l	50.0		101	70-130	1.34	200
Tetrachloroethene	53			ug/l	50.0		106	70-130	1.12	200
Methyl t-butyl ether (MTBE)	53			ug/l	50.0		107	70-130	0.0188	200
Toluene	51			ug/l	50.0		102	70-130	2.13	200
trans-1,2-Dichloroethene	48			ug/l	50.0		95.9	70-130	0.733	200
trans-1,3-Dichloropropene	50			ug/l	50.0		101	70-130	1.22	200
Trichloroethene	48			ug/l	50.0		95.3	70-130	0.210	200
Trichlorofluoromethane	58			ug/l	50.0		116	70-130	0.173	200
Vinyl Chloride	49			ug/l	50.0		97.1	70-130	1.01	200

**Quality Control
(Continued)**

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0G0018 - Purge-Trap (Continued)										
LCS Dup (B0G0018-BSD1)					Prepared & Analyzed: 06/30/20					
<i>Surrogate: Toluene-d8</i>			50.3	ug/l	50.0		101	70-130		
<i>Surrogate: 1,2-Dichloroethane-d4</i>			46.8	ug/l	50.0		93.6	70-130		
<i>Surrogate: 4-Bromofluorobenzene</i>			49.6	ug/l	50.0		99.1	70-130		

Notes and Definitions

Item	Definition
Wet	Sample results reported on a wet weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.

ATTACHMENT 2

***Field Sampling Data Sheets, Surface Water and Observation
Water Logs***



FIELD SAMPLING DATA SHEET

PROJECT NAME: TIVERTON LANDFILL
PARE PROJECT NO.: 94139.01

DATE: 6/24/2020
WEATHER: ~70°F, Partly Cloudy

FIELD TESTING RESULTS:

SURFACE WATER LOCATION: SW-1

READING 1

pH: 6.40 pH UNITS
SPEC. COND: 1.309 mS/cm
TEMPERATURE: 22.1 °C

ODOR PRESENT? YES NO
SAMPLE COLOR Red-brown

ADDITIONAL COMMENTS Slightly cloudy

SURFACE WATER LOCATION: SW-2

READING 1

pH: 6.55 pH UNITS
SPEC. COND: 0.472 mS/cm
TEMPERATURE: 21.3 °C

ODOR PRESENT? YES NO
SAMPLE COLOR Red-brown

ADDITIONAL COMMENTS Slightly cloudy

SURFACE WATER LOCATION: SW-3

READING 1

pH: 7.07 pH UNITS
SPEC. COND: 0.776 mS/cm
TEMPERATURE: 21.6 °C

ODOR PRESENT? YES NO
SAMPLE COLOR Brown/black

ADDITIONAL COMMENTS Slightly cloudy, slight odor of stagnant water/wetland conditions (sulfur/rotten-egg smell common in wetland conditions)

FIELD SAMPLING DATA SHEET

PROJECT NAME: TIVERTON LANDFILL
 PROJECT NO.: 94139.24

DATE: 6/24/2020
 WEATHER: ~70°F, Partly Cloudy

WELL ID: OW-7

WELL DIAMETER (INCHES): 2

PURGE DATA

DEPTH TO WATER (DTW): 0.51 feet
 TOTAL WELL DEPTH (DTB): 11.80 feet
 VOLUME TO PURGE: 5.52 gallons
 ACTUAL VOLUME PURGED: 6.00 gallons

MEASURE POINT: Top of Casing
 ELEVATION: 67

WATER LEVEL MEASUREMENT DEVICE: Solinst Interface Probe

PURGER TYPE: Peristaltic Pump
 PURGE RATE (GPM): 0.1 ±
 ELAPSED TIME (MIN): 20 ±

FIELD TESTING RESULTS

O ₂ (%)	20.9
% LEL	ND (0)
Total VOCs (ppmv)	ND (0)

CO (ppmv)	ND (0)
H ₂ S (ppmv)	ND (0)

Time:	1543	1547	1551	1558					
pH:	6.64	6.57	6.56	6.57					
Sp.Con. (mS/cm):	0.83	0.72	0.71	0.72					
Temp (°C):	19.40	18.20	18.40	18.30					

NOTES:

Sample collected at 1600, sample color clear, minimal cloudiness

FIELD SAMPLING DATA SHEET

PROJECT NAME: TIVERTON LANDFILL
 PROJECT NO.: 94139.24

DATE: 6/24/2020
 WEATHER: ~70°F, Partly Cloudy

WELL ID: OW-9

WELL DIAMETER (INCHES): 2

PURGE DATA

DEPTH TO WATER (DTW): 14.56 feet
 TOTAL WELL DEPTH (DTB): 15.54 feet
 VOLUME TO PURGE: 0.48 gallons
 ACTUAL VOLUME PURGED: 1.00 gallon

MEASURE POINT: Top of Casing
 ELEVATION: 129.1

WATER LEVEL MEASUREMENT DEVICE: Solinst Interface Probe

PURGER TYPE: Peristaltic Pump
 PURGE RATE (GPM): 0.1 ±
 ELAPSED TIME (MIN): 20 ±

FIELD TESTING RESULTS

O ₂ (%)	20.9
% LEL	ND (0)
Total VOCs (ppmv)	ND (0)

CO (ppmv)	ND (0)
H ₂ S (ppmv)	ND (0)

Time:	1057	1101	1108	1112					
pH:	6.53	6.49	6.48	6.48					
Sp.Con. (mS/cm):	0.10	0.10	0.10	0.10					
Temp (°C):	14.50	13.50	13.60	13.50					

NOTES:

Sampled at 1115, sample color clear

FIELD SAMPLING DATA SHEET

PROJECT NAME: TIVERTON LANDFILL
 PROJECT NO.: 94139.24

DATE: 6/24/2020
 WEATHER: ~70°F, Partly Cloudy

WELL ID: OW-12

WELL DIAMETER (INCHES): 2

PURGE DATA

DEPTH TO WATER (DTW): 5.43 feet
 TOTAL WELL DEPTH (DTB): 15.98 feet
 VOLUME TO PURGE: 5.16 gallons
 ACTUAL VOLUME PURGED: 6.00 gallon

MEASURE POINT: Top of Casing
 ELEVATION: 63.78
 WATER LEVEL MEASUREMENT DEVICE: Solinst Interface Probe

PURGER TYPE: Peristaltic Pump
 PURGE RATE (GPM): 0.1 ±
 ELAPSED TIME (MIN): 20 ±

FIELD TESTING RESULTS

O ₂ (%)	20.3
% LEL	ND (0)
Total VOCs (ppmv)	ND (0)

CO (ppmv)	ND (0)
H ₂ S (ppmv)	ND (0)

Time:	1240	1244	1252	1258					
pH:	6.97	6.94	6.94	6.93					
Sp.Con. (mS/cm):	0.45	0.34	0.34	0.34					
Temp (°C):	17.60	16.40	16.50	16.40					

NOTES:

Sampled at 1300, sample color clear

FIELD SAMPLING DATA SHEET

PROJECT NAME: TIVERTON LANDFILL
PROJECT NO.: 94139.24

DATE: 6/24/2020
WEATHER: ~70°F, Partly Cloudy

WELL ID: OW-13

WELL DIAMETER (INCHES): 2

PURGE DATA

DEPTH TO WATER (DTW): 4.18 feet
TOTAL WELL DEPTH (DTB): 14.45 feet
VOLUME TO PURGE: 5.02 gallons
ACTUAL VOLUME PURGED: 5.50 gallon

MEASURE POINT: Top of Casing
ELEVATION: 49.39

WATER LEVEL MEASUREMENT DEVICE: Solinst Interface Probe

PURGER TYPE: Peristaltic Pump
PURGE RATE (GPM): 0.1 ±
ELAPSED TIME (MIN): 20 ±

FIELD TESTING RESULTS

O ₂ (%)	20.9
% LEL	ND (0)
Total VOCs (ppmv)	9.80

CO (ppmv)	ND (0)
H ₂ S (ppmv)	ND (0)

Time:	1635	1641	1645	1650					
pH:	6.74	6.45	6.44	6.45					
Sp.Con. (mS/cm):	1.42	1.32	1.31	1.31					
Temp (°C):	17.40	17.10	17.10	16.90					

NOTES:

Sampled at 1655, sample color clear

No odors observed despite PID reading

FIELD SAMPLING DATA SHEET

PROJECT NAME: TIVERTON LANDFILL
 PROJECT NO.: 94139.24

DATE: 6/24/2020
 WEATHER: ~70°F, Partly Cloudy

WELL ID: OW-14

WELL DIAMETER (INCHES): 2

PURGE DATA

DEPTH TO WATER (DTW): 5.92 feet
 TOTAL WELL DEPTH (DTB): 10.70 feet
 VOLUME TO PURGE: 2.34 gallons
 ACTUAL VOLUME PURGED: 3.00 gallon

MEASURE POINT: Top of Casing
 ELEVATION: 86.13

WATER LEVEL MEASUREMENT DEVICE: Solinst Interface Probe

PURGER TYPE: Peristaltic Pump
 PURGE RATE (GPM): 0.1 ±
 ELAPSED TIME (MIN): 20 ±

FIELD TESTING RESULTS

O ₂ (%)	20.9
% LEL	ND (0)
Total VOCs (ppmv)	ND (0)

CO (ppmv)	ND (0)
H ₂ S (ppmv)	ND (0)

Time:	1320	1325	1330	1335	1340				
pH:	6.87	6.93	6.79	6.78	6.80				
Sp.Con. (mS/cm):	1.02	1.01	0.94	0.95	0.94				
Temp (°C):	19.30	19.20	18.60	18.50	18.50				

NOTES:

Sampled at 1345, sample slightly cloudy, brown tinge

FIELD SAMPLING DATA SHEET

PROJECT NAME: TIVERTON LANDFILL
 PROJECT NO.: 94139.24

DATE: 6/24/2020
 WEATHER: ~70°F, Partly Cloudy

WELL ID: OW-15

WELL DIAMETER (INCHES): 2

PURGE DATA

DEPTH TO WATER (DTW): 7.81 feet
 TOTAL WELL DEPTH (DTB): 16.90 feet
 VOLUME TO PURGE: 4.45 gallons
 ACTUAL VOLUME PURGED: 5.00 gallons

MEASURE POINT: Top of Casing
 ELEVATION: 76
 WATER LEVEL MEASUREMENT DEVICE: Solinst Interface Probe

PURGER TYPE: Peristaltic Pump
 PURGE RATE (GPM): 0.1 ±
 ELAPSED TIME (MIN): 20 ±

FIELD TESTING RESULTS

O ₂ (%)	12.7
% LEL	> 99
Total VOCs (ppmv)	5.30

CO (ppmv)	35
H ₂ S (ppmv)	ND (0)

Time:	1425	1430	1435	1440	1445				
pH:	6.76	6.71	6.51	6.50	6.49				
Sp.Con. (mS/cm):	1.74	1.72	1.61	1.60	1.60				
Temp (°C):	18.30	18.10	17.30	17.40	17.30				

NOTES:

Sampled at 1450, sample color clear

FIELD SAMPLING DATA SHEET

PROJECT NAME: TIVERTON LANDFILL
PROJECT NO.: 94139.24

DATE: 6/24/2020
WEATHER: ~70°F, Partly Cloudy

WELL ID: OW-16

WELL DIAMETER (INCHES): 2

PURGE DATA

DEPTH TO WATER (DTW): 1.25 feet
TOTAL WELL DEPTH (DTB): 45.80 feet
VOLUME TO PURGE: 7.26 gallons
ACTUAL VOLUME PURGED: 8.00 gallons

MEASURE POINT: Top of Casing
ELEVATION: 67

WATER LEVEL MEASUREMENT DEVICE: Solinst Interface Probe

PURGER TYPE: Peristaltic Pump
PURGE RATE (GPM): 0.3 ±
ELAPSED TIME (MIN): 20 ±

FIELD TESTING RESULTS

O ₂ (%)	20.9
% LEL	ND (0)
Total VOCs (ppmv)	ND (0)

CO (ppmv)	ND (0)
H ₂ S (ppmv)	ND (0)

Time:	1515	1519	1523	1527	1531				
pH:	7.09	7.10	7.08	7.06	7.07				
Sp.Con. (mS/cm):	1.21	1.01	0.92	0.91	0.91				
Temp (°C):	19.20	18.80	18.60	18.50	18.50				

NOTES:

Sampled at 1535, sample color clear
Removed one well volume due to water column size

FIELD SAMPLING DATA SHEET

PROJECT NAME: TIVERTON LANDFILL
 PROJECT NO.: 94139.24

DATE: 6/24/2020
 WEATHER: ~70°F, Partly Cloudy

WELL ID: OW-17

WELL DIAMETER (INCHES): 2

PURGE DATA

DEPTH TO WATER (DTW): 8.98 feet
 TOTAL WELL DEPTH (DTB): 22.23 feet
 VOLUME TO PURGE: 6.48 gallons
 ACTUAL VOLUME PURGED: 7.00 gallons

MEASURE POINT: Top of Casing
 ELEVATION: 137.5

WATER LEVEL MEASUREMENT DEVICE: Solinst Interface Probe

PURGER TYPE: Peristaltic Pump
 PURGE RATE (GPM): 0.1 ±
 ELAPSED TIME (MIN): 20 ±

FIELD TESTING RESULTS

O ₂ (%)	20.9
% LEL	ND (0)
Total VOCs (ppmv)	ND (0)

CO (ppmv)	ND (0)
H ₂ S (ppmv)	ND (0)

Time:	1149	1154	1158	1204	1210				
pH:	6.04	5.96	5.97	5.97	5.96				
Sp.Con. (mS/cm):	0.18	0.19	0.18	0.18	0.18				
Temp (°C):	13.90	12.70	12.10	11.90	11.80				

NOTES:

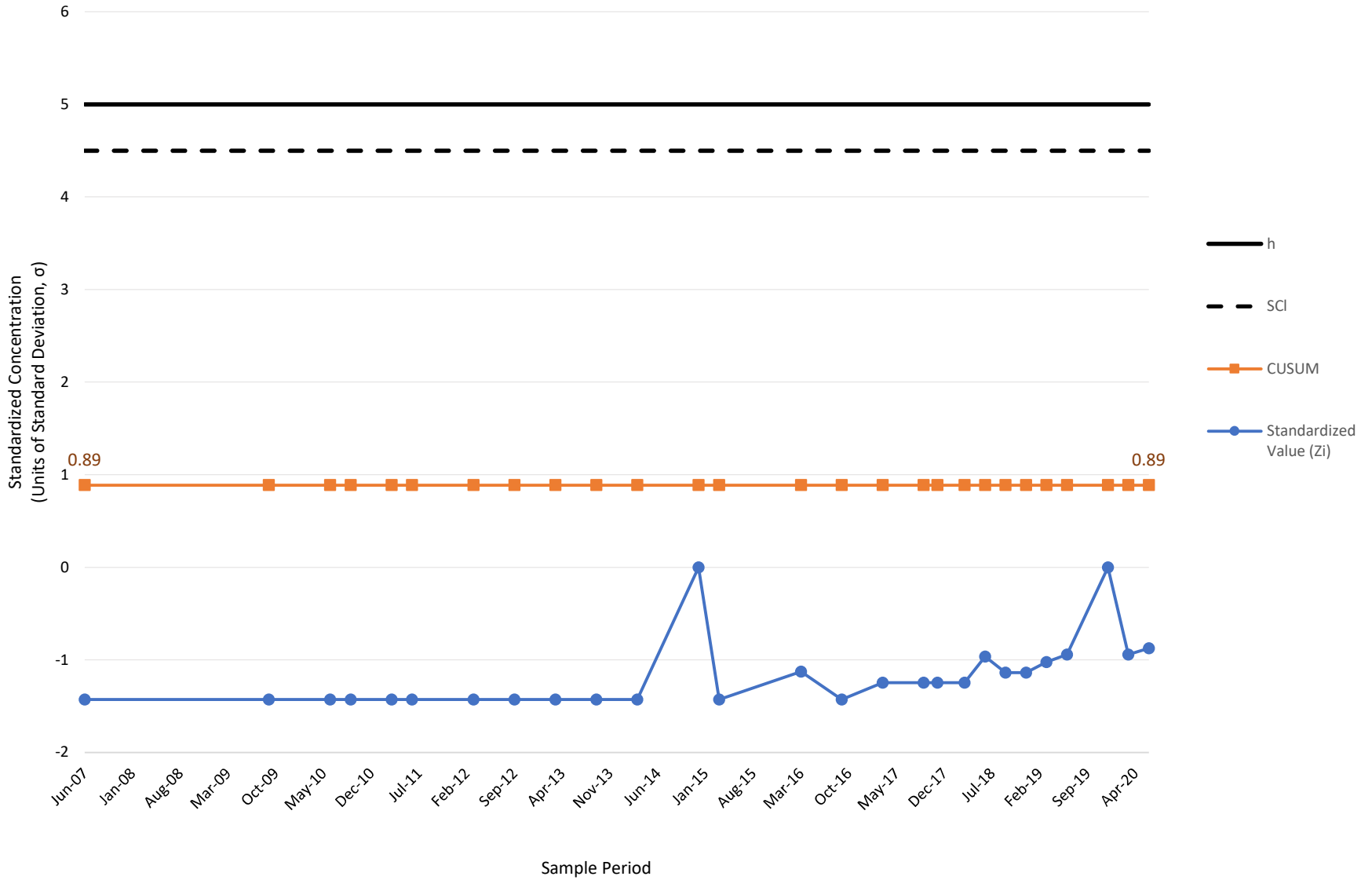
Sampled at 1215, sample slightly cloudy with brown tinge

ATTACHMENT 3

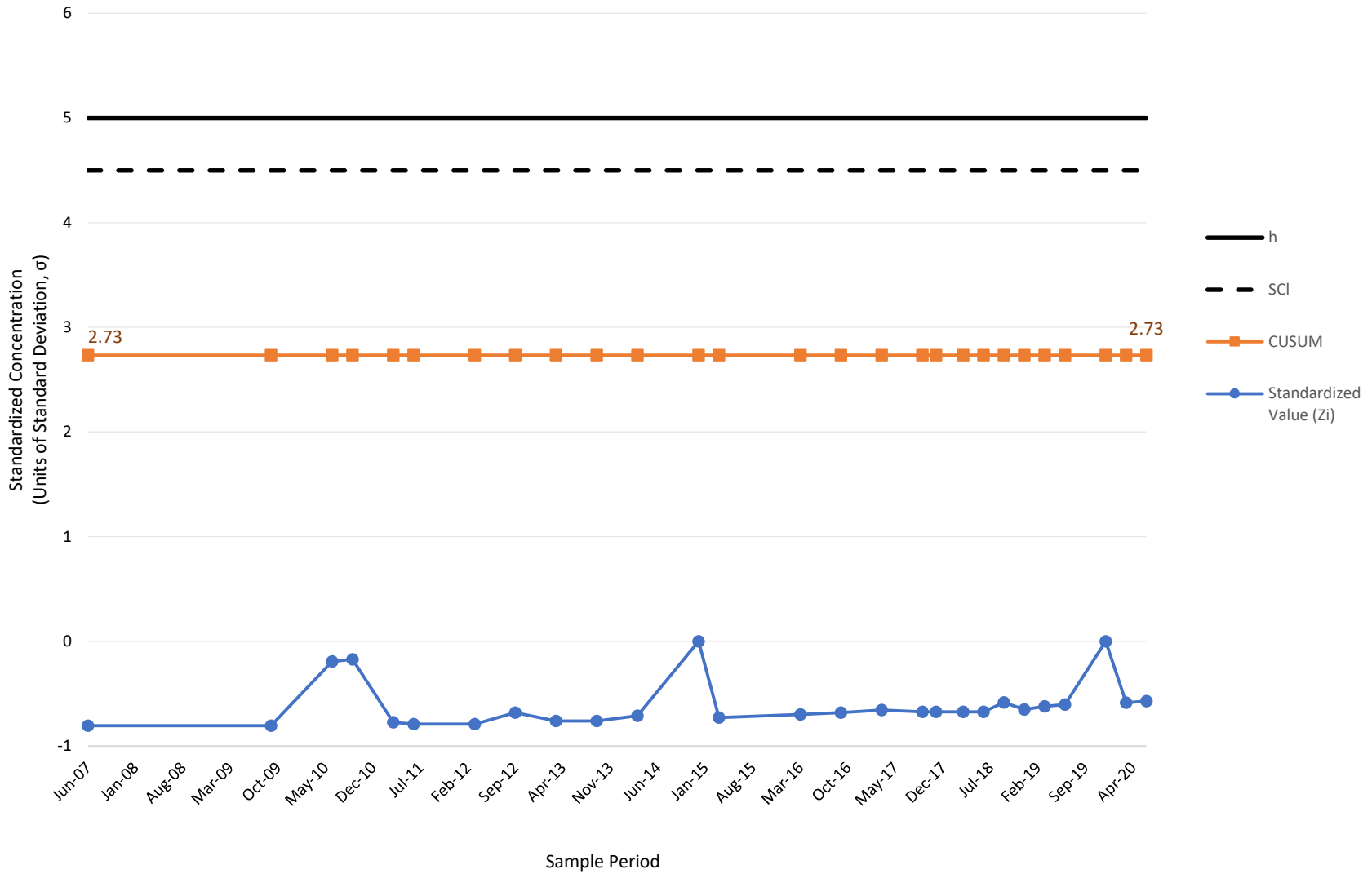
Shewhart/CUSUM Graphs for Inorganic Compounds, Observation Wells



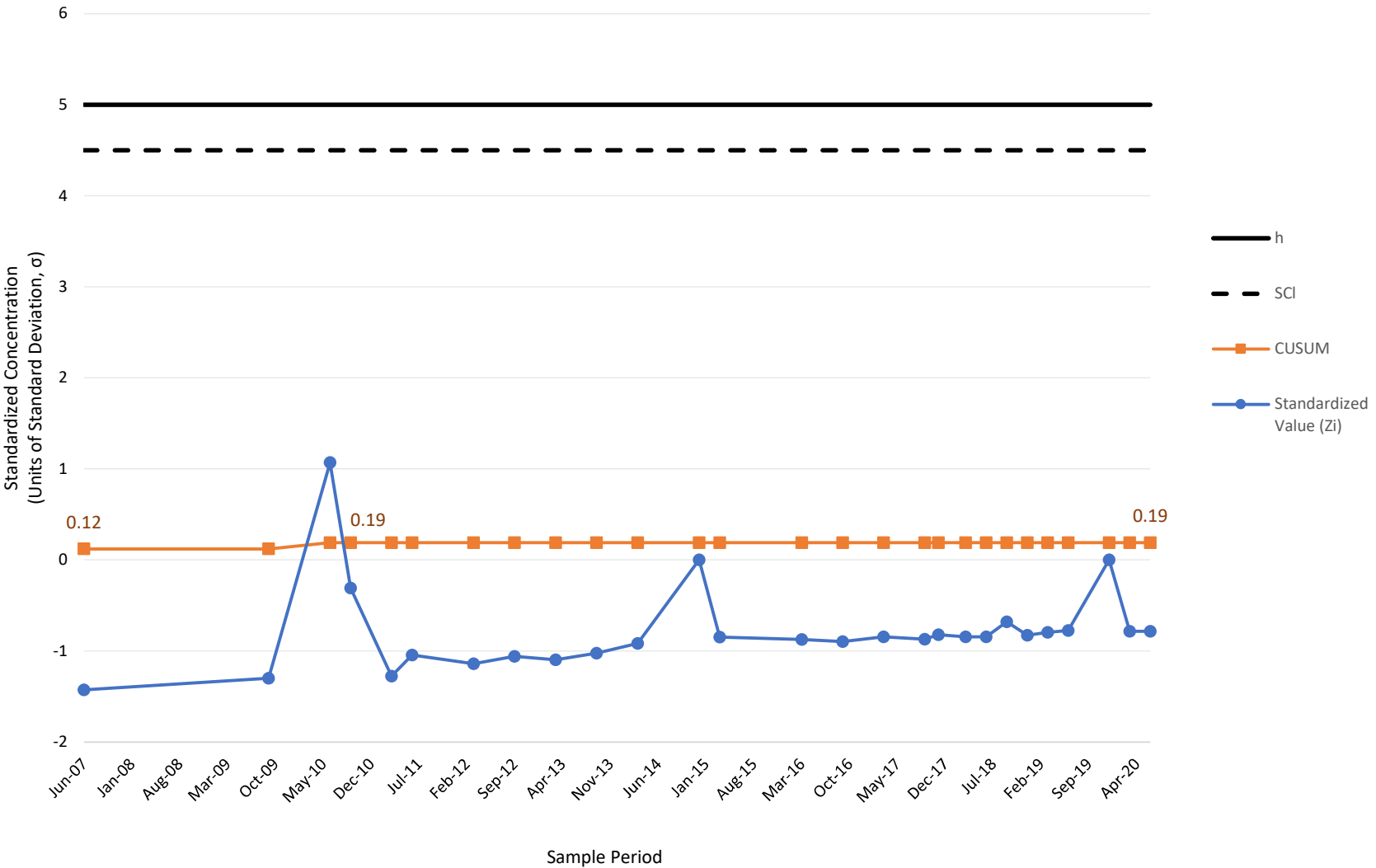
CUSUM Control Chart - Arsenic
Monitoring Well OW-7
Tiverton Landfill



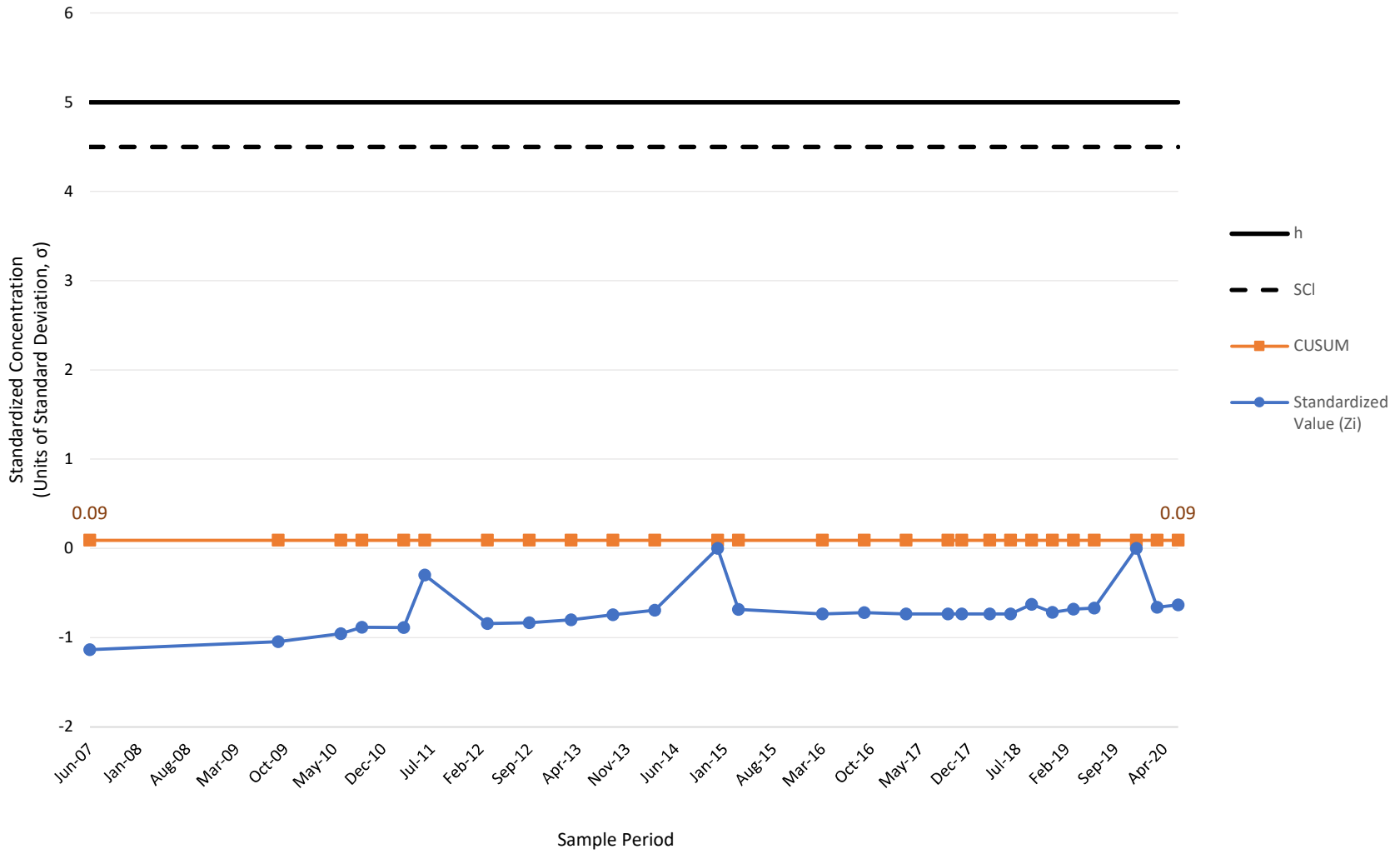
CUSUM Control Chart - Cadmium
Monitoring Well OW-7
Tiverton Landfill



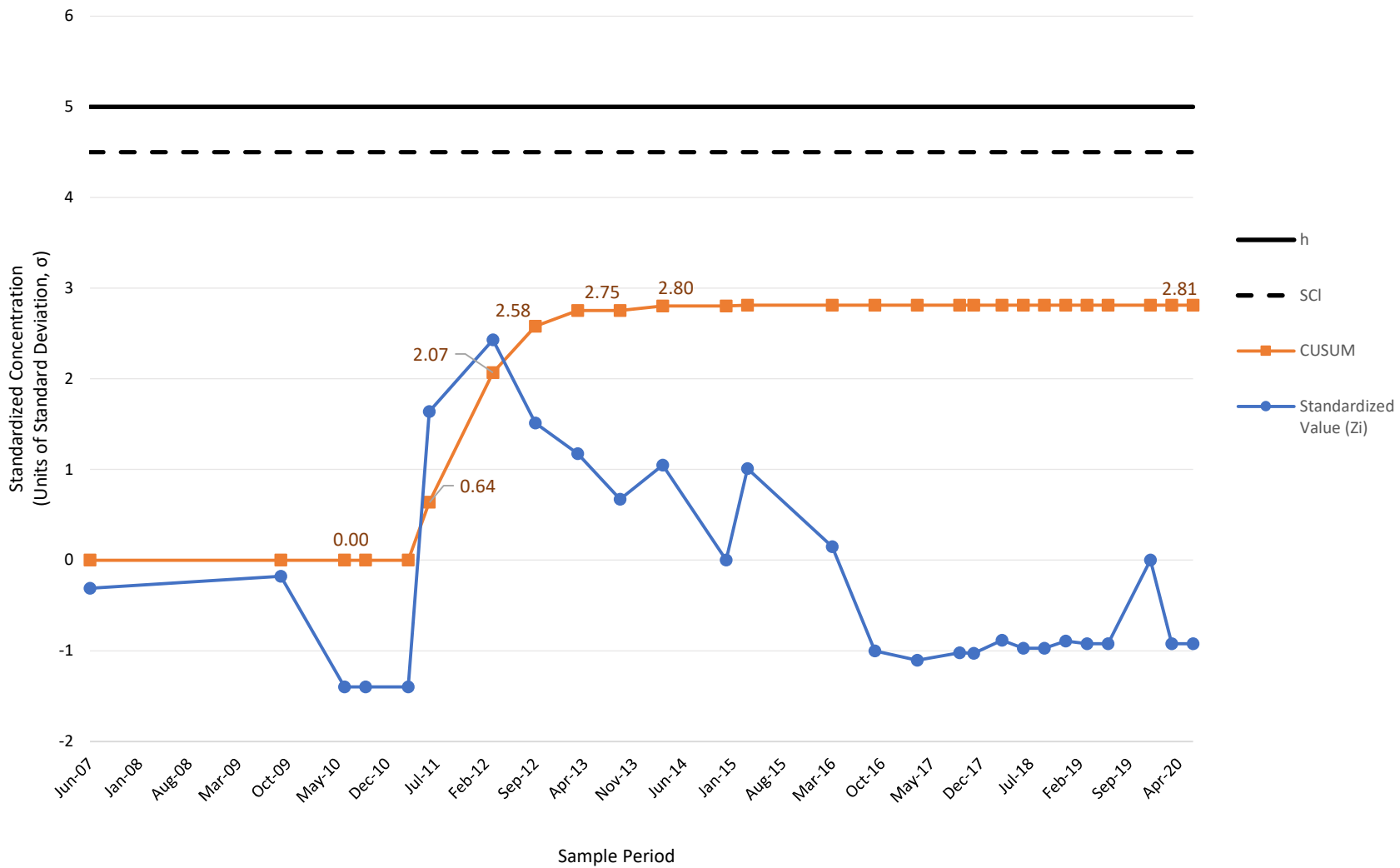
CUSUM Control Chart - Copper
Monitoring Well OW-7
Tiverton Landfill



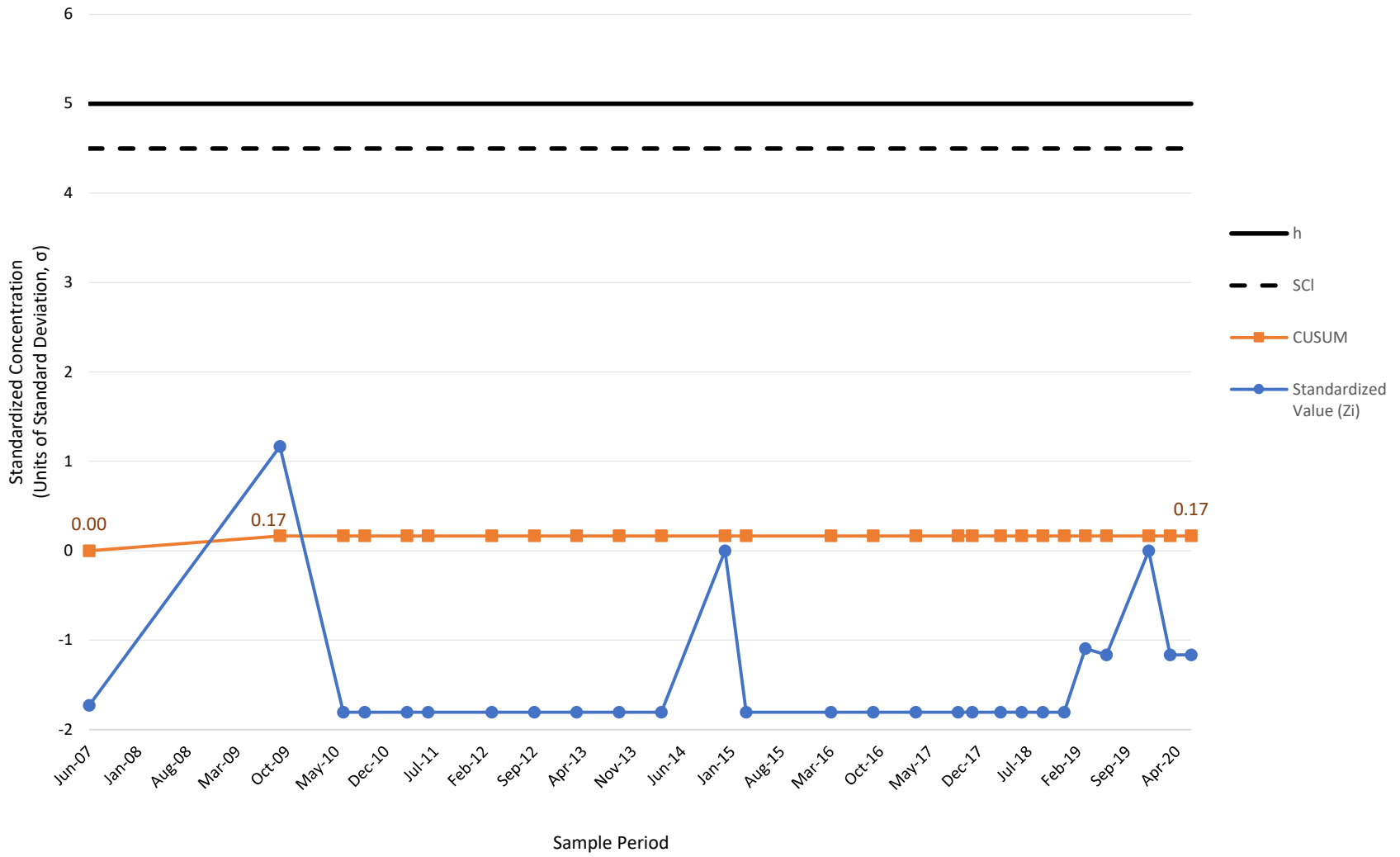
CUSUM Control Chart - Lead
Monitoring Well OW-7
Tiverton Landfill



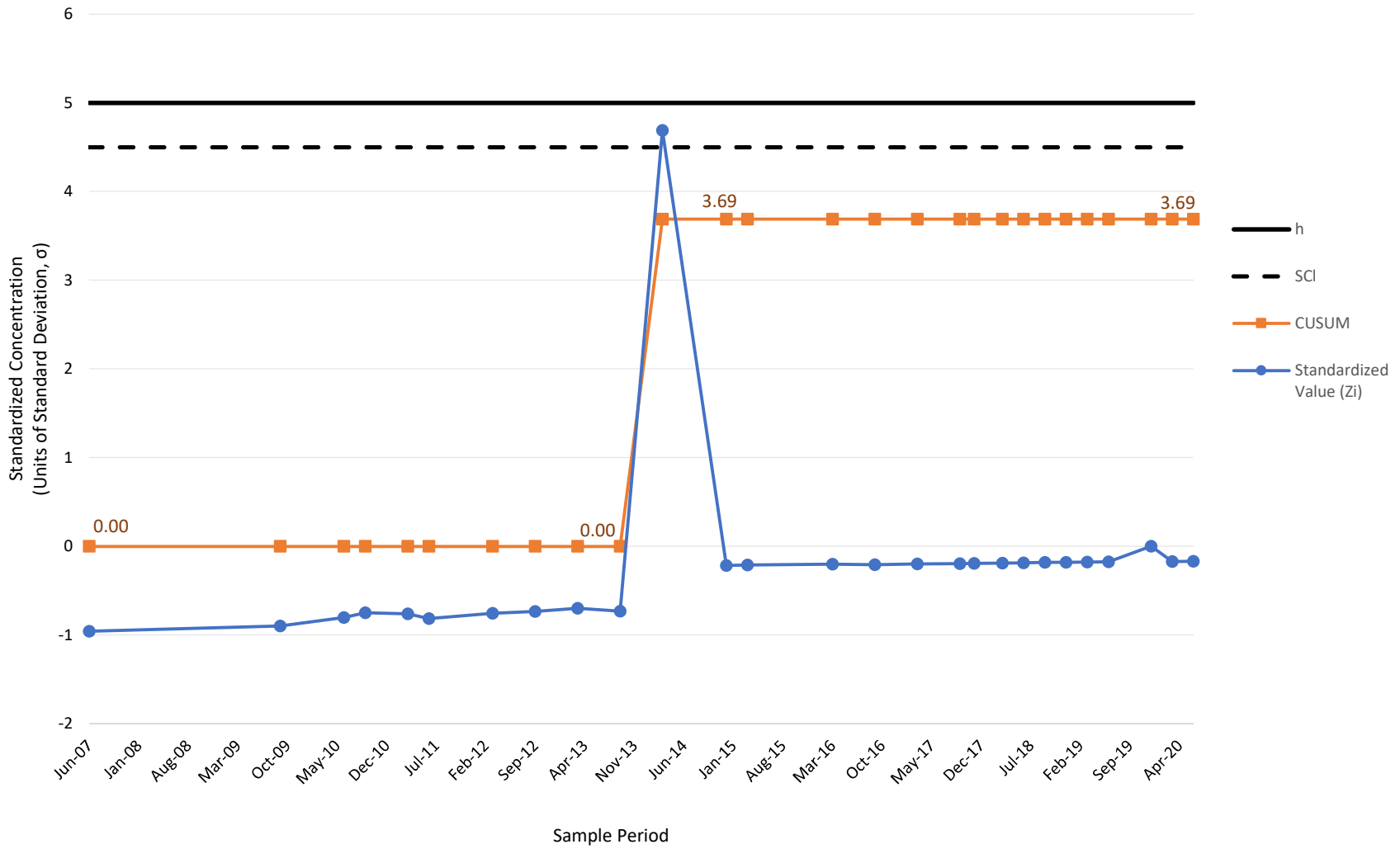
CUSUM Control Chart - Selenium
Monitoring Well OW-7
Tiverton Landfill



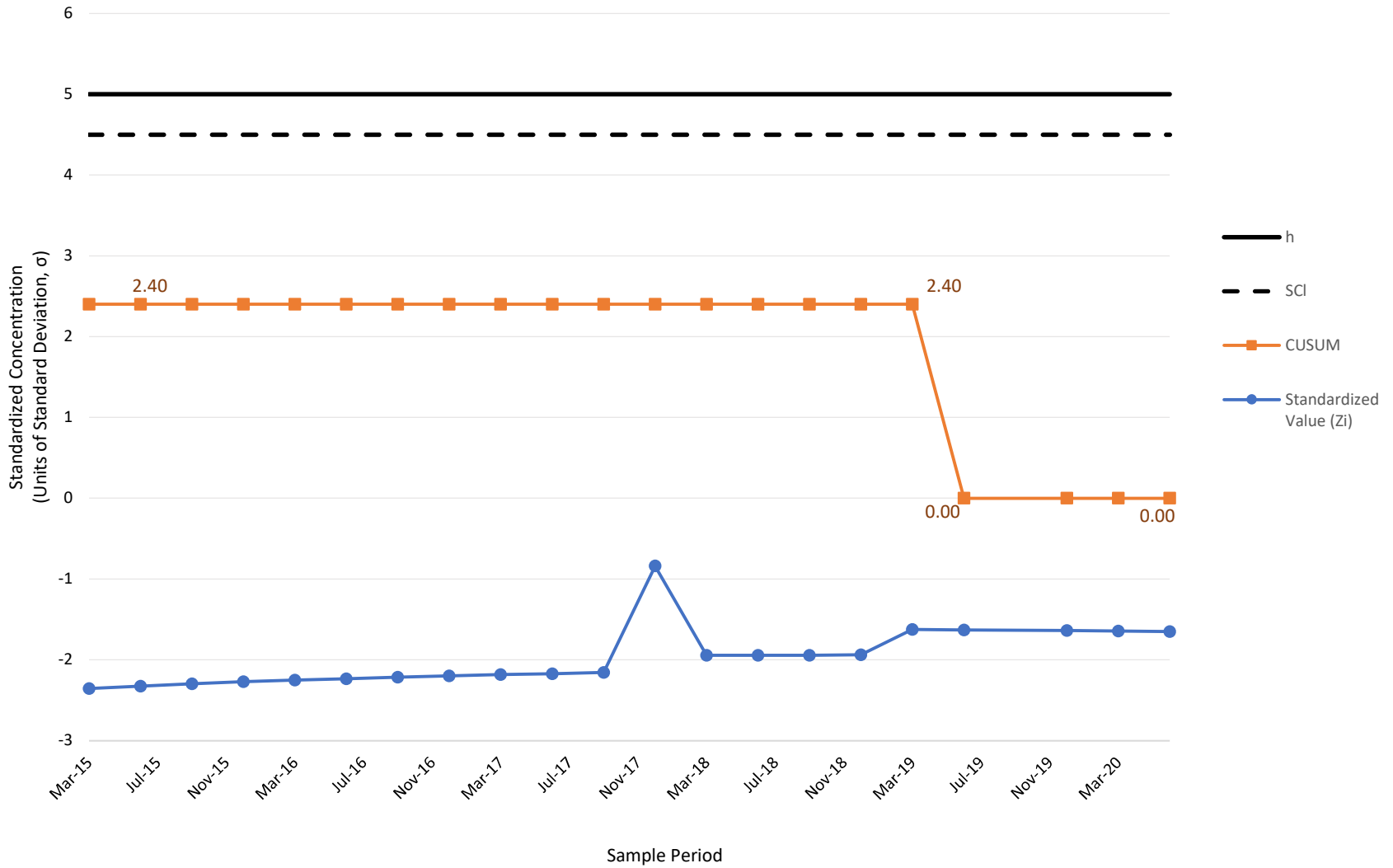
CUSUM Control Chart - Silver
Monitoring Well OW-7
Tiverton Landfill



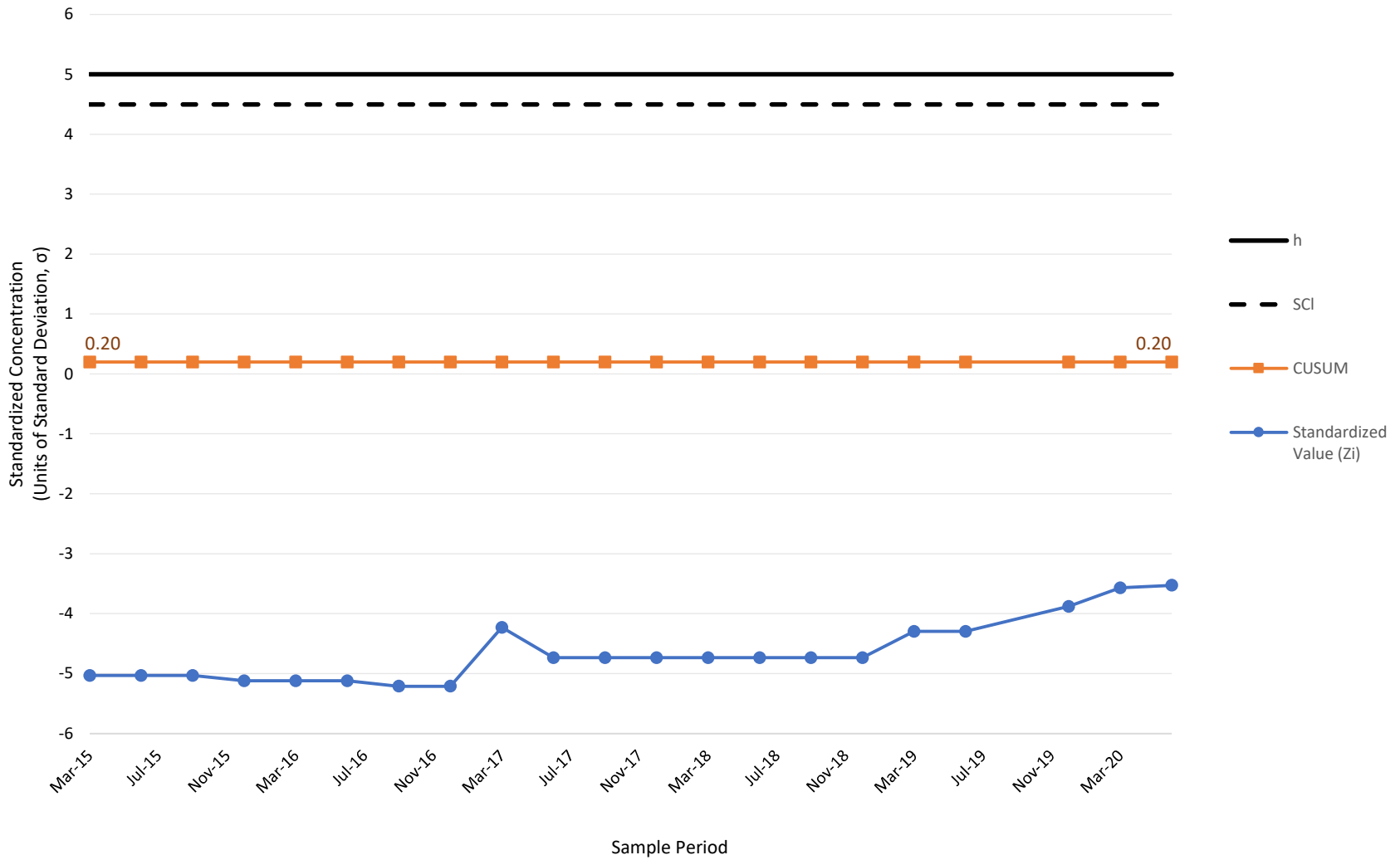
CUSUM Control Chart - Zinc
Monitoring Well OW-7
Tiverton Landfill



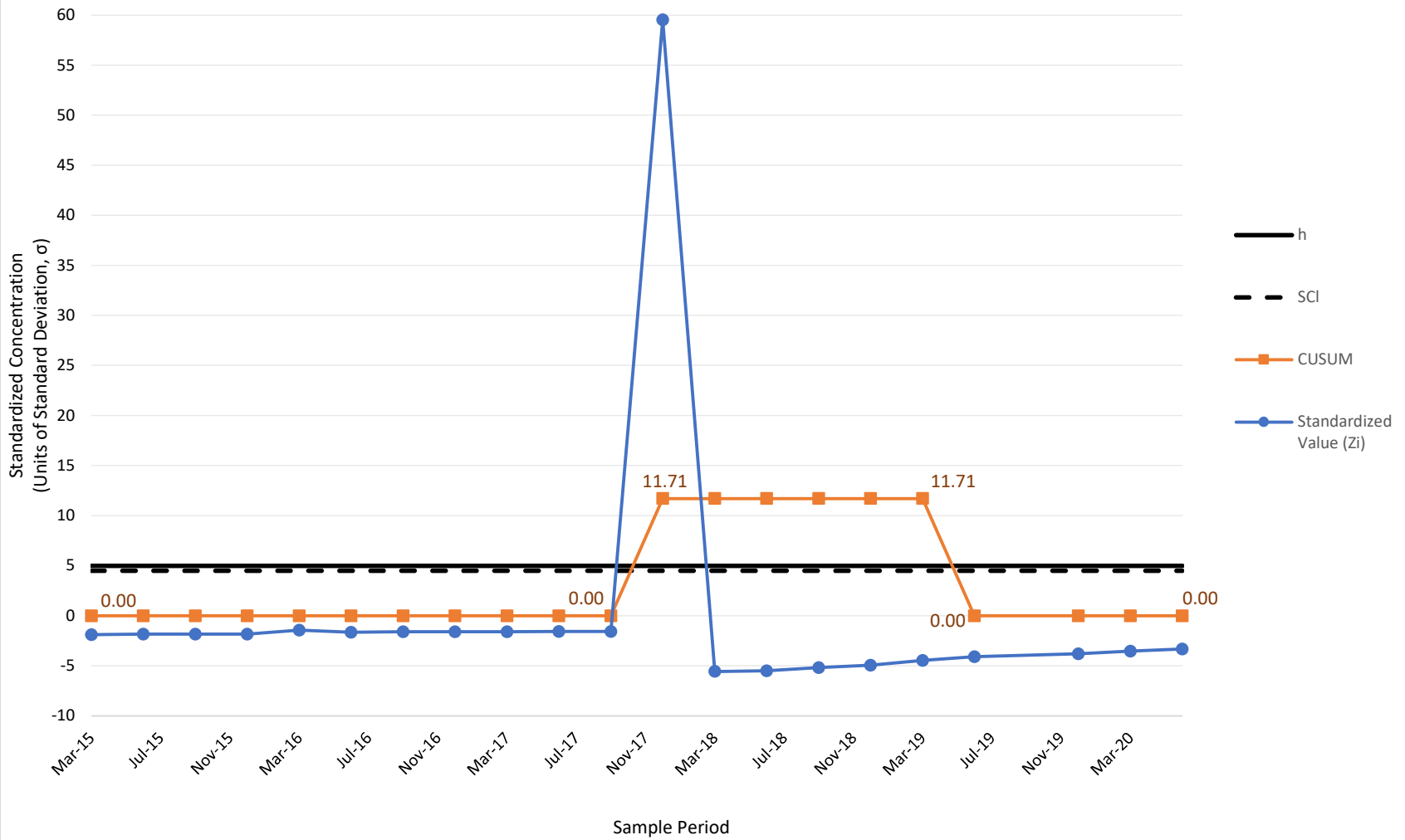
CUSUM Control Chart - Antimony
Background Monitoring Well OW-9
Tiverton Landfill



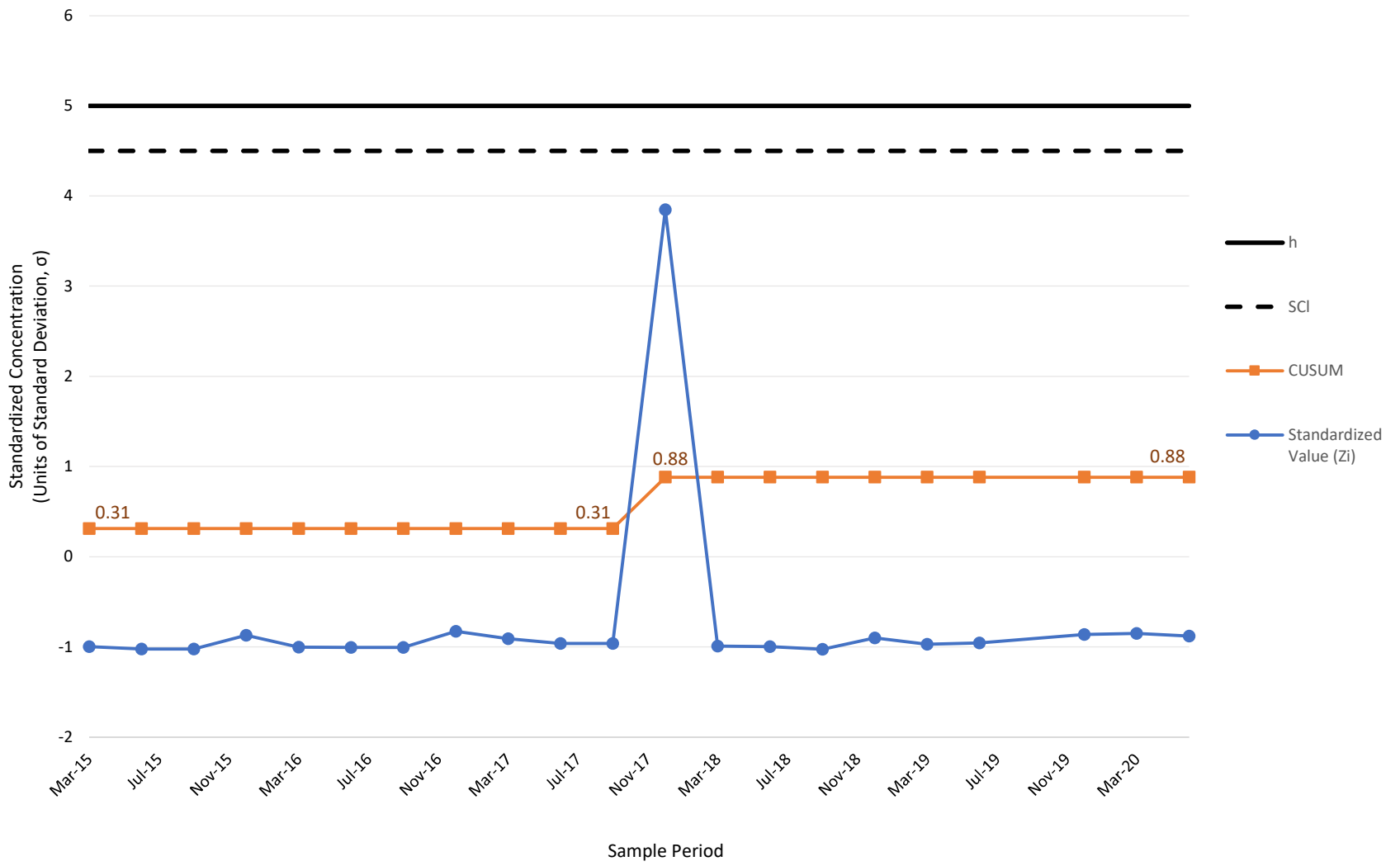
CUSUM Control Chart - Arsenic
Background Monitoring Well OW-9
Tiverton Landfill



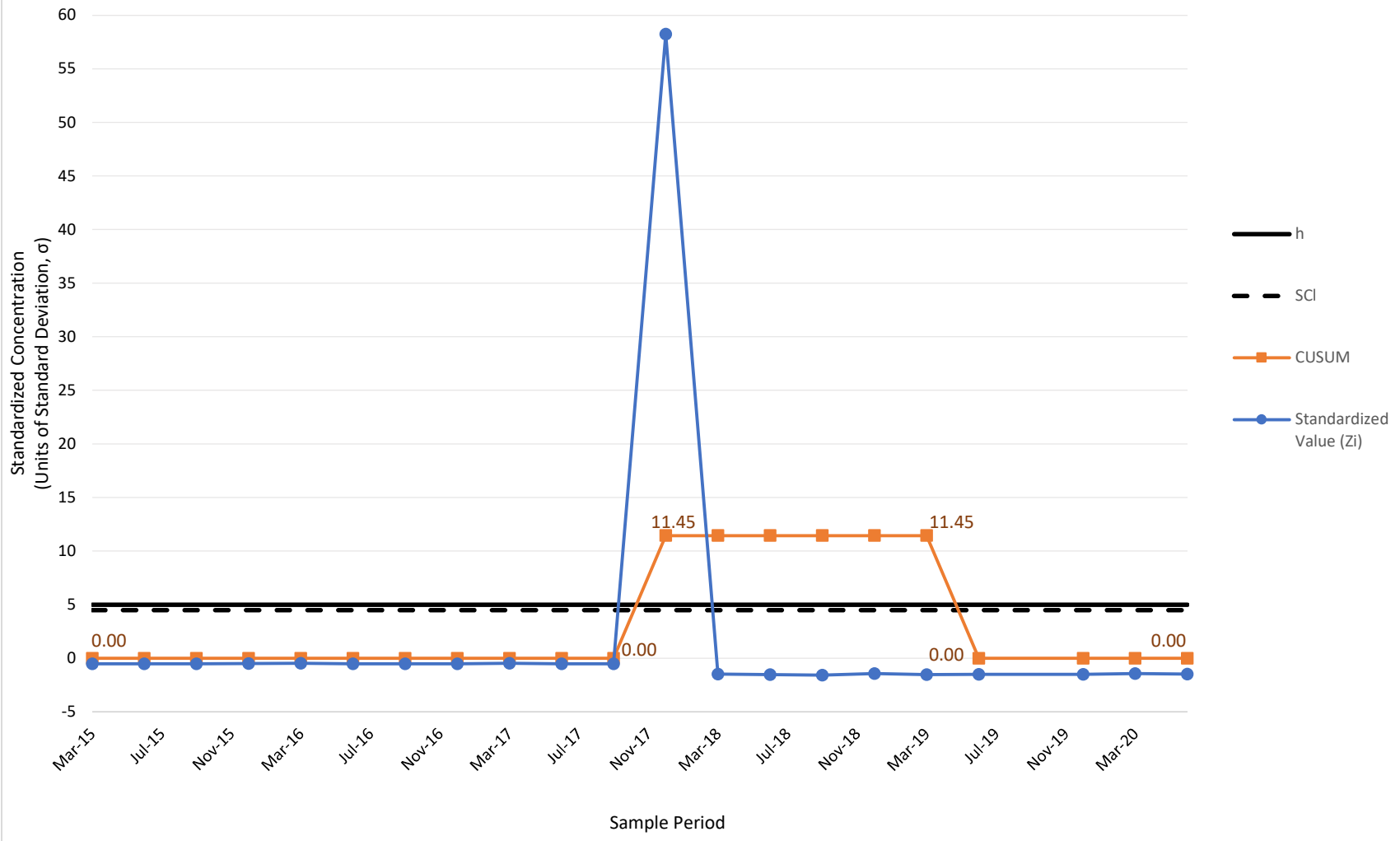
CUSUM Control Chart - Cadmium
Background Monitoring Well OW-9
Tiverton Landfill



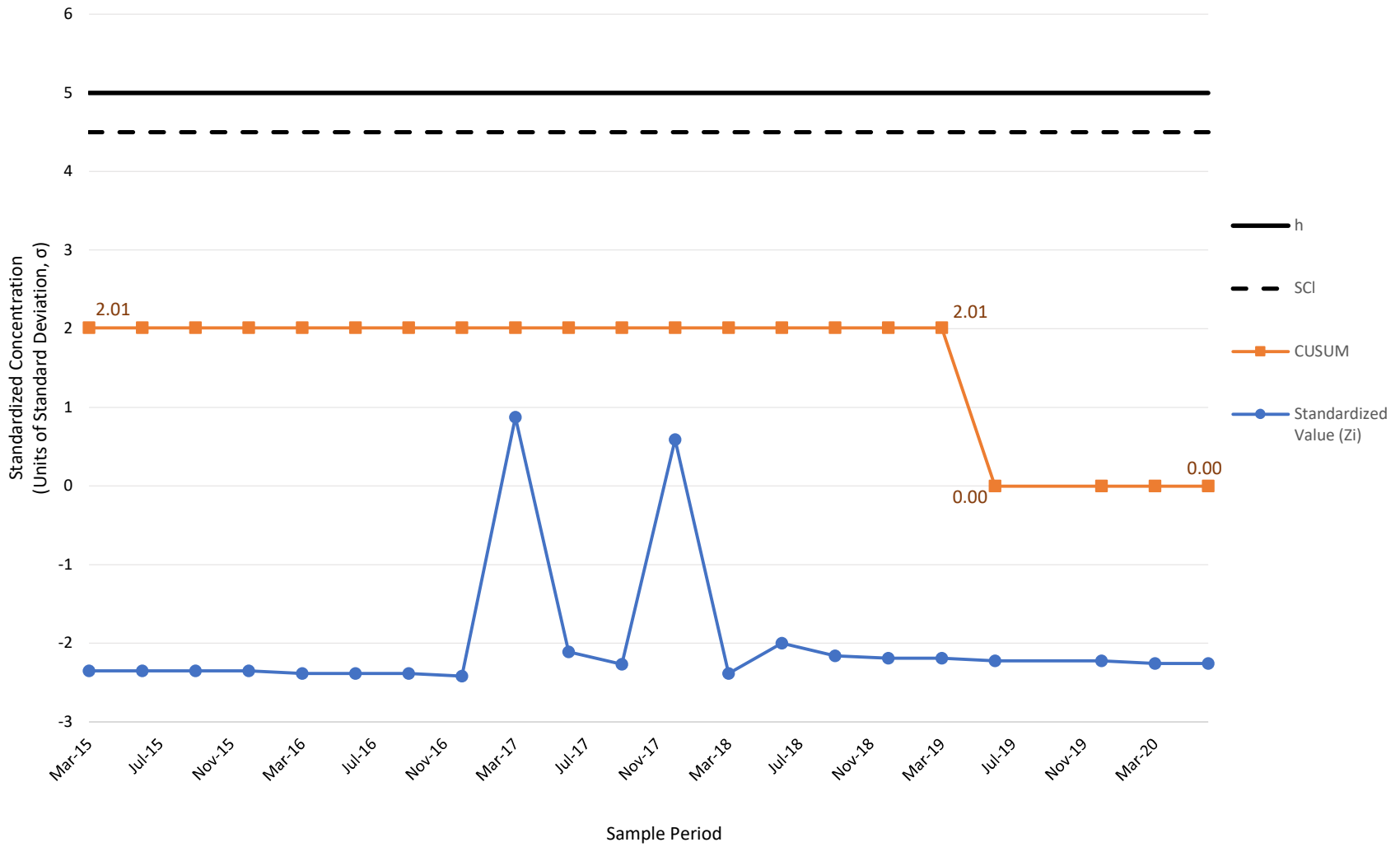
CUSUM Control Chart - Lead
Background Monitoring Well OW-9
Tiverton Landfill



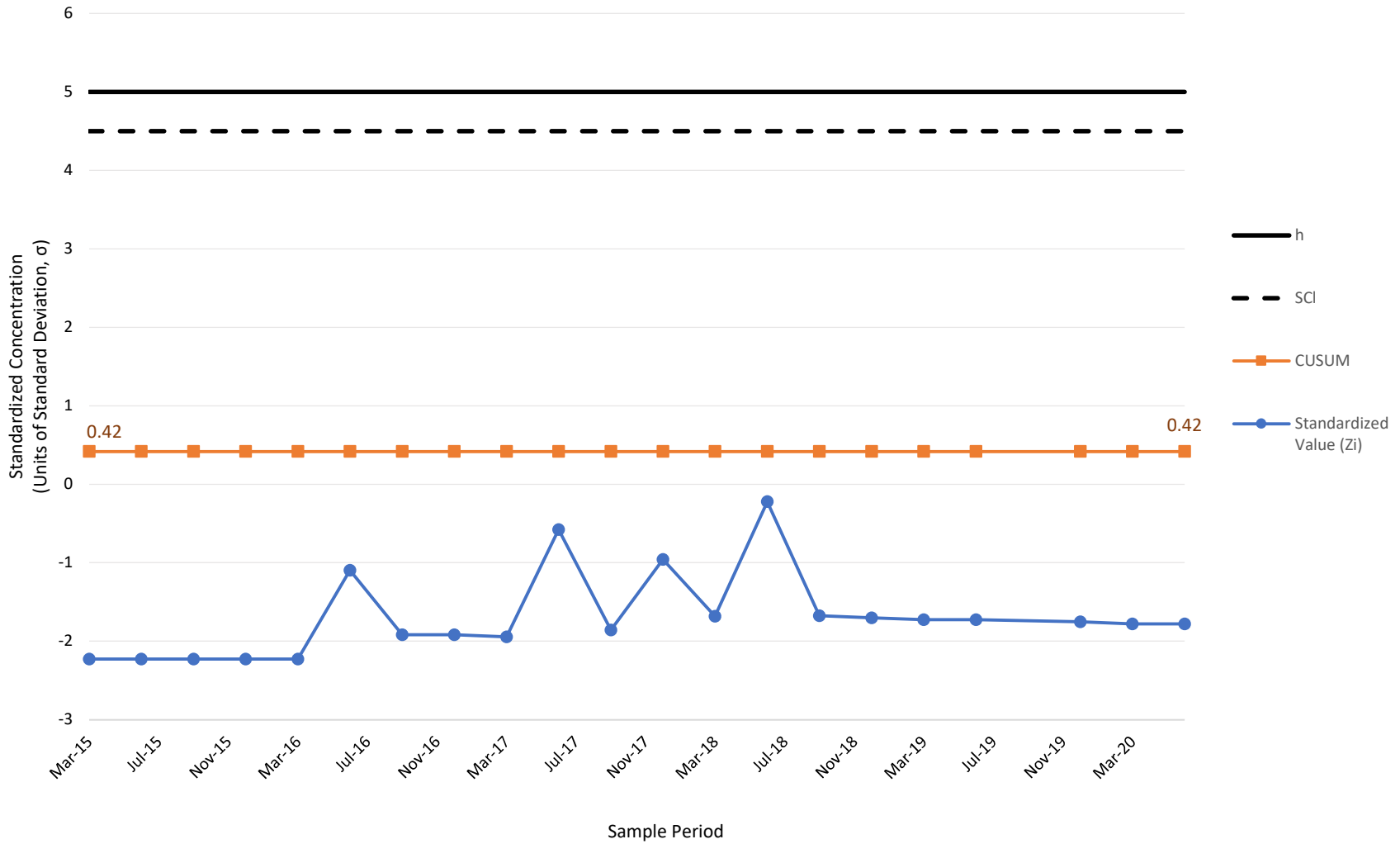
CUSUM Control Chart - Zinc
Background Monitoring Well OW-9
Tiverton Landfill



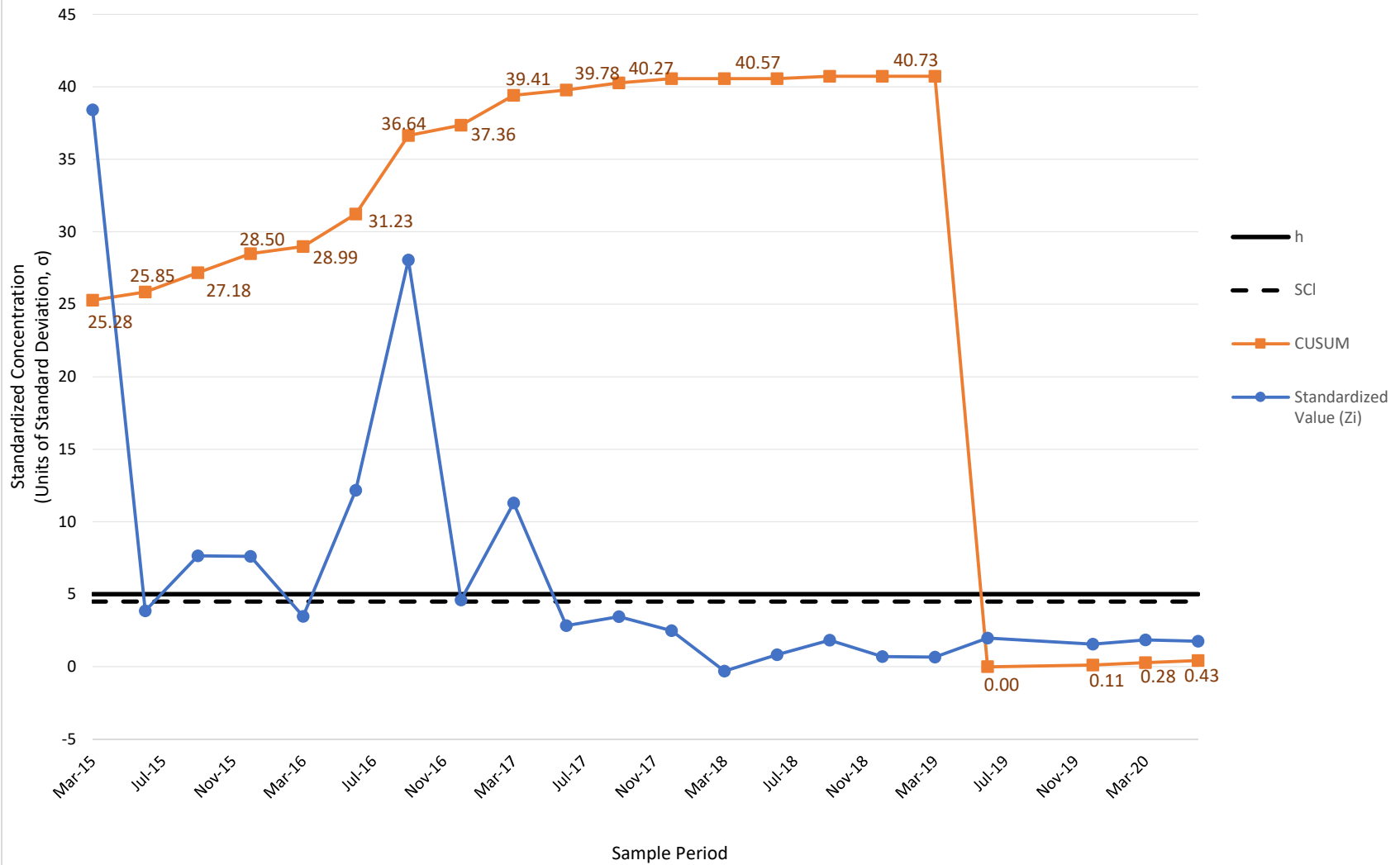
CUSUM Control Chart - Antimony
Background Monitoring Well OW-12
Tiverton Landfill



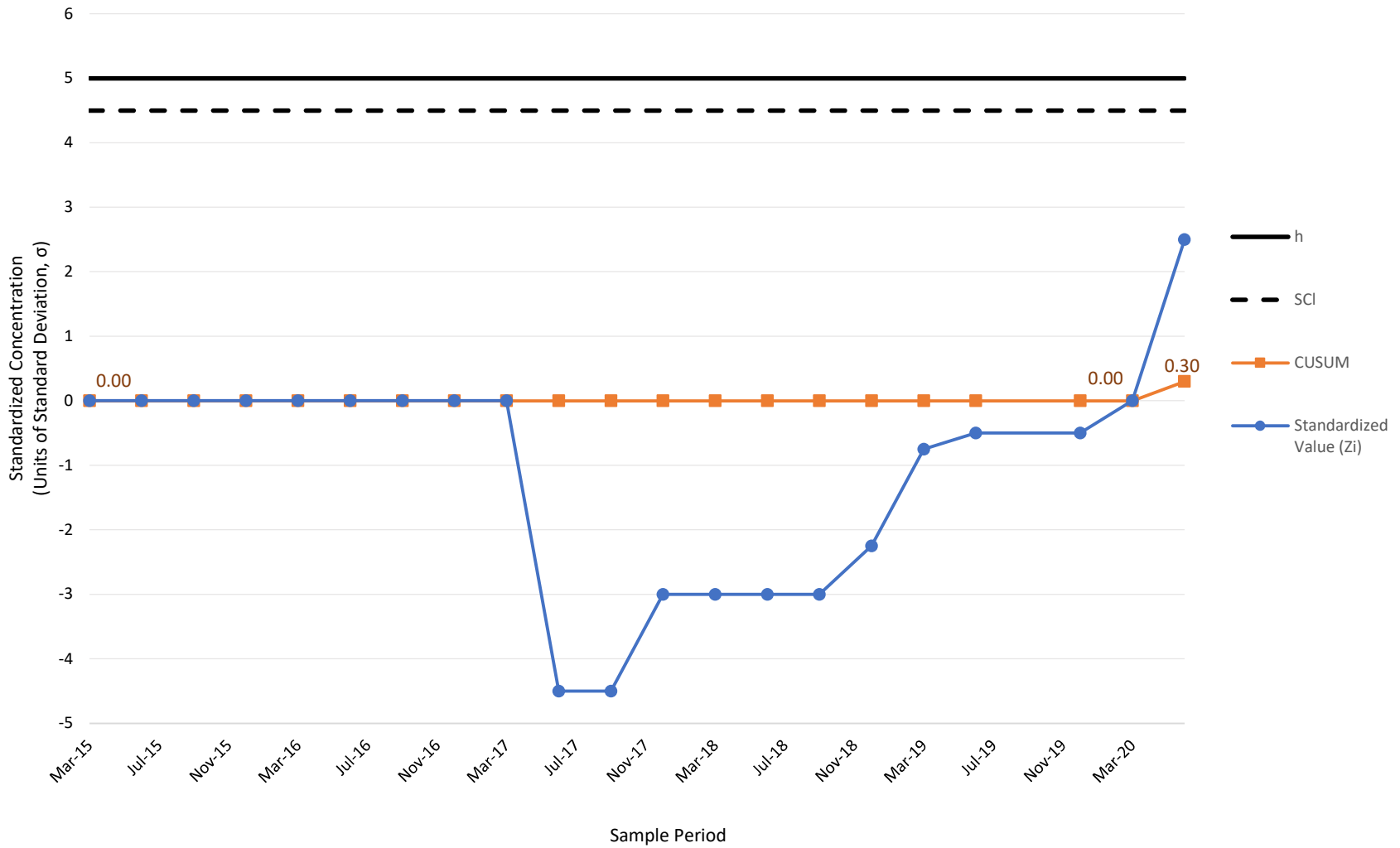
CUSUM Control Chart - Arsenic
Background Monitoring Well OW-12
Tiverton Landfill



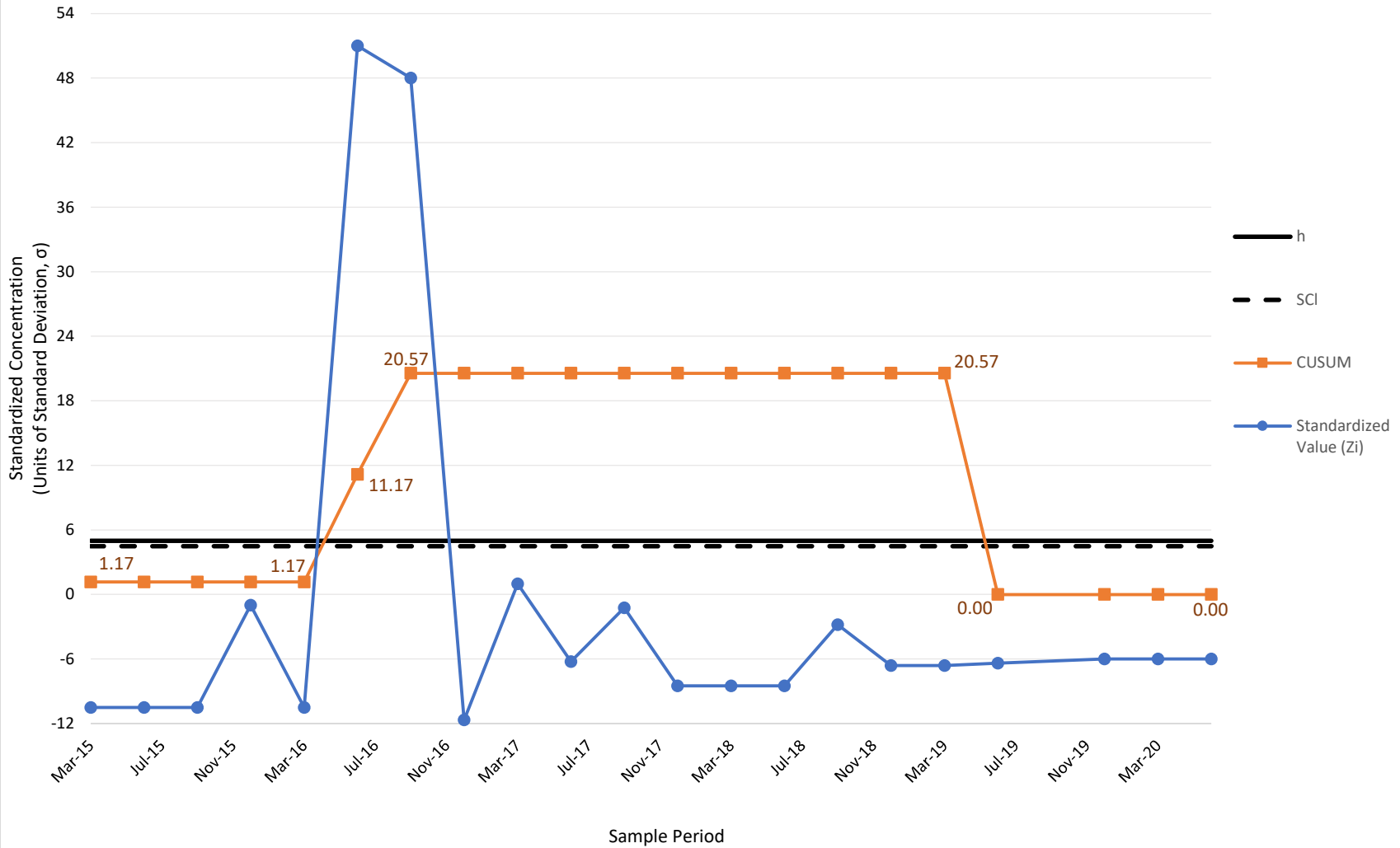
CUSUM Control Chart - Barium
Background Monitoring Well OW-12
Tiverton Landfill



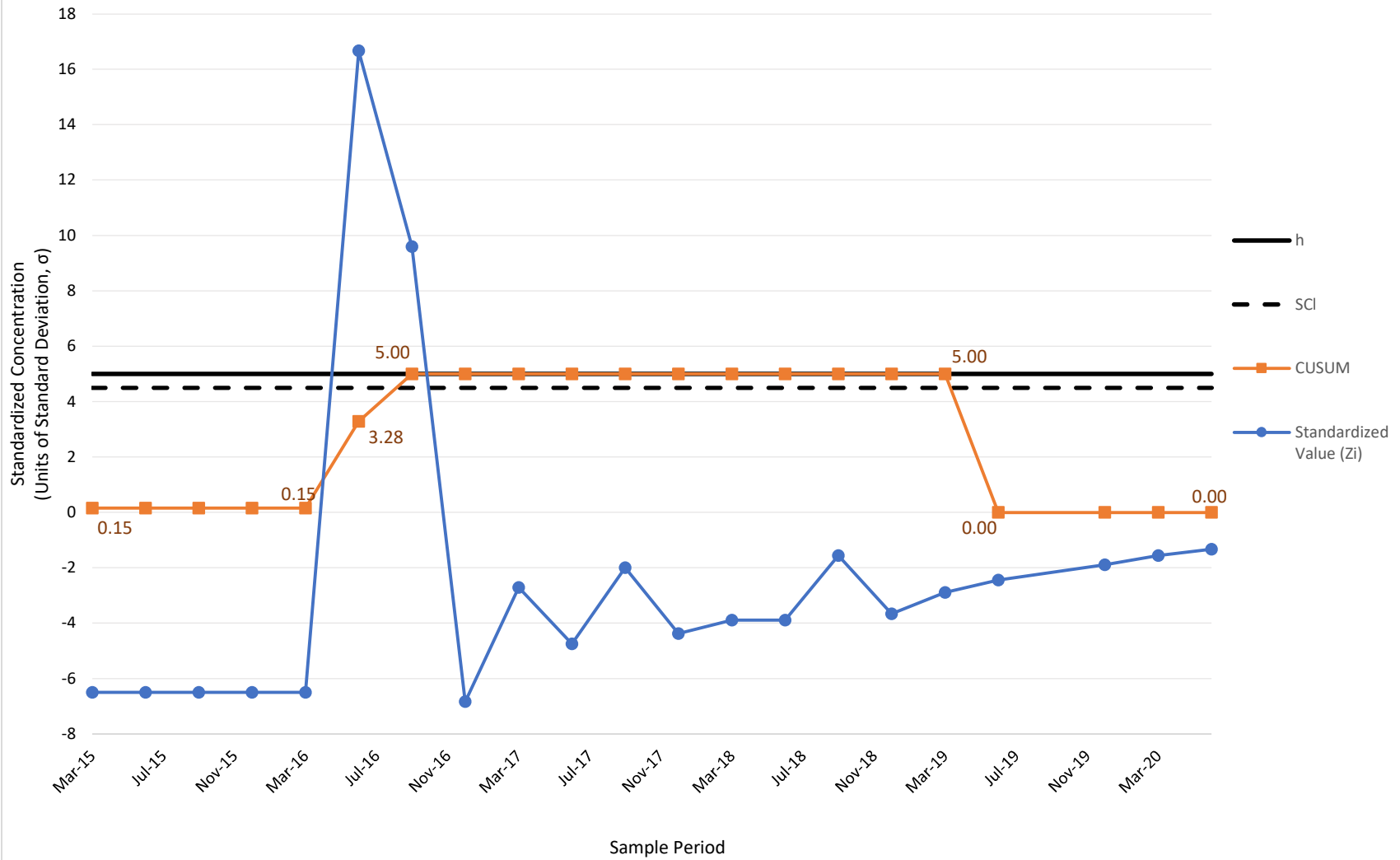
CUSUM Control Chart - Cadmium
Background Monitoring Well OW-12
Tiverton Landfill



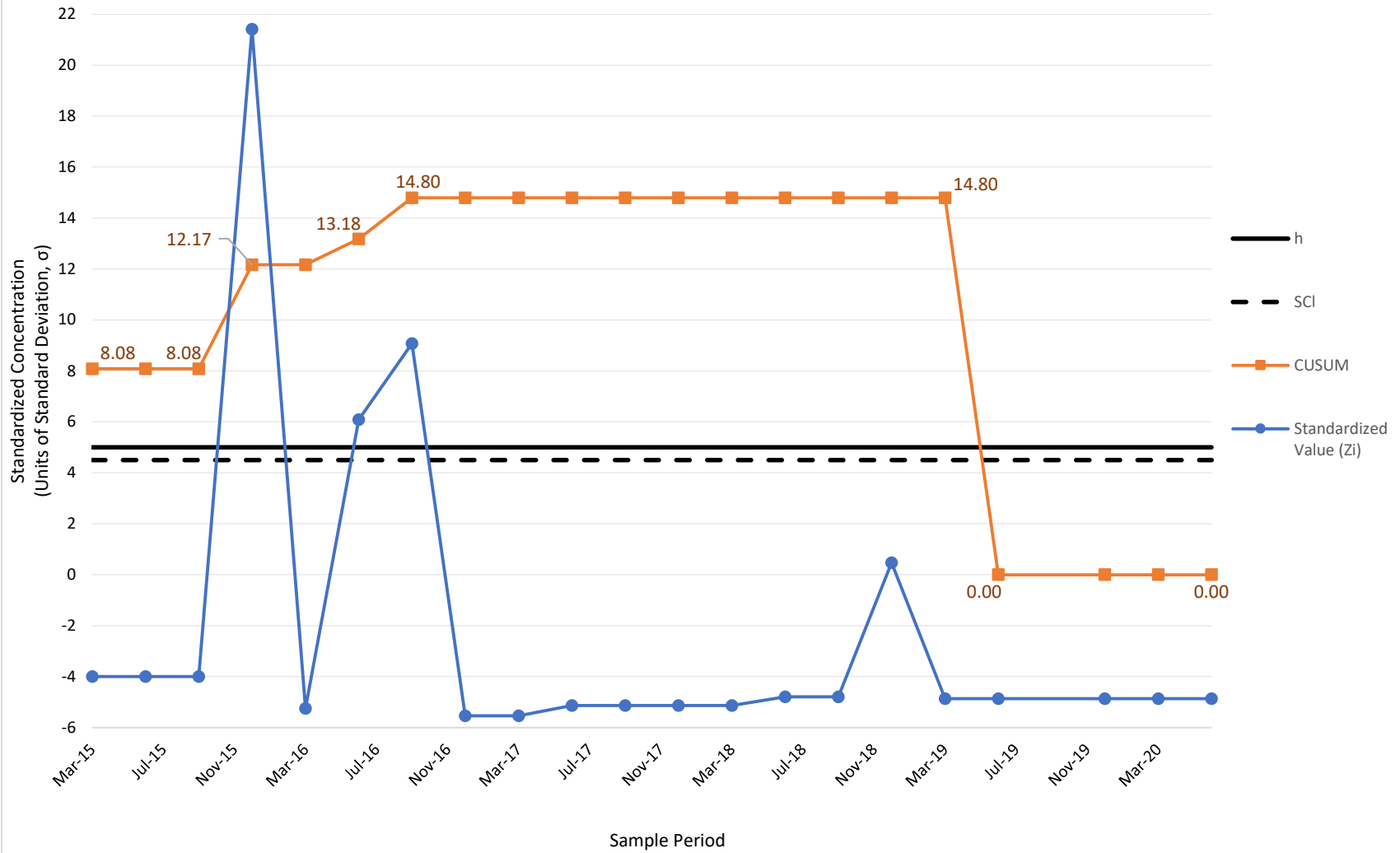
CUSUM Control Chart - Chromium
Background Monitoring Well OW-12
Tiverton Landfill



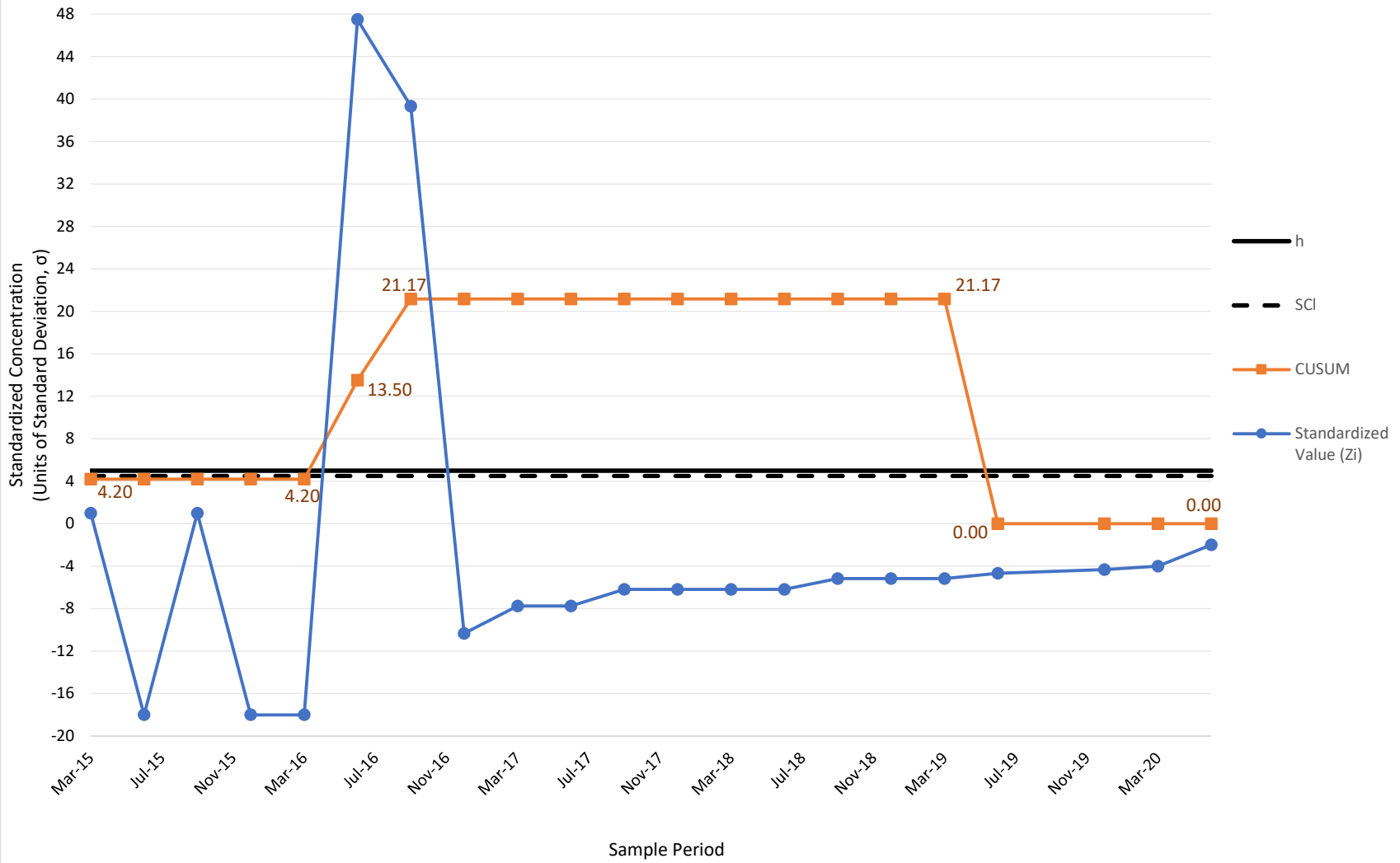
CUSUM Control Chart - Cobalt
Background Monitoring Well OW-12
Tiverton Landfill



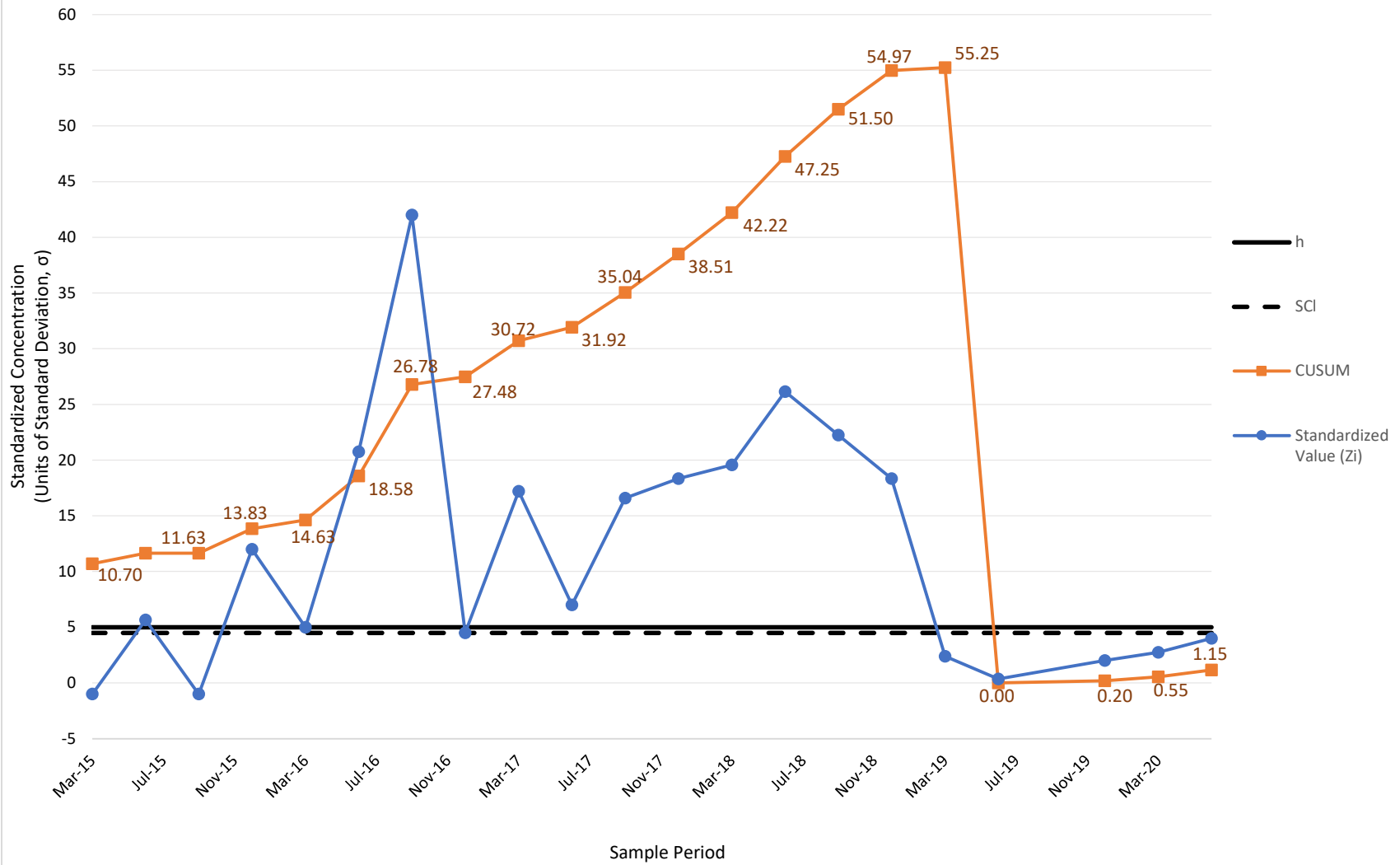
CUSUM Control Chart - Copper
Background Monitoring Well OW-12
Tiverton Landfill



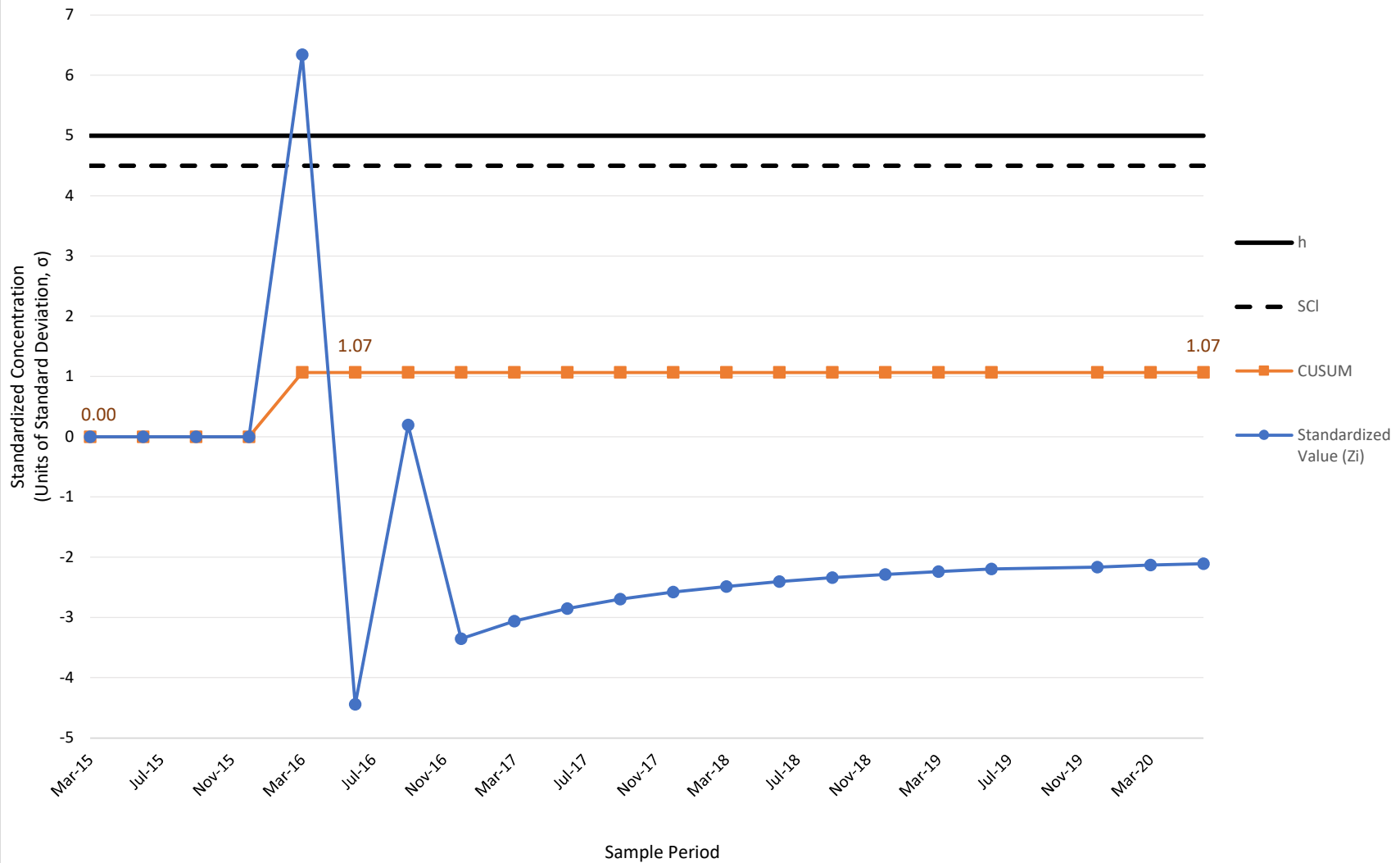
CUSUM Control Chart - Lead
Background Monitoring Well OW-12
Tiverton Landfill



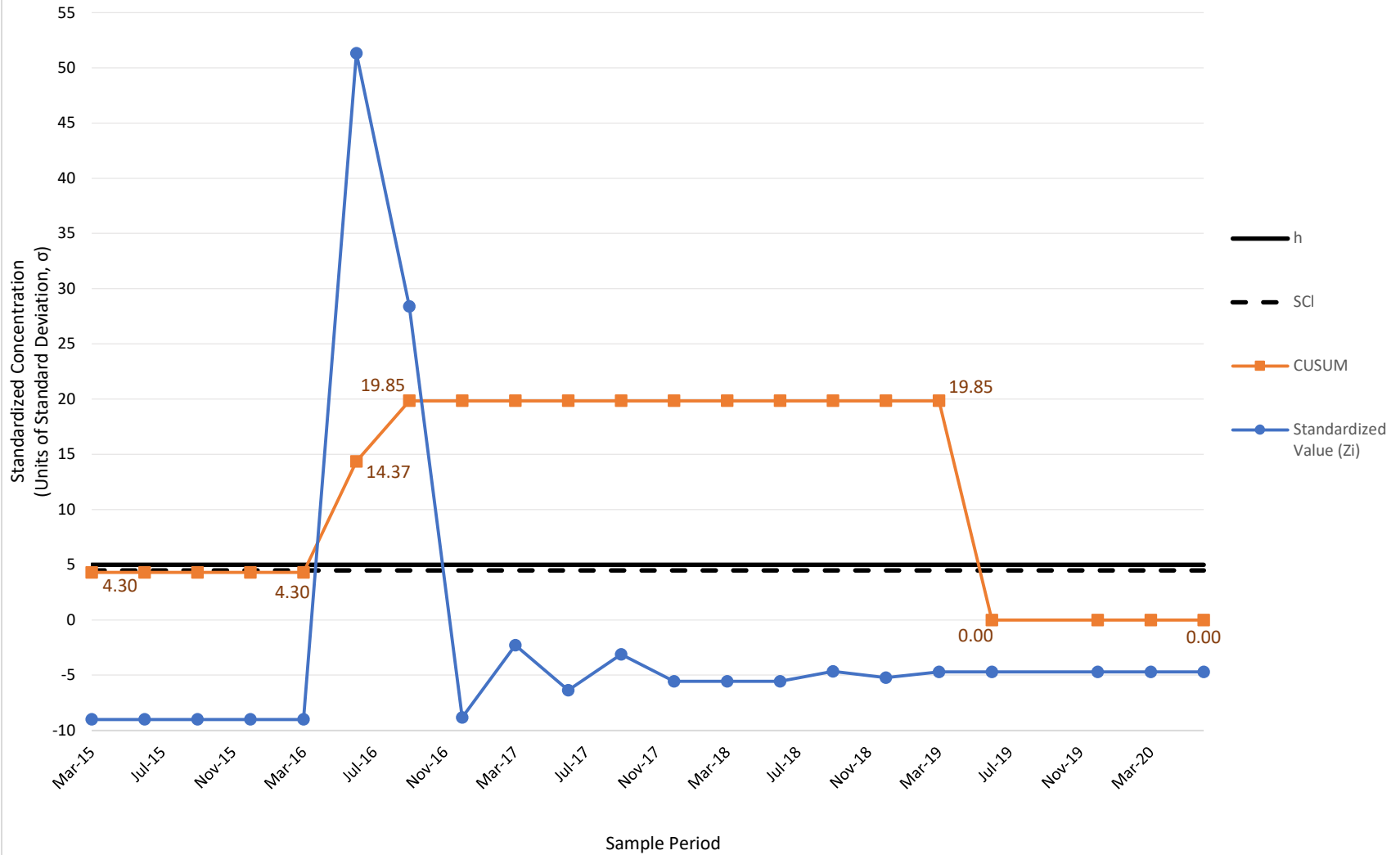
CUSUM Control Chart - Nickel
 Background Monitoring Well OW-12
 Tiverton Landfill



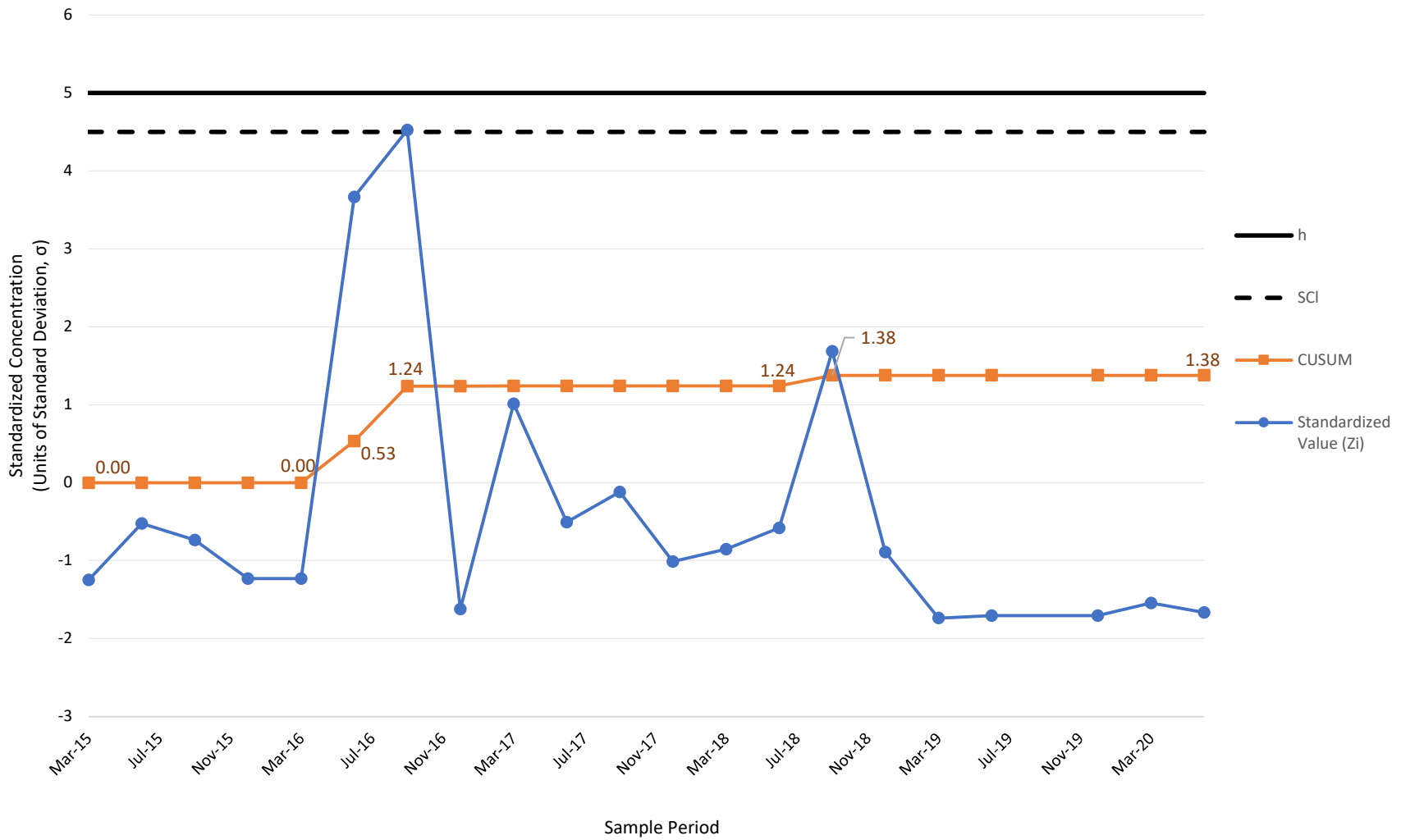
CUSUM Control Chart - Tin
Background Monitoring Well OW-12
Tiverton Landfill



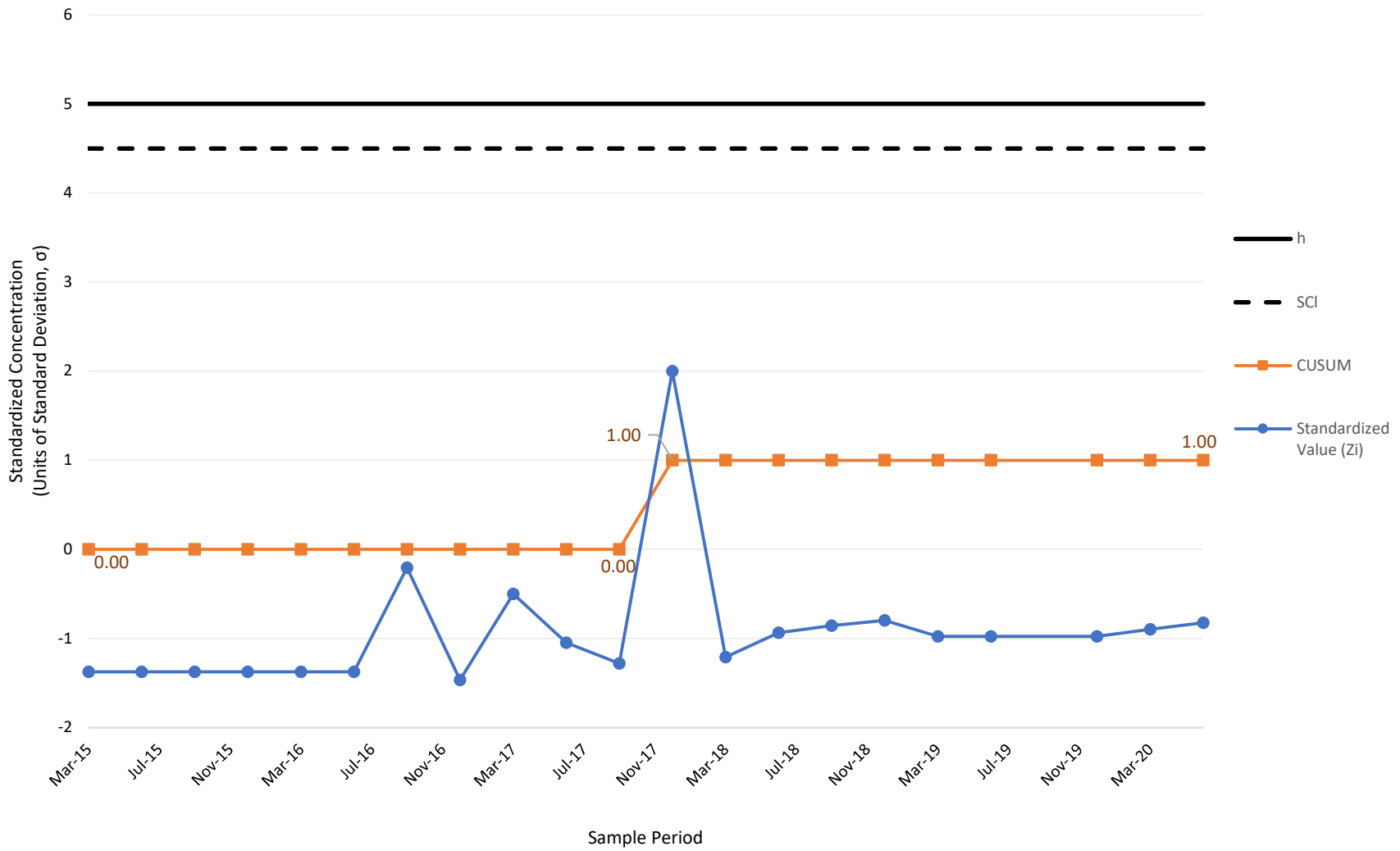
CUSUM Control Chart - Vanadium
Background Monitoring Well OW-12
Tiverton Landfill



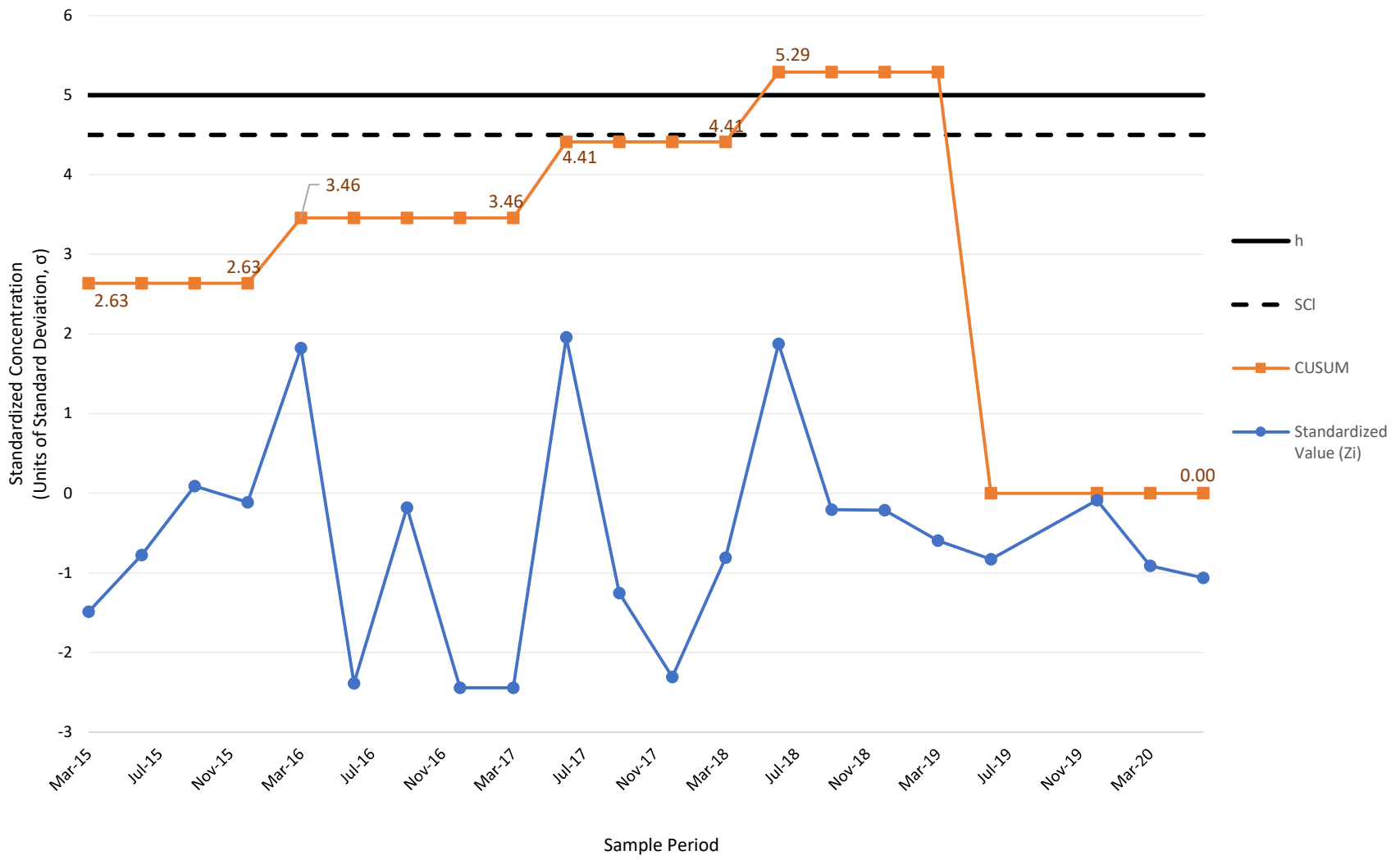
CUSUM Control Chart - Zinc
Background Monitoring Well OW-12
Tiverton Landfill



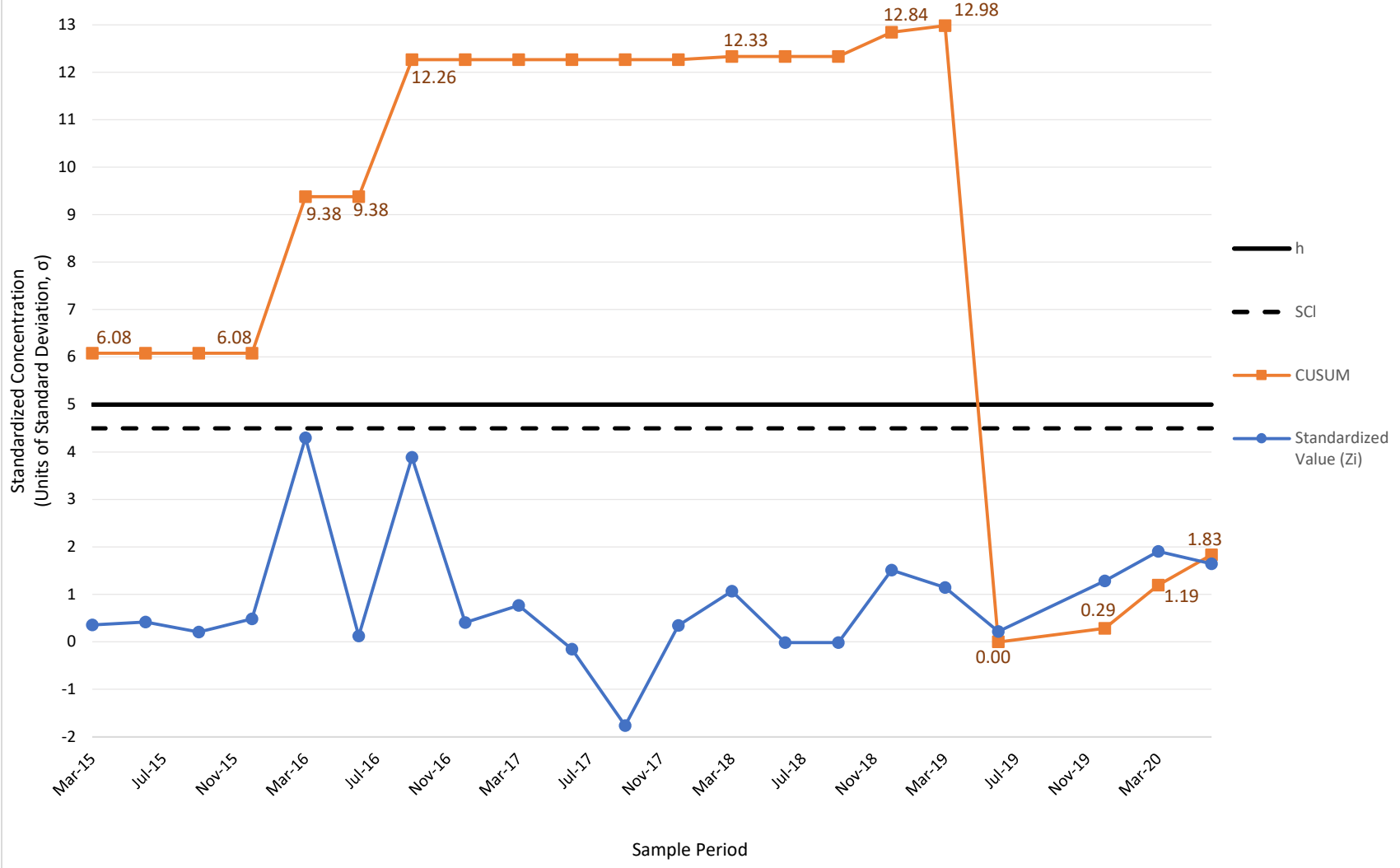
CUSUM Control Chart - Antimony
Monitoring Well OW-13
Tiverton Landfill



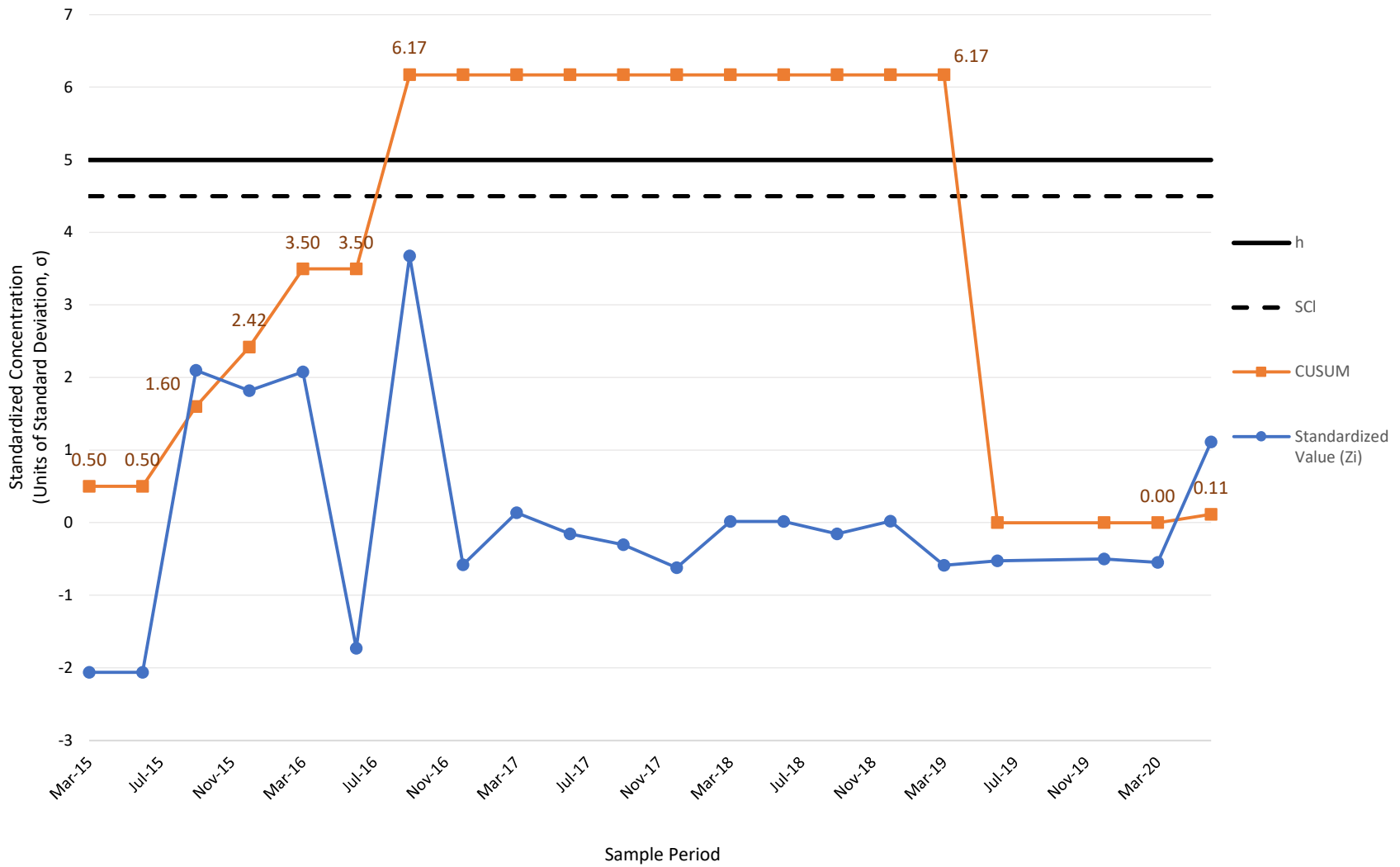
CUSUM Control Chart - Arsenic
Monitoring Well OW-13
Tiverton Landfill



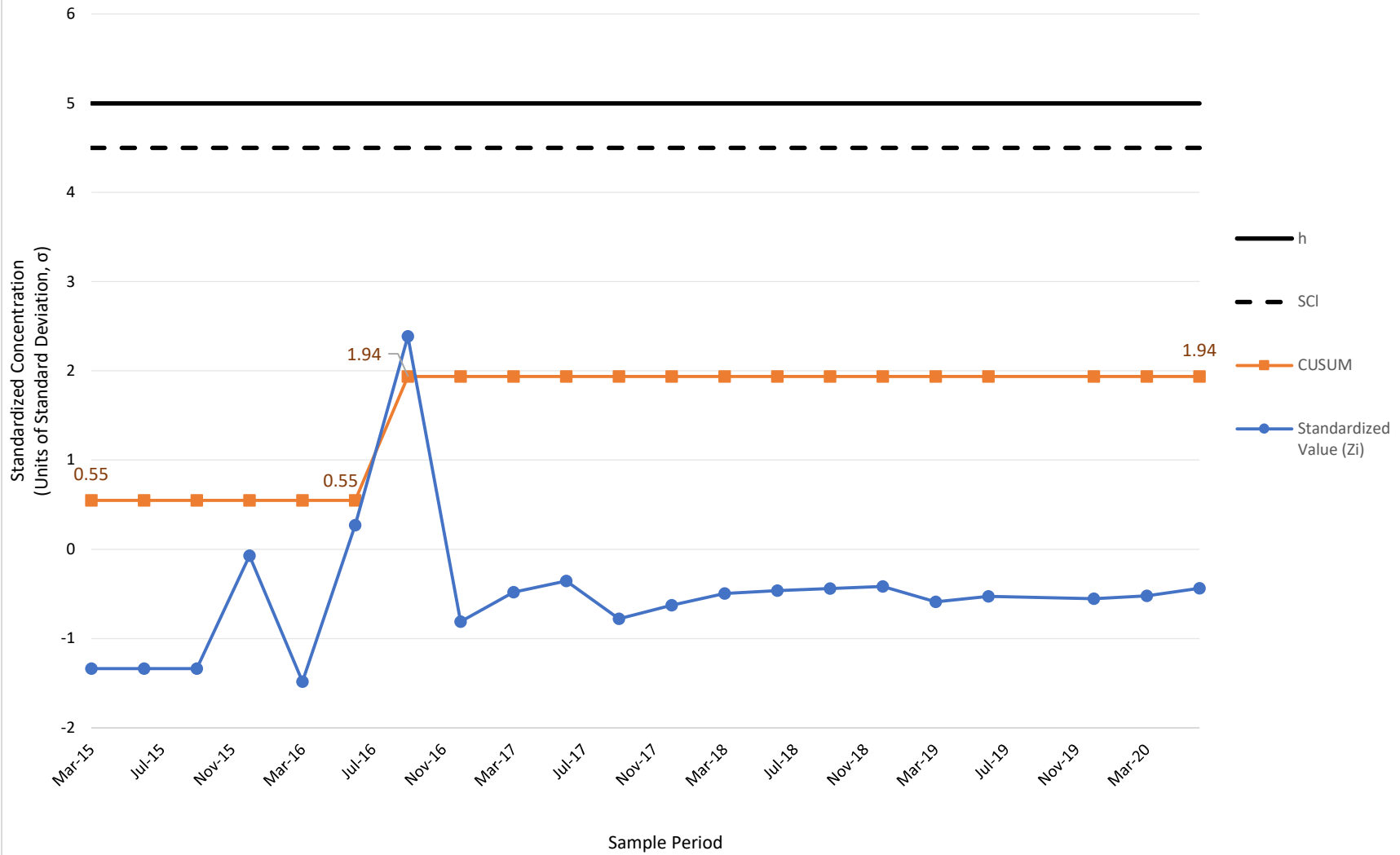
CUSUM Control Chart - Barium
Monitoring Well OW-13
Tiverton Landfill



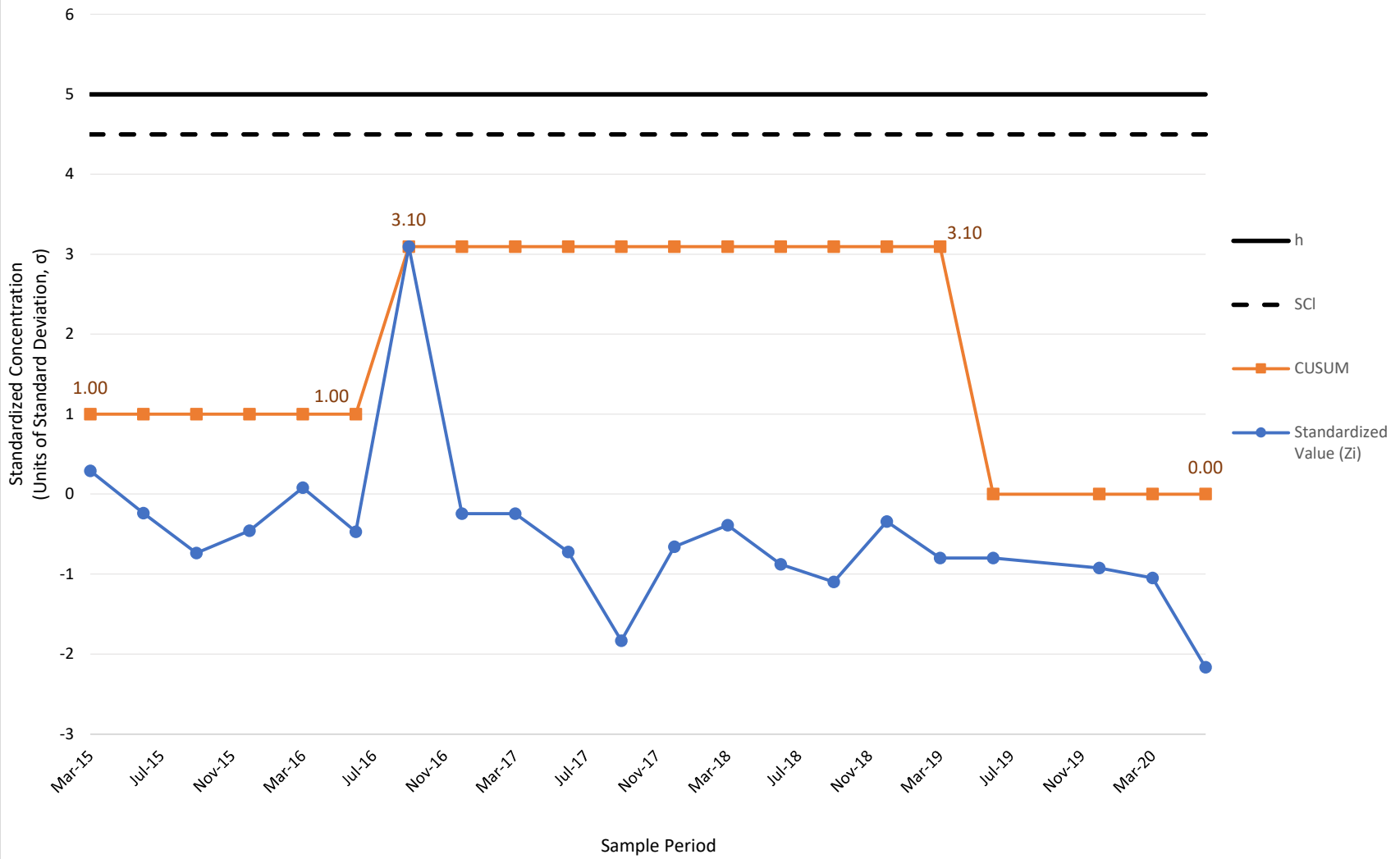
CUSUM Control Chart - Cadmium
Monitoring Well OW-13
Tiverton Landfill



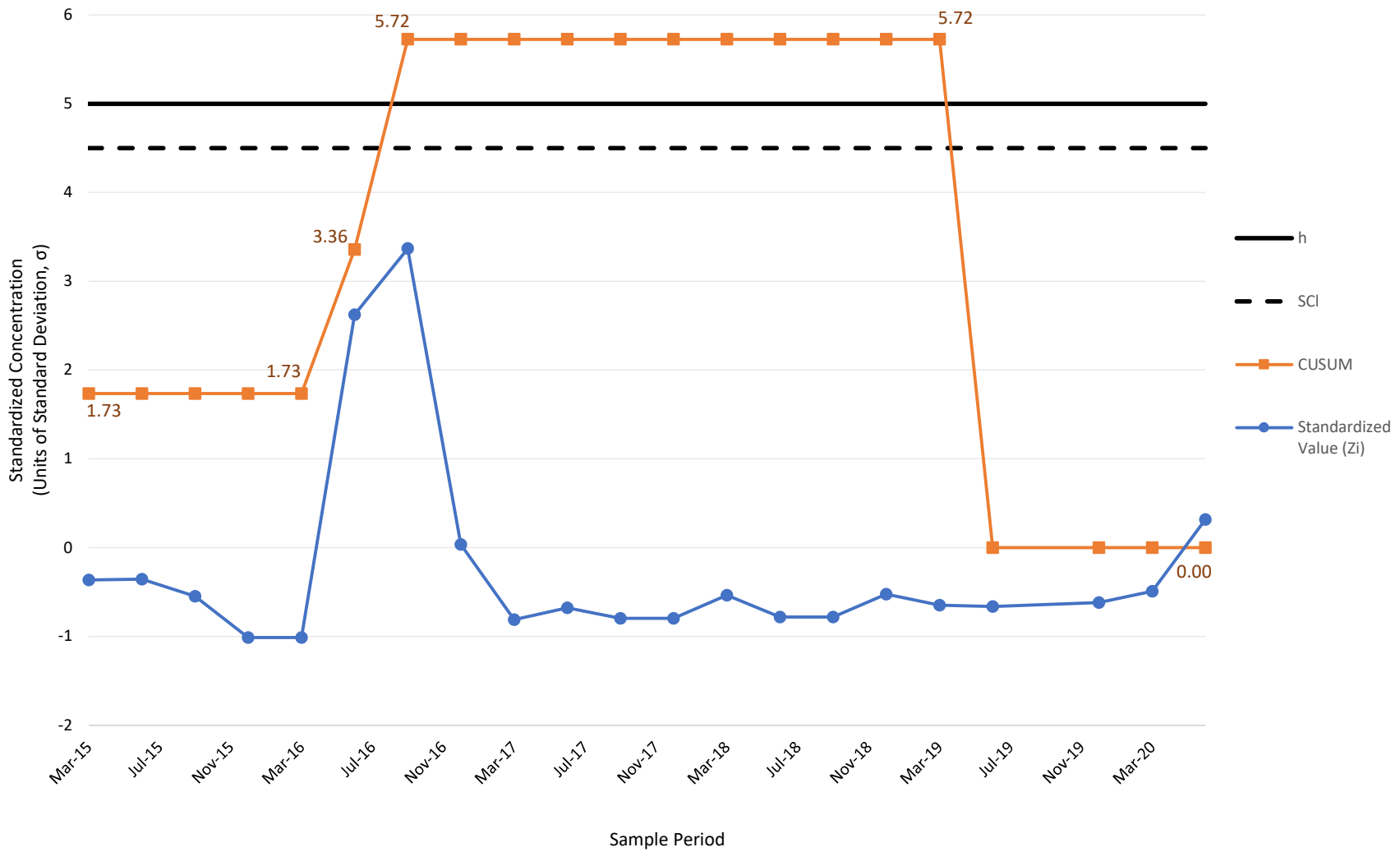
CUSUM Control Chart - Chromium
Monitoring Well OW-13
Tiverton Landfill



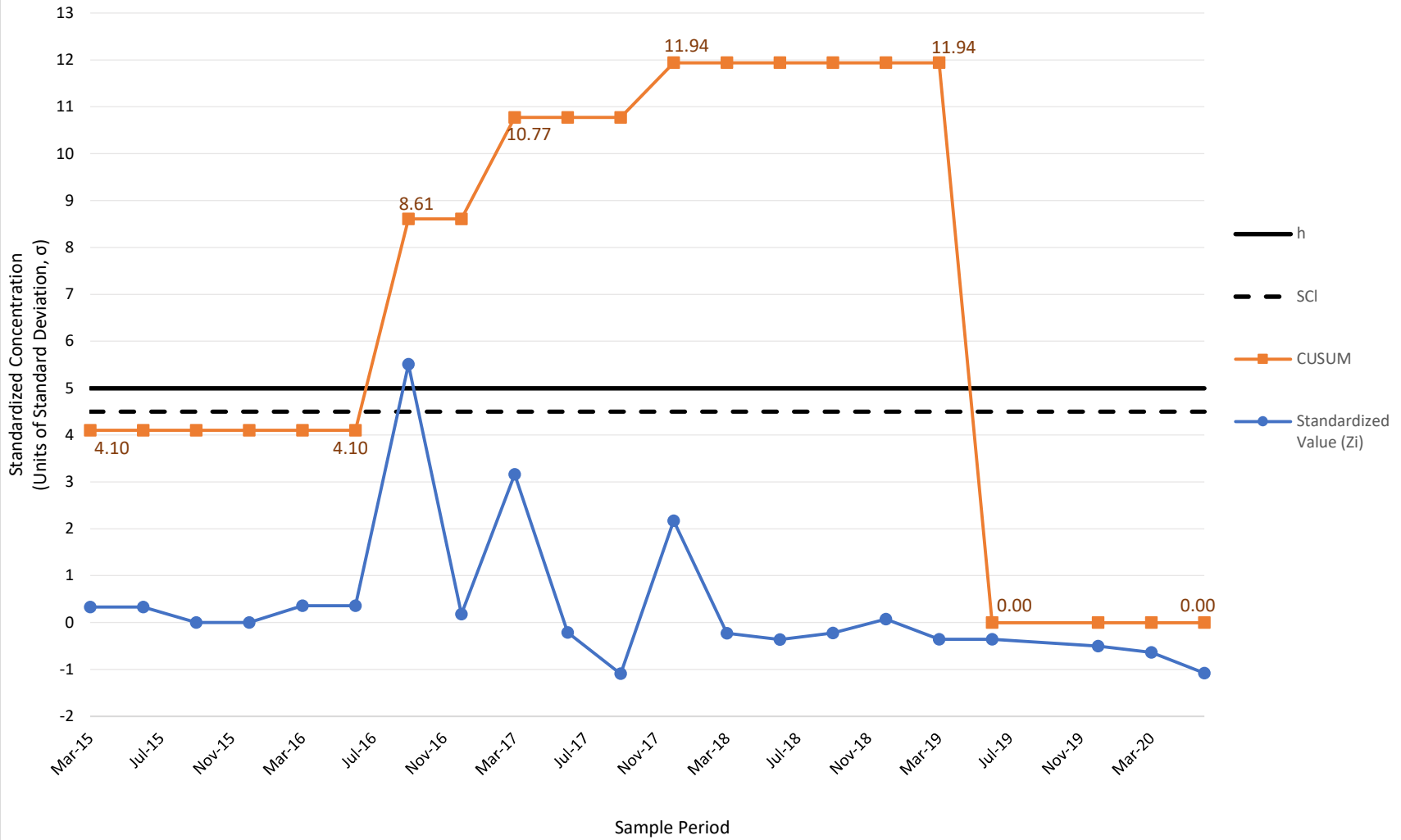
CUSUM Control Chart - Cobalt
Monitoring Well OW-13
Tiverton Landfill



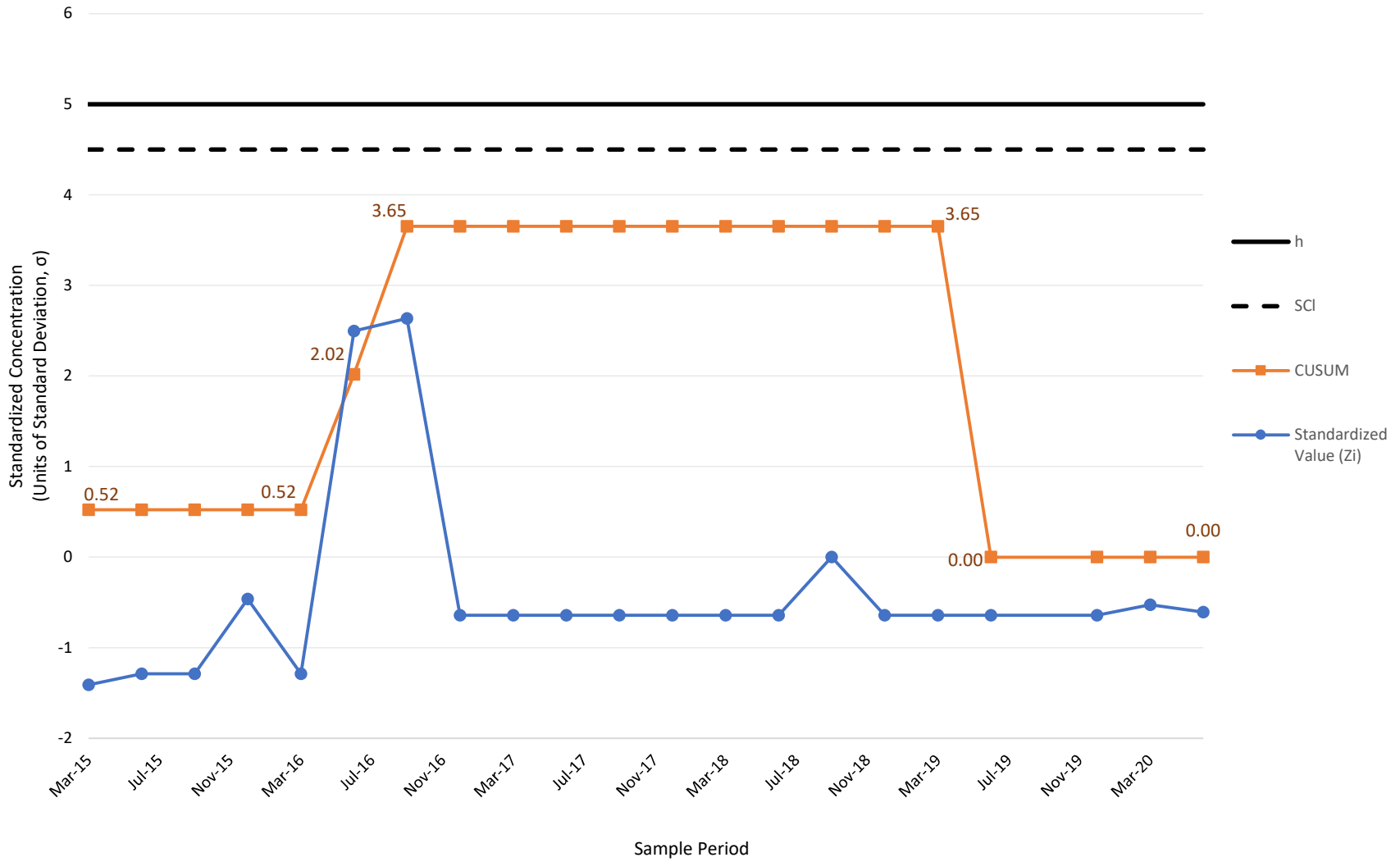
CUSUM Control Chart - Lead
Monitoring Well OW-13
Tiverton Landfill



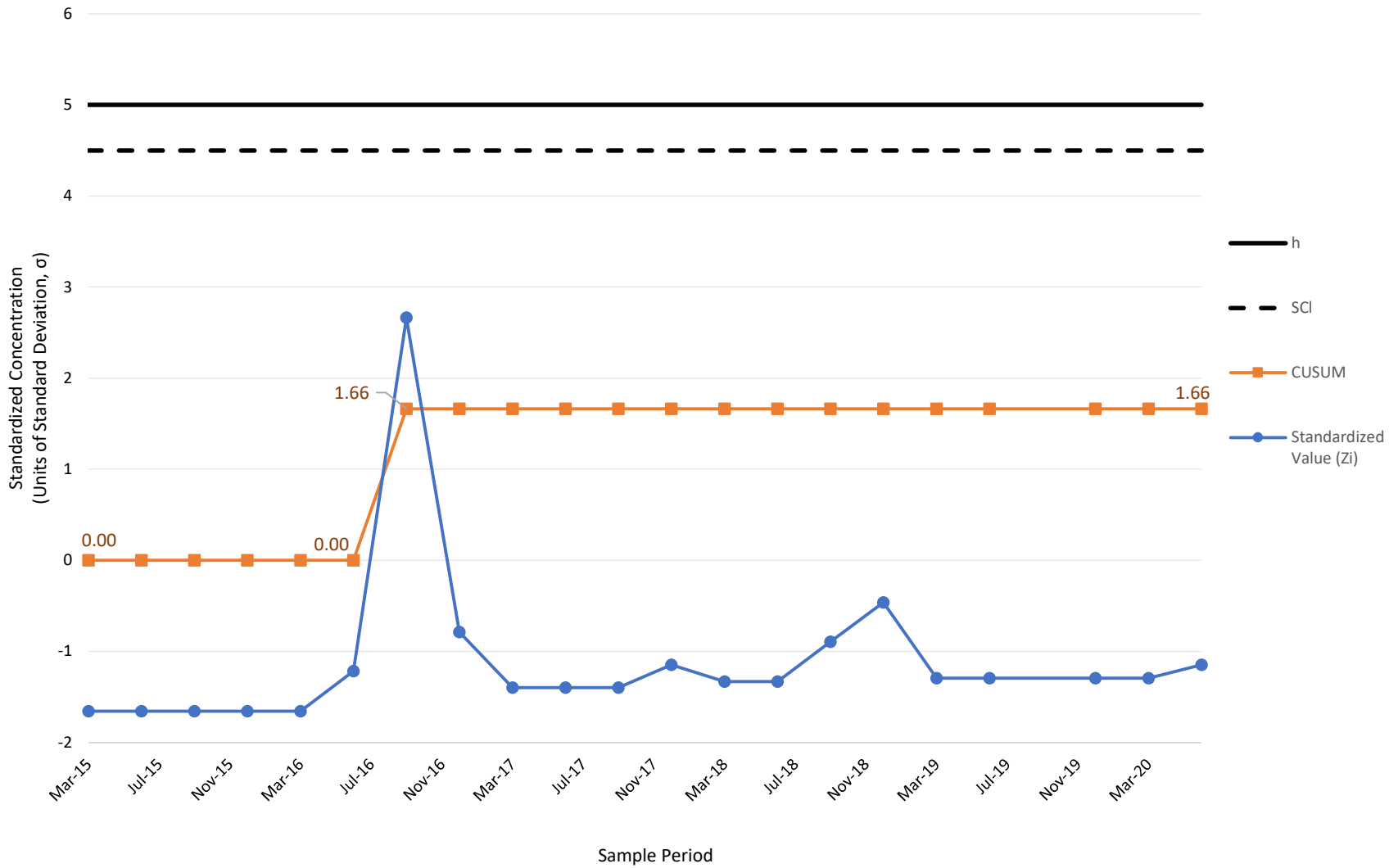
CUSUM Control Chart - Nickel
Monitoring Well OW-13
Tiverton Landfill



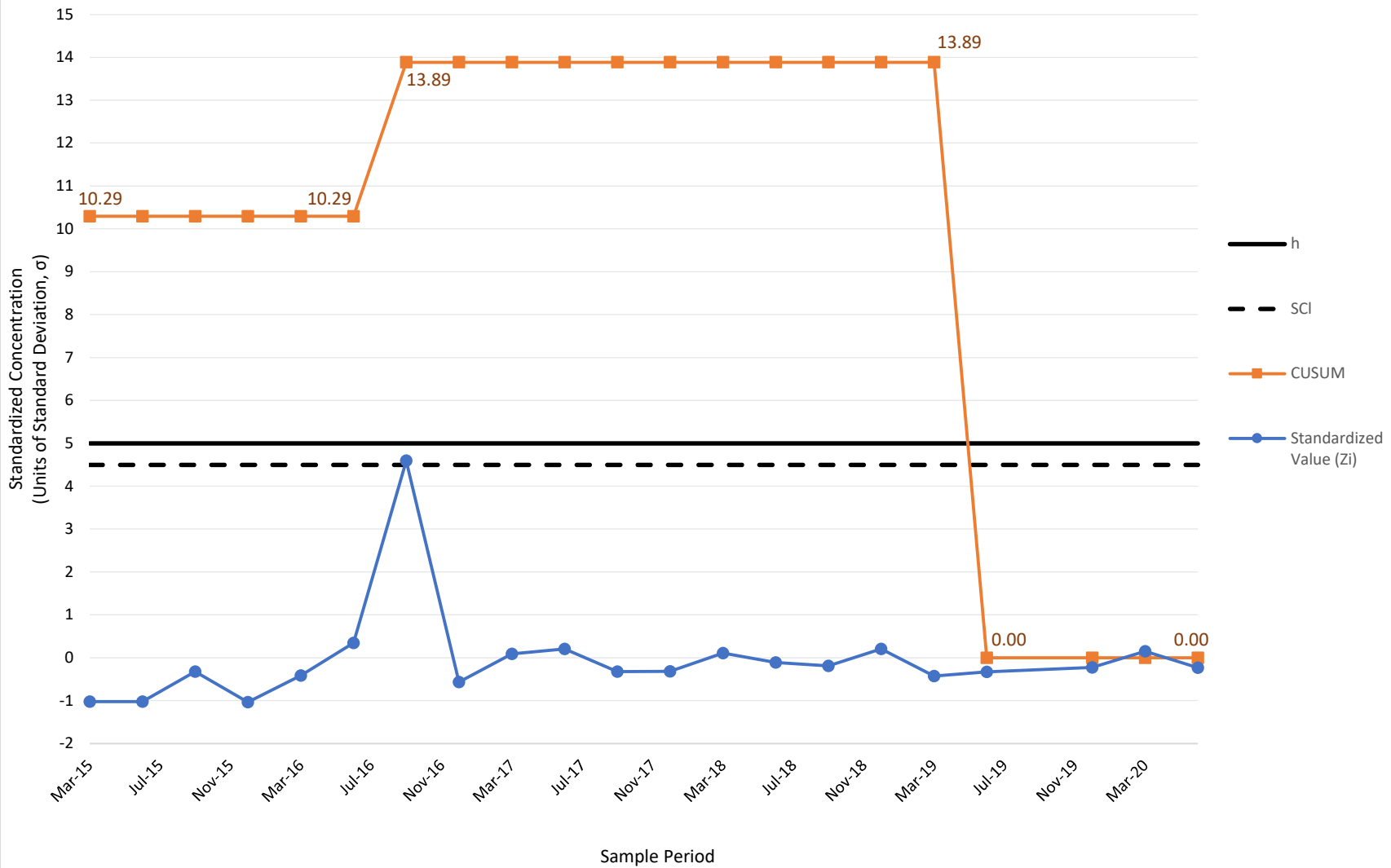
CUSUM Control Chart - Tin
Monitoring Well OW-13
Tiverton Landfill



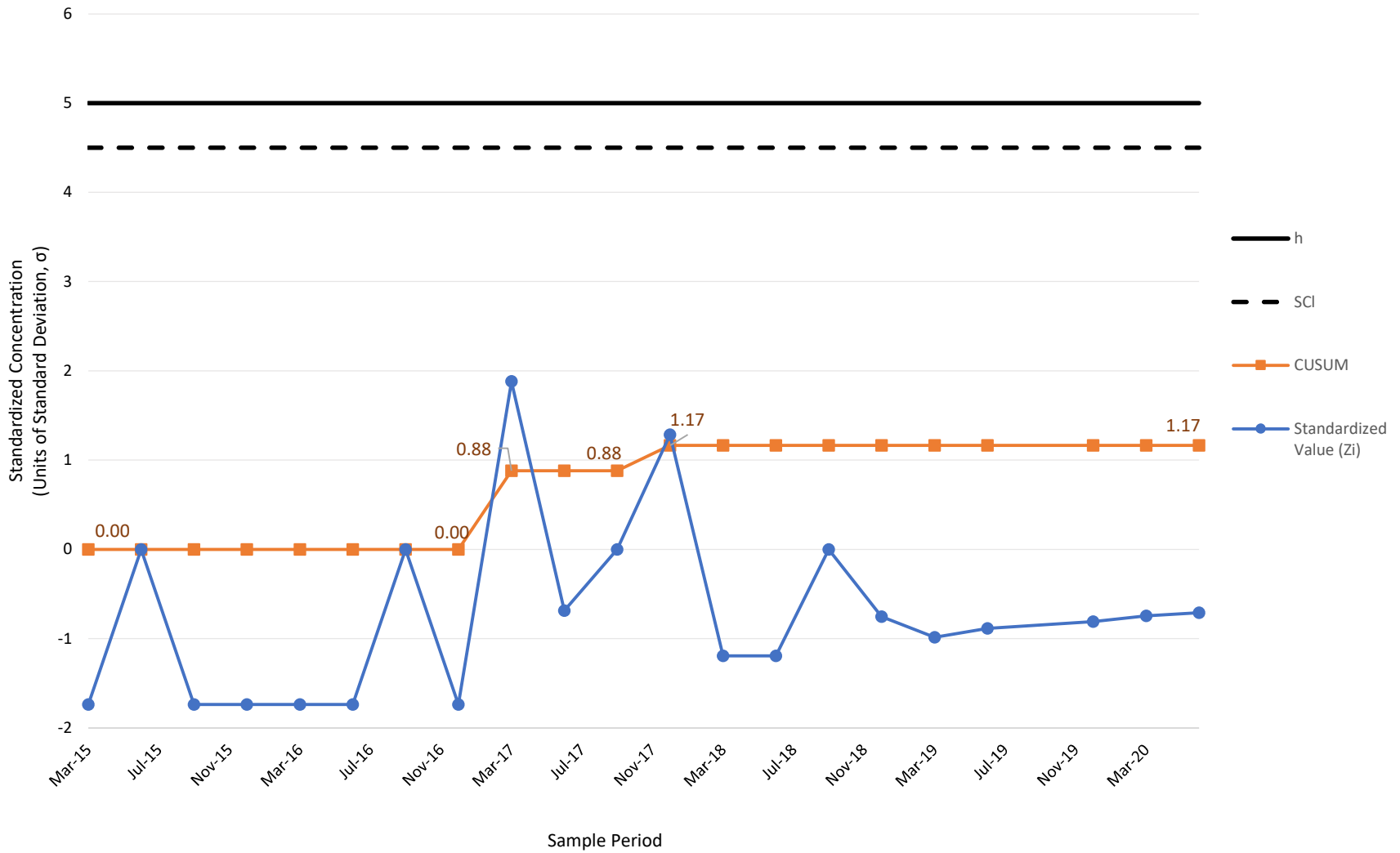
CUSUM Control Chart - Vanadium
Monitoring Well OW-13
Tiverton Landfill



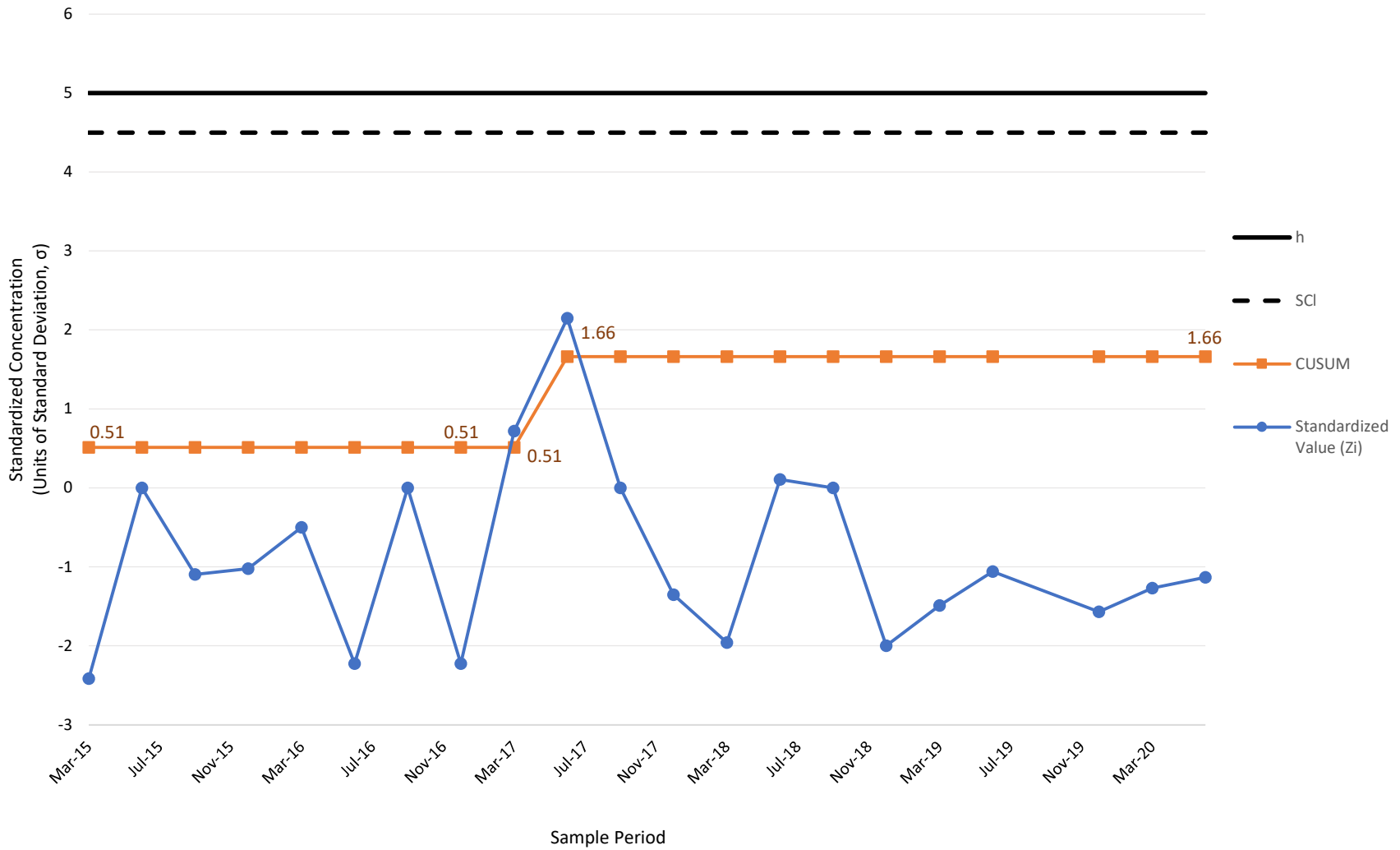
CUSUM Control Chart - Zinc
Monitoring Well OW-13
Tiverton Landfill



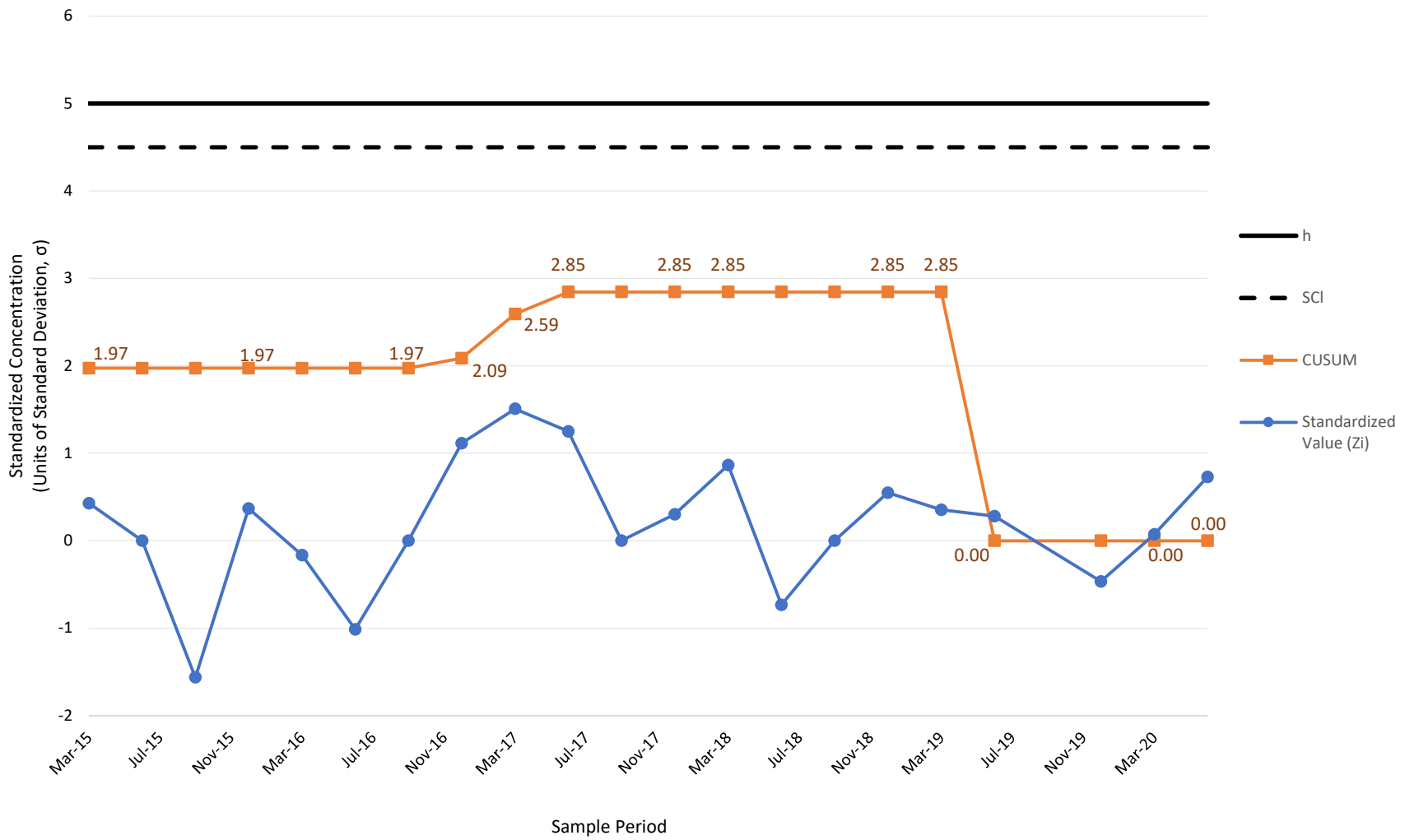
CUSUM Control Chart - Antimony
Monitoring Well OW-14
Tiverton Landfill



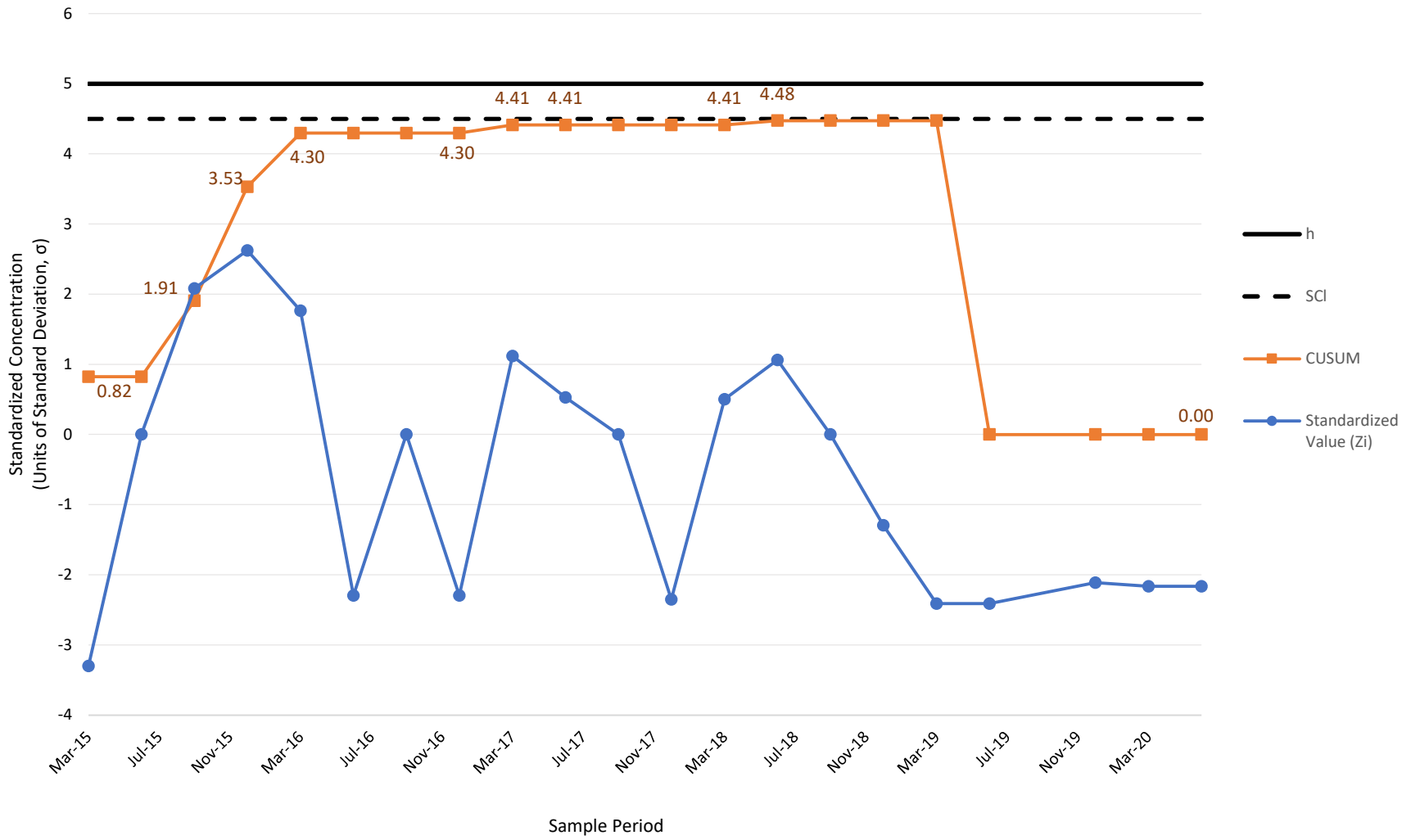
CUSUM Control Chart - Arsenic
Monitoring Well OW-14
Tiverton Landfill



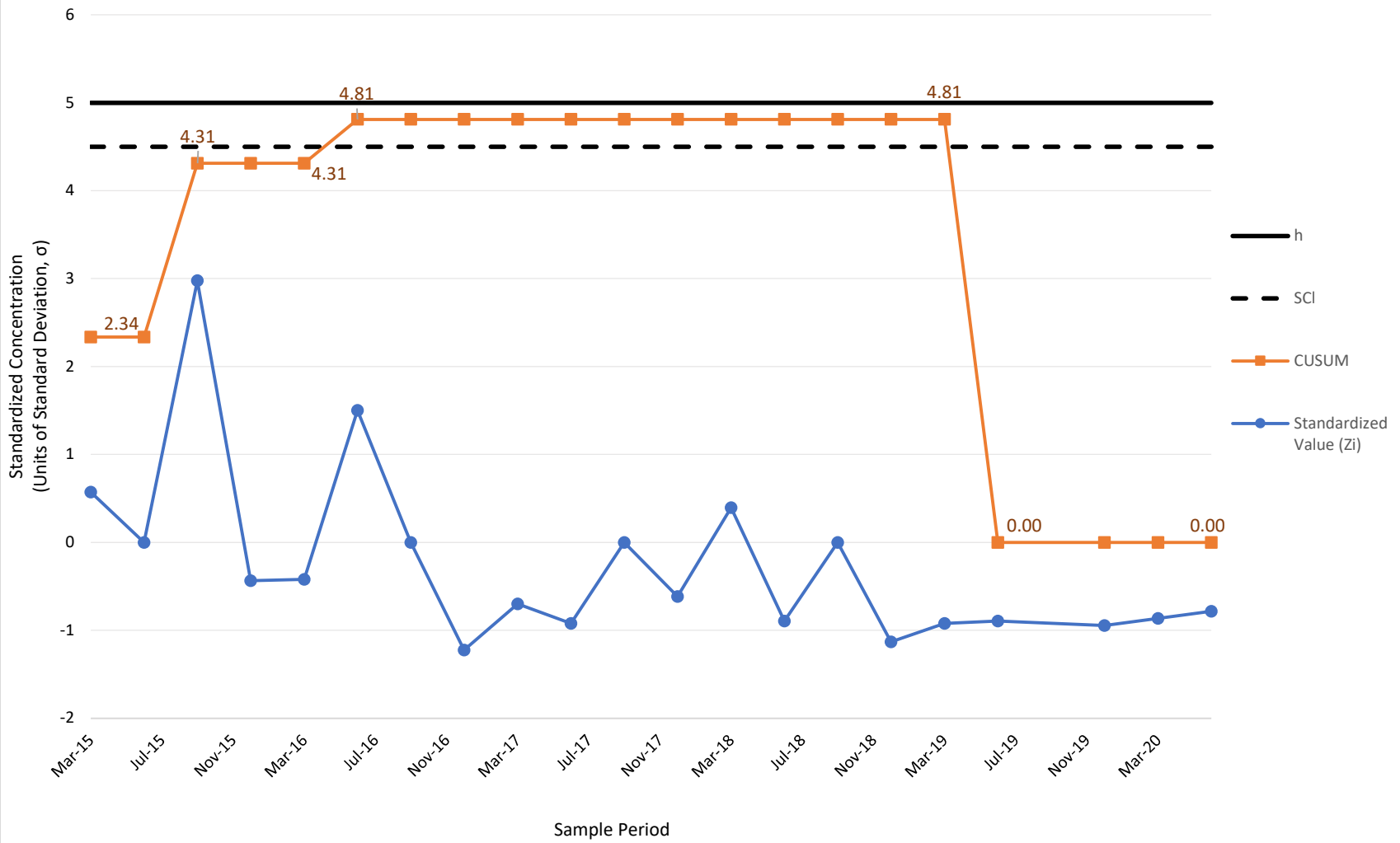
CUSUM Control Chart - Barium
Monitoring Well OW-14
Tiverton Landfill



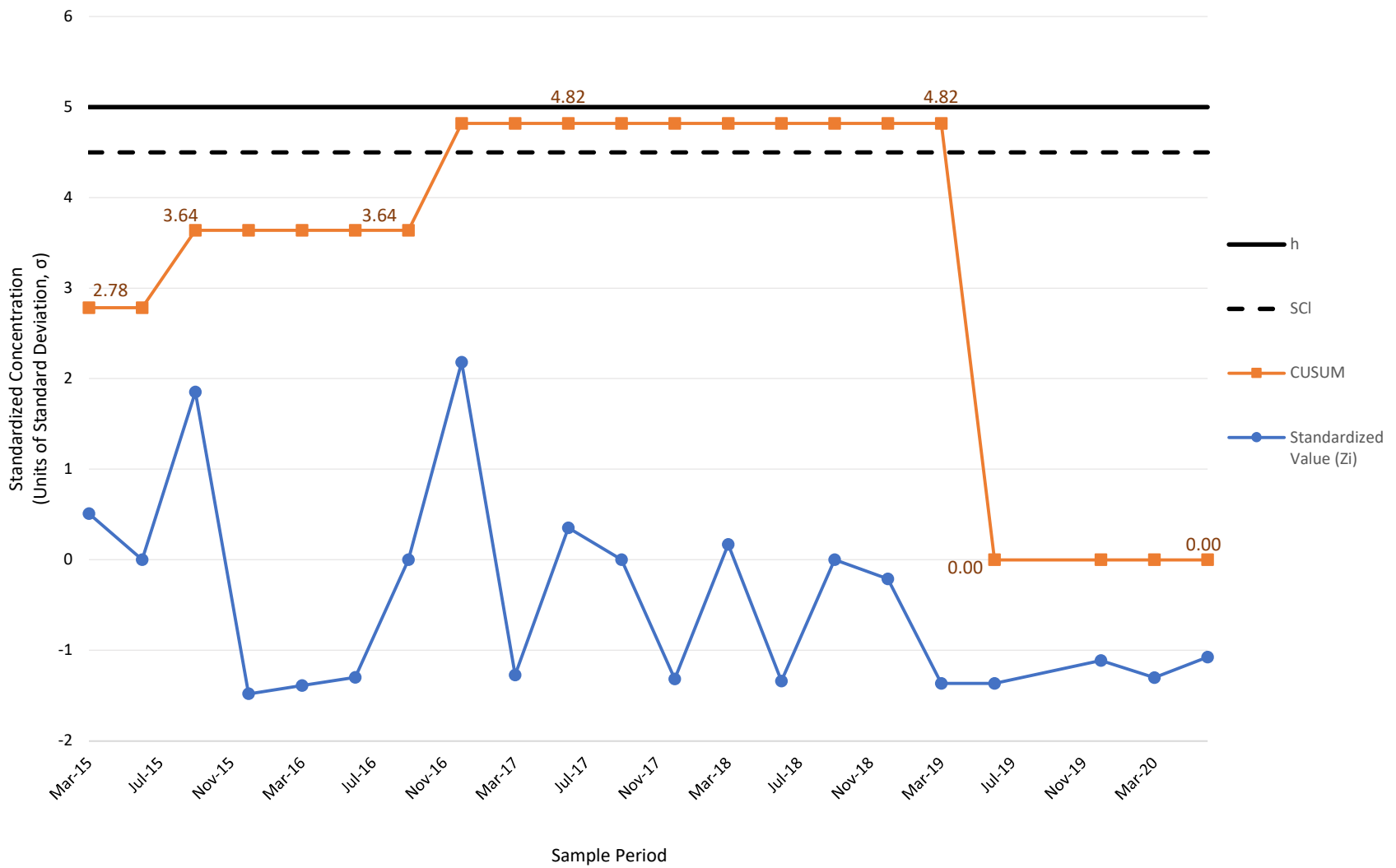
CUSUM Control Chart - Cadmium
Monitoring Well OW-14
Tiverton Landfill



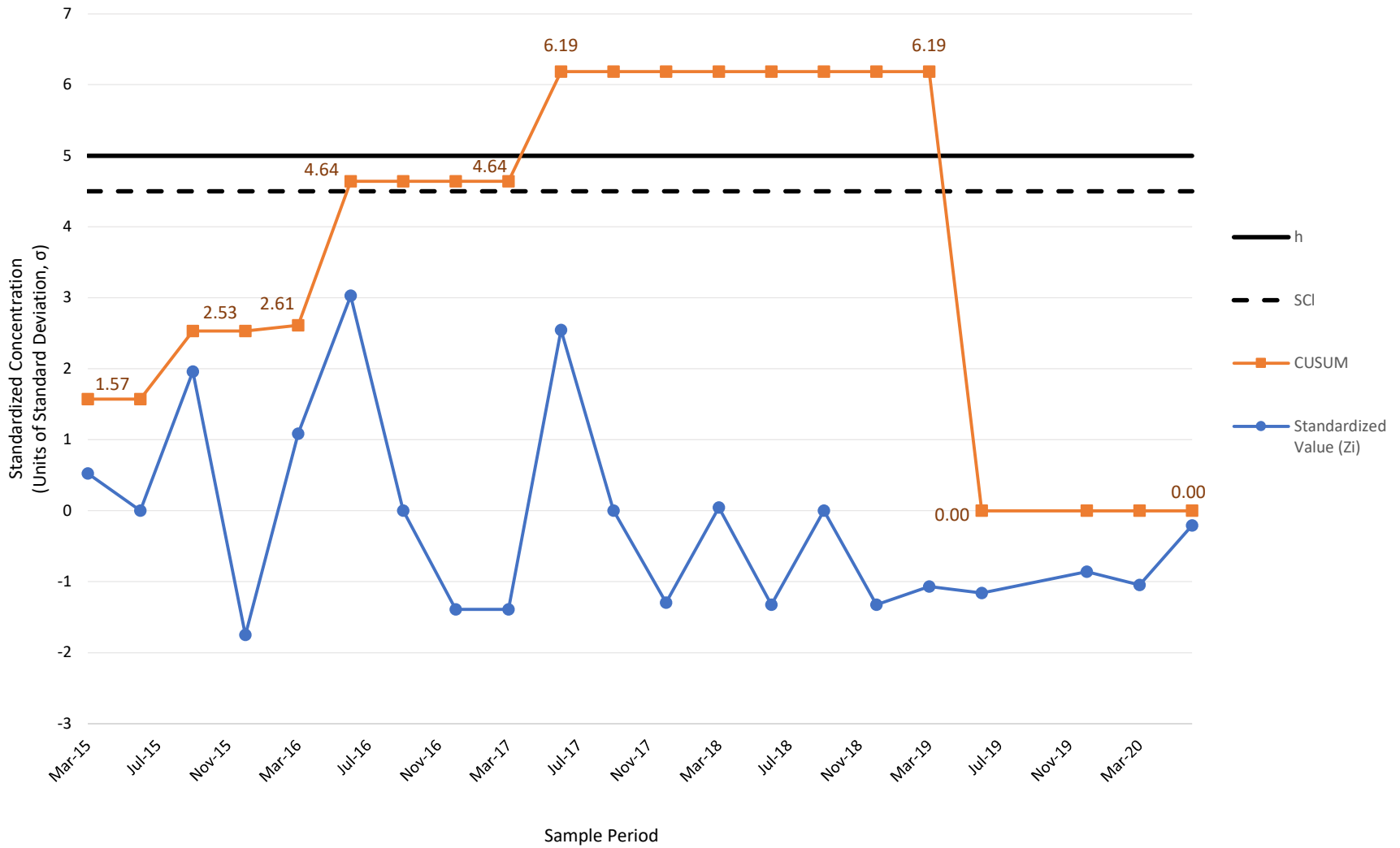
CUSUM Control Chart - Chromium
Monitoring Well OW-14
Tiverton Landfill



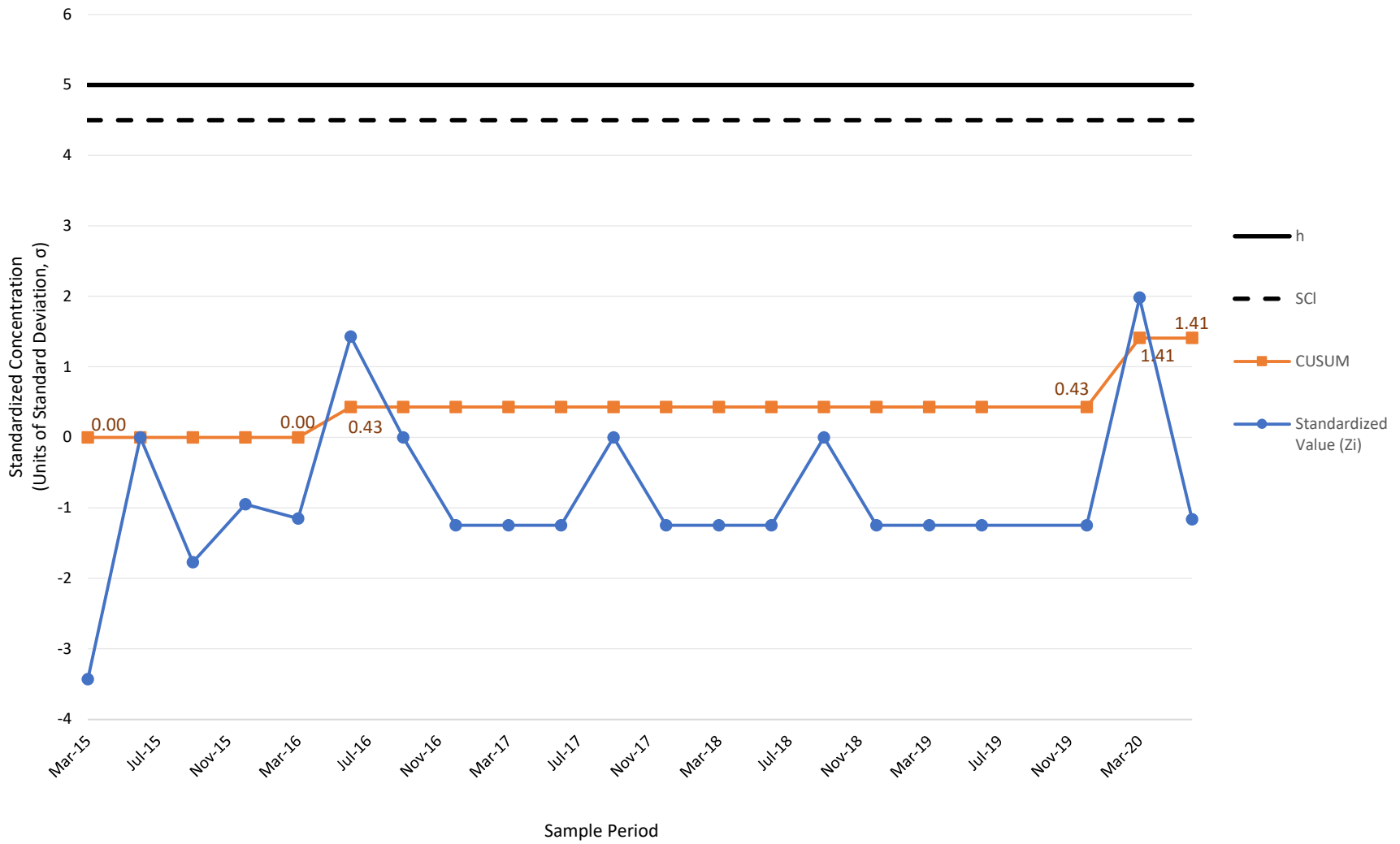
CUSUM Control Chart - Copper
Monitoring Well OW-14
Tiverton Landfill



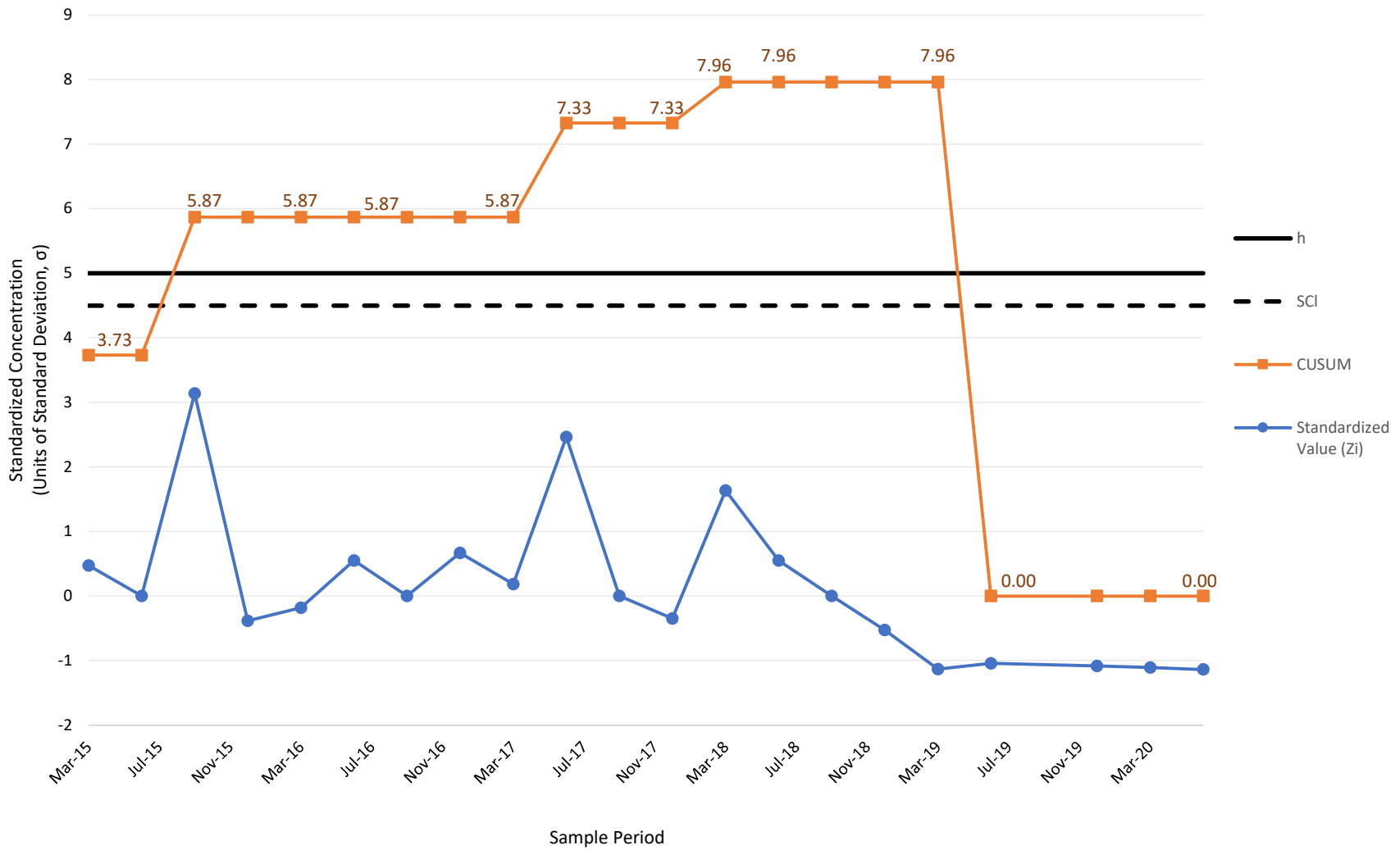
CUSUM Control Chart - Lead
Monitoring Well OW-14
Tiverton Landfill



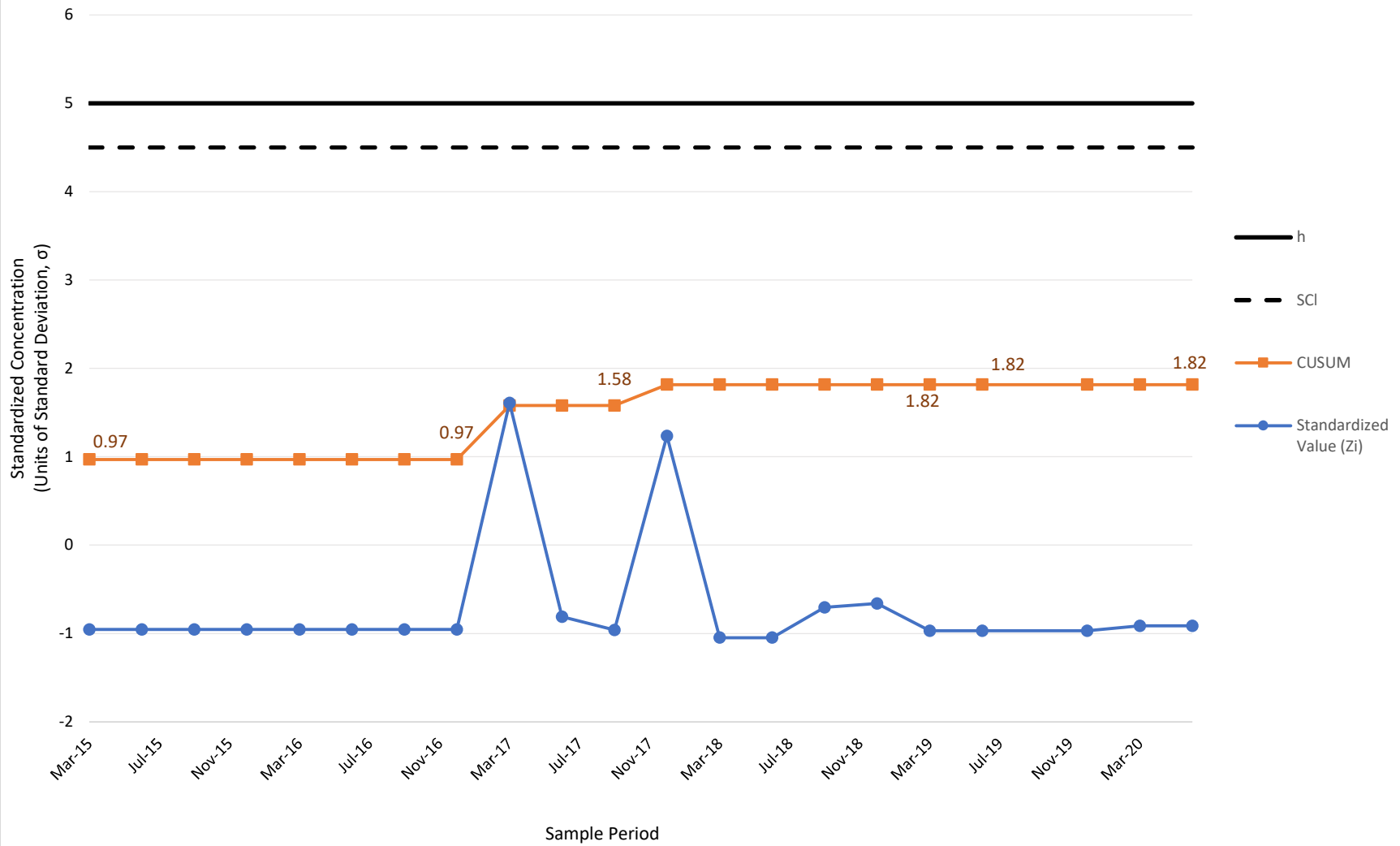
CUSUM Control Chart - Tin
Monitoring Well OW-14
Tiverton Landfill



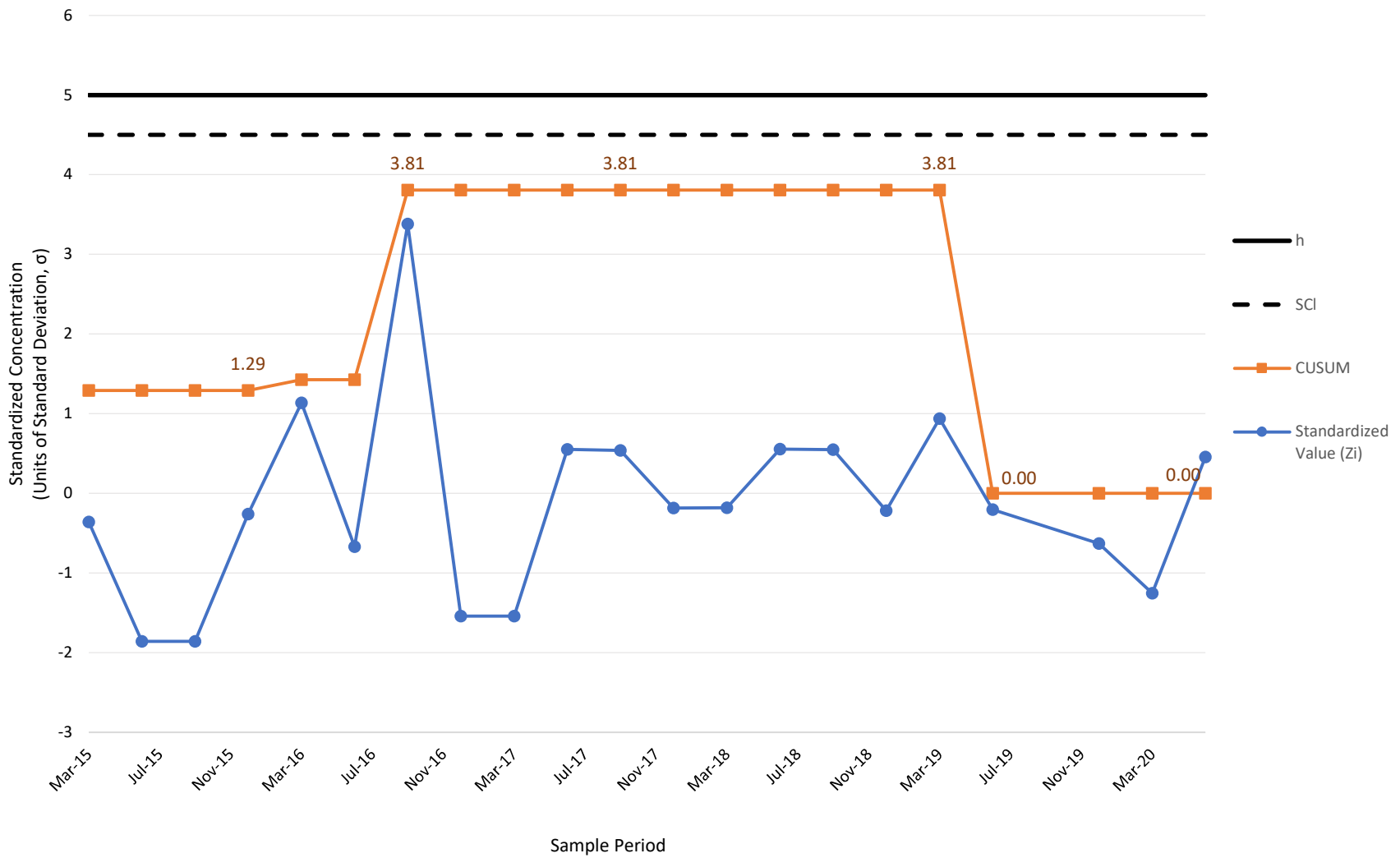
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Monitoring Well OW-14
Tiverton Landfill



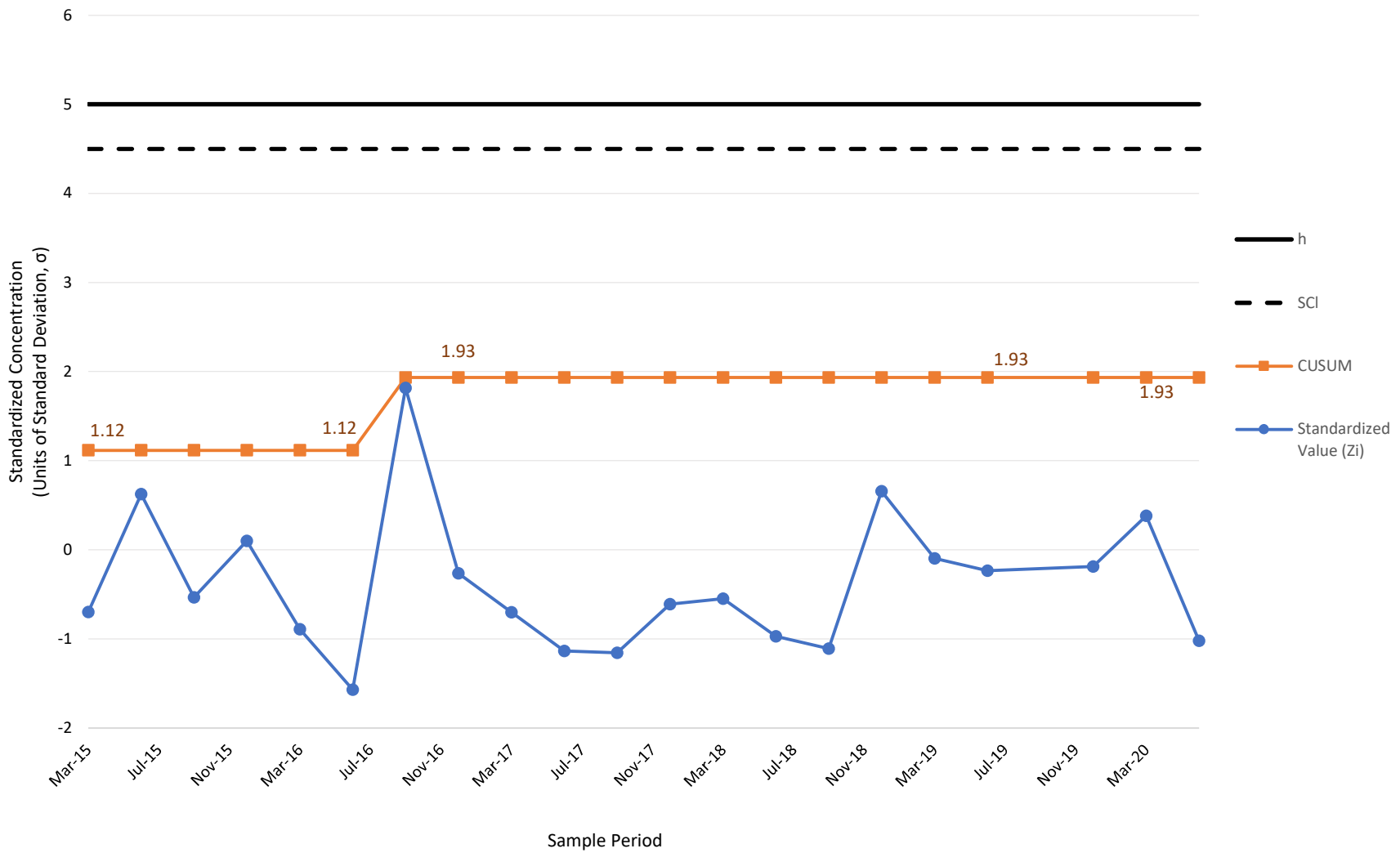
CUSUM Control Chart - Antimony
Monitoring Well OW-15
Tiverton Landfill



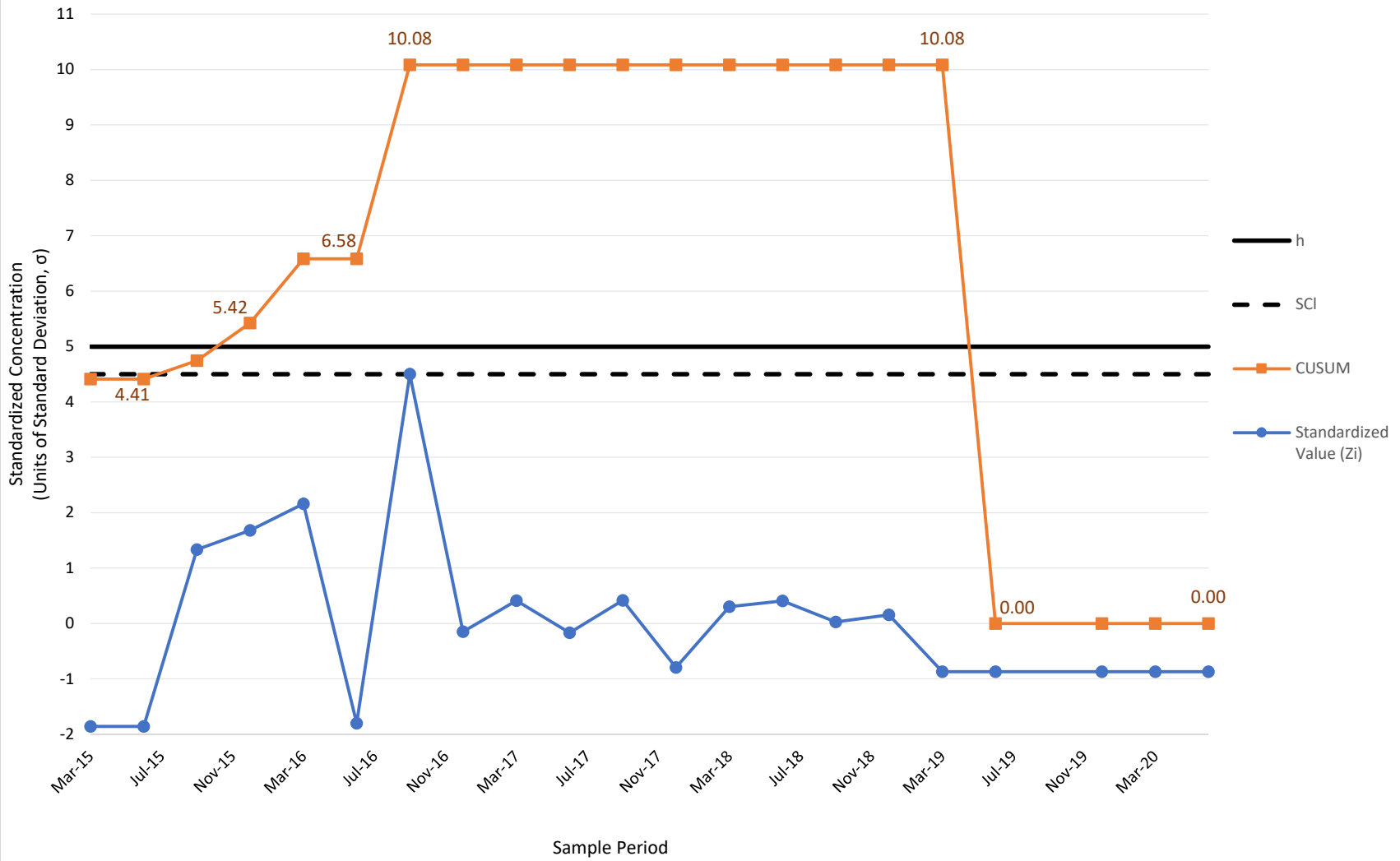
CUSUM Control Chart - Arsenic
Monitoring Well OW-15
Tiverton Landfill



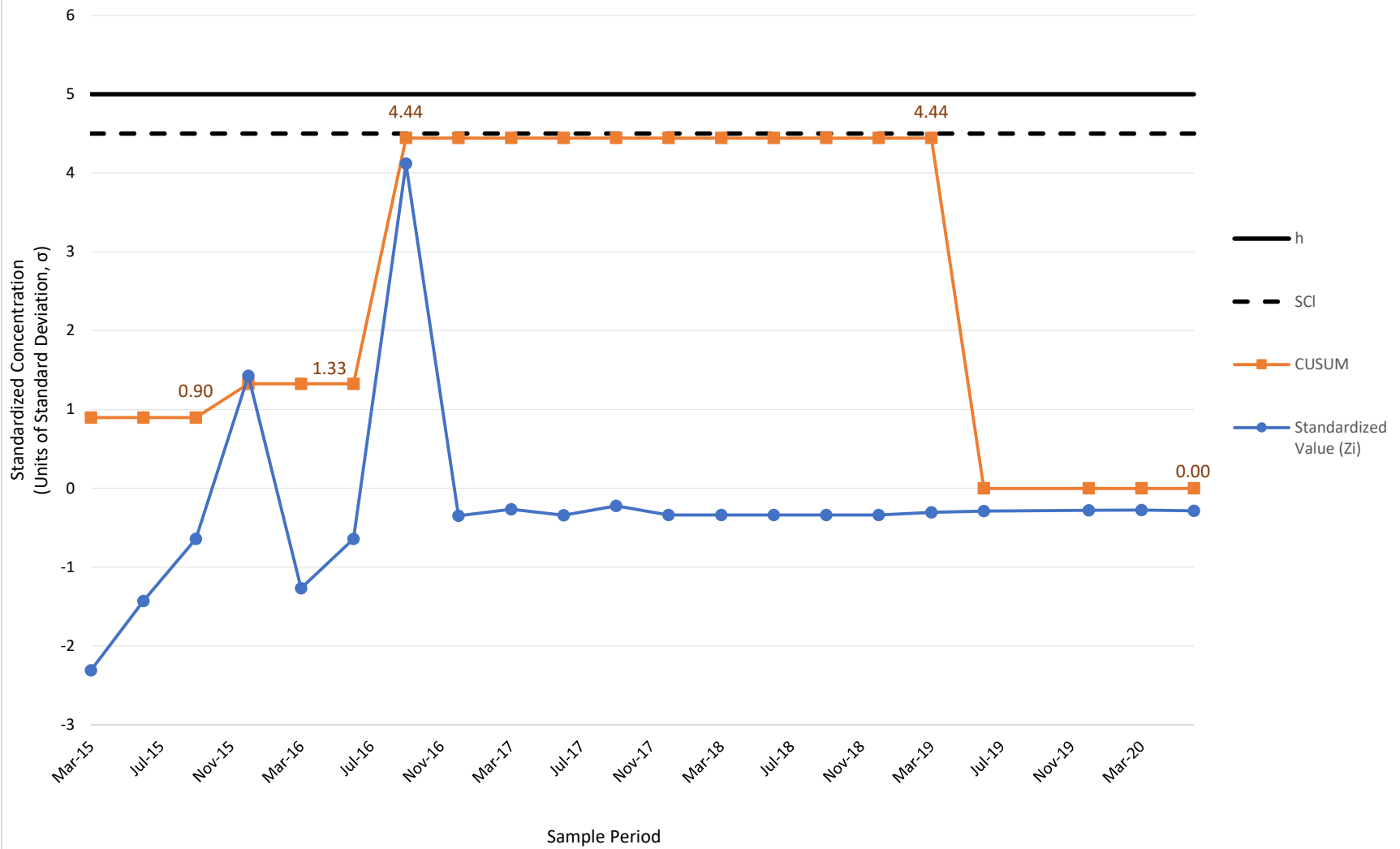
CUSUM Control Chart - Barium
Monitoring Well OW-15
Tiverton Landfill



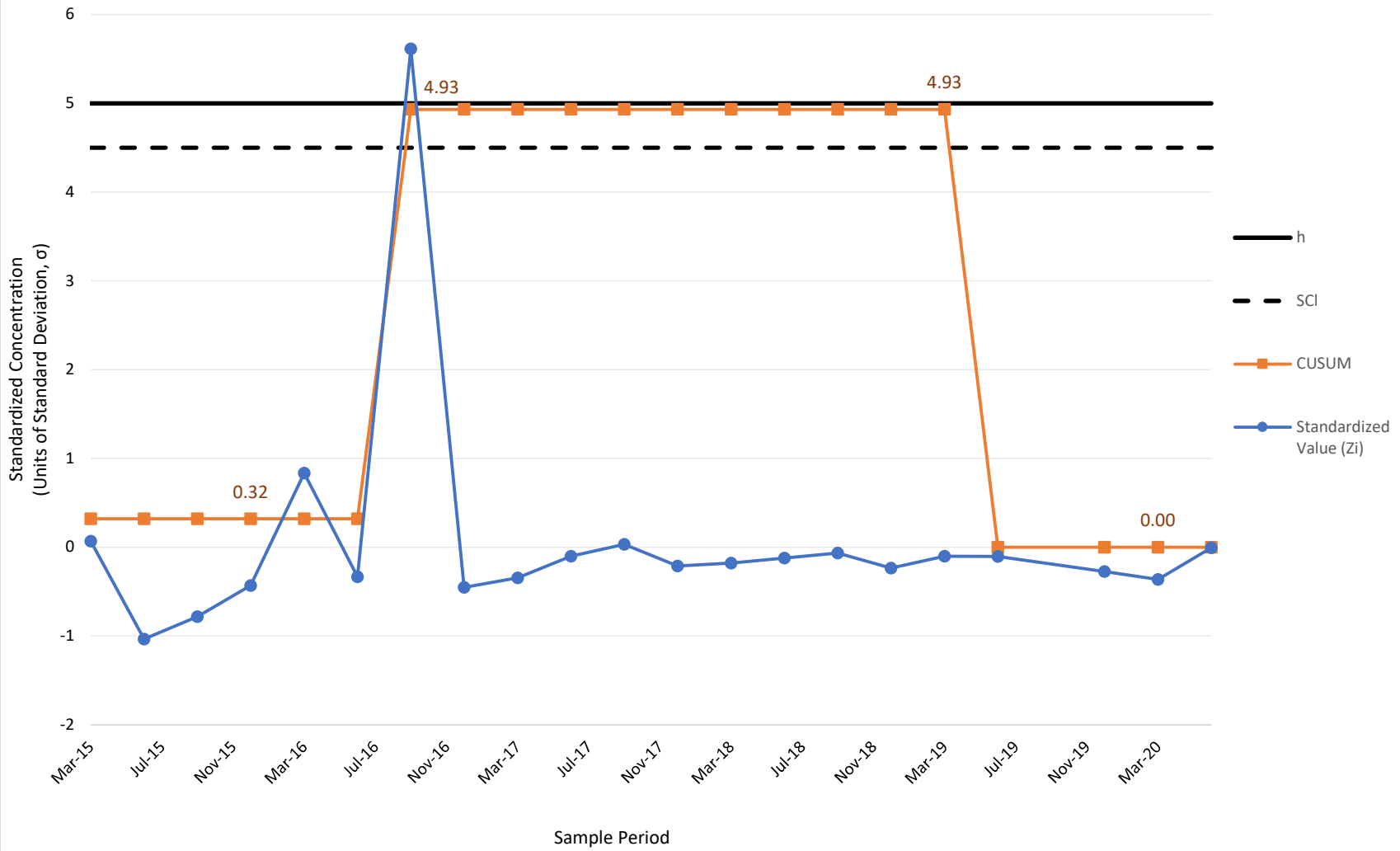
CUSUM Control Chart - Cadmium
Monitoring Well OW-15
Tiverton Landfill



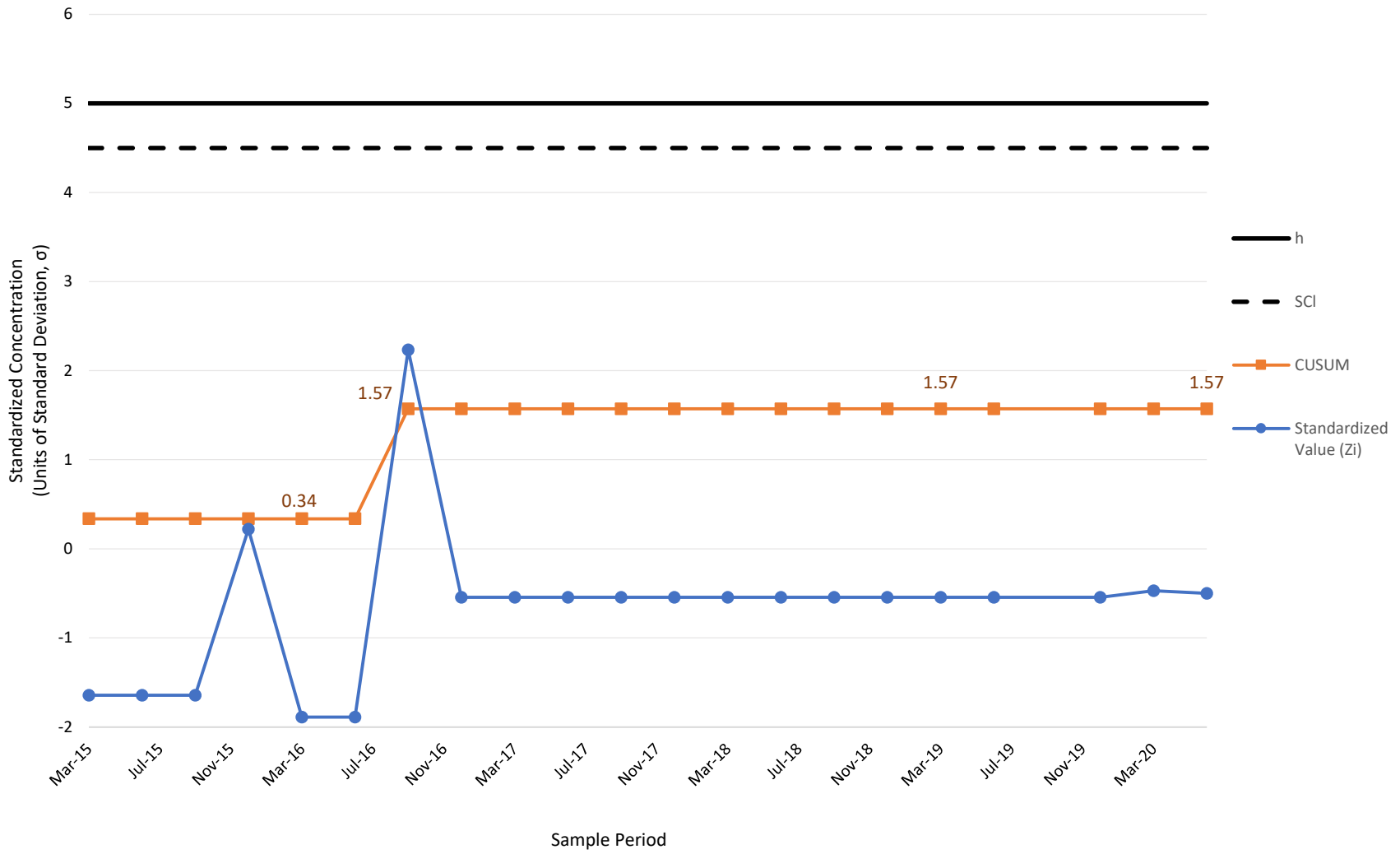
CUSUM Control Chart - Chromium
Monitoring Well OW-15
Tiverton Landfill



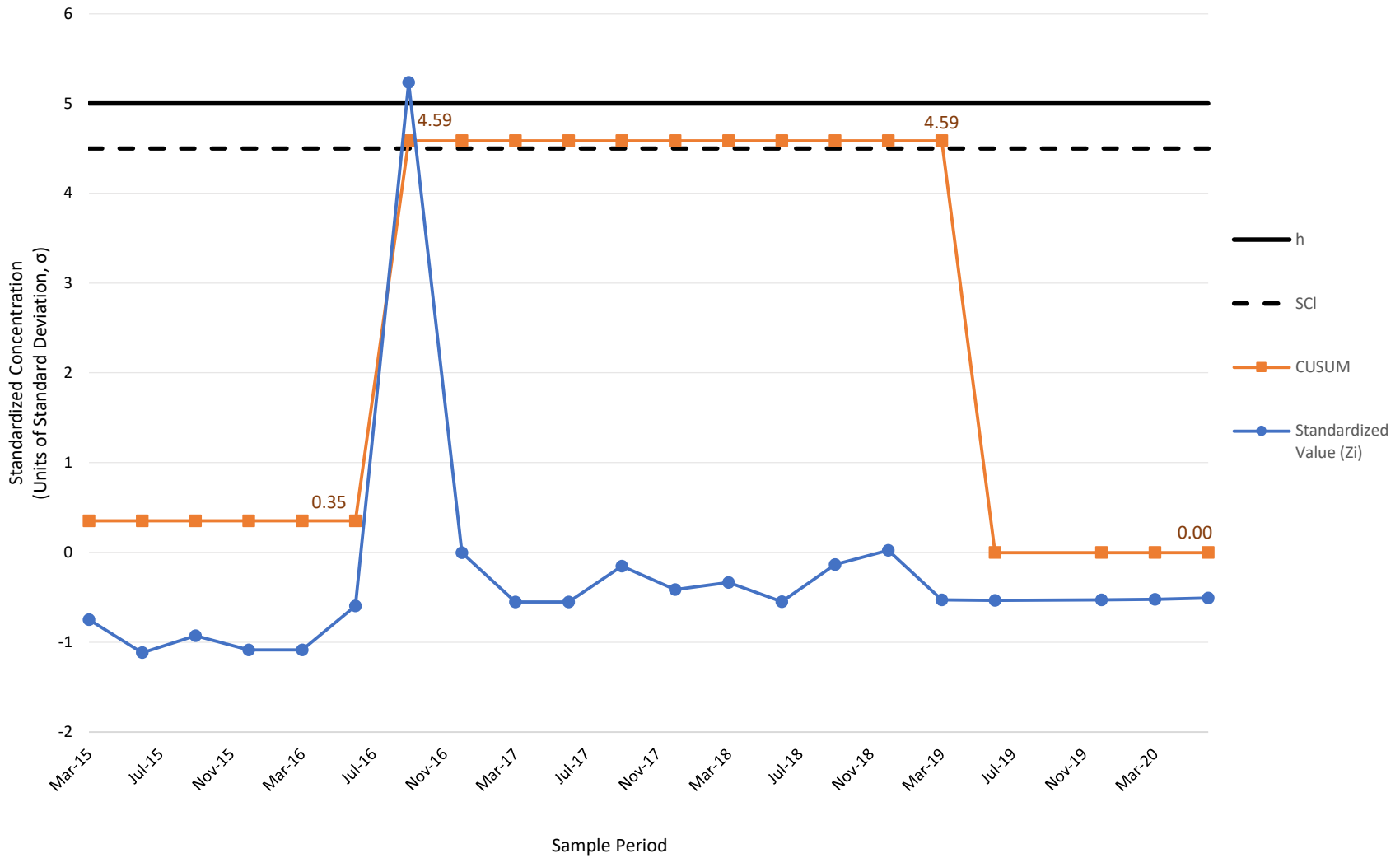
CUSUM Control Chart - Cobalt
Monitoring Well OW-15
Tiverton Landfill



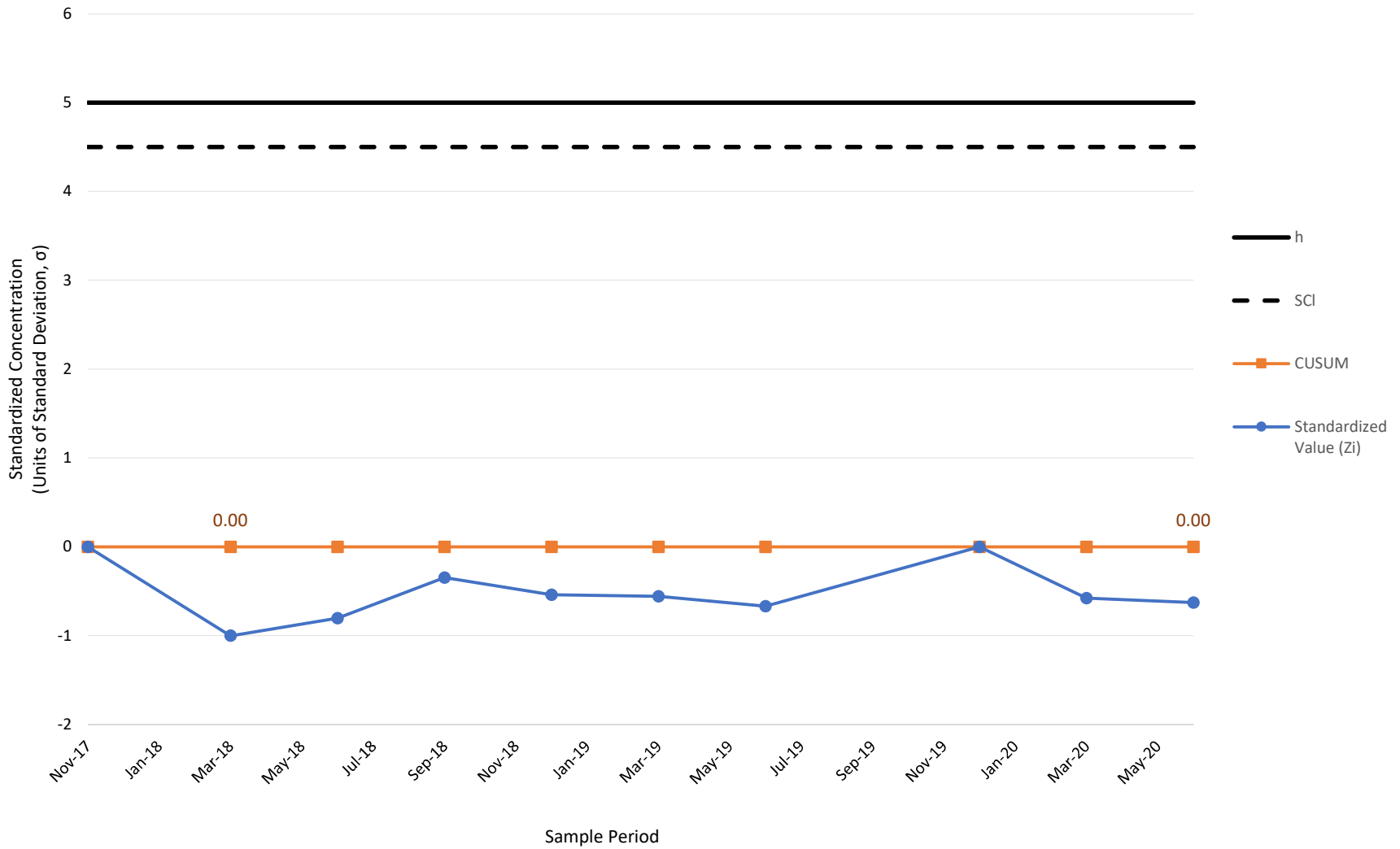
CUSUM Control Chart - Tin
Monitoring Well OW-15
Tiverton Landfill



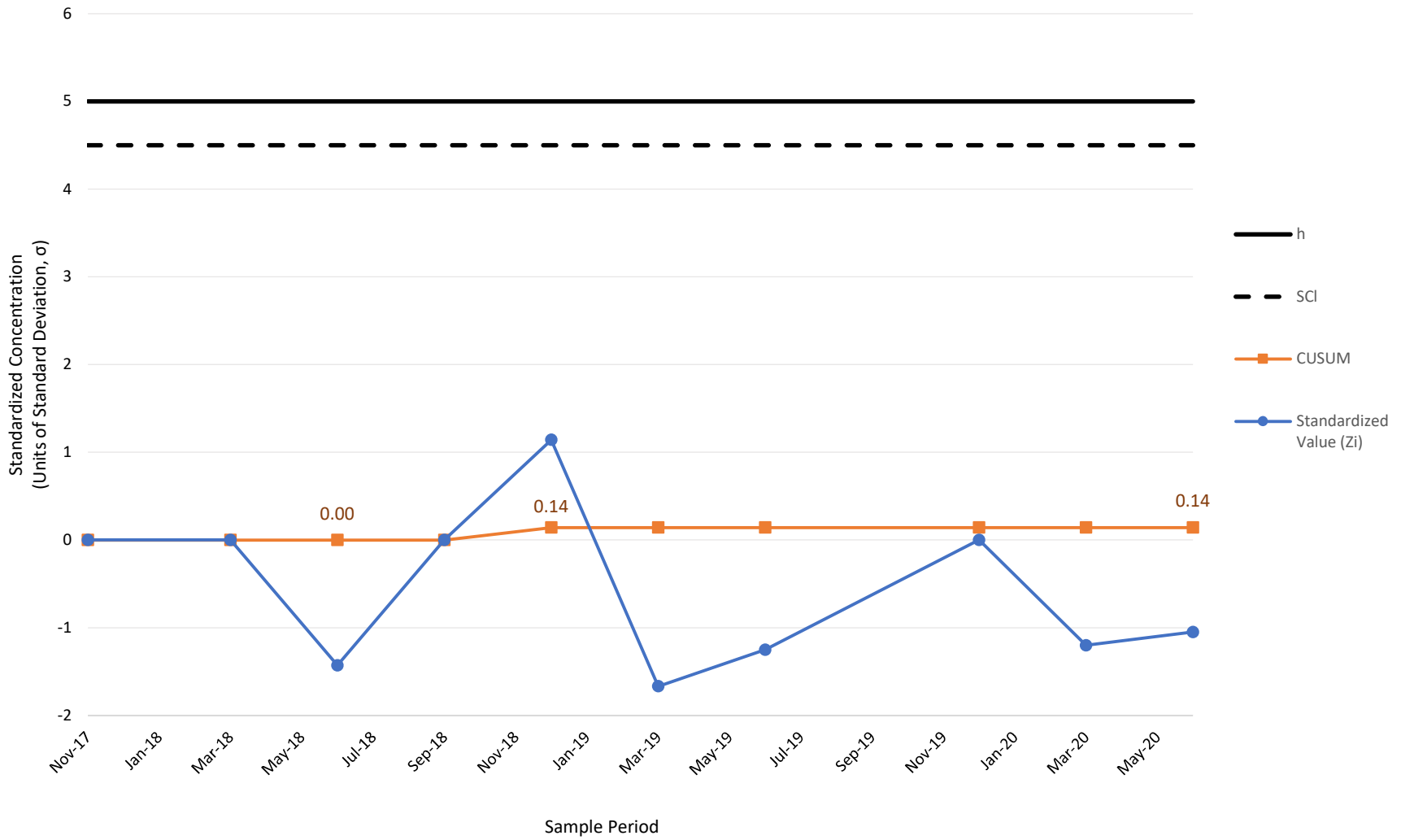
CUSUM Control Chart - Vanadium
Monitoring Well OW-15
Tiverton Landfill



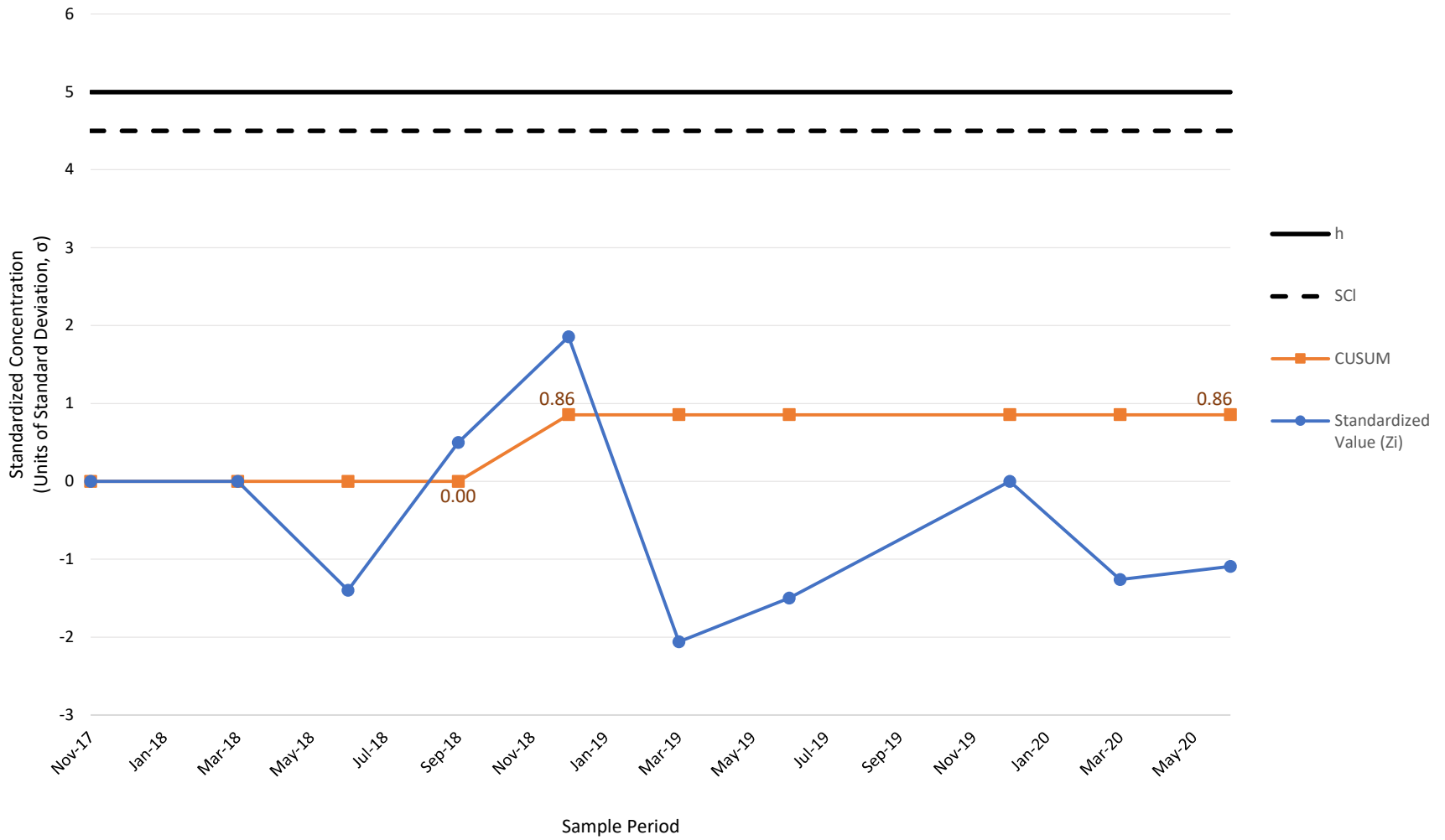
CUSUM Control Chart - Barium
Monitoring Well OW-16
Tiverton Landfill



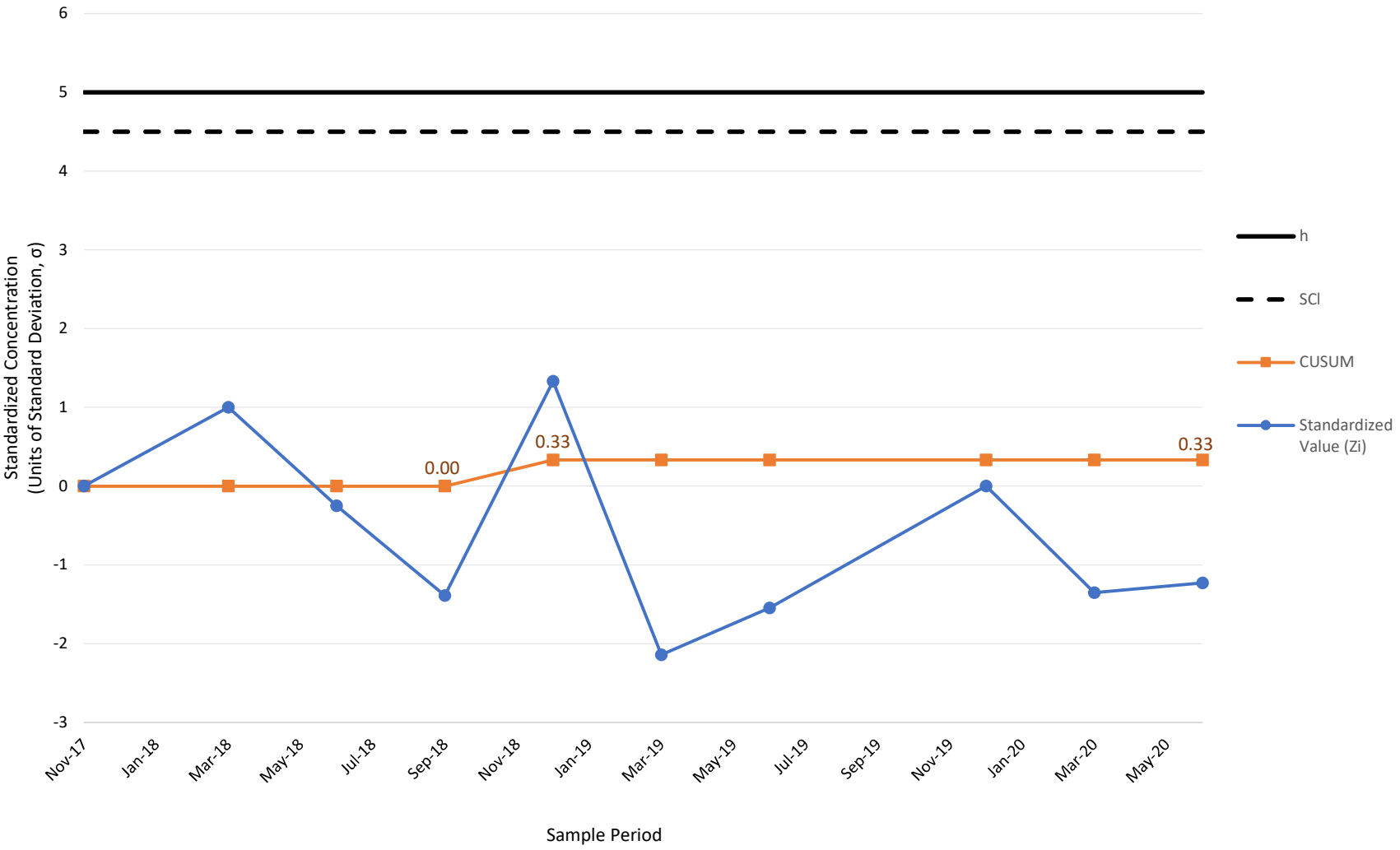
CUSUM Control Chart - Cobalt
Monitoring Well OW-16
Tiverton Landfill



CUSUM Control Chart - Nickel
Monitoring Well OW-16
Tiverton Landfill



CUSUM Control Chart - Zinc
Monitoring Well OW-16
Tiverton Landfill



Filename: Graphs.docx
Directory: C:\Users\ABarton\Desktop\94139.00 - Tiverton Landfill\94139.24\June
2020
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Author: Arianne Barton
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Last Saved On: 7/26/2020 11:15:00 PM
Last Saved By: Arianne Barton
Total Editing Time: 65 Minutes
Last Printed On: 7/26/2020 11:15:00 PM
As of Last Complete Printing
Number of Pages: 57
Number of Words: 16 (approx.)
Number of Characters: 94 (approx.)

ATTACHMENT 4

Laboratory Analytical Report, Surface Water Sampling





New England Testing Laboratory, Inc.
(401) 353-3420

REPORT OF ANALYTICAL RESULTS

NETLAB Work Order Number: 0F25069
Client Project: 94139 - Tiverton Landfill

Report Date: 01-July-2020

Prepared for:

Travis Johnson
Pare Corporation
8 Blackstone Valley Place
Lincoln, RI 02865

Richard Warila, Laboratory Director
New England Testing Laboratory, Inc.
59 Greenhill Street
West Warwick, RI 02893
rich.warila@newenglandtesting.com

Samples Submitted :

The samples listed below were submitted to New England Testing Laboratory on 06/25/20. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is 0F25069. Custody records are included in this report.

Lab ID	Sample	Matrix	Date Sampled	Date Received
0F25069-01	SW-1	Water	06/24/2020	06/25/2020
0F25069-02	SW-2	Water	06/24/2020	06/25/2020
0F25069-03	SW-3	Water	06/24/2020	06/25/2020

Request for Analysis (continued)

SW-2 (Lab Number: 0F25069-02) (continued)

Analysis

Silver
Thallium
Tin
Total Kjeldahl Nitrogen
Total Nitrogen
Total Phosphorous
Vanadium
Zinc

Method

EPA 200.8
EPA 200.8
EPA 200.8
SM4500-N-C (11)
Calculation
SM4500-P-E (11)
EPA 200.8
EPA 200.8

SW-3 (Lab Number: 0F25069-03)

Analysis

Ammonia
Antimony
Arsenic
Barium
Beryllium
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Mercury
Nickel
Nitrate and Nitrite as N
Nitrate as N
Nitrite as N
Selenium
Silver
Thallium
Tin
Total Kjeldahl Nitrogen
Total Nitrogen
Total Phosphorous
Vanadium
Zinc

Method

SM4500-NH3-D (11)
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
SM3120-B (11)
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
SM3120-B (11)
EPA 7470A
EPA 200.8
4500-N03-E
4500-N03-E
SM4500-N02-B (11)
EPA 200.8
EPA 200.8
EPA 200.8
EPA 200.8
SM4500-N-C (11)
Calculation
SM4500-P-E (11)
EPA 200.8
EPA 200.8

Method References

Methods for the Determination of Metals in Environmental Samples EPA-600/R-94/111, USEPA, 1994

Standard Methods for the Examination of Water and Wastewater, 20th Edition, APHA/ AWWA-WPCF, 1998

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, USEPA

Soil Survey Laboratory Methods Manual, USDA/NCRS, 2014

Case Narrative

Sample Receipt:

The samples associated with this work order were received in appropriately cooled and preserved containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Exceptions: None

Analysis:

All samples were prepared and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control requirements and allowances. Results for all soil samples, unless otherwise indicated, are reported on a dry weight basis.

Exceptions: None

Results: General Chemistry**Sample: SW-1****Lab Number: 0F25069-01 (Water)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Ammonia	0.3		0.1	mg/L	06/29/20	06/29/20
Kjeldahl Nitrogen	3.8		0.5	mg/L	06/29/20	06/29/20
Nitrate as N	0.0430		0.0370	mg/L	06/25/20 17:20	06/25/20 17:20
Nitrate and Nitrite as N	0.04		0.03	mg/L	06/25/20	06/25/20
Nitrite as N	ND		0.007	mg/L	06/25/20 17:20	06/25/20 17:20
Total Phosphorous	ND		0.10	mg/L	06/30/20	06/30/20
Total Nitrogen	3.84		0.500	mg/L	06/30/20	06/30/20

Results: General Chemistry**Sample: SW-2****Lab Number: 0F25069-02 (Water)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Ammonia	0.9		0.1	mg/L	06/29/20	06/29/20
Kjeldahl Nitrogen	4.0		0.5	mg/L	06/29/20	06/29/20
Nitrate as N	ND		0.0370	mg/L	06/25/20 17:20	06/25/20 17:20
Nitrate and Nitrite as N	ND		0.03	mg/L	06/25/20	06/25/20
Nitrite as N	ND		0.007	mg/L	06/25/20 17:20	06/25/20 17:20
Total Phosphorous	ND		0.10	mg/L	06/30/20	06/30/20
Total Nitrogen	4.00		0.500	mg/L	06/30/20	06/30/20

Results: General Chemistry**Sample: SW-3****Lab Number: 0F25069-03 (Water)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Ammonia	0.8		0.1	mg/L	06/29/20	06/29/20
Kjeldahl Nitrogen	93.4		1.0	mg/L	06/29/20	06/29/20
Nitrate as N	4.32		0.157	mg/L	06/25/20 17:20	06/25/20 17:20
Nitrate and Nitrite as N	4.32		0.15	mg/L	06/25/20	06/25/20
Nitrite as N	ND		0.007	mg/L	06/25/20 17:20	06/25/20 17:20
Total Phosphorous	17.3		1.00	mg/L	06/30/20	06/30/20
Total Nitrogen	97.7		1.00	mg/L	06/30/20	06/30/20

Results: Total Metals

Sample: SW-1

Lab Number: 0F25069-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Total Hardness	51.5		0.125	mg/L	06/26/20	06/29/20
Antimony	ND		0.0005	mg/L	06/26/20	06/26/20
Arsenic	0.0016		0.0005	mg/L	06/26/20	06/26/20
Barium	0.029		0.005	mg/l	06/26/20	06/26/20
Beryllium	ND		0.0005	mg/L	06/26/20	06/26/20
Cadmium	ND		0.0005	mg/L	06/26/20	06/26/20
Calcium	14.2		0.05	mg/L	06/26/20	06/29/20
Chromium	0.0036		0.0005	mg/L	06/26/20	06/26/20
Cobalt	0.0027		0.0005	mg/L	06/26/20	06/26/20
Copper	ND		0.005	mg/l	06/26/20	06/26/20
Iron	15.3		0.005	mg/l	06/26/20	06/26/20
Magnesium	3.90		0.05	mg/L	06/26/20	06/29/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	0.008		0.005	mg/l	06/26/20	06/26/20
Selenium	ND		0.025	mg/L	06/26/20	06/26/20
Silver	ND		0.0005	mg/L	06/26/20	06/26/20
Thallium	ND		0.0005	mg/L	06/26/20	06/26/20
Tin	ND		0.025	mg/l	06/26/20	06/26/20
Vanadium	0.0065		0.0025	mg/L	06/26/20	06/26/20
Zinc	0.269		0.005	mg/l	06/26/20	06/26/20
Lead	0.0151		0.0005	mg/L	06/26/20	06/26/20

Results: Total Metals

Sample: SW-2

Lab Number: 0F25069-02 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Total Hardness	23.5		0.125	mg/L	06/26/20	06/29/20
Antimony	ND		0.0005	mg/L	06/26/20	06/26/20
Arsenic	0.0011		0.0005	mg/L	06/26/20	06/26/20
Barium	0.015		0.005	mg/l	06/26/20	06/26/20
Beryllium	ND		0.0005	mg/L	06/26/20	06/26/20
Cadmium	ND		0.0005	mg/L	06/26/20	06/26/20
Calcium	5.90		0.05	mg/L	06/26/20	06/29/20
Chromium	0.0025		0.0005	mg/L	06/26/20	06/26/20
Cobalt	0.0035		0.0005	mg/L	06/26/20	06/26/20
Copper	ND		0.005	mg/l	06/26/20	06/26/20
Iron	7.08		0.005	mg/l	06/26/20	06/26/20
Magnesium	2.13		0.05	mg/L	06/26/20	06/29/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	0.005		0.005	mg/l	06/26/20	06/26/20
Selenium	ND		0.025	mg/L	06/26/20	06/26/20
Silver	ND		0.0005	mg/L	06/26/20	06/26/20
Thallium	ND		0.0005	mg/L	06/26/20	06/26/20
Tin	ND		0.025	mg/l	06/26/20	06/26/20
Vanadium	0.0031		0.0025	mg/L	06/26/20	06/26/20
Zinc	0.095		0.005	mg/l	06/26/20	06/26/20
Lead	0.0103		0.0005	mg/L	06/26/20	06/26/20

Results: Total Metals**Sample: SW-3****Lab Number: 0F25069-03 (Water)**

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Total Hardness	770		0.624	mg/L	06/26/20	06/29/20
Antimony	ND		0.0050	mg/L	06/26/20	06/26/20
Arsenic	0.0448		0.0050	mg/L	06/26/20	06/26/20
Barium	2.50		0.050	mg/l	06/26/20	06/26/20
Beryllium	ND		0.0050	mg/L	06/26/20	06/26/20
Cadmium	ND		0.0050	mg/L	06/26/20	06/26/20
Calcium	241		0.25	mg/L	06/26/20	06/29/20
Chromium	0.0906		0.0050	mg/L	06/26/20	06/26/20
Cobalt	0.0427		0.0050	mg/L	06/26/20	06/26/20
Copper	0.168		0.050	mg/l	06/26/20	06/26/20
Iron	903		0.050	mg/l	06/26/20	06/26/20
Magnesium	40.6		0.25	mg/L	06/26/20	06/29/20
Mercury	ND		0.0002	mg/L	06/29/20	06/29/20
Nickel	0.107		0.050	mg/l	06/26/20	06/26/20
Selenium	ND		0.250	mg/L	06/26/20	06/26/20
Silver	ND		0.0050	mg/L	06/26/20	06/26/20
Thallium	ND		0.0050	mg/L	06/26/20	06/26/20
Tin	ND		0.250	mg/l	06/26/20	06/26/20
Vanadium	0.155		0.0250	mg/L	06/26/20	06/26/20
Zinc	1.05		0.050	mg/l	06/26/20	06/26/20
Lead	0.539		0.0050	mg/L	06/26/20	06/26/20

Quality Control

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0F1104 - General Chemistry										
Blank (B0F1104-BLK1)										
Nitrate and Nitrite as N	ND		0.03	mg/L	Prepared & Analyzed: 06/25/20					
Blank (B0F1104-BLK2)										
Nitrate and Nitrite as N	ND		0.03	mg/L	Prepared & Analyzed: 06/25/20					
Blank (B0F1104-BLK3)										
Nitrate and Nitrite as N	ND		0.03	mg/L	Prepared & Analyzed: 06/25/20					
LCS (B0F1104-BS1)										
Nitrate and Nitrite as N	0.78		0.03	mg/L	0.800		97.4	90-110		
LCS (B0F1104-BS2)										
Nitrate and Nitrite as N	0.83		0.03	mg/L	0.800		104	90-110		
LCS (B0F1104-BS3)										
Nitrate and Nitrite as N	0.80		0.03	mg/L	0.800		99.6	90-110		
Duplicate (B0F1104-DUP1) Source: 0F24027-03										
Nitrate and Nitrite as N	2.83		0.15	mg/L		3.92			32.2	200
Matrix Spike (B0F1104-MS1) Source: 0F24027-03										
Nitrate and Nitrite as N	4.02		0.15	mg/L	0.800	3.92	12.5	80-120		
Batch: B0F1105 - Nitrite										
Blank (B0F1105-BLK1)										
Nitrite as N	ND		0.007	mg/L	Prepared & Analyzed: 06/25/20					

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0F1105 - Nitrite (Continued)										
Blank (B0F1105-BLK2)					Prepared & Analyzed: 06/25/20					
Nitrite as N	ND		0.007	mg/L						
Blank (B0F1105-BLK3)					Prepared & Analyzed: 06/25/20					
Nitrite as N	ND		0.007	mg/L						
LCS (B0F1105-BS1)					Prepared & Analyzed: 06/25/20					
Nitrite as N	0.093		0.007	mg/L	0.100		93.0	90-110		
LCS (B0F1105-BS2)					Prepared & Analyzed: 06/25/20					
Nitrite as N	0.097		0.007	mg/L	0.100		97.0	90-110		
LCS (B0F1105-BS3)					Prepared & Analyzed: 06/25/20					
Nitrite as N	0.093		0.007	mg/L	0.100		93.0	90-110		
Duplicate (B0F1105-DUP1)					Source: 0F24027-03		Prepared & Analyzed: 06/25/20			
Nitrite as N	ND		0.007	mg/L		ND				20
Matrix Spike (B0F1105-MS1)					Source: 0F24027-03		Prepared & Analyzed: 06/25/20			
Nitrite as N	0.064		0.007	mg/L	0.100	ND	64.0	80-120		
Batch: B0F1247 - Ammonia										
Blank (B0F1247-BLK1)					Prepared & Analyzed: 06/29/20					
Ammonia	ND		0.1	mg/L						
Blank (B0F1247-BLK2)					Prepared & Analyzed: 06/29/20					
Ammonia	ND		0.1	mg/L						

**Quality Control
(Continued)**

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0F1247 - Ammonia (Continued)										
LCS (B0F1247-BS1)										
Ammonia	1.0		0.1	mg/L	1.00		95.3	90-110		
LCS (B0F1247-BS2)										
Ammonia	0.9		0.1	mg/L	1.00		90.9	90-110		
Duplicate (B0F1247-DUP1) Source: 0F25017-01										
Ammonia	ND		0.1	mg/L		ND				20
Matrix Spike (B0F1247-MS1) Source: 0F25017-01										
Ammonia	0.6		0.1	mg/L	1.00	ND	62.9	80-120		
Batch: B0F1272 - TKN										
Blank (B0F1272-BLK1)										
Kjeldahl Nitrogen	ND		0.1	mg/L						
Blank (B0F1272-BLK2)										
Kjeldahl Nitrogen	ND		0.1	mg/L						
Batch: B0G0008 - Total phosphate										
Blank (B0G0008-BLK1)										
Total Phosphorous	ND		0.02	mg/L						
Blank (B0G0008-BLK2)										
Total Phosphorous	ND		0.02	mg/L						

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0G0008 - Total phosphate (Continued)										
LCS (B0G0008-BS1)										
Total Phosphorous	1.01		0.02	mg/L	1.00		101	90-110		
LCS (B0G0008-BS2)										
Total Phosphorous	1.08		0.02	mg/L	1.00		108	90-110		
Duplicate (B0G0008-DUP1)										
Total Phosphorous	ND		0.02	mg/L		ND				20
Matrix Spike (B0G0008-MS1)										
Total Phosphorous	0.90		0.02	mg/L	1.00	ND	89.8	80-120		

Quality Control
(Continued)

Total Metals

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0F1167 - Metals Digestion Waters										
Blank (B0F1167-BLK1)					Prepared & Analyzed: 06/26/20					
Cobalt	ND		0.0001	mg/L						
Cadmium	ND		0.0001	mg/L						
Beryllium	ND		0.0001	mg/L						
Barium	ND		0.001	mg/l						
Arsenic	ND		0.0001	mg/L						
Magnesium	ND		0.05	mg/L						
Silver	ND		0.0001	mg/L						
Calcium	ND		0.05	mg/L						
Chromium	ND		0.0001	mg/L						
Iron	ND		0.001	mg/l						
Selenium	ND		0.005	mg/L						
Antimony	ND		0.0001	mg/L						
Copper	ND		0.001	mg/l						
Tin	ND		0.005	mg/l						
Thallium	ND		0.0001	mg/L						
Vanadium	ND		0.0005	mg/L						
Zinc	ND		0.001	mg/l						
Nickel	ND		0.001	mg/l						
Lead	ND		0.0001	mg/L						
LCS (B0F1167-BS1)					Prepared: 06/26/20 Analyzed: 06/29/20					
Magnesium	10.3		0.05	mg/L	10.0		103	85-115		
Calcium	10.7		0.05	mg/L	10.0		107	85-115		
LCS (B0F1167-BS2)					Prepared & Analyzed: 06/26/20					
Nickel	0.194		0.001	mg/l	0.200		97.2	85-115		
Zinc	0.200		0.001	mg/l	0.200		99.9	85-115		
Vanadium	0.0200		0.0005	mg/L	0.0200		99.8	85-115		
Thallium	0.0197		0.0001	mg/L	0.0200		98.5	85-115		
Tin	0.020		0.005	mg/l	0.0200		102	85-115		
Selenium	0.020		0.005	mg/L	0.0200		101	85-115		
Chromium	0.0203		0.0001	mg/L	0.0200		102	85-115		
Silver	0.0206		0.0001	mg/L	0.0200		103	85-115		
Iron	0.184		0.001	mg/l	0.200		91.8	85-115		
Copper	0.188		0.001	mg/l	0.200		93.8	85-115		
Cobalt	0.0193		0.0001	mg/L	0.0200		96.5	85-115		
Cadmium	0.0191		0.0001	mg/L	0.0200		95.4	85-115		
Beryllium	0.0200		0.0001	mg/L	0.0200		100	85-115		
Barium	0.197		0.001	mg/l	0.200		98.3	85-115		
Arsenic	0.0199		0.0001	mg/L	0.0200		99.6	85-115		
Antimony	0.0200		0.0001	mg/L	0.0200		100	85-115		
Lead	0.0197		0.0001	mg/L	0.0200		98.7	85-115		

Quality Control
(Continued)

Total Metals (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B0F1238 - Metals Cold-Vapor Mercury										
Blank (B0F1238-BLK1)										
Mercury	ND		0.0002	mg/L						
					Prepared: 06/30/20 Analyzed: 06/29/20					
LCS (B0F1238-BS1)										
Mercury	0.0010		0.0002	mg/L	0.00100		103	85-115		
					Prepared: 06/30/20 Analyzed: 06/29/20					

Notes and Definitions

Item	Definition
Wet	Sample results reported on a wet weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.

ATTACHMENT 5

June 2020 Precipitation Data, Tiverton, RI



Record of Climatological Observations
 These data are quality controlled and may not be identical to the original observations.
 Generated on 07/26/2020

Observation Time Temperature: Unknown Observation Time Precipitation: Unknown

Year	Month	Day	Temperature (F)		At Observation	Precipitation					Evaporation		Soil Temperature (F)						
			24 Hrs. Ending at Observation Time			24 Hour Amounts Ending at Observation Time				At Obs. Time	24 Hour Wind Movement (mi)	Amount of Evap. (in)	4 in. Depth			8 in. Depth			
			Max.	Min.		Rain, Melted Snow, Etc. (in)	Flag	Snow, Ice Pellets, Hail (in)	Flag	Snow, Ice Pellets, Hail, Ice on Ground (in)			Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Max.	Min.	
2020	06	01				0.00		0.0											
2020	06	02				0.00		0.0											
2020	06	03				0.03													
2020	06	04				0.00		0.0											
2020	06	05				0.09													
2020	06	06				0.62													
2020	06	07				T													
2020	06	08				0.00		0.0											
2020	06	09				0.00		0.0											
2020	06	10				0.00		0.0											
2020	06	11				0.45													
2020	06	12				0.00		0.0											
2020	06	13				0.00		0.0											
2020	06	14				0.00		0.0											
2020	06	15				0.00		0.0											
2020	06	16				0.00		0.0											
2020	06	17				0.00		0.0											
2020	06	18				0.00		0.0											
2020	06	19				0.00		0.0											
2020	06	20				0.00		0.0											
2020	06	21				0.00		0.0											
2020	06	22				0.00		0.0											
2020	06	23				0.00		0.0											
2020	06	24				0.00		0.0											
2020	06	25				0.00		0.0											
2020	06	26				0.00		0.0											
2020	06	27				0.54													
2020	06	28				0.00		0.0											
2020	06	29				0.81													
2020	06	30				0.09													
Summary						2.63		0.0											

Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation or Snow category above indicate a "trace" value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.

ATTACHMENT 6

Charts of Historical Inorganic Compound Detections, Surface Water Sampling



ATTACHMENT 7

MTBE Historical Concentrations Graphs



Figure 1

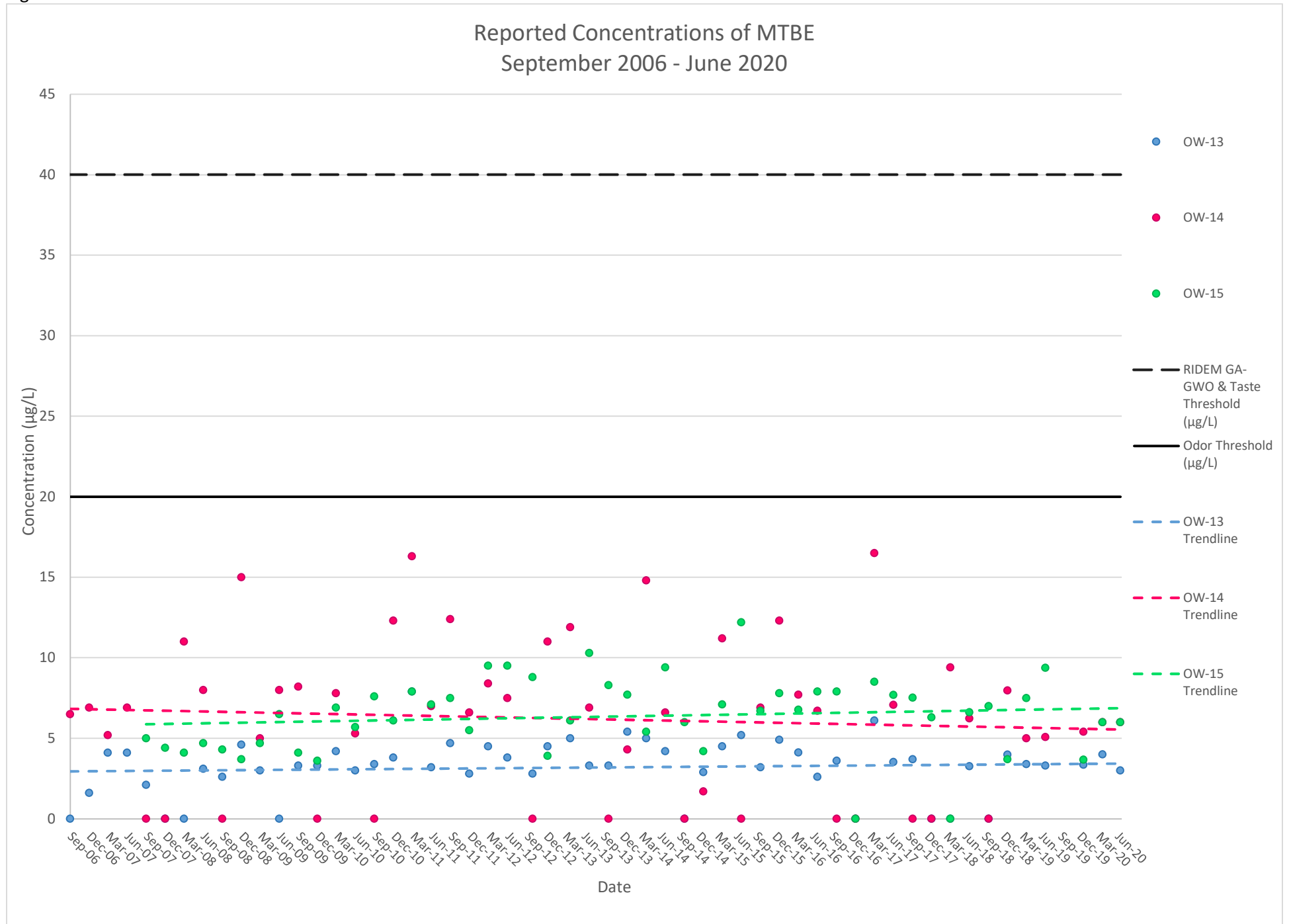
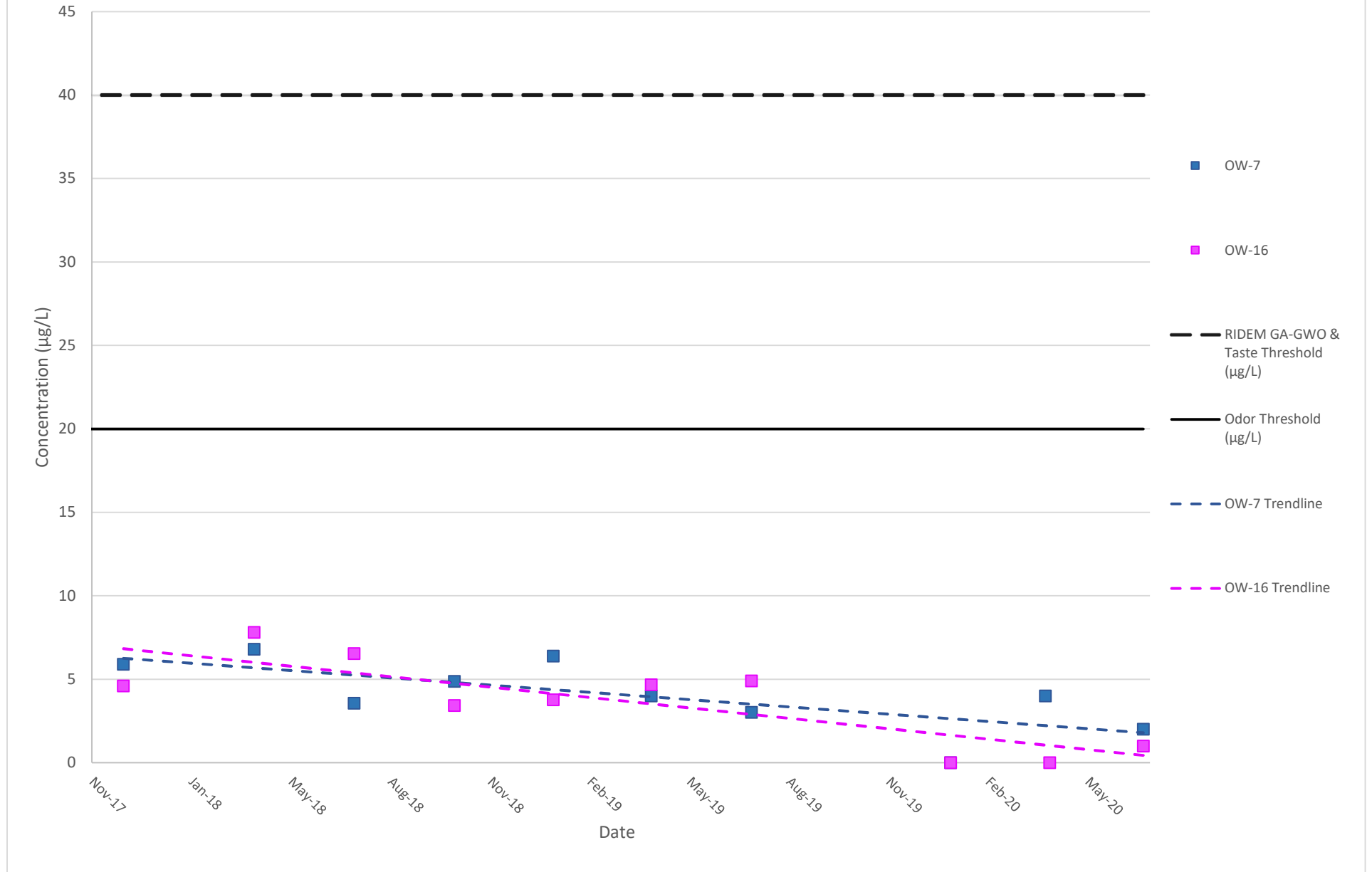


Figure 2

Reported Concentrations of MTBE Overburden (OW-7) vs. Bedrock (OW-16) Aquifer November 2017 - June 2020



Filename: MTBE Graphs.docx
Directory: C:\Users\ABarton\Desktop\94139.00 - Tiverton Landfill\94139.24\June
2020
Template: C:\Users\ABarton\AppData\Roaming\Microsoft\Templates\Normal.dot
m
Title:
Subject:
Author: Arianne Barton
Keywords:
Comments:
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