

**2021 ANNUAL ENVIRONMENTAL
MONITORING REPORT**

COFFIN BUTTE LANDFILL

BENTON COUNTY, OREGON

Prepared for

Valley Landfills, Inc.

March 23, 2022

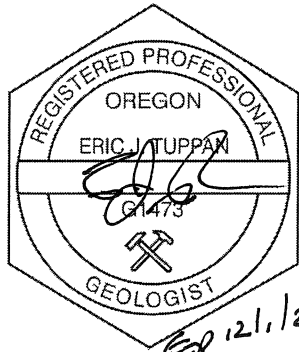
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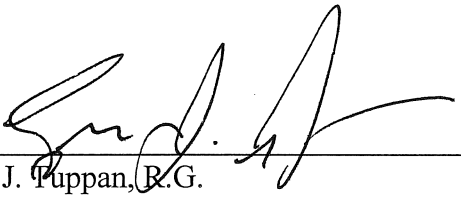
Project VLI-001-002

**2021 Annual Environmental Monitoring Report
Coffin Butte Landfill
Benton County, Oregon**

The material and data in this report were prepared under the supervision and direction of the undersigned.



TUPPAN CONSULTANTS LLC


Eric J. Tuppan, R.G.

CONTENTS

SIGNATURE PAGE	ii
LIST OF TABLES AND ILLUSTRATIONS	vi
EXECUTIVE SUMMARY	vii
1.0 INTRODUCTION	1-1
2.0 WATER QUALITY MONITORING	2-1
2.1 Monitoring Network	2-1
2.2 Sampling and Analysis Program	2-1
2.3 Data Quality	2-2
3.0 FINDINGS	3-1
3.1 Hydrogeology	3-1
3.1.1 Groundwater Occurrence and Flow	3-1
3.1.2 Groundwater Velocity	3-2
3.2 Water Quality	3-3
3.2.1 Groundwater	3-3
3.2.1.1 West Side Compliance Boundary	3-4
3.2.1.2 East Side	3-4
3.2.1.3 Former Leachate Irrigation Fields	3-5
3.2.2 Surface Water	3-6
3.2.3 Underdrains	3-6
3.3 Secondary Leachate Collection System (SLCS)	3-7
3.3.1 Cell 2	3-7
3.3.2 Cell 3	3-8
3.3.3 Cell 4	3-8
3.3.4 Cell 5	3-9
3.3.5 Leachate Ponds	3-9
3.4 Leachate Production	3-9
3.4.1 Overview of Leachate Management 2020-21 Water Year	3-10
3.4.2 Primary Leachate Management	3-10
3.4.2.1 Yearly Totals by Month	3-10
3.4.2.2 Review of Significant Leachate Management Events That Occurred During the Last Water Year	3-10

CONTENTS (Continued)

3.4.2.3	Review of Leachate Monitoring Procedures	3-11
3.4.2.4	Summary of Site Conditions and Compilation of Monitoring and Analysis Data	3-11
3.4.2.5	Summary of Reports for Monitoring Irrigation on Waste	3-12
3.4.2.6	Proposed Plans/Changes for Upcoming Leachate Management	3-12
3.5	Landfill Gas Monitoring	3-12
4.0	DISCUSSION	4-1
4.1	West Side	4-1
4.1.1	Aquifer Restoration-Contaminant Removal	4-1
4.1.1.1	Cells 1/1A	4-1
4.1.1.2	Former Closed Landfill	4-2
4.1.2	Source Control Effectiveness	4-2
4.1.3	Plume Stabilization	4-3
4.1.4	Protectiveness Monitoring	4-3
4.2	East Side	4-4
4.3	Comparison to Water Quality Standards	4-5
5.0	MONITORING PLAN MODIFICATIONS AND RECOMMENDATIONS	5-1
	REFERENCES	
	LIMITATIONS	

CONTENTS (Continued)

APPENDIX A DATA REVIEW MEMORANDA

APPENDIX B 2021 WATER QUALITY SUMMARY TABLES

**APPENDIX C TIME-SERIES CONCENTRATION PLOTS
(IN PDF ON ATTACHED CD)**

**APPENDIX D SLCS AND LCRS DATA
(IN PDF ON ATTACHED CD)**

**APPENDIX E FIELD SAMPLING DATA SHEETS AND LABORATORY
REPORTS (IN PDF ON ATTACHED CD)**

**APPENDIX F HISTORICAL WATER QUALITY DATABASE
(IN EXCEL ON ATTACHED CD)**

TABLES AND ILLUSTRATIONS

Following Report:

Tables

- 2-1 Description of Monitoring Network
- 2-2 Well Construction Summary
- 2-3 Monitoring Program
- 3-1 Groundwater and Surface Water Elevations
- 3-2 VOC Detections
- 3-3 Water Year Summary for Cell 2 SLCS Volume Data
- 3-4 Summary of 2020-2021 Leachate Volumes
- 3-5 Landfill Gas Monitoring
- 4-1 Comparison of Sampling Results with RACLs, Compliance Wells - West Side
- 4-2 Comparison of Sampling Results with SSLs, East Side Compliance Wells
- 4-3 Sample Results Above Drinking Water Standards

Figures

- 1-1 Site Location
- 3-1 Hydrographs for Eastside Wells
- 3-2 Hydrographs for Upgradient Bedrock Wells
- 3-3 Hydrographs for Cell 1A Area Wells
- 3-4 Hydrographs for Cell 1 Area Wells
- 3-5 Groundwater Contours, April 15, 2021
- 3-6 Groundwater Contours, October 14, 2021

EXECUTIVE SUMMARY

This annual report provides a summary of the water quality monitoring activities at Coffin Butte Landfill during 2021. Coffin Butte Landfill, located in Benton County, Oregon, is a municipal solid waste landfill owned and operated by Valley Landfills, Inc. (VLI). Environmental monitoring and associated reporting is required by the landfill's solid waste disposal permit number 306, issued and administered by the Oregon Department of Environmental Quality (DEQ).

During 2021, no significant changes in water quality were measured. Volatile organic compound (VOC) concentrations in wells along the west-side compliance boundary were below primary drinking water standards including at well MW-12S, where the long term trend for tetrachloroethene (PCE) continues downward. Most other VOC concentrations have declined to below 2 µg/L at west-side compliance wells and several inorganic parameters were present above background concentrations. Since the landfill cover was installed on Cells 1/1A in 1996 and landfill gas removal wells were installed in Cell 1 in 1994, the number and concentrations of VOCs have declined over the long term in compliance wells.

Downgradient of the former Closed Landfill, groundwater quality trends are stable as well. Based on the age of the landfill and completion of source removal in 2022, it is expected that the existing low level impacts will diminish with time.

At the compliance boundary for Cells 4 and 5 on the east side, the primary drinking water standard for arsenic was exceeded, but these concentrations represent natural background conditions. Sampling results at MW-26 and MW-27 were below statistically calculated site specific limits (SSLs) for most of the indicator parameters. Manganese was marginally above the limit at MW-27 for both sampling events. No action is required with the exceedance of one SSL.

Leachate production for the water year 2020-2021 was estimated at approximately 32.3 million gallons. This was generated by Cells 1 through 5 during the water year ending September 30, 2021. VLI continues to monitor the secondary leachate collection systems (SLCS) beneath Cells 2, 3, 4, and 5.

1.0 INTRODUCTION

The Annual Environmental Monitoring Report (AEMR) presents results of water quality and landfill gas probe monitoring during the 2021 calendar year at the Coffin Butte Landfill in Benton County, Oregon (Figure 1-1), operated by Valley Landfills, Inc. (VLI). TUPPAN CONSULTANTS LLC oversaw sampling, managed the water quality data, and prepared this annual report. Annual reporting is required by Section 19.0 of the landfill's solid waste disposal permit number 306, issued by Oregon Department of Environmental Quality (DEQ) on July 28, 2020.

As defined in the Environmental Monitoring Plan (EMP) (TC, 2014b), the annual report serves as the mechanism to (1) collate and report analytical data for the past year, (2) assess achievement of remedial goals for the west side, and (3) evaluate detection monitoring data for east-side cells as it relates to performance of the engineered liner systems for the active waste management units. The last two items will be discussed in Section 4 of the annual report.

For the west side, the purpose of the report is to assess (1) the effect of remedial actions on groundwater quality (i.e., assess progress of cleanup) and (2) the protection of potential human health receptors. Consequently, the report focuses data evaluation on the following objectives:

- Assess aquifer restoration and contaminant removal rates based on concentration trends.
- Evaluate the effectiveness of source control.
- Evaluate stabilization of the plume based on the extent and concentration of volatile organic compounds (VOCs).
- Discuss results of protectiveness monitoring at domestic wells and at early warning detection wells.

For the east side, the report compares analytical results to site specific limits (SSLs) and permit specific concentration limits (PSCLs) and examines the data for indications of a significant change as described in Section 4.2. Results are also compared to relevant water quality standards.

Consistent with solid waste permit requirements, municipal solid waste guidance (DEQ, 1996), and the updated EMP, the annual report contains the following:

- A cover letter that:
 - Compares the analytical results with relevant monitoring standards.
 - States whether federal or state standards were exceeded for the relevant media.
 - States whether a significant change in water quality occurred or methane levels were exceeded.
- An executive summary.
- Assessment of the current status of the environmental monitoring network and recommendations for improvements.
- Data analysis and evaluation, based on the following:
 - Updated groundwater elevation information for each sampling event and monitored unit, depicting groundwater flow velocities and direction, and piezometric water contours.
 - Data evaluation tools (e.g., time-series plots) for selected constituents of concern to be used in assessing data.
 - Results of a major ion balance for each groundwater monitoring well that was sampled for major anions and cations during split sampling events (this did not occur in 2021).
 - Summary of results of monitoring for the year, including a table that compares results with relevant water quality standards.
- Description of activities resulting from exceeding a relevant standard or significant change in water quality, such as resampling or additional investigation.
- Results of LFG probe monitoring (monitoring related to operations of the gas-to-electric plant are not reported as part of the environmental monitoring program).
- Findings from the leachate management program.
- Summary of sampling and analysis, field quality assurance and quality control (QA/QC), and laboratory QA/QC techniques implemented during the year.
- Copies of applicable information, including field data, laboratory analytical reports, and chain-of-custody reports; data are cross-referenced and labeled with the designated field sampling location.

In addition to these elements, the Western Region of the DEQ has requested that facilities provide an historical database for the landfill each year to be archived at the DEQ. For the Coffin Butte Landfill, this database is currently maintained for Republic Services in a

program called Project Direct and managed by Trihydro Corporation. Similar to past years, and because of the size of the database (thousands of pages of data), we are providing an export of the requested data in Microsoft Excel organized by monitoring point and analytical parameter class. This can be found as Appendix F on the attached CD.

Similar to last year (TC, 2021), this year's annual report presents appendix material in Portable Document Format (PDF) to reduce paperwork, consistent with DEQ policy. This applies to trend plots and data summations in Appendices C and D, as well as field sampling sheets and laboratory reports (Appendix E).

2.0 WATER QUALITY MONITORING

2.1 Monitoring Network

The water quality monitoring network has five components: (1) groundwater monitoring wells, which include compliance and detection wells, (2) water level observation wells and piezometers, (3) the secondary leachate collection system (SLCS), (4) leachate sumps, and (5) surface water monitoring points. In addition to water quality, landfill gas is monitored at probes surrounding the landfill, and in buildings or structures near the landfill. The rationale for the network design and the media monitored was presented in the EMP (TC, 2014b). The water quality monitoring locations are summarized on Table 2-1. A summary of the well construction, survey information, and lithologic completion intervals is provided in Table 2-2.

2.2 Sampling and Analysis Program

Water quality monitoring in 2021 was conducted consistent with the currently approved EMP for Coffin Butte Landfill (TC, 2014b), which presents monitoring rationale, sampling and analysis parameters, locations, and a schedule. The frequency of monitoring, the sampling points, and the analytical parameters tested in 2021 are summarized in Table 2-3.

Water was sampled consistent with procedures described in the site sampling and analysis plan in Appendix C of the EMP. Samples were collected by staff from Quality Technical Services, Inc., under contract to TUPPAN CONSULTANTS and submitted to TestAmerica Laboratories, Inc., in Denver, Colorado.

In 2021, samples were not collected as follows:

- Second Quarter: LDS-WLP and LDS-ELP were dry and not sampled.
- Fourth Quarter: LDS-WLP, LDS-ELP, and S-U5 were dry and not sampled.

Memoranda that document field sampling procedures, copies of field sampling data sheets that record measurements for the sampling events, and laboratory reports are included in Appendix E in PDF on a CD attached to the inside back of the report cover.

2.3 Data Quality

Results of laboratory quality assurance and quality control data indicate acceptable results as qualified by data review memoranda (Appendix A). TestAmerica's standard laboratory reporting limits (RLs) for several of the trace metals are higher than reporting limit goals devised by the DEQ at 10 percent of the primary drinking water standard. The laboratory reports at lower values to meet these goals, although the laboratory must qualify the data as estimated ("J" qualified) since the resultant values are below the standard laboratory RL, but above the instrument method detection limit. Qualified data are discussed in the memoranda in Appendix A (along with a table comparing the various reporting limits) and listed in the summary tables in Appendix B.

Toluene was detected at estimated "J" concentrations in compliance well MW-27 at 0.24 µg/L and at LDS-2B at 0.49 µg/L in the April event. Toluene was also detected at low to trace concentrations (below 1.6 µg/L) in samples from several wells in the October event. Toluene is commonly found at these low or trace concentrations below the reporting limit both in samples and as a laboratory contaminant, although for these sampling events, it was not detected in method, trip, or field blanks. However, even though these sample results are not being qualified as nondetect based on blank results, the concentrations are consistent with laboratory contamination given the prevalence across site wells at low concentrations and historical detections in blanks for this project.

3.0 FINDINGS

The discussion of hydrogeology is summarized from sections on site characterization in past reports and the EMP (EMCON, 1994, 1996, 2000; TC, 2003a,b, 2014b).

3.1 Hydrogeology

The landfill is along the south flank of Coffin Butte. In undeveloped areas of the site, the upper third of the butte consists of steep grass-covered slopes, the middle third of exposed bedrock with little vegetation, and the lower third of gentle, soil-covered slopes. Generally, the steeper slopes are underlain by basalt bedrock and the lower, flatter slopes on the flanks of Coffin Butte are underlain by alluvium that consists of silty clay to clayey silt with variable amounts of thin, interbedded sands and silty to sandy gravels (commonly referred to as Willamette Silt).

There are two principal water-bearing units: unconsolidated alluvium, and weathered to unweathered bedrock volcanics. Groundwater occurs in both units, although the alluvial deposits are absent or unsaturated over much of the site where landfill occurs. Where both units are present, they are hydraulically connected. The two units are monitored separately by groundwater monitoring wells.

3.1.1 Groundwater Occurrence and Flow

Depth to groundwater depends on season and topography. In site wells, the groundwater depths normally range from over 80 feet below the ground surface midway up the slopes of Coffin Butte (in bedrock) to less than 1 foot in the flat lowland area southeast of the butte (in alluvium). East of Cells 2 through 4, potentiometric elevations measured during the wet winter and spring months are near or higher than the ground surface elevation, indicating the potential for groundwater to discharge in this area.

Table 3-1 summarizes the groundwater elevations for 2021. Seasonal fluctuations vary with hydrogeologic position of the monitoring point. Last year, seasonal changes ranged from less than 1 foot in MW-23 and MW-26, to almost 9 feet in MW-3D. Historical measurements at well MW-13, which was just above Cell 3 and decommissioned in 2012, typically varied from 30 to 40 feet between winter and fall in a normal year.

Figures 3-1 to 3-4 illustrate the range of seasonal fluctuations for typical site wells in comparable hydrogeologic positions. Last year, the average site-wide fluctuation in

monitoring wells and piezometers was approximately 3.3 feet, with the lowest groundwater elevations in late summer to fall and the highest in winter and spring.

Over the long term, subtle water level trends have developed in several wells at the base of Cells 1/1A. Figures 3-3 and 3-4 show progressively higher groundwater levels from the early to late 1990s, and then decreasing until about 2005, at which time lower elevations continued until 2010. In 2010-11, water levels increased slightly and then appear to have decreased in subsequent years until 2016. Then, beginning in 2017, water levels appeared to reset slightly higher, beginning a new decreasing trend.

The direction of groundwater flow is controlled by the topographic setting of Coffin Butte and Poison Oak Hill and the intervening low areas. Groundwater in the bedrock generally flows downslope from the hills until it reaches a groundwater divide near the southeast corner of Cell 1. At the divide, groundwater flows toward the east and west, generally following the long axes of the valleys. Groundwater flow direction in the saturated portion of the alluvium mimics the underlying bedrock.

Groundwater contours for the site are illustrated on Figures 3-5 and 3-6. The groundwater elevations are from wells screened either in the alluvium or the bedrock, both weathered and fresh. Compared to horizontal distances between wells, the vertical gradients between saturated alluvium and bedrock at well pairs are small, and do not substantially affect the site's groundwater flow pattern or horizontal gradients over larger distances.

Factors affecting the groundwater gradients include the topographic slope, hydrogeologic material, and the season. The steepest horizontal gradients measured at the site are on the upper flanks of Coffin Butte. These range from approximately 0.06 to 0.09 foot per foot (ft/ft) just east of Cell 1, to 0.22 ft/ft downslope of piezometer P-22. Smaller gradients are an order of magnitude lower, approximately 0.013 to 0.014 ft/ft, along Coffin Butte Road (in alluvium between MW-24 and MW-8S) to 0.018 ft/ft beneath Cell 4 (upgradient of MW-26). On the west side of the landfill, gradients average approximately 0.006 to 0.008 ft/ft downgradient of Cells 1 and 1A. Downgradient of the former Closed Landfill, the gradient is relatively consistent between seasons at approximately 0.062 to 0.074 ft/ft.

3.1.2 Groundwater Velocity

Groundwater velocity depends on hydraulic conductivity,¹ horizontal hydraulic gradient, and effective porosity of the water-bearing medium. The horizontal velocity (V_h) of groundwater is calculated by the following equation:

¹ The mean hydraulic conductivity for alluvium and bedrock was evaluated from pumping and slug test data collected from 1985 to 1993 as reported in the remedial investigation (EMCON, 1994). Geometric means were calculated for each unit after examining boring logs to verify hydrogeologic unit. Revisions to the values used in annual reports from before 2009 are as follows: Alluvium: 0.22 ft/day (old value 0.062 ft/day); Bedrock: 2.7 ft/day (old value 4 ft/day).

$$V_h = Ki/n_e$$

where

V_h = horizontal groundwater velocity.

K = hydraulic conductivity.

i = horizontal hydraulic gradient.

n_e = effective porosity.

Estimates of V_h were calculated at the Coffin Butte Landfill for several areas: on the east side, beneath Cell 4, and on the west side, downgradient of Cell 1 and the former Closed Landfill. Beneath Cell 4, V_h is calculated at approximately 5.7 ft/yr, given a hydraulic conductivity of 0.22 ft/day for the alluvium, an estimated effective porosity of 25 percent (literature values in Morris and Johnson, 1967), and a hydraulic gradient of 0.018 ft/ft.

Downgradient of Cells 1/1A, estimates for V_h range from 25 to 154 ft/yr. Assumptions include an average hydraulic conductivity of 2.7 ft/day for the bedrock, an estimated effective porosity of between 5 and 25 percent (Morris and Johnson, 1967), and an average hydraulic gradient of 0.0078 ft/ft in the spring and 0.0063 ft/ft in the fall.

Downgradient of the former Closed Landfill, estimates for V_h are approximately 20 ft/yr for the alluvium, and 295 ft/yr in the bedrock. Assumptions include the hydraulic conductivities for alluvium and bedrock noted above, an estimated effective porosity of 25 percent both for alluvium and weathered bedrock, and an average hydraulic gradient of 0.062 to 0.075 ft/ft for the spring and fall.

3.2 Water Quality

Water quality summary tables for 2021 can be found in Appendix B. The tables organize the monitoring points by wells, surface water stations, underdrains, leachate, and the SLCS (by LDS monitoring point).

3.2.1 Groundwater

This section summarizes groundwater quality at Coffin Butte Landfill in several geographic areas, by examining trends that can be used to predict or assess subtle changes in water quality or which track parameter concentrations used to assess areas with existing impacts. This qualitative examination is complemented by quantitative comparisons in Section 4 that assess remedy performance for the west side. For the east side compliance wells MW-26 and MW-27, water quality results are compared with concentration limits that include SSLs and PSCLs.

Parameters evaluated for Cells 1 and 1A focus on the suite of indicators and selected VOCs that have been consistently detected over the years. Water quality evaluation downgradient of the former Closed Landfill focuses on site indicator compounds. Time-

series concentration plots by parameter can be found in Appendix C in PDF format on the attached CD.

Time-series concentration plots for groundwater wells that monitor the former leachate irrigation Fields B (east side) and C (west side, south of Coffin Butte Road) document recovery of groundwater quality since leachate irrigation was discontinued in 1998. Plots for these wells can also be found in Appendix C.

TUPPAN CONSULTANTS visually examined groundwater quality trends presents observations below. The discussion focuses on the most recent trend (approximately the last five years) and indicate the general range of parameter concentrations for that period.

3.2.1.1 West Side Compliance Boundary

Cells 1 and 1A. Groundwater in this area is characterized by elevated, but mostly declining to stable, concentrations of inorganic compounds downgradient of Cell 1A and low concentrations of inorganic compounds downgradient of Cell 1. Trace metals concentrations in each of the wells are low to nondetect and generally follow stable trends.

With the exception of MW-12S/12D, halogenated VOC concentrations in this area have generally declined to below 2 micrograms per liter ($\mu\text{g/L}$) (Table 3-2). At MW-12S, PCE continues a mostly declining trend since 2005 (p. C-57 of Appendix C). In addition, low level detections of TCE (1.0 – 1.4 $\mu\text{g/L}$) and cis-1,2-dichlorethene (2.9 – 3.6 $\mu\text{g/L}$) indicate that PCE continues to break down to daughter products. In deeper well MW-12D, PCE was detected at 1.6 and 2.6 $\mu\text{g/L}$, slightly above concentrations in the shallow well. Non-halogenated VOCs detected above the MRL include 1,4-dichlorobenzene in MW-10S and xylenes at MW-11S.

Former Closed Landfill. The former closed landfill is monitored by two wells designated as compliance wells in the solid waste permit: one completed in the alluvium (MW-20) and one completed in bedrock (MW-21). Both wells have shown stable to downward trends for the site indicator parameters and no VOC detections above the MRL.

3.2.1.2 East Side

Cell 2 and Cell 3 – Detection Well MW-24. Wells near Cell 2 include detection well MW-24 at the southern intersection of Cells 2A and 3, and MW-23 discussed below. Well MW-24 is completed in shallow weathered bedrock (the alluvium is not saturated in this area). Trends for indicator parameters in MW-24 are stable and reflect natural water quality in the area.

Cell 2 – Detection Well MW-23. Early in its history, detection well MW-23 had shown increases for bicarbonate alkalinity, chloride, hardness, total dissolved solids (TDS), for five of the major dissolved metals, and for arsenic. This had been attributed to

localized seepage of leachate from the south side of the landfill; that seepage was remedied soon thereafter. Since 2000 to 2001, the upward trends for bicarbonate, chloride, TDS, calcium, iron, magnesium, manganese, sodium, and arsenic have peaked, and after about 2009 to 2011, most of these constituents declined to within or just above the range of background concentrations. With the exception of chloride, which is five to ten milligrams per liter (mg/L) higher than background, the concentrations in 2021 were at these lower values near or within background levels.

Cell 4 – Compliance Wells MW-26 and MW-27. These wells were first sampled in November 2011 and accumulated quarterly baseline water quality data throughout 2013. Examination of the trends show relatively lower and stable concentrations at MW-26 than at MW-27, which typically has a wider range of concentrations. Concentrations for several parameters at MW-27 can be quite variable as illustrated on trend plots in Appendix C (e.g., bicarbonate, sodium, and arsenic, see pages C-139 to C-151). This is likely caused by two conditions at MW-27. First, the water bearing zone that the well monitors has very low permeability, requiring the well to be purged one day and then sampled the following after it recharges adequately. This does not allow the purge water to stabilize during sampling, so that water samples can be affected unevenly from sampling event to sampling event. The second condition is the mineral composition of the formation opposite the screened interval, which is composed of organic clay with up to 10 percent fine sand. The presence of the organics is likely from an ancient bog that was mapped in the base of the Cell 4 excavation and is laterally continuous with the screened interval in MW-27.

3.2.1.3 Former Leachate Irrigation Fields

Field B (East Side). In Field B wells MW-8S and MW-15, concentrations of inorganic indicators in 2021 continue longer-term trends of past years. At MW-8S, an earlier increasing trend for chloride peaked in 2001 and is now declining gradually, while at MW-15, chloride concentrations have been more variable to upward since 2010; bicarbonate, TDS, and dissolved metals have been relatively stable or declining.

Trace metals in Field B wells were detected at low to trace concentrations, or were not detected in 2021. Neither of the wells shows a trace metals trend indicating effects of past leachate irrigation. No VOCs were detected.

Field C (West Side). Past leachate irrigation in Field C appears to have mildly affected the concentrations of some inorganic parameters historically. Since irrigation stopped in 1998, levels have recovered to pre-irrigation conditions, although some variability persists. More recent increases in several parameters in MW-19 (chloride, TDS, calcium, magnesium, and sodium) are likely related to slow migration from upgradient. Increases at each of these parameters appears to have abated and are now stable to decreasing compared with previous years.

As with Field B, trace metals were either not detected in Field C wells, or were detected at low to trace concentrations. Where trace metals are present, none of the wells showed a trend indicative of past leachate irrigation. VOCs were not detected above standard MRLs (i.e., 0.5 µg/L) in former irrigation field wells this year with the exception MW-19 where several VOCs were detected: PCE at 0.99 µg/L, TCE at 1.3 µg/L, 1,1-DCA at 1.0 µg/L, and a trace of cis-1,2-DCE at 0.48 µg/L. These VOCs have been detected in this well at low to trace concentrations since 2011, and this past year the concentrations are slightly below those of last year. In addition, dichlorodifluoromethane (Freon 12) has been detected off and on at low levels in that well since 1998; in 2021 it was detected at 5.0 µg/L.

3.2.2 Surface Water

Surface water is monitored upstream (S-1) and downstream (S-2 and S-4) in Soap Creek to test for potential impacts from the west side of the facility after stormwater from the landfill passes through a sedimentation pond and bioswale to join the creek. Surface water on the east side of the landfill is routed through sedimentation ponds and a bioswale and tested under the facility's stormwater permit.

At the Soap Creek monitoring points, year 2021 results for biological oxygen demand (BOD), total Kjeldahl nitrogen, total phosphorus, and orthophosphate were either nondetect or were virtually identical in concentration between the upstream (S-1) and downstream (S-2 and S-4) monitoring points. This is similar to past years.

The other inorganic parameters (chloride, calcium, iron, magnesium, manganese, and sodium) showed seasonal changes in concentration, with low concentrations in April (high stream flow) and higher concentrations in October (low stream flow). There were either no significant differences between upstream and downstream points for those parameters, or marginal differences with most concentrations varying by approximately 1 to 2 mg/L. Historical differences in concentration between seasons are typically greater, from 3 to 11 mg/L (e.g., chloride varied at S-1 from 8.6 mg/L in spring to 16 mg/L in summer).

3.2.3 Underdrains

Trend plots showing historical results of sampling the underdrains for Cells 3 and 4 and the leachate ponds can be found in Appendix D. For the Cell 3 underdrain (S-U3), current water quality is comparable to or lower in concentration than samples collected in 1999 and 2000 from upgradient bedrock well MW-13 (pages D-40 to D-47). Monitoring point S-U3 does not show significant increases over the long term with trends of indicators static to slightly upward for a few parameters such as chloride and TDS; there is variability for the redox sensitive parameters iron and manganese which may have more to do with lack of oxygenated recharge (i.e., infiltration of rainwater) below the liners than leakage of constituents through the primary liner. This suggests that water

from the underdrain represents primarily background concentrations largely unaffected by landfill operations.

Water quality from the East Leachate Pond underdrain (S-U4) represents baseline concentrations (pages D-48 to D-55). Concentrations for inorganic compounds and dissolved metals from the underdrain are comparable to or lower than concentrations at MW-16, which was a background well that monitored bedrock in the pond location before it was decommissioned in 2004. Since monitoring began, concentrations for the indicator parameters have been steady and exemplify a condition of no leakage from the overlying pond.

Beginning in October 2010, VLI began sampling S-U5, which drains from below the West Leachate Pond. The drain pipe also connects with another pipe that drains from below the concrete pad of the non-operational Leachate Treatment Plant building. It should be noted that minor differences are expected between underdrain S-U5 water quality and groundwater quality at MW-16, since these two monitoring points are not immediately proximal to each other. Nevertheless, the depiction on the trend plot illustrates that they are very close in quality (pages D-56 to D-63). Similar to water quality results at S-U4, the steady trends at S-U5 suggest no leakage from the overlying liner system for the West Leachate Pond. The October 2016 sampling event had a slightly higher concentration above the normal range for indicators chloride, TDS, calcium, magnesium and sodium. Except for chloride, these parameters subsequently decreased to a typical variability. Chloride continued the slightly higher concentrations, at 26 and 27 mg/L, compared with earlier historical values of below 10 mg/L, but concentrations have continued to decline since the 2016 excursion; they are currently at 12 mg/L. VLI continues to track chloride and if trends increase, VLI will review operations in this area.

3.3 Secondary Leachate Collection System (SLCS)

The SLCS was monitored by riser pipes at four locations: the Cell 2 sump in the southeast corner of that cell (LDS-2B), the Cell 3 sump (LDS-3), the Cell 4 sump (LDS-4), and the Cell 5 sump (LDS-5). The west and east leachate ponds (LDS-WLP and LDS-ELP, respectively) were dry and no samples could be collected. Results for liquid quantity for LDS-2B, LDS-3, LDS-4, and LDS-5 are shown graphically in Appendix D, as are the liquid level data for the primary and secondary sumps in Cells 2, 3, 4, and 5.

3.3.1 Cell 2

Historical variations in the concentrations of indicator parameters measured for LDS-2B reflect changes to the volume and liquid chemistry from different sources (see Appendix D, pages D-32 to D-39). These had varied (1) seasonally as the amount of leachate generated changed, surface water runoff changed, and groundwater levels

fluctuated, and (2) from year to year as sources had been eliminated through reconstruction. Increased concentrations were generally attributed to a greater volume of leachate-dominated sources, while decreases reflected a greater ratio of surface water or groundwater to leachate. The volume of liquid that infiltrated into the SLCS for the water years since 1995 is shown in Table 3-3. Cumulative water purged from the system is illustrated in Figure D-1 (page D-3).

Liquid levels in the primary and secondary leachate collection systems are illustrated for 2021 in Appendix D (page D-13). With regard to removing water that infiltrates to the secondary system (LDS-2B), VLI installed an electric sewage pump in the first quarter 2014 that can pump up to 150 gallons per minute to handle the volumes of leakage that correlate with higher periods of rainfall. The pump is programmed to operate on an automatic timer with the intent to keep the water level within performance goals; measured levels of LDS-2B during 2021 were within these goals throughout the year. Historical volumes managed from the LDS-2B secondary system and shown in Table 3-3 have declined the past two years and have generally declined since 2017.

3.3.2 Cell 3

For Cell 3, water quality plots show that historically, indicator parameter concentrations declined significantly in 2006, and since then for some parameters, concentrations approached or were comparable to the water quality of underdrain S-U3, which represents natural conditions of the underlying bedrock (see pages D-40 to D-47). The water quality through 2021 appeared to indicate variability in concentrations for several compounds.

For the water year from October 2020 through September 2021, total volume infiltrating to the Cell 3 LDS was approximately 140,000 gallons, an increase over the previous year. This corresponds to an infiltration rate of approximately 12.2 gallons per acre per day (gpad) as calculated over the Cell 3 area of 31.9 acres. It is probable that most of the water is stormwater seeping into the system rather than leakage through the primary liner given the seasonal nature of the infiltration that correlates with rainfall. Because the entire system is built above the groundwater table, groundwater intrusion to the SLCS is likely not a contributing source.

3.3.3 Cell 4

The Cell 4 LDS water quality has improved significantly since it was constructed in 2012. The initial water quality sampled in October 2012 likely represented construction water (see pages D-64 to D-71). Water quality continues to improve as this residual water slowly flushes through the system and is replaced by stormwater seepage. For samples collected in 2021, water quality approached that of underlying groundwater at MW-27 for several of the indicator parameters (e.g., bicarbonate, TDS, calcium, magnesium).

The volume recorded for LDS-4 last water year was 96,664 gallons, which is an increase over the previous year. The average rate of infiltration calculates to 19.9 gpad in 2021. Similar to Cell 3, the leakage frequency correlates with periods of rainfall, indicating that most of the leakage is from stormwater runoff seeping into the system.

3.3.4 Cell 5

Historically, the initial Cell 5 LDS water quality in the 2014 water year was likely construction water. That volume appeared to have flushed through the system as shown by samples collected from 2015 through mid 2017. Then in fall 2017, another spike of rainwater entered the LDS before it could be closed up during construction. This was reflected by water quality with increased concentrations in 2018 for many of the compounds, with concentrations lower from 2019 to 2021. These trends are shown on plots at pages D-72 to D-79.

The volume pumped from the system last water year was 2,324 gallons which, in terms of infiltration rate equates to approximately 0.86 gpad over the 7.4 acres of the liner. This low leakage rate indicates that the primary liner is performing as designed.

3.3.5 Leachate Ponds

The west leachate pond was the primary pond used to store leachate this past year, although at times, operations required transfer of liquid from the west to the east pond. Records from automated pumping of liquid from the secondary systems show that no liquid was pumped from the East or West Ponds' secondary systems in 2021. This indicates a lack of leakage through the primary liner into the secondary leachate collection layer and verifies that liner repairs performed in 2010 were effective.

With regard to water quality, pond liner integrity is also evaluated based on trends of inorganic parameters in the underdrain for each pond. Below the East Leachate Pond, monitoring of the underdrain (S-U4) indicates no difference between underdrain water and background groundwater quality previously tested at MW-16. Below the West Leachate Pond, the steady trends at S-U5 suggest no leakage through the overlying liner system, although, as discussed earlier, the chloride is being tracked and should it increase, VLI will review operations in this area. Water quality trend plots of LDS liquid and underdrain water quality are provided in Appendix D, pages D-48 to D-63.

3.4 Leachate Production

The AEMR includes information and data from the leachate management program as required by Sections 19.4 and 19.5 of the Solid Waste Permit. Data is for the water year that extends from October 2020 to September 2021 and presented in a format consistent with elements described in Section 4.7 of the updated EMP. Information contained in this report is a summary of data provided by VLI to TUPPAN CONSULTANTS.

3.4.1 Overview of Leachate Management 2020-21 Water Year

During the 2020-21 water year, leachate was generated from Cells 1 through 5 and pumped into the west leachate surge pond south of Coffin Butte Road. A bit more than half of the leachate was trucked to the waste-water treatment plant (WWTP) in the City of Corvallis, with approximately 47 percent trucked to the waste-water treatment plant in Salem. Details of volumes trucked can be found in Appendix D, pages D-17 to D-31.

3.4.2 Primary Leachate Management

Leachate management reporting has developed over several years and includes the following six elements:

3.4.2.1 Yearly Totals by Month

Monthly totals are reported for (a) leachate volume generated from the landfill sumps and (b) leachate volume treated. These two values would be expected to be similar taking into account the difference in pond volume at the beginning and end of the water year. Both ponds are covered so rain falling into the pond is not considered in the calculation.

There are two ways to estimate the volume of leachate generated. One is to use flow meters on the discharge lines from the leachate sumps and pumps that collect leachate from the landfill gas system (diaphragm pumps in horizontal wells, vertical landfill gas well pumps, condensate sumps, and horizontal gravity drains). The other is to use the volume treated (volumetrics). Both methods were used and are presented in the data provided by the Coffin Butte Landfill in Table 3-4. Raw data on volumes of leachate treated, flow-meter data, and rainfall records are provided in Appendix D.

The flow meters recorded an estimated 32.7 million gallons (MG) and the volumetrics approximately 32.3 MG, a relative percent difference of 1.24 percent.

The volume of leachate from the SLCS is not itemized separately on Table 3-4 because this liquid was pumped directly into the primary sumps. From the point of view of leachate management, the total volume of leachate managed from the primary Cells 2, 3, 4, and 5 sumps are inclusive of the SLCS volume. The volume that was extracted from the SLCS was discussed in Section 3.3.

3.4.2.2 Review of Significant Leachate Management Events That Occurred During the Last Water Year

Significant events for the 2020-21 water year are noted below.

- Rainfall for the water year of 38.39 inches was recorded at the landfill's weather station (rainfall for the 2021 calendar year was 41.01 inches). The long-term calendar year average over the past century recorded for Hyslop in Corvallis is just under 41 inches.

- Leachate volumes were more than last year by approximately 6.7 million gallons, consistent with an increase in rainfall of over 10 inches. However the rate of leachate produced per inch of rainfall was lower than the previous water year.
- Approximately 25 acres of griffolyn material were removed for filling operations and then subsequently redeployed once filling was completed.

3.4.2.3 Review of Leachate Monitoring Procedures

Leachate monitoring includes the following elements:

- Volume is estimated using a range of techniques such as flow meters, visual monitoring of liquid height against calibrated marks on the side of the ponds, and truck counts.
- VLI maintains an NPDES permit for monitoring effluent quality of the on-site treatment plant; however, the plant has been dismantled and no monitoring was required or performed in 2021.
- Leachate quality is monitored for the WWTPs (Corvallis and Salem); it is also tested as part of environmental monitoring and reported in Appendix B.
- Head liquid levels were monitored in the landfill primary sumps (for Cells 2, 3, 4, and 5) using transducers and dataloggers throughout 2021. Plots of the data are included in Appendix D (pages D-13 to D-16). The head levels in the primary and secondary sumps met permit requirements, except for a short period in the Cell 3 LDS late December 2021 when a power outage caused a blown relay in the panel that controlled that LDS pump. It was fixed on January 5, 2022.
- Both pond volumes are calculated using flow meters. Volumes are verified weekly using vertical depth markers located on the floating covers. The inventory of both ponds combined is included in Table 3-4.
- Maintenance of the leachate sumps (pumping sediment well, pump, check valves, and flowmeters) was performed quarterly.

3.4.2.4 Summary of Site Conditions and Compilation of Monitoring and Analysis Data

The following matrix summarizes the monitoring and analysis data references. Site conditions relative to leachate management in the 2020-21 water year were efficient and well-managed.

Monitoring and Analysis Summary Data References

Monitoring or Analysis Item	Reference
Flow meters from landfill sumps	Significant amounts of useful data over the reporting period, raw data sheets in Appendix D
Volumes handled by various methods	Table 3-4
Gas production changes, waste saturation, and side-slope seeps in waste irrigation areas	No leachate irrigation was performed (last done in July 2011); no effects from past years' irrigation were noted.
Effluent quality from treatment plant	Plant is in shut-down mode. Beginning in September 2019, DEQ required electronic reporting via NetDMR; monthly reports for the system show that the plant is not in operation.
Leachate quality	Provided in Appendix B
Head levels in Cell 2, Cell 3, Cell 4, Cell 5 primary leachate sumps	Permanent bubblers installed in all primary and secondary sumps.
Rainfall	Recorded automatically by site weather station
Pond levels (volumes)	Summary on Table 3-4 for beginning and ending volumes; monitored weekly

3.4.2.5 Summary of Reports for Monitoring Irrigation on Waste

No leachate irrigation was performed during the 2020-2021 water year.

3.4.2.6 Proposed Plans/Changes for Upcoming Leachate Management

The strategy for future leachate management is as follows:

- Continue with landfill operations and cover procedures to reduce leachate generation from precipitation to the extent possible.
- Maintain EGC membrane covers on the top of Cells 2 and 3, and those parts of Cells 4/5 as they achieve intermediate or final grades.
- Continue to maintain all management options for treating leachate.

3.5 Landfill Gas Monitoring

VLI routinely monitors a total of six landfill gas monitoring probes around the perimeter of the landfill (GP-2 through GP-6), in addition to the interior of six site structures. Monitored parameters include lower explosive limit (LEL), methane, and oxygen. Levels of percent LEL were zero for all monitoring events. Results of 2021 gas monitoring are shown in Table 3-5.

4.0 DISCUSSION

Monitoring wells at Coffin Butte Landfill are sited to assess a number of different areas around the landfill. For older areas that have undergone a focused risk assessment and feasibility study (TC, 2003a), the purpose of monitoring is to evaluate the performance of the remedy in protecting potential receptors and in restoring groundwater quality. The purpose of evaluating groundwater data at the east-side landfill cells is to determine if engineering controls (e.g., the landfill liner, cover, leachate or landfill gas [LFG] collection and removal systems) and operations are effective in preventing the release of landfill-derived compounds to the environment. Early identification of a release can mitigate those impacts relatively quickly.

With these two sets of objectives, the approach to evaluating monitoring data is slightly different for each area. In the older west-side areas, monitoring assesses the performance of the remedy in restoring groundwater quality to RACLs and in protecting potential receptors. For the active landfill on the east side, monitoring is classified as detection monitoring. Instrumental to this purpose is comparing monitoring results of indicator parameters with SSLs and PSCLs and assessing the data for significant change.

4.1 West Side

For the west side, the purpose of the annual report is to assess (1) the effect of remedial actions on groundwater quality (i.e., assess progress of cleanup) and (2) protection of potential human health receptors, as discussed in the following sections.

4.1.1 Aquifer Restoration-Contaminant Removal

Areas downgradient of the landfills on the west side rely on containment and control of the source with natural attenuation in groundwater downgradient. Contaminant removal occurs through natural processes and is measured with respect to trends of constituent concentrations with time. Cleanup levels referred to as RACLs, are the long-term goals of aquifer restoration.

4.1.1.1 Cells 1/1A

Groundwater quality along the compliance boundary of Cells 1 and 1A has been relatively stable the past few years. Continuing the trends of earlier years, most inorganic parameter concentrations have stabilized or show downward trends.

Of the inorganic compounds, TDS, and to a lesser extent chloride, iron, and manganese exceed their RACLs in several wells, but their trends continue to decline as illustrated in time concentration plots in Appendix C. Long term trends of VOCs have peaked and are declining in each of the compliance wells (most VOCs are now nondetect at standard MRLs), and none exceeded its RACL (Table 4-1). PCE continues to remain below the RACL at MW-12S. Vinyl chloride has not been detected at concentrations above its MCL since October 2004, nor was it detected at any monitoring well in 2021 above its MRL of 0.5 µg/L. From 300 to 400 feet downgradient of the compliance boundary, groundwater quality approximates background conditions in detection wells MW-17 and MW-18, indicating that contaminants attenuate significantly between the compliance boundary and those downgradient detection wells. Results for MW-19 are discussed in Section 4.1.3.

4.1.1.2 Former Closed Landfill

Trends of monitored parameters downgradient of the former closed landfill are stable and reflect a steady improvement in groundwater quality. None of the parameters measured in 2021 indicated levels of concern with respect to water quality standards; each was below its respective RACL. On the basis of the former landfill's age (filling occurred between 1945 and 1977) and its low potential for significant leachate generation, it is expected that existing low level impacts to the aquifer will diminish with time. Moreover, VLI will complete source removal in 2022, which involves physically removing the old waste and hauling it to Cell 5 in the active part of the landfill.

4.1.2 Source Control Effectiveness

Source controls include the final cover at the landfill, leachate removal, and active landfill gas recovery to control the migration of landfill gas that contains methane and VOCs. More recent source control included the physical removal of waste as described above for the former Closed Landfill. Effectiveness can be measured qualitatively by examining (1) the trends and number of VOCs at downgradient monitoring wells and (2) whether landfill gas is migrating to perimeter gas probes.

Groundwater Quality. Since the landfill cover was installed on Cells 1/1A in 1996 and LFG removal wells installed in Cell 1 in 1994, the number and concentrations of VOCs have declined in compliance wells. Most concentrations are at very low concentrations and continue to decline in each of the wells. At MW-12S, PCE and TCE concentrations over the long term are declining from their peak in 2000. The reduction in the number and decrease in concentration of VOCs can be attributed to removal of landfill gas, which contains VOCs, and covering the landfill to prevent infiltration of rainwater through the waste pile.

Another source control measure for Cell 1 is leachate removal. Cell 1A does not have leachate removal but it has been shown that the base elevation of that cell is above the groundwater table and therefore, it is unlikely to generate leachate.

LFG Probe Results. Probe monitoring shows that methane does not migrate laterally away from the landfill, but is being contained by the gas recovery wells. Gas recovery rates for Cell 1 are monitored routinely by Pacific Northwest Generating Cooperative as part of optimizing flow and maximizing methane recovery for the gas-to-energy plant.

4.1.3 Plume Stabilization

The stability of the VOC plume can be evaluated qualitatively by examining whether concentrations at impacted wells are increasing and whether monitoring wells downgradient of the VOC plume detect VOCs. Both criteria suggest a stable to shrinking plume as concentrations are declining within the plume and, except for MW-19, wells outside the plume have not detected VOCs. At MW-19, trace to low concentrations of PCE, TCE and 1,1-DCA, which have been detected since 2011 (see pages C-123 to C-126), appear to have stabilized. These detections and increases in some of the inorganic parameters suggest that residual concentrations from the plume migrated to this downgradient well. Significant concentrations are not expected since upgradient of MW-19 at MW-11S/11D, both PCE and TCE have been nondetect since 1999 and 1,1-DCA has been nondetect or detected at trace concentrations below the MRL since 2006.

Continued retraction of the extent of VOCs is also indicated by declines to nondetect (at MRL of 0.5 µg/L) or trace levels below the MRL within the last few years for:

- 1,1-DCA in MW-10D and MW-11S/MW-11D
- Chloroethane in MW-10S/10D and MW-11S/11D
- Cis-1,2-DCE in MW-10S/10D and MW-11S/11D
- Vinyl chloride in MW-10S/10D and MW-11S/11D

4.1.4 Protectiveness Monitoring

Protectiveness is assessed at two locations: at the Phillips domestic well and at P-8, which is spatially between the domestic well and the landfill. Trend plots for indicator parameters for these wells can be found in Appendix C (pages C-90 to C-97). Analytical results for the Phillips well were either nondetect or significantly below safe drinking water standards for inorganics and metals (see tables in Appendix B). No VOCs were detected. Trends of indicator parameters do not show significant upward movement suggestive of impacts from the landfill.

Early warning detection monitoring well P-8 is located between the landfill and the Phillips well, near the hydrogeologic divide that protects the domestic well from landfill-contaminant migration. None of the indicator parameter trends for that well suggest significant changes in groundwater quality and no VOCs were detected in 2021. In the October 2016 event, chloride had a higher concentration at 18 mg/L, compared to more

typical concentrations of 10 to 11 mg/L. Since then, the chloride concentration returned to its normal range.

4.2 East Side

For the east side, VLI finished collecting background data for new compliance wells MW-26 and MW-27 in the fall of 2013. VLI then submitted a statistical review of the data (TC, 2014a) and after meeting with the DEQ to discuss the methods and results, updated the EMP with the proposed methods for assessing groundwater quality in this part of the landfill. As presented in the EMP, the east-side multiunit cells are evaluated primarily with SSLs developed for seven site-specific indicator parameters. These were calculated as prediction limits consistent with EPA's Unified Guidance (EPA, 2009) and are based on intrawell statistics with the intent of identifying a change from the initial (i.e., historical) sample population for each well. In addition to the SSLs, hazardous compounds are compared to their primary drinking water maximum contaminant levels (MCLs). For vinyl chloride, a detection at or above the practical quantitation limit (currently at 0.5 µg/L) is considered exceeding the action limit (AL) requiring further action, such as resampling.

In July 2018 (TC, 2018), VLI re-evaluated the prediction limits at both of the east side compliance wells in an effort to broaden the statistics over a longer period of time and identify more variability for several of the parameters that were extremely stable and that made it difficult to calculate a variance. It was thought that several more years of data collection would produce the type of variance needed for normal-distributed statistical calculations. However, after nine additional semi-annual sampling events between 2014 and 2018, that did not occur for the three parameters bicarbonate, TDS, and calcium at MW-26. In spite of this stability, we did take the opportunity to recalculate the prediction limits for the other parameters at both wells since the additional data provided a more representative statistical model of the water quality.

Sampling results at MW-26 and MW-27 are compared with 2018 SSLs in Table 4-2. Of the water quality samples collected in 2021, each was below the SSLs except for manganese, which exceeded its respective limit at MW-27 in both April and October. All of the other indicators were below SSLs and do not show upward trends suggestive of landfill impacts (pages C-128 to C-151), nor do trace metals have upward trends. For manganese, the concentrations are only marginally above the statistically calculated limit (page C-142). The cause of the excursion is unclear, but it may represent natural variation not previously seen in background monitoring period, or it might be related to lower oxygen in groundwater due to the proximity of the well to the landfill liner, which would limit recharge of rainfall to the aquifer at this location. VLI will continue to appraise the manganese excursion in this area as part of future annual reports.

4.3 Comparison to Water Quality Standards

This section discusses results at detection and compliance wells for the east and west side with regard to water quality standards. Table 4-3 lists monitoring results that exceeded a water quality standard. Additionally, the water quality summary tables in Appendix B list relevant water quality standards at the head of each column.

Primary Maximum Contaminant Levels (MCLs). Of federal or state primary MCLs (health-based), concentrations for arsenic exceeded the primary MCL of 10 µg/L at eastside compliance wells MW-26 and MW-27 both sampling events. Based on knowledge of groundwater quality in this part of the site, the arsenic is naturally occurring at this level. The arsenic concentration in detection well MW-23 also exceeded the primary MCL of 10 µg/L both sampling events. Arsenic has declined at MW-23 since approximately 2000 to background levels; concentrations this past year were above background in April, and in October comparable to naturally-occurring concentrations at MW-26 and MW-27 (see trend plot at page C-145). No primary MCLs were exceeded at west-side wells for VOCs, trace metals or inorganic parameters.

Secondary MCLs. Federal and state secondary MCLs (non-health-based) were exceeded at wells MW-26 and MW-27 downgradient of Cell 4 for iron and manganese, and at detection well MW-23. The concentrations at MW-26 and MW-27 represent natural conditions based on site knowledge.

At the west-side compliance boundary and detection wells, the secondary MCLs were exceeded as follows:

- Chloride at MW-10S where the long-term trend is declining; and detection well MW-19 where the trend is stable after increasing since 2005.
- TDS at well pairs MW-10S/10D and MW-11S/11D, MW-20, and detection well MW-19.
- Manganese at wells MW-10S/10D, MW-12S, MW-20, and MW-21.
- Iron at MW-12S and MW-21.

5.0 MONITORING PLAN MODIFICATIONS AND RECOMMENDATIONS

No changes are planned for the monitoring network in 2022. No changes to the sampling plan are recommended.

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- TC. 2021. 2020 Annual Environmental Monitoring Report, Coffin Butte Landfill, Benton County, Oregon. Prepared for Valley Landfills, Inc., by Tuppan Consultants LLC, Lake Oswego, Oregon. March 4.

LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report.

The purpose of a geologic/hydrogeologic study is to reasonably characterize existing site conditions based on the geology/hydrogeology of the area. In performing such a study, it is understood that a balance must be struck between a reasonable inquiry into the site conditions and an exhaustive analysis of each conceivable environmental characteristic. The following paragraphs discuss the assumptions and parameters under which such an opinion is rendered.

No investigation is thorough enough to describe all geologic/ hydrogeologic conditions of interest at a given site. If conditions have not been identified during the study, such a finding should not therefore be construed as a guarantee of the absence of such conditions at the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed.

We are unable to report on or accurately predict events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces. We assume no responsibility for conditions we were not authorized to evaluate, or conditions not generally recognized as predictable when services were performed.

Geologic/hydrogeologic conditions may exist at the site that cannot be identified solely by visual observation. Where subsurface exploratory work was performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.

TABLES

Table 2-1
Description of Monitoring Network
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill

Monitoring Program	Monitored Area	Position
Landfill Water Quality Monitoring Program		
<u>Compliance Wells</u>		
MW-1D, MW-3D, MW-12S, MW-12D	Cell 1	Downgradient
MW-10S, MW-10D, MW-11S, MW-11D	Cell 1A	Downgradient
MW-20, MW-21	Closed Landfill	Downgradient
MW-26, MW-27	Cells 2/3/4/5	Downgradient
<u>Detection Wells</u>		
MW-8S, MW-15	Former Leachate Irrigation Fields A/B	Downgradient
MW-17, MW-18, MW-19	Cells 1/1A	Downgradient
MW-23	Cell 2	Crossgradient
MW-24	Cells 2/3	Crossgradient
P-8	Cell 1	—
Phillips	Domestic Water Quality	—
<u>Other Monitoring Well Sites</u>		
MW-9S	East boundary of property	—
<u>Observation Wells/Piezometers</u>		
MW-1S, MW-3S, MW-8D, MW-14S, MW-14D, PW-2, P-8, P-9, P-10, P-19, P-22, P-23 Duplex, Merrill, Berkland	Various	—
<u>Wetland Piezometers</u>		
WP-1, WP-3, WP-5, WP-6, WP-8, WP-9	Fields South of Coffin Butte Road	Various
<u>Quarry Piezometers</u>		
QP-3S, QP-4S, QP-5N, QP-6N, QP-7N	Knife River Quarry and Coffin Butte	Various
<u>Secondary Leachate Collection System</u>		
LDS-2B	Cells 2B, 2C	Underneath
LDS-3	Cell 3	Underneath
LDS-4	Cell 4	Underneath
LDS-5	Cell 5	Underneath
LDS-WLP (formerly LDS-SP)	West Leachate Pond	Underneath
LDS-ELP	East Leachate Pond	Underneath
<u>Leachate</u>		
L-1	Cell 1	—
L-2B	Cells 2A, 2B, 2C, 2D	—
L-3	Cell 3	—
L-4	Cell 4	—
L-5	Cell 5	—
L-Pond	Active Leachate Pond (composite of cells)	—
<u>Surface Water</u>		
S-1	Background (Soap Creek)	Upstream
S-2, S-4	Cell 1, 1A, Closed Landfill	Downstream
<u>Underdrains</u>		
S-U2 (end of pipe not accessible for sampling)	Cell 2C/D & Cell 4 (north half)	Underneath
S-U3	Cell 3	Underneath
S-U4	East Leachate Pond	Underneath
S-U5	West Leachate Pond	Underneath
S-U6 (typically dry-discharges to ditch)	Cell 4 (south half)	Underneath
S-U7 (Manhole east of cell-not accessible)	Cell 5A	Underneath
Stormwater Monitoring Program (1200Z Permit)		
Outfall (monitored by rock quarry operator)	Quarry/part of Cell 1A & Closed Landfill	Downstream
Outfall 001 (west end of western bioswale)	Cell 1	Downstream
Outfall 002 (northeast end of eastern bioswale)	Cells 2/3/4/5	Downstream

Table 2-2
Well Construction Summary
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill

MONITORING STATION		Northings	Eastings	Ground Surface Elevation (ft msl)	Surveyed Reference Elevation (ft msl)	Total Depth (ft bgs)	Screened Interval (ft bgs)	Filter Pack Interval (ft bgs)	Seal (ft bgs)	Well Diameter (Inches)	Drilling Method	Date Well Installed	Lithology Screened
Location	Status												
MONITORING/OBSERVATION WELLS													
MW-1S ^a		176.31	394.27	288.50	289.87	28	23-28	21-28	0-21	2	Air Rotary	1977	Weathered basalt
MW-1D ^a		176.31	394.27	288.50	289.89 ^b	40	35-40	34-40	28-34	2	Air Rotary	1977	Weathered/fresh basalt
MW-3S ^a		131.43	-346.95	284.70	285.86	26	21-26	20-26	0-20	2	Air Rotary	1977	Weathered basalt
MW-3D ^a		131.43	-346.95	284.70	285.94 ^b	55	50-55	48-55	26-48	2	Air Rotary	1977	Weathered/fresh basalt
MW-8S		868.45	2,465.16	240.63	244.01 ^b	32	22-32	17-32	0-17	2	Air Rotary	07/30/85	Weathered basalt
MW-8D		873.29	2,463.49	240.50	244.04	75	65-75	60-75	0-60	2	Air Rotary	07/30/85	Fresh basalt
MW-9S		1,721.42	3,790.27	221.50	223.27	35	25-35	20-35	0-20	2	Air Rotary	08/02/85	Clay
MW-10S ^c		364.70	-1,068.43	289.03	291.42 ^b	38.1	28.4-38.4	23.4-38.4	0-23.1	2	Air Rotary	08/02/85	Weathered basalt
MW-10D ^c		361.08	-1,069.56	289.02	291.38 ^b	82.9	73.2-83.2	60.2-83.2	0-59.9	2	Air Rotary	08/02/85	Fresh basalt
MW-11S		380.77	-1,395.21	274.80	274.71 ^b	32	22-32	20-32	0-20	2	Air Rotary	08/05/85	Weathered basalt
MW-11D		382.87	-1,399.20	274.80	274.96 ^b	75	65-75	55-75	0-55	2	Air Rotary	08/05/85	Fresh basalt
MW-12S		83.35	26.27	283.80	285.59 ^b	26.2	21-26	18.9-26.2	2-18.9	2	Air Rotary	09/19/91	Weathered and fresh basalt
MW-12D		85.06	36.25	283.80	285.43 ^b	61.3	55-60	52.6-61.3	1.5-52.6	2	Air Rotary	09/19/91	Fresh basalt
MW-13 ^d	Dec. 7/18/12	1,497.68	353.63	426.50	430.46	108.8	95-105	92-107	1-92	2	Air Rotary	07/28/92	Fresh basalt
MW-14S		251.74	674.78	287.50	289.58	35	19.5-29.5	16.5-30	1.5-16.5	4	Air Rotary	07/27/92	Weathered basalt
MW-14D		248.23	664.50	287.80	290.27	75	60-70	57.5-71	1-57.5	2	Air Rotary	07/24/92	Fresh basalt
MW-15		684.93	3,100.49	233.45	235.66 ^b	29	19.0-28.0	16.5-29.0	0-16.5	2	HSA	07/14/93	Silt and gravel
MW-17		-205.54	-658.45	277.45	279.67 ^b	27	16.7-26.2	15.0-27.0	0-15.0	2	HSA	07/15/93	Weathered basalt and silt
MW-18		78.22	-1,276.14	267.70	269.90 ^b	21.4	11.2-20.8	9.0-21.4	0-9.0	2	HSA	07/15/93	Weathered basalt
MW-19		174.60	-1,773.34	261.00	263.29 ^b	24.1	13.5-23.0	11.7-24.1	0-11.7	2	HSA	07/16/93	Weathered basalt
MW-20		792.44	-2,156.98	256.81	259.22 ^b	39	11.3-20.7	9.5-22.5	0-9.5	2	HSA	07/15/93	Clay and gravel
MW-21		1,292.98	-2,438.44	254.25	256.67 ^b	17	11.0-16.7	9.0-17.0	0-9.0	2	HSA	07/15/93	Fresh basalt
MW-22	Dec. 5/24/11	1,275.42	2,857.32	232.73	235.30 ^b	24.2	14.0-23.6	11.0-24.2	0-11.0	2	HSA	07/22/94	Silt
MW-23		885.09	2,213.53	242.81	244.76 ^b	22.7	12.4-22.1	9.6-22.7	0-9.6	2	HSA	08/02/94	Silt, clay, and gravel
MW-24		439.97	1,288.27	273.94	276.76 ^b	35.0	19.5-34.5	18.0-35.0	0-18.0	2	HSA	08/31/98	Weathered basalt
MW-25	Dec. 5/24/11	1,181.50	2,626.80	240.39	242.79 ^b	32.5	13.5-23.5	11.0-24.0	0-11.0	2	HSA	06/04/99	Silt and clayey silt
MW-26		388,531.15	7,493,967.51	235.18	237.91	28.0	17.1-26.9	15.5-28.0	0-15.5	2	Sonic	10/17/11	Silt
MW-27		388,887.59	7,493,881.47	252.12	254.76	35.5	25.0-34.8	23.5-35.5	0-23.5	2	Sonic	10/17/11	Clay with organics
LANDFILL WATER SUPPLY													
PW-1	Dec. 5/26/04	221.43	-650.93	282.50	282.80	125	60-125	na	0-58	6	Air Rotary	08/03/77	Sandstone and basalt
PW-2		3,190.41	3,122.43	248.90	250.27	199	95-199 OH	none	0-95	8	Air Rotary	07/30/92	Fresh basalt

Table 2-2
Well Construction Summary
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill

MONITORING STATION Location Status	Northings	Eastings	Ground Surface Elevation (ft msl)	Surveyed Reference Elevation (ft msl)	Total Depth (ft bgs)	Screened Interval (ft bgs)	Filter Pack Interval (ft bgs)	Seal (ft bgs)	Well Diameter (Inches)	Drilling Method	Date Well Installed	Lithology Screened	
PRIVATE WATER SUPPLY													
Duplex Well	156.61	667.42	289.01	289.01	74	26-74 OH	none	0-20	6	Rotary	07/17/72	Basalt (?)	
Berkland well (surv. 2/21/20)	386,610.24	7,491,311.09	~321.7	321.72	220	20-220 OH	none	0-20	6	Rotary	05/01/78	Basalt/weathered basalt	
Phillips Well	-459.53	165.45	291.00	291.00								(?)	
PIEZOMETERS													
P-8	-168.31	136.85	282.40	284.02	29	18.7-27.6	16.4-29.0	0-16.4	2	HSA	07/13/93	Weathered basalt	
P-9	1,146.97	-2,113.73	273.66	276.01	23.3	17.2-23.0	15.0-23.3	0-15.0	2	HSA	07/15/93	Fresh basalt	
P-10	1,118.44	-2,617.87	243.00	245.12	26.5	7.7-17.2	5.7-18.5	0-5.7	2	HSA	07/20/93	Weath. basalt, gravel and silt	
P-11	Dec. 5/23/11	1,899.30	2,322.21	270.50	271.74	52.0	40.6-50.3	38.4-51.7	1.0-38.4	2	Air Rotary	03/28/94	Weathered basalt
P-16	Dec. 5/23/11	1,486.31	2,541.93	242.98	244.68	22.5	8.6-18.2	6.0-18.8	3.0-6.0	2	HSA	04/18/94	Silty and sandy clay
P-17	Dec. 7/17/12	2,079.11	1,560.54	371.10	372.10	47.6	35.2-45.0	32.7-47.6	2.0-32.7	2	Air Rotary	04/24/97	Fresh basalt
P-18	Dec. 7/17/12	1,886.12	1,089.23	378.21	380.87	74.5	35.0-45.0	32.0-46.0	0-32	2	Air Rotary	09/22/98	Fresh basalt
P-19		389,840.33	7,492,921.45	383.15	385.65	106.5	96.3-106.1	94.2-106.5	0-94.2	2	Air Rotary	08/17/12	Fresh basalt
P-20	Dec. 5/28/15	389,793.66	7,492,187.47	585.92	588.32	131.5	101.4-131.2	98.5-132.1	0-98.5	2	Air Rotary	08/16/12	Fresh basalt
P-21	Dec. 5/28/15	389,463.58	7,491,479.07	624.09	626.74	170.1	150.0-169.8	147.0-170.1	0-147.0	2	Air Rotary	08/14/12	Fresh basalt
P-22		389,903.79	7,492,050.39	636.87	638.60	77.5	57.5-77.1	53.9-77.5	0-53.9	2	Air Rotary	09/10/15	Fresh basalt
P-23		389,618.74	7,491,365.81	690.96	693.11	183.5	163.5-183.2	160.0-183.5	0-160.0	2	Air Rotary	09/10/15	Fresh basalt
Wetland Piezometers													
WP-1		387,199.43	7,488,891.35	257.33	259.83	13.8	8.56-13.11	Prepack	0-1	2	push probe	01/18/08	Clay
WP-3		386,661.80	7,489,643.80	271.01	273.39	9.8	4.61-9.16	Prepack	0-1	2	push probe	01/18/08	Clay-sandy silt
WP-5		386,542.49	7,488,194.58	258.94	261.55	12.0	6.76-11.31	Prepack	0-2	2	push probe	01/18/08	Sandy clay - clay
WP-6		385,925.20	7,487,996.18	262.17	264.85	13.0	7.77-12.32	Prepack	0-1	2	push probe	01/19/08	Silty clay - clay
WP-8		387,861.89	7,487,856.57	253.15	255.80	10.3	5.11-9.66	Prepack	0-1	2	push probe	01/19/08	Silty clay
WP-9		387,470.03	7,486,845.01	255.21	257.90	10.1	4.89-9.44	Prepack	0-1	2	push probe	01/19/08	Clay

NOTE: msl = mean sea level; bgs = below ground surface; OH= open hole; na = not available.
Drilling methods: HSA = hollow stem auger; SSA = solid stem auger

^a Multiple well completion in single borehole.

^b Measuring point is 0.02' higher than surveyed reference elevation shown due to installation of bladder pump enclosure. Groundwater elevations calculated from corrected elevation.

^c Ground level and casing elevation raised in June 1996 as part of regrading for truck scale. Wells and ground level elevation resurveyed by Darryl Harms of Corvallis, Oregon.

^d Estimated 30 feet higher than original elevation. Well completion depths relative to original ground surface of 398.8 MSL.

**Table 2-3
Monitoring Program
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill**

Parameter Group	Sampling Frequency							
	Compliance Wells	Detection Wells	Other	Obsv/Piez	Secondary Leachate Collection System	Leachate	Under-Drain	Surface Water
	MW-1D, MW-3D, MW-10S, MW-10D, MW-11S, MW-11D, MW-12S, MW-12D MW-26, MW-27, MW-23 ^a , P-8 ^a	MW-8S, MW-15, MW-17 MW-18, MW-19, MW-20 ^b MW-21 ^b , MW-24 Phillips	MW-9S	(Listed on Table 2-1)	LDS-2B, LDS-3, LDS-4, LDS-5 LDS-WLP, LDS-ELP	L-Pond	S-U3 S-U4 S-U5	S-1, S-2, S-4
Site-Specific Parameters								
Indicator Parameters Cl, HCO ₃ , TDS, Ca, Fe, Mg, Mn, Na, As	2Q, 4Q	4Q	—	—	2Q, 4Q	—	—	—
Annual Scan As, Sb, Ba, Cr, Ni, Se, Pb, Zn	4Q	4Q	—	—	—	—	—	—
Field Parameters	2Q, 4Q	4Q	—	—	2Q, 4Q	4Q	—	2Q, 4Q
Water Levels	2Q, 4Q	2Q, 4Q	2Q, 4Q	2Q, 4Q	—	—	—	2Q, 4Q
Comprehensive Analytical Groups								
1b: Laboratory Indicator Parameters TDS, TOC, NH ₃ , COD, TSS	5Y	5Y	5Y	—	5Y	4Q (5Y)	—	—
2a: Common Anions and Cations Ca, Mg, Fe, Mn, Na, K, Si, NO ₃ SO ₄ , HCO ₃ , Cl	5Y	5Y	5Y	—	5Y	4Q (5Y)	—	—
2b, 2c: Trace Metals Sb, As, Ba, Be, Cd, Co, Cr, Cu, Pb, Ni, Se, Ag, Tl, V, Zn	5Y	5Y	5Y	—	5Y	4Q (5Y)	—	—
3: VOCs	2Q, 4Q	4Q (5Y)	5Y	—	2Q, 4Q	4Q (5Y)	—	—
Surface Water Parameters Cl, Ca, Fe, Mg, Mn, Na, BOD TKN, TPhos, PO ₄	—	—	—	—	—	—	—	2Q, 4Q
Underdrain Parameters Cl, HCO ₃ , TDS, Ca, Fe, Mg, Mn, Na	—	—	—	—	—	—	2Q, 4Q	—
NOTE: 1Q, 2Q, 3Q, 4Q = quarterly sampling events; 5Y = quinquennial (every 5 years; to be scheduled with the DEQ as split sampling event-tentative for 2024). ^a Detection monitoring well that is sampled at frequency listed for compliance wells. ^b Compliance monitoring well that is sampled at frequency listed for detection wells.								

Table 3-1
Groundwater and Surface Water Elevations
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill

Monitoring Point	Measuring Point Elev. (ft-MSL)	Water Elevation	
		4/15/2021	10/14/2021
Groundwater			
MW-1S	289.87	265.29	268.49
MW-1D ^a	289.91	264.83	263.89
MW-3S	285.86	266.50	261.32
MW-3D ^a	285.96	264.99	256.05
MW-8S ^a	244.03	240.35	238.28
MW-8D	244.04	240.95	239.03
MW-9S	223.27	219.24	216.22
MW-10S ^a	291.44	265.54	259.46
MW-10D ^a	291.40	265.33	259.85
MW-11S ^a	274.73	264.27	259.17
MW-11D ^a	274.98	264.20	259.23
MW-12S ^a	285.61	265.00	262.00
MW-12D ^a	285.45	264.97	259.89
MW-14S	289.58	274.24	268.74
MW-14D	291.27	267.45	261.44
MW-15 ^a	235.68	232.94	230.00
MW-17 ^a	279.69	265.12	260.71
MW-18 ^a	269.92	262.89	258.31
MW-19 ^a	263.31	258.63	257.41
MW-20 ^a	259.24	255.42	250.34
MW-21 ^a	256.69	252.72	247.60
MW-23 ^a	244.80	242.87	242.47
MW-24 ^a	276.78	257.73	253.98
MW-26 ^a	237.93	230.35	230.63
MW-27 ^a	254.78	233.33	231.91
P-8	282.40	262.27	260.62
P-9	276.01	267.44	266.15
P-10	245.12	244.95	242.19
P-19	385.65	371.21	364.16
P-22	638.60	595.44	591.74
P-23	693.11	587.66	572.21
QP-3S	602.02	335.39	333.26
QP-4S	718.95	610.08	599.85
QP-5N	601.53	505.03	503.56
QP-6N	445.82	393.47	390.74
QP-7N	374.50	364.93	362.45
WP-1	259.83	255.20	245.12
WP-3	273.39	264.35	261.76
WP-5	261.55	254.50	250.38
WP-6	264.85	258.45	257.10
WP-8	255.80	249.60	245.33
WP-9	257.90	252.32	251.63
PW-2	250.27	234.44	230.20
Duplex	289.01	274.59	267.84
Phillips	291.00	267.13	260.50
Berkland ^b	321.72	300.19	275.21
Merril	283.34	265.27	253.66
Surface Water			
S-2	251.50	236.45	236.46
S-4	255.24	240.10	239.62

NOTE: nm: not measured; <265.4: well dry, water level below depth tagged.

^a Measuring point is 0.02' higher than surveyed elevation because of the bladder pump casing enclosure.

^b Newer well, not used for groundwater contours.

Table 3-2
VOC Detections
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill

Location	Sample ID	Date	Acetone*	Benzene	2-Butanone	Carbon Disulfide	Chloroform	Dichlorodifluoro-methane	1,4-Dichlorobenzene	1,1-Dichloroethane	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene
			L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Monitoring Wells													
MW-3D	VLF-210417-15	04/17/21				0.32 J			0.3 J				
MW-3D	VLF-211016-26	10/16/21											
MW-10S	VLF-210416-11	04/16/21							0.58	0.65			
MW-11S	VLF-211016-24	10/16/21		0.34 J								0.27 J	
MW-11D	VLF-211016-25	10/16/21											
MW-12S	VLF-210417-17	04/17/21									2.9		
MW-12S	VLF-211016-27	10/16/21									3.6		
MW-12D	VLF-210417-16	04/17/21											
MW-12D	VLF-211016-28	10/16/21											
MW-19	VLF-211014-3	10/14/21						5		1	0.48 J		
MW-27	VLF-210416-2	04/16/21											
SLCS and Leachate													
LDS-2B	VLF-210416-6	04/16/21	10 UB	0.31 J					1		0.29 J	0.3 J	0.69
LDS-2B	VLF-211015-19	10/15/21	19									0.32 J	0.71
LDS-3	VLF-210416-4	04/16/21							0.3 J				
L-Pond	VLF-211017-35	10/18/21	460	3.8	490	3.7 J			2.1 J			5.2	
QA/QC													
Field Blank	VLF-210416-1	04/16/21	4 J				0.64						
J: estimated.													
UB: not detected at the limit shown, detected in blank.													
* Common laboratory contaminant.													

**Table 3-2
VOC Detections
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill**

Location	Sample ID	Date	p-Isopropyltoluene µg/L	4-Methyl 2-Pentanone µg/L	Naphthalene µg/L	Tetrachloroethene µg/L	Toluene* µg/L	Trichloroethene µg/L	1,2,3-Trichlorobenzene µg/L	1,2,4-Trichlorobenzene µg/L	1,2,4-Trimethylbenzene µg/L	m,p-Xylene µg/L	o-Xylene µg/L
Monitoring Wells													
MW-3D	VLF-210417-15	04/17/21			0.91 J				0.9 J	0.74 J			
MW-3D	VLF-211016-26	10/16/21					0.3 J					0.32 J	
MW-10S	VLF-210416-11	04/16/21											
MW-11S	VLF-211016-24	10/16/21					1.6				0.32 J	1.4	0.43 J
MW-11D	VLF-211016-25	10/16/21					0.58					0.45 J	
MW-12S	VLF-210417-17	04/17/21				0.88		1.4					
MW-12S	VLF-211016-27	10/16/21				1	0.23 J	1					
MW-12D	VLF-210417-16	04/17/21				1.6							
MW-12D	VLF-211016-28	10/16/21				2.6							
MW-19	VLF-211014-3	10/14/21				0.99		1.3					
MW-27	VLF-210416-2	04/16/21					0.24 J						
SLCS and Leachate													
LDS-2B	VLF-210416-6	04/16/21		1.1 J	5.5		0.49 J					0.18 J	
LDS-2B	VLF-211015-19	10/15/21			7.3		0.61						
LDS-3	VLF-210416-4	04/16/21											
L-Pond	VLF-211017-35	10/18/21	1.8 J	35	5.2		37				1.7 J	7	4.3
QA/QC													
Field Blank	VLF-210416-1	04/16/21											
J: estimated.													
UB: not detected at the limit shown, detected in													
* Common laboratory contaminant.													

Table 3-3
Water Year Summary for Cell 2 SLCS Volume Data
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill

Water Year	Number of Days per Water Year	Rainfall (inches)	Cell 2 Acreage		SLCS Liquid (gallons)	SLCS Liquid per Inch of Rainfall (gal/inch)	SLCS Infiltration Rate (gal/acre/day)
			A,B,C,D	B,C,D			
8/1/95-7/31/96	366	68.95	32	27	189,824	2,753	19.2
8/1/96-7/31/97	365	63.63	32	27	239,707	3,767	24.3
8/1/97-7/31/98	365	64.25	32	27	224,570	3,495	22.8
8/1/98-7/31/99	365	74.50	32	27	147,616	1,981	15.0
10/3/99-10/2/2000	364	45.02	32	27	83,957	1,865	8.5
10/2/00-10/1/2001	365	21.40	32	27	42,596	1,990	4.3
10/2/01-9/30/02	364	45.47	32	27	76,112	1,674	7.7
10/1/02-9/29/03	364	44.52	32	27	136,610	3,069	13.9
9/30/03-9/28/04	365	43.32	32	27	236,780	5,466	24.0
9/29/04-10/3/05	370	28.07	32	27	76,656	2,731	7.7
10/4/05-10/2/06	364	50.47	32	27	227,760	4,513	23.2
10/3/06-10/1/07	364	40.96	32	27	126,030	3,077	12.8
10/2/07-9/29/08	364	38.45	32	27	100,020	2,601	10.2
9/30/08-9/28/09	364	30.46	32	27	144,500	4,744	14.7
9/29/09-9/27/10	364	48.37	32	27	339,850	7,026	34.6
9/28/10-10/3/11	371	49.99	32	27	728,757	14,578	72.8
10/4/11-10/1/12	364	45.73	32	27	863,412	18,881	87.9
10/2/12-9/30/13	364	41.47	32	27	438,701	10,579	44.6
10/1/13-9/29/14	364	30.81	32	27	237,260	7,701	24.1
9/30/14-9/27/15	363	36.97	32	27	336,730	9,108	34.4
9/28/15-10/2/16	371	47.46	32	27	488,230	10,287	48.7
10/3/16-10/2/17	365	59.68	32	27	686,370	11,501	69.6
10/3/17-9/30/18	363	41.62	32	27	148,560	3,569	15.2
10/1/18-10/1/19	366	39.31	32	27	379,790	9,661	38.4
10/2/19-10/1/20	365	28.13	32	27	59,650	2,121	6.1
10/2/20-10/1/21	365	38.39	32	27	54,380	1,417	5.5

**Table 3-4
Summary of 2020-2021 Leachate Volumes
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill**

Month	Corvallis WWTP/ other*	Leachate Irrigation on Landfill	Treatment Plant	Pond Volume at Start of Month	Rainfall (inches)	Cell 1 Flowmeter	Cell 2 Flowmeter	Cell 3 Flowmeter	Cell 4 Flowmeter	Cell 5 Flowmeter	Diaphragm Pumps (Hor. wells)	Downwell Pumps	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity	Public Area	PRC Leachate Handled
Oct-20	2,743,193	0	0	3,920,670	1.50	94,021	324,428	335,452	123,179	565,799	519	221,308	61,646	41,295	31,189	0	27,500
Nov-20	2,008,512	0	0	3,043,073	6.03	111,659	433,031	366,855	375,136	1,323,763	4,626	365,005	69,827	40,836	28,868	53,130	40,000
Dec-20	2,321,550	0	0	4,173,652	7.10	184,964	509,923	375,051	531,960	1,447,137	9,099	385,181	74,624	70,043	28,629	72,517	14,000
Jan-21	5,275,037	0	0	5,695,107	11.26	240,246	636,359	406,121	764,997	2,111,478	3,305	481,988	73,783	82,980	30,361	64,463	42,000
Feb-21	4,381,772	0	0	5,224,799	5.64	196,780	553,795	344,998	525,837	1,659,245	36,808	384,586	60,270	92,378	27,942	73,010	28,000
Mar-21	3,824,628	0	0	4,631,835	2.06	135,560	462,834	323,800	175,448	915,852	6,129	327,186	64,307	69,859	32,407	31,880	14,000
Apr-21	2,664,732	0	0	3,265,240	0.93	97,973	353,640	274,357	81,525	613,044	18,911	277,238	57,008	69,870	30,488	120	14,000
May-21	2,360,965	0	0	2,619,129	0.27	85,747	347,573	285,177	52,721	749,564	11,106	270,706	56,320	84,414	15,682	0	21,000
Jun-21	2,652,767	0	0	2,087,861	1.69	81,300	341,931	346,399	119,393	928,821	26,829	281,896	54,219	84,743	171	0	23,000
Jul-21	2,038,748	0	0	1,689,820	0.00	79,817	317,423	378,741	40,267	698,711	30,969	329,056	52,316	73,986	170	0	18,000
Aug-21	1,276,570	0	0	1,746,165	0.00	76,783	330,773	378,971	46,078	603,493	49,502	457,689	54,621	60,594	8,953	0	7,000
Sep-21	3,022,039	0	0	2,501,165	1.91	70,210	346,040	372,432	131,040	652,820	42,040	439,706	58,430	82,420	36,972	0	21,000
Oct-21				1,674,535													
Totals	34,570,513	0	0	—	38.39	1,455,060	4,957,750	4,188,354	2,967,581	12,269,727	239,841	4,221,546	737,371	853,418	271,832	295,120	269,500

2020-21 Leachate Volume Treated: 34,570,513
Leachate Calculated by Volumetrics: 32,324,378
Leachate Recorded by Flowmeters: 32,727,100
Percent Difference: Meters vs. Volum 1.24%

Notes: 1.) All values in gallons unless noted
2.) Leachate season: October 1, 2020 to September 30, 2021
* Also treated at Salem Wastewater treatment plant

**Table 3-5
Landfill Gas Monitoring
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill**

Date	Time	Levels	Monitoring Location												
			Landfill Perimeter						Buildings or Structures						
			GP2	GP3	GP4	GP5	GP5A	GP6	Quarry Scalehouse	Office	LTF	Scalehouse	Pump House	Lock-up #1	
01/27/21	11:58	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.9	16.3	6.3	9.7	20.2	11.3	20.9	20.9	20.9	20.9	20.9	20.9	20.9
02/25/21	9:58	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.9	20.9	5.8	7.9	20.1	10.2	20.9	20.9	20.9	20.9	20.9	20.9	20.9
03/26/21	11:15	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.9	20.9	6.1	7.7	20.9	15.5	20.9	20.9	20.9	20.9	20.9	20.9	20.9
04/23/21	9:32	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.9	17.2	5.0	9.0	20.9	10.2	20.9	20.9	20.9	20.9	20.9	20.9	20.9
05/20/21	10:38	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	19.8	15.8	3.8	17.8	20.4	9.1	20.9	20.9	20.9	20.9	20.9	20.9	20.9
06/25/21	13:05	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.9	15.3	3.7	17.6	19.8	8.8	20.9	20.9	20.9	20.9	20.9	20.9	20.9
07/22/21	12:00	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.9	17.5	12.3	20.1	20.4	11.7	20.9	20.9	20.9	20.9	20.9	20.9	20.9
08/18/21	11:25	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.9	18.6	14.8	20.9	20.7	16.1	20.9	20.9	20.9	20.9	20.9	20.9	20.9
09/30/21	13:05	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.9	19.7	12.6	20.8	20.7	18.6	20.9	20.9	20.9	20.9	20.9	20.9	20.9
10/20/21	12:35	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.9	20.3	14.3	18.7	20.9	19.0	20.9	20.9	20.9	20.9	20.9	20.9	20.9
11/17/21	11:22	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.8	16.6	12.4	16.7	20.5	20.5	20.9	20.9	20.9	20.9	20.9	20.9	20.9
12/17/21	10:09	LEL %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		CH4 %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		O2 %	20.9	20.9	10.0	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9

Table 4-1
Comparison of Sampling Results with RACLS
Compliance Wells - West Side
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill

	Inorganic Compounds				VOCs				Trace Metals						
	Chloride	TDS	Iron	Manganese	1,4-DCB	PCE	TCE	Vinyl chloride	Antimony	Arsenic	Barium	Chromium	Lead	Nickel	Selenium
Units	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
RACL	250	500	0.3	0.05	75	5	5	2	6	10	1,000	50	50	100	10
MW-1D															
04/17/21	7.1	210	ND	ND	ND	ND	ND	ND	—	0.63	—	—	—	—	—
04/17/21	7.1	210	0.11	ND	ND	ND	ND	ND	—	0.68	—	—	—	—	—
10/16/21	7.0	220	ND	ND	ND	ND	ND	ND	ND	ND	3.6	ND	ND	ND	ND
MW-3D															
04/17/21	52	270	ND	ND	0.3 J	ND	ND	ND	—	ND	—	—	—	—	—
10/16/21	41	250	ND	ND	ND	ND	ND	ND	ND	ND	5.1	ND	ND	ND	ND
MW-10S															
04/16/21	550	1,500	ND	0.065	0.58	ND	ND	ND	—	ND	—	—	—	—	—
10/04/21	540	1,400	ND	0.027	ND	ND	ND	ND	ND	1	12	ND	ND	24	ND
MW-10D															
04/16/21	110	770	ND	0.083	ND	ND	ND	ND	—	ND	—	—	—	—	—
10/14/21	110	670	ND	ND	ND	ND	ND	ND	ND	0.99	11	ND	ND	13	ND
MW-11S															
04/17/21	38	850	ND	0.027	ND	ND	ND	ND	—	ND	—	—	—	—	—
10/16/21	35	790	ND	0.0084	ND	ND	ND	ND	ND	ND	7.3	ND	ND	3.9	ND
MW-11D															
04/17/21	100	1,200	0.027 JB	0.030	ND	ND	ND	ND	—	ND	—	—	—	—	—
10/16/21	100	1,100	0.033 JB	0.047	ND	ND	ND	ND	ND	ND	6.8	ND	ND	8.6	ND
MW-12S															
04/17/21	38	390	0.70	0.63	ND	0.88	1.4	ND	—	1.3	—	—	—	—	—
10/16/21	37	390	0.071 JB	0.0051	ND	1.0	1.0	ND	ND	ND	5	ND	ND	2.3	ND
MW-12D															
04/17/21	14	200	0.041 JB	ND	ND	1.6	ND	ND	—	0.56	—	—	—	—	—
10/16/21	13	200	ND	ND	ND	2.6	ND	ND	ND	ND	0.49 J	ND	ND	ND	ND

**Table 4-1
Comparison of Sampling Results with RACLS
Compliance Wells - West Side
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill**

	Inorganic Compounds				VOCs				Trace Metals						
	Chloride	TDS	Iron	Manganese	1,4-DCB	PCE	TCE	Vinyl chloride	Antimony	Arsenic	Barium	Chromium	Lead	Nickel	Selenium
Units	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
RACL	250	500	0.3	0.05	75	5	5	2	6	10	1,000	50	50	100	10
MW-20 10/14/21	130	510	ND	0.61	ND	ND	ND	ND	ND	ND	6.8	ND	ND	1.3 J	ND
MW-21 10/14/21	81	490	0.34 B	0.15	ND	ND	ND	ND	ND	ND	7.8	ND	0.41 J	9.8	ND
Notes: Bold values are above RACL. ND: not detected above the method reporting limit. J: estimated, below laboratory MRL and above instrument MDL. —: not tested.															

Table 4-2
Comparison of Sampling Results with SSLs
East Side Compliance Wells
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill

Units	Indicator Parameters								
	Bicarbonate Alkalinity (mg/L)	Chloride (mg/L)	TDS (mg/L)	Calcium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Sodium (µg/L)	
MW-26	SSL	175	6.2	246	32	4.5	10.1	0.74	30
	4/15/14	150	5.6	180	23	0.35	8.3	0.46	28
	4/15/14 DEQ	142	6.2	192	24.7	0.401	9.1	0.534	27.8
	10/21/14	140	5.5	190	24	0.51	9.8	0.64	29
	4/25/15	140	6.1	190	23	0.29	9.3	0.45	28
	10/17/15	150	5.9	200	26	1.1	9.9	0.66	30
	4/16/16	150	5.8	180	24	0.19	9.1	0.53	27
	10/22/16	150	5.6 J	190	24	0.53	9.4	0.65	26
	4/21/17	150	6.0	180	24	0.36	8.6	0.41	27
	10/20/17	150	5.4	210	23	0.51	10.0	0.62	27
	4/28/18	150	6.2	190	24	0.17	8.1	0.37	25
	10/12/18	150	5.7	190	25	0.37	9.3	0.56	25
	4/19/19	150	5.2	190	26	0.13	10.0	0.25	27
	10/26/19	160	5.2	200	23	0.44	9.0	0.67	25
	4/12/20	160	4.4	200	26	0.28	9.8	0.69	26
	10/9/20	150	5.3	180	26	0.61	10.0	0.79	27
	4/16/21	150	6.3	200	24	0.21	8.4	0.46	26
	10/15/21	170	5.6	190	26	0.51	10.0	0.71	27
	10/15/21 (dup)	160	5.6	190	25	0.50	9.9	0.70	26
MW-27	SSL	495	15.0	499	100	17.6	46	8.9	44.4
	4/18/14	400	11	420	88	16	41	8.1	40
	10/21/14	400	12	460	87	13	39	6.8	40
	4/25/15	430	13	470	86	13	42	8.2	40
	10/17/15	460	13	490	92	13	41	8.2	42
	4/16/16	450	13	480	86	5.3	40	7.2	37
	10/22/16	410	12 J	440	79	4.9	34	6.8	35
	4/21/17	290	15	310	45	0.49	19	3.1	28
	10/20/17	390	14	430	61	4.0	29	5.4	32
	4/28/18	450	14	460	71	5.1	31	6.8	35
	10/12/18	450	14	460	82	9.0	35	7.9	35
	4/19/19	450	13	470	87	8.9	40	9.1	37
	10/26/19	460	12	470	80	3.3	34	7.6	35
	4/12/20	470	10	470	91	8.6	38	9.4	36
	10/9/20	460	13	480	89	8.7	38	9.7	37
	4/16/21	460	14	480	87	7.6	37	9.5	36
	10/15/21	480	13	470	89	5.7	39	9.6	37

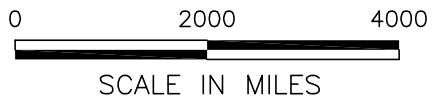
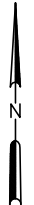
Note:

SSL: site specific limit.
 Bold Values: above SSL.
 NE: not established.

Table 4-3
Sample Results Above Drinking Water Standards
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill

Analyte	Standard (mg/L)	Sampling Event	Compliance Wells									Detection Wells			
			Cell 4 - East Side		Cells 1 - 1A					Closed Landfill		Cells 1 - 1A			Cell 2
			MW-26	MW-27	MW-10S	MW-10D	MW-11S	MW-11D	MW-12S	MW-20	MW-21	P-8	MW-8S	MW-19	MW-23
Primary MCLs															
Arsenic	0.01	4/2021 10/2021	0.016 0.016	0.017 0.017	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	0.032/0.033 0.011
Secondary MCLs															
Chloride	250	4/2021 10/2021	— —	— —	550 540	— —	— —	— —	— —	— —	— —	— —	— —	310	— —
TDS	500	4/2021 10/2021	— —	— —	1,500 1,400	770 670	850 790	1,200 1,100	— —	510	—	— —	— —	560	— —
Iron	0.3	4/2021 10/2021	— 0.51/0.50	7.6 5.7	— —	— —	— —	— —	0.7 —	—	0.34	— —	— —	—	0.52/0.54 0.77
Manganese	0.05	4/2021 10/2021	0.46 0.71/0.70	9.5 9.6	0.065 —	0.083 —	— —	— —	0.63 —	0.61	0.15	— —	— —	—	0.93/0.93 0.50
Notes:															
Table shows only results above the drinking water standards; 0.014/0.013: results of duplicate samples.															
—: indicates sample results were below drinking water standard.															

FIGURES

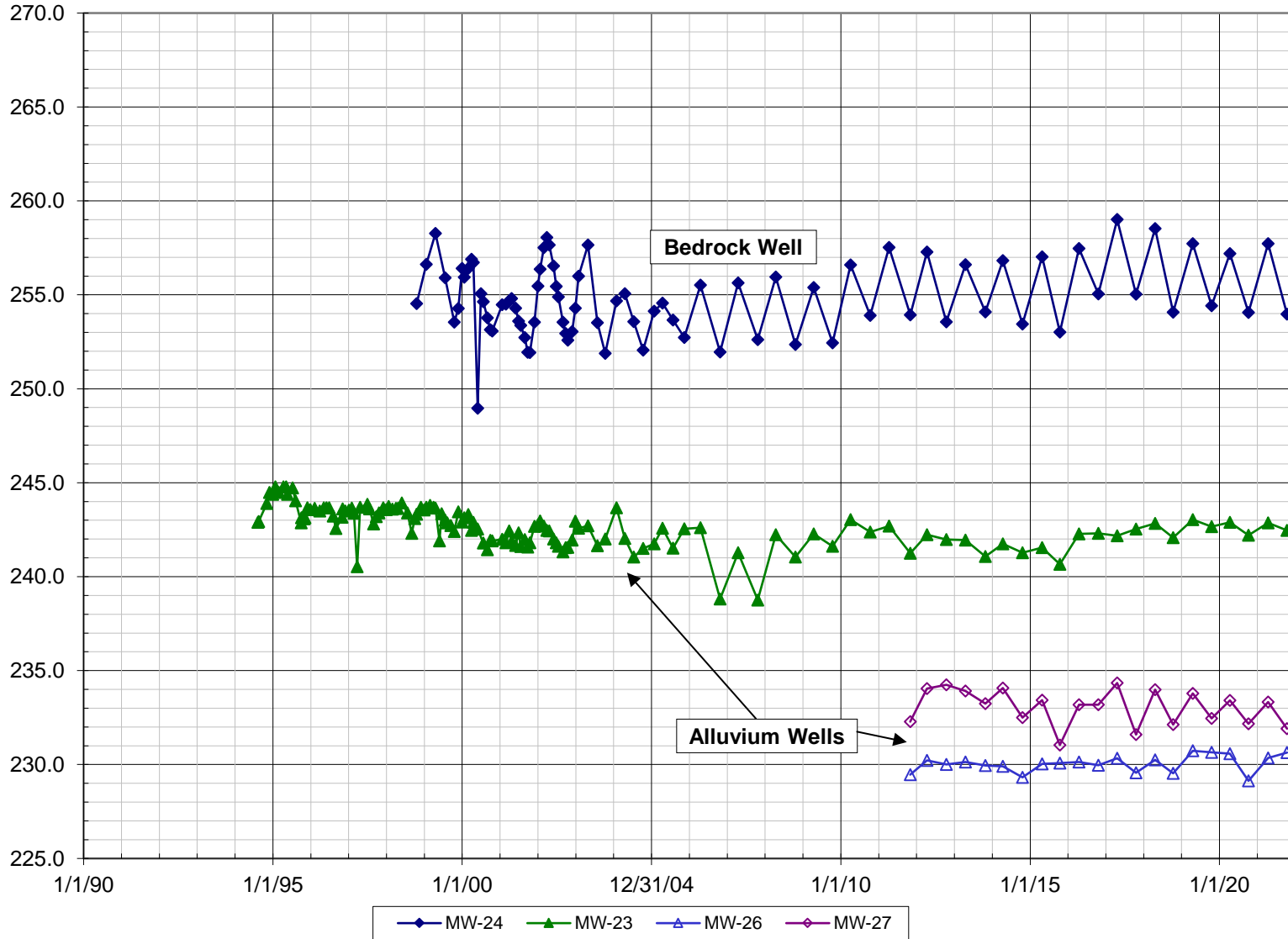


Tuppan Consultants LLC
 460 Second Street, Suite 103
 Lake Oswego, Or 97034
 Ph. 503.675.1335

DATE 3-6-13
 DWN GRH
 APP _____
 REV _____
 PROJECT NO.
 VLI-001-002

FIGURE 1-1
 COFFIN BUTTE LANDFILL
 BENTON COUNTY, OREGON
SITE LOCATION

Figure 3-1
Hydrographs for Eastside Wells
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill



**Figure 3-2
Hydrographs for Upgradient Bedrock Wells
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill**

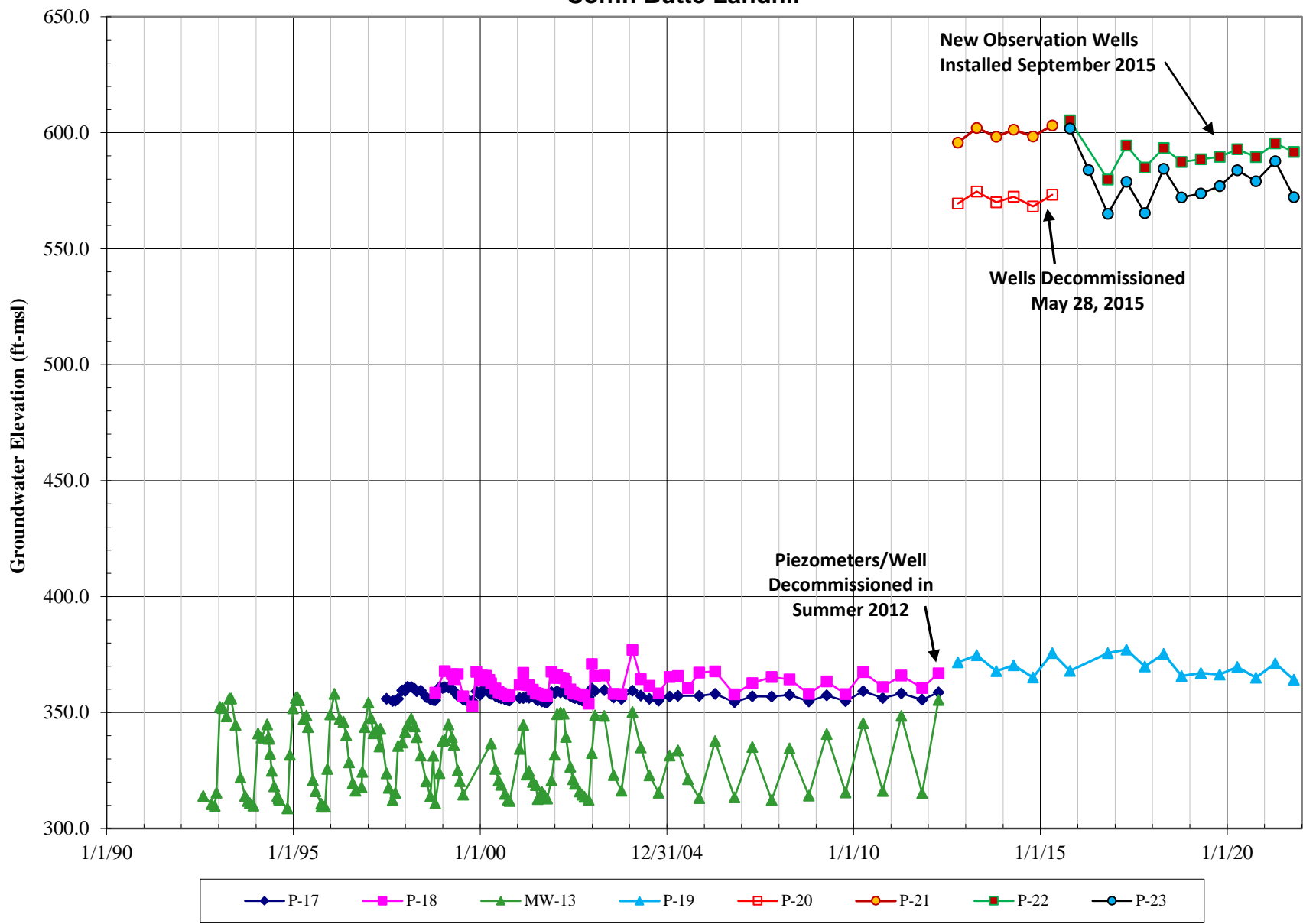
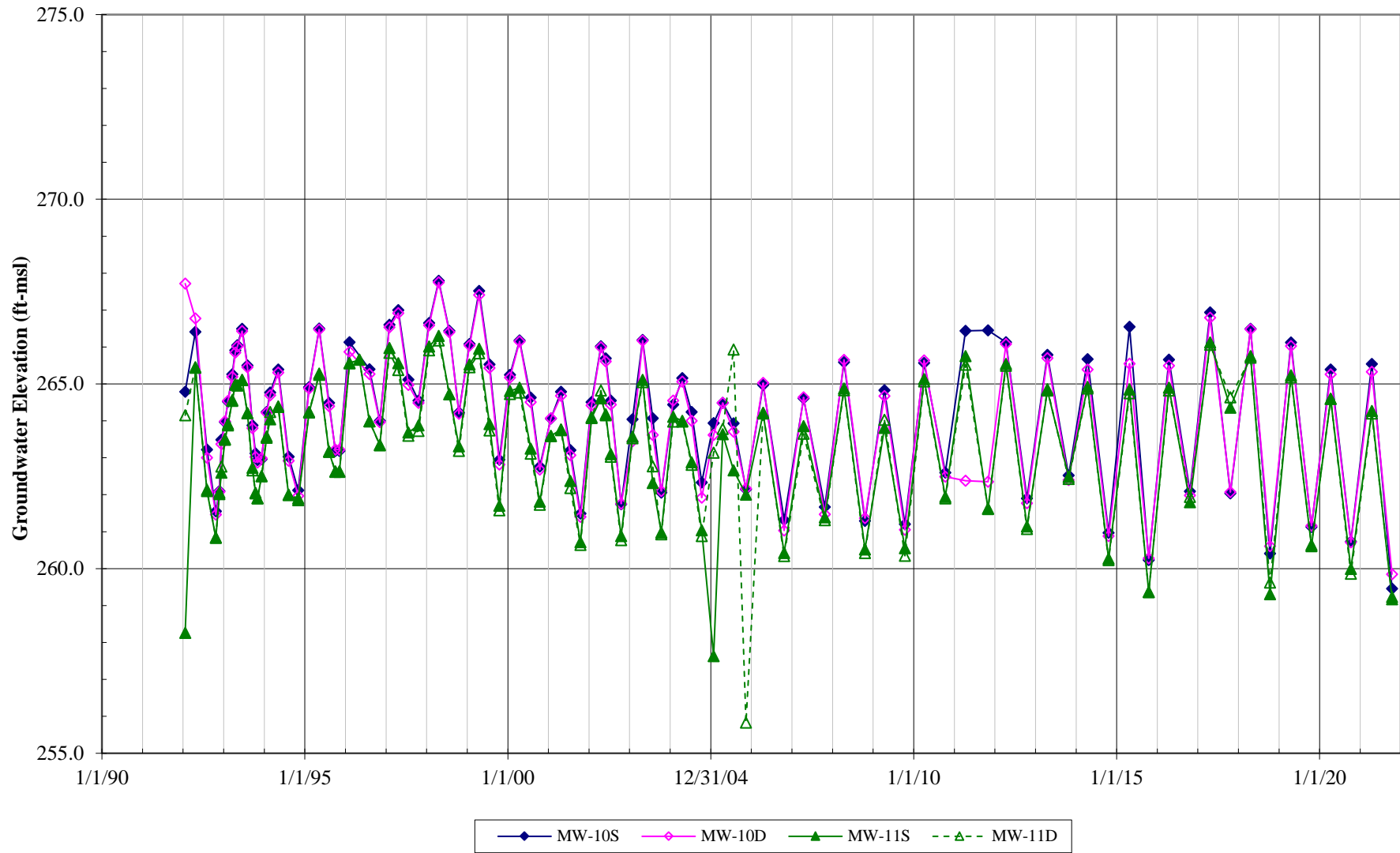
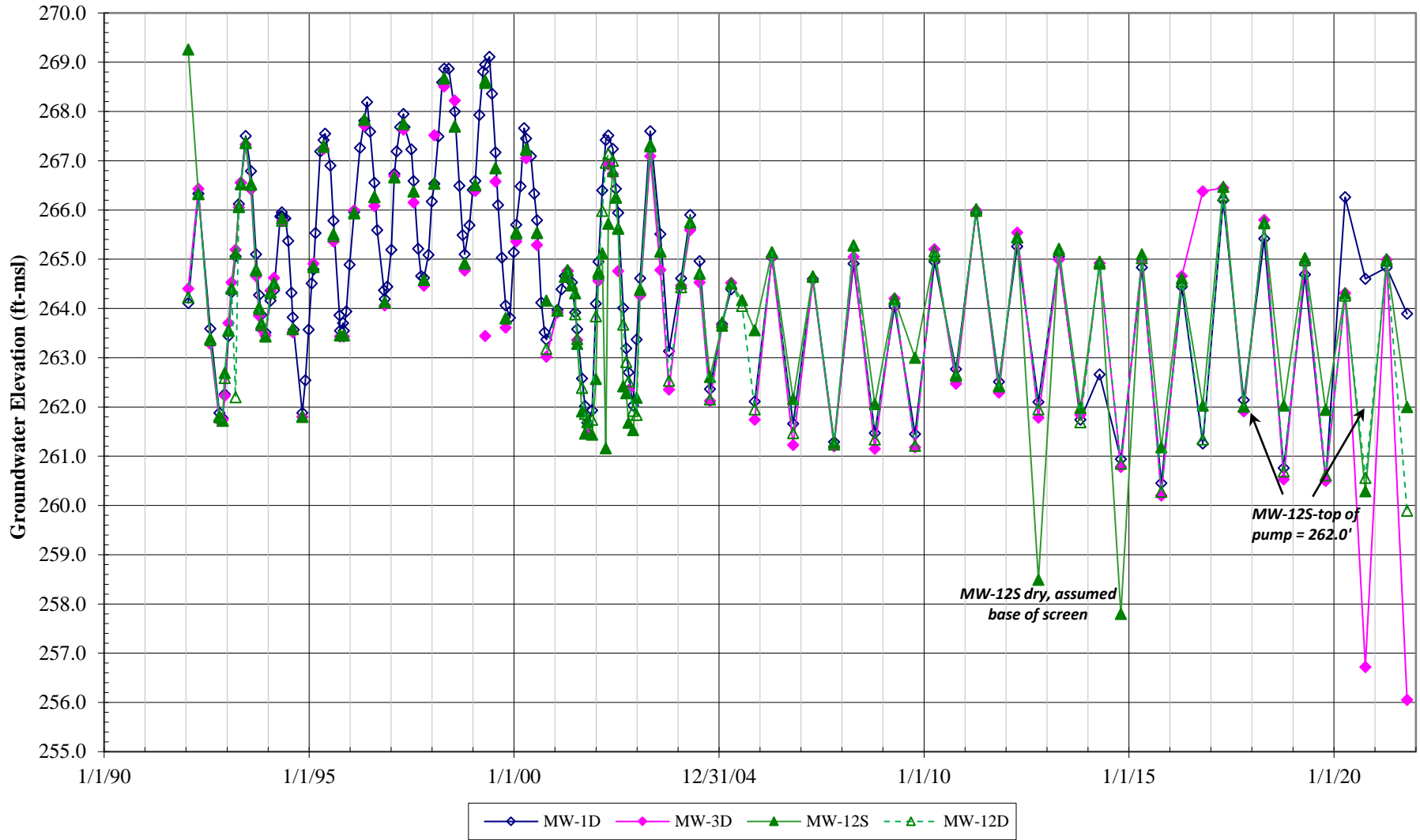


Figure 3-3
Hydrographs for Cell 1A Area Wells
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill



**Figure 3-4
Hydrographs for Cell 1 Area Wells
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill**



3-1-21:TuppanCoffin Butte\GW APRIL 2021.dwg

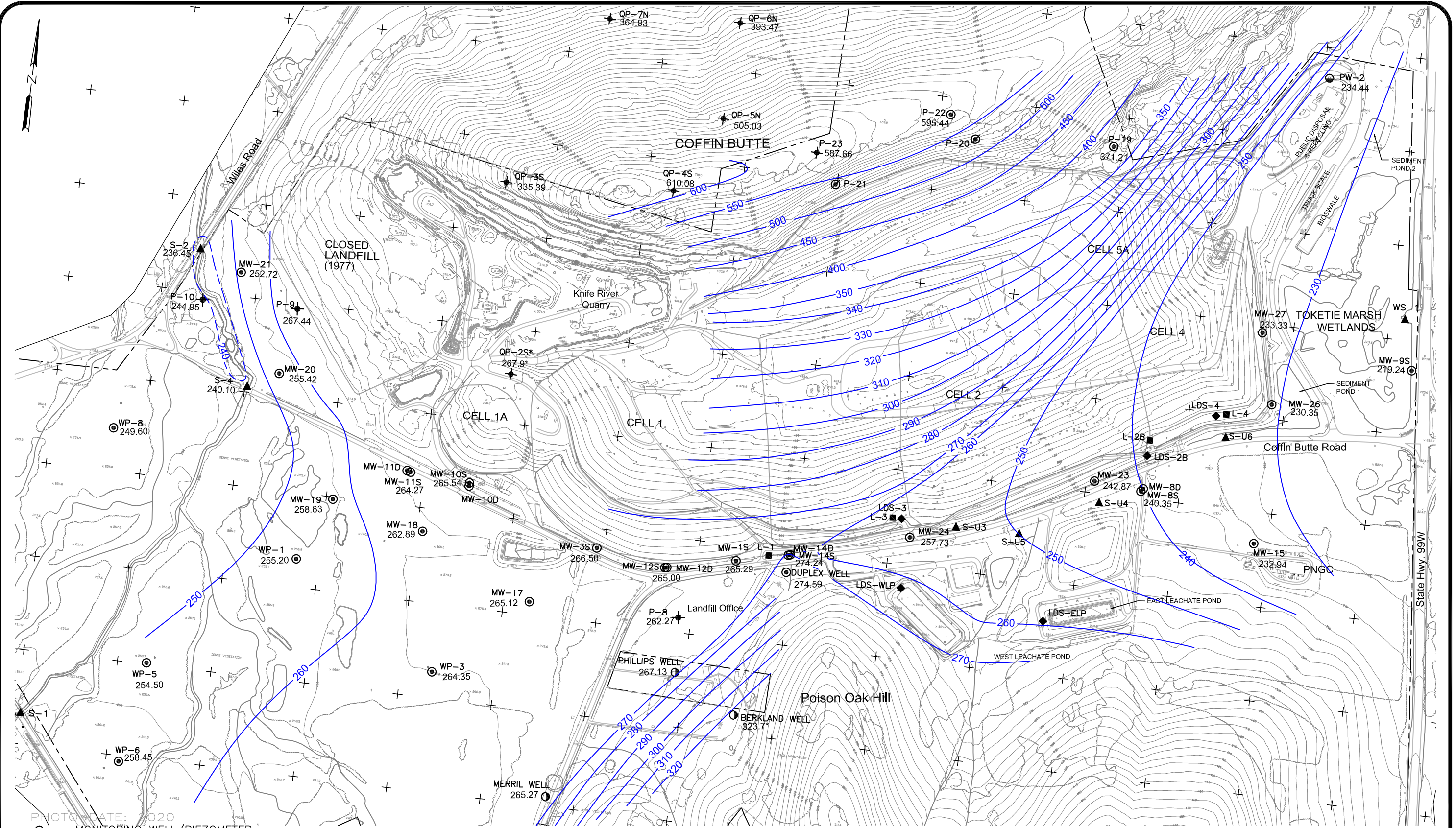


PHOTO DATE: 10/20

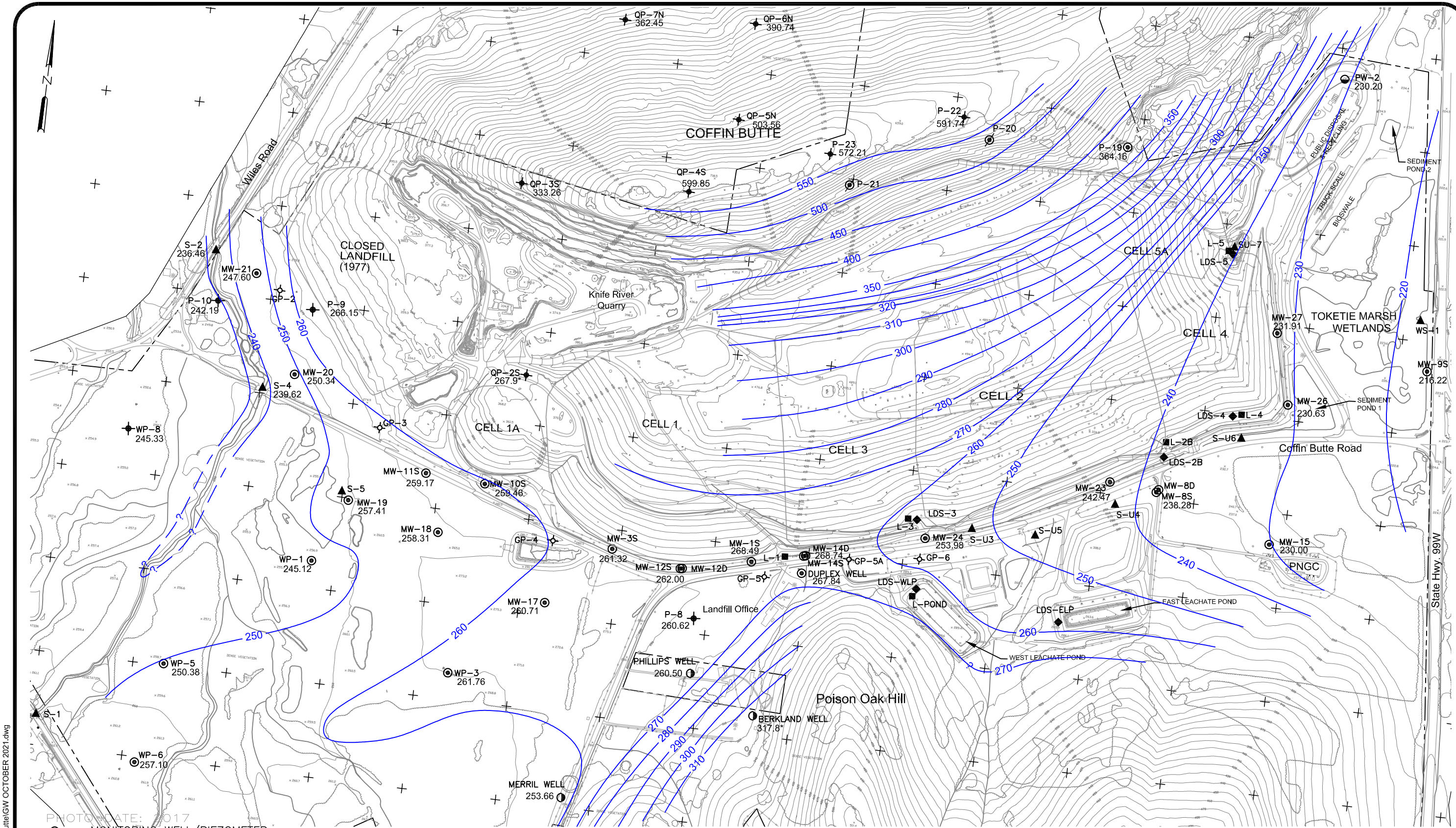
- MONITORING WELL/PIEZOMETER
- ◆ OBSERVATION WELL/PIEZOMETER
- LANDFILL WATER SUPPLY WELL
- ⊕ GAS PROBE
- * AVERAGE FOR APRIL
- PRIVATE WELL
- LEACHATE SUMP
- ◆ LEAK DETECTION SYSTEM
- ▲ SURFACE WATER MONITORING STATION
- ?— GROUNDWATER ELEVATION CONTOUR (FT-MSL)
QUERIED WHERE PROJECTED



Tuppan Consultants LLC
 460 Second Street, Suite 103
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DATE 3-3-22
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 PROJECT NO.
 VLI-001-002

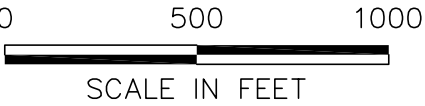
FIGURE 3-5
 COFFIN BUTTE LANDFILL
 BENTON COUNTY, OREGON
 APRIL 15, 2021
 GROUNDWATER CONTOURS



3-1-21:Tuppan\Coffin Butte\GW OCTOBER 2021.dwg

PHOTO DATE: 10/17

- | | | | |
|---|-----------------------------|-------|---|
| ⊙ | MONITORING WELL/PIEZOMETER | ○ | PRIVATE WELL |
| + | OBSERVATION WELL/PIEZOMETER | ■ | LEACHATE SUMP |
| ● | LANDFILL WATER SUPPLY WELL | ◆ | LEAK DETECTION SYSTEM |
| ⊕ | GAS PROBE | ▲ | SURFACE WATER MONITORING STATION |
| * | AVERAGE FOR OCTOBER | — ? — | GROUNDWATER ELEVATION CONTOUR (FT-MSL)
QUERIED WHERE PROJECTED |



Tuppan Consultants LLC
 460 Second Street, Suite 103
 Lake Oswego, Or 97034
 Ph. 503.675.1335

DATE 3-3-22
 DWN GRH
 APP _____
 REV _____
 PROJECT NO.
 VLI-001-002

FIGURE 3-6
 COFFIN BUTTE LANDFILL
 BENTON COUNTY, OREGON
 OCTOBER 14, 2021
 GROUNDWATER CONTOURS

APPENDIX A
DATA REVIEW MEMORANDA

M E M O R A N D U M

TO: Coffin Butte Landfill Project File DATE: December 28, 2021
VLI-001-002

FROM: Eric Tuppan

RE: Coffin Butte Landfill - Data Validation
Second Quarter 2021 Monitoring Results

Quality Technical Services under contract to Tuppan Consultants LLC collected water samples from groundwater monitoring wells, the leak detection system (LDS), underdrains, and surface water at the Coffin Butte Landfill near Corvallis, Oregon, from April 16 through 18, 2021. Samples were submitted to TestAmerica Laboratories, Inc., in Denver, Colorado, and assigned job number 280-147625-1. Samples were analyzed for volatile organic compounds (VOCs), inorganic parameters, and total and dissolved metals. Table 1 summarizes sample locations, field-assigned codes, laboratory-assigned sample numbers, and dates collected. This memorandum presents a summary of the data validation review of these analyses.

DATA VALIDATION

Analytical results were reviewed following applicable parts of U.S. Environmental Protection Agency (USEPA) procedures (USEPA, 1999, 2004) and method-specific QC guidelines (USEPA, 1983, 1986). All qualifiers assigned by this review are shown in Table 3, with the original value and laboratory assigned qualifiers, followed by revised values and revised qualifiers.

Data Package

The data package was checked for potential transcription errors, omissions, or anomalies. None was noted; no data qualifiers were assigned based on the data package.

Holding Times and Preservation

Sample analyses were conducted within holding time limits.

Sample containers were properly preserved and stored in iced coolers. The coolers were received at the laboratory at temperatures ranging between of 1.2°C and 2.8°C, within or slightly below the recommended temperature of 4°C ±2°C. On receipt at the laboratory, the samples were refrigerated at a temperature of 4°C.

The pre-preserved hydrochloric acid preserved vials for Method 8260B analysis for the sample VLF-210416-6 (LDS-2B) exhibited a pH value greater than 2. This is non-compliant with Method 8260B which requires samples to be preserved with hydrochloric acid to a pH of less than 2. This is normal for this location which is a secondary leachate collection system. No qualifiers were assigned due to temperature or preservation.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the appropriate frequencies. No analytes were detected in method blanks above the standard laboratory method reporting limits (MRLs) with two exceptions:

- m-Xylene & p-Xylene Method 8260B were detected in the Method Blank below the project established reporting limit. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits. These constituents were not detected in any of the samples.
- The seeded control blank (method blank) for BOD Method 5210B depleted more than the method-specified limit, 0.2mgO₂/L. The laboratory control sample (LCS) recovery was in control. Because the holding time expired, reanalysis was not performed.

No qualifiers were assigned on the basis of method blanks.

Matrix Spikes (MS) and Matrix Spikes Duplicate (MSD)

Matrix spike (MS) and matrix spike duplicate (MSD) analyses were performed at the required frequencies. Quality control data were within acceptable limits with the following exceptions:

- Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) for Method 8260B (batches 534251 and 534384), however, LCS/LCSD pairs were analyzed to demonstrate method precision and accuracy.
- The Matrix Spikes and Matrix Spike Duplicates performed on samples from other clients exhibited recoveries outside control limits for Total Kjeldahl Nitrogen (TKN) Method 351.2. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

No data qualifiers were assigned based on MS/MSD results.

Laboratory Duplicates

The RPDs between laboratory duplicates were less than 20 percent or within 1 times the RL and within control criteria. No data qualifiers were assigned based on laboratory duplicates.

Laboratory Control Samples (LCS)

The control criteria were acceptable for inorganic, metals and VOCs except as noted below:

- The Biochemical Oxygen Demand (BOD) Method 5210B glucose-glutamic acid standard (LCS) recovered below the lower control limit specified in the method at 40% (control limits 85 percent-115 percent). Because the 48-hour holding time expired, reanalysis was not performed. Associated samples in surface water were qualified as estimated (“J”) based on the low recovery (see Table 3).

No qualifiers were assigned on the basis of LCS results.

Surrogate Recoveries

Surrogate spikes were performed at the required frequencies. Results were within QC criteria for all results. No qualifiers were assigned on the basis of surrogate results.

Trip Blank

Three trip blanks were analyzed with the sample group. No analytes were detected.

Field Blank

One field blank (VLF-210416-1) was analyzed with the sample group. Acetone (4 µg/L J) and chloroform (0.64 µg/L) were detected. Acetone was detected in LDS-2B at a comparable concentration (5 µg/L J) and was therefore qualified as not detected at the method reporting limit of 10 µg/L. No other qualifiers were assigned based on field blank results.

Field Duplicates

Field duplicates were collected from surface water at S-4 and from monitoring wells MW-1D and MW-23. Field duplicate samples were analyzed for the same suite of parameters as the primary samples. For results detected above the laboratory MRL, RPDs were less than or equal to 13 percent or within 1 time the MRL for sample results less than 5 times the MRL with one exception: at MW-23, the difference for total suspended solids (TSS) was 105 percent (42 and 13 mg/L). It is not uncommon for TSS to vary in duplicate samples and may depend on small changes in pumping rate. Qualifiers are not assigned on the basis of field duplicates.

Toluene Detections

Toluene was detected at estimated “J” concentrations in compliance well MW-27 at 0.24 µg/L and at LDS-2B at 0.49 µg/L. Toluene is commonly found at these low trace concentrations both in samples and as a laboratory contaminant, although for this sampling event, it was not detected in method, trip, or field blanks. However, even though these sample results are not being qualified as nondetect based on blank results, they are both likely a result of laboratory contamination given the consistent concentrations and prevalence across site wells and historical detections in blanks for this project.

Reporting Limits (RLs)

RLs for monitoring well samples were at acceptable levels for this project and within project data quality objectives: less than or equal to 10 percent of the relevant drinking water standard for inorganics and metals, and less than or equal to 50 percent of the relevant drinking water standard for volatile organic compounds.

A few of the analytes were reported at concentrations below TestAmerica Denver’s laboratory RL but above the MDL to meet project specific RLs required by the DEQ. Those results are designated as estimated by the laboratory (“J”), and are carried into the site database. Table 2 lists the differences between standard laboratory RLs, MDLs, and the project specific RLs for reference. No qualifiers were assigned on the basis of RLs.

Completeness

Completeness is the amount of valid data obtained for a given set of data. Data qualified as estimates are usable and are therefore considered in the calculation. Percent completeness is defined as the number of samples analyzed that meet the data quality goals, divided by the total number of samples analyzed, and multiplied by 100. Percent completeness for this data set is 100 percent.

Overall Assessment

The data are judged to be acceptable for their intended use except as qualified in Table 3.

Table 1
Sample Summary
Coffin Butte Landfill
April 2021

Monitoring Wells

MW-1D	VLF-210417-18	280-210416-19	04/17/21
MW-1D dup	VLF-210417-19	280-210416-20	04/17/21
MW-3D	VLF-210417-15	280-210416-16	04/17/21
MW-10S	VLF-210416-11	280-210416-12	04/16/21
MW-10D	VLF-210416-12	280-210416-13	04/16/21
MW-11S	VLF-210417-13	280-210416-14	04/17/21
MW-11D	VLF-210417-14	280-210416-15	04/17/21
MW-12S	VLF-210417-17	280-210416-18	04/17/21
MW-12D	VLF-210417-16	280-210416-17	04/17/21
MW-23	VLF-210416-9	280-210416-9	04/16/21
MW-23 dup	VLF-210416-10	280-210416-10	04/16/21
MW-26	VLF-210416-3	280-210416-3	04/16/21
MW-27	VLF-210416-2	280-210416-2	04/16/21
P-8	VLF-210417-20	280-210416-22	04/17/21

Leak Detection System/Leachate

LDS-2B	VLF-210416-6	280-210416-6	04/16/21
LDS-3	VLF-210416-4	280-210416-4	04/16/21
LDS-4	VLF-210416-7	280-210416-7	04/16/21
LDS-5	VLF-210416-8	280-210416-8	04/16/21
LDS-WLP	DRY-DNS	—	—
LDS-ELP	DRY-DNS	—	—

Surface Water

S-1	VLF-210418-23	280-210416-25	04/18/21
S-2	VLF-210418-24	280-210416-26	04/18/21
S-4	VLF-210418-25	280-210416-27	04/18/21
S-4 dup	VLF-210418-26	280-210416-28	04/18/21
S-U3	VLF-210416-5	280-210416-5	04/16/21
S-U4	VLF-210418-22	280-210416-24	04/18/21
S-U5	VLF-210418-21	280-210416-23	04/18/21

QA/QC

Field Blank	VLF-210416-1	280-210416-1	04/16/21
Trip Blank	TRIP BLANK	280-210416-11	04/16/21
Trip Blank	TRIP BLANK	280-210416-21	04/17/21
Trip Blank	TRIP BLANK	280-210416-29	04/18/21

DRY-DNS: Dry, did not sample.

Table 2
TestAmerica List of Reporting Limits Used for Data Review
Coffin Butte Landfill

Analyte	EPA Method	TestAmerica Standard RL	TestAmerica Standard MDL	Project Specific RL
METALS (µg/L)				
Antimony	200.8	2	0.06	0.06
Arsenic	200.8	5	0.5	0.5
Barium	200.8	1	0.12	5
Beryllium	200.8	1	0.15	1
Cadmium	200.8	1	0.04	1
Calcium	6010B	200	34.5	200
Chromium	200.8	3	0.88	5
Cobalt	200.8	1	0.05	10
Copper	200.8	2	0.2	10
Iron	6010B	100	22	100
Lead	200.8	1	0.1	1
Magnesium	6010B	200	10.7	200
Manganese	6010B	1	0.12	5
Mercury	7470	—	—	0.2
Nickel	200.8	2	0.28	2
Potassium	6010B	3000	237	3000
Selenium	200.8	5	1	1
Silicon	6010B	500	34.7	500
Silver	200.8	1	0.02	1
Sodium	6010B	1000	91.6	1000
Thallium	200.8	1	0.029	1
Vanadium	200.8	5	1.12	10
Zinc	200.8	10	2	10
INORGANICS (mg/L)				
Alkalinity, total	310.1/2320B	5	1.07	5
Bicarbonate/Carbonate	SM2320B	5	1.07	5
BOD	405.1/5210B	2	0.295	2
Chloride	300.0	3	0.254	3
COD	410.2/410.4	20	4.06	20
Hardness	6010B/SM2340B	5	1.3	5
Nitrogen, Ammonia	350.1	0.1	0.0225	0.1
Nitrogen, Nitrate/nitrite	353.2	0.1	0.0191	0.2
Nitrogen, total Kjeldahl	351.4/351.2	0.5	0.25	0.5
PO4	365.3	0.05	0.0059	0.05
Sulfate	300.0	5	0.232	5
TDS	160.1/2540C	10	4.7	10
TOC	415.1/5310B	1	0.155	1
Total phosphorus	365.3	0.05	0.005	0.05
TSS	160.2/2540D	4	1.1	4

**Table 2 (cont.)
TestAmerica List of Reporting Limits Used for Data Review
Coffin Butte Landfill**

Analyte	EPA Method	TestAmerica Standard RL	TestAmerica MDL	Project RL
ORGANIC COMPOUNDS (µg/L)				
Acetone	8260B	10	1.9	10
Benzene	8260B	1	0.16	0.5
Bromobenzene	8260B	1	0.17	1
Bromochloromethane	8260B	1	0.1	0.5
Bromodichloromethane	8260B	1	0.17	0.5
Bromoform	8260B	1	0.19	0.5
Bromomethane	8260B	2	0.21	0.5
2-Butanone (MEK)	8260B	6	1.83	6
Carbon Disulfide	8260B	2	0.45	2
Carbon Tetrachloride	8260B	1	0.19	0.5
Chlorobenzene	8260B	1	0.17	0.5
Chloroethane	8260B	2	0.41	0.5
Chloroform	8260B	1	0.16	0.5
Chloromethane	8260B	2	0.3	0.5
2-Chlorotoluene	8260B	1	0.17	1
4-Chlorotoluene	8260B	1	0.17	1
1,2-Dibromo-3-chloropropane	8260B	5	1.5	2
1,2-Dibromoethane (EDB)	8260B	1	0.18	1
1,2-Dichlorobenzene	8260B	1	0.13	0.5
1,2-Dichloroethane (EDC)	8260B	1	0.13	0.5
1,2-Dichloropropane	8260B	1	0.13	0.5
1,3,5-Trimethylbenzene	8260B	1	0.14	1
1,3-Dichlorobenzene	8260B	1	0.16	0.5
1,3-Dichloropropane	8260B	1	0.15	0.5
1,4-Dichlorobenzene	8260B	1	0.16	0.5
2,2-Dichloropropane	8260B	5	0.2	0.5
1,1-Dichloroethane	8260B	1	0.16	0.5
1,1-Dichloroethene	8260B	1	0.14	0.5
1,1-Dichloropropene	8260B	1	0.15	0.5
cis-1,2-Dichloroethene	8260B	1	0.15	0.5
cis-1,3-Dichloropropene	8260B	1	0.16	0.5
Dibromochloromethane	8260B	1	0.17	0.5
Dibromomethane	8260B	1	0.17	0.5
Dichlorodifluoromethane	8260B	2	0.22	0.5
Ethylbenzene	8260B	1	0.16	0.5
Hexachlorobutadiene	8260B	1	0.12	1
2-Hexanone	8260B	5	1.4	5
Isopropylbenzene	8260B	1	0.19	1
4-Isopropyltoluene	8260B	1	0.17	1
Methylene Chloride	8260B	5	0.32	2

**Table 2 (cont.)
TestAmerica List of Reporting Limits Used for Data Review
Coffin Butte Landfill**

Analyte	EPA Method	TestAmerica Standard RL	TestAmerica MDL	Project RL
4-Methyl-2-pentanone (MIBK)	8260B	5	1.04	5
Naphthalene	8260B	1	0.22	1
n-Butylbenzene	8260B	1	0.14	1
n-Propylbenzene	8260B	1	0.16	1
sec-Butylbenzene	8260B	1	0.17	1
Styrene	8260B	1	0.17	0.5
tert-Butylbenzene	8260B	1	0.16	1
1,1,1,2-Tetrachloroethane	8260B	1	0.17	0.5
Tetrachloroethene (PCE)	8260B	1	0.2	0.5
1,1,1-Trichloroethane (TCA)	8260B	1	0.16	0.5
1,1,2,2-Tetrachloroethane	8260B	1	0.2	0.5
1,1,2-Trichloroethane	8260B	1	0.32	0.5
1,2,3-Trichlorobenzene	8260B	1	0.18	1
1,2,3-Trichloropropane	8260B	2.5	0.77	0.5
1,2,4-Trichlorobenzene	8260B	1	0.32	1
1,2,4-Trimethylbenzene	8260B	1	0.14	1
Toluene	8260B	1	0.17	0.5
trans-1,2-Dichloroethene	8260B	1	0.15	0.5
trans-1,3-Dichloropropene	8260B	3	0.19	0.5
Trichloroethene (TCE)	8260B	1	0.16	0.5
Trichlorofluoromethane	8260B	2	0.29	0.5
Vinyl Chloride	8260B	1	0.4	0.5
m,p-Xylenes	8260B	2	0.34	0.5
o-Xylene	8260B	1	0.19	0.5

Table 3
Summary of Assigned Data Qualifiers
Coffin Butte Landfill

Location ID	Sample ID	Units	Reported Result	Lab Qualifier	Revised Result	Assigned Qualifier	Retained Lab Qualifier
Field Blank Revision							
Acetone							
LDS-2B	VLF-210416-6	µg/L	5	JB	10	U	B
LCS Revisions							
BOD							
S-1	VLF-210418-23	mg/L	0.4	J	0.4		J
S-2	VLF-210418-24	mg/L	2.5	U	2.5	J	U
S-4	VLF-210418-25	mg/L	2.5	U	2.5	J	U
S-4 dup	VLF-210418-26	mg/L	2.5	U	2.5	J	U

U: Analyte not detected at a concentration at or above the method reporting limit.

UB: not detected at the associated reporting limit, detected in method blank or field blank.

J: The result is an estimated quantity.

REFERENCES

- USEPA. 1983. Methods for chemical analysis of water and wastes. U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. EPA-600/4-79-020.
- USEPA. 1986. Test methods for evaluating solid waste: physical/chemical methods. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.
- USEPA. 1999. USEPA contract laboratory program national functional guidelines for organic data review. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. EPA 540/R-99/008. October.
- USEPA. 2004. USEPA contract laboratory program national functional guidelines for inorganic data review. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. EPA 540-R-04-004. October.

M E M O R A N D U M

TO: Coffin Butte Landfill Project File
VLI-001-002

DATE: December 29, 2021

FROM: Eric Tuppen

RE: Coffin Butte Landfill - Data Validation
Fourth Quarter 2021 Monitoring Results

Quality Technical Services under contract to Tuppen Consultants LLC, collected water samples from groundwater monitoring wells, the leak detection system (LDS), the primary leachate pond, underdrains, a domestic well and surface water at the Coffin Butte Landfill near Corvallis, Oregon, from October 14 to 17, 2021. Samples were submitted to TestAmerica Laboratories, Inc., in Denver, Colorado, and assigned job number 280-154367-1. Samples were analyzed for volatile organic compounds (VOCs), inorganic parameters, and total and dissolved metals. Table 1 summarizes sample locations, field-assigned codes, laboratory-assigned sample numbers, and dates collected. This memorandum presents a summary of the data validation review of these analyses. Qualifiers assigned by this review are shown in Table 3, with the original value and laboratory assigned qualifiers, followed by revised values and revised qualifiers.

DATA VALIDATION

Analytical results were reviewed following applicable parts of U.S. Environmental Protection Agency (USEPA) procedures (USEPA, 1999, 2004) and method-specific QC guidelines (USEPA, 1983, 1986).

Data Package and Sample Condition

The data package was checked for potential transcription errors, omissions, or anomalies. No data qualifiers were assigned based on the data package. The case narrative noted the following:

- One each of the three hydrochloric acid preserved vials for the samples VLF-211015-13 (MW-24) and VLF-211015-15 (MW-26) were broken in transit, however sufficient volume remained for VOA analysis.
- The sample collection time recorded on the sample containers was 12:00 for the sample VLF-211014-3 (MW-19), however the collection time on the Chain of Custody (COC) was 12:20. The sample was logged per the sample collection time on the COC.

- The sample collection time on the sample containers was recorded as 09:30 for the sample VLF-211015-17 (LDS-3), however the collection time on the Chain of Custody (COC) was 09:36. The sample was logged per the sample collection time on the COC.

Holding Times and Preservation

Sample containers were properly preserved, stored in iced coolers, and received at the laboratory on 10/19/2021 with cooler temperatures that ranged from 2.2 to 5.9° C. On receipt at the laboratory, the samples were refrigerated at recommended temperature of 4°C.

Sample analyses were conducted within holding time limits for samples received with one exception:

- The analyses for Ortho-Phosphate Method 365.1 for the samples VLF-211017-31 (S-1), VLF-211017-32 (S-2) and VLF-211017-33 (S-2 dup) were performed outside of hold time due to more than half of the hold time expiring during transit. It is TestAmerica's policy to analyze all samples within holding times, but when samples are received with less than half the hold time remaining, this can not be guaranteed. Samples were qualified as estimated ("J") consistent with qualifications for these analytes in past events.

No other qualifiers were assigned on the basis of hold times for samples.

The pre-preserved hydrochloric acid preserved vials for Method 8260B analysis for the samples VLF-211017-35 (L-Pond) and VLF-211015-19 (LDS-2B) exhibited pH values greater than 2. This is non-compliant with Method 8260B which requires samples to be preserved with hydrochloric acid to a pH of less than 2. Samples are from the leachate pond and secondary leachate collection layer, and high bicarbonate concentrations from these sources normally cause this condition.

No qualifiers were assigned on the basis of preservation for samples.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the appropriate frequencies. Several analytes were detected above the method detection limit (MDL) but below standard laboratory method reporting limit (MRL). For sample results that were greater than 5x the associated blank concentration (or 10x for common VOC laboratory contaminants), no qualifiers were assigned. Sample results initially shown as estimated (below the MRL but above the MDL) were qualified as non-detect ("UB") at the MRL per EPA guidance. Results above the MRL and less than 5x or 10x the blank concentration were qualified as not detected at the reported value. Affected results, which include those for zinc, cadmium, and iron are listed in Table 3. No other qualifiers were assigned on the basis of method blanks.

The seeded control blank (method blank) for BOD Method 5210B depleted more than the method-specified limit, 0.2mgO₂/L. The laboratory control sample (LCS) recovery was in control. Because the holding time expired, reanalysis was not performed. No qualifiers were assigned on this basis.

Matrix Spikes (MS) and Matrix Spikes Duplicate (MSD)

Matrix spike (MS) and matrix spike duplicate (MSD) analyses were performed at the required frequencies. Quality control data were within acceptable limits with the following exceptions:

- Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) for Method 8260B (batches 554539, 554747, 554789), however, LCS/LCSD pairs were analyzed to demonstrate method precision and accuracy.
- Sample VLF-211017-35 (L-Pond) was selected to fulfill the laboratory batch quality control requirements for Method 200.8. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Antimony, Total Arsenic, Total Lead, Total Nickel, Total Selenium, Total Cadmium, Total Cobalt, Total Copper, Total Thallium and Total Zinc below the lower control limits. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken. Associated metals data were qualified as “J-“ as shown on Table 3.
- The percent recoveries and/or relative percent difference of the MS/MSD performed on sample VLF-211017-35 (L-Pond) were outside control limits for Total Barium and Total Chromium Method 200.8 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken; no data were qualified.
- Sample VLF-211015-14 (MW-27) was selected to fulfill the laboratory batch quality control requirements for Method 200.8. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Barium above the upper control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken. Result for this sample was qualified as “J+” indicating estimated with a potential high bias as shown on Table 3.
- Sample VLF-211015-15 (MW-26) was selected to fulfill the laboratory batch quality control requirements for Method 200.8. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Barium below the lower control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix

interference and no corrective action was taken. Result for this sample was qualified as “J-” indicating estimated with a potential low bias as shown on Table 3.

- The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for Chloride Method 300.0. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken and no data were qualified.
- Sample VLF-211017-34 (S-4) was selected to fulfill the laboratory batch quality control requirements for Method 356.1. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of ortho-Phosphate above the upper control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken. Result for this sample was qualified as “J+” indicating estimated with a potential high bias as shown on Table 3.

No other data qualifiers were assigned based on MS/MSD results.

Laboratory Duplicates

The relative percent differences (RPD) between laboratory duplicates were less than 20 percent or within 1 times the MRL and within control criteria with several exceptions:

- The Method 9056 Sample Duplicate performed on the sample VLF-211015-21 (MW-23) exhibited an RPD that exceeded the limit for Total Suspended Solids (TSS), and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
- The Method 9056 Sample Duplicate performed on a sample from another client exhibited an RPD that exceeded the limit for Total Suspended Solids (TSS), and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

No data qualifiers were assigned based on laboratory duplicates.

Laboratory Control Samples (LCS)

Laboratory Control Sample recoveries were within established control limits with the following exceptions:

- The Method 524.2 LCS recovery for 2,2-Dichloropropane was above control limits. Because the data are considered to be biased high and the associated sample was non-

detect above the reporting limit for 2,2-Dichloropropane, corrective action was deemed unnecessary. No qualifiers were assigned.

- The Method 8260B LCS/LCSD exhibited RPD data outside the QC control limits for Dichlorodifluoromethane, Trichlorofluoromethane and Vinyl chloride. Both the LCS and LCSD were recovered within QC control limits, demonstrating that the laboratory performed the method within acceptable guidelines; therefore, corrective action is deemed unnecessary.
- The Method 2540D LCS (batch 554493) exhibited a recovery of Total Suspended Solids (TSS) below the lower control limit at 78% (control limits 79 percent-114 percent). In addition, the RPD result was outside the RPD limit for TSS. The samples were reanalyzed outside of the 7-day holding time and all QC samples within control limits. Both sets of results are reported in this submission; the second set of results is reported on the data tables because they are in general agreement with the first data set.

No qualifiers were assigned on the basis of LCS results.

Surrogate Recoveries

Surrogate spikes were performed at the required frequencies. Results were within QC criteria. No qualifiers were assigned on the basis of surrogate results.

Trip Blanks

One trip blank was analyzed with the sample group by Methods 8260C. No analytes were detected above the method reporting limits. No qualifiers were assigned based on trip blank results.

Field Blank

One field blank was collected and analyzed with the sample group by Methods 8260C. No analytes were detected above the method reporting limits. No qualifiers were assigned based on trip blank results.

Field Duplicates

Field duplicates were collected from surface water at S-2 and from monitoring wells MW-15, MW-18, and MW-26. Field duplicate samples were analyzed for the same suite of parameters as the primary samples. For results detected above the laboratory RL, RPDs were less than or equal to 21 percent or within 1 times the MRL for sample results less than 5 times the reporting limit,

although most were much lower. Several RPDs for results with J qualified data (between the MRL and MDL) were higher, because of uncertainty at lower quantification level below the MRL. For total suspended solids at MW-15 and MW-26, the RPD was higher at 108 and 80 percent. This was because of the low concentrations near or below the MRL and normal variance of solids between samples. Qualifiers are not assigned on the basis of field duplicates.

Reporting Limits (RLs)

MRLs for monitoring well samples were at acceptable levels for this project and within project data quality objectives: less than or equal to 10 percent of the relevant drinking water standard for inorganics and metals, and less than or equal to 50 percent of the relevant drinking water standard for volatile organic compounds. The sample VLF-211017-35 (L-Pond) was analyzed at a dilution for Method 8260B due to a high concentration of target compounds; as a result, the reporting limits were elevated. A few of the analytes were reported at concentrations below TestAmerica Denver's laboratory MRL but above the MDL to meet project specific MRLs required by the Oregon Department of Environmental Quality (DEQ). Those results are designated as estimated by the laboratory ("J"), and are carried into the site database. Table 2 lists the differences between standard laboratory MRLs, MDLs, and the project specific MRLs for reference. No qualifiers were assigned on the basis of MRLs.

Completeness

Completeness is the amount of valid data obtained for a given set of data. Data qualified as estimates are usable and are therefore considered in the calculation. Percent completeness is defined as the number of samples analyzed that meet the data quality goals, divided by the total number of samples analyzed, and multiplied by 100. Percent completeness for this data set is 100 percent.

Overall Assessment

The data are judged to be acceptable for their intended use except as qualified in Table 3.

Data qualifiers are defined as follows:

U: The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

UB: Not detected at the associated reporting limit, detected in field, trip, or method blank.

B: Detected in the associated field, trip, or method blank.

J: The value is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+: The result is an estimated quantity, but the result may be biased high.

J-: The result is an estimated quantity, but the result may be biased low.

H: Sample was prepped or analyzed beyond the specified hold time.

Table 1
Sample Summary
Coffin Butte Landfill
October 2021

Well I.D.	Sample I.D.	Lab Sample I.D.	Date Collected
Monitoring Wells			
MW-1D	VLF-211016-29	280-154368-30	10/16/21
MW-3D	VLF-211016-26	280-154368-27	10/16/21
MW-8S	VLF-211014-11	280-154368-11	10/14/21
MW-10S	VLF-211014-7	280-154368-7	10/14/21
MW-10D	VLF-211014-8	280-154368-8	10/14/21
MW-11S	VLF-211016-24	280-154368-25	10/16/21
MW-11D	VLF-211016-25	280-154368-26	10/16/21
MW-12S	VLF-211016-27	280-154368-28	10/16/21
MW-12D	VLF-211016-28	280-154368-29	10/16/21
MW-15	VLF-211014-9	280-154368-9	10/14/21
MW-15 (dup)	VLF-211014-10	280-154368-10	10/14/21
MW-17	VLF-211014-6	280-154368-6	10/14/21
MW-18	VLF-211014-4	280-154368-4	10/14/21
MW-18 (dup)	VLF-211014-5	280-154368-5	10/14/21
MW-19	VLF-211014-3	280-154368-3	10/14/21
MW-20	VLF-211014-2	280-154368-2	10/14/21
MW-21	VLF-211014-1	280-154368-1	10/14/21
MW-23	VLF-211015-21	280-154368-22	10/15/21
MW-24	VLF-211015-13	280-154368-13	10/15/21
MW-26	VLF-211015-15	280-154368-16	10/15/21
MW-26 (dup)	VLF-211015-16	280-154368-17	10/15/21
MW-27	VLF-211015-14	280-154368-15	10/15/21
P-8	VLF-211015-23	280-154368-24	10/15/21
Phillips	VLF-211014-12	280-154368-12	10/14/21
Leak Detection System/Leachate			
LDS-2B	VLF-211015-19	280-154368-20	10/15/21
LDS-3	VLF-211015-17	280-154368-17	10/15/21
LDS-4	VLF-211015-20	280-154368-20	10/15/21
LDS-5	VLF-211015-22	280-154368-23	10/15/21
L-Pond	VLF-211017-35	280-154367-1	10/17/21
Surface Water			
S-1	VLF-211017-31	280-154368-32	10/17/21
S-2	VLF-211017-32	280-154368-33	10/17/21
S-2 (dup)	VLF-211017-33	280-154368-34	10/17/21
S-4	VLF-211017-34	280-154368-35	10/17/21
S-U3	VLF-211015-18	280-154368-19	10/15/21
S-U4	VLF-211016-30	280-154368-31	10/16/21
QA/QC			
Trip Blank	Trip Blanks	280-154368-36	10/14/21
Field Blank	VLF-211015-FB	280-154368-14	10/15/21

Table 2
TestAmerica List of Reporting Limits Used for Data Review
Coffin Butte Landfill

Analyte	EPA Method	TestAmerica Standard RL	TestAmerica Standard MDL	Project Specific RL
METALS (µg/L)				
Antimony	200.8	2	0.06	0.06
Arsenic	200.8	5	0.5	0.5
Barium	200.8	1	0.12	5
Beryllium	200.8	1	0.15	1
Cadmium	200.8	1	0.04	1
Calcium	6010B	200	34.5	200
Chromium	200.8	3	0.88	5
Cobalt	200.8	1	0.05	10
Copper	200.8	2	0.2	10
Iron	6010B	100	22	100
Lead	200.8	1	0.1	1
Magnesium	6010B	200	10.7	200
Manganese	6010B	1	0.12	5
Mercury	7470	—	—	0.2
Nickel	200.8	2	0.28	2
Potassium	6010B	3000	237	3000
Selenium	200.8	5	1	1
Silicon	6010B	500	34.7	500
Silver	200.8	1	0.02	1
Sodium	6010B	1000	91.6	1000
Thallium	200.8	1	0.029	1
Vanadium	200.8	5	1.12	10
Zinc	200.8	10	2	10
INORGANICS (mg/L)				
Alkalinity, total	310.1/2320B	5	1.07	5
Bicarbonate/Carbonate	SM2320B	5	1.07	5
BOD	405.1/5210B	2	0.295	2
Chloride	300.0	3	0.254	3
COD	410.2/410.4	20	4.06	20
Hardness	6010B/SM2340B	5	1.3	5
Nitrogen, Ammonia	350.1	0.1	0.0225	0.1
Nitrogen, Nitrate/nitrite	353.2	0.1	0.0191	0.2
Nitrogen, total Kjeldahl	351.4/351.2	0.5	0.25	0.5
PO4	365.3	0.05	0.0059	0.05
Sulfate	300.0	5	0.232	5
TDS	160.1/2540C	10	4.7	10
TOC	415.1/5310B	1	0.155	1
Total phosphorus	365.3	0.05	0.005	0.05
TSS	160.2/2540D	4	1.1	4

**Table 2 (cont.)
TestAmerica List of Reporting Limits Used for Data Review
Coffin Butte Landfill**

Analyte	EPA Method	TestAmerica Standard RL	TestAmerica MDL	Project RL
ORGANIC COMPOUNDS (µg/L)				
Acetone	8260B	10	1.9	10
Benzene	8260B	1	0.16	0.5
Bromobenzene	8260B	1	0.17	1
Bromochloromethane	8260B	1	0.1	0.5
Bromodichloromethane	8260B	1	0.17	0.5
Bromoform	8260B	1	0.19	0.5
Bromomethane	8260B	2	0.21	0.5
2-Butanone (MEK)	8260B	6	1.83	6
Carbon Disulfide	8260B	2	0.45	2
Carbon Tetrachloride	8260B	1	0.19	0.5
Chlorobenzene	8260B	1	0.17	0.5
Chloroethane	8260B	2	0.41	0.5
Chloroform	8260B	1	0.16	0.5
Chloromethane	8260B	2	0.3	0.5
2-Chlorotoluene	8260B	1	0.17	1
4-Chlorotoluene	8260B	1	0.17	1
1,2-Dibromo-3-chloropropane	8260B	5	1.5	2
1,2-Dibromoethane (EDB)	8260B	1	0.18	1
1,2-Dichlorobenzene	8260B	1	0.13	0.5
1,2-Dichloroethane (EDC)	8260B	1	0.13	0.5
1,2-Dichloropropane	8260B	1	0.13	0.5
1,3,5-Trimethylbenzene	8260B	1	0.14	1
1,3-Dichlorobenzene	8260B	1	0.16	0.5
1,3-Dichloropropane	8260B	1	0.15	0.5
1,4-Dichlorobenzene	8260B	1	0.16	0.5
2,2-Dichloropropane	8260B	5	0.2	0.5
1,1-Dichloroethane	8260B	1	0.16	0.5
1,1-Dichloroethene	8260B	1	0.14	0.5
1,1-Dichloropropene	8260B	1	0.15	0.5
cis-1,2-Dichloroethene	8260B	1	0.15	0.5
cis-1,3-Dichloropropene	8260B	1	0.16	0.5
Dibromochloromethane	8260B	1	0.17	0.5
Dibromomethane	8260B	1	0.17	0.5
Dichlorodifluoromethane	8260B	2	0.22	0.5
Ethylbenzene	8260B	1	0.16	0.5
Hexachlorobutadiene	8260B	1	0.12	1
2-Hexanone	8260B	5	1.4	5
Isopropylbenzene	8260B	1	0.19	1
4-Isopropyltoluene	8260B	1	0.17	1
Methylene Chloride	8260B	5	0.32	2

**Table 2 (cont.)
TestAmerica List of Reporting Limits Used for Data Review
Coffin Butte Landfill**

Analyte	EPA Method	TestAmerica Standard RL	TestAmerica MDL	Project RL
4-Methyl-2-pentanone (MIBK)	8260B	5	1.04	5
Naphthalene	8260B	1	0.22	1
n-Butylbenzene	8260B	1	0.14	1
n-Propylbenzene	8260B	1	0.16	1
sec-Butylbenzene	8260B	1	0.17	1
Styrene	8260B	1	0.17	0.5
tert-Butylbenzene	8260B	1	0.16	1
1,1,1,2-Tetrachloroethane	8260B	1	0.17	0.5
Tetrachloroethene (PCE)	8260B	1	0.2	0.5
1,1,1-Trichloroethane (TCA)	8260B	1	0.16	0.5
1,1,2,2-Tetrachloroethane	8260B	1	0.2	0.5
1,1,2-Trichloroethane	8260B	1	0.32	0.5
1,2,3-Trichlorobenzene	8260B	1	0.18	1
1,2,3-Trichloropropane	8260B	2.5	0.77	0.5
1,2,4-Trichlorobenzene	8260B	1	0.32	1
1,2,4-Trimethylbenzene	8260B	1	0.14	1
Toluene	8260B	1	0.17	0.5
trans-1,2-Dichloroethene	8260B	1	0.15	0.5
trans-1,3-Dichloropropene	8260B	3	0.19	0.5
Trichloroethene (TCE)	8260B	1	0.16	0.5
Trichlorofluoromethane	8260B	2	0.29	0.5
Vinyl Chloride	8260B	1	0.4	0.5
m,p-Xylenes	8260B	2	0.34	0.5
o-Xylene	8260B	1	0.19	0.5

Table 3
Summary of Assigned Data Qualifiers
Coffin Butte Landfill
October 2021

Location ID	Sample ID	Units	Reported Result	Lab Qualifier	Revised Result	Assigned Qualifier	Retained Lab Qualifier
Method Blank Revisions							
Zinc							
MW-12S	VLF-211016-27	µg/L	6.0	JB	10	U	B
MW-12D	VLF-211016-28	µg/L	2.2	JB	10	U	B
MW-26	VLF-211015-15	µg/L	6.0	JB	10	U	B
MW-26 dup	VLF-211015-16	µg/L	5.0	JB	10	U	B
Phillips	VLF-211014-12	µg/L	6.5	JB	10	U	B
Cadmium							
L-Pond	VLF-211017-35	µg/L	0.17	JB	1	U	B
Dissolved Iron							
MW-8S	VLF-211014-11	µg/L	32	JB	100	U	B
LDS-3	VLF-211015-17	µg/L	110	B	110	U	B
Hold Times Revisions							
Orthophosphate							
S-1	VLF-211017-31	mg/L	0.019	JH	0.019		J
S-2	VLF-211017-32	mg/L	0.021	JH	0.021		J
S-2 dup	VLF-211017-33	mg/L	0.021	JH	0.021		J
Matrix Spike Revisions							
Barium							
MW-26	VLF-211015-15	µg/L	34	F1	34	J-	
MW-27	VLF-211015-14	µg/L	97	F1	97	J+	
Orthophosphate							
S-4	VLF-211017-34	mg/L	0.020	JF1	0.020	J+	
Low Recovery for Metals - LPOND							
Antimony	VLF-211017-35	µg/L	16	F1	16	J-	
Arsenic	VLF-211017-35	µg/L	120	F1	120	J-	
Cobalt	VLF-211017-35	µg/L	38	F1	38	J-	
Copper	VLF-211017-35	µg/L	5.3	F1	5.3	J-	
Lead	VLF-211017-35	µg/L	1.2	F1	1.2	J-	
Nickel	VLF-211017-35	µg/L	140	F1	140	J-	
Selenium	VLF-211017-35	µg/L	1.6	JF1	1.6	J-	
Thallium	VLF-211017-35	µg/L	0.10	JF1	0.10	J-	
Zinc	VLF-211017-35	µg/L	37	F1	37	J-	

QUALIFIER NOTES:

- U: analyte not detected at a concentration at or above the method reporting limit.
- UB: not detected at the associated reporting limit, detected in method blank or field blank.
- B: detected in the associated method, field or trip blank.
- J: the result is an estimated quantity.

Table 3 (cont.)
Summary of Assigned Data Qualifiers
Coffin Butte Landfill
October 2021

J+: The result is an estimated quantity, but the result may be biased high.

J-: The result is an estimated quantity, but the result may be biased low.

H: sample was prepped or analyzed beyond specified hold time.

F1: MS and/or MSD recovery exceeds control limits.

REFERENCES

- USEPA. 1983. Methods for chemical analysis of water and wastes. U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. EPA-600/4-79-020.
- USEPA. 1986. Test methods for evaluating solid waste: physical/chemical methods. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.
- USEPA. 1999. USEPA contract laboratory program national functional guidelines for organic data review. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. EPA 540/R-99/008. October.
- USEPA. 2004. USEPA contract laboratory program national functional guidelines for inorganic data review. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. EPA 540-R-04-004. October.

APPENDIX B
2021 WATER QUALITY SUMMARY TABLES

Table B-1
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Field Parameters

Sample Location	Sample Identification	Date	Type	pH (pH units)	Specific Conductance (µmhos/cm, µS)	Temperature (Deg C)	Dissolved Oxygen (mg/L)	Redox (millivolts)
Monitoring Wells								
MW-1D	VLF-210417-18	04/17/21	PS	7.34	330	13.83	4.30	-241
MW-1D Dup	VLF-210417-19	04/17/21	FD	7.34	330	13.83	4.30	-241
MW-1D	VLF-211016-29	10/16/21	PS	7.38	383	12.93	6.01	81
MW-3D	VLF-210417-15	04/17/21	PS	6.81	445	14.09	3.10	-261
MW-3D	VLF-211016-26	10/16/21	PS	7.89	568	12.97	7.10	56
MW-8S	VLF-211014-11	10/14/21	PS	7.14	3967	14.38	1.17	177
MW-10S	VLF-210416-11	04/16/21	PS	7.12	2686	15.66	4.10	-229
MW-10S	VLF-211014-7	10/14/21	PS	7.29	1,583	14.49	2.00	151
MW-10D	VLF-210416-12	04/16/21	PS	7.22	2,084	15.86	5.70	-129
MW-10D	VLF-211014-8	10/14/21	PS	7.28	1,017	14.71	2.91	164
MW-11S	VLF-210417-13	04/17/21	PS	6.74	1,269	14.30	4.70	-263
MW-11S	VLF-211016-24	10/16/21	PS	6.98	1,191	12.81	2.04	101
MW-11D	VLF-210417-14	04/17/21	PS	6.81	1,838	14.28	1.30	-319
MW-11D	VLF-211016-25	10/16/21	PS	6.82	1,620	12.59	2.60	65
MW-12S	VLF-210417-17	04/17/21	PS	6.90	623	13.94	8.10	-241
MW-12S	VLF-211016-27	10/16/21	PS	7.17	761	11.98	4.10	-36
MW-12D	VLF-210417-16	04/17/21	PS	7.04	323	14.12	6.10	-241
MW-12D	VLF-211016-28	10/16/21	PS	7.55	350	12.38	1.10	72
MW-15	VLF-211014-9	10/14/21	PS	6.65	507	13.35	5.40	165
MW-17	VLF-211014-6	10/14/21	PS	7.18	279	13.00	3.80	31
MW-18	VLF-211014-4	10/14/21	PS	7.11	250	13.71	3.60	121
MW-19	VLF-211014-3	10/14/21	PS	6.96	1,118	14.42	1.18	151
MW-20	VLF-211014-2	10/14/21	PS	7.33	160	13.02	0.87	155
MW-21	VLF-211014-1	10/14/21	PS	7.35	1060	12.55	2.11	189
MW-23	VLF-210416-9	04/16/21	PS	7.11	539	14.10	2.90	-23
MW-23 Dup	VLF-210416-10	04/16/21	FD	7.11	539	14.10	2.90	-23
MW-23	VLF-211015-21	10/15/21	PS	6.64	401	16.42	0.68	10
MW-24	VLF-211015-13	10/15/21	PS	7.20	393	14.20	1.71	129
MW-26	VLF-210416-3	04/16/21	PS	6.94	300	14.54	2.30	-271
MW-26	VLF-211015-15	10/15/21	PS	7.45	350	13.72	2.98	-69
MW-27	VLF-210416-2	04/16/21	PS	6.96	832	14.73	6.80	-216
MW-27	VLF-211015-14	10/15/21	PS	6.80	916	14.24	2.81	-54
P-8	VLF-210417-20	04/17/21	PS	6.88	343	13.70	4.10	-174
P-8	VLF-211014-12	10/14/21	PS	7.49	257	13.28	4.00	-20
Phillips	VLF-211015-23	10/15/21	PS	7.20	307	13.30	5.80	41
Surface Water								
S-1	VLF-210418-23	04/18/21	PS	7.13	189	14	10.1	-216
S-1	VLF-211017-31	10/17/21	PS	7.95	279	11.6	8.3	120
S-2	VLF-210418-24	04/18/21	PS	7.15	191	14.1	10.4	-227
S-2	VLF-211017-32	10/17/21	PS	7.49	285	11.53	6.61	121
S-4	VLF-210418-25	04/18/21	PS	6.98	163	14.7	8.9	-211
S-4 Dup	VLF-210418-26	04/18/21	FD	6.98	163	14.7	8.9	-211
S-4	VLF-211017-34	10/17/21	PS	7.91	281	13.64	8.26	123

Table B-1
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Field Parameters

Sample Location	Sample Identification	Date	Type	pH (pH units)	Specific Conductance (µmhos/cm, µS)	Temperature (Deg C)	Dissolved Oxygen (mg/L)	Redox (millivolts)
Underdrains								
S-U3	VLF-210416-5	04/16/21	PS	7.97	984	19.60	8.30	-202
S-U3	VLF-211015-18	10/15/21	PS	7.59	524	13.36	6.30	55
S-U4	VLF-210418-22	04/18/21	PS	6.54	132	14.68	2.70	-212
S-U4	VLF-211016-30	10/16/21	PS	7.17	225	12.67	1.71	88
S-U5	VLF-210418-21	04/18/21	PS	6.63	342	14.53	9.70	-185
Leachate								
L-Pond	VLF-211017-35	10/18/21	PS	NS	NS	NS	NS	NS
Secondary Leachate Collection System (LDS)								
LDS-2B	VLF-210416-6	04/16/21	PS	7.01	5,471	21.34	4.6	-195
LDS-2B	VLF-211015-19	10/15/21	PS	6.70	8,780	18.53	5.71	-72
LDS-3	VLF-210416-4	04/16/21	PS	7.03	267	19.70	7.4	55
LDS-3	VLF-211015-17	10/15/21	PS	6.79	6,680	20.07	NM	81
LDS-4	VLF-210416-7	04/16/21	PS	7.05	1,271	23.35	3.8	-238
LDS-4	VLF-211015-20	10/15/21	PS	6.74	1,090	22.87	1.3	91
LDS-5	VLF-210416-8	04/16/21	PS	7.44	747	25.57	4.03	-207
LDS-5	VLF-211015-22	10/15/21	PS	7.06	764	23.07	2.6	35

Notes: PS-primary sample
FD-field duplicate
NM-not measured

Table B-2
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Inorganic Parameters

Location	Sample ID	DATE	Bicarbonate as CaCO3 MG/L	Biologic Oxygen Demand, Five-Day MG/L	Chemical Oxygen Demand MG/L	Chloride MG/L	Nitrogen, Ammonia (as N) MG/L	Nitrogen, Kjeldahl, Total MG/L	Nitrogen, Nitrate-Nitrite MG/L	Phosphorus, Total (as P) MG/L	Orthophosphate (as PO4) MG/L	Sulfate MG/L	Suspended Solids MG/L	Total Dissolved Solids MG/L	Total Organic Carbon (TOC) MG/L
Water Quality Standard						250 S			10 P			250 S		500 S	
Wells															
MW-1D	VLF-210417-18	04/17/21	150			7.1								4 U	210
MW-1D Dup	VLF-210417-19	04/17/21	150			7.1								4 U	210
MW-1D	VLF-211016-29	10/16/21	180			7								4 U	220
MW-3D	VLF-210417-15	04/17/21	150			52							1.2 J	270	
MW-3D	VLF-211016-26	10/16/21	160			41							4 U	250	
MW-8S	VLF-211014-11	10/14/21	150			23							2.8 J	220	
MW-10S	VLF-210416-11	04/16/21	640			550							4 U	1,500	
MW-10S	VLF-211014-7	10/14/21	660			540							4 U	1,400	
MW-10D	VLF-210416-12	04/16/21	510			110							4 U	770	
MW-10D	VLF-211014-8	10/14/21	510			110							4 U	670	
MW-11S	VLF-210417-13	04/17/21	780			38							13	850	
MW-11S	VLF-211016-24	10/16/21	650			35							4 U	790	
MW-11D	VLF-210417-14	04/17/21	910			100							1.6 J	1,200	
MW-11D	VLF-211016-25	10/16/21	950			100							4 U	1,100	
MW-12S	VLF-210417-17	04/17/21	300			38							8.8	390	
MW-12S	VLF-211016-27	10/16/21	350			37							1.6 J	390	
MW-12D	VLF-210417-16	04/17/21	130			14							4 U	200	
MW-12D	VLF-211016-28	10/16/21	160			13							4 U	200	
MW-15	VLF-211014-9	10/14/21	160			59							4 U	260	
MW-15 Dup	VLF-211014-10	10/14/21	150			48							1.2 J	250	
MW-17	VLF-211014-6	10/14/21	100			14							1.2 J	190	
MW-18	VLF-211014-4	10/14/21	94			3.1							4 U	150	
MW-18 Dup	VLF-211014-5	10/14/21	92			2.9	J						4 U	150	
MW-19	VLF-211014-3	10/14/21	44			310							4 U	560	
MW-20	VLF-211014-2	10/14/21	95			130							4 U	510	
MW-21	VLF-211014-1	10/14/21	400			81							12	490	
MW-23	VLF-210416-9	04/16/21	160			21							42	230	
MW-23 Dup	VLF-210416-10	04/16/21	160			21							13	230	
MW-23	VLF-211015-21	10/15/21	180			19							8.8	220	
MW-24	VLF-211015-13	10/15/21	180			6.2							4 U	210	
MW-26	VLF-210416-3	04/16/21	150			6.3							21	200	
MW-26	VLF-211015-15	10/15/21	170			5.6							6	190	
MW-26 Dup	VLF-211015-16	10/15/21	160			5.6							14	190	

Table B-2
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Inorganic Parameters

Location	Sample ID	DATE	Bicarbonate as CaCO3 MG/L	Biologic Oxygen Demand, Five-Day MG/L	Chemical Oxygen Demand MG/L	Chloride MG/L	Nitrogen, Ammonia (as N) MG/L	Nitrogen, Kjeldahl, Total MG/L	Nitrogen, Nitrate-Nitrite MG/L	Phosphorus, Total (as P) MG/L	Orthophosphate (as PO4) MG/L	Sulfate MG/L	Suspended Solids MG/L	Total Dissolved Solids MG/L	Total Organic Carbon (TOC) MG/L
Water Quality Standard						250 S			10 P			250 S		500 S	
Wells															
MW-27	VLf-210416-2	04/16/21	460			14							32	480	
MW-27	VLf-211015-14	10/15/21	480			13							16	470	
P-8	VLf-210417-20	04/17/21	160			11							4 U	220	
P-8	VLf-211014-12	10/14/21	150			11							4	200	
Phillips	VLf-211015-23	10/15/21	130			7.4							4 U	170	
Surface Water/Underdrains															
S-1	VLf-210418-23	04/18/21		0.4 J		8.6		0.7 U		0.05 U	0.05 U				
S-1	VLf-211017-31	10/17/21		5 U		16		0.7 U		0.04 J	0.019 J				
S-2	VLf-210418-24	04/18/21		2.5 UJ		10		0.7 U		0.05 U	0.05 U				
S-2	VLf-211017-32	10/17/21		1.1 J		17		0.7 U		0.05 J	0.021 J				
S-2 Dup	VLf-211017-33	10/17/21		5 U		17		0.7 U		0.05 J	0.021 J				
S-4	VLf-210418-25	04/18/21		2.5 UJ		9.3		0.7 U		0.05 U	0.05 U				
S-4 Dup	VLf-210418-26	04/18/21		2.5 UJ		9.3		0.7 U		0.05 U	0.05 U				
S-4	VLf-211017-34	10/17/21		0.92 J		15		0.7 U		0.04 J	0.02 J+				
S-U3	VLf-210416-5	04/16/21	360			51								630	
S-U3	VLf-211015-18	10/15/21	120			150								500	
S-U4	VLf-210418-22	04/18/21	82			3.1								120	
S-U4	VLf-211016-30	10/16/21	97			3.3								140	
S-U5	VLf-210418-21	04/18/21	130			12								220	
Leachate															
L-Pond	VLf-211017-35	10/18/21	10 U	750	4,300	3,500	1,300		0.2 U			6.7	40	12,000	1,300
SLCS															
LDS-2B	VLf-210416-6	04/16/21	2,200			1,800							4 U	4,400	
LDS-2B	VLf-211015-19	10/15/21	2,300			1,900							1.6 J	4,400	
LDS-3	VLf-210416-4	04/16/21	180			200							4 U	870	
LDS-3	VLf-211015-17	10/15/21	820			1600							4 U	4,000	
LDS-4	VLf-210416-7	04/16/21	420			120							4 U	690	
LDS-4	VLf-211015-20	10/15/21	330			92							4 U	590	
LDS-5	VLf-210416-8	04/16/21	180			90							1.6 J	430	
LDS-5	VLf-211015-22	10/15/21	200			69							1.6 J	380	

Notes

- P: Primary maximum contaminant level; S: Secondary maximum contaminant level; NL = No limit established.
- U: Analyte not detected at a concentration at or above the method reporting limit.
- UB: The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- J: The associated value is an estimated quantity.
- J+: The result is an estimated quantity, but the result may be biased high.
- H: Hold time exceeded.

Table B-3
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Dissolved Metals

Location	Sample ID	Date	Calcium µg/L	Iron µg/L	Magnesium µg/L	Manganese µg/L	Potassium µg/L	Silicon µg/L	Sodium µg/L
Water Quality Standard				300 S		50 S			
MW-1D	VLF-210417-18	04/17/21	29,000	100 U	12,000	5 U			24,000
MW-1D Dup	VLF-210417-19	04/17/21	27,000	110	12,000	5 U			24,000
MW-1D	VLF-211016-29	10/16/21	31,000	100 U	13,000	5 U			24,000
MW-3D	VLF-210417-15	04/17/21	42,000	100 U	18,000	5 U			19,000
MW-3D	VLF-211016-26	10/16/21	42,000	100 U	18,000	5 U			18,000
MW-8S	VLF-211014-11	10/14/21	35,000	100 UB	15,000	5 U			19,000
MW-10S	VLF-210416-11	04/16/21	320,000	100 U	150,000	65			33,000
MW-10S	VLF-211014-7	10/14/21	320,000	100 U	150,000	27			35,000
MW-10D	VLF-210416-12	04/16/21	160,000	100 U	55,000	83			36,000
MW-10D	VLF-211014-8	10/14/21	120,000	100 U	54,000	5 U			38,000
MW-11S	VLF-210417-13	04/17/21	210,000	100 U	89,000	27			30,000
MW-11S	VLF-211016-24	10/16/21	200,000	100 U	82,000	8.4			29,000
MW-11D	VLF-210417-14	04/17/21	250,000	27 JB	110,000	30			39,000
MW-11D	VLF-211016-25	10/16/21	250,000	33 JB	100,000	47			38,000
MW-12S	VLF-210417-17	04/17/21	63,000	700	31,000	630			36,000
MW-12S	VLF-211016-27	10/16/21	61,000	71 JB	29,000	5.1			35,000
MW-12D	VLF-210417-16	04/17/21	24,000	41 JB	11,000	5 U			22,000
MW-12D	VLF-211016-28	10/16/21	27,000	100 U	12,000	5 U			23,000
MW-15	VLF-211014-9	10/14/21	47,000	100 U	23,000	5 U			30,000
MW-15 Dup	VLF-211014-10	10/14/21	46,000	100 U	23,000	5 U			30,000
MW-17	VLF-211014-6	10/14/21	25,000	100 U	11,000	5 U			18,000
MW-18	VLF-211014-4	10/14/21	24,000	100 U	8,700	5 U			10,000
MW-18 Dup	VLF-211014-5	10/14/21	24,000	100 U	8,600	5 U			9,900
MW-19	VLF-211014-3	10/14/21	110,000	100 U	44,000	5 U			29,000
MW-20	VLF-211014-2	10/14/21	93,000	100 U	34,000	610			28,000
MW-21	VLF-211014-1	10/14/21	110,000	340 B	53,000	150			26,000
MW-23	VLF-210416-9	04/16/21	31,000	520	13,000	930			24,000
MW-23 Dup	VLF-210416-10	04/16/21	32,000	540	13,000	930			24,000
MW-23	VLF-211015-21	10/15/21	30,000	770	13,000	500			23,000
MW-24	VLF-211015-13	10/15/21	36,000	100 U	14,000	3.4 J			22,000
MW-26	VLF-210416-3	04/16/21	24,000	210	8,400	460			26,000
MW-26	VLF-211015-15	10/15/21	26,000	510 B	10,000	710			27,000
MW-26 Dup	VLF-211015-16	10/15/21	25,000	500 B	9,900	700			26,000
MW-27	VLF-210416-2	04/16/21	87,000	7,600	37,000	9,500			36,000
MW-27	VLF-211015-14	10/15/21	89,000	5,700 B	39,000	9,600			37,000
P-8	VLF-210417-20	04/17/21	31,000	34 J	15,000	5 U			27,000
P-8	VLF-211014-12	10/14/21	26,000	100 U	12,000	5 U			25,000
Phillips	VLF-211015-23	10/15/21	24,000	100 U	9,300	5 U			19,000
Surface Water/Underdrains									
S-1	VLF-210418-23	04/18/21	20,000	74 J	8,500	14			8,000
S-1	VLF-211017-31	10/17/21	26,000	35 J	10,000	15			11,000
S-2	VLF-210418-24	04/18/21	20,000	41 J	8,200	12			7,900
S-2	VLF-211017-32	10/17/21	27,000	46 J	10,000	11			12,000
S-2 Dup	VLF-211017-33	10/17/21	26,000	40 J	10,000	11			11,000
S-4	VLF-210418-25	04/18/21	20,000	48 J	8,400	12			8,200
S-4 Dup	VLF-210418-26	04/18/21	20,000	42 J	8,400	12			8,200
S-4	VLF-211017-34	10/17/21	26,000	25 J	10,000	10			11,000
S-U3	VLF-210416-5	04/16/21	110,000	100 U	45,000	26			39,000
S-U3	VLF-211015-18	10/15/21	50,000	49 J	20,000	340			87,000
S-U4	VLF-210418-22	04/18/21	18,000	22 J	8,400	7			7,200
S-U4	VLF-211016-30	10/16/21	18,000	29 J	7,900	2.5 J			7,500
S-U5	VLF-210418-21	04/18/21	35,000	31 J	19,000	5 U			10,000

**Table B-3
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Dissolved Metals**

Location	Sample ID	Date	Calcium µg/L	Iron µg/L	Magnesium µg/L	Manganese µg/L	Potassium µg/L	Silicon µg/L	Sodium µg/L
Water Quality Standard				300 S		50 S			
Leachate									
L-Pond	VLF-211017-35	10/18/21	160,000	910	160,000	1,000	510,000	37,000	2,200,000
Leachate Detection System									
LDS-2B	VLF-210416-6	04/16/21	190,000	9,500	150,000	3,200			1,100,000
LDS-2B	VLF-211015-19	10/15/21	250,000	13,000	170,000	5,900			1,200,000
LDS-3	VLF-210416-4	04/16/21	64,000	30 J	30,000	360			220,000
LDS-3	VLF-211015-17	10/15/21	250,000	110 UB	120,000	1,800			950,000
LDS-4	VLF-210416-7	04/16/21	100,000	25 J	46,000	5 U			100,000
LDS-4	VLF-211015-20	10/15/21	78,000	100 U	38,000	3 J			91,000
LDS-5	VLF-210416-8	04/16/21	27,000	100 U	10,000	5 U			100,000
LDS-5	VLF-211015-22	10/15/21	25,000	100 U	9,100	5 U			99,000

Notes:

- P Primary maximum contaminant level (Federal) or Reference level (State)
- S Secondary maximum contaminant level, NL = No limit established.
- U Analyte not detected at a concentration at or above the method reporting limit.
- J The result is an estimated quantity
- UB The analyte was found in the associated method blank at a level that is significant relative to the sample result.

**Table B-4
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Total Metals**

LOCID	SAMPID	DATE	Antimony µg/L 6 P	Arsenic µg/L 10 P	Barium µg/L 1000 P	Beryllium µg/L 4 P	Cadmium µg/L 5 P	Chromium µg/L 50 P	Cobalt µg/L	Copper µg/L 1000 S	Lead µg/L 50 P	Nickel µg/L	Selenium µg/L 10 P	Silver µg/L 100 S	Thallium µg/L 2 P	Vanadium µg/L	Zinc µg/L 5000 S
Water Quality Standard																	
Wells																	
MW-1D	VLF-210417-18	04/17/21		0.63													
MW-1D Dup	VLF-210417-19	04/17/21		0.68													
MW-1D	VLF-211016-29	10/16/21	2 U	5 U	3.6			3 U			1 U	2 U	5 U				10 U
MW-3D	VLF-210417-15	04/17/21		0.5 U													
MW-3D	VLF-211016-26	10/16/21	2 U	5 U	5.1			3 U			1 U	2 U	5 U				10 U
MW-8S	VLF-211014-11	10/14/21	2 U	0.84 J	0.48 J			0.96 J			1 U	0.79 J	5 U				5.5 J
MW-10S	VLF-210416-11	04/16/21		0.5 U													
MW-10S	VLF-211014-7	10/14/21	2 U	1 J	12			3 U			1 U	24	5 U				5.1 J
MW-10D	VLF-210416-12	04/16/21		0.5 U													
MW-10D	VLF-211014-8	10/14/21	2 U	0.99 J	11			3 U			1 U	13	5 U				5.4 J
MW-11S	VLF-210417-13	04/17/21		0.5 U													
MW-11S	VLF-211016-24	10/16/21	2 U	5 U	7.3			3 U			1 U	3.9	5 U				10 U
MW-11D	VLF-210417-14	04/17/21		0.5 U													
MW-11D	VLF-211016-25	10/16/21	2 U	5 U	6.8			3 U			1 U	8.6	5 U				10 U
MW-12S	VLF-210417-17	04/17/21		1.3													
MW-12S	VLF-211016-27	10/16/21	2 U	5 U	5			3 U			1 U	2.3	5 U				10 UB
MW-12D	VLF-210417-16	04/17/21		0.56													
MW-12D	VLF-211016-28	10/16/21	2 U	5 U	0.49 J			3 U			1 U	2 U	5 U				10 UB
MW-15	VLF-211014-9	10/14/21	2 U	5 U	14			3 U			1 U	2 U	5 U				7.7 J
MW-15 Dup	VLF-211014-10	10/14/21	2 U	0.63 J	14			3 U			1 U	0.3 J	5 U				9.2 J
MW-17	VLF-211014-6	10/14/21	2 U	0.55 J	1 U			4.7			1 U	2 U	5 U				4.1 J
MW-18	VLF-211014-4	10/14/21	2 U	5 U	0.58 J			1.9 J			1 U	2 U	5 U				5.2 J
MW-18 Dup	VLF-211014-5	10/14/21	2 U	5 U	0.74 J			1.5 J			1 U	2 U	5 U				4.8 J
MW-19	VLF-211014-3	10/14/21	2 U	5 U	0.99 J			1.4 J			1 U	2 U	5 U				4.9 J
MW-20	VLF-211014-2	10/14/21	2 U	5 U	6.8			3 U			1 U	1.3 J	5 U				5.9 J
MW-21	VLF-211014-1	10/14/21	2 U	5 U	7.8			3			0.41 J	9.8	5 U				16
MW-23	VLF-210416-9	04/16/21		32													
MW-23 Dup	VLF-210416-10	04/16/21		33													
MW-23	VLF-211015-21	10/15/21	2 U	11	33			3 U			1 U	0.52 J	5 U				10 U
MW-24	VLF-211015-13	10/15/21	2 U	0.92 J	0.77 J			0.88 J			0.42 J	0.33 J	5 U				12
MW-26	VLF-210416-3	04/16/21		11													
MW-26	VLF-211015-15	10/15/21	0.71	14	34 J+			1.5 J			0.66 J	1.3 J	5 U				10 UB
MW-26 Dup	VLF-211015-16	10/15/21	1.1	16	39			2.2 J			0.82 J	1.5 J	5 U				10 UB
MW-27	VLF-210416-2	04/16/21		17													
MW-27	VLF-211015-14	10/15/21	2 U	18	97 J+			3 U			1 U	7.6	5 U				15

**Table B-4
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Total Metals**

LOCID	SAMPID	DATE	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
			µg/L 6 P	µg/L 10 P	µg/L 1000 P	µg/L 4 P	µg/L 5 P	µg/L 50 P	µg/L	µg/L 1000 S	µg/L 50 P	µg/L	µg/L 10 P	µg/L 100 S	µg/L 2 P	µg/L	µg/L 5000 S
Water Quality Standard																	
P-8	VLF-210417-20	04/17/21		0.5 U													
P-8	VLF-211014-12	10/14/21	2 U	0.52 J	2			3 U			1 U	0.52 J	5 U				5.9 J
Phillips	VLF-211015-23	10/15/21	2 U	1.1 J	0.51 J			3 U			1 U	2 U	5 U				10 UB
Leachate																	
L-Pond	VLF-211017-35	10/18/21	16 J-	120 J-	570	1 U	1 UB	180	38 J-	5.3 J-	1.2 J-	140 J-	1.6 J-	0.1	0.1 J-	140	37 J-
Leachate Detection System																	
LDS-2B	VLF-210416-6	04/16/21		31													
LDS-2B	VLF-211015-19	10/15/21		29													
LDS-3	VLF-210416-4	04/16/21		0.76													
LDS-3	VLF-211015-17	10/15/21		6.1													
LDS-4	VLF-210416-7	04/16/21		0.74													
LDS-4	VLF-211015-20	10/15/21		0.73													
LDS-5	VLF-210416-8	04/16/21		0.98													
LDS-5	VLF-211015-22	10/15/21		0.75													

P: Primary maximum contaminant level.

S: Secondary maximum contaminant level, NL = No limit established.

U: Analyte not detected at a concentration at or above the method reporting limit.

UB: The analyte was found in the associated method blank at a level that is significant relative to the sample result.

J: The associated value is an estimated quantity.

J+: Result is an estimated quantity, but the result may be biased high.

J-: Result is an estimated quantity, but the result may be biased low.

**Table B-5
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Volatile Organic Compounds**

Location	Date	Sample ID	Acetone (ug/L)	Benzene (ug/L)	Bromobenzene (ug/L)	Bromochloromethane (ug/L)	Bromodichloromethane (ug/L)	Bromoform (ug/L)	Bromomethane (ug/L)	2-Butanone (ug/L)	n-Butylbenzene (ug/L)	sec-Butylbenzene (ug/L)	tert-Butylbenzene (ug/L)	Carbon Disulfide (ug/L)	Carbon tetrachloride (ug/L)	Chlorobenzene (ug/L)	Chloroethane (ug/L)	Chloroform (ug/L)	Chloromethane (ug/L)
Water Quality Standard			NL	5 (P)					NL		NL			NL		100 (P)			
Wells																			
MW-1D	04/17/21	VLF-210417-18	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-1D Dup	04/17/21	VLF-210417-19	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-1D	10/16/21	VLF-211016-29	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-3D	04/17/21	VLF-210417-15	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	0.31 J	ND(6)	0.35 J	ND(1)	ND(1)	0.32 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-3D	10/16/21	VLF-211016-26	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-8S	10/14/21	VLF-211014-11	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-10S	04/16/21	VLF-210416-11	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-10S	10/14/21	VLF-211014-7	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-10D	04/16/21	VLF-210416-12	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-10D	10/14/21	VLF-211014-8	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-11S	04/17/21	VLF-210417-13	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-11S	10/16/21	VLF-211016-24	ND(10)	0.34 J	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-11D	04/17/21	VLF-210417-14	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-11D	10/16/21	VLF-211016-25	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-12S	04/17/21	VLF-210417-17	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-12S	10/16/21	VLF-211016-27	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-12D	04/17/21	VLF-210417-16	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-12D	10/16/21	VLF-211016-28	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	0.31 J	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-15	10/14/21	VLF-211014-9	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-15 Dup	10/14/21	VLF-211014-10	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-17	10/14/21	VLF-211014-6	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-18	10/14/21	VLF-211014-4	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-18 Dup	10/14/21	VLF-211014-5	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-19	10/14/21	VLF-211014-3	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-20	10/14/21	VLF-211014-2	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-21	10/14/21	VLF-211014-1	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-23	04/16/21	VLF-210416-9	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-23	10/15/21	VLF-211015-21	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	0.39 J	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-23 Dup	04/16/21	VLF-210416-10	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-24	10/15/21	VLF-211015-13	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-26	04/16/21	VLF-210416-3	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-26	10/15/21	VLF-211015-15	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

**Table B-5
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Volatile Organic Compounds**

Location	Date	Sample ID	Acetone (ug/L)	Benzene (ug/L)	Bromobenzene (ug/L)	Bromochloromethane (ug/L)	Bromodichloromethane (ug/L)	Bromoform (ug/L)	Bromomethane (ug/L)	2-Butanone (ug/L)	n-Butylbenzene (ug/L)	sec-Butylbenzene (ug/L)	tert-Butylbenzene (ug/L)	Carbon Disulfide (ug/L)	Carbon tetrachloride (ug/L)	Chlorobenzene (ug/L)	Chloroethane (ug/L)	Chloroform (ug/L)	Chloromethane (ug/L)	
Water Quality Standard			NL	5 (P)					NL		NL			NL		100 (P)				
MW-26 Dup	10/15/21	VLF-211015-16	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-27	04/16/21	VLF-210416-2	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-27	10/15/21	VLF-211015-14	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
P-8	04/17/21	VLF-210417-20	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
P-8	10/14/21	VLF-211014-12	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Phillips	10/15/21	VLF-211015-23	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Leak Detection System																				
LDS-2B	04/16/21	VLF-210416-6	ND(10)B	0.31 J	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-2B	10/15/21	VLF-211015-19	19	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-3	04/16/21	VLF-210416-4	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-3	10/15/21	VLF-211015-17	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-4	04/16/21	VLF-210416-7	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-4	10/15/21	VLF-211015-20	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-5	04/16/21	VLF-210416-8	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-5	10/15/21	VLF-211015-22	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	0.5	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Leachate																				
L-Pond	10/18/21	VLF-211017-35	460	3.8	ND(5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	490	ND(5)	ND(5)	ND(5)	3.7 J	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	
QA/QC																				
Trip Blank	04/16/21	TRIP BLANK	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Trip Blank	04/17/21	TRIP BLANK	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Trip Blank	04/18/21	TRIP BLANK	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Field Blank	04/16/21	VLF-210416-1	4 J	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	0.64	ND(0.5)	
Trip Blank	10/14/21	Trip Blanks	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Field Blank	10/15/21	VLF-211015-FB	ND(10)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(6)	ND(1)	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	

**Table B-5
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Volatile Organic Compounds**

Location	Date	Sample ID	2-Chlorotoluene (ug/L)	4-Chlorotoluene (ug/L)	1,2-Dibromo 3-chloropropane (ug/L)	Dibromochloromethane (ug/L)	1,2-Dibromoethane (ug/L)	Dibromomethane (ug/L)	1,2-Dichlorobenzene (ug/L)	1,3-Dichlorobenzene (ug/L)	1,4-Dichlorobenzene (ug/L)	Dichlorodifluoromethane (ug/L)	1,1-Dichloroethane (ug/L)	1,2-Dichloroethane (ug/L)	1,1-Dichloroethene (ug/L)	cis-1,2-Dichloroethene (ug/L)	trans-1,2-Dichloroethene (ug/L)	1,2-Dichloropropane (ug/L)	1,3-Dichloropropane (ug/L)
Water Quality Standard									600 (p)		75 (P)	NL	NL			70 (P)			
Wells																			
MW-1D	04/17/21	VLF-210417-18	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-1D Dup	04/17/21	VLF-210417-19	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-1D	10/16/21	VLF-211016-29	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-3D	04/17/21	VLF-210417-15	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	0.25 J	ND(0.5)	0.3 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-3D	10/16/21	VLF-211016-26	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-8S	10/14/21	VLF-211014-11	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-10S	04/16/21	VLF-210416-11	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	0.58	ND(0.5)	0.65	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-10S	10/14/21	VLF-211014-7	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-10D	04/16/21	VLF-210416-12	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-10D	10/14/21	VLF-211014-8	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-11S	04/17/21	VLF-210417-13	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-11S	10/16/21	VLF-211016-24	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-11D	04/17/21	VLF-210417-14	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-11D	10/16/21	VLF-211016-25	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-12S	04/17/21	VLF-210417-17	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	2.9	ND(0.5)	ND(0.5)	ND(0.5)
MW-12S	10/16/21	VLF-211016-27	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	3.6	ND(0.5)	ND(0.5)	ND(0.5)
MW-12D	04/17/21	VLF-210417-16	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-12D	10/16/21	VLF-211016-28	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-15	10/14/21	VLF-211014-9	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-15 Dup	10/14/21	VLF-211014-10	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-17	10/14/21	VLF-211014-6	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-18	10/14/21	VLF-211014-4	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-18 Dup	10/14/21	VLF-211014-5	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-19	10/14/21	VLF-211014-3	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	5	1	ND(0.5)	ND(0.5)	0.48 J	ND(0.5)	ND(0.5)	ND(0.5)
MW-20	10/14/21	VLF-211014-2	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-21	10/14/21	VLF-211014-1	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-23	04/16/21	VLF-210416-9	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-23	10/15/21	VLF-211015-21	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-23 Dup	04/16/21	VLF-210416-10	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-24	10/15/21	VLF-211015-13	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-26	04/16/21	VLF-210416-3	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-26	10/15/21	VLF-211015-15	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

**Table B-5
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Volatile Organic Compounds**

Location	Date	Sample ID	2-Chlorotoluene (ug/L)	4-Chlorotoluene (ug/L)	1,2-Dibromo 3-chloropropane (ug/L)	Dibromochloromethane (ug/L)	1,2- Dibromoethane (ug/L)	Dibromomethane (ug/L)	1,2-Dichlorobenzene (ug/L)	1,3-Dichlorobenzene (ug/L)	1,4-Dichlorobenzene (ug/L)	Dichlorodifluoromethane (ug/L)	1,1-Dichloroethane (ug/L)	1,2- Dichloroethane (ug/L)	1,1-Dichloroethene (ug/L)	cis-1,2-Dichloroethene (ug/L)	trans-1,2-Dichloroethene (ug/L)	1,2-Dichloropropane (ug/L)	1,3-Dichloropropane (ug/L)	
Water Quality Standard									600 (p)		75 (P)	NL	NL			70 (P)				
MW-26 Dup	10/15/21	VLF-211015-16	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-27	04/16/21	VLF-210416-2	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
MW-27	10/15/21	VLF-211015-14	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
P-8	04/17/21	VLF-210417-20	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
P-8	10/14/21	VLF-211014-12	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Phillips	10/15/21	VLF-211015-23	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Leak Detection System																				
LDS-2B	04/16/21	VLF-210416-6	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.29 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
LDS-2B	10/15/21	VLF-211015-19	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
LDS-3	04/16/21	VLF-210416-4	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	0.3 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
LDS-3	10/15/21	VLF-211015-17	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
LDS-4	04/16/21	VLF-210416-7	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
LDS-4	10/15/21	VLF-211015-20	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
LDS-5	04/16/21	VLF-210416-8	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
LDS-5	10/15/21	VLF-211015-22	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Leachate																				
L-Pond	10/18/21	VLF-211017-35	ND(5)	ND(5)	ND(10)	ND(2.5)	ND(5)	ND(2.5)	ND(2.5)	ND(2.5)	2.1 J	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
QA/QC																				
Trip Blank	04/16/21	TRIP BLANK	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Trip Blank	04/17/21	TRIP BLANK	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Trip Blank	04/18/21	TRIP BLANK	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Field Blank	04/16/21	VLF-210416-1	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Trip Blank	10/14/21	Trip Blanks	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Field Blank	10/15/21	VLF-211015-FB	ND(1)	ND(1)	ND(2)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

**Table B-5
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Volatile Organic Compounds**

Location	Date	Sample ID	2,2-Dichloropropane (ug/L)	1,1-Dichloropropane (ug/L)	Cis-1,3-dichloropropene (ug/L)	trans-1,3-Dichloropropene (ug/L)	Ethylbenzene (ug/L)	Hexachlorobutadiene (ug/L)	2-Hexanone (ug/L)	Isopropylbenzene (ug/L)	p-Isopropyltoluene (ug/L)	4-Methyl-2-Pentanone (ug/L)	Methylene Chloride (ug/L)	Naphthalene (ug/L)	n-Propylbenzene (ug/L)	Styrene (ug/L)	1,1,1,2- Tetrachloroethane (ug/L)	1,1,2,2- Tetrachloroethane (ug/L)	Tetrachloroethene (ug/L)	
Water Quality Standard								700 (P)					NL		NL					5 (P)
Wells																				
MW-1D	04/17/21	VLF-210417-18	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-1D Dup	04/17/21	VLF-210417-19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-1D	10/16/21	VLF-211016-29	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-3D	04/17/21	VLF-210417-15	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	0.91 J	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-3D	10/16/21	VLF-211016-26	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-8S	10/14/21	VLF-211014-11	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-10S	04/16/21	VLF-210416-11	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-10S	10/14/21	VLF-211014-7	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-10D	04/16/21	VLF-210416-12	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-10D	10/14/21	VLF-211014-8	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-11S	04/17/21	VLF-210417-13	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-11S	10/16/21	VLF-211016-24	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.27 J	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-11D	04/17/21	VLF-210417-14	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-11D	10/16/21	VLF-211016-25	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-12S	04/17/21	VLF-210417-17	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	0.88	
MW-12S	10/16/21	VLF-211016-27	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	1	
MW-12D	04/17/21	VLF-210417-16	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	1.6	
MW-12D	10/16/21	VLF-211016-28	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	2.6	
MW-15	10/14/21	VLF-211014-9	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-15 Dup	10/14/21	VLF-211014-10	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-17	10/14/21	VLF-211014-6	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-18	10/14/21	VLF-211014-4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-18 Dup	10/14/21	VLF-211014-5	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-19	10/14/21	VLF-211014-3	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	0.99	
MW-20	10/14/21	VLF-211014-2	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-21	10/14/21	VLF-211014-1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-23	04/16/21	VLF-210416-9	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-23	10/15/21	VLF-211015-21	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-23 Dup	04/16/21	VLF-210416-10	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-24	10/15/21	VLF-211015-13	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-26	04/16/21	VLF-210416-3	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-26	10/15/21	VLF-211015-15	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	

**Table B-5
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Volatile Organic Compounds**

Location	Date	Sample ID	2,2-Dichloropropane (ug/L)	1,1-Dichloropropene (ug/L)	Cis-1,3-dichloropropene (ug/L)	trans-1,3-Dichloropropene (ug/L)	Ethylbenzene (ug/L)	Hexachlorobutadiene (ug/L)	2-Hexanone (ug/L)	Isopropylbenzene (ug/L)	p-Isopropyltoluene (ug/L)	4-Methyl-2-Pentanone (ug/L)	Methylene Chloride (ug/L)	Naphthalene (ug/L)	n-Propylbenzene (ug/L)	Styrene (ug/L)	1,1,1,2- Tetrachloroethane (ug/L)	1,1,1,2,2- Tetrachloroethane (ug/L)	Tetrachloroethene (ug/L)	
Water Quality Standard							700 (P)					NL		NL						5 (P)
MW-26 Dup	10/15/21	VLF-211015-16	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-27	04/16/21	VLF-210416-2	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
MW-27	10/15/21	VLF-211015-14	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
P-8	04/17/21	VLF-210417-20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
P-8	10/14/21	VLF-211014-12	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Phillips	10/15/21	VLF-211015-23	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	--	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Leak Detection System																				
LDS-2B	04/16/21	VLF-210416-6	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.3 J	ND(1)	ND(5)	0.69 J	ND(1)	1.1 J	ND(2)	5.5	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-2B	10/15/21	VLF-211015-19	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	0.32 J	ND(1)	ND(5)	0.71 J	ND(1)	ND(5)	ND(2)	7.3	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-3	04/16/21	VLF-210416-4	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-3	10/15/21	VLF-211015-17	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-4	04/16/21	VLF-210416-7	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-4	10/15/21	VLF-211015-20	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-5	04/16/21	VLF-210416-8	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
LDS-5	10/15/21	VLF-211015-22	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Leachate																				
L-Pond	10/18/21	VLF-211017-35	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	5.2	ND(5)	ND(25)	ND(5)	1.8 J	35	ND(10)	5.2	ND(5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	
QA/QC																				
Trip Blank	04/16/21	TRIP BLANK	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Trip Blank	04/17/21	TRIP BLANK	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Trip Blank	04/18/21	TRIP BLANK	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Field Blank	04/16/21	VLF-210416-1	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Trip Blank	10/14/21	Trip Blanks	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	
Field Blank	10/15/21	VLF-211015-FB	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(5)	ND(1)	ND(1)	ND(5)	ND(2)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	

Table B-5
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Volatile Organic Compounds

Location	Date	Sample ID	Toluene (ug/L)	1,2,3- Trichlorobenzene (ug/L)	1,2,4- Trichlorobenzene (ug/L)	1,1,1- Trichloroethane (ug/L)	1,1,1,2- Trichloroethane (ug/L)	Trichloroethene (ug/L)	Trichlorofluoromethane (ug/L)	1,2,3- Trichloropropane (ug/L)	1,2,4- Trimethylbenzene (ug/L)	1,3,5-Trimethylbenzene (ug/L)	Vinyl Chloride (ug/L)	m,p-Xylene (ug/L)	o-Xylene (ug/L)	MTBE (ug/L)	Xylenes, Total (ug/L)
Water Quality Standard			1000 (P)					5 (P)			NL		2 (P)	10,000(P)	10,000(P)		
Wells																	
MW-1D	04/17/21	VLF-210417-18	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-1D Dup	04/17/21	VLF-210417-19	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-1D	10/16/21	VLF-211016-29	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-3D	04/17/21	VLF-210417-15	ND(0.5)	0.9 J	0.74 J	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-3D	10/16/21	VLF-211016-26	0.3 J	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	0.32 J	ND(0.5)	--	--
MW-8S	10/14/21	VLF-211014-11	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-10S	04/16/21	VLF-210416-11	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-10S	10/14/21	VLF-211014-7	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-10D	04/16/21	VLF-210416-12	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-10D	10/14/21	VLF-211014-8	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-11S	04/17/21	VLF-210417-13	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-11S	10/16/21	VLF-211016-24	1.6	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	0.32 J	ND(1)	ND(0.5)	1.4	0.43 J	--	--
MW-11D	04/17/21	VLF-210417-14	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-11D	10/16/21	VLF-211016-25	0.58	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	0.45 J	ND(0.5)	--	--
MW-12S	04/17/21	VLF-210417-17	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	1.4	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-12S	10/16/21	VLF-211016-27	0.23 J	ND(1)	ND(1)	ND(0.5)	ND(0.5)	1	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-12D	04/17/21	VLF-210417-16	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-12D	10/16/21	VLF-211016-28	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-15	10/14/21	VLF-211014-9	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-15 Dup	10/14/21	VLF-211014-10	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-17	10/14/21	VLF-211014-6	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-18	10/14/21	VLF-211014-4	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-18 Dup	10/14/21	VLF-211014-5	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-19	10/14/21	VLF-211014-3	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	1.3	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-20	10/14/21	VLF-211014-2	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-21	10/14/21	VLF-211014-1	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-23	04/16/21	VLF-210416-9	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-23	10/15/21	VLF-211015-21	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-23 Dup	04/16/21	VLF-210416-10	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-24	10/15/21	VLF-211015-13	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-26	04/16/21	VLF-210416-3	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-26	10/15/21	VLF-211015-15	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--

**Table B-5
Coffin Butte Landfill - 2021 Annual Environmental Monitoring Report
Volatile Organic Compounds**

Location	Date	Sample ID	Toluene (ug/L)	1,2,3- Trichlorobenzene (ug/L)	1,2,4- Trichlorobenzene (ug/L)	1,1,1- Trichloroethane (ug/L)	1,1,2- Trichloroethane (ug/L)	Trichloroethene (ug/L)	Trichlorofluoromethane (ug/L)	1,2,3- Trichloropropane (ug/L)	1,2,4- Trimethylbenzene (ug/L)	1,3,5-Trimethylbenzene (ug/L)	Vinyl Chloride (ug/L)	m,p-Xylene (ug/L)	o-Xylene (ug/L)	MTBE (ug/L)	Xylenes, Total (ug/L)
Water Quality Standard			1000 (P)					5 (P)			NL		2 (P)	10,000(P)	10,000(P)		
MW-26 Dup	10/15/21	VLF-211015-16	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-27	04/16/21	VLF-210416-2	0.24 J	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
MW-27	10/15/21	VLF-211015-14	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
P-8	04/17/21	VLF-210417-20	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
P-8	10/14/21	VLF-211014-12	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
Phillips	10/15/21	VLF-211015-23	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
Leak Detection System																	
LDS-2B	04/16/21	VLF-210416-6	0.49 J	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	0.18 J	ND(0.5)	--	--
LDS-2B	10/15/21	VLF-211015-19	0.61	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
LDS-3	04/16/21	VLF-210416-4	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
LDS-3	10/15/21	VLF-211015-17	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
LDS-4	04/16/21	VLF-210416-7	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
LDS-4	10/15/21	VLF-211015-20	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
LDS-5	04/16/21	VLF-210416-8	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
LDS-5	10/15/21	VLF-211015-22	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
Leachate																	
L-Pond	10/18/21	VLF-211017-35	37	ND(5)	ND(5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(3.9)	1.7 J	ND(5)	ND(2.5)	7	4.3	--	--
QA/QC																	
Trip Blank	04/16/21	TRIP BLANK	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
Trip Blank	04/17/21	TRIP BLANK	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
Trip Blank	04/18/21	TRIP BLANK	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
Field Blank	04/16/21	VLF-210416-1	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
Trip Blank	10/14/21	Trip Blanks	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--
Field Blank	10/15/21	VLF-211015-FB	ND(0.5)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.77)	ND(1)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	--	--

Notes

ND: Analyte not detected at a concentration at or above the method reporting limit.

B: The analyte was found in the associated method blank.

J: The result is an estimated quantity.

NL: No Level, primary maximum contaminant level not established by EPA

(P) Primary drinking water standard

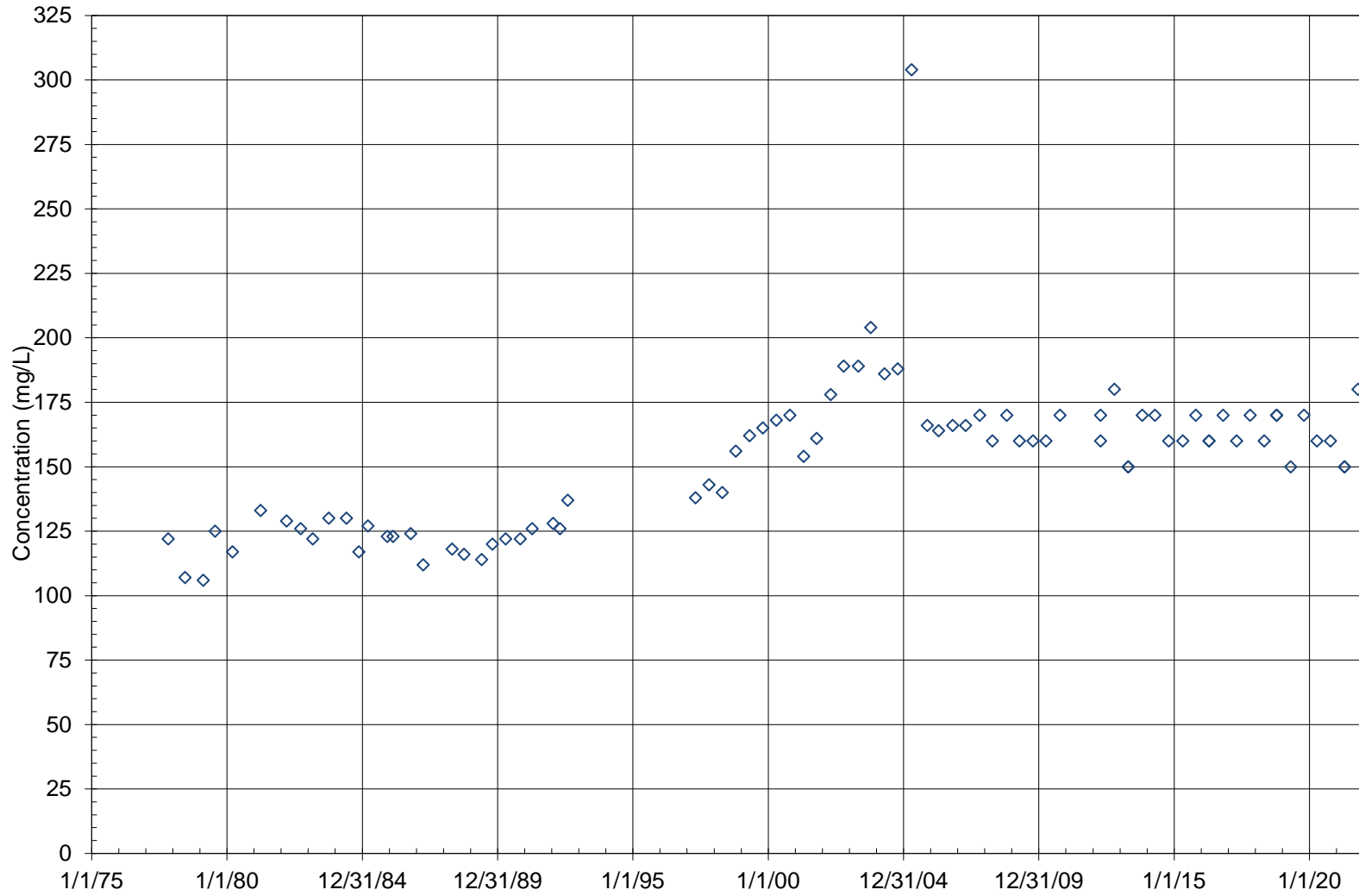
ND(10)B The analyte was found in the associated method blank at a level that is significant relative to the sample result.

APPENDIX C
TIME-SERIES CONCENTRATION PLOTS
(IN PDF ON ATTACHED CD)

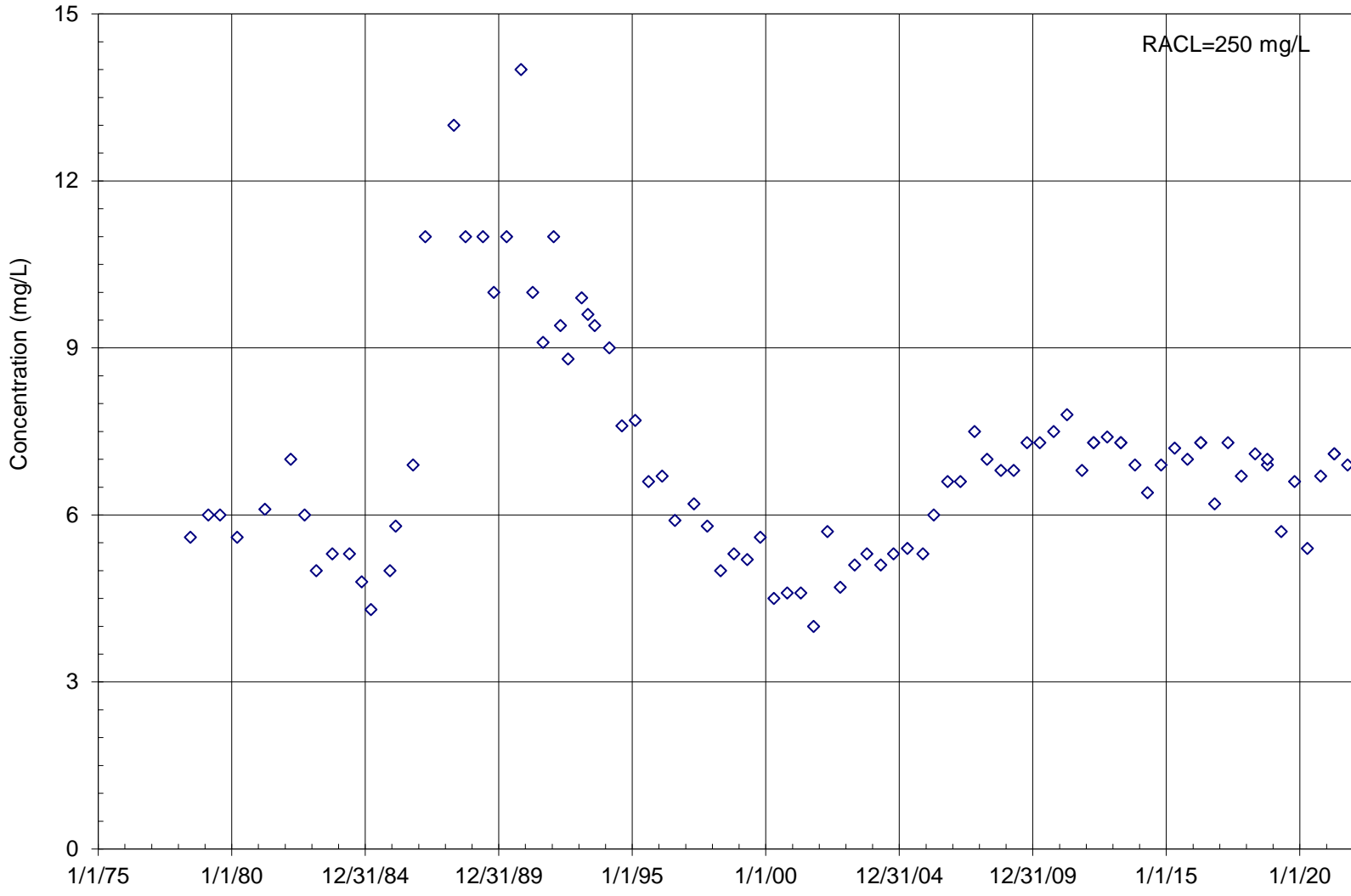
Appendix C
2021 Annual Environmental Monitoring Report
Coffin Butte Landfill
List of Trend Plots

	Inorganic Parameters and Metals															VOCs									
	Antimony (Sb)	Arsenic (As)	Barium (Ba)	Bicarbonate Alkalinity (HCO ₃)	Calcium (Ca)	Chloride (Cl)	Chromium (Cr)	Iron (Fe)	Lead (Pb)	Magnesium (Mg)	Manganese (Mn)	Nickel (Ni)	Selenium (Se)	Sodium (Na)	Total Dissolved Solids (TDS)	Zinc (Zn)	Chlorobenzene	Chloroethane	1,2-Dichlorobenzene	1,4-Dichlorobenzene	cis-1,2-Dichloroethene	1,1-Dichloroethane	Tetrachloroethene (PCE)	Trichloroethene (TCE)	Vinyl Chloride
MW-1D	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
MW-3D	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
MW-8S	X	X	X	X	X	X		X	X	X	X	X		X	X										
MW-10S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X
MW-10D	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X
MW-11S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X
MW-11D	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X
MW-2S/12S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					X		X	X	
MW-2D/12D	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							X		
MW-15	X	X	X	X	X	X		X	X	X	X	X		X	X										
MW-17	X	X	X	X	X	X		X	X	X	X	X		X	X										
MW-18	X	X	X	X	X	X		X	X	X	X	X		X	X										
MW-19	X	X	X	X	X	X		X	X	X	X	X		X	X							X	X	X	
MW-20		X	X	X	X	X		X		X	X		X	X	X										
MW-21		X	X	X	X	X		X		X	X		X	X	X		X		X						
MW-23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
MW-24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
MW-26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
MW-27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X									
P-8				X	X	X		X		X	X			X	X										

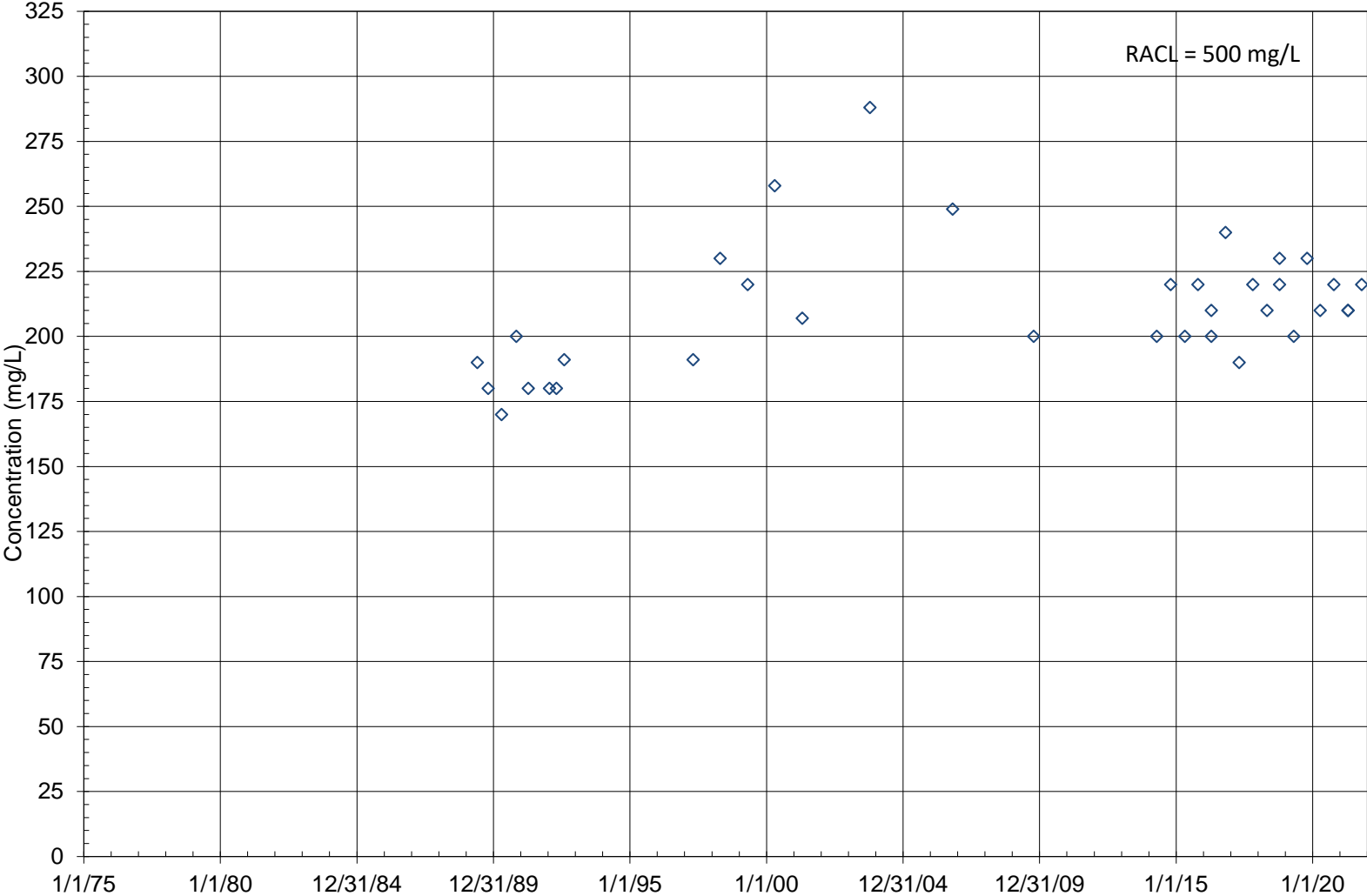
Coffin Butte Landfill
MW-1D: Bicarbonate



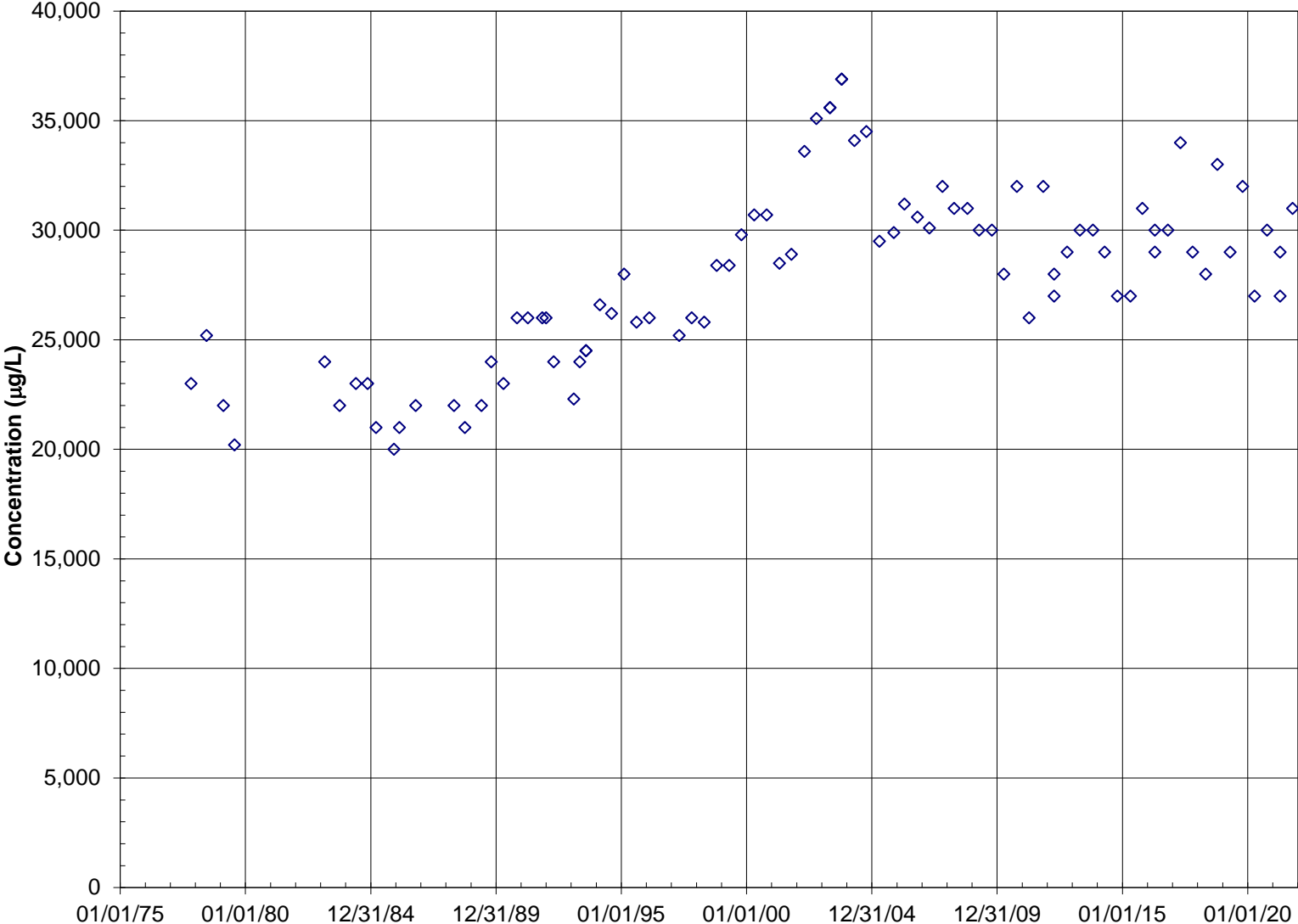
Coffin Butte Landfill
MW-1D: Chloride



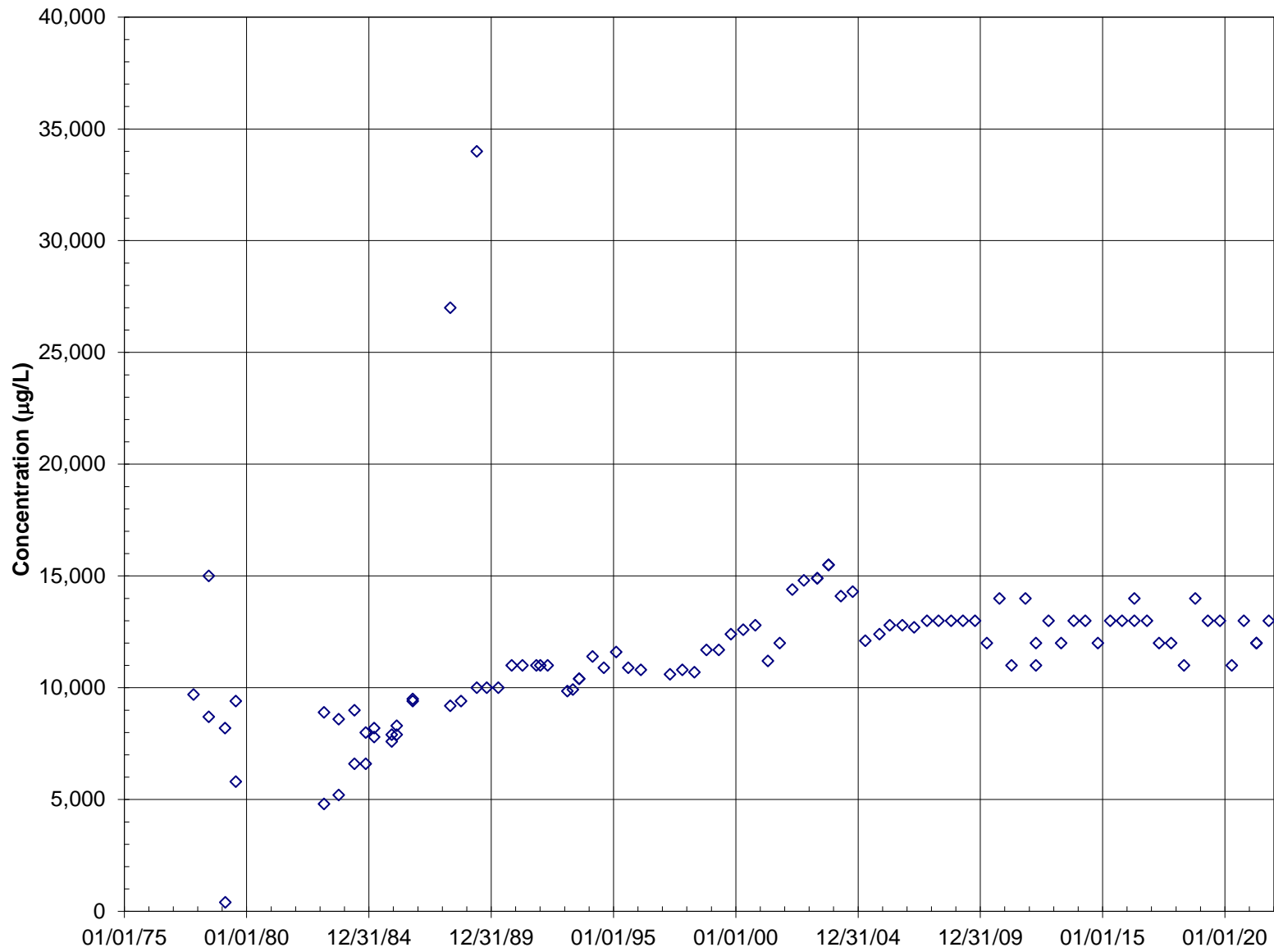
Coffin Butte Landfill
MW-1D: TDS



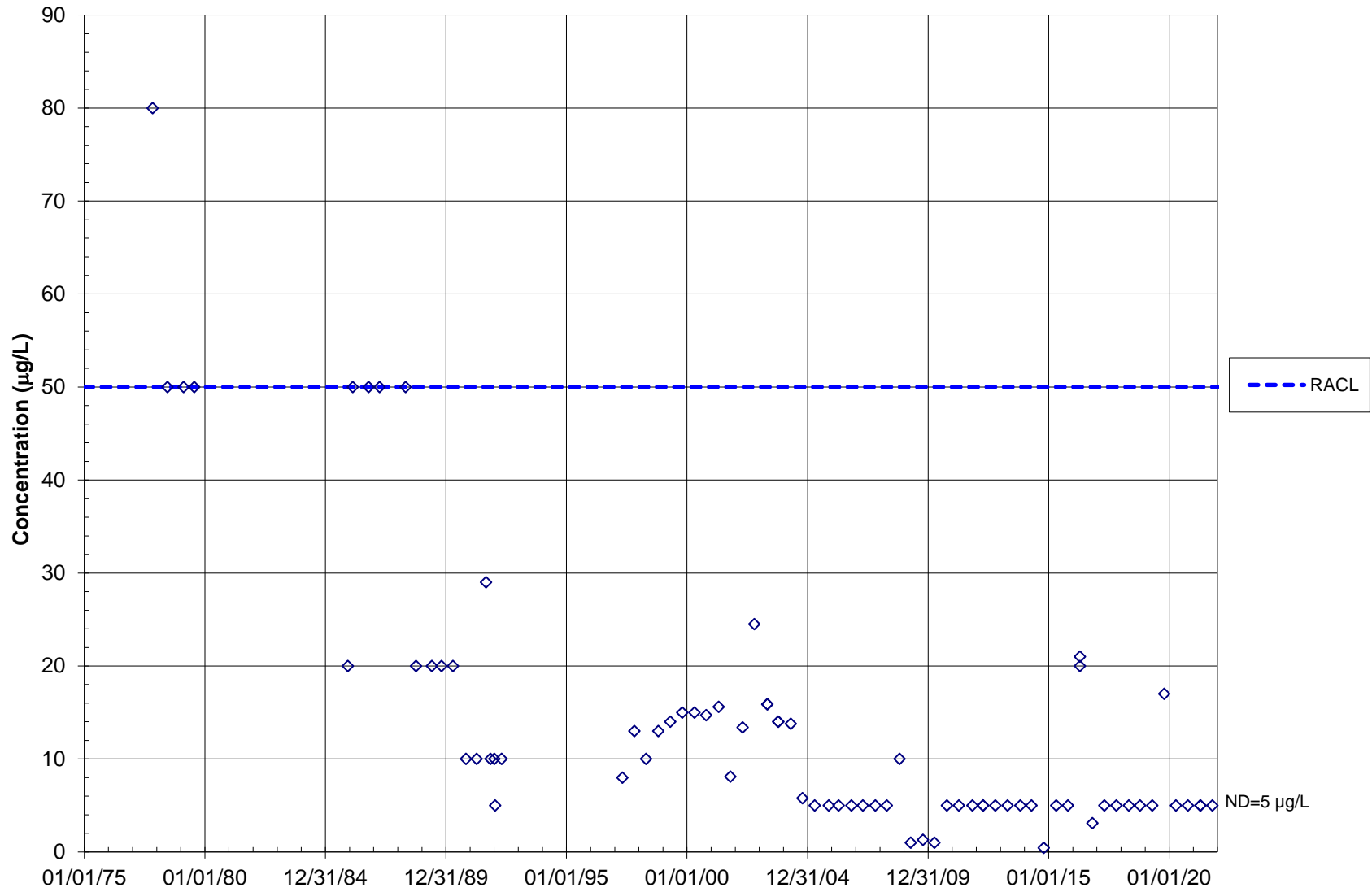
Coffin Butte Landfill
MW-1D: Calcium



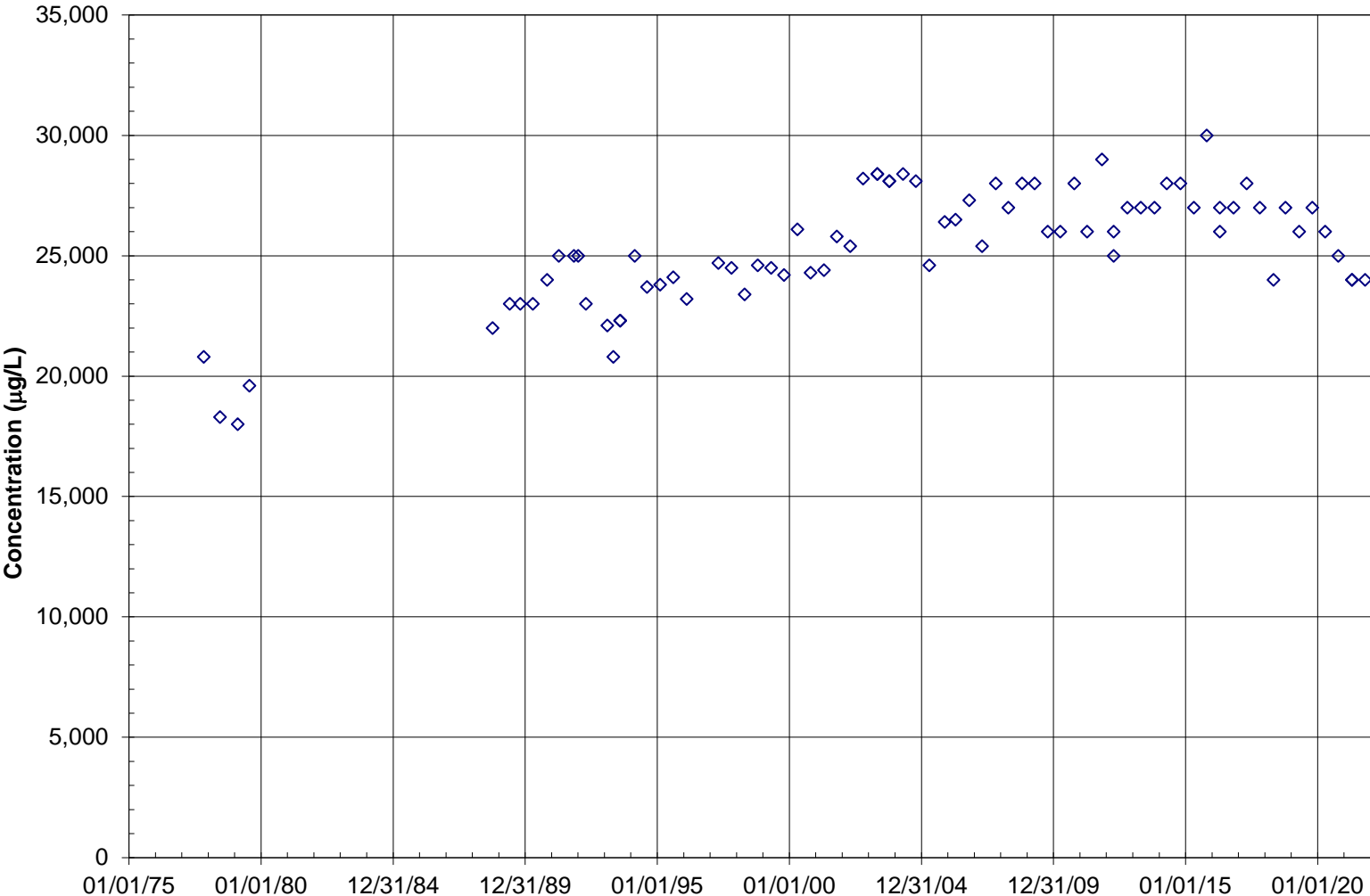
Coffin Butte Landfill
MW-1D: Magnesium



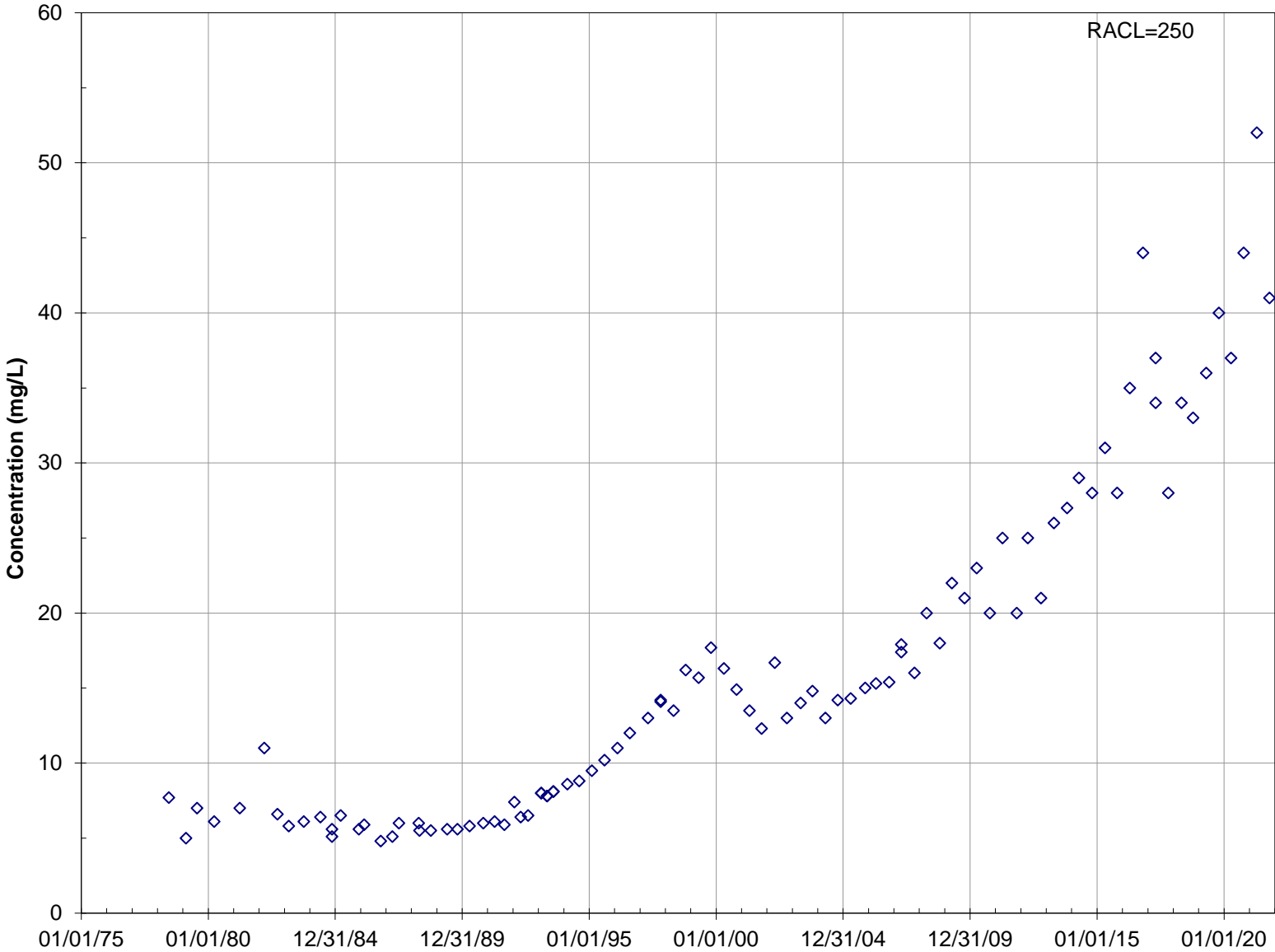
Coffin Butte Landfill
MW-1D: Manganese



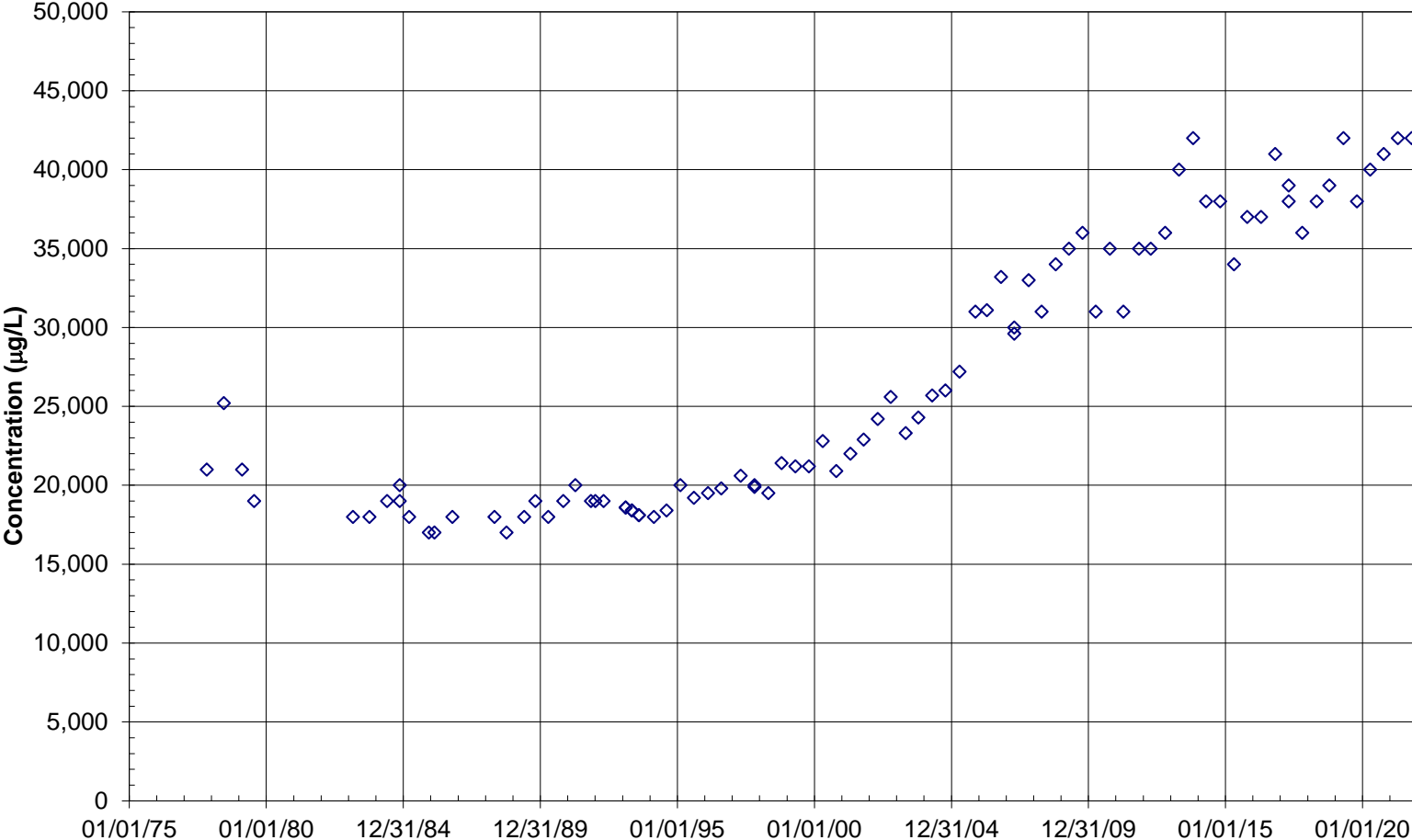
Coffin Butte Landfill
MW-1D: Sodium



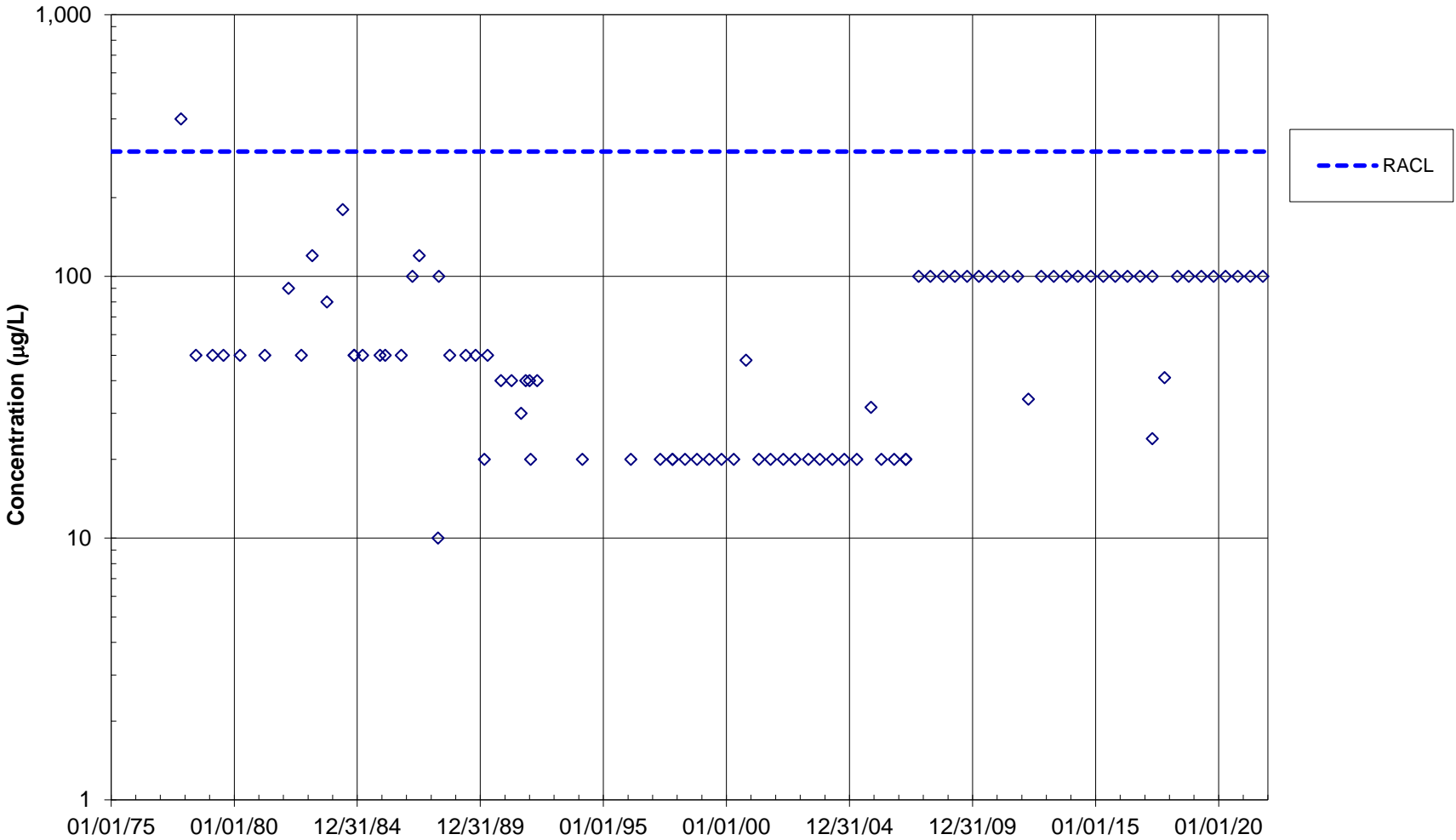
Coffin Butte Landfill
MW-3D: Chloride



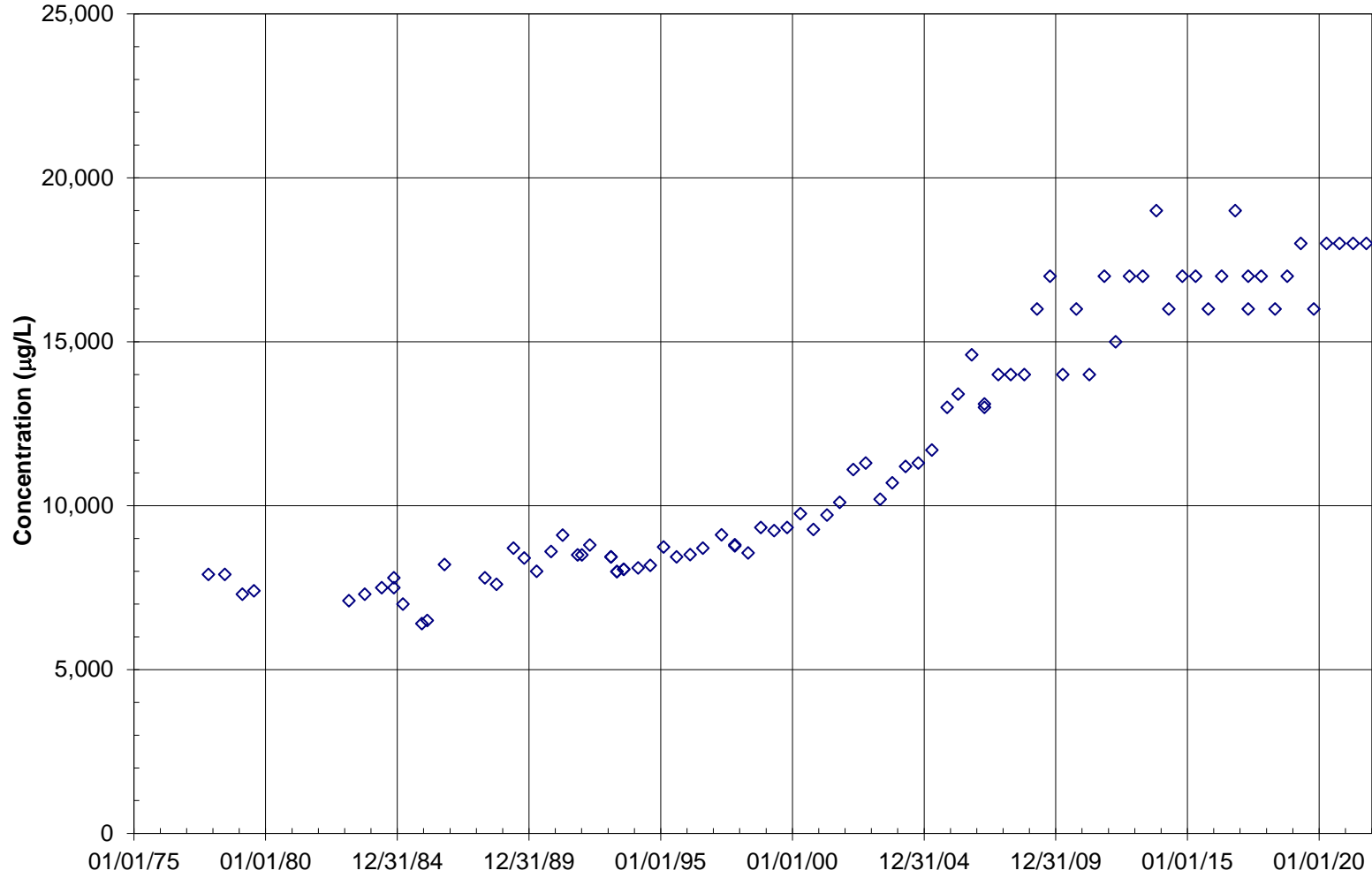
Coffin Butte Landfill
MW-3D: Calcium



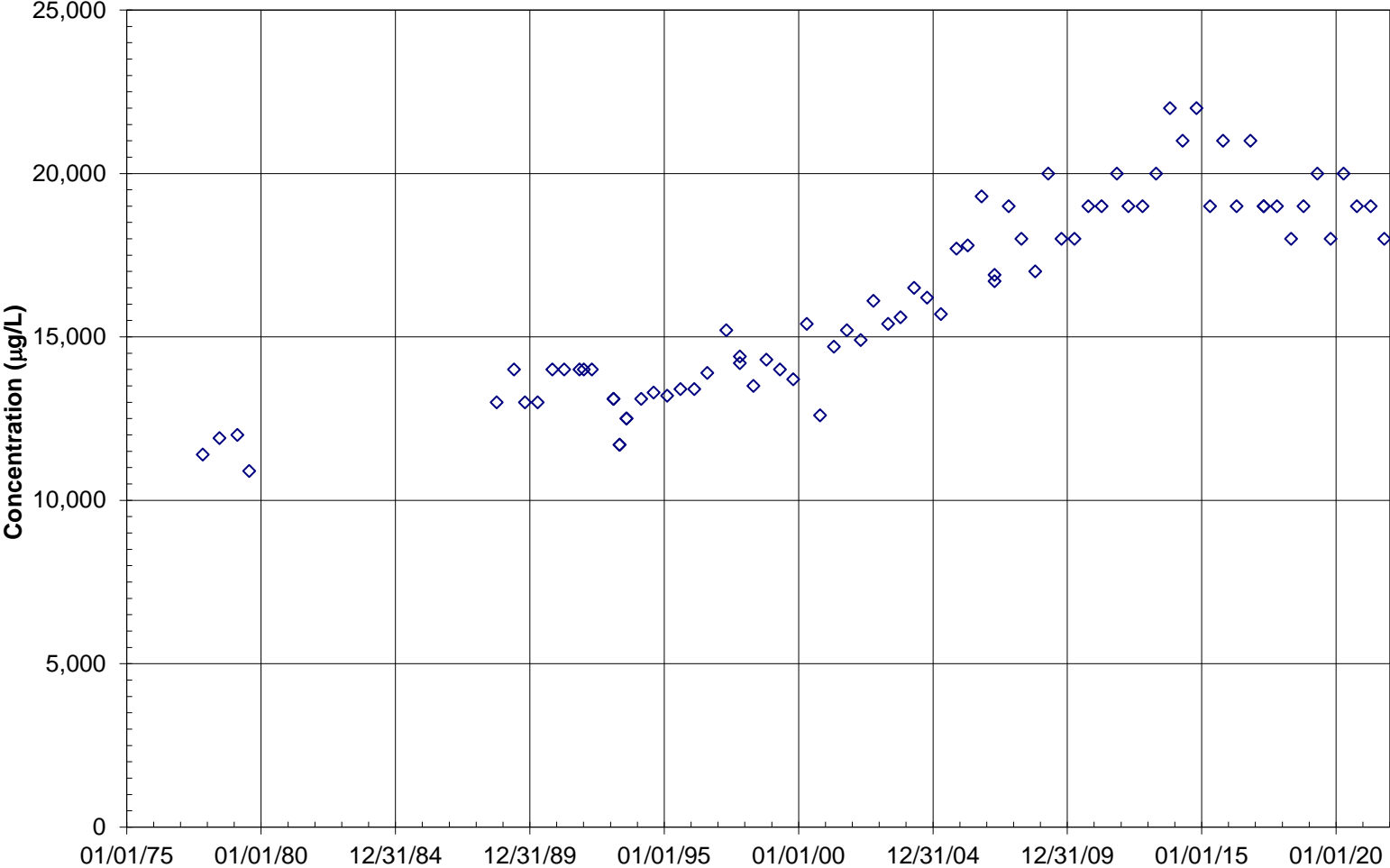
Coffin Butte Landfill
MW-3D: Iron



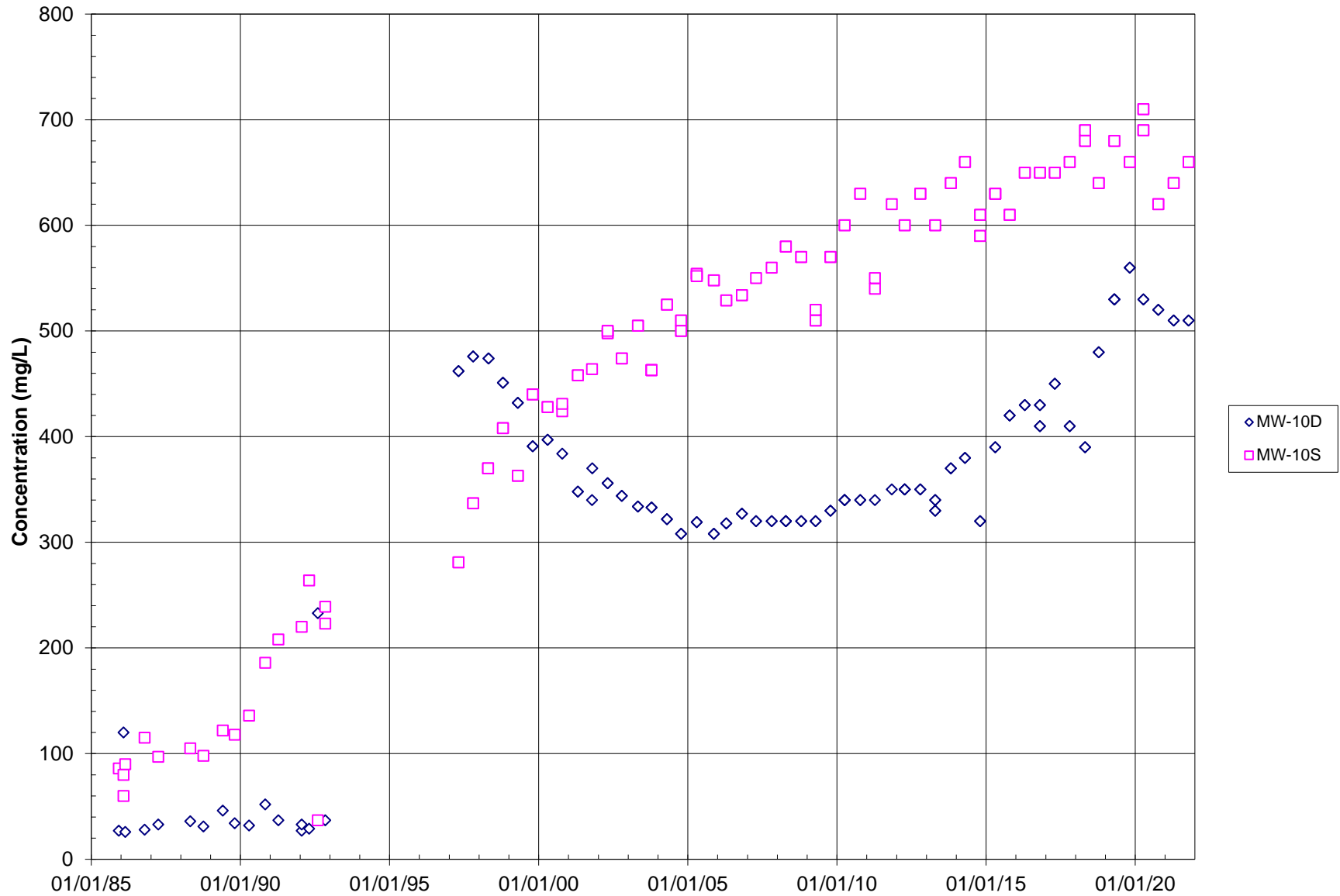
Coffin Butte Landfill
MW-3D: Magnesium



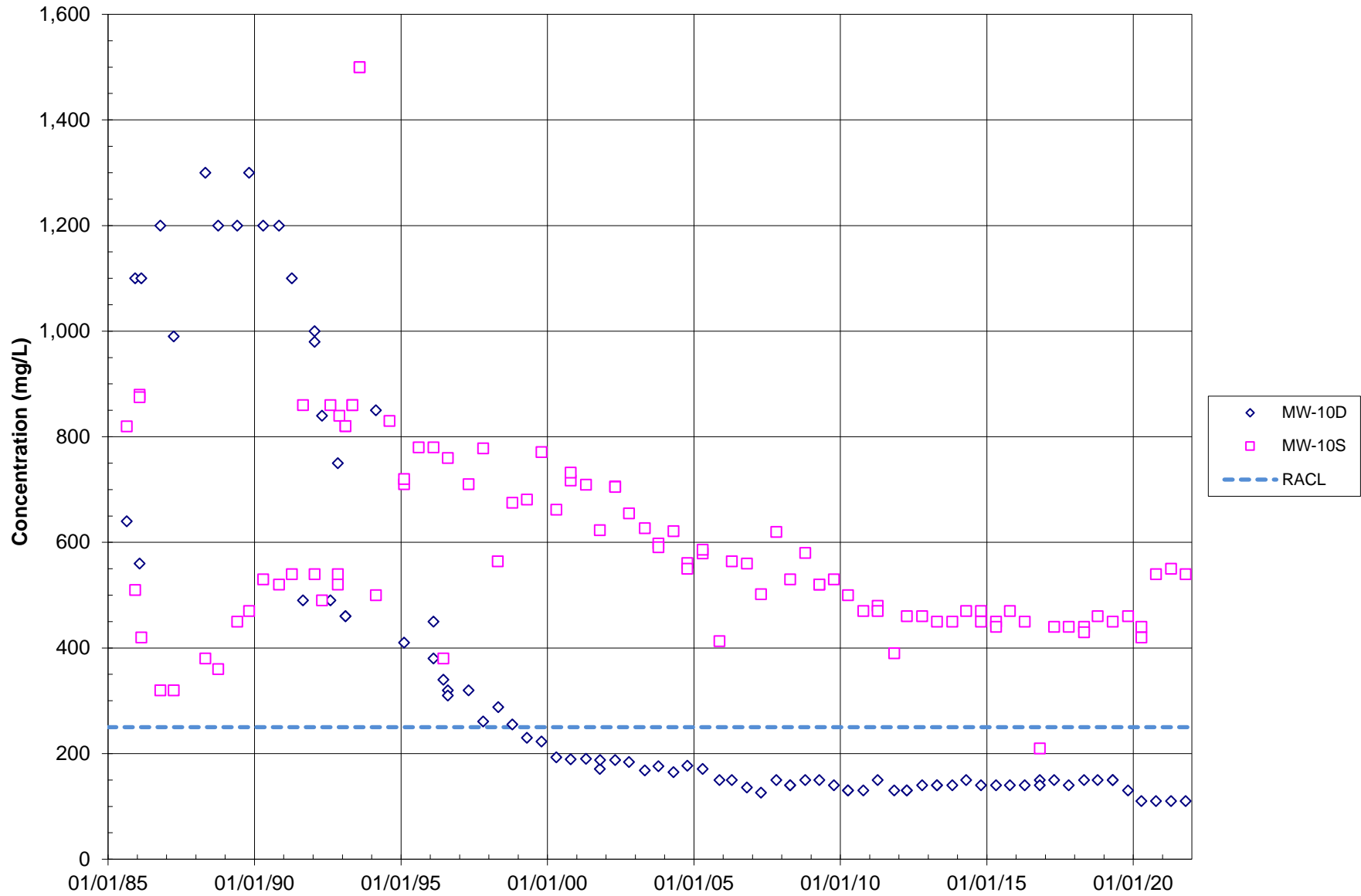
Coffin Butte Landfill
MW-3D: Sodium



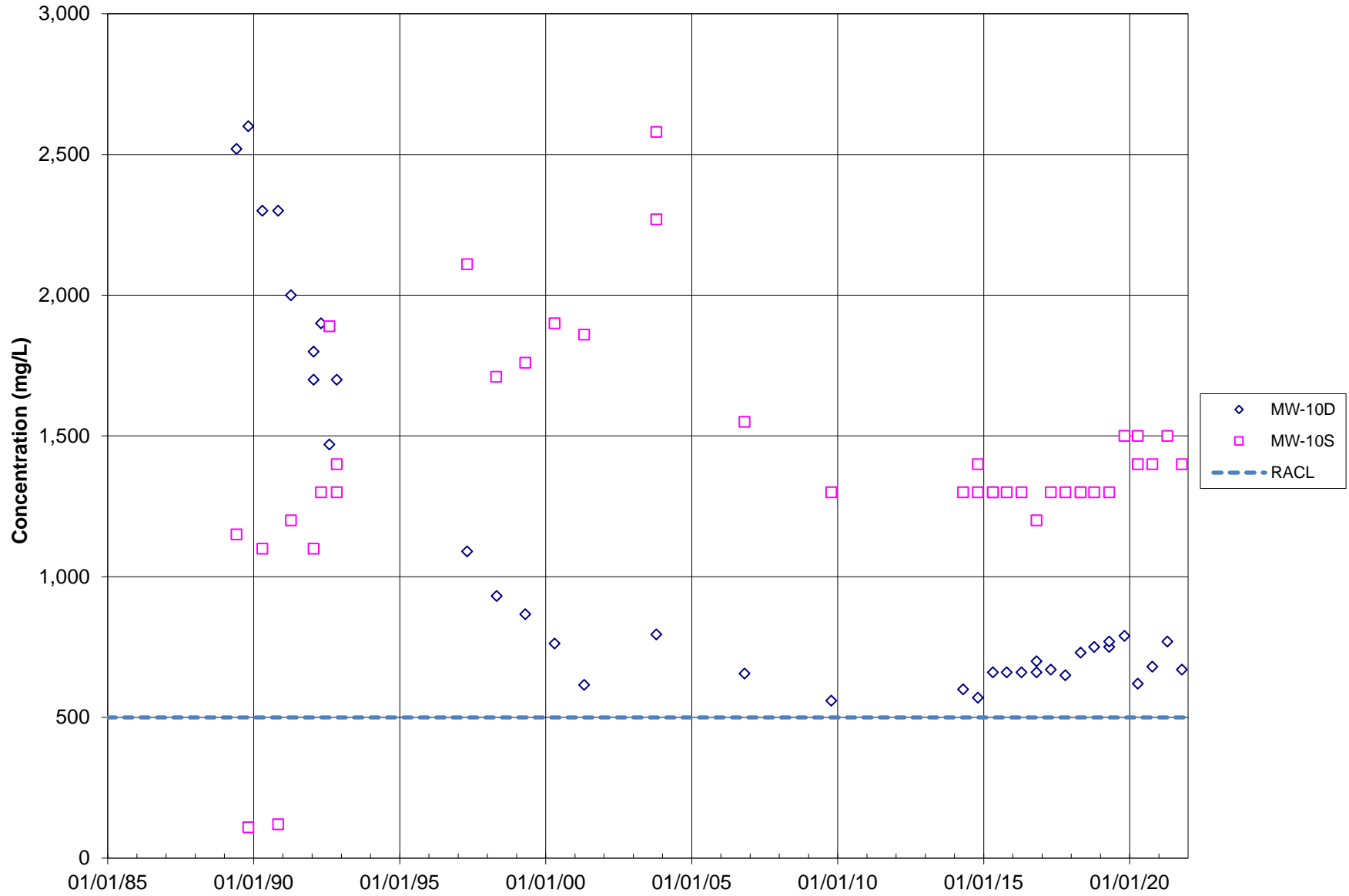
Coffin Butte Landfill
MW-10S and MW-10D: Bicarbonate



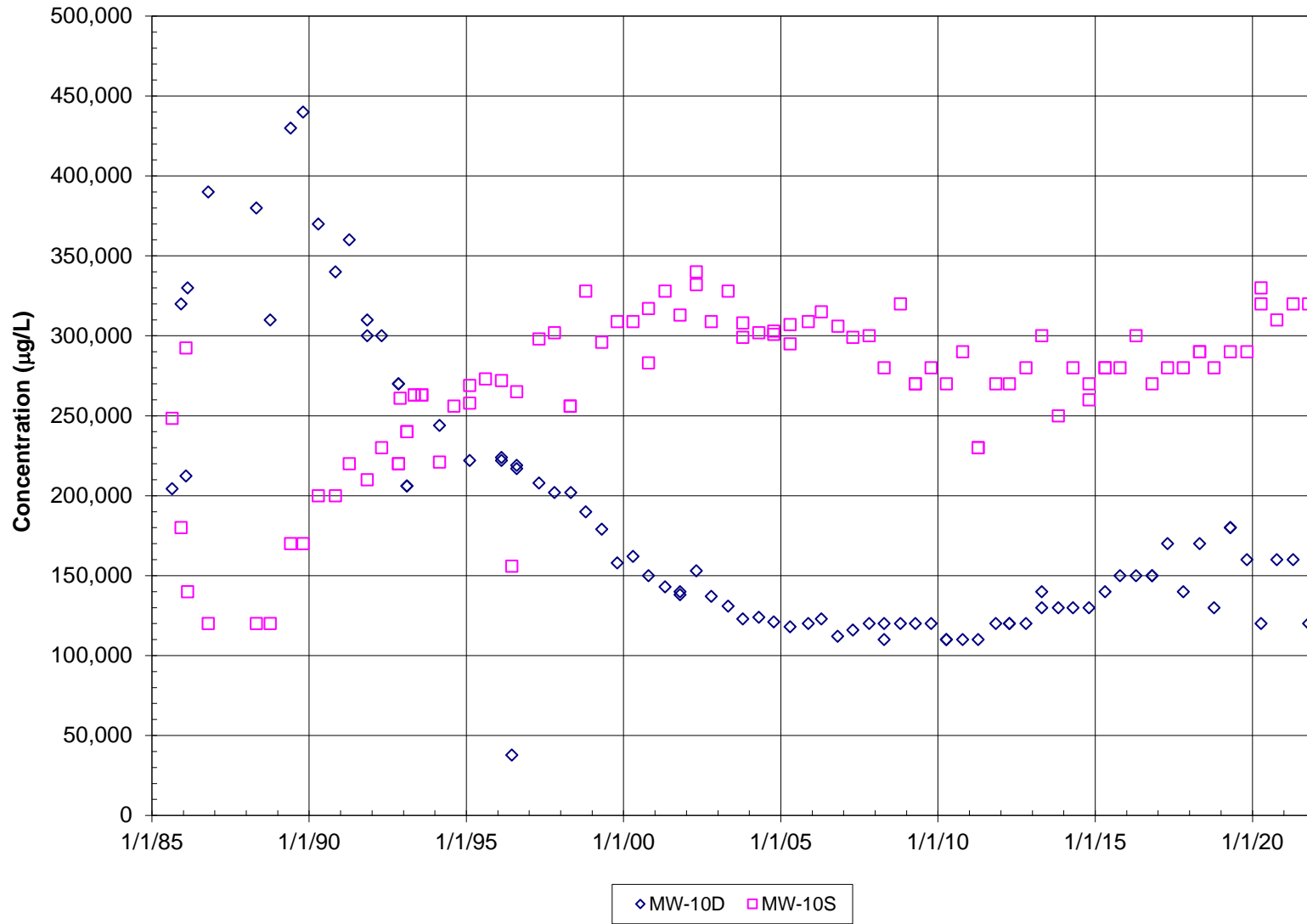
Coffin Butte Landfill
MW-10S and MW-10D: Chloride



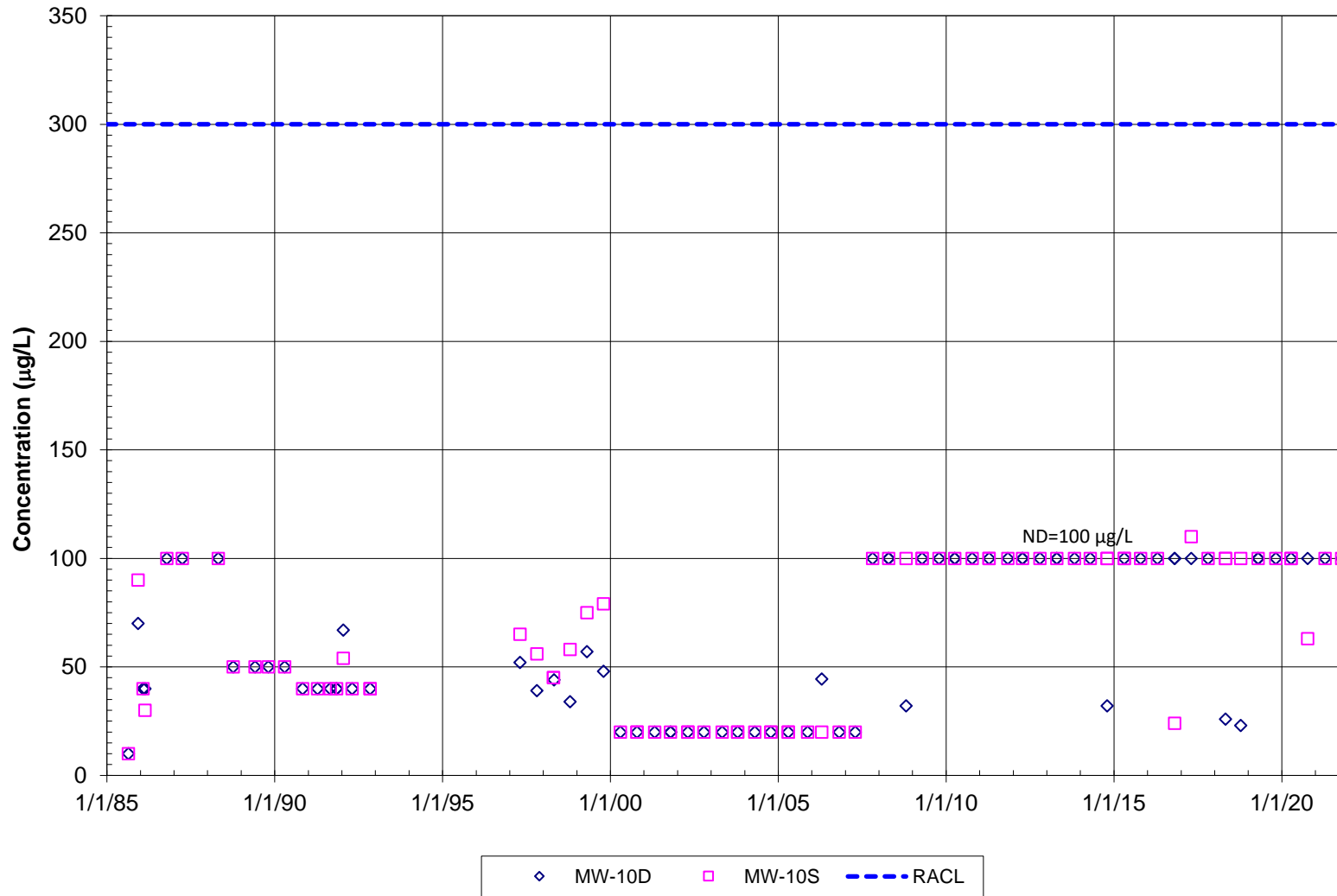
Coffin Butte Landfill
MW-10S and MW-10D: TDS



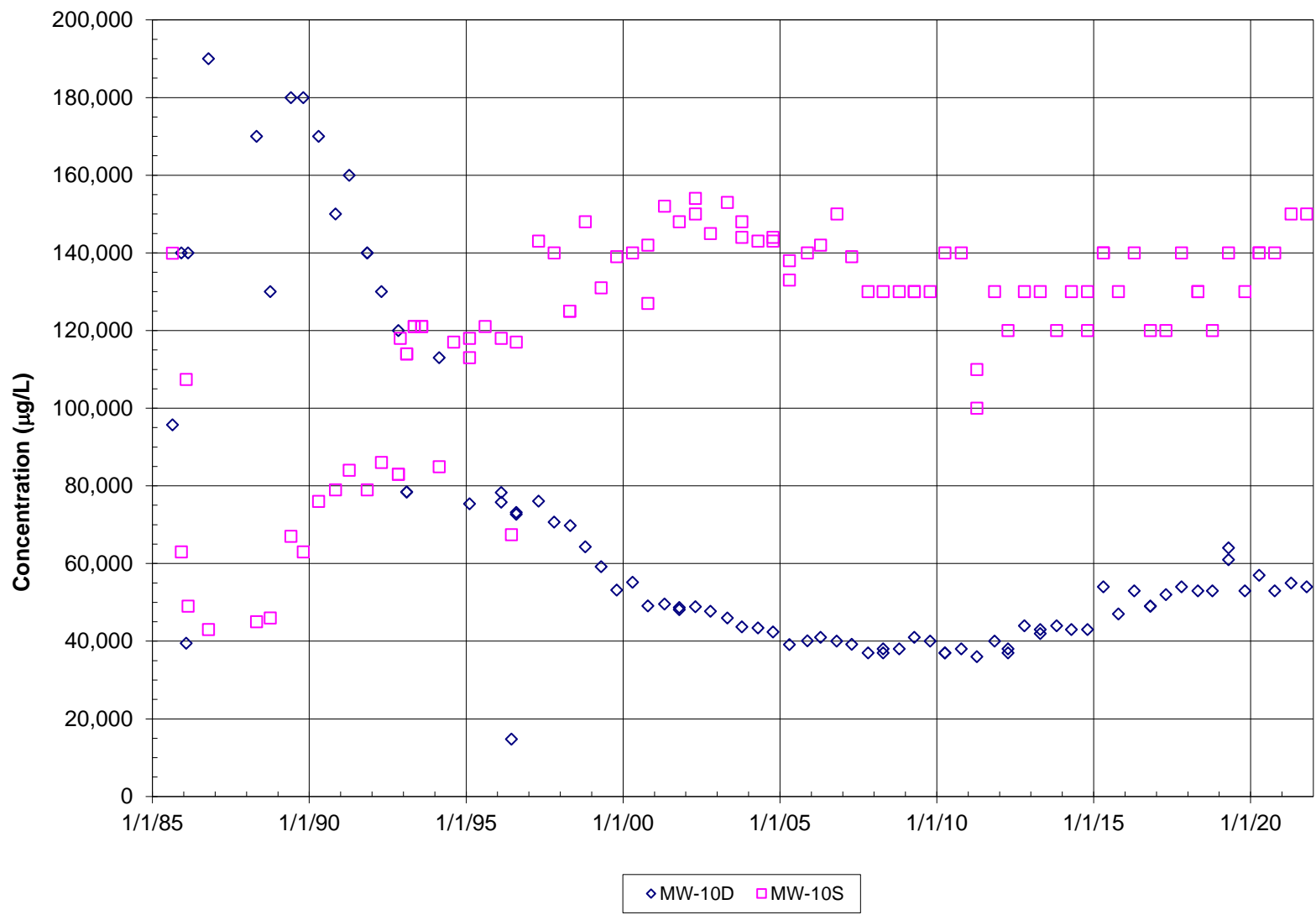
Coffin Butte Landfill
MW10S and MW-10D: Calcium



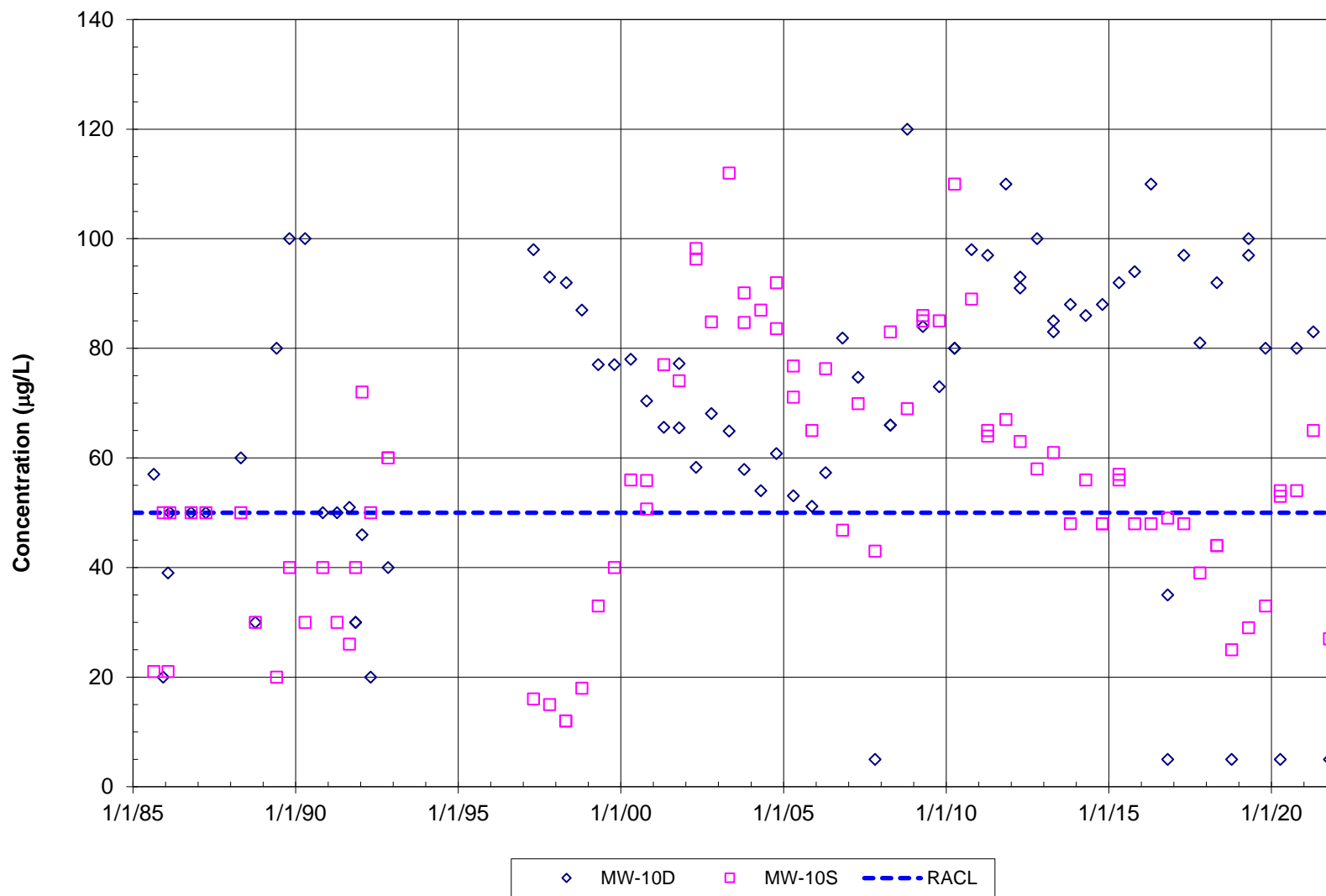
Coffin Butte Landfill
MW10S and MW-10D: Iron



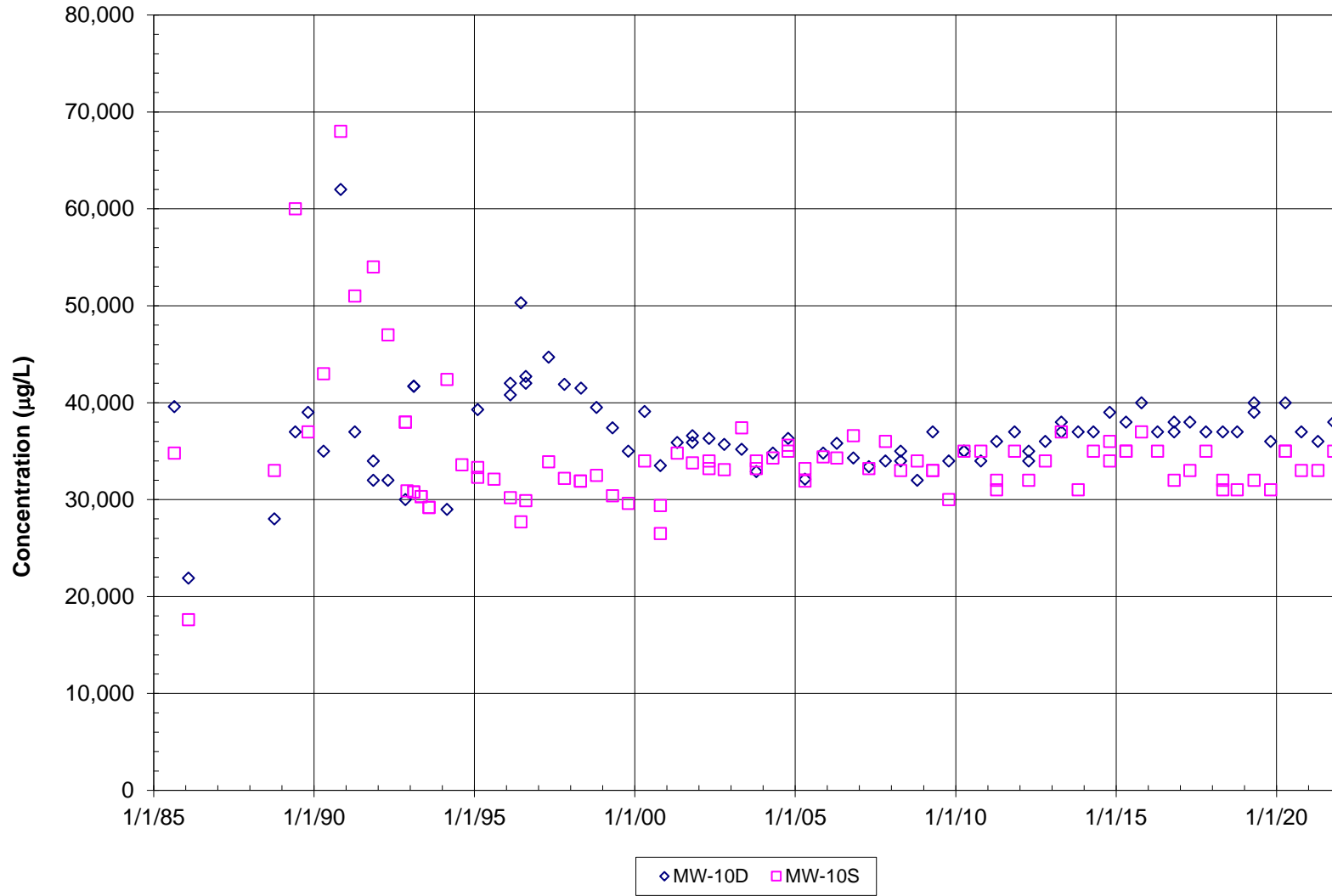
Coffin Butte Landfill
MW-10S and MW-10D: Magnesium



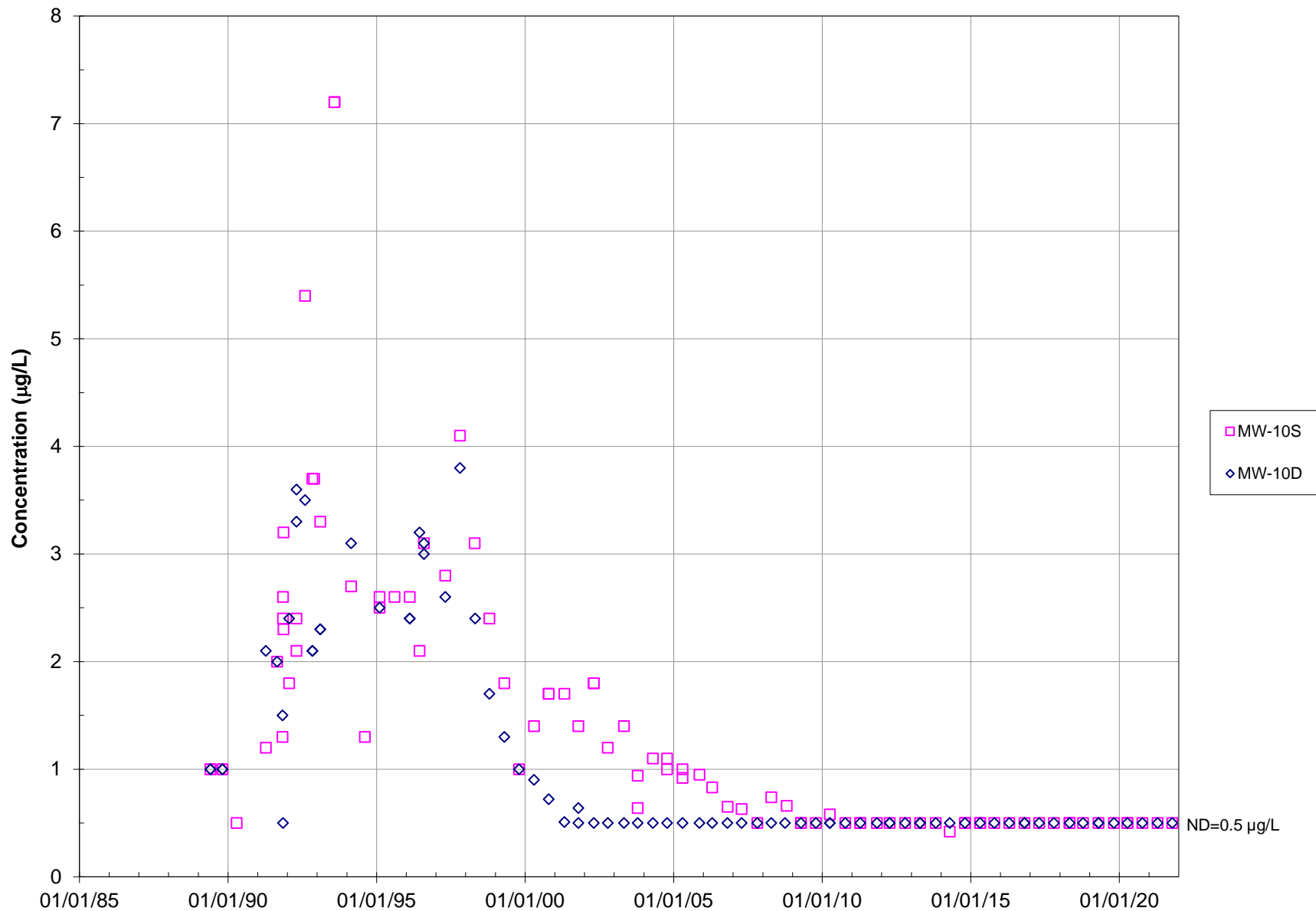
Coffin Butte Landfill
MW-10S and MW-10D: Manganese



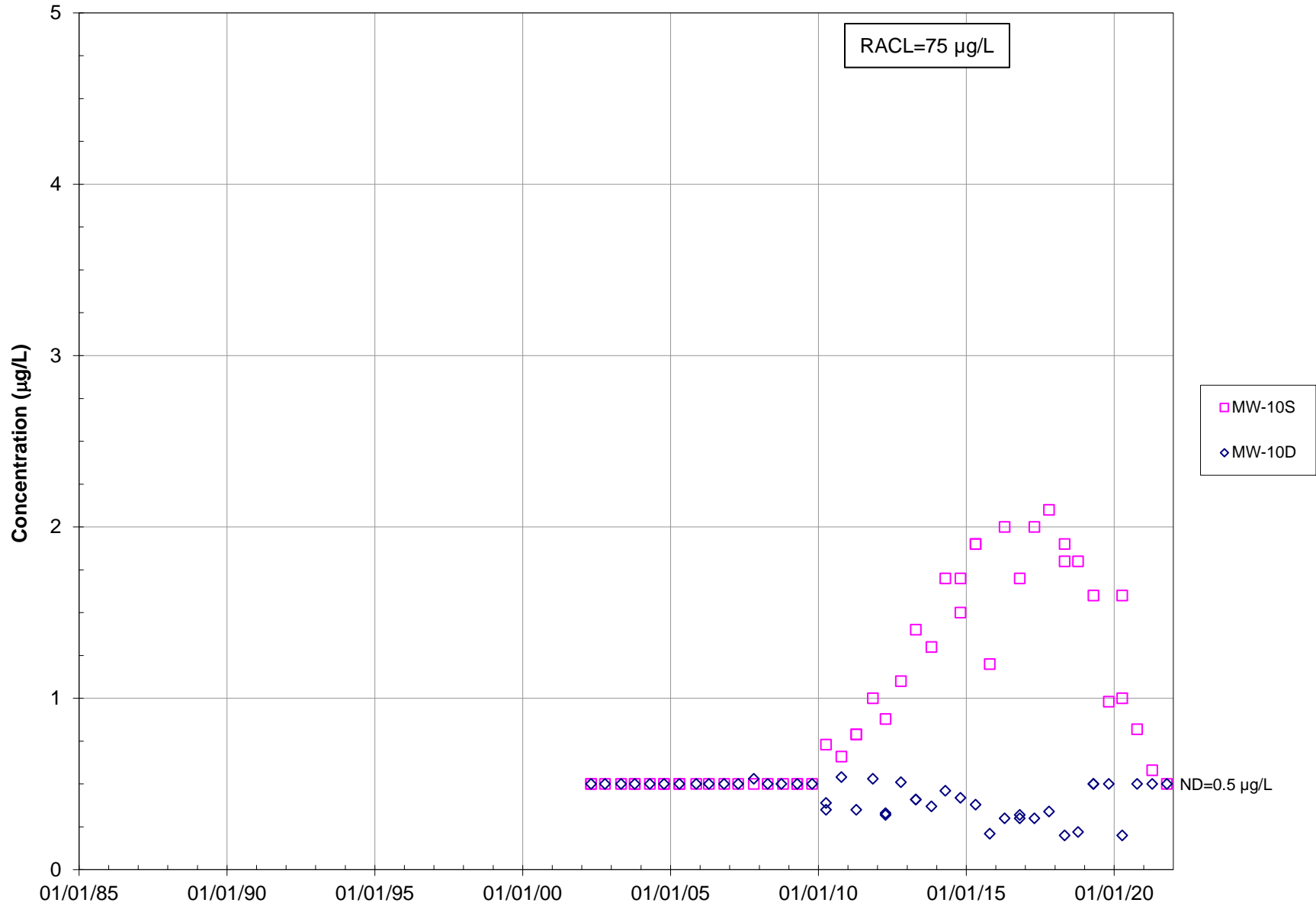
Coffin Butte Landfill
MW-10S and MW-10D: Sodium



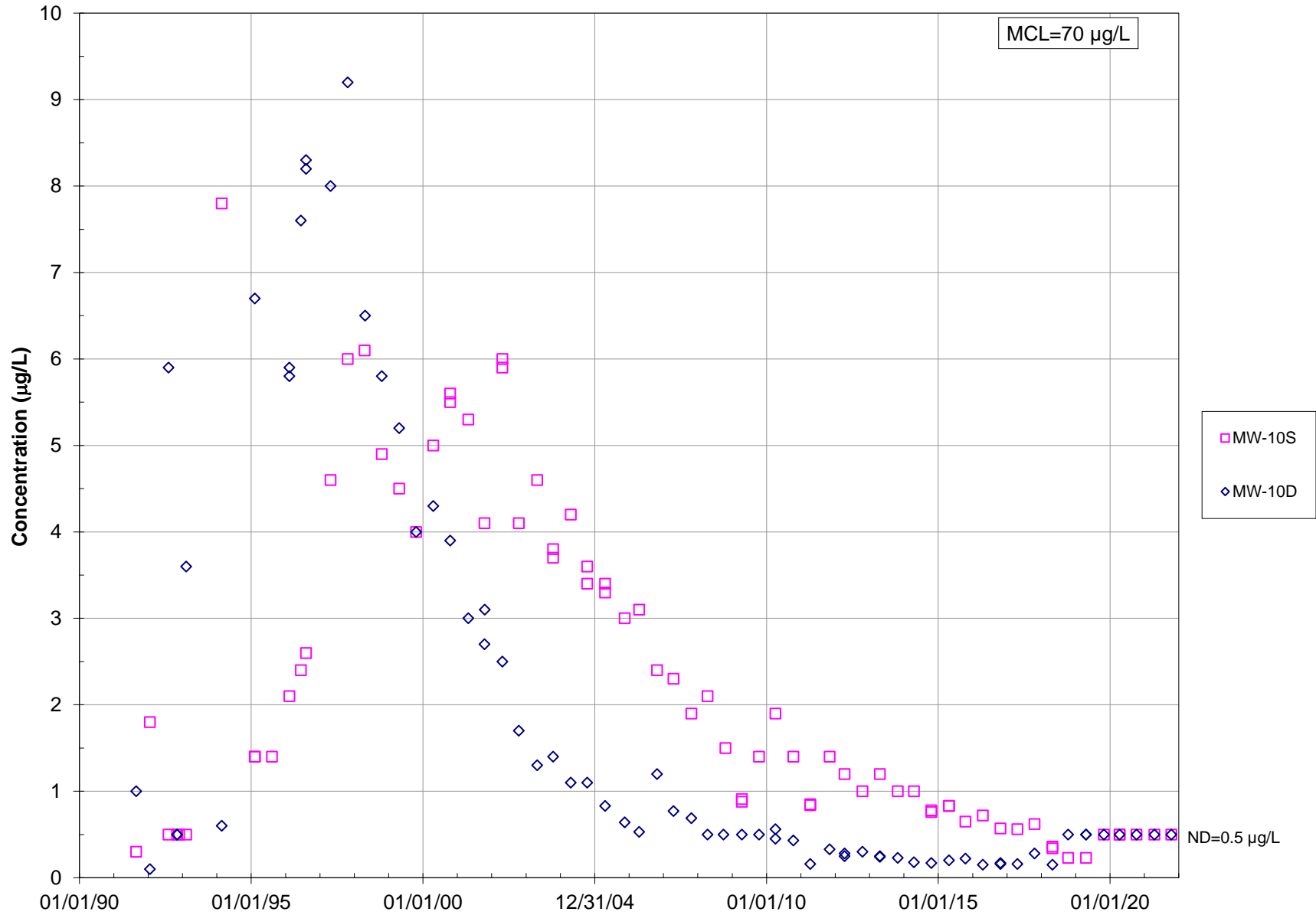
Coffin Butte Landfill
MW-10S and MW-10D: Chloroethane



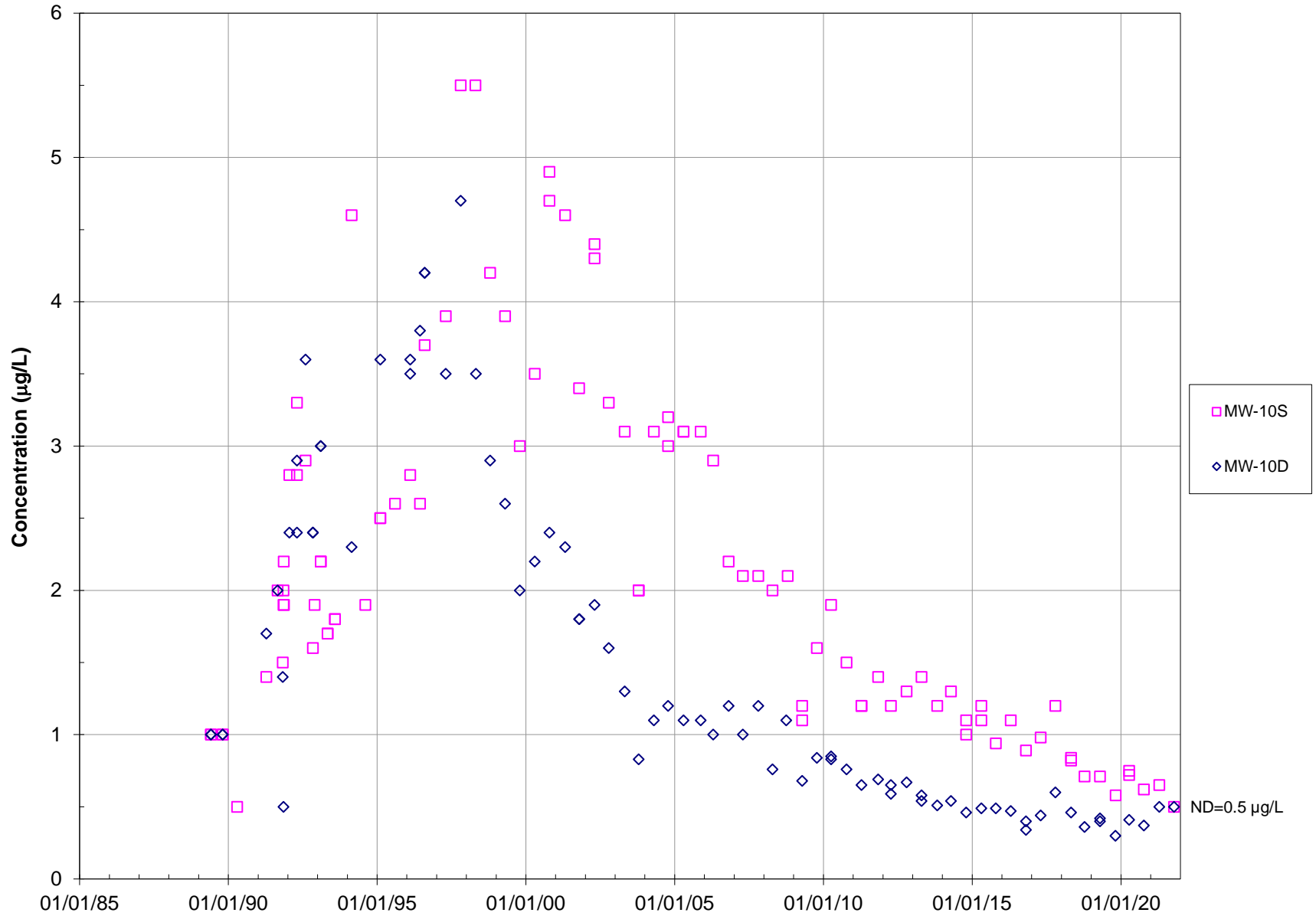
Coffin Butte Landfill
MW-10S and MW-10D: 1,4-DCB



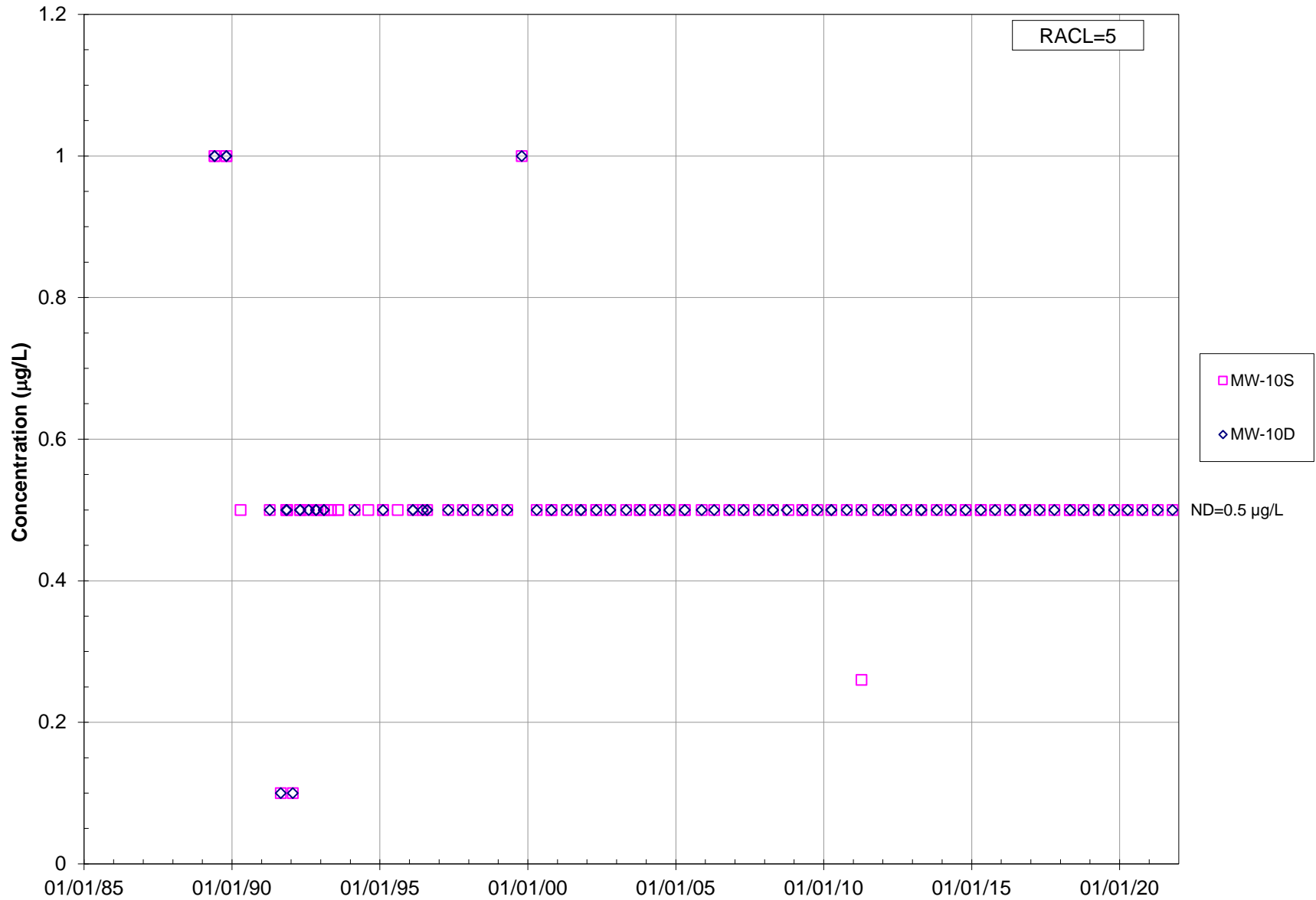
Coffin Butte Landfill
MW-10S and MW-10D: cis-1,DCE



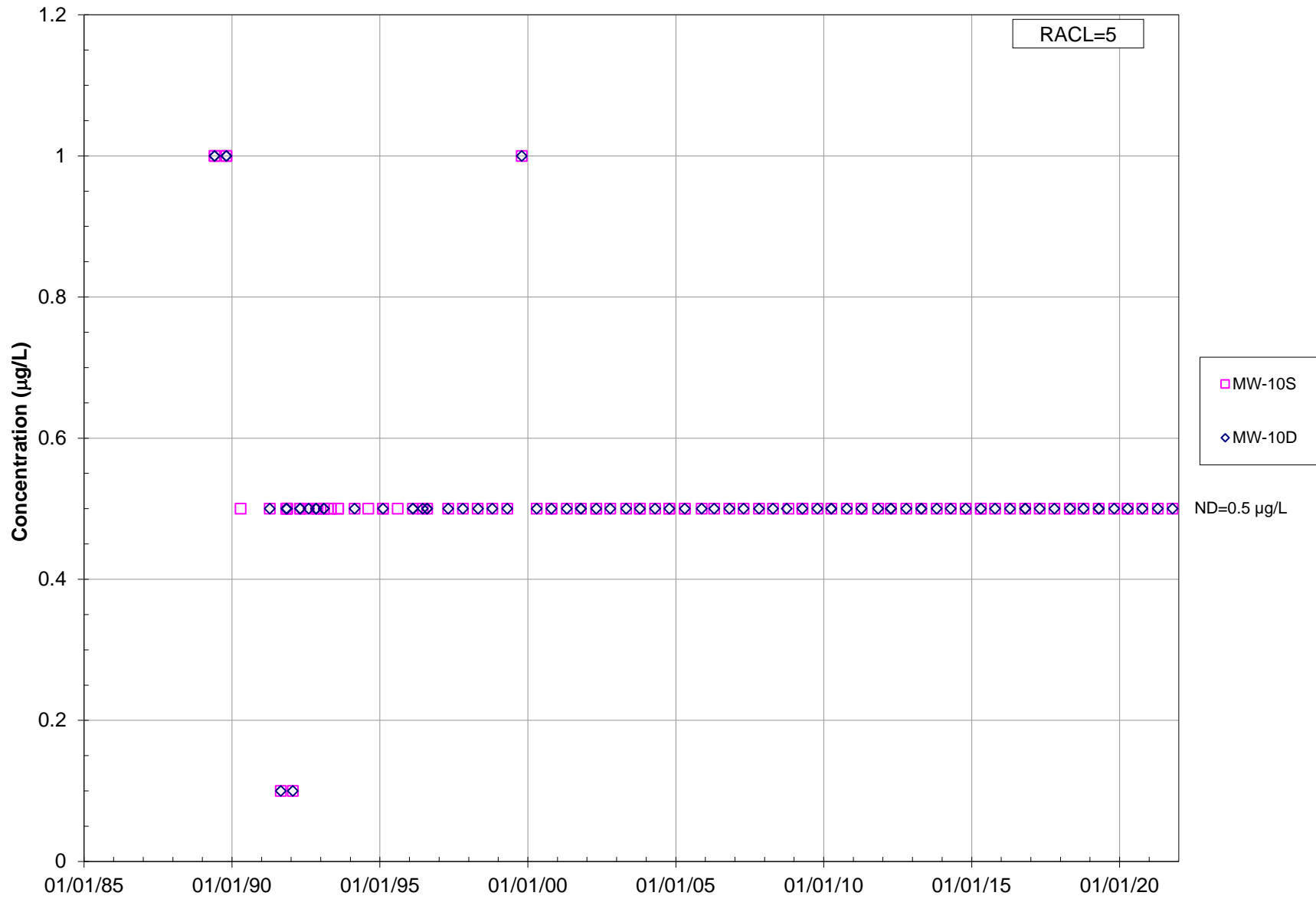
Coffin Butte Landfill
MW-10S and MW-10D: 1,1-DCA



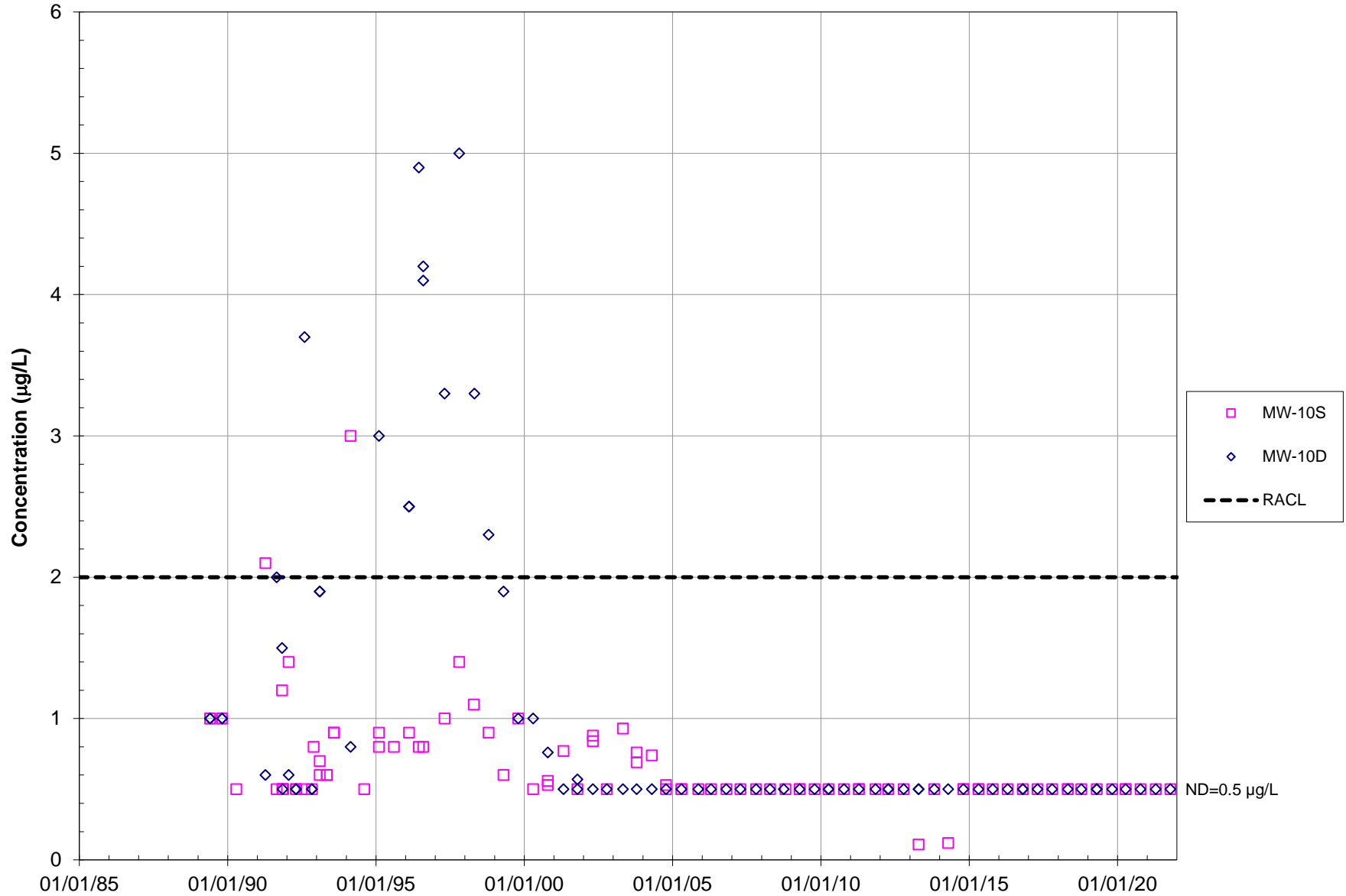
Coffin Butte Landfill
MW-10S and MW-10D: PCE



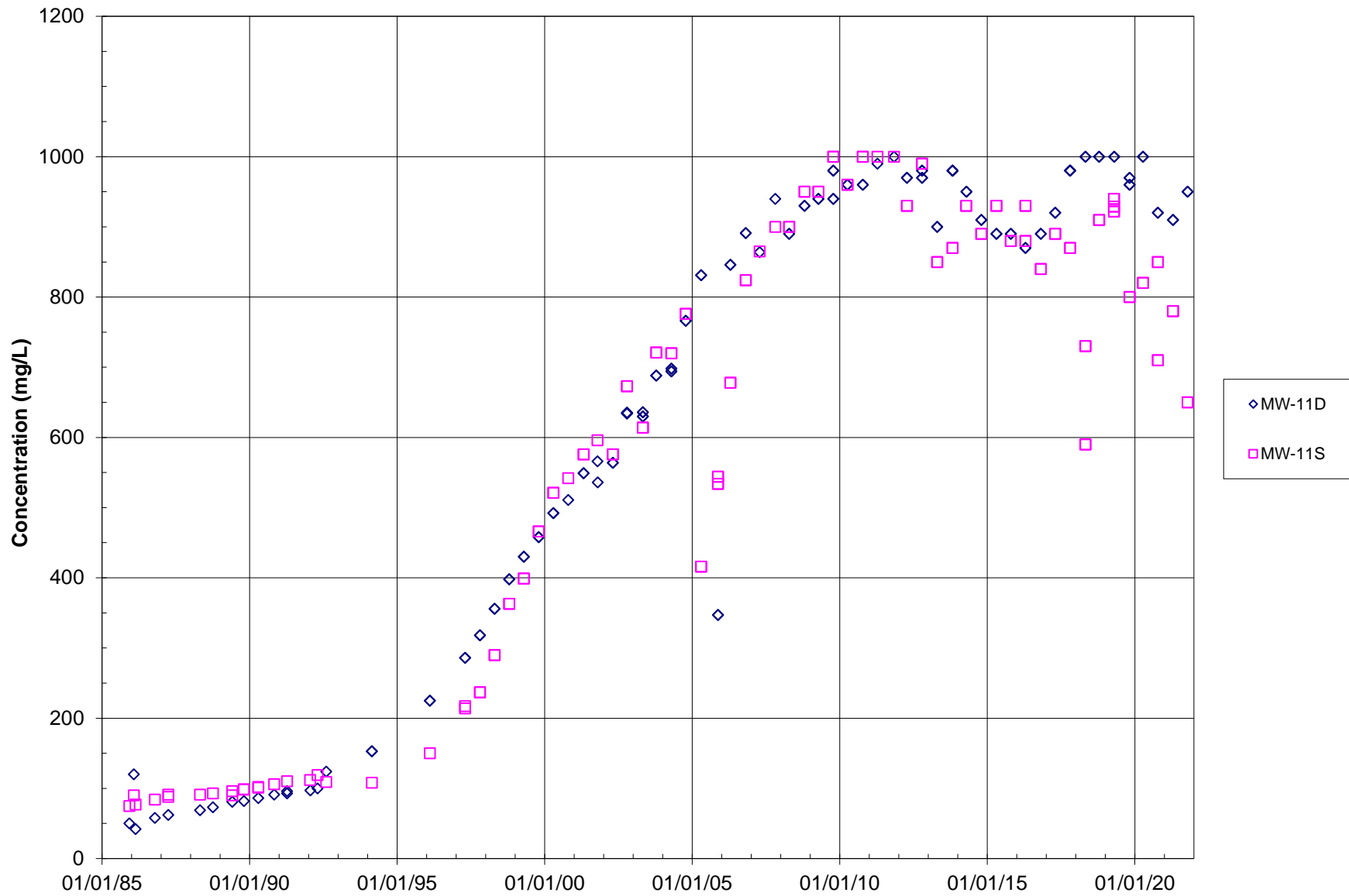
Coffin Butte Landfill
MW-10S and MW-10D: TCE



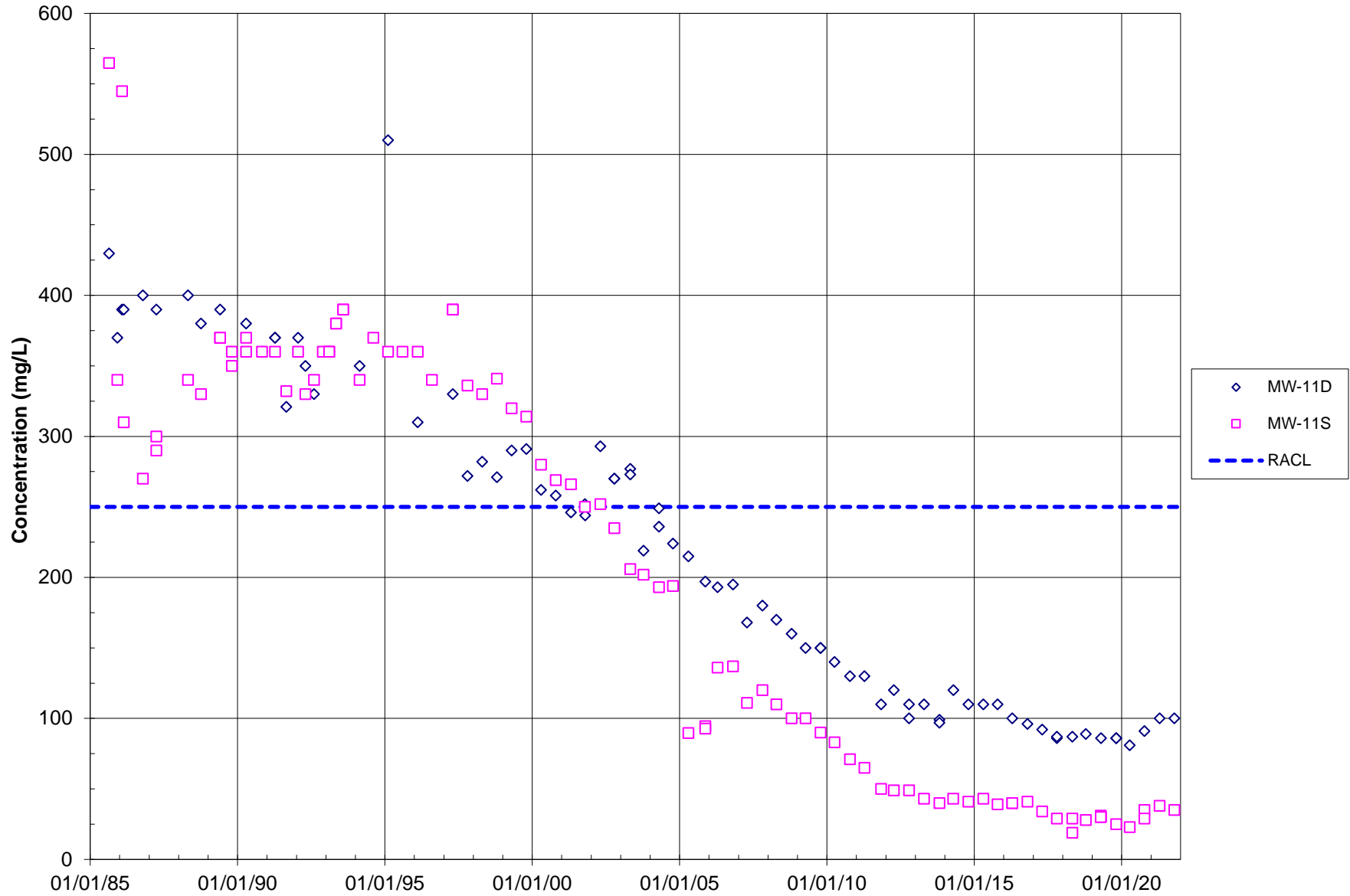
Coffin Butte Landfill
MW-10S and MW-10D: Vinyl Chloride



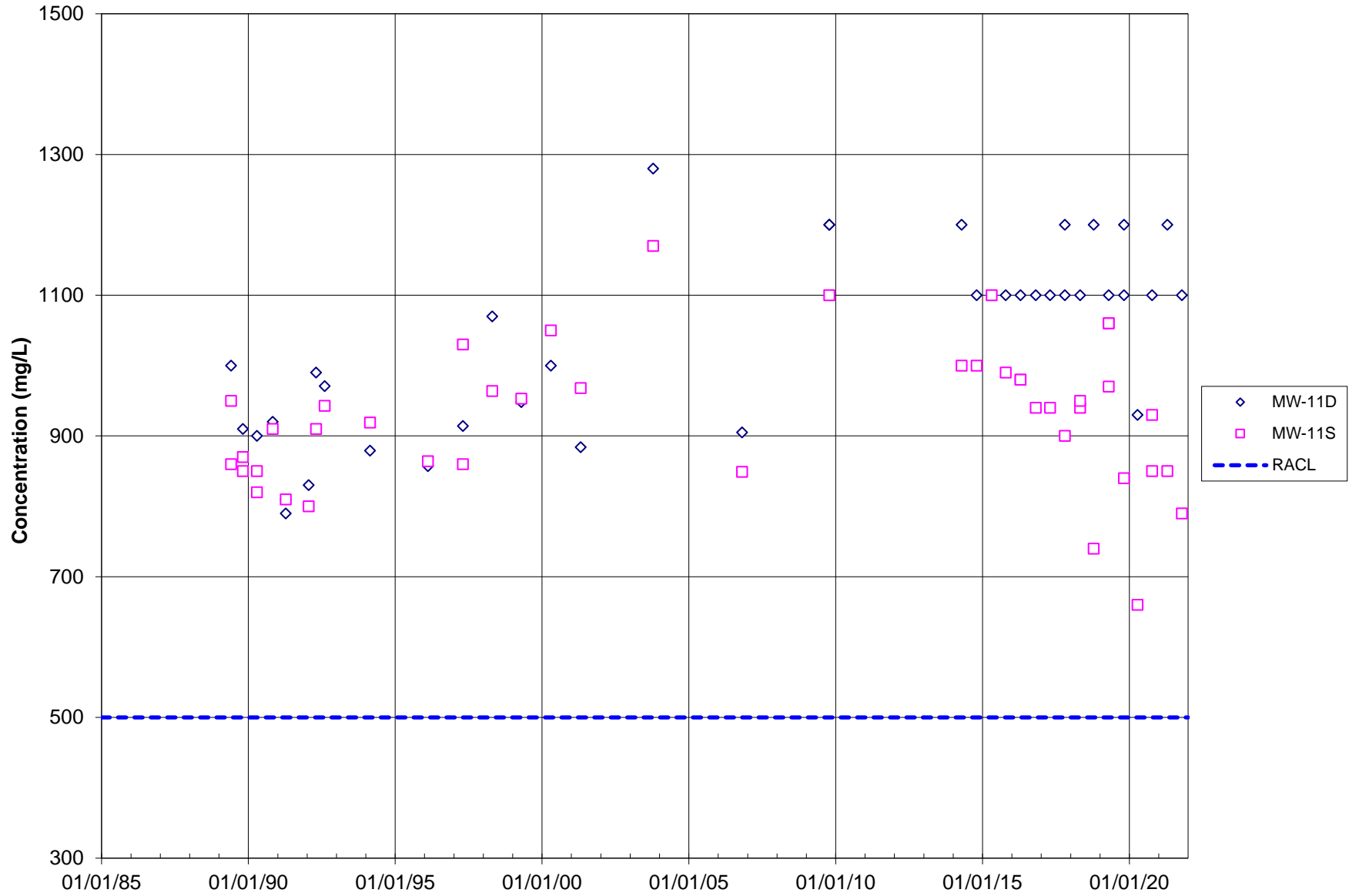
Coffin Butte Landfill
MW-11S and MW-11D: Bicarbonate



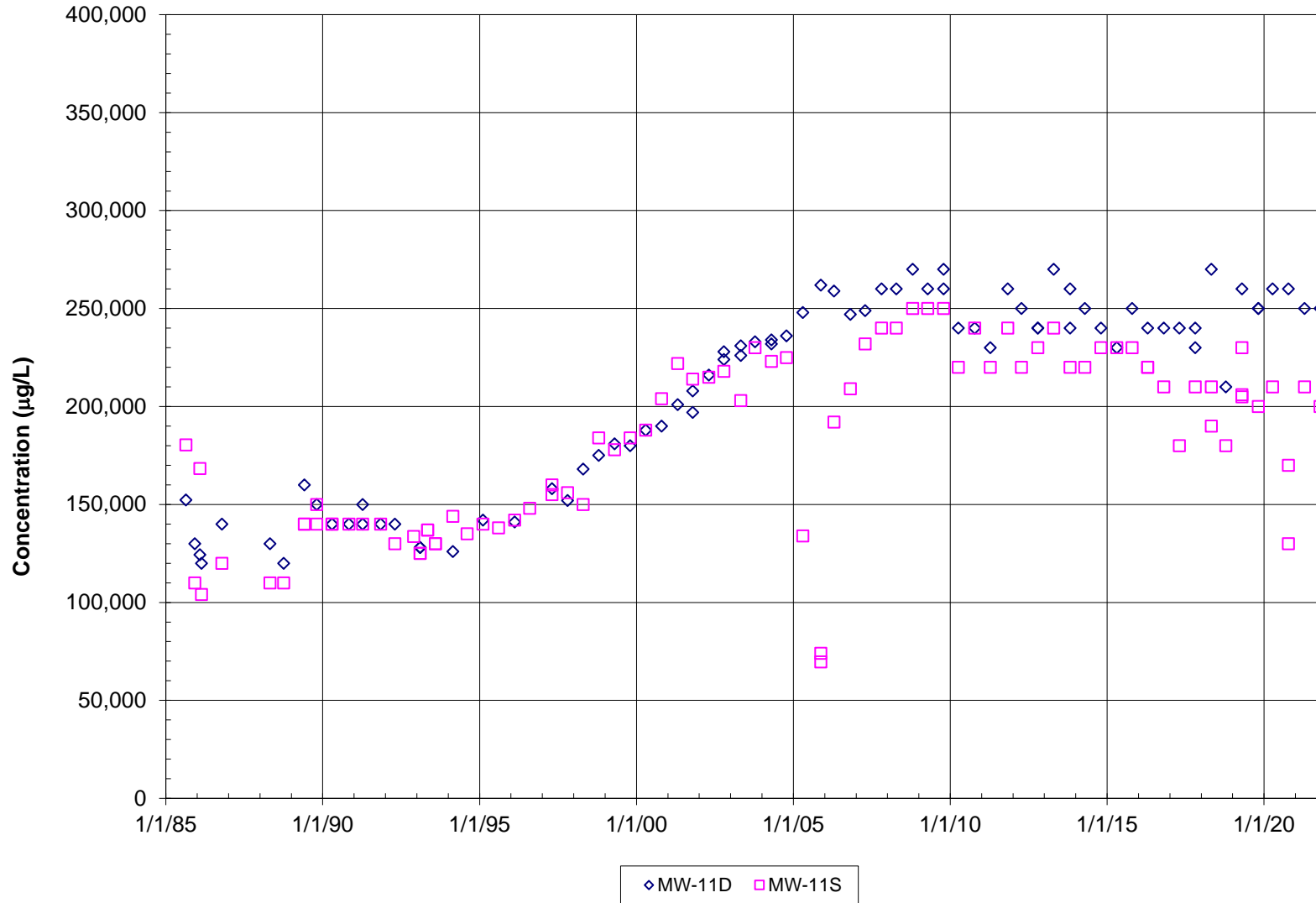
Coffin Butte Landfill
MW-11S and MW-11D: Chloride



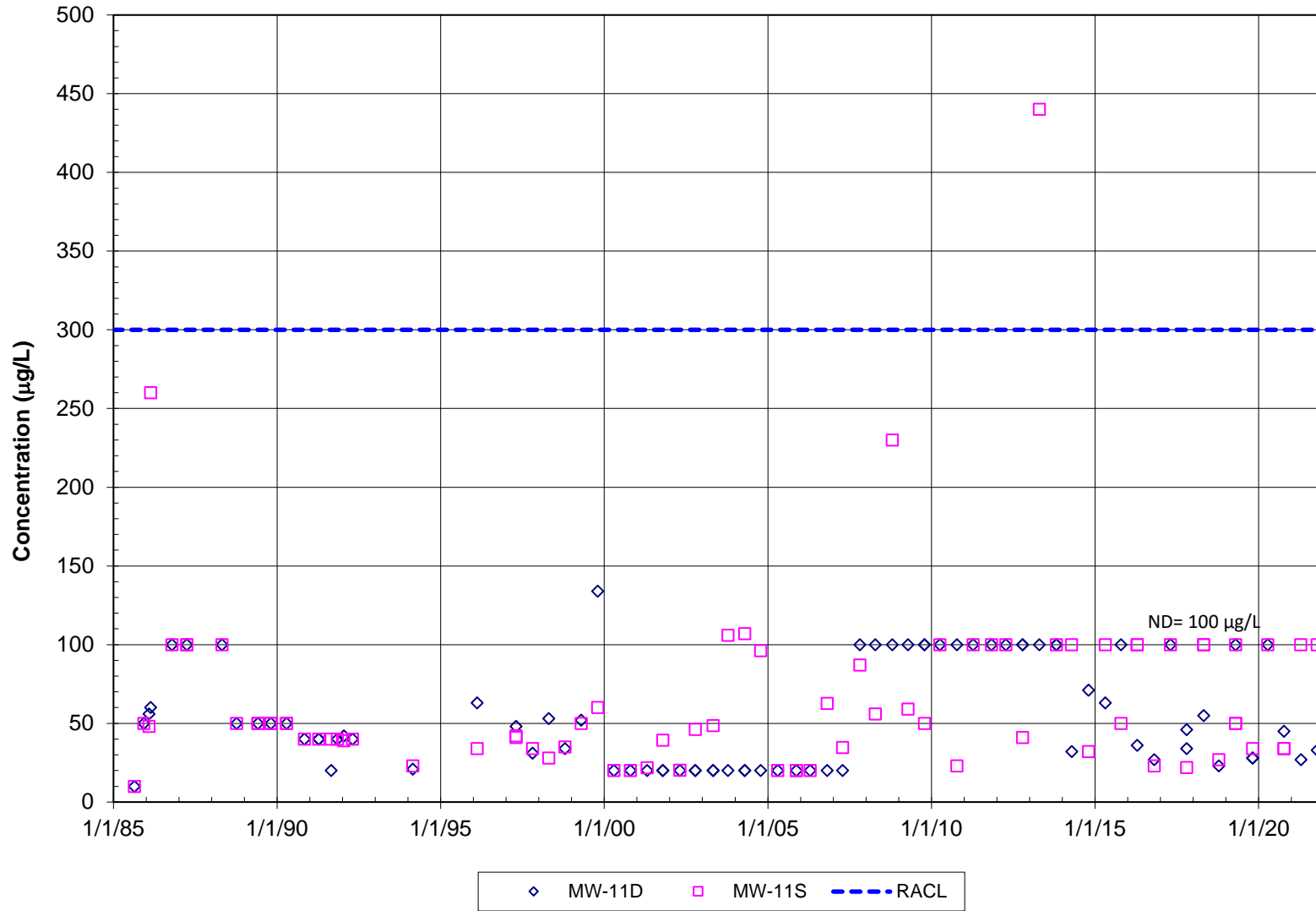
Coffin Butte Landfill
MW-11S and MW-11D: TDS



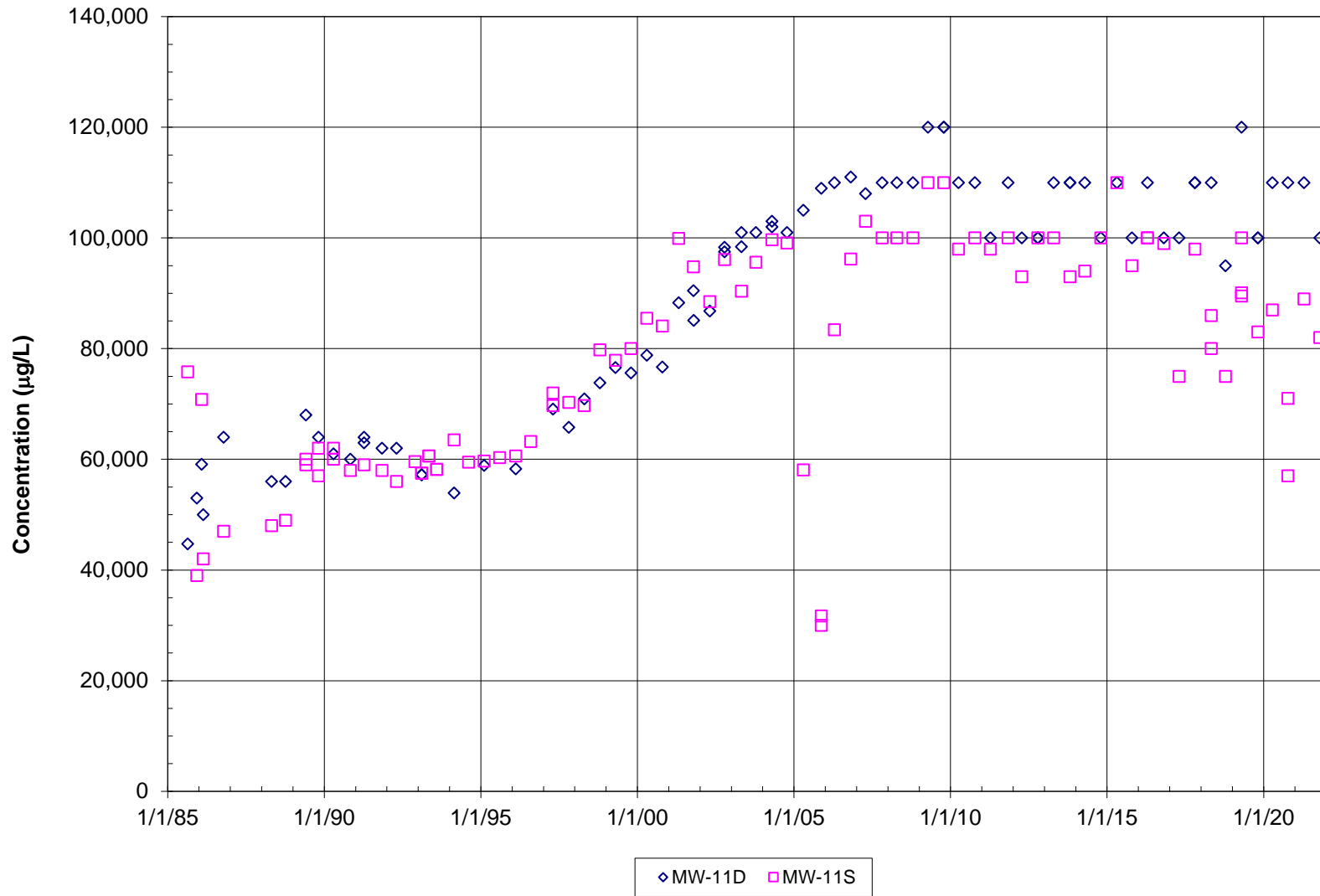
Coffin Butte Landfill
MW-11S and MW-11D: Calcium



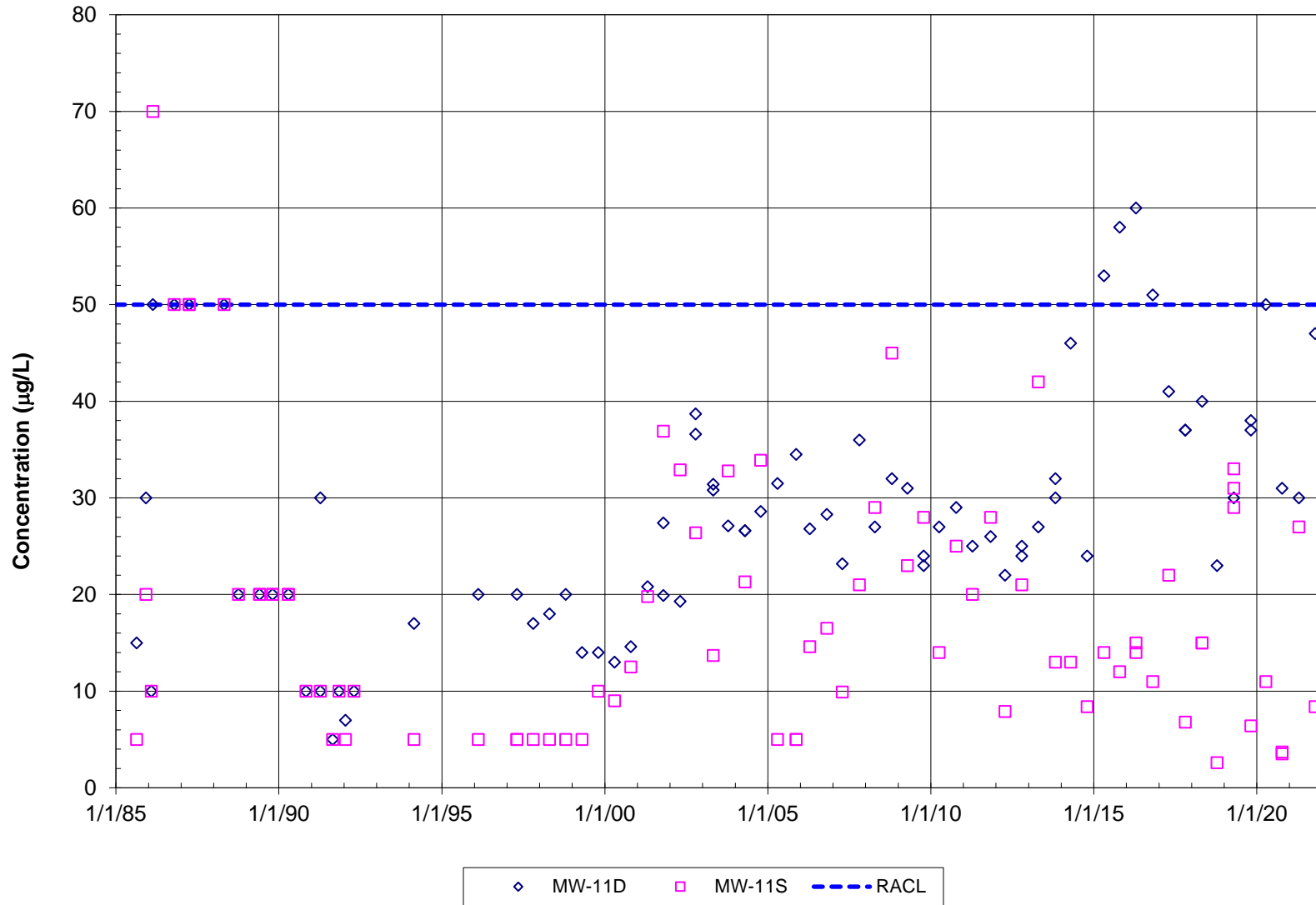
Coffin Butte Landfill
MW-11S and MW-11D:Iron



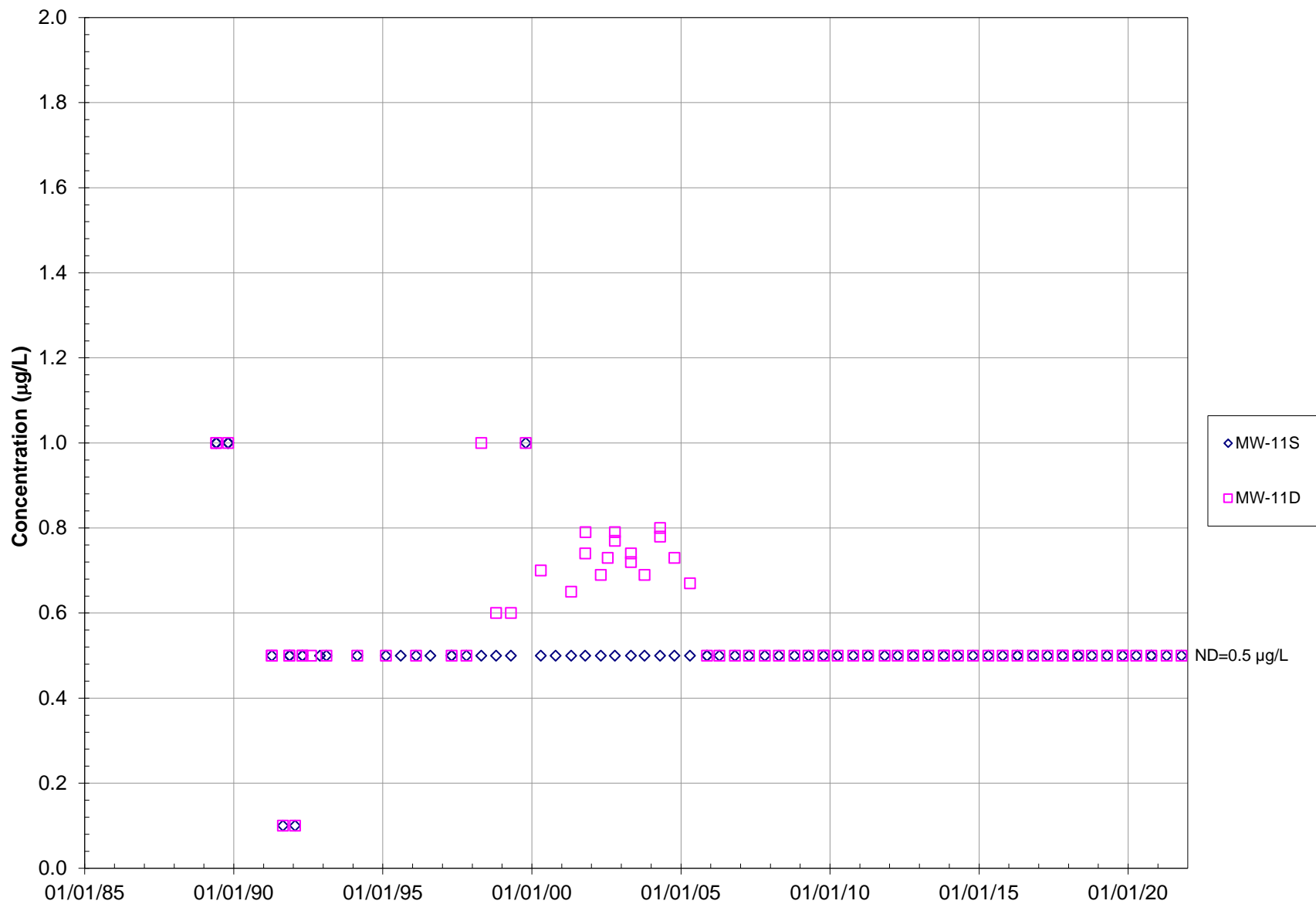
Coffin Butte Landfill
MW-11S and MW-11D: Magnesium



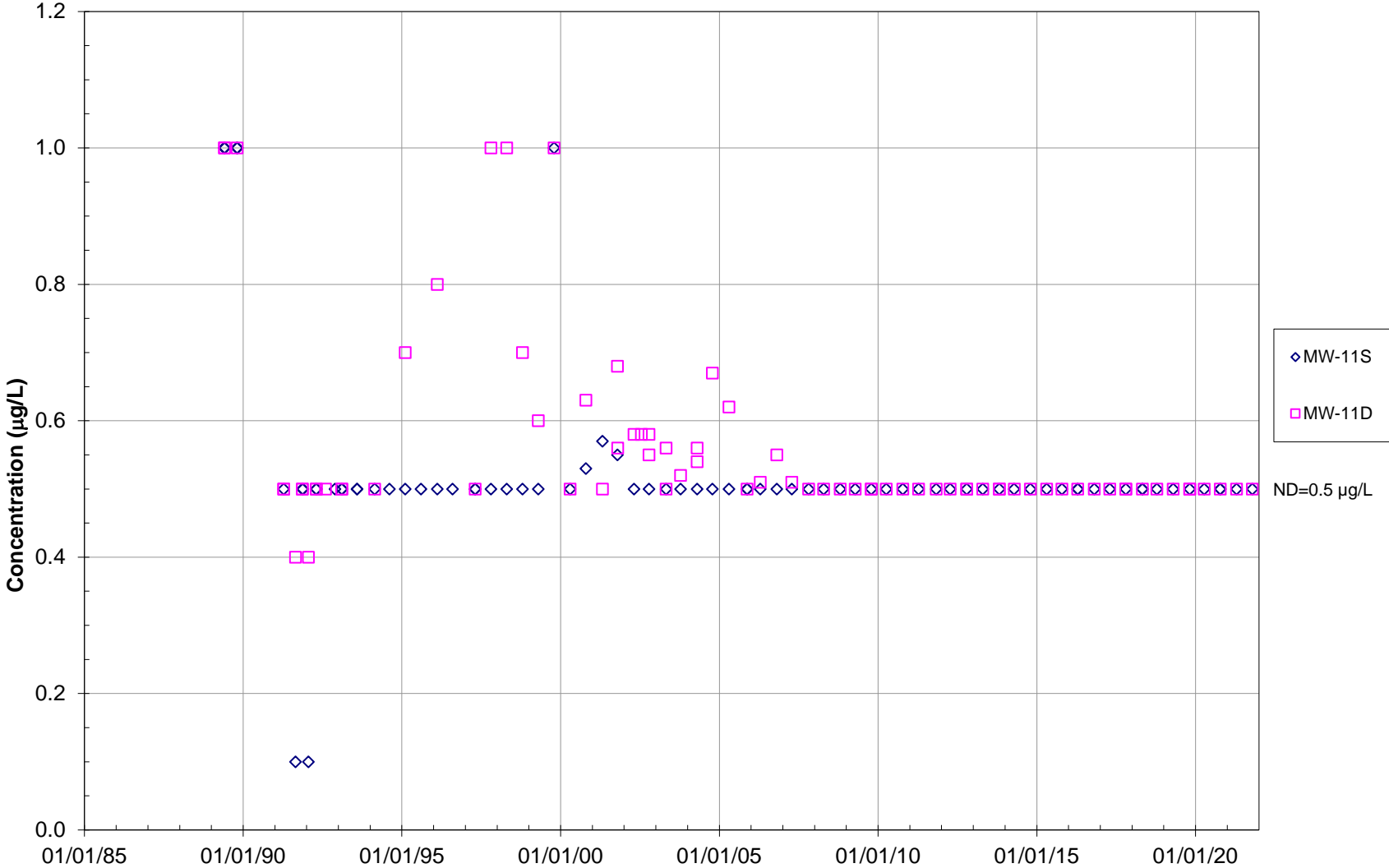
Coffin Butte Landfill
MW-11S and MW-11D:Manganese



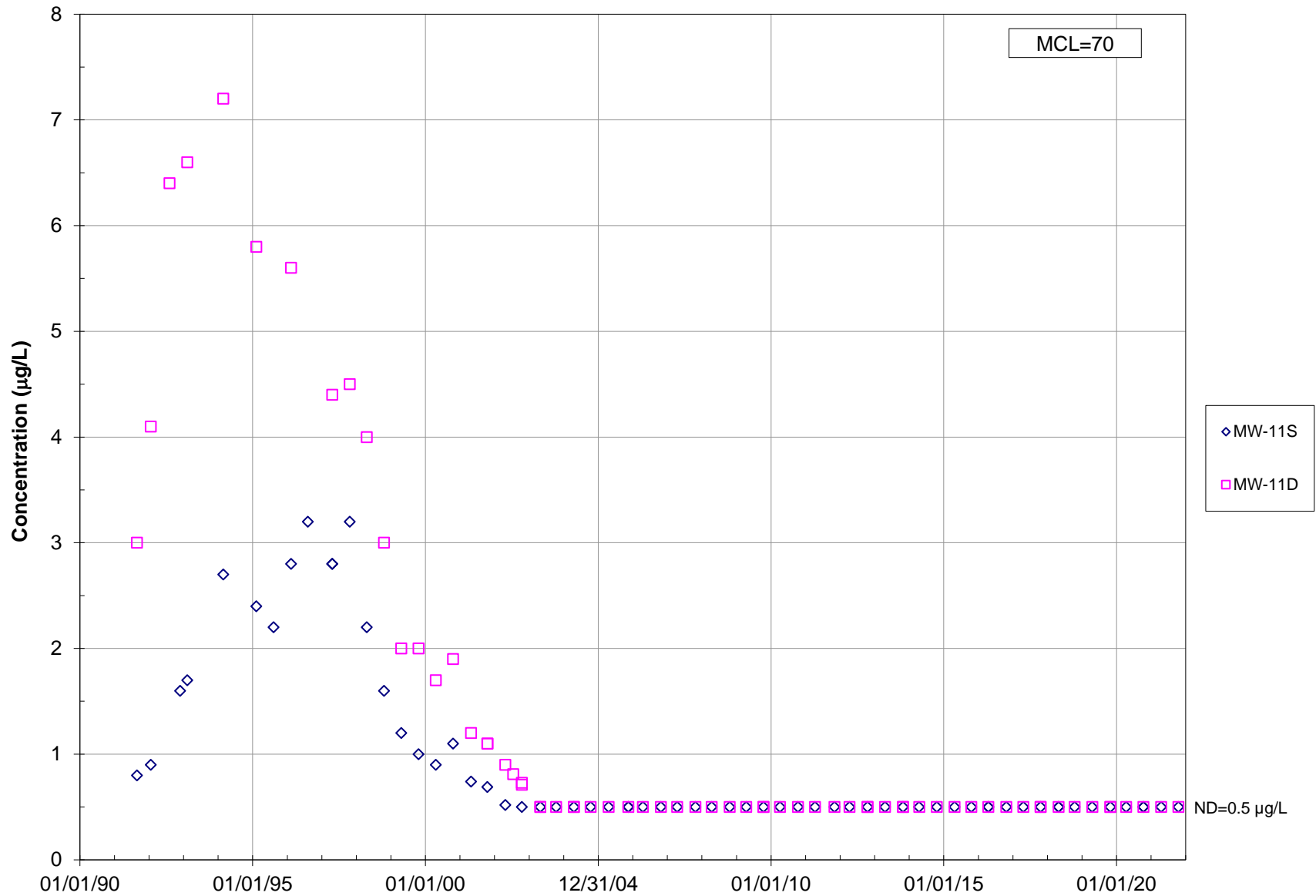
Coffin Butte Landfill
MW-11S and MW-11D: Chlorobenzene



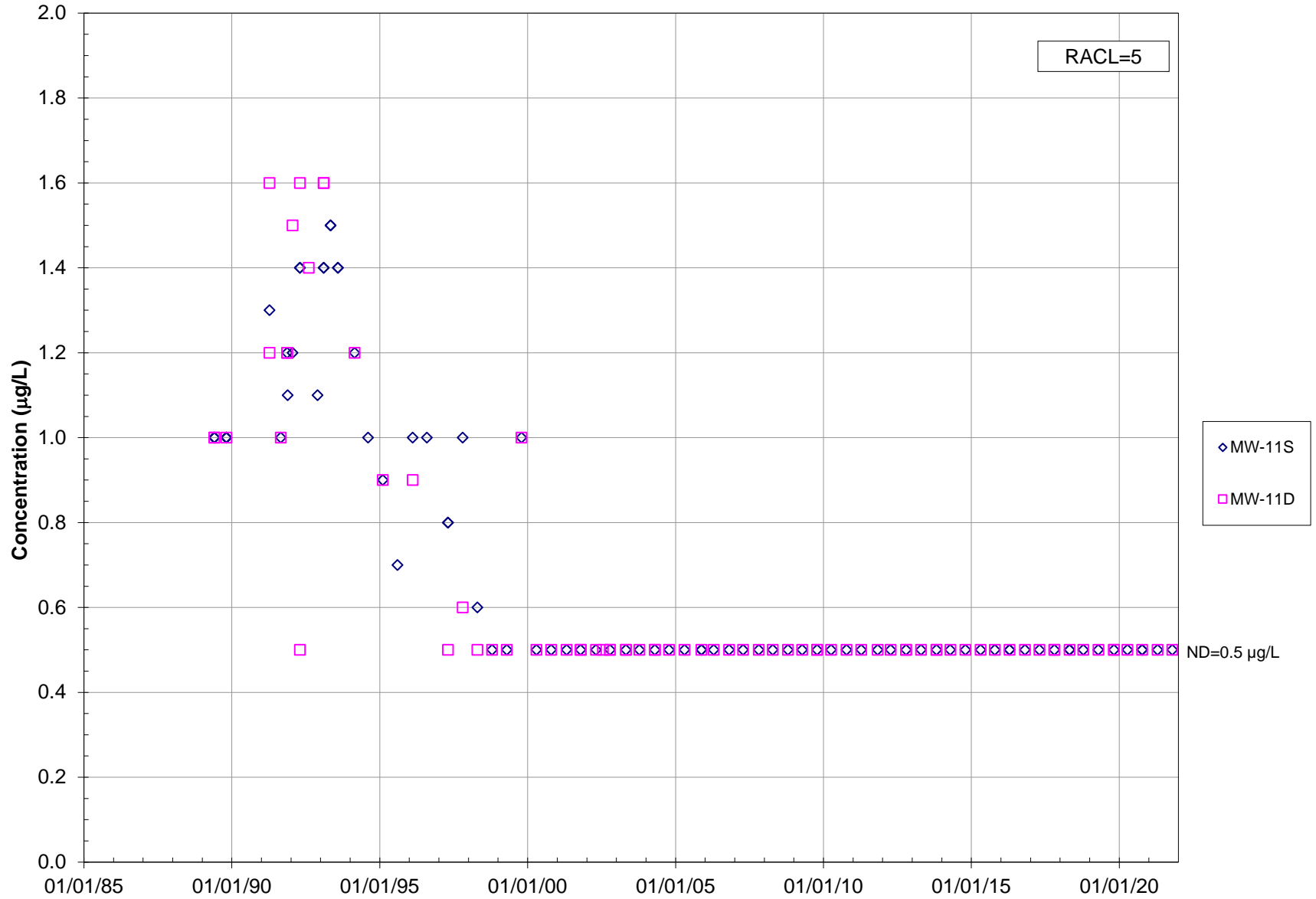
Coffin Butte Landfill
MW-11S and MW-11D: Chloroethane



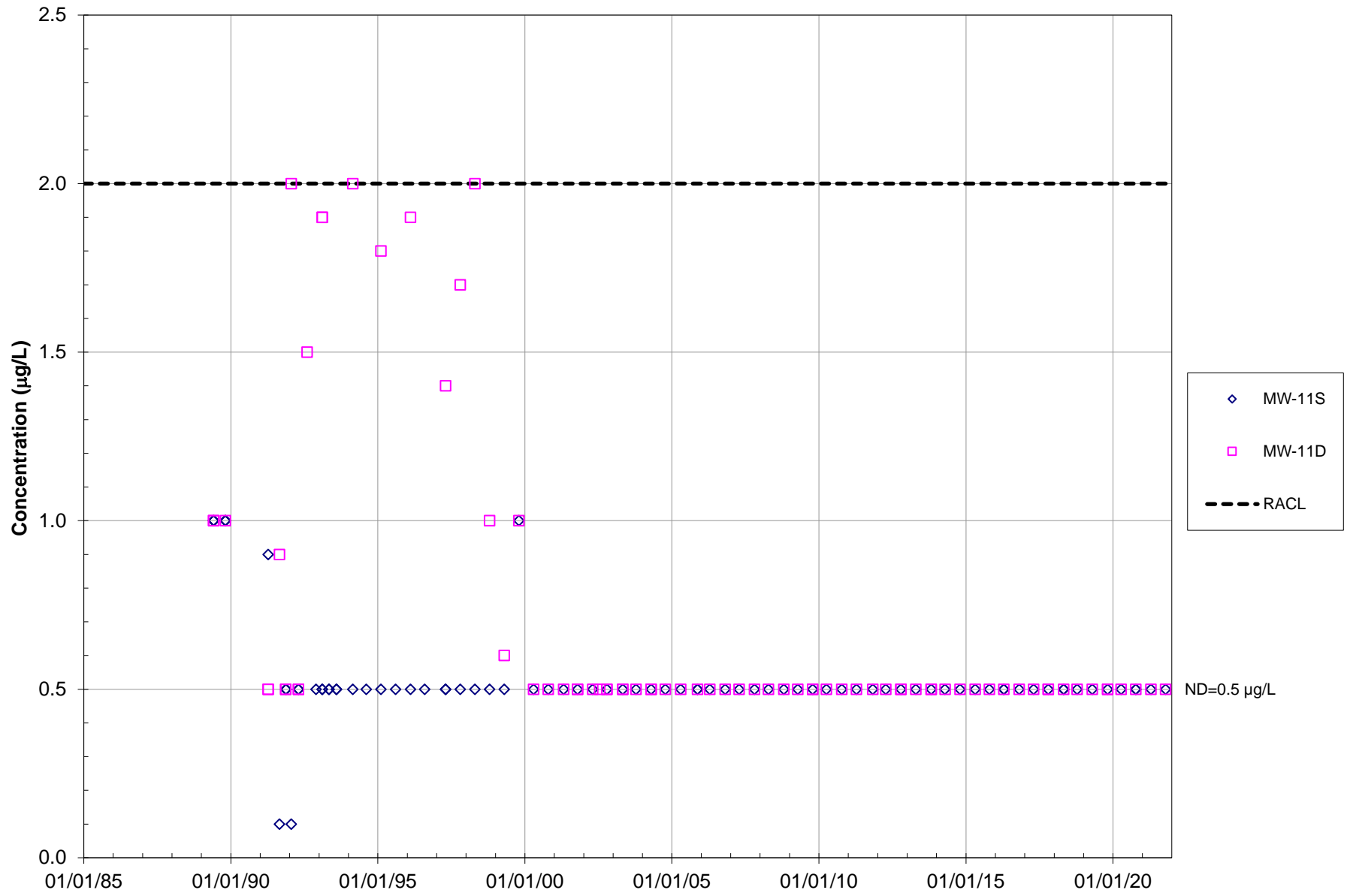
Coffin Butte Landfill
MW-11S and MW-11D: cis-1,2-Dichloroethene



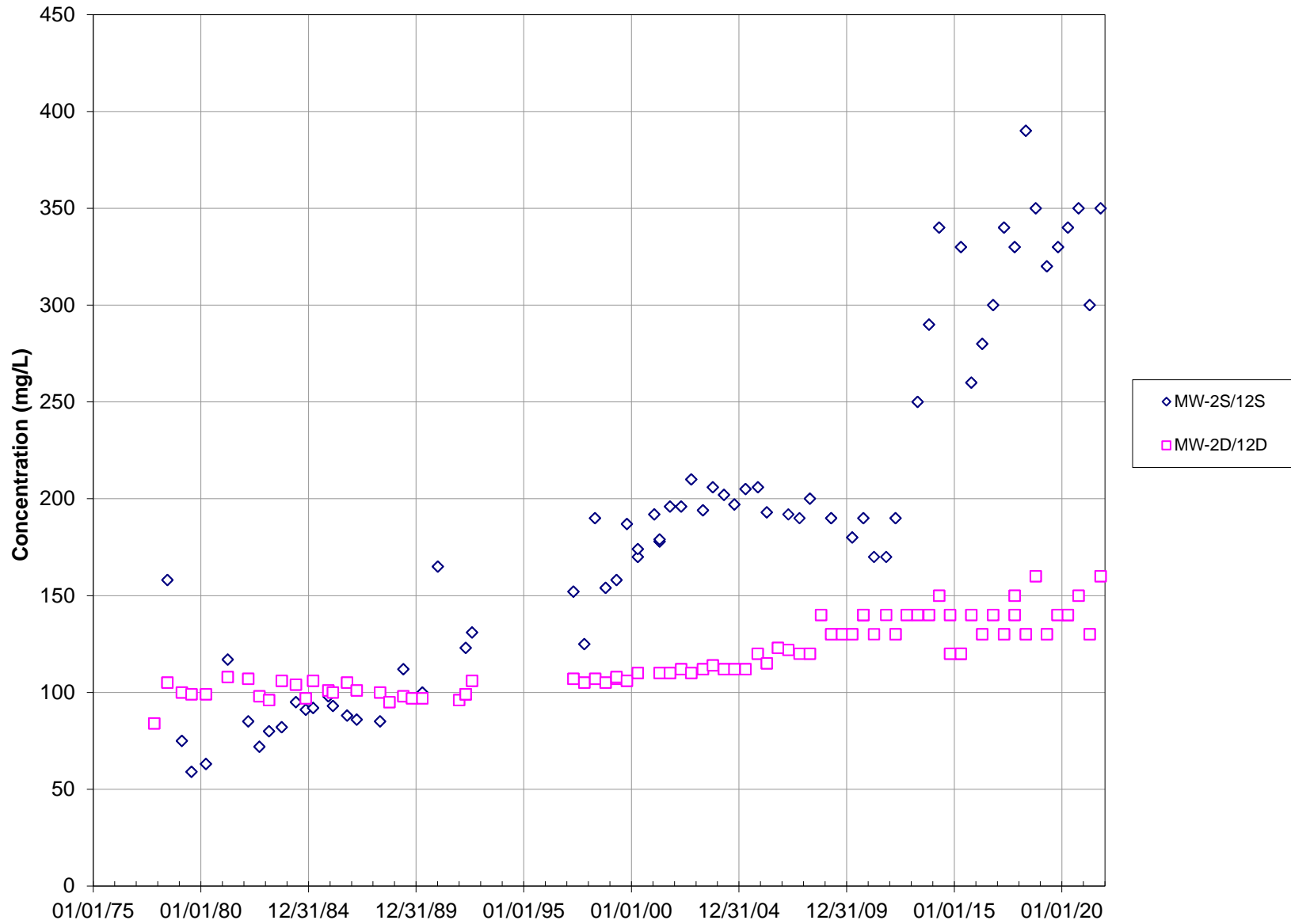
Coffin Butte Landfill
MW-11S and MW-11D: Trichloroethene



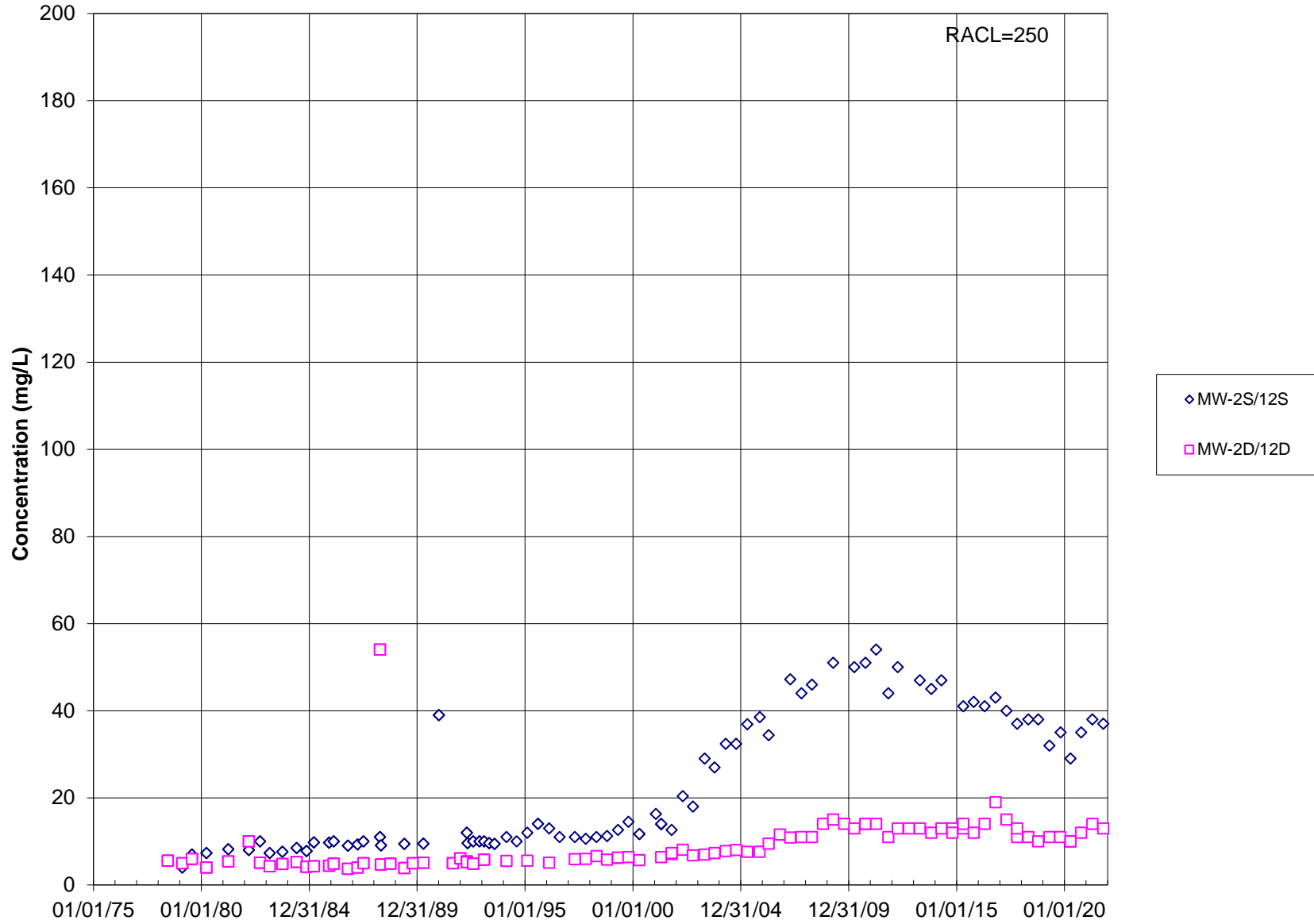
Coffin Butte Landfill
MW-11S and MW-11D: Vinyl Chloride



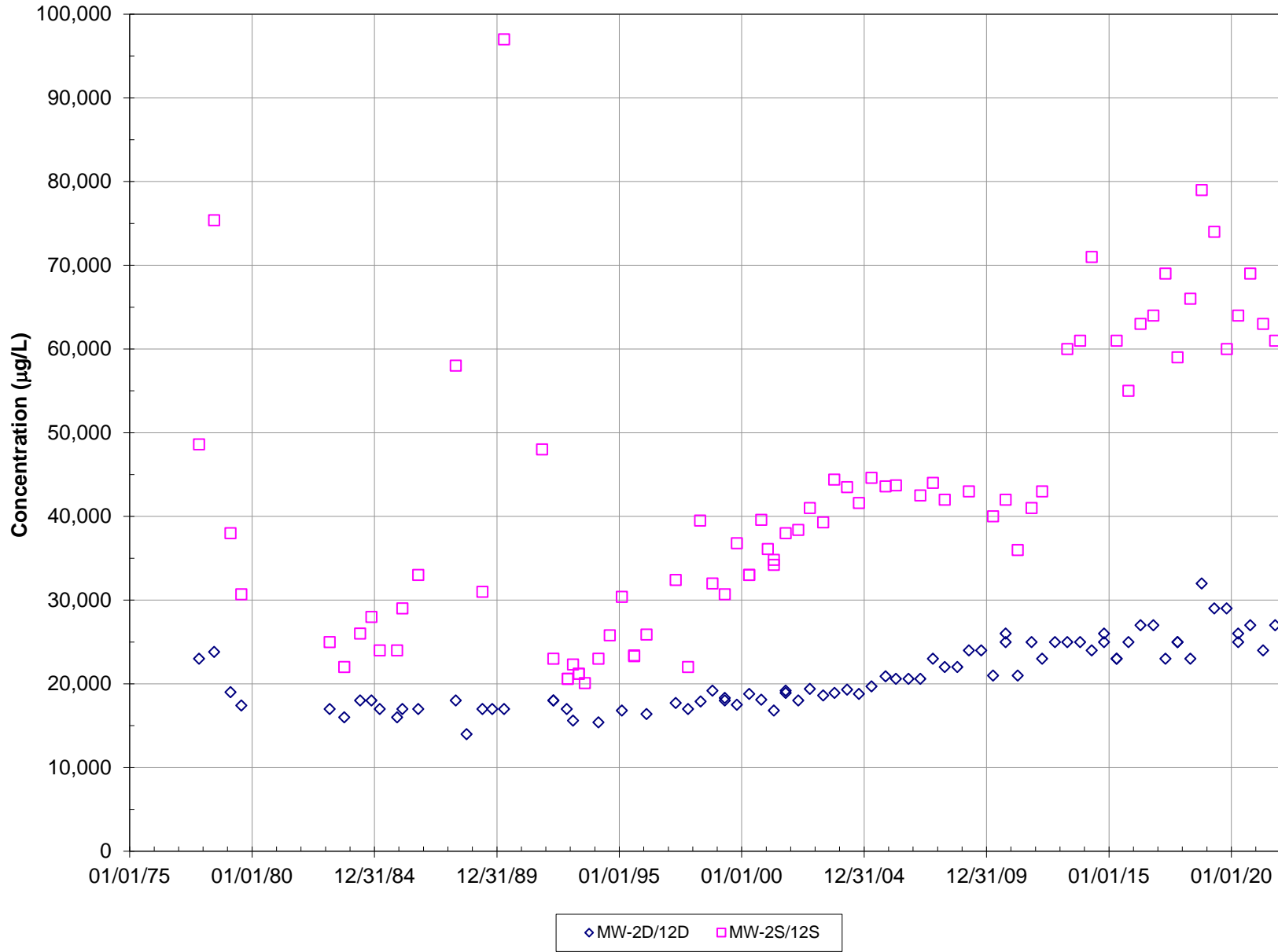
Coffin Butte Landfill
MW-12S and MW-12D: Bicarbonate



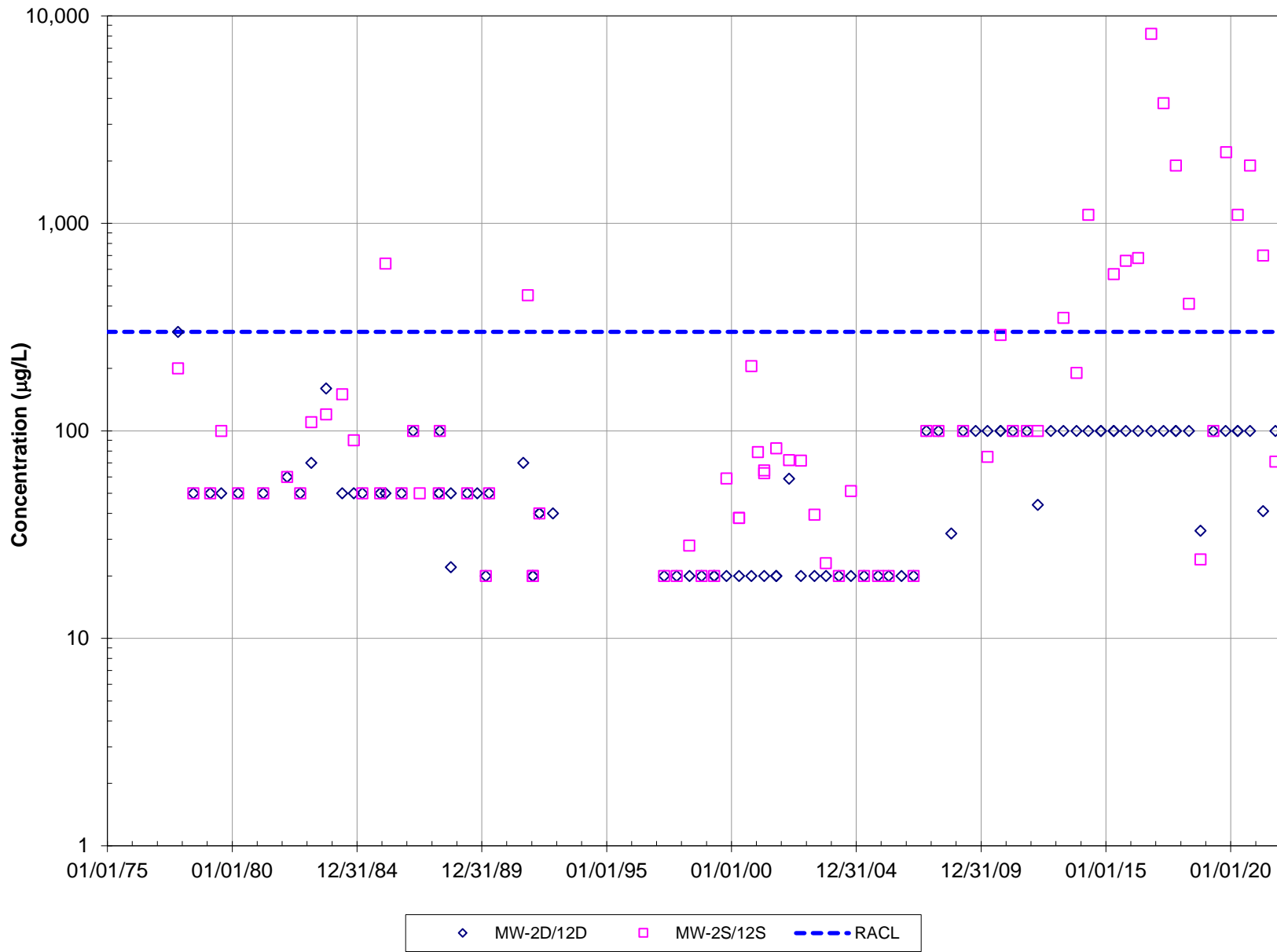
Coffin Butte Landfill
MW-12S and MW-12D: Chloride



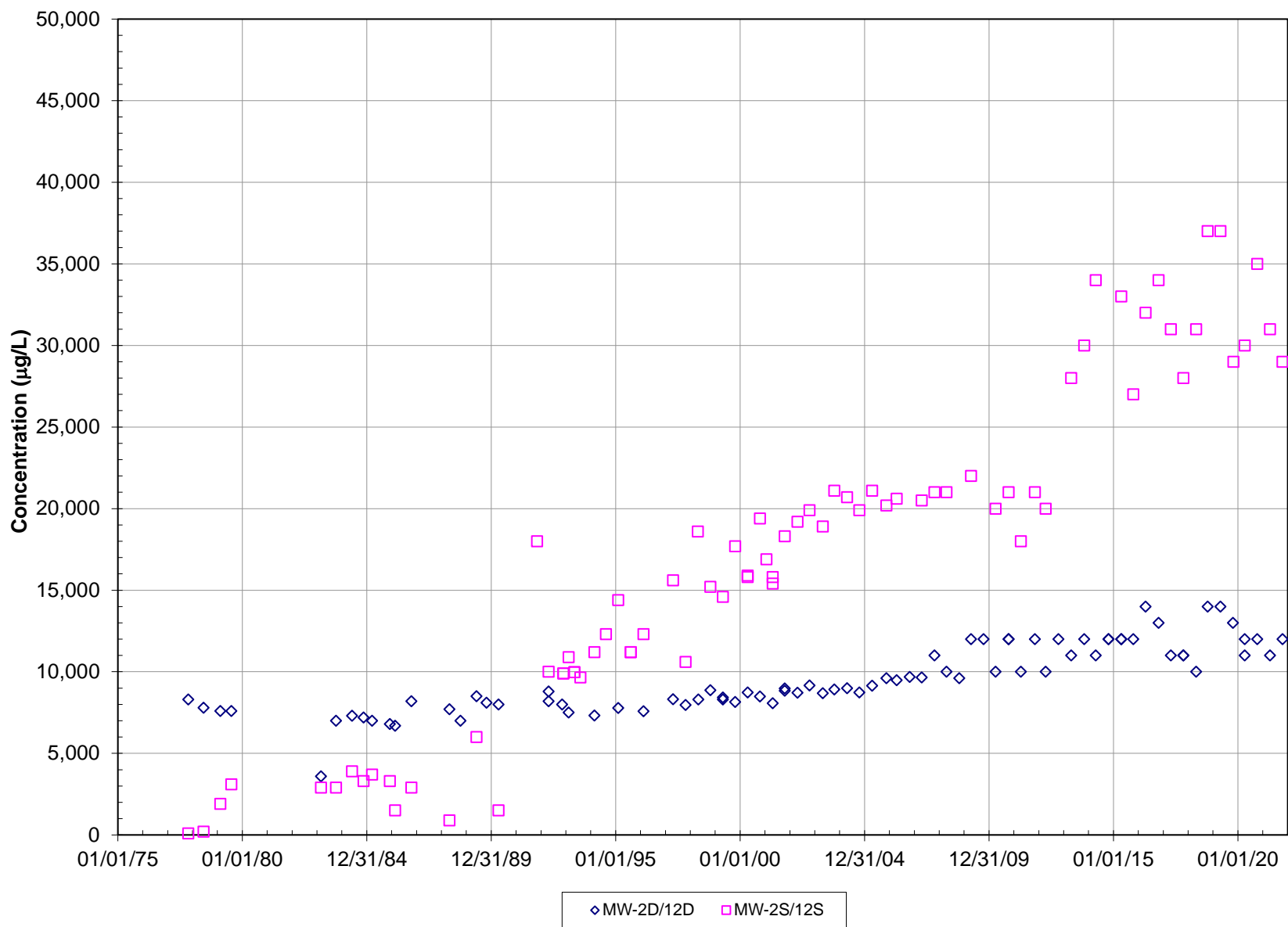
Coffin Butte Landfill
MW-12S and MW-12D: Calcium



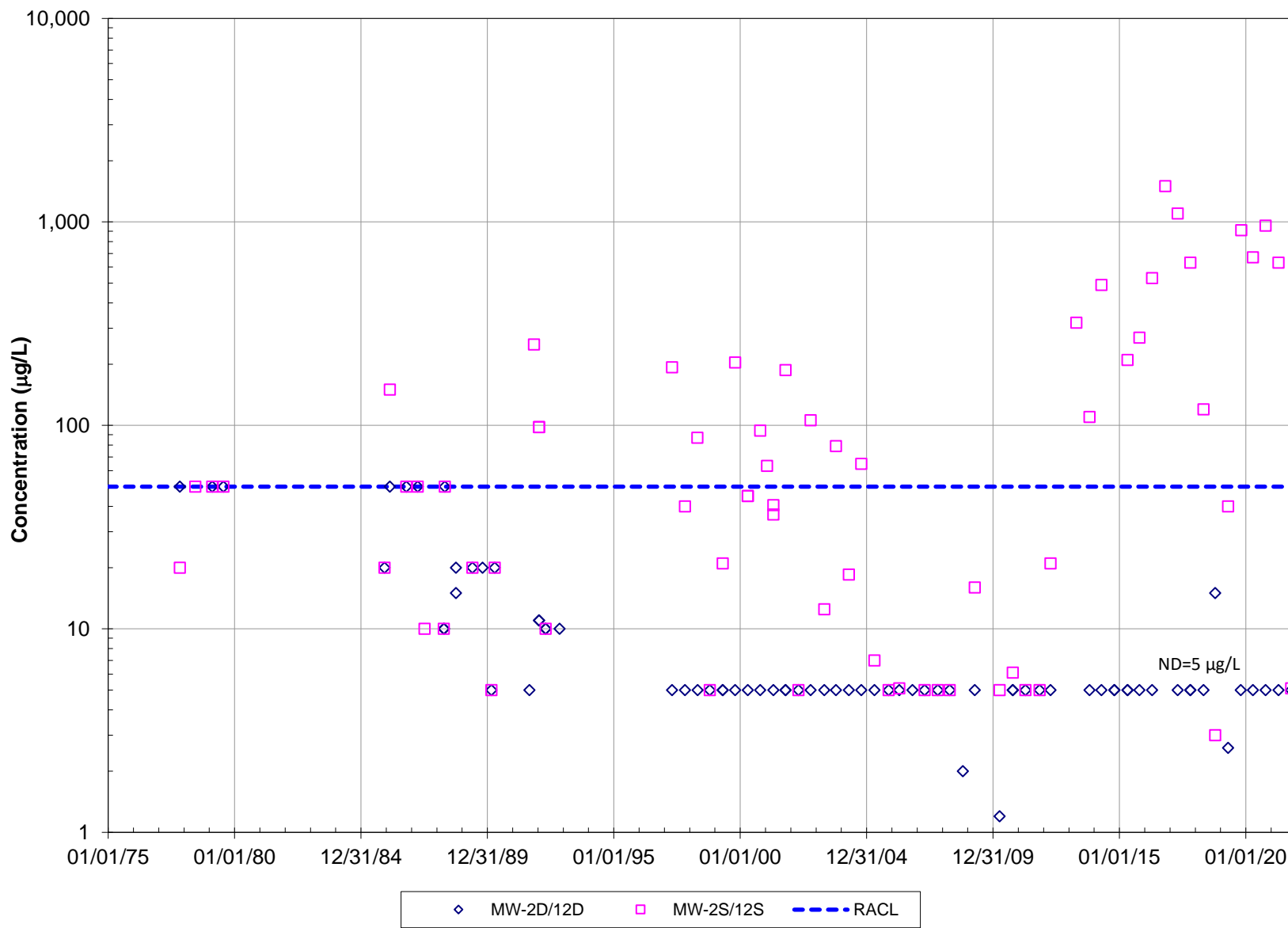
Coffin Butte Landfill
MW-12S and MW-12D: Iron



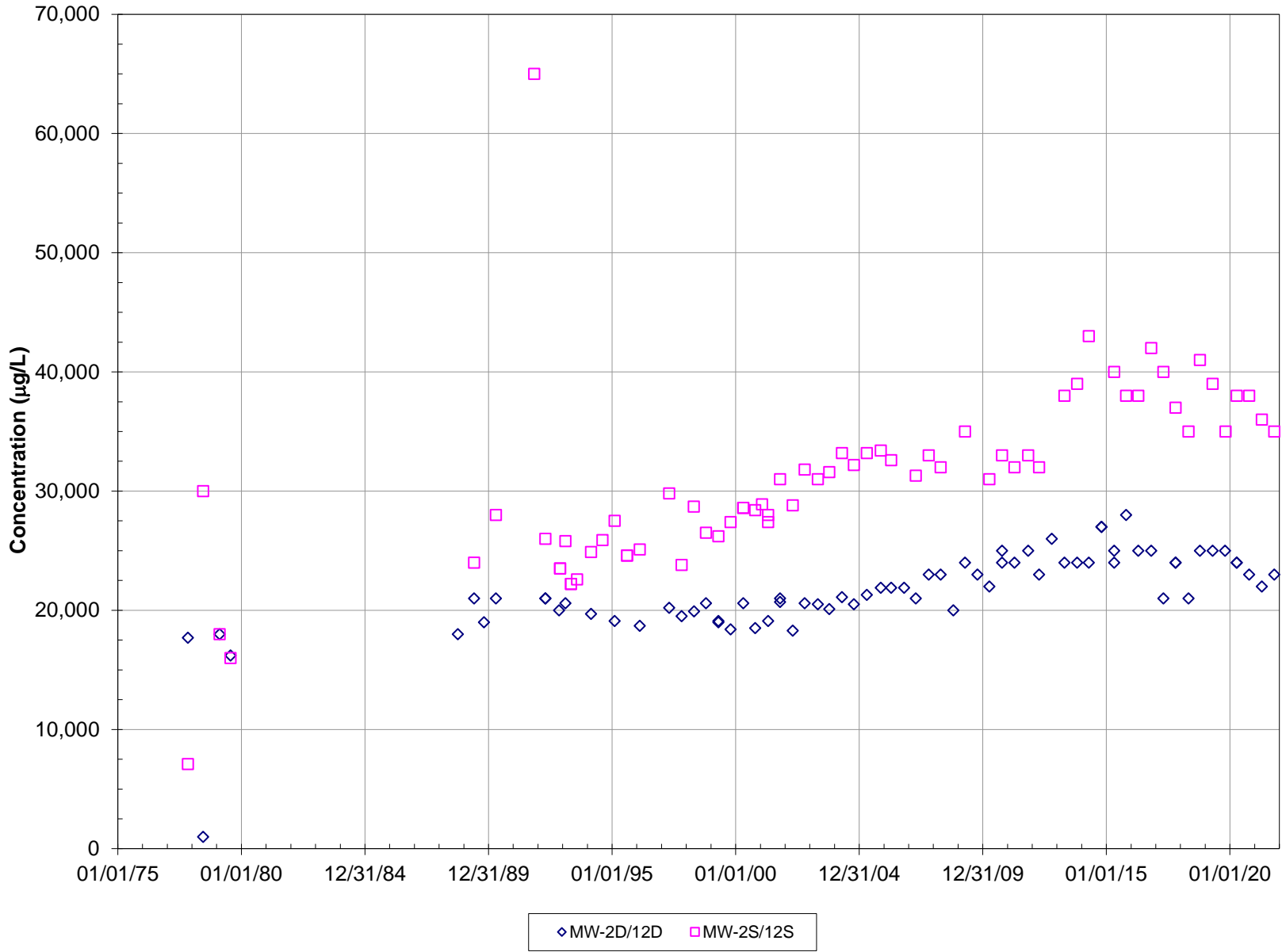
Coffin Butte Landfill
MW-12S and MW-12D: Magnesium



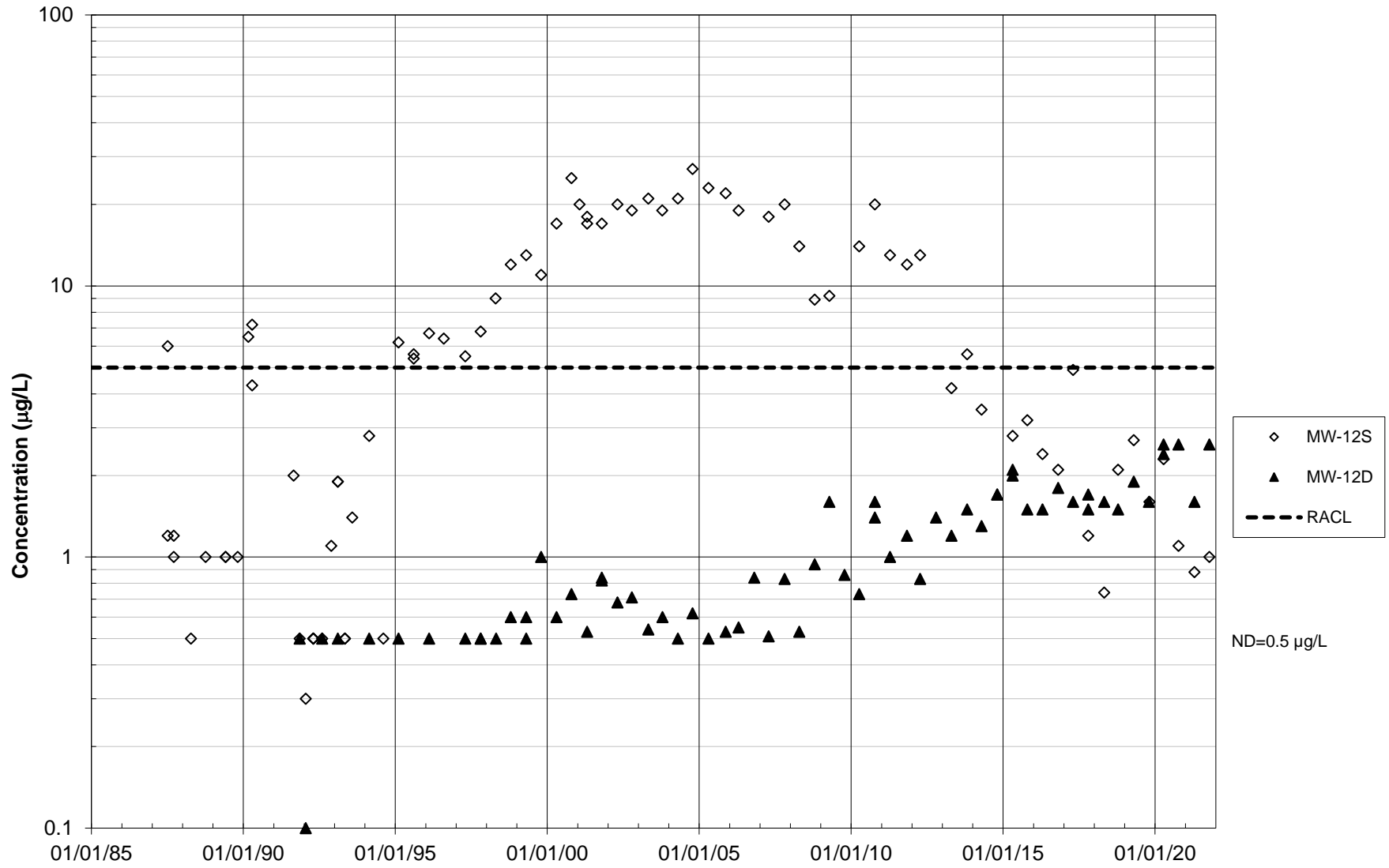
Coffin Butte Landfill
MW-12S and MW-12D: Manganese



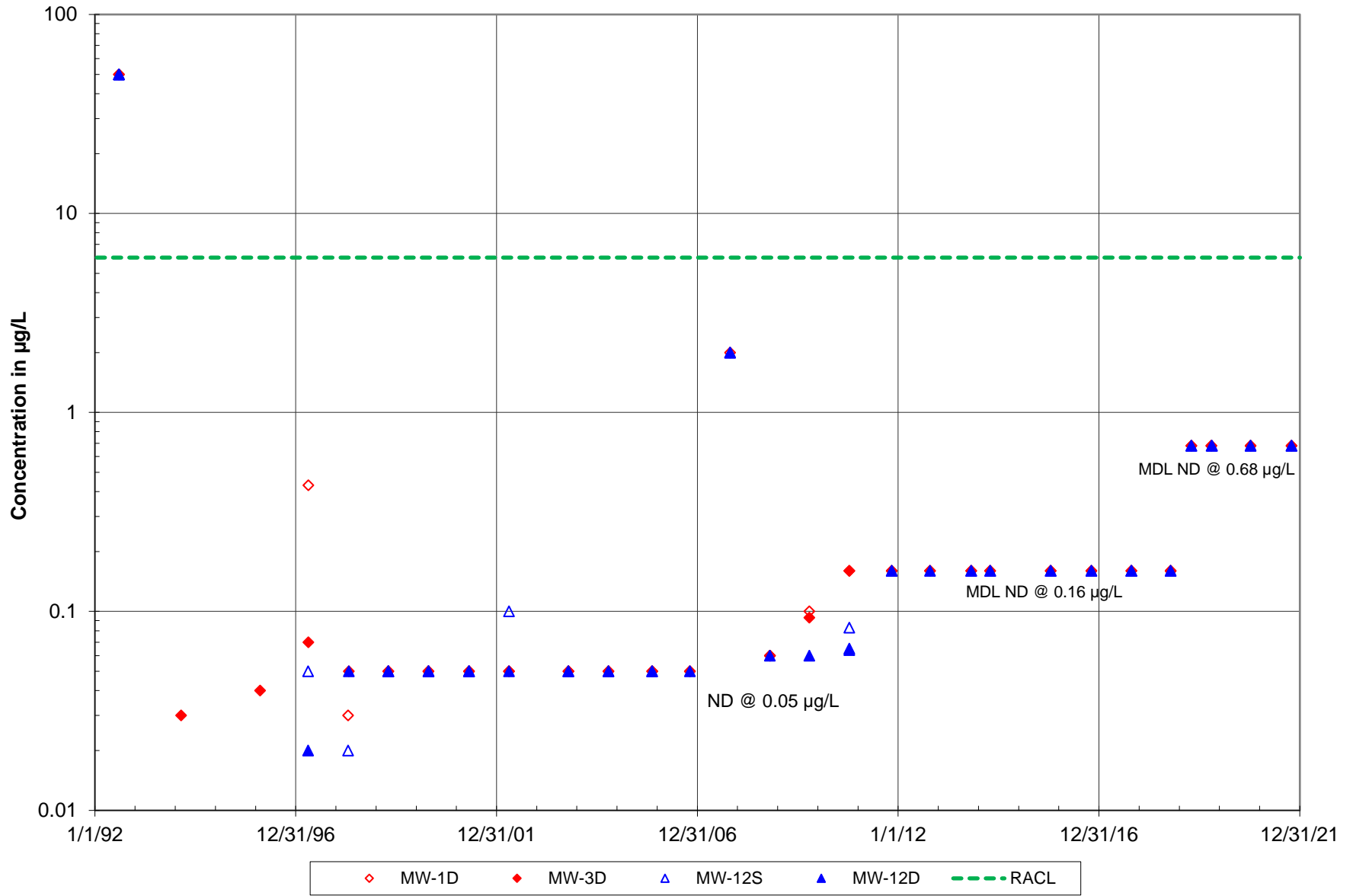
Coffin Butte Landfill
MW-12S and MW-12D: Sodium



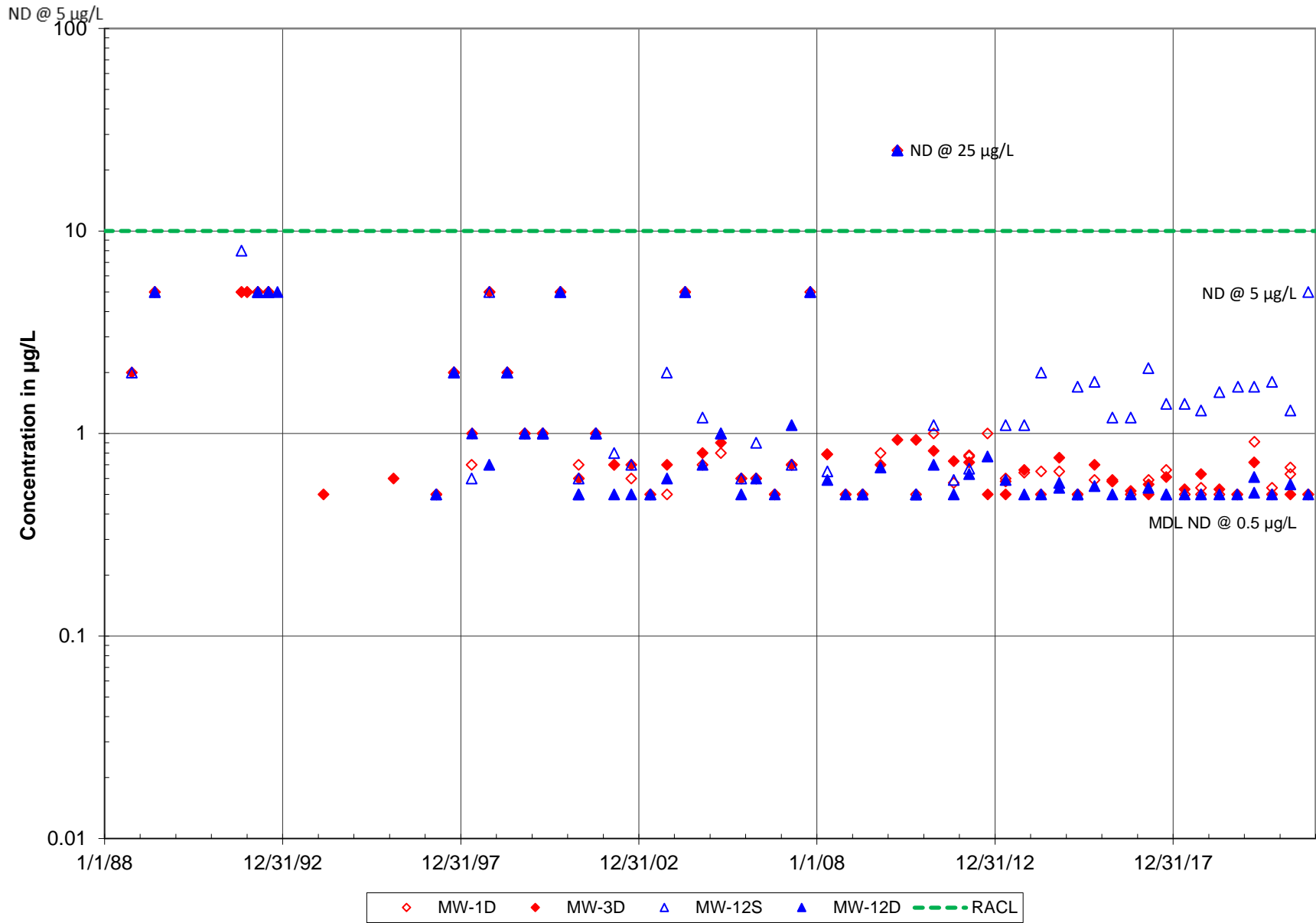
Coffin Butte Landfill
MW-2S/12S and MW-2D/12D: PCE



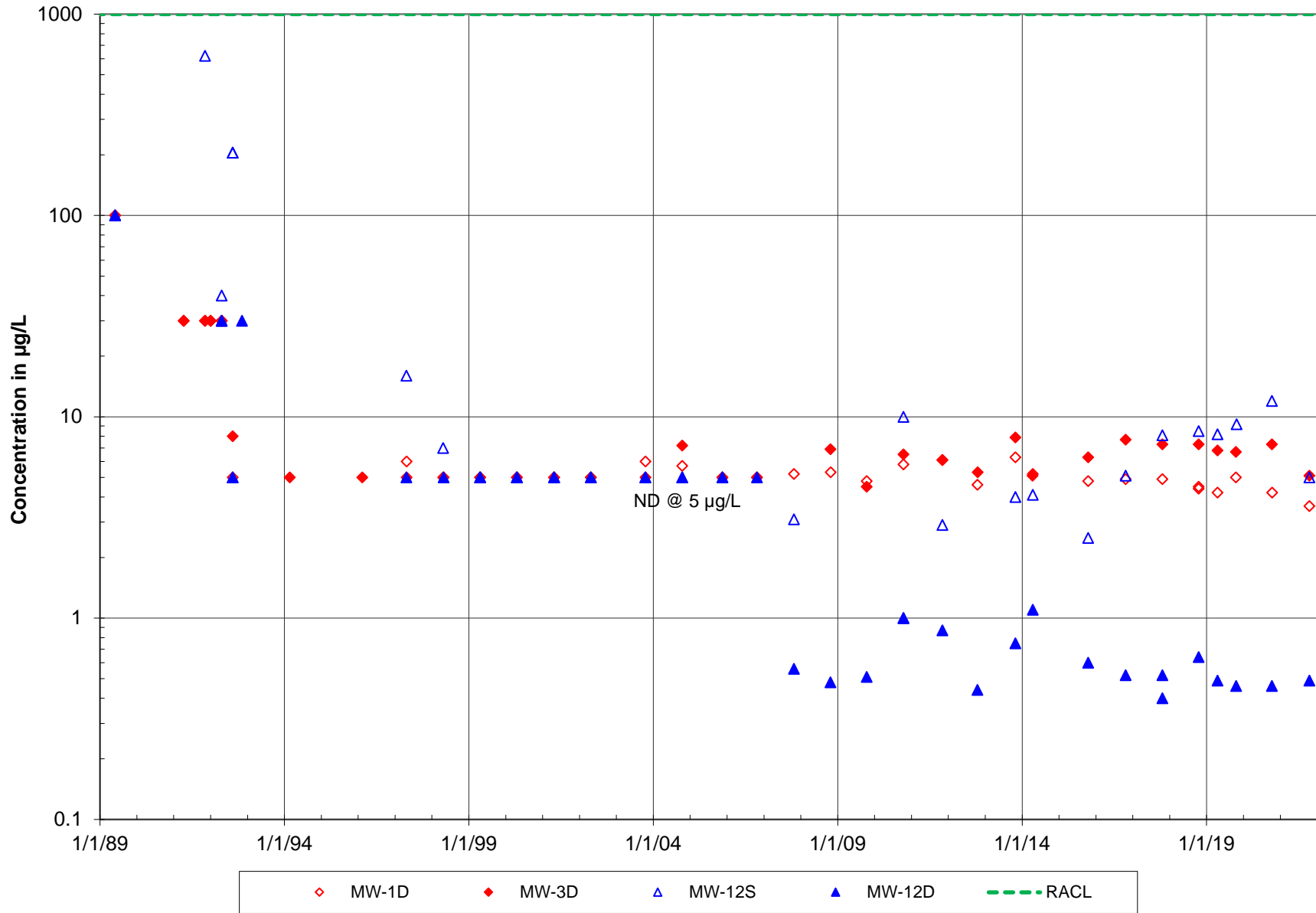
Antimony Cell 1 - Coffin Butte Landfill



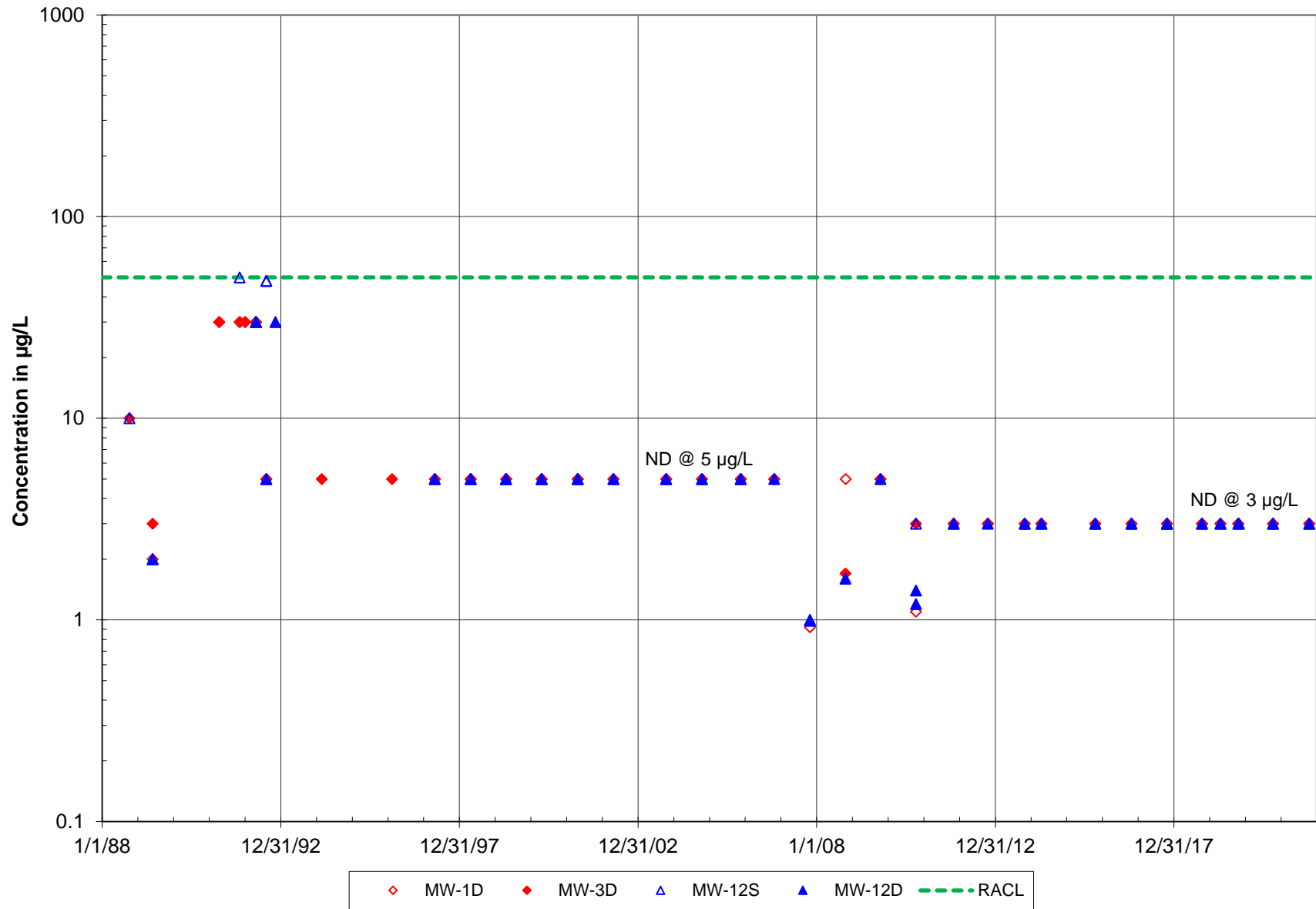
Arsenic Cell 1 - Coffin Butte Landfill



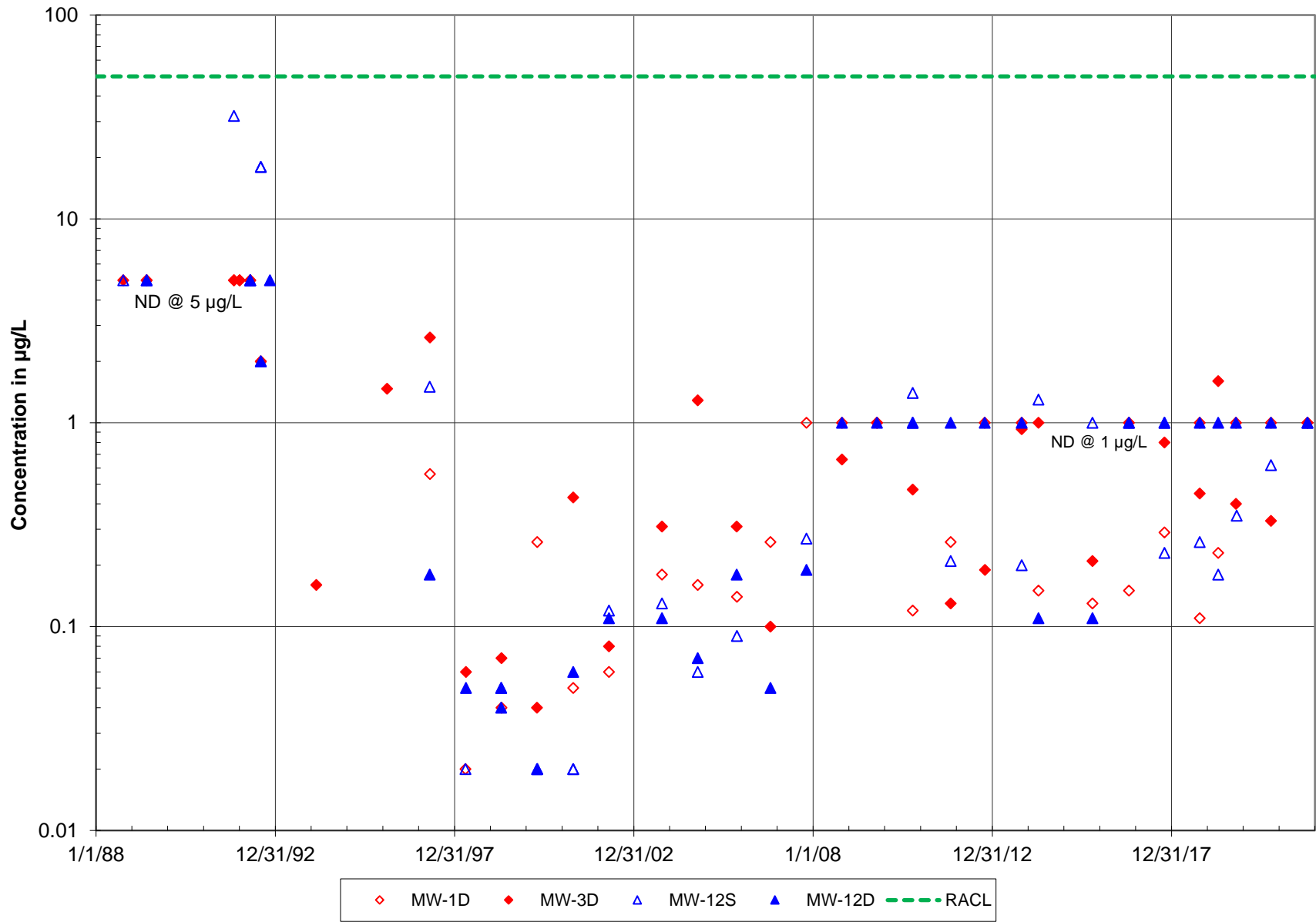
Barium Cell 1 - Coffin Butte Landfill



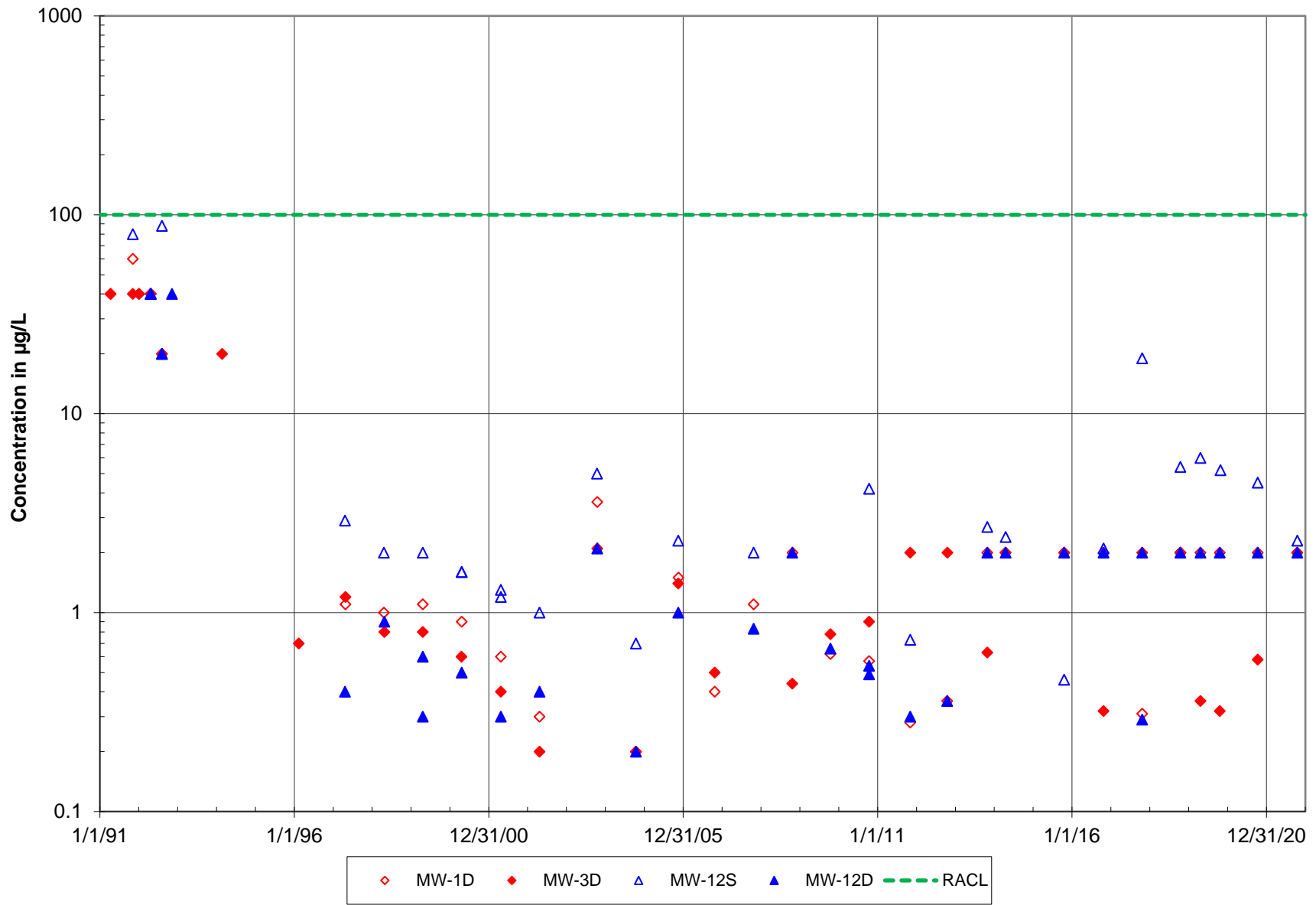
Chromium Cell 1 - Coffin Butte Landfill



Lead Cell 1 - Coffin Butte Landfill

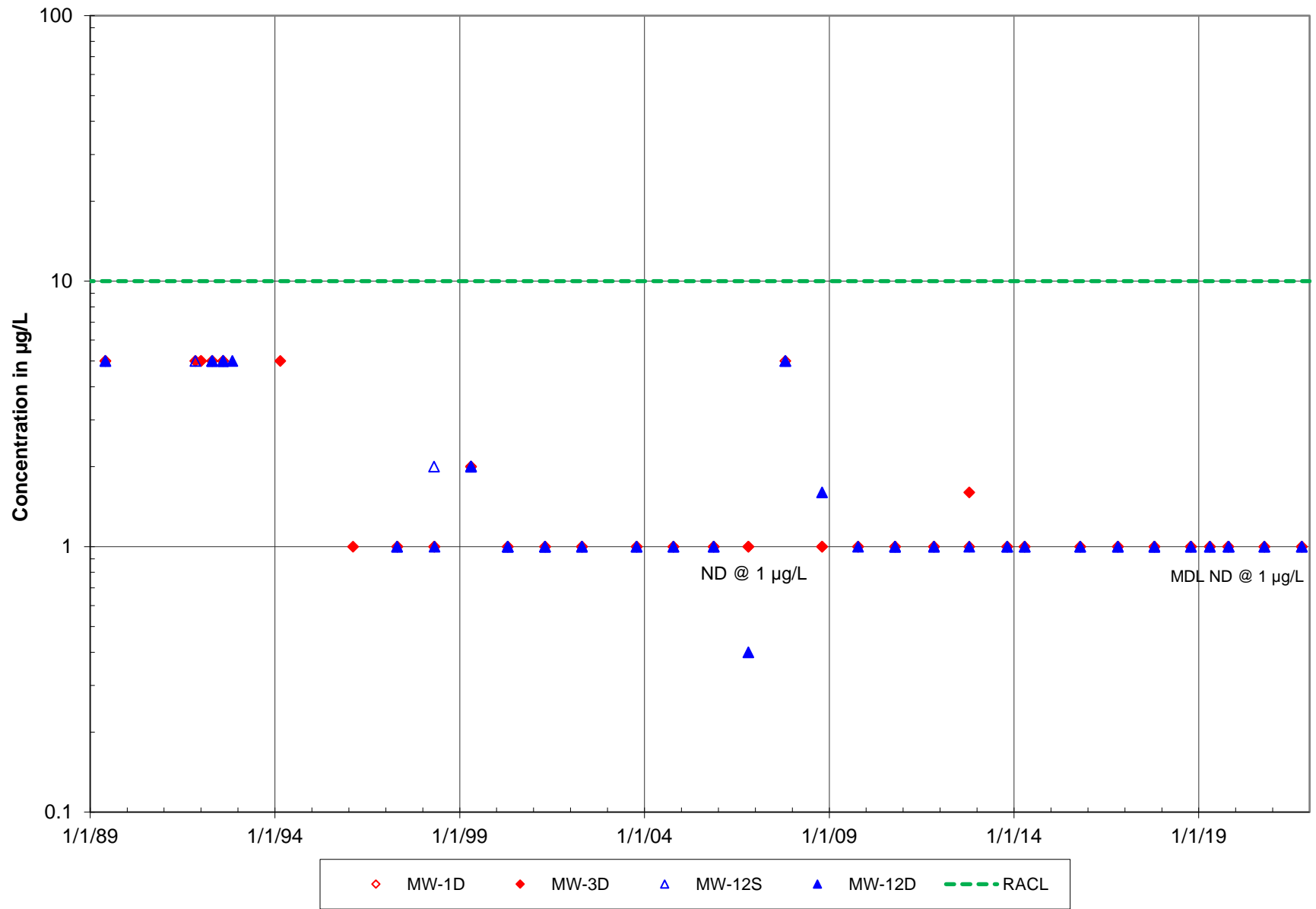


Nickel Cell 1 - Coffin Butte Landfill

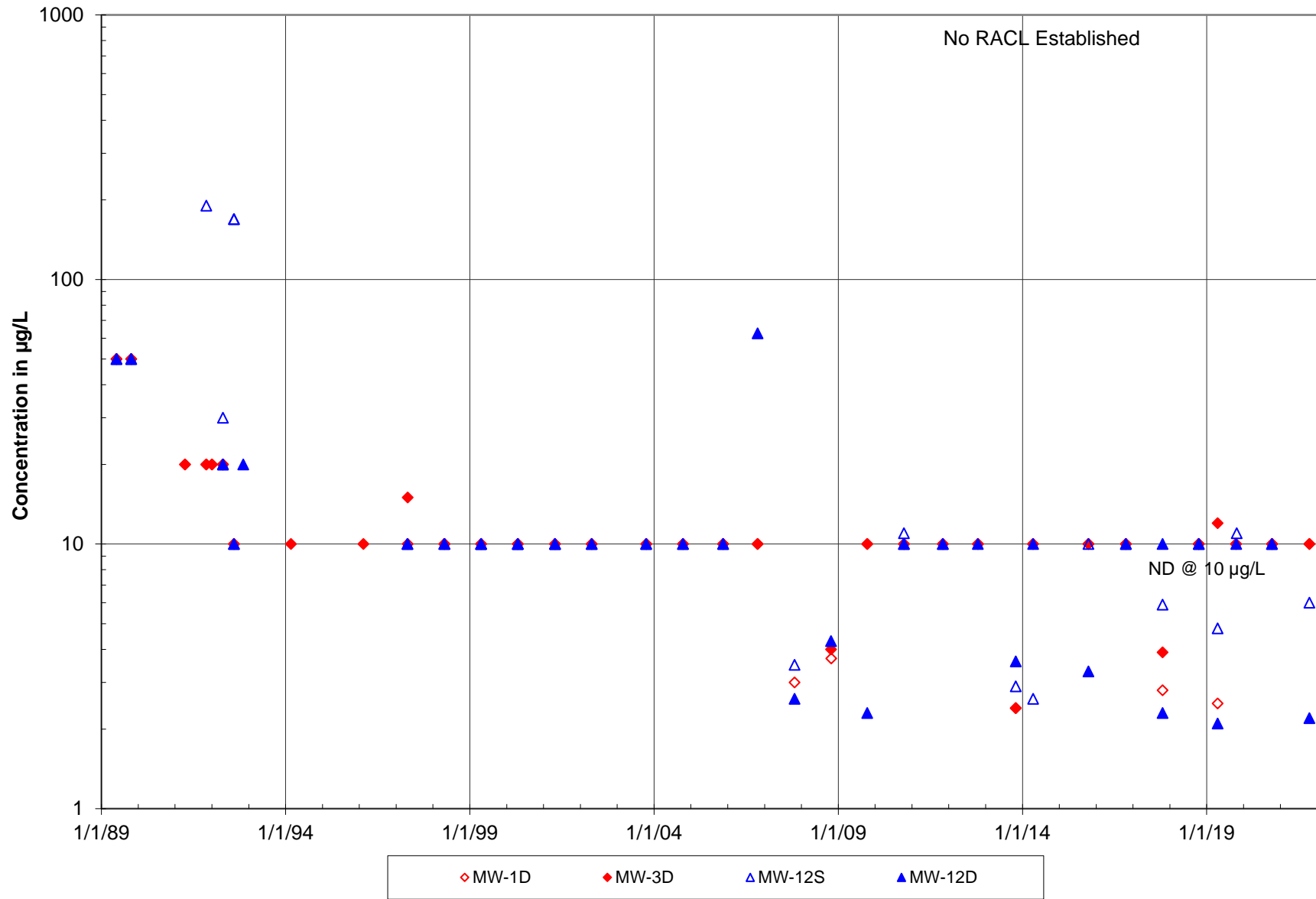


Selenium

Cell 1 - Coffin Butte Landfill

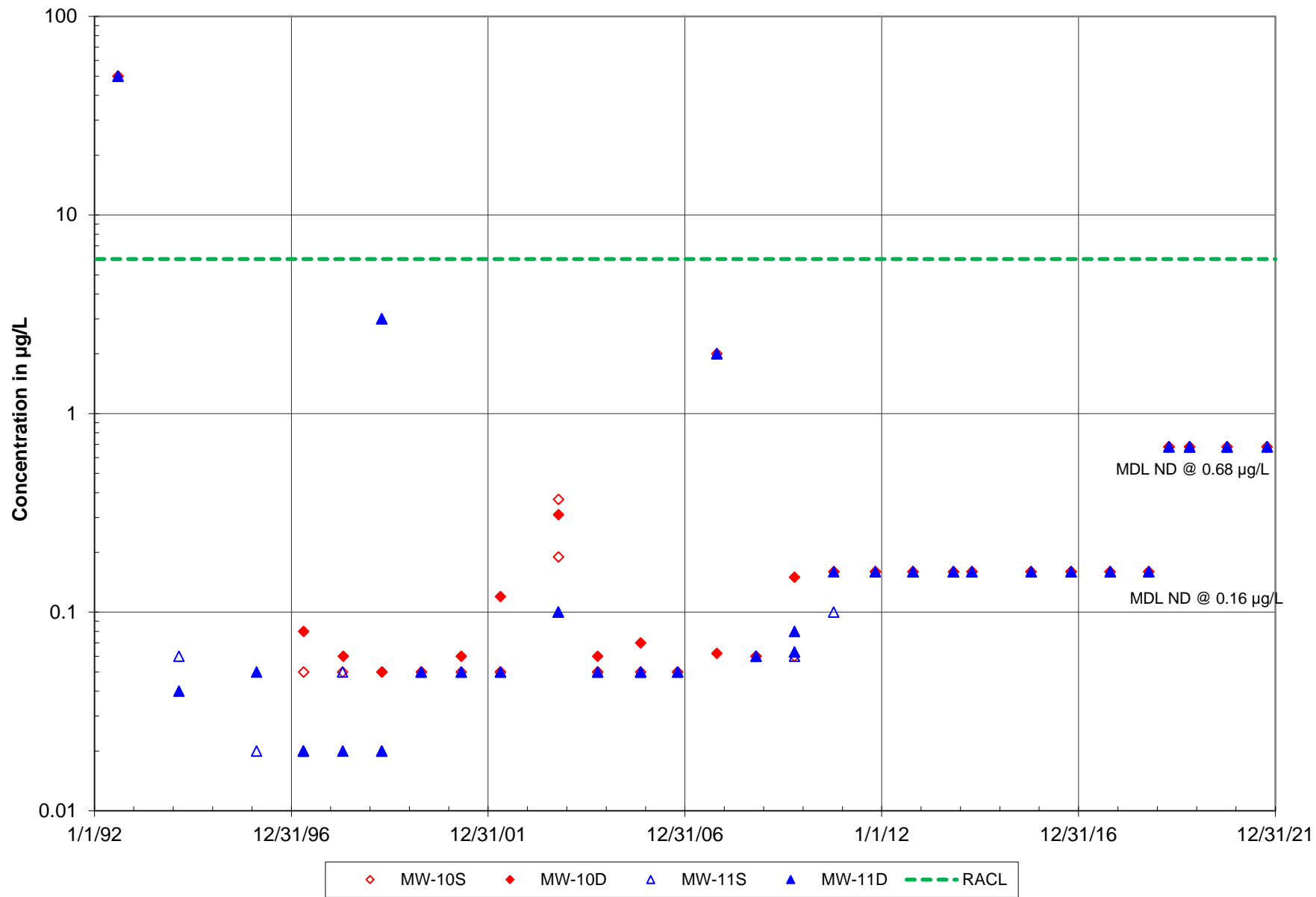


Zinc Cell 1 - Coffin Butte Landfill

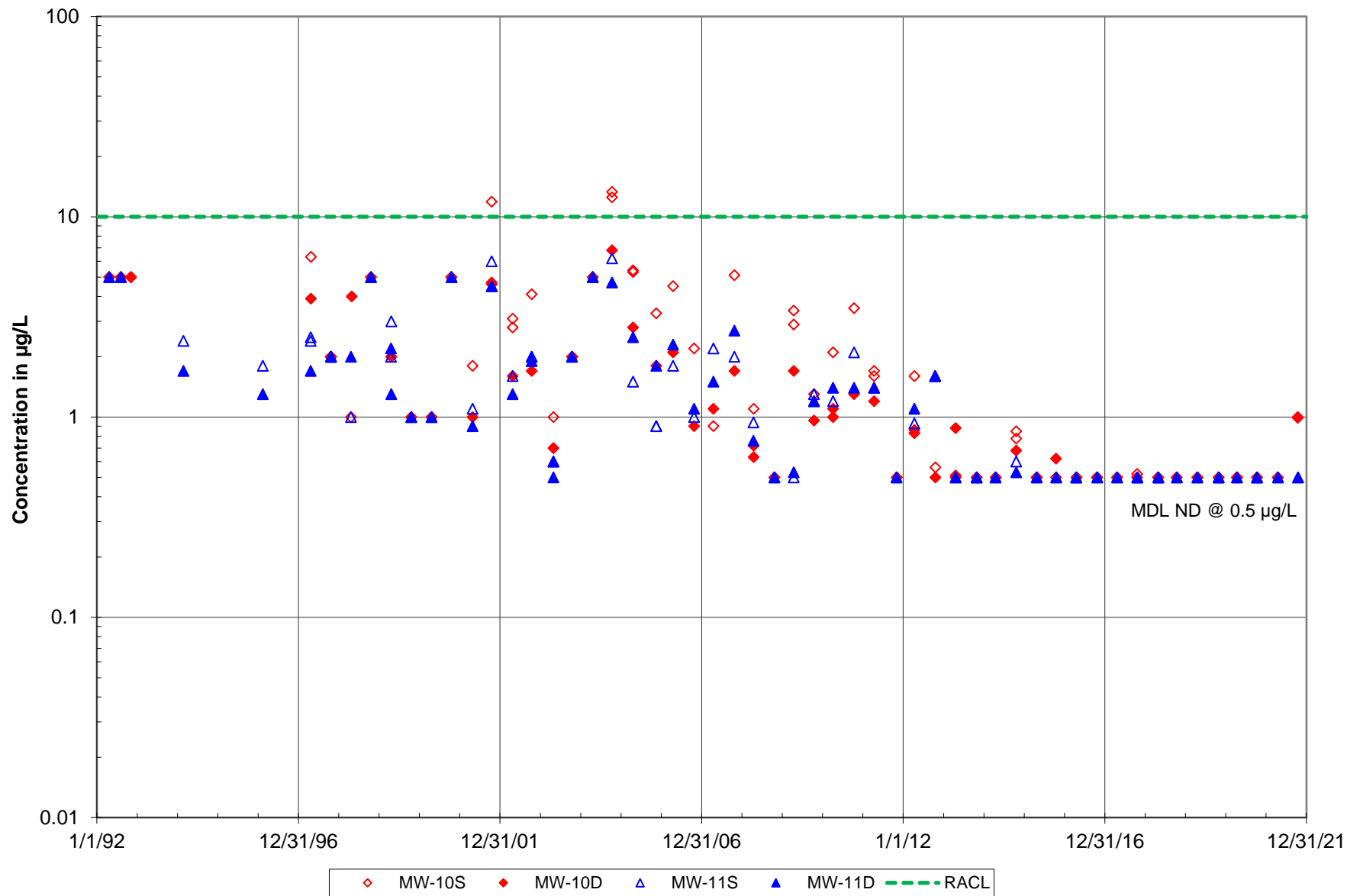


Antimony

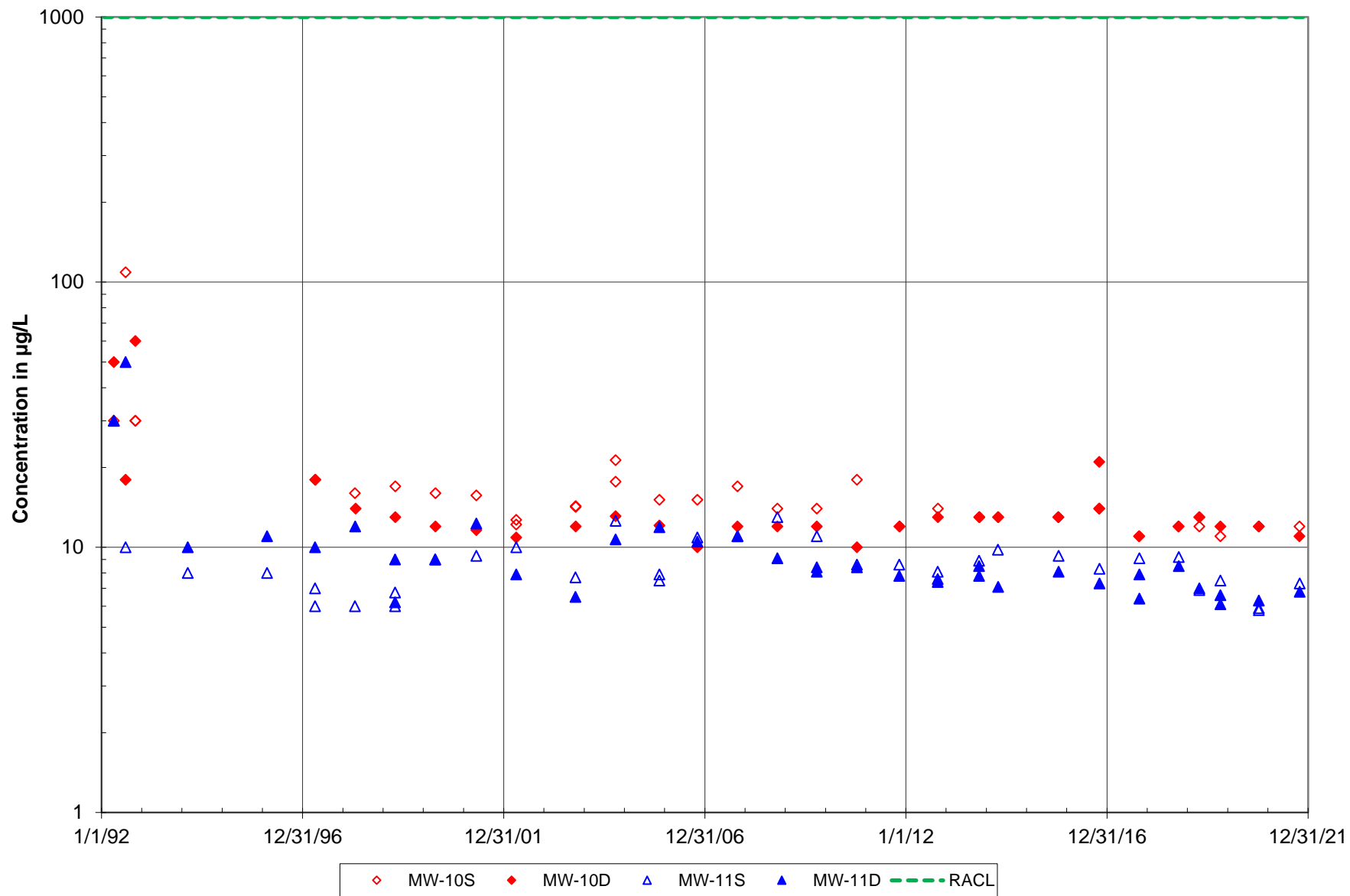
Cell 1A - Coffin Butte Landfill



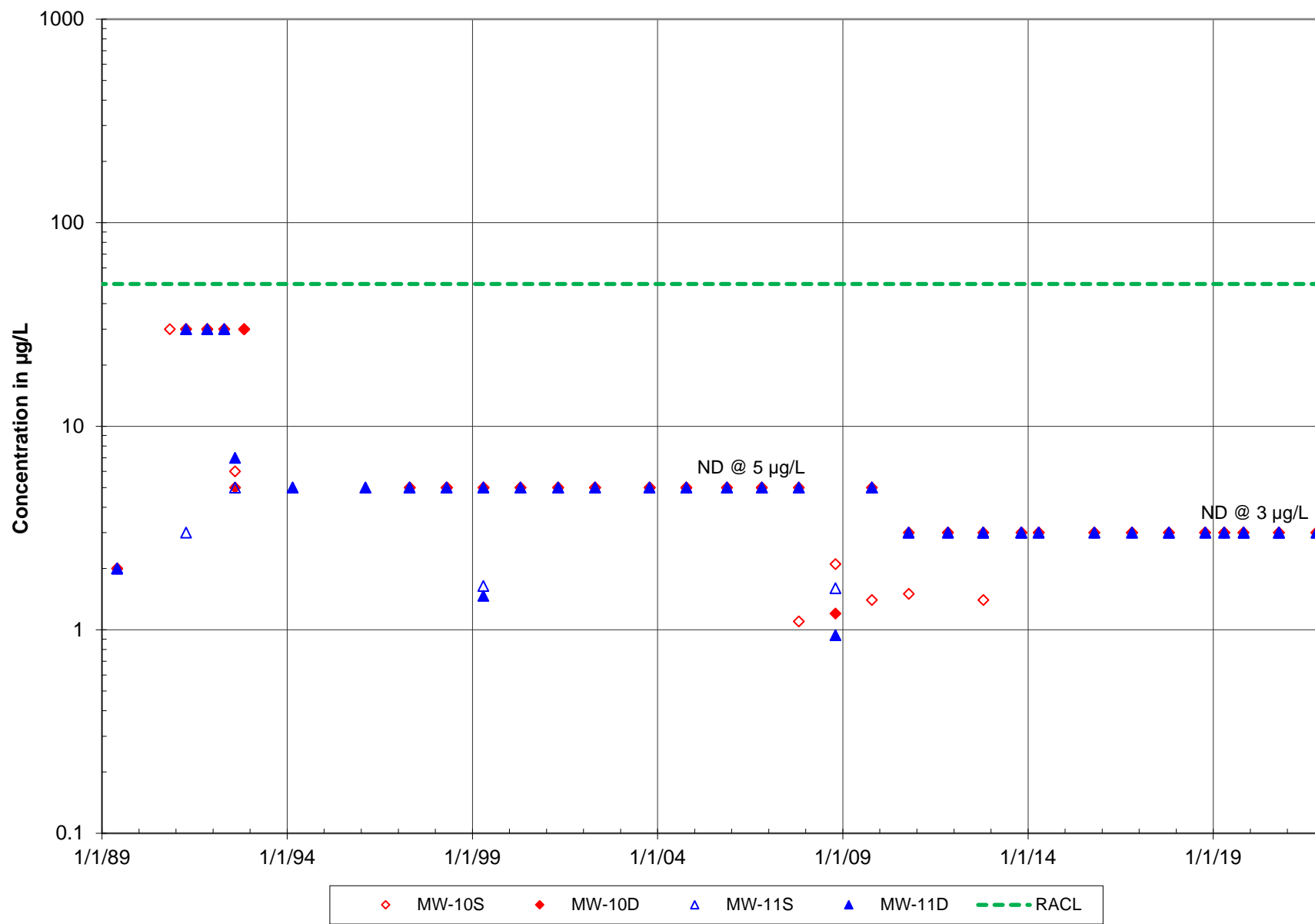
Arsenic Cell 1A - Coffin Butte Landfill



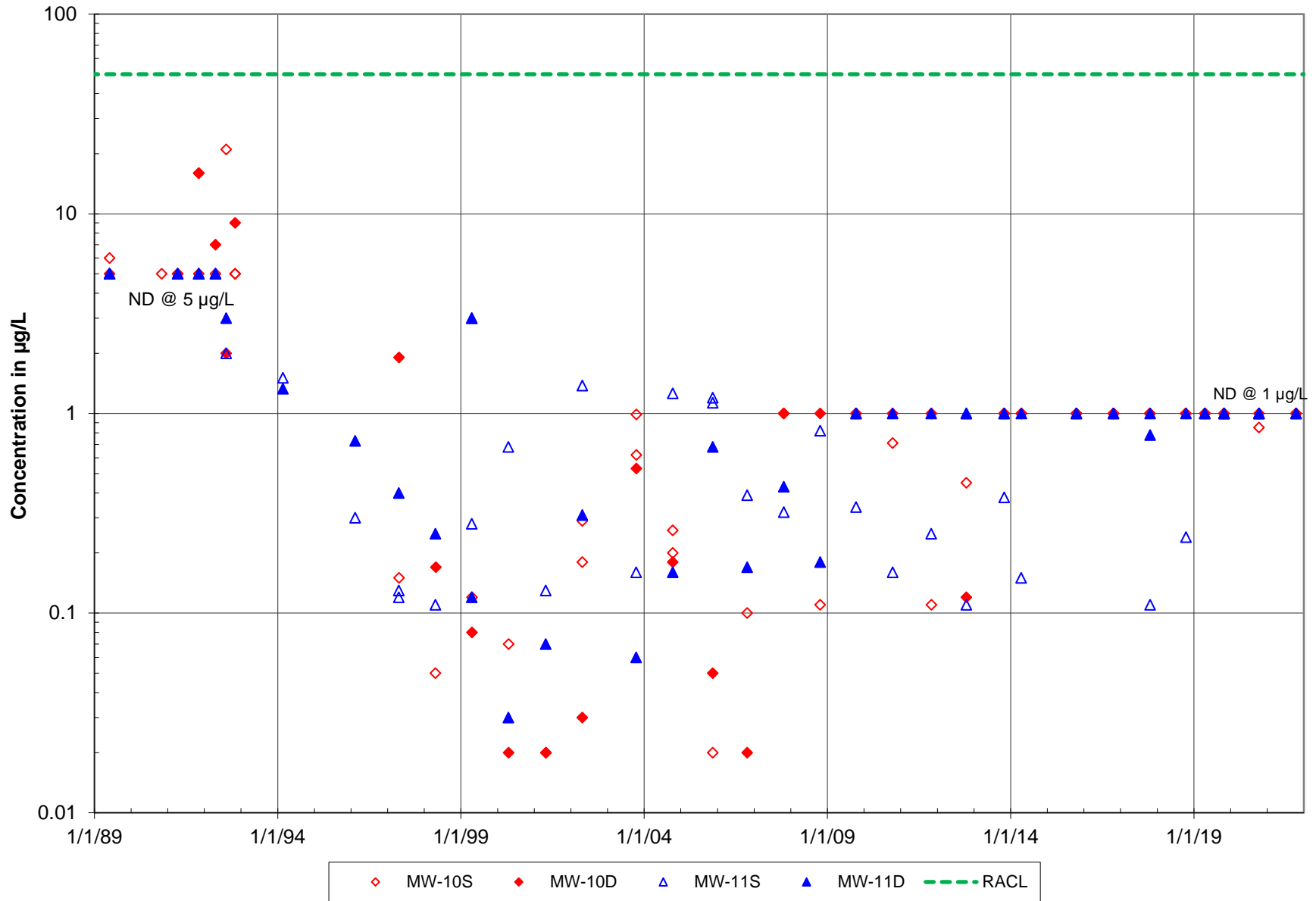
Barium Cell 1A - Coffin Butte Landfill



Chromium Cell 1A - Coffin Butte Landfill

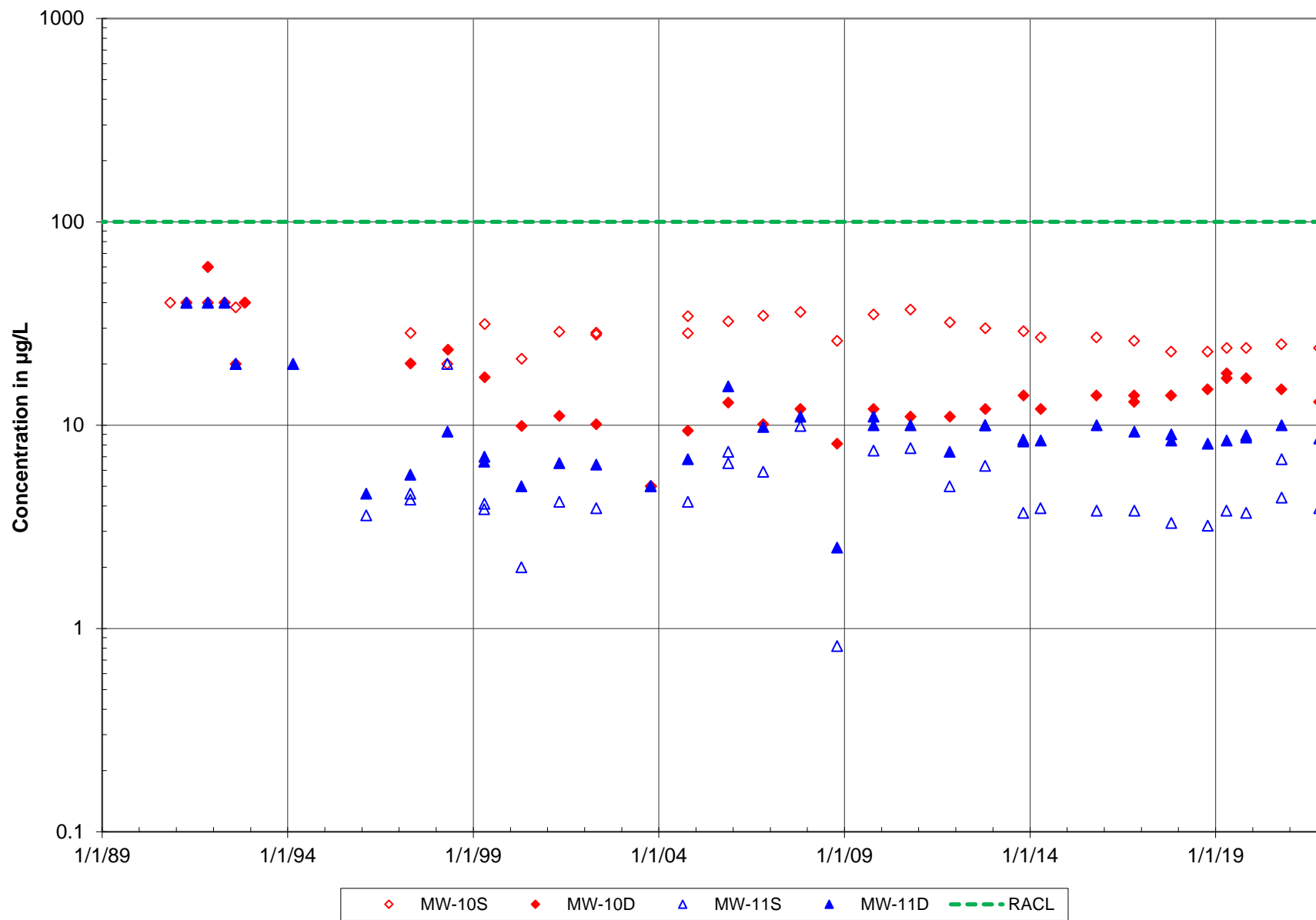


Lead Cell 1A - Coffin Butte Landfill

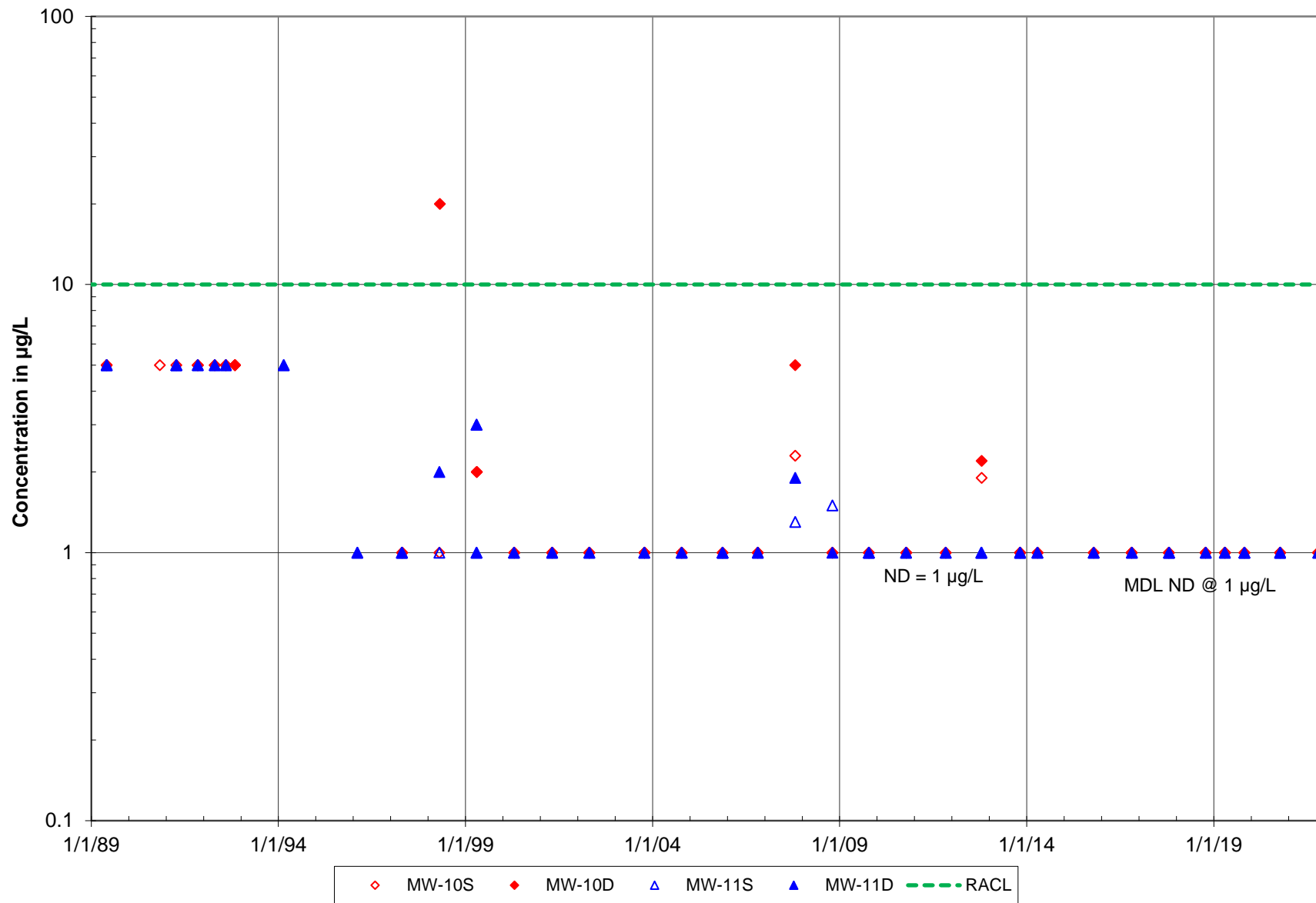


Nickel

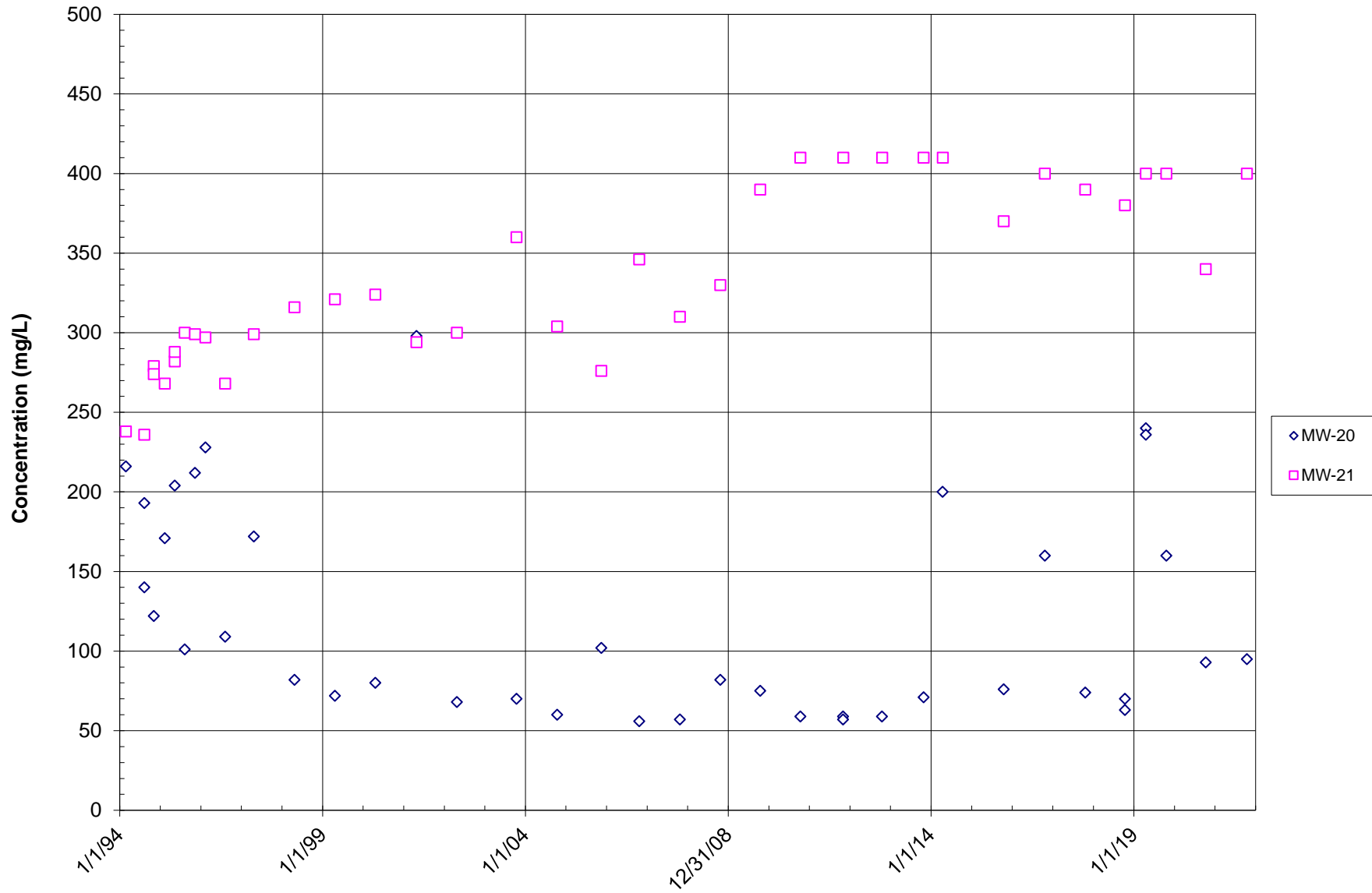
Cell 1A - Coffin Butte Landfill



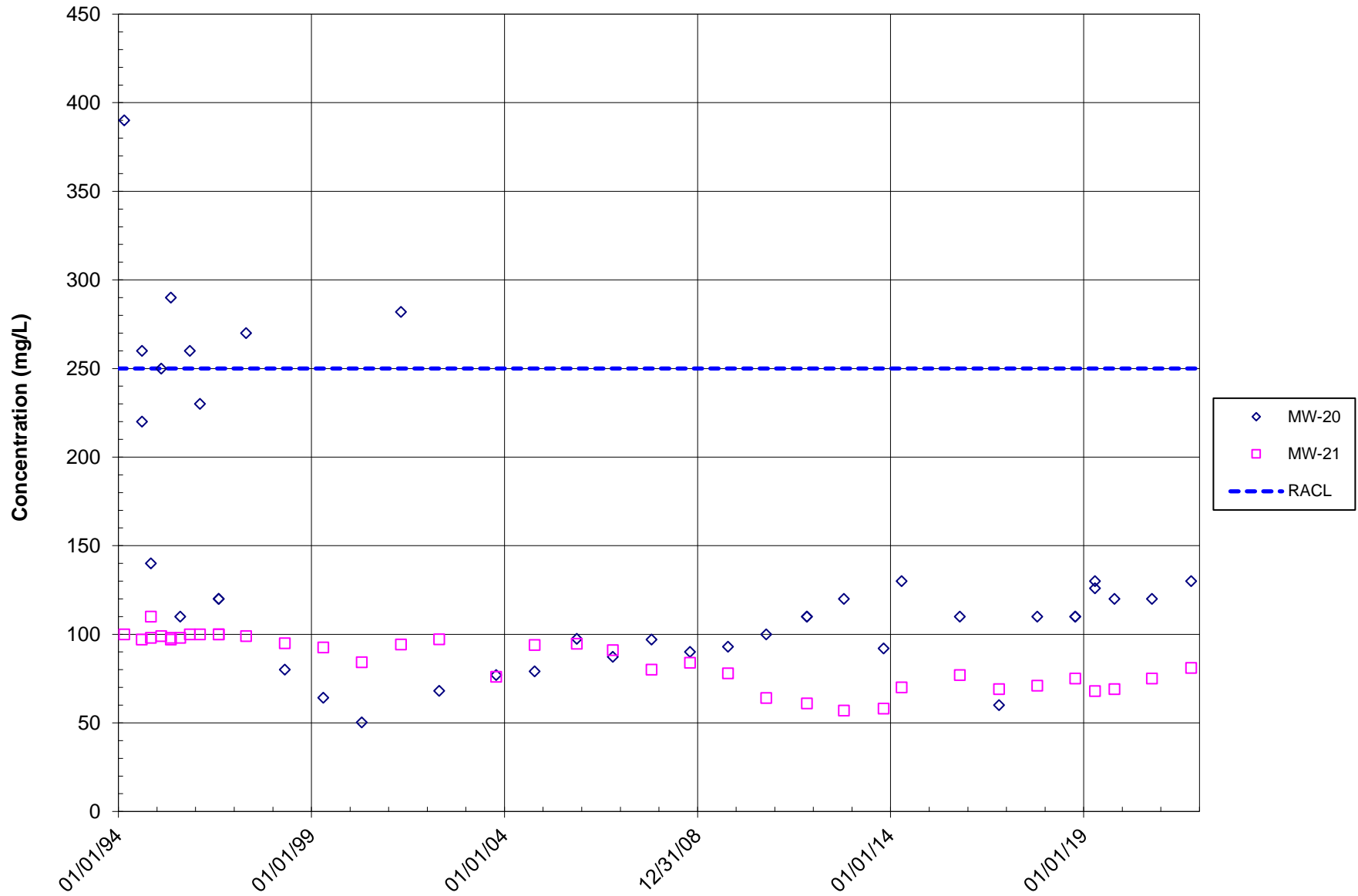
Selenium Cell 1A - Coffin Butte Landfill



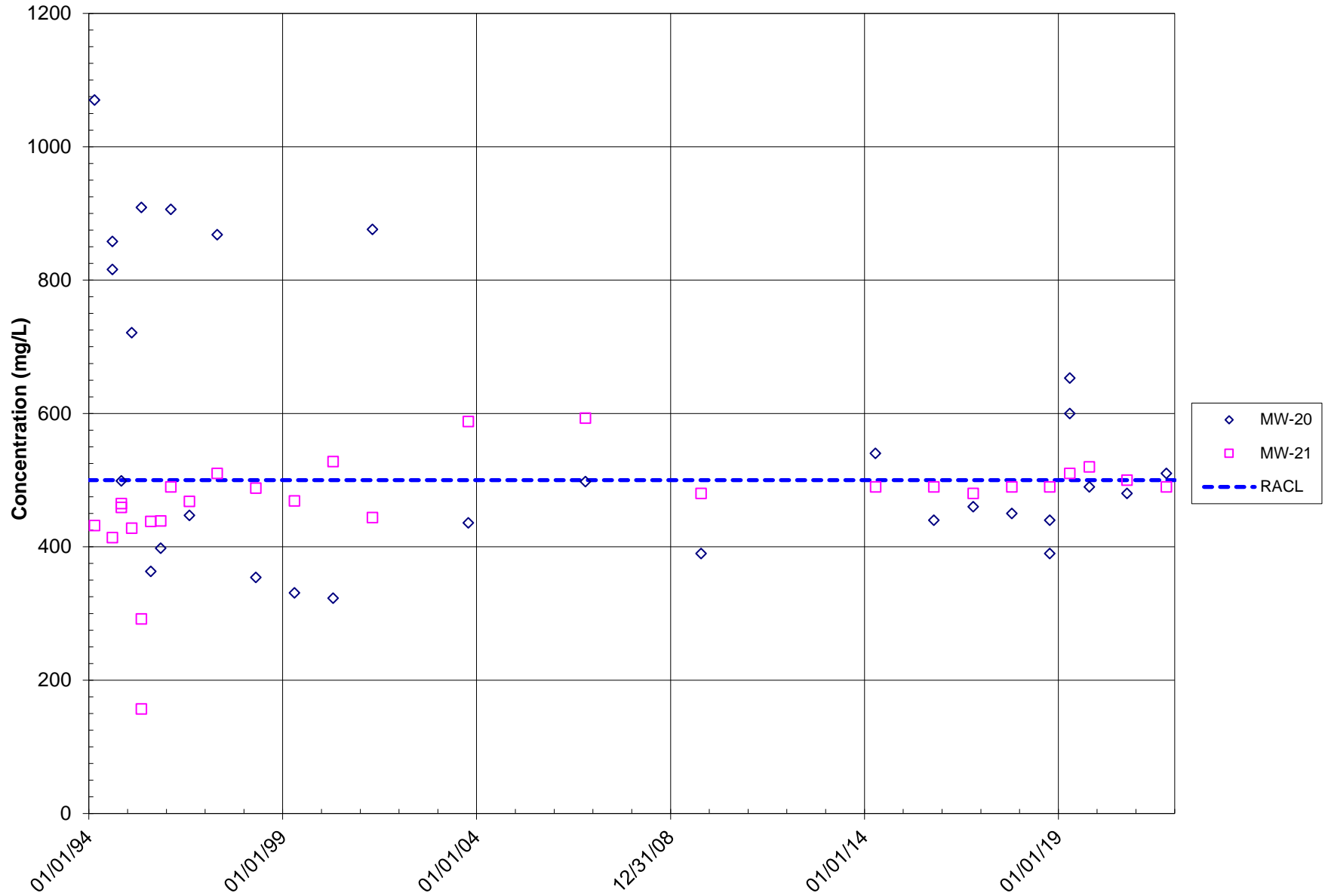
Coffin Butte Landfill
MW-20 and MW-21: Bicarbonate Alkalinity



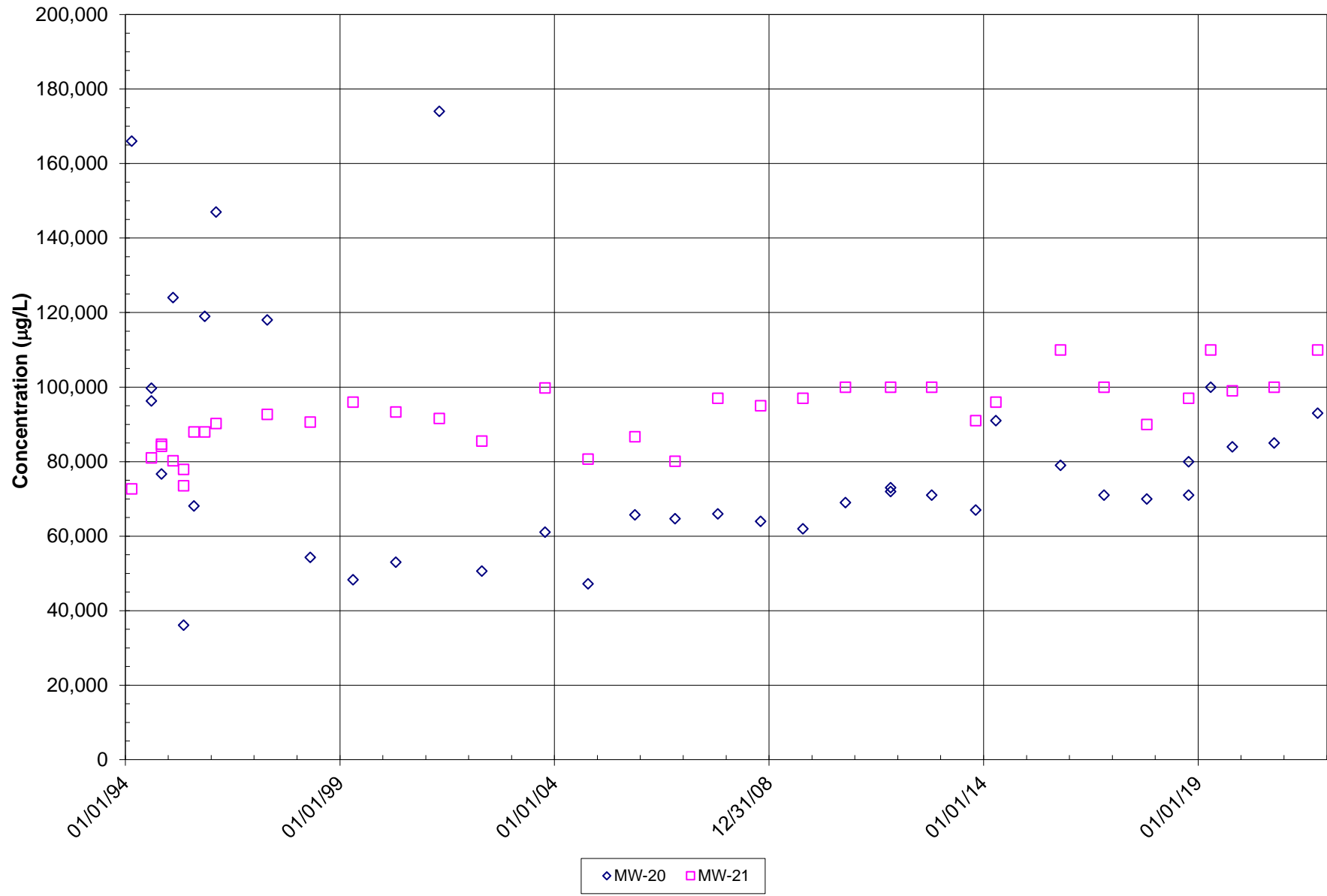
Coffin Butte Landfill
MW-20 and MW-21: Chloride



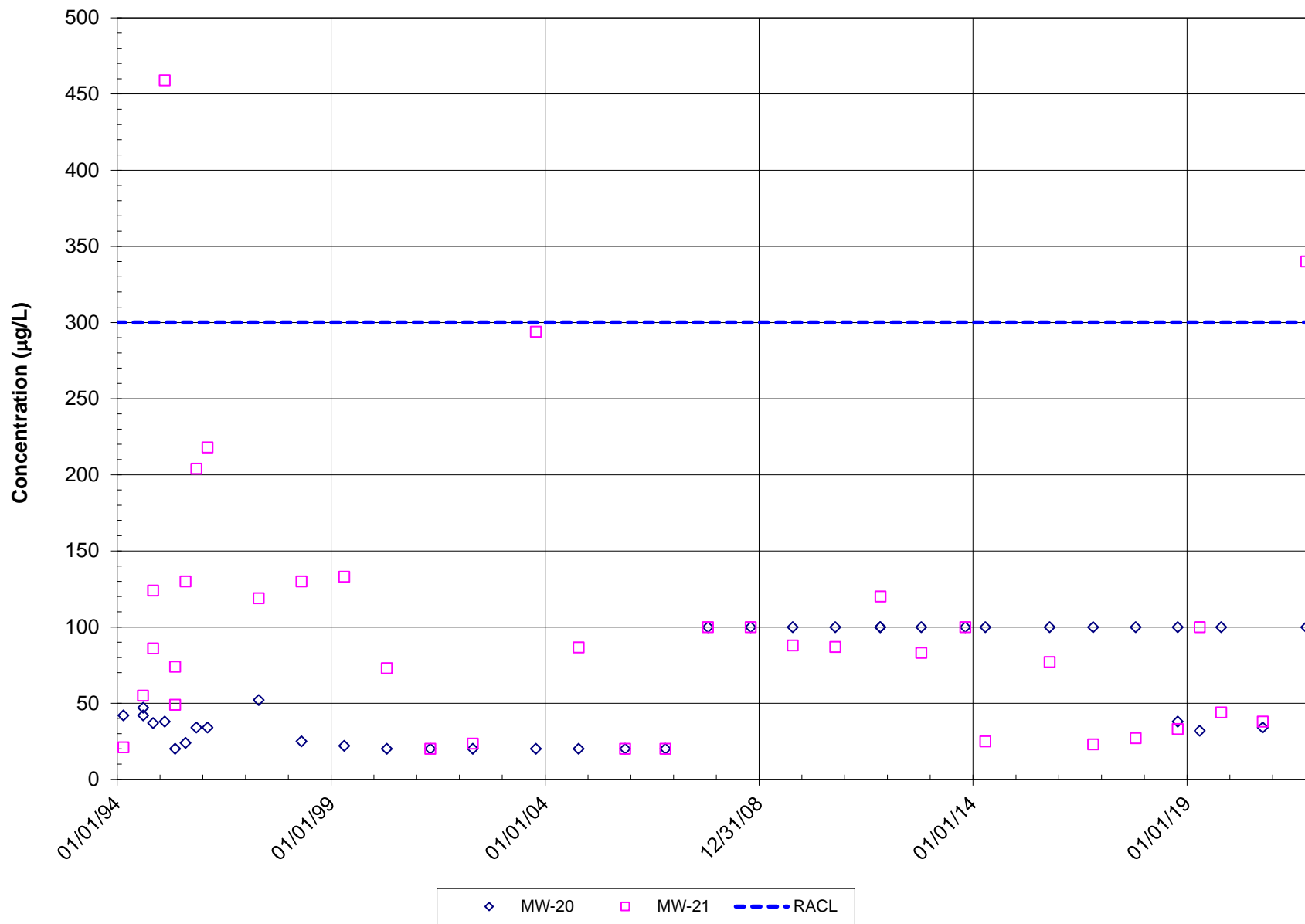
Coffin Butte Landfill
MW-20 and MW-21: TDS



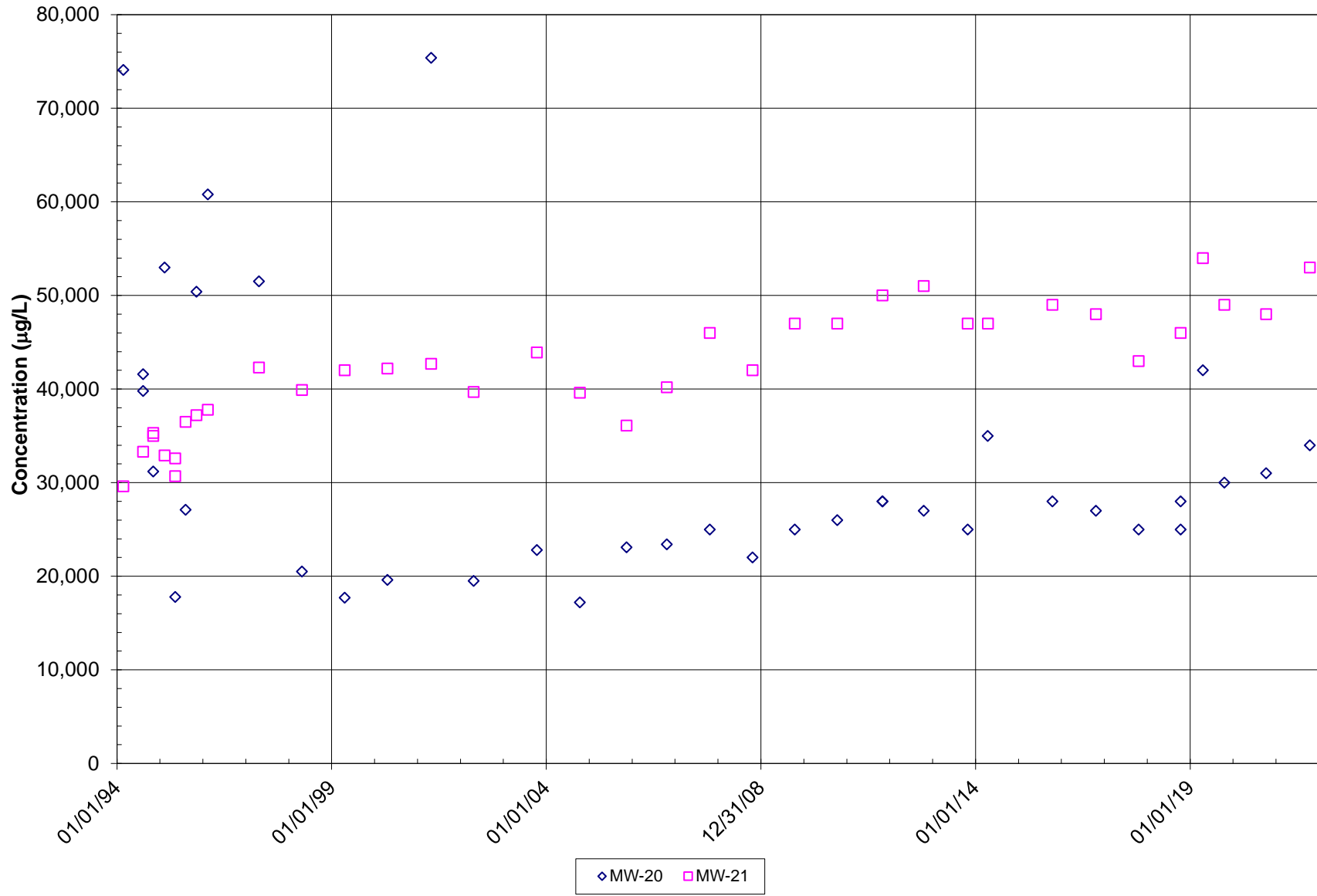
Coffin Butte Landfill
MW-20 and MW-21: Calcium



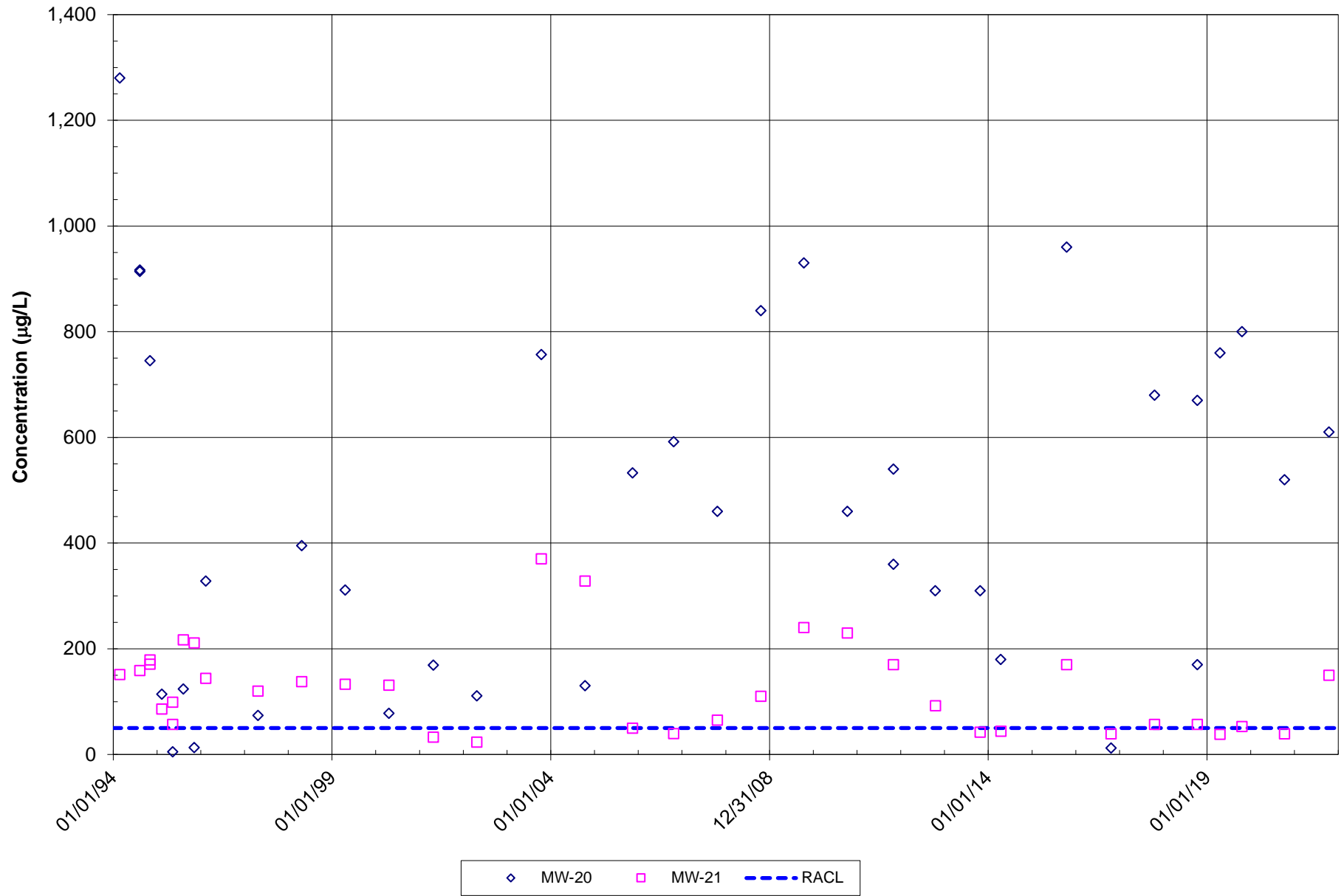
Coffin Butte Landfill
MW-20 and MW-21: Iron



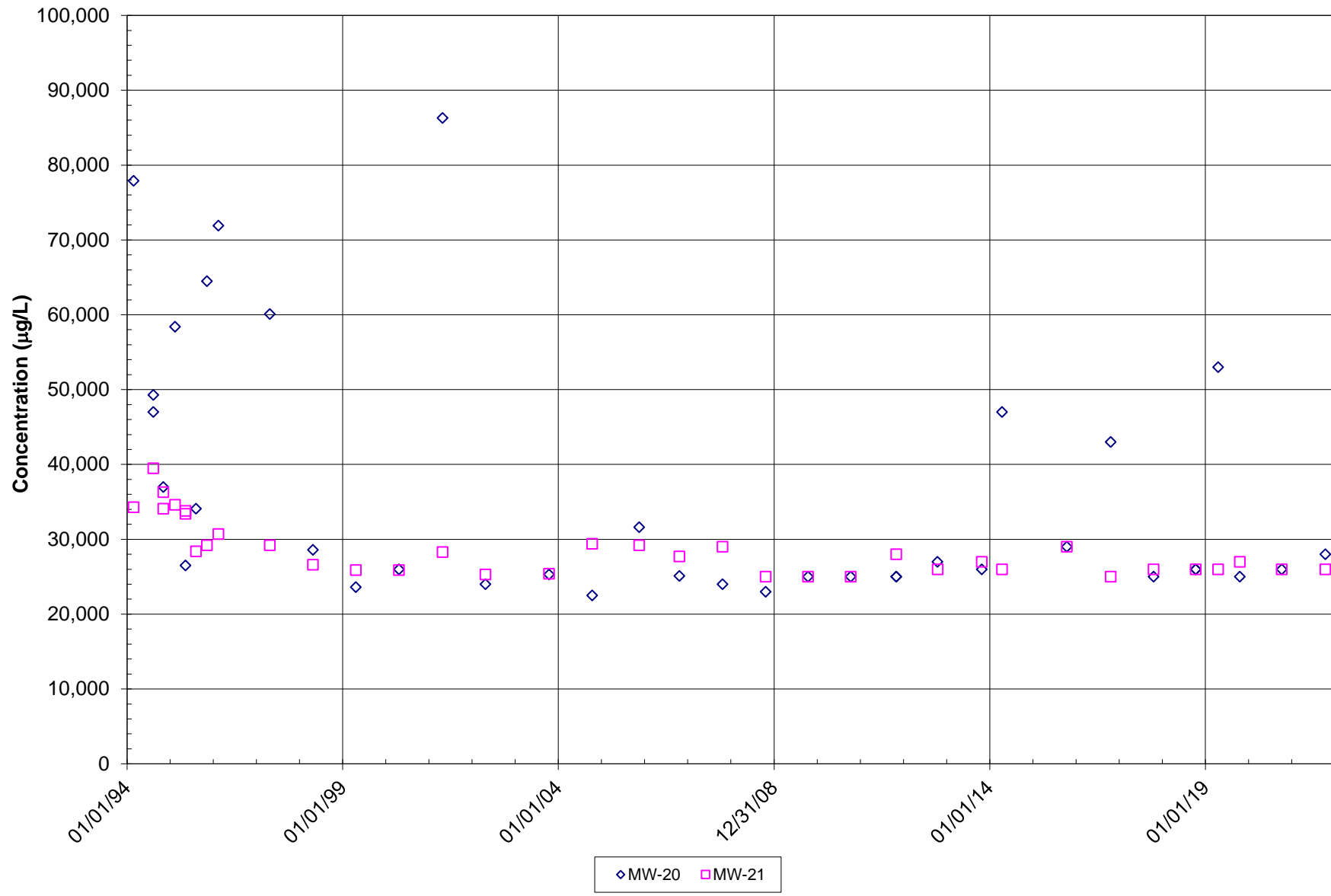
Coffin Butte Landfill
MW-20 and MW-21: Magnesium



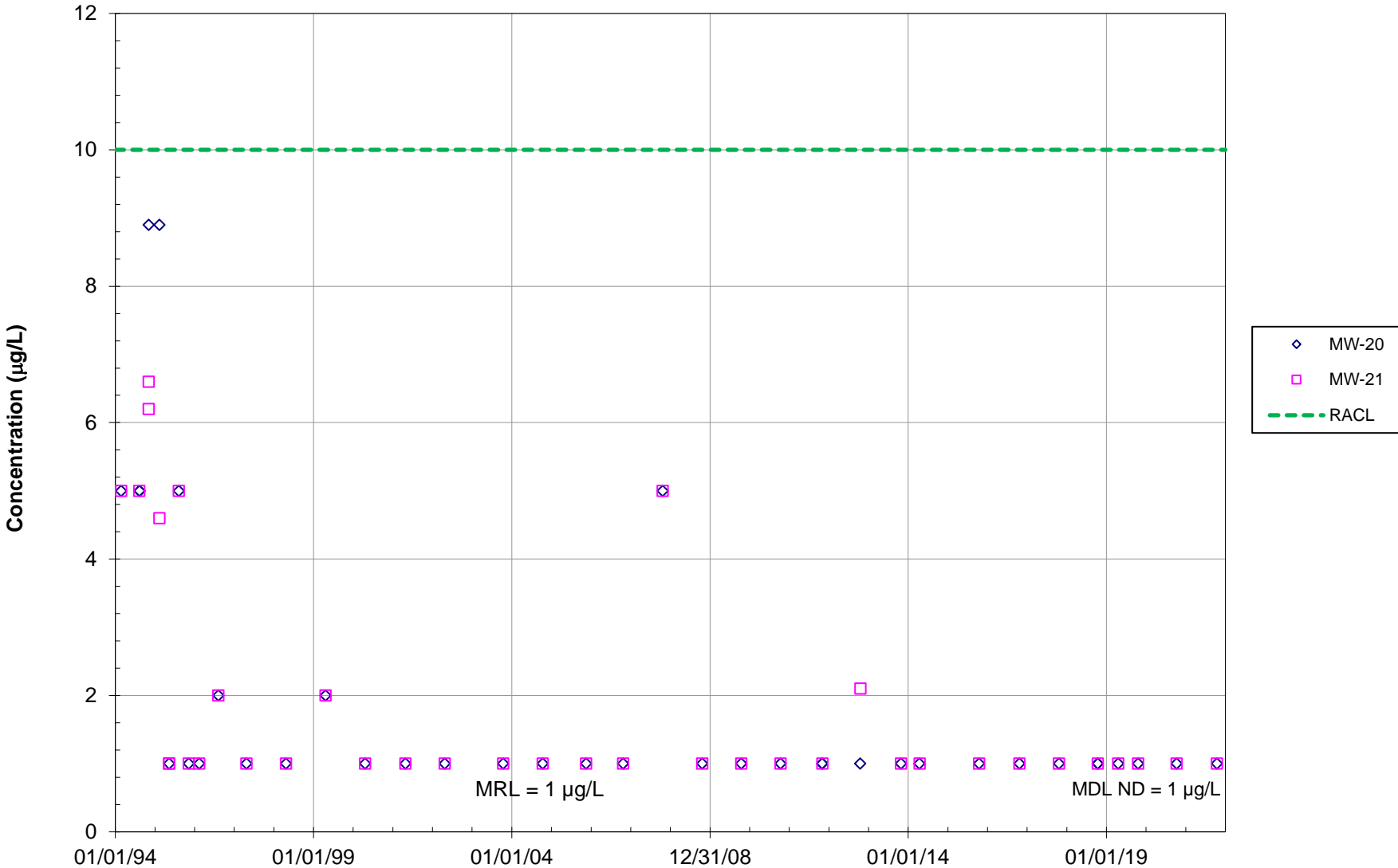
Coffin Butte Landfill
MW-20 and MW-21: Manganese



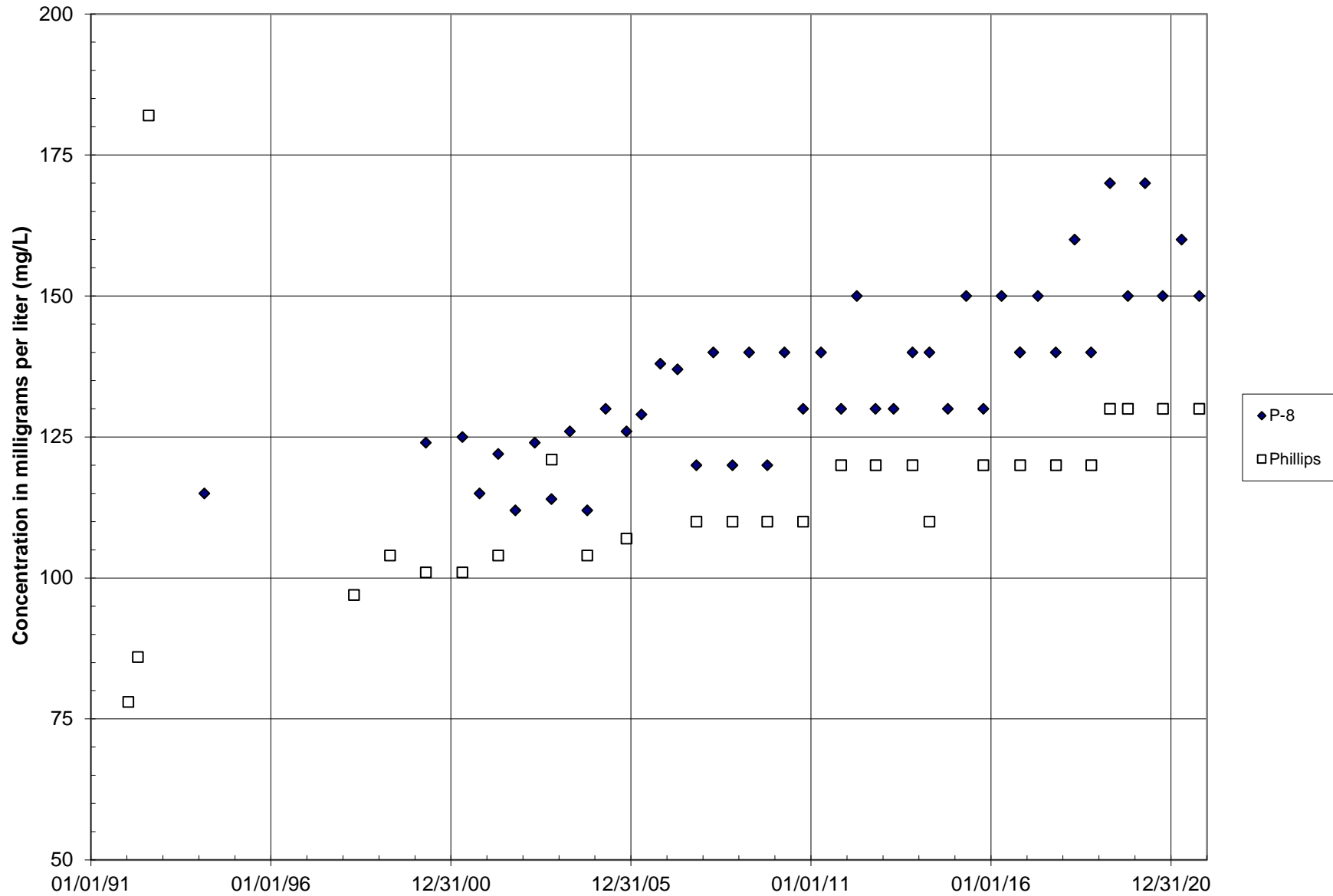
Coffin Butte Landfill
MW-20 and MW-21: Sodium



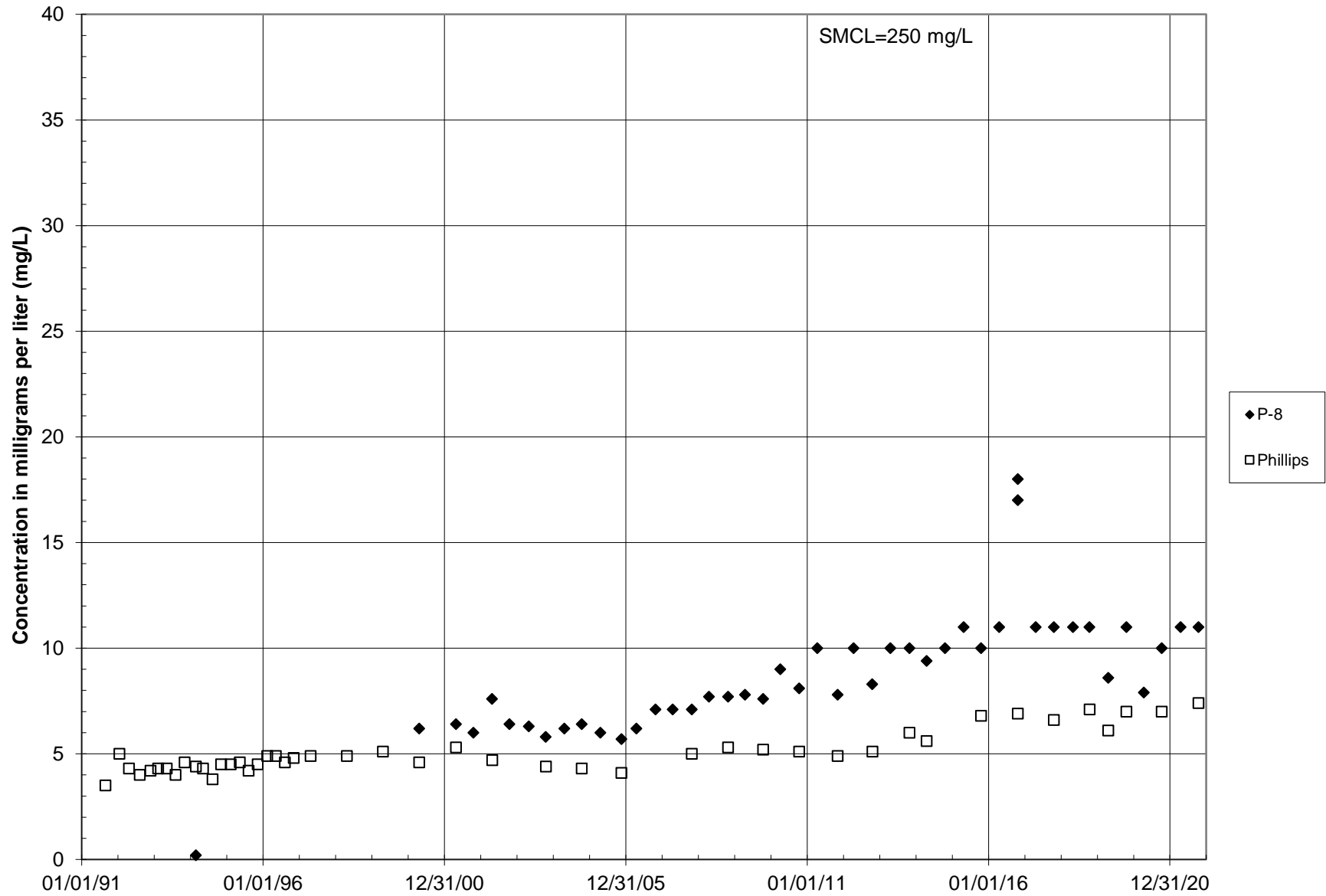
Coffin Butte Landfill
MW-20 and MW-21: Selenium



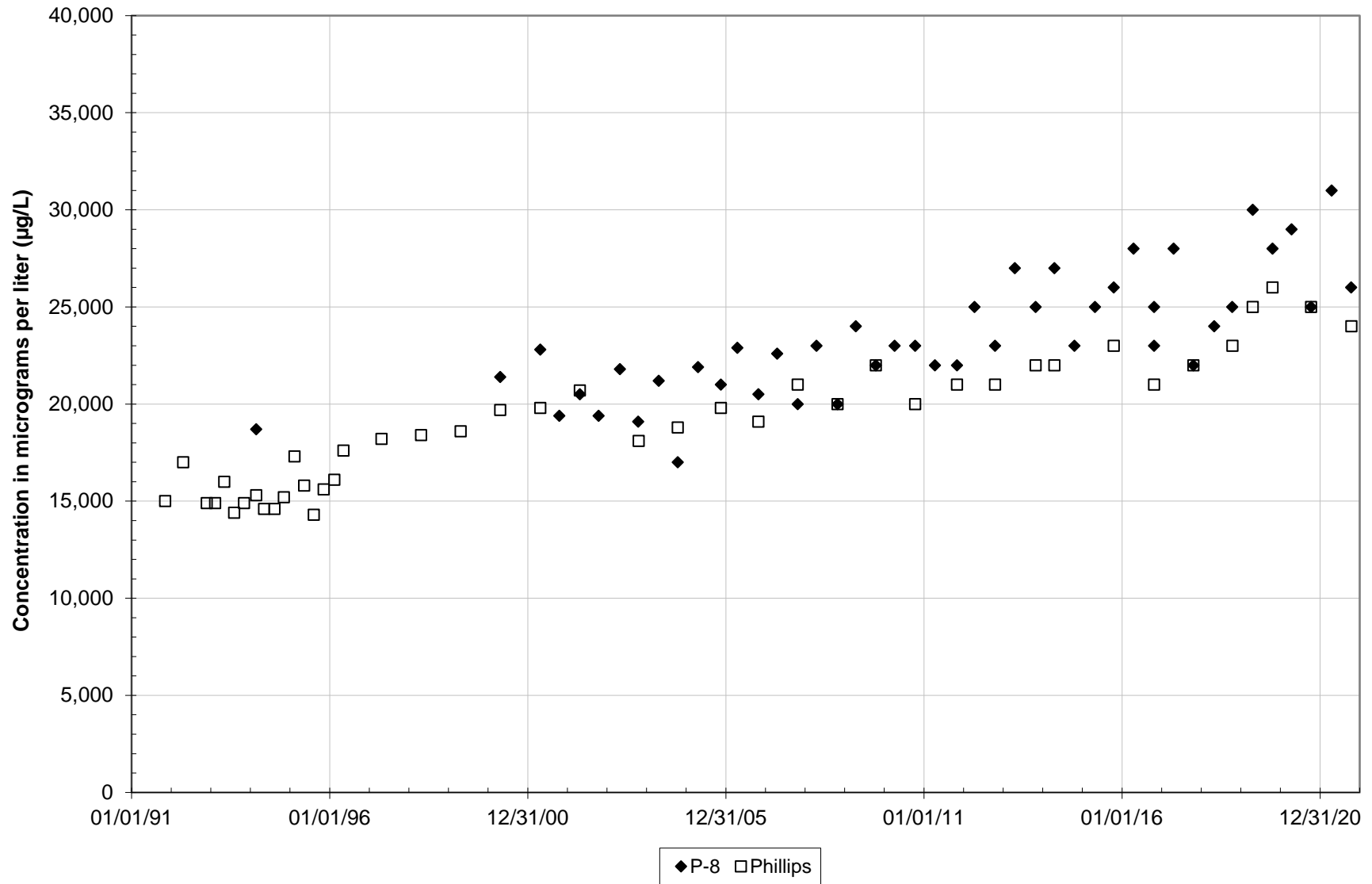
Coffin Butte Landfill P-8 and Phillips: Bicarbonate



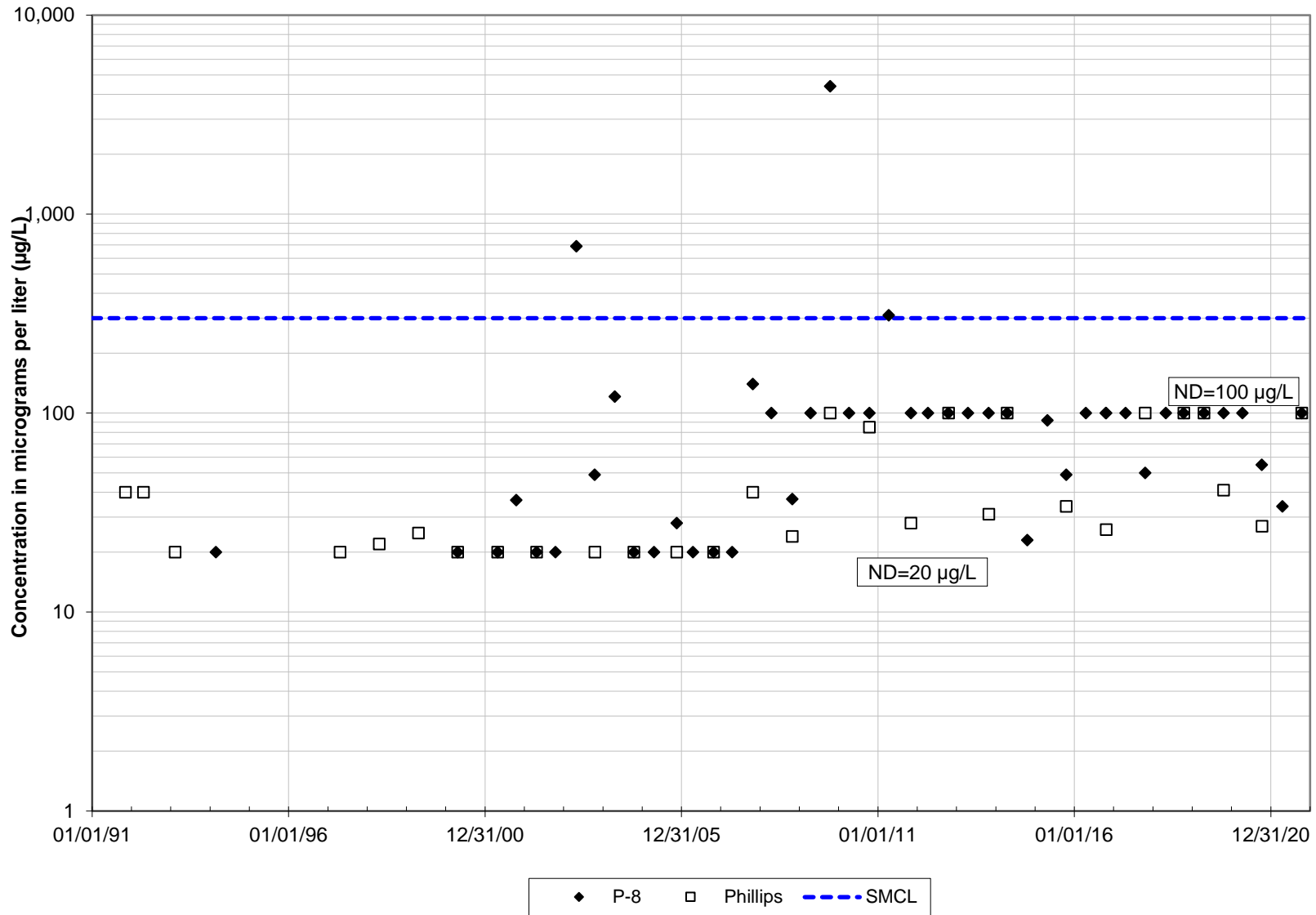
Coffin Butte Landfill
Phillips and P-8: Chloride



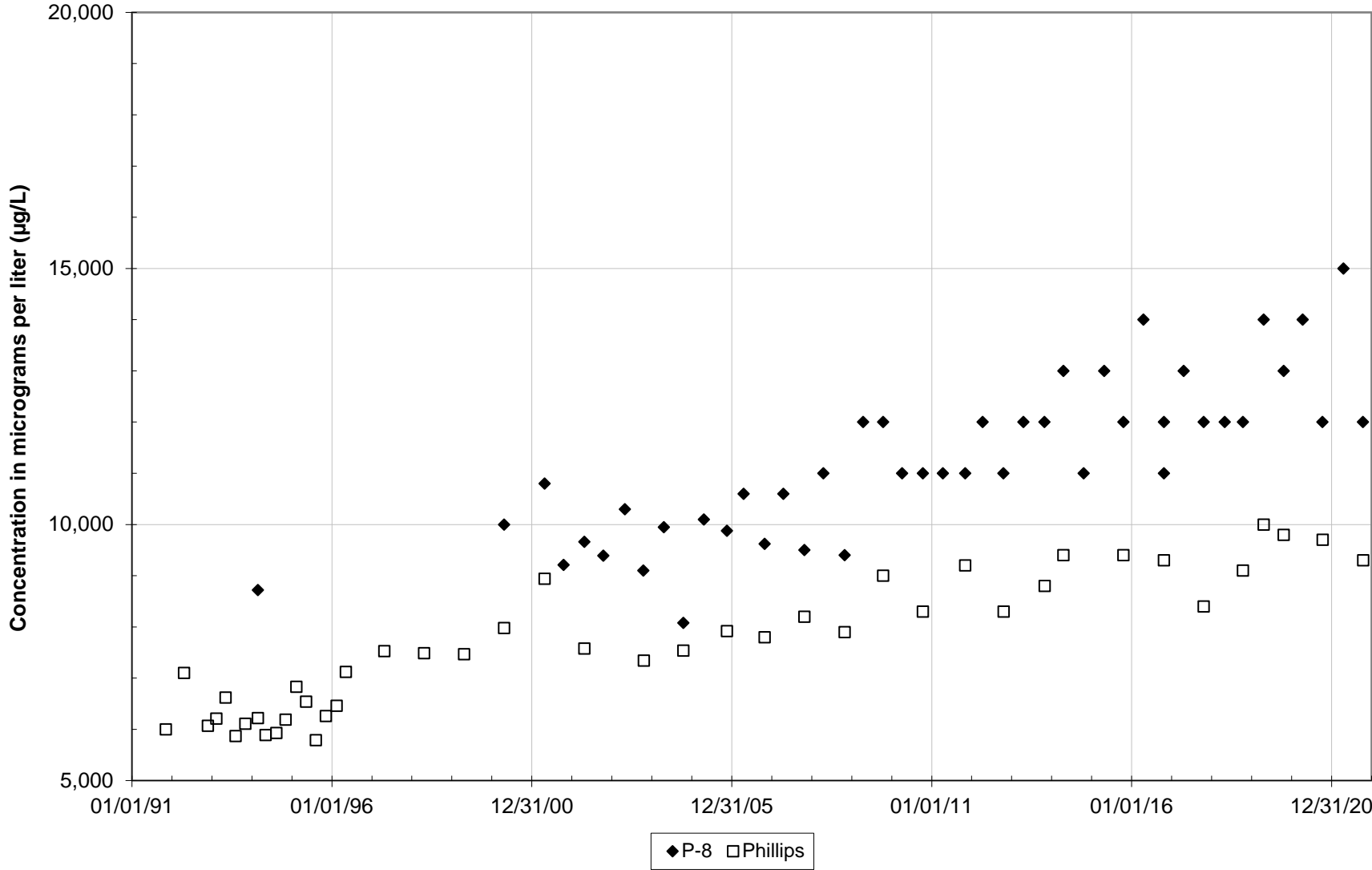
Coffin Butte Landfill P-8 and Phillips: Calcium



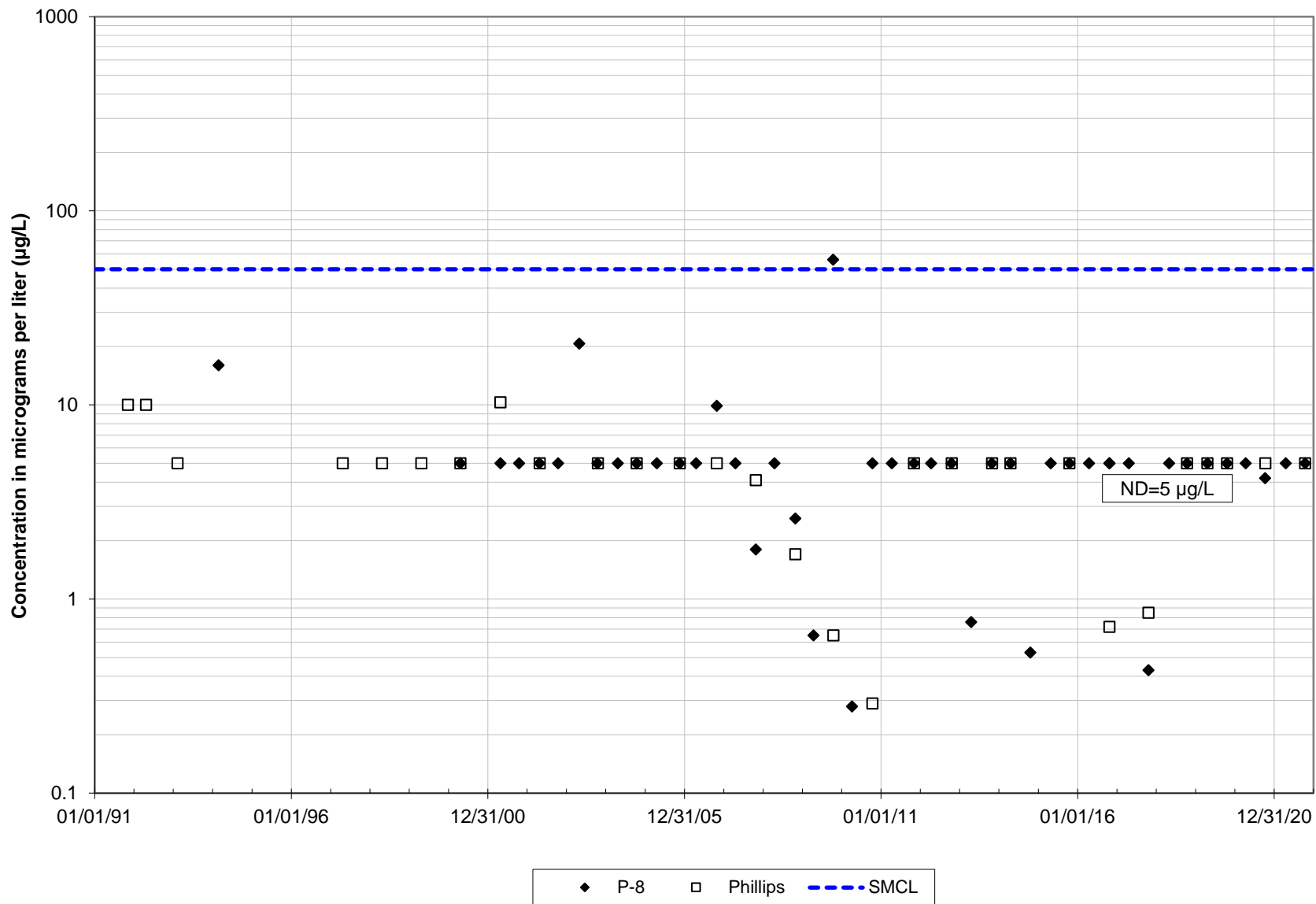
Coffin Butte Landfill P-8 and Phillips: Iron



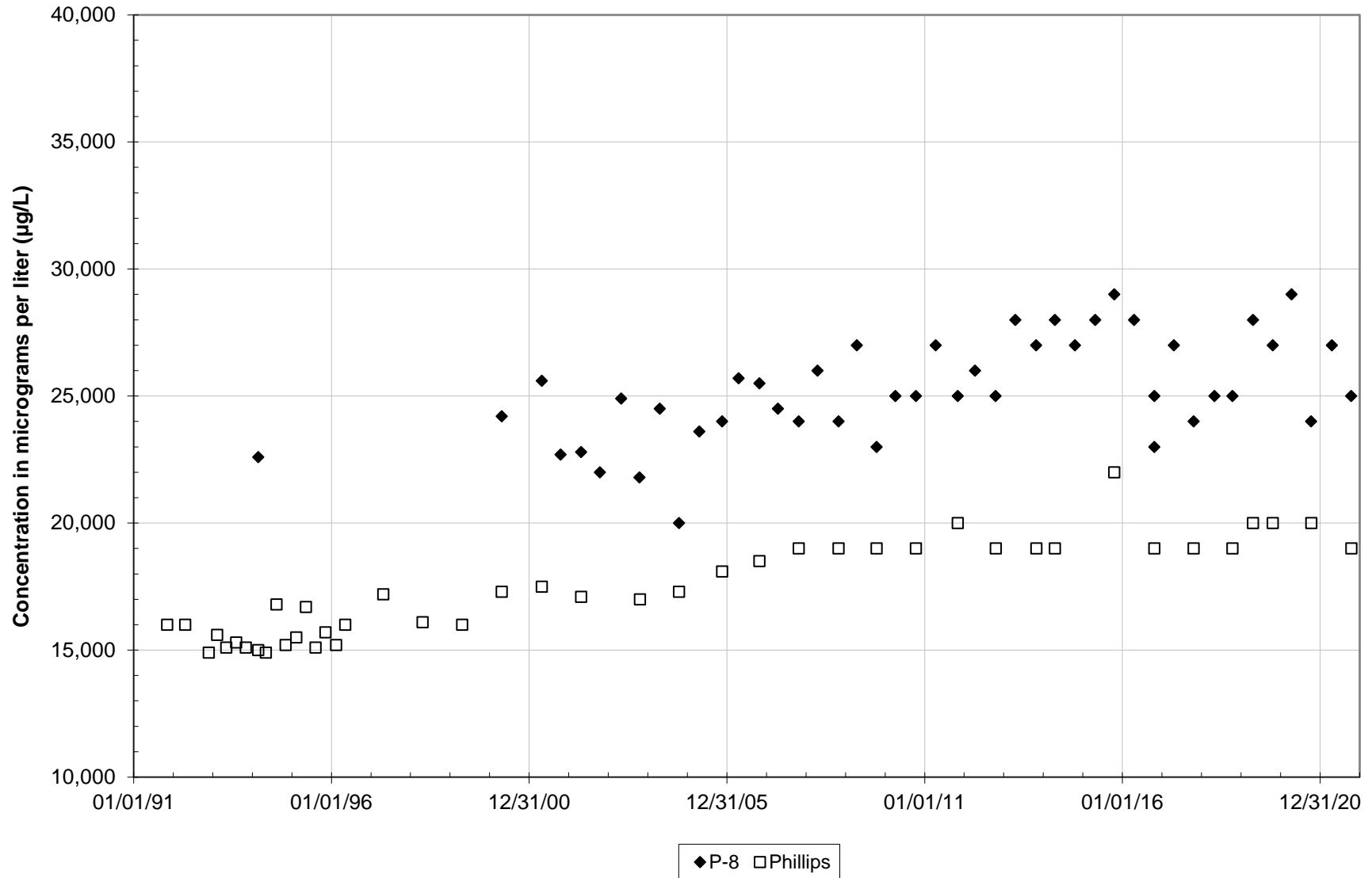
Coffin Butte Landfill
P-8 and Phillips: Magnesium



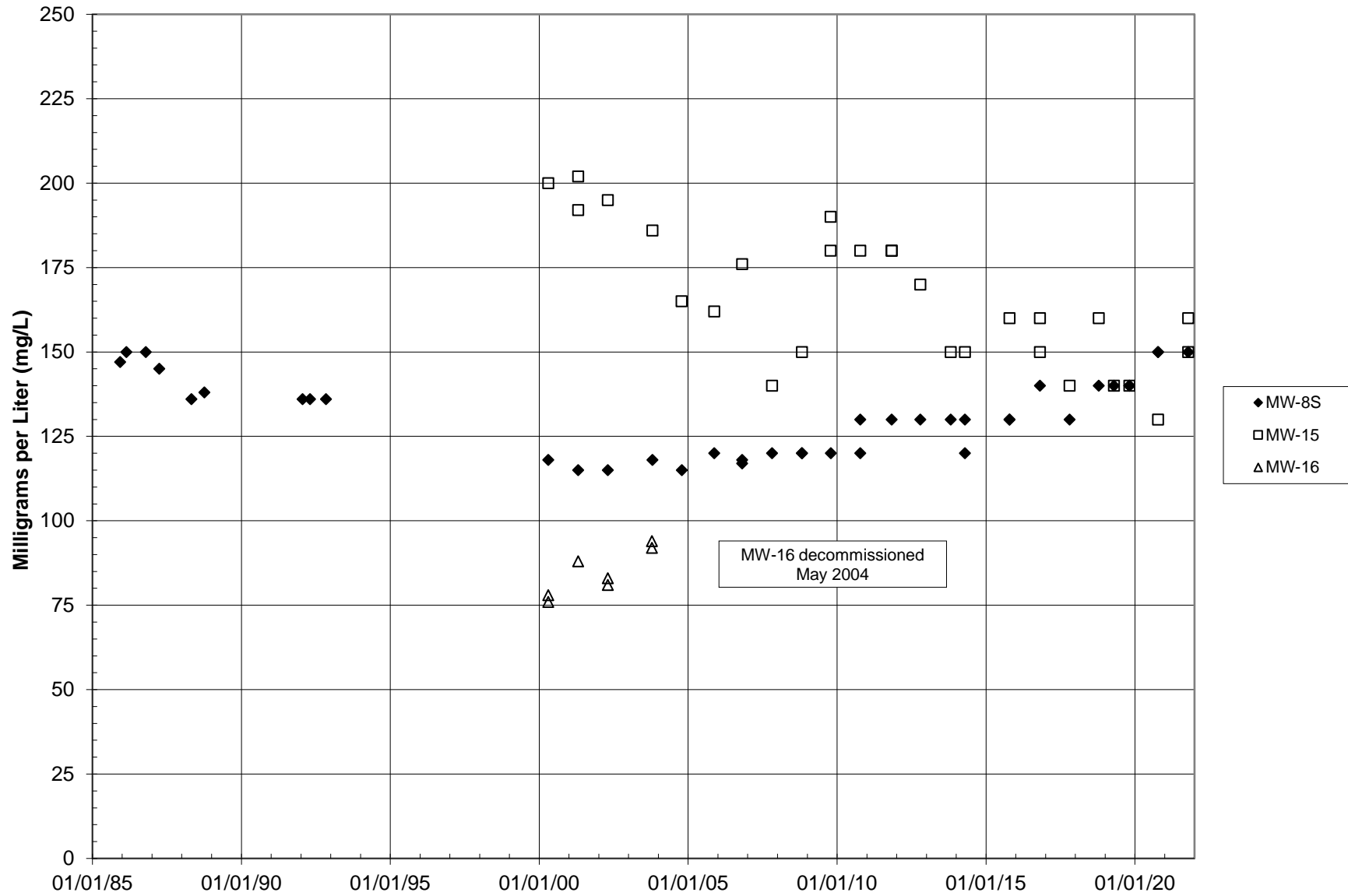
Coffin Butte Landfill P-8 and Phillips: Manganese



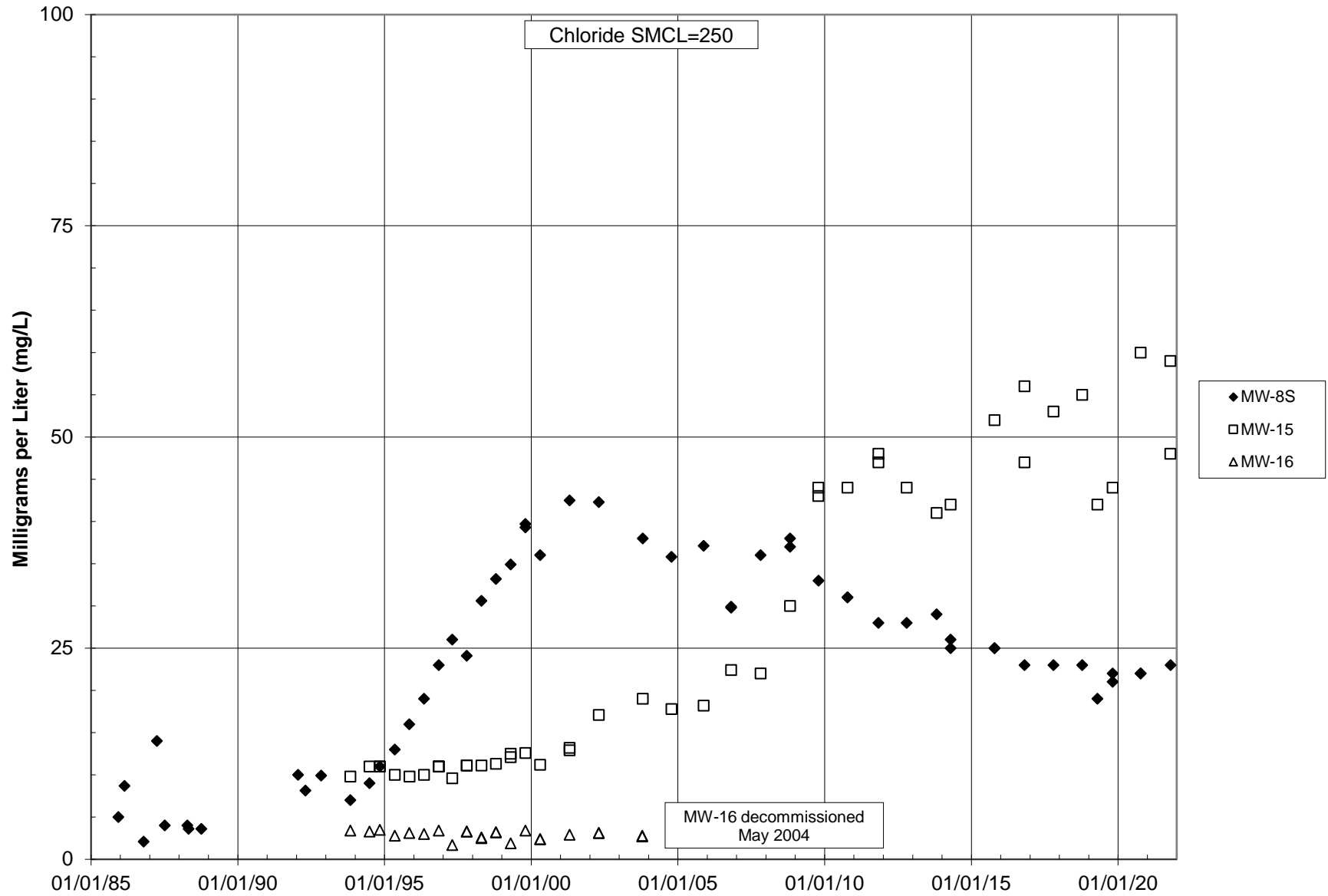
Coffin Butte Landfill P-8 and Phillips: Sodium



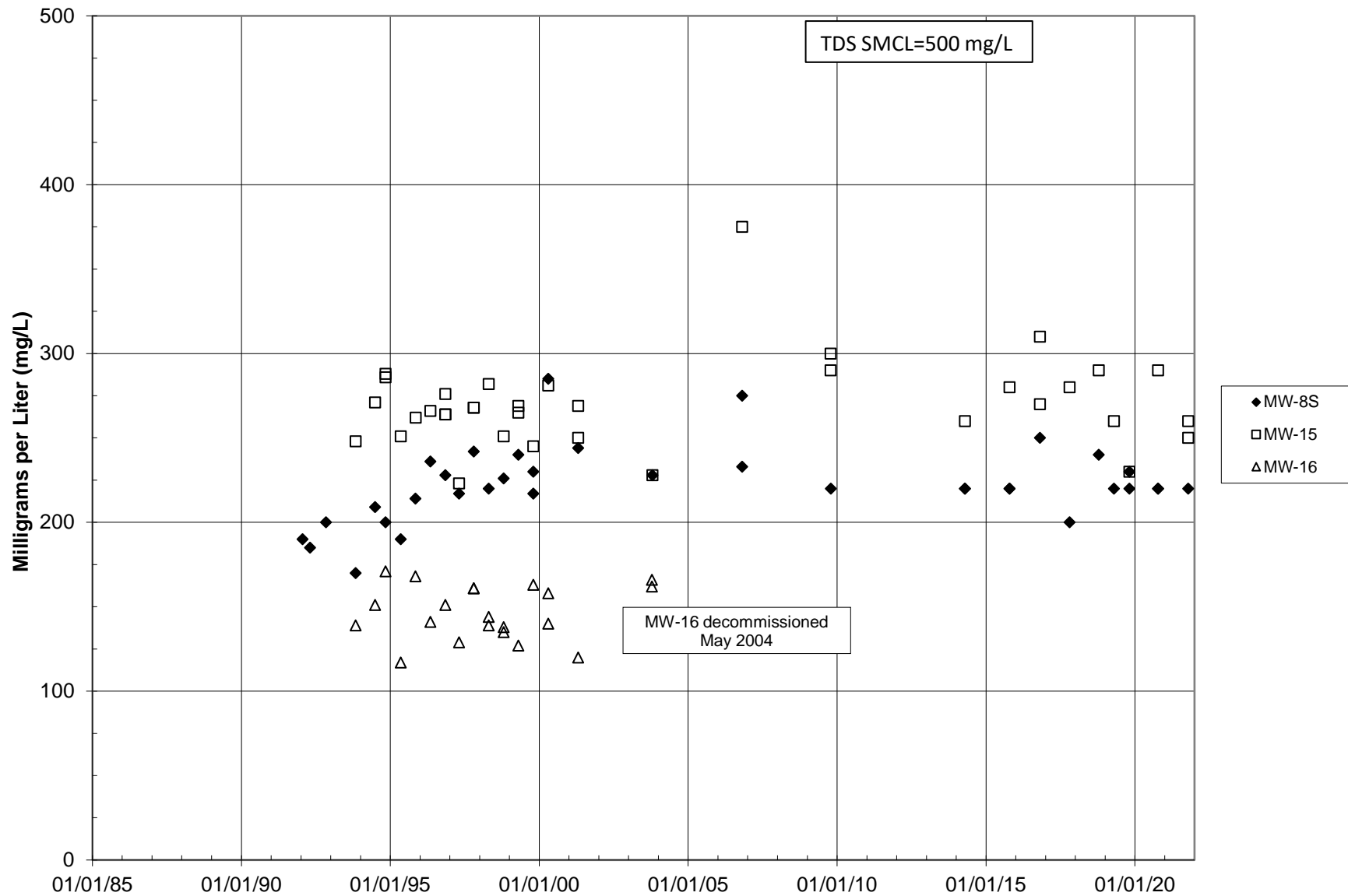
Coffin Butte Landfill MW-8S, MW-15, MW-16 - Bicarbonate Alkalinity



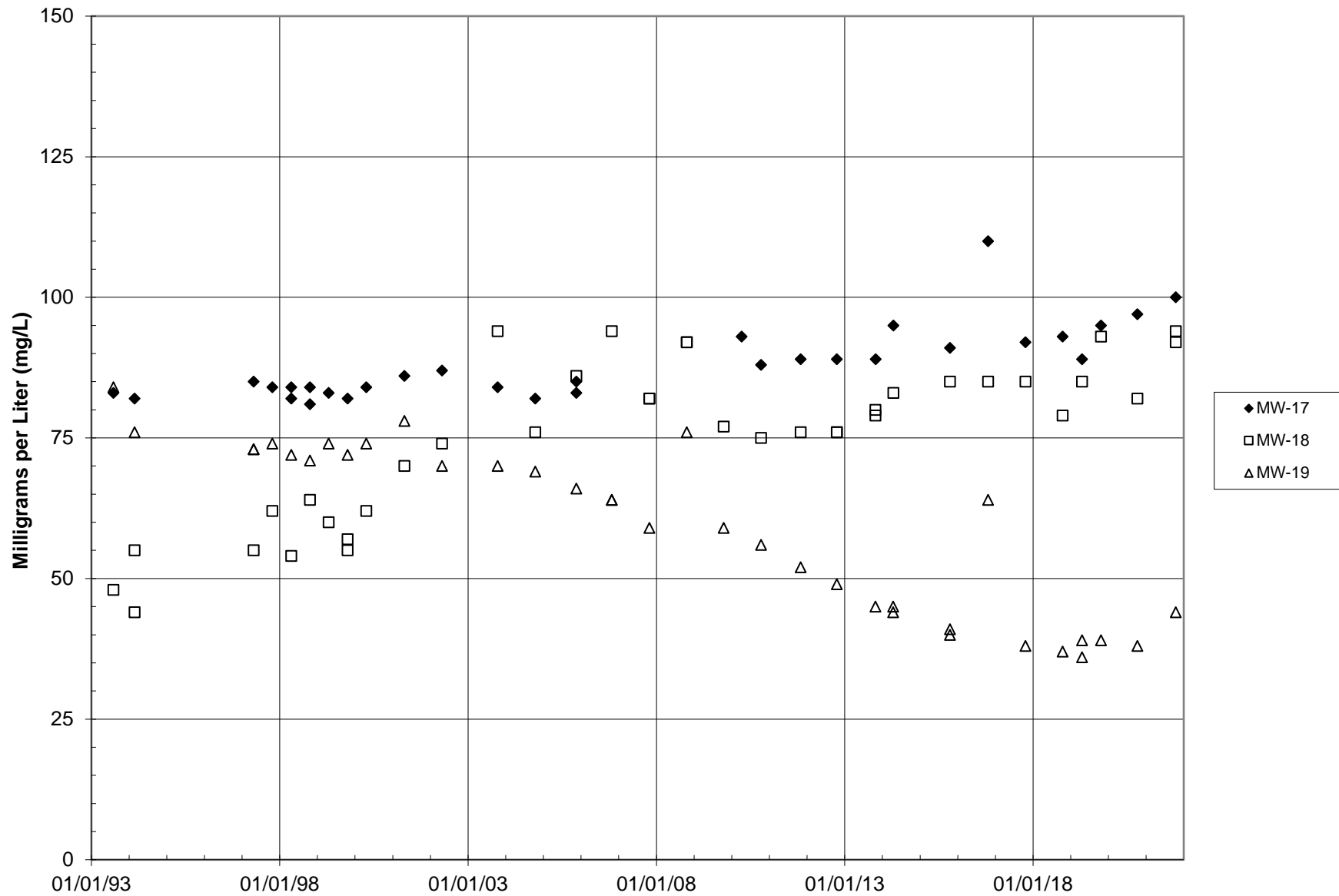
Coffin Butte Landfill MW-8S, MW-15, MW-16 - Chloride



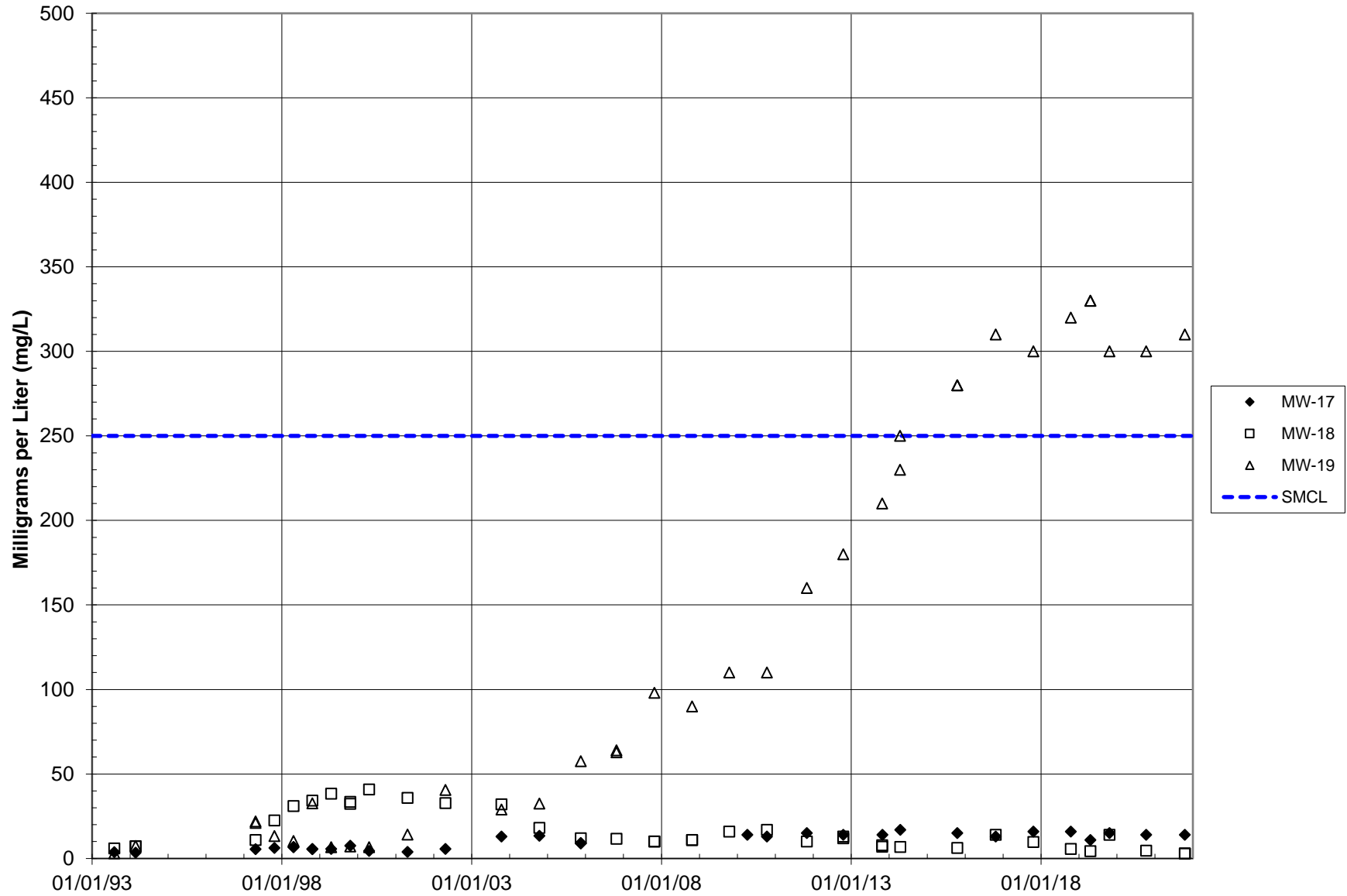
Coffin Butte Landfill MW-8S, MW-15, MW-16 - TDS



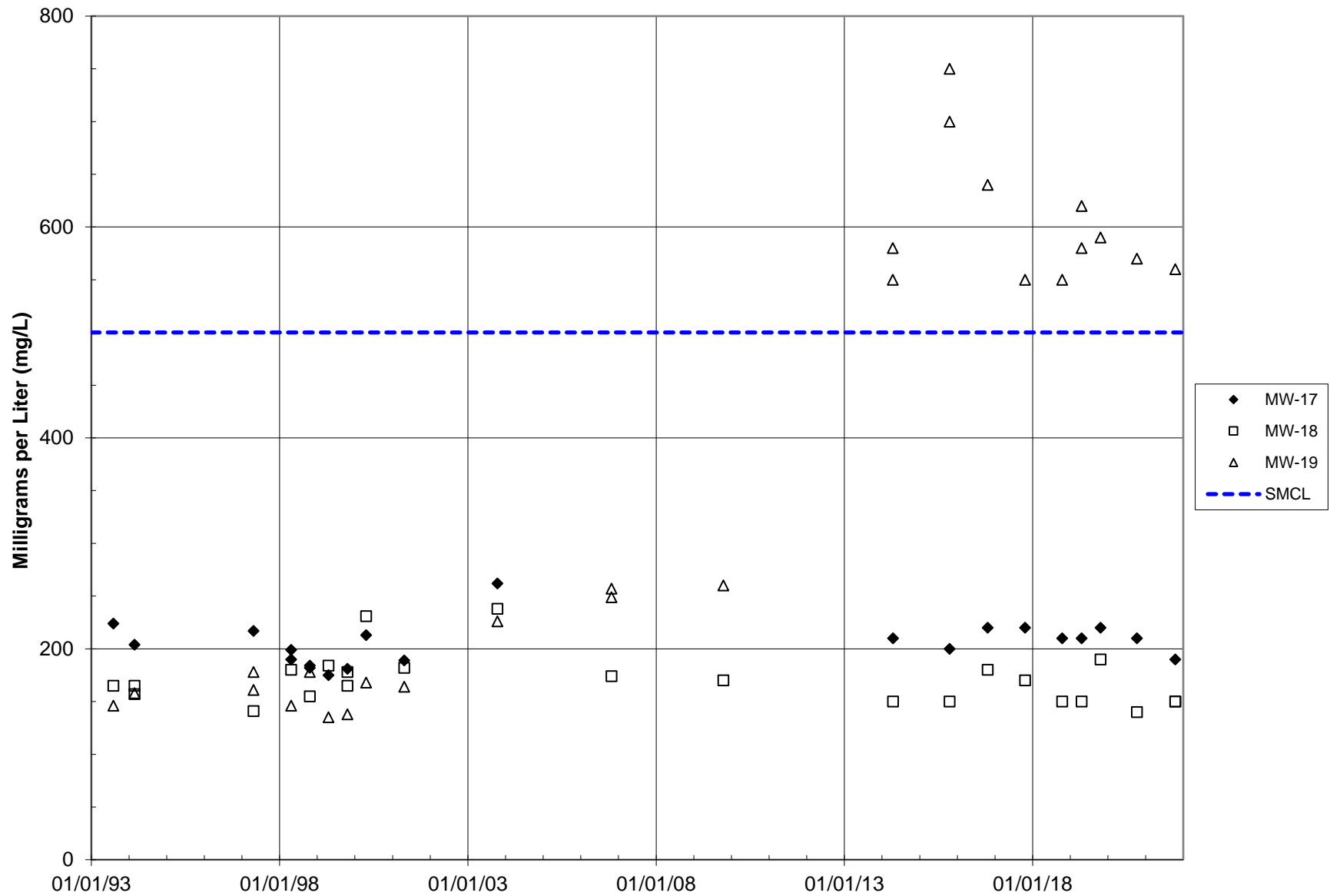
**Coffin Butte Landfill
Detection Wells MW-17, MW-18, MW-19
Bicarbonate Alkalinity**



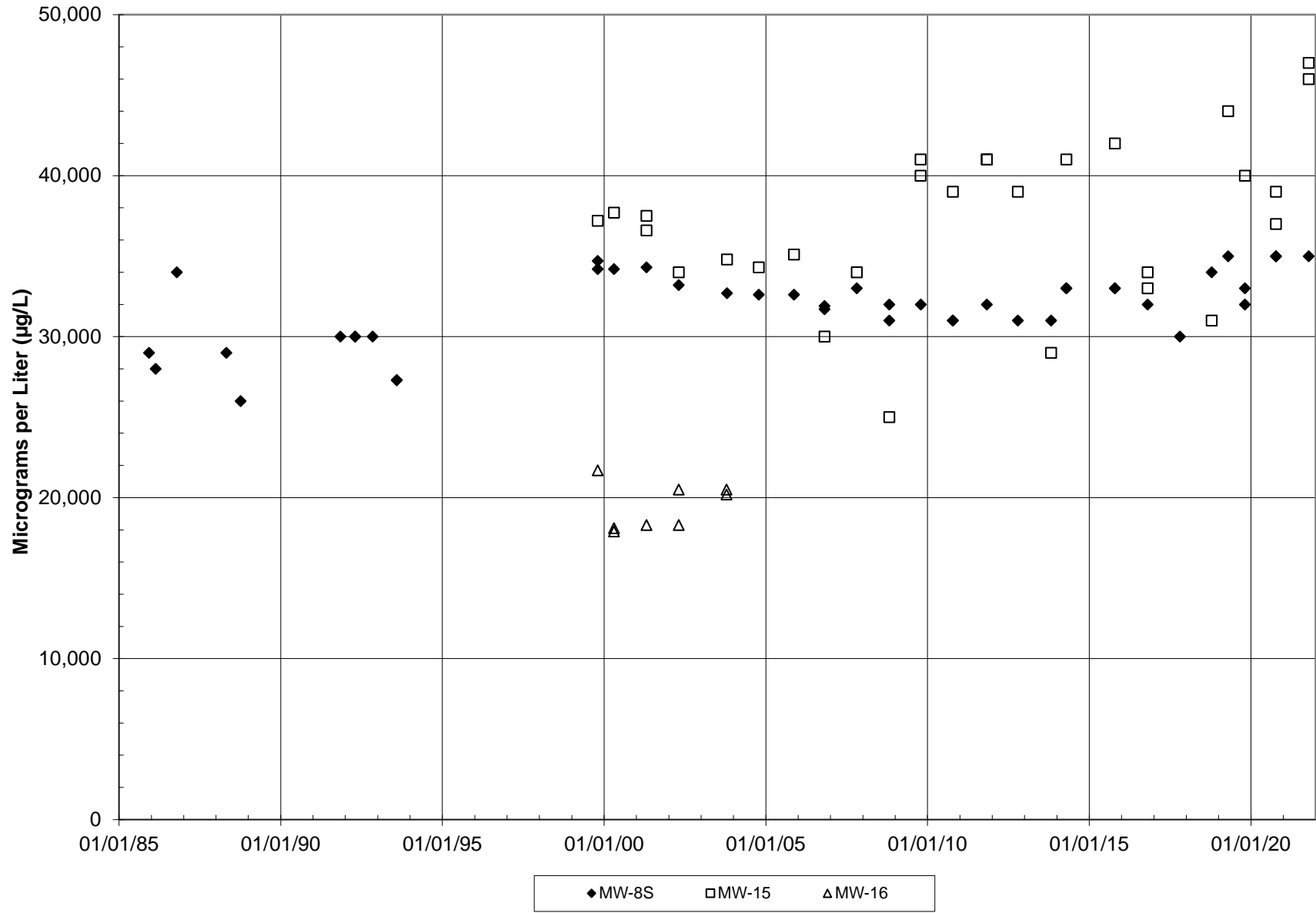
**Coffin Butte Landfill
Detection Wells MW-17, MW-18, MW-19
Chloride**



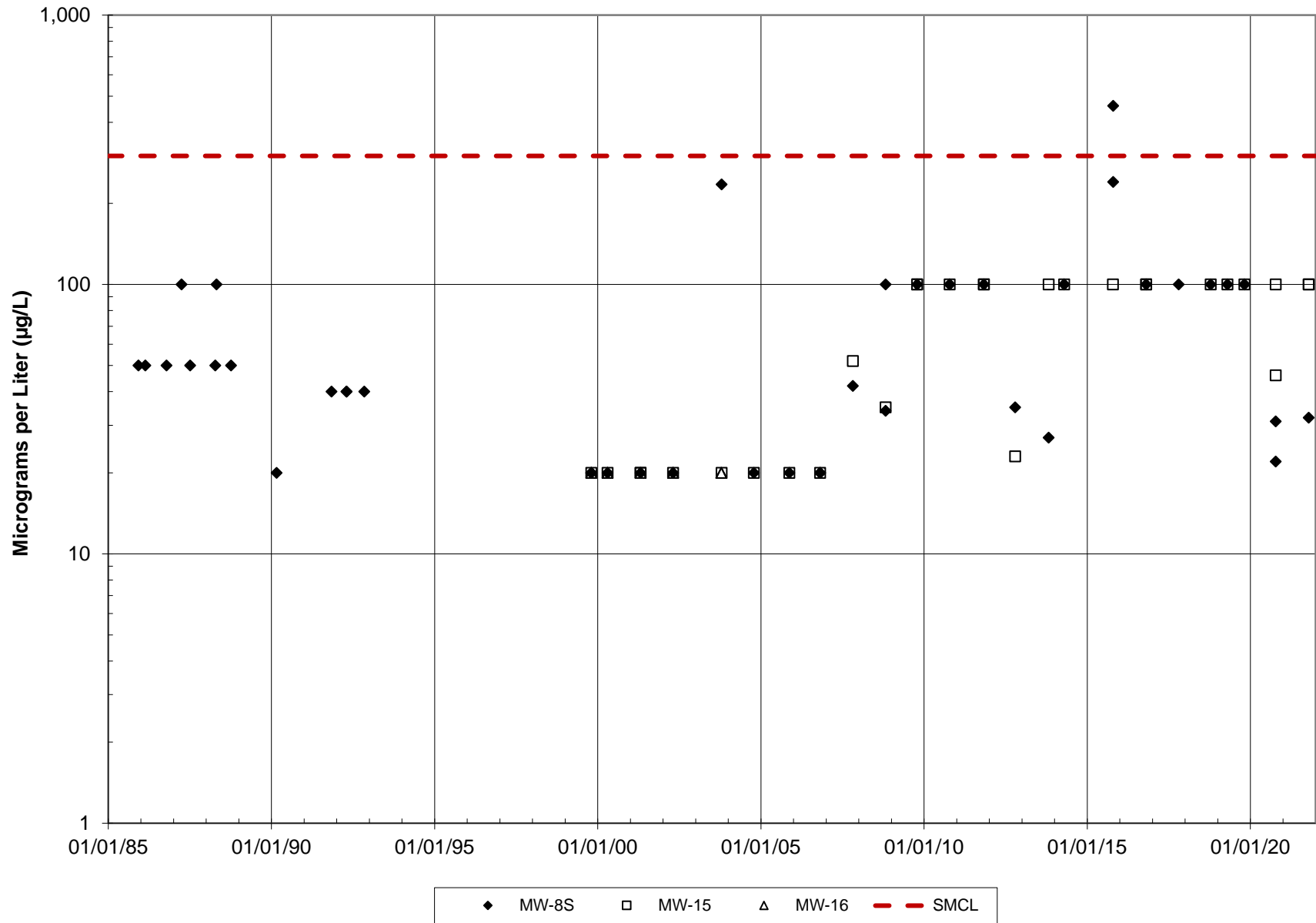
Coffin Butte Landfill
Detection Wells MW-17, MW-18, MW-19
TDS



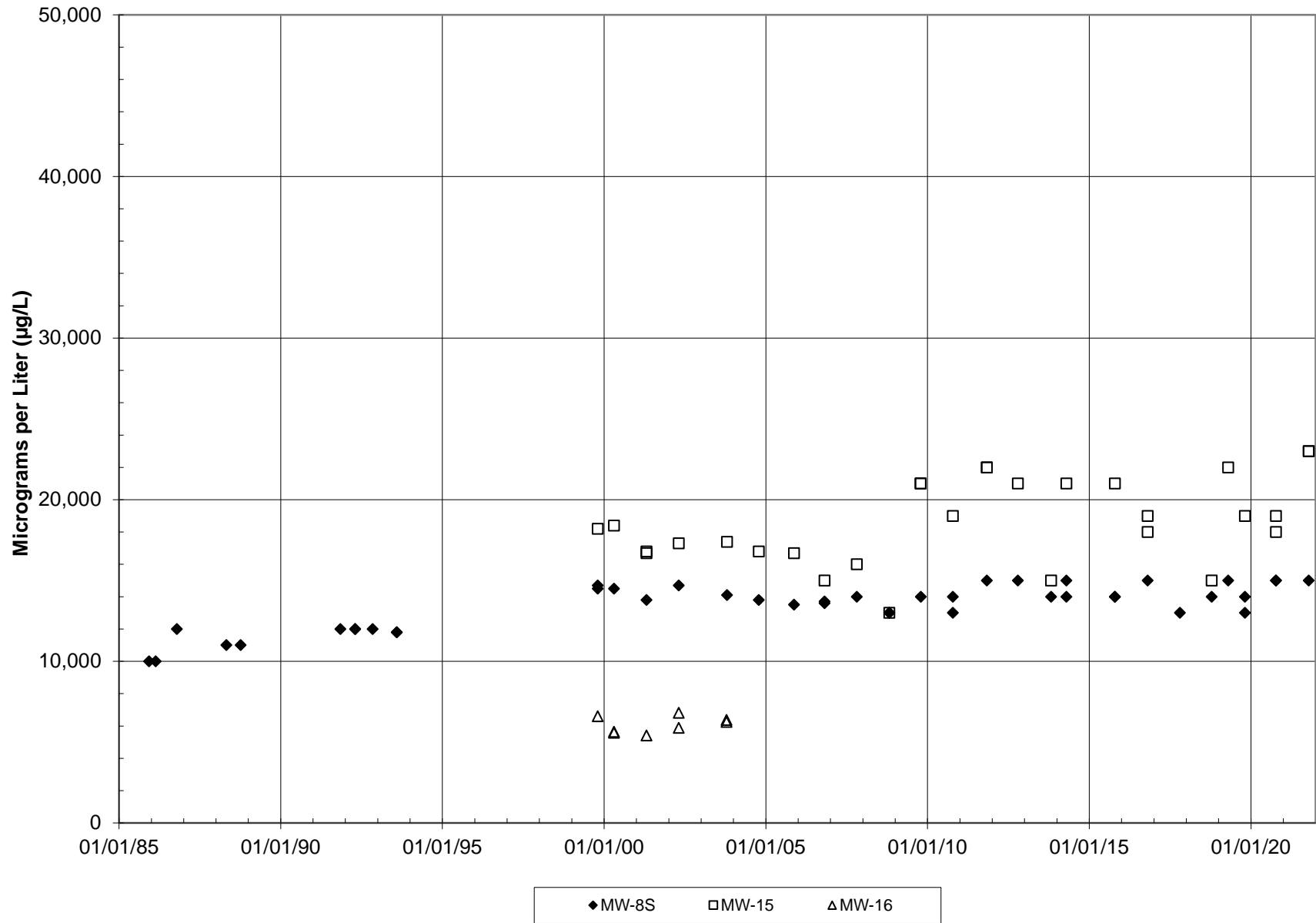
Coffin Butte Landfill
MW-8S, MW-15, MW-16 - Calcium



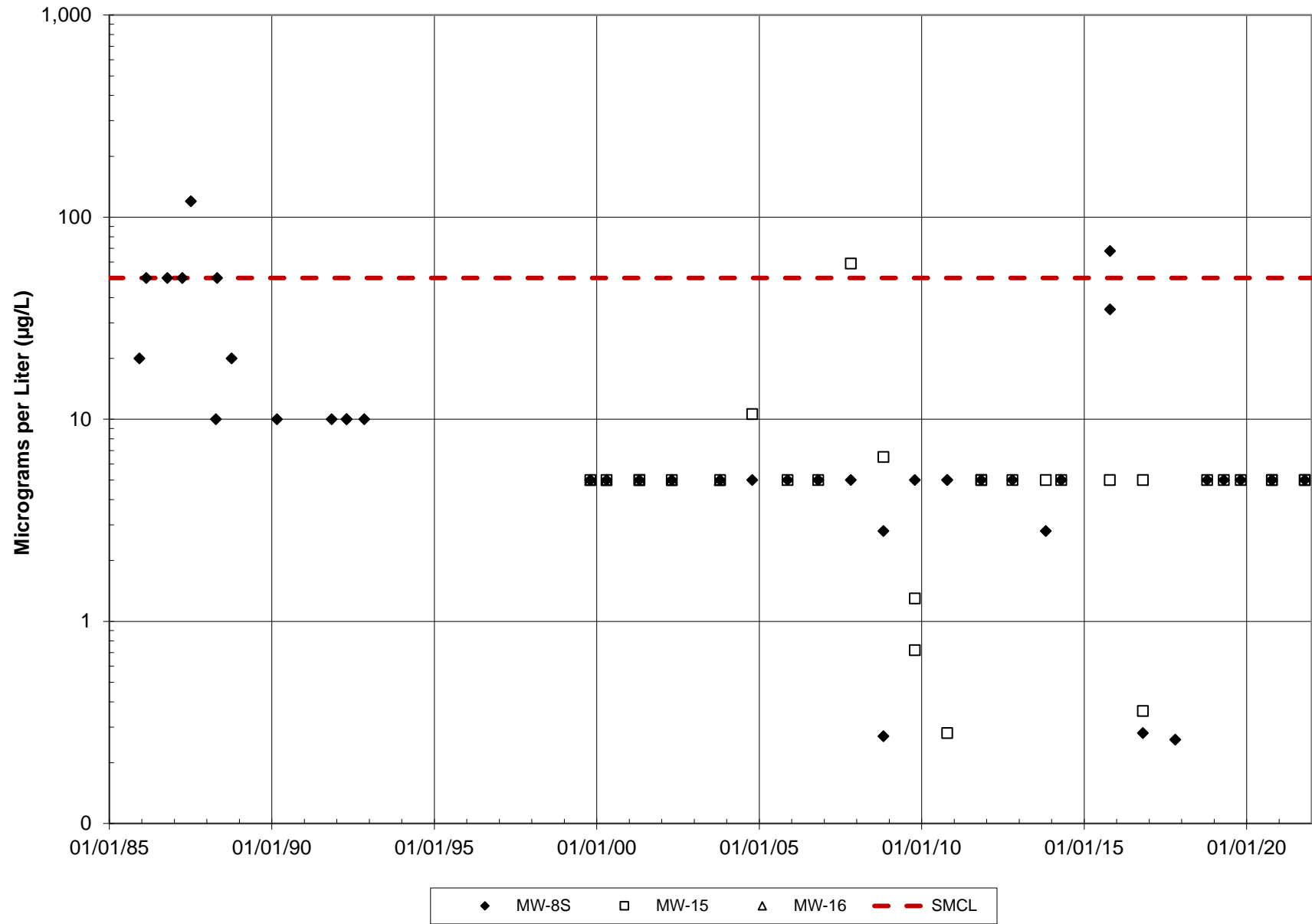
Coffin Butte Landfill MW-8S, MW-15, MW-16 - Iron



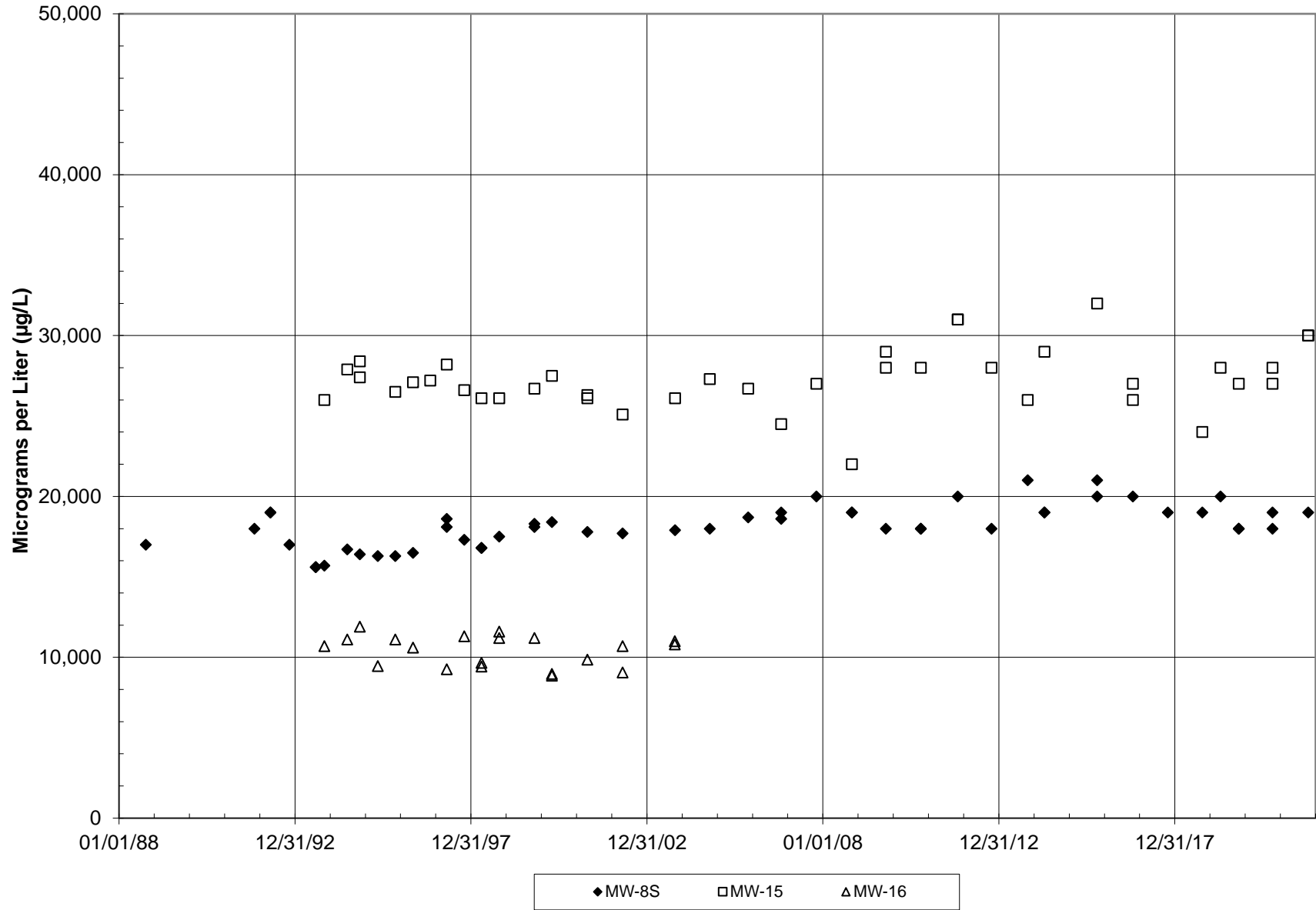
Coffin Butte Landfill
MW-8S, MW-15, MW-16 - Magnesium



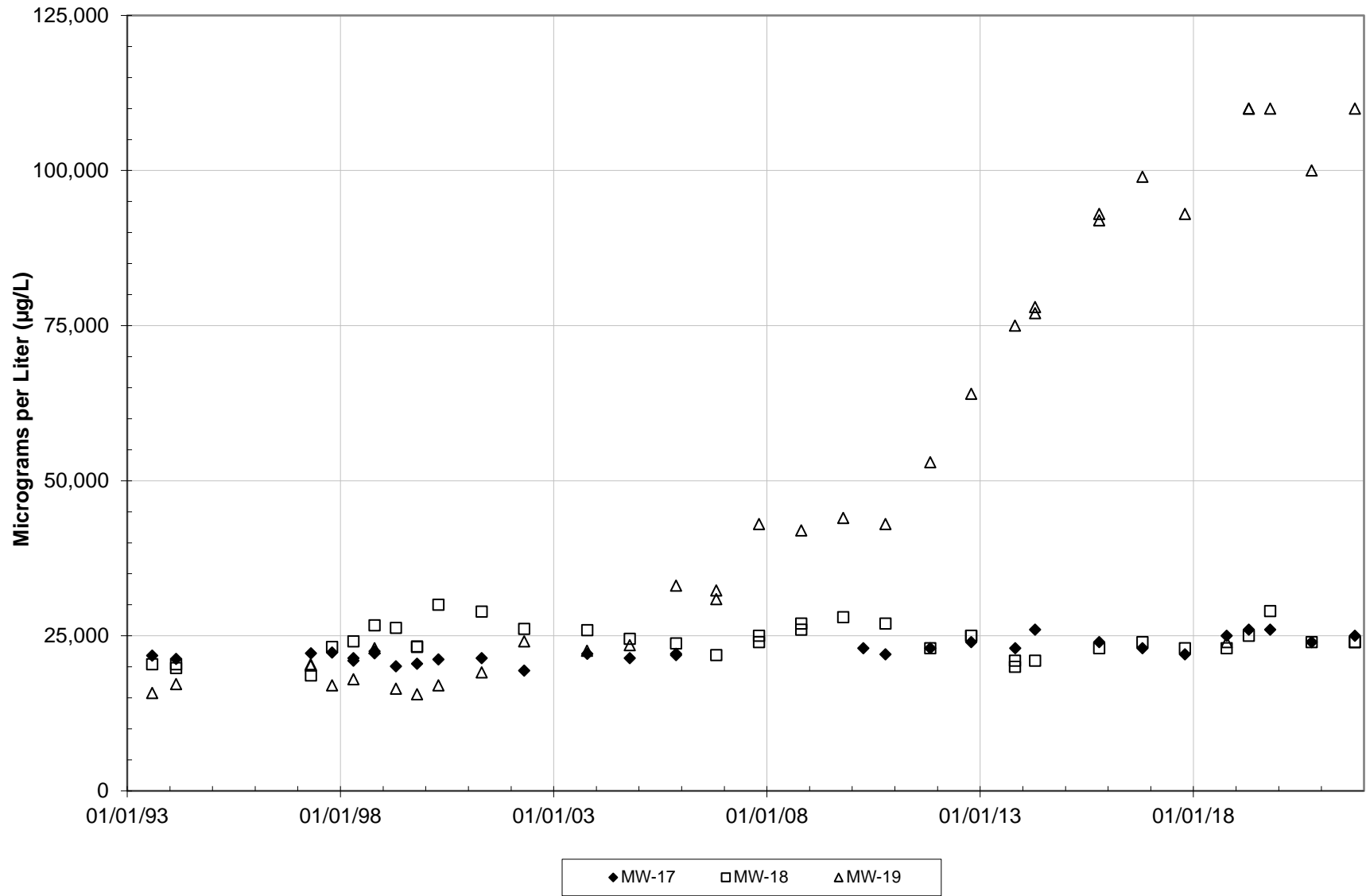
Coffin Butte Landfill MW-8S, MW-15, MW-16 - Manganese



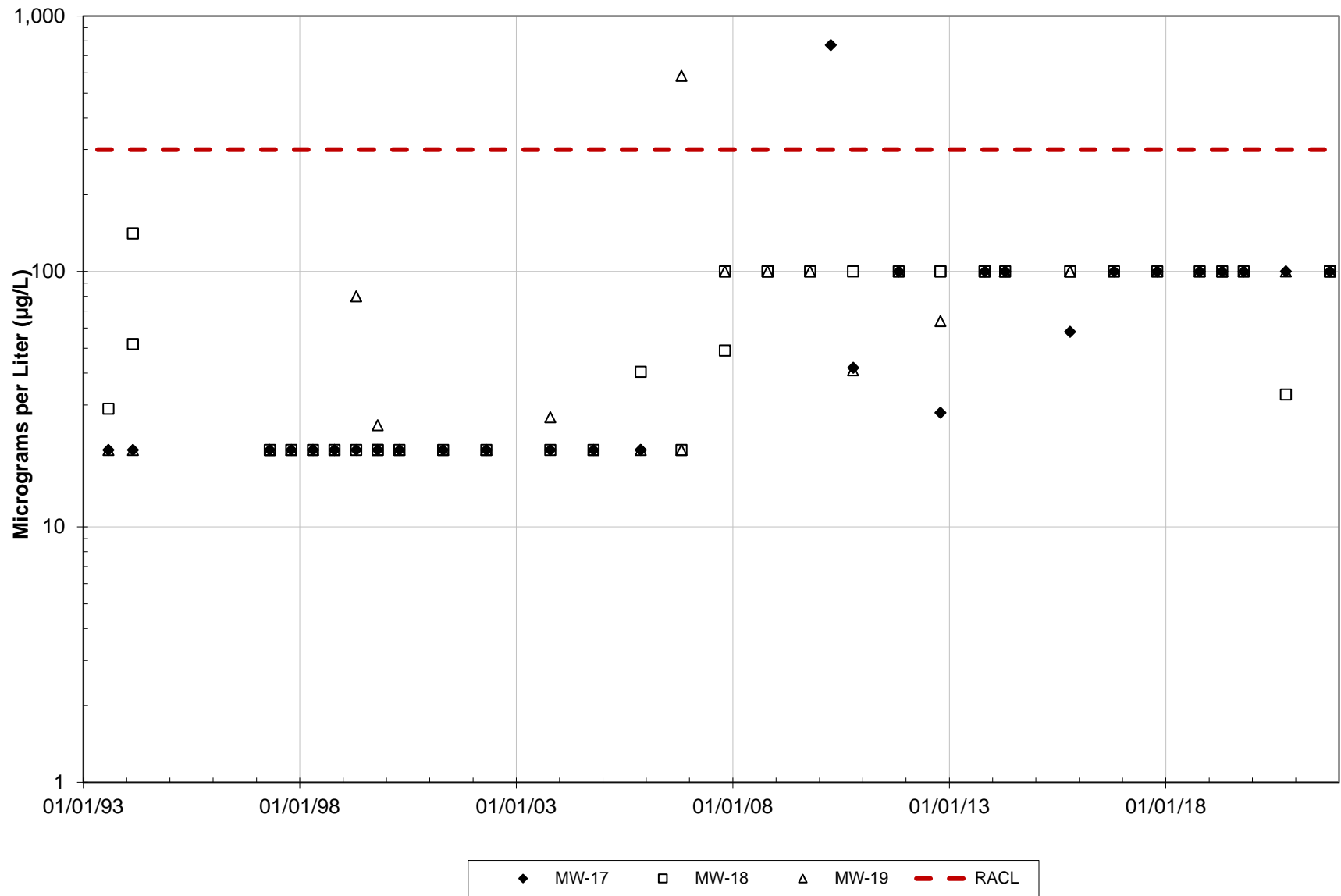
Coffin Butte Landfill
MW-8S, MW-15, MW-16 - Sodium



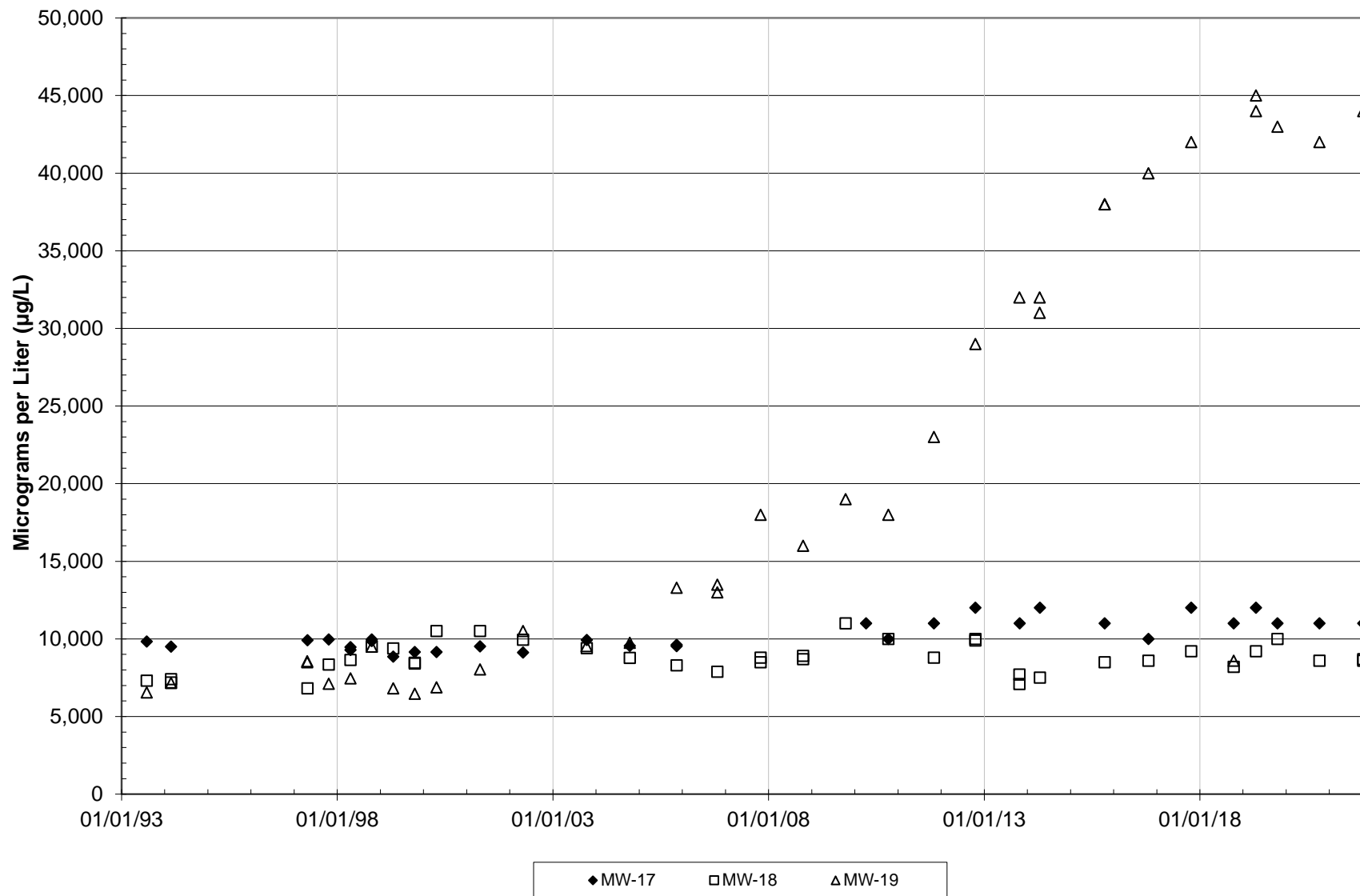
**Coffin Butte Landfill
Detection Wells MW-17, MW-18, MW-19
Calcium**



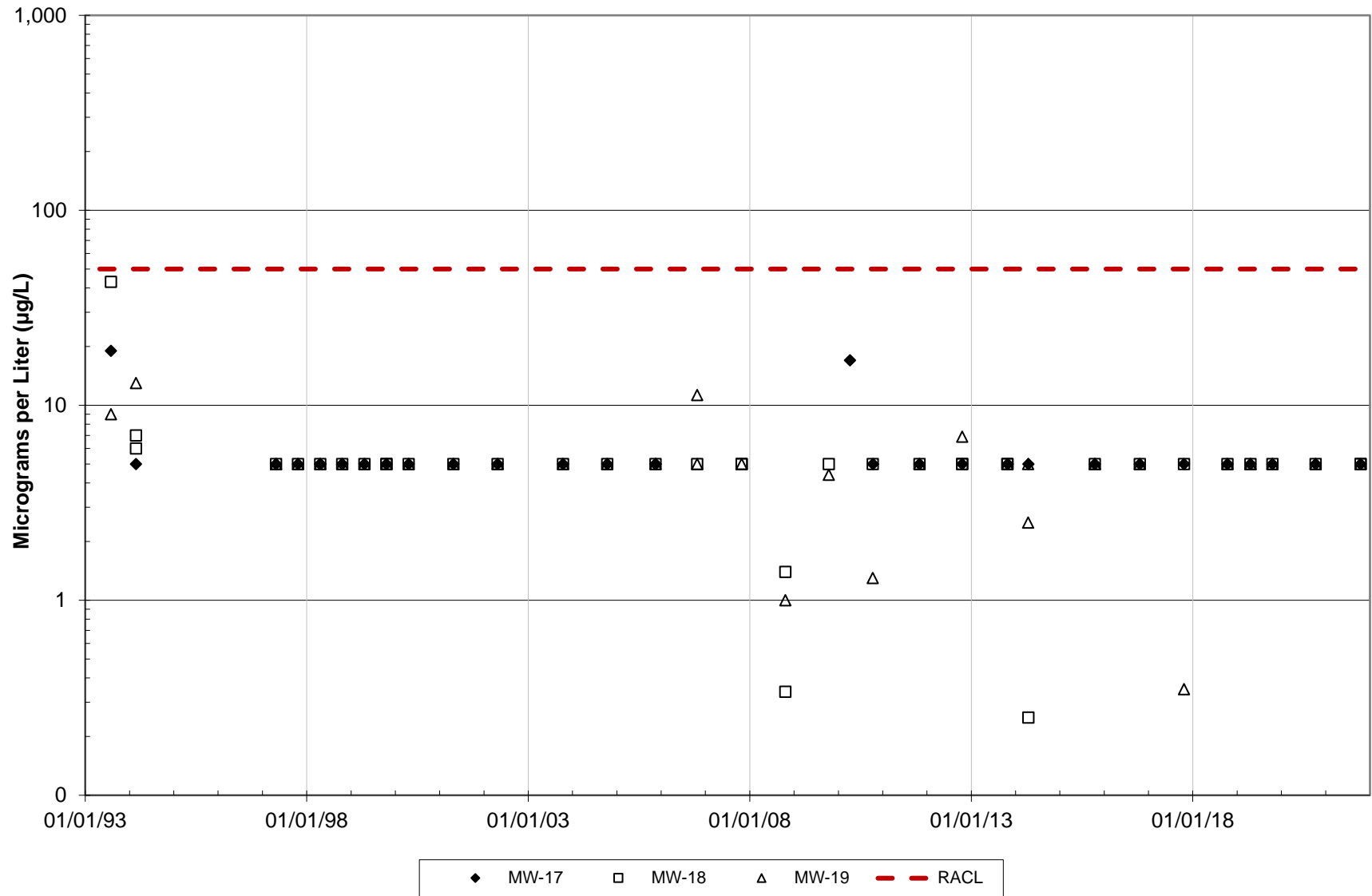
**Coffin Butte Landfill
Detection Wells MW-17, MW-18, MW-19
Iron**



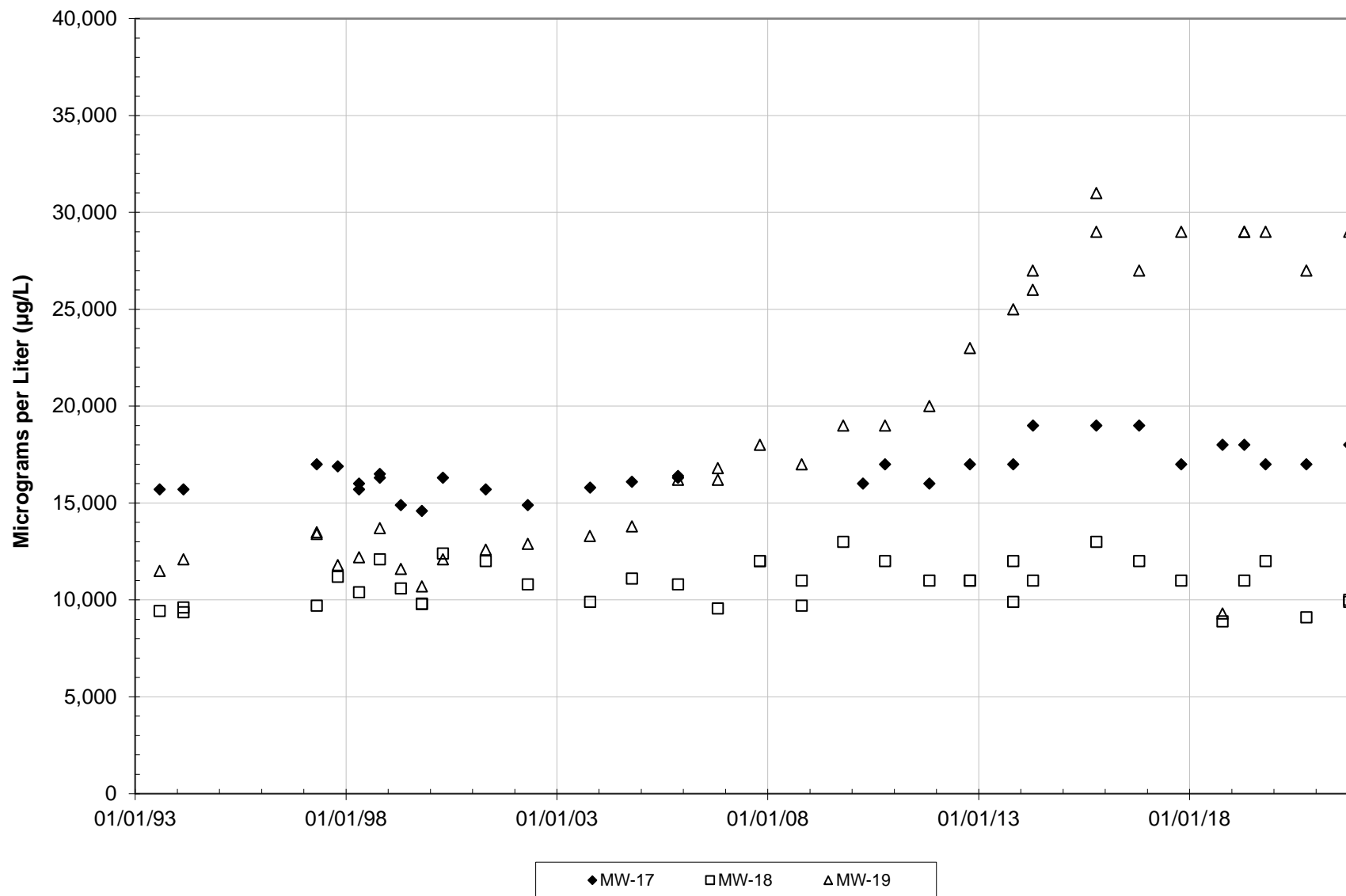
Coffin Butte Landfill
Detection Wells MW-17, MW-18, MW-19
Magnesium



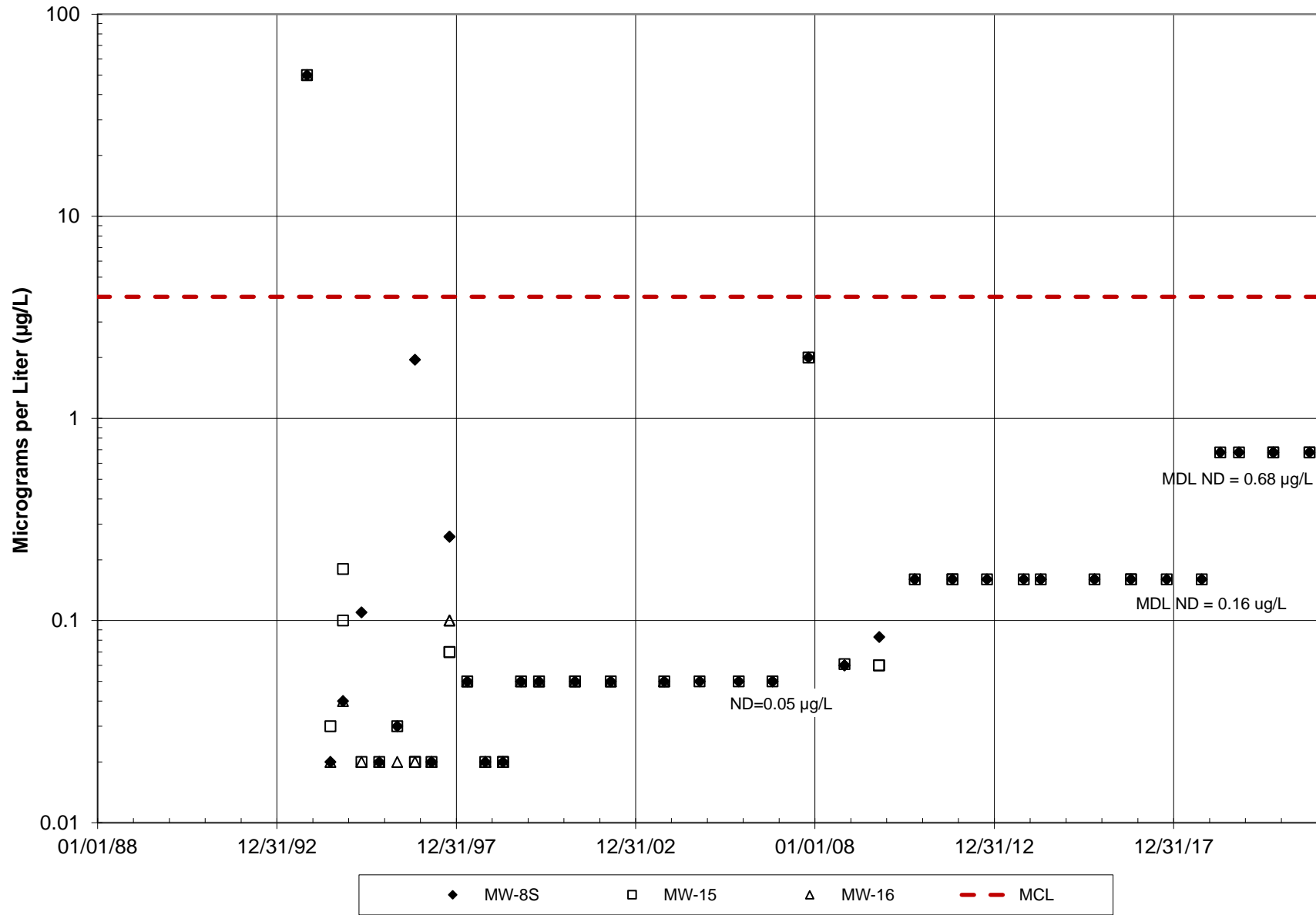
Coffin Butte Landfill
Detection Wells MW-17, MW-18, MW-19
Manganese



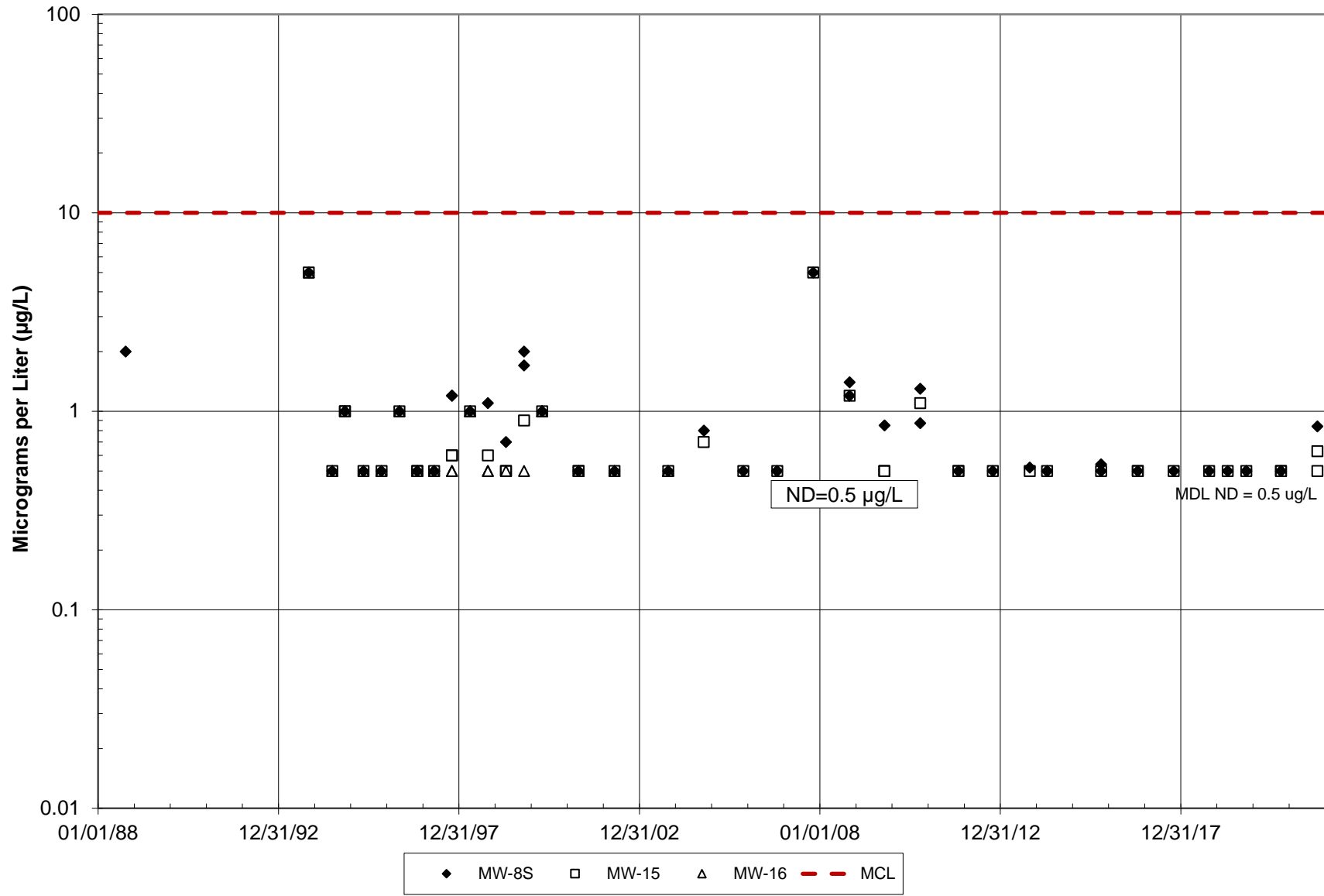
Coffin Butte Landfill
Detection Wells MW-17, MW-18, MW-19
Sodium



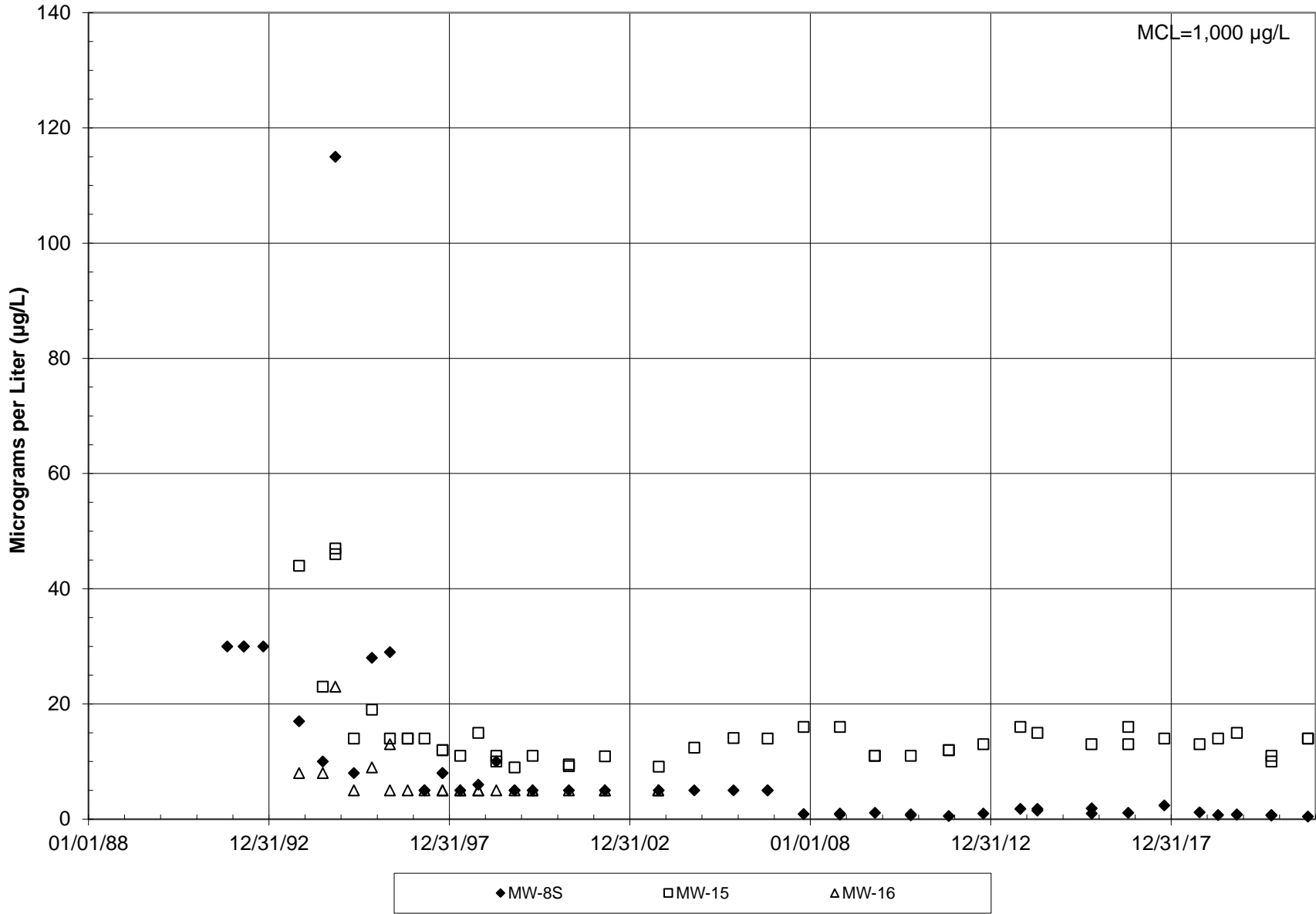
**Coffin Butte Landfill
MW-8S, MW-15, MW-16 - Antimony**



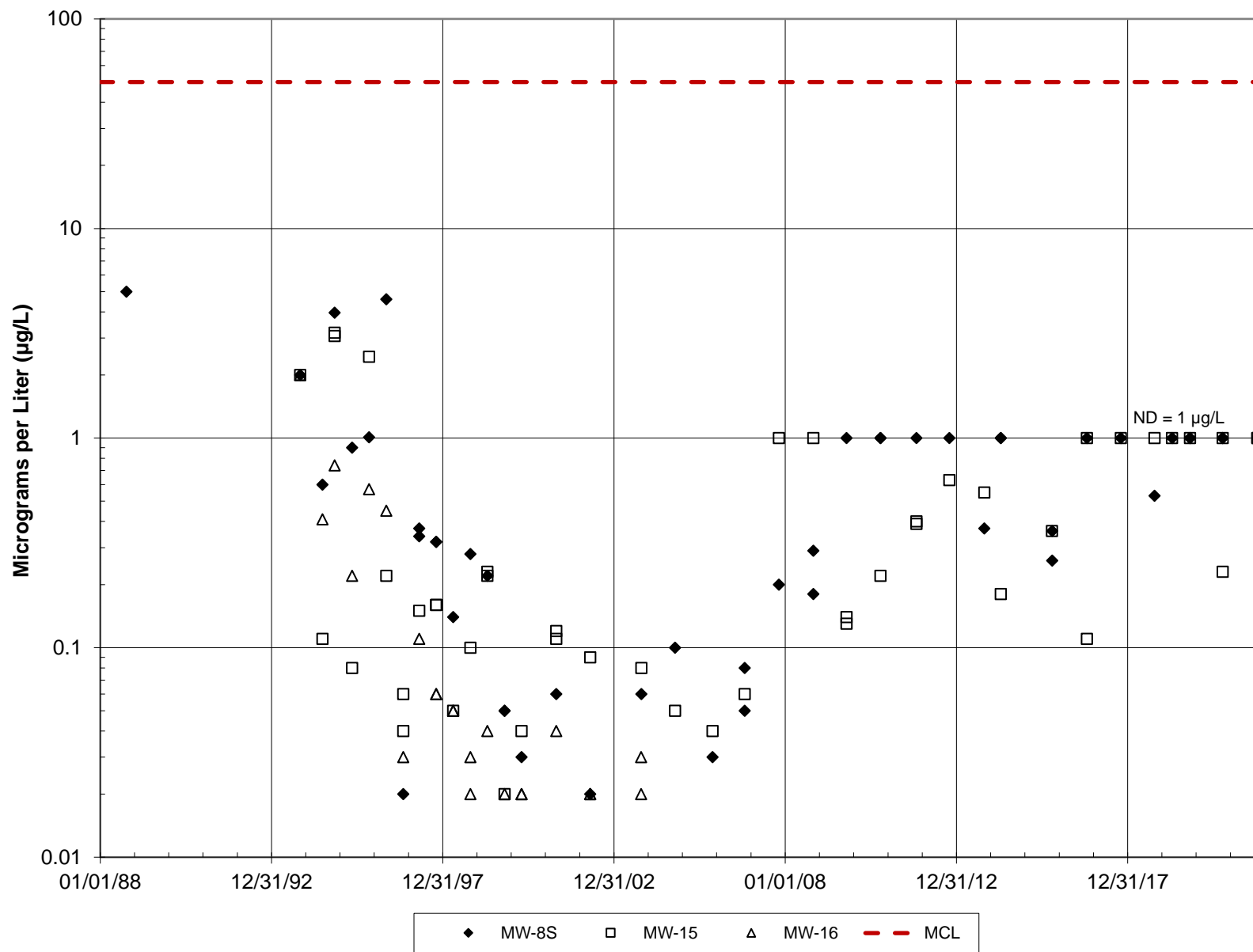
**Coffin Butte Landfill
MW-8S, MW-15, MW-16 - Arsenic**



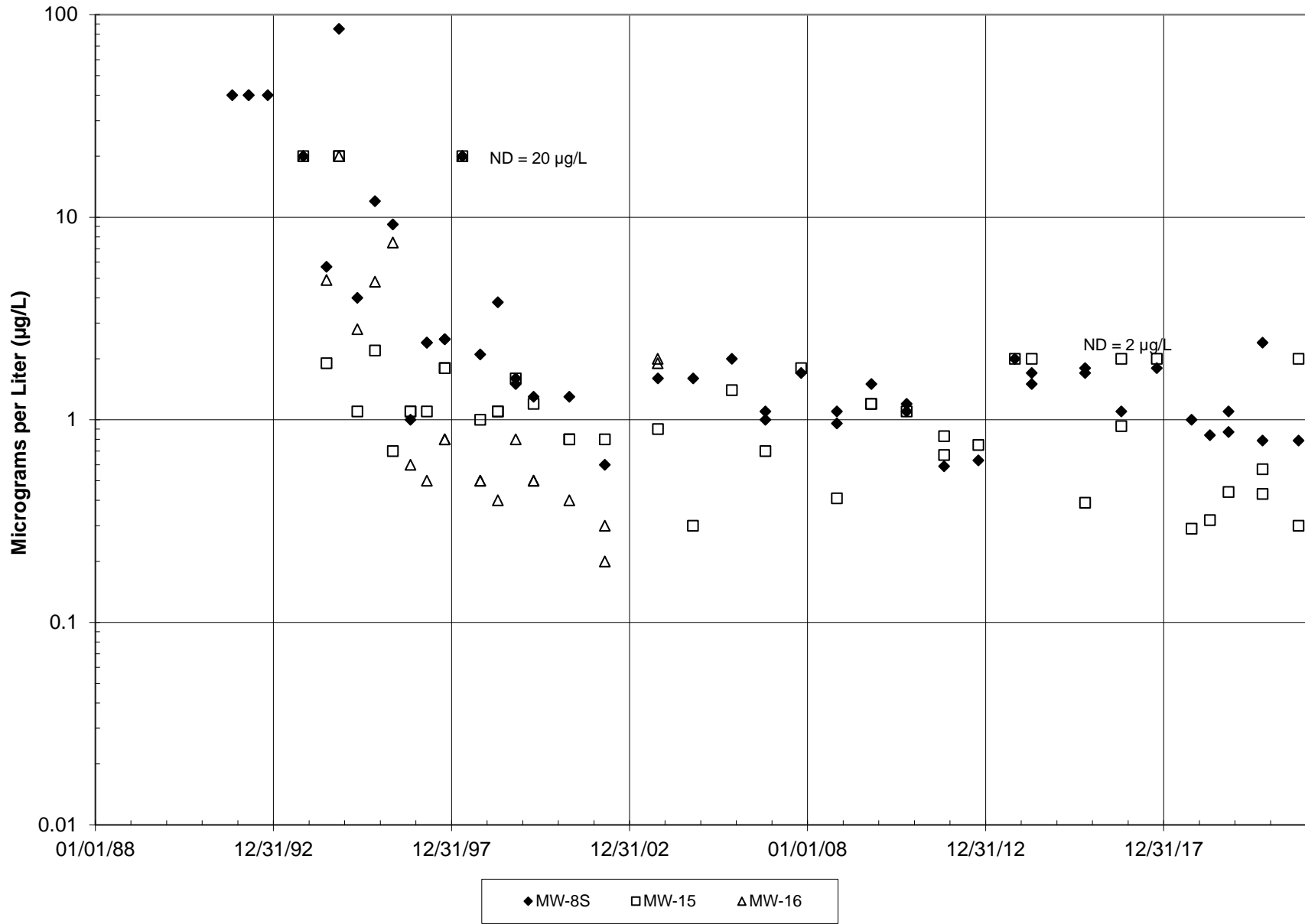
Coffin Butte Landfill
MW-8S, MW-15, MW-16 - Barium



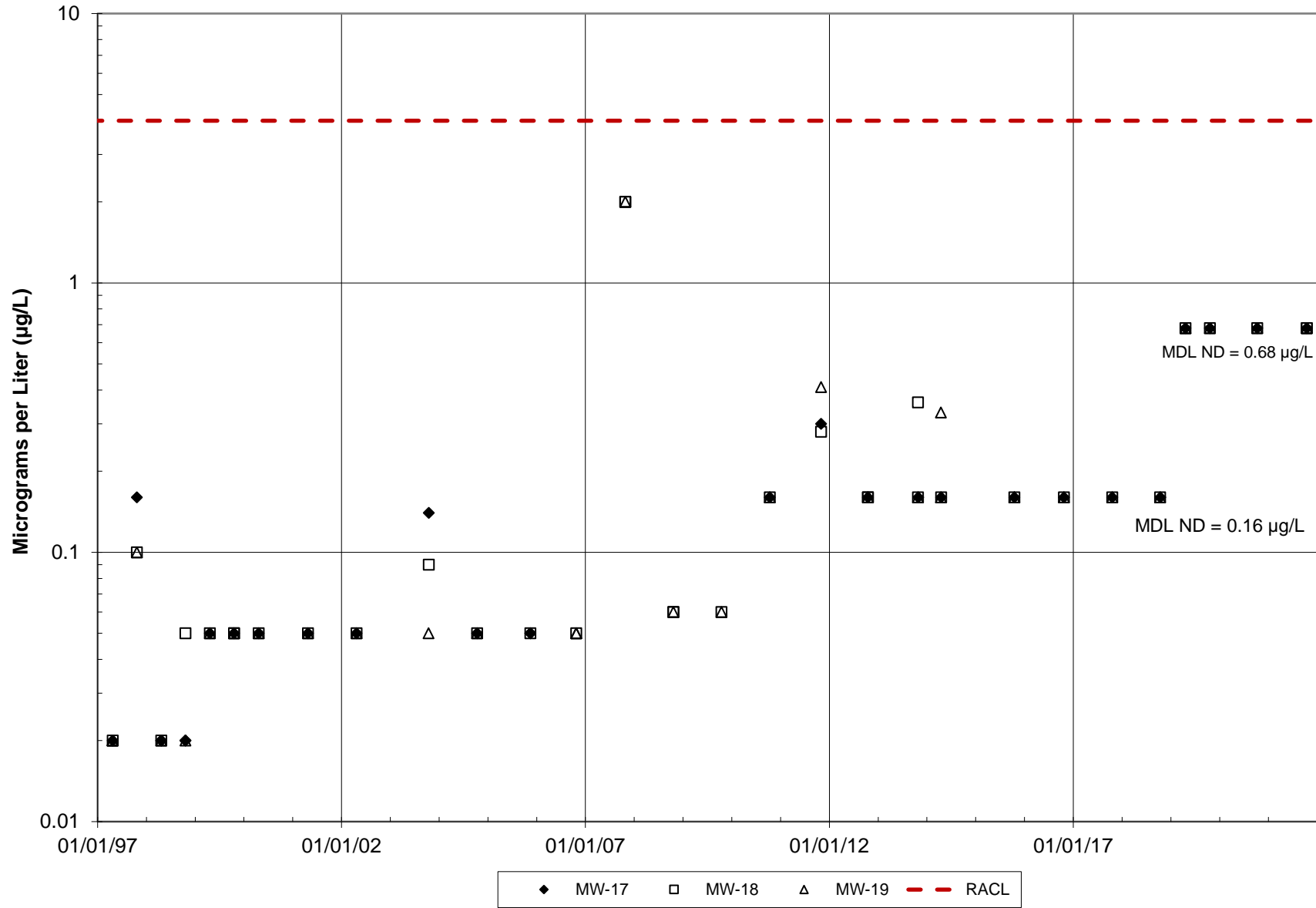
Coffin Butte Landfill MW-8S, MW-15, MW-16 - Lead



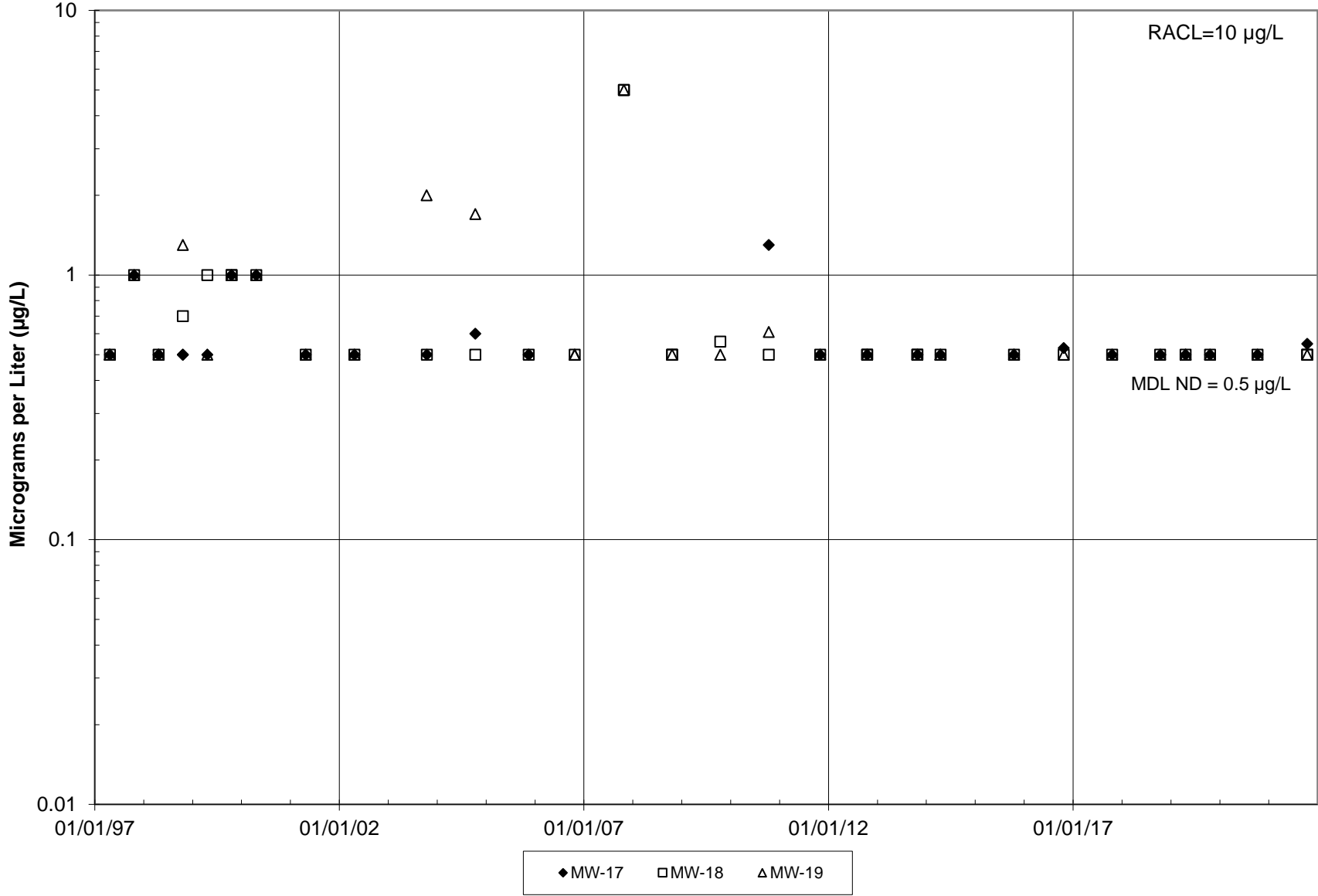
Coffin Butte Landfill
MW-8S, MW-15, MW-16 - Nickel



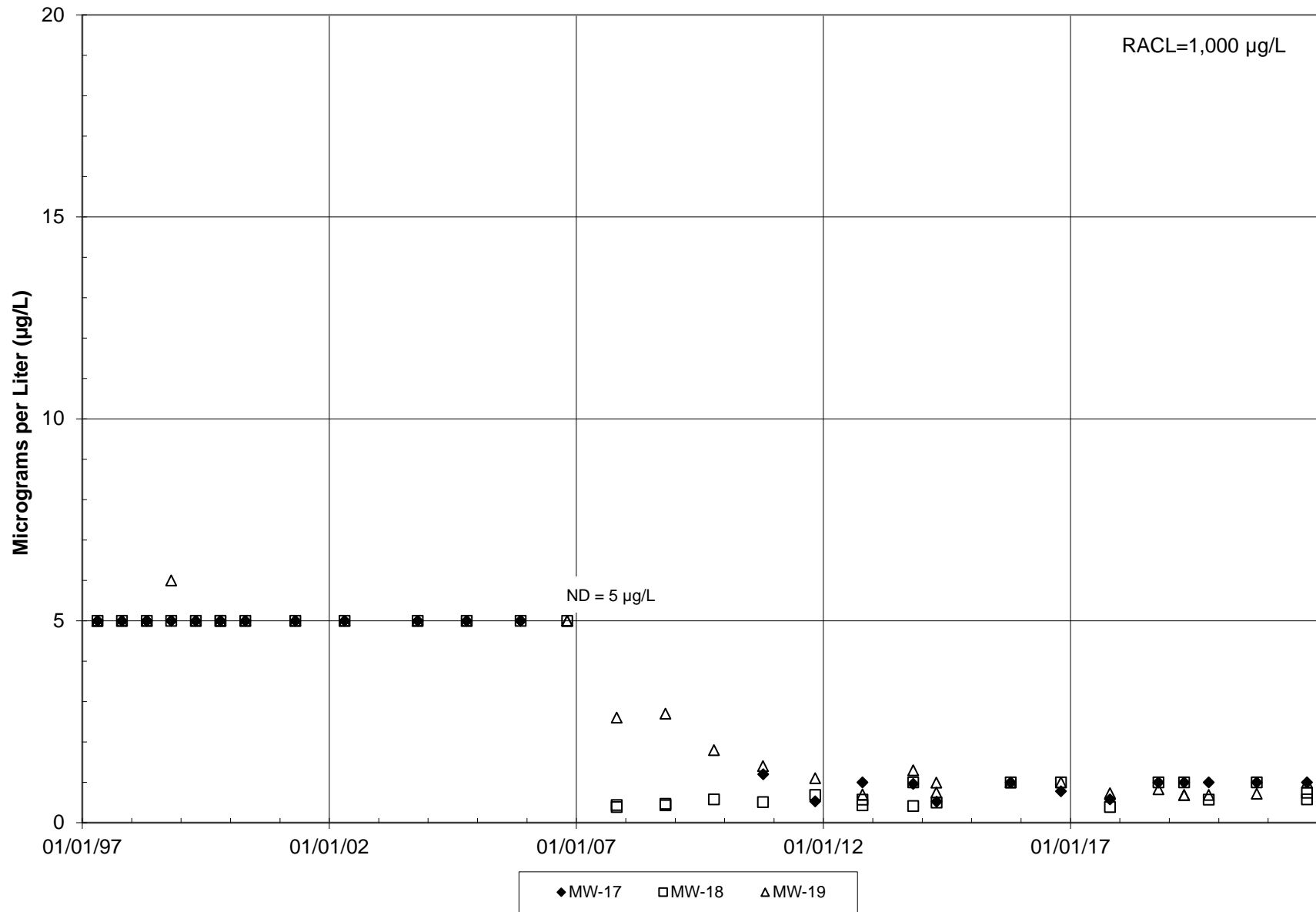
Coffin Butte Landfill Detection Wells MW-17, MW-18, MW-19 - Antimony



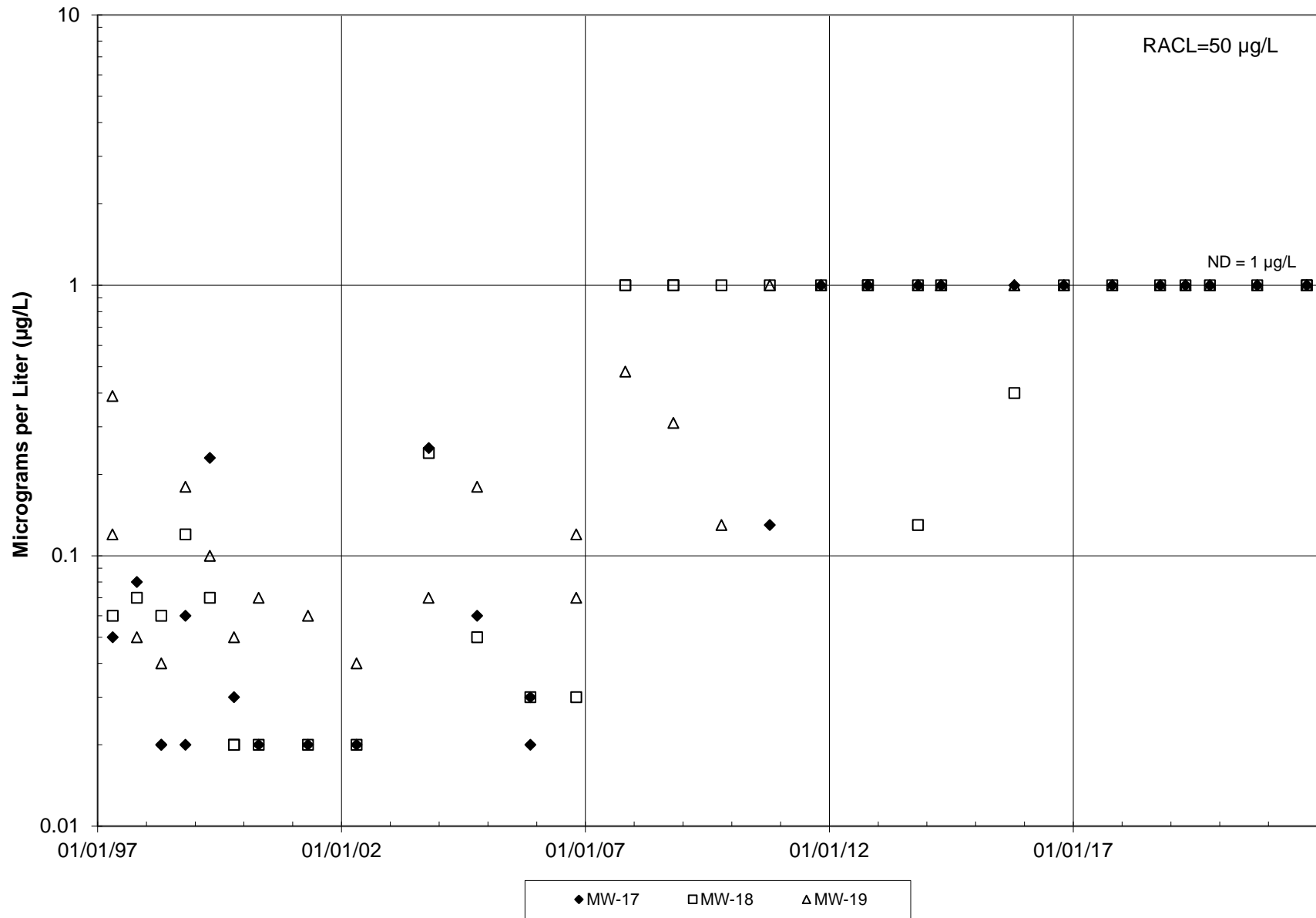
**Coffin Butte Landfill
 Detection Wells MW-17, MW-18, MW-19 - Arsenic**



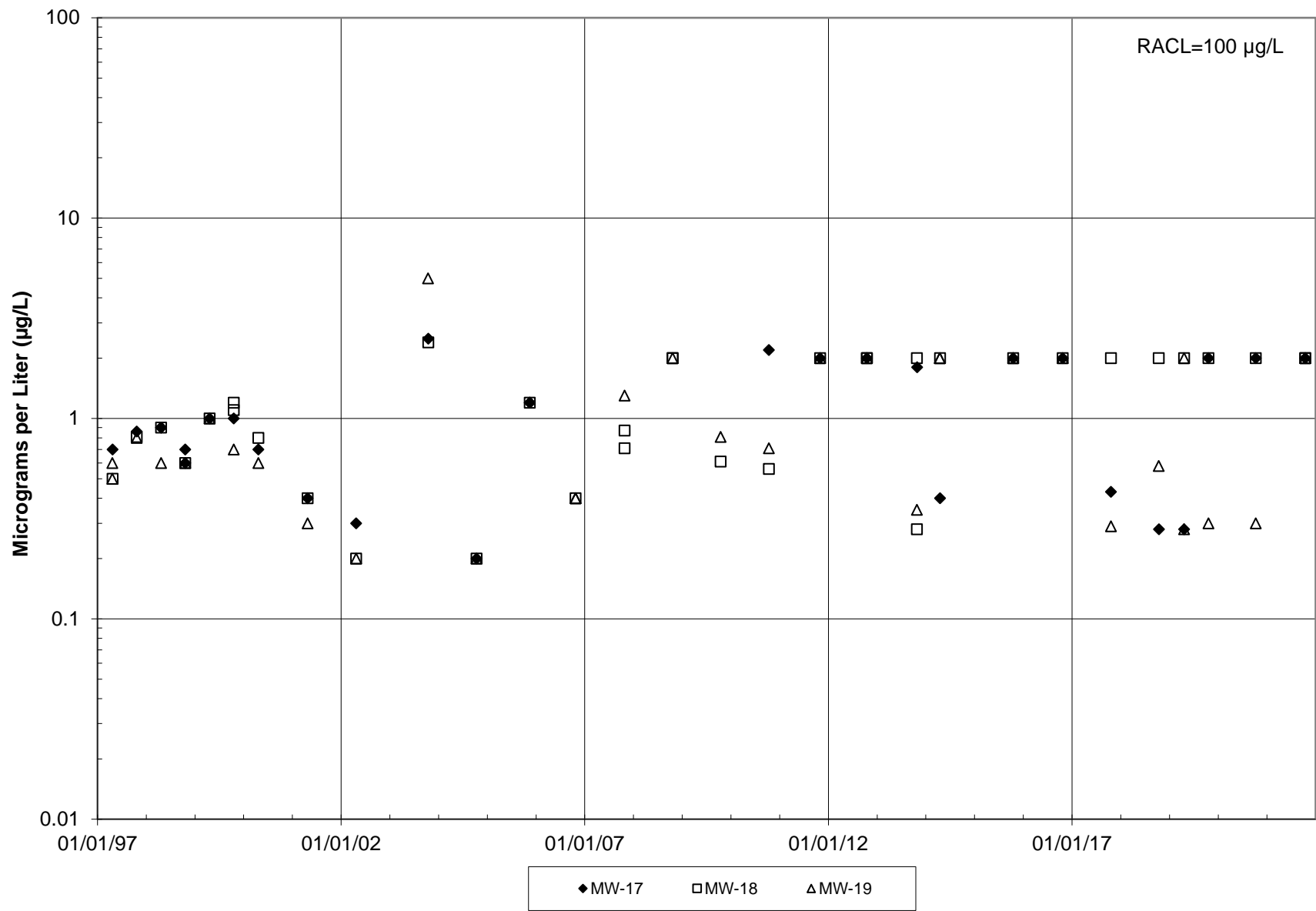
Coffin Butte Landfill
Detection Wells MW-17, MW-18, MW-19 - Barium



Coffin Butte Landfill Detection Wells MW-17, MW-18, MW-19 - Lead

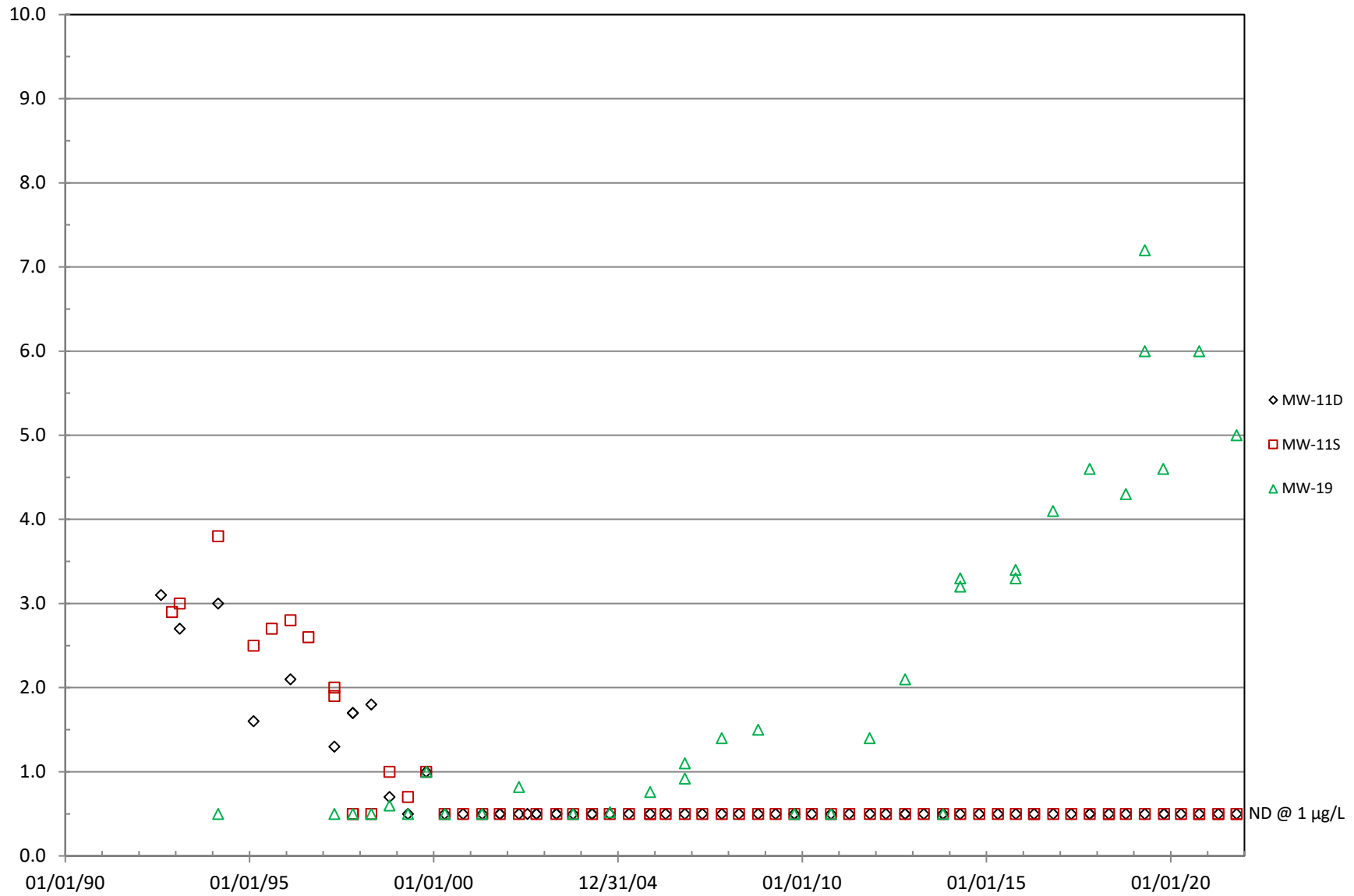


Coffin Butte Landfill Detection Wells MW-17, MW-18, MW-19 - Nickel



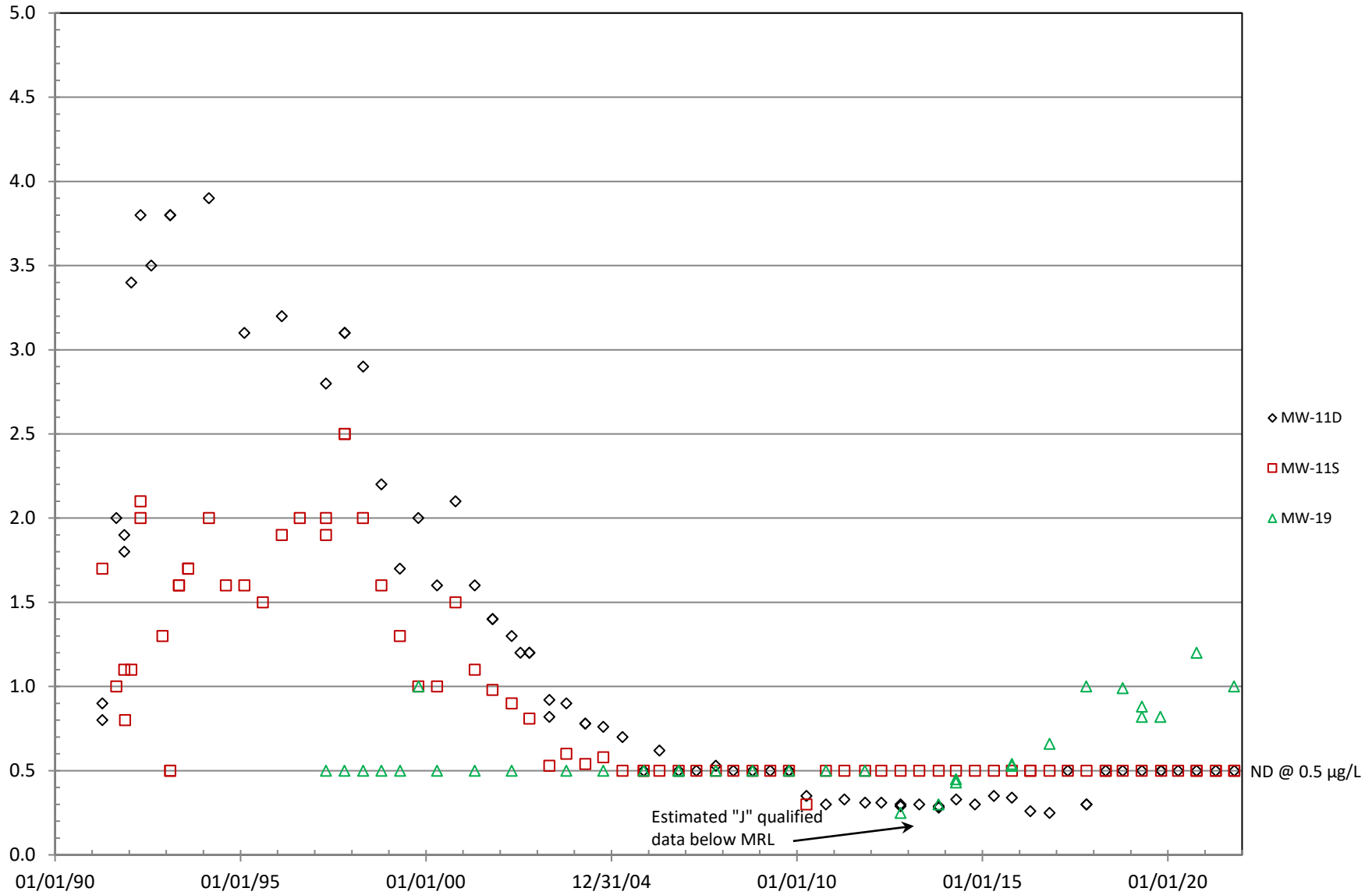
Coffin Butte Landfill

MW-19: Freon 12



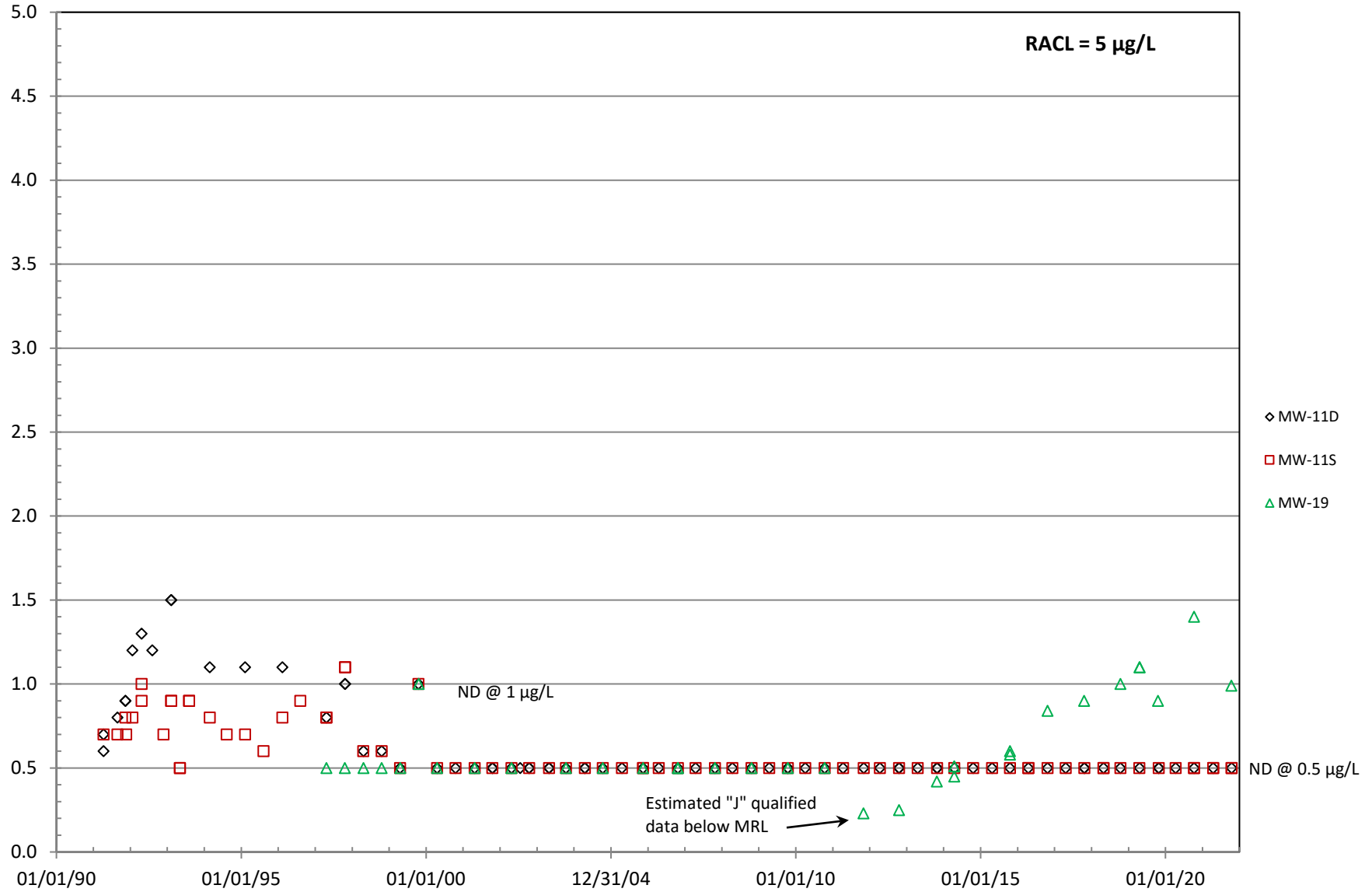
Coffin Butte Landfill

MW-19: 1,1-DCA



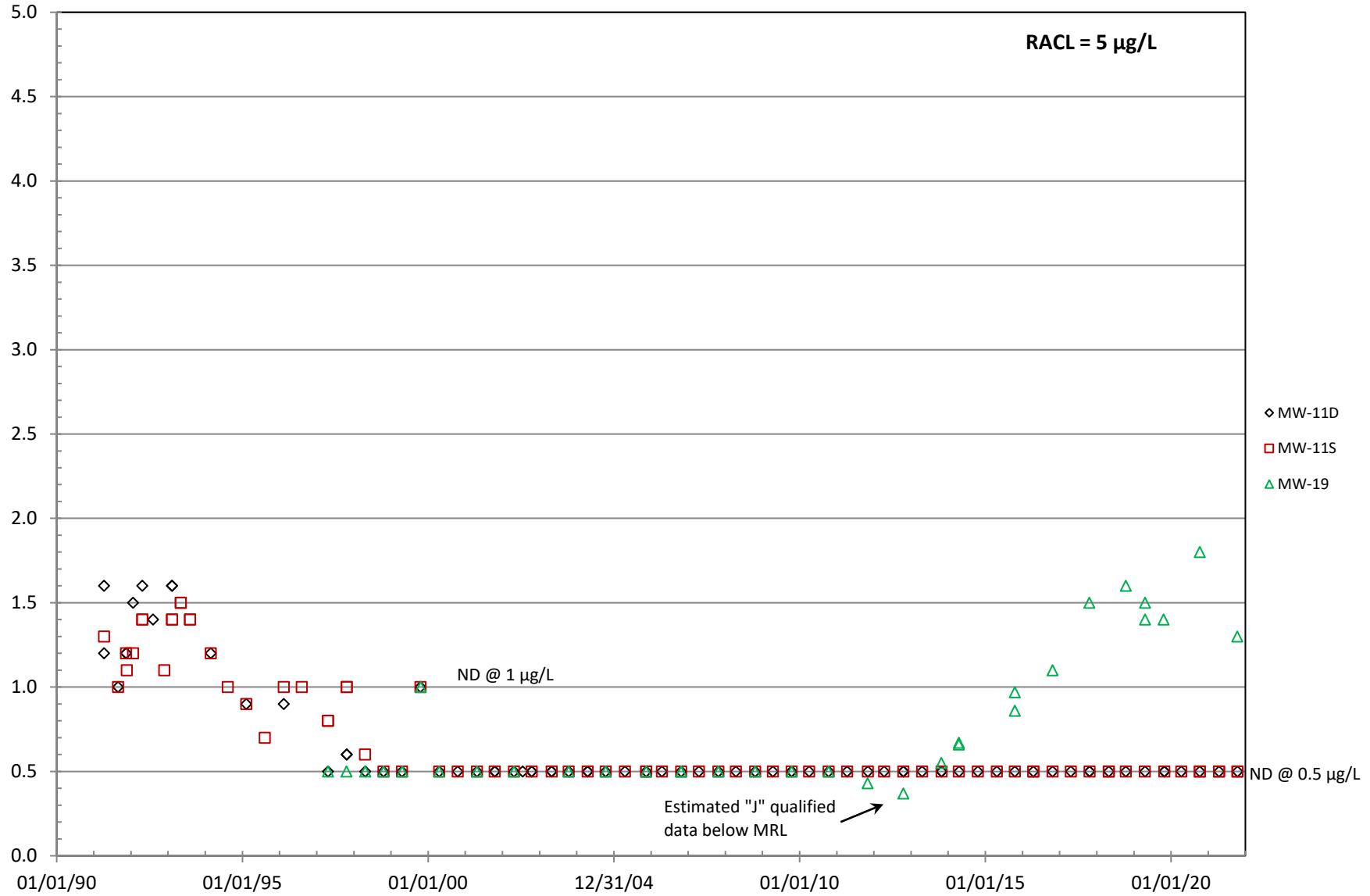
Coffin Butte Landfill

MW-19: PCE

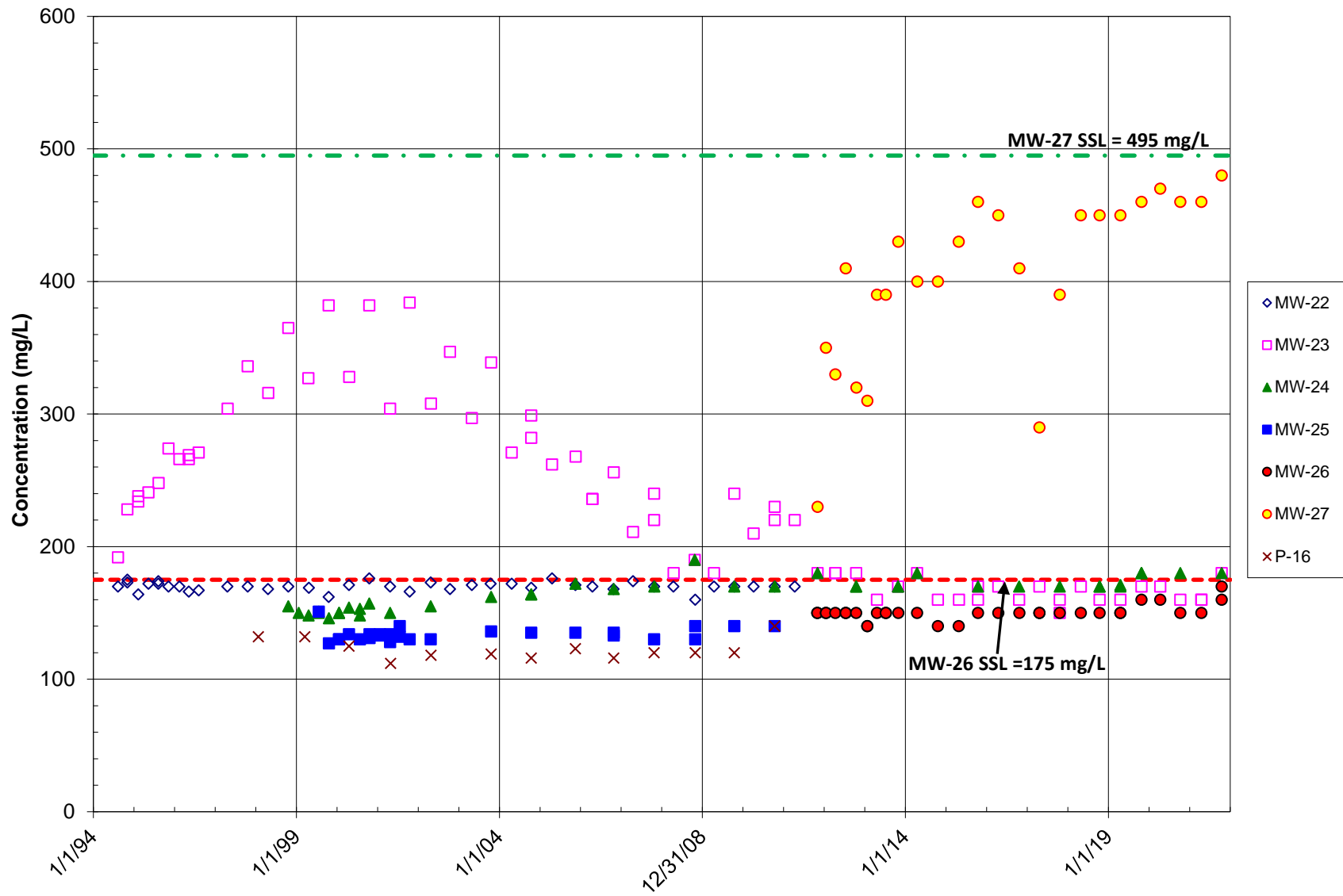


Coffin Butte Landfill

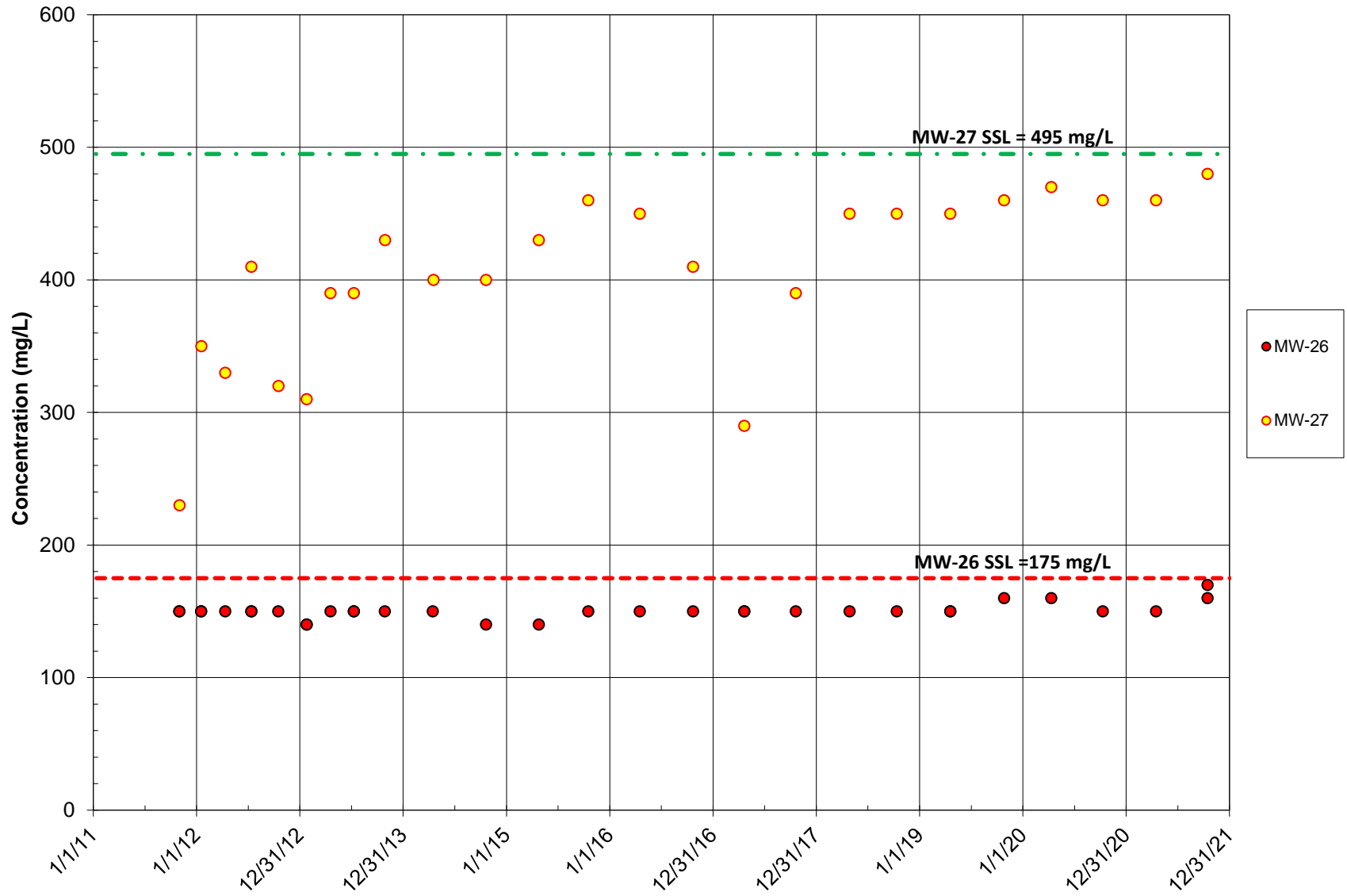
MW-19: TCE



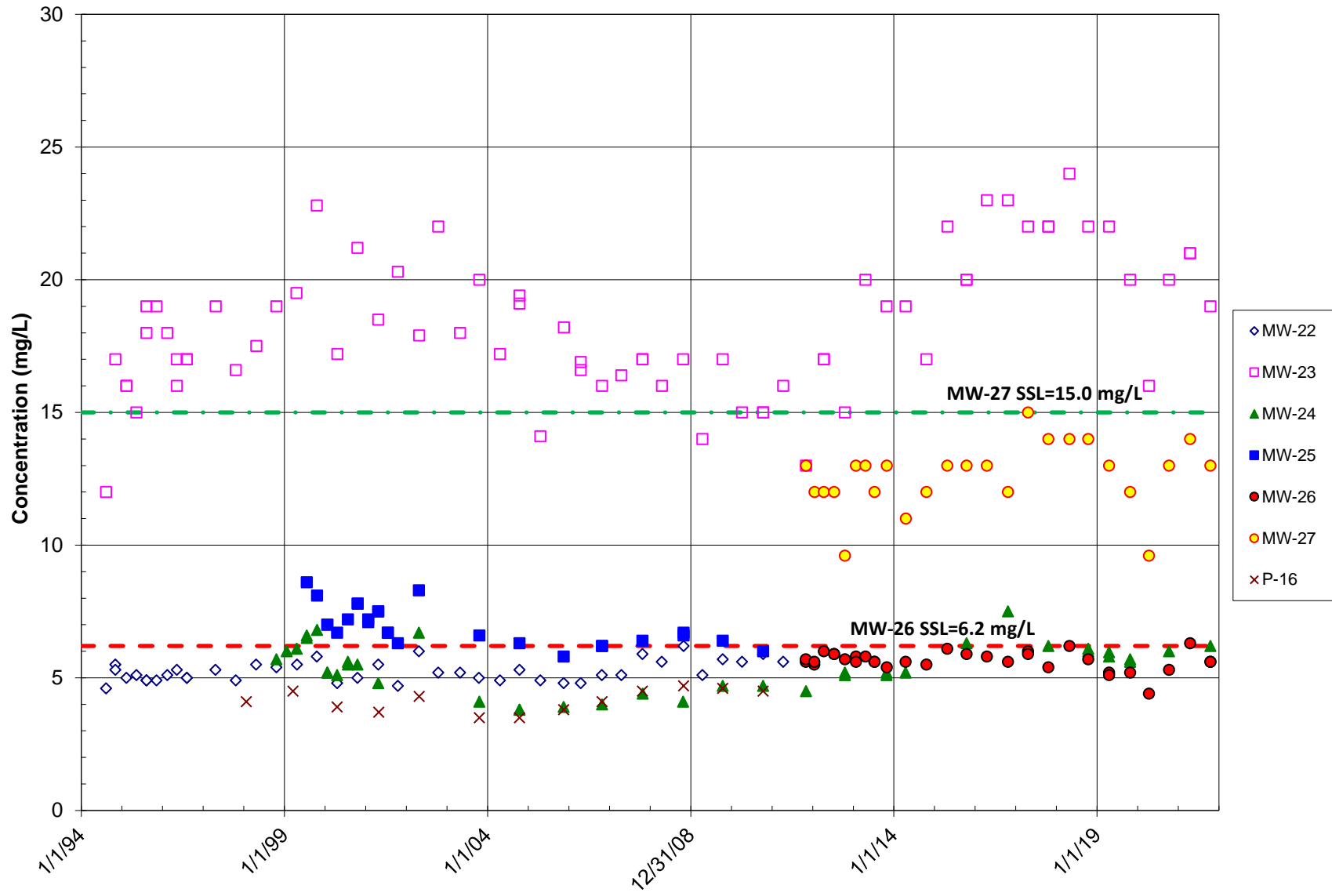
Coffin Butte Landfill East-Side Wells: Bicarbonate Alkalinity



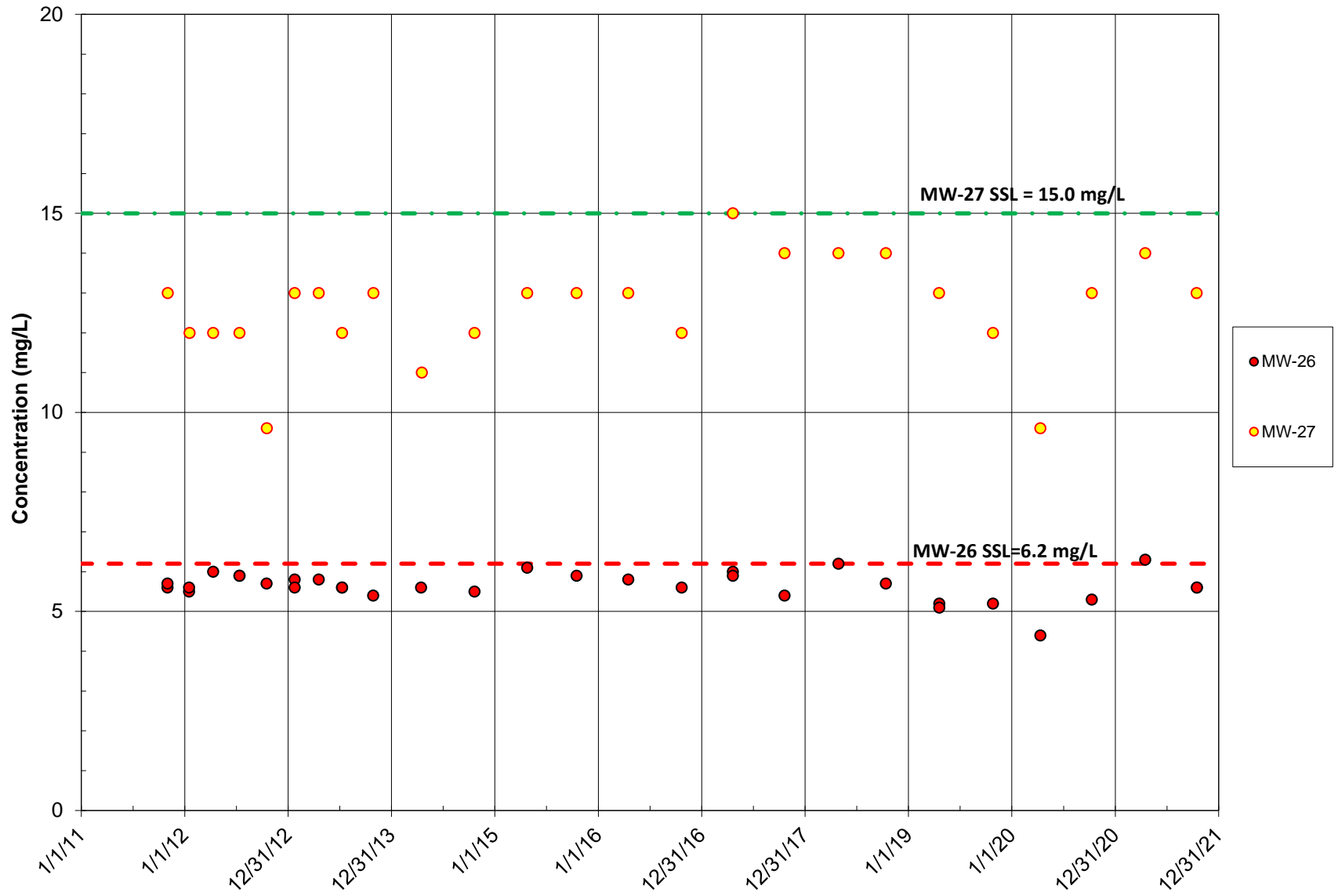
Coffin Butte Landfill East-Side Wells: Bicarbonate Alkalinity



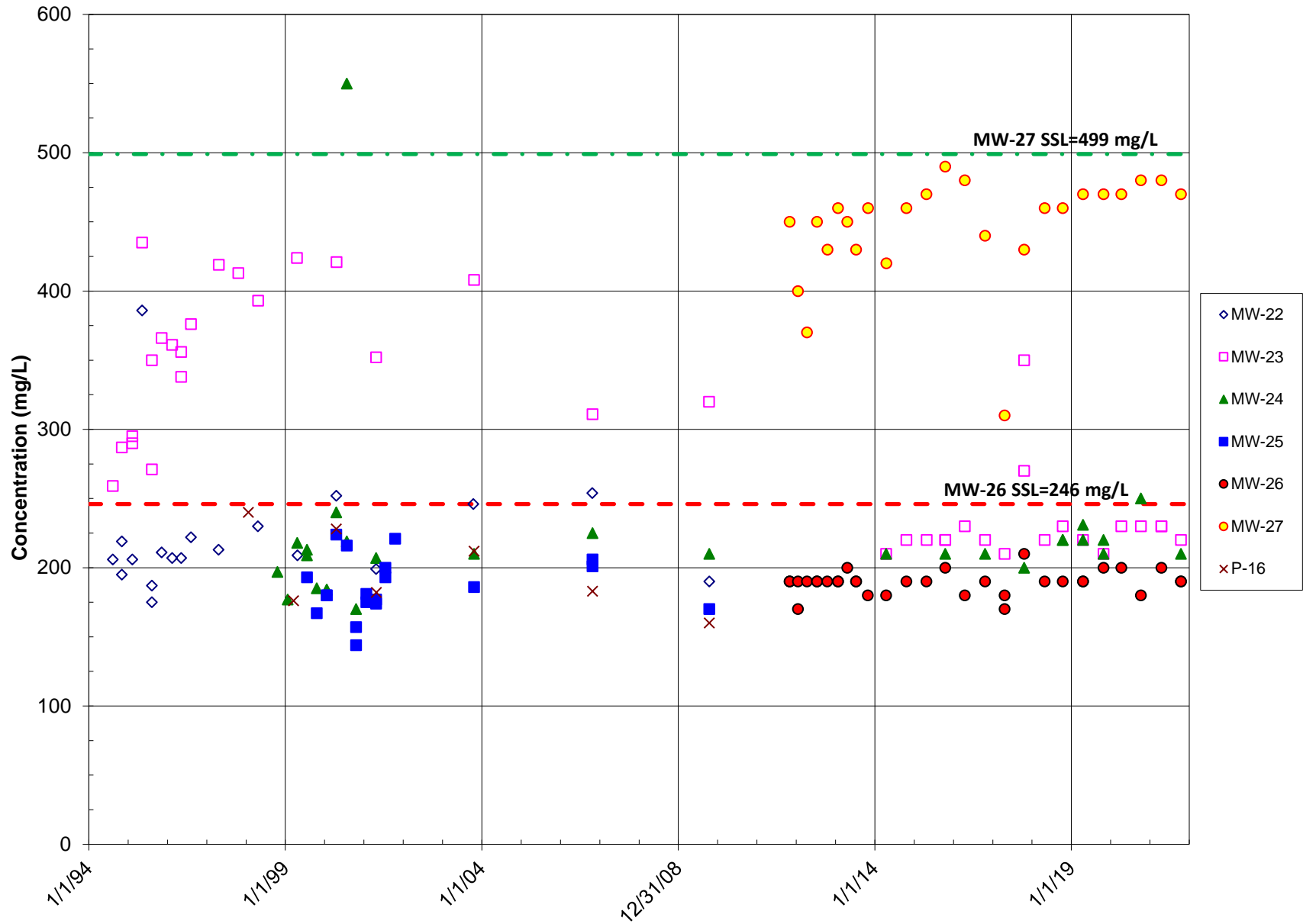
Coffin Butte Landfill East-Side Wells: Chloride



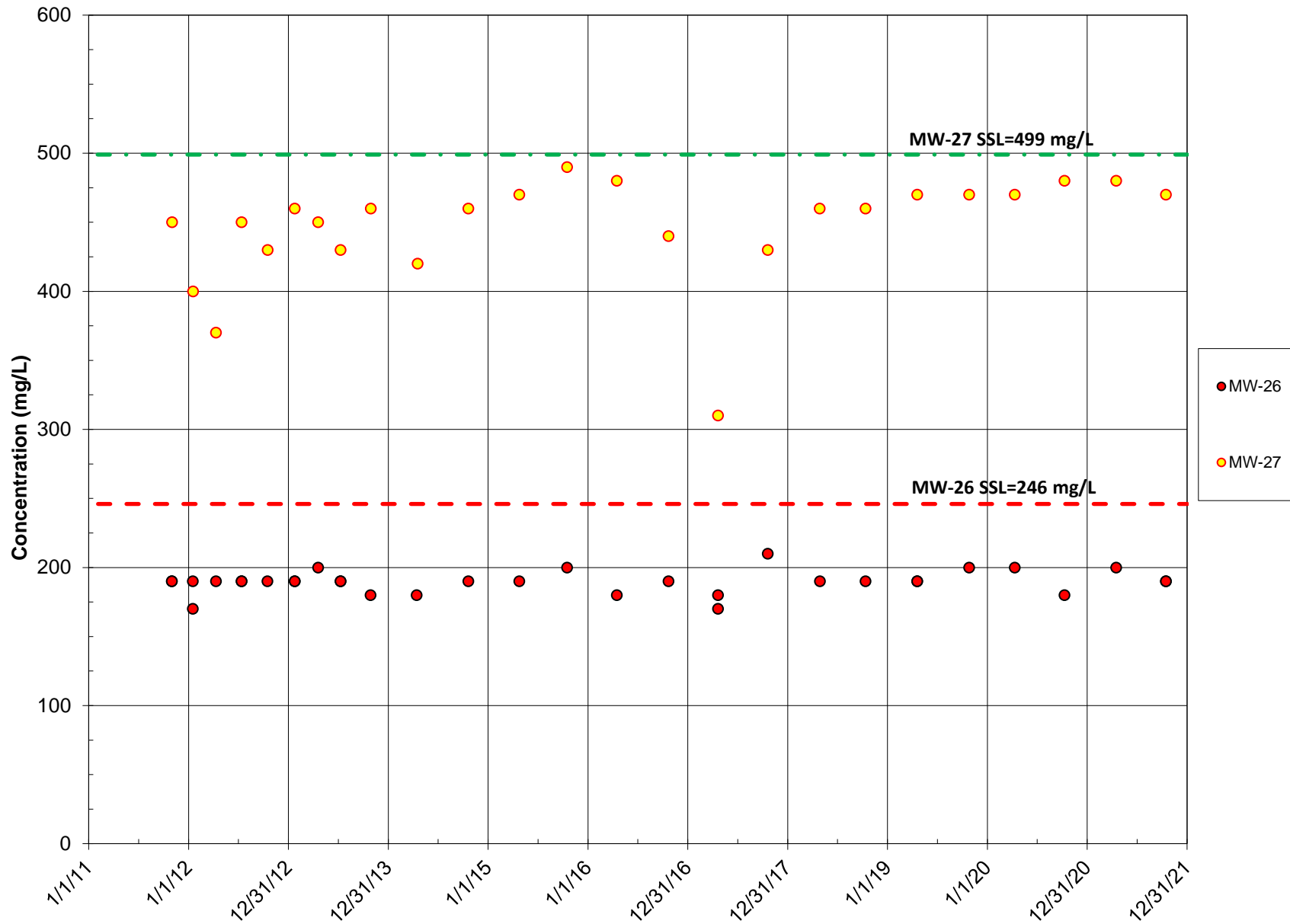
Coffin Butte Landfill East-Side Wells: Chloride



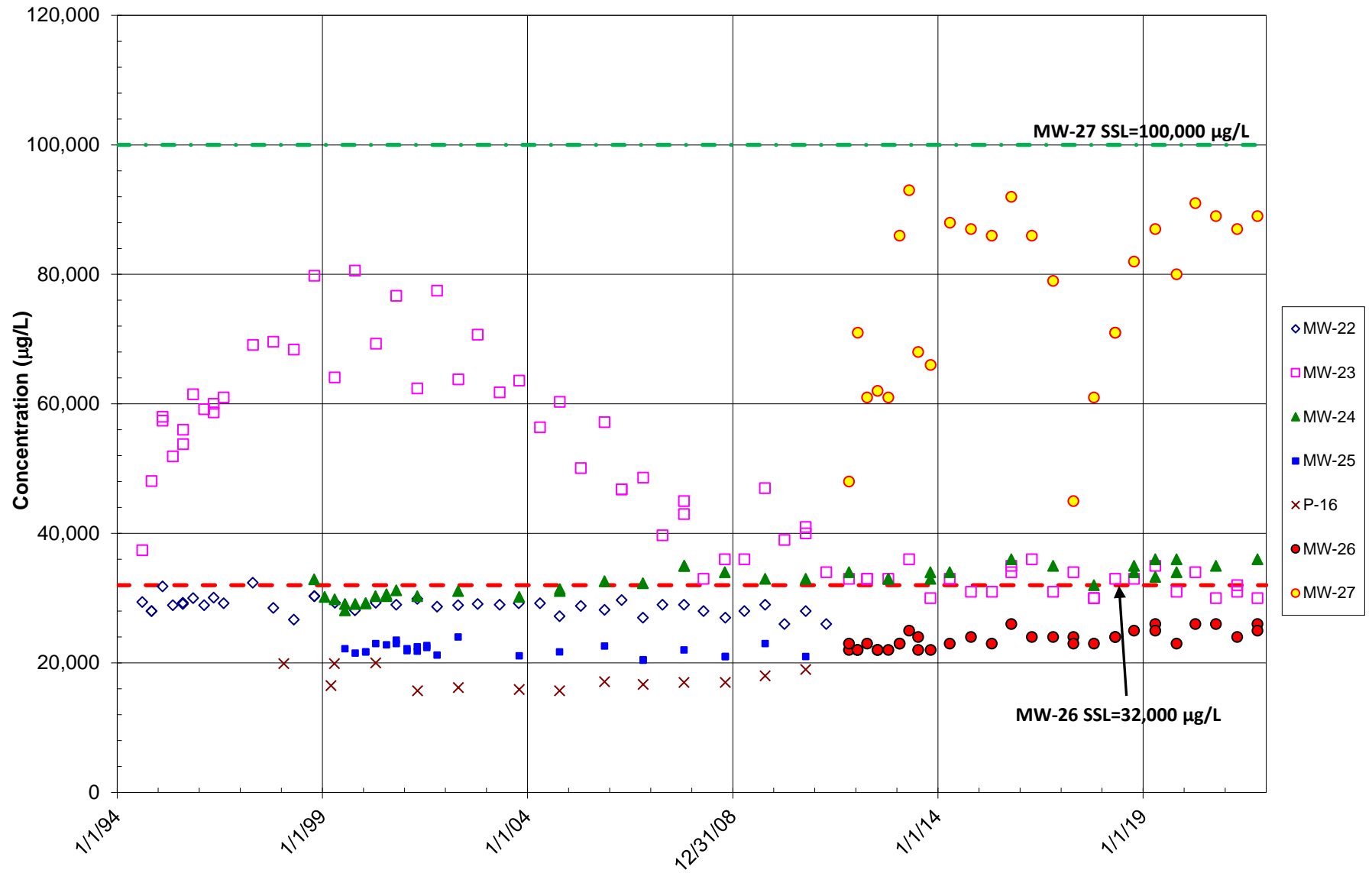
Coffin Butte Landfill East Side Wells: Total Dissolved Solids



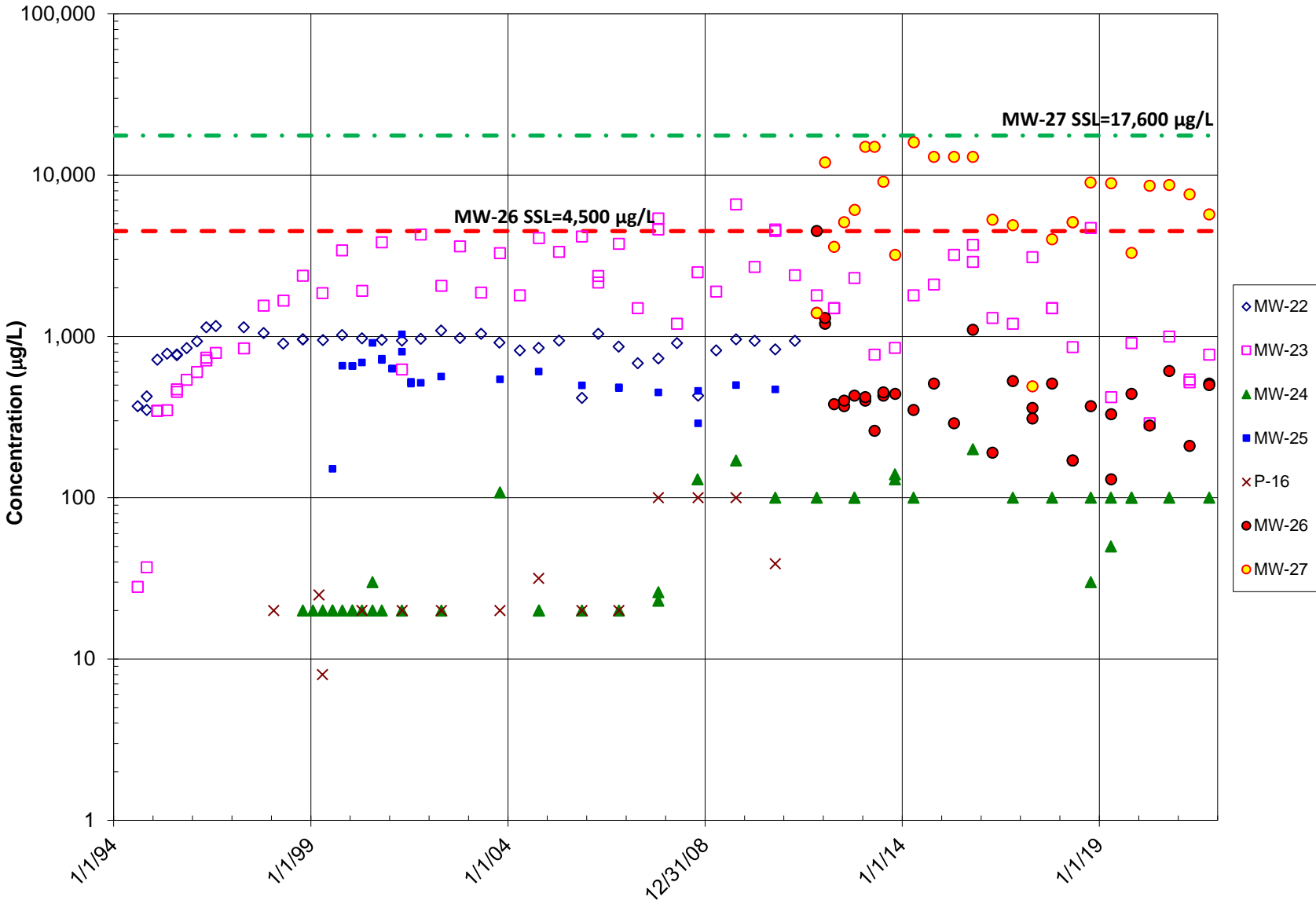
Coffin Butte Landfill East Side Wells: Total Dissolved Solids



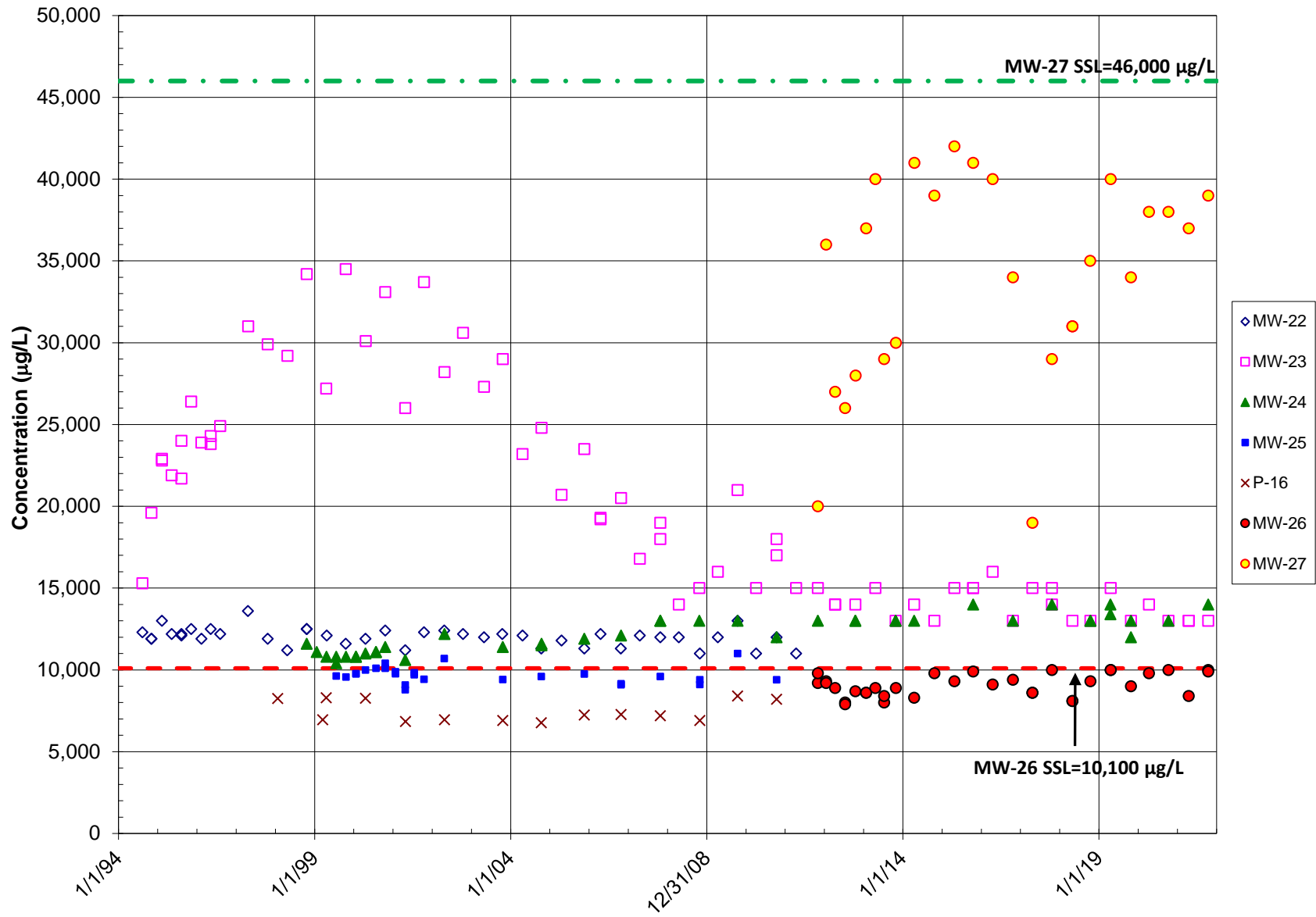
Coffin Butte Landfill East-Side Wells: Calcium



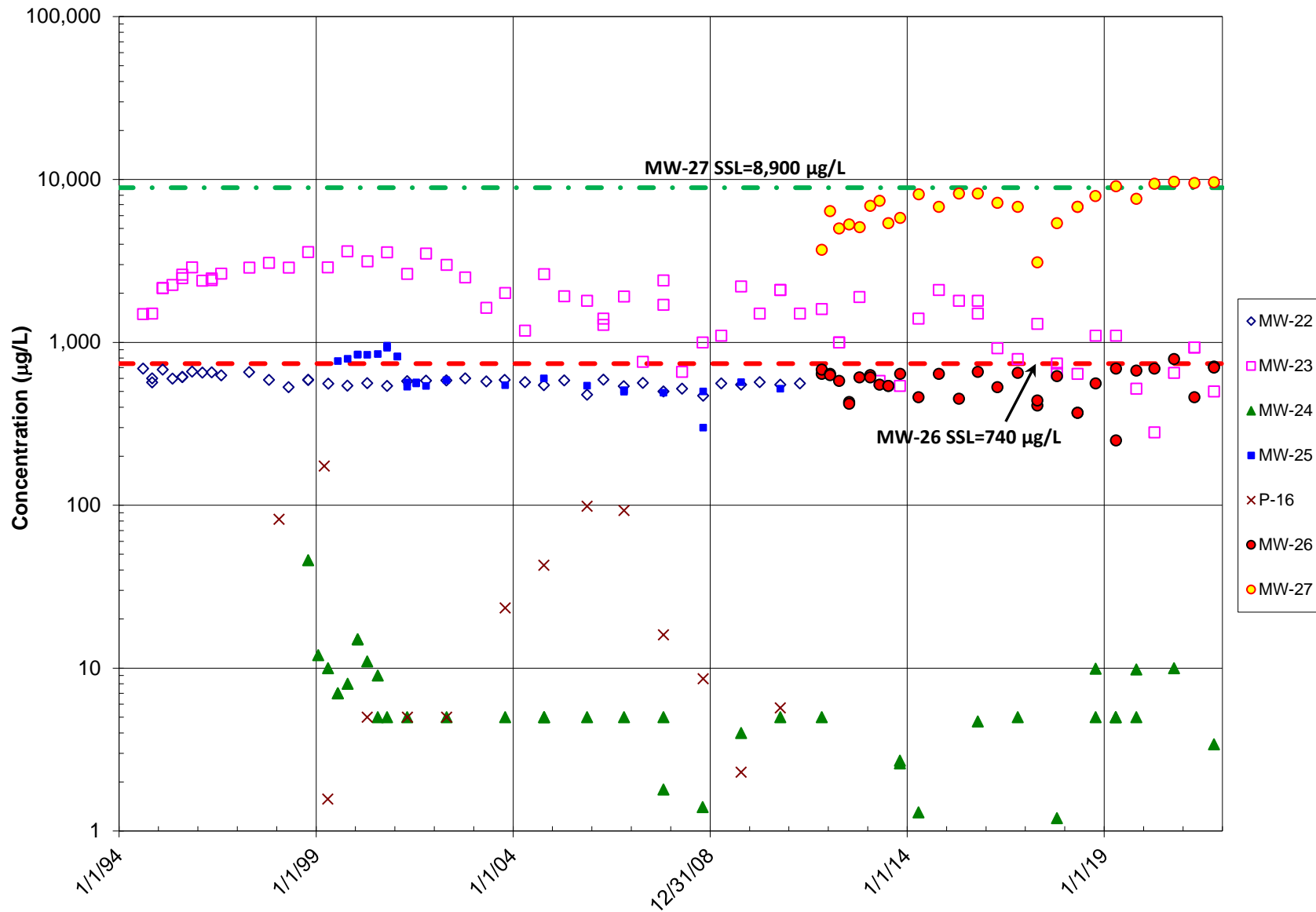
Coffin Butte Landfill East-Side Wells: Iron



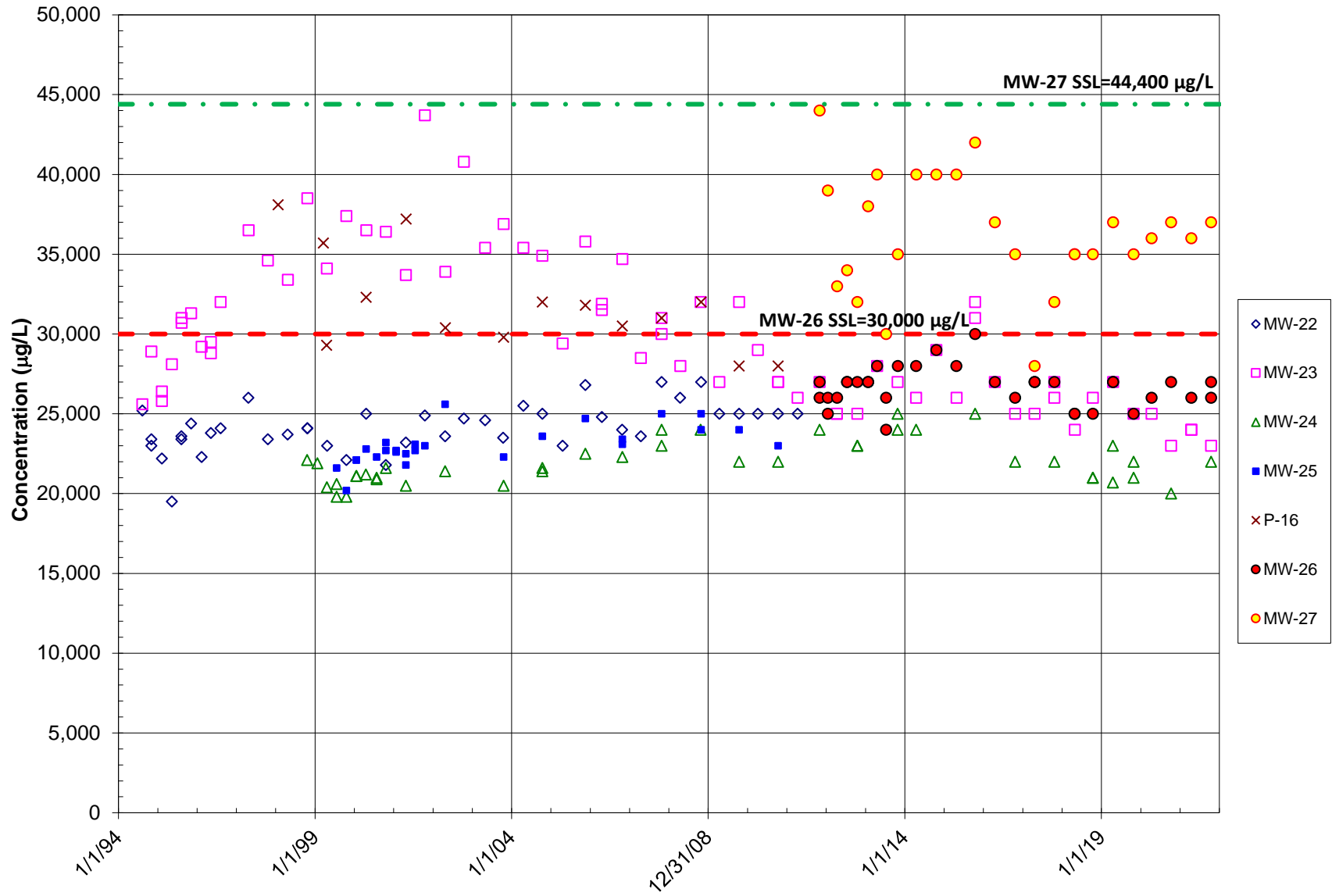
Coffin Butte Landfill East-Side Wells: Magnesium



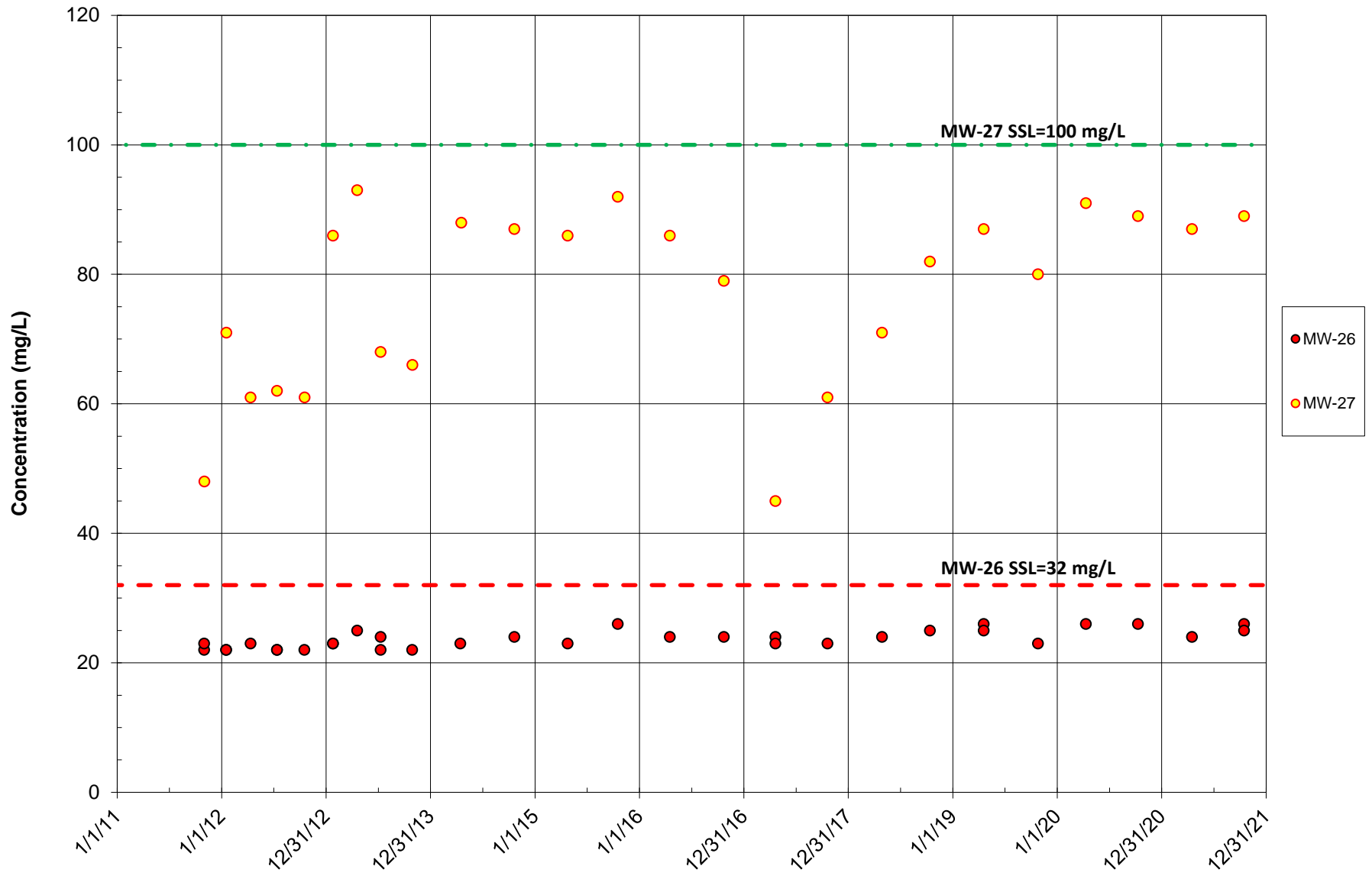
Coffin Butte Landfill East-Side Wells: Manganese



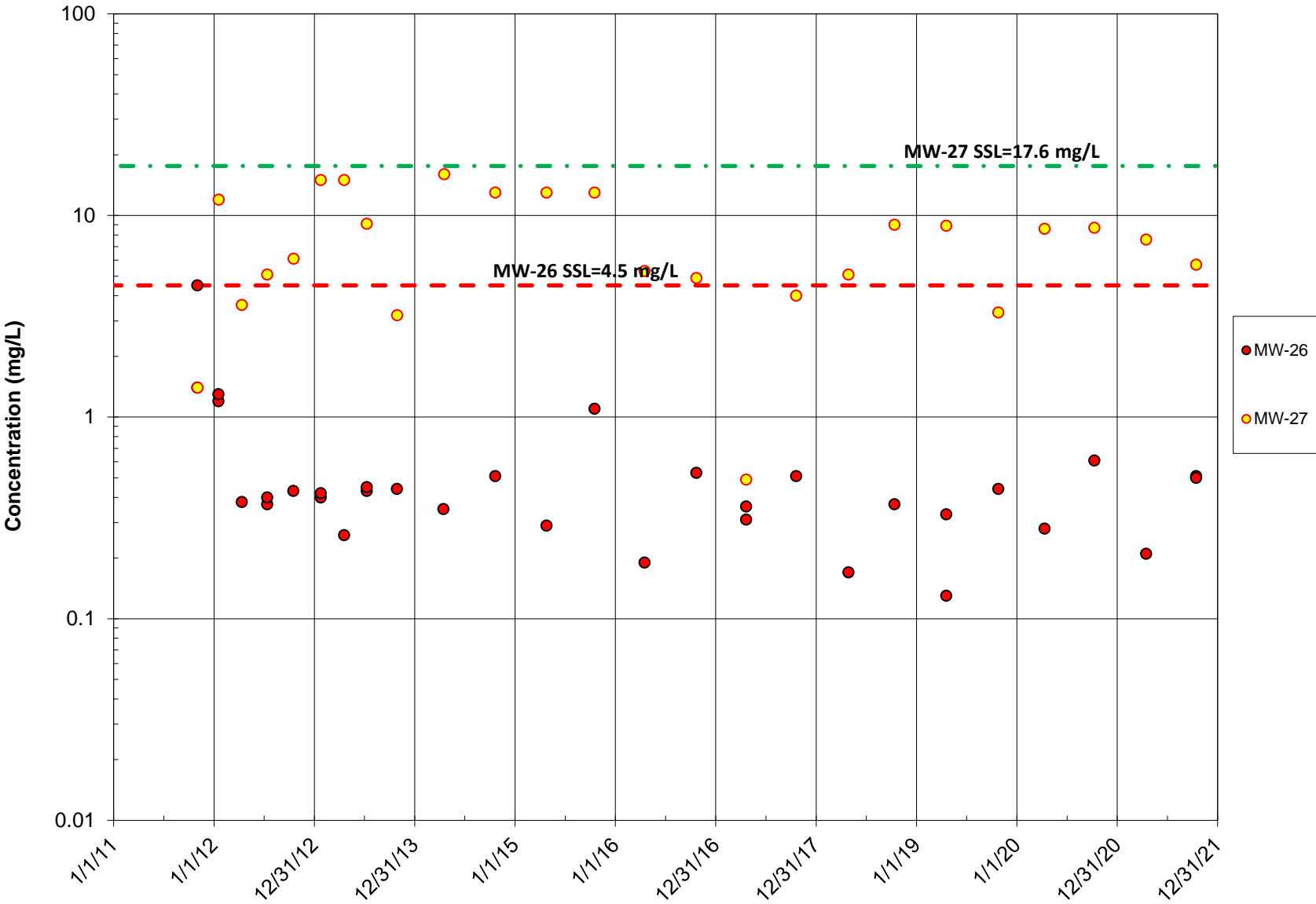
Coffin Butte Landfill East-Side Wells: Sodium



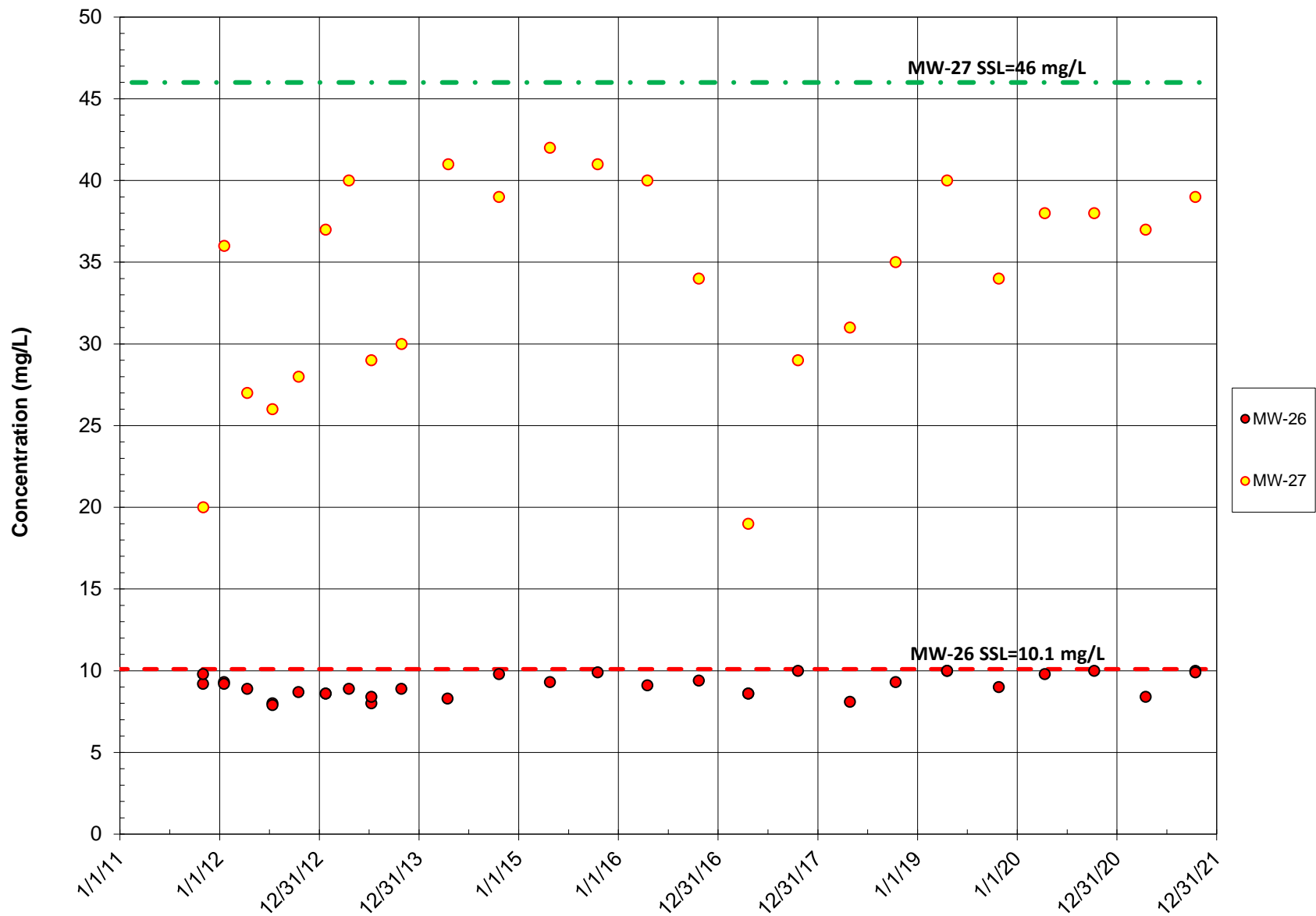
Coffin Butte Landfill East-Side Wells: Calcium



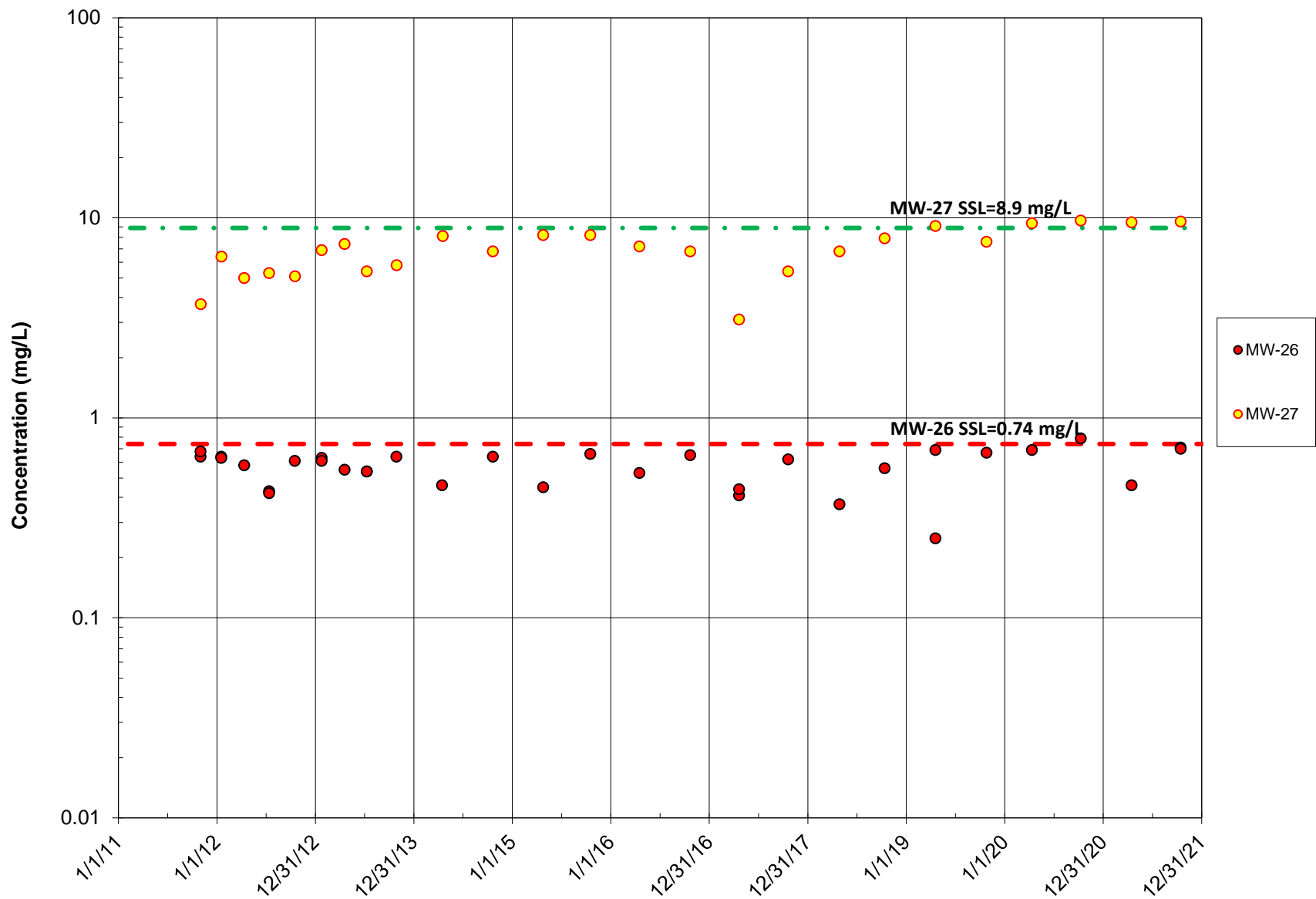
Coffin Butte Landfill East-Side Wells: Iron



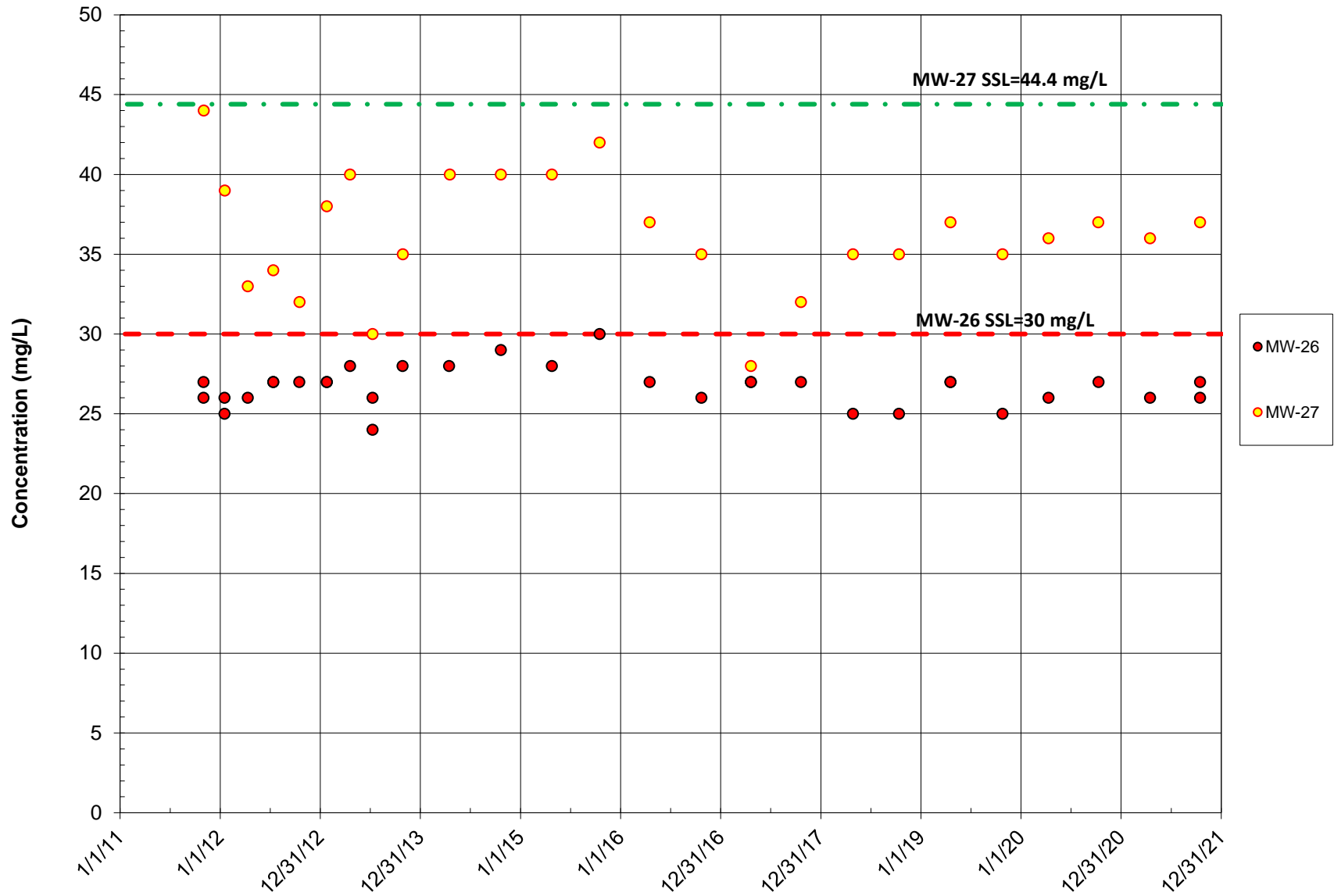
Coffin Butte Landfill East-Side Wells: Magnesium



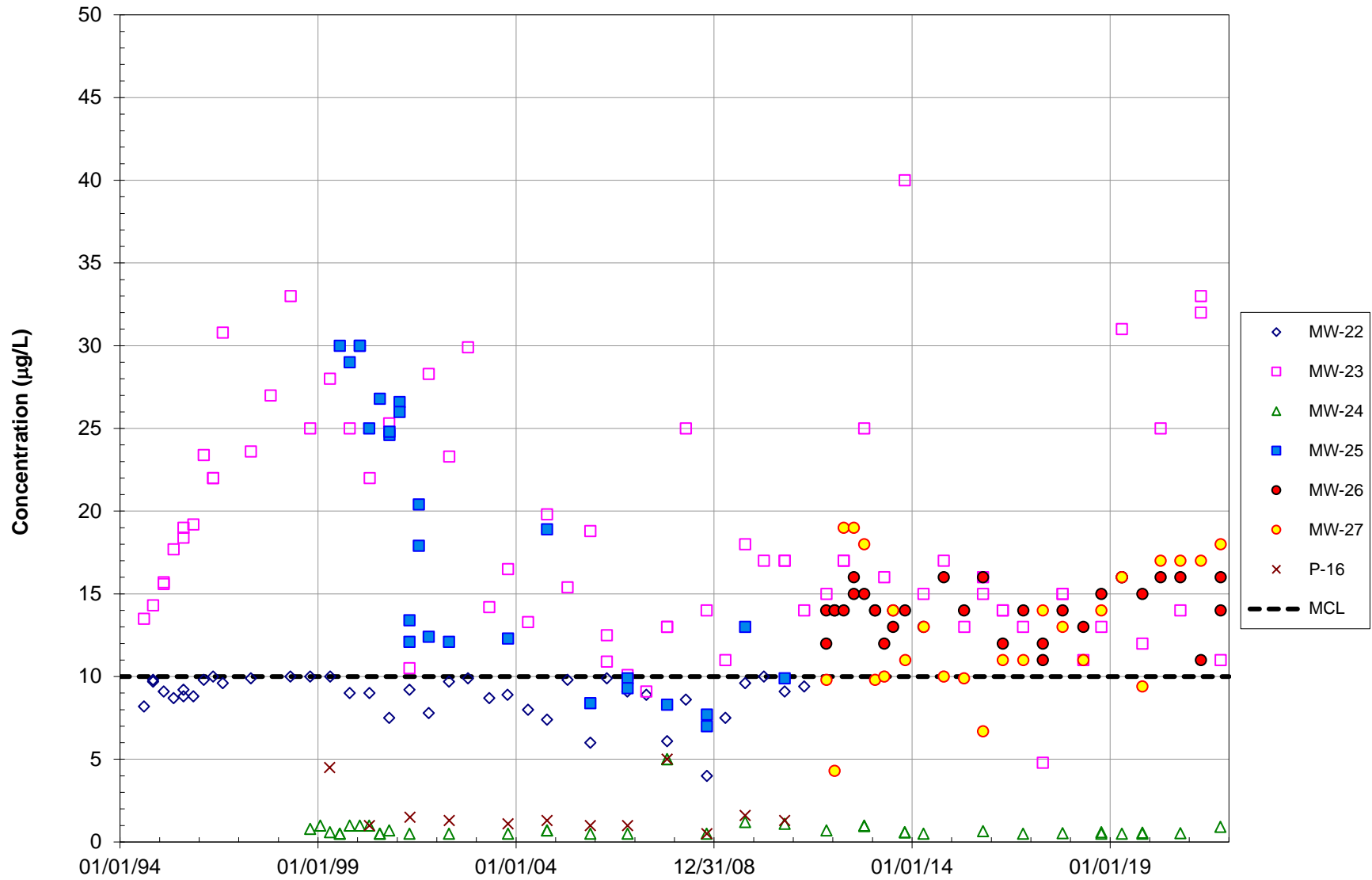
Coffin Butte Landfill East-Side Wells: Manganese



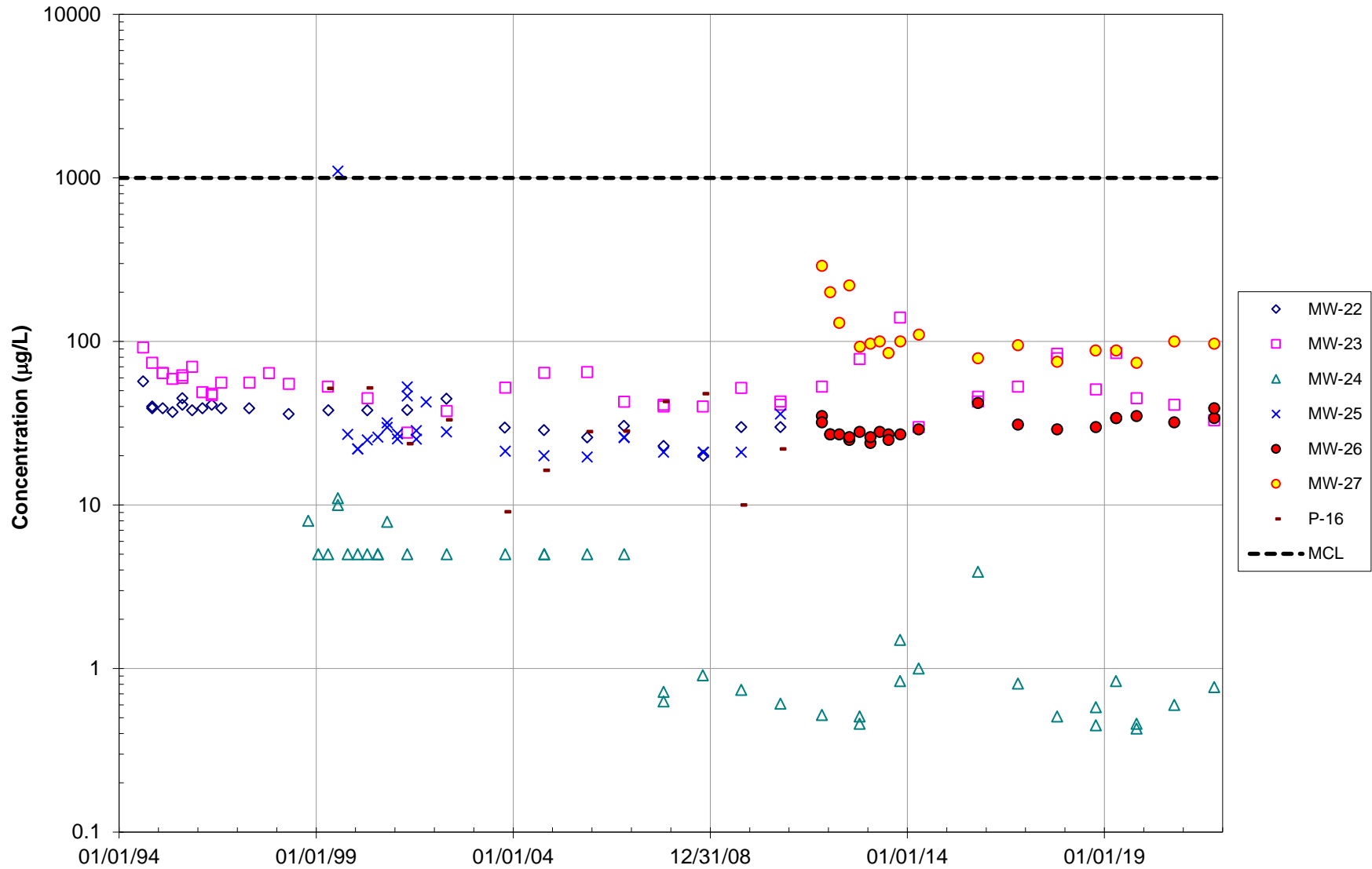
Coffin Butte Landfill East-Side Wells: Sodium



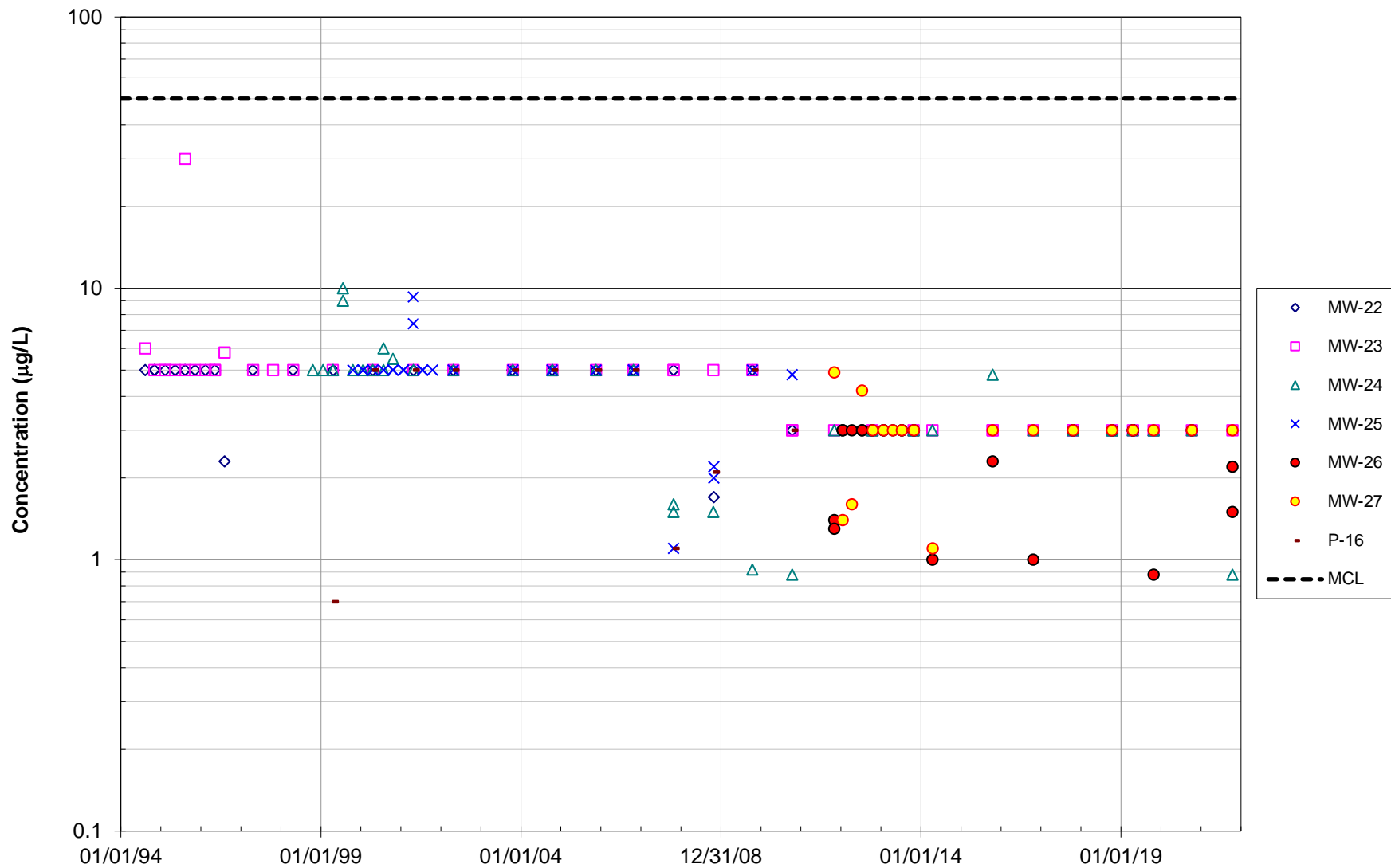
Coffin Butte Landfill
East Side Wells: Arsenic



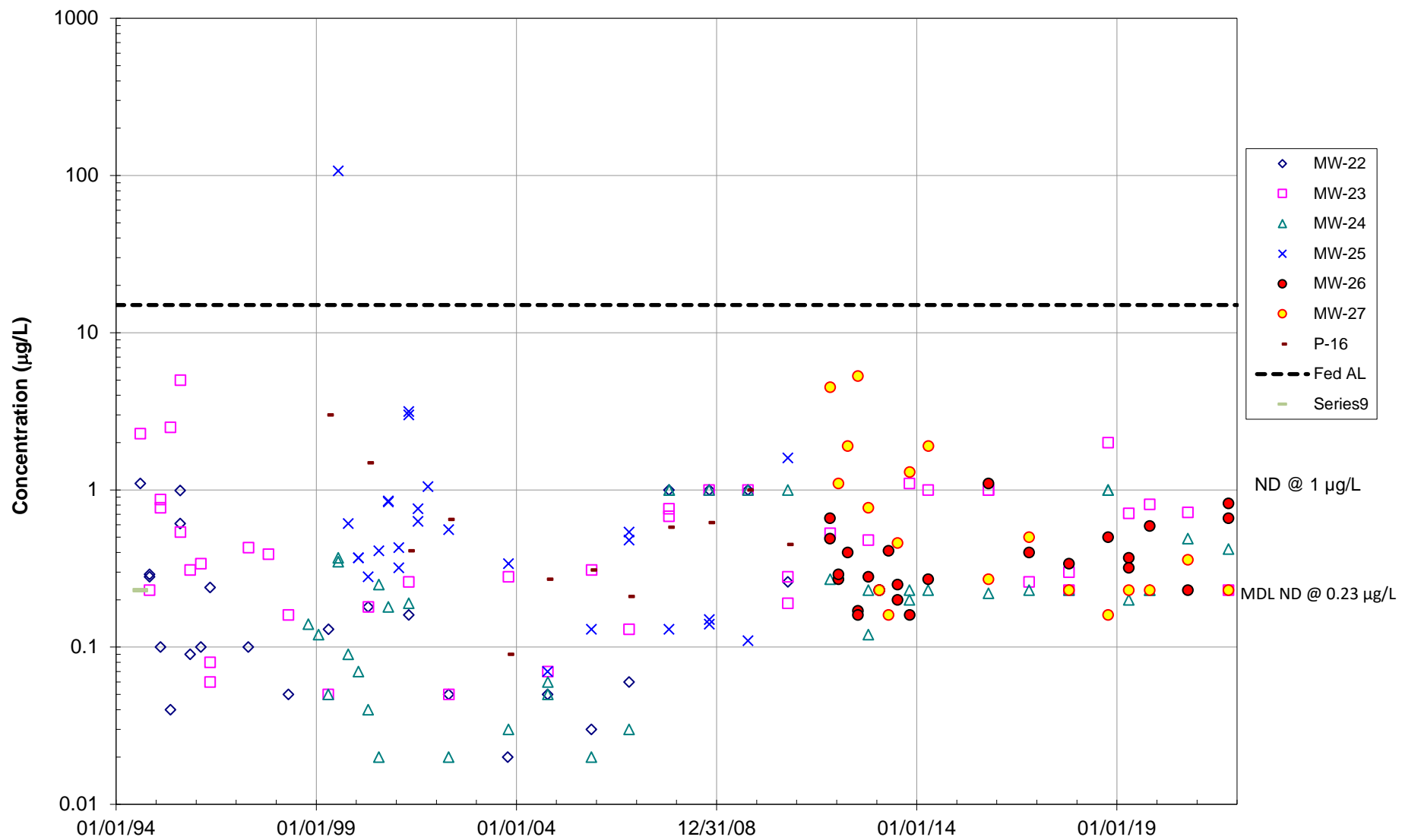
Coffin Butte Landfill
East Side Wells: Barium



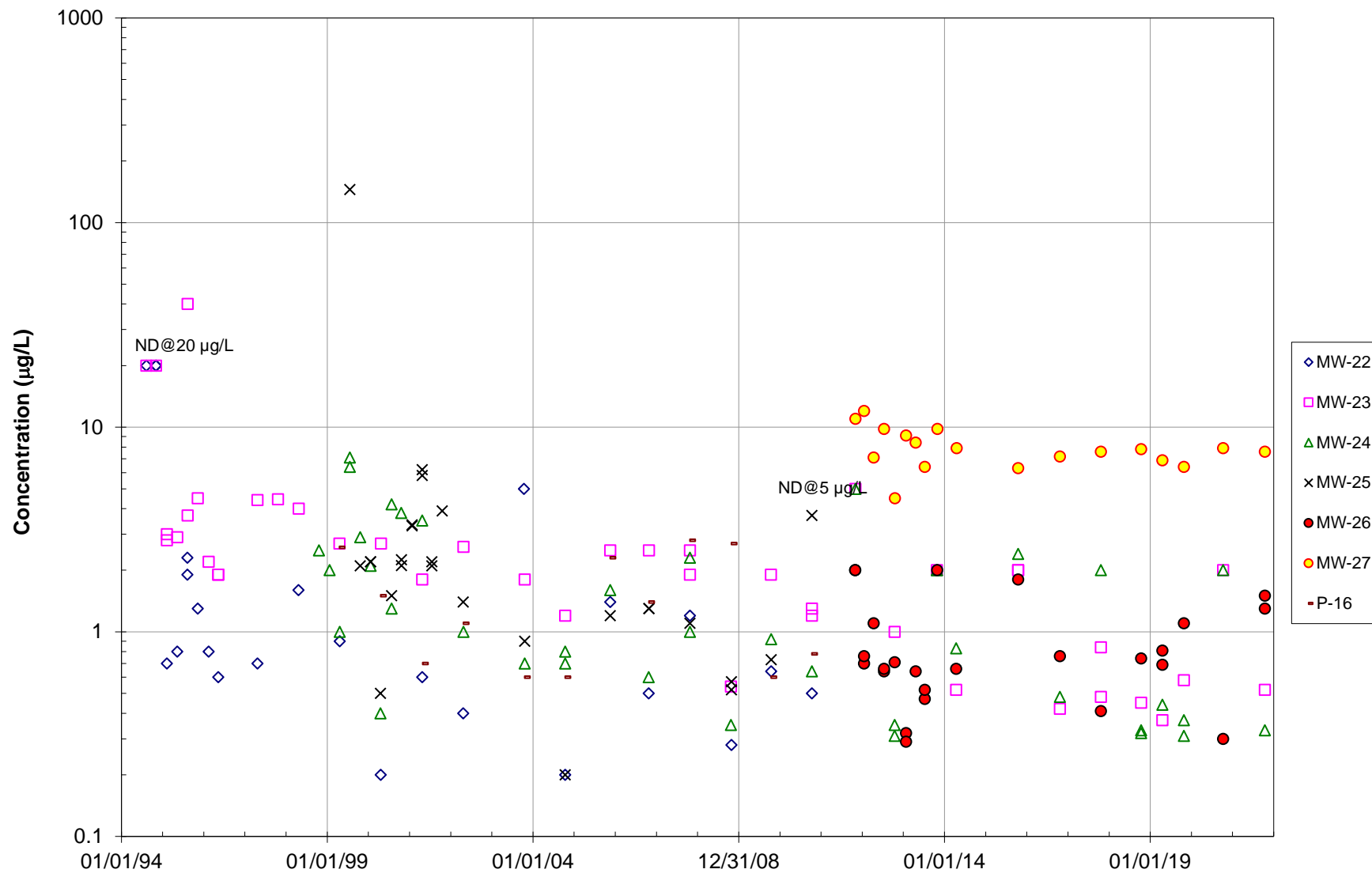
Coffin Butte Landfill
East Side Wells: Chromium



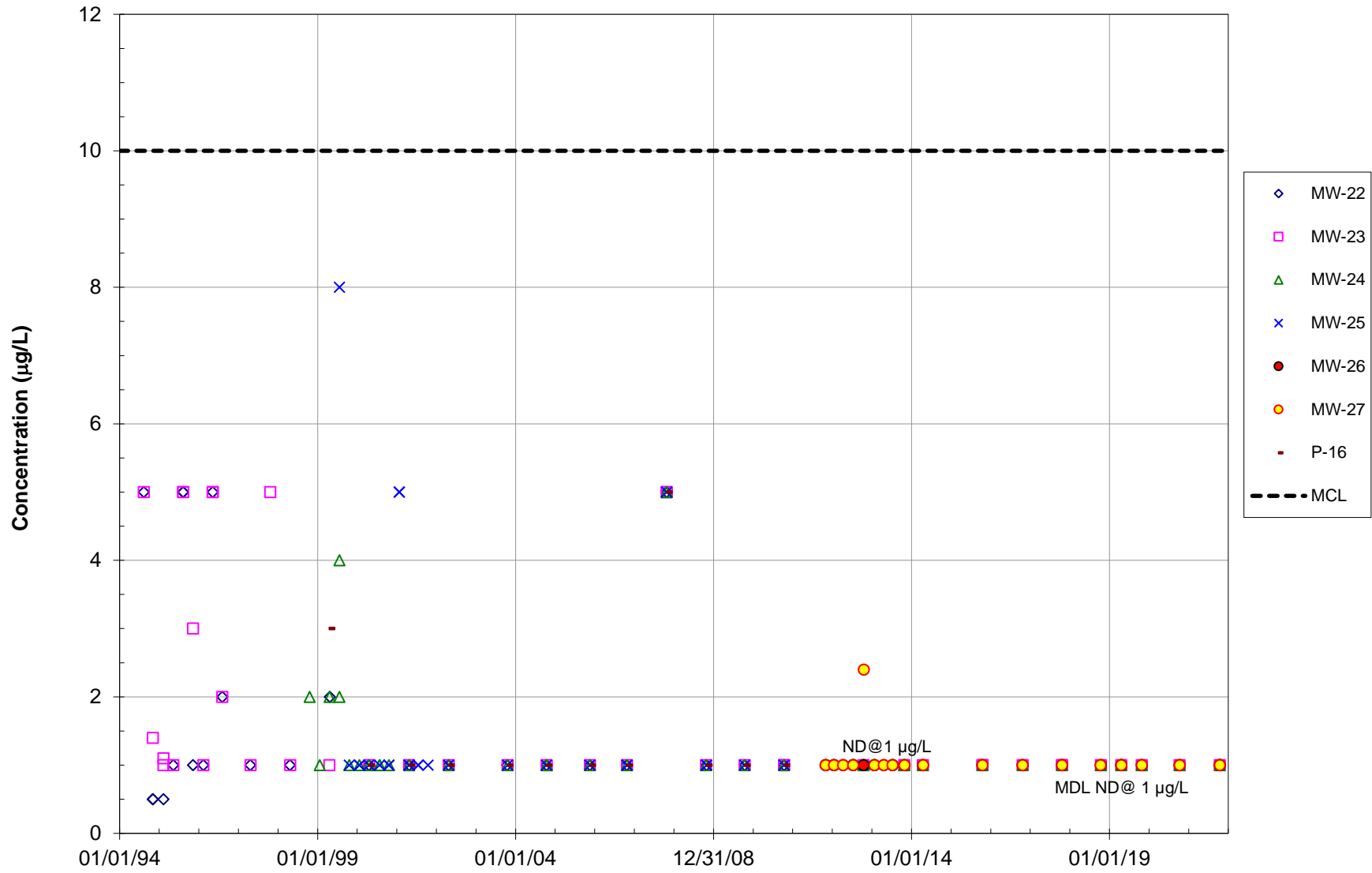
Coffin Butte Landfill
East Side Wells: Lead



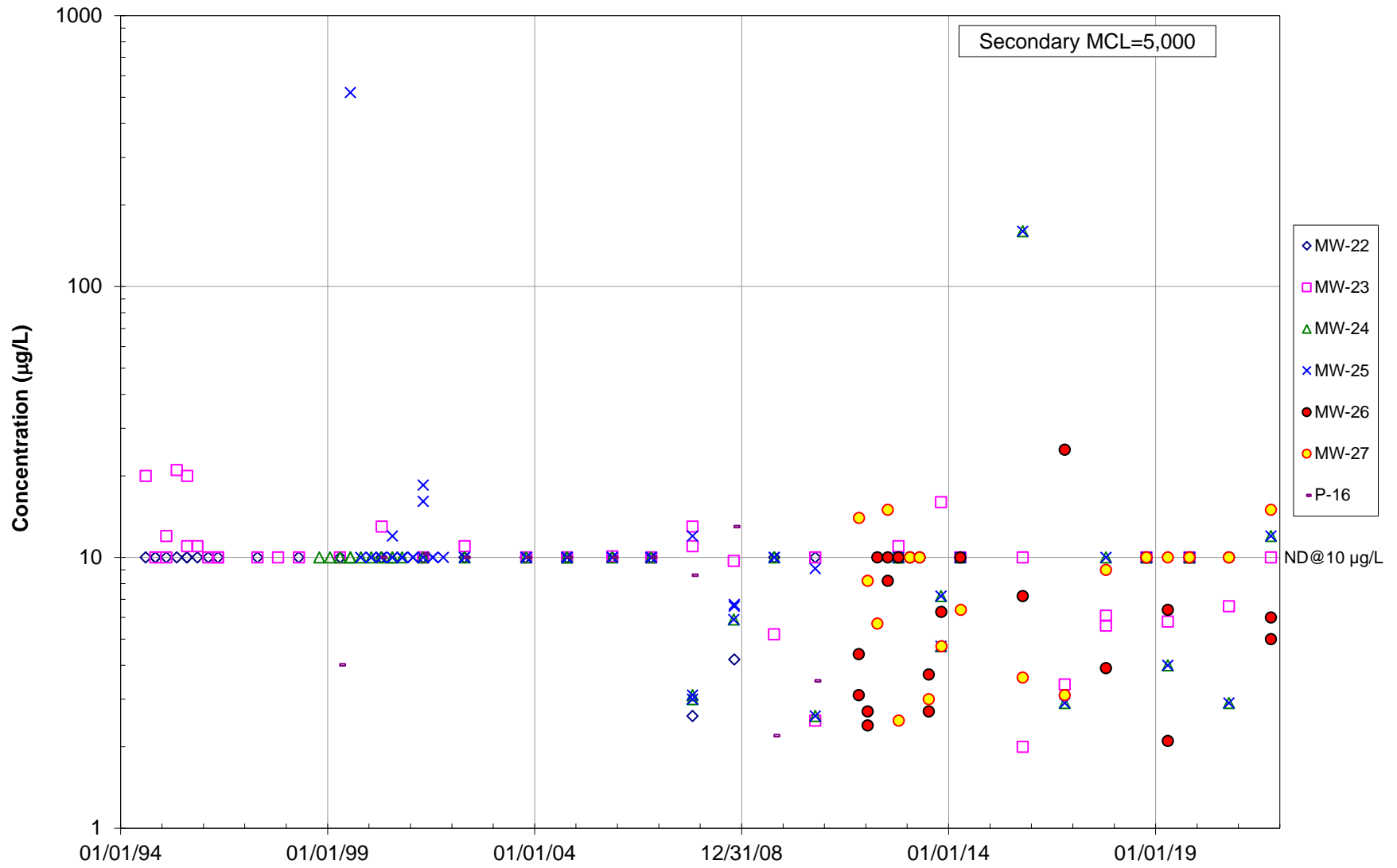
Coffin Butte Landfill
East Side Wells: Nickel



Coffin Butte Landfill
East Side Wells: Selenium



Coffin Butte Landfill
East Side Wells: Zinc



APPENDIX D
SLCS AND LCRS DATA
(IN PDF ON ATTACHED CD)

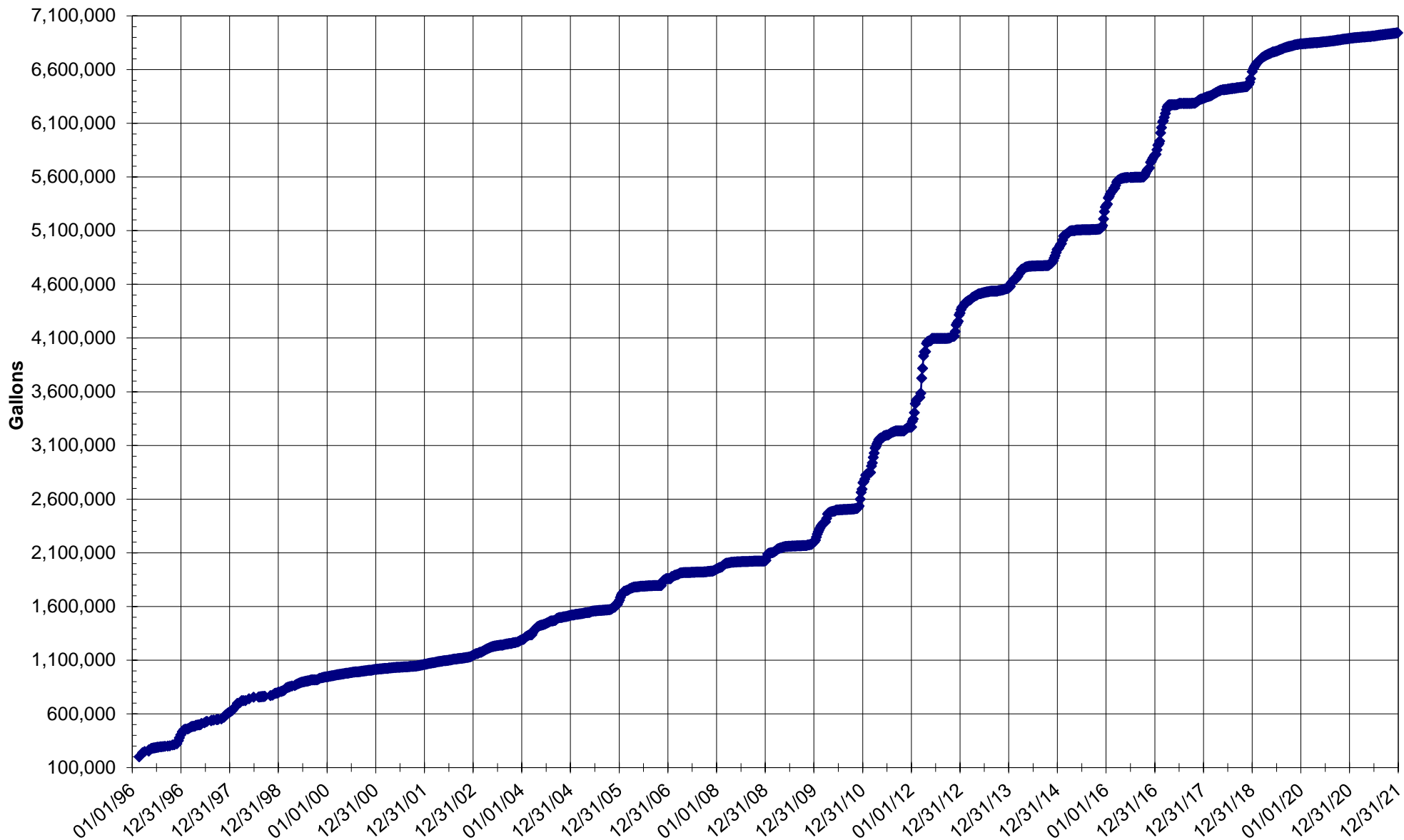
Table D-1
Coffin Butte Landfill
Water Purged from Leak Detection System - LDS-2B

Pumping Period & Location	Volume Purged (gallons)	Cumulative Volume Purged since 12/20/04 (gallons)
10/01/20	650.0	6,873,866.7
10/05/20	910.0	6,874,776.7
10/12/20	1,520.0	6,876,296.7
10/19/20	0.0	6,876,296.7
10/26/20	2,760.0	6,879,056.7
11/02/20	1,270.0	6,880,326.7
11/09/20	1,280.0	6,881,606.7
11/16/20	1,310.0	6,882,916.7
11/23/20	1,330.0	6,884,246.7
12/01/20	1,420.0	6,885,666.7
12/07/20	1,110.0	6,886,776.7
12/14/20	980.0	6,887,756.7
12/21/20	1,130.0	6,888,886.7
12/28/20	—	
01/04/21	2,460.0	6,891,346.7
01/11/21	1,060.0	6,892,406.7
01/18/21	1,130.0	6,893,536.7
01/25/21	860.0	6,894,396.7
02/01/21	1,120.0	6,895,516.7
02/08/21	840.0	6,896,356.7
02/15/21	670.0	6,897,026.7
02/22/21	720.0	6,897,746.7
03/01/21	1,230.0	6,898,976.7
03/08/21	1,010.0	6,899,986.7
03/15/21	290.0	6,900,276.7
03/22/21	960.0	6,901,236.7
03/29/21	760.0	6,901,996.7
04/05/21	740.0	6,902,736.7
04/12/21	610.0	6,903,346.7
04/19/21	1,090.0	6,904,436.7
04/26/21	0.0	6,904,436.7
05/03/21	820.0	6,905,256.7
05/10/21	920.0	6,906,176.7
05/17/21	830.0	6,907,006.7
05/24/21	830.0	6,907,836.7
06/01/21	540.0	6,908,376.7
06/07/21	650.0	6,909,026.7
06/14/21	980.0	6,910,006.7
06/21/21	1,690.0	6,911,696.7
06/28/21	670.0	6,912,366.7
07/01/21	980.0	6,913,346.7
07/06/21	0.0	6,913,346.7
07/12/21	790.0	6,914,136.7
07/19/21	1,870.0	6,916,006.7
07/26/21	930.0	6,916,936.7
08/02/21	1,010.0	6,917,946.7
08/09/21	2,050.0	6,919,996.7
08/16/21	1,030.0	6,921,026.7
08/23/21	1,060.0	6,922,086.7

Table D-1
Coffin Butte Landfill
Water Purged from Leak Detection System - LDS-2B

Pumping Period & Location	Volume Purged (gallons)	Cumulative Volume Purged since 12/20/04 (gallons)
09/01/21	1,000.0	6,923,086.7
09/07/21	1,070.0	6,924,156.7
09/13/21	1,020.0	6,925,176.7
09/20/21	980.0	6,926,156.7
09/27/21	1,030.0	6,927,186.7
10/01/21	1,060.0	6,928,246.7
10/11/21	1,000.0	6,929,246.7
10/18/21	1,490.0	6,930,736.7
10/25/21	880.0	6,931,616.7
11/01/21	910.0	6,932,526.7
11/08/21	930.0	6,933,456.7
11/15/21	1,810.0	6,935,266.7
11/22/21	920.0	6,936,186.7
11/29/21	800.0	6,936,986.7
12/01/21	800.0	6,937,786.7
12/06/21	810.0	6,938,596.7
12/13/21	880.0	6,939,476.7
12/20/21	1,650.0	6,941,126.7
12/27/21	750.0	6,941,876.7
01/03/22	1,710.0	6,943,586.7

Figure D-1
Cumulative Water Purged from Leak Detection System - Cell 2 (LDS-2B)
Coffin Butte Landfill



**Table D-2
Coffin Butte Landfill
Water Purged from Leak Detection System LDS-3**

Pumping Period & Location	Reading (gallons)	Volume Purged (gallons)	Cumulative Volume Purged (gallons)
10/01/20	344,545	0	1,380,519
10/05/20	344,545	0	1,380,519
10/12/20	347,274	2729	1,383,248
10/19/20	347,274	0	1,383,248
10/26/20	348,954	1680	1,384,928
11/02/20	348,966	12	1,384,940
11/09/20	350,636	1670	1,386,610
11/16/20	356,215	5579	1,392,189
11/23/20	365,084	8869	1,401,058
12/01/20	368,672	3588	1,404,646
12/07/20	370,455	1783	1,406,429
12/14/20	373,202	2747	1,409,176
12/21/20	383,712	10510	1,419,686
12/28/20	—	—	
01/04/21	399,842	16,130	1,435,816
01/11/21	408,692	8,850	1,444,666
01/18/21	414,802	6,110	1,450,776
01/25/21	419,850	5,048	1,455,824
02/01/21	423,140	3,290	1,459,114
02/08/21	429,879	6,739	1,465,853
02/15/21	436,982	7,103	1,472,956
02/22/21	439,979	2,997	1,475,953
03/01/21	445,323	5,344	1,481,297
03/08/21	447,042	1,719	1,483,016
03/15/21	450,540	3,498	1,486,514
03/22/21	450,713	173	1,486,687
03/29/21	452,470	1,757	1,488,444
04/05/21	453,314	844	1,489,288
04/12/21	453,314	0	1,489,288
04/19/21	454,174	860	1,490,148
04/26/21	454,175	1	1,490,149
05/03/21	454,952	777	1,490,926
05/10/21	454,952	0	1,490,926
05/17/21	455,754	802	1,491,728
05/24/21	455,754	0	1,491,728
06/01/21	456,581	827	1,492,555
06/07/21	456,581	0	1,492,555
06/14/21	460,013	3,432	1,495,987
06/21/21	461,740	1,727	1,497,714
06/28/21	463,394	1,654	1,499,368
07/01/21	464,213	819	1,500,187
07/06/21	465,919	1,706	1,501,893
07/12/21	467,573	1,654	1,503,547
07/19/21	469,264	1,691	1,505,238
07/26/21	470,921	1,657	1,506,895
08/02/21	472,583	1,662	1,508,557
08/09/21	473,384	801	1,509,358
08/16/21	474,225	841	1,510,199
08/23/21	475,885	1,660	1,511,859

Table D-2
Coffin Butte Landfill
Water Purged from Leak Detection System LDS-3

Pumping Period & Location	Reading (gallons)	Volume Purged (gallons)	Cumulative Volume Purged (gallons)
09/01/21	477,531	1,646	1,513,505
09/07/21	478,387	856	1,514,361
09/13/21	480,020	1,633	1,515,994
09/20/21	482,714	2,694	1,518,688
09/27/21	484,421	1,707	1,520,395
10/01/21	486,247	1,826	1,522,221
10/11/21	487,944	1,697	1,523,918
10/18/21	489,656	1,712	1,525,630
10/25/21	494,305	4,649	1,530,279
11/01/21	499,287	4,982	1,535,261
11/08/21	506,943	7,656	1,542,917
11/15/21	513,570	6,627	1,549,544
11/22/21	517,071	3,501	1,553,045
11/29/21	518,808	1,737	1,554,782
12/01/21	519,678	870	1,555,652
12/06/21	520,531	853	1,556,505
12/13/21	525,319	4,788	1,561,293
12/20/21	532,977	7,658	1,568,951
12/27/21	542,727	9,750	1,578,701
01/03/22	542,727	0	1,578,701

Figure D-2
Coffin Butte Landfill
Cumulative Water Purged from Leak Detection System LDS-3

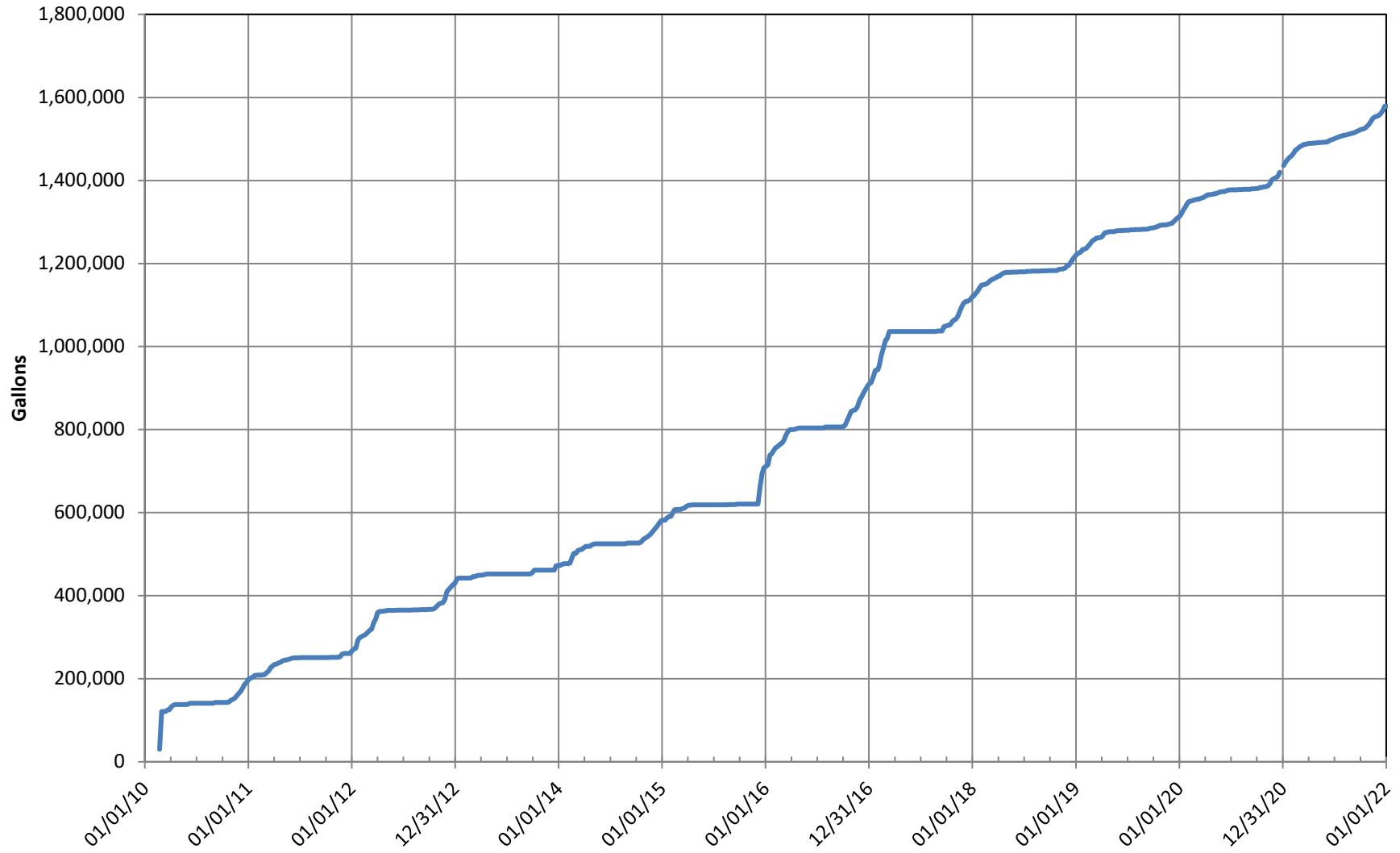


Table D-3
Coffin Butte Landfill
Water Purged from Leak Detection System LDS-4

Pumping Period & Location	Reading (gallons)	Volume Purged (gallons)	Cumulative Volume Purged (gallons)
10/01/20	367,855	0	590,127
10/05/20	367,855	0	590,127
10/12/20	379,390	11,535	601,662
10/19/20	379,390	0	601,662
10/26/20	385,868	6,478	608,140
11/02/20	385,868	0	608,140
11/09/20	385,868	0	608,140
11/16/20	392,185	6,317	614,457
11/23/20	404,910	12,725	627,182
12/01/20	404,910	0	627,182
12/07/20	404,910	0	627,182
12/14/20	404,910	0	627,182
12/21/20	417,807	12,897	640,079
12/28/20	—	—	—
01/04/21	671,615	0	640,079
01/11/21	676,320	4,705	644,784
01/18/21	678,063	1,743	646,527
01/25/21	678,131	68	646,595
02/01/21	681,330	3,199	649,794
02/08/21	681,344	14	649,808
02/15/21	685,990	4,646	654,454
02/22/21	688,126	2,136	656,590
03/01/21	692,281	4,155	660,745
03/08/21	692,320	39	660,784
03/15/21	692,347	27	660,811
03/22/21	711,948	19,601	680,412
03/29/21	711,987	39	680,451
04/05/21	712,009	22	680,473
04/12/21	712,328	319	680,792
04/19/21	712,328	0	680,792
04/26/21	712,328	0	680,792
05/03/21	712,328	0	680,792
05/10/21	712,328	0	680,792
05/17/21	712,328	0	680,792
05/24/21	712,328	0	680,792
06/01/21	712,328	0	680,792
06/07/21	712,328	0	680,792
06/14/21	712,328	0	680,792
06/21/21	718,327	5,999	686,791
06/28/21	718,327	0	686,791
07/01/21	718,327	0	686,791
07/06/21	718,327	0	686,791
07/12/21	718,327	0	686,791
07/19/21	718,327	0	686,791
07/26/21	718,327	0	686,791
08/02/21	718,327	0	686,791
08/09/21	718,327	0	686,791
08/16/21	718,327	0	686,791
08/23/21	718,327	0	686,791

Table D-3
Coffin Butte Landfill
Water Purged from Leak Detection System LDS-4

Pumping Period & Location	Reading (gallons)	Volume Purged (gallons)	Cumulative Volume Purged (gallons)
09/01/21	718,327	0	686,791
09/07/21	718,327	0	686,791
09/13/21	718,327	0	686,791
09/20/21	718,327	0	686,791
09/27/21	718,327	0	686,791
10/01/21	718,327	0	686,791
10/11/21	718,327	0	686,791
10/18/21	724,867	6,540	693,331
10/25/21	724,867	0	693,331
11/01/21	731,362	6,495	699,826
11/08/21	731,362	0	699,826
11/15/21	737,669	6,307	706,133
11/22/21	737,669	0	706,133
11/29/21	743,892	6,223	712,356
12/01/21	743,892	0	712,356
12/06/21	743,892	0	712,356
12/13/21	743,892	0	712,356
12/20/21	750,815	6,923	719,279
12/27/21	764,424	13,609	732,888
01/03/22	771,001	6,577	739,465

Figure D-3
Coffin Butte Landfill
Cumulative Water Purged from Leak Detection System LDS-4

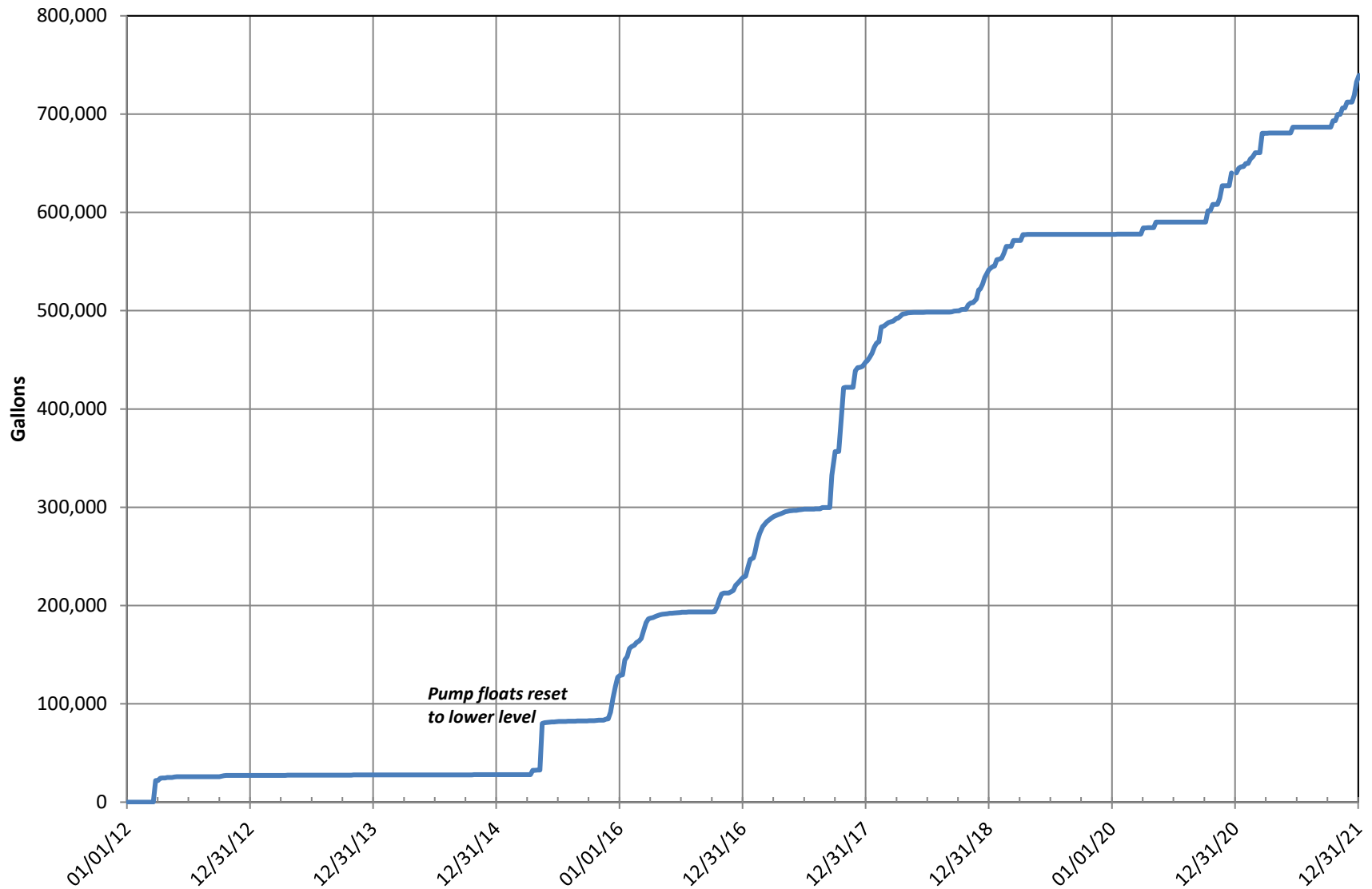


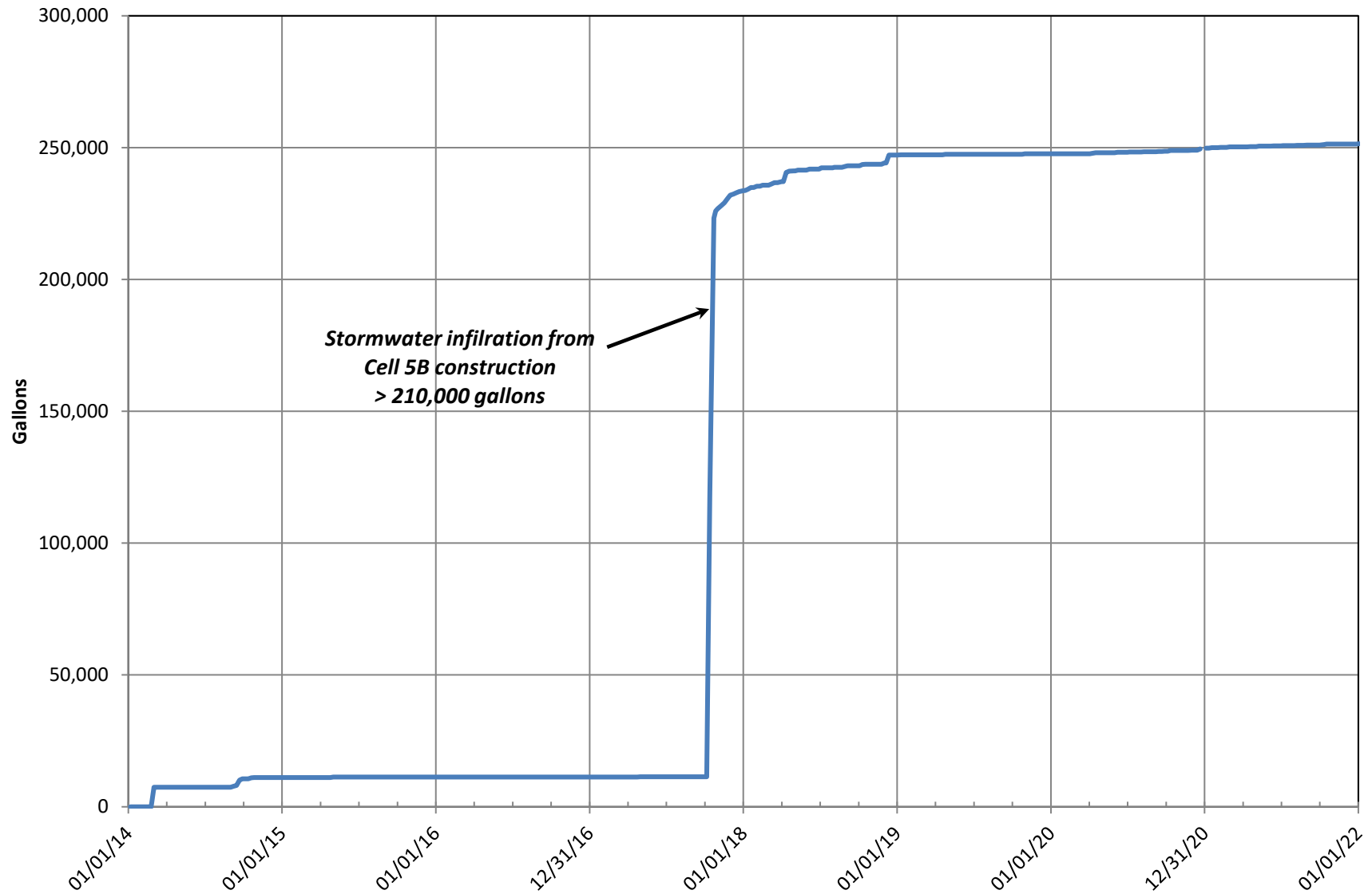
Table D-4
Coffin Butte Landfill
Water Purged from Leak Detection System LDS-5

Pumping Period & Location	Reading (gallons)	Volume Purged (gallons)	Cumulative Volume Purged (gallons)
10/01/20	248,683	0	248,683
10/05/20	248,683	0	248,683
10/12/20	248,900	217	248,900
10/19/20	248,900	0	248,900
10/26/20	248,900	0	248,900
11/02/20	248,900	0	248,900
11/09/20	248,900	0	248,900
11/16/20	248,900	0	248,900
11/23/20	248,900	0	248,900
12/01/20	249,012	112	249,012
12/07/20	249,039	27	249,039
12/14/20	249,039	0	249,039
12/21/20	249,559	520	249,559
12/28/20	—	—	—
01/04/21	249,839	280	249,839
01/11/21	249,839	0	249,839
01/18/21	249,971	132	249,971
01/25/21	249,971	0	249,971
02/01/21	249,971	0	249,971
02/08/21	250,099	128	250,099
02/15/21	250,099	0	250,099
02/22/21	250,099	0	250,099
03/01/21	250,288	189	250,288
03/08/21	250,288	0	250,288
03/15/21	250,288	0	250,288
03/22/21	250,288	0	250,288
03/29/21	250,288	0	250,288
04/05/21	250,288	0	250,288
04/12/21	250,296	8	250,296
04/19/21	250,412	116	250,412
04/26/21	250,412	0	250,412
05/03/21	250,412	0	250,412
05/10/21	250,535	123	250,535
05/17/21	250,535	0	250,535
05/24/21	250,535	0	250,535
06/01/21	250,535	0	250,535
06/07/21	250,535	0	250,535
06/14/21	250,646	111	250,646
06/21/21	250,646	0	250,646
06/28/21	250,646	0	250,646
07/01/21	250,646	0	250,646
07/06/21	250,764	118	250,764
07/12/21	250,764	0	250,764
07/19/21	250,764	0	250,764
07/26/21	250,764	0	250,764
08/02/21	250,764	0	250,764
08/09/21	250,889	125	250,889
08/16/21	250,889	0	250,889
08/23/21	250,889	0	250,889

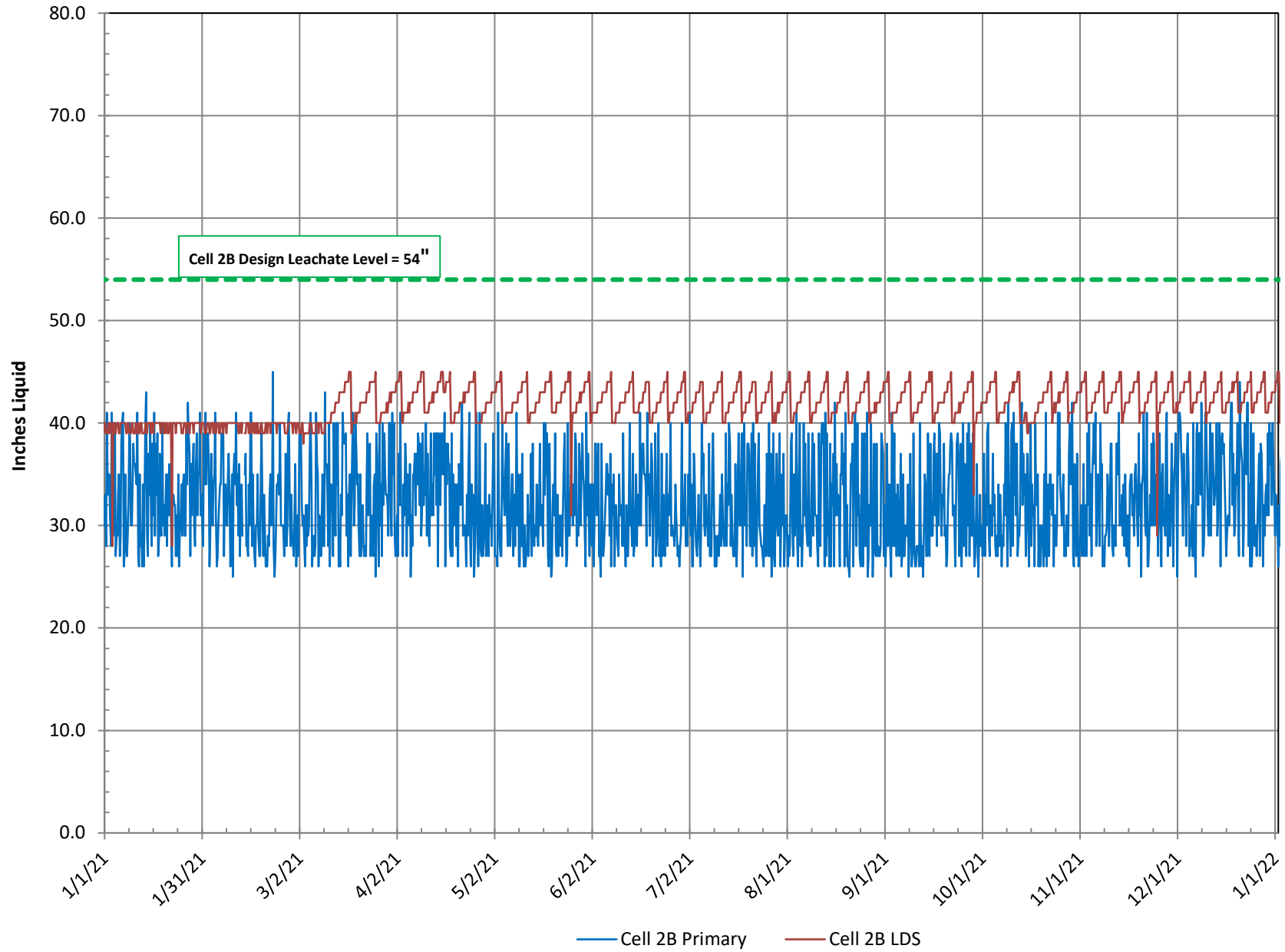
Table D-4
Coffin Butte Landfill
Water Purged from Leak Detection System LDS-5

Pumping Period & Location	Reading (gallons)	Volume Purged (gallons)	Cumulative Volume Purged (gallons)
09/01/21	251,007	118	251,007
09/07/21	251,007	0	251,007
09/13/21	251,007	0	251,007
09/20/21	251,007	0	251,007
09/27/21	251,007	0	251,007
10/01/21	251,007	0	251,007
10/11/21	251,181	174	251,181
10/18/21	251,327	146	251,327
10/25/21	251,327	0	251,327
11/01/21	251,327	0	251,327
11/08/21	251,327	0	251,327
11/15/21	251,327	0	251,327
11/22/21	251,327	0	251,327
11/29/21	251,327	0	251,327
12/01/21	251,327	0	251,327
12/06/21	251,377	50	251,377
12/13/21	251,377	0	251,377
12/20/21	251,377	0	251,377
12/27/21	251,377	0	251,377
01/03/22	251,491	114	251,491

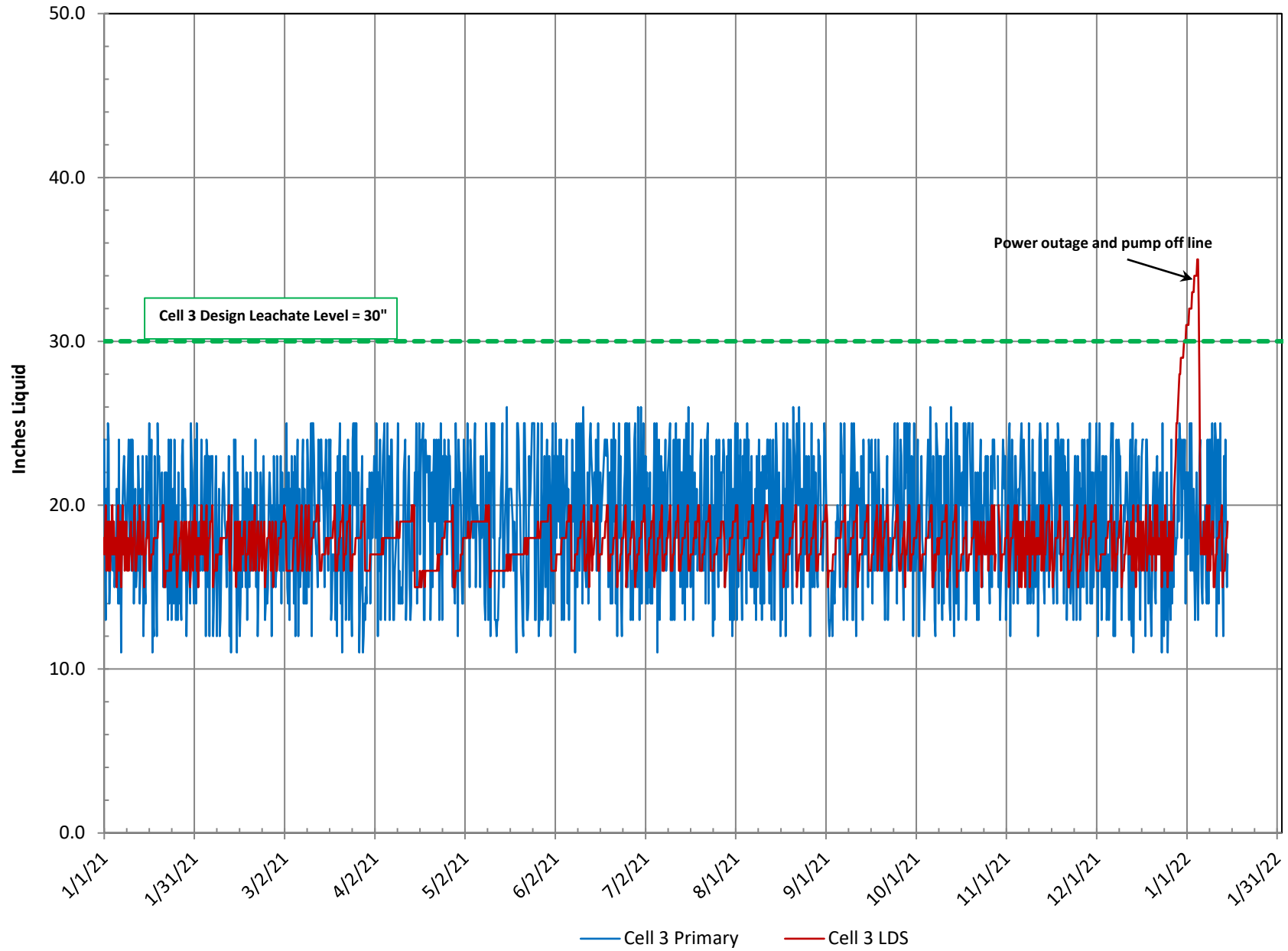
Figure D-4
Coffin Butte Landfill
Cumulative Water Purged from Leak Detection System LDS-5



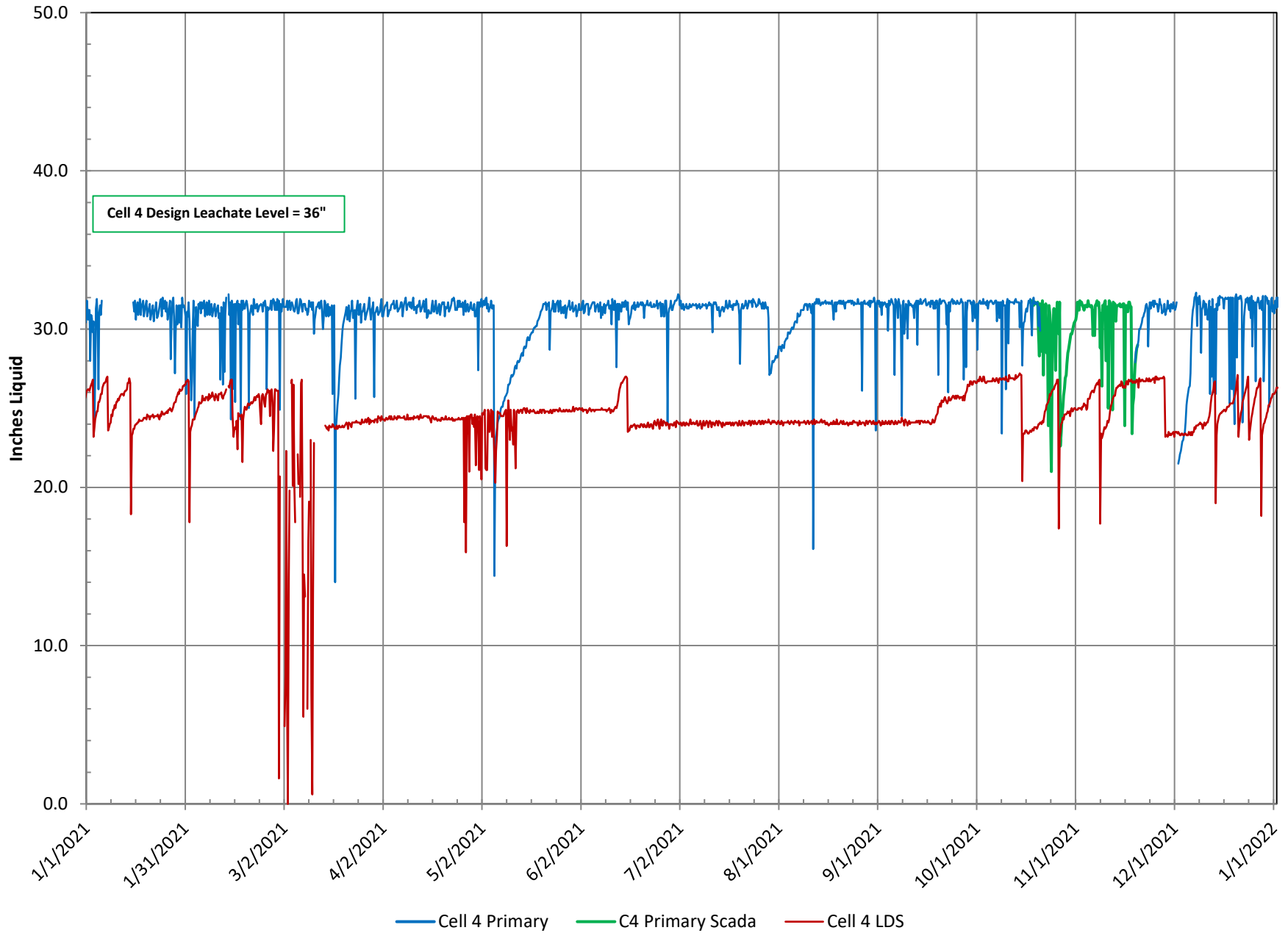
Cell 2 Sump Levels - 2021 Coffin Butte Landfill



Cell 3 Sump Levels - 2021 Coffin Butte Landfill

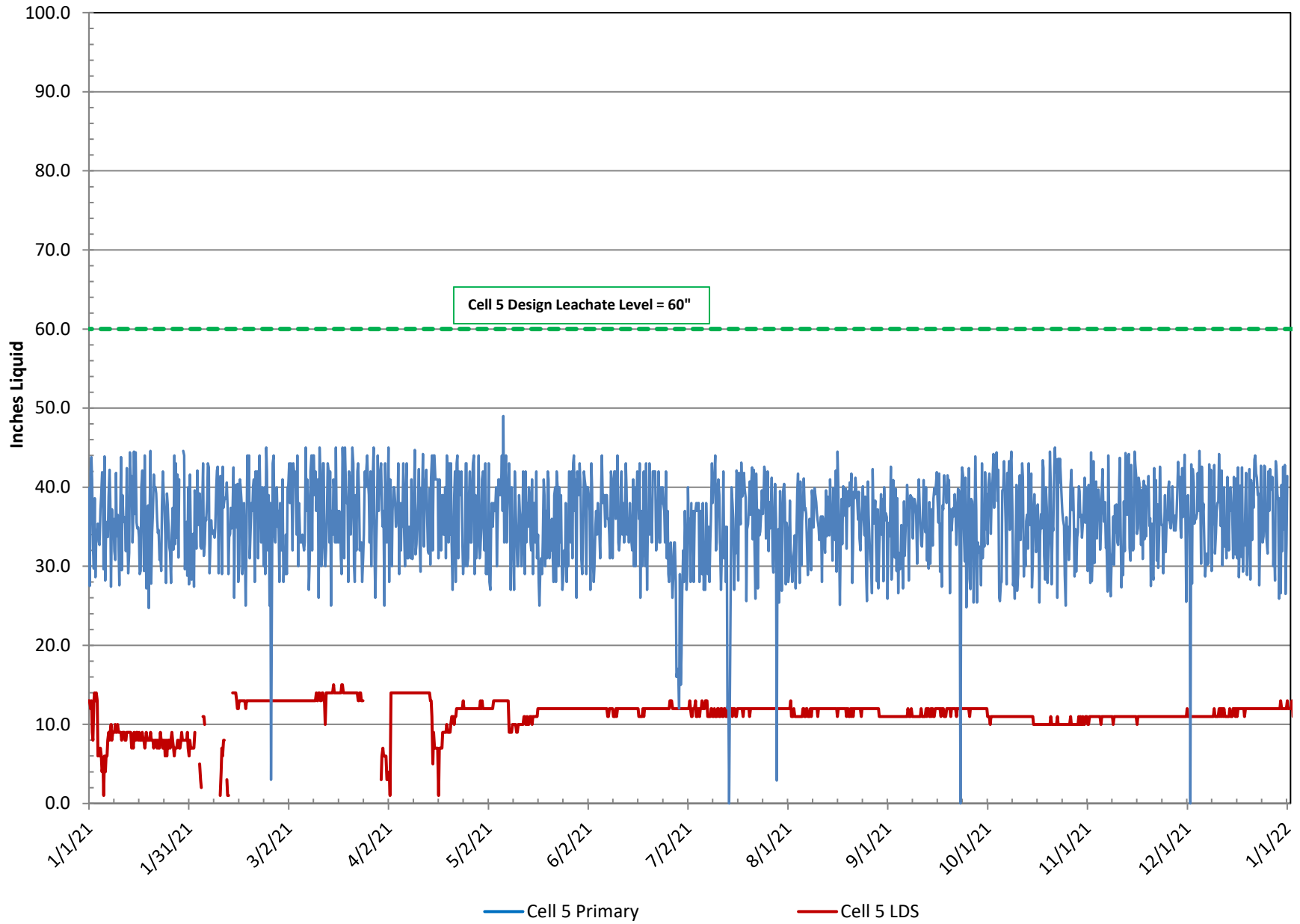


Cell 4 Sump Levels - 2021 Coffin Butte Landfill



Cell 5 Sump Levels - 2021

Coffin Butte Landfill



Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposat: Corvallis	Disposat: Salem - ATI	Disposat: Salem - 3rd Party	Disposat: Salem - Total	Leachate Delta (Generated - Disposed)	TR: Corvallis	Ceal 1 Sump	Ceal 2 Sump	Ceal 3 Sump	Ceal 4 Sump	Ceal 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Ceil 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	2.21	-	1.71	-	3.92	0.02	34,358	60,000	0	60,000	-47,688	36,000	2,590	9,583	10,496	0	14,670	37,339	234	4,718	2,062	1,258	1,059	9,331	0	0	46,670
2	2.11	-	1.76	-	3.87	0.01	33,599	70,000	0	70,000	-56,197	28,000	2,590	9,773	10,972	1	14,708	38,044	284	4,718	2,047	1,258	1,051	9,358	0	0	47,402
3	2.04	-	1.81	-	3.85	0.01	33,452	35,000	0	35,000	-15,877	42,000	2,590	9,890	10,927	7,553	13,940	44,900	0	3,470	1,952	1,258	995	7,675	0	0	52,575
4	2.00	2.12	1.85	2.00	3.85	0.01	33,173	14,000	0	14,000	-2,291	28,000	2,590	9,647	11,066	0	14,288	37,591	0	3,322	1,779	1,258	932	7,291	0	0	44,882
5	1.88	-	1.90	-	3.78	0.00	34,075	89,500	0	89,500	-71,551	34,500	2,866	10,479	10,700	0	13,833	37,878	0	9,750	2,019	1,386	991	14,146	0	0	52,024
6	1.79	-	1.95	-	3.73	0.01	33,471	70,000	0	70,000	-55,775	21,000	2,866	10,042	10,912	0	13,993	37,813	0	5,381	2,067	1,386	1,049	9,883	0	0	47,696
7	1.67	-	1.99	-	3.66	0.00	33,481	89,500	0	89,500	-75,178	33,000	2,866	9,952	11,446	0	14,416	38,680	0	4,642	1,981	1,386	1,114	9,123	0	0	47,803
8	1.58	-	2.04	-	3.62	0.01	33,205	84,000	0	84,000	-69,656	0	2,866	9,938	11,127	0	14,331	38,262	0	4,743	2,040	1,386	1,118	9,287	0	0	47,549
9	1.45	-	2.11	-	3.56	0.52	53,539	49,000	0	49,000	-25,648	91,000	2,866	10,091	11,356	21,915	20,647	66,875	0	5,459	2,125	1,386	1,046	10,016	0	0	76,891
10	1.41	-	2.20	-	3.61	0.29	65,514	7,000	0	7,000	21,795	35,000	2,866	9,908	13,714	22,771	36,044	85,303	0	4,671	1,954	1,386	995	9,006	0	0	94,309
11	1.31	1.70	2.29	2.28	3.60	0.24	62,759	14,000	0	14,000	14,404	91,000	2,866	10,440	12,838	21,722	34,307	82,173	0	4,661	1,886	1,386	1,057	8,990	0	0	91,163
12	1.20	-	2.35	-	3.55	0.01	50,653	49,000	0	49,000	-22,470	77,000	3,229	11,351	12,899	5,144	26,298	58,921	0	7,094	1,900	1,212	1,056	11,262	0	7,000	70,183
13	1.15	-	2.35	-	3.50	0.28	54,434	77,000	0	77,000	-39,984	59,500	3,229	11,795	11,427	24,645	32,116	83,212	0	4,176	1,791	1,212	1,059	8,238	0	0	91,450
14	1.08	-	2.35	-	3.44	0.07	41,709	72,500	0	72,500	-59,832	47,500	3,229	11,579	10,406	0	21,150	46,364	0	4,127	1,863	1,212	811	8,013	0	0	54,377
15	1.05	-	2.35	-	3.41	0.00	38,816	56,000	0	56,000	-35,924	35,000	3,229	11,141	10,607	0	18,290	43,267	0	4,856	1,695	1,212	872	8,636	0	7,000	51,892
16	1.03	-	2.35	-	3.38	0.00	36,435	28,000	0	28,000	-12,666	49,000	3,229	11,240	9,677	0	18,221	42,367	0	5,187	1,941	1,212	1,062	9,402	0	0	51,769
17	1.08	-	2.35	-	3.43	0.00	34,728	0	0	0	16,214	0	3,229	10,616	10,463	0	17,724	42,032	0	4,495	2,146	1,212	1,057	8,910	0	0	50,942
18	1.06	1.50	2.35	2.40	3.41	0.00	34,282	14,000	0	14,000	10,750	63,000	3,229	10,417	10,107	9,787	16,931	50,471	0	4,130	2,036	1,212	1,183	8,561	0	0	59,032
19	0.99	-	2.35	-	3.35	0.00	35,774	84,000	0	84,000	-69,315	33,000	3,236	9,801	10,278	242	16,800	40,357	0	5,735	1,866	1,389	1,112	10,102	0	0	50,459
20	0.93	-	2.35	-	3.28	0.00	36,782	77,000	0	77,000	-64,881	34,500	3,236	9,739	10,667	3	16,651	40,296	0	3,598	2,434	1,389	1,184	8,605	0	0	48,901
21	0.86	-	2.35	-	3.21	0.00	35,519	84,000	0	84,000	-67,905	38,500	3,236	10,124	10,440	1	16,091	39,892	0	7,671	1,848	1,389	814	11,722	0	0	51,614
22	0.84	-	2.35	-	3.19	0.00	36,636	82,500	0	82,500	-50,671	7,000	3,236	12,307	10,442	0	16,511	42,496	0	21,691	1,892	1,389	997	25,969	0	0	68,465
23	0.82	-	2.35	-	3.18	0.00	34,182	14,000	0	14,000	25,770	77,000	3,236	12,431	10,710	0	16,893	43,270	0	19,625	2,110	1,389	1,058	24,182	0	6,500	67,452
24	0.88	-	2.35	-	3.23	0.00	32,608	0	0	0	23,150	0	3,236	10,405	10,754	0	16,139	40,534	0	10,793	2,108	1,389	934	15,224	0	0	55,758
25	0.88	1.45	2.35	2.40	3.24	0.00	33,212	0	0	0	27,928	56,000	3,236	9,882	9,761	9,394	15,120	47,393	0	9,330	2,212	1,389	816	13,747	0	0	61,140
26	0.82	-	2.35	-	3.17	0.00	33,575	77,000	0	77,000	-57,708	38,500	3,059	10,369	9,756	1	15,011	38,196	0	10,336	2,028	1,392	915	14,671	0	0	52,867
27	0.75	-	2.35	-	3.11	0.00	32,705	84,000	0	84,000	-64,098	36,000	3,059	10,429	9,742	0	15,461	38,691	0	9,445	2,108	1,392	971	13,916	0	0	52,607
28	0.69	-	2.35	-	3.04	0.00	34,119	84,000	0	84,000	-65,592	33,000	3,059	10,286	10,193	0	15,709	39,247	0	8,887	2,065	1,392	936	13,280	0	0	52,527
29	0.64	-	2.35	-	2.99	0.01	32,778	70,000	0	70,000	-49,464	35,000	3,059	10,399	10,480	0	16,303	40,241	0	8,694	1,924	1,392	1,063	13,073	0	0	53,314
30	0.63	-	2.35	-	2.99	0.01	32,287	21,000	0	21,000	5,569	42,000	3,059	10,050	10,465	0	16,475	40,049	0	7,679	1,800	1,392	936	11,807	0	7,000	51,856
31	0.69	1.10	2.35	2.40	3.04	0.00	35,333	0	0	0	17,944	0	3,059	10,324	10,624	0	16,728	40,735	0	8,227	1,977	1,392	946	12,542	0	0	53,277
Total	0.69		2.35		3.04	1.50	1,187,193	1,556,000	0	1,556,000	-916,857	1,201,000	94,021	324,428	335,452	123,179	565,799	1,442,879	519	221,308	61,646	41,295	31,189	355,957	0	27,500	1,798,836
Average:							6.835	9.258			-29,576	38,742	3,033	10,465	10,821	3,974	18,252	46,544	17	7,139	1,989	1,332	1,006	11,482	0	1.53%	58,027

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposat. Corvallis	Disposat. Salem - ATI	Disposat. Salem - 3rd Party	Disposat. Salem - Total	Leachate Delta (Generated - Disposed)	TR: Corvallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	0.69	1.10	2.35	2.40	3.04	0.02	33,084	0	0	0	26,653	56,000	3,059	9,852	9,999	8,805	15,812	47,527	0	7,831	1,985	1,391	1,003	12,210	0	0	59,737
2	0.64	-	2.35	-	2.99	0.01	33,508	63,000	0	63,000	-42,433	42,000	2,950	10,048	10,158	0	16,832	39,988	0	9,578	2,058	1,446	1,005	14,087	0	0	54,075
3	0.59	-	2.35	-	2.94	0.02	33,875	70,000	0	70,000	-50,384	35,000	2,950	9,870	10,662	0	16,743	40,325	0	8,606	2,117	1,446	997	13,166	0	0	53,491
4	0.57	-	2.35	-	2.92	0.03	33,569	56,000	0	56,000	-31,139	21,000	2,950	9,871	10,077	0	16,350	39,248	0	8,022	1,785	1,446	929	12,182	0	7,000	51,430
5	0.59	-	2.35	-	2.94	0.26	60,015	28,000	0	28,000	4,096	42,000	2,950	10,286	11,441	19,922	31,795	76,394	0	11,090	2,183	1,446	998	15,717	0	0	92,111
6	0.60	-	2.35	-	2.95	0.04	40,756	0	0	0	19,946	56,000	2,950	10,178	11,318	0	22,389	46,835	0	9,297	2,062	1,446	1,062	13,867	0	0	60,702
7	0.66	-	2.35	-	3.02	0.02	14,597	0	0	0	54,056	0	2,950	10,408	11,862	9,296	20,857	55,373	0	8,685	2,144	1,446	1,005	13,280	0	0	68,653
8	0.66	1.25	2.35	2.40	3.01	0.00	14,024	0	0	0	38,968	56,000	2,950	9,373	10,193	96	18,625	41,237	0	7,362	2,063	1,446	884	11,755	0	0	52,992
9	0.65	-	2.35	-	3.01	0.05	36,679	35,000	0	35,000	-9,941	35,000	3,033	9,632	9,787	0	14,368	36,820	0	9,797	2,177	1,386	885	14,245	3,673	7,000	54,738
10	0.67	-	2.35	-	3.02	0.11	49,981	35,000	0	35,000	441	35,000	3,033	10,125	10,048	18,407	17,970	59,583	0	10,772	2,056	1,386	952	15,166	3,673	7,000	78,422
11	0.64	-	2.35	-	2.99	0.00	38,697	63,000	0	63,000	-30,102	42,000	3,033	9,617	9,832	17,759	15,754	55,995	0	8,029	1,744	1,386	768	11,927	3,673	0	71,595
12	0.61	-	2.35	-	2.97	0.83	60,159	49,000	0	49,000	-27,208	56,000	3,033	11,290	11,002	0	33,269	58,594	0	14,814	2,518	1,212	1,140	19,684	3,673	0	81,951
13	0.74	-	2.35	-	3.10	0.78	45,150	0	0	0	150,164	63,000	3,033	17,427	13,815	40,833	94,113	169,221	865	16,817	2,576	1,212	950	22,420	3,673	0	195,314
14	0.97	-	2.35	-	3.33	0.95	45,157	0	0	0	182,346	0	3,033	19,731	15,030	42,094	120,163	200,051	2,271	16,817	2,461	1,212	1,018	23,779	3,673	0	227,503
15	1.09	1.60	2.35	2.40	3.44	0.43	10,691	7,000	0	7,000	139,294	35,000	3,033	20,045	14,868	15,844	76,920	130,770	1,489	16,817	2,201	1,212	883	22,602	3,673	0	156,985
16	1.15	-	2.35	-	3.50	0.07	26,621	21,000	0	21,000	102,612	70,000	4,293	18,445	15,141	22,021	65,676	125,776	0	16,311	2,665	1,212	1,189	21,377	2,080	0	148,233
17	1.25	-	2.35	-	3.60	0.83	80,066	42,000	0	42,000	62,102	28,000	4,293	19,220	15,046	32,690	79,643	150,892	0	16,324	2,656	1,212	1,004	21,196	2,080	0	174,168
18	1.45	-	2.35	-	3.80	0.61	65,168	7,000	0	7,000	205,396	70,000	4,293	24,326	17,492	36,788	171,181	254,080	0	16,758	2,643	1,212	781	21,394	2,080	0	277,554
19	1.59	-	2.35	-	3.95	0.02	45,160	0	0	0	134,335	35,000	4,293	21,557	14,728	19,069	87,173	146,820	0	12,702	1,945	1,389	559	16,595	2,080	14,000	165,495
20	1.63	-	2.35	-	3.98	0.01	45,037	0	0	0	50,332	63,000	4,293	17,944	11,332	0	43,570	77,139	0	11,691	2,317	1,389	753	16,150	2,080	0	95,369
21	1.72	-	2.35	-	4.08	0.00	34,632	0	0	0	61,945	0	4,293	15,570	11,462	13,063	33,142	77,530	0	12,255	2,444	1,389	879	16,967	2,080	0	96,577
22	1.70	2.15	2.35	2.40	4.06	0.05	45,011	7,000	0	7,000	32,578	98,000	4,293	14,845	11,299	5,117	29,519	65,073	0	12,643	2,409	1,389	995	17,436	2,080	0	84,589
23	1.69	-	2.35	-	4.04	0.00	45,016	56,000	0	56,000	-19,096	42,000	4,584	13,455	10,166	8,050	26,235	62,489	0	13,340	2,215	1,389	879	17,823	1,608	0	81,920
24	1.69	-	2.35	-	4.04	0.34	20,019	91,000	0	91,000	-17,737	0	4,584	15,688	12,871	9,326	31,472	73,940	0	12,666	2,629	1,389	1,050	17,734	1,608	0	93,282
25	1.70	-	2.35	-	4.06	0.13	50,013	35,000	0	35,000	13,713	49,000	4,584	15,688	12,871	9,326	36,916	79,384	0	12,666	2,629	1,389	1,050	17,734	1,608	0	98,726
26	1.68	-	2.35	-	4.04	0.00	48,340	28,000	0	28,000	16,455	84,000	4,584	15,688	12,871	9,326	25,985	68,453	0	12,663	2,629	1,392	1,050	17,734	1,608	5,000	87,795
27	1.71	-	2.35	-	4.07	0.00	43,351	0	0	0	41,426	56,000	4,584	15,688	12,871	9,326	22,967	65,435	0	12,663	2,629	1,392	1,050	17,734	1,608	0	84,777
28	1.80	-	2.35	-	4.15	0.00	41,105	0	0	0	41,573	0	4,584	15,688	12,871	9,326	20,868	63,336	0	12,663	2,629	1,392	1,050	17,734	1,608	0	82,678
30	1.80	-	2.35	-	4.15	0.20	50,024	21,000	0	21,000	27,610	77,000	4,584	15,688	12,871	9,326	36,824	79,292	0	12,663	2,629	1,392	1,050	17,734	1,608	0	98,634
31	1.82	2.25	2.35	2.40	4.17	0.22	50,017	56,000	0	56,000	36,228	63,000	4,584	15,688	12,871	9,326	80,435	122,903	0	12,663	2,629	1,392	1,050	17,734	1,608	0	142,245
Total	1.82	2.35	2.35	2.40	4.17	6.03	1,238,512	770,000	0	770,000	1,204,225	1,309,000	111,659	433,031	366,855	375,136	1,323,763	2,610,444	4,626	365,005	69,827	40,836	28,868	509,163	53,130	40,000	3,172,737
						Average:	6.835	9.258			40.141	43.633	3.722	14.434	12.229	12.505	44.125	87.015	154	12,167	2,328	1,361	962	16,972	1,771	1.26%	105,758

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposal: Corvallis	Disposal: Salem - ATI	Disposal: Salem - 3rd Party	Disposal: Salem - Total	Leachate Delta (Generated - Disposed)	R: Corvallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	1.82	-	2.35	-	4.17	0.01	49,309	49,000	0	49,000	-6,730	42,000	4,328	15,688	12,871	9,326	30,815	73,029	0	12,610	2,629	1,445	1,050	17,734	817	0	91,579
2	1.78	-	2.35	-	4.13	0.00	46,328	56,000	0	56,000	-34,263	56,000	4,328	13,315	10,514	0	26,899	55,057	0	7,363	2,507	1,445	877	12,192	817	0	68,065
3	1.85	-	2.35	-	4.20	0.00	42,351	0	0	0	27,291	0	4,328	12,745	10,513	7,210	22,040	56,837	0	7,466	2,209	1,445	869	11,989	817	0	69,642
4	1.91	-	2.35	-	4.26	0.00	2,795	0	0	0	62,055	0	4,328	13,271	10,802	0	20,878	49,280	0	10,159	2,220	1,445	930	14,754	817	0	64,850
5	1.93	-	2.35	-	4.28	0.12	2,715	0	0	0	73,167	56,000	4,328	12,957	10,415	7,753	25,487	60,941	0	9,339	2,414	1,445	927	14,125	817	0	75,882
6	1.93	2.30	2.35	2.40	4.28	0.01	2,719	42,000	0	42,000	24,256	28,000	4,328	12,036	9,675	5,558	24,054	55,652	0	7,993	2,203	1,445	866	12,507	817	0	68,975
7	1.93	-	2.35	-	4.29	0.00	33,210	56,000	0	56,000	-22,870	7,000	4,123	12,295	9,545	564	19,701	46,228	0	13,073	2,285	1,643	928	17,929	2,183	0	66,340
8	1.88	-	2.35	-	4.24	0.03	41,282	70,000	0	70,000	-48,794	42,000	4,123	11,988	9,975	0	19,781	45,867	0	9,560	2,302	1,643	933	14,438	2,183	0	62,488
9	1.87	-	2.35	-	4.22	0.01	39,413	42,000	0	42,000	-12,813	42,000	4,123	11,485	10,137	7,228	19,632	52,605	0	9,050	2,189	1,643	930	13,812	2,183	0	68,600
10	1.87	-	2.35	-	4.22	0.15	50,922	35,000	0	35,000	-14,899	35,000	4,123	11,324	9,964	7,477	21,743	54,631	0	9,228	2,339	1,643	999	14,209	2,183	0	71,023
11	1.87	-	2.35	-	4.23	0.19	60,732	7,000	0	7,000	13,726	70,000	4,123	11,356	11,317	8,848	29,782	65,426	0	8,864	2,349	1,643	993	13,849	2,183	0	81,458
12	1.91	-	2.35	-	4.26	0.21	61,574	0	0	0	26,275	56,000	4,123	11,667	11,314	16,646	28,439	72,189	0	8,540	2,300	1,643	994	13,477	2,183	0	87,849
13	2.00	2.36	2.35	2.40	4.36	0.42	80,052	7,000	0	7,000	58,208	42,000	4,123	13,322	11,911	29,587	70,859	129,802	0	8,393	2,309	1,643	930	13,275	2,183	0	145,260
14	1.98	-	2.35	-	4.33	0.06	81,512	0	0	0	16,712	119,000	6,220	16,553	11,700	0	36,109	70,582	0	18,214	2,248	2,692	868	24,022	3,620	0	98,224
15	1.96	-	2.35	-	4.31	0.07	70,330	49,000	0	49,000	-12,929	77,000	6,220	14,226	11,375	19,179	33,738	84,738	0	12,062	2,354	2,692	935	18,043	3,620	0	106,401
16	2.00	-	2.35	-	4.36	0.65	112,582	42,000	0	42,000	7,234	77,000	6,220	16,487	13,390	25,397	69,513	131,007	0	13,670	2,710	2,692	1,117	20,189	3,620	7,000	154,816
17	2.00	-	2.35	-	4.36	0.05	75,390	7,000	0	7,000	29,161	105,000	6,220	16,954	13,031	14,554	41,458	92,217	0	9,966	2,249	2,692	807	15,714	3,620	0	111,551
18	2.06	-	2.35	-	4.41	0.34	35,068	0	0	0	77,146	56,000	6,220	15,928	11,554	16,709	39,796	90,207	0	12,641	2,187	2,692	867	18,387	3,620	0	112,214
19	2.29	-	2.35	-	4.65	2.07	35,158	0	0	0	199,003	0	6,220	22,788	13,627	52,134	111,782	206,551	0	17,792	2,638	2,692	868	23,990	3,620	0	234,161
20	2.63	3.45	2.35	2.40	4.98	0.91	120,186	14,000	0	14,000	296,424	84,000	6,220	39,591	18,947	129,187	194,263	388,208	0	31,466	3,689	2,692	935	38,782	3,620	0	430,610
21	2.70	-	2.35	-	5.06	0.22	120,162	7,000	0	7,000	82,852	126,000	7,872	30,292	16,948	31,281	85,537	171,930	9,099	20,086	2,693	2,821	932	35,630	2,454	0	210,014
22	2.60	-	2.45	-	5.05	0.02	120,102	21,000	0	21,000	-12,041	119,000	7,872	22,222	13,344	12,766	46,240	102,444	0	18,430	2,166	2,821	746	24,163	2,454	0	129,061
23	2.51	-	2.55	-	5.06	0.00	98,780	0	0	0	5,949	91,000	7,872	17,967	11,246	6,032	32,401	75,518	0	13,727	2,337	2,821	872	19,757	2,454	7,000	97,729
24	2.42	-	2.63	-	5.06	0.01	32,607	0	0	0	53,697	91,000	7,872	16,603	12,397	0	27,215	64,087	0	13,543	2,469	2,821	930	19,763	2,454	0	86,304
25	2.42	-	2.82	-	5.24	0.70	25,151	0	0	0	163,319	0	7,872	17,541	13,751	35,658	90,232	165,054	0	14,492	2,590	2,821	1,059	20,962	2,454	0	188,470
26	2.42	-	2.98	-	5.40	0.13	25,160	0	0	0	131,049	0	7,872	19,559	13,794	28,094	68,035	135,354	0	12,209	2,503	2,821	868	18,401	2,454	0	156,209
27	2.39	-	3.09	-	5.47	0.00	40,204	0	0	0	68,202	35,000	7,872	17,865	13,269	6,156	42,638	87,800	0	12,030	2,304	2,821	997	18,152	2,454	0	108,406
28	2.28	-	3.18	-	5.46	0.00	74,542	7,000	0	7,000	10,839	98,000	7,872	15,662	12,538	6,010	31,925	74,007	0	10,032	2,194	2,821	873	15,920	2,454	0	92,381
29	2.19	-	3.27	-	5.46	0.09	64,832	21,000	0	21,000	2,678	70,000	7,872	14,719	10,688	8,981	27,764	70,024	0	10,003	2,341	2,821	867	16,032	2,454	0	88,510
30	2.10	-	3.41	-	5.51	0.60	109,792	21,000	0	21,000	16,090	70,000	7,872	15,271	12,120	28,955	61,683	125,901	0	12,375	2,337	2,821	994	18,527	2,454	0	146,882
31	2.04	2.43	3.53	4.05	5.57	0.03	13,590	0	0	0	101,581	63,000	7,872	16,246	12,379	12,670	46,698	95,865	0	10,803	2,360	2,821	868	16,852	2,454	0	115,171
Total	2.04	2.43	3.53	4.05	5.57	7.10	1,768,550	553,000	0	553,000	1,381,578	1,757,000	184,964	509,923	375,051	531,960	1,447,137	3,049,034	9,099	385,181	74,624	70,043	28,629	567,576	72,517	14,000	3,689,128
Average:							6.835	9.258			44,567	56,677	5,967	16,449	12,098	17,160	46,682	98,356	294	12,425	2,407	2,259	924	18,309	2,339	0.38%	119,004

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposit: Covallis	Disposit: Salem - AT1	Disposit: Salem - 3rd Party	Disposit: Salem - Total	Leachate Delta (Generated - Disposed)	TR: Covallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Depth regim Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	2.02	-	3.67	-	5.70	0.66	10,059	0	0	0	132,847	0	7,872	17,504	12,894	21,880	60,325	120,475	0	13,684	2,426	2,821	994	19,925	2,506	0	142,906
2	2.02	-	4.00	-	6.02	1.93	10,171	0	0	0	312,833	0	7,872	25,215	16,942	87,457	154,321	291,807	1,323	20,086	3,532	2,821	930	28,691	2,506	0	323,004
3	2.10	2.43	4.13	4.05	6.24	0.60	37,581	0	0	0	237,608	56,000	7,872	27,733	17,530	51,832	141,210	246,177	0	19,775	2,855	2,821	1,055	26,506	2,506	0	275,189
4	2.28	-	4.13	-	6.42	0.54	120,168	14,000	0	14,000	142,680	84,000	11,580	28,868	16,842	47,312	142,002	246,604	0	20,014	3,668	3,186	870	27,738	2,506	0	276,848
5	2.29	-	4.13	-	6.42	0.17	132,176	0	0	0	21,708	147,000	11,580	23,750	14,249	11,519	60,806	121,904	0	15,849	2,511	3,186	928	22,474	2,506	7,000	146,884
6	2.34	-	4.13	-	6.48	0.57	134,384	7,000	7,000	0	60,429	140,000	9,800	21,608	14,479	28,482	98,404	172,773	0	19,894	2,589	3,186	865	26,534	2,506	0	201,813
7	2.36	-	4.13	-	6.50	0.58	132,236	14,000	0	14,000	20,052	133,000	9,800	21,551	13,615	24,648	68,817	138,431	0	18,594	2,579	3,186	992	25,351	2,506	0	166,288
8	2.44	-	4.13	-	6.57	0.06	60,167	0	0	0	139,526	126,000	8,183	23,093	14,344	19,832	94,271	159,723	0	17,131	2,342	3,186	805	23,464	2,506	14,000	185,693
9	2.56	-	4.13	-	6.69	0.11	60,141	0	0	0	58,008	0	8,183	20,088	12,434	5,827	45,760	92,292	0	16,976	2,321	3,186	868	23,351	2,506	0	118,149
10	2.62	2.80	4.13	4.05	6.75	0.01	66,066	0	0	0	49,665	56,000	8,183	18,383	11,310	12,218	40,965	91,059	0	15,906	2,144	3,186	930	22,166	2,506	0	115,731
11	2.63	-	4.13	-	6.77	0.80	110,362	0	0	0	31,961	126,000	10,775	18,676	12,805	19,118	48,896	110,070	0	23,893	2,398	2,777	1,054	30,122	2,131	0	142,323
12	2.74	-	4.13	-	6.88	2.11	129,868	86,500	0	86,500	150,603	170,500	10,775	32,557	17,290	112,118	155,992	328,132	0	29,927	3,011	2,777	993	36,708	2,131	0	366,971
13	2.76	-	4.13	-	6.89	0.00	132,048	126,000	0	126,000	12,390	126,500	10,500	32,603	14,992	63,717	113,942	235,754	0	26,662	2,298	2,777	816	32,553	2,131	0	270,438
14	2.61	-	4.13	-	6.75	0.08	124,574	147,000	0	147,000	-129,270	140,500	10,500	23,482	12,827	14,625	53,045	114,479	0	20,040	2,061	2,777	816	26,694	2,131	0	142,304
15	2.52	-	4.13	-	6.65	0.01	122,262	105,000	0	105,000	-99,177	119,000	7,487	18,298	12,093	9,376	45,058	92,311	0	13,979	2,012	2,777	874	19,642	2,131	14,000	114,085
16	2.49	-	4.13	-	6.62	0.01	106,572	21,000	0	21,000	-31,607	107,000	7,487	16,495	10,811	4,061	36,447	75,300	0	12,674	2,150	2,777	932	18,533	2,131	0	95,965
17	2.46	2.65	4.13	4.05	6.59	0.01	81,032	14,000	0	14,000	-4,786	105,000	7,487	15,667	10,606	5,716	32,381	71,856	0	10,605	2,001	2,777	875	16,258	2,131	0	90,246
18	2.31	-	4.13	-	6.45	0.01	72,618	147,000	7,000	154,000	-137,251	79,000	7,010	15,472	10,087	3,717	32,729	69,015	0	15,454	2,049	1,465	874	19,842	510	0	89,367
19	2.10	-	4.13	-	6.24	0.00	67,840	184,500	49,000	233,500	-213,677	66,000	7,010	15,580	10,249	3,673	32,124	68,636	0	13,909	2,142	1,465	1,001	18,517	510	0	87,663
20	1.88	-	4.13	-	6.02	0.00	62,942	177,500	63,000	240,500	-213,728	67,500	6,535	15,690	11,393	7,237	30,688	71,543	0	12,888	2,308	1,465	1,000	17,661	510	0	89,714
21	1.66	-	4.13	-	5.79	0.02	59,974	198,500	54,000	252,500	-226,890	60,500	6,535	15,974	11,562	4,295	29,711	68,077	0	12,216	2,196	1,465	1,120	16,997	510	0	85,584
22	1.46	-	4.13	-	5.59	0.00	57,349	177,500	42,000	219,500	-194,919	62,000	5,753	15,382	11,230	4,166	29,338	65,869	0	10,982	2,097	1,465	1,007	15,551	510	0	81,930
23	1.43	-	4.13	-	5.56	0.04	53,847	63,000	0	63,000	-38,212	42,000	5,753	14,759	10,692	4,332	27,820	63,356	0	10,214	2,020	1,465	1,070	14,769	510	0	78,635
24	1.44	1.95	4.13	4.05	5.57	0.38	75,258	14,000	0	14,000	22,295	91,000	5,753	15,031	11,244	21,173	42,362	95,563	0	10,694	2,197	1,465	1,124	15,480	510	0	111,553
25	1.27	-	4.13	-	5.40	0.04	67,176	154,000	48,000	202,000	-173,910	59,500	5,805	16,203	12,528	4,455	33,525	72,516	0	13,365	2,112	3,217	1,069	19,763	2,987	0	95,266
26	1.21	-	4.13	-	5.35	0.80	109,308	105,000	36,000	141,000	-99,538	67,000	5,805	20,373	13,074	40,364	48,528	128,144	0	12,666	2,497	3,217	1,259	19,639	2,987	0	150,770
27	1.17	-	4.13	-	5.30	0.39	143,672	63,000	54,000	117,000	-24,256	164,500	5,390	26,815	14,190	42,364	117,965	206,724	0	12,919	2,443	3,217	1,126	19,705	2,987	7,000	229,416
28	1.02	-	4.13	-	5.15	0.00	115,574	91,000	54,000	145,000	-121,698	143,500	5,390	22,308	14,057	10,333	68,273	120,361	0	9,094	2,155	3,217	1,062	15,528	2,987	0	138,876
29	0.89	-	4.13	-	5.03	0.24	99,240	91,000	54,000	145,000	-121,457	109,000	5,857	18,851	12,575	15,909	51,469	104,661	0	8,955	1,965	3,217	998	15,135	2,987	0	122,783
30	0.93	-	4.13	-	5.06	0.51	100,904	14,000	24,000	38,000	8,234	70,000	5,857	17,384	12,502	27,557	65,295	128,595	0	9,167	2,176	3,217	996	15,556	2,987	0	147,138
31	1.08	1.48	4.13	4.05	5.21	0.58	119,968	0	0	0	92,581	63,000	5,857	20,966	14,675	35,694	109,816	186,998	1,982	13,779	2,528	3,217	1,058	22,564	2,987	0	212,549
Total	1.08		4.13		5.21	11.26	2,775,537	2,014,500	485,000	2,499,500	-336,956	2,777,000	240,246	636,359	406,121	764,997	2,111,478	4,159,202	3,305	481,988	73,783	82,980	30,361	672,417	64,463	42,000	4,896,081
					Average:		6,835	9,258			-10,870	89,581	7,750	20,528	13,101	24,677	68,112	134,168	107	15,548	2,380	2,677	979	21,691	2,079	0.86%	157,938

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposit. Corvallis	Disposit. Salem - ATI	Disposit. Salem - 3rd Party	Disposit. Salem - Total	Leachate Delta (Generated - Disposed)	TR: Corvallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	1.09	-	4.13	-	5.22	0.44	148,004	28,000	42,000	70,000	71,013	208,000	10,560	26,461	15,819	47,702	142,426	242,968	11,608	24,847	2,748	3,766	1,121	44,090	1,959	0	289,017
2	1.07	-	4.13	-	5.21	1.34	148,628	84,000	48,000	132,000	-20,043	147,000	10,560	28,286	15,095	43,204	122,085	219,230	535	24,847	2,436	3,766	812	32,396	1,959	7,000	253,585
3	1.12	-	4.13	-	5.26	0.00	149,056	61,500	0	61,500	53,073	152,000	8,920	30,422	14,957	43,651	133,093	231,043	0	24,005	2,098	3,766	758	30,627	1,959	0	263,629
4	1.57	1.85	3.60	3.60	5.17	0.01	125,130	70,000	0	70,000	-63,165	149,000	8,920	22,204	12,597	6,862	56,519	107,102	0	16,716	1,796	3,766	626	22,904	1,959	0	131,965
5	1.49	-	3.60	-	5.10	0.00	112,954	42,000	0	42,000	-54,318	133,000	7,053	17,737	10,762	3,429	41,600	80,582	0	11,515	1,881	3,766	934	18,096	1,959	0	100,636
6	1.52	-	3.60	-	5.12	0.03	92,810	14,000	0	14,000	-5,600	63,000	7,053	16,560	11,321	7,605	37,629	80,169	0	12,350	1,963	3,766	1,004	19,083	1,959	0	101,210
7	1.51	1.85	3.60	3.60	5.11	0.00	86,774	0	0	0	5,895	98,000	7,053	15,883	10,739	3,651	35,704	73,031	0	10,825	1,972	3,766	1,117	17,680	1,959	0	92,669
8	1.44	-	3.60	-	5.05	0.00	78,044	63,000	0	63,000	-46,329	98,000	6,355	16,936	10,647	3,495	31,758	69,191	0	16,906	1,975	3,766	1,091	23,145	2,379	0	94,715
9	1.72	2.05	3.25	3.25	4.97	0.00	70,554	84,000	0	84,000	-61,002	84,000	6,355	14,917	10,702	3,561	28,447	63,982	0	7,149	1,891	3,173	978	13,191	2,379	14,000	79,552
10	1.63	-	3.25	-	4.88	0.05	66,582	105,000	0	105,000	-92,161	63,000	6,285	14,493	9,960	6,413	27,404	64,555	0	6,425	1,853	3,173	1,036	12,487	2,379	0	79,421
11	1.62	2.05	3.25	3.25	4.87	0.52	109,924	49,000	0	49,000	-29,806	89,000	6,285	15,388	11,732	26,247	51,433	111,085	0	8,244	2,152	3,173	1,085	14,654	2,379	0	128,118
12	1.66	-	3.25	-	4.91	0.00	107,306	0	0	0	17,545	91,000	7,247	12,387	9,338	26,075	54,505	109,552	0	6,775	2,140	3,173	832	12,920	2,379	0	124,851
13	1.89	-	3.25	-	5.14	0.64	64,763	0	0	0	216,808	49,000	7,247	33,548	17,270	91,693	95,091	244,849	11,182	17,007	2,293	3,173	688	34,343	2,379	0	281,571
14	2.15	2.40	3.10	3.10	5.25	0.45	125,082	0	0	0	87,605	105,000	7,247	29,902	15,433	39,323	87,076	179,981	7,190	17,007	2,714	3,173	1,243	31,327	2,379	0	212,687
15	2.11	-	3.10	-	5.22	0.25	130,144	42,000	0	42,000	23,480	184,000	8,310	26,483	14,588	21,828	91,878	163,087	5,713	16,728	2,390	3,455	1,052	29,337	3,200	0	195,624
16	2.02	2.25	3.10	3.10	5.12	0.02	121,664	91,000	0	91,000	-80,159	136,500	8,310	21,888	12,829	7,090	58,281	108,398	0	14,673	1,845	3,455	934	20,907	3,200	0	132,505
17	1.91	-	3.10	-	5.01	0.00	104,290	98,000	0	98,000	-99,519	115,500	6,005	18,201	12,061	6,995	39,228	82,490	0	10,626	2,004	3,455	996	17,081	3,200	0	102,771
18	1.85	2.15	3.10	3.10	4.95	0.64	119,216	98,000	0	98,000	-69,281	111,500	6,005	19,194	12,428	23,465	59,390	120,482	409	16,728	2,505	3,455	1,157	24,253	3,200	0	147,935
19	1.87	-	3.10	-	4.97	0.24	123,888	35,000	0	35,000	1,642	105,000	6,643	19,992	12,945	22,995	70,745	133,320	172	16,728	2,349	3,455	1,107	23,810	3,200	0	160,330
20	1.91	-	3.10	-	5.01	0.02	57,375	0	42,000	42,000	24,550	42,000	6,643	18,802	12,089	9,310	55,735	102,579	0	11,803	1,935	3,455	953	18,146	3,200	0	123,925
21	1.88	2.15	3.10	3.10	4.98	0.06	95,532	0	24,000	24,000	-16,163	112,000	6,643	16,942	11,550	9,810	39,508	84,453	0	9,394	1,926	3,455	941	15,716	3,200	0	103,369
22	1.81	-	3.10	-	4.92	0.25	92,670	56,000	0	56,000	-29,149	124,000	5,970	17,269	11,568	14,302	46,775	95,884	0	14,766	2,244	2,803	931	20,744	2,893	0	119,521
23	1.78	2.05	3.10	3.10	4.88	0.05	83,158	56,000	0	56,000	-29,821	91,000	5,970	16,566	11,577	7,023	40,614	81,750	0	11,940	1,983	2,803	968	17,694	2,893	7,000	102,337
24	1.68	-	3.10	-	4.78	0.01	75,414	119,000	0	119,000	-103,441	73,500	6,060	16,005	10,156	4,511	34,877	71,609	0	10,603	2,023	2,803	1,042	16,471	2,893	0	90,973
25	1.62	1.85	3.10	3.10	4.72	0.51	100,950	63,000	24,000	87,000	-71,396	84,000	6,060	16,031	11,754	19,510	43,036	96,391	0	10,827	2,409	2,803	1,231	17,270	2,893	0	116,554
26	1.60	-	3.10	-	4.71	0.11	115,310	14,000	24,000	38,000	-20,453	112,000	5,673	17,448	12,292	16,984	57,984	110,381	0	13,133	2,540	2,803	1,107	19,583	2,893	0	132,857
27	1.64	-	3.10	-	4.74	0.00	70,540	0	24,000	24,000	9,449	49,000	5,673	17,042	11,698	6,985	42,481	83,879	0	11,308	2,077	2,803	1,029	17,217	2,893	0	103,989
28	1.59	1.81	3.10	3.10	4.69	0.00	82,710	0	24,000	24,000	-17,379	112,000	5,673	16,808	11,091	2,118	33,936	69,626	0	10,712	2,128	2,803	1,169	16,812	2,893	0	89,331
Total	1.59	1.81	3.10	3.10	4.69	5.64	2,857,272	1,272,500	252,000	1,524,500	-398,123	2,981,000	196,780	553,795	344,998	525,837	1,659,245	3,280,655	36,808	384,586	60,270	92,378	27,942	601,984	73,010	28,000	3,955,649
Average:							6.835	9.258			-14,219	106,464	7,028	19,778	12,321	18,780	59,259	117,166	1,315	13,735	2,153	3,299	998	21,499	2,608	0.71%	141,273

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposit: Corvallis	Disposit: Salem - ATI	Disposit: Salem - 3rd Party	Disposit: Salem - Total	Leachate Delta (Generated - Disposed)	TR: Corvallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	1.53	-	3.10	-	4.63	0.00	75,320	63,000	0	63,000	-37,416	98,000	5,710	18,416	11,359	3,851	32,872	72,208	1,454	20,189	2,226	2,089	1,101	27,059	1,637	0	100,904
2	1.45	1.79	3.10	3.10	4.56	0.00	68,202	77,000	0	77,000	-74,637	70,000	5,710	6,244	9,676	4,404	30,446	56,480	0	6,515	2,606	2,089	1,238	12,448	1,637	0	70,565
3	1.41	-	3.10	-	4.52	0.00	64,691	70,000	0	70,000	-27,642	77,000	5,515	25,957	14,126	1,998	29,201	76,797	2,879	20,189	2,471	2,089	987	28,615	1,637	0	107,049
4	1.33	1.70	3.10	3.10	4.44	0.01	60,494	77,000	24,000	101,000	-75,235	63,000	5,515	19,445	11,230	4,055	27,308	67,553	0	11,734	2,203	2,089	1,043	17,069	1,637	0	86,259
5	1.32	-	3.10	-	4.42	0.23	74,586	21,000	24,000	45,000	-22,835	70,000	4,740	17,078	11,158	11,599	34,242	78,817	0	10,986	2,134	2,089	1,088	16,297	1,637	0	96,751
6	1.34	-	3.10	-	4.44	0.23	72,510	0	24,000	24,000	-604	49,000	4,740	16,527	11,702	9,046	35,960	77,975	0	10,947	2,144	2,089	1,114	16,294	1,637	0	95,906
7	1.32	1.60	3.10	3.10	4.42	0.07	69,366	7,000	24,000	31,000	46	91,000	4,740	15,644	10,398	9,828	42,171	82,781	0	10,682	2,158	2,089	1,065	15,994	1,637	0	100,412
8	1.26	-	3.10	-	4.37	0.20	70,408	95,000	0	95,000	-61,002	64,000	4,785	16,588	11,671	8,777	34,620	76,441	0	13,210	2,250	2,785	1,161	19,406	1,559	7,000	97,406
9	1.23	1.52	3.10	3.10	4.33	0.31	93,552	70,000	0	70,000	-50,458	77,000	4,785	17,036	11,987	14,951	43,224	91,983	0	13,417	2,232	2,785	1,118	19,552	1,559	0	113,094
10	1.17	-	3.10	-	4.28	0.00	55,930	63,000	0	63,000	-13,994	98,000	4,185	16,671	12,075	7,013	46,797	86,741	0	10,726	2,012	2,785	1,113	16,636	1,559	0	104,936
11	1.09	1.48	3.10	3.10	4.19	0.02	51,968	105,000	24,000	129,000	-84,216	42,000	4,185	15,066	10,424	10,663	31,420	71,758	0	7,870	1,839	2,785	941	13,435	1,559	0	86,752
12	1.07	-	3.10	-	4.18	0.01	59,878	14,000	24,000	38,000	-25,155	49,000	4,363	14,996	10,304	0	27,001	56,665	0	8,738	1,964	2,785	1,013	14,500	1,559	0	72,723
13	1.07	-	3.10	-	4.18	0.00	59,090	0	24,000	24,000	-12,597	49,000	4,363	13,868	9,620	4,446	24,294	56,592	0	6,614	2,003	2,785	941	12,343	1,559	0	70,493
14	1.02	1.38	3.10	3.10	4.12	0.10	58,655	14,000	24,000	38,000	-18,268	91,000	4,363	14,271	11,549	7,706	28,004	63,894	0	7,093	1,961	2,785	1,096	12,335	1,559	0	78,387
15	0.99	-	3.10	-	4.09	0.00	56,954	63,000	0	63,000	-37,938	49,000	4,795	15,321	10,018	1,949	26,272	58,355	0	17,838	1,884	2,136	1,070	22,928	733	0	82,016
16	1.21	-	2.80	2.80	4.01	0.00	53,723	91,000	0	91,000	-67,918	68,000	4,795	14,700	9,946	3,806	24,443	57,690	0	13,073	2,094	2,136	1,079	18,382	733	0	76,805
17	1.14	-	2.80	-	3.95	0.00	53,160	98,000	0	98,000	-73,645	44,500	4,290	14,734	10,422	5,584	24,145	59,175	0	12,190	2,208	2,136	1,073	17,607	733	0	77,515
18	1.07	1.38	2.80	2.80	3.87	0.11	54,190	77,000	24,000	101,000	-58,338	69,500	4,290	15,381	10,452	17,798	24,407	72,328	0	11,505	2,055	2,136	1,095	16,791	733	7,000	89,852
19	1.04	-	2.80	-	3.85	0.20	60,291	21,000	24,000	45,000	-30,526	56,000	3,787	13,799	11,002	0	30,824	59,412	0	9,487	1,906	2,136	1,091	14,620	733	0	74,765
20	1.06	-	2.80	-	3.87	0.04	63,981	0	24,000	24,000	-15,692	28,000	3,787	12,898	9,674	0	32,224	58,583	0	8,045	1,818	2,136	974	12,973	733	0	72,289
21	1.02	1.40	2.80	2.80	3.82	0.16	60,980	7,000	24,000	31,000	-16,462	91,000	3,787	13,034	9,086	7,493	27,562	60,962	0	8,776	1,882	2,136	1,029	13,823	733	0	75,518
22	1.00	-	2.80	-	3.80	0.08	68,348	49,000	0	49,000	-25,884	63,000	3,825	15,509	10,493	8,142	26,810	74,779	0	11,114	2,015	2,079	1,039	16,247	438	0	91,464
23	1.20	1.60	2.53	2.53	3.73	0.01	55,833	77,000	0	77,000	-62,988	63,000	3,825	14,645	9,098	3,696	26,674	57,938	0	6,498	1,952	2,079	940	11,469	438	0	69,845
24	1.10	-	2.53	-	3.64	0.04	57,358	112,000	0	112,000	-93,610	56,000	4,305	14,073	10,796	3,971	27,130	60,275	0	9,599	2,207	2,079	1,150	15,035	438	0	75,748
25	1.30	1.79	2.27	2.27	3.57	0.08	52,875	84,000	0	84,000	-63,645	56,000	4,305	13,582	10,098	3,852	27,692	59,529	0	8,021	2,074	2,079	1,089	13,263	438	0	73,230
26	1.32	-	2.27	-	3.60	0.00	50,172	0	0	0	17,115	42,000	3,667	13,673	9,562	3,848	24,240	54,990	0	7,017	1,809	2,079	954	11,859	438	0	67,287
27	1.39	-	2.27	-	3.66	0.01	48,914	0	0	0	17,627	0	3,667	12,707	8,909	3,581	23,205	52,069	0	9,100	1,972	2,079	883	14,034	438	0	66,541
28	1.35	1.65	2.27	2.27	3.63	0.11	52,688	7,000	0	7,000	6,875	98,000	3,667	12,795	9,258	4,074	23,117	52,911	0	8,235	1,828	2,079	1,072	13,214	438	0	66,563
29	1.28	-	2.27	-	3.55	0.04	54,738	70,000	0	70,000	-60,064	70,000	3,410	12,292	9,840	2,703	24,237	52,482	0	6,858	1,818	2,079	999	11,754	438	0	64,674
30	1.18	1.70	2.27	2.27	3.45	0.00	42,481	119,000	0	119,000	-97,857	42,000	3,410	12,080	8,831	3,527	23,743	51,591	0	6,902	1,920	2,079	694	11,595	438	0	63,624
31	1.09	1.48	2.27	2.27	3.36	0.00	52,292	112,000	0	112,000	-88,402	56,000	4,250	13,804	9,036	3,087	23,564	53,741	1,796	14,017	2,662	2,079	1,157	21,711	438	0	75,890
Total	1.09		2.27		3.36	2.06	1,873,628	1,663,000	288,000	1,951,000	-1,265,366	1,940,000	135,560	462,834	323,800	175,448	915,852	2,013,494	6,129	327,186	64,307	69,859	32,407	499,888	31,880	14,000	2,545,262
					Average:		6.835	9,258			-40,818	62,581	4,373	14,930	10,445	5,660	29,544	64,951	198	10,554	2,074	2,254	1,045	16,125	1,028	0.55%	82,105

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposal: Conavills	Disposal: Salem - ATI	Disposal: Salem - 3rd Party	Disposal: Salem - Total	Leachate Delta (Generated - Disposed)	IR: Conavills	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	0.99	1.48	2.27	2.27	3.27	0.00	48,146	112,000	0	112,000	-87,099	56,000	4,020	13,987	9,935	2,969	23,248	54,159	862	13,157	2,003	1,780	1,079	18,881	8	0	73,047
2	0.98	-	2.27	-	3.25	0.00	45,722	28,000	0	28,000	-9,041	49,000	3,570	13,046	10,014	0	22,273	48,903	0	10,944	1,895	1,780	1,153	15,771	8	0	64,681
3	1.00	-	2.27	-	3.27	0.00	46,037	0	0	0	17,460	42,000	3,570	13,075	9,248	3,036	21,096	50,025	0	8,879	1,800	1,780	1,007	13,465	8	0	63,497
4	0.98	1.40	2.27	2.27	3.26	0.00	43,212	28,000	0	28,000	-13,112	49,000	3,570	11,923	9,398	0	21,437	46,328	0	7,172	1,714	1,780	1,100	11,765	8	0	58,100
5	0.91	-	2.27	-	3.19	0.00	44,411	98,000	0	98,000	-77,653	35,000	3,965	12,058	9,149	2,444	20,797	48,413	272	10,687	1,851	2,452	1,082	16,344	1	0	64,758
6	0.83	1.40	2.27	2.27	3.11	0.00	44,311	84,000	0	84,000	-69,778	56,000	3,965	11,534	8,841	2,191	20,380	46,911	0	6,285	1,805	2,452	1,079	11,621	1	0	58,533
7	0.77	-	2.27	-	3.04	0.02	45,134	84,000	0	84,000	-65,908	42,000	3,090	11,269	9,014	2,262	20,564	46,199	0	4,880	1,685	2,452	1,009	10,026	1	7,000	56,226
8	1.16	1.60	1.80	1.80	2.97	0.00	44,569	84,000	0	84,000	-72,885	49,000	3,090	10,990	9,114	2,263	19,877	45,334	0	5,182	1,704	2,452	1,011	10,349	1	0	55,684
9	1.18	-	1.80	-	2.98	0.05	44,938	14,000	0	14,000	-855	28,000	3,343	11,158	8,782	2,276	20,801	46,360	0	6,381	1,880	2,452	1,009	11,722	1	0	58,083
10	1.23	-	1.80	-	3.04	0.00	46,116	0	0	0	10,563	0	3,343	11,499	9,051	2,267	19,625	45,785	0	5,722	1,689	2,452	1,030	10,893	1	0	56,679
11	1.29	1.70	1.69	1.69	2.98	0.00	43,384	0	0	0	13,353	112,000	3,343	10,755	9,277	2,413	19,447	45,235	0	6,076	1,896	2,452	1,077	11,501	1	0	56,737
12	1.22	-	1.69	-	2.91	0.00	44,437	91,000	0	91,000	-74,147	42,000	3,550	11,323	9,268	1,798	19,570	45,509	90	10,313	1,946	2,405	1,016	15,770	11	0	61,290
13	1.26	1.79	1.57	1.57	2.84	0.00	41,988	91,000	0	91,000	-74,668	42,000	3,550	11,189	8,885	1,998	19,130	44,752	0	8,270	1,872	2,405	1,010	13,557	11	0	58,320
14	1.22	-	1.57	-	2.79	0.00	40,226	63,000	0	63,000	-43,008	42,000	3,150	11,457	9,646	2,201	19,276	45,730	0	9,096	1,965	2,405	1,011	14,477	11	0	60,218
15	1.23	1.79	1.51	1.51	2.75	0.00	31,711	63,000	0	63,000	-34,249	42,000	3,150	11,355	10,238	2,584	19,043	46,370	0	8,717	2,017	2,405	942	14,081	11	0	60,462
16	1.23	-	1.51	-	2.75	0.00	51,515	14,000	0	14,000	-6,023	44,500	3,127	11,561	9,184	1,429	20,543	45,843	0	8,474	1,949	2,405	809	13,637	11	0	59,492
17	1.29	-	1.51	-	2.81	0.00	39,733	0	0	0	17,197	0	3,127	11,071	8,991	1,525	18,919	43,632	0	8,045	1,888	2,405	948	13,286	11	0	56,930
18	1.29	1.70	1.51	1.51	2.81	0.00	39,906	0	0	0	17,268	56,000	3,127	11,854	8,914	1,581	18,811	44,286	0	7,669	1,993	2,405	809	12,876	11	0	57,174
19	1.23	-	1.51	-	2.75	0.00	40,390	70,000	0	70,000	-33,589	66,500	3,105	14,049	8,538	1,550	19,024	46,266	9,099	16,115	1,901	2,494	926	30,535	0	0	76,801
20	1.22	1.70	1.46	1.46	2.69	0.00	41,218	89,500	0	89,500	-68,881	33,000	3,105	11,985	9,153	0	18,898	43,141	0	13,227	2,048	2,494	927	18,696	0	0	61,837
21	1.18	-	1.46	-	2.64	0.00	41,143	63,000	0	63,000	-41,488	42,000	3,160	11,704	9,193	1,846	19,127	45,030	0	11,174	2,699	2,494	1,258	17,625	0	0	62,655
22	1.33	1.70	1.27	1.27	2.60	0.00	40,060	63,000	0	63,000	-42,942	42,000	3,160	11,553	9,003	1,812	18,884	44,412	0	10,037	2,048	2,494	1,127	15,706	0	0	60,118
23	1.34	-	1.27	-	2.62	0.05	40,430	0	0	0	21,065	42,000	3,227	11,749	9,052	2,067	18,941	45,036	0	11,131	1,892	2,494	942	16,459	0	0	61,495
24	1.39	-	1.27	-	2.66	0.30	50,122	0	0	0	29,983	38,500	3,227	11,857	9,734	14,410	24,184	63,412	0	11,399	1,865	2,494	935	16,693	0	0	80,105
25	1.45	1.81	1.27	1.27	2.73	0.06	51,017	0	0	0	15,023	0	3,227	11,772	9,686	4,501	21,446	50,632	0	10,014	1,897	2,494	1,003	15,408	0	0	66,040
26	1.40	-	1.27	-	2.68	0.01	43,450	21,000	0	21,000	14,720	108,500	2,850	14,274	9,247	6,559	20,938	53,868	8,587	11,931	1,705	2,259	820	25,302	0	0	79,170
27	1.41	1.79	1.21	1.21	2.62	0.00	41,464	77,000	0	77,000	-51,624	43,000	2,850	11,125	8,868	1,862	19,707	44,412	0	10,682	1,676	2,259	811	15,428	0	7,000	59,840
28	1.35	-	1.21	-	2.56	0.00	40,648	84,000	0	84,000	-66,767	33,000	2,755	10,749	9,223	1,840	19,811	44,378	0	8,475	1,815	2,259	954	13,503	0	0	57,881
29	1.42	1.79	1.11	1.11	2.53	0.00	40,393	35,000	0	35,000	-19,928	54,500	2,755	10,582	7,873	1,692	19,566	42,468	0	7,587	1,888	2,259	1,263	12,987	0	0	55,465
30	1.44	-	1.11	-	2.55	0.44	52,401	0	0	0	20,455	49,000	2,903	11,137	7,838	8,149	27,889	57,716	0	9,518	2,022	2,259	1,341	15,140	0	0	72,856
Total	1.44		1.11		2.55	0.93	1,308,232	1,356,500	0	1,356,500	-776,559	1,338,500	97,973	353,640	274,357	81,525	613,044	1,420,539	18,911	277,238	57,008	69,870	30,488	453,514	120	14,000	1,874,173
Average:							6.835	9.258			-25.885	44.617	3.266	11.788	9.145	2.718	20.435	47.351	630	9.241	1.900	2.329	1.016	15.117	4	0.75%	62.472

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposat Corvallis	Disposat Salem - ATI	Disposat Salem - 3rd Party	Disposat Salem - Total	Leachate Delta (Generated - Disposed)	TRC Corvallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	1.51	-	1.11	-	2.62	0.01	46,539	0	0	0	19,223	0	2,903	11,100	8,590	4,091	26,255	52,939	0	7,706	1,733	2,259	1,125	12,823	0	0	65,762
2	1.50	1.70	1.11	1.11	2.61	0.00	43,382	0	0	0	15,421	63,000	2,903	10,876	7,996	1,926	22,496	46,197	0	7,354	1,759	2,259	1,234	12,606	0	0	58,803
3	1.44	-	1.11	-	2.55	0.00	42,515	63,000	0	63,000	-28,872	76,500	2,895	13,107	8,103	3,421	22,314	49,840	2,830	18,689	1,762	2,329	1,193	26,803	0	0	76,643
4	1.39	1.60	1.11	1.11	2.50	0.00	42,014	77,000	0	77,000	-53,559	39,000	2,895	12,462	8,053	1,488	22,350	47,248	0	12,609	2,029	2,329	1,240	18,207	0	0	65,455
5	1.34	-	1.11	-	2.45	0.00	41,568	63,000	0	63,000	-39,023	53,000	2,885	11,767	8,677	1,546	22,771	47,646	0	12,140	2,053	2,329	1,377	17,899	0	0	65,545
6	1.60	2.30	0.85	0.85	2.45	0.03	39,818	63,000	0	63,000	-10,131	28,000	2,885	11,532	8,481	17,484	22,655	63,037	0	10,435	1,749	2,329	1,137	15,650	0	14,000	78,687
7	1.60	-	0.85	-	2.46	0.00	39,085	0	0	0	19,990	56,000	2,653	11,002	8,173	0	22,534	44,362	0	9,783	1,587	2,329	1,014	14,713	0	0	59,075
8	1.66	-	0.85	-	2.52	0.00	37,303	0	0	0	22,035	0	2,653	10,815	8,074	1	23,084	44,627	0	9,633	1,679	2,329	1,070	14,711	0	0	59,338
9	1.67	2.05	0.85	0.85	2.52	0.00	38,162	0	0	0	21,643	56,000	2,653	11,081	7,891	0	23,518	45,143	0	9,348	1,793	2,329	1,192	14,662	0	0	59,805
10	1.62	-	0.85	-	2.47	0.00	39,477	63,000	0	63,000	-40,264	49,000	2,810	11,342	9,068	111	23,415	46,746	0	9,812	1,782	2,718	1,155	15,467	0	0	62,213
11	1.58	2.05	0.85	0.85	2.43	0.00	38,101	63,000	0	63,000	-40,428	35,000	2,810	10,997	8,644	0	23,203	46,654	0	8,323	1,950	2,718	1,028	14,019	0	0	60,673
12	1.52	-	0.85	-	2.37	0.00	39,377	84,000	0	84,000	-61,861	38,500	2,810	11,950	9,324	0	24,707	47,754	0	8,828	1,935	2,718	281	13,762	0	0	61,516
13	1.45	1.96	0.85	0.85	2.31	0.00	38,626	77,000	0	77,000	-54,673	47,000	2,810	11,025	9,538	1	24,374	47,748	0	8,486	1,894	2,718	107	13,205	0	0	60,953
14	1.47	-	0.85	-	2.33	0.00	37,630	0	0	0	23,222	42,000	2,887	11,019	9,386	0	24,464	47,756	0	8,360	1,860	2,718	158	13,096	0	0	60,852
15	1.54	-	0.85	-	2.39	0.00	36,659	0	0	0	26,945	0	2,887	11,286	9,899	0	24,488	48,560	0	10,172	1,894	2,718	160	14,944	0	0	63,504
16	1.54	2.05	0.85	0.85	2.40	0.00	37,858	0	0	0	24,714	56,000	2,887	11,231	9,919	0	24,862	48,899	0	8,934	1,880	2,718	141	13,673	0	0	62,572
17	1.47	-	0.85	-	2.33	0.00	37,670	84,000	0	84,000	-56,627	51,000	2,675	11,453	9,568	135	25,459	49,290	1,336	9,571	1,689	3,040	117	15,753	0	0	65,043
18	1.42	2.10	0.85	0.85	2.28	0.03	37,637	77,000	0	77,000	-46,234	41,500	2,675	10,941	9,578	0	24,819	48,013	0	8,576	1,642	3,040	132	13,390	0	7,000	61,403
19	1.40	-	0.85	-	2.25	0.06	39,855	49,000	0	49,000	-27,623	40,000	2,845	11,680	8,628	0	24,602	47,755	0	7,763	1,993	3,040	681	13,477	0	0	61,232
20	1.36	1.79	0.85	0.85	2.21	0.00	41,189	56,000	0	56,000	-38,495	42,000	2,845	10,807	9,557	0	23,999	47,208	0	6,607	1,746	3,040	93	11,486	0	0	58,694
21	1.33	-	0.85	-	2.18	0.00	37,693	35,000	0	35,000	-14,263	49,000	2,617	10,629	9,299	0	25,082	47,627	0	5,775	1,741	3,040	247	10,803	0	0	58,430
22	1.39	-	0.85	-	2.24	0.00	36,697	0	0	0	24,082	0	2,617	10,608	8,746	1,721	25,074	48,766	0	5,598	1,827	3,040	548	11,013	0	0	59,779
23	1.39	1.83	0.85	0.85	2.25	0.02	0	0	0	0	59,900	56,000	2,617	10,304	9,860	1,934	24,585	49,300	0	5,517	1,792	3,040	251	10,600	0	0	59,900
24	1.39	-	0.85	-	2.24	0.09	0	70,000	0	70,000	9,060	14,000	2,875	12,903	9,316	4,743	25,419	55,256	6,940	12,166	1,786	2,911	1	23,804	0	0	79,060
25	1.40	1.83	0.80	0.80	2.20	0.00	35,097	100,500	0	100,500	-71,191	5,500	2,875	11,084	9,703	2,327	24,567	50,556	0	9,129	1,810	2,911	0	13,850	0	0	64,406
26	1.34	-	0.80	-	2.15	0.00	38,938	77,000	0	77,000	-49,646	43,000	2,590	11,895	10,046	1,934	25,762	52,227	0	9,267	1,887	2,911	0	14,065	0	0	66,292
27	1.29	1.70	0.80	0.80	2.09	0.03	38,260	70,000	0	70,000	-46,972	50,000	2,590	10,847	10,135	2,170	24,008	49,750	0	6,916	1,711	2,911	0	11,538	0	0	61,288
28	1.28	-	0.80	-	2.09	0.00	37,007	35,000	0	35,000	-10,641	28,000	2,675	10,495	9,707	2,083	25,131	50,091	0	6,607	1,757	2,911	0	11,275	0	0	61,366
29	1.34	-	0.80	-	2.15	0.00	36,434	0	0	0	24,953	0	2,675	10,689	10,078	1,982	24,947	50,371	0	6,202	1,903	2,911	0	11,016	0	0	61,387
30	1.35	-	0.80	-	2.15	0.00	35,700	0	0	0	23,490	56,000	2,675	10,361	10,043	1,836	24,377	49,292	0	5,212	1,775	2,911	0	9,898	0	0	59,190
31	1.32	1.79	0.80	0.80	2.13	0.00	37,174	28,000	0	28,000	-5,030	56,000	2,675	10,285	11,097	1,787	24,280	50,124	0	5,187	1,922	2,911	0	10,020	0	0	60,144
Total	1.32		0.80		2.13	0.27	1,126,465	1,234,500	0	1,234,500	-380,955	1,171,000	85,747	347,573	285,177	52,721	749,564	1,520,782	11,106	270,706	56,320	84,414	15,682	438,228	0	21,000	1,959,010
					Average:		6.835	9.258			-12,289	37.774	2,766	11,212	9,199	1,701	24,179	49,057	358	8,732	1,817	2,723	506	14,136	0	1.07%	63,194

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposit: Conavallis	Disposit: Salem - ATI	Disposit: Salem - 3rd Party	Disposit: Salem - Total	Leachate Delta (Generated - Disposed)	TR: Conavallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	1.28	1.79	0.80	0.80	2.09	0.00	37,888	77,000	0	77,000	-43,403	34,500	2,850	11,661	10,489	1,541	25,094	51,635	0	8,405	1,993	2,452	0	12,850	0	7,000	64,485
2	1.24	-	0.80	-	2.04	0.00	37,147	70,000	0	70,000	-46,580	35,000	2,725	10,371	10,459	1,671	24,246	49,472	0	6,830	1,813	2,452	0	11,095	0	0	60,567
3	1.19	1.70	0.80	0.80	2.00	0.00	37,021	56,000	0	56,000	-35,791	49,000	2,725	10,132	10,045	0	23,679	46,581	0	6,217	1,809	2,452	171	10,649	0	0	57,230
4	1.20	-	0.80	-	2.01	0.00	36,272	7,000	0	7,000	17,705	42,000	2,613	10,454	10,525	2,010	24,150	49,752	0	7,095	1,678	2,452	0	11,225	0	0	60,977
5	1.26	-	0.80	-	2.07	0.00	36,350	0	0	0	22,020	0	2,613	9,969	9,726	51	24,613	46,972	0	6,335	1,611	2,452	0	10,398	0	0	57,370
6	1.27	1.70	0.80	0.80	2.07	0.02	36,418	0	0	0	25,076	56,000	2,613	10,276	10,596	2,158	24,881	50,524	0	6,789	1,729	2,452	0	10,970	0	0	61,494
7	1.31	-	0.80	-	2.11	0.06	37,345	7,000	0	7,000	43,607	42,000	2,645	13,988	11,597	3,991	26,191	58,412	8,493	16,327	1,670	3,050	0	29,540	0	0	87,952
8	1.28	1.70	0.80	0.80	2.08	0.05	38,386	63,000	0	63,000	-30,260	35,000	2,645	11,473	10,588	1,843	26,197	52,746	0	13,724	1,606	3,050	0	18,380	0	0	71,126
9	1.25	-	0.80	-	2.05	0.00	37,555	49,000	0	49,000	-13,497	56,000	2,650	10,715	10,573	2,157	24,898	50,993	0	10,183	1,832	3,050	0	15,065	0	7,000	66,058
10	1.22	1.70	0.80	0.80	2.03	0.00	37,606	63,000	0	63,000	-34,114	28,000	2,650	10,891	10,182	2,097	24,971	50,791	0	10,845	1,806	3,050	0	15,701	0	0	66,492
11	1.23	-	0.80	-	2.03	0.19	43,190	28,000	0	28,000	8,562	49,000	2,790	10,817	11,865	6,898	32,448	64,818	0	10,193	1,691	3,050	0	14,934	0	0	79,752
12	1.34	-	0.80	-	2.15	0.91	33,319	0	0	0	85,719	0	2,790	11,562	11,729	21,342	54,777	102,200	0	11,648	2,140	3,050	0	16,838	0	0	119,038
13	1.49	1.96	0.80	0.80	2.30	0.35	15,561	0	0	0	134,754	0	2,790	14,323	13,612	27,445	74,869	133,039	0	12,202	2,024	3,050	0	17,276	0	0	150,315
14	1.47	-	0.80	-	2.28	0.02	45,718	42,000	0	42,000	22,751	91,000	2,480	15,605	10,997	10,446	51,011	90,539	5,885	9,177	1,654	3,215	0	19,930	0	0	110,469
15	1.42	-	0.80	-	2.23	0.09	45,618	70,000	0	70,000	-38,316	56,000	2,480	12,440	10,530	4,212	36,205	65,867	0	6,633	1,587	3,215	0	11,435	0	0	77,302
16	1.36	-	0.80	-	2.17	0.00	44,133	105,000	0	105,000	-64,477	40,000	2,706	11,751	11,464	11,477	31,238	68,636	0	7,292	2,013	3,215	0	12,520	0	3,500	81,156
17	1.36	-	0.80	-	2.16	0.00	39,536	49,000	0	49,000	-21,534	21,000	2,706	10,950	11,254	0	30,743	55,653	0	6,385	1,749	3,215	0	11,349	0	0	67,002
18	1.31	-	0.80	-	2.11	0.00	39,917	49,000	0	49,000	-22,564	70,000	2,706	10,581	11,279	1,482	28,858	54,906	0	6,416	1,816	3,215	0	11,447	0	0	66,353
19	1.33	-	0.80	-	2.13	0.00	36,139	14,000	0	14,000	18,848	35,000	2,706	11,439	12,583	1,736	28,690	57,154	0	6,780	1,838	3,215	0	11,833	0	0	69,987
20	1.40	1.90	0.80	0.80	2.20	0.00	37,385	0	0	0	30,196	0	2,706	10,896	11,680	1,715	28,972	55,969	0	6,413	1,984	3,215	0	11,612	0	0	67,581
21	1.35	-	0.80	-	2.15	0.00	39,210	70,000	0	70,000	-16,493	72,000	2,820	13,625	12,116	1,686	28,139	58,386	8,664	16,551	1,863	2,753	0	29,831	0	4,500	89,217
22	1.26	1.79	0.80	0.80	2.07	0.00	34,590	110,500	0	110,500	-71,227	45,500	2,820	11,576	13,041	1,613	27,719	56,769	0	12,447	1,894	2,753	0	17,094	0	0	73,863
23	1.22	-	0.80	-	2.03	0.00	37,797	91,000	0	91,000	-57,309	21,000	2,855	11,373	11,721	1,678	27,073	54,700	0	11,324	1,711	2,753	0	15,788	0	1,000	70,488
24	1.15	1.65	0.80	0.80	1.95	0.00	37,833	98,000	0	98,000	-65,101	50,000	2,855	11,244	11,643	1,592	27,530	54,864	0	11,310	1,805	2,753	0	15,868	0	0	70,732
25	1.10	-	0.80	-	1.90	0.00	38,318	89,500	0	89,500	-55,815	27,500	2,700	11,725	12,607	1,560	28,005	56,597	0	10,865	1,788	2,753	0	15,406	0	0	72,003
26	1.12	-	0.80	-	1.92	0.00	37,922	0	0	0	32,463	56,000	2,700	10,528	12,436	1,559	28,498	55,721	0	10,021	1,890	2,753	0	14,664	0	0	70,385
27	1.15	1.60	0.80	0.80	1.95	0.00	37,424	21,000	0	21,000	12,289	14,000	2,700	9,814	12,746	1,559	28,451	55,270	0	10,778	1,912	2,753	0	15,443	0	0	70,713
28	1.10	-	0.80	-	1.90	0.00	38,814	77,000	0	77,000	-39,892	52,500	2,750	10,636	13,834	2,560	29,689	59,469	3,788	8,459	1,906	2,301	0	16,453	0	0	75,922
29	1.02	1.65	0.80	0.80	1.83	0.00	38,476	105,000	0	105,000	-76,697	36,000	2,750	10,105	12,520	1,314	28,886	55,575	0	7,015	1,888	2,301	0	11,204	0	0	66,779
30	1.06	1.70	0.68	0.68	1.74	0.00	37,879	112,000	0	112,000	-84,986	38,500	2,760	11,011	11,962	0	28,100	53,833	0	7,240	1,519	2,301	0	11,060	0	0	64,893
Total	1.06	1.129767	0.68	0.68	1.74	1.69	1,129,767	1,523,000	0	1,523,000	-364,065	1,152,500	81,300	341,931	346,399	119,393	928,821	1,817,844	26,829	281,896	54,219	84,743	171	447,858	0	23,000	2,265,702
					Average:		6.835	9.258			-12.136	38.417	2.710	11.398	11.547	3.980	30.961	60.595	894	9,397	1,807	2,825	6	14,929	0	1.02%	75,523

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Leachate Delta (Generated - Disposed)	IR: Conavills	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	ERC Leachate	Total Gallons					
1	1.01	-	0.68	-	1.69	0.00	37,416	112,000	0	112,000	-66,674	22,000	2,694	12,450	13,182	2,417	26,898	57,641	5,735	15,283	1,579	2,504	0	25,101	0	0	82,742
2	0.94	-	0.68	-	1.62	0.00	37,908	70,000	0	70,000	-36,230	69,000	2,694	11,188	11,781	1,301	25,233	52,257	0	15,260	1,657	2,504	0	19,421	0	0	71,678
3	0.96	-	0.68	-	1.65	0.00	36,341	7,000	0	7,000	23,339	35,000	2,694	10,520	12,158	1,350	24,594	51,316	0	11,147	1,713	2,504	0	15,364	0	0	66,680
4	1.03	-	0.68	-	1.71	0.00	35,592	0	0	0	27,950	0	2,694	10,130	12,144	1,349	23,967	50,284	0	9,170	1,584	2,504	0	13,258	0	0	63,542
5	1.00	1.60	0.68	0.68	1.68	0.00	37,443	28,000	0	28,000	-1,261	63,000	2,694	10,038	12,712	1,438	24,255	51,137	0	8,926	1,615	2,504	0	13,045	0	0	64,182
6	0.96	1.60	0.68	0.68	1.64	0.00	38,326	77,000	0	77,000	-36,741	41,500	2,740	12,877	11,879	1,360	24,439	53,295	8,185	13,008	1,767	2,330	0	25,290	0	0	78,585
7	0.91	-	0.68	-	1.59	0.00	37,750	84,000	0	84,000	-50,569	38,500	2,535	10,300	12,906	1,460	23,502	50,703	0	11,082	1,566	2,330	0	14,978	0	5,500	65,681
8	0.86	1.52	0.68	0.68	1.54	0.00	38,097	84,000	0	84,000	-58,656	33,000	2,535	10,344	11,937	1,461	22,607	48,884	0	10,554	1,673	2,330	0	14,557	0	0	63,441
9	0.78	-	0.68	-	1.46	0.00	36,140	105,000	0	105,000	-72,921	40,000	2,590	9,915	11,748	1,348	22,612	48,213	0	10,393	1,783	2,330	0	14,506	0	5,500	62,719
10	0.76	-	0.68	-	1.45	0.00	35,208	28,000	0	28,000	-388	49,000	2,590	9,918	12,253	1,377	22,659	48,797	0	10,005	1,688	2,330	0	14,023	0	0	62,820
11	0.79	1.52	0.68	0.68	1.47	0.00	35,313	21,000	0	21,000	5,431	14,000	2,590	9,861	11,700	1,374	22,910	48,435	0	9,218	1,761	2,330	0	13,309	0	0	61,744
12	0.76	-	0.68	-	1.45	0.00	36,261	49,000	0	49,000	-16,381	49,000	2,300	11,242	12,211	1,302	23,564	50,619	3,963	9,975	1,825	2,498	0	18,261	0	0	68,880
13	0.73	1.37	0.68	0.68	1.41	0.00	36,856	77,000	0	77,000	-49,294	21,000	2,300	9,714	12,725	2,353	23,142	50,234	0	9,048	1,782	2,498	0	13,328	0	0	63,562
14	0.68	-	0.68	-	1.37	0.00	35,854	63,000	0	63,000	-37,877	42,000	2,580	9,547	12,186	1,168	22,671	48,152	0	8,669	1,658	2,498	0	12,825	0	0	60,977
15	0.91	1.70	0.42	0.42	1.33	0.00	35,762	70,000	0	70,000	-45,551	28,000	2,580	9,522	11,755	1,167	22,681	47,705	0	8,399	1,609	2,498	0	12,506	0	0	60,211
16	0.91	-	0.42	-	1.34	0.00	35,576	0	0	0	28,806	56,000	2,573	9,909	13,060	1,198	22,448	49,188	966	9,975	1,755	2,498	0	15,194	0	0	64,382
17	0.93	-	0.42	-	1.35	0.00	34,976	7,000	0	7,000	17,949	42,000	2,573	9,996	11,730	1,228	22,045	47,572	0	8,142	1,713	2,498	0	12,353	0	0	59,925
18	1.04	1.70	0.37	0.37	1.41	0.00	34,793	0	0	0	25,132	0	2,573	9,468	12,090	1,229	22,388	47,748	0	7,980	1,699	2,498	0	12,177	0	0	59,925
19	1.12	-	0.37	-	1.49	0.00	34,694	0	0	0	45,838	0	2,455	12,471	11,752	1,172	21,493	49,343	9,722	17,389	1,659	2,419	0	31,189	0	0	80,532
20	1.08	1.79	0.37	0.37	1.45	0.00	37,047	0	0	0	28,604	105,000	2,455	10,072	12,309	2,152	22,019	49,007	0	12,604	1,621	2,419	0	16,644	0	0	65,651
21	1.10	-	0.37	-	1.47	0.00	33,025	7,000	0	7,000	24,012	35,000	2,495	10,138	11,803	1,086	21,491	47,013	0	12,668	1,767	2,419	170	17,024	0	0	64,037
22	1.08	1.90	0.37	0.37	1.46	0.00	32,418	49,000	0	49,000	-18,345	27,500	2,495	10,752	11,829	1,139	21,498	47,713	0	11,421	1,520	2,419	0	15,360	0	0	63,073
23	1.11	-	0.37	-	1.48	0.00	36,159	7,000	0	7,000	20,012	35,000	2,570	9,797	12,794	1,137	21,751	48,049	0	11,086	1,617	2,419	0	15,122	0	0	63,171
24	1.12	-	0.37	-	1.50	0.00	34,248	0	0	0	25,856	42,000	2,570	9,329	12,116	1,138	21,593	46,746	0	9,213	1,726	2,419	0	13,358	0	0	60,104
25	1.19	1.90	0.37	0.37	1.56	0.00	33,936	0	0	0	27,179	0	2,570	9,470	12,514	2,078	21,547	48,179	0	8,839	1,678	2,419	0	12,936	0	0	61,115
26	1.25	-	0.37	-	1.62	0.00	31,577	0	0	0	34,176	0	2,590	10,324	12,126	1,043	21,563	47,646	2,398	11,875	1,657	2,177	0	18,107	0	0	65,763
27	1.27	1.90	0.37	0.37	1.65	0.00	22,188	0	0	0	48,508	49,000	2,590	10,625	12,087	1,884	21,015	48,201	0	11,647	1,671	2,177	0	15,495	0	7,000	63,696
28	1.30	-	0.37	-	1.67	0.00	34,872	7,000	0	7,000	19,865	28,000	2,685	9,554	12,698	1,442	21,160	47,539	0	10,350	1,671	2,177	0	14,198	0	0	61,737
29	1.31	1.83	0.37	0.37	1.68	0.00	35,329	0	0	0	23,246	49,000	2,685	9,474	12,386	113	21,108	45,766	0	8,833	1,799	2,177	0	12,809	0	0	58,575
30	1.31	-	0.37	-	1.68	0.00	33,485	0	0	0	23,539	56,000	2,563	9,383	12,108	0	20,059	44,113	0	8,855	1,879	2,177	0	12,911	0	0	57,024
31	1.32	2.05	0.37	0.37	1.69	0.00	33,158	0	0	0	22,152	49,000	2,563	9,095	12,062	3	19,739	43,462	0	8,047	1,624	2,177	0	11,848	0	0	55,310
Total	1.32		0.37		1.69	0.00	1,086,748	952,000	0	952,000	-19,292	1,118,500	79,817	317,423	378,741	40,267	698,711	1,514,959	30,969	329,056	52,316	73,986	170	486,497	0	18,000	2,001,456
					Average:		6.835	9.258			-622	36,081	2,575	10,239	12,217	1,299	22,539	48,870	999	10,615	1,688	2,387	5	15,693	0	0.90%	64,563

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposal: Corvallis	Disposal: Salem - ATI	Disposal: Salem - 3rd Party	Disposal: Salem - Total	Leachate Delta (Generated - Disposed)	TR: Corvallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	1.37	2.05	0.37	0.37	1.75	0.00	34,004	0	0	0	22,127	0	2,563	9,131	12,027	0	20,399	44,120	0	8,085	1,749	2,177	0	12,011	0	0	56,131
2	1.45	-	0.37	-	1.83	0.00	26,158	0	0	0	54,700	0	2,520	13,155	13,220	58	20,061	49,014	7,550	21,047	1,736	1,511	0	31,844	0	0	80,858
3	1.46	-	0.37	-	1.84	0.00	28,969	0	0	0	36,322	56,000	2,520	10,673	12,086	3	19,558	44,840	0	17,186	1,754	1,511	0	20,451	0	0	65,291
4	1.43	-	0.37	-	1.80	0.00	33,993	42,000	0	42,000	-12,506	56,000	2,520	10,233	12,545	4	19,884	45,186	0	14,962	1,828	1,511	0	18,301	0	0	63,487
5	1.44	-	0.37	-	1.81	0.00	35,556	0	0	0	24,661	49,000	2,520	10,012	12,138	0	20,113	44,783	0	12,361	1,562	1,511	0	15,434	0	0	60,217
6	1.47	-	0.37	-	1.84	0.00	35,414	7,000	0	7,000	23,854	28,000	2,520	9,866	12,005	0	19,686	44,077	0	11,911	1,769	1,511	0	15,191	0	7,000	59,268
7	1.48	-	0.37	-	1.86	0.00	34,669	7,000	0	7,000	18,436	42,000	2,520	9,831	13,056	0	19,665	45,072	0	11,726	1,796	1,511	0	15,033	0	0	60,105
8	1.54	2.25	0.37	0.37	1.91	0.00	34,971	0	0	0	24,346	0	2,520	10,425	12,434	0	19,551	44,930	0	11,252	1,624	1,511	0	14,387	0	0	59,317
9	1.60	-	0.37	-	1.98	0.00	35,233	0	0	0	27,613	0	2,495	10,105	11,924	60	19,883	44,467	2,928	11,861	1,731	1,860	0	18,379	0	0	62,846
10	1.61	-	0.37	-	1.98	0.00	24,219	0	0	0	38,296	56,000	2,495	9,844	12,173	1,135	19,244	44,891	2,135	11,861	1,769	1,860	0	17,624	0	0	62,515
11	1.61	-	0.37	-	1.99	0.00	36,577	14,000	0	14,000	22,908	56,000	2,495	9,808	12,422	11,749	19,651	56,125	1,800	11,861	1,840	1,860	0	17,360	0	0	73,485
12	1.63	2.15	0.37	0.37	2.00	0.00	34,257	0	0	0	33,796	56,000	2,495	8,005	13,398	8,482	20,130	52,510	113	11,861	1,710	1,860	0	15,543	0	0	68,053
13	1.68	-	0.37	-	2.05	0.00	34,028	7,000	0	7,000	19,983	0	2,543	9,378	12,030	1,649	20,572	46,172	0	11,282	1,697	1,860	0	14,839	0	0	61,011
14	1.69	-	0.37	-	2.07	0.00	32,442	0	0	0	28,174	49,000	2,543	10,368	12,015	1,177	19,940	46,043	0	11,053	1,660	1,860	0	14,573	0	0	60,616
15	1.75	2.30	0.37	0.37	2.12	0.00	33,362	0	0	0	25,207	0	2,543	9,158	12,409	1,352	19,381	44,843	0	9,993	1,873	1,860	0	13,726	0	0	58,569
16	1.78	-	0.37	-	2.15	0.00	39,904	0	0	0	46,769	56,000	2,350	13,448	12,069	1,506	19,178	48,551	12,033	21,758	1,813	2,518	0	38,122	0	0	86,673
17	1.79	2.37	0.37	0.37	2.16	0.00	34,681	0	0	0	31,182	56,000	2,350	10,542	13,011	1,128	19,753	46,784	0	15,016	1,545	2,518	0	19,079	0	0	65,863
18	1.82	-	0.37	-	2.20	0.00	32,947	0	0	0	46,935	49,000	2,535	12,277	12,016	1,562	19,552	47,942	5,968	21,758	1,696	2,518	0	31,940	0	0	79,882
19	1.85	2.40	0.37	0.37	2.22	0.00	24,954	14,000	0	14,000	28,232	28,000	2,535	10,511	11,964	1,337	19,029	45,376	0	17,508	1,784	2,518	0	21,810	0	0	67,186
20	1.87	-	0.37	-	2.24	0.00	31,083	7,000	0	7,000	27,586	35,000	2,513	11,247	12,150	1,327	18,993	46,230	0	15,141	1,780	2,518	0	19,439	0	0	65,669
21	1.93	-	0.37	-	2.31	0.00	31,477	0	0	0	32,259	0	2,513	10,273	12,815	1,088	19,592	46,281	0	13,232	1,705	2,518	0	17,455	0	0	63,736
22	1.96	2.58	0.37	0.37	2.34	0.00	31,889	0	0	0	31,937	35,000	2,513	10,147	13,413	1,339	19,832	47,244	0	12,365	1,699	2,518	0	16,582	0	0	63,826
23	2.05	-	0.37	-	2.42	0.00	33,800	0	0	0	52,931	0	2,585	14,307	12,183	1,388	19,613	50,076	15,047	17,754	1,942	1,911	0	36,655	0	0	86,731
24	2.06	2.58	0.37	0.37	2.44	0.00	38,759	0	0	0	30,390	56,000	2,585	11,633	12,475	1,086	19,600	47,379	1,040	17,754	1,870	1,911	194	22,770	0	0	70,149
25	2.04	-	0.37	-	2.42	0.00	31,643	21,000	0	21,000	16,593	70,000	2,025	11,688	11,882	1,297	19,246	46,138	773	17,754	1,608	1,911	1,051	23,098	0	0	69,236
26	2.04	2.50	0.37	0.37	2.41	0.00	31,435	35,000	0	35,000	433	35,000	2,025	11,886	10,989	1,302	18,526	44,728	0	17,247	1,700	1,911	1,282	22,140	0	0	66,868
27	2.04	-	0.37	-	2.42	0.00	32,469	28,000	0	28,000	8,310	35,000	2,480	10,928	11,143	1,283	20,077	45,911	115	17,754	1,802	1,911	1,285	22,868	0	0	68,779
28	2.07	-	0.37	-	2.44	0.00	31,094	14,000	0	14,000	22,960	28,000	2,480	10,485	12,076	1,284	19,936	46,261	0	16,691	1,904	1,911	1,287	21,793	0	0	68,054
29	2.10	2.58	0.37	0.37	2.47	0.00	32,260	21,000	0	21,000	13,385	21,000	2,480	10,495	11,555	1,088	19,452	45,070	0	16,418	1,955	1,911	1,291	21,575	0	0	66,645
30	2.12	-	0.37	-	2.49	0.00	32,359	14,000	0	14,000	17,686	28,000	2,500	10,495	11,857	1,087	17,210	43,149	0	15,839	1,866	1,911	1,280	20,896	0	0	64,045
31	2.10	2.65	0.37	0.37	2.48	0.00	31,964	28,000	0	28,000	2,380	49,000	2,500	10,419	11,491	1,307	16,186	41,903	0	15,393	1,854	1,911	1,283	20,441	0	0	62,344
Total	2.10		0.37		2.48	0.00	1,017,570	259,000	0	259,000	797,887	1,029,098	76,783	330,773	378,971	46,078	603,493	1,436,098	49,502	457,689	54,621	60,594	8,953	631,359	0	7,000	2,067,457
Average:							6.835	9.258			25.738	33.194	2.477	10.670	12.225	1.486	19.468	46.326	1.597	14.764	1.762	1.955	289	20.366	0	0.34%	66.692

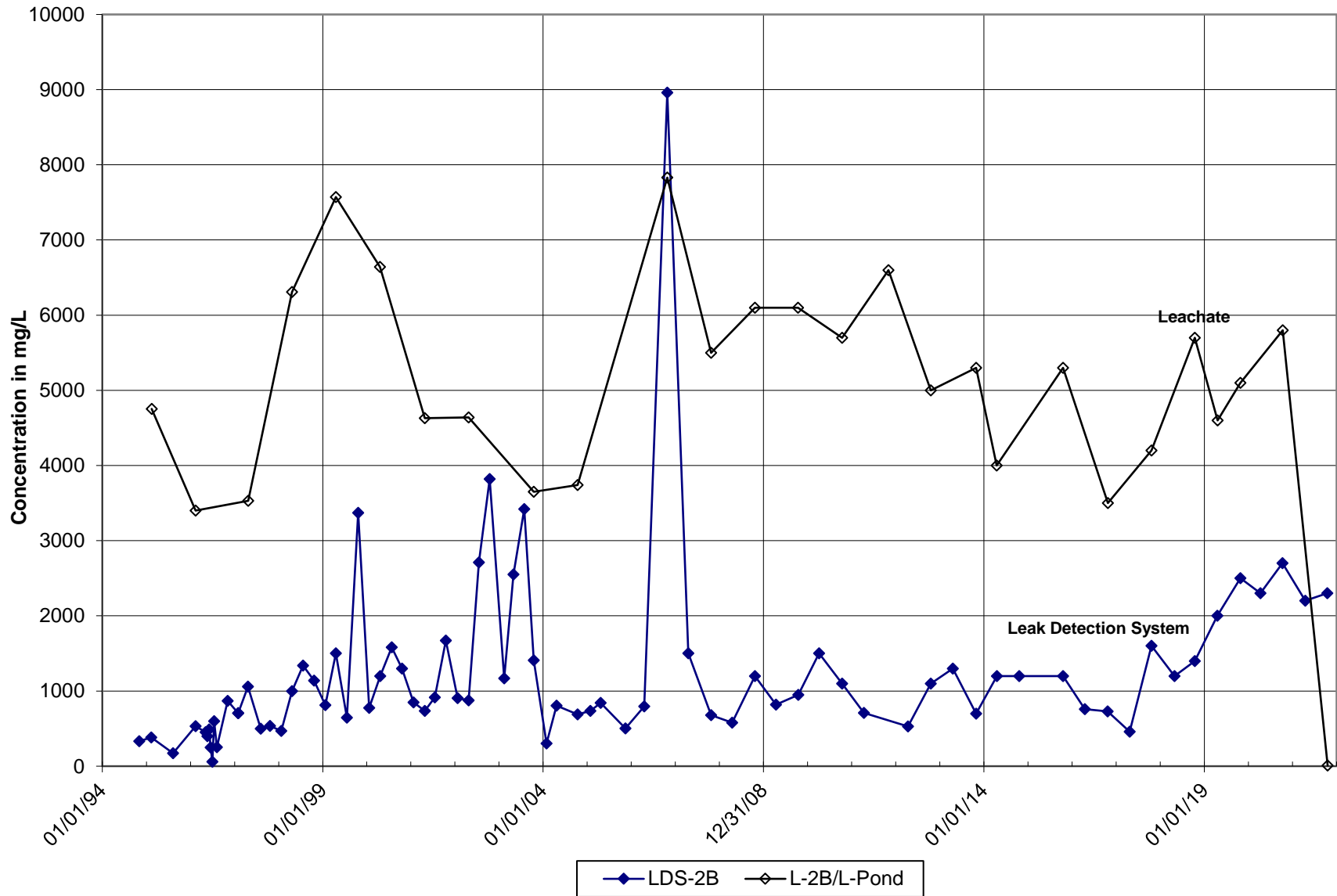
Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposal: Convallis	Disposal: Salem - ATI	Disposal: Salem - 3rd Party	Disposal: Salem - Total	Leachate Delta (Generated - Disposed)	TR: Convallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	2.13	-	0.37	-	2.50	0.00	31,489	35,000	0	35,000	28,185	35,000	2,370	14,688	12,865	1,225	19,256	50,404	12,315	24,856	2,014	3,814	1,271	44,270	0	0	94,674
2	2.17	2.58	0.37	0.37	2.54	0.00	31,293	14,000	0	14,000	30,076	21,000	2,370	12,724	11,569	1,316	19,514	47,493	0	21,064	1,794	3,814	1,204	27,876	0	0	75,369
3	2.20	-	0.37	-	2.57	0.00	31,481	7,000	0	7,000	32,537	35,000	2,458	11,404	11,927	1,090	20,059	46,938	0	17,063	1,925	3,814	1,278	24,080	0	0	71,018
4	2.23	-	0.37	-	2.60	0.00	29,562	0	0	0	41,840	42,000	2,458	11,558	11,795	1,309	19,136	46,256	0	18,115	1,938	3,814	1,279	25,146	0	0	71,402
5	2.26	-	0.37	-	2.63	0.00	31,468	21,000	0	21,000	17,058	14,000	2,458	11,338	11,946	1,073	17,331	44,146	0	18,502	1,861	3,814	1,203	25,380	0	0	69,526
6	2.29	2.71	0.37	0.37	2.66	0.00	32,691	14,000	0	14,000	20,124	28,000	2,458	11,232	11,445	1,307	15,617	42,059	0	17,787	1,878	3,814	1,277	24,756	0	0	66,815
7	2.27	2.65	0.37	0.37	2.65	0.00	33,266	28,000	0	28,000	10,326	56,000	2,030	12,142	12,672	1,202	14,718	42,764	0	20,411	2,172	4,974	1,271	28,828	0	0	71,592
8	2.28	-	0.37	-	2.65	0.00	32,596	28,000	0	28,000	5,840	35,000	2,585	11,403	11,833	1,083	13,855	40,759	0	17,171	2,192	4,974	1,340	25,677	0	0	66,436
9	2.31	2.94	0.37	0.37	2.68	0.00	33,010	35,000	0	35,000	20,410	21,000	2,585	12,213	12,195	1,314	13,949	42,256	0	16,941	1,914	4,974	1,335	25,164	0	21,000	67,420
10	2.33	-	0.37	-	2.70	0.00	31,888	7,000	0	7,000	22,073	35,000	2,270	10,988	11,568	888	13,730	39,444	0	13,760	1,633	4,974	1,150	21,517	0	0	60,961
11	2.35	-	0.37	-	2.72	0.00	32,016	0	0	0	28,417	42,000	2,270	10,365	12,347	1,334	13,813	40,129	0	12,071	1,997	4,974	1,262	20,304	0	0	60,433
12	2.37	2.80	0.37	0.37	2.74	0.00	33,029	21,000	0	21,000	5,252	14,000	2,270	10,388	11,745	1,079	14,413	39,895	0	11,312	1,844	4,974	1,256	19,386	0	0	59,281
13	2.37	-	0.37	-	2.75	0.00	29,066	35,000	0	35,000	14,805	42,000	2,135	13,134	11,095	1,295	14,902	42,561	11,568	18,773	2,027	2,489	1,253	36,110	0	0	78,671
14	2.34	2.86	0.37	0.37	2.72	0.00	29,518	70,000	0	70,000	-32,587	28,000	2,135	11,187	11,908	1,328	14,644	41,202	991	18,773	2,144	2,489	1,322	25,729	0	0	66,931
15	2.28	-	0.37	-	2.65	0.00	31,167	98,000	0	98,000	-65,185	28,000	2,630	11,092	12,758	1,091	15,933	43,504	0	15,067	1,680	2,489	1,232	20,478	0	0	63,982
16	2.21	2.65	0.37	0.37	2.58	0.00	33,205	91,000	0	91,000	-63,036	42,000	2,630	10,227	12,285	1,082	16,214	42,438	0	12,930	2,055	2,489	1,247	18,731	0	0	61,169
17	2.18	-	0.37	-	2.56	0.56	52,638	63,000	0	63,000	-43,393	35,000	2,187	10,113	12,447	6,073	22,735	53,555	0	12,639	2,235	2,489	1,317	18,690	0	0	72,245
18	2.27	-	0.37	-	2.64	0.34	55,713	7,000	0	7,000	55,622	28,000	2,187	11,169	14,196	28,278	44,213	100,043	0	12,520	1,961	2,489	1,312	18,292	0	0	118,335
19	2.26	2.65	0.37	0.37	2.64	0.10	43,051	7,000	0	7,000	38,096	84,000	2,187	10,550	13,253	11,538	36,430	73,958	0	8,952	1,627	2,489	1,111	14,189	0	0	88,147
20	2.22	-	0.37	-	2.60	0.00	39,375	77,000	0	77,000	-35,636	44,000	2,355	11,912	11,487	3,239	29,540	58,533	5,637	12,297	1,765	1,401	1,106	22,206	0	0	80,739
21	2.13	2.65	0.37	0.37	2.51	0.00	39,469	119,000	0	119,000	-85,713	44,000	2,355	11,642	13,060	2,110	25,739	54,906	860	12,297	2,047	1,401	1,245	17,850	0	0	72,756
22	2.01	-	0.37	-	2.38	0.04	34,852	148,000	0	148,000	-113,844	44,000	2,375	10,521	11,877	2,975	25,559	53,307	0	11,432	1,761	1,401	1,107	15,701	0	0	69,008
23	1.86	2.37	0.37	0.37	2.23	0.00	35,606	188,500	0	188,500	-155,717	33,000	2,375	10,907	11,867	1,901	23,459	50,509	954	12,297	2,053	1,401	1,175	17,880	0	0	68,389
24	1.76	-	0.37	-	2.13	0.00	35,208	127,000	0	127,000	-94,150	38,500	2,397	10,506	12,982	1,708	23,316	50,909	0	12,140	2,300	1,401	1,308	17,149	0	0	68,058
25	1.79	-	0.37	-	2.16	0.00	34,278	28,000	0	28,000	4,642	7,000	2,397	10,738	14,005	1,678	22,660	51,478	0	10,759	2,104	1,401	1,178	15,442	0	0	66,920
26	1.76	2.37	0.37	0.37	2.14	0.18	40,193	21,000	0	21,000	4,442	70,000	2,397	10,625	12,987	2,104	22,229	50,342	0	10,506	2,076	1,401	1,310	15,293	0	0	65,635
27	1.70	-	0.37	-	2.08	0.62	76,344	133,000	0	133,000	-74,552	65,000	2,215	15,470	14,398	32,891	41,889	106,863	9,723	14,522	1,847	597	1,239	27,929	0	0	134,792
28	1.57	2.10	0.37	0.37	1.94	0.02	47,062	163,500	0	163,500	-124,175	56,500	2,215	13,632	13,154	9,707	30,712	69,420	0	13,340	1,857	597	1,173	16,967	0	0	86,387
29	1.43	-	0.37	-	1.80	0.00	41,611	162,000	0	162,000	-135,277	44,000	2,230	11,227	12,576	2,976	24,920	53,929	0	10,806	1,899	597	1,103	14,405	0	0	68,334
30	1.31	2.10	0.37	0.37	1.68	0.05	37,894	154,000	0	154,000	-125,206	35,000	2,230	10,945	12,190	4,846	22,335	52,546	0	10,607	1,830	597	1,108	14,142	0	0	66,688
Total	1.31		0.37		1.68	1.91	1,120,039	1,902,000	0	1,902,000	-768,930	1,146,000	70,210	346,040	372,432	131,040	652,820	1,572,542	42,040	439,706	58,430	82,420	36,972	659,567	0	21,000	2,232,109
Average:							6,835	9,258			-25,631	38,200	2,340	11,535	12,414	4,368	21,761	52,418	1,401	14,657	1,948	2,747	1,232	21,986	0	0.94%	74,404

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Deposit: Corvallis	Deposit: Salem -ATI	Deposit: Salem -3rd Party	Deposit: Salem - Total	Leachate Delta (Generated - Disposed)	IR: Corvallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	1.30	-	0.37	-	1.67	0.00	35,474	60,000	0	60,000	-19,039	23,500	2,347	12,158	12,177	2,366	21,382	50,430	4,322	10,208	1,901	1,402	1,172	19,005	0	7,000	69,435
2	1.31	-	0.37	-	1.68	0.01	34,848	0	0	0	29,950	56,000	2,347	11,090	13,295	2,138	20,387	49,257	758	10,208	1,934	1,402	1,239	15,541	0	0	64,798
3	1.35	2.05	0.37	0.37	1.72	0.00	35,622	28,000	0	28,000	300	0	2,347	10,935	12,782	1,700	20,242	48,006	808	10,208	2,129	1,402	1,369	15,916	0	0	63,922
4	1.30	-	0.37	-	1.67	0.00	35,135	63,000	0	63,000	-33,875	49,000	2,525	10,785	13,705	1,478	20,086	48,579	627	10,208	2,076	1,402	1,368	15,681	0	0	64,260
5	1.24	1.79	0.37	0.37	1.61	0.08	37,387	91,000	0	91,000	-55,723	42,000	2,525	11,209	12,999	2,718	22,260	51,711	0	9,394	1,924	1,402	1,233	13,953	0	7,000	65,664
6	1.14	-	0.37	-	1.52	0.01	35,012	112,000	0	112,000	-85,052	45,500	3,605	10,054	13,756	2,113	18,499	48,027	0	9,469	1,895	1,402	1,167	13,933	0	0	61,960
7	1.06	1.79	0.37	0.37	1.43	0.01	34,055	116,000	0	116,000	-88,150	29,000	3,605	10,141	13,102	1,885	19,289	48,022	0	9,192	2,056	1,402	1,233	13,883	0	0	61,905
8	1.02	-	0.37	-	1.39	0.00	33,017	49,000	0	49,000	-23,959	47,000	1,180	9,686	13,152	1,695	19,413	45,126	0	8,363	1,932	1,402	1,235	12,932	0	0	58,058
9	1.04	-	0.37	-	1.42	0.02	32,091	14,000	0	14,000	9,671	21,000	1,180	9,768	12,680	1,721	17,838	43,187	0	7,993	2,007	1,402	1,173	12,575	0	0	55,762
10	1.06	1.79	0.37	0.37	1.43	0.07	36,673	14,000	0	14,000	7,759	28,000	1,180	9,439	13,010	3,219	18,740	45,588	0	8,323	1,946	1,402	1,173	12,844	0	0	58,432
11	1.03	-	0.37	-	1.40	0.01	34,648	70,000	0	70,000	-37,489	28,000	2,230	10,556	13,267	2,370	19,072	47,495	4,137	10,863	1,949	1,478	1,237	19,664	0	0	67,159
12	0.96	1.65	0.37	0.37	1.34	0.18	44,114	91,000	0	91,000	-67,925	42,000	2,230	10,623	13,156	3,389	19,251	48,649	2,767	10,863	2,132	1,478	1,300	18,540	0	0	67,189
13	0.88	-	0.37	-	1.26	0.02	42,140	91,000	0	91,000	-71,249	49,000	2,300	9,895	13,016	2,941	19,741	47,893	0	9,282	2,070	1,478	1,168	13,998	0	0	61,891
14	0.92	1.79	0.23	0.23	1.15	0.02	39,169	105,000	0	105,000	-84,243	58,000	2,300	9,513	13,626	2,541	18,841	46,821	0	8,227	2,165	1,478	1,235	13,105	0	0	59,926
15	0.91	-	0.23	-	1.14	0.01	33,086	56,000	0	56,000	-9,636	35,000	2,317	10,588	13,004	11,248	18,325	55,482	991	10,863	3,328	1,478	1,308	16,968	0	7,000	72,450
16	0.92	-	0.23	-	1.15	0.01	34,456	0	0	0	24,331	49,000	2,317	9,997	13,450	0	17,395	43,159	0	10,267	2,509	1,478	1,374	15,628	0	0	58,787
17	0.99	1.60	0.19	0.19	1.18	0.55	35,962	28,000	0	28,000	1,456	7,000	2,317	10,736	14,205	2,733	19,642	49,633	0	10,511	2,417	1,478	1,379	15,785	0	0	65,418
18	0.96	-	0.19	-	1.16	0.01	35,441	63,000	0	63,000	-10,640	49,000	2,460	14,418	14,145	3,901	25,076	60,000	9,138	13,145	2,280	1,933	1,305	27,801	0	0	87,801
19	0.88	1.72	0.19	0.19	1.07	0.09	37,860	123,000	0	123,000	-89,582	33,000	2,460	12,343	14,198	3,180	20,739	52,920	0	12,612	3,031	1,933	782	18,358	0	0	71,278
20	0.80	-	0.19	-	0.99	0.03	37,769	98,000	0	98,000	-67,776	52,500	2,480	11,448	13,254	4,950	21,211	53,343	0	9,307	2,889	1,933	521	14,650	0	0	67,993
21	0.78	1.52	0.19	0.19	0.97	0.63	74,004	88,000	0	88,000	-67,317	29,000	2,480	14,528	14,722	11,261	33,864	76,855	0	12,031	3,282	1,933	586	17,832	0	0	94,687
22	0.81	-	0.19	-	1.00	0.29	52,066	14,000	0	14,000	60,429	77,000	2,563	18,328	15,270	18,374	55,565	110,100	0	10,882	3,060	1,933	520	16,395	0	0	126,495
23	0.86	-	0.19	-	1.05	0.15	47,198	0	0	0	58,491	56,000	2,563	17,541	16,004	5,598	47,227	88,933	0	10,680	3,493	1,933	650	16,756	0	0	105,689
24	0.95	1.60	0.19	0.19	1.14	0.21	66,776	7,000	0	7,000	60,526	42,000	2,563	18,186	17,912	21,121	56,927	116,709	0	11,511	3,498	1,933	651	17,593	0	0	134,302
25	0.93	-	0.19	-	1.12	0.41	75,012	70,000	0	70,000	-13,187	77,500	2,195	20,130	15,943	12,007	51,531	101,806	7,377	17,703	2,804	1,618	518	30,019	0	0	131,825
26	0.89	1.72	0.19	0.19	1.09	0.24	69,386	77,000	0	77,000	-28,752	77,000	2,195	16,570	15,913	14,629	52,529	101,836	0	11,000	2,726	1,618	454	15,798	0	0	117,634
27	0.83	-	0.19	-	1.03	0.07	57,219	84,000	0	84,000	-49,159	68,000	2,230	15,129	14,161	1,335	46,125	78,980	0	8,311	2,175	1,618	976	13,080	0	0	92,060
28	0.83	1.65	0.12	0.12	0.96	0.08	49,554	91,000	0	91,000	-41,716	79,000	2,230	17,376	16,378	0	34,430	70,414	0	16,565	2,705	1,618	536	21,424	0	7,000	91,838
29	0.85	-	0.12	-	0.97	0.04	51,428	14,000	0	14,000	18,499	56,000	2,363	18,820	13,235	0	30,868	65,286	0	13,653	2,432	1,618	998	18,641	0	0	83,927
30	0.88	-	0.12	-	1.00	0.00	42,871	0	0	0	32,843	42,000	2,363	16,382	14,002	0	26,102	58,849	0	11,495	2,482	1,618	1,270	16,865	0	0	75,714
31	0.98	1.79	0.06	0.06	1.04	0.06	39,777	21,000	0	21,000	9,082	14,000	2,363	15,397	14,008	0	22,076	53,844	0	10,679	2,515	1,618	1,203	16,015	0	0	69,859
Total	0.98		0.06		1.04	3.31	1,349,250	1,738,000	0	1,738,000	-631,132	1,361,000	72,360	403,769	433,527	142,611	854,673	1,906,940	30,923	334,022	74,742	49,218	32,273	521,178	0	28,000	2,428,118
					Average:		6.835	9.258			-20.359	43.903	2.334	13.025	13.985	4.600	27.570	61.514	998	10.775	2.411	1.588	1.041	16.812	0	1.15%	78,326

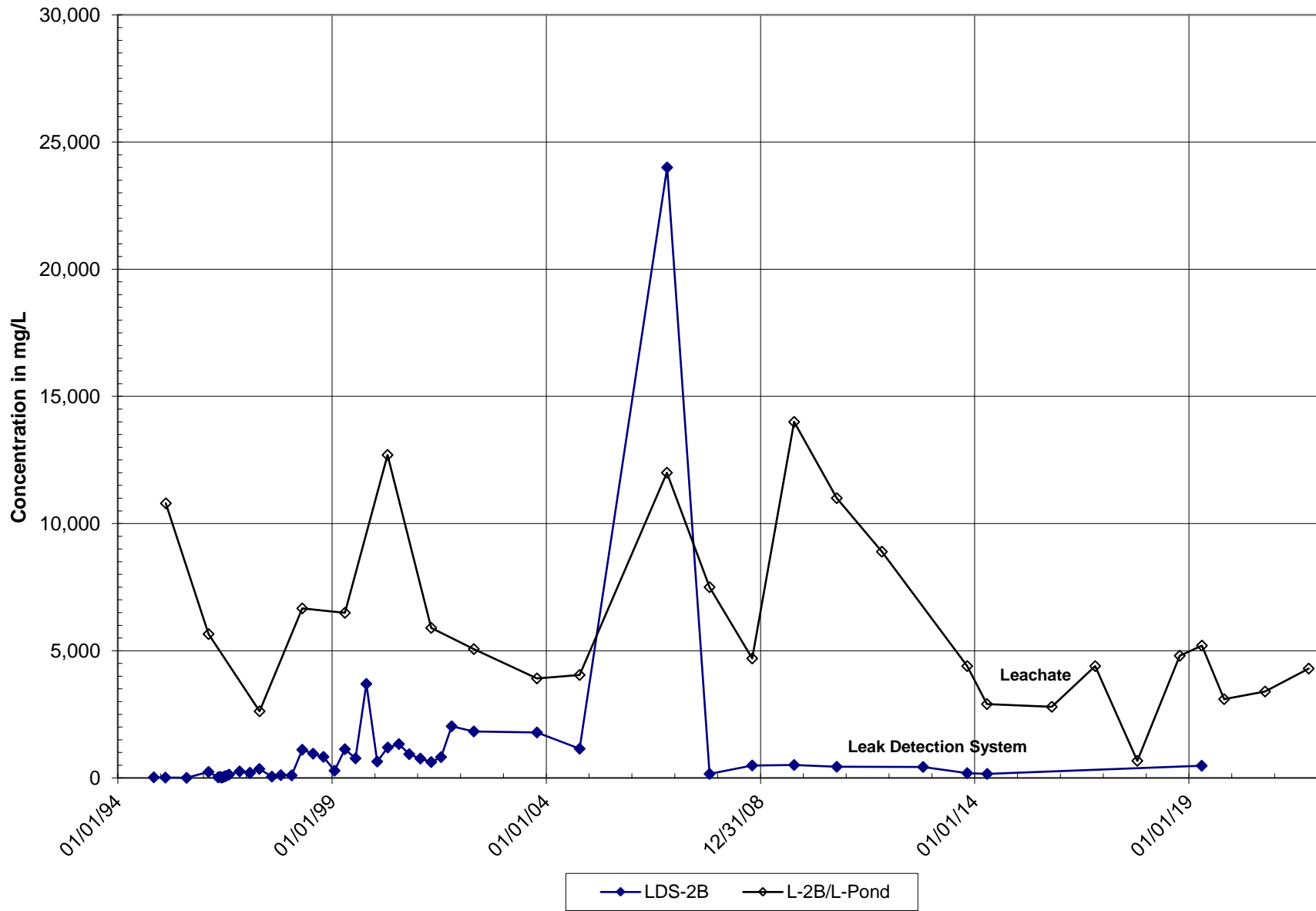
Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposal: Covallis	Disposal: Salem - ATI	Disposal: Salem - 3rd Party	Disposal: Salem - Total	Leachate Delta (Generated - Disposed)	R: Covallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	0.95	-	0.06	-	1.01	0.20	53,662	56,000	0	56,000	-36,010	49,000	2,310	14,895	14,536	3,277	22,757	57,775	0	10,571	2,396	1,837	1,133	15,877	0	0	73,652
2	0.91	1.52	0.06	0.06	0.97	0.02	43,840	56,000	0	56,000	-29,585	56,000	2,310	15,035	12,998	3,296	21,915	55,494	0	9,506	2,353	1,837	1,065	14,761	0	0	70,255
3	0.88	-	0.06	-	0.94	0.42	75,674	56,000	0	56,000	-49,223	49,000	2,900	15,704	15,227	8,775	22,629	65,235	538	10,747	2,830	1,837	1,264	17,216	0	0	82,451
4	0.87	1.65	0.02	0.02	0.89	0.35	89,330	42,000	0	42,000	-21,583	119,000	2,900	19,902	16,564	13,420	33,134	95,920	883	10,747	2,433	1,837	1,127	16,827	0	7,000	102,747
5	0.86	-	0.02	-	0.88	0.20	87,606	42,000	0	42,000	-39,366	63,000	2,620	18,373	17,845	6,782	29,047	74,667	0	9,955	2,586	1,837	1,195	15,573	0	0	90,240
6	0.89	-	0.02	-	0.92	0.29	93,470	0	0	0	569	56,000	2,620	17,687	16,655	10,880	31,255	79,097	0	9,458	2,525	1,837	1,122	14,942	0	0	94,039
7	0.92	1.60	0.02	0.02	0.94	0.17	58,737	0	0	0	32,369	63,000	2,620	17,551	17,570	8,501	30,598	76,840	0	8,757	2,548	1,837	1,124	14,266	0	0	91,106
8	0.91	-	0.02	-	0.93	0.29	78,318	0	0	0	30,912	126,000	2,890	20,790	17,053	13,195	28,603	82,531	5,321	15,103	3,027	1,917	1,332	26,699	0	0	109,230
9	0.86	1.60	0.02	0.02	0.88	0.07	70,342	70,000	0	70,000	-51,062	65,000	2,890	17,670	15,850	8,298	28,913	73,621	0	10,522	2,231	1,917	989	15,659	0	0	89,280
10	0.81	-	0.02	-	0.83	0.85	92,938	63,000	0	63,000	-53,913	91,000	3,135	18,752	15,749	12,359	28,124	78,119	0	11,160	2,770	1,917	1,059	16,906	0	7,000	95,025
11	0.79	1.65	0.02	0.02	0.81	0.05	99,900	14,000	0	14,000	5,413	126,000	3,135	25,868	19,264	17,378	35,085	100,730	0	12,385	3,429	1,917	852	18,583	0	0	119,313
12	0.77	-	0.02	-	0.79	0.24	96,386	0	0	0	755	112,000	3,360	20,257	16,848	11,570	29,092	81,127	0	10,027	3,348	1,917	722	16,014	0	0	97,141
13	0.81	-	0.02	-	0.83	0.00	54,002	0	0	0	28,275	49,000	3,360	18,216	16,098	4,350	25,444	67,468	0	8,711	3,055	1,917	1,263	14,809	0	0	82,277
14	0.88	1.79	0.02	0.02	0.90	0.00	27,450	0	0	0	48,781	0	3,360	16,150	14,620	4,101	22,685	60,916	0	8,936	3,199	1,917	1,263	15,315	0	0	76,231
15	0.88	-	0.02	-	0.90	0.33	40,427	28,000	0	28,000	21,264	63,000	3,155	18,378	15,705	8,275	22,197	67,710	938	14,689	3,066	2,169	1,119	21,981	0	0	89,691
16	0.85	1.65	0.02	0.02	0.87	0.00	55,183	42,000	0	42,000	-23,557	63,000	3,155	16,270	14,322	4,217	20,727	58,691	0	9,058	2,660	2,169	1,048	14,935	0	0	73,626
17	0.82	-	0.02	-	0.84	0.02	50,380	63,000	0	63,000	-34,855	42,000	3,680	16,144	14,338	7,332	20,425	61,919	0	10,129	3,056	2,169	1,252	16,606	0	0	78,525
18	0.79	1.65	0.02	0.02	0.81	0.17	58,022	42,000	0	42,000	-19,732	70,000	3,680	16,030	15,778	9,402	18,540	63,430	0	10,264	3,173	2,169	1,254	16,860	0	0	80,290
19	0.79	-	0.02	-	0.81	0.00	50,831	14,000	0	14,000	7,085	63,000	3,400	15,378	13,131	0	20,232	52,141	0	7,031	2,590	2,169	985	12,775	0	7,000	64,916
20	0.80	-	0.02	-	0.82	0.00	46,640	0	0	0	14,324	49,000	3,400	14,084	12,546	0	18,354	48,384	0	6,694	2,668	2,169	1,049	12,580	0	0	60,964
21	0.81	1.72	0.02	0.02	0.83	0.00	46,294	14,000	0	14,000	1,903	35,000	3,400	14,343	13,783	0	17,285	48,811	0	7,310	2,787	2,169	1,120	13,386	0	0	62,197
22	0.77	-	0.02	-	0.79	0.20	53,127	63,000	0	63,000	-50,502	42,000	3,243	14,767	13,597	1,533	17,312	50,452	0	8,764	3,005	2,154	1,250	15,173	0	0	65,625
23	0.68	-	0.02	-	0.70	0.01	54,957	70,000	0	70,000	-58,753	84,000	3,243	14,263	13,198	4,958	17,910	53,572	0	6,824	2,602	2,154	1,052	12,632	0	0	66,204
24	0.64	-	0.02	-	0.66	0.00	45,891	56,000	0	56,000	-37,668	49,000	3,243	14,621	13,466	3,101	17,175	51,606	0	6,470	2,735	2,154	1,258	12,617	0	0	64,223
25	0.60	-	0.02	-	0.62	0.18	51,661	84,000	0	84,000	-71,521	28,000	3,243	13,864	12,852	4,615	16,793	51,367	0	6,463	2,830	2,154	1,326	12,773	0	0	64,140
26	0.59	-	0.02	-	0.61	0.00	49,847	0	0	0	16,689	77,000	3,243	14,105	13,215	4,880	18,088	53,531	0	6,605	2,921	2,154	1,325	13,005	0	0	66,536
27	0.58	-	0.02	-	0.60	0.05	53,472	14,000	0	14,000	1,036	56,000	3,243	14,419	14,232	5,590	17,968	55,452	0	6,670	2,908	2,154	1,326	13,058	0	0	68,510
28	0.63	1.37	0.02	0.02	0.65	0.02	48,434	0	0	0	23,478	28,000	3,243	14,384	12,988	9,768	18,302	58,683	0	7,070	2,681	2,154	1,324	13,229	0	0	71,912
29	0.59	-	0.02	-	0.61	0.01	47,098	56,000	0	56,000	-40,299	49,000	3,230	14,706	12,363	2,766	17,091	50,156	0	6,571	2,657	2,154	1,261	12,643	0	0	62,799
30	0.51	1.32	0.02	0.02	0.53	0.00	44,828	84,000	0	84,000	-66,564	51,000	3,230	13,715	13,436	1,961	17,129	49,471	0	6,597	2,718	2,154	1,324	12,793	0	0	62,264
Total	0.51		0.02		0.53	4.14	1,818,747	1,029,000	0	1,029,000	-451,339	1,873,000	93,440	496,321	445,827	194,518	684,809	1,914,915	7,480	273,796	83,727	60,844	34,646	460,493	0	21,000	2,375,408
Average:						6.835	9.258				-15,045	62.433	3.115	16.544	14.861	6.484	22.827	63.831	249	9,127	2,791	2,028	1,155	15,350	0	0.88%	79,180

Day of Month	West Pond Calculated (MG)	Approx. West Pond Visual Inv. (MG)	East Pond Calculated (MG)	Approx. East Pond Visual Inv. (MG)	Total Pond (Million Gallons)	Rain	Disposal: Corvallis	Disposal: Salem - ATI	Disposal: Salem - 3rd Party	Disposal: Salem - Total	Leachate Delta (Generated - Disposed)	IR: Corvallis	Cell 1 Sump	Cell 2 Sump	Cell 3 Sump	Cell 4 Sump	Cell 5 Sump	Total Sump Gallons	Diaphragm Pumps (Horizontal Wells)	Downwell Pumps (Vertical Wells)	Condensate Sump (Main)	Condensate Sump (Cell 4)	Horizontal Well Gravity Drains	Total Dewatering Gallons	Public Area	PRC Leachate	Total Gallons
1	0.43	-	0.02	-	0.45	0.01	43,846	105,000	0	105,000	-72,192	58,000	2,250	16,732	12,813	2,896	16,701	51,392	3,560	15,345	2,796	2,168	1,393	25,262	0	0	76,654
2	0.38	1.37	0.02	0.02	0.40	0.00	42,986	77,000	0	77,000	-42,094	45,500	2,250	13,336	12,655	19,019	17,150	64,410	0	7,386	2,607	2,168	1,321	13,482	0	0	77,892
3	0.41	-	0.02	-	0.43	0.00	42,004	28,000	0	28,000	-12,112	0	3,363	13,058	12,641	0	15,993	45,055	0	6,558	2,722	2,168	1,389	12,837	0	0	57,892
4	0.41	-	0.02	-	0.43	0.11	31,659	0	0	0	24,802	56,000	3,363	12,356	12,828	0	16,258	44,805	0	5,739	2,501	2,168	1,248	11,656	0	0	56,461
5	0.47	1.37	0.02	0.02	0.49	0.09	22,138	0	0	0	35,131	0	3,363	12,842	12,911	0	16,268	45,384	0	5,970	2,500	2,168	1,247	11,885	0	0	57,269
6	0.46	-	0.02	-	0.48	0.46	14,316	70,000	0	70,000	-12,039	14,000	3,000	15,712	13,574	154	20,667	53,107	1,208	11,438	2,748	2,323	1,453	19,170	0	0	72,277
7	0.42	1.25	0.02	0.02	0.44	0.00	23,106	84,000	0	84,000	-30,366	33,000	3,000	16,408	15,187	0	20,287	54,882	0	9,979	2,798	2,323	1,258	16,358	0	5,500	71,240
8	0.41	-	0.02	-	0.43	0.00	7,637	84,000	0	84,000	-18,648	0	3,300	15,099	13,867	7,563	19,221	59,050	0	7,649	2,779	2,323	1,188	13,939	0	0	72,989
9	0.40	1.17	0.02	0.02	0.42	0.07	15	77,000	0	77,000	-9,640	0	3,300	14,075	14,195	5,479	18,488	55,537	0	5,564	2,835	2,323	1,116	11,838	0	0	67,375
10	0.41	-	0.02	-	0.43	0.50	4	56,000	0	56,000	16,942	0	4,867	14,989	12,955	9,340	17,849	60,000	0	6,613	2,826	2,323	1,184	12,946	0	0	72,946
11	0.54	-	0.02	-	0.56	1.19	19	0	0	0	128,429	0	4,867	22,067	18,166	34,799	35,421	115,320	0	6,307	3,116	2,323	1,382	13,128	0	0	128,448
12	0.68	1.49	0.02	0.02	0.70	0.87	451	0	0	0	135,077	0	4,867	27,094	21,463	28,562	40,289	122,275	0	6,233	3,313	2,323	1,384	13,253	0	0	135,528
13	0.72	-	0.02	-	0.74	0.26	31,890	77,000	0	77,000	54,547	45,500	6,435	32,050	23,116	32,282	44,728	138,611	5,854	12,414	3,119	2,186	1,252	24,826	0	0	163,437
14	0.71	1.52	0.02	0.02	0.73	0.02	33,475	84,000	0	84,000	-11,477	33,000	6,435	23,215	18,440	6,061	31,592	85,743	0	8,744	2,708	2,186	1,117	14,755	0	5,500	100,498
15	0.67	-	0.02	-	0.70	0.20	40,558	77,000	0	77,000	-22,437	51,000	4,585	19,188	17,318	12,514	26,957	80,562	0	8,234	2,953	2,186	1,186	14,559	0	0	95,121
16	0.62	1.60	0.02	0.02	0.64	0.06	58,774	56,000	0	56,000	-21,910	93,000	4,585	17,167	14,850	21,045	23,041	80,688	0	6,543	2,462	2,186	985	12,176	0	0	92,864
17	0.61	-	0.02	-	0.63	0.02	53,625	14,000	0	14,000	9,552	70,000	7,580	15,856	14,370	7,241	20,589	65,636	0	5,512	2,653	2,186	1,190	11,541	0	0	77,177
18	0.71	-	0.02	-	0.74	1.37	37,161	0	0	0	65,993	0	7,580	17,945	14,758	23,575	26,439	90,297	0	6,431	2,846	2,186	1,394	12,857	0	0	103,154
19	0.91	1.83	0.02	0.02	0.93	1.46	32,852	0	0	0	163,701	0	7,580	34,273	24,004	54,569	61,034	181,460	0	7,603	3,922	2,187	1,381	15,093	0	0	196,553
20	0.95	-	0.02	-	0.97	0.59	100,174	42,000	0	42,000	86,315	149,000	11,915	39,874	26,363	49,081	79,293	206,526	6,159	9,124	3,316	2,183	1,181	21,963	0	0	228,489
21	0.92	1.83	0.02	0.02	0.94	0.20	72,116	91,000	0	91,000	-33,848	72,000	11,915	28,598	19,913	14,297	40,333	115,056	0	7,792	2,913	2,183	1,324	14,212	0	0	129,268
22	0.85	-	0.02	-	0.87	0.48	100,172	70,000	0	70,000	-53,894	107,000	9,519	25,375	20,563	13,839	31,580	100,876	0	8,391	3,304	2,183	1,524	15,402	0	0	116,278
23	0.83	-	0.02	-	0.85	0.38	100,160	49,000	0	49,000	-26,726	101,500	9,519	26,491	20,480	22,541	28,797	107,828	0	7,921	3,046	2,183	1,456	14,606	0	0	122,434
24	0.86	-	0.02	-	0.88	0.64	66,034	7,000	0	7,000	65,695	98,000	9,519	30,668	22,249	28,810	33,019	124,265	0	8,271	2,762	2,183	1,248	14,464	0	0	138,729
25	0.98	-	0.02	-	1.00	0.16	38,065	0	0	0	79,729	0	9,519	27,018	20,569	17,225	29,433	103,764	0	7,596	2,923	2,183	1,318	14,020	0	0	117,784
26	1.09	-	0.02	-	1.11	0.18	13,137	0	0	0	95,086	0	9,519	24,350	18,989	17,712	24,426	94,995	0	6,957	2,839	2,183	1,249	13,228	0	0	108,223
27	1.20	-	0.02	-	1.22	0.05	15	0	0	0	109,448	0	9,519	22,290	16,139	25,762	22,243	95,953	0	7,126	2,883	2,183	1,318	13,510	0	0	109,463
28	1.30	2.21	0.02	0.02	1.32	0.29	14,342	0	0	0	89,378	0	9,519	22,538	15,979	19,720	21,981	89,737	0	7,448	3,027	2,183	1,325	13,983	0	0	103,720
29	1.28	-	0.02	-	1.30	0.02	100,104	7,000	0	7,000	-14,853	105,000	6,760	21,319	15,915	13,951	20,979	78,924	0	7,027	2,799	2,183	1,318	13,327	0	0	92,251
30	1.23	-	0.02	-	1.25	0.12	100,152	35,000	0	35,000	-41,283	105,000	6,760	21,718	16,220	14,903	20,925	80,526	0	6,935	2,843	2,183	1,382	13,343	0	0	93,869
31	2.21	2.21	0.02	0.02	2.23	0.00	50,439	21,000	0	21,000	8,907	119,000	6,760	19,962	15,590	6,706	19,482	68,500	0	5,957	2,590	2,183	1,116	11,846	0	0	80,346
Total	2.21	-	0.02	-	2.23	9.80	1,271,416	1,211,000	0	1,211,000	745,210	1,355,500	197,310	663,663	529,080	509,646	861,462	2,761,161	16,782	240,805	89,449	68,603	39,827	455,465	0	11,000	3,216,626
Average:						6.835	9.258				24,039	43,726	6,365	21,408	17,067	16,440	27,789	89,070	541	7,768	2,885	2,213	1,285	14,692	0	0.34%	103,762

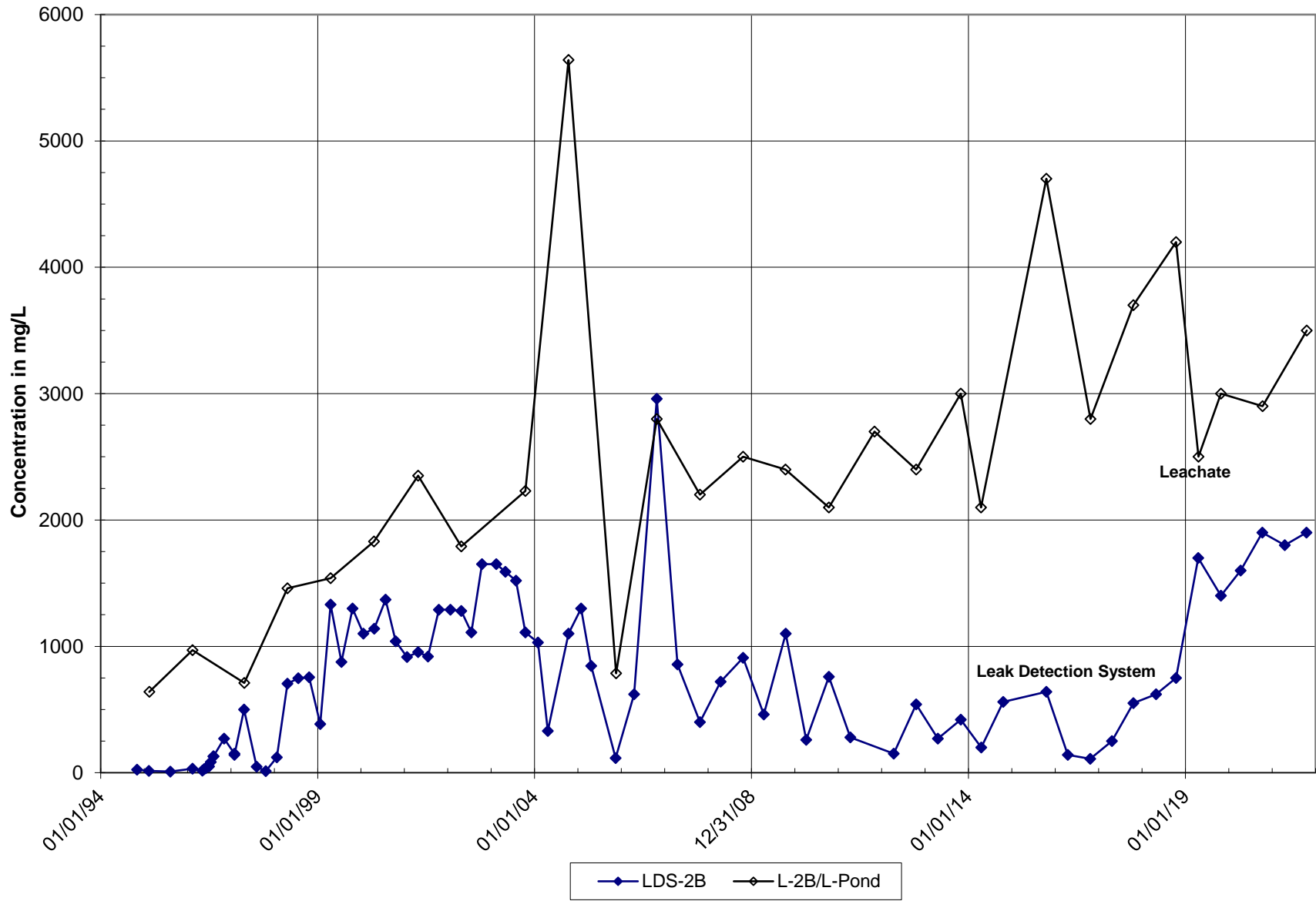
**Cell 2 Leak Detection System (LDS-2B)
Bicarbonate
Coffin Butte Landfill**



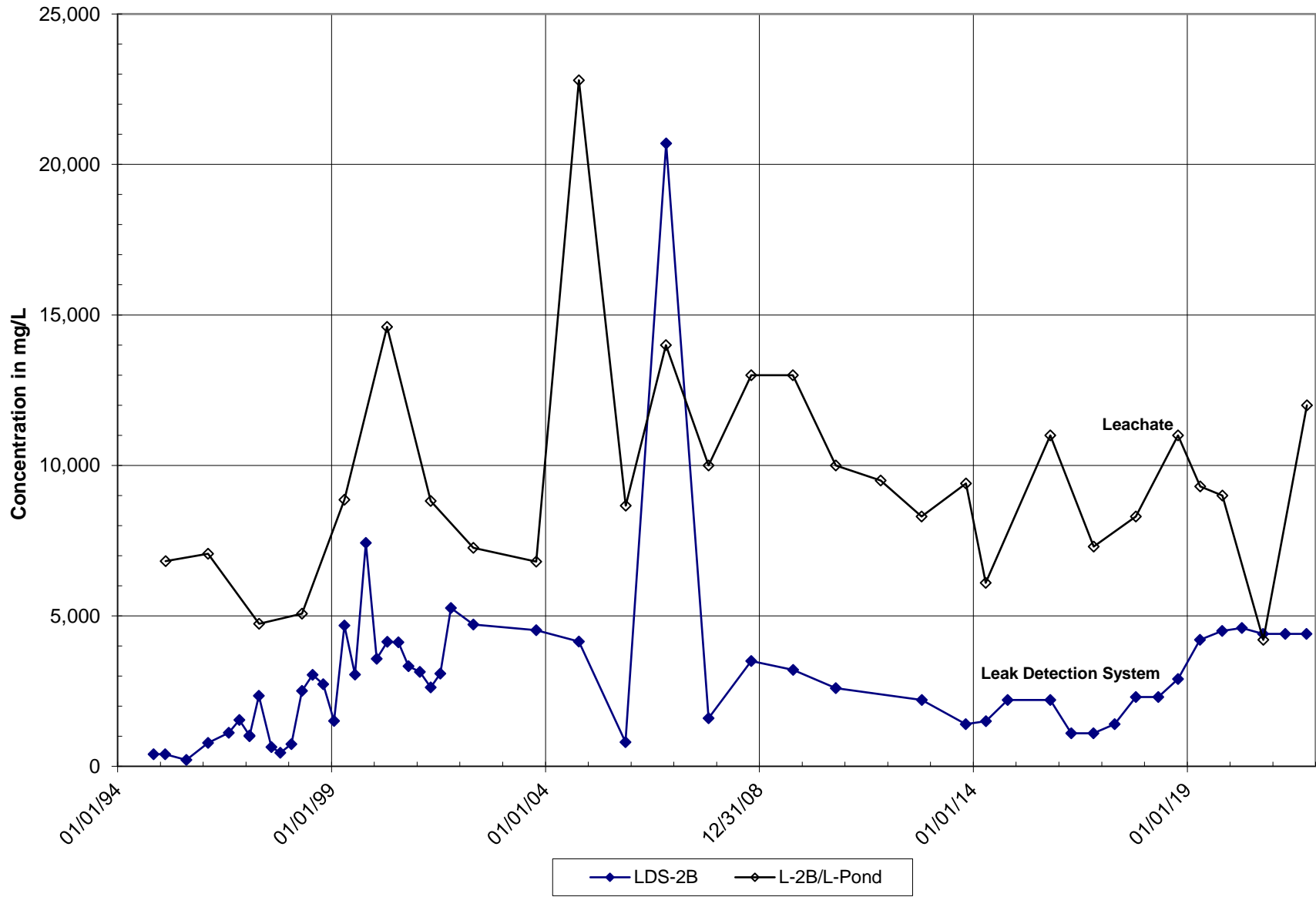
**Cell 2 Leak Detection System (LDS-2B)
Chemical Oxygen Demand
Coffin Butte Landfill**



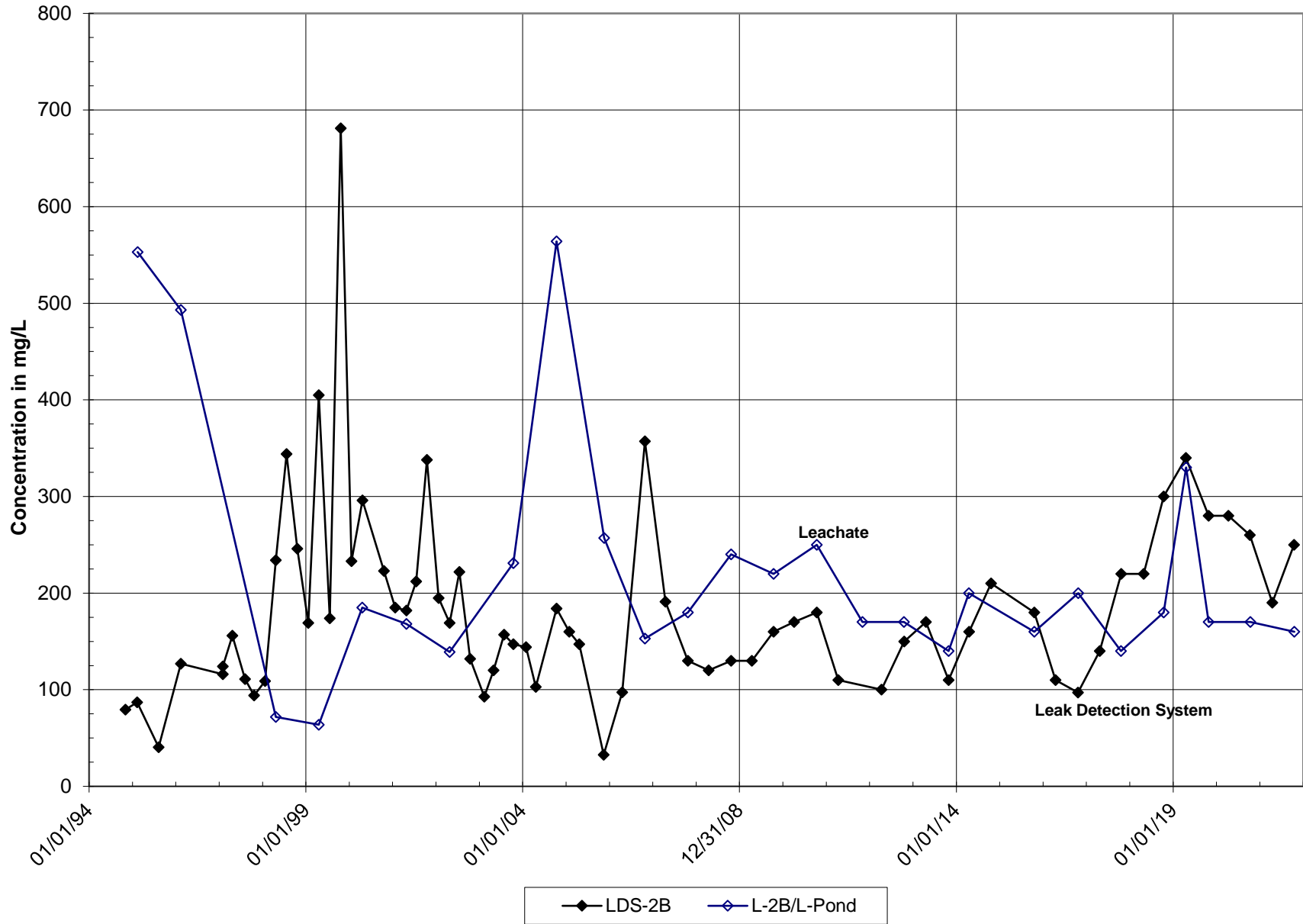
**Cell 2 Leak Detection System (LDS-2B)
Chloride
Coffin Butte Landfill**



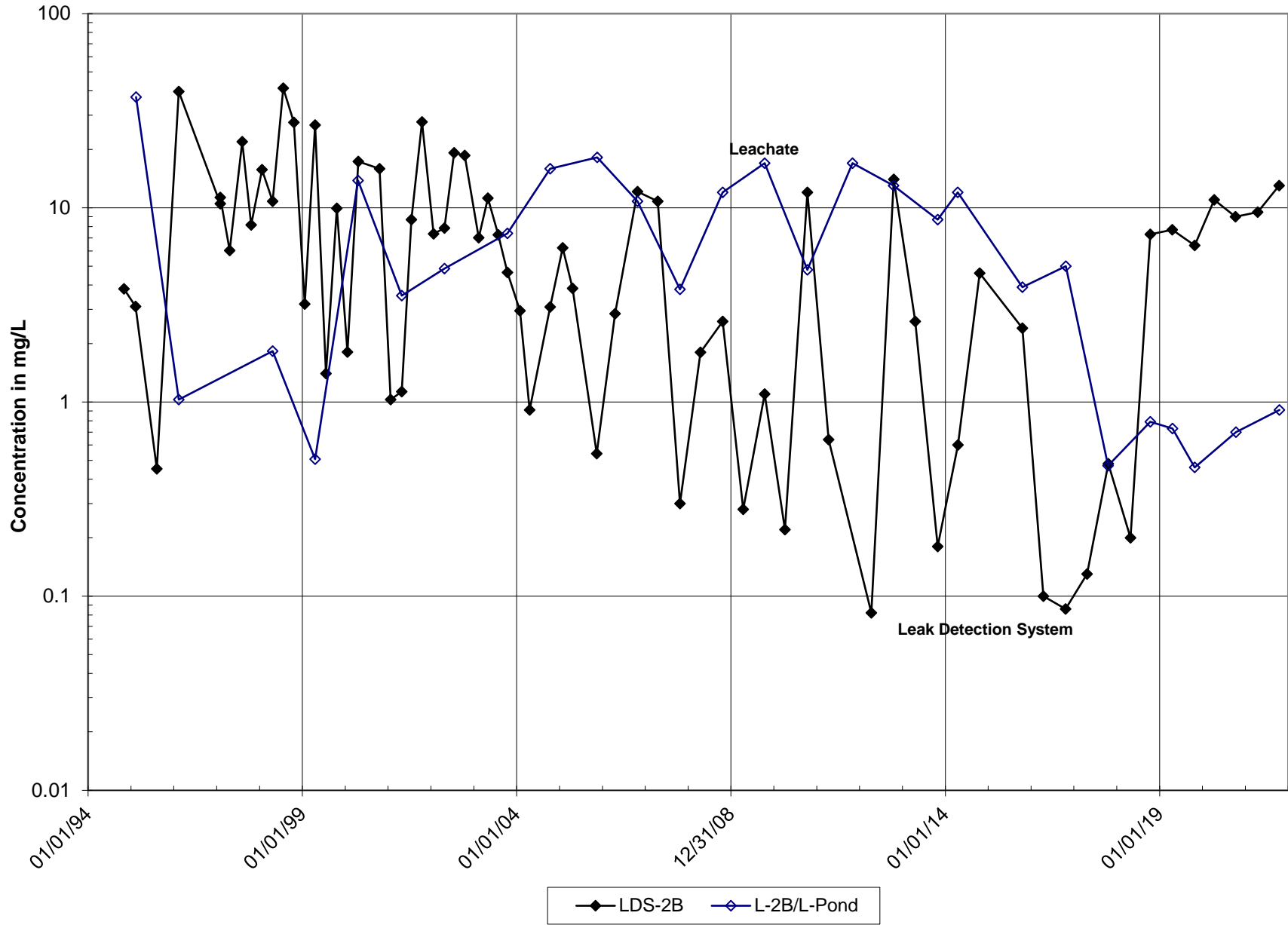
**Cell 2 Leak Detection System (LDS-2B)
Total Dissolved Solids
Coffin Butte Landfill**



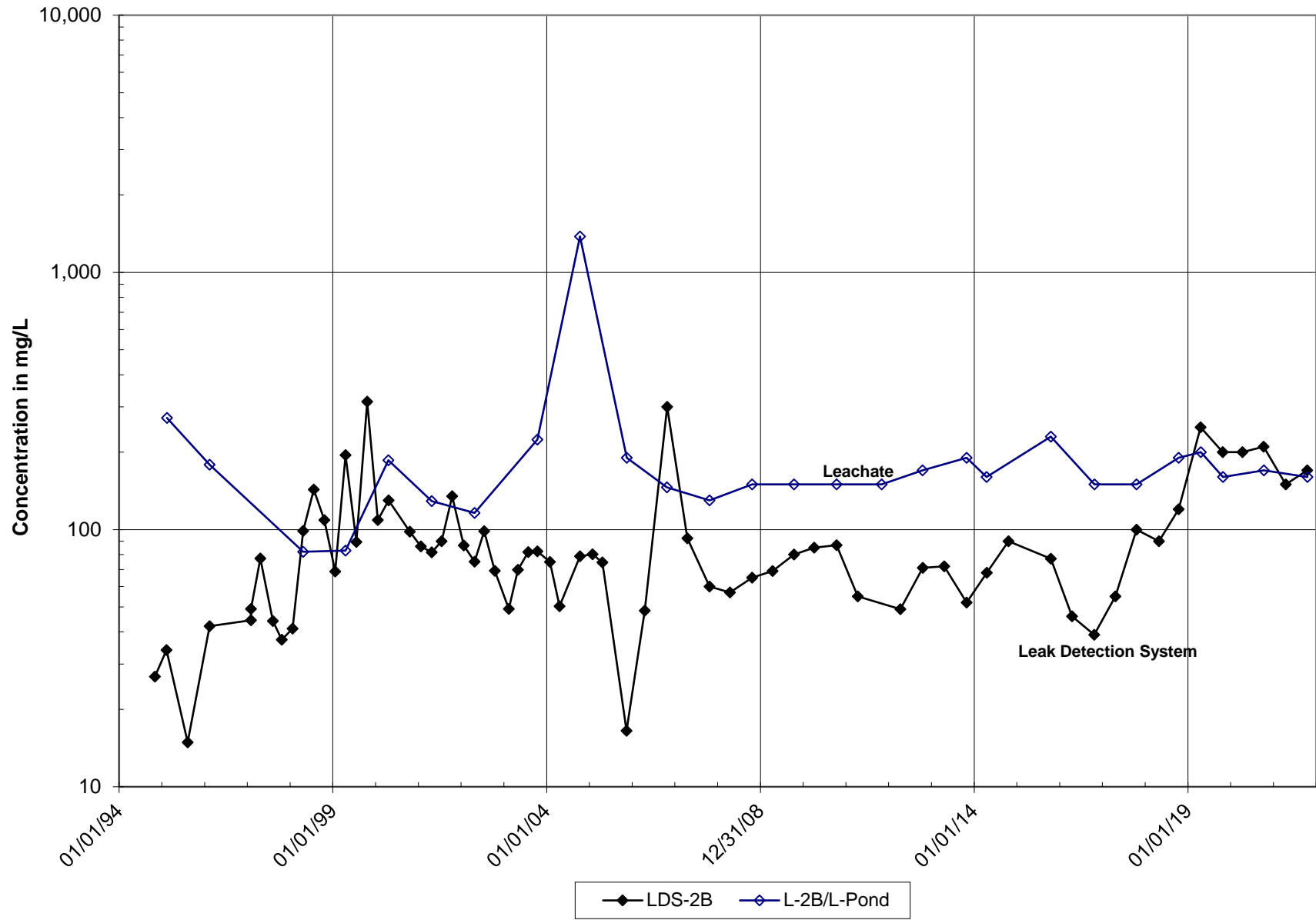
Cell 2 Leak Detection System (LDS-2B)
Calcium
Coffin Butte Landfill



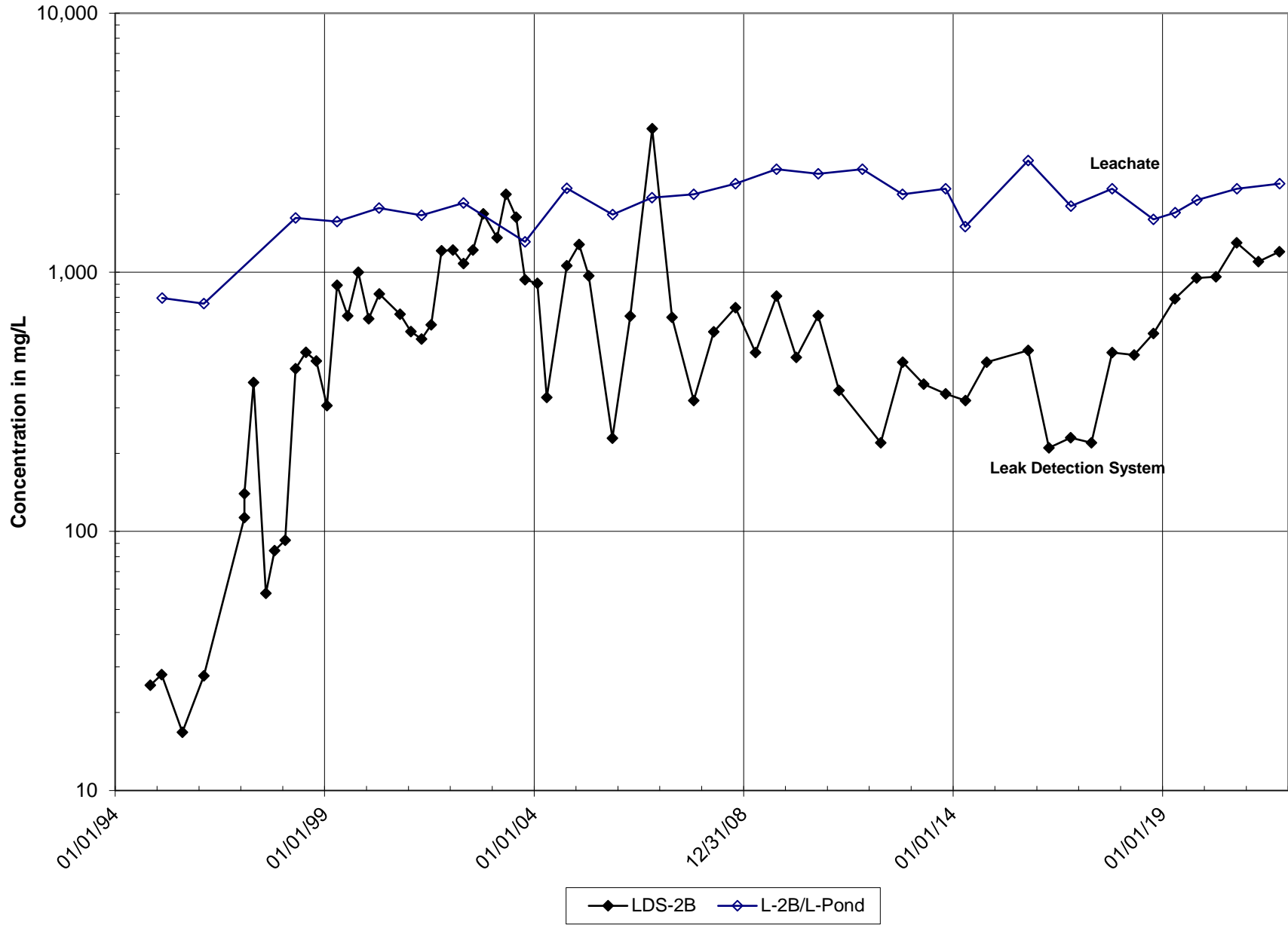
Cell 2 Leak Detection System (LDS-2B)
Iron
Coffin Butte Landfill



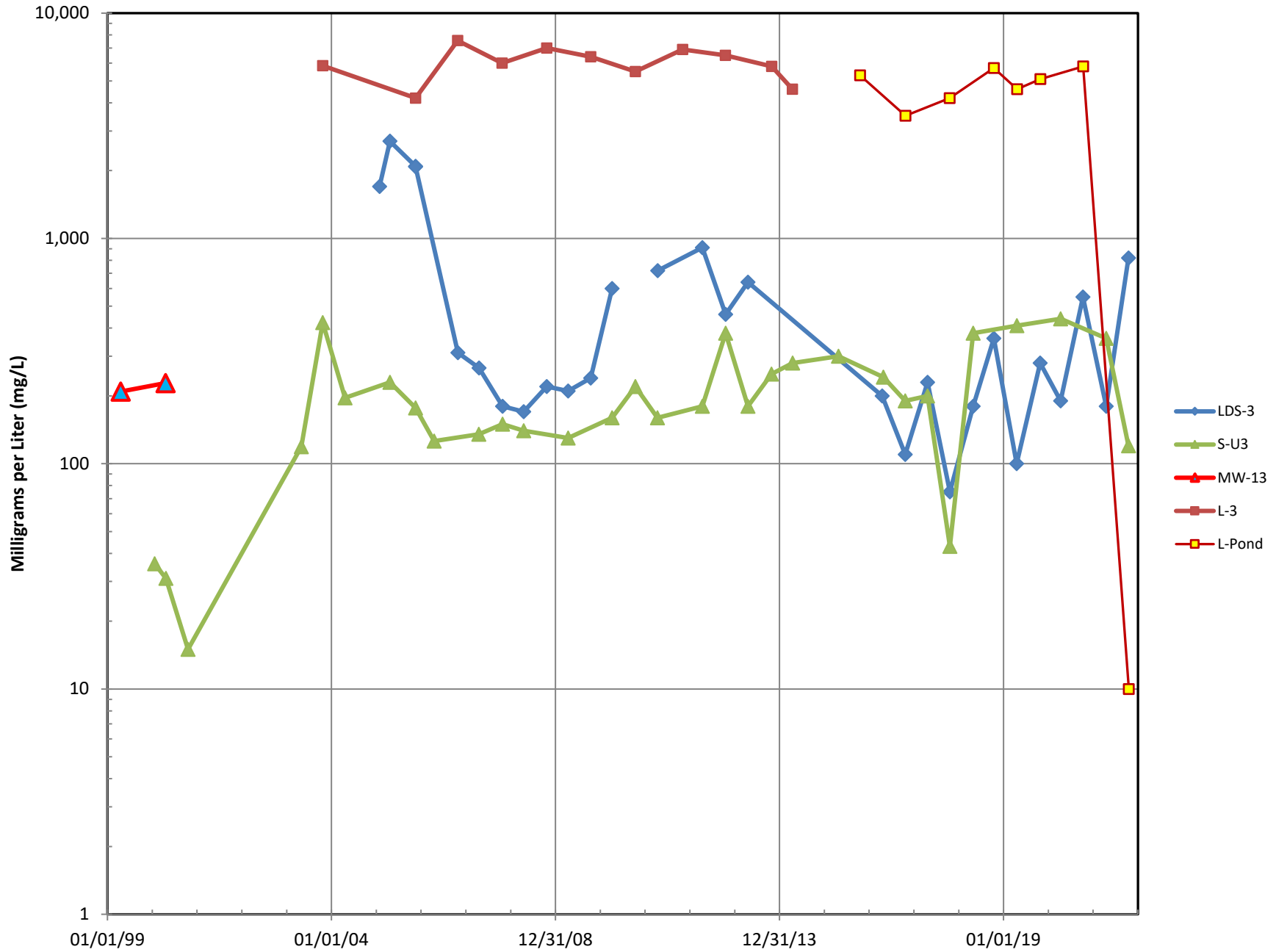
Cell 2 Leak Detection System (LDS-2B)
Magnesium
Coffin Butte Landfill



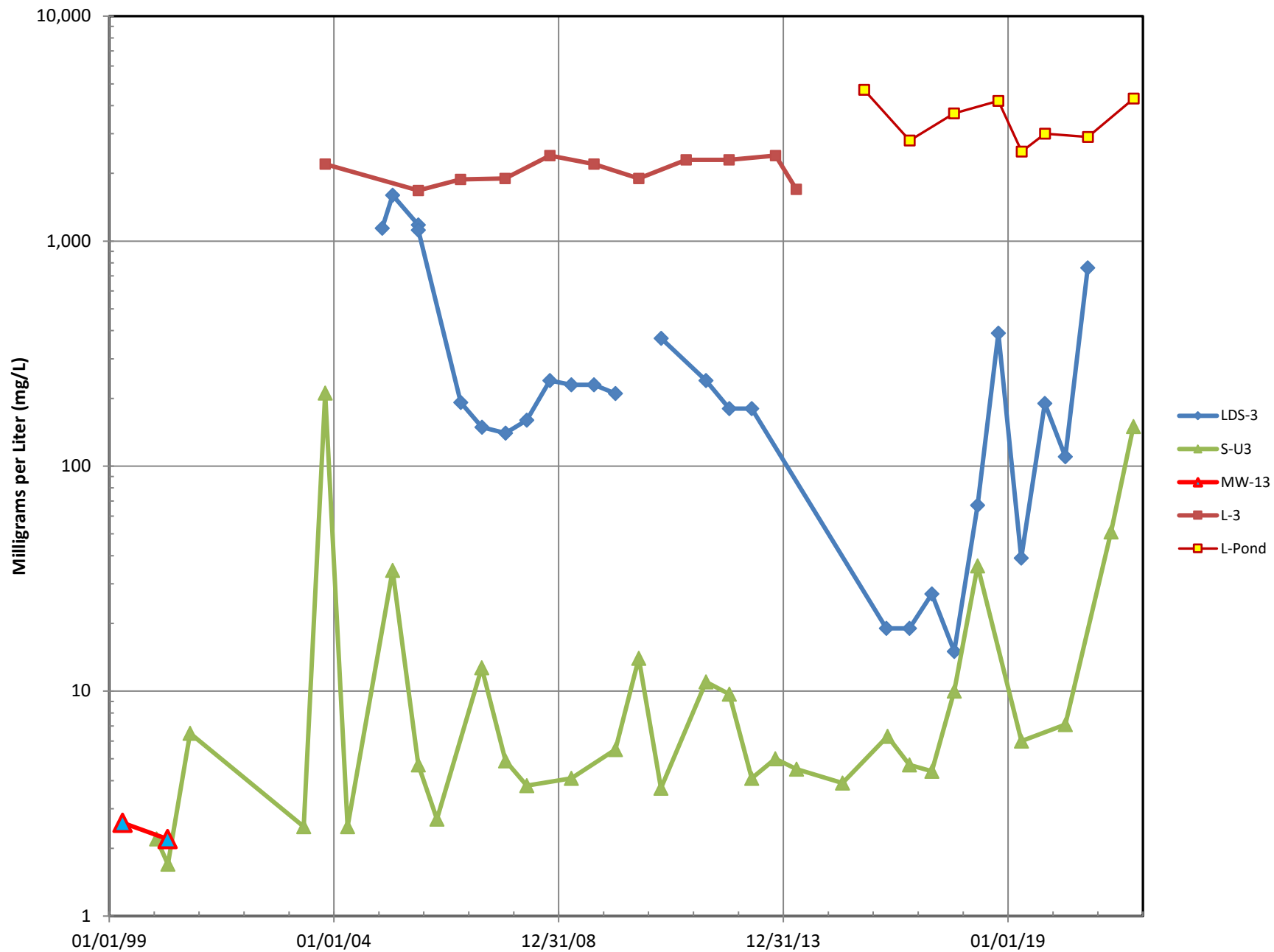
Cell 2 Leak Detection System (LDS-2B)
Sodium
Coffin Butte Landfill



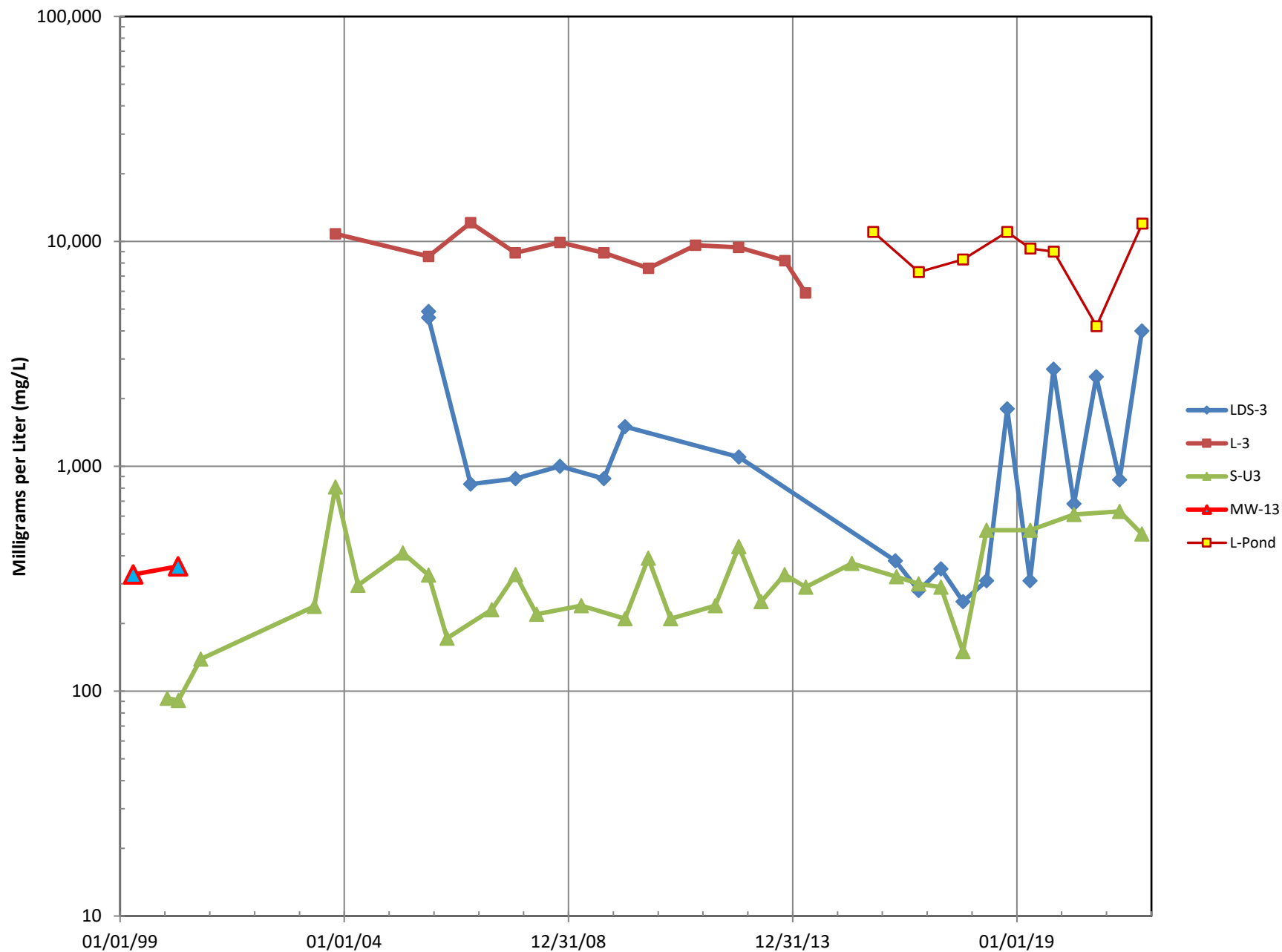
Cell 3 Underdrain Water Quality
Bicarbonate
Coffin Butte Landfill



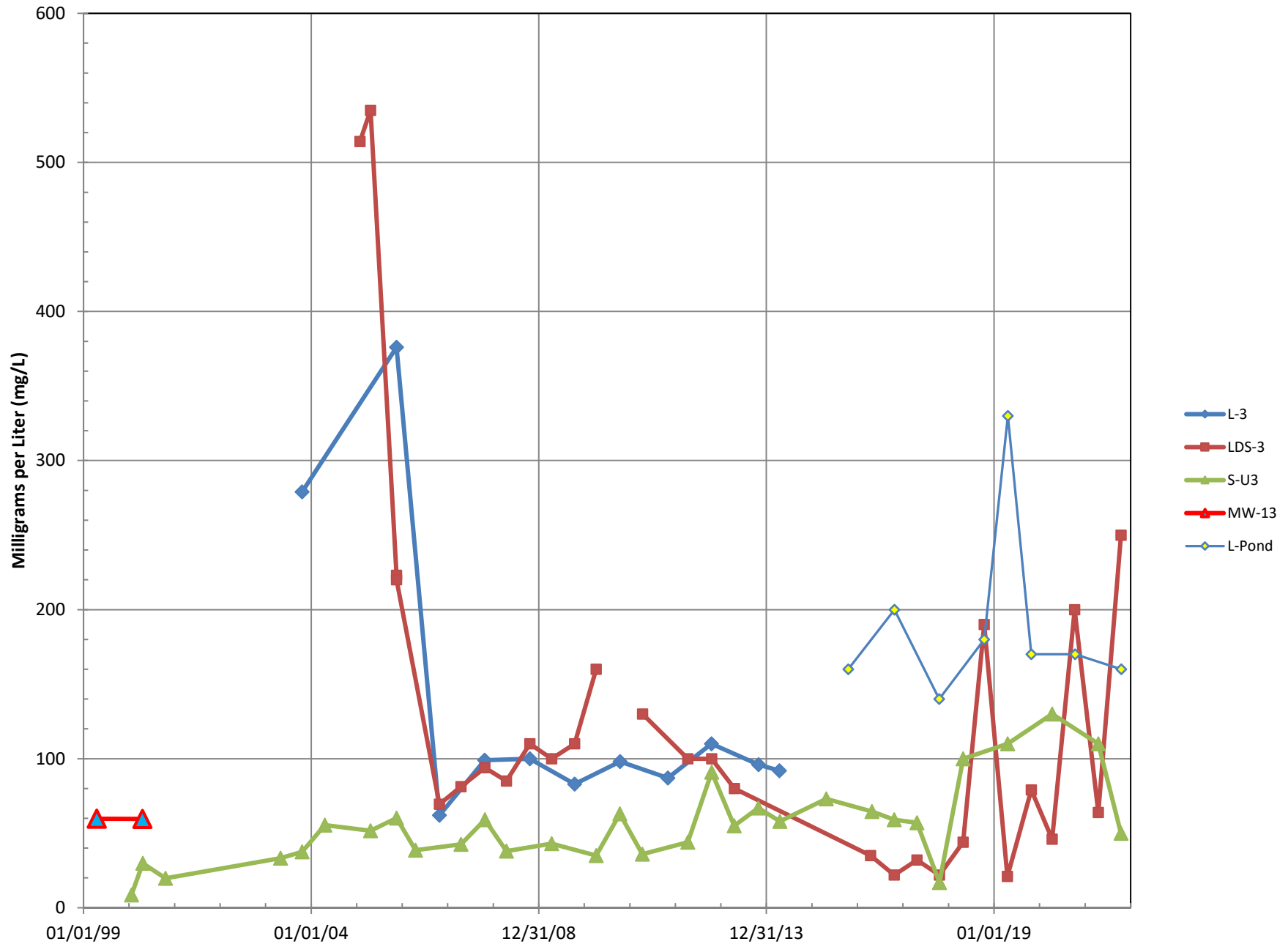
**Cell 3 Underdrain Water Quality
Chloride
Coffin Butte Landfill**



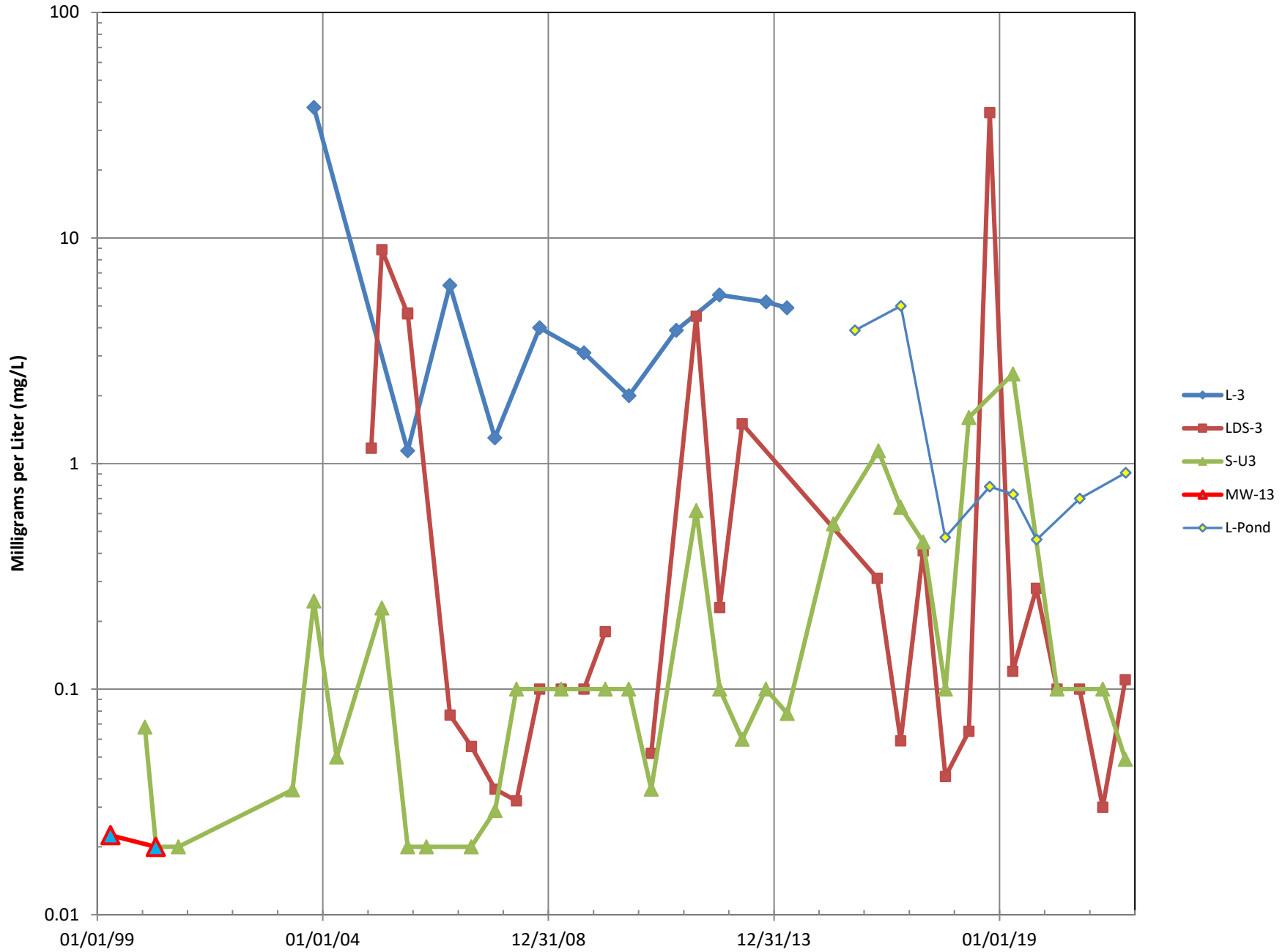
**Cell 3 Underdrain Water Quality
Total Dissolved Solids
Coffin Butte Landfill**



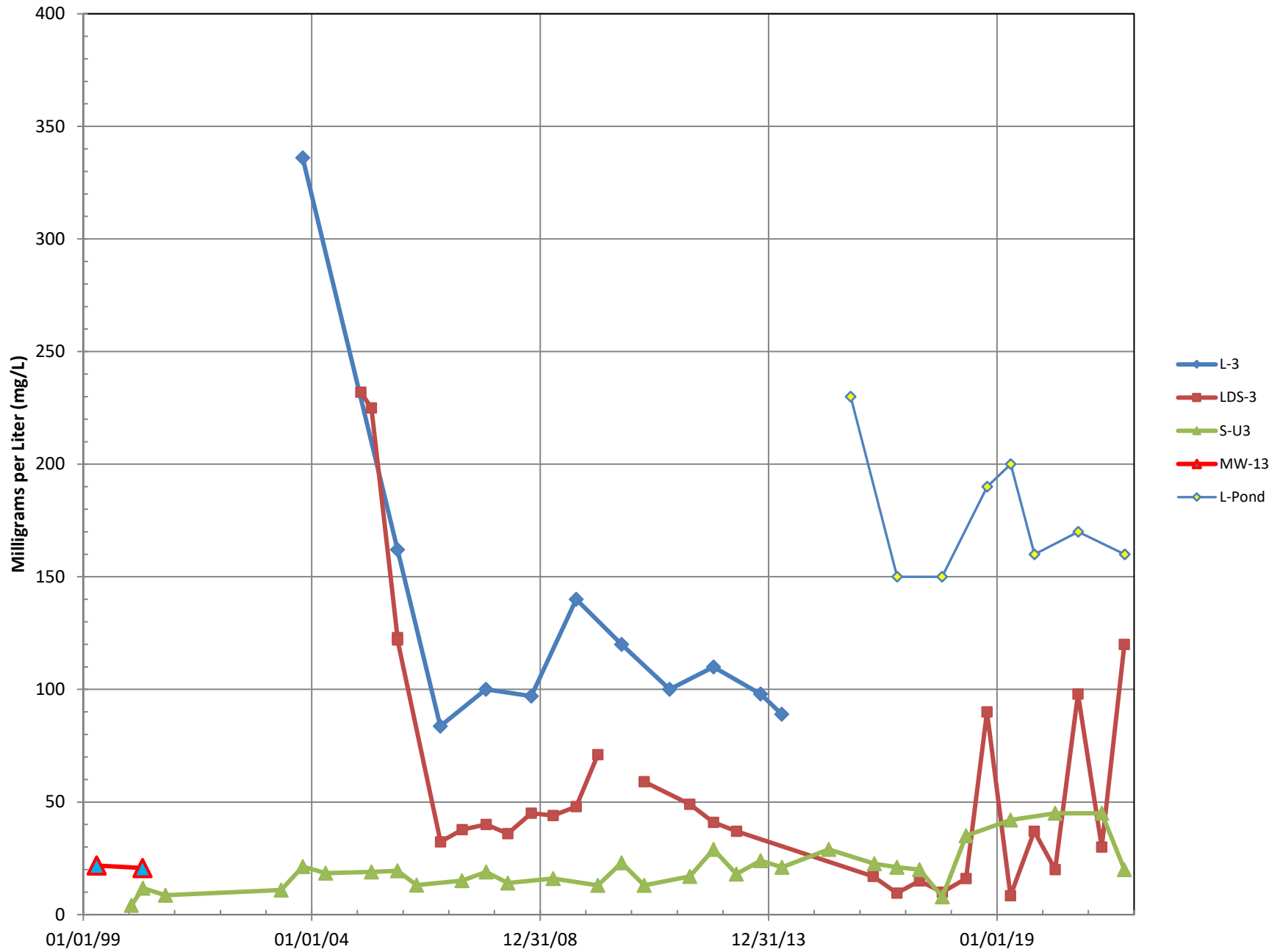
Cell 3 Underdrain Water Quality
Calcium
Coffin Butte Landfill



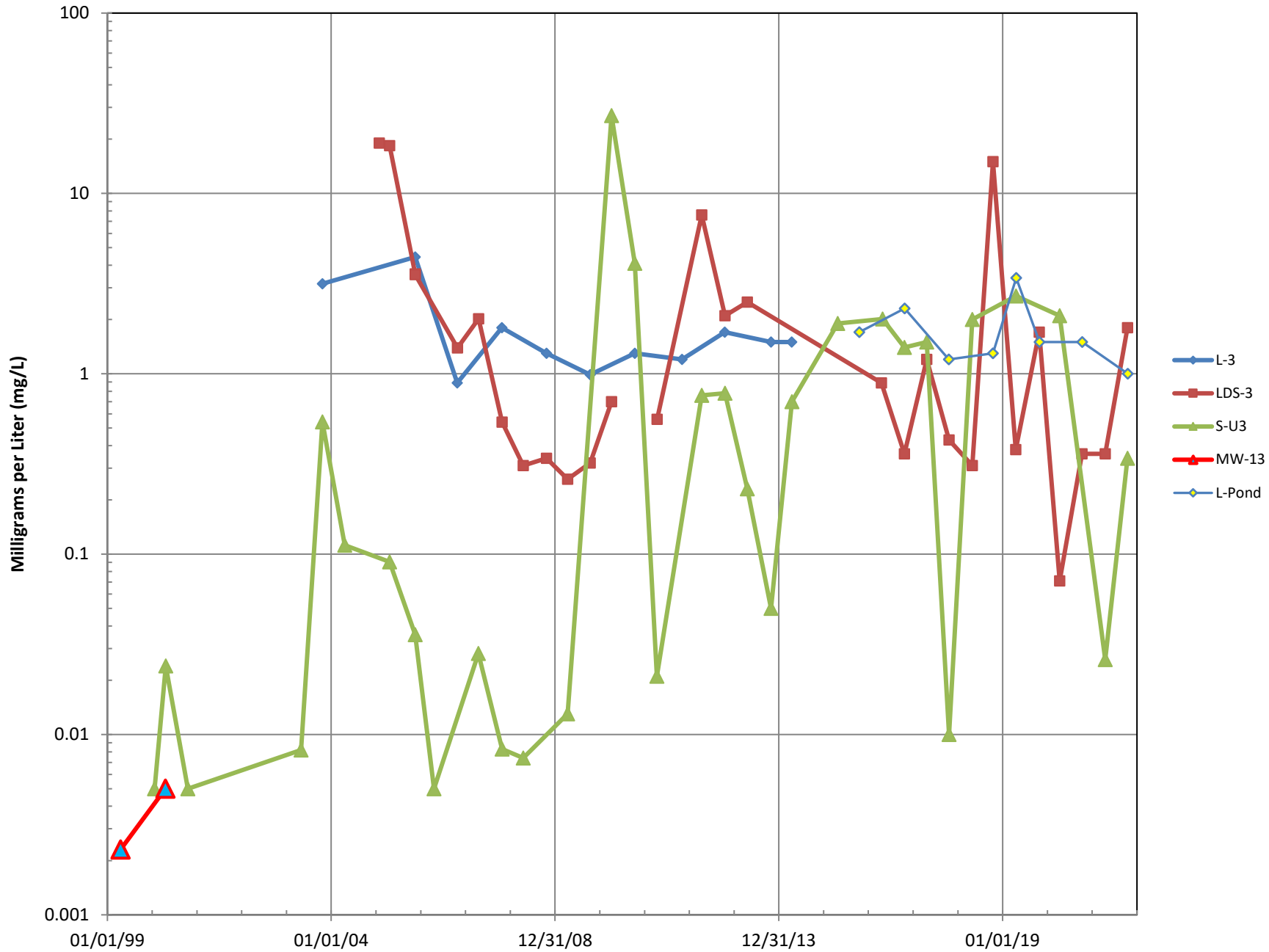
Cell 3 Underdrain Water Quality
Iron
Coffin Butte Landfill



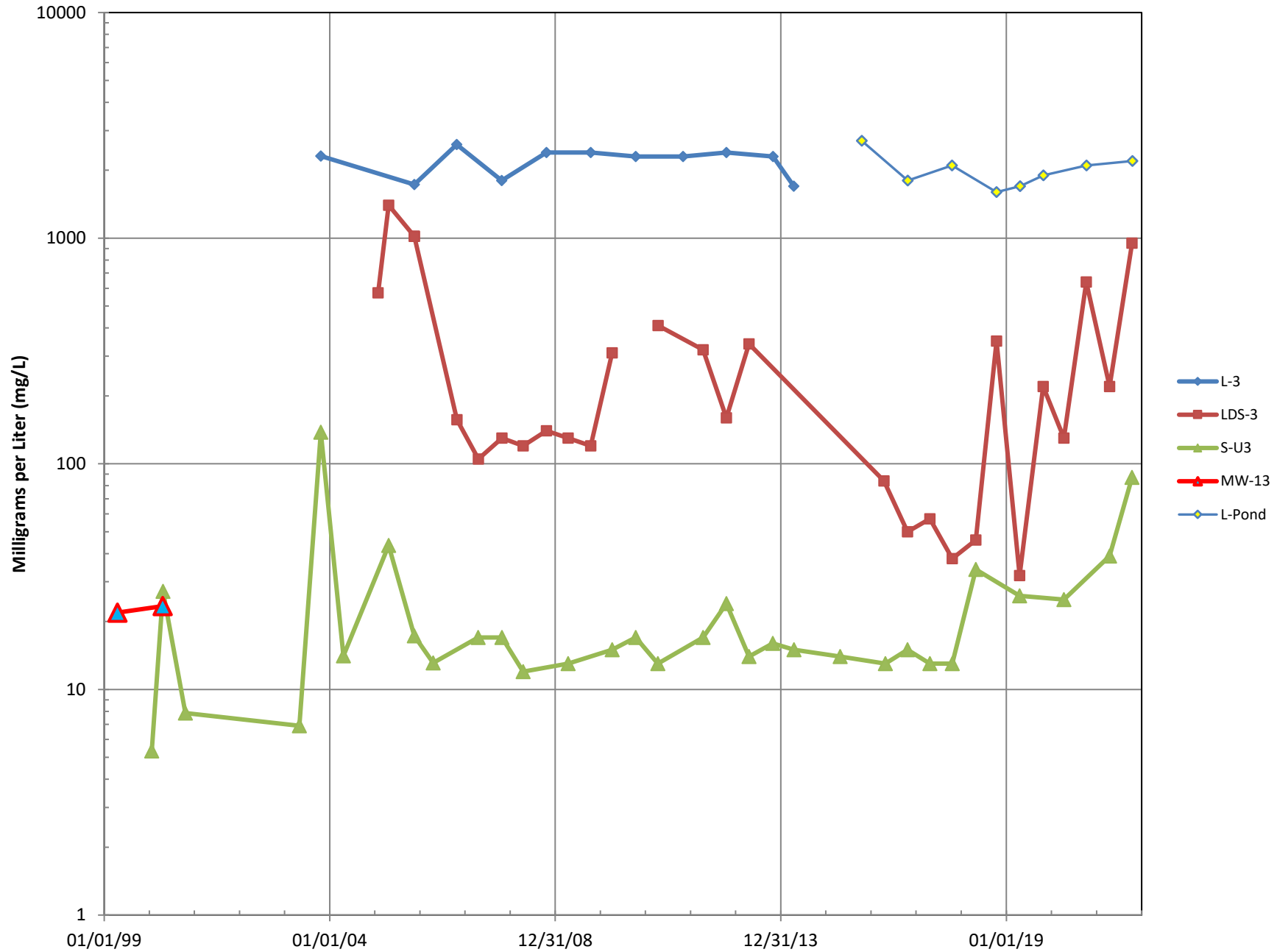
Cell 3 Underdrain Water Quality
Magnesium
Coffin Butte Landfill



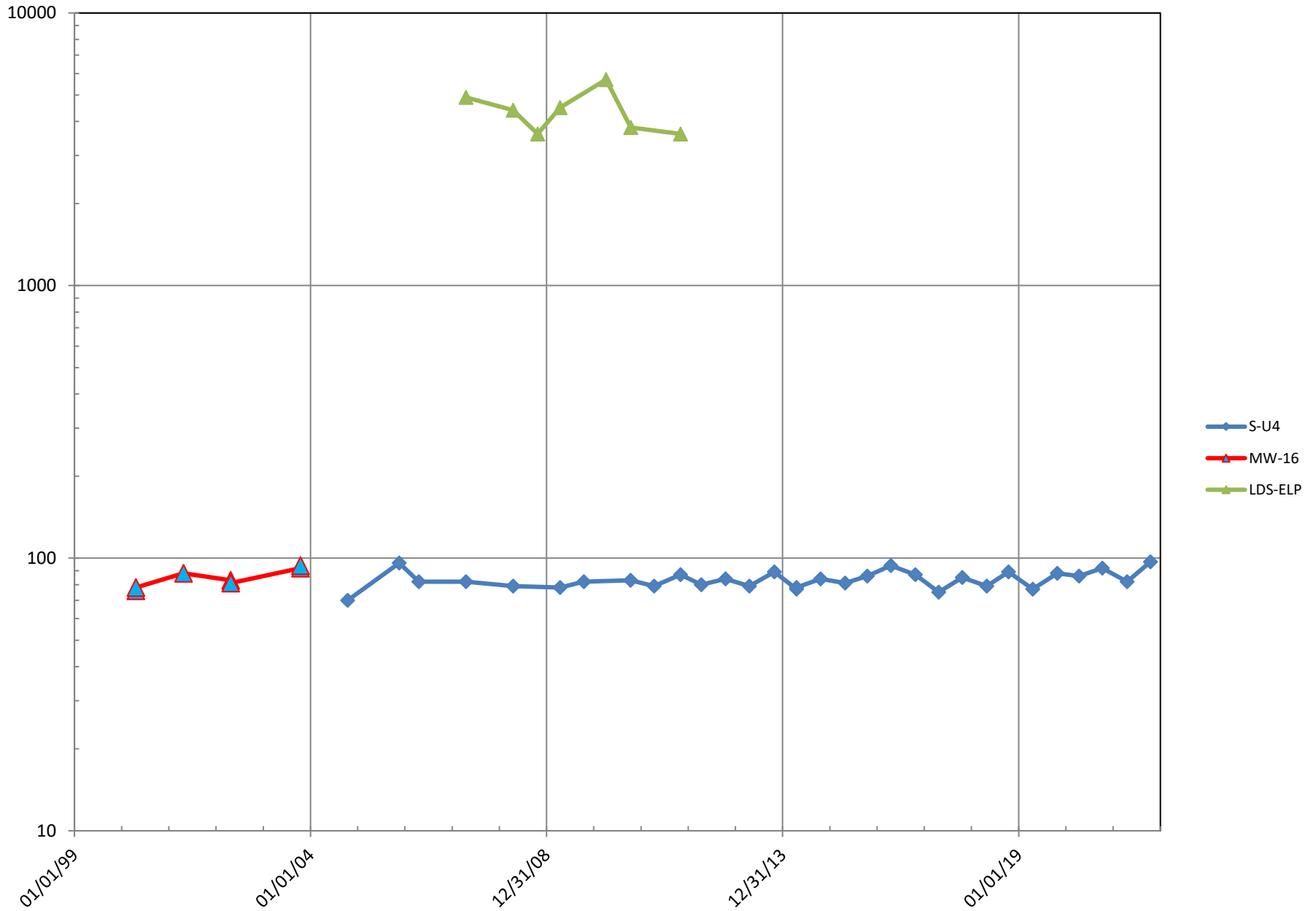
Cell 3 Underdrain Water Quality
Manganese
Coffin Butte Landfill



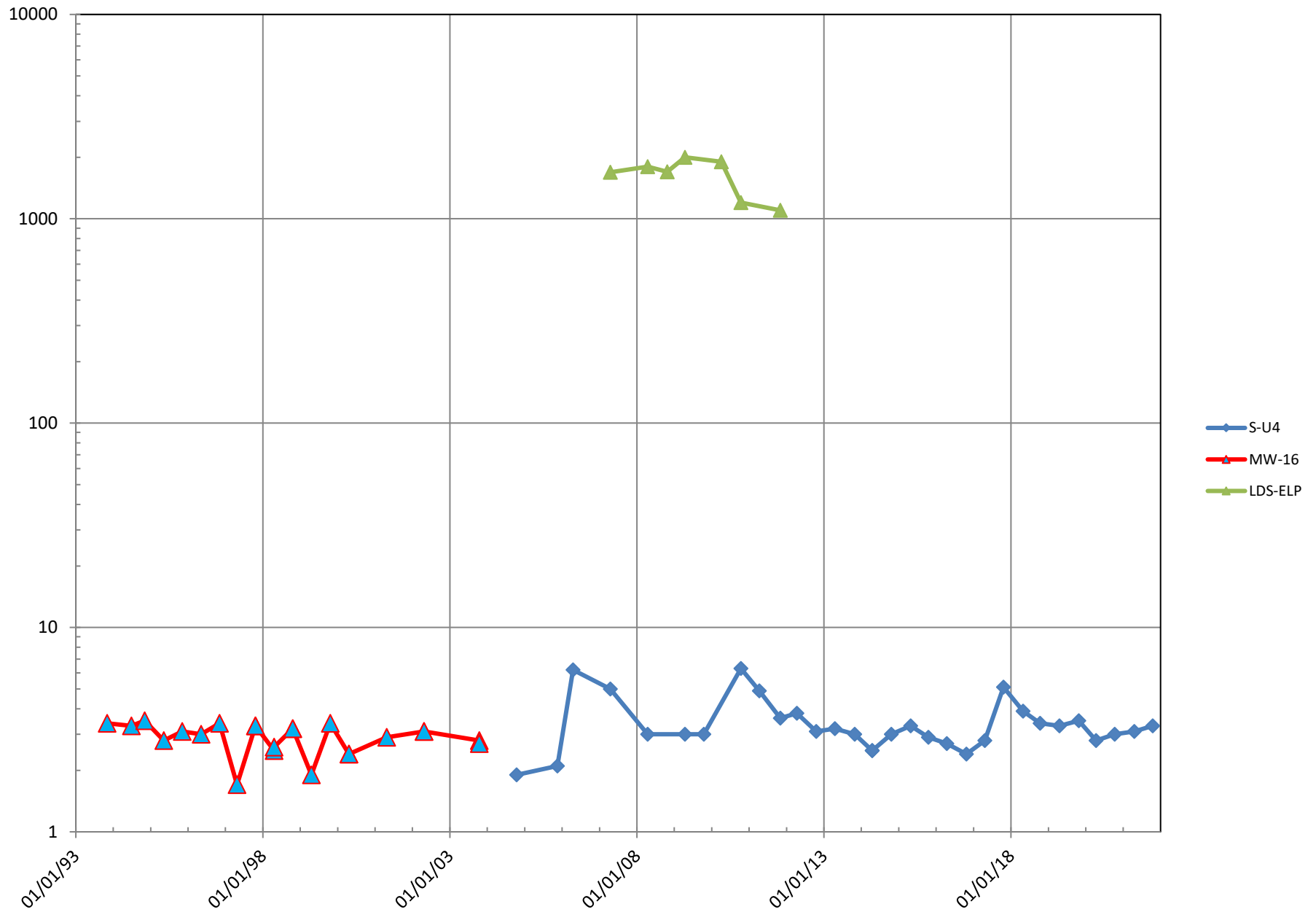
**Cell 3 Underdrain Water Quality
Sodium
Coffin Butte Landfill**



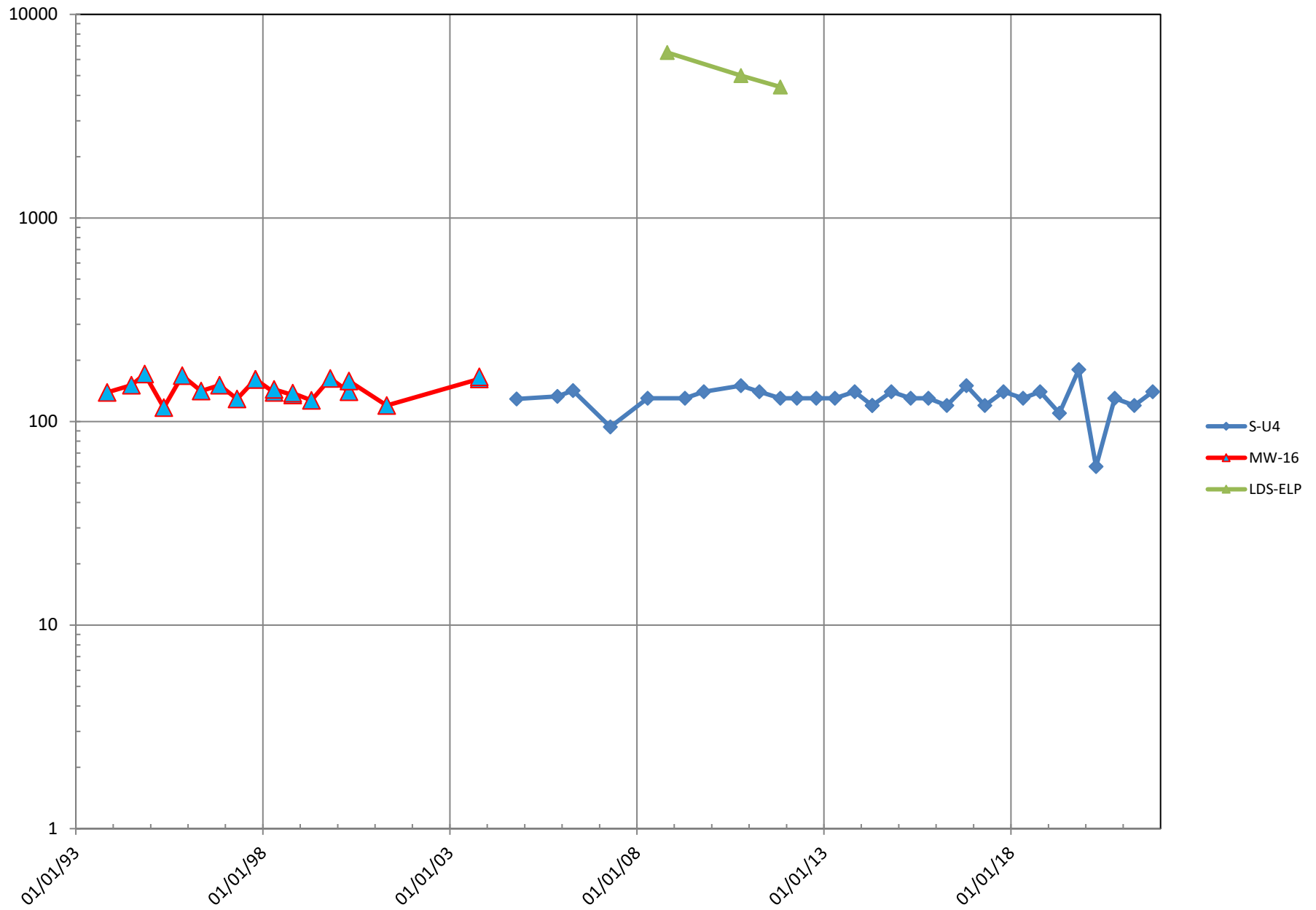
Underdrain - East Leachate Pond Area
Bicarbonate
Coffin Butte Landfill



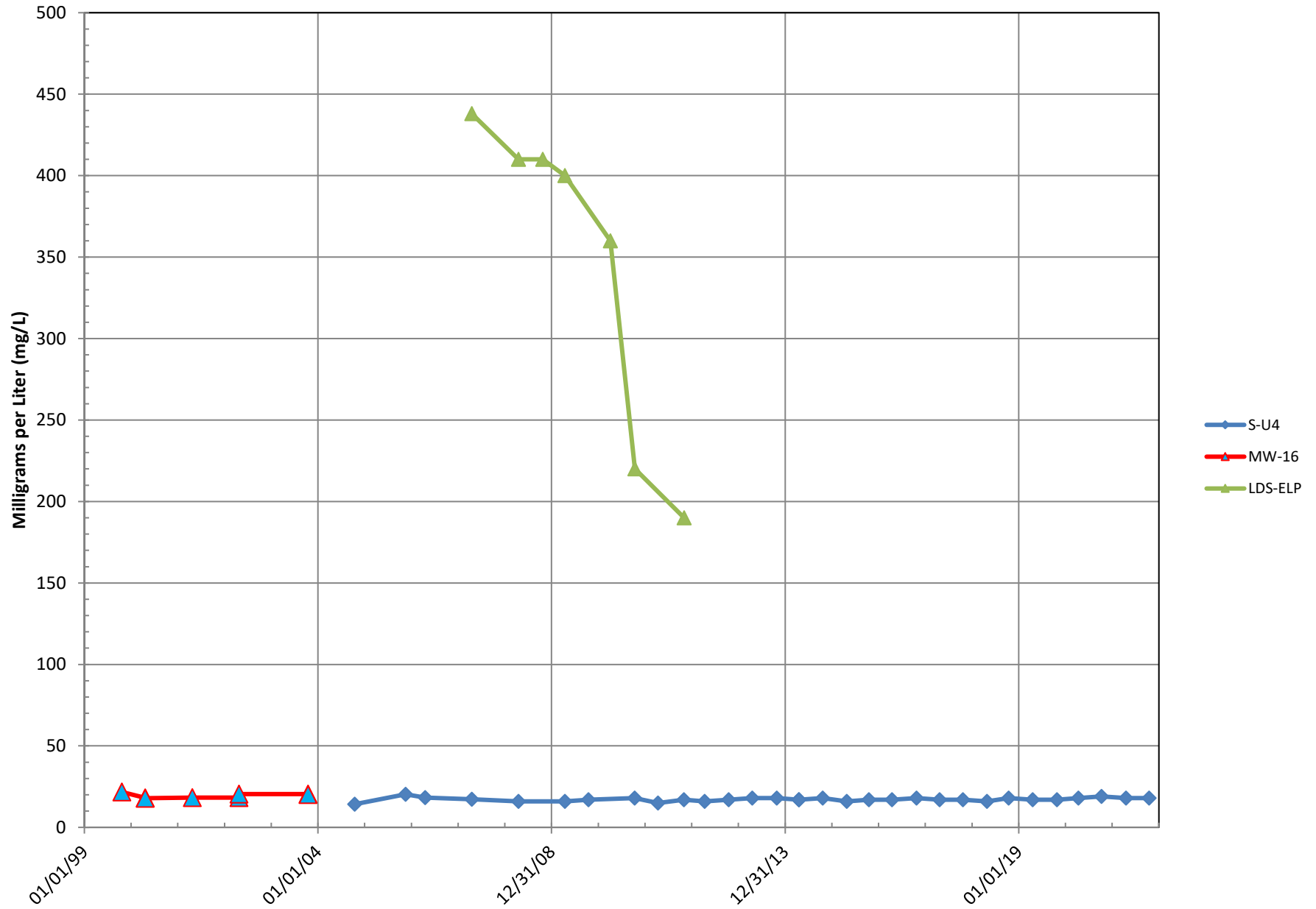
Underdrain - East Leachate Pond Area
Chloride
Coffin Butte Landfill



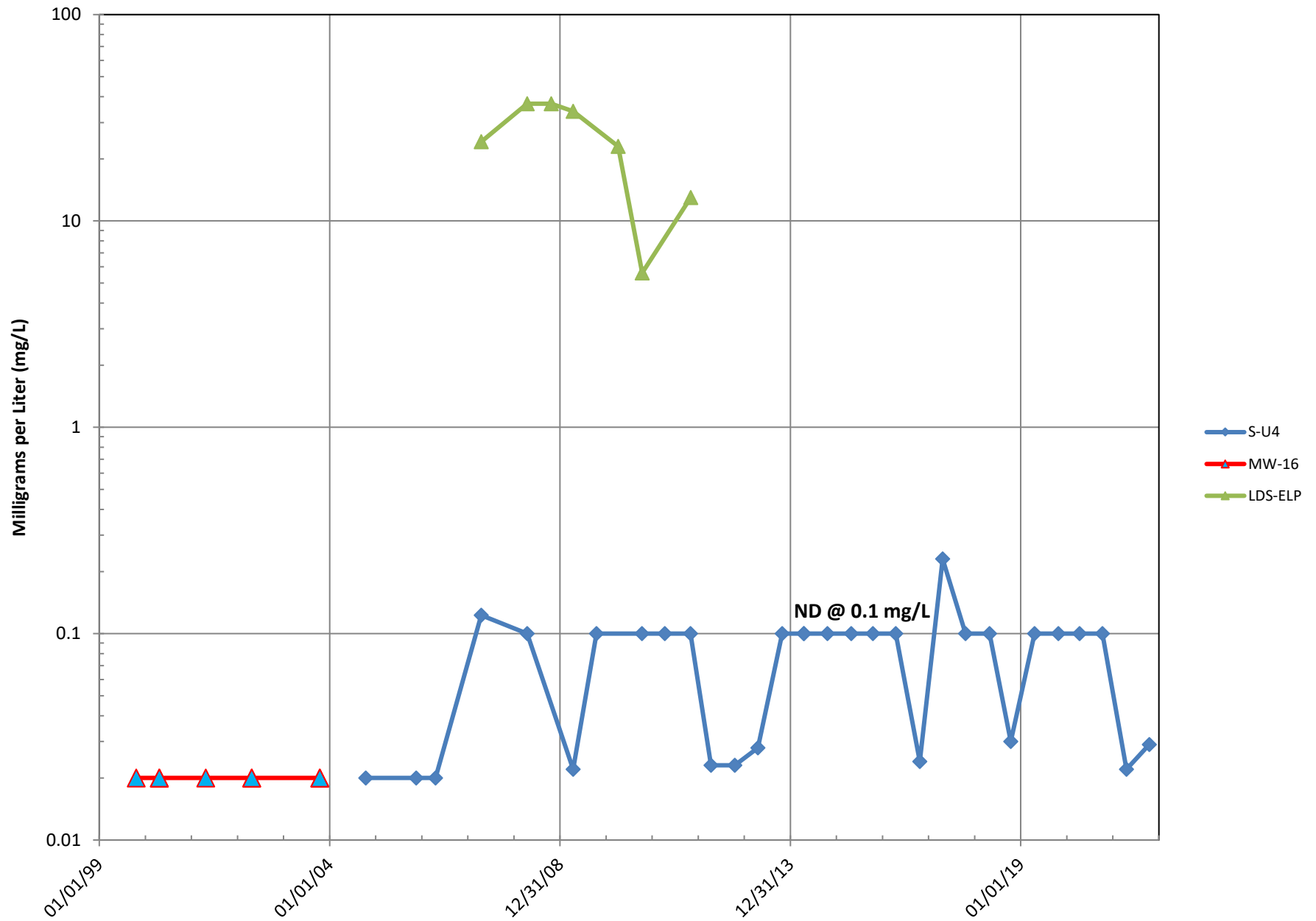
Underdrain - East Leachate Pond Area
Total Dissolved Solids
Coffin Butte Landfill



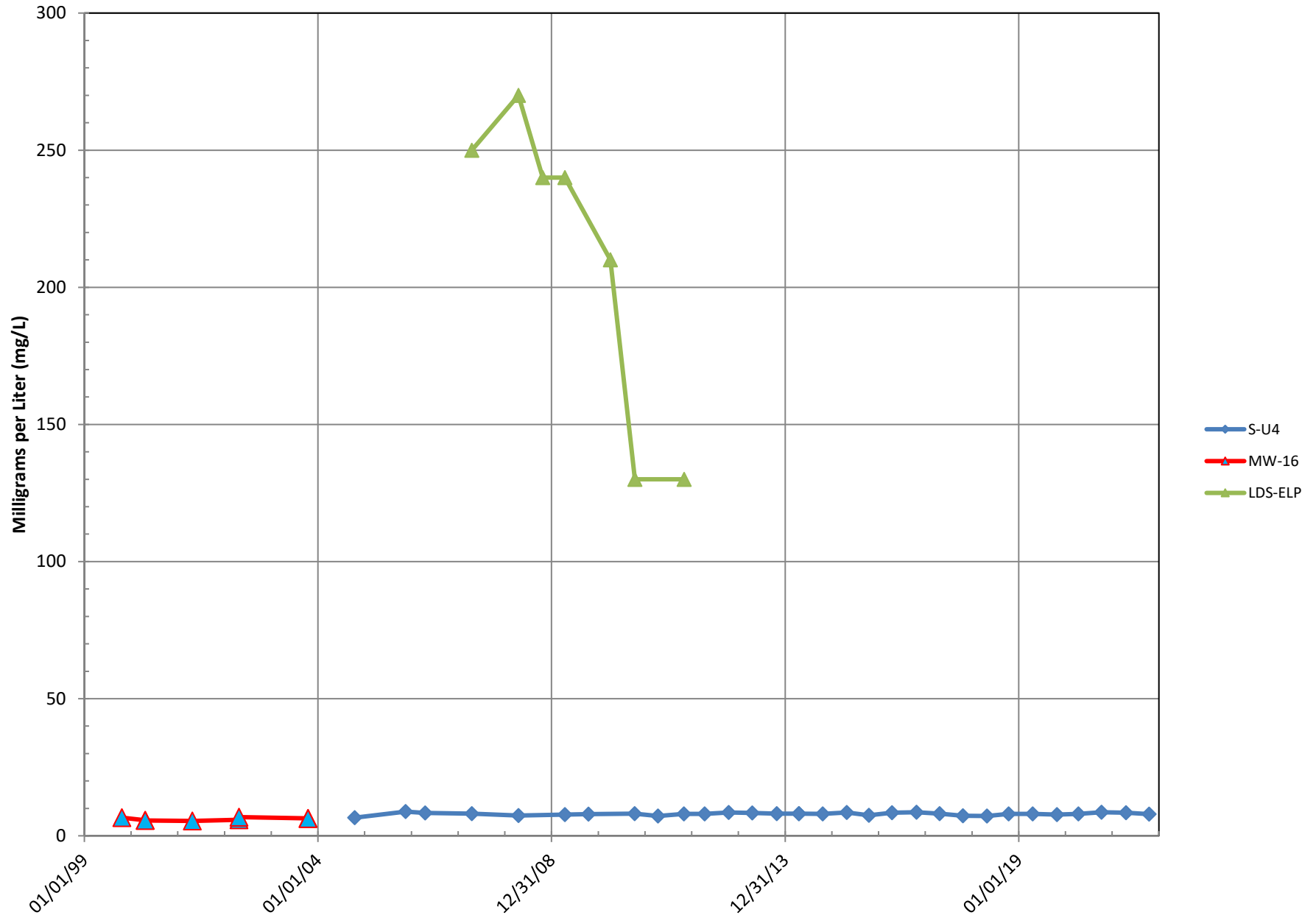
Underdrain - East Leachate Pond Area
Calcium
Coffin Butte Landfill



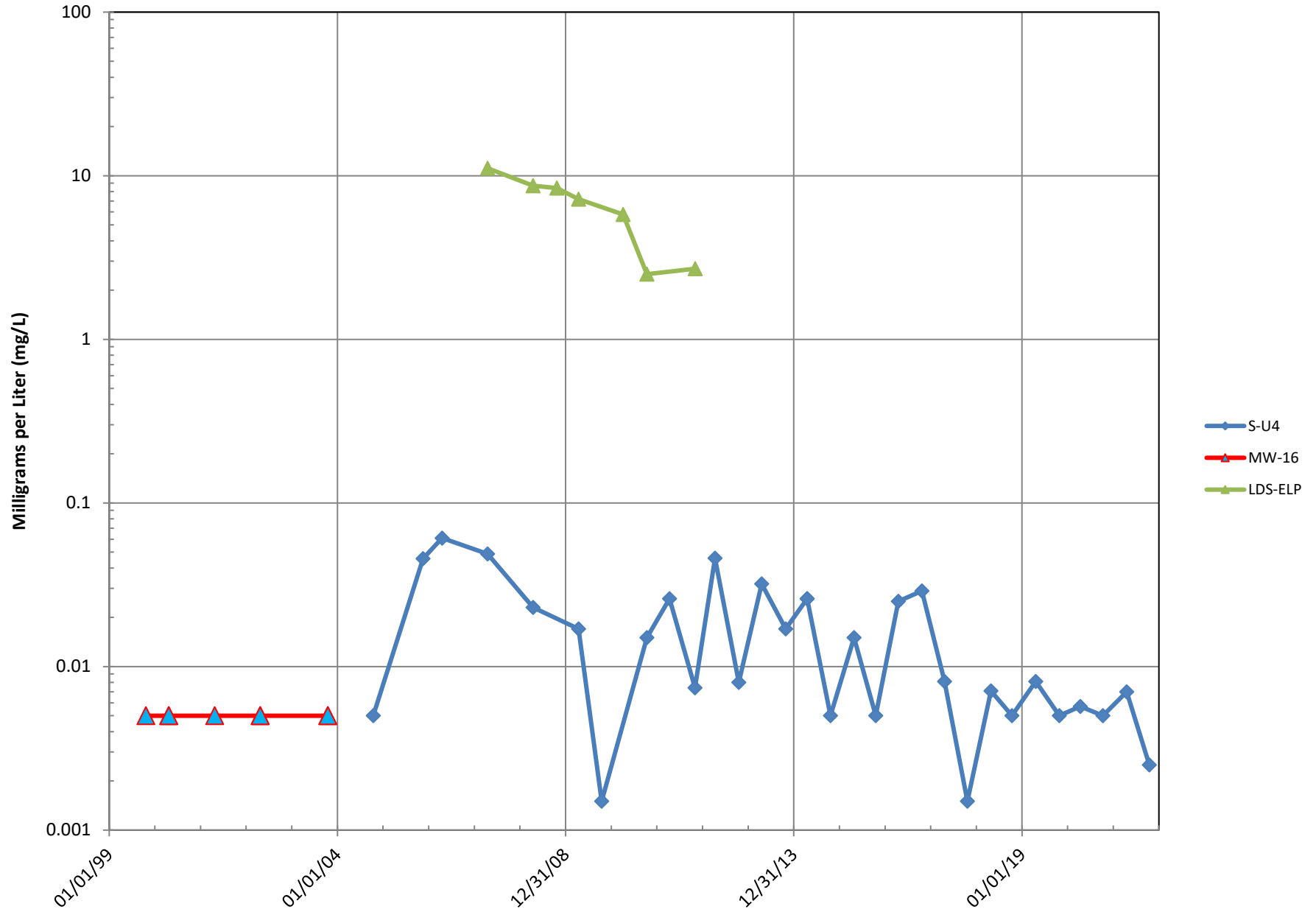
Underdrain - East Leachate Pond Area
Iron
Coffin Butte Landfill



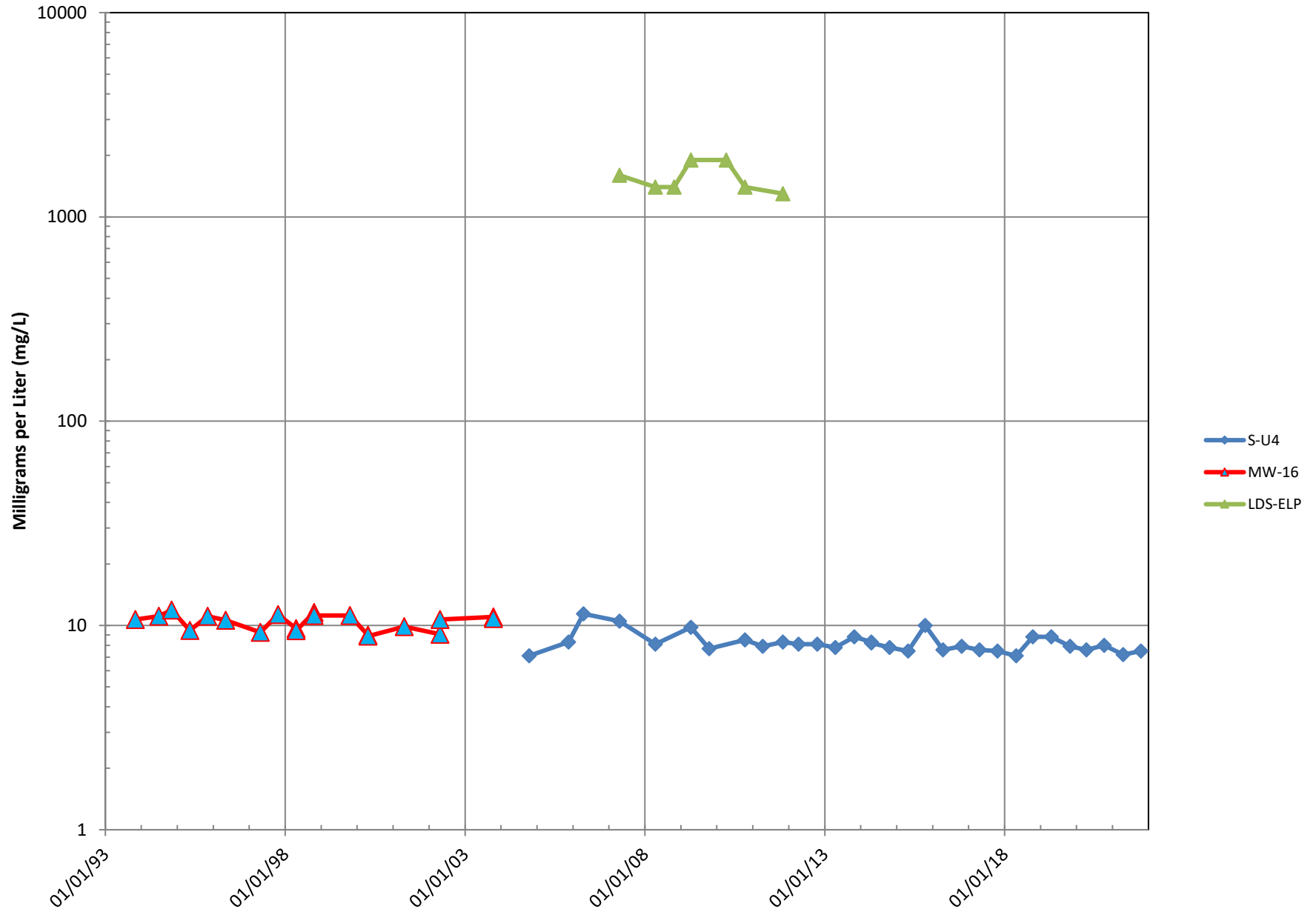
Underdrain - East Leachate Pond Area
Magnesium
Coffin Butte Landfill



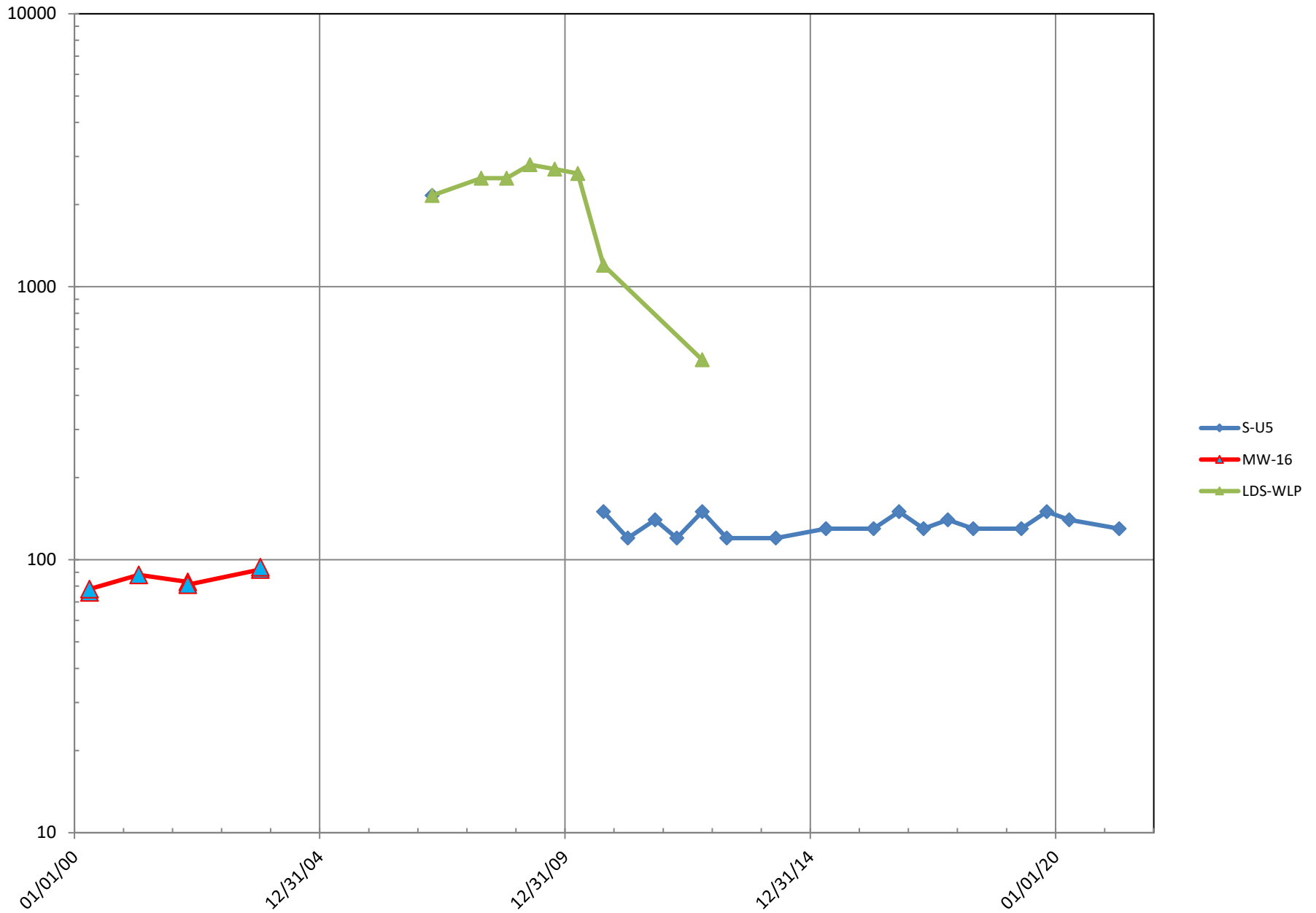
Underdrain - East Leachate Pond Area
Manganese
Coffin Butte Landfill



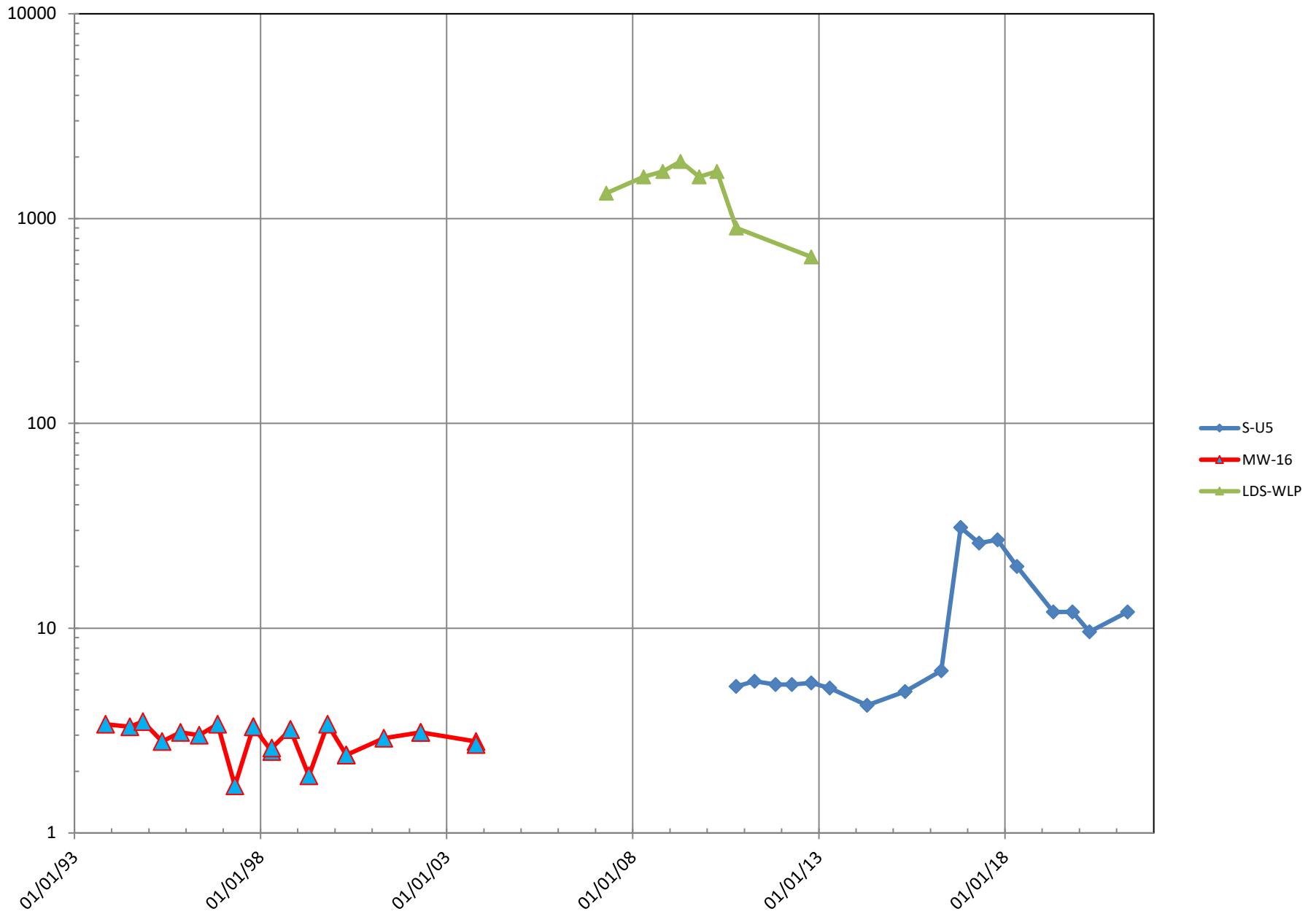
Underdrain - East Leachate Pond Area
Sodium
Coffin Butte Landfill



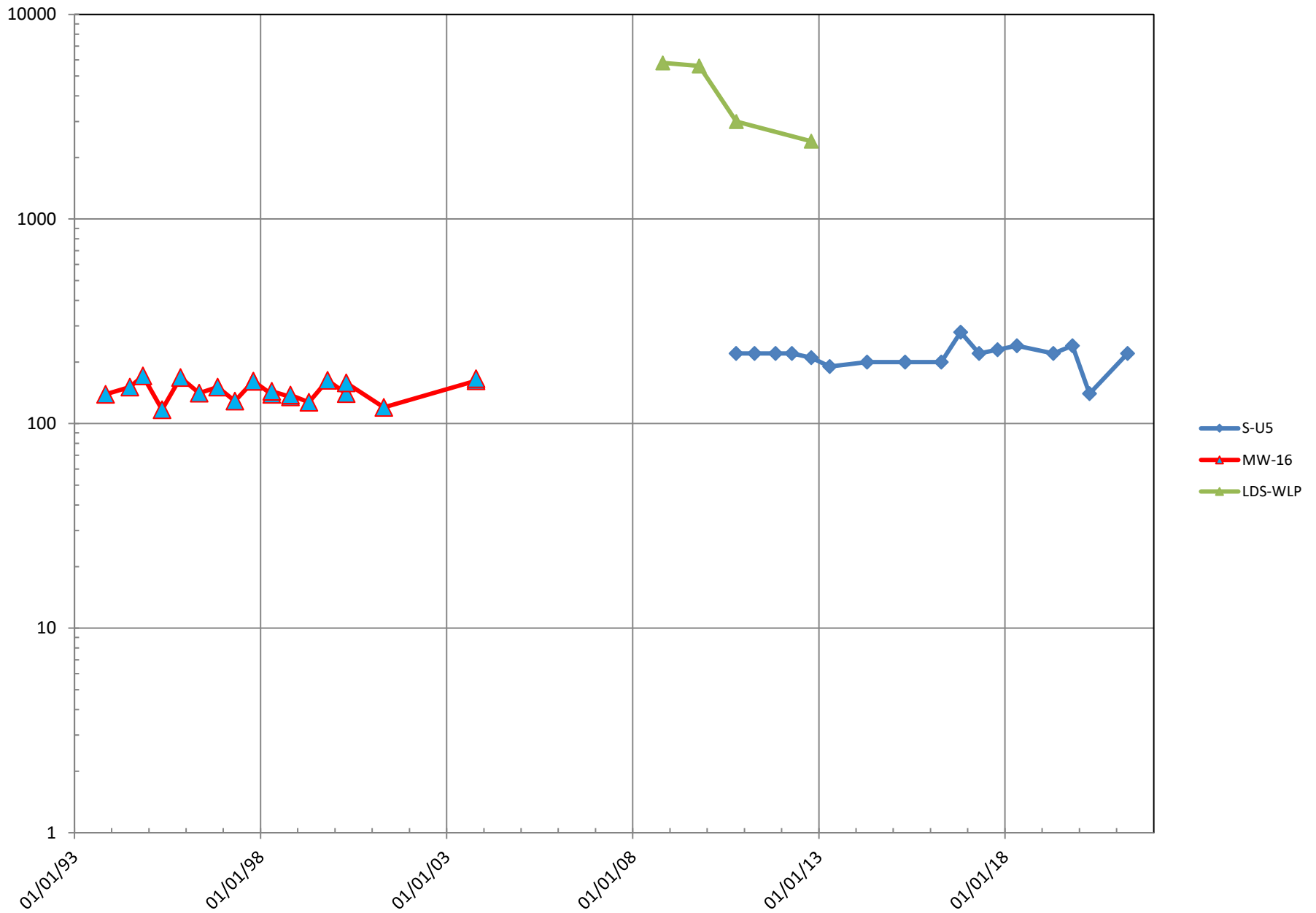
Underdrain - West Leachate Pond Area
Bicarbonate
Coffin Butte Landfill



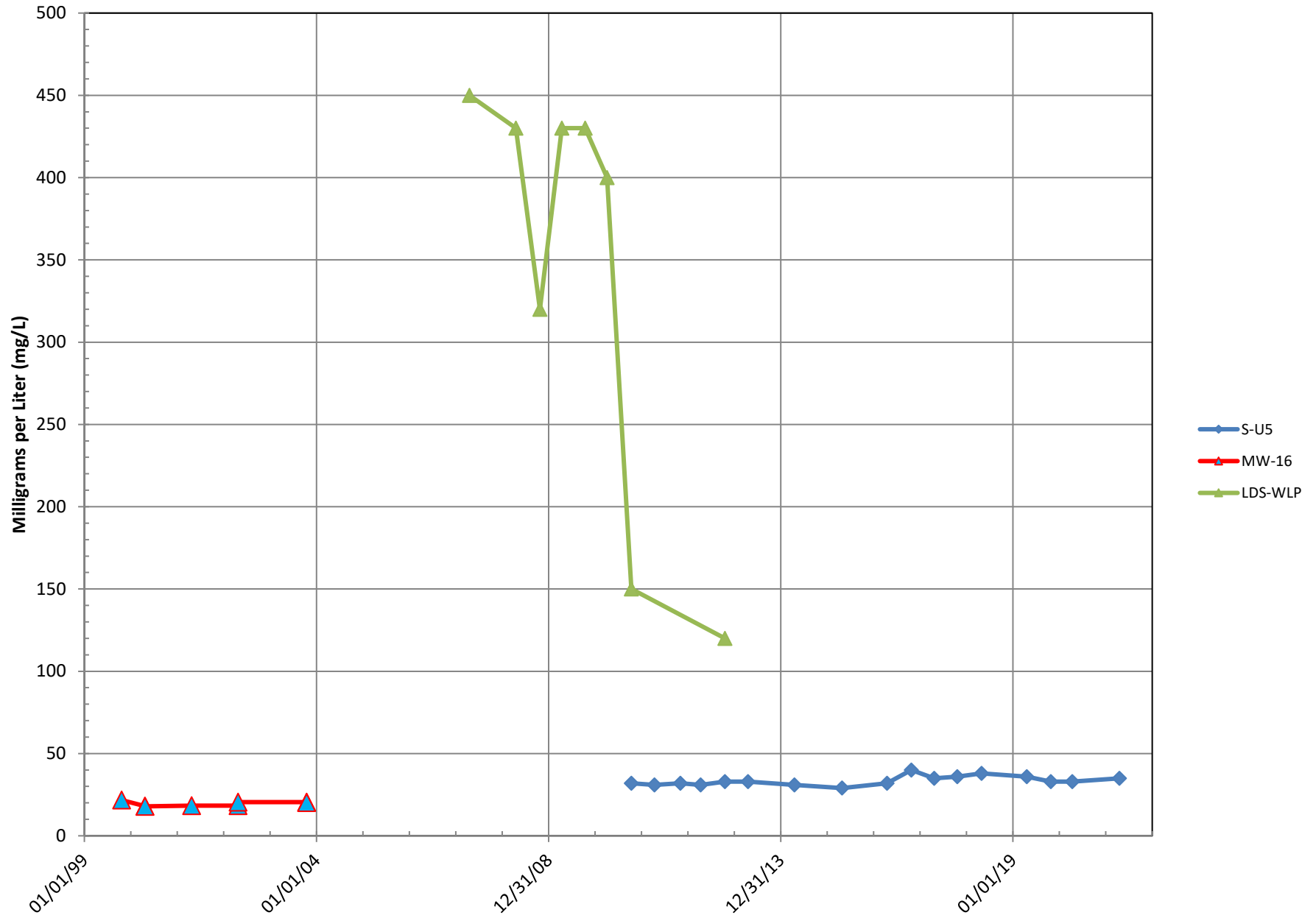
Underdrain - West Leachate Pond Area
Chloride
Coffin Butte Landfill



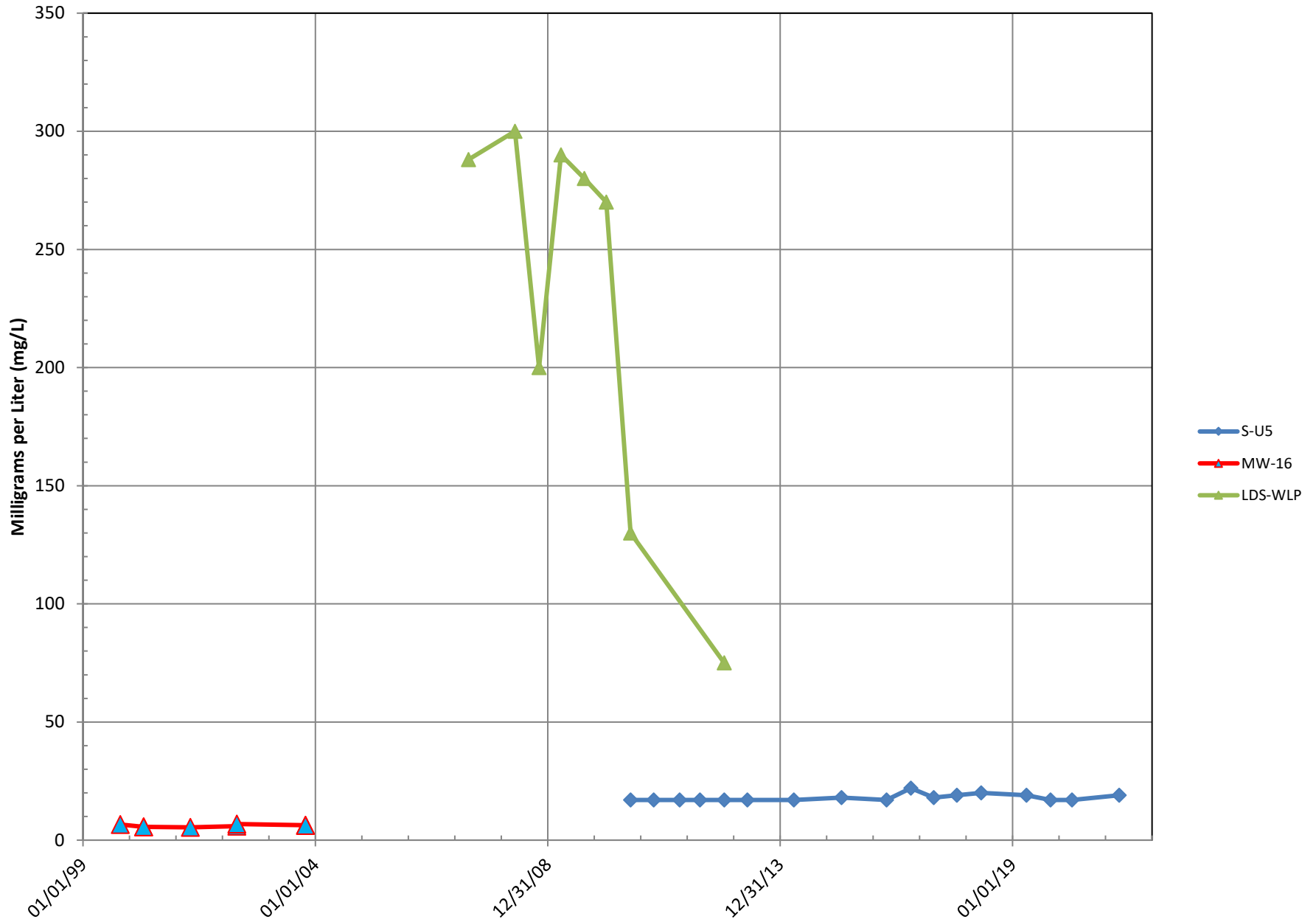
Underdrain - West Leachate Pond Area
Total Dissolved Solids
Coffin Butte Landfill



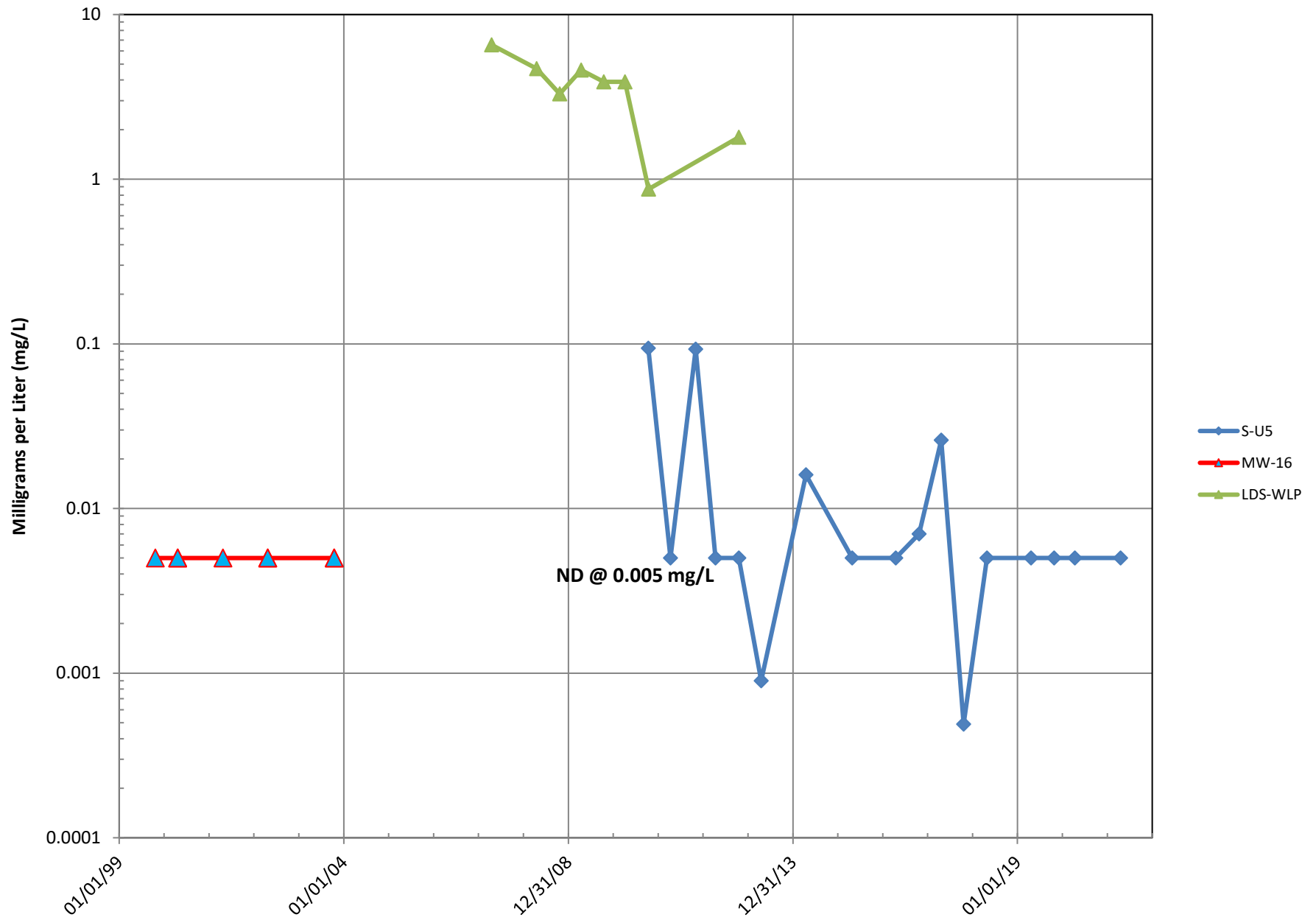
Underdrain - West Leachate Pond Area
Calcium
Coffin Butte Landfill



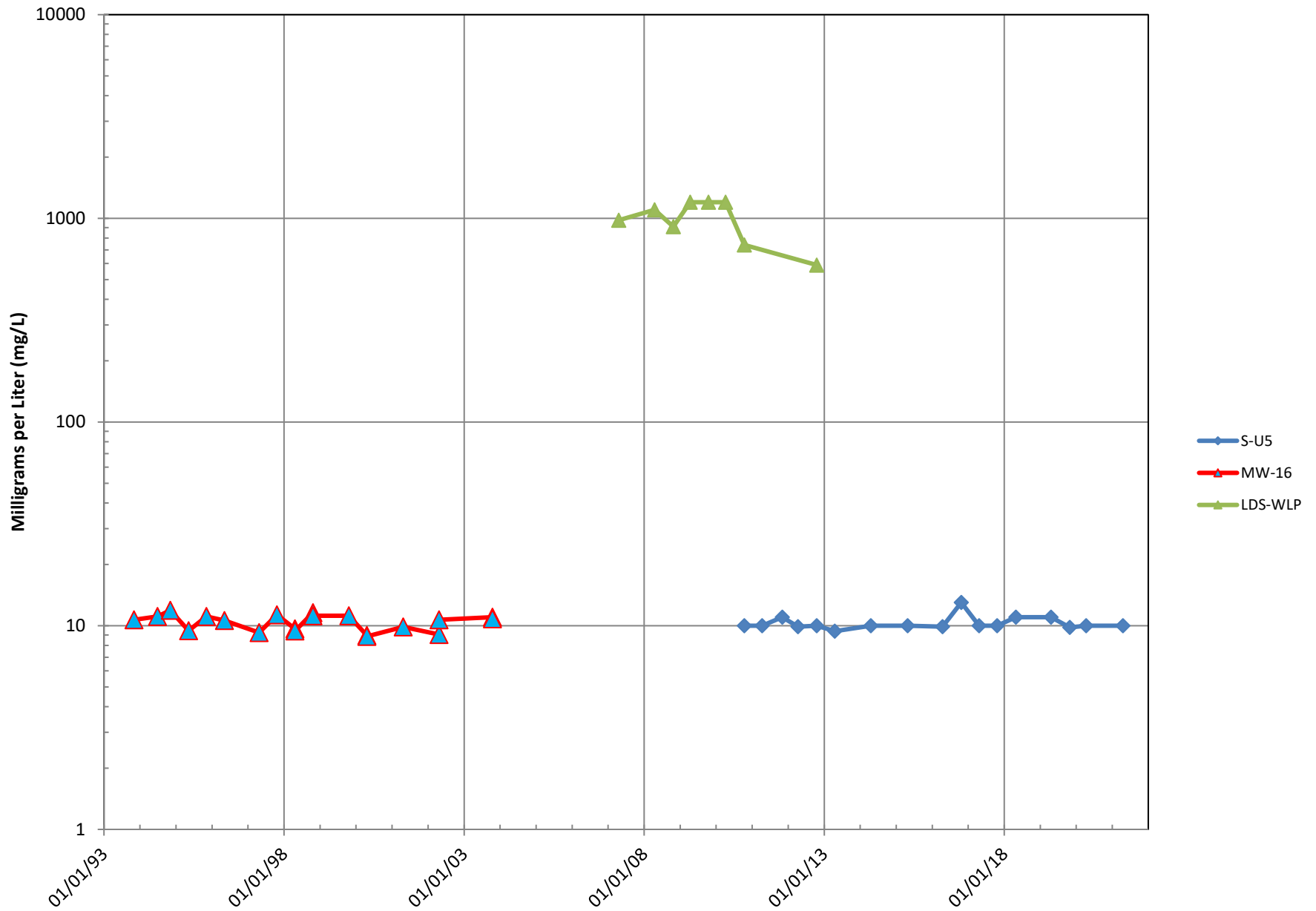
Underdrain - West Leachate Pond Area
Magnesium
Coffin Butte Landfill



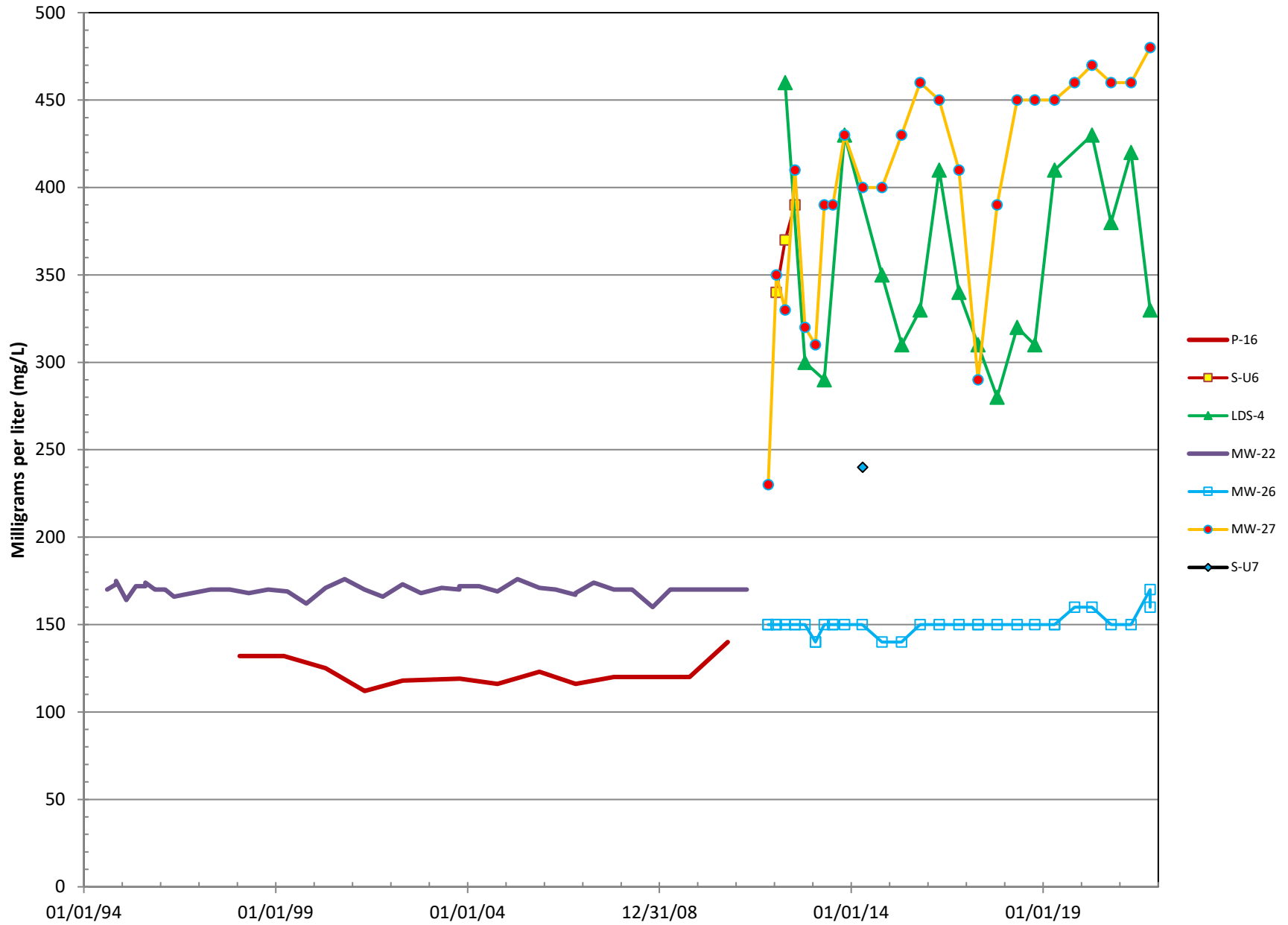
Underdrain - West Leachate Pond Area Manganese Coffin Butte Landfill



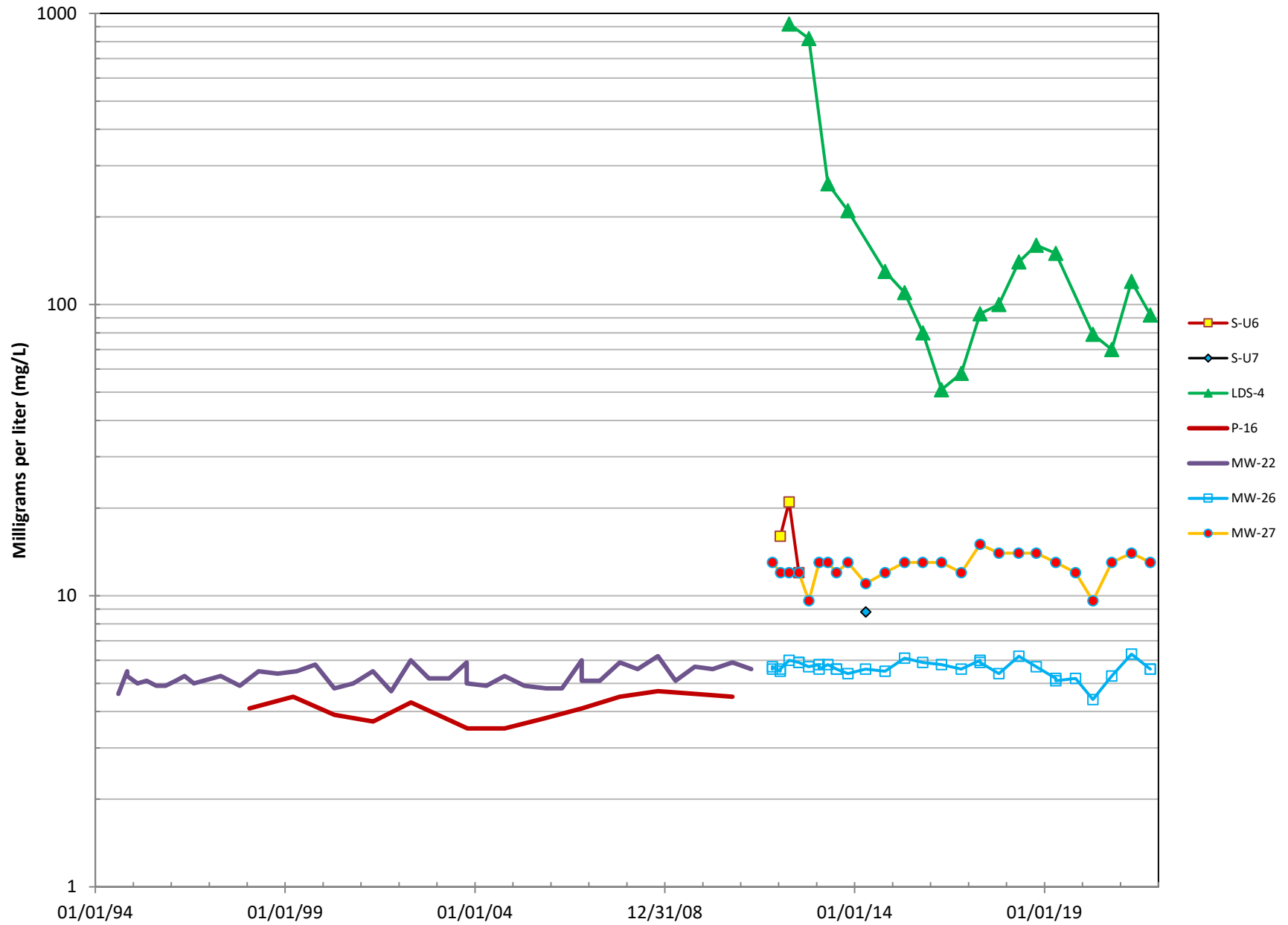
Underdrain - West Leachate Pond Area
Sodium
Coffin Butte Landfill



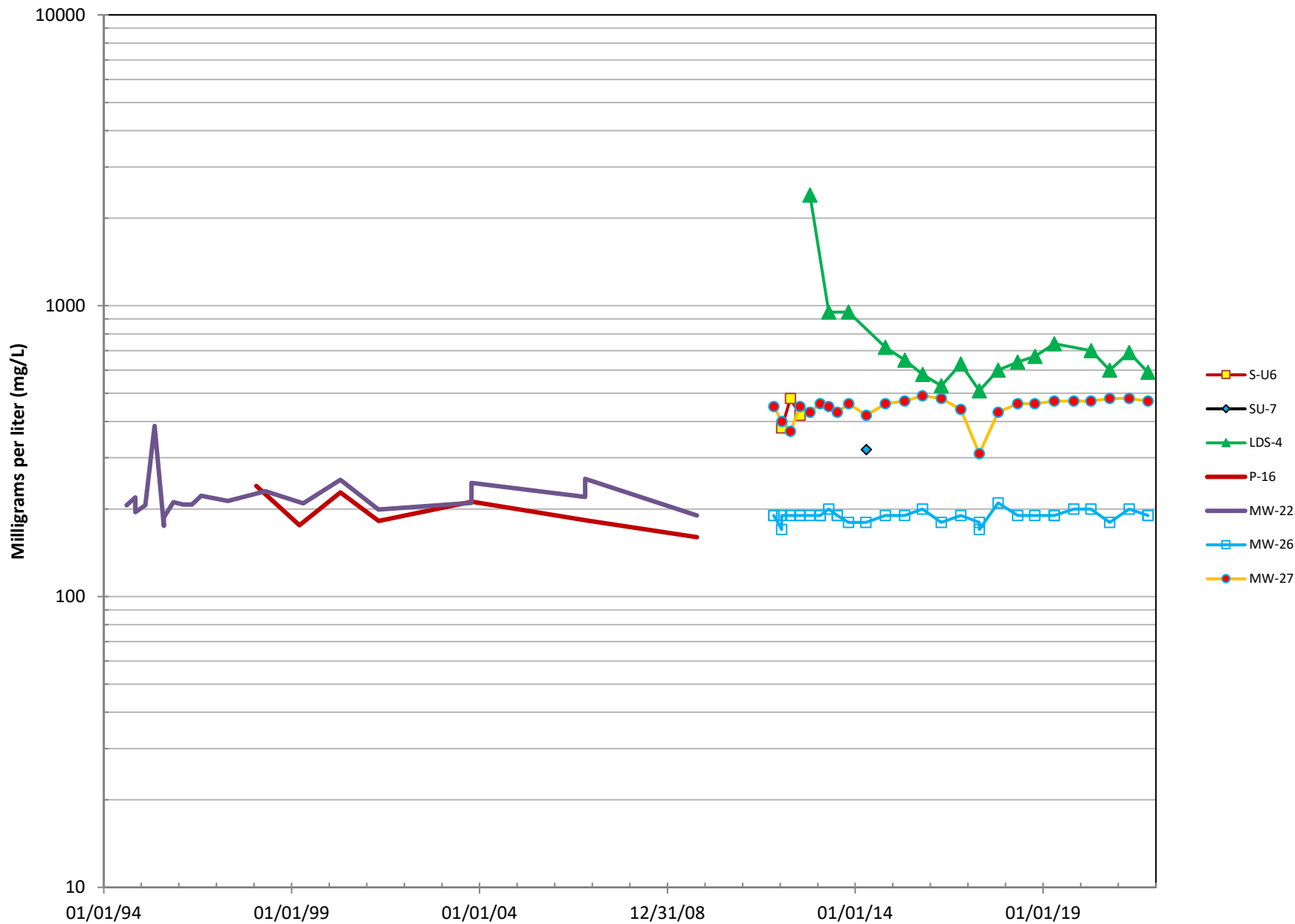
**Cell 4 Underdrain Water Quality
Bicarbonate
Coffin Butte Landfill**



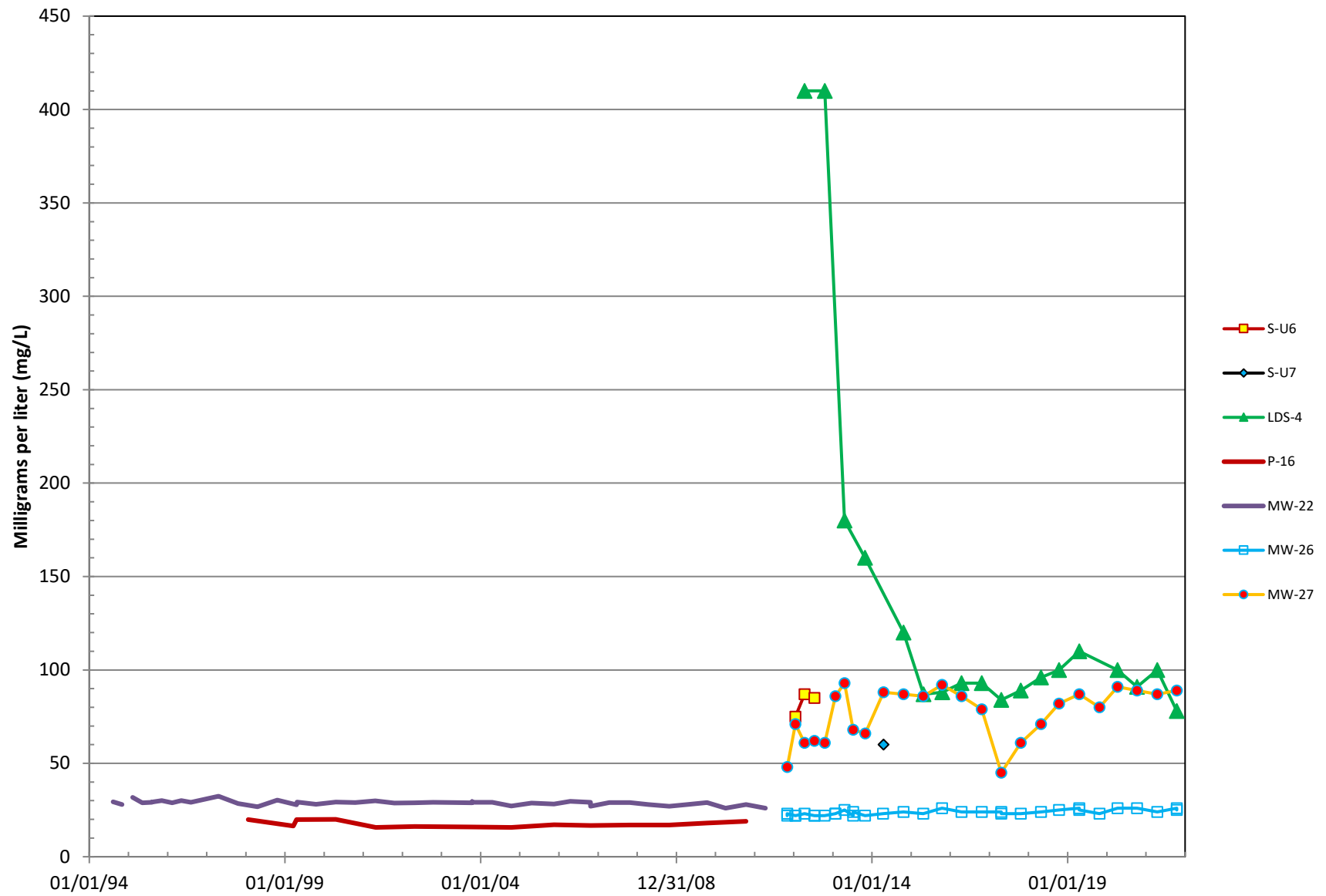
Cell 4 Underdrain Water Quality Chloride Coffin Butte Landfill



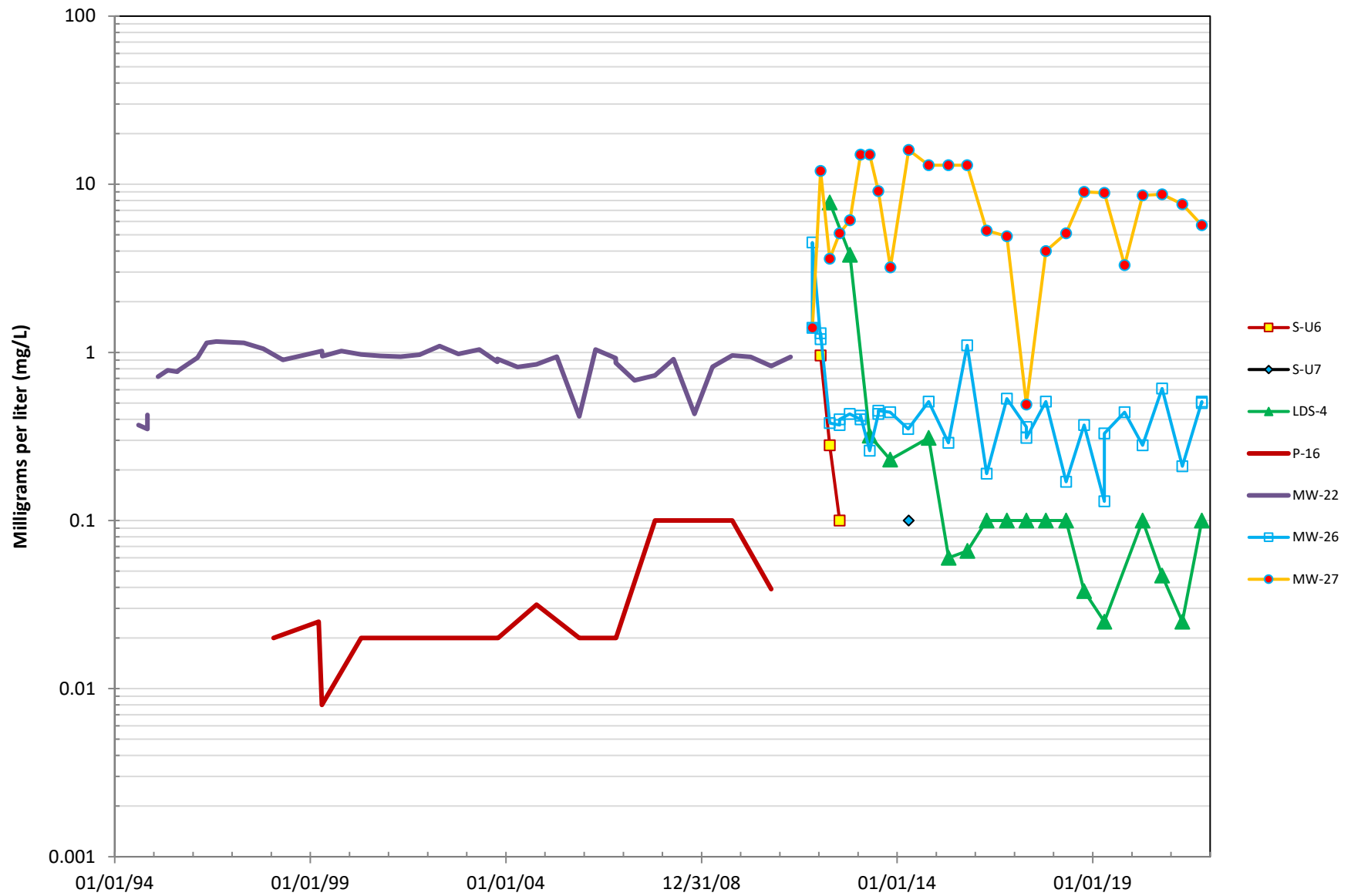
Cell 4 Underdrain Water Quality
Total Dissolved Solids
Coffin Butte Landfill



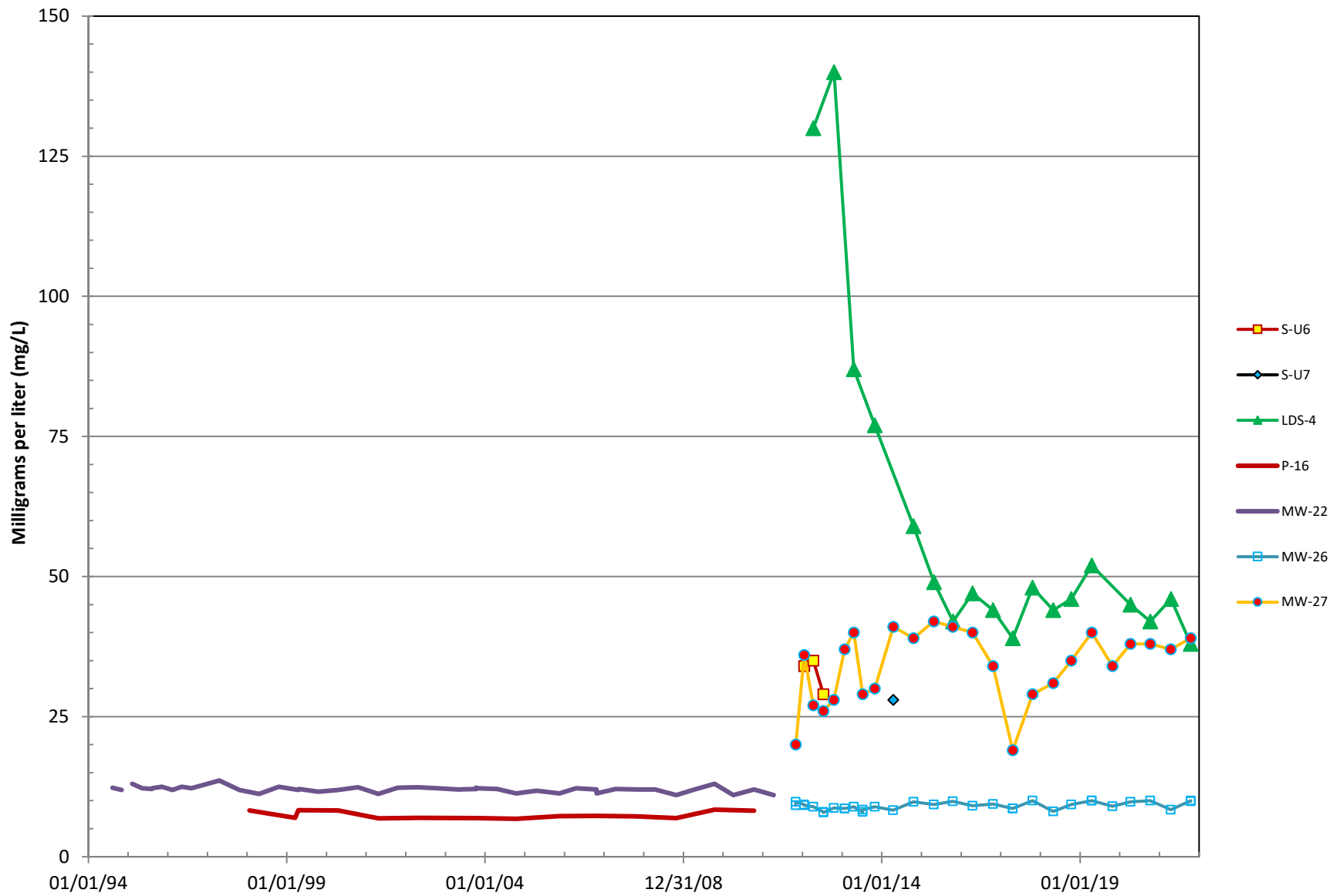
Cell 4 Underdrain Water Quality Calcium Coffin Butte Landfill



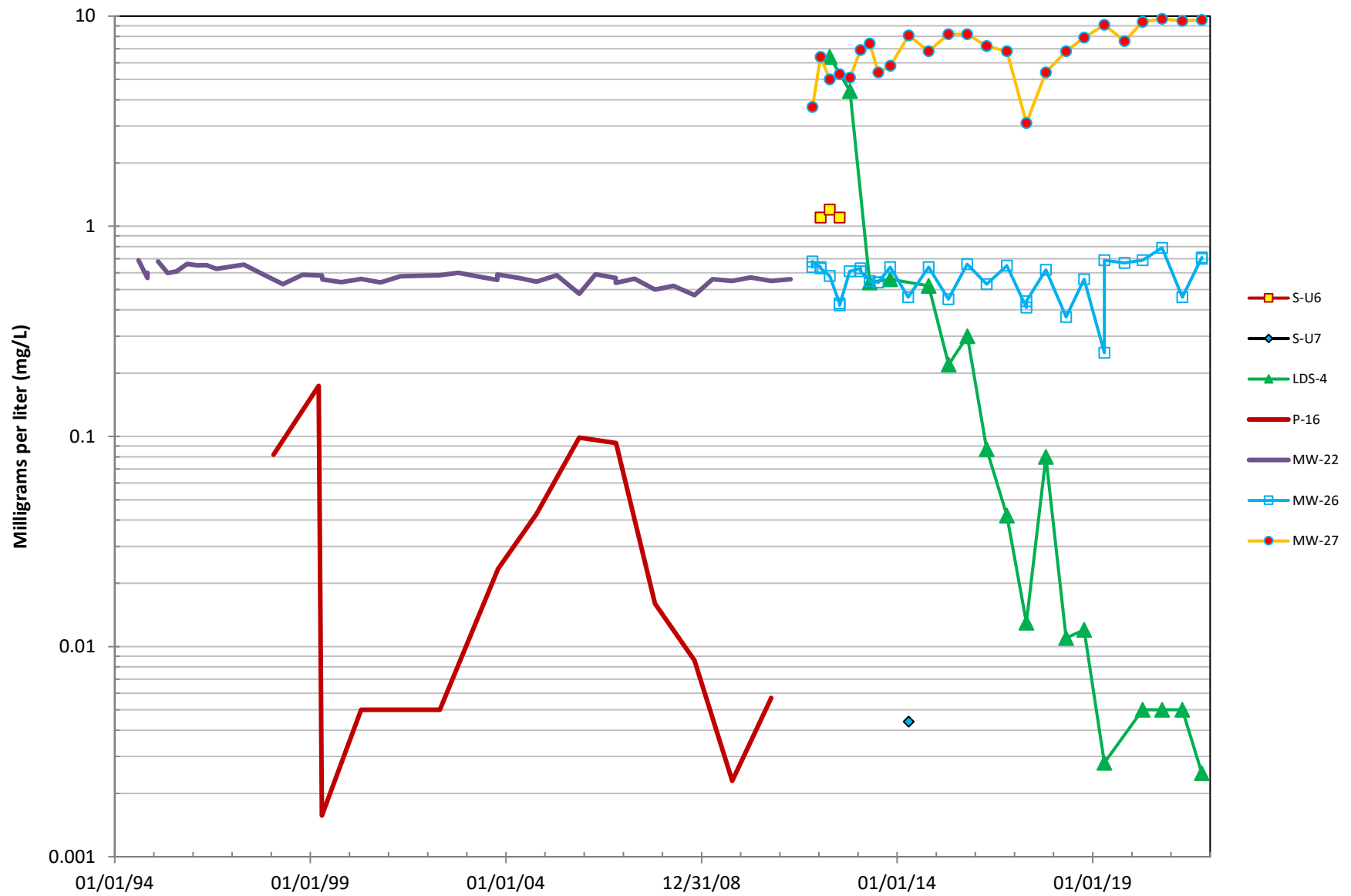
Cell 4 Underdrain Water Quality Iron Coffin Butte Landfill



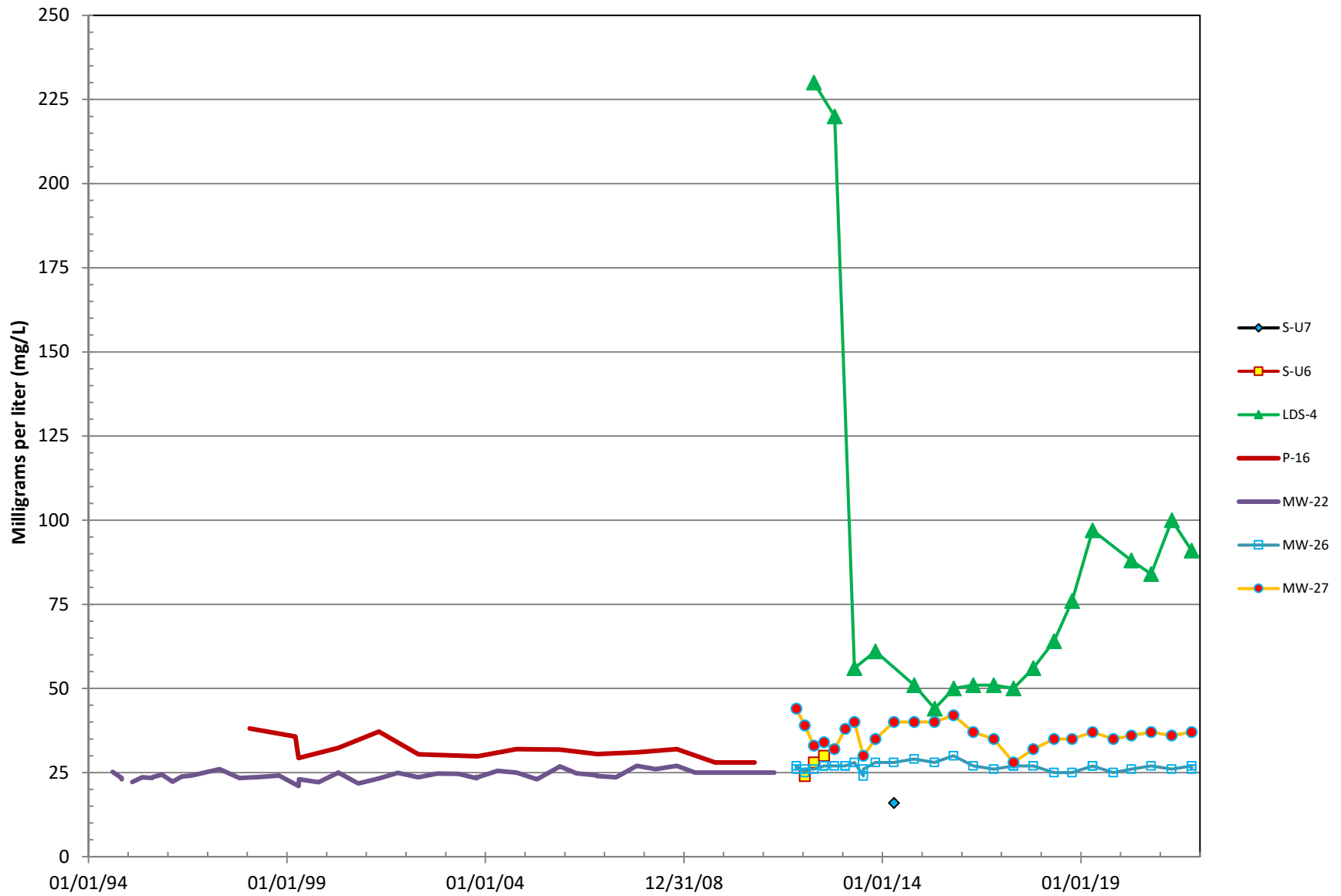
Cell 4 Underdrain Water Quality Magnesium Coffin Butte Landfill



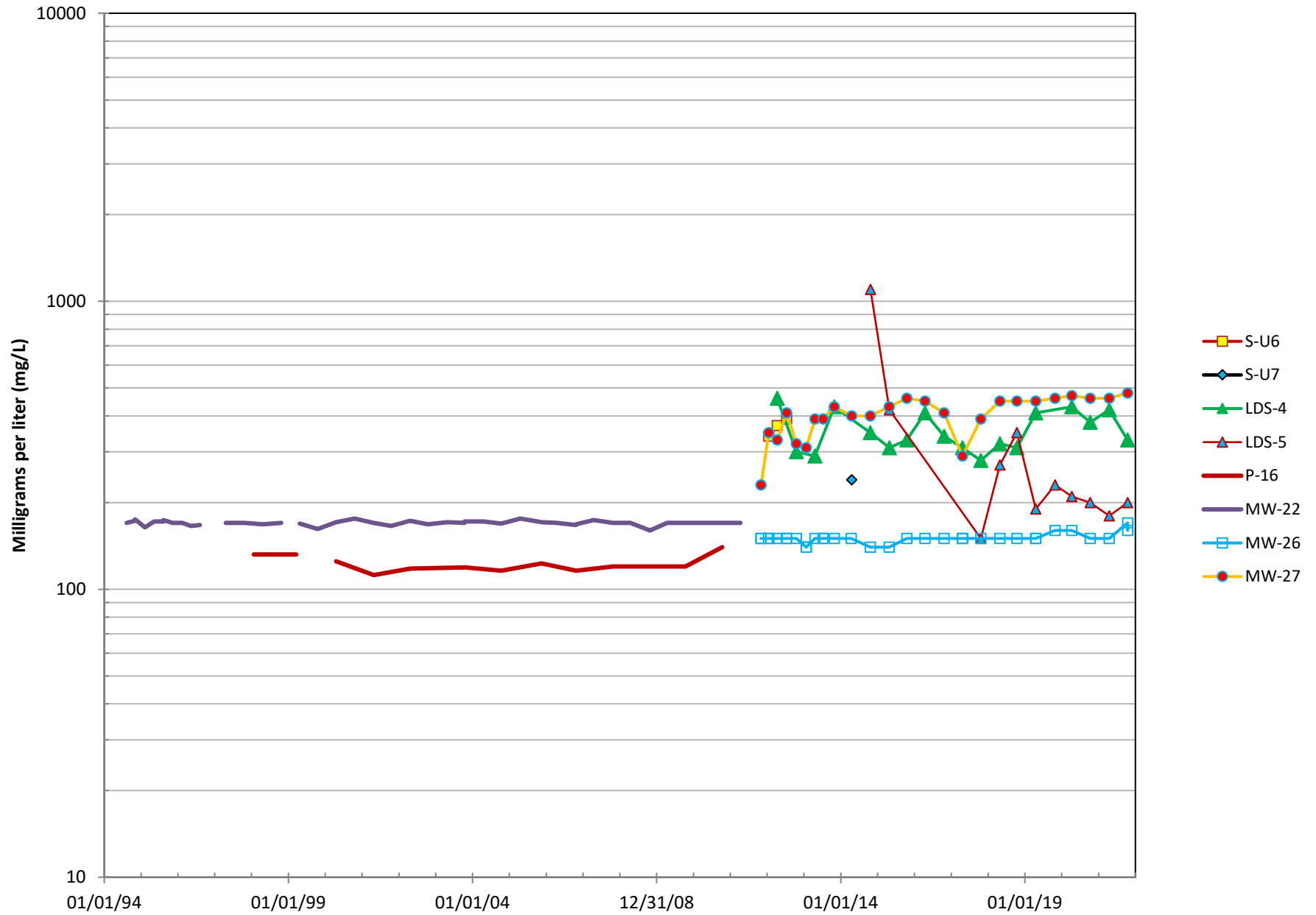
Cell 4 Underdrain Water Quality Manganese Coffin Butte Landfill



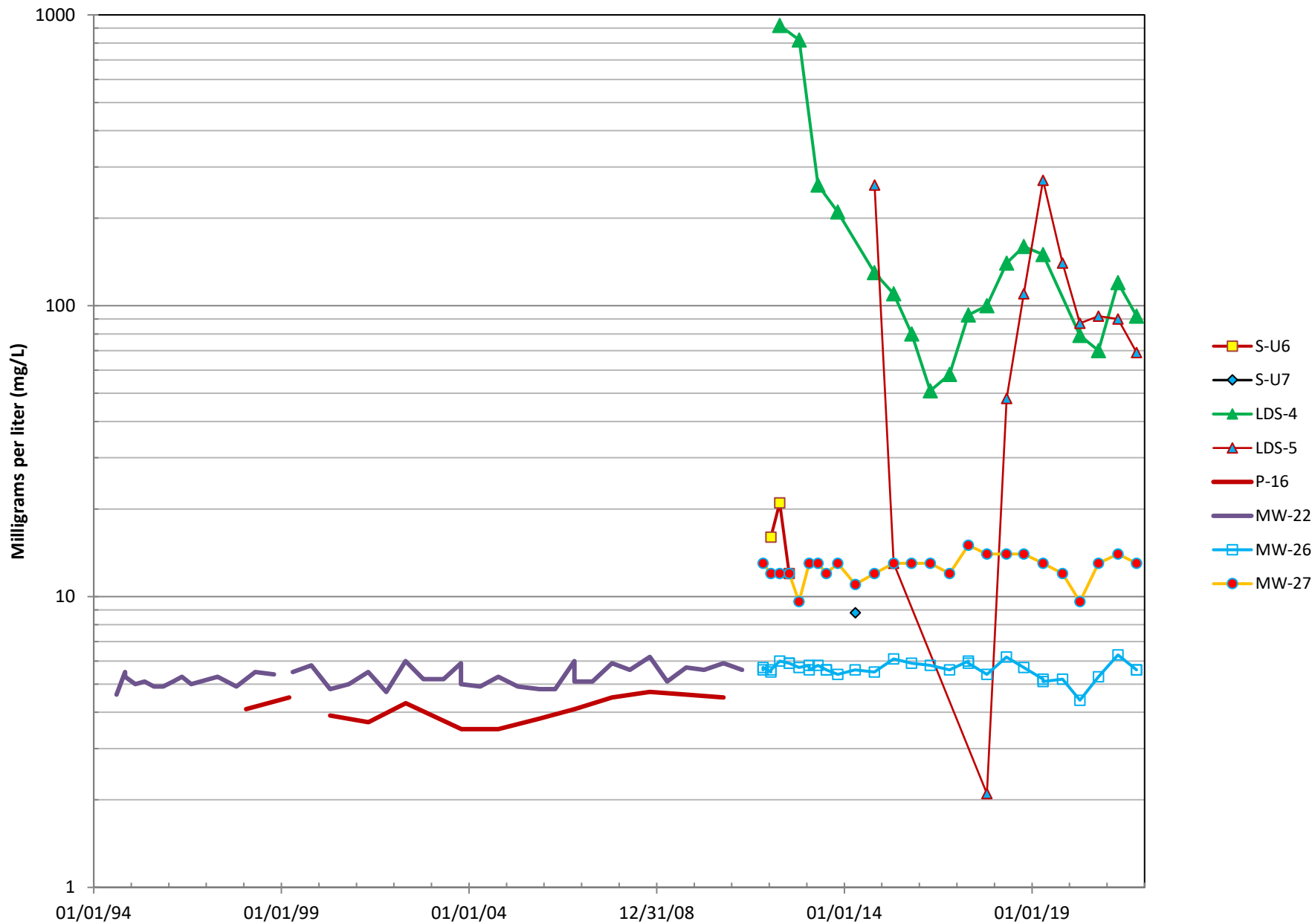
Cell 4 Underdrain Water Quality
Sodium
Coffin Butte Landfill



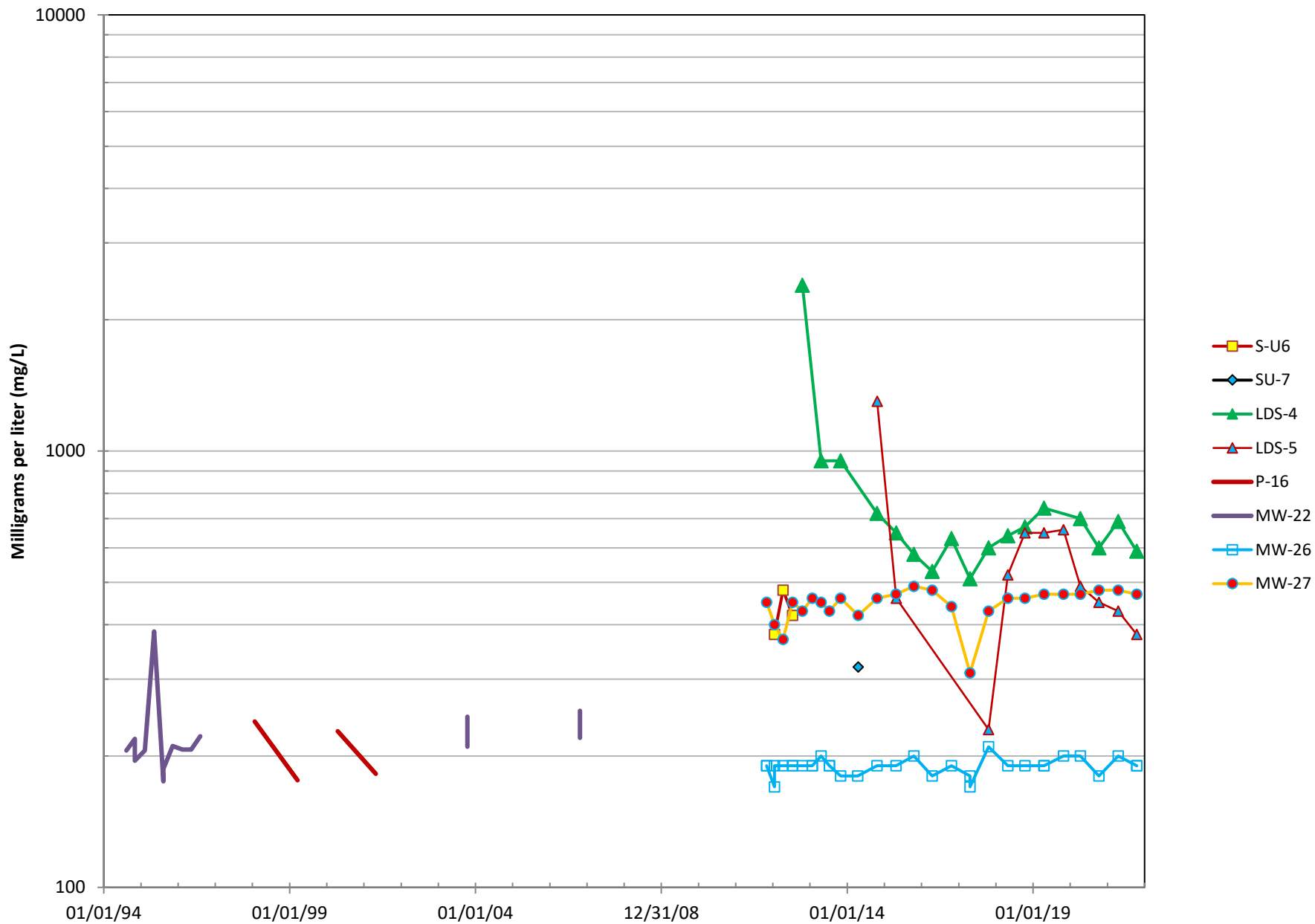
Cell 5 Underdrain Water Quality Bicarbonate Coffin Butte Landfill



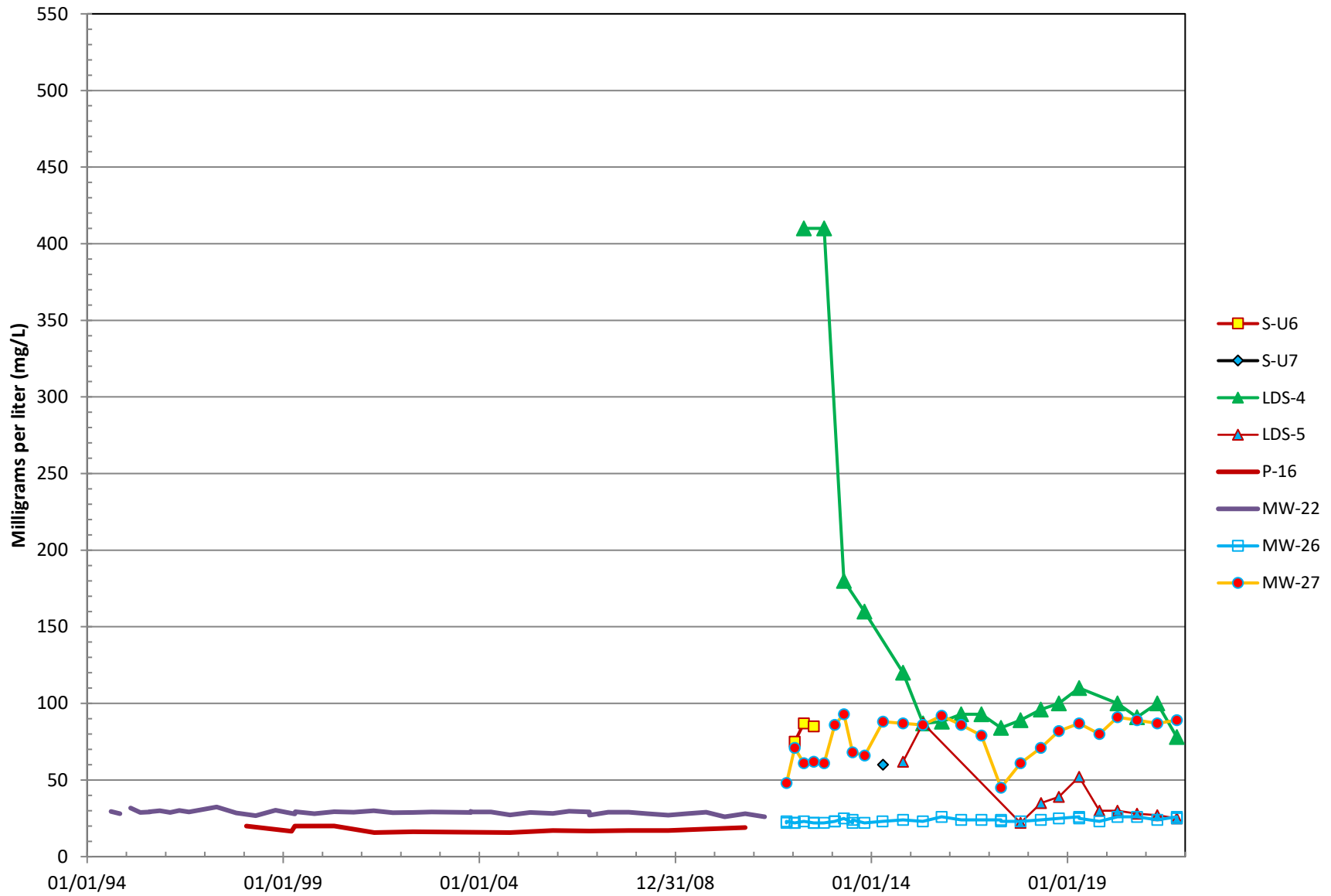
Cell 5 Underdrain Water Quality Chloride Coffin Butte Landfill



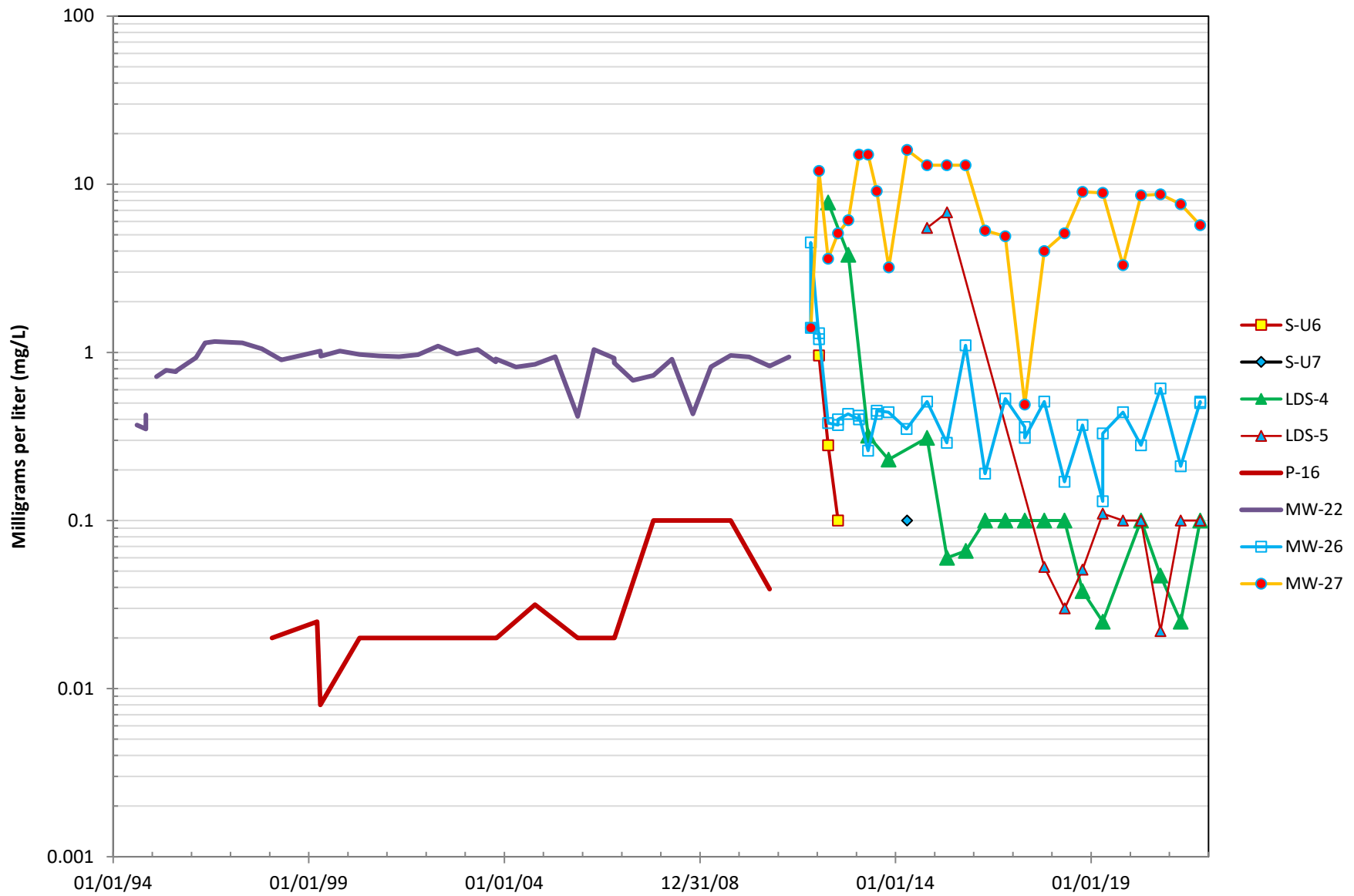
Cell 5 Underdrain Water Quality
Total Dissolved Solids
Coffin Butte Landfill



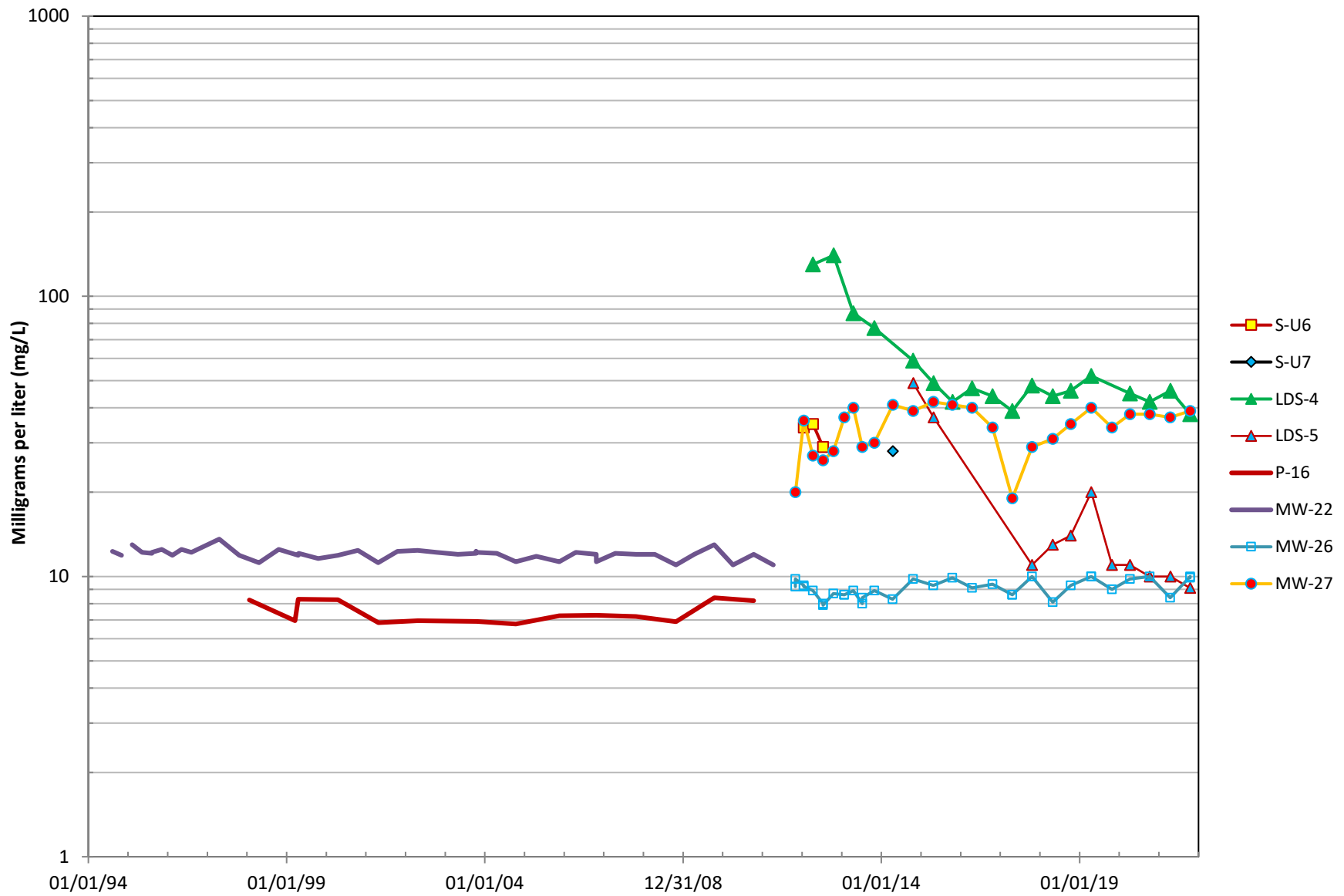
Cell 5 Underdrain Water Quality Calcium Coffin Butte Landfill



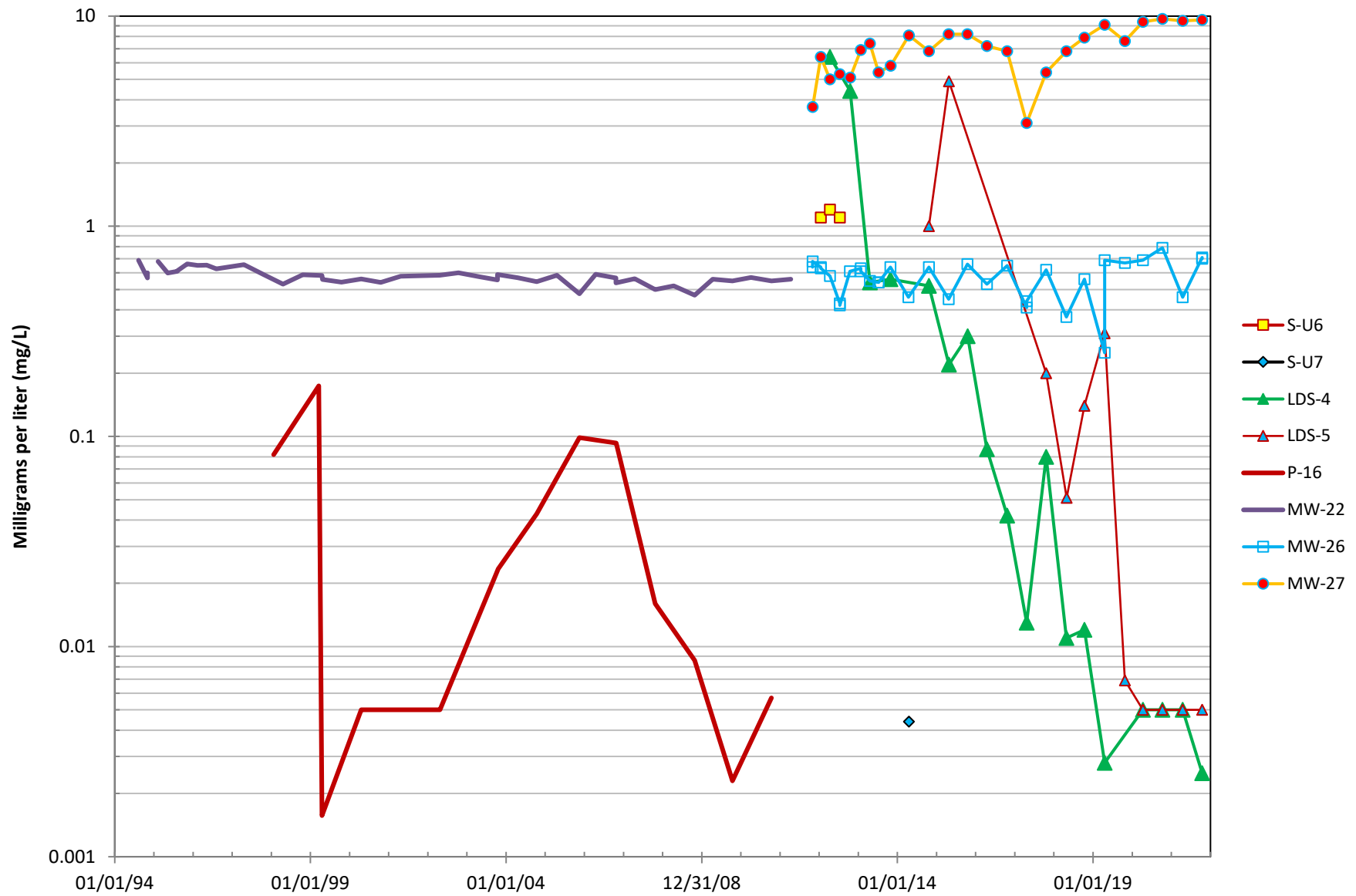
**Cell 5 Underdrain Water Quality
Iron
Coffin Butte Landfill**



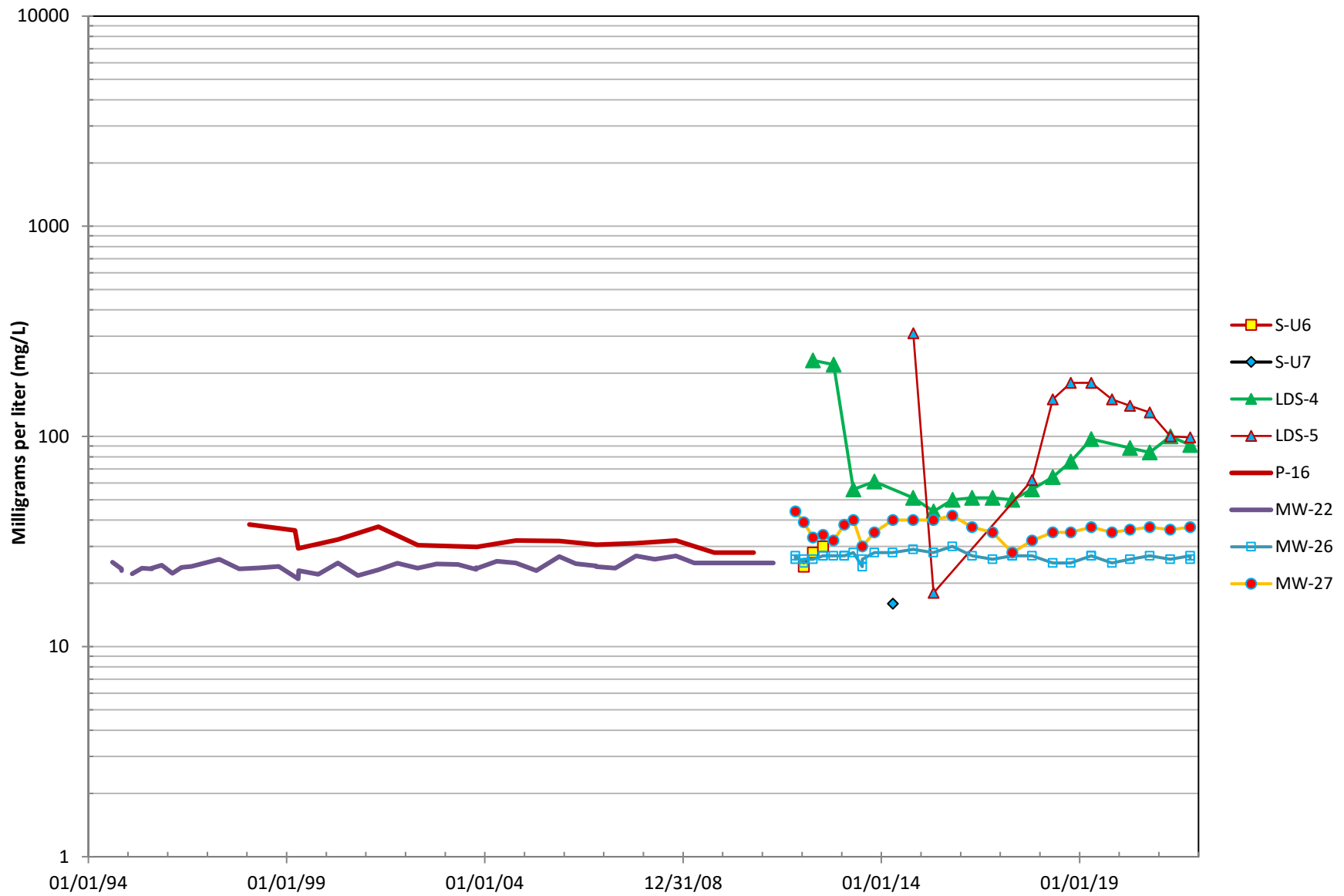
**Cell 5 Underdrain Water Quality
Magnesium
Coffin Butte Landfill**



**Cell 5 Underdrain Water Quality
Manganese
Coffin Butte Landfill**



Cell 5 Underdrain Water Quality
Sodium
Coffin Butte Landfill



APPENDIX E
FIELD SAMPLING DATA SHEETS
LABORATORY REPORTS
(IN PDF ON ATTACHED CD)

MEMORANDUM

To: Project File

Date: May 9, 2021

From: Stephen Harquail

Project: VLI-001-002

Re: April 2021 Quarterly Sampling at the Coffin Butte Landfill, Corvallis, Oregon

On April 15, 2021 Quality Technical Services (QTS) measured and recorded water levels in monitoring wells, piezometers, domestic wells, the landfill production well, and streams associated with the Coffin Butte Landfill, north of Corvallis. On April 15 to 18, 2021, QTS collected water quality samples from twenty-two sampling points, which included monitoring wells, the leak detection system, underdrains and surface water locations. Samples were analyzed for the parameters listed on the chain-of-custody forms (attached).

Before sampling began, the monitoring wells were purged of at least three casing volumes and until field parameter measurements (pH, specific conductance, temperature, oxidation-reduction potential [redox], and dissolved oxygen) stabilized. Low-flow purging (i.e., micro-purge) methods were used to collect samples from MW-1D, MW-3D, MW-10D, MW-11S, MW-11D, MW-12D and MW-23. Several wells were purged dry before withdrawing three casing volumes and were left to recharge adequately before sampled (e.g., MW-12S and MW-27). Field parameters were measured and recorded (see Table) after each casing volume had been removed.

Monitoring wells were purged and sampled using dedicated bladder pumps. The LDS systems were sampled through dedicated pumps after purging more than 10 gallons from those locations. LDS-WLP, LDS-ELP were dry and not sampled. The stream samples were collected by dipping and filling the bottles directly from the stream.

Dissolved metal samples were field-filtered by connecting a 0.45-micron disposable filter to the discharge tubing or by filtering samples using a peristaltic pump equipped with new tubing and connecting the filter to the discharge end of the tubing. Surface water resamples were collected unpreserved and then filtered at the laboratory before preservation and analysis.

Quality control consisted of collecting and analyzing the following:

- Duplicate samples from monitoring wells MW-1D, MW-23 and stream location S-4.
- Laboratory-supplied trip blanks that accompanied the coolers containing VOC sample containers.

- One field blank collected at the MW-27 location and tested for VOCs.

Samples were packed in iced-shipping containers for preservation and delivered by FedEx using chain-of-custody procedures to TestAmerica, Inc., in Arvada, Colorado.

Attachments: Table with Field Data
Field Sampling Data Sheets
Water Level Sheet
Chain-of-Custody Forms

**Sampling Field Parameters
Coffin Butte Landfill
April 2021**

Well	Blind Code	Date Sampled	Depth to Water (feet)	Casing Volumes Purge	Gallons Removed	pH	Specific Conductance μ S	Temperature $^{\circ}$ C	Redox mv	Dissolved Oxygen mg/L
Monitoring Wells										
MW-1D	VLF-210417-18	04/17/21	25.08	<1	2.0	7.34	330	13.83	-241	4.3
MW-3D	VLF-210417-15	04/17/21	20.97	<1	2.0	6.81	445	14.09	-261	3.1
MW-10S	VLF-210416-11	04/16/21	25.90	3.2	7.5	7.12	2,686	15.66	-229	4.1
MW-10D	VLF-210416-12	04/16/21	26.07	<1	1.7	7.22	2,084	15.86	-129	5.7
MW-11S	VLF-210417-13	04/17/21	10.46	<1	1.5	6.74	1,269	14.30	-263	4.7
MW-11D	VLF-210417-14	04/17/21	10.78	<1	2.0	6.81	1,838	14.28	-319	1.3
MW-12S	VLF-210417-17	04/17/21	20.61	dry at <1	0.2	6.90	623	13.94	-241	8.1
MW-12D	VLF-210417-16	04/17/21	20.48	<1	2.0	7.04	323	14.12	-241	6.1
MW-23	VLF-210416-9	04/16/21	1.91	<1	1.5	7.11	539	14.10	-23	2.9
MW-26	VLF-210416-3	04/16/21	7.58	3.0	11.0	6.94	300	14.54	-271	2.3
MW-27	VLF-210416-2	04/16/21	21.45	2.1	5.6	6.96	832	14.73	-216	6.8
P-8	VLF-210417-20	04/17/21	21.75	3.0	4.2	6.88	343	13.70	-174	4.1
Leak Detection System/ Leachate										
LDS-2B	VLF-210416-6	04/16/21	NA	NA	10+	7.01	5,471	21.34	-195	4.6
LDS-3	VLF-210416-4	04/16/21	NA	NA	10+	7.03	267	19.70	55	7.4
LDS-4	VLF-210416-7	04/16/21	NA	NA	10+	7.05	1,271	23.35	-238	3.8
LDS-5	VLF-210416-8	04/16/21	NA	NA	10+	7.44	747	25.57	-207	4.03
LDS-WLP	DRY-DNS	—	—	—	—	—	—	—	—	—
LDS-ELP	DRY-DNS	—	—	—	—	—	—	—	—	—
Surface Water										
S-1	VLF-210418-23	04/18/21	NA	NA	NA	7.13	189	14.00	-216	10.1
S-2	VLF-210418-24	04/18/21	NA	NA	NA	7.15	191	14.10	-227	10.4
S-4	VLF-210418-25	04/18/21	NA	NA	NA	6.98	163	14.70	-211	8.9
S-U3	VLF-210416-5	04/16/21	NA	NA	NA	7.97	984	19.60	-202	8.3
S-U4	VLF-210418-22	04/18/21	NA	NA	NA	6.54	132	14.68	-212	2.7
S-U5	VLF-210418-21	04/18/21	NA	NA	NA	6.63	342	14.53	-185	9.7
QA/QC										
MW-1D	VLF-210417-19	04/17/21	25.08	<1	2.0	7.34	330	13.83	-241	4.3
MW-23	VLF-210416-10	04/16/21	1.91	<1	1.5	7.11	539	14.10	-23	2.9
Field Blank	VLF-210416-1	04/16/21	NA	NA	NA	6.87	40	14.70	NA	NA
S-4	VLF-210418-26	04/18/21	NA	NA	NA	6.98	163	14.70	-211	8.9
Note: DRY-DNS = Dry, did not sample										
<1 - low flow purge method										

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: VF-210416-1 (FB)

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID:

DUP ID: NA

WIND FROM:	(N)	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: ° FSS ° C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	.
/ /	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>4/16/21</u>	<u>8:15</u>		<u>3</u> <u>40 ml</u>	<u>HC</u>	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		250, 500, 1L	None	YES	NO	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 3

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	8260B
AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl) (SO ₄ ²⁻) (PO ₄)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.		.	.	<u>du, or, turb</u>
1		.	<u>6.57</u>	<u>040</u>	<u>14.7</u>		.	.	
2		
3		
4		

[Casing] [Select A-G] [Cumulative Totals]

from DE water into VOA's over Mar-27

[Clarity, Color]

SAMPLER:

Sump
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: VL MW.27

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VL-2104116.2

DUP ID: _____ NA

WIND FROM:	<u>N</u>	NE	E	SE	S	SW	W	NW	<u>LIGHT</u>	MEDIUM	HEAVY	
WEATHER:	<u>SUNNY</u>	CLOUDY	RAIN					?	TEMPERATURE: <u>57</u> °F °C			

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)							[Product Thickness]	[Water Column]	[Water Column x Gal/ft]
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW			Volume (gal)
<u>4/15/21</u>	:	<u>37.7</u>	.	<u>21.45</u>	.	<u>16.25</u>			X 1 <u>2.64</u>
<u>1/1</u>	:			X 3 <u>7.94</u>
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875	

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)								Sample Depth:		[N# used]
Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√	
VOA Glass	<u>1/1</u>	:		<u>0</u> 40 ml	<u>HCl</u>	<u>YES</u>	NO	NA		
Amber Glass	<u>1/1</u>	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA		
White Poly	<u>4/15/21</u>	<u>9:15</u>	<u>F</u>	<u>2</u> 250, 500, 1L	<u>None</u>	<u>YES</u>	<u>NO</u>	NA		
Red Total Poly	<u>1/1</u>	:		<u>1</u> 250, 500, 1L	HNO ₃	<u>YES</u>	<u>NO</u>	NA		
Red Diss. Poly	<u>1/1</u>	:		<u>1</u> 250, 500, 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA		
	<u>1/1</u>	:								
Total Bottles (include duplicate count):				<u>7</u>						

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	<u>8260B</u>
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	<u>(TDS)</u> <u>(TSS)</u> (BOD) <u>(HCO₃⁻)</u> <u>(Cl)</u> (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	<u>(As)</u> (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	<u>(Ca)</u> <u>(Fe)</u> <u>(Mg)</u> <u>(Mn)</u> (K) (Si) <u>(Na)</u>
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA			Purge Start Time: _____			Pump/Bailor Inlet Depth: _____			
Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		<u>0.00</u>	.		.		.	.
1	<u>F</u>	<u>2.7</u>	<u>7.05</u>	<u>821</u>	<u>14.78</u>	<u>-218</u>	<u>8.6</u>	.	<u>Clarity, Color</u>
2		<u>5.4</u>	<u>7.01</u>	<u>830</u>	<u>14.74</u>	<u>-217</u>	<u>7.1</u>	.	<u>??</u>
3		<u>5.6</u>	<u>6.96</u>	<u>852</u>	<u>14.73</u>	<u>-216</u>	<u>6.8</u>	.	<u>??</u>
4		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals] [Clarity, Color]

Do not exchange / sample

SAMPLER: S. Hargrave
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-26

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-210-116-3

DUP ID:

NA

WIND FROM:	(N)	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY	
WEATHER:	SUNNY			CLOUDY			RAIN			?		
										TEMPERATURE: °F 57 °C		

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
4/15/04	:	30.0	.	7.58	.	27.42	X 1	3.65
1/1	:	X 3	10.96
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	(2) = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√
VOA Glass	1/1	:		3 40 ml	HCl	YES	NO	NA	
Amber Glass	1/1	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	4/16/04	10:15	F	2 250, 500, 1L	None	YES	NO	NA	
Red Total Poly	1/1	:		1 250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	1/1	:		2 250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260P
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl ⁻) (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailor Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.	.
1	F	4.-	7.39	306	14.51	-289	5.1	.	Cloudy
2		8.-	7.03	301	14.54	-263	2.7	.	"
3	F	11.-	6.94	300	14.54	-271	2.3	.	"
4		.	.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

S. Thompson
(PRINTED NAME)

(SIGNATURE)



FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: LD5-3

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: ULF-210416-2

DUP ID: _____ NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY	
WEATHER:	SUNNY			CLOUDY			RAIN			?		
TEMPERATURE:										° <u>58</u> ° C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
<u>4/1/11</u>	:	X 1	.
<u>1/1</u>	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>1/1</u>	:		<u>3</u> 40 ml	<u>EC</u>	<u>YES</u>	NO	NA	
Amber Glass	<u>1/1</u>	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	<u>4/1/11</u>	<u>11:05</u>	<u>F</u>	<u>2</u> 250, 500, 1L	<u>None</u>	<u>YES</u>	<u>NO</u>	NA	
Red Total Poly	<u>1/1</u>	:		250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	<u>NO</u>	NA	
Red Diss. Poly	<u>1/1</u>	:		250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	<u>8260P</u>
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	<u>(TDS) (TS6) (BOD) (HCO₃) (Cl) (SO₄²⁻) (PO₄)</u>
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	<u>(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)</u>
	YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: _____

Pump/Bailor Inlet Depth: _____

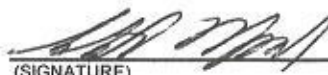
Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		<u>0.00</u>	.	.	.	.	.	.
1		.	<u>7.03</u>	<u>267</u>	<u>19.7</u>	<u>SS</u>	<u>7.4</u>	.	<u>Clear</u>
2		
3		
4		

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: _____

(PRINTED NAME)



(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: SU-3

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: ULF 2106118.5

DUP ID: NA

WIND FROM:	<u>N</u>	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	<u>SUNNY</u>		CLOUDY		RAIN		?		TEMPERATURE: °F <u>60</u> °C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	.
/ /	:	X 3	.

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	/ /	:		3 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	<u>11:30</u>	<u>G</u>	<u>1</u> 250, 500, 1L	<u>None</u>	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		<u>1</u> 250, 500 , 1L	<u>HNO₃</u>	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 2

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	8260B
AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
WHITE - Poly	<u>(FBS)</u> (TSS) (BOD) <u>(HCO₃⁻)</u> <u>(Cl)</u> (SO ₄ ²⁻) (PO ₄)
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)
RED DISSOLVED - Poly	<u>(Ca)</u> <u>(Fe)</u> <u>(Mg)</u> <u>(Mn)</u> (K) (Si) <u>(Na)</u>
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		<u>0.00</u>	.	.	.	.	.	.
1	<u>G</u>	.	<u>7.97</u>	<u>984</u>	<u>19.6</u>	<u>202</u>	<u>83</u>	.	<u>Chr, Cu, Mn</u>
2		.	.	.	.	.	.	.
3		.	.	.	.	.	.	.
4		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: S. Stump

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: LAS-2B

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-210418-G

DUP ID:

NA

WIND FROM:	<input checked="" type="checkbox"/> NE	<input type="checkbox"/> E	<input type="checkbox"/> SE	<input type="checkbox"/> S	<input type="checkbox"/> SW	<input type="checkbox"/> W	<input type="checkbox"/> NW	<input checked="" type="checkbox"/> LIGHT	<input type="checkbox"/> MEDIUM	<input type="checkbox"/> HEAVY
WEATHER:	<input checked="" type="checkbox"/> SUNNY		<input type="checkbox"/> CLOUDY		<input type="checkbox"/> RAIN		<input type="checkbox"/> ?		TEMPERATURE: °F 65 °C	

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	.
/ /	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	/ /	:		40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	4/16/21	12:10	G/F	250, 500, 1L	None	YES	NO	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260B
AMBER - Glass		(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
WHITE - Poly		(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl ⁻) (SO ₄ ²⁻) (PO ₄)
RED TOTAL - Poly		(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)
RED DISSOLVED - Poly		(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
YELLOW - Poly		(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.
1		.	7.01	5471	21.34	-105	4.6	.	Turb, 520 cloudy
2		
3		
4		

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

S Hargrett
(PRINTED NAME)

(SIGNATURE)



FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: LDS-4

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLFL-210616-7

DUP ID: NA

WIND FROM:	<input checked="" type="checkbox"/> N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	<input checked="" type="checkbox"/> SUNNY		<input type="checkbox"/> CLOUDY		<input type="checkbox"/> RAIN		<input type="checkbox"/> ?		TEMPERATURE: °F <u>60</u> °C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/M]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	.
/ /	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	/ /	:		<u>3</u> 40 ml	HCl	<input checked="" type="checkbox"/> YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	<u>4/16/21</u>	<u>12:40</u>	<u>F</u>	<u>2</u> 250, 500, <u>1L</u>	None	<input checked="" type="checkbox"/> YES	NO	NA	
Red Total Poly	/ /	:		250, <u>500</u> , 1L	HNO ₃	<input checked="" type="checkbox"/> YES	NO	NA	
Red Diss. Poly	/ /	:		250, <u>500</u> , 1L	<u>HNO₃</u>	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> YES	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	<u>260P</u>
AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	
WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl ⁻) (SO ₄ ²⁻) (PO ₄)	
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)	
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)	
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.
1	<u>F/G</u>	.	<u>7.05</u>	<u>1277</u>	<u>23.35</u>	<u>-238</u>	<u>3.8</u>	.	<u>CLAR</u>
2		.	.	.	.	.	.	.
3		.	.	.	.	.	.	.
4		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

S. H. Smith
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: LDS-5

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-210418.9

DUP ID: NA

WIND FROM:	<u>NE</u>	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: °F <u>66</u> °C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	.
/ /	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: [if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	/ /	:		<u>3</u> 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	<u>4/16/21</u>	<u>13:20</u>	<u>F</u>	<u>2</u> 250, 500 (<u>1L</u>)	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		250, 500, 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	<u>260E</u>
AMBER - Glass		(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
WHITE - Poly		(TOS) (TSS) (BOD) (<u>HCO₃</u>) (<u>Cl</u>) (SO ₄ ²⁻) (PO ₄)
RED TOTAL - Poly		(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg)
RED DISSOLVED - Poly		(Ca) (<u>Fe</u>) (<u>Mg</u>) (<u>Mn</u>) (K) (Si) (<u>Na</u>)
YELLOW - Poly		(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		<u>0.00</u>	.	.	.	.	.	.
1		.	<u>7.44</u>	<u>747</u>	<u>25.57</u>	<u>207</u>	<u>4.03</u>	.	<u>clear</u>
2		
3		
4		

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: S. Harvey

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-23 *

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-210416-9

DUP ID: VLF-210416-10 NA

WIND FROM:	<input checked="" type="radio"/>	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	<input checked="" type="radio"/>	SUNNY	CLOUDY		RAIN		?		TEMPERATURE: °F 61 °C		

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
4/15/14	:	24.7	.	1.91	.	22.79	X 1	3.71
1/1	:	X 3	11.14

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	1/1	:		40 ml	HCl	YES	NO	NA	
Amber Glass	1/1	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	4/16/14	14:25	F	250, 500, 1L	None	YES	NO	NA	
Red Total Poly	1/1	:		250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	1/1	:		250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 14

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	260B
AMBER - Glass		(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
WHITE - Poly		(PDS) (TSS) (BOD) (HCO ₃) (Cl) (SO ₄ ²⁻) (PO ₄)
RED TOTAL - Poly		(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)
RED DISSOLVED - Poly		(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
YELLOW - Poly		(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailor Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.	.
1	F	0.5	7.04	530	14.1	-18	3.9	2.07	Clear, colorless
2		1.0	7.09	537	14.1	-20	3.1	2.11	"
3		1.5	7.11	539	14.2	-23	2.9	2.12	"
4		.	.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

Op st 1430

SAMPLER:

S. Hargraves
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-10s

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-210416-11

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: °F 65 °C		

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
4/15/11	:	40.5	.	25.90	.	14.6	X 1	2.37
1/1	:	X 3	7.13

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	1/1	:		3 40 ml	HC	YES	NO	NA	
Amber Glass	1/1	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	4/16/11	15:25	F	2 250, 500, 1L	None	YES	NO	NA	
Red Total Poly	1/1	:		1 250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	1/1	:		1 250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260B
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl) (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
	YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailor Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.
1	F	2.5	7.3A	2612	15.8	-244	5.3	.	Clear, colorless
2		5.0	7.14	2688	15.68	-244	4.4	.	
3		7.5	7.12	2688	15.66	-229	4.1	.	
4		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: S. Hargraves
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: mw-101 MR

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: ULF-210416-12

DUP ID: _____ NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: °F _____ °C _____		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
4/15/04	:	83.5	.	25.90	.	57.43	X 1	9.36
1/1	:	.	.	26.07	.		X 3	.

Gal/ft = (dia./2) ² x 0.163	1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875
--	------------	------------	------------	------------	------------	-------------	-------------

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	1/1	:		3 40 ml	HCl	YES	NO	NA	
Amber Glass	1/1	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	4/16/04	16:15	F	2 250, 500, 1L	None	YES	NO	NA	
Red Total Poly	1/1	:		1 250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	1/1	:		1 250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260P
AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	
WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl ⁻) (SO ₄ ²⁻) (PO ₄)	
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)	
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)	
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA

Purge Start Time: _____

Pump/Bailer Inlet Depth: _____

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.
1	F	0.5	7.39	2011	15.8	-213	3.3	.	Chrysin
2		1.0	7.36	2082	15.88	-231	3.8	.	"
3		1.7	7.22	2084	15.86	-229	3.7	.	"
4		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: _____

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW 115 mr8

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-210417-13

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: °F 48 °C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
1/1	:	31.9	.	10.46	.	21.44	X 1 3.49
1/1	:	X 3 .

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√
VOA Glass	1/1	:		(3) 40 ml	HCl	YES	NO	NA	
Amber Glass	1/1	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	4/17/1	9:00	F	2 250, 500, (1L)	None	YES	NO	NA	
Red Total Poly	1/1	:		1 250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	1/1	:		1 250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260B
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl) (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
	YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.
1	F	0.5	6.49	1018	14.4	230	6.5	.	Cl ₂ water
2		2.0	6.67	1265	14.4	266	5.2	.	"
3		2.5	6.74	1269	14.3	263	4.7	.	"
4		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: S. H. [Signature]
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: mw-11D mp

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: ULF-210417-14

DUP ID: _____ NA

WIND FROM:	N	NE	E	SE	S	SW	<u>W</u>	NW	<u>LIGHT</u>	MEDIUM	HEAVY
WEATHER:	SUNNY		<u>CLOUDY</u>		RAIN		?		TEMPERATURE: _____ °F _____ °C		

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
<u>4/15/21</u>	:	<u>75.2</u>	.	<u>10.78</u>	.	<u>64.42</u>	X 1	<u>10.5</u>
<u>1/1</u>	:	X 3	.

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____

[if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√
VOA Glass	<u>1/1</u>	:		<u>3</u> <u>40 ml</u>	<u>HCl</u>	<u>YES</u>	NO	NA	
Amber Glass	<u>1/1</u>	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	<u>4/17/21</u>	<u>9:45</u>	<u>F</u>	<u>2</u> <u>250, 500, 1L</u>	<u>None</u>	<u>YES</u>	NO	NA	
Red Total Poly	<u>1/1</u>	:		<u>1</u> <u>250, 500, 1L</u>	<u>HNO₃</u>	<u>YES</u>	NO	NA	
Red Diss. Poly	<u>1/1</u>	:		<u>1</u> <u>250, 500, 1L</u>	<u>HNO₃</u>	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	<u>8260B</u>
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	(TDS) (TSS) (BOD) (<u>HCO₃</u>) (<u>Cl</u>) (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (<u>Na</u>)
	YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: _____

Pump/Bailor Inlet Depth: _____

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		<u>0.00</u>	.		.		.	.
1	<u>F</u>	<u>0.7</u>	<u>6.89</u>	<u>1813</u>	<u>14.24</u>	<u>-302</u>	<u>4.2</u>	.	<u>Clear</u>
2		<u>1.2</u>	<u>6.84</u>	<u>1834</u>	<u>14.27</u>		<u>1.7</u>	.	<u>"</u>
3		<u>2.0</u>	<u>6.81</u>	<u>1838</u>	<u>14.28</u>	<u>-319</u>	<u>1.3</u>	.	<u>"</u>
4		.	.		.		.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: _____

(PRINTED NAME)

S. Harzani

(SIGNATURE)

[Signature]

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-3D

MP

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: ULF-210717-15

DUP ID:

NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: °F . °C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
4/15/14	:	56.20	.	20.97	.	35.23	X 1	3.74
1/1	:	X 3	.

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[v if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	1/1	:		3	40 ml	HCl	YES	NO	NA
Amber Glass	1/1	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	4/15/14	10:28	F	2	250, 500 ml	None	YES	NO	NA
Red Total Poly	1/1	:		250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	1/1	:		250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	6260B
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl) (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailer Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.
1	F	1.0	6.77	451	17.08	247	4.1	.	Clear, white
2		1.5	6.79	443	17.09	260	3.5	.	"
3		2.0	6.81	445	17.09	261	3.1	.	"
4		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-12D

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-210417-16

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	<input checked="" type="checkbox"/> W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: °F . °C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
4/15/12	:	61.90	.	20.48	.	41.42	X 1 6.75
1/1	:	X 3 .

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√
VOA Glass	1/1	:		3 40 ml	HCl	YES	NO	NA	
Amber Glass	1/1	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	4/17/12	11:30	F	2 250, 500, 1L	None	YES	NO	NA	
Red Total Poly	1/1	:		1 250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	1/1	:		1 250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	2608
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl ⁻) (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
	YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailor Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.	.
1	F	1.0	7.07	317	14.10	-250	8.1	.	Cl ₂ /H ₂ O ₂
2		2.5	7.06	319	14.12	-246	6.5	.	1)
3		2.0	7.04	323	14.12	-241	6.7	.	4
4		.	.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

S. Hagrin
(PRINTED NAME)


(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-125

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-210411-17

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: °F . °C		

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness] [Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW		Volume (gal)
4/15/21	:	27.90	.	20.61	.	6.39	X 1	1.04
1/1	:	X 3	.

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√
VOA Glass	1/1	:		3 40 ml	HCl	YES	NO	NA	
Amber Glass	1/1	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	4/17/21	12:15	F	2 250, 500, 1L	None	YES	NO	NA	
Red Total Poly	1/1	:		1 250, 500, 1L	KNO ₃	YES	NO	NA	
Red Diss. Poly	1/1	:		1 250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260B
AMBER - Glass		(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
WHITE - Poly		(TDS) (TSS) (BOD) (HCO ₃) (Cl) (SO ₄ ²⁻) (PO ₄)
RED TOTAL - Poly		(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)
RED DISSOLVED - Poly		(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
YELLOW - Poly		(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailor Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.		.		.	.
1	F	0.2	6.90	623	13.94	-241	8.1	.	Clarity, Color
2		.	.		.		.	.
3		.	.		.		.	.
4		.	.		.		.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarify, Color]

SAMPLER: S. August
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-1 D * MP

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-2104117-18

DUP ID: VLF-2104117-19 NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY	
WEATHER:	SUNNY			CLOUDY			RAIN			?		
										TEMPERATURE: °F 65 °C		

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)							[Product Thickness]	[Water Column]	[Water Column x Gal/ft]
Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW			Volume (gal)
4/15/14	:	41.40	.	25.08	.	16.32	X 1		2.66
1/1	:	X 3		7.98

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)								Sample Depth:		[if used]
Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√	
VOA Glass	1/1	:		40 ml	HCl	YES	NO	NA		
Amber Glass	1/1	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA		
White Poly	4/17/14	13:10	F 2	250, 500, 1L	None	YES	NO	NA		
Red Total Poly	1/1	:		250, 500, 1L	HNO ₃	YES	NO	NA		
Red Diss. Poly	1/1	:		250, 500, 1L	HNO ₃	YES	YES	NA		

Total Bottles (include duplicate count): 7+7 14

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260B
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl) (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA			Purge Start Time:			Pump/Bailor Inlet Depth:			
Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.	.
1	F	0.5	7.76	350	13.78	-217	6.2	.	Clear, 4/1/14
2		1.2	7.36	334	13.82		5.8	.	"
3		2.0	7.84	330	13.83	-241	4.3	.	"
4		.	.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

Dup st 1315

[Clarity, Color]

SAMPLER: Stamm
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: P-8

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-210/17-20

DUP ID: NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	L	M	H	
WEATHER:	SUNNY			CLOUDY			RAIN			?		
									TEMPERATURE: °F 65 °C			

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
4/15/21	:	30.0	.	21.75	.	8.5	X 1 1.38
1/1	:	X 3 4.15

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Sample Depth:			pH	√ [if used]
						Ice	Filter			
VOA Glass	1/1	:		6, 40 ml	HCl	YES	NO	NA		
Amber Glass	1/1	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA		
White Poly	8/17/21	14:25	F	2, 250, 500, 1L	None	YES	NO	NA		
Red Total Poly	1/1	:		1, 250, 500, 1L	HNO ₃	YES	NO	NA		
Red Diss. Poly	1/1	:		1, 250, 500, 1L	HNO ₃	YES	YES	NA		

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	6260B
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl ⁻) (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA

Meas.	Method §	Purged (gal)	Purge Start Time:			Pump/Bailor Inlet Depth:			Water Quality
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	
0		0.00							
1		1.4	6.87	336	13.8	-157	4.8	Chlorophyll	
2		2.8	6.89	341	13.7	-176	4.3	||	
3		4.2	6.88	343	13.7	-174	4.1	||	
4									

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: S Amund

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: SU-5

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF210418-21

DUP ID: _____ NA

WIND FROM:	(N)	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: ° <u>F60</u> ° C		

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	.
/ /	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	6" = 0.653	10" = 1.469	12" = 4.080	5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	/ /	:		3 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	<u>4/18/21</u>	<u>11:50</u>	<u>1</u>	250, 500, <u>1L</u>	<u>None</u>	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:	<u>1</u>	250, <u>500</u> 1L	<u>HNO</u>	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 2

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260B
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	<u>(TDS)</u> (TSS) (BOD) <u>(HCO₃⁻)</u> <u>(Cl⁻)</u> (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	<u>(Ca)</u> <u>(Fe)</u> <u>(Mg)</u> <u>(Mn)</u> (K) (Si) <u>(Na)</u>
	YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)

WATER QUALITY DATA

Purge Start Time: _____

Pump/Bailor Inlet Depth: _____

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00							
1		<u>blowing</u>	<u>6.63</u>	<u>342</u>	<u>14.53</u>	<u>-185</u>	<u>9.7</u>	.	<u>clear</u>
2		
3		
4		

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: _____

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: SU-4

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLK210418.22

DUP ID: _____ NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: °F <u>60</u> °C		

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
/ /	:	X 1
/ /	:	X 3

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	/ /	:		3 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	<u>4/18/22</u>	<u>12:55</u>	<u>G</u>	250, 500, 1L	<u>None</u>	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		250, 500, 1L	<u>HNO₃</u>	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 2

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260B
	AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)
	WHITE - Poly	(TDS) (TSS) (BOD) (HCO ₃ ⁻) (Cl) (SO ₄ ²⁻) (PO ₄)
	RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Tl) (V) (Zn) (Hg)
	RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA

Purge Start Time: _____ :

Pump/Bailer Inlet Depth: _____

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.				.	.	
1	<u>G</u>	.	<u>6.54</u>	<u>132</u>	<u>14.68</u>	<u>212</u>	<u>2.7</u>	.	<u>Clay color</u>
2		.	.				.	.
3		.	.				.	.
4		.	.				.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: S. H. [Signature]
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: 5-1

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: ULK-210418.23

DUP ID: _____ NA

WIND FROM:	NE	E	SE	S	SW	W	NW	<u>LIGHT</u>	MEDIUM	HEAVY
WEATHER:	<u>SUNNY</u>		CLOUDY	RAIN		?		TEMPERATURE: °F <u>60</u> °C		

[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	.
/ /	:	X 3	.

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Sample Depth:			pH	√
						Ice	Filter			
VOA Glass	/ /	:		3 40 ml	HCl	YES	NO	NA		
Amber Glass	/ /	:	G	1 250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA		
White Poly	<u>4/18/21</u>	<u>14:08</u>	G	2 250, 500, 1L	None	YES	NO	NA		
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA		
Red Diss. Poly	/ /	:	G	1 250, 500, 1L	HNO ₃	YES	YES	NA		
<u>Poly</u>	/ /	:	G	1 250	None	YES	YES			

Total Bottles (include duplicate count): _____

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260B
AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	
WHITE - Poly	(TDS) (BS) (BOD) (HCO ₃ ⁻) (Cl) (SO ₄ ²⁻) (PO ₄)	
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)	
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)	
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA

Meas.	Method §	Purged (gal)	Purge Start Time: :			ORP	Pump/Bailor Inlet Depth:		
			pH	E Cond (µS)	Temp °C		D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.
1		.	<u>7.13</u>	<u>189</u>	<u>14.0</u>	<u>-216</u>	<u>10.1</u>	<u>(6m, 10, 20)</u>	
2			
3			
4			

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: S. Higgins
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: S-2

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: ULF-210418-24

DUP ID: NA

WIND FROM:	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	<u>SUNNY</u>	CLOUDY	RAIN	?	TEMPERATURE: ° F . ° C					

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

[Product Thickness]

[Water Column]

[Water Column x Gal/ft]

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	.
/ /	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

[√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	/ /	:		<u>2</u> 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		<u>1</u> 250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	<u>4/18/21</u>	<u>15:00</u>		<u>2</u> 250, 500, 1L	None	YES	NO	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		<u>1</u> 250, 500, 1L	<u>HNO₃</u>	<u>YES</u>	<u>YES</u>	NA	
<u>Pot</u>	/ /	:		<u>1</u> 250	<u>None</u>	<u>YES</u>	<u>YES</u>		

Total Bottles (include duplicate count): 5

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260B
AMBER - Glass	(COD) (TOC) <u>(Total P)</u> <u>(TKN)</u> (NH ₃) (NO ₃ /NO ₂)	
WHITE - Poly	(TDS) (TSS) <u>(BOD)</u> (HCO ₃ ⁻) (Cl) (SO ₄ ²⁻) (PO ₄)	
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)	
RED DISSOLVED - Poly	<u>(Ca)</u> <u>(Fe)</u> <u>(Mg)</u> <u>(Mn)</u> (K) (Si) <u>(Na)</u>	
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailor Inlet Depth:

Meas.	Method §	Purged (gal)	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		<u>0.00</u>	.	.	.	.	.	.
1		.	<u>7.15</u>	<u>191</u>	<u>14.1</u>	<u>-227</u>	<u>10.4</u>	.	<u>Clear, colorless</u>
2		
3		
4		

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: S Hargis

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: S-4 XB

SITE ADDRESS: Coffin Butte Landfill, Corvallis

BLIND ID: VLF-210418-25

DUP ID: VLF-210418-26 NA

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?		TEMPERATURE: ° F . ° C		

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
/ /	:	X 1
/ /	:	X 3

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Sample Depth:			pH	√ [if used]
						Ice	Filter			
VOA Glass	/ /	:		3 40 ml	HCl	YES	NO	NA		
Amber Glass	/ /	:		1 250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA		
White Poly	<u>4/18/12</u>	<u>15:50</u>		<u>2</u> 250, 500, 1L	None	YES	NO	NA		
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA		
Red Diss. Poly	/ /	:		1 250, 500, 1L	HNO ₃	YES	YES	NA		
<u>Poly</u>	/ /	:		<u>1</u> 250	<u>none</u>	<u>YES</u>	<u>YES</u>			

Total Bottles (include duplicate count):

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	8260B
AMBER - Glass	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	
WHITE - Poly	(TDS) (TSS) (FOD) (HCO ₃ ⁻) (Cl ⁻) (SO ₄ ²⁻) (PO ₄)	
RED TOTAL - Poly	(As) (Sb) (Ba) (Be) (Cd) (Co) (Cr) (Cu) (Pb) (Ni) (Ag) (Se) (Ti) (V) (Zn) (Hg)	
RED DISSOLVED - Poly	(Ca) (Fe) (Mg) (Mn) (K) (Si) (Na)	
YELLOW - Poly	(COD) (TOC) (Total P) (TKN) (NH ₃) (NO ₃ /NO ₂)	

WATER QUALITY DATA

Meas.	Method §	Purged (gal)	Purge Start Time:			Pump/Bailor Inlet Depth:			
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		0.00	.	.	.	.	.	.	.
1		.	<u>6.98</u>	<u>163</u>	<u>14.7</u>	<u>-24</u>	<u>5.9</u>	.	.
2	
3	
4	

[Casing] [Select A-G] [Cumulative Totals] Dup 56 1555 [Clarity, Color]

SAMPLER: S Hays
(PRINTED NAME)


(SIGNATURE)

WATER LEVEL SURVEY

Site: Coffin Butte Landfill

Date: 4/15/21

Personnel: S. Harpavat

Project No.

Weather: Sun 70

Sounder No.

Well	Time (24:00)	DTW (feet)	Comments
------	-----------------	---------------	----------

Monitoring Wells

MW-1S	11 : 28	24.58	
MW-1D	11 : 30	25.08	
MW-3S	11 : 37	19.36	
MW-3D	11 : 39	20.97	
MW-8S	10 : 34	3.68	
MW-8D	10 : 37	3.09	
MW-9S	10 : 16	4.03	
MW-10S	14 : 00	25.90	
MW-10D	14 : 12	26.07	
MW-11S	14 : 18	10.46	
MW-11D	14 : 21	10.78	
MW-12S	11 : 46	20.61	
MW-12D	11 : 53	20.48	
MW-14S	10 : 47	15.34	
MW-14D	10 : 44	22.82	
MW-15	10 : 23	2.74	
MW-17	1 : 13	14.57	
MW-18	1 : 23	7.03	
MW-19	1 : 37	4.68	
MW-20	2 : 56	3.82	
MW-21	2 : 44	3.97	
MW-23	3 : 49	1.91	
MW-24	3 : 36	19.05	
MW-26	3 : 21	7.58	
MW-27	3 : 15	21.45	

WATER LEVEL SURVEY

Site: Coffin Butte Landfill

Date: 4-15-21

Personnel:

Project No.

Weather:

Sounder No.

Well	Time (24:00)	DTW (feet)	Comments
------	-----------------	---------------	----------

Piezometers

P-8	15:28	21.75	
P-9	2:19	8.57	
P-10	12:53	0.17	
P-19	3:06	14.44	
P-22	15:46	43.16	
P-23	15:48	105.45	

Production Well

PW-2	:	15.83	
------	---	-------	--

Private Wells

Duplex	10:57	14.42	
Phillips	11:07	23.87	
Berkland	1:13	21.53	
Merril	1:19	16.07	

Surface Water

S-2	9:56	15.05	
S-4	9:51	15.14	

Quarry Piezometers

QP-3S	16:03	266.63	
QP-4S	16:17	108.87	
QP-5N	16:24	96.50	
QP-6N	16:37	52.35	
QP-7N	16:49	9.57	

**COFFIN BUTTE LANDFILL
APRIL 2021 SAMPLING MATRIX**

Sampling Point	Bicarbonate	BOD	Chloride	COD	Metals, Dissolved (EPA 6010B)	Metals, Total (EPA 200.8)	Nitrate/Nitrite	Orthophosphate (PO ₄)	Sulfate	TDS	TOC	TKN	Total Phosphorus	TSS	524.2 VOCs	8260 VOCs
Compliance Wells																
MW-1D	X		X		D1	T3			X	X				X		X
MW-1D (DUP)	X		X		D1	T3			X	X				X		X
MW-3D	X		X		D1	T3			X	X				X		X
MW-10S	X		X		D1	T3			X	X				X		X
MW-10D	X		X		D1	T3			X	X				X		X
MW-11S	X		X		D1	T3			X	X				X		X
MW-11D	X		X		D1	T3			X	X				X		X
MW-12S	X		X		D1	T3			X	X				X		X
MW-12D	X		X		D1	T3			X	X				X		X
MW-26	X		X		D1	T3			X	X				X		X
MW-27	X		X		D1	T3			X	X				X		X
Detection Wells																
P-8	X		X		D1	T3			X	X				X		X
MW-23	X		X		D1	T3			X	X				X		X
MW-23 (DUP)	X		X		D1	T3			X	X				X		X
Leak Detection Systems, Leachate																
LDS-2B	X		X		D1	T3			X	X				X		X
LDS-3	X		X		D1	T3			X	X				X		X
LDS-4	X		X		D1	T3			X	X				X		X
LDS-5	X		X		D1	T3			X	X				X		X
LDS-WLP	X		X		D1	T3			X	X				X		X
LDS-ELP	X		X		D1	T3			X	X				X		X
Surface Water/Underdrains																
S-1		X	X		D1			X				X	X			
S-2		X	X		D1			X				X	X			
S-4		X	X		D1			X				X	X			
S-4 (DUP)		X	X		D1			X				X	X			
S-U3 (Cell 3)	X		X		D1				X							
S-U4 (ELP)	X		X		D1				X							
S-U5 (WLP)	X		X		D1				X							
QA/QC																
Trip blank																X
Field Blank															X	Field blank at MW-27
NOTES																
Total Metals																
T1: Antimony (Sb), Arsenic (As), Barium (Ba), Chromium (Cr), Lead (Pb), Nickel (Ni), Selenium (Se), Zinc (Zn)																
T2: Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Copper (Cu), Lead (Pb), Nickel (Ni), Selenium (Se), Silver (Ag), Thallium (Tl), Vanadium (V), Zinc (Zn)																
T3: Arsenic (low MRL)																
Dissolved Metals																
D1: Calcium (Ca), Iron (Fe), Magnesium (Mg), Manganese (Mn), Sodium (Na)																
D2: Calcium (Ca), Iron (Fe), Magnesium (Mg), Potassium (K), Manganese (Mn), Sodium (Na), and Silicon (Si)																

Chain of Custody Record



Client Information Client Contact: Lan Moran Company: Valley Landfills, Inc. Republic Services Address: 28972 Coffin Butte Road City: Convallis State, Zip: OR, 97330 Phone: 503-675-1335(Tel) Email:		Sampler: S. Hainyuan Phone: 503-872-5550 Lab PM: Sara, Betsy A E-Mail: betsy.sara@eurofinset.com		Carrier Tracking No(s): COC No: 280-97584-22898.1 Page:	
Due Date Requested: TAT Requested (days): PO #: 503-675-1335(Tel) PO#: 1584668 WO #:		Analysis Requested Biocarb Alk/Cl/TDS Dissolved Metals Total Metals TSS VOA 8260B		Job #: Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Z - other (specify) Other:	
Project Name: Coffin Butte/Valley Landfills Site: Valley LE Convallis, OR		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		Special Instructions/Note: 280-147625 Chain of Custody	
Sample Identification VLE-210416-1 2 3 4 5 6 7 8 9 10 Trip Blank		Sample Date 4/16/21 9/15 10/15 11/05 11/30 12/10 12/40 13/20 14/75 14/30		Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=water, oil, BT=issue, A=Air)	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Date 4/16/21 9/15 10/15 11/05 11/30 12/10 12/40 13/20 14/75 14/30		Sample Time 815 915 1015 1105 1130 1210 1240 1320 1475 1430	
Empty Kit Relinquished by:		Relinquished by: S. Hainyuan Date/Time: 4-19-21 0730		Relinquished by:	
Relinquished by:		Relinquished by:		Relinquished by:	
Custody Seals Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: 16.0, 8.2, 3.1, 24.0, 8.6, 9.0, 10.4	



Chain of Custody Record

Client Information		Sample: <i>S. Hargan</i>		Lab PM: Sara, Betsy A		Carrier Tracking No(s):		COC No: 280-97584-22898.1	
Client Contact: <i>Don McManis</i>		Phone: <i>303-572-8550</i>		E-Mail: <i>betsy.sara@eurofins.net</i>				Page:	
Company: Valley Landfills, Inc. Republic Services		Due Date Requested:		Analysis Requested				Job #:	
Address: 28972 Coffin Butte Road		TAT Requested (days):		Total Number of Containers				Preservation Codes:	
City: Corvallis				Total Metals				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: OR, 97330		PO #: 503-675-1335(Tel)		Dissolved Metals				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH4-5 Z - other (specify)	
Phone: 503-675-1335(Tel)		PO#: 1584668		Biocarb Alk/CTDS					
Email:		WO #:		Field Filtered Sample (Yes or No)					
Project Name: Coffin Butte/Valley Landfills		Project #: 28003197 "GW_SLCS_Leachate"		Perform MS/MSD (Yes or No)					
Site: <i>Valley LF Corvallis</i>		SSOW#:		Field Filtered Sample (Yes or No)					
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=on-site, BT=tissue, AA=air)	
<i>Semi Annual GW</i>		<i>4/16/21</i>		<i>1525</i>		<i>W</i>		<i>W</i>	
<i>ULF-210416-11</i>		<i>4/17/21</i>		<i>1615</i>		<i>W</i>		<i>W</i>	
<i>6</i>		<i>9/17/21</i>		<i>900</i>		<i>W</i>		<i>W</i>	
<i>14</i>				<i>945</i>		<i>W</i>		<i>W</i>	
<i>15</i>				<i>1028</i>		<i>W</i>		<i>W</i>	
<i>16</i>				<i>1130</i>		<i>W</i>		<i>W</i>	
<i>17</i>				<i>1215</i>		<i>W</i>		<i>W</i>	
<i>18</i>				<i>1310</i>		<i>W</i>		<i>W</i>	
<i>19</i>				<i>1315</i>		<i>W</i>		<i>W</i>	
<i>Tot Blank</i>									
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Special Instructions/Note:					
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		Special Instructions/QC Requirements:					
Date: <i>4/16/21 7:40</i>		Date: _____							
Relinquished by: <i>S. Hargan</i>		Date/Time: <i>4/16/21 1040</i>		Company: <i>Eurofins</i>					
Relinquished by:		Date/Time:		Company:					
Relinquished by:		Date/Time:		Company:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					

Chain of Custody Record

Client Information		Sample ID: <i>Starbuck</i>		Lab PM: Sara, Betsy A.		Carrier Tracking No(s):		COC No: 280-97593-13574.1	
Company: Valley Landfills, Inc. Republic Services		Phone: <i>503-572-8550</i>		E-Mail: <i>betsy.sara@testamericainc.com</i>				Page: Page 1 of 1	
Address: 28972 Coffin Butte Road		Due Date Requested:		Analysis Requested		Total Number of Containers		Preservation Codes:	
City: Corvallis		TAT Requested (days):		Ortho-phosphate (365.1)				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: OR, 97330		PO #: 1584668		Total Phos/TKN				M - Hexane N - None O - AshNaO2 P - NaZO4S Q - NaZSO3 R - H2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Phone: 503-675-1335(Tel)		WO #:		Chloride				Special Instructions/Note:	
Email:		Project #		BOD				short holds: BOD and o-phos (365.1)	
Company Name: Coffin Butte/Valley Landfills		28003197 "Semiannual Surfacewater (S-1 thru S-4)"		Dissolved Metals				Des Metals; Ca, Fe	
Site: <i>Valley land fill Canyon</i>		SSOW#:		Perform MS/MSB (Yes or No)				<i>mg, Mn, Na</i>	
Sample Identification		Sample Date		Field Filtered Sample (Yes or No)				<i>Timothy; As</i>	
VLF-210417-20		4/17/21		X					
VLF-210418-21		4/18/21		X					
22		1255		X					
23		1408		X					
24		1500		X					
25		1558		X					
26		1555		X					
Trip Blank				X					
Possible Hazard Identification		Sample Time		Disposal By Lab		Archive For		Months	
Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/>		Sample Type (C=Comp, G=grab)		Return To Client <input type="checkbox"/>		Disposal By Lab <input type="checkbox"/>		Archive For <input type="checkbox"/>	
Deliverable Requested: I, II, III, IV, Other (specify)		Preservation Code		Special Instructions/QC Requirements:					
Empty Kit Relinquished by		Date:		Received by		Date/Time		Company	
Relinquished by <i>[Signature]</i>		4/19/21		8:00		IC		IC Company	
Relinquished by		Date/Time		Received by		Date/Time		Company	
Relinquished by		Date/Time		Received by		Date/Time		Company	
Custody Seals Intact		Custody Seal No:		Cooler Temperature(s) °C and Other Remarks					
Δ Yes Δ No									



MEMORANDUM

To: Project File

Date: October 28, 2021

From: Stephen Harquail

Project: VLI-001-002

Re: October 2021 Quarterly Sampling at the Coffin Butte Landfill, Corvallis, Oregon

On October 14, 2021 Quality Technical Services (QTS) measured and recorded water levels in monitoring wells, piezometers, domestic wells, the landfill production well, and streams associated with the Coffin Butte Landfill, north of Corvallis. On October 14 to 17, 2021, QTS collected water quality samples from thirty sampling points, which included monitoring wells, the leak detection system, underdrains and surface water locations. Samples were analyzed for the parameters listed on the chain-of-custody forms (attached).

Before sampling began, the monitoring wells were purged of at least three casing volumes and until field parameter measurements (pH, specific conductance, temperature, oxidation-reduction potential [redox], and dissolved oxygen) stabilized. Low-flow purging (i.e., micro-purge) methods or standard purge were used to collect samples. Two wells purged dry before withdrawing three casing volumes and were left to recharge adequately before sampled (e.g., MW-12S and MW-27). Field parameters were measured and recorded (see Table) after each casing volume had been removed.

Monitoring wells were purged and sampled using dedicated bladder pumps. The LDS systems were sampled through dedicated pumps after purging at least 10 gallons from those locations. LDS-WLP, LDS-ELP, and SU-5 were dry and not sampled. The stream samples were collected by dipping and filling the bottles directly from the stream.

Dissolved metal samples were field-filtered by connecting a 0.45-micron disposable filter to the discharge tubing or by filtering samples using a peristaltic pump equipped with new tubing and connecting the filter to the discharge end of the tubing.

Quality control consisted of collecting and analyzing the following:

- Duplicate samples from monitoring wells MW-15, MW-18, MW-26 and stream location S-2.
- Laboratory-supplied trip blanks that accompanied the coolers containing VOC sample containers.
- One field blank collected at the MW-27 location and tested for VOCs.

October 28, 2021
Page 2

Project: VLI-001-002

Samples were packed in iced-shipping containers for preservation and delivered by FedEx using chain-of-custody procedures to TestAmerica, Inc., in Arvada, Colorado.

Attachments: Table with Field Data
Water Level Sheet
Field Sampling Data Sheets
Chain-of-Custody Forms

**Sampling Field Parameters
Coffin Butte Landfill
October 2021**

Well	Blind Code	Date Sampled	Depth to Water (feet)	Casing Volumes Purge	Gallons Removed	pH	Specific Conductance μ S	Temperature $^{\circ}$ C	Redox mv	Dissolved Oxygen mg/L
Monitoring Wells										
MW-1D	VLF-211016-29	10/16/21	29.91	<1	2.0	7.38	383	12.93	81	6.01
MW-3D	VLF-211016-26	10/16/21	26.02	<1	2.0	7.89	568	12.97	56	7.10
MW-8S	VLF-211014-11	10/14/21	5.75	<1	1.2	7.14	3,967	14.38	177	1.17
MW-10S	VLF-211014-7	10/14/21	31.28	<1	1.5	7.29	1,583	14.49	151	2.00
MW-10D	VLF-211014-8	10/14/21	31.55	<1	1.5	7.28	1,017	14.71	164	2.91
MW-11S	VLF-211016-24	10/16/21	5.56	<1	1.8	6.98	1,191	12.81	101	2.04
MW-11D	VLF-211016-25	10/16/21	15.75	<1	2.0	6.82	1,620	12.59	65	2.60
MW-12S	VLF-211016-27	10/16/21	23.61*	0.1	0.2	7.17	761	11.98	-36	4.10
MW-12D	VLF-211016-28	10/16/21	25.56	<1	2.2	7.55	350	12.38	72	1.10
MW-15	VLF-211014-9	10/14/21	5.68	<1	2.3	6.65	507	13.35	165	5.40
MW-17	VLF-211014-6	10/14/21	18.98	<1	0.6	7.18	279	13.00	31	3.80
MW-18	VLF-211014-4	10/14/21	11.61	3.1	6.0	7.11	250	13.71	121	3.60
MW-19	VLF-211014-3	10/14/21	5.90	<1	1.5	6.96	1,118	14.42	151	1.18
MW-20	VLF-211014-2	10/14/21	8.90	<1	1.0	7.33	160	13.02	155	0.87
MW-21	VLF-211014-1	10/14/21	9.09	<1	0.6	7.35	1,060	12.55	189	2.11
MW-23	VLF-211015-21	10/15/21	2.31	<1	1.3	6.64	401	16.42	10	0.68
MW-24	VLF-211015-13	10/15/21	22.80	3.1	7.5	7.20	393	14.20	129	1.71
MW-26	VLF-211015-15	10/15/21	7.30	<1	1.8	7.45	350	13.72	-69	2.98
MW-27	VLF-211015-14	10/15/21	22.87	1.3	1.8	6.80	916	14.24	-54	2.81
Phillips	VLF-211015-23	10/15/21	30.50	NA	20+	7.20	307	13.30	41	5.80
P-8	VLF-211014-12	10/14/21	23.40	3.1	3.3	7.49	257	13.28	-20	4.00
Leak Detection System/ Leachate										
LDS-2B	VLF-211015-19	10/15/21	NA	NA	20+	6.70	8,780	18.53	-72	5.71
LDS-3	VLF-211015-17	10/15/21	NA	NA	20+	6.79	6,680	20.07	81	NR
LDS-4	VLF-211015-20	10/15/21	NA	NA	NR	6.74	1,090	22.87	91	1.30
LDS-5	VLF-211015-22	10/15/21	NA	NA	10+	7.06	764	23.07	35	2.61
LDS-WLP	DRY-DNS	—	—	—	—	—	—	—	—	—
LDS-ELP	DRY-DNS	—	—	—	—	—	—	—	—	—
L-Pond Comp	VLI-211017-35	10/18/21	NA	NA	NA	NR	NR	NR	NR	NR
Surface Water										
S-1	VLF-211017-31	10/17/21	NA	NA	NA	7.95	279	11.60	120	8.30
S-2	VLF-211017-32	10/17/21	NA	NA	NA	7.49	285	11.53	121	6.61
S-4	VLF-211017-34	10/17/21	NA	NA	NA	7.91	281	13.64	123	8.26
S-U3	VLF-211015-18	10/15/21	NA	NA	NA	7.59	524	13.36	55	6.30
S-U4	VLF-211016-30	10/16/21	NA	NA	NA	7.17	225	12.67	88	1.71
SU-5	DRY-DNS	—	—	—	—	—	—	—	—	—
QA/QC										
MW-18	VLF-211014-5	10/14/21	11.61	3.1	6.0	7.11	250	13.71	121	3.60
MW-15	VLF-211014-10	10/14/21	5.68	<1	2.3	6.65	507	13.35	165	5.40
MW-26	VLF-211015-16	10/15/21	7.30	<1	1.8	7.45	350	13.72	-69	2.98
Field Blank	VLF-211915-FB	10/15/21	NA	NA	NR	7.07	0.68	13.30	NR	NR
S-2	VLF-211017-33	10/17/21	NA	NA	NA	7.49	285	11.53	121	6.61
Note: DRY-DNS = Dry, did not sample; NA: not applicable; NR: not recorded.										
<1 - low flow purge method * measurement to top of pump										

WATER LEVEL SURVEY

Site: Coffin Butte Landfill

Date:

10/14/21

 Personnel: *SBA*

Project No.

 Weather: *Cloudy*

Sounder No.

Well	Time (24:00)	DTW (feet)	Comments
Monitoring Wells			
MW-1S	:	21.38	
MW-1D	:	26.02	
MW-3S	:	24.54	
MW-3D	: 19	5.91	
MW-8S	:	5.75	
MW-8D	:	5.01	
MW-9S	:	7.05	
MW-10S	:	31.98	
MW-10D	:	31.55	
MW-11S	15.56	5.56	Revised to 15.56, which is within normal range for this well in October.
MW-11D	:	15.75	
MW-12S	:	23.61	TOP OF PUMP
MW-12D	:	25.56	
MW-14S	:	20.84	
MW-14D	:	28.83	
MW-15	:	5.68	
MW-17	:	18.95	TOP OF PUMP
MW-18	:	11.61	
MW-19	:	5.90	
MW-20	:	8.90	
MW-21	:	9.09	
MW-23	:	2.31	
MW-24	:	27.80	
MW-26	:	7.30	
MW-27	:	22.87	

WATER LEVEL SURVEY

Site: Coffin Butte Landfill

Date: 10/14/21

Personnel: SBA, TB

Project No.

Weather: Cloudy 50

Sounder No.

Well	Time (24:00)	DTW (feet)	Comments
------	-----------------	---------------	----------

Piezometers

P-8	:	23.40	
P-9	:	9.86	
P-10	:	1.93	
P-19	:	21.49	WATER (INSIDE LANDFILL)
P-22	:	46.86	
P-23	:	120.90	

Production Well

PW-2	:	20.07	
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Private Wells

Duplex	:	21.17	
Phillips	:	30.50	
Berkland	:	46.51	
Merril	:	29.68	

Surface Water

S-2	:	15.04	
S-4	:	15.62	

Quarry Piezometers

QP-2S	:	—	(buried by waste)
QP-3S	:	268.76	
QP-4S	:	119.10	shed
QP-5N	:	97.97	
QP-6N	:	55.08	
QP-7N	:	12.05	

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-21 MP

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211014-1

DUP ID: NA

WEATHER: SUNNY CLOUDY **RAIN** ?

TEMPERATURE: °F 50 °C
[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
10/14/21	:	19.40	.	9.09	.	10.31	X 1 1.68	
/ /	:	X 3 .	
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10/14/21	10:30	F	3 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		2 250, 500, 1L	None	YES	NO	NA	
Red Total Poly	/ /	:		1 250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		1 250, 500, 1L	HNO ₃	YES	YES	NA	
Total Bottles (include duplicate count):				7					

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
RED TOTAL - Poly	(1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method §	Purged ()	Purge Start Time: :				Pump/Bailer Inlet Depth:		
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	F		7.28	1050	12.34	193	3.01	9.86	CCEAG
1		0.2	7.34	1060	12.46	190	1.27	9.33	
2		0.2	7.33	1050	12.51	190	1.81	9.34	
3		0.6	7.35	1060	12.55	189	2.11	9.34	
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: Steve Hargrave
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-20 *ml*

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: ULF-21014-2

DUP ID: NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 50 °C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
10/14/21	:	23.90	.	8.90	.	15.00	X 1 2.75	
/ /	:		.		.		X 3 .	
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	<u>2"</u> = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method [§]	Amount & Volume mL	Preservative <small>(circle)</small>	Ice	Filter	pH	<small>(√ if used)</small>
VOA Glass	10/14/21	11:10	F	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		<u>2</u> 250, 500, 1L	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		<u>1</u> 250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		<u>1</u> 250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
Analysis Allowed per Bottle Type	VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
	RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method [§]	Purged ()	Purge Start Time:			Pump/Bailer Inlet Depth:			
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	F	0.2	7.61	912	12.79	158	4.11	9.2	CKE06
1		0.3	7.42	875	13.05	155	1.28	9.23	↓
2		0.6	7.34	155	13.03	157	1.10	9.24	↓
3		1.0	7.33	160	13.02	155	0.87	9.24	↓
4									
5									

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

Steve Harquin
(PRINTED NAME)

(SIGNATURE)

[Signature]

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-19 MD

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211014-3

DUP ID: _____ NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 50 °C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	[Water Column x Gal/ft]	
							X 1	X 3
<u>10/14/21</u>	:	<u>26.10</u>	.	<u>5.90</u>	.	.	X 1	<u>3.29</u>
/ /	:	X 3	.

Gal/ft = (dia./2) ² x 0.163	1" = 0.041	<u>2"</u> = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875
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§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____ [√ if used]

Bottle Type	Date	Time	Method [§]	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>10/14/21</u>	<u>12:00</u>	<u>F</u>	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:	<u>2</u>	250, 500 <u>1L</u>	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:	<u>1</u>	250, <u>500</u> 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:	<u>1</u>	250, <u>500</u> 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Tl) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]	

WATER QUALITY DATA

Purge Start Time: _____

Pump/Bailer Inlet Depth: _____

Meas.	Method [§]	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F</u>	<u>0.3</u>	<u>7.00</u>	<u>1200</u>	<u>14.33</u>	<u>146</u>	<u>6.52</u>	.	<u>CEM</u>
1		<u>0.6</u>	<u>7.01</u>	<u>1119</u>	<u>14.37</u>	<u>146</u>	<u>4.00</u>	.	↓
2		<u>1.2</u>	<u>6.99</u>	<u>1110</u>	<u>14.42</u>	<u>151</u>	<u>1.17</u>	.	
3		<u>1.5</u>	<u>6.86</u>	<u>1118</u>	<u>14.42</u>	<u>151</u>	<u>1.10</u>	.	
4		.	.	.	.	.	.	.
5		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: _____

(PRINTED NAME)

Steve Harquail

(SIGNATURE)



FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-18

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-21014-4

DUP ID: VLF-21014-5 NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 50 °C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
10/14/21	:	28.60	.	11.61	.	11.99	X 1 1.95
/ /	:	X 3 .

Gal/ft = (dia./2) ² x 0.163	1" = 0.041	<u>2"</u> = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875
--	------------	-------------------	------------	------------	------------	-------------	-------------

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10/14/21	12:45	F	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		2 250, <u>500</u> , 1L	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		1 250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		1 250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	YES	NA	

Total Bottles (include duplicate count): 7

DUPPLICATE TIME = 12:50, 7 Bottles

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	F	0.1	7.22	471	13.77	116	3.56	.	CCSM
1		2.0	7.13	285	13.76	112	3.37	.	↓
2		4.0	7.19	255	13.79	117	3.21	.	
3		6.0	7.11	250	13.71	121	3.60	.	
4		.	.	.	.	.	.	.
5		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

(PRINTED NAME)

Steve Harju

(SIGNATURE)

[Signature]

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-17 MRP

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-21014-6

DUP ID: NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: 50 ° F 10 ° C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	<u>29.02</u>	.	<u>18.98</u>	.	<u>10.22</u>	X 1 <u>1.67</u>	
/ /	:	.	.	<u>TOP OF PUMP</u>	.	.	X 3 .	
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	<u>2" = 0.163</u>	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√ if used	
VOA Glass	<u>10/14/21</u>	<u>1:35</u>	<u>F</u>	3 40 ml	HCl	<u>YES</u>	NO	NA		
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA		
White Poly	/ /	:		<u>2</u> 250, 500, 1L	None	<u>YES</u>	NO	NA		
Red Total Poly	/ /	:		1 250, 500, 1L	HNO ₃	<u>YES</u>	NO	NA		
Red Diss. Poly	/ /	:		1 250, 500, 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA		
Total Bottles (include duplicate count):				<u>7</u>						

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas <u>8260B VOCs</u> or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) <u>(TSS)</u> (1) 500-mL NP: <u>(Bicarbonate - HCO₃⁻) (Chloride - Cl) (Sulfate - SO₄²⁻) (TDS) (Orthophosphate - PO₄)</u>
RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Tl) (V) (Zn)] or <u>(As) Low MRL</u>
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0			.	.	.	.	.	.
1	<u>F</u>	<u>0.2</u>	<u>7.13</u>	<u>274</u>	<u>12.9</u>	<u>21</u>	<u>4.9</u>	<u>NA</u>	<u>Chloride</u>
2		<u>0.4</u>	<u>7.16</u>	<u>277</u>	<u>13.0</u>	<u>27</u>	<u>7.1</u>	<u>NA</u>	"
3		<u>0.8</u>	<u>7.18</u>	<u>279</u>	<u>13.0</u>	<u>31</u>	<u>3.8</u>	<u>NA</u>	"
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

no casing possible on DTW

SAMPLER:

(PRINTED NAME)

Steve Hargrave

(SIGNATURE)

[Signature]

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-105

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211014-7

DUP ID:

NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 50 °C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
10 / 14 / 17	:	40.50	.	31.28	.	9.22	X 1
/ /	:	.	.	(PUMP?)	.	.	X 3
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080
							12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: [/ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10 / 14 / 17	2 : 15	F	3 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		2 250, 500, 1L	None	YES	NO	NA	
Red Total Poly	/ /	:		1 250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		1 250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 7

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: <u>3260B</u> VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) <u>TSS</u> (1) 500-mL NP: (Bicarbonate - HCO ₃) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time: : Pump/Bailer Inlet Depth:

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	F	L.D	7.27	1590	14.51	159	2.11	.	Little water
1		L.S	7.29	1583	14.49	151	2.0	.	pump is dry
2			.	.	.	.	.	.	e pump.
3			.	.	.	.	.	.
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

1st casing

SAMPLER:

Steve Harquail
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-10D mf

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: UCF-2/10/14-8

DUP ID: NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: 50 °F 10 °C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
10/14/21	:	83.5	.	31.55	.	51.95	X 1 8.97
/ /	:	X 3 .

Gal/ft = (dia./2) ² x 0.163	1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875
--	------------	------------	------------	------------	------------	-------------	-------------

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√	
VOA Glass	10/14/21	2:55	F	3 40 ml	HCl	YES	NO	NA		
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA		
White Poly	/ /	:		2 250, 500, 1L	None	YES	NO	NA		
Red Total Poly	/ /	:		1 250, 500, 1L	HNO ₃	YES	NO	NA		
Red Diss. Poly	/ /	:		1 250, 500, 1L	HNO ₃	YES	YES	NA		
Total Bottles (include duplicate count):				7						

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 5260 <u>5260</u> VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl ⁻) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method §	Purged ()	Purge Start Time:			Pump/Bailer Inlet Depth:			Water Quality
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	
0	F	0.3	7.40	902	14.42	185	3.05	32.4	CCEN
1		1.0	7.24	1090	15.28	164	2.78	32.43	↓
2		1.5	7.28	1017	16.71	164	2.91	32.44	
3		.	.	.	.	.	.	.
4		.	.	.	.	.	.	.
5		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

Steve Harquail
(PRINTED NAME)

(SIGNATURE)



FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-15 * msp

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211014-9

DUP ID: VLF-211014-10 NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: ° F 50 ° C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
10/14/21	:	31.20	.	5.68	.	25.52	X 1 4.16	
/ /	:	X 3	
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	<u>2" = 0.163</u>	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: [] [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10/14/21	3:45	F	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		<u>2</u> 250, 500, 1L	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		<u>1</u> 250, 500, 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		<u>1</u> 250, 500, 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7 DUPLICATE TIME = 3:50, 7 Bottles

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	(3) non-pres Voas: <u>8260</u> VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (<u>TSS</u>) (1) 500-mL NP: (Bicarbonate - HCO ₃) (<u>Chloride - Cl</u>) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]	

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailer Inlet Depth:

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	F	0.2	7.21	447	13.41	147	5.11	.	CCEBQ
1		1.0	6.88	479	13.31	154	5.12	5.87	↓
2		2.5	6.93	491	13.30	161	4.11	6.03	
3		1.8	6.65	511	13.37	162	4.87	6.04	
4		2.3	6.65	507	13.35	165	5.40	6.04	
5									

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

Steve Hargrave
(PRINTED NAME)

(SIGNATURE)

[Handwritten Signature]

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-85 mq

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: ULF-211014-11

DUP ID: NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: 50 °F . °C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	[Water Column x Gal/ft]	
							Volume (gal)	
10/14/21	:	35.70	.	5.75	.	29.95	X 1	4.88
/ /	:						X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____ [N if used]

Bottle Type	Date	Time	Method [§]	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10/14/21	4:40	F	3 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:	2	250, 500 1L	None	YES	NO	NA	
Red Total Poly	/ /	:	1	250 500 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:	1	250 500 1L	HNO ₃	YES	YES	NA	
	/ /	:							

Total Bottles (include duplicate count): _____

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	(3) non-pres Voas: <u>3260</u> VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl ⁻) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]	

WATER QUALITY DATA

Purge Start Time: _____

Pump/Bailer Inlet Depth: _____

Meas.	Method [§]	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	F	0.3	6.88	3980	14.33	172	1.21	6.02	OK
1		0.58	7.12	3960	14.39	169	1.51	6.03	↓
2		1.2	7.14	3967	14.38	177	1.17	6.03	↓
3									
4									
5									

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: Steve Harguail

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: P-8

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211014-12

DUP ID:

NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 50 °C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
<u>10/14/21</u>	:	<u>30.0</u>	.	<u>23.40</u>	.	<u>6.60</u>	X 1 <u>1.08</u>
/ /	:	.	.	.	.	.	X 3
Gal/ft = (dia./2) ² x 0.163	1" = 0.041	<u>2"</u> = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

(N if used)

Bottle Type	Date	Time	Method [§]	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>10/14/21</u>	<u>5:25</u>	<u>F</u>	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		<u>2</u> 250 <u>300</u> 1L	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		<u>1</u> <u>250</u> 500 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		<u>1</u> <u>250</u> 500 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	(3) non-pres Voas: <u>8260</u> VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
	RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailer Inlet Depth:

Meas.	Method [§]	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F</u>	<u>1.1</u>	<u>7.45</u>	<u>250</u>	<u>13.38</u>	<u>-26</u>	<u>5.8</u>	.	<u>CLEAR</u>
1		<u>2.2</u>	<u>7.48</u>	<u>255</u>	<u>13.31</u>	<u>-24</u>	<u>4.1</u>	.	"
2		<u>3.3</u>	<u>7.49</u>	<u>257</u>	<u>13.28</u>	<u>-20</u>	<u>4.0</u>	.	"
3			.	.	.	.	.	.
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

(PRINTED NAME)

Steve Hargual

(SIGNATURE)

[Handwritten Signature]

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-24

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-21015-13

DUP ID: NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 55 °C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
10/15/21	:	37.70	.	22.80	.	14.90	X 1 2.93	
/ /	:	X 3 .	
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	<u>2" = 0.163</u>	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√
VOA Glass	10/15/21	7:35	F	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		2 250, 500 <u>1L</u>	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		1 250, <u>500</u> 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		1 250, <u>500</u> 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	
Total Bottles (include duplicate count):				<u>7</u>					

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: <u>8260B</u> VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method §	Purged ()	Purge Start Time:				Pump/Bailer Inlet Depth:			Water Quality
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW		
0	F	25	7.00	396	14.20	181	2.42	.	Clear, colorless	
1		5.0	7.21	390	14.33	181	1.31	.	"	
2		7.5	7.20	393	14.40	129	1.71	.	"	
3			.	.	.	.	.	.
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

(PRINTED NAME)

Steve Ferguson

(SIGNATURE)



FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: FIECOBANK EFW-27

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211015-FB

DUP ID:

NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 55 °C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	
/ /	:	X 3	
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

(√ if used)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative <small>(circle)</small>	Ice	Filter	pH	√
VOA Glass	<u>10/15/21</u>	<u>8:00</u>		<u>3</u> 40 ml	<u>Hc</u>	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		250, 500, 1L	None	YES	NO	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		250, 500, 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 3

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	(3) non-pres Voas: <u>3260B</u> VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
	RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time:

Pump/Bailer Inlet Depth:

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>B</u>		<u>7.07</u>	<u>0.68</u>	<u>13.3</u>		.	.	<u>Chloride</u>
1			.	.	.		.	.
2			.	.	.		.	.
3			.	.	.		.	.
4			.	.	.		.	.
5			.	.	.		.	.

(Casing) (Select A-G) (Cumulative Totals)

(Clarity, Color)

SAMPLER:

Steve Harguall
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-27

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211015-14

DUP ID:

NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 55 °C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	[Water Column x Gal/R]	
							Volume (gal)	
<u>10/15/21</u>	:	<u>31.70</u>	.	<u>22.87</u>	.	<u>8.83</u>	X 1	<u>1.44</u>
/ /	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: [] [N if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√	
VOA Glass	<u>10/18/21</u>	<u>8:20</u>	<u>F</u>	3 40 ml	HCl	YES	NO	NA		
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA		
White Poly	/ /	:		<u>2</u> 250, 500, 1L	None	YES	NO	NA		
Red Total Poly	/ /	:		<u>1</u> 250, 500, 1L	HNO ₃	YES	NO	NA		
Red Diss. Poly	/ /	:		<u>1</u> 250, 500, 1L	HNO ₃	YES	YES	NA		
Total Bottles (include duplicate count):				<u>7</u>						

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
Analysis Allowed per Bottle Type	VOA - Glass	(3) non-pres Voas: <u>8260B VOCs</u> or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (<u>TSS</u>) (1) 500-mL NP: (<u>Bicarbonate - HCO₃⁻</u>) (<u>Chloride - Cl</u>) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (TI) (V) (Zn)] or (As) Low MRL
	RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time: : Pump/Bailer Inlet Depth:

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F</u>	<u>1.0</u>	<u>6.81</u>	<u>912</u>	<u>14.09</u>	<u>-24</u>	<u>2.00</u>	.	<u>CLEAR</u>
1		<u>1.5</u>	<u>6.84</u>	<u>917</u>	<u>14.17</u>	<u>-44</u>	<u>2.09</u>	.	
2		<u>1.6</u>	<u>6.77</u>	<u>916</u>	<u>14.21</u>	<u>-60</u>	<u>1.71</u>	.	
3		<u>1.8</u>	<u>6.80</u>	<u>916</u>	<u>14.24</u>	<u>-54</u>	<u>2.81</u>	.	
4		.	.	.	.	.	.	.
5		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

* Purged dry, let recharge, then final samples.

SAMPLER:

Steve Harquie
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-26 mf

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: ULF-211015-15

DUP ID: ULF-211015-16 NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 55 °C
[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
<u>10/15/21</u>	:	<u>30.0</u>	.	<u>7.30</u>	.	<u>22.70</u>	X 1 <u>8.70</u>
/ /	:	X 3 .

Gal/ft = (dia./2) ² x 0.163	1" = 0.041	<u>2" = 0.163</u>	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875
--	------------	-------------------	------------	------------	------------	-------------	-------------

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: [] [if used]

Bottle Type	Date	Time	Method ^s	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>10/15/21</u>	<u>9:05</u>		3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500 <u>20</u>	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		2 250, 500 <u>11</u>	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		1 250, 500 <u>1L</u>	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		1 250, 500 <u>1L</u>	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7 Duplicate time = 9:10, 7 bottles

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
Analysis Allowed per Bottle Type	VOA - Glass	(3) non-pres Voas: <u>3260B</u> VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
	RED TOTAL - Poly	(1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL

WATER QUALITY DATA

Purge Start Time: : Pump/Bailer Inlet Depth:

Meas.	Method ^s	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F</u>	<u>0.3</u>	<u>7.49</u>	<u>364</u>	<u>13.16</u>	<u>-52</u>	<u>5.11</u>	<u>7.98</u>	<u>Clear, colorless</u>
1		<u>1.0</u>	<u>7.45</u>	<u>348</u>	<u>13.75</u>	<u>-56</u>	<u>4.12</u>	<u>7.98</u>	"
2		<u>1.4</u>	<u>7.47</u>	<u>349</u>	<u>13.69</u>	<u>-59</u>	<u>2.99</u>	<u>7.98</u>	"
3		<u>1.8</u>	<u>7.45</u>	<u>350</u>	<u>13.72</u>	<u>-59</u>	<u>2.99</u>	<u>7.98</u>	"
4		.	.	.	.	.	.	.	.
5		.	.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals] [Clarity, Color]

SAMPLER: Steve Haviguil
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: LDS-3

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-21015-17

DUP ID: NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 55 °C
[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
<u>10/15/21</u>	:	X 1
/ /	:	X 3
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080
							12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>10/15/21</u>	<u>9:30</u>		3 40 ml	HCl	<input checked="" type="checkbox"/> YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:	<u>2</u>	250, 500, 1L	<u>None</u>	<input checked="" type="checkbox"/> YES	NO	NA	
Red Total Poly	/ /	:	<u>1</u>	250, 500, 1L	<u>HNO₃</u>	<input checked="" type="checkbox"/> YES	NO	NA	
Red Diss. Poly	/ /	:	<u>1</u>	250, 500, 1L	<u>HNO₃</u>	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> YES	NA	
Total Bottles (include duplicate count):				<u>7</u>					

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	(3) non-pres Voas: <u>260</u> VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Tl) (V) (Zn)] or (As) Low MRL
	RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time:			Pump/Bailer Inlet Depth:						
Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F/C</u>	<u>20+</u>	<u>6.79</u>	<u>6,680</u>	<u>20.07</u>	<u>81</u>	.	.	<u>Yellow, Tan</u>
1			.		.		.	.
2			.		.		.	.
3			.		.		.	.
4			.		.		.	.
5			.		.		.	.

(Casing) [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

Steve Harguison
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: SU-3

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: UCF-211015-18

DUP ID:

NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 55 °C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	[Water Column x Gal/ft]	
/ /	:	X 1	.
/ /	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth:

(if used)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative <small>[circle]</small>	Ice	Filter	pH	√
VOA Glass	<u>10/15/21</u>	<u>10:00</u>		3 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		250, 500, 1L	None	<u>YES</u>	<u>NO</u>	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	<u>YES</u>	<u>NO</u>	NA	
Red Diss. Poly	/ /	:		250, 500, 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 2

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl ⁻) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]	

WATER QUALITY DATA

Purge Start Time:

Pump/Bailer Inlet Depth:

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>FB</u>	<u>NA</u>	<u>7.59</u>	<u>524</u>	<u>13.36</u>	<u>55</u>	<u>630</u>	.	<u>clear</u>
1			.		.		.	.
2			.		.		.	.
3			.		.		.	.
4			.		.		.	.
5			.		.		.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

Steve Hargrave
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: **L05-2B**

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: **VF-211015-19**

DUP ID:

NA

WEATHER: SUNNY **CLOUDY** RAIN ?

TEMPERATURE: °F **55** °C
[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
/ /	:	.	.	.	.	.	X 1
/ /	:	.	.	.	.	.	X 3
Gal/ft = (dia./2) ² x 0.163	1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10/15/21	10:25	F/G	3 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		2 250, 500 1L	None	YES	NO	NA	
Red Total Poly	/ /	:		1 250, 500 , 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		1 250, 500 , 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count):

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl ⁻) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Tl) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	G/F	20+	6.70	8,780	18.53	-72	0.71	.	Cloudy
1			.	.	.	.	.	.
2			.	.	.	.	.	.
3			.	.	.	.	.	.
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

Steve Ferguson
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: LDS-4

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211015-20

DUP ID: NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 55 °C
[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	
/ /	:	X 3	
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>10/15/21</u>	<u>10:50</u>	<u>6</u>	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:	<u>2</u>	250, 500, <u>1L</u>	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:	<u>1</u>	250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:	<u>1</u>	250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: <u>260B</u> VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Tl) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time:			Pump/Bailer Inlet Depth:						
Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F/C</u>		<u>6.74</u>	<u>1090</u>	<u>22.87</u>	<u>91</u>	<u>1.30</u>	.	<u>Clear</u>
1			.	.	.	.	.	.
2			.	.	.	.	.	.
3			.	.	.	.	.	.
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

Steve Harguibel
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-23 MP

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211015-21

DUP ID: NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: 55 °F °C
[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	[Water Column x Gal/ft]	
							X 1	X 3
10/15/21	:	24.70	.	2.31	.	22.39	X 1	3.65
/ /	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____ [√ if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative <small>[circle]</small>	Ice	Filter	pH	√
VOA Glass	10/15/21	11:45	F	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		2 250, 500, 1L	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		1 250, 500, 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		1 250, 500, 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
Analysis Allowed per Bottle Type	VOA - Glass	(3) non-pres Voas: <u>8260B</u> VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
		(1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl ⁻) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Tl) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]	

WATER QUALITY DATA

Purge Start Time: _____ Pump/Bailer Inlet Depth: _____

Meas.	Method §	Purged ()	pH	E Cond (μS)	Temp °C	ORP	D/O	DTW	Water Quality
0	F	02	6.65	395	16.23	85	2.81	3.2	clear
1		0.6	6.64	399	16.40	100.71	3.31		"
2		1.3	6.64	401	16.42	100.88	3.32		"
3			.		.	.	.
4			.		.	.	.
5			.		.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: Steve Hargrave
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: LDS-5

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211015-22

DUP ID:

NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 55 °C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	
/ /	:	X 3	
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: [if used]

Bottle Type	Date	Time	Method ^s	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>10/15/21</u>	<u>12:30</u>	<u>F</u>	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		<u>2</u> 250, 500 <u>1L</u>	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		<u>1</u> 250, <u>500</u> 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		<u>1</u> 250, <u>500</u> 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time: :

Pump/Bailer Inlet Depth:

Meas.	Method ^s	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F</u>	<u>10+</u>	<u>7.06</u>	<u>764</u>	<u>23.07</u>	<u>35</u>	<u>2.61</u>	.	<u>clear, light</u>
1			.	.	.	.	.	.
2			.	.	.	.	.	.
3			.	.	.	.	.	.
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

(PRINTED NAME)

Steve Havigill

(SIGNATURE)

[Signature]

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: Phillips

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: ULF-211015-23

WEATHER: SUNNY CLOUDY RAIN ?

DUP ID: NA

TEMPERATURE: °F 55 °C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	[Water Column x Gal/ft]	
							X 1	X 3
<u>10 / 15 / 21</u>	:	.	.	<u>30.50</u>	.	.	X 1	.
/ /	:	X 3	.
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method [§]	Amount & Volume mL	Preservative <small>(circle)</small>	Sample Depth:			pH	√
						Ice	Filter	[if used]		
VOA Glass	<u>10 / 15 / 21</u>	<u>3 : 30</u>	<u>F/G</u>	3 40 ml	HCl	<input checked="" type="checkbox"/> YES	NO	NA		
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA		
White Poly	/ /	:	<u>2</u>	250, 500, 1L	None	<input checked="" type="checkbox"/> YES	NO	NA		
Red Total Poly	/ /	:	<u>1</u>	250, 500, 1L	HNO ₃	<input checked="" type="checkbox"/> YES	NO	NA		
Red Diss. Poly	/ /	:	<u>1</u>	250, 500, 1L	HNO ₃	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> YES	NA		
Total Bottles (include duplicate count):				<u>7</u>						

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
		VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-ml Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (<u>TSS</u>) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - <u>Cl</u>) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
	RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method [§]	Purged ()	Purge Start Time:			Pump/Bailer Inlet Depth:			
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F/G</u>	<u>20↑</u>	<u>7.20</u>	<u>307</u>	<u>13.30</u>	<u>41</u>	<u>5.8</u>	.	<u>CCGM</u>
1			.	.	.	.	.	.
2			.	.	.	.	.	.
3			.	.	.	.	.	.
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER:

Steve Harquail
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-115 *MP*

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211016-24

DUP ID: _____ NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 50. °C _____
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
10/16/21	:	31.90	.	5.56	5.56	26.34	X 1 4.29
/ /	:	X 3 .

Gal/ft = (dia./2) ² x 0.163	1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875
--	------------	------------	------------	------------	------------	-------------	-------------

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____ [✓ if used]

Bottle Type	Date	Time	Method [§]	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	✓
VOA Glass	10/16/21	8:00	F	3 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		2 250, 500 <u>1L</u>	None	YES	NO	NA	
Red Total Poly	/ /	:		1 250, <u>500</u> 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		1 250, <u>500</u> 1L	HNO ₃	YES	YES	NA	

Total Bottles (include duplicate count): 7

ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass: (3) non-pres Voas: <u>6260</u> VOCs or 524.2 VOCs
AMBER - Glass: (2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
WHITE (non-pres) - Poly: (1) 1-L NP: (BOD) (TSS)
RED TOTAL - Poly: (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl ⁻) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED DISSOLVED - Poly: (1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly: (1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time: _____ Pump/Bailer Inlet Depth: _____

Meas.	Method [§]	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	F	0.4	7.13	1090	12.34	99	6.06	6.13	clear
1		1.6	7.01	1160	12.75	101	4.46	6.14	↓
2		1.5	7.00	1151	12.91	102	4.21	6.15	
3		1.8	6.98	1191	12.81	101	2.04	6.15	
4									
5									

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: Steve Harquie

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-11d mf

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211016-25

DUP ID: _____ NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 80 °C _____
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
<u>10/16/21</u>	:	<u>752</u>	.	<u>15.75</u>	.	<u>59.45</u>	X 1 <u>9.69</u>	
/ /	:	X 3	
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	<u>2" =</u> 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	✓
VOA Glass	<u>10/16/21</u>	<u>8:40</u>		3 40 ml	<u>HCl</u>	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:	<u>2</u>	250, 500, <u>1L</u>	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:	<u>1</u>	250, <u>500</u> , 1L	<u>HNO₃</u>	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:	<u>1</u>	250, <u>500</u> , 1L	<u>HNO₃</u>	<u>YES</u>	<u>YES</u>	NA	
Total Bottles (include duplicate count):				<u>7</u>					

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
RED TOTAL - Poly	(1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F</u>	<u>0.5</u>	<u>6.87</u>	<u>1,440</u>	<u>12.35</u>	<u>99</u>	<u>4.5</u>	.	<u>CLEAR</u>
1		<u>1.0</u>	<u>6.84</u>	<u>1,560</u>	<u>12.81</u>	<u>79</u>	<u>2.1</u>	.	
2		<u>1.5</u>	<u>6.85</u>	<u>1,580</u>	<u>12.45</u>	<u>69</u>	-	.	
3		<u>2.0</u>	<u>6.82</u>	<u>1,620</u>	<u>12.59</u>	<u>65</u>	<u>2.6</u>	.	
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: Steve Hargrave

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-3d mp

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211016-26

DUP ID: _____ NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 50 °C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
10/16/21	:	56.20	.	26.02	.	30.18	X 1 4.92
/ /	:		.		.		X 3

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	10/16/21	9:15	F	3, 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		2, 250, 500, 1L	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		1, 250, 500, 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		1, 250, 500, 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	F		7.96	580	12.98	53	7.75	26.9	Clear, colorless
1			7.94	570	13.04	55	7.38	.	"
2			7.91	570	13.07	55	7.21	.	"
3			7.89	568	12.97	56	7.10	.	"
4			.	.	.	.	.	.	.
5			.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: _____

(PRINTED NAME)

Steve Hargus

(SIGNATURE)

[Signature]

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-125 *ms*

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211016-27

DUP ID: NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: ° F 50 ° C
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Top of pump

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
<u>10/16/21</u>	<u>10:05</u>	<u>30.0</u>		<u>23.61</u>		<u>7.0</u>	X 1 <u>2.0</u>	
/ /	:	.	.	.	.	.	X 3
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____ (N if used)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>10/16/21</u>	<u>10:05</u>	<u>F</u>	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:	<u>2</u>	250, 500 <u>1L</u>	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:	<u>1</u>	250, <u>500</u> 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:	<u>1</u>	250, <u>500</u> 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 7

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS) (1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time: _____

Pump/Bailer Inlet Depth: _____

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F</u>	<u>0.2</u>	<u>7.17</u>	<u>761</u>	<u>11.98</u>	<u>-36</u>	<u>4.10</u>	.	
1			.		.		.	.
2			.		.		.	.
3			.		.		.	.
4			.		.		.	.
5			.		.		.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

*PUMP DRY, LET RECHARGE TO FRESH
480-40 min SAMPLE*

SAMPLER: Steve Ferguson

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-12d

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211016-28

DUP ID: _____ NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 50 °C _____
[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
<u>12/16/21</u>	:	<u>61.9</u>	.	<u>25.56</u>	.	<u>36.34</u>	X 1 <u>5.92</u>
/ /	:	X 3

Gal/ft = (dia./2)² x 0.163 1" = 0.041 2" = 0.163 3" = 0.367 4" = 0.653 6" = 1.469 10" = 4.080 12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailor (D) PVC/Teflon Bailor (E) Dedicated Bailor (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>10/16/21</u>	<u>10:30</u>	<u>F</u>	3 40 ml	HCl	<u>YES</u>	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		<u>2</u> 250, 500, 1L	None	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		<u>1</u> 250, 500, 1L	HNO ₃	<u>YES</u>	NO	NA	
Red Diss. Poly	/ /	:		<u>1</u> 250, 500, 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	
Total Bottles (include duplicate count):				<u>7</u>					

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
RED TOTAL - Poly	(1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method §	Purged ()	Purge Start Time: _____			Pump/Bailor Inlet Depth: _____			
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F</u>		<u>7.88</u>	<u>365</u>	<u>11.97</u>	<u>72</u>	<u>1.81</u>	.	<u>clear</u>
1			<u>7.70</u>	<u>356</u>	<u>12.29</u>	<u>71</u>	<u>1.15</u>	.	↓
2			<u>7.58</u>	<u>352</u>	<u>12.31</u>	<u>72</u>	<u>1.21</u>	.	
3			<u>7.55</u>	<u>350</u>	<u>12.38</u>	<u>72</u>	<u>1.10</u>	.	
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: _____

(PRINTED NAME)

Steve Hargis

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: MW-1d MP

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-21016-29

DUP ID: _____ NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 50 °C _____
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	[Water Column x Gal/ft]	
							X 1	X 3
<u>10/16/21</u>	:	<u>41.40</u>	.	<u>29.91</u>	.	<u>11.49</u>	X 1	<u>1.87</u>
/ /	:	X 3	.

Gal/ft = (dia./2) ² x 0.163	1" = 0.041	<u>2"</u> = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875
--	------------	-------------------	------------	------------	------------	-------------	-------------

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method [§]	Amount & Volume mL		Preservative [circle]	Ice	Filter	pH	Sample Depth:	[if used]
										√	
VOA Glass	<u>10/16/21</u>	<u>11:15</u>	<u>F</u>	<u>3</u>	<u>40 ml</u>	HCl	<u>YES</u>	NO	NA		
Amber Glass	/ /	:			250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA		
White Poly	/ /	:		<u>2</u>	250, 500, <u>1L</u>	None	<u>YES</u>	NO	NA		
Red Total Poly	/ /	:		<u>1</u>	250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	NO	NA		
Red Diss. Poly	/ /	:		<u>1</u>	250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA		

Total Bottles (include duplicate count): 7

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	(3) non-pres Voas: <u>8260B</u> VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrate)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Tl) (V) (Zn)] or (As) Low MRL
	RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method [§]	Purged ()	Purge Start Time: :			Pump/Bailer Inlet Depth:			
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>F</u>	<u>03</u>	<u>7.45</u>	<u>385</u>	<u>12.54</u>	<u>83</u>	<u>4.92</u>	<u>30.13</u>	<u>CCEAL</u>
1		<u>1.0</u>	<u>7.41</u>	<u>372</u>	<u>12.89</u>	<u>81</u>	<u>6.27</u>	<u>30.17</u>	<u>↓</u>
2		<u>1.5</u>	<u>7.38</u>	<u>381</u>	<u>12.92</u>	<u>81</u>	<u>6.19</u>	<u>30.17</u>	<u>↓</u>
3		<u>2.0</u>	<u>7.38</u>	<u>383</u>	<u>12.93</u>	<u>81</u>	<u>6.01</u>	<u>30.19</u>	<u>↓</u>
4		.	.	.	.	.	.	.
5		.	.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: Steve Harquail

(PRINTED NAME)

(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: SU-4

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211016-30

DUP ID: _____ NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 50 °C _____
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)	
/ /	:	X 1	
/ /	:	X 3	
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080	12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____ [if used]

Bottle Type	Date	Time	Method ^s	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√
VOA Glass	<u>10/16/21</u>	<u>11:30</u>		<u>X</u> 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		250, 500, 1L	(None) (HCl) (H ₂ SO ₄)	YES	NO	NA	
White Poly	/ /	:		250, 500 <u>1L</u>	<u>None</u>	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		250 <u>500</u> 1L	<u>HNO₃</u>	<u>YES</u>	<u>YES</u>	NA	

Total Bottles (include duplicate count): 2

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
RED TOTAL - Poly	(1) 500-mL NP: (Bicarbonate - <u>HCO₃</u>) (Chloride - <u>Cl</u>) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Tl) (V) (Zn)] or (As) Low MRL
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time: _____

Pump/Bailer Inlet Depth: _____

Meas.	Method ^s	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0		<u>Flaming</u>	<u>7.17</u>	<u>225</u>	<u>12.67</u>	<u>88</u>	<u>1.71</u>	.	<u>clear</u>
1			
2			
3			
4			
5			

[Casing] [Select A-G] [Cumulative Totals] [Clarity, Color]

SAMPLER: _____

(PRINTED NAME)

Steve Hargrove

(SIGNATURE)



FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: S-1

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-211017-31

DUP ID: _____ NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 45 °C _____
(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
<u>10/17/21</u>	:	.	.	<u>14.39</u>	.	.	X 1
/ /	:	X 3
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080
							12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Sample Depth: _____ [N if used]

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative (circle)	Ice	Filter	pH	√
VOA Glass	<u>10/17/21</u>	<u>12:45</u>		<u>X</u> 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		<u>2</u> 250 <u>500</u> 1L	(None) (HCl) (H ₂ SO ₄)	<u>YES</u>	<u>NO</u>	NA	
White Poly	/ /	:		<u>2</u> 250 <u>500</u> 1L	None	<u>YES</u>	<u>NO</u>	NA	
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA	
Red Diss. Poly	/ /	:		<u>1</u> 250, <u>500</u> 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA	
<u>(PO4)</u>	/ /	:		<u>1</u> <u>250</u>	<u>None</u>	<u>Yes</u>	<u>Yes</u>		

WATER POLY Total Bottles (include duplicate count): 6

BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
RED TOTAL - Poly	(1) 500-mL NP: (Bicarbonate - HCO₃⁻) (Chloride - Cl) (Sulfate - SO₄²⁻) (TDS) (Orthophosphate - PO₄)
RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL
	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Purge Start Time: _____

Pump/Bailer Inlet Depth: _____

Meas.	Method §	Purged ()	pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>Grab</u>	<u>Flaming</u>	<u>7.95</u>	<u>279</u>	<u>11.60</u>	<u>120</u>	<u>8.30</u>	.	<u>CCEM</u>
1			.		.		.	.
2			.		.		.	.
3			.		.		.	.
4			.		.		.	.
5			.		.		.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: _____

(PRINTED NAME)

Steve Hargrave

(SIGNATURE)

[Signature]

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: S-2

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: ULF-211017-32

DUP ID: ULF-211017-33 NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 55 °C

(Circle appropriate units)

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
<u>10/17/21</u>	:	.	.	<u>15.04</u>	.	.	X 1
/ /	:	X 3
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080
							12" = 5.875

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method §	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√
VOA Glass	<u>10/17/21</u>	<u>1:30</u>		<u>X</u> 40 ml	HCl	YES	NO	NA	
Amber Glass	/ /	:		<u>2</u> 250, <u>500</u> 1L	(None) (HCl) (<u>H₂SO₄</u>)	<u>YES</u>	NO	NA	
White Poly	/ /	:		<u>2</u> 250, <u>500</u> 1L	<u>None</u>	<u>YES</u>	NO	NA	
Red Total Poly	/ /	:		250, 500, 1L	<u>HNO₃</u>	YES	NO	NA	
Red Diss. Poly	/ /	:		<u>1</u> 250, <u>500</u> 1L	<u>HNO₃</u>	<u>YES</u>	<u>YES</u>	NA	
<u>Waste Poly</u>	/ /	:		<u>1</u> <u>250</u>	<u>None</u>	<u>YES</u>	<u>YES</u>		

Pot Total Bottles (include duplicate count): 6 Duplicate Time = 1:35, 6 bottles

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
	RED TOTAL - Poly	(1) 500-mL NP: (Bicarbonate - HCO ₃ ⁻) (Chloride - Cl) (Sulfate - SO ₄ ²⁻) (TDS) (Orthophosphate - PO ₄)
	RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Ti) (V) (Zn)] or (As) Low MRL

WATER QUALITY DATA

Meas.	Method §	Purged ()	Purge Start Time:			Pump/Bailer Inlet Depth:			
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0	<u>Grab</u>	<u>Plumb</u>	<u>7.49</u>	<u>285</u>	<u>11.53</u>	<u>121</u>	<u>6.61</u>	.	<u>Clear</u>
1			.		.			.	
2			.		.			.	
3			.		.			.	
4			.		.			.	
5			.		.			.	

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: Steve Harguail
(PRINTED NAME)

[Signature]
(SIGNATURE)

FIELD SAMPLING DATA SHEET

Valley Landfills, Inc.

28972 Coffin Butte Road
Corvallis, Oregon 97330

Office: (541) 745-2018 Fax: (541) 745-3826

PROJECT NAME: Valley Landfills, Inc.

WELL ID: S-4

SITE ADDRESS: Coffin Butte Landfill, Corvallis, Oregon

BLIND ID: VLF-21017-34

DUP ID: _____ NA

WEATHER: SUNNY CLOUDY RAIN ?

TEMPERATURE: °F 45 °C _____
[Circle appropriate units]

HYDROLOGY/LEVEL MEASUREMENTS (Nearest 0.01 ft)

Date	Time	DT-Bottom	DT-Product	DT-Water	DTP-DTW	DTB-DTW	Volume (gal)
<u>10/17/21</u>	:	.	.	<u>15.62</u>	.	.	X 1
/ /	:	X 3
Gal/ft = (dia./2) ² x 0.163		1" = 0.041	2" = 0.163	3" = 0.367	4" = 0.653	6" = 1.469	10" = 4.080
		12" = 5.875					

§ METHODS: (A) Submersible Pump (B) Peristaltic Pump (C) Disposable Bailer (D) PVC/Teflon Bailer (E) Dedicated Bailer (F) Dedicated Pump (G) Other =

GROUNDWATER SAMPLING DATA (if product is detected, do NOT sample)

Bottle Type	Date	Time	Method ^s	Amount & Volume mL	Preservative [circle]	Ice	Filter	pH	√	
VOA Glass	<u>10/17/21</u>	<u>2:30</u>		<u>X</u> 40 ml	HCl	YES	NO	NA		
Amber Glass	/ /	:		<u>2</u> 250, <u>500</u> , 1L	(None) (HCl) (H ₂ SO ₄)	<u>YES</u>	NO	NA		
White Poly	/ /	:		<u>2</u> 250, <u>500</u> , <u>1L</u>	None	<u>YES</u>	NO	NA		
Red Total Poly	/ /	:		250, 500, 1L	HNO ₃	YES	NO	NA		
Red Diss. Poly	/ /	:		<u>1</u> 250, <u>500</u> , 1L	HNO ₃	<u>YES</u>	<u>YES</u>	NA		
<u>WHITE Poly</u>	/ /	:		<u>1</u> <u>250</u>	<u>None</u>	<u>YES</u>	<u>YES</u>			
Total Bottles (include duplicate count):				<u>6</u>						

Analysis Allowed per Bottle Type	BOTTLE TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE
	VOA - Glass	(3) non-pres Voas: 8260B VOCs or 524.2 VOCs
	AMBER - Glass	(2) H ₂ SO ₄ 500-mL Amber: (Ammonia) (Total Phos) (COD) (TOC) (Nitrate/Nitrite)
	WHITE (non-pres) - Poly	(1) 1-L NP: (BOD) (TSS)
	RED TOTAL - Poly	(1) 500mL Nitric Poly: [(Sb) (As) (Ba) (Cr) (Pb) (Ni) (Se) (Zn)] or [(Sb) (As) (Ba) (Be) (Cd) (Co) (Cu) (Cr) (Pb) (Ni) (Se) (Ag) (Tl) (V) (Zn)] or (As) Low MRL
	RED DISSOLVED - Poly	(1) 500mL Nitric Poly: [(Ca) (Fe) (Mg) (Mn) (Na)] or [(Ca) (Fe) (Mg) (Mn) (K) (Na) (Si)]

WATER QUALITY DATA

Meas.	Method ^s	Purged ()	Purge Start Time:			Pump/Bailer Inlet Depth:			
			pH	E Cond (µS)	Temp °C	ORP	D/O	DTW	Water Quality
0			<u>7.91</u>	<u>281</u>	<u>13.64</u>	<u>123</u>	<u>8.26</u>		<u>clear</u>
1	<u>Grab</u>	<u>Flow</u>	.	.	.	.	.	.
2			.	.	.	.	.	.
3			.	.	.	.	.	.
4			.	.	.	.	.	.
5			.	.	.	.	.	.

[Casing] [Select A-G] [Cumulative Totals]

[Clarity, Color]

SAMPLER: _____

(PRINTED NAME)

(SIGNATURE)

Client Information		Sampler: <u>Phil Caruso</u>		Carrier Tracking No(s):	
Company: <u>Republic Services Inc</u>		Phone: <u>Betsy Saba</u>		COC No: <u>280-83119-26811.1</u>	
Address: <u>28972 Coffin Butte Rd</u>		E-Mail: <u>Betsy.Saba@Eurofins.com</u>		Page: <u>Page 1 of 1</u>	
City: <u>Corvallis</u>		Due Date Requested:		Job #:	
State/Zip: <u>OR, 97330</u>		TAT Requested (days):		Preservation Codes:	
Phone: <u>541-602-4357</u>		PO #:		A - HCL M - Hexane B - NaOH N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SSO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 X - EDTA Y - EDA Z - other (specify)	
Project Name: <u>PCaruso@republicservices.com</u>		WO #:		Other:	
Site: <u>Valley LF - Republic Serv Coffin Butte</u>		Project #: <u>28003197</u>		Special Instructions/Note:	
Site: <u>Coffin Butte Landfill II</u>		SSOW#:			
Sample Identification		Sample Date		Total Number of Containers	
<u>UCF-211017-35</u>		<u>10/18/21 09:45</u>			
Matrix (W=water, S=solid, O=soil, B=biological, T=tissue, A=air)		Sample Type (C=comp, G=grab)		Analysis Requested	
Water		G		Total Suspended Solids/ph Dissolved Metals BOD Bicarb Alk/Cl/504/TDS VOA NH3/COD/NXT/TOC	
Field Filtered Sample (Yes or No)		Sample Time		Field Filtration Method (Yes or No)	
X		09:45		X	
Preservation Code:		Sample Time		Field Filtration Method (Yes or No)	
G		09:45		X	
Possible Hazard Identification		Sample Date		Field Filtration Method (Yes or No)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant		10/18/21		X	
Deliverable Requested: I, II, III, IV, Other (specify)		09:45		X	
Empty Kit Relinquished by:		Sample Date		Field Filtration Method (Yes or No)	
Phil Caruso		10/18/21		X	
Relinquished by:		Sample Time		Field Filtration Method (Yes or No)	
Phil Caruso		09:45		X	
Relinquished by:		Sample Time		Field Filtration Method (Yes or No)	
Phil Caruso		09:45		X	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Sample Date		Field Filtration Method (Yes or No)	
Custody Seal No.:		10/18/21		X	



Chain of Custody Record

Client Information		Sample #: <u>Sara Hagedorn</u>		Lab PM: Sara, Betsy A		Carrier Tracking No(s):		COC No: 280-97584-22898.1	
Client Contact: <u>Jan Mc Naboe</u>		Phone: <u>303-572-5550</u>		E-Mail: <u>betsy.sara@eurofinset.com</u>				Page:	
Company: <u>Valley Landfills, Inc. Republic Services</u>		Due Date Requested:		Analysis Requested		Total Number of Containers		Preservation Codes:	
Address: <u>28972 Coffin Butte Road</u>		TAT Requested (days):		Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		Breath Alk/CrDS	
City: <u>Corvallis</u>		PO #: <u>1584668</u>		Dissolved Metals		Total Metals		TSS	
State/Zip: <u>OR, 97330</u>		WO #:		VOA 8260B		VOA 8260B			
Phone: <u>503-675-1335(Tel)</u>		Project #: <u>28003197 "GW_SLCS_Leachate"</u>		Matrix (W=water, S=solid, O=waste/soil, BT=tissue, A=air)		Preservation Code:		Special Instructions/Note:	
Email:		SSOW#:		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Site: <u>Valley Landfills Corvallis</u>		Sample Date		Sample Time		Sample Type		Matrix	
Sample Identification		Sample Date		Sample Time		Sample Type		Matrix	
<u>VF-21014-1</u>		<u>10/14/21</u>		<u>1030</u>		<u>W</u>		<u>W</u>	
<u>- 2</u>		<u>1110</u>		<u>1110</u>		<u>W</u>		<u>W</u>	
<u>- 3</u>		<u>1220</u>		<u>1220</u>		<u>W</u>		<u>W</u>	
<u>- 4</u>		<u>1245</u>		<u>1245</u>		<u>W</u>		<u>W</u>	
<u>- 5</u>		<u>1250</u>		<u>1250</u>		<u>W</u>		<u>W</u>	
<u>- 6</u>		<u>1335</u>		<u>1335</u>		<u>W</u>		<u>W</u>	
<u>- 7</u>		<u>1415</u>		<u>1415</u>		<u>W</u>		<u>W</u>	
<u>- 8</u>		<u>1420</u>		<u>1420</u>		<u>W</u>		<u>W</u>	
<u>- 9</u>		<u>1545</u>		<u>1545</u>		<u>W</u>		<u>W</u>	
<u>- 10</u>		<u>1550</u>		<u>1550</u>		<u>W</u>		<u>W</u>	
<u>- 11</u>		<u>1640</u>		<u>1640</u>		<u>W</u>		<u>W</u>	
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client		Disposal By Lab		Archive For	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant		<input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client		<input type="checkbox"/> Disposal By Lab		<input type="checkbox"/> Archive For	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements: <u>All DI metals</u>		Method of Shipment:		Date/Time:		Date/Time:	
Empty Kit Relinquished by:		Date:		Date/Time:		Date/Time:		Date/Time:	
Relinquished by: <u>Sara Hagedorn</u>		Date: <u>12/17/21</u>		Date/Time: <u>1600</u>		Date/Time:		Date/Time:	
Relinquished by:		Date:		Date/Time:		Date/Time:		Date/Time:	
Custody Seals Intact: <u>Yes</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <u>3.1, 4.8, 3.4, 2.5, 4.3, 3.1, 1.2, 3.7</u>		Company: <u>STA OSCO</u>		Company:	



Chain of Custody Record

Client Information		Supplier: <i>Stark Hospital</i>		Lab PM: Sara, Betsy A		Carrier Tracking No(s):		COC No: 280-97584-22898.1	
Client Contact: <i>Jan Mc Nabb</i>		Phone: 303-572-5550		E-Mail: <i>betsy.sara@eurofinset.com</i>				Page:	
Company: Valley Landfills, Inc. Republic Services		Due Date Requested:		Analysis Requested				Job #:	
Address: 28972 Coffin Butte Road		TAT Requested (days):		Biocarb A1K/CTDS				Preservation Codes:	
City: Corvallis				Dissolved Metals				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: OR, 97330		PO #: 503-675-1335 (Tel)		Total Metals				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Project Name: Coffin Butte/Valley Landfills		Project #: 28003197 "GW_SLCS_Leachate"		VOA 826B				Special Instructions/Note:	
Site: <i>Corvallis OR</i>		SSOW#:		TSS					
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, AT=tissue, A=air)	
VLF-211014-12		10/14/21		17:25		W		W	
VLF-211015-13		10/15/21		7:35		W		W	
VLF-211015-FB		10/15/21		8:00		W		W	
- 14				8:20		W		W	
- 15				9:05		W		W	
- 16				9:10		W		W	
- 17				9:36		W		W	
- 18				10:30		W		W	
- 19				10:50		W		W	
- 20				10:50		W		W	
- 21				11:15		W		W	
Total Number of containers		Field Filtered Sample (Yes or No)		Perform M/MSD (Yes or No)		Biocarb A1K/CTDS		Dissolved Metals	
7		X		X		X		X	
7		X		X		X		X	
3		X		X		X		X	
7		X		X		X		X	
X		X		X		X		X	
X		X		X		X		X	
7		X		X		X		X	
2		X		X		X		X	
7		X		X		X		X	
7		X		X		X		X	
7		X		X		X		X	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *Stark Hospital* Date/Time: 10/17/21 16:20
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Method of Shipment: _____
 Received by: *Stark Hospital* Date/Time: 10/19/2021 10:20 Company: *EA PCH*
 Received by: _____ Date/Time: _____ Company: _____
 Received by: _____ Date/Time: _____ Company: _____
 Cooler Temperature(s) °C and Other Remarks:



Chain of Custody Record

Client Information		Sample: <i>Strangel</i>		Lab PM: Sara, Betsy A		Carrier Tracking No(s):		COC No: 280-97584-22898.1	
Client Contact: <i>Jan Mc Nab</i>		Phone: <i>503-572-5550</i>		E-Mail: <i>betsy.sara@eurofinset.com</i>				Page:	
Company: Valley Landfills, Inc. Republic Services		Due Date Requested:		Analysis Requested				Job #:	
Address: 28972 Coffin Butte Road		TAT Requested (days):		Dissolved Metals				Preservation Codes:	
City: Corvallis				Total Metals				A - HCL M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 X - EDTA Y - EDA Z - other (specify)	
State/Zip: OR, 97330		PO #: 1584668		TSS				Other:	
Phone: 503-675-1335(Tel)		WO #:		VOAs 524.2					
Email:		Project #: 28003197 "GW_SLCS_Leachate"		Total Number of Containers					
Project Name: Coffin Butte/Valley Landfills		SSOW#:		Special Instructions/Note:					
Site: <i>Corvallis</i>									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=volatile, BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Bicarb Alk/CTDS	Dissolved Metals	Total Metals	TSS	VOAs 8260B	Total Number of Containers	Special Instructions/Note:
VLF-211015-22	10/15/21	1230		W		X	X	X	X	X	X	X	7	
VLF-211015-23	10/15/21	1530		W		X	X	X	X	X	X	X	7	
VLF-211016-24	10/16/21	800		W		X	X	X	X	X	X	X	7	
25		840		W		X	X	X	X	X	X	X	7	
26		915		W		X	X	X	X	X	X	X	7	
27		1005		W		X	X	X	X	X	X	X	7	
28		1055		W		X	X	X	X	X	X	X	7	
29		1115		W		X	X	X	X	X	X	X	7	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____ Time: _____
Relinquished by: *Sara Hays* Date: 10/17/21 16:15 Company: *TRP*
Relinquished by: _____ Date: _____ Time: _____ Company: _____
Relinquished by: _____ Date: _____ Time: _____ Company: _____

Custody Seals Intact: Yes No **Custody Seal No.:** _____
 Cooler Temperature(s) °C and Other Remarks: _____



Chain of Custody Record

Client Information		Sampler: <i>S. Hanyan</i>		Lab PM: Sara, Betsy A		Carrier Tracking No(s):		COC No: 280-102122-14893.1	
Client Contact: <i>Jan Mena</i>		Phone: <i>303-872-5550</i>		E-Mail: Betsy.Sara@Eurofinset.com		Page: 1 of 1		Job #:	
Company: Valley Landfills, Inc. Republic Services		Address: 28972 Coffin Butte Road		City: Corvallis		State, Zip: OR, 97330		Phone: 503-675-1335(Tel)	
Project Name: Coffin Butte/Valley Landfills		Site: <i>Corvallis</i>		Project #: 28003197		SSOW#: <i>ST-2-10-15</i>		Due Date Requested:	
TAT Requested (days):		PO #: 1584668		PO#: 1584668		WO #:		Analysis Requested	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=soil, AT=tissue, A=air)	
<i>VLF-211016-30</i>		<i>10/16/21 11:30</i>				<i>G</i>		<i>W</i>	
<i>VLF-211017-31</i>		<i>10/17/21 12:45</i>				<i>G</i>		<i>W</i>	
<i>32</i>						<i>G</i>		<i>W</i>	
<i>33</i>						<i>G</i>		<i>W</i>	
<i>34</i>						<i>G</i>		<i>W</i>	
<i>Trip Blanks</i>								<i>W</i>	
Possible Hazard Identification		Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/>		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:		Total Number of containers	
Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		Time:		Method of Shipment:		Special Instructions/Note:	
Relinquished by: <i>Steph Hanyan</i>		Date/Time: <i>10/17/21 17:00</i>		Company: <i>RAA</i>		Received by: <i>AK</i>		Date/Time: <i>10/19/2021 10:20</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Total Number of containers		Preservation Codes:	
								A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
								M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	



ANALYTICAL REPORT

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-147625-1

Client Project/Site: Valley LF - Republic Serv Coffin Butte

For:

Tuppan Consultants LLC
460 Second Street Suite 103
Lake Oswego, Oregon 97034

Attn: Mr. Eric J Tuppan



Authorized for release by:
5/13/2021 3:24:20 PM

Betsy Sara, Project Manager II
(303)736-0189
Betsy.Sara@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Table of Contents

Cover Page	1
Table of Contents	2
Definitions	3
Case Narrative	4
Detection Summary	6
Method Summary	13
Sample Summary	14
Client Sample Results	15
Surrogate Summary	61
QC Sample Results	63
QC Association	95
Chronicle	104
Chain of Custody	113
Receipt Checklists	116

Definitions/Glossary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
s	Seeded Control Blank (SCB) Recovery Low

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Job ID: 280-147625-1

Laboratory: Eurofins TestAmerica, Denver

Narrative

CASE NARRATIVE

Client: Tuppan Consultants LLC

Project: Valley LF - Republic Serv Coffin Butte

Report Number: 280-147625-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving

The samples were received on 04/20/2021; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 1.2° C, 1.2° C, 1.5° C, 2.0° C, 2.7° C and 2.8° C.

Holding Times

All holding times were met.

Method Blanks

m-Xylene & p-Xylene Method 8260B were detected in the Method Blank below the project established reporting limit. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits.

The seeded control blank (method blank) for BOD Method 5210B depleted more than the method-specified limit, 0.2mgO₂/L. The laboratory control sample (LCS) recovery was in control. Because the holding time expired, reanalysis was not performed.

All other Method Blank recoveries were within established control limits.

Laboratory Control Samples (LCS)

The Biochemical Oxygen Demand (BOD) Method 5210B glucose-glutamic acid standard (LCS) recovered below the lower control limit specified in the method at 40% (control limits 85%-115%). Because the 48-hour holding time expired, reanalysis was not performed.

All other Laboratory Control Sample recoveries were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) for Method 8260B (batches 534251 and 534384), however, LCS/LCSD pairs were analyzed to demonstrate method precision and accuracy.

The Matrix Spikes and Matrix Spike Duplicates performed on samples from other clients exhibited recoveries outside control limits for Total Kjeldahl Nitrogen (TKN) Method 351.2. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

Case Narrative

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Job ID: 280-147625-1 (Continued)

Laboratory: Eurofins TestAmerica, Denver (Continued)

All other MS and MSD samples were within established control limits.

Organics

The prepreserved hydrochloric acid preserved vials for Method 8260B analysis for the sample VLF-210416-6 exhibited a pH value greater than 2. This is non-compliant with Method 8260B which requires samples to be preserved with hydrochloric acid to a pH of less than 2.

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Detection Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210416-1

Lab Sample ID: 280-147625-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.0	J	10	1.9	ug/L	1		8260B	Total/NA
Chloroform	0.64		0.50	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: VLF-210416-2

Lab Sample ID: 280-147625-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.24	J	0.50	0.17	ug/L	1		8260B	Total/NA
Arsenic	17		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	87000		200	78	ug/L	1		6010B	Dissolved
Iron	7600		100	22	ug/L	1		6010B	Dissolved
Magnesium	37000		200	26	ug/L	1		6010B	Dissolved
Manganese	9500		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	36000		1000	370	ug/L	1		6010B	Dissolved
Chloride	14		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	460		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	480		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	32		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-210416-3

Lab Sample ID: 280-147625-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	11		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	24000		200	78	ug/L	1		6010B	Dissolved
Iron	210		100	22	ug/L	1		6010B	Dissolved
Magnesium	8400		200	26	ug/L	1		6010B	Dissolved
Manganese	460		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	26000		1000	370	ug/L	1		6010B	Dissolved
Chloride	6.3		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	200		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	21		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-210416-4

Lab Sample ID: 280-147625-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	0.30	J	0.50	0.16	ug/L	1		8260B	Total/NA
Arsenic	0.76		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	64000		200	78	ug/L	1		6010B	Dissolved
Iron	30	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	30000		200	26	ug/L	1		6010B	Dissolved
Manganese	360		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	220000		1000	370	ug/L	1		6010B	Dissolved
Chloride	200		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	180		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	870		20	9.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-210416-5

Lab Sample ID: 280-147625-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	110000		200	78	ug/L	1		6010B	Dissolved
Magnesium	45000		200	26	ug/L	1		6010B	Dissolved
Manganese	26		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	39000		1000	370	ug/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210416-5 (Continued)

Lab Sample ID: 280-147625-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	51		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	360		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	630		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-210416-6

Lab Sample ID: 280-147625-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	1.0		0.50	0.16	ug/L	1		8260B	Total/NA
4-Methyl-2-pentanone (MIBK)	1.1	J	5.0	0.98	ug/L	1		8260B	Total/NA
Acetone	5.0	J	10	1.9	ug/L	1		8260B	Total/NA
Benzene	0.31	J	0.50	0.16	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.29	J	0.50	0.15	ug/L	1		8260B	Total/NA
Ethylbenzene	0.30	J	0.50	0.16	ug/L	1		8260B	Total/NA
Isopropylbenzene	0.69	J	1.0	0.19	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	0.18	J	0.50	0.15	ug/L	1		8260B	Total/NA
Naphthalene	5.5		1.0	0.22	ug/L	1		8260B	Total/NA
Toluene	0.49	J	0.50	0.17	ug/L	1		8260B	Total/NA
Arsenic	31		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	190000		200	78	ug/L	1		6010B	Dissolved
Iron	9500		100	22	ug/L	1		6010B	Dissolved
Magnesium	150000		200	26	ug/L	1		6010B	Dissolved
Manganese	3200		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	1100000		10000	3700	ug/L	10		6010B	Dissolved
Chloride	1800		150	51	mg/L	50		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	2200		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	4400		100	47	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-210416-7

Lab Sample ID: 280-147625-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.74		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	100000		200	78	ug/L	1		6010B	Dissolved
Iron	25	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	46000		200	26	ug/L	1		6010B	Dissolved
Sodium	100000		1000	370	ug/L	1		6010B	Dissolved
Chloride	120		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	420		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	690		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-210416-8

Lab Sample ID: 280-147625-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.98		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	27000		200	78	ug/L	1		6010B	Dissolved
Magnesium	10000		200	26	ug/L	1		6010B	Dissolved
Sodium	100000		1000	370	ug/L	1		6010B	Dissolved
Chloride	90		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	180		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	430		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	1.6	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210416-9

Lab Sample ID: 280-147625-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	32		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	31000		200	78	ug/L	1		6010B	Dissolved
Iron	520		100	22	ug/L	1		6010B	Dissolved
Magnesium	13000		200	26	ug/L	1		6010B	Dissolved
Manganese	930		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	24000		1000	370	ug/L	1		6010B	Dissolved
Chloride	21		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	230		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	42		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-210416-10

Lab Sample ID: 280-147625-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	33		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	32000		200	78	ug/L	1		6010B	Dissolved
Iron	540		100	22	ug/L	1		6010B	Dissolved
Magnesium	13000		200	26	ug/L	1		6010B	Dissolved
Manganese	930		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	24000		1000	370	ug/L	1		6010B	Dissolved
Chloride	21		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	230		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	13		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-147625-11

No Detections.

Client Sample ID: VLF-210416-11

Lab Sample ID: 280-147625-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.65		0.50	0.22	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.58		0.50	0.16	ug/L	1		8260B	Total/NA
Calcium	320000		200	78	ug/L	1		6010B	Dissolved
Magnesium	150000		200	26	ug/L	1		6010B	Dissolved
Manganese	65		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	33000		1000	370	ug/L	1		6010B	Dissolved
Chloride	550		30	10	mg/L	10		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	640		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1500		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-210416-12

Lab Sample ID: 280-147625-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	160000		200	78	ug/L	1		6010B	Dissolved
Magnesium	55000		200	26	ug/L	1		6010B	Dissolved
Manganese	83		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	36000		1000	370	ug/L	1		6010B	Dissolved
Chloride	110		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	510		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	770		10	4.7	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210417-13

Lab Sample ID: 280-147625-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	210000		200	78	ug/L	1		6010B	Dissolved
Magnesium	89000		200	26	ug/L	1		6010B	Dissolved
Manganese	27		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	30000		1000	370	ug/L	1		6010B	Dissolved
Chloride	38		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	780		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	850		20	9.4	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	13		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-210417-14

Lab Sample ID: 280-147625-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	250000		200	78	ug/L	1		6010B	Dissolved
Iron	27	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	110000		200	26	ug/L	1		6010B	Dissolved
Manganese	30		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	39000		1000	370	ug/L	1		6010B	Dissolved
Chloride	100		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	910		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1200		20	9.4	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	1.6	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-210417-15

Lab Sample ID: 280-147625-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,3-Trichlorobenzene	0.90	J	1.0	0.21	ug/L	1		8260B	Total/NA
1,2,4-Trichlorobenzene	0.74	J	1.0	0.21	ug/L	1		8260B	Total/NA
1,2-Dichlorobenzene	0.25	J	0.50	0.15	ug/L	1		8260B	Total/NA
1,4-Dichlorobenzene	0.30	J	0.50	0.16	ug/L	1		8260B	Total/NA
Bromomethane	0.31	J	0.50	0.21	ug/L	1		8260B	Total/NA
Carbon disulfide	0.32	J	2.0	0.17	ug/L	1		8260B	Total/NA
Naphthalene	0.91	J	1.0	0.22	ug/L	1		8260B	Total/NA
n-Butylbenzene	0.35	J	1.0	0.14	ug/L	1		8260B	Total/NA
Calcium	42000		200	78	ug/L	1		6010B	Dissolved
Magnesium	18000		200	26	ug/L	1		6010B	Dissolved
Sodium	19000		1000	370	ug/L	1		6010B	Dissolved
Chloride	52		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	270		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	1.2	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-210417-16

Lab Sample ID: 280-147625-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.6		0.50	0.20	ug/L	1		8260B	Total/NA
Arsenic	0.56		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	24000		200	78	ug/L	1		6010B	Dissolved
Iron	41	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	11000		200	26	ug/L	1		6010B	Dissolved
Sodium	22000		1000	370	ug/L	1		6010B	Dissolved
Chloride	14		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	130		10	3.1	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210417-16 (Continued)

Lab Sample ID: 280-147625-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	200		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-210417-17

Lab Sample ID: 280-147625-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	2.9		0.50	0.15	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.88		0.50	0.20	ug/L	1		8260B	Total/NA
Trichloroethene	1.4		0.50	0.16	ug/L	1		8260B	Total/NA
Arsenic	1.3		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	63000		200	78	ug/L	1		6010B	Dissolved
Iron	700		100	22	ug/L	1		6010B	Dissolved
Magnesium	31000		200	26	ug/L	1		6010B	Dissolved
Manganese	630		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	36000		1000	370	ug/L	1		6010B	Dissolved
Chloride	38		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	300		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	390		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	8.8		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-210417-18

Lab Sample ID: 280-147625-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.63		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	29000		200	78	ug/L	1		6010B	Dissolved
Magnesium	12000		200	26	ug/L	1		6010B	Dissolved
Sodium	24000		1000	370	ug/L	1		6010B	Dissolved
Chloride	7.1		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	210		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-210417-19

Lab Sample ID: 280-147625-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.68		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	27000		200	78	ug/L	1		6010B	Dissolved
Iron	110		100	22	ug/L	1		6010B	Dissolved
Magnesium	12000		200	26	ug/L	1		6010B	Dissolved
Sodium	24000		1000	370	ug/L	1		6010B	Dissolved
Chloride	7.1		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	210		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-147625-21

No Detections.

Client Sample ID: VLF-210417-20

Lab Sample ID: 280-147625-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	31000		200	78	ug/L	1		6010B	Dissolved
Iron	34	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	15000		200	26	ug/L	1		6010B	Dissolved
Sodium	27000		1000	370	ug/L	1		6010B	Dissolved
Chloride	11		3.0	1.0	mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210417-20 (Continued)

Lab Sample ID: 280-147625-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	220		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-210418-21

Lab Sample ID: 280-147625-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	35000		200	78	ug/L	1		6010B	Dissolved
Iron	31	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	19000		200	26	ug/L	1		6010B	Dissolved
Sodium	10000		1000	370	ug/L	1		6010B	Dissolved
Chloride	12		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	130		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	220		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-210418-22

Lab Sample ID: 280-147625-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	18000		200	78	ug/L	1		6010B	Dissolved
Iron	22	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	8400		200	26	ug/L	1		6010B	Dissolved
Manganese	7.0		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	7200		1000	370	ug/L	1		6010B	Dissolved
Chloride	3.1		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	82		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	120		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-210418-23

Lab Sample ID: 280-147625-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	20000		200	78	ug/L	1		6010B	Dissolved
Iron	74	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	8500		200	26	ug/L	1		6010B	Dissolved
Manganese	14		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	8000		1000	370	ug/L	1		6010B	Dissolved
Chloride	8.6		3.0	1.0	mg/L	1		300.0	Total/NA
Biochemical Oxygen Demand	0.40	J *	2.5	0.30	mg/L	1		SM5210B	Total/NA

Client Sample ID: VLF-210418-24

Lab Sample ID: 280-147625-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	20000		200	78	ug/L	1		6010B	Dissolved
Iron	41	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	8200		200	26	ug/L	1		6010B	Dissolved
Manganese	12		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	7900		1000	370	ug/L	1		6010B	Dissolved
Chloride	10		3.0	1.0	mg/L	1		300.0	Total/NA

Client Sample ID: VLF-210418-25

Lab Sample ID: 280-147625-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	20000		200	78	ug/L	1		6010B	Dissolved
Iron	48	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	8400		200	26	ug/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210418-25 (Continued)

Lab Sample ID: 280-147625-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	12		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	8200		1000	370	ug/L	1		6010B	Dissolved
Chloride	9.3		3.0	1.0	mg/L	1		300.0	Total/NA

Client Sample ID: VLF-210418-26

Lab Sample ID: 280-147625-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	20000		200	78	ug/L	1		6010B	Dissolved
Iron	42	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	8400		200	26	ug/L	1		6010B	Dissolved
Manganese	12		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	8200		1000	370	ug/L	1		6010B	Dissolved
Chloride	9.3		3.0	1.0	mg/L	1		300.0	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-147625-29

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Method Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
200.8	Metals (ICP/MS)	EPA	TAL DEN
6010B	Dissolved Metals	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
365.1	Phosphorus, Ortho	EPA	TAL DEN
365.1	Phosphorus, Total	EPA	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
200.8	Preparation, Total Metals	EPA	TAL DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
365.2/365.3/365	Phosphorus, Total	MCAWW	TAL DEN
5030B	Purge and Trap	SW846	TAL DEN

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
280-147625-1	VLf-210416-1	Water	04/16/21 08:15	04/20/21 10:40	
280-147625-2	VLf-210416-2	Water	04/16/21 09:15	04/20/21 10:40	
280-147625-3	VLf-210416-3	Water	04/16/21 10:15	04/20/21 10:40	
280-147625-4	VLf-210416-4	Water	04/16/21 11:05	04/20/21 10:40	
280-147625-5	VLf-210416-5	Water	04/16/21 11:30	04/20/21 10:40	
280-147625-6	VLf-210416-6	Water	04/16/21 12:10	04/20/21 10:40	
280-147625-7	VLf-210416-7	Water	04/16/21 12:40	04/20/21 10:40	
280-147625-8	VLf-210416-8	Water	04/16/21 13:20	04/20/21 10:40	
280-147625-9	VLf-210416-9	Water	04/16/21 14:25	04/20/21 10:40	
280-147625-10	VLf-210416-10	Water	04/16/21 14:30	04/20/21 10:40	
280-147625-11	TRIP BLANK	Water	04/16/21 08:15	04/20/21 10:40	
280-147625-12	VLf-210416-11	Water	04/16/21 15:25	04/20/21 10:40	
280-147625-13	VLf-210416-12	Water	04/16/21 16:15	04/20/21 10:40	
280-147625-14	VLf-210417-13	Water	04/17/21 09:00	04/20/21 10:40	
280-147625-15	VLf-210417-14	Water	04/17/21 09:45	04/20/21 10:40	
280-147625-16	VLf-210417-15	Water	04/17/21 10:28	04/20/21 10:40	
280-147625-17	VLf-210417-16	Water	04/17/21 11:30	04/20/21 10:40	
280-147625-18	VLf-210417-17	Water	04/17/21 12:15	04/20/21 10:40	
280-147625-19	VLf-210417-18	Water	04/17/21 13:10	04/20/21 10:40	
280-147625-20	VLf-210417-19	Water	04/17/21 13:15	04/20/21 10:40	
280-147625-21	TRIP BLANK	Water	04/17/21 09:00	04/20/21 10:40	
280-147625-22	VLf-210417-20	Water	04/17/21 14:25	04/20/21 10:40	
280-147625-23	VLf-210418-21	Water	04/18/21 11:50	04/20/21 10:40	
280-147625-24	VLf-210418-22	Water	04/18/21 12:55	04/20/21 10:40	
280-147625-25	VLf-210418-23	Water	04/18/21 14:08	04/20/21 10:40	
280-147625-26	VLf-210418-24	Water	04/18/21 15:00	04/20/21 10:40	
280-147625-27	VLf-210418-25	Water	04/18/21 15:50	04/20/21 10:40	
280-147625-28	VLf-210418-26	Water	04/18/21 15:55	04/20/21 10:40	
280-147625-29	TRIP BLANK	Water	04/18/21 11:50	04/20/21 10:40	

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-210416-1

Date Collected: 04/16/21 08:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/28/21 23:44	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/28/21 23:44	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/28/21 23:44	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/28/21 23:44	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/28/21 23:44	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/28/21 23:44	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/28/21 23:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/28/21 23:44	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/28/21 23:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/28/21 23:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/28/21 23:44	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/28/21 23:44	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/28/21 23:44	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/28/21 23:44	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/28/21 23:44	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/28/21 23:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/28/21 23:44	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/28/21 23:44	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/28/21 23:44	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/28/21 23:44	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/28/21 23:44	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/28/21 23:44	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/28/21 23:44	1
2-Hexanone	ND		5.0	1.7	ug/L			04/28/21 23:44	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/28/21 23:44	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/28/21 23:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/28/21 23:44	1
Acetone	4.0	J	10	1.9	ug/L			04/28/21 23:44	1
Benzene	ND		0.50	0.16	ug/L			04/28/21 23:44	1
Bromobenzene	ND		1.0	0.17	ug/L			04/28/21 23:44	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/28/21 23:44	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/28/21 23:44	1
Bromoform	ND		0.50	0.46	ug/L			04/28/21 23:44	1
Bromomethane	ND		0.50	0.21	ug/L			04/28/21 23:44	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/28/21 23:44	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/28/21 23:44	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/28/21 23:44	1
Chloroethane	ND		0.50	0.41	ug/L			04/28/21 23:44	1
Chloroform	0.64		0.50	0.16	ug/L			04/28/21 23:44	1
Chloromethane	ND		0.50	0.30	ug/L			04/28/21 23:44	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/28/21 23:44	1
cis-1,3-Dichloropropane	ND		0.50	0.16	ug/L			04/28/21 23:44	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/28/21 23:44	1
Dibromomethane	ND		0.50	0.17	ug/L			04/28/21 23:44	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/28/21 23:44	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/28/21 23:44	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/28/21 23:44	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/28/21 23:44	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/28/21 23:44	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-1

Date Collected: 04/16/21 08:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/28/21 23:44	1
Naphthalene	ND		1.0	0.22	ug/L			04/28/21 23:44	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/28/21 23:44	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/28/21 23:44	1
o-Xylene	ND		0.50	0.19	ug/L			04/28/21 23:44	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/28/21 23:44	1
Styrene	ND		0.50	0.36	ug/L			04/28/21 23:44	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/28/21 23:44	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/28/21 23:44	1
Toluene	ND		0.50	0.17	ug/L			04/28/21 23:44	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/28/21 23:44	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/28/21 23:44	1
Trichloroethene	ND		0.50	0.16	ug/L			04/28/21 23:44	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/28/21 23:44	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/28/21 23:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 127					04/28/21 23:44	1
4-Bromofluorobenzene (Surr)	109		78 - 120					04/28/21 23:44	1
Dibromofluoromethane (Surr)	96		77 - 120					04/28/21 23:44	1
Toluene-d8 (Surr)	106		80 - 125					04/28/21 23:44	1

Client Sample ID: VLF-210416-2

Date Collected: 04/16/21 09:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 00:07	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 00:07	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 00:07	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 00:07	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 00:07	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 00:07	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 00:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 00:07	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 00:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 00:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 00:07	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 00:07	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 00:07	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 00:07	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 00:07	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 00:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 00:07	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 00:07	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 00:07	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/29/21 00:07	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 00:07	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 00:07	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 00:07	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 00:07	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-2

Date Collected: 04/16/21 09:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 00:07	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 00:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 00:07	1
Acetone	ND		10	1.9	ug/L			04/29/21 00:07	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 00:07	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 00:07	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 00:07	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 00:07	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 00:07	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 00:07	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 00:07	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 00:07	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 00:07	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 00:07	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 00:07	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 00:07	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 00:07	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 00:07	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 00:07	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 00:07	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 00:07	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 00:07	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 00:07	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 00:07	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 00:07	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 00:07	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 00:07	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 00:07	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 00:07	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 00:07	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 00:07	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 00:07	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 00:07	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 00:07	1
Toluene	0.24	J	0.50	0.17	ug/L			04/29/21 00:07	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 00:07	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 00:07	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 00:07	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 00:07	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127		04/29/21 00:07	1
4-Bromofluorobenzene (Surr)	108		78 - 120		04/29/21 00:07	1
Dibromofluoromethane (Surr)	99		77 - 120		04/29/21 00:07	1
Toluene-d8 (Surr)	105		80 - 125		04/29/21 00:07	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-210416-3
Date Collected: 04/16/21 10:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 00:30	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 00:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 00:30	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 00:30	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 00:30	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 00:30	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 00:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 00:30	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 00:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 00:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 00:30	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 00:30	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 00:30	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 00:30	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 00:30	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 00:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 00:30	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 00:30	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 00:30	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/29/21 00:30	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 00:30	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 00:30	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 00:30	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 00:30	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 00:30	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 00:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 00:30	1
Acetone	ND		10	1.9	ug/L			04/29/21 00:30	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 00:30	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 00:30	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 00:30	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 00:30	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 00:30	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 00:30	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 00:30	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 00:30	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 00:30	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 00:30	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 00:30	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 00:30	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 00:30	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 00:30	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 00:30	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 00:30	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 00:30	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 00:30	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 00:30	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 00:30	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 00:30	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-3

Date Collected: 04/16/21 10:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 00:30	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 00:30	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 00:30	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 00:30	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 00:30	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 00:30	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 00:30	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 00:30	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 00:30	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 00:30	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 00:30	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 00:30	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 00:30	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 00:30	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 00:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 127					04/29/21 00:30	1
4-Bromofluorobenzene (Surr)	110		78 - 120					04/29/21 00:30	1
Dibromofluoromethane (Surr)	97		77 - 120					04/29/21 00:30	1
Toluene-d8 (Surr)	105		80 - 125					04/29/21 00:30	1

Client Sample ID: VLF-210416-4

Date Collected: 04/16/21 11:05

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 00:53	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 00:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 00:53	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 00:53	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 00:53	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 00:53	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 00:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 00:53	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 00:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 00:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 00:53	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 00:53	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 00:53	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 00:53	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 00:53	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 00:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 00:53	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 00:53	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 00:53	1
1,4-Dichlorobenzene	0.30	J	0.50	0.16	ug/L			04/29/21 00:53	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 00:53	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 00:53	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 00:53	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 00:53	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-4

Date Collected: 04/16/21 11:05

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 00:53	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 00:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 00:53	1
Acetone	ND		10	1.9	ug/L			04/29/21 00:53	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 00:53	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 00:53	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 00:53	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 00:53	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 00:53	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 00:53	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 00:53	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 00:53	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 00:53	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 00:53	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 00:53	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 00:53	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 00:53	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 00:53	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 00:53	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 00:53	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 00:53	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 00:53	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 00:53	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 00:53	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 00:53	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 00:53	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 00:53	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 00:53	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 00:53	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 00:53	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 00:53	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 00:53	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 00:53	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 00:53	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 00:53	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 00:53	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 00:53	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 00:53	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 00:53	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 00:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127		04/29/21 00:53	1
4-Bromofluorobenzene (Surr)	111		78 - 120		04/29/21 00:53	1
Dibromofluoromethane (Surr)	98		77 - 120		04/29/21 00:53	1
Toluene-d8 (Surr)	105		80 - 125		04/29/21 00:53	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-210416-6

Date Collected: 04/16/21 12:10

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 01:16	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 01:16	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 01:16	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 01:16	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 01:16	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 01:16	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 01:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 01:16	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 01:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 01:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 01:16	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 01:16	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 01:16	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 01:16	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 01:16	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 01:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 01:16	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 01:16	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 01:16	1
1,4-Dichlorobenzene	1.0		0.50	0.16	ug/L			04/29/21 01:16	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 01:16	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 01:16	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 01:16	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 01:16	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 01:16	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 01:16	1
4-Methyl-2-pentanone (MIBK)	1.1	J	5.0	0.98	ug/L			04/29/21 01:16	1
Acetone	5.0	J	10	1.9	ug/L			04/29/21 01:16	1
Benzene	0.31	J	0.50	0.16	ug/L			04/29/21 01:16	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 01:16	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 01:16	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 01:16	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 01:16	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 01:16	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 01:16	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 01:16	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 01:16	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 01:16	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 01:16	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 01:16	1
cis-1,2-Dichloroethene	0.29	J	0.50	0.15	ug/L			04/29/21 01:16	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 01:16	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 01:16	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 01:16	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 01:16	1
Ethylbenzene	0.30	J	0.50	0.16	ug/L			04/29/21 01:16	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 01:16	1
Isopropylbenzene	0.69	J	1.0	0.19	ug/L			04/29/21 01:16	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 01:16	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-6

Date Collected: 04/16/21 12:10

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	0.18	J	0.50	0.15	ug/L			04/29/21 01:16	1
Naphthalene	5.5		1.0	0.22	ug/L			04/29/21 01:16	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 01:16	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 01:16	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 01:16	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 01:16	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 01:16	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 01:16	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 01:16	1
Toluene	0.49	J	0.50	0.17	ug/L			04/29/21 01:16	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 01:16	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 01:16	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 01:16	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 01:16	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 01:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 127					04/29/21 01:16	1
4-Bromofluorobenzene (Surr)	111		78 - 120					04/29/21 01:16	1
Dibromofluoromethane (Surr)	97		77 - 120					04/29/21 01:16	1
Toluene-d8 (Surr)	106		80 - 125					04/29/21 01:16	1

Client Sample ID: VLF-210416-7

Date Collected: 04/16/21 12:40

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 01:39	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 01:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 01:39	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 01:39	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 01:39	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 01:39	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 01:39	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 01:39	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 01:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 01:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 01:39	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 01:39	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 01:39	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 01:39	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 01:39	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 01:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 01:39	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 01:39	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 01:39	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/29/21 01:39	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 01:39	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 01:39	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 01:39	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 01:39	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-7

Date Collected: 04/16/21 12:40

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 01:39	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 01:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 01:39	1
Acetone	ND		10	1.9	ug/L			04/29/21 01:39	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 01:39	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 01:39	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 01:39	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 01:39	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 01:39	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 01:39	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 01:39	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 01:39	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 01:39	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 01:39	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 01:39	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 01:39	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 01:39	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 01:39	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 01:39	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 01:39	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 01:39	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 01:39	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 01:39	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 01:39	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 01:39	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 01:39	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 01:39	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 01:39	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 01:39	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 01:39	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 01:39	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 01:39	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 01:39	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 01:39	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 01:39	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 01:39	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 01:39	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 01:39	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 01:39	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 01:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127		04/29/21 01:39	1
4-Bromofluorobenzene (Surr)	110		78 - 120		04/29/21 01:39	1
Dibromofluoromethane (Surr)	98		77 - 120		04/29/21 01:39	1
Toluene-d8 (Surr)	107		80 - 125		04/29/21 01:39	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-210416-8
Date Collected: 04/16/21 13:20
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 02:02	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 02:02	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 02:02	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 02:02	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 02:02	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 02:02	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 02:02	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 02:02	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 02:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 02:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 02:02	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 02:02	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 02:02	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 02:02	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 02:02	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 02:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 02:02	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 02:02	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 02:02	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/29/21 02:02	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 02:02	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 02:02	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 02:02	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 02:02	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 02:02	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 02:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 02:02	1
Acetone	ND		10	1.9	ug/L			04/29/21 02:02	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 02:02	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 02:02	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 02:02	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 02:02	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 02:02	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 02:02	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 02:02	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 02:02	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 02:02	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 02:02	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 02:02	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 02:02	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 02:02	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 02:02	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 02:02	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 02:02	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 02:02	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 02:02	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 02:02	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 02:02	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 02:02	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-8

Date Collected: 04/16/21 13:20

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 02:02	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 02:02	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 02:02	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 02:02	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 02:02	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 02:02	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 02:02	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 02:02	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 02:02	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 02:02	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 02:02	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 02:02	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 02:02	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 02:02	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 02:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127					04/29/21 02:02	1
4-Bromofluorobenzene (Surr)	109		78 - 120					04/29/21 02:02	1
Dibromofluoromethane (Surr)	98		77 - 120					04/29/21 02:02	1
Toluene-d8 (Surr)	108		80 - 125					04/29/21 02:02	1

Client Sample ID: VLF-210416-9

Date Collected: 04/16/21 14:25

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 02:25	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 02:25	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 02:25	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 02:25	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 02:25	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 02:25	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 02:25	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 02:25	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 02:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 02:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 02:25	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 02:25	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 02:25	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 02:25	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 02:25	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 02:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 02:25	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 02:25	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 02:25	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/29/21 02:25	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 02:25	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 02:25	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 02:25	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 02:25	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-9

Date Collected: 04/16/21 14:25

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 02:25	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 02:25	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 02:25	1
Acetone	ND		10	1.9	ug/L			04/29/21 02:25	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 02:25	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 02:25	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 02:25	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 02:25	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 02:25	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 02:25	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 02:25	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 02:25	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 02:25	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 02:25	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 02:25	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 02:25	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 02:25	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 02:25	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 02:25	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 02:25	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 02:25	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 02:25	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 02:25	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 02:25	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 02:25	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 02:25	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 02:25	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 02:25	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 02:25	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 02:25	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 02:25	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 02:25	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 02:25	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 02:25	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 02:25	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 02:25	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 02:25	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 02:25	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 02:25	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 02:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127		04/29/21 02:25	1
4-Bromofluorobenzene (Surr)	111		78 - 120		04/29/21 02:25	1
Dibromofluoromethane (Surr)	97		77 - 120		04/29/21 02:25	1
Toluene-d8 (Surr)	104		80 - 125		04/29/21 02:25	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-210416-10

Date Collected: 04/16/21 14:30

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 02:48	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 02:48	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 02:48	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 02:48	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 02:48	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 02:48	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 02:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 02:48	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 02:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 02:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 02:48	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 02:48	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 02:48	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 02:48	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 02:48	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 02:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 02:48	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 02:48	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 02:48	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/29/21 02:48	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 02:48	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 02:48	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 02:48	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 02:48	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 02:48	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 02:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 02:48	1
Acetone	ND		10	1.9	ug/L			04/29/21 02:48	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 02:48	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 02:48	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 02:48	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 02:48	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 02:48	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 02:48	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 02:48	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 02:48	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 02:48	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 02:48	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 02:48	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 02:48	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 02:48	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 02:48	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 02:48	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 02:48	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 02:48	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 02:48	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 02:48	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 02:48	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 02:48	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-10

Date Collected: 04/16/21 14:30

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 02:48	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 02:48	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 02:48	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 02:48	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 02:48	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 02:48	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 02:48	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 02:48	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 02:48	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 02:48	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 02:48	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 02:48	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 02:48	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 02:48	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 02:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					04/29/21 02:48	1
4-Bromofluorobenzene (Surr)	110		78 - 120					04/29/21 02:48	1
Dibromofluoromethane (Surr)	98		77 - 120					04/29/21 02:48	1
Toluene-d8 (Surr)	107		80 - 125					04/29/21 02:48	1

Client Sample ID: TRIP BLANK

Date Collected: 04/16/21 08:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 03:11	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 03:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 03:11	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 03:11	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 03:11	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 03:11	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 03:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 03:11	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 03:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 03:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 03:11	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 03:11	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 03:11	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 03:11	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 03:11	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 03:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 03:11	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 03:11	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 03:11	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/29/21 03:11	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 03:11	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 03:11	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 03:11	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 03:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 04/16/21 08:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 03:11	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 03:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 03:11	1
Acetone	ND		10	1.9	ug/L			04/29/21 03:11	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 03:11	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 03:11	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 03:11	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 03:11	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 03:11	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 03:11	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 03:11	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 03:11	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 03:11	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 03:11	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 03:11	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 03:11	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 03:11	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 03:11	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 03:11	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 03:11	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 03:11	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 03:11	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 03:11	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 03:11	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 03:11	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 03:11	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 03:11	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 03:11	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 03:11	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 03:11	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 03:11	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 03:11	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 03:11	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 03:11	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 03:11	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 03:11	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 03:11	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 03:11	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 03:11	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 03:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127		04/29/21 03:11	1
4-Bromofluorobenzene (Surr)	109		78 - 120		04/29/21 03:11	1
Dibromofluoromethane (Surr)	98		77 - 120		04/29/21 03:11	1
Toluene-d8 (Surr)	106		80 - 125		04/29/21 03:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-210416-11

Date Collected: 04/16/21 15:25

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 03:34	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 03:34	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 03:34	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 03:34	1
1,1-Dichloroethane	0.65		0.50	0.22	ug/L			04/29/21 03:34	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 03:34	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 03:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 03:34	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 03:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 03:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 03:34	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 03:34	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 03:34	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 03:34	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 03:34	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 03:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 03:34	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 03:34	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 03:34	1
1,4-Dichlorobenzene	0.58		0.50	0.16	ug/L			04/29/21 03:34	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 03:34	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 03:34	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 03:34	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 03:34	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 03:34	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 03:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 03:34	1
Acetone	ND		10	1.9	ug/L			04/29/21 03:34	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 03:34	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 03:34	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 03:34	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 03:34	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 03:34	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 03:34	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 03:34	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 03:34	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 03:34	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 03:34	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 03:34	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 03:34	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 03:34	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 03:34	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 03:34	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 03:34	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 03:34	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 03:34	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 03:34	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 03:34	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 03:34	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-11

Date Collected: 04/16/21 15:25

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 03:34	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 03:34	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 03:34	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 03:34	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 03:34	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 03:34	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 03:34	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 03:34	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 03:34	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 03:34	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 03:34	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 03:34	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 03:34	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 03:34	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 03:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127					04/29/21 03:34	1
4-Bromofluorobenzene (Surr)	110		78 - 120					04/29/21 03:34	1
Dibromofluoromethane (Surr)	98		77 - 120					04/29/21 03:34	1
Toluene-d8 (Surr)	106		80 - 125					04/29/21 03:34	1

Client Sample ID: VLF-210416-12

Date Collected: 04/16/21 16:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 03:57	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 03:57	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 03:57	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 03:57	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 03:57	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 03:57	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 03:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 03:57	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 03:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 03:57	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 03:57	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 03:57	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 03:57	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 03:57	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 03:57	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 03:57	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 03:57	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 03:57	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 03:57	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/29/21 03:57	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 03:57	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 03:57	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 03:57	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 03:57	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210416-12

Date Collected: 04/16/21 16:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 03:57	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 03:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 03:57	1
Acetone	ND		10	1.9	ug/L			04/29/21 03:57	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 03:57	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 03:57	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 03:57	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 03:57	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 03:57	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 03:57	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 03:57	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 03:57	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 03:57	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 03:57	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 03:57	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 03:57	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 03:57	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 03:57	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 03:57	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 03:57	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 03:57	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 03:57	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 03:57	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 03:57	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 03:57	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 03:57	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 03:57	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 03:57	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 03:57	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 03:57	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 03:57	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 03:57	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 03:57	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 03:57	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 03:57	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 03:57	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 03:57	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 03:57	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 03:57	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 03:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 127		04/29/21 03:57	1
4-Bromofluorobenzene (Surr)	109		78 - 120		04/29/21 03:57	1
Dibromofluoromethane (Surr)	98		77 - 120		04/29/21 03:57	1
Toluene-d8 (Surr)	103		80 - 125		04/29/21 03:57	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-210417-13

Date Collected: 04/17/21 09:00

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 04:20	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 04:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 04:20	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 04:20	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 04:20	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 04:20	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 04:20	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 04:20	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 04:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 04:20	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 04:20	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 04:20	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 04:20	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 04:20	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 04:20	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 04:20	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 04:20	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 04:20	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 04:20	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/29/21 04:20	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 04:20	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 04:20	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 04:20	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 04:20	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 04:20	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 04:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 04:20	1
Acetone	ND		10	1.9	ug/L			04/29/21 04:20	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 04:20	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 04:20	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 04:20	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 04:20	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 04:20	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 04:20	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 04:20	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 04:20	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 04:20	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 04:20	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 04:20	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 04:20	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 04:20	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 04:20	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 04:20	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 04:20	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 04:20	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 04:20	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 04:20	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 04:20	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 04:20	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-13

Date Collected: 04/17/21 09:00

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 04:20	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 04:20	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 04:20	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 04:20	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 04:20	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 04:20	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 04:20	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 04:20	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 04:20	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 04:20	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 04:20	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 04:20	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 04:20	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 04:20	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 04:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127					04/29/21 04:20	1
4-Bromofluorobenzene (Surr)	111		78 - 120					04/29/21 04:20	1
Dibromofluoromethane (Surr)	99		77 - 120					04/29/21 04:20	1
Toluene-d8 (Surr)	106		80 - 125					04/29/21 04:20	1

Client Sample ID: VLF-210417-14

Date Collected: 04/17/21 09:45

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 04:42	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/29/21 04:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/29/21 04:42	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/29/21 04:42	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/29/21 04:42	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/29/21 04:42	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 04:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 04:42	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/29/21 04:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/29/21 04:42	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/29/21 04:42	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/29/21 04:42	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/29/21 04:42	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/29/21 04:42	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/29/21 04:42	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/29/21 04:42	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/29/21 04:42	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/29/21 04:42	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/29/21 04:42	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/29/21 04:42	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/29/21 04:42	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/29/21 04:42	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/29/21 04:42	1
2-Hexanone	ND		5.0	1.7	ug/L			04/29/21 04:42	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-14
Date Collected: 04/17/21 09:45
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/29/21 04:42	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/29/21 04:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/29/21 04:42	1
Acetone	ND		10	1.9	ug/L			04/29/21 04:42	1
Benzene	ND		0.50	0.16	ug/L			04/29/21 04:42	1
Bromobenzene	ND		1.0	0.17	ug/L			04/29/21 04:42	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/29/21 04:42	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/29/21 04:42	1
Bromoform	ND		0.50	0.46	ug/L			04/29/21 04:42	1
Bromomethane	ND		0.50	0.21	ug/L			04/29/21 04:42	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/29/21 04:42	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/29/21 04:42	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/29/21 04:42	1
Chloroethane	ND		0.50	0.41	ug/L			04/29/21 04:42	1
Chloroform	ND		0.50	0.16	ug/L			04/29/21 04:42	1
Chloromethane	ND		0.50	0.30	ug/L			04/29/21 04:42	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 04:42	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/29/21 04:42	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/29/21 04:42	1
Dibromomethane	ND		0.50	0.17	ug/L			04/29/21 04:42	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/29/21 04:42	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/29/21 04:42	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/29/21 04:42	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/29/21 04:42	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/29/21 04:42	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/29/21 04:42	1
Naphthalene	ND		1.0	0.22	ug/L			04/29/21 04:42	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/29/21 04:42	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/29/21 04:42	1
o-Xylene	ND		0.50	0.19	ug/L			04/29/21 04:42	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/29/21 04:42	1
Styrene	ND		0.50	0.36	ug/L			04/29/21 04:42	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/29/21 04:42	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/29/21 04:42	1
Toluene	ND		0.50	0.17	ug/L			04/29/21 04:42	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/29/21 04:42	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/29/21 04:42	1
Trichloroethene	ND		0.50	0.16	ug/L			04/29/21 04:42	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/29/21 04:42	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/29/21 04:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127		04/29/21 04:42	1
4-Bromofluorobenzene (Surr)	109		78 - 120		04/29/21 04:42	1
Dibromofluoromethane (Surr)	100		77 - 120		04/29/21 04:42	1
Toluene-d8 (Surr)	106		80 - 125		04/29/21 04:42	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-210417-15

Date Collected: 04/17/21 10:28

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 03:44	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/30/21 03:44	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 03:44	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/30/21 03:44	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/30/21 03:44	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/30/21 03:44	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 03:44	1
1,2,3-Trichlorobenzene	0.90	J	1.0	0.21	ug/L			04/30/21 03:44	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/30/21 03:44	1
1,2,4-Trichlorobenzene	0.74	J	1.0	0.21	ug/L			04/30/21 03:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/30/21 03:44	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/30/21 03:44	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/30/21 03:44	1
1,2-Dichlorobenzene	0.25	J	0.50	0.15	ug/L			04/30/21 03:44	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/30/21 03:44	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/30/21 03:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/30/21 03:44	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/30/21 03:44	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/30/21 03:44	1
1,4-Dichlorobenzene	0.30	J	0.50	0.16	ug/L			04/30/21 03:44	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/30/21 03:44	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/30/21 03:44	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/30/21 03:44	1
2-Hexanone	ND		5.0	1.7	ug/L			04/30/21 03:44	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/30/21 03:44	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/30/21 03:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/30/21 03:44	1
Acetone	ND		10	1.9	ug/L			04/30/21 03:44	1
Benzene	ND		0.50	0.16	ug/L			04/30/21 03:44	1
Bromobenzene	ND		1.0	0.17	ug/L			04/30/21 03:44	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/30/21 03:44	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/30/21 03:44	1
Bromoform	ND		0.50	0.46	ug/L			04/30/21 03:44	1
Bromomethane	0.31	J	0.50	0.21	ug/L			04/30/21 03:44	1
Carbon disulfide	0.32	J	2.0	0.17	ug/L			04/30/21 03:44	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/30/21 03:44	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/30/21 03:44	1
Chloroethane	ND		0.50	0.41	ug/L			04/30/21 03:44	1
Chloroform	ND		0.50	0.16	ug/L			04/30/21 03:44	1
Chloromethane	ND		0.50	0.30	ug/L			04/30/21 03:44	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 03:44	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/30/21 03:44	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/30/21 03:44	1
Dibromomethane	ND		0.50	0.17	ug/L			04/30/21 03:44	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/30/21 03:44	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/30/21 03:44	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/30/21 03:44	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/30/21 03:44	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/30/21 03:44	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-15

Date Collected: 04/17/21 10:28

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.91	J	1.0	0.22	ug/L			04/30/21 03:44	1
n-Butylbenzene	0.35	J	1.0	0.14	ug/L			04/30/21 03:44	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/30/21 03:44	1
o-Xylene	ND		0.50	0.19	ug/L			04/30/21 03:44	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/30/21 03:44	1
Styrene	ND		0.50	0.36	ug/L			04/30/21 03:44	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/30/21 03:44	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/30/21 03:44	1
Toluene	ND		0.50	0.17	ug/L			04/30/21 03:44	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 03:44	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 03:44	1
Trichloroethene	ND		0.50	0.16	ug/L			04/30/21 03:44	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/30/21 03:44	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/30/21 03:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127					04/30/21 03:44	1
4-Bromofluorobenzene (Surr)	110		78 - 120					04/30/21 03:44	1
Dibromofluoromethane (Surr)	97		77 - 120					04/30/21 03:44	1
Toluene-d8 (Surr)	105		80 - 125					04/30/21 03:44	1

Client Sample ID: VLF-210417-16

Date Collected: 04/17/21 11:30

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 04:07	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/30/21 04:07	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 04:07	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/30/21 04:07	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/30/21 04:07	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/30/21 04:07	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 04:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 04:07	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/30/21 04:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 04:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/30/21 04:07	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/30/21 04:07	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/30/21 04:07	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/30/21 04:07	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/30/21 04:07	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/30/21 04:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/30/21 04:07	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/30/21 04:07	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/30/21 04:07	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/30/21 04:07	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/30/21 04:07	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/30/21 04:07	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/30/21 04:07	1
2-Hexanone	ND		5.0	1.7	ug/L			04/30/21 04:07	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/30/21 04:07	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-16

Date Collected: 04/17/21 11:30

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/30/21 04:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/30/21 04:07	1
Acetone	ND		10	1.9	ug/L			04/30/21 04:07	1
Benzene	ND		0.50	0.16	ug/L			04/30/21 04:07	1
Bromobenzene	ND		1.0	0.17	ug/L			04/30/21 04:07	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/30/21 04:07	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/30/21 04:07	1
Bromoform	ND		0.50	0.46	ug/L			04/30/21 04:07	1
Bromomethane	ND		0.50	0.21	ug/L			04/30/21 04:07	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/30/21 04:07	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/30/21 04:07	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/30/21 04:07	1
Chloroethane	ND		0.50	0.41	ug/L			04/30/21 04:07	1
Chloroform	ND		0.50	0.16	ug/L			04/30/21 04:07	1
Chloromethane	ND		0.50	0.30	ug/L			04/30/21 04:07	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 04:07	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/30/21 04:07	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/30/21 04:07	1
Dibromomethane	ND		0.50	0.17	ug/L			04/30/21 04:07	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/30/21 04:07	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/30/21 04:07	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/30/21 04:07	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/30/21 04:07	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/30/21 04:07	1
Naphthalene	ND		1.0	0.22	ug/L			04/30/21 04:07	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/30/21 04:07	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/30/21 04:07	1
o-Xylene	ND		0.50	0.19	ug/L			04/30/21 04:07	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/30/21 04:07	1
Styrene	ND		0.50	0.36	ug/L			04/30/21 04:07	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/30/21 04:07	1
Tetrachloroethene	1.6		0.50	0.20	ug/L			04/30/21 04:07	1
Toluene	ND		0.50	0.17	ug/L			04/30/21 04:07	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 04:07	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 04:07	1
Trichloroethene	ND		0.50	0.16	ug/L			04/30/21 04:07	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/30/21 04:07	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/30/21 04:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 127		04/30/21 04:07	1
4-Bromofluorobenzene (Surr)	111		78 - 120		04/30/21 04:07	1
Dibromofluoromethane (Surr)	98		77 - 120		04/30/21 04:07	1
Toluene-d8 (Surr)	106		80 - 125		04/30/21 04:07	1

Client Sample ID: VLF-210417-17

Date Collected: 04/17/21 12:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-18

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 04:30	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-17

Date Collected: 04/17/21 12:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-18

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/30/21 04:30	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 04:30	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/30/21 04:30	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/30/21 04:30	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/30/21 04:30	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 04:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 04:30	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/30/21 04:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 04:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/30/21 04:30	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/30/21 04:30	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/30/21 04:30	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/30/21 04:30	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/30/21 04:30	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/30/21 04:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/30/21 04:30	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/30/21 04:30	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/30/21 04:30	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/30/21 04:30	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/30/21 04:30	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/30/21 04:30	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/30/21 04:30	1
2-Hexanone	ND		5.0	1.7	ug/L			04/30/21 04:30	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/30/21 04:30	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/30/21 04:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/30/21 04:30	1
Acetone	ND		10	1.9	ug/L			04/30/21 04:30	1
Benzene	ND		0.50	0.16	ug/L			04/30/21 04:30	1
Bromobenzene	ND		1.0	0.17	ug/L			04/30/21 04:30	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/30/21 04:30	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/30/21 04:30	1
Bromoform	ND		0.50	0.46	ug/L			04/30/21 04:30	1
Bromomethane	ND		0.50	0.21	ug/L			04/30/21 04:30	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/30/21 04:30	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/30/21 04:30	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/30/21 04:30	1
Chloroethane	ND		0.50	0.41	ug/L			04/30/21 04:30	1
Chloroform	ND		0.50	0.16	ug/L			04/30/21 04:30	1
Chloromethane	ND		0.50	0.30	ug/L			04/30/21 04:30	1
cis-1,2-Dichloroethene	2.9		0.50	0.15	ug/L			04/30/21 04:30	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/30/21 04:30	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/30/21 04:30	1
Dibromomethane	ND		0.50	0.17	ug/L			04/30/21 04:30	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/30/21 04:30	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/30/21 04:30	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/30/21 04:30	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/30/21 04:30	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/30/21 04:30	1
Naphthalene	ND		1.0	0.22	ug/L			04/30/21 04:30	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-17

Date Collected: 04/17/21 12:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-18

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		1.0	0.14	ug/L			04/30/21 04:30	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/30/21 04:30	1
o-Xylene	ND		0.50	0.19	ug/L			04/30/21 04:30	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/30/21 04:30	1
Styrene	ND		0.50	0.36	ug/L			04/30/21 04:30	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/30/21 04:30	1
Tetrachloroethene	0.88		0.50	0.20	ug/L			04/30/21 04:30	1
Toluene	ND		0.50	0.17	ug/L			04/30/21 04:30	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 04:30	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 04:30	1
Trichloroethene	1.4		0.50	0.16	ug/L			04/30/21 04:30	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/30/21 04:30	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/30/21 04:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 127					04/30/21 04:30	1
4-Bromofluorobenzene (Surr)	109		78 - 120					04/30/21 04:30	1
Dibromofluoromethane (Surr)	98		77 - 120					04/30/21 04:30	1
Toluene-d8 (Surr)	105		80 - 125					04/30/21 04:30	1

Client Sample ID: VLF-210417-18

Date Collected: 04/17/21 13:10

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-19

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 04:53	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/30/21 04:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 04:53	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/30/21 04:53	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/30/21 04:53	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/30/21 04:53	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 04:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 04:53	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/30/21 04:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 04:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/30/21 04:53	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/30/21 04:53	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/30/21 04:53	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/30/21 04:53	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/30/21 04:53	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/30/21 04:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/30/21 04:53	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/30/21 04:53	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/30/21 04:53	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/30/21 04:53	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/30/21 04:53	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/30/21 04:53	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/30/21 04:53	1
2-Hexanone	ND		5.0	1.7	ug/L			04/30/21 04:53	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/30/21 04:53	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/30/21 04:53	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-18

Date Collected: 04/17/21 13:10

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-19

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/30/21 04:53	1
Acetone	ND		10	1.9	ug/L			04/30/21 04:53	1
Benzene	ND		0.50	0.16	ug/L			04/30/21 04:53	1
Bromobenzene	ND		1.0	0.17	ug/L			04/30/21 04:53	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/30/21 04:53	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/30/21 04:53	1
Bromoform	ND		0.50	0.46	ug/L			04/30/21 04:53	1
Bromomethane	ND		0.50	0.21	ug/L			04/30/21 04:53	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/30/21 04:53	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/30/21 04:53	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/30/21 04:53	1
Chloroethane	ND		0.50	0.41	ug/L			04/30/21 04:53	1
Chloroform	ND		0.50	0.16	ug/L			04/30/21 04:53	1
Chloromethane	ND		0.50	0.30	ug/L			04/30/21 04:53	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 04:53	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/30/21 04:53	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/30/21 04:53	1
Dibromomethane	ND		0.50	0.17	ug/L			04/30/21 04:53	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/30/21 04:53	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/30/21 04:53	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/30/21 04:53	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/30/21 04:53	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/30/21 04:53	1
Naphthalene	ND		1.0	0.22	ug/L			04/30/21 04:53	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/30/21 04:53	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/30/21 04:53	1
o-Xylene	ND		0.50	0.19	ug/L			04/30/21 04:53	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/30/21 04:53	1
Styrene	ND		0.50	0.36	ug/L			04/30/21 04:53	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/30/21 04:53	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/30/21 04:53	1
Toluene	ND		0.50	0.17	ug/L			04/30/21 04:53	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 04:53	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 04:53	1
Trichloroethene	ND		0.50	0.16	ug/L			04/30/21 04:53	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/30/21 04:53	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/30/21 04:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127		04/30/21 04:53	1
4-Bromofluorobenzene (Surr)	109		78 - 120		04/30/21 04:53	1
Dibromofluoromethane (Surr)	99		77 - 120		04/30/21 04:53	1
Toluene-d8 (Surr)	105		80 - 125		04/30/21 04:53	1

Client Sample ID: VLF-210417-19

Date Collected: 04/17/21 13:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 05:16	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/30/21 05:16	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-19

Date Collected: 04/17/21 13:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 05:16	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/30/21 05:16	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/30/21 05:16	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/30/21 05:16	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 05:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 05:16	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/30/21 05:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 05:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/30/21 05:16	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/30/21 05:16	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/30/21 05:16	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/30/21 05:16	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/30/21 05:16	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/30/21 05:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/30/21 05:16	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/30/21 05:16	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/30/21 05:16	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/30/21 05:16	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/30/21 05:16	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/30/21 05:16	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/30/21 05:16	1
2-Hexanone	ND		5.0	1.7	ug/L			04/30/21 05:16	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/30/21 05:16	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/30/21 05:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/30/21 05:16	1
Acetone	ND		10	1.9	ug/L			04/30/21 05:16	1
Benzene	ND		0.50	0.16	ug/L			04/30/21 05:16	1
Bromobenzene	ND		1.0	0.17	ug/L			04/30/21 05:16	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/30/21 05:16	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/30/21 05:16	1
Bromoform	ND		0.50	0.46	ug/L			04/30/21 05:16	1
Bromomethane	ND		0.50	0.21	ug/L			04/30/21 05:16	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/30/21 05:16	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/30/21 05:16	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/30/21 05:16	1
Chloroethane	ND		0.50	0.41	ug/L			04/30/21 05:16	1
Chloroform	ND		0.50	0.16	ug/L			04/30/21 05:16	1
Chloromethane	ND		0.50	0.30	ug/L			04/30/21 05:16	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 05:16	1
cis-1,3-Dichloropropane	ND		0.50	0.16	ug/L			04/30/21 05:16	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/30/21 05:16	1
Dibromomethane	ND		0.50	0.17	ug/L			04/30/21 05:16	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/30/21 05:16	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/30/21 05:16	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/30/21 05:16	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/30/21 05:16	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/30/21 05:16	1
Naphthalene	ND		1.0	0.22	ug/L			04/30/21 05:16	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/30/21 05:16	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-19

Date Collected: 04/17/21 13:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.0	0.16	ug/L			04/30/21 05:16	1
o-Xylene	ND		0.50	0.19	ug/L			04/30/21 05:16	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/30/21 05:16	1
Styrene	ND		0.50	0.36	ug/L			04/30/21 05:16	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/30/21 05:16	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/30/21 05:16	1
Toluene	ND		0.50	0.17	ug/L			04/30/21 05:16	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 05:16	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 05:16	1
Trichloroethene	ND		0.50	0.16	ug/L			04/30/21 05:16	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/30/21 05:16	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/30/21 05:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127					04/30/21 05:16	1
4-Bromofluorobenzene (Surr)	110		78 - 120					04/30/21 05:16	1
Dibromofluoromethane (Surr)	99		77 - 120					04/30/21 05:16	1
Toluene-d8 (Surr)	104		80 - 125					04/30/21 05:16	1

Client Sample ID: TRIP BLANK

Date Collected: 04/17/21 09:00

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-21

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 05:38	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/30/21 05:38	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 05:38	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/30/21 05:38	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/30/21 05:38	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/30/21 05:38	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 05:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 05:38	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/30/21 05:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 05:38	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/30/21 05:38	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/30/21 05:38	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/30/21 05:38	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/30/21 05:38	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/30/21 05:38	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/30/21 05:38	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/30/21 05:38	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/30/21 05:38	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/30/21 05:38	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/30/21 05:38	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/30/21 05:38	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/30/21 05:38	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/30/21 05:38	1
2-Hexanone	ND		5.0	1.7	ug/L			04/30/21 05:38	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/30/21 05:38	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/30/21 05:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/30/21 05:38	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 04/17/21 09:00
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-21
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			04/30/21 05:38	1
Benzene	ND		0.50	0.16	ug/L			04/30/21 05:38	1
Bromobenzene	ND		1.0	0.17	ug/L			04/30/21 05:38	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/30/21 05:38	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/30/21 05:38	1
Bromoform	ND		0.50	0.46	ug/L			04/30/21 05:38	1
Bromomethane	ND		0.50	0.21	ug/L			04/30/21 05:38	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/30/21 05:38	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/30/21 05:38	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/30/21 05:38	1
Chloroethane	ND		0.50	0.41	ug/L			04/30/21 05:38	1
Chloroform	ND		0.50	0.16	ug/L			04/30/21 05:38	1
Chloromethane	ND		0.50	0.30	ug/L			04/30/21 05:38	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 05:38	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/30/21 05:38	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/30/21 05:38	1
Dibromomethane	ND		0.50	0.17	ug/L			04/30/21 05:38	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/30/21 05:38	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/30/21 05:38	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/30/21 05:38	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/30/21 05:38	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/30/21 05:38	1
Naphthalene	ND		1.0	0.22	ug/L			04/30/21 05:38	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/30/21 05:38	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/30/21 05:38	1
o-Xylene	ND		0.50	0.19	ug/L			04/30/21 05:38	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/30/21 05:38	1
Styrene	ND		0.50	0.36	ug/L			04/30/21 05:38	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/30/21 05:38	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/30/21 05:38	1
Toluene	ND		0.50	0.17	ug/L			04/30/21 05:38	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 05:38	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 05:38	1
Trichloroethene	ND		0.50	0.16	ug/L			04/30/21 05:38	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/30/21 05:38	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/30/21 05:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 127		04/30/21 05:38	1
4-Bromofluorobenzene (Surr)	110		78 - 120		04/30/21 05:38	1
Dibromofluoromethane (Surr)	98		77 - 120		04/30/21 05:38	1
Toluene-d8 (Surr)	104		80 - 125		04/30/21 05:38	1

Client Sample ID: VLF-210417-20
Date Collected: 04/17/21 14:25
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 09:56	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/30/21 09:56	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 09:56	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-20

Date Collected: 04/17/21 14:25

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-22

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/30/21 09:56	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/30/21 09:56	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/30/21 09:56	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 09:56	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 09:56	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/30/21 09:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 09:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/30/21 09:56	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/30/21 09:56	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/30/21 09:56	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/30/21 09:56	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/30/21 09:56	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/30/21 09:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/30/21 09:56	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/30/21 09:56	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/30/21 09:56	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/30/21 09:56	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/30/21 09:56	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/30/21 09:56	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/30/21 09:56	1
2-Hexanone	ND		5.0	1.7	ug/L			04/30/21 09:56	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/30/21 09:56	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/30/21 09:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/30/21 09:56	1
Acetone	ND		10	1.9	ug/L			04/30/21 09:56	1
Benzene	ND		0.50	0.16	ug/L			04/30/21 09:56	1
Bromobenzene	ND		1.0	0.17	ug/L			04/30/21 09:56	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/30/21 09:56	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/30/21 09:56	1
Bromoform	ND		0.50	0.46	ug/L			04/30/21 09:56	1
Bromomethane	ND		0.50	0.21	ug/L			04/30/21 09:56	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/30/21 09:56	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/30/21 09:56	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/30/21 09:56	1
Chloroethane	ND		0.50	0.41	ug/L			04/30/21 09:56	1
Chloroform	ND		0.50	0.16	ug/L			04/30/21 09:56	1
Chloromethane	ND		0.50	0.30	ug/L			04/30/21 09:56	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 09:56	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/30/21 09:56	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/30/21 09:56	1
Dibromomethane	ND		0.50	0.17	ug/L			04/30/21 09:56	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/30/21 09:56	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/30/21 09:56	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/30/21 09:56	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/30/21 09:56	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/30/21 09:56	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/30/21 09:56	1
Naphthalene	ND		1.0	0.22	ug/L			04/30/21 09:56	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/30/21 09:56	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-210417-20

Date Collected: 04/17/21 14:25

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-22

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.0	0.16	ug/L			04/30/21 09:56	1
o-Xylene	ND		0.50	0.19	ug/L			04/30/21 09:56	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/30/21 09:56	1
Styrene	ND		0.50	0.36	ug/L			04/30/21 09:56	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/30/21 09:56	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/30/21 09:56	1
Toluene	ND		0.50	0.17	ug/L			04/30/21 09:56	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 09:56	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 09:56	1
Trichloroethene	ND		0.50	0.16	ug/L			04/30/21 09:56	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/30/21 09:56	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/30/21 09:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127					04/30/21 09:56	1
4-Bromofluorobenzene (Surr)	97		78 - 120					04/30/21 09:56	1
Dibromofluoromethane (Surr)	106		77 - 120					04/30/21 09:56	1
Toluene-d8 (Surr)	91		80 - 125					04/30/21 09:56	1

Client Sample ID: TRIP BLANK

Date Collected: 04/18/21 11:50

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-29

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 11:28	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/30/21 11:28	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 11:28	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/30/21 11:28	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/30/21 11:28	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/30/21 11:28	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 11:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 11:28	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/30/21 11:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 11:28	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/30/21 11:28	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/30/21 11:28	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/30/21 11:28	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/30/21 11:28	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/30/21 11:28	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/30/21 11:28	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/30/21 11:28	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/30/21 11:28	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/30/21 11:28	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/30/21 11:28	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/30/21 11:28	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/30/21 11:28	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/30/21 11:28	1
2-Hexanone	ND		5.0	1.7	ug/L			04/30/21 11:28	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/30/21 11:28	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/30/21 11:28	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/30/21 11:28	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 04/18/21 11:50
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-29
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			04/30/21 11:28	1
Benzene	ND		0.50	0.16	ug/L			04/30/21 11:28	1
Bromobenzene	ND		1.0	0.17	ug/L			04/30/21 11:28	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/30/21 11:28	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/30/21 11:28	1
Bromoform	ND		0.50	0.46	ug/L			04/30/21 11:28	1
Bromomethane	ND		0.50	0.21	ug/L			04/30/21 11:28	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/30/21 11:28	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/30/21 11:28	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/30/21 11:28	1
Chloroethane	ND		0.50	0.41	ug/L			04/30/21 11:28	1
Chloroform	ND		0.50	0.16	ug/L			04/30/21 11:28	1
Chloromethane	ND		0.50	0.30	ug/L			04/30/21 11:28	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 11:28	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/30/21 11:28	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/30/21 11:28	1
Dibromomethane	ND		0.50	0.17	ug/L			04/30/21 11:28	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/30/21 11:28	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/30/21 11:28	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/30/21 11:28	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/30/21 11:28	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/30/21 11:28	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/30/21 11:28	1
Naphthalene	ND		1.0	0.22	ug/L			04/30/21 11:28	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/30/21 11:28	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/30/21 11:28	1
o-Xylene	ND		0.50	0.19	ug/L			04/30/21 11:28	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/30/21 11:28	1
Styrene	ND		0.50	0.36	ug/L			04/30/21 11:28	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/30/21 11:28	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/30/21 11:28	1
Toluene	ND		0.50	0.17	ug/L			04/30/21 11:28	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 11:28	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 11:28	1
Trichloroethene	ND		0.50	0.16	ug/L			04/30/21 11:28	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/30/21 11:28	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/30/21 11:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 127					04/30/21 11:28	1
4-Bromofluorobenzene (Surr)	95		78 - 120					04/30/21 11:28	1
Dibromofluoromethane (Surr)	107		77 - 120					04/30/21 11:28	1
Toluene-d8 (Surr)	90		80 - 125					04/30/21 11:28	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Client Sample ID: VLF-210417-15

Date Collected: 04/17/21 10:28

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/30/21 23:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					04/30/21 23:59	1
4-Bromofluorobenzene (Surr)	102		78 - 120					04/30/21 23:59	1
Dibromofluoromethane (Surr)	101		77 - 120					04/30/21 23:59	1
Toluene-d8 (Surr)	100		80 - 125					04/30/21 23:59	1

Client Sample ID: VLF-210417-16

Date Collected: 04/17/21 11:30

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			05/01/21 00:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127					05/01/21 00:22	1
4-Bromofluorobenzene (Surr)	102		78 - 120					05/01/21 00:22	1
Dibromofluoromethane (Surr)	99		77 - 120					05/01/21 00:22	1
Toluene-d8 (Surr)	100		80 - 125					05/01/21 00:22	1

Client Sample ID: VLF-210417-17

Date Collected: 04/17/21 12:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-18

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			05/01/21 00:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					05/01/21 00:45	1
4-Bromofluorobenzene (Surr)	100		78 - 120					05/01/21 00:45	1
Dibromofluoromethane (Surr)	100		77 - 120					05/01/21 00:45	1
Toluene-d8 (Surr)	101		80 - 125					05/01/21 00:45	1

Client Sample ID: VLF-210417-18

Date Collected: 04/17/21 13:10

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-19

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			05/01/21 01:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 127					05/01/21 01:08	1
4-Bromofluorobenzene (Surr)	101		78 - 120					05/01/21 01:08	1
Dibromofluoromethane (Surr)	100		77 - 120					05/01/21 01:08	1
Toluene-d8 (Surr)	99		80 - 125					05/01/21 01:08	1

Client Sample ID: VLF-210417-19

Date Collected: 04/17/21 13:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			05/01/21 01:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127					05/01/21 01:31	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA (Continued)

Client Sample ID: VLF-210417-19
Date Collected: 04/17/21 13:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-20
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		78 - 120		05/01/21 01:31	1
Dibromofluoromethane (Surr)	100		77 - 120		05/01/21 01:31	1
Toluene-d8 (Surr)	102		80 - 125		05/01/21 01:31	1

Client Sample ID: TRIP BLANK
Date Collected: 04/17/21 09:00
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-21
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			05/01/21 01:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 127		05/01/21 01:54	1
4-Bromofluorobenzene (Surr)	101		78 - 120		05/01/21 01:54	1
Dibromofluoromethane (Surr)	101		77 - 120		05/01/21 01:54	1
Toluene-d8 (Surr)	102		80 - 125		05/01/21 01:54	1

Method: 200.8 - Metals (ICP/MS)

Client Sample ID: VLF-210416-2
Date Collected: 04/16/21 09:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 00:26	1

Client Sample ID: VLF-210416-3
Date Collected: 04/16/21 10:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 00:43	1

Client Sample ID: VLF-210416-4
Date Collected: 04/16/21 11:05
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.76		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 00:47	1

Client Sample ID: VLF-210416-6
Date Collected: 04/16/21 12:10
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	31		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 00:50	1

Client Sample ID: VLF-210416-7
Date Collected: 04/16/21 12:40
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.74		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 00:54	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 200.8 - Metals (ICP/MS)

Client Sample ID: VLF-210416-8 **Lab Sample ID: 280-147625-8**
Date Collected: 04/16/21 13:20 **Matrix: Water**
Date Received: 04/20/21 10:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.98		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 00:57	1

Client Sample ID: VLF-210416-9 **Lab Sample ID: 280-147625-9**
Date Collected: 04/16/21 14:25 **Matrix: Water**
Date Received: 04/20/21 10:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	32		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 01:01	1

Client Sample ID: VLF-210416-10 **Lab Sample ID: 280-147625-10**
Date Collected: 04/16/21 14:30 **Matrix: Water**
Date Received: 04/20/21 10:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	33		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 01:04	1

Client Sample ID: VLF-210416-11 **Lab Sample ID: 280-147625-12**
Date Collected: 04/16/21 15:25 **Matrix: Water**
Date Received: 04/20/21 10:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.50	ug/L		04/29/21 09:41	04/29/21 23:22	1

Client Sample ID: VLF-210416-12 **Lab Sample ID: 280-147625-13**
Date Collected: 04/16/21 16:15 **Matrix: Water**
Date Received: 04/20/21 10:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.50	ug/L		04/29/21 09:41	04/29/21 23:33	1

Client Sample ID: VLF-210417-13 **Lab Sample ID: 280-147625-14**
Date Collected: 04/17/21 09:00 **Matrix: Water**
Date Received: 04/20/21 10:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.50	ug/L		04/29/21 09:41	04/29/21 23:36	1

Client Sample ID: VLF-210417-14 **Lab Sample ID: 280-147625-15**
Date Collected: 04/17/21 09:45 **Matrix: Water**
Date Received: 04/20/21 10:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.50	ug/L		04/29/21 09:41	04/29/21 23:47	1

Client Sample ID: VLF-210417-15 **Lab Sample ID: 280-147625-16**
Date Collected: 04/17/21 10:28 **Matrix: Water**
Date Received: 04/20/21 10:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.50	ug/L		04/29/21 09:41	04/29/21 23:50	1

Client Sample ID: VLF-210417-16 **Lab Sample ID: 280-147625-17**
Date Collected: 04/17/21 11:30 **Matrix: Water**
Date Received: 04/20/21 10:40

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.56		0.50	0.50	ug/L		04/29/21 09:41	04/29/21 23:54	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 200.8 - Metals (ICP/MS)

Client Sample ID: VLF-210417-17
Date Collected: 04/17/21 12:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.3		0.50	0.50	ug/L		04/29/21 09:41	04/29/21 23:57	1

Client Sample ID: VLF-210417-18
Date Collected: 04/17/21 13:10
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-19
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.63		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 00:01	1

Client Sample ID: VLF-210417-19
Date Collected: 04/17/21 13:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-20
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.68		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 00:04	1

Client Sample ID: VLF-210417-20
Date Collected: 04/17/21 14:25
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 00:08	1

Method: 6010B - Dissolved Metals - Dissolved

Client Sample ID: VLF-210416-2
Date Collected: 04/16/21 09:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	87000		200	78	ug/L		04/29/21 16:00	04/30/21 12:16	1
Iron	7600		100	22	ug/L		04/29/21 16:00	04/30/21 12:16	1
Magnesium	37000		200	26	ug/L		04/29/21 16:00	04/30/21 12:16	1
Manganese	9500		5.0	1.9	ug/L		04/29/21 16:00	04/30/21 12:16	1
Sodium	36000		1000	370	ug/L		04/29/21 16:00	04/30/21 12:16	1

Client Sample ID: VLF-210416-3
Date Collected: 04/16/21 10:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	24000		200	78	ug/L		04/29/21 16:00	04/30/21 12:20	1
Iron	210		100	22	ug/L		04/29/21 16:00	04/30/21 12:20	1
Magnesium	8400		200	26	ug/L		04/29/21 16:00	04/30/21 12:20	1
Manganese	460		5.0	1.9	ug/L		04/29/21 16:00	04/30/21 12:20	1
Sodium	26000		1000	370	ug/L		04/29/21 16:00	04/30/21 12:20	1

Client Sample ID: VLF-210416-4
Date Collected: 04/16/21 11:05
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	64000		200	78	ug/L		04/29/21 16:00	04/30/21 12:23	1
Iron	30	J	100	22	ug/L		04/29/21 16:00	04/30/21 12:23	1
Magnesium	30000		200	26	ug/L		04/29/21 16:00	04/30/21 12:23	1
Manganese	360		5.0	1.9	ug/L		04/29/21 16:00	04/30/21 12:23	1
Sodium	220000		1000	370	ug/L		04/29/21 16:00	04/30/21 12:23	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 6010B - Dissolved Metals - Dissolved

Client Sample ID: VLF-210416-5

Date Collected: 04/16/21 11:30

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		200	78	ug/L		04/29/21 16:00	04/30/21 12:26	1
Iron	ND		100	22	ug/L		04/29/21 16:00	04/30/21 12:26	1
Magnesium	45000		200	26	ug/L		04/29/21 16:00	04/30/21 12:26	1
Manganese	26		5.0	1.9	ug/L		04/29/21 16:00	04/30/21 12:26	1
Sodium	39000		1000	370	ug/L		04/29/21 16:00	04/30/21 12:26	1

Client Sample ID: VLF-210416-6

Date Collected: 04/16/21 12:10

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	190000		200	78	ug/L		04/29/21 16:00	04/30/21 12:30	1
Iron	9500		100	22	ug/L		04/29/21 16:00	04/30/21 12:30	1
Magnesium	150000		200	26	ug/L		04/29/21 16:00	04/30/21 12:30	1
Manganese	3200		5.0	1.9	ug/L		04/29/21 16:00	04/30/21 12:30	1
Sodium	1100000		10000	3700	ug/L		04/29/21 16:00	05/05/21 09:12	10

Client Sample ID: VLF-210416-7

Date Collected: 04/16/21 12:40

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000		200	78	ug/L		04/29/21 16:00	04/30/21 12:33	1
Iron	25	J	100	22	ug/L		04/29/21 16:00	04/30/21 12:33	1
Magnesium	46000		200	26	ug/L		04/29/21 16:00	04/30/21 12:33	1
Manganese	ND		5.0	1.9	ug/L		04/29/21 16:00	04/30/21 12:33	1
Sodium	100000		1000	370	ug/L		04/29/21 16:00	04/30/21 12:33	1

Client Sample ID: VLF-210416-8

Date Collected: 04/16/21 13:20

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	27000		200	78	ug/L		04/29/21 16:00	04/30/21 12:36	1
Iron	ND		100	22	ug/L		04/29/21 16:00	04/30/21 12:36	1
Magnesium	10000		200	26	ug/L		04/29/21 16:00	04/30/21 12:36	1
Manganese	ND		5.0	1.9	ug/L		04/29/21 16:00	04/30/21 12:36	1
Sodium	100000		1000	370	ug/L		04/29/21 16:00	04/30/21 12:36	1

Client Sample ID: VLF-210416-9

Date Collected: 04/16/21 14:25

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	31000		200	78	ug/L		04/29/21 16:00	04/30/21 12:40	1
Iron	520		100	22	ug/L		04/29/21 16:00	04/30/21 12:40	1
Magnesium	13000		200	26	ug/L		04/29/21 16:00	04/30/21 12:40	1
Manganese	930		5.0	1.9	ug/L		04/29/21 16:00	04/30/21 12:40	1
Sodium	24000		1000	370	ug/L		04/29/21 16:00	04/30/21 12:40	1

Client Sample ID: VLF-210416-10

Date Collected: 04/16/21 14:30

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	32000		200	78	ug/L		04/29/21 16:00	04/30/21 12:43	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 6010B - Dissolved Metals - Dissolved (Continued)

Client Sample ID: VLF-210416-10
Date Collected: 04/16/21 14:30
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	540		100	22	ug/L		04/29/21 16:00	04/30/21 12:43	1
Magnesium	13000		200	26	ug/L		04/29/21 16:00	04/30/21 12:43	1
Manganese	930		5.0	1.9	ug/L		04/29/21 16:00	04/30/21 12:43	1
Sodium	24000		1000	370	ug/L		04/29/21 16:00	04/30/21 12:43	1

Client Sample ID: VLF-210416-11
Date Collected: 04/16/21 15:25
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	320000		200	78	ug/L		04/30/21 15:50	05/03/21 14:28	1
Iron	ND		100	22	ug/L		04/30/21 15:50	05/03/21 14:28	1
Magnesium	150000		200	26	ug/L		04/30/21 15:50	05/03/21 14:28	1
Manganese	65		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 14:28	1
Sodium	33000		1000	370	ug/L		04/30/21 15:50	05/03/21 14:28	1

Client Sample ID: VLF-210416-12
Date Collected: 04/16/21 16:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000		200	78	ug/L		04/30/21 15:50	05/03/21 14:42	1
Iron	ND		100	22	ug/L		04/30/21 15:50	05/03/21 14:42	1
Magnesium	55000		200	26	ug/L		04/30/21 15:50	05/03/21 14:42	1
Manganese	83		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 14:42	1
Sodium	36000		1000	370	ug/L		04/30/21 15:50	05/03/21 14:42	1

Client Sample ID: VLF-210417-13
Date Collected: 04/17/21 09:00
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	210000		200	78	ug/L		04/30/21 15:50	05/03/21 14:45	1
Iron	ND		100	22	ug/L		04/30/21 15:50	05/03/21 14:45	1
Magnesium	89000		200	26	ug/L		04/30/21 15:50	05/03/21 14:45	1
Manganese	27		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 14:45	1
Sodium	30000		1000	370	ug/L		04/30/21 15:50	05/03/21 14:45	1

Client Sample ID: VLF-210417-14
Date Collected: 04/17/21 09:45
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	250000		200	78	ug/L		04/30/21 15:50	05/03/21 15:03	1
Iron	27	J	100	22	ug/L		04/30/21 15:50	05/03/21 15:03	1
Magnesium	110000		200	26	ug/L		04/30/21 15:50	05/03/21 15:03	1
Manganese	30		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:03	1
Sodium	39000		1000	370	ug/L		04/30/21 15:50	05/03/21 15:03	1

Client Sample ID: VLF-210417-15
Date Collected: 04/17/21 10:28
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	42000		200	78	ug/L		04/30/21 15:50	05/03/21 15:06	1
Iron	ND		100	22	ug/L		04/30/21 15:50	05/03/21 15:06	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 6010B - Dissolved Metals - Dissolved (Continued)

Client Sample ID: VLF-210417-15
Date Collected: 04/17/21 10:28
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	18000		200	26	ug/L		04/30/21 15:50	05/03/21 15:06	1
Manganese	ND		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:06	1
Sodium	19000		1000	370	ug/L		04/30/21 15:50	05/03/21 15:06	1

Client Sample ID: VLF-210417-16
Date Collected: 04/17/21 11:30
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	24000		200	78	ug/L		04/30/21 15:50	05/03/21 15:10	1
Iron	41	J	100	22	ug/L		04/30/21 15:50	05/03/21 15:10	1
Magnesium	11000		200	26	ug/L		04/30/21 15:50	05/03/21 15:10	1
Manganese	ND		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:10	1
Sodium	22000		1000	370	ug/L		04/30/21 15:50	05/03/21 15:10	1

Client Sample ID: VLF-210417-17
Date Collected: 04/17/21 12:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	63000		200	78	ug/L		04/30/21 15:50	05/03/21 15:13	1
Iron	700		100	22	ug/L		04/30/21 15:50	05/03/21 15:13	1
Magnesium	31000		200	26	ug/L		04/30/21 15:50	05/03/21 15:13	1
Manganese	630		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:13	1
Sodium	36000		1000	370	ug/L		04/30/21 15:50	05/03/21 15:13	1

Client Sample ID: VLF-210417-18
Date Collected: 04/17/21 13:10
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-19
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	29000		200	78	ug/L		04/30/21 15:50	05/03/21 15:17	1
Iron	ND		100	22	ug/L		04/30/21 15:50	05/03/21 15:17	1
Magnesium	12000		200	26	ug/L		04/30/21 15:50	05/03/21 15:17	1
Manganese	ND		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:17	1
Sodium	24000		1000	370	ug/L		04/30/21 15:50	05/03/21 15:17	1

Client Sample ID: VLF-210417-19
Date Collected: 04/17/21 13:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-20
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	27000		200	78	ug/L		04/30/21 15:50	05/03/21 15:20	1
Iron	110		100	22	ug/L		04/30/21 15:50	05/03/21 15:20	1
Magnesium	12000		200	26	ug/L		04/30/21 15:50	05/03/21 15:20	1
Manganese	ND		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:20	1
Sodium	24000		1000	370	ug/L		04/30/21 15:50	05/03/21 15:20	1

Client Sample ID: VLF-210417-20
Date Collected: 04/17/21 14:25
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	31000		200	78	ug/L		04/30/21 15:50	05/03/21 15:24	1
Iron	34	J	100	22	ug/L		04/30/21 15:50	05/03/21 15:24	1
Magnesium	15000		200	26	ug/L		04/30/21 15:50	05/03/21 15:24	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 6010B - Dissolved Metals - Dissolved (Continued)

Client Sample ID: VLF-210417-20

Date Collected: 04/17/21 14:25

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-22

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:24	1
Sodium	27000		1000	370	ug/L		04/30/21 15:50	05/03/21 15:24	1

Client Sample ID: VLF-210418-21

Date Collected: 04/18/21 11:50

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-23

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	35000		200	78	ug/L		04/30/21 15:50	05/03/21 15:27	1
Iron	31	J	100	22	ug/L		04/30/21 15:50	05/03/21 15:27	1
Magnesium	19000		200	26	ug/L		04/30/21 15:50	05/03/21 15:27	1
Manganese	ND		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:27	1
Sodium	10000		1000	370	ug/L		04/30/21 15:50	05/03/21 15:27	1

Client Sample ID: VLF-210418-22

Date Collected: 04/18/21 12:55

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-24

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	18000		200	78	ug/L		04/30/21 15:50	05/03/21 15:45	1
Iron	22	J	100	22	ug/L		04/30/21 15:50	05/03/21 15:45	1
Magnesium	8400		200	26	ug/L		04/30/21 15:50	05/03/21 15:45	1
Manganese	7.0		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:45	1
Sodium	7200		1000	370	ug/L		04/30/21 15:50	05/03/21 15:45	1

Client Sample ID: VLF-210418-23

Date Collected: 04/18/21 14:08

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-25

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	20000		200	78	ug/L		04/30/21 15:50	05/03/21 15:48	1
Iron	74	J	100	22	ug/L		04/30/21 15:50	05/03/21 15:48	1
Magnesium	8500		200	26	ug/L		04/30/21 15:50	05/03/21 15:48	1
Manganese	14		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:48	1
Sodium	8000		1000	370	ug/L		04/30/21 15:50	05/03/21 15:48	1

Client Sample ID: VLF-210418-24

Date Collected: 04/18/21 15:00

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-26

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	20000		200	78	ug/L		04/30/21 15:50	05/03/21 15:52	1
Iron	41	J	100	22	ug/L		04/30/21 15:50	05/03/21 15:52	1
Magnesium	8200		200	26	ug/L		04/30/21 15:50	05/03/21 15:52	1
Manganese	12		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:52	1
Sodium	7900		1000	370	ug/L		04/30/21 15:50	05/03/21 15:52	1

Client Sample ID: VLF-210418-25

Date Collected: 04/18/21 15:50

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-27

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	20000		200	78	ug/L		04/30/21 15:50	05/03/21 15:55	1
Iron	48	J	100	22	ug/L		04/30/21 15:50	05/03/21 15:55	1
Magnesium	8400		200	26	ug/L		04/30/21 15:50	05/03/21 15:55	1
Manganese	12		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:55	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 6010B - Dissolved Metals - Dissolved (Continued)

Client Sample ID: VLF-210418-25

Date Collected: 04/18/21 15:50

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-27

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	8200		1000	370	ug/L		04/30/21 15:50	05/03/21 15:55	1

Client Sample ID: VLF-210418-26

Date Collected: 04/18/21 15:55

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-28

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	20000		200	78	ug/L		04/30/21 15:50	05/03/21 15:59	1
Iron	42	J	100	22	ug/L		04/30/21 15:50	05/03/21 15:59	1
Magnesium	8400		200	26	ug/L		04/30/21 15:50	05/03/21 15:59	1
Manganese	12		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 15:59	1
Sodium	8200		1000	370	ug/L		04/30/21 15:50	05/03/21 15:59	1

General Chemistry

Client Sample ID: VLF-210416-2

Date Collected: 04/16/21 09:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		3.0	1.0	mg/L			05/06/21 03:08	1
Bicarbonate Alkalinity as CaCO3	460		10	3.1	mg/L			04/23/21 17:17	1
Total Dissolved Solids	480		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	32		4.0	1.1	mg/L			04/21/21 10:54	1

Client Sample ID: VLF-210416-3

Date Collected: 04/16/21 10:15

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.3		3.0	1.0	mg/L			05/06/21 04:04	1
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L			04/23/21 17:23	1
Total Dissolved Solids	200		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	21		4.0	1.1	mg/L			04/21/21 10:54	1

Client Sample ID: VLF-210416-4

Date Collected: 04/16/21 11:05

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200		3.0	1.0	mg/L			05/06/21 04:18	1
Bicarbonate Alkalinity as CaCO3	180		10	3.1	mg/L			04/23/21 17:43	1
Total Dissolved Solids	870		20	9.4	mg/L			04/23/21 09:41	1
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 10:54	1

Client Sample ID: VLF-210416-5

Date Collected: 04/16/21 11:30

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	51		3.0	1.0	mg/L			05/06/21 04:32	1
Bicarbonate Alkalinity as CaCO3	360		10	3.1	mg/L			04/23/21 17:51	1
Total Dissolved Solids	630		10	4.7	mg/L			04/23/21 09:41	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

General Chemistry

Client Sample ID: VLF-210416-6

Date Collected: 04/16/21 12:10

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1800		150	51	mg/L			05/08/21 01:50	50
Bicarbonate Alkalinity as CaCO3	2200		10	3.1	mg/L			04/23/21 16:21	1
Total Dissolved Solids	4400		100	47	mg/L			04/23/21 09:41	1
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 10:54	1

Client Sample ID: VLF-210416-7

Date Collected: 04/16/21 12:40

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	120		3.0	1.0	mg/L			05/06/21 05:28	1
Bicarbonate Alkalinity as CaCO3	420		10	3.1	mg/L			04/23/21 17:59	1
Total Dissolved Solids	690		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 10:54	1

Client Sample ID: VLF-210416-8

Date Collected: 04/16/21 13:20

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	90		3.0	1.0	mg/L			05/06/21 05:42	1
Bicarbonate Alkalinity as CaCO3	180		10	3.1	mg/L			04/23/21 18:06	1
Total Dissolved Solids	430		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	1.6	J	4.0	1.1	mg/L			04/21/21 10:54	1

Client Sample ID: VLF-210416-9

Date Collected: 04/16/21 14:25

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		3.0	1.0	mg/L			05/06/21 05:56	1
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L			04/23/21 18:12	1
Total Dissolved Solids	230		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	42		4.0	1.1	mg/L			04/21/21 12:58	1

Client Sample ID: VLF-210416-10

Date Collected: 04/16/21 14:30

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		3.0	1.0	mg/L			05/06/21 06:10	1
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L			04/23/21 18:18	1
Total Dissolved Solids	230		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	13		4.0	1.1	mg/L			04/21/21 12:58	1

Client Sample ID: VLF-210416-11

Date Collected: 04/16/21 15:25

Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	550		30	10	mg/L			05/08/21 03:28	10
Bicarbonate Alkalinity as CaCO3	640		10	3.1	mg/L			04/23/21 18:28	1
Total Dissolved Solids	1500		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 12:58	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

General Chemistry

Client Sample ID: VLF-210416-12
Date Collected: 04/16/21 16:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		3.0	1.0	mg/L			05/06/21 06:38	1
Bicarbonate Alkalinity as CaCO3	510		10	3.1	mg/L			04/23/21 18:38	1
Total Dissolved Solids	770		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 12:58	1

Client Sample ID: VLF-210417-13
Date Collected: 04/17/21 09:00
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38		3.0	1.0	mg/L			05/06/21 06:52	1
Bicarbonate Alkalinity as CaCO3	780		10	3.1	mg/L			04/22/21 19:46	1
Total Dissolved Solids	850		20	9.4	mg/L			04/23/21 09:41	1
Total Suspended Solids	13		4.0	1.1	mg/L			04/21/21 12:58	1

Client Sample ID: VLF-210417-14
Date Collected: 04/17/21 09:45
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	100		3.0	1.0	mg/L			05/06/21 07:06	1
Bicarbonate Alkalinity as CaCO3	910		10	3.1	mg/L			04/22/21 19:59	1
Total Dissolved Solids	1200		20	9.4	mg/L			04/23/21 09:41	1
Total Suspended Solids	1.6	J	4.0	1.1	mg/L			04/21/21 12:58	1

Client Sample ID: VLF-210417-15
Date Collected: 04/17/21 10:28
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	52		3.0	1.0	mg/L			05/06/21 07:20	1
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L			04/22/21 20:05	1
Total Dissolved Solids	270		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	1.2	J	4.0	1.1	mg/L			04/21/21 12:58	1

Client Sample ID: VLF-210417-16
Date Collected: 04/17/21 11:30
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		3.0	1.0	mg/L			05/06/21 07:34	1
Bicarbonate Alkalinity as CaCO3	130		10	3.1	mg/L			04/23/21 18:44	1
Total Dissolved Solids	200		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 12:58	1

Client Sample ID: VLF-210417-17
Date Collected: 04/17/21 12:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38		3.0	1.0	mg/L			05/06/21 08:16	1
Bicarbonate Alkalinity as CaCO3	300		10	3.1	mg/L			04/23/21 18:51	1
Total Dissolved Solids	390		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	8.8		4.0	1.1	mg/L			04/21/21 12:58	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

General Chemistry

Client Sample ID: VLF-210417-18
Date Collected: 04/17/21 13:10
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-19
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.1		3.0	1.0	mg/L			05/06/21 08:30	1
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L			04/23/21 19:34	1
Total Dissolved Solids	210		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 14:43	1

Client Sample ID: VLF-210417-19
Date Collected: 04/17/21 13:15
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-20
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.1		3.0	1.0	mg/L			05/06/21 08:43	1
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L			04/23/21 19:46	1
Total Dissolved Solids	210		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 14:43	1

Client Sample ID: VLF-210417-20
Date Collected: 04/17/21 14:25
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		3.0	1.0	mg/L			05/06/21 08:57	1
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L			04/23/21 19:53	1
Total Dissolved Solids	220		10	4.7	mg/L			04/23/21 09:41	1
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 14:43	1

Client Sample ID: VLF-210418-21
Date Collected: 04/18/21 11:50
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-23
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		3.0	1.0	mg/L			05/06/21 09:11	1
Bicarbonate Alkalinity as CaCO3	130		10	3.1	mg/L			04/23/21 19:59	1
Total Dissolved Solids	220		10	4.7	mg/L			04/23/21 09:41	1

Client Sample ID: VLF-210418-22
Date Collected: 04/18/21 12:55
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-24
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.1		3.0	1.0	mg/L			05/06/21 09:25	1
Bicarbonate Alkalinity as CaCO3	82		10	3.1	mg/L			04/23/21 20:05	1
Total Dissolved Solids	120		10	4.7	mg/L			04/24/21 11:46	1

Client Sample ID: VLF-210418-23
Date Collected: 04/18/21 14:08
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-25
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.6		3.0	1.0	mg/L			05/06/21 09:39	1
Nitrogen, Kjeldahl	ND		0.70	0.69	mg/L		04/28/21 17:08	04/29/21 18:29	1
ortho-Phosphate	ND		0.050	0.018	mg/L			04/20/21 13:57	1
Phosphorus, Total	ND		0.050	0.025	mg/L		04/28/21 09:41	04/29/21 10:31	1
Biochemical Oxygen Demand	0.40	J *-	2.5	0.30	mg/L			04/20/21 12:55	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

General Chemistry

Client Sample ID: VLF-210418-24
Date Collected: 04/18/21 15:00
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-26
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		3.0	1.0	mg/L			05/06/21 09:53	1
Nitrogen, Kjeldahl	ND		0.70	0.69	mg/L		04/28/21 17:08	04/29/21 18:33	1
ortho-Phosphate	ND		0.050	0.018	mg/L			04/20/21 13:57	1
Phosphorus, Total	ND		0.050	0.025	mg/L		04/28/21 09:41	04/29/21 10:31	1
Biochemical Oxygen Demand	ND	*-	2.5	0.30	mg/L			04/20/21 12:55	1

Client Sample ID: VLF-210418-25
Date Collected: 04/18/21 15:50
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-27
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.3		3.0	1.0	mg/L			05/06/21 10:07	1
Nitrogen, Kjeldahl	ND		0.70	0.69	mg/L		04/28/21 17:08	04/29/21 18:56	1
ortho-Phosphate	ND		0.050	0.018	mg/L			04/20/21 13:57	1
Phosphorus, Total	ND		0.050	0.025	mg/L		04/28/21 09:41	04/29/21 10:32	1
Biochemical Oxygen Demand	ND	*-	2.5	0.30	mg/L			04/20/21 12:55	1

Client Sample ID: VLF-210418-26
Date Collected: 04/18/21 15:55
Date Received: 04/20/21 10:40

Lab Sample ID: 280-147625-28
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.3		3.0	1.0	mg/L			05/06/21 10:21	1
Nitrogen, Kjeldahl	ND		0.70	0.69	mg/L		04/28/21 17:08	04/29/21 18:54	1
ortho-Phosphate	ND		0.050	0.018	mg/L			04/20/21 13:58	1
Phosphorus, Total	ND		0.050	0.025	mg/L		04/28/21 09:41	04/29/21 10:32	1
Biochemical Oxygen Demand	ND	*-	2.5	0.30	mg/L			04/20/21 12:55	1

Surrogate Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
280-147625-1	VLF-210416-1	101	109	96	106
280-147625-2	VLF-210416-2	103	108	99	105
280-147625-3	VLF-210416-3	101	110	97	105
280-147625-4	VLF-210416-4	103	111	98	105
280-147625-6	VLF-210416-6	99	111	97	106
280-147625-7	VLF-210416-7	102	110	98	107
280-147625-8	VLF-210416-8	103	109	98	108
280-147625-9	VLF-210416-9	100	111	97	104
280-147625-10	VLF-210416-10	100	110	98	107
280-147625-11	TRIP BLANK	103	109	98	106
280-147625-12	VLF-210416-11	103	110	98	106
280-147625-13	VLF-210416-12	104	109	98	103
280-147625-14	VLF-210417-13	103	111	99	106
280-147625-15	VLF-210417-14	102	109	100	106
280-147625-16	VLF-210417-15	102	110	97	105
280-147625-16 - RA	VLF-210417-15	100	102	101	100
280-147625-17	VLF-210417-16	104	111	98	106
280-147625-17 - RA	VLF-210417-16	102	102	99	100
280-147625-18	VLF-210417-17	104	109	98	105
280-147625-18 - RA	VLF-210417-17	100	100	100	101
280-147625-19	VLF-210417-18	103	109	99	105
280-147625-19 - RA	VLF-210417-18	101	101	100	99
280-147625-20	VLF-210417-19	102	110	99	104
280-147625-20 - RA	VLF-210417-19	102	104	100	102
280-147625-21	TRIP BLANK	104	110	98	104
280-147625-21 - RA	TRIP BLANK	99	101	101	102
280-147625-22	VLF-210417-20	103	97	106	91
280-147625-29	TRIP BLANK	103	95	107	90
280-147692-C-2 MS	Matrix Spike	100	95	108	89
280-147692-D-2 MSD	Matrix Spike Duplicate	101	95	107	90
LCS 280-534251/4	Lab Control Sample	98	109	98	105
LCS 280-534384/4	Lab Control Sample	100	108	99	107
LCS 280-534400/5	Lab Control Sample	99	96	106	93
LCS 280-534570/4	Lab Control Sample	101	100	102	101
LCSD 280-534251/5	Lab Control Sample Dup	102	109	99	108
LCSD 280-534384/5	Lab Control Sample Dup	100	108	99	106
LCSD 280-534400/6	Lab Control Sample Dup	97	95	106	92
LCSD 280-534570/5	Lab Control Sample Dup	101	100	104	99
MB 280-534251/9	Method Blank	102	108	100	105
MB 280-534384/9	Method Blank	102	111	97	105
MB 280-534400/10	Method Blank	101	93	107	91
MB 280-534570/9	Method Blank	102	101	101	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)

Surrogate Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: TCLP

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
280-147556-A-2-A MS	Matrix Spike	101	109	100	105
280-147556-A-2-A MSD	Matrix Spike Duplicate	101	110	101	105

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-534251/9
Matrix: Water
Analysis Batch: 534251

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/28/21 23:21	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/28/21 23:21	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/28/21 23:21	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/28/21 23:21	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/28/21 23:21	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/28/21 23:21	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/28/21 23:21	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/28/21 23:21	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/28/21 23:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/28/21 23:21	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/28/21 23:21	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/28/21 23:21	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/28/21 23:21	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/28/21 23:21	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/28/21 23:21	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/28/21 23:21	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/28/21 23:21	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/28/21 23:21	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/28/21 23:21	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/28/21 23:21	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/28/21 23:21	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/28/21 23:21	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/28/21 23:21	1
2-Hexanone	ND		5.0	1.7	ug/L			04/28/21 23:21	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/28/21 23:21	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/28/21 23:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/28/21 23:21	1
Acetone	ND		10	1.9	ug/L			04/28/21 23:21	1
Benzene	ND		0.50	0.16	ug/L			04/28/21 23:21	1
Bromobenzene	ND		1.0	0.17	ug/L			04/28/21 23:21	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/28/21 23:21	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/28/21 23:21	1
Bromoform	ND		0.50	0.46	ug/L			04/28/21 23:21	1
Bromomethane	ND		0.50	0.21	ug/L			04/28/21 23:21	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/28/21 23:21	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/28/21 23:21	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/28/21 23:21	1
Chloroethane	ND		0.50	0.41	ug/L			04/28/21 23:21	1
Chloroform	ND		0.50	0.16	ug/L			04/28/21 23:21	1
Chloromethane	ND		0.50	0.30	ug/L			04/28/21 23:21	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/28/21 23:21	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/28/21 23:21	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/28/21 23:21	1
Dibromomethane	ND		0.50	0.17	ug/L			04/28/21 23:21	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/28/21 23:21	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/28/21 23:21	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/28/21 23:21	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/28/21 23:21	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-534251/9
Matrix: Water
Analysis Batch: 534251

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0	0.94	ug/L			04/28/21 23:21	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/28/21 23:21	1
Naphthalene	ND		1.0	0.22	ug/L			04/28/21 23:21	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/28/21 23:21	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/28/21 23:21	1
o-Xylene	ND		0.50	0.19	ug/L			04/28/21 23:21	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/28/21 23:21	1
Styrene	ND		0.50	0.36	ug/L			04/28/21 23:21	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/28/21 23:21	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/28/21 23:21	1
Toluene	ND		0.50	0.17	ug/L			04/28/21 23:21	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/28/21 23:21	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/28/21 23:21	1
Trichloroethene	ND		0.50	0.16	ug/L			04/28/21 23:21	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/28/21 23:21	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/28/21 23:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127		04/28/21 23:21	1
4-Bromofluorobenzene (Surr)	108		78 - 120		04/28/21 23:21	1
Dibromofluoromethane (Surr)	100		77 - 120		04/28/21 23:21	1
Toluene-d8 (Surr)	105		80 - 125		04/28/21 23:21	1

Lab Sample ID: LCS 280-534251/4
Matrix: Water
Analysis Batch: 534251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	28.8		ug/L		115	65 - 135
1,1,1-Trichloroethane	25.0	29.1		ug/L		116	65 - 135
1,1,1,2-Tetrachloroethane	25.0	28.6		ug/L		114	58 - 135
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	64 - 135
1,1-Dichloroethane	25.0	28.7		ug/L		115	65 - 135
1,1-Dichloroethene	25.0	27.9		ug/L		111	65 - 136
1,1-Dichloropropene	25.0	30.2		ug/L		121	65 - 135
1,2,3-Trichlorobenzene	25.0	27.8		ug/L		111	60 - 135
1,2,3-Trichloropropane	25.0	29.2		ug/L		117	65 - 135
1,2,4-Trichlorobenzene	25.0	28.8		ug/L		115	58 - 135
1,2,4-Trimethylbenzene	25.0	30.8		ug/L		123	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	26.6		ug/L		106	57 - 135
1,2-Dibromoethane	25.0	27.2		ug/L		109	65 - 135
1,2-Dichlorobenzene	25.0	28.2		ug/L		113	65 - 135
1,2-Dichloroethane	25.0	24.9		ug/L		100	65 - 135
1,2-Dichloropropane	25.0	27.7		ug/L		111	64 - 135
1,3,5-Trimethylbenzene	25.0	31.9		ug/L		127	65 - 135
1,3-Dichlorobenzene	25.0	28.7		ug/L		115	65 - 135
1,3-Dichloropropane	25.0	27.9		ug/L		112	64 - 135
1,4-Dichlorobenzene	25.0	27.1		ug/L		108	65 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-534251/4
Matrix: Water
Analysis Batch: 534251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	25.0	30.8		ug/L		123	65 - 135
2-Butanone (MEK)	100	90.9		ug/L		91	44 - 177
2-Chlorotoluene	25.0	29.3		ug/L		117	65 - 135
2-Hexanone	100	103		ug/L		103	57 - 139
4-Chlorotoluene	25.0	29.2		ug/L		117	65 - 135
4-Isopropyltoluene	25.0	31.5		ug/L		126	65 - 135
4-Methyl-2-pentanone (MIBK)	100	97.1		ug/L		97	60 - 150
Acetone	100	91.5		ug/L		92	39 - 156
Benzene	25.0	28.1		ug/L		112	65 - 135
Bromobenzene	25.0	28.0		ug/L		112	65 - 135
Bromochloromethane	25.0	26.4		ug/L		106	65 - 135
Bromodichloromethane	25.0	28.7		ug/L		115	65 - 135
Bromoform	25.0	24.2		ug/L		97	62 - 135
Bromomethane	25.0	23.0		ug/L		92	45 - 135
Carbon disulfide	25.0	31.2		ug/L		125	55 - 143
Carbon tetrachloride	25.0	27.0		ug/L		108	65 - 135
Chlorobenzene	25.0	27.5		ug/L		110	65 - 135
Chloroethane	25.0	22.7		ug/L		91	46 - 136
Chloroform	25.0	26.9		ug/L		108	65 - 135
Chloromethane	25.0	19.2		ug/L		77	34 - 145
cis-1,2-Dichloroethene	25.0	26.3		ug/L		105	65 - 135
cis-1,3-Dichloropropene	25.0	30.3		ug/L		121	65 - 135
Dibromochloromethane	25.0	25.7		ug/L		103	65 - 135
Dibromomethane	25.0	25.3		ug/L		101	65 - 135
Dichlorodifluoromethane	25.0	21.3		ug/L		85	43 - 142
Ethylbenzene	25.0	27.7		ug/L		111	65 - 135
Hexachlorobutadiene	25.0	30.2		ug/L		121	65 - 135
Isopropylbenzene	25.0	31.8		ug/L		127	65 - 135
Methylene Chloride	25.0	26.0		ug/L		104	54 - 141
m-Xylene & p-Xylene	25.0	29.2		ug/L		117	65 - 135
Naphthalene	25.0	28.7		ug/L		115	42 - 135
n-Butylbenzene	25.0	33.4		ug/L		134	64 - 135
N-Propylbenzene	25.0	31.0		ug/L		124	65 - 135
o-Xylene	25.0	28.3		ug/L		113	65 - 135
sec-Butylbenzene	25.0	29.3		ug/L		117	64 - 135
Styrene	25.0	29.5		ug/L		118	65 - 135
tert-Butylbenzene	25.0	31.3		ug/L		125	65 - 135
Tetrachloroethene	25.0	28.4		ug/L		114	65 - 135
Toluene	25.0	27.0		ug/L		108	65 - 135
trans-1,2-Dichloroethene	25.0	29.1		ug/L		116	65 - 135
trans-1,3-Dichloropropene	25.0	28.3		ug/L		113	65 - 135
Trichloroethene	25.0	29.7		ug/L		119	65 - 135
Trichlorofluoromethane	25.0	23.0		ug/L		92	53 - 137
Vinyl chloride	25.0	20.8		ug/L		83	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 127
4-Bromofluorobenzene (Surr)	109		78 - 120

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-534251/4
Matrix: Water
Analysis Batch: 534251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	98		77 - 120
Toluene-d8 (Surr)	105		80 - 125

Lab Sample ID: LCSD 280-534251/5
Matrix: Water
Analysis Batch: 534251

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	29.8		ug/L		119	65 - 135	3	20
1,1,1-Trichloroethane	25.0	29.1		ug/L		116	65 - 135	0	20
1,1,2,2-Tetrachloroethane	25.0	28.7		ug/L		115	58 - 135	0	20
1,1,2-Trichloroethane	25.0	25.8		ug/L		103	64 - 135	1	27
1,1-Dichloroethane	25.0	28.3		ug/L		113	65 - 135	1	21
1,1-Dichloroethene	25.0	27.7		ug/L		111	65 - 136	1	20
1,1-Dichloropropene	25.0	30.0		ug/L		120	65 - 135	1	21
1,2,3-Trichlorobenzene	25.0	29.1		ug/L		117	60 - 135	4	36
1,2,3-Trichloropropane	25.0	29.5		ug/L		118	65 - 135	1	23
1,2,4-Trichlorobenzene	25.0	29.0		ug/L		116	58 - 135	1	25
1,2,4-Trimethylbenzene	25.0	31.0		ug/L		124	65 - 135	1	20
1,2-Dibromo-3-Chloropropane	25.0	26.5		ug/L		106	57 - 135	0	22
1,2-Dibromoethane	25.0	28.4		ug/L		114	65 - 135	4	27
1,2-Dichlorobenzene	25.0	27.4		ug/L		110	65 - 135	3	20
1,2-Dichloroethane	25.0	24.9		ug/L		100	65 - 135	0	20
1,2-Dichloropropane	25.0	27.5		ug/L		110	64 - 135	1	20
1,3,5-Trimethylbenzene	25.0	31.3		ug/L		125	65 - 135	2	20
1,3-Dichlorobenzene	25.0	28.7		ug/L		115	65 - 135	0	20
1,3-Dichloropropane	25.0	28.6		ug/L		114	64 - 135	3	20
1,4-Dichlorobenzene	25.0	27.6		ug/L		110	65 - 135	2	23
2,2-Dichloropropane	25.0	29.6		ug/L		118	65 - 135	4	20
2-Butanone (MEK)	100	93.5		ug/L		93	44 - 177	3	32
2-Chlorotoluene	25.0	29.3		ug/L		117	65 - 135	0	20
2-Hexanone	100	109		ug/L		109	57 - 139	6	25
4-Chlorotoluene	25.0	28.6		ug/L		114	65 - 135	2	20
4-Isopropyltoluene	25.0	31.8		ug/L		127	65 - 135	1	20
4-Methyl-2-pentanone (MIBK)	100	101		ug/L		101	60 - 150	4	22
Acetone	100	94.5		ug/L		95	39 - 156	3	23
Benzene	25.0	27.6		ug/L		110	65 - 135	2	20
Bromobenzene	25.0	28.0		ug/L		112	65 - 135	0	26
Bromochloromethane	25.0	26.0		ug/L		104	65 - 135	1	29
Bromodichloromethane	25.0	27.7		ug/L		111	65 - 135	4	20
Bromoform	25.0	24.5		ug/L		98	62 - 135	1	27
Bromomethane	25.0	21.8		ug/L		87	45 - 135	5	33
Carbon disulfide	25.0	30.2		ug/L		121	55 - 143	3	20
Carbon tetrachloride	25.0	26.6		ug/L		107	65 - 135	1	21
Chlorobenzene	25.0	27.2		ug/L		109	65 - 135	1	20
Chloroethane	25.0	21.6		ug/L		86	46 - 136	5	25
Chloroform	25.0	26.5		ug/L		106	65 - 135	1	20
Chloromethane	25.0	18.8		ug/L		75	34 - 145	2	24

Eurofins TestAmerica, Denver

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-534251/5
Matrix: Water
Analysis Batch: 534251

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	25.0	25.6		ug/L		102	65 - 135	3	20
cis-1,3-Dichloropropene	25.0	30.5		ug/L		122	65 - 135	1	26
Dibromochloromethane	25.0	26.4		ug/L		105	65 - 135	3	20
Dibromomethane	25.0	25.4		ug/L		102	65 - 135	1	26
Dichlorodifluoromethane	25.0	21.0		ug/L		84	43 - 142	2	30
Ethylbenzene	25.0	28.6		ug/L		114	65 - 135	3	20
Hexachlorobutadiene	25.0	29.1		ug/L		116	65 - 135	4	25
Isopropylbenzene	25.0	31.5		ug/L		126	65 - 135	1	20
Methylene Chloride	25.0	25.5		ug/L		102	54 - 141	2	26
m-Xylene & p-Xylene	25.0	29.6		ug/L		118	65 - 135	1	20
Naphthalene	25.0	29.6		ug/L		118	42 - 135	3	23
n-Butylbenzene	25.0	32.9		ug/L		132	64 - 135	2	21
N-Propylbenzene	25.0	29.5		ug/L		118	65 - 135	5	20
o-Xylene	25.0	28.3		ug/L		113	65 - 135	0	20
sec-Butylbenzene	25.0	29.7		ug/L		119	64 - 135	1	21
Styrene	25.0	29.6		ug/L		118	65 - 135	1	26
tert-Butylbenzene	25.0	31.0		ug/L		124	65 - 135	1	21
Tetrachloroethene	25.0	28.2		ug/L		113	65 - 135	1	20
Toluene	25.0	26.0		ug/L		104	65 - 135	4	20
trans-1,2-Dichloroethene	25.0	28.7		ug/L		115	65 - 135	1	24
trans-1,3-Dichloropropene	25.0	28.3		ug/L		113	65 - 135	0	26
Trichloroethene	25.0	29.8		ug/L		119	65 - 135	0	20
Trichlorofluoromethane	25.0	22.1		ug/L		88	53 - 137	4	27
Vinyl chloride	25.0	19.8		ug/L		79	40 - 137	5	24

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	102		70 - 127
4-Bromofluorobenzene (Surr)	109		78 - 120
Dibromofluoromethane (Surr)	99		77 - 120
Toluene-d8 (Surr)	108		80 - 125

Lab Sample ID: MB 280-534384/9
Matrix: Water
Analysis Batch: 534384

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 00:39	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/30/21 00:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 00:39	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			04/30/21 00:39	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/30/21 00:39	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/30/21 00:39	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 00:39	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 00:39	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			04/30/21 00:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 00:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/30/21 00:39	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/30/21 00:39	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-534384/9
Matrix: Water
Analysis Batch: 534384

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/30/21 00:39	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/30/21 00:39	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/30/21 00:39	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/30/21 00:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/30/21 00:39	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/30/21 00:39	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/30/21 00:39	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/30/21 00:39	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/30/21 00:39	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/30/21 00:39	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/30/21 00:39	1
2-Hexanone	ND		5.0	1.7	ug/L			04/30/21 00:39	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/30/21 00:39	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/30/21 00:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/30/21 00:39	1
Acetone	ND		10	1.9	ug/L			04/30/21 00:39	1
Benzene	ND		0.50	0.16	ug/L			04/30/21 00:39	1
Bromobenzene	ND		1.0	0.17	ug/L			04/30/21 00:39	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/30/21 00:39	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/30/21 00:39	1
Bromoform	ND		0.50	0.46	ug/L			04/30/21 00:39	1
Bromomethane	ND		0.50	0.21	ug/L			04/30/21 00:39	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/30/21 00:39	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/30/21 00:39	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/30/21 00:39	1
Chloroethane	ND		0.50	0.41	ug/L			04/30/21 00:39	1
Chloroform	ND		0.50	0.16	ug/L			04/30/21 00:39	1
Chloromethane	ND		0.50	0.30	ug/L			04/30/21 00:39	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 00:39	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/30/21 00:39	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/30/21 00:39	1
Dibromomethane	ND		0.50	0.17	ug/L			04/30/21 00:39	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/30/21 00:39	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/30/21 00:39	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/30/21 00:39	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/30/21 00:39	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/30/21 00:39	1
Naphthalene	ND		1.0	0.22	ug/L			04/30/21 00:39	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/30/21 00:39	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/30/21 00:39	1
o-Xylene	ND		0.50	0.19	ug/L			04/30/21 00:39	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/30/21 00:39	1
Styrene	ND		0.50	0.36	ug/L			04/30/21 00:39	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/30/21 00:39	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/30/21 00:39	1
Toluene	ND		0.50	0.17	ug/L			04/30/21 00:39	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 00:39	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 00:39	1
Trichloroethene	ND		0.50	0.16	ug/L			04/30/21 00:39	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-534384/9
Matrix: Water
Analysis Batch: 534384

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/30/21 00:39	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/30/21 00:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127		04/30/21 00:39	1
4-Bromofluorobenzene (Surr)	111		78 - 120		04/30/21 00:39	1
Dibromofluoromethane (Surr)	97		77 - 120		04/30/21 00:39	1
Toluene-d8 (Surr)	105		80 - 125		04/30/21 00:39	1

Lab Sample ID: LCS 280-534384/4
Matrix: Water
Analysis Batch: 534384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	27.0		ug/L		108	65 - 135
1,1,1-Trichloroethane	25.0	26.4		ug/L		106	65 - 135
1,1,2,2-Tetrachloroethane	25.0	27.3		ug/L		109	58 - 135
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	64 - 135
1,1-Dichloroethane	25.0	26.2		ug/L		105	65 - 135
1,1-Dichloroethene	25.0	24.4		ug/L		97	65 - 136
1,1-Dichloropropene	25.0	26.6		ug/L		106	65 - 135
1,2,3-Trichlorobenzene	25.0	26.4		ug/L		106	60 - 135
1,2,3-Trichloropropane	25.0	27.8		ug/L		111	65 - 135
1,2,4-Trichlorobenzene	25.0	26.3		ug/L		105	58 - 135
1,2,4-Trimethylbenzene	25.0	29.0		ug/L		116	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	24.1		ug/L		97	57 - 135
1,2-Dibromoethane	25.0	26.2		ug/L		105	65 - 135
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	65 - 135
1,2-Dichloroethane	25.0	23.6		ug/L		94	65 - 135
1,2-Dichloropropane	25.0	25.4		ug/L		101	64 - 135
1,3,5-Trimethylbenzene	25.0	29.2		ug/L		117	65 - 135
1,3-Dichlorobenzene	25.0	26.5		ug/L		106	65 - 135
1,3-Dichloropropane	25.0	26.3		ug/L		105	64 - 135
1,4-Dichlorobenzene	25.0	25.3		ug/L		101	65 - 135
2,2-Dichloropropane	25.0	27.0		ug/L		108	65 - 135
2-Butanone (MEK)	100	85.3		ug/L		85	44 - 177
2-Chlorotoluene	25.0	27.5		ug/L		110	65 - 135
2-Hexanone	100	101		ug/L		101	57 - 139
4-Chlorotoluene	25.0	26.7		ug/L		107	65 - 135
4-Isopropyltoluene	25.0	30.1		ug/L		120	65 - 135
4-Methyl-2-pentanone (MIBK)	100	94.2		ug/L		94	60 - 150
Acetone	100	89.9		ug/L		90	39 - 156
Benzene	25.0	25.3		ug/L		101	65 - 135
Bromobenzene	25.0	26.4		ug/L		106	65 - 135
Bromochloromethane	25.0	24.5		ug/L		98	65 - 135
Bromodichloromethane	25.0	26.3		ug/L		105	65 - 135
Bromoform	25.0	22.7		ug/L		91	62 - 135
Bromomethane	25.0	19.2		ug/L		77	45 - 135

Eurofins TestAmerica, Denver

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-534384/4
Matrix: Water
Analysis Batch: 534384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon disulfide	25.0	26.9		ug/L		108	55 - 143
Carbon tetrachloride	25.0	24.3		ug/L		97	65 - 135
Chlorobenzene	25.0	25.5		ug/L		102	65 - 135
Chloroethane	25.0	21.6		ug/L		87	46 - 136
Chloroform	25.0	24.9		ug/L		100	65 - 135
Chloromethane	25.0	17.4		ug/L		70	34 - 145
cis-1,2-Dichloroethene	25.0	24.3		ug/L		97	65 - 135
cis-1,3-Dichloropropene	25.0	28.4		ug/L		114	65 - 135
Dibromochloromethane	25.0	24.5		ug/L		98	65 - 135
Dibromomethane	25.0	23.7		ug/L		95	65 - 135
Dichlorodifluoromethane	25.0	22.7		ug/L		91	43 - 142
Ethylbenzene	25.0	25.8		ug/L		103	65 - 135
Hexachlorobutadiene	25.0	27.5		ug/L		110	65 - 135
Isopropylbenzene	25.0	29.6		ug/L		118	65 - 135
Methylene Chloride	25.0	24.0		ug/L		96	54 - 141
Naphthalene	25.0	27.1		ug/L		108	42 - 135
n-Butylbenzene	25.0	30.2		ug/L		121	64 - 135
N-Propylbenzene	25.0	27.8		ug/L		111	65 - 135
o-Xylene	25.0	26.4		ug/L		106	65 - 135
sec-Butylbenzene	25.0	27.1		ug/L		108	64 - 135
Styrene	25.0	26.8		ug/L		107	65 - 135
tert-Butylbenzene	25.0	28.5		ug/L		114	65 - 135
Tetrachloroethene	25.0	25.9		ug/L		104	65 - 135
Toluene	25.0	24.0		ug/L		96	65 - 135
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	65 - 135
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	65 - 135
Trichloroethene	25.0	27.3		ug/L		109	65 - 135
Trichlorofluoromethane	25.0	23.4		ug/L		93	53 - 137
Vinyl chloride	25.0	19.9		ug/L		79	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 127
4-Bromofluorobenzene (Surr)	108		78 - 120
Dibromofluoromethane (Surr)	99		77 - 120
Toluene-d8 (Surr)	107		80 - 125

Lab Sample ID: LCSD 280-534384/5
Matrix: Water
Analysis Batch: 534384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	28.1		ug/L		112	65 - 135	4	20
1,1,1-Trichloroethane	25.0	26.5		ug/L		106	65 - 135	0	20
1,1,1,2,2-Tetrachloroethane	25.0	27.2		ug/L		109	58 - 135	0	20
1,1,2-Trichloroethane	25.0	24.4		ug/L		98	64 - 135	1	27
1,1-Dichloroethane	25.0	26.2		ug/L		105	65 - 135	0	21
1,1-Dichloroethene	25.0	24.7		ug/L		99	65 - 136	1	20
1,1-Dichloropropene	25.0	26.8		ug/L		107	65 - 135	1	21

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-534384/5
Matrix: Water
Analysis Batch: 534384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichlorobenzene	25.0	26.9		ug/L		108	60 - 135	2	36
1,2,3-Trichloropropane	25.0	27.1		ug/L		108	65 - 135	3	23
1,2,4-Trichlorobenzene	25.0	26.9		ug/L		107	58 - 135	2	25
1,2,4-Trimethylbenzene	25.0	28.2		ug/L		113	65 - 135	3	20
1,2-Dibromo-3-Chloropropane	25.0	24.8		ug/L		99	57 - 135	3	22
1,2-Dibromoethane	25.0	26.3		ug/L		105	65 - 135	0	27
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	65 - 135	1	20
1,2-Dichloroethane	25.0	23.7		ug/L		95	65 - 135	0	20
1,2-Dichloropropane	25.0	25.5		ug/L		102	64 - 135	0	20
1,3,5-Trimethylbenzene	25.0	28.6		ug/L		114	65 - 135	2	20
1,3-Dichlorobenzene	25.0	26.1		ug/L		104	65 - 135	2	20
1,3-Dichloropropane	25.0	27.0		ug/L		108	64 - 135	2	20
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	65 - 135	1	23
2,2-Dichloropropane	25.0	26.4		ug/L		105	65 - 135	2	20
2-Butanone (MEK)	100	90.2		ug/L		90	44 - 177	6	32
2-Chlorotoluene	25.0	26.4		ug/L		106	65 - 135	4	20
2-Hexanone	100	104		ug/L		104	57 - 139	3	25
4-Chlorotoluene	25.0	26.6		ug/L		106	65 - 135	1	20
4-Isopropyltoluene	25.0	28.7		ug/L		115	65 - 135	5	20
4-Methyl-2-pentanone (MIBK)	100	97.0		ug/L		97	60 - 150	3	22
Acetone	100	91.0		ug/L		91	39 - 156	1	23
Benzene	25.0	25.3		ug/L		101	65 - 135	0	20
Bromobenzene	25.0	26.0		ug/L		104	65 - 135	1	26
Bromochloromethane	25.0	24.3		ug/L		97	65 - 135	1	29
Bromodichloromethane	25.0	26.4		ug/L		106	65 - 135	0	20
Bromoform	25.0	22.8		ug/L		91	62 - 135	1	27
Bromomethane	25.0	17.8		ug/L		71	45 - 135	8	33
Carbon disulfide	25.0	26.4		ug/L		105	55 - 143	2	20
Carbon tetrachloride	25.0	24.2		ug/L		97	65 - 135	0	21
Chlorobenzene	25.0	24.8		ug/L		99	65 - 135	3	20
Chloroethane	25.0	21.4		ug/L		86	46 - 136	1	25
Chloroform	25.0	24.9		ug/L		100	65 - 135	0	20
Chloromethane	25.0	17.4		ug/L		69	34 - 145	0	24
cis-1,2-Dichloroethene	25.0	23.6		ug/L		94	65 - 135	3	20
cis-1,3-Dichloropropene	25.0	27.7		ug/L		111	65 - 135	2	26
Dibromochloromethane	25.0	24.7		ug/L		99	65 - 135	1	20
Dibromomethane	25.0	23.7		ug/L		95	65 - 135	0	26
Dichlorodifluoromethane	25.0	22.3		ug/L		89	43 - 142	2	30
Ethylbenzene	25.0	25.9		ug/L		104	65 - 135	0	20
Hexachlorobutadiene	25.0	25.4		ug/L		102	65 - 135	8	25
Isopropylbenzene	25.0	28.7		ug/L		115	65 - 135	3	20
Methylene Chloride	25.0	23.4		ug/L		94	54 - 141	2	26
Naphthalene	25.0	27.8		ug/L		111	42 - 135	3	23
n-Butylbenzene	25.0	29.3		ug/L		117	64 - 135	3	21
N-Propylbenzene	25.0	27.6		ug/L		110	65 - 135	1	20
o-Xylene	25.0	26.4		ug/L		106	65 - 135	0	20
sec-Butylbenzene	25.0	26.9		ug/L		108	64 - 135	1	21
Styrene	25.0	27.0		ug/L		108	65 - 135	0	26
tert-Butylbenzene	25.0	27.7		ug/L		111	65 - 135	3	21

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-534384/5
Matrix: Water
Analysis Batch: 534384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene	25.0	25.3		ug/L		101	65 - 135	2	20
Toluene	25.0	24.3		ug/L		97	65 - 135	1	20
trans-1,2-Dichloroethene	25.0	24.8		ug/L		99	65 - 135	0	24
trans-1,3-Dichloropropene	25.0	26.4		ug/L		105	65 - 135	0	26
Trichloroethene	25.0	27.2		ug/L		109	65 - 135	1	20
Trichlorofluoromethane	25.0	23.0		ug/L		92	53 - 137	1	27
Vinyl chloride	25.0	19.3		ug/L		77	40 - 137	3	24

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 127
4-Bromofluorobenzene (Surr)	108		78 - 120
Dibromofluoromethane (Surr)	99		77 - 120
Toluene-d8 (Surr)	106		80 - 125

Lab Sample ID: MB 280-534400/10
Matrix: Water
Analysis Batch: 534400

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 08:48	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			04/30/21 08:48	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			04/30/21 08:48	1
1,1,1-Trichloroethane	ND		0.50	0.27	ug/L			04/30/21 08:48	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			04/30/21 08:48	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			04/30/21 08:48	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 08:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 08:48	1
1,2,3-Trichloropropene	ND		0.77	0.33	ug/L			04/30/21 08:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			04/30/21 08:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			04/30/21 08:48	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			04/30/21 08:48	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			04/30/21 08:48	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			04/30/21 08:48	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			04/30/21 08:48	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			04/30/21 08:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			04/30/21 08:48	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			04/30/21 08:48	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			04/30/21 08:48	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			04/30/21 08:48	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			04/30/21 08:48	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			04/30/21 08:48	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			04/30/21 08:48	1
2-Hexanone	ND		5.0	1.7	ug/L			04/30/21 08:48	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			04/30/21 08:48	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			04/30/21 08:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			04/30/21 08:48	1
Acetone	ND		10	1.9	ug/L			04/30/21 08:48	1
Benzene	ND		0.50	0.16	ug/L			04/30/21 08:48	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-534400/10
Matrix: Water
Analysis Batch: 534400

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	ND		1.0	0.17	ug/L			04/30/21 08:48	1
Bromochloromethane	ND		0.50	0.10	ug/L			04/30/21 08:48	1
Bromodichloromethane	ND		0.50	0.17	ug/L			04/30/21 08:48	1
Bromoform	ND		0.50	0.46	ug/L			04/30/21 08:48	1
Bromomethane	ND		0.50	0.21	ug/L			04/30/21 08:48	1
Carbon disulfide	ND		2.0	0.17	ug/L			04/30/21 08:48	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			04/30/21 08:48	1
Chlorobenzene	ND		0.50	0.17	ug/L			04/30/21 08:48	1
Chloroethane	ND		0.50	0.41	ug/L			04/30/21 08:48	1
Chloroform	ND		0.50	0.16	ug/L			04/30/21 08:48	1
Chloromethane	ND		0.50	0.30	ug/L			04/30/21 08:48	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 08:48	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			04/30/21 08:48	1
Dibromochloromethane	ND		0.50	0.17	ug/L			04/30/21 08:48	1
Dibromomethane	ND		0.50	0.17	ug/L			04/30/21 08:48	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			04/30/21 08:48	1
Ethylbenzene	ND		0.50	0.16	ug/L			04/30/21 08:48	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			04/30/21 08:48	1
Isopropylbenzene	ND		1.0	0.19	ug/L			04/30/21 08:48	1
Methylene Chloride	ND		2.0	0.94	ug/L			04/30/21 08:48	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			04/30/21 08:48	1
Naphthalene	ND		1.0	0.22	ug/L			04/30/21 08:48	1
n-Butylbenzene	ND		1.0	0.14	ug/L			04/30/21 08:48	1
N-Propylbenzene	ND		1.0	0.16	ug/L			04/30/21 08:48	1
o-Xylene	ND		0.50	0.19	ug/L			04/30/21 08:48	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			04/30/21 08:48	1
Styrene	ND		0.50	0.36	ug/L			04/30/21 08:48	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			04/30/21 08:48	1
Tetrachloroethene	ND		0.50	0.20	ug/L			04/30/21 08:48	1
Toluene	ND		0.50	0.17	ug/L			04/30/21 08:48	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			04/30/21 08:48	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			04/30/21 08:48	1
Trichloroethene	ND		0.50	0.16	ug/L			04/30/21 08:48	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			04/30/21 08:48	1
Vinyl chloride	ND		0.50	0.10	ug/L			04/30/21 08:48	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 127		04/30/21 08:48	1
4-Bromofluorobenzene (Surr)	93		78 - 120		04/30/21 08:48	1
Dibromofluoromethane (Surr)	107		77 - 120		04/30/21 08:48	1
Toluene-d8 (Surr)	91		80 - 125		04/30/21 08:48	1

Lab Sample ID: LCS 280-534400/5
Matrix: Water
Analysis Batch: 534400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	22.5		ug/L		90	65 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-534400/5
 Matrix: Water
 Analysis Batch: 534400

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	25.5		ug/L		102	65 - 135
1,1,2,2-Tetrachloroethane	25.0	20.8		ug/L		83	58 - 135
1,1,2-Trichloroethane	25.0	26.1		ug/L		104	64 - 135
1,1-Dichloroethane	25.0	26.6		ug/L		106	65 - 135
1,1-Dichloroethene	25.0	24.8		ug/L		99	65 - 136
1,1-Dichloropropene	25.0	25.1		ug/L		100	65 - 135
1,2,3-Trichlorobenzene	25.0	20.9		ug/L		83	60 - 135
1,2,3-Trichloropropane	25.0	20.2		ug/L		81	65 - 135
1,2,4-Trichlorobenzene	25.0	20.5		ug/L		82	58 - 135
1,2,4-Trimethylbenzene	25.0	22.2		ug/L		89	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	18.2		ug/L		73	57 - 135
1,2-Dibromoethane	25.0	21.6		ug/L		87	65 - 135
1,2-Dichlorobenzene	25.0	22.0		ug/L		88	65 - 135
1,2-Dichloroethane	25.0	24.1		ug/L		96	65 - 135
1,2-Dichloropropane	25.0	26.4		ug/L		106	64 - 135
1,3,5-Trimethylbenzene	25.0	22.0		ug/L		88	65 - 135
1,3-Dichlorobenzene	25.0	21.8		ug/L		87	65 - 135
1,3-Dichloropropane	25.0	22.3		ug/L		89	64 - 135
1,4-Dichlorobenzene	25.0	21.2		ug/L		85	65 - 135
2,2-Dichloropropane	25.0	25.6		ug/L		102	65 - 135
2-Butanone (MEK)	100	87.9		ug/L		88	44 - 177
2-Chlorotoluene	25.0	21.8		ug/L		87	65 - 135
2-Hexanone	100	71.1		ug/L		71	57 - 139
4-Chlorotoluene	25.0	21.9		ug/L		88	65 - 135
4-Isopropyltoluene	25.0	22.1		ug/L		88	65 - 135
4-Methyl-2-pentanone (MIBK)	100	86.0		ug/L		86	60 - 150
Acetone	100	84.8		ug/L		85	39 - 156
Benzene	25.0	25.8		ug/L		103	65 - 135
Bromobenzene	25.0	22.0		ug/L		88	65 - 135
Bromochloromethane	25.0	29.8		ug/L		119	65 - 135
Bromodichloromethane	25.0	26.5		ug/L		106	65 - 135
Bromoform	25.0	20.1		ug/L		80	62 - 135
Bromomethane	25.0	31.4		ug/L		125	45 - 135
Carbon disulfide	25.0	24.4		ug/L		98	55 - 143
Carbon tetrachloride	25.0	25.6		ug/L		102	65 - 135
Chlorobenzene	25.0	22.7		ug/L		91	65 - 135
Chloroethane	25.0	27.7		ug/L		111	46 - 136
Chloroform	25.0	26.4		ug/L		106	65 - 135
Chloromethane	25.0	27.3		ug/L		109	34 - 145
cis-1,2-Dichloroethene	25.0	25.8		ug/L		103	65 - 135
cis-1,3-Dichloropropene	25.0	22.5		ug/L		90	65 - 135
Dibromochloromethane	25.0	23.4		ug/L		94	65 - 135
Dibromomethane	25.0	25.0		ug/L		100	65 - 135
Dichlorodifluoromethane	25.0	26.6		ug/L		106	43 - 142
Ethylbenzene	25.0	22.5		ug/L		90	65 - 135
Hexachlorobutadiene	25.0	21.7		ug/L		87	65 - 135
Isopropylbenzene	25.0	21.3		ug/L		85	65 - 135
Methylene Chloride	25.0	25.5		ug/L		102	54 - 141
m-Xylene & p-Xylene	25.0	22.8		ug/L		91	65 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-534400/5
Matrix: Water
Analysis Batch: 534400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	25.0	18.6		ug/L		75	42 - 135
n-Butylbenzene	25.0	21.0		ug/L		84	64 - 135
N-Propylbenzene	25.0	21.9		ug/L		88	65 - 135
o-Xylene	25.0	23.6		ug/L		94	65 - 135
sec-Butylbenzene	25.0	22.0		ug/L		88	64 - 135
Styrene	25.0	23.2		ug/L		93	65 - 135
tert-Butylbenzene	25.0	21.4		ug/L		86	65 - 135
Tetrachloroethene	25.0	22.6		ug/L		90	65 - 135
Toluene	25.0	26.2		ug/L		105	65 - 135
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	65 - 135
trans-1,3-Dichloropropene	25.0	26.0		ug/L		104	65 - 135
Trichloroethene	25.0	21.1		ug/L		84	65 - 135
Trichlorofluoromethane	25.0	24.1		ug/L		96	53 - 137
Vinyl chloride	25.0	24.4		ug/L		97	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 127
4-Bromofluorobenzene (Surr)	96		78 - 120
Dibromofluoromethane (Surr)	106		77 - 120
Toluene-d8 (Surr)	93		80 - 125

Lab Sample ID: LCSD 280-534400/6
Matrix: Water
Analysis Batch: 534400

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	22.4		ug/L		90	65 - 135	0	20
1,1,1-Trichloroethane	25.0	25.3		ug/L		101	65 - 135	1	20
1,1,2,2-Tetrachloroethane	25.0	21.1		ug/L		84	58 - 135	1	20
1,1,2-Trichloroethane	25.0	26.3		ug/L		105	64 - 135	1	27
1,1-Dichloroethane	25.0	26.6		ug/L		107	65 - 135	0	21
1,1-Dichloroethene	25.0	24.7		ug/L		99	65 - 136	0	20
1,1-Dichloropropene	25.0	25.0		ug/L		100	65 - 135	0	21
1,2,3-Trichlorobenzene	25.0	21.5		ug/L		86	60 - 135	3	36
1,2,3-Trichloropropane	25.0	20.2		ug/L		81	65 - 135	0	23
1,2,4-Trichlorobenzene	25.0	20.4		ug/L		82	58 - 135	0	25
1,2,4-Trimethylbenzene	25.0	22.0		ug/L		88	65 - 135	1	20
1,2-Dibromo-3-Chloropropane	25.0	18.7		ug/L		75	57 - 135	3	22
1,2-Dibromoethane	25.0	22.0		ug/L		88	65 - 135	2	27
1,2-Dichlorobenzene	25.0	22.0		ug/L		88	65 - 135	0	20
1,2-Dichloroethane	25.0	24.2		ug/L		97	65 - 135	1	20
1,2-Dichloropropane	25.0	26.9		ug/L		108	64 - 135	2	20
1,3,5-Trimethylbenzene	25.0	21.9		ug/L		88	65 - 135	0	20
1,3-Dichlorobenzene	25.0	21.9		ug/L		88	65 - 135	0	20
1,3-Dichloropropane	25.0	22.3		ug/L		89	64 - 135	0	20
1,4-Dichlorobenzene	25.0	21.2		ug/L		85	65 - 135	0	23
2,2-Dichloropropane	25.0	25.5		ug/L		102	65 - 135	1	20
2-Butanone (MEK)	100	90.4		ug/L		90	44 - 177	3	32

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-534400/6
Matrix: Water
Analysis Batch: 534400

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chlorotoluene	25.0	22.0		ug/L		88	65 - 135	1	20
2-Hexanone	100	74.1		ug/L		74	57 - 139	4	25
4-Chlorotoluene	25.0	21.5		ug/L		86	65 - 135	2	20
4-Isopropyltoluene	25.0	22.0		ug/L		88	65 - 135	0	20
4-Methyl-2-pentanone (MIBK)	100	88.8		ug/L		89	60 - 150	3	22
Acetone	100	87.1		ug/L		87	39 - 156	3	23
Benzene	25.0	26.0		ug/L		104	65 - 135	1	20
Bromobenzene	25.0	21.9		ug/L		87	65 - 135	1	26
Bromochloromethane	25.0	29.7		ug/L		119	65 - 135	0	29
Bromodichloromethane	25.0	26.5		ug/L		106	65 - 135	0	20
Bromoform	25.0	20.3		ug/L		81	62 - 135	1	27
Bromomethane	25.0	31.5		ug/L		126	45 - 135	0	33
Carbon disulfide	25.0	24.7		ug/L		99	55 - 143	1	20
Carbon tetrachloride	25.0	25.5		ug/L		102	65 - 135	0	21
Chlorobenzene	25.0	22.3		ug/L		89	65 - 135	2	20
Chloroethane	25.0	28.0		ug/L		112	46 - 136	1	25
Chloroform	25.0	26.5		ug/L		106	65 - 135	0	20
Chloromethane	25.0	27.9		ug/L		111	34 - 145	2	24
cis-1,2-Dichloroethene	25.0	25.8		ug/L		103	65 - 135	0	20
cis-1,3-Dichloropropene	25.0	22.5		ug/L		90	65 - 135	0	26
Dibromochloromethane	25.0	23.8		ug/L		95	65 - 135	2	20
Dibromomethane	25.0	25.4		ug/L		102	65 - 135	1	26
Dichlorodifluoromethane	25.0	28.2		ug/L		113	43 - 142	6	30
Ethylbenzene	25.0	22.5		ug/L		90	65 - 135	0	20
Hexachlorobutadiene	25.0	21.5		ug/L		86	65 - 135	1	25
Isopropylbenzene	25.0	21.2		ug/L		85	65 - 135	0	20
Methylene Chloride	25.0	25.7		ug/L		103	54 - 141	1	26
m-Xylene & p-Xylene	25.0	22.9		ug/L		92	65 - 135	0	20
Naphthalene	25.0	19.4		ug/L		77	42 - 135	4	23
n-Butylbenzene	25.0	20.9		ug/L		84	64 - 135	1	21
N-Propylbenzene	25.0	21.6		ug/L		86	65 - 135	1	20
o-Xylene	25.0	23.2		ug/L		93	65 - 135	2	20
sec-Butylbenzene	25.0	21.9		ug/L		87	64 - 135	1	21
Styrene	25.0	23.3		ug/L		93	65 - 135	0	26
tert-Butylbenzene	25.0	21.3		ug/L		85	65 - 135	0	21
Tetrachloroethene	25.0	22.2		ug/L		89	65 - 135	2	20
Toluene	25.0	26.3		ug/L		105	65 - 135	0	20
trans-1,2-Dichloroethene	25.0	25.1		ug/L		101	65 - 135	1	24
trans-1,3-Dichloropropene	25.0	26.7		ug/L		107	65 - 135	2	26
Trichloroethene	25.0	20.9		ug/L		84	65 - 135	1	20
Trichlorofluoromethane	25.0	26.7		ug/L		107	53 - 137	10	27
Vinyl chloride	25.0	25.4		ug/L		102	40 - 137	4	24

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 127
4-Bromofluorobenzene (Surr)	95		78 - 120
Dibromofluoromethane (Surr)	106		77 - 120
Toluene-d8 (Surr)	92		80 - 125

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-147692-C-2 MS

Matrix: Water

Analysis Batch: 534400

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	22.4		ug/L		90	65 - 135
1,1,1-Trichloroethane	ND		25.0	26.9		ug/L		108	65 - 135
1,1,2,2-Tetrachloroethane	ND		25.0	20.8		ug/L		83	58 - 135
1,1,2-Trichloroethane	ND		25.0	27.0		ug/L		108	64 - 135
1,1-Dichloroethane	ND		25.0	28.2		ug/L		113	65 - 135
1,1-Dichloroethene	ND		25.0	27.2		ug/L		109	65 - 136
1,1-Dichloropropene	ND		25.0	27.0		ug/L		108	65 - 135
1,2,3-Trichlorobenzene	ND		25.0	20.2		ug/L		81	60 - 135
1,2,3-Trichloropropane	ND		25.0	20.2		ug/L		81	65 - 135
1,2,4-Trichlorobenzene	ND		25.0	19.6		ug/L		78	58 - 135
1,2,4-Trimethylbenzene	ND		25.0	21.9		ug/L		88	65 - 135
1,2-Dibromo-3-Chloropropane	ND		25.0	18.7		ug/L		75	57 - 135
1,2-Dibromoethane	ND		25.0	21.5		ug/L		86	65 - 135
1,2-Dichlorobenzene	ND		25.0	21.8		ug/L		87	65 - 135
1,2-Dichloroethane	ND		25.0	24.9		ug/L		99	65 - 135
1,2-Dichloropropane	ND		25.0	27.4		ug/L		110	64 - 135
1,3,5-Trimethylbenzene	ND		25.0	21.9		ug/L		87	65 - 135
1,3-Dichlorobenzene	ND		25.0	21.7		ug/L		87	65 - 135
1,3-Dichloropropane	ND		25.0	22.3		ug/L		89	64 - 135
1,4-Dichlorobenzene	ND		25.0	20.8		ug/L		83	65 - 135
2,2-Dichloropropane	ND		25.0	25.2		ug/L		101	65 - 135
2-Butanone (MEK)	ND		100	95.0		ug/L		95	44 - 177
2-Chlorotoluene	ND		25.0	21.9		ug/L		88	65 - 135
2-Hexanone	ND		100	75.9		ug/L		76	57 - 139
4-Chlorotoluene	ND		25.0	21.7		ug/L		87	65 - 135
4-Isopropyltoluene	ND		25.0	21.6		ug/L		86	65 - 135
4-Methyl-2-pentanone (MIBK)	ND		100	93.9		ug/L		94	60 - 150
Acetone	2.8	J	100	92.2		ug/L		89	39 - 156
Benzene	ND		25.0	27.3		ug/L		109	65 - 135
Bromobenzene	ND		25.0	21.9		ug/L		88	65 - 135
Bromochloromethane	ND		25.0	31.1		ug/L		124	65 - 135
Bromodichloromethane	ND		25.0	27.5		ug/L		110	65 - 135
Bromoform	ND		25.0	19.6		ug/L		78	62 - 135
Bromomethane	ND		25.0	25.4		ug/L		102	45 - 135
Carbon disulfide	ND		25.0	26.8		ug/L		107	55 - 143
Carbon tetrachloride	ND		25.0	27.9		ug/L		112	65 - 135
Chlorobenzene	ND		25.0	22.8		ug/L		91	65 - 135
Chloroethane	ND		25.0	20.1		ug/L		80	46 - 136
Chloroform	ND		25.0	27.5		ug/L		110	65 - 135
Chloromethane	ND		25.0	28.6		ug/L		114	34 - 145
cis-1,2-Dichloroethene	ND		25.0	27.2		ug/L		109	65 - 135
cis-1,3-Dichloropropene	ND		25.0	21.8		ug/L		87	65 - 135
Dibromochloromethane	ND		25.0	23.3		ug/L		93	65 - 135
Dibromomethane	ND		25.0	26.2		ug/L		105	65 - 135
Dichlorodifluoromethane	ND		25.0	29.4		ug/L		118	43 - 142
Ethylbenzene	ND		25.0	23.0		ug/L		92	65 - 135
Hexachlorobutadiene	ND		25.0	18.8		ug/L		75	65 - 135
Isopropylbenzene	ND		25.0	21.6		ug/L		86	65 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-147692-C-2 MS

Matrix: Water

Analysis Batch: 534400

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	ND		25.0	27.3		ug/L		109	54 - 141
m-Xylene & p-Xylene	ND		25.0	23.0		ug/L		92	65 - 135
Naphthalene	ND		25.0	18.8		ug/L		75	42 - 135
n-Butylbenzene	ND		25.0	20.4		ug/L		82	64 - 135
N-Propylbenzene	ND		25.0	22.0		ug/L		88	65 - 135
o-Xylene	ND		25.0	23.5		ug/L		94	65 - 135
sec-Butylbenzene	ND		25.0	21.5		ug/L		86	64 - 135
Styrene	ND		25.0	22.9		ug/L		91	65 - 135
tert-Butylbenzene	ND		25.0	21.5		ug/L		86	65 - 135
Tetrachloroethene	0.76		25.0	23.8		ug/L		92	65 - 135
Toluene	ND		25.0	27.7		ug/L		111	65 - 135
trans-1,2-Dichloroethene	ND		25.0	27.0		ug/L		108	65 - 135
trans-1,3-Dichloropropene	ND		25.0	26.7		ug/L		107	65 - 135
Trichloroethene	0.40	J	25.0	21.9		ug/L		86	65 - 135
Trichlorofluoromethane	ND		25.0	28.1		ug/L		112	53 - 137
Vinyl chloride	ND		25.0	19.6		ug/L		79	40 - 137

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 127
4-Bromofluorobenzene (Surr)	95		78 - 120
Dibromofluoromethane (Surr)	108		77 - 120
Toluene-d8 (Surr)	89		80 - 125

Lab Sample ID: 280-147692-D-2 MSD

Matrix: Water

Analysis Batch: 534400

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	22.7		ug/L		91	65 - 135	1	20
1,1,1-Trichloroethane	ND		25.0	27.7		ug/L		111	65 - 135	3	20
1,1,1,2-Tetrachloroethane	ND		25.0	21.4		ug/L		86	58 - 135	3	20
1,1,2-Trichloroethane	ND		25.0	28.1		ug/L		112	64 - 135	4	27
1,1-Dichloroethane	ND		25.0	28.6		ug/L		114	65 - 135	1	21
1,1-Dichloroethene	ND		25.0	27.5		ug/L		110	65 - 136	1	20
1,1-Dichloropropene	ND		25.0	27.3		ug/L		109	65 - 135	1	21
1,2,3-Trichlorobenzene	ND		25.0	20.9		ug/L		84	60 - 135	4	36
1,2,3-Trichloropropane	ND		25.0	20.7		ug/L		83	65 - 135	2	23
1,2,4-Trichlorobenzene	ND		25.0	20.0		ug/L		80	58 - 135	2	25
1,2,4-Trimethylbenzene	ND		25.0	22.3		ug/L		89	65 - 135	2	20
1,2-Dibromo-3-Chloropropane	ND		25.0	19.4		ug/L		78	57 - 135	4	22
1,2-Dibromoethane	ND		25.0	22.8		ug/L		91	65 - 135	6	27
1,2-Dichlorobenzene	ND		25.0	21.8		ug/L		87	65 - 135	0	20
1,2-Dichloroethane	ND		25.0	25.4		ug/L		102	65 - 135	2	20
1,2-Dichloropropane	ND		25.0	28.5		ug/L		114	64 - 135	4	20
1,3,5-Trimethylbenzene	ND		25.0	22.2		ug/L		89	65 - 135	1	20
1,3-Dichlorobenzene	ND		25.0	21.7		ug/L		87	65 - 135	0	20
1,3-Dichloropropane	ND		25.0	22.8		ug/L		91	64 - 135	2	20
1,4-Dichlorobenzene	ND		25.0	21.1		ug/L		85	65 - 135	2	23

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-147692-D-2 MSD
Matrix: Water
Analysis Batch: 534400

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,2-Dichloropropane	ND		25.0	25.2		ug/L		101	65 - 135	0	20
2-Butanone (MEK)	ND		100	97.2		ug/L		97	44 - 177	2	32
2-Chlorotoluene	ND		25.0	22.5		ug/L		90	65 - 135	3	20
2-Hexanone	ND		100	78.2		ug/L		78	57 - 139	3	25
4-Chlorotoluene	ND		25.0	21.9		ug/L		88	65 - 135	1	20
4-Isopropyltoluene	ND		25.0	21.7		ug/L		87	65 - 135	1	20
4-Methyl-2-pentanone (MIBK)	ND		100	97.6		ug/L		98	60 - 150	4	22
Acetone	2.8	J	100	96.3		ug/L		93	39 - 156	4	23
Benzene	ND		25.0	27.8		ug/L		111	65 - 135	2	20
Bromobenzene	ND		25.0	21.8		ug/L		87	65 - 135	0	26
Bromochloromethane	ND		25.0	31.1		ug/L		125	65 - 135	0	29
Bromodichloromethane	ND		25.0	28.0		ug/L		112	65 - 135	2	20
Bromoform	ND		25.0	20.4		ug/L		82	62 - 135	4	27
Bromomethane	ND		25.0	24.6		ug/L		98	45 - 135	3	33
Carbon disulfide	ND		25.0	27.2		ug/L		109	55 - 143	2	20
Carbon tetrachloride	ND		25.0	28.0		ug/L		112	65 - 135	0	21
Chlorobenzene	ND		25.0	23.3		ug/L		93	65 - 135	2	20
Chloroethane	ND		25.0	20.6		ug/L		82	46 - 136	3	25
Chloroform	ND		25.0	28.2		ug/L		113	65 - 135	3	20
Chloromethane	ND		25.0	28.2		ug/L		113	34 - 145	1	24
cis-1,2-Dichloroethene	ND		25.0	27.6		ug/L		110	65 - 135	1	20
cis-1,3-Dichloropropene	ND		25.0	22.2		ug/L		89	65 - 135	2	26
Dibromochloromethane	ND		25.0	24.3		ug/L		97	65 - 135	4	20
Dibromomethane	ND		25.0	26.5		ug/L		106	65 - 135	1	26
Dichlorodifluoromethane	ND		25.0	31.0		ug/L		124	43 - 142	5	30
Ethylbenzene	ND		25.0	23.1		ug/L		92	65 - 135	0	20
Hexachlorobutadiene	ND		25.0	19.3		ug/L		77	65 - 135	3	25
Isopropylbenzene	ND		25.0	21.7		ug/L		87	65 - 135	1	20
Methylene Chloride	ND		25.0	27.8		ug/L		111	54 - 141	2	26
m-Xylene & p-Xylene	ND		25.0	23.4		ug/L		93	65 - 135	2	20
Naphthalene	ND		25.0	19.8		ug/L		79	42 - 135	5	23
n-Butylbenzene	ND		25.0	20.7		ug/L		83	64 - 135	1	21
N-Propylbenzene	ND		25.0	22.1		ug/L		88	65 - 135	0	20
o-Xylene	ND		25.0	24.0		ug/L		96	65 - 135	2	20
sec-Butylbenzene	ND		25.0	21.6		ug/L		87	64 - 135	1	21
Styrene	ND		25.0	23.5		ug/L		94	65 - 135	3	26
tert-Butylbenzene	ND		25.0	21.9		ug/L		88	65 - 135	2	21
Tetrachloroethene	0.76		25.0	24.0		ug/L		93	65 - 135	1	20
Toluene	ND		25.0	28.2		ug/L		113	65 - 135	2	20
trans-1,2-Dichloroethene	ND		25.0	27.4		ug/L		110	65 - 135	1	24
trans-1,3-Dichloropropene	ND		25.0	27.3		ug/L		109	65 - 135	2	26
Trichloroethene	0.40	J	25.0	22.2		ug/L		87	65 - 135	2	20
Trichlorofluoromethane	ND		25.0	29.1		ug/L		116	53 - 137	3	27
Vinyl chloride	ND		25.0	19.6		ug/L		78	40 - 137	0	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 127
4-Bromofluorobenzene (Surr)	95		78 - 120

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-147692-D-2 MSD

Matrix: Water

Analysis Batch: 534400

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

<i>Surrogate</i>	<i>MSD %Recovery</i>	<i>MSD Qualifier</i>	<i>Limits</i>
Dibromofluoromethane (Surr)	107		77 - 120
Toluene-d8 (Surr)	90		80 - 125

Lab Sample ID: MB 280-534570/9

Matrix: Water

Analysis Batch: 534570

Client Sample ID: Method Blank

Prep Type: Total/NA

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
m-Xylene & p-Xylene	0.154	J	0.50	0.15	ug/L			04/30/21 23:36	1

<i>Surrogate</i>	<i>MB %Recovery</i>	<i>MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	102		70 - 127		04/30/21 23:36	1
4-Bromofluorobenzene (Surr)	101		78 - 120		04/30/21 23:36	1
Dibromofluoromethane (Surr)	101		77 - 120		04/30/21 23:36	1
Toluene-d8 (Surr)	99		80 - 125		04/30/21 23:36	1

Lab Sample ID: LCS 280-534570/4

Matrix: Water

Analysis Batch: 534570

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
m-Xylene & p-Xylene	25.0	27.8		ug/L		111	65 - 135

<i>Surrogate</i>	<i>LCS %Recovery</i>	<i>LCS Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	101		70 - 127
4-Bromofluorobenzene (Surr)	100		78 - 120
Dibromofluoromethane (Surr)	102		77 - 120
Toluene-d8 (Surr)	101		80 - 125

Lab Sample ID: LCSD 280-534570/5

Matrix: Water

Analysis Batch: 534570

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

<i>Analyte</i>	<i>Spike Added</i>	<i>LCSD Result</i>	<i>LCSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
m-Xylene & p-Xylene	25.0	27.0		ug/L		108	65 - 135	3	20

<i>Surrogate</i>	<i>LCSD %Recovery</i>	<i>LCSD Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	101		70 - 127
4-Bromofluorobenzene (Surr)	100		78 - 120
Dibromofluoromethane (Surr)	104		77 - 120
Toluene-d8 (Surr)	99		80 - 125

Lab Sample ID: 280-147556-A-2-A MS

Matrix: Water

Analysis Batch: 534384

Client Sample ID: Matrix Spike

Prep Type: TCLP

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>
1,1,1,2-Tetrachloroethane	ND		250	281		ug/L		112	65 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-147556-A-2-A MS
Matrix: Water
Analysis Batch: 534384

Client Sample ID: Matrix Spike
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		250	291		ug/L		117	65 - 135
1,1,1,2-Tetrachloroethane	ND		250	291		ug/L		116	58 - 135
1,1,2-Trichloroethane	ND		250	248		ug/L		99	64 - 135
1,1-Dichloroethane	ND		250	284		ug/L		114	65 - 135
1,1-Dichloroethene	ND		250	275		ug/L		110	65 - 136
1,1-Dichloropropene	ND		250	290		ug/L		116	65 - 135
1,2,3-Trichlorobenzene	ND		250	280		ug/L		112	60 - 135
1,2,3-Trichloropropane	ND		250	288		ug/L		115	65 - 135
1,2,4-Trichlorobenzene	ND		250	284		ug/L		114	58 - 135
1,2,4-Trimethylbenzene	ND		250	312		ug/L		125	65 - 135
1,2-Dibromo-3-Chloropropane	ND		250	276		ug/L		111	57 - 135
1,2-Dibromoethane	ND		250	261		ug/L		104	65 - 135
1,2-Dichlorobenzene	ND		250	271		ug/L		108	65 - 135
1,2-Dichloroethane	ND		250	241		ug/L		97	65 - 135
1,2-Dichloropropane	ND		250	272		ug/L		109	64 - 135
1,3,5-Trimethylbenzene	ND		250	314		ug/L		126	65 - 135
1,3-Dichlorobenzene	ND		250	274		ug/L		110	65 - 135
1,3-Dichloropropane	ND		250	268		ug/L		107	64 - 135
1,4-Dichlorobenzene	ND		250	268		ug/L		107	65 - 135
2,2-Dichloropropane	ND		250	282		ug/L		113	65 - 135
2-Butanone (MEK)	ND		1000	1020		ug/L		102	44 - 177
2-Chlorotoluene	ND		250	289		ug/L		115	65 - 135
2-Hexanone	ND		1000	1110		ug/L		111	57 - 139
4-Chlorotoluene	ND		250	281		ug/L		112	65 - 135
4-Isopropyltoluene	ND		250	315		ug/L		126	65 - 135
4-Methyl-2-pentanone (MIBK)	ND		1000	1050		ug/L		105	60 - 150
Acetone	ND		1000	989		ug/L		99	39 - 156
Benzene	ND		250	274		ug/L		110	65 - 135
Bromobenzene	ND		250	274		ug/L		110	65 - 135
Bromochloromethane	ND		250	250		ug/L		100	65 - 135
Bromodichloromethane	ND		250	273		ug/L		109	65 - 135
Bromoform	ND		250	229		ug/L		91	62 - 135
Bromomethane	ND		250	174		ug/L		69	45 - 135
Carbon disulfide	33		250	316		ug/L		113	55 - 143
Carbon tetrachloride	ND		250	257		ug/L		103	65 - 135
Chlorobenzene	ND		250	262		ug/L		105	65 - 135
Chloroethane	ND		250	247		ug/L		99	46 - 136
Chloroform	ND		250	269		ug/L		108	65 - 135
Chloromethane	ND		250	194		ug/L		78	34 - 145
cis-1,2-Dichloroethene	ND		250	257		ug/L		103	65 - 135
cis-1,3-Dichloropropene	ND		250	285		ug/L		114	65 - 135
Dibromochloromethane	ND		250	248		ug/L		99	65 - 135
Dibromomethane	ND		250	242		ug/L		97	65 - 135
Dichlorodifluoromethane	ND		250	272		ug/L		109	43 - 142
Ethylbenzene	ND		250	272		ug/L		109	65 - 135
Hexachlorobutadiene	ND		250	301		ug/L		120	65 - 135
Isopropylbenzene	ND		250	314		ug/L		126	65 - 135
Methylene Chloride	ND		250	245		ug/L		98	54 - 141
Naphthalene	ND		250	289		ug/L		116	42 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-147556-A-2-A MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: TCLP

Analysis Batch: 534384

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Hexanone	ND		1000	1150		ug/L		115	57 - 139	3	25
4-Chlorotoluene	ND		250	277		ug/L		111	65 - 135	1	20
4-Isopropyltoluene	ND		250	299		ug/L		120	65 - 135	5	20
4-Methyl-2-pentanone (MIBK)	ND		1000	1060		ug/L		106	60 - 150	1	22
Acetone	ND		1000	1070		ug/L		107	39 - 156	8	23
Benzene	ND		250	268		ug/L		107	65 - 135	2	20
Bromobenzene	ND		250	271		ug/L		108	65 - 135	1	26
Bromochloromethane	ND		250	253		ug/L		101	65 - 135	1	29
Bromodichloromethane	ND		250	272		ug/L		109	65 - 135	0	20
Bromoform	ND		250	234		ug/L		94	62 - 135	2	27
Bromomethane	ND		250	176		ug/L		70	45 - 135	1	33
Carbon disulfide	33		250	313		ug/L		112	55 - 143	1	20
Carbon tetrachloride	ND		250	255		ug/L		102	65 - 135	1	21
Chlorobenzene	ND		250	252		ug/L		101	65 - 135	4	20
Chloroethane	ND		250	233		ug/L		93	46 - 136	6	25
Chloroform	ND		250	261		ug/L		105	65 - 135	3	20
Chloromethane	ND		250	191		ug/L		76	34 - 145	1	24
cis-1,2-Dichloroethene	ND		250	249		ug/L		100	65 - 135	3	20
cis-1,3-Dichloropropene	ND		250	283		ug/L		113	65 - 135	0	26
Dibromochloromethane	ND		250	241		ug/L		96	65 - 135	3	20
Dibromomethane	ND		250	247		ug/L		99	65 - 135	2	26
Dichlorodifluoromethane	ND		250	269		ug/L		107	43 - 142	1	30
Ethylbenzene	ND		250	266		ug/L		106	65 - 135	2	20
Hexachlorobutadiene	ND		250	281		ug/L		112	65 - 135	7	25
Isopropylbenzene	ND		250	307		ug/L		123	65 - 135	2	20
Methylene Chloride	ND		250	239		ug/L		96	54 - 141	2	26
Naphthalene	ND		250	293		ug/L		117	42 - 135	1	23
n-Butylbenzene	ND		250	318		ug/L		127	64 - 135	2	21
N-Propylbenzene	ND		250	290		ug/L		116	65 - 135	4	20
o-Xylene	ND		250	269		ug/L		108	65 - 135	3	20
sec-Butylbenzene	ND		250	286		ug/L		114	64 - 135	4	21
Styrene	ND		250	276		ug/L		110	65 - 135	2	26
tert-Butylbenzene	ND		250	298		ug/L		119	65 - 135	3	21
Tetrachloroethene	ND		250	265		ug/L		106	65 - 135	6	20
Toluene	2.9	J	250	256		ug/L		101	65 - 135	2	20
trans-1,2-Dichloroethene	ND		250	269		ug/L		108	65 - 135	1	24
trans-1,3-Dichloropropene	ND		250	274		ug/L		110	65 - 135	2	26
Trichloroethene	ND		250	276		ug/L		110	65 - 135	6	20
Trichlorofluoromethane	ND		250	274		ug/L		109	53 - 137	4	27
Vinyl chloride	ND		250	228		ug/L		91	40 - 137	2	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 127
4-Bromofluorobenzene (Surr)	110		78 - 120
Dibromofluoromethane (Surr)	101		77 - 120
Toluene-d8 (Surr)	105		80 - 125

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-533804/1-A
Matrix: Water
Analysis Batch: 534475

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 533804

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.50	ug/L		04/29/21 09:41	04/30/21 00:18	1

Lab Sample ID: LCS 280-533804/2-A
Matrix: Water
Analysis Batch: 534475

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 533804

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	40.0	37.0		ug/L		92	89 - 111

Lab Sample ID: 280-147625-2 MS
Matrix: Water
Analysis Batch: 534475

Client Sample ID: VLF-210416-2
Prep Type: Total/NA
Prep Batch: 533804

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	17		40.0	53.8		ug/L		93	79 - 120

Lab Sample ID: 280-147625-2 MSD
Matrix: Water
Analysis Batch: 534475

Client Sample ID: VLF-210416-2
Prep Type: Total/NA
Prep Batch: 533804

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	17		40.0	53.9		ug/L		93	79 - 120	0	20

Lab Sample ID: MB 280-533805/1-A
Matrix: Water
Analysis Batch: 534475

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 533805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.50	0.50	ug/L		04/29/21 09:41	04/29/21 23:15	1

Lab Sample ID: LCS 280-533805/2-A
Matrix: Water
Analysis Batch: 534475

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 533805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	40.0	37.6		ug/L		94	89 - 111

Lab Sample ID: 280-147625-12 MS
Matrix: Water
Analysis Batch: 534475

Client Sample ID: VLF-210416-11
Prep Type: Total/NA
Prep Batch: 533805

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		40.0	37.3		ug/L		93	79 - 120

Lab Sample ID: 280-147625-12 MSD
Matrix: Water
Analysis Batch: 534475

Client Sample ID: VLF-210416-11
Prep Type: Total/NA
Prep Batch: 533805

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		40.0	38.3		ug/L		96	79 - 120	2	20

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 6010B - Dissolved Metals

Lab Sample ID: MB 280-534307/1-A
Matrix: Water
Analysis Batch: 534717

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 534307

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Calcium	ND		200	78	ug/L		04/29/21 16:00	04/30/21 10:56	1
Iron	ND		100	22	ug/L		04/29/21 16:00	04/30/21 10:56	1
Magnesium	ND		200	26	ug/L		04/29/21 16:00	04/30/21 10:56	1
Manganese	ND		5.0	1.9	ug/L		04/29/21 16:00	04/30/21 10:56	1
Sodium	ND		1000	370	ug/L		04/29/21 16:00	04/30/21 10:56	1

Lab Sample ID: LCS 280-534307/2-A
Matrix: Water
Analysis Batch: 534717

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 534307

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Iron	10000	9830		ug/L		98	89 - 115	
Magnesium	50000	48600		ug/L		97	90 - 113	
Manganese	1000	976		ug/L		98	90 - 110	
Sodium	50000	48200		ug/L		96	90 - 115	

Lab Sample ID: MB 280-534432/1-A
Matrix: Water
Analysis Batch: 534780

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 534432

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Calcium	ND		200	78	ug/L		04/30/21 15:50	05/03/21 14:21	1
Iron	ND		100	22	ug/L		04/30/21 15:50	05/03/21 14:21	1
Magnesium	ND		200	26	ug/L		04/30/21 15:50	05/03/21 14:21	1
Manganese	ND		5.0	1.9	ug/L		04/30/21 15:50	05/03/21 14:21	1
Sodium	ND		1000	370	ug/L		04/30/21 15:50	05/03/21 14:21	1

Lab Sample ID: LCS 280-534432/2-A
Matrix: Water
Analysis Batch: 534780

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 534432

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Iron	10000	10700		ug/L		107	89 - 115	
Magnesium	50000	54000		ug/L		108	90 - 113	
Manganese	1000	1090		ug/L		109	90 - 110	
Sodium	50000	48600		ug/L		97	90 - 115	

Lab Sample ID: 280-147607-D-2-I MS
Matrix: Water
Analysis Batch: 534717

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 534307

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	Limits
Iron	22	J	10000	9790		ug/L		98	52 - 155	
Magnesium	62000		50000	111000		ug/L		98	62 - 146	
Manganese	4.1	J	1000	988		ug/L		98	79 - 121	
Sodium	120000		50000	174000		ug/L		97	70 - 203	

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 6010B - Dissolved Metals (Continued)

Lab Sample ID: 280-147607-D-2-J MSD
Matrix: Water
Analysis Batch: 534717

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 534307

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
Calcium	36000		50000	86600		ug/L		101	48 - 153	3	20	
Iron	22	J	10000	9990		ug/L		100	52 - 155	2	20	
Magnesium	62000		50000	114000		ug/L		104	62 - 146	3	20	
Manganese	4.1	J	1000	1000		ug/L		100	79 - 121	1	20	
Sodium	120000		50000	179000		ug/L		109	70 - 203	3	20	

Lab Sample ID: 280-147625-12 MS
Matrix: Water
Analysis Batch: 534780

Client Sample ID: VLF-210416-11
Prep Type: Dissolved
Prep Batch: 534432

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
Calcium	320000		50000	380000	4	ug/L		116	48 - 153			
Iron	ND		10000	10700		ug/L		107	52 - 155			
Magnesium	150000		50000	204000		ug/L		116	62 - 146			
Manganese	65		1000	1160		ug/L		109	79 - 121			
Sodium	33000		50000	89400		ug/L		112	70 - 203			

Lab Sample ID: 280-147625-12 MSD
Matrix: Water
Analysis Batch: 534780

Client Sample ID: VLF-210416-11
Prep Type: Dissolved
Prep Batch: 534432

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD		
Calcium	320000		50000	369000	4	ug/L		95	48 - 153	3	20	
Iron	ND		10000	10500		ug/L		105	52 - 155	2	20	
Magnesium	150000		50000	199000		ug/L		106	62 - 146	3	20	
Manganese	65		1000	1140		ug/L		108	79 - 121	2	20	
Sodium	33000		50000	87900		ug/L		109	70 - 203	2	20	

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-534987/63
Matrix: Water
Analysis Batch: 534987

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloride	ND		3.0	1.0	mg/L			05/06/21 02:54	1

Lab Sample ID: LCS 280-534987/59
Matrix: Water
Analysis Batch: 534987

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	
							Result	Qualifier	Limits	RPD
Chloride	100	103		mg/L		103	90 - 110	

Lab Sample ID: LCSD 280-534987/62
Matrix: Water
Analysis Batch: 534987

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.	
							Result	Qualifier
Chloride	100	103		mg/L		103	90 - 110	0

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 280-534987/10
Matrix: Water
Analysis Batch: 534987

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.82		mg/L		96	50 - 150

Lab Sample ID: 280-147625-2 MS
Matrix: Water
Analysis Batch: 534987

Client Sample ID: VLF-210416-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	14		50.0	69.3		mg/L		112	80 - 120

Lab Sample ID: 280-147625-2 MSD
Matrix: Water
Analysis Batch: 534987

Client Sample ID: VLF-210416-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	14		50.0	69.2		mg/L		111	80 - 120	0	20

Lab Sample ID: 280-147625-28 MS
Matrix: Water
Analysis Batch: 534987

Client Sample ID: VLF-210418-26
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.3		50.0	64.7		mg/L		111	80 - 120

Lab Sample ID: 280-147625-28 MSD
Matrix: Water
Analysis Batch: 534987

Client Sample ID: VLF-210418-26
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.3		50.0	64.6		mg/L		111	80 - 120	0	20

Lab Sample ID: 280-147625-2 DU
Matrix: Water
Analysis Batch: 534987

Client Sample ID: VLF-210416-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	14		13.5		mg/L		0.2	15

Lab Sample ID: 280-147625-28 DU
Matrix: Water
Analysis Batch: 534987

Client Sample ID: VLF-210418-26
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	9.3		9.33		mg/L		0	15

Lab Sample ID: MB 280-535331/6
Matrix: Water
Analysis Batch: 535331

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	1.0	mg/L			05/07/21 13:58	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCS 280-535331/4
Matrix: Water
Analysis Batch: 535331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	104		mg/L		104	90 - 110

Lab Sample ID: LCSD 280-535331/5
Matrix: Water
Analysis Batch: 535331

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	104		mg/L		104	90 - 110	0	10

Lab Sample ID: MRL 280-535331/3
Matrix: Water
Analysis Batch: 535331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.11		mg/L		82	50 - 150

Lab Sample ID: 280-147625-6 MS
Matrix: Water
Analysis Batch: 535331

Client Sample ID: VLF-210416-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1800		2500	4670		mg/L		116	80 - 120

Lab Sample ID: 280-147625-6 MSD
Matrix: Water
Analysis Batch: 535331

Client Sample ID: VLF-210416-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1800		2500	4710		mg/L		117	80 - 120	1	20

Lab Sample ID: 280-147625-6 DU
Matrix: Water
Analysis Batch: 535331

Client Sample ID: VLF-210416-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	1800		2500	1830		mg/L				2	15

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-534224/2-A
Matrix: Water
Analysis Batch: 534388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 534224

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	ND		0.70	0.69	mg/L		04/28/21 17:08	04/29/21 18:22	1

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 280-534224/1-A
Matrix: Water
Analysis Batch: 534388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 534224
 %Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Nitrogen, Kjeldahl	6.00	5.92		mg/L		99	90 - 110

Lab Sample ID: 280-147514-C-1-B MS
Matrix: Water
Analysis Batch: 534388

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 534224
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Nitrogen, Kjeldahl	ND	F1	3.00	2.66	F1	mg/L		89	90 - 110

Lab Sample ID: 280-147514-C-1-C MSD
Matrix: Water
Analysis Batch: 534388

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 534224
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrogen, Kjeldahl	ND	F1	3.00	2.47	F1	mg/L		82	90 - 110	7	25

Lab Sample ID: 280-147631-B-5-B MS
Matrix: Water
Analysis Batch: 534388

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 534224
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Nitrogen, Kjeldahl	ND	F1	3.00	1.50	F1	mg/L		50	90 - 110

Lab Sample ID: 280-147631-B-5-C MSD
Matrix: Water
Analysis Batch: 534388

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 534224
 %Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrogen, Kjeldahl	ND	F1	3.00	1.50	F1	mg/L		50	90 - 110	0	25

Method: 365.1 - Phosphorus, Ortho

Lab Sample ID: MB 280-533232/6
Matrix: Water
Analysis Batch: 533232

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ortho-Phosphate	ND		0.050	0.018	mg/L			04/20/21 13:57	1

Lab Sample ID: LCS 280-533232/4
Matrix: Water
Analysis Batch: 533232

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
ortho-Phosphate	0.500	0.500		mg/L		100	90 - 110

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 365.1 - Phosphorus, Ortho (Continued)

Lab Sample ID: LCSD 280-533232/5
Matrix: Water
Analysis Batch: 533232

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ortho-Phosphate	0.500	0.502		mg/L		100	90 - 110	0	10

Lab Sample ID: 280-147625-25 MS
Matrix: Water
Analysis Batch: 533232

Client Sample ID: VLF-210418-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
ortho-Phosphate	ND		0.500	0.527		mg/L		105	90 - 110

Lab Sample ID: 280-147625-25 MSD
Matrix: Water
Analysis Batch: 533232

Client Sample ID: VLF-210418-23
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ortho-Phosphate	ND		0.500	0.536		mg/L		107	90 - 110	2	10

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 280-534154/5-A
Matrix: Water
Analysis Batch: 534327

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 534154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.050	0.025	mg/L		04/28/21 09:41	04/29/21 10:31	1

Lab Sample ID: LCS 280-534154/3-A
Matrix: Water
Analysis Batch: 534327

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 534154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.500	0.496		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-534154/4-A
Matrix: Water
Analysis Batch: 534327

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 534154

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	0.500	0.490		mg/L		98	90 - 110	1	10

Lab Sample ID: 280-147625-25 MS
Matrix: Water
Analysis Batch: 534327

Client Sample ID: VLF-210418-23
Prep Type: Total/NA
Prep Batch: 534154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	ND		0.500	0.504		mg/L		101	90 - 110

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: 280-147625-25 MSD
 Matrix: Water
 Analysis Batch: 534327

Client Sample ID: VLF-210418-23
 Prep Type: Total/NA
 Prep Batch: 534154

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	ND		0.500	0.496		mg/L		99	90 - 110	2	10

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-533620/60
 Matrix: Water
 Analysis Batch: 533620

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		10	3.1	mg/L			04/22/21 19:04	1

Lab Sample ID: MB 280-533863/33
 Matrix: Water
 Analysis Batch: 533863

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		10	3.1	mg/L			04/23/21 19:27	1

Lab Sample ID: MB 280-533863/6
 Matrix: Water
 Analysis Batch: 533863

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		10	3.1	mg/L			04/23/21 15:41	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-533624/1
 Matrix: Water
 Analysis Batch: 533624

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	4.7	mg/L			04/23/21 09:41	1

Lab Sample ID: LCS 280-533624/2
 Matrix: Water
 Analysis Batch: 533624

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	501	482		mg/L		96	88 - 114

Lab Sample ID: 280-147625-2 DU
 Matrix: Water
 Analysis Batch: 533624

Client Sample ID: VLF-210416-2
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	480		486		mg/L		1	10

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 280-147625-23 DU
 Matrix: Water
 Analysis Batch: 533624

Client Sample ID: VLF-210418-21
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	220		224		mg/L		3	10

Lab Sample ID: MB 280-533759/1
 Matrix: Water
 Analysis Batch: 533759

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	4.7	mg/L			04/24/21 11:46	1

Lab Sample ID: LCS 280-533759/2
 Matrix: Water
 Analysis Batch: 533759

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	501	455		mg/L		91	88 - 114

Lab Sample ID: 280-147625-24 DU
 Matrix: Water
 Analysis Batch: 533759

Client Sample ID: VLF-210418-22
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	120		119		mg/L		2	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-533343/1
 Matrix: Water
 Analysis Batch: 533343

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 10:54	1

Lab Sample ID: LCS 280-533343/2
 Matrix: Water
 Analysis Batch: 533343

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	91.2		mg/L		91	79 - 114

Lab Sample ID: LCSD 280-533343/3
 Matrix: Water
 Analysis Batch: 533343

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	100	94.0		mg/L		94	79 - 114	3	20

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: 280-147625-8 DU
Matrix: Water
Analysis Batch: 533343

Client Sample ID: VLF-210416-8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	1.6	J	1.60	J	mg/L		0	10

Lab Sample ID: MB 280-533360/1
Matrix: Water
Analysis Batch: 533360

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 12:58	1

Lab Sample ID: LCS 280-533360/2
Matrix: Water
Analysis Batch: 533360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	99.6		mg/L		100	79 - 114

Lab Sample ID: 280-147625-9 DU
Matrix: Water
Analysis Batch: 533360

Client Sample ID: VLF-210416-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	42		42.8		mg/L		0.9	10

Lab Sample ID: 280-147625-18 DU
Matrix: Water
Analysis Batch: 533360

Client Sample ID: VLF-210417-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	8.8		9.60		mg/L		9	10

Lab Sample ID: MB 280-533371/1
Matrix: Water
Analysis Batch: 533371

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	1.1	mg/L			04/21/21 14:43	1

Lab Sample ID: LCS 280-533371/2
Matrix: Water
Analysis Batch: 533371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	91.6		mg/L		92	79 - 114

Lab Sample ID: 280-147592-B-1 DU
Matrix: Water
Analysis Batch: 533371

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	11		11.6		mg/L		4	10

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-533212/4
Matrix: Water
Analysis Batch: 533212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	0.24	mg/L			04/20/21 12:55	1

Lab Sample ID: SCB 280-533212/1
Matrix: Water
Analysis Batch: 533212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.301	J s	2.0	0.24	mg/L			04/20/21 12:55	1

Lab Sample ID: USB 280-533212/2
Matrix: Water
Analysis Batch: 533212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	0.24	mg/L			04/20/21 12:55	1

Lab Sample ID: LCS 280-533212/3
Matrix: Water
Analysis Batch: 533212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	79.9	J *-	mg/L		40	85 - 115

QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

GC/MS VOA

Leach Batch: 533523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147556-A-2-A MS	Matrix Spike	TCLP	Water	1311	
280-147556-A-2-A MSD	Matrix Spike Duplicate	TCLP	Water	1311	

Analysis Batch: 534251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-1	VLF-210416-1	Total/NA	Water	8260B	
280-147625-2	VLF-210416-2	Total/NA	Water	8260B	
280-147625-3	VLF-210416-3	Total/NA	Water	8260B	
280-147625-4	VLF-210416-4	Total/NA	Water	8260B	
280-147625-6	VLF-210416-6	Total/NA	Water	8260B	
280-147625-7	VLF-210416-7	Total/NA	Water	8260B	
280-147625-8	VLF-210416-8	Total/NA	Water	8260B	
280-147625-9	VLF-210416-9	Total/NA	Water	8260B	
280-147625-10	VLF-210416-10	Total/NA	Water	8260B	
280-147625-11	TRIP BLANK	Total/NA	Water	8260B	
280-147625-12	VLF-210416-11	Total/NA	Water	8260B	
280-147625-13	VLF-210416-12	Total/NA	Water	8260B	
280-147625-14	VLF-210417-13	Total/NA	Water	8260B	
280-147625-15	VLF-210417-14	Total/NA	Water	8260B	
MB 280-534251/9	Method Blank	Total/NA	Water	8260B	
LCS 280-534251/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-534251/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 534384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-16	VLF-210417-15	Total/NA	Water	8260B	
280-147625-17	VLF-210417-16	Total/NA	Water	8260B	
280-147625-18	VLF-210417-17	Total/NA	Water	8260B	
280-147625-19	VLF-210417-18	Total/NA	Water	8260B	
280-147625-20	VLF-210417-19	Total/NA	Water	8260B	
280-147625-21	TRIP BLANK	Total/NA	Water	8260B	
MB 280-534384/9	Method Blank	Total/NA	Water	8260B	
LCS 280-534384/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-534384/5	Lab Control Sample Dup	Total/NA	Water	8260B	
280-147556-A-2-A MS	Matrix Spike	TCLP	Water	8260B	533523
280-147556-A-2-A MSD	Matrix Spike Duplicate	TCLP	Water	8260B	533523

Analysis Batch: 534400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-22	VLF-210417-20	Total/NA	Water	8260B	
280-147625-29	TRIP BLANK	Total/NA	Water	8260B	
MB 280-534400/10	Method Blank	Total/NA	Water	8260B	
LCS 280-534400/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-534400/6	Lab Control Sample Dup	Total/NA	Water	8260B	
280-147692-C-2 MS	Matrix Spike	Total/NA	Water	8260B	
280-147692-D-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 534570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-16 - RA	VLF-210417-15	Total/NA	Water	8260B	
280-147625-17 - RA	VLF-210417-16	Total/NA	Water	8260B	

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

GC/MS VOA (Continued)

Analysis Batch: 534570 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-18 - RA	VLf-210417-17	Total/NA	Water	8260B	
280-147625-19 - RA	VLf-210417-18	Total/NA	Water	8260B	
280-147625-20 - RA	VLf-210417-19	Total/NA	Water	8260B	
280-147625-21 - RA	TRIP BLANK	Total/NA	Water	8260B	
MB 280-534570/9	Method Blank	Total/NA	Water	8260B	
LCS 280-534570/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-534570/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Metals

Prep Batch: 533804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-2	VLf-210416-2	Total/NA	Water	200.8	
280-147625-3	VLf-210416-3	Total/NA	Water	200.8	
280-147625-4	VLf-210416-4	Total/NA	Water	200.8	
280-147625-6	VLf-210416-6	Total/NA	Water	200.8	
280-147625-7	VLf-210416-7	Total/NA	Water	200.8	
280-147625-8	VLf-210416-8	Total/NA	Water	200.8	
280-147625-9	VLf-210416-9	Total/NA	Water	200.8	
280-147625-10	VLf-210416-10	Total/NA	Water	200.8	
MB 280-533804/1-A	Method Blank	Total/NA	Water	200.8	
LCS 280-533804/2-A	Lab Control Sample	Total/NA	Water	200.8	
280-147625-2 MS	VLf-210416-2	Total/NA	Water	200.8	
280-147625-2 MSD	VLf-210416-2	Total/NA	Water	200.8	

Prep Batch: 533805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-12	VLf-210416-11	Total/NA	Water	200.8	
280-147625-13	VLf-210416-12	Total/NA	Water	200.8	
280-147625-14	VLf-210417-13	Total/NA	Water	200.8	
280-147625-15	VLf-210417-14	Total/NA	Water	200.8	
280-147625-16	VLf-210417-15	Total/NA	Water	200.8	
280-147625-17	VLf-210417-16	Total/NA	Water	200.8	
280-147625-18	VLf-210417-17	Total/NA	Water	200.8	
280-147625-19	VLf-210417-18	Total/NA	Water	200.8	
280-147625-20	VLf-210417-19	Total/NA	Water	200.8	
280-147625-22	VLf-210417-20	Total/NA	Water	200.8	
MB 280-533805/1-A	Method Blank	Total/NA	Water	200.8	
LCS 280-533805/2-A	Lab Control Sample	Total/NA	Water	200.8	
280-147625-12 MS	VLf-210416-11	Total/NA	Water	200.8	
280-147625-12 MSD	VLf-210416-11	Total/NA	Water	200.8	

Prep Batch: 534307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-2	VLf-210416-2	Dissolved	Water	3005A	
280-147625-3	VLf-210416-3	Dissolved	Water	3005A	
280-147625-4	VLf-210416-4	Dissolved	Water	3005A	
280-147625-5	VLf-210416-5	Dissolved	Water	3005A	
280-147625-6	VLf-210416-6	Dissolved	Water	3005A	
280-147625-7	VLf-210416-7	Dissolved	Water	3005A	
280-147625-8	VLf-210416-8	Dissolved	Water	3005A	

QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Metals (Continued)

Prep Batch: 534307 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-9	VLf-210416-9	Dissolved	Water	3005A	
280-147625-10	VLf-210416-10	Dissolved	Water	3005A	
MB 280-534307/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-534307/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-147607-D-2-I MS	Matrix Spike	Dissolved	Water	3005A	
280-147607-D-2-J MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 534432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-12	VLf-210416-11	Dissolved	Water	3005A	
280-147625-13	VLf-210416-12	Dissolved	Water	3005A	
280-147625-14	VLf-210417-13	Dissolved	Water	3005A	
280-147625-15	VLf-210417-14	Dissolved	Water	3005A	
280-147625-16	VLf-210417-15	Dissolved	Water	3005A	
280-147625-17	VLf-210417-16	Dissolved	Water	3005A	
280-147625-18	VLf-210417-17	Dissolved	Water	3005A	
280-147625-19	VLf-210417-18	Dissolved	Water	3005A	
280-147625-20	VLf-210417-19	Dissolved	Water	3005A	
280-147625-22	VLf-210417-20	Dissolved	Water	3005A	
280-147625-23	VLf-210418-21	Dissolved	Water	3005A	
280-147625-24	VLf-210418-22	Dissolved	Water	3005A	
280-147625-25	VLf-210418-23	Dissolved	Water	3005A	
280-147625-26	VLf-210418-24	Dissolved	Water	3005A	
280-147625-27	VLf-210418-25	Dissolved	Water	3005A	
280-147625-28	VLf-210418-26	Dissolved	Water	3005A	
MB 280-534432/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-534432/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-147625-12 MS	VLf-210416-11	Dissolved	Water	3005A	
280-147625-12 MSD	VLf-210416-11	Dissolved	Water	3005A	

Analysis Batch: 534475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-2	VLf-210416-2	Total/NA	Water	200.8	533804
280-147625-3	VLf-210416-3	Total/NA	Water	200.8	533804
280-147625-4	VLf-210416-4	Total/NA	Water	200.8	533804
280-147625-6	VLf-210416-6	Total/NA	Water	200.8	533804
280-147625-7	VLf-210416-7	Total/NA	Water	200.8	533804
280-147625-8	VLf-210416-8	Total/NA	Water	200.8	533804
280-147625-9	VLf-210416-9	Total/NA	Water	200.8	533804
280-147625-10	VLf-210416-10	Total/NA	Water	200.8	533804
280-147625-12	VLf-210416-11	Total/NA	Water	200.8	533805
280-147625-13	VLf-210416-12	Total/NA	Water	200.8	533805
280-147625-14	VLf-210417-13	Total/NA	Water	200.8	533805
280-147625-15	VLf-210417-14	Total/NA	Water	200.8	533805
280-147625-16	VLf-210417-15	Total/NA	Water	200.8	533805
280-147625-17	VLf-210417-16	Total/NA	Water	200.8	533805
280-147625-18	VLf-210417-17	Total/NA	Water	200.8	533805
280-147625-19	VLf-210417-18	Total/NA	Water	200.8	533805
280-147625-20	VLf-210417-19	Total/NA	Water	200.8	533805
280-147625-22	VLf-210417-20	Total/NA	Water	200.8	533805
MB 280-533804/1-A	Method Blank	Total/NA	Water	200.8	533804

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Metals (Continued)

Analysis Batch: 534475 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-533805/1-A	Method Blank	Total/NA	Water	200.8	533805
LCS 280-533804/2-A	Lab Control Sample	Total/NA	Water	200.8	533804
LCS 280-533805/2-A	Lab Control Sample	Total/NA	Water	200.8	533805
280-147625-2 MS	VLF-210416-2	Total/NA	Water	200.8	533804
280-147625-2 MSD	VLF-210416-2	Total/NA	Water	200.8	533804
280-147625-12 MS	VLF-210416-11	Total/NA	Water	200.8	533805
280-147625-12 MSD	VLF-210416-11	Total/NA	Water	200.8	533805

Analysis Batch: 534717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-2	VLF-210416-2	Dissolved	Water	6010B	534307
280-147625-3	VLF-210416-3	Dissolved	Water	6010B	534307
280-147625-4	VLF-210416-4	Dissolved	Water	6010B	534307
280-147625-5	VLF-210416-5	Dissolved	Water	6010B	534307
280-147625-6	VLF-210416-6	Dissolved	Water	6010B	534307
280-147625-7	VLF-210416-7	Dissolved	Water	6010B	534307
280-147625-8	VLF-210416-8	Dissolved	Water	6010B	534307
280-147625-9	VLF-210416-9	Dissolved	Water	6010B	534307
280-147625-10	VLF-210416-10	Dissolved	Water	6010B	534307
MB 280-534307/1-A	Method Blank	Total Recoverable	Water	6010B	534307
LCS 280-534307/2-A	Lab Control Sample	Total Recoverable	Water	6010B	534307
280-147607-D-2-I MS	Matrix Spike	Dissolved	Water	6010B	534307
280-147607-D-2-J MSD	Matrix Spike Duplicate	Dissolved	Water	6010B	534307

Analysis Batch: 534780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-12	VLF-210416-11	Dissolved	Water	6010B	534432
280-147625-13	VLF-210416-12	Dissolved	Water	6010B	534432
280-147625-14	VLF-210417-13	Dissolved	Water	6010B	534432
280-147625-15	VLF-210417-14	Dissolved	Water	6010B	534432
280-147625-16	VLF-210417-15	Dissolved	Water	6010B	534432
280-147625-17	VLF-210417-16	Dissolved	Water	6010B	534432
280-147625-18	VLF-210417-17	Dissolved	Water	6010B	534432
280-147625-19	VLF-210417-18	Dissolved	Water	6010B	534432
280-147625-20	VLF-210417-19	Dissolved	Water	6010B	534432
280-147625-22	VLF-210417-20	Dissolved	Water	6010B	534432
280-147625-23	VLF-210418-21	Dissolved	Water	6010B	534432
280-147625-24	VLF-210418-22	Dissolved	Water	6010B	534432
280-147625-25	VLF-210418-23	Dissolved	Water	6010B	534432
280-147625-26	VLF-210418-24	Dissolved	Water	6010B	534432
280-147625-27	VLF-210418-25	Dissolved	Water	6010B	534432
280-147625-28	VLF-210418-26	Dissolved	Water	6010B	534432
MB 280-534432/1-A	Method Blank	Total Recoverable	Water	6010B	534432
LCS 280-534432/2-A	Lab Control Sample	Total Recoverable	Water	6010B	534432
280-147625-12 MS	VLF-210416-11	Dissolved	Water	6010B	534432
280-147625-12 MSD	VLF-210416-11	Dissolved	Water	6010B	534432

Analysis Batch: 534963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-6	VLF-210416-6	Dissolved	Water	6010B	534307

QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

General Chemistry

Analysis Batch: 533212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-25	VLf-210418-23	Total/NA	Water	SM5210B	
280-147625-26	VLf-210418-24	Total/NA	Water	SM5210B	
280-147625-27	VLf-210418-25	Total/NA	Water	SM5210B	
280-147625-28	VLf-210418-26	Total/NA	Water	SM5210B	
MB 280-533212/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-533212/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-533212/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-533212/3	Lab Control Sample	Total/NA	Water	SM5210B	

Analysis Batch: 533232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-25	VLf-210418-23	Total/NA	Water	365.1	
280-147625-26	VLf-210418-24	Total/NA	Water	365.1	
280-147625-27	VLf-210418-25	Total/NA	Water	365.1	
280-147625-28	VLf-210418-26	Total/NA	Water	365.1	
MB 280-533232/6	Method Blank	Total/NA	Water	365.1	
LCS 280-533232/4	Lab Control Sample	Total/NA	Water	365.1	
LCSD 280-533232/5	Lab Control Sample Dup	Total/NA	Water	365.1	
280-147625-25 MS	VLf-210418-23	Total/NA	Water	365.1	
280-147625-25 MSD	VLf-210418-23	Total/NA	Water	365.1	

Analysis Batch: 533343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-2	VLf-210416-2	Total/NA	Water	SM 2540D	
280-147625-3	VLf-210416-3	Total/NA	Water	SM 2540D	
280-147625-4	VLf-210416-4	Total/NA	Water	SM 2540D	
280-147625-6	VLf-210416-6	Total/NA	Water	SM 2540D	
280-147625-7	VLf-210416-7	Total/NA	Water	SM 2540D	
280-147625-8	VLf-210416-8	Total/NA	Water	SM 2540D	
MB 280-533343/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-533343/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-533343/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
280-147625-8 DU	VLf-210416-8	Total/NA	Water	SM 2540D	

Analysis Batch: 533360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-9	VLf-210416-9	Total/NA	Water	SM 2540D	
280-147625-10	VLf-210416-10	Total/NA	Water	SM 2540D	
280-147625-12	VLf-210416-11	Total/NA	Water	SM 2540D	
280-147625-13	VLf-210416-12	Total/NA	Water	SM 2540D	
280-147625-14	VLf-210417-13	Total/NA	Water	SM 2540D	
280-147625-15	VLf-210417-14	Total/NA	Water	SM 2540D	
280-147625-16	VLf-210417-15	Total/NA	Water	SM 2540D	
280-147625-17	VLf-210417-16	Total/NA	Water	SM 2540D	
280-147625-18	VLf-210417-17	Total/NA	Water	SM 2540D	
MB 280-533360/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-533360/2	Lab Control Sample	Total/NA	Water	SM 2540D	
280-147625-9 DU	VLf-210416-9	Total/NA	Water	SM 2540D	
280-147625-18 DU	VLf-210417-17	Total/NA	Water	SM 2540D	

QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

General Chemistry

Analysis Batch: 533371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-19	VLF-210417-18	Total/NA	Water	SM 2540D	
280-147625-20	VLF-210417-19	Total/NA	Water	SM 2540D	
280-147625-22	VLF-210417-20	Total/NA	Water	SM 2540D	
MB 280-533371/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-533371/2	Lab Control Sample	Total/NA	Water	SM 2540D	
280-147592-B-1 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 533620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-14	VLF-210417-13	Total/NA	Water	SM 2320B	
280-147625-15	VLF-210417-14	Total/NA	Water	SM 2320B	
280-147625-16	VLF-210417-15	Total/NA	Water	SM 2320B	
MB 280-533620/60	Method Blank	Total/NA	Water	SM 2320B	

Analysis Batch: 533624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-2	VLF-210416-2	Total/NA	Water	SM 2540C	
280-147625-3	VLF-210416-3	Total/NA	Water	SM 2540C	
280-147625-4	VLF-210416-4	Total/NA	Water	SM 2540C	
280-147625-5	VLF-210416-5	Total/NA	Water	SM 2540C	
280-147625-6	VLF-210416-6	Total/NA	Water	SM 2540C	
280-147625-7	VLF-210416-7	Total/NA	Water	SM 2540C	
280-147625-8	VLF-210416-8	Total/NA	Water	SM 2540C	
280-147625-9	VLF-210416-9	Total/NA	Water	SM 2540C	
280-147625-10	VLF-210416-10	Total/NA	Water	SM 2540C	
280-147625-12	VLF-210416-11	Total/NA	Water	SM 2540C	
280-147625-13	VLF-210416-12	Total/NA	Water	SM 2540C	
280-147625-14	VLF-210417-13	Total/NA	Water	SM 2540C	
280-147625-15	VLF-210417-14	Total/NA	Water	SM 2540C	
280-147625-16	VLF-210417-15	Total/NA	Water	SM 2540C	
280-147625-17	VLF-210417-16	Total/NA	Water	SM 2540C	
280-147625-18	VLF-210417-17	Total/NA	Water	SM 2540C	
280-147625-19	VLF-210417-18	Total/NA	Water	SM 2540C	
280-147625-20	VLF-210417-19	Total/NA	Water	SM 2540C	
280-147625-22	VLF-210417-20	Total/NA	Water	SM 2540C	
280-147625-23	VLF-210418-21	Total/NA	Water	SM 2540C	
MB 280-533624/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-533624/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-147625-2 DU	VLF-210416-2	Total/NA	Water	SM 2540C	
280-147625-23 DU	VLF-210418-21	Total/NA	Water	SM 2540C	

Analysis Batch: 533759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-24	VLF-210418-22	Total/NA	Water	SM 2540C	
MB 280-533759/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-533759/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-147625-24 DU	VLF-210418-22	Total/NA	Water	SM 2540C	

Analysis Batch: 533863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-2	VLF-210416-2	Total/NA	Water	SM 2320B	

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

General Chemistry (Continued)

Analysis Batch: 533863 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-3	VLf-210416-3	Total/NA	Water	SM 2320B	
280-147625-4	VLf-210416-4	Total/NA	Water	SM 2320B	
280-147625-5	VLf-210416-5	Total/NA	Water	SM 2320B	
280-147625-6	VLf-210416-6	Total/NA	Water	SM 2320B	
280-147625-7	VLf-210416-7	Total/NA	Water	SM 2320B	
280-147625-8	VLf-210416-8	Total/NA	Water	SM 2320B	
280-147625-9	VLf-210416-9	Total/NA	Water	SM 2320B	
280-147625-10	VLf-210416-10	Total/NA	Water	SM 2320B	
280-147625-12	VLf-210416-11	Total/NA	Water	SM 2320B	
280-147625-13	VLf-210416-12	Total/NA	Water	SM 2320B	
280-147625-17	VLf-210417-16	Total/NA	Water	SM 2320B	
280-147625-18	VLf-210417-17	Total/NA	Water	SM 2320B	
280-147625-19	VLf-210417-18	Total/NA	Water	SM 2320B	
280-147625-20	VLf-210417-19	Total/NA	Water	SM 2320B	
280-147625-22	VLf-210417-20	Total/NA	Water	SM 2320B	
280-147625-23	VLf-210418-21	Total/NA	Water	SM 2320B	
280-147625-24	VLf-210418-22	Total/NA	Water	SM 2320B	
MB 280-533863/33	Method Blank	Total/NA	Water	SM 2320B	
MB 280-533863/6	Method Blank	Total/NA	Water	SM 2320B	

Prep Batch: 534154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-25	VLf-210418-23	Total/NA	Water	365.2/365.3/365	
280-147625-26	VLf-210418-24	Total/NA	Water	365.2/365.3/365	
280-147625-27	VLf-210418-25	Total/NA	Water	365.2/365.3/365	
280-147625-28	VLf-210418-26	Total/NA	Water	365.2/365.3/365	
MB 280-534154/5-A	Method Blank	Total/NA	Water	365.2/365.3/365	
LCS 280-534154/3-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
LCSD 280-534154/4-A	Lab Control Sample Dup	Total/NA	Water	365.2/365.3/365	
280-147625-25 MS	VLf-210418-23	Total/NA	Water	365.2/365.3/365	
280-147625-25 MSD	VLf-210418-23	Total/NA	Water	365.2/365.3/365	

Prep Batch: 534224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-25	VLf-210418-23	Total/NA	Water	351.2	
280-147625-26	VLf-210418-24	Total/NA	Water	351.2	
280-147625-27	VLf-210418-25	Total/NA	Water	351.2	
280-147625-28	VLf-210418-26	Total/NA	Water	351.2	
MB 280-534224/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-534224/1-A	Lab Control Sample	Total/NA	Water	351.2	
280-147514-C-1-B MS	Matrix Spike	Total/NA	Water	351.2	
280-147514-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	351.2	
280-147631-B-5-B MS	Matrix Spike	Total/NA	Water	351.2	
280-147631-B-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	351.2	

Analysis Batch: 534327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-25	VLf-210418-23	Total/NA	Water	365.1	534154
280-147625-26	VLf-210418-24	Total/NA	Water	365.1	534154
280-147625-27	VLf-210418-25	Total/NA	Water	365.1	534154
280-147625-28	VLf-210418-26	Total/NA	Water	365.1	534154

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

General Chemistry (Continued)

Analysis Batch: 534327 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-534154/5-A	Method Blank	Total/NA	Water	365.1	534154
LCS 280-534154/3-A	Lab Control Sample	Total/NA	Water	365.1	534154
LCSD 280-534154/4-A	Lab Control Sample Dup	Total/NA	Water	365.1	534154
280-147625-25 MS	VLF-210418-23	Total/NA	Water	365.1	534154
280-147625-25 MSD	VLF-210418-23	Total/NA	Water	365.1	534154

Analysis Batch: 534388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-25	VLF-210418-23	Total/NA	Water	351.2	534224
280-147625-26	VLF-210418-24	Total/NA	Water	351.2	534224
280-147625-27	VLF-210418-25	Total/NA	Water	351.2	534224
280-147625-28	VLF-210418-26	Total/NA	Water	351.2	534224
MB 280-534224/2-A	Method Blank	Total/NA	Water	351.2	534224
LCS 280-534224/1-A	Lab Control Sample	Total/NA	Water	351.2	534224
280-147514-C-1-B MS	Matrix Spike	Total/NA	Water	351.2	534224
280-147514-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	351.2	534224
280-147631-B-5-B MS	Matrix Spike	Total/NA	Water	351.2	534224
280-147631-B-5-C MSD	Matrix Spike Duplicate	Total/NA	Water	351.2	534224

Analysis Batch: 534987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-2	VLF-210416-2	Total/NA	Water	300.0	
280-147625-3	VLF-210416-3	Total/NA	Water	300.0	
280-147625-4	VLF-210416-4	Total/NA	Water	300.0	
280-147625-5	VLF-210416-5	Total/NA	Water	300.0	
280-147625-7	VLF-210416-7	Total/NA	Water	300.0	
280-147625-8	VLF-210416-8	Total/NA	Water	300.0	
280-147625-9	VLF-210416-9	Total/NA	Water	300.0	
280-147625-10	VLF-210416-10	Total/NA	Water	300.0	
280-147625-13	VLF-210416-12	Total/NA	Water	300.0	
280-147625-14	VLF-210417-13	Total/NA	Water	300.0	
280-147625-15	VLF-210417-14	Total/NA	Water	300.0	
280-147625-16	VLF-210417-15	Total/NA	Water	300.0	
280-147625-17	VLF-210417-16	Total/NA	Water	300.0	
280-147625-18	VLF-210417-17	Total/NA	Water	300.0	
280-147625-19	VLF-210417-18	Total/NA	Water	300.0	
280-147625-20	VLF-210417-19	Total/NA	Water	300.0	
280-147625-22	VLF-210417-20	Total/NA	Water	300.0	
280-147625-23	VLF-210418-21	Total/NA	Water	300.0	
280-147625-24	VLF-210418-22	Total/NA	Water	300.0	
280-147625-25	VLF-210418-23	Total/NA	Water	300.0	
280-147625-26	VLF-210418-24	Total/NA	Water	300.0	
280-147625-27	VLF-210418-25	Total/NA	Water	300.0	
280-147625-28	VLF-210418-26	Total/NA	Water	300.0	
MB 280-534987/63	Method Blank	Total/NA	Water	300.0	
LCS 280-534987/59	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-534987/62	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-534987/10	Lab Control Sample	Total/NA	Water	300.0	
280-147625-2 MS	VLF-210416-2	Total/NA	Water	300.0	
280-147625-2 MSD	VLF-210416-2	Total/NA	Water	300.0	
280-147625-28 MS	VLF-210418-26	Total/NA	Water	300.0	

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QC Association Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

General Chemistry (Continued)

Analysis Batch: 534987 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-28 MSD	VLf-210418-26	Total/NA	Water	300.0	
280-147625-2 DU	VLf-210416-2	Total/NA	Water	300.0	
280-147625-28 DU	VLf-210418-26	Total/NA	Water	300.0	

Analysis Batch: 535331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-147625-6	VLf-210416-6	Total/NA	Water	300.0	
280-147625-12	VLf-210416-11	Total/NA	Water	300.0	
MB 280-535331/6	Method Blank	Total/NA	Water	300.0	
LCS 280-535331/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-535331/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-535331/3	Lab Control Sample	Total/NA	Water	300.0	
280-147625-6 MS	VLf-210416-6	Total/NA	Water	300.0	
280-147625-6 MSD	VLf-210416-6	Total/NA	Water	300.0	
280-147625-6 DU	VLf-210416-6	Total/NA	Water	300.0	

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210416-1

Lab Sample ID: 280-147625-1

Date Collected: 04/16/21 08:15

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/28/21 23:44	PP	TAL DEN

Client Sample ID: VLF-210416-2

Lab Sample ID: 280-147625-2

Date Collected: 04/16/21 09:15

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 00:07	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533804	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 00:26	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534307	04/29/21 16:00	EC	TAL DEN
Dissolved	Analysis	6010B		1			534717	04/30/21 12:16	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 03:08	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 17:17	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533343	04/21/21 10:54	LEB	TAL DEN

Client Sample ID: VLF-210416-3

Lab Sample ID: 280-147625-3

Date Collected: 04/16/21 10:15

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 00:30	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533804	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 00:43	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534307	04/29/21 16:00	EC	TAL DEN
Dissolved	Analysis	6010B		1			534717	04/30/21 12:20	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 04:04	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 17:23	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533343	04/21/21 10:54	LEB	TAL DEN

Client Sample ID: VLF-210416-4

Lab Sample ID: 280-147625-4

Date Collected: 04/16/21 11:05

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 00:53	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533804	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 00:47	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534307	04/29/21 16:00	EC	TAL DEN
Dissolved	Analysis	6010B		1			534717	04/30/21 12:23	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 04:18	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 17:43	QJB	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210416-4

Lab Sample ID: 280-147625-4

Date Collected: 04/16/21 11:05

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533343	04/21/21 10:54	LEB	TAL DEN

Client Sample ID: VLF-210416-5

Lab Sample ID: 280-147625-5

Date Collected: 04/16/21 11:30

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	534307	04/29/21 16:00	EC	TAL DEN
Dissolved	Analysis	6010B		1			534717	04/30/21 12:26	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 04:32	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 17:51	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN

Client Sample ID: VLF-210416-6

Lab Sample ID: 280-147625-6

Date Collected: 04/16/21 12:10

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 01:16	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533804	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 00:50	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534307	04/29/21 16:00	EC	TAL DEN
Dissolved	Analysis	6010B		1			534717	04/30/21 12:30	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534307	04/29/21 16:00	EC	TAL DEN
Dissolved	Analysis	6010B		10			534963	05/05/21 09:12	LMT	TAL DEN
Total/NA	Analysis	300.0		50	5 mL	5 mL	535331	05/08/21 01:50	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 16:21	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533343	04/21/21 10:54	LEB	TAL DEN

Client Sample ID: VLF-210416-7

Lab Sample ID: 280-147625-7

Date Collected: 04/16/21 12:40

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 01:39	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533804	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 00:54	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534307	04/29/21 16:00	EC	TAL DEN
Dissolved	Analysis	6010B		1			534717	04/30/21 12:33	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 05:28	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 17:59	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210416-7

Lab Sample ID: 280-147625-7

Date Collected: 04/16/21 12:40

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533343	04/21/21 10:54	LEB	TAL DEN

Client Sample ID: VLF-210416-8

Lab Sample ID: 280-147625-8

Date Collected: 04/16/21 13:20

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 02:02	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533804	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 00:57	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534307	04/29/21 16:00	EC	TAL DEN
Dissolved	Analysis	6010B		1			534717	04/30/21 12:36	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 05:42	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 18:06	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533343	04/21/21 10:54	LEB	TAL DEN

Client Sample ID: VLF-210416-9

Lab Sample ID: 280-147625-9

Date Collected: 04/16/21 14:25

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 02:25	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533804	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 01:01	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534307	04/29/21 16:00	EC	TAL DEN
Dissolved	Analysis	6010B		1			534717	04/30/21 12:40	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 05:56	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 18:12	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533360	04/21/21 12:58	LEB	TAL DEN

Client Sample ID: VLF-210416-10

Lab Sample ID: 280-147625-10

Date Collected: 04/16/21 14:30

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 02:48	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533804	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 01:04	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534307	04/29/21 16:00	EC	TAL DEN
Dissolved	Analysis	6010B		1			534717	04/30/21 12:43	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 06:10	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 18:18	QJB	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210416-10

Lab Sample ID: 280-147625-10

Date Collected: 04/16/21 14:30

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533360	04/21/21 12:58	LEB	TAL DEN

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-147625-11

Date Collected: 04/16/21 08:15

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 03:11	PP	TAL DEN

Client Sample ID: VLF-210416-11

Lab Sample ID: 280-147625-12

Date Collected: 04/16/21 15:25

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 03:34	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533805	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/29/21 23:22	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 14:28	LMT	TAL DEN
Total/NA	Analysis	300.0		10	5 mL	5 mL	535331	05/08/21 03:28	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 18:28	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533360	04/21/21 12:58	LEB	TAL DEN

Client Sample ID: VLF-210416-12

Lab Sample ID: 280-147625-13

Date Collected: 04/16/21 16:15

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 03:57	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533805	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/29/21 23:33	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 14:42	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 06:38	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 18:38	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533360	04/21/21 12:58	LEB	TAL DEN

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210417-13

Lab Sample ID: 280-147625-14

Date Collected: 04/17/21 09:00

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 04:20	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533805	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/29/21 23:36	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 14:45	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 06:52	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533620	04/22/21 19:46	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533360	04/21/21 12:58	LEB	TAL DEN

Client Sample ID: VLF-210417-14

Lab Sample ID: 280-147625-15

Date Collected: 04/17/21 09:45

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534251	04/29/21 04:42	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533805	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/29/21 23:47	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:03	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 07:06	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533620	04/22/21 19:59	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533360	04/21/21 12:58	LEB	TAL DEN

Client Sample ID: VLF-210417-15

Lab Sample ID: 280-147625-16

Date Collected: 04/17/21 10:28

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534384	04/30/21 03:44	PP	TAL DEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	534570	04/30/21 23:59	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533805	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/29/21 23:50	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:06	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 07:20	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533620	04/22/21 20:05	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533360	04/21/21 12:58	LEB	TAL DEN

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210417-16

Lab Sample ID: 280-147625-17

Date Collected: 04/17/21 11:30

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534384	04/30/21 04:07	PP	TAL DEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	534570	05/01/21 00:22	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533805	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/29/21 23:54	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:10	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 07:34	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 18:44	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533360	04/21/21 12:58	LEB	TAL DEN

Client Sample ID: VLF-210417-17

Lab Sample ID: 280-147625-18

Date Collected: 04/17/21 12:15

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534384	04/30/21 04:30	PP	TAL DEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	534570	05/01/21 00:45	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533805	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/29/21 23:57	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:13	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 08:16	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 18:51	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533360	04/21/21 12:58	LEB	TAL DEN

Client Sample ID: VLF-210417-18

Lab Sample ID: 280-147625-19

Date Collected: 04/17/21 13:10

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534384	04/30/21 04:53	PP	TAL DEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	534570	05/01/21 01:08	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533805	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 00:01	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:17	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 08:30	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 19:34	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533371	04/21/21 14:43	LEB	TAL DEN

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210417-19

Lab Sample ID: 280-147625-20

Date Collected: 04/17/21 13:15

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534384	04/30/21 05:16	PP	TAL DEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	534570	05/01/21 01:31	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533805	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 00:04	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:20	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 08:43	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 19:46	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533371	04/21/21 14:43	LEB	TAL DEN

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-147625-21

Date Collected: 04/17/21 09:00

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534384	04/30/21 05:38	PP	TAL DEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	534570	05/01/21 01:54	PP	TAL DEN

Client Sample ID: VLF-210417-20

Lab Sample ID: 280-147625-22

Date Collected: 04/17/21 14:25

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534400	04/30/21 09:56	TAW	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	533805	04/29/21 09:41	MAB	TAL DEN
Total/NA	Analysis	200.8		1			534475	04/30/21 00:08	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:24	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 08:57	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 19:53	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	533371	04/21/21 14:43	LEB	TAL DEN

Client Sample ID: VLF-210418-21

Lab Sample ID: 280-147625-23

Date Collected: 04/18/21 11:50

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:27	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 09:11	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 19:59	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533624	04/23/21 09:41	JMH	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210418-22

Lab Sample ID: 280-147625-24

Date Collected: 04/18/21 12:55

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:45	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 09:25	JMB	TAL DEN
Total/NA	Analysis	SM 2320B		1			533863	04/23/21 20:05	QJB	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	533759	04/24/21 11:46	JMH	TAL DEN

Client Sample ID: VLF-210418-23

Lab Sample ID: 280-147625-25

Date Collected: 04/18/21 14:08

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:48	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 09:39	JMB	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	534224	04/28/21 17:08	SVC	TAL DEN
Total/NA	Analysis	351.2		1			534388	04/29/21 18:29	SVC	TAL DEN
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	534154	04/28/21 09:41	SPG	TAL DEN
Total/NA	Analysis	365.1		1			534327	04/29/21 10:31	SPG	TAL DEN
Total/NA	Analysis	365.1		1	2 mL	2 mL	533232	04/20/21 13:57	SPG	TAL DEN
Total/NA	Analysis	SM5210B		1	240 mL	300 mL	533212	04/20/21 12:55	LEB	TAL DEN

Client Sample ID: VLF-210418-24

Lab Sample ID: 280-147625-26

Date Collected: 04/18/21 15:00

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:52	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 09:53	JMB	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	534224	04/28/21 17:08	SVC	TAL DEN
Total/NA	Analysis	351.2		1			534388	04/29/21 18:33	SVC	TAL DEN
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	534154	04/28/21 09:41	SPG	TAL DEN
Total/NA	Analysis	365.1		1			534327	04/29/21 10:31	SPG	TAL DEN
Total/NA	Analysis	365.1		1	2 mL	2 mL	533232	04/20/21 13:57	SPG	TAL DEN
Total/NA	Analysis	SM5210B		1	240 mL	300 mL	533212	04/20/21 12:55	LEB	TAL DEN

Client Sample ID: VLF-210418-25

Lab Sample ID: 280-147625-27

Date Collected: 04/18/21 15:50

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:55	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 10:07	JMB	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-147625-1

Client Sample ID: VLF-210418-25

Lab Sample ID: 280-147625-27

Date Collected: 04/18/21 15:50

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	351.2			25 mL	25 mL	534224	04/28/21 17:08	SVC	TAL DEN
Total/NA	Analysis	351.2		1			534388	04/29/21 18:56	SVC	TAL DEN
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	534154	04/28/21 09:41	SPG	TAL DEN
Total/NA	Analysis	365.1		1			534327	04/29/21 10:32	SPG	TAL DEN
Total/NA	Analysis	365.1		1	2 mL	2 mL	533232	04/20/21 13:57	SPG	TAL DEN
Total/NA	Analysis	SM5210B		1	240 mL	300 mL	533212	04/20/21 12:55	LEB	TAL DEN

Client Sample ID: VLF-210418-26

Lab Sample ID: 280-147625-28

Date Collected: 04/18/21 15:55

Matrix: Water

Date Received: 04/20/21 10:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	534432	04/30/21 15:50	EC	TAL DEN
Dissolved	Analysis	6010B		1			534780	05/03/21 15:59	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	534987	05/06/21 10:21	JMB	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	534224	04/28/21 17:08	SVC	TAL DEN
Total/NA	Analysis	351.2		1			534388	04/29/21 18:54	SVC	TAL DEN
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	534154	04/28/21 09:41	SPG	TAL DEN
Total/NA	Analysis	365.1		1			534327	04/29/21 10:32	SPG	TAL DEN
Total/NA	Analysis	365.1		1	2 mL	2 mL	533232	04/20/21 13:58	SPG	TAL DEN
Total/NA	Analysis	SM5210B		1	240 mL	300 mL	533212	04/20/21 12:55	LEB	TAL DEN

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-147625-29

Date Collected: 04/18/21 11:50

Matrix: Water

Date Received: 04/20/21 10:40


Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	534400	04/30/21 11:28	TAW	TAL DEN

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Chain of Custody Record



Client Information Client Contact: Lan Moran Company: Valley Landfills, Inc. Republic Services Address: 28972 Coffin Butte Road City: Convallis State, Zip: OR, 97330 Phone: 503-675-1335(Tel) Email:		Lab PM: Sara, Betsy A E-Mail: betsy.sara@eurofinset.com		Carrier Tracking No(s): COC No: 280-97584-22898.1 Page:	
Date Requested: TAT Requested (days): PO #: 503-675-1335(Tel) PO#: 1584668 WO #:		Job #: Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Z - other (specify)		Job #: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Z - other (specify)	
Project #: 28003197 "GW_SCLS_Leachate" SSOW#:		Analysis Requested Biocarb Alk/Cl/TDS Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No)		Total Number of Containers Special Instructions/Note:  280-147625 Chain of Custody	
Site: Valley LE Convallis, OR Semi Annual GW event		Sample Identification VLE-210416-1 2 3 4 5 6 7 8 9 10 Trip Blank		Sample Date 4/16/21 9/15 10/15 11/05 11/30 12/10 12/40 13/20 14/75 14/30	
Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=water, oil, BT=issue, A=air)		Sample Time Preservation Code:		Dissolved Metals Total Metals TSS VOA 8260B	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab Archive For _____ Months		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date:		Method of Shipment:	
Relinquished by: Lan Moran		Date/Time: 9-19-21 0730		Date/Time: 9/20/21 1040	
Relinquished by:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:	
Custody Seals Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks: 16.0, 8.2, 3.1, 24.0, 8.6, 9.0, 10.4	



Chain of Custody Record

Client Information		Sample: <i>S. Hargan</i>		Lab PM: Sara, Betsy A		Carrier Tracking No(s):		COC No: 280-97584-22898.1	
Client Contact: <i>Don McManis</i>		Phone: <i>303-572-8550</i>		E-Mail: <i>betsy.sara@eurofins.com</i>				Page:	
Company: Valley Landfills, Inc. Republic Services		Due Date Requested:		Analysis Requested				Job #:	
Address: 28972 Coffin Butte Road		TAT Requested (days):		Total Number of Containers				Preservation Codes:	
City: Corvallis				Total Metals				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: OR, 97330		PO #: 503-675-1335(Tel)		Dissolved Metals				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH4-5 Z - other (specify)	
Phone: 503-675-1335(Tel)		PO#: 1584668		Biocarb Alk/CTDS				Special Instructions/Note:	
Email:		WO #:		Field Filtered Sample (Yes or No)					
Project Name: Coffin Butte/Valley Landfills		Project #: 28003197 "GW_SLCS_Leachate"		Perform MS/MSD (Yes or No)					
Site: <i>Valley LF Corvallis</i>		SSOW#:		Field Filtered Sample (Yes or No)					
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=soil, BT=tissue, AW=air)	
<i>Semi Annual GW</i>		<i>4/16/21</i>		<i>1525</i>		<i>W</i>		<i>W</i>	
<i>ULF-210416-11</i>		<i>4/17/21</i>		<i>1615</i>		<i>W</i>		<i>W</i>	
<i>6</i>		<i>9/17/21</i>		<i>900</i>		<i>W</i>		<i>W</i>	
<i>14</i>		<i>9/17/21</i>		<i>945</i>		<i>W</i>		<i>W</i>	
<i>15</i>		<i>9/17/21</i>		<i>1028</i>		<i>W</i>		<i>W</i>	
<i>16</i>		<i>9/17/21</i>		<i>1130</i>		<i>W</i>		<i>W</i>	
<i>17</i>		<i>9/17/21</i>		<i>1215</i>		<i>W</i>		<i>W</i>	
<i>18</i>		<i>9/17/21</i>		<i>1310</i>		<i>W</i>		<i>W</i>	
<i>19</i>		<i>9/17/21</i>		<i>1315</i>		<i>W</i>		<i>W</i>	
<i>Tot Blank</i>		<i>9/17/21</i>		<i>1315</i>		<i>W</i>		<i>W</i>	
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Special Instructions/OC Requirements:					
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/OC Requirements:					
Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		Date:					
Relinquished by: <i>S. Hargan</i>		Date/Time: <i>4/16/21 7:40</i>		Company: <i>TC</i>					
Relinquished by:		Date/Time:		Company:					
Relinquished by:		Date/Time:		Company:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					



Chain of Custody Record

Client Information		Sample ID: <i>Starbuck</i>		Lab PM: Sara, Betsy A.		Carrier Tracking No(s):		COC No: 280-97593-13574.1	
Company: Valley Landfills, Inc. Republic Services		Phone: <i>503-572-8550</i>		E-Mail: <i>betsy.sara@testamericainc.com</i>				Page: Page 1 of 1	
Address: 28972 Coffin Butte Road		Due Date Requested:		Analysis Requested		Total Number of Containers		Preservation Codes:	
City: Corvallis		TAT Requested (days):		Ortho-phosphate (365.1)				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: OR, 97330		PO #: 1584668		Total Phos/TKN				M - Hexane N - None O - AshNaO2 P - NaZO4S Q - NaZSO3 R - H2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Phone: 503-675-1335(Tel)		WO #:		Chloride				Special Instructions/Note:	
Email:		Project #		BOD				short holds: BOD and o-phos (365.1)	
Coffin Butte/Valley Landfills		28003197 "Semiannual Surfacewater (S-1 thru S-4)"		Disolved Metals				Des Metals; Ca, Fe	
Site: <i>Valley land fill Canyon</i>		SSOW#:		Perform MS/MSB (Yes or No)				<i>mg, Mn, Na</i>	
Sample Identification		Sample Date		Field Filtered Sample (Yes or No)				<i>Timothy; As</i>	
VLF-210417-20		4/17/21		X					
VLF-210418-21		4/18/21		X					
22		1255		X					
23		1408		X					
24		1500		X					
25		1558		X					
26		1555		X					
Trip Blank				X					
Possible Hazard Identification		Sample Time		Matrix					
Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/>		Sample Type (C=Comp, G=grab)		(W=Water, S=solid, O=wastelol, BT=Tissue, A=Air)					
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Time		Preservation Code					
Empty Kit Relinquished by: <i>[Signature]</i>		Date: 4/17/21		W					
Relinquished by: <i>[Signature]</i>		Date/Time: 8:00		W					
Relinquished by: <i>[Signature]</i>		Date/Time:		W					
Relinquished by: <i>[Signature]</i>		Date/Time:		W					
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Date/Time:		W					
Custody Seal No:		Date/Time:		W					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Date/Time: 4/20/21 1040		X					
Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months		Company: IC		X					
Special Instructions/QC Requirements:		Company: IC		X					
Method of Shipment:		Company: IC		X					
Received by: <i>[Signature]</i>		Company: IC		X					
Received by: <i>[Signature]</i>		Company: IC		X					
Received by:		Company: IC		X					
Cooler Temperature(s) °C and Other Remarks:		Company: IC		X					



Login Sample Receipt Checklist

Client: Tuppan Consultants LLC

Job Number: 280-147625-1

Login Number: 147625

List Source: Eurofins TestAmerica, Denver

List Number: 1

Creator: Collins, Janice S

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

ANALYTICAL REPORT

Eurofins TestAmerica, Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

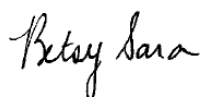
Laboratory Job ID: 280-154367-1

Client Project/Site: Valley LF - Republic Serv Coffin Butte

For:

Tuppan Consultants LLC
460 Second Street Suite 103
Lake Oswego, Oregon 97034

Attn: Mr. Eric J Tuppan



*Authorized for release by:
11/9/2021 4:07:09 PM*

Betsy Sara, Project Manager II
(303)736-0189
Betsy.Sara@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Table of Contents

Cover Page	1
Table of Contents	2
Definitions	3
Case Narrative	5
Detection Summary	8
Method Summary	19
Sample Summary	20
Client Sample Results	21
Surrogate Summary	88
QC Sample Results	90
QC Association	141
Chronicle	154
Chain of Custody	167
Receipt Checklists	178

Definitions/Glossary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Eurofins TestAmerica, Denver

Definitions/Glossary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Case Narrative

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Job ID: 280-154367-1

Laboratory: Eurofins TestAmerica, Denver

Narrative

CASE NARRATIVE

Client: Tuppan Consultants LLC

Project: Valley LF - Republic Serv Coffin Butte

Report Number: 280-154367-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Sample Receiving

The samples were received on 10/19/2021; the samples arrived and on ice. The temperatures of the cooler at receipt were 2.2°C, 3.5°C, 4.1°C, 4.1°C, 4.4°C, 4.7°C, 5.3°C, 5.8°C and 5.9°C.

One each of the three hydrochloric acid preserved vials for the samples VLF-211015-13 and VLF-211015-15 were broken in transit, however sufficient volume remained for VOA analysis. The client was notified.

The sample collection time recorded on the sample containers was 1200 for the sample VLF-211014-3, however the collection time on the Chain of Custody (COC) was 1220. The sample was logged per the sample collection time on the COC. The client was notified.

The sample collection time on the sample containers was recorded as 0930 for the sample VLF-211015-17, however the collection time on the Chain of Custody (COC) was 0936. The sample was logged per the sample collection time on the COC. The client was notified.

Holding Times

The analysis for Ortho-Phosphate Method 365.1 for the samples VLF-211017-31, VLF-211017-32 and VLF-211017-33 was performed outside of hold due to more than half of the hold time expiring during transit. It is TestAmerica's policy to analyze all samples within holding times, but when samples are received with less than half the hold time remaining, this can not be guaranteed.

The Method 2540D LCS (batch 554493) exhibited a recovery of Total Suspended Solids (TSS) below the lower control limit at 78% (control limits 79%-114%). In addition, the RPD result was outside the RPD limit for TSS. The samples were reanalyzed outside of the 7-day holding time and all QC samples within control limits. Both sets of results are reported in this submission.

All other holding times were met.

Method Blanks

Total Cadmium, Total Zinc Method 200.8 and Dissolved Iron Method 6010B were detected in the Method Blanks below the project established reporting limits. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits.

The seeded control blank (method blank) for BOD Method 5210B depleted more than the method-specified limit, 0.2mgO₂/L. The laboratory control sample (LCS) recovery was in control. Because the holding time expired, reanalysis was not performed.

All other Method Blank recoveries were within established control limits.

Case Narrative

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Job ID: 280-154367-1 (Continued)

Laboratory: Eurofins TestAmerica, Denver (Continued)

Laboratory Control Samples (LCS)

The Method 524.2 LCS recovery for 2,2-Dichloropropane was above control limits. Because the data are considered to be biased high and the associated sample was non-detect above the reporting limit for 2,2-Dichloropropane, corrective action was deemed unnecessary.

The Method 8260B LCS/LCSD exhibited RPD data outside the QC control limits for Dichlorodifluoromethane, Trichlorofluoromethane and Vinyl chloride. Both the LCS and LCSD were recovered within QC control limits, demonstrating that the laboratory performed the method within acceptable guidelines; therefore, corrective action is deemed unnecessary.

The Method 2540D LCS (batch 554493) exhibited a recovery of Total Suspended Solids (TSS) below the lower control limit at 78% (control limits 79%-114%). In addition, the RPD result was outside the RPD limit for TSS. The samples were reanalyzed outside of the 7-day holding time and all QC samples within control limits. Both sets of results are reported in this submission.

All other Laboratory Control Sample recoveries were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) for Method 8260B (batches 554539, 554747, 554789), however, LCS/LCSD pairs were analyzed to demonstrate method precision and accuracy.

Sample VLF-211017-35 was selected to fulfill the laboratory batch quality control requirements for Method 200.8. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Antimony, Total Arsenic, Total Lead, Total Nickel, Total Selenium, Total Cadmium, Total Cobalt, Total Copper, Total Thallium and Total Zinc below the lower control limits. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample VLF-211017-35 were outside control limits for Total Barium and Total Chromium Method 200.8 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

Sample VLF-211015-14 was selected to fulfill the laboratory batch quality control requirements for Method 200.8. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Barium above the upper control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

Sample VLF-211015-15 was selected to fulfill the laboratory batch quality control requirements for Method 200.8. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Total Barium below the lower control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

The Matrix Spike and Matrix Spike Duplicate performed on a sample from another client exhibited recoveries outside control limits for Chloride Method 300.0. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

Sample VLF-211017-34 was selected to fulfill the laboratory batch quality control requirements for Method 356.1. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of ortho-Phosphate above the upper control limit. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

Case Narrative

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Job ID: 280-154367-1 (Continued)

Laboratory: Eurofins TestAmerica, Denver (Continued)

Sample Duplicate

The Method 9056 Sample Duplicate performed on the sample VLF-211015-21 exhibited an RPD that exceeded the limit for Total Suspended Solids (TSS), and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

The Method 9056 Sample Duplicate performed on a sample from another client exhibited an RPD that exceeded the limit for Total Suspended Solids (TSS), and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

Organics

The sample VLF-211017-35 was analyzed at a dilution for Method 8260B due to a high concentration of target compounds. As a result, the reporting limits were elevated.

The prepreserved hydrochloric acid preserved vials for Method 8260B analysis for the samples VLF-211017-35 and VLF-211015-19 exhibited pH values greater than 2. This is non-compliant with Method 8260B which requires samples to be preserved with hydrochloric acid to a pH of less than 2.

General Comments

The analysis for Method 524.2 was performed at TestAmerica's Irvine facility.

TestAmerica Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614
Phone: 949.261.1022

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211017-35

Lab Sample ID: 280-154367-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.7	J	5.0	0.75	ug/L	5		8260B	Total/NA
1,4-Dichlorobenzene	2.1	J	2.5	0.80	ug/L	5		8260B	Total/NA
2-Butanone (MEK)	490		30	10	ug/L	5		8260B	Total/NA
4-Isopropyltoluene	1.8	J	5.0	1.0	ug/L	5		8260B	Total/NA
4-Methyl-2-pentanone (MIBK)	35		25	4.9	ug/L	5		8260B	Total/NA
Acetone	460		50	9.5	ug/L	5		8260B	Total/NA
Benzene	3.8		2.5	0.80	ug/L	5		8260B	Total/NA
Carbon disulfide	3.7	J	10	0.84	ug/L	5		8260B	Total/NA
Ethylbenzene	5.2		2.5	0.80	ug/L	5		8260B	Total/NA
m-Xylene & p-Xylene	7.0		2.5	0.77	ug/L	5		8260B	Total/NA
Naphthalene	5.2		5.0	1.1	ug/L	5		8260B	Total/NA
o-Xylene	4.3		2.5	0.95	ug/L	5		8260B	Total/NA
Toluene	37		2.5	0.85	ug/L	5		8260B	Total/NA
Antimony	16	F1	2.0	0.68	ug/L	1		200.8	Total/NA
Arsenic	120	F1	5.0	0.50	ug/L	1		200.8	Total/NA
Lead	1.2	F1	1.0	0.23	ug/L	1		200.8	Total/NA
Nickel	140	F1	2.0	0.28	ug/L	1		200.8	Total/NA
Barium	570		1.0	0.38	ug/L	1		200.8	Total/NA
Selenium	1.6	J F1	5.0	1.0	ug/L	1		200.8	Total/NA
Cadmium	0.17	J F1 B	1.0	0.088	ug/L	1		200.8	Total/NA
Chromium	180		3.0	0.88	ug/L	1		200.8	Total/NA
Cobalt	38	F1	1.0	0.050	ug/L	1		200.8	Total/NA
Copper	5.3	F1	2.0	0.71	ug/L	1		200.8	Total/NA
Silver	0.10	J	1.0	0.045	ug/L	1		200.8	Total/NA
Thallium	0.10	J F1	1.0	0.066	ug/L	1		200.8	Total/NA
Vanadium	140		5.0	1.1	ug/L	1		200.8	Total/NA
Zinc	37	F1	10	2.0	ug/L	1		200.8	Total/NA
Calcium	160000		200	78	ug/L	1		6010B	Dissolved
Iron	910		100	22	ug/L	1		6010B	Dissolved
Magnesium	160000		200	26	ug/L	1		6010B	Dissolved
Manganese	1000		5.0	1.9	ug/L	1		6010B	Dissolved
Potassium	510000		30000	2400	ug/L	10		6010B	Dissolved
Silicon	37000		500	35	ug/L	1		6010B	Dissolved
Sodium	2200000		1000	370	ug/L	1		6010B	Dissolved
Chloride	3500		150	51	mg/L	50		300.0	Total/NA
Sulfate	6.7		5.0	1.0	mg/L	1		300.0	Total/NA
Ammonia	1300		30	6.6	mg/L	300		350.1	Total/NA
Chemical Oxygen Demand	4300		1000	430	mg/L	50		410.4	Total/NA
Total Dissolved Solids	12000		1000	470	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	40	*1 *-	4.5	1.3	mg/L	1		SM 2540D	Total/NA
Total Suspended Solids	56	H	4.5	1.3	mg/L	1		SM 2540D	Total/NA
TOC Result 1	1300		50	17	mg/L	50		SM 5310B	Total/NA
TOC Result 2	1300		50	17	mg/L	50		SM 5310B	Total/NA
TOC Result 3	1300		50	17	mg/L	50		SM 5310B	Total/NA
TOC Result 4	1300		50	17	mg/L	50		SM 5310B	Total/NA
Total Organic Carbon - Quad	1300		50	17	mg/L	50		SM 5310B	Total/NA
Biochemical Oxygen Demand	750		240	28	mg/L	10		SM5210B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211014-1

Lab Sample ID: 280-154378-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.41	J	1.0	0.23	ug/L	1		200.8	Total/NA
Nickel	9.8		2.0	0.28	ug/L	1		200.8	Total/NA
Barium	7.8		1.0	0.38	ug/L	1		200.8	Total/NA
Chromium	3.0		3.0	0.88	ug/L	1		200.8	Total/NA
Zinc	16		10	2.0	ug/L	1		200.8	Total/NA
Calcium	110000		200	78	ug/L	1		6010B	Dissolved
Iron	340	B	100	22	ug/L	1		6010B	Dissolved
Magnesium	53000		200	26	ug/L	1		6010B	Dissolved
Manganese	150		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	26000		1000	370	ug/L	1		6010B	Dissolved
Chloride	81		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	400		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	490		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	12		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211014-2

Lab Sample ID: 280-154378-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	1.3	J	2.0	0.28	ug/L	1		200.8	Total/NA
Barium	6.8		1.0	0.38	ug/L	1		200.8	Total/NA
Zinc	5.9	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	93000		200	78	ug/L	1		6010B	Dissolved
Magnesium	34000		200	26	ug/L	1		6010B	Dissolved
Manganese	610		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	28000		1000	370	ug/L	1		6010B	Dissolved
Chloride	130		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	95		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	510		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211014-3

Lab Sample ID: 280-154378-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.0		0.50	0.22	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.48	J	0.50	0.15	ug/L	1		8260B	Total/NA
Dichlorodifluoromethane	5.0		0.50	0.31	ug/L	1		8260B	Total/NA
Tetrachloroethene	0.99		0.50	0.20	ug/L	1		8260B	Total/NA
Trichloroethene	1.3		0.50	0.16	ug/L	1		8260B	Total/NA
Barium	0.99	J	1.0	0.38	ug/L	1		200.8	Total/NA
Chromium	1.4	J	3.0	0.88	ug/L	1		200.8	Total/NA
Zinc	4.9	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	110000		200	78	ug/L	1		6010B	Dissolved
Magnesium	44000		200	26	ug/L	1		6010B	Dissolved
Sodium	29000		1000	370	ug/L	1		6010B	Dissolved
Chloride	310		15	5.1	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	44		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	560		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211014-4

Lab Sample ID: 280-154378-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.58	J	1.0	0.38	ug/L	1		200.8	Total/NA
Chromium	1.9	J	3.0	0.88	ug/L	1		200.8	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211014-4 (Continued)

Lab Sample ID: 280-154378-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	5.2	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	24000		200	78	ug/L	1		6010B	Dissolved
Magnesium	8700		200	26	ug/L	1		6010B	Dissolved
Sodium	10000		1000	370	ug/L	1		6010B	Dissolved
Chloride	3.1		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	94		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	150		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211014-5

Lab Sample ID: 280-154378-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.74	J	1.0	0.38	ug/L	1		200.8	Total/NA
Chromium	1.5	J	3.0	0.88	ug/L	1		200.8	Total/NA
Zinc	4.8	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	24000		200	78	ug/L	1		6010B	Dissolved
Magnesium	8600		200	26	ug/L	1		6010B	Dissolved
Sodium	9900		1000	370	ug/L	1		6010B	Dissolved
Chloride	2.9	J	3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	92		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	150		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211014-6

Lab Sample ID: 280-154378-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.55	J	5.0	0.50	ug/L	1		200.8	Total/NA
Chromium	4.7		3.0	0.88	ug/L	1		200.8	Total/NA
Zinc	4.1	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	25000		200	78	ug/L	1		6010B	Dissolved
Magnesium	11000		200	26	ug/L	1		6010B	Dissolved
Sodium	18000		1000	370	ug/L	1		6010B	Dissolved
Chloride	14		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	100		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	190		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	1.2	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211014-7

Lab Sample ID: 280-154378-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.0	J	5.0	0.50	ug/L	1		200.8	Total/NA
Nickel	24		2.0	0.28	ug/L	1		200.8	Total/NA
Barium	12		1.0	0.38	ug/L	1		200.8	Total/NA
Zinc	5.1	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	320000		200	78	ug/L	1		6010B	Dissolved
Magnesium	150000		200	26	ug/L	1		6010B	Dissolved
Manganese	27		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	35000		1000	370	ug/L	1		6010B	Dissolved
Chloride	540		15	5.1	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	660		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1400		20	9.4	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211014-8

Lab Sample ID: 280-154378-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.99	J	5.0	0.50	ug/L	1		200.8	Total/NA
Nickel	13		2.0	0.28	ug/L	1		200.8	Total/NA
Barium	11		1.0	0.38	ug/L	1		200.8	Total/NA
Zinc	5.4	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	120000		200	78	ug/L	1		6010B	Dissolved
Magnesium	54000		200	26	ug/L	1		6010B	Dissolved
Sodium	38000		1000	370	ug/L	1		6010B	Dissolved
Chloride	110		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	510		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	670		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211014-9

Lab Sample ID: 280-154378-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	14		1.0	0.38	ug/L	1		200.8	Total/NA
Zinc	7.7	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	47000		200	78	ug/L	1		6010B	Dissolved
Magnesium	23000		200	26	ug/L	1		6010B	Dissolved
Sodium	30000		1000	370	ug/L	1		6010B	Dissolved
Chloride	59		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	260		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211014-10

Lab Sample ID: 280-154378-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.63	J	5.0	0.50	ug/L	1		200.8	Total/NA
Nickel	0.30	J	2.0	0.28	ug/L	1		200.8	Total/NA
Barium	14		1.0	0.38	ug/L	1		200.8	Total/NA
Zinc	9.2	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	46000		200	78	ug/L	1		6010B	Dissolved
Magnesium	23000		200	26	ug/L	1		6010B	Dissolved
Sodium	30000		1000	370	ug/L	1		6010B	Dissolved
Chloride	48		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	250		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	1.2	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211014-11

Lab Sample ID: 280-154378-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.84	J	5.0	0.50	ug/L	1		200.8	Total/NA
Nickel	0.79	J	2.0	0.28	ug/L	1		200.8	Total/NA
Barium	0.48	J	1.0	0.38	ug/L	1		200.8	Total/NA
Chromium	0.96	J	3.0	0.88	ug/L	1		200.8	Total/NA
Zinc	5.5	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	35000		200	78	ug/L	1		6010B	Dissolved
Iron	32	J B	100	22	ug/L	1		6010B	Dissolved
Magnesium	15000		200	26	ug/L	1		6010B	Dissolved
Sodium	19000		1000	370	ug/L	1		6010B	Dissolved
Chloride	23		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211014-11 (Continued)

Lab Sample ID: 280-154378-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	220		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	2.8	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211014-12

Lab Sample ID: 280-154378-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.52	J	5.0	0.50	ug/L	1		200.8	Total/NA
Nickel	0.52	J	2.0	0.28	ug/L	1		200.8	Total/NA
Barium	2.0		1.0	0.38	ug/L	1		200.8	Total/NA
Zinc	5.9	J	10	2.0	ug/L	1		200.8	Total/NA
Calcium	26000		200	78	ug/L	1		6010B	Dissolved
Magnesium	12000		200	26	ug/L	1		6010B	Dissolved
Sodium	25000		1000	370	ug/L	1		6010B	Dissolved
Chloride	11		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	200		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	4.0		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211015-13

Lab Sample ID: 280-154378-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.92	J	5.0	0.50	ug/L	1		200.8	Total/NA
Lead	0.42	J	1.0	0.23	ug/L	1		200.8	Total/NA
Nickel	0.33	J	2.0	0.28	ug/L	1		200.8	Total/NA
Barium	0.77	J	1.0	0.38	ug/L	1		200.8	Total/NA
Chromium	0.88	J	3.0	0.88	ug/L	1		200.8	Total/NA
Zinc	12		10	2.0	ug/L	1		200.8	Total/NA
Calcium	36000		200	78	ug/L	1		6010B	Dissolved
Magnesium	14000		200	26	ug/L	1		6010B	Dissolved
Manganese	3.4	J	5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	22000		1000	370	ug/L	1		6010B	Dissolved
Chloride	6.2		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	180		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	210		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211015-FB

Lab Sample ID: 280-154378-14

No Detections.

Client Sample ID: VLF-211015-14

Lab Sample ID: 280-154378-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	18		5.0	0.50	ug/L	1		200.8	Total/NA
Nickel	7.6		2.0	0.28	ug/L	1		200.8	Total/NA
Barium	97	F1	1.0	0.38	ug/L	1		200.8	Total/NA
Zinc	15		10	2.0	ug/L	1		200.8	Total/NA
Calcium	89000		200	78	ug/L	1		6010B	Dissolved
Iron	5700	B	100	22	ug/L	1		6010B	Dissolved
Magnesium	39000		200	26	ug/L	1		6010B	Dissolved
Manganese	9600		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	37000		1000	370	ug/L	1		6010B	Dissolved
Chloride	13		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	480		10	3.1	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211015-14 (Continued)

Lab Sample ID: 280-154378-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	470		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	16		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211015-15

Lab Sample ID: 280-154378-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.71	J	2.0	0.68	ug/L	1		200.8	Total/NA
Arsenic	14		5.0	0.50	ug/L	1		200.8	Total/NA
Lead	0.66	J	1.0	0.23	ug/L	1		200.8	Total/NA
Nickel	1.3	J	2.0	0.28	ug/L	1		200.8	Total/NA
Barium	34	F1	1.0	0.38	ug/L	1		200.8	Total/NA
Chromium	1.5	J	3.0	0.88	ug/L	1		200.8	Total/NA
Zinc	6.0	J B	10	2.0	ug/L	1		200.8	Total/NA
Calcium	26000		200	78	ug/L	1		6010B	Dissolved
Iron	510	B	100	22	ug/L	1		6010B	Dissolved
Magnesium	10000		200	26	ug/L	1		6010B	Dissolved
Manganese	710		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	27000		1000	370	ug/L	1		6010B	Dissolved
Chloride	5.6		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	170		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	190		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	6.0		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211015-16

Lab Sample ID: 280-154378-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	1.1	J	2.0	0.68	ug/L	1		200.8	Total/NA
Arsenic	16		5.0	0.50	ug/L	1		200.8	Total/NA
Lead	0.82	J	1.0	0.23	ug/L	1		200.8	Total/NA
Nickel	1.5	J	2.0	0.28	ug/L	1		200.8	Total/NA
Barium	39		1.0	0.38	ug/L	1		200.8	Total/NA
Chromium	2.2	J	3.0	0.88	ug/L	1		200.8	Total/NA
Zinc	5.0	J B	10	2.0	ug/L	1		200.8	Total/NA
Calcium	25000		200	78	ug/L	1		6010B	Dissolved
Iron	500	B	100	22	ug/L	1		6010B	Dissolved
Magnesium	9900		200	26	ug/L	1		6010B	Dissolved
Manganese	700		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	26000		1000	370	ug/L	1		6010B	Dissolved
Chloride	5.6		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	190		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	14		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211015-17

Lab Sample ID: 280-154378-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	6.1		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	250000		200	78	ug/L	1		6010B	Dissolved
Iron	110	B	100	22	ug/L	1		6010B	Dissolved
Magnesium	120000		200	26	ug/L	1		6010B	Dissolved
Manganese	1800		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	950000		1000	370	ug/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211015-17 (Continued)

Lab Sample ID: 280-154378-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1600		30	10	mg/L	10		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	820		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	4000		40	19	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211015-18

Lab Sample ID: 280-154378-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	50000		200	78	ug/L	1		6010B	Dissolved
Iron	49	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	20000		200	26	ug/L	1		6010B	Dissolved
Manganese	340		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	87000		1000	370	ug/L	1		6010B	Dissolved
Chloride	150		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	120		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	500		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211015-19

Lab Sample ID: 280-154378-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	19		10	1.9	ug/L	1		8260B	Total/NA
Ethylbenzene	0.32	J	0.50	0.16	ug/L	1		8260B	Total/NA
Isopropylbenzene	0.71	J	1.0	0.19	ug/L	1		8260B	Total/NA
Naphthalene	7.3		1.0	0.22	ug/L	1		8260B	Total/NA
Toluene	0.61		0.50	0.17	ug/L	1		8260B	Total/NA
Arsenic	29		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	250000		200	78	ug/L	1		6010B	Dissolved
Iron	13000		100	22	ug/L	1		6010B	Dissolved
Magnesium	170000		200	26	ug/L	1		6010B	Dissolved
Manganese	5900		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	1200000		1000	370	ug/L	1		6010B	Dissolved
Chloride	1900		60	20	mg/L	20		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	2300		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	4400		100	47	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	1.6	J	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211015-20

Lab Sample ID: 280-154378-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.73		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	78000		200	78	ug/L	1		6010B	Dissolved
Magnesium	38000		200	26	ug/L	1		6010B	Dissolved
Manganese	2.5	J	5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	91000		1000	370	ug/L	1		6010B	Dissolved
Chloride	92		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	330		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	590		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211015-21

Lab Sample ID: 280-154378-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromomethane	0.39	J	0.50	0.21	ug/L	1		8260B	Total/NA
Arsenic	11		5.0	0.50	ug/L	1		200.8	Total/NA
Nickel	0.52	J	2.0	0.28	ug/L	1		200.8	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211015-21 (Continued)

Lab Sample ID: 280-154378-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	33		1.0	0.38	ug/L	1		200.8	Total/NA
Calcium	30000		200	78	ug/L	1		6010B	Dissolved
Iron	770		100	22	ug/L	1		6010B	Dissolved
Magnesium	13000		200	26	ug/L	1		6010B	Dissolved
Manganese	500		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	23000		1000	370	ug/L	1		6010B	Dissolved
Chloride	19		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	180		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	220		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	8.8		4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211015-22

Lab Sample ID: 280-154378-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromomethane	0.50		0.50	0.21	ug/L	1		8260B	Total/NA
Arsenic	0.75		0.50	0.50	ug/L	1		200.8	Total/NA
Calcium	25000		200	78	ug/L	1		6010B	Dissolved
Magnesium	9100		200	26	ug/L	1		6010B	Dissolved
Sodium	99000		1000	370	ug/L	1		6010B	Dissolved
Chloride	69		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	200		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	380		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	1.6	J *1 *	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211015-23

Lab Sample ID: 280-154378-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.1	J	5.0	0.50	ug/L	1		200.8	Total/NA
Barium	0.51	J	1.0	0.38	ug/L	1		200.8	Total/NA
Zinc	6.5	J B	10	2.0	ug/L	1		200.8	Total/NA
Calcium	24000		200	78	ug/L	1		6010B	Dissolved
Magnesium	9300		200	26	ug/L	1		6010B	Dissolved
Sodium	19000		1000	370	ug/L	1		6010B	Dissolved
Chloride	7.4		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	130		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	170		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211016-24

Lab Sample ID: 280-154378-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.32	J	1.0	0.15	ug/L	1		8260B	Total/NA
Benzene	0.34	J	0.50	0.16	ug/L	1		8260B	Total/NA
Ethylbenzene	0.27	J	0.50	0.16	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	1.4		0.50	0.15	ug/L	1		8260B	Total/NA
o-Xylene	0.43	J	0.50	0.19	ug/L	1		8260B	Total/NA
Toluene	1.6		0.50	0.17	ug/L	1		8260B	Total/NA
Nickel	3.9		2.0	0.28	ug/L	1		200.8	Total/NA
Barium	7.3		1.0	0.38	ug/L	1		200.8	Total/NA
Calcium	20000		200	78	ug/L	1		6010B	Dissolved
Magnesium	82000		200	26	ug/L	1		6010B	Dissolved
Manganese	8.4		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	29000		1000	370	ug/L	1		6010B	Dissolved

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211016-24 (Continued)

Lab Sample ID: 280-154378-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	35		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	650		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	790		20	9.4	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	3.2	J H	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211016-25

Lab Sample ID: 280-154378-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	0.45	J	0.50	0.15	ug/L	1		8260B	Total/NA
Toluene	0.58		0.50	0.17	ug/L	1		8260B	Total/NA
Nickel	8.6		2.0	0.28	ug/L	1		200.8	Total/NA
Barium	6.8		1.0	0.38	ug/L	1		200.8	Total/NA
Calcium	250000		200	78	ug/L	1		6010B	Dissolved
Iron	33	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	100000		200	26	ug/L	1		6010B	Dissolved
Manganese	47		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	38000		1000	370	ug/L	1		6010B	Dissolved
Chloride	100		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	950		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1100		20	9.4	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211016-26

Lab Sample ID: 280-154378-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	0.32	J	0.50	0.15	ug/L	1		8260B	Total/NA
Toluene	0.30	J	0.50	0.17	ug/L	1		8260B	Total/NA
Barium	5.1		1.0	0.38	ug/L	1		200.8	Total/NA
Calcium	42000		200	78	ug/L	1		6010B	Dissolved
Magnesium	18000		200	26	ug/L	1		6010B	Dissolved
Sodium	18000		1000	370	ug/L	1		6010B	Dissolved
Chloride	41		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	250		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	1.6	J H	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211016-27

Lab Sample ID: 280-154378-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	3.6		0.50	0.15	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.0		0.50	0.20	ug/L	1		8260B	Total/NA
Toluene	0.23	J	0.50	0.17	ug/L	1		8260B	Total/NA
Trichloroethene	1.0		0.50	0.16	ug/L	1		8260B	Total/NA
Nickel	2.3		2.0	0.28	ug/L	1		200.8	Total/NA
Barium	5.0		1.0	0.38	ug/L	1		200.8	Total/NA
Zinc	6.0	J B	10	2.0	ug/L	1		200.8	Total/NA
Calcium	61000		200	78	ug/L	1		6010B	Dissolved
Iron	71	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	29000		200	26	ug/L	1		6010B	Dissolved
Manganese	5.1		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	35000		1000	370	ug/L	1		6010B	Dissolved
Chloride	37		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	350		10	3.1	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211016-27 (Continued)

Lab Sample ID: 280-154378-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	390		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	1.6	J * - *1	4.0	1.1	mg/L	1		SM 2540D	Total/NA
Total Suspended Solids	3.2	J H	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211016-28

Lab Sample ID: 280-154378-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromomethane	0.31	J	0.50	0.21	ug/L	1		8260B	Total/NA
Tetrachloroethene	2.6		0.50	0.20	ug/L	1		8260B	Total/NA
Barium	0.49	J	1.0	0.38	ug/L	1		200.8	Total/NA
Zinc	2.2	J B	10	2.0	ug/L	1		200.8	Total/NA
Calcium	27000		200	78	ug/L	1		6010B	Dissolved
Magnesium	12000		200	26	ug/L	1		6010B	Dissolved
Sodium	23000		1000	370	ug/L	1		6010B	Dissolved
Chloride	13		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	200		10	4.7	mg/L	1		SM 2540C	Total/NA
Total Suspended Solids	1.2	J H	4.0	1.1	mg/L	1		SM 2540D	Total/NA

Client Sample ID: VLF-211016-29

Lab Sample ID: 280-154378-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	3.6		1.0	0.38	ug/L	1		200.8	Total/NA
Calcium	31000		200	78	ug/L	1		6010B	Dissolved
Magnesium	13000		200	26	ug/L	1		6010B	Dissolved
Sodium	24000		1000	370	ug/L	1		6010B	Dissolved
Chloride	6.9		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	180		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	220		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211016-30

Lab Sample ID: 280-154378-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	18000		200	78	ug/L	1		6010B	Dissolved
Iron	29	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	7900		200	26	ug/L	1		6010B	Dissolved
Manganese	2.5	J	5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	7500		1000	370	ug/L	1		6010B	Dissolved
Chloride	3.3		3.0	1.0	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	97		10	3.1	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	140		10	4.7	mg/L	1		SM 2540C	Total/NA

Client Sample ID: VLF-211017-31

Lab Sample ID: 280-154378-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	26000		200	78	ug/L	1		6010B	Dissolved
Iron	35	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	10000		200	26	ug/L	1		6010B	Dissolved
Manganese	15		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	11000		1000	370	ug/L	1		6010B	Dissolved
Chloride	16		3.0	1.0	mg/L	1		300.0	Total/NA
ortho-Phosphate	0.019	J H	0.050	0.018	mg/L	1		365.1	Total/NA
Phosphorus, Total	0.039	J	0.050	0.025	mg/L	1		365.1	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Detection Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211017-32

Lab Sample ID: 280-154378-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	27000		200	78	ug/L	1		6010B	Dissolved
Iron	46	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	10000		200	26	ug/L	1		6010B	Dissolved
Manganese	11		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	12000		1000	370	ug/L	1		6010B	Dissolved
Chloride	17		3.0	1.0	mg/L	1		300.0	Total/NA
ortho-Phosphate	0.021	J H	0.050	0.018	mg/L	1		365.1	Total/NA
Phosphorus, Total	0.047	J	0.050	0.025	mg/L	1		365.1	Total/NA
Biochemical Oxygen Demand	1.1	J	5.0	0.59	mg/L	1		SM5210B	Total/NA

Client Sample ID: VLF-211017-33

Lab Sample ID: 280-154378-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	26000		200	78	ug/L	1		6010B	Dissolved
Iron	40	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	10000		200	26	ug/L	1		6010B	Dissolved
Manganese	11		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	11000		1000	370	ug/L	1		6010B	Dissolved
Chloride	17		3.0	1.0	mg/L	1		300.0	Total/NA
ortho-Phosphate	0.021	J H	0.050	0.018	mg/L	1		365.1	Total/NA
Phosphorus, Total	0.049	J	0.050	0.025	mg/L	1		365.1	Total/NA

Client Sample ID: VLF-211017-34

Lab Sample ID: 280-154378-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	26000		200	78	ug/L	1		6010B	Dissolved
Iron	25	J	100	22	ug/L	1		6010B	Dissolved
Magnesium	10000		200	26	ug/L	1		6010B	Dissolved
Manganese	10		5.0	1.9	ug/L	1		6010B	Dissolved
Sodium	11000		1000	370	ug/L	1		6010B	Dissolved
Chloride	15		3.0	1.0	mg/L	1		300.0	Total/NA
ortho-Phosphate	0.020	J F1	0.050	0.018	mg/L	1		365.1	Total/NA
Phosphorus, Total	0.035	J	0.050	0.025	mg/L	1		365.1	Total/NA
Biochemical Oxygen Demand	0.92	J	5.0	0.59	mg/L	1		SM5210B	Total/NA

Client Sample ID: Trip Blanks

Lab Sample ID: 280-154378-36

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Denver

Method Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method	Method Description	Protocol	Laboratory
524.2	Volatile Organic Compounds (GC/MS)	EPA-DW	TAL IRV
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN
200.8	Metals (ICP/MS)	EPA	TAL DEN
6010B	Dissolved Metals	SW846	TAL DEN
300.0	Anions, Ion Chromatography	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL DEN
365.1	Phosphorus, Ortho	EPA	TAL DEN
365.1	Phosphorus, Total	EPA	TAL DEN
410.4	COD	MCAWW	TAL DEN
SM 2320B	Alkalinity	SM	TAL DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL DEN
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL DEN
SM5210B	BOD, 5 Day	SM	TAL DEN
200.8	Preparation, Total Metals	EPA	TAL DEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL DEN
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL DEN
365.2/365.3/365	Phosphorus, Total	MCAWW	TAL DEN
5030B	Purge and Trap	SW846	TAL DEN

Protocol References:

- EPA = US Environmental Protection Agency
- EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.
- MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
- SM = "Standard Methods For The Examination Of Water And Wastewater"
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
- TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Sample Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-154367-1	VLF-211017-35	Water	10/18/21 09:45	10/19/21 10:20
280-154378-1	VLF-211014-1	Water	10/14/21 10:30	10/19/21 10:20
280-154378-2	VLF-211014-2	Water	10/14/21 11:10	10/19/21 10:20
280-154378-3	VLF-211014-3	Water	10/14/21 12:20	10/19/21 10:20
280-154378-4	VLF-211014-4	Water	10/14/21 12:45	10/19/21 10:20
280-154378-5	VLF-211014-5	Water	10/14/21 12:50	10/19/21 10:20
280-154378-6	VLF-211014-6	Water	10/14/21 13:35	10/19/21 10:20
280-154378-7	VLF-211014-7	Water	10/14/21 14:15	10/19/21 10:20
280-154378-8	VLF-211014-8	Water	10/14/21 14:20	10/19/21 10:20
280-154378-9	VLF-211014-9	Water	10/14/21 15:45	10/19/21 10:20
280-154378-10	VLF-211014-10	Water	10/14/21 15:50	10/19/21 10:20
280-154378-11	VLF-211014-11	Water	10/14/21 16:40	10/19/21 10:20
280-154378-12	VLF-211014-12	Water	10/14/21 17:25	10/19/21 10:20
280-154378-13	VLF-211015-13	Water	10/15/21 07:35	10/19/21 10:20
280-154378-14	VLF-211015-FB	Water	10/15/21 08:00	10/19/21 10:20
280-154378-15	VLF-211015-14	Water	10/15/21 08:20	10/19/21 10:20
280-154378-16	VLF-211015-15	Water	10/15/21 09:05	10/19/21 10:20
280-154378-17	VLF-211015-16	Water	10/15/21 09:10	10/19/21 10:20
280-154378-18	VLF-211015-17	Water	10/15/21 09:36	10/19/21 10:20
280-154378-19	VLF-211015-18	Water	10/15/21 10:00	10/19/21 10:20
280-154378-20	VLF-211015-19	Water	10/15/21 10:25	10/19/21 10:20
280-154378-21	VLF-211015-20	Water	10/15/21 10:50	10/19/21 10:20
280-154378-22	VLF-211015-21	Water	10/15/21 11:45	10/19/21 10:20
280-154378-23	VLF-211015-22	Water	10/15/21 12:30	10/19/21 10:20
280-154378-24	VLF-211015-23	Water	10/15/21 15:30	10/19/21 10:20
280-154378-25	VLF-211016-24	Water	10/16/21 08:00	10/19/21 10:20
280-154378-26	VLF-211016-25	Water	10/16/21 08:40	10/19/21 10:20
280-154378-27	VLF-211016-26	Water	10/16/21 09:15	10/19/21 10:20
280-154378-28	VLF-211016-27	Water	10/16/21 10:05	10/19/21 10:20
280-154378-29	VLF-211016-28	Water	10/16/21 10:35	10/19/21 10:20
280-154378-30	VLF-211016-29	Water	10/16/21 11:15	10/19/21 10:20
280-154378-31	VLF-211016-30	Water	10/16/21 11:30	10/19/21 10:20
280-154378-32	VLF-211017-31	Water	10/17/21 12:45	10/19/21 10:20
280-154378-33	VLF-211017-32	Water	10/17/21 13:30	10/19/21 10:20
280-154378-34	VLF-211017-33	Water	10/17/21 13:35	10/19/21 10:20
280-154378-35	VLF-211017-34	Water	10/17/21 14:30	10/19/21 10:20
280-154378-36	Trip Blanks	Water	10/14/21 10:30	10/19/21 10:20

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211015-23

Date Collected: 10/15/21 15:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-24

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,1,1-Trichloroethane	ND		0.50	0.17	ug/L			10/26/21 14:06	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,1,2-Trichloroethane	ND		0.50	0.19	ug/L			10/26/21 14:06	1
1,1-Dichloroethane	ND		0.50	0.15	ug/L			10/26/21 14:06	1
1,1-Dichloroethene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,1-Dichloropropene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,2,3-Trichlorobenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,2,3-Trichloropropane	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,2,4-Trichlorobenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,2,4-Trimethylbenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.25	ug/L			10/26/21 14:06	1
1,2-Dibromoethane (EDB)	ND		0.50	0.15	ug/L			10/26/21 14:06	1
1,2-Dichlorobenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,2-Dichloroethane	ND		0.50	0.19	ug/L			10/26/21 14:06	1
1,2-Dichloropropane	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,3,5-Trimethylbenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,3-Dichlorobenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			10/26/21 14:06	1
1,4-Dichlorobenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
2,2-Dichloropropane	ND	*+	0.50	0.20	ug/L			10/26/21 14:06	1
2-Chlorotoluene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
4-Chlorotoluene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Benzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Bromobenzene	ND		0.50	0.17	ug/L			10/26/21 14:06	1
Bromochloromethane	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Bromodichloromethane	ND		0.50	0.19	ug/L			10/26/21 14:06	1
Bromoform	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Bromomethane	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Carbon tetrachloride	ND		0.50	0.18	ug/L			10/26/21 14:06	1
Chlorobenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Chloroethane	ND		0.50	0.26	ug/L			10/26/21 14:06	1
Chloroform	ND		0.50	0.17	ug/L			10/26/21 14:06	1
Chloromethane	ND		0.50	0.30	ug/L			10/26/21 14:06	1
cis-1,2-Dichloroethene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/26/21 14:06	1
Dibromochloromethane	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Dibromomethane	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Dichlorodifluoromethane	ND		0.50	0.23	ug/L			10/26/21 14:06	1
Ethylbenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Hexachlorobutadiene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Isopropylbenzene	ND		0.50	0.25	ug/L			10/26/21 14:06	1
m,p-Xylene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Methylene Chloride	ND		0.50	0.40	ug/L			10/26/21 14:06	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Naphthalene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
n-Butylbenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
N-Propylbenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
o-Xylene	ND		0.50	0.20	ug/L			10/26/21 14:06	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-23

Date Collected: 10/15/21 15:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-24

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
sec-Butylbenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Styrene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
tert-Butylbenzene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Toluene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
trans-1,2-Dichloroethene	ND		0.50	0.20	ug/L			10/26/21 14:06	1
trans-1,3-Dichloropropene	ND		0.50	0.14	ug/L			10/26/21 14:06	1
Trichloroethene	ND		0.50	0.17	ug/L			10/26/21 14:06	1
Trichlorofluoromethane	ND		0.50	0.16	ug/L			10/26/21 14:06	1
Vinyl chloride	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Xylenes, Total	ND		0.50	0.20	ug/L			10/26/21 14:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	100		70 - 130					10/26/21 14:06	1
4-Bromofluorobenzene (Surr)	100		70 - 130					10/26/21 14:06	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211017-35

Date Collected: 10/18/21 09:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154367-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.5	1.1	ug/L			10/23/21 22:03	5
1,1,1-Trichloroethane	ND		2.5	0.80	ug/L			10/23/21 22:03	5
1,1,2,2-Tetrachloroethane	ND		2.5	1.1	ug/L			10/23/21 22:03	5
1,1,2-Trichloroethane	ND		2.5	1.4	ug/L			10/23/21 22:03	5
1,1-Dichloroethane	ND		2.5	1.1	ug/L			10/23/21 22:03	5
1,1-Dichloroethene	ND		2.5	1.2	ug/L			10/23/21 22:03	5
1,1-Dichloropropene	ND		2.5	0.95	ug/L			10/23/21 22:03	5
1,2,3-Trichlorobenzene	ND		5.0	1.1	ug/L			10/23/21 22:03	5
1,2,3-Trichloropropane	ND		3.9	1.7	ug/L			10/23/21 22:03	5
1,2,4-Trichlorobenzene	ND		5.0	1.1	ug/L			10/23/21 22:03	5
1,2,4-Trimethylbenzene	1.7	J	5.0	0.75	ug/L			10/23/21 22:03	5
1,2-Dibromo-3-Chloropropane	ND		10	2.4	ug/L			10/23/21 22:03	5
1,2-Dibromoethane	ND		5.0	0.90	ug/L			10/23/21 22:03	5
1,2-Dichlorobenzene	ND		2.5	0.75	ug/L			10/23/21 22:03	5
1,2-Dichloroethane	ND		2.5	0.65	ug/L			10/23/21 22:03	5
1,2-Dichloropropane	ND		2.5	0.90	ug/L			10/23/21 22:03	5
1,3,5-Trimethylbenzene	ND		5.0	0.80	ug/L			10/23/21 22:03	5
1,3-Dichlorobenzene	ND		2.5	0.65	ug/L			10/23/21 22:03	5
1,3-Dichloropropane	ND		2.5	0.45	ug/L			10/23/21 22:03	5
1,4-Dichlorobenzene	2.1	J	2.5	0.80	ug/L			10/23/21 22:03	5
2,2-Dichloropropane	ND		2.5	1.9	ug/L			10/23/21 22:03	5
2-Butanone (MEK)	490		30	10	ug/L			10/23/21 22:03	5
2-Chlorotoluene	ND		5.0	0.85	ug/L			10/23/21 22:03	5
2-Hexanone	ND		25	8.5	ug/L			10/23/21 22:03	5
4-Chlorotoluene	ND		5.0	1.1	ug/L			10/23/21 22:03	5
4-Isopropyltoluene	1.8	J	5.0	1.0	ug/L			10/23/21 22:03	5
4-Methyl-2-pentanone (MIBK)	35		25	4.9	ug/L			10/23/21 22:03	5

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211017-35

Date Collected: 10/18/21 09:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154367-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	460		50	9.5	ug/L			10/23/21 22:03	5
Benzene	3.8		2.5	0.80	ug/L			10/23/21 22:03	5
Bromobenzene	ND		5.0	0.85	ug/L			10/23/21 22:03	5
Bromochloromethane	ND		2.5	0.50	ug/L			10/23/21 22:03	5
Bromodichloromethane	ND		2.5	0.85	ug/L			10/23/21 22:03	5
Bromoform	ND		2.5	2.3	ug/L			10/23/21 22:03	5
Bromomethane	ND		2.5	1.1	ug/L			10/23/21 22:03	5
Carbon disulfide	3.7	J	10	0.84	ug/L			10/23/21 22:03	5
Carbon tetrachloride	ND		2.5	0.95	ug/L			10/23/21 22:03	5
Chlorobenzene	ND		2.5	0.85	ug/L			10/23/21 22:03	5
Chloroethane	ND		2.5	2.1	ug/L			10/23/21 22:03	5
Chloroform	ND		2.5	0.80	ug/L			10/23/21 22:03	5
Chloromethane	ND		2.5	1.5	ug/L			10/23/21 22:03	5
cis-1,2-Dichloroethene	ND		2.5	0.75	ug/L			10/23/21 22:03	5
cis-1,3-Dichloropropene	ND		2.5	0.80	ug/L			10/23/21 22:03	5
Dibromochloromethane	ND		2.5	0.85	ug/L			10/23/21 22:03	5
Dibromomethane	ND		2.5	0.85	ug/L			10/23/21 22:03	5
Dichlorodifluoromethane	ND		2.5	1.6	ug/L			10/23/21 22:03	5
Ethylbenzene	5.2		2.5	0.80	ug/L			10/23/21 22:03	5
Hexachlorobutadiene	ND		5.0	1.8	ug/L			10/23/21 22:03	5
Isopropylbenzene	ND		5.0	0.95	ug/L			10/23/21 22:03	5
Methylene Chloride	ND		10	4.7	ug/L			10/23/21 22:03	5
m-Xylene & p-Xylene	7.0		2.5	0.77	ug/L			10/23/21 22:03	5
Naphthalene	5.2		5.0	1.1	ug/L			10/23/21 22:03	5
n-Butylbenzene	ND		5.0	0.72	ug/L			10/23/21 22:03	5
N-Propylbenzene	ND		5.0	0.80	ug/L			10/23/21 22:03	5
o-Xylene	4.3		2.5	0.95	ug/L			10/23/21 22:03	5
sec-Butylbenzene	ND		5.0	0.85	ug/L			10/23/21 22:03	5
Styrene	ND		2.5	1.8	ug/L			10/23/21 22:03	5
tert-Butylbenzene	ND		5.0	0.80	ug/L			10/23/21 22:03	5
Tetrachloroethene	ND		2.5	1.0	ug/L			10/23/21 22:03	5
Toluene	37		2.5	0.85	ug/L			10/23/21 22:03	5
trans-1,2-Dichloroethene	ND		2.5	0.75	ug/L			10/23/21 22:03	5
trans-1,3-Dichloropropene	ND		2.5	0.95	ug/L			10/23/21 22:03	5
Trichloroethene	ND		2.5	0.80	ug/L			10/23/21 22:03	5
Trichlorofluoromethane	ND		2.5	1.5	ug/L			10/23/21 22:03	5
Vinyl chloride	ND		2.5	0.50	ug/L			10/23/21 22:03	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 127		10/23/21 22:03	5
4-Bromofluorobenzene (Surr)	95		78 - 120		10/23/21 22:03	5
Dibromofluoromethane (Surr)	106		77 - 120		10/23/21 22:03	5
Toluene-d8 (Surr)	96		80 - 125		10/23/21 22:03	5

Client Sample ID: VLF-211014-1

Date Collected: 10/14/21 10:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/21/21 23:34	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/21/21 23:34	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-1

Date Collected: 10/14/21 10:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/21/21 23:34	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/21/21 23:34	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/21/21 23:34	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/21/21 23:34	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/21/21 23:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/21/21 23:34	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/21/21 23:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/21/21 23:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/21/21 23:34	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/21/21 23:34	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/21/21 23:34	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/21/21 23:34	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/21/21 23:34	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/21/21 23:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/21/21 23:34	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/21/21 23:34	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/21/21 23:34	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/21/21 23:34	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/21/21 23:34	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/21/21 23:34	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/21/21 23:34	1
2-Hexanone	ND		5.0	1.7	ug/L			10/21/21 23:34	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/21/21 23:34	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/21/21 23:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/21/21 23:34	1
Acetone	ND		10	1.9	ug/L			10/21/21 23:34	1
Benzene	ND		0.50	0.16	ug/L			10/21/21 23:34	1
Bromobenzene	ND		1.0	0.17	ug/L			10/21/21 23:34	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/21/21 23:34	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/21/21 23:34	1
Bromoform	ND		0.50	0.46	ug/L			10/21/21 23:34	1
Bromomethane	ND		0.50	0.21	ug/L			10/21/21 23:34	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/21/21 23:34	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/21/21 23:34	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/21/21 23:34	1
Chloroethane	ND		0.50	0.41	ug/L			10/21/21 23:34	1
Chloroform	ND		0.50	0.16	ug/L			10/21/21 23:34	1
Chloromethane	ND		0.50	0.30	ug/L			10/21/21 23:34	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/21/21 23:34	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/21/21 23:34	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/21/21 23:34	1
Dibromomethane	ND		0.50	0.17	ug/L			10/21/21 23:34	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/21/21 23:34	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/21/21 23:34	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/21/21 23:34	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/21/21 23:34	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/21/21 23:34	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/21/21 23:34	1
Naphthalene	ND		1.0	0.22	ug/L			10/21/21 23:34	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-1

Date Collected: 10/14/21 10:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		1.0	0.14	ug/L			10/21/21 23:34	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/21/21 23:34	1
o-Xylene	ND		0.50	0.19	ug/L			10/21/21 23:34	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/21/21 23:34	1
Styrene	ND		0.50	0.36	ug/L			10/21/21 23:34	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/21/21 23:34	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/21/21 23:34	1
Toluene	ND		0.50	0.17	ug/L			10/21/21 23:34	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/21/21 23:34	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/21/21 23:34	1
Trichloroethene	ND		0.50	0.16	ug/L			10/21/21 23:34	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/21/21 23:34	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/21/21 23:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 127					10/21/21 23:34	1
4-Bromofluorobenzene (Surr)	94		78 - 120					10/21/21 23:34	1
Dibromofluoromethane (Surr)	99		77 - 120					10/21/21 23:34	1
Toluene-d8 (Surr)	102		80 - 125					10/21/21 23:34	1

Client Sample ID: VLF-211014-2

Date Collected: 10/14/21 11:10

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/21/21 23:56	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/21/21 23:56	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/21/21 23:56	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/21/21 23:56	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/21/21 23:56	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/21/21 23:56	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/21/21 23:56	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/21/21 23:56	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/21/21 23:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/21/21 23:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/21/21 23:56	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/21/21 23:56	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/21/21 23:56	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/21/21 23:56	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/21/21 23:56	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/21/21 23:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/21/21 23:56	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/21/21 23:56	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/21/21 23:56	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/21/21 23:56	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/21/21 23:56	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/21/21 23:56	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/21/21 23:56	1
2-Hexanone	ND		5.0	1.7	ug/L			10/21/21 23:56	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/21/21 23:56	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/21/21 23:56	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-2

Date Collected: 10/14/21 11:10

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/21/21 23:56	1
Acetone	ND		10	1.9	ug/L			10/21/21 23:56	1
Benzene	ND		0.50	0.16	ug/L			10/21/21 23:56	1
Bromobenzene	ND		1.0	0.17	ug/L			10/21/21 23:56	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/21/21 23:56	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/21/21 23:56	1
Bromoform	ND		0.50	0.46	ug/L			10/21/21 23:56	1
Bromomethane	ND		0.50	0.21	ug/L			10/21/21 23:56	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/21/21 23:56	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/21/21 23:56	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/21/21 23:56	1
Chloroethane	ND		0.50	0.41	ug/L			10/21/21 23:56	1
Chloroform	ND		0.50	0.16	ug/L			10/21/21 23:56	1
Chloromethane	ND		0.50	0.30	ug/L			10/21/21 23:56	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/21/21 23:56	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/21/21 23:56	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/21/21 23:56	1
Dibromomethane	ND		0.50	0.17	ug/L			10/21/21 23:56	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/21/21 23:56	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/21/21 23:56	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/21/21 23:56	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/21/21 23:56	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/21/21 23:56	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/21/21 23:56	1
Naphthalene	ND		1.0	0.22	ug/L			10/21/21 23:56	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/21/21 23:56	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/21/21 23:56	1
o-Xylene	ND		0.50	0.19	ug/L			10/21/21 23:56	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/21/21 23:56	1
Styrene	ND		0.50	0.36	ug/L			10/21/21 23:56	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/21/21 23:56	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/21/21 23:56	1
Toluene	ND		0.50	0.17	ug/L			10/21/21 23:56	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/21/21 23:56	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/21/21 23:56	1
Trichloroethene	ND		0.50	0.16	ug/L			10/21/21 23:56	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/21/21 23:56	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/21/21 23:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 127		10/21/21 23:56	1
4-Bromofluorobenzene (Surr)	94		78 - 120		10/21/21 23:56	1
Dibromofluoromethane (Surr)	100		77 - 120		10/21/21 23:56	1
Toluene-d8 (Surr)	103		80 - 125		10/21/21 23:56	1

Client Sample ID: VLF-211014-3

Date Collected: 10/14/21 12:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 00:18	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-3

Date Collected: 10/14/21 12:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 00:18	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 00:18	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 00:18	1
1,1-Dichloroethane	1.0		0.50	0.22	ug/L			10/22/21 00:18	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 00:18	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 00:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 00:18	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 00:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 00:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 00:18	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 00:18	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 00:18	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 00:18	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 00:18	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 00:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 00:18	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 00:18	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 00:18	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 00:18	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 00:18	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 00:18	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 00:18	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 00:18	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 00:18	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 00:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 00:18	1
Acetone	ND		10	1.9	ug/L			10/22/21 00:18	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 00:18	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 00:18	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 00:18	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 00:18	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 00:18	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 00:18	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 00:18	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 00:18	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 00:18	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 00:18	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 00:18	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 00:18	1
cis-1,2-Dichloroethene	0.48	J	0.50	0.15	ug/L			10/22/21 00:18	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 00:18	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 00:18	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 00:18	1
Dichlorodifluoromethane	5.0		0.50	0.31	ug/L			10/22/21 00:18	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 00:18	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 00:18	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 00:18	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 00:18	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 00:18	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-3

Date Collected: 10/14/21 12:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 00:18	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 00:18	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 00:18	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 00:18	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 00:18	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 00:18	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 00:18	1
Tetrachloroethene	0.99		0.50	0.20	ug/L			10/22/21 00:18	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 00:18	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 00:18	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 00:18	1
Trichloroethene	1.3		0.50	0.16	ug/L			10/22/21 00:18	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 00:18	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 00:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 127					10/22/21 00:18	1
4-Bromofluorobenzene (Surr)	95		78 - 120					10/22/21 00:18	1
Dibromofluoromethane (Surr)	99		77 - 120					10/22/21 00:18	1
Toluene-d8 (Surr)	100		80 - 125					10/22/21 00:18	1

Client Sample ID: VLF-211014-4

Date Collected: 10/14/21 12:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 00:39	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 00:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 00:39	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 00:39	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 00:39	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 00:39	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 00:39	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 00:39	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 00:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 00:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 00:39	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 00:39	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 00:39	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 00:39	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 00:39	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 00:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 00:39	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 00:39	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 00:39	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 00:39	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 00:39	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 00:39	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 00:39	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 00:39	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 00:39	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-4
Date Collected: 10/14/21 12:45
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 00:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 00:39	1
Acetone	ND		10	1.9	ug/L			10/22/21 00:39	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 00:39	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 00:39	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 00:39	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 00:39	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 00:39	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 00:39	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 00:39	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 00:39	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 00:39	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 00:39	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 00:39	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 00:39	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 00:39	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 00:39	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 00:39	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 00:39	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 00:39	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 00:39	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 00:39	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 00:39	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 00:39	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 00:39	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 00:39	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 00:39	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 00:39	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 00:39	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 00:39	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 00:39	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 00:39	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 00:39	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 00:39	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 00:39	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 00:39	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 00:39	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 00:39	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 00:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 127		10/22/21 00:39	1
4-Bromofluorobenzene (Surr)	95		78 - 120		10/22/21 00:39	1
Dibromofluoromethane (Surr)	96		77 - 120		10/22/21 00:39	1
Toluene-d8 (Surr)	101		80 - 125		10/22/21 00:39	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211014-5

Date Collected: 10/14/21 12:50

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 01:01	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 01:01	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 01:01	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 01:01	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 01:01	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 01:01	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 01:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 01:01	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 01:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 01:01	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 01:01	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 01:01	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 01:01	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 01:01	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 01:01	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 01:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 01:01	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 01:01	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 01:01	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 01:01	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 01:01	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 01:01	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 01:01	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 01:01	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 01:01	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 01:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 01:01	1
Acetone	ND		10	1.9	ug/L			10/22/21 01:01	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 01:01	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 01:01	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 01:01	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 01:01	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 01:01	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 01:01	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 01:01	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 01:01	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 01:01	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 01:01	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 01:01	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 01:01	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 01:01	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 01:01	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 01:01	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 01:01	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 01:01	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 01:01	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 01:01	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 01:01	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 01:01	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-5

Date Collected: 10/14/21 12:50

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 01:01	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 01:01	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 01:01	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 01:01	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 01:01	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 01:01	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 01:01	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 01:01	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 01:01	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 01:01	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 01:01	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 01:01	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 01:01	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 01:01	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 01:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 127					10/22/21 01:01	1
4-Bromofluorobenzene (Surr)	95		78 - 120					10/22/21 01:01	1
Dibromofluoromethane (Surr)	98		77 - 120					10/22/21 01:01	1
Toluene-d8 (Surr)	101		80 - 125					10/22/21 01:01	1

Client Sample ID: VLF-211014-6

Date Collected: 10/14/21 13:35

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 01:22	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 01:22	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 01:22	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 01:22	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 01:22	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 01:22	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 01:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 01:22	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 01:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 01:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 01:22	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 01:22	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 01:22	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 01:22	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 01:22	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 01:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 01:22	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 01:22	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 01:22	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 01:22	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 01:22	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 01:22	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 01:22	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 01:22	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-6
Date Collected: 10/14/21 13:35
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 01:22	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 01:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 01:22	1
Acetone	ND		10	1.9	ug/L			10/22/21 01:22	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 01:22	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 01:22	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 01:22	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 01:22	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 01:22	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 01:22	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 01:22	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 01:22	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 01:22	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 01:22	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 01:22	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 01:22	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 01:22	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 01:22	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 01:22	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 01:22	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 01:22	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 01:22	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 01:22	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 01:22	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 01:22	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 01:22	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 01:22	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 01:22	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 01:22	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 01:22	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 01:22	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 01:22	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 01:22	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 01:22	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 01:22	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 01:22	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 01:22	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 01:22	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 01:22	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 01:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 127		10/22/21 01:22	1
4-Bromofluorobenzene (Surr)	95		78 - 120		10/22/21 01:22	1
Dibromofluoromethane (Surr)	97		77 - 120		10/22/21 01:22	1
Toluene-d8 (Surr)	102		80 - 125		10/22/21 01:22	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211014-7

Date Collected: 10/14/21 14:15

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 01:44	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 01:44	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 01:44	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 01:44	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 01:44	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 01:44	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 01:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 01:44	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 01:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 01:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 01:44	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 01:44	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 01:44	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 01:44	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 01:44	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 01:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 01:44	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 01:44	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 01:44	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 01:44	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 01:44	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 01:44	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 01:44	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 01:44	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 01:44	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 01:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 01:44	1
Acetone	ND		10	1.9	ug/L			10/22/21 01:44	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 01:44	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 01:44	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 01:44	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 01:44	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 01:44	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 01:44	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 01:44	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 01:44	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 01:44	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 01:44	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 01:44	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 01:44	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 01:44	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 01:44	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 01:44	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 01:44	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 01:44	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 01:44	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 01:44	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 01:44	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 01:44	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-7

Date Collected: 10/14/21 14:15

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 01:44	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 01:44	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 01:44	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 01:44	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 01:44	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 01:44	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 01:44	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 01:44	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 01:44	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 01:44	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 01:44	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 01:44	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 01:44	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 01:44	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 01:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 127					10/22/21 01:44	1
4-Bromofluorobenzene (Surr)	97		78 - 120					10/22/21 01:44	1
Dibromofluoromethane (Surr)	98		77 - 120					10/22/21 01:44	1
Toluene-d8 (Surr)	102		80 - 125					10/22/21 01:44	1

Client Sample ID: VLF-211014-8

Date Collected: 10/14/21 14:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 02:05	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 02:05	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 02:05	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 02:05	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 02:05	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 02:05	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 02:05	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 02:05	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 02:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 02:05	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 02:05	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 02:05	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 02:05	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 02:05	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 02:05	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 02:05	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 02:05	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 02:05	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 02:05	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 02:05	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 02:05	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 02:05	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 02:05	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 02:05	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-8
Date Collected: 10/14/21 14:20
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 02:05	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 02:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 02:05	1
Acetone	ND		10	1.9	ug/L			10/22/21 02:05	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 02:05	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 02:05	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 02:05	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 02:05	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 02:05	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 02:05	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 02:05	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 02:05	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 02:05	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 02:05	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 02:05	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 02:05	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 02:05	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 02:05	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 02:05	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 02:05	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 02:05	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 02:05	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 02:05	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 02:05	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 02:05	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 02:05	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 02:05	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 02:05	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 02:05	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 02:05	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 02:05	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 02:05	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 02:05	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 02:05	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 02:05	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 02:05	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 02:05	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 02:05	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 02:05	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 02:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 127		10/22/21 02:05	1
4-Bromofluorobenzene (Surr)	96		78 - 120		10/22/21 02:05	1
Dibromofluoromethane (Surr)	99		77 - 120		10/22/21 02:05	1
Toluene-d8 (Surr)	99		80 - 125		10/22/21 02:05	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211014-9

Date Collected: 10/14/21 15:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 02:27	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 02:27	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 02:27	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 02:27	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 02:27	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 02:27	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 02:27	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 02:27	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 02:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 02:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 02:27	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 02:27	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 02:27	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 02:27	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 02:27	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 02:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 02:27	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 02:27	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 02:27	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 02:27	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 02:27	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 02:27	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 02:27	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 02:27	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 02:27	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 02:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 02:27	1
Acetone	ND		10	1.9	ug/L			10/22/21 02:27	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 02:27	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 02:27	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 02:27	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 02:27	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 02:27	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 02:27	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 02:27	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 02:27	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 02:27	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 02:27	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 02:27	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 02:27	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 02:27	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 02:27	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 02:27	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 02:27	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 02:27	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 02:27	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 02:27	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 02:27	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 02:27	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-9

Date Collected: 10/14/21 15:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 02:27	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 02:27	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 02:27	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 02:27	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 02:27	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 02:27	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 02:27	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 02:27	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 02:27	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 02:27	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 02:27	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 02:27	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 02:27	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 02:27	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 02:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					10/22/21 02:27	1
4-Bromofluorobenzene (Surr)	94		78 - 120					10/22/21 02:27	1
Dibromofluoromethane (Surr)	98		77 - 120					10/22/21 02:27	1
Toluene-d8 (Surr)	100		80 - 125					10/22/21 02:27	1

Client Sample ID: VLF-211014-10

Date Collected: 10/14/21 15:50

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 02:48	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 02:48	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 02:48	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 02:48	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 02:48	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 02:48	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 02:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 02:48	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 02:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 02:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 02:48	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 02:48	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 02:48	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 02:48	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 02:48	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 02:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 02:48	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 02:48	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 02:48	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 02:48	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 02:48	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 02:48	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 02:48	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 02:48	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-10

Date Collected: 10/14/21 15:50

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 02:48	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 02:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 02:48	1
Acetone	ND		10	1.9	ug/L			10/22/21 02:48	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 02:48	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 02:48	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 02:48	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 02:48	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 02:48	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 02:48	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 02:48	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 02:48	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 02:48	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 02:48	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 02:48	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 02:48	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 02:48	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 02:48	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 02:48	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 02:48	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 02:48	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 02:48	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 02:48	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 02:48	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 02:48	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 02:48	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 02:48	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 02:48	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 02:48	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 02:48	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 02:48	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 02:48	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 02:48	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 02:48	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 02:48	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 02:48	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 02:48	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 02:48	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 02:48	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 02:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 127		10/22/21 02:48	1
4-Bromofluorobenzene (Surr)	94		78 - 120		10/22/21 02:48	1
Dibromofluoromethane (Surr)	99		77 - 120		10/22/21 02:48	1
Toluene-d8 (Surr)	100		80 - 125		10/22/21 02:48	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211014-11
Date Collected: 10/14/21 16:40
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 03:10	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 03:10	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 03:10	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 03:10	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 03:10	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 03:10	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 03:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 03:10	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 03:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 03:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 03:10	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 03:10	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 03:10	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 03:10	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 03:10	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 03:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 03:10	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 03:10	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 03:10	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 03:10	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 03:10	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 03:10	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 03:10	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 03:10	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 03:10	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 03:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 03:10	1
Acetone	ND		10	1.9	ug/L			10/22/21 03:10	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 03:10	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 03:10	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 03:10	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 03:10	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 03:10	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 03:10	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 03:10	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 03:10	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 03:10	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 03:10	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 03:10	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 03:10	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 03:10	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 03:10	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 03:10	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 03:10	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 03:10	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 03:10	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 03:10	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 03:10	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 03:10	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-11
Date Collected: 10/14/21 16:40
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 03:10	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 03:10	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 03:10	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 03:10	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 03:10	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 03:10	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 03:10	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 03:10	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 03:10	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 03:10	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 03:10	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 03:10	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 03:10	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 03:10	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 03:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 127					10/22/21 03:10	1
4-Bromofluorobenzene (Surr)	93		78 - 120					10/22/21 03:10	1
Dibromofluoromethane (Surr)	100		77 - 120					10/22/21 03:10	1
Toluene-d8 (Surr)	102		80 - 125					10/22/21 03:10	1

Client Sample ID: VLF-211014-12
Date Collected: 10/14/21 17:25
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 03:32	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 03:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 03:32	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 03:32	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 03:32	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 03:32	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 03:32	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 03:32	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 03:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 03:32	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 03:32	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 03:32	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 03:32	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 03:32	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 03:32	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 03:32	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 03:32	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 03:32	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 03:32	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 03:32	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 03:32	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 03:32	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 03:32	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 03:32	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211014-12

Date Collected: 10/14/21 17:25

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 03:32	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 03:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 03:32	1
Acetone	ND		10	1.9	ug/L			10/22/21 03:32	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 03:32	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 03:32	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 03:32	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 03:32	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 03:32	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 03:32	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 03:32	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 03:32	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 03:32	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 03:32	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 03:32	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 03:32	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 03:32	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 03:32	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 03:32	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 03:32	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 03:32	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 03:32	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 03:32	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 03:32	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 03:32	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 03:32	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 03:32	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 03:32	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 03:32	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 03:32	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 03:32	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 03:32	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 03:32	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 03:32	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 03:32	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 03:32	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 03:32	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 03:32	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 03:32	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 03:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 127		10/22/21 03:32	1
4-Bromofluorobenzene (Surr)	95		78 - 120		10/22/21 03:32	1
Dibromofluoromethane (Surr)	99		77 - 120		10/22/21 03:32	1
Toluene-d8 (Surr)	103		80 - 125		10/22/21 03:32	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211015-13

Date Collected: 10/15/21 07:35

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 03:53	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 03:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 03:53	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 03:53	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 03:53	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 03:53	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 03:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 03:53	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 03:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 03:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 03:53	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 03:53	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 03:53	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 03:53	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 03:53	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 03:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 03:53	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 03:53	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 03:53	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 03:53	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 03:53	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 03:53	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 03:53	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 03:53	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 03:53	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 03:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 03:53	1
Acetone	ND		10	1.9	ug/L			10/22/21 03:53	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 03:53	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 03:53	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 03:53	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 03:53	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 03:53	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 03:53	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 03:53	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 03:53	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 03:53	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 03:53	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 03:53	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 03:53	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 03:53	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 03:53	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 03:53	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 03:53	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 03:53	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 03:53	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 03:53	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 03:53	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 03:53	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-13

Date Collected: 10/15/21 07:35

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 03:53	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 03:53	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 03:53	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 03:53	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 03:53	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 03:53	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 03:53	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 03:53	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 03:53	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 03:53	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 03:53	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 03:53	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 03:53	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 03:53	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 03:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 127					10/22/21 03:53	1
4-Bromofluorobenzene (Surr)	94		78 - 120					10/22/21 03:53	1
Dibromofluoromethane (Surr)	98		77 - 120					10/22/21 03:53	1
Toluene-d8 (Surr)	100		80 - 125					10/22/21 03:53	1

Client Sample ID: VLF-211015-FB

Date Collected: 10/15/21 08:00

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 04:15	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 04:15	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 04:15	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 04:15	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 04:15	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 04:15	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 04:15	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 04:15	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 04:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 04:15	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 04:15	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 04:15	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 04:15	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 04:15	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 04:15	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 04:15	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 04:15	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 04:15	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 04:15	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 04:15	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 04:15	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 04:15	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 04:15	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 04:15	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-FB

Date Collected: 10/15/21 08:00

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 04:15	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 04:15	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 04:15	1
Acetone	ND		10	1.9	ug/L			10/22/21 04:15	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 04:15	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 04:15	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 04:15	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 04:15	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 04:15	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 04:15	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 04:15	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 04:15	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 04:15	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 04:15	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 04:15	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 04:15	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 04:15	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 04:15	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 04:15	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 04:15	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 04:15	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 04:15	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 04:15	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 04:15	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 04:15	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 04:15	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 04:15	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 04:15	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 04:15	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 04:15	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 04:15	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 04:15	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 04:15	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 04:15	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 04:15	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 04:15	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 04:15	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 04:15	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 04:15	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 04:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 127		10/22/21 04:15	1
4-Bromofluorobenzene (Surr)	95		78 - 120		10/22/21 04:15	1
Dibromofluoromethane (Surr)	98		77 - 120		10/22/21 04:15	1
Toluene-d8 (Surr)	102		80 - 125		10/22/21 04:15	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211015-14

Date Collected: 10/15/21 08:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 04:36	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 04:36	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 04:36	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 04:36	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 04:36	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 04:36	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 04:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 04:36	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 04:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 04:36	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 04:36	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 04:36	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 04:36	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 04:36	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 04:36	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 04:36	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 04:36	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 04:36	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 04:36	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 04:36	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 04:36	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 04:36	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 04:36	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 04:36	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 04:36	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 04:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 04:36	1
Acetone	ND		10	1.9	ug/L			10/22/21 04:36	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 04:36	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 04:36	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 04:36	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 04:36	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 04:36	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 04:36	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 04:36	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 04:36	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 04:36	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 04:36	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 04:36	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 04:36	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 04:36	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 04:36	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 04:36	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 04:36	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 04:36	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 04:36	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 04:36	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 04:36	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 04:36	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-14
Date Collected: 10/15/21 08:20
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 04:36	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 04:36	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 04:36	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 04:36	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 04:36	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 04:36	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 04:36	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 04:36	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 04:36	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 04:36	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 04:36	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 04:36	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 04:36	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 04:36	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 04:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					10/22/21 04:36	1
4-Bromofluorobenzene (Surr)	93		78 - 120					10/22/21 04:36	1
Dibromofluoromethane (Surr)	98		77 - 120					10/22/21 04:36	1
Toluene-d8 (Surr)	100		80 - 125					10/22/21 04:36	1

Client Sample ID: VLF-211015-15
Date Collected: 10/15/21 09:05
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 04:58	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 04:58	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 04:58	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 04:58	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 04:58	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 04:58	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 04:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 04:58	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 04:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 04:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 04:58	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 04:58	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 04:58	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 04:58	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 04:58	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 04:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 04:58	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 04:58	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 04:58	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 04:58	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 04:58	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 04:58	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 04:58	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 04:58	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-15

Date Collected: 10/15/21 09:05

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 04:58	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 04:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 04:58	1
Acetone	ND		10	1.9	ug/L			10/22/21 04:58	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 04:58	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 04:58	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 04:58	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 04:58	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 04:58	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 04:58	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 04:58	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 04:58	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 04:58	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 04:58	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 04:58	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 04:58	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 04:58	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 04:58	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 04:58	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 04:58	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 04:58	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 04:58	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 04:58	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 04:58	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 04:58	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 04:58	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 04:58	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 04:58	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 04:58	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 04:58	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 04:58	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 04:58	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 04:58	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 04:58	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 04:58	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 04:58	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 04:58	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 04:58	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 04:58	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 04:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 127		10/22/21 04:58	1
4-Bromofluorobenzene (Surr)	94		78 - 120		10/22/21 04:58	1
Dibromofluoromethane (Surr)	99		77 - 120		10/22/21 04:58	1
Toluene-d8 (Surr)	103		80 - 125		10/22/21 04:58	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211015-16

Date Collected: 10/15/21 09:10

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 05:20	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 05:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 05:20	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 05:20	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 05:20	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 05:20	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 05:20	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 05:20	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 05:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 05:20	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 05:20	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 05:20	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 05:20	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 05:20	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 05:20	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 05:20	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 05:20	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 05:20	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 05:20	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 05:20	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 05:20	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 05:20	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 05:20	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 05:20	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 05:20	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 05:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 05:20	1
Acetone	ND		10	1.9	ug/L			10/22/21 05:20	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 05:20	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 05:20	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 05:20	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 05:20	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 05:20	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 05:20	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 05:20	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 05:20	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 05:20	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 05:20	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 05:20	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 05:20	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 05:20	1
cis-1,3-Dichloropropane	ND		0.50	0.16	ug/L			10/22/21 05:20	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 05:20	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 05:20	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 05:20	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 05:20	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 05:20	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 05:20	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 05:20	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-16

Date Collected: 10/15/21 09:10

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 05:20	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 05:20	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 05:20	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 05:20	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 05:20	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 05:20	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 05:20	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 05:20	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 05:20	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 05:20	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 05:20	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 05:20	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 05:20	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 05:20	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 05:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					10/22/21 05:20	1
4-Bromofluorobenzene (Surr)	94		78 - 120					10/22/21 05:20	1
Dibromofluoromethane (Surr)	100		77 - 120					10/22/21 05:20	1
Toluene-d8 (Surr)	102		80 - 125					10/22/21 05:20	1

Client Sample ID: VLF-211015-17

Date Collected: 10/15/21 09:36

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-18

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 05:41	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 05:41	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 05:41	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 05:41	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 05:41	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 05:41	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 05:41	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 05:41	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 05:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 05:41	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 05:41	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 05:41	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 05:41	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 05:41	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 05:41	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 05:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 05:41	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 05:41	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 05:41	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 05:41	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 05:41	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 05:41	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 05:41	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 05:41	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-17

Date Collected: 10/15/21 09:36

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-18

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 05:41	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 05:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 05:41	1
Acetone	ND		10	1.9	ug/L			10/22/21 05:41	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 05:41	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 05:41	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 05:41	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 05:41	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 05:41	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 05:41	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 05:41	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 05:41	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 05:41	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 05:41	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 05:41	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 05:41	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 05:41	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 05:41	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 05:41	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 05:41	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 05:41	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 05:41	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 05:41	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 05:41	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 05:41	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 05:41	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 05:41	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 05:41	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 05:41	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 05:41	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 05:41	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 05:41	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 05:41	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 05:41	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 05:41	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 05:41	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 05:41	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 05:41	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 05:41	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 05:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 127		10/22/21 05:41	1
4-Bromofluorobenzene (Surr)	96		78 - 120		10/22/21 05:41	1
Dibromofluoromethane (Surr)	98		77 - 120		10/22/21 05:41	1
Toluene-d8 (Surr)	103		80 - 125		10/22/21 05:41	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211015-19

Date Collected: 10/15/21 10:25

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 06:03	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 06:03	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 06:03	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 06:03	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 06:03	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 06:03	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 06:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 06:03	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 06:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 06:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 06:03	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 06:03	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 06:03	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 06:03	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 06:03	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 06:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 06:03	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 06:03	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 06:03	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 06:03	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 06:03	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 06:03	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 06:03	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 06:03	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 06:03	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 06:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 06:03	1
Acetone	19		10	1.9	ug/L			10/22/21 06:03	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 06:03	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 06:03	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 06:03	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 06:03	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 06:03	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 06:03	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 06:03	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 06:03	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 06:03	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 06:03	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 06:03	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 06:03	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 06:03	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 06:03	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 06:03	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 06:03	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 06:03	1
Ethylbenzene	0.32	J	0.50	0.16	ug/L			10/22/21 06:03	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 06:03	1
Isopropylbenzene	0.71	J	1.0	0.19	ug/L			10/22/21 06:03	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 06:03	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-19

Date Collected: 10/15/21 10:25

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 06:03	1
Naphthalene	7.3		1.0	0.22	ug/L			10/22/21 06:03	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 06:03	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 06:03	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 06:03	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 06:03	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 06:03	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 06:03	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 06:03	1
Toluene	0.61		0.50	0.17	ug/L			10/22/21 06:03	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 06:03	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 06:03	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 06:03	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 06:03	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 06:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 127					10/22/21 06:03	1
4-Bromofluorobenzene (Surr)	95		78 - 120					10/22/21 06:03	1
Dibromofluoromethane (Surr)	99		77 - 120					10/22/21 06:03	1
Toluene-d8 (Surr)	103		80 - 125					10/22/21 06:03	1

Client Sample ID: VLF-211015-20

Date Collected: 10/15/21 10:50

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-21

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 06:24	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/22/21 06:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/22/21 06:24	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/22/21 06:24	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/22/21 06:24	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/22/21 06:24	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 06:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 06:24	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/22/21 06:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/22/21 06:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/22/21 06:24	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/22/21 06:24	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/22/21 06:24	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/22/21 06:24	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/22/21 06:24	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/22/21 06:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/22/21 06:24	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/22/21 06:24	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/22/21 06:24	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/22/21 06:24	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/22/21 06:24	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/22/21 06:24	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/22/21 06:24	1
2-Hexanone	ND		5.0	1.7	ug/L			10/22/21 06:24	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-20

Date Collected: 10/15/21 10:50

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-21

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/22/21 06:24	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/22/21 06:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/22/21 06:24	1
Acetone	ND		10	1.9	ug/L			10/22/21 06:24	1
Benzene	ND		0.50	0.16	ug/L			10/22/21 06:24	1
Bromobenzene	ND		1.0	0.17	ug/L			10/22/21 06:24	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/22/21 06:24	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/22/21 06:24	1
Bromoform	ND		0.50	0.46	ug/L			10/22/21 06:24	1
Bromomethane	ND		0.50	0.21	ug/L			10/22/21 06:24	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/22/21 06:24	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/22/21 06:24	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/22/21 06:24	1
Chloroethane	ND		0.50	0.41	ug/L			10/22/21 06:24	1
Chloroform	ND		0.50	0.16	ug/L			10/22/21 06:24	1
Chloromethane	ND		0.50	0.30	ug/L			10/22/21 06:24	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 06:24	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/22/21 06:24	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/22/21 06:24	1
Dibromomethane	ND		0.50	0.17	ug/L			10/22/21 06:24	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/22/21 06:24	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/22/21 06:24	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/22/21 06:24	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/22/21 06:24	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/22/21 06:24	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/22/21 06:24	1
Naphthalene	ND		1.0	0.22	ug/L			10/22/21 06:24	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/22/21 06:24	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/22/21 06:24	1
o-Xylene	ND		0.50	0.19	ug/L			10/22/21 06:24	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/22/21 06:24	1
Styrene	ND		0.50	0.36	ug/L			10/22/21 06:24	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/22/21 06:24	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/22/21 06:24	1
Toluene	ND		0.50	0.17	ug/L			10/22/21 06:24	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/22/21 06:24	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/22/21 06:24	1
Trichloroethene	ND		0.50	0.16	ug/L			10/22/21 06:24	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/22/21 06:24	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/22/21 06:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 127		10/22/21 06:24	1
4-Bromofluorobenzene (Surr)	95		78 - 120		10/22/21 06:24	1
Dibromofluoromethane (Surr)	99		77 - 120		10/22/21 06:24	1
Toluene-d8 (Surr)	102		80 - 125		10/22/21 06:24	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211015-21

Date Collected: 10/15/21 11:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-22

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 03:59	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/25/21 03:59	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 03:59	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/25/21 03:59	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/25/21 03:59	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/25/21 03:59	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 03:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 03:59	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/25/21 03:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 03:59	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/25/21 03:59	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/25/21 03:59	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/25/21 03:59	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/25/21 03:59	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/25/21 03:59	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/25/21 03:59	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/25/21 03:59	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/25/21 03:59	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/25/21 03:59	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/25/21 03:59	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/25/21 03:59	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/25/21 03:59	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/25/21 03:59	1
2-Hexanone	ND		5.0	1.7	ug/L			10/25/21 03:59	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/25/21 03:59	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/25/21 03:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/25/21 03:59	1
Acetone	ND		10	1.9	ug/L			10/25/21 03:59	1
Benzene	ND		0.50	0.16	ug/L			10/25/21 03:59	1
Bromobenzene	ND		1.0	0.17	ug/L			10/25/21 03:59	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/25/21 03:59	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/25/21 03:59	1
Bromoform	ND		0.50	0.46	ug/L			10/25/21 03:59	1
Bromomethane	0.39	J	0.50	0.21	ug/L			10/25/21 03:59	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/25/21 03:59	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/25/21 03:59	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/25/21 03:59	1
Chloroethane	ND		0.50	0.41	ug/L			10/25/21 03:59	1
Chloroform	ND		0.50	0.16	ug/L			10/25/21 03:59	1
Chloromethane	ND		0.50	0.30	ug/L			10/25/21 03:59	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 03:59	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/25/21 03:59	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/25/21 03:59	1
Dibromomethane	ND		0.50	0.17	ug/L			10/25/21 03:59	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/25/21 03:59	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/25/21 03:59	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/25/21 03:59	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/25/21 03:59	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/25/21 03:59	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-21
Date Collected: 10/15/21 11:45
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/25/21 03:59	1
Naphthalene	ND		1.0	0.22	ug/L			10/25/21 03:59	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/25/21 03:59	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/25/21 03:59	1
o-Xylene	ND		0.50	0.19	ug/L			10/25/21 03:59	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/25/21 03:59	1
Styrene	ND		0.50	0.36	ug/L			10/25/21 03:59	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/25/21 03:59	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/25/21 03:59	1
Toluene	ND		0.50	0.17	ug/L			10/25/21 03:59	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 03:59	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 03:59	1
Trichloroethene	ND		0.50	0.16	ug/L			10/25/21 03:59	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/25/21 03:59	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/25/21 03:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 127					10/25/21 03:59	1
4-Bromofluorobenzene (Surr)	101		78 - 120					10/25/21 03:59	1
Dibromofluoromethane (Surr)	100		77 - 120					10/25/21 03:59	1
Toluene-d8 (Surr)	98		80 - 125					10/25/21 03:59	1

Client Sample ID: VLF-211015-22
Date Collected: 10/15/21 12:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-23
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 04:20	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/25/21 04:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 04:20	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/25/21 04:20	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/25/21 04:20	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/25/21 04:20	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 04:20	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 04:20	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/25/21 04:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 04:20	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/25/21 04:20	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/25/21 04:20	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/25/21 04:20	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/25/21 04:20	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/25/21 04:20	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/25/21 04:20	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/25/21 04:20	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/25/21 04:20	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/25/21 04:20	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/25/21 04:20	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/25/21 04:20	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/25/21 04:20	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/25/21 04:20	1
2-Hexanone	ND		5.0	1.7	ug/L			10/25/21 04:20	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211015-22

Date Collected: 10/15/21 12:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-23

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/25/21 04:20	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/25/21 04:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/25/21 04:20	1
Acetone	ND		10	1.9	ug/L			10/25/21 04:20	1
Benzene	ND		0.50	0.16	ug/L			10/25/21 04:20	1
Bromobenzene	ND		1.0	0.17	ug/L			10/25/21 04:20	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/25/21 04:20	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/25/21 04:20	1
Bromoform	ND		0.50	0.46	ug/L			10/25/21 04:20	1
Bromomethane	0.50		0.50	0.21	ug/L			10/25/21 04:20	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/25/21 04:20	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/25/21 04:20	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/25/21 04:20	1
Chloroethane	ND		0.50	0.41	ug/L			10/25/21 04:20	1
Chloroform	ND		0.50	0.16	ug/L			10/25/21 04:20	1
Chloromethane	ND		0.50	0.30	ug/L			10/25/21 04:20	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 04:20	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/25/21 04:20	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/25/21 04:20	1
Dibromomethane	ND		0.50	0.17	ug/L			10/25/21 04:20	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/25/21 04:20	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/25/21 04:20	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/25/21 04:20	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/25/21 04:20	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/25/21 04:20	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/25/21 04:20	1
Naphthalene	ND		1.0	0.22	ug/L			10/25/21 04:20	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/25/21 04:20	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/25/21 04:20	1
o-Xylene	ND		0.50	0.19	ug/L			10/25/21 04:20	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/25/21 04:20	1
Styrene	ND		0.50	0.36	ug/L			10/25/21 04:20	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/25/21 04:20	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/25/21 04:20	1
Toluene	ND		0.50	0.17	ug/L			10/25/21 04:20	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 04:20	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 04:20	1
Trichloroethene	ND		0.50	0.16	ug/L			10/25/21 04:20	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/25/21 04:20	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/25/21 04:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127		10/25/21 04:20	1
4-Bromofluorobenzene (Surr)	101		78 - 120		10/25/21 04:20	1
Dibromofluoromethane (Surr)	101		77 - 120		10/25/21 04:20	1
Toluene-d8 (Surr)	100		80 - 125		10/25/21 04:20	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211016-24

Date Collected: 10/16/21 08:00

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-25

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 16:50	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/25/21 16:50	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 16:50	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/25/21 16:50	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/25/21 16:50	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/25/21 16:50	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 16:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 16:50	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/25/21 16:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 16:50	1
1,2,4-Trimethylbenzene	0.32	J	1.0	0.15	ug/L			10/25/21 16:50	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/25/21 16:50	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/25/21 16:50	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/25/21 16:50	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/25/21 16:50	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/25/21 16:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/25/21 16:50	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/25/21 16:50	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/25/21 16:50	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/25/21 16:50	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/25/21 16:50	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/25/21 16:50	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/25/21 16:50	1
2-Hexanone	ND		5.0	1.7	ug/L			10/25/21 16:50	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/25/21 16:50	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/25/21 16:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/25/21 16:50	1
Acetone	ND		10	1.9	ug/L			10/25/21 16:50	1
Benzene	0.34	J	0.50	0.16	ug/L			10/25/21 16:50	1
Bromobenzene	ND		1.0	0.17	ug/L			10/25/21 16:50	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/25/21 16:50	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/25/21 16:50	1
Bromoform	ND		0.50	0.46	ug/L			10/25/21 16:50	1
Bromomethane	ND		0.50	0.21	ug/L			10/25/21 16:50	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/25/21 16:50	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/25/21 16:50	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/25/21 16:50	1
Chloroethane	ND		0.50	0.41	ug/L			10/25/21 16:50	1
Chloroform	ND		0.50	0.16	ug/L			10/25/21 16:50	1
Chloromethane	ND		0.50	0.30	ug/L			10/25/21 16:50	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 16:50	1
cis-1,3-Dichloropropane	ND		0.50	0.16	ug/L			10/25/21 16:50	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/25/21 16:50	1
Dibromomethane	ND		0.50	0.17	ug/L			10/25/21 16:50	1
Dichlorodifluoromethane	ND	*1	0.50	0.31	ug/L			10/25/21 16:50	1
Ethylbenzene	0.27	J	0.50	0.16	ug/L			10/25/21 16:50	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/25/21 16:50	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/25/21 16:50	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/25/21 16:50	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211016-24

Date Collected: 10/16/21 08:00

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-25

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	1.4		0.50	0.15	ug/L			10/25/21 16:50	1
Naphthalene	ND		1.0	0.22	ug/L			10/25/21 16:50	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/25/21 16:50	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/25/21 16:50	1
o-Xylene	0.43	J	0.50	0.19	ug/L			10/25/21 16:50	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/25/21 16:50	1
Styrene	ND		0.50	0.36	ug/L			10/25/21 16:50	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/25/21 16:50	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/25/21 16:50	1
Toluene	1.6		0.50	0.17	ug/L			10/25/21 16:50	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 16:50	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 16:50	1
Trichloroethene	ND		0.50	0.16	ug/L			10/25/21 16:50	1
Trichlorofluoromethane	ND	*1	0.50	0.29	ug/L			10/25/21 16:50	1
Vinyl chloride	ND	*1	0.50	0.10	ug/L			10/25/21 16:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 127					10/25/21 16:50	1
4-Bromofluorobenzene (Surr)	93		78 - 120					10/25/21 16:50	1
Dibromofluoromethane (Surr)	99		77 - 120					10/25/21 16:50	1
Toluene-d8 (Surr)	100		80 - 125					10/25/21 16:50	1

Client Sample ID: VLF-211016-25

Date Collected: 10/16/21 08:40

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-26

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 17:11	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/25/21 17:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 17:11	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/25/21 17:11	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/25/21 17:11	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/25/21 17:11	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 17:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 17:11	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/25/21 17:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 17:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/25/21 17:11	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/25/21 17:11	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/25/21 17:11	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/25/21 17:11	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/25/21 17:11	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/25/21 17:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/25/21 17:11	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/25/21 17:11	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/25/21 17:11	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/25/21 17:11	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/25/21 17:11	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/25/21 17:11	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/25/21 17:11	1
2-Hexanone	ND		5.0	1.7	ug/L			10/25/21 17:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211016-25

Date Collected: 10/16/21 08:40

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-26

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/25/21 17:11	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/25/21 17:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/25/21 17:11	1
Acetone	ND		10	1.9	ug/L			10/25/21 17:11	1
Benzene	ND		0.50	0.16	ug/L			10/25/21 17:11	1
Bromobenzene	ND		1.0	0.17	ug/L			10/25/21 17:11	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/25/21 17:11	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/25/21 17:11	1
Bromoform	ND		0.50	0.46	ug/L			10/25/21 17:11	1
Bromomethane	ND		0.50	0.21	ug/L			10/25/21 17:11	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/25/21 17:11	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/25/21 17:11	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/25/21 17:11	1
Chloroethane	ND		0.50	0.41	ug/L			10/25/21 17:11	1
Chloroform	ND		0.50	0.16	ug/L			10/25/21 17:11	1
Chloromethane	ND		0.50	0.30	ug/L			10/25/21 17:11	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 17:11	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/25/21 17:11	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/25/21 17:11	1
Dibromomethane	ND		0.50	0.17	ug/L			10/25/21 17:11	1
Dichlorodifluoromethane	ND	*1	0.50	0.31	ug/L			10/25/21 17:11	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/25/21 17:11	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/25/21 17:11	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/25/21 17:11	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/25/21 17:11	1
m-Xylene & p-Xylene	0.45	J	0.50	0.15	ug/L			10/25/21 17:11	1
Naphthalene	ND		1.0	0.22	ug/L			10/25/21 17:11	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/25/21 17:11	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/25/21 17:11	1
o-Xylene	ND		0.50	0.19	ug/L			10/25/21 17:11	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/25/21 17:11	1
Styrene	ND		0.50	0.36	ug/L			10/25/21 17:11	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/25/21 17:11	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/25/21 17:11	1
Toluene	0.58		0.50	0.17	ug/L			10/25/21 17:11	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 17:11	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 17:11	1
Trichloroethene	ND		0.50	0.16	ug/L			10/25/21 17:11	1
Trichlorofluoromethane	ND	*1	0.50	0.29	ug/L			10/25/21 17:11	1
Vinyl chloride	ND	*1	0.50	0.10	ug/L			10/25/21 17:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 127		10/25/21 17:11	1
4-Bromofluorobenzene (Surr)	94		78 - 120		10/25/21 17:11	1
Dibromofluoromethane (Surr)	102		77 - 120		10/25/21 17:11	1
Toluene-d8 (Surr)	101		80 - 125		10/25/21 17:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211016-26

Date Collected: 10/16/21 09:15

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-27

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 17:33	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/25/21 17:33	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 17:33	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/25/21 17:33	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/25/21 17:33	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/25/21 17:33	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 17:33	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 17:33	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/25/21 17:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 17:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/25/21 17:33	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/25/21 17:33	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/25/21 17:33	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/25/21 17:33	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/25/21 17:33	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/25/21 17:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/25/21 17:33	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/25/21 17:33	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/25/21 17:33	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/25/21 17:33	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/25/21 17:33	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/25/21 17:33	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/25/21 17:33	1
2-Hexanone	ND		5.0	1.7	ug/L			10/25/21 17:33	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/25/21 17:33	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/25/21 17:33	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/25/21 17:33	1
Acetone	ND		10	1.9	ug/L			10/25/21 17:33	1
Benzene	ND		0.50	0.16	ug/L			10/25/21 17:33	1
Bromobenzene	ND		1.0	0.17	ug/L			10/25/21 17:33	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/25/21 17:33	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/25/21 17:33	1
Bromoform	ND		0.50	0.46	ug/L			10/25/21 17:33	1
Bromomethane	ND		0.50	0.21	ug/L			10/25/21 17:33	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/25/21 17:33	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/25/21 17:33	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/25/21 17:33	1
Chloroethane	ND		0.50	0.41	ug/L			10/25/21 17:33	1
Chloroform	ND		0.50	0.16	ug/L			10/25/21 17:33	1
Chloromethane	ND		0.50	0.30	ug/L			10/25/21 17:33	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 17:33	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/25/21 17:33	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/25/21 17:33	1
Dibromomethane	ND		0.50	0.17	ug/L			10/25/21 17:33	1
Dichlorodifluoromethane	ND	*1	0.50	0.31	ug/L			10/25/21 17:33	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/25/21 17:33	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/25/21 17:33	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/25/21 17:33	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/25/21 17:33	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211016-26

Date Collected: 10/16/21 09:15

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-27

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	0.32	J	0.50	0.15	ug/L			10/25/21 17:33	1
Naphthalene	ND		1.0	0.22	ug/L			10/25/21 17:33	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/25/21 17:33	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/25/21 17:33	1
o-Xylene	ND		0.50	0.19	ug/L			10/25/21 17:33	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/25/21 17:33	1
Styrene	ND		0.50	0.36	ug/L			10/25/21 17:33	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/25/21 17:33	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/25/21 17:33	1
Toluene	0.30	J	0.50	0.17	ug/L			10/25/21 17:33	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 17:33	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 17:33	1
Trichloroethene	ND		0.50	0.16	ug/L			10/25/21 17:33	1
Trichlorofluoromethane	ND	*1	0.50	0.29	ug/L			10/25/21 17:33	1
Vinyl chloride	ND	*1	0.50	0.10	ug/L			10/25/21 17:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 127					10/25/21 17:33	1
4-Bromofluorobenzene (Surr)	94		78 - 120					10/25/21 17:33	1
Dibromofluoromethane (Surr)	100		77 - 120					10/25/21 17:33	1
Toluene-d8 (Surr)	100		80 - 125					10/25/21 17:33	1

Client Sample ID: VLF-211016-27

Date Collected: 10/16/21 10:05

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-28

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 17:54	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/25/21 17:54	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 17:54	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/25/21 17:54	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/25/21 17:54	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/25/21 17:54	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 17:54	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 17:54	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/25/21 17:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 17:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/25/21 17:54	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/25/21 17:54	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/25/21 17:54	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/25/21 17:54	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/25/21 17:54	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/25/21 17:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/25/21 17:54	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/25/21 17:54	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/25/21 17:54	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/25/21 17:54	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/25/21 17:54	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/25/21 17:54	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/25/21 17:54	1
2-Hexanone	ND		5.0	1.7	ug/L			10/25/21 17:54	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211016-27

Date Collected: 10/16/21 10:05

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-28

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/25/21 17:54	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/25/21 17:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/25/21 17:54	1
Acetone	ND		10	1.9	ug/L			10/25/21 17:54	1
Benzene	ND		0.50	0.16	ug/L			10/25/21 17:54	1
Bromobenzene	ND		1.0	0.17	ug/L			10/25/21 17:54	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/25/21 17:54	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/25/21 17:54	1
Bromoform	ND		0.50	0.46	ug/L			10/25/21 17:54	1
Bromomethane	ND		0.50	0.21	ug/L			10/25/21 17:54	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/25/21 17:54	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/25/21 17:54	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/25/21 17:54	1
Chloroethane	ND		0.50	0.41	ug/L			10/25/21 17:54	1
Chloroform	ND		0.50	0.16	ug/L			10/25/21 17:54	1
Chloromethane	ND		0.50	0.30	ug/L			10/25/21 17:54	1
cis-1,2-Dichloroethene	3.6		0.50	0.15	ug/L			10/25/21 17:54	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/25/21 17:54	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/25/21 17:54	1
Dibromomethane	ND		0.50	0.17	ug/L			10/25/21 17:54	1
Dichlorodifluoromethane	ND	*1	0.50	0.31	ug/L			10/25/21 17:54	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/25/21 17:54	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/25/21 17:54	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/25/21 17:54	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/25/21 17:54	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/25/21 17:54	1
Naphthalene	ND		1.0	0.22	ug/L			10/25/21 17:54	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/25/21 17:54	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/25/21 17:54	1
o-Xylene	ND		0.50	0.19	ug/L			10/25/21 17:54	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/25/21 17:54	1
Styrene	ND		0.50	0.36	ug/L			10/25/21 17:54	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/25/21 17:54	1
Tetrachloroethene	1.0		0.50	0.20	ug/L			10/25/21 17:54	1
Toluene	0.23 J		0.50	0.17	ug/L			10/25/21 17:54	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 17:54	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 17:54	1
Trichloroethene	1.0		0.50	0.16	ug/L			10/25/21 17:54	1
Trichlorofluoromethane	ND	*1	0.50	0.29	ug/L			10/25/21 17:54	1
Vinyl chloride	ND	*1	0.50	0.10	ug/L			10/25/21 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		70 - 127		10/25/21 17:54	1
4-Bromofluorobenzene (Surr)	95		78 - 120		10/25/21 17:54	1
Dibromofluoromethane (Surr)	102		77 - 120		10/25/21 17:54	1
Toluene-d8 (Surr)	102		80 - 125		10/25/21 17:54	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: VLF-211016-28

Date Collected: 10/16/21 10:35

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-29

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 04:42	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/25/21 04:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 04:42	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/25/21 04:42	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/25/21 04:42	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/25/21 04:42	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 04:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 04:42	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/25/21 04:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 04:42	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/25/21 04:42	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/25/21 04:42	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/25/21 04:42	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/25/21 04:42	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/25/21 04:42	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/25/21 04:42	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/25/21 04:42	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/25/21 04:42	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/25/21 04:42	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/25/21 04:42	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/25/21 04:42	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/25/21 04:42	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/25/21 04:42	1
2-Hexanone	ND		5.0	1.7	ug/L			10/25/21 04:42	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/25/21 04:42	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/25/21 04:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/25/21 04:42	1
Acetone	ND		10	1.9	ug/L			10/25/21 04:42	1
Benzene	ND		0.50	0.16	ug/L			10/25/21 04:42	1
Bromobenzene	ND		1.0	0.17	ug/L			10/25/21 04:42	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/25/21 04:42	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/25/21 04:42	1
Bromoform	ND		0.50	0.46	ug/L			10/25/21 04:42	1
Bromomethane	0.31	J	0.50	0.21	ug/L			10/25/21 04:42	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/25/21 04:42	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/25/21 04:42	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/25/21 04:42	1
Chloroethane	ND		0.50	0.41	ug/L			10/25/21 04:42	1
Chloroform	ND		0.50	0.16	ug/L			10/25/21 04:42	1
Chloromethane	ND		0.50	0.30	ug/L			10/25/21 04:42	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 04:42	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/25/21 04:42	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/25/21 04:42	1
Dibromomethane	ND		0.50	0.17	ug/L			10/25/21 04:42	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/25/21 04:42	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/25/21 04:42	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/25/21 04:42	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/25/21 04:42	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/25/21 04:42	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211016-28

Date Collected: 10/16/21 10:35

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-29

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/25/21 04:42	1
Naphthalene	ND		1.0	0.22	ug/L			10/25/21 04:42	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/25/21 04:42	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/25/21 04:42	1
o-Xylene	ND		0.50	0.19	ug/L			10/25/21 04:42	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/25/21 04:42	1
Styrene	ND		0.50	0.36	ug/L			10/25/21 04:42	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/25/21 04:42	1
Tetrachloroethene	2.6		0.50	0.20	ug/L			10/25/21 04:42	1
Toluene	ND		0.50	0.17	ug/L			10/25/21 04:42	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 04:42	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 04:42	1
Trichloroethene	ND		0.50	0.16	ug/L			10/25/21 04:42	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/25/21 04:42	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/25/21 04:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 127					10/25/21 04:42	1
4-Bromofluorobenzene (Surr)	100		78 - 120					10/25/21 04:42	1
Dibromofluoromethane (Surr)	99		77 - 120					10/25/21 04:42	1
Toluene-d8 (Surr)	99		80 - 125					10/25/21 04:42	1

Client Sample ID: VLF-211016-29

Date Collected: 10/16/21 11:15

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-30

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 05:04	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/25/21 05:04	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 05:04	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/25/21 05:04	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/25/21 05:04	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/25/21 05:04	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 05:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 05:04	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/25/21 05:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 05:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/25/21 05:04	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/25/21 05:04	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/25/21 05:04	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/25/21 05:04	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/25/21 05:04	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/25/21 05:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/25/21 05:04	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/25/21 05:04	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/25/21 05:04	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/25/21 05:04	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/25/21 05:04	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/25/21 05:04	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/25/21 05:04	1
2-Hexanone	ND		5.0	1.7	ug/L			10/25/21 05:04	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: VLF-211016-29

Date Collected: 10/16/21 11:15

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-30

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/25/21 05:04	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/25/21 05:04	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/25/21 05:04	1
Acetone	ND		10	1.9	ug/L			10/25/21 05:04	1
Benzene	ND		0.50	0.16	ug/L			10/25/21 05:04	1
Bromobenzene	ND		1.0	0.17	ug/L			10/25/21 05:04	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/25/21 05:04	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/25/21 05:04	1
Bromoform	ND		0.50	0.46	ug/L			10/25/21 05:04	1
Bromomethane	ND		0.50	0.21	ug/L			10/25/21 05:04	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/25/21 05:04	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/25/21 05:04	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/25/21 05:04	1
Chloroethane	ND		0.50	0.41	ug/L			10/25/21 05:04	1
Chloroform	ND		0.50	0.16	ug/L			10/25/21 05:04	1
Chloromethane	ND		0.50	0.30	ug/L			10/25/21 05:04	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 05:04	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/25/21 05:04	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/25/21 05:04	1
Dibromomethane	ND		0.50	0.17	ug/L			10/25/21 05:04	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/25/21 05:04	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/25/21 05:04	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/25/21 05:04	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/25/21 05:04	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/25/21 05:04	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/25/21 05:04	1
Naphthalene	ND		1.0	0.22	ug/L			10/25/21 05:04	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/25/21 05:04	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/25/21 05:04	1
o-Xylene	ND		0.50	0.19	ug/L			10/25/21 05:04	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/25/21 05:04	1
Styrene	ND		0.50	0.36	ug/L			10/25/21 05:04	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/25/21 05:04	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/25/21 05:04	1
Toluene	ND		0.50	0.17	ug/L			10/25/21 05:04	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 05:04	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 05:04	1
Trichloroethene	ND		0.50	0.16	ug/L			10/25/21 05:04	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/25/21 05:04	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/25/21 05:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 127		10/25/21 05:04	1
4-Bromofluorobenzene (Surr)	99		78 - 120		10/25/21 05:04	1
Dibromofluoromethane (Surr)	101		77 - 120		10/25/21 05:04	1
Toluene-d8 (Surr)	100		80 - 125		10/25/21 05:04	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: Trip Blanks
Date Collected: 10/14/21 10:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-36
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 18:16	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/25/21 18:16	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 18:16	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/25/21 18:16	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/25/21 18:16	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/25/21 18:16	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 18:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 18:16	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/25/21 18:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 18:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/25/21 18:16	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/25/21 18:16	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/25/21 18:16	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/25/21 18:16	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/25/21 18:16	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/25/21 18:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/25/21 18:16	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/25/21 18:16	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/25/21 18:16	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/25/21 18:16	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/25/21 18:16	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/25/21 18:16	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/25/21 18:16	1
2-Hexanone	ND		5.0	1.7	ug/L			10/25/21 18:16	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/25/21 18:16	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/25/21 18:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/25/21 18:16	1
Acetone	ND		10	1.9	ug/L			10/25/21 18:16	1
Benzene	ND		0.50	0.16	ug/L			10/25/21 18:16	1
Bromobenzene	ND		1.0	0.17	ug/L			10/25/21 18:16	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/25/21 18:16	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/25/21 18:16	1
Bromoform	ND		0.50	0.46	ug/L			10/25/21 18:16	1
Bromomethane	ND		0.50	0.21	ug/L			10/25/21 18:16	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/25/21 18:16	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/25/21 18:16	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/25/21 18:16	1
Chloroethane	ND		0.50	0.41	ug/L			10/25/21 18:16	1
Chloroform	ND		0.50	0.16	ug/L			10/25/21 18:16	1
Chloromethane	ND		0.50	0.30	ug/L			10/25/21 18:16	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 18:16	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/25/21 18:16	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/25/21 18:16	1
Dibromomethane	ND		0.50	0.17	ug/L			10/25/21 18:16	1
Dichlorodifluoromethane	ND	*1	0.50	0.31	ug/L			10/25/21 18:16	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/25/21 18:16	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/25/21 18:16	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/25/21 18:16	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/25/21 18:16	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: Trip Blanks
Date Collected: 10/14/21 10:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-36
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/25/21 18:16	1
Naphthalene	ND		1.0	0.22	ug/L			10/25/21 18:16	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/25/21 18:16	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/25/21 18:16	1
o-Xylene	ND		0.50	0.19	ug/L			10/25/21 18:16	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/25/21 18:16	1
Styrene	ND		0.50	0.36	ug/L			10/25/21 18:16	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/25/21 18:16	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/25/21 18:16	1
Toluene	ND		0.50	0.17	ug/L			10/25/21 18:16	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 18:16	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 18:16	1
Trichloroethene	ND		0.50	0.16	ug/L			10/25/21 18:16	1
Trichlorofluoromethane	ND	*1	0.50	0.29	ug/L			10/25/21 18:16	1
Vinyl chloride	ND	*1	0.50	0.10	ug/L			10/25/21 18:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127					10/25/21 18:16	1
4-Bromofluorobenzene (Surr)	94		78 - 120					10/25/21 18:16	1
Dibromofluoromethane (Surr)	100		77 - 120					10/25/21 18:16	1
Toluene-d8 (Surr)	99		80 - 125					10/25/21 18:16	1

Method: 200.8 - Metals (ICP/MS)

Client Sample ID: VLF-211017-35
Date Collected: 10/18/21 09:45
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154367-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	16	F1	2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:00	1
Arsenic	120	F1	5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:00	1
Lead	1.2	F1	1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:00	1
Nickel	140	F1	2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:00	1
Barium	570		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:00	1
Selenium	1.6	J F1	5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:00	1
Beryllium	ND		1.0	0.15	ug/L		10/28/21 07:50	10/29/21 17:00	1
Cadmium	0.17	J F1 B	1.0	0.088	ug/L		10/28/21 07:50	10/29/21 17:00	1
Chromium	180		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:00	1
Cobalt	38	F1	1.0	0.050	ug/L		10/28/21 07:50	10/29/21 17:00	1
Copper	5.3	F1	2.0	0.71	ug/L		10/28/21 07:50	10/29/21 17:00	1
Silver	0.10	J	1.0	0.045	ug/L		10/28/21 07:50	10/29/21 17:00	1
Thallium	0.10	J F1	1.0	0.066	ug/L		10/28/21 07:50	10/29/21 17:00	1
Vanadium	140		5.0	1.1	ug/L		10/28/21 07:50	10/29/21 17:00	1
Zinc	37	F1	10	2.0	ug/L		10/28/21 07:50	10/29/21 17:00	1

Client Sample ID: VLF-211014-1
Date Collected: 10/14/21 10:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:11	1
Arsenic	ND		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Client Sample ID: VLF-211014-1

Date Collected: 10/14/21 10:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.41	J	1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:11	1
Nickel	9.8		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:11	1
Barium	7.8		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:11	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:11	1
Chromium	3.0		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:11	1
Zinc	16		10	2.0	ug/L		10/28/21 07:50	10/29/21 17:11	1

Client Sample ID: VLF-211014-2

Date Collected: 10/14/21 11:10

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:14	1
Arsenic	ND		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:14	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:14	1
Nickel	1.3	J	2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:14	1
Barium	6.8		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:14	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:14	1
Chromium	ND		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:14	1
Zinc	5.9	J	10	2.0	ug/L		10/28/21 07:50	10/29/21 17:14	1

Client Sample ID: VLF-211014-3

Date Collected: 10/14/21 12:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:18	1
Arsenic	ND		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:18	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:18	1
Nickel	ND		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:18	1
Barium	0.99	J	1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:18	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:18	1
Chromium	1.4	J	3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:18	1
Zinc	4.9	J	10	2.0	ug/L		10/28/21 07:50	10/29/21 17:18	1

Client Sample ID: VLF-211014-4

Date Collected: 10/14/21 12:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:21	1
Arsenic	ND		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:21	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:21	1
Nickel	ND		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:21	1
Barium	0.58	J	1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:21	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:21	1
Chromium	1.9	J	3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:21	1
Zinc	5.2	J	10	2.0	ug/L		10/28/21 07:50	10/29/21 17:21	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS)

Client Sample ID: VLF-211014-5

Date Collected: 10/14/21 12:50

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:32	1
Arsenic	ND		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:32	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:32	1
Nickel	ND		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:32	1
Barium	0.74	J	1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:32	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:32	1
Chromium	1.5	J	3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:32	1
Zinc	4.8	J	10	2.0	ug/L		10/28/21 07:50	10/29/21 17:32	1

Client Sample ID: VLF-211014-6

Date Collected: 10/14/21 13:35

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:36	1
Arsenic	0.55	J	5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:36	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:36	1
Nickel	ND		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:36	1
Barium	ND		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:36	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:36	1
Chromium	4.7		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:36	1
Zinc	4.1	J	10	2.0	ug/L		10/28/21 07:50	10/29/21 17:36	1

Client Sample ID: VLF-211014-7

Date Collected: 10/14/21 14:15

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:39	1
Arsenic	1.0	J	5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:39	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:39	1
Nickel	24		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:39	1
Barium	12		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:39	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:39	1
Chromium	ND		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:39	1
Zinc	5.1	J	10	2.0	ug/L		10/28/21 07:50	10/29/21 17:39	1

Client Sample ID: VLF-211014-8

Date Collected: 10/14/21 14:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:43	1
Arsenic	0.99	J	5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:43	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:43	1
Nickel	13		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:43	1
Barium	11		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:43	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:43	1
Chromium	ND		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:43	1
Zinc	5.4	J	10	2.0	ug/L		10/28/21 07:50	10/29/21 17:43	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS)

Client Sample ID: VLF-211014-9

Date Collected: 10/14/21 15:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:46	1
Arsenic	ND		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:46	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:46	1
Nickel	ND		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:46	1
Barium	14		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:46	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:46	1
Chromium	ND		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:46	1
Zinc	7.7 J		10	2.0	ug/L		10/28/21 07:50	10/29/21 17:46	1

Client Sample ID: VLF-211014-10

Date Collected: 10/14/21 15:50

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:50	1
Arsenic	0.63 J		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:50	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:50	1
Nickel	0.30 J		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:50	1
Barium	14		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:50	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:50	1
Chromium	ND		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:50	1
Zinc	9.2 J		10	2.0	ug/L		10/28/21 07:50	10/29/21 17:50	1

Client Sample ID: VLF-211014-11

Date Collected: 10/14/21 16:40

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:53	1
Arsenic	0.84 J		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:53	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:53	1
Nickel	0.79 J		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:53	1
Barium	0.48 J		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:53	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:53	1
Chromium	0.96 J		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:53	1
Zinc	5.5 J		10	2.0	ug/L		10/28/21 07:50	10/29/21 17:53	1

Client Sample ID: VLF-211014-12

Date Collected: 10/14/21 17:25

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 17:57	1
Arsenic	0.52 J		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 17:57	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 17:57	1
Nickel	0.52 J		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 17:57	1
Barium	2.0		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 17:57	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 17:57	1
Chromium	ND		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 17:57	1
Zinc	5.9 J		10	2.0	ug/L		10/28/21 07:50	10/29/21 17:57	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS)

Client Sample ID: VLF-211015-13

Date Collected: 10/15/21 07:35

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 18:01	1
Arsenic	0.92	J	5.0	0.50	ug/L		10/28/21 07:50	10/29/21 18:01	1
Lead	0.42	J	1.0	0.23	ug/L		10/28/21 07:50	10/29/21 18:01	1
Nickel	0.33	J	2.0	0.28	ug/L		10/28/21 07:50	10/29/21 18:01	1
Barium	0.77	J	1.0	0.38	ug/L		10/28/21 07:50	10/29/21 18:01	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 18:01	1
Chromium	0.88	J	3.0	0.88	ug/L		10/28/21 07:50	10/29/21 18:01	1
Zinc	12		10	2.0	ug/L		10/28/21 07:50	10/29/21 18:01	1

Client Sample ID: VLF-211015-14

Date Collected: 10/15/21 08:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 18:11	1
Arsenic	18		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 18:11	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 18:11	1
Nickel	7.6		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 18:11	1
Barium	97	F1	1.0	0.38	ug/L		10/28/21 07:50	10/29/21 18:11	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 18:11	1
Chromium	ND		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 18:11	1
Zinc	15		10	2.0	ug/L		10/28/21 07:50	10/29/21 18:11	1

Client Sample ID: VLF-211015-15

Date Collected: 10/15/21 09:05

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.71	J	2.0	0.68	ug/L		10/27/21 07:53	10/27/21 21:01	1
Arsenic	14		5.0	0.50	ug/L		10/27/21 07:53	10/27/21 21:01	1
Lead	0.66	J	1.0	0.23	ug/L		10/27/21 07:53	10/27/21 21:01	1
Nickel	1.3	J	2.0	0.28	ug/L		10/27/21 07:53	10/27/21 21:01	1
Barium	34	F1	1.0	0.38	ug/L		10/27/21 07:53	10/27/21 21:01	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 21:01	1
Chromium	1.5	J	3.0	0.88	ug/L		10/27/21 07:53	10/27/21 21:01	1
Zinc	6.0	J B	10	2.0	ug/L		10/27/21 07:53	10/27/21 21:01	1

Client Sample ID: VLF-211015-16

Date Collected: 10/15/21 09:10

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.1	J	2.0	0.68	ug/L		10/27/21 07:53	10/27/21 21:12	1
Arsenic	16		5.0	0.50	ug/L		10/27/21 07:53	10/27/21 21:12	1
Lead	0.82	J	1.0	0.23	ug/L		10/27/21 07:53	10/27/21 21:12	1
Nickel	1.5	J	2.0	0.28	ug/L		10/27/21 07:53	10/27/21 21:12	1
Barium	39		1.0	0.38	ug/L		10/27/21 07:53	10/27/21 21:12	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 21:12	1
Chromium	2.2	J	3.0	0.88	ug/L		10/27/21 07:53	10/27/21 21:12	1
Zinc	5.0	J B	10	2.0	ug/L		10/27/21 07:53	10/27/21 21:12	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS)

Client Sample ID: VLF-211015-17
Date Collected: 10/15/21 09:36
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.1		0.50	0.50	ug/L		10/22/21 07:50	10/25/21 15:40	1

Client Sample ID: VLF-211015-19
Date Collected: 10/15/21 10:25
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-20
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	29		0.50	0.50	ug/L		10/22/21 07:50	10/25/21 15:44	1

Client Sample ID: VLF-211015-20
Date Collected: 10/15/21 10:50
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-21
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.73		0.50	0.50	ug/L		10/22/21 07:50	10/25/21 15:47	1

Client Sample ID: VLF-211015-21
Date Collected: 10/15/21 11:45
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/27/21 07:53	10/27/21 21:33	1
Arsenic	11		5.0	0.50	ug/L		10/27/21 07:53	10/27/21 21:33	1
Lead	ND		1.0	0.23	ug/L		10/27/21 07:53	10/27/21 21:33	1
Nickel	0.52	J	2.0	0.28	ug/L		10/27/21 07:53	10/27/21 21:33	1
Barium	33		1.0	0.38	ug/L		10/27/21 07:53	10/27/21 21:33	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 21:33	1
Chromium	ND		3.0	0.88	ug/L		10/27/21 07:53	10/27/21 21:33	1
Zinc	ND		10	2.0	ug/L		10/27/21 07:53	10/27/21 21:33	1

Client Sample ID: VLF-211015-22
Date Collected: 10/15/21 12:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-23
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.75		0.50	0.50	ug/L		10/22/21 07:50	10/25/21 15:51	1

Client Sample ID: VLF-211015-23
Date Collected: 10/15/21 15:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-24
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/27/21 07:53	10/27/21 21:41	1
Arsenic	1.1	J	5.0	0.50	ug/L		10/27/21 07:53	10/27/21 21:41	1
Lead	ND		1.0	0.23	ug/L		10/27/21 07:53	10/27/21 21:41	1
Nickel	ND		2.0	0.28	ug/L		10/27/21 07:53	10/27/21 21:41	1
Barium	0.51	J	1.0	0.38	ug/L		10/27/21 07:53	10/27/21 21:41	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 21:41	1
Chromium	ND		3.0	0.88	ug/L		10/27/21 07:53	10/27/21 21:41	1
Zinc	6.5	J B	10	2.0	ug/L		10/27/21 07:53	10/27/21 21:41	1

Client Sample ID: VLF-211016-24
Date Collected: 10/16/21 08:00
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-25
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/27/21 07:53	10/27/21 21:44	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Client Sample ID: VLF-211016-24
Date Collected: 10/16/21 08:00
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-25
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	0.50	ug/L		10/27/21 07:53	10/27/21 21:44	1
Lead	ND		1.0	0.23	ug/L		10/27/21 07:53	10/27/21 21:44	1
Nickel	3.9		2.0	0.28	ug/L		10/27/21 07:53	10/27/21 21:44	1
Barium	7.3		1.0	0.38	ug/L		10/27/21 07:53	10/27/21 21:44	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 21:44	1
Chromium	ND		3.0	0.88	ug/L		10/27/21 07:53	10/27/21 21:44	1
Zinc	ND		10	2.0	ug/L		10/27/21 07:53	10/27/21 21:44	1

Client Sample ID: VLF-211016-25
Date Collected: 10/16/21 08:40
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-26
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/27/21 07:53	10/27/21 21:48	1
Arsenic	ND		5.0	0.50	ug/L		10/27/21 07:53	10/27/21 21:48	1
Lead	ND		1.0	0.23	ug/L		10/27/21 07:53	10/27/21 21:48	1
Nickel	8.6		2.0	0.28	ug/L		10/27/21 07:53	10/27/21 21:48	1
Barium	6.8		1.0	0.38	ug/L		10/27/21 07:53	10/27/21 21:48	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 21:48	1
Chromium	ND		3.0	0.88	ug/L		10/27/21 07:53	10/27/21 21:48	1
Zinc	ND		10	2.0	ug/L		10/27/21 07:53	10/27/21 21:48	1

Client Sample ID: VLF-211016-26
Date Collected: 10/16/21 09:15
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-27
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/27/21 07:53	10/27/21 21:51	1
Arsenic	ND		5.0	0.50	ug/L		10/27/21 07:53	10/27/21 21:51	1
Lead	ND		1.0	0.23	ug/L		10/27/21 07:53	10/27/21 21:51	1
Nickel	ND		2.0	0.28	ug/L		10/27/21 07:53	10/27/21 21:51	1
Barium	5.1		1.0	0.38	ug/L		10/27/21 07:53	10/27/21 21:51	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 21:51	1
Chromium	ND		3.0	0.88	ug/L		10/27/21 07:53	10/27/21 21:51	1
Zinc	ND		10	2.0	ug/L		10/27/21 07:53	10/27/21 21:51	1

Client Sample ID: VLF-211016-27
Date Collected: 10/16/21 10:05
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-28
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/27/21 07:53	10/27/21 21:55	1
Arsenic	ND		5.0	0.50	ug/L		10/27/21 07:53	10/27/21 21:55	1
Lead	ND		1.0	0.23	ug/L		10/27/21 07:53	10/27/21 21:55	1
Nickel	2.3		2.0	0.28	ug/L		10/27/21 07:53	10/27/21 21:55	1
Barium	5.0		1.0	0.38	ug/L		10/27/21 07:53	10/27/21 21:55	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 21:55	1
Chromium	ND		3.0	0.88	ug/L		10/27/21 07:53	10/27/21 21:55	1
Zinc	6.0	J B	10	2.0	ug/L		10/27/21 07:53	10/27/21 21:55	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS)

Client Sample ID: VLF-211016-28
Date Collected: 10/16/21 10:35
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-29
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/27/21 07:53	10/27/21 22:06	1
Arsenic	ND		5.0	0.50	ug/L		10/27/21 07:53	10/27/21 22:06	1
Lead	ND		1.0	0.23	ug/L		10/27/21 07:53	10/27/21 22:06	1
Nickel	ND		2.0	0.28	ug/L		10/27/21 07:53	10/27/21 22:06	1
Barium	0.49	J	1.0	0.38	ug/L		10/27/21 07:53	10/27/21 22:06	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 22:06	1
Chromium	ND		3.0	0.88	ug/L		10/27/21 07:53	10/27/21 22:06	1
Zinc	2.2	J B	10	2.0	ug/L		10/27/21 07:53	10/27/21 22:06	1

Client Sample ID: VLF-211016-29
Date Collected: 10/16/21 11:15
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-30
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/27/21 07:53	10/27/21 22:09	1
Arsenic	ND		5.0	0.50	ug/L		10/27/21 07:53	10/27/21 22:09	1
Lead	ND		1.0	0.23	ug/L		10/27/21 07:53	10/27/21 22:09	1
Nickel	ND		2.0	0.28	ug/L		10/27/21 07:53	10/27/21 22:09	1
Barium	3.6		1.0	0.38	ug/L		10/27/21 07:53	10/27/21 22:09	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 22:09	1
Chromium	ND		3.0	0.88	ug/L		10/27/21 07:53	10/27/21 22:09	1
Zinc	ND		10	2.0	ug/L		10/27/21 07:53	10/27/21 22:09	1

Method: 6010B - Dissolved Metals - Dissolved

Client Sample ID: VLF-211017-35
Date Collected: 10/18/21 09:45
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154367-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	160000		200	78	ug/L		10/26/21 07:00	10/26/21 16:17	1
Iron	910		100	22	ug/L		10/26/21 07:00	10/26/21 16:17	1
Magnesium	160000		200	26	ug/L		10/26/21 07:00	10/26/21 16:17	1
Manganese	1000		5.0	1.9	ug/L		10/26/21 07:00	10/26/21 16:17	1
Potassium	510000		30000	2400	ug/L		10/26/21 07:00	10/27/21 05:42	10
Silicon	37000		500	35	ug/L		10/26/21 07:00	10/26/21 16:17	1
Sodium	2200000		1000	370	ug/L		10/26/21 07:00	10/26/21 16:17	1

Client Sample ID: VLF-211014-1
Date Collected: 10/14/21 10:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		200	78	ug/L		10/27/21 07:53	10/28/21 11:01	1
Iron	340	B	100	22	ug/L		10/27/21 07:53	10/28/21 11:01	1
Magnesium	53000		200	26	ug/L		10/27/21 07:53	10/28/21 11:01	1
Manganese	150		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 11:01	1
Sodium	26000		1000	370	ug/L		10/27/21 07:53	10/28/21 11:01	1

Client Sample ID: VLF-211014-2
Date Collected: 10/14/21 11:10
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	93000		200	78	ug/L		10/27/21 07:53	10/28/21 11:15	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 6010B - Dissolved Metals - Dissolved (Continued)

Client Sample ID: VLF-211014-2
Date Collected: 10/14/21 11:10
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 11:15	1
Magnesium	34000		200	26	ug/L		10/27/21 07:53	10/28/21 11:15	1
Manganese	610		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 11:15	1
Sodium	28000		1000	370	ug/L		10/27/21 07:53	10/28/21 11:15	1

Client Sample ID: VLF-211014-3
Date Collected: 10/14/21 12:20
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		200	78	ug/L		10/27/21 07:53	10/28/21 11:18	1
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 11:18	1
Magnesium	44000		200	26	ug/L		10/27/21 07:53	10/28/21 11:18	1
Manganese	ND		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 11:18	1
Sodium	29000		1000	370	ug/L		10/27/21 07:53	10/28/21 11:18	1

Client Sample ID: VLF-211014-4
Date Collected: 10/14/21 12:45
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	24000		200	78	ug/L		10/27/21 07:53	10/28/21 11:22	1
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 11:22	1
Magnesium	8700		200	26	ug/L		10/27/21 07:53	10/28/21 11:22	1
Manganese	ND		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 11:22	1
Sodium	10000		1000	370	ug/L		10/27/21 07:53	10/28/21 11:22	1

Client Sample ID: VLF-211014-5
Date Collected: 10/14/21 12:50
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	24000		200	78	ug/L		10/27/21 07:53	10/28/21 11:38	1
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 11:38	1
Magnesium	8600		200	26	ug/L		10/27/21 07:53	10/28/21 11:38	1
Manganese	ND		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 11:38	1
Sodium	9900		1000	370	ug/L		10/27/21 07:53	10/28/21 11:38	1

Client Sample ID: VLF-211014-6
Date Collected: 10/14/21 13:35
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	25000		200	78	ug/L		10/27/21 07:53	10/28/21 11:42	1
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 11:42	1
Magnesium	11000		200	26	ug/L		10/27/21 07:53	10/28/21 11:42	1
Manganese	ND		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 11:42	1
Sodium	18000		1000	370	ug/L		10/27/21 07:53	10/28/21 11:42	1

Client Sample ID: VLF-211014-7
Date Collected: 10/14/21 14:15
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	320000		200	78	ug/L		10/27/21 07:53	10/28/21 11:45	1
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 11:45	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 6010B - Dissolved Metals - Dissolved (Continued)

Client Sample ID: VLF-211014-7

Date Collected: 10/14/21 14:15

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-7

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	150000		200	26	ug/L		10/27/21 07:53	10/28/21 11:45	1
Manganese	27		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 11:45	1
Sodium	35000		1000	370	ug/L		10/27/21 07:53	10/28/21 11:45	1

Client Sample ID: VLF-211014-8

Date Collected: 10/14/21 14:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000		200	78	ug/L		10/27/21 07:53	10/28/21 11:48	1
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 11:48	1
Magnesium	54000		200	26	ug/L		10/27/21 07:53	10/28/21 11:48	1
Manganese	ND		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 11:48	1
Sodium	38000		1000	370	ug/L		10/27/21 07:53	10/28/21 11:48	1

Client Sample ID: VLF-211014-9

Date Collected: 10/14/21 15:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	47000		200	78	ug/L		10/27/21 07:53	10/28/21 11:52	1
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 11:52	1
Magnesium	23000		200	26	ug/L		10/27/21 07:53	10/28/21 11:52	1
Manganese	ND		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 11:52	1
Sodium	30000		1000	370	ug/L		10/27/21 07:53	10/28/21 11:52	1

Client Sample ID: VLF-211014-10

Date Collected: 10/14/21 15:50

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	46000		200	78	ug/L		10/27/21 07:53	10/28/21 11:55	1
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 11:55	1
Magnesium	23000		200	26	ug/L		10/27/21 07:53	10/28/21 11:55	1
Manganese	ND		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 11:55	1
Sodium	30000		1000	370	ug/L		10/27/21 07:53	10/28/21 11:55	1

Client Sample ID: VLF-211014-11

Date Collected: 10/14/21 16:40

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	35000		200	78	ug/L		10/27/21 07:53	10/28/21 12:12	1
Iron	32	J B	100	22	ug/L		10/27/21 07:53	10/28/21 12:12	1
Magnesium	15000		200	26	ug/L		10/27/21 07:53	10/28/21 12:12	1
Manganese	ND		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 12:12	1
Sodium	19000		1000	370	ug/L		10/27/21 07:53	10/28/21 12:12	1

Client Sample ID: VLF-211014-12

Date Collected: 10/14/21 17:25

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	26000		200	78	ug/L		10/27/21 07:53	10/28/21 12:15	1
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 12:15	1
Magnesium	12000		200	26	ug/L		10/27/21 07:53	10/28/21 12:15	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 6010B - Dissolved Metals - Dissolved (Continued)

Client Sample ID: VLF-211014-12
Date Collected: 10/14/21 17:25
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 12:15	1
Sodium	25000		1000	370	ug/L		10/27/21 07:53	10/28/21 12:15	1

Client Sample ID: VLF-211015-13
Date Collected: 10/15/21 07:35
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	36000		200	78	ug/L		10/27/21 07:53	10/28/21 12:19	1
Iron	ND		100	22	ug/L		10/27/21 07:53	10/28/21 12:19	1
Magnesium	14000		200	26	ug/L		10/27/21 07:53	10/28/21 12:19	1
Manganese	3.4	J	5.0	1.9	ug/L		10/27/21 07:53	10/28/21 12:19	1
Sodium	22000		1000	370	ug/L		10/27/21 07:53	10/28/21 12:19	1

Client Sample ID: VLF-211015-14
Date Collected: 10/15/21 08:20
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	89000		200	78	ug/L		10/27/21 07:53	10/28/21 12:22	1
Iron	5700	B	100	22	ug/L		10/27/21 07:53	10/28/21 12:22	1
Magnesium	39000		200	26	ug/L		10/27/21 07:53	10/28/21 12:22	1
Manganese	9600		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 12:22	1
Sodium	37000		1000	370	ug/L		10/27/21 07:53	10/28/21 12:22	1

Client Sample ID: VLF-211015-15
Date Collected: 10/15/21 09:05
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	26000		200	78	ug/L		10/27/21 07:53	10/28/21 12:25	1
Iron	510	B	100	22	ug/L		10/27/21 07:53	10/28/21 12:25	1
Magnesium	10000		200	26	ug/L		10/27/21 07:53	10/28/21 12:25	1
Manganese	710		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 12:25	1
Sodium	27000		1000	370	ug/L		10/27/21 07:53	10/28/21 12:25	1

Client Sample ID: VLF-211015-16
Date Collected: 10/15/21 09:10
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	25000		200	78	ug/L		10/27/21 07:53	10/28/21 12:29	1
Iron	500	B	100	22	ug/L		10/27/21 07:53	10/28/21 12:29	1
Magnesium	9900		200	26	ug/L		10/27/21 07:53	10/28/21 12:29	1
Manganese	700		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 12:29	1
Sodium	26000		1000	370	ug/L		10/27/21 07:53	10/28/21 12:29	1

Client Sample ID: VLF-211015-17
Date Collected: 10/15/21 09:36
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	250000		200	78	ug/L		10/27/21 07:53	10/28/21 12:32	1
Iron	110	B	100	22	ug/L		10/27/21 07:53	10/28/21 12:32	1
Magnesium	120000		200	26	ug/L		10/27/21 07:53	10/28/21 12:32	1
Manganese	1800		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 12:32	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 6010B - Dissolved Metals - Dissolved (Continued)

Client Sample ID: VLF-211015-17
Date Collected: 10/15/21 09:36
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	950000		1000	370	ug/L		10/27/21 07:53	10/28/21 12:32	1

Client Sample ID: VLF-211015-18
Date Collected: 10/15/21 10:00
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-19
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	50000		200	78	ug/L		10/28/21 08:14	10/29/21 06:33	1
Iron	49	J	100	22	ug/L		10/28/21 08:14	10/29/21 06:33	1
Magnesium	20000		200	26	ug/L		10/28/21 08:14	10/29/21 06:33	1
Manganese	340		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 06:33	1
Sodium	87000		1000	370	ug/L		10/28/21 08:14	10/29/21 06:33	1

Client Sample ID: VLF-211015-19
Date Collected: 10/15/21 10:25
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-20
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	250000		200	78	ug/L		10/28/21 08:14	10/29/21 06:47	1
Iron	13000		100	22	ug/L		10/28/21 08:14	10/29/21 06:47	1
Magnesium	170000		200	26	ug/L		10/28/21 08:14	10/29/21 06:47	1
Manganese	5900		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 06:47	1
Sodium	1200000		1000	370	ug/L		10/28/21 08:14	10/29/21 06:47	1

Client Sample ID: VLF-211015-20
Date Collected: 10/15/21 10:50
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-21
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	78000		200	78	ug/L		10/28/21 08:14	10/29/21 06:52	1
Iron	ND		100	22	ug/L		10/28/21 08:14	10/29/21 06:52	1
Magnesium	38000		200	26	ug/L		10/28/21 08:14	10/29/21 06:52	1
Manganese	2.5	J	5.0	1.9	ug/L		10/28/21 08:14	10/29/21 06:52	1
Sodium	91000		1000	370	ug/L		10/28/21 08:14	10/29/21 06:52	1

Client Sample ID: VLF-211015-21
Date Collected: 10/15/21 11:45
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	30000		200	78	ug/L		10/28/21 08:14	10/29/21 07:09	1
Iron	770		100	22	ug/L		10/28/21 08:14	10/29/21 07:09	1
Magnesium	13000		200	26	ug/L		10/28/21 08:14	10/29/21 07:09	1
Manganese	500		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:09	1
Sodium	23000		1000	370	ug/L		10/28/21 08:14	10/29/21 07:09	1

Client Sample ID: VLF-211015-22
Date Collected: 10/15/21 12:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-23
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	25000		200	78	ug/L		10/28/21 08:14	10/29/21 07:13	1
Iron	ND		100	22	ug/L		10/28/21 08:14	10/29/21 07:13	1
Magnesium	9100		200	26	ug/L		10/28/21 08:14	10/29/21 07:13	1
Manganese	ND		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:13	1
Sodium	99000		1000	370	ug/L		10/28/21 08:14	10/29/21 07:13	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 6010B - Dissolved Metals - Dissolved

Client Sample ID: VLF-211015-23
Date Collected: 10/15/21 15:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-24
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	24000		200	78	ug/L		10/28/21 08:14	10/29/21 07:16	1
Iron	ND		100	22	ug/L		10/28/21 08:14	10/29/21 07:16	1
Magnesium	9300		200	26	ug/L		10/28/21 08:14	10/29/21 07:16	1
Manganese	ND		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:16	1
Sodium	19000		1000	370	ug/L		10/28/21 08:14	10/29/21 07:16	1

Client Sample ID: VLF-211016-24
Date Collected: 10/16/21 08:00
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-25
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	200000		200	78	ug/L		10/28/21 08:14	10/29/21 07:20	1
Iron	ND		100	22	ug/L		10/28/21 08:14	10/29/21 07:20	1
Magnesium	82000		200	26	ug/L		10/28/21 08:14	10/29/21 07:20	1
Manganese	8.4		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:20	1
Sodium	29000		1000	370	ug/L		10/28/21 08:14	10/29/21 07:20	1

Client Sample ID: VLF-211016-25
Date Collected: 10/16/21 08:40
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-26
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	250000		200	78	ug/L		10/28/21 08:14	10/29/21 07:24	1
Iron	33	J	100	22	ug/L		10/28/21 08:14	10/29/21 07:24	1
Magnesium	100000		200	26	ug/L		10/28/21 08:14	10/29/21 07:24	1
Manganese	47		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:24	1
Sodium	38000		1000	370	ug/L		10/28/21 08:14	10/29/21 07:24	1

Client Sample ID: VLF-211016-26
Date Collected: 10/16/21 09:15
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-27
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	42000		200	78	ug/L		10/28/21 08:14	10/29/21 07:27	1
Iron	ND		100	22	ug/L		10/28/21 08:14	10/29/21 07:27	1
Magnesium	18000		200	26	ug/L		10/28/21 08:14	10/29/21 07:27	1
Manganese	ND		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:27	1
Sodium	18000		1000	370	ug/L		10/28/21 08:14	10/29/21 07:27	1

Client Sample ID: VLF-211016-27
Date Collected: 10/16/21 10:05
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-28
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	61000		200	78	ug/L		10/28/21 08:14	10/29/21 07:31	1
Iron	71	J	100	22	ug/L		10/28/21 08:14	10/29/21 07:31	1
Magnesium	29000		200	26	ug/L		10/28/21 08:14	10/29/21 07:31	1
Manganese	5.1		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:31	1
Sodium	35000		1000	370	ug/L		10/28/21 08:14	10/29/21 07:31	1

Client Sample ID: VLF-211016-28
Date Collected: 10/16/21 10:35
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-29
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	27000		200	78	ug/L		10/28/21 08:14	10/29/21 07:48	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 6010B - Dissolved Metals - Dissolved (Continued)

Client Sample ID: VLF-211016-28
Date Collected: 10/16/21 10:35
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-29
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		100	22	ug/L		10/28/21 08:14	10/29/21 07:48	1
Magnesium	12000		200	26	ug/L		10/28/21 08:14	10/29/21 07:48	1
Manganese	ND		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:48	1
Sodium	23000		1000	370	ug/L		10/28/21 08:14	10/29/21 07:48	1

Client Sample ID: VLF-211016-29
Date Collected: 10/16/21 11:15
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-30
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	31000		200	78	ug/L		10/28/21 08:14	10/29/21 07:52	1
Iron	ND		100	22	ug/L		10/28/21 08:14	10/29/21 07:52	1
Magnesium	13000		200	26	ug/L		10/28/21 08:14	10/29/21 07:52	1
Manganese	ND		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:52	1
Sodium	24000		1000	370	ug/L		10/28/21 08:14	10/29/21 07:52	1

Client Sample ID: VLF-211016-30
Date Collected: 10/16/21 11:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-31
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	18000		200	78	ug/L		10/28/21 08:14	10/29/21 07:55	1
Iron	29	J	100	22	ug/L		10/28/21 08:14	10/29/21 07:55	1
Magnesium	7900		200	26	ug/L		10/28/21 08:14	10/29/21 07:55	1
Manganese	2.5	J	5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:55	1
Sodium	7500		1000	370	ug/L		10/28/21 08:14	10/29/21 07:55	1

Client Sample ID: VLF-211017-31
Date Collected: 10/17/21 12:45
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-32
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	26000		200	78	ug/L		10/28/21 08:14	10/29/21 07:59	1
Iron	35	J	100	22	ug/L		10/28/21 08:14	10/29/21 07:59	1
Magnesium	10000		200	26	ug/L		10/28/21 08:14	10/29/21 07:59	1
Manganese	15		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 07:59	1
Sodium	11000		1000	370	ug/L		10/28/21 08:14	10/29/21 07:59	1

Client Sample ID: VLF-211017-32
Date Collected: 10/17/21 13:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-33
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	27000		200	78	ug/L		10/28/21 08:14	10/29/21 08:02	1
Iron	46	J	100	22	ug/L		10/28/21 08:14	10/29/21 08:02	1
Magnesium	10000		200	26	ug/L		10/28/21 08:14	10/29/21 08:02	1
Manganese	11		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 08:02	1
Sodium	12000		1000	370	ug/L		10/28/21 08:14	10/29/21 08:02	1

Client Sample ID: VLF-211017-33
Date Collected: 10/17/21 13:35
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-34
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	26000		200	78	ug/L		10/28/21 08:14	10/29/21 08:06	1
Iron	40	J	100	22	ug/L		10/28/21 08:14	10/29/21 08:06	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 6010B - Dissolved Metals - Dissolved (Continued)

Client Sample ID: VLF-211017-33

Date Collected: 10/17/21 13:35

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-34

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	10000		200	26	ug/L		10/28/21 08:14	10/29/21 08:06	1
Manganese	11		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 08:06	1
Sodium	11000		1000	370	ug/L		10/28/21 08:14	10/29/21 08:06	1

Client Sample ID: VLF-211017-34

Date Collected: 10/17/21 14:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-35

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	26000		200	78	ug/L		10/28/21 08:14	10/29/21 08:09	1
Iron	25	J	100	22	ug/L		10/28/21 08:14	10/29/21 08:09	1
Magnesium	10000		200	26	ug/L		10/28/21 08:14	10/29/21 08:09	1
Manganese	10		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 08:09	1
Sodium	11000		1000	370	ug/L		10/28/21 08:14	10/29/21 08:09	1

General Chemistry

Client Sample ID: VLF-211017-35

Date Collected: 10/18/21 09:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154367-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3500		150	51	mg/L			11/08/21 15:25	50
Sulfate	6.7		5.0	1.0	mg/L			11/06/21 22:00	1
Ammonia	1300		30	6.6	mg/L			11/03/21 15:17	300
Nitrate Nitrite as N	ND		0.20	0.019	mg/L			10/28/21 18:35	1
Chemical Oxygen Demand	4300		1000	430	mg/L			11/05/21 10:16	50
Bicarbonate Alkalinity as CaCO3	ND		10	3.1	mg/L			10/30/21 00:22	1
Total Dissolved Solids	12000		1000	470	mg/L			10/20/21 10:05	1
Total Suspended Solids	40	*1 *-	4.5	1.3	mg/L			10/21/21 12:33	1
Total Suspended Solids	56	H	4.5	1.3	mg/L			10/28/21 10:44	1
TOC Result 1	1300		50	17	mg/L			10/22/21 22:21	50
TOC Result 2	1300		50	17	mg/L			10/22/21 22:21	50
TOC Result 3	1300		50	17	mg/L			10/22/21 22:21	50
TOC Result 4	1300		50	17	mg/L			10/22/21 22:21	50
Total Organic Carbon - Quad	1300		50	17	mg/L			10/22/21 22:21	50
Biochemical Oxygen Demand	750		240	28	mg/L			10/19/21 13:38	10

Client Sample ID: VLF-211014-1

Date Collected: 10/14/21 10:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	81		3.0	1.0	mg/L			11/05/21 06:08	1
Bicarbonate Alkalinity as CaCO3	400		10	3.1	mg/L			10/24/21 01:57	1
Total Dissolved Solids	490		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	12		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211014-2

Date Collected: 10/14/21 11:10

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	130		3.0	1.0	mg/L			11/05/21 07:08	1
Bicarbonate Alkalinity as CaCO3	95		10	3.1	mg/L			10/24/21 02:11	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry (Continued)

Client Sample ID: VLF-211014-2
Date Collected: 10/14/21 11:10
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	510		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211014-3
Date Collected: 10/14/21 12:20
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	310		15	5.1	mg/L			11/05/21 07:38	5
Bicarbonate Alkalinity as CaCO3	44		10	3.1	mg/L			10/24/21 02:16	1
Total Dissolved Solids	560		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211014-4
Date Collected: 10/14/21 12:45
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.1		3.0	1.0	mg/L			11/05/21 07:53	1
Bicarbonate Alkalinity as CaCO3	94		10	3.1	mg/L			10/24/21 02:22	1
Total Dissolved Solids	150		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211014-5
Date Collected: 10/14/21 12:50
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9	J	3.0	1.0	mg/L			11/05/21 08:08	1
Bicarbonate Alkalinity as CaCO3	92		10	3.1	mg/L			10/24/21 00:55	1
Total Dissolved Solids	150		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211014-6
Date Collected: 10/14/21 13:35
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14		3.0	1.0	mg/L			11/05/21 08:23	1
Bicarbonate Alkalinity as CaCO3	100		10	3.1	mg/L			10/24/21 01:01	1
Total Dissolved Solids	190		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	1.2	J	4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211014-7
Date Collected: 10/14/21 14:15
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	540		15	5.1	mg/L			11/05/21 09:08	5
Bicarbonate Alkalinity as CaCO3	660		10	3.1	mg/L			10/24/21 01:11	1
Total Dissolved Solids	1400		20	9.4	mg/L			10/20/21 10:01	1
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry

Client Sample ID: VLF-211014-8

Date Collected: 10/14/21 14:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	110		3.0	1.0	mg/L			11/05/21 10:08	1
Bicarbonate Alkalinity as CaCO3	510		10	3.1	mg/L			10/24/21 01:20	1
Total Dissolved Solids	670		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211014-9

Date Collected: 10/14/21 15:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	59		3.0	1.0	mg/L			11/05/21 10:23	1
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L			10/23/21 22:47	1
Total Dissolved Solids	260		10	4.7	mg/L			10/20/21 10:05	1
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211014-10

Date Collected: 10/14/21 15:50

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48		3.0	1.0	mg/L			11/05/21 10:38	1
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L			10/24/21 00:49	1
Total Dissolved Solids	250		10	4.7	mg/L			10/20/21 10:05	1
Total Suspended Solids	1.2	J	4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211014-11

Date Collected: 10/14/21 16:40

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		3.0	1.0	mg/L			11/05/21 10:53	1
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L			10/23/21 23:23	1
Total Dissolved Solids	220		10	4.7	mg/L			10/20/21 10:05	1
Total Suspended Solids	2.8	J	4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211014-12

Date Collected: 10/14/21 17:25

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		3.0	1.0	mg/L			11/05/21 11:08	1
Bicarbonate Alkalinity as CaCO3	150		10	3.1	mg/L			10/23/21 23:17	1
Total Dissolved Solids	200		10	4.7	mg/L			10/20/21 10:05	1
Total Suspended Solids	4.0		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211015-13

Date Collected: 10/15/21 07:35

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.2		3.0	1.0	mg/L			11/05/21 12:38	1
Bicarbonate Alkalinity as CaCO3	180		10	3.1	mg/L			10/23/21 23:11	1
Total Dissolved Solids	210		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry

Client Sample ID: VLF-211015-14

Date Collected: 10/15/21 08:20

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		3.0	1.0	mg/L			11/05/21 12:53	1
Bicarbonate Alkalinity as CaCO3	480		10	3.1	mg/L			10/23/21 23:04	1
Total Dissolved Solids	470		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	16		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211015-15

Date Collected: 10/15/21 09:05

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-16

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.6		3.0	1.0	mg/L			11/05/21 13:08	1
Bicarbonate Alkalinity as CaCO3	170		10	3.1	mg/L			10/23/21 23:29	1
Total Dissolved Solids	190		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	6.0		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211015-16

Date Collected: 10/15/21 09:10

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-17

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.6		3.0	1.0	mg/L			11/05/21 13:23	1
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L			10/23/21 23:35	1
Total Dissolved Solids	190		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	14		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211015-17

Date Collected: 10/15/21 09:36

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-18

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1600		30	10	mg/L			11/05/21 13:38	10
Bicarbonate Alkalinity as CaCO3	820		10	3.1	mg/L			10/24/21 00:01	1
Total Dissolved Solids	4000		40	19	mg/L			10/20/21 10:01	1
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211015-18

Date Collected: 10/15/21 10:00

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-19

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	150		3.0	1.0	mg/L			11/05/21 13:53	1
Bicarbonate Alkalinity as CaCO3	120		10	3.1	mg/L			10/28/21 16:49	1
Total Dissolved Solids	500		10	4.7	mg/L			10/20/21 10:01	1

Client Sample ID: VLF-211015-19

Date Collected: 10/15/21 10:25

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-20

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1900		60	20	mg/L			11/05/21 14:23	20
Bicarbonate Alkalinity as CaCO3	2300		10	3.1	mg/L			10/24/21 00:22	1
Total Dissolved Solids	4400		100	47	mg/L			10/20/21 10:03	1
Total Suspended Solids	1.6	J	4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry

Client Sample ID: VLF-211015-20
Date Collected: 10/15/21 10:50
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-21
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	92		3.0	1.0	mg/L			11/05/21 15:08	1
Bicarbonate Alkalinity as CaCO3	330		10	3.1	mg/L			10/24/21 00:30	1
Total Dissolved Solids	590		10	4.7	mg/L			10/20/21 10:03	1
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211015-21
Date Collected: 10/15/21 11:45
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19		3.0	1.0	mg/L			11/05/21 15:23	1
Bicarbonate Alkalinity as CaCO3	180		10	3.1	mg/L			10/24/21 00:37	1
Total Dissolved Solids	220		10	4.7	mg/L			10/20/21 10:01	1
Total Suspended Solids	8.8		4.0	1.1	mg/L			10/20/21 11:11	1

Client Sample ID: VLF-211015-22
Date Collected: 10/15/21 12:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-23
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	69		3.0	1.0	mg/L			11/05/21 16:24	1
Bicarbonate Alkalinity as CaCO3	200		10	3.1	mg/L			10/24/21 03:38	1
Total Dissolved Solids	380		10	4.7	mg/L			10/20/21 10:03	1
Total Suspended Solids	1.6	J *1 *-	4.0	1.1	mg/L			10/21/21 12:33	1
Total Suspended Solids	ND	H	4.0	1.1	mg/L			10/28/21 10:44	1

Client Sample ID: VLF-211015-23
Date Collected: 10/15/21 15:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-24
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.4		3.0	1.0	mg/L			11/05/21 16:39	1
Bicarbonate Alkalinity as CaCO3	130		10	3.1	mg/L			10/24/21 03:44	1
Total Dissolved Solids	170		10	4.7	mg/L			10/20/21 10:03	1
Total Suspended Solids	ND	*- *1	4.0	1.1	mg/L			10/21/21 12:33	1
Total Suspended Solids	ND	H	4.0	1.1	mg/L			10/28/21 10:44	1

Client Sample ID: VLF-211016-24
Date Collected: 10/16/21 08:00
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-25
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35		3.0	1.0	mg/L			11/05/21 16:54	1
Bicarbonate Alkalinity as CaCO3	650		10	3.1	mg/L			10/24/21 03:54	1
Total Dissolved Solids	790		20	9.4	mg/L			10/20/21 10:03	1
Total Suspended Solids	ND	*- *1	4.0	1.1	mg/L			10/21/21 12:33	1
Total Suspended Solids	3.2	J H	4.0	1.1	mg/L			10/28/21 10:44	1

Client Sample ID: VLF-211016-25
Date Collected: 10/16/21 08:40
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-26
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	100		3.0	1.0	mg/L			11/05/21 17:09	1
Bicarbonate Alkalinity as CaCO3	950		10	3.1	mg/L			10/24/21 04:55	1
Total Dissolved Solids	1100		20	9.4	mg/L			10/20/21 10:03	1

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Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry (Continued)

Client Sample ID: VLF-211016-25
Date Collected: 10/16/21 08:40
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-26
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND	*- *1	4.0	1.1	mg/L			10/21/21 12:33	1
Total Suspended Solids	ND	H	4.0	1.1	mg/L			10/28/21 10:44	1

Client Sample ID: VLF-211016-26
Date Collected: 10/16/21 09:15
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-27
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41		3.0	1.0	mg/L			11/05/21 17:24	1
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L			10/23/21 22:35	1
Total Dissolved Solids	250		10	4.7	mg/L			10/20/21 10:03	1
Total Suspended Solids	ND	*- *1	4.0	1.1	mg/L			10/21/21 12:33	1
Total Suspended Solids	1.6	J H	4.0	1.1	mg/L			10/28/21 10:44	1

Client Sample ID: VLF-211016-27
Date Collected: 10/16/21 10:05
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-28
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37		3.0	1.0	mg/L			11/05/21 18:08	1
Bicarbonate Alkalinity as CaCO3	350		10	3.1	mg/L			10/24/21 03:25	1
Total Dissolved Solids	390		10	4.7	mg/L			10/20/21 10:03	1
Total Suspended Solids	1.6	J *- *1	4.0	1.1	mg/L			10/21/21 12:33	1
Total Suspended Solids	3.2	J H	4.0	1.1	mg/L			10/28/21 10:44	1

Client Sample ID: VLF-211016-28
Date Collected: 10/16/21 10:35
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-29
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		3.0	1.0	mg/L			11/05/21 18:23	1
Bicarbonate Alkalinity as CaCO3	160		10	3.1	mg/L			10/24/21 03:17	1
Total Dissolved Solids	200		10	4.7	mg/L			10/20/21 10:03	1
Total Suspended Solids	ND	*- *1	4.0	1.1	mg/L			10/21/21 12:33	1
Total Suspended Solids	1.2	J H	4.0	1.1	mg/L			10/28/21 10:44	1

Client Sample ID: VLF-211016-29
Date Collected: 10/16/21 11:15
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-30
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.9		3.0	1.0	mg/L			11/05/21 18:38	1
Bicarbonate Alkalinity as CaCO3	180		10	3.1	mg/L			10/24/21 03:11	1
Total Dissolved Solids	220		10	4.7	mg/L			10/20/21 10:03	1
Total Suspended Solids	ND	*- *1	4.0	1.1	mg/L			10/21/21 12:33	1
Total Suspended Solids	ND	H	4.0	1.1	mg/L			10/28/21 10:44	1

Client Sample ID: VLF-211016-30
Date Collected: 10/16/21 11:30
Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-31
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		3.0	1.0	mg/L			11/05/21 18:53	1
Bicarbonate Alkalinity as CaCO3	97		10	3.1	mg/L			10/24/21 02:50	1
Total Dissolved Solids	140		10	4.7	mg/L			10/20/21 10:03	1

Eurofins TestAmerica, Denver

Client Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry

Client Sample ID: VLF-211017-31

Date Collected: 10/17/21 12:45

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-32

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16		3.0	1.0	mg/L			11/05/21 19:08	1
Nitrogen, Kjeldahl	ND		0.70	0.69	mg/L		10/27/21 18:13	10/28/21 18:44	1
ortho-Phosphate	0.019	J H	0.050	0.018	mg/L			10/19/21 15:25	1
Phosphorus, Total	0.039	J	0.050	0.025	mg/L		10/29/21 06:18	10/29/21 14:07	1
Biochemical Oxygen Demand	ND		5.0	0.59	mg/L			10/19/21 13:38	1

Client Sample ID: VLF-211017-32

Date Collected: 10/17/21 13:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-33

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		3.0	1.0	mg/L			11/05/21 19:23	1
Nitrogen, Kjeldahl	ND		0.70	0.69	mg/L		10/27/21 18:13	10/28/21 18:45	1
ortho-Phosphate	0.021	J H	0.050	0.018	mg/L			10/19/21 15:25	1
Phosphorus, Total	0.047	J	0.050	0.025	mg/L		10/29/21 06:18	10/29/21 14:07	1
Biochemical Oxygen Demand	1.1	J	5.0	0.59	mg/L			10/19/21 13:38	1

Client Sample ID: VLF-211017-33

Date Collected: 10/17/21 13:35

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-34

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		3.0	1.0	mg/L			11/05/21 20:23	1
Nitrogen, Kjeldahl	ND		0.70	0.69	mg/L		10/27/21 18:13	10/28/21 18:46	1
ortho-Phosphate	0.021	J H	0.050	0.018	mg/L			10/19/21 15:25	1
Phosphorus, Total	0.049	J	0.050	0.025	mg/L		10/29/21 06:18	10/29/21 14:08	1
Biochemical Oxygen Demand	ND		5.0	0.59	mg/L			10/19/21 13:38	1

Client Sample ID: VLF-211017-34

Date Collected: 10/17/21 14:30

Date Received: 10/19/21 10:20

Lab Sample ID: 280-154378-35

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15		3.0	1.0	mg/L			11/05/21 21:08	1
Nitrogen, Kjeldahl	ND		0.70	0.69	mg/L		10/27/21 18:13	10/28/21 18:46	1
ortho-Phosphate	0.020	J F1	0.050	0.018	mg/L			10/19/21 15:24	1
Phosphorus, Total	0.035	J	0.050	0.025	mg/L		10/29/21 06:18	10/29/21 14:08	1
Biochemical Oxygen Demand	0.92	J	5.0	0.59	mg/L			10/19/21 13:38	1

Surrogate Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCZ (70-130)	BFB (70-130)
280-154378-24	VLF-211015-23	100	100
320-80562-B-2 MS	Matrix Spike	108	105
320-80562-C-2 MSD	Matrix Spike Duplicate	106	105
LCS 440-659524/1006	Lab Control Sample	102	104
MB 440-659524/7	Method Blank	99	100

Surrogate Legend

DCZ = 1,2-Dichlorobenzene-d4

BFB = 4-Bromofluorobenzene (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
280-154324-E-2 MS	Matrix Spike	96	96	100	102
280-154324-G-2 MSD	Matrix Spike Duplicate	96	95	100	100
280-154367-1	VLF-211017-35	110	95	106	96
280-154378-1	VLF-211014-1	96	94	99	102
280-154378-2	VLF-211014-2	98	94	100	103
280-154378-3	VLF-211014-3	98	95	99	100
280-154378-4	VLF-211014-4	98	95	96	101
280-154378-5	VLF-211014-5	96	95	98	101
280-154378-6	VLF-211014-6	96	95	97	102
280-154378-7	VLF-211014-7	95	97	98	102
280-154378-8	VLF-211014-8	98	96	99	99
280-154378-9	VLF-211014-9	100	94	98	100
280-154378-10	VLF-211014-10	97	94	99	100
280-154378-11	VLF-211014-11	99	93	100	102
280-154378-12	VLF-211014-12	99	95	99	103
280-154378-13	VLF-211015-13	97	94	98	100
280-154378-14	VLF-211015-FB	97	95	98	102
280-154378-15	VLF-211015-14	100	93	98	100
280-154378-16	VLF-211015-15	97	94	99	103
280-154378-17	VLF-211015-16	100	94	100	102
280-154378-18	VLF-211015-17	95	96	98	103
280-154378-20	VLF-211015-19	97	95	99	103
280-154378-21	VLF-211015-20	99	95	99	102
280-154378-22	VLF-211015-21	104	101	100	98
280-154378-23	VLF-211015-22	102	101	101	100
280-154378-25	VLF-211016-24	93	93	99	100
280-154378-26	VLF-211016-25	98	94	102	101
280-154378-27	VLF-211016-26	96	94	100	100
280-154378-28	VLF-211016-27	98	95	102	102
280-154378-29	VLF-211016-28	104	100	99	99
280-154378-30	VLF-211016-29	104	99	101	100
280-154378-36	Trip Blanks	100	94	100	99
LCS 280-554539/5	Lab Control Sample	100	96	98	101
LCS 280-554747/4	Lab Control Sample	113	98	105	100

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Surrogate Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCA (70-127)	BFB (78-120)	DBFM (77-120)	TOL (80-125)
LCS 280-554789/4	Lab Control Sample	101	99	102	100
LCS 280-554811/4	Lab Control Sample	99	96	98	104
LCSD 280-554539/6	Lab Control Sample Dup	98	93	97	104
LCSD 280-554747/5	Lab Control Sample Dup	110	98	105	98
LCSD 280-554789/5	Lab Control Sample Dup	97	97	102	99
LCSD 280-554811/5	Lab Control Sample Dup	99	95	97	102
MB 280-554539/10	Method Blank	99	93	99	101
MB 280-554747/9	Method Blank	112	98	108	95
MB 280-554789/9	Method Blank	100	99	98	100
MB 280-554811/9	Method Blank	97	93	99	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-659524/7
Matrix: Water
Analysis Batch: 659524

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,1,1-Trichloroethane	ND		0.50	0.17	ug/L			10/26/21 08:47	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,1,2-Trichloroethane	ND		0.50	0.19	ug/L			10/26/21 08:47	1
1,1-Dichloroethane	ND		0.50	0.15	ug/L			10/26/21 08:47	1
1,1-Dichloroethene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,1-Dichloropropene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,2,3-Trichlorobenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,2,3-Trichloropropane	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,2,4-Trichlorobenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,2,4-Trimethylbenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.25	ug/L			10/26/21 08:47	1
1,2-Dibromoethane (EDB)	ND		0.50	0.15	ug/L			10/26/21 08:47	1
1,2-Dichlorobenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,2-Dichloroethane	ND		0.50	0.19	ug/L			10/26/21 08:47	1
1,2-Dichloropropane	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,3,5-Trimethylbenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,3-Dichlorobenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,3-Dichloropropane	ND		0.50	0.20	ug/L			10/26/21 08:47	1
1,4-Dichlorobenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
2,2-Dichloropropane	ND		0.50	0.20	ug/L			10/26/21 08:47	1
2-Chlorotoluene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
4-Chlorotoluene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Benzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Bromobenzene	ND		0.50	0.17	ug/L			10/26/21 08:47	1
Bromochloromethane	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Bromodichloromethane	ND		0.50	0.19	ug/L			10/26/21 08:47	1
Bromoform	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Bromomethane	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Carbon tetrachloride	ND		0.50	0.18	ug/L			10/26/21 08:47	1
Chlorobenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Chloroethane	ND		0.50	0.26	ug/L			10/26/21 08:47	1
Chloroform	ND		0.50	0.17	ug/L			10/26/21 08:47	1
Chloromethane	ND		0.50	0.30	ug/L			10/26/21 08:47	1
cis-1,2-Dichloroethene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
cis-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/26/21 08:47	1
Dibromochloromethane	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Dibromomethane	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Dichlorodifluoromethane	ND		0.50	0.23	ug/L			10/26/21 08:47	1
Ethylbenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Hexachlorobutadiene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Isopropylbenzene	ND		0.50	0.25	ug/L			10/26/21 08:47	1
m,p-Xylene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Methylene Chloride	ND		0.50	0.40	ug/L			10/26/21 08:47	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Naphthalene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
n-Butylbenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
N-Propylbenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-659524/7
Matrix: Water
Analysis Batch: 659524

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
p-Isopropyltoluene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
sec-Butylbenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Styrene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
tert-Butylbenzene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Toluene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
trans-1,2-Dichloroethene	ND		0.50	0.20	ug/L			10/26/21 08:47	1
trans-1,3-Dichloropropene	ND		0.50	0.14	ug/L			10/26/21 08:47	1
Trichloroethene	ND		0.50	0.17	ug/L			10/26/21 08:47	1
Trichlorofluoromethane	ND		0.50	0.16	ug/L			10/26/21 08:47	1
Vinyl chloride	ND		0.50	0.20	ug/L			10/26/21 08:47	1
Xylenes, Total	ND		0.50	0.20	ug/L			10/26/21 08:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene-d4	99		70 - 130		10/26/21 08:47	1
4-Bromofluorobenzene (Surr)	100		70 - 130		10/26/21 08:47	1

Lab Sample ID: LCS 440-659524/1006
Matrix: Water
Analysis Batch: 659524

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.9		ug/L		109	70 - 130
1,1,1-Trichloroethane	10.0	11.3		ug/L		113	70 - 130
1,1,2,2-Tetrachloroethane	10.0	9.95		ug/L		100	70 - 130
1,1,2-Trichloroethane	10.0	10.1		ug/L		101	70 - 130
1,1-Dichloroethane	10.0	10.8		ug/L		108	70 - 130
1,1-Dichloroethene	10.0	8.86		ug/L		89	70 - 130
1,1-Dichloropropene	10.0	10.5		ug/L		105	70 - 130
1,2,3-Trichlorobenzene	10.0	9.59		ug/L		96	70 - 130
1,2,3-Trichloropropane	10.0	10.5		ug/L		105	70 - 130
1,2,4-Trichlorobenzene	10.0	9.67		ug/L		97	70 - 130
1,2,4-Trimethylbenzene	10.0	10.7		ug/L		107	70 - 130
1,2-Dibromo-3-Chloropropane	10.0	9.94		ug/L		99	70 - 130
1,2-Dibromoethane (EDB)	10.0	10.2		ug/L		102	70 - 130
1,2-Dichlorobenzene	10.0	10.2		ug/L		102	70 - 130
1,2-Dichloroethane	10.0	11.7		ug/L		117	70 - 130
1,2-Dichloropropane	10.0	9.81		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	10.0	10.8		ug/L		108	70 - 130
1,3-Dichlorobenzene	10.0	10.3		ug/L		103	70 - 130
1,3-Dichloropropane	10.0	9.86		ug/L		99	70 - 130
1,4-Dichlorobenzene	10.0	10.2		ug/L		102	70 - 130
2,2-Dichloropropane	10.0	13.5	*+	ug/L		135	70 - 130
2-Chlorotoluene	10.0	10.5		ug/L		105	70 - 130
4-Chlorotoluene	10.0	10.4		ug/L		104	70 - 130
Benzene	10.0	10.2		ug/L		102	70 - 130
Bromobenzene	10.0	9.97		ug/L		100	70 - 130

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-659524/1006
Matrix: Water
Analysis Batch: 659524

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromochloromethane	10.0	9.71		ug/L		97	70 - 130
Bromodichloromethane	10.0	10.7		ug/L		107	70 - 130
Bromoform	10.0	10.8		ug/L		108	70 - 130
Bromomethane	10.0	9.32		ug/L		93	70 - 130
Carbon tetrachloride	10.0	12.3		ug/L		123	70 - 130
Chlorobenzene	10.0	10.1		ug/L		101	70 - 130
Chloroethane	10.0	10.3		ug/L		103	70 - 130
Chloroform	10.0	11.2		ug/L		112	70 - 130
Chloromethane	10.0	9.00		ug/L		90	70 - 130
cis-1,2-Dichloroethene	10.0	9.54		ug/L		95	70 - 130
cis-1,3-Dichloropropene	10.0	10.3		ug/L		103	70 - 130
Dibromochloromethane	10.0	10.9		ug/L		109	70 - 130
Dibromomethane	10.0	10.4		ug/L		104	70 - 130
Dichlorodifluoromethane	10.0	10.7		ug/L		107	70 - 130
Ethylbenzene	10.0	10.4		ug/L		104	70 - 130
Hexachlorobutadiene	10.0	10.1		ug/L		101	70 - 130
Isopropylbenzene	10.0	10.6		ug/L		106	70 - 130
m,p-Xylene	20.0	21.5		ug/L		107	70 - 130
Methylene Chloride	10.0	9.91		ug/L		99	70 - 130
Methyl-t-Butyl Ether (MTBE)	20.0	19.5		ug/L		97	70 - 130
Naphthalene	10.0	9.64		ug/L		96	70 - 130
n-Butylbenzene	10.0	10.9		ug/L		109	70 - 130
N-Propylbenzene	10.0	10.6		ug/L		106	70 - 130
o-Xylene	10.0	10.3		ug/L		103	70 - 130
p-Isopropyltoluene	10.0	10.9		ug/L		109	70 - 130
sec-Butylbenzene	10.0	10.6		ug/L		106	70 - 130
Styrene	10.0	10.5		ug/L		105	70 - 130
tert-Butylbenzene	10.0	10.7		ug/L		107	70 - 130
Tetrachloroethene	10.0	9.90		ug/L		99	70 - 130
Toluene	10.0	10.1		ug/L		101	70 - 130
trans-1,2-Dichloroethene	10.0	9.44		ug/L		94	70 - 130
trans-1,3-Dichloropropene	10.0	10.8		ug/L		108	70 - 130
Trichloroethene	10.0	10.2		ug/L		102	70 - 130
Trichlorofluoromethane	10.0	11.8		ug/L		118	70 - 130
Vinyl chloride	10.0	9.78		ug/L		98	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichlorobenzene-d4	102		70 - 130
4-Bromofluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 320-80562-B-2 MS
Matrix: Water
Analysis Batch: 659524

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		10.0	11.2		ug/L		112	70 - 130
1,1,1-Trichloroethane	ND		10.0	11.9		ug/L		119	70 - 130
1,1,2,2-Tetrachloroethane	ND		10.0	10.5		ug/L		105	70 - 130

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 320-80562-B-2 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 659524

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	ND		10.0	10.6		ug/L		106	70 - 130
1,1-Dichloroethane	ND		10.0	10.8		ug/L		108	70 - 130
1,1-Dichloroethene	ND		10.0	9.70		ug/L		97	70 - 130
1,1-Dichloropropene	ND		10.0	10.8		ug/L		108	70 - 130
1,2,3-Trichlorobenzene	ND		10.0	10.3		ug/L		103	70 - 130
1,2,3-Trichloropropane	ND		10.0	11.1		ug/L		111	70 - 130
1,2,4-Trichlorobenzene	ND		10.0	10.4		ug/L		104	70 - 130
1,2,4-Trimethylbenzene	ND		10.0	11.3		ug/L		113	70 - 130
1,2-Dibromo-3-Chloropropane	ND		10.0	10.2		ug/L		102	70 - 130
1,2-Dibromoethane (EDB)	ND		10.0	10.5		ug/L		105	70 - 130
1,2-Dichlorobenzene	ND		10.0	10.7		ug/L		107	70 - 130
1,2-Dichloroethane	ND		10.0	12.1		ug/L		121	70 - 130
1,2-Dichloropropane	ND		10.0	9.79		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	ND		10.0	11.2		ug/L		112	70 - 130
1,3-Dichlorobenzene	ND		10.0	10.9		ug/L		109	70 - 130
1,3-Dichloropropane	ND		10.0	10.4		ug/L		104	70 - 130
1,4-Dichlorobenzene	ND		10.0	10.8		ug/L		108	70 - 130
2,2-Dichloropropane	ND	*+	10.0	13.0		ug/L		130	70 - 130
2-Chlorotoluene	ND		10.0	10.6		ug/L		106	70 - 130
4-Chlorotoluene	ND		10.0	11.0		ug/L		110	70 - 130
Benzene	ND		10.0	9.89		ug/L		99	70 - 130
Bromobenzene	ND		10.0	10.3		ug/L		103	70 - 130
Bromochloromethane	ND		10.0	10.2		ug/L		102	70 - 130
Bromodichloromethane	ND		10.0	10.8		ug/L		108	70 - 130
Bromoform	ND		10.0	11.3		ug/L		113	70 - 130
Bromomethane	ND		10.0	9.78		ug/L		98	70 - 130
Carbon tetrachloride	ND		10.0	12.2		ug/L		122	70 - 130
Chlorobenzene	ND		10.0	10.2		ug/L		102	70 - 130
Chloroethane	ND		10.0	10.5		ug/L		105	70 - 130
Chloroform	ND		10.0	11.3		ug/L		113	70 - 130
Chloromethane	ND		10.0	9.90		ug/L		99	70 - 130
cis-1,2-Dichloroethene	ND		10.0	10.0		ug/L		100	70 - 130
cis-1,3-Dichloropropene	ND		10.0	10.6		ug/L		106	70 - 130
Dibromochloromethane	ND		10.0	11.3		ug/L		113	70 - 130
Dibromomethane	ND		10.0	10.8		ug/L		108	70 - 130
Dichlorodifluoromethane	ND		10.0	11.0		ug/L		110	70 - 130
Ethylbenzene	ND		10.0	10.7		ug/L		107	70 - 130
Hexachlorobutadiene	ND		10.0	10.8		ug/L		108	70 - 130
Isopropylbenzene	ND		10.0	11.1		ug/L		111	70 - 130
m,p-Xylene	ND		20.0	21.5		ug/L		108	70 - 130
Methylene Chloride	ND		10.0	10.3		ug/L		103	70 - 130
Methyl-t-Butyl Ether (MTBE)	ND		20.0	20.6		ug/L		103	70 - 130
Naphthalene	ND		10.0	10.3		ug/L		103	70 - 130
n-Butylbenzene	ND		10.0	11.3		ug/L		113	70 - 130
N-Propylbenzene	ND		10.0	11.0		ug/L		110	70 - 130
o-Xylene	ND		10.0	10.3		ug/L		103	70 - 130
p-Isopropyltoluene	ND		10.0	11.2		ug/L		112	70 - 130
sec-Butylbenzene	ND		10.0	11.3		ug/L		113	70 - 130
Styrene	ND		10.0	10.7		ug/L		107	70 - 130

Eurofins TestAmerica, Denver

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 320-80562-B-2 MS

Matrix: Water

Analysis Batch: 659524

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
tert-Butylbenzene	ND		10.0	10.9		ug/L		109	70 - 130
Tetrachloroethene	ND		10.0	10.0		ug/L		100	70 - 130
Toluene	ND		10.0	10.2		ug/L		102	70 - 130
trans-1,2-Dichloroethene	ND		10.0	9.40		ug/L		94	70 - 130
trans-1,3-Dichloropropene	ND		10.0	10.9		ug/L		109	70 - 130
Trichloroethene	ND		10.0	10.2		ug/L		102	70 - 130
Trichlorofluoromethane	ND		10.0	12.2		ug/L		122	70 - 130
Vinyl chloride	ND		10.0	10.2		ug/L		102	70 - 130
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichlorobenzene-d4	108		70 - 130						
4-Bromofluorobenzene (Surr)	105		70 - 130						

Lab Sample ID: 320-80562-C-2 MSD

Matrix: Water

Analysis Batch: 659524

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		10.0	10.7		ug/L		107	70 - 130	5	20
1,1,1-Trichloroethane	ND		10.0	11.2		ug/L		112	70 - 130	6	20
1,1,2,2-Tetrachloroethane	ND		10.0	10.6		ug/L		106	70 - 130	1	20
1,1,2-Trichloroethane	ND		10.0	10.2		ug/L		102	70 - 130	4	20
1,1-Dichloroethane	ND		10.0	10.4		ug/L		104	70 - 130	4	20
1,1-Dichloroethene	ND		10.0	9.02		ug/L		90	70 - 130	7	20
1,1-Dichloropropene	ND		10.0	10.2		ug/L		102	70 - 130	6	20
1,2,3-Trichlorobenzene	ND		10.0	9.86		ug/L		99	70 - 130	5	20
1,2,3-Trichloropropene	ND		10.0	11.1		ug/L		111	70 - 130	0	20
1,2,4-Trichlorobenzene	ND		10.0	9.85		ug/L		99	70 - 130	6	20
1,2,4-Trimethylbenzene	ND		10.0	10.6		ug/L		106	70 - 130	6	20
1,2-Dibromo-3-Chloropropane	ND		10.0	9.94		ug/L		99	70 - 130	3	20
1,2-Dibromoethane (EDB)	ND		10.0	10.6		ug/L		106	70 - 130	1	20
1,2-Dichlorobenzene	ND		10.0	10.8		ug/L		108	70 - 130	1	20
1,2-Dichloroethane	ND		10.0	11.9		ug/L		119	70 - 130	2	20
1,2-Dichloropropane	ND		10.0	9.78		ug/L		98	70 - 130	0	20
1,3,5-Trimethylbenzene	ND		10.0	10.6		ug/L		106	70 - 130	6	20
1,3-Dichlorobenzene	ND		10.0	10.4		ug/L		104	70 - 130	4	20
1,3-Dichloropropane	ND		10.0	10.4		ug/L		104	70 - 130	0	20
1,4-Dichlorobenzene	ND		10.0	10.2		ug/L		102	70 - 130	6	20
2,2-Dichloropropane	ND	*+	10.0	12.5		ug/L		125	70 - 130	4	20
2-Chlorotoluene	ND		10.0	10.2		ug/L		102	70 - 130	4	20
4-Chlorotoluene	ND		10.0	10.6		ug/L		106	70 - 130	4	20
Benzene	ND		10.0	9.51		ug/L		95	70 - 130	4	20
Bromobenzene	ND		10.0	10.2		ug/L		102	70 - 130	2	20
Bromochloromethane	ND		10.0	9.64		ug/L		96	70 - 130	6	20
Bromodichloromethane	ND		10.0	10.7		ug/L		107	70 - 130	0	20
Bromoform	ND		10.0	10.8		ug/L		108	70 - 130	4	20
Bromomethane	ND		10.0	9.38		ug/L		94	70 - 130	4	20
Carbon tetrachloride	ND		10.0	11.5		ug/L		115	70 - 130	5	20

Eurofins TestAmerica, Denver

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 320-80562-C-2 MSD
 Matrix: Water
 Analysis Batch: 659524

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorobenzene	ND		10.0	9.90		ug/L		99	70 - 130	3	20
Chloroethane	ND		10.0	10.2		ug/L		102	70 - 130	3	20
Chloroform	ND		10.0	10.9		ug/L		109	70 - 130	4	20
Chloromethane	ND		10.0	9.09		ug/L		91	70 - 130	9	20
cis-1,2-Dichloroethene	ND		10.0	9.61		ug/L		96	70 - 130	4	20
cis-1,3-Dichloropropene	ND		10.0	10.4		ug/L		104	70 - 130	2	20
Dibromochloromethane	ND		10.0	11.2		ug/L		112	70 - 130	1	20
Dibromomethane	ND		10.0	10.3		ug/L		103	70 - 130	4	20
Dichlorodifluoromethane	ND		10.0	10.6		ug/L		106	70 - 130	4	20
Ethylbenzene	ND		10.0	10.3		ug/L		103	70 - 130	4	20
Hexachlorobutadiene	ND		10.0	10.0		ug/L		100	70 - 130	7	20
Isopropylbenzene	ND		10.0	10.4		ug/L		104	70 - 130	6	20
m,p-Xylene	ND		20.0	20.6		ug/L		103	70 - 130	4	20
Methylene Chloride	ND		10.0	9.98		ug/L		100	70 - 130	3	20
Methyl-t-Butyl Ether (MTBE)	ND		20.0	20.6		ug/L		103	70 - 130	0	20
Naphthalene	ND		10.0	10.2		ug/L		102	70 - 130	1	20
n-Butylbenzene	ND		10.0	10.8		ug/L		108	70 - 130	5	20
N-Propylbenzene	ND		10.0	10.5		ug/L		105	70 - 130	4	20
o-Xylene	ND		10.0	10.2		ug/L		102	70 - 130	1	20
p-Isopropyltoluene	ND		10.0	10.9		ug/L		109	70 - 130	3	20
sec-Butylbenzene	ND		10.0	10.4		ug/L		104	70 - 130	8	20
Styrene	ND		10.0	10.3		ug/L		103	70 - 130	5	20
tert-Butylbenzene	ND		10.0	10.4		ug/L		104	70 - 130	5	20
Tetrachloroethene	ND		10.0	10.0		ug/L		100	70 - 130	0	20
Toluene	ND		10.0	9.88		ug/L		99	70 - 130	3	20
trans-1,2-Dichloroethene	ND		10.0	9.40		ug/L		94	70 - 130	0	20
trans-1,3-Dichloropropene	ND		10.0	11.0		ug/L		110	70 - 130	1	20
Trichloroethene	ND		10.0	9.81		ug/L		98	70 - 130	4	20
Trichlorofluoromethane	ND		10.0	11.8		ug/L		118	70 - 130	4	20
Vinyl chloride	ND		10.0	9.80		ug/L		98	70 - 130	4	20
			MSD	MSD							
Surrogate			%Recovery	Qualifier		Limits					
1,2-Dichlorobenzene-d4			106			70 - 130					
4-Bromofluorobenzene (Surr)			105			70 - 130					

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-554539/10
 Matrix: Water
 Analysis Batch: 554539

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/21/21 23:13	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/21/21 23:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/21/21 23:13	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/21/21 23:13	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/21/21 23:13	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/21/21 23:13	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/21/21 23:13	1

Eurofins TestAmerica, Denver

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-554539/10
Matrix: Water
Analysis Batch: 554539

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/21/21 23:13	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/21/21 23:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/21/21 23:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/21/21 23:13	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/21/21 23:13	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/21/21 23:13	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/21/21 23:13	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/21/21 23:13	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/21/21 23:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/21/21 23:13	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/21/21 23:13	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/21/21 23:13	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/21/21 23:13	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/21/21 23:13	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/21/21 23:13	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/21/21 23:13	1
2-Hexanone	ND		5.0	1.7	ug/L			10/21/21 23:13	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/21/21 23:13	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/21/21 23:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/21/21 23:13	1
Acetone	ND		10	1.9	ug/L			10/21/21 23:13	1
Benzene	ND		0.50	0.16	ug/L			10/21/21 23:13	1
Bromobenzene	ND		1.0	0.17	ug/L			10/21/21 23:13	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/21/21 23:13	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/21/21 23:13	1
Bromoform	ND		0.50	0.46	ug/L			10/21/21 23:13	1
Bromomethane	ND		0.50	0.21	ug/L			10/21/21 23:13	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/21/21 23:13	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/21/21 23:13	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/21/21 23:13	1
Chloroethane	ND		0.50	0.41	ug/L			10/21/21 23:13	1
Chloroform	ND		0.50	0.16	ug/L			10/21/21 23:13	1
Chloromethane	ND		0.50	0.30	ug/L			10/21/21 23:13	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/21/21 23:13	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/21/21 23:13	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/21/21 23:13	1
Dibromomethane	ND		0.50	0.17	ug/L			10/21/21 23:13	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/21/21 23:13	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/21/21 23:13	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/21/21 23:13	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/21/21 23:13	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/21/21 23:13	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/21/21 23:13	1
Naphthalene	ND		1.0	0.22	ug/L			10/21/21 23:13	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/21/21 23:13	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/21/21 23:13	1
o-Xylene	ND		0.50	0.19	ug/L			10/21/21 23:13	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/21/21 23:13	1
Styrene	ND		0.50	0.36	ug/L			10/21/21 23:13	1

Eurofins TestAmerica, Denver

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-554539/10
Matrix: Water
Analysis Batch: 554539

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/21/21 23:13	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/21/21 23:13	1
Toluene	ND		0.50	0.17	ug/L			10/21/21 23:13	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/21/21 23:13	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/21/21 23:13	1
Trichloroethene	ND		0.50	0.16	ug/L			10/21/21 23:13	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/21/21 23:13	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/21/21 23:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 127		10/21/21 23:13	1
4-Bromofluorobenzene (Surr)	93		78 - 120		10/21/21 23:13	1
Dibromofluoromethane (Surr)	99		77 - 120		10/21/21 23:13	1
Toluene-d8 (Surr)	101		80 - 125		10/21/21 23:13	1

Lab Sample ID: LCS 280-554539/5
Matrix: Water
Analysis Batch: 554539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	22.6		ug/L		90	65 - 135
1,1,1-Trichloroethane	25.0	24.7		ug/L		99	65 - 135
1,1,2,2-Tetrachloroethane	25.0	28.6		ug/L		114	58 - 135
1,1,2-Trichloroethane	25.0	26.6		ug/L		106	64 - 135
1,1-Dichloroethane	25.0	27.2		ug/L		109	65 - 135
1,1-Dichloroethene	25.0	26.0		ug/L		104	65 - 136
1,1-Dichloropropene	25.0	28.0		ug/L		112	65 - 135
1,2,3-Trichlorobenzene	25.0	23.5		ug/L		94	60 - 135
1,2,3-Trichloropropane	25.0	30.0		ug/L		120	65 - 135
1,2,4-Trichlorobenzene	25.0	22.9		ug/L		92	58 - 135
1,2,4-Trimethylbenzene	25.0	24.4		ug/L		98	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	22.9		ug/L		92	57 - 135
1,2-Dibromoethane	25.0	25.6		ug/L		102	65 - 135
1,2-Dichlorobenzene	25.0	25.7		ug/L		103	65 - 135
1,2-Dichloroethane	25.0	24.5		ug/L		98	65 - 135
1,2-Dichloropropane	25.0	26.2		ug/L		105	64 - 135
1,3,5-Trimethylbenzene	25.0	24.7		ug/L		99	65 - 135
1,3-Dichlorobenzene	25.0	24.7		ug/L		99	65 - 135
1,3-Dichloropropane	25.0	25.7		ug/L		103	64 - 135
1,4-Dichlorobenzene	25.0	24.3		ug/L		97	65 - 135
2,2-Dichloropropane	25.0	23.4		ug/L		94	65 - 135
2-Butanone (MEK)	100	129		ug/L		129	44 - 177
2-Chlorotoluene	25.0	24.8		ug/L		99	65 - 135
2-Hexanone	100	122		ug/L		122	57 - 139
4-Chlorotoluene	25.0	25.5		ug/L		102	65 - 135
4-Isopropyltoluene	25.0	25.4		ug/L		102	65 - 135
4-Methyl-2-pentanone (MIBK)	100	123		ug/L		123	60 - 150
Acetone	100	124		ug/L		124	39 - 156

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-554539/5
Matrix: Water
Analysis Batch: 554539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	26.4		ug/L		106	65 - 135
Bromobenzene	25.0	26.3		ug/L		105	65 - 135
Bromochloromethane	25.0	24.5		ug/L		98	65 - 135
Bromodichloromethane	25.0	24.0		ug/L		96	65 - 135
Bromoform	25.0	22.1		ug/L		89	62 - 135
Bromomethane	25.0	26.9		ug/L		108	45 - 135
Carbon disulfide	25.0	24.4		ug/L		98	55 - 143
Carbon tetrachloride	25.0	22.9		ug/L		92	65 - 135
Chlorobenzene	25.0	24.8		ug/L		99	65 - 135
Chloroethane	25.0	25.3		ug/L		101	46 - 136
Chloroform	25.0	25.4		ug/L		102	65 - 135
Chloromethane	25.0	26.5		ug/L		106	34 - 145
cis-1,2-Dichloroethene	25.0	26.5		ug/L		106	65 - 135
cis-1,3-Dichloropropene	25.0	24.2		ug/L		97	65 - 135
Dibromochloromethane	25.0	24.3		ug/L		97	65 - 135
Dibromomethane	25.0	26.7		ug/L		107	65 - 135
Dichlorodifluoromethane	25.0	17.6		ug/L		71	43 - 142
Ethylbenzene	25.0	25.4		ug/L		102	65 - 135
Hexachlorobutadiene	25.0	22.4		ug/L		90	65 - 135
Isopropylbenzene	25.0	25.5		ug/L		102	65 - 135
Methylene Chloride	25.0	26.3		ug/L		105	54 - 141
m-Xylene & p-Xylene	25.0	25.9		ug/L		103	65 - 135
Naphthalene	25.0	25.3		ug/L		101	42 - 135
n-Butylbenzene	25.0	25.0		ug/L		100	64 - 135
N-Propylbenzene	25.0	26.9		ug/L		108	65 - 135
o-Xylene	25.0	25.3		ug/L		101	65 - 135
sec-Butylbenzene	25.0	25.4		ug/L		102	64 - 135
Styrene	25.0	25.5		ug/L		102	65 - 135
tert-Butylbenzene	25.0	26.1		ug/L		105	65 - 135
Tetrachloroethene	25.0	27.6		ug/L		110	65 - 135
Toluene	25.0	24.5		ug/L		98	65 - 135
trans-1,2-Dichloroethene	25.0	26.2		ug/L		105	65 - 135
trans-1,3-Dichloropropene	25.0	22.1		ug/L		88	65 - 135
Trichloroethene	25.0	26.9		ug/L		107	65 - 135
Trichlorofluoromethane	25.0	25.8		ug/L		103	53 - 137
Vinyl chloride	25.0	28.3		ug/L		113	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 127
4-Bromofluorobenzene (Surr)	96		78 - 120
Dibromofluoromethane (Surr)	98		77 - 120
Toluene-d8 (Surr)	101		80 - 125

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-554539/6
Matrix: Water
Analysis Batch: 554539

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD
									Limit
1,1,1,2-Tetrachloroethane	25.0	21.7		ug/L		87	65 - 135	4	20
1,1,1-Trichloroethane	25.0	22.9		ug/L		92	65 - 135	7	20
1,1,2,2-Tetrachloroethane	25.0	25.6		ug/L		103	58 - 135	11	20
1,1,2-Trichloroethane	25.0	26.3		ug/L		105	64 - 135	1	27
1,1-Dichloroethane	25.0	25.2		ug/L		101	65 - 135	8	21
1,1-Dichloroethene	25.0	24.4		ug/L		98	65 - 136	6	20
1,1-Dichloropropene	25.0	25.0		ug/L		100	65 - 135	11	21
1,2,3-Trichlorobenzene	25.0	21.4		ug/L		86	60 - 135	9	36
1,2,3-Trichloropropane	25.0	26.5		ug/L		106	65 - 135	12	23
1,2,4-Trichlorobenzene	25.0	22.6		ug/L		90	58 - 135	2	25
1,2,4-Trimethylbenzene	25.0	22.6		ug/L		90	65 - 135	8	20
1,2-Dibromo-3-Chloropropane	25.0	24.1		ug/L		96	57 - 135	5	22
1,2-Dibromoethane	25.0	24.2		ug/L		97	65 - 135	6	27
1,2-Dichlorobenzene	25.0	24.5		ug/L		98	65 - 135	5	20
1,2-Dichloroethane	25.0	23.3		ug/L		93	65 - 135	5	20
1,2-Dichloropropane	25.0	25.2		ug/L		101	64 - 135	4	20
1,3,5-Trimethylbenzene	25.0	23.0		ug/L		92	65 - 135	7	20
1,3-Dichlorobenzene	25.0	22.9		ug/L		92	65 - 135	8	20
1,3-Dichloropropane	25.0	25.1		ug/L		100	64 - 135	2	20
1,4-Dichlorobenzene	25.0	23.9		ug/L		96	65 - 135	2	23
2,2-Dichloropropane	25.0	22.1		ug/L		88	65 - 135	6	20
2-Butanone (MEK)	100	119		ug/L		119	44 - 177	8	32
2-Chlorotoluene	25.0	23.0		ug/L		92	65 - 135	7	20
2-Hexanone	100	116		ug/L		116	57 - 139	5	25
4-Chlorotoluene	25.0	24.2		ug/L		97	65 - 135	5	20
4-Isopropyltoluene	25.0	23.7		ug/L		95	65 - 135	7	20
4-Methyl-2-pentanone (MIBK)	100	117		ug/L		117	60 - 150	5	22
Acetone	100	112		ug/L		112	39 - 156	9	23
Benzene	25.0	24.5		ug/L		98	65 - 135	8	20
Bromobenzene	25.0	23.3		ug/L		93	65 - 135	12	26
Bromochloromethane	25.0	23.6		ug/L		94	65 - 135	4	29
Bromodichloromethane	25.0	22.9		ug/L		92	65 - 135	4	20
Bromoform	25.0	21.1		ug/L		85	62 - 135	5	27
Bromomethane	25.0	25.6		ug/L		103	45 - 135	5	33
Carbon disulfide	25.0	22.6		ug/L		90	55 - 143	8	20
Carbon tetrachloride	25.0	21.5		ug/L		86	65 - 135	6	21
Chlorobenzene	25.0	23.9		ug/L		96	65 - 135	4	20
Chloroethane	25.0	23.1		ug/L		93	46 - 136	9	25
Chloroform	25.0	24.3		ug/L		97	65 - 135	4	20
Chloromethane	25.0	23.7		ug/L		95	34 - 145	11	24
cis-1,2-Dichloroethene	25.0	24.4		ug/L		98	65 - 135	8	20
cis-1,3-Dichloropropene	25.0	22.7		ug/L		91	65 - 135	6	26
Dibromochloromethane	25.0	23.4		ug/L		94	65 - 135	4	20
Dibromomethane	25.0	24.3		ug/L		97	65 - 135	10	26
Dichlorodifluoromethane	25.0	21.9		ug/L		88	43 - 142	22	30
Ethylbenzene	25.0	24.6		ug/L		98	65 - 135	3	20
Hexachlorobutadiene	25.0	20.3		ug/L		81	65 - 135	10	25
Isopropylbenzene	25.0	23.6		ug/L		94	65 - 135	8	20

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-554539/6
Matrix: Water
Analysis Batch: 554539

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Chloride	25.0	24.5		ug/L		98	54 - 141	7	26
m-Xylene & p-Xylene	25.0	24.6		ug/L		98	65 - 135	5	20
Naphthalene	25.0	24.9		ug/L		100	42 - 135	2	23
n-Butylbenzene	25.0	23.6		ug/L		94	64 - 135	6	21
N-Propylbenzene	25.0	24.0		ug/L		96	65 - 135	11	20
o-Xylene	25.0	24.4		ug/L		98	65 - 135	4	20
sec-Butylbenzene	25.0	23.9		ug/L		96	64 - 135	6	21
Styrene	25.0	24.1		ug/L		97	65 - 135	5	26
tert-Butylbenzene	25.0	24.6		ug/L		98	65 - 135	6	21
Tetrachloroethene	25.0	24.7		ug/L		99	65 - 135	11	20
Toluene	25.0	22.9		ug/L		91	65 - 135	7	20
trans-1,2-Dichloroethene	25.0	24.1		ug/L		97	65 - 135	8	24
trans-1,3-Dichloropropene	25.0	20.9		ug/L		84	65 - 135	5	26
Trichloroethene	25.0	24.9		ug/L		99	65 - 135	8	20
Trichlorofluoromethane	25.0	24.8		ug/L		99	53 - 137	4	27
Vinyl chloride	25.0	26.0		ug/L		104	40 - 137	8	24

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 127
4-Bromofluorobenzene (Surr)	93		78 - 120
Dibromofluoromethane (Surr)	97		77 - 120
Toluene-d8 (Surr)	104		80 - 125

Lab Sample ID: MB 280-554747/9
Matrix: Water
Analysis Batch: 554747

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/23/21 17:40	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/23/21 17:40	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/23/21 17:40	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/23/21 17:40	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/23/21 17:40	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/23/21 17:40	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/23/21 17:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/23/21 17:40	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/23/21 17:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/23/21 17:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/23/21 17:40	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/23/21 17:40	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/23/21 17:40	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/23/21 17:40	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/23/21 17:40	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/23/21 17:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/23/21 17:40	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/23/21 17:40	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/23/21 17:40	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/23/21 17:40	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-554747/9
Matrix: Water
Analysis Batch: 554747

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/23/21 17:40	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/23/21 17:40	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/23/21 17:40	1
2-Hexanone	ND		5.0	1.7	ug/L			10/23/21 17:40	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/23/21 17:40	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/23/21 17:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/23/21 17:40	1
Acetone	ND		10	1.9	ug/L			10/23/21 17:40	1
Benzene	ND		0.50	0.16	ug/L			10/23/21 17:40	1
Bromobenzene	ND		1.0	0.17	ug/L			10/23/21 17:40	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/23/21 17:40	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/23/21 17:40	1
Bromoform	ND		0.50	0.46	ug/L			10/23/21 17:40	1
Bromomethane	ND		0.50	0.21	ug/L			10/23/21 17:40	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/23/21 17:40	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/23/21 17:40	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/23/21 17:40	1
Chloroethane	ND		0.50	0.41	ug/L			10/23/21 17:40	1
Chloroform	ND		0.50	0.16	ug/L			10/23/21 17:40	1
Chloromethane	ND		0.50	0.30	ug/L			10/23/21 17:40	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/23/21 17:40	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/23/21 17:40	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/23/21 17:40	1
Dibromomethane	ND		0.50	0.17	ug/L			10/23/21 17:40	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/23/21 17:40	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/23/21 17:40	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/23/21 17:40	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/23/21 17:40	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/23/21 17:40	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/23/21 17:40	1
Naphthalene	ND		1.0	0.22	ug/L			10/23/21 17:40	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/23/21 17:40	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/23/21 17:40	1
o-Xylene	ND		0.50	0.19	ug/L			10/23/21 17:40	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/23/21 17:40	1
Styrene	ND		0.50	0.36	ug/L			10/23/21 17:40	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/23/21 17:40	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/23/21 17:40	1
Toluene	ND		0.50	0.17	ug/L			10/23/21 17:40	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/23/21 17:40	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/23/21 17:40	1
Trichloroethene	ND		0.50	0.16	ug/L			10/23/21 17:40	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/23/21 17:40	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/23/21 17:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		70 - 127		10/23/21 17:40	1
4-Bromofluorobenzene (Surr)	98		78 - 120		10/23/21 17:40	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-554747/9
Matrix: Water
Analysis Batch: 554747

Client Sample ID: Method Blank
Prep Type: Total/NA

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Dibromofluoromethane (Surr)	108		77 - 120		10/23/21 17:40	1
Toluene-d8 (Surr)	95		80 - 125		10/23/21 17:40	1

Lab Sample ID: LCS 280-554747/4
Matrix: Water
Analysis Batch: 554747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

<u>Analyte</u>	<u>Spike Added</u>	<u>LCS Result</u>	<u>LCS Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>%Rec. Limits</u>
1,1,1,2-Tetrachloroethane	50.0	47.3		ug/L		95	65 - 135
1,1,1-Trichloroethane	50.0	53.3		ug/L		107	65 - 135
1,1,2,2-Tetrachloroethane	50.0	44.3		ug/L		89	58 - 135
1,1,2-Trichloroethane	50.0	49.9		ug/L		100	64 - 135
1,1-Dichloroethane	50.0	45.6		ug/L		91	65 - 135
1,1-Dichloroethene	50.0	46.4		ug/L		93	65 - 136
1,1-Dichloropropene	50.0	50.4		ug/L		101	65 - 135
1,2,3-Trichlorobenzene	50.0	44.6		ug/L		89	60 - 135
1,2,3-Trichloropropane	50.0	46.6		ug/L		93	65 - 135
1,2,4-Trichlorobenzene	50.0	45.4		ug/L		91	58 - 135
1,2,4-Trimethylbenzene	50.0	46.9		ug/L		94	65 - 135
1,2-Dibromo-3-Chloropropane	50.0	42.2		ug/L		84	57 - 135
1,2-Dibromoethane	50.0	49.0		ug/L		98	65 - 135
1,2-Dichlorobenzene	50.0	44.5		ug/L		89	65 - 135
1,2-Dichloroethane	50.0	53.2		ug/L		106	65 - 135
1,2-Dichloropropane	50.0	46.6		ug/L		93	64 - 135
1,3,5-Trimethylbenzene	50.0	47.0		ug/L		94	65 - 135
1,3-Dichlorobenzene	50.0	45.2		ug/L		90	65 - 135
1,3-Dichloropropane	50.0	47.4		ug/L		95	64 - 135
1,4-Dichlorobenzene	50.0	44.6		ug/L		89	65 - 135
2,2-Dichloropropane	50.0	56.8		ug/L		114	65 - 135
2-Butanone (MEK)	200	184		ug/L		92	44 - 177
2-Chlorotoluene	50.0	44.2		ug/L		88	65 - 135
2-Hexanone	200	183		ug/L		92	57 - 139
4-Chlorotoluene	50.0	45.2		ug/L		90	65 - 135
4-Isopropyltoluene	50.0	48.3		ug/L		97	65 - 135
4-Methyl-2-pentanone (MIBK)	200	187		ug/L		93	60 - 150
Acetone	200	175		ug/L		87	39 - 156
Benzene	50.0	44.5		ug/L		89	65 - 135
Bromobenzene	50.0	47.5		ug/L		95	65 - 135
Bromochloromethane	50.0	52.2		ug/L		104	65 - 135
Bromodichloromethane	50.0	51.0		ug/L		102	65 - 135
Bromoform	50.0	49.7		ug/L		99	62 - 135
Bromomethane	50.0	55.7		ug/L		111	45 - 135
Carbon disulfide	50.0	44.2		ug/L		88	55 - 143
Carbon tetrachloride	50.0	56.5		ug/L		113	65 - 135
Chlorobenzene	50.0	45.2		ug/L		90	65 - 135
Chloroethane	50.0	46.6		ug/L		93	46 - 136
Chloroform	50.0	50.2		ug/L		100	65 - 135
Chloromethane	50.0	48.6		ug/L		97	34 - 145

Eurofins TestAmerica, Denver

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-554747/4
Matrix: Water
Analysis Batch: 554747

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene	50.0	46.5		ug/L		93	65 - 135
cis-1,3-Dichloropropene	50.0	47.8		ug/L		96	65 - 135
Dibromochloromethane	50.0	51.1		ug/L		102	65 - 135
Dibromomethane	50.0	48.2		ug/L		96	65 - 135
Dichlorodifluoromethane	50.0	62.0		ug/L		124	43 - 142
Ethylbenzene	50.0	46.1		ug/L		92	65 - 135
Hexachlorobutadiene	50.0	51.1		ug/L		102	65 - 135
Isopropylbenzene	50.0	45.5		ug/L		91	65 - 135
Methylene Chloride	50.0	45.6		ug/L		91	54 - 141
m-Xylene & p-Xylene	50.0	46.6		ug/L		93	65 - 135
Naphthalene	50.0	43.9		ug/L		88	42 - 135
n-Butylbenzene	50.0	47.7		ug/L		95	64 - 135
N-Propylbenzene	50.0	45.0		ug/L		90	65 - 135
o-Xylene	50.0	47.1		ug/L		94	65 - 135
sec-Butylbenzene	50.0	47.6		ug/L		95	64 - 135
Styrene	50.0	47.2		ug/L		94	65 - 135
tert-Butylbenzene	50.0	46.1		ug/L		92	65 - 135
Tetrachloroethene	50.0	49.8		ug/L		100	65 - 135
Toluene	50.0	45.7		ug/L		91	65 - 135
trans-1,2-Dichloroethene	50.0	45.5		ug/L		91	65 - 135
trans-1,3-Dichloropropene	50.0	52.2		ug/L		104	65 - 135
Trichloroethene	50.0	46.0		ug/L		92	65 - 135
Trichlorofluoromethane	50.0	65.0		ug/L		130	53 - 137
Vinyl chloride	50.0	49.6		ug/L		99	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	113		70 - 127
4-Bromofluorobenzene (Surr)	98		78 - 120
Dibromofluoromethane (Surr)	105		77 - 120
Toluene-d8 (Surr)	100		80 - 125

Lab Sample ID: LCSD 280-554747/5
Matrix: Water
Analysis Batch: 554747

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	50.0	46.6		ug/L		93	65 - 135	1	20
1,1,1-Trichloroethane	50.0	51.4		ug/L		103	65 - 135	4	20
1,1,1,2,2-Tetrachloroethane	50.0	44.7		ug/L		89	58 - 135	1	20
1,1,2-Trichloroethane	50.0	48.6		ug/L		97	64 - 135	3	27
1,1-Dichloroethane	50.0	44.3		ug/L		89	65 - 135	3	21
1,1-Dichloroethene	50.0	45.5		ug/L		91	65 - 136	2	20
1,1-Dichloropropene	50.0	49.0		ug/L		98	65 - 135	3	21
1,2,3-Trichlorobenzene	50.0	45.5		ug/L		91	60 - 135	2	36
1,2,3-Trichloropropane	50.0	46.0		ug/L		92	65 - 135	1	23
1,2,4-Trichlorobenzene	50.0	45.8		ug/L		92	58 - 135	1	25
1,2,4-Trimethylbenzene	50.0	46.5		ug/L		93	65 - 135	1	20
1,2-Dibromo-3-Chloropropane	50.0	44.8		ug/L		90	57 - 135	6	22

Eurofins TestAmerica, Denver

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-554747/5
Matrix: Water
Analysis Batch: 554747

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dibromoethane	50.0	48.4		ug/L		97	65 - 135	1	27
1,2-Dichlorobenzene	50.0	44.3		ug/L		89	65 - 135	0	20
1,2-Dichloroethane	50.0	51.7		ug/L		103	65 - 135	3	20
1,2-Dichloropropane	50.0	45.3		ug/L		91	64 - 135	3	20
1,3,5-Trimethylbenzene	50.0	47.1		ug/L		94	65 - 135	0	20
1,3-Dichlorobenzene	50.0	45.1		ug/L		90	65 - 135	0	20
1,3-Dichloropropane	50.0	46.6		ug/L		93	64 - 135	2	20
1,4-Dichlorobenzene	50.0	44.4		ug/L		89	65 - 135	1	23
2,2-Dichloropropane	50.0	55.0		ug/L		110	65 - 135	3	20
2-Butanone (MEK)	200	179		ug/L		89	44 - 177	3	32
2-Chlorotoluene	50.0	44.3		ug/L		89	65 - 135	0	20
2-Hexanone	200	183		ug/L		92	57 - 139	0	25
4-Chlorotoluene	50.0	44.2		ug/L		88	65 - 135	2	20
4-Isopropyltoluene	50.0	47.4		ug/L		95	65 - 135	2	20
4-Methyl-2-pentanone (MIBK)	200	185		ug/L		92	60 - 150	1	22
Acetone	200	172		ug/L		86	39 - 156	1	23
Benzene	50.0	43.8		ug/L		88	65 - 135	2	20
Bromobenzene	50.0	46.8		ug/L		94	65 - 135	1	26
Bromochloromethane	50.0	51.0		ug/L		102	65 - 135	2	29
Bromodichloromethane	50.0	49.9		ug/L		100	65 - 135	2	20
Bromoform	50.0	49.0		ug/L		98	62 - 135	2	27
Bromomethane	50.0	50.8		ug/L		102	45 - 135	9	33
Carbon disulfide	50.0	41.8		ug/L		84	55 - 143	6	20
Carbon tetrachloride	50.0	54.7		ug/L		109	65 - 135	3	21
Chlorobenzene	50.0	44.5		ug/L		89	65 - 135	2	20
Chloroethane	50.0	46.5		ug/L		93	46 - 136	0	25
Chloroform	50.0	48.9		ug/L		98	65 - 135	3	20
Chloromethane	50.0	46.6		ug/L		93	34 - 145	4	24
cis-1,2-Dichloroethene	50.0	44.6		ug/L		89	65 - 135	4	20
cis-1,3-Dichloropropene	50.0	47.2		ug/L		94	65 - 135	1	26
Dibromochloromethane	50.0	50.2		ug/L		100	65 - 135	2	20
Dibromomethane	50.0	46.9		ug/L		94	65 - 135	3	26
Dichlorodifluoromethane	50.0	61.1		ug/L		122	43 - 142	2	30
Ethylbenzene	50.0	44.9		ug/L		90	65 - 135	3	20
Hexachlorobutadiene	50.0	51.3		ug/L		103	65 - 135	0	25
Isopropylbenzene	50.0	45.8		ug/L		92	65 - 135	1	20
Methylene Chloride	50.0	44.4		ug/L		89	54 - 141	3	26
m-Xylene & p-Xylene	50.0	45.7		ug/L		91	65 - 135	2	20
Naphthalene	50.0	45.7		ug/L		91	42 - 135	4	23
n-Butylbenzene	50.0	47.8		ug/L		96	64 - 135	0	21
N-Propylbenzene	50.0	44.2		ug/L		88	65 - 135	2	20
o-Xylene	50.0	45.3		ug/L		91	65 - 135	4	20
sec-Butylbenzene	50.0	49.1		ug/L		98	64 - 135	3	21
Styrene	50.0	45.5		ug/L		91	65 - 135	4	26
tert-Butylbenzene	50.0	45.6		ug/L		91	65 - 135	1	21
Tetrachloroethene	50.0	49.0		ug/L		98	65 - 135	2	20
Toluene	50.0	44.5		ug/L		89	65 - 135	3	20
trans-1,2-Dichloroethene	50.0	43.4		ug/L		87	65 - 135	5	24
trans-1,3-Dichloropropene	50.0	50.1		ug/L		100	65 - 135	4	26

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-554747/5
Matrix: Water
Analysis Batch: 554747

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	50.0	44.9		ug/L		90	65 - 135	2	20
Trichlorofluoromethane	50.0	63.4		ug/L		127	53 - 137	3	27
Vinyl chloride	50.0	49.7		ug/L		99	40 - 137	0	24

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	110		70 - 127
4-Bromofluorobenzene (Surr)	98		78 - 120
Dibromofluoromethane (Surr)	105		77 - 120
Toluene-d8 (Surr)	98		80 - 125

Lab Sample ID: MB 280-554789/9
Matrix: Water
Analysis Batch: 554789

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/24/21 22:50	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/24/21 22:50	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/24/21 22:50	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/24/21 22:50	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/24/21 22:50	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/24/21 22:50	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/24/21 22:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/24/21 22:50	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/24/21 22:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/24/21 22:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/24/21 22:50	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/24/21 22:50	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/24/21 22:50	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/24/21 22:50	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/24/21 22:50	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/24/21 22:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/24/21 22:50	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/24/21 22:50	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/24/21 22:50	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/24/21 22:50	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/24/21 22:50	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/24/21 22:50	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/24/21 22:50	1
2-Hexanone	ND		5.0	1.7	ug/L			10/24/21 22:50	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/24/21 22:50	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/24/21 22:50	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/24/21 22:50	1
Acetone	ND		10	1.9	ug/L			10/24/21 22:50	1
Benzene	ND		0.50	0.16	ug/L			10/24/21 22:50	1
Bromobenzene	ND		1.0	0.17	ug/L			10/24/21 22:50	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/24/21 22:50	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/24/21 22:50	1
Bromoform	ND		0.50	0.46	ug/L			10/24/21 22:50	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-554789/9
Matrix: Water
Analysis Batch: 554789

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		0.50	0.21	ug/L			10/24/21 22:50	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/24/21 22:50	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/24/21 22:50	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/24/21 22:50	1
Chloroethane	ND		0.50	0.41	ug/L			10/24/21 22:50	1
Chloroform	ND		0.50	0.16	ug/L			10/24/21 22:50	1
Chloromethane	ND		0.50	0.30	ug/L			10/24/21 22:50	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/24/21 22:50	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/24/21 22:50	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/24/21 22:50	1
Dibromomethane	ND		0.50	0.17	ug/L			10/24/21 22:50	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/24/21 22:50	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/24/21 22:50	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/24/21 22:50	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/24/21 22:50	1
Methylene Chloride	ND		2.0	0.94	ug/L			10/24/21 22:50	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/24/21 22:50	1
Naphthalene	ND		1.0	0.22	ug/L			10/24/21 22:50	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/24/21 22:50	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/24/21 22:50	1
o-Xylene	ND		0.50	0.19	ug/L			10/24/21 22:50	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/24/21 22:50	1
Styrene	ND		0.50	0.36	ug/L			10/24/21 22:50	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/24/21 22:50	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/24/21 22:50	1
Toluene	ND		0.50	0.17	ug/L			10/24/21 22:50	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/24/21 22:50	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/24/21 22:50	1
Trichloroethene	ND		0.50	0.16	ug/L			10/24/21 22:50	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/24/21 22:50	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/24/21 22:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 127		10/24/21 22:50	1
4-Bromofluorobenzene (Surr)	99		78 - 120		10/24/21 22:50	1
Dibromofluoromethane (Surr)	98		77 - 120		10/24/21 22:50	1
Toluene-d8 (Surr)	100		80 - 125		10/24/21 22:50	1

Lab Sample ID: LCS 280-554789/4
Matrix: Water
Analysis Batch: 554789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.1		ug/L		104	65 - 135
1,1,1-Trichloroethane	25.0	27.4		ug/L		110	65 - 135
1,1,1,2,2-Tetrachloroethane	25.0	24.7		ug/L		99	58 - 135
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	64 - 135
1,1-Dichloroethane	25.0	26.6		ug/L		106	65 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-554789/4
Matrix: Water
Analysis Batch: 554789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	25.0	27.8		ug/L		111	65 - 136
1,1-Dichloropropene	25.0	27.2		ug/L		109	65 - 135
1,2,3-Trichlorobenzene	25.0	25.4		ug/L		101	60 - 135
1,2,3-Trichloropropane	25.0	24.7		ug/L		99	65 - 135
1,2,4-Trichlorobenzene	25.0	25.5		ug/L		102	58 - 135
1,2,4-Trimethylbenzene	25.0	25.7		ug/L		103	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	22.4		ug/L		90	57 - 135
1,2-Dibromoethane	25.0	25.5		ug/L		102	65 - 135
1,2-Dichlorobenzene	25.0	24.0		ug/L		96	65 - 135
1,2-Dichloroethane	25.0	24.1		ug/L		96	65 - 135
1,2-Dichloropropane	25.0	25.9		ug/L		104	64 - 135
1,3,5-Trimethylbenzene	25.0	25.6		ug/L		102	65 - 135
1,3-Dichlorobenzene	25.0	24.6		ug/L		99	65 - 135
1,3-Dichloropropane	25.0	24.4		ug/L		98	64 - 135
1,4-Dichlorobenzene	25.0	24.1		ug/L		96	65 - 135
2,2-Dichloropropane	25.0	28.3		ug/L		113	65 - 135
2-Butanone (MEK)	100	100		ug/L		100	44 - 177
2-Chlorotoluene	25.0	25.6		ug/L		102	65 - 135
2-Hexanone	100	106		ug/L		106	57 - 139
4-Chlorotoluene	25.0	25.4		ug/L		102	65 - 135
4-Isopropyltoluene	25.0	26.5		ug/L		106	65 - 135
4-Methyl-2-pentanone (MIBK)	100	101		ug/L		101	60 - 150
Acetone	100	103		ug/L		103	39 - 156
Benzene	25.0	26.3		ug/L		105	65 - 135
Bromobenzene	25.0	24.8		ug/L		99	65 - 135
Bromochloromethane	25.0	25.7		ug/L		103	65 - 135
Bromodichloromethane	25.0	26.5		ug/L		106	65 - 135
Bromoform	25.0	20.8		ug/L		83	62 - 135
Bromomethane	25.0	16.9		ug/L		68	45 - 135
Carbon disulfide	25.0	27.5		ug/L		110	55 - 143
Carbon tetrachloride	25.0	23.3		ug/L		93	65 - 135
Chlorobenzene	25.0	25.3		ug/L		101	65 - 135
Chloroethane	25.0	24.7		ug/L		99	46 - 136
Chloroform	25.0	25.9		ug/L		104	65 - 135
Chloromethane	25.0	24.5		ug/L		98	34 - 145
cis-1,2-Dichloroethene	25.0	26.8		ug/L		107	65 - 135
cis-1,3-Dichloropropene	25.0	27.0		ug/L		108	65 - 135
Dibromochloromethane	25.0	22.1		ug/L		88	65 - 135
Dibromomethane	25.0	24.7		ug/L		99	65 - 135
Dichlorodifluoromethane	25.0	23.5		ug/L		94	43 - 142
Ethylbenzene	25.0	26.4		ug/L		106	65 - 135
Hexachlorobutadiene	25.0	26.5		ug/L		106	65 - 135
Isopropylbenzene	25.0	25.4		ug/L		102	65 - 135
Methylene Chloride	25.0	23.9		ug/L		95	54 - 141
m-Xylene & p-Xylene	25.0	25.7		ug/L		103	65 - 135
Naphthalene	25.0	25.4		ug/L		102	42 - 135
n-Butylbenzene	25.0	27.2		ug/L		109	64 - 135
N-Propylbenzene	25.0	26.4		ug/L		105	65 - 135
o-Xylene	25.0	25.5		ug/L		102	65 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-554789/4
Matrix: Water
Analysis Batch: 554789

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	25.0	26.8		ug/L		107	64 - 135
Styrene	25.0	26.3		ug/L		105	65 - 135
tert-Butylbenzene	25.0	25.9		ug/L		104	65 - 135
Tetrachloroethene	25.0	26.5		ug/L		106	65 - 135
Toluene	25.0	26.0		ug/L		104	65 - 135
trans-1,2-Dichloroethene	25.0	26.1		ug/L		104	65 - 135
trans-1,3-Dichloropropene	25.0	22.7		ug/L		91	65 - 135
Trichloroethene	25.0	26.6		ug/L		106	65 - 135
Trichlorofluoromethane	25.0	27.0		ug/L		108	53 - 137
Vinyl chloride	25.0	23.3		ug/L		93	40 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 127
4-Bromofluorobenzene (Surr)	99		78 - 120
Dibromofluoromethane (Surr)	102		77 - 120
Toluene-d8 (Surr)	100		80 - 125

Lab Sample ID: LCSD 280-554789/5
Matrix: Water
Analysis Batch: 554789

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	25.3		ug/L		101	65 - 135	3	20
1,1,1-Trichloroethane	25.0	26.4		ug/L		106	65 - 135	4	20
1,1,2,2-Tetrachloroethane	25.0	24.3		ug/L		97	58 - 135	2	20
1,1,2-Trichloroethane	25.0	23.9		ug/L		96	64 - 135	4	27
1,1-Dichloroethane	25.0	25.8		ug/L		103	65 - 135	3	21
1,1-Dichloroethene	25.0	26.9		ug/L		108	65 - 136	3	20
1,1-Dichloropropene	25.0	26.6		ug/L		106	65 - 135	2	21
1,2,3-Trichlorobenzene	25.0	25.8		ug/L		103	60 - 135	1	36
1,2,3-Trichloropropane	25.0	23.4		ug/L		93	65 - 135	6	23
1,2,4-Trichlorobenzene	25.0	26.0		ug/L		104	58 - 135	2	25
1,2,4-Trimethylbenzene	25.0	26.0		ug/L		104	65 - 135	1	20
1,2-Dibromo-3-Chloropropane	25.0	21.9		ug/L		88	57 - 135	2	22
1,2-Dibromoethane	25.0	24.6		ug/L		98	65 - 135	4	27
1,2-Dichlorobenzene	25.0	23.9		ug/L		96	65 - 135	0	20
1,2-Dichloroethane	25.0	23.2		ug/L		93	65 - 135	4	20
1,2-Dichloropropane	25.0	25.1		ug/L		101	64 - 135	3	20
1,3,5-Trimethylbenzene	25.0	25.5		ug/L		102	65 - 135	0	20
1,3-Dichlorobenzene	25.0	24.4		ug/L		98	65 - 135	1	20
1,3-Dichloropropane	25.0	23.7		ug/L		95	64 - 135	3	20
1,4-Dichlorobenzene	25.0	24.2		ug/L		97	65 - 135	0	23
2,2-Dichloropropane	25.0	27.6		ug/L		111	65 - 135	2	20
2-Butanone (MEK)	100	95.3		ug/L		95	44 - 177	5	32
2-Chlorotoluene	25.0	25.2		ug/L		101	65 - 135	2	20
2-Hexanone	100	99.5		ug/L		99	57 - 139	7	25
4-Chlorotoluene	25.0	25.6		ug/L		102	65 - 135	1	20
4-Isopropyltoluene	25.0	25.6		ug/L		102	65 - 135	3	20

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-554789/5
Matrix: Water
Analysis Batch: 554789

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Methyl-2-pentanone (MIBK)	100	95.8		ug/L		96	60 - 150	6	22
Acetone	100	99.1		ug/L		99	39 - 156	4	23
Benzene	25.0	25.7		ug/L		103	65 - 135	2	20
Bromobenzene	25.0	24.1		ug/L		96	65 - 135	3	26
Bromochloromethane	25.0	25.9		ug/L		103	65 - 135	0	29
Bromodichloromethane	25.0	25.9		ug/L		104	65 - 135	2	20
Bromoform	25.0	20.3		ug/L		81	62 - 135	2	27
Bromomethane	25.0	16.7		ug/L		67	45 - 135	1	33
Carbon disulfide	25.0	27.1		ug/L		108	55 - 143	1	20
Carbon tetrachloride	25.0	22.8		ug/L		91	65 - 135	2	21
Chlorobenzene	25.0	24.0		ug/L		96	65 - 135	5	20
Chloroethane	25.0	23.4		ug/L		94	46 - 136	5	25
Chloroform	25.0	25.5		ug/L		102	65 - 135	2	20
Chloromethane	25.0	22.4		ug/L		90	34 - 145	9	24
cis-1,2-Dichloroethene	25.0	25.8		ug/L		103	65 - 135	4	20
cis-1,3-Dichloropropene	25.0	25.6		ug/L		102	65 - 135	6	26
Dibromochloromethane	25.0	21.6		ug/L		86	65 - 135	3	20
Dibromomethane	25.0	24.8		ug/L		99	65 - 135	0	26
Dichlorodifluoromethane	25.0	23.4		ug/L		94	43 - 142	0	30
Ethylbenzene	25.0	25.1		ug/L		100	65 - 135	5	20
Hexachlorobutadiene	25.0	25.7		ug/L		103	65 - 135	3	25
Isopropylbenzene	25.0	25.1		ug/L		101	65 - 135	1	20
Methylene Chloride	25.0	23.4		ug/L		94	54 - 141	2	26
m-Xylene & p-Xylene	25.0	24.9		ug/L		100	65 - 135	3	20
Naphthalene	25.0	25.9		ug/L		104	42 - 135	2	23
n-Butylbenzene	25.0	26.4		ug/L		105	64 - 135	3	21
N-Propylbenzene	25.0	26.7		ug/L		107	65 - 135	1	20
o-Xylene	25.0	25.1		ug/L		100	65 - 135	2	20
sec-Butylbenzene	25.0	26.6		ug/L		107	64 - 135	0	21
Styrene	25.0	25.5		ug/L		102	65 - 135	3	26
tert-Butylbenzene	25.0	25.7		ug/L		103	65 - 135	1	21
Tetrachloroethene	25.0	25.6		ug/L		103	65 - 135	3	20
Toluene	25.0	25.3		ug/L		101	65 - 135	3	20
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	65 - 135	4	24
trans-1,3-Dichloropropene	25.0	22.6		ug/L		90	65 - 135	0	26
Trichloroethene	25.0	25.3		ug/L		101	65 - 135	5	20
Trichlorofluoromethane	25.0	25.9		ug/L		104	53 - 137	4	27
Vinyl chloride	25.0	22.6		ug/L		90	40 - 137	3	24

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		70 - 127
4-Bromofluorobenzene (Surr)	97		78 - 120
Dibromofluoromethane (Surr)	102		77 - 120
Toluene-d8 (Surr)	99		80 - 125

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-554811/9
Matrix: Water
Analysis Batch: 554811

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 11:21	1
1,1,1-Trichloroethane	ND		0.50	0.16	ug/L			10/25/21 11:21	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.21	ug/L			10/25/21 11:21	1
1,1,2-Trichloroethane	ND		0.50	0.27	ug/L			10/25/21 11:21	1
1,1-Dichloroethane	ND		0.50	0.22	ug/L			10/25/21 11:21	1
1,1-Dichloroethene	ND		0.50	0.23	ug/L			10/25/21 11:21	1
1,1-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 11:21	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 11:21	1
1,2,3-Trichloropropane	ND		0.77	0.33	ug/L			10/25/21 11:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			10/25/21 11:21	1
1,2,4-Trimethylbenzene	ND		1.0	0.15	ug/L			10/25/21 11:21	1
1,2-Dibromo-3-Chloropropane	ND		2.0	0.47	ug/L			10/25/21 11:21	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			10/25/21 11:21	1
1,2-Dichlorobenzene	ND		0.50	0.15	ug/L			10/25/21 11:21	1
1,2-Dichloroethane	ND		0.50	0.13	ug/L			10/25/21 11:21	1
1,2-Dichloropropane	ND		0.50	0.18	ug/L			10/25/21 11:21	1
1,3,5-Trimethylbenzene	ND		1.0	0.16	ug/L			10/25/21 11:21	1
1,3-Dichlorobenzene	ND		0.50	0.13	ug/L			10/25/21 11:21	1
1,3-Dichloropropane	ND		0.50	0.090	ug/L			10/25/21 11:21	1
1,4-Dichlorobenzene	ND		0.50	0.16	ug/L			10/25/21 11:21	1
2,2-Dichloropropane	ND		0.50	0.38	ug/L			10/25/21 11:21	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			10/25/21 11:21	1
2-Chlorotoluene	ND		1.0	0.17	ug/L			10/25/21 11:21	1
2-Hexanone	ND		5.0	1.7	ug/L			10/25/21 11:21	1
4-Chlorotoluene	ND		1.0	0.21	ug/L			10/25/21 11:21	1
4-Isopropyltoluene	ND		1.0	0.20	ug/L			10/25/21 11:21	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			10/25/21 11:21	1
Acetone	ND		10	1.9	ug/L			10/25/21 11:21	1
Benzene	ND		0.50	0.16	ug/L			10/25/21 11:21	1
Bromobenzene	ND		1.0	0.17	ug/L			10/25/21 11:21	1
Bromochloromethane	ND		0.50	0.10	ug/L			10/25/21 11:21	1
Bromodichloromethane	ND		0.50	0.17	ug/L			10/25/21 11:21	1
Bromoform	ND		0.50	0.46	ug/L			10/25/21 11:21	1
Bromomethane	ND		0.50	0.21	ug/L			10/25/21 11:21	1
Carbon disulfide	ND		2.0	0.17	ug/L			10/25/21 11:21	1
Carbon tetrachloride	ND		0.50	0.19	ug/L			10/25/21 11:21	1
Chlorobenzene	ND		0.50	0.17	ug/L			10/25/21 11:21	1
Chloroethane	ND		0.50	0.41	ug/L			10/25/21 11:21	1
Chloroform	ND		0.50	0.16	ug/L			10/25/21 11:21	1
Chloromethane	ND		0.50	0.30	ug/L			10/25/21 11:21	1
cis-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 11:21	1
cis-1,3-Dichloropropene	ND		0.50	0.16	ug/L			10/25/21 11:21	1
Dibromochloromethane	ND		0.50	0.17	ug/L			10/25/21 11:21	1
Dibromomethane	ND		0.50	0.17	ug/L			10/25/21 11:21	1
Dichlorodifluoromethane	ND		0.50	0.31	ug/L			10/25/21 11:21	1
Ethylbenzene	ND		0.50	0.16	ug/L			10/25/21 11:21	1
Hexachlorobutadiene	ND		1.0	0.36	ug/L			10/25/21 11:21	1
Isopropylbenzene	ND		1.0	0.19	ug/L			10/25/21 11:21	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-554811/9
Matrix: Water
Analysis Batch: 554811

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		2.0	0.94	ug/L			10/25/21 11:21	1
m-Xylene & p-Xylene	ND		0.50	0.15	ug/L			10/25/21 11:21	1
Naphthalene	ND		1.0	0.22	ug/L			10/25/21 11:21	1
n-Butylbenzene	ND		1.0	0.14	ug/L			10/25/21 11:21	1
N-Propylbenzene	ND		1.0	0.16	ug/L			10/25/21 11:21	1
o-Xylene	ND		0.50	0.19	ug/L			10/25/21 11:21	1
sec-Butylbenzene	ND		1.0	0.17	ug/L			10/25/21 11:21	1
Styrene	ND		0.50	0.36	ug/L			10/25/21 11:21	1
tert-Butylbenzene	ND		1.0	0.16	ug/L			10/25/21 11:21	1
Tetrachloroethene	ND		0.50	0.20	ug/L			10/25/21 11:21	1
Toluene	ND		0.50	0.17	ug/L			10/25/21 11:21	1
trans-1,2-Dichloroethene	ND		0.50	0.15	ug/L			10/25/21 11:21	1
trans-1,3-Dichloropropene	ND		0.50	0.19	ug/L			10/25/21 11:21	1
Trichloroethene	ND		0.50	0.16	ug/L			10/25/21 11:21	1
Trichlorofluoromethane	ND		0.50	0.29	ug/L			10/25/21 11:21	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/25/21 11:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 127		10/25/21 11:21	1
4-Bromofluorobenzene (Surr)	93		78 - 120		10/25/21 11:21	1
Dibromofluoromethane (Surr)	99		77 - 120		10/25/21 11:21	1
Toluene-d8 (Surr)	103		80 - 125		10/25/21 11:21	1

Lab Sample ID: LCS 280-554811/4
Matrix: Water
Analysis Batch: 554811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	22.3		ug/L		89	65 - 135
1,1,1-Trichloroethane	25.0	21.3		ug/L		85	65 - 135
1,1,1,2-Tetrachloroethane	25.0	29.1		ug/L		117	58 - 135
1,1,2-Trichloroethane	25.0	26.6		ug/L		106	64 - 135
1,1-Dichloroethane	25.0	23.7		ug/L		95	65 - 135
1,1-Dichloroethene	25.0	21.6		ug/L		86	65 - 136
1,1-Dichloropropene	25.0	22.6		ug/L		90	65 - 135
1,2,3-Trichlorobenzene	25.0	22.4		ug/L		90	60 - 135
1,2,3-Trichloropropane	25.0	31.1		ug/L		124	65 - 135
1,2,4-Trichlorobenzene	25.0	22.4		ug/L		90	58 - 135
1,2,4-Trimethylbenzene	25.0	22.4		ug/L		90	65 - 135
1,2-Dibromo-3-Chloropropane	25.0	25.7		ug/L		103	57 - 135
1,2-Dibromoethane	25.0	26.6		ug/L		107	65 - 135
1,2-Dichlorobenzene	25.0	24.9		ug/L		100	65 - 135
1,2-Dichloroethane	25.0	24.4		ug/L		98	65 - 135
1,2-Dichloropropane	25.0	25.0		ug/L		100	64 - 135
1,3,5-Trimethylbenzene	25.0	22.7		ug/L		91	65 - 135
1,3-Dichlorobenzene	25.0	23.5		ug/L		94	65 - 135
1,3-Dichloropropane	25.0	26.0		ug/L		104	64 - 135
1,4-Dichlorobenzene	25.0	23.3		ug/L		93	65 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-554811/4
Matrix: Water
Analysis Batch: 554811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	25.0	20.5		ug/L		82	65 - 135
2-Butanone (MEK)	100	135		ug/L		135	44 - 177
2-Chlorotoluene	25.0	22.8		ug/L		91	65 - 135
2-Hexanone	100	132		ug/L		132	57 - 139
4-Chlorotoluene	25.0	23.9		ug/L		95	65 - 135
4-Isopropyltoluene	25.0	22.5		ug/L		90	65 - 135
4-Methyl-2-pentanone (MIBK)	100	127		ug/L		127	60 - 150
Acetone	100	137		ug/L		137	39 - 156
Benzene	25.0	23.9		ug/L		95	65 - 135
Bromobenzene	25.0	24.3		ug/L		97	65 - 135
Bromochloromethane	25.0	22.7		ug/L		91	65 - 135
Bromodichloromethane	25.0	23.1		ug/L		92	65 - 135
Bromoform	25.0	24.8		ug/L		99	62 - 135
Bromomethane	25.0	21.6		ug/L		87	45 - 135
Carbon disulfide	25.0	21.0		ug/L		84	55 - 143
Carbon tetrachloride	25.0	19.1		ug/L		77	65 - 135
Chlorobenzene	25.0	23.3		ug/L		93	65 - 135
Chloroethane	25.0	21.7		ug/L		87	46 - 136
Chloroform	25.0	23.7		ug/L		95	65 - 135
Chloromethane	25.0	28.2		ug/L		113	34 - 145
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	65 - 135
cis-1,3-Dichloropropene	25.0	23.2		ug/L		93	65 - 135
Dibromochloromethane	25.0	25.4		ug/L		102	65 - 135
Dibromomethane	25.0	25.2		ug/L		101	65 - 135
Dichlorodifluoromethane	25.0	14.0		ug/L		56	43 - 142
Ethylbenzene	25.0	22.6		ug/L		90	65 - 135
Hexachlorobutadiene	25.0	19.7		ug/L		79	65 - 135
Isopropylbenzene	25.0	22.2		ug/L		89	65 - 135
Methylene Chloride	25.0	24.6		ug/L		98	54 - 141
m-Xylene & p-Xylene	25.0	23.4		ug/L		93	65 - 135
Naphthalene	25.0	26.1		ug/L		104	42 - 135
n-Butylbenzene	25.0	21.3		ug/L		85	64 - 135
N-Propylbenzene	25.0	23.0		ug/L		92	65 - 135
o-Xylene	25.0	23.8		ug/L		95	65 - 135
sec-Butylbenzene	25.0	21.8		ug/L		87	64 - 135
Styrene	25.0	24.2		ug/L		97	65 - 135
tert-Butylbenzene	25.0	23.1		ug/L		92	65 - 135
Tetrachloroethene	25.0	23.4		ug/L		94	65 - 135
Toluene	25.0	22.3		ug/L		89	65 - 135
trans-1,2-Dichloroethene	25.0	23.3		ug/L		93	65 - 135
trans-1,3-Dichloropropene	25.0	22.7		ug/L		91	65 - 135
Trichloroethene	25.0	23.6		ug/L		95	65 - 135
Trichlorofluoromethane	25.0	18.0		ug/L		72	53 - 137
Vinyl chloride	25.0	22.3		ug/L		89	40 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	99		70 - 127
4-Bromofluorobenzene (Surr)	96		78 - 120

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-554811/4
Matrix: Water
Analysis Batch: 554811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane (Surr)	98		77 - 120
Toluene-d8 (Surr)	104		80 - 125

Lab Sample ID: LCSD 280-554811/5
Matrix: Water
Analysis Batch: 554811

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	25.0	23.3		ug/L		93	65 - 135	4	20
1,1,1-Trichloroethane	25.0	23.8		ug/L		95	65 - 135	11	20
1,1,1,2,2-Tetrachloroethane	25.0	28.1		ug/L		112	58 - 135	4	20
1,1,2-Trichloroethane	25.0	26.5		ug/L		106	64 - 135	0	27
1,1-Dichloroethane	25.0	25.1		ug/L		101	65 - 135	6	21
1,1-Dichloroethene	25.0	25.6		ug/L		103	65 - 136	17	20
1,1-Dichloropropene	25.0	25.3		ug/L		101	65 - 135	11	21
1,2,3-Trichlorobenzene	25.0	23.8		ug/L		95	60 - 135	6	36
1,2,3-Trichloropropane	25.0	27.5		ug/L		110	65 - 135	12	23
1,2,4-Trichlorobenzene	25.0	22.7		ug/L		91	58 - 135	1	25
1,2,4-Trimethylbenzene	25.0	23.6		ug/L		94	65 - 135	5	20
1,2-Dibromo-3-Chloropropane	25.0	25.1		ug/L		100	57 - 135	3	22
1,2-Dibromoethane	25.0	26.6		ug/L		107	65 - 135	0	27
1,2-Dichlorobenzene	25.0	24.3		ug/L		97	65 - 135	2	20
1,2-Dichloroethane	25.0	24.2		ug/L		97	65 - 135	1	20
1,2-Dichloropropane	25.0	25.6		ug/L		102	64 - 135	3	20
1,3,5-Trimethylbenzene	25.0	23.4		ug/L		94	65 - 135	3	20
1,3-Dichlorobenzene	25.0	23.2		ug/L		93	65 - 135	1	20
1,3-Dichloropropane	25.0	26.0		ug/L		104	64 - 135	0	20
1,4-Dichlorobenzene	25.0	23.5		ug/L		94	65 - 135	1	23
2,2-Dichloropropane	25.0	22.6		ug/L		90	65 - 135	10	20
2-Butanone (MEK)	100	131		ug/L		131	44 - 177	3	32
2-Chlorotoluene	25.0	22.7		ug/L		91	65 - 135	1	20
2-Hexanone	100	124		ug/L		124	57 - 139	6	25
4-Chlorotoluene	25.0	24.5		ug/L		98	65 - 135	2	20
4-Isopropyltoluene	25.0	24.0		ug/L		96	65 - 135	6	20
4-Methyl-2-pentanone (MIBK)	100	126		ug/L		126	60 - 150	1	22
Acetone	100	130		ug/L		130	39 - 156	5	23
Benzene	25.0	25.0		ug/L		100	65 - 135	5	20
Bromobenzene	25.0	24.8		ug/L		99	65 - 135	2	26
Bromochloromethane	25.0	23.7		ug/L		95	65 - 135	4	29
Bromodichloromethane	25.0	24.4		ug/L		98	65 - 135	6	20
Bromoform	25.0	23.5		ug/L		94	62 - 135	5	27
Bromomethane	25.0	24.9		ug/L		100	45 - 135	14	33
Carbon disulfide	25.0	23.9		ug/L		96	55 - 143	13	20
Carbon tetrachloride	25.0	22.9		ug/L		92	65 - 135	18	21
Chlorobenzene	25.0	24.2		ug/L		97	65 - 135	4	20
Chloroethane	25.0	25.2		ug/L		101	46 - 136	15	25
Chloroform	25.0	24.7		ug/L		99	65 - 135	4	20
Chloromethane	25.0	32.9		ug/L		132	34 - 145	15	24

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-554811/5
Matrix: Water
Analysis Batch: 554811

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	25.0	25.5		ug/L		102	65 - 135	5	20
cis-1,3-Dichloropropene	25.0	23.6		ug/L		94	65 - 135	2	26
Dibromochloromethane	25.0	25.1		ug/L		100	65 - 135	1	20
Dibromomethane	25.0	25.3		ug/L		101	65 - 135	0	26
Dichlorodifluoromethane	25.0	22.4	*1	ug/L		90	43 - 142	47	30
Ethylbenzene	25.0	23.9		ug/L		96	65 - 135	6	20
Hexachlorobutadiene	25.0	20.8		ug/L		83	65 - 135	6	25
Isopropylbenzene	25.0	23.5		ug/L		94	65 - 135	6	20
Methylene Chloride	25.0	25.4		ug/L		102	54 - 141	3	26
m-Xylene & p-Xylene	25.0	24.6		ug/L		98	65 - 135	5	20
Naphthalene	25.0	25.3		ug/L		101	42 - 135	3	23
n-Butylbenzene	25.0	23.0		ug/L		92	64 - 135	8	21
N-Propylbenzene	25.0	24.5		ug/L		98	65 - 135	6	20
o-Xylene	25.0	25.0		ug/L		100	65 - 135	5	20
sec-Butylbenzene	25.0	24.1		ug/L		96	64 - 135	10	21
Styrene	25.0	24.8		ug/L		99	65 - 135	2	26
tert-Butylbenzene	25.0	23.9		ug/L		96	65 - 135	4	21
Tetrachloroethene	25.0	25.3		ug/L		101	65 - 135	8	20
Toluene	25.0	23.9		ug/L		96	65 - 135	7	20
trans-1,2-Dichloroethene	25.0	25.2		ug/L		101	65 - 135	8	24
trans-1,3-Dichloropropene	25.0	23.1		ug/L		92	65 - 135	2	26
Trichloroethene	25.0	25.3		ug/L		101	65 - 135	7	20
Trichlorofluoromethane	25.0	26.3	*1	ug/L		105	53 - 137	38	27
Vinyl chloride	25.0	29.9	*1	ug/L		120	40 - 137	29	24

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 127
4-Bromofluorobenzene (Surr)	95		78 - 120
Dibromofluoromethane (Surr)	97		77 - 120
Toluene-d8 (Surr)	102		80 - 125

Lab Sample ID: 280-154324-E-2 MS
Matrix: Water
Analysis Batch: 554811

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	20.5		ug/L		82	65 - 135
1,1,1-Trichloroethane	ND		25.0	20.6		ug/L		82	65 - 135
1,1,2,2-Tetrachloroethane	ND		25.0	25.0		ug/L		100	58 - 135
1,1,2-Trichloroethane	ND		25.0	24.9		ug/L		100	64 - 135
1,1-Dichloroethane	ND		25.0	23.9		ug/L		96	65 - 135
1,1-Dichloroethene	ND		25.0	22.7		ug/L		91	65 - 136
1,1-Dichloropropene	ND		25.0	22.7		ug/L		91	65 - 135
1,2,3-Trichlorobenzene	ND		25.0	20.4		ug/L		82	60 - 135
1,2,3-Trichloropropane	ND		25.0	25.5		ug/L		102	65 - 135
1,2,4-Trichlorobenzene	ND		25.0	21.1		ug/L		84	58 - 135
1,2,4-Trimethylbenzene	ND		25.0	21.9		ug/L		87	65 - 135
1,2-Dibromo-3-Chloropropane	ND		25.0	20.6		ug/L		82	57 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-154324-E-2 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 554811

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	ND		25.0	23.8		ug/L		95	65 - 135
1,2-Dichlorobenzene	ND		25.0	23.1		ug/L		92	65 - 135
1,2-Dichloroethane	ND		25.0	22.5		ug/L		90	65 - 135
1,2-Dichloropropane	ND		25.0	23.9		ug/L		96	64 - 135
1,3,5-Trimethylbenzene	ND		25.0	21.9		ug/L		87	65 - 135
1,3-Dichlorobenzene	ND		25.0	22.7		ug/L		91	65 - 135
1,3-Dichloropropane	ND		25.0	23.3		ug/L		93	64 - 135
1,4-Dichlorobenzene	ND		25.0	22.8		ug/L		91	65 - 135
2,2-Dichloropropane	ND		25.0	18.2		ug/L		73	65 - 135
2-Butanone (MEK)	ND		100	108		ug/L		108	44 - 177
2-Chlorotoluene	ND		25.0	21.5		ug/L		86	65 - 135
2-Hexanone	ND		100	107		ug/L		107	57 - 139
4-Chlorotoluene	ND		25.0	22.5		ug/L		90	65 - 135
4-Isopropyltoluene	ND		25.0	21.9		ug/L		88	65 - 135
4-Methyl-2-pentanone (MIBK)	ND		100	106		ug/L		106	60 - 150
Acetone	ND		100	112		ug/L		112	39 - 156
Benzene	ND		25.0	23.2		ug/L		93	65 - 135
Bromobenzene	ND		25.0	23.8		ug/L		95	65 - 135
Bromochloromethane	ND		25.0	22.2		ug/L		89	65 - 135
Bromodichloromethane	ND		25.0	21.3		ug/L		85	65 - 135
Bromoform	ND		25.0	19.7		ug/L		79	62 - 135
Bromomethane	ND		25.0	24.5		ug/L		98	45 - 135
Carbon disulfide	ND		25.0	21.1		ug/L		84	55 - 143
Carbon tetrachloride	ND		25.0	18.5		ug/L		74	65 - 135
Chlorobenzene	ND		25.0	22.5		ug/L		90	65 - 135
Chloroethane	ND		25.0	25.7		ug/L		103	46 - 136
Chloroform	ND		25.0	22.7		ug/L		91	65 - 135
Chloromethane	ND		25.0	32.3		ug/L		129	34 - 145
cis-1,2-Dichloroethene	5.5		25.0	28.0		ug/L		90	65 - 135
cis-1,3-Dichloropropene	ND		25.0	20.6		ug/L		82	65 - 135
Dibromochloromethane	ND		25.0	21.6		ug/L		86	65 - 135
Dibromomethane	ND		25.0	24.3		ug/L		97	65 - 135
Dichlorodifluoromethane	ND	*1	25.0	25.8		ug/L		103	43 - 142
Ethylbenzene	ND		25.0	22.5		ug/L		90	65 - 135
Hexachlorobutadiene	ND		25.0	17.9		ug/L		72	65 - 135
Isopropylbenzene	ND		25.0	21.9		ug/L		88	65 - 135
Methylene Chloride	ND		25.0	23.8		ug/L		95	54 - 141
m-Xylene & p-Xylene	ND		25.0	23.5		ug/L		94	65 - 135
Naphthalene	ND		25.0	22.7		ug/L		91	42 - 135
n-Butylbenzene	ND		25.0	20.9		ug/L		84	64 - 135
N-Propylbenzene	ND		25.0	22.4		ug/L		90	65 - 135
o-Xylene	ND		25.0	23.1		ug/L		92	65 - 135
sec-Butylbenzene	ND		25.0	22.0		ug/L		88	64 - 135
Styrene	ND		25.0	23.9		ug/L		96	65 - 135
tert-Butylbenzene	ND		25.0	22.2		ug/L		89	65 - 135
Tetrachloroethene	ND		25.0	23.6		ug/L		95	65 - 135
Toluene	ND		25.0	21.9		ug/L		88	65 - 135
trans-1,2-Dichloroethene	ND		25.0	23.2		ug/L		93	65 - 135
trans-1,3-Dichloropropene	ND		25.0	18.9		ug/L		76	65 - 135

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-154324-E-2 MS

Client Sample ID: Matrix Spike

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 554811

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Trichloroethene	4.7		25.0	27.9		ug/L		93	65 - 135
Trichlorofluoromethane	ND	*1	25.0	24.0		ug/L		96	53 - 137
Vinyl chloride	ND	*1	25.0	27.9		ug/L		112	40 - 137
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	96		70 - 127						
4-Bromofluorobenzene (Surr)	96		78 - 120						
Dibromofluoromethane (Surr)	100		77 - 120						
Toluene-d8 (Surr)	102		80 - 125						

Lab Sample ID: 280-154324-G-2 MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 554811

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,1,2-Tetrachloroethane	ND		25.0	20.5		ug/L		82	65 - 135	0	20
1,1,1-Trichloroethane	ND		25.0	20.8		ug/L		83	65 - 135	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	26.1		ug/L		104	58 - 135	4	20
1,1,2-Trichloroethane	ND		25.0	24.9		ug/L		100	64 - 135	0	27
1,1-Dichloroethane	ND		25.0	23.3		ug/L		93	65 - 135	3	21
1,1-Dichloroethene	ND		25.0	21.6		ug/L		86	65 - 136	5	20
1,1-Dichloropropene	ND		25.0	22.2		ug/L		89	65 - 135	2	21
1,2,3-Trichlorobenzene	ND		25.0	21.2		ug/L		85	60 - 135	3	36
1,2,3-Trichloropropane	ND		25.0	26.8		ug/L		107	65 - 135	5	23
1,2,4-Trichlorobenzene	ND		25.0	21.1		ug/L		84	58 - 135	0	25
1,2,4-Trimethylbenzene	ND		25.0	21.6		ug/L		86	65 - 135	1	20
1,2-Dibromo-3-Chloropropane	ND		25.0	21.5		ug/L		86	57 - 135	4	22
1,2-Dibromoethane	ND		25.0	23.5		ug/L		94	65 - 135	1	27
1,2-Dichlorobenzene	ND		25.0	23.6		ug/L		94	65 - 135	2	20
1,2-Dichloroethane	ND		25.0	22.3		ug/L		89	65 - 135	1	20
1,2-Dichloropropane	ND		25.0	24.3		ug/L		97	64 - 135	2	20
1,3,5-Trimethylbenzene	ND		25.0	21.8		ug/L		87	65 - 135	0	20
1,3-Dichlorobenzene	ND		25.0	22.1		ug/L		89	65 - 135	3	20
1,3-Dichloropropane	ND		25.0	24.2		ug/L		97	64 - 135	4	20
1,4-Dichlorobenzene	ND		25.0	22.3		ug/L		89	65 - 135	2	23
2,2-Dichloropropane	ND		25.0	17.9		ug/L		71	65 - 135	2	20
2-Butanone (MEK)	ND		100	117		ug/L		117	44 - 177	7	32
2-Chlorotoluene	ND		25.0	22.0		ug/L		88	65 - 135	2	20
2-Hexanone	ND		100	114		ug/L		114	57 - 139	6	25
4-Chlorotoluene	ND		25.0	22.7		ug/L		91	65 - 135	1	20
4-Isopropyltoluene	ND		25.0	21.5		ug/L		86	65 - 135	2	20
4-Methyl-2-pentanone (MIBK)	ND		100	112		ug/L		112	60 - 150	6	22
Acetone	ND		100	124		ug/L		124	39 - 156	10	23
Benzene	ND		25.0	23.6		ug/L		94	65 - 135	2	20
Bromobenzene	ND		25.0	23.2		ug/L		93	65 - 135	3	26
Bromochloromethane	ND		25.0	22.0		ug/L		88	65 - 135	1	29
Bromodichloromethane	ND		25.0	21.7		ug/L		87	65 - 135	2	20
Bromoform	ND		25.0	21.0		ug/L		84	62 - 135	6	27

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-154324-G-2 MSD
Matrix: Water
Analysis Batch: 554811

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Bromomethane	ND		25.0	25.0		ug/L		100	45 - 135	2	33
Carbon disulfide	ND		25.0	20.5		ug/L		82	55 - 143	3	20
Carbon tetrachloride	ND		25.0	18.8		ug/L		75	65 - 135	2	21
Chlorobenzene	ND		25.0	22.6		ug/L		90	65 - 135	0	20
Chloroethane	ND		25.0	25.3		ug/L		101	46 - 136	2	25
Chloroform	ND		25.0	22.9		ug/L		92	65 - 135	1	20
Chloromethane	ND		25.0	31.7		ug/L		127	34 - 145	2	24
cis-1,2-Dichloroethene	5.5		25.0	28.5		ug/L		92	65 - 135	2	20
cis-1,3-Dichloropropene	ND		25.0	21.0		ug/L		84	65 - 135	2	26
Dibromochloromethane	ND		25.0	22.7		ug/L		91	65 - 135	5	20
Dibromomethane	ND		25.0	23.5		ug/L		94	65 - 135	3	26
Dichlorodifluoromethane	ND	*1	25.0	23.9		ug/L		96	43 - 142	8	30
Ethylbenzene	ND		25.0	21.9		ug/L		88	65 - 135	3	20
Hexachlorobutadiene	ND		25.0	16.9		ug/L		68	65 - 135	6	25
Isopropylbenzene	ND		25.0	21.7		ug/L		87	65 - 135	1	20
Methylene Chloride	ND		25.0	22.8		ug/L		91	54 - 141	4	26
m-Xylene & p-Xylene	ND		25.0	23.1		ug/L		92	65 - 135	2	20
Naphthalene	ND		25.0	23.8		ug/L		95	42 - 135	5	23
n-Butylbenzene	ND		25.0	20.0		ug/L		80	64 - 135	4	21
N-Propylbenzene	ND		25.0	22.1		ug/L		89	65 - 135	1	20
o-Xylene	ND		25.0	22.5		ug/L		90	65 - 135	3	20
sec-Butylbenzene	ND		25.0	20.5		ug/L		82	64 - 135	7	21
Styrene	ND		25.0	23.2		ug/L		93	65 - 135	3	26
tert-Butylbenzene	ND		25.0	22.4		ug/L		90	65 - 135	1	21
Tetrachloroethene	ND		25.0	21.4		ug/L		86	65 - 135	10	20
Toluene	ND		25.0	21.7		ug/L		87	65 - 135	1	20
trans-1,2-Dichloroethene	ND		25.0	22.0		ug/L		88	65 - 135	5	24
trans-1,3-Dichloropropene	ND		25.0	20.0		ug/L		80	65 - 135	5	26
Trichloroethene	4.7		25.0	26.6		ug/L		88	65 - 135	5	20
Trichlorofluoromethane	ND	*1	25.0	22.7		ug/L		91	53 - 137	6	27
Vinyl chloride	ND	*1	25.0	26.9		ug/L		108	40 - 137	4	24

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	96		70 - 127
4-Bromofluorobenzene (Surr)	95		78 - 120
Dibromofluoromethane (Surr)	100		77 - 120
Toluene-d8 (Surr)	100		80 - 125

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 280-554239/1-A
Matrix: Water
Analysis Batch: 555604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 554239

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	ND		2.0	0.68	ug/L		10/28/21 07:50	10/29/21 16:53	1
Arsenic	ND		5.0	0.50	ug/L		10/28/21 07:50	10/29/21 16:53	1
Lead	ND		1.0	0.23	ug/L		10/28/21 07:50	10/29/21 16:53	1
Nickel	ND		2.0	0.28	ug/L		10/28/21 07:50	10/29/21 16:53	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 280-554239/1-A
Matrix: Water
Analysis Batch: 555604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 554239

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		1.0	0.38	ug/L		10/28/21 07:50	10/29/21 16:53	1
Selenium	ND		5.0	1.0	ug/L		10/28/21 07:50	10/29/21 16:53	1
Beryllium	ND		1.0	0.15	ug/L		10/28/21 07:50	10/29/21 16:53	1
Cadmium	0.121	J	1.0	0.088	ug/L		10/28/21 07:50	10/29/21 16:53	1
Chromium	ND		3.0	0.88	ug/L		10/28/21 07:50	10/29/21 16:53	1
Cobalt	ND		1.0	0.050	ug/L		10/28/21 07:50	10/29/21 16:53	1
Copper	ND		2.0	0.71	ug/L		10/28/21 07:50	10/29/21 16:53	1
Silver	ND		1.0	0.045	ug/L		10/28/21 07:50	10/29/21 16:53	1
Thallium	ND		1.0	0.066	ug/L		10/28/21 07:50	10/29/21 16:53	1
Vanadium	ND		5.0	1.1	ug/L		10/28/21 07:50	10/29/21 16:53	1
Zinc	ND		10	2.0	ug/L		10/28/21 07:50	10/29/21 16:53	1

Lab Sample ID: LCS 280-554239/2-A
Matrix: Water
Analysis Batch: 555604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 554239

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	40.0	39.2		ug/L		98	85 - 115
Arsenic	40.0	40.8		ug/L		102	89 - 111
Lead	40.0	39.4		ug/L		98	88 - 115
Nickel	40.0	41.0		ug/L		103	86 - 115
Barium	40.0	41.2		ug/L		103	89 - 115
Selenium	40.0	41.9		ug/L		105	85 - 114
Beryllium	40.0	41.5		ug/L		104	85 - 115
Cadmium	40.0	39.2		ug/L		98	89 - 111
Chromium	40.0	40.9		ug/L		102	86 - 115
Cobalt	40.0	42.0		ug/L		105	92 - 115
Copper	40.0	42.0		ug/L		105	90 - 115
Silver	40.0	44.8		ug/L		112	90 - 114
Thallium	40.0	40.4		ug/L		101	86 - 115
Vanadium	40.0	41.4		ug/L		103	90 - 115
Zinc	40.0	43.6		ug/L		109	88 - 115

Lab Sample ID: 280-154367-1 MS
Matrix: Water
Analysis Batch: 555604

Client Sample ID: VLF-211017-35
Prep Type: Total/NA
Prep Batch: 554239

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	16	F1	40.0	45.1	F1	ug/L		73	85 - 115
Arsenic	120	F1	40.0	161		ug/L		95	79 - 120
Lead	1.2	F1	40.0	34.7	F1	ug/L		84	88 - 115
Nickel	140	F1	40.0	174	F1	ug/L		79	86 - 115
Barium	570		40.0	637	4	ug/L		167	89 - 115
Selenium	1.6	J F1	40.0	30.7	F1	ug/L		73	85 - 114
Beryllium	ND		40.0	42.3		ug/L		106	85 - 115
Cadmium	0.17	J F1 B	40.0	36.3		ug/L		90	89 - 111
Chromium	180		40.0	218	4	ug/L		89	86 - 115
Cobalt	38	F1	40.0	74.9		ug/L		92	92 - 115
Copper	5.3	F1	40.0	38.9	F1	ug/L		84	90 - 115

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-154367-1 MS

Matrix: Water

Analysis Batch: 555604

Client Sample ID: VLF-211017-35

Prep Type: Total/NA

Prep Batch: 554239

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Silver	0.10	J	40.0	35.7		ug/L		89		70 - 130
Thallium	0.10	J F1	40.0	33.7	F1	ug/L		84		86 - 115
Vanadium	140		40.0	181		ug/L		105		90 - 115
Zinc	37	F1	40.0	80.4		ug/L		109		88 - 115

Lab Sample ID: 280-154367-1 MSD

Matrix: Water

Analysis Batch: 555604

Client Sample ID: VLF-211017-35

Prep Type: Total/NA

Prep Batch: 554239

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Antimony	16	F1	40.0	44.5	F1	ug/L		71		85 - 115	1	20
Arsenic	120	F1	40.0	150	F1	ug/L		66		79 - 120	7	20
Lead	1.2	F1	40.0	33.5	F1	ug/L		81		88 - 115	4	20
Nickel	140	F1	40.0	170	F1	ug/L		71		86 - 115	2	20
Barium	570		40.0	608	4	ug/L		95		89 - 115	5	20
Selenium	1.6	J F1	40.0	28.6	F1	ug/L		68		85 - 114	7	20
Beryllium	ND		40.0	42.2		ug/L		105		85 - 115	0	20
Cadmium	0.17	J F1 B	40.0	33.7	F1	ug/L		84		89 - 111	8	20
Chromium	180		40.0	207	4	ug/L		61		86 - 115	5	20
Cobalt	38	F1	40.0	70.2	F1	ug/L		80		92 - 115	7	20
Copper	5.3	F1	40.0	36.5	F1	ug/L		78		90 - 115	6	20
Silver	0.10	J	40.0	34.4		ug/L		86		70 - 130	4	20
Thallium	0.10	J F1	40.0	32.4	F1	ug/L		81		86 - 115	4	20
Vanadium	140		40.0	179		ug/L		100		90 - 115	1	20
Zinc	37	F1	40.0	68.0	F1	ug/L		78		88 - 115	17	20

Lab Sample ID: 280-154378-15 MS

Matrix: Water

Analysis Batch: 555604

Client Sample ID: VLF-211015-14

Prep Type: Total/NA

Prep Batch: 554239

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Antimony	ND		40.0	38.1		ug/L		95		85 - 115
Arsenic	18		40.0	56.6		ug/L		96		79 - 120
Lead	ND		40.0	38.0		ug/L		95		88 - 115
Nickel	7.6		40.0	43.8		ug/L		91		86 - 115
Barium	97	F1	40.0	142		ug/L		112		89 - 115
Selenium	ND		40.0	39.1		ug/L		98		85 - 114
Chromium	ND		40.0	39.4		ug/L		99		86 - 115
Zinc	15		40.0	53.5		ug/L		96		88 - 115

Lab Sample ID: 280-154378-15 MSD

Matrix: Water

Analysis Batch: 555604

Client Sample ID: VLF-211015-14

Prep Type: Total/NA

Prep Batch: 554239

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Antimony	ND		40.0	39.0		ug/L		98		85 - 115	2	20
Arsenic	18		40.0	62.4		ug/L		110		79 - 120	10	20
Lead	ND		40.0	38.8		ug/L		97		88 - 115	2	20
Nickel	7.6		40.0	44.1		ug/L		91		86 - 115	1	20

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-154378-15 MSD
Matrix: Water
Analysis Batch: 555604

Client Sample ID: VLF-211015-14
Prep Type: Total/NA
Prep Batch: 554239

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	97	F1	40.0	147	F1	ug/L		123	89 - 115	3	20
Selenium	ND		40.0	41.5		ug/L		104	85 - 114	6	20
Chromium	ND		40.0	39.4		ug/L		99	86 - 115	0	20
Zinc	15		40.0	54.4		ug/L		98	88 - 115	2	20

Lab Sample ID: MB 280-554241/1-A
Matrix: Water
Analysis Batch: 555299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 554241

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0	0.68	ug/L		10/27/21 07:53	10/27/21 20:54	1
Arsenic	ND		5.0	0.50	ug/L		10/27/21 07:53	10/27/21 20:54	1
Lead	ND		1.0	0.23	ug/L		10/27/21 07:53	10/27/21 20:54	1
Nickel	ND		2.0	0.28	ug/L		10/27/21 07:53	10/27/21 20:54	1
Barium	ND		1.0	0.38	ug/L		10/27/21 07:53	10/27/21 20:54	1
Selenium	ND		5.0	1.0	ug/L		10/27/21 07:53	10/27/21 20:54	1
Chromium	ND		3.0	0.88	ug/L		10/27/21 07:53	10/27/21 20:54	1
Zinc	2.54	J	10	2.0	ug/L		10/27/21 07:53	10/27/21 20:54	1

Lab Sample ID: LCS 280-554241/2-A
Matrix: Water
Analysis Batch: 555299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 554241

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	40.0	41.2		ug/L		103	85 - 115
Arsenic	40.0	37.5		ug/L		94	89 - 111
Lead	40.0	41.7		ug/L		104	88 - 115
Nickel	40.0	39.3		ug/L		98	86 - 115
Barium	40.0	43.5		ug/L		109	89 - 115
Selenium	40.0	42.7		ug/L		107	85 - 114
Chromium	40.0	40.9		ug/L		102	86 - 115
Zinc	40.0	42.7		ug/L		107	88 - 115

Lab Sample ID: 280-154378-16 MS
Matrix: Water
Analysis Batch: 555299

Client Sample ID: VLF-211015-15
Prep Type: Total/NA
Prep Batch: 554241

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.71	J	40.0	38.4		ug/L		94	85 - 115
Arsenic	14		40.0	54.6		ug/L		100	79 - 120
Lead	0.66	J	40.0	41.7		ug/L		103	88 - 115
Nickel	1.3	J	40.0	40.4		ug/L		98	86 - 115
Barium	34	F1	40.0	73.9		ug/L		99	89 - 115
Selenium	ND		40.0	41.5		ug/L		104	85 - 114
Chromium	1.5	J	40.0	40.5		ug/L		98	86 - 115
Zinc	6.0	J B	40.0	45.5		ug/L		99	88 - 115

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-154378-16 MSD
Matrix: Water
Analysis Batch: 555299

Client Sample ID: VLF-211015-15
Prep Type: Total/NA
Prep Batch: 554241

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Antimony	0.71	J	40.0	37.0		ug/L		91	85 - 115	3	20
Arsenic	14		40.0	50.0		ug/L		89	79 - 120	9	20
Lead	0.66	J	40.0	40.6		ug/L		100	88 - 115	3	20
Nickel	1.3	J	40.0	38.7		ug/L		94	86 - 115	4	20
Barium	34	F1	40.0	69.3	F1	ug/L		88	89 - 115	6	20
Selenium	ND		40.0	38.0		ug/L		95	85 - 114	9	20
Chromium	1.5	J	40.0	39.2		ug/L		94	86 - 115	3	20
Zinc	6.0	J B	40.0	44.0		ug/L		95	88 - 115	3	20

Lab Sample ID: 280-154378-30 MS
Matrix: Water
Analysis Batch: 555299

Client Sample ID: VLF-211016-29
Prep Type: Total/NA
Prep Batch: 554241

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Antimony	ND		40.0	38.4		ug/L		96	85 - 115		
Arsenic	ND		40.0	38.4		ug/L		96	79 - 120		
Lead	ND		40.0	40.6		ug/L		102	88 - 115		
Nickel	ND		40.0	36.8		ug/L		92	86 - 115		
Barium	3.6		40.0	45.1		ug/L		104	89 - 115		
Selenium	ND		40.0	39.7		ug/L		99	85 - 114		
Chromium	ND		40.0	37.6		ug/L		94	86 - 115		
Zinc	ND		40.0	40.1		ug/L		100	88 - 115		

Lab Sample ID: 280-154378-30 MSD
Matrix: Water
Analysis Batch: 555299

Client Sample ID: VLF-211016-29
Prep Type: Total/NA
Prep Batch: 554241

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits		
Antimony	ND		40.0	40.8		ug/L		102	85 - 115	6	20
Arsenic	ND		40.0	38.1		ug/L		95	79 - 120	1	20
Lead	ND		40.0	40.9		ug/L		102	88 - 115	1	20
Nickel	ND		40.0	37.7		ug/L		94	86 - 115	2	20
Barium	3.6		40.0	46.5		ug/L		107	89 - 115	3	20
Selenium	ND		40.0	42.5		ug/L		106	85 - 114	7	20
Chromium	ND		40.0	38.6		ug/L		96	86 - 115	3	20
Zinc	ND		40.0	42.3		ug/L		106	88 - 115	6	20

Lab Sample ID: MB 280-554291/1-A
Matrix: Water
Analysis Batch: 554975

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 554291

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
	Result	Qualifier								
Arsenic	ND		0.50	0.50	ug/L		10/22/21 07:50	10/25/21 15:19		1

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 280-554291/2-A
Matrix: Water
Analysis Batch: 554975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 554291
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	40.0	43.2		ug/L		108	89 - 111

Lab Sample ID: 280-154414-H-1-B MS
Matrix: Water
Analysis Batch: 554975

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 554291
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	ND		40.0	42.2		ug/L		105	79 - 120

Lab Sample ID: 280-154414-H-1-C MSD
Matrix: Water
Analysis Batch: 554975

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 554291
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	ND		40.0	44.6		ug/L		112	79 - 120	6	20

Method: 6010B - Dissolved Metals

Lab Sample ID: MB 280-554282/1-A
Matrix: Water
Analysis Batch: 555061

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 554282

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		200	78	ug/L		10/26/21 07:00	10/26/21 14:36	1
Iron	ND		100	22	ug/L		10/26/21 07:00	10/26/21 14:36	1
Magnesium	ND		200	26	ug/L		10/26/21 07:00	10/26/21 14:36	1
Manganese	ND		5.0	1.9	ug/L		10/26/21 07:00	10/26/21 14:36	1
Potassium	ND		3000	240	ug/L		10/26/21 07:00	10/26/21 14:36	1
Silicon	ND		500	35	ug/L		10/26/21 07:00	10/26/21 14:36	1
Sodium	ND		1000	370	ug/L		10/26/21 07:00	10/26/21 14:36	1

Lab Sample ID: LCS 280-554282/2-A
Matrix: Water
Analysis Batch: 555061

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 554282
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Calcium	50000	50000		ug/L		100	90 - 111
Iron	10000	10100		ug/L		101	89 - 115
Magnesium	50000	50100		ug/L		100	90 - 113
Manganese	1000	988		ug/L		99	90 - 110
Potassium	50000	50200		ug/L		100	89 - 114
Silicon	2000	2000		ug/L		100	90 - 110
Sodium	50000	48700		ug/L		97	90 - 115

Lab Sample ID: LCSD 280-554282/3-A
Matrix: Water
Analysis Batch: 555061

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 554282
%Rec.

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Calcium	50000	50400		ug/L		101	90 - 111	1	20

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 6010B - Dissolved Metals (Continued)

Lab Sample ID: LCSD 280-554282/3-A
Matrix: Water
Analysis Batch: 555061

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 554282

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	10000	10200		ug/L		102	89 - 115	1	20
Magnesium	50000	50700		ug/L		101	90 - 113	1	20
Manganese	1000	992		ug/L		99	90 - 110	0	20
Potassium	50000	50600		ug/L		101	89 - 114	1	20
Silicon	2000	2020		ug/L		101	90 - 110	1	20
Sodium	50000	49300		ug/L		99	90 - 115	1	20

Lab Sample ID: MB 280-554286/1-A
Matrix: Water
Analysis Batch: 555387

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 554286

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		200	78	ug/L		10/27/21 07:53	10/28/21 10:55	1
Iron	25.4	J	100	22	ug/L		10/27/21 07:53	10/28/21 10:55	1
Magnesium	ND		200	26	ug/L		10/27/21 07:53	10/28/21 10:55	1
Manganese	ND		5.0	1.9	ug/L		10/27/21 07:53	10/28/21 10:55	1
Sodium	ND		1000	370	ug/L		10/27/21 07:53	10/28/21 10:55	1

Lab Sample ID: LCS 280-554286/2-A
Matrix: Water
Analysis Batch: 555387

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 554286

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	51800		ug/L		104	90 - 111
Iron	10000	9870		ug/L		99	89 - 115
Magnesium	50000	52700		ug/L		105	90 - 113
Manganese	1000	1040		ug/L		104	90 - 110
Sodium	50000	51200		ug/L		102	90 - 115

Lab Sample ID: MB 280-554288/1-A
Matrix: Water
Analysis Batch: 555529

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 554288

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		200	78	ug/L		10/28/21 08:14	10/29/21 06:26	1
Iron	ND		100	22	ug/L		10/28/21 08:14	10/29/21 06:26	1
Magnesium	ND		200	26	ug/L		10/28/21 08:14	10/29/21 06:26	1
Manganese	ND		5.0	1.9	ug/L		10/28/21 08:14	10/29/21 06:26	1
Sodium	ND		1000	370	ug/L		10/28/21 08:14	10/29/21 06:26	1

Lab Sample ID: LCS 280-554288/2-A
Matrix: Water
Analysis Batch: 555529

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 554288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	49800		ug/L		100	90 - 111
Iron	10000	10000		ug/L		100	89 - 115
Magnesium	50000	49100		ug/L		98	90 - 113
Manganese	1000	987		ug/L		99	90 - 110
Sodium	50000	46300		ug/L		93	90 - 115

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 6010B - Dissolved Metals

Lab Sample ID: 280-154346-A-1-B MS
Matrix: Water
Analysis Batch: 555061

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 554282

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Calcium	300000		50000	341000	4	ug/L		74	48 - 153	
Iron	54	J	10000	9890		ug/L		98	52 - 155	
Magnesium	38000		50000	85800		ug/L		95	62 - 146	
Manganese	4.6	J	1000	973		ug/L		97	79 - 121	
Potassium	5300		50000	55500		ug/L		100	76 - 132	
Silicon	13000		2000	14400	4	ug/L		86	79 - 140	
Sodium	120000		50000	166000		ug/L		94	70 - 203	

Lab Sample ID: 280-154346-A-1-C MSD
Matrix: Water
Analysis Batch: 555061

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 554282

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Calcium	300000		50000	345000	4	ug/L		83	48 - 153		1	20
Iron	54	J	10000	9900		ug/L		98	52 - 155		0	20
Magnesium	38000		50000	86400		ug/L		97	62 - 146		1	20
Manganese	4.6	J	1000	985		ug/L		98	79 - 121		1	20
Potassium	5300		50000	56400		ug/L		102	76 - 132		2	20
Silicon	13000		2000	14600	4	ug/L		97	79 - 140		1	20
Sodium	120000		50000	168000		ug/L		97	70 - 203		1	20

Lab Sample ID: 280-154378-1 MS
Matrix: Water
Analysis Batch: 555387

Client Sample ID: VLF-211014-1
Prep Type: Dissolved
Prep Batch: 554286

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Calcium	110000		50000	161000		ug/L		99	48 - 153	
Iron	340	B	10000	10100		ug/L		98	52 - 155	
Magnesium	53000		50000	105000		ug/L		104	62 - 146	
Manganese	150		1000	1180		ug/L		102	79 - 121	
Sodium	26000		50000	81300		ug/L		111	70 - 203	

Lab Sample ID: 280-154378-1 MSD
Matrix: Water
Analysis Batch: 555387

Client Sample ID: VLF-211014-1
Prep Type: Dissolved
Prep Batch: 554286

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Calcium	110000		50000	161000		ug/L		100	48 - 153		0	20
Iron	340	B	10000	10200		ug/L		98	52 - 155		0	20
Magnesium	53000		50000	105000		ug/L		105	62 - 146		0	20
Manganese	150		1000	1190		ug/L		104	79 - 121		1	20
Sodium	26000		50000	81500		ug/L		111	70 - 203		0	20

Lab Sample ID: 280-154378-19 MS
Matrix: Water
Analysis Batch: 555529

Client Sample ID: VLF-211015-18
Prep Type: Dissolved
Prep Batch: 554288

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier	Added	Result	Qualifier				Limits	
Calcium	50000		50000	99000		ug/L		98	48 - 153	

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 6010B - Dissolved Metals (Continued)

Lab Sample ID: 280-154378-19 MS
Matrix: Water
Analysis Batch: 555529

Client Sample ID: VLF-211015-18
Prep Type: Dissolved
Prep Batch: 554288

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	49	J	10000	10100		ug/L		101	52 - 155
Magnesium	20000		50000	69300		ug/L		99	62 - 146
Manganese	340		1000	1330		ug/L		98	79 - 121
Sodium	87000		50000	135000		ug/L		96	70 - 203

Lab Sample ID: 280-154378-19 MSD
Matrix: Water
Analysis Batch: 555529

Client Sample ID: VLF-211015-18
Prep Type: Dissolved
Prep Batch: 554288

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	50000		50000	98900		ug/L		98	48 - 153	0	20
Iron	49	J	10000	10100		ug/L		101	52 - 155	0	20
Magnesium	20000		50000	69400		ug/L		100	62 - 146	0	20
Manganese	340		1000	1330		ug/L		99	79 - 121	0	20
Sodium	87000		50000	134000		ug/L		95	70 - 203	0	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-556143/103
Matrix: Water
Analysis Batch: 556143

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	1.0	mg/L			11/05/21 12:23	1

Lab Sample ID: MB 280-556143/134
Matrix: Water
Analysis Batch: 556143

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	1.0	mg/L			11/05/21 20:08	1

Lab Sample ID: MB 280-556143/62
Matrix: Water
Analysis Batch: 556143

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	1.0	mg/L			11/05/21 02:08	1

Lab Sample ID: LCS 280-556143/132
Matrix: Water
Analysis Batch: 556143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	101		mg/L		101	90 - 110

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 280-556143/60
Matrix: Water
Analysis Batch: 556143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	97.7		mg/L		98	90 - 110

Lab Sample ID: LCS 280-556143/99
Matrix: Water
Analysis Batch: 556143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	101		mg/L		101	90 - 110

Lab Sample ID: LCSD 280-556143/102
Matrix: Water
Analysis Batch: 556143

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	98.5		mg/L		98	90 - 110	3	10

Lab Sample ID: LCSD 280-556143/133
Matrix: Water
Analysis Batch: 556143

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	102		mg/L		102	90 - 110	0	10

Lab Sample ID: LCSD 280-556143/61
Matrix: Water
Analysis Batch: 556143

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	98.2		mg/L		98	90 - 110	0	10

Lab Sample ID: MRL 280-556143/3
Matrix: Water
Analysis Batch: 556143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.56		mg/L		91	50 - 150

Lab Sample ID: 280-154378-1 MS
Matrix: Water
Analysis Batch: 556143

Client Sample ID: VLF-211014-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	81		50.0	131		mg/L		99	80 - 120

Lab Sample ID: 280-154378-1 MSD
Matrix: Water
Analysis Batch: 556143

Client Sample ID: VLF-211014-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	81		50.0	132		mg/L		101	80 - 120	1	20

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 280-154378-7 MS
Matrix: Water
Analysis Batch: 556143

Client Sample ID: VLF-211014-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	540		250	780		mg/L		98	80 - 120

Lab Sample ID: 280-154378-7 MSD
Matrix: Water
Analysis Batch: 556143

Client Sample ID: VLF-211014-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	540		250	776		mg/L		96	80 - 120	1	20

Lab Sample ID: 280-154378-22 MS
Matrix: Water
Analysis Batch: 556143

Client Sample ID: VLF-211015-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	19		50.0	72.1		mg/L		105	80 - 120

Lab Sample ID: 280-154378-22 MSD
Matrix: Water
Analysis Batch: 556143

Client Sample ID: VLF-211015-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	19		50.0	73.2		mg/L		107	80 - 120	1	20

Lab Sample ID: 280-154378-1 DU
Matrix: Water
Analysis Batch: 556143

Client Sample ID: VLF-211014-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	81		80.1		mg/L		1	15

Lab Sample ID: 280-154378-7 DU
Matrix: Water
Analysis Batch: 556143

Client Sample ID: VLF-211014-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	540		536		mg/L		0.05	15

Lab Sample ID: 280-154378-22 DU
Matrix: Water
Analysis Batch: 556143

Client Sample ID: VLF-211015-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	19		19.5		mg/L		0	15

Lab Sample ID: MB 280-556443/6
Matrix: Water
Analysis Batch: 556443

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	1.0	mg/L			11/06/21 12:14	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 280-556443/6
Matrix: Water
Analysis Batch: 556443

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0	1.0	mg/L			11/06/21 12:14	1

Lab Sample ID: LCS 280-556443/4
Matrix: Water
Analysis Batch: 556443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	97.0		mg/L		97	90 - 110
Sulfate	100	98.2		mg/L		98	90 - 110

Lab Sample ID: LCSD 280-556443/5
Matrix: Water
Analysis Batch: 556443

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	96.8		mg/L		97	90 - 110	0	10
Sulfate	100	98.2		mg/L		98	90 - 110	0	10

Lab Sample ID: MRL 280-556443/3
Matrix: Water
Analysis Batch: 556443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.27		mg/L		85	50 - 150
Sulfate	5.00	4.11	J	mg/L		82	50 - 150

Lab Sample ID: 280-154496-A-1 MS
Matrix: Water
Analysis Batch: 556443

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8.4		50.0	59.6		mg/L		102	80 - 120
Sulfate	19		50.0	69.0		mg/L		100	80 - 120

Lab Sample ID: 280-154496-A-1 MSD
Matrix: Water
Analysis Batch: 556443

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8.4		50.0	61.1		mg/L		105	80 - 120	3	20
Sulfate	19		50.0	70.4		mg/L		103	80 - 120	2	20

Lab Sample ID: 280-154496-A-1 DU
Matrix: Water
Analysis Batch: 556443

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8.4		50.0	8.42		mg/L				0.2	15
Sulfate	19		50.0	19.0		mg/L				0.3	15

Eurofins TestAmerica, Denver

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 280-556620/6
Matrix: Water
Analysis Batch: 556620

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0	1.0	mg/L			11/08/21 14:38	1
Sulfate	ND		5.0	1.0	mg/L			11/08/21 14:38	1

Lab Sample ID: LCS 280-556620/4
Matrix: Water
Analysis Batch: 556620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100	98.3		mg/L		98	90 - 110
Sulfate	100	99.0		mg/L		99	90 - 110

Lab Sample ID: LCSD 280-556620/5
Matrix: Water
Analysis Batch: 556620

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100	98.3		mg/L		98	90 - 110	0	10
Sulfate	100	98.9		mg/L		99	90 - 110	0	10

Lab Sample ID: MRL 280-556620/3
Matrix: Water
Analysis Batch: 556620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.70		mg/L		94	50 - 150
Sulfate	5.00	4.51	J	mg/L		90	50 - 150

Lab Sample ID: 280-154719-B-13 MS
Matrix: Water
Analysis Batch: 556620

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2800	F1	1000	4430	E F1	mg/L		166	80 - 120
Sulfate	ND		1000	989		mg/L		99	80 - 120

Lab Sample ID: 280-154719-B-13 MSD
Matrix: Water
Analysis Batch: 556620

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2800	F1	1000	4210	E F1	mg/L		144	80 - 120	5	20
Sulfate	ND		1000	1000		mg/L		100	80 - 120	1	20

Lab Sample ID: 280-154719-B-13 DU
Matrix: Water
Analysis Batch: 556620

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	2800	F1	2750		mg/L		0.7	15
Sulfate	ND		ND		mg/L		NC	15

Eurofins TestAmerica, Denver

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-556077/20
 Matrix: Water
 Analysis Batch: 556077

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10	0.022	mg/L			11/03/21 11:33	1

Lab Sample ID: MB 280-556077/59
 Matrix: Water
 Analysis Batch: 556077

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.10	0.022	mg/L			11/03/21 12:51	1

Lab Sample ID: LCS 280-556077/57
 Matrix: Water
 Analysis Batch: 556077

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.53		mg/L		101	90 - 110

Lab Sample ID: LCSD 280-556077/58
 Matrix: Water
 Analysis Batch: 556077

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	2.50	2.60		mg/L		104	90 - 110	3	10

Lab Sample ID: 280-154689-D-5 MS
 Matrix: Water
 Analysis Batch: 556077

Client Sample ID: Matrix Spike
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	ND		1.00	0.960		mg/L		96	90 - 110

Lab Sample ID: 280-154689-D-5 MSD
 Matrix: Water
 Analysis Batch: 556077

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	ND		1.00	0.962		mg/L		96	90 - 110	0	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 280-555215/2-A
 Matrix: Water
 Analysis Batch: 555384

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 555215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	ND		0.70	0.69	mg/L		10/27/21 18:13	10/28/21 18:43	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

Lab Sample ID: LCS 280-555215/1-A
Matrix: Water
Analysis Batch: 555384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 555215
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Nitrogen, Kjeldahl	6.00	6.28		mg/L		105	90 - 110

Lab Sample ID: 280-154378-32 MS
Matrix: Water
Analysis Batch: 555384

Client Sample ID: VLF-211017-31
Prep Type: Total/NA
Prep Batch: 555215
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Nitrogen, Kjeldahl	ND		3.00	3.27		mg/L		109	90 - 110

Lab Sample ID: 280-154378-32 MSD
Matrix: Water
Analysis Batch: 555384

Client Sample ID: VLF-211017-31
Prep Type: Total/NA
Prep Batch: 555215
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrogen, Kjeldahl	ND		3.00	3.29		mg/L		110	90 - 110	0	25

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 280-555388/61
Matrix: Water
Analysis Batch: 555388

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.20	0.019	mg/L			10/28/21 18:09	1

Lab Sample ID: LCS 280-555388/60
Matrix: Water
Analysis Batch: 555388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Nitrate Nitrite as N	5.00	4.65		mg/L		93	90 - 110

Lab Sample ID: 680-206266-G-2 MS
Matrix: Water
Analysis Batch: 555388

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Nitrate Nitrite as N	0.48		4.00	4.29		mg/L		95	90 - 110

Lab Sample ID: 680-206266-G-2 MSD
Matrix: Water
Analysis Batch: 555388

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrate Nitrite as N	0.48		4.00	4.16		mg/L		92	90 - 110	3	10

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 365.1 - Phosphorus, Ortho

Lab Sample ID: MB 280-554176/11
Matrix: Water
Analysis Batch: 554176

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ortho-Phosphate	ND		0.050	0.018	mg/L			10/19/21 15:24	1

Lab Sample ID: LCS 280-554176/9
Matrix: Water
Analysis Batch: 554176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
ortho-Phosphate	0.500	0.543		mg/L		109	90 - 110

Lab Sample ID: LCSD 280-554176/10
Matrix: Water
Analysis Batch: 554176

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ortho-Phosphate	0.500	0.550		mg/L		110	90 - 110	1	10

Lab Sample ID: 280-154378-35 MS
Matrix: Water
Analysis Batch: 554176

Client Sample ID: VLF-211017-34
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
ortho-Phosphate	0.020	J F1	0.500	0.574	F1	mg/L		111	90 - 110

Lab Sample ID: 280-154378-35 MSD
Matrix: Water
Analysis Batch: 554176

Client Sample ID: VLF-211017-34
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
ortho-Phosphate	0.020	J F1	0.500	0.560		mg/L		108	90 - 110	2	10

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 280-555398/5-A
Matrix: Water
Analysis Batch: 555539

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 555398

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.050	0.025	mg/L		10/29/21 06:18	10/29/21 14:07	1

Lab Sample ID: LCS 280-555398/3-A
Matrix: Water
Analysis Batch: 555539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 555398

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.500	0.499		mg/L		100	90 - 110

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: LCSD 280-555398/4-A
Matrix: Water
Analysis Batch: 555539

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 555398

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	0.500	0.502		mg/L		100	90 - 110	1	10

Lab Sample ID: 280-154544-G-1-B MS
Matrix: Water
Analysis Batch: 555539

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 555398

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.14		0.500	0.626		mg/L		98	90 - 110

Lab Sample ID: 280-154544-G-1-C MSD
Matrix: Water
Analysis Batch: 555539

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 555398

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	0.14		0.500	0.636		mg/L		100	90 - 110	2	10

Method: 410.4 - COD

Lab Sample ID: MB 280-556326/5
Matrix: Water
Analysis Batch: 556326

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		20	8.7	mg/L			11/05/21 10:16	1

Lab Sample ID: LCS 280-556326/3
Matrix: Water
Analysis Batch: 556326

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	100	104		mg/L		104	90 - 110

Lab Sample ID: LCSD 280-556326/4
Matrix: Water
Analysis Batch: 556326

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	100	106		mg/L		106	90 - 110	1	11

Lab Sample ID: 680-206405-D-1 MS
Matrix: Water
Analysis Batch: 556326

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	ND		50.0	60.7		mg/L		103	90 - 110

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: 410.4 - COD (Continued)

Lab Sample ID: 680-206405-D-1 MSD
Matrix: Water
Analysis Batch: 556326

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	ND		50.0	61.0		mg/L		104	90 - 110	1	11

Lab Sample ID: 280-154448-A-9 DU
Matrix: Water
Analysis Batch: 556326

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	960		949		mg/L		3	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-554946/33
Matrix: Water
Analysis Batch: 554946

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		10	3.1	mg/L			10/23/21 22:28	1

Lab Sample ID: MB 280-554946/59
Matrix: Water
Analysis Batch: 554946

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		10	3.1	mg/L			10/24/21 01:48	1

Lab Sample ID: MB 280-554946/6
Matrix: Water
Analysis Batch: 554946

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		10	3.1	mg/L			10/23/21 18:36	1

Lab Sample ID: MB 280-554946/85
Matrix: Water
Analysis Batch: 554946

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		10	3.1	mg/L			10/24/21 04:42	1

Lab Sample ID: MB 280-555457/5
Matrix: Water
Analysis Batch: 555457

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		10	3.1	mg/L			10/28/21 16:26	1

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 280-555842/87
 Matrix: Water
 Analysis Batch: 555842

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	ND		10	3.1	mg/L			10/30/21 03:05	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-554253/1
 Matrix: Water
 Analysis Batch: 554253

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	4.7	mg/L			10/20/21 09:01	1

Lab Sample ID: LCS 280-554253/2
 Matrix: Water
 Analysis Batch: 554253

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	511	500		mg/L		98	88 - 114

Lab Sample ID: LCSD 280-554253/3
 Matrix: Water
 Analysis Batch: 554253

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	511	501		mg/L		98	88 - 114	0	20

Lab Sample ID: 280-154378-3 DU
 Matrix: Water
 Analysis Batch: 554253

Client Sample ID: VLF-211014-3
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	560		566		mg/L		0.9	10

Lab Sample ID: 280-154378-22 DU
 Matrix: Water
 Analysis Batch: 554253

Client Sample ID: VLF-211015-21
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	220		214		mg/L		0.5	10

Lab Sample ID: MB 280-554254/1
 Matrix: Water
 Analysis Batch: 554254

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	4.7	mg/L			10/20/21 09:03	1

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 280-554254/2
Matrix: Water
Analysis Batch: 554254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	511	506		mg/L		99	88 - 114

Lab Sample ID: 280-154378-23 DU
Matrix: Water
Analysis Batch: 554254

Client Sample ID: VLF-211015-22
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	380		373		mg/L		1	10

Lab Sample ID: MB 280-554256/1
Matrix: Water
Analysis Batch: 554256

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	4.7	mg/L			10/20/21 09:05	1

Lab Sample ID: LCS 280-554256/2
Matrix: Water
Analysis Batch: 554256

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	511	501		mg/L		98	88 - 114

Lab Sample ID: 280-154378-11 DU
Matrix: Water
Analysis Batch: 554256

Client Sample ID: VLF-211014-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	220		236		mg/L		9	10

Lab Sample ID: 280-154378-12 DU
Matrix: Water
Analysis Batch: 554256

Client Sample ID: VLF-211014-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	200		204		mg/L		3	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-554281/1
Matrix: Water
Analysis Batch: 554281

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	1.1	mg/L			10/20/21 11:11	1

QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 280-554281/2
Matrix: Water
Analysis Batch: 554281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	86.8		mg/L		87	79 - 114

Lab Sample ID: 280-154378-1 DU
Matrix: Water
Analysis Batch: 554281

Client Sample ID: VLF-211014-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	12		11.6		mg/L		3	10

Lab Sample ID: 280-154378-22 DU
Matrix: Water
Analysis Batch: 554281

Client Sample ID: VLF-211015-21
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	8.8		10.0	F5	mg/L		13	10

Lab Sample ID: MB 280-554493/1
Matrix: Water
Analysis Batch: 554493

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	1.1	mg/L			10/21/21 12:33	1

Lab Sample ID: LCS 280-554493/2
Matrix: Water
Analysis Batch: 554493

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	77.6	*-	mg/L		78	79 - 114

Lab Sample ID: LCSD 280-554493/3
Matrix: Water
Analysis Batch: 554493

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	100	98.4	*1	mg/L		98	79 - 114	24	20

Lab Sample ID: 280-154295-E-1 DU
Matrix: Water
Analysis Batch: 554493

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	31	*- *1	30.0	*- *1	mg/L		4	10

Lab Sample ID: 280-154378-30 DU
Matrix: Water
Analysis Batch: 554493

Client Sample ID: VLF-211016-29
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	ND	*- *1	ND	*- *1	mg/L		NC	10

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 280-555282/1
 Matrix: Water
 Analysis Batch: 555282

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		4.0	1.1	mg/L			10/28/21 10:44	1

Lab Sample ID: LCS 280-555282/2
 Matrix: Water
 Analysis Batch: 555282

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	95.6		mg/L		96	79 - 114

Lab Sample ID: LCSD 280-555282/3
 Matrix: Water
 Analysis Batch: 555282

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	100	86.0		mg/L		86	79 - 114	11	20

Lab Sample ID: 280-154734-C-2 DU
 Matrix: Water
 Analysis Batch: 555282

Client Sample ID: Duplicate
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	6.7		6.00	J F5	mg/L		11	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-554822/5
 Matrix: Water
 Analysis Batch: 554822

Client Sample ID: Method Blank
 Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	ND		1.0	0.35	mg/L			10/22/21 15:12	1
TOC Result 2	ND		1.0	0.35	mg/L			10/22/21 15:12	1
TOC Result 3	ND		1.0	0.35	mg/L			10/22/21 15:12	1
TOC Result 4	ND		1.0	0.35	mg/L			10/22/21 15:12	1
Total Organic Carbon - Quad	ND		1.0	0.35	mg/L			10/22/21 15:12	1

Lab Sample ID: LCS 280-554822/3
 Matrix: Water
 Analysis Batch: 554822

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TOC Result 1	25.0	25.2		mg/L		101	88 - 112
TOC Result 2	25.0	24.7		mg/L		99	88 - 112
TOC Result 3	25.0	24.3		mg/L		97	88 - 112
TOC Result 4	25.0	24.2		mg/L		97	88 - 112
Total Organic Carbon - Quad	25.0	24.6		mg/L		98	88 - 112

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCSD 280-554822/4
Matrix: Water
Analysis Batch: 554822

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TOC Result 1	25.0	25.3		mg/L		101	88 - 112	0	15
TOC Result 2	25.0	25.4		mg/L		101	88 - 112	3	15
TOC Result 3	25.0	25.1		mg/L		100	88 - 112	3	15
TOC Result 4	25.0	24.4		mg/L		98	88 - 112	1	15
Total Organic Carbon - Quad	25.0	25.0		mg/L		100	88 - 112	2	15

Lab Sample ID: 280-154352-C-3 MS
Matrix: Water
Analysis Batch: 554822

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TOC Result 1	4.1		50.0	54.0		mg/L		100	88 - 112		
TOC Result 2	4.2		50.0	54.0		mg/L		100	88 - 112		
TOC Result 3	4.1		50.0	53.3		mg/L		98	88 - 112		
TOC Result 4	4.2		50.0	53.6		mg/L		99	88 - 112		
Total Organic Carbon - Quad	4.1		50.0	53.7		mg/L		99	88 - 112		

Lab Sample ID: 280-154352-C-3 MSD
Matrix: Water
Analysis Batch: 554822

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TOC Result 1	4.1		50.0	53.5		mg/L		99	88 - 112	1	15
TOC Result 2	4.2		50.0	53.4		mg/L		98	88 - 112	1	15
TOC Result 3	4.1		50.0	53.1		mg/L		98	88 - 112	0	15
TOC Result 4	4.2		50.0	55.2		mg/L		102	88 - 112	3	15
Total Organic Carbon - Quad	4.1		50.0	53.8		mg/L		99	88 - 112	0	15

Method: SM5210B - BOD, 5 Day

Lab Sample ID: MB 280-554159/4
Matrix: Water
Analysis Batch: 554159

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	0.24	mg/L			10/19/21 13:38	1

Lab Sample ID: SCB 280-554159/1
Matrix: Water
Analysis Batch: 554159

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	0.682	J	2.0	0.24	mg/L			10/19/21 13:38	1

Lab Sample ID: USB 280-554159/2
Matrix: Water
Analysis Batch: 554159

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	0.24	mg/L			10/19/21 13:38	1

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QC Sample Results

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Method: SM5210B - BOD, 5 Day

Lab Sample ID: LCS 280-554159/3
Matrix: Water
Analysis Batch: 554159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	194		mg/L		98	85 - 115

Lab Sample ID: 280-154367-1 DU
Matrix: Water
Analysis Batch: 554159

Client Sample ID: VLF-211017-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Biochemical Oxygen Demand	750		746		mg/L		0.2	20



QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

GC/MS VOA

Analysis Batch: 554539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-1	VLf-211014-1	Total/NA	Water	8260B	
280-154378-2	VLf-211014-2	Total/NA	Water	8260B	
280-154378-3	VLf-211014-3	Total/NA	Water	8260B	
280-154378-4	VLf-211014-4	Total/NA	Water	8260B	
280-154378-5	VLf-211014-5	Total/NA	Water	8260B	
280-154378-6	VLf-211014-6	Total/NA	Water	8260B	
280-154378-7	VLf-211014-7	Total/NA	Water	8260B	
280-154378-8	VLf-211014-8	Total/NA	Water	8260B	
280-154378-9	VLf-211014-9	Total/NA	Water	8260B	
280-154378-10	VLf-211014-10	Total/NA	Water	8260B	
280-154378-11	VLf-211014-11	Total/NA	Water	8260B	
280-154378-12	VLf-211014-12	Total/NA	Water	8260B	
280-154378-13	VLf-211015-13	Total/NA	Water	8260B	
280-154378-14	VLf-211015-FB	Total/NA	Water	8260B	
280-154378-15	VLf-211015-14	Total/NA	Water	8260B	
280-154378-16	VLf-211015-15	Total/NA	Water	8260B	
280-154378-17	VLf-211015-16	Total/NA	Water	8260B	
280-154378-18	VLf-211015-17	Total/NA	Water	8260B	
280-154378-20	VLf-211015-19	Total/NA	Water	8260B	
280-154378-21	VLf-211015-20	Total/NA	Water	8260B	
MB 280-554539/10	Method Blank	Total/NA	Water	8260B	
LCS 280-554539/5	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-554539/6	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 554747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLf-211017-35	Total/NA	Water	8260B	
MB 280-554747/9	Method Blank	Total/NA	Water	8260B	
LCS 280-554747/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-554747/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 554789

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-22	VLf-211015-21	Total/NA	Water	8260B	
280-154378-23	VLf-211015-22	Total/NA	Water	8260B	
280-154378-29	VLf-211016-28	Total/NA	Water	8260B	
280-154378-30	VLf-211016-29	Total/NA	Water	8260B	
MB 280-554789/9	Method Blank	Total/NA	Water	8260B	
LCS 280-554789/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-554789/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 554811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-25	VLf-211016-24	Total/NA	Water	8260B	
280-154378-26	VLf-211016-25	Total/NA	Water	8260B	
280-154378-27	VLf-211016-26	Total/NA	Water	8260B	
280-154378-28	VLf-211016-27	Total/NA	Water	8260B	
280-154378-36	Trip Blanks	Total/NA	Water	8260B	
MB 280-554811/9	Method Blank	Total/NA	Water	8260B	
LCS 280-554811/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 280-554811/5	Lab Control Sample Dup	Total/NA	Water	8260B	

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

GC/MS VOA (Continued)

Analysis Batch: 554811 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154324-E-2 MS	Matrix Spike	Total/NA	Water	8260B	
280-154324-G-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 659524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-24	VLF-211015-23	Total/NA	Water	524.2	
MB 440-659524/7	Method Blank	Total/NA	Water	524.2	
LCS 440-659524/1006	Lab Control Sample	Total/NA	Water	524.2	
320-80562-B-2 MS	Matrix Spike	Total/NA	Water	524.2	
320-80562-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	524.2	

Metals

Prep Batch: 554239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLF-211017-35	Total/NA	Water	200.8	
280-154378-1	VLF-211014-1	Total/NA	Water	200.8	
280-154378-2	VLF-211014-2	Total/NA	Water	200.8	
280-154378-3	VLF-211014-3	Total/NA	Water	200.8	
280-154378-4	VLF-211014-4	Total/NA	Water	200.8	
280-154378-5	VLF-211014-5	Total/NA	Water	200.8	
280-154378-6	VLF-211014-6	Total/NA	Water	200.8	
280-154378-7	VLF-211014-7	Total/NA	Water	200.8	
280-154378-8	VLF-211014-8	Total/NA	Water	200.8	
280-154378-9	VLF-211014-9	Total/NA	Water	200.8	
280-154378-10	VLF-211014-10	Total/NA	Water	200.8	
280-154378-11	VLF-211014-11	Total/NA	Water	200.8	
280-154378-12	VLF-211014-12	Total/NA	Water	200.8	
280-154378-13	VLF-211015-13	Total/NA	Water	200.8	
280-154378-15	VLF-211015-14	Total/NA	Water	200.8	
MB 280-554239/1-A	Method Blank	Total/NA	Water	200.8	
LCS 280-554239/2-A	Lab Control Sample	Total/NA	Water	200.8	
280-154367-1 MS	VLF-211017-35	Total/NA	Water	200.8	
280-154367-1 MSD	VLF-211017-35	Total/NA	Water	200.8	
280-154378-15 MS	VLF-211015-14	Total/NA	Water	200.8	
280-154378-15 MSD	VLF-211015-14	Total/NA	Water	200.8	

Prep Batch: 554241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-16	VLF-211015-15	Total/NA	Water	200.8	
280-154378-17	VLF-211015-16	Total/NA	Water	200.8	
280-154378-22	VLF-211015-21	Total/NA	Water	200.8	
280-154378-24	VLF-211015-23	Total/NA	Water	200.8	
280-154378-25	VLF-211016-24	Total/NA	Water	200.8	
280-154378-26	VLF-211016-25	Total/NA	Water	200.8	
280-154378-27	VLF-211016-26	Total/NA	Water	200.8	
280-154378-28	VLF-211016-27	Total/NA	Water	200.8	
280-154378-29	VLF-211016-28	Total/NA	Water	200.8	
280-154378-30	VLF-211016-29	Total/NA	Water	200.8	
MB 280-554241/1-A	Method Blank	Total/NA	Water	200.8	
LCS 280-554241/2-A	Lab Control Sample	Total/NA	Water	200.8	

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Metals (Continued)

Prep Batch: 554241 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-16 MS	VLf-211015-15	Total/NA	Water	200.8	
280-154378-16 MSD	VLf-211015-15	Total/NA	Water	200.8	
280-154378-30 MS	VLf-211016-29	Total/NA	Water	200.8	
280-154378-30 MSD	VLf-211016-29	Total/NA	Water	200.8	

Prep Batch: 554282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLf-211017-35	Dissolved	Water	3005A	
MB 280-554282/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-554282/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 280-554282/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
280-154346-A-1-B MS	Matrix Spike	Dissolved	Water	3005A	
280-154346-A-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 554286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-1	VLf-211014-1	Dissolved	Water	3005A	
280-154378-2	VLf-211014-2	Dissolved	Water	3005A	
280-154378-3	VLf-211014-3	Dissolved	Water	3005A	
280-154378-4	VLf-211014-4	Dissolved	Water	3005A	
280-154378-5	VLf-211014-5	Dissolved	Water	3005A	
280-154378-6	VLf-211014-6	Dissolved	Water	3005A	
280-154378-7	VLf-211014-7	Dissolved	Water	3005A	
280-154378-8	VLf-211014-8	Dissolved	Water	3005A	
280-154378-9	VLf-211014-9	Dissolved	Water	3005A	
280-154378-10	VLf-211014-10	Dissolved	Water	3005A	
280-154378-11	VLf-211014-11	Dissolved	Water	3005A	
280-154378-12	VLf-211014-12	Dissolved	Water	3005A	
280-154378-13	VLf-211015-13	Dissolved	Water	3005A	
280-154378-15	VLf-211015-14	Dissolved	Water	3005A	
280-154378-16	VLf-211015-15	Dissolved	Water	3005A	
280-154378-17	VLf-211015-16	Dissolved	Water	3005A	
280-154378-18	VLf-211015-17	Dissolved	Water	3005A	
MB 280-554286/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-554286/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-154378-1 MS	VLf-211014-1	Dissolved	Water	3005A	
280-154378-1 MSD	VLf-211014-1	Dissolved	Water	3005A	

Prep Batch: 554288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-19	VLf-211015-18	Dissolved	Water	3005A	
280-154378-20	VLf-211015-19	Dissolved	Water	3005A	
280-154378-21	VLf-211015-20	Dissolved	Water	3005A	
280-154378-22	VLf-211015-21	Dissolved	Water	3005A	
280-154378-23	VLf-211015-22	Dissolved	Water	3005A	
280-154378-24	VLf-211015-23	Dissolved	Water	3005A	
280-154378-25	VLf-211016-24	Dissolved	Water	3005A	
280-154378-26	VLf-211016-25	Dissolved	Water	3005A	
280-154378-27	VLf-211016-26	Dissolved	Water	3005A	
280-154378-28	VLf-211016-27	Dissolved	Water	3005A	
280-154378-29	VLf-211016-28	Dissolved	Water	3005A	

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Metals (Continued)

Prep Batch: 554288 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-30	VLF-211016-29	Dissolved	Water	3005A	
280-154378-31	VLF-211016-30	Dissolved	Water	3005A	
280-154378-32	VLF-211017-31	Dissolved	Water	3005A	
280-154378-33	VLF-211017-32	Dissolved	Water	3005A	
280-154378-34	VLF-211017-33	Dissolved	Water	3005A	
280-154378-35	VLF-211017-34	Dissolved	Water	3005A	
MB 280-554288/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-554288/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-154378-19 MS	VLF-211015-18	Dissolved	Water	3005A	
280-154378-19 MSD	VLF-211015-18	Dissolved	Water	3005A	

Prep Batch: 554291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-18	VLF-211015-17	Total/NA	Water	200.8	
280-154378-20	VLF-211015-19	Total/NA	Water	200.8	
280-154378-21	VLF-211015-20	Total/NA	Water	200.8	
280-154378-23	VLF-211015-22	Total/NA	Water	200.8	
MB 280-554291/1-A	Method Blank	Total/NA	Water	200.8	
LCS 280-554291/2-A	Lab Control Sample	Total/NA	Water	200.8	
280-154414-H-1-B MS	Matrix Spike	Total/NA	Water	200.8	
280-154414-H-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	

Analysis Batch: 554975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-18	VLF-211015-17	Total/NA	Water	200.8	554291
280-154378-20	VLF-211015-19	Total/NA	Water	200.8	554291
280-154378-21	VLF-211015-20	Total/NA	Water	200.8	554291
280-154378-23	VLF-211015-22	Total/NA	Water	200.8	554291
MB 280-554291/1-A	Method Blank	Total/NA	Water	200.8	554291
LCS 280-554291/2-A	Lab Control Sample	Total/NA	Water	200.8	554291
280-154414-H-1-B MS	Matrix Spike	Total/NA	Water	200.8	554291
280-154414-H-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	200.8	554291

Analysis Batch: 555061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLF-211017-35	Dissolved	Water	6010B	554282
MB 280-554282/1-A	Method Blank	Total Recoverable	Water	6010B	554282
LCS 280-554282/2-A	Lab Control Sample	Total Recoverable	Water	6010B	554282
LCSD 280-554282/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	554282
280-154346-A-1-B MS	Matrix Spike	Dissolved	Water	6010B	554282
280-154346-A-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	6010B	554282

Analysis Batch: 555133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLF-211017-35	Dissolved	Water	6010B	554282

Analysis Batch: 555299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-16	VLF-211015-15	Total/NA	Water	200.8	554241
280-154378-17	VLF-211015-16	Total/NA	Water	200.8	554241
280-154378-22	VLF-211015-21	Total/NA	Water	200.8	554241

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Metals (Continued)

Analysis Batch: 555299 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-24	VLf-211015-23	Total/NA	Water	200.8	554241
280-154378-25	VLf-211016-24	Total/NA	Water	200.8	554241
280-154378-26	VLf-211016-25	Total/NA	Water	200.8	554241
280-154378-27	VLf-211016-26	Total/NA	Water	200.8	554241
280-154378-28	VLf-211016-27	Total/NA	Water	200.8	554241
280-154378-29	VLf-211016-28	Total/NA	Water	200.8	554241
280-154378-30	VLf-211016-29	Total/NA	Water	200.8	554241
MB 280-554241/1-A	Method Blank	Total/NA	Water	200.8	554241
LCS 280-554241/2-A	Lab Control Sample	Total/NA	Water	200.8	554241
280-154378-16 MS	VLf-211015-15	Total/NA	Water	200.8	554241
280-154378-16 MSD	VLf-211015-15	Total/NA	Water	200.8	554241
280-154378-30 MS	VLf-211016-29	Total/NA	Water	200.8	554241
280-154378-30 MSD	VLf-211016-29	Total/NA	Water	200.8	554241

Analysis Batch: 555387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-1	VLf-211014-1	Dissolved	Water	6010B	554286
280-154378-2	VLf-211014-2	Dissolved	Water	6010B	554286
280-154378-3	VLf-211014-3	Dissolved	Water	6010B	554286
280-154378-4	VLf-211014-4	Dissolved	Water	6010B	554286
280-154378-5	VLf-211014-5	Dissolved	Water	6010B	554286
280-154378-6	VLf-211014-6	Dissolved	Water	6010B	554286
280-154378-7	VLf-211014-7	Dissolved	Water	6010B	554286
280-154378-8	VLf-211014-8	Dissolved	Water	6010B	554286
280-154378-9	VLf-211014-9	Dissolved	Water	6010B	554286
280-154378-10	VLf-211014-10	Dissolved	Water	6010B	554286
280-154378-11	VLf-211014-11	Dissolved	Water	6010B	554286
280-154378-12	VLf-211014-12	Dissolved	Water	6010B	554286
280-154378-13	VLf-211015-13	Dissolved	Water	6010B	554286
280-154378-15	VLf-211015-14	Dissolved	Water	6010B	554286
280-154378-16	VLf-211015-15	Dissolved	Water	6010B	554286
280-154378-17	VLf-211015-16	Dissolved	Water	6010B	554286
280-154378-18	VLf-211015-17	Dissolved	Water	6010B	554286
MB 280-554286/1-A	Method Blank	Total Recoverable	Water	6010B	554286
LCS 280-554286/2-A	Lab Control Sample	Total Recoverable	Water	6010B	554286
280-154378-1 MS	VLf-211014-1	Dissolved	Water	6010B	554286
280-154378-1 MSD	VLf-211014-1	Dissolved	Water	6010B	554286

Analysis Batch: 555529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-19	VLf-211015-18	Dissolved	Water	6010B	554288
280-154378-20	VLf-211015-19	Dissolved	Water	6010B	554288
280-154378-21	VLf-211015-20	Dissolved	Water	6010B	554288
280-154378-22	VLf-211015-21	Dissolved	Water	6010B	554288
280-154378-23	VLf-211015-22	Dissolved	Water	6010B	554288
280-154378-24	VLf-211015-23	Dissolved	Water	6010B	554288
280-154378-25	VLf-211016-24	Dissolved	Water	6010B	554288
280-154378-26	VLf-211016-25	Dissolved	Water	6010B	554288
280-154378-27	VLf-211016-26	Dissolved	Water	6010B	554288
280-154378-28	VLf-211016-27	Dissolved	Water	6010B	554288
280-154378-29	VLf-211016-28	Dissolved	Water	6010B	554288

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Metals (Continued)

Analysis Batch: 555529 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-30	VLf-211016-29	Dissolved	Water	6010B	554288
280-154378-31	VLf-211016-30	Dissolved	Water	6010B	554288
280-154378-32	VLf-211017-31	Dissolved	Water	6010B	554288
280-154378-33	VLf-211017-32	Dissolved	Water	6010B	554288
280-154378-34	VLf-211017-33	Dissolved	Water	6010B	554288
280-154378-35	VLf-211017-34	Dissolved	Water	6010B	554288
MB 280-554288/1-A	Method Blank	Total Recoverable	Water	6010B	554288
LCS 280-554288/2-A	Lab Control Sample	Total Recoverable	Water	6010B	554288
280-154378-19 MS	VLf-211015-18	Dissolved	Water	6010B	554288
280-154378-19 MSD	VLf-211015-18	Dissolved	Water	6010B	554288

Analysis Batch: 555604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLf-211017-35	Total/NA	Water	200.8	554239
280-154378-1	VLf-211014-1	Total/NA	Water	200.8	554239
280-154378-2	VLf-211014-2	Total/NA	Water	200.8	554239
280-154378-3	VLf-211014-3	Total/NA	Water	200.8	554239
280-154378-4	VLf-211014-4	Total/NA	Water	200.8	554239
280-154378-5	VLf-211014-5	Total/NA	Water	200.8	554239
280-154378-6	VLf-211014-6	Total/NA	Water	200.8	554239
280-154378-7	VLf-211014-7	Total/NA	Water	200.8	554239
280-154378-8	VLf-211014-8	Total/NA	Water	200.8	554239
280-154378-9	VLf-211014-9	Total/NA	Water	200.8	554239
280-154378-10	VLf-211014-10	Total/NA	Water	200.8	554239
280-154378-11	VLf-211014-11	Total/NA	Water	200.8	554239
280-154378-12	VLf-211014-12	Total/NA	Water	200.8	554239
280-154378-13	VLf-211015-13	Total/NA	Water	200.8	554239
280-154378-15	VLf-211015-14	Total/NA	Water	200.8	554239
MB 280-554239/1-A	Method Blank	Total/NA	Water	200.8	554239
LCS 280-554239/2-A	Lab Control Sample	Total/NA	Water	200.8	554239
280-154367-1 MS	VLf-211017-35	Total/NA	Water	200.8	554239
280-154367-1 MSD	VLf-211017-35	Total/NA	Water	200.8	554239
280-154378-15 MS	VLf-211015-14	Total/NA	Water	200.8	554239
280-154378-15 MSD	VLf-211015-14	Total/NA	Water	200.8	554239

General Chemistry

Analysis Batch: 554159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLf-211017-35	Total/NA	Water	SM5210B	
280-154378-32	VLf-211017-31	Total/NA	Water	SM5210B	
280-154378-33	VLf-211017-32	Total/NA	Water	SM5210B	
280-154378-34	VLf-211017-33	Total/NA	Water	SM5210B	
280-154378-35	VLf-211017-34	Total/NA	Water	SM5210B	
MB 280-554159/4	Method Blank	Total/NA	Water	SM5210B	
SCB 280-554159/1	Method Blank	Total/NA	Water	SM5210B	
USB 280-554159/2	Method Blank	Total/NA	Water	SM5210B	
LCS 280-554159/3	Lab Control Sample	Total/NA	Water	SM5210B	
280-154367-1 DU	VLf-211017-35	Total/NA	Water	SM5210B	

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry

Analysis Batch: 554176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-32	VLf-211017-31	Total/NA	Water	365.1	
280-154378-33	VLf-211017-32	Total/NA	Water	365.1	
280-154378-34	VLf-211017-33	Total/NA	Water	365.1	
280-154378-35	VLf-211017-34	Total/NA	Water	365.1	
MB 280-554176/11	Method Blank	Total/NA	Water	365.1	
LCS 280-554176/9	Lab Control Sample	Total/NA	Water	365.1	
LCSD 280-554176/10	Lab Control Sample Dup	Total/NA	Water	365.1	
280-154378-35 MS	VLf-211017-34	Total/NA	Water	365.1	
280-154378-35 MSD	VLf-211017-34	Total/NA	Water	365.1	

Analysis Batch: 554253

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-1	VLf-211014-1	Total/NA	Water	SM 2540C	
280-154378-2	VLf-211014-2	Total/NA	Water	SM 2540C	
280-154378-3	VLf-211014-3	Total/NA	Water	SM 2540C	
280-154378-4	VLf-211014-4	Total/NA	Water	SM 2540C	
280-154378-5	VLf-211014-5	Total/NA	Water	SM 2540C	
280-154378-6	VLf-211014-6	Total/NA	Water	SM 2540C	
280-154378-7	VLf-211014-7	Total/NA	Water	SM 2540C	
280-154378-8	VLf-211014-8	Total/NA	Water	SM 2540C	
280-154378-13	VLf-211015-13	Total/NA	Water	SM 2540C	
280-154378-15	VLf-211015-14	Total/NA	Water	SM 2540C	
280-154378-16	VLf-211015-15	Total/NA	Water	SM 2540C	
280-154378-17	VLf-211015-16	Total/NA	Water	SM 2540C	
280-154378-18	VLf-211015-17	Total/NA	Water	SM 2540C	
280-154378-19	VLf-211015-18	Total/NA	Water	SM 2540C	
280-154378-22	VLf-211015-21	Total/NA	Water	SM 2540C	
MB 280-554253/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-554253/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-554253/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
280-154295-F-5 MS	Matrix Spike	Total/NA	Water	SM 2540C	
280-154378-3 DU	VLf-211014-3	Total/NA	Water	SM 2540C	
280-154378-22 DU	VLf-211015-21	Total/NA	Water	SM 2540C	

Analysis Batch: 554254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-20	VLf-211015-19	Total/NA	Water	SM 2540C	
280-154378-21	VLf-211015-20	Total/NA	Water	SM 2540C	
280-154378-23	VLf-211015-22	Total/NA	Water	SM 2540C	
280-154378-24	VLf-211015-23	Total/NA	Water	SM 2540C	
280-154378-25	VLf-211016-24	Total/NA	Water	SM 2540C	
280-154378-26	VLf-211016-25	Total/NA	Water	SM 2540C	
280-154378-27	VLf-211016-26	Total/NA	Water	SM 2540C	
280-154378-28	VLf-211016-27	Total/NA	Water	SM 2540C	
280-154378-29	VLf-211016-28	Total/NA	Water	SM 2540C	
280-154378-30	VLf-211016-29	Total/NA	Water	SM 2540C	
280-154378-31	VLf-211016-30	Total/NA	Water	SM 2540C	
MB 280-554254/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-554254/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-154378-23 DU	VLf-211015-22	Total/NA	Water	SM 2540C	

QC Association Summary

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry

Analysis Batch: 554256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLf-211017-35	Total/NA	Water	SM 2540C	
280-154378-9	VLf-211014-9	Total/NA	Water	SM 2540C	
280-154378-10	VLf-211014-10	Total/NA	Water	SM 2540C	
280-154378-11	VLf-211014-11	Total/NA	Water	SM 2540C	
280-154378-12	VLf-211014-12	Total/NA	Water	SM 2540C	
MB 280-554256/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-554256/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-154378-11 DU	VLf-211014-11	Total/NA	Water	SM 2540C	
280-154378-12 DU	VLf-211014-12	Total/NA	Water	SM 2540C	

Analysis Batch: 554281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-1	VLf-211014-1	Total/NA	Water	SM 2540D	
280-154378-2	VLf-211014-2	Total/NA	Water	SM 2540D	
280-154378-3	VLf-211014-3	Total/NA	Water	SM 2540D	
280-154378-4	VLf-211014-4	Total/NA	Water	SM 2540D	
280-154378-5	VLf-211014-5	Total/NA	Water	SM 2540D	
280-154378-6	VLf-211014-6	Total/NA	Water	SM 2540D	
280-154378-7	VLf-211014-7	Total/NA	Water	SM 2540D	
280-154378-8	VLf-211014-8	Total/NA	Water	SM 2540D	
280-154378-9	VLf-211014-9	Total/NA	Water	SM 2540D	
280-154378-10	VLf-211014-10	Total/NA	Water	SM 2540D	
280-154378-11	VLf-211014-11	Total/NA	Water	SM 2540D	
280-154378-12	VLf-211014-12	Total/NA	Water	SM 2540D	
280-154378-13	VLf-211015-13	Total/NA	Water	SM 2540D	
280-154378-15	VLf-211015-14	Total/NA	Water	SM 2540D	
280-154378-16	VLf-211015-15	Total/NA	Water	SM 2540D	
280-154378-17	VLf-211015-16	Total/NA	Water	SM 2540D	
280-154378-18	VLf-211015-17	Total/NA	Water	SM 2540D	
280-154378-20	VLf-211015-19	Total/NA	Water	SM 2540D	
280-154378-21	VLf-211015-20	Total/NA	Water	SM 2540D	
280-154378-22	VLf-211015-21	Total/NA	Water	SM 2540D	
MB 280-554281/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-554281/2	Lab Control Sample	Total/NA	Water	SM 2540D	
280-154378-1 DU	VLf-211014-1	Total/NA	Water	SM 2540D	
280-154378-22 DU	VLf-211015-21	Total/NA	Water	SM 2540D	

Analysis Batch: 554493

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLf-211017-35	Total/NA	Water	SM 2540D	
280-154378-23	VLf-211015-22	Total/NA	Water	SM 2540D	
280-154378-24	VLf-211015-23	Total/NA	Water	SM 2540D	
280-154378-25	VLf-211016-24	Total/NA	Water	SM 2540D	
280-154378-26	VLf-211016-25	Total/NA	Water	SM 2540D	
280-154378-27	VLf-211016-26	Total/NA	Water	SM 2540D	
280-154378-28	VLf-211016-27	Total/NA	Water	SM 2540D	
280-154378-29	VLf-211016-28	Total/NA	Water	SM 2540D	
280-154378-30	VLf-211016-29	Total/NA	Water	SM 2540D	
MB 280-554493/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-554493/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-554493/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry (Continued)

Analysis Batch: 554493 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154295-E-1 DU	Duplicate	Total/NA	Water	SM 2540D	
280-154378-30 DU	VLF-211016-29	Total/NA	Water	SM 2540D	

Analysis Batch: 554822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLF-211017-35	Total/NA	Water	SM 5310B	
MB 280-554822/5	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-554822/3	Lab Control Sample	Total/NA	Water	SM 5310B	
LCSD 280-554822/4	Lab Control Sample Dup	Total/NA	Water	SM 5310B	
280-154352-C-3 MS	Matrix Spike	Total/NA	Water	SM 5310B	
280-154352-C-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	

Analysis Batch: 554946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-1	VLF-211014-1	Total/NA	Water	SM 2320B	
280-154378-2	VLF-211014-2	Total/NA	Water	SM 2320B	
280-154378-3	VLF-211014-3	Total/NA	Water	SM 2320B	
280-154378-4	VLF-211014-4	Total/NA	Water	SM 2320B	
280-154378-5	VLF-211014-5	Total/NA	Water	SM 2320B	
280-154378-6	VLF-211014-6	Total/NA	Water	SM 2320B	
280-154378-7	VLF-211014-7	Total/NA	Water	SM 2320B	
280-154378-8	VLF-211014-8	Total/NA	Water	SM 2320B	
280-154378-9	VLF-211014-9	Total/NA	Water	SM 2320B	
280-154378-10	VLF-211014-10	Total/NA	Water	SM 2320B	
280-154378-11	VLF-211014-11	Total/NA	Water	SM 2320B	
280-154378-12	VLF-211014-12	Total/NA	Water	SM 2320B	
280-154378-13	VLF-211015-13	Total/NA	Water	SM 2320B	
280-154378-15	VLF-211015-14	Total/NA	Water	SM 2320B	
280-154378-16	VLF-211015-15	Total/NA	Water	SM 2320B	
280-154378-17	VLF-211015-16	Total/NA	Water	SM 2320B	
280-154378-18	VLF-211015-17	Total/NA	Water	SM 2320B	
280-154378-20	VLF-211015-19	Total/NA	Water	SM 2320B	
280-154378-21	VLF-211015-20	Total/NA	Water	SM 2320B	
280-154378-22	VLF-211015-21	Total/NA	Water	SM 2320B	
280-154378-23	VLF-211015-22	Total/NA	Water	SM 2320B	
280-154378-24	VLF-211015-23	Total/NA	Water	SM 2320B	
280-154378-25	VLF-211016-24	Total/NA	Water	SM 2320B	
280-154378-26	VLF-211016-25	Total/NA	Water	SM 2320B	
280-154378-27	VLF-211016-26	Total/NA	Water	SM 2320B	
280-154378-28	VLF-211016-27	Total/NA	Water	SM 2320B	
280-154378-29	VLF-211016-28	Total/NA	Water	SM 2320B	
280-154378-30	VLF-211016-29	Total/NA	Water	SM 2320B	
280-154378-31	VLF-211016-30	Total/NA	Water	SM 2320B	
MB 280-554946/33	Method Blank	Total/NA	Water	SM 2320B	
MB 280-554946/59	Method Blank	Total/NA	Water	SM 2320B	
MB 280-554946/6	Method Blank	Total/NA	Water	SM 2320B	
MB 280-554946/85	Method Blank	Total/NA	Water	SM 2320B	

Prep Batch: 555215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-32	VLF-211017-31	Total/NA	Water	351.2	

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry (Continued)

Prep Batch: 555215 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-33	VLf-211017-32	Total/NA	Water	351.2	
280-154378-34	VLf-211017-33	Total/NA	Water	351.2	
280-154378-35	VLf-211017-34	Total/NA	Water	351.2	
MB 280-555215/2-A	Method Blank	Total/NA	Water	351.2	
LCS 280-555215/1-A	Lab Control Sample	Total/NA	Water	351.2	
280-154378-32 MS	VLf-211017-31	Total/NA	Water	351.2	
280-154378-32 MSD	VLf-211017-31	Total/NA	Water	351.2	

Analysis Batch: 555282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLf-211017-35	Total/NA	Water	SM 2540D	
280-154378-23	VLf-211015-22	Total/NA	Water	SM 2540D	
280-154378-24	VLf-211015-23	Total/NA	Water	SM 2540D	
280-154378-25	VLf-211016-24	Total/NA	Water	SM 2540D	
280-154378-26	VLf-211016-25	Total/NA	Water	SM 2540D	
280-154378-27	VLf-211016-26	Total/NA	Water	SM 2540D	
280-154378-28	VLf-211016-27	Total/NA	Water	SM 2540D	
280-154378-29	VLf-211016-28	Total/NA	Water	SM 2540D	
280-154378-30	VLf-211016-29	Total/NA	Water	SM 2540D	
MB 280-555282/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 280-555282/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 280-555282/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	
280-154734-C-2 DU	Duplicate	Total/NA	Water	SM 2540D	

Analysis Batch: 555384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-32	VLf-211017-31	Total/NA	Water	351.2	555215
280-154378-33	VLf-211017-32	Total/NA	Water	351.2	555215
280-154378-34	VLf-211017-33	Total/NA	Water	351.2	555215
280-154378-35	VLf-211017-34	Total/NA	Water	351.2	555215
MB 280-555215/2-A	Method Blank	Total/NA	Water	351.2	555215
LCS 280-555215/1-A	Lab Control Sample	Total/NA	Water	351.2	555215
280-154378-32 MS	VLf-211017-31	Total/NA	Water	351.2	555215
280-154378-32 MSD	VLf-211017-31	Total/NA	Water	351.2	555215

Analysis Batch: 555388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLf-211017-35	Total/NA	Water	353.2	
MB 280-555388/61	Method Blank	Total/NA	Water	353.2	
LCS 280-555388/60	Lab Control Sample	Total/NA	Water	353.2	
680-206266-G-2 MS	Matrix Spike	Total/NA	Water	353.2	
680-206266-G-2 MSD	Matrix Spike Duplicate	Total/NA	Water	353.2	

Prep Batch: 555398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-32	VLf-211017-31	Total/NA	Water	365.2/365.3/365	
280-154378-33	VLf-211017-32	Total/NA	Water	365.2/365.3/365	
280-154378-34	VLf-211017-33	Total/NA	Water	365.2/365.3/365	
280-154378-35	VLf-211017-34	Total/NA	Water	365.2/365.3/365	
MB 280-555398/5-A	Method Blank	Total/NA	Water	365.2/365.3/365	
LCS 280-555398/3-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	

Eurofins TestAmerica, Denver

QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry (Continued)

Prep Batch: 555398 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 280-555398/4-A	Lab Control Sample Dup	Total/NA	Water	365.2/365.3/365	
280-154544-G-1-B MS	Matrix Spike	Total/NA	Water	365.2/365.3/365	
280-154544-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	365.2/365.3/365	

Analysis Batch: 555457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-19	VLF-211015-18	Total/NA	Water	SM 2320B	
MB 280-555457/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-555457/4	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 555539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-32	VLF-211017-31	Total/NA	Water	365.1	555398
280-154378-33	VLF-211017-32	Total/NA	Water	365.1	555398
280-154378-34	VLF-211017-33	Total/NA	Water	365.1	555398
280-154378-35	VLF-211017-34	Total/NA	Water	365.1	555398
MB 280-555398/5-A	Method Blank	Total/NA	Water	365.1	555398
LCS 280-555398/3-A	Lab Control Sample	Total/NA	Water	365.1	555398
LCSD 280-555398/4-A	Lab Control Sample Dup	Total/NA	Water	365.1	555398
280-154544-G-1-B MS	Matrix Spike	Total/NA	Water	365.1	555398
280-154544-G-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	365.1	555398

Analysis Batch: 555842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLF-211017-35	Total/NA	Water	SM 2320B	
MB 280-555842/87	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-555842/85	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 280-555842/86	Lab Control Sample Dup	Total/NA	Water	SM 2320B	

Analysis Batch: 556077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLF-211017-35	Total/NA	Water	350.1	
MB 280-556077/20	Method Blank	Total/NA	Water	350.1	
MB 280-556077/59	Method Blank	Total/NA	Water	350.1	
LCS 280-556077/57	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-556077/58	Lab Control Sample Dup	Total/NA	Water	350.1	
280-154689-D-5 MS	Matrix Spike	Total/NA	Water	350.1	
280-154689-D-5 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	

Analysis Batch: 556143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-1	VLF-211014-1	Total/NA	Water	300.0	
280-154378-2	VLF-211014-2	Total/NA	Water	300.0	
280-154378-3	VLF-211014-3	Total/NA	Water	300.0	
280-154378-4	VLF-211014-4	Total/NA	Water	300.0	
280-154378-5	VLF-211014-5	Total/NA	Water	300.0	
280-154378-6	VLF-211014-6	Total/NA	Water	300.0	
280-154378-7	VLF-211014-7	Total/NA	Water	300.0	
280-154378-8	VLF-211014-8	Total/NA	Water	300.0	
280-154378-9	VLF-211014-9	Total/NA	Water	300.0	
280-154378-10	VLF-211014-10	Total/NA	Water	300.0	

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry (Continued)

Analysis Batch: 556143 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154378-11	VLf-211014-11	Total/NA	Water	300.0	
280-154378-12	VLf-211014-12	Total/NA	Water	300.0	
280-154378-13	VLf-211015-13	Total/NA	Water	300.0	
280-154378-15	VLf-211015-14	Total/NA	Water	300.0	
280-154378-16	VLf-211015-15	Total/NA	Water	300.0	
280-154378-17	VLf-211015-16	Total/NA	Water	300.0	
280-154378-18	VLf-211015-17	Total/NA	Water	300.0	
280-154378-19	VLf-211015-18	Total/NA	Water	300.0	
280-154378-20	VLf-211015-19	Total/NA	Water	300.0	
280-154378-21	VLf-211015-20	Total/NA	Water	300.0	
280-154378-22	VLf-211015-21	Total/NA	Water	300.0	
280-154378-23	VLf-211015-22	Total/NA	Water	300.0	
280-154378-24	VLf-211015-23	Total/NA	Water	300.0	
280-154378-25	VLf-211016-24	Total/NA	Water	300.0	
280-154378-26	VLf-211016-25	Total/NA	Water	300.0	
280-154378-27	VLf-211016-26	Total/NA	Water	300.0	
280-154378-28	VLf-211016-27	Total/NA	Water	300.0	
280-154378-29	VLf-211016-28	Total/NA	Water	300.0	
280-154378-30	VLf-211016-29	Total/NA	Water	300.0	
280-154378-31	VLf-211016-30	Total/NA	Water	300.0	
280-154378-32	VLf-211017-31	Total/NA	Water	300.0	
280-154378-33	VLf-211017-32	Total/NA	Water	300.0	
280-154378-34	VLf-211017-33	Total/NA	Water	300.0	
280-154378-35	VLf-211017-34	Total/NA	Water	300.0	
MB 280-556143/103	Method Blank	Total/NA	Water	300.0	
MB 280-556143/134	Method Blank	Total/NA	Water	300.0	
MB 280-556143/62	Method Blank	Total/NA	Water	300.0	
LCS 280-556143/132	Lab Control Sample	Total/NA	Water	300.0	
LCS 280-556143/60	Lab Control Sample	Total/NA	Water	300.0	
LCS 280-556143/99	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-556143/102	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 280-556143/133	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 280-556143/61	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-556143/3	Lab Control Sample	Total/NA	Water	300.0	
280-154378-1 MS	VLf-211014-1	Total/NA	Water	300.0	
280-154378-1 MSD	VLf-211014-1	Total/NA	Water	300.0	
280-154378-7 MS	VLf-211014-7	Total/NA	Water	300.0	
280-154378-7 MSD	VLf-211014-7	Total/NA	Water	300.0	
280-154378-22 MS	VLf-211015-21	Total/NA	Water	300.0	
280-154378-22 MSD	VLf-211015-21	Total/NA	Water	300.0	
280-154378-1 DU	VLf-211014-1	Total/NA	Water	300.0	
280-154378-7 DU	VLf-211014-7	Total/NA	Water	300.0	
280-154378-22 DU	VLf-211015-21	Total/NA	Water	300.0	

Analysis Batch: 556326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLf-211017-35	Total/NA	Water	410.4	
MB 280-556326/5	Method Blank	Total/NA	Water	410.4	
LCS 280-556326/3	Lab Control Sample	Total/NA	Water	410.4	
LCSD 280-556326/4	Lab Control Sample Dup	Total/NA	Water	410.4	
680-206405-D-1 MS	Matrix Spike	Total/NA	Water	410.4	

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QC Association Summary

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

General Chemistry (Continued)

Analysis Batch: 556326 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-206405-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	410.4	
280-154448-A-9 DU	Duplicate	Total/NA	Water	410.4	

Analysis Batch: 556443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLF-211017-35	Total/NA	Water	300.0	
MB 280-556443/6	Method Blank	Total/NA	Water	300.0	
LCS 280-556443/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-556443/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-556443/3	Lab Control Sample	Total/NA	Water	300.0	
280-154496-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
280-154496-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-154496-A-1 DU	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 556620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-154367-1	VLF-211017-35	Total/NA	Water	300.0	
MB 280-556620/6	Method Blank	Total/NA	Water	300.0	
LCS 280-556620/4	Lab Control Sample	Total/NA	Water	300.0	
LCSD 280-556620/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-556620/3	Lab Control Sample	Total/NA	Water	300.0	
280-154719-B-13 MS	Matrix Spike	Total/NA	Water	300.0	
280-154719-B-13 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
280-154719-B-13 DU	Duplicate	Total/NA	Water	300.0	

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211017-35

Lab Sample ID: 280-154367-1

Date Collected: 10/18/21 09:45

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	554747	10/23/21 22:03	AJP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:00	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554282	10/26/21 07:00	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555061	10/26/21 16:17	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554282	10/26/21 07:00	PNS	TAL DEN
Dissolved	Analysis	6010B		10			555133	10/27/21 05:42	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556443	11/06/21 22:00	SPG	TAL DEN
Total/NA	Analysis	300.0		50	10 mL	10 mL	556620	11/08/21 15:25	SPG	TAL DEN
Total/NA	Analysis	350.1		300	10 mL	10 mL	556077	11/03/21 15:17	MMP	TAL DEN
Total/NA	Analysis	353.2		1	100 mL	100 mL	555388	10/28/21 18:35	SVC	TAL DEN
Total/NA	Analysis	410.4		50	2 mL	2 mL	556326	11/05/21 10:16	RKD	TAL DEN
Total/NA	Analysis	SM 2320B		1			555842	10/30/21 00:22	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	554256	10/20/21 10:05	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	220 mL	250 mL	554493	10/21/21 12:33	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	220 mL	250 mL	555282	10/28/21 10:44	LRB	TAL DEN
Total/NA	Analysis	SM 5310B		50	20 mL	20 mL	554822	10/22/21 22:21	RAF	TAL DEN
Total/NA	Analysis	SM5210B		10	25 mL	300 mL	554159	10/19/21 13:38	SJD	TAL DEN

Client Sample ID: VLF-211014-1

Lab Sample ID: 280-154378-1

Date Collected: 10/14/21 10:30

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/21/21 23:34	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:11	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 11:01	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 06:08	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 01:57	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211014-2

Lab Sample ID: 280-154378-2

Date Collected: 10/14/21 11:10

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/21/21 23:56	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:14	LMT	TAL DEN

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Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211014-2

Lab Sample ID: 280-154378-2

Date Collected: 10/14/21 11:10

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 11:15	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 07:08	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 02:11	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211014-3

Lab Sample ID: 280-154378-3

Date Collected: 10/14/21 12:20

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 00:18	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:18	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 11:18	LRD	TAL DEN
Total/NA	Analysis	300.0		5	10 mL	10 mL	556143	11/05/21 07:38	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 02:16	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211014-4

Lab Sample ID: 280-154378-4

Date Collected: 10/14/21 12:45

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 00:39	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:21	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 11:22	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 07:53	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 02:22	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211014-5

Lab Sample ID: 280-154378-5

Date Collected: 10/14/21 12:50

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 01:01	PP	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211014-5

Lab Sample ID: 280-154378-5

Date Collected: 10/14/21 12:50

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:32	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 11:38	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 08:08	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 00:55	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211014-6

Lab Sample ID: 280-154378-6

Date Collected: 10/14/21 13:35

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 01:22	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:36	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 11:42	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 08:23	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 01:01	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211014-7

Lab Sample ID: 280-154378-7

Date Collected: 10/14/21 14:15

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 01:44	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:39	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 11:45	LRD	TAL DEN
Total/NA	Analysis	300.0		5	10 mL	10 mL	556143	11/05/21 09:08	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 01:11	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211014-8

Lab Sample ID: 280-154378-8

Date Collected: 10/14/21 14:20

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 02:05	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:43	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 11:48	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 10:08	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 01:20	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211014-9

Lab Sample ID: 280-154378-9

Date Collected: 10/14/21 15:45

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 02:27	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:46	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 11:52	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 10:23	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/23/21 22:47	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554256	10/20/21 10:05	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211014-10

Lab Sample ID: 280-154378-10

Date Collected: 10/14/21 15:50

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 02:48	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:50	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 11:55	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 10:38	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 00:49	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554256	10/20/21 10:05	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211014-11

Lab Sample ID: 280-154378-11

Date Collected: 10/14/21 16:40

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 03:10	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:53	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 12:12	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 10:53	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/23/21 23:23	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554256	10/20/21 10:05	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211014-12

Lab Sample ID: 280-154378-12

Date Collected: 10/14/21 17:25

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 03:32	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 17:57	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 12:15	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 11:08	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/23/21 23:17	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554256	10/20/21 10:05	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211015-13

Lab Sample ID: 280-154378-13

Date Collected: 10/15/21 07:35

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 03:53	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 18:01	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 12:19	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 12:38	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/23/21 23:11	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211015-FB

Lab Sample ID: 280-154378-14

Date Collected: 10/15/21 08:00

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 04:15	PP	TAL DEN

Client Sample ID: VLF-211015-14

Lab Sample ID: 280-154378-15

Date Collected: 10/15/21 08:20

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 04:36	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554239	10/28/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555604	10/29/21 18:11	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 12:22	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 12:53	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/23/21 23:04	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211015-15

Lab Sample ID: 280-154378-16

Date Collected: 10/15/21 09:05

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 04:58	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554241	10/27/21 07:53	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555299	10/27/21 21:01	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 12:25	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 13:08	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/23/21 23:29	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211015-16

Lab Sample ID: 280-154378-17

Date Collected: 10/15/21 09:10

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 05:20	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554241	10/27/21 07:53	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555299	10/27/21 21:12	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 12:29	LRD	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 13:23	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/23/21 23:35	ECC	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211015-16

Lab Sample ID: 280-154378-17

Date Collected: 10/15/21 09:10

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211015-17

Lab Sample ID: 280-154378-18

Date Collected: 10/15/21 09:36

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 05:41	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554291	10/22/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			554975	10/25/21 15:40	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554286	10/27/21 07:53	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555387	10/28/21 12:32	LRD	TAL DEN
Total/NA	Analysis	300.0		10	10 mL	10 mL	556143	11/05/21 13:38	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 00:01	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211015-18

Lab Sample ID: 280-154378-19

Date Collected: 10/15/21 10:00

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 06:33	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 13:53	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			555457	10/28/21 16:49	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN

Client Sample ID: VLF-211015-19

Lab Sample ID: 280-154378-20

Date Collected: 10/15/21 10:25

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 06:03	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554291	10/22/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			554975	10/25/21 15:44	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 06:47	LMT	TAL DEN
Total/NA	Analysis	300.0		20	10 mL	10 mL	556143	11/05/21 14:23	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 00:22	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211015-20

Lab Sample ID: 280-154378-21

Date Collected: 10/15/21 10:50

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554539	10/22/21 06:24	PP	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554291	10/22/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			554975	10/25/21 15:47	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 06:52	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 15:08	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 00:30	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211015-21

Lab Sample ID: 280-154378-22

Date Collected: 10/15/21 11:45

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554789	10/25/21 03:59	GO	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554241	10/27/21 07:53	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555299	10/27/21 21:33	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:09	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 15:23	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 00:37	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554253	10/20/21 10:01	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554281	10/20/21 11:11	LRB	TAL DEN

Client Sample ID: VLF-211015-22

Lab Sample ID: 280-154378-23

Date Collected: 10/15/21 12:30

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554789	10/25/21 04:20	GO	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554291	10/22/21 07:50	PNS	TAL DEN
Total/NA	Analysis	200.8		1			554975	10/25/21 15:51	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:13	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 16:24	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 03:38	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554493	10/21/21 12:33	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	555282	10/28/21 10:44	LRB	TAL DEN

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211015-23

Lab Sample ID: 280-154378-24

Date Collected: 10/15/21 15:30

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	524.2		1	25 mL	25 mL	659524	10/26/21 14:06	N5PD	TAL IRV
Total/NA	Prep	200.8			50 mL	50 mL	554241	10/27/21 07:53	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555299	10/27/21 21:41	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:16	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 16:39	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 03:44	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554493	10/21/21 12:33	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	555282	10/28/21 10:44	LRB	TAL DEN

Client Sample ID: VLF-211016-24

Lab Sample ID: 280-154378-25

Date Collected: 10/16/21 08:00

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554811	10/25/21 16:50	JLS	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554241	10/27/21 07:53	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555299	10/27/21 21:44	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:20	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 16:54	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 03:54	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554493	10/21/21 12:33	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	555282	10/28/21 10:44	LRB	TAL DEN

Client Sample ID: VLF-211016-25

Lab Sample ID: 280-154378-26

Date Collected: 10/16/21 08:40

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554811	10/25/21 17:11	JLS	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554241	10/27/21 07:53	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555299	10/27/21 21:48	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:24	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 17:09	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 04:55	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	50 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554493	10/21/21 12:33	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	555282	10/28/21 10:44	LRB	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211016-26

Lab Sample ID: 280-154378-27

Date Collected: 10/16/21 09:15

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554811	10/25/21 17:33	JLS	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554241	10/27/21 07:53	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555299	10/27/21 21:51	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:27	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 17:24	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/23/21 22:35	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554493	10/21/21 12:33	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	555282	10/28/21 10:44	LRB	TAL DEN

Client Sample ID: VLF-211016-27

Lab Sample ID: 280-154378-28

Date Collected: 10/16/21 10:05

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554811	10/25/21 17:54	JLS	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554241	10/27/21 07:53	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555299	10/27/21 21:55	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:31	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 18:08	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 03:25	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554493	10/21/21 12:33	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	555282	10/28/21 10:44	LRB	TAL DEN

Client Sample ID: VLF-211016-28

Lab Sample ID: 280-154378-29

Date Collected: 10/16/21 10:35

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554789	10/25/21 04:42	GO	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554241	10/27/21 07:53	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555299	10/27/21 22:06	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:48	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 18:23	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 03:17	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554493	10/21/21 12:33	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	555282	10/28/21 10:44	LRB	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211016-29

Lab Sample ID: 280-154378-30

Date Collected: 10/16/21 11:15

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554789	10/25/21 05:04	GO	TAL DEN
Total/NA	Prep	200.8			50 mL	50 mL	554241	10/27/21 07:53	PNS	TAL DEN
Total/NA	Analysis	200.8		1			555299	10/27/21 22:09	LMT	TAL DEN
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:52	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 18:38	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 03:11	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	554493	10/21/21 12:33	ABW	TAL DEN
Total/NA	Analysis	SM 2540D		1	250 mL	250 mL	555282	10/28/21 10:44	LRB	TAL DEN

Client Sample ID: VLF-211016-30

Lab Sample ID: 280-154378-31

Date Collected: 10/16/21 11:30

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:55	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 18:53	SPG	TAL DEN
Total/NA	Analysis	SM 2320B		1			554946	10/24/21 02:50	ECC	TAL DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	554254	10/20/21 10:03	ABW	TAL DEN

Client Sample ID: VLF-211017-31

Lab Sample ID: 280-154378-32

Date Collected: 10/17/21 12:45

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 07:59	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 19:08	SPG	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	555215	10/27/21 18:13	SVC	TAL DEN
Total/NA	Analysis	351.2		1			555384	10/28/21 18:44	SVC	TAL DEN
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	555398	10/29/21 06:18	MRU	TAL DEN
Total/NA	Analysis	365.1		1			555539	10/29/21 14:07	MMP	TAL DEN
Total/NA	Analysis	365.1		1	2 mL	2 mL	554176	10/19/21 15:25	SPG	TAL DEN
Total/NA	Analysis	SM5210B		1	120 mL	300 mL	554159	10/19/21 13:38	SJD	TAL DEN

Client Sample ID: VLF-211017-32

Lab Sample ID: 280-154378-33

Date Collected: 10/17/21 13:30

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 08:02	LMT	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
 Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Client Sample ID: VLF-211017-32

Lab Sample ID: 280-154378-33

Date Collected: 10/17/21 13:30

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 19:23	SPG	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	555215	10/27/21 18:13	SVC	TAL DEN
Total/NA	Analysis	351.2		1			555384	10/28/21 18:45	SVC	TAL DEN
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	555398	10/29/21 06:18	MRU	TAL DEN
Total/NA	Analysis	365.1		1			555539	10/29/21 14:07	MMP	TAL DEN
Total/NA	Analysis	365.1		1	2 mL	2 mL	554176	10/19/21 15:25	SPG	TAL DEN
Total/NA	Analysis	SM5210B		1	120 mL	300 mL	554159	10/19/21 13:38	SJD	TAL DEN

Client Sample ID: VLF-211017-33

Lab Sample ID: 280-154378-34

Date Collected: 10/17/21 13:35

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 08:06	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 20:23	SPG	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	555215	10/27/21 18:13	SVC	TAL DEN
Total/NA	Analysis	351.2		1			555384	10/28/21 18:46	SVC	TAL DEN
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	555398	10/29/21 06:18	MRU	TAL DEN
Total/NA	Analysis	365.1		1			555539	10/29/21 14:08	MMP	TAL DEN
Total/NA	Analysis	365.1		1	2 mL	2 mL	554176	10/19/21 15:25	SPG	TAL DEN
Total/NA	Analysis	SM5210B		1	120 mL	300 mL	554159	10/19/21 13:38	SJD	TAL DEN

Client Sample ID: VLF-211017-34

Lab Sample ID: 280-154378-35

Date Collected: 10/17/21 14:30

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	554288	10/28/21 08:14	PNS	TAL DEN
Dissolved	Analysis	6010B		1			555529	10/29/21 08:09	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	556143	11/05/21 21:08	SPG	TAL DEN
Total/NA	Prep	351.2			25 mL	25 mL	555215	10/27/21 18:13	SVC	TAL DEN
Total/NA	Analysis	351.2		1			555384	10/28/21 18:46	SVC	TAL DEN
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	555398	10/29/21 06:18	MRU	TAL DEN
Total/NA	Analysis	365.1		1			555539	10/29/21 14:08	MMP	TAL DEN
Total/NA	Analysis	365.1		1	2 mL	2 mL	554176	10/19/21 15:24	SPG	TAL DEN
Total/NA	Analysis	SM5210B		1	120 mL	300 mL	554159	10/19/21 13:38	SJD	TAL DEN

Client Sample ID: Trip Blanks

Lab Sample ID: 280-154378-36

Date Collected: 10/14/21 10:30

Matrix: Water

Date Received: 10/19/21 10:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	554811	10/25/21 18:16	JLS	TAL DEN

Eurofins TestAmerica, Denver

Lab Chronicle

Client: Tuppan Consultants LLC
Project/Site: Valley LF - Republic Serv Coffin Butte

Job ID: 280-154367-1

Laboratory References:

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

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Chain of Custody Record

Client Information		Sample #: <i>Sara Hagedorn</i>		Lab PM: Sara, Betsy A		Carrier Tracking No(s):		COC No: 280-97584-22898.1	
Client Contact: <i>Jan Mc Naboe</i>		Phone: <i>303-572-5550</i>		E-Mail: <i>betsy.sara@eurofinset.com</i>				Page:	
Company: Valley Landfills, Inc. Republic Services		Due Date Requested:		Analysis Requested		Total Number of containers		Preservation Codes:	
Address: 28972 Coffin Butte Road		TAT Requested (days):		Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		Breath Alk/CrDS	
City: Corvallis		PO #: 1584668		Dissolved Metals		Total Metals		TSS	
State, Zip: OR, 97330		WO #:		VOA 8260B					
Phone: 503-675-1335(Tel)		Project #: 28003197 "GW_SLCS_Leachate"		Matrix (W=water, S=solid, O=waste/soil, BT=tissue, A=air)		Preservation Code:		Special Instructions/Note:	
Email:		SSOW#:		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Site: <i>Valley Landfills Corvallis</i>		Sample Date		Sample Time		Sample Type		Matrix	
Sample Identification		10/14/21		1030		W		W	
VLF-211014-1		1110		1110		W		W	
-2		1220		1220		W		W	
-3		1245		1245		W		W	
-4		1250		1250		W		W	
-5		1335		1335		W		W	
-6		1415		1415		W		W	
-7		1420		1420		W		W	
-8		1545		1545		W		W	
-9		1550		1550		W		W	
-10		1640		1640		W		W	
-11						W		W	
Possible Hazard Identification		Date: 12/17/21 1600		Date/Time: 10/19/2021 1020		Date/Time: 10/19/2021 1020		Company: STA OSCO	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Relinquished by: <i>Sara Hagedorn</i>		Relinquished by: <i>Sara Hagedorn</i>		Relinquished by: <i>Sara Hagedorn</i>		Relinquished by: <i>Sara Hagedorn</i>	
Deliverable Requested: I, II, III, IV, Other (specify)		Date: 12/17/21 1600		Date/Time: 10/19/2021 1020		Date/Time: 10/19/2021 1020		Company: STA OSCO	
Empty Kit Relinquished by:		Date: 12/17/21 1600		Date/Time: 10/19/2021 1020		Date/Time: 10/19/2021 1020		Company: STA OSCO	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <i>3.1, 4.8, 3.4, 2.5, 4.3, 3.1, 1.2, 3.7</i>		Cooler Temperature(s) °C and Other Remarks: <i>CF 11.0 12.11</i>		Ver: 01/16/2019	



Chain of Custody Record

Client Information		Supplier: <i>Stark Hospital</i>		Lab PM: Sara, Betsy A		Carrier Tracking No(s):		COC No: 280-97584-22898.1	
Client Contact: <i>Jan Mc Nabb</i>		Phone: <i>303-572-5550</i>		E-Mail: <i>betsy.sara@eurofinset.com</i>				Page:	
Company: Valley Landfills, Inc. Republic Services		Due Date Requested:		Analysis Requested				Job #:	
Address: 28972 Coffin Butte Road		TAT Requested (days):		Biocarb A1K/CTDS				Preservation Codes:	
City: Corvallis				Dissolved Metals				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: OR, 97330		PO #: 1584668		Total Metals				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Phone: 503-675-1335 (Tel)		WO #:		VOA 826B				Total Number of containers	
Email:		Project #: 28003197 "GW_SLCS_Leachate"		TSS					
Project Name: Coffin Butte/Valley Landfills		SSOW#:		Total Metals					
Site: <i>Corvallis OR</i>				Field Filtered Sample (Yes or No)				Special Instructions/Note:	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, AT=tissue, A=air)	
VLF-211014-12		10/14/21		17:25		W		W	
VLF-211015-13		10/15/21		7:35		W		W	
VLF-211015-FB		10/15/21		8:00		W		W	
- 14				8:20		W		W	
- 15				9:05		W		W	
- 16				9:10		W		W	
- 17				9:36		W		W	
- 18				10:30		W		W	
- 19				10:50		W		W	
- 20				10:50		W		W	
- 21				11:15		W		W	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab		Archive For _____ Months		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>Stark Hospital</i>		Date/Time: 10/17/21 16:20		Company: <i>Stark Hospital</i>		Received by: <i>AKK</i>		Date/Time: 10/19/2021 10:20	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					



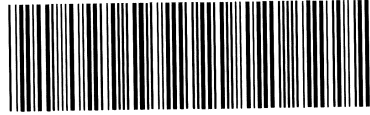
Chain of Custody Record

Client Information		Sample: <i>Strangel</i>		Lab PM: Sara, Betsy A		Carrier Tracking No(s):		COC No: 280-97584-22898.1	
Client Contact: <i>Janice Nab</i>		Phone: <i>503-572-5550</i>		E-Mail: <i>betsy.sara@eurofinset.com</i>				Page:	
Company: Valley Landfills, Inc. Republic Services		Due Date Requested:		Analysis Requested				Job #:	
Address: 28972 Coffin Butte Road		TAT Requested (days):		Dissolved Metals				Preservation Codes:	
City: Corvallis				Total Metals				A - HCL M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 X - EDTA Y - EDA Z - other (specify)	
State/Zip: OR, 97330		PO #: 1584668		TSS				Other:	
Phone: 503-675-1335(Tel)		WO #:		VOAs 524.2					
Email:		Project #: 28003197 "GW_SLCS_Leachate"		Total Number of Containers					
Project Name: Coffin Butte/Valley Landfills		SSOW#:		Special Instructions/Note:					
Site: <i>Corvallis</i>									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=volatile, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Bicarb Alk/CTDS	Dissolved Metals	Total Metals	TSS	VOAs 8260B	Analysis Requested	Carrier Tracking No(s)	Lab PM	Job #
VLF-211015-22	10/15/21	1230		W	X	X	X	X	X	X	X			Sara, Betsy A	
VLF-211015-23	10/15/21	1530		W	X	X	X	X	X	X	X				
VLF-211016-24	10/16/21	800		W	X	X	X	X	X	X	X				
25		840		W	X	X	X	X	X	X	X				
26		915		W	X	X	X	X	X	X	X				
27		1005		W	X	X	X	X	X	X	X				
28		1055		W	X	X	X	X	X	X	X				
29		1115		W	X	X	X	X	X	X	X				

<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <i>Sara Nab</i>		Received by: <i>MKS</i>	
Relinquished by: <i>Sara Nab</i>		Received by: <i>MKS</i>	
Relinquished by:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temperature(s) °C and Other Remarks:	





280-154378 Waybill

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Recipient's Name <i>Please print.</i>	Phone Number
Company	Suite/Room

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ORIGIN ID:PDXA

TO SAMPLE RECEIVING
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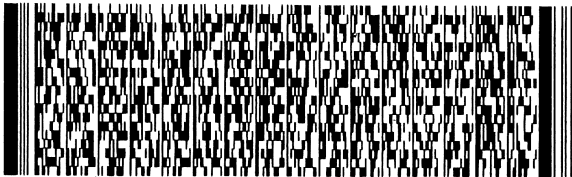
ARVADA CO 80002

(US)

(303) 736-0100

REF:

DEPT:



FedEx Express



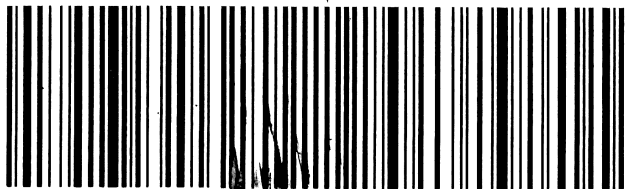
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CAD: /SSFE2220

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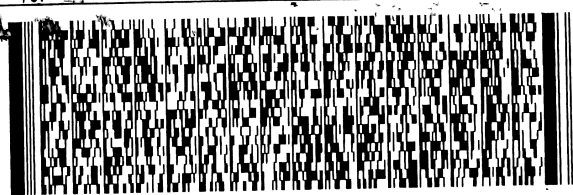
TO EUROFINS
EUROFINS
4955 YARROW ST
350
ARVADA CO 80002

(US)

(303) 736-0100

REF:

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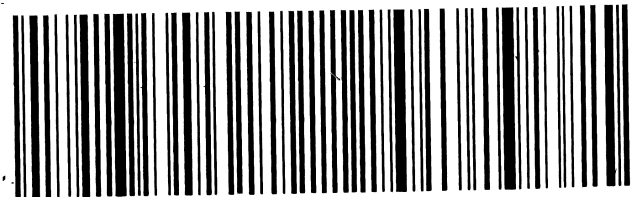
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Courier or Driver: Place Astra or Barcoded Label Here

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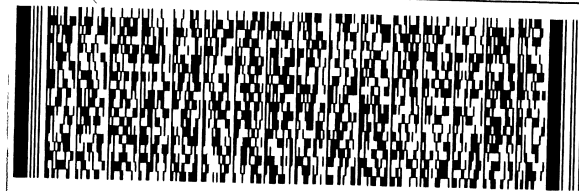
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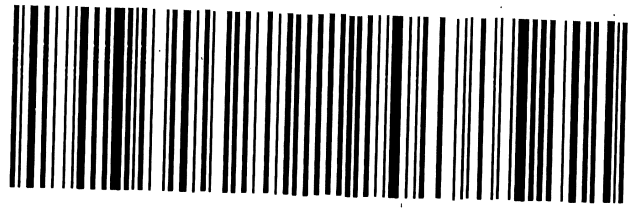


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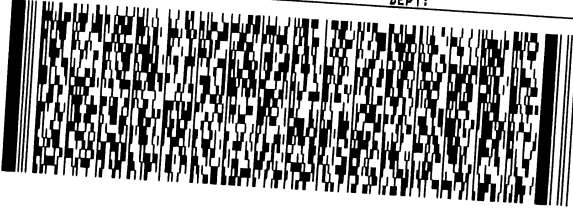


eurofins
Environment Testing
TestAmerica
1439007

ORIGIN ID: PDXA

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350
ARVADA CO 80002
(303) 736-0100

(US)

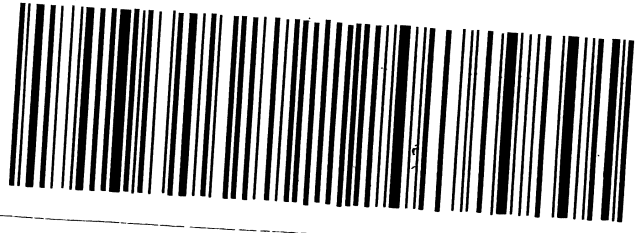


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ACTWGT: 50.35 LB
CAD: /SSFE2220

Part # 156297-436 RROW EXP 9/7/22

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TestAmerica

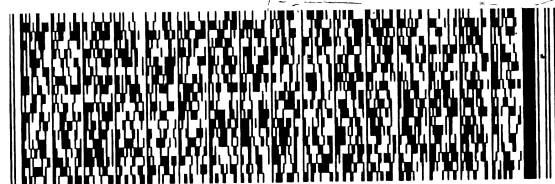
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1955 YARROW ST

ARVADA CO 80002

(US)

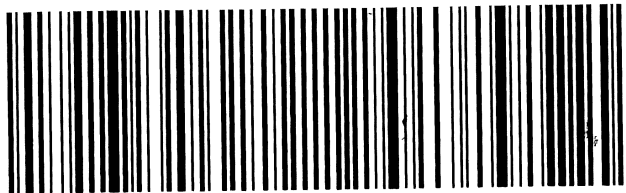
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Company	Dept./Floor/Suite/Room

ORIGIN ID: PDXA

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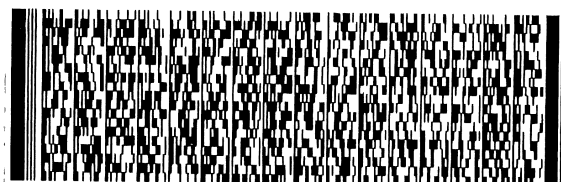
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4955 YARROW ST

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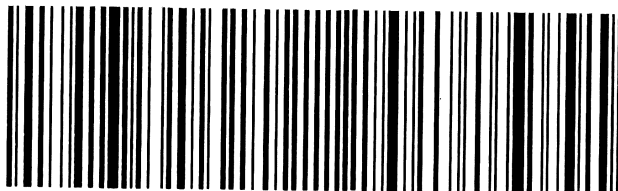
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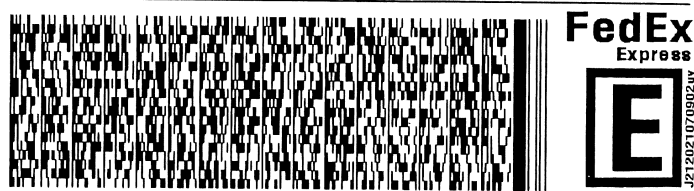




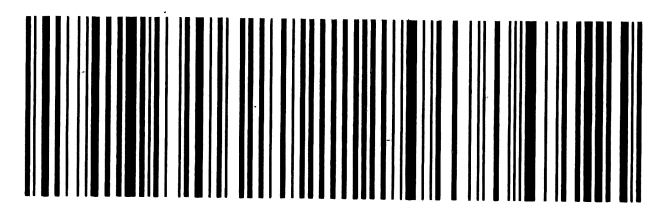
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ARVADA CO 80002 (US)
 (303) 736-0100 REF: DEPT:



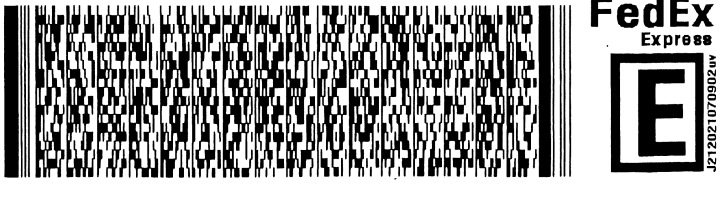
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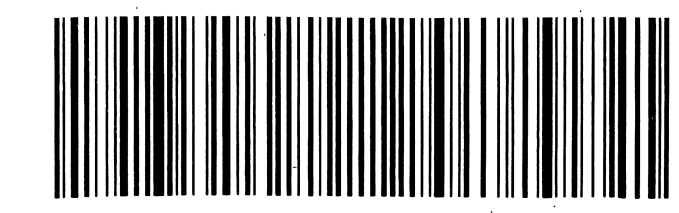
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TO SAMPLE RECEIVING
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PRIORITY OVERNIGHT
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Part # 150297-495 PDD EXP 12/21

Part # 150297-495 PDD EXP 12/21

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler: Sara Betsy A	Lab PM: Sara Betsy A	Carrier Tracking No(s): 5122 913 1781	COC No: 280-589838 1																												
Shipping/Receiving		Phone: Betsy Sara@Eurofinset.com	E-Mail: Betsy Sara@Eurofinset.com	State of Origin: Oregon	Page: Page 1 of 1																												
Eurofins Calscience LLC		Accreditations Required (See note): NELAP Oregon		Job #: 280-154367 1	Preservation Codes: A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSC04 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:																												
Address: 17461 Derian Ave, Suite 100, Irvine, CA, 92614-5817		Due Date Requested: 11/3/2021		<table border="1"> <thead> <tr> <th>Analysis Requested</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>52.2 Preserved Oregon Drinking Water List</th> <th>Volatile Or</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>3</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Analysis Requested	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	52.2 Preserved Oregon Drinking Water List	Volatile Or	Total Number of Containers	Special Instructions/Note:		X	X	X	X	3															
Analysis Requested	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	52.2 Preserved Oregon Drinking Water List			Volatile Or	Total Number of Containers	Special Instructions/Note:																									
	X	X	X			X	3																										
Phone: 949-261 1022(Tel) 949-260-3297(Fax)		PO #:	TAT Requested (days):																														
Email:		WO #:																															
Project #: 28003197		Sample Date:	Sample Time:	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/OI)	Preservation Code:																											
Site: Valley LF Republic Serv Coffin Butte		10/15/21	15:30 Pacific		Water																												
Sample Identification Client ID (Lab ID)		Sample Date		Sample Time		Sample Type																											
VLF-211015-23 (280-154378-24)																																	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody if the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2
 Special Instructions/QC Requirements:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <i>[Signature]</i>	10/15/21	15:30	
Relinquished by:			
Relinquished by:			
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks: 30/3.2	Company: EC-ILU



Login Sample Receipt Checklist

Client: Tuppan Consultants LLC

Job Number: 280-154367-1

Login Number: 154367

List Source: Eurofins TestAmerica, Denver

List Number: 1

Creator: Roehsner, Karen P

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Tuppan Consultants LLC

Job Number: 280-154367-1

Login Number: 154378

List Source: Eurofins TestAmerica, Denver

List Number: 1

Creator: Roehsner, Karen P

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	False	Limited volume received.
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	Narrative to indicate if headspace container used for analysis.
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tuppan Consultants LLC

Job Number: 280-154367-1

Login Number: 154378

List Number: 2

Creator: Ornelas, Olga

List Source: Eurofins Calscience Irvine

List Creation: 10/21/21 05:13 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



APPENDIX F
HISTORICAL WATER QUALITY DATABASE
(IN EXCEL ON ATTACHED CD)



28972 Coffin Butte Road Corvallis, OR 97330
o 541-745-5792 f 541-745-3826 republicservices.com

March 23, 2022

Oregon Department of Environmental Quality
Attention: Brian Fuller
Manager, Western Region Materials Management
165 East 7th Avenue, Suite 100
Eugene, OR 97401

RE: Annual Environmental Monitoring Report, Coffin Butte Landfill, Benton
County, Oregon, Solid Waste Permit No. 306

Dear Mr. Fuller:

Per the requirements of Section 19.0 of our Solid Waste Permit No. 306, Valley Landfills, Inc. is pleased to present the Annual Environmental Monitoring Report (AEMR). The AEMR provides results of water quality and landfill gas probe monitoring during the 2021 calendar year at the Coffin Butte Landfill in Benton County, Oregon. Please note, per Section 19.4 of the Solid Waste Permit No. 306, this report includes the elements of the annual leachate monitoring report. This submittal includes one hard copy and one electronic copy.

Please feel free to contact me or Eric Tuppan if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Ian Macnab".

Ian Macnab
Environmental Manager - Oregon
Republic Services, Inc.
Phone 541-230-5543

cc: Valley Landfills, Inc.
Hugh Gao (cover letter via email)

To: Hugh Gao, PE
Western Region Materials Management, Salem

From: Seth Sadofsky, PhD, RG
Western Region Materials Management, Eugene

Subject: Review of Annual Environmental Monitoring Report
Coffin Butte Landfill
Solid Waste Permit No. 306, Project #9541
Benton County

Cc: Brian Fuller, Manager, Western Region Materials Management
Solid Waste Files, c/o Denise Miller, Western Region Materials Management

Date May 13, 2022

BACKGROUND

I have reviewed the 2021 Annual Environmental Monitoring Report for Coffin Butte Landfill, received March 25, 2022, from Eric Tuppan, RG of Tuppan Consultants, LLC on behalf of Valley Landfills, Inc. This annual monitoring report describes environmental monitoring conducted at this site during the year 2021. Monitoring at this site includes groundwater, surface water, leachate, and landfill gas. The landfill is an active regional landfill, and is located about 2 miles northwest of Adair Village and 15 miles north of Corvallis. As required in the facility's Environmental Monitoring Plan (EMP), the report addresses analytical data collected over the past year. The report evaluates 2021 monitoring data for the active waste management cells on the east-side, and assesses achievement of remedial goals for west-side landfill cells.

MONITORING PROGRAM

Monitoring in 2021 included sampling of groundwater, surface water, leachate and landfill gas. Compliance wells are sampled semi-annually for field parameters, indicator parameters, and VOCs, and annually for selected trace metals. Detection wells, including one domestic well, are analyzed annually for the above parameters. Water levels are monitored at the above wells and several other piezometers to understand groundwater flow at the site. Six leachate sumps are monitored for field parameters semiannually if leachate is present and annually for other indicator parameters. The leachate pond is sampled annually for field parameters, indicator parameters, common anions and cations, trace metals, and VOCs. Five underdrains beneath disposal cells are sampled semiannually for indicator parameters. Surface water is sampled semiannually for indicator parameters. Two surface water points are sampled semiannually for field parameters, selected ions and nutrients. Landfill gas is monitored from six locations around the landfill perimeter and 6 buildings on site.

GROUNDWATER MONITORING RESULTS



No significant changes in water quality were detected during 2021.

Volatile organic compound (VOC) concentrations in wells along the west-side compliance boundary were below primary drinking water standards including well MW-12S, where the trend for tetrachloroethene (PCE) continues downward. Several other VOCs were detected at low concentrations in west-side compliance wells and several inorganic parameters (Cl, TDS, Mn) are present above background concentrations or screening levels at one or more wells. Since the landfill cover was installed on Cells 1/1A in 1996 and landfill gas removal wells were installed in Cell 1 in 1994, groundwater quality has generally improved and groundwater quality trends are stable downgradient of the Closed Landfill on the west side.

On the east side of the landfill adjacent to the active cells the primary drinking water standard for arsenic was exceeded at the compliance boundary for Cell 4 (wells MW-26 and MW-27) and MW-23, which is the detection well for Cell-2. These concentrations likely represent natural background conditions. Sampling results at MW-26 and MW-27 were below site specific limits (SSLs) for most indicator parameters, however manganese slightly exceeded the SSLs at MW-27 in both seasons and chloride slightly exceeded the SSL in the Spring sample at MW-26. SSLs for iron and manganese at these wells are above secondary drinking water criteria. A low, J-flagged, concentration of Toluene was observed in the Spring sample at MW-27, this is believed to be a laboratory artifact.

UNDERDRAINS

Underdrains beneath the newer cells and the leachate treatment show that the landfill liners are working as designed. Samples, when available, are similar to background groundwater or other stormwater.

LEACHATE RESULTS

Leachate production for the water year 2020-2021 was estimated at 32.3 and 32.7 million gallons of leachate (2 methods of estimates are within ~2% of one another). 34.5 million gallons was disposed of offsite at the Corvallis and Salem WWTPs. This was generated by Cells 1 through 5 during the water year ending October 1, 2021. VLI continues to monitor the secondary leachate collection systems (SLCS) beneath Cells 2, 3, 4, and 5. Additional detail regarding leachate management is available in appendix 4 of the AEMR.

SURFACE WATER RESULTS

Surface water monitoring points on Soap Creek show biological oxygen demand (BOD), total nitrogen, total phosphorus, and orthophosphate either nondetect or virtually identical in concentration between the upstream (S-1) and downstream (S-2, S-3, and S-4) monitoring points. The other inorganic parameters (chloride, calcium, iron, magnesium, manganese, and sodium) showed no significant differences between upstream and downstream points for those parameters

LANDFILL GAS RESULTS

Methane was not detected in any of the probes or site buildings. Some samples are low in oxygen, suggesting that CO₂ is present in those areas.

CONCLUSIONS



The report is in compliance with sampling and analysis conditions set forth in the facility's Solid Waste Permit and Environmental Monitoring Plan (EMP).

The report concludes that overall water quality is consistent with historical data for this site. I agree with the conclusions, and the **report should be approved, as submitted.**



TUPPAN CONSULTANTS LLC
Geology Hydrogeology Environmental Consulting

March 23, 2022
Project VLI-001-002

Mr. Brian Fuller
Manager, Solid Waste Program
Oregon Department of Environmental Quality
165 East 7th Avenue, Suite 100
Eugene, Oregon 97401

Re: 2021 Annual Environmental Monitoring Report, Coffin Butte Landfill

Dear Brian:

On behalf of Valley Landfills, Inc. (VLI), attached are two copies (one paper and one electronic) of the 2021 annual environmental monitoring report for the Coffin Butte Landfill. No significant changes in water quality were measured at the landfill in 2021. A comparison of the analytical results with relevant monitoring standards is summarized below.

Primary Maximum Contaminant Levels (MCLs). Of federal or state primary MCLs (health-based), concentrations for arsenic exceeded the primary MCL of 10 µg/L at eastside compliance wells MW-26 and MW-27 both sampling events. Based on knowledge of groundwater quality in this part of the site, the arsenic is naturally occurring at this level. The arsenic concentration in detection well MW-23 also exceeded the primary MCL of 10 µg/L both sampling events. Arsenic has declined at MW-23 since approximately 2000 to background levels; concentrations this past year were above background in April and in October comparable to naturally-occurring concentrations at MW-26 and MW-27. No primary MCLs were exceeded at west-side wells for VOCs, trace metals or inorganic parameters.

Secondary MCLs. Federal and state secondary MCLs (non-health-based) were exceeded at wells MW-26 and MW-27 downgradient of Cell 4 for iron and manganese, and at detection well MW-23. The concentrations at MW-26 and MW-27 represent natural conditions based on site knowledge.

At the west-side compliance boundary and detection wells, the secondary MCLs were exceeded as follows:

- Chloride at MW-10S where the long-term trend is declining; and detection well MW-19 where the trend is stable after increasing since 2005.
- TDS at well pairs MW-10S/10D and MW-11S/11D, MW-20, and detection well MW 19.
- Manganese at wells MW-10S/10D, MW-12S, MW-20, and MW-21.

- Iron at MW-12S and MW-21.

Site Specific Limits (SSLs). Of the water quality samples collected in 2021, each was below the SSLs except for manganese, which exceeded its limit at MW-27 in both April and October. All of the other indicators were below SSLs and do not show upward trends suggestive of landfill impacts. For manganese, the concentrations are only marginally above the statistically calculated limit. The cause of the excursion is unclear, but it may represent natural variation not previously seen in background monitoring period, or it might be related to lower oxygen in groundwater due to the close proximity of the well to the edge of the landfill liner, which would limit recharge of rainfall to the aquifer at this location. VLI will continue to appraise the manganese excursion in this area.

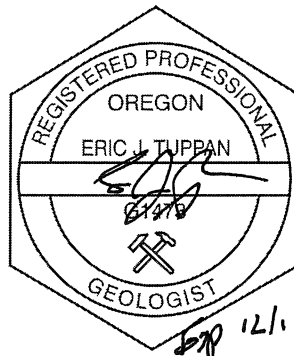
Methane Concentrations. VLI routinely monitors six landfill gas monitoring probes around the perimeter of the landfill and the interior of six site structures. Measured values for the methane lower explosive limit were zero for all monitoring events.

Should you have any questions about the information in this report, please call me at (503) 675-1335.

Sincerely,

TUPPAN CONSULTANTS LLC


Eric J. Tuppan, R.G.
Project Manager



Attachments: 2021 Annual Environmental Monitoring Report (1 bound copy
and 1 PDF version on CD)

cc: Ian Macnab; Valley Landfills, Inc.