2022 Annual Report

LRI Landfill
Graham, Washington

Pierce County Recycling, Composting
& Disposal, LLC dba LRI
17925 Meridian Street East
Puyallup, Washington 98375

SCS ENGINEERS

04222001.02 | March 31, 2023

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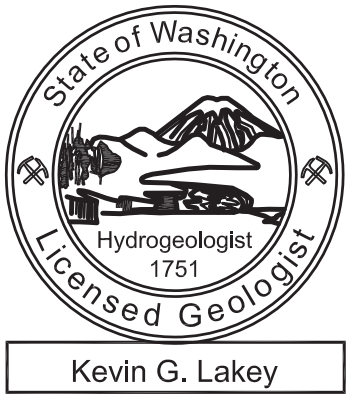
This 2022 Annual Report for the LRI Landfill located in Graham, Washington, was prepared by Jovany Estrada and Kevin Lakey, LHG and was reviewed by Greg Helland, LHG, of SCS Engineers.

March 31, 2023



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1.0 INTRODUCTION

This document is the annual report for the LRI Landfill for 2022. The facility is a municipal solid waste landfill that operates in compliance with a *Full Permit for Solid Waste Handling* (Permit No. 27-050) issued by the Tacoma-Pierce County Health Department (TPCHD). The landfill is located approximately 15 miles south of Puyallup at 30919 Meridian East, in Graham, Washington (Figure 1). This report presents a summary of the 2022 solid waste disposal activities and monitoring results and meets the requirements of Section VI (11) of the *Full Permit for Solid Waste Handling*, and Sections 200(11) and 600(3)(ii) of *Chapter 173-351 WAC, Criteria for Municipal Solid Waste Landfills.*

1.1 FACILITY CONTACT INFORMATION

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Operations Manager
LRI Landfill
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1.2 FACILITY DESCRIPTION

The landfill property is approximately 320 acres in size and is situated in the west half of Section 10, Township 17N, Range 4E. At completion, the landfill will encompass a footprint of approximately 169.2 acres. Figure 2 provides a site map showing the primary features of the landfill facility.

Eleven refuse disposal cells (Cells 1, 2A, 2B, 3A, 4A, 4B, 5, 6, 7, 8 and 9A) with a combined bottom liner area of approximately 137.5 acres (in plan-view) have been constructed to date. As of the end on 2022, each of the disposal cells, except Cell 9A which was constructed in 2022, have been used for waste disposal. A summary of cell construction information is included in Exhibit 1.

Exhibit 1. Cell Construction Information

Cell	Approximate Acreage	Year Constructed	Initial Waste Placement
Cell 1	15.8	1999	December 1999
Cell 2A	10.6	2000	July 2001
Cell 2B	11.2	2002	April 2003
Cell 3	10.8	2004	December 2004
Cell 4A[1]	17.5	2005 - 2007	April 2006
Cell 4B[2]	17.6	2008 - 2010	January 2009
Cell 5[3]	9.2	2012 - 2013	May 2013
Cell 6[4]	12.8	2015 - 2017	June 2017
Cell 7	11.5	2019	December 2019
Cell 8[5]	10.4	2020 – 2021	November 2020
Cell 9A	10.0	2022	Not Active
Total Acreage:	**137.5**		

Notes: 1) Cell 4A was constructed in three phases.
2) Cell 4B was constructed in three phases.
3) Cell 5 was constructed in two phases.
4) Cell 6 was constructed in two phases.
5) Cell 8 was constructed in two phases.

Nine phases of final closure construction, totaling approximately 44.0 acres (in plan-view) have been completed to date over portions of Cells 1, 2A, 2B, 4A, 4B, 5 and 6. A summary of final closure construction information is included in Exhibit 2.

Exhibit 2. Final Closure Construction Information

Cell	Approximate Acreage	Year Constructed
Phase I	4.7	2001
Phase IA	4,500 SF	2006
Phase IIA	5.2	2007
Phase IIB	3.9	2008
Phase IIC	4.2	2009
Phase III	6.3	2011
Phase IVA	6.8	2018 - 2019
Phase VA	8.0	2021
Phase VB	4.8	2022
Total Acreage:	**44.0**	

1.3 2022 MONITORING AND REPORTING ACTIVITIES

Groundwater monitoring activities were conducted quarterly in March, June, September, and December following the procedures described in the *LRI Landfill Groundwater Monitoring Plan* (GWMP, March 20, 2014). In addition to water quality sampling, water level measurements were recorded during each monitoring event and are included in Appendix A. Monitoring results are provided in summary data tables in Appendix B and in the 2022 groundwater database in Appendix C. A geochemical evaluation including trilinear diagrams is included in Appendix D and groundwater statistical calculations are provided in Appendix E. Water quality time trends for the leak detection and collection system (LDCS) are presented in Appendix F. Laboratory reports (hard copies) for the 2022 fourth quarter groundwater sampling event will be submitted to the TPCHD under separate cover.

Stormwater monitoring was performed weekly, monthly and quarterly in accordance with the National Pollution Discharge Elimination System (NPDES) Industrial Stormwater General Permit (ISGP Permit No. WAR002557) and the NPDES Construction Stormwater General Permit (CSWGP Permit No. WAR002603). Copies of the 2022 Discharge Monitoring Reports (DMRs) for the construction and industrial permits are included in Appendix G.

Landfill gas probe monitoring was conducted monthly and on-site buildings were monitored quarterly in 2022. Summary results of landfill gas monitoring are provided in Appendix H.

1.4 FINANCIAL ASSURANCE FOR POST-CLOSURE CARE

Summary tables of estimated costs for closure activities, post-closure care, and annual environmental monitoring are included in Appendix I.

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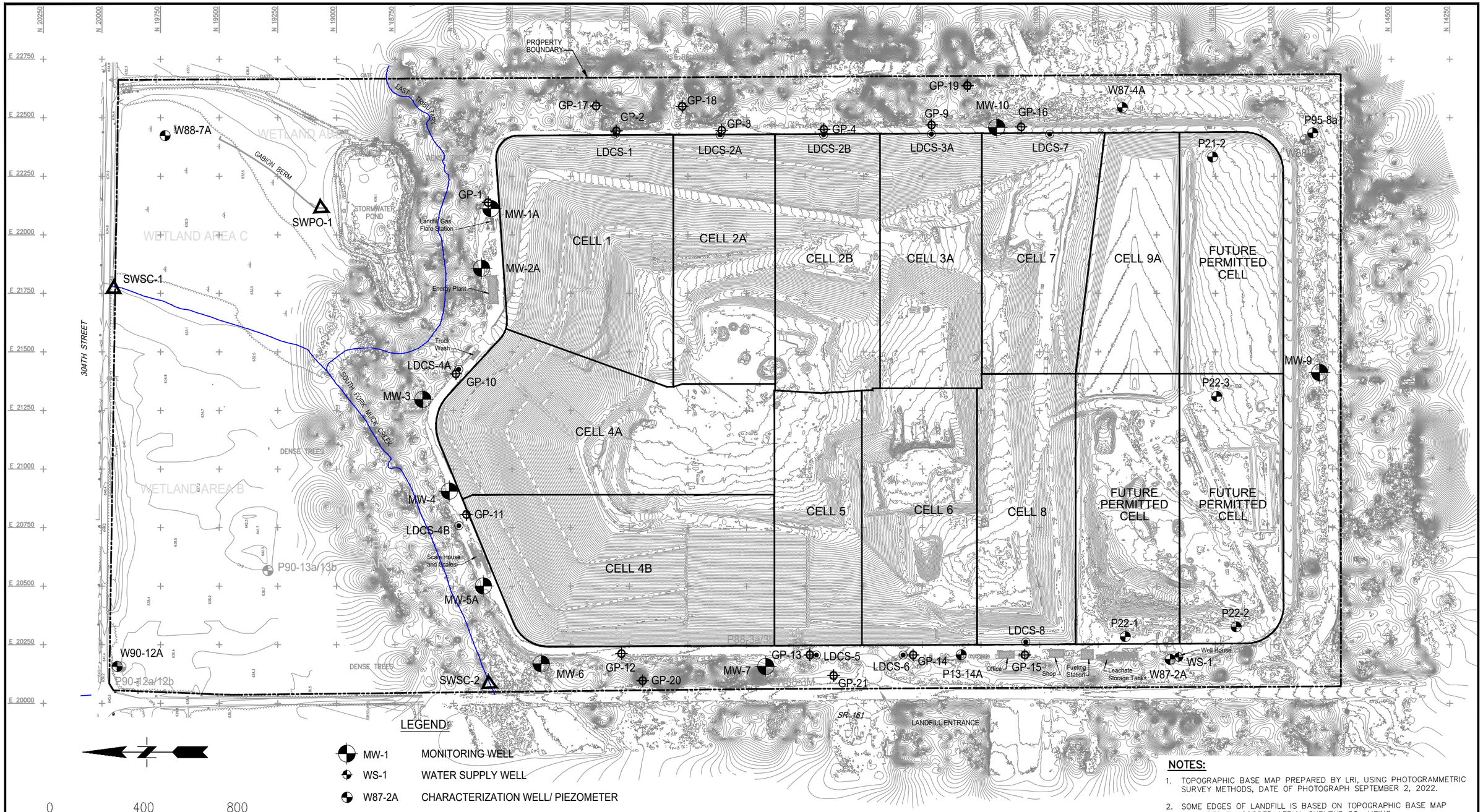
PROJECT NO. 04223001.02	DES BY LEL	SITE LOCATION MAP	DATE MARCH 2023
SCALE NOT TO SCALE	CHK BY SEG	LRI LANDFILL 30919 MERIDIAN STREET E. GRAHAM, WASHINGTON	FIGURE 1
CAD FILE FIGURE 1	APP BY KGL		



LEGEND

⊕	MW-1	MONITORING WELL
◔	WS-1	WATER SUPPLY WELL
◔	W87-2A	CHARACTERIZATION WELL/ PIEZOMETER
◉	LDCS-1	LEAK DETECTION/COLLECTION SUMP
△	NEWB-2	SURFACE WATER MONITORING LOCATION
⊕	GP-1	GAS PROBE

0 400 800

SCALE (ft)

NOTES:

1. TOPOGRAPHIC BASE MAP PREPARED BY LRI, USING PHOTOGRAMMETRIC SURVEY METHODS, DATE OF PHOTOGRAPH SEPTEMBER 2, 2022.
2. SOME EDGES OF LANDFILL IS BASED ON TOPOGRAPHIC BASE MAP PREPARED BY COOPER AERIAL SURVEYS CO., USING PHOTOGRAMMETRIC SURVEY METHODS, DATE OF PHOTOGRAPH MAY 09, 2017.
3. VERTICAL DATUM – BASED ON PIERCE COUNTY BENCH NO. 112–18, ELEVATION 660.29 NGVD29.

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PROJECT NO. 04223001.02	DES BY TAB
SCALE AS SHOWN	CHK BY KGL
CAD FILE FIGURE 2	APP BY KGL

SITE MAP

LRI LANDFILL
30919 MERIDIAN STREET EAST
GRAHAM, WASHINGTON

DATE MARCH 2023

FIGURE 2

2.0 2022 REPORT FORM AND FACILITY CAPACITY INFORMATION

Landfilling operations were conducted over portions of each of the landfill cells in 2022. The tonnage of waste materials landfilled at the LRI Landfill during 2022 was approximately 1,143,884 tons. The total tonnage landfilled at the LRI Landfill since opening in December 1999 through December 31, 2022 accrues to approximately 22,732,623 tons. The in-place density of combined waste placed between December 1999 and December 31, 2022 is estimated to be approximately 2,100 pounds per cubic yard (lbs/CY). This estimate is based on the tonnage of waste landfilled and the calculated volume of fill from aerial photo topography data with an assumed allowance for ongoing densification of the waste over time. Based on the in-place density estimate of 2,100 lbs/CY, the volume of airspace consumed through December 31, 2022 was approximately 21.7 million cubic yards, or approximately 63 percent of the 34.6 million cubic yard total facility capacity estimate (not including volume consumed by daily and interim soil cover).

A copy of the LRI Landfill 2022 Annual Report Form for Municipal Solid Waste Landfills required by the Washington Department of Ecology (Ecology) is included in Appendix J.

3.0 LEACHATE MONITORING

3.1 LEACHATE VOLUMES

Leachate is collected from the ten active landfill cells (the eleventh constructed landfill cell, Cell 9A, was not used for waste disposal in 2022) with depth-activated submersible pumps. Collected leachate is pumped via forcemain to sixteen above ground storage tanks, with a combined storage capacity of approximately 218,400 gallons. Leachate collected in 2022 was truck-hauled to the Hidden Valley Landfill where it was pre-treated and subsequently discharged to the Pierce County sewer system in accordance with the Pierce County Utilities Department Industrial Discharge Permit Number PC03096. In addition, leachate was truck-hauled to the City of Tacoma in Tacoma, Washington, and the City of Salem in Salem, Oregon for proper disposal. The volume of leachate produced at the landfill was measured with flow meters installed at each sump using a programmable logic controller (PLC) system, and by recorded volumes of leachate truck-hauled off-site for proper disposal. A summary of the fourth quarter leachate pumping records is included in Appendix F. A summary of 2022 leachate volumes truck-hauled off site for proper disposal is shown in Exhibit 3.

Exhibit 3. 2022 Leachate Volume Data

Month	Leachate Production (gallons)	Monthly Rainfall (inches)
January	4,742,413	7.69
February	3,328,802	3.06
March	4,768,632	2.86
April	3,957,053	2.12
May	3,450,037	3.93
June	4,022,924	4.80
July	3,164,913	0.17
August	2,704,963	0.04
September	2,735,475	0.00
October	2,625,877	2.28
November	3,158,270	4.39
December	2,448,656	6.07
Totals	**41,108,015**	**37.41**

Notes:
Leachate was truck-hauled off-site for proper disposal.
Leachate volumes were determined by trucking records kept on a daily basis.
Rainfall totals were obtained from an on-site rain gauge and from Weather Underground Station KWAGRA.

3.2 LEACHATE QUALITY

Leachate samples were collected at each individual sump location during December 2022. In addition, leachate samples were collected from Cell 8 during each quarter in 2022. Leachate samples were obtained from sampling ports installed near the leachate riser pipes. The collected leachate samples were submitted to Eurofins TestAmerica of Denver, Colorado and tested for the parameters listed in Appendix I and II of WAC 173-351. The results of leachate monitoring are

included on summary tables in Appendix B and with the groundwater database in Appendix C. No significant changes in leachate quality were noted in 2022 (see attached leachate database in Appendix C).

4.0 LEAK DETECTION MONITORING

The LRI Landfill includes a Leak Detection/Collection System (LDCS) that consists of a high-permeability gravel layer beneath the composite liner of each of the disposal cells. The LDCS is designed to monitor groundwater quality beneath the composite liner for early leak detection and to collect any leachate in the event a leak develops in the liner. Each landfill cell has one LDCS sump where groundwater is removed and monitored (see Figure 2 for sump locations). The PLC system is used to monitor the LDCS at each landfill cell on a daily basis for the total volume of water pumped and specific conductance (conductivity). In addition, samples are collected quarterly and tested for the parameters listed in Appendix I and II of WAC 173-351. Metals are analyzed as dissolved metals. Samples for laboratory testing were submitted to Eurofins TestAmerica of Denver, Colorado.

Summary tables of LDCS water quality results for each quarter are provided in Appendix B along with the groundwater monitoring results. Groundwater data generated from monitoring activities in 2022 were validated and input into a database utilizing Microsoft Office Access 2016 software. Field sampling data sheets and a data validation summary from the fourth quarter 2022 groundwater monitoring event are provided in Appendix B. A copy of the groundwater database for 2022 is included in Appendix C. Trilinear diagram plots of water quality data from the LDCS sumps are included in Appendix D.

Water quality results from the LDCS are evaluated for primary and secondary leachate indicator parameters and for landfill gas indicator parameters (see Section 12.5 of the GWMP). Primary leachate indicator parameters include acetone and 2-butanone (MEK). These constituents are consistently present in the leachate at elevated concentrations and are typically not naturally present in the groundwater. Secondary leachate indicator parameters include ammonia and chloride. These constituents are consistently present in the leachate at elevated concentrations and are naturally present in the groundwater at low concentrations. In addition, monitored increases in specific conductance (conductivity), total dissolved solids, alkalinity, sodium, potassium, and total organic carbon are further indications of potential leachate effects on water quality.

Landfill gas indicator parameters include dichlorodifluoromethane (Freon 12) and trichlorofluoromethane (Freon 11). These compounds are highly volatile, mobile, dissolve readily in water, and are not naturally present in the groundwater.

4.1 LDCS DAILY MONITORING

Groundwater is removed from the LDCS using dedicated submersible pumps that are activated by high (on) and low (off) float switches or transducers. LDCS monitoring data were uploaded from the PLC and supplemented with manually recorded data by LRI staff. Summaries of daily rainfall totals, daily discharge from the LDCS, and daily conductivity measurements for each LDCS sump are included in Appendix F. Also included are time-series plots that show the volume of water pumped, precipitation, and groundwater conductivity. The volume of water pumped from the LDCS increases during periods of sustained rainfall as illustrated by the time series plots. This correlation is believed to be the result of lateral inflow of water perched on top of the low permeability glacial till present beneath the landfill.

During 2022, operation and maintenance activities associated with the LDCS included replacing flowmeters and sampling pumps, checking electrical connections, and calibrating equipment within the vaults (pumps and meters) as needed. Specific activities included the installation of a new liquid flow meter at LDCS-2B on February 9, 2022 and recalibration of all of the conductivity probes on

May 11, 2022. Conductivity data is not available at the locations mentioned above between April 15 and May 11, 2022. The conductivity probes at LDCS-4A and LDCS-8 did not function between January 1, and July 2, 2022. New probes were installed at these locations on August 11, 2022.

Conductivity data from the LDCS sumps generally trended within typical historical ranges during 2022.

4.2 LDCS QUARTERLY MONITORING

Groundwater samples were collected quarterly from each LDCS monitoring location. Samples were obtained from the LDCS sump riser pipes using disposable bailers at LDCS-1, LDCS-2A and LDCS-2B, and from dedicated low-flow QED bladder pumps at LDCS-3A, LDCS-4A, LDCS-4B, LDCS-5, LDCS-6, LDCS-7, and LDCS-8. Background water quality samples were obtained at LDCS-9 on September 9, September 29, November 1, and December 29, 2022. The samples collected from LDCS-9 were obtained as grab samples during and shortly after cell construction. In addition, samples were collected from LDCS-2A and LDCS-2B on October 12, 2022 (see discussion below).

Samples were submitted to Eurofins TestAmerica of Denver, Colorado. Field and laboratory data results for the LDCS samples are included on summary tables in Appendix B and in the groundwater database in Appendix C.

Time-trend plots for inorganic parameter and dissolved metal concentrations at the LDCS sumps are included in Appendix F. These plots provide a means of tracking water quality trends in the LDCS system. The following four plots are included for each leak detection sump:

- Plot 1 — nitrate, ammonia, chloride, TOC
- Plot 2 — alkalinity, sulfate, TDS
- Plot 3 — calcium, magnesium, sodium, potassium
- Plot 4 — iron, manganese, zinc, arsenic

Water quality results from the leak detection sumps during 2022 were generally consistent with previously measured values (see Appendix F), except as noted below.

Ammonia was reported at low-level concentrations (0.11 mg/L to 0.68 mg/L) at each of the LDCS sumps during one or more quarters in 2022. Low-level concentrations of ammonia were also reported in nearly all of the groundwater monitoring wells during 2022. In addition, ammonia has been detected at upgradient well MW-10. Therefore, since ammonia has been detected in upgradient well MW-10, low-level ammonia concentrations appear to be due to a site-wide aquifer condition, which has also affected LDCS water quality. Elevated detections of ammonia were reported at LDCS-2A and LDCS-2B during the third quarter monitoring event. These results are discussed below.

Chloride concentrations have displayed a general slowly increasing trend at LDCS-4A and LDCS-4B, and more recently at LDCS-6 (see the time trend plots in Attachment G). More elevated chloride concentrations were reported for these three locations, as well as LDCS-5, during the fourth quarter monitoring event. However, the remaining leachate indicator parameters remained low or non-detect, therefore, the water quality trends noted above do not appear to be the result of leachate.

Dissolved iron concentrations greater than 1.0 mg/L (up to 56 mg/L) were reported at each of the LDCS locations in 2022, except LDCS-6, and dissolved manganese concentrations greater than 1.0

mg/L (up to 5.1 mg/L) were reported at each of the LDCS locations in 2022. These elevated concentrations are likely due to the presence of iron and manganese bacteria that may be present in shallow soils surrounding the landfill.

During the third quarter monitoring event, the results for LDCS-2A and LDCS-2B included elevated concentrations of ammonia (19.0 mg/L and 29.0 mg/L, respectively) and TOC (9.8 mg/L and 90 mg/L, respectively). In addition, acetone and carbon disulfide were reported at LDCS-2B at concentrations of 78 µg/L and 1.3 µg/L, respectively. However, concentrations of chloride, sodium, and potassium remained low and were typical of previous results (see summary tables in Appendix B).

LDCS-2A and LDCS-2B were resampled on October 18, 2022. The October results for both locations included no detections of VOCs and typical concentrations of ammonia, chloride, conductivity, total dissolved solids, alkalinity, sodium, potassium, and total organic carbon. Fourth quarter monitoring results from LDCS-2A and LDCS-2B were also typical of previous results.

Based on overall assessment of the third quarter monitoring results for LDCS-2A and LDCS-2B, as well as the follow-up results of the October resampling event and the fourth quarter monitoring event, it appears that the elevated concentrations of ammonia and TOC and the detections of acetone and carbon disulfide during the third quarter monitoring event were not the result of a leachate release. As noted in the Third Quarter Monitoring Report, the LDCS connections at Cell 1, Cell 2A and Cell 2B include lateral piping to concrete vaults with vertical riser pipes. These LCRS connections are more susceptible to lateral inflow of shallow (background) groundwater and to potential contamination from maintenance activities on the perimeter road. During the third quarter monitoring event, particulate matter and bacterial growth were observed in the samples collected at LDCS-1 and LDCS-2B.

Low-level detections of 1,4-dichlorobenzene (up to 1.0 µg/L) were reported in samples collected from LDCS-1 during each quarter and from LDCS-2A during the first and third quarter monitoring events. However, except during the third quarter monitoring event as discussed above, secondary indicator parameters ammonia and chloride remained consistent with historic results (see time trend plots included in Appendix F). Additionally, primary indicator parameter, 2-butanone, was not detected at any of these LDCS locations in 2022. Therefore, the reported VOC detections do not appear to be related to leachate.

Acetone was detected at LDCS-3A during the second quarter monitoring event at a concentration of 210 µg/L. However, primary leachate indicator parameter, 2-butanone, was not detected and secondary indicator parameters, ammonia and chloride, remained low during the second quarter (0.16 mg/L and 6.1 mg/L, respectively). Therefore, the acetone detection does not appear to be the result of leachate.

No other VOCs were detected in samples collected from the LDCS in 2022.

5.0 GROUNDWATER LEVELS AND FLOW DIRECTIONS

5.1 LOCAL HYDROGEOLOGY

The LRI Landfill site is located on low permeability glacial till and transitional till that is approximately 45 feet thick. Beneath the glacial till layer is a saturated glacial outwash deposit that forms a confined aquifer. Intermediate and deeper groundwater systems are present at the site, each of which is separated by layers of low permeability (aquitard) deposits. Summary descriptions of the individual hydrogeologic units are presented in Section 2 of the GWMP.

5.2 WATER LEVEL MEASUREMENTS

Depth to water level measurements were collected quarterly in 2022. The water level database and water level contour maps for each quarter are included in Appendix A. Groundwater flow in the confined aquifer was to the northwest during all monitoring events. Horizontal hydraulic gradients in the confined aquifer ranged from approximately 0.007 to 0.012 beneath the active area of the landfill. This flow pattern is consistent with previous data. The horizontal hydraulic conductivity of the confined aquifer is inferred to range from 1×10^{-4} centimeters per second (cm/sec) to 1×10^{-2} cm/sec. This range of values is based on rising head slug test data and on observations of groundwater discharge during drilling. The effective porosity of the aquifer is assumed to be 25 to 40 percent, based on values documented in the scientific literature (Freeze and Cherry, 1979). Based on a horizontal hydraulic gradient of 0.0125, a horizontal hydraulic conductivity of 1×10^{3} cm/sec, and a porosity of 30 percent, the horizontal flow rate of water in the confined aquifer is estimated to be approximately 43 feet per year in the area of Cell 1.

6.0 GROUNDWATER MONITORING

The groundwater monitoring network for the LRI Landfill in 2022 included two background wells (MW-9 and MW-10) and seven downgradient wells (MW-1A, MW-2A, MW-3, MW-4, MW-5A, MW-6, and MW-7). Quarterly groundwater monitoring was conducted in March, June, September, and December using micro-purge techniques and dedicated QED Well Wizard pumps, or a non-dedicated QED Sample Pro pump (MW-4). Groundwater samples were analyzed for the parameters listed in Appendix I and Appendix II of WAC 173-351. Samples were submitted to Eurofins TestAmerica of Denver, Colorado. Groundwater sampling locations are depicted in Figure 2.

Summary tables of water quality results for each quarter are provided in Appendix B. Data provided in the tables include field parameters, laboratory parameters, and duplicate samples. Groundwater data generated from monitoring activities in 2022 were validated and input into a database utilizing Microsoft Office Access 2016 software, and will be uploaded into Ecology's Environmental Information Management (EIM) database system. Time trend plots, field sampling data sheets, and a data validation summary for the fourth quarter 2022 groundwater monitoring event are provided in Appendix B. A copy of the groundwater database for 2022 is included in Appendix C. Trilinear diagram plots and anion/cation balance equations are included in Appendix D. Statistical calculations performed on groundwater data are presented in Appendix E. The groundwater database was provided to the TPCHD as a Microsoft Office Access file in electronic format (on compact disk) and analytical laboratory reports were provided as paper hardcopies under a separate submittal.

6.1 BACKGROUND DATA

The background water quality data set includes a minimum of eight rounds of water quality data collected from each downgradient monitoring well prior to the placement of waste in an upgradient landfill cell. In addition, ongoing background water quality data is collected each quarter from upgradient wells MW-9 and MW-10.

Low levels of inorganic parameters including alkalinity, ammonia, chloride, nitrate, sulfate, total organic carbon, and total dissolved solids, as well as low levels of total metals including barium, calcium, magnesium, potassium, sodium, vanadium, and zinc were reported in the background groundwater samples. VOCs, with two exceptions, have not been reported in the background samples.

6.2 GROUNDWATER QUALITY EVALUATION

Consistent with the GWMP, a nonparametric inter-well prediction limit approach is used to evaluate water quality results for Appendix I parameters (15 metals plus nitrate). Using this procedure, the highest concentration of each parameter in the background data set is selected as the prediction limit for that parameter. For total metals, prediction limits for non-detected metals were set equal to the method reporting limit (MRL). If more than one MRL was used over the eight-quarter evaluation period, the higher value was selected as the prediction limit.

Prediction limits are updated when water quality changes are observed from ongoing monitoring at upgradient (background) wells MW-9 and MW-10. The groundwater prediction limits remained unchanged in 2022. Nitrate and total metal concentrations measured at downgradient monitoring wells were less than or equal to prediction limit values in 2022, except one slight exceedance of arsenic at MW-4 during the third quarter monitoring event.

Downgradient water quality results were also compared to the groundwater quality criteria listed in WAC 173-200. Inorganic parameters and metals results measured at downgradient monitoring wells that exceeded their respective groundwater quality criteria are included below in Exhibit 4. The values listed in Exhibit 4 remained typical of previous results, are interpreted to be within natural, background variation. The MRL for arsenic is 0.005 milligrams per liter (mg/L), which is greater than the WAC 173-200 criterion of 0.00005 mg/L. Therefore, all arsenic results were greater than the WAC 173 200 criterion. With the exception of the third and fourth quarter arsenic detections at MW-4, all reported arsenic detections were less than the Federal primary drinking water maximum contaminant level (MCL) of 0.010 mg/L.

Exhibit 4. 2022 Groundwater Results Greater Than WAC 173-200 Criteria

Parameter	Event	Ground-water Criteria	MW-1A	MW-2A	MW-3	MW-4	MW-5A	MW-6	MW-7
Arsenic, Total	Q1	0.00005	**	**	**	0.010	**	0.0079	0.0059
	Q2		**	**	**	0.010	0.0060	0.0072	0.0061
	Q3		**	**	**	0.013	0.0053	0.0077	0.0062
	Q4		**	**	**	0.011	**	0.0074	0.0059
Iron, Dissolved	Q1	0.30	1.4	0.60	**	**	**	**	*
	Q2		1.4	0.66	**	**	*	**	0.51
	Q3		1.4	0.66	**	**	**	**	*
	Q4		1.0	0.91	**	**	*	**	*
Manganese, Dissolved	Q1	0.05	0.20	0.29	0.42	0.29	0.24	0.21	0.31
	Q2		0.22	0.27	0.40	0.22	0.17	0.21	0.26
	Q3		0.25	0.31	0.28	0.23	0.14	0.21	0.28
	Q4		0.19	0.35	0.26	0.25	0.22	0.25	0.24

Notes:
* = concentration less than WAC 173-200 criterion
** = analyte not detected at or above the MRL, but MRL is greater than the WAC 173-200-040 Groundwater Criteria
Bold value = exceeds the site specific prediction limit in addition to the WAC 173-200-040 GW Quality Criteria

Time-trend plots for inorganic parameter and dissolved metal concentrations at the monitoring wells are included in Appendix B. The following four plots are included for each monitoring well:

- Plot 1 — nitrate, ammonia, chloride, TOC
- Plot 2 — alkalinity, sulfate, TDS
- Plot 3 — calcium, magnesium, sodium, potassium
- Plot 4 — iron, manganese, zinc, arsenic

Chloride and nitrate concentrations remain higher at upgradient well MW-10 compared to downgradient water quality. The pH values at MW-10 were below the WAC 173-200 criterion of 6.5 during each quarter in 2022, and the pH values at upgradient well MW-9 were below the WAC 173-200 criterion of 6.5 during the third quarter. In addition, the pH value measured at downgradient monitoring well MW-1A was slightly below the WAC 173-200 criterion of 6.5 during the third quarter. Since MW-9 and MW-10 are upgradient of the landfill, these values are interpreted to reflect background water quality conditions.

As shown on the referenced time-trend plots, downgradient dissolved metal and inorganic parameter concentrations during 2022 were consistent with previously measured values, except as noted below.

Low-level detections of ammonia (ranging between 0.11 and 0.28 mg/L) were reported at downgradient wells MW-2A, MW-3, MW-4, MW-5A (dupl.), and MW-6, and higher concentrations of ammonia were reported at MW-2A (0.43 mg/L), MW-7 (1.2 mg/L) and background well MW-10 (0.73 mg/L). Therefore, since ammonia was reported at background well MW-10, the ammonia concentrations appear to be due to site-wide aquifer chemistry, which has also affected water quality within the LDCS.

A geochemical evaluation of Appendix II parameters was conducted quarterly at each well. This evaluation includes an examination of the cation/anion balance and the plotting of major ions on trilinear diagrams. Trilinear plots of major cations and anions are included in Appendix D. These plots demonstrate the inherent water quality difference between groundwater from the monitoring wells and LDCS system, versus leachate (see Appendix D).

The cation-anion balance evaluates the difference in the sum of cations and anions (in milliequivalents per liter [meq/L]) within a water sample to determine if it is electroneutral (balanced cation and anion charges). A threshold of ten percent difference is used if the total cation-anion sums are less than 5.0 meq/L, and a threshold of five percent difference is used if the total cation-anion sums are greater than or equal to 5.0 meq/L. During 2022, cation-anion balance evaluations slightly exceeded the appropriate threshold at monitoring well MW-2A during the first and fourth quarters, at monitoring wells MW-3, MW-4, and MW-7 during the fourth quarter, and at MW-10 during the second, third, and fourth quarters. Since MW-10 is upgradient of the landfill, these results are interpreted to reflect natural groundwater conditions (see summary tables in Appendix B).

The following statistics were performed using background groundwater quality data:

- The background mean
- The background variance
- The standard deviation of the background data
- The coefficient of variation of the background data
- The standard error of the background data

The statistical method accounted for data below the limit of detection by using a simple substitution of one-half the value of the method reporting limit. The groundwater data tables used for statistical analyses, including prediction limits, are included in Appendix E.

No VOCs were reported in groundwater samples collected from the monitoring wells in 2022.

6.3 MONITORING WELL CONSTRUCTION/MAINTENANCE

No significant well construction or well maintenance activities occurred in 2022.

7.0 STORMWATER MONITORING

Stormwater monitoring was performed weekly, monthly and quarterly in accordance with the National Pollution Discharge Elimination System (NPDES) Industrial Stormwater General Permit (ISGP Permit No. WAR002557) and the NPDES Construction Stormwater General Permit (CSWGP Permit No. WAR002603).

Weekly monitoring per the CSWGP consisted of visual site inspections and stormwater sampling for turbidity. Monthly monitoring included visual site inspections. Quarterly monitoring per the ISGP consisted of visual site inspections and stormwater sampling for field parameters of turbidity and pH, and laboratory analyses of ammonia, biological oxygen demand (BOD), copper (total), zinc (total), total suspended solids (TSS), total petroleum hydrocarbons (TPH) as oil and grease (visual inspection), and semi-volatile organic compounds (SVOCs) including benzoic acid, alpha-terpineol, p-Cresol (4-methylphenol), and phenol. Samples for laboratory testing were submitted to Eurofins TestAmerica of Fife, Washington.

Construction stormwater and industrial stormwater were treated using Chitosan enhanced sand filtration (CESF) systems in 2022. The construction stormwater treatment system is located near the southwest corner of the future landfill footprint area. Treated construction stormwater is discharged into the concrete stormwater channel that conveys stormwater to the site's detention pond. The industrial stormwater treatment system is situated on the east side of the stormwater detention pond. Treated industrial stormwater is discharged through the outlet piping at the detention pond.

The stormwater benchmark for turbidity of 25 NTU was exceeded at C8-2 (146 NTU) on February 28, 2022. No other stormwater benchmarks or water quality effluent limits were exceeded in 2022. Copies of the 2022 Discharge Monitoring Reports (DMRs) for the construction and industrial permits are included in Appendix G.

8.0 LANDFILL GAS MONITORING

8.1 GAS PROBE MONITORING

The landfill gas monitoring network consists of thirteen gas probes installed adjacent to the landfill within the perimeter berm (performance gas probes) and five soil probes that were installed in September of 2022 within native soils closer to the facility property boundary (compliance gas probes). Gas probe monitoring was conducted monthly during 2022 using a Landtec GEM 2000. Methane was not measured above the lower explosive limit of 5 percent methane by volume at performance gas probes GP-1, GP-3, GP-4, GP-9, GP-13, GP-14, GP-16. Concentrations of methane greater than 5 percent by volume were recorded at least once at performance probes GP-2, GP-10A, GP-10B, GP-11, GP-12, and GP-15. Methane was not measured in the five compliance probes. Table H-1 in Appendix H provides a summary of landfill gas monitoring results for 2022.

The performance gas probes-are designed to allow for the early detection of landfill gas migration before subsurface migration to the property line (point of compliance) could occur. Previous barhole monitoring surveys have shown that the methane levels reported above in the performance probes do not result in the migration of landfill gas to the property line.

8.2 ON-SITE BUILDING MONITORING

On-site buildings were monitored once per quarter in 2022. Measurements were obtained using a GasTech or Photovac MicroFID (FID). No significant levels of methane were reported at any of the buildings in 2022. For more details regarding the on-site building monitoring see Appendix H.

8.3 LANDFILL GAS EXTRACTION WELL CONSTRUCTION

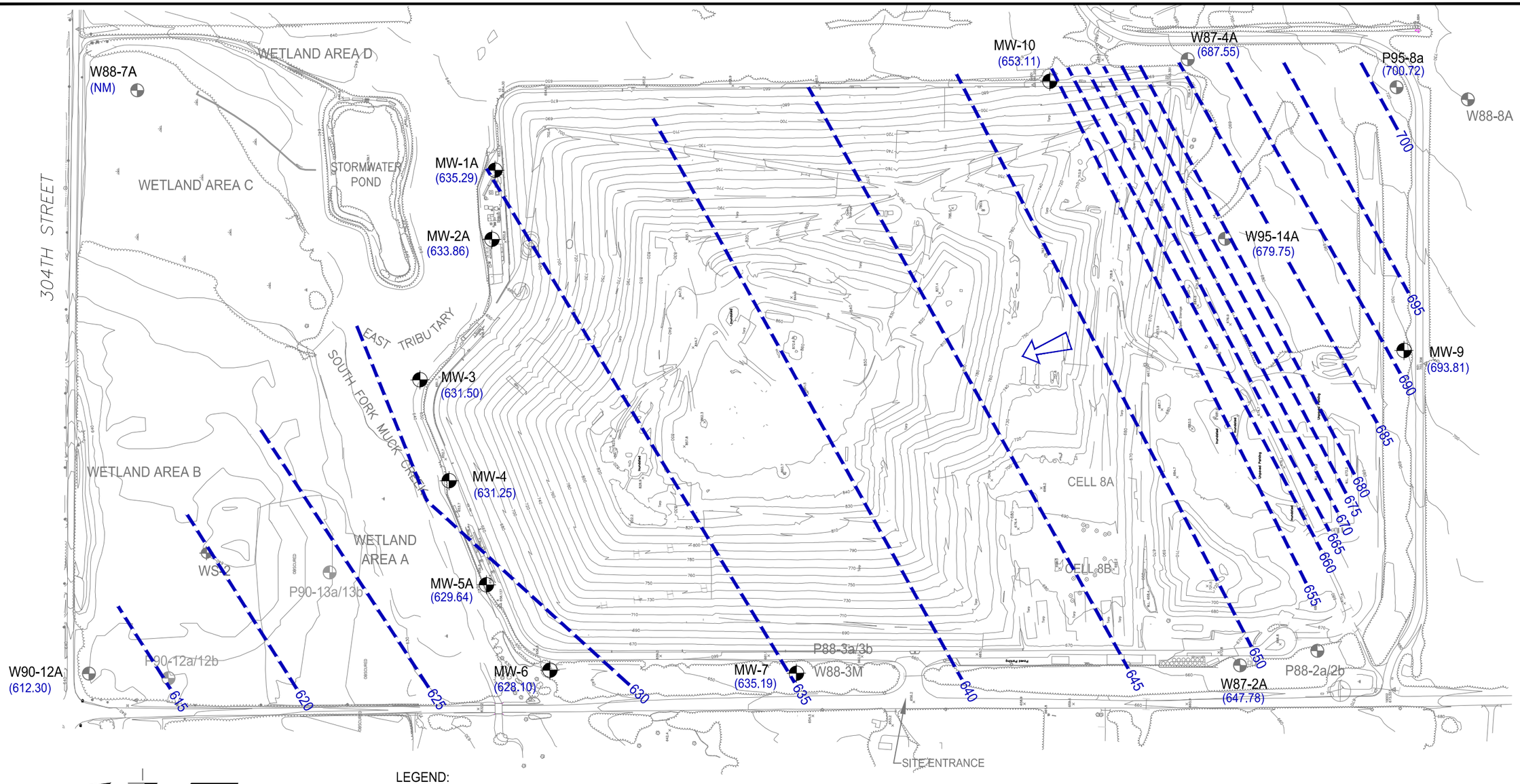
Forty-seven (47) new landfill gas extraction wells were installed in three phases at the LRI Landfill in 2022. Copies of the three Gas Extraction Well Installation Reports that summarize the work are included in Appendix H.

9.0 FINANCIAL ASSURANCE COST ESTIMATES

Cost estimates for constructing the final closure over the refuse, as well as performing annual monitoring and maintenance are included in Appendix I. As required in Chapter 173-351-600(3)(a), the estimates are in current dollars for the total cost of hiring a third party to perform the work. Costs for post-closure monitoring and maintenance are based on the most expensive costs of post-closure care during the post-closure period. The closure and post-closure cost estimates are reviewed annually and updated as appropriate.

Appendix A

Water Level Data



LEGEND:

MW-1A	MONITORING WELL
W87-2A	CHARACTERIZATION WELL/ PIEZOMETER
(647.78)	GROUNDWATER ELEVATION (IN FEET ABOVE MSL)
	INFERRED GROUNDWATER FLOW DIRECTION
(NM)	NOT MEASURED

NOTES:

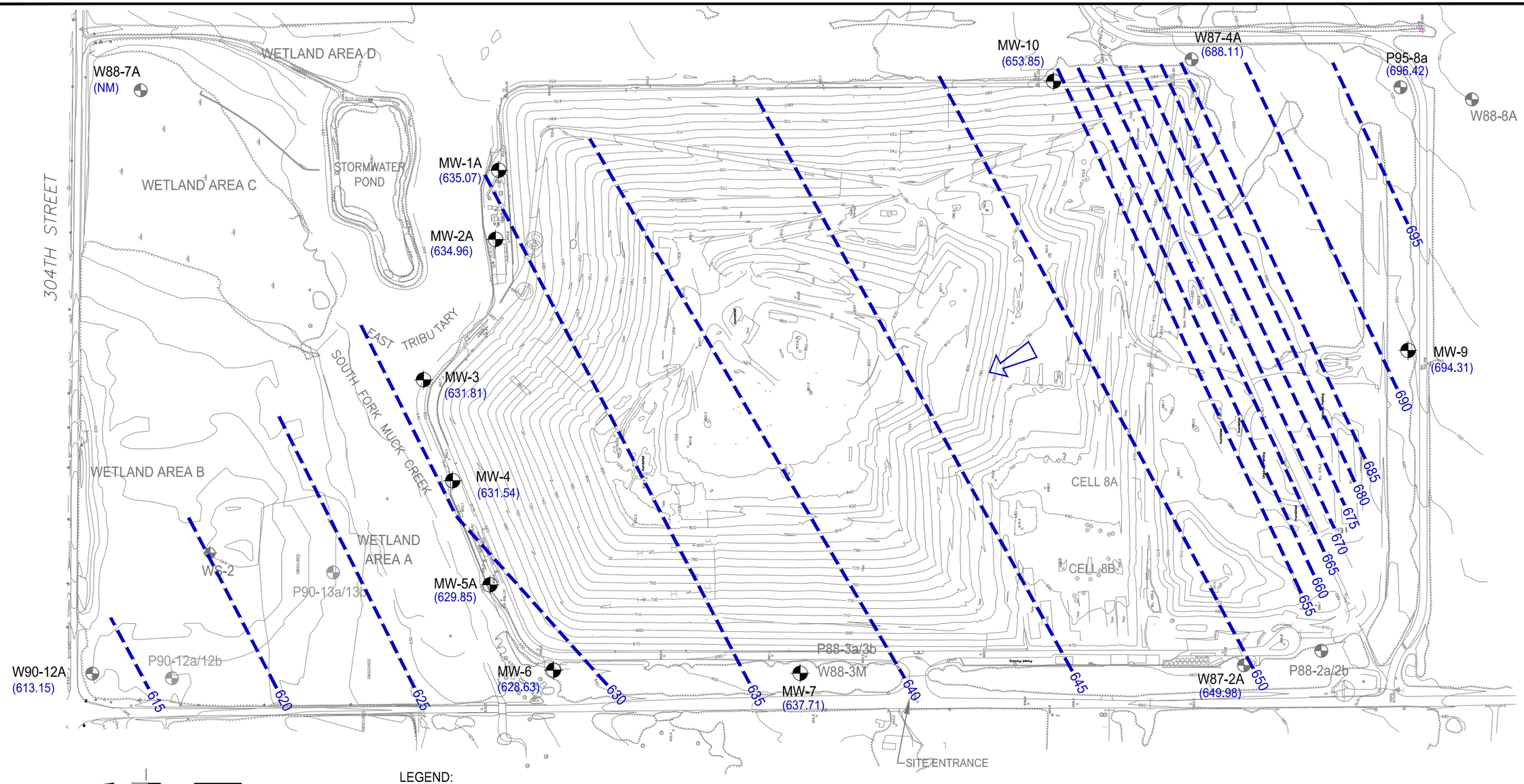
VERTICAL DATUM - BASED ON PIERCE COUNTY BENCH NO. 112-28, ELEVATION 660.29 NGVD29

0 400 800

SCALE (ft)

SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4600 FAX: (425) 746-6747

PROJECT NO. 04222001.02	DES BY SG	POTENTIOMETRIC SURFACE CONTOUR MAP MARCH 29, 2022	DATE JUNE 2022
SCALE AS SHOWN	CHK BY KGL	LRI LANDFILL 30919 MERIDIAN STREET E. GRAHAM, WASHINGTON	FIGURE 1
CAD FILE FIGURE 1	APP BY KGL		



LEGEND:

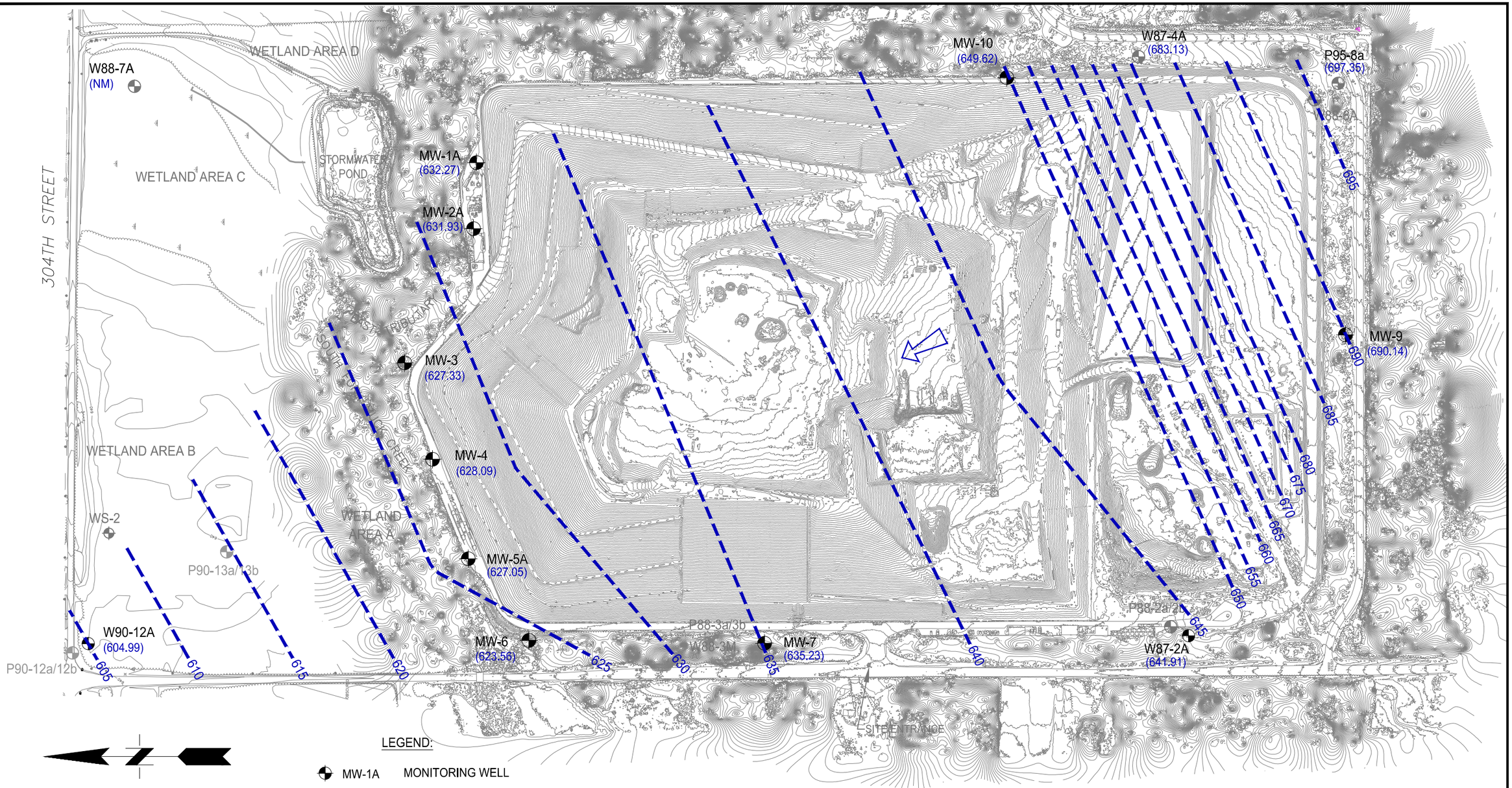
MW-1A	MONITORING WELL
W87-2A	CHARACTERIZATION WELL/ PIEZOMETER
(649.98)	GROUNDWATER ELEVATION (IN FEET ABOVE MSL)
	INFERRED GROUNDWATER FLOW DIRECTION
(NM)	NOT MEASURED

NOTES:

VERTICAL DATUM - BASED ON PIERCE COUNTY BENCH NO. 112-28, ELEVATION 660.29 NGVD29

SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4600 FAX: (425) 746-6747

PROJECT NO. 04222001.02	DES BY SG	POTENTIOMETRIC SURFACE CONTOUR MAP JUNE 14, 2022	DATE SEPTEMBER 2022
SCALE AS SHOWN	CHK BY KGL	LRI LANDFILL 30919 MERIDIAN STREET E. GRAHAM, WASHINGTON	FIGURE 1
CAD FILE FIGURE 1	APP BY KGL		



NOTES:

VERTICAL DATUM - BASED ON PIERCE COUNTY BENCH NO. 112-28, ELEVATION 660.29 NGVD29

LEGEND:

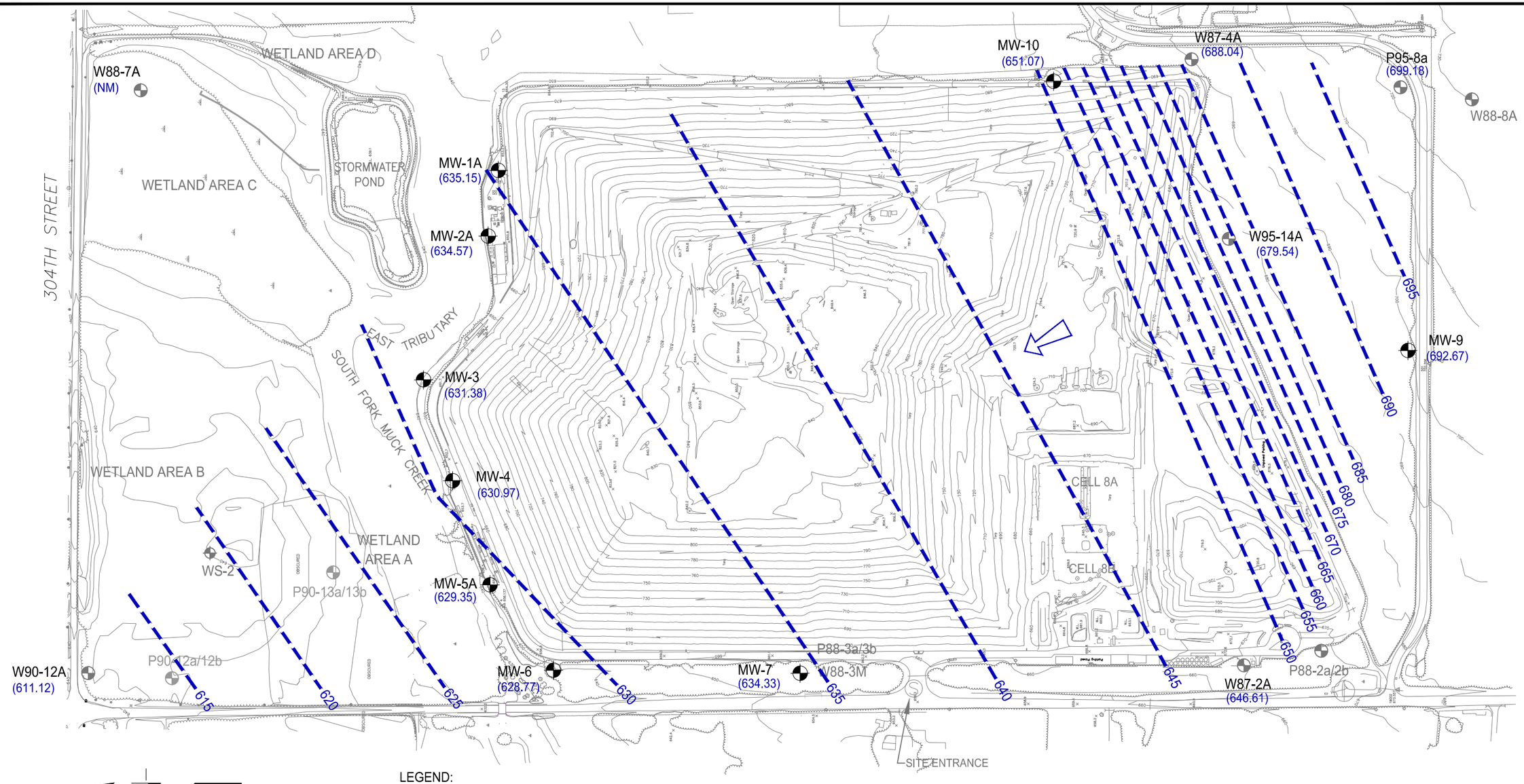
MW-1A	MONITORING WELL
W87-2A	CHARACTERIZATION WELL/ PIEZOMETER
(641.91)	GROUNDWATER ELEVATION (IN FEET ABOVE MSL)
	INFERRED GROUNDWATER FLOW DIRECTION
(NM)	NOT MEASURED

0 400 800

SCALE (ft)

SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4600 FAX: (425) 746-6747

PROJECT NO. 04222001.02	DES BY SG	POTENTIOMETRIC SURFACE CONTOUR MAP SEPTEMBER 14, 2022	DATE NOVEMBER 2022
SCALE AS SHOWN	CHK BY KGL	LRI LANDFILL 30919 MERIDIAN STREET E. GRAHAM, WASHINGTON	FIGURE 1
CAD FILE FIGURE 1	APP BY KGL		



NOTES:

VERTICAL DATUM - BASED ON PIERCE COUNTY BENCH NO. 112-28, ELEVATION 660.29 NGVD29

LEGEND:

MW-1A	MONITORING WELL
W87-2A	CHARACTERIZATION WELL/ PIEZOMETER
(646.61)	GROUNDWATER ELEVATION (IN FEET ABOVE MSL)
	INFERRED GROUNDWATER FLOW DIRECTION
(NM)	NOT MEASURED

0 400 800

SCALE (ft)

SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4600 FAX: (425) 746-6747

PROJECT NO. 04221001.02	DES BY SG	POTENTIOMETRIC SURFACE CONTOUR MAP DECEMBER 15, 2021	DATE MARCH 2022
SCALE AS SHOWN	CHK BY KGL	LRI LANDFILL 30919 MERIDIAN STREET E. GRAHAM, WASHINGTON	FIGURE 1
CAD FILE FIGURE 1	APP BY KGL		

Water Level Elevation Data
LRI Landfill, Pierce County Washington

WELL NUMBER	WELL CASING ELEVATION	11/6/1987	7/13/1988	7/26/1988	9/8/1988	12/22/1988	1/17/1989	2/27/1989	3/21/1989	4/11/1989	5/19/1989	7/5/1989	8/21/1989	9/22/1989	10/19/1989	11/13/1989	12/4/1989	12/21/1989	1/29/1990
W87-1A	661.27	649.01	653.52	650.48	650.25	656.26	656.32	656.36	656.44	656.38	655.51	653.13	650.80	649.55	648.87	649.61	655.43	655.76	656.26
W87-2A	664.01	648.28	651.18	648.71	645.31		653.66	651.41	651.95	652.31	651.64	649.58	647.12	646.34	646.52	647.39	649.73	650.69	652.01
W88-3M	658.11						649.88		650.30	650.41	650.06	649.04	647.23	646.07	645.80	645.82	647.45	648.45	650.72
W87-4a	693.29	681.38	685.21	683.23	683.17		687.80	687.86	687.77	687.64	686.52	684.68	683.14	682.20	681.53	683.47	687.11		687.69
W88-5A	645.26						634.45	636.09	636.09	635.96	635.22	633.24	631.05	630.20	629.75	630.91	634.81	635.53	635.83
W88-6A	652.23							646.99	646.42	646.01	645.05	642.74	643.34	639.23	638.45	639.87	646.99	646.60	647.23
W88-7A	632.51							628.25	628.52	628.44	627.25	625.71		623.33	623.42	625.20	627.21	627.41	
W88-8M	721.05								684.20	684.28	683.42	682.49	681.68	681.26	681.17	681.85	682.86	683.05	683.98
W90-12A	640.84																		
W95-14A	680.49																		
MW-1	649.51																		
MW-1A	652.57																		
MW-2	639.25																		
MW-2A	651.93																		
MW-3	637.41																		
MW-4	652.37																		
MW-5	654.40																		
MW-5A	655.55																		
MW-6	635.71																		
MW-7	656.03	630.52	636.18	633.64	632.01	638.96	639.03	639.35	639.72	639.56	638.29	636.03	632.87	631.72	631.08	633.03	637.68	638.80	638.88
MW-9	701.77																		
MW-10	678.37																		
P88-1a	662.16					658.69	658.67	658.87	658.73	658.62	658.24	655.39	652.95	651.51	650.69	651.72	658.78	658.35	658.75
P88-1b	661.86					656.20	656.35	656.44	656.44	656.36	655.59	653.19	650.87	649.59	648.90	649.66	655.46	655.86	656.16
P88-2a	663.96						660.29	660.48	660.44	660.34	659.53	656.60	654.31	653.20	652.57	653.40	659.37	659.95	660.41
P88-2b	663.48						653.80	653.75	654.05	654.17	653.21	651.05	648.35	647.33	647.12	647.77	652.15	653.25	653.61
P88-3a	656.20					649.60	649.09	649.35	649.54	649.30	648.04	643.97	640.42	639.34	638.56	639.61	646.37	648.67	649.30
P88-3b	655.98					645.54	645.44	645.69	645.51	645.24	643.89	640.59	636.20	636.05	635.33	636.70	642.57	644.52	644.89
P87-4M	693.21	680.80	682.61	680.90	681.35		683.90	683.93	684.13	683.98	683.22	682.34	681.44	681.08	680.90	681.65	682.82	682.95	683.29
P88-5a	644.83						637.46	637.42	637.34	637.09	636.05	633.99	632.08	631.26	630.70	631.20	634.36	635.95	637.18
P88-5b	644.60						635.13	636.26	635.90	635.74	635.01	632.88	630.79	629.89	629.42	630.75	634.39	635.51	635.60
P95-8a	722.07																		
P88-9a	653.28							646.75	646.62	646.56	645.85	643.56	640.44	639.16	638.43	640.86	645.76	646.11	
P88-9b	652.79							641.52	641.53	641.47	640.58	638.47	635.76	634.66	634.00	634.98	639.88	640.88	641.30
P88-10a	665.70						661.33	661.68	661.60	661.45	660.00	657.45	654.46	652.77	651.59	652.13	659.04	660.27	661.42
P88-10b	665.48						655.58	655.66	655.70	655.73	654.82	652.65	649.87	648.49	647.77	648.25	653.73	654.77	654.99
P90-12a	640.79																		
P90-12b	640.73																		
P90-13a	645.19																		
P90-13b	643.63																		
P13-14A	665.96																		
GP-1P	652.00																		
GP-2P	656.61																		
GP-3P	658.51																		
GP-4P	662.01																		
GP-5P	653.59																		
GP-6P	652.39																		
GP-7P	658.12																		
GP-8P	659.18																		
GP-9P	674.03																		
GP-10	649.86																		
GP-14																			
GP-15																			
GP-16																			
WS-1	646.07	613.37	617.99		612.73				619.27	619.86	618.55	616.37	608.54	613.09	612.91	613.44	616.55	618.43	617.39
SG-1	632.79																		
SG-2	629.95																		
LDCS-1	657.26																		
LDCS-2A	659.24																		
LDCS-2B	661.70																		

Well MW-4 casing adjusted from 639.35 to approximately 643.05 in September 2005, to 652.37 in May 2006
Well MW-5 adjusted from 644.83 to 654.40 in August 2008
Well MW-10 casing adjusted from 673.87 to 678.37 in August 2019
Well W88-3M casing adjusted from 656.03 to 658.11 in September 2000
Well MW-6 was previously referred to as MW-11A
Well MW-7 was previously referred to as MW-3A
Well P13-14A was previously referred to as P13-14b

Water Level Elevation Data
LRI Landfill, Pierce County Washington

WELL NUMBER	3/5/1990	4/17/1990	6/19/1990	9/24/1990	10/17/1990	11/19/1990	12/18/1990	1/25/1991	3/14/1991	5/2/1991	6/10/1991	7/11/1991	10/2/1991	10/23/1991	11/21/1991	12/13/1991	1/15/1992	3/25/1992	5/7/1992	6/25/1992
W87-1A	656.14	656.07	656.08	650.00	649.72	655.18	656.27	656.17	656.33	656.10	655.82	653.94	649.74	649.19	650.66	655.56	655.96	656.02	655.77	651.61
W87-2A	652.26	652.55	652.74	647.98	648.42	650.31	651.74	651.91	652.43	653.15	653.05	651.46	648.63	648.48	649.01	650.88	651.94	652.80	652.69	649.35
W88-3M	651.18	651.05	651.08	646.90	646.81	648.08	649.85	650.18	650.44	650.26	650.12	649.99	646.95	646.63	646.78	648.10	648.90	649.96	650.08	645.01
W87-4a	687.85	687.17	687.16	682.94	683.05	686.78	687.70	687.43	687.83	687.17	686.58	685.27	682.70		684.23	686.93	687.39	687.22	686.76	684.03
W88-5A	635.67	635.71	635.62	630.59	630.63	634.59	636.05	635.76	636.03	635.88	635.50	634.17	630.63		631.84	635.20	635.81	635.80	635.49	632.00
W88-6A	646.38	645.97	645.40	643.54	639.29	645.78	646.48	645.11	645.56	644.90	644.56	643.16	639.26		640.18	644.48	644.86	644.75	644.38	640.68
W88-7A	626.84	626.72		623.10	624.15	626.83	628.09	627.89		628.20	627.62	626.51	623.56		625.48	627.26	627.70	627.73	627.38	625.72
W88-8M	684.17	683.81	683.95	681.85	682.04	682.84	684.08	684.12	684.05	684.12	683.76	683.16	681.78		682.33	683.11	683.33	683.85	683.58	682.41
W90-12A					606.11	610.40	612.46	612.72	613.50	614.36	613.71	611.72	607.30		608.87	611.05	612.33	613.03	612.84	607.30
W95-14A																				
MW-1																				
MW-1A																				
MW-2																				
MW-2A																				
MW-3																				
MW-4																				
MW-5																				
MW-5A																				
MW-6					625.93	629.27	629.63	629.05	629.56	628.45	627.48	626.64	625.02		628.26	629.12	628.89	628.48	627.85	625.91
MW-7	639.03	639.23	639.16	632.12	631.13	637.87	639.92	639.03	640.00	639.61	638.98	637.23	632.27	631.85	634.62	638.34	639.18	639.54	639.21	634.34
MW-9																				
MW-10																				
P88-1a	658.41	658.45	658.27	651.73	651.32	658.76	658.86	658.49	658.91	658.54	658.17	656.22	651.37	650.60	653.93	658.49	658.65	658.55	658.02	653.81
P88-1b	656.18	656.12	656.12	650.06	649.96	655.17	656.30	656.18	656.40	656.12	655.84	653.94	649.72	649.19	650.67	655.56	655.98	656.01	655.79	651.65
P88-2a	660.19	659.84	660.18	654.10	653.40	659.51	660.47	660.26	660.22	660.44	659.98	658.31	653.99	653.46	654.98	659.49	660.33	660.29	659.88	655.75
P88-2b	653.85	653.90	654.07	648.27	648.38	652.16	653.87	653.84	654.37	654.40	654.07	652.42	648.48	648.13	649.05	652.93	653.80	654.18	653.99	650.04
P88-3a	649.03	649.20	648.99	639.84	639.52	646.95	649.66	649.20	649.77	649.41	648.66	646.02	639.73	639.13	641.39	647.69		649.34	648.65	642.02
P88-3b	644.77	644.95	644.87	636.54	636.39	643.06	645.62	645.05	645.65	645.34	644.64	642.39	636.61	636.12	638.44	643.80		645.37	644.84	638.68
P87-4M	683.95	683.61	683.78	681.52	681.90	682.59	683.63	683.87	683.63	683.69	683.48	682.85	681.54		682.18	683.01	683.23	683.63	683.51	682.07
P88-5a	636.82	634.54	634.86	631.67	631.49	634.21	637.39	636.85	636.32	637.24	636.74	635.26	631.84		632.08	637.99	637.26	637.17	636.76	633.37
P88-5b	635.39	635.35	635.23	630.21	630.21	634.35	635.75	635.42	635.87	635.49	635.08	633.72	630.23		631.64	634.90	635.47	635.42	635.02	631.67
P95-8a																				
P88-9a	646.47	646.56	646.53	639.84	639.65	645.97	646.74	646.66	646.92	646.73	646.43	644.94	639.75		641.34	646.12	646.65	646.65	645.38	642.34
P88-9b	641.25	641.29	641.24	635.15	635.05	639.87	641.36	641.38	641.77	641.49	641.10	639.58	635.20		635.99	640.50	641.30	641.37	641.10	637.02
P88-10a	660.96	660.40	660.93	653.25	652.46	659.18	661.31	661.10	661.66	661.43	660.66	658.88	652.90		653.13	659.54	661.00	661.04	660.65	656.02
P88-10b	655.60	655.39	655.48	649.02	648.67	653.60	655.45	655.48	655.66	655.66	655.26	653.84	648.89		649.25	654.43	655.30	655.48	655.28	651.28
P90-12a					636.03	638.60	638.72	638.47	638.15	638.39	637.84	636.53	634.20		638.28	638.43	638.45	638.21	637.48	635.41
P90-12b					634.03	637.13	637.36	636.99	636.60	637.02	636.62	635.23	632.58		636.51	636.94	637.02	636.79	636.21	633.78
P90-13a					632.30	639.60	640.40	639.94	640.84	640.11	639.21	637.34	632.84		633.36	639.61	640.14	639.77	639.37	635.00
P90-13b					632.23	639.42	640.31	639.74	640.50	639.85	638.91	637.11	632.65		633.73	639.40	639.91	639.56	639.11	634.78
P13-14A																				
GP-1P																				
GP-2P																				
GP-3P																				
GP-4P																				
GP-5P																				
GP-6P																				
GP-7P																				
GP-8P																				
GP-9P																				
GP-10																				
GP-14																				
GP-15																				
GP-16																				
WS-1	617.21	617.51	617.87	612.47	613.24	616.44	618.54	618.41	618.18	619.78	618.42									
SG-1								628.55	629.45	628.23	627.94	627.63	626.79		628.15	628.72	628.31	628.13		628.75
SG-2								626.21	626.76	626.12	625.95	625.72			626.38	626.59	626.32	626.19		625.33
LDCS-1																				
LDCS-2A																				
LDCS-2B																				

Water Level Elevation Data
LRI Landfill, Pierce County Washington

WELL NUMBER	10/1/1992	10/29/1992	12/4/1992	1/15/1993	4/20/1993	6/2/1993	9/20/1993	11/3/1993	11/30/1993	1/25/1994	5/12/1994	6/21/1994	9/15/1994	10/21/1994	11/4/1994	12/13/1994	12/30/1994	1/30/1995	4/5/1995	5/24/1995
W87-1A	647.61	647.65	653.88	655.18	655.79	655.70	650.34	650.13	650.59	655.53	655.14	654.27	648.07	647.13	649.37	654.31	655.59	655.55	655.48	655.00
W87-2A	646.32	646.78	648.53	650.07	651.06	650.81	648.95	648.70	648.55	650.61	651.78	650.85	646.51	646.49	647.27	649.37	650.21	651.32	651.90	651.70
W88-3M	646.86	637.31	638.19	644.93	647.85		638.64	637.33	640.19	646.62	648.05	642.43	636.37	635.77	639.81	643.21	645.92	646.94	648.04	648.16
W87-4a	681.74	681.53	686.29	686.80	687.55	687.67	684.02	683.36	683.46	687.12	686.21	685.86	682.35	681.43	683.22	686.68	687.85	687.53	687.00	686.43
W88-5A	628.84	628.95	633.11	635.04	635.74	635.81	631.33	631.05	631.40	635.60	634.98	634.06	629.19	628.45	630.57	634.23	635.64	635.67	635.48	635.07
W88-6A	637.43	637.64	643.12	644.22	644.79	644.82	640.50	640.19	640.80	644.73	644.02	643.32	638.05	637.10	641.96	645.20	645.53	645.40	644.69	644.39
W88-7A	623.14	623.72	625.70	626.92	627.94	627.57	623.94	624.67	625.37	627.60	626.80	626.41	622.57	622.53	624.89		628.00	627.68	627.74	627.40
W88-8M	681.34	681.54	682.61	682.99	684.13	683.91	682.49	682.09	682.48	683.67	683.37	683.26	681.69	681.39	682.28	683.05	684.21	683.92	684.00	683.41
W90-12A	605.29	606.26	608.66	610.74	612.09	611.37	608.23	608.89	608.82	611.66	610.96	609.79	605.14	605.74	607.45	609.79	611.44	612.14	612.73	612.14
W95-14A																				
MW-1																				
MW-1A																				
MW-2																				
MW-2A																				
MW-3																				
MW-4																				
MW-5																				
MW-5A																				
MW-6	625.27	625.66	629.01	628.20	629.29	629.53	625.99	626.13	626.73	629.31	627.32	627.30	625.47	625.29	628.39	629.73	629.53	629.46	628.27	
MW-7	630.50	630.56	636.34	638.24	639.64	639.43	634.12	633.33	632.55	639.44	638.47	637.64	631.14	630.30	633.25	637.35	639.50	639.44	639.49	638.66
MW-9																				
MW-10																				
P88-1a	649.59	649.28	658.49	657.94	658.74	658.86	653.95	653.21	653.79	658.74	657.94	657.73	650.95	649.65	651.80	658.80	658.72	658.81	658.48	657.69
P88-1b	647.66	647.63	653.93	655.27	655.82	655.80	650.43	650.22	650.67	655.61	655.21	654.35	648.17	647.20	649.42	654.36	655.61	655.63	655.56	655.00
P88-2a	652.67	652.50	658.72	659.59	660.19			655.05	654.93	660.18	659.65	659.18	653.40	652.60	653.57	658.67	660.13	660.36	660.22	659.31
P88-2b	646.76	646.90	650.97	652.80	653.14			651.39	650.07	653.34	653.53	652.63	647.41	646.86	647.71	651.40	653.22	653.57	653.75	653.32
P88-3a	637.93	637.54	644.80	648.18	649.52	649.40		640.88	640.59	649.33	648.12	646.89	638.99	637.79	639.69	645.56	649.40	649.48	649.33	648.05
P88-3b	634.89	634.68	641.26	644.24	645.51	645.44		637.81	637.34	645.37	644.31	643.09	635.82	634.76	637.02	642.18	645.45	645.51	645.38	644.31
P87-4M	681.12	681.03	682.51	682.93	683.89	683.77	682.27	682.04	682.29	683.60	683.16	683.12	681.56	681.14	682.06	682.52	683.98	683.79	683.80	683.23
P88-5a	630.91	630.64	633.36	636.57	637.72	637.83	633.45	632.83	632.93	637.50	636.67	636.41	631.93	631.12	631.58	634.13	637.66	637.65	637.33	636.72
P88-5b	629.05	629.10	633.45	634.87	635.52	635.65	631.59	631.39	631.83	635.44	634.64	634.29	629.61	628.90	630.80	634.34	635.50	635.54	635.23	634.67
P95-8a																				
P88-9a	638.18	637.99	645.10	646.08	646.59	646.56	642.22	641.12	641.08	646.57		645.51	639.02	638.06	641.47	645.57	646.66	646.61	646.48	646.06
P88-9b	633.28	633.24	638.35	640.53	641.19	641.14	636.66	636.01	636.00	641.02		639.63	633.87	632.95	635.01	639.21	641.01	641.07	640.99	640.54
P88-10a	651.03	650.70	658.42	660.32	661.38	661.20	655.86	653.96	653.61	661.05	660.51	659.40	652.55	651.14	652.50	658.88	660.97	661.22	661.20	660.26
P88-10b	646.93	646.87	652.62	654.66	655.16	655.01	651.03	649.98	649.95	655.15	654.96	654.04	647.91	646.93	648.25	653.25	655.02	655.17	655.28	654.82
P90-12a	634.96	635.84	638.40	637.54	638.48	638.61	635.43	636.10	637.48	638.61	637.09	637.88	635.61	632.85	638.21	638.57	637.89	638.60	637.76	637.01
P90-12b	633.09	634.00	636.87	636.05	637.04	637.16	634.00	634.59	635.63	637.25	635.77	636.54	633.67	632.90	636.44	637.10	637.01	637.22	636.45	635.82
P90-13a	631.51	631.03	639.31	639.03	640.62	640.79	635.07	633.63	633.38	640.17	638.94	638.55	632.79	631.78	634.25	640.01	640.37	640.32	639.78	638.94
P90-13b	631.29	630.62	639.11	638.85	640.37	640.55	634.92	633.50	633.32	640.01	638.73	638.42	632.65	631.30	634.13	639.77	640.13	640.10	639.57	638.75
P13-14A																				
GP-1P																				
GP-2P																				
GP-3P																				
GP-4P																				
GP-5P																				
GP-6P																				
GP-7P																				
GP-8P																				
GP-9P																				
GP-10																				
GP-14																				
GP-15																				
GP-16																				
WS-1							614.40													
SG-1		628.97	629.25	629.20	629.50	630.34	629.50	628.75	628.65	629.25	628.49		628.21	628.19	628.61	632.11	631.18	629.67		
SG-2		625.53	626.53	626.08	626.78	628.13	625.28	625.63	625.88	626.78	625.81	625.86	625.25	625.41	626.43	629.45	627.93	627.01	626.22	626.01
LDCS-1																				
LDCS-2A																				
LDCS-2B																				

Water Level Elevation Data
LRI Landfill, Pierce County Washington

WELL NUMBER	7/17/1995	7/18/1995	7/21/1995	7/24/1995	7/27/1995	10/11/1995	11/10/1995	12/13/1995	1/19/1996	4/26/1996	9/19/1996	10/18/1996	11/1/1996	12/13/1996	2/3/1997	3/24/1997	5/29/1997	6/9/1997	7/3/1997	8/27/1997
W87-1A		650.85	650.41		650.06	647.75	651.79	655.47	655.85	655.85	647.85	648.57	651.77	655.53	655.82	655.85	655.05	655.61	655.05	650.81
W87-2A			647.70			646.58	648.03	650.73	651.60	652.30	646.69	647.34	648.37	651.15	651.93	652.25	651.74		651.65	648.24
W88-3M			639.44			635.91	641.23	645.59	646.93	647.88	636.29	640.38	642.44	646.30	647.52	647.97	647.97	648.04	647.93	645.71
W87-4a		684.09	683.86			682.51	684.59	687.64	687.85	687.90	682.68		684.76	687.68	687.84	687.73	686.51		686.31	683.76
W88-5A			631.45			629.20	632.03	635.61	635.83	636.04	629.21	630.29	632.48	635.60	635.96	635.92	635.21			631.70
W88-6A			640.18			637.58	642.89	645.09	645.42	645.70	638.22	639.41	643.40	645.79	645.90	645.97	645.22		644.96	641.19
W88-7A					623.48	623.80	625.89	628.02	628.51	628.82	623.72	622.28	626.64	628.43	629.04	628.94	627.18		627.26	622.92
W88-8M		681.45	681.42			682.08	682.68	684.35	684.53	684.47	681.81	682.32	682.67	684.11	684.26	684.57	683.50		683.68	680.84
W90-12A			605.72			605.99	608.93	611.94	613.24	614.09	606.96	608.86	610.14	613.01	614.09	614.56	608.62	605.14	609.00	601.54
W95-14A			677.55	677.77	678.01	677.19	678.65			680.49	677.53	677.50	678.45	680.67	681.12		680.79		679.84	677.58
MW-1																				
MW-1A																				
MW-2																				
MW-2A																				
MW-3																				
MW-4																				
MW-5																				
MW-5A																				
MW-6			626.13			626.61	628.87	629.65	629.68	629.75	625.41	626.79	628.66	629.73	629.62	629.37	627.50	628.83	627.52	625.91
MW-7			634.07			631.34	635.77	639.82	640.18	640.15	631.36	632.34	635.76	640.13	640.27	640.21	639.12	640.04	638.85	634.08
MW-9	690.67		690.79	690.65	690.37	689.68	690.66	692.91	693.55	694.04	690.05	690.39	691.19	693.36	694.05	694.38	693.81		693.69	691.38
MW-10	657.97	657.97	657.75		657.20	655.36	657.43	660.89	661.76	662.04	655.38	655.78	657.75	661.19	662.18	662.27	661.71	661.95	661.71	659.02
P88-1a		654.06	653.70		653.27	650.59	657.05	658.58	658.69	658.85	650.26	650.41	657.45	658.62	658.92	658.69	658.36	658.55	658.03	656.27
P88-1b		650.94	650.50		650.16	647.82	651.79	655.51	655.89	655.88	647.94	648.57	651.84	653.20	655.88	656.40	655.13	655.66	655.08	650.91
P88-2a			655.43			652.82	655.78	660.00	660.50	660.38	653.26	653.01	656.73	660.20	660.50	660.42	659.54		659.38	655.23
P88-2b			649.10			647.07	649.08	653.36	653.96	654.19	647.34	647.61	649.47	653.66	654.11	654.24	653.38		653.31	649.36
P88-3a			641.74			638.21	642.30	649.28	649.76	649.72	638.81	638.69	642.47	649.44	649.84	649.71	648.35	649.41	648.15	641.45
P88-3b			638.66			635.39	639.37	645.51	645.98	645.87	635.78	636.04	639.53	645.72	646.00	645.89	644.57	645.61	644.37	638.48
P87-4M		681.49	681.23			681.89	682.28	684.28	684.21	684.37	681.63	681.83	682.69	683.87	684.11	684.50	683.35		683.44	680.75
P88-5a			633.74			631.62	632.67	637.44	637.66	638.11	632.05	631.87	632.92	637.48	636.01	635.86	635.24			631.62
P88-5b			631.70			629.75	632.23	635.47	635.65	635.80	629.72	630.32	632.51	635.62	637.82	637.65	636.75			633.31
P95-8a		697.86	697.63	697.55	697.58	697.29	697.29	700.89	702.18	700.84	697.51	697.64	697.48	701.39	702.52	702.53	722.07		700.13	698.57
P88-9a			642.21			638.69	646.35	646.64	646.84	646.82	638.95	639.13	643.58	646.74	646.87	646.80	646.21		646.07	642.02
P88-9b			636.40			633.52	636.60	640.99	641.24	641.33	633.74	634.32	637.15	641.13	641.34	641.36	640.59		640.46	636.55
P88-10a		656.20	655.86		655.33	651.55	655.66	660.99	661.40	661.39	652.42	651.75	655.76	660.88	661.38	661.33	660.14		660.19	655.84
P88-10b		651.08	650.72		650.21	647.29	650.17	655.21	655.54	655.50	647.73	647.68	650.53	655.24	655.55	655.62	654.78		654.69	650.71
P90-12a			635.95			637.46	638.20	638.68	638.68	638.47	635.80	637.29	637.94	638.59	638.39	638.10	638.29	637.67	637.65	636.69
P90-12b			634.35			635.24	636.71	637.28	637.33	637.27	634.02	635.44	636.61	637.31	637.24	636.98	636.69	636.44	636.40	634.66
P90-13a			635.06			632.11	636.97	640.24	640.56	640.96	632.89	632.51	637.91	640.20	640.79	640.44	638.98	640.41	639.48	635.15
P90-13b			635.21			632.06	636.72	640.05	640.36	640.71	632.80	632.46	637.75	639.95	640.60	640.23	638.91	640.17	639.29	634.94
P13-14A																				
GP-1P																				
GP-2P																				
GP-3P																				
GP-4P																				
GP-5P																				
GP-6P																				
GP-7P																				
GP-8P																				
GP-9P																				
GP-10																				
GP-14																				
GP-15																				
GP-16																				
WS-1																				
SG-1																	629.63		629.45	629.09
SG-2																	628.65	626.77	626.30	625.15
LDCS-1																				
LDCS-2A																				
LDCS-2B																				

Water Level Elevation Data
LRI Landfill, Pierce County Washington

WELL NUMBER	10/13/1997	11/11/1997	1/8/1998	4/16/1998	6/19/1998	9/9/1998	10/28/1998	12/7/1998	1/28/1999	2/24/1999	3/30/1999	4/26/1999	5/26/1999	6/28/1999	7/29/1999	7/30/1999	8/6/1999	10/13/1999	11/1/1999	12/3/1999
W87-1A	651.02	654.45	655.66	655.50	653.90	647.40	646.89	653.58	655.44	655.48	655.48	655.12	655.00		651.14	651.07	650.60	647.14	648.67	654.42
W87-2A	648.89	650.46	651.50	652.27	651.38	645.83	646.19	648.80	651.28	651.79	652.01	651.68	651.56	650.23					646.83	
W88-3M	639.76	645.01	647.49	648.04		635.33	638.16	642.91	646.78	647.43	647.67	647.67	647.64	643.60			639.74			
W87-4a	684.06	685.51	687.73	687.04	685.86	682.67	681.95	687.02	687.87	687.63	687.62	686.63	686.67	685.31					682.06	
W88-5A	631.83	634.72	635.70	635.53	633.84	628.86	628.94	634.38	635.88	635.77	635.75	635.34	635.30	634.11	632.56	632.48	632.75	630.23	631.09	634.02
W88-6A	642.14	645.10	645.92	645.25	643.95	636.43	638.17	644.43	645.56	645.48	645.46	644.96	644.88	643.71	642.26	642.23		Decommissioned 7/30/99		
W88-7A	624.94	627.20	627.37	627.70	626.10	621.64	624.21	627.18	628.57	628.09	628.15	627.74	627.59	625.70	623.40	623.36				
W88-8M	682.65	683.41	684.16	684.03	683.30	681.44	681.57	683.37	684.30	684.10	684.18	683.45	683.41	682.70					681.75	
W90-12A	607.28	609.33	608.31	610.87	608.04	601.13	604.54	608.23	610.49	610.22	610.82	610.67	608.81	605.66			604.88			
W95-14A	678.60	680.29	680.49	680.49	680.49	677.20	676.81	679.72	680.49	680.49	680.49	680.49	680.41	679.46					676.85	
MW-1									636.11	636.48	636.35	636.12	636.03	635.12	633.41	633.33	634.44	632.15	632.89	635.12
MW-1A																				
MW-2									637.44	638.15	638.01	637.23	636.28	635.19	633.40	633.33	634.08			636.12
MW-2A																				
MW-3									633.75	634.02	633.45	633.02	632.89	631.81	630.16	630.04	630.01	627.95	628.70	631.46
MW-4									633.90	633.86	633.90	633.24	633.17	632.00			630.08	626.72	627.78	632.00
MW-5																				
MW-5A																				
MW-6	627.56	628.91	629.62	628.53	627.07	624.92	625.49	629.16	629.78	629.45	629.51	628.06	628.24	627.14			625.95	624.98	625.93	629.26
MW-7	634.99	638.54	640.47	640.11	638.15	630.72	630.36	638.56	640.47	640.46	640.61	639.80	639.65	637.46			633.84		630.97	637.40
MW-9	691.47	692.48	693.71	694.16	693.55	690.23	689.55	691.92	693.37	693.61	693.80	693.39	693.35	692.41					689.32	
MW-10	657.94	660.15	661.73	662.20	660.17		654.52	658.76	660.99	661.53	661.86	661.68	661.64	659.99					658.21	
P88-1a	654.37	658.66	658.87	658.58	657.52	650.55	648.81	658.59	658.93	658.82	658.78	658.39	658.20				654.43	651.64	652.36	658.21
P88-1b	651.11	657.54	655.67	655.52	653.96	647.41	646.91	653.64	655.48	655.50	655.51	655.13	655.04				650.45	647.73	648.47	654.22
P88-2a	655.05	658.72	660.42	660.24	659.02	653.17	652.12	658.94	660.42	660.55	660.46	660.14	659.75	657.93					652.04	
P88-2b	649.65	652.45	653.91	654.13	653.09	646.82	645.44	650.92	653.79	654.01	654.10	653.69	653.51	651.65					646.57	
P88-3a	642.03	645.78	649.81	649.37	647.37	638.90	637.33	646.52	649.94	649.87	649.84	649.28	648.79	645.47			641.18		637.53	646.15
P88-3b	638.96	642.68	646.02	645.58	643.63	635.52	634.42	643.17	646.07	646.06	646.06	645.00	645.05	642.18			638.21		634.86	642.62
P87-4M	682.52	683.25	683.97	683.78	683.16	681.14	681.35	683.13	684.05	683.91	683.95	683.36	683.19	682.58					681.51	
P88-5a	633.24	635.81	637.93	637.49	636.27	632.12	631.20	634.21	638.06	637.76	637.75	637.25	637.28	636.76	635.37	635.36		Decommissioned 7/30/99		
P88-5b	632.15	634.57	635.55	635.20	634.10	629.41	629.08	634.31	635.56	635.43	635.37	634.95	634.90	634.19	632.62	632.60		Decommissioned 7/30/99		
P95-8a	697.72	698.73	700.25	700.74	699.30	697.33	696.86	697.95	702.21	702.06	701.25	700.19	699.91	722.07					697.05	
P88-9a	641.88	645.85	646.84	646.50	645.50	639.11	637.98	645.70	646.75	646.75	646.74	646.35	646.31	645.20	642.94	642.86	642.78	639.46		645.03
P88-9b	636.65	640.03	641.26	641.00	639.60	633.50	632.94	639.43	641.21	641.22	641.22	640.75	640.75	639.54	637.26	637.36	637.74	633.99		637.86
P88-10a	654.97	659.85	661.39	661.07	659.71	652.94	651.02	658.79	661.11	661.50	661.40	661.01	660.67	658.27					651.10	
P88-10b	650.45	654.09	655.45	655.36	654.26	647.53	646.35	652.95	655.33	655.44	655.45	655.10	654.97	653.18					646.88	
P90-12a	638.11	638.21	638.53	638.50	638.43	637.23	637.88	638.51	638.61	638.62	638.59	638.57	638.56	638.63			636.07			
P90-12b	636.58	636.87	637.02	636.99	636.70	634.99	636.03	636.98	637.26	637.20	637.16	637.08	636.99	636.82			634.29			
P90-13a	636.92	640.22	640.75	639.91	638.37	633.04	631.61	639.63	640.86	640.61	640.24	639.38	639.64	637.57			635.32			
P90-13b	636.75	639.68	640.49	638.66	638.15	632.85	631.43	639.40	640.60	640.38	640.00	639.18	639.40	637.40			635.09			
P13-14A																				
GP-1P																				
GP-2P																				
GP-3P																				
GP-4P																				
GP-5P																				
GP-6P																				
GP-7P																				
GP-8P																				
GP-9P																				
GP-10																				
GP-14																				
GP-15																				
GP-16																				
WS-1																		602.10		
SG-1	629.86	630.04	630.79	629.88	630.33	628.52	630.24	629.82	631.55	630.69	630.56	630.46	630.06	629.97			629.95			
SG-2	626.03	626.80	627.67	626.63	625.90		625.23	627.20	628.18	626.94	626.76	626.14	626.11	625.80			625.20			
LDCS-1																				
LDCS-2A																				
LDCS-2B																				

Water Level Elevation Data
LRI Landfill, Pierce County Washington

WELL NUMBER	3/29/2000	5/8/2000	6/14/2000	9/25/2000	10/19/2000	11/2/2000	12/14/2000	3/16/2001	4/11/2001	6/22/2001	9/21/2001	12/10/2001	3/28/2002	6/17/2002	9/24/2002	12/31/2002	3/17/2003	3/25/2003	6/24/2003	9/16/2003
W87-1A	655.35	655.35	654.32	648.65	649.10	650.32	653.45	654.27	654.61	653.14	648.69	653.74	654.46		Decommissioned 4/17/02					
W87-2A	651.56	649.56	650.76	646.23		646.73	647.61	645.76	645.43	641.60	640.28	645.34	648.25	643.90	640.46	640.38		642.44	640.36	638.33
W88-3M					640.56	641.43	644.71	648.10	648.50	642.31	636.43	641.98	645.03	640.56	635.39	641.26		645.39		634.43
W87-4a	687.54	687.37	686.91	682.57		682.89	684.46	686.86	687.97	685.39	682.94	687.57	687.56	685.49	682.09	683.75		687.61	683.49	681.08
W88-5A	634.36	634.50	633.73	630.74	632.89	632.64	633.76	632.49	632.71	631.21	628.75	632.08	632.67	631.58	628.76	632.06		633.56	631.55	628.61
W88-6A																				
W88-7A			626.45	623.31	624.06	623.85	626.04	618.04	618.16	617.26	616.01	620.05	621.94	620.96	617.59	620.89		623.48	621.18	616.90
W88-8M	684.18	683.92	683.57	681.82		681.94	682.65	683.45	684.14	682.16	681.62	683.74	684.34	683.12	681.12	682.50		683.94	682.42	680.68
W90-12A	610.84	611.39	610.81	605.31	605.84	606.71	608.14	598.04	596.58	593.64	589.90	593.97	597.94	597.79	593.61	596.69		600.87	599.19	594.34
W95-14A	680.49	680.49	680.49	677.21		677.39	678.99	679.51	679.74	679.39	676.47	679.76	680.49	679.39	676.05	677.93		679.88	678.36	675.44
MW-1	635.36	635.66	633.95	631.89	632.71	632.86	635.16	632.72	632.96	631.71		Decommissioned 6/28/01								
MW-1A											631.11	634.62	634.71	633.96	631.18	634.11		635.58	633.51	630.85
MW-2	636.67	636.75	635.48											Decommissioned 4/17/02						
MW-2A														633.17	630.89	633.58		635.14	633.24	630.64
MW-3	632.39	632.46	630.91	628.49	629.96	630.41	631.50	629.84	630.00	628.11	625.13	629.26	630.03	628.99	625.56	629.28		630.99	628.71	625.18
MW-4	634.60	632.77	632.36	628.54	629.71	630.31	631.93	629.37	629.46	627.85	624.91	629.24	630.10	629.10	625.52	629.40		631.25	628.96	625.12
MW-5					632.91	633.31	634.03	631.46	632.21	630.46	627.12	632.23	631.81	631.32	627.73	631.67		633.51	630.89	627.11
MW-5A																				
MW-6	629.16	629.46	629.36	625.65	628.53	628.66		628.84	629.77	627.11	625.05	629.14	628.90	626.48	623.74	628.76		629.14	626.11	623.17
MW-7	638.18	638.33	637.44	631.79	632.52	633.51	636.13	632.37	632.56	630.43	625.12	631.61	633.19	631.65	626.89	631.30		635.12	631.78	627.13
MW-9	693.62	695.67	693.21	689.59		689.90	690.96	691.26	691.72	691.17	688.27	691.08	692.82	691.62	688.14	690.78		691.72	689.53	687.66
MW-10	660.67	661.77	660.96	655.97	656.02	657.04	659.37	661.26	661.47	660.08	656.30	659.52	661.57	659.75	655.07	658.10		660.75	658.12	653.47
P88-1a	658.81	659.16	658.65	654.37	655.51	656.91	659.04	659.95	660.28	659.25	654.70	660.05	660.27		Decommissioned 4/17/02					
P88-1b	655.16	654.24	654.14	648.43	648.98	650.20	653.21	654.30	654.51	653.03	648.58	653.29	654.27		Decommissioned 4/17/02					
P88-2a	660.21	660.19	659.59	652.73		652.48	655.86	658.80	658.96	657.28	651.80	657.95	659.23	656.71	651.27	655.43		658.98	655.48	651.03
P88-2b	653.63	653.10	652.70	646.98		647.36	649.60	647.59	647.57	645.53	641.41	647.16	649.19	646.35	640.79	643.88		647.68	645.07	641.10
P88-3a	648.88	648.99	647.65	638.48	638.04	638.75	642.40	645.48	646.35	643.70	636.32	645.10	647.23	643.82	636.33	639.18		647.98	641.62	635.61
P88-3b	644.58	644.75	643.48	635.79	635.91	636.68	639.88	640.33	640.97	638.45	631.79	638.62	641.51	638.91	632.47	635.83		642.88	637.73	632.21
P87-4M		683.94	683.51	681.59		681.88	682.66	683.61	684.01	683.16	681.43	683.69	684.15	683.05	680.94	682.44		683.86	682.29	680.49
P88-5a																				
P88-5b																				
P95-8a	701.27	700.52	699.22	697.36		697.05	696.87	697.79	699.04	698.42	696.88	698.26	700.87	698.64	696.96	696.39		699.12	697.33	696.59
P88-9a	645.43	645.53	645.13	641.46	642.53	642.91	644.28	643.16	643.39	642.40	638.85	643.59	644.00	642.91	640.13	643.63		644.54	642.61	639.71
P88-9b		638.99	638.29	635.06	635.64	635.14	637.47	635.62	635.64	634.73	631.94	635.28	636.22	635.39	632.55	634.89		636.94	635.37	632.66
P88-10a	660.95	661.46	660.50	652.09		651.30	656.23	660.60	660.95	657.33	651.95	660.13	660.65	658.43	652.75	658.25		659.83	657.02	652.85
P88-10b		655.04	654.21	647.67		647.96	650.83	650.48	650.60	649.31	643.97	650.31	651.52	649.63	644.47	649.24		660.68	649.45	645.40
P90-12a	637.64	638.09	637.72	635.86	637.32	637.14	637.83	637.94	638.14	637.14	635.15	638.08	637.77	636.98	633.42	637.76		637.77	636.81	632.11
P90-12b	636.38	636.58	636.44	634.17	635.55	635.58	636.33	635.58	635.63	634.75	632.28	635.63	635.64	634.95	631.22	635.59		635.92	634.84	630.02
P90-13a	639.39	639.50	637.69	632.05		632.29	635.01	639.10	639.99	637.94	632.03	637.73	639.31	637.31	630.94	635.27		639.46	634.83	630.44
P90-13b	639.18	639.36	638.61	631.91		632.21	634.96	638.80	639.60	637.59	631.71	638.33	638.96	635.98	630.66	635.74		639.13	634.60	629.66
P13-14A																				
GP-1P								635.25	635.90	634.65	632.27	635.28	635.40	634.18	631.88	635.33		635.59	633.69	631.46
GP-2P								641.11	641.12	641.11	640.27	641.20	641.11	640.73	639.73	640.54		641.77	640.24	638.97
GP-3P								645.53	646.96	647.21	645.76	647.15	647.57	647.53	645.52	646.03		647.56	647.34	645.16
GP-4P																			649.59	
GP-5P																	646.11			
GP-6P																	642.76		643.38	
GP-7P																	645.50		646.92	645.49
GP-8P																	644.25		649.95	646.87
GP-9P																				
GP-10																				
GP-14																				
GP-15																				
GP-16																				
WS-1																				
SG-1		630.39	630.11	629.15	629.79	629.74	630.29	630.17	632.20	629.51	628.64	630.64	630.07	628.94	628.47	630.44		630.34	628.48	626.01
SG-2		627.00	626.74		625.50	625.60	626.35	626.36	629.40	625.85	625.19	627.50	626.72	625.56		627.35		627.06	625.03	
LDCS-1								632.01	632.06	631.51	631.88	632.19	632.65	632.92	633.08	632.41		632.31	632.11	632.29
LDCS-2A								633.64	633.04	633.14	633.19	632.94	633.16	633.21	634.67	634.58		633.74	634.73	634.61
LDCS-2B																634.28		633.71	634.16	633.60

Water Level Elevation Data
LRI Landfill, Pierce County Washington

WELL NUMBER	12/19/2003	3/22/2004	6/22/2004	9/29/2004	12/16/2004	3/23/2005	6/29/2005	10/3/2005	12/27/2005	3/16/2006	6/12/2006	9/18/2006	12/27/2006	3/31/2007	6/18/2007	9/18/2007	12/11/2007	3/10/2008	6/5/2008	9/26/2008
W87-1A																				
W87-2A	642.70	644.97	641.4	645.02	644.15	647.47	646.90	642.38	647.85	649.76	649.59	643.06	647.96	647.93	643.90	640.76	646.17	646.58	645.82	643.38
W88-3M	641.64	645.78	638.08	637.33	644.40	646.23	641.84		645.01	646.08	641.37	634.45	643.55	646.49	639.93	635.33	641.75	645.94	639.96	634.38
W87-4a	686.02	687.07	685.08	684.88	687.69	686.42	686.08	682.74	687.67	687.34	686.67	682.02	686.77	687.76	684.36	681.67	688.51	687.14	693.29	682.01
W88-5A	633.10	636.90	632.58	632.56	634.03	633.96	633.21													
W88-6A	622.80				636.90															
W88-7A	622.80	624.20		622.02		624.75				625.82		618.89	622.58	626.26	622.85	620.73	625.00	625.80	632.51	621.19
W88-8M	683.00	683.53	682.23	682.59	684.55	683.27	683.33	681.78	683.83	683.65	683.17	680.93	684.73	684.37	682.42	680.23	682.91	683.74	683.29	681.47
W90-12A	599.63	603.09	600.15	599.74	602.83	603.92	603.95	580.33	604.41	606.25	605.02	597.06	604.97	607.92	602.98	600.02	604.70	607.13	606.66	601.32
W95-14A	679.08	679.49	678.56	678.78	679.98		679.91	677.07	680.29	680.29	680.19	676.51	680.36	680.49	678.74	676.98	679.07	680.39	680.49	676.79
MW-1																				
MW-1A	634.79	635.69	636.29	634.55	635.78	635.75	634.87	632.48	635.59	635.43	634.66	631.39	635.21	635.69	633.55	631.81	635.96	634.91	634.36	631.72
MW-2																				
MW-2A	630.63	635.40	634.23	634.39	635.43	635.26	634.72	632.39	634.97	634.76	634.13	631.06	634.08	635.03	633.17	631.51	634.34	634.59	633.68	631.44
MW-3	630.93	634.45	629.86	630.32	631.67	631.50	631.01	627.92	631.26	631.17	630.46	626.17	628.70	631.59	629.07	626.79	630.60	631.04	630.19	627.07
MW-4	633.04	631.77	630.3	630.89	632.19	631.99	631.36	623.47	630.37	626.40	629.41	624.38		632.24	629.96	627.89	631.40	631.54	630.68	627.52
MW-5	628.93	633.46	631.78	633.05	635.13	633.41	633.41	631.14	634.41	633.80	633.53	628.78		627.15	631.32	630.05	633.74	632.36	632.04	
MW-5A																				
MW-6	628.93	628.79	626.37	628.54	629.24	627.99	627.26	626.47	629.58	628.71	627.71	624.16	626.14	629.37	626.38	626.82	629.01	626.39	627.20	625.30
MW-7	633.93	635.84	632.56	633.46	637.27	636.22	635.22	630.76	636.63	636.68	635.82	629.51	636.17				636.29	636.79	635.59	630.53
MW-9		692.11	692.15	691.17	692.10	692.65	692.77	689.93	692.99	693.67	693.47	689.28	691.54	693.90	691.59	689.20	691.85	692.93	692.66	689.16
MW-10	658.05	660.21	657.95	656.84	658.79	659.94	659.25	655.42	659.52	659.85	659.14	653.63	659.57	660.47	657.39	653.94	658.46	659.93	658.66	649.60
P88-1a																				
P88-1b																				
P88-2a	658.07	659.30	656.88	657.62	659.31	659.60	659.04	653.04	659.78	659.88	659.47		659.75	659.87	655.83	652.07	658.95	659.78	659.45	654.21
P88-2b	647.11	648.99	647.25	647.83	649.16	650.17	649.67	644.68	650.77	651.40			651.55	651.06	647.40	643.98	649.81	650.61	649.71	645.42
P88-3a	642.10	648.14	642.42	640.31	647.53	648.25	645.61	639.32	647.89	648.21	646.32		647.67	648.68	642.88	643.38	648.32	648.45	646.79	638.26
P88-3b	638.67	643.23	638.4	637.53	647.06	643.46	641.46	635.79	643.47	643.67	642.05		643.45	644.08	638.96	638.07	643.57	643.80	642.16	635.58
P87-4M	682.93	686.81		682.55	683.51	683.21	683.16													
P88-5a																				
P88-5b																				
P95-8a	696.90	699.31	701.59	697.51	698.76	699.00	699.16	697.36		700.81	699.64	697.33	699.44	702.25	702.25	722.07	697.28	699.60	698.64	697.06
P88-9a	644.25	644.67	643.57	643.88	645.09	644.61	644.23	Decommissioned 8/24/05												
P88-9b	636.37	637.47	636.39	636.23	637.58	636.65	637.14	Decommissioned 8/24/05												
P88-10a	659.00	662.45	656.61	656.54																
P88-10b	650.64	651.48	649.79	649.94																
P90-12a	637.75	637.81	636.83	637.43	637.77	637.72	637.68	637.41	637.91	637.66	637.81	633.93	637.70	637.89	636.80	635.15	637.68	637.63	637.68	635.52
P90-12b	635.90	636.09	634.99	635.58	636.14	636.02	635.98	634.99	636.30	636.18	636.19	631.73	635.28	636.33	635.06	633.05	636.14	636.13	636.11	633.65
P90-13a	638.78	639.19	635.97	637.45	636.67	638.96	638.80			639.52	638.89	631.32	635.06	639.78	634.41	630.41	638.35	639.23	637.10	631.02
P90-13b	638.35	639.02	635.74	637.11	639.23	638.66	635.86			639.24	638.64	631.00	633.87	639.41	634.22	630.19	638.09	638.91	636.91	630.81
P13-14A																				
GP-1P	635.39	635.59	634.51	635.02		635.26	635.11	633.20	635.60	635.37	634.76	632.76	635.79	636.02	634.11		635.69			
GP-2P	640.80	642.30	640.41	642.18		640.73	640.85	639.94	640.61	642.16	640.80	639.42	640.72	640.72	640.11					
GP-3P	647.21	647.82	647.83	647.78		647.78	648.00	646.26	647.69	647.74	647.98	645.87	647.38	647.98	647.38		647.62			
GP-4P	652.11	652.50	651.34	652.11								648.14	652.03	652.55						
GP-5P																				
GP-6P	639.58	640.92	640.54	639.99		641.28	641.25													
GP-7P	647.87	648.27	647.46	647.35		647.97	648.03													
GP-8P	651.16	652.00	651.08	650.79		651.16	650.98			651.72	651.87	649.10	648.62	651.66	649.47					
GP-9P						664.87	664.64	662.86		665.01	664.99	659.60	661.08	665.26	662.21					
GP-10																				
GP-14																				
GP-15																				
GP-16																				
WS-1																				
SG-1	629.94						630.94	629.89	631.69	631.02	629.16	627.09	630.15							
SG-2							625.79		628.25	627.64	625.92	624.75	629.98							
LDCS-1	632.44	632.64	632.23	632.75	638.34	632.12	632.21	632.65	631.74	632.31	632.56	632.57		632.08	630.65	630.40	631.05	630.67	630.27	630.33
LDCS-2A		634.72	635.26	634.78	634.05	633.99	634.72	634.18	633.95	633.88	634.21	634.15		633.51	632.29	632.71	632.42	632.39	632.53	632.46
LDCS-2B	634.44						634.64	634.37		633.58	634.59	634.58		634.11	634.49	634.26			634.04	633.80

Water Level Elevation Data
LRI Landfill, Pierce County Washington

WELL NUMBER	12/8/2008	3/16/2009	6/23/2009	9/11/2009	12/21/2009	3/15/2010	6/9/2010	9/17/2010	12/20/2010	3/24/2011	6/29/2011	9/12/2011	12/7/2011	2/29/2012	6/1/2012	9/20/2012	12/13/2012	3/26/2013	6/21/2013	9/24/2013
W87-1A																				
W87-2A	645.95	650.2	647.12	641.38	645.76	647.45	648.00	641.37	645.65	647.60	645.71	641.81	645.31	648.01		643.69	648.56	649.95	646.16	645.61
W88-3M	639.86	644.21	638.96	634.00	641.38	643.44	644.87	635.85	645.23	646.89	643.16	636.52	641.96	646.01	646.18	637.03	644.43	646.11	645.26	643.96
W87-4a	684.48	687.17	684.84	682.03	686.27	688.29			687.71		686.08	682.79	684.23			682.54	684.26	687.49	685.84	683.84
W88-5A																				
W88-6A																				
W88-7A	624.40	626.2	623.77	620.89	625.80	626.74		626.86												
W88-8M	682.71	683.59	687.75	681.18	682.75	683.14				684.25	683.53	681.28	682.43			681.15	663.67	684.08	683.40	682.67
W90-12A	604.47	607.69	604.80	601.14	606.12	608.70	608.89	604.19	608.64	609.99	609.83	602.93	607.91	610.45	610.54	603.92	609.33	610.96		
W95-14A	678.87	680.11	678.96	676.30	679.39	680.08	680.49		680.49	680.49	680.49	680.49	680.49	680.49		677.52	680.24	680.49	680.49	678.40
MW-1																				
MW-1A	634.51	635.96	633.49	631.27	634.48	635.31	635.31	632.19	635.57	636.02	634.54	631.97	634.64	635.48	635.32	632.00	634.37	635.57	634.88	634.74
MW-2																				
MW-2A	633.96	634.74	633.10	631.22	634.24	634.20	634.84	631.83	634.82	634.78	633.94	642.03	633.98	634.72	634.60	631.77	634.60	634.76	634.21	634.09
MW-3	630.04	631.23	629.23	626.57	630.80	631.21	631.51	627.60	631.39	631.56	630.55	612.90	630.33	631.56	631.33	627.65	631.16	631.58	630.56	630.08
MW-4	630.07	630.99	629.44	626.92	630.46	630.84	631.17		631.34	631.32	630.37	624.34	630.06	631.35	630.87	627.88	630.97	630.97	630.37	629.85
MW-5			629.08	625.72	628.79	628.96	629.36	634.80	629.41	629.41		625.21	628.10	629.48		626.27	628.74	627.95	628.38	628.00
MW-5A											628.59		627.97	629.70	628.92	626.38	628.60	629.45	628.58	628.05
MW-6	628.64	629.23	626.47	625.08	629.35	629.00	628.88	626.40	628.81	628.79	626.68	624.88	627.92	628.81	627.05	624.68	628.99	628.56	626.66	627.96
MW-7	635.02	636.66	633.79	629.97	635.35	636.39	636.90	631.10	636.61	636.82	635.41	630.99	634.43	636.76	635.69	630.70	636.03	636.68	634.68	633.41
MW-9	691.38	693.04	691.89	689.07	692.04	692.84	693.80		693.50	694.37	693.79	690.62	691.77	694.00	693.90	690.02	693.16	694.27	693.54	691.87
MW-10	652.48	655.00	651.64	647.99	649.30	650.05	651.32	649.90	654.47	655.59	664.78	650.30	652.39	648.95	657.95	649.47	650.84	663.87	658.46	656.92
P88-1a																				
P88-1b																				
P88-2a	658.62	660.31	657.20	654.03	659.08	659.76	651.29	656.87	660.12	655.39	659.69	655.67	658.90	660.65	660.19	655.45	660.44	660.98		
P88-2b	649.51	651.71	648.51	643.92	649.04	650.24	659.76	645.71	650.46	650.79	650.74	646.30	649.11	651.54	655.77	646.27	651.35	652.10		
P88-3a	643.04	647.51	643.22	638.62	643.76	647.37	647.76	637.68	647.25		644.63	639.00	640.50	646.27	643.69	638.56	642.70	647.10	642.85	639.17
P88-3b	639.62	643.18	639.34	634.95	640.15	643.89	643.36	634.48	642.97		640.84	635.61	637.80	643.07	640.02	635.26	639.85	640.83	639.48	636.77
P87-4M						683.07					683.22									
P88-5a																				
P88-5b																				
P95-8a	697.13	698.86	698.27	696.96	697.30	699.21		697.53	701.61	702.12	701.03	697.60	697.40			697.50	698.66	700.51	699.37	697.57
P88-9a																				
P88-9b																				
P88-10a																				
P88-10b																				
P90-12a	637.86	637.92	637.11	636.07	638.03	637.74	638.47	636.88	637.75	637.77		634.36	636.82	637.75	638.22	633.58	637.94	637.79		
P90-12b	636.25	636.44	635.46	634.01	636.47	636.37	636.62	635.14	636.42	636.52	636.03	632.71	635.93	636.48	636.97	631.97	636.53	636.49		
P90-13a	635.83	639.3	634.99	630.45	638.86															
P90-13b	635.64	639.22	634.76	629.98	638.35															
P13-14A																				
GP-1P							636.48	633.42					634.90						635.10	634.02
GP-2P						641.35	641.41	639.90					640.71							640.89
GP-3P						647.48	647.74	646.70					647.48	648.12					647.92	
GP-4P													651.89						652.16	651.48
GP-5P																				
GP-6P																				
GP-7P																				
GP-8P																				
GP-9P						662.57	663.15	661.27					661.48	662.62	661.40				661.79	661.80
GP-10			632.23	629.86				647.56							643.25				633.90	633.99
GP-14																				
GP-15																				
GP-16																				
WS-1																				
SG-1						631.22	631.39		631.39					631.54	632.79		632.79	632.79		632.79
SG-2						626.52			626.80	626.90	625.50			626.81	625.85		627.24			623.28
LDCS-1	630.44	630.85	630.99	631.02	630.84		630.29	630.75	630.75				630.90						630.76	630.52
LDCS-2A	632.12	632.63	630.44	632.32	632.37		632.08	637.57	632.82				652.14						634.44	634.23
LDCS-2B		634.09	634.48	634.35	633.94		641.66	634.46	634.00				633.94						636.04	637.99

Water Level Elevation Data
LRI Landfill, Pierce County Washington

WELL NUMBER	12/11/2013	3/25/2014	6/24/2014	9/18/2014	12/17/2014	3/24/2015	6/9/2015	9/17/2015	12/14/2015	3/22/2016	6/9/2016	9/16/2016	12/8/2016	3/31/2017	6/22/2017	9/28/2017	12/13/2017	3/21/2018	6/20/2018	9/19/2018
W87-1A																				
W87-2A	647.60	649.53	646.12	644.01	647.01	649.15	645.69	643.92	649.48	651.16	648.31	642.15	649.91	649.43	648.89	645.70	649.10	650.95	646.97	643.31
W88-3M	645.98	646.11	645.21	642.96	644.56	645.92	644.71	640.86	644.49	646.46	645.22	641.74	645.28	647.21	645.30	642.09	645.25	646.94	646.07	642.41
W87-4a	687.51	687.79	685.81	683.66	687.39	687.80	685.11	680.91	687.64	687.49	684.44	682.07	687.80	688.03	686.11	682.46	687.47	687.54	685.21	682.55
W88-5A																				
W88-6A																				
W88-7A																				
W88-8M	683.99	684.57	683.4	681.05	683.65	683.95		679.53	681.85	681.75	680.35	679.43	681.69	682.48	681.52	679.71	681.90	682.47	680.79	679.69
W90-12A	608.33	611.09	609.92	607.17		612.54	609.40	603.82	610.22	612.64	608.66	605.26	610.84	613.22	611.24	608.21	610.73	613.01	609.79	604.84
W95-14A	680.49	680.49	680.49	680.49	680.49	680.49		680.49	680.19	680.49	678.84	678.06	679.79	680.49	679.28	677.01	680.49	680.49	679.21	
MW-1																				
MW-1A	635.48	635.86	634.72	632.22	635.04	635.69	634.24	631.37	613.57	604.43	634.17	632.81	635.48	635.77	635.06	632.44	635.12	634.86	634.46	632.35
MW-2																				
MW-2A	634.83	635.09	633.93	631.83	634.72	634.98	633.96	631.48	634.58	634.91	633.61	632.22	634.84	635.06	634.45	631.84	634.43	634.93	633.94	631.86
MW-3	631.19	631.87	630.41	627.61	631.41	631.90	629.84	626.92	631.23	631.71	630.01	627.99	631.49	631.93	631.04	627.33	631.21	631.66	630.42	627.58
MW-4	631.16	631.74	630.25	627.84	631.15	631.67	629.22	626.99	630.85	630.87	629.89	627.88	630.65	631.53	630.67	627.16	630.79	631.35	630.21	627.48
MW-5	629.20	629.66	628.06	625.65	628.22		627.53	624.50												
MW-5A	629.20	629.79	628.43	626.25	629.38	629.76	628.66	625.35	629.33	629.55	628.23	626.24	629.23	629.43	628.83	625.80	629.08	629.60	628.70	629.09
MW-6	628.05	628.55	626.28	623.26	628.18	628.86	625.80	622.01	628.69	628.68	625.68	622.81	628.87	629.03	626.56	622.50	627.93	627.14	625.50	623.13
MW-7	635.82	636.47	634.41	630.48	635.56	636.43	633.93	629.63	635.31	636.25	633.25	630.27	635.15	636.51	634.72	629.98	634.71	635.97	633.74	630.05
MW-9	693.94	695.17	693.53	690.67	693.47	694.55	693.36	689.76	693.22	694.47	692.49	689.84	692.97	694.57	693.59	689.88	692.87	694.42	692.84	689.55
MW-10	658.97	659.42	658.43	653.4	658.5	654.94	653.27	649.58	654.32	655.12	653.82	650.48	654.19	655.51	653.61	650.19	654.26	655.35	653.89	649.63
P88-1a																				
P88-1b																				
P88-2a																				
P88-2b																				
P88-3a	644.72	647.11	642.8	640.15		646.71	642.32	636.48	640.95	646.37	640.74	636.87	639.17	646.58	642.22	640.99	638.78	646.20	641.30	636.69
P88-3b	641.16	642.83	639.46	636.55		642.60	638.98	633.53	638.67	642.29	637.68	634.11	637.50	642.47	639.13	637.83	637.15	642.13	638.20	633.93
P87-4M																				
P88-5a																				
P88-5b																				
P95-8a	700.02	703.34	699.34	696.9	699.07	700.49		697.08	700.48		698.17	697.12	698.52	702.11	698.89	697.27	699.02	700.84	698.65	697.19
P88-9a																				
P88-9b																				
P88-10a																				
P88-10b																				
P90-12a	637.73	638.09	636.95	634		637.99	636.49	632.62	637.95	638.54	636.39	632.49	637.97	637.97	637.42	634.77	637.86	637.95	636.44	632.09
P90-12b	636.52	636.83	635.83	632.88		636.78	635.28	630.40	636.61	636.80	635.01	630.65	636.69	636.71	636.16	633.62	636.53	636.69	635.25	629.84
P90-13a	-0.59	1.02		-1.78	-1.18															
P90-13b	-12.37	-12.04		-15.31	-12.63															
P13-14A	648.19	648.506		645.79	648.19		647.36	641.59	648.88	648.60	646.14	642.58	648.09	648.56	646.94	642.75	646.55	646.78	644.32	640.96
GP-1P	635.58	635.87	624.28	633.23		634.70		632.14		635.17	634.20				635.29	631.85	635.44	635.24	634.54	632.22
GP-2P	641.26	641.97	633.87	640.25		643.00		640.28		641.23	640.28				642.09	640.54		642.82	642.33	640.03
GP-3P						647.53		645.31		647.56	647.26				647.71	645.35	647.08	647.19	647.28	645.07
GP-4P	652.58	653.26		650.11		652.74		647.90		652.71	651.00				651.92	647.86	652.60	652.74	651.87	646.90
GP-5P																				
GP-6P																				
GP-7P																				
GP-8P																				
GP-9P	662.09	663.13		660.11		662.36		659.73		663.47	661.30				661.72	659.40	663.22	662.22		658.19
GP-10	648.86	635.15	627.24	632.86																
GP-14																				
GP-15																				
GP-16																				
WS-1																				
SG-1	632.79	632.79	632.79	632.79	632.79					631.59	632.09	631.48								
SG-2	627.55	627.65	625.2	625.1	626.53	628.28	624.03			627.05	626.15		626.45							
LDCS-1	631.20	631.36	630.47	630.31	631.01	632.01	631.96	629.24	629.24	629.44	631.14	627.14	627.60	631.31	631.34	630.26	631.26	631.41	630.76	628.86
LDCS-2A	634.34	634.68	634.44	634.41	634.24		632.41	634.39	634.39	634.29	634.32	634.23	634.32	634.04	634.54	634.54	634.14	634.64	634.14	634.54
LDCS-2B	630.85	631.62	641.7	636.05	635.7	635.98	636.18	636.25	636.25	636.19	635.39	638.48	636.12	636.30	636.15	635.90	635.85	635.84	635.90	635.22

Water Level Elevation Data
LRI Landfill, Pierce County Washington

WELL NUMBER	12/5/2018	3/12/2019	6/18/2019	9/26/2019	12/11/2019	3/17/2020	6/9/2020	9/24/2020	12/16/2020	3/9/2021	6/15/2021	9/16/2021	12/15/2021
W87-1A													
W87-2A	646.31	649.62	643.62	644.61	647.79	650.62	650.31	646.70	647.11	650.71	646.56	642.61	646.61
W88-3M	643.21	646.20	644.77	641.68	643.54	645.23	644.83	641.02	645.11	646.59	645.51	641.06	643.28
W87-4a	684.37	687.70	684.99	684.26	685.68	688.07	686.54	683.33	687.79	687.97	685.39	682.49	688.04
W88-5A													
W88-6A													
W88-7A													
W88-8M	680.40	680.67	680.63	680.18	680.89	682.13	681.68	680.03	650.05	682.45	681.37	679.20	681.77
W90-12A	606.63	611.38	607.49	605.17	607.84	612.03	611.22	604.18	610.83	612.57	609.37	602.79	611.12
W95-14A	677.60	679.50	678.15	676.97	678.57	679.94	679.37			677.28	678.92	676.27	679.54
MW-1													
MW-1A	634.17	635.32	634.20	633.22	634.54	635.04	634.84	632.25	635.09	635.42	634.69	631.77	635.15
MW-2													
MW-2A	633.67	634.80	633.63	632.95	634.08	634.75	634.54	631.63	634.48	634.80	634.19	631.18	634.57
MW-3	628.36	631.29	630.07	628.82	630.43	631.71	631.20	627.32	631.11	631.56	630.41	626.71	631.38
MW-4	629.13	631.14	629.85	628.55	629.96	631.37	630.81	627.67	630.87	631.35	630.32	626.95	630.97
MW-5													
MW-5A	626.42	629.32	628.22	627.12	628.14	629.55	629.10	626.54	629.00	629.80	628.84	626.00	629.35
MW-6	626.91	627.48	625.87	625.63	627.33	628.61	627.25	623.12	628.54	628.21	626.91	622.41	628.77
MW-7	631.52	635.15	632.87	630.54	632.11	635.46	634.61	629.93	634.32	635.53	633.41	628.53	634.33
MW-9	690.64	693.14	691.71	689.86	691.55	693.50	693.32	689.66	692.57	693.92	692.42	688.87	692.67
MW-10	651.58	653.88	652.46	645.95	652.74	654.75	654.22	650.08	653.90	654.74	653.37	649.17	651.07
P88-1a													
P88-1b													
P88-2a													
P88-2b													
P88-3a	636.10	641.26	640.17	636.39	636.69	645.23	642.35	636.46	637.68	645.20	640.48	635.50	636.99
P88-3b	634.14	638.73	637.97	633.95	635.02	641.57	639.28	633.75	636.35	641.43	637.56	632.58	635.87
P87-4M													
P88-5a													
P88-5b													
P95-8a	696.82	699.28	697.56	697.02	697.04	699.97	698.68	697.10	697.68	701.42	697.82	696.82	699.18
P88-9a													
P88-9b													
P88-10a													
P88-10b													
P90-12a	634.83	638.09	636.56	636.54	636.33	636.98	636.74	631.24	636.81	636.83	636.37	627.89	636.80
P90-12b	633.71	636.40	634.98	634.38	637.84	637.96	638.03	634.18	638.02	638.05	637.74	629.43	638.13
P90-13a													
P90-13b													
P13-14A	642.81	646.62	643.92	642.57	644.67		645.76	641.05	643.78	644.76	644.47	639.16	643.65
GP-1P	634.91	635.35	634.90	633.42	635.50	635.94	635.91	633.56	635.79	635.80	634.85	632.00	635.60
GP-2P	641.38	640.56	642.26	640.60	643.21	642.76	642.53	640.88	642.63	643.49	642.49	640.61	642.81
GP-3P	646.55	646.94	647.04	646.19	647.01	647.12	647.21	648.26	651.21	651.01	651.16	646.81	650.71
GP-4P	650.29	652.65	652.25	648.56	653.01	652.97	653.14	647.88	655.68	652.76	651.24	647.66	651.51
GP-5P													
GP-6P													
GP-7P													
GP-8P													
GP-9P	662.42	662.35	661.68	660.65	662.73	662.96	662.37	661.63	663.43	662.98	662.78	658.48	663.83
GP-10													
GP-14													
GP-15													
GP-16					668.81					670.51	669.21		670.55
WS-1													
SG-1													
SG-2													
LDCS-1	630.31	631.68	630.56	630.21	630.84	631.36	631.16	629.31		631.51	630.96	629.81	631.36
LDCS-2A	630.01	630.10	629.93	629.44	629.80	630.24	630.12	630.05		630.68	630.26	629.56	630.09
LDCS-2B	635.12	635.62	635.09	634.55	635.23	635.30	633.55	633.80		634.50	633.87	633.50	633.95

Table 1. Groundwater Level Elevations
March 29, 2022
LRI Landfill, Pierce County, Washington

Location	Well Casing Elevation (ft)	Depth to Water (ft)	Water Level Elevation (ft, NGVD29)
Wells			
W87-2A	664.01	16.23	647.78
W87-4A	693.29	5.74	687.55
W88-3M	658.11	12.71	645.40
W88-7A	632.51	NM*	--
W88-8M	721.05	39.18	681.87
W90-12A	640.84	28.54	612.30
W95-14A	680.49	0.74	679.75
MW-1A	652.57	17.28	635.29
MW-2A	651.93	18.07	633.86
MW-3	637.41	5.91	631.50
MW-4[a]	652.37	21.12	631.25
MW-5A	655.55	25.91	629.64
MW-6	635.71	7.61	628.10
MW-7[a]	656.03	20.84	635.19
MW-9[a]	701.77	7.96	693.81
MW-10[a]	678.37	25.26	653.11
Piezometers			
P13-14A	665.96	21.27	644.69
P88-2A	663.96	NM*	--
P88-2B	663.48	NM*	--
P88-3A	656.20	10.58	645.62
P88-3B	655.98	14.46	641.52
P95-8A	722.07	21.35	700.72
P90-12A	640.79	4.01	636.78
P90-12B	640.73	2.76	637.97
P90-13A	645.19	NM*	--
P90-13B	643.63	NM*	--
GP-1P[b]	652.00	16.31	635.69
GP-2P[b]	658.61	19.40	639.21
GP-3P[b]	658.51	7.57	650.94
GP-4P[b]	662.01	9.52	652.49
GP-9P[b]	674.03	10.22	663.81
GP-16[b]	689.51	18.73	670.78
South Creek			
SWSC-1	632.68	0.80	631.88
SWSC-2	629.98	6.30	623.68
Leak Detection System			
LDCS-1	657.26	26.36	630.90
LDCS-2A	659.24	28.82	630.42
LDCS-2B	661.70	28.00	633.70

Notes:

NM = not measured

-- = not applicable

Measurements taken on 3/29/22 unless otherwise noted

a = measurements taken on 3/30/22

b = gas probe measurements taken on 3/17/22

* = Water level wells W88-7A, P88-2A, P88-2B, P90-13A, and P90-13B cannot be located

Table 1. Groundwater Level Elevations
June 2022
LRI Landfill, Pierce County, Washington

Location	Well Casing Elevation (ft)	Depth to Water (ft)	Water Level Elevation (ft, NGVD29)
Wells			
W87-2A	664.01	14.03	649.98
W87-4A	693.29	5.18	688.11
W88-3M	658.11	12.08	646.03
W88-7A	632.51	NM*	--
W88-8M	721.05	38.10	682.95
W90-12A	640.84	27.69	613.15
MW-1A	652.57	17.50	635.07
MW-2A	651.93	16.97	634.96
MW-3	637.41	5.60	631.81
MW-4	652.37	20.83	631.54
MW-5A	655.55	25.70	629.85
MW-6	635.71	7.08	628.63
MW-7	656.03	18.32	637.71
MW-9	701.77	7.46	694.31
MW-10	678.37	24.52	653.85
Piezometers			
P13-14A	665.96	19.93	646.03
P88-2A	663.96	NM*	--
P88-2B	663.48	NM*	--
P88-3A	656.20	10.61	645.59
P88-3B	655.98	14.41	641.57
P95-8A	722.07	25.65	696.42
P90-12A	640.79	3.85	636.94
P90-12B	640.73	2.62	638.11
P90-13A	645.19	NM*	--
P90-13B	643.63	NM*	--
GP-1P	652.00	16.06	635.94
GP-2P	658.61	14.68	643.93
GP-3P	658.51	7.75	650.76
GP-4P	662.01	9.55	652.46
GP-9P	674.03	10.78	663.25
GP-16	689.51	18.70	670.81
South Creek			
SWSC-1	632.68	0.50	632.18
SWSC-2	629.98	5.86	624.12
Leak Detection System			
LDCS-1	657.26	26.05	631.21
LDCS-2A	659.24	29.20	630.04
LDCS-2B	661.70	27.97	633.73

Notes:

NM = not measured

-- = not applicable

All measurements taken on June 14 & 15, 2022

* = Water level wells W88-7A, P88-2A, P88-2B, P90-13A, and P90-13B cannot be located

Table 1. Groundwater Level Elevations
September 13 - 14, 2022
LRI Landfill, Pierce County, Washington

Location	Well Casing Elevation (ft)	Depth to Water (ft)	Water Level Elevation (ft, NGVD29)
Wells			
W87-2A	664.01	22.10	640.40
W88-3M	656.48	15.40	639.40
W87-4A	693.29	10.16	681.74
W88-7A	632.51	NM*	--
W88-8A	721.05	NM*	--
W90-12A	640.84	35.85	602.75
MW-1A	652.57	20.30	632.86
MW-2A	651.93	20.00	632.20
MW-3	637.41	10.08	625.62
MW-4	652.37	24.28	628.09
MW-5A	655.55	28.50	627.05
MW-6	635.71	12.15	621.25
MW-7	656.03	20.80	633.90
MW-9	701.77	11.63	687.47
MW-10	674.17	28.75	642.75
Piezometers			
P13-14A	665.96	24.91	646.03
P88-2A	663.96	NM*	--
P88-2B	663.48	NM*	--
P88-3A	656.20	18.85	645.59
P88-3B	655.98	22.60	641.57
P95-8A	722.07	24.72	696.42
P90-12A	640.79	11.75	636.94
P90-12B	640.73	10.10	638.11
P90-13A	645.19	NM*	--
P90-13B	643.63	NM*	--
GP-1P	652.00	20.11	635.94
GP-2P	658.61	14.20	643.93
GP-3P	658.51	12.09	650.76
GP-4P	662.01	14.24	652.46
GP-9P	674.03	15.62	663.25
GP-14P		16.08	
GP-15P		19.19	
GP-16P	689.51	22.24	667.27
GP-17P		12.60	
P21-2		22.71	
P22-1		21.32	
P22-2		4.15	
P22-3		12.98	
South Creek			
SWSC-1	632.68	3.55	629.13
SWSC-2	629.98	NM*	--
Leak Detection System			
LDCS-1	657.26	27.10	630.16
LDCS-2A	659.24	29.48	629.76
LDCS-2B	661.70	27.96	633.74

Notes:

NM = not measured

-- = not applicable

All measurements taken on September 13 & 14, 2022

* = Water level wells W88-7A, P88-2A, P88-2B, P90-13A, and P90-13B were not located. Water levels for W88-8A and SWSC-2 were not measured as they were dry.

Table 1. Groundwater Level Elevations
December 28 - 30, 2022
LRI Landfill, Pierce County, Washington

Location	Well Casing Elevation (ft)	Depth to Water (ft)	Water Level Elevation (ft, NGVD29)
Wells			
W87-2A	664.01	18.10	645.91
W87-4A	693.29	15.23	678.06
W88-3M	658.11	7.13	650.98
W88-7A	--	--	--
W88-8M	721.05	NM	--
W90-12A	640.84	30.43	610.41
MW-1A	652.57	18.03	634.54
MW-2A	651.93	12.58	639.35
MW-3	637.41	6.60	630.81
MW-4	652.37	24.28	628.09
MW-5A	655.55	26.10	629.45
MW-6	635.71	7.01	628.70
MW-7	656.03	22.91	633.12
MW-9	701.77	9.67	692.10
MW-10	678.37	25.39	652.98
Piezometers			
P13-14A	665.96	27.12	638.84
P88-2A	--	--	--
P88-2B	--	--	--
P88-3A	656.20	20.32	634.41
P88-3B	655.98	21.52	631.15
P95-8A	722.07	26.56	695.51
P90-12A	640.79	14.81	625.98
P90-12B	640.73	13.14	627.59
P90-13A	--	--	--
P90-13B	--	--	--
GP-1P	652.00	20.11	631.89
GP-2P	658.61	14.20	644.41
GP-3P	658.51	12.09	646.42
GP-4P	662.01	14.24	647.77
GP-9P	674.03	15.62	658.41
GP-14P		16.08	
GP-15P		19.19	
GP-16P	689.51	22.24	667.27
GP-17P		12.60	
P21-2		22.71	
P22-1		31.32	
P22-2		4.15	
P22-3		12.98	
South Creek			
SWSC-1	632.68	4.35	628.33
SWSC-2	629.98	5.42	624.56
Leak Detection System			
LDCS-1	657.26	28.49	628.77
LDCS-2A	659.24	27.22	632.02
LDCS-2B	661.70	28.36	633.34

Notes:
NM= not measured
-- = not applicable

* = Water level wells W88-7A, P88-2A, P88-2B, P90-13A, and P90-13B cannot be located

Appendix B

Groundwater Monitoring Data

Table 2. Field Parameters
First Quarter 2022
LRI Landfill, Pierce County, Washington

Location	Sample Number	Sample Date	Sampling Method	pH	Conductivity	Temperature
Units				(SU)	(µS/cm)	(°C)
WAC 173-200 Criteria				6.5-8.5	700[b]	—
Monitoring Wells						
MW-1A	304-032922-02	3/29/2022	DP	6.91	148	13.3
MW-2A	304-032922-04	3/29/2022	DP	7.13	239	12.9
MW-3	304-032922-06	3/29/2022	DP	7.17	418	10.5
MW-4	304-033022-21	3/30/2022	SP	7.58	356	13.1
MW-5A	304-032922-08	3/29/2022	DP	7.62	406	12.4
MW-6	304-032922-12	3/29/2022	DP	7.66	328	10.7
MW-7	304-033022-14	3/30/2022	DP	6.88	372	10.6
MW-9	304-033022-18	3/30/2022	DP	6.91	129	10.2
MW-10	304-033022-16	3/30/2022	DP	**6.44**	258	11.2
Leak Detection System						
LDCS-1	304-032922-09	3/29/2022	DB	6.74	419	23.2
LDCS-2A	304-032922-07	3/29/2022	DB	7.42	856	21.0
LDCS-2B	304-032922-05	3/29/2022	DB	7.18	781	20.7
LDCS-3A	304-032922-03	3/29/2022	DP	6.62	927	20.9
LDCS-4A	304-032922-11	3/29/2022	DP	6.76	752	21.6
LDCS-4B	304-033022-19	3/30/2022	DP	7.00	954	23.0
LDCS-5	304-033022-17	3/30/2022	DP	6.73	814	20.9
LDCS-6	304-033022-13	3/30/2022	DP	6.65	927	13.7
LDCS-7	304-032922-01	3/29/2022	DP	6.29	989	17.8
LDCS-8	304-033022-20	3/30/2022	GB	6.40	1,121	17.1
Leachate Collection System						
Leachate, Cell 8	304-033022-22	3/30/2022	GB	7.28	11,172	19.3

Notes:
Groundwater (monitoring well) concentrations greater than the WAC 173-200 criteria are shown in **bold**
b = Secondary Drinking Water Standard
°C = degrees celcius
DB = disposable bailer
DP = dedicated pump
GB = grab sample
SP = submersible pump
SU = standard units
µS/cm = microsiemens per centimeter

Table 3. Inorganic Parameters
First Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Alkalinity, Total	Ammonia	Chloride	Nitrate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
MRL	10	0.10	0.20	0.50	0.20	10	1.0	4.0
WAC 173-200 Criteria	—	—	250	10	250	500	—	—
Prediction Limit	—	—	—	6.4	—	—	—	—
Monitoring Wells								
MW-1A	86	*	1.8	*	2.4	140	*	4.4
MW-2A	110	*	2.8	*	6.1	160	*	*
MW-3	180	0.13	3.5	*	25	250	1.3	*
MW-4	160	0.14	3.3	*	11	220	*	4.0
MW-5A	190	0.14	3.6	*	19	250	1.1	4.0
MW-6	150	0.10	5.2	* H	6.8	200	1.0	*
MW-7	190	0.22	3.2	*	2.7	220	*	*
(BG) MW-9	67	*	1.4	*	1.4	120	*	*
(BG) MW-10	110	*	6.8	3.0	5.5	190	*	5.6
Leak Detection System								
LDCS-1	15	*	4.3	* H	4.5	250	3.9	—
LDCS-2A	*	*	6.0	* H	28	510	3.3	—
LDCS-2B	*	0.26	10	* H	49	460	6.3	—
LDCS-3A	52	0.11	4.0	* H	54	550	2.2	—
LDCS-4A	140	0.19	21	* H	38	440	5.5	—
LDCS-4B	360	0.19	37	*	63	540	4.4	—
LDCS-5	310	0.47	26	*	54	470	7.2	—
LDCS-6	370	*	18	*	79	560	3.3	—
LDCS-7	15	*	17	* H	16	580	5.4	—
LDCS-8	460	*	19	*	55	580	7.3	—
Leachate Collection System								
Leachate, Cell 8	4100 H	540	1300	1.1	21	7100	1600	—

Notes:

All sample units are milligrams per liter (mg/L)

Groundwater (monitoring well) concentrations greater than prediction limits or WAC 173-200 criteria are shown in **bold**

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = Sample result was not reported at or above the MRL

— = Not applicable or not performed

BG = Background

H = analyzed after specified holding time due to Fedex shipping delay

Table 4. WAC 173-351 Appendix I Metals
First Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Antimony-D	Antimony-T	Arsenic-D	Arsenic-T	Barium-D	Barium-T	Beryllium-D	Beryllium-T	Cadmium-D	Cadmium-T	Chromium-D	Chromium-T	Cobalt-D	Cobalt-T	Copper-D	Copper-T	Lead-D	Lead-T	Nickel-D	Nickel-T	Selenium-D	Selenium-T	Silver-D	Silver-T	Thallium-D	Thallium-T	Vanadium-D	Vanadium-T	Zinc-D	Zinc-T
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MRL	0.05	0.05	0.005	0.005	0.005	0.005	0.001	0.001	0.001	0.001	0.005	0.005	0.001	0.001	0.01	0.01	0.002	0.002	0.02	0.02	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.01
WAC 173-200 Criteria	—	—	—	0.00005	—	1.0	—	—	—	0.01	—	0.05	—	—	—	1.0	—	0.05	—	—	—	0.01	—	0.05	—	—	—	—	—	5.0
Prediction Limit	—	0.05	—	0.011	—	0.091	—	0.005	—	0.005	—	0.011	—	0.01	—	0.063	—	0.042	—	0.020	—	0.005	—	0.01	—	0.005	—	0.016	—	0.290
Monitoring Wells																														
MW-1A	—	*	—	*	—	0.019	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.014
MW-2A	—	*	—	*	—	0.012	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-3	—	*	—	*	—	0.016	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-4	—	*	—	**0.010**	—	0.017	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-5A	—	*	—	*	—	0.015	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-6	—	*	—	**0.0079**	—	0.016	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-7	—	*	—	**0.0059**	—	0.017	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
(BG) MW-9	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.015	—	*
(BG) MW-10	—	*	—	*	—	0.015	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.013
Leak Detection System																														
LDCS-1	*	—	0.0092	—	0.021	—	—	—	—	—	*	—	0.0011	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-2A	*	—	*	—	0.022	—	—	—	—	—	*	—	*	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-2B	*	—	0.027	—	0.045	—	—	—	—	—	*	—	0.0066	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-3A	*	—	0.010	—	0.022	—	—	—	—	—	*	—	0.0028	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-4A	*	—	0.0099	—	0.032	—	—	—	—	—	*	—	0.0019	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-4B	*	—	0.0099	—	0.032	—	—	—	—	—	*	—	*	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-5	*	—	*	—	0.046	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-6	*	—	0.0072	—	0.014	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-7	*	—	0.010	—	0.045	—	*	—	*	—	*	—	0.0058	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-8	*	—	*	—	0.042	—	*	—	*	—	*	—	0.0035	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
Leachate Collection System																														
Leachate, Cell 8	—	*	—	0.13	—	1.0	—	*	—	*	—	0.23	—	0.047	—	0.054	—	0.021	—	0.21	—	*	—	*	—	*	—	0.19	—	0.81

Notes:

All sample units are milligrams per liter (mg/L)

WAC 173-200-040 Table 1 Groundwater Quality Criteria are for total metals

Groundwater (monitoring well) concentrations greater than prediction limits or WAC 173-200 criteria are shown in **bold**

Parameter concentrations for monitoring wells are total (T) metals

Parameter concentrations for LDCS sumps are dissolved (D) metals

Parameter concentrations for leachate samples are total (T) metals

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = sample result was not reported at or above the MRL

— = not applicable or not performed

BG = Background

Table 5. WAC 173-351 Appendix II Metals (Dissolved)
First Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MRL	0.20	0.10	0.10	0.005	2.0	1.0
WAC 173-200 Criteria	—	0.30	—	0.050	—	—
Monitoring Wells						
MW-1A	14	**1.4**	8.9	**0.20**	3.6	12
MW-2A	20	**0.60**	11	**0.29**	3.0	16
MW-3	45	*	19	**0.42**	4.4	16
MW-4	31	*	17	**0.29**	5.7	13
MW-5A	29	*	11	**0.24**	4.4	49
MW-6	34	*	15	**0.21**	5.0	11
MW-7	32	0.20	21	**0.31**	5.8	16
(BG) MW-9	10	*	6.5	*	2.0	7.7
(BG) MW-10	25	*	11	0.016	2.1	13
Leak Detection System						
LDCS-1	40	1.7	16	1.8	5.0	18
LDCS-2A	94	0.10	36	0.86	9.3	31
LDCS-2B	88	15	35	2.7	7.3	21
LDCS-3A	100	1.1	41	3.3	6.2	24
LDCS-4A	70	2.4	40	1.6	5.9	24
LDCS-4B	99	1.4	44	1.1	6.6	30
LDCS-5	70	*	42	1.2	7.7	32
LDCS-6	97	0.11	49	0.46	4.8	28
LDCS-7	120	2.4	40	4.0	3.9	31
LDCS-8	110	0.78	68	1.8	4.6	36
Leachate Collection System**						
Leachate, Cell 8	530 B	19	150	9.3	310	1,300

Notes:

All sample units are milligrams per liter (mg/L)

WAC 173-200-040 Table 1 Groundwater Quality Criteria are for total metals

Groundwater (monitoring well) concentrations greater than WAC 173-200 criteria are shown in **bold**

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = sample result was not reported at or above the MRL

** = Reported concentrations for leachate are total metals

— = not applicable or not performed

B = Compound was found in the blank and the sample

BG = Background

Table 6. Volatile Organic Compounds (µg/L)
First Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	1,4-Dichlorobenzene	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Acetone	Benzene	Ethylbenzene	Methylene Chloride	m-Xylene & p-Xylene	o-Xylene	Toluene
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MRL	0.50	6.00	5.00	10.00	0.50	1.00	2.0	0.50	0.50	0.50
WAC 173-200 Criteria	4.0	—	—	—	1.0	—	5.0	—	—	—
Monitoring Wells										
MW-1	*	*	*	*	*	*	*	*	*	*
MW-2	*	*	*	*	*	*	*	*	*	*
MW-3	*	*	*	*	*	*	*	*	*	*
MW-4	*	*	*	*	*	*	*	*	*	*
MW-5	*	*	*	*	*	*	*	*	*	*
MW-6	*	*	*	*	*	*	*	*	*	*
MW-7	*	*	*	*	*	*	*	*	*	*
(BG) MW-9	*	*	*	*	*	*	*	*	*	*
(BG) MW-10	*	*	*	*	*	*	*	*	*	*
Leak Detection System										
LDCS-1	0.85	*	*	*	*	*	*	*	*	*
LDCS-2A	0.57	*	*	*	*	*	*	*	*	*
LDCS-2B	*	*	*	*	*	*	*	*	*	*
LDCS-3A	*	*	*	*	*	*	*	*	*	*
LDCS-4A	*	*	*	*	*	*	*	*	*	*
LDCS-4B	*	*	*	*	*	*	*	*	*	*
LDCS-5	*	*	*	*	*	*	*	*	*	*
LDCS-6	*	*	*	*	*	*	*	*	*	*
LDCS-7	*	*	*	*	*	*	*	*	*	*
LDCS-8	*	*	*	*	*	*	*	*	*	*
Leachate Collection System										
Leachate, Cell 8	*	12,000	250	7,900	6.0	19	36	39	20	1,600
Quality Control Samples										
Field Blank	*	*	*	*	*	*	*	*	*	*

Notes:
All sample units are milligrams per liter (µg/L)
Analyses performed by Eurofins TestAmerica of Denver, Colorado
Groundwater (monitoring well) concentrations greater than WAC 173-200 criteria are shown in **bold**
Method Reporting Limit (MRL) is typical and may be elevated for some samples
* = sample result was not reported at or above the MRL
— = not applicable or not performed
BG = Background

Table 7. Cation-Anion Balance
First Quarter 2022
LRI Landfill, Pierce County, Washington

Cations	mg/L					meq/L					% of Total		
	Ca	Mg	K	Na	Total	Ca	Mg	K	Na	Total	Na+K	Ca	Mg
MW-1A	14	8.9	3.6	12	38.5	0.70	0.73	0.08	0.52	2.03	29.7	34.3	36.0
MW-2A	20	11	3.0	16	50.0	1.00	0.91	0.07	0.70	2.67	28.6	37.4	33.9
MW-3	45	19	4.4	16	84.4	2.25	1.56	0.10	0.70	4.60	17.3	48.8	34.0
MW-4	31	17	5.7	13	66.7	1.55	1.40	0.13	0.57	3.64	19.1	42.5	38.4
MW-5A	29	11	4.4	49	93.4	1.45	0.91	0.10	2.13	4.58	48.7	31.6	19.8
MW-6	34	15	5.0	11	65	1.70	1.23	0.11	0.48	3.52	16.8	48.2	35.0
MW-7	32	21	5.8	16	74.8	1.60	1.73	0.13	0.70	4.15	19.9	38.5	41.6
MW-9	9.9	6.5	2.0	7.7	26.1	0.49	0.53	0.05	0.33	1.41	27.0	35.1	38.0
MW-10	25	11	2.1	13	51.1	1.25	0.91	0.05	0.57	2.77	22.2	45.1	32.7
LDCS-1	40	16	5.0	18	79	2.00	1.32	0.11	0.78	4.21	21.3	47.4	31.3
LDCS-2A	94	36	9.3	31	170.3	4.69	2.96	0.21	1.35	9.21	16.9	50.9	32.2
LDCS-2B	88	35	7.3	21	151.3	4.39	2.88	0.16	0.91	8.35	12.9	52.6	34.5
LDCS-3A	100	41	6.2	24	171.2	4.99	3.37	0.14	1.04	9.55	12.4	52.3	35.3
LDCS-4A	70	40	5.9	24	139.9	3.49	3.29	0.13	1.04	7.96	14.8	43.9	41.3
LDCS-4B	99	44	6.6	30	179.6	4.94	3.62	0.15	1.31	10.02	14.5	49.3	36.2
LDCS-5	70	42	7.7	32	151.7	3.49	3.46	0.17	1.39	8.52	18.4	41.0	40.6
LDCS-6	97	49	4.8	28	178.8	4.84	4.03	0.11	1.22	10.20	13.0	47.5	39.5
LDCS-7	120	40	3.9	31	194.9	5.99	3.29	0.09	1.35	10.72	13.4	55.9	30.7
LDCS-8	110	68	4.6	36	218.6	5.49	5.60	0.10	1.57	12.76	13.1	43.0	43.9
Leachate, Cell 8	530	150	310	1,300	2,290	26.45	12.35	7.00	56.55	102.34	62.1	25.8	12.1

Anions	mg/L					meq/L					% of Total			Total Ions (meq/L)	Cation - Anion Balance	Applicable Ratio (%)	Ratio Exceedance
	Alk	Cl	NO_3	SO_4	Total	Alk	Cl	NO_3	SO_4	Total	Cl	Alk	SO_4				
MW-1A	103.2	1.8	0.50	2.4	107.9	1.69	0.05	0.008	0.05	1.80	2.8	94.0	2.8	3.84	6.1	10	O
MW-2A	132	2.8	0.50	6.1	141.4	2.16	0.08	0.008	0.13	2.38	3.3	91.0	5.3	5.05	5.7	5	Exceeds
MW-3	216	3.5	0.50	25	245	3.54	0.10	0.008	0.52	4.17	2.4	85.0	12.5	8.77	5.0	5	O
MW-4	192	3.3	0.50	11	206.8	3.15	0.09	0.008	0.23	3.48	2.7	90.5	6.6	7.12	2.3	5	O
MW-5A	228	3.6	0.50	19	251.1	3.74	0.10	0.008	0.40	4.24	2.4	88.1	9.3	8.83	3.8	5	O
MW-6	180	5.2	0.50	6.8	192.5	2.95	0.15	0.008	0.14	3.25	4.5	90.9	4.4	6.77	4.1	5	O
MW-7	228	3.2	0.50	2.7	234.4	3.74	0.09	0.008	0.06	3.89	2.3	96.0	1.4	8.05	3.2	5	O
MW-9	80.4	1.4	0.50	1.4	83.7	1.32	0.04	0.008	0.03	1.40	2.8	94.5	2.1	2.80	0.5	10	O
MW-10	132	6.8	3.0	5.5	147.3	2.16	0.19	0.048	0.11	2.52	7.6	85.9	4.5	5.28	4.7	5	O
LDCS-1	18	4.3	0.50	4.5	27.3	0.30	0.12	0.008	0.09	0.52	23.4	57.0	18.1	4.73	78.1	10	Exceeds
LDCS-2A	12	6.0	0.50	28	46.5	0.20	0.17	0.008	0.58	0.96	17.7	20.6	60.9	10.17	81.2	5	Exceeds
LDCS-2B	12	10.0	0.50	49	71.5	0.20	0.28	0.008	1.02	1.51	18.7	13.1	67.7	9.86	69.4	5	Exceeds
LDCS-3A	62.4	4.0	0.50	54	120.9	1.02	0.11	0.008	1.12	2.27	5.0	45.1	49.5	11.82	61.6	5	Exceeds
LDCS-4A	168	21	0.50	38	228	2.76	0.59	0.008	0.79	4.15	14.3	66.5	19.1	12.11	31.5	5	Exceeds
LDCS-4B	432	37	0.50	63	533	7.08	1.04	0.008	1.31	9.45	11.0	75.0	13.9	19.46	2.9	5	O
LDCS-5	372	26	0.50	54	453	6.10	0.73	0.008	1.12	7.97	9.2	76.6	14.1	16.48	3.3	5	O
LDCS-6	444	18	0.50	79	542	7.28	0.51	0.008	1.64	9.44	5.4	77.1	17.4	19.64	3.9	5	O
LDCS-7	18	17	0.50	16	52	0.30	0.48	0.008	0.33	1.12	43.0	26.5	29.8	11.83	81.1	5	Exceeds
LDCS-8	552	19	0.50	55	627	9.05	0.54	0.008	1.14	10.74	5.0	84.3	10.7	23.50	8.6	5	Exceeds
Leachate, Cell 8	4,920	1,300	1.10	21	6,242	80.69	36.66	0.018	0.44	117.80	31.1	68.5	0.4	220.14	7.0	5	Exceeds

Notes:
mg/L = milligrams per liter
meq/L = milliequivalents per liter
Total alkalinity concentration, reported as calcium carbonate ($CaCO_3$), is converted to the bicarbonate (HCO_3^-) ion by multiplying by a factor of 1.2
Cation / anion balance equation is the equivalent percent difference in cations minus anions divided by the sum of cations and anions [(cations-anions)/(anions+cations)*100].
The MRL was used for analytes that were non-detect
A 10% difference threshold is used if the total cation-anion sums are < 5.0 meq/liter
A 5% difference threshold is used if the total cation-anion sums are > or = to 5.0 meq/liter

Table 8. Duplicate Sample Results
First Quarter 2022 Monitoring Report
LRI Landfill, Pierce County, Washington

Parameter	MRL	MW-5A	MW-5A (Duplicate)	RPD (%)
Volatile Organic Compunds (µg/L)				
No Detections	-	-	-	-
Inorganic Parameters (mg/L)				
Alkalinity, Total	10	190	180	5.4
Ammonia	0.1	0.14	0.15	6.9
Chloride	0.2	3.6	3.6	0.0
Sulfate	0.2	19	19	0.0
Total Dissolved Solids	10	250	260	3.9
Total Organic Carbon	1	1.1	1.1	0.0
Total Suspended Solids	4.0	4.0	*	0.0
Dissolved Metals (mg/L)				
Calcium	0.2	29	29	0.0
Magnesium	0.1	11	12	8.7
Manganese	0.005	0.24	0.19	23.3
Potassium	2.0	4.4	4.6	4.4
Sodium	1.0	49	48	2.1
Total Metals (mg/L)				
Arsenic	0.005	*	0.0065	26.1
Barium	0.005	0.015	0.016	6.5

Notes:
Analyses performed by Eurofins TestAmerica of Denver, Colorado
Parameters not listed were not present at concentrations exceeding the Method Reporting Limit (MRL)
RPD = relative percent difference
µg/L = micrograms per liter
mg/L = milligrams per liter
* = sample result was not reported at or above the MRL
The MRL was used to calculate the RPD for analytes where one sample was non-detect

Table 2. Field Parameters
Second Quarter 2022
LRI Landfill, Pierce County, Washington

Location	Sample Number	Sample Date	Sampling Method	pH	Conductivity	Temperature
Units				(SU)	(µS/cm)	(°C)
WAC 173-200 Criteria				6.5-8.5	700[b]	—
Monitoring Wells						
MW-1A	304-061422-01	6/14/2022	DP	6.77	159	13.4
MW-2A	304-061422-03	6/14/2022	DP	7.07	234	12.9
MW-3	304-061422-05	6/14/2022	DP	7.06	421	10.5
MW-4	304-061422-10	6/14/2022	SP	7.62	349	14.1
MW-5A	304-061422-09	6/14/2022	DP	7.52	329	12.7
MW-6	304-061422-07	6/14/2022	DP	7.60	332	10.6
MW-7	304-061422-13	6/14/2022	DP	7.44	400	10.7
MW-9	304-061522-15	6/15/2022	DP	6.76	129	10.0
MW-10	304-061522-17	6/15/2022	DP	**6.39**	265	11.8
Leak Detection System						
LDCS-1	304-061422-08	6/14/2022	DB	6.20	436	22.5
LDCS-2A	304-061422-06	6/14/2022	DB	6.93	815	21.8
LDCS-2B	304-061422-04	6/14/2022	DB	6.82	771	19.7
LDCS-3A	304-061422-02	6/14/2022	DP	6.31	918	21.4
LDCS-4A	304-061522-18	6/15/2022	DP	6.37	813	20.8
LDCS-4B	304-061522-20	6/15/2022	DP	6.38	969	26.0
LDCS-5	304-061522-21	6/15/2022	DP	6.38	740	24.9
LDCS-6	304-061522-22	6/15/2022	DP	6.55	994	20.6
LDCS-7	304-061522-16	6/15/2022	DP	6.23	1,193	24.8
LDCS-8	304-061422-14	6/14/2022	GB	6.29	1,172	20.5
Leachate Collection System						
Leachate, Cell 8	304-061522-19	6/15/2022	GB	7.59	13,409	22.2

Notes:
Groundwater (monitoring well) concentrations greater than the WAC 173-200 criteria are shown in **bold**
b = Secondary Drinking Water Standard
°C = degrees celcius
DB = disposable bailer
DP = dedicated pump
GB = grab sample
SP = submersible pump
SU = standard units
µS/cm = microsiemens per centimeter

Table 3. Inorganic Parameters
Second Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Alkalinity, Total	Ammonia	Chloride	Nitrate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
MRL	10	0.10	0.20	0.50	0.20	10	1.0	4.0
WAC 173-200 Criteria	—	—	250	10	250	500	—	—
Prediction Limit	—	—	—	6.4	—	—	—	—
Monitoring Wells								
MW-1A	91	*	1.7	*	2.6	120	*	*
MW-2A	120	*	2.5	*	4.3	160	*	*
MW-3	200	0.11	3.2	*	23	250	1.4	*
MW-4	160	0.13	3.1	*	10	200	*	4.0
MW-5A	190	0.15	3.1	*	15	240	1.2	*
MW-6	170	0.11	4.7	*	6.0	200	1.1	*
MW-7	210	0.24	3.2	*	2.3	220	1.1	*
(BG) MW-9	69	*	1.6	*	1.8	190	*	*
(BG) MW-10	110	*	7.1	2.8	6.7	**17000**	*	*
Leak Detection System								
LDCS-1	200	0.11	4.4	*	5.5	240	4.2	—
LDCS-2A	410	0.15	7.5	*	32	500	3.7	—
LDCS-2B	320	0.56	12	*	150	440	25	—
LDCS-3A	430	0.16	6.1	*	67	540	3.8	—
LDCS-4A	330	0.19	28	*	41	440	6.5	—
LDCS-4B	350	0.17	45	*	76	550	4.7	—
LDCS-5	300	0.52	16	*	55	420	6.2	—
LDCS-6	390	0.28	19	*	84	120	4.9	—
LDCS-7	580	0.18	13	*	43	710	7.8	—
LDCS-8	570	*	17	*	54	670	7.3	—
Leachate Collection System								
Leachate, Cell 8	5000 B	870	1500	1.9	79	6500	1200	—

Notes:

All sample units are milligrams per liter (mg/L)

Groundwater (monitoring well) concentrations greater than prediction limits or WAC 173-200 criteria are shown in **bold**

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = Sample result was not reported at or above the MRL

— = Not applicable or not performed

BG = Background

B = compound was detected in the method blank and the sample

Table 4. WAC 173-351 Appendix I Metals
Second Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Antimony-D	Antimony-T	Arsenic-D	Arsenic-T	Barium-D	Barium-T	Beryllium-D	Beryllium-T	Cadmium-D	Cadmium-T	Chromium-D	Chromium-T	Cobalt-D	Cobalt-T	Copper-D	Copper-T	Lead-D	Lead-T	Nickel-D	Nickel-T	Selenium-D	Selenium-T	Silver-D	Silver-T	Thallium-D	Thallium-T	Vanadium-D	Vanadium-T	Zinc-D	Zinc-T
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MRL	0.05	0.05	0.005	0.005	0.005	0.005	0.001	0.001	0.001	0.001	0.005	0.005	0.001	0.001	0.01	0.01	0.002	0.002	0.02	0.02	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.01
WAC 173-200 Criteria	—	—	—	0.00005	—	1.0	—	—	—	0.01	—	0.05	—	—	—	1.0	—	0.05	—	—	—	0.01	—	0.05	—	—	—	—	—	5.0
Prediction Limit	—	0.05	—	0.011	—	0.091	—	0.005	—	0.005	—	0.011	—	0.01	—	0.063	—	0.042	—	0.020	—	0.005	—	0.01	—	0.005	—	0.016	—	0.290
Monitoring Wells																														
MW-1A	—	*	—	*	—	0.020	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-2A	—	*	—	*	—	0.012	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-3	—	*	—	*	—	0.017	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-4	—	*	—	**0.010**	—	0.020	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.029
MW-5A	—	*	—	**0.0060**	—	0.016	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-6	—	*	—	**0.0072**	—	0.015	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-7	—	*	—	**0.0061**	—	0.018	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
(BG) MW-9	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.014	—	*
(BG) MW-10	—	*	—	*	—	0.014	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.013
Leak Detection System																														
LDCS-1	*	—	0.0099	—	0.019	—	—	—	—	—	*	—	0.0012	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-2A	*	—	*	—	0.020	—	—	—	—	—	*	—	*	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-2B	*	—	0.090	—	0.054	—	—	—	—	—	*	—	0.0051	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-3A	*	—	0.0094	—	0.026	—	—	—	—	—	*	—	0.0021	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-4A	*	—	0.012	—	0.031	—	—	—	—	—	*	—	0.0020	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-4B	*	—	0.0089	—	0.026	—	—	—	—	—	*	—	*	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-5	*	—	*	—	0.041	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-6	*	—	0.0097	—	0.031	—	*	—	*	—	*	—	0.0017	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-7	*	—	0.011	—	0.039	—	*	—	*	—	*	—	0.0040	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-8	*	—	*	—	0.042	—	*	—	*	—	*	—	0.0031	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
Leachate Collection System																														
Leachate, Cell 8	—	*	—	0.19	—	0.69	—	*	—	*	—	0.24	—	0.022	—	0.035	—	0.024	—	0.18	—	*	—	*	—	*	—	0.14	—	0.39

Notes:

All sample units are milligrams per liter (mg/L)

WAC 173-200-040 Table 1 Groundwater Quality Criteria are for total metals

Groundwater (monitoring well) concentrations greater than prediction limits or WAC 173-200 criteria are shown in **bold**

Parameter concentrations for monitoring wells are total (T) metals

Parameter concentrations for LDCS sumps are dissolved (D) metals

Parameter concentrations for leachate samples are total (T) metals

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = sample result was not reported at or above the MRL

— = not applicable or not performed

BG = Background

Table 5. WAC 173-351 Appendix II Metals (Dissolved)
Second Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MRL	0.20	0.10	0.10	0.005	2.0	1.0
WAC 173-200 Criteria	—	0.30	—	0.050	—	—
Monitoring Wells						
MW-1A	13	**1.4**	8.2	**0.22**	3.0	9.4
MW-2A	18	**0.66**	10	**0.27**	2.6	13
MW-3	44	*	20	**0.40**	4.0	14
MW-4	30	*	18	**0.22**	5.1	11
MW-5A	27	0.11	11	**0.17**	5.1	45
MW-6	33	*	15	**0.21**	4.5	9.7
MW-7	33	**0.51**	23	**0.26**	6.3	16
(BG) MW-9	10	*	6.8	*	2.1	8.1
(BG) MW-10	27	*	12	*	2.2	14
Leak Detection System						
LDCS-1	38	1.6	16	1.7	4.5	16
LDCS-2A	90	0.16	36	0.63	8.1	26
LDCS-2B	77	30	31	2.3	5.8	16
LDCS-3A	110	3.5	44	3.7	5.7	21
LDCS-4A	56	4.6	37	2.4	4.3	18
LDCS-4B	76	0.75	29	1.3	4.2	21
LDCS-5	57	0.28	35	1.2	6.3	26
LDCS-6	87	0.32	49	1.9	4.9	24
LDCS-7	130	1.9	28	3.1	3.0	45
LDCS-8	120	*	77	1.9	4.9	38
Leachate Collection System**						
Leachate, Cell 8	360	5.5	150	3.4	460	1,400

Notes:

All sample units are milligrams per liter (mg/L)

WAC 173-200-040 Table 1 Groundwater Quality Criteria are for total metals

Groundwater (monitoring well) concentrations greater than WAC 173-200 criteria are shown in **bold**

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = sample result was not reported at or above the MRL

** = Reported concentrations for leachate are total metals

— = not applicable or not performed

BG = Background

Table 6. Volatile Organic Compounds (µg/L)
Second Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	1,4-Dichlorobenzene	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Acetone	Benzene	Carbon disulfide	Ethylbenzene	m-Xylene & p-Xylene	o-Xylene	Toluene
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MRL	0.50	6.0	5.0	10.0	0.50	0.63	1.0	0.50	0.50	0.50
WAC 173-200 Criteria	4.0	—	—	—	1.0	—	—	—	—	—
Monitoring Wells										
MW-1	*	*	*	*	*	*	*	*	*	*
MW-2	*	*	*	*	*	*	*	*	*	*
MW-3	*	*	*	*	*	*	*	*	*	*
MW-4	*	*	*	*	*	*	*	*	*	*
MW-5	*	*	*	*	*	*	*	*	*	*
MW-6	*	*	*	*	*	*	*	*	*	*
MW-7	*	*	*	*	*	*	*	*	*	*
(BG) MW-9	*	*	*	*	*	*	*	*	*	*
(BG) MW-10	*	*	*	*	*	*	*	*	*	*
Leak Detection System										
LDCS-1	0.95	*	*	*	*	*	*	*	*	*
LDCS-2A	*	*	*	*	*	*	*	*	*	*
LDCS-2B	*	*	*	*	*	*	*	*	*	*
LDCS-3A	*	*	*	210	*	*	*	*	*	*
LDCS-4A	*	*	*	*	*	*	*	*	*	*
LDCS-4B	*	*	*	*	*	*	*	*	*	*
LDCS-5	*	*	*	*	*	*	*	*	*	*
LDCS-6	*	*	*	*	*	*	*	*	*	*
LDCS-7	*	*	*	*	*	*	*	*	*	*
LDCS-8	*	*	*	*	*	*	*	*	*	*
Leachate Collection System										
Leachate, Cell 8	*	9,300	160	11,000	5.3	5.3	21	41	22	200
Quality Control Samples										
Field Blank	*	*	*	*	*	*	*	*	*	*

Notes:
All sample units are micrograms per liter (µg/L)
Analyses performed by Eurofins TestAmerica of Denver, Colorado
Groundwater (monitoring well) concentrations greater than WAC 173-200 criteria are shown in **bold**
Method Reporting Limit (MRL) is typical and may be elevated for some samples
* = sample result was not reported at or above the MRL
— = not applicable or not performed
BG = Background

Table 7. Cation-Anion Balance
Second Quarter 2022
LRI Landfill, Pierce County, Washington

Cations	mg/L					meq/L					% of Total		
	Ca	Mg	K	Na	Total	Ca	Mg	K	Na	Total	Na+K	Ca	Mg
MW-1A	13	8.2	3.0	9.4	33.6	0.65	0.67	0.07	0.41	1.80	26.5	36.0	37.5
MW-2A	18	10	2.6	13	43.6	0.90	0.82	0.06	0.57	2.35	26.6	38.3	35.1
MW-3	44	20	4.0	14	82	2.20	1.65	0.09	0.61	4.54	15.4	48.4	36.2
MW-4	30	18	5.1	11	64.1	1.50	1.48	0.12	0.48	3.57	16.6	41.9	41.5
MW-5A	27	11	5.1	45	88.1	1.35	0.91	0.12	1.96	4.33	47.9	31.1	20.9
MW-6	33	15	4.5	9.7	62.2	1.65	1.23	0.10	0.42	3.40	15.4	48.4	36.3
MW-7	33	23	6.3	16	78.3	1.65	1.89	0.14	0.70	4.38	19.1	37.6	43.2
MW-9	10	6.8	2.1	8.1	27	0.50	0.56	0.05	0.35	1.46	27.4	34.2	38.4
MW-10	27	12	2.2	14	55.2	1.35	0.99	0.05	0.61	2.99	22.0	45.0	33.0
LDCS-1	38	16	4.5	16	74.5	1.90	1.32	0.10	0.70	4.01	19.9	47.3	32.8
LDCS-2A	90	36	8.1	26	160.1	4.49	2.96	0.18	1.13	8.77	15.0	51.2	33.8
LDCS-2B	77	31	5.8	16	129.8	3.84	2.55	0.13	0.70	7.22	11.5	53.2	35.3
LDCS-3A	110	44	5.7	21	180.7	5.49	3.62	0.13	0.91	10.15	10.3	54.1	35.7
LDCS-4A	56	37	4.3	18	115.3	2.79	3.05	0.10	0.78	6.72	13.1	41.6	45.3
LDCS-4B	76	29	4.2	21	130.2	3.79	2.39	0.09	0.91	7.19	14.0	52.8	33.2
LDCS-5	57	35	6.3	26	124.3	2.84	2.88	0.14	1.13	7.00	18.2	40.6	41.2
LDCS-6	87	49	4.9	24	164.9	4.34	4.03	0.11	1.04	9.53	12.1	45.6	42.3
LDCS-7	130	28	3.0	45	206.0	6.49	2.30	0.07	1.96	10.82	18.7	60.0	21.3
LDCS-8	120	77	4.9	38	239.9	5.99	6.34	0.11	1.65	14.09	12.5	42.5	45.0
Leachate, Cell 8	360	150	460	1,400	2,370	17.96	12.35	10.39	60.90	101.60	70.2	17.7	12.2

Anions	mg/L					meq/L					% of Total			Total Ions (meq/L)	Cation - Anion Balance	Applicable Ratio (%)	Ratio Exceedance
	Alk	Cl	NO_3	SO_4	Total	Alk	Cl	NO_3	SO_4	Total	Cl	Alk	SO_4				
MW-1A	109.2	1.7	0.50	2.6	114	1.79	0.05	0.008	0.05	1.90	2.5	94.2	2.8	3.70	2.7	10	O
MW-2A	144	2.5	0.50	4.3	151.3	2.36	0.07	0.008	0.09	2.53	2.8	93.4	3.5	4.87	3.8	10	O
MW-3	240	3.2	0.50	23	266.7	3.94	0.09	0.008	0.48	4.51	2.0	87.2	10.6	9.05	0.3	5	O
MW-4	192	3.1	0.50	10	205.6	3.15	0.09	0.008	0.21	3.45	2.5	91.2	6.0	7.02	1.7	5	O
MW-5A	228	3.1	0.50	15	246.6	3.74	0.09	0.008	0.31	4.15	2.1	90.2	7.5	8.47	2.1	5	O
MW-6	204	4.7	0.50	6.0	215.2	3.35	0.13	0.008	0.12	3.61	3.7	92.7	3.5	7.02	2.9	5	O
MW-7	252	3.2	0.50	2.3	258	4.13	0.09	0.008	0.05	4.28	2.1	96.6	1.1	8.66	1.1	5	O
MW-9	82.8	1.6	0.50	1.8	86.7	1.36	0.05	0.008	0.04	1.45	3.1	93.7	2.6	2.91	0.3	10	O
MW-10	132	7.1	2.8	6.7	148.6	2.16	0.20	0.045	0.14	2.55	7.9	84.9	5.5	5.54	8.0	5	Exceeds
LDCS-1	240	4.4	0.50	5.5	250.4	3.94	0.12	0.008	0.11	4.18	3.0	94.1	2.7	8.19	2.1	5	O
LDCS-2A	492	7.5	0.50	32	532	8.07	0.21	0.008	0.67	8.95	2.4	90.1	7.4	17.72	1.1	5	O
LDCS-2B	384	12	0.50	150	546.5	6.30	0.34	0.008	3.12	9.76	3.5	64.5	32.0	16.98	15.0	5	Exceeds
LDCS-3A	516	6.1	0.50	67	589.6	8.46	0.17	0.008	1.39	10.04	1.7	84.3	13.9	20.19	0.6	5	O
LDCS-4A	396	28	0.50	41	466	6.49	0.79	0.008	0.85	8.14	9.7	79.7	10.5	14.86	9.6	5	Exceeds
LDCS-4B	420	45	0.50	76	542	6.89	1.27	0.008	1.58	9.75	13.0	70.7	16.2	16.93	15.1	5	Exceeds
LDCS-5	360	16	0.50	55	432	5.90	0.45	0.008	1.14	7.51	6.0	78.6	15.2	14.51	3.5	5	O
LDCS-6	468	19	0.50	84	572	7.68	0.54	0.008	1.75	9.97	5.4	77.0	17.5	19.49	2.2	5	O
LDCS-7	696	13	0.50	43	753	11.41	0.37	0.008	0.89	12.68	2.9	90.0	7.1	23.50	7.9	5	Exceeds
LDCS-8	684	17	0.50	54	756	11.22	0.48	0.008	1.12	12.83	3.7	87.4	8.8	26.92	4.7	5	O
Leachate, Cell 8	6,000	1,500	1.90	79	7,581	98.40	42.30	0.031	1.64	142.37	29.7	69.1	1.2	243.97	16.7	5	Exceeds

Notes:
mg/L = milligrams per liter
meq/L = milliequivalents per liter
Total alkalinity concentration, reported as calcium carbonate ($CaCO_3$), is converted to the bicarbonate (HCO_3^-) ion by multiplying by a factor of 1.2
Cation / anion balance equation is the equivalent percent difference in cations minus anions divided by the sum of cations and anions [(cations-anions)/(anions+cations)*100].
The MRL was used for analytes that were non-detect
A 10% difference threshold is used if the total cation-anion sums are < 5.0 meq/liter
A 5% difference threshold is used if the total cation-anion sums are > or = to 5.0 meq/liter

Table 8. Duplicate Sample Results
Second Quarter 2022 Monitoring Report
LRI Landfill, Pierce County, Washington

Parameter	MRL	MW-5A	MW-5A (Duplicate)	RPD (%)
Volatile Organic Compunds (µg/L)				
No Detections	-	-	-	-
Inorganic Parameters (mg/L)				
Alkalinity, Total	10	190	190	0.0
Ammonia	0.1	0.15	0.18	18.2
Chloride	0.2	3.1	3.1	0.0
Sulfate	0.2	15	15	0.0
Total Dissolved Solids	10	240	240	0.0
Total Organic Carbon	1	1.2	1.1	8.7
Dissolved Metals (mg/L)				
Calcium	0.2	27	26	3.8
Iron	0.1	0.11	0.11	0.0
Magnesium	0.1	11	11	0.0
Manganese	0.005	0.17	0.17	0.0
Potassium	2.0	5.1	4.9	4.0
Sodium	1.0	45	44	2.2
Total Metals (mg/L)				
Arsenic	0.005	0.0060	0.0064	6.5
Barium	0.005	0.016	0.014	13.3

Notes:
Analyses performed by Eurofins TestAmerica of Denver, Colorado
Parameters not listed were not present at concentrations exceeding the Method Reporting Limit (MRL)
RPD = relative percent difference
µg/L = micrograms per liter
mg/L = milligrams per liter
* = sample result was not reported at or above the MRL
The MRL was used to calculate the RPD for analytes where one sample was non-detect

Table 2. Field Parameters
Third Quarter 2022
LRI Landfill, Pierce County, Washington

Location	Sample Number	Sample Date	Sampling Method	pH	Conductivity	Temperature
Units				(SU)	(µS/cm)	(°C)
WAC 173-200 Criteria				6.5-8.5	700[b]	—
Monitoring Wells						
MW-1A	304-091322-01	9/13/2022	DP	**6.48**	165	14.4
MW-2A	304-091322-03	9/13/2022	DP	7.02	275	14.4
MW-3	304-091322-05	9/13/2022	DP	7.02	333	11.2
MW-4	304-091422-20	9/14/2022	SP	7.50	347	14.3
MW-5A	304-091322-09	9/13/2022	DP	7.25	290	13.0
MW-6	301-091322-07	9/13/2022	DP	7.50	310	10.8
MW-7	304-091322-13	9/13/2022	DP	7.49	366	11.3
MW-9	304-091422-17	9/14/2022	DP	**6.38**	127	10.5
MW-10	304-091322-15	9/13/2022	DP	**6.27**	262	13.3
Leak Detection System						
LDCS-1	304-091322-10	9/13/2022	DB	6.25	570	21.3
LDCS-2A	304-091322-08	9/13/2022	DB	6.40	900	22.2
LDCS-2B	304-091322-06	9/13/2022	DB	6.47	1008	21.2
LDCS-3A	304-091322-04	9/13/2022	DP	6.23	929	21.3
LDCS-4A	304-091322-12	9/13/2022	DP	6.34	887	23.8
LDCS-4B	304-091322-14	9/13/2022	DP	6.42	1,018	25.3
LDCS-5	304-091422-22	9/14/2022	DP	6.48	1,077	25.7
LDCS-6	304-091422-18	9/14/2022	DP	6.51	1,144	25.5
LDCS-7	304-091322-02	9/14/2022	DP	6.02	869	26.0
LDCS-8	304-091422-16	9/14/2022	GB	6.18	1,235	22.4
LDCS-9	304-090922-01	9/9/2022	GB	6.70	500	17.5
LDCS-9	304-092922-01	9/29/2001	GB	6.42	555	18.4
Leachate Collection System						
Leachate, Cell 8	304-091422-19	9/14/2022	GB	7.76	209,993	26.3

Notes:
Groundwater (monitoring well) concentrations greater than the WAC 173-200 criteria are shown in **bold**
b = Secondary Drinking Water Standard
°C = degrees celcius
DB = disposable bailer
DP = dedicated pump
GB = grab sample
SP = submersible pump
SU = standard units
µS/cm = microsiemens per centimeter

Table 3. Inorganic Parameters
Third Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Alkalinity, Total	Ammonia	Chloride	Nitrate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
MRL	10	0.10	0.20	0.50	0.20	10	1.0	4.0
WAC 173-200 Criteria	—	—	250	10	250	500	—	—
Prediction Limit	—	—	—	6.4	—	—	—	—
Monitoring Wells								
MW-1A	93	*	1.8	*	2.8	130	*	*
MW-2A	130	0.15	3.1	*	15.0	180	*	*
MW-3	140	0.15	3.7	*	33	210	1.1	*
MW-4	170	0.28	3.4	*	10	200	*	4.4
MW-5A	150	*	2.3	*	7	180	*	*
MW-6	160	0.14	4.9	*	7.1	180	*	*
MW-7	190	1.20	3.2	*	3.1	210	*	*
(BG) MW-9	70	*	1.8	*	1.8	120	*	*
(BG) MW-10	110	0.73	6.6	3.1	6.3	170	*	*
Leak Detection System								
LDCS-1	270	*	4.5	*	5.8	340	16	*
LDCS-2A	430	19	7.0	*	37	540	9.8	*
LDCS-2B	470	29	22	*	60	540	90	*
LDCS-3A	420	*	4.1	*	59	550	2.4	*
LDCS-4A	350	*	20	*	67	500	6.5	*
LDCS-4B	380	0.57	26	*	96	600	5.2	*
LDCS-5	440	0.68	26	*	72	570	6.9	*
LDCS-6	500	0.20	21	*	76	610	6.7	*
LDCS-7	430	*	6.8	*	20	520	5.0	*
LDCS-8	580	*	20	*	49	680	7.6	*
LDCS-9 (background #1)	230	0.14	3.5	*	28	340	1.0	*
LDCS-9 (background #2)	250	*	3.8	2.8	48	370	*	*
Leachate Collection System								
Leachate, Cell 8	8000	1500	2600	*	64	10000	1400	*

Notes:

All sample units are milligrams per liter (mg/L)

Groundwater (monitoring well) concentrations greater than prediction limits or WAC 173-200 criteria are shown in **bold**

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = Sample result was not reported at or above the MRL

— = Not applicable or not performed

BG = Background

B = compound was detected in the method blank and the sample

Table 4. WAC 173-351 Appendix I Metals
Third Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Antimony-D	Antimony-T	Arsenic-D	Arsenic-T	Barium-D	Barium-T	Beryllium-D	Beryllium-T	Cadmium-D	Cadmium-T	Chromium-D	Chromium-T	Cobalt-D	Cobalt-T	Copper-D	Copper-T	Lead-D	Lead-T	Nickel-D	Nickel-T	Selenium-D	Selenium-T	Silver-D	Silver-T	Thallium-D	Thallium-T	Vanadium-D	Vanadium-T	Zinc-D	Zinc-T
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MRL	0.05	0.05	0.005	0.005	0.005	0.005	0.001	0.001	0.001	0.001	0.005	0.005	0.001	0.001	0.01	0.01	0.002	0.002	0.02	0.02	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.01
WAC 173-200 Criteria	—	—	—	0.00005	—	1.0	—	—	—	0.01	—	0.05	—	—	—	1.0	—	0.05	—	—	—	0.01	—	0.05	—	—	—	—	—	5.0
Prediction Limit	—	0.05	—	0.011	—	0.091	—	0.005	—	0.005	—	0.011	—	0.01	—	0.063	—	0.042	—	0.020	—	0.005	—	0.01	—	0.005	—	0.016	—	0.290
Monitoring Wells																														
MW-1A	—	*	—	*	—	0.021	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.014
MW-2A	—	*	—	*	—	0.015	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-3	—	*	—	*	—	0.012	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-4	—	*	—	0.013	—	0.019	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.022
MW-5A	—	*	—	0.005	—	0.011	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-6	—	*	—	0.007	—	0.014	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-7	—	*	—	0.0062	—	0.017	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
(BG) MW-9	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.016	—	*
(BG) MW-10	—	*	—	*	—	0.016	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.019
Leak Detection System																														
LDCS-1	*	—	0.022	—	0.017	—	—	—	—	—	*	—	*	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-2A	*	—	0.022	—	0.044	—	—	—	—	—	*	—	0.003	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-2B	*	—	0.130	—	0.091	—	—	—	—	—	*	—	0.008	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-3A	*	—	0.020	—	0.027	—	—	—	—	—	*	—	0.002	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-4A	*	—	0.012	—	0.035	—	—	—	—	—	*	—	0.002	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-4B	*	—	0.019	—	0.039	—	—	—	—	—	*	—	*	—	*	—	*	—	*	—	—	—	—	—	—	—	*	—	*	—
LDCS-5	*	—	0.008	—	0.063	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-6	*	—	0.008	—	0.030	—	*	—	*	—	*	—	0.001	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-7	*	—	0.016	—	0.040	—	*	—	*	—	*	—	0.004	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-8	*	—	0.006	—	0.045	—	*	—	*	—	*	—	0.003	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-9 (background #1)	*	—	*	—	0.019	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-9 (background #2)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leachate Collection System																														
Leachate, Cell 8	—	*	—	0.40	—	0.67	—	*	—	*	—	0.68	—	0.022	—	0.092	—	0.041	—	0.34	—	*	—	*	—	*	—	0.15	—	0.53

Notes:

All sample units are milligrams per liter (mg/L)

WAC 173-200-040 Table 1 Groundwater Quality Criteria are for total metals

Groundwater (monitoring well) concentrations greater than prediction limits or WAC 173-200 criteria are shown in **bold**

Parameter concentrations for monitoring wells are total (T) metals

Parameter concentrations for LDCS sumps are dissolved (D) metals

Parameter concentrations for leachate samples are total (T) metals

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = sample result was not reported at or above the MRL

— = not applicable or not performed

BG = Background

Table 5. WAC 173-351 Appendix II Metals (Dissolved)
Third Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MRL	0.20	0.10	0.10	0.005	2.0	1.0
WAC 173-200 Criteria	—	0.30	—	0.050	—	—
Monitoring Wells						
MW-1A	14	**1.4**	9.4	**0.25**	3.6	11
MW-2A	23	**0.66**	12	**0.31**	3.4	16
MW-3	34	*	15	**0.28**	3.6	13
MW-4	29	*	16	**0.23**	5.4	13.0
MW-5A	24	*	10	**0.14**	3.7	26
MW-6	33	*	15	**0.21**	4.8	10
MW-7	32	0.26	23	**0.28**	5.7	15
(BG) MW-9	9.8	*	6.6	*	*	8
(BG) MW-10	26	*	11	*	2.2	13.0
Leak Detection System						
LDCS-1	51	40	24	1.3	5.8	19
LDCS-2A	100	4.5	41	5.1	9.5	29
LDCS-2B	100	56	42	3.6	8.4	22
LDCS-3A	100	3.5	45	3.6	6.8	23
LDCS-4A	83	2.3	50	1.8	6.7	28
LDCS-4B	100	1.8	54	1.4	7.4	28
LDCS-5	90	1.3	57	1.7	8.4	33
LDCS-6	100	0.2	60	1.2	5.5	32
LDCS-7	97	2.8	34	4.0	3.7	26
LDCS-8	110	1.2	74	2.0	4.9	36
LDCS-9 (background #1)	67	*	15	0.1	3.3	22
LDCS-9 (background #2)	76	*	17	0.3	3.3	25
Leachate Collection System**						
Leachate, Cell 8	92	3.9	120	1.1	690	2,200

Notes:

All sample units are milligrams per liter (mg/L)

WAC 173-200-040 Table 1 Groundwater Quality Criteria are for total metals

Groundwater (monitoring well) concentrations greater than WAC 173-200 criteria are shown in **bold**

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = sample result was not reported at or above the MRL

** = Reported concentrations for leachate are total metals

— = not applicable or not performed

BG = Background

Table 6. Volatile Organic Compounds (µg/L)
Third Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	1,4-Dichlorobenzene	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Acetone	Benzene	Carbon disulfide	Ethylbenzene	m-Xylene & p-Xylene	o-Xylene	Toluene
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MRL	0.50	6.0	5.0	10.0	0.50	0.63	1.0	0.50	0.50	0.50
WAC 173-200 Criteria	4.0	—	—	—	1.0	—	—	—	—	—
Monitoring Wells										
MW-1	*	*	*	*	*	*	*	*	*	*
MW-2	*	*	*	*	*	*	*	*	*	*
MW-3	*	*	*	*	*	*	*	*	*	*
MW-4	*	*	*	*	*	*	*	*	*	*
MW-5	*	*	*	*	*	*	*	*	*	*
MW-6	*	*	*	*	*	*	*	*	*	*
MW-7	*	*	*	*	*	*	*	*	*	*
(BG) MW-9	*	*	*	*	*	*	*	*	*	*
(BG) MW-10	*	*	*	*	*	*	*	*	*	*
Leak Detection System										
LDCS-1	1.0	*	*	*	*	*	*	*	*	*
LDCS-2A	0.56	*	*	*	*	*	*	*	*	*
LDCS-2B	*	*	*	78	*	1.3	*	*	*	*
LDCS-3A	*	*	*	*	*	*	*	*	*	*
LDCS-4A	*	*	*	*	*	*	*	*	*	*
LDCS-4B	*	*	*	*	*	*	*	*	*	*
LDCS-5	*	*	*	*	*	*	*	*	*	*
LDCS-6	*	*	*	*	*	*	*	*	*	*
LDCS-7	*	*	*	*	*	*	*	*	*	*
LDCS-8	*	*	*	*	*	*	*	*	*	*
LDCS-9 (background #1)	*	*	*	*	*	*	*	*	*	*
LDCS-9 (background #2)	*	*	*	*	*	*	*	*	*	*
Leachate Collection System										
Leachate, Cell 8	1.9	620	61	470	4.6	2.6	21	45	24	62
Quality Control Samples										
Field Blank	*	*	*	*	*	*	*	*	*	*

Notes:
All sample units are micrograms per liter (µg/L)
Analyses performed by Eurofins TestAmerica of Denver, Colorado
Groundwater (monitoring well) concentrations greater than WAC 173-200 criteria are shown in **bold**
Method Reporting Limit (MRL) is typical and may be elevated for some samples
* = sample result was not reported at or above the MRL
— = not applicable or not performed
BG = Background

Table 7. Cation-Anion Balance
Third Quarter 2022
LRI Landfill, Pierce County, Washington

Cations	mg/L					meq/L					% of Total		
	Ca	Mg	K	Na	Total	Ca	Mg	K	Na	Total	Na+K	Ca	Mg
MW-1A	14	9.4	3.6	11.0	38	0.70	0.77	0.08	0.48	2.03	27.5	34.4	38.1
MW-2A	23	12	3.4	16	54.4	1.15	0.99	0.08	0.70	2.91	26.6	39.5	34.0
MW-3	34	15	3.6	13	65.6	1.70	1.23	0.08	0.57	3.58	18.1	47.4	34.5
MW-4	29	16	5.4	13	63.4	1.45	1.32	0.12	0.57	3.45	19.9	41.9	38.2
MW-5A	24	10	3.7	26	63.7	1.20	0.82	0.08	1.13	3.24	37.5	37.0	25.4
MW-6	33	15	4.8	10.0	62.8	1.65	1.23	0.11	0.44	3.42	15.9	48.1	36.0
MW-7	32	23	5.7	15	75.7	1.60	1.89	0.13	0.65	4.27	18.3	37.4	44.3
MW-9	10	6.6	0.0	7.5	23.9	0.49	0.54	0.00	0.33	1.36	24.0	36.0	40.0
MW-10	26	11	2.2	13	52.2	1.30	0.91	0.05	0.57	2.82	21.8	46.0	32.1
LDCS-1	51	24	5.8	19	99.8	2.54	1.98	0.13	0.83	5.48	17.5	46.5	36.1
LDCS-2A	100	41	9.5	29	179.5	4.99	3.37	0.21	1.26	9.84	15.0	50.7	34.3
LDCS-2B	100	42	8.4	22	172.4	4.99	3.46	0.19	0.96	9.59	12.0	52.0	36.0
LDCS-3A	100	45	6.8	23	174.8	4.99	3.70	0.15	1.00	9.85	11.7	50.7	37.6
LDCS-4A	83	50	6.7	28	167.7	4.14	4.12	0.15	1.22	9.63	14.2	43.0	42.7
LDCS-4B	100	54	7.4	28	189.4	4.99	4.44	0.17	1.22	10.82	12.8	46.1	41.1
LDCS-5	90	57	8.4	33	188.4	4.49	4.69	0.19	1.44	10.81	15.0	41.6	43.4
LDCS-6	100	60	5.5	32	197.5	4.99	4.94	0.12	1.39	11.44	13.2	43.6	43.1
LDCS-7	97	34	3.7	26	160.7	4.84	2.80	0.08	1.13	8.85	13.7	54.7	31.6
LDCS-8	110	74	4.9	36	224.9	5.49	6.09	0.11	1.57	13.26	12.6	41.4	45.9
LDCS-9	67	15	3.3	22	107.3	3.34	1.23	0.07	0.96	5.61	18.4	59.6	22.0
LDCS-9	76	17	3.3	25	121.3	3.79	1.40	0.07	1.09	6.35	18.3	59.7	22.0
Leachate, Cell 8	92	120	690	2,200	3,102	4.59	9.88	15.58	95.70	125.75	88.5	3.7	7.9

Anions	mg/L					meq/L					% of Total			Total Ions (meq/L)	Cation - Anion Balance	Applicable Ratio (%)	Ratio Exceedance
	Alk	Cl	NO_3	SO_4	Total	Alk	Cl	NO_3	SO_4	Total	Cl	Alk	SO_4				
MW-1A	111.6	1.8	0.0	2.8	116.2	1.83	0.05	0.000	0.06	1.94	2.6	94.4	3.0	3.97	2.3	10	O
MW-2A	156	3.1	0.0	15.0	174.1	2.56	0.09	0.000	0.31	2.96	3.0	86.5	10.5	5.87	0.8	5	O
MW-3	168	3.7	0.0	33	204.7	2.76	0.10	0.000	0.69	3.55	2.9	77.7	19.4	7.12	0.4	5	O
MW-4	204	3.4	0.0	10	217.4	3.35	0.10	0.000	0.21	3.65	2.6	91.7	5.7	7.10	2.8	5	O
MW-5A	180	2.3	0.0	7	189.7	2.95	0.06	0.000	0.15	3.17	2.0	93.1	4.9	6.41	1.0	5	O
MW-6	192	4.9	0.0	7.1	204	3.15	0.14	0.000	0.15	3.43	4.0	91.7	4.3	6.86	0.1	5	O
MW-7	228	3.2	0.0	3.1	234.3	3.74	0.09	0.000	0.06	3.89	2.3	96.0	1.7	8.16	4.6	5	O
MW-9	84.0	1.8	0.0	1.8	87.6	1.38	0.05	0.000	0.04	1.47	3.5	94.0	2.6	2.82	3.8	10	O
MW-10	132	6.6	3.1	6.3	148	2.16	0.19	0.050	0.13	2.53	7.4	85.5	5.2	5.35	5.3	5	Exceeds
LDCS-1	324	4.5	0.0	5.8	334.3	5.31	0.13	0.000	0.12	5.56	2.3	95.5	2.2	11.04	0.8	5	O
LDCS-2A	516	7.0	0.0	37	560	8.46	0.20	0.000	0.77	9.43	2.1	89.7	8.2	19.27	2.1	5	O
LDCS-2B	564	22	0.0	60	646	9.25	0.62	0.000	1.25	11.12	5.6	83.2	11.2	20.71	7.4	5	Exceeds
LDCS-3A	504	4.1	0.0	59	567.1	8.27	0.12	0.000	1.23	9.61	1.2	86.0	12.8	19.46	1.2	5	O
LDCS-4A	420	20	0.0	67	507	6.89	0.56	0.000	1.39	8.85	6.4	77.9	15.8	18.47	4.2	5	O
LDCS-4B	456	26	0.0	96	578	7.48	0.73	0.000	2.00	10.21	7.2	73.3	19.6	21.03	2.9	5	O
LDCS-5	528	26	0.0	72	626	8.66	0.73	0.000	1.50	10.89	6.7	79.5	13.8	21.70	0.4	5	O
LDCS-6	600	21	0.0	76	697	9.84	0.59	0.000	1.58	12.01	4.9	81.9	13.2	23.46	2.4	5	O
LDCS-7	516	6.8	0.0	20	543	8.46	0.19	0.000	0.42	9.07	2.1	93.3	4.6	17.92	1.2	5	O
LDCS-8	696	20	0.0	49	765	11.41	0.56	0.000	1.02	13.00	4.3	87.8	7.8	26.25	1.0	5	O
LDCS-9	276	3.5	0.0	28	308	4.53	0.10	0.000	0.58	5.21	1.9	86.9	11.2	10.82	3.7	5	O
LDCS-9	250	3.8	2.8	48	305	4.10	0.11	0.045	1.00	5.25	2.0	78.1	19.0	11.60	9.5	5	Exceeds
Leachate, Cell 8	9,600	2,600	0.0	64	12,264	157.44	73.32	0.000	1.33	232.09	31.6	67.8	0.6	357.84	29.7	5	Exceeds

Notes:
mg/L = milligrams per liter
meq/L = milliequivalents per liter
Total alkalinity concentration, reported as calcium carbonate ($CaCO_3$), is converted to the bicarbonate (HCO_3^-) ion by multiplying by a factor of 1.2
Cation / anion balance equation is the equivalent percent difference in cations minus anions divided by the sum of cations and anions [(cations-anions)/(anions+cations)*100].
The MRL was used for analytes that were non-detect
A 10% difference threshold is used if the total cation-anion sums are < 5.0 meq/liter
A 5% difference threshold is used if the total cation-anion sums are > or = to 5.0 meq/liter

Table 8. Duplicate Sample Results
Third Quarter 2022 Monitoring Report
LRI Landfill, Pierce County, Washington

Parameter	MRL	MW-5A	MW-5A (Duplicate)	RPD (%)
Volatile Organic Compunds (µg/L)				
No Detections	-	-	-	-
Inorganic Parameters (mg/L)				
Alkalinity, Total	10	150	140	6.9
Ammonia	0.1	0.1 U	0.24	82.4
Chloride	0.2	2.3	2.3	0.0
Sulfate	0.2	7.4	7.5	1.3
Total Dissolved Solids	10	180	170	5.7
Dissolved Metals (mg/L)				
Calcium	0.2	24	24	0.0
Magnesium	0.1	10	10	0.0
Manganese	0.005	0.14	0.14	0.0
Potassium	2.0	3.7	3.8	2.7
Sodium	1.0	26	25	3.9
Total Metals (mg/L)				
Arsenic	0.005	0.0053	0.0054	1.9
Barium	0.005	0.011	0.012	8.7

Notes:
Analyses performed by Eurofins TestAmerica of Denver, Colorado
Parameters not listed were not present at concentrations exceeding the Method Reporting Limit (MRL)
RPD = relative percent difference
µg/L = micrograms per liter
mg/L = milligrams per liter
U= parameter was not detected in sample
* = sample result was not reported at or above the MRL
The MRL was used to calculate the RPD for analytes where one sample was non-detect

Table 2. Field Parameters
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

Location	Sample Number	Sample Date	Sampling Method	pH	Conductivity	Temperature
Units				(SU)	(µS/cm)	(°C)
WAC 173-200 Criteria				6.5-8.5	700[b]	—
Monitoring Wells						
MW-1A	304-122822-02	12/28/2022	DP	6.74	131	13.3
MW-2A	304-122822-03	12/28/2022	DP	7.22	359	12.8
MW-3	304-122822-04	12/28/2022	GB	7.44	335	10.3
MW-4	304-122922-06	12/29/2022	DP	7.21	376	13.0
MW-5A	304-122822-05	12/28/2022	DP	7.58	293	12.2
MW-6	304-122822-10	12/28/2022	DP	7.55	367	10.4
MW-7	304-122922-02	12/29/2022	DP	7.48	352	10.4
MW-9	304-122922-04	12/29/2022	DP	6.76	136	9.8
MW-10	304-122822-01	12/28/2022	DP	**6.25**	253	11.3
Leak Detection System						
LDCS-1	304-122822-07	12/28/2022	DB	**6.40**	407	18.2
LDCS-2A	304-122822-06	12/28/2022	DB	7.02	767	18.7
LDCS-2B	304-122922-05	12/29/2022	DB	**6.06**	787	14.5
LDCS-3A	304-122922-03	12/29/2022	DP	**6.39**	877	20.1
LDCS-4A	304-122922-07	12/29/2022	DP	**6.04**	725	16.3
LDCS-4B	304-122922-08	12/29/2022	DP	**6.03**	1058	24.0
LDCS-5	304-123022-03	12/30/2022	GB	**6.32**	289	20.6
LDCS-6	304-123022-01	12/30/2022	DP	**6.47**	1086	14.2
LDCS-7	304-122922-01	12/29/2022	DP	**6.18**	666	17.8
LDCS-8	304-123022-02	12/30/2022	GB	**6.28**	515	20.7
LDCS-9	304-110122-01	11/1/2022	DP	**6.19**	527	15.6
Leachate Collection System						
Leachate, Cell 1	304-122022-05	12/20/2022	GB	7.64	17779	14.1
Leachate, Cell 2A	304-122022-04	12/20/2022	GB	7.90	12667	16.0
Leachate, Cell 2B	304-122022-03	12/20/2022	GB	7.63	23460	16.4
Leachate, Cell 3A	304-122022-02	12/20/2022	GB	7.63	22069	21.0
Leachate, Cell 4A	304-122022-06	12/20/2022	GB	7.94	30729	19.4
Leachate, Cell 4B	304-122022-07	12/20/2022	GB	7.92	38187	8.6
Leachate, Cell 5	304-122022-08	12/20/2022	GB	8.11	32477	17.1
Leachate, Cell 6	304-122022-09	12/20/2022	GB	7.77	155	16.4
Leachate, Cell 7	304-122022-01	12/20/2022	GB	8.02	15642	13.3
Leachate, Cell 8	304-122022-10	12/20/2022	GB	7.77	155	16.4

Notes:
Groundwater (monitoring well) concentrations greater than the WAC 173-200 criteria are shown in **bold**

b = Secondary Drinking Water Standard

°C = degrees celcius

* = Additional sample collected from MW-4 serves as confirmation water quality data

DB = disposable bailer

DP = dedicated pump

GB = grab sample

SP = submersible pump

SU = standard units

µS/cm = microsiemens per centimeter

Table 3. Inorganic Parameters
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Alkalinity, Total	Ammonia	Chloride	Nitrate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
MRL	10	0.10	0.20	0.50	0.20	10	1.0	4.0
WAC 173-200 Criteria	—	—	250	10	250	500	—	—
Prediction Limit	—	—	—	6.4	—	—	—	—
Monitoring Wells								
MW-1A	77	*	2.6	*	11	94	1	4.8
MW-2A	140	0.43	5.4	*	36	220	1.4	*
MW-3	140	0.14	4.2	*	29	190	1	*
MW-4	170	0.12	4.8	*	23	170	1.2	*
MW-5A	150	0.19	2.7	*	7.2	160	*	*
MW-6	190	0.14	6.4	*	8.1	190	1.6	*
MW-7	180	0.23	3.3	*	4.7	160	*	*
(BG) MW-9	70	*	1.8	*	1.7	67	*	*
(BG) MW-10	110	*	7.3	3	6.2	160	*	5.2
Leak Detection System								
LDCS-1	190	0.63	5.9	*	7.3	230	8.4	—
LDCS-2A	440	*	11	*	26	490	3.7	—
LDCS-2B	380	0.29	28	*	44	**500**	7.1	—
LDCS-3	480	0.24	4.9	*	55	**520**	2.3	—
LDCS-4A	230	*	92	0.81	32	420	6.9	—
LDCS-4B	330	0.12	130	*	81	**640**	11	—
LDCS-5	180	0.25	42	*	58	360	31	—
LDCS-6	440	0.15	39	*	97	**620**	4.5	—
LDCS-7	250	*	7.8	*	130	420	5	—
LDCS-8	470	0.29	32	*	40	540	8.1	—
LDCS-9	230	*	6.7	1.3	52	350	8	—
Leachate Collection System								
Leachate, Cell 1	9800	1900	**7800**	*	25	16000	2200	—
Leachate, Cell 2A	8900	1600	**3900**	*	57	13000	1700	—
Leachate, Cell 2B	8100	1600	**3100**	*	*	8100	2000	—
Leachate, Cell 3	7900	1300	**2400**	*	*	8200	1700	—
Leachate, Cell 4A	12000	2000	**4400**	*	26	14000	2500	—
Leachate, Cell 4B	15000	2300	**4500**	*	19	16000	2100	—
Leachate, Cell 5	12000	2200	**3500**	*	38	14000	2100	—
Leachate, Cell 6	12000	2800	**3400**	*	54	16000	4300	—
Leachate, Cell 7	7100	1300	**1800**	*	*	6000	1400	—
Leachate, Cell 8	4700	1000	**1300**	1.7	220	2300	740	—

Notes:

All sample units are milligrams per liter (mg/L)

Groundwater (monitoring well) concentrations greater than prediction limits or WAC 173-200 criteria are shown in **bold**

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = Sample result was not reported at or above the MRL

— = Not applicable or not performed

BG = Background

H = analyzed after specified holding time due

Table 4. WAC 173-351 Appendix I Metals
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Antimony-D	Antimony-T	Arsenic-D	Arsenic-T	Barium-D	Barium-T	Beryllium-D	Beryllium-T	Cadmium-D	Cadmium-T	Chromium-D	Chromium-T	Cobalt-D	Cobalt-T	Copper-D	Copper-T	Lead-D	Lead-T	Nickel-D	Nickel-T	Selenium-D	Selenium-T	Silver-D	Silver-T	Thallium-D	Thallium-T	Vanadium-D	Vanadium-T	Zinc-D	Zinc-T
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MRL	0.05	0.05	0.005	0.005	0.005	0.005	0.001	0.001	0.001	0.001	0.005	0.005	0.001	0.001	0.01	0.01	0.002	0.002	0.02	0.02	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.01
WAC 173-200 Criteria	—	—	—	0.00005	—	1.0	—	—	—	0.01	—	0.05	—	—	—	1.0	—	0.05	—	—	—	0.01	—	0.05	—	—	—	—	—	5.0
Prediction Limit	—	0.05	—	0.011	—	0.091	—	0.005	—	0.005	—	0.011	—	0.01	—	0.063	—	0.042	—	0.020	—	0.005	—	0.01	—	0.005	—	0.016	—	0.290
Monitoring Wells																														
MW-1A	—	*	—	*	—	0.015	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.011
MW-2A	—	*	—	*	—	0.018	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-3	—	*	—	*	—	0.011	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-4	—	*	—	0.011	—	0.015	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.010
MW-5A	—	*	—	*	—	0.010	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-6	—	*	—	0.0074	—	0.015	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
MW-7	—	*	—	0.0059	—	0.014	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
(BG) MW-9	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	0.014	—	*
(BG) MW-10	—	*	—	*	—	0.013	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*
Leak Detection System																														
LDCS-1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LDCS-2A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LDCS-2B	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LDCS-3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LDCS-4A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LDCS-4B	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LDCS-5	*	—	*	—	0.051	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-6	*	—	*	—	0.053	—	*	—	*	—	*	—	0.0027	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
LDCS-8	*	—	*	—	0.037	—	*	—	*	—	*	—	0.0031	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—	*	—
LDCS-9	*	—	*	—	0.019	—	—	—	—	—	*	—	0.0033	—	*	—	*	—	*	—	—	—	—	—	—	—	—	—	*	—
Leachate Collection System																														
Leachate, Cell 1	—	*	—	0.12	—	1.7	—	*	—	*	—	0.54	—	0.045	—	0.017	—	0.01	—	0.93	—	*	—	*	—	*	—	0.31	—	0.035
Leachate, Cell 2A	—	*	—	0.081	—	1.4	—	*	—	*	—	0.49	—	0.051	—	0.014	—	0.013	—	0.73	—	*	—	*	—	*	—	0.31	—	0.044
Leachate, Cell 2B	—	*	—	0.14	—	0.94	—	*	—	*	—	0.49	—	0.039	—	0.025	—	0.017	—	0.51	—	*	—	*	—	*	—	0.34	—	0.055
Leachate, Cell 3	—	*	—	0.07	—	1	—	*	—	*	—	0.45	—	0.039	—	0.024	—	0.018	—	0.37	—	*	—	*	—	*	—	0.2	—	0.072
Leachate, Cell 4A	—	*	—	0.17	—	1.2	—	*	—	*	—	0.62	—	0.045	—	0.029	—	0.016	—	0.46	—	*	—	*	—	*	—	0.24	—	0.079
Leachate, Cell 4B	—	*	—	0.11	—	1.6	—	*	—	*	—	0.79	—	0.044	—	0.089	—	0.023	—	0.67	—	*	—	*	—	*	—	0.13	—	0.087
Leachate, Cell 5	—	*	—	0.22	—	1	—	*	—	*	—	0.75	—	0.06	—	0.19	—	0.027	—	0.65	—	*	—	*	—	*	—	0.17	—	0.18
Leachate, Cell 6	—	0.057	—	0.37	—	1.3	—	*	—	*	—	0.93	—	0.047	—	0.1	—	0.036	—	0.53	—	*	—	*	—	*	—	0.13	—	0.28
Leachate, Cell 7	—	*	—	0.41	—	0.78	—	*	—	*	—	0.65	—	0.025	—	0.019	—	0.013	—	0.21	—	*	—	*	—	*	—	0.17	—	0.1
Leachate, Cell 8	—	*	—	0.250	—	0.44	—	*	—	*	—	0.37	—	0.029	—	0.042	—	0.013	—	0.18	—	*	—	*	—	*	—	0.098	—	0.2

Notes:

All sample units are milligrams per liter (mg/L)

WAC 173-200-040 Table 1 Groundwater Quality Criteria are for total metals

Groundwater (monitoring well) concentrations greater than prediction limits or WAC 173-200 criteria are shown in **bold**

Parameter concentrations for monitoring wells are total (T) metals

Parameter concentrations for LDCS sumps are dissolved (D) metals

Parameter concentrations for leachate samples are total (T) metals

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = sample result was not reported at or above the MRL

— = not applicable or not performed

BG = Background

Table 5. WAC 173-351 Appendix II Metals (Dissolved)
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	Calcium	Iron	Magnesium	Manganese	Potassium	Sodium
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MRL	0.20	0.10	0.10	0.005	2.0	1.0
WAC 173-200 Criteria	—	0.30	—	0.050	—	—
Monitoring Wells						
MW-1A	13	**1.0**	6.6	**0.19**	2.8	9.6
MW-2A	34	**0.91**	15	**0.35**	4.3	19
MW-3	36	*	15	**0.26**	3.7	13
MW-4	21	*	11	**0.25**	3.5	8.4
MW-5A	26	0.20	10	**0.22**	3.4	17
MW-6	33	*	15	**0.25**	4.1	9.2
MW-7	19	0.14	13	**0.24**	3.1	7.2
(BG) MW-9	9.5	*	6.2	*	*	7.0
(BG) MW-10	25	*	11	*	2.1	13
Leak Detection System						
LDCS-1	45	39	19	1.6	5.1	18
LDCS-2A	100	*	40	2.6	9.4	30
LDCS-2B	100	40	39	2.6	6.7	19
LDCS-3	120	3.8	47	3.7	6.7	26
LDCS-4A	65	*	33	0.75	5.9	38
LDCS-4B	130	0.18	44	1	6.5	44
LDCS-5	49	0.88	24	0.85	9.2	35
LDCS-6	95	*	69	3.5	6.9	31
LDCS-7	98	0.98	29	0.92	3.1	19
LDCS-8	100	*	51	1.7	4.2	37
LDCS-9	66	0.1	15	0.62	2.4	23
Leachate Collection System**						
Leachate, Cell 1	33	14	82	0.26	1100	6200
Leachate, Cell 2A	41	8.7	71	0.32	710	3500
Leachate, Cell 2B	35	10	52	0.2	650	3300
Leachate, Cell 3	56	9.5	64	0.37	700	3100
Leachate, Cell 4A	37	9.5	67	0.29	1200	4500
Leachate, Cell 4B	27	7.8	73	0.2	1200	4500
Leachate, Cell 5	39	7.0	60	0.31	1200	4600
Leachate, Cell 6	45	3.9	93	0.46	1100	3400
Leachate, Cell 7	98	0.74	81	2.0	590	1700
Leachate, Cell 8	76	5.5	59	1.3	390	1100

Notes:

All sample units are milligrams per liter (mg/L)

WAC 173-200-040 Table 1 Groundwater Quality Criteria are for total metals

Groundwater (monitoring well) concentrations greater than WAC 173-200 criteria are shown in **bold**

Analyses performed by Eurofins TestAmerica of Denver, Colorado

Method Reporting Limit (MRL) is typical and may be elevated for some samples

* = sample result was not reported at or above the MRL

** = Reported concentrations for leachate are total metals

— = not applicable or not performed

BG = Background

Table 6. Volatile Organic Compounds (µg/L)
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

Parameter	1,2-Dichloroethane	1,4-Dichlorobenzene	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Acetone	Benzene	Carbon disulfide	Chloroform	cis-1,2-Dichloroethene	Ethylbenzene	m-Xylene & p-Xylene	o-Xylene	Styrene	Toluene
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MRL	0.50	0.50	6.00	5.00	10.0	0.50	0.50	0.50	0.50	1.00	0.50	0.50	0.50	0.50
WAC 173-200 Criteria	0.50	4.0	—	—	—	1.0	—	7.0	—	—	—	—	—	—
Monitoring Wells														
MW-1	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW-2	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW-3	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW-4	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW-5	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW-6	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW-7	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW-9^	*	*	*	*	*	*	*	*	*	*	*	*	*	*
(BG) MW-9	*	*	*	*	*	*	*	*	*	*	*	*	*	*
(BG) MW-10	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Leak Detection System														
LDCS-1	*	0.85	*	*	*	*	*	*	*	*	*	*	*	*
LDCS-2A	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LDCS-2B	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LDCS-3	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LDCS-4A	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LDCS-4B	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LDCS-5	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LDCS-6	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LDCS-7	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LDCS-8	*	*	*	*	*	*	*	*	*	*	*	*	*	*
LDCS-9	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Leachate Collection System														
Leachate, Cell 1	*	70	39000	750	56000	93	*	*	*	260	500	240	*	240
Leachate, Cell 2A	*	9.2	180	11	250	15	*	*	*	54	69	36	*	46
Leachate, Cell 2B	4.9	6.7	10000	430	11000	5.5	*	7.3	*	27	44	23	3.4	42
Leachate, Cell 3	*	92	61000	1800	78000	110	*	*	*	380	710	350	*	290
Leachate, Cell 4A	*	17	2900	90	4200	24	*	*	*	56	84	45	*	81
Leachate, Cell 4B	*	16	5000	64	3100	39	*	*	6.3	70	110	52	*	130
Leachate, Cell 5	*	*	7900	210	2200	8.2	*	*	*	5.6	12	7.6	*	12
Leachate, Cell 6	*	17	1300	360	3200	18	*	*	13	53	88	65	*	110
Leachate, Cell 7	*	*	96	30	85	9.2	7.8	*	*	35	55	30	*	38
Leachate, Cell 8	*	*	3400	110	4800	6.6	9.4	*	*	34.0	63.0	34.0	*	70.0
Quality Control Samples														
Field Blank	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Notes:
All sample units are milligrams per liter (µg/L)
Analyses performed by Eurofins TestAmerica of Denver, Colorado
Groundwater (monitoring well) concentrations greater than WAC 173-200 criteria are shown in **bold**
Method Reporting Limit (MRL) is typical and may be elevated for some samples
^ = Additional sample collected from MW-9 serves as confirmation water quality data
* = sample result was not reported at or above the MRL
— = not applicable or not performed
BG = Background

Table 7. Cation-Anion Balance
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

Cations	mg/L					meq/L					% of Total			Total Ions (meq/L)	Cation - Anion Balance	Applicable Ratio (%)	Ratio Exceedance
	Ca	Mg	K	Na	Total	Ca	Mg	K	Na	Total	Na+K	Ca	Mg				
MW-1A	13	6.6	2.8	9.6	32.0	0.65	0.54	0.06	0.42	1.67	28.7	38.8	32.5				
MW-2A	34	15	4.3	19	72.3	1.70	1.23	0.10	0.83	3.85	24.0	44.0	32.0				
MW-3	36	15	3.7	13	67.7	1.80	1.23	0.08	0.57	3.68	17.6	48.8	33.5				
MW-4	21	11	3.5	8.4	43.9	1.05	0.91	0.08	0.37	2.40	18.5	43.7	37.8				
MW-5A	26	10	3.4	17	56.4	1.30	0.82	0.08	0.74	2.94	27.8	44.2	28.0				
MW-6	33	15	4.1	9.2	61.3	1.65	1.23	0.09	0.40	3.37	14.6	48.8	36.6				
MW-7	19	13	3.1	7.2	42.3	0.95	1.07	0.07	0.31	2.40	16.0	39.5	44.6				
MW-9	9.5	6.2	2.0	7.0	24.7	0.47	0.51	0.05	0.30	1.33	26.2	35.5	38.3				
MW-10	25	11	2.1	13	51.1	1.25	0.91	0.05	0.57	2.77	22.2	45.1	32.7				
LDCS-1	45	19	5.1	18	87.1	2.25	1.56	0.12	0.78	4.71	19.1	47.7	33.2				
LDCS-2A	100	40	9.4	30	179.4	4.99	3.29	0.21	1.31	9.80	15.5	50.9	33.6				
LDCS-2B	100	39	6.7	19	164.7	4.99	3.21	0.15	0.83	9.18	10.7	54.4	35.0				
LDCS-3A	120	47	6.7	26	199.7	5.99	3.87	0.15	1.13	11.14	11.5	53.8	34.7				
LDCS-4A	65	33	5.9	38	141.9	3.24	2.72	0.13	1.65	7.75	23.1	41.9	35.1				
LDCS-4B	130	44	6.5	44	224.5	6.49	3.62	0.15	1.91	12.17	16.9	53.3	29.8				
LDCS-5	49	24	9.2	35	117.2	2.45	1.98	0.21	1.52	6.15	28.1	39.8	32.1				
LDCS-6	95	69	6.9	31	201.9	4.74	5.68	0.16	1.35	11.92	12.6	39.8	47.6				
LDCS-7	98	29	3.1	19	149.1	4.89	2.39	0.07	0.83	8.17	11.0	59.8	29.2				
LDCS-8	100	51	4.2	37	192.2	4.99	4.20	0.09	1.61	10.89	15.6	45.8	38.5				
LDCS-9	66.0	15.0	2.4	23	106.4	3.29	1.23	0.05	1.00	5.58	18.9	59.0	22.1				
Leachate, Cell 1	33	82	1100	6200	7415.0	1.65	6.75	24.84	269.70	302.93	97.2	0.5	2.2				
Leachate, Cell 2A	41	71	710	3500	4322.0	2.05	5.84	16.03	152.25	176.17	95.5	1.2	3.3				
Leachate, Cell 2B	35	52	650	3300	4037.0	1.75	4.28	14.68	143.55	164.25	96.3	1.1	2.6				
Leachate, Cell 3A	56	64	700	3100	3920.0	2.79	5.27	15.81	134.85	158.72	94.9	1.8	3.3				
Leachate, Cell 4A	37	67	1200	4500	5804.0	1.85	5.51	27.10	195.75	230.21	96.8	0.8	2.4				
Leachate, Cell 4B	27	73	1200	4500	5800.0	1.35	6.01	27.10	195.75	230.20	96.8	0.6	2.6				
Leachate, Cell 5	39	60	1200	4600	5899.0	1.95	4.94	27.10	200.10	234.08	97.1	0.8	2.1				
Leachate, Cell 6	45	93	1100	3400	4638.0	2.25	7.65	24.84	147.90	182.64	94.6	1.2	4.2				
Leachate, Cell 7	98	81	590	1700	2469.0	4.89	6.67	13.32	73.95	98.83	88.3	4.9	6.7				
Leachate, Cell 8	76	59	390	1100	1,625	3.79	4.86	8.81	47.85	65.30	86.8	5.8	7.4				

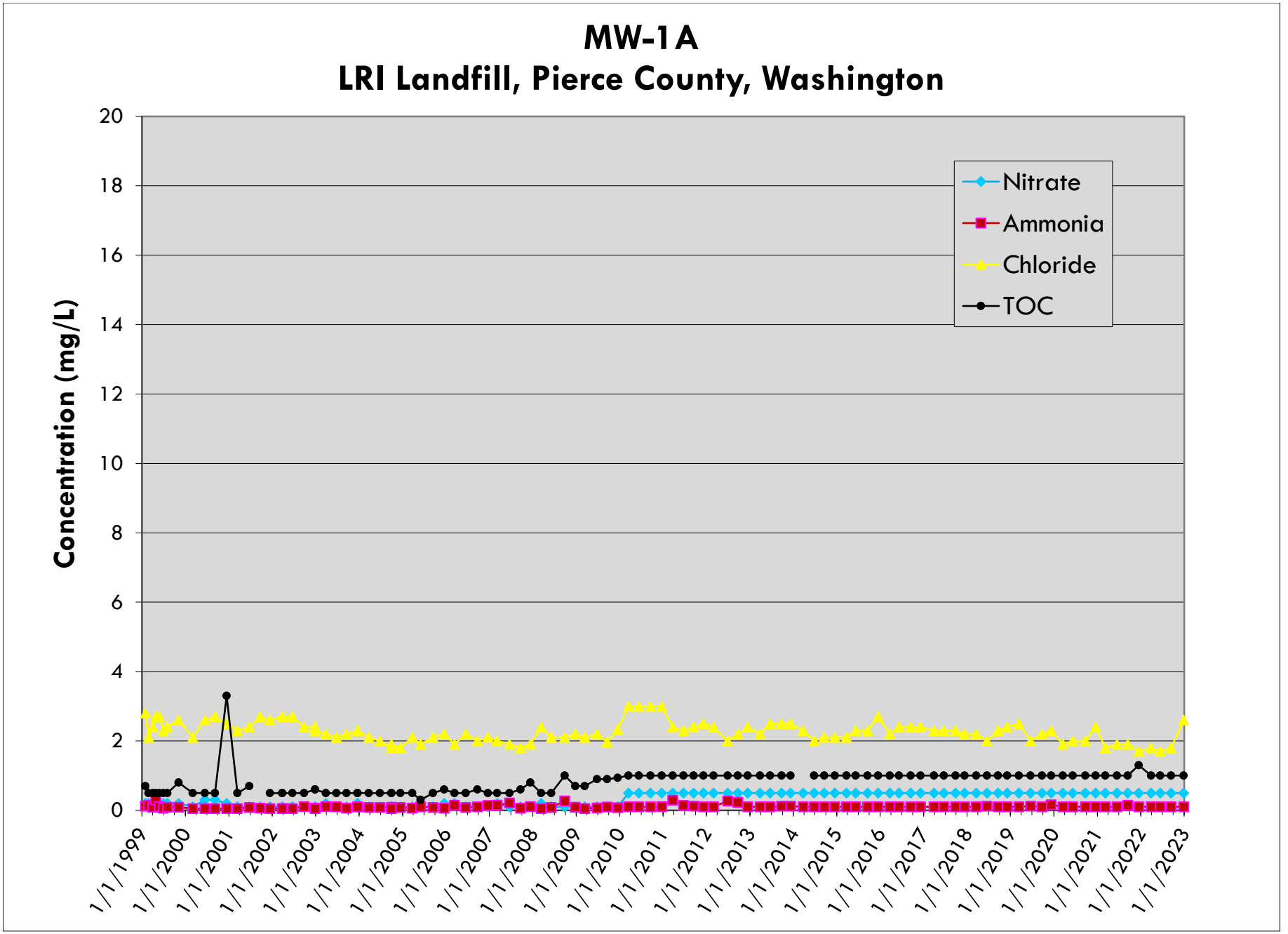
Anions	mg/L					meq/L					% of Total			Total Ions (meq/L)	Cation - Anion Balance	Applicable Ratio (%)	Ratio Exceedance
	Alk	Cl	NO_3	SO_4	Total	Alk	Cl	NO_3	SO_4	Total	Cl	Alk	SO_4				
MW-1A	77	2.6	0.50	11	91.1	1.26	0.07	0.008	0.23	1.57	4.7	80.3	14.5	3.25	3.1	10	O
MW-2A	140	5.4	0.50	36	181.9	2.30	0.15	0.008	0.75	3.21	4.8	71.6	23.4	7.06	9.2	5	Exceeds
MW-3	140	4.2	0.50	29	173.7	2.30	0.12	0.008	0.60	3.03	3.9	75.9	19.9	6.71	9.8	5	Exceeds
MW-4	170	4.8	0.50	23	198.3	2.79	0.14	0.008	0.48	3.41	4.0	81.8	14.0	5.81	17.4	5	Exceeds
MW-5A	150	2.7	0.50	7.2	160.4	2.46	0.08	0.008	0.15	2.69	2.8	91.3	5.6	5.63	4.3	5	O
MW-6	190	6.4	0.50	8.1	205	3.12	0.18	0.008	0.17	3.47	5.2	89.7	4.9	6.85	1.4	5	O
MW-7	180	3.3	0.50	4.7	188.5	2.95	0.09	0.008	0.10	3.15	3.0	93.7	3.1	5.55	13.5	5	Exceeds
MW-9	70	1.8	0.50	1.7	74	1.15	0.05	0.008	0.04	1.24	4.1	92.4	2.8	2.58	3.6	10	O
MW-10	110	7.3	3.0	6.2	126.5	1.80	0.21	0.048	0.13	2.19	9.4	82.5	5.9	4.95	11.7	10	Exceeds
LDCS-1	190	5.9	0.50	7.3	203.7	3.12	0.17	0.008	0.15	3.44	4.8	90.5	4.4	8.15	15.5	5	Exceeds
LDCS-2A	440	11	0.50	26	477.5	7.22	0.31	0.008	0.54	8.08	3.8	89.4	6.7	17.87	9.6	5	Exceeds
LDCS-2B	380	28	0.50	44	452.5	6.23	0.79	0.008	0.92	7.94	9.9	78.4	11.5	17.12	7.2	5	Exceeds
LDCS-3A	480	4.9	0.50	55	540.4	7.87	0.14	0.008	1.14	9.16	1.5	85.9	12.5	20.30	9.7	5	Exceeds
LDCS-4A	230	92	0.81	32	355	3.77	2.59	0.013	0.67	7.05	36.8	53.5	9.4	14.79	4.7	5	O
LDCS-4B	330	130	0.50	81	542	5.41	3.67	0.008	1.68	10.77	34.0	50.2	15.6	22.94	6.1	5	Exceeds
LDCS-5	180	42	0.50	58	281	2.95	1.18	0.008	1.21	5.35	22.1	55.2	22.5	11.50	7.0	5	Exceeds
LDCS-6	440	39	0.50	97	577	7.22	1.10	0.008	2.02	10.34	10.6	69.8	19.5	22.26	7.1	5	Exceeds
LDCS-7	250	7.8	0.50	130	388	4.10	0.22	0.008	2.70	7.03	3.1	58.3	38.5	15.21	7.5	5	Exceeds
LDCS-8	470	32	0.50	40	543	7.71	0.90	0.008	0.83	9.45	9.5	81.6	8.8	20.34	7.1	5	Exceeds
LDCS-9	230	6.7	1.30	52	290	3.77	0.19	0.021	1.08	5.06	3.7	74.5	21.4	10.65	4.9	5	O
Leachate, Cell 1	9800	7800	0.50	25	17626	160.72	219.96	0.008	0.52	381.21	57.7	42.2	0.1	684.14	11.4	5	Exceeds
Leachate, Cell 2A	8900	3900	0.50	57	12858	145.96	109.98	0.008	1.19	257.13	42.8	56.8	0.5	433.30	18.7	5	Exceeds
Leachate, Cell 2B	8100	3100	0.50	19	11220	132.84	87.42	0.008	0.40	220.66	39.6	60.2	0.2	384.92	14.7	5	Exceeds
Leachate, Cell 3A	7900	2400	0.50	19	10320	129.56	67.68	0.008	0.40	197.64	34.2	65.6	0.2	356.36	10.9	5	Exceeds
Leachate, Cell 4A	12000	4400	0.50	26	16427	196.80	124.08	0.008	0.54	321.43	38.6	61.2	0.2	551.64	16.5	5	Exceeds
Leachate, Cell 4B	15000	4500	0.50	19	19520	246.00	126.90	0.008	0.40	373.30	34.0	65.9	0.1	603.50	23.7	5	Exceeds
Leachate, Cell 5	12000	3500	0.50	38	15539	196.80	98.70	0.008	0.79	296.30	33.3	66.4	0.3	530.38	11.7	5	Exceeds
Leachate, Cell 6	12000	3400	0.50	54	15455	196.80	95.88	0.008	1.12	293.81	32.6	67.0	0.4	476.45	23.3	5	Exceeds
Leachate, Cell 7	7100	1800	0.50	19	8920	116.44	50.76	0.008	0.40	167.60	30.3	69.5	0.2	266.43	25.8	5	Exceeds
Leachate, Cell 8	4700	1300	1.70	220	6,222	77.08	36.66	0.027	4.58	118.34	31.0	65.1	3.9	183.65	28.9	5	Exceeds

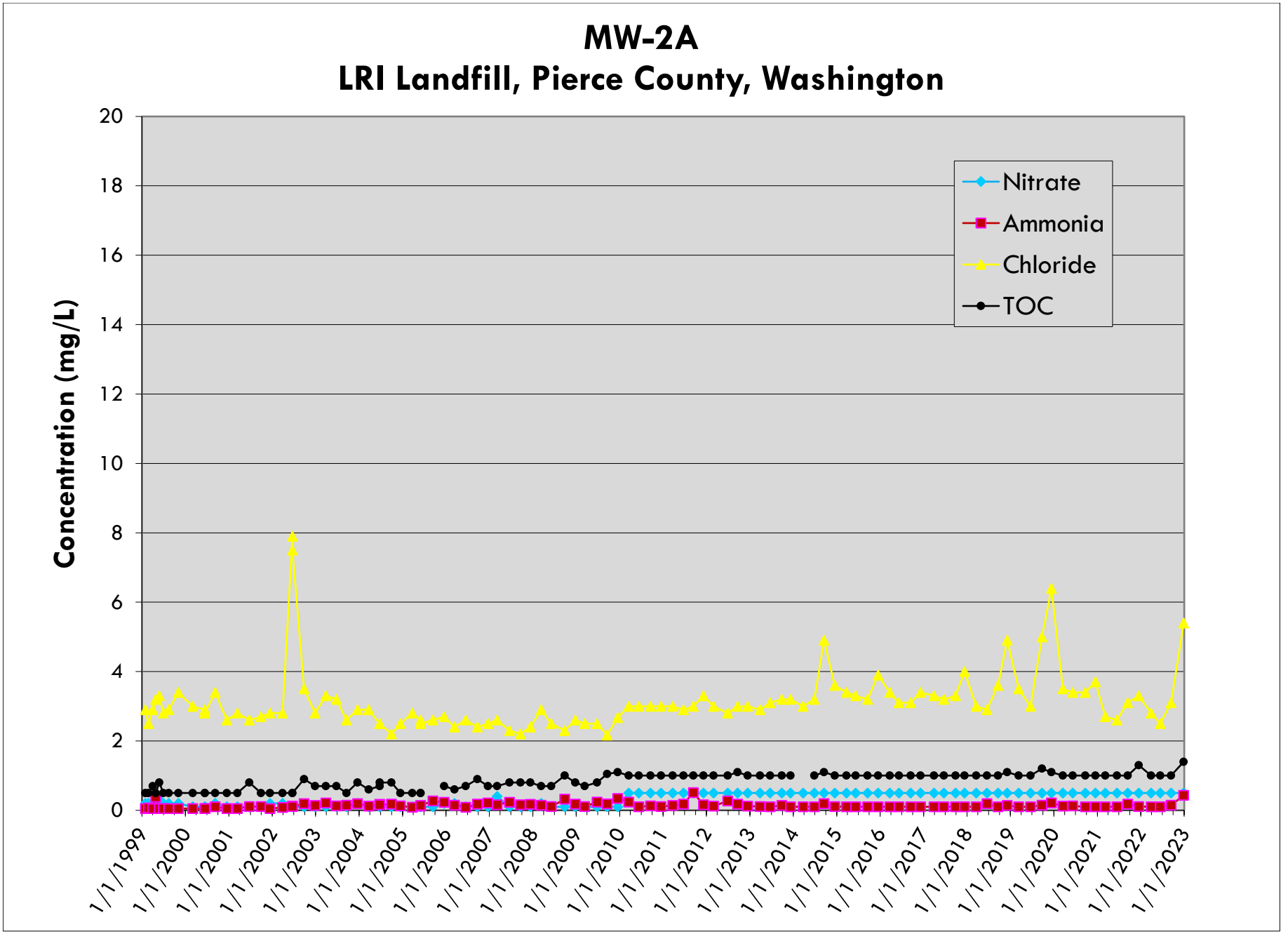
Notes:
mg/L = milligrams per liter
meq/L = milliequivalents per liter
Total alkalinity concentration, reported as calcium carbonate ($CaCO_3$), is converted to the bicarbonate (HCO_3^-) ion by multiplying by a factor of 1.2
Cation / anion balance equation is the equivalent percent difference in cations minus anions divided by the sum of cations and anions [(cations-anions)/(anions+cations)*100].
The MRL was used for analytes that were non-detect
A 10% difference threshold is used if the total cation-anion sums are < 5.0 meq/liter
A 5% difference threshold is used if the total cation-anion sums are > or = to 5.0 meq/liter

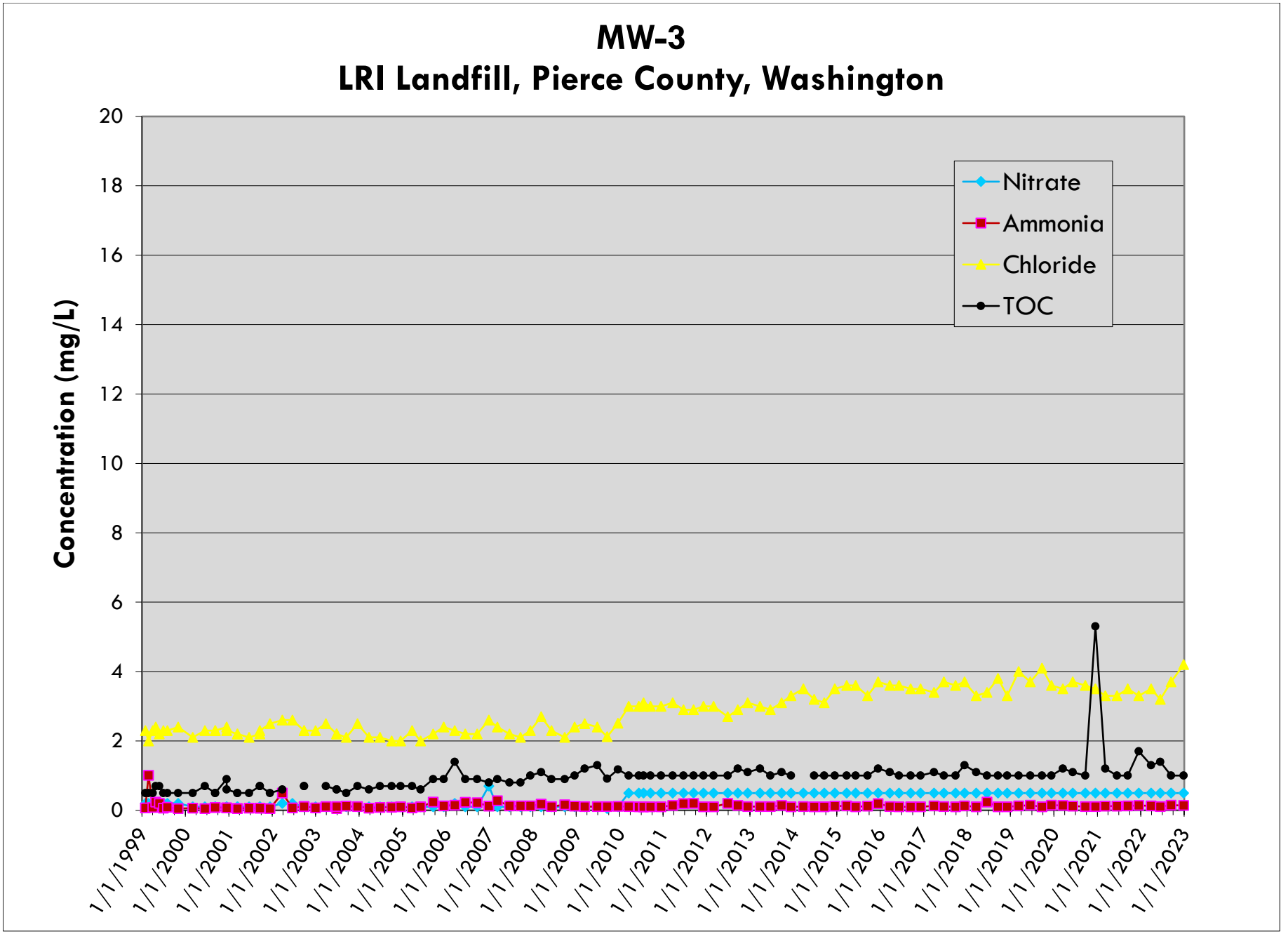
Table 8. Duplicate Sample Results
Fourth Quarter 2022 Monitoring Report
LRI Landfill, Pierce County, Washington

Parameter	MRL	MW-9	MW-9 (Duplicate)	RPD (%)
Volatile Organic Compunds (µg/L)				
No Detections	-	-	-	-
Inorganic Parameters (mg/L)				
Alkalinity, Total	10	70	70	0.0
Ammonia	0.1	*	*	*
Chloride	0.2	1.8	1.8	0.0
Sulfate	0.2	1.7	1.7	0.0
Total Dissolved Solids	10	67	67	0.0
Total Organic Carbon	1.0	*	*	*
Dissolved Metals (mg/L)				
Calcium	0.2	6.5	9.5	37.5
Magnesium	0.1	4.3	6.2	36.2
Manganese	0.005	*	*	*
Potassium	2.0	*	*	*
Sodium	1.0	5	7	37.3
Total Metals (mg/L)				
Arsenic	0.005	*	*	*
Barium	0.005	*	*	*

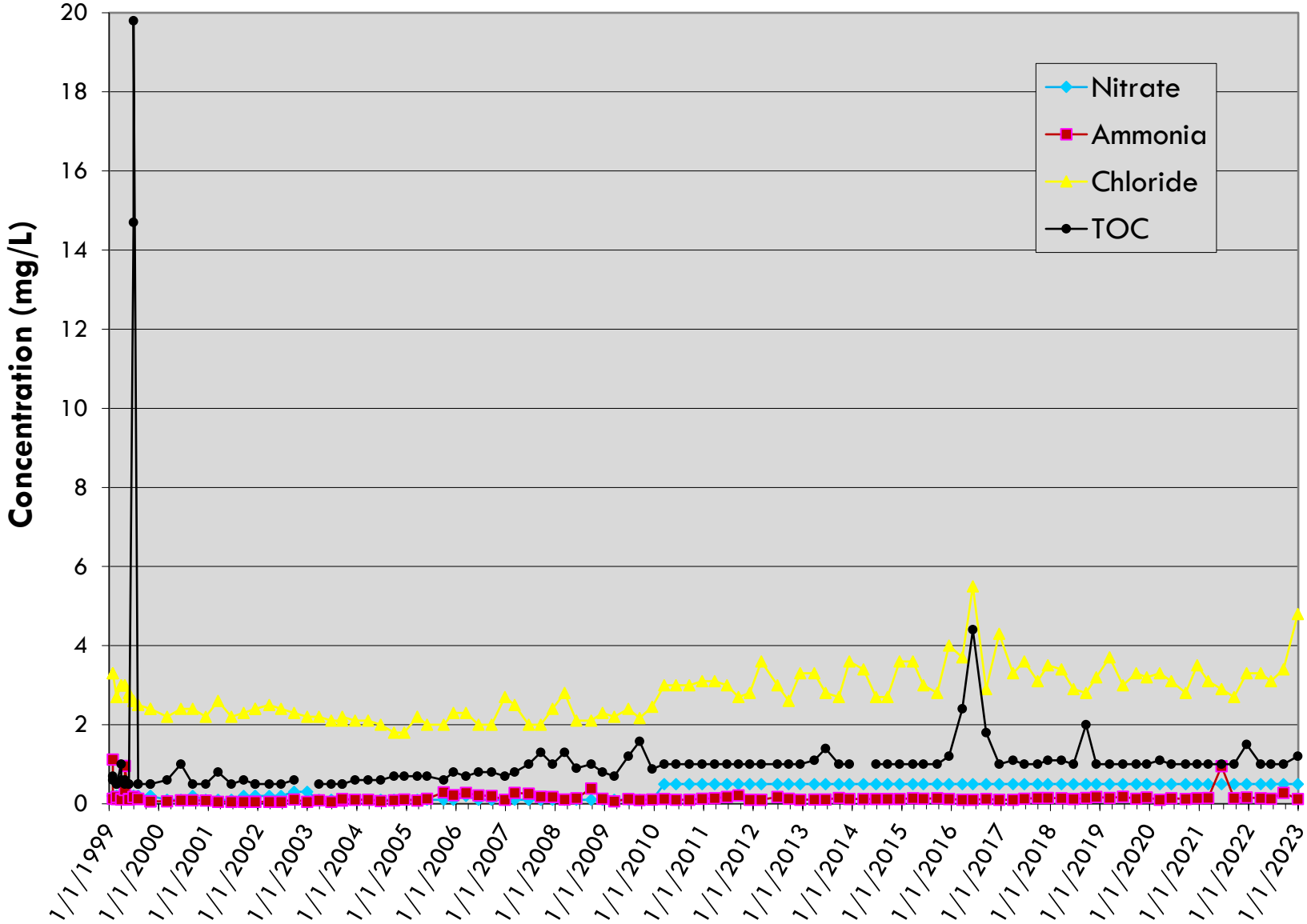
Notes:
Analyses performed by Eurofins TestAmerica of Denver, Colorado
Parameters not listed were not present at concentrations exceeding the Method Reporting Limit (MRL)
RPD = relative percent difference
µg/L = micrograms per liter
mg/L = milligrams per liter
* = sample result was not reported at or above the MRL
The MRL was used to calculate the RPD for analytes where one sample was non-detect

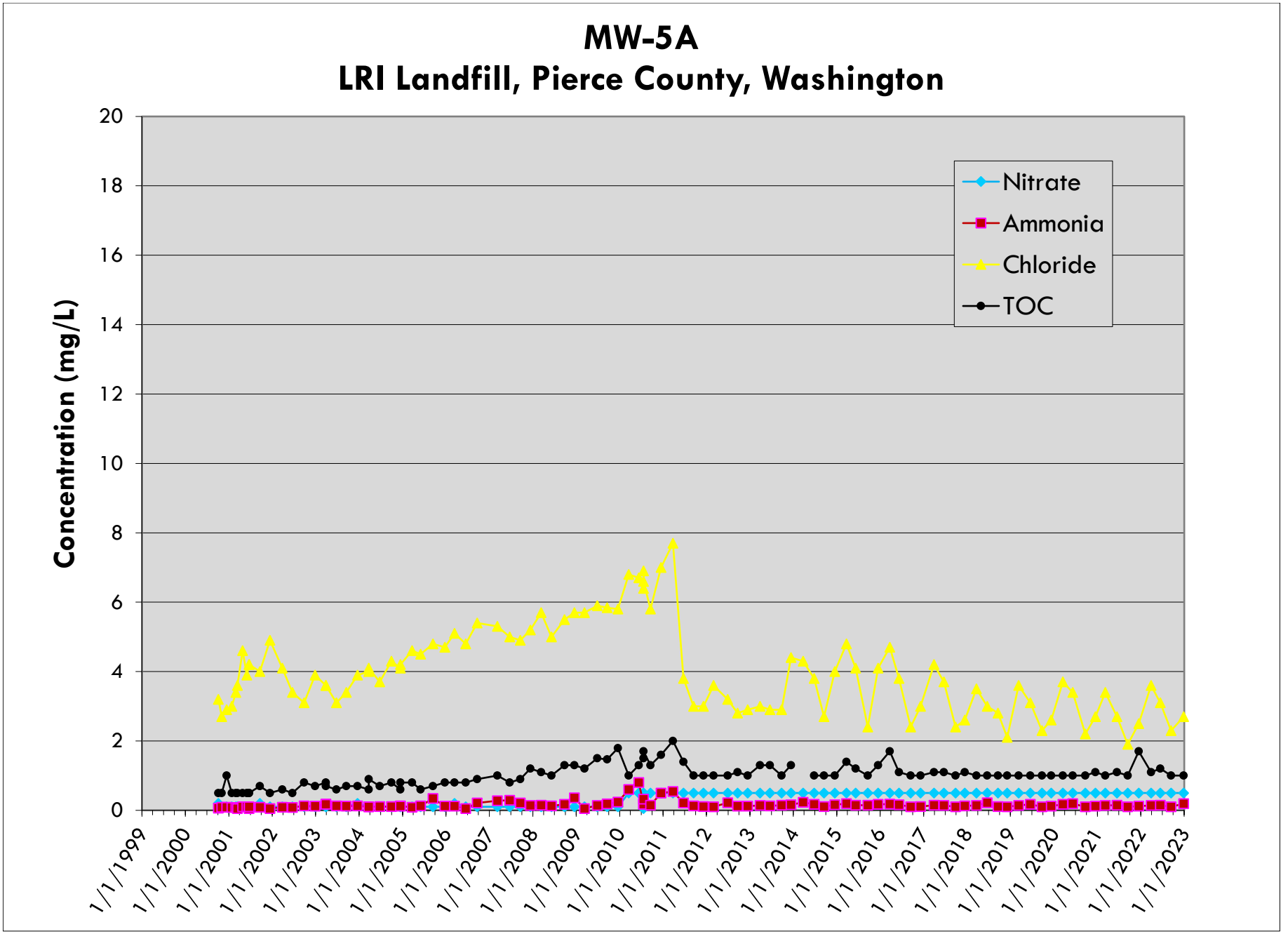

MW-1A
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
20
18
16
14
12
10
8
6
4
2
0
Nitrate
Ammonia
Chloride
TOC
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

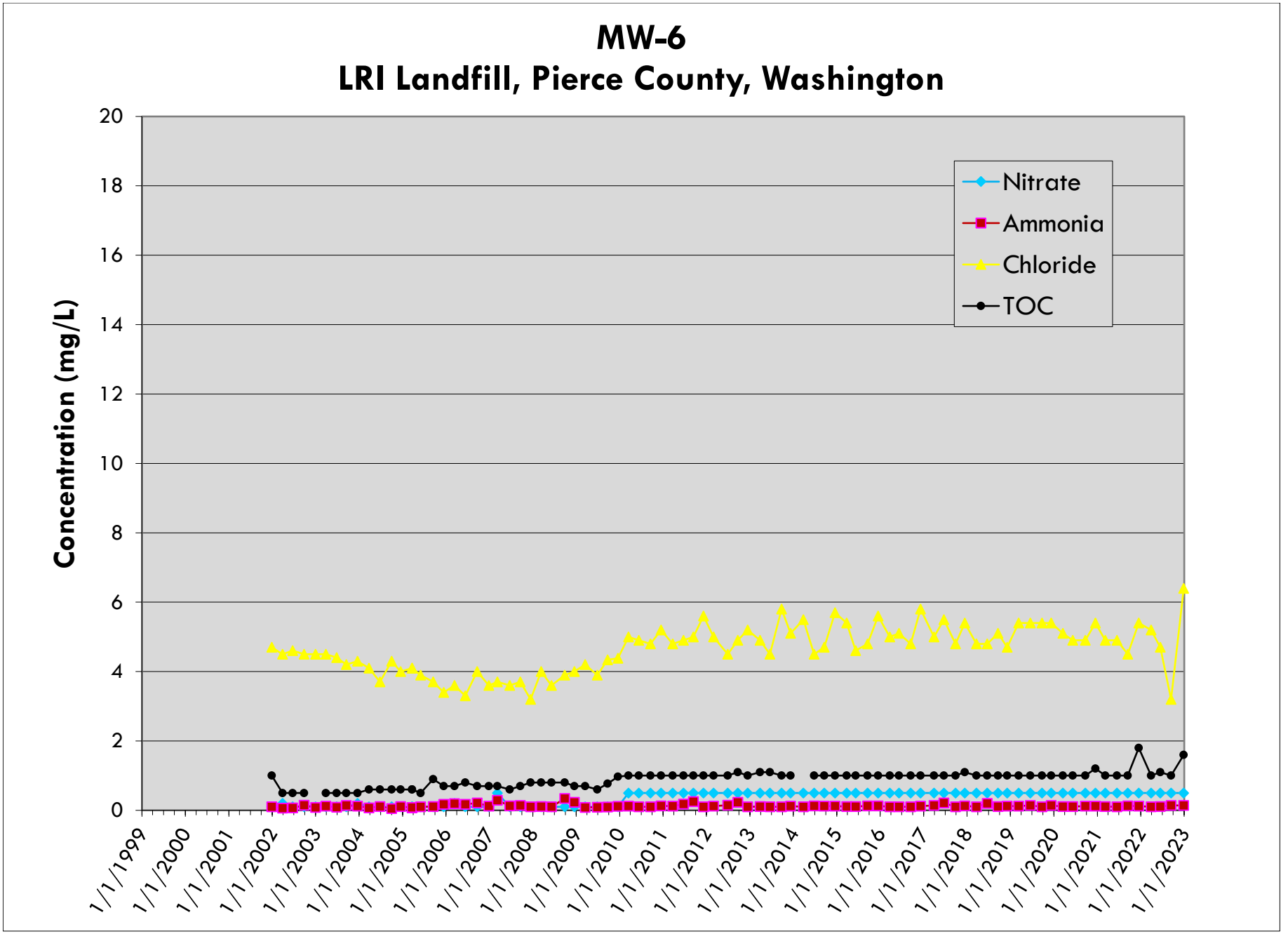

MW-2A
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
20
18
16
14
12
10
8
6
4
2
0
Nitrate
Ammonia
Chloride
TOC
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


MW-3
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
20
18
16
14
12
10
8
6
4
2
0
Nitrate
Ammonia
Chloride
TOC
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

MW-4
LRI Landfill, Pierce County, Washington




MW-5A
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
20
18
16
14
12
10
8
6
4
2
0
Nitrate
Ammonia
Chloride
TOC
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


MW-6
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
20
18
16
14
12
10
8
6
4
2
0
Nitrate
Ammonia
Chloride
TOC
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
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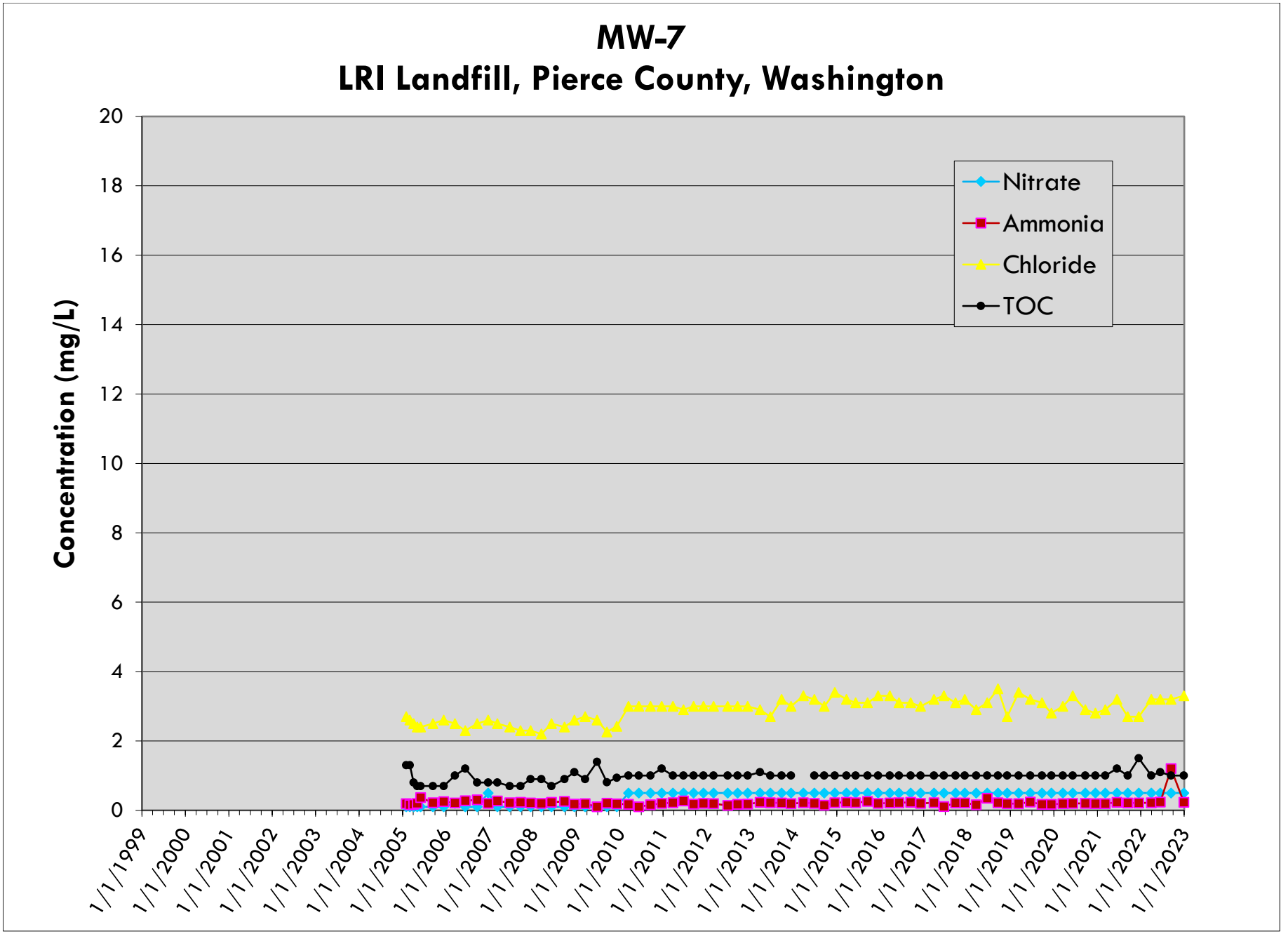
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


MW-7
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
20
18
16
14
12
10
8
6
4
2
0
Nitrate
Ammonia
Chloride
TOC
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
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1/1/2012
1/1/2013
1/1/2014
1/1/2015
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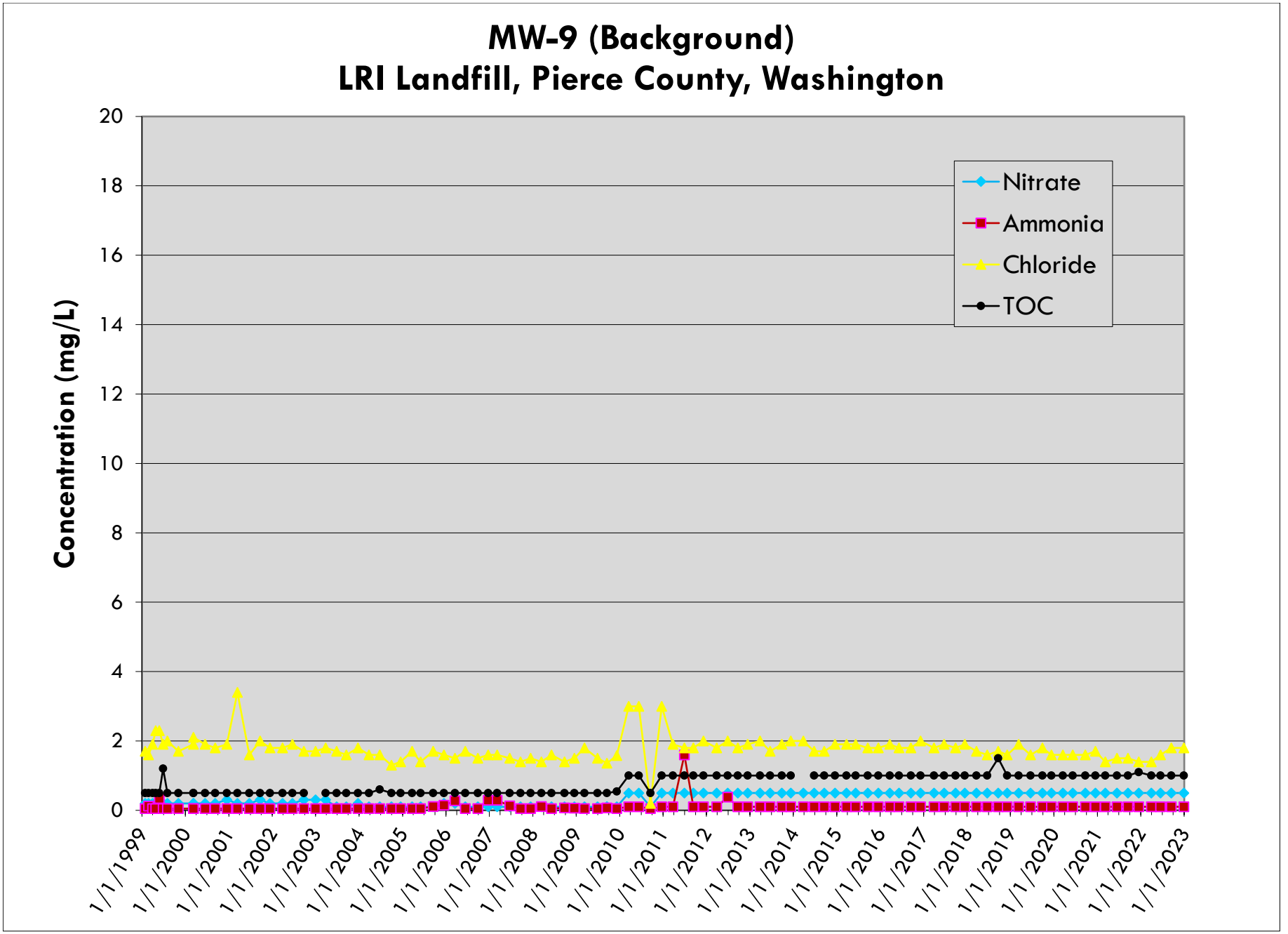
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


MW-9 (Background)
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
20
18
16
14
12
10
8
6
4
2
0
Nitrate
Ammonia
Chloride
TOC
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
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1/1/2013
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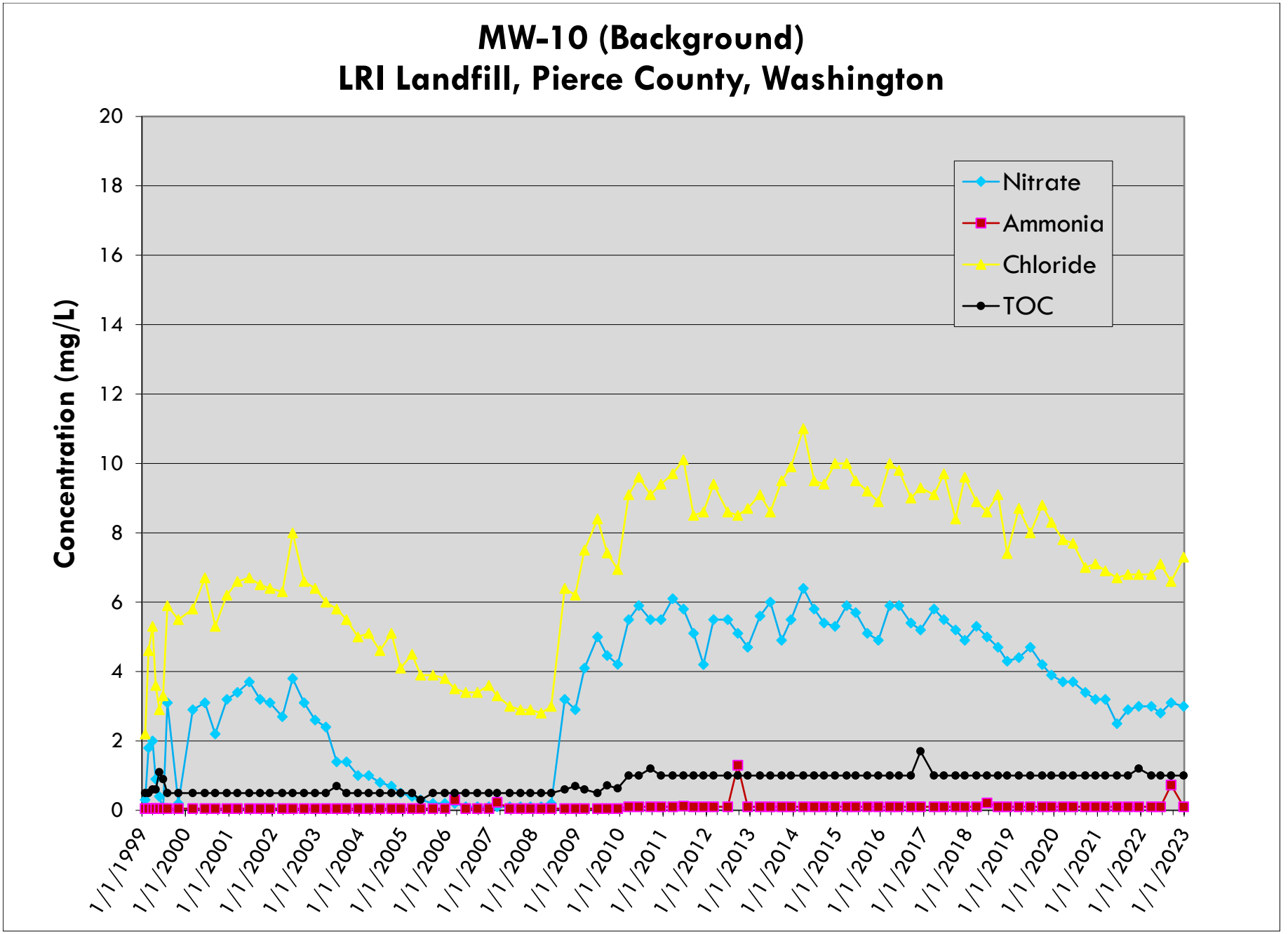
1/1/2023


MW-10 (Background)
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
20
18
16
14
12
10
8
6
4
2
0
Nitrate
Ammonia
Chloride
TOC
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
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1/1/2014
1/1/2015
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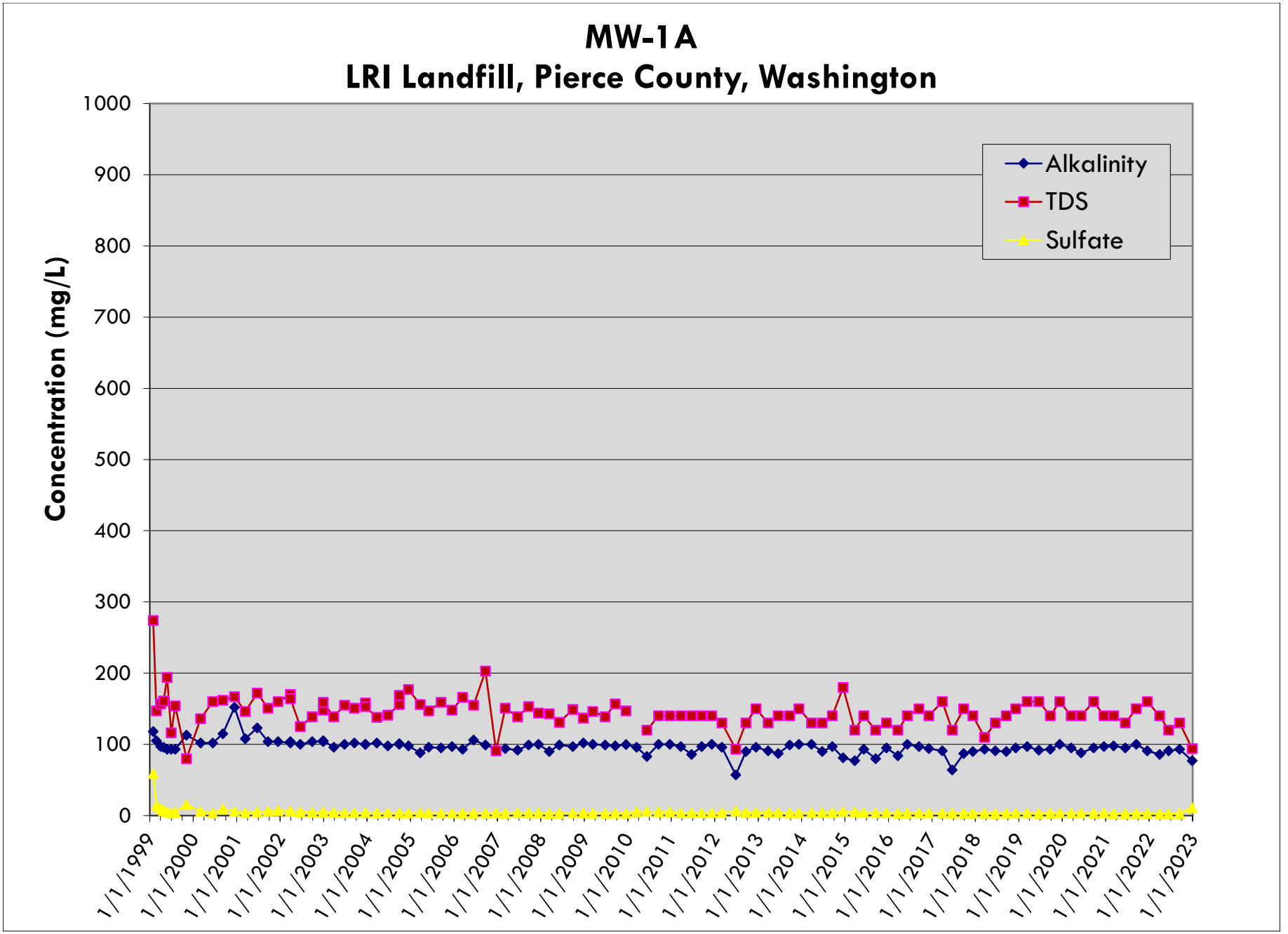
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


MW-1A
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
1000
900
800
700
600
500
400
300
200
100
0
Alkalinity
TDS
Sulfate
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
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1/1/2014
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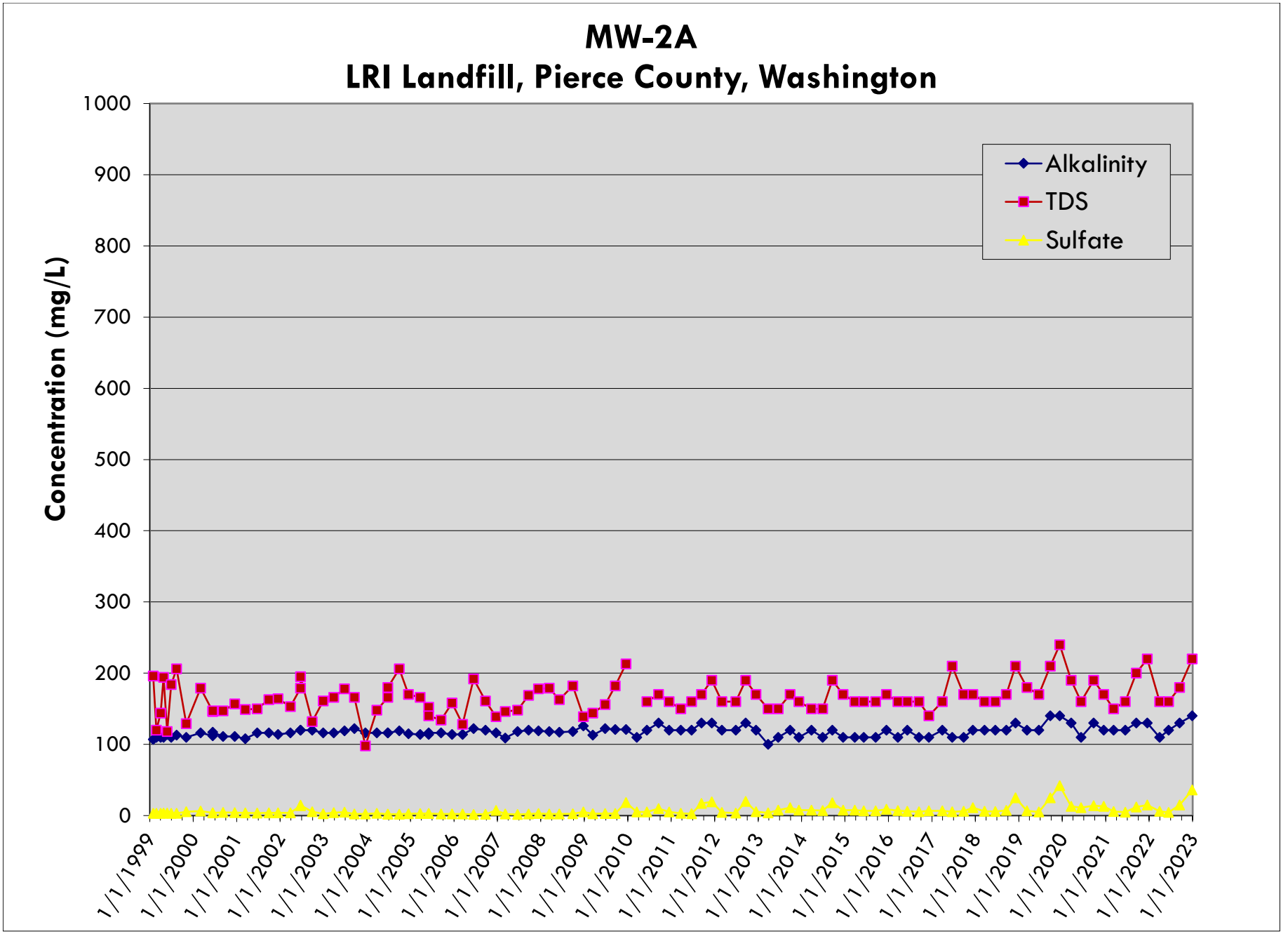
1/1/2023


MW-2A
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
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900
800
700
600
500
400
300
200
100
0
Alkalinity
TDS
Sulfate
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
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1/1/2014
1/1/2015
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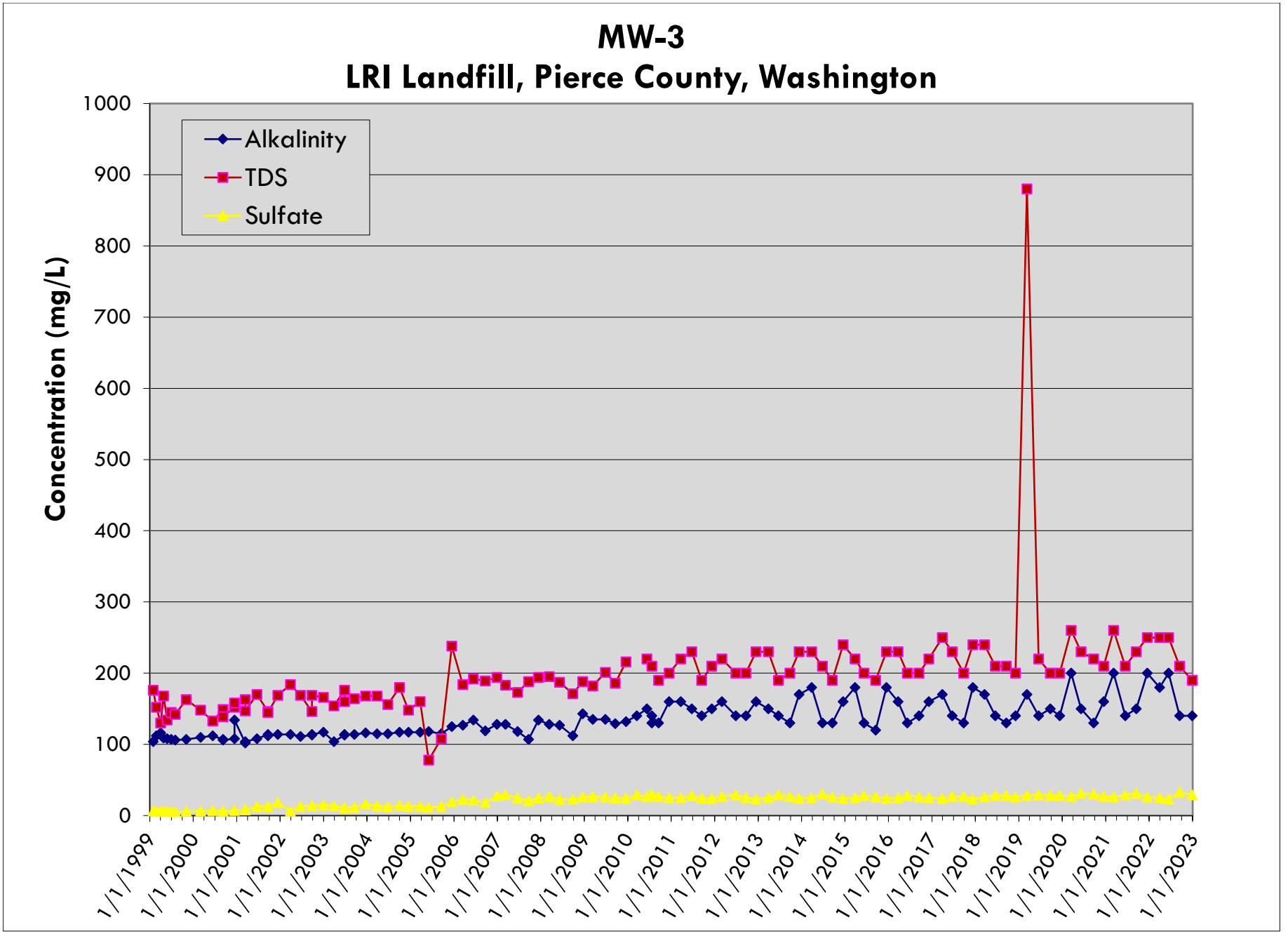
MW-3
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
Alkalinity
TDS
Sulfate
1000
900
800
700
600
500
400
300
200
100
0
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
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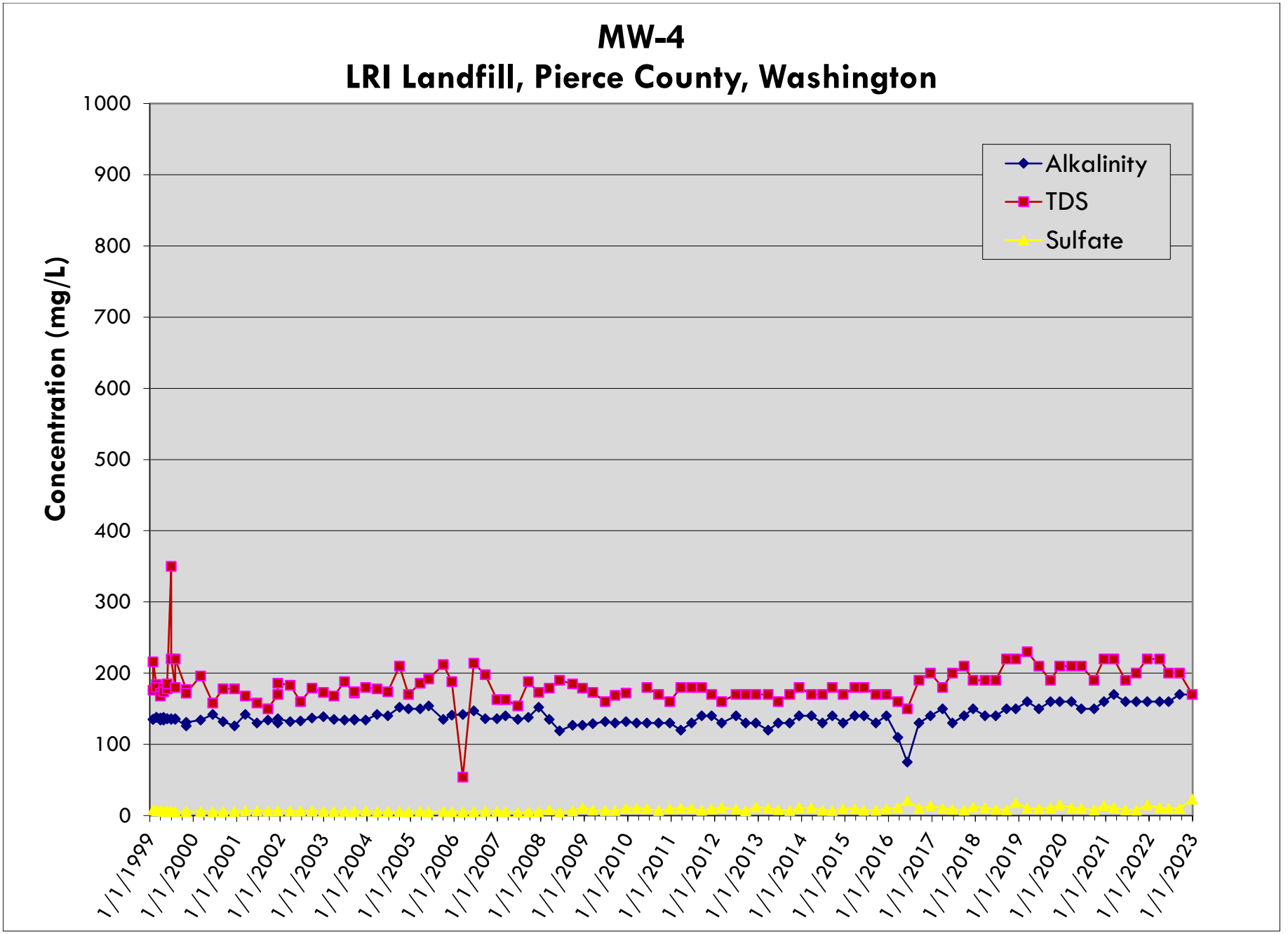
MW-4
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
1000
900
800
700
600
500
400
300
200
100
0
Alkalinity
TDS
Sulfate
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
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1/1/2014
1/1/2015
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1/1/2019
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1/1/2021
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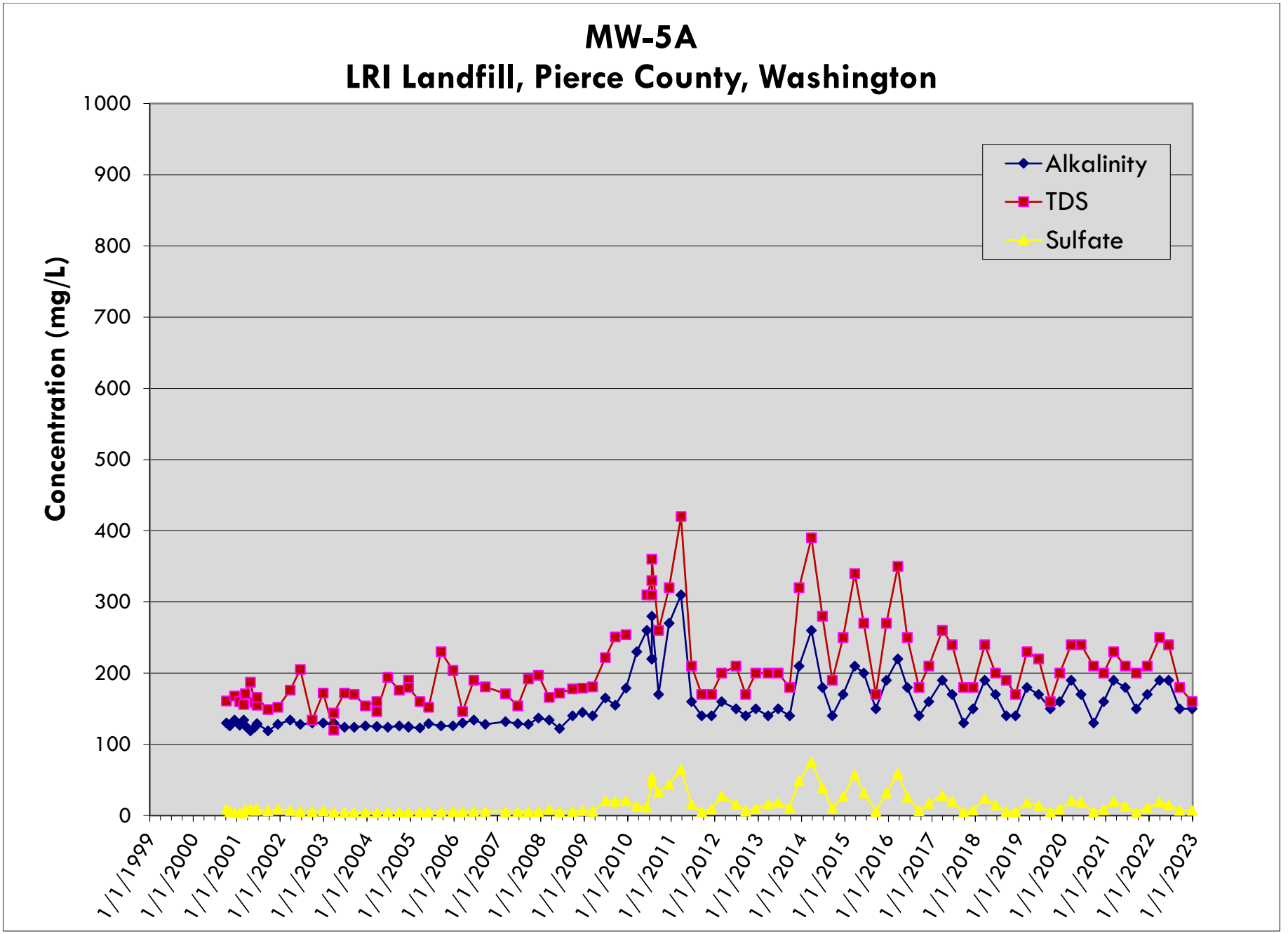
1/1/2023


MW-5A
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
1000
900
800
700
600
500
400
300
200
100
0
Alkalinity
TDS
Sulfate
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
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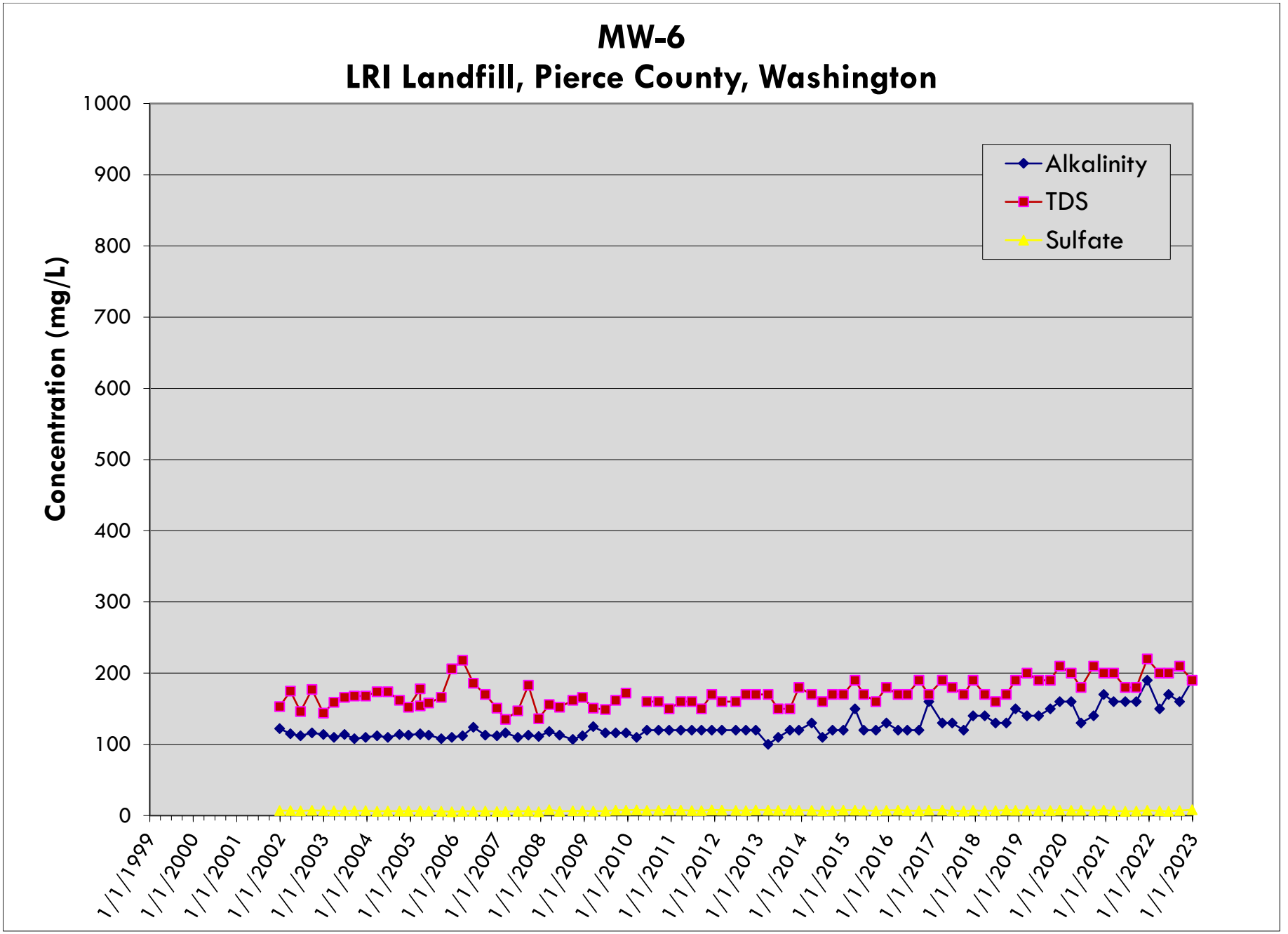
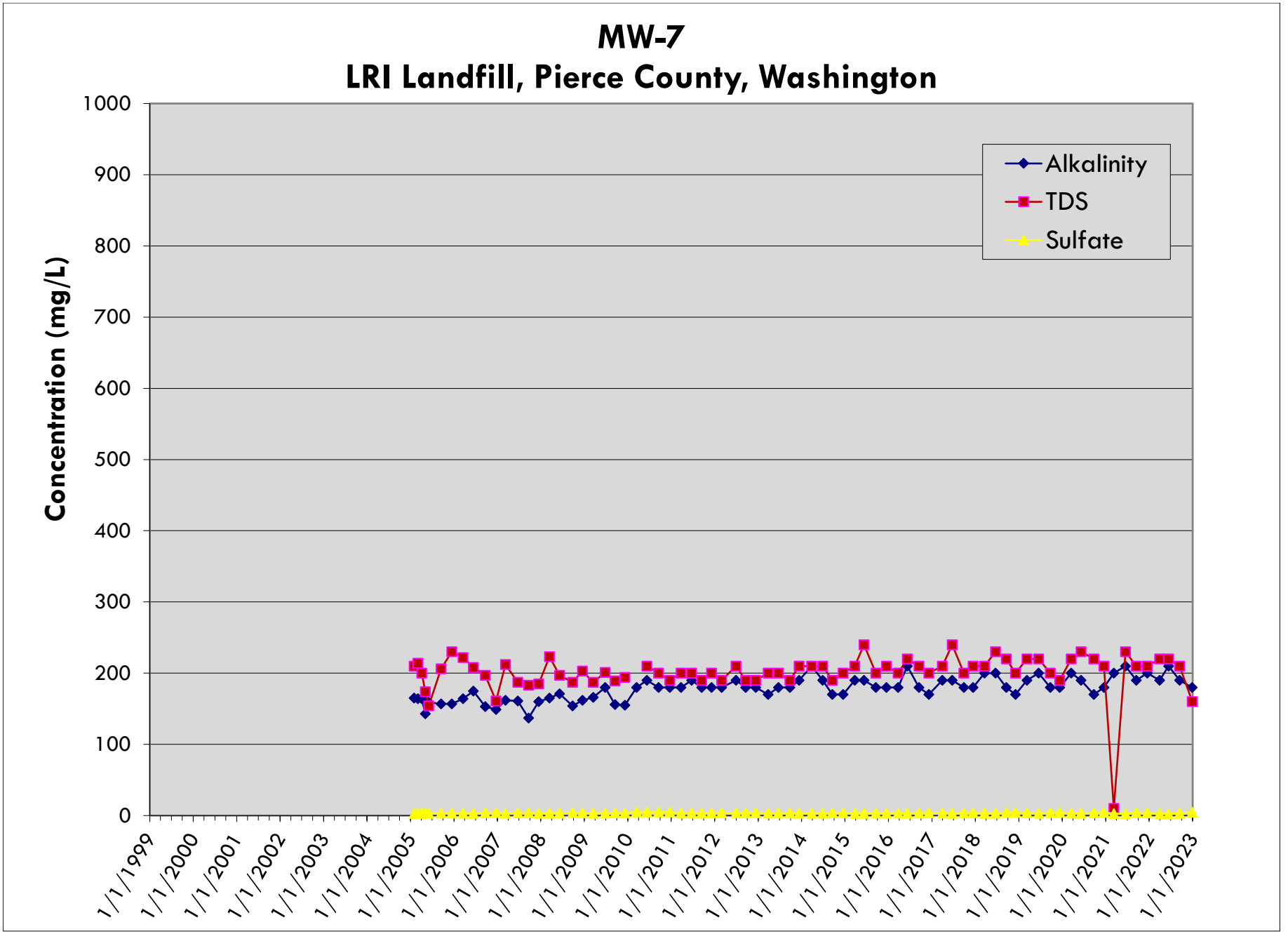
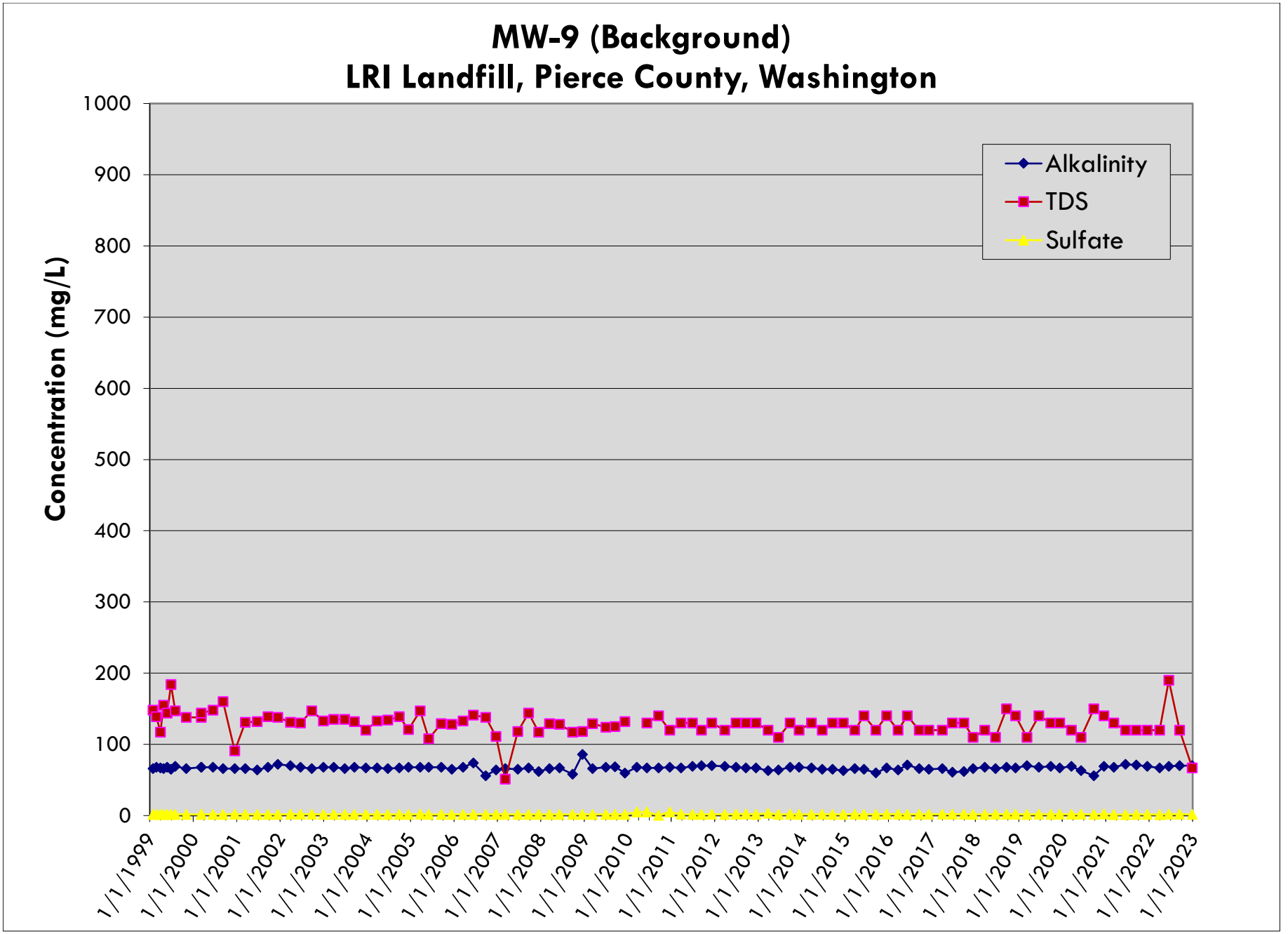
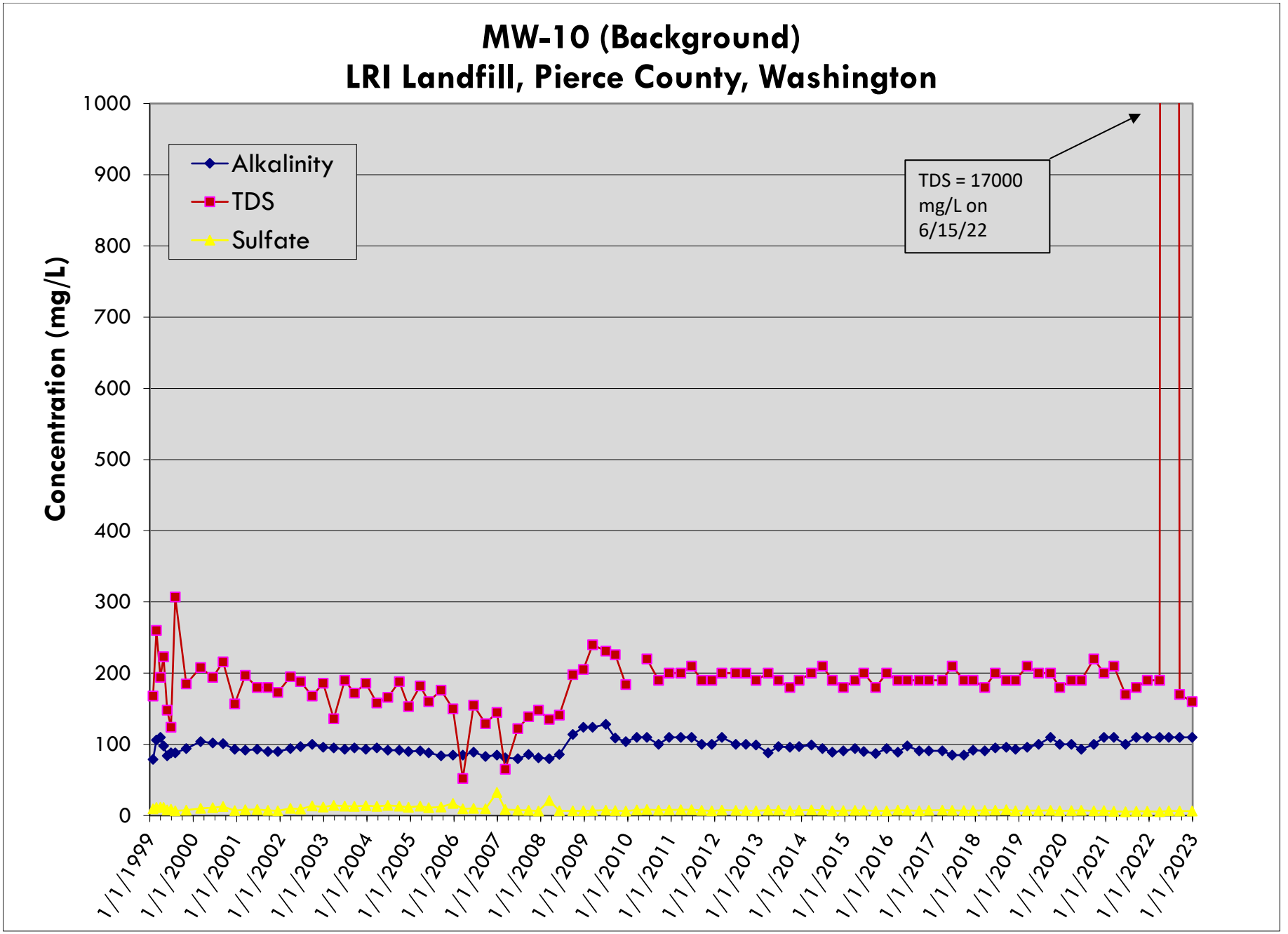
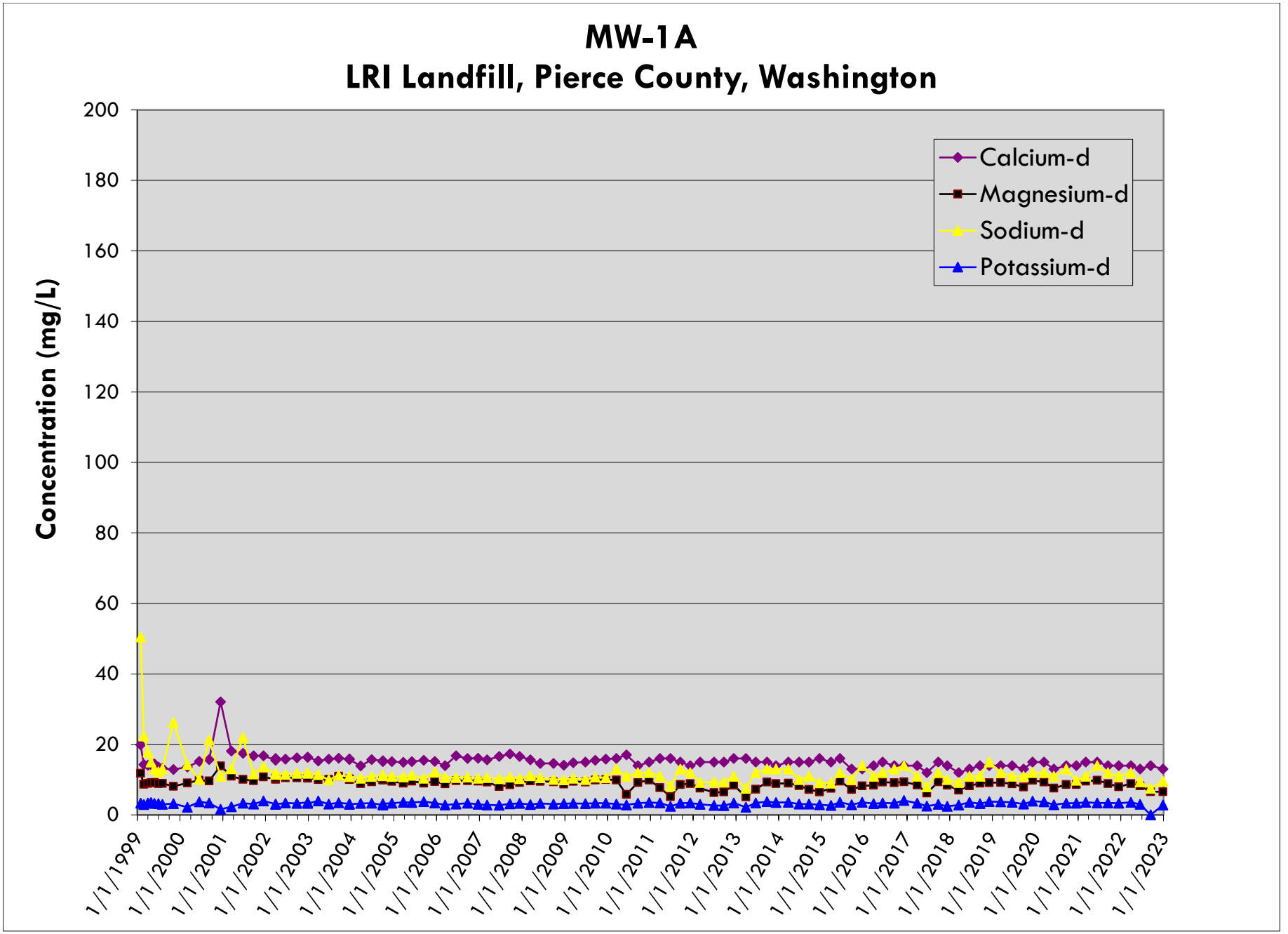
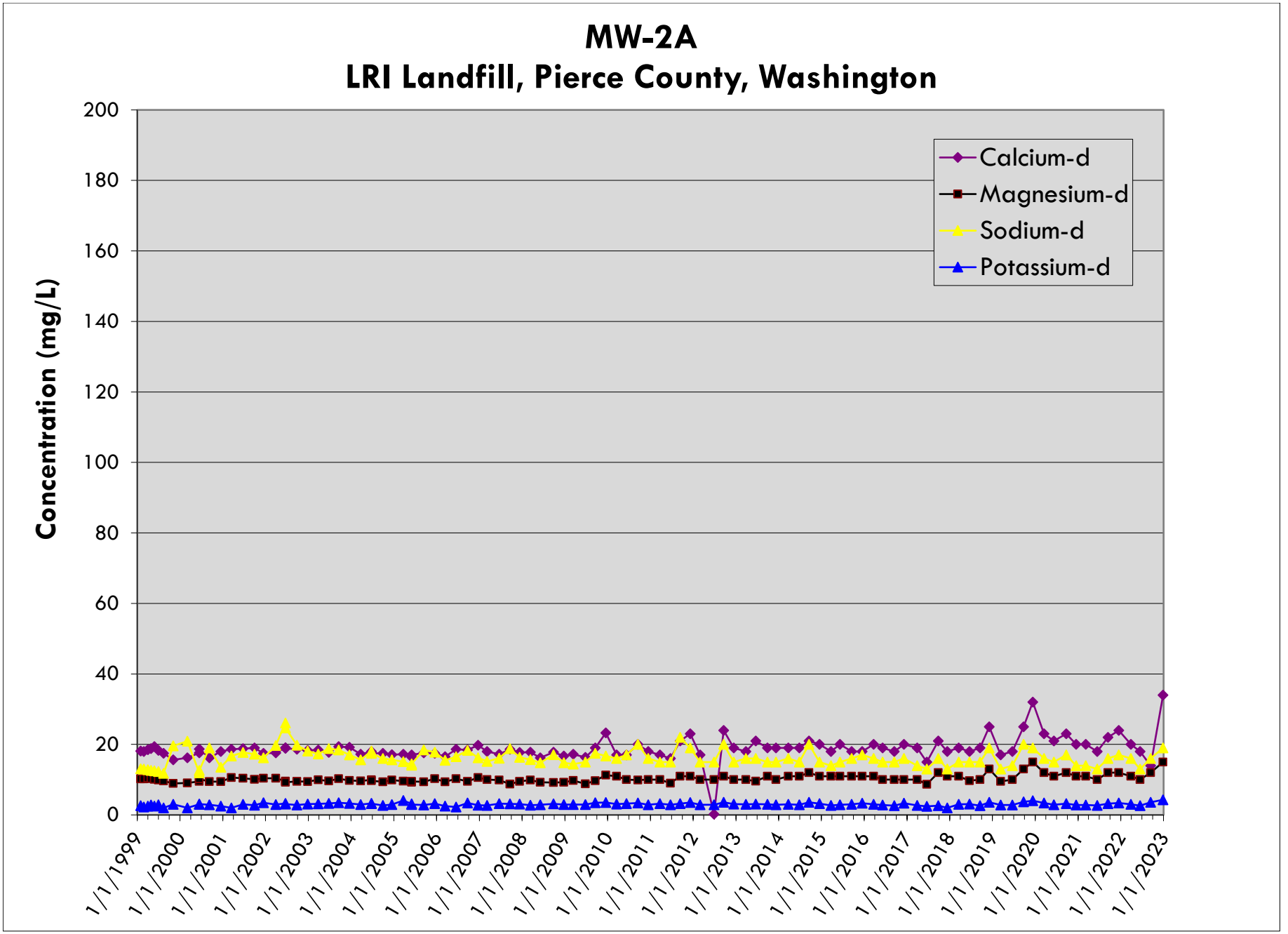

MW-6
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
1000
900
800
700
600
500
400
300
200
100
0
Alkalinity
TDS
Sulfate
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

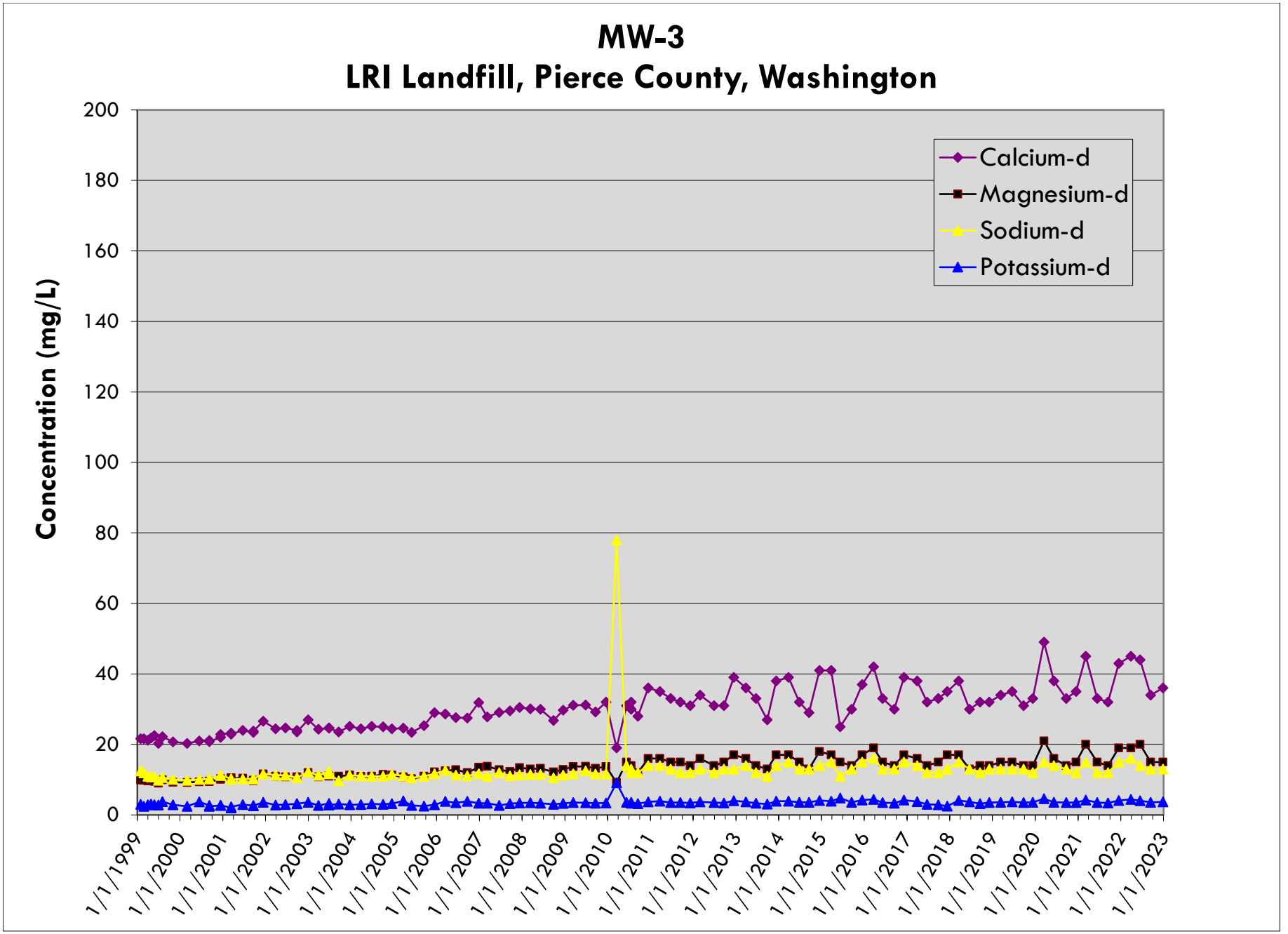

MW-7
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
1000
900
800
700
600
500
400
300
200
100
0
Alkalinity
TDS
Sulfate
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


MW-9 (Background)
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
1000
900
800
700
600
500
400
300
200
100
0
Alkalinity
TDS
Sulfate
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

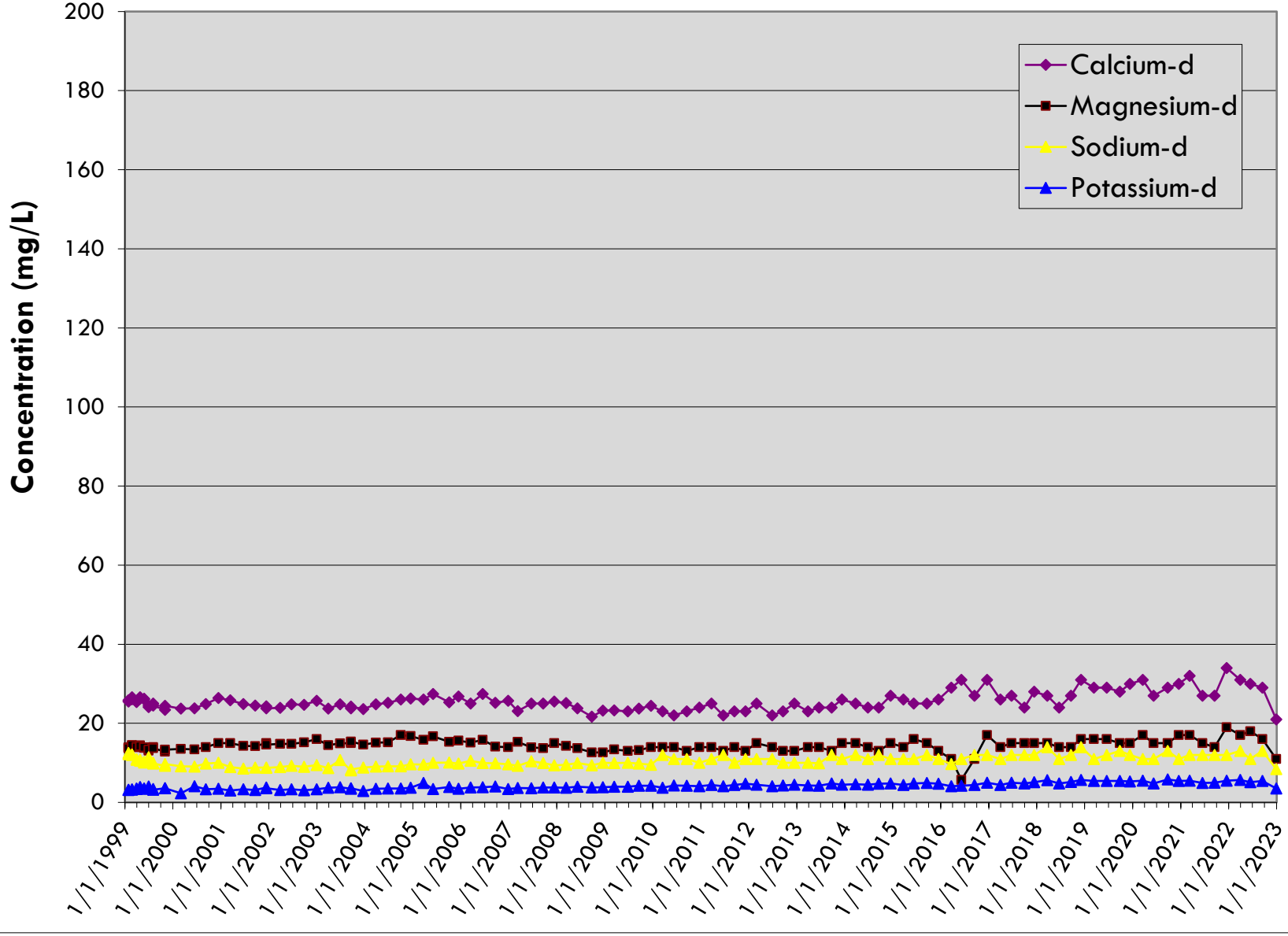

MW-10 (Background)
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
1000
900
800
700
600
500
400
300
200
100
0
Alkalinity
TDS
Sulfate
TDS = 17000 mg/L on 6/15/22
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


MW-1A
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
200
180
160
140
120
100
80
60
40
20
0
Calcium-d
Magnesium-d
Sodium-d
Potassium-d
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

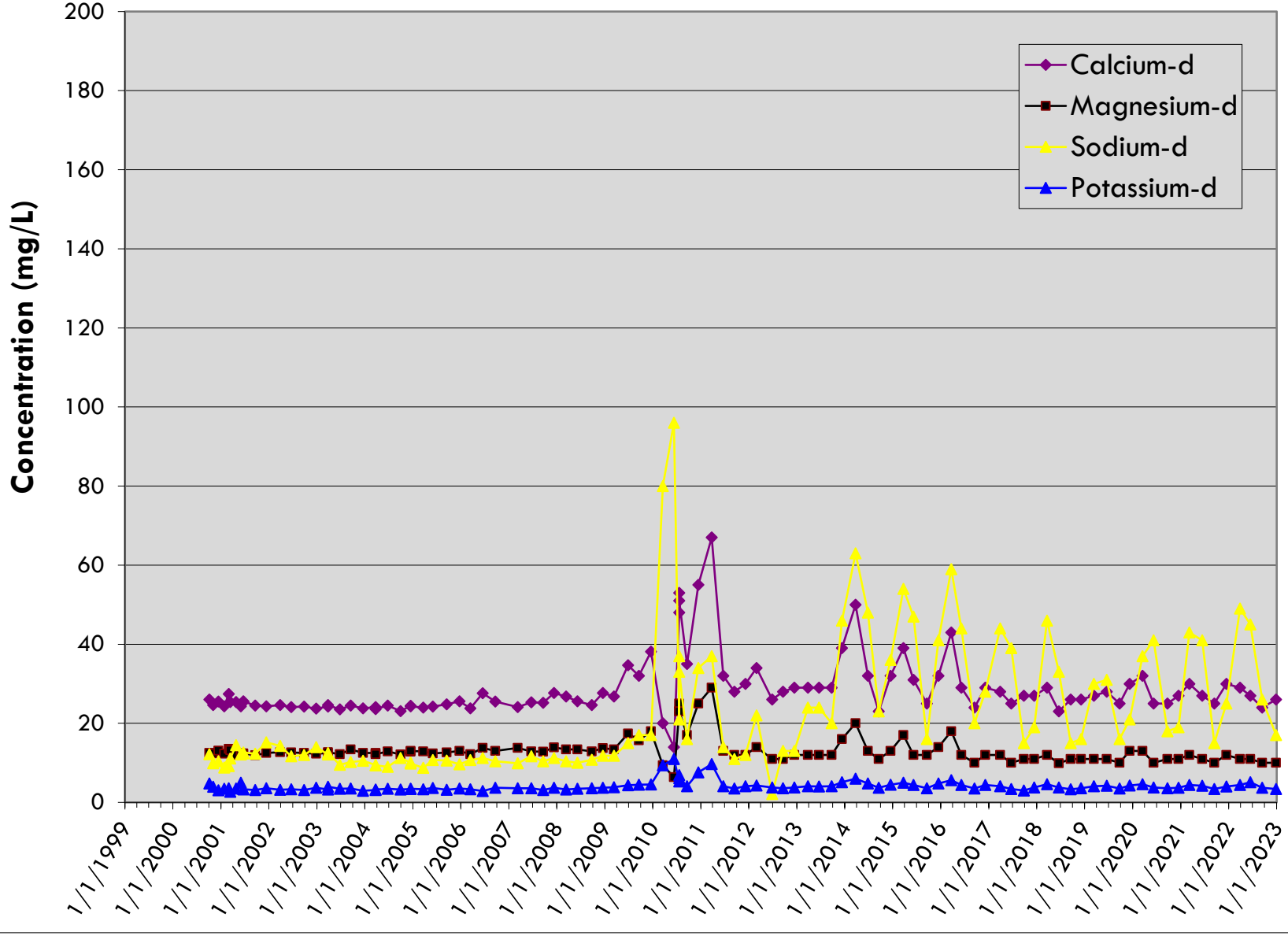

MW-2A
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
200
180
160
140
120
100
80
60
40
20
0
Calcium-d
Magnesium-d
Sodium-d
Potassium-d
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

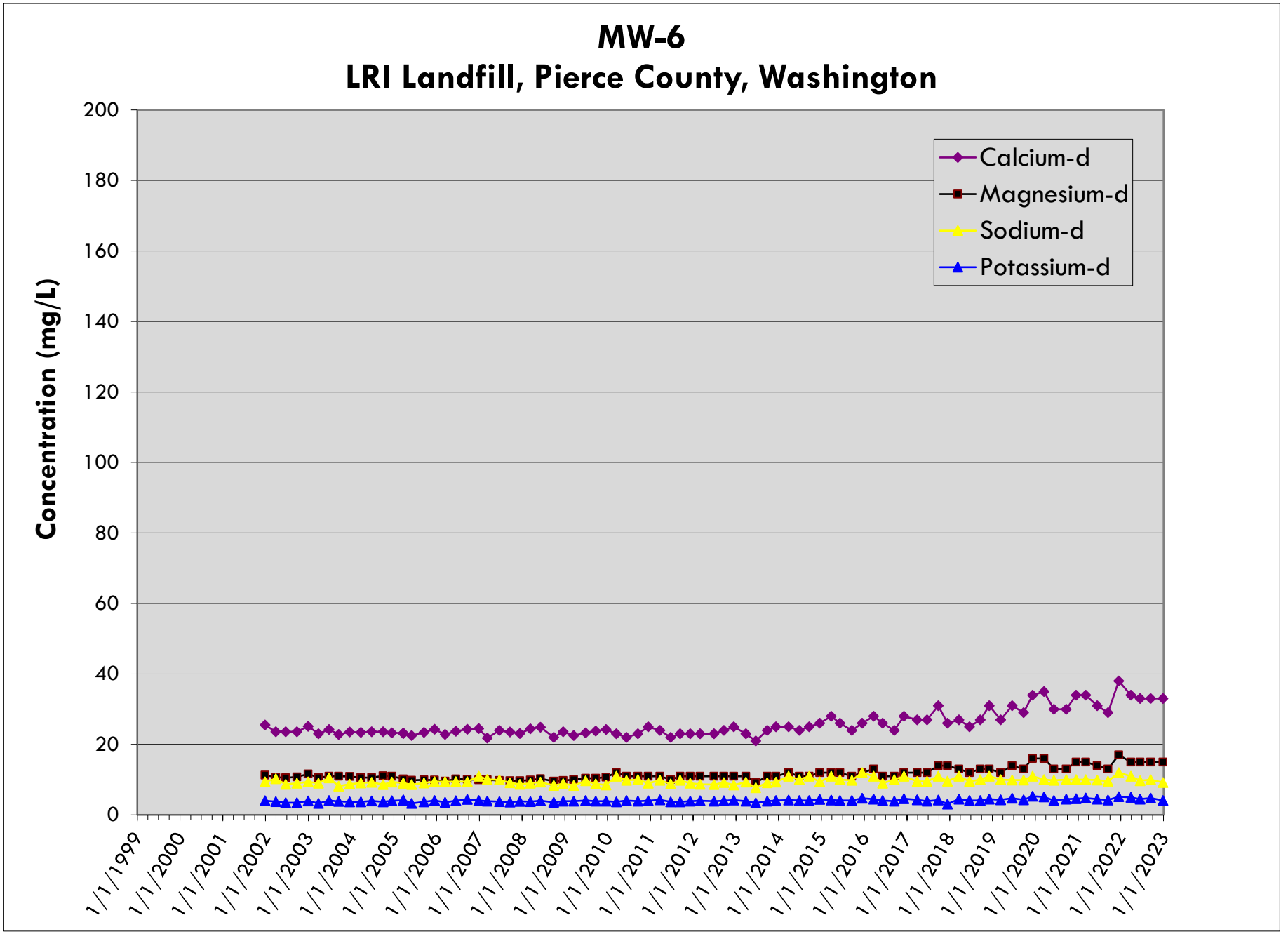

MW-3
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
200
180
160
140
120
100
80
60
40
20
0
Calcium-d
Magnesium-d
Sodium-d
Potassium-d
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

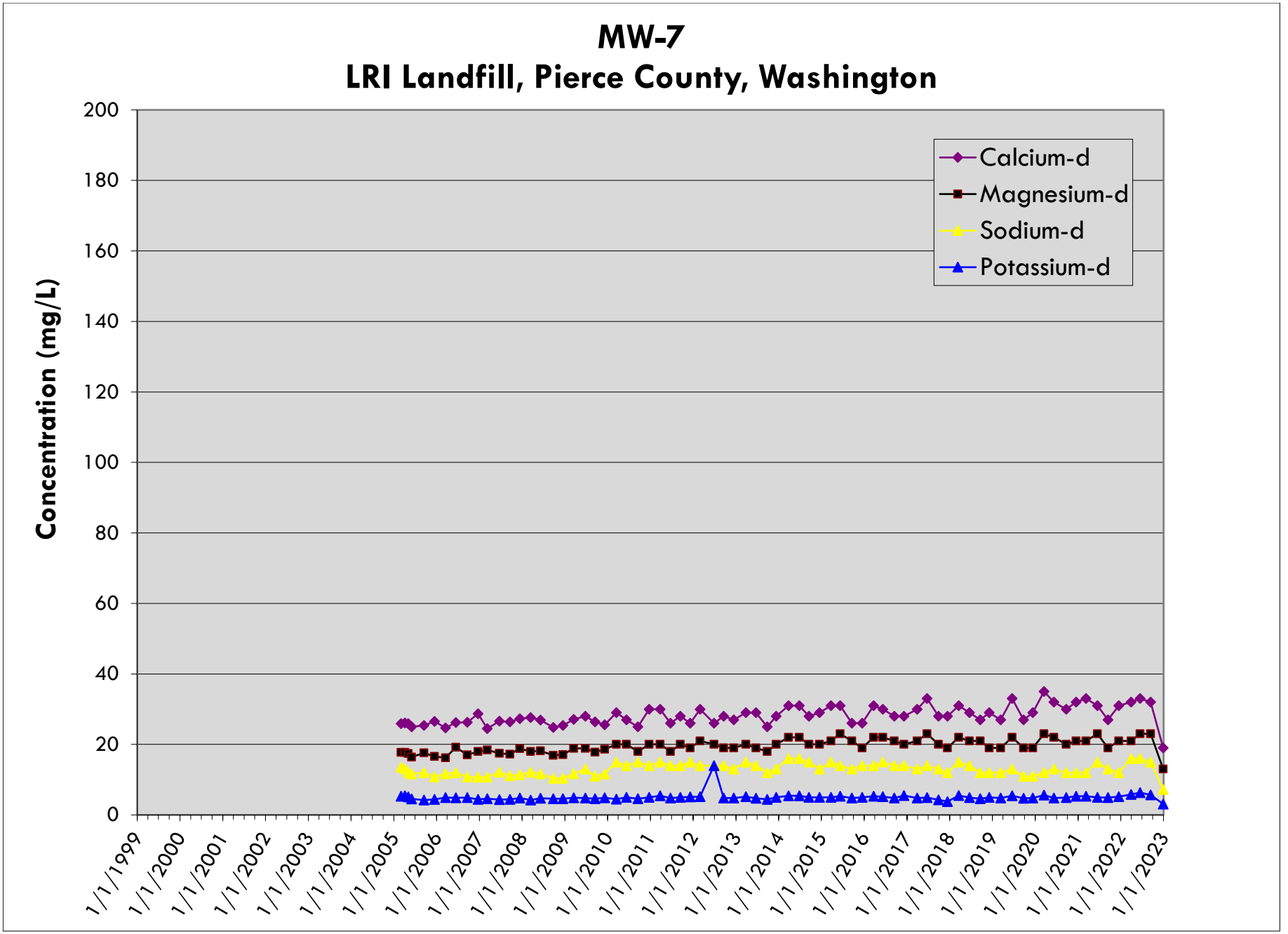
MW-4
LRI Landfill, Pierce County, Washington

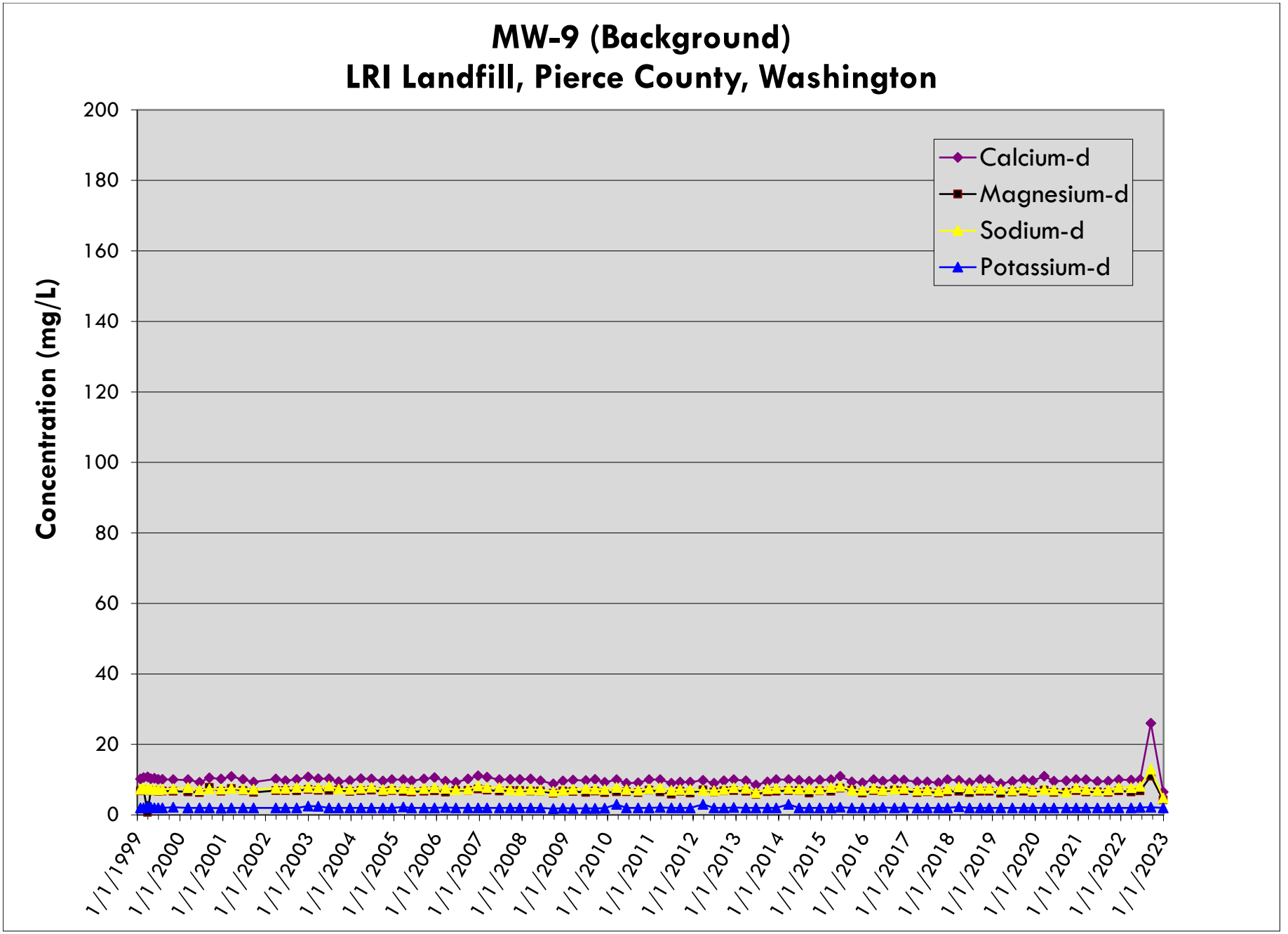


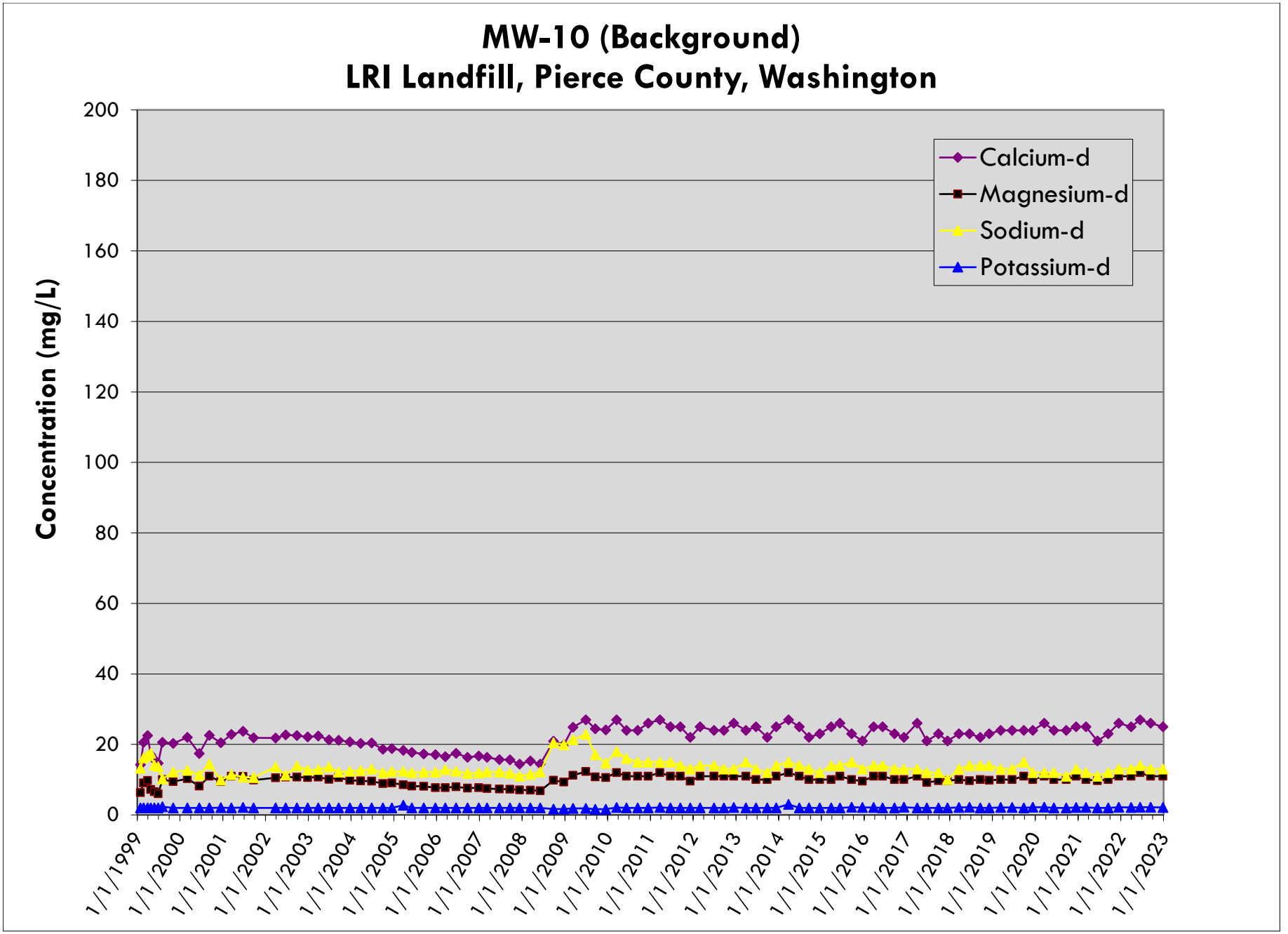
MW-5A
LRI Landfill, Pierce County, Washington



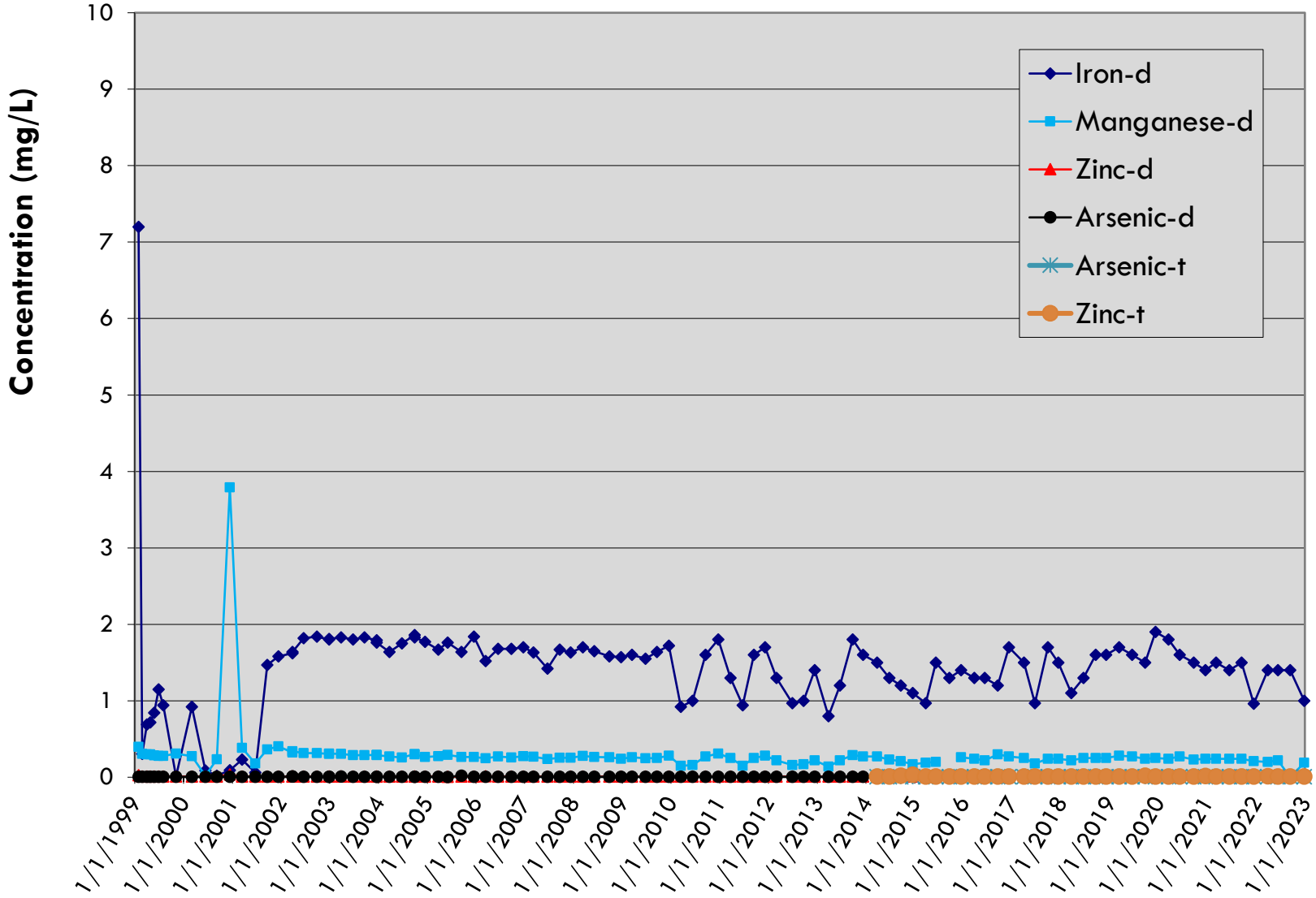

MW-6
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
200
180
160
140
120
100
80
60
40
20
0
Calcium-d
Magnesium-d
Sodium-d
Potassium-d
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


MW-7
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
200
180
160
140
120
100
80
60
40
20
0
Calcium-d
Magnesium-d
Sodium-d
Potassium-d
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

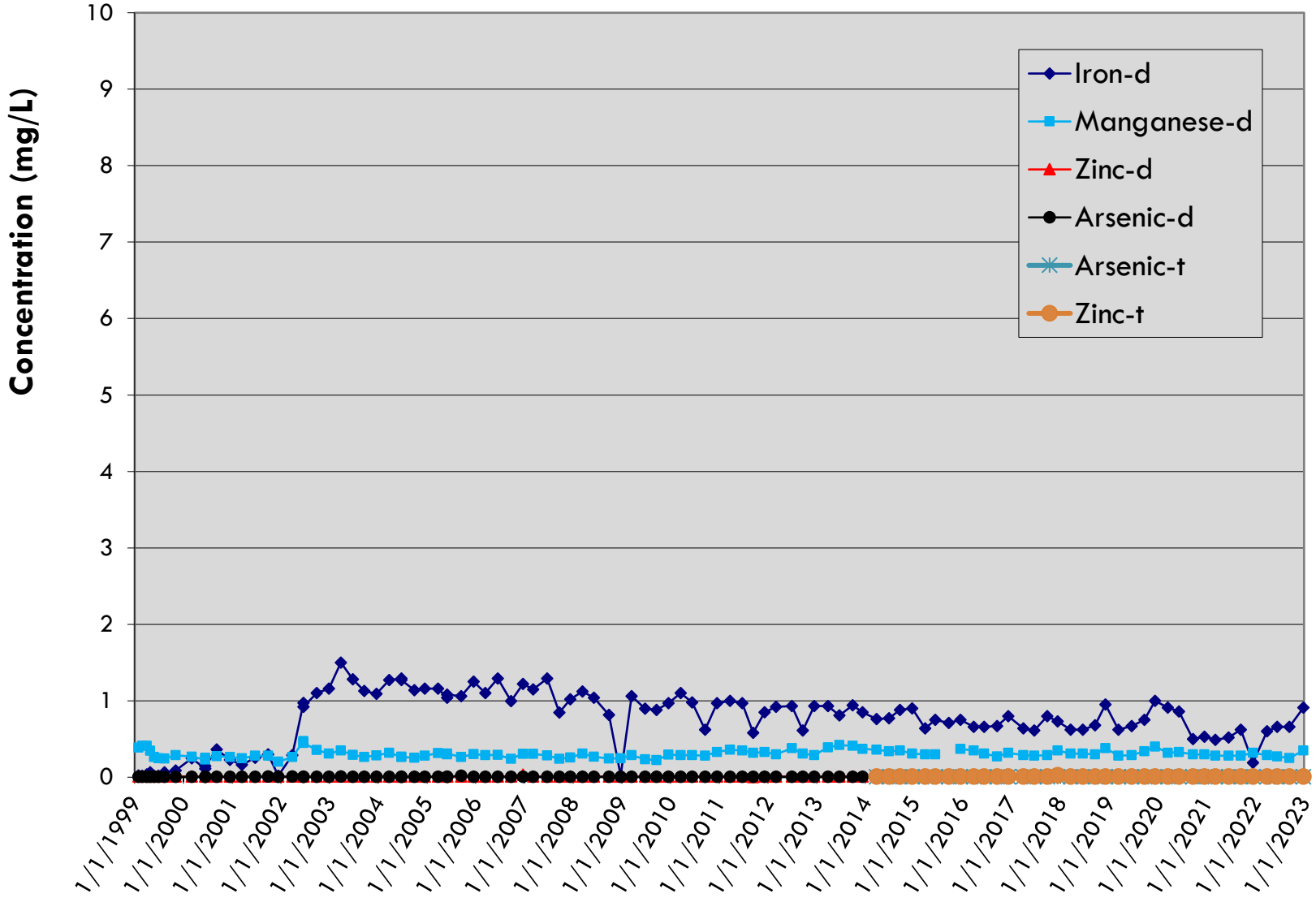

MW-9 (Background)
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
200
180
160
140
120
100
80
60
40
20
0
Calcium-d
Magnesium-d
Sodium-d
Potassium-d
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


MW-10 (Background)
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
200
180
160
140
120
100
80
60
40
20
0
Calcium-d
Magnesium-d
Sodium-d
Potassium-d
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

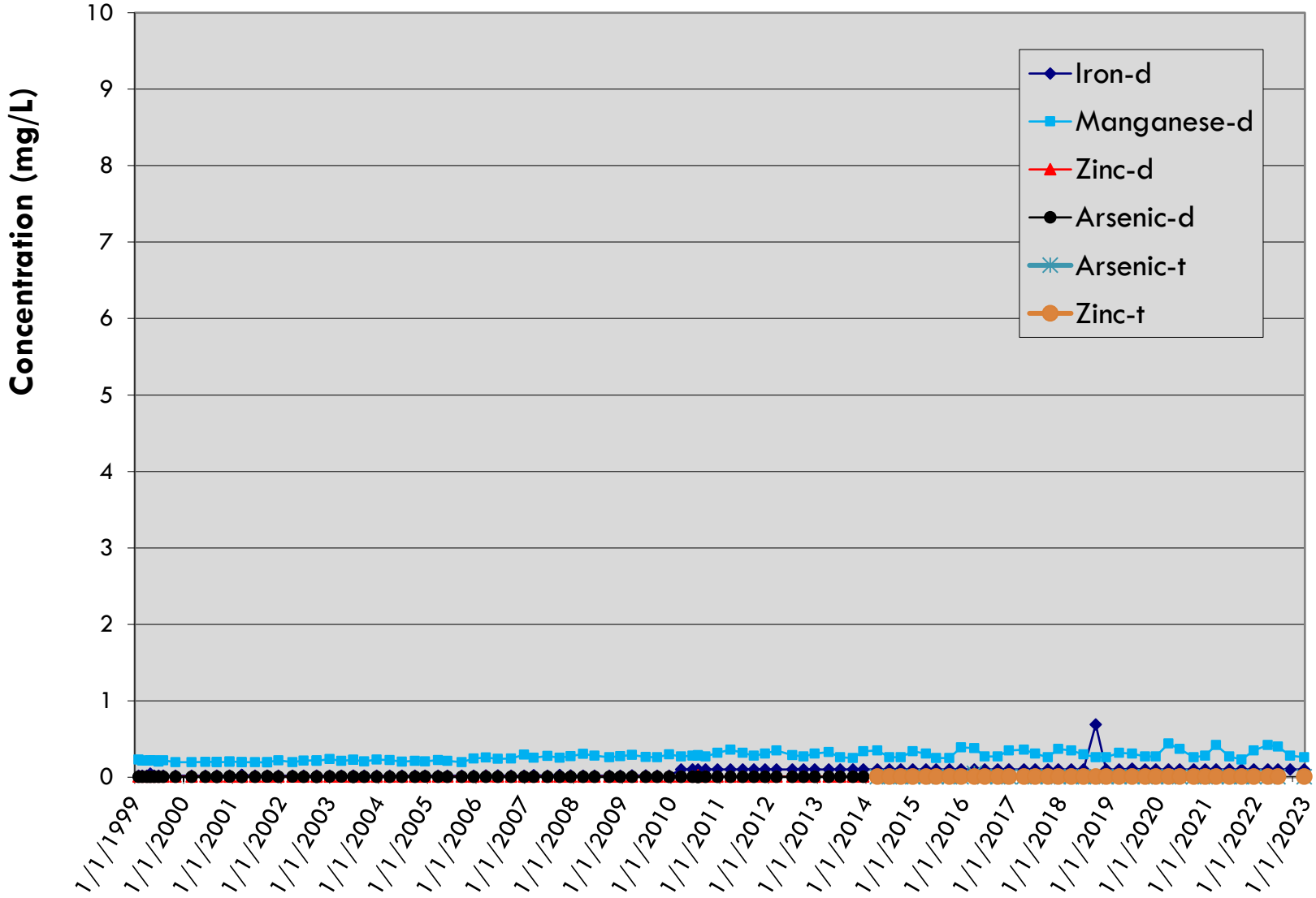
MW-1A
LRI Landfill, Pierce County, Washington



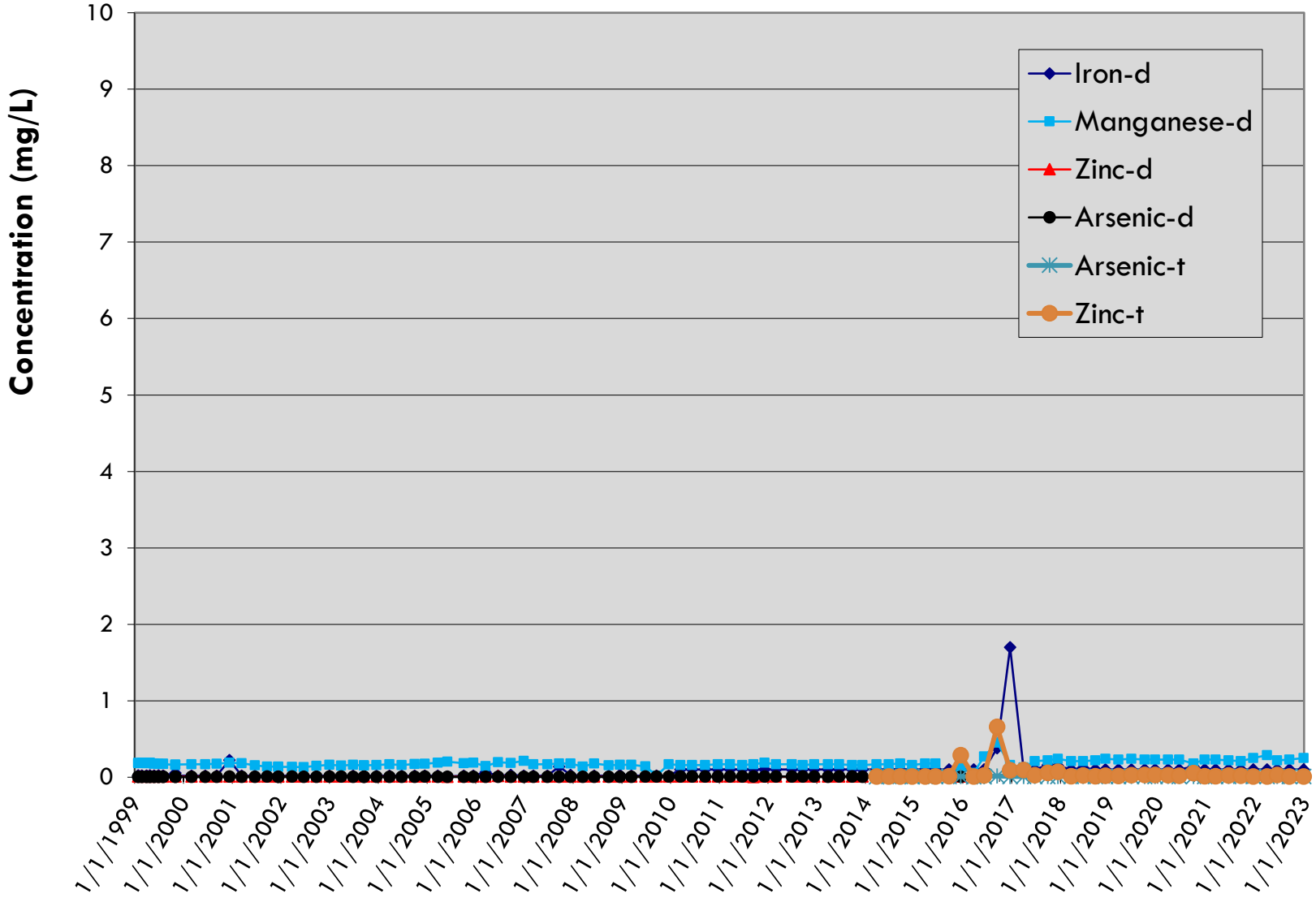
MW-2A
LRI Landfill, Pierce County, Washington



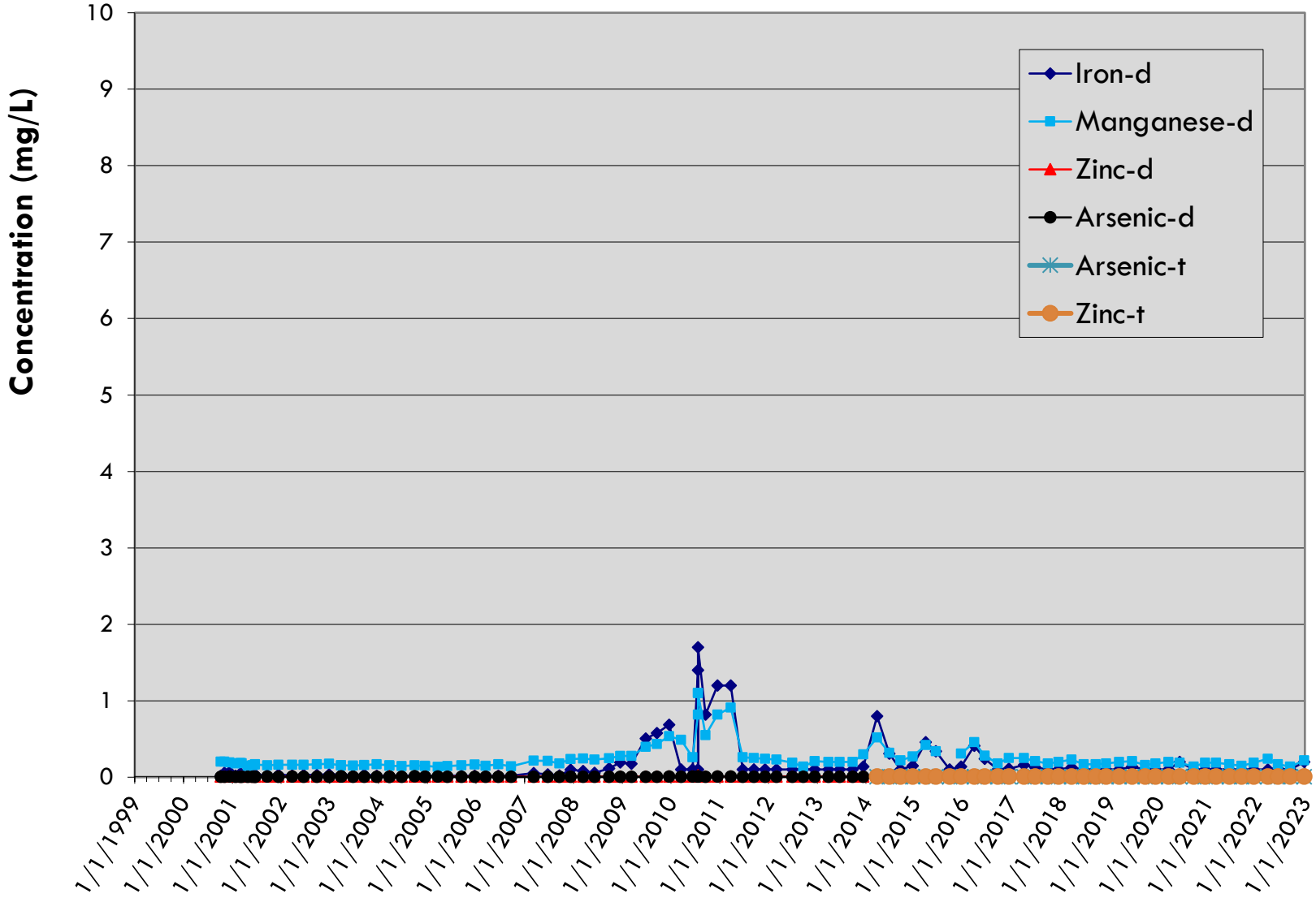
MW-3
LRI Landfill, Pierce County, Washington



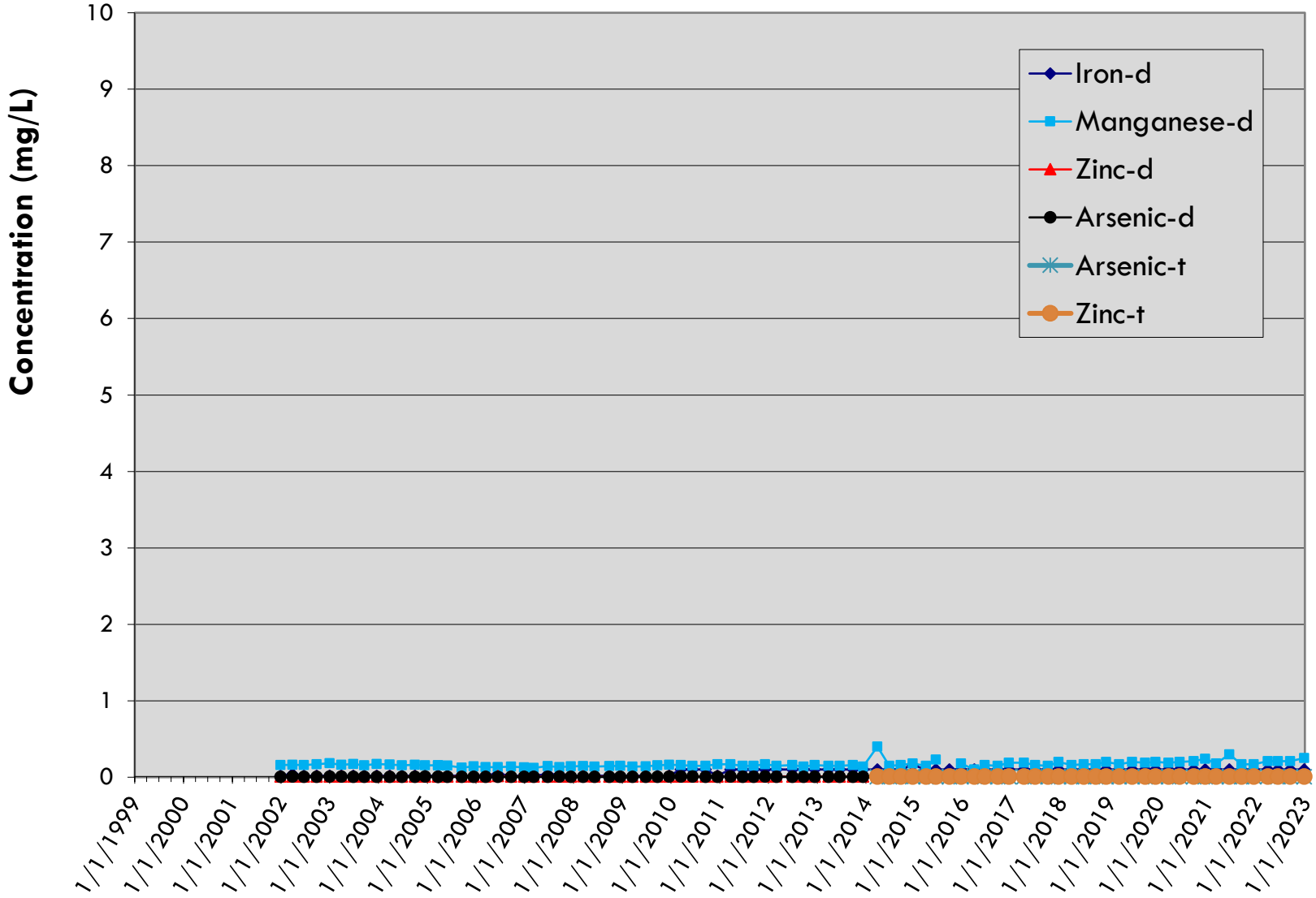
MW-4
LRI Landfill, Pierce County, Washington



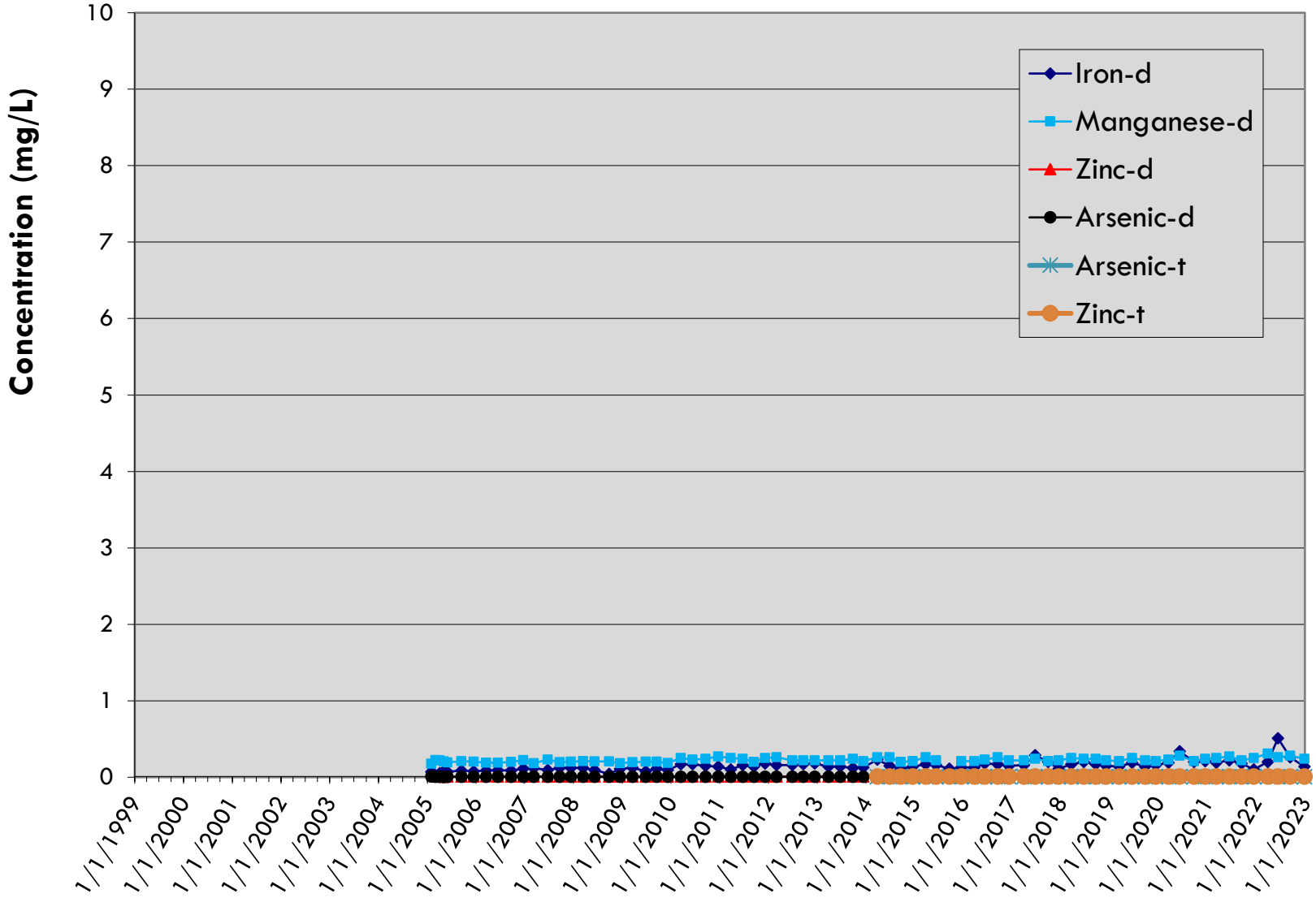
MW-5A
LRI Landfill, Pierce County, Washington

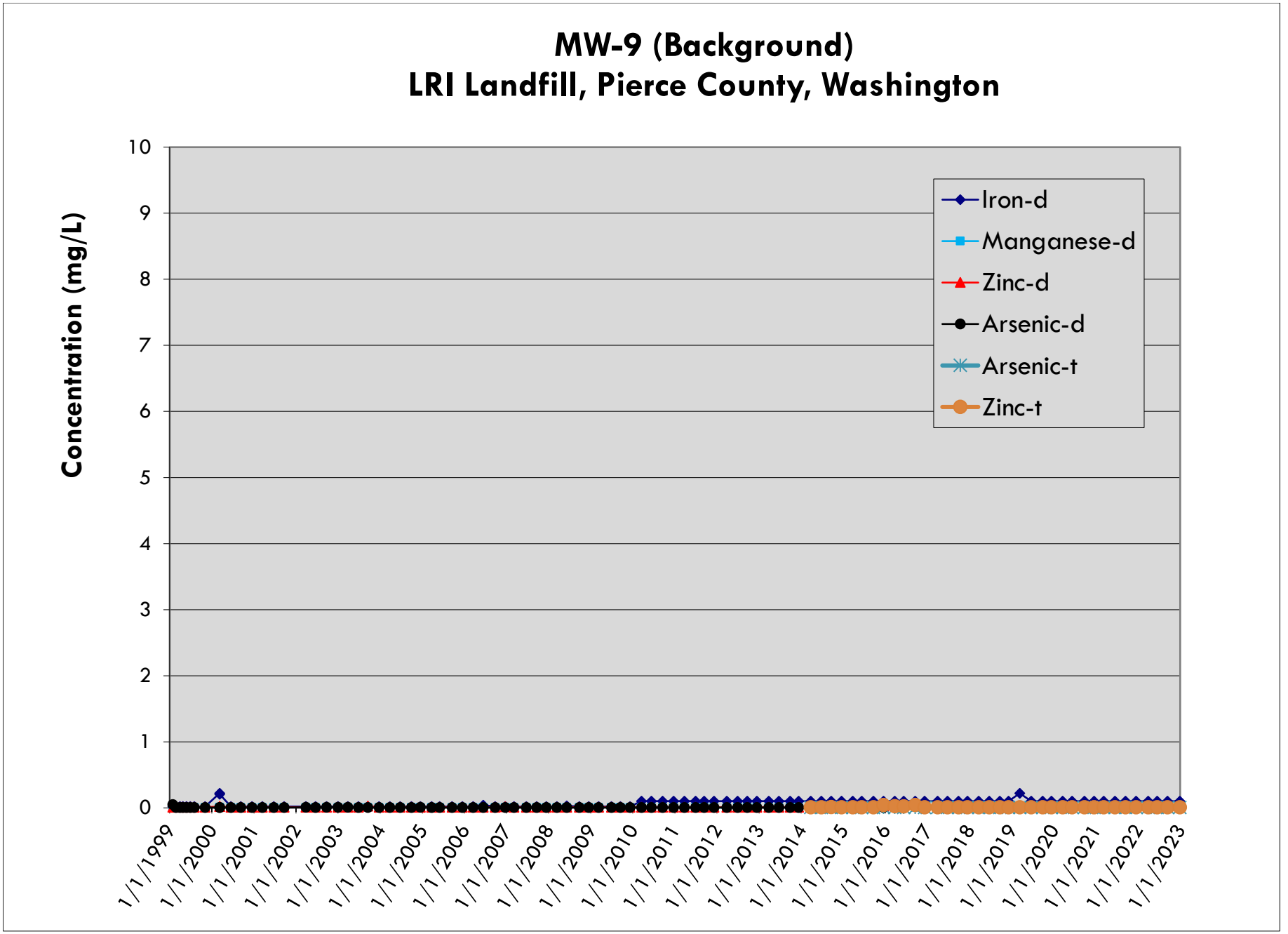


MW-6
LRI Landfill, Pierce County, Washington

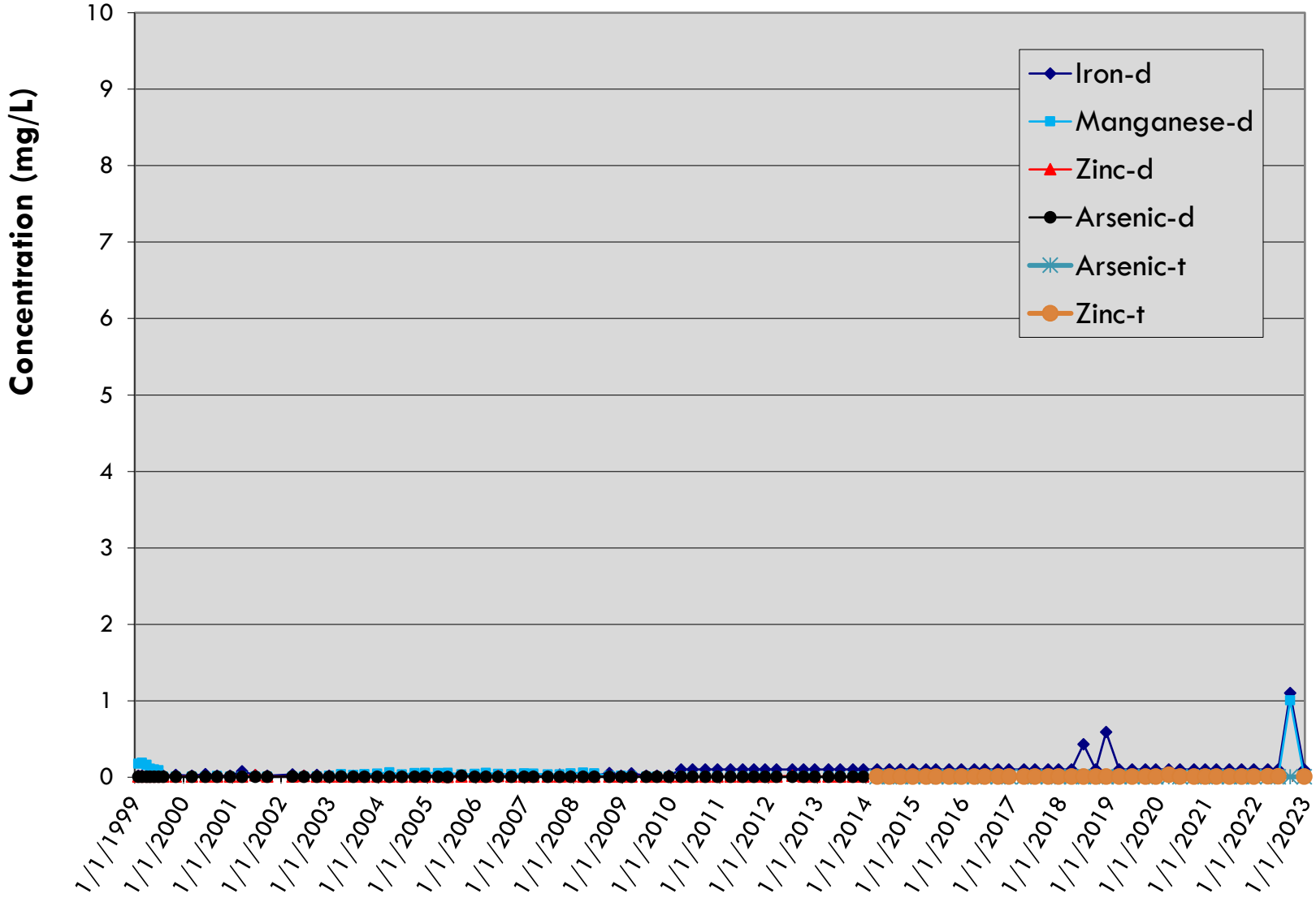


MW-7
LRI Landfill, Pierce County, Washington




MW-9 (Background)
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
10
9
8
7
6
5
4
3
2
1
0
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Iron-d
Manganese-d
Zinc-d
Arsenic-d
Arsenic-t
Zinc-t

MW-10 (Background)
LRI Landfill, Pierce County, Washington



FOURTH QTR. 2022 DATA VALIDATION REPORT – LRI LANDFILL

Project Details

Project No.	04222001.02	**Site Name**	LRI 304th Street LF
Data Validator	Jovany Estrada	**Data Level**	Level 2
Date	02/15/2023	**DV Tier**	Tier 1
QA Document	LRI Landfill Groundwater Monitoring Plan, March 10, 2014		

Sample Login Summary

Sample Group	Sample Login Comments	Analytical Lab (Primary)
280-170646-1	No Comment.	TestAmerica, Denver, CO
280-170841-1	No Comment.	TestAmerica, Denver, CO
280-170842-1	Samples did not arrive in time for lab to perform Nitrate/Nitrite analyses therefore method was changed.	TestAmerica, Denver, CO
280-170877-1	No Comment.	TestAmerica, Denver, CO

Analytical Summary

Sample Group	Analyses					
	TDS/Alk/NO3	Metals	NH3/TOC	VOCs	Anions	TSS
280-170646-1	X	X	X	X	X	-
280-170841-1	X	X	X	X	X	X
280-170842-1	X	X	X	X	X	X
280-170877-1	X	X	X	X	X	-

Notes:

1. Dissolved metals analysis performed (field filtered)
2. Dissolved and Total metals analysis performed
3. Total Metals analysis performed

Laboratory Quality Assurance Samples

Lab QA Samples	Results	Comments
Method Blank	Acceptable.	See case narratives
LCS/LCSD	Acceptable.	See case narratives.
MS/MSD	Acceptable	See case narratives.
Metals	Acceptable.	See case narratives.
Duplicates	Acceptable.	See case narratives.
Organics	Acceptable.	See case narratives.
General Chemistry	Acceptable.	See case narratives.

Lab QA Samples	Results	Comments
General Comments	Acceptable.	See case narratives.

Field Quality Assurance Samples

Field QA Samples	Sample Group	Analytes	Notes
QC-TB	280-170646-1	Chlorobenzene, 1, 2-Dichlorobenzene	
QC-TB	280-170841-1	None.	
QC-TB	280-170842-1	None.	
QC-FB	280-170877-1	None.	

Lab Quality Flags

Flag	Sample Groups	Comments
^2		
4	280-170646-1, 280-170841-1, 280-170842-1, 280-170877-1	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	280-170646-1, 280-170841-1, 280-170842-1, 280-170877-1	MS and/or MSD recovery exceeds control limits.
F2	280-170877-1	MS/MSD RPD exceeds control limits.
E	280-170646-1, 280-170841-1, 280-170842-1, 280-170877-1	Result exceeded calibration range.
H	280-170646-1, 280-170877-1	Sample was prepped or analyzed beyond the specified holding time.
J	280-170646-1, 280-170841-1, 280-170842-1, 280-170877-1	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
^+	280-170646-1, 280-170877-1	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
*-	280-170877-1	LCS and/or LCSD is outside acceptance limits, low biased.
^-	280-170877-1	Continuing Calibration Verification (CCV) is outside acceptance limits, low biased.

Duplicate Evaluation

Analyte	Units	MW-9 (304-122922-04)	MW-9 DUP (304-122922-10)	RPD (%)
Alkalinity, Total	mg/L	68	70	2.90
Calcium, Dissolved	mg/L	6.5	9.5	37.5
Chloride	mg/L	1.8	1.8	0
Magnesium, Dissolved	mg/L	4.3	6.2	36.19
Sodium, Dissolved	mg/L	4.8	7	37.29
Sulfate	mg/L	1.7	1.7	0
Total Dissolved Solids	mg/L	92	67	31.45
Vanadium, Total	mg/L	0.014	0.014	0
Alkalinity, Total	mg/L	68	70	2.90
Calcium, Dissolved	mg/L	6.5	9.5	37.5

U = Non-detection. Reporting limit (RL) used for calculation of RPD when necessary.

Additional Data Flags

Flag	Description
U	Not detected above the method reporting limit.

Qualified Data and Usability

Lab qualifiers are noted. All data, as qualified, are acceptable for use.

January 30, 2022
File No. 04222001.02

Subject: **Fourth Quarter 2022 Groundwater Monitoring Event**
LRI Landfill, Pierce County, Washington

NOTES/SAMPLE DECODING:

Event Dates: December 20, 28-30, 2022
Field Staff: Jovany Estrada, Jack Faille and Lucy Walker

- This event served as a quarterly monitoring event.
- Dedicated pumps were used for purging and sampling wells MW-1A, MW-2A, MW-3, MW-5A, MW-6, MW-7, MW-9, MW-10, and leak detection/collection system points LDCS-3A, LDCS-4A, LDCS-4B, LDCS-5, LDCS-6, and LDCS-7.
- Disposable bailers were used to sample leak detection/collection system points LDCS-1, LDCS-2A, LDCS-2B. LDCS-2A and LDCS-2B were resampled on October 18, 2022.
- The sample from LDCS-8 was collected as a grab sample from the channel discharge spigot.
- A non-dedicated Sample Pro pump was used for purging and sampling well MW-4.
- A round of water level measurements was completed on December 20, 2022.
- Multiparameter field meters were calibrated daily, prior to sampling.
- Source water for the field blank was lab-grade deionized water (VOC-free) provided by TestAmerica in Tacoma, Washington.

Sample Number	Well Number
304-122022-01	Leachate, Cell 7
304-122022-02	Leachate, Cell 3A
304-122022-03	Leachate, Cell 2B
304-122022-04	Leachate, Cell 2A
304-122022-05	Leachate, Cell 1
304-122022-06	Leachate, Cell 4A
304-122022-07	Leachate, Cell 4B
304-122022-08	Leachate, Cell 5
304-122022-09	Leachate, Cell 6
304-122022-10	Leachate, Cell 8
304-122822-01	MW-10
304-122822-02	MW-1A
304-122822-03	MW-2A
Sample Number	**Well Number**

304-122822-04	MW-3A
304-122822-05	MW-5A
304-122822-06	LDCS-2A
304-122822-07	LDCS-1
304-122822-10	MW-6
304-122922-01	LDCS-7
304-122922-02	MW-7
304-122922-03	LDCS-3A
304-122922-04	MW-9
304-122922-05	LDCS-2B
304-122922-06	MW-4
304-122922-07	LDCS-4A
304-122922-08	LDCS-4B
304-122922-09	LDCS-9
304-122922-10	MW-9 (Duplicate)
304-123022-01	LDCS-6
304-123022-02	LDCS-8
304-123022-03	LDCS-5
304-123022-04	Field Blank

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LRI South
Well ID: Leachate Cell 7
Sample ID: 304-122022-01
Date: 12/20/22
Weather: Cloudy / Rain

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 YSI

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other:
Flow Setting:

Filtered? Y (N)
Locked? (Y) N
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
0910		13.2	15642	0.67	8.02	-204.8	55.7	

Notes / Observations (color, odor, anomalies, etc):

1.5 DP form
hard to avoid

683 @ panel

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site LR1 304th
Well ID: Leachate Cell 3A
Sample ID: 304-122022-02
Date: 12/20/22
Weather: Rain

Sampling Method : Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | (Grab) | Other

DTW
TOS
Intake
BOS
Total Depth

Meter:
MP-20
(YSI)

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L 1L = 0.26 gallons

One Well Volume (liters) _____ Other : _____
Flow Setting : _____
Total Volume Bailed (liters) _____

Filtered? Y (N) Locked? (Y) N Water in Protector? Y (N) Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

Notes / Observations (color, odor, anomalies, etc):

958.5 D panel

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
0955		21.0	22069	1.64	7.63	-61.3	8.56	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LRI 304th
Well ID: Leachate Cell 2B
Sample ID: 304-122022-03
Date: 12/20/22
Weather: Rain

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 YSI

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L 1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other:
Flow Setting:

Filtered? Y (N)
Locked? (Y) N
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

Notes / Observations (color, odor, anomalies, etc):

774.3 @ panel

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1025		16.4	23460	4.41	7.63	-15.5	126.79	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site LR1 304+5
Well ID: Leachate Cell 2A
Sample ID: 304-122022-04
Date: 12/20/22
Weather: Rain

Sampling Method : Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

Meter: MP-20 YSI

CONTROL SETTINGS:

DTW
TOS
Intake
BOS
Total Depth

Refill
Discharge
Pressure
Flow

1 ft water = 0.62L 1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other :
Flow Setting :

Filtered? Y (N) Locked? (Y) N Water in Protector? Y (N) Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1041		16.0	12667	7.86	7.90	1.1	32.93	

Notes / Observations (color, odor, anomalies, etc):

914.7 for panel

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LRI 304th
Well ID: leachate cell 1
Sample ID: 304/22022-05
Date: 12/20/22
Weather: Rain

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 / YSI

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other:
Flow Setting:

Filtered? Y (N)
Locked? (Y) N
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1100		14.1	17779	6.10	7.64	-30.3	1188.79	

Notes / Observations (color, odor, anomalies, etc):

357 for panel

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001-02
Site: LRI 304th
Well ID: Leachate Cell 4A
Sample ID: 340-122022-06
Date: 12/20/22
Weather: Rain

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | (Grab) | Other

DTW: /
TOS:
Intake:
BOS:
Total Depth:

Meter: MP-20 (YSI)

CONTROL SETTINGS:
Refill: /
Discharge:
Pressure:
Flow:

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters):
Total Volume Bailed (liters):
Other:
Flow Setting:

Filtered? Y (N)
Locked? (Y) N
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1200		10.4	30729	3.08	7.94	-36.1	14.74	

Notes / Observations (color, odor, anomalies, etc):

455.6 @ panel

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LRI 304L
Well ID: Leachate Cell 4B
Sample ID: 304-122022-07
Date: 12/20/22
Weather: Cloudy

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | (Grab) | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 (YSI)

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters): ____
Total Volume Bailed (liters): ____
Other: ____
Flow Setting: ____

Filtered? Y (N)
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1229		8.6	36187	2.19	7.92	-37.1	18.69	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LRI 30th
Well ID: Leachate Cell 5
Sample ID: 304-122022-08
Date: 12/20/22
Weather: Cloudy

Sampling Method: | Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 (YSI)

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other :
Flow Setting :

Filtered? Y (N)
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
~~1250~~ 1255		17.1	3247.7	0.54	8.11	-168.9	48.86	

Notes / Observations (color, odor, anomalies, etc):

887 @ panel

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.2
Site LR1 304th
Well ID: Leachate Cell 6
Sample ID: 304-122022-09
Date: 12/20/22
Weather: Cloudy

Sampling Method: | Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | (Grab) | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 (YSI)

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L 1L = 0.26 gallons

One Well Volume (liters) _____ Other: _____
Flow Setting: _____
Total Volume Bailed (liters) _____

Filtered? Y (N) Locked? Y (N) Water in Protector? Y (N) Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1315		16.4	155.0	3.21	7.77	-162.8	172-84	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LRI 304th
Well ID: Leachate Cell B
Sample ID: 340-122022-10
Date: 12/20/22
Weather: Rain

Sampling Method: | Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 YSI

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other:
Flow Setting:

Filtered? Y (N)
Locked? (Y) N
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
0400		16.4	155.0	3.21	7.77	-162.8	172.54	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site LR1 304th
Well ID: MW-10
Sample ID: 304-122822-01
Date: 12/28/22
Weather: Cloudy

25.39 DTW
/ TOS
Intake
BOS
Total Depth

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other
Meter: MP-20 YSI
CONTROL SETTINGS:
1 ft water = 0.62L 1L = 0.26 gallons

Refill 9.5
Discharge 5.5
Pressure 40
Flow 250ml/min
One Well Volume (liters)
Total Volume Bailed (liters)
Other:
Flow Setting:

Filtered? (Y) N
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:
1000 ml Poly
500 ml Poly
250 ml Poly
125 ml Poly
500 ml HNO3 x2
500 ml H2SO4 x2
40 ml VOA x3 x6
1000 ml Amber
125 ml NaOH

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1010		11.2	250.9	2.36	5.98	172.9	4.76	
1015		11.5	256.6	0.76	6.09	168.1	4.53	
1018		11.4	253.3	0.75	6.17	165.3	4.72	
1021		11.4	252.8	0.78	6.20	160.8	4.76	
1024		11.3	252.7	0.80	6.22	159.5	4.66	
1027		11.3	252.8	0.82	6.24	158.4	4.70	
1030		11.3	252.9	0.82	6.25	157.7	4.78	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovan Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001-02
Site: LRI 304th
Well ID: MW-1A
Sample ID: 304-122822-02
Date: 12/28/22
Weather: Cloudy

18.03 DTW
TOS
Intake
BOS
Total Depth

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other
Meter: MP-20 YSI

CONTROL SETTINGS:
Refill: 9
Discharge: 6
Pressure: 30
Flow: 350 ml/min

1 ft water = 0.62L
1L = 0.26 gallons
One Well Volume (liters):
Total Volume Bailed (liters):
Other:
Flow Setting:

Filtered? (Y) N
Locked? Y (N)
Water in Protector? (Y) N
Damage? Y (N)

Sample Containers:
1000 ml Poly
500 ml Poly
250 ml Poly
125 ml Poly
500 ml HNO3 x2
500 ml H2SO4 x2
40 ml VOA x3 x6
1000 ml Amber
125 ml NaOH

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1105		12.7	186.6	6.33	7.57	136.7	4.15	
1110		13.2	122.0	3.75	6.65	154.9	17.12	
1113		13.2	120.7	3.77	6.68	155.2	17.18	
1116		13.2	120.4	3.73	6.70	156.2	16.17	
1119		13.3	121.6	3.57	6.70	157.1	15.29	
1122		13.2	125.1	3.15	6.72	157.4	14.60	
1125		13.3	131.4	2.50	6.74	156.2	12.89	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LR1 3044G
Well ID: MW-2A
Sample ID: 304-122822-03
Date: 12/28/22
Weather: Cloudy

12.58 DTW
TOS
Intake
BOS
Total Depth

Sampling Method : Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other
Meter: MP-20 YSI
CONTROL SETTINGS:
Refill 9
Discharge 6
Pressure 30
Flow 350 ml/min

1 ft water = 0.62L 1L = 0.26 gallons
One Well Volume (liters)
Total Volume Bailed (liters)
Other :
Flow Setting :

Filtered? (Y) N
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:
1000 ml Poly
500 ml Poly
250 ml Poly
125 ml Poly
500 ml HNO3 x2
500 ml H2SO4 x2
40 ml VOA x3 x6
1000 ml Amber
125 ml NaOH

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1150		10.3	255.4	7.74	7.91	27.9	3.45	
1155		13.0	336.8	0.76	6.84	-32.2	6.06	
1158		13.0	355.3	0.65	7.05	-71.9	4.20	
1201		12.9	356.0	0.63	7.16	-88.0	3.60	
1204		12.9	359.3	0.61	7.19	-95.8	3.39	
1207		12.8	358.5	0.60	7.21	-101.5	3.19	
1210		12.8	358.6	0.59	7.22	-103.4	3.15	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Tovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site LRI 304th
Well ID: MW-3A
Sample ID: 304-122822-04
Date: 12/28/22
Weather: Cloudy

DTW 6.60
TOS
Intake
BOS
Total Depth

Sampling Method : Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other
Meter: MP-20 YSI

CONTROL SETTINGS:
Refill 9
Discharge 6
Pressure 35
Flow 300 ml/min

1 ft water = 0.62L 1L = 0.26 gallons
One Well Volume (liters)
Total Volume Bailed (liters)
Other :
Flow Setting :

Filtered? Y N
Locked? Y N
Water in Protector? Y N
Damage? Y N

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1300		10.2	335.0	265	6.67	74.8	3.22	
1305		10.3	333.5	0.89	7.36	25.6	3.04	
1308		10.3	334.0	0.79	7.41	7.0	2.98	
1311		10.3	334.2	0.75	7.43	-1.7	2.93	
1314		10.3	334.3	0.72	7.44	-7.7	2.87	
1317		10.3	334.5	0.68	7.44	-14.7	2.84	
1320		10.3	334.6	0.67	7.44	-16.0	2.87	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: CRI 304th
Well ID: MW-5A
Sample ID: 304-122822-05
Date: 12/28/22
Weather: Cloudy

26.1 DTW
TOS
Intake
BOS
Total Depth

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

Meter: MP-20 YSI

CONTROL SETTINGS:
Refill 9
Discharge 6
Pressure 40
Flow 200 ml/min

1 ft water = 0.62L
1L = 0.26 gallons
One Well Volume (liters)
Total Volume Bailed (liters)
Other:
Flow Setting:

Filtered? (Y) N
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:
1000 ml Poly
500 ml Poly
250 ml Poly
125 ml Poly
500 ml HNO3 x2
500 ml H2SO4 x2
40 ml VOA x3 x6
1000 ml Amber
125 ml NaOH

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1355		12.3	299.7	1.21	6.41	59.9	30.32	
1400		12.2	289.0	0.67	7.40	21.3	9.71	
1403		12.2	288.5	0.73	7.50	-11.8	6.82	
1406		12.2	291.3	0.71	7.55	-33.0	6.69	
1409		12.2	291.0	0.71	7.56	-36.9	6.47	
1412		12.2	292.3	0.69	7.57	-41.3	6.08	
1415		12.2	292.8	0.68	7.58	-46.6	6.12	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: ~~Work~~ 04222001.02
Site: LRI 304th
Well ID: LDCRS 2A
Sample ID: 304-122822-06
Date: 12-28-22
Weather: Overcast

27.22 DTW
TOS
Intake
BOS
32.0 Total Depth

Sampling Method: Dedicated | 1.75" QED SamplePro | (Bail) | Peristaltic | Grab | Other
Meter: MP-20 (YSI)
CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons
One Well Volume (liters)
Total Volume Bailed (liters): N/A
Other:
Flow Setting:

Filtered? (Y) N
Locked? ~~(Y)~~ (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:
1000 ml Poly | 500 ml Poly | 250 ml Poly | 125 ml Poly
500 ml HNO3 x2 | 500 ml H2SO4 x2 | 40 ml VOA x3 x6 | 1000 ml Amber
125 ml NaOH

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1456		18.71 °C	767	3.21	7.02	-60.4	11.5	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Bellevue, WA 98005 (425) 746-4600

Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LRI 304th
Well ID: LDCRS Cell 1
Sample ID: 304-122822-07
Date: 12-28-22
Weather: Overcast / rain

25.49 DTW
TOS
Intake
BOS
30.50 Total Depth

Sampling Method : Dedicated | 1.75" QED SamplePro | (Bail) | Peristaltic | Grab | Other

Meter: MP-20 (YSI)

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons
One Well Volume (liters)
Total Volume Bailed (liters)
Other :
Flow Setting :

Filtered? (Y) N
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1545		18.15 °C	407	2.91	6.4	-64.0	1000	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Bermudez
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222061.02
Site: LRI 304th
Well ID: MW-6
Sample ID: 304-122822-10
Date: 12/28/22
Weather: Cloudy

7.01 DTW
TOS
Intake
BOS
Total Depth

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

Meter: MP-20 (YSI)

CONTROL SETTINGS:

Refill	9
Discharge	6
Pressure	25
Flow	200ml/min

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters): ____ Other: ____
Flow Setting: ____
Total Volume Bailed (liters): ____

Filtered? (Y) N
Locked? (Y) N
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly		500 ml Poly		250 ml Poly		125 ml Poly	
500 ml HNO3	x2	500 ml H2SO4	x2	40 ml VOA	x3 x6	1000 ml Amber	
125 ml NaOH							

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1520		9.1	308.3	4.25	7.68	69.4	2.50	
1525		10.4	363.7	0.87	6.97	31.0	2.99	
1528		10.4	366.0	0.75	7.31	22.9	2.90	
1531		10.4	366.6	0.69	7.49	14.4	2.83	
1534		10.4	366.8	0.67	7.53	11.0	2.80	
1537		10.4	366.9	0.67	7.54	9.3	2.77	
1540		10.4	366.9	0.66	7.55	8.2	2.81	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: CRI 304th
Well ID: 304-122922-01
Sample ID: Cell 7 LDCRS
Date: 12-29-22
Weather: Overcast

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 YSI

CONTROL SETTINGS:
Refill: 12
Discharge: 3
Pressure: 45
Flow: 111 mL/min

1 ft water = 0.62L
1L = 0.26 gallons
One Well Volume (liters):
Total Volume Bailed (liters):
Other:
Flow Setting:

Filtered? Y (N)
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:
1000 ml Poly
500 ml Poly
250 ml Poly
125 ml Poly
500 ml HNO3 x2
500 ml H2SO4 x2
40 ml VOA x3 x6
1000 ml Amber
125 ml NaOH

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
10:24		18.76	669	~~5.7~~ 0.48	6.56	-124.7		
10:29		19.65	669	0.29	6.43	-116.3	1.56	
10:32		19.85	669	0.25	6.36	-114.2		
10:35		19.84	669	0.23	6.32	-113.2		
10:38		19.73	668	0.21	6.29	-112.9	1.34	
10:41		19.18	669	0.22	6.26	-112.6		
10:44		18.99	668	0.22	6.21	-112.0		
10:47		17.87	667	0.22	6.18	-112.3		
10:50		17.76	666	0.22	6.18	-113.1	1.27	

Notes / Observations (color, odor, anomalies, etc):

9.5' water level from panel

2:15 250mL

$\frac{250\ mL}{2.25\ min} = 111\ \frac{mL}{min}$

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: John Faille
Printed Name

Signature: John T. Faille

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: IP1 304th
Well ID: MW-7
Sample ID: 304-122922-02
Date: 12/29/22
Weather: Cloudy

22.91 DTW
TOS
Intake
BOS
Total Depth

Sampling Method: (Dedicated) | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

Meter: MP-20 (YSI)

CONTROL SETTINGS:
Refill: 9
Discharge: 6
Pressure: 25
Flow: 300 ml/min

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters):
Total Volume Bailed (liters):
Other:
Flow Setting:

Filtered? (Y) N
Locked? (Y) N
Water in Protector? (Y) ~~N~~
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
		9.7	377.7					
1045		11	11	3.12	5.96	82.9	3.42	
1048		10.4	357.2	1.16	6.50	29.8	4.75	
1051		10.4	353.3	0.85	7.10	-42.4	4.32	
1054		10.4	352.8	0.79	7.37	-88.9	3.98	
1057		10.4	352.6	0.77	7.42	-98.1	3.85	
~~1059~~								
~~1102~~								
1100		10.4	352.4	0.77	7.45	-104.3	3.80	
1105		10.4	352.3	0.75	7.48	-111.1	3.68	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

3

SCS ENGINEERS
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Groundwater Sampling Data Sheet

Project #: 04rn001.02
Site: LRI 304th
Well ID: LDCRS Cell 3A
Sample ID: 304-122922-03
Date: 12-29-22
Weather: Overcast

DTW
TOS
Intake
BOS
Total Depth

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other
Meter: CONTROL SETTINGS:
MP-20
YSI

Refill: 12
Discharge: 3
Pressure: 40
Flow: 333 mL/min

1 ft water = 0.62L
1L = 0.26 gallons
One Well Volume (liters):
Total Volume Bailed (liters):
Other:
Flow Setting:

Filtered? Y (N)
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:
1000 ml Poly
500 ml Poly
250 ml Poly
125 ml Poly
500 ml HNO3 x2
500 ml H2SO4 x2
40 ml VOA x3 x6
1000 ml Amber
125 ml NaOH

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
12:00		18.86	866	2.04	6.67	-138.7	8.01	
12:04		19.73	880	0.39	6.49	-141.3		
12:08		19.85	879	0.33	6.46	-141.2	1.47	
12:11		20.01	878	0.28	6.44	-141.4		
12:14		20.07	877	0.25	6.42	-141.9		
12:17		20.11	877	0.24	6.40	-142.3	1.16	
12:20		20.06	877	0.22	6.39	-142.7		

Notes / Observations (color, odor, anomalies, etc):

Water level 9.83' @ 3A panel

250 mL in 45 sec.

250 mL / 0.75 min = 333 mL/min

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: John Faille
Printed Name

Signature

SCS ENGINEERS

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: 121 304th
Well ID: MW-9
Sample ID: 304-122922-04
Date: 12/29/22
Weather: Cloudy

9.67 DTW
TOS
Intake
BOS
Total Depth

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

Meter: MP-20 YSI

CONTROL SETTINGS: 1 ft water = 0.62L 1L = 0.26 gallons

Refill 10
Discharge 5
Pressure 40
Flow 350 ml/min

One Well Volume (liters)
Total Volume Bailed (liters)
Other:
Flow Setting:

Filtered? (Y) N
Locked? (Y) N
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp. &	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1135		8.6	143.1	8.06	7.43	72.2	3.28	
1140		9.7	137.8	4.57	6.11	111.4	2.80	
1143		9.8	135.8	4.30	6.54	110.4	2.80	
1148		9.8	135.6	4.27	6.67	109.5	2.77	
1149		9.8	135.6	4.25	6.74	110.9	2.75	
1152		9.8	135.6	4.24	6.75	112.2	2.74	
1155		9.8	135.6	4.24	6.76	112.8	2.74	

Notes / Observations (color, odor, anomalies, etc):

Duplicate taken @ 1210

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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LDCRS 2B

Groundwater Sampling Data Sheet

Project #: 04222001.02
Site ~~LDCRS 2B~~ LRI 304
Well ID: ~~304-122922-05~~ LDCRS 2B
Sample ID: 304-122922-05
Date: 12-29-22
Weather: Overcast

28.36 DTW
TOS
Intake
BOS
29.20 Total Depth

Sampling Method : Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other
Meter: MP-20 (YSI)

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other :
Flow Setting :

Filtered? Y (N) Locked? Y (N) Water in Protector? Y (N) Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1300		14.50	787	3.74	6.06	-117.8	1000+	

Notes / Observations (color, odor, anomalies, etc):
Extremely high amount of suspended and settled solids in samples.

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: John Faille
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: 121 304th
Well ID: MW-4
Sample ID: 304-122922-06
Date: 12/29/22
Weather: Cloudy

DTW
TOS
Intake
BOS
Total Depth

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

Meter: MP-20 YSI

CONTROL SETTINGS: 1 ft water = 0.62L 1L = 0.26 gallons

Refill: 10
Discharge: 5
Pressure: 40
Flow:

One Well Volume (liters):
Total Volume Bailed (liters):
Other:
Flow Setting:

Filtered? (Y) N
Locked? Y (N)
Water in Protector? (Y) N
Damage? Y (N)

Sample Containers:
1000 ml Poly
500 ml Poly
250 ml Poly
125 ml Poly
500 ml HNO3 x2
500 ml H2SO4 x2
40 ml VOA x3 x6
1000 ml Amber
125 ml NaOH

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1315		14.0	380.6	1.31	6.56	101.0	21.40	
1320		13.9	377.8	0.82	6.84	78.4	6.98	
1323		13.8	377.2	0.77	7.02	63.4	5.25	
1326		13.8	376.8	0.73	7.11	49.5	5.15	
1329		13.7	376.4	0.71	7.17	35.9	5.47	
1332		13.6	376.3	0.69	7.20	25.4	5.14	
1335		13.6	375.9	0.69	7.21	21.2	7.80	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site ~~LDCRS 4A~~ LRT 304th
Well ID: ~~MW~~ LDCRS 4A
Sample ID: 304-122922-07
Date: 12-29-22
Weather: Overcast

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other
Meter: MP-20 YSI
DTW
TOS
Intake
BOS
Total Depth

CONTROL SETTINGS:
Refill 11
Discharge 4
Pressure 45
Flow 100 mL/min

1 ft water = 0.62L
1L = 0.26 gallons
One Well Volume (liters)
Total Volume Bailed (liters)
Other:
Flow Setting:

Filtered? Y (N) Locked? Y (N) Water in Protector? Y (N) Damage? Y (N)

Sample Containers:
1000 ml Poly | 500 ml Poly | 250 ml Poly | 125 ml Poly
500 ml HNO3 x2 | 500 ml H2SO4 x2 | 40 ml VOA x3 x6 | 1000 ml Amber
125 ml NaOH

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
~~1400~~		13.77	761	1.09	6.42	-142.3		
1405		14.76	774	0.46	6.39	-144.1		
1408		15.48	780	0.66	6.30	-141.4		
1411		15.88	779	0.84	6.28	-141.3	49.8	
1414		16.39	756	0.47	6.17	-144.4		
1417		16.32	738	0.32	6.09	-144.4		
1420		16.30	725	0.28	6.04	-145.6	14.2	
1433							92.0	

Notes / Observations (color, odor, anomalies, etc):
Low flow, increasing turbidity

LCDRS level = 11.36'
on 4A panel

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: John Faille
Printed Name

Signature

08

SCS ENGINEERS
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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LRI 304th
Well ID: LDCRS 4B
Sample ID: 304-122922-08
Date: 12-29-22
Weather: Overcast

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

Meter: MP-20 / YSI

DTW
TOS
Intake
BOS
Total Depth

CONTROL SETTINGS:
Refill: 12
Discharge: 3
Pressure: 50
Flow: 143 mL/min

1 ft water = 0.62L
1L = 0.26 gallons
One Well Volume (liters):
Total Volume Bailed (liters):
Other:
Flow Setting:

Filtered? Y (N)
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
15:41		22.50	971	1.48	6.67	-141.2	4.06	
15:46		23.53	1052	0.35	6.49	-133.0		
15:49		23.48	1055	0.31	6.29	-132.8		
15:52		23.53	1057	0.28	6.20	-132.3	1.11	
15:55		23.60	1059	0.25	6.15	-132.5		
15:58		23.86	1059	0.23	6.13	-132.8		
16:01		23.95	1058	0.22	6.03	-133.2	0.94	

Notes / Observations (color, odor, anomalies, etc):

LDCS level = 7'
@ cell 4B panel

* water took long time to reach ~~surface~~ surface

$\frac{250\ mL}{1.75\ m} = 143\ \frac{mL}{min}$

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: John Faille
Printed Name

Signature

SCS ENGINEERS
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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site 121 30th
Well ID: LDCRS 9
Sample ID: 304-122922-09
Date: 12/29/22
Weather: Cloudy

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | (Grab) | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 (YSI)

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other:
Flow Setting:

Filtered? (Y) N
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1410		10.0	487.6	7.24	6.60	106.5	1.75	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

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Groundwater Sampling Data Sheet

Project #: 04222091.02
Site: LF1 304th
Well ID: LDCS-6
Sample ID: 304-123022-01
Date: 12/30/22
Weather: partly cloudy

DTW
TOS
Intake
BOS
Total Depth

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

Meter: MP-20 YSI

CONTROL SETTINGS:
Refill 11
Discharge 4
Pressure 50
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other:
Flow Setting:

Filtered? (Y) N
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

Notes / Observations (color, odor, anomalies, etc):

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1155		8.5	1014	9.10	7.80	175.9	13.41	
1200		11.0	1029	5.98	7.18	207.1	30.89	
1203		11.7	1033	5.58	7.12	209.6	31.17	
1206		12.2	1034	5.20	7.01	212.0	15.42	
1209		12.7	1036	4.37	6.91	215.0	29.36	
1212		13.2	1036	3.68	6.80	-0.9	10.71	
1215		14.1	1051	1.28	6.75	-2.1	14.83	
1220		14.2	1066	1.20	6.47	10.8	35.70	

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

SCS ENGINEERS
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Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: 304th
Well ID: LDCS-8
Sample ID: 304-123022-02
Date: 12/30/22
Weather: Cloudy

Sampling Method : Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | (Grab) | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 YSI

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other :
Flow Setting :

Filtered? (Y) N
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

Spigot flowed

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1320		20.7	515	7.75	6.28	5.0	0.75	1000

Notes / Observations (color, odor, anomalies, etc):

grab sample from spigot

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

SCS ENGINEERS
2405 140th ave NE #107
Bellevue, WA 98005 (425) 746-4600

Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LRI 30th
Well ID: LPCS-5
Sample ID: 304-123022-03
Date: 12/30/22
Weather: Cloudy

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | Grab | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 YSI

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters):
Total Volume Bailed (liters):
Other:
Flow Setting:

Filtered? (Y) N
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1240		27.0	289.2	4.22	6.32	10.1	7.94	

Notes / Observations (color, odor, anomalies, etc):

took grab sample. was not able to get dep. sample due to no flow.

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

SCS ENGINEERS
2405 140th ave NE #107
Bellevue, WA 98005 (425) 746-4600

Groundwater Sampling Data Sheet

Project #: 04222001.02
Site: LRI 304th
Well ID: Field Blank
Sample ID: 304-123022-04
Date: 12/30/22
Weather: Cloudy

Sampling Method: Dedicated | 1.75" QED SamplePro | Bail | Peristaltic | (Grab) | Other

DTW
TOS
Intake
BOS
Total Depth

Meter: MP-20 (YSI)

CONTROL SETTINGS:
Refill
Discharge
Pressure
Flow

1 ft water = 0.62L
1L = 0.26 gallons

One Well Volume (liters)
Total Volume Bailed (liters)
Other :
Flow Setting :

Filtered? Y (N)
Locked? Y (N)
Water in Protector? Y (N)
Damage? Y (N)

Sample Containers:

1000 ml Poly	500 ml Poly	250 ml Poly	125 ml Poly
500 ml HNO3 x2	500 ml H2SO4 x2	40 ml VOA x3 x6	1000 ml Amber
125 ml NaOH			

TIME	DTW	Temp.	Sp.Cond.	DO	pH	Eh	Turbidity	Q / Vol.
1355		21.2	10	6.78	8.73	-50.1	0.28	

Notes / Observations (color, odor, anomalies, etc):

Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5

SAMPLER: Jovany Estrada
Printed Name

Signature

SCS ENGINEERS

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	12/20/22					
Time	8:37					
Weather (sky or precip, temp)	Cloudy, Precip. 41°F					
Parameter	Conductivity	pH 4	pH 7	D.O.	Turbidity	Comments/Exceptions
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.00	7.00	100% or ~8.5	1000, 10, 0.2 - 800, 100, 20, <0.1	
Pre-Cal Reading	1393	3.73	6.76	7.25		
Post Cal Reading	1413	4.00	7.00	8.5		
Descrepancy	No					
Calib. Successful?	Yes					
Calibration by	Jovany Estrada					
Instrument Type, ID	YSI Pro DDS / YSI 556 / Rental				YSI Pro DDS / HACH2000	
Calibration Location	Lab Office					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

SCS ENGINEERS

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	12-28-22					
Time	14:41					
Weather (sky or precip, temp)	Overcast					
Parameter	Conductivity	pH 4	pH 7	D.O.	Turbidity	Comments/Exceptions
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.00	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1557	~~4~~ 3.98	7.14	7.45		
Post Cal Reading	1413	4.00	7.00	8.50		
Descrepancy	—					
Calib. Successful?	Yes					
Calibration by	JTF					
Instrument Type, ID	YSI Pro DDS / (YSI 556) / Rental				YSI Pro DDS / HACH2000	
Calibration Location	CRI 304th					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

SCS ENGINEERS

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	12/28/22					
Time	9:15					
Weather (sky or precip, temp)	Cloudy					
Parameter	Conductivity	pH 4	pH 7	D.O.	Turbidity	Comments/Exceptions
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.00	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1524	4.11	7.02	10.39		
Post Cal Reading	1413	4.00	7.00	8.6		
Descrepancy	No					
Calib. Successful?	Yes					
Calibration by	Giovanni Estrada					
Instrument Type, ID	YSI Pro DDS / YSI 556 / Rental				YSI Pro DDS / HACH2000	
Calibration Location	LOCS 7					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

SCS ENGINEERS

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	12/29/22					
Time	0913					
Weather (sky or precip, temp)	Cloudy					
Parameter	Conductivity	pH 4	pH 7	D.O.	Turbidity	Comments/Exceptions
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.00	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1356	3.98	7.07	7.9		
Post Cal Reading	1413	4.00	7.00	8.5		
Descrepancy	No					
Calib. Successful?	yes					
Calibration by	Jovany Estrada					
Instrument Type, ID	YSI Pro DDS / YSI 556 / Rental				YSI Pro DDS / HACH2000	
Calibration Location	LRL Office					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

SCS ENGINEERS

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	12-29-22					
Time	09:10					
Weather (sky or precip, temp)	Overcast					
Parameter	Conductivity	pH 4	pH 7	D.O.	Turbidity	Comments/Exceptions
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.00	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1416	4.01	6.57	7.31	—	
Post Cal Reading	1413	4.00	7.00	8.50	6.81 using dist. H_2O	
Descrepancy	—					
Calib. Successful?	Yes					
Calibration by	J. Faille					
Instrument Type, ID	YSI Pro DDS / (YSI 556) / Rental				YSI Pro DDS / HACH2000	
Calibration Location	LRI LF					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

SCS ENGINEERS

GROUNDWATER SAMPLING INSTRUMENT CALIBRATION DOCUMENTATION FORM

Date	12/30/22					
Time	1000					
Weather (sky or precip, temp)	Partly cloudy					
Parameter	Conductivity	pH 4	pH 7	D.O.	Turbidity	Comments/Exceptions
Type of Calibration	Standard	Standard	Standard	Standard	Standard	
Standard Value	1413	4.00	7.00	100% or ~8.5	1000, 10, 0.2 800, 100, 20, <0.1	
Pre-Cal Reading	1414	3.83	6.96			
Post Cal Reading	1413	4.00	7.00			
Descrepancy	NO					
Calib. Successful?	YES					
Calibration by	Jovanni Estrada					
Instrument Type, ID	YSI Pro DDS / YSI 556 / Rental				YSI Pro DDS / HACH2000	
Calibration Location	LRI office					

* If Direct Reading is Unavailable, Assume pressure = 760 mm - 2.5 (altitude in ft/100)

LRI Landfill

Water Level Data

Date: Dec 28-30

Measured by: JE & JF

	Ground Elevation	PVC Elevation	Total Depth	Depth to Water	Water Level Elevation	Time	Comments
Wells							
W87-2A	662.5	664.01		22.10	640.40		
W88-3M	654.8	656.48		15.40	639.40		
W87-4a	691.9	693.29		10.16	681.74		
W88-7A	631.3	632.51		Lost			
W88-8A	719.7	721.05		dry			
W90-12A	638.6	640.84		35.85	602.75		
MW-1A	653.2	652.57	75.7	18.03	635.13		
MW-2A	652.2	651.93	67.2	12.58	639.62		
MW-3	635.7	637.41	70.4	6.60	629.10		
MW-4		652.37		24.28			
MW-5A		655.55		26.10			
MW-6	633.4	635.71	52.4	7.01	626.39		
MW-7	654.7	656.03	58.0	22.91	631.79		
MW-9	699.1	701.77	76.8	9.67	689.43		
MW-10	671.5	674.17		25.39	646.11		
Piezometers							
P88-2a	633.0	663.96		Lost			
P88-2b	633.0	663.48		Lost			
P88-3a	655.1	656.20	27.4	21.79	633.31		
P88-3b	655.1	655.98	39.8	24.83	630.27		
P95-8a	721.2	722.07		26.56	694.64		
P90-12a	638.6	640.79		14.81	623.79		
P90-12b	638.6	640.73		13.14	625.46		
P90-13a	643.5	645.19		Lost			
P90-13b	643.5	643.63		Lost			
P13-14A				27.12			
GP-1P		652.00		20.11			
GP-2P		656.61		14.20			
GP-3P		658.51		12.09			
GP-4P		662.01		14.24			
GP-9P		674.03		15.62			
GP-10P		649.86		N/A			
GP-11P				N/A			
GP-12P				N/A			
GP-13P				N/A			
GP-14P				16.08			
GP-15P				19.19			
GP-16P				22.24			
GP-17P				12.60			
P-1				31.32			
P-2				4.15			
P-3				12.98			
P21-2				22.71			
South Creek		Head Wall					
SWSC-1		632.79		4.35			
SWSC-2		629.95		5.42			
Leak Detection System							

Appendix C

Groundwater Database

Groundwater Database - Waterlevels
2022 Annual Monitoring Report
LRI Landfill, Pierce County, Washington

Location	Sample Number	Field_Date	Well Casing Elevation	Depth-To-Water	Water Level Elevation	Notes
Monitoring Well						
MW-1A	304-032922-02	3/29/2022	652.57	17.28	635.29	
	304-061422-01	6/14/2022	652.57	17.50	635.07	
	304-091322-01	9/13/2022	652.57	20.30	632.27	
	304-122822-02	12/28/2022	652.57	18.03	634.54	
MW-2A	304-032922-04	3/29/2022	651.93	18.07	633.86	
	304-061422-03	6/14/2022	651.93	16.97	634.96	
	304-091322-03	9/13/2022	651.93	20.00	631.93	
	304-122822-03	12/28/2022	651.93	12.58	639.35	
MW-3	304-032922-06	3/29/2022	637.41	5.91	631.50	
	304-061422-05	6/14/2022	637.41	5.60	631.81	
	304-091322-05	9/13/2022	637.41	10.08	627.33	
	304-122822-04	12/20/2022	637.41	6.60	629.10	
MW-4	304-033022-21	3/30/2022	652.37	21.12	631.25	
	304-061422-10	6/14/2022	652.37	20.83	631.54	
	304-091422-20	9/13/2022	652.37	24.28	628.09	
	304-122922-06	12/29/2022	652.37	24.28	628.09	
MW-5A	304-032922-08	3/29/2022	655.55	25.91	629.64	
	304-061422-09	6/14/2022	655.55	25.70	629.85	
	304-091322-09	9/13/2022	655.55	28.50	627.05	
	304-122822-05	12/28/2022	655.55	26.10	629.45	
MW-6	304-032922-12	3/29/2022	635.71	7.61	628.10	
	304-061422-07	6/14/2022	635.71	7.08	628.63	
	304-091322-07	9/13/2022	635.71	12.15	623.56	
	304-122822-10	12/28/2022	635.71	7.01	628.70	
MW-7	304-033022-14	3/30/2022	656.03	20.84	635.19	
	304-061422-13	6/14/2022	656.03	18.32	637.71	
	304-091322-13	9/13/2022	656.03	20.80	635.23	
	304-122922-02	12/29/2022	656.03	22.91	633.12	
MW-9	304-033022-18	3/30/2022	701.77	7.96	693.81	
	304-061522-15	6/15/2022	701.77	7.46	694.31	
	304-091422-17	9/13/2022	701.77	11.63	690.14	
	304-122922-04	12/29/2022	701.77	9.67	692.10	
MW-10	304-033022-16	3/30/2022	678.37	25.26	653.11	
	304-061522-17	6/15/2022	678.37	24.52	653.85	
	304-091322-15	9/13/2022	678.37	28.75	649.62	
	304-122822-01	12/28/2022	678.37	25.39	652.98	
Leak Detection System						
LDCS-1	304-032922-09	3/29/2022	657.26	26.36	630.90	
	304-061422-08	6/14/2022	657.26	26.05	631.21	
	304-091322-10	9/13/2022	657.26	27.10	630.16	
	304-122822-07	12/28/2022	657.26	28.49	628.77	
LDCS-2A	304-032922-07	3/29/2022	659.24	28.82	630.42	
	304-061422-06	6/14/2022	659.24	29.20	630.04	
	304-091322-08	9/13/2022	659.24	29.48	629.76	
	304-122822-06	12/28/2022	659.24	27.22	632.02	
LDCS-2B	304-032922-05	3/29/2022	661.70	28.00	633.70	
	304-061422-04	6/14/2022	661.70	27.97	633.73	
	304-091322-06	9/13/2022	661.70	27.96	633.74	
	304-122922-05	12/29/2022	661.70	28.36	633.34	

Groundwater Database - Field Parameters
2021 Annual Monitoring Report
LRI Landfill, Pierce County, Washington

Location	Sample Number	Sample Date	Sampling Method	pH	Specific Conductivity	Temperature
Monitoring Well						
MW-1A	304-032922-02	3/29/2022	DP	6.91	148	13.31
	304-061422-01	6/14/2022	DP	6.77	159	13.40
	304-091322-01	9/13/2022	DP	6.48	165	14.35
	304-122822-02	12/28/2022	DP	6.74	131	13.30
MW-2A	304-032922-04	3/29/2022	DP	7.13	239	12.89
	304-061422-03	6/14/2022	DP	7.07	234	12.91
	304-091322-03	9/13/2022	DP	7.02	275	14.36
	304-122822-03	12/28/2022	DP	7.22	359	12.80
MW-3	304-032922-06	3/29/2022	DP	7.17	418	10.46
	304-061422-05	6/14/2022	DP	7.06	421	10.53
	304-091322-05	9/13/2022	DP	7.02	333	11.17
	304-122822-04	12/28/2022	DP	7.44	335	10.30
MW-4	304-033022-21	3/30/2022	SP	7.58	356	13.10
	304-061422-10	6/14/2022	SP	7.62	349	14.10
	304-091422-20	9/14/2022	SP	7.50	347	14.30
	304-122922-06	12/29/2022	DP	7.21	376	13.00
MW-5A	304-032922-08	3/29/2022	DP	7.62	406	12.38
	304-061422-09	6/14/2022	DP	7.52	329	12.72
	304-091322-09	9/13/2022	DP	7.25	290	13.04
	304-122822-05	12/28/2022	DP	7.58	293	12.20
MW-6	304-032922-12	3/29/2022	DP	7.66	328	10.73
	304-061422-07	6/14/2022	DP	7.60	332	10.61
	304-091322-07	9/13/2022	DP	7.50	310	10.82
	304-122822-10	12/28/2022	DP	7.55	367	10.40
MW-7	304-033022-14	3/30/2022	DP	6.88	372	10.57
	304-061422-13	6/14/2022	DP	7.44	400	10.69
	304-091322-13	9/13/2022	DP	7.49	366	11.33
	304-122922-02	12/29/2022	DP	7.48	352	10.40
MW-9	304-033022-18	3/30/2022	DP	6.91	129	10.18
	304-061522-15	6/15/2022	DP	6.76	129	10.02
	304-091422-17	9/14/2022	DP	6.38	127	10.47
	304-122922-04	12/29/2022	DP	6.76	136	9.80
MW-10	304-033022-16	3/30/2022	DP	6.44	258	11.23
	304-061522-17	6/15/2022	DP	6.39	265	11.77
	304-091322-15	9/13/2022	DP	6.27	262	13.33
	304-122822-01	12/28/2022	DP	6.25	253	11.30

Groundwater Database - Field Parameters
2021 Annual Monitoring Report
LRI Landfill, Pierce County, Washington

Location	Sample Number	Sample Date	Sampling Method	pH	Specific Conductivity	Temperature
Leak Detection System						
LDCS-1	304-032922-09	3/29/2022	DB	6.74	419	23.20
	304-061422-08	6/14/2022	DB	6.20	436	22.50
	304-091322-10	9/13/2022	DB	6.25	570	21.30
	304-122822-07	12/28/2022	DB	6.40	407	18.15
LDCS-2A	304-032922-07	3/29/2022	DB	7.42	856	21.00
	304-061422-06	6/14/2022	DB	6.93	815	21.80
	304-091322-08	9/13/2022	DB	6.40	900	22.20
	304-122822-06	12/28/2022	DB	7.02	767	18.71
LDCS-2B	304-032922-05	3/29/2022	DB	7.18	781	20.70
	304-061422-04	6/14/2022	DB	6.82	771	19.70
	304-091322-06	9/13/2022	DB	6.47	1,008	21.20
	304-122922-05	12/29/2022	DB	6.06	787	14.50
LDCS-3A	304-032922-03	3/29/2022	DP	6.62	927	20.90
	304-061422-02	6/14/2022	DP	6.31	918	21.40
	304-091322-04	9/13/2022	DP	6.23	929	21.30
	304-122922-03	12/29/2022	DP	6.39	877	20.06
LDCS-4A	304-032922-11	3/29/2022	DP	6.76	752	21.60
	304-061522-18	6/15/2022	DP	6.37	813	20.80
	304-091322-12	9/13/2022	DP	6.35	24	23.80
	304-122922-07	12/29/2022	DP	6.04	725	16.30
LDCS-4B	304-033022-19	3/30/2022	DP	7.00	954	23.00
	304-061522-20	6/15/2022	DP	6.38	969	26.00
	304-091322-14	9/13/2022	DP	6.42	1,018	25.30
	304-122922-08	12/29/2022	DP	6.03	1,058	23.95
LDCS-5	304-033022-17	3/30/2022	DP	6.73	814	20.90
	304-061522-21	6/15/2022	DP	6.38	740	24.90
	304-091422-22	9/14/2022	DP	6.47	1,077	25.50
	304-123022-03	12/30/2022	GB	6.32	289	20.60
LDCS-6	304-033022-13	3/30/2022	DP	6.65	927	13.70
	304-061522-22	6/15/2022	DP	6.55	994	20.60
	304-091422-18	9/14/2022	DP	6.51	1,144	25.50
	304-123022-01	12/30/2022	DP	6.47	1,086	14.20
LDCS-7	304-032922-01	3/29/2022	DP	6.29	989	17.80
	304-061522-16	6/15/2022	DP	6.23	1,193	24.80
	304-091322-02	9/13/2022	DP	6.02	869	26.00
	304-122922-01	12/29/2022	DP	6.18	666	17.76
LDCS-8	304-033022-20	3/30/2022	GB	6.40	1,121	17.13
	304-061422-14	6/14/2022	GB	6.29	1,172	20.50
	304-091422-16	9/14/2022	GB	6.18	1,235	22.40
	304-123022-02	12/30/2022	GB	6.28	515	20.70

Groundwater Database - Field Parameters
2021 Annual Monitoring Report
LRI Landfill, Pierce County, Washington

Location	Sample Number	Sample Date	Sampling Method	pH	Specific Conductivity	Temperature
Leachate						
Leachate, Cell 1	304-122022-05	12/20/2022	GB	7.64	17,779	14.10
Leachate, Cell 2A	304-122022-04	12/20/2022	GB	7.90	12,667	16.00
Leachate, Cell 2B	304-122022-03	12/20/2022	GB	7.63	23,460	16.40
Leachate, Cell 3A	304-122022-02	12/20/2022	GB	7.63	22,069	21.00
Leachate, Cell 4A	304-122022-06	12/20/2022	GB	7.94	30,729	19.40
Leachate, Cell 4B	304-122022-07	12/20/2022	GB	7.92	38,187	8.60
Leachate, Cell 5	304-122022-08	12/20/2022	GB	8.11	32,477	17.10
Leachate, Cell 6	304-122022-09	12/20/2022	GB	7.77	155	16.40
Leachate, Cell 7	304-122022-01	12/20/2022	GB	8.02	15,642	13.30
Leachate, Cell 8	304-033022-22	3/30/2022	GB	7.28	11,172	19.26
Leachate, Cell 8	304-061522-19	6/15/2022	GB	7.59	13,409	22.24
Leachate, Cell 8	304-091422-19	9/14/2022	GB	7.76	20,993	26.29
Leachate, Cell 8	304-122022-10	12/20/2022	GB	7.77	155	16.40

Notes:
DB = Dedicated bailer
DP = Dedicated pump
GB = Grab sample
NM = Not measured
SP = Submersible pump
PP = Peristaltic Pump

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Location	Sample ID	Sample Date	Alkalinity, Total	Ammonia	Chloride	Nitrate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
Monitoring Well										
MW-1A	304-032922-02	3/29/2022	86	0.1 U	1.8	0.5 U	2.4	140	1 U	4.4
	304-061422-01	6/14/2022	91	0.1 U	1.7	0.5 U	2.6	120	1 U	4 U
	304-091322-01	9/13/2022	93	0.1 U	1.8	0.5 U	2.8	130	1 U	4 U
	304-122822-02	12/28/2022	77	0.1 U	2.6	0.5 U	11	94	1	4.8
MW-2A	304-032922-04	3/29/2022	110	0.1 U	2.8	0.5 U	6.1	160	1 U	4 U
	304-061422-03	6/14/2022	120	0.1 U	2.5	0.5 U	4.3	160	1 U	4 U
	304-091322-03	9/13/2022	130	0.15	3.1	0.5 U	15	180	1 U	4 U
	304-122822-03	12/28/2022	140	0.43	5.4	0.5 U	36	220	1.4	4 U
MW-3	304-032922-06	3/29/2022	180	0.13	3.5	0.5 U	25	250	1.3	4 U
	304-061422-05	6/14/2022	200	0.11	3.2	0.5 U	23	250	1.4	4 U
	304-091322-05	9/13/2022	140	0.15	3.7	0.5 U	33	210	1.1	4 U
	304-122822-04	12/28/2022	140	0.14	4.2	0.5 U	29	190	1	4 U
MW-4	304-033022-21	3/30/2022	160	0.14	3.3	0.5 U	11	220	1 U	4
	304-061422-10	6/14/2022	160	0.13	3.1	0.5 U	10	200	1 U	4.0
	304-091422-20	9/14/2022	170	0.28	3.4	0.5 U	10	200	1 U	4.4
	304-122922-06	12/29/2022	170	0.12	4.8	0.5 U	23	170	1.2	4 U
MW-5A	304-032922-08	3/29/2022	190	0.14	3.6	0.5 U	19	250	1.1	4
Duplicate	304-032922-10	3/29/2022	180	0.15	3.6	.05 U	19	260	1.1	4 U
	304-061422-09	6/14/2022	190	0.15	3.1	0.5 U	15	240	1.2	4 U
Duplicate	304-061422-11	6/14/2022	190	0.18	3.1	0.5 U	15	240	1.1	4 U
	304-091322-09	9/13/2022	150	0.1 U	2.3	0.5 U	7.4	180	1 U	4 U
Duplicate	304-091322-11	9/13/2022	140	0.24	2.3	0.5 U	7.5	170	1 U	4 U
	304-122822-05	12/28/2022	150	0.19	2.7	0.5 U	7.2	160	1 U	4 U
MW-6	304-032922-12	3/29/2022	150	0.1	5.2	0.5 U	6.8	200	1	4 U
	304-061422-07	6/14/2022	170	0.11	4.7	0.5 U	6	200	1.1	4 U
	304-091322-07	9/13/2022	160	0.14	4.9	0.5 U	7.1	180	1 U	4 U
	304-122822-10	12/28/2022	190	0.14	6.4	0.5 U	8.1	190	1.6	4 U

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Location	Sample ID	Sample Date	Alkalinity, Total	Ammonia	Chloride	Nitrate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
MW-7	304-033022-14	3/30/2022	190	0.22	3.2	0.5 U	2.7	220	1 U	4 U
	304-061422-13	6/14/2022	210	0.24	3.2	0.5 U	2.3	220	1.1	4 U
	304-091322-13	9/13/2022	190	1.20	3.2	0.5 U	3.1	210	1 U	4 U
	304-122922-02	12/29/2022	180	0.23	3.3	0.5 U	4.7	160	1 U	4 U
MW-9	304-033022-18	3/30/2022	67	0.1 U	1.4	0.5 U	1.4	120	1 U	4 U
	304-061522-15	6/15/2022	69	0.1 U	1.6	0.5 U	1.8	190	1 U	4 U
	304-091422-17	9/14/2022	70	0.1 U	1.8	0.5 U	1.8	120	1 U	4 U
	304-122922-04	12/29/2022	70	0.1 U	1.8	0.5 U	1.7	67	1 U	4 U
Duplicate	304-122922-10	12/29/2022	70	0.1 U	1.8	0.5 U	1.7	67	1 U	4 U
MW-10	304-033022-16	3/30/2022	110	0.1 U	6.8	3	5.5	190	1 U	5.6
	304-061522-17	6/15/2022	110	0.1 U	7.1	2.8	6.7	17000	1 U	4 U
	304-091322-15	9/13/2022	110	0.73	6.6	3.1	6.3	170	1 U	4 U
	304-122822-01	12/28/2022	110	0.1 U	7.3	3.0	6.2	160	1 U	5.2
Leak Detection System										
LDCS-1	304-032922-09	3/29/2022	15	0.1 U	4.3	0.5 U	4.5	250	3.9	-
	304-061422-08	6/14/2022	200	0.11	4.4	0.5 U	5.5	240	4.2	-
	304-091322-10	9/13/2022	270	0.1 U	4.5	0.5 U	5.8	340	16	-
	304-122822-07	12/28/2022	190	0.63	5.9	0.5 U	7.3	230	8.4	-
LDCS-2A	304-032922-07	3/29/2022	10 U	0.1 U	6	0.5 U	28	510	3.3	-
	304-061422-06	6/14/2022	410	0.15	7.5	0.5 U	32	500	3.7	-
	304-091322-08	9/13/2022	430	19	7.0	0.5 U	37	540	9.8	-
	304-122822-06	12/28/2022	440	0.1 U	11	0.5 U	26	490	3.7	-
LDCS-2B	304-032922-05	3/29/2022	10 U	0.26	10	0.5 U	49	460	6.3	-
	304-061422-04	6/14/2022	320	0.56	12.0	0.5 U	150	440	25	-
	304-091322-06	9/13/2022	470	29.00	22	0.5 U	60	540	90	-
	304-122922-05	12/29/2022	380	0.29	28	0.5 U	44	500	7.1	-

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Location	Sample ID	Sample Date	Alkalinity, Total	Ammonia	Chloride	Nitrate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
LDCS-3A	304-032922-03	3/29/2022	52	0.11	4	0.5 U	54	550	2.2	-
	304-061422-02	6/14/2022	430	0.16	6.1	0.5 U	67	540	3.8	-
	304-091322-04	9/13/2022	420	0.1 U	4.1	0.5 U	59	550	2.4	-
	304-122922-03	12/29/2022	480	0.24	4.9	0.5 U	55	520	2.3	-
LDCS-4A	304-032922-11	3/29/2022	140	0.19	21	0.5 U	38	440	5.5	-
	304-061522-18	6/15/2022	330	0.19	28	0.5 U	41	440	6.5	-
	304-091322-12	9/13/2022	350	0.1 U	20	0.5 U	67	500	6.5	-
	304-122922-07	12/29/2022	230	0.1 U	92	0.81	32	420	6.9	-
LDCS-4B	304-033022-19	3/30/2022	360	0.19	37	0.5 U	63	540	4.4	-
	304-061522-20	6/15/2022	350	0.17	45	0.5 U	76	550	4.7	-
	304-091322-14	9/13/2022	380	0.57	26	0.5 U	96	600	5.2	-
	304-122922-08	12/29/2022	330	0.12	130	0.5 U	81	640	11	-
LDCS-5	304-033022-17	3/30/2022	310	0.47	26	0.5 U	54	470	7.2	-
	304-061522-21	6/15/2022	300	0.52	16	0.5 U	55	420	6.2	-
	304-091422-22	9/14/2022	440	0.68	26	0.5 U	72	570	6.9	-
	304-123022-03	12/30/2022	180	0.25	42	0.5 U	58	360	31	-
LDCS-6	304-033022-13	3/30/2022	370	0.1 U	18	0.5 U	79	560	3.3	-
	304-061522-22	6/15/2022	390	0.28	19	0.5 U	84	120	4.9	-
	304-091422-18	9/14/2022	500	0.2	21	0.5 U	76	610	6.7	-
	304-123022-01	12/30/2022	440	0.15	39.0	0.5 U	97	620	4.5	-

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Location	Sample ID	Sample Date	Alkalinity, Total	Ammonia	Chloride	Nitrate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
LDCS-7	304-032922-01	3/29/2022	15	0.1 U	17	0.5 U	16	580	5.4	-
	304-061522-16	6/15/2022	580	0.18	13	0.5 U	43	710	7.8	-
	304-091322-02	9/13/2022	430	0.1 U	6.8	0.5 U	20	520	5.0	-
	304-122922-01	12/29/2022	250	0.1 U	7.8	0.5 U	130	420	5	-
LDCS-8	304-033022-20	3/30/2022	460	0.1 U	19	0.5 U	55	580	7.3	-
	304-061422-14	6/14/2022	570	0.1 U	17	0.5 U	54	670	7.3	-
	304-091422-16	9/14/2022	580	0.1 U	20	0.5 U	49	680	7.6	-
	304-123022-02	12/30/2022	470	0.29	32	0.5 U	40	540	8.1	-
Leachate										
Leachate, Cell 1	304-122022-05	12/20/2022	9,800	1,900	7,800	0.5 U	25	16,000	2,200	-
Leachate, Cell 2A	304-122022-04	12/22/2022	8,900	1,600	3,900	0.5 U	57	13,000	1,700	-
Leachate, Cell 2B	304-122022-03	12/20/2022	8,100	1,600	3,100	0.5 U	19 U	8,100	2,000	-
Leachate, Cell 3A	304-122022-02	12/20/2022	7,900	1,300	2,400	0.5 U	19 U	8,200	1,700	-
Leachate, Cell 4A	304-122022-06	12/22/2022	12,000	2,000	4,400	0.5 U	26	14,000	2,500	-
Leachate, Cell 4B	304-122022-07	12/22/2022	15,000	2,300	4,500	0.5 U	19	16,000	2,100	-
Leachate, Cell 5	304-122022-08	12/22/2022	12,000	2,200	3,500	0.5 U	38	14,000	2,100	-
Leachate, Cell 6	304-122022-09	12/22/2022	12,000	2,800	3,400	0.5 U	54	16,000	4,300	-
Leachate, Cell 7	304-122022-01	12/22/2022	7,100	1,300	1,800	0.5 U	19 U	6,000	1,400	-
Leachate, Cell 8	304-033022-22	3/30/2022	4,100	540	1,300	1.1	21	7,100	1,600	-
Leachate, Cell 8	304-061522-19	6/15/2022	5,000	870	1,500	1.9	79	6,500	1,200	-
Leachate, Cell 8	304-091422-19	9/14/2022	8,000	1,500	2,600	0.5 U	64	10,000	1,400	-
Leachate, Cell 8	304-122022-10	12/20/2022	4,700	1,000	1,300	1.7	220	2,300	740	-

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Location	Sample ID	Sample Date	Alkalinity, Total	Ammonia	Chloride	Nitrate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Total Suspended Solids
Quality Control										
QC, FB	304-033022-15	3/30/2022	10 U	0.1 U	0.2 U	0.5 U	0.5 U	13	1 U	4 U
	304-061422-12	6/14/2022	10 U	0.1 U	0.2 U	0.5 U	0.5 U	10 U	1 U	4 U
	304-091422-21	9/14/2022	10 U	0.1 U	0.2 U	0.5 U	0.5 U	10 U	1 U	4 U
	304-123022-04	12/30/2022	10 U	0.1 U	0.2 U	0.5 U	0.5 U	10 U	1 U	4 U

Notes:
H = Sample was prepped or analyzed beyond the specified holding time
U = Sample result was not reported at or above the MRL
- = Not analyzed

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Location	Sample Number	Sample Date	Antimony, Dissolved	Antimony, Total	Arsenic, Dissolved	Arsenic, Total	Barium, Dissolved	Barium, Total	Beryllium, Dissolved	Beryllium, Total	Cadmium, Dissolved	Cadmium, Total
Monitoring Well												
MW-1A	304-032922-02	3/29/2022		0.05 U		0.005 U		0.019		0.001 U		0.001 U
	304-061422-01	6/14/2022		0.05 U		0.005 U		0.020		0.001 U		0.001 U
	304-091322-01	9/13/2022		0.05 U		0.005 U		0.021		0.001 U		0.001 U
	304-122822-02	12/28/2022		0.05 U		0.005 U		0.015		0.001 U		0.001 U
MW-2A	304-032922-04	3/29/2022		0.05 U		0.005 U		0.012		0.001 U		0.001 U
	304-061422-03	6/14/2022		0.05 U		0.005 U		0.012		0.001 U		0.001 U
	304-091322-03	9/13/2022		0.05 U		0.005 U		0.015		0.001 U		0.001 U
	304-122822-03	12/28/2022		0.05 U		0.005 U		0.018		0.001 U		0.001 U
MW-3	304-032922-06	3/29/2022		0.05 U		0.005 U		0.016		0.001 U		0.001 U
	304-061422-05	6/14/2022		0.05 U		0.005 U		0.017		0.001 U		0.001 U
	304-091322-05	9/13/2022		0.05 U		0.005 U		0.012		0.001 U		0.001 U
	304-122822-04	12/28/2022		0.05 U		0.005 U		0.011		0.001 U		0.001 U
MW-4	304-033022-21	3/30/2022		0.05 U		0.01		0.017		0.001 U		0.001 U
	304-061422-10	6/14/2022		0.05 U		0.0100		0.02		0.001 U		0.001 U
	304-091422-20	9/14/2022		0.05 U		0.0130		0.019		0.001 U		0.001 U
	304-122922-06	12/29/2022		0.05 U		0.0110		0.015		0.001 U		0.001 U
MW-5A	304-032922-08	3/29/2022		0.05 U		0.005 U		0.015		0.001 U		0.001 U
Duplicate	304-032922-10	3/29/2022		0.05 U		0.0065		0.016		0.001 U		0.001 U
	304-061422-09	6/14/2022		0.05 U		0.006		0.016		0.001 U		0.001 U
Duplicate	304-061422-11	6/14/2022		0.05 U		0.0064		0.014		0.001 U		0.001 U
	304-091322-09	9/13/2022		0.05 U		0.0053		0.011		0.001 U		0.001 U
Duplicate	304-091322-11	9/13/2022		0.05 U		0.0054		0.012		0.001 U		0.001 U
	304-122822-05	12/28/2022		0.05 U		0.005 U		0.01		0.001 U		0.001 U
MW-6	304-032922-12	3/29/2022		0.05 U		0.0079		0.016		0.001 U		0.001 U
	304-061422-07	6/14/2022		0.05 U		0.0072		0.015		0.001 U		0.001 U
	304-091322-07	9/13/2022		0.05 U		0.0077		0.014		0.001 U		0.001 U
	304-122822-10	12/28/2022		0.05 U		0.0074		0.015		0.001 U		0.001 U
MW-7	304-033022-14	3/30/2022		0.05 U		0.0059		0.017		0.001 U		0.001 U
	304-061422-13	6/14/2022		0.05 U		0.0061		0.018		0.001 U		0.001 U
	304-091322-13	9/13/2022		0.05 U		0.0062		0.017		0.001 U		0.001 U
	304-122922-02	12/29/2022		0.05 U		0.0059		0.014		0.001 U		0.001 U
MW-9	304-033022-18	3/30/2022		0.05 U		0.005 U		0.005 U		0.001 U		0.001 U
	304-061522-15	6/15/2022		0.05 U		0.005 U		0.005 U		0.001 U		0.001 U
	304-091422-17	9/14/2022		0.05 U		0.005 U		0.005 U		0.001 U		0.001 U
	304-122922-04	12/29/2022		0.05 U		0.005 U		0.005 U		0.001 U		0.001 U
Duplicate	304-122922-10	12/29/2022		0.05 U		0.005 U		0.005 U		0.001 U		0.001 U

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Location	Sample Number	Sample Date	Chromium, Dissolved	Chromium, Total	Cobalt, Dissolved	Cobalt, Total	Copper, Dissolved	Copper, Total	Lead, Dissolved	Lead, Total	Nickel, Dissolved	Nickel, Total
Monitoring Well												
MW-1A	304-032922-02	3/29/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-061422-01	6/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-091322-01	9/13/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-122822-02	12/28/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
MW-2A	304-032922-04	3/29/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-061422-03	6/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-091322-03	9/13/2022		0.005 U		0.001 U		0.01 U		0.0031		0.02 U
	304-122822-03	12/28/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
MW-3	304-032922-06	3/29/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-061422-05	6/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-091322-05	9/13/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-122822-04	12/28/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
MW-4	304-033022-21	3/30/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-061422-10	6/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-091422-20	9/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-122922-06	12/29/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
MW-5A	304-032922-08	3/29/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
Duplicate	304-032922-10	3/29/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-061422-09	6/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
Duplicate	304-061422-11	6/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-091322-09	9/13/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
Duplicate	304-091322-11	9/13/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-122822-05	12/28/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
MW-6	304-032922-12	3/29/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-061422-07	6/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-091322-07	9/13/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-122822-10	12/28/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
MW-7	304-033022-14	3/30/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-061422-13	6/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-091322-13	9/13/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-122922-02	12/29/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
MW-9	304-033022-18	3/30/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-061522-15	6/15/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-091422-17	9/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-122922-04	12/29/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
Duplicate	304-122922-10	12/29/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U

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Location	Sample Number	Sample Date	Selenium, Dissolved	Selenium, Total	Silver, Dissolved	Silver, Total	Thallium, Dissolved	Thallium, Total	Vanadium, Dissolved	Vanadium, Total	Zinc, Dissolved	Zinc, Total
Monitoring Well												
MW-1A	304-032922-02	3/29/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.014
	304-061422-01	6/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-091322-01	9/13/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.014
	304-122822-02	12/28/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.011
MW-2A	304-032922-04	3/29/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-061422-03	6/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-091322-03	9/13/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-122822-03	12/28/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
MW-3	304-032922-06	3/29/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-061422-05	6/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-091322-05	9/13/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-122822-04	12/28/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
MW-4	304-033022-21	3/30/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-061422-10	6/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.029
	304-091422-20	9/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.022
	304-122922-06	12/29/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01
MW-5A	304-032922-08	3/29/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
Duplicate	304-032922-10	3/29/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-061422-09	6/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
Duplicate	304-061422-11	6/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-091322-09	9/13/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
Duplicate	304-091322-11	9/13/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-122822-05	12/28/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
MW-6	304-032922-12	3/29/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-061422-07	6/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-091322-07	9/13/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-122822-10	12/28/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
MW-7	304-033022-14	3/30/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-061422-13	6/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-091322-13	9/13/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
	304-122922-02	12/29/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
MW-9	304-033022-18	3/30/2022		0.005 U		0.005 U		0.005 U		0.015		0.01 U
	304-061522-15	6/15/2022		0.005 U		0.005 U		0.005 U		0.014		0.01 U
	304-091422-17	9/14/2022		0.005 U		0.005 U		0.005 U		0.016		0.01 U
	304-122922-04	12/29/2022		0.005 U		0.005 U		0.005 U		0.014		0.01 U
Duplicate	304-122922-10	12/29/2022		0.005 U		0.005 U		0.005 U		0.014		0.01 U

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Location	Sample Number	Sample Date	Antimony, Dissolved	Antimony, Total	Arsenic, Dissolved	Arsenic, Total	Barium, Dissolved	Barium, Total	Beryllium, Dissolved	Beryllium, Total	Cadmium, Dissolved	Cadmium, Total
MW-10	304-033022-16	3/30/2022		0.05 U		0.005 U		0.015		0.001 U		0.001 U
	304-061522-17	6/15/2022		0.05 U		0.005 U		0.014		0.001 U		0.001 U
	304-091322-15	9/13/2022		0.05 U		0.005 U		0.016		0.001 U		0.001 U
	304-122822-01	12/28/2022		0.05 U		0.005 U		0.013		0.001 U		0.001 U
Leak Detection System												
LDCS-1	304-032922-09	3/29/2022	0.05 U		0.0092		0.021					
	304-061422-08	6/14/2022	0.05 U		0.0099		0.019					
	304-091322-10	9/13/2022	0.05 U		0.022		0.017					
	304-122822-07	12/28/2022	0.05 U		0.045		0.027					
LDCS-2A	304-032922-07	3/29/2022	0.05 U		0.005 U		0.022					
	304-061422-06	6/14/2022	0.05 U		0.005 U		0.02					
	304-091322-08	9/13/2022	0.05 U		0.022		0.044					
	304-122822-06	12/28/2022	0.05 U		0.005 U		0.026					
LDCS-2B	304-032922-05	3/29/2022	0.05 U		0.027		0.045					
	304-061422-04	6/14/2022	0.05 U		0.09		0.054					
	304-091322-06	9/13/2022	0.05 U		0.13		0.091					
	304-122922-05	12/29/2022	0.05 U		0.13		0.077					
LDCS-3A	304-032922-03	3/29/2022	0.05 U		0.01		0.022					
	304-061422-02	6/14/2022	0.05 U		0.0094		0.026					
	304-091322-04	9/13/2022	0.05 U		0.02		0.027					
	304-122922-03	12/29/2022	0.05 U		0.019		0.025					
LDCS-4A	304-032922-11	3/29/2022	0.05 U		0.0099		0.032					
	304-061522-18	6/15/2022	0.05 U		0.012		0.031					
	304-091322-12	9/13/2022	0.05 U		0.012		0.035					
	304-122922-07	12/29/2022	0.05 U		0.005 U		0.023					
LDCS-4B	304-033022-19	3/30/2022	0.05 U		0.0099		0.032					
	304-061522-20	6/15/2022	0.05 U		0.0089		0.026					
	304-091322-14	9/13/2022	0.05 U		0.019		0.039					
	304-122922-08	12/29/2022	0.05 U		0.005 U		0.028					
LDCS-5	304-033022-17	3/30/2022	0.05 U		0.005 U		0.046		0.001 U		0.001 U	
	304-061522-21	6/15/2022	0.05 U		0.005 U		0.041		0.001 U		0.001 U	
	304-091422-22	9/14/2022	0.05 U		0.0079		0.063		0.001 U		0.001 U	
	304-123022-03	12/30/2022	0.05 U		0.005 U		0.051		0.001 U		0.001 U	

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Location	Sample Number	Sample Date	Chromium, Dissolved	Chromium, Total	Cobalt, Dissolved	Cobalt, Total	Copper, Dissolved	Copper, Total	Lead, Dissolved	Lead, Total	Nickel, Dissolved	Nickel, Total
MW-10	304-033022-16	3/30/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-061522-17	6/15/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-091322-15	9/13/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
	304-122822-01	12/28/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
Leak Detection System												
LDCS-1	304-032922-09	3/29/2022	0.005 U		0.0011		0.01 U		0.002 U		0.02 U	
	304-061422-08	6/14/2022	0.005 U		0.0012		0.01 U		0.002 U		0.02 U	
	304-091322-10	9/13/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
	304-122822-07	12/28/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
LDCS-2A	304-032922-07	3/29/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
	304-061422-06	6/14/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
	304-091322-08	9/13/2022	0.005 U		0.0028		0.01 U		0.002 U		0.02 U	
	304-122822-06	12/28/2022	0.005 U		0.0013		0.01 U		0.002 U		0.02 U	
LDCS-2B	304-032922-05	3/29/2022	0.005 U		0.0066		0.01 U		0.002 U		0.02 U	
	304-061422-04	6/14/2022	0.005 U		0.0051		0.01 U		0.002 U		0.02 U	
	304-091322-06	9/13/2022	0.005 U		0.0075		0.01 U		0.002 U		0.02 U	
	304-122922-05	12/29/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
LDCS-3A	304-032922-03	3/29/2022	0.005 U		0.0028		0.01 U		0.002 U		0.02 U	
	304-061422-02	6/14/2022	0.005 U		0.0021		0.01 U		0.002 U		0.02 U	
	304-091322-04	9/13/2022	0.005 U		0.0021		0.01 U		0.0045		0.02 U	
	304-122922-03	12/29/2022	0.005 U		0.0019		0.01 U		0.002 U		0.02 U	
LDCS-4A	304-032922-11	3/29/2022	0.005 U		0.0019		0.01 U		0.002 U		0.02 U	
	304-061522-18	6/15/2022	0.005 U		0.002		0.01 U		0.002 U		0.02 U	
	304-091322-12	9/13/2022	0.005 U		0.0024		0.01 U		0.002 U		0.02 U	
	304-122922-07	12/29/2022	0.005 U		0.001		0.01 U		0.002 U		0.02 U	
LDCS-4B	304-033022-19	3/30/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
	304-061522-20	6/15/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
	304-091322-14	9/13/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
	304-122922-08	12/29/2022	0.005 U		0.0011		0.01 U		0.002 U		0.02 U	
LDCS-5	304-033022-17	3/30/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
	304-061522-21	6/15/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
	304-091422-22	9/14/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
	304-123022-03	12/30/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	

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Location	Sample Number	Sample Date	Selenium, Dissolved	Selenium, Total	Silver, Dissolved	Silver, Total	Thallium, Dissolved	Thallium, Total	Vanadium, Dissolved	Vanadium, Total	Zinc, Dissolved	Zinc, Total
MW-10	304-033022-16	3/30/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.013
	304-061522-17	6/15/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.013
	304-091322-15	9/13/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.019
	304-122822-01	12/28/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
Leak Detection System												
LDCS-1	304-032922-09	3/29/2022							0.005 U		0.01 U	
	304-061422-08	6/14/2022							0.005 U		0.01 U	
	304-091322-10	9/13/2022							0.005 U		0.01 U	
	304-122822-07	12/28/2022							0.005 U		0.01 U	
LDCS-2A	304-032922-07	3/29/2022							0.005 U		0.01 U	
	304-061422-06	6/14/2022							0.005 U		0.01 U	
	304-091322-08	9/13/2022							0.005 U		0.01 U	
	304-122822-06	12/28/2022							0.005 U		0.01 U	
LDCS-2B	304-032922-05	3/29/2022							0.005 U		0.01 U	
	304-061422-04	6/14/2022							0.005 U		0.01 U	
	304-091322-06	9/13/2022							0.005 U		0.01 U	
	304-122922-05	12/29/2022							0.005 U		0.01 U	
LDCS-3A	304-032922-03	3/29/2022							0.005 U		0.01 U	
	304-061422-02	6/14/2022							0.005 U		0.01 U	
	304-091322-04	9/13/2022							0.005 U		0.01 U	
	304-122922-03	12/29/2022							0.005 U		0.01 U	
LDCS-4A	304-032922-11	3/29/2022							0.005 U		0.01 U	
	304-061522-18	6/15/2022							0.005 U		0.01 U	
	304-091322-12	9/13/2022							0.005 U		0.01 U	
	304-122922-07	12/29/2022							0.005 U		0.01 U	
LDCS-4B	304-033022-19	3/30/2022							0.005 U		0.01 U	
	304-061522-20	6/15/2022							0.005 U		0.01 U	
	304-091322-14	9/13/2022							0.005 U		0.01 U	
	304-122922-08	12/29/2022							0.005 U		0.01 U	
LDCS-5	304-033022-17	3/30/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-061522-21	6/15/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-091422-22	9/14/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-123022-03	12/30/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	

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Location	Sample Number	Sample Date	Antimony, Dissolved	Antimony, Total	Arsenic, Dissolved	Arsenic, Total	Barium, Dissolved	Barium, Total	Beryllium, Dissolved	Beryllium, Total	Cadmium, Dissolved	Cadmium, Total
LDCS-6	304-033022-13	3/30/2022	0.05 U		0.0072		0.014		0.001 U		0.001 U	
	304-061522-22	6/15/2022	0.05 U		0.0097		0.031		0.001 U		0.001 U	
	304-091422-18	9/14/2022	0.05 U		0.0083		0.03		0.001 U		0.001 U	
	304-123022-01	12/30/2022	0.05 U		0.005 U		0.053		0.001 U		0.001 U	
LDCS-7	304-032922-01	3/29/2022	0.05 U		0.01		0.045		0.001 U		0.001 U	
	304-061522-16	6/15/2022	0.05 U		0.011		0.039		0.001 U		0.001 U	
	304-091322-02	9/13/2022	0.05 U		0.016		0.04		0.001 U		0.001 U	
	304-122922-01	12/29/2022										
LDCS-8	304-033022-20	3/30/2022	0.05 U		0.005 U		0.042		0.001 U		0.001 U	
	304-061422-14	6/14/2022	0.05 U		0.005 U		0.042		0.001 U		0.001 U	
	304-091422-16	9/14/2022	0.05 U		0.0055		0.045		0.001 U		0.001 U	
	304-123022-02	12/30/2022	0.05 U		0.005 U		0.037		0.001 U		0.001 U	
Leachate												
Leachate, Cell 1	304-122022-05	12/20/2022		0.05 U		0.12		1.7		0.001 U		0.001 U
Leachate, Cell 2A	304-122022-04	12/20/2022		0.05 U		0.081		1.4		0.001 U		0.001 U
Leachate, Cell 2B	304-122022-03	12/20/2022		0.05 U		0.14		0.94		0.001 U		0.001 U
Leachate, Cell 3A	304-122022-02	12/20/2022		0.05 U		0.07		1		0.001 U		0.001 U
Leachate, Cell 4A	304-122022-06	12/20/2022		0.05 U		0.17		1.2		0.001 U		0.001 U
Leachate, Cell 4B	304-122022-07	12/20/2022		0.05 U		0.11		1.6		0.001 U		0.0013 U
Leachate, Cell 5	304-122022-08	12/20/2022		0.05 U		0.22		1		0.001 U		0.001 U
Leachate, Cell 6	304-122022-09	12/20/2022		0.057		0.37		1.3		0.001 U		0.0013 U
Leachate, Cell 7	304-122022-01	12/20/2022		0.05 U		0.41		0.78		0.001 U		0.001 U
Leachate, Cell 8	304-033022-22	3/30/2022		0.05 U		0.13		1		0.001 U		0.001 U
Leachate, Cell 8	304-061522-19	6/15/2022		0.05 U		0.19		0.69		0.001 U		0.001 U
Leachate, Cell 8	304-091422-19	9/14/2022		0.05 U		0.4		0.67		0.001 U		0.0013 U
Leachate, Cell 8	304-122022-10	12/20/2022		0.05 U		0.25		0.44		0.001 U		0.0013 U
Quality Control												
QC, FB	304-033022-15	3/30/2022		0.05 U		0.005 U		0.005 U		0.001 U		0.001 U
QC, FB	304-061422-12	6/14/2022		0.05 U		0.005 U		0.005 U		0.001 U		0.001 U
QC, FB	304-091422-21	9/14/2022		0.05 U		0.005 U		0.005 U		0.001 U		0.001 U
QC, FB	304-123022-04	12/30/2022		0.05 U		0.005 U		0.005 U		0.001 U		0.001 U

Notes:
U = Sample result was not reported at or above the MRL

Groundwater Database - Appendix I Metals
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Location	Sample Number	Sample Date	Chromium, Dissolved	Chromium, Total	Cobalt, Dissolved	Cobalt, Total	Copper, Dissolved	Copper, Total	Lead, Dissolved	Lead, Total	Nickel, Dissolved	Nickel, Total
LDCS-6	304-033022-13	3/30/2022	0.005 U		0.001 U		0.01 U		0.002 U		0.02 U	
	304-061522-22	6/15/2022	0.005 U		0.0017		0.01 U		0.002 U		0.02 U	
	304-091422-18	9/14/2022	0.005 U		0.001		0.01 U		0.002 U		0.02 U	
	304-123022-01	12/30/2022	0.005 U		0.0027		0.01 U		0.002 U		0.02 U	
LDCS-7	304-032922-01	3/29/2022	0.005 U		0.0058		0.01 U		0.002 U		0.02 U	
	304-061522-16	6/15/2022	0.005 U		0.004		0.01 U		0.002 U		0.02 U	
	304-091322-02	9/13/2022	0.005 U		0.0044		0.01 U		0.002 U		0.02 U	
	304-122922-01	12/29/2022										
LDCS-8	304-033022-20	3/30/2022	0.005 U		0.0035		0.01 U		0.002 U		0.02 U	
	304-061422-14	6/14/2022	0.005 U		0.0031		0.01 U		0.002 U		0.02 U	
	304-091422-16	9/14/2022	0.005 U		0.0029		0.01 U		0.002 U		0.02 U	
	304-123022-02	12/30/2022	0.005 U		0.0031		0.01 U		0.002 U		0.02 U	
Leachate												
Leachate, Cell 1	304-122022-05	12/20/2022		0.54		0.045		0.017		0.01		0.93
Leachate, Cell 2A	304-122022-04	12/20/2022		0.49		0.051		0.014		0.013		0.73
Leachate, Cell 2B	304-122022-03	12/20/2022		0.49		0.039		0.025		0.017		0.51
Leachate, Cell 3A	304-122022-02	12/20/2022		0.45		0.039		0.024		0.018		0.37
Leachate, Cell 4A	304-122022-06	12/20/2022		0.62		0.045		0.029		0.016		0.46
Leachate, Cell 4B	304-122022-07	12/20/2022		0.79		0.044		0.089		0.023		0.67
Leachate, Cell 5	304-122022-08	12/20/2022		0.75		0.06		0.19		0.027		0.65
Leachate, Cell 6	304-122022-09	12/20/2022		0.93		0.047		0.1		0.036		0.53
Leachate, Cell 7	304-122022-01	12/20/2022		0.65		0.025		0.019		0.013		0.21
Leachate, Cell 8	304-033022-22	3/30/2022		0.23		0.047		0.054		0.021		0.21
Leachate, Cell 8	304-061522-19	6/15/2022		0.24		0.022		0.035		0.024		0.18
Leachate, Cell 8	304-091422-19	9/14/2022		0.68		0.053		0.092		0.041		0.34
Leachate, Cell 8	304-122022-10	12/20/2022		0.37		0.029		0.042		0.013		0.18
Quality Control												
QC, FB	304-033022-15	3/30/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
QC, FB	304-061422-12	6/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
QC, FB	304-091422-21	9/14/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U
QC, FB	304-123022-04	12/30/2022		0.005 U		0.001 U		0.01 U		0.002 U		0.02 U

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Location	Sample Number	Sample Date	Selenium, Dissolved	Selenium, Total	Silver, Dissolved	Silver, Total	Thallium, Dissolved	Thallium, Total	Vanadium, Dissolved	Vanadium, Total	Zinc, Dissolved	Zinc, Total
LDCS-6	304-033022-13	3/30/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-061522-22	6/15/2022	0.005 U		0.005 U		0.005 U		0.004 U		0.01 U	
	304-091422-18	9/14/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-123022-01	12/30/2022	0.005 U		0.001 U		0.005 U		0.005 U		0.01 U	
LDCS-7	304-032922-01	3/29/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-061522-16	6/15/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-091322-02	9/13/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-122922-01	12/29/2022										
LDCS-8	304-033022-20	3/30/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-061422-14	6/14/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-091422-16	9/14/2022	0.005 U		0.005 U		0.005 U		0.005 U		0.01 U	
	304-123022-02	12/30/2022	0.005 U		0.001 U		0.005 U		0.005 U		0.01 U	
Leachate												
Leachate, Cell 1	304-122022-05	12/20/2022		0.005 U		0.005 U		0.005 U		0.31		0.035
Leachate, Cell 2A	304-122022-04	12/20/2022		0.005 U		0.005 U		0.005 U		0.31		0.044
Leachate, Cell 2B	304-122022-03	12/20/2022		0.005 U		0.005 U		0.005 U		0.34		0.055
Leachate, Cell 3A	304-122022-02	12/20/2022		0.005 U		0.005 U		0.005 U		0.2		0.072
Leachate, Cell 4A	304-122022-06	12/20/2022		0.005 U		0.005 U		0.005 U		0.24		0.079
Leachate, Cell 4B	304-122022-07	12/20/2022		0.005 U		0.005 U		0.005 U		0.13		0.087
Leachate, Cell 5	304-122022-08	12/20/2022		0.005 U		0.005 U		0.005 U		0.17		0.18
Leachate, Cell 6	304-122022-09	12/20/2022		0.005 U		0.005 U		0.005 U		0.13		0.28
Leachate, Cell 7	304-122022-01	12/20/2022		0.005 U		0.005 U		0.005 U		0.17		0.1
Leachate, Cell 8	304-033022-22	3/30/2022		0.005 U		0.005 U		0.005 U		0.19		0.81
Leachate, Cell 8	304-061522-19	6/15/2022		0.005 U		0.005 U		0.005 U		0.14		0.39
Leachate, Cell 8	304-091422-19	9/14/2022		0.005 U		0.005 U		0.005 U		0.15		0.53
Leachate, Cell 8	304-122022-10	12/20/2022		0.005 U		0.005 U		0.005 U		0.098		0.2
Quality Control												
QC, FB	304-033022-15	3/30/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
QC, FB	304-061422-12	6/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
QC, FB	304-091422-21	9/14/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U
QC, FB	304-123022-04	12/30/2022		0.005 U		0.005 U		0.005 U		0.005 U		0.01 U

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Location	Sample Number	Sample Date	Calcium, Dissolved	Calcium, Total	Iron, Dissolved	Iron, Total	Magnesium, Dissolved	Magnesium, Total	Manganese, Dissolved	Manganese, Total	Potassium, Dissolved	Potassium, Total	Sodium, Dissolved	Sodium, Total
Monitoring Well														
MW-1A	304-032922-02	3/29/2022	14		1.4		8.9		0.2		3.6		12	
	304-061422-01	6/14/2022	13		1.4		8.2		0.22		3		9.4	
	304-091322-01	9/13/2022	14		1.4		9.4		0.25		3.6		11	
	304-122822-02	12/28/2022	13		1		6.6		0.19		2.8		9.6	
MW-2A	304-032922-04	3/29/2022	20		0.6		11		0.29		3		16	
	304-061422-03	6/14/2022	18		0.66		10		0.27		2.6		13	
	304-091322-03	9/13/2022	23		0.66		12		0.31		3.4		16	
	304-122822-03	12/28/2022	34		0.91		15		0.35		4.3		19	
MW-3	304-032922-06	3/29/2022	45		0.1 U		19		0.42		4.4		16	
	304-061422-05	6/14/2022	44		0.1 U		20		0.4		4		14	
	304-091322-05	9/13/2022	34		0.1 U		15		0.28		3.6		13	
	304-122822-04	12/28/2022	36		0.1 U		15		0.26		3.7		13	
MW-4	304-033022-21	3/30/2022	31		0.1 U		17		0.29		5.7		13	
	304-061422-10	6/14/2022	30		0.1 U		18		0.22		5.1		11	
	304-091422-20	9/14/2022	29		0.1 U		16		0.23		5.4		13	
	304-122922-06	12/29/2022	21		0.1 U		11		0.25		3.5		8.4	
MW-5A	304-032922-08	3/29/2022	29		0.1 U		11		0.24		4.4		49	
Duplicate	304-032922-10	3/29/2022	29		0.1 U		12		0.19		4.6		48	
	304-061422-09	6/14/2022	27		0.11		11		0.17		5.1		45	
Duplicate	304-061422-11	6/14/2022	26		0.11		11		0.17		4.9		44	
	304-091322-09	9/13/2022	24		0.1 U		10		0.14		3.7		26	
Duplicate	304-091322-11	9/13/2022	24		0.1 U		10		0.14		3.8		25	
	304-122822-05	12/28/2022	26		0.20		10		0.22		3.4		17	
MW-6	304-032922-12	3/29/2022	34		0.1 U		15		0.21		5		11	
	304-061422-07	6/14/2022	33		0.1 U		15		0.21		4.5		9.7	
	304-091322-07	9/13/2022	33		0.1 U		15		0.21		4.8		10	
	304-122822-10	12/28/2022	33		0.1 U		15		0.25		4.1		9.2	
MW-7	304-033022-14	3/30/2022	32		0.2		21		0.31		5.8		16	
	304-061422-13	6/14/2022	33		0.51		23		0.26		6.3		16	
	304-091322-13	9/13/2022	32		0.26		23		0.28		5.7		15	
	304-122922-02	12/29/2022	19		0.14		13		0.24		3.1		7.2	
MW-9	304-033022-18	3/30/2022	9.9		0.1 U		6.5		0.005 U		2		7.7	
	304-061522-15	6/15/2022	10		0.1 U		6.8		0.005 U		2.1		8.1	
	304-091422-17	9/14/2022	9.8		0.1 U		6.6		0.005 U		2 U		7.5	
	304-122922-04	12/29/2022	6.5		0.1 U		4.3		0.005 U		2 U		4.8	
Duplicate	304-122922-10	12/29/2022	9.5		0.1 U		6.2		0.005 U		2 U		7	
MW-10	304-033022-16	3/30/2022	25		0.1 U		11		0.016		2.1		13	
	304-061522-17	6/15/2022	27		0.1 U		12		0.005 U		2.2		14	
	304-091322-15	9/13/2022	26		0.1 U		11		0.005 U		2.2		13	
	304-122822-01	12/28/2022	25		0.1 U		11		0.005 U		2.1		13	

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Location	Sample Number	Sample Date	Calcium, Dissolved	Calcium, Total	Iron, Dissolved	Iron, Total	Magnesium, Dissolved	Magnesium, Total	Manganese, Dissolved	Manganese, Total	Potassium, Dissolved	Potassium, Total	Sodium, Dissolved	Sodium, Total
Leak Detection System														
LDCS-1	304-032922-09	3/29/2022	40		1.7		16		1.8		5		18	
	304-061422-08	6/14/2022	38		1.6		16		1.7		4.5		16	
	304-091322-10	9/13/2022	51		40		24		1.3		5.8		19	
	304-122822-07	12/28/2022	45		39		19		1.6		5.1		18	
LDCS-2A	304-032922-07	3/29/2022	94		0.1		36		0.86		9.3		31	
	304-061422-06	6/14/2022	90		0.16		36		0.63		8.1		26	
	304-091322-08	9/13/2022	100		4.5		41		5.1		9.5		29	
	304-122822-06	12/28/2022	100		0.1 U		40		2.6		9.4		30	
LDCS-2B	304-032922-05	3/29/2022	88		15		35		2.7		7.3		21	
	304-061422-04	6/14/2022	77		30		31		2.3		5.8		16	
	304-091322-06	9/13/2022	100		56		42		3.6		8.4		22	
	304-122922-05	12/29/2022	100		40		39		2.6		6.7		19	
LDCS-3A	304-032922-03	3/29/2022	100		1.1		41		3.3		6.2		24	
	304-061422-02	6/14/2022	110		3.5		44		3.7		5.7		21	
	304-091322-04	9/13/2022	100		3.5		45		3.6		6.8		23	
	304-122922-03	12/29/2022	120		3.8		47		3.7		6.7		26	
LDCS-4A	304-032922-11	3/29/2022	70		2.4		40		1.6		5.9		24	
	304-061522-18	6/15/2022	56		4.6		37		2.4		4.3		18	
	304-091322-12	9/13/2022	83		2.3		50		1.8		6.7		28	
	304-122922-07	12/29/2022	65		0.1 U		33		0.75		5.9		38	
LDCS-4B	304-033022-19	3/30/2022	99		1.4		44		1.1		6.6		30	
	304-061522-20	6/15/2022	76		0.75		29		1.3		4.2		21	
	304-091322-14	9/13/2022	100		1.8		54		1.4		7.4		28	
	304-122922-08	12/29/2022	130		0.18		44		1		6.5		44	
LDCS-5	304-033022-17	3/30/2022	70		0.1 U		42		1.2		7.7		32	
	304-061522-21	6/15/2022	57		0.28		35		1.2		6.3		26	
	304-091422-22	9/14/2022	90		1.3		57		1.7		8.4		33	
	304-123022-03	12/30/2022	49		0.88		24		0.85		9.2		35	
LDCS-6	304-033022-13	3/30/2022	97		0.11		49		0.46		4.8		28	
	304-061522-22	6/15/2022	87		0.32		49		1.9		4.9		24	
	304-091422-18	9/14/2022	100		0.19		60		1.2		5.5		32	
	304-123022-01	12/30/2022	95		0.1 U		69		3.5		6.9		31	
LDCS-7	304-032922-01	3/29/2022	120		2.4		40		4		3.9		31	
	304-061522-16	6/15/2022	130		1.9		28		3.1		3		45	
	304-091322-02	9/13/2022	97		2.8		34		4		3.7		26	
	304-122922-01	12/29/2022	98		0.98		29		0.92		3.1		19	
LDCS-8	304-033022-20	3/30/2022	110		0.78		68		1.8		4.6		36	
	304-061422-14	6/14/2022	120		0.1 U		77		1.9		4.9		38	
	304-091422-16	9/14/2022	110		1.2		74		2		4.9		36	
	304-123022-02	12/30/2022	100		0.1 U		51		1.7		4.2		37	

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Location	Sample Number	Sample Date	Calcium, Dissolved	Calcium, Total	Iron, Dissolved	Iron, Total	Magnesium, Dissolved	Magnesium, Total	Manganese, Dissolved	Manganese, Total	Potassium, Dissolved	Potassium, Total	Sodium, Dissolved	Sodium, Total
Leachate														
Leachate, Cell 1	304-122022-05	12/20/2022		33		14		82		0.26		1,100		6,200
Leachate, Cell 2A	304-122022-04	12/20/2022		41		8.7		71		0.32		710		3500
Leachate, Cell 2B	304-122022-03	12/20/2022		35		10		52		0.2		650		3300
Leachate, Cell 3A	304-122022-02	12/20/2022		56		9.5		64		0.37		700		3100
Leachate, Cell 4A	304-122022-06	12/20/2022		37		9.5		67		0.29		1200		4500
Leachate, Cell 4B	304-122022-07	12/20/2022		27		7.8		73		0.2		1200		4500
Leachate, Cell 5	304-122022-08	12/20/2022		39		7		60		0.31		1200		4600
Leachate, Cell 6	304-122022-09	12/20/2022		45		3.9		93		0.46		1100		3400
Leachate, Cell 7	304-122022-01	12/20/2022		98		0.74		81		2		590		1700
Leachate, Cell 8	304-033022-22	3/30/2022		530		19		150		9.3		310		1300
Leachate, Cell 8	304-061522-19	6/15/2022		360		5.5		150		3.4		460		1400
Leachate, Cell 8	304-091422-19	9/14/2022		92		3.9		120		1.1		690		2200
Leachate, Cell 8	304-122022-10	12/20/2022		76		5.5		59		1.3		390		1100
Quality Control														
QC, FB	304-033022-15	3/30/2022	0.2 U		0.1 U		0.1 U		0.005 U		2 U		1 U	
	304-061422-12	6/14/2022	0.2 U		0.1 U		0.1 U		0.005 U		2 U		1 U	
	304-091422-21	9/14/2022	0.2 U		0.1 U		0.1 U		0.005 U		2 U		1 U	
	304-123022-04	12/30/2022	0.2 U		0.1 U		0.1 U		0.005 U		2 U		1 U	

Notes:
U = Sample result was not reported at or above the MRL

Groundwater Database - Appendix I VOCs
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Location	Sample Number	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,3-Trichloropropane	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,4-Dichlorobenzene	2-Butanone (MEK)
Monitoring Well																
MW-1A	304-032922-02	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061422-01	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-01	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122822-02	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
MW-2A	304-032922-04	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061422-03	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-03	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122822-03	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
MW-3	304-032922-06	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061422-05	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-05	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122822-04	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
MW-4	304-033022-21	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061422-10	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091422-20	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122922-06	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
MW-5A	304-032922-08	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
Duplicate	304-032922-10	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061422-09	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
Duplicate	304-061422-11	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-09	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
Duplicate	304-091322-11	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122822-05	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
MW-6	304-032922-12	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061422-07	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-07	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122822-10	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
MW-7	304-033022-14	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061422-13	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-13	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122922-02	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U

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Location	Sample Number	Sample Date	2-Hexanone	4-Methyl-2-pentanone (MIBK)	Acetone	Acrylonitrile	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane
Monitoring Well																	
MW-1A	304-032922-02	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-01	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-01	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122822-02	12/28/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-2A	304-032922-04	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-03	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-03	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122822-03	12/28/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-3	304-032922-06	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-05	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-05	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122822-04	12/28/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-4	304-033022-21	3/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-10	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091422-20	9/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122922-06	12/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-5A	304-032922-08	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate	304-032922-10	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-09	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate	304-061422-11	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-09	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate	304-091322-11	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122822-05	12/28/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-6	304-032922-12	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-07	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-07	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122822-10	12/28/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-7	304-033022-14	3/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-13	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-13	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122922-02	12/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

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Location	Sample Number	Sample Date	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Ethylbenzene	Iodomethane	Methylene Chloride	m-Xylene & p-Xylene	o-Xylene	Styrene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	trans-1,4-Dichloro-2-butene
Monitoring Well																	
MW-1A	304-032922-02	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-01	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-01	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122822-02	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
MW-2A	304-032922-04	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-03	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-03	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122822-03	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
MW-3	304-032922-06	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-05	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-05	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122822-04	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
MW-4	304-033022-21	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-10	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091422-20	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122922-06	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
MW-5A	304-032922-08	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
Duplicate	304-032922-10	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-09	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
Duplicate	304-061422-11	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-09	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
Duplicate	304-091322-11	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122822-05	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
MW-6	304-032922-12	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-07	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-07	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122822-10	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
MW-7	304-033022-14	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-13	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-13	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122922-02	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U

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Location	Sample Number	Sample Date	Trichloroethene	Trichlorofluoromethane	Vinyl acetate	Vinyl chloride
Monitoring Well						
MW-1A	304-032922-02	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-01	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-01	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122822-02	12/28/2022	0.5 U	0.5 U	3 U	0.5 U
MW-2A	304-032922-04	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-03	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-03	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122822-03	12/28/2022	0.5 U	0.5 U	3 U	0.5 U
MW-3	304-032922-06	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-05	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-05	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122822-04	12/28/2022	0.5 U	0.5 U	3 U	0.5 U
MW-4	304-033022-21	3/30/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-10	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091422-20	9/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122922-06	12/29/2022	0.5 U	0.5 U	3 U	0.5 U
MW-5A	304-032922-08	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
Duplicate	304-032922-10	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-09	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
Duplicate	304-061422-11	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-09	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
Duplicate	304-091322-11	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122822-05	12/28/2022	0.5 U	0.5 U	3 U	0.5 U
MW-6	304-032922-12	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-07	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-07	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122822-10	12/28/2022	0.5 U	0.5 U	3 U	0.5 U
MW-7	304-033022-14	3/30/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-13	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-13	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122922-02	12/29/2022	0.5 U	0.5 U	3 U	0.5 U

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Location	Sample Number	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,3-Trichloropropane	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,4-Dichlorobenzene	2-Butanone (MEK)
MW-9	304-033022-18	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061522-15	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091422-17	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122922-04	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
Duplicate	304-122922-10	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
MW-10	304-033022-16	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061522-17	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-15	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122822-01	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
Leak Detection System																
LDCS-1	304-032922-09	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.85	6 U
	304-061422-08	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.95	6 U
	304-091322-10	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	1	6 U
	304-122822-07	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.85	6 U
LDCS-2A	304-032922-07	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.57	6 U
	304-061422-06	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-08	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.56	6 U
	304-122822-06	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
LDCS-2B	304-032922-05	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061422-04	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-06	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122922-05	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
LDCS-3A	304-032922-03	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061422-02	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-04	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122922-03	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U

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Location	Sample Number	Sample Date	2-Hexanone	4-Methyl-2-pentanone (MIBK)	Acetone	Acrylonitrile	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane
MW-9	304-033022-18	3/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061522-15	6/15/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091422-17	9/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122922-04	12/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Duplicate	304-122922-10	12/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
MW-10	304-033022-16	3/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061522-17	6/15/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-15	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122822-01	12/28/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Leak Detection System																	
LDCS-1	304-032922-09	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-08	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-10	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122822-07	12/28/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.82	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
LDCS-2A	304-032922-07	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-06	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-08	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122822-06	12/28/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
LDCS-2B	304-032922-05	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-04	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-06	9/13/2022	5 U	5 U	78	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.3	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122922-05	12/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
LDCS-3A	304-032922-03	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-02	6/14/2022	5 U	5 U	210	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-04	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122922-03	12/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

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Location	Sample Number	Sample Date	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Ethylbenzene	Iodomethane	Methylene Chloride	m-Xylene & p-Xylene	o-Xylene	Styrene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	trans-1,4-Dichloro-2-butene
MW-9	304-033022-18	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061522-15	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091422-17	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122922-04	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
Duplicate	304-122922-10	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
MW-10	304-033022-16	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061522-17	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-15	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122822-01	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
Leak Detection System																	
LDCS-1	304-032922-09	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-08	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-10	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122822-07	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
LDCS-2A	304-032922-07	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-06	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-08	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122822-06	12/28/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
LDCS-2B	304-032922-05	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-04	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-06	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122922-05	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
LDCS-3A	304-032922-03	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-02	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-04	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122922-03	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U

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Location	Sample Number	Sample Date	Trichloroethene	Trichlorofluoromethane	Vinyl acetate	Vinyl chloride
MW-9	304-033022-18	3/30/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061522-15	6/15/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091422-17	9/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122922-04	12/29/2022	0.5 U	0.5 U	3 U	0.5 U
Duplicate	304-122922-10	12/29/2022	0.5 U	0.5 U	3 U	0.5 U
MW-10	304-033022-16	3/30/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061522-17	6/15/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-15	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122822-01	12/28/2022	0.5 U	0.5 U	3 U	0.5 U
Leak Detection System						
LDCS-1	304-032922-09	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-08	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-10	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122822-07	12/28/2022	0.5 U	0.5 U	3 U	0.5 U
LDCS-2A	304-032922-07	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-06	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-08	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122822-06	12/28/2022	0.5 U	0.5 U	3 U	0.5 U
LDCS-2B	304-032922-05	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-04	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-06	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122922-05	12/29/2022	0.5 U	0.5 U	3 U	0.5 U
LDCS-3A	304-032922-03	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-02	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-04	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122922-03	12/29/2022	0.5 U	0.5 U	3 U	0.5 U

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Location	Sample Number	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,3-Trichloropropane	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,4-Dichlorobenzene	2-Butanone (MEK)
LDCS-4A	304-032922-11	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U
	304-061522-18	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	10 U
	304-091322-12	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122922-07	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
LDCS-4B	304-033022-19	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061522-20	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-14	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122922-08	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
LDCS-5	304-033022-17	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061522-21	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091422-22	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-123022-03	12/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
LDCS-6	304-033022-13	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061522-22	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091422-18	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-123022-01	12/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
LDCS-7	304-032922-01	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061522-16	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091322-02	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-122922-01	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U

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Location	Sample Number	Sample Date	2-Hexanone	4-Methyl-2-pentanone (MIBK)	Acetone	Acrylonitrile	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane
LDCS-4A	304-032922-11	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061522-18	6/15/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-12	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122922-07	12/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
LDCS-4B	304-033022-19	3/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061522-20	6/15/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-14	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122922-08	12/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
LDCS-5	304-033022-17	3/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061522-21	6/15/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091422-22	9/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-123022-03	12/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
LDCS-6	304-033022-13	3/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061522-22	6/15/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091422-18	9/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-123022-01	12/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
LDCS-7	304-032922-01	3/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061522-16	6/15/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091322-02	9/13/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-122922-01	12/29/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

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Location	Sample Number	Sample Date	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Ethylbenzene	Iodomethane	Methylene Chloride	m-Xylene & p-Xylene	o-Xylene	Styrene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	trans-1,4-Dichloro-2-butene
LDCS-4A	304-032922-11	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061522-18	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-12	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122922-07	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
LDCS-4B	304-033022-19	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061522-20	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-14	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122922-08	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
LDCS-5	304-033022-17	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061522-21	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091422-22	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-123022-03	12/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
LDCS-6	304-033022-13	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061522-22	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091422-18	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-123022-01	12/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
LDCS-7	304-032922-01	3/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061522-16	6/15/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091322-02	9/13/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-122922-01	12/29/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U

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Location	Sample Number	Sample Date	Trichloroethene	Trichlorofluoromethane	Vinyl acetate	Vinyl chloride
LDCS-4A	304-032922-11	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061522-18	6/15/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-12	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122922-07	12/29/2022	0.5 U	0.5 U	3 U	0.5 U
LDCS-4B	304-033022-19	3/30/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061522-20	6/15/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-14	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122922-08	12/29/2022	0.5 U	0.5 U	3 U	0.5 U
LDCS-5	304-033022-17	3/30/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061522-21	6/15/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091422-22	9/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-123022-03	12/30/2022	0.5 U	0.5 U	3 U	0.5 U
LDCS-6	304-033022-13	3/30/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061522-22	6/15/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091422-18	9/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-123022-01	12/30/2022	0.5 U	0.5 U	3 U	0.5 U
LDCS-7	304-032922-01	3/29/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061522-16	6/15/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091322-02	9/13/2022	0.5 U	0.5 U	3 U	0.5 U
	304-122922-01	12/29/2022	0.5 U	0.5 U	3 U	0.5 U

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Location	Sample Number	Sample Date	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,3-Trichloropropane	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,4-Dichlorobenzene	2-Butanone (MEK)
LDCS-8	304-033022-20	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-061422-14	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-091422-16	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
	304-123022-02	12/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
Leachate																
Leachate, Cell 1	304-122022-05	12/20/2022	58 U	39 U	21 U	27 U	22 U	23 U	86 U	180 U	40 U	37 U	54 U	52 U	70	39000
Leachate, Cell 2A	304-122022-04	12/20/2022	5.8 U	3.9 U	2.1 U	2.7 U	2.2 U	2.3 U	8.6 U	18 U	4 U	3.7 U	5.4 U	5.2 U	9.2	180
Leachate, Cell 2B	304-122022-03	12/20/2022	2.9 U	2 U	1.1 U	1.4 U	1.1 U	1.2 U	4.3 U	8.8 U	2 U	1.9 U	4.9	2.6 U	6.7	10000
Leachate, Cell 3A	304-122022-02	12/20/2022	58 U	39 U	21 U	27 U	22 U	23 U	86 U	180 U	40 U	37 U	54 U	52 U	92	61000
Leachate, Cell 4A	304-122022-06	12/20/2022	5.8 U	3.9 U	2.1 U	2.7 U	2.2 U	2.3 U	8.6 U	18 U	4 U	3.7 U	5.4 U	5.2 U	17	2900
Leachate, Cell 4B	304-122022-07	12/20/2022	5.8 U	3.9 U	2.1 U	2.7 U	2.2 U	2.3 U	8.6 U	18 U	4 U	3.7 U	5.4 U	5.2 U	16	5000
Leachate, Cell 5	304-122022-08	12/20/2022	5.8 U	3.9 U	2.1 U	2.7 U	2.2 U	2.3 U	8.6 U	18 U	4 U	3.7 U	5.4 U	5.2 U	3.9 U	7900
Leachate, Cell 6	304-122022-09	12/20/2022	12 U	7.8 U	4.2 U	5.4 U	4.4 U	4.6 U	17 U	35 U	8.1 U	7.4 U	11 U	10 U	17	1300
Leachate, Cell 7	304-122022-01	12/20/2022	5.8 U	3.9 U	2.1 U	2.7 U	2.2 U	2.3 U	8.6 U	18 U	4 U	3.7 U	5.4 U	5.2 U	3.9 U	96
Leachate, Cell 8	304-033022-22	3/30/2022	4 U	4.1 U	2.5 U	4.6 U	4.1 U	4.8 U	5.9 U	7.6 U	4.3 U	3.4 U	3.4 U	3.6 U	3.1 U	12000
Leachate, Cell 8	304-061522-19	6/15/2022	2.9 U	2 U	1.1 U	1.4 U	1.1 U	1.2 U	4.3 U	8.8 U	2 U	1.9 U	2.7 U	2.6 U	1.9 U	9300
Leachate, Cell 8	304-091422-19	9/14/2022	0.58 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	1	0.65	1.9	620
Leachate, Cell 8	304-122022-10	12/20/2022	5.8 U	3.9 U	2.1 U	2.7 U	2.2 U	2.3 U	8.6 U	18 U	4 U	3.7 U	5.4 U	5.2 U	3.9 U	3400
Quality Control																
QC, FB	304-033022-15	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
QC, FB	304-061422-12	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
QC, FB	304-091422-21	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U
QC, FB	304-123022-04	12/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	2 U	1 U	0.5 U	0.5 U	0.5 U	0.5 U	6 U

Notes:
U = Sample result was not reported at or above the MRL

Groundwater Database - Appendix I VOCs
2021 Annual Monitoring Report
LRI Landfill, Pierce County, Washington

Location	Sample Number	Sample Date	2-Hexanone	4-Methyl-2-pentanone (MIBK)	Acetone	Acrylonitrile	Benzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane
LDCS-8	304-033022-20	3/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-061422-14	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-091422-16	9/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
	304-123022-02	12/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Leachate																	
Leachate, Cell 1	304-122022-05	12/20/2022	170 U	750	56000	450 U	93	40 U	39 U	120 U	240 U	63 U	57 U	42 U	140 U	36 U	75 U
Leachate, Cell 2A	304-122022-04	12/20/2022	17 U	11	250	45 U	15	4 U	3.9 U	12 U	24 U	6.3 U	5.7 U	4.2 U	14 U	3.6 U	7.5 U
Leachate, Cell 2B	304-122022-03	12/20/2022	8.5 U	430	11000	22 U	5.5	2 U	1.9 U	6 U	12 U	3.2 U	2.8 U	2.1 U	6.9 U	7.3	3.8 U
Leachate, Cell 3A	304-122022-02	12/20/2022	170 U	1800	78000	450 U	110	40 U	39 U	120 U	240 U	63 U	57 U	42 U	140 U	36 U	75 U
Leachate, Cell 4A	304-122022-06	12/20/2022	17 U	90	4200	45 U	24	4 U	3.9 U	12 U	24 U	6.3 U	5.7 U	4.2 U	14 U	3.6 U	7.5 U
Leachate, Cell 4B	304-122022-07	12/20/2022	17 U	64	3100	45 U	39	4 U	3.9 U	12 U	24 U	6.3 U	5.7 U	4.2 U	14 U	3.6 U	7.5 U
Leachate, Cell 5	304-122022-08	12/20/2022	17 U	210	2200	45 U	8.2	4 U	3.9 U	12 U	24 U	6.3 U	5.7 U	4.2 U	14 U	3.6 U	7.5 U
Leachate, Cell 6	304-122022-09	12/20/2022	34 U	360	3200	89 U	18	8.1 U	7.7 U	24 U	47 U	13 U	11 U	8.4 U	27 U	7.2 U	15 U
Leachate, Cell 7	304-122022-01	12/20/2022	17 U	30	85	45 U	9.2	4 U	3.9 U	12 U	24 U	7.8	5.7 U	4.2 U	14 U	3.6 U	7.5 U
Leachate, Cell 8	304-033022-22	3/30/2022	8.4 U	250	7900	22 U	6	4.1 U	3.1 U	13 U	100 U	6.4 U	4.8 U	3.5 U	7.1 U	4.4 U	11 U
Leachate, Cell 8	304-061522-19	6/15/2022	8.5 U	160	11000	22 U	5.3	2 U	1.9 U	6 U	12 U	5.3	2.8 U	2.1 U	6.9 U	1.8 U	3.8 U
Leachate, Cell 8	304-091422-19	9/14/2022	5 U	61	470	5 U	4.6	0.5 U	0.5 U	2 U	10 U	2.6	0.57 U	0.5 U	1.4 U	0.5 U	2 U
Leachate, Cell 8	304-122022-10	12/20/2022	17 U	110	4800	45 U	6.6	4 U	3.9 U	12 U	24 U	9.4	5.7 U	4.2 U	14 U	3.6 U	7.5 U
Quality Control																	
QC, FB	304-033022-15	3/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
QC, FB	304-061422-12	6/14/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
QC, FB	304-091422-21	9/14/2022	5 U	5 U	10	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
QC, FB	304-123022-04	12/30/2022	5 U	5 U	10 U	5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Notes:
U = Sample result was not reported at or above the MRL

Groundwater Database - Appendix I VOCs
2021 Annual Monitoring Report
LRI Landfill, Pierce County, Washington

Location	Sample Number	Sample Date	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Ethylbenzene	Iodomethane	Methylene Chloride	m-Xylene & p-Xylene	o-Xylene	Styrene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	trans-1,4-Dichloro-2-butene
LDCS-8	304-033022-20	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-061422-14	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-091422-16	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
	304-123022-02	12/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
Leachate																	
Leachate, Cell 1	304-122022-05	12/20/2022	32 U	63 U	62 U	34 U	260	260 U	94 U	500	240	36 U	40 U	240	37 U	65 U	140 U
Leachate, Cell 2A	304-122022-04	12/20/2022	3.2 U	6.3 U	6.2 U	3.4 U	54	26 U	9.4 U	69	36	3.6 U	4 U	46	3.7 U	6.5 U	14 U
Leachate, Cell 2B	304-122022-03	12/20/2022	1.6 U	3.1 U	3.1 U	1.7 U	27	13 U	4.7 U	44	23	3.4	2 U	42	1.8 U	3.2 U	6.9 U
Leachate, Cell 3A	304-122022-02	12/20/2022	32 U	63 U	62 U	34 U	380	260 U	94 U	710	350	36 U	40 U	290	37 U	65 U	140 U
Leachate, Cell 4A	304-122022-06	12/20/2022	3.2 U	6.3 U	6.2 U	3.4 U	56	26 U	9.4 U	84	45	3.6 U	4 U	81	3.7 U	6.5 U	14 U
Leachate, Cell 4B	304-122022-07	12/20/2022	6.3	6.3 U	6.2 U	3.4 U	70	26 U	9.4 U	110	52	3.6 U	4 U	130	3.7 U	6.5 U	14 U
Leachate, Cell 5	304-122022-08	12/20/2022	3.2 U	6.3 U	6.2 U	3.4 U	5.6	26 U	9.4 U	12	7.6	3.6 U	4 U	12	3.7 U	6.5 U	14 U
Leachate, Cell 6	304-122022-09	12/20/2022	13	13 U	12 U	6.9 U	53	52 U	19 U	88	65	7.1 U	8.1 U	110	7.4 U	13 U	28 U
Leachate, Cell 7	304-122022-01	12/20/2022	3.2 U	6.3 U	6.2 U	3.4 U	35	26 U	9.4 U	55	30	3.6 U	4 U	38	3.7 U	6.5 U	14 U
Leachate, Cell 8	304-033022-22	3/30/2022	3 U	2.8 U	4.3 U	2.4 U	19	18 U	36	39	20	4.3 U	3.9 U	1600	4.2 U	3.5 U	5.6 U
Leachate, Cell 8	304-061522-19	6/15/2022	1.6 U	3.1 U	3.1 U	1.7 U	21	13 U	4.7 U	41	22	1.8 U	2 U	200	1.8 U	3.2 U	6.9 U
Leachate, Cell 8	304-091422-19	9/14/2022	1.2	0.63 U	0.62 U	0.5 U	21	2.6 U	2 U	45	24	2.4	0.5 U	62	0.5 U	0.65 U	3 U
Leachate, Cell 8	304-122022-10	12/20/2022	3.2 U	6.3 U	6.2 U	3.4 U	34	26 U	9.4 U	63	34	3.6 U	4 U	70	3.7 U	6.5 U	14 U
Quality Control																	
QC, FB	304-033022-15	3/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
QC, FB	304-061422-12	6/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
QC, FB	304-091422-21	9/14/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U
QC, FB	304-123022-04	12/30/2022	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3 U

Notes:
U = Sample result was not reported at or above the MRL

Groundwater Database - Appendix I VOCs
2021 Annual Monitoring Report
LRI Landfill, Pierce County, Washington

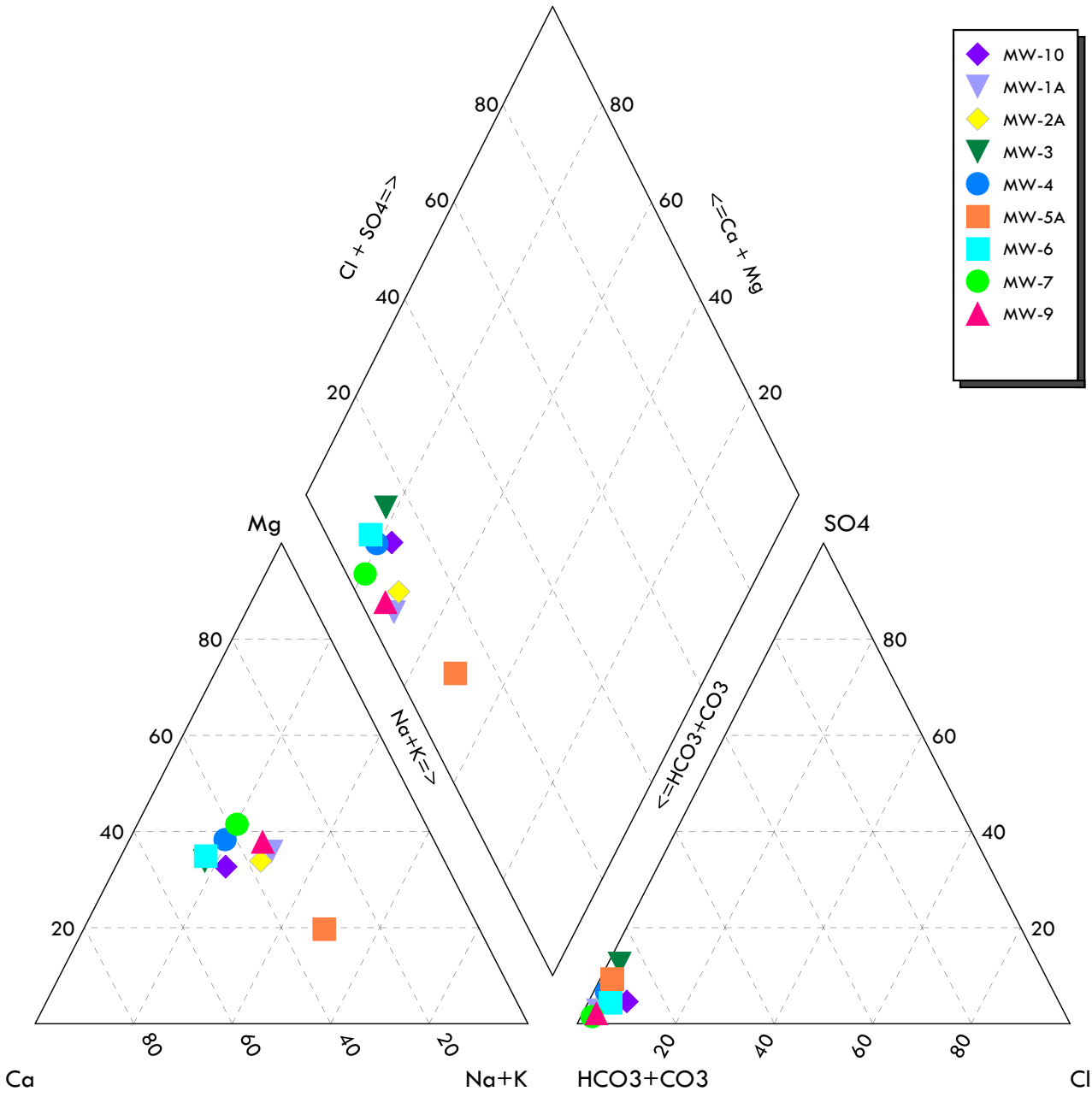
Location	Sample Number	Sample Date	Trichloroethene	Trichlorofluoromethane	Vinyl acetate	Vinyl chloride
LDCS-8	304-033022-20	3/30/2022	0.5 U	0.5 U	3 U	0.5 U
	304-061422-14	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-091422-16	9/14/2022	0.5 U	0.5 U	3 U	0.5 U
	304-123022-02	12/30/2022	0.5 U	0.5 U	3 U	0.5 U
Leachate						
Leachate, Cell 1	304-122022-05	12/20/2022	30 U	57 U	94 U	51 U
Leachate, Cell 2A	304-122022-04	12/20/2022	3 U	5.7 U	9.4 U	5.1 U
Leachate, Cell 2B	304-122022-03	12/20/2022	1.5 U	2.8 U	4.7 U	2.5 U
Leachate, Cell 3A	304-122022-02	12/20/2022	30 U	57 U	94 U	51 U
Leachate, Cell 4A	304-122022-06	12/20/2022	3 U	5.7 U	9.4 U	5.1 U
Leachate, Cell 4B	304-122022-07	12/20/2022	3 U	5.7 U	9.4 U	5.1 U
Leachate, Cell 5	304-122022-08	12/20/2022	3 U	5.7 U	9.4 U	5.1 U
Leachate, Cell 6	304-122022-09	12/20/2022	6 U	11 U	19 U	10 U
Leachate, Cell 7	304-122022-01	12/20/2022	3 U	5.7 U	9.4 U	5.1 U
Leachate, Cell 8	304-033022-22	3/30/2022	3.5 U	4.1 U	19 U	5.6 U
Leachate, Cell 8	304-061522-19	6/15/2022	1.5 U	2.8 U	4.7 U	2.5 U
Leachate, Cell 8	304-091422-19	9/14/2022	0.5 U	0.57 U	3 U	2.3
Leachate, Cell 8	304-122022-10	12/20/2022	3 U	5.7 U	9.4 U	5.1 U
Quality Control						
QC, FB	304-033022-15	3/30/2022	0.5 U	0.5 U	3 U	0.5 U
QC, FB	304-061422-12	6/14/2022	0.5 U	0.5 U	3 U	0.5 U
QC, FB	304-091422-21	9/14/2022	0.5 U	0.5 U	3 U	0.5 U
QC, FB	304-123022-04	12/30/2022	0.5 U	0.5 U	3 U	0.5 U

Notes:
U = Sample result was not reported at or above the MRL

Appendix D

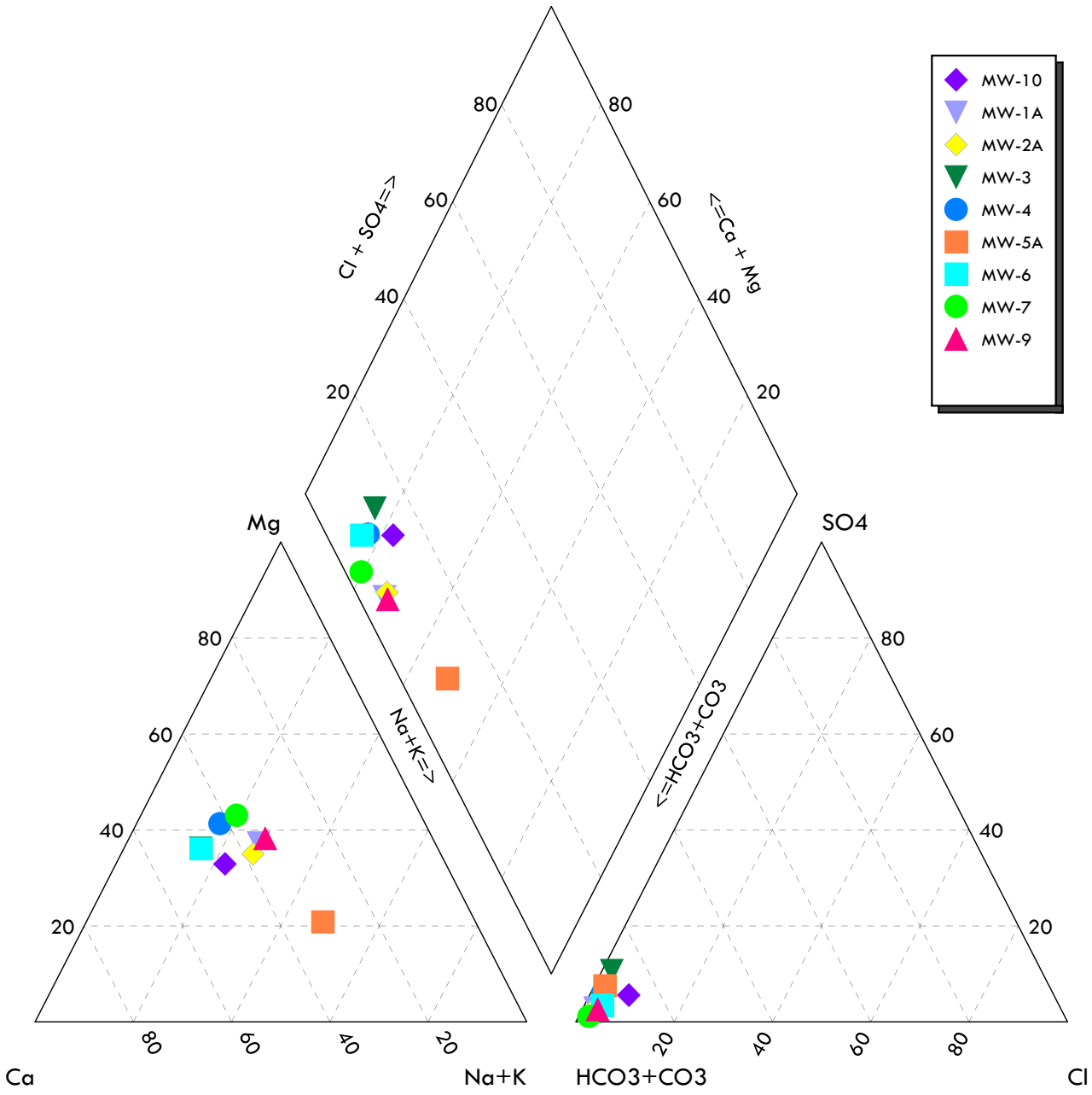
Geochemical Evaluation

First Quarter 2022, Groundwater Monitoring Wells



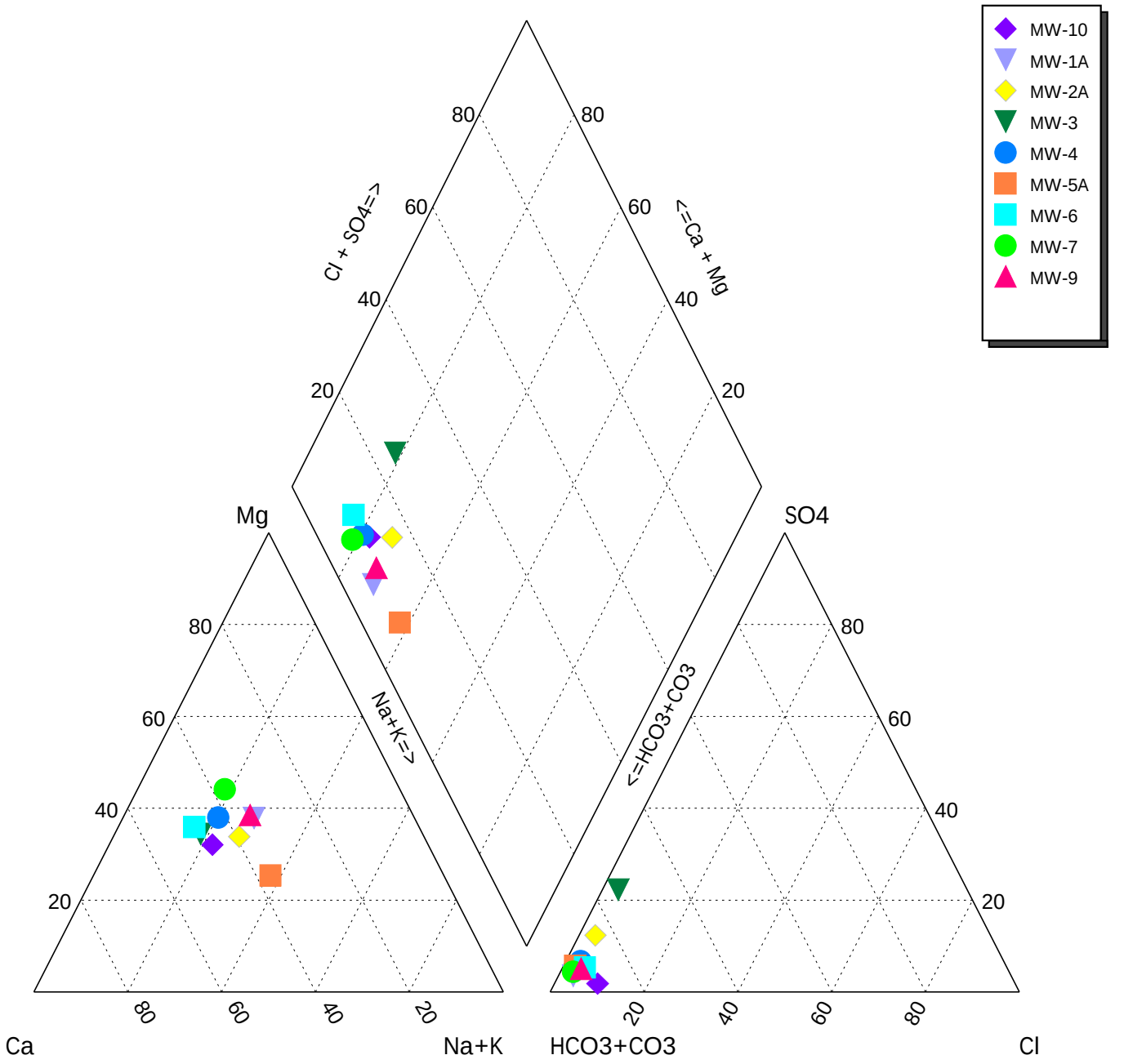
DESCRIPTION: Piper Diagram - 1Q22 Groundwater		
	PROJECT: LRI Landfill	PROJECT NO: 04222001.02
	CLIENT: LRI, Inc.	DATE: June 2022

Second Quarter 2022, Groundwater Monitoring Wells



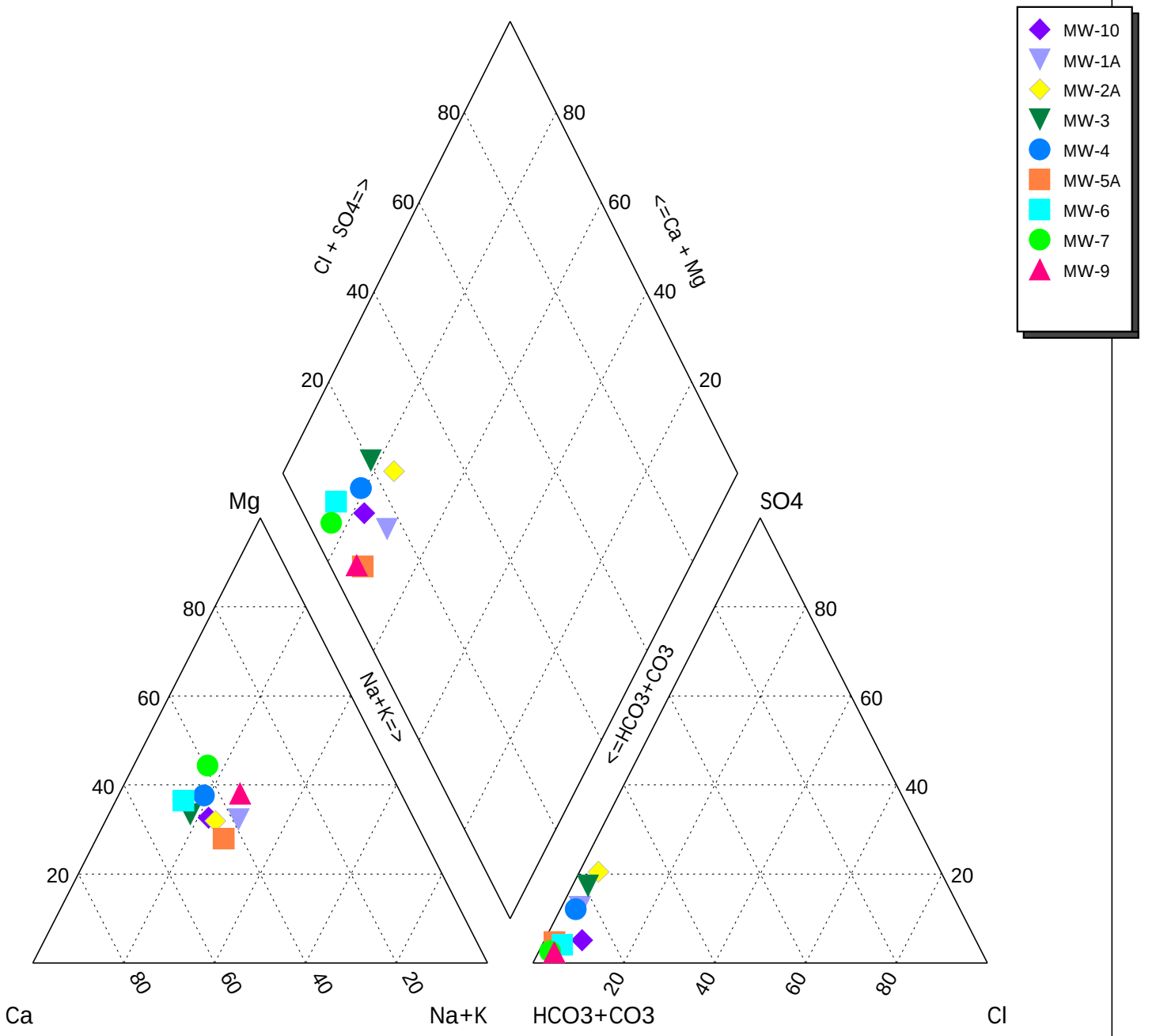
DESCRIPTION: Piper Diagram - 2Q22 Groundwater		
	PROJECT: LRI Landfill	PROJECT NO: 04222001.02
	CLIENT: LRI, Inc.	DATE: September 2022

Third Quarter 2022, Groundwater Monitoring Wells



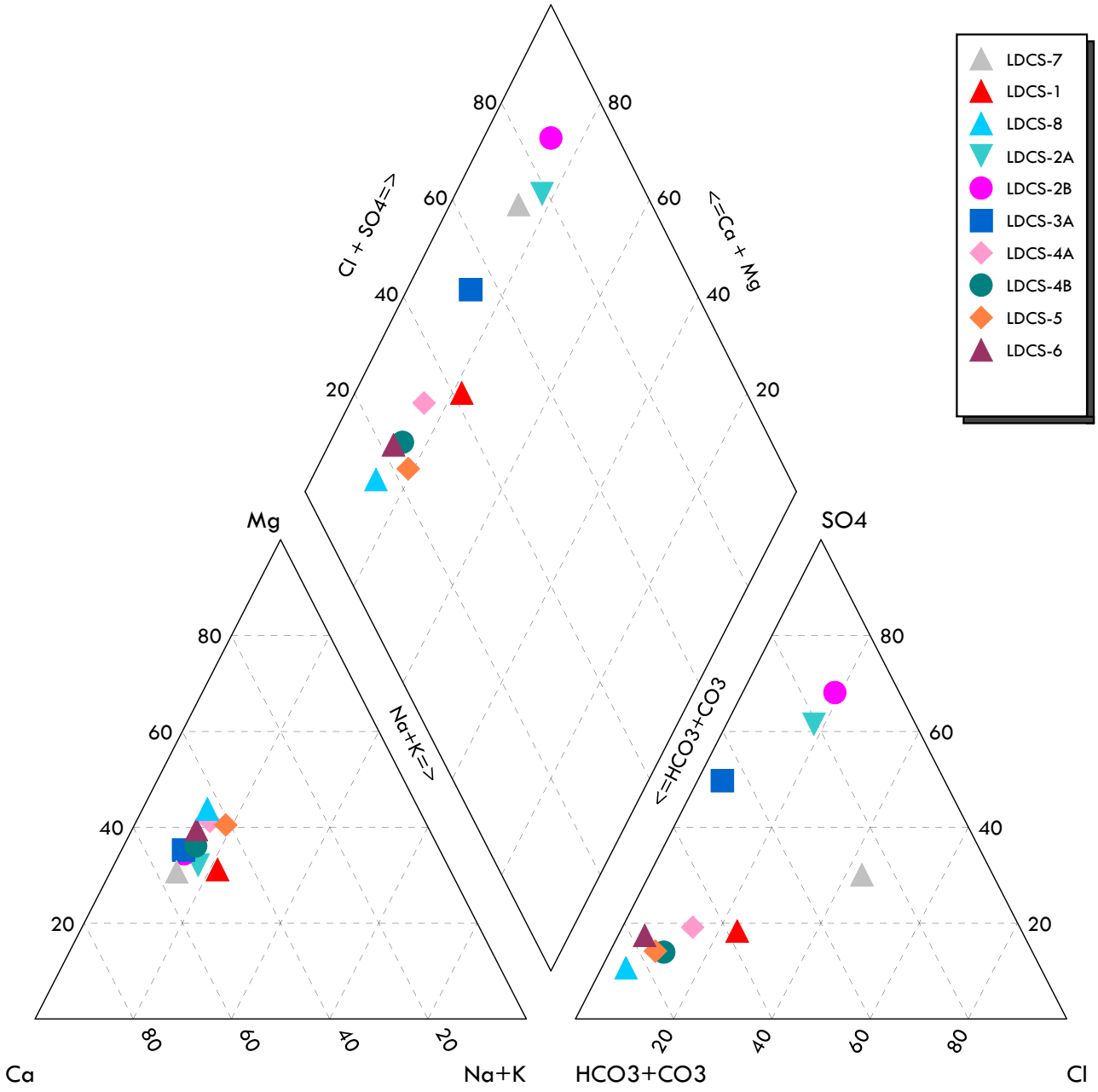
DESCRIPTION: Piper Diagram - 3Q22 Groundwater		
	PROJECT: LRI Landfill	PROJECT NO: 04222001.02
	CLIENT: LRI, Inc.	DATE: December 2022

Fourth Quarter 2022, Groundwater Monitoring Wells



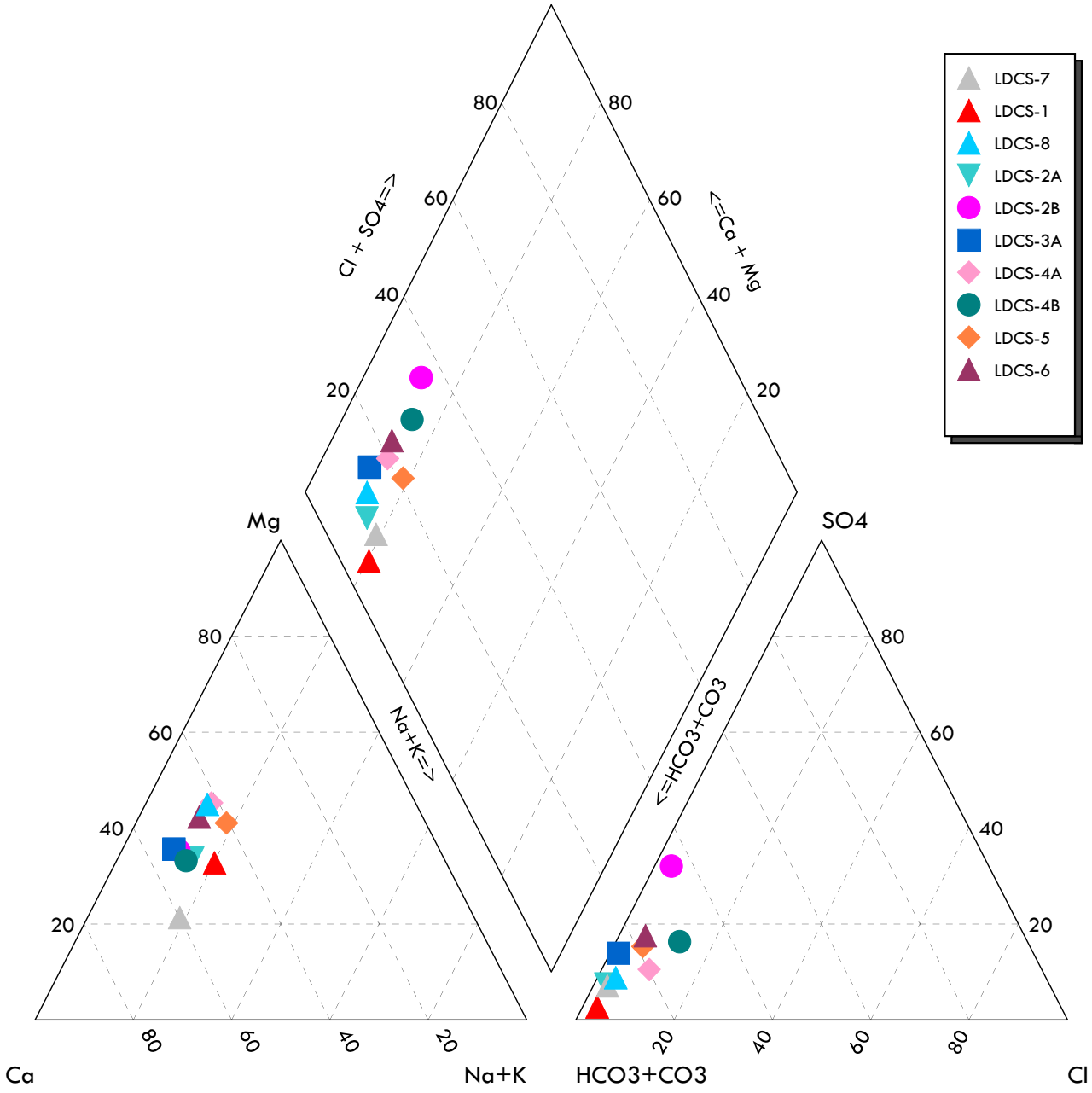
DESCRIPTION: Piper Diagram - 4Q22 Groundwater		
	PROJECT: LRI Landfill	PROJECT NO: 04223001.02
	CLIENT: LRI, Inc.	DATE: March 2023

First Quarter 2022, Leak Detection Collection Recovery System



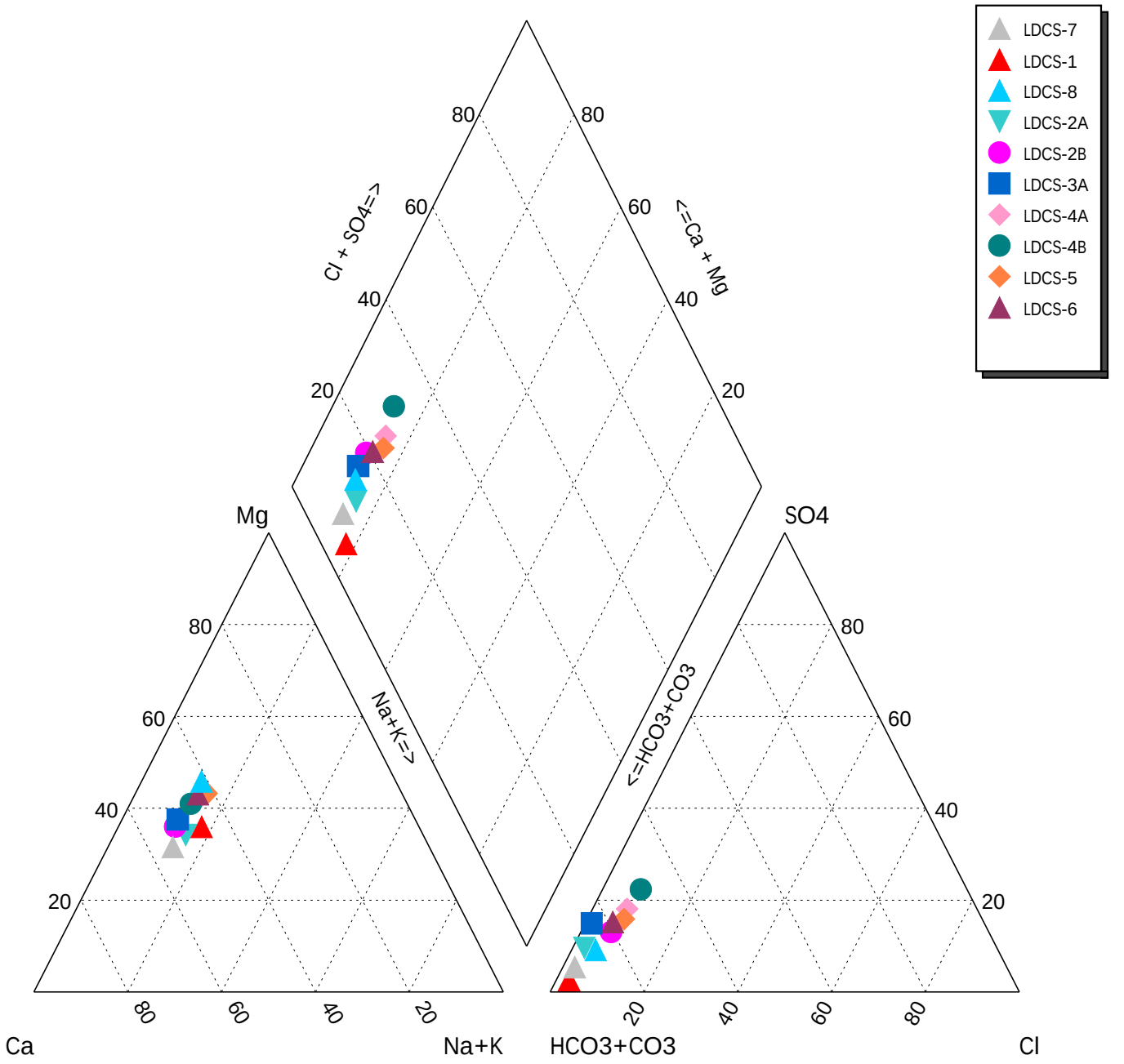
DESCRIPTION: Piper Diagram - 1Q22 LDCRS		
	PROJECT: LRI Landfill	PROJECT NO: 04222001.02
	CLIENT: LRI, Inc.	DATE: June 2022

Second Quarter 2022, Leak Detection Collection Recovery System



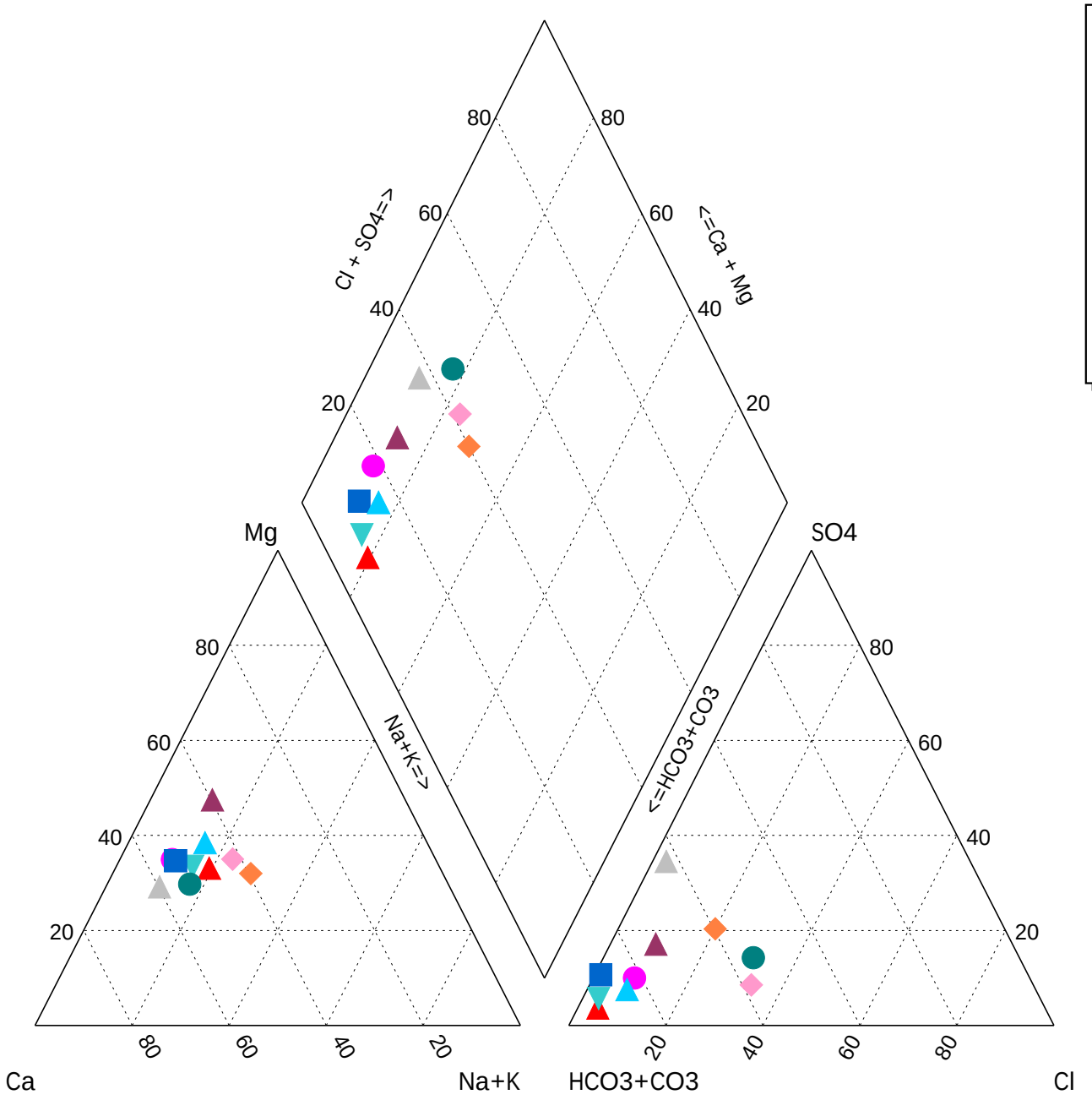
DESCRIPTION: Piper Diagram - 2Q22 LDCRS		
	PROJECT: LRI Landfill	PROJECT NO: 04222001.02
	CLIENT: LRI, Inc.	DATE: September 2022

Third Quarter 2022, Leak Detection Collection Recovery System

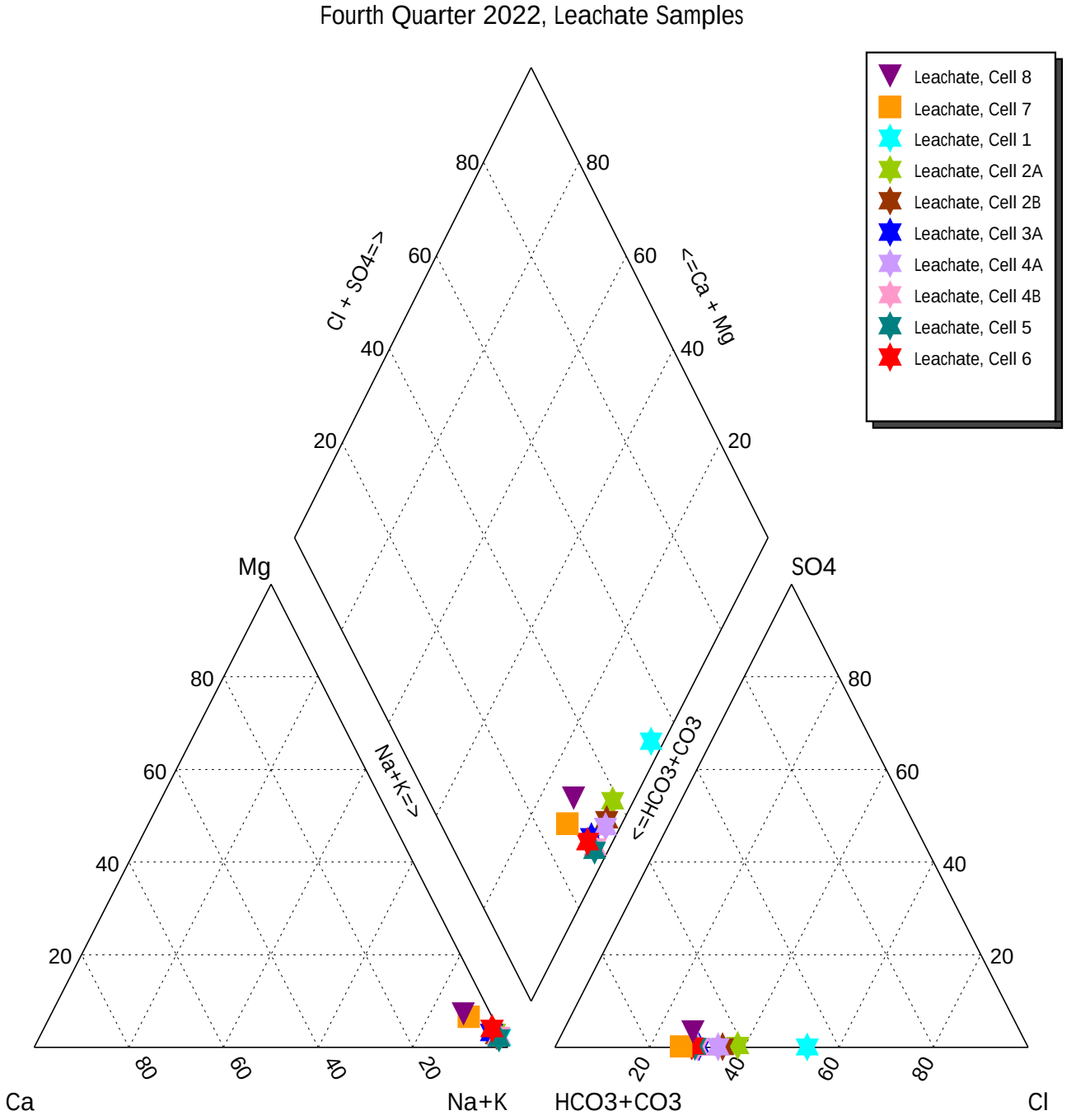


DESCRIPTION: Piper Diagram - 3Q22 LDCRS		
	PROJECT: LRI Landfill	PROJECT NO: 04222001.02
	CLIENT: LRI, Inc.	DATE: December 2022

Fourth Quarter 2022, Leak Detection Collection Recovery System



DESCRIPTION: Piper Diagram - 4Q22 LDCRS		
	PROJECT: LRI Landfill	PROJECT NO: 04223001.02
	CLIENT: LRI, Inc.	DATE: March 2023



DESCRIPTION: Piper Diagram - 4Q22 Leachate		
	PROJECT: LRI Landfill	PROJECT NO: 04223001.02
	CLIENT: LRI, Inc.	DATE: March 2023

Appendix E

Statistical Calculations

Groundwater Prediction Limits (mg/L)
Appendix I Parameters, Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

	MRL (typical)	Prediction Limit	MW-1/ MW-1A	MW-2/ MW-2A	MW-3	MW-4	MW-5/ MW-5A	MW-6	MW-7	MW-9	MW-10
Antimony	0.050	**0.050 L**	**0.050 L**	0.050 L	0.050 L	0.050 L	0.050 L	0.050 L	0.050 L	0.050 L	0.050 L
Arsenic	0.005	**0.011**	0.005 L	0.005 L	0.005 L	**0.011**	0.008	0.008	0.006	0.005 L	0.005 L
Barium	0.005	**0.091**	0.030	0.018	0.015	**0.091**	0.036	0.014	0.016	0.0057	0.016
Beryllium	0.005	**0.005 L**	**0.005 L**	0.005 L	0.005 L	0.005 L	0.005 L	0.001 L	0.005 L	0.001 L	0.005 L
Cadmium	0.005	**0.005 L**	**0.005 L**	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L
Chromium	0.005	**0.011**	0.005 L	0.005 L	0.005 L	**0.011**	0.005	0.005 L	0.005 L	0.005 L	0.005 L
Cobalt	0.010	**0.010 L**	**0.010 L**	0.010 L	0.010 L	0.004	0.010 L	0.010 L	0.010 L	0.010 L	0.010 L
Copper	0.010	**0.063**	0.010 L	0.010 L	0.010 L	**0.063**	0.010 L	0.010 L	0.010 L	0.010 L	0.010 L
Lead	0.002	**0.042**	0.002 L	0.002 L	0.002 L	**0.042**	0.002 L	0.002 L	0.002 L	0.002 L	0.002 L
Nickel	0.020	**0.020 L**	**0.020 L**	0.020 L	0.020 L	0.020 L	0.020 L	0.020 L	0.020 L	0.020 L	0.020 L
Selenium	0.005	**0.005 L**	**0.005 L**	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L
Silver	0.010	**0.010 L**	**0.010 L**	0.010 L	0.010 L	0.010 L	0.010 L	0.010 L	0.010 L	0.010 L	0.010 L
Thallium	0.005	**0.005 L**	**0.005 L**	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L	0.005 L
Vanadium	0.010	**0.016**	0.010 L	0.010 L	0.010 L	0.014	0.010 L	0.010 L	0.010 L	**0.016**	0.010 L
Zinc	0.01	**0.290**	0.032	0.010 L	0.010 L	**0.290**	0.010	0.010 L	0.010 L	0.043	0.034
Nitrate as Nitrogen	0.50	**6.40**	0.500 L	0.500 L	0.500 L	0.500 L	0.500 L	0.500 L	0.500 L	0.500 L	**6.40**

Notes:

Prediction Limits are shown in bold.

Prediction Limits for metals are for total metals.

L = not reported at or above the MRL (Method Reporting Limit).

mg/L = milligrams per liter.

Statistical Summary of Total Metals and Nitrate Groundwater Data
Appendix I Parameters, Fourth Quarter 2021
LRI Landfill, Pierce County, Washington

Location ID / Monitoring Date	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)		Nitrate (NO_3)	
	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	Result	Conc.
MW-1																																
3/24/2014	0.002	L 0.001	0.005	L 0.0025	0.022	0.022	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
6/24/2014	0.002	L 0.001	0.005	L 0.0025	0.02	0.02	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
9/17/2014	0.05	L 0.025	0.005	L 0.0025	0.024	0.024	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.01	L 0.005	0.005	L 0.0025	0.01	L 0.005	0.02	0.02	0.5	L 0.25
12/16/2014	0.05	L 0.025	0.005	L 0.0025	0.03	0.03	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.032	0.032	0.5	L 0.25
3/23/2015	0.05	L 0.025	0.005	L 0.0025	0.02	0.02	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
6/8/2015	0.05	L 0.025	0.005	L 0.0025	0.022	0.022	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
9/16/2015	0.05	L 0.025	0.005	L 0.0025	0.021	0.021	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
12/14/2015	0.05	L 0.025	0.005	L 0.0025	0.024	0.024	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
Number Analyzed	8		8		8		8		8		8		8		8		8		8		8		8		8		8		8		8	
Number Detected	0		0		8		0		0		0		0		0		0		0		0		0		0		0		2		0	
Minimum Concentration		0.001		0.0025		0.02		0.0005		0.0005		0.001		0.0005		0.001		0.0005		0.001		0.0025		0.0025		0.0005		0.0025		0.005		0.25
Maximum Concentration		0.025		0.0025		0.03		0.0025		0.0025		0.0025		0.005		0.005		0.001		0.01		0.0025		0.005		0.0025		0.005		0.032		0.25
Average Concentration		NC		NC		0.02288		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Variance		NC		NC		1.1E-05		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Deviation		NC		NC		0.0033		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Coefficient of Variation (%)		NC		NC		14.2974		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Error		NC		NC		0.00116		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
MW-2																																
3/24/2014	0.002	L 0.001	0.005	L 0.0025	0.014	0.014	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
6/26/2014	0.002	L 0.001	0.005	L 0.0025	0.015	0.015	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
9/16/2014	0.05	L 0.025	0.005	L 0.0025	0.018	0.018	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.01	L 0.005	0.005	L 0.0025	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
12/16/2014	0.05	L 0.025	0.005	L 0.0025	0.014	0.014	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
3/23/2015	0.05	L 0.025	0.005	L 0.0025	0.012	0.012	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
6/8/2015	0.05	L 0.025	0.005	L 0.0025	0.013	0.013	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
9/16/2015	0.05	L 0.025	0.005	L 0.0025	0.013	0.013	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
12/14/2015	0.05	L 0.025	0.005	L 0.0025	0.014	0.014	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
Number Analyzed	8		8		8		8		8		8		8		8		8		8		8		8		8		8		8		8	
Number Detected	0		0		8		0		0		0		0		0		0		0		0		0		0		0		0		0	
Minimum Concentration		0.001		0.0025		0.012		0.0005		0.0005		0.001		0.0005		0.001		0.0005		0.001		0.0025		0.0025		0.0005		0.0025		0.005		0.25
Maximum Concentration		0.025		0.0025		0.018		0.0025		0.0025		0.0025		0.005		0.005		0.001		0.01		0.0025		0.005		0.0025		0.005		0.005		0.25
Average Concentration		NC		NC		0.01413		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Variance		NC		NC		3.3E-06		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Deviation		NC		NC		0.00181		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Coefficient of Variation (%)		NC		NC		12.798		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Error		NC		NC		0.00064		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
MW-3																																
3/26/2014	0.002	L 0.001	0.005	L 0.0025	0.014	0.014	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
6/25/2014	0.002	L 0.001	0.005	L 0.0025	0.011	0.011	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
9/17/2014	0.05	L 0.025	0.005	L 0.0025	0.01	0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.01	L 0.005	0.005	L 0.0025	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
12/16/2014	0.05	L 0.025	0.005	L 0.0025	0.012	0.012	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
3/26/2015	0.05	L 0.025	0.005	L 0.0025	0.013	0.013	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
6/9/2015	0.05	L 0.025	0.005	L 0.0025	0.011	0.011	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
9/16/2015	0.05	L 0.025	0.005	L 0.0025	0.01	0.01	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
12/14/2015	0.05	L 0.025	0.005	L 0.0025	0.015	0.015	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
Number Analyzed	8		8		8		8		8		8		8		8		8		8		8		8		8		8		8		8	
Number Detected	0		0		8		0		0		0		0		0		0		0		0		0		0		0		0		0	
Minimum Concentration		0.001		0.0025		0.012		0.0005		0.0005		0.001		0.0005		0.001		0.0005		0.001		0.0025		0.0025		0.0005		0.0025		0.005		0.25
Maximum Concentration		0.025		0.0025		0.015		0.0025		0.0025		0.0025		0.005		0.005		0.001		0.01		0.0025		0.005		0.0025		0.005		0.005		0.25
Average Concentration		NC		NC		0.012		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Variance		NC		NC		3.4E-06		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Deviation		NC		NC		0.00185		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Coefficient of Variation (%)		NC		NC		15.4303		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Error		NC		NC		0.00065		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC

Statistical Summary of Total Metals and Nitrate Groundwater Data
Appendix I Parameters, Fourth Quarter 2021
LRI Landfill, Pierce County, Washington

Location ID / Monitoring Date	Antimony (Sb) Result	Conc.	Arsenic (As) Result	Conc.	Barium (Ba) Result	Conc.	Beryllium (Be) Result	Conc.	Cadmium (Cd) Result	Conc.	Chromium (Cr) Result	Conc.	Cobalt (Co) Result	Conc.	Copper (Cu) Result	Conc.	Lead (Pb) Result	Conc.	Nickel (Ni) Result	Conc.	Selenium (Se) Result	Conc.	Silver (Ag) Result	Conc.	Thallium (Tl) Result	Conc.	Vanadium (V) Result	Conc.	Zinc (Zn) Result	Conc.	Nitrate (NO_3) Result	Conc.
MW-4																																
3/24/2014	0.002	L 0.001	0.0074	0.0074	0.012	0.012	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
6/25/2014	0.002	L 0.001	0.0086	0.0086	0.012	0.012	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
9/17/2014	0.05	L 0.025	0.0099	0.0099	0.013	0.013	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.01	L 0.005	0.005	L 0.0025	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
12/16/2014	0.05	L 0.025	0.0076	0.0076	0.011	0.011	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
3/24/2015	0.05	L 0.025	0.0079	0.0079	0.013	0.013	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
6/9/2015	0.05	L 0.025	0.0094	0.0094	0.013	0.013	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
9/18/2015	0.05	L 0.025	0.0094	0.0094	0.017	0.017	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.014	0.014	0.5	L 0.25
12/15/2015	0.05	L 0.025	0.011	0.011	0.091	0.091	0.001	L 0.0005	0.001	L 0.0005	0.011	0.011	0.0039	0.0039	0.063	0.063	0.042	0.042	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.014	0.014	0.29	0.29	0.5	L 0.25
Number Analyzed	8		8		8		8		8		8		8		8		8		8		8		8		8		8		8		8	
Number Detected	0		8		8		0		0		1		1		1		1		0		0		0		0		1		2		0	
Minimum Concentration		0.001		0.0074		0.011		0.0005		0.0005		0.001		0.0005		0.001		0.0005		0.001		0.0025		0.0025		0.0005		0.0025		0.005		0.25
Maximum Concentration		0.025		0.011		0.091		0.0025		0.0025		0.011		0.005		0.063		0.042		0.01		0.0025		0.005		0.0025		0.014		0.29		0.25
Average Concentration		NC		0.0089		0.02275		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Variance		NC		1.6E-06		0.00076		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Deviation		NC		0.00125		0.02763		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Coefficient of Variation (%)		NC		14.0465		121.469		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Error		NC		0.00044		0.00977		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
MW-5																																
3/24/2014	0.002	L 0.001	0.0072	0.0072	0.032	0.032	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
6/25/2014	0.002	L 0.001	0.0067	0.0067	0.033	0.033	0.001	L 0.0005	0.005	L 0.0025	0.0036	0.0036	0.01	L 0.005	0.0061	0.0061	0.001	L 0.0005	0.0043	0.0043	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
9/16/2014	0.05	L 0.025	0.0059	0.0059	0.036	0.036	0.005	L 0.0025	0.005	L 0.0025	0.0051	0.0051	0.01	L 0.005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.01	L 0.005	0.005	L 0.0025	0.01	L 0.005	0.01	0.01	0.5	L 0.25
12/16/2014	0.05	L 0.025	0.0055	0.0055	0.022	0.022	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
3/23/2015	0.05	L 0.025	0.008	0.008	0.03	0.03	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
6/8/2015	0.05	L 0.025	0.0075	0.0075	0.02	0.02	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
9/18/2015	0.05	L 0.025	0.005	L 0.0025	0.014	0.014	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
12/14/2015	0.05	L 0.025	0.0072	0.0072	0.021	0.021	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
Number Analyzed	8		8		8		8		8		8		8		8		8		8		8		8		8		8		8		8	
Number Detected	0		7		8		0		0		2		0		1		0		1		0		0		0		0		1		0	
Minimum Concentration		0.001		0.0025		0.014		0.0005		0.0005		0.001		0.0005		0.001		0.0005		0.001		0.0025		0.0025		0.0005		0.0025		0.005		0.25
Maximum Concentration		0.025		0.008		0.036		0.0025		0.0025		0.0051		0.005		0.0061		0.001		0.01		0.0025		0.005		0.0025		0.005		0.01		0.25
Average Concentration		NC		0.00631		0.026		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Variance		NC		3E-06		6E-05		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Deviation		NC		0.00175		0.00776		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Coefficient of Variation (%)		NC		27.6653		29.863		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Error		NC		0.00062		0.00275		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
MW-6																																
3/26/2014	0.002	L 0.001	0.0075	0.0075	0.014	0.014	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
6/25/2014	0.002	L 0.001	0.0065	0.0065	0.011	0.011	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
9/18/2014	0.002	L 0.001	0.0078	0.0078	0.01	0.01	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
12/17/2014	0.05	L 0.025	0.0068	0.0068	0.012	0.012	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
3/26/2015	0.05	L 0.025	0.0068	0.0068	0.01	0.01	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
6/8/2015	0.05	L 0.025	0.0075	0.0075	0.01	0.01	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
9/17/2015	0.05	L 0.025	0.0069	0.0069	0.011	0.011	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
12/14/2015	0.05	L 0.025	0.0074	0.0074	0.011	0.011	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
Number Analyzed	8		8		8		8		8		8		8		8		8		8		8		8		8		8		8		8	
Number Detected	0		8		8		0		0		0		0		0		0		0		0		0		0		0		0		0	
Minimum Concentration		0.001		0.0065		0.01		0.0005		0.0005		0.001		0.0005		0.001		0.0005		0.001		0.0025		0.0025		0.0005		0.0025		0.005		0.25
Maximum Concentration		0.025		0.0078		0.014		0.0005		0.0025		0.0025		0.005		0.005		0.001		0.01		0.0025		0.005		0.0025		0.005		0.005		0.25
Average Concentration		NC		0.00715		0.01113		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Variance		NC		2.1E-07		1.8E-06		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Deviation		NC		0.00046		0.00136		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Coefficient of Variation (%)		NC		6.38736		12.1906		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Error		NC		0.00016		0.00048		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
MW-7																																
3/26/2014	0.002	L 0.001	0.0054	0.0054	0.016	0.016	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
6/26/2014	0.002	L 0.001	0.0053	0.0053	0.016	0.016	0.001	L 0.0005	0.005	L 0.0025	0.002	L 0.001	0.01	L 0.005	0.002	L 0.001	0.001	L 0.0005	0.002	L 0.001	0.005	L 0.0025	0.01	L 0.005	0.001	L 0.0005	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
9/17/2014	0.05	L 0.025	0.0052	0.0052	0.015	0.015	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.01	L 0.005	0.005	L 0.0025	0.01	L 0.005	0.01	L 0.005	0.5	L 0.25
12/16/2014	0.05	L 0.025	0.005	0.005	0.014	0.014	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
3/24/2015	0.05	L 0.025	0.005	L 0.0025	0.015	0.015	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
6/9/2015	0.05	L 0.025	0.0054	0.0054	0.015	0.015	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
9/17/2015	0.05	L 0.025	0.005	L 0.0025	0.012	0.012	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
12/15/2015	0.05	L 0.025	0.0055	0.0055	0.016	0.016	0.001	L 0.0005	0.001	L 0.0005	0.005	L 0.0025	0.001	L 0.0005	0.01	L 0.005	0.002	L 0.001	0.02	L 0.01	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.005	L 0.0025	0.01	L 0.005	0.5	L 0.25
Number Analyzed	8		8		8		8		8		8		8		8		8		8		8		8		8		8		8		8	
Number Detected	0		6		8		0		0		0		0		0		0		0		0		0		0		0		0		0	
Minimum Concentration		0.001		0.0025		0.012		0.0005		0.0005		0.001		0.0005		0.001		0.0005		0.001		0.0025		0.0025		0.0005		0.0025		0.005		0.25
Maximum Concentration		0.025		0.0055		0.016		0.0025		0.0025		0.0025		0.005		0.005		0.001		0.01		0.0025		0.005		0.0025		0.005		0.005		0.25
Average Concentration		NC		0.0046		0.01488		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Variance		NC		1.7E-06		1.8E-06		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Deviation		NC		0.0013		0.00136		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Coefficient of Variation (%)		NC		28.3682		9.11733		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC
Standard Error		NC		0.00046		0.00048		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC

Statistical Summary of Total Metals and Nitrate Groundwater Data
Appendix I Parameters, Fourth Quarter 2021
LRI Landfill, Pierce County, Washington

Location ID / Monitoring Date	Antimony (Sb) Result	Antimony (Sb) Conc.	Arsenic (As) Result	Arsenic (As) Conc.	Barium (Ba) Result	Barium (Ba) Conc.	Beryllium (Be) Result	Beryllium (Be) Conc.	Cadmium (Cd) Result	Cadmium (Cd) Conc.	Chromium (Cr) Result	Chromium (Cr) Conc.	Cobalt (Co) Result	Cobalt (Co) Conc.	Copper (Cu) Result	Copper (Cu) Conc.	Lead (Pb) Result	Lead (Pb) Conc.	Nickel (Ni) Result	Nickel (Ni) Conc.	Selenium (Se) Result	Selenium (Se) Conc.	Silver (Ag) Result	Silver (Ag) Conc.	Thallium (Tl) Result	Thallium (Tl) Conc.	Vanadium (V) Result	Vanadium (V) Conc.	Zinc (Zn) Result	Zinc (Zn) Conc.	Nitrate (NO_3) Result	Nitrate (NO_3) Conc.
MW-9																																
3/25/2014	0.002 L	0.001	0.005 L	0.0025	0.0047	0.0047	0.001 L	0.0005	0.005 L	0.0025	0.002 L	0.001	0.01 L	0.005	0.002 L	0.001	0.001 L	0.0005	0.002 L	0.001	0.005 L	0.0025	0.01 L	0.005	0.001 L	0.0005	0.016	0.016	0.01	0.01	0.5 L	0.25
6/24/2014	0.002 L	0.001	0.005 L	0.0025	0.0045	0.0045	0.001 L	0.0005	0.005 L	0.0025	0.002 L	0.001	0.01 L	0.005	0.002 L	0.001	0.001 L	0.0005	0.002 L	0.001	0.005 L	0.0025	0.01 L	0.005	0.001 L	0.0005	0.016	0.016	0.01 L	0.005	0.5 L	0.25
9/18/2014	0.002 L	0.001	0.005 L	0.0025	0.0057	0.0057	0.001 L	0.0005	0.005 L	0.0025	0.002 L	0.001	0.01 L	0.005	0.002 L	0.001	0.001 L	0.0005	0.002 L	0.001	0.005 L	0.0025	0.01 L	0.005	0.001 L	0.0005	0.014	0.014	0.014	0.014	0.5 L	0.25
12/17/2014	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
3/24/2015	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.013	0.013	0.01 L	0.005	0.5 L	0.25
6/9/2015	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
9/18/2015	0.05 L	0.025	0.005 L	0.0025	0.005	0.005	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
12/16/2015	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.042	0.042	0.5 L	0.25
3/22/2016	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.028	0.028	0.5 L	0.25
6/8/2016	0.05 L	0.025	0.005 L	0.0025	0.005	0.005	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.023	0.023	0.5 L	0.25
9/16/2016	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.015	0.015	0.043	0.043	0.5 L	0.25
12/6/2016	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
3/29/2017	0.05 L	0.025	0.005 L	0.0025	0.0056	0.0056	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
6/22/2017	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
9/26/2017	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.012	0.012	0.01 L	0.005	0.5 L	0.25
12/13/2017	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.013	0.013	0.01 L	0.005	0.5 L	0.25
3/21/2018	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.016	0.016	0.01 L	0.005	0.5 L	0.25
6/19/2018	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.013	0.013	0.01 L	0.005	0.5 L	0.25
9/19/2018	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.013	0.013	0.01 L	0.005	0.5 L	0.25
12/4/2018	0.05 L	0.025	0.005 L	0.0025	0.0051	0.0051	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
3/11/2019	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
6/19/2019	0.05 L	0.025	0.005 L	0.0025	0.0051	0.0051	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.013	0.013	0.01 L	0.005	0.5 L	0.25
9/26/2019	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
12/11/2019	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.016	0.016	0.01 L	0.005	0.5 L	0.25
3/17/2020	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.015	0.015	0.01 L	0.005	0.5 L	0.25
6/8/2020	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
9/22/2020	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.016	0.016	0.01 L	0.005	0.5 L	0.25
12/16/2020	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
3/9/2021	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.015	0.015	0.01 L	0.005	0.5 L	0.25
6/15/2021	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
9/15/2021	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.015	0.015	0.01 L	0.005	0.5 L	0.25
12/15/2021	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.015	0.015	0.01 L	0.005	0.5 L	0.25
3/30/2022	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.015	0.015	0.01 L	0.005	0.5 L	0.25
6/15/2022	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
9/14/2022	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.016	0.016	0.01 L	0.005	0.5 L	0.25
12/29/2022	0.05 L	0.025	0.005 L	0.0025	0.005 L	0.0025	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.014	0.014	0.01 L	0.005	0.5 L	0.25
Number Analyzed	36		36		36		36		36		36		36		36		36		36		36		36		36		32		36		36	
Number Detected	0		0		8		0		0		0		0		0		0		0		0		0		0		32		6		0	
Minimum Concentration		0.001		0.0025		0.0025		0.0005		0.0005		0.001		0.0005		0.001		0.0005		0.001		0.0025		0.0025		0.0005		0.012		0.005		0.25
Maximum Concentration		0.025		0.0025		0.0057		0.0005		0.0025		0.0025		0.005		0.005		0.001		0.01		0.0025		0.005		0.0025		0.016		0.043		0.25
Average Concentration		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		0.01425		NC		NC
Variance		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		1E-06		NC		NC
Standard Deviation		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		0.00102		NC		NC
Coefficient of Variation (%)		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		7.12983		NC		NC
Standard Error		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		NC		0.00018		NC		NC
MW-10																																
3/25/2014	0.002 L	0.001	0.005 L	0.0025	0.014	0.014	0.001 L	0.0005	0.005 L	0.0025	0.002 L	0.001	0.01 L	0.005	0.002 L	0.001	0.001 L	0.0005	0.002 L	0.001	0.005 L	0.0025	0.01 L	0.005	0.001 L	0.0005	0.01 L	0.005	0.01 L	0.005	6.4	6.4
6/25/2014	0.002 L	0.001	0.005 L	0.0025	0.014	0.014	0.001 L	0.0005	0.005 L	0.0025	0.002 L	0.001	0.01 L	0.005	0.002 L	0.001	0.001 L	0.0005	0.002 L	0.001	0.005 L	0.0025	0.01 L	0.005	0.001 L	0.0005	0.01 L	0.005	0.01	0.01	5.8	5.8
9/16/2014	0.05 L	0.025	0.005 L	0.0025	0.015	0.015	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.01 L	0.005	0.005 L	0.0025	0.01 L	0.005	0.011	0.011	5.4	5.4
12/17/2014	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.3	5.3
3/25/2015	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.9	5.9
6/8/2015	0.05 L	0.025	0.005 L	0.0025	0.014	0.014	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.7	5.7
9/15/2015	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.1	5.1
12/16/2015	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	4.9	4.9
3/21/2016	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.9	5.9
6/6/2016	0.05 L	0.025	0.005 L	0.0025	0.012	0.012	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.9	5.9
9/15/2016	0.05 L	0.025	0.005 L	0.0025	0.014	0.014	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.4	5.4
12/6/2016	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.2	5.2
3/29/2017	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.8	5.8
6/19/2017	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.5	5.5
9/26/2017	0.05 L	0.025	0.005 L	0.0025	0.012	0.012	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.2	5.2
12/12/2017	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	4.9	4.9
3/20/2018	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.3	5.3
6/18/2018	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	5.0	5.0
9/18/2018	0.05 L	0.025	0.005 L	0.0025	0.016	0.016	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	4.7	4.7
12/4/2018	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	4.3	4.3
3/12/2019	0.05 L	0.025	0.005 L	0.0025	0.013	0.013	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	4.4	4.4
6/17/2019	0.05 L	0.025	0.005 L	0.0025	0.015	0.015	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	4.7	4.7
9/25/2019	0.05 L	0.025	0.005 L	0.0025	0.014	0.014	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	4.2	4.2
12/11/2019	0.05 L	0.025	0.005 L	0.0025	0.014	0.014	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	3.9	3.9
3/17/2020	0.05 L	0.025	0.005 L	0.0025	0.015	0.015	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.034	0.034	3.7	3.7
6/9/2020	0.05 L	0.025	0.005 L	0.0025	0.016	0.016	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	3.7	3.7
9/22/2020	0.05 L	0.025	0.005 L	0.0025	0.015	0.015	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.011	0.011	3.4	3.4
12/16/2020	0.05 L	0.025	0.005 L	0.0025	0.014	0.014	0.001 L	0.0005	0.001 L	0.0005	0.005 L	0.0025	0.001 L	0.0005	0.01 L	0.005	0.002 L	0.001	0.02 L	0.01	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.005 L	0.0025	0.01 L	0.005	3.2	3.2
3/9/2021	0.05 L	0.025	0.005 L	0.0025	0.015	if	0.001 L	0.0

Appendix F

Leak Detection System Data and Leachate Pump Records

Summary of LDCS Volumes Pumped and Conductivity Data
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

Date	Rainfall	LDCS-1 Vol. (Gal.)	LDCS-1 Cond. (µS/cm)	LDCS-2A Vol. (Gal)	LDCS-2A Cond. (µS/cm)	LDCS-2B Vol. (Gal)	LDCS-2B Cond. (µS/cm)	LDCS-3A Vol. (Gal)	LDCS-3A Cond. (µS/cm)	LDCS-4A Vol. (Gal)	LDCS-4A Cond. (µS/cm)*	LDCS-4B Vol. (Gal)	LDCS-4B Cond. (µS/cm)	LDCS-5 Vol. (Gal)	LDCS-5 Cond. (µS/cm)	LDCS-6 Vol. (Gal)	LDCS-6 Cond. (µS/cm)	LDCS-7 Vol. (Gal)	LDCS-7 Cond. (µS/cm)	LDCS-8 Vol. (Gal)	LDCS-8 Cond. (µS/cm)*
10/1/2022	0.02	1,550	387	300	952	0	988	337	979	2,110	--	2,974	1,054	182	1,000	290	1,030	0	681	259	--
10/2/2022	0.22	2,280	386	330	962	994	988	188	979	2,120	--	3,004	1,055	182	1,000	95	1,029	5,397	666	0	--
10/3/2022	0.30	1,530	387	240	980	0	988	164	979	2,030	--	2,932	1,056	183	1,000	172	1,030	0	672	265	--
10/4/2022	0.59	1,520	387	320	502	587	988	347	979	2,090	--	2,988	1,054	182	1,000	250	1,029	0	684	16	--
10/5/2022	0.32	1,530	387	250	622	0	902	205	980	2,100	--	3,152	1,051	121	1,000	0	1,028	0	683	86	--
10/6/2022	0.00	1,530	387	300	861	422	902	180	981	2,120	--	3,366	1,025	185	1,000	159	1,028	0	679	0	--
10/7/2022	0.00	1,560	387	240	949	0	887	173	981	2,010	--	3,422	1,010	121	1,000	109	1,027	0	665	263	--
10/8/2022	0.00	1,540	387	300	981	0	887	351	982	2,010	--	3,440	1,004	182	1,000	69	1,026	0	667	0	--
10/9/2022	0.00	1,530	387	270	993	706	887	188	983	2,010	--	3,490	1,001	122	1,000	54	1,026	5,360	679	263	--
10/10/2022	0.00	1,530	388	270	997	0	880	169	982	2,100	--	3,586	998	182	1,000	51	1,027	0	678	263	--
10/11/2022	0.00	1,540	388	240	999	487	880	341	982	2,010	--	3,742	995	121	1,000	1	1,025	911	677	261	--
10/12/2022	0.00	1,540	388	320	999	0	875	0	983	2,010	--	3,952	993	182	1,000	280	1,026	0	665	262	--
10/13/2022	0.00	1,530	388	260	989	483	875	0	992	2,090	--	4,142	994	122	1,000	89	1,025	4,439	671	262	--
10/14/2022	0.00	760	388	300	986	0	869	669	992	2,130	--	4,348	994	121	1,000	0	1,030	0	682	82	--
10/15/2022	0.00	1,470	387	240	455	0	869	183	453	2,130	--	4,234	994	120	1,000	170	1,033	0	686	263	--
10/16/2022	0.00	1,520	387	250	619	626	869	198	610	2,110	--	4,228	993	182	1,000	62	1,034	4,288	691	262	--
10/17/2022	0.00	1,540	335	300	860	0	871	161	845	2,110	--	4,370	989	121	1,000	86	1,033	0	675	261	--
10/18/2022	0.00	1,530	369	60	939	418	871	334	932	2,110	--	4,272	985	121	1,000	181	1,031	1,091	688	260	--
10/19/2022	0.00	790	382	0	941	0	865	171	966	1,320	--	4,400	983	122	1,000	93	1,033	0	695	262	--
10/20/2022	0.57	1,340	387	0	940	485	865	176	980	2,780	--	4,584	980	121	1,000	104	1,036	0	691	264	--
10/21/2022	0.00	1,530	390	0	933	0	860	164	984	2,230	--	4,664	977	121	1,000	86	1,034	0	686	560	--
10/22/2022	0.40	1,510	390	0	933	0	860	332	982	2,130	--	4,410	976	243	1,000	88	1,032	0	668	262	--
10/23/2022	0.95	1,530	391	0	953	0	860	159	980	1,830	--	4,046	980	182	1,000	60	1,030	0	694	0	--
10/24/2022	0.00	1,520	391	100	532	2,531	860	327	984	1,690	--	3,942	985	243	1,000	55	1,029	5,463	708	235	--
10/25/2022	0.02	760	392	0	541	0	856	174	986	1,600	--	3,978	989	182	1,000	62	1,027	0	706	276	--
10/26/2022	0.00	1,520	392	0	769	1,076	856	163	987	1,970	--	5,220	990	306	1,000	78	1,026	3,166	697	266	--
10/27/2022	0.00	1,540	392	0	834	0	854	331	990	1,720	--	5,710	994	305	997	54	1,023	0	674	264	--
10/28/2022	0.00	760	392	0	884	0	854	172	993	1,750	--	5,190	997	305	991	64	1,016	0	680	265	--
10/29/2022	0.00	1,530	393	0	403	0	854	160	447	1,620	--	5,280	1,011	306	970	24	1,007	0	81	265	--
10/30/2022	0.00	1,520	393	0	512	0	854	327	536	1,500	--	5,554	1,040	245	962	13	998	0	185	264	--
10/31/2022	0.00	1,510	326	0	797	0	853	164	826	3,610	--	8,520	1,030	2,115	954	80	995	0	498	264	--
11/1/2022	0.00	760	368	0	908	0	0	329	931	2,620	--	8,568	1,004	946	883	60	991	0	596	264	--
11/2/2022	0.00	1,520	383	0	956	740	852	319	971	1,090	--	8,022	1,001	673	865	80	985	6,046	663	0	--
11/3/2022	0.00	1,530	389	0	975	0	852	312	988	3,520	--	8,358	1,001	624	856	72	980	0	695	266	--
11/4/2022	0.06	1,020	184	0	940	0	853	330	976	4,460	--	12,290	997	6,676	842	0	945	0	675	411	--
11/5/2022	0.00	1,490	88	0	224	1,263	853	296	223	4,020	--	15,146	913	2,000	733	0	-230	12,472	-154	0	--
11/6/2022	0.02	1,520	250	0	640	0	853	0	639	2,980	--	11,190	925	1,432	770	85	283	0	291	267	--
11/7/2022	0.00	1,520	340	0	846	449	844	0	869	3,330	--	10,814	936	1,641	779	0	737	1	547	267	--
11/8/2022	0.00	1,540	371	0	898	0	844	320	950	2,490	--	9,740	937	627	782	0	898	0	682	266	--
11/9/2022	0.00	1,540	382	0	911	369	837	310	981	2,130	--	8,044	940	499	793	166	950	5,531	741	266	--
11/10/2022	0.30	1,540	387	0	865	0	837	160	993	1,810	--	7,480	942	436	805	130	973	0	723	266	--
11/11/2022	0.04	1,500	388	0	883	0	827	314	997	1,710	--	6,632	945	371	818	0	984	0	713	266	--
11/12/2022	0.58	1,510	388	0	941	0	827	153	998	1,590	--	6,410	947	372	834	185	987	0	711	266	--
11/13/2022	0.00	1,530	388	0	978	854	827	309	998	1,590	--	6,178	952	247	845	0	986	4,827	701	266	--
11/14/2022	0.07	1,500	244	0	615	0	827	11	629	1,510	--	6,116	960	309	869	102	987	0	281	264	--
11/15/2022	0.03	1,530	233	0	548	428	814	708	582	1,600	--	6,166	947	186	893	0	988	520	246	266	--
11/16/2022	0.04	1,520	331	0	757	0	814	0	808	1,690	--	5,864	940	246	909	104	989	0	527	265	--
11/17/2022	0.05	1,510	366	0	857	0	810	439	903	1,510	--	5,424	943	247	924	94	989	0	606	266	--
11/18/2022	0.16	1,510	378	0	911	0	810	0	921	1,490	--	5,092	946	185	940	68	987	0	0	267	--
11/19/2022	0.29	2,260	382	0	960	900	810	0	936	1,410	--	5,036	947	184	956	71	984	5,298	0	267	--
11/20/2022	0.00	1,510	384	0	985	0	810	0	939	1,400	--	4,758	949	185	970	44	982	0	0	266	--
11/21/2022	0.03	2,260	385	0	978	610	814	995	930	410	--	4,792	955	185	986	100	981	100	0	266	--
11/22/2022	0.15	2,250	385	0	951	0	814	84	912	2,700	--	4,362	963	246	995	0	983	0	0	0	--
11/23/2022	0.02	1,540	384	0	937	0	815	385	920	1,920	--	4,608	965	309	998	0	984	0	691	14	--
11/24/2022	0.01	1,530	384	0	892	0	815	74	907	1,900	--	4,456	964	247	994	0	980	0	680	278	--
11/25/2022	0.27	2,280	383	0	905	0	815	247	929	2,240	--	4,082	965	372	983	88	980	0	659	369	--
11/26/2022	0.08	2,310	383	0	909	1,551	815	0	923	3,460	--	5,002	958	1,211	930	0	981	6,602	685	293	--
11/27/2022	0.00	2,290	382	0	940	0	815	0	920	2,900	--	5,384	948	952	854	83	982	0	697	279	--
11/28/2022	0.02	2,290	381	0	949	0	803	691	905	2,760	--	5,772	944	954	831	0	977	0	696	361	--
11/29/2022	0.00	2,310	380	0	941	0	803	0	780	2,850	--	6,174	940	888	819	0	377	0	241	300	--
11/30/2022	0.38	3,070	378	0	946	0	801	207	416	3,370	--	7,870	937	5,118	792	108	435	0	275	582	--
12/1/2022	0.40	2,340	377	0	948	0	802	3,060	758	3,550	--	6,910	929	2,608	752	0	776	0	526	297	--

Summary of LDCS Volumes Pumped and Conductivity Data
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

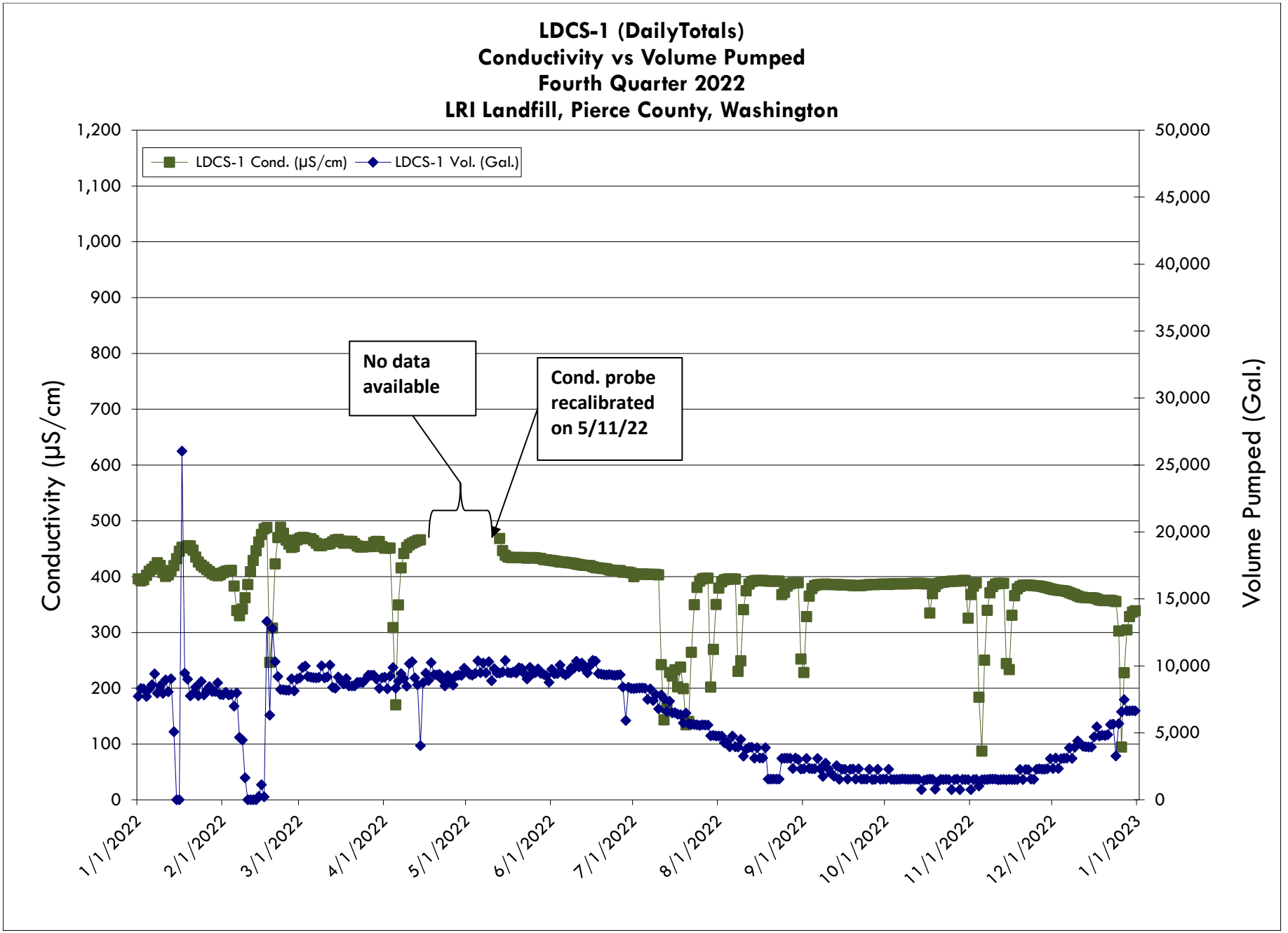
Date	Rainfall	LDCS-1 Vol. (Gal.)	LDCS-1 Cond. (µS/cm)	LDCS-2A Vol. (Gal)	LDCS-2A Cond. (µS/cm)	LDCS-2B Vol. (Gal)	LDCS-2B Cond. (µS/cm)	LDCS-3A Vol. (Gal)	LDCS-3A Cond. (µS/cm)	LDCS-4A Vol. (Gal)	LDCS-4A Cond. (µS/cm)*	LDCS-4B Vol. (Gal)	LDCS-4B Cond. (µS/cm)	LDCS-5 Vol. (Gal)	LDCS-5 Cond. (µS/cm)	LDCS-6 Vol. (Gal)	LDCS-6 Cond. (µS/cm)	LDCS-7 Vol. (Gal)	LDCS-7 Cond. (µS/cm)	LDCS-8 Vol. (Gal)	LDCS-8 Cond. (µS/cm)*
12/2/2022	0.05	3,130	376	0	978	0	802	3,040	889	3,230	--	6,596	931	2,009	756	0	899	0	618	277	--
12/3/2022	0.00	2,330	376	0	986	0	802	2,590	939	2,600	--	6,702	941	1,442	778	116	948	0	658	297	--
12/4/2022	0.03	3,080	375	0	986	0	802	3,050	970	2,400	--	9,922	948	1,243	811	0	999	0	660	422	--
12/5/2022	0.08	3,100	375	0	981	0	794	1,540	975	3,490	--	6,522	962	2,395	864	0	1,054	0	661	293	--
12/6/2022	0.05	3,110	373	0	961	2,987	794	3,090	976	5,930	--	8,076	955	1,506	903	4	1,084	18,216	662	315	--
12/7/2022	0.01	3,870	371	0	956	0	789	3,100	980	3,180	--	6,518	935	762	911	0	1,144	0	662	433	--
12/8/2022	0.02	3,090	370	0	930	1,080	789	3,120	984	3,090	--	5,824	1,076	989	927	0	1,224	1	666	576	--
12/9/2022	0.06	3,920	368	0	924	0	786	1,550	983	3,390	--	5,316	1,123	1,826	904	202	1,260	0	670	3,404	--
12/10/2022	0.52	4,390	365	0	935	0	786	3,180	978	3,580	--	6,516	1,117	1,826	885	0	1,300	0	676	274	--
12/11/2022	0.01	4,200	363	0	902	0	786	3,200	972	3,070	--	5,722	1,109	763	891	0	1,333	0	684	0	--
12/12/2022	0.00	3,990	363	0	814	1,654	786	3,110	973	3,200	--	5,266	1,099	828	888	0	1,339	5,890	693	276	--
12/13/2022	0.01	3,960	362	0	795	0	774	3,100	979	3,930	--	4,958	1,085	567	887	0	1,325	0	697	275	--
12/14/2022	0.13	3,950	362	0	837	679	774	1,590	985	2,630	--	4,704	1,072	502	886	0	440	5,535	693	233	--
12/15/2022	0.11	3,950	362	0	872	0	763	3,030	989	2,190	--	4,270	1,070	439	888	0	721	0	705	275	--
12/16/2022	0.00	4,700	362	0	902	0	763	2,990	990	2,150	--	3,844	1,070	438	893	0	1,084	0	695	550	--
12/17/2022	0.20	5,450	360	0	945	0	763	3,010	988	2,010	--	4,224	1,067	374	903	0	1,203	0	699	546	--
12/18/2022	0.02	4,770	358	0	978	0	763	3,060	982	2,210	--	4,430	1,065	375	916	0	1,233	0	706	278	--
12/19/2022	0.00	4,840	357	0	992	1,969	763	3,010	978	2,770	--	4,518	1,062	438	918	0	1,230	10,794	701	275	--
12/20/2022	0.07	4,800	357	0	981	0	772	3,070	976	3,690	--	4,840	1,058	1,541	899	0	1,037	0	681	276	--
12/21/2022	0.06	4,860	357	0	967	898	772	2,760	976	3,020	--	4,274	1,048	1,235	853	0	964	0	677	275	--
12/22/2022	0.00	5,620	358	0	961	0	761	3,000	977	2,480	--	3,512	1,038	568	851	159	873	0	673	552	--
12/23/2022	0.00	5,650	356	0	947	0	761	3,070	976	2,730	--	2,626	1,042	1,610	870	0	485	0	665	46	--
12/24/2022	0.00	3,270	355	0	965	0	761	1,660	972	2,030	--	2,828	1,094	1,946	921	0	820	0	665	46	--
12/25/2022	0.04	5,690	303	0	819	0	761	3,350	829	3,620	--	7,328	1,130	1,946	923	0	667	0	499	16	--
12/26/2022	0.04	6,570	95	0	247	3,291	761	4,680	257	4,390	--	12,024	1,253	2,815	890	0	-174	15,903	-127	569	--
12/27/2022	0.16	7,480	228	0	602	0	761	4,790	612	7,020	--	7,402	1,224	4,774	835	0	14	0	268	567	--
12/28/2022	0.00	6,650	305	0	828	1,648	761	4,660	820	6,340	--	6,692	1,193	2,359	773	0	440	7,563	486	275	--
12/29/2022	0.07	6,640	328	0	904	0	780	3,100	910	3,770	--	5,378	1,181	897	776	0	875	0	539	82	--
12/30/2022	0.33	6,660	336	0	921	0	780	4,710	944	4,050	--	5,352	1,184	2,167	789	0	1,029	0	558	0	--
12/31/2022	0.80	6,650	339	0	955	0	780	4,710	957	3,810	--	5,428	1,160	1,882	754	0	1,064	0	581	0	--

All conductivity probes were recalibrated on 5/11/22 by site staff

No conductivity data available at LDCS-1, 2A, 2B, 3, 6 or 7 between April 15 and May 11, 2022

* = The conductivity probes at LDCS4A and LDCS-8 did not function properly during the second quarter

-- Readings not available


LDCS-1 (DailyTotals)
Conductivity vs Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-1 Cond. (µS/cm)
LDCS-1 Vol. (Gal.)
No data available
Cond. probe recalibrated on 5/11/22
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
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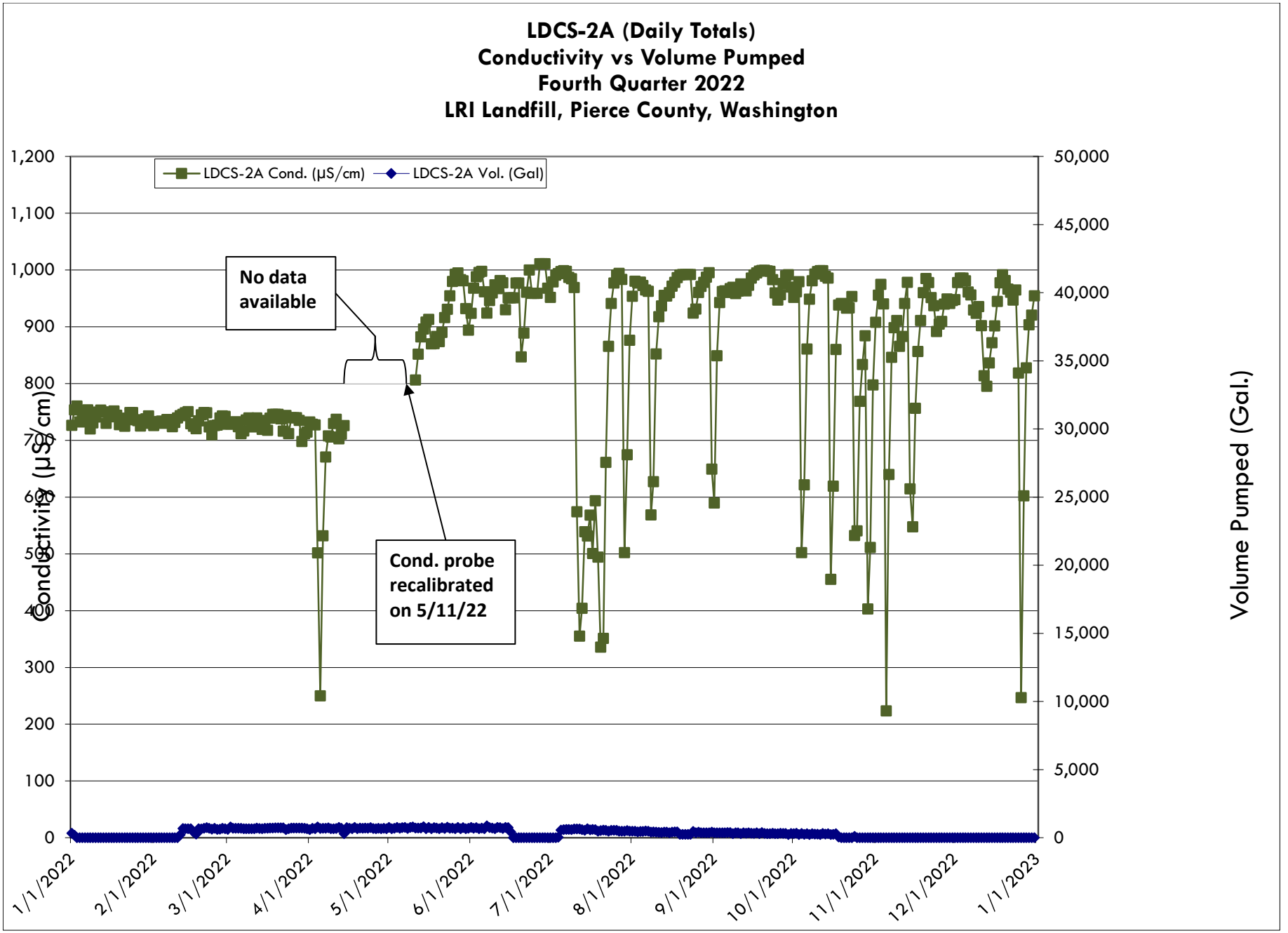
LDCS-2A (Daily Totals)
Conductivity vs Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-2A Cond. (µS/cm)
LDCS-2A Vol. (Gal)
No data available
Cond. probe recalibrated on 5/11/22
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
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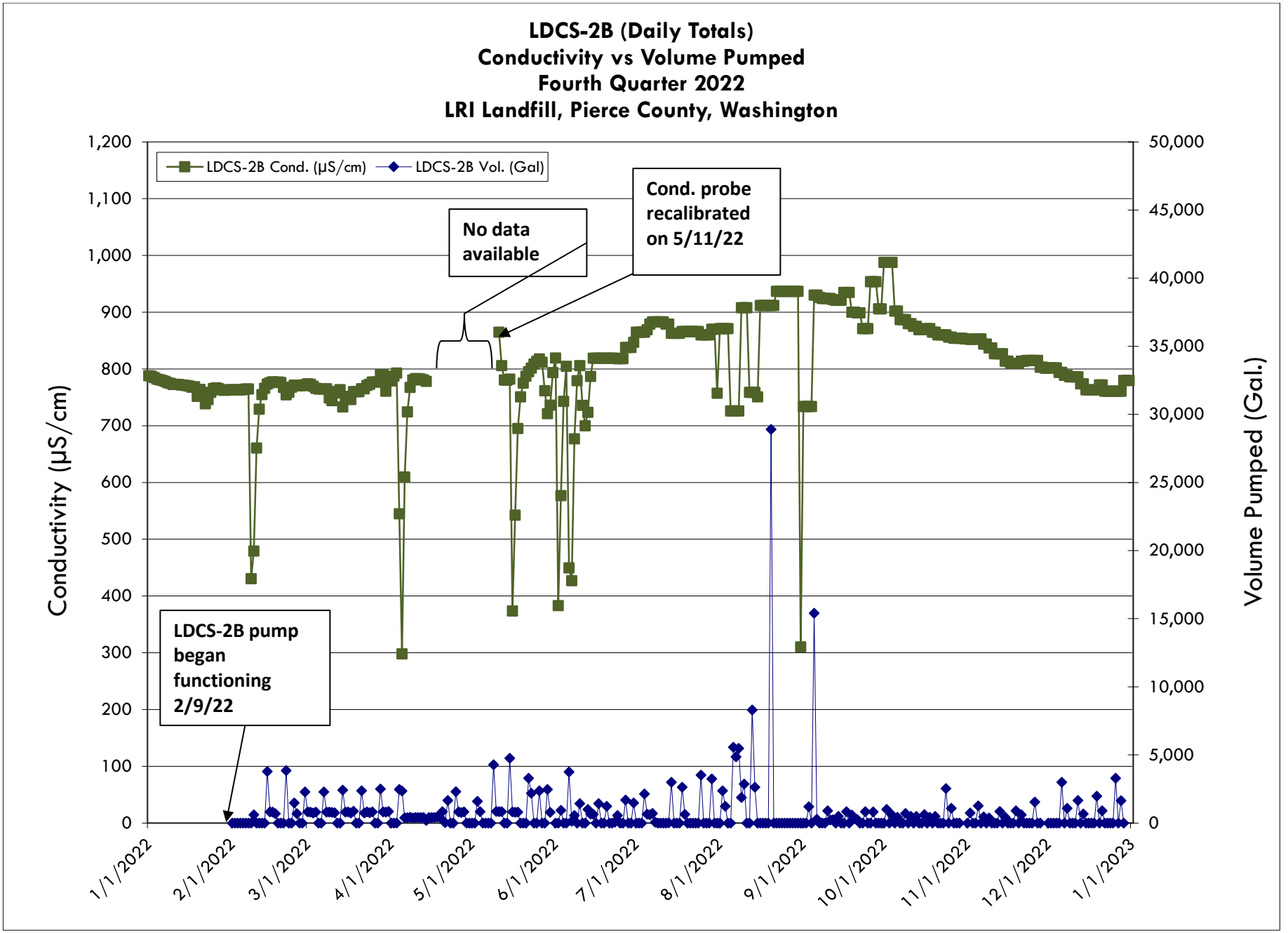
1/1/2023


LDCS-2B (Daily Totals)
Conductivity vs Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-2B Cond. (µS/cm)
LDCS-2B Vol. (Gal)
No data available
Cond. probe recalibrated on 5/11/22
LDCS-2B pump began functioning 2/9/22
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
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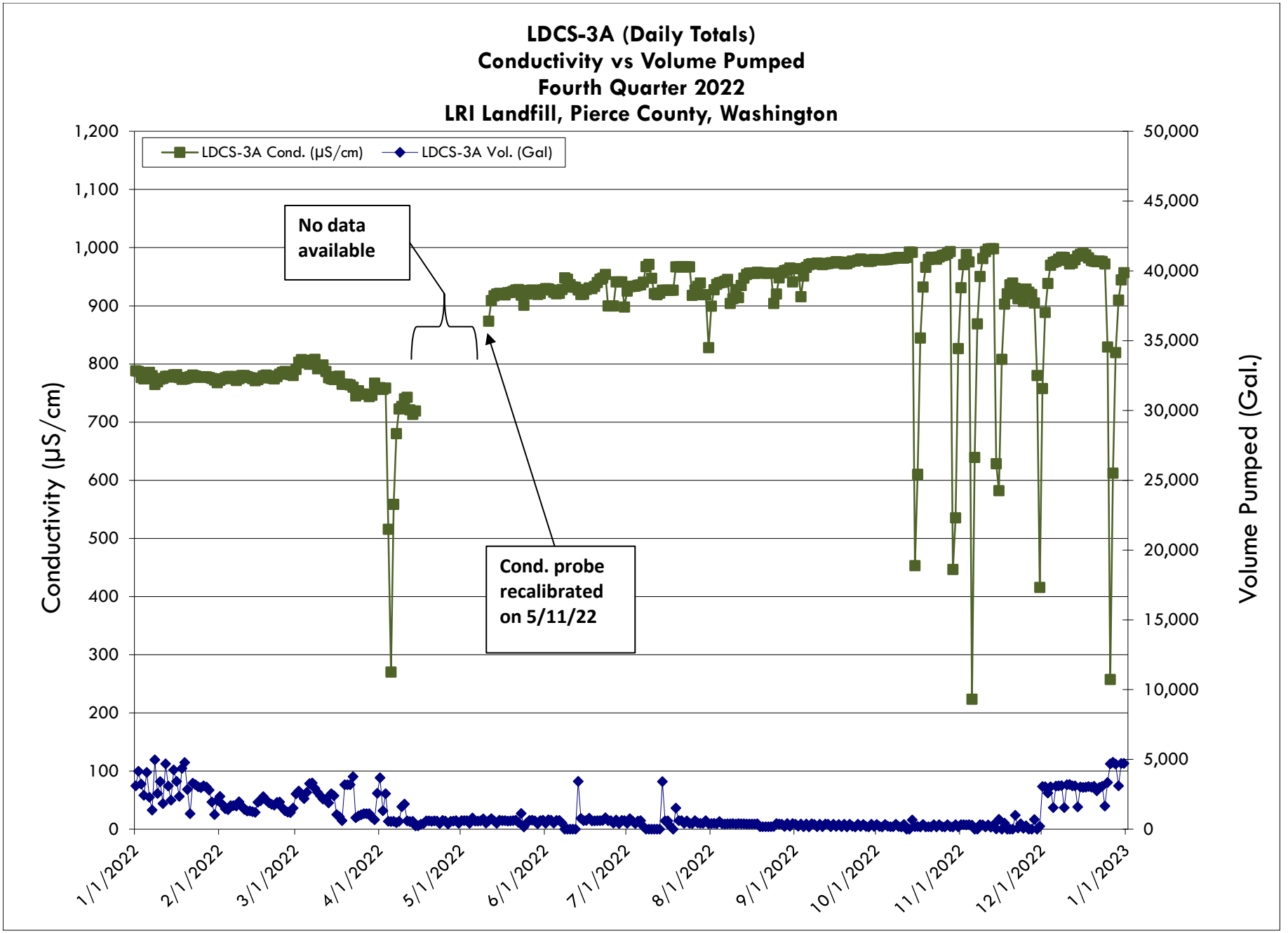
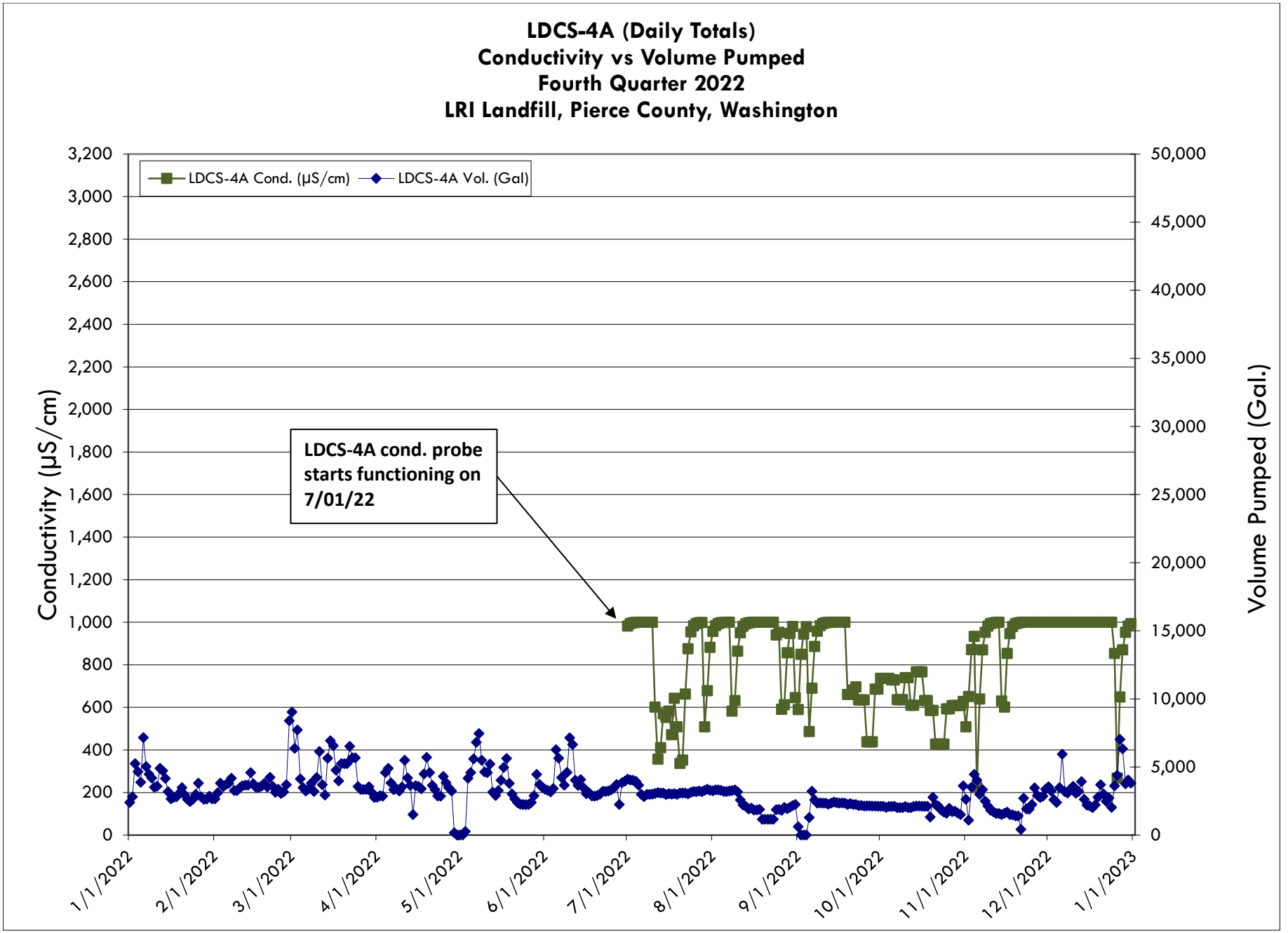
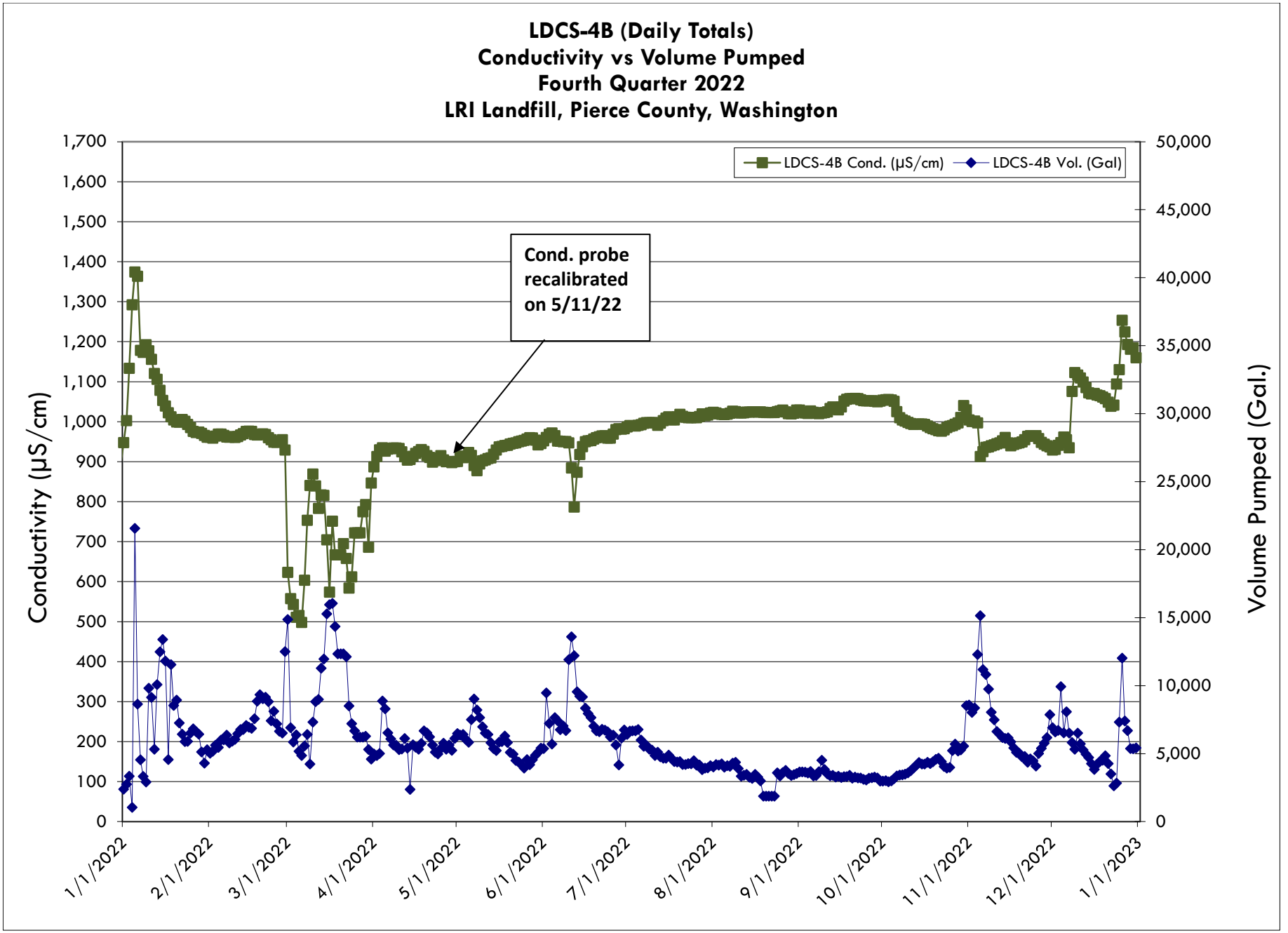
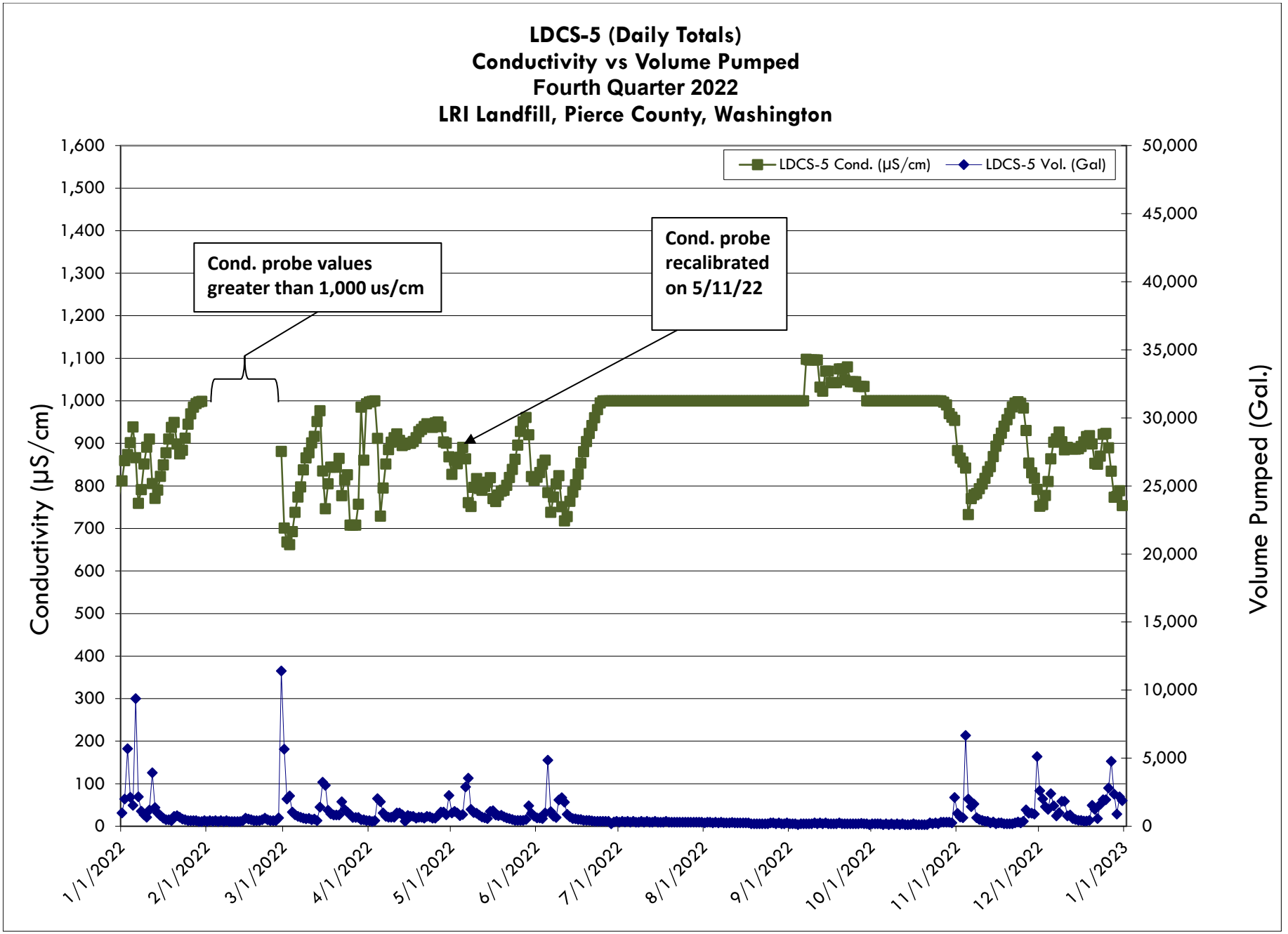
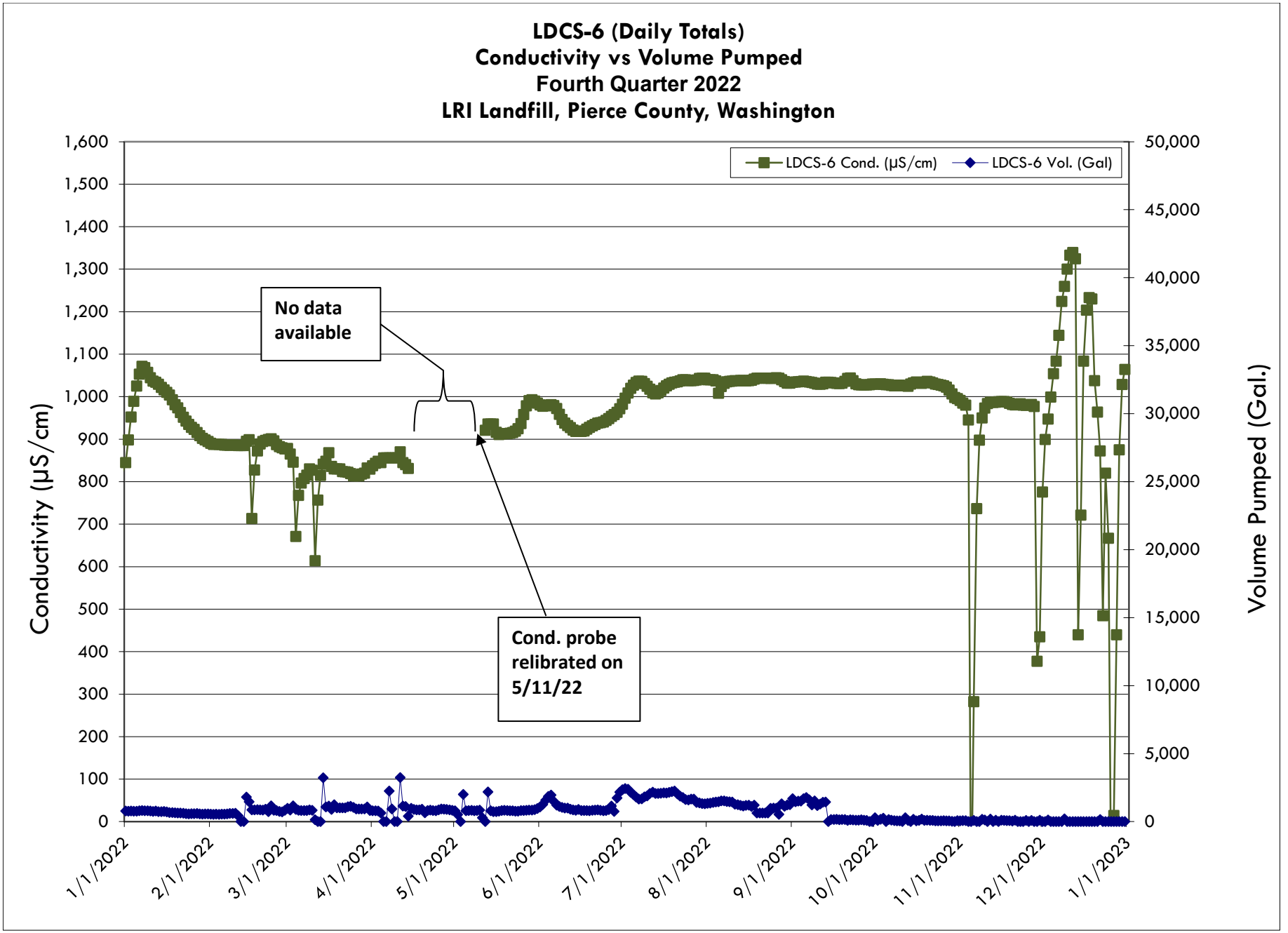

LDCS-3A (Daily Totals)
Conductivity vs Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-3A Cond. (µS/cm)
LDCS-3A Vol. (Gal)
No data available
Cond. probe recalibrated on 5/11/22
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023

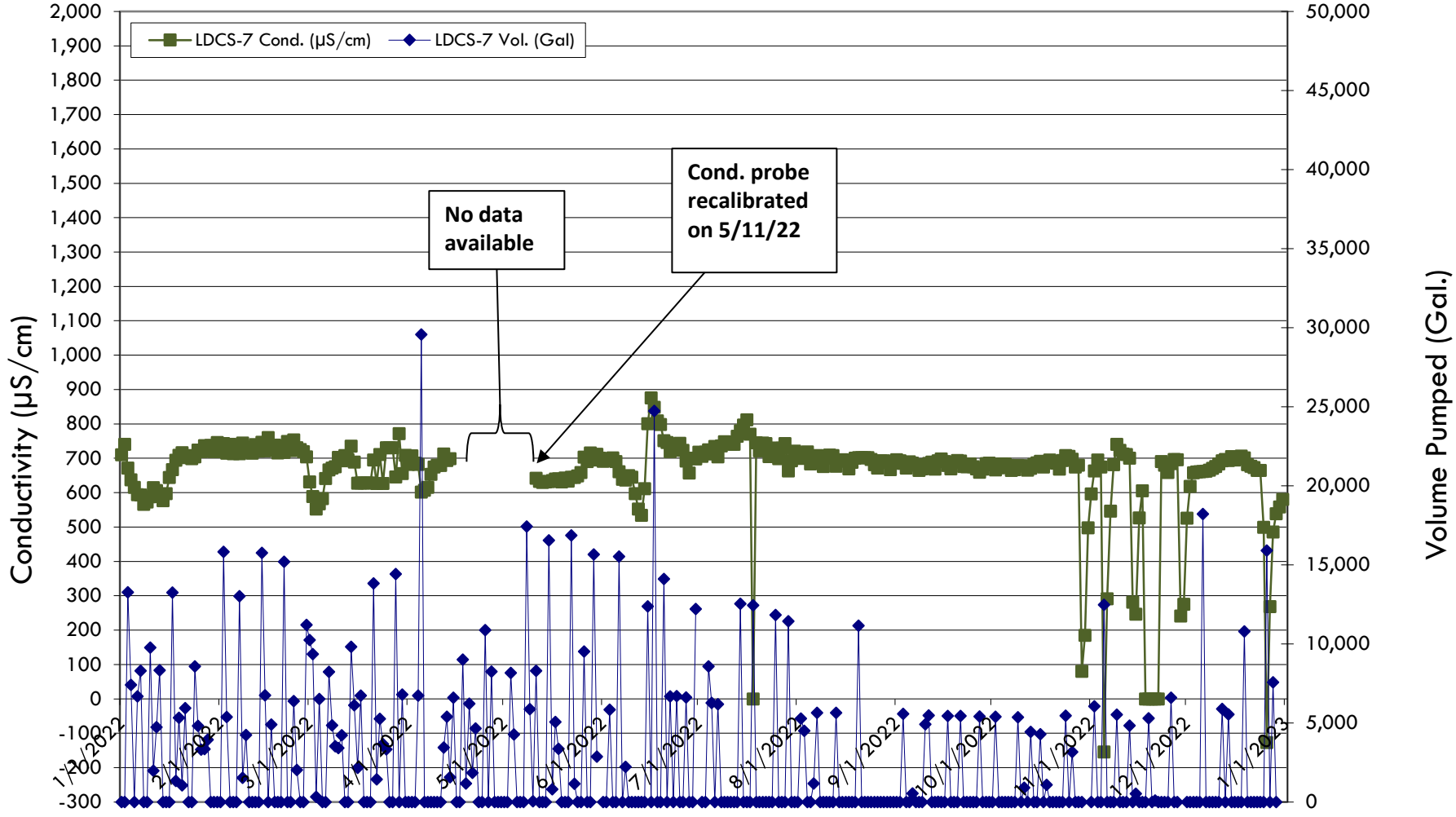

LDCS-4A (Daily Totals)
Conductivity vs Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-4A Cond. (µS/cm)
LDCS-4A Vol. (Gal)
LDCS-4A cond. probe starts functioning on 7/01/22
Conductivity (µS/cm)
Volume Pumped (Gal.)
3,200
3,000
2,800
2,600
2,400
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023


LDCS-4B (Daily Totals)
Conductivity vs Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-4B Cond. (µS/cm)
LDCS-4B Vol. (Gal)
Cond. probe recalibrated on 5/11/22
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023

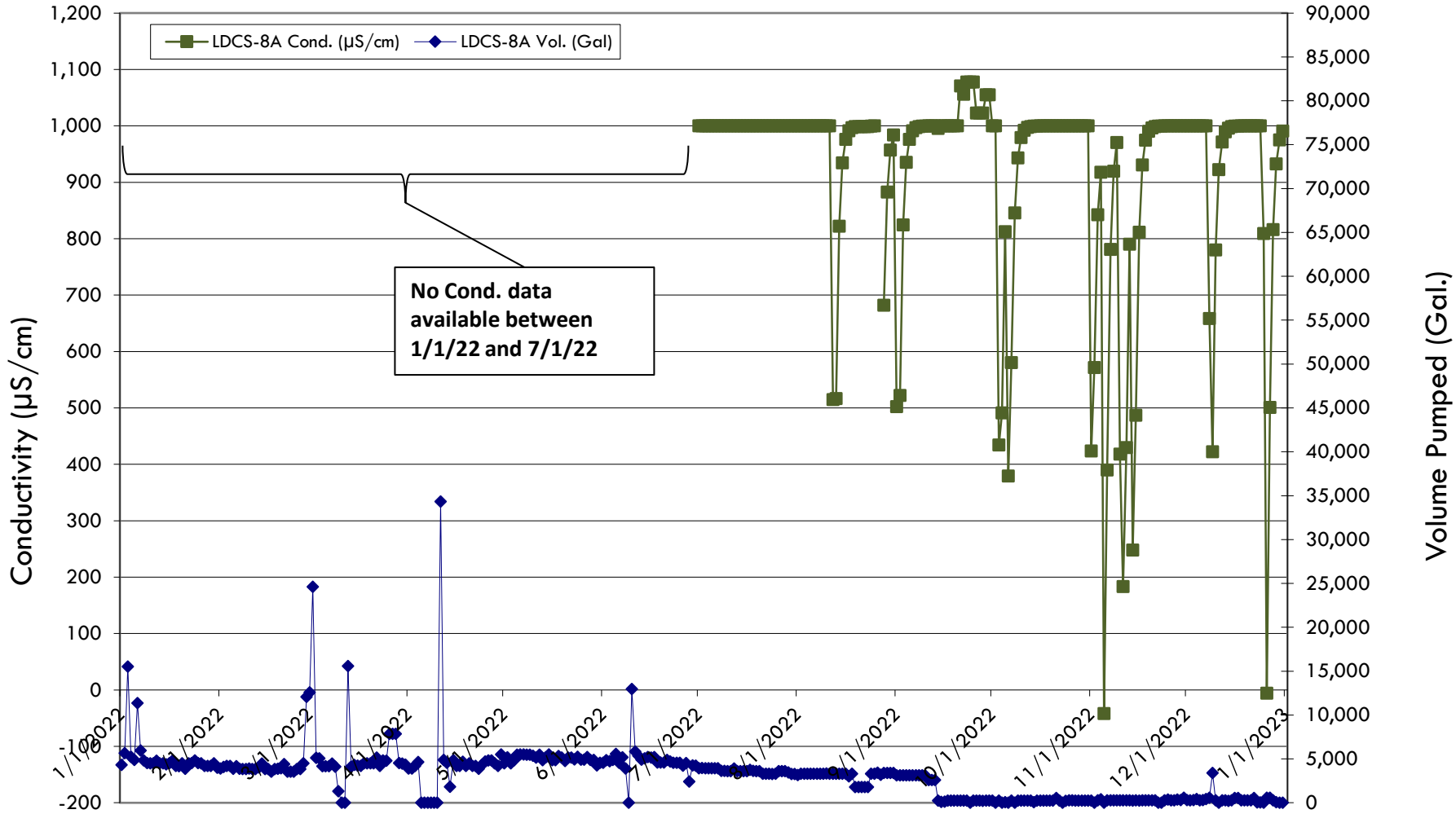

LDCS-5 (Daily Totals)
Conductivity vs Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-5 Cond. (µS/cm)
LDCS-5 Vol. (Gal)
Cond. probe values greater than 1,000 us/cm
Cond. probe recalibrated on 5/11/22
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023

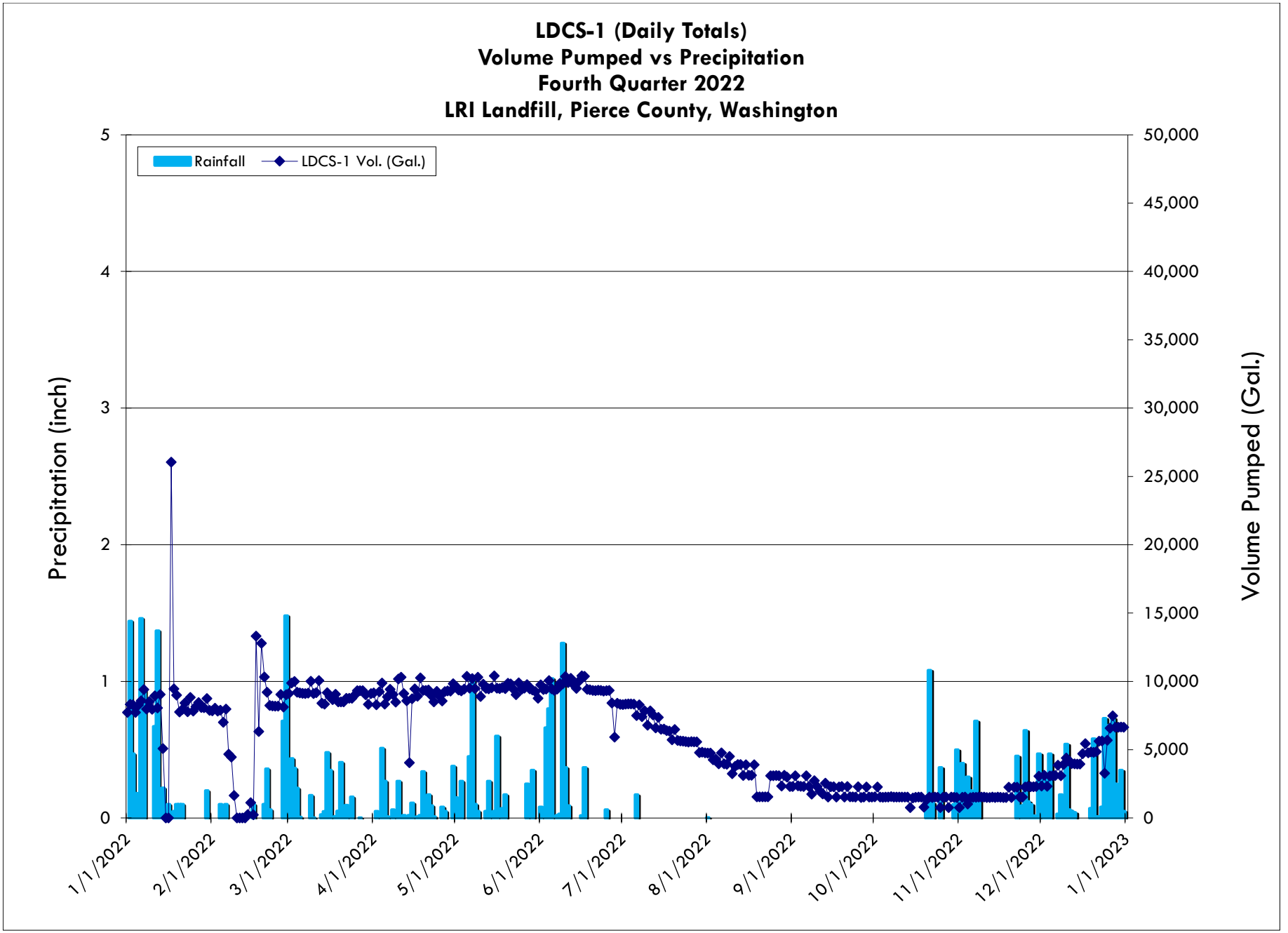

LDCS-6 (Daily Totals)
Conductivity vs Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-6 Cond. (µS/cm)
LDCS-6 Vol. (Gal)
No data available
Cond. probe relibrated on 5/11/22
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023

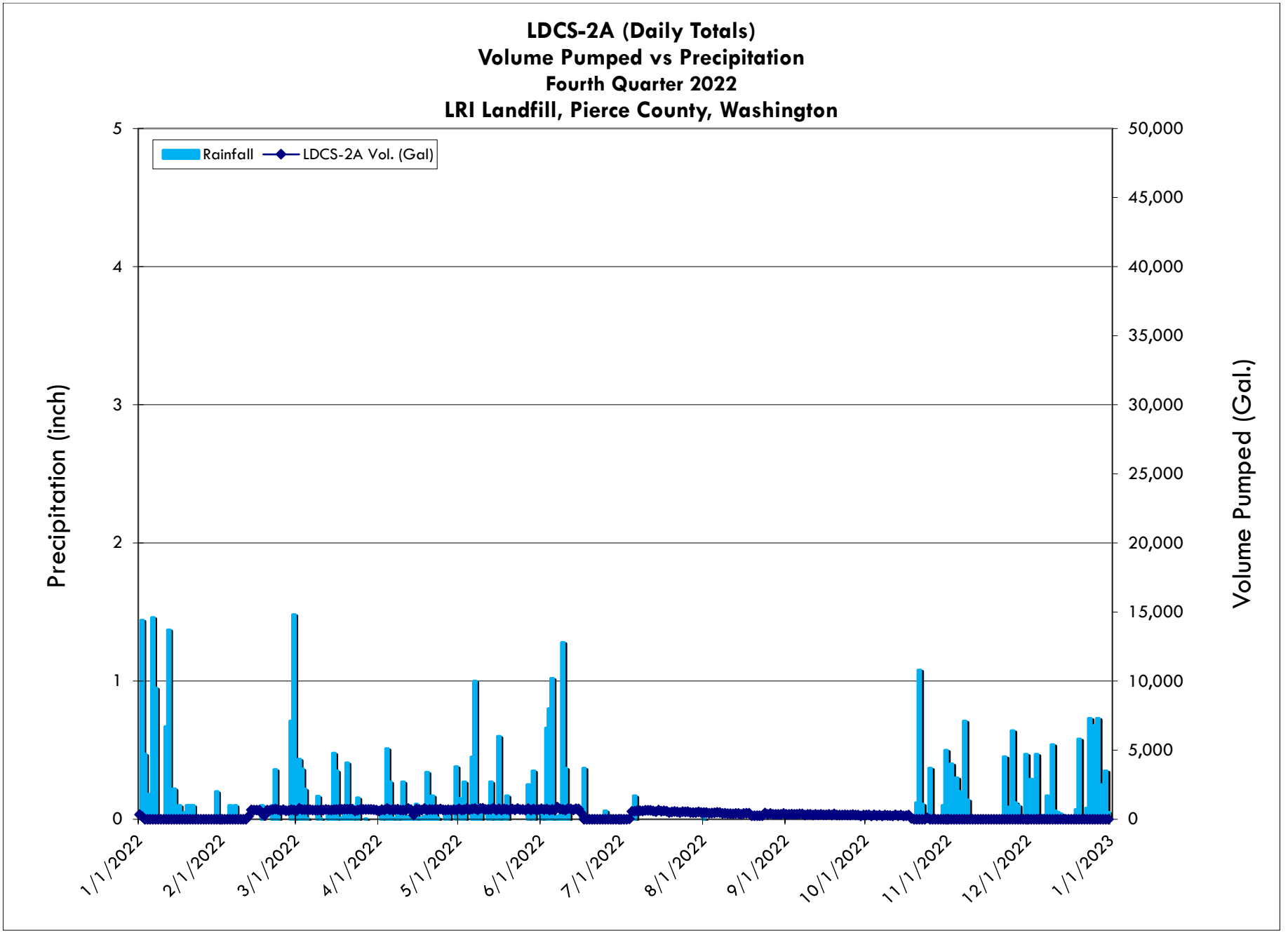
LDCS-7 (Daily Totals)
Conductivity vs Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

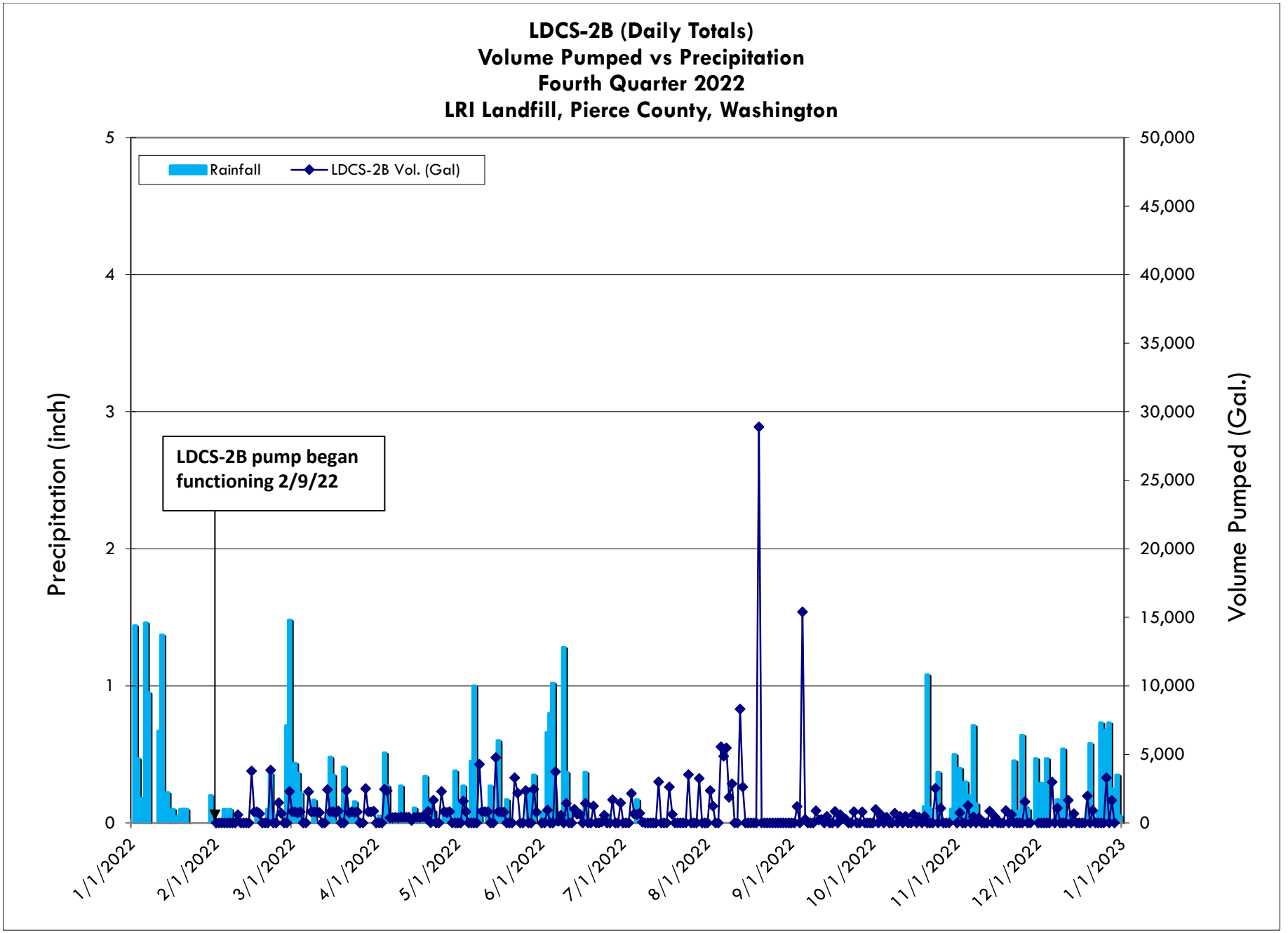


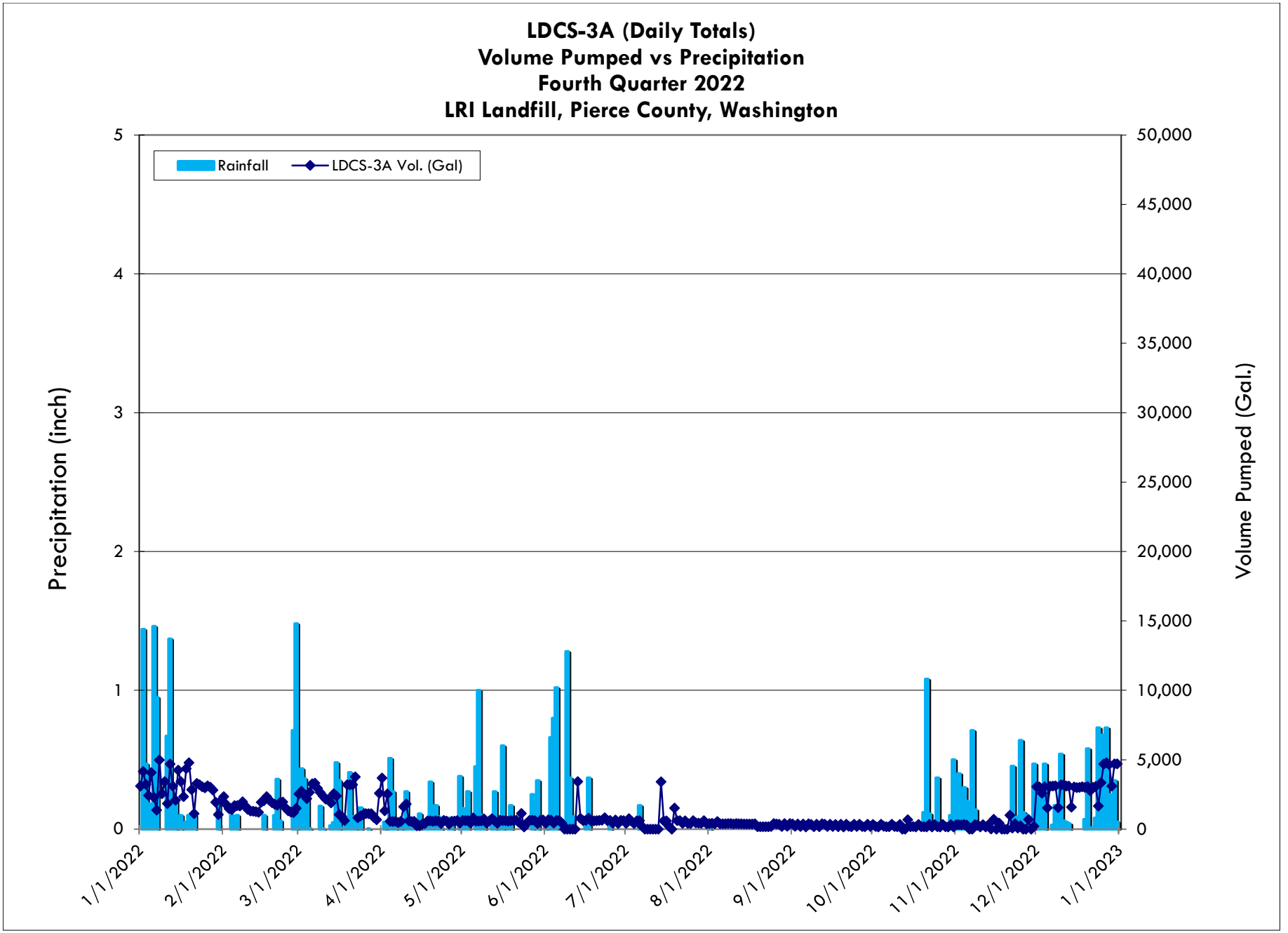
LDCS-8 (Daily Totals)
Conductivity vs Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

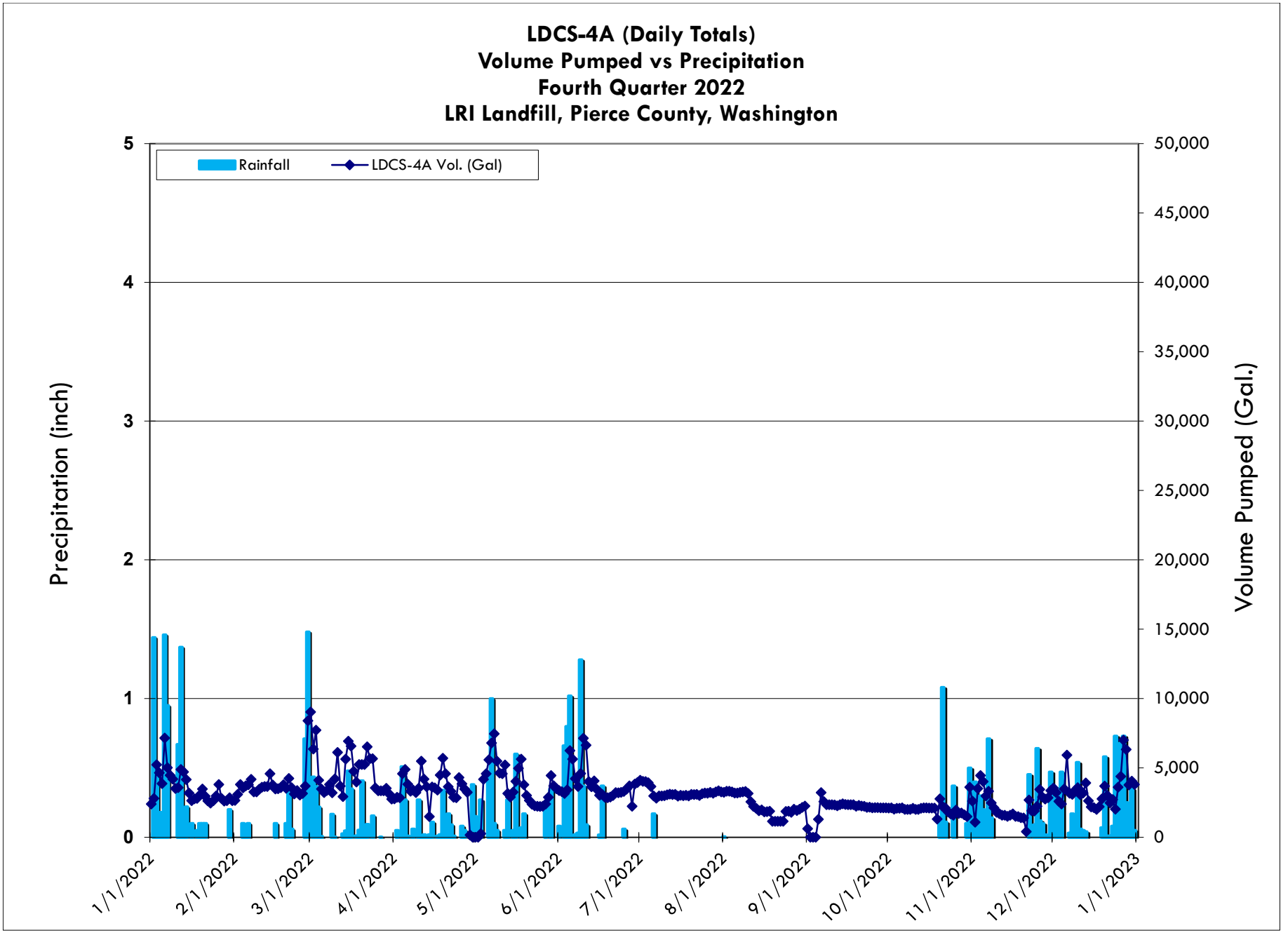


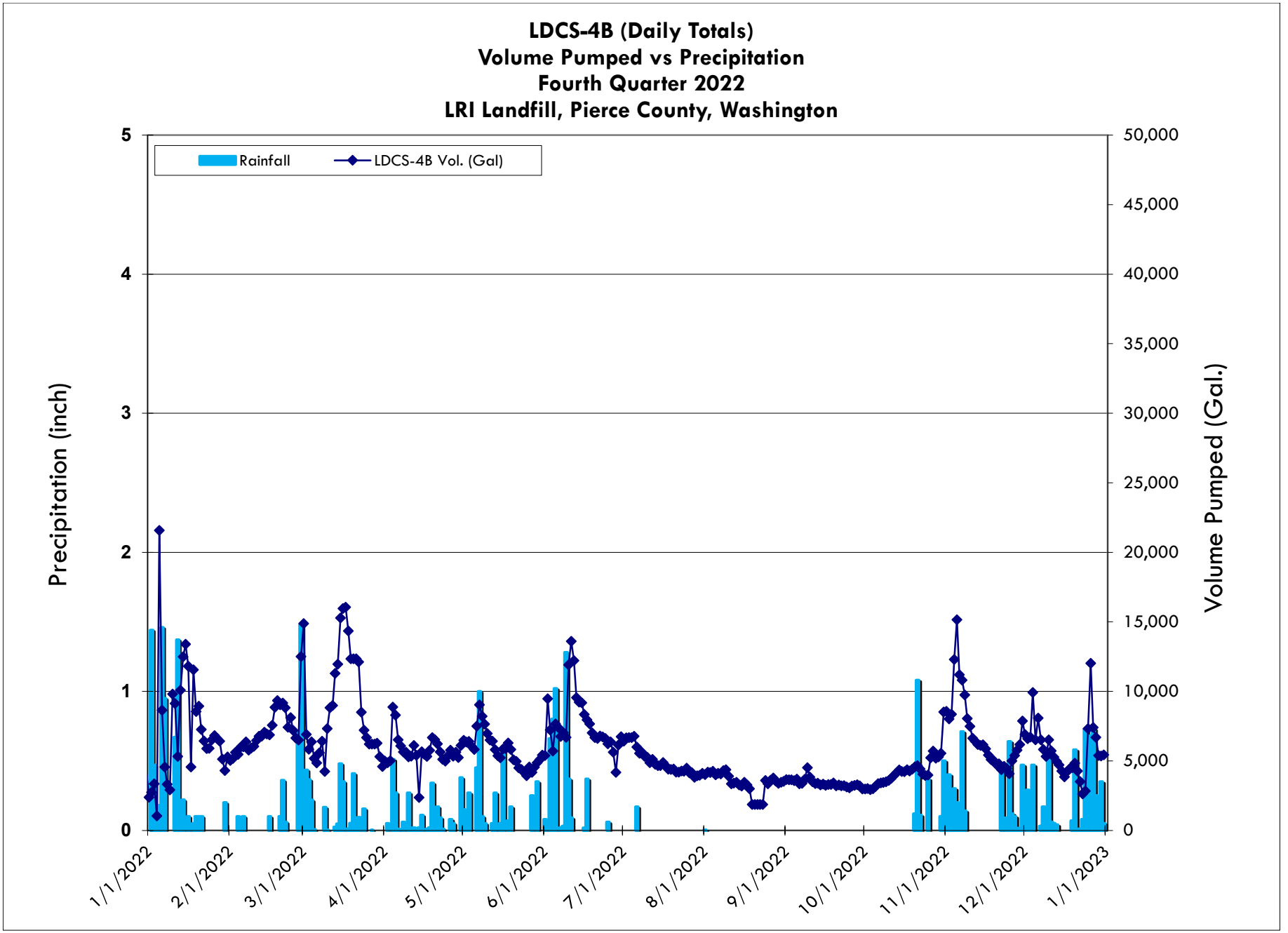

LDCS-1 (Daily Totals)
Volume Pumped vs Precipitation
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
Rainfall
LDCS-1 Vol. (Gal.)
Precipitation (inch)
Volume Pumped (Gal.)
0
1
2
3
4
5
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023

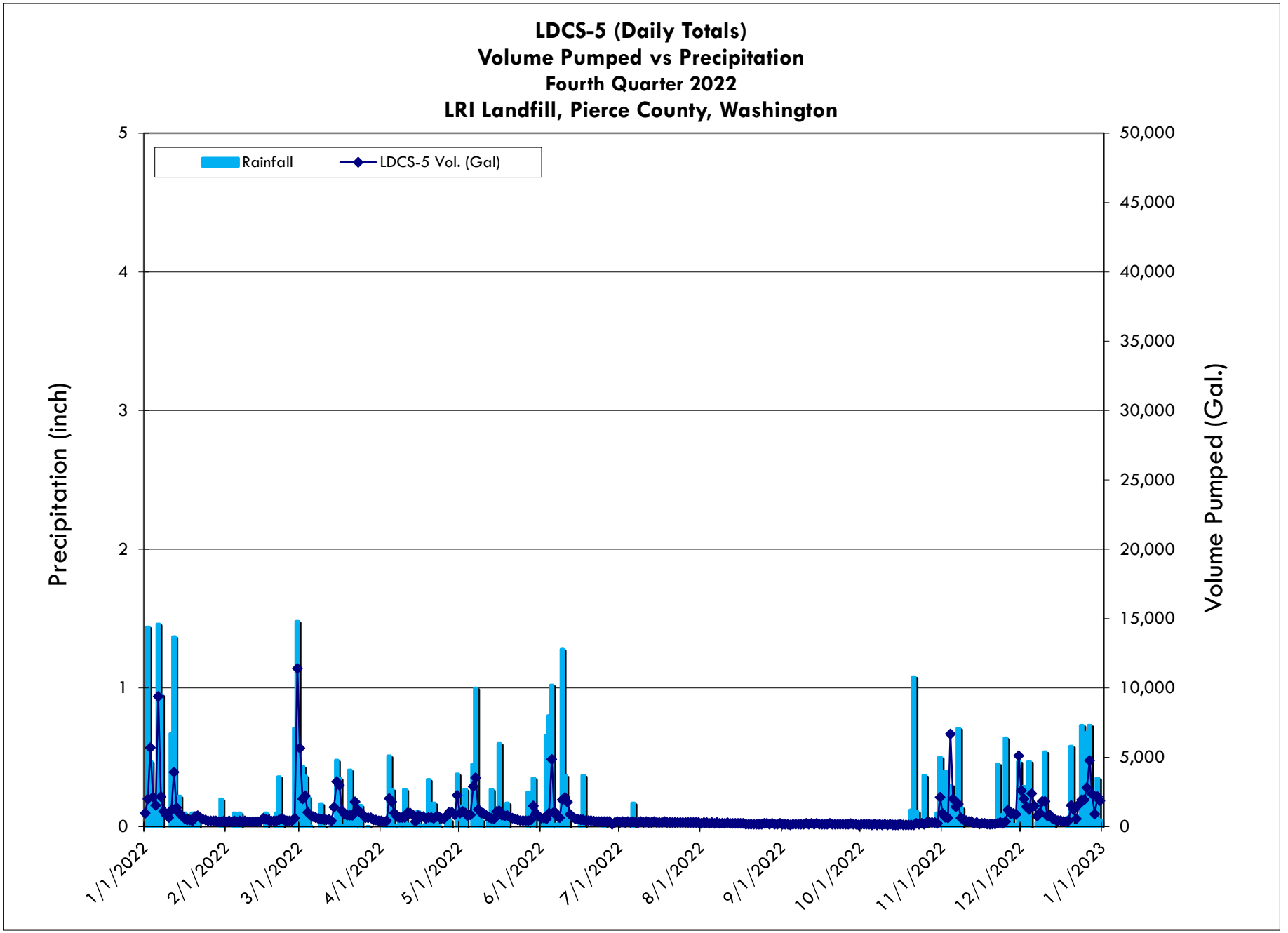

LDCS-2A (Daily Totals)
Volume Pumped vs Precipitation
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
Rainfall
LDCS-2A Vol. (Gal)
Precipitation (inch)
Volume Pumped (Gal.)
0
1
2
3
4
5
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023

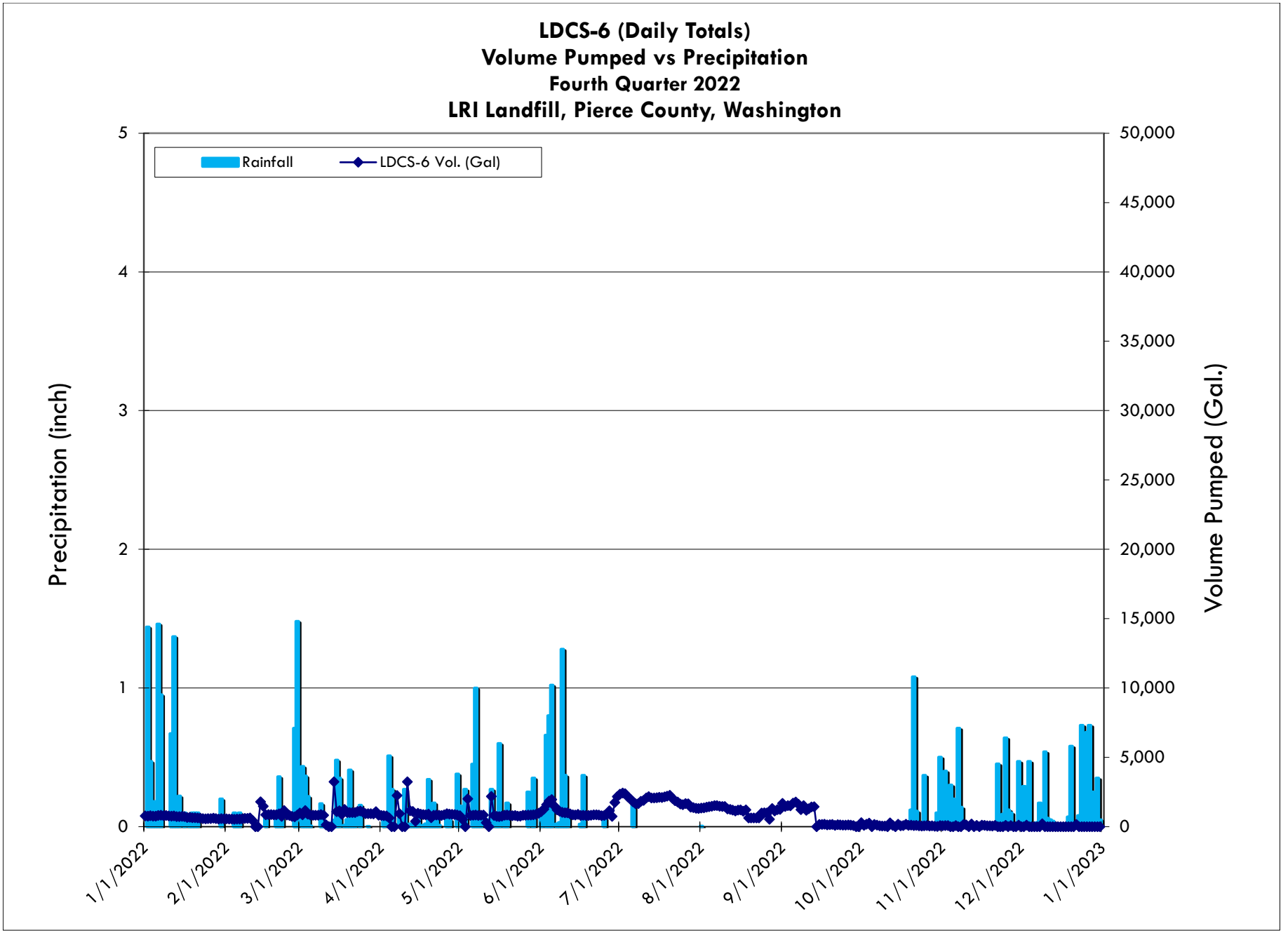

LDCS-2B (Daily Totals)
Volume Pumped vs Precipitation
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
Rainfall
LDCS-2B Vol. (Gal)
LDCS-2B pump began functioning 2/9/22
Precipitation (inch)
Volume Pumped (Gal.)
0
1
2
3
4
5
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023

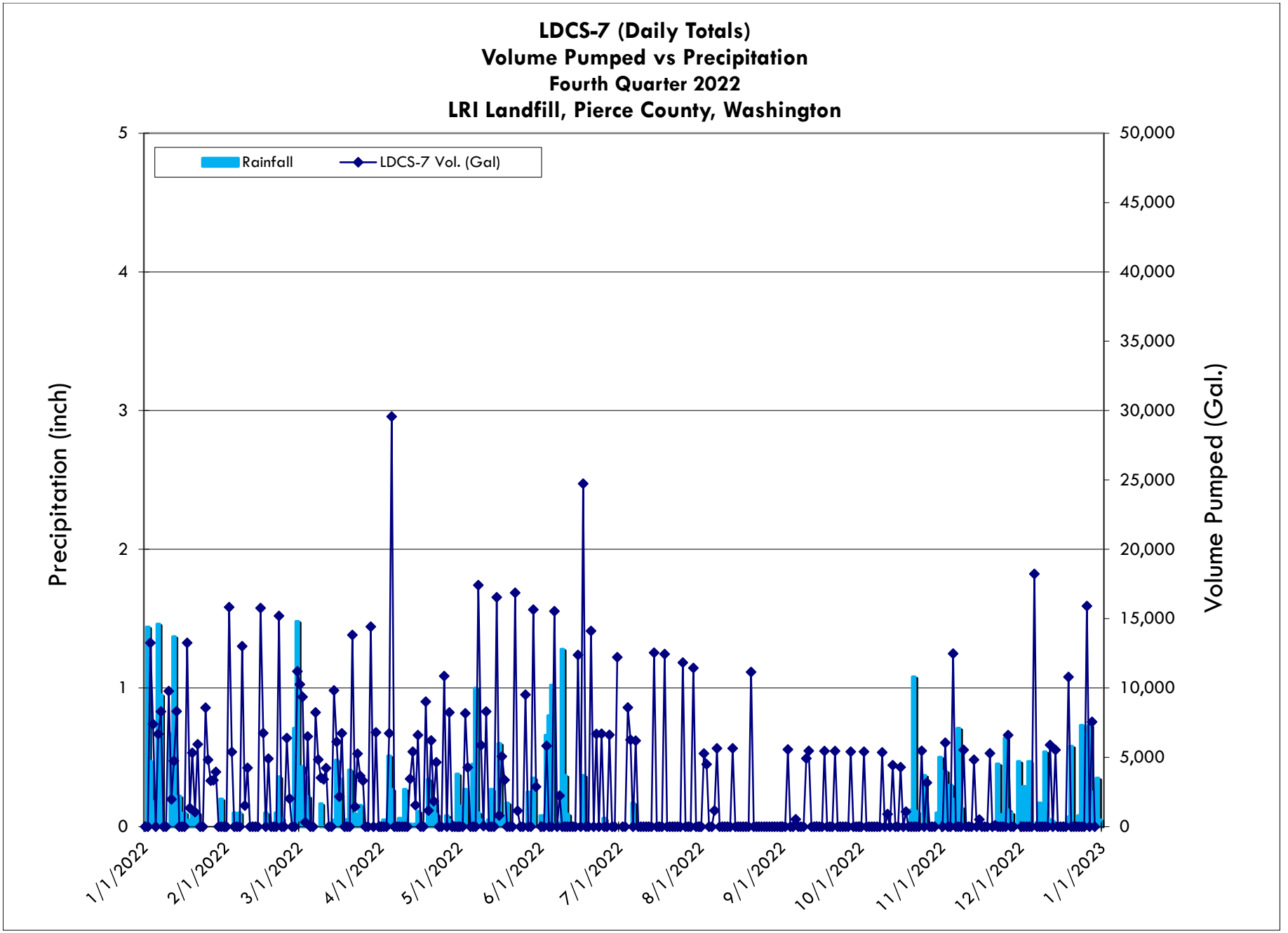

LDCS-3A (Daily Totals)
Volume Pumped vs Precipitation
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
Rainfall
LDCS-3A Vol. (Gal)
Precipitation (inch)
Volume Pumped (Gal.)
0
1
2
3
4
5
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023

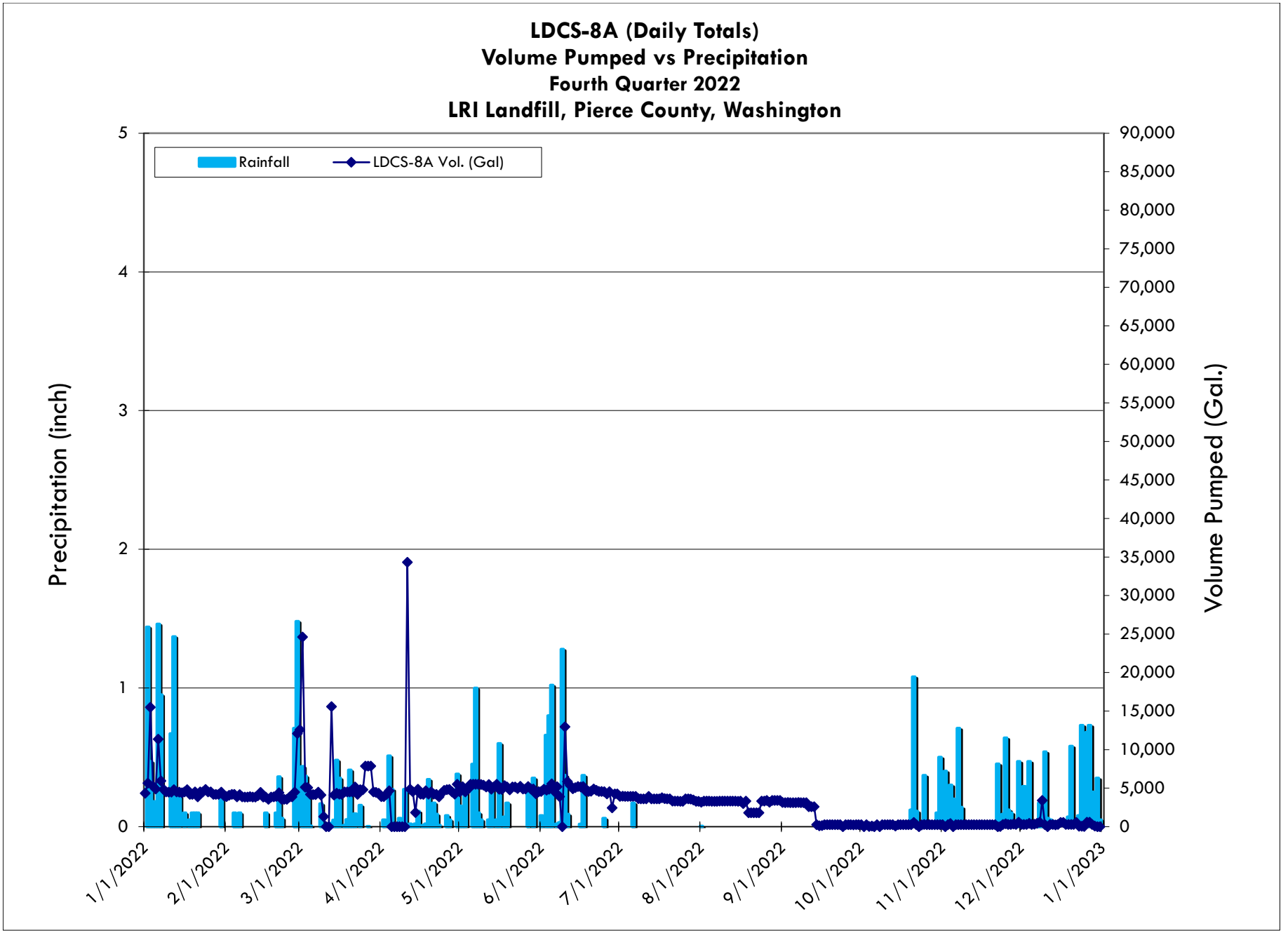

LDCS-4A (Daily Totals)
Volume Pumped vs Precipitation
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
Rainfall
LDCS-4A Vol. (Gal)
Precipitation (inch)
Volume Pumped (Gal.)
0
1
2
3
4
5
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023


LDCS-4B (Daily Totals)
Volume Pumped vs Precipitation
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
Rainfall
LDCS-4B Vol. (Gal)
Precipitation (inch)
Volume Pumped (Gal.)
0
1
2
3
4
5
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023


LDCS-5 (Daily Totals)
Volume Pumped vs Precipitation
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
Rainfall
LDCS-5 Vol. (Gal)
Precipitation (inch)
Volume Pumped (Gal.)
0
1
2
3
4
5
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023


LDCS-6 (Daily Totals)
Volume Pumped vs Precipitation
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
Rainfall
LDCS-6 Vol. (Gal)
Precipitation (inch)
Volume Pumped (Gal.)
0
1
2
3
4
5
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023


LDCS-7 (Daily Totals)
Volume Pumped vs Precipitation
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
Rainfall
LDCS-7 Vol. (Gal)
Precipitation (inch)
Volume Pumped (Gal.)
0
1
2
3
4
5
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
9/1/2022
10/1/2022
11/1/2022
12/1/2022
1/1/2023


LDCS-8A (Daily Totals)
Volume Pumped vs Precipitation
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
Rainfall
LDCS-8A Vol. (Gal)
Precipitation (inch)
Volume Pumped (Gal.)
0
1
2
3
4
5
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
40,000
45,000
50,000
55,000
60,000
65,000
70,000
75,000
80,000
85,000
90,000
1/1/2022
2/1/2022
3/1/2022
4/1/2022
5/1/2022
6/1/2022
7/1/2022
8/1/2022
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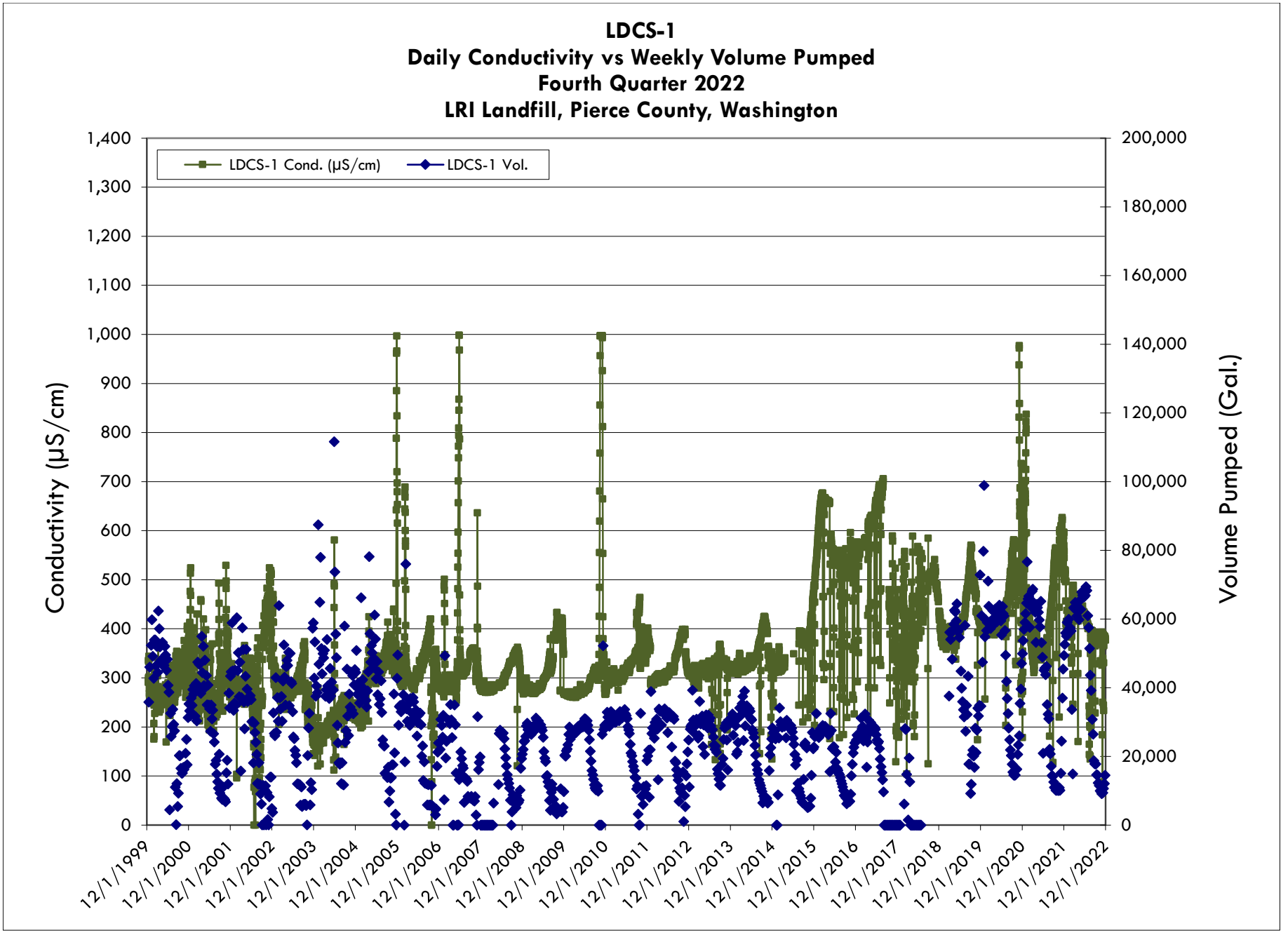
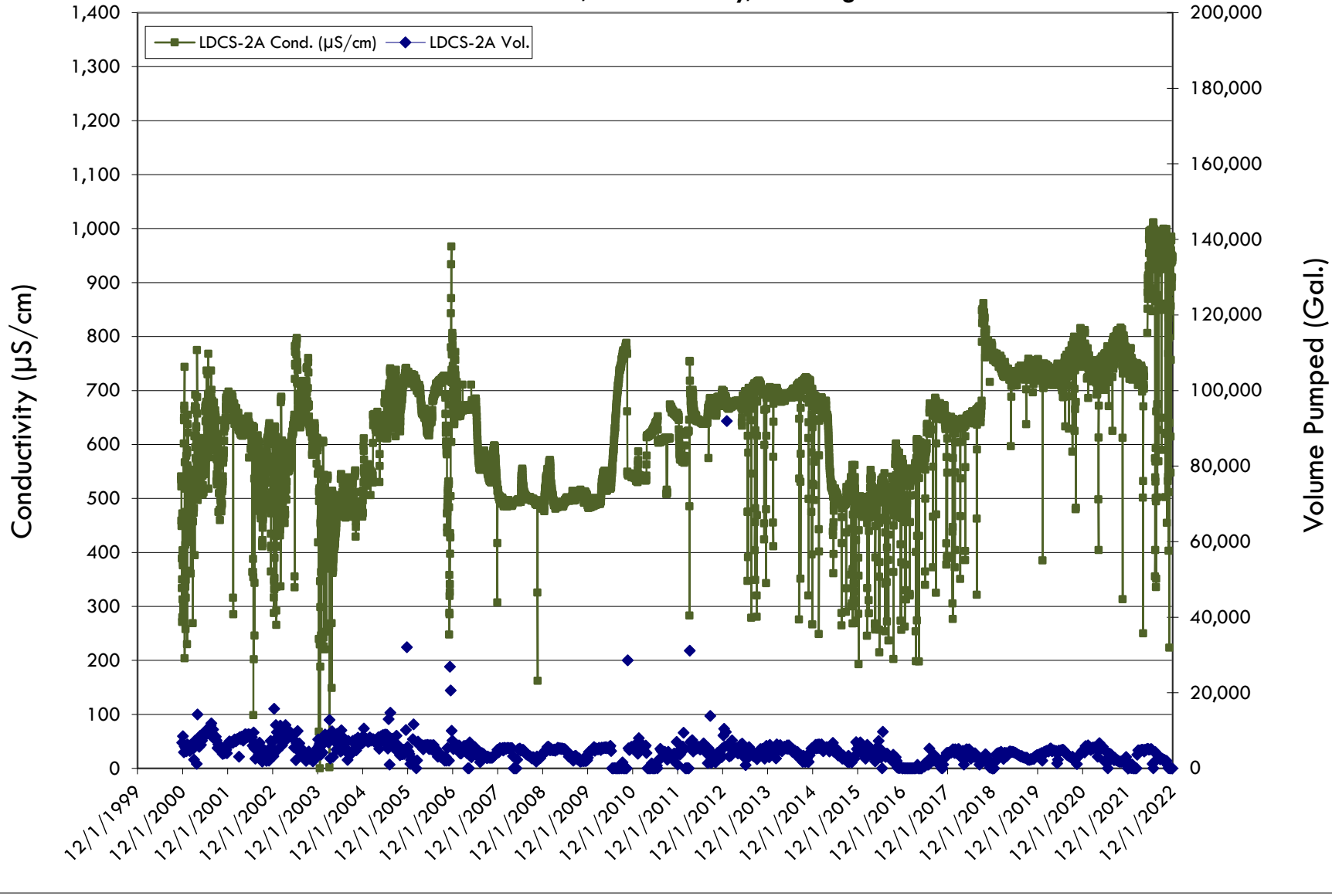
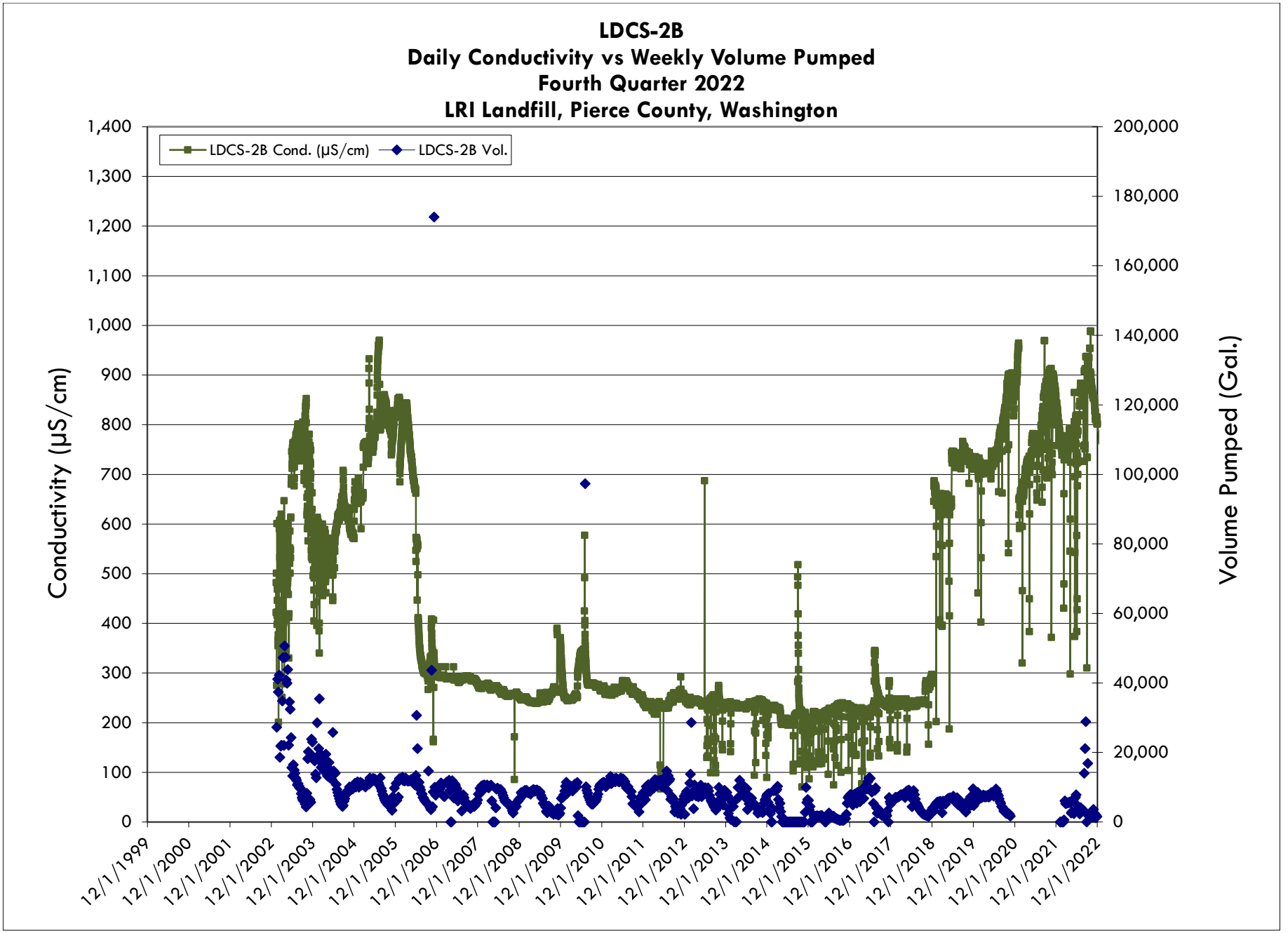
11/1/2022
12/1/2022
1/1/2023

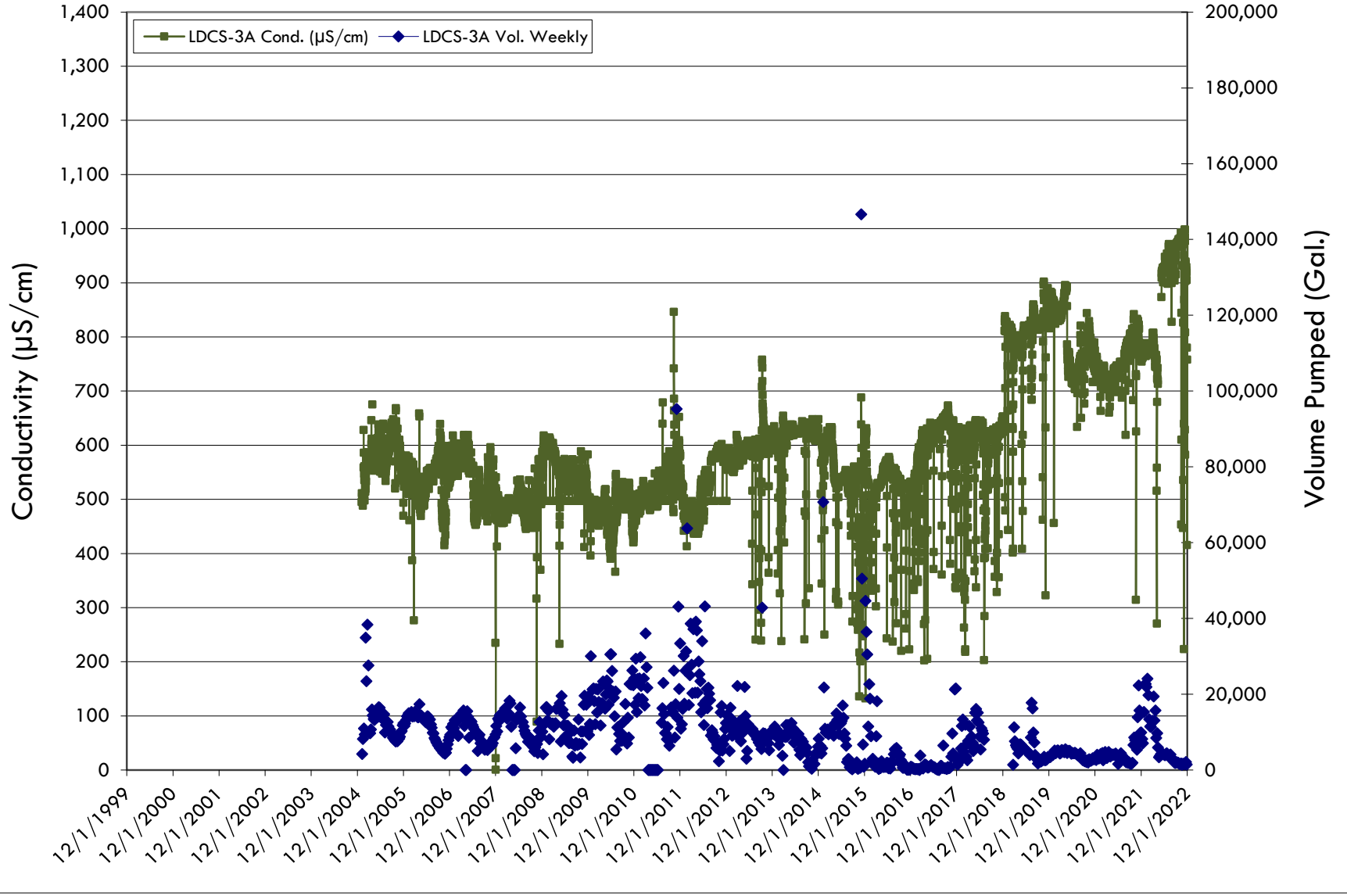

LDCS-1
Daily Conductivity vs Weekly Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-1 Cond. (µS/cm)
LDCS-1 Vol.
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
12/1/1999
12/1/2000
12/1/2001
12/1/2002
12/1/2003
12/1/2004
12/1/2005
12/1/2006
12/1/2007
12/1/2008
12/1/2009
12/1/2010
12/1/2011
12/1/2012
12/1/2013
12/1/2014
12/1/2015
12/1/2016
12/1/2017
12/1/2018
12/1/2019
12/1/2020
12/1/2021
12/1/2022

LDCS-2A
Daily Conductivity vs Weekly Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

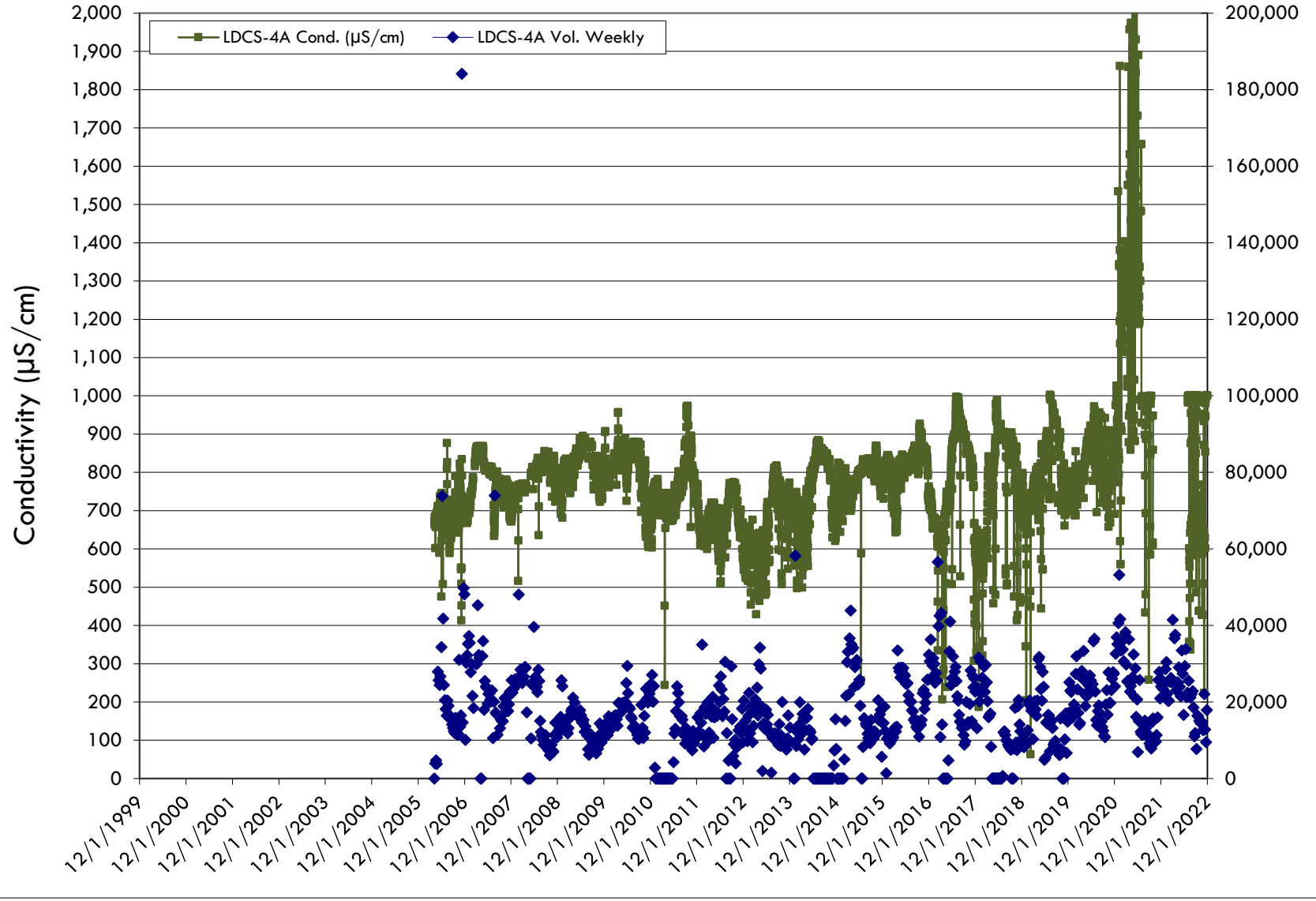


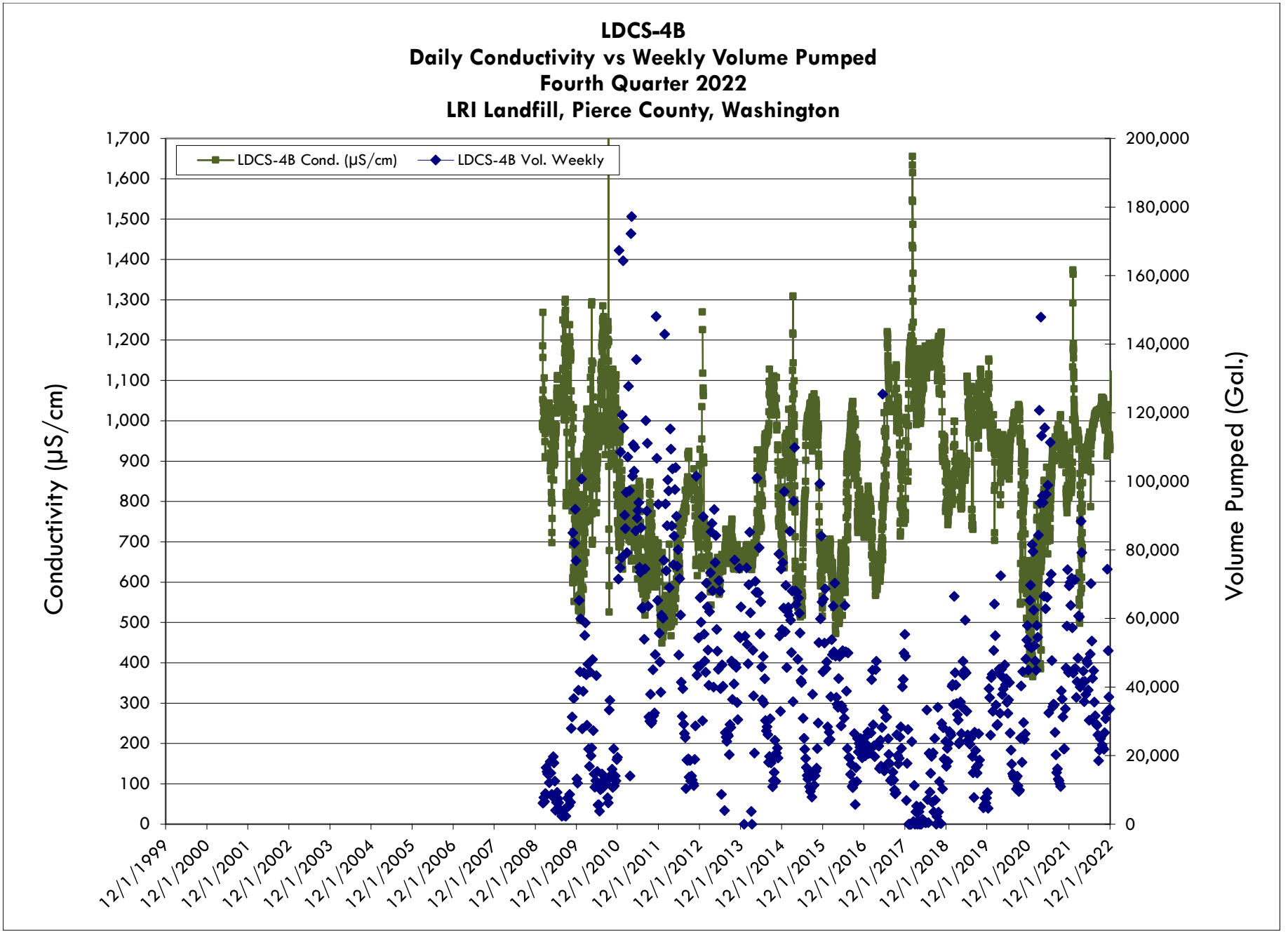

LDCS-2B
Daily Conductivity vs Weekly Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-2B Cond. (µS/cm)
LDCS-2B Vol.
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
12/1/1999
12/1/2000
12/1/2001
12/1/2002
12/1/2003
12/1/2004
12/1/2005
12/1/2006
12/1/2007
12/1/2008
12/1/2009
12/1/2010
12/1/2011
12/1/2012
12/1/2013
12/1/2014
12/1/2015
12/1/2016
12/1/2017
12/1/2018
12/1/2019
12/1/2020
12/1/2021
12/1/2022

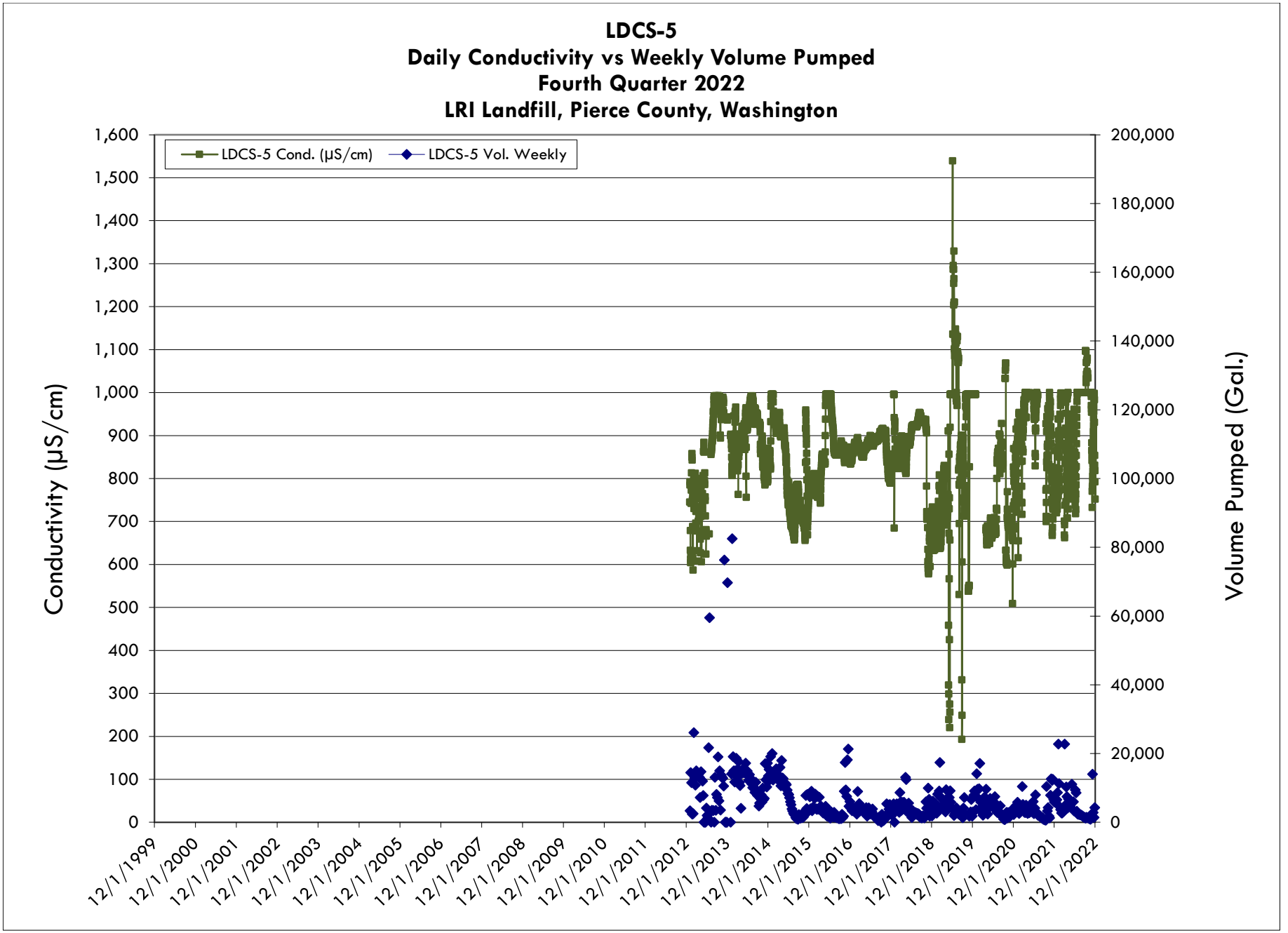
LDCS-3A
Daily Conductivity vs Weekly Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

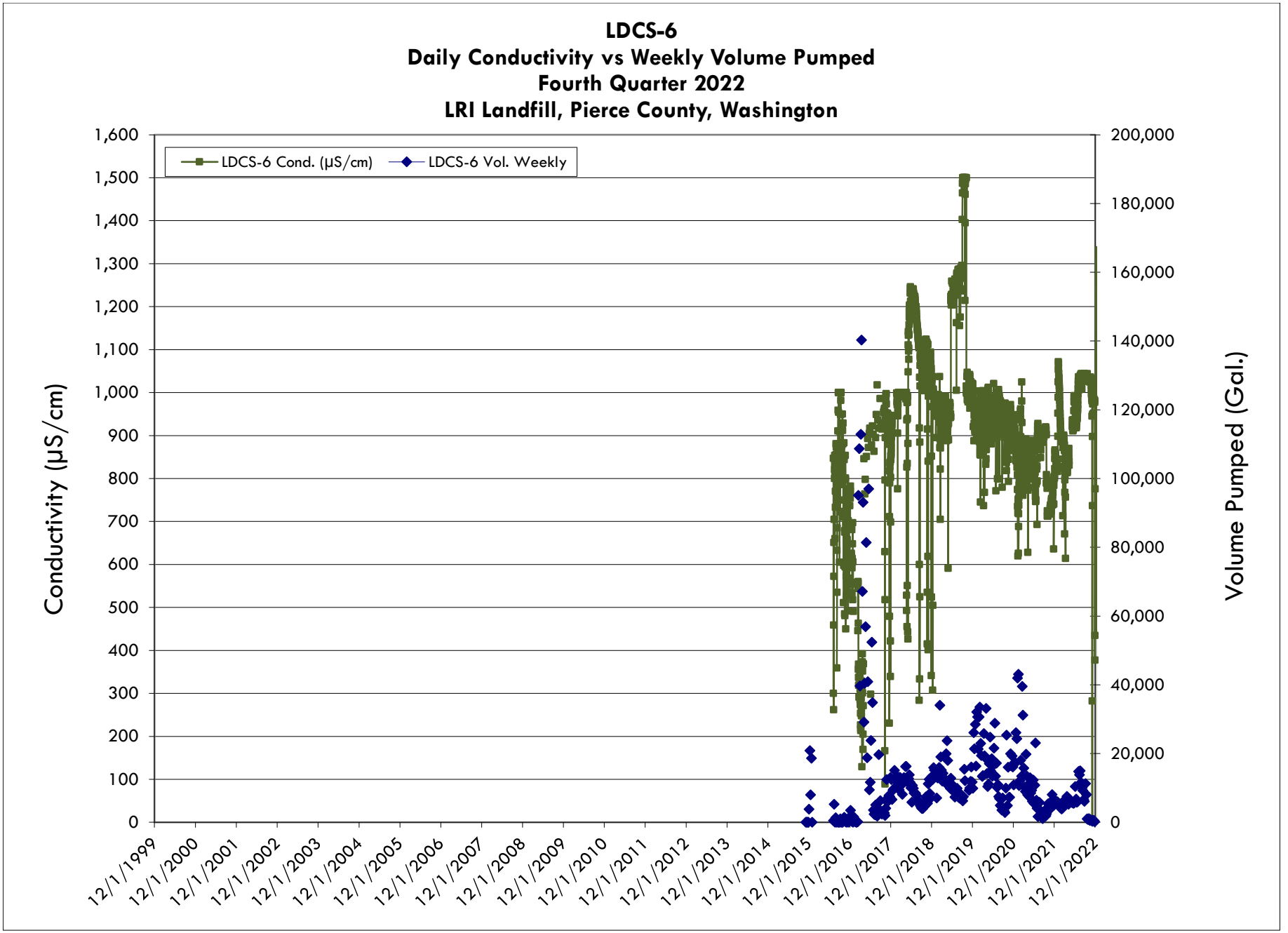


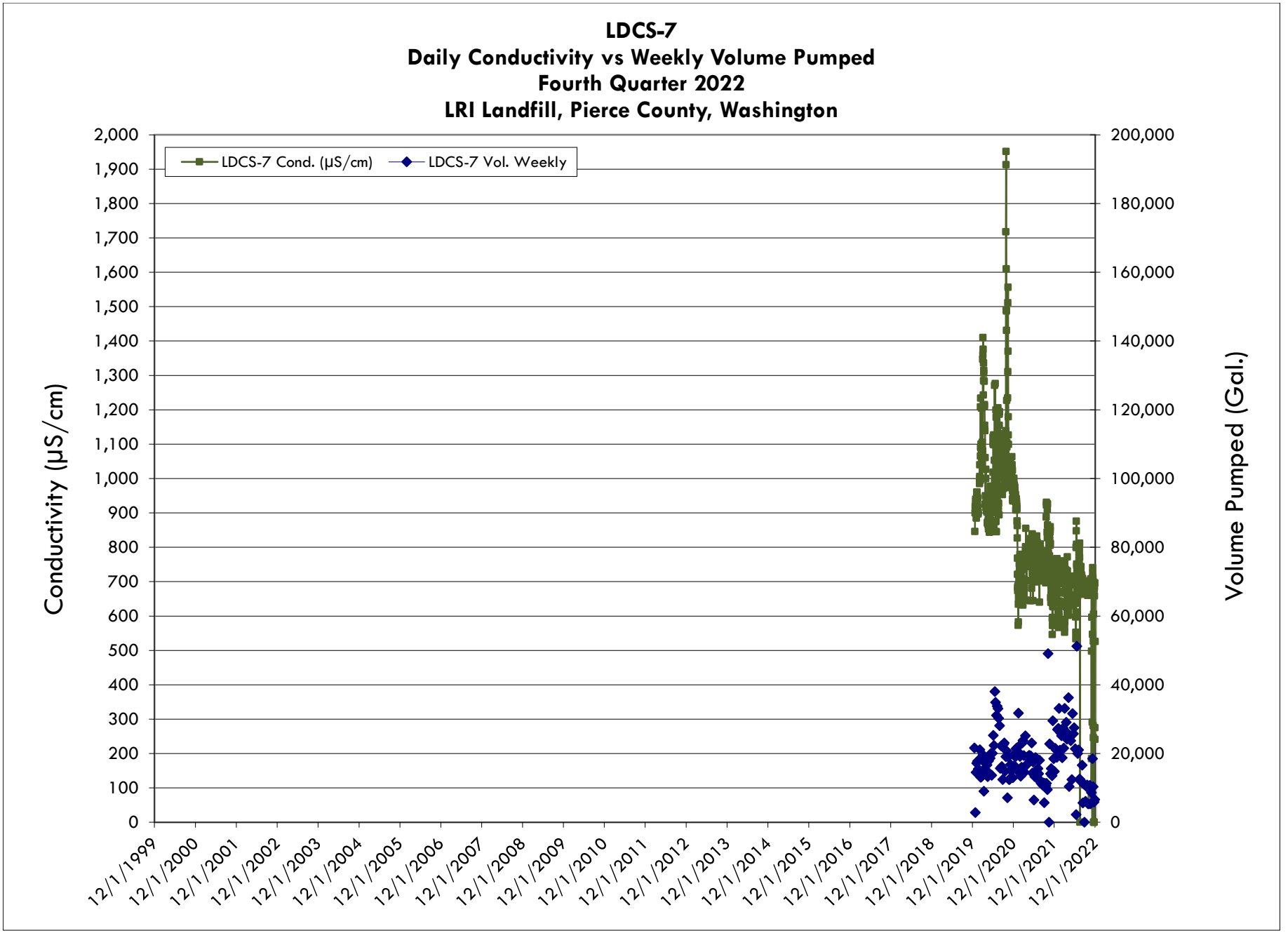
LDCS-4A
Daily Conductivity vs Weekly Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

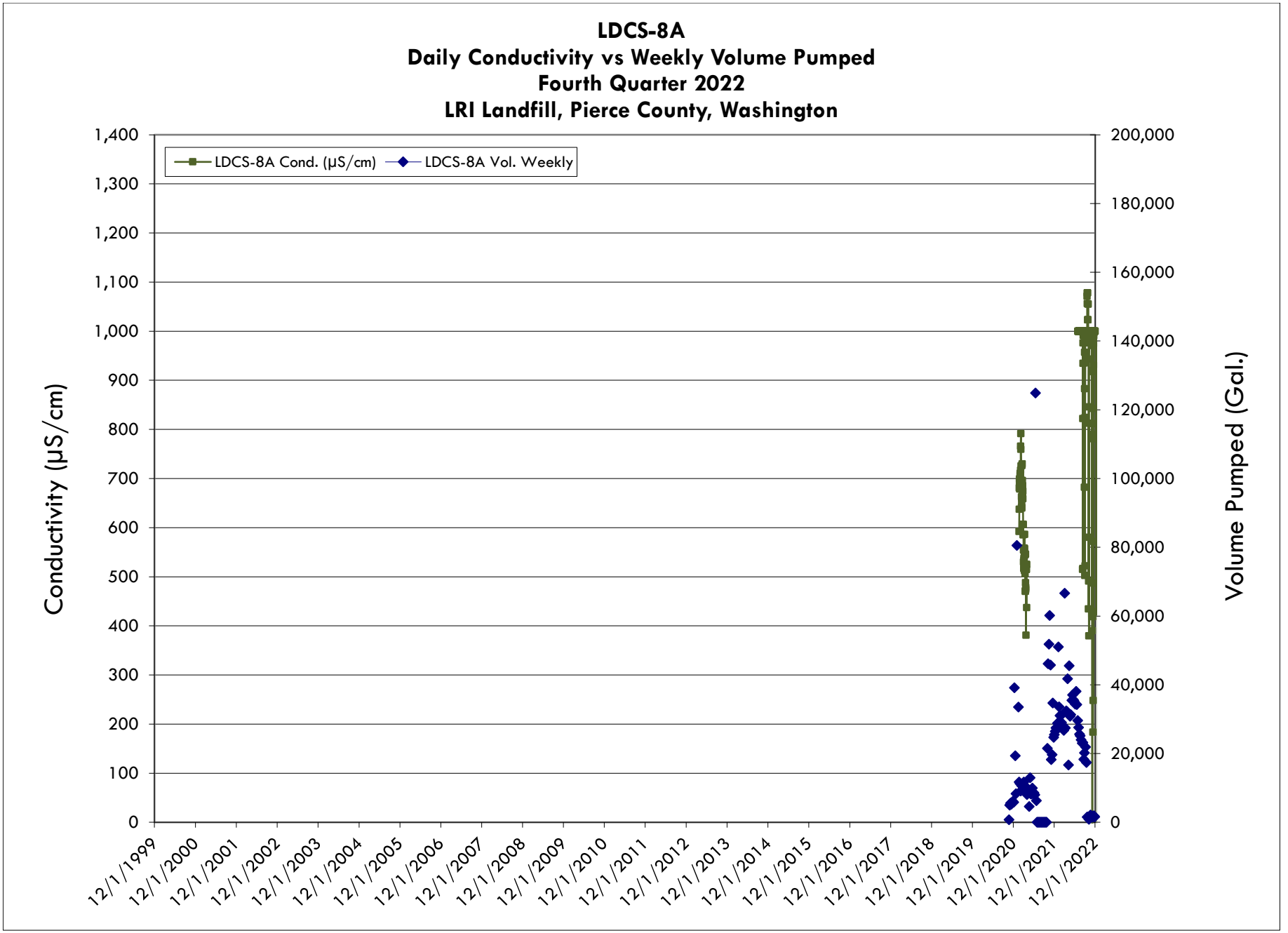



LDCS-4B
Daily Conductivity vs Weekly Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-4B Cond. (µS/cm)
LDCS-4B Vol. Weekly
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
12/1/1999
12/1/2000
12/1/2001
12/1/2002
12/1/2003
12/1/2004
12/1/2005
12/1/2006
12/1/2007
12/1/2008
12/1/2009
12/1/2010
12/1/2011
12/1/2012
12/1/2013
12/1/2014
12/1/2015
12/1/2016
12/1/2017
12/1/2018
12/1/2019
12/1/2020
12/1/2021
12/1/2022


LDCS-5
Daily Conductivity vs Weekly Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-5 Cond. (µS/cm)
LDCS-5 Vol. Weekly
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
12/1/1999
12/1/2000
12/1/2001
12/1/2002
12/1/2003
12/1/2004
12/1/2005
12/1/2006
12/1/2007
12/1/2008
12/1/2009
12/1/2010
12/1/2011
12/1/2012
12/1/2013
12/1/2014
12/1/2015
12/1/2016
12/1/2017
12/1/2018
12/1/2019
12/1/2020
12/1/2021
12/1/2022

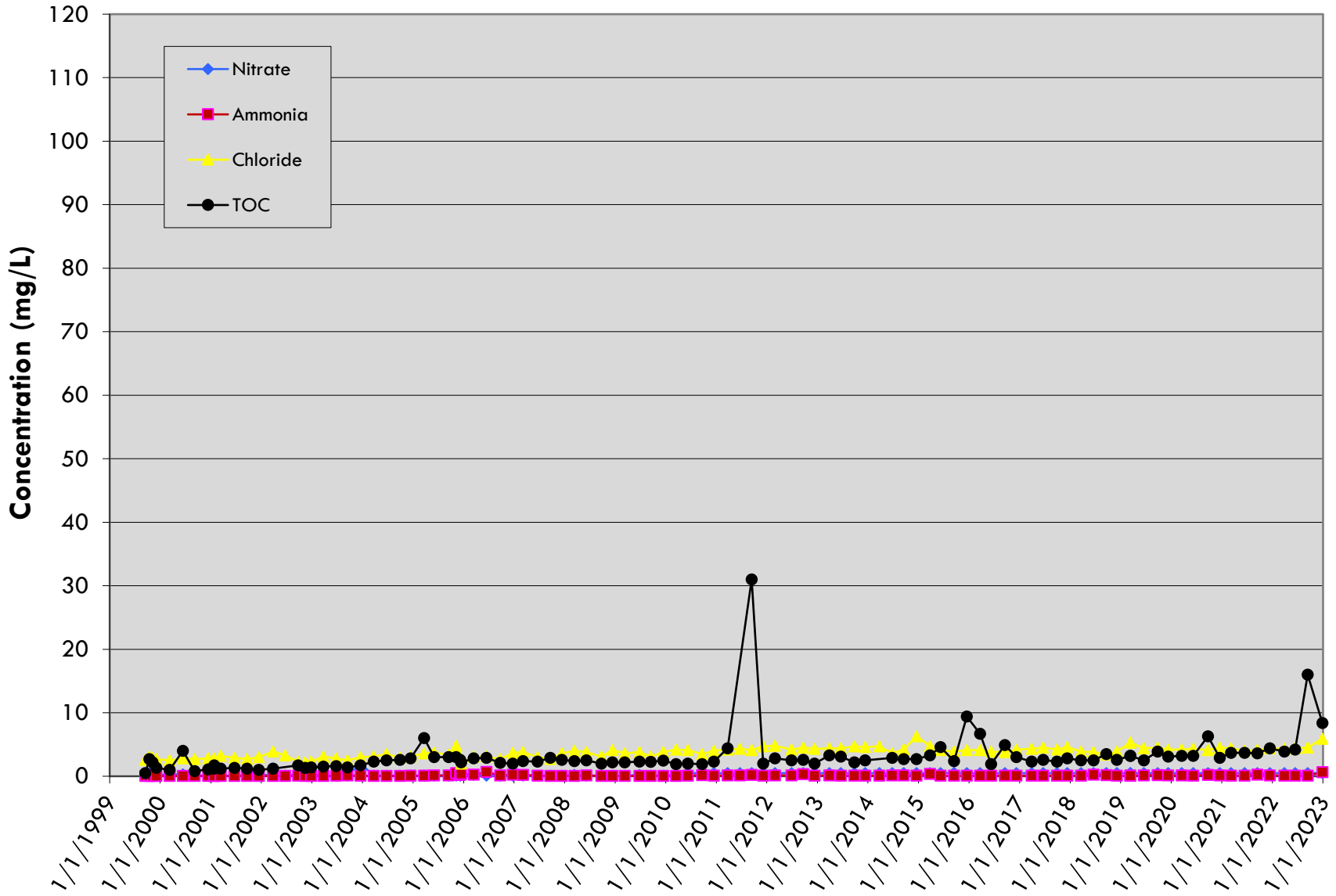

LDCS-6
Daily Conductivity vs Weekly Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-6 Cond. (µS/cm)
LDCS-6 Vol. Weekly
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
12/1/1999
12/1/2000
12/1/2001
12/1/2002
12/1/2003
12/1/2004
12/1/2005
12/1/2006
12/1/2007
12/1/2008
12/1/2009
12/1/2010
12/1/2011
12/1/2012
12/1/2013
12/1/2014
12/1/2015
12/1/2016
12/1/2017
12/1/2018
12/1/2019
12/1/2020
12/1/2021
12/1/2022


LDCS-7
Daily Conductivity vs Weekly Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-7 Cond. (µS/cm)
LDCS-7 Vol. Weekly
Conductivity (µS/cm)
Volume Pumped (Gal.)
2,000
1,900
1,800
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
12/1/1999
12/1/2000
12/1/2001
12/1/2002
12/1/2003
12/1/2004
12/1/2005
12/1/2006
12/1/2007
12/1/2008
12/1/2009
12/1/2010
12/1/2011
12/1/2012
12/1/2013
12/1/2014
12/1/2015
12/1/2016
12/1/2017
12/1/2018
12/1/2019
12/1/2020
12/1/2021
12/1/2022

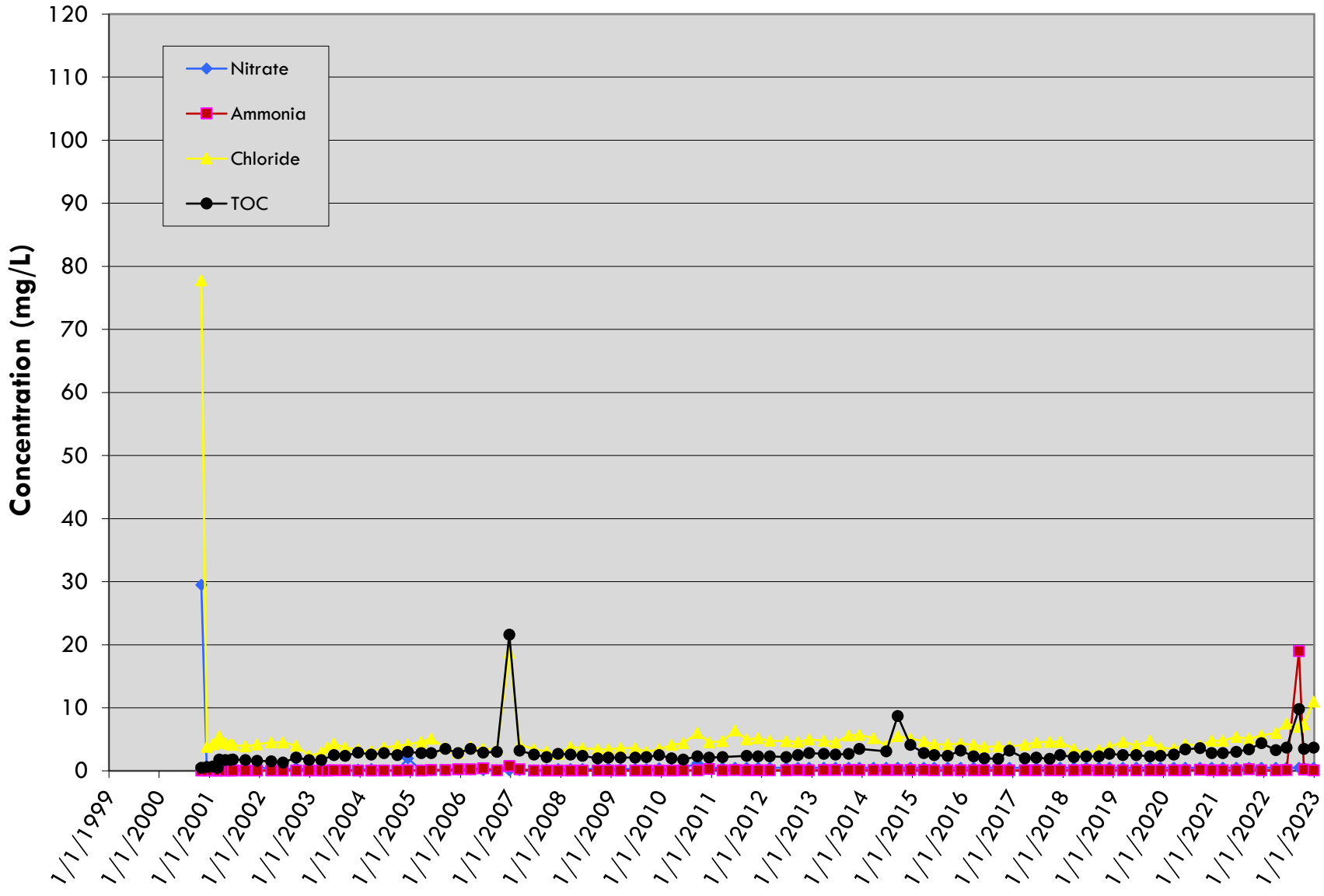

LDCS-8A
Daily Conductivity vs Weekly Volume Pumped
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington
LDCS-8A Cond. (µS/cm)
LDCS-8A Vol. Weekly
Conductivity (µS/cm)
Volume Pumped (Gal.)
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
200,000
180,000
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
12/1/1999
12/1/2000
12/1/2001
12/1/2002
12/1/2003
12/1/2004
12/1/2005
12/1/2006
12/1/2007
12/1/2008
12/1/2009
12/1/2010
12/1/2011
12/1/2012
12/1/2013
12/1/2014
12/1/2015
12/1/2016
12/1/2017
12/1/2018
12/1/2019
12/1/2020
12/1/2021
12/1/2022

LDCS-1

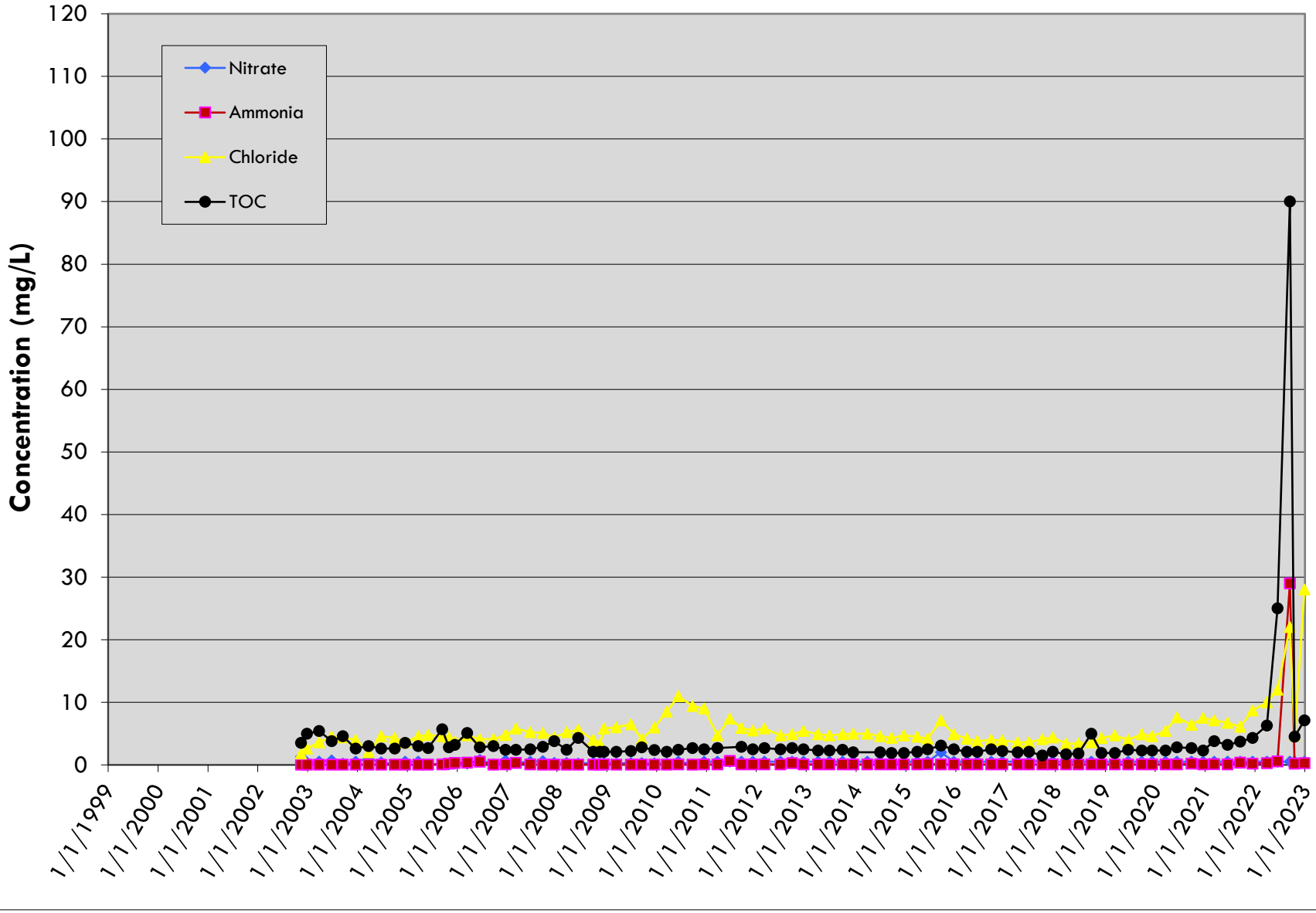
LRI Landfill, Pierce County, Washington



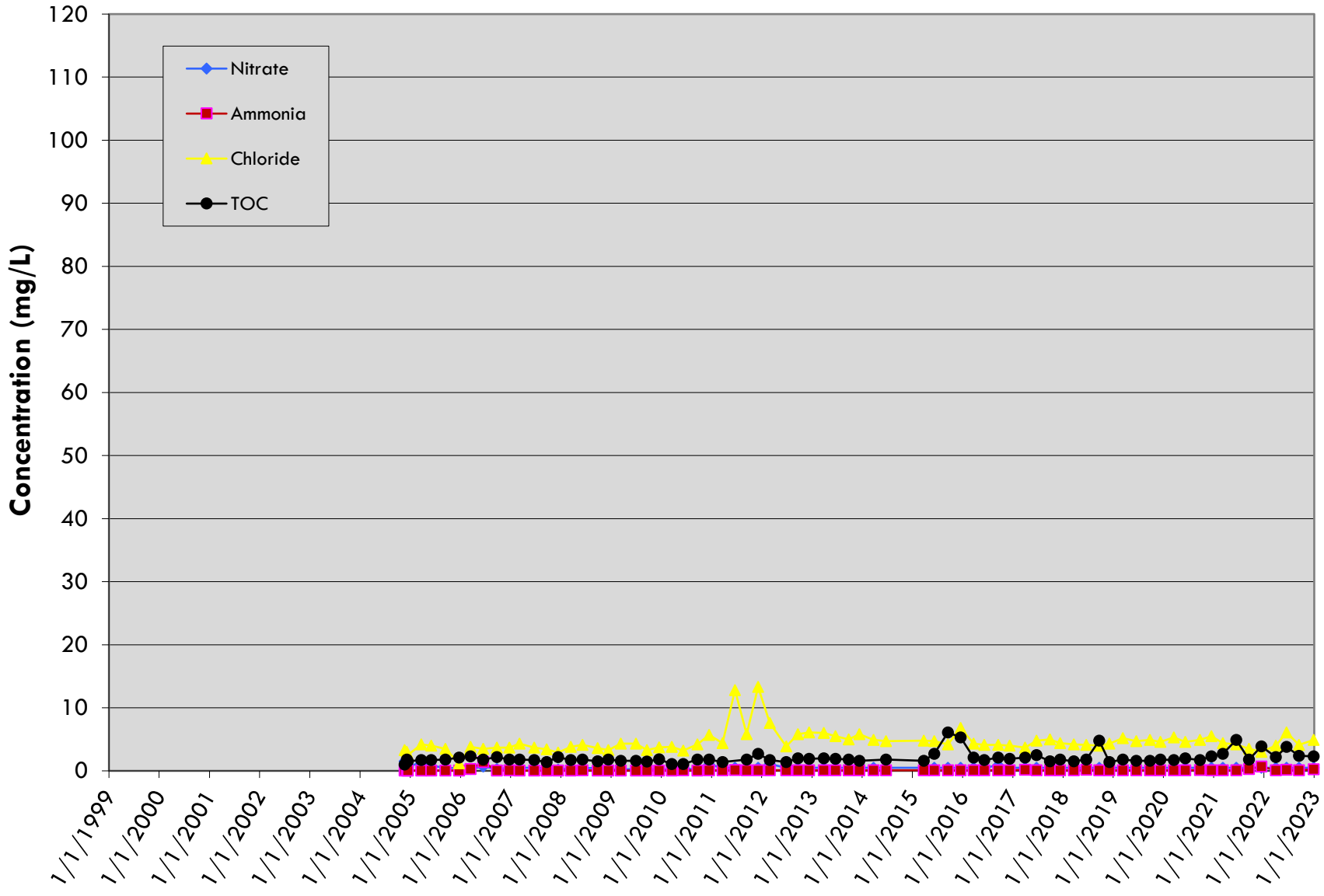
LDCS-2A
LRI Landfill, Pierce County, Washington



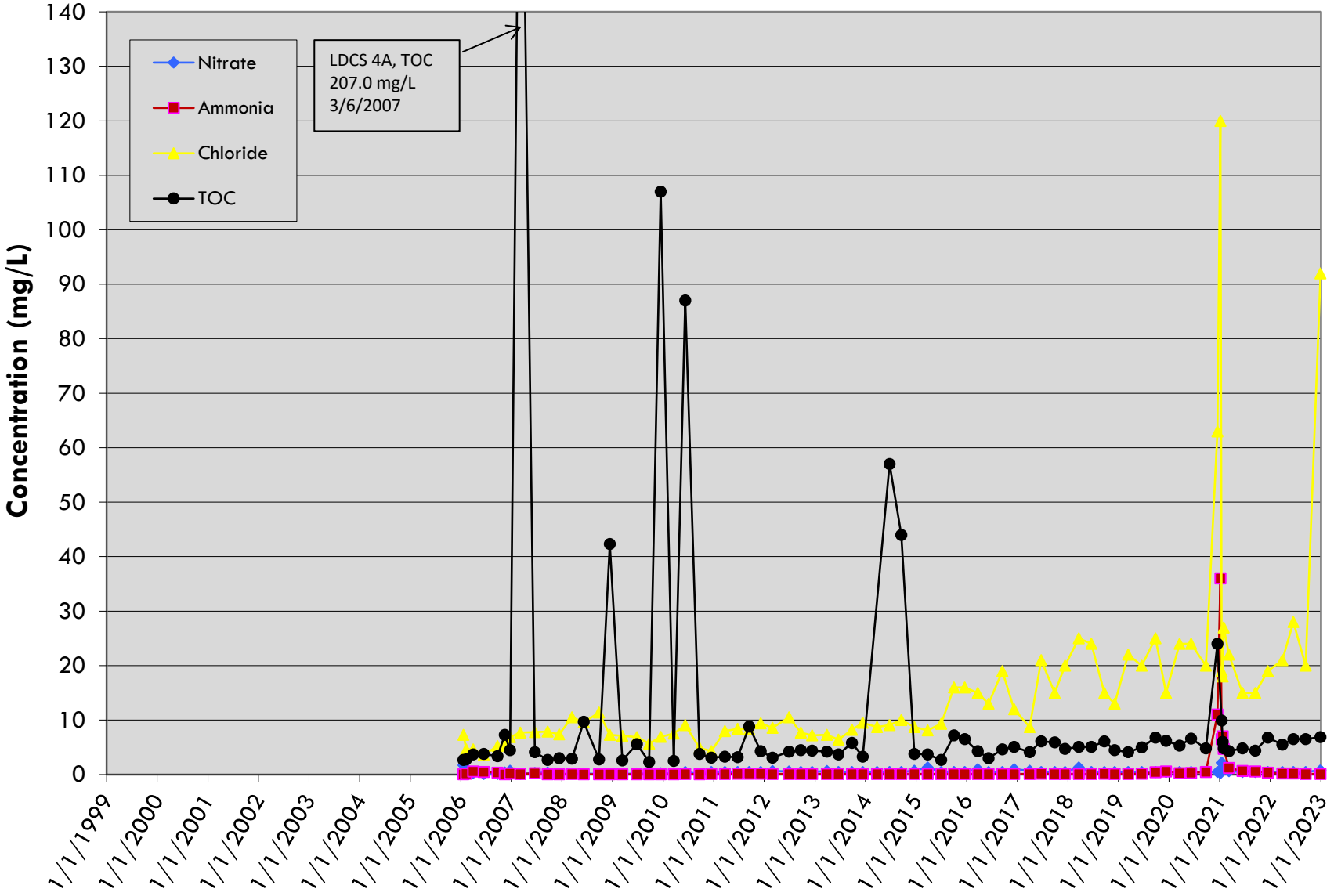
LDCS-2B
LRI Landfill, Pierce County, Washington



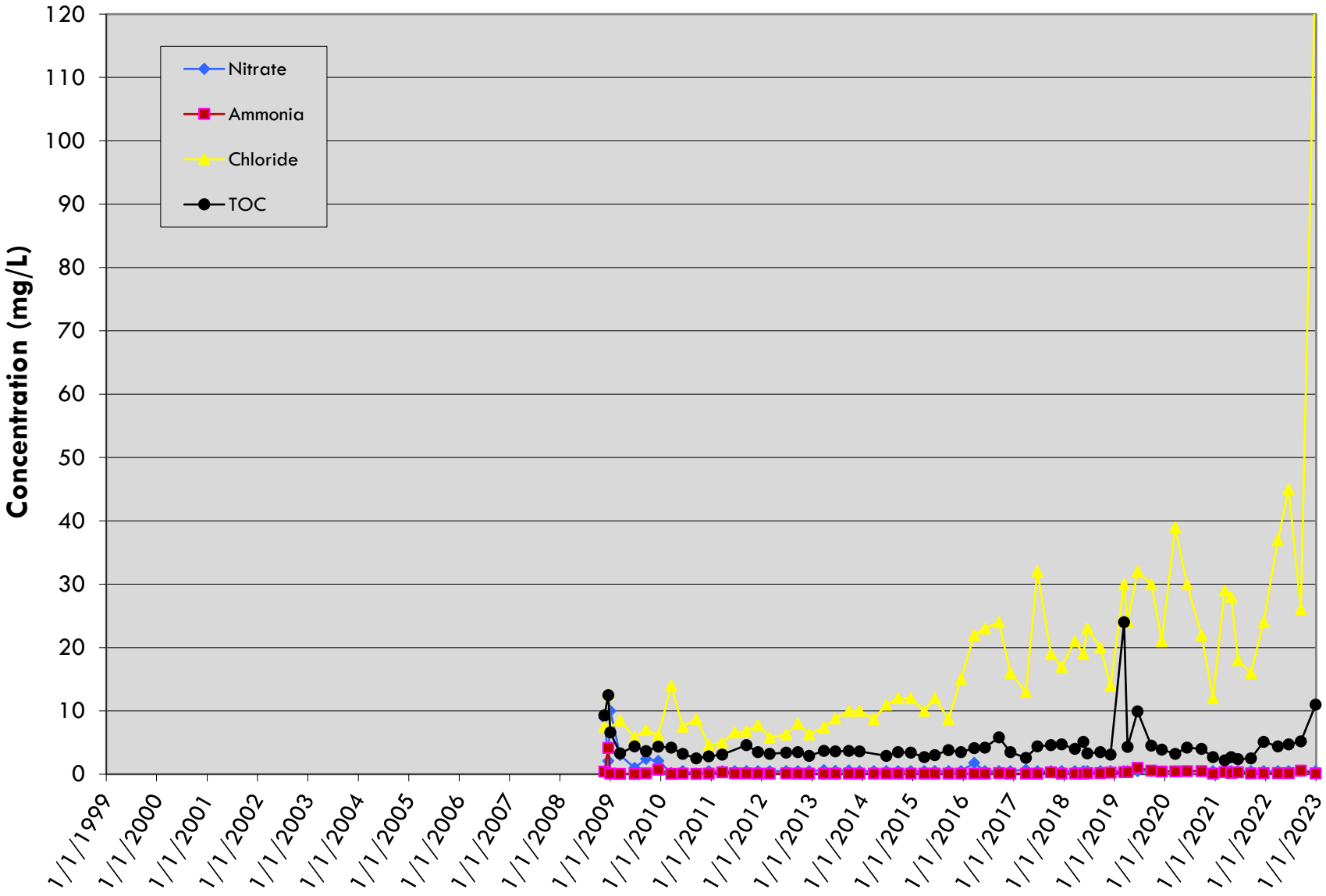
LDCS-3A
LRI Landfill, Pierce County, Washington

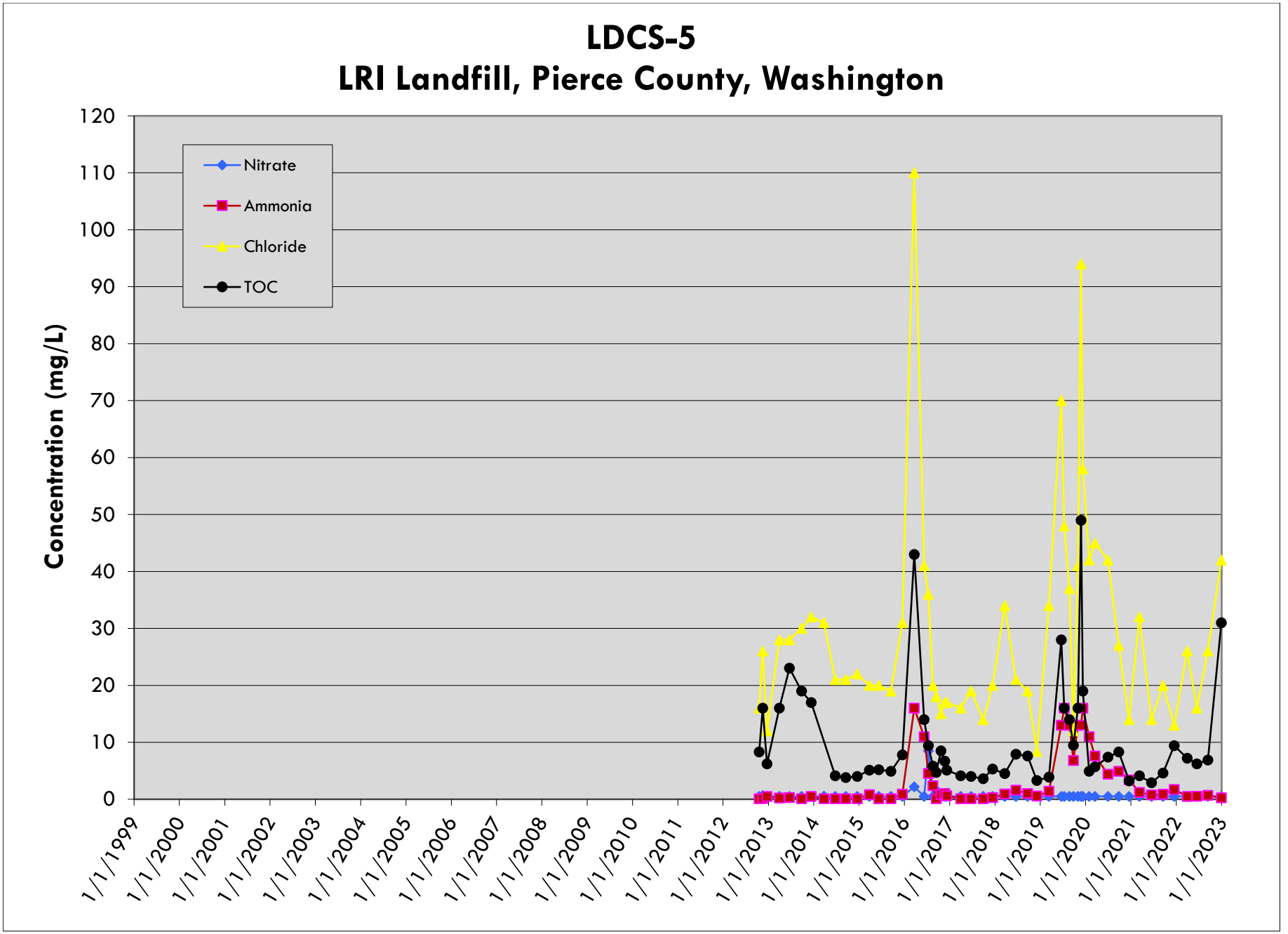


LDCS-4A
LRI Landfill, Pierce County, Washington

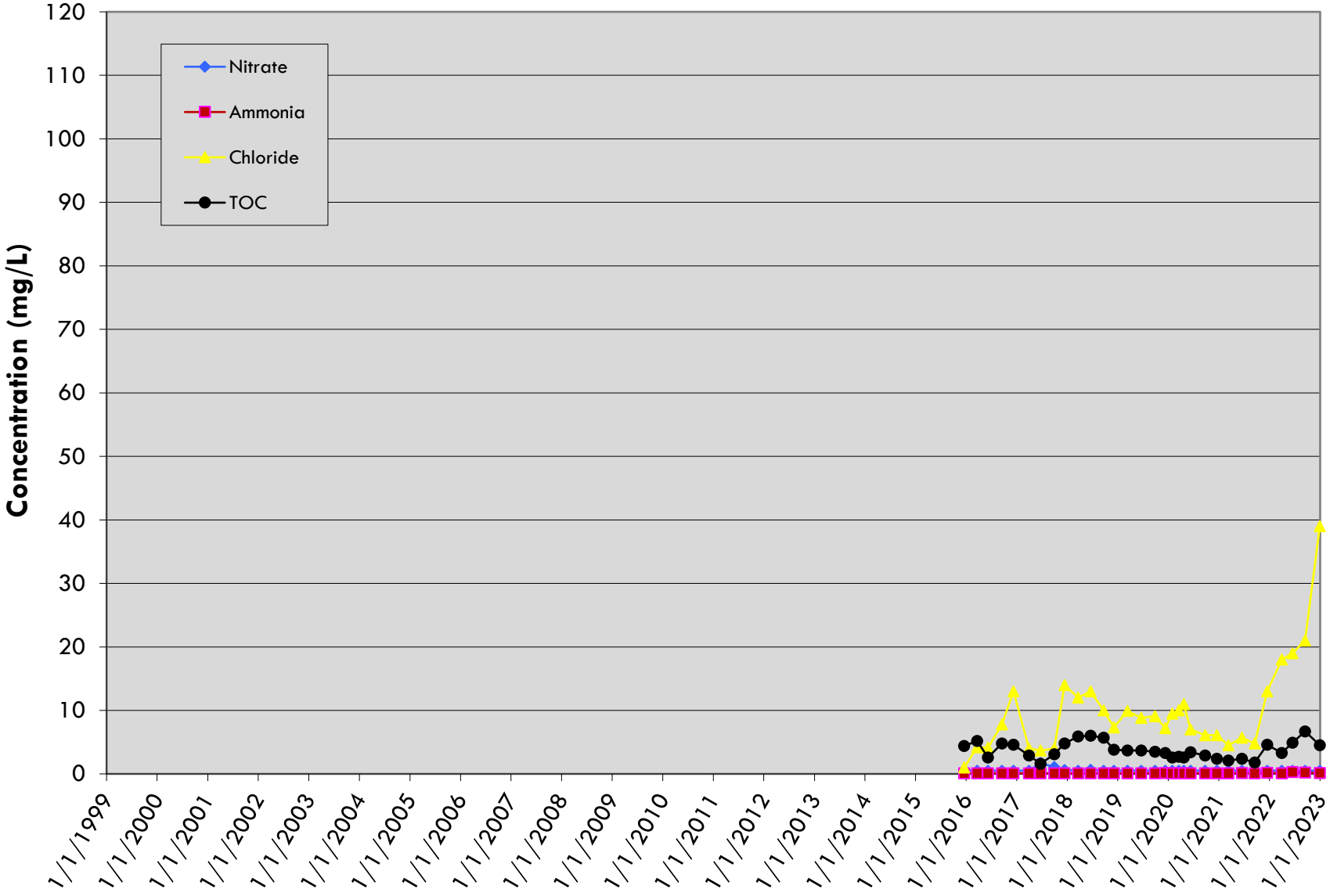


LDCS-4B
LRI Landfill, Pierce County, Washington

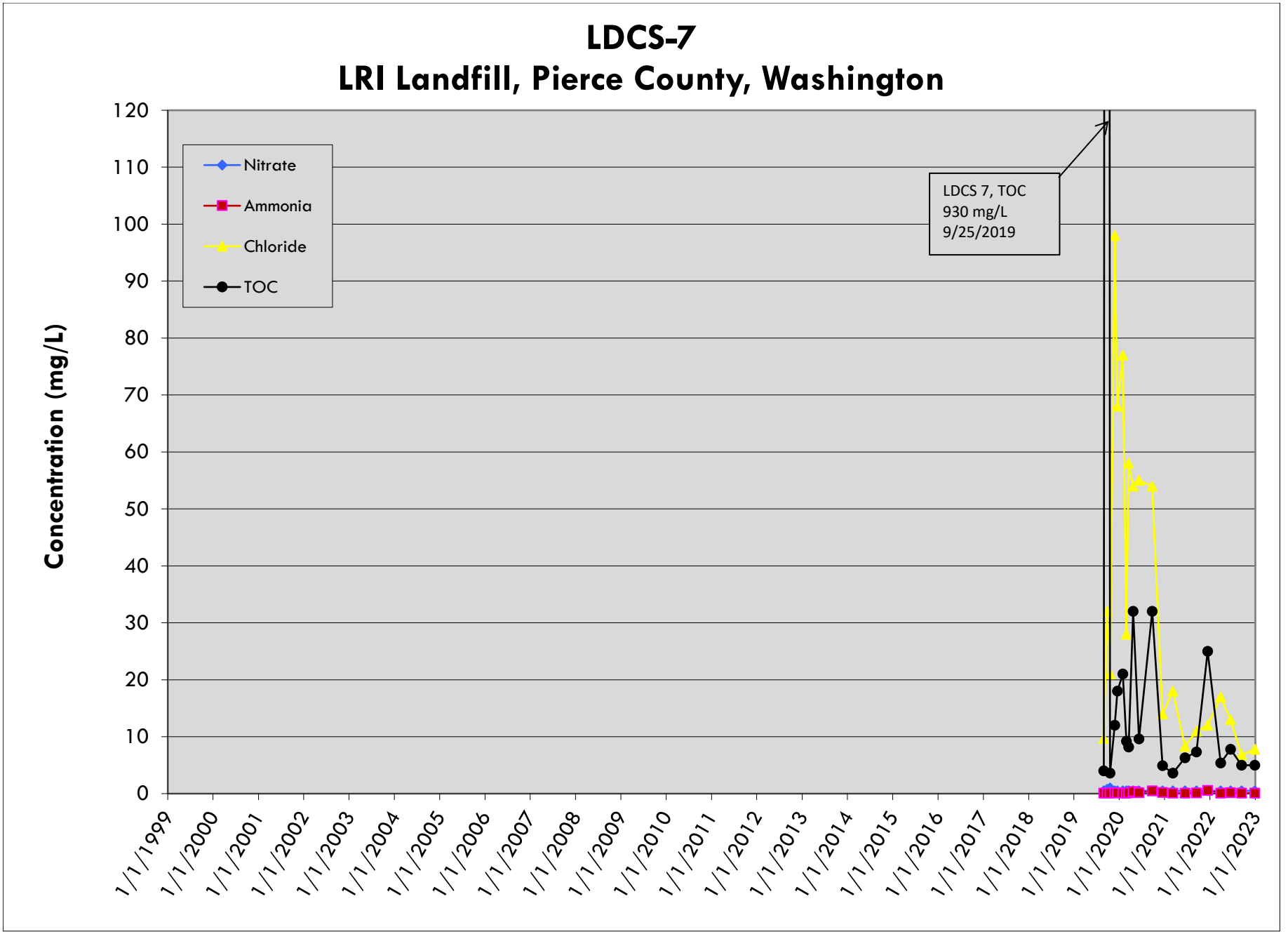



LDCS-5
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
Nitrate
Ammonia
Chloride
TOC
120
110
100
90
80
70
60
50
40
30
20
10
0
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

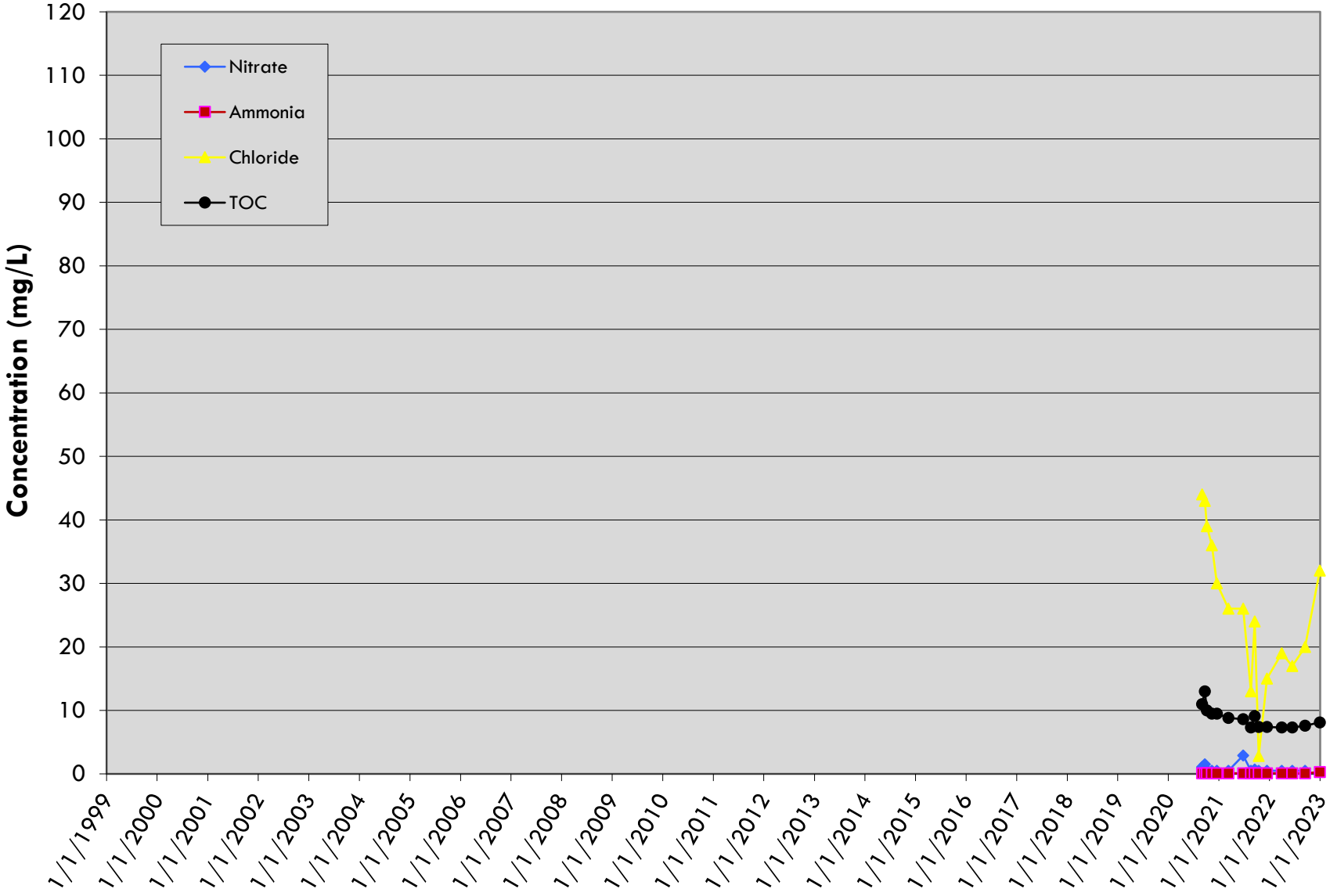
LDCS-6A
LRI Landfill, Pierce County, Washington

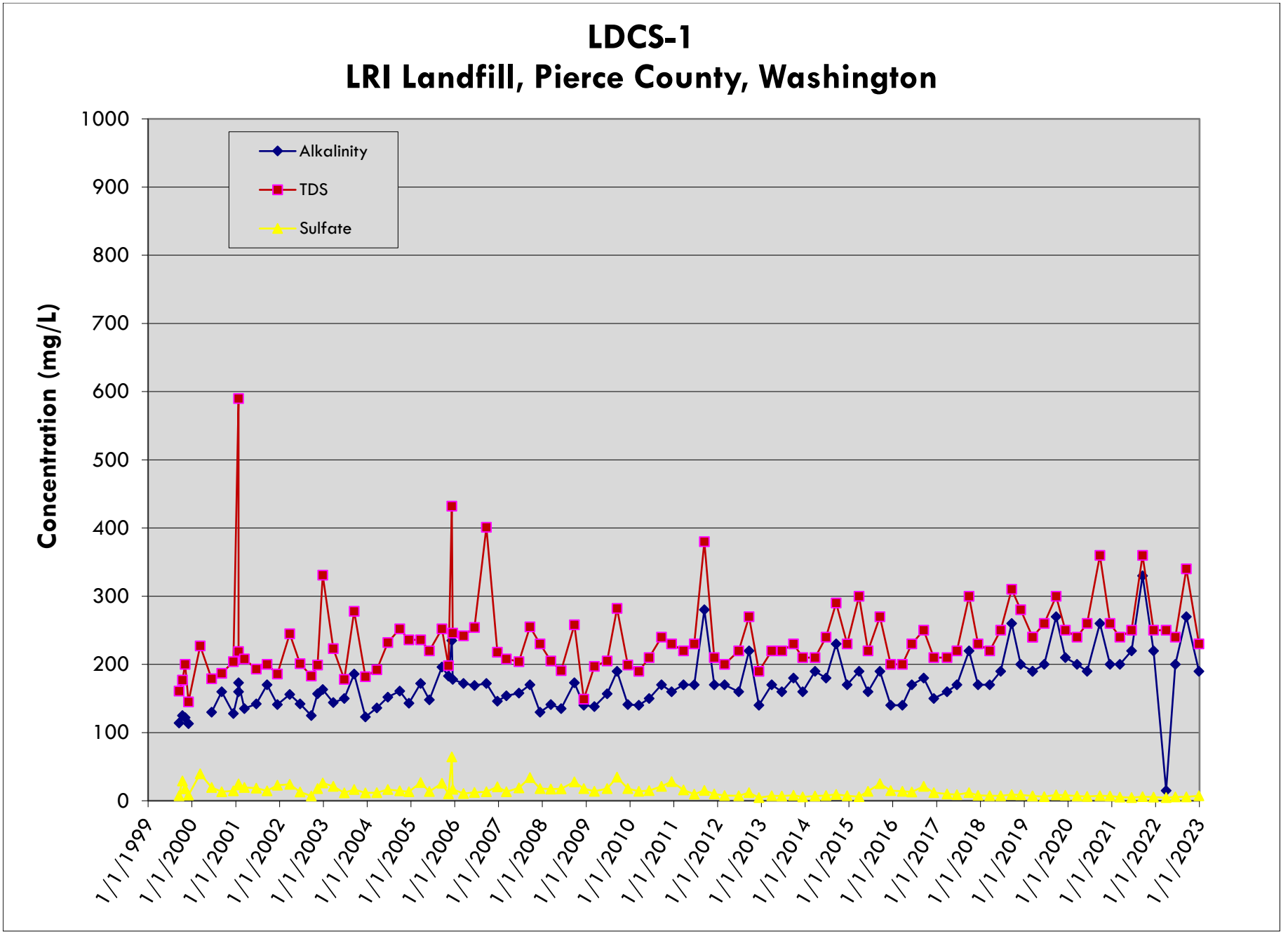


LDCS-7
LRI Landfill, Pierce County, Washington

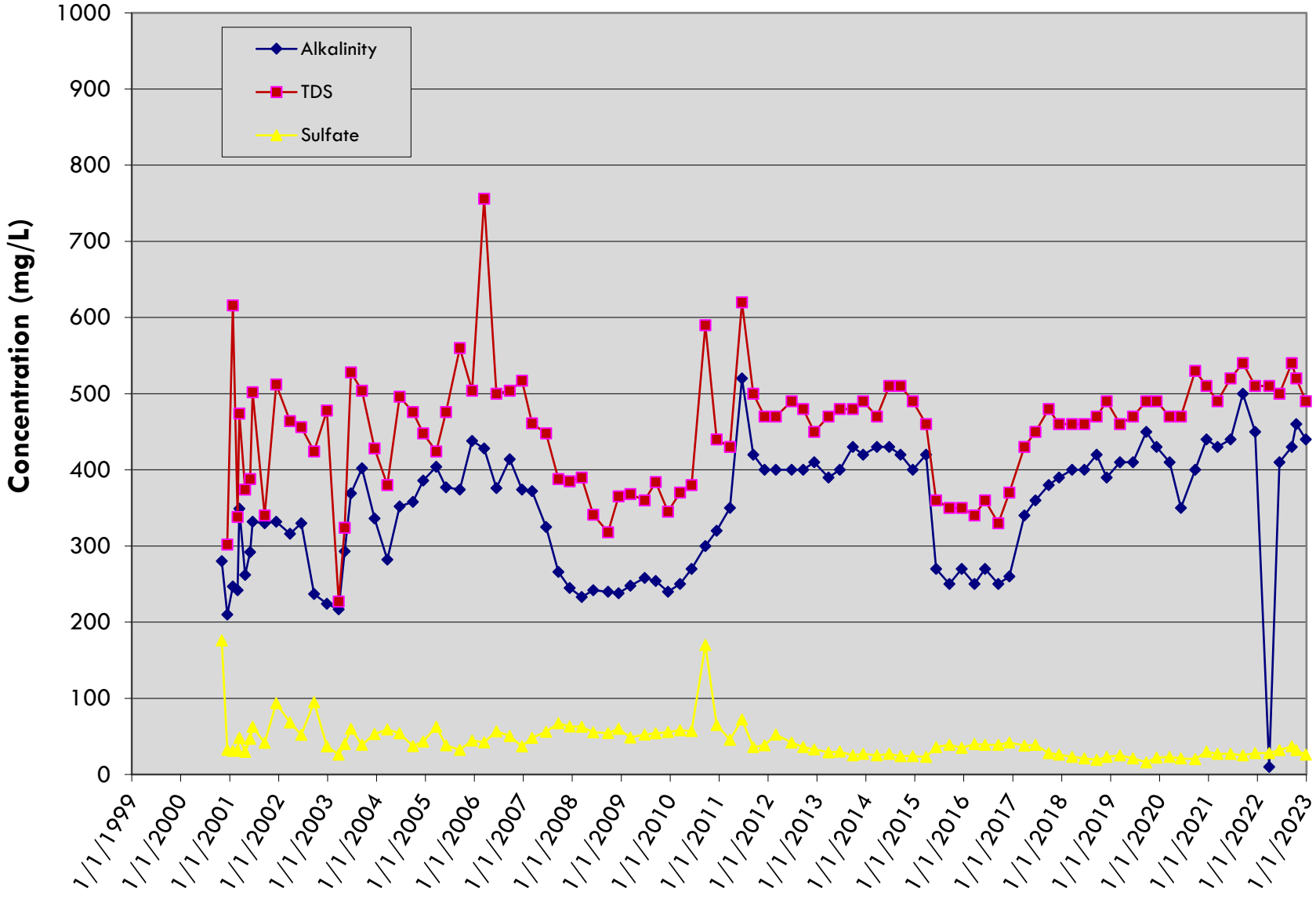


LDCS-8
LRI Landfill, Pierce County, Washington

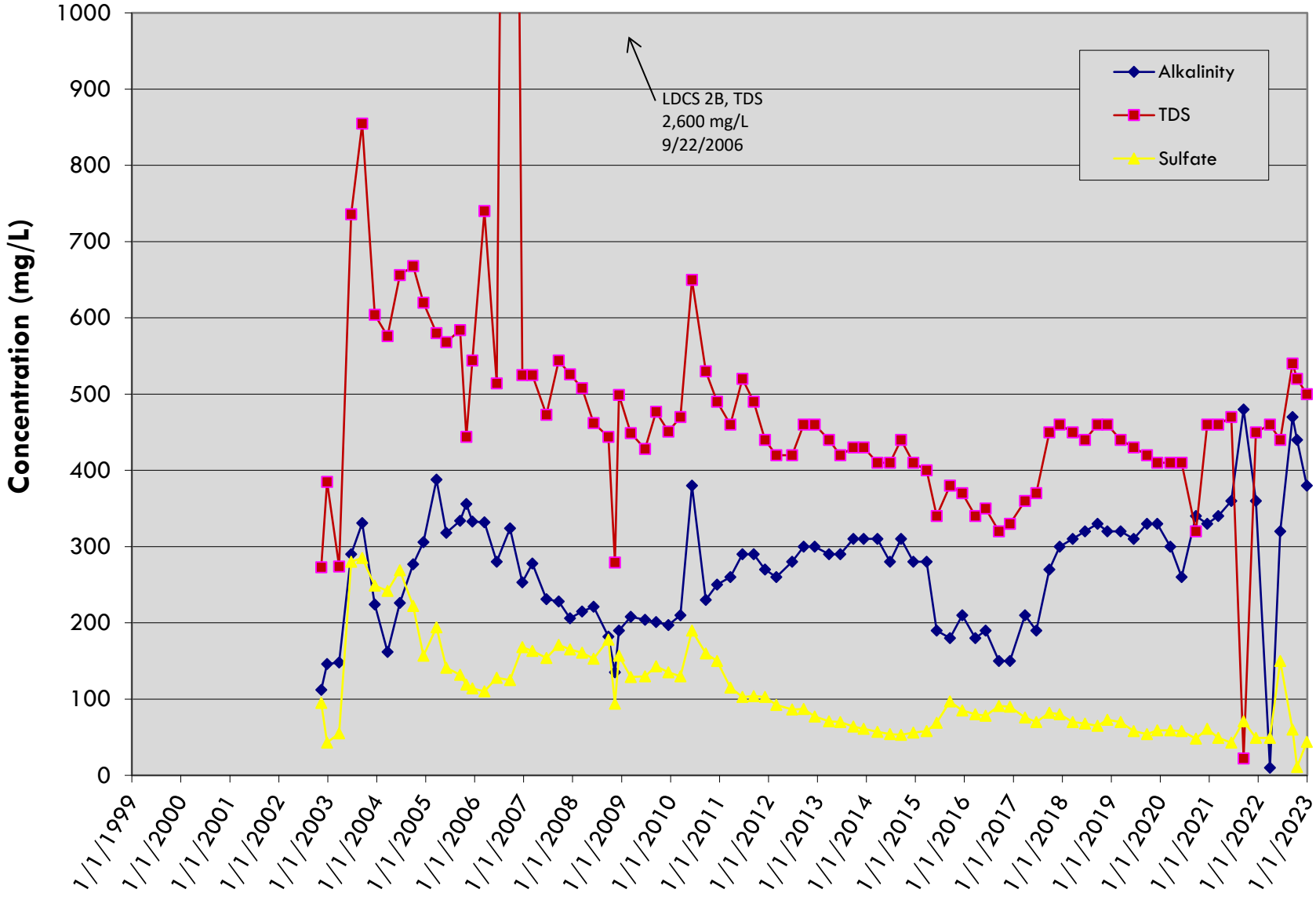



LDCS-1
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
Alkalinity
TDS
Sulfate
1000
900
800
700
600
500
400
300
200
100
0
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

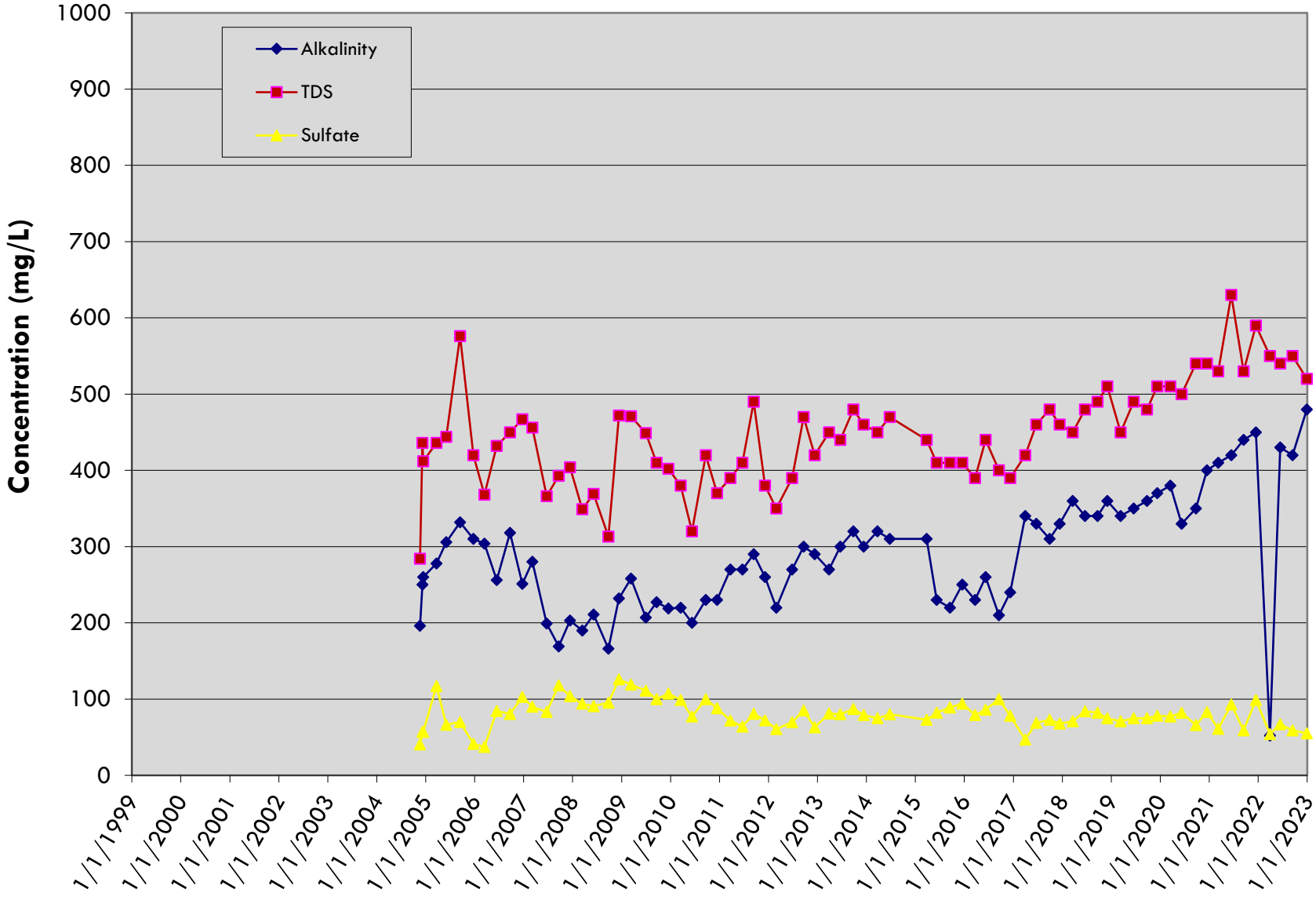
LDCS-2A
LRI Landfill, Pierce County, Washington

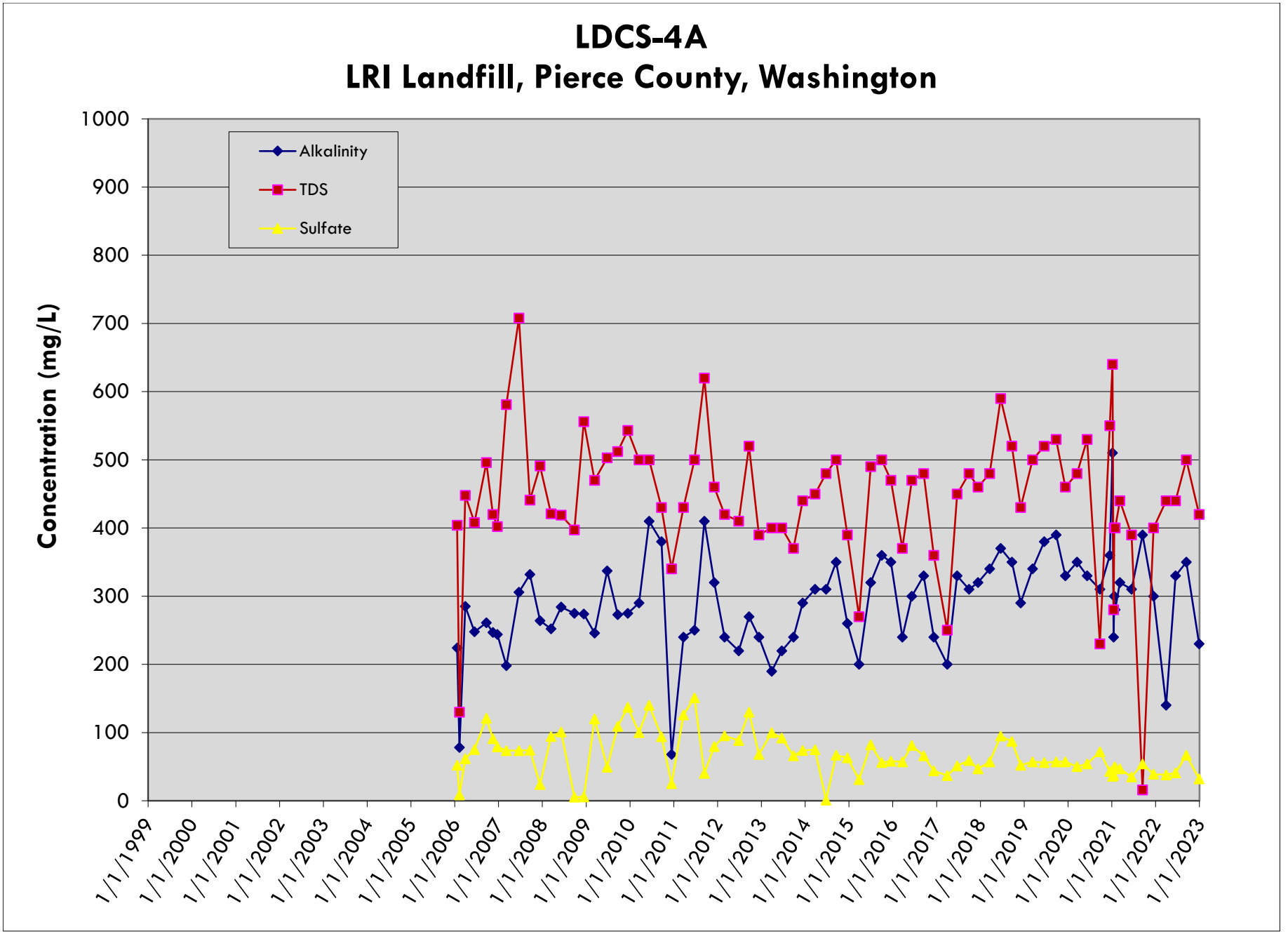


LDCS-2B
LRI Landfill, Pierce County, Washington

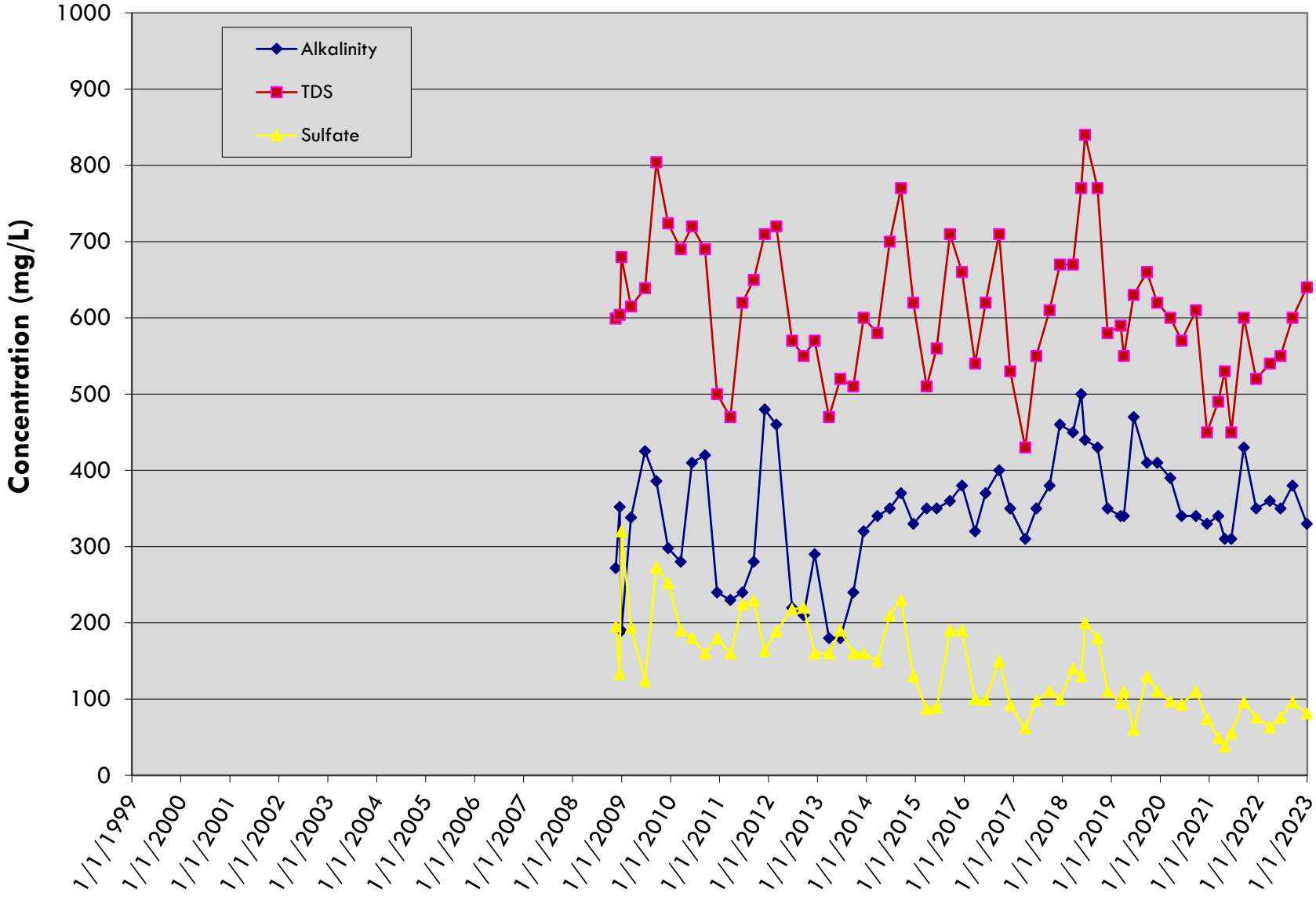


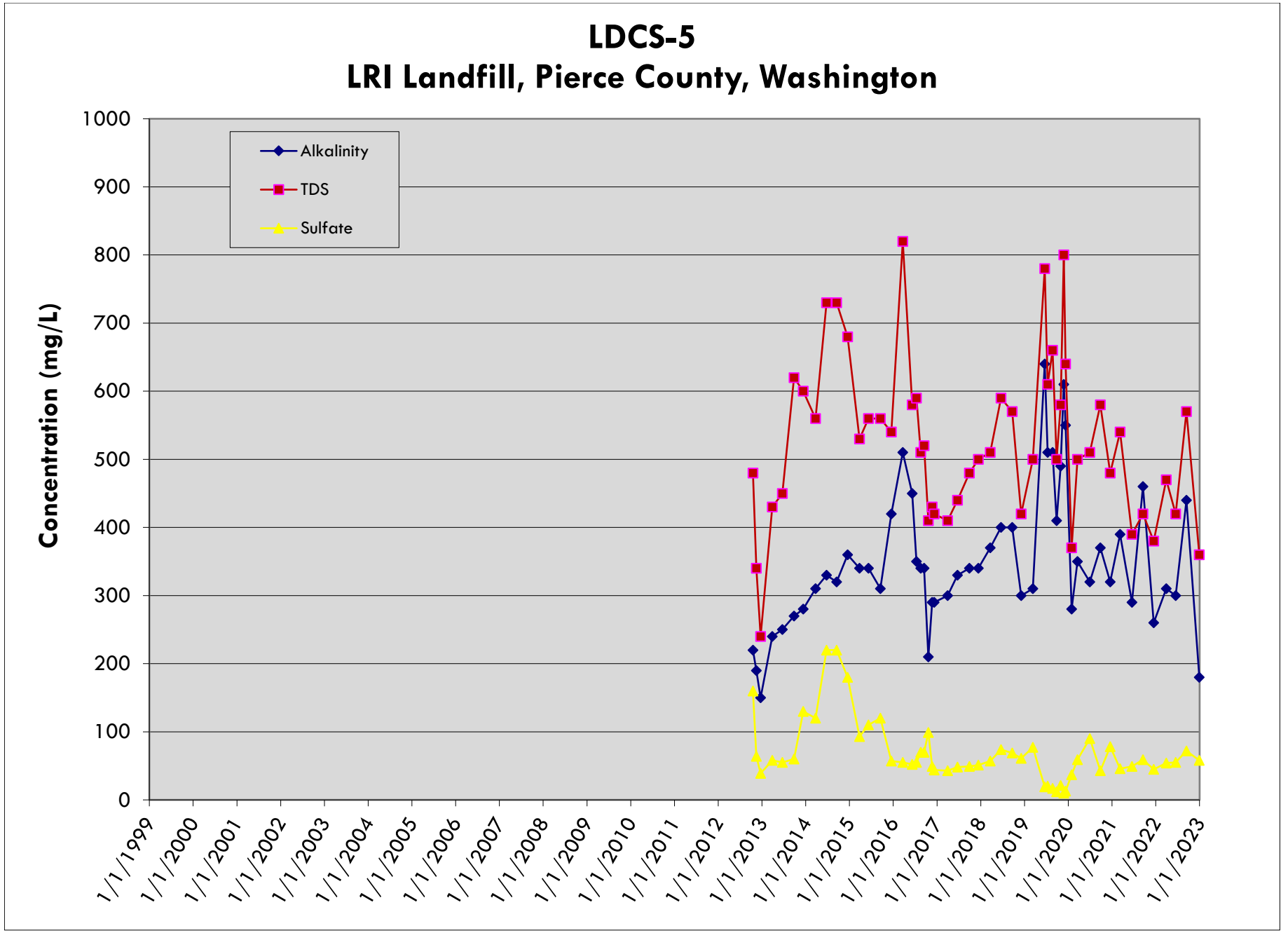
LDCS-3A
LRI Landfill, Pierce County, Washington



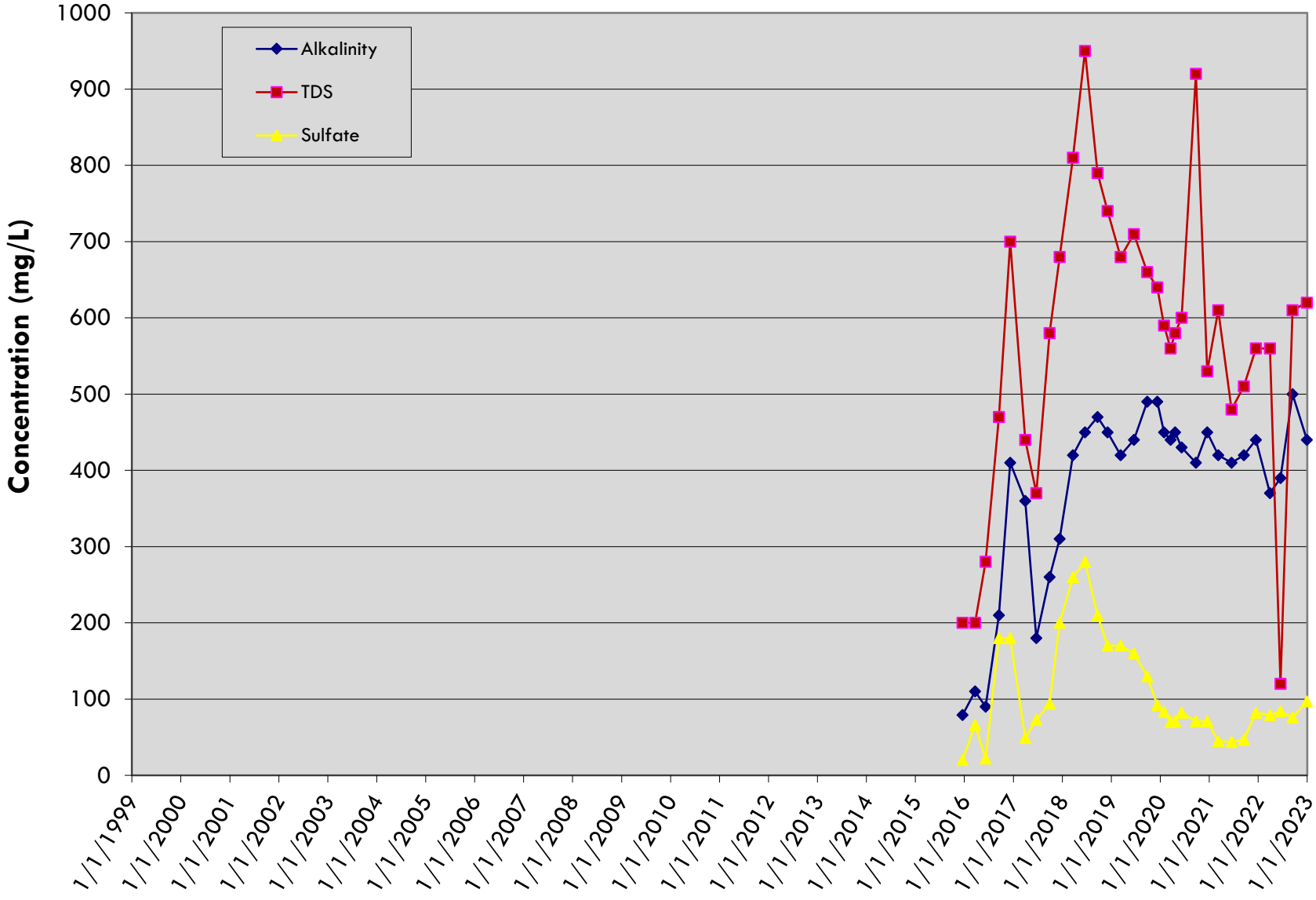

LDCS-4A
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
Alkalinity
TDS
Sulfate
0
100
200
300
400
500
600
700
800
900
1000
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

LDCS-4B
LRI Landfill, Pierce County, Washington

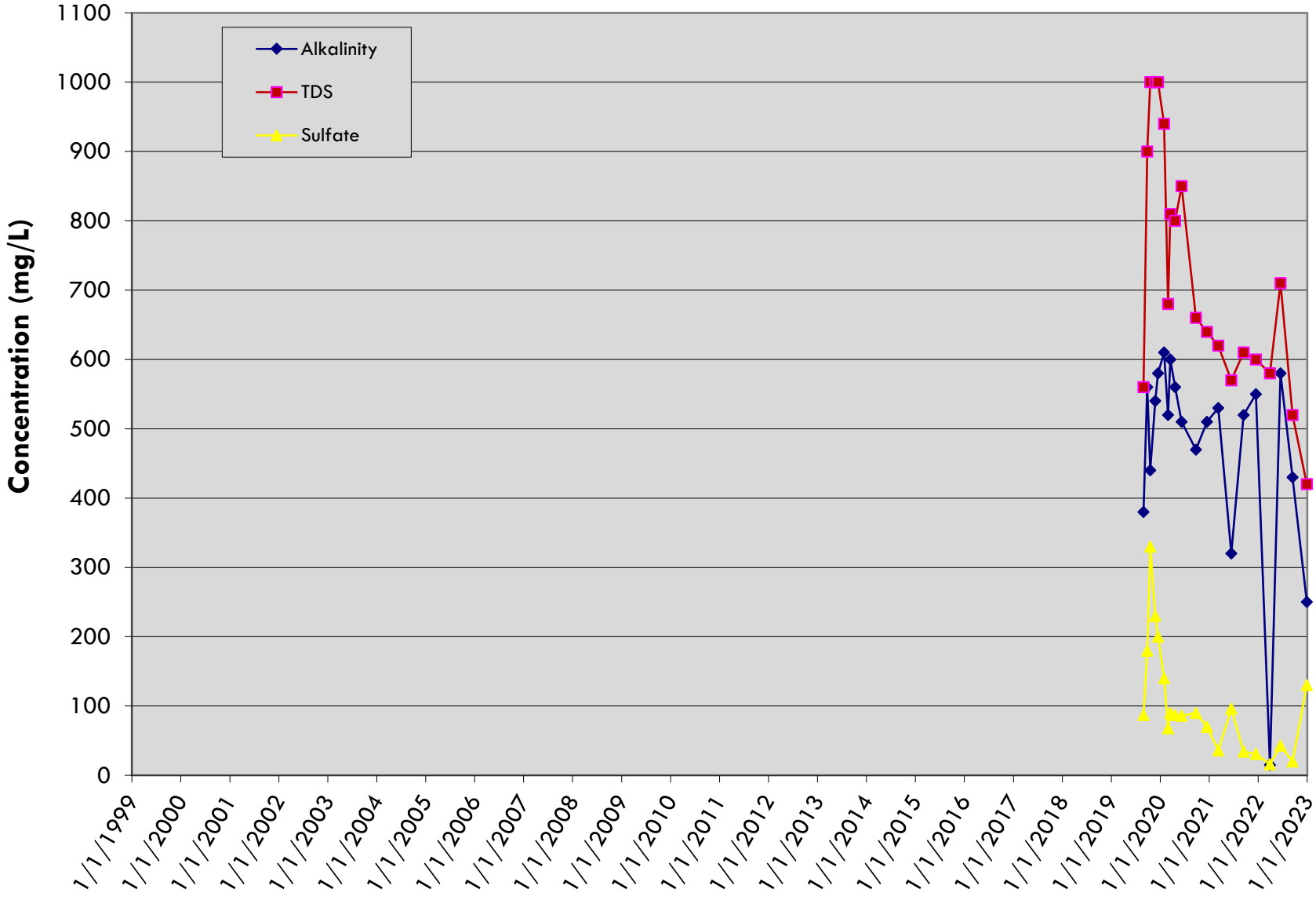



LDCS-5
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
Alkalinity
TDS
Sulfate
1000
900
800
700
600
500
400
300
200
100
0
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

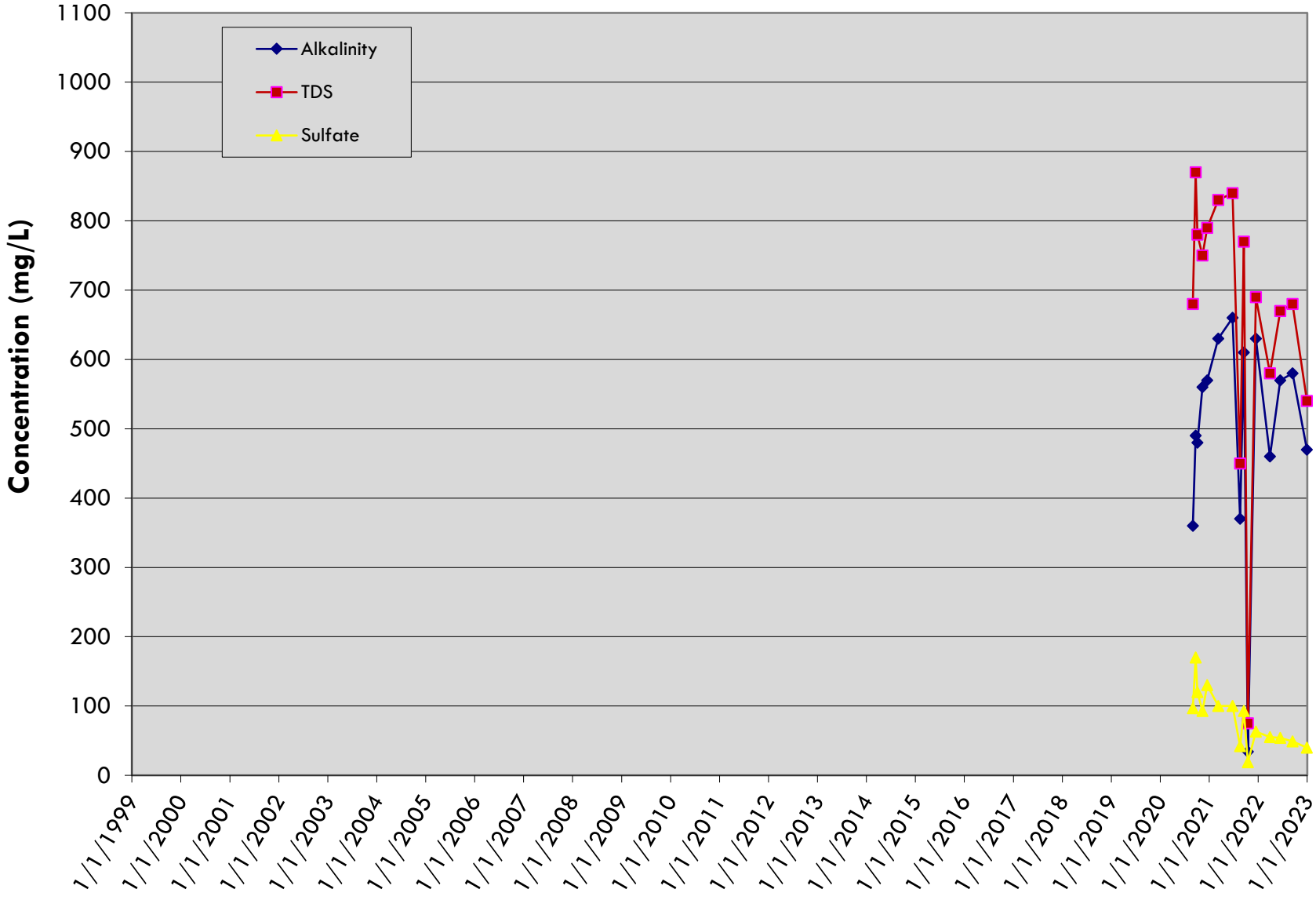
LDCS-6A
LRI Landfill, Pierce County, Washington



LDCS-7
LRI Landfill, Pierce County, Washington

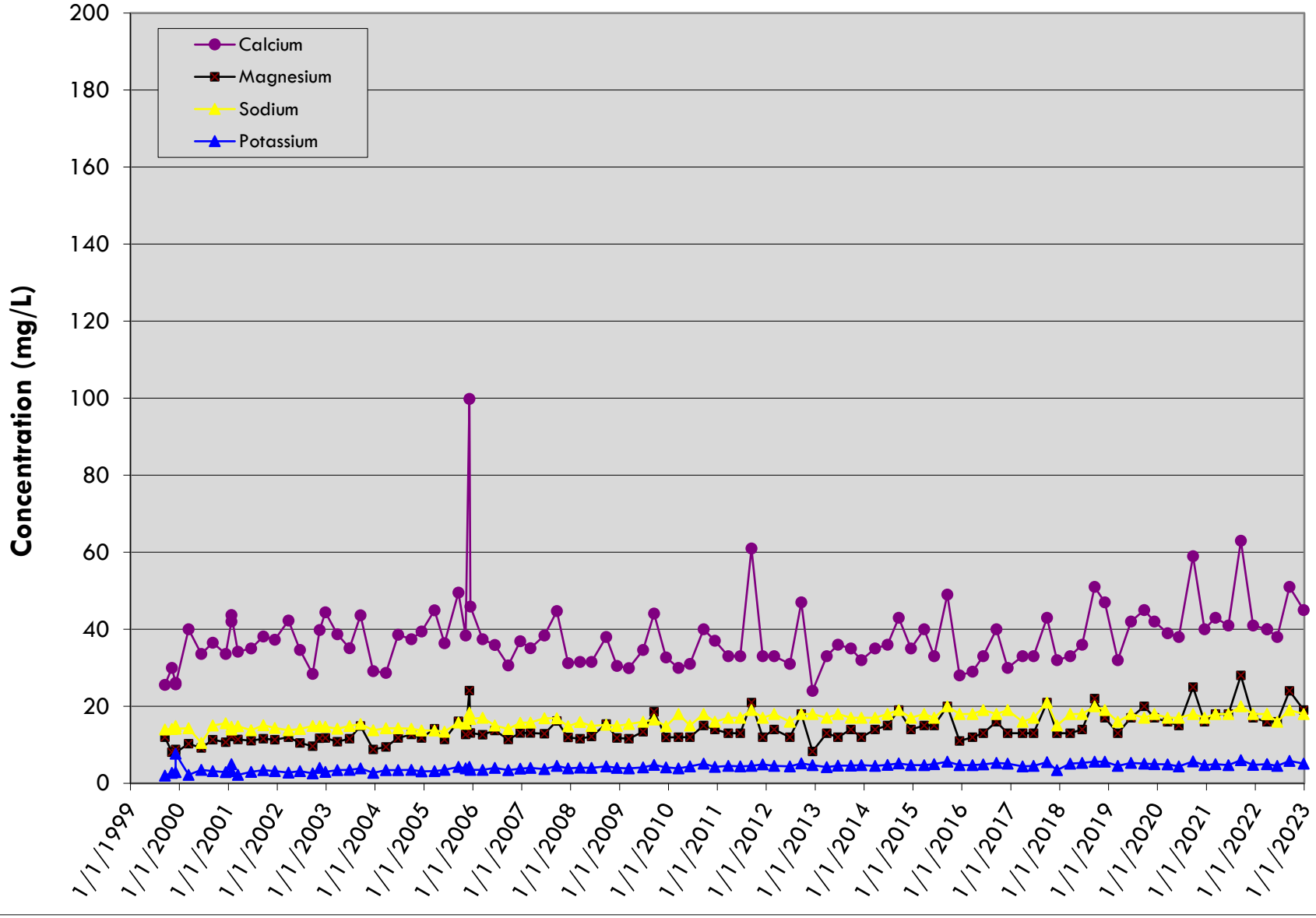


LDCS-8
LRI Landfill, Pierce County, Washington

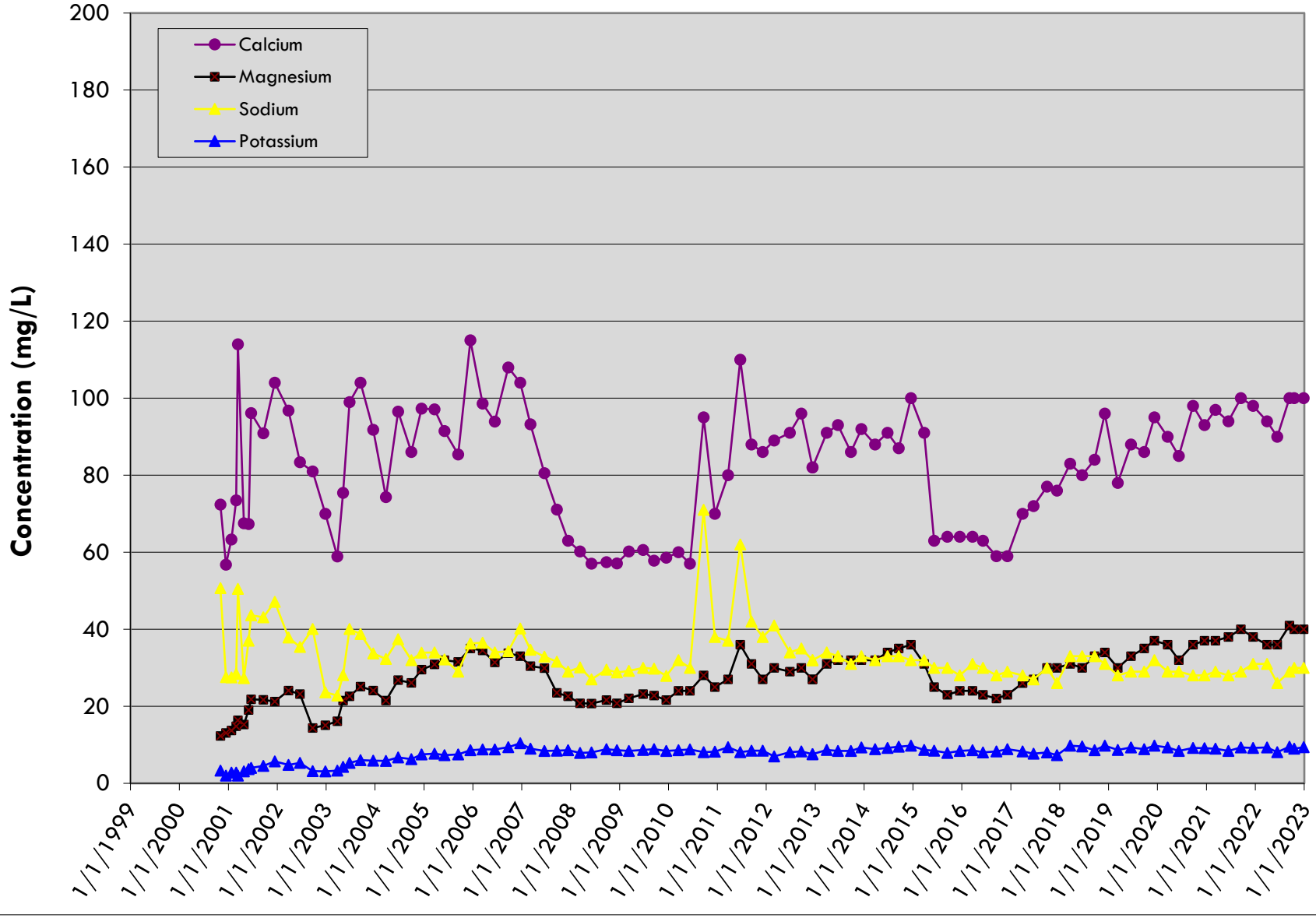


LDCS-1

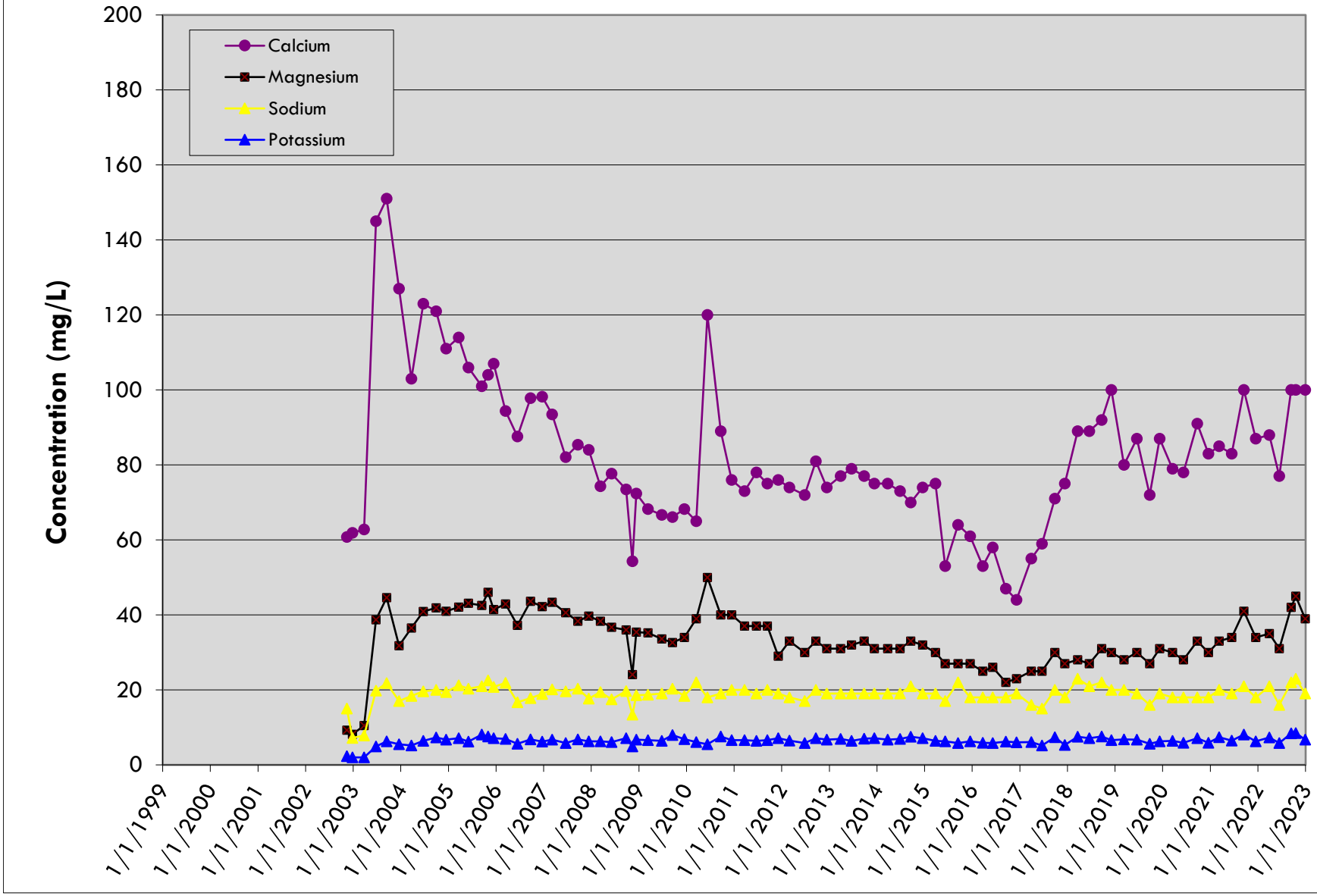
LRI Landfill, Pierce County, Washington



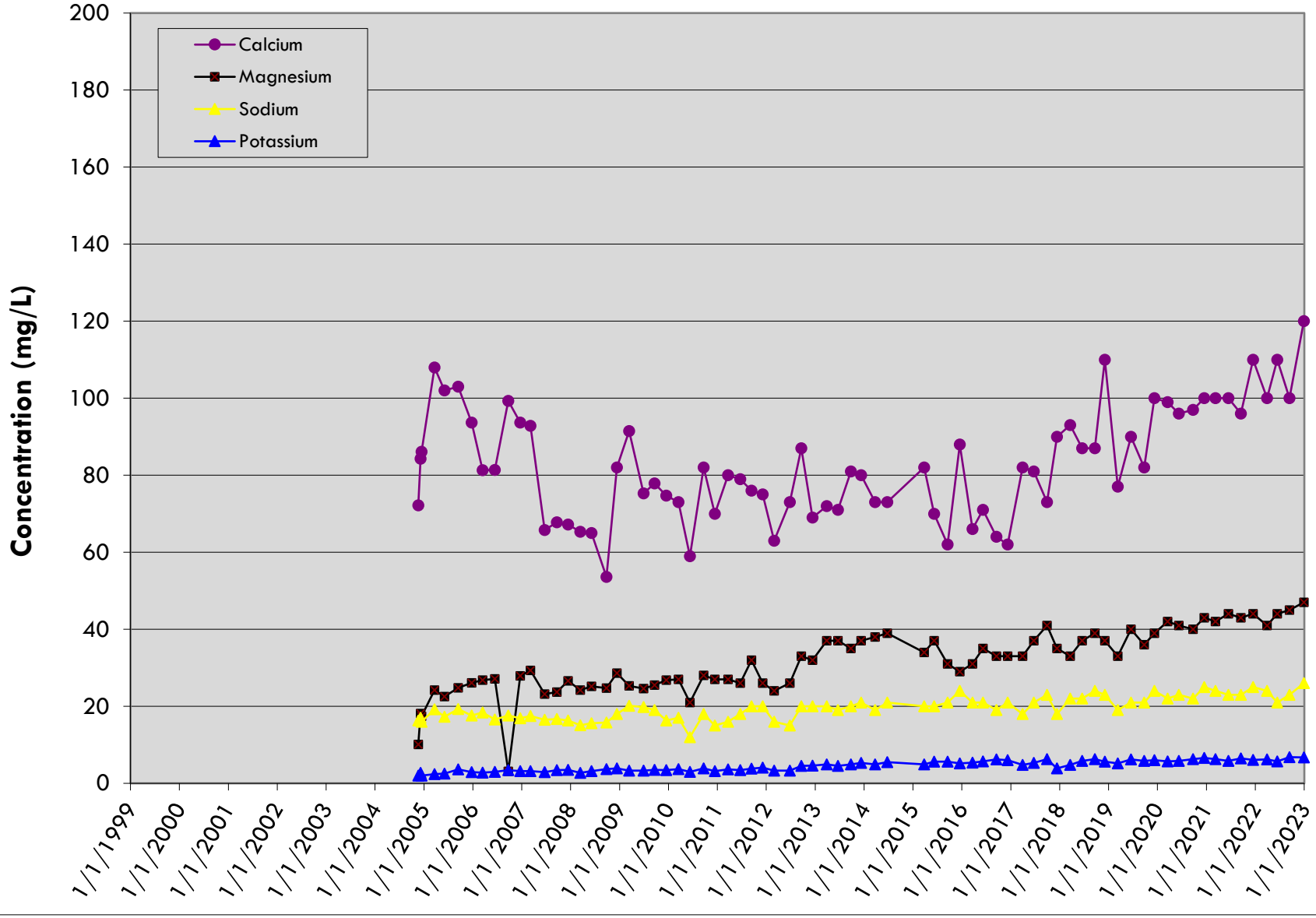
LDCS-2A
LRI Landfill, Pierce County, Washington



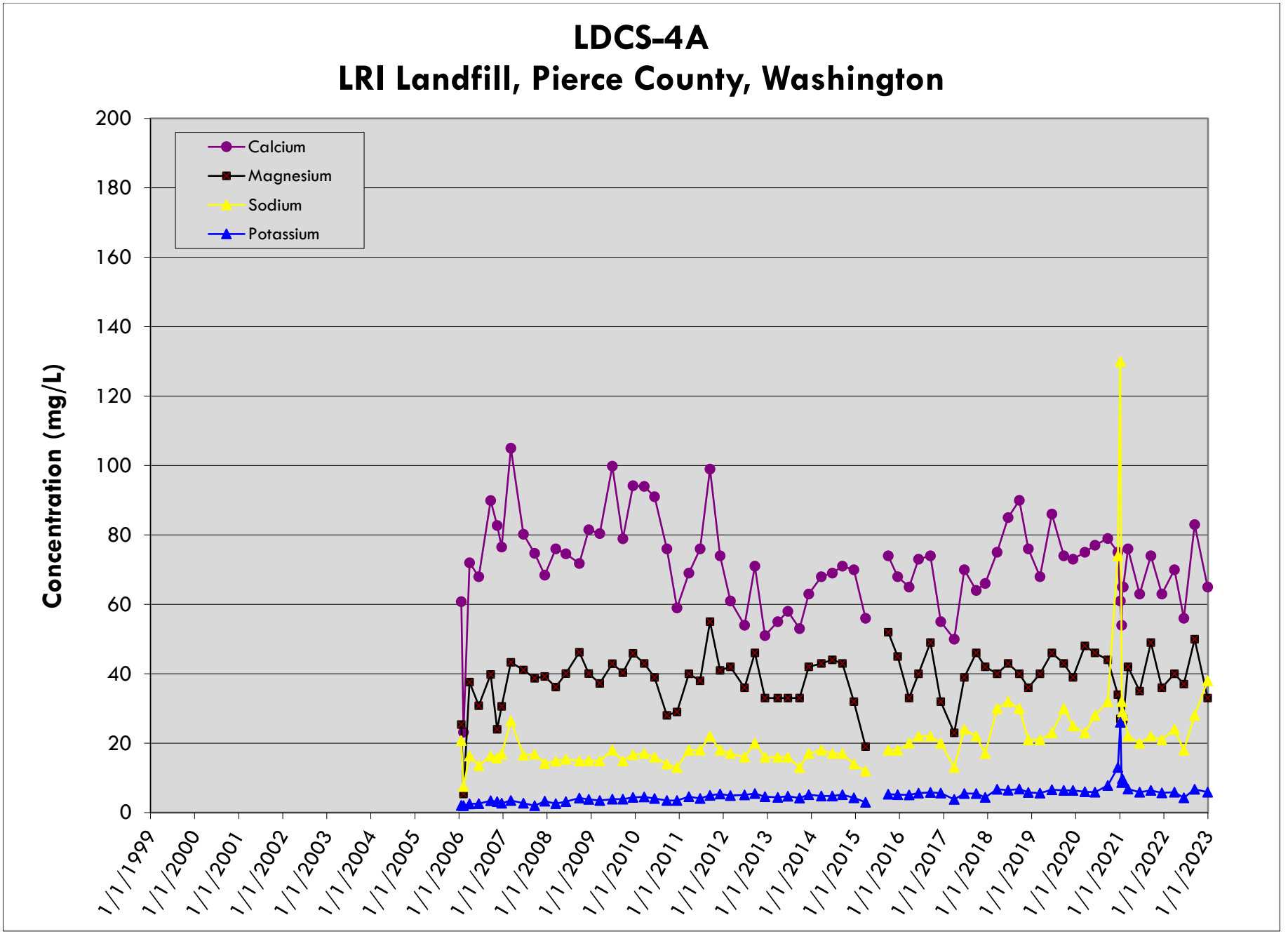
LDCS-2B
LRI Landfill, Pierce County, Washington



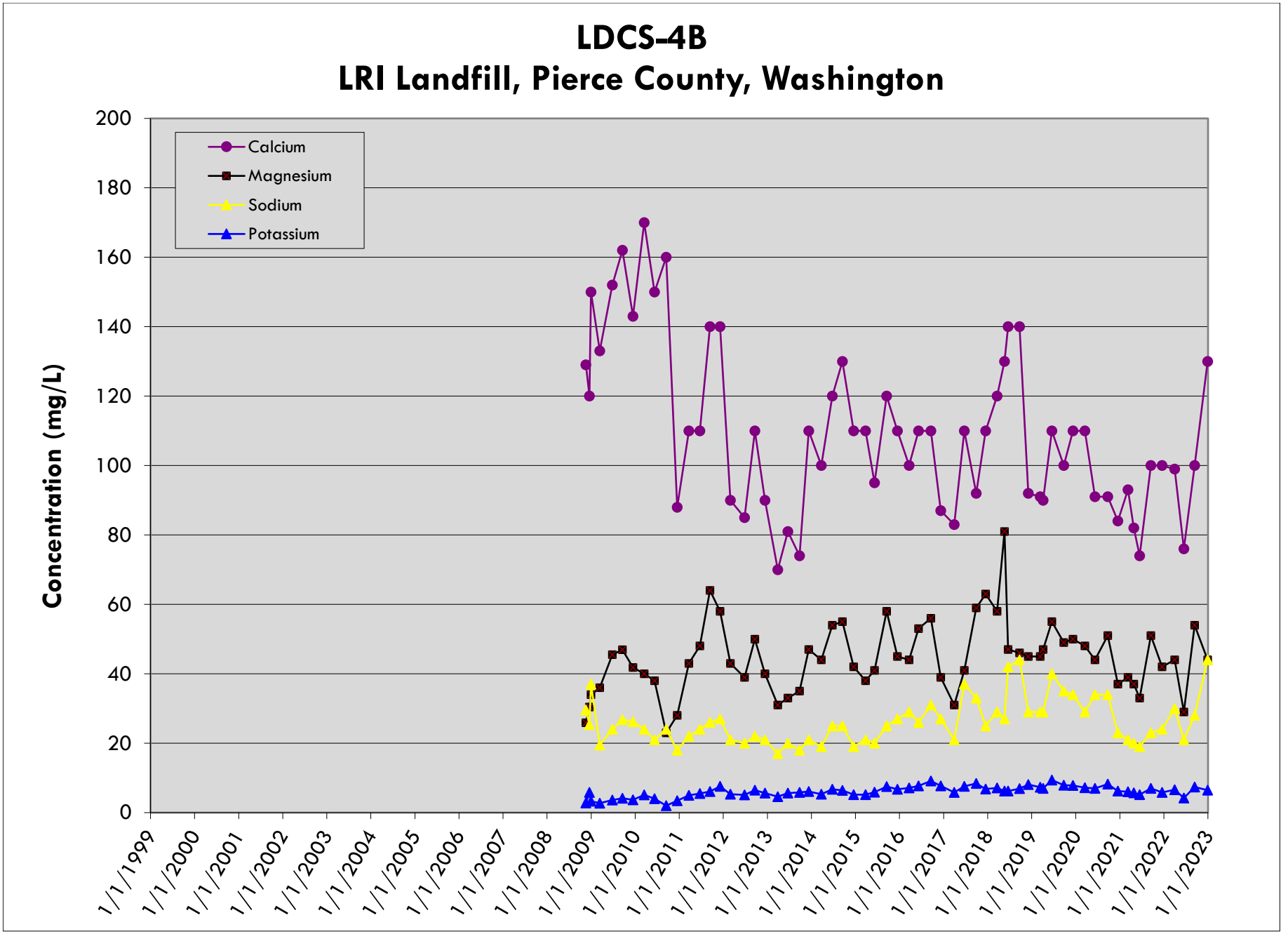
LDCS-3A
LRI Landfill, Pierce County, Washington



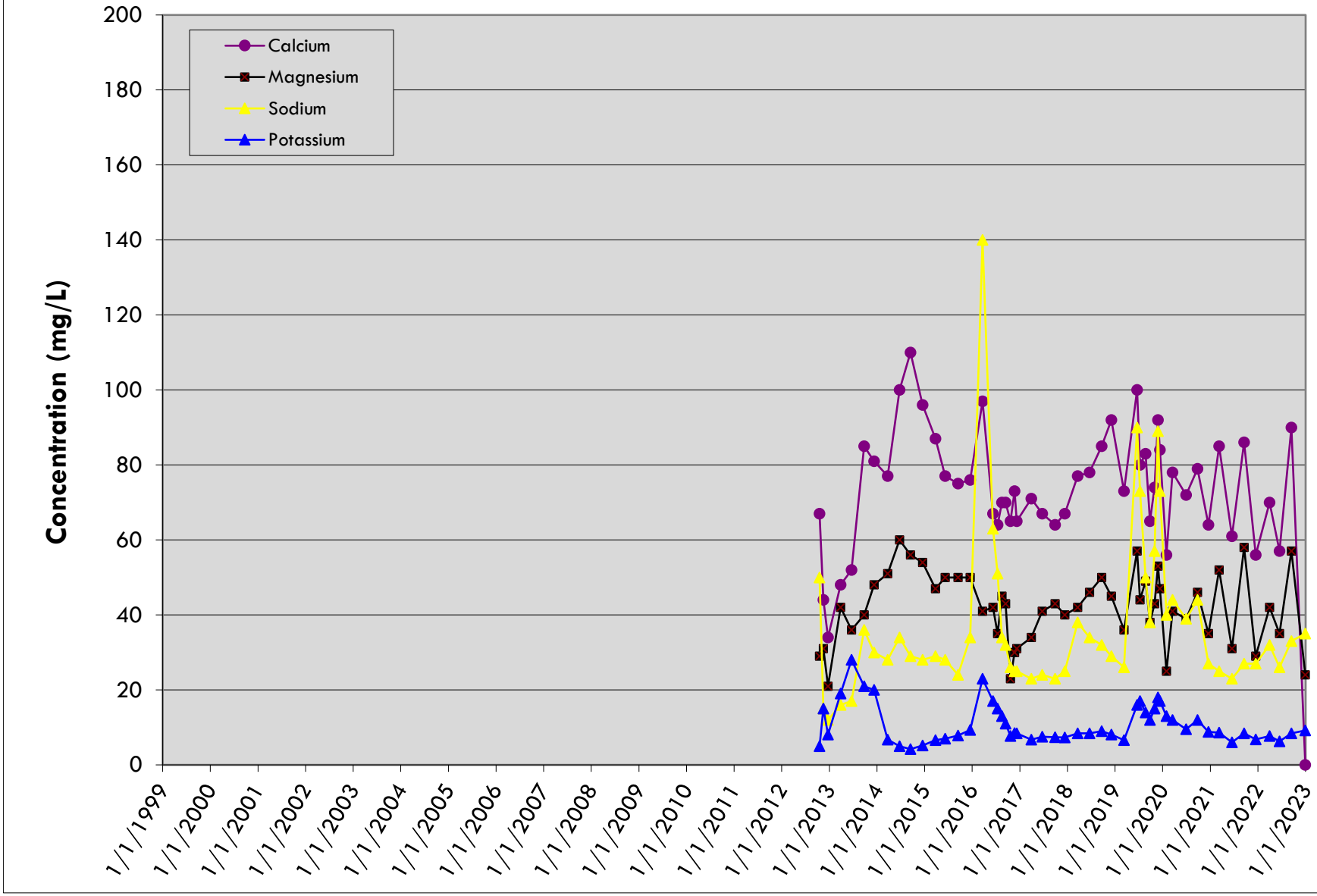
LDCS-4A
LRI Landfill, Pierce County, Washington



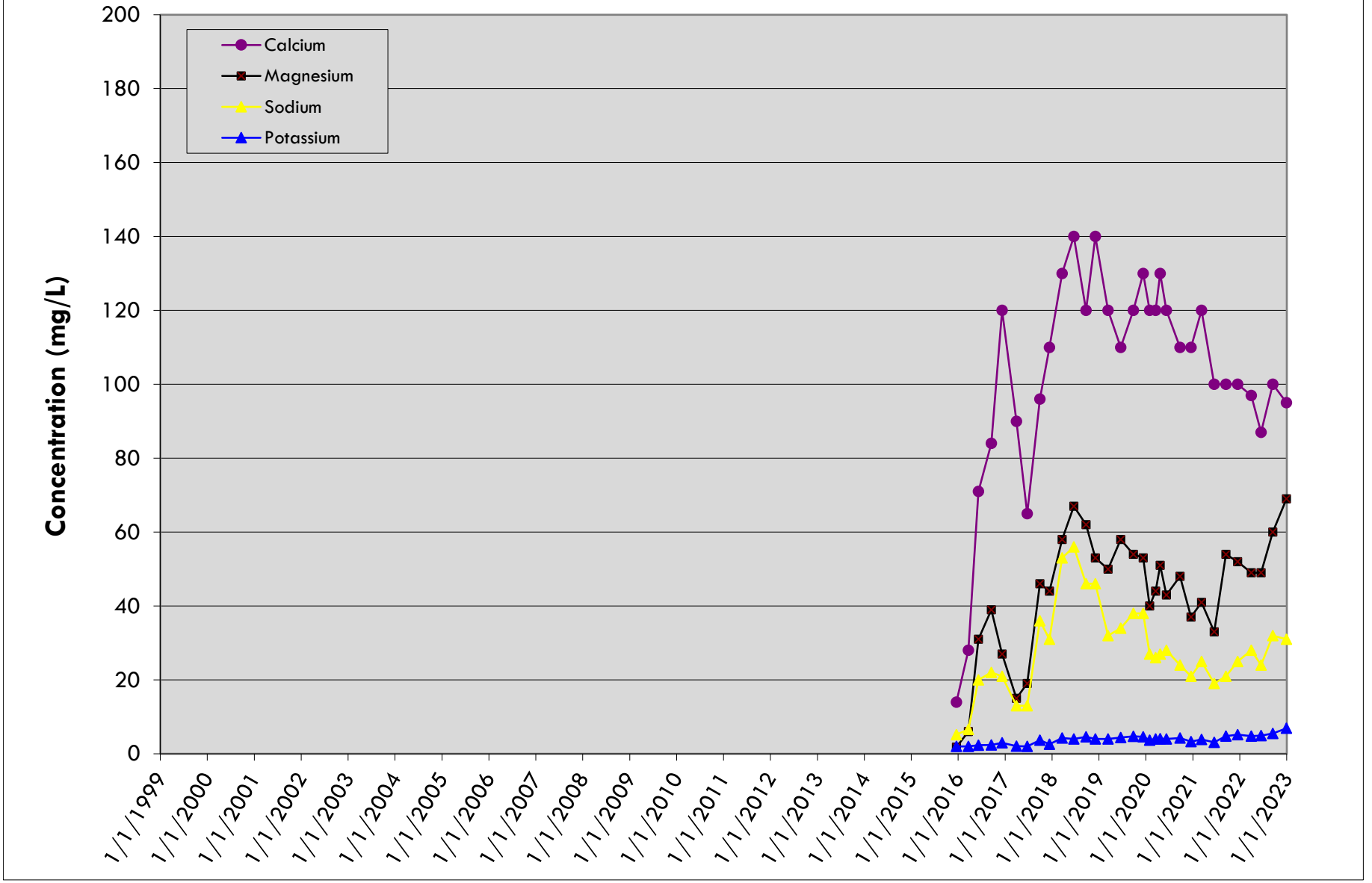
LDCS-4B
LRI Landfill, Pierce County, Washington



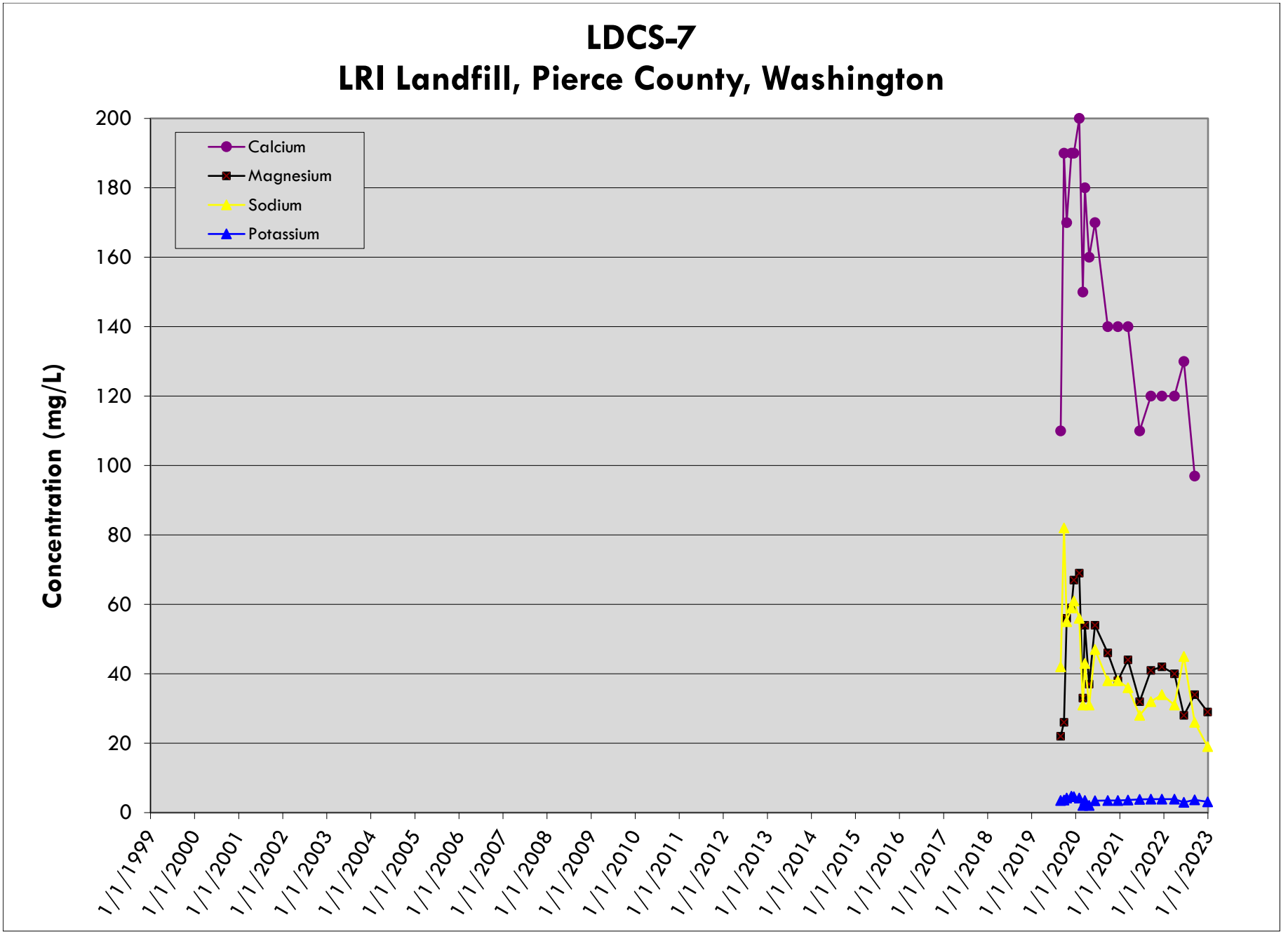
LDCS-5
LRI Landfill, Pierce County, Washington



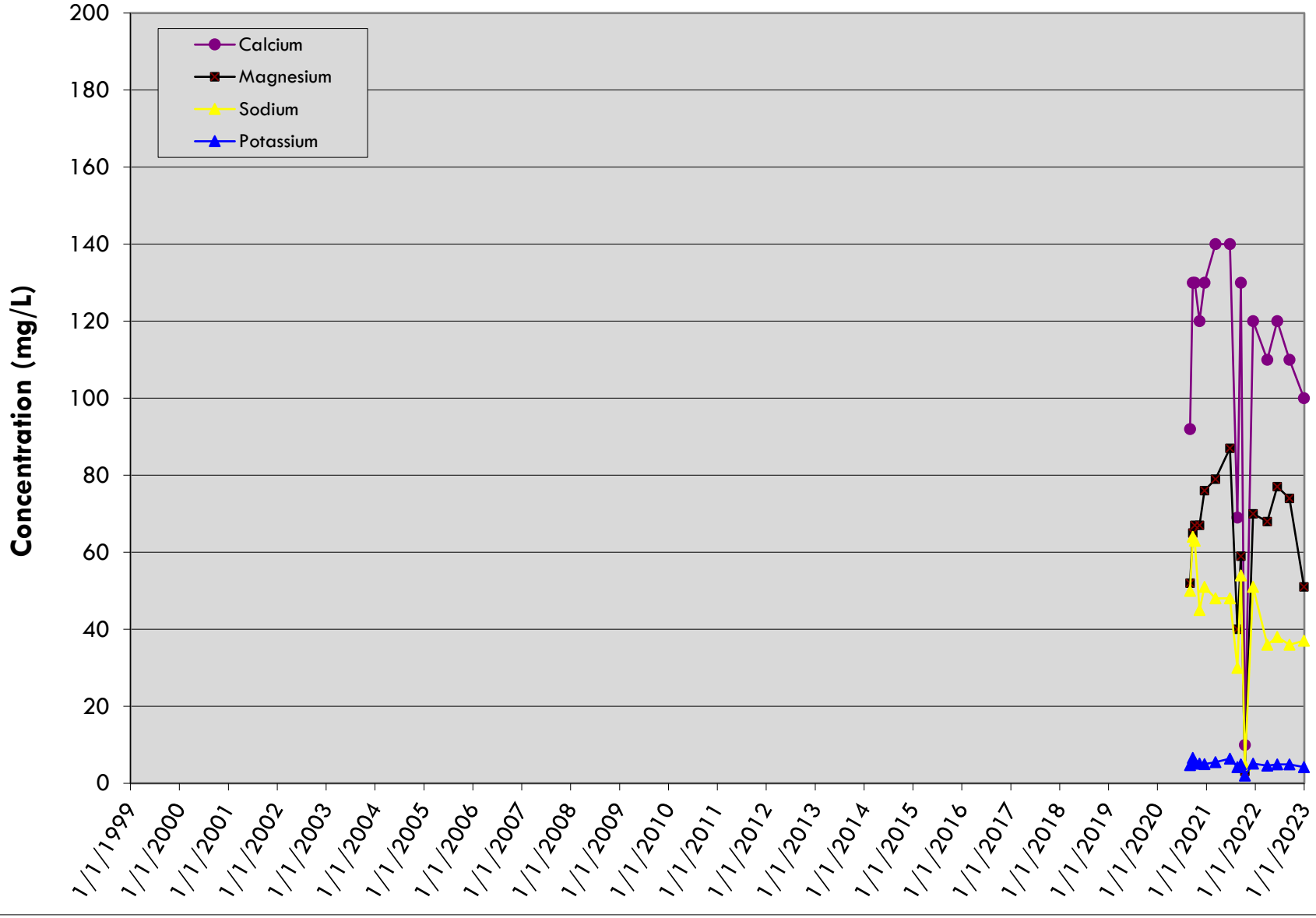
LDCS-6A
LRI Landfill, Pierce County, Washington



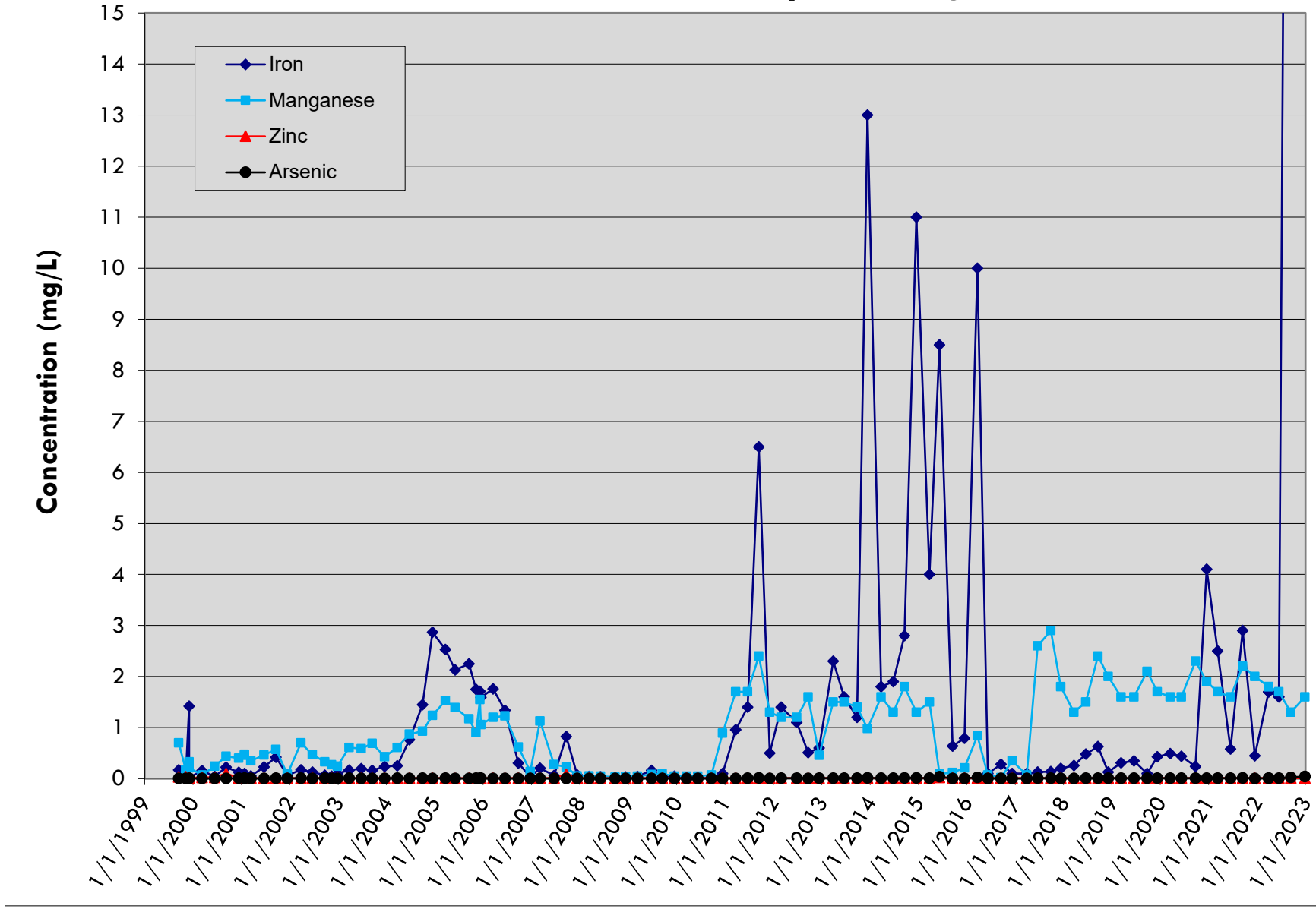
LDCS-7
LRI Landfill, Pierce County, Washington



LDCS-8
LRI Landfill, Pierce County, Washington

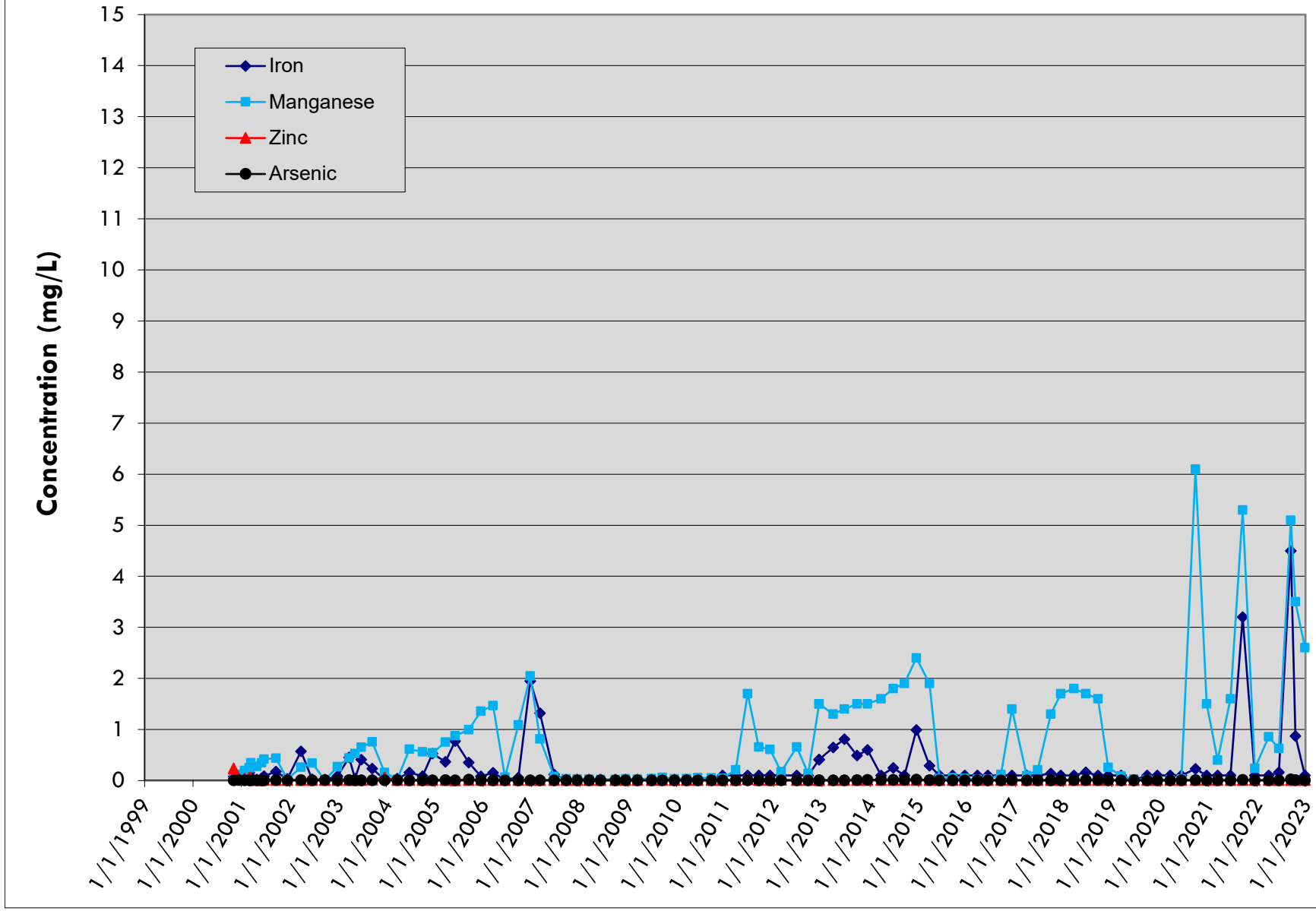


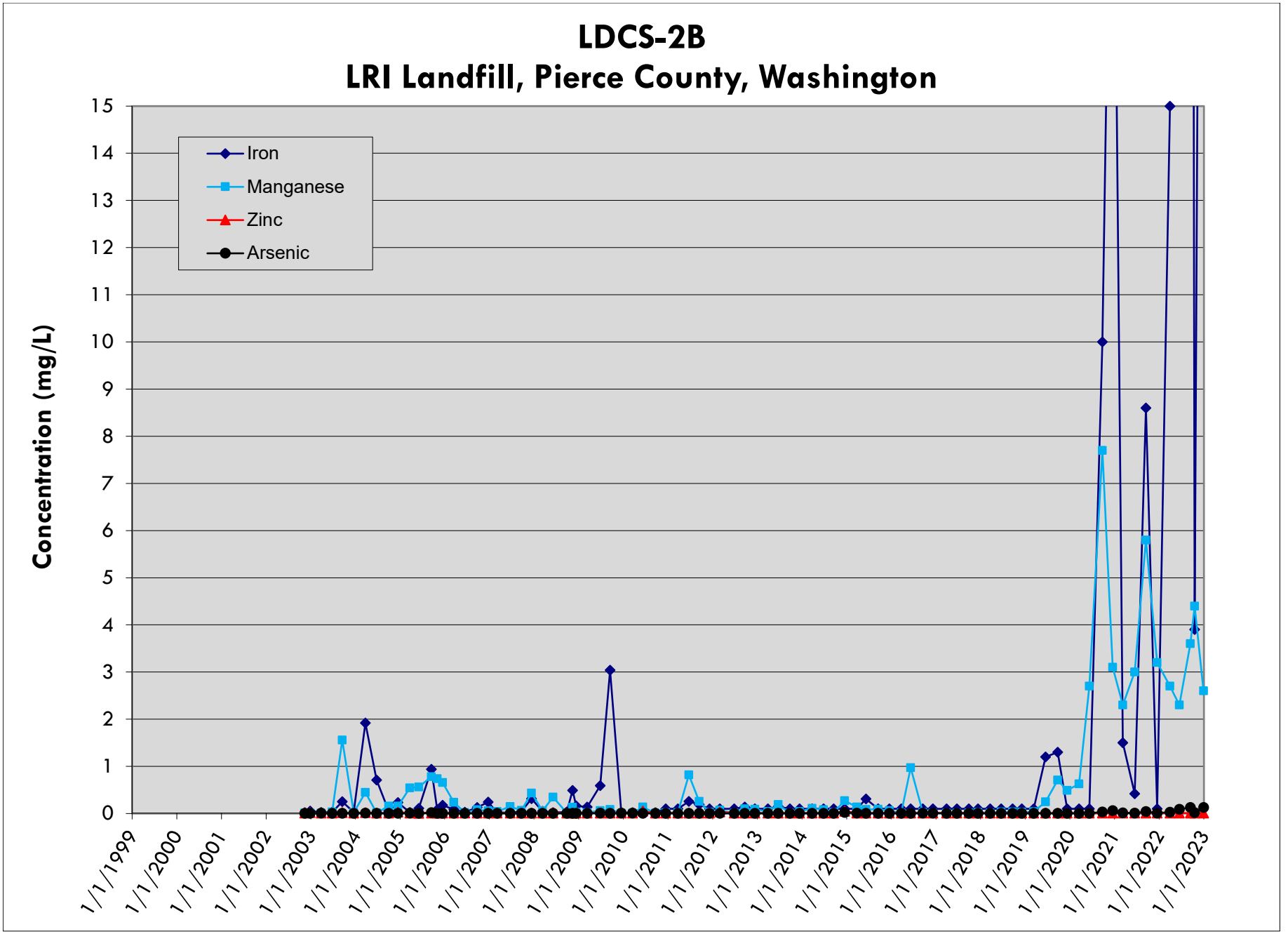
LDCS-1
LRI Landfill, Pierce County, Washington



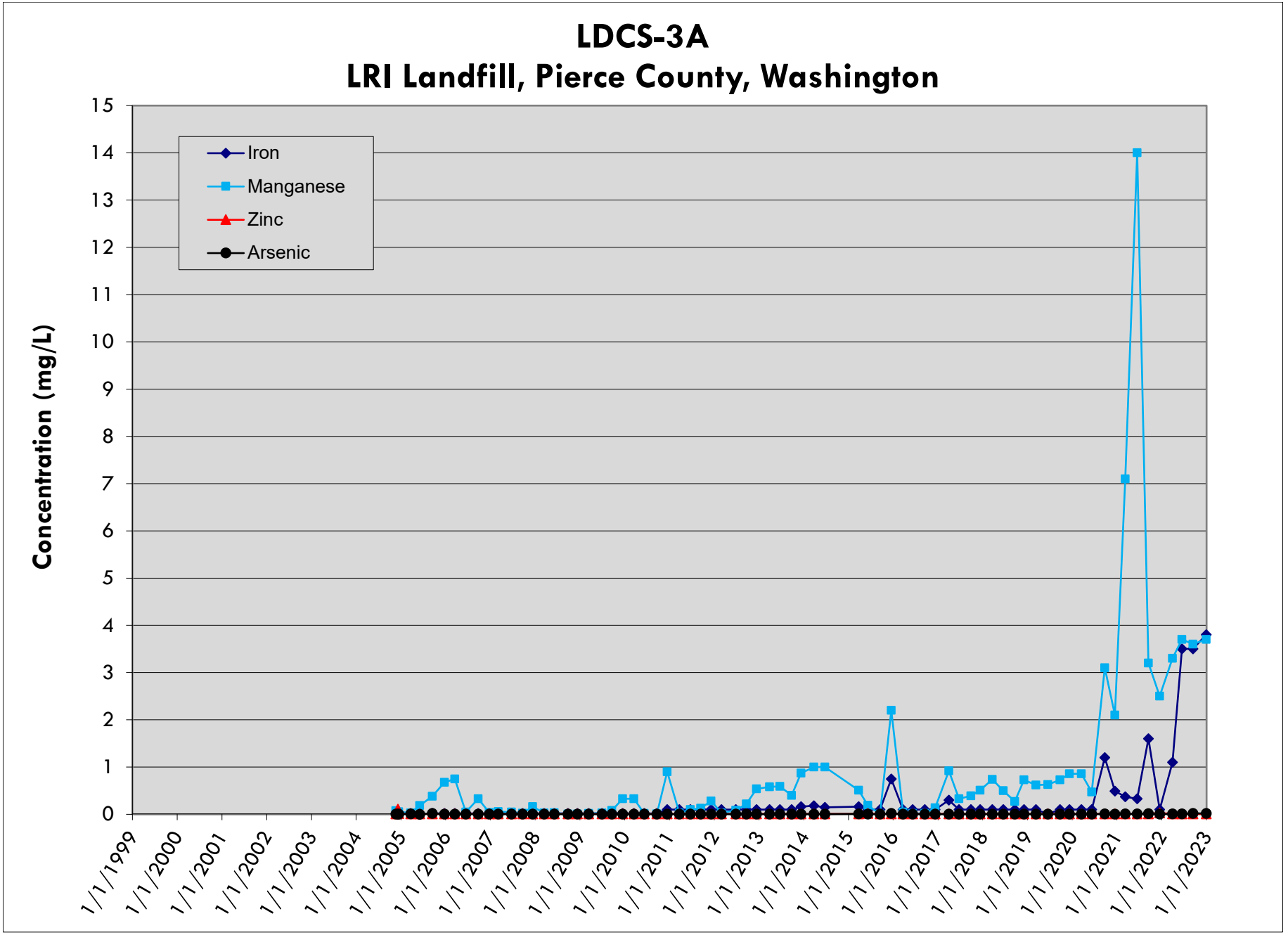
LDCS-2A

LRI Landfill, Pierce County, Washington

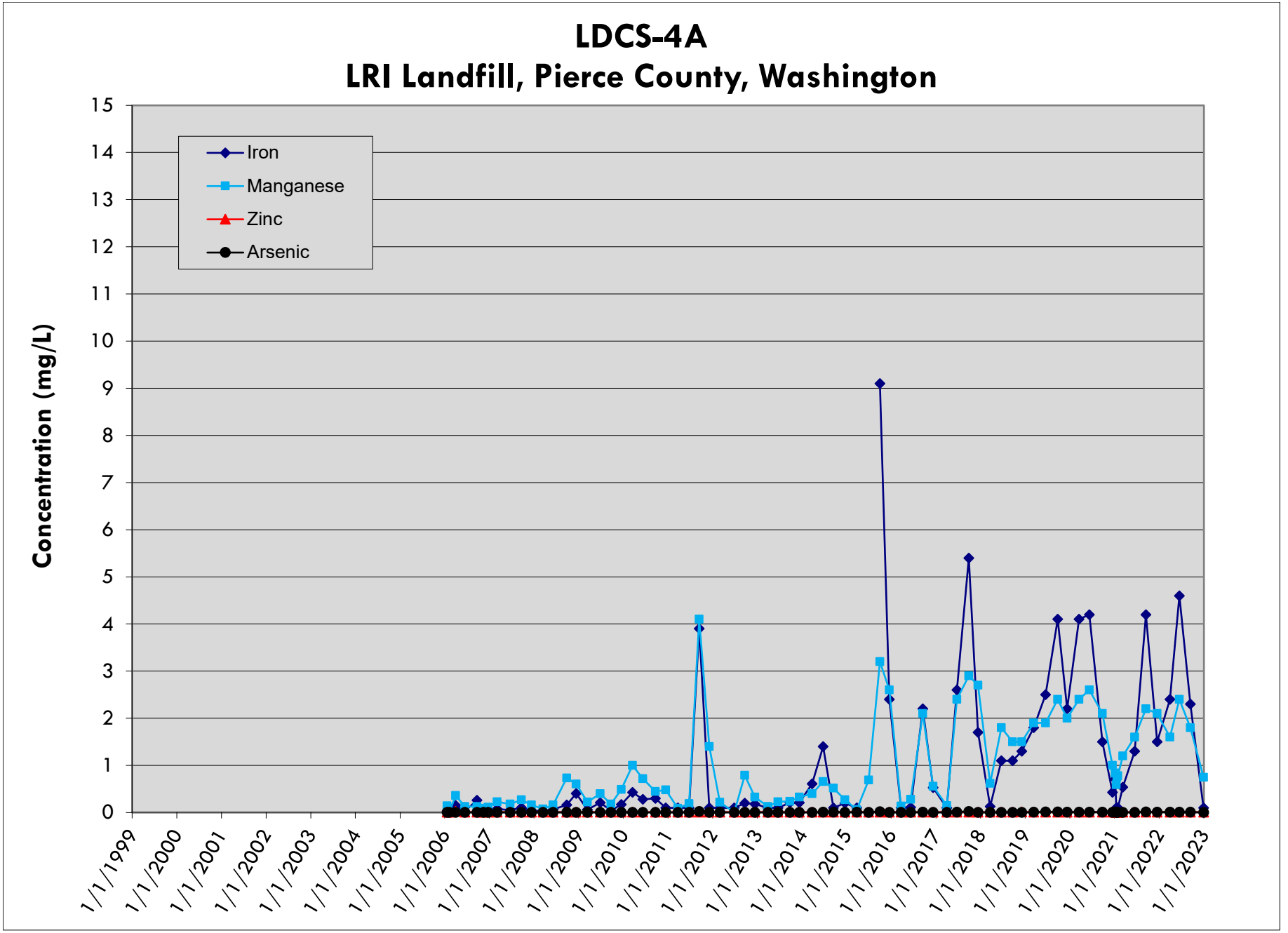


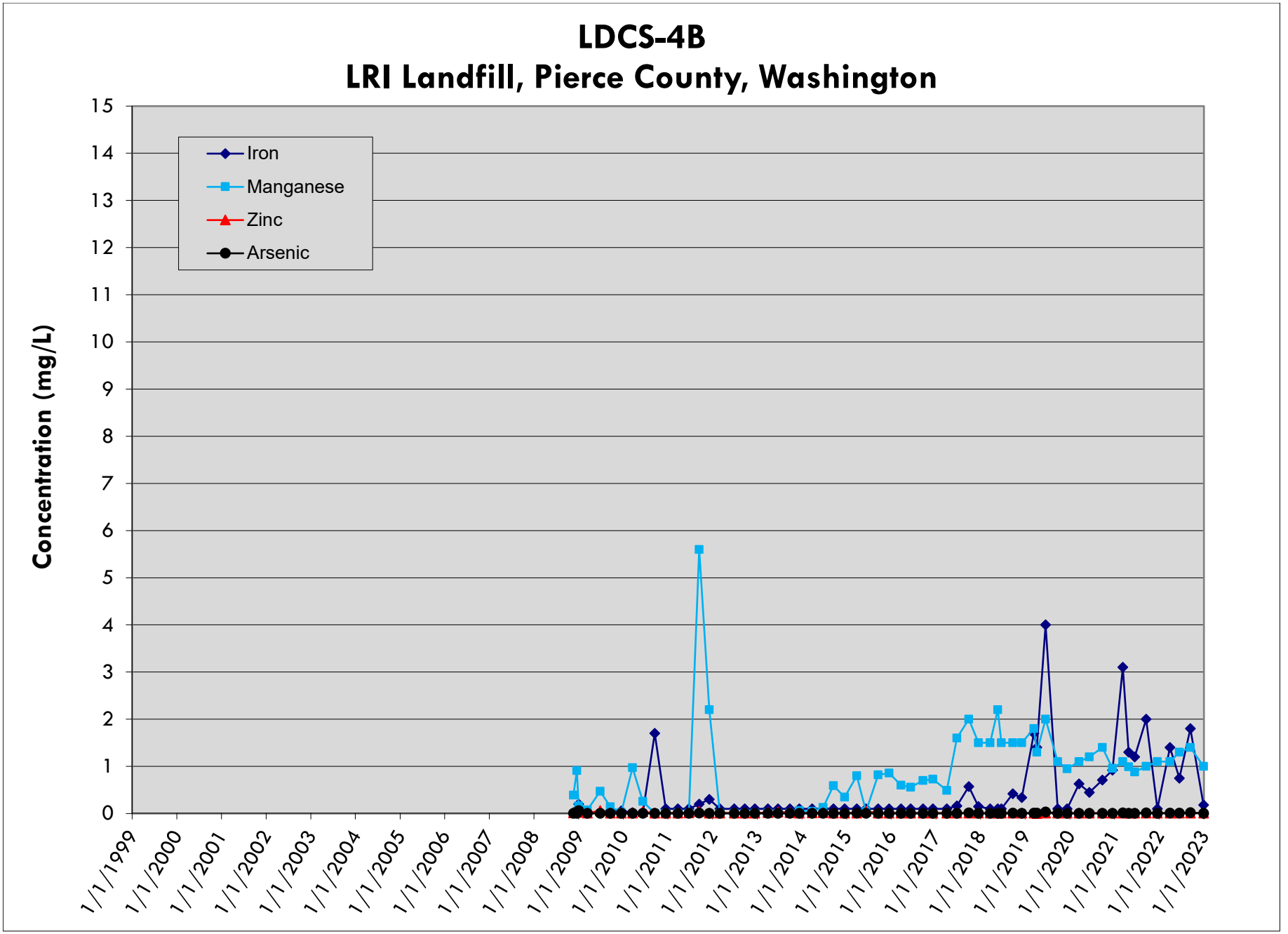

LDCS-2B
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
Iron
Manganese
Zinc
Arsenic
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

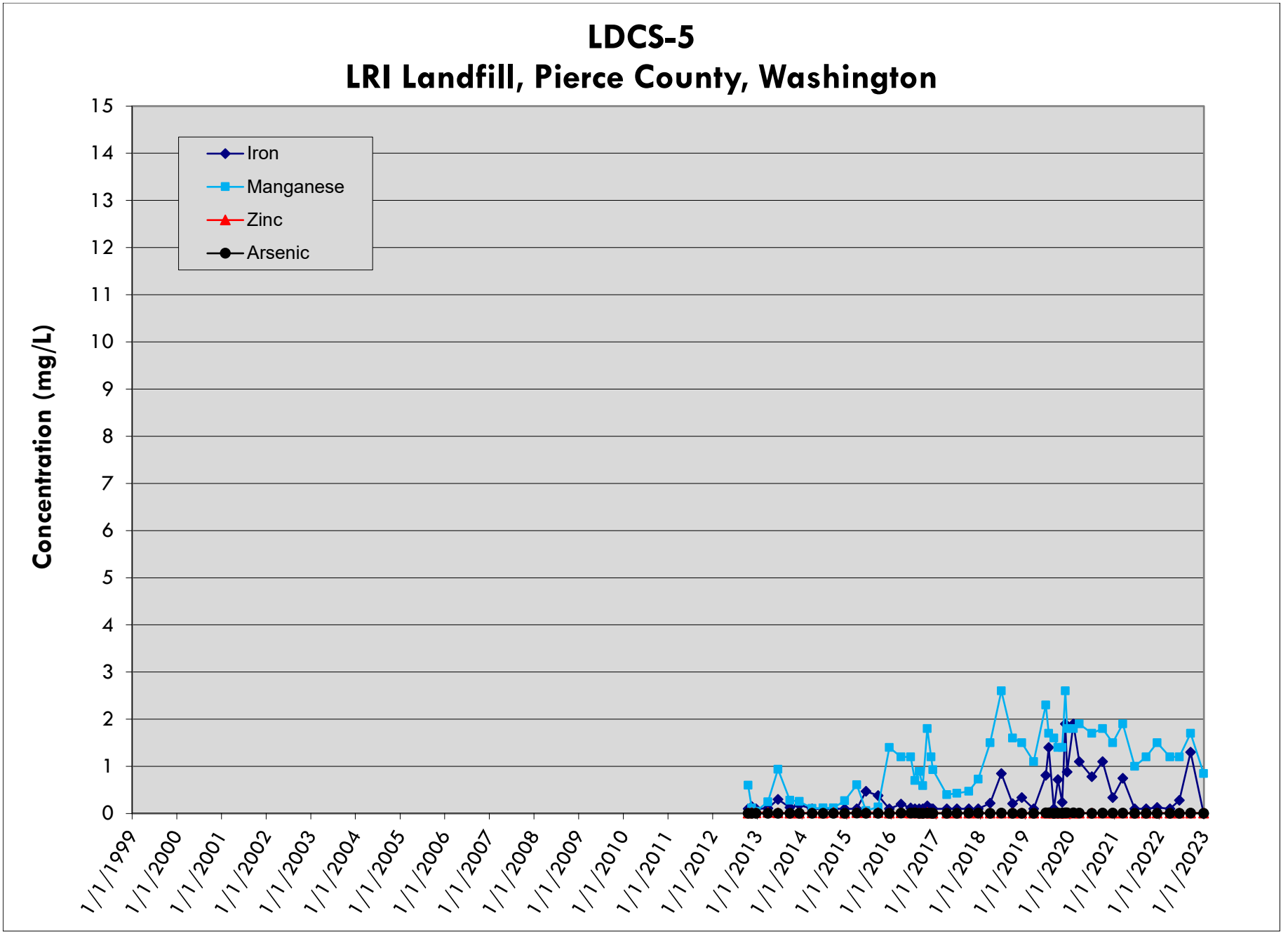
LDCS-3A
LRI Landfill, Pierce County, Washington



LDCS-4A
LRI Landfill, Pierce County, Washington




LDCS-4B
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
Iron
Manganese
Zinc
Arsenic
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


LDCS-5
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
Iron
Manganese
Zinc
Arsenic
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
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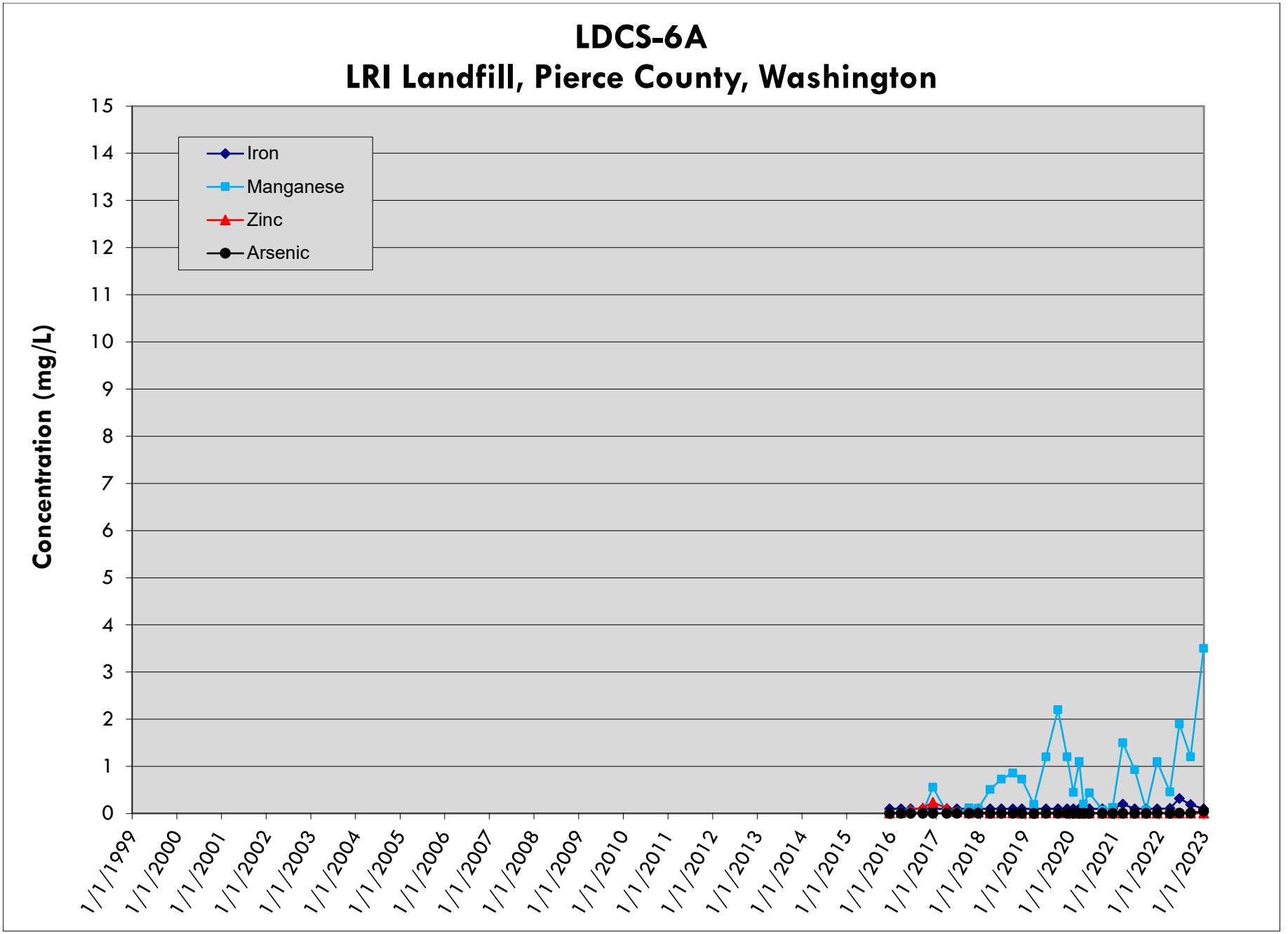
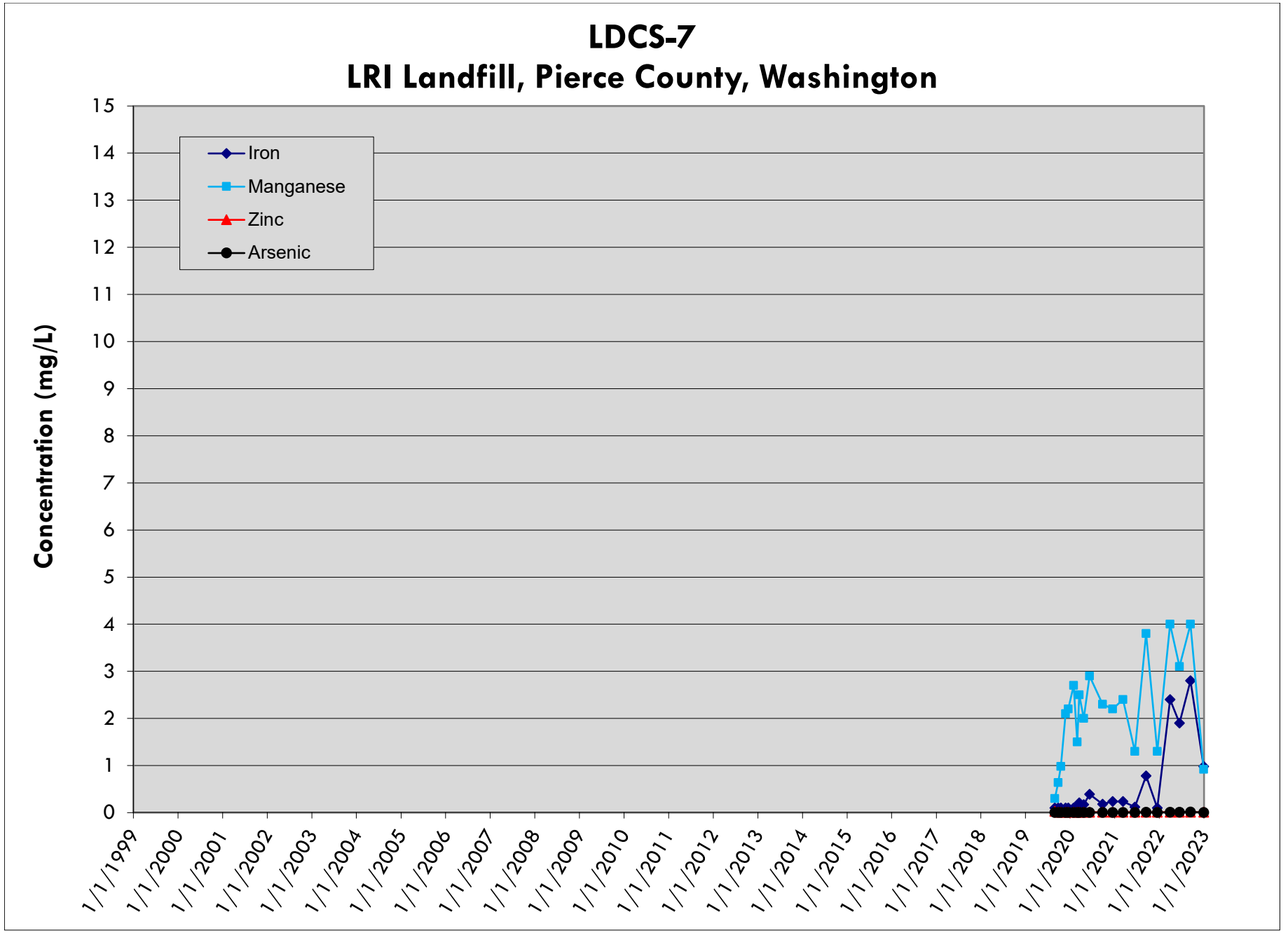
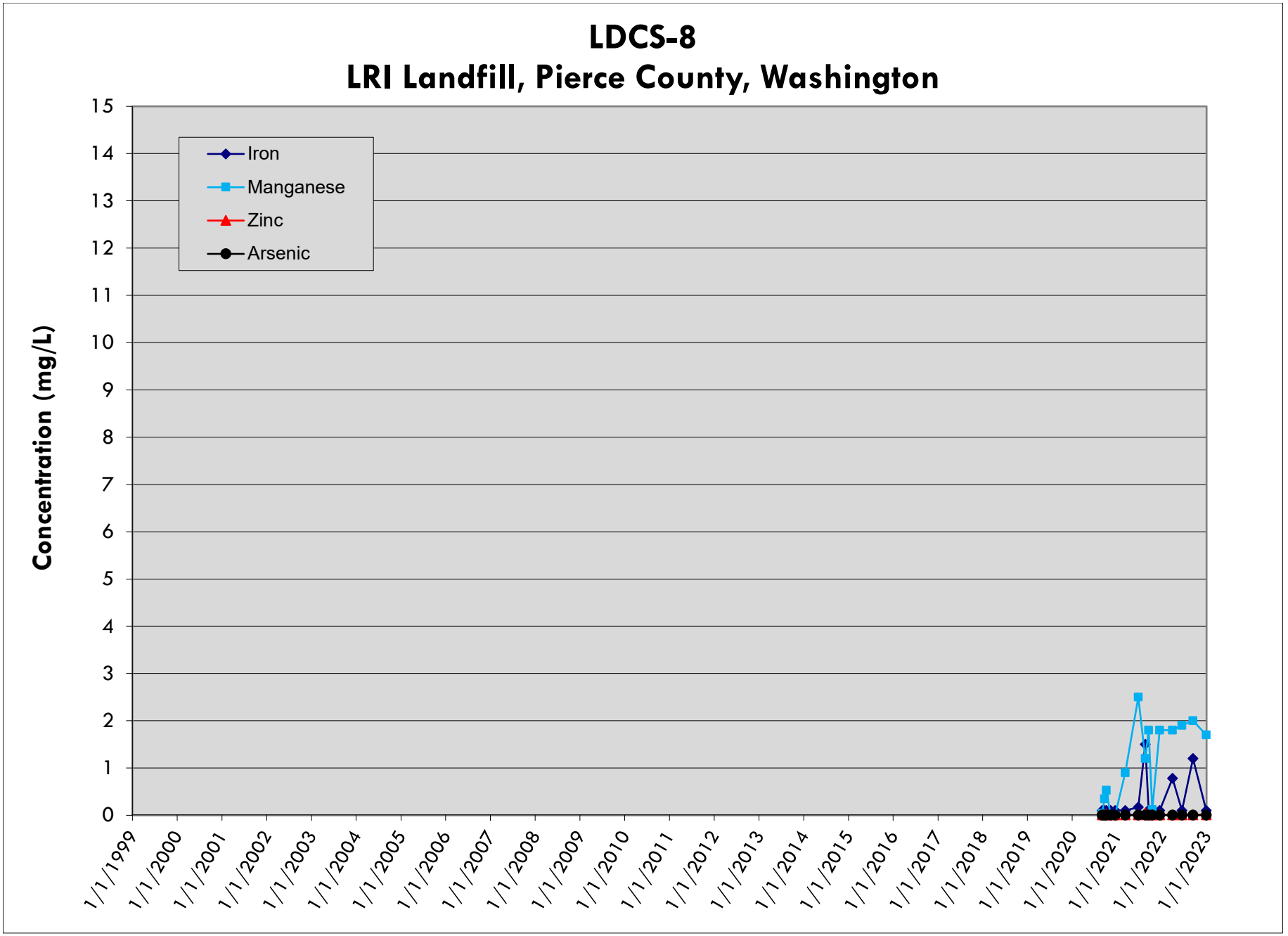
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


LDCS-6A
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
Iron
Manganese
Zinc
Arsenic
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023


LDCS-7
LRI Landfill, Pierce County, Washington
Concentration (mg/L)
Iron
Manganese
Zinc
Arsenic
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1/1/1999
1/1/2000
1/1/2001
1/1/2002
1/1/2003
1/1/2004
1/1/2005
1/1/2006
1/1/2007
1/1/2008
1/1/2009
1/1/2010
1/1/2011
1/1/2012
1/1/2013
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023

LDCS-8
LRI Landfill, Pierce County, Washington



Summary of Leachate Volume and Depth Data
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

Date	Cell 1 Leachate Volume (GPD)	Cell 1 Leachate Level (in.)	Cell 2A Leachate Volume (GPD)	Cell 2A Leachate Level (in.)	Cell 2B Leachate Volume (GPD)	Cell 2B Leachate Level (in.)	Cell 3A Leachate Volume (GPD)	Cell 3A Leachate Level (in.)	Cell 4A Leachate Volume (GPD)	Cell 4A Leachate Level (in.)	Cell 4B Leachate Volume (GPD)	Cell 4B Leachate Level (in.)	Cell 5 Leachate Volume (GPD)	Cell 5 Leachate Level (in.)	Cell 6 Leachate Volume (GPD)	Cell 6 Leachate Level (in.)	Cell 7 Leachate Volume (GPD)	Cell 7 Leachate Level (in.)	Cell 8A Leachate Volume (GPD)	Cell 8A Leachate Level (in.)
10/1/2022	3,302	10.7	6,999	9.1	1,201	18.7	5,629	10.5	22,054	0.1	9	11.8	10,607	11.2	25,018	9.0	8,404	11.5	1,741	9.7
10/2/2022	2,029	10.8	0	7.7	694	19.5	5,572	10.5	17,004	0.1	15,578	12.1	10,607	11.2	25,018	8.9	8,404	11.5	1,726	9.8
10/3/2022	1,981	10.9	0	9.5	613	20.0	5,768	10.5	23,166	0.0	17	11.9	10,607	11.2	25,018	9.0	8,404	11.5	0	8.3
10/4/2022	2,124	10.9	2,644	8.1	583	19.1	5,863	10.4	19,109	0.1	15,880	12.4	7,806	11.2	25,018	9.0	3,233	12.3	475	10.0
10/5/2022	2,426	10.7	16	7.5	2	78.5	6,118	10.5	20,293	4.3	8	11.6	7,806	11.2	25,018	9.1	3,233	12.8	0	9.4
10/6/2022	2,975	10.8	0	8.9	21,601	74.1	4,798	10.8	17,702	1.6	16,458	12.3	7,606	11.2	25,018	9.0	8,032	11.5	0	9.6
10/7/2022	1,990	10.9	34	10.3	11,480	8.8	1,831	14.0	19,379	0.0	16	11.8	7,606	11.2	25,018	9.1	8,032	11.5	6,144	10.0
10/8/2022	4,161	10.5	7,935	9.8	10,991	8.8	0	26.5	16,801	1.0	15,171	12.2	7,728	11.2	25,018	9.0	5,899	11.4	0	9.2
10/9/2022	2,058	10.8	0	7.4	10,318	9.5	0	30.9	23,073	0.2	12	11.8	7,728	11.2	25,018	9.0	5,899	11.5	1	9.8
10/10/2022	1,924	10.9	0	8.6	4,394	48.8	1,437	32.7	4,712	12.2	14,922	12.1	7,728	11.2	25,018	9.1	5,899	11.5	1,778	9.8
10/11/2022	2,087	10.8	0	9.8	0	137.7	4,289	33.3	1	22.0	1	12.3	8,020	11.2	25,018	9.1	5,685	11.5	5	9.3
10/12/2022	3,016	10.7	44	11.3	0	138.0	18,864	27.6	19,412	20.5	15,695	12.5	8,020	7.0	25,018	8.2	5,685	11.4	0	7.6
10/13/2022	3,742	10.5	8,017	7.1	15,362	95.4	9,521	10.4	23,328	14.6	18,105	12.5	7,934	11.0	25,018	8.9	5,504	11.2	0	9.4
10/14/2022	2,155	10.8	0	8.4	9,684	8.7	5,632	10.6	38,775	9.3	3	11.8	7,934	11.2	25,018	9.1	5,504	11.4	0	10.0
10/15/2022	2,549	10.9	0	9.7	7,617	8.8	6,150	10.4	27,193	9.4	16,177	12.0	8,283	11.2	20,519	9.0	6,567	11.4	6,011	14.4
10/16/2022	2,972	10.8	0	10.7	6,552	30.3	7,566	11.4	22,232	10.5	1,115	12.0	8,283	11.8	20,519	9.7	6,567	11.5	0	10.3
10/17/2022	2,408	10.7	8,338	9.0	5,958	18.3	5,681	10.6	15,490	9.3	17,238	12.2	8,283	11.6	20,519	9.2	6,567	11.5	6,367	12.6
10/18/2022	2,164	10.8	0	7.5	6,338	9.3	6,015	10.6	29,083	1.1	11	11.8	20,708	11.3	20,351	9.1	6,275	11.4	0	9.5
10/19/2022	1,932	10.8	0	8.7	5,706	9.4	5,158	10.6	18,630	0.6	14,882	12.2	20,708	11.3	20,351	9.0	6,275	11.5	6,038	14.2
10/20/2022	2,233	10.8	4	10.1	5,566	9.4	5,937	10.4	21,512	0.0	11	11.6	8,126	11.2	20,351	9.1	3,966	11.8	0	9.8
10/21/2022	4,293	10.6	8,283	10.2	5,935	9.3	4,796	10.5	6,549	2.0	14,063	12.6	8,126	11.2	22,113	9.3	3,966	12.1	6,097	14.3
10/22/2022	1,042	10.9	0	6.8	5,729	9.3	5,249	10.5	4	9.4	2,568	11.3	8,432	11.1	22,113	13.8	8,730	11.1	0	10.3
10/23/2022	1,161	10.9	0	8.2	5,183	9.6	6,218	10.4	5	12.5	15,069	12.3	8,432	11.2	22,113	18.7	8,730	11.5	0	13.1
10/24/2022	2,072	11.1	4,559	8.0	5,800	21.5	6,822	11.0	15	14.1	21	12.0	8,432	11.7	22,113	22.4	8,730	14.1	480	17.7
10/25/2022	3,976	10.7	0	7.7	5,473	9.4	4,951	10.4	6,776	15.5	16,360	12.2	8,432	11.2	22,113	21.5	8,730	12.6	5,587	16.6
10/26/2022	1,120	10.9	0	9.0	5,334	9.4	6,017	10.6	28,318	8.5	2	11.5	25,296	11.1	22,113	12.0	20,962	11.1	0	10.8
10/27/2022	2,504	10.9	0	10.4	5,587	9.4	5,257	10.5	22,457	0.9	15,477	12.4	25,296	11.2	22,113	9.0	20,962	11.4	6,083	12.4
10/28/2022	2,466	10.8	0	11.1	5,267	9.4	5,952	10.6	21,205	0.2	425	11.2	8,256	11.2	22,113	9.1	12,190	11.1	0	9.8
10/29/2022	2,140	10.8	8,185	7.4	4,983	9.4	2,926	10.6	18,804	6.5	13,792	11.7	8,256	11.2	22,113	9.1	12,190	11.3	5,178	13.6
10/30/2022	2,321	10.9	0	8.3	5,349	9.4	7,810	10.5	24,086	0.9	2	11.9	8,256	11.2	22,113	9.0	12,190	11.2	0	9.7
10/31/2022	2,794	10.8	0	9.4	5,293	9.6	5,174	10.3	10,473	4.3	17,329	12.0	8,256	11.0	22,113	9.5	12,190	12.0	4,824	18.6
11/1/2022	3,022	10.8	0	10.7	5,345	19.2	5,152	10.6	398	13.8	1,216	11.8	9,582	11.7	21,811	9.5	18,463	11.6	2	14.5
11/2/2022	3,130	10.5	8,191	10.6	5,399	9.4	6,574	10.5	11,637	12.4	17,198	12.3	9,582	11.1	21,811	9.0	18,463	10.7	6,021	16.4
11/3/2022	970	10.8	0	7.4	5,448	10.2	5,544	10.4	29,789	6.7	44	11.6	8,872	11.2	20,709	9.1	14,746	11.2	2	11.1
11/4/2022	2,601	11.0	1,422	9.0	5,109	9.4	4,583	10.7	6,086	5.1	17,489	12.3	8,872	10.9	20,709	10.7	14,746	15.7	6,657	29.6
11/5/2022	2,851	10.7	5,537	6.5	4,280	9.7	5,271	10.6	0	13.9	3,150	11.0	8,946	11.0	12,643	16.6	18,238	20.1	3,046	51.8
11/6/2022	2,157	11.4	0	6.7	0	74.0	0	16.5	0	15.6	1	13.7	8,946	15.9	12,643	20.8	18,238	23.4	0	50.8
11/7/2022	4,242	10.7	0	7.8	0	64.0	0	16.1	0	16.7	14,215	13.9	8,946	14.4	12,643	22.5	18,238	23.3	0	53.5
11/8/2022	3,385	10.4	0	8.9	6,433	32.7	3,448	5.3	0	17.5	16,918	12.3	8,946	12.0	12,643	20.6	21,963	20.6	11,501	49.2
11/9/2022	896	10.9	0	10.0	5,161	9.6	7	0.0	0	18.0	88	11.4	8,946	11.2	12,643	20.0	21,963	19.9	12,281	33.2
11/10/2022	1,185	10.9	7,986	10.5	4,999	9.4	2,520	1.5	13,631	14.6	11,566	12.7	8,946	11.3	41,983	12.3	16,959	11.8	1	11.5
11/11/2022	3,115	10.7	0	6.9	5,077	9.5	0	0.0	37,075	6.8	3,265	11.0	8,946	11.2	41,983	9.0	16,959	11.4	3	13.1
11/12/2022	1,000	10.9	0	7.9	4,798	9.5	15,259	3.8	25,110	0.3	1	13.5	7,465	11.3	26,515	9.0	8,898	11.3	9,906	15.2
11/13/2022	2,053	10.8	0	9.1	4,668	9.6	80	0.0	18,665	0.5	17,795	10.7	7,465	11.3	26,515	9.0	8,898	11.3	4	9.7
11/14/2022	2,435	10.8	6,349	8.6	4,586	9.6	2,158	0.8	22,149	3.8	0	12.3	7,465	11.2	26,515	9.0	8,898	11.2	2	10.2
11/15/2022	1,835	10.8	0	6.9	4,693	9.4	9,950	0.0	9,004	4.6	14,069	12.1	7,465	11.1	13,350	8.9	5,747	11.2	9,678	15.7
11/16/2022	3,053	10.6	0	8.3	4,673	9.5	0	0.0	0	13.6	5	11.9	7,484	11.3	13,350	9.0	5,747	11.1	9	9.7
11/17/2022	2,367	10.7	12	9.2	4,652	9.5	14,855	5.3	17,533	12.6	12,979	11.0	7,484	11.2	13,350	8.9	5,747	10.9	9,414	13.3
11/18/2022	3,151	10.6	6,037	7.4	4,867	9.4	7,341	8.9	12,062	8.8	7,634	10.3	7,818	11.2	19,359	9.4	7,135	0.0	0	9.5
11/19/2022	2,001	10.8	2,663	6.4	4,895	9.4	6,572	9.0	0	18.2	7,442	10.2	7,818	11.2	19,359	10.5	7,135	0.0	9,785	13.6
11/20/2022	2,027	10.8	0	6.8	4,803	9.5	6,068	8.9	17,392	16.2	7,696	10.3	7,818	11.2	19,359	10.4	7,135	0.0	0	9.5
11/21/2022	2,607	11.0	0	8.1	4,823	9.7	5,870	8.5	32,097	5.7	6,557	10.5	7,818	11.1	19,359	9.7	7,135	0.0	9,438	13.3
11/22/2022	3,137	10.7	0	9.0	4,883	9.4	6,447	8.8	4,460	9.5	9,114	10.5	8,374	11.2	21,010	10.1	12,545	0.0	1	10.6
11/23/2022	1,886	10.8	0	9.7	4,686	9.5	6,221	9.0	0	17.4	8,073	10.1	8,374	11.2	21,010	19.5	12,545	12.7	19	14.2
11/24/2022	2,528	10.7	0	11.0	4,979	9.5	5,326	9.4	0	19.0	6,635	10.6	7,988	11.2	32,732	20.9	7,969	11.9	11	14.5
11/25/2022	2,339	10.7	8,006	7.1	4,938	9.4	5,457	9.4	11,327	15.9	9,771	10.1	7,988	11.2	32,732	20.4	7,969	11.8	1,161	14.9
11/26/2022	2,773	10.7	0	7.7	4,901	9.5	4,763	9.4	0	18.4	6,864	10.4	7,988	11.2	29,239	21.7	11,103	12.4	797	18.0
11/27/2022	2,446	10.8	0	9.1	5,147	9.5	5,635	9.6	16,169	16.3	10,542	10.0	7,988	11.2	29,239	23.9	11,103	15.4	1,095	19.4
11/28/2022	2,322	10.8	0	10.0	5,108	9.6	5,812	9.7	9,134	13.8	6,027	10.5	7,988	11.2	29,239	26.5	11,103	19.0	1,396	20.0
11/29/2022	5,712	10.3	8,543	9.9	5,146	9.5	6,343	9.9	23,800	13.2	13,224	10.1	9,426	11.0	18,433	53.5	13,668	19.9	2,609	20.0
11/30/2022	1,652	11.0	0	7.0	5,003	9.5	8,120	8.6	9,495	14.4	9,457	10.2	9,426	11.1	18,433	33.8	13,668	17.7	7,445	19.4
12/1/2022	1,254	10.8	2,410	6.9	5,094	9.5	6,057	9.0	24,098	15.0	6,488	10.2	7,562	11.2	23,217	19.4	17,301	10.8	4,042	14.1
12/2/2022	2,543	10.7	0	7.0	4,670	17.9	5,592	9.3	2	19.6	10,662	10.6	7,562	11.7	23,217	25.3	17,301	13.0	7,638	14.6

Summary of Leachate Volume and Depth Data
Fourth Quarter 2022
LRI Landfill, Pierce County, Washington

Date	Cell 1 Leachate Volume (GPD)	Cell 1 Leachate Level (in.)	Cell 2A Leachate Volume (GPD)	Cell 2A Leachate Level (in.)	Cell 2B Leachate Volume (GPD)	Cell 2B Leachate Level (in.)	Cell 3A Leachate Volume (GPD)	Cell 3A Leachate Level (in.)	Cell 4A Leachate Volume (GPD)	Cell 4A Leachate Level (in.)	Cell 4B Leachate Volume (GPD)	Cell 4B Leachate Level (in.)	Cell 5 Leachate Volume (GPD)	Cell 5 Leachate Level (in.)	Cell 6 Leachate Volume (GPD)	Cell 6 Leachate Level (in.)	Cell 7 Leachate Volume (GPD)	Cell 7 Leachate Level (in.)	Cell 8A Leachate Volume (GPD)	Cell 8A Leachate Level (in.)
12/3/2022	2,415	10.7	0	8.3	4,985	9.5	5,093	11.2	11,136	20.5	12,029	10.1	7,562	11.2	23,217	17.8	17,301	11.2	5,280	13.8
12/4/2022	2,701	10.6	0	9.3	4,047	11.3	4,120	13.5	16,395	16.5	8,987	10.4	7,562	11.5	23,217	21.3	17,301	11.3	0	10.7
12/5/2022	1,307	10.3	0	10.6	4,734	25.5	5,994	12.4	0	18.1	11,482	10.8	7,562	12.2	23,217	23.5	17,301	15.4	3,053	16.9
12/6/2022	2,969	10.6	0	11.1	4,870	9.5	2,550	10.3	11,969	16.2	5,989	10.5	9,662	11.3	23,217	21.1	17,301	13.0	3,487	15.4
12/7/2022	2,525	10.7	7,905	7.1	4,718	9.5	5,812	9.9	0	18.5	10,399	10.1	9,662	11.3	23,217	20.5	17,301	11.6	585	14.0
12/8/2022	2,921	10.6	0	8.0	4,764	9.5	6,029	9.0	15,218	16.9	10,056	10.3	8,036	11.2	26,519	22.7	5,676	14.8	8,548	19.7
12/9/2022	3,762	10.6	0	9.5	4,437	9.5	5,360	11.3	7,549	20.5	9,955	10.3	8,036	11.3	26,519	22.6	5,676	13.6	43,461	15.1
12/10/2022	3,480	10.6	0	10.6	4,954	9.5	5,499	11.7	0	23.5	14,851	10.0	8,236	11.3	26,430	21.6	13,758	11.3	6,363	12.0
12/11/2022	1,276	10.9	0	11.0	4,819	9.4	5,384	10.6	0	24.0	14,654	10.3	8,236	11.2	26,430	20.7	13,758	13.2	3	14.5
12/12/2022	918	10.8	7,975	8.0	4,678	9.5	4,881	10.8	11,775	21.1	12,583	10.1	8,236	11.3	26,430	19.7	13,758	12.6	0	13.8
12/13/2022	2,207	10.7	0	7.7	4,663	9.5	4,477	10.8	13,944	20.8	11,852	10.1	8,236	11.3	26,430	19.6	13,758	11.4	7,936	12.7
12/14/2022	2,104	10.6	0	8.8	4,308	9.5	3,432	10.3	26,443	20.7	15,384	9.9	7,028	11.4	25,916	23.0	7,367	11.8	884	12.4
12/15/2022	2,354	10.6	0	9.9	4,616	9.5	3,677	10.3	39,909	10.6	6,369	10.3	7,028	11.4	25,916	23.3	7,367	11.5	0	11.0
12/16/2022	2,835	10.6	7,752	10.7	4,640	9.5	4,020	11.0	16,676	10.3	5,822	10.5	7,478	11.3	26,190	21.5	8,830	11.4	2	9.9
12/17/2022	2,605	10.7	0	6.8	4,675	9.5	4,277	11.3	0	17.1	10,232	10.3	7,478	11.3	26,190	20.2	8,830	11.4	0	10.6
12/18/2022	2,897	10.7	0	7.9	4,684	9.5	4,607	11.1	11,334	16.8	5,683	10.2	7,478	11.3	26,190	19.7	8,830	11.2	1	10.1
12/19/2022	2,536	10.6	0	8.9	4,638	9.4	4,607	11.2	31,299	8.3	5,739	10.5	7,478	11.3	26,190	20.2	8,830	11.3	7,773	10.4
12/20/2022	1,450	10.8	0	10.0	4,657	9.5	4,675	11.3	20,625	8.6	10,019	10.1	7,478	11.2	26,190	18.6	8,830	10.7	1	10.2
12/21/2022	1,261	10.8	7,264	10.2	4,686	9.5	4,477	10.7	23,752	8.6	5,479	10.4	7,724	11.3	26,837	16.6	13,458	11.3	1	10.5
12/22/2022	3,643	10.6	6,263	4.8	4,679	9.5	4,229	12.2	21,433	7.4	10,069	10.4	7,724	11.3	26,837	16.0	13,458	11.4	7	10.0
12/23/2022	2,149	10.6	1	3.7	4,584	9.5	4,811	11.8	18,108	8.1	7,860	10.2	8,758	11.2	28,383	15.1	18,194	10.8	0	10.1
12/24/2022	3,052	10.3	1	5.1	2,646	8.3	2,721	12.0	10,920	6.2	5,001	10.2	8,758	11.5	28,383	14.2	18,194	9.8	11,080	11.1
12/25/2022	3,134	10.1	1	5.4	4,578	7.3	7,626	12.0	17,369	6.0	12,360	10.1	8,758	11.8	28,383	40.9	18,194	8.9	4,370	11.9
12/26/2022	6,045	10.8	0	8.2	4,747	9.2	9,870	12.9	13,521	8.0	8,279	9.9	8,758	11.0	28,383	181.9	18,194	10.4	8,798	11.0
12/27/2022	1,774	10.7	1	8.5	5,380	9.3	13,456	11.1	13,576	8.4	4,725	10.3	8,758	11.0	28,383	85.7	18,194	10.0	8,192	9.3
12/28/2022	1,355	10.8	1	9.0	5,000	9.4	12,885	8.2	27,844	7.2	10,858	10.1	9,204	11.2	24,890	11.5	19,355	11.0	9,185	10.4
12/29/2022	2,965	10.6	0	10.4	5,096	9.4	10,363	11.2	21,842	8.1	10,656	10.0	9,204	11.2	24,890	13.1	19,355	11.2	0	10.2
12/30/2022	1,483	10.9	1	11.0	5,045	9.4	8,167	11.1	14,677	7.9	6,083	10.4	0	11.2	0	12.6	0	10.6	10,372	10.2
12/31/2022	1,293	10.8	7,961	8.7	4,579	9.3	9,723	9.8	20,429	8.0	10,297	10.4	0	11.3	0	12.8	0	11.0	4,338	10.6

-- = No data available

Appendix G

Stormwater Monitoring Data

Washington State Department of Ecology — Discharge Monitoring Report (DMR)

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 01/01/2022 - 01/31/2022 **Outfall:** 001 - South Creek **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2
1-Sa	**1/1/22**	C	C		
2-Su	**1/2/22**	1.5	M		
2-M	**1/3/22**	1.3	M		
2-T	**1/4/22**	3.3	M		
2-W	**1/5/22**	2.1	M	14	M
2-Th	**1/6/22**	0.7	M		
2-F	**1/7/22**	1.5	M		
2-Sa	**1/8/22**	0.5	M		
3-Su	**1/9/22**	3.5	M		
3-M	**1/10/22**	7.0	M		
3-T	**1/11/22**	3.2	M	12	M
3-W	**1/12/22**	8.0	M		
4-Su	**1/16/22**	C	C		
4-W	**1/19/22**			8	M
5-Su	**1/23/22**	C	C	C	C
6-Su	**1/30/22**	C	C	C	C
Minimum			M		M
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		8	M	14	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

Construction stormwater treatment was performed using Chitosan Enhanced Sand Filtration (CESF) prior to discharge to C8-1. The averaged turbidity value is reported for each day that a discharge occurred.

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Construction Stormwater Chemical Treatment
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack — **Signature**

2/15/2022 6:35:29 AM — **Date**

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 02/01/2022 - 02/28/2022 **Outfall:** 001 - South Creek **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2
1-W	**2/2/22**	C	C	C	C
2-T	**2/8/22**	C	C	C	C
3-M	**2/14/22**	0.80	M	C	C
4-M	**2/21/22**	4.5	M		
4-W	**2/23/22**			16	M
5-M	**2/28/22**	3.9	M	146	M
Minimum			M		M
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		4.5	M	146	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

Construction stormwater treatment was performed using Chitosan Enhanced Sand Filtration (CESF) prior to discharge to C8-1. The averaged turbidity value is reported for each day that a discharge occurred.

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Construction Stormwater Chemical Treatment
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack — **Signature**

3/14/2022 5:02:04 PM — **Date**

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 03/01/2022 - 03/31/2022 **Outfall:** 001 - South Creek **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2
1-T	**3/1/22**	1.3	M		
1-W	**3/2/22**	1.9	M	C	C
1-Th	**3/3/22**	1.0	M		
2-M	**3/7/22**	0.6	M		
2-T	**3/8/22**	1.0	M	C	C
2-Th	**3/10/22**	2.2	M		
2-F	**3/11/22**	1.3	M		
3-M	**3/14/22**	0.7	M	12	M
3-T	**3/15/22**	0.7	M		
3-W	**3/16/22**	1.5	M		
3-F	**3/18/22**	1.1	M		
4-Su	**3/20/22**			C	C
4-M	**3/21/22**	0.7	M		
4-T	**3/22/22**	0.6	M		
5-M	**3/28/22**	0.8	M	C	C
Minimum			M		M
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		2.2	M	12	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

Construction stormwater treatment was performed using Chitosan Enhanced Sand Filtration (CESF) prior to discharge to C8-1. The averaged turbidity value is reported for each day that a discharge occurred.

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Construction Stormwater Chemical Treatment
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack
Signature

4/13/2022 7:11:13 PM
Date

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 04/01/2022 - 04/30/2022 **Outfall:** 001 - South Creek **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2
2-M	**4/4/22**	1.4	M		
2-T	**4/5/22**	5.2	M	10	M
3-M	**4/11/22**	2.0	M		
3-W	**4/13/22**			9	M
4-M	**4/18/22**	0.9	M		
4-T	**4/19/22**	0.3	M	11	M
5-M	**4/25/22**	0.2	M		
5-W	**4/27/22**			6	M
Minimum			M		M
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		5.2	M	11	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: M - Monitoring Is Conditional/Not Req This MP

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Construction Stormwater Chemical Treatment
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack — **Signature**

5/12/2022 5:14:39 PM — **Date**

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 05/01/2022 - 05/31/2022 **Outfall:** 001 - South Creek **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2	C9-1	C9-1
1-M	**5/2/22**	0.8	M				
1-Th	**5/5/22**	1.3	M	8.0	M	C	C
1-F	**5/6/22**	2.2	M				
1-Sa	**5/7/22**	3.6	M				
2-Su	**5/8/22**	4.3	M				
2-M	**5/9/22**	10.3	M				
2-T	**5/10/22**	8.0	M	10	M	C	C
2-W	**5/11/22**	5.5	M				
2-Th	**5/12/22**	6.1	M				
2-F	**5/13/22**	14.4	M				
3-M	**5/16/22**	7.7	M				
3-T	**5/17/22**	2.8	M				
3-W	**5/18/22**	2.7	M	14	M	C	C
3-Th	**5/19/22**	5.3	M				
4-T	**5/24/22**			C	C	C	C
4-W	**5/25/22**	8.9	M				
5-T	**5/31/22**			12	M	C	C
Minimum			M		M		C
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		14.4	M	14	M	C	C
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

Construction stormwater treatment was performed using chitosan Enhanced Sand Filtration (CESF) prior to discharge to C8-1. The averaged turbidity value is reported for each day that a discharge occurred.

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Construction Stormwater Chemical Treatment
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence
C9-1		Other

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack

Signature

6/15/2022 7:39:30 AM

Date

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 06/01/2022 - 06/30/2022 **Outfall:** 001 - South Creek **Version:** 2

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2	C9-1	C9-1
1-Th	**6/2/22**	C	C	C	C	C	C
2-M	**6/6/22**	6.3	M				
2-T	**6/7/22**	10.6	M				
2-W	**6/8/22**	10.0	M	11	M	C	C
2-Th	**6/9/22**	7.8	M				
2-F	**6/10/22**	4.8	M				
2-Sa	**6/11/22**	3.7	M				
3-Su	**6/12/22**	9.7	M				
3-W	**6/15/22**			C	C	C	C
4-W	**6/22/22**	C	C	C	C	C	C
5-T	**6/28/22**	C	C	C	C	C	C
Minimum			M		M		C
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		10.6	M	11	M	C	C
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

Construction stormwater treatment was performed using Chitosan Enhanced Sand Filtration (CESF) prior to discharge to C8-1. The averaged turbidity value is reported for each day that a discharge occurred.

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Construction Stormwater Chemical Treatment
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence
C9-1		Check Dams
C9-1		Other
C9-1		Silt Fence

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack — **Signature**

9/13/2022 8:45:26 AM — **Date**

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 07/01/2022 - 07/31/2022 **Outfall:** 001 - South Creek **Version:** 2

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2	C9-1	C9-1
2-T	**7/5/22**	9.7	M	C	C	C	C
3-F	**7/15/22**	0.63	M	C	C	C	C
4-Su	**7/17/22**	C	C	C	C	C	C
5-M	**7/25/22**	1.7	M	C	C	C	C
Minimum			M		C		C
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		9.7	M	C	C	C	C
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

Construction stormwater treatment was performed using chitosan Enhanced Sand Filtration (CESF) prior to discharge to C8-1. The averaged turbidity value is reported for each day that a discharge occurred.

Outfall: 001 - South Creek

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
C8-2	All Parameters		C	
C9-1	All Parameters		C	

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence
C9-1		Check Dams
C9-1		Silt Fence

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack — **Signature**

10/15/2022 6:42:21 AM — **Date**

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 08/01/2022 - 08/31/2022 **Outfall:** 001 - South Creek **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2	C9-1	C9-1
Minimum							
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum							
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge

Overall DMR Notes/Comment

Reporting Code: C - No Discharge

Outfall: 001 - South Creek

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
C8-1	All Parameters		C	
C8-2	All Parameters		C	
C9-1	All Parameters		C	

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Construction Stormwater Chemical Treatment
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence
C9-1		Check Dams
C9-1		Other
C9-1		Silt Fence

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George Duvendack
Signature

9/13/2022 7:44:33 AM
Date

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 09/01/2022 - 09/30/2022 **Outfall:** 001 - South Creek **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2	C9-1	C9-1
Minimum							
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum							
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge

Overall DMR Notes/Comment

Reporting Code: C - No Discharge

No construction stormwater discharges occurred during the month of September.

Outfall: 001 - South Creek

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
C8-1	All Parameters		C	
C8-2	All Parameters		C	
C9-1	All Parameters		C	

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence
C9-1		Check Dams
C9-1		Other
C9-1		Silt Fence

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George Duvendack
Signature

10/15/2022 6:39:41 AM
Date

Washington State Department of Ecology — Discharge Monitoring Report (DMR)

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 10/01/2022 - 10/31/2022 **Outfall:** 001 - South Creek **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2	C9-1	C9-1
Minimum							
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum							
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge

Overall DMR Notes/Comment

Reporting Code: C - No Discharge

No construction stormwater discharges occurred during the month of October.

Outfall: 001 - South Creek

Monitoring Point	Parameter	Sample Date/ Statistical Base	Value	Notes/Comment
C8-1	All Parameters		C	
C8-2	All Parameters		C	
C9-1	All Parameters		C	

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence
C9-1		Check Dams
C9-1		Other
C9-1		Silt Fence

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George Duvendack — **Signature**

11/14/2022 3:26:14 PM — **Date**

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 11/01/2022 - 11/30/2022 **Outfall:** 001 - South Creek **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2	C9-1	C9-1
1-F	**11/4/22**	C	C	C	C	C	C
2-T	**11/8/22**	C	C	17	M	C	C
3-T	**11/15/22**	4.8	M				
3-Th	**11/17/22**			C	C	C	C
4-T	**11/22/22**	C	C	C	C	C	C
5-T	**11/29/22**	C	C	16	M	C	C
Minimum			M		M		C
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		4.8	M	17	M	C	C
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

Overall DMR Notes/Comment

Construction stormwater treatment was performed using Chitosan Enhanced Sand Filtration (CESF) prior to discharge to C8-1. The averaged turbidity value is reported for each day that a discharge occurred.

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Construction Stormwater Chemical Treatment
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence
C9-1		Check Dams
C9-1		Other
C9-1		Silt Fence

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack — **Signature**

12/14/2022 12:17:07 PM — **Date**

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002603 **Permittee:** LRI 304th Street Landfill

Facility County: Pierce **Receiving Waterbody:** NEWB 2

Monitoring Period: 12/01/2022 - 12/31/2022 **Outfall:** 001 - South Creek **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab	Turbidity (NTU) Measured NTU Weekly Grab	pH Standard Units Weekly Grab
		C8-1	C8-1	C8-2	C8-2	C9-1	C9-1
1-Th	**12/1/22**	1.6	M				
2-T	**12/6/22**	C	C	21	M	C	C
3-W	**12/14/22**	C	C	C	C	C	C
4-T	**12/20/22**	C	C	15	M	8	M
5-T	**12/27/22**	1.3	M	23	M	5	M
5-W	**12/28/22**	1.3	M				
5-F	**12/30/22**	4.5	M				
Minimum			M		M		M
			BM: >= 6.5 (RO)		BM: >= 6.5 (RO)		BM: >= 6.5 (RO)
Maximum		4.5	M	23	M	8	M
		BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)	BM: <= 25 (RO)	BM: <= 8.5 (RO)

Reporting Codes Used: C - No Discharge, M - Monitoring Is Conditional/Not Req This MP

BMPs

Monitoring Point	Week	BMP
C8-1		Check Dams
C8-1		Construction Stormwater Chemical Treatment
C8-1		Other
C8-1		Silt Fence
C8-1		Temporary Sediment Pond
C8-2		Check Dams
C8-2		Other
C8-2		Silt Fence
C9-1		Check Dams
C9-1		Other
C9-1		Silt Fence

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack
Signature

1/12/2023 9:35:38 AM
Date

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002557 **Permittee:** Pierce County Recycling - 304th Street L

Facility County: Pierce **Receiving Waterbody:**

Monitoring Period: 01/01/2022 - 03/31/2022 **Outfall:** SWPO - Discharge from SW pond **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Quarterly Grab	pH Standard Units Quarterly Grab	Oil & Grease Yes/No Quarterly Visual Observation	Copper Total Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	Total BOD5 Total Milligrams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Quarterly Grab	Ammonia Total Milligrams/L (mg/L) Quarterly Grab	Alpha-terpineol (3-Cyclohexene-1-methanol,.alpha.,alpha.,trimethyl-) Micrograms/L (ug/L) Quarterly Grab	Benzoic Acid Micrograms/L (ug/L) Quarterly Grab	p-Cresol (4-methylphenol) Micrograms/L (ug/L) Quarterly Grab
		SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO
Limit Set		ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit
3-T	**1/11/22**	3.0	6.98	No	2.1	J|5.3	2.6	B|2.0	B|0.50	B|9.7	B|24	B|9.7
Minimum			6.98									
			BM: >= 5.0 (RO)									
Average		3			2.1	J|5.3						
		BM: <= 25			BM: <= 14	BM: <= 117						
Maximum			6.98									
			BM: <= 9.0 (RO)									
Month 1 Average							2.6	B|2.0	B|0.50	B|9.7	B|24	B|9.7
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 2 Average							2.6	B|2.0	B|0.50	B|9.7	B|24	B|9.7
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 3 Average							2.6	B|2.0	B|0.50	B|9.7	B|24	B|9.7
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14

Reporting Codes Used: B - Below Detection Limit/No Detection, J - Estimated Value/Below Quantitation Limit

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack
Signature

4/13/2022 7:10:02 PM
Date

Week	Monitoring Point	Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
		SWPO	SWPO	SWPO
Limit Set		ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit
3-T	**1/11/22**	J|2.0	J|5.3	6.98
Minimum				6.98
				>= 6.0 (RO)
Average				
Maximum				6.98
				<= 9.0 (RO)
Month 1 Average		J|2.0	J|5.3	
		<= 15	<= 110	
Month 2 Average		J|2.0	J|5.3	
		<= 15	<= 110	
Month 3 Average		J|2.0	J|5.3	
		<= 15	<= 110	

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002557 **Permittee:** Pierce County Recycling - 304th Street L

Facility County: Pierce **Receiving Waterbody:**

Monitoring Period: 04/01/2022 - 06/30/2022 **Outfall:** SWPO - Discharge from SW pond **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Quarterly Grab	pH Standard Units Quarterly Grab	Oil & Grease Yes/No Quarterly Visual Observation	Copper Total Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	Total BOD5 Total Milligrams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Quarterly Grab	Ammonia Total Milligrams/L (mg/L) Quarterly Grab	Alpha-terpineol (3-Cyclohexene-1-methanol, .alpha.,.alpha.,4-trimethyl-) Micrograms/L (ug/L) Quarterly Grab	Benzoic Acid Micrograms/L (ug/L) Quarterly Grab	p-Cresol (4-methylphenol) Micrograms/L (ug/L) Quarterly Grab
		SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO
Limit Set		ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit
4-T	**4/19/22**	4.0	7.0	No	4.2	J|4.4	2.8	B|2.0	B|0.50	B|9.8	B|25	
7-Th	**5/12/22**	3.0	6.9	No								B|9.6
Minimum			6.9									
			BM: >= 5.0 (RO)									
Average		3.5			4.2	J|4.4						
		BM: <= 25			BM: <= 14	BM: <= 117						
Maximum			7									
			BM: <= 9.0 (RO)									
Month 1 Average							2.8	B|2.0	B|0.50	B|9.8	B|25	B|9.6
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 2 Average							2.8	B|2.0	B|0.50	B|9.8	B|25	B|9.6
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 3 Average							2.8	B|2.0	B|0.50	B|9.8	B|25	B|9.6
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14

Reporting Codes Used: B - Below Detection Limit/No Detection, J - Estimated Value/Below Quantitation Limit

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack — **Signature**

8/12/2022 9:03:16 AM — **Date**

Week	Monitoring Point	Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
		SWPO	SWPO	SWPO
Limit Set		ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit
4-T	**4/19/22**	B|9.8	J|4.4	7.0
7-Th	**5/12/22**			6.9
Minimum				6.9
				>= 6.0 (RO)
Average				
Maximum				7
				<= 9.0 (RO)
Month 1 Average		B|9.8	J|4.4	
		<= 15	<= 110	
Month 2 Average		B|9.8	4.4	
		<= 15	<= 110	
Month 3 Average		B|9.8	J|4.4	
		<= 15	<= 110	

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002557 **Permittee:** Pierce County Recycling - 304th Street L

Facility County: Pierce **Receiving Waterbody:**

Monitoring Period: 07/01/2022 - 09/30/2022 **Outfall:** SWPO - Discharge from SW pond **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Quarterly Grab	pH Standard Units Quarterly Grab	Oil & Grease Yes/No Quarterly Visual Observation	Copper Total Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	Total BOD5 Total Milligrams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Quarterly Grab	Ammonia Total Milligrams/L (mg/L) Quarterly Grab	Alpha-terpineol (3-Cyclohexene-1-methanol, .alpha.,.alpha.,4-trimethyl-) Micrograms/L (ug/L) Quarterly Grab	Benzoic Acid Micrograms/L (ug/L) Quarterly Grab	p-Cresol (4-methylphenol) Micrograms/L (ug/L) Quarterly Grab
		SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO
Limit Set		ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit
7-W	**8/10/22**	6.0	6.9	No	J|1.9	J|5.4	4.5	8.4	B|0.5	J|7.8	J|43	J|0.38
Minimum			6.9									
			BM: >= 5.0 (RO)									
Average		6			J|1.9	J|5.4						
		BM: <= 25			BM: <= 14	BM: <= 117						
Maximum			6.9									
			BM: <= 9.0 (RO)									
Month 1 Average							4.5	8.4	B|0.5	J|7.8	J|43	J|0.38
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 2 Average							4.5	8.4	B|0.5	J|7.8	J|43	J|0.38
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 3 Average							4.5	8.4	B|0.5	J|7.8	J|43	J|0.38
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14

Reporting Codes Used: B - Below Detection Limit/No Detection, J - Estimated Value/Below Quantitation Limit

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George Duvendack — **Signature**

11/14/2022 3:24:42 PM — **Date**

Week	Monitoring Point	Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
		SWPO	SWPO	SWPO
Limit Set		ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit
7-W	8/10/22	J|7.8	J|5.4	6.9
Minimum				6.9
				>= 6.0 (RO)
Average				
Maximum				6.9
				<= 9.0 (RO)
Month 1 Average		J|7.8	J|5.4	
		<= 15	<= 110	
Month 2 Average		J|7.8	J|5.4	
		<= 15	<= 110	
Month 3 Average		J|7.8	J|5.4	
		<= 15	<= 110	

Washington State Department of Ecology **Discharge Monitoring Report (DMR)**

Permit Number: WAR002557 **Permittee:** Pierce County Recycling - 304th Street L

Facility County: Pierce **Receiving Waterbody:**

Monitoring Period: 10/01/2022 - 12/31/2022 **Outfall:** SWPO - Discharge from SW pond **Version:** 1

Week	Monitoring Point	Turbidity (NTU) Measured NTU Quarterly Grab	pH Standard Units Quarterly Grab	Oil & Grease Yes/No Quarterly Visual Observation	Copper Total Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	Total BOD5 Total Milligrams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Milligrams/L (mg/L) Quarterly Grab	Ammonia Total Milligrams/L (mg/L) Quarterly Grab	Alpha-terpineol (3-Cyclohexene-1-methanol,.alpha.,alpha.,trimethyl-) Micrograms/L (ug/L) Quarterly Grab	Benzoic Acid Micrograms/L (ug/L) Quarterly Grab	p-Cresol (4-methylphenol) Micrograms/L (ug/L) Quarterly Grab
		SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO	SWPO
Limit Set		ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Western WA - 2020 Permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit
7-T	**11/8/22**	21	6.9	No	8.4	23	B|2.0	22	B|0.5	B|9.5	J|13	B|9.5
Minimum			6.9									
			BM: >= 5.0 (RO)									
Average		21			8.4	23						
		BM: <= 25			BM: <= 14	BM: <= 117						
Maximum			6.9									
			BM: <= 9.0 (RO)									
Month 1 Average							B|2.0	22	B|0.5	B|9.5	J|13	B|9.5
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 2 Average							B|2.0	22	B|0.5	B|9.5	J|13	B|9.5
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14
Month 3 Average							B|2.0	22	B|0.5	B|9.5	J|13	B|9.5
							<= 37	<= 27	<= 4.9	<= 16	<= 71	<= 14

Reporting Codes Used: B - Below Detection Limit/No Detection, J - Estimated Value/Below Quantitation Limit

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

George Duvendack
Signature

2/8/2023 6:44:33 AM
Date

Week	Monitoring Point	Phenol Micrograms/L (ug/L) Quarterly Grab	Zinc Total Micrograms/L (ug/L) Quarterly Grab	pH Standard Units Quarterly Grab
		SWPO	SWPO	SWPO
Limit Set		ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit	ISGP Non-Haz Waste Landfill (40CFR part 445 subpart B)- 2020 permit
7-T	**11/8/22**	B|9.5	23	6.9
Minimum				6.9
				>= 6.0 (RO)
Average				
Maximum				6.9
				<= 9.0 (RO)
Month 1 Average		B|9.5	23	
		<= 15	<= 110	
Month 2 Average		B|9.5	23	
		<= 15	<= 110	
Month 3 Average		B|9.5	23	
		<= 15	<= 110	

Appendix H

Landfill Gas Monitoring Data

Table H-1. 2022 Landfill Gas Probe Monitoring Summary
Methane (% vol.)
LRI Landfill, Pierce County, Washington

Gas Probe ID	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
LRI-GP01	0	0	0	0	0	0	3.7	0	4.4	4.1	3.4	3.7
LRI-GP02	5.9	0.8	0.5	0	0.2	0.2	1.3	0	1.9	2.7	4.8	6.4
LRI-GP03	0	0	0	0	0	0	0	0	0	0	0	0
LRI-GP04	0	0	0	0	0	0	0	0	0	0	0	0
LRI-GP09	0	0	0	0	0	0	0	0	0	0	0	0
LRI-GP10B	2.7	2.3	0	1.2	0	0	15.1	0.5	8	7.8	7.9	34.2
LRI-GP10A	7.2	9.3	0	1.4	0	0	32.1	0.9	0	0	16.5	22.9
LRI-GP11	0	0	0	0	0	0	0	0	0	0	0	10.4
LRI-GP12	0	0	0	0	0	0	0	11.2	24.8	16.7	10.8	11.8
LRI-GP13	0	0	0	0	0	0	0	0	0.3	0.3	0.1	0.1
LRI-GP14	0	0	0	0	0	0.1	0	0	0	0	0.4	0
LRI-GP15	0	0	0	0	0	0	2	0	2.1	5.5	0.2	4.1
LRI-GP16	0	0	0	0	0	0	0	0	0	0	0	0
LRI-GP17	-	-	-	-	-	-	-	-	0	0	0	0
LRI-GP18	-	-	-	-	-	-	-	-	0	0	0	0
LRI-GP19	-	-	-	-	-	-	-	-	0	0	0	0

Exhibit 3 - Results of Landfill Gas Probe Monitoring

Landfill Gas Control System

LRI Landfill

SCS Engineers

04221001.04

January-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*: CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)	Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*: (ft)	(%)	Comments
Normal Operating Rage:												
(min)			-		0.3	0.3	-				20.0	
(max)			0.32		5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	1/13/2022	9:23	0.1	--	0.0	0.4	21.1	78.5	16.0	0.0	0.0	
GP-2	1/13/2022	9:42	-0.2	--	5.9	14.2	1.3	78.6	15.0	0.0	0.0	
GP-3	1/13/2022	9:51	0.3	--	0.0	0.8	20.9	78.3	13.5	8.6	100.0	
GP-4	1/13/2022	9:59	0.1	--	0.0	2.0	16.4	81.6	9.3	0.0	0.0	
GP-9	1/13/2022	10:08	0.0	--	0.0	0.3	21.2	78.5	10.1	0.0	0.0	
GP-10	1/13/2022	9:11	-0.3	--	2.7	18.1	9.9	69.3				
GP-10P	1/13/2022	9:08	0.3	13.1	7.2	26.2	2.6	64.0				*Note 5*
GP-11	1/13/2022	8:09	0.1	--	0.0	2.1	19.9	78.0				
GP-12	1/13/2022	8:02	-9.0	--	0.0	0.2	21.3	78.5				
GP-13	1/13/2022	7:16	-0.5	--	0.0	2.4	17.7	79.9				
GP-14	1/13/2022	10:42	0.1	--	0.0	0.2	21.1	78.7	15.2	0.0	0.0	
GP-15	1/13/2022	10:27	0.1	--	0.0	0.3	21.2	78.5	15.2	0.0	0.0	
GP-16	1/13/2022	10:16	0.1	--	0.0	0.9	20.9	78.2	18.1	10.8	71.7	

	Beginning	Ending	Average
Weather:	Rain	Sunny	Sunny
Temperature, T (deg F):	42	43	42.5
Wind Speed (mph):	8	11	9.5
Wind Direction:	202.5	202.5	202.5
Barometric Pressure, P (in Hg):	30.22	30.38	30.30
24hr Baro.Trend (rising / falling / steady / unsteady)	Rising		

Starting Date:	1/13/2022
Starting Time:	7:16
Finishing Date:	1/13/2022
Finishing Time:	10:42
Monitored by:	R. Martinez
Instruments:	GEM 2000
Calibration Date:	1/13/2022

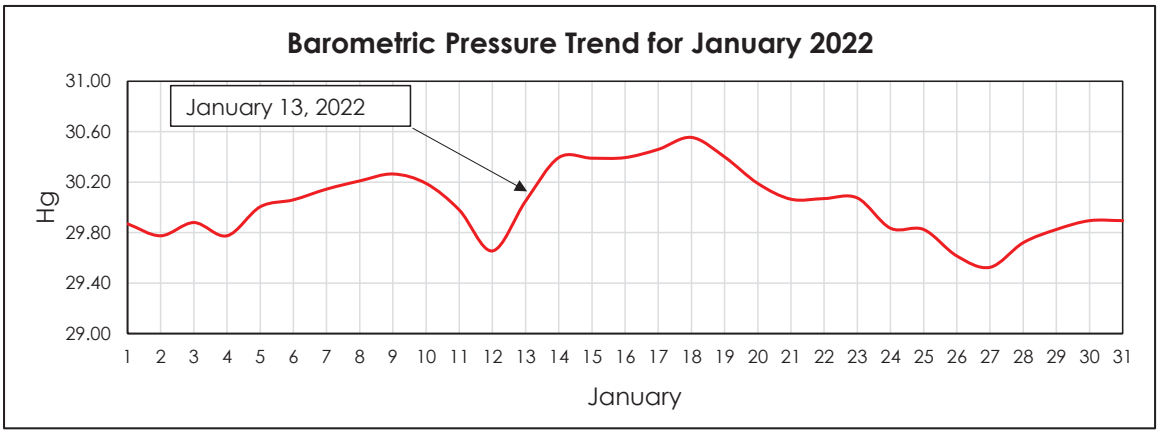
Headings:

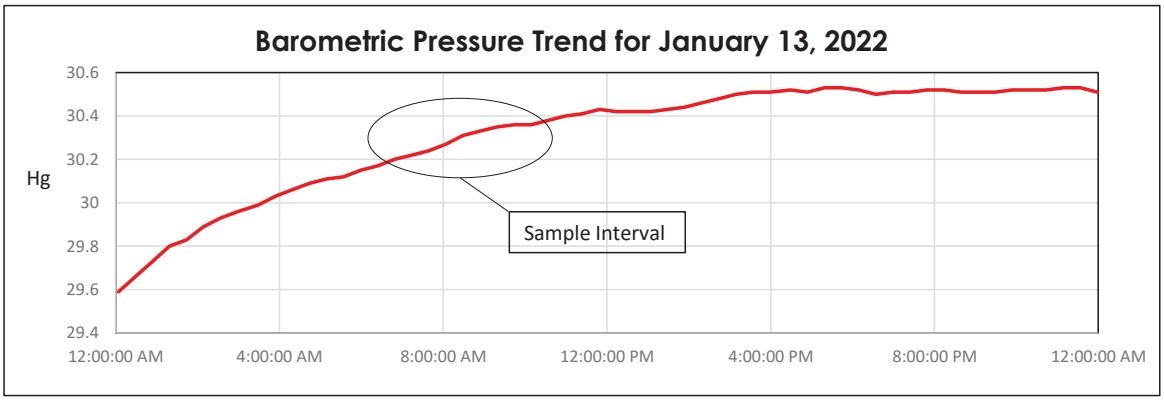
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.
5. GP-10P connection repaired on October 23rd, 2020.

Barometric Pressure Trend - January 2022
LRI 304th Landfill, Washington





Monthly Data Source: Wunderground.com (Puyallup)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source: https://www.wunderground.com/dashboard/pws/KWAPUYAL102/table/2022-01-13/2022-01-13/monthly

Daily Data Source: Wunderground.com (Puyallup)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source: https://www.wunderground.com/dashboard/pws/KWAPUYAL102/table/2022-01-13/2022-01-13/daily

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

February-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*: CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)	Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*: (ft)	(%)	Comments
Normal Operating Rage:												
(min)			-		0.3	0.3	-				20.0	
(max)			0.12		5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	2/24/2022	7:33	0.1	--	0.0	0.3	21.6	78.0	16.3	0.0	0.0	
GP-2	2/24/2022	7:42	0.1	--	0.8	2.3	18.0	78.9	15.4	0.0	0.0	
GP-3	2/24/2022	7:49	-1.3	--	0.0	0.2	21.8	77.9	7.3	2.4	48.8	
GP-4	2/24/2022	7:56	0.1	--	0.0	0.4	21.0	78.6	10.1	0.3	5.2	
GP-9	2/24/2022	8:04	0.1	--	0.0	0.3	21.4	78.2	11.3	0.0	0.0	
GP-10	2/24/2022	7:20	0.1	--	0.0	1.2	20.5	78.3				
GP-10P	2/24/2022	7:23	0.1	--	2.3	5.7	18.1	73.9				*Note 5*
GP-11	2/24/2022	7:12	0.1	--	0.0	0.0	21.6	78.4				
GP-12	2/24/2022	7:05	0.1	--	0.0	0.0	21.4	78.6				
GP-13	2/24/2022	6:53	0.0	--	0.0	0.1	20.7	79.2				
GP-14	2/24/2022	8:35	0.1	--	0.0	0.1	21.9	77.9	11.4	0.0	0.0	
GP-15	2/24/2022	8:26	0.1	--	0.0	0.1	21.9	77.9	13.6	0.0	0.0	
GP-16	2/24/2022	8:11	0.1	--	0.0	0.4	21.5	78.0	19.8	12.5	83.1	

	Beginning	Ending	Average
Weather:	Cloudy	Cloudy	Cloudy
Temperature, T (deg F):	29	30	29.5
Wind Speed (mph):	0	0	0
Wind Direction:	0	0	0
Barometric Pressure, P (in Hg):	29.85	29.90	29.88
24hr Baro.Trend (rising / falling / steady / unsteady)	Rising		

Starting Date:	2/24/2022
Starting Time:	6:53
Finishing Date:	2/24/2022
Finishing Time:	8:35
Monitored by:	R. Martinez
Instruments:	GEM 2000
Calibration Date:	2/24/2022

Headings:

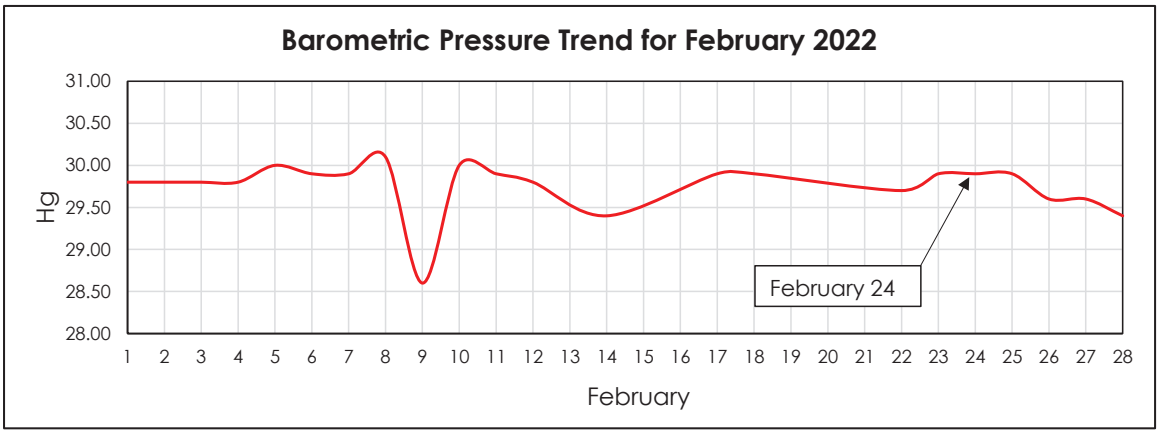
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

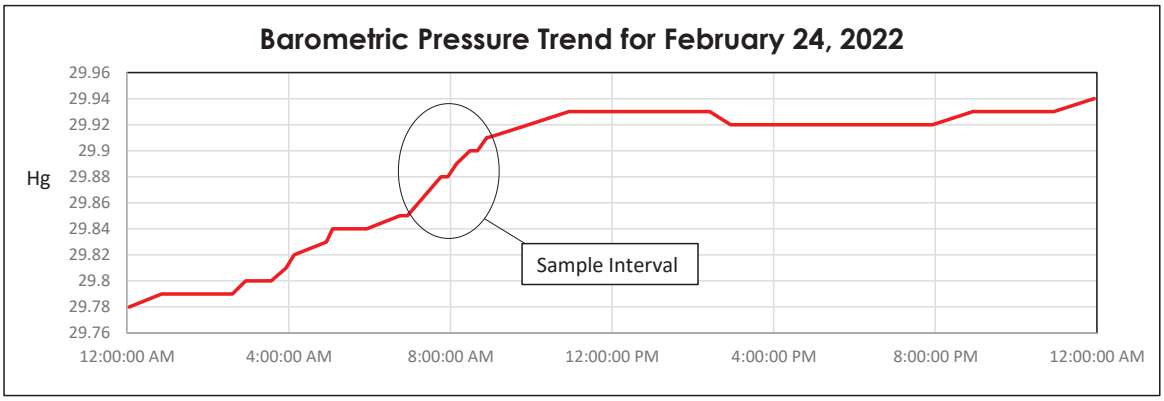
Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.

5 GP-10P connection repaired on October 23rd, 2020.

Barometric Pressure Trend - February 2022
LRI 304th Landfill, Washington





Monthly Data Source: Wunderground.com (Puyallup)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/history/monthly/us/wa/bremerton/KPWT/date/2022-2

Daily Data Source: Wunderground.com (Puyallup)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/history/daily/us/wa/bremerton/KPWT/date/2022-2-24

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

March-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*					Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*		Comments
				CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)		(ft)	(%)	
Normal Operating Rage:												
(min)			-		0.3	0.3	-				20.0	
(max)			0.12		5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	3/17/2022	7:33	0.05	--	0.0	1.1	20.0	78.0	16.3	0.0	0.0	
GP-2	3/17/2022	7:42	0.07	--	0.0	0.4	21.1	78.9	15.4	0.0	0.0	
GP-3	3/17/2022	7:49	0.09	--	0.0	0.1	21.2	77.9	7.6	2.7	53.6	
GP-4	3/17/2022	7:56	0.09	--	0.0	0.1	21.3	78.6	9.5	0.0	0.0	
GP-9	3/17/2022	8:04	0.09	--	0.0	0.1	21.3	78.2	10.2	0.0	0.0	
GP-10	3/17/2022	7:20	0.10	--	0.0	2.3	17.1	78.3				
GP-10P	3/17/2022	7:23	0.06	--	0.5	0.1	21.3	73.9				*Note 5*
GP-11	3/17/2022	7:12	0.02	--	0.0	0.4	21.2	78.4				
GP-12	3/17/2022	7:05	0.10	--	0.0	0.3	20.8	78.6				
GP-13	3/17/2022	6:53	0.08	--	0.0	0.5	20.3	79.2				
GP-14	3/17/2022	8:35	0.12	--	0.0	0.5	21.0	77.9	10.4	0.0	0.0	
GP-15	3/17/2022	8:26	0.11	--	0.0	0.4	21.1	77.9	12.4	0.0	0.0	
GP-16	3/17/2022	8:11	0.11	--	0.0	0.2	21.0	78.0	18.7	11.4	75.9	

	Beginning	Ending	Average
Weather:	Cloudy	Cloudy	Cloudy
Temperature, T (deg F):	38	43	40.5
Wind Speed (mph):	0	0	0
Wind Direction:	0	0	0
Barometric Pressure, P (in Hg):	30.14	30.13	30.14
24hr Baro.Trend (rising / falling / steady / unsteady)	Falling		

Starting Date:	3/17/2022
Starting Time:	6:53
Finishing Date:	3/17/2022
Finishing Time:	8:35
Monitored by:	R. Martinez
Instruments:	GEM 2000
Calibration Date:	3/17/2022

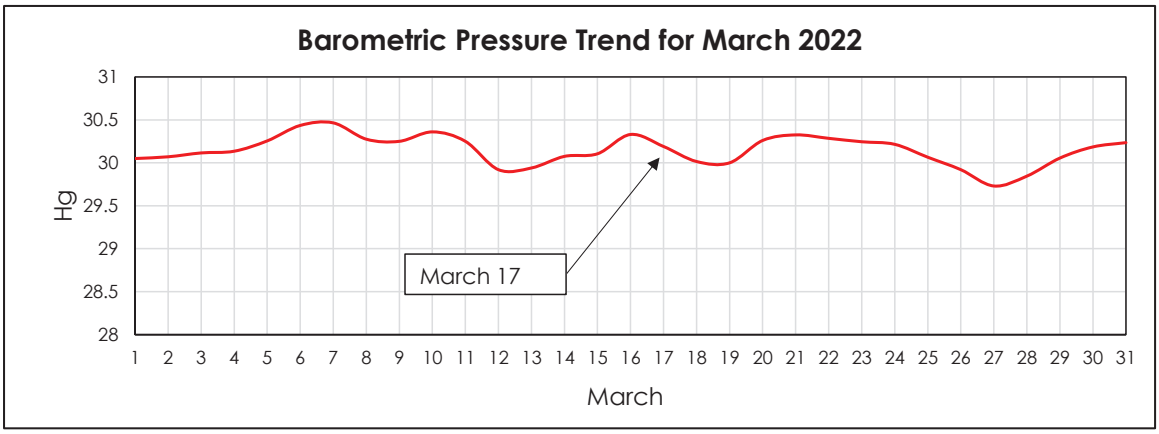
Headings:

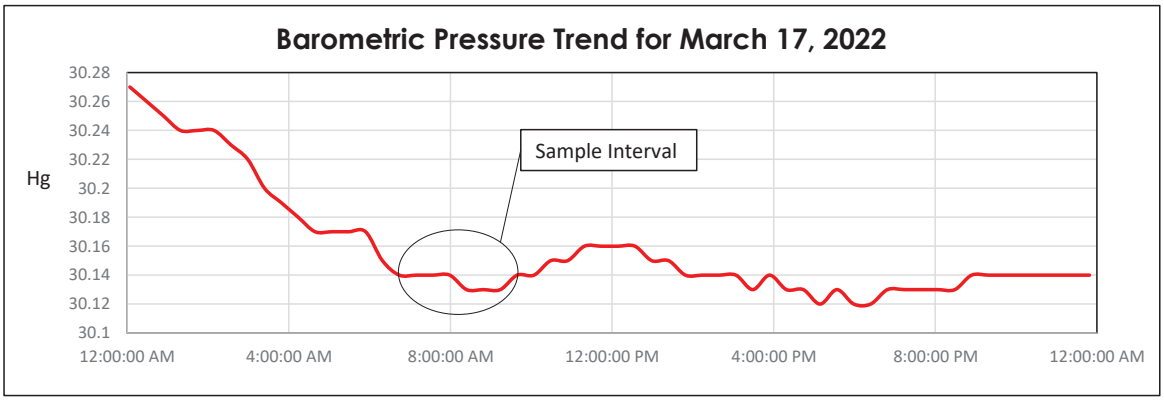
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.
5. GP-10P connection repaired on October 23rd, 2020.

Barometric Pressure Trend - March 2022
LRI 304th Landfill, Washington





Monthly Data Source: Wunderground.com (Puyallup)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAPUYAL102/table/2022-03-17/2022-03-17/monthly

Daily Data Source: Wunderground.com (Puyallup)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAPUYAL102/table/2022-03-17/2022-03-17/daily

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

April-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*					Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*		Comments
				CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)		(ft)	(%)	
Normal Operating Rage:												
(min)			-		0.3	0.3	-				20.0	
(max)			0.06		5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	4/8/2022	6:40	0.04	--	0.0	0.3	21.2	78.5	16.0	0.0	0.0	
GP-2	4/8/2022	6:46	-1.01	--	0.0	0.1	21.2	78.7	15.1	0.0	0.0	
GP-3	4/8/2022	6:51	-0.01	--	0.0	0.1	21.3	78.6	7.6	2.7	53.8	
GP-4	4/8/2022	7:10	0.06	--	0.0	0.4	19.7	79.9	9.5	0.0	0.0	
GP-9	4/8/2022	7:15	0.05	--	0.0	0.2	21.0	78.8	10.7	0.0	0.0	
GP-10	4/8/2022	6:29	0.04	--	1.2	3.3	18.1	77.4				
GP-10P	4/8/2022	6:33	0.04	--	1.4	5.6	17.6	75.4				*Note 5*
GP-11	4/8/2022	6:22	0.04	--	0.0	0.1	21.1	78.8				
GP-12	4/8/2022	6:13	0.02	--	0.0	0.1	21.0	78.9				
GP-13	4/8/2022	6:05	0.03	--	0.0	0.2	20.8	79.0				
GP-14	4/8/2022	7:45	0.06	--	0.0	0.1	21.0	78.9	18.9	3.6	72.8	
GP-15	4/8/2022	7:35	-0.05	--	0.0	0.2	20.9	78.9	12.6	0.0	0.0	
GP-16	4/8/2022	7:19	0.06	--	0.0	0.7	20.8	78.5	10.3	3.0	19.9	

	Beginning	Ending	Average
Weather:	Partly Cloudy	Mostly Cloudy	Cloudy
Temperature, T (deg F):	46	47	46.5
Wind Speed (mph):	14	16	15
Wind Direction:	202.5	202.5	202.5
Barometric Pressure, P (in Hg):	29.69	29.73	29.71
24hr Baro.Trend (rising / falling / steady / unsteady)	Rising		

Starting Date:	4/8/2022
Starting Time:	6:05
Finishing Date:	4/8/2022
Finishing Time:	7:45
Monitored by:	R. Martinez
Instruments:	GEM 2000
Calibration Date:	4/8/2022

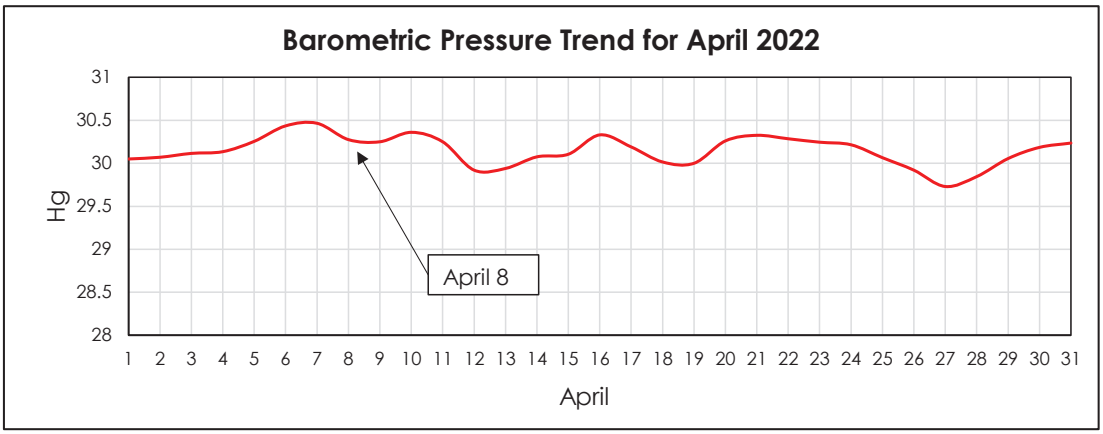
Headings:

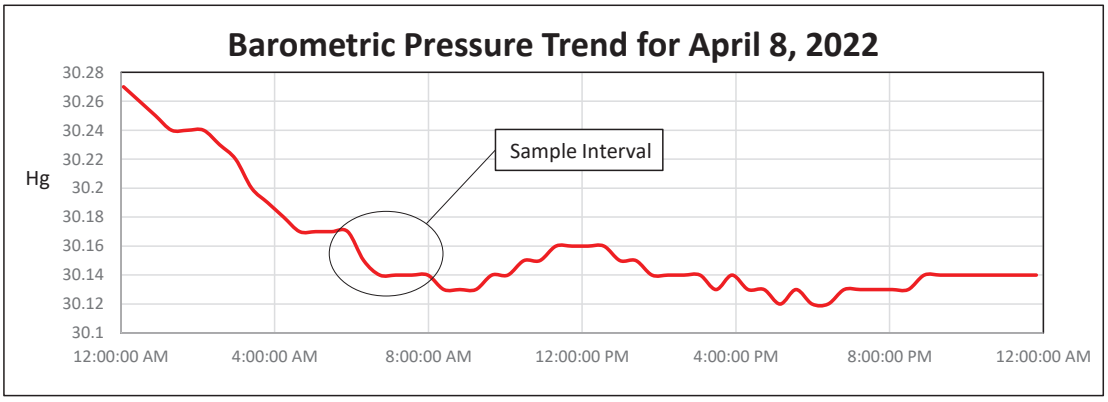
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.
5. GP-10P connection repaired on October 23rd, 2020.

Barometric Pressure Trend - April 2022
LRI 304th Landfill, Washington





Monthly Data Source: Wunderground.com (Puyallup)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:

Daily Data Source: Wunderground.com (Puyallup)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/history/daily/us/wa/seatac/KSEA/date/2022-4-8

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

May-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*					Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*		Comments
				CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)		(ft)	(%)	
Normal Operating Rage:												
(min)			-		0.3	-	-				20.0	
(max)			0.10		5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	5/20/2022	10:53	0.09	--	0.0	0.1	21.0	78.9	16.1	0.0	0.0	
GP-2	5/20/2022	11:00	0.09	--	0.2	2.5	17.3	80.0	14.7	0.0	0.0	
GP-3	5/20/2022	11:08	0.00	--	0.0	0.2	20.9	78.9	7.7	2.8	56.2	
GP-4	5/20/2022	11:19	0.07	--	0.0	0.5	19.6	79.9	9.3	0.0	0.0	
GP-9	5/20/2022	11:26	0.08	--	0.0	0.5	20.2	79.3	10.9	0.0	0.0	
GP-10	5/20/2022	10:32	0.10	--	0.0	0.1	21.1	78.8				
GP-10P	5/20/2022	10:28	0.10	--	0.0	0.1	21.1	78.8				*Note 5*
GP-11	5/20/2022	10:17	0.10	--	0.0	0.1	21.1	78.8				
GP-12	5/20/2022	10:01	0.10	--	0.0	0.1	21.0	78.9				
GP-13	5/20/2022	9:51	0.10	--	0.0	0.2	20.8	79.0				
GP-14	5/20/2022	12:03	0.03	--	0.0	0.1	20.7	79.2	10.2	0.0	0.0	
GP-15	5/20/2022	11:56	0.07	--	0.0	0.1	20.6	79.3	12.6	0.0	0.0	
GP-16	5/20/2022	11:35	0.07	--	0.0	0.2	20.8	79.0	18.6	11.3	75.0	

	Beginning	Ending	Average
Weather:	Mostly Cloudy	Mostly Cloudy	Cloudy
Temperature, T (deg F):	45	49	47
Wind Speed (mph):	3	3	3
Wind Direction:	157.5	247.5	202.5
Barometric Pressure, P (in Hg):	29.81	29.82	29.82
24hr Baro.Trend (rising / falling / steady / unsteady)	Rising		

Starting Date:	5/20/2022
Starting Time:	9:51
Finishing Date:	5/20/2022
Finishing Time:	12:03
Monitored by:	R. Martinez
Instruments:	GEM 2000
Calibration Date:	5/20/2022

Headings:

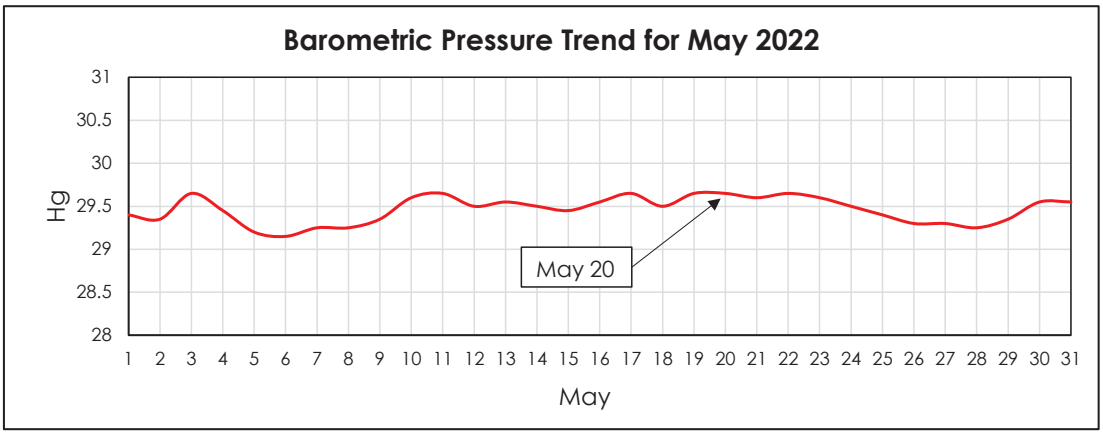
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

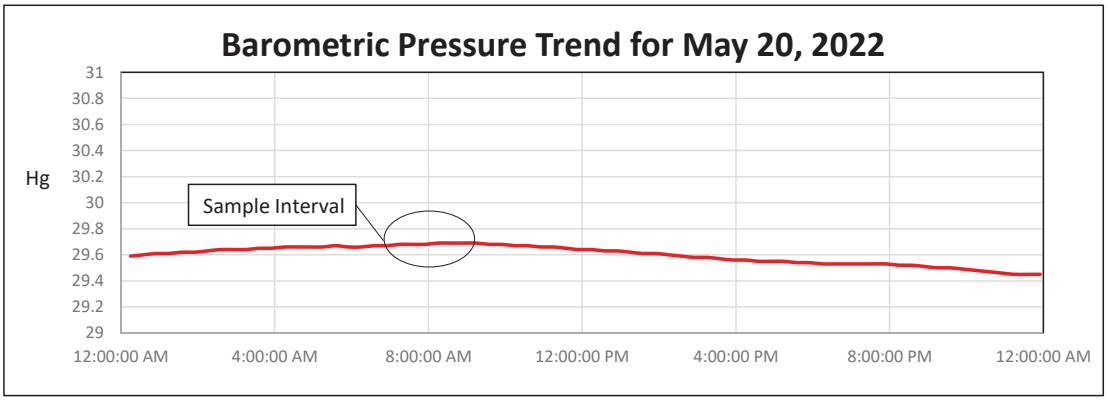
Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.

5 GP-10P connection repaired on October 23rd, 2020.

Barometric Pressure Trend - May 2022
LRI 304th Landfill, Washington





Monthly Data Source: Wunderground.com (Puyallup)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/history/monthly/us/wa/south-hill/KPLU/date/2022-5

Daily Data Source: Wunderground.com (Puyallup)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/history/daily/us/wa/south-hill/KPLU/date/2022-5-13

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

June-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*					Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*		Comments
				CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)		(ft)	(%)	
Normal Operating Rage:												
(min)			-		0.3	-	-				20.0	
(max)			0.18		5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	6/7/2022	10:09	0.08	--	0.0	0.1	21.1	78.8	16.1	21.1	100.0	
GP-2	6/7/2022	10:20	0.10	--	0.2	1.5	18.5	79.8	14.7	0.0	0.0	
GP-3	6/7/2022	10:24	0.18	--	0.0	0.4	20.8	78.8	7.8	2.9	57.2	
GP-4	6/7/2022	10:32	0.09	--	0.0	0.7	19.5	79.8	9.6	0.0	0.0	
GP-9	6/7/2022	10:37	0.09	--	0.0	0.2	21.0	78.8	10.8	0.0	0.0	
GP-10	6/7/2022	10:00	0.10	--	0.0	0.1	21.1	78.8				
GP-10P	6/7/2022	9:57	0.10	--	0.0	0.1	21.0	78.9				*Note 5*
GP-11	6/7/2022	9:47	0.10	--	0.0	0.1	21.1	78.8				
GP-12	6/7/2022	9:34	0.10	--	0.0	0.2	21.0	78.8				
GP-13	6/7/2022	9:27	0.09	--	0.0	0.3	20.8	78.9				
GP-14	6/7/2022	9:24	0.09	--	0.1	0.3	20.7	78.9	9.9	0.0	0.0	
GP-15	6/7/2022	11:07	0.09	--	0.0	0.2	20.8	79.0	12.9	0.0	0.0	
GP-16	6/7/2022	10:47	0.10	--	0.0	0.6	20.5	78.9	18.7	11.4	75.7	

	Beginning	Ending	Average
Weather:	Partly Cloudy	Partly Cloudy	Partly Cloudy
Temperature, T (deg F):	54	61	57.5
Wind Speed (mph):	10	8	9
Wind Direction:	22.5	360	191.25
Barometric Pressure, P (in Hg):	29.59	29.53	29.56
24hr Baro.Trend (rising / falling / steady / unsteady)	Falling		

Starting Date:	6/7/2022
Starting Time:	9:24
Finishing Date:	6/7/2022
Finishing Time:	11:07
Monitored by:	R. Martinez
Instruments:	GEM 2000
Calibration Date:	6/7/2022

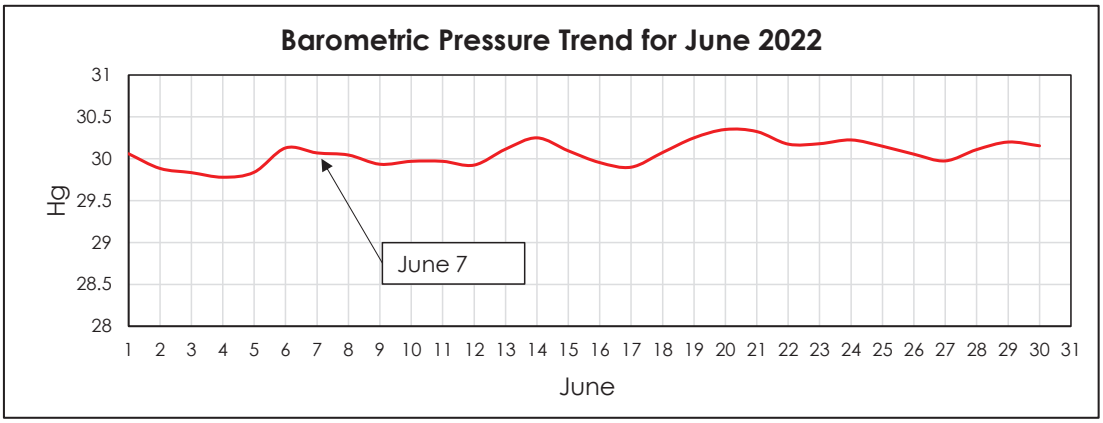
Headings:

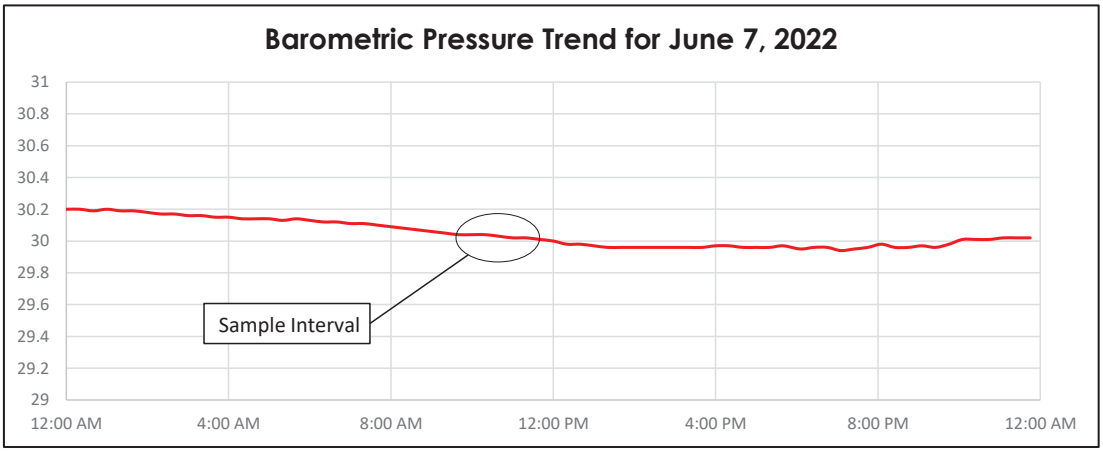
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.
5. GP-10P connection repaired on October 23rd, 2020.

Barometric Pressure Trend - June 2022
LRI 304th Landfill, Washington





Monthly Data Source: Wunderground.com (Graham)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-06-7/2022-06-7/monthly

Daily Data Source: Wunderground.com (Graham)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-06-7/2022-06-7/daily

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

July-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*					Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*		Comments
				CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)		(ft)	(%)	
Normal Operating Rage:												
(min)			-		0.3	-	-				20.0	
(max)			0.77		5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	7/28/2022	8:25	0.00	6.7	3.7	5.4	12.5	78.4	19.3	24.3	100.0	
GP-2	7/28/2022	12:44	-0.77	--	1.3	15.9	0.1	82.7	15.2	0.0	0.0	
GP-3	7/28/2022	12:50	0.77	--	0.0	8.0	6.9	85.1	11.0	6.1	100.0	
GP-4	7/28/2022	13:54	-1.03	--	0.0	10.7	5.9	83.4	13.1	3.3	65.0	
GP-9	7/28/2022	13:47	-0.54	--	0.0	11.7	5.5	82.8	14.1	0.8	16.2	
GP-10	7/28/2022	8:13	0.00	--	15.1	31.7	0.5	52.7				
GP-10P	7/28/2022	8:08	0.09	27.4	32.1	40.7	0.4	26.8				*Note 5*
GP-11	7/28/2022	7:58	-0.01	--	0.0	24.9	2.1	73.0				
GP-12	7/28/2022	7:49	0.03	--	0.0	1.5	19.6	78.9				
GP-13	7/28/2022	7:41	0.06	--	0.0	24.7	1.8	73.5				
GP-14	7/28/2022	12:24	-0.05	--	0.0	0.4	20.1	79.5	14.0	0.0	0.0	
GP-15	7/28/2022	12:03	-0.01	--	2.0	31.0	0.3	66.7	15.6	0.0	0.0	
GP-16	7/28/2022	13:41	0.23	--	0.0	0.5	20.2	79.3	21.8	14.4	96.0	

	Beginning	Ending	Average
Weather:	Sunny	Sunny	Sunny
Temperature, T (deg F):	64.8	91.4	78.1
Wind Speed (mph):	1	2	1.5
Wind Direction:	22.5	22.5	22.5
Barometric Pressure, P (in Hg):	30.02	29.96	29.99
24hr Baro.Trend (rising / falling / steady / unsteady)	Falling		

Starting Date:	7/28/2022
Starting Time:	7:41
Finishing Date:	7/28/2022
Finishing Time:	13:54
Monitored by:	J. Faille
Instruments:	GEM 2000
Calibration Date:	7/28/2022

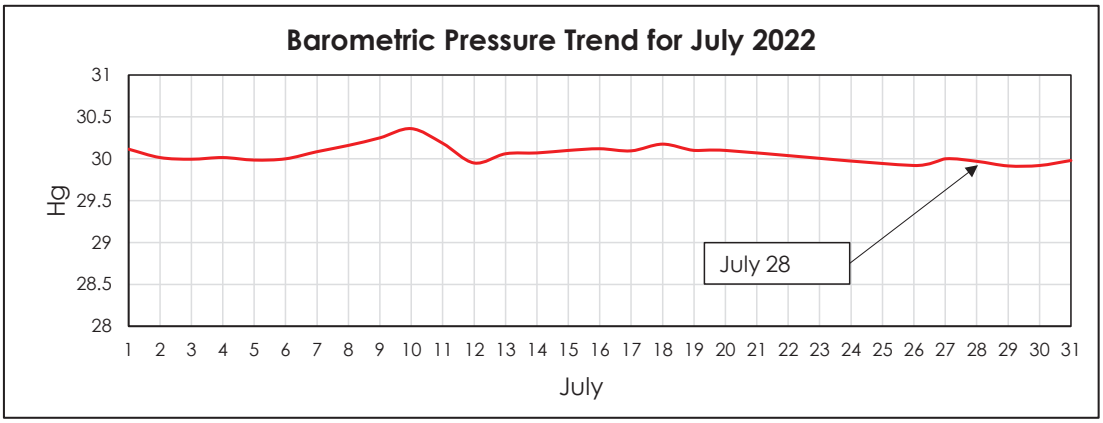
Headings:

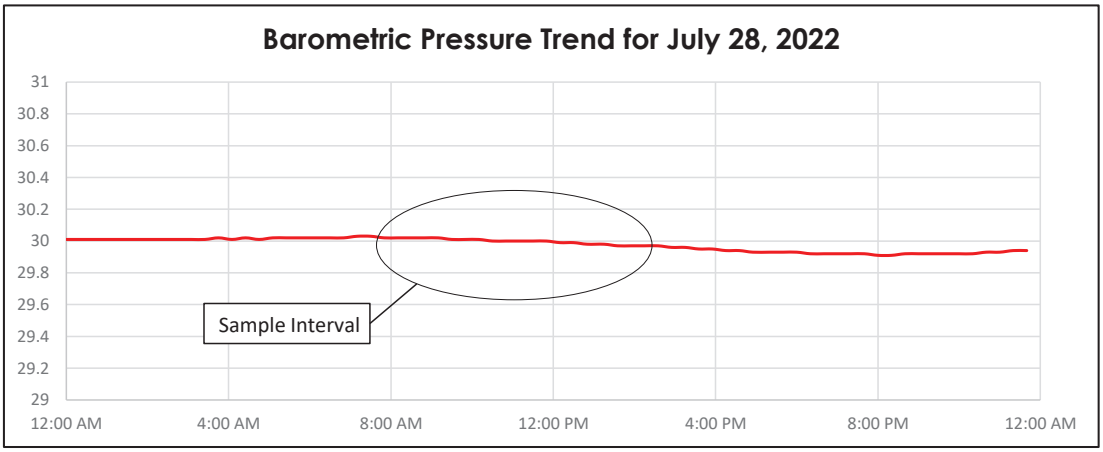
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.
5. GP-10P connection repaired on October 23rd, 2020.

Barometric Pressure Trend - July 2022
LRI 304th Landfill, Washington





Monthly Data Source: Wunderground.com (Graham)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-07-28/2022-07-28/monthly

Daily Data Source: Wunderground.com (Graham)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-07-28/2022-07-28/daily

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

August-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*					Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*		Comments
				CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)		(ft)	(%)	
Normal Operating Rage:												
(min)			-		0.3	-	-				20.0	
(max)			0.02		5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	8/20/2022	11:54	0.00	--	0.0	0.2	20.8	79.0	18.9	23.9	100.0	
GP-2	8/20/2022	12:00	-0.01	--	0.0	0.1	20.8	79.1	16.7	0.0	0.0	
GP-3	8/20/2022	12:12	0.00	--	0.0	0.7	19.7	79.6	11.1	6.2	100.0	
GP-4	8/20/2022	12:23	0.00	--	0.0	1.0	19.8	79.2	13.0	3.2	64.0	
GP-9	8/20/2022	12:30	-0.02	--	0.0	1.1	18.9	80.0	13.9	0.6	12.0	
GP-10	8/20/2022	10:13	0.01	--	0.5	2.9	18.6	78.0				
GP-10P	8/20/2022	10:08	0.00	--	0.9	1.6	20.1	77.4				*Note 5*
GP-11	8/20/2022	9:57	0.00	--	0.0	0.2	21.0	78.8				
GP-12	8/20/2022	9:46	0.02	11.7	11.2	27.2	13.0	48.6				
GP-13	8/20/2022	9:34	0.00	--	0.0	3.0	18.5	78.5				
GP-14	8/20/2022	13:11	-0.04	--	0.0	0.0	20.9	79.1	14.4	0.0	0.0	
GP-15	8/20/2022	13:04	-0.05	--	0.0	0.1	20.9	79.0	14.9	0.0	0.0	
GP-16	8/20/2022	12:36	-0.02	--	0.0	0.1	20.7	79.2	22.1	14.8	98.5	

	Beginning	Ending	Average
Weather:	Sunny	Sunny	Sunny
Temperature, T (deg F):	58	70	64
Wind Speed (mph):	6	7	6.5
Wind Direction:	180	270	225
Barometric Pressure, P (in Hg):	29.58	29.54	29.56
24hr Baro.Trend (rising / falling / steady / unsteady)	Unsteady		

Starting Date:	8/20/2022
Starting Time:	9:34
Finishing Date:	8/20/2022
Finishing Time:	13:11
Monitored by:	R. Martinez
Instruments:	GEM 2000
Calibration Date:	8/20/2022

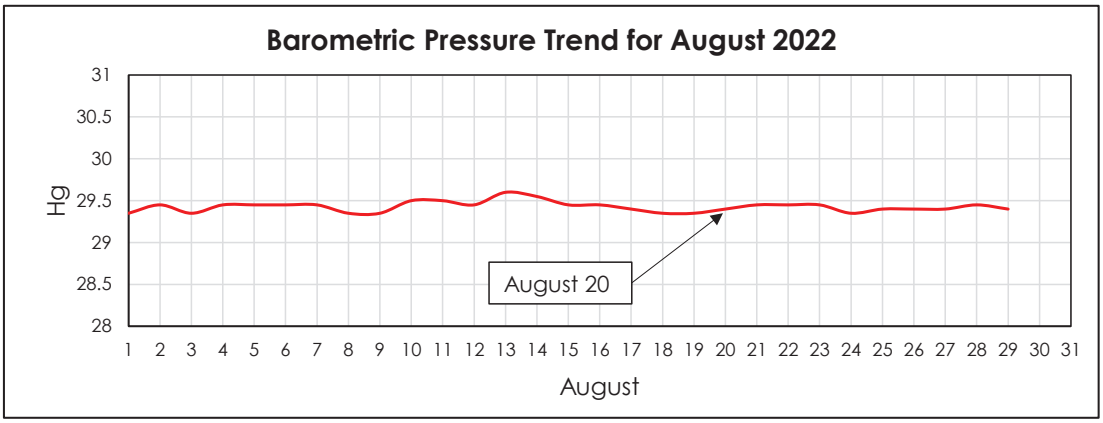
Headings:

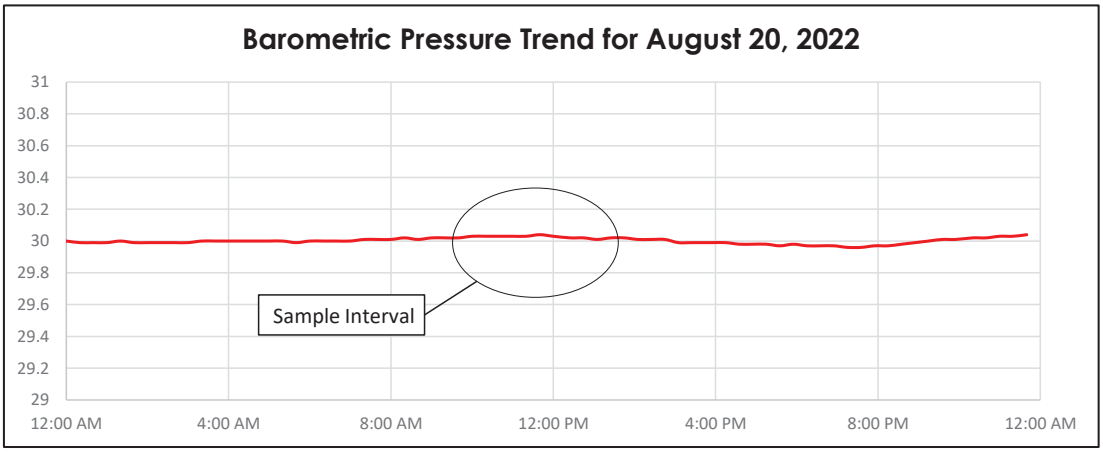
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.
5. GP-10P connection repaired on October 23rd, 2020.

Barometric Pressure Trend - August 2022
LRI 304th Landfill, Washington





Monthly Data Source: Wunderground.com (Graham)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-08-20/2022-08-20/monthly

Daily Data Source: Wunderground.com (Graham)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-08-20/2022-08-20/daily

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

September-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*					Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*		Comments
				CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)		(ft)	(%)	
Normal Operating Rage:												
(min)			-		0.3	-	-				20.0	
(max)			0.46		5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	9/27/2022	12:22	0.10	20.1	4.4	3.1	16.3	76.2	20.1	25.1	100.0	
GP-2	9/27/2022	12:36	0.00	--	1.9	17.5	0.0	80.6	14.2	0.0	0.0	
GP-3	9/27/2022	12:53	0.46	--	0.0	8.3	10.3	81.4	12.1	7.2	100.0	
GP-4	9/27/2022	13:03	-0.32	--	0.0	9.9	12.5	77.6	14.2	4.4	88.8	
GP-9	9/27/2022	13:10	0.34	--	0.0	11.2	6.8	82.0	15.6	2.4	47.4	
GP-10	9/27/2022	13:40	-0.04	--	8.0	34.7	0.0	57.3				
GP-10P	9/27/2022	13:44	-0.06	--	0.0	11.3	9.7	79.0				*Note 5*
GP-11	9/27/2022	13:51	0.10	--	0.0	16.1	6.4	77.5				
GP-12	9/27/2022	13:58	-0.13	25.0	24.8	67.4	0.0	7.8				
GP-13	9/27/2022	14:04	-0.07	--	0.3	29.9	0.0	69.8				
GP-14	9/27/2022	14:10	0.08	--	0.0	2.3	18.3	79.4	16.1	0.8	16.4	
GP-15	9/27/2022	14:19	0.04	--	2.1	24.9	6.2	66.8	19.2	3.6	71.4	
GP-16	9/27/2022	13:19	-0.03	--	0.0	0.4	20.3	79.3	22.2	14.9	99.3	
GP-17	9/27/2022	12:30	0.0	--	0.0	0.2	18.7	81.1	12.6	12.6		*Note 6*
GP-18	9/27/2022	12:46	0.0	--	0.0	0.5	20.1	79.4	8.6	8.6		"
GP-19	9/27/2022	15:26	0.0	--	0.0	1.0	19.2	79.8	13.2	13.2		"
GP-20	9/27/2022	15:47	-0.1	--	0.0	0.8	16.7	82.5	12.2	12.2		"
GP-21	9/27/2022	15:37	-0.1	--	0.0	1.2	13.9	84.9				*Note 6*

General Data:

	Beginning	Ending	Average
Weather:	Fair	Partly Cloudy	Partly Cloudy
Temperature, T (deg F):	69	76	72.5
Wind Speed (mph):	7	12	9.5
Wind Direction:	180	202.5	191.25
Barometric Pressure, P (in Hg):	29.42	29.41	29.42
24hr Baro.Trend (rising / falling / steady / unsteady)	Unsteady		

Starting Date:	9/27/2022
Starting Time:	12:22
Finishing Date:	9/27/2022
Finishing Time:	15:47
Monitored by:	J. Faille
Instruments:	GEM 2000
Calibration Date:	9/27/2022

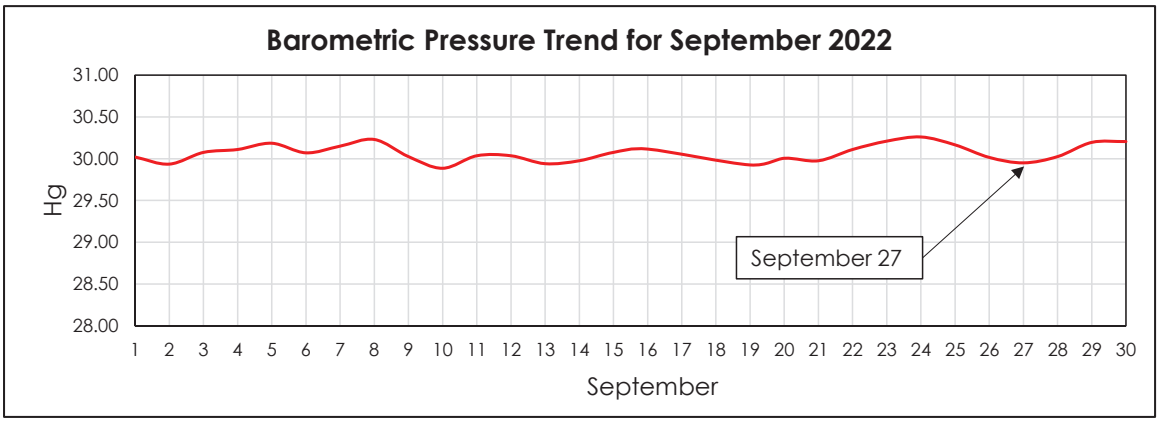
Headings:

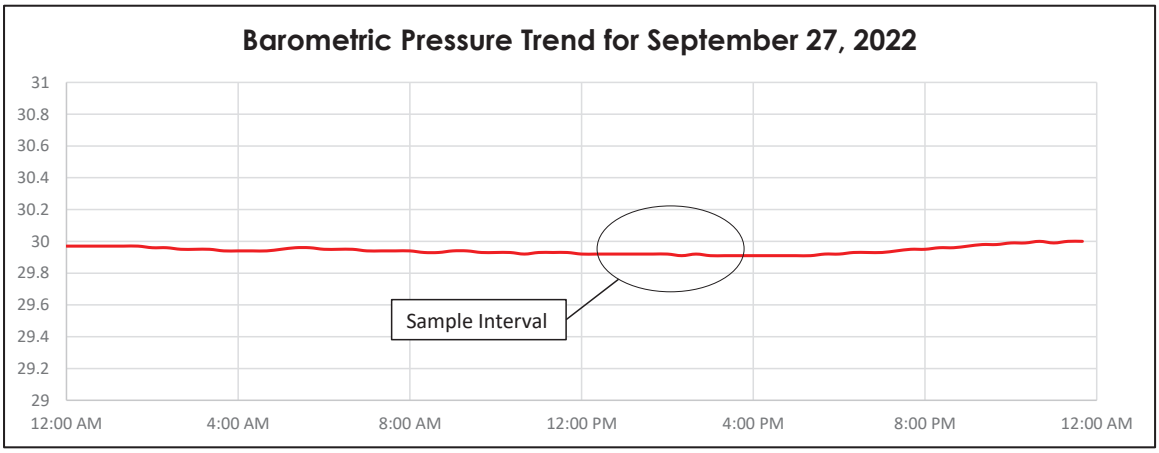
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.
5. GP-10P connection repaired on October 23rd, 2020.
6. GP-17 through GP-18 added September 2022

Barometric Pressure Trend - September 2022
LRI 304th Landfill, Washington





Monthly Data Source: Wunderground.com (Graham)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-09-20/2022-09-20/monthly

Daily Data Source: Wunderground.com (Graham)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-09-27/2022-09-27/daily

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

October-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*					Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*		Comments
				CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)		(ft)	(%)	
Normal Operating Rage:												
(min)			-		0.3	-	-				20.0	
(max)			0.76		5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	10/27/2022	14:13	0.15	20.1	4.1	2.5	17.6	75.8	19.9	24.9	100.0	
GP-2	10/27/2022	13:53	0.61	--	2.7	18.1	0.0	79.2	18.4	0.0	0.0	
GP-3	10/27/2022	13:17	0.02	--	0.0	7.8	13.2	79.0	11.9	7.1	100.0	
GP-4	10/27/2022	13:11	0.28	--	0.0	8.6	13.9	77.5	14.8	5.0	100.0	
GP-9	10/27/2022	13:01	-0.08	--	0.0	11.1	7.8	81.1	14.2	0.9	18.2	
GP-10	10/27/2022	14:31	0.10	--	7.8	32.0	0.0	60.2				
GP-10P	10/27/2022	14:24	0.76	0.2	0.0	14.8	3.6	81.6				
GP-11	10/27/2022	14:41	0.75	--	0.0	15.9	7.7	76.4				
GP-12	10/27/2022	14:56	0.01	17.3	16.7	60.2	0.0	23.1				
GP-13	10/27/2022	15:04	0.03	--	0.3	30.2	0.0	69.5				
GP-14	10/27/2022	15:10	0.02	--	0.0	13.4	6.2	80.4	17.3	2.0	39.8	
GP-15	10/27/2022	15:19	0.05	--	5.5	41.1	0.0	53.4	20.4	4.8	95.4	
GP-16	10/27/2022	12:52	0.04	--	0.0	1.6	19.6	78.8	22.4	15.0	100.0	
GP-17	10/27/2022	13:59	0.0	0.1	0.0	0.5	19.5	80.0	14.7	0.0	100.0	*Note 5*
GP-18	10/27/2022	13:23	0.0	0.5	0.0	0.2	19.9	79.9	9.4	0.0	0.0	*Note 5*
GP-19	11/1/2022	14:51	0.0	--	0.0	1.6	18.7	79.7			0.0	*Note 5, 6, 7*
GP-20	11/1/2022	13:56	0.0	--	0.0	1.2	18.1	80.7				*Note 5, 6, 7*
GP-21	11/1/2022	13:44	-0.1	--	0.0	1.4	17.3	81.3				*Note 5, 6, 7*

General Data:

	Beginning	Ending	Average
Weather:	Fair	Partly Cloudy	Partly Cloudy
Temperature, T (deg F):	69	76	72.5
Wind Speed (mph):	7	12	9.5
Wind Direction:	180	202.5	191.25
Barometric Pressure, P (in Hg):	29.42	29.41	29.42
24hr Baro.Trend (rising / falling / steady / unsteady)	Unsteady		

Starting Date:	10/27/2022
Starting Time:	12:52
Finishing Date:	11/1/2022
Finishing Time:	14:51
Monitored by:	J. Faille
Instruments:	GEM 2000
Calibration Date:	10/27/2022

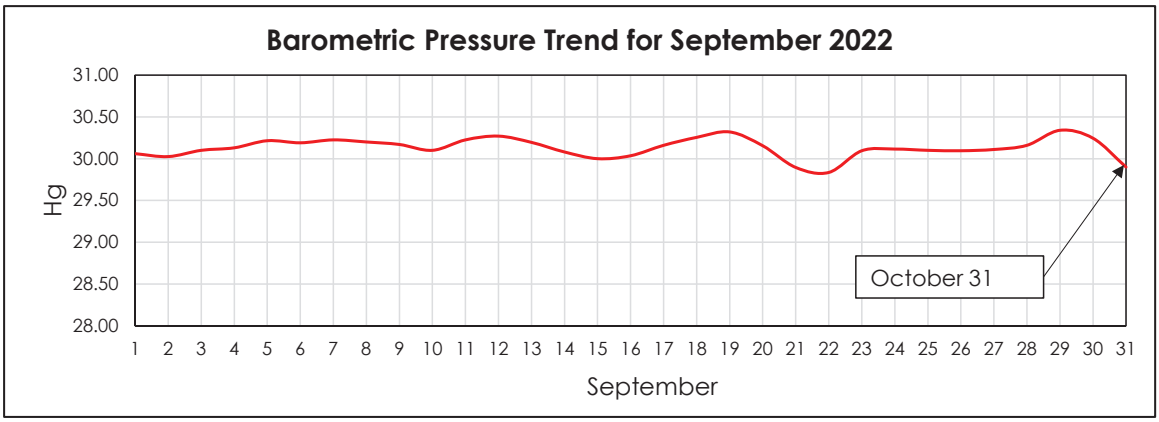
Headings:

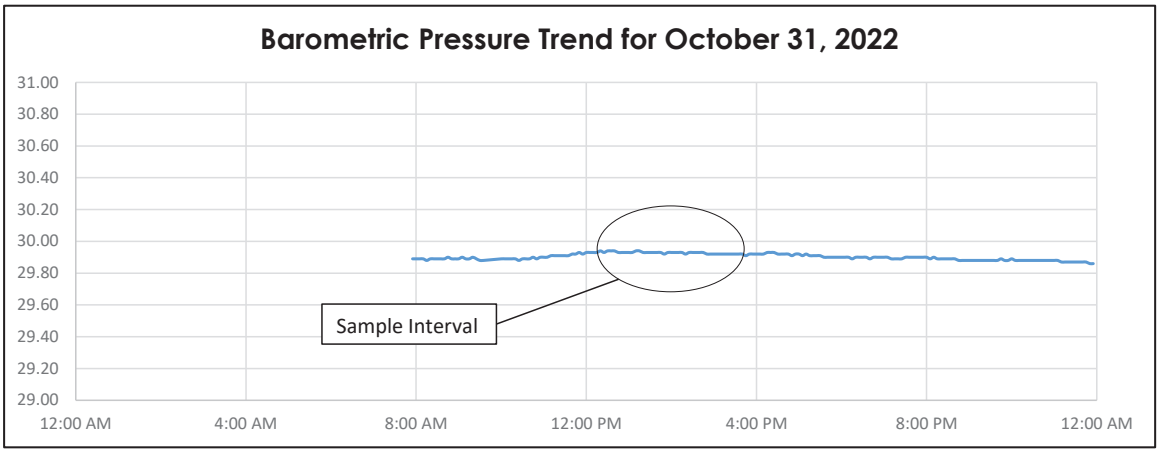
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.
5. GP-17 through GP-21 added September 2022
6. Monitored on November 1st due to access issues
7. No water level emasured in October

Barometric Pressure Trend - October 2022
LRI 304th Landfill, Washington





Monthly Data Source: Wunderground.com (Graham)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-09-20/2022-10-20/monthly

Daily Data Source: Wunderground.com (Graham)
Lat: 47.10 Long: 122.29 Elev: 535 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-09-27/2022-10-31/daily

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

November-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*					Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*		Comments
				CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)		(ft)	(%)	
Normal Operating Rage:												
(min)			-	9.7	0.3	-	-				20.0	
(max)			0.24	16.00	5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	11/28/2022	9:11	-0.23	--	3.4	2.8	17.6	76.2	18.2	23.2	100.0	
GP-2	11/28/2022	9:21	0.20	--	4.8	15.9	1.4	77.9	12.9	0.0	0.0	
GP-3	11/28/2022	9:37	0.12	--	0.0	7.3	13.3	79.4	10.2	5.3	100.0	
GP-4	11/28/2022	9:51	0.13	--	0.0	0.1	21.2	78.7	14.5	4.7	94.6	
GP-9	11/28/2022	9:56	0.13	--	0.0	9.9	7.4	82.7	12.2	0.0	0.0	
GP-10	11/28/2022	9:00	0.14	9.7	7.9	17.9	1.3	72.9				
GP-10P	11/28/2022	8:56	0.12	16.0	16.5	29.2	1.5	52.8				
GP-11	11/28/2022	8:46	0.16	--	0.0	0.1	21.1	78.8				
GP-12	11/28/2022	8:36	0.07	11.8	10.8	46.7	0.7	41.8				
GP-13	11/28/2022	8:29	0.07	--	0.1	27.0	0.2	72.7				
GP-14	11/28/2022	10:26	0.17	--	0.4	20.4	0.0	79.2	16.2	0.9	18.8	
GP-15	11/28/2022	10:36	0.24	--	0.2	5.9	16.9	77.0	20.4	4.8	95.6	
GP-16	11/28/2022	10:02	0.13	--	0.0	1.9	20.5	77.6	21.8	14.4	96.1	
GP-17	11/28/2022	9:29	0.1	--	0.0	1.0	20.7	78.3	7.9	0.0	0.0	*Note 5*
GP-18	11/28/2022	9:42	0.1	--	0.0	0.6	20.9	78.5	5.4	0.0	0.0	*Note 5*
GP-19	11/28/2022	12:13	0.2	--	0.0	1.3	18.6	80.1	12.4	0.0	0.0	*Note 5*
GP-20	11/28/2022	11:38	-0.4	--	0.0	0.9	17.5	81.6	11.9	0.0	0.0	*Note 5*
GP-21	11/28/2022	11:27	0.2	--	0.0	1.0	20.0	79.0	20.0	20.0	100.0	*Note 5*

General Data:

	Beginning	Ending	Average
Weather:	Mostly Cloudy	Cloudy	Partly Cloudy
Temperature, T (deg F):	37	38	37.5
Wind Speed (mph):	8	7	7.5
Wind Direction:	45	315	180
Barometric Pressure, P (in Hg):	29.41	29.43	29.42
24hr Baro.Trend (rising / falling / steady / unsteady)	Unsteady		

Starting Date:	11/28/2022
Starting Time:	8:29
Finishing Date:	11/28/2022
Finishing Time:	12:13
Monitored by:	T. Berndahl
Instruments:	GEM 2000
Calibration Date:	11/28/2022

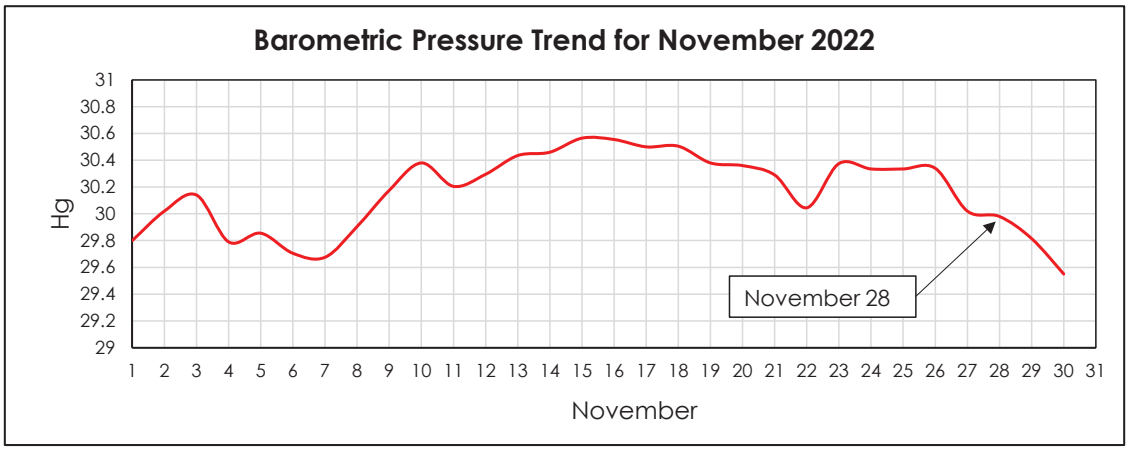
Headings:

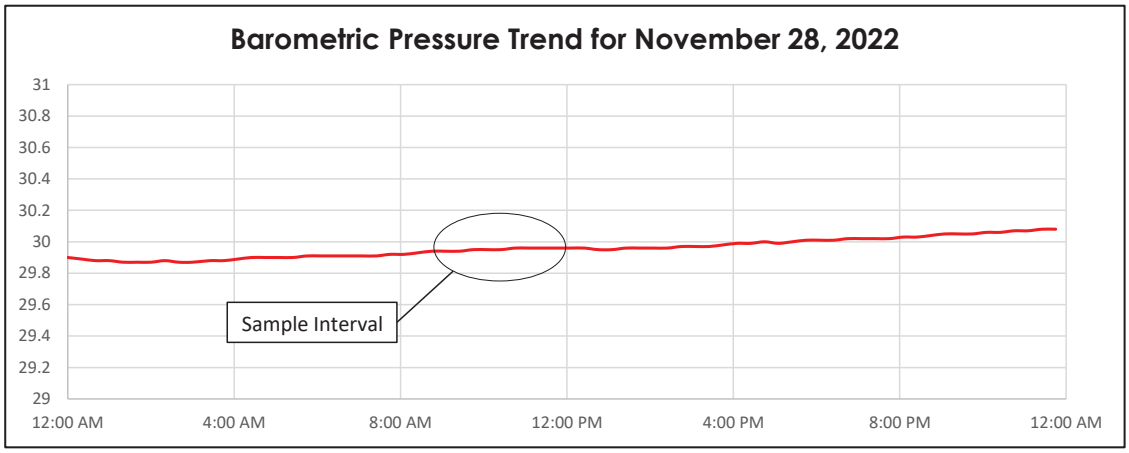
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.
4. GP-10P added in January 2018. Monitoring performed at water level piezometer installed in the same boring as GP-10.
5. GP-17 through GP-21 added September 2022

Barometric Pressure Trend - November 2022
LRI Landfill, Pierce County, Washington





Monthly Data Source: Wunderground.com (South Hill, WA)
Lat: 46.98 Long: 122.34 Elev: 692 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-11-20/2022-11-20/monthly

Daily Data Source: Wunderground.com (South Hill, WA)
Lat: 46.98 Long: 122.34 Elev: 692 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-11-28/2022-11-28/daily

Exhibit 3 - Results of Landfill Gas Probe Monitoring

SCS Engineers

Landfill Gas Control System

04222001.04

LRI Landfill

December-22

Location Refer *Design.*	Date	Time	$P_{(well)}$ (in W.C.)	Gas Composition - *Note 1*					Depth to Water *Note 2* (ft-TOC)	Exposed Portion of Perforations - *Note 3*		Comments
				CH_4 Spike (% by vol.)	CH_4 (% by vol.)	CO_2 (% by vol.)	O_2 (% by vol.)	Balance (N_2 & H_2O) (% by vol.)		(ft)	(%)	
Normal Operating Rage:												
(min)			-	9.7	0.3	-	-				20.0	
(max)			4.53	16.00	5.0	5.0	20.3				90.0	
Perimeter Gas Probes												
GP-1	12/27/2022	12:35	0.31	3.6	3.7	2.5	15.5	78.3	17.5	22.5	100.0	
GP-2	12/27/2022	12:15	4.53	6.4	6.4	16.7	0.0	76.9	16.1	0.0	0.0	
GP-3	12/27/2022	11:51	3.41	--	0.0	7.1	12.0	80.9	9.6	4.7	93.2	
GP-4	12/27/2022	11:44	0.57	--	0.0	8.3	11.5	80.2	10.8	1.0	19.2	
GP-9	12/27/2022	11:35	-0.12	--	0.0	10.5	5.6	83.9	10.5	0.0	0.0	
GP-10	12/27/2022	13:06	0.14	34.2	22.9	32.8	0.0	44.3				
GP-10P	12/27/2022	13:02	0.23	--	34.2	41.1	0.0	24.7				
GP-11	12/27/2022	13:17	0.86	--	10.4	31.0	0.0	58.6				
GP-12	12/27/2022	13:27	0.63	12.0	11.8	50.3	0.0	37.9				
GP-13	12/27/2022	13:34	0.07	--	0.1	28.0	0.0	71.9				
GP-14	12/27/2022	14:05	0.04	--	0.0	0.7	19.9	79.4	11.7	0.0	0.0	
GP-15	12/27/2022	14:16	0.22	--	4.1	38.4	0.4	57.1	18.6	3.0	60.2	
GP-16	12/27/2022	11:24	-0.03	--	0.0	5.6	17.7	76.7	19.4	12.0	80.0	
GP-17	12/27/2022	12:23	0.1	--	0.0	0.5	20.4	79.1	5.3	0.0	100.0	
GP-18	12/27/2022	12:05	0.1	--	0.0	0.3	20.4	79.3	3.2	0.0	0.0	
GP-19	12/27/2022	14:34	0.1	--	0.0	1.3	19.3	79.4	8.1	0.0	0.0	
GP-20	12/27/2022	13:49	0.1	--	0.0	0.3	20.3	79.4	6.9	0.0	0.0	
GP-21	12/27/2022	13:39	0.1	--	0.0	2.3	17.7	80.0	20.0	20.0	0.0	

General Data:

	Beginning	Ending	Average
Weather:	Cloudy	Cloudy	Cloudy
Temperature, T (deg F):	53	48	50.5
Wind Speed (mph):	9	12	10.5
Wind Direction:	180	202.5	191.25
Barometric Pressure, P (in Hg):	28.50	28.62	28.56
24hr Baro.Trend (rising / falling / steady / unsteady)	Unsteady		

Starting Date:	12/27/2022
Starting Time:	11:24
Finishing Date:	12/27/2022
Finishing Time:	14:34
Monitored by:	J. Faille
Instruments:	GEM 2000
Calibration Date:	12/27/2022

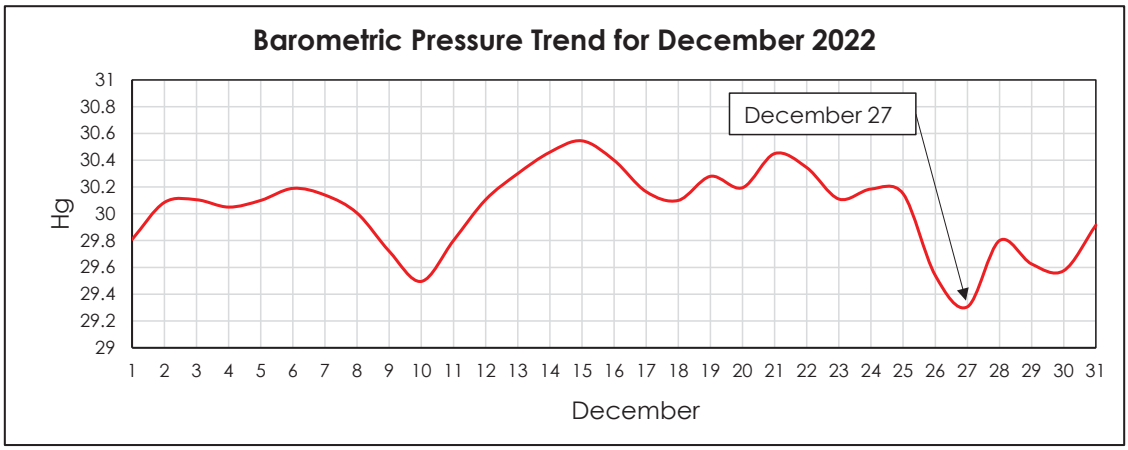
Headings:

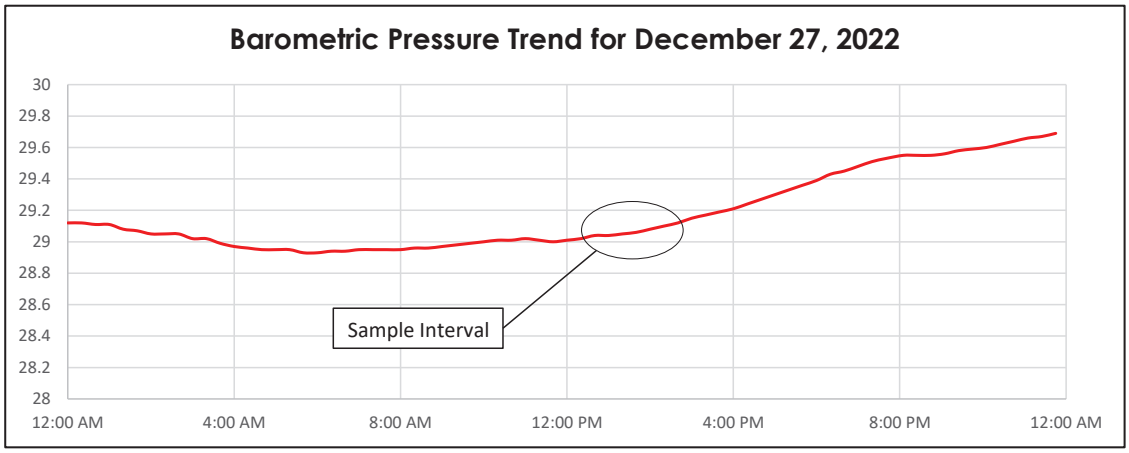
$P_{(well)}$	Relative Pressure
CH_4	Methane
CO_2	Carbon Dioxide
O_2	Oxygen
H_2O	Water Vapor
N_2	Nitrogen
TOC	Top of Casing

Notes:

1. Measurement for spike concentrations of CH_4 and CO_2 are recorded as a comment if observed during sampling.
2. Water level measurements made where gas probe monitoring port allows for measurement, or where there is an adjacent measurement piezometer.
3. Exposed Perforation = perforated pipe section not submerged by liquid.

Barometric Pressure Trend - December 2022
LRI Landfill, Pierce County, Washington





Monthly Data Source: Wunderground.com (South Hill, WA)
Lat: 46.98 Long: 122.34 Elev: 692 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-12-27/2022-12-27/monthly

Daily Data Source: Wunderground.com (South Hill, WA)
Lat: 46.98 Long: 122.34 Elev: 692 ft-AMSL
Data Source:
https://www.wunderground.com/dashboard/pws/KWAGRAHA52/table/2022-12-27/2022-12-27/daily

LRI 304th Street Landfill
Landfill Gas Monitoring of On-site Buildings

Date: 1/13/22
Weather Conditions: Sunny
Instrument: micro FID
Measured By: R. Montiel

The atmosphere inside buildings at the landfill were monitored for possible intrusion of methane gas. Per WAC 173-351, concentrations of methane in on-site structures must not exceed 25% of the lower explosive limit (LEL). If off-site gas migration is suspected, concentrations of methane in off-site structures must not exceed 100 ppm methane.

The areas monitored included:

- The general overall work area
- Floor drains
- Underground conduit protrusions
- Closed areas where landfill gas could collect, such as under cupboards and inside closets

The gas detection instrument must be calibrated using calibration gas containing methane equal to 50 % LEL. Calibration must be performed before and after the survey is completed.

Checked boxes indicate that the survey revealed **no detectable methane**.

8.4 ☐ Main Office - individual office spaces, storage areas and within open crawl-space area.

0.7 ☐ Repair Shop – survey atmosphere conditions throughout (lower height levels).

☑ Pay/Scale Booth – interior of building.

Signature

LRI 304th Street Landfill
Landfill Gas Monitoring of On-site Buildings

Date: 4-12-22
Weather Conditions: overcast
Instrument: MicroFID
Measured By: Ruben Martinez

The atmosphere inside buildings at the landfill were monitored for possible intrusion of methane gas. Per WAC 173-351, concentrations of methane in on-site structures must not exceed 25% of the lower explosive limit (LEL). If off-site gas migration is suspected, concentrations of methane in off-site structures must not exceed 100 ppm methane.

The areas monitored included:
- The general overall work area
- Floor drains
- Underground conduit protrusions
- Closed areas where landfill gas could collect, such as under cupboards and inside closets

The gas detection instrument must be calibrated using calibration gas containing methane equal to 50 % LEL. Calibration must be performed before and after the survey is completed.

Checked boxes indicate that the survey revealed **no detectable methane**.

- ☐ Main Office - individual office spaces, storage areas and within open crawl-space area. (1.5 Throughout)
- ☑ Repair Shop – survey atmosphere conditions throughout (lower height levels).
- ☑ Pay/Scale Booth – interior of building.

10.1 ppm spike outside north of Main Office

Signature

LRI 304th Street Landfill
Landfill Gas Monitoring of On-site Buildings

Date: 8/23/22
Weather Conditions: Partly Cloudy
Instrument: Micro FID
Measured By: R. Martinez + J. Faille

The atmosphere inside buildings at the landfill were monitored for possible intrusion of methane gas. Per WAC 173-351, concentrations of methane in on-site structures must not exceed 25% of the lower explosive limit (LEL). If off-site gas migration is suspected, concentrations of methane in off-site structures must not exceed 100 ppm methane.

The areas monitored included: The general overall work area
Floor drains
Underground conduit protrusions
Closed areas where landfill gas could collect, such as under cupboards and inside closets

The gas detection instrument must be calibrated using calibration gas containing methane equal to 50 % LEL. Calibration must be performed before and after the survey is completed.

Checked boxes indicate that the survey revealed **no detectable methane**. Otherwise values recorded on left.

5.0	☐	Main Office - individual office spaces, storage areas and within open crawl-space area. Conference room
9.2	☐	Repair Shop – survey atmosphere conditions throughout (lower height levels). bay doors closed
	☑	Pay/Scale Booth – interior of building.
0.1	☐	Background. Upwind Direction: North

Signature

LRI 304th Street Landfill
Landfill Gas Monitoring of On-site Buildings

Date: 12-30-22
Weather Conditions: Partially cloudy
Instrument: microFID I/S
Measured By: John Faille

The atmosphere inside buildings at the landfill were monitored for possible intrusion of methane gas. Per WAC 173-351, concentrations of methane in on-site structures must not exceed 25% of the lower explosive limit (LEL). If off-site gas migration is suspected, concentrations of methane in off-site structures must not exceed 100 ppm methane.

The areas monitored included:
- The general overall work area
- Floor drains
- Underground conduit protrusions
- Closed areas where landfill gas could collect, such as under cupboards and inside closets

The gas detection instrument must be calibrated using calibration gas containing methane equal to 50 % LEL. Calibration must be performed before and after the survey is completed.

Checked boxes indicate that the survey revealed **no detectable methane**.

- ☐ Main Office - individual office spaces, storage areas and within open crawl-space area. ~ 1.0 PPM
- ☐ Repair Shop – survey atmosphere conditions throughout (lower height levels). 10.4 ppm peak -6-8 ppm steady
- ☐ Pay/Scale Booth – interior of building. 0.6 ppm steady

Background Concentrations:
Upwind 0.0 ppm
Downwind ~10.0 ppm 30.0 peak near active face

Signature John F. Faille

☐ Energy facility – 4.2 ppm steady

March 18, 2022
File No. 04222001.11

Mr. George Duvendack
Site Manager
Pierce County Recycling, Composting and Disposal, LLC dba LRI
17925 Meridian Street East
Puyallup, Washington 98375

Subject: **2022 February Gas Extraction Well Installation Report**
LRI Landfill, Graham, Washington

Dear George:

This letter report presents a summary of field activities performed by SCS Engineers (SCS) during the installation of 18 new landfill gas (LFG) extraction wells at the LRI Landfill located in Graham, Washington. The LFG extraction wells were installed in general accordance with the 2022 Gas System Expansion design plans, approved well construction variance, and well completion schedule issued by SCS on January 24, 2022. Following completion of the well installation work, each well was given a standard well designation consistent with LRI naming convention as shown in Table 1.

Summary

SCS personnel were onsite from January 28, 2022 through February 11, 2022 to observe drilling and installation of 18 new LFG extraction wells performed by DBM Contractors, Inc. (DBM). Observations of the cuttings from well drilling were logged for each boring and are included on the attached boring and construction logs prepared by SCS. The following table presents a summary of the completed well installation data.

Table 1: Summary of Well Completion

Well ID	Design ID	Surface Elevation (ft-msl)(1)	Well Material	ECY Well Tag(2)	Design Depth (ft)	Installed Depth (ft)	Length of Screen (ft)
WE-311	VW-10	831.82	PVC	BKM-517	70	71	52
WE-312	VW-12	844.45	PVC	BKM-515	70	72	52
WE-313	VW-15	834.72	PVC	BKM-518	70	72	52
WE-314	VW-16	832.76	PVC	BKM-519	70	71	52
WE-315	VW-14	849.65	PVC	BKM-527	130	121	102
WE-316	VW-11	852.29	PVC	BKM-525	70	71	52
WE-317	VW-09	849.58	PVC	BKM-516	70	72	52
WE-318	VW-05	848.71	PVC	BKM-523	130	130	112
WE-319	VW-04	853.21	PVC	BKM-521	70	73	52
WE-320	VW-08	856.04	PVC	BKM-520	70	71	52
WE-321	VW-03	857.33	PVC	BKM-522	70	72	52
WE-322	VW-02	860.41	PVC	BKM-524	70	74	52
WE-323	VW-07	859.54	PVC	BKM-526	130	131.5	112
WE-324	VW-13	851.62	PVC	BKM-528	70	71	52

Well ID	Design ID	Surface Elevation (ft-msl)(1)	Well Material	ECY Well Tag(2)	Design Depth (ft)	Installed Depth (ft)	Length of Screen (ft)
WE-325	TW-01	745.61	HDPE	BKM-532	40	42	22
WE-327	TW-03	696.71	HDPE	BKM-531	30	32	12
WE-328	TW-04	695.07	HDPE	BKM-530	25	26	7
WE-329	TW-05	692.04	HDPE	BKM-529	25	26	7

Notes:

1. Designed well location with drawing identification number TW-02 was not installed.
2. Survey data provided by HRK prior to drilling and installation. Elevations are for the original staked locations and do not account for minor relocation at time of installation.
3. ECY Well Tags were provided by DBM upon completion of each well.

LFG Extraction Well Drilling and Installation

The borings for the LFG extraction wells were drilled using an IMT AF250 drill rig with a 10 foot long, 36-inch diameter bucket auger, and a 36-inch diameter full flight auger as conditions dictated. For each of the extraction wells, the borings were advanced to within 1.0 to 9.0 feet of the design depths based on drilling conditions. The extraction wells were then constructed using 6 and 8-inch diameter Schedule 80 polyvinyl chloride (PVC) pipe and fittings or 6-inch diameter SDR 11 high-density polyethylene (HDPE) pipe and fittings. Backfill was completed with 2-inch minus round rock, hydrated bentonite chips, and clean soil as shown on the attached well construction logs. All construction materials were provided by DBM and verified by SCS prior to use, with the exception of clean soil backfill which was obtained from onsite sources. Drilling and installation of each well was completed in one day. No boreholes were left open overnight.

The wells were completed with 5 feet of pipe stickup above the ground surface to allow for grading, landfill cover/closure, and connection to the existing LFG collection system. Upon completion, each well was issued a Washington State Department of Ecology (ECY) Well Tag in accordance with state regulations and connected to the existing gas collection and control system (GCCS) within one week.

The following variations to design were completed in conjunction with the well installations. Borings that were completed to within 4.0 feet of the design depth are not included on the following list.

- **WE-315** (VW-14): The boring location was moved 30 feet north from the original surveyed location due drilling conditions. A saturated soil layer was encountered from 28 feet to 38 feet below ground surface (bgs) which resulted in borehole collapse and the formation of a large void. The relocated boring was completed to 121 feet-bgs, resulting in a clearance of 79.3 feet from the operations layer. The boring was stopped short of the 130 foot design depth because saturated waste conditions were encountered at 121 feet bgs and the borehole was not able to be advanced beyond that depth. Correspondingly, the length of perforated pipe well screen was reduced by 9.0 feet to match depth of the borehole.

Closing

If you have any questions regarding the information presented in this letter or the attached boring logs, please do not hesitate to contact us.

Sincerely,

Ruben Martinez-Barrientos, EIT
Staff Professional
SCS Engineers

Travis Berndahl, EIT
Staff Professional
SCS Engineers

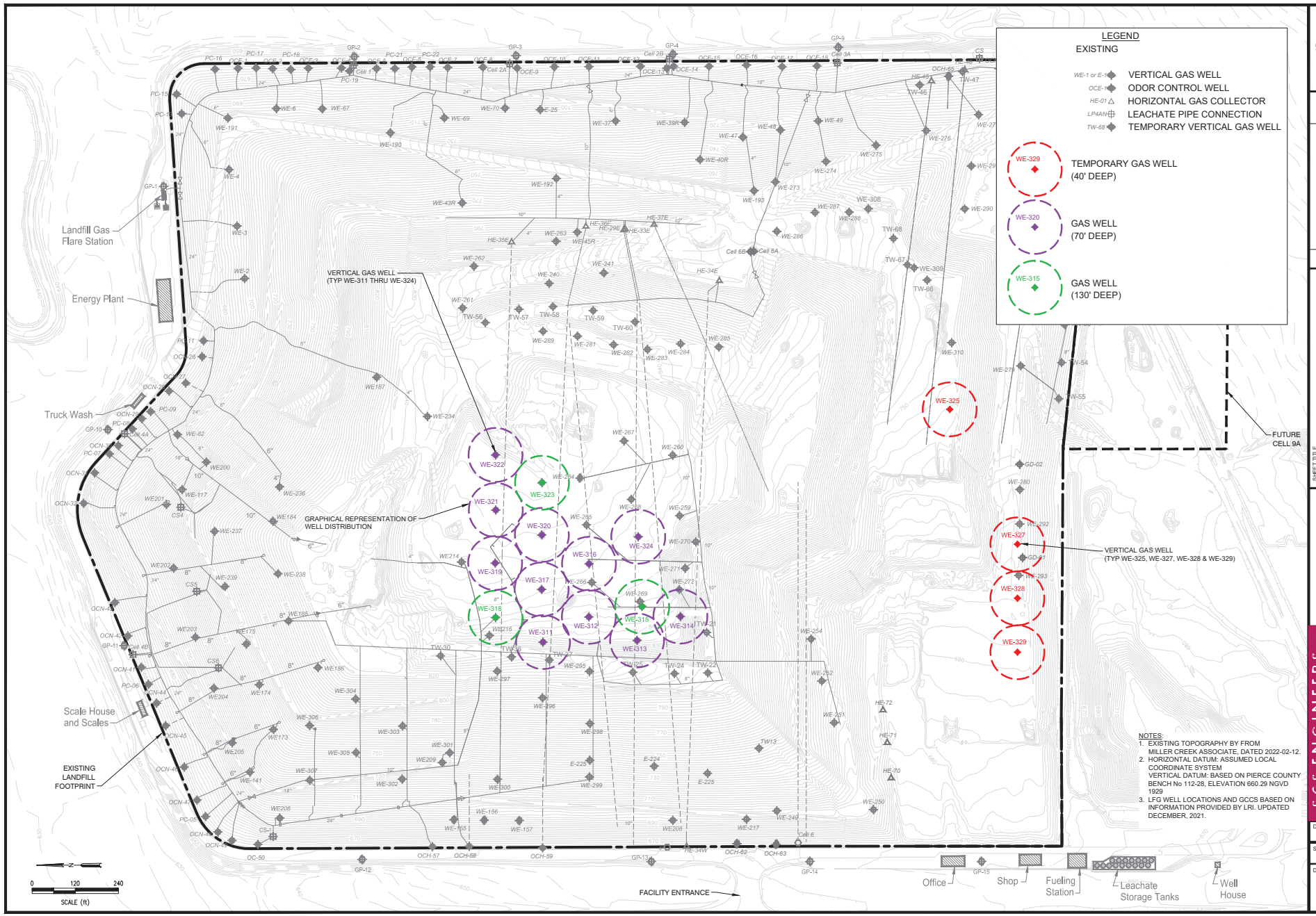
Kevin Lakey, PE, LHG,
Project Director
SCS Engineers

RMB/TAB

cc: George Duvendack, LRI
Olivier Moi, LRI
Kevin Green, LRI
Kevin Lakey, SCS
Ruben Martinez-Barrientos, SCS

Attachments:

2022 LFG Extraction Well Completion Logs
2022 LRI LF GCCS Site Plan


LEGEND
EXISTING
VERTICAL GAS WELL
ODOR CONTROL WELL
HORIZONTAL GAS COLLECTOR
LEACHATE PIPE CONNECTION
TEMPORARY VERTICAL GAS WELL
TEMPORARY GAS WELL (40' DEEP)
GAS WELL (70' DEEP)
GAS WELL (130' DEEP)
Landfill Gas Flare Station
Energy Plant
Truck Wash
Scale House and Scales
EXISTING LANDFILL FOOTPRINT
VERTICAL GAS WELL (TYP WE-311 THRU WE-324)
GRAPHICAL REPRESENTATION OF WELL DISTRIBUTION
VERTICAL GAS WELL (TYP WE-325, WE-327, WE-328 & WE-329)
FUTURE CELL 9A
FACILITY ENTRANCE
Office
Shop
Fueling Station
Leachate Storage Tanks
Well House
0 120 240
SCALE (ft)
NOTES:
1. EXISTING TOPOGRAPHY BY FROM MILLER CREEK ASSOCIATE, DATED 2022-02-12.
2. HORIZONTAL DATUM: ASSUMED LOCAL COORDINATE SYSTEM
VERTICAL DATUM: BASED ON PIERCE COUNTY BENCH No 112-28, ELEVATION 660.29 NGVD 1929
3. LFG WELL LOCATIONS AND GCCS BASED ON INFORMATION PROVIDED BY LRI. UPDATED DECEMBER, 2021.
NO. REVISION DATE
ISSUED FOR REVIEW 01/14/2022
ISSUED FOR CONSTRUCTION 01/24/2022
RECORD DRAWING 03/17/2022
SHEET TITLE
SITE PLAN
PROJECT TITLE
2022 GAS SYSTEM EXPANSION
LRI LANDFILL
GRAHAM, WASHINGTON
SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4900 FAX (425) 884-6948
PROJ NO. 04.22001.10
DSN BY: GDB
DWN BY: GDB
CHK BY: TAB
APP BY: KGL
DATE: MARCH 2022
SCALE: AS SHOWN
DRAWING NO. C1

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-311

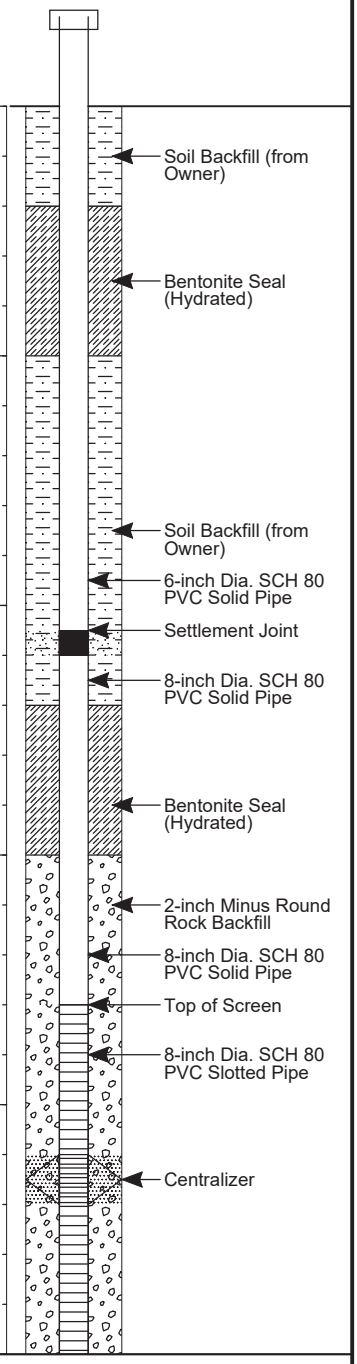
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-517. Drawing ID: VW-10. 5 ft-bgs stickup.

Depth		Sample Information						Description
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	
0	0					SM-GM		
						REFUSE		Brown-black soil. Dry.
1								
	5							
2								
3	10							
4								
	15							
5						REFUSE		Black refuse. Dry. 74 °F. Plastics, textiles, and soil Lightly decomposed
6	20							
7								
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **1/28/22**
Date Ended: **1/28/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

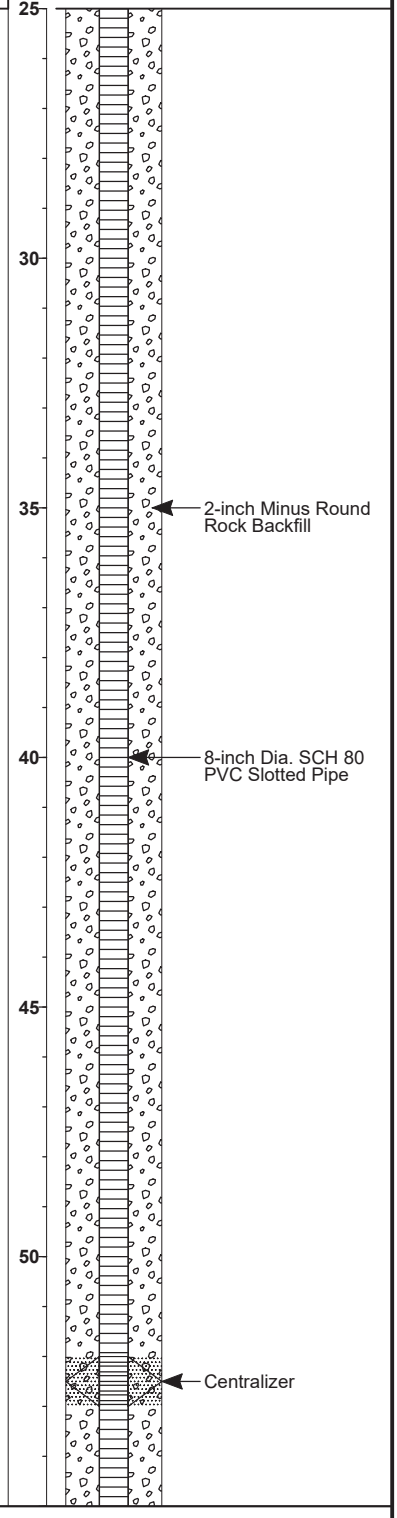
Time Started: **08:20**
Time Ended: **09:57**
Total Depth: **71.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25							
9	30							
10								
	35							
11						REFUSE		Dark brown refuse. Moist. 83 °F. Plastics and textiles Lightly Decomposed
12	40							
						REFUSE		Black. Moist. 92 °F. Plastics, textiles, and soil Lightly Decomposed
13								
	45							
14								
15								
	50					REFUSE		Black. Moist. 98 °F. Plastics, textiles, and soil Lightly Decomposed
16								
	55							



SCS ENGINEERS

BORING LOG

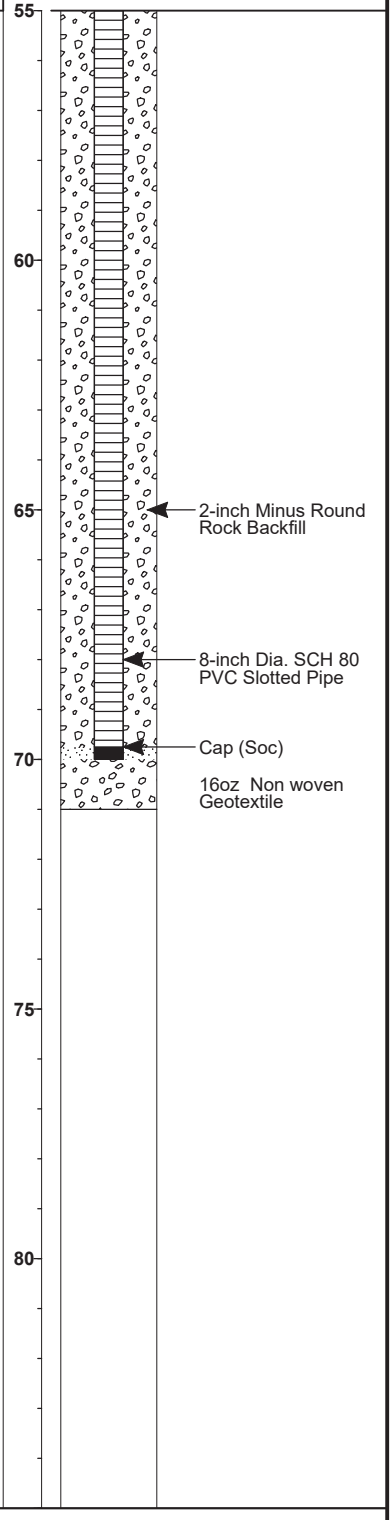
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-311

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60					REFUSE		Black. Moist. 93 °F. Plastics, textiles, and soil Lightly Decomposed
19						REFUSE		Black. Moist. 96 °F. Plastics, textiles, and soil Lightly Decomposed
20	65					REFUSE		Black. Moist. 96 °F. Plastics, textiles, and soil Lightly Decomposed
21	70					REFUSE		Black. Moist. 98 °F. Plastics, textiles, and soil Moderately Decomposed End of boring at 71'
22								
23	75							
24								
25	80							
	85							



Completion Detail

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-312

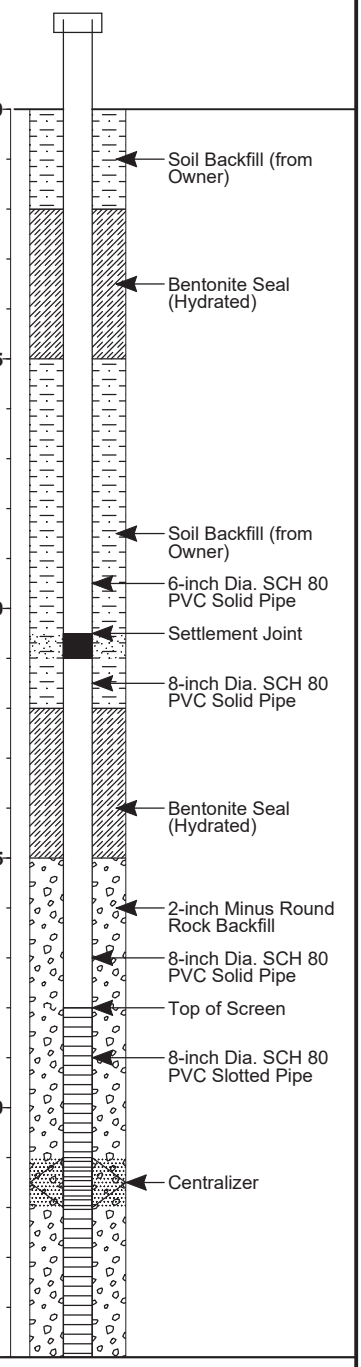
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-515. Drawing ID: VW-12. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1	5					REFUSE		Brown refuse. Dry. 60 °F. Plastics, textiles, wood, and soil
2								
3	10							
4						REFUSE		Brown refuse. Dry. 77 °F. Plastics, textiles, and soil
5	15							
6	20					REFUSE		Dark brown refuse. Moist. 68 °F. Plastics, textiles, amd soil Moderately decomposed
7	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/2/22**
Date Ended: **2/2/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **10:12**
Time Ended: **11:52**
Total Depth: **72.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

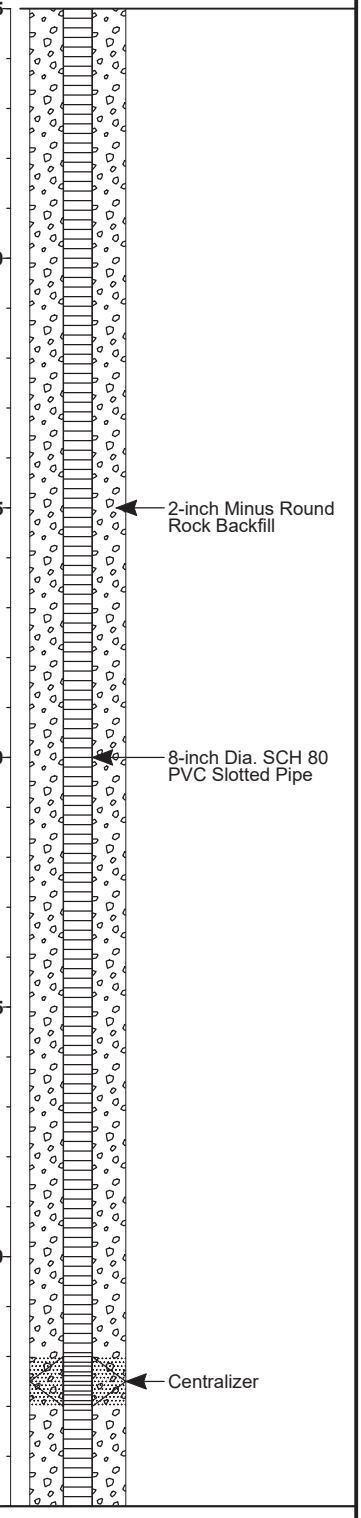
BORING NUMBER: WE-312

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25							
9	30							
10								
	35							
11						REFUSE		Black refuse. Moist. 76 °F. Plastics, textiles, and soil Moderately decomposed
12	40							
13								
	45							
14								
15								
	50					REFUSE		Black refuse. Moist. 77 °F. Plastics, textiles, and soil Moderately decomposed
16								
	55							

Completion Detail



SCS ENGINEERS | **BORING LOG**

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

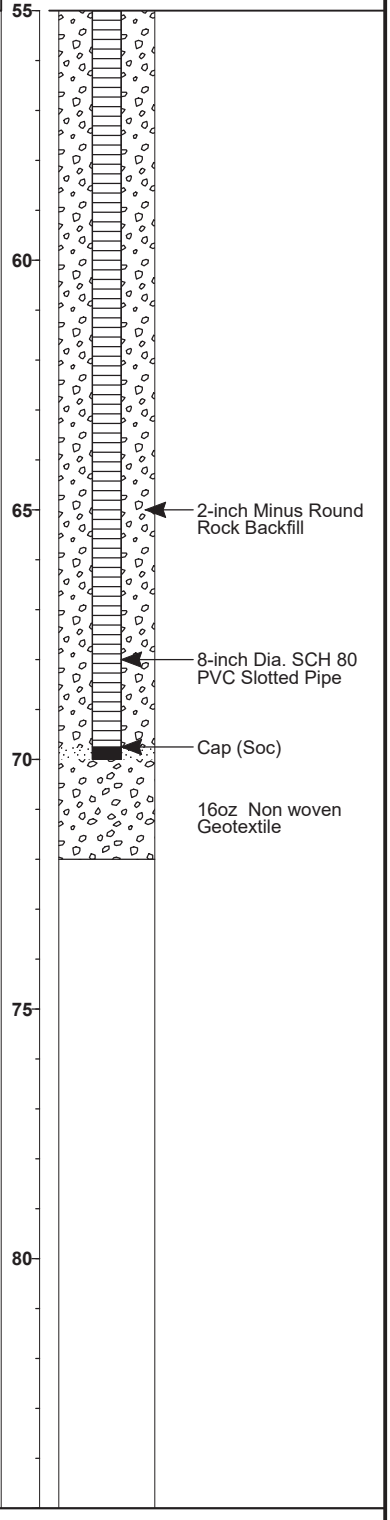
BORING NUMBER: WE-312

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60							
19								
20	65					REFUSE		Black refuse. Moist. 85 °F. Plastics, textiles, and soil. Some leachate. Moderately decomposed
21								
22	70					REFUSE		Black refuse. Moist. 72 °F. Plastics, textiles, and soil Moderately decomposed End of boring at 72'
23	75							
24								
25	80							
	85							

Completion Detail



STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-313

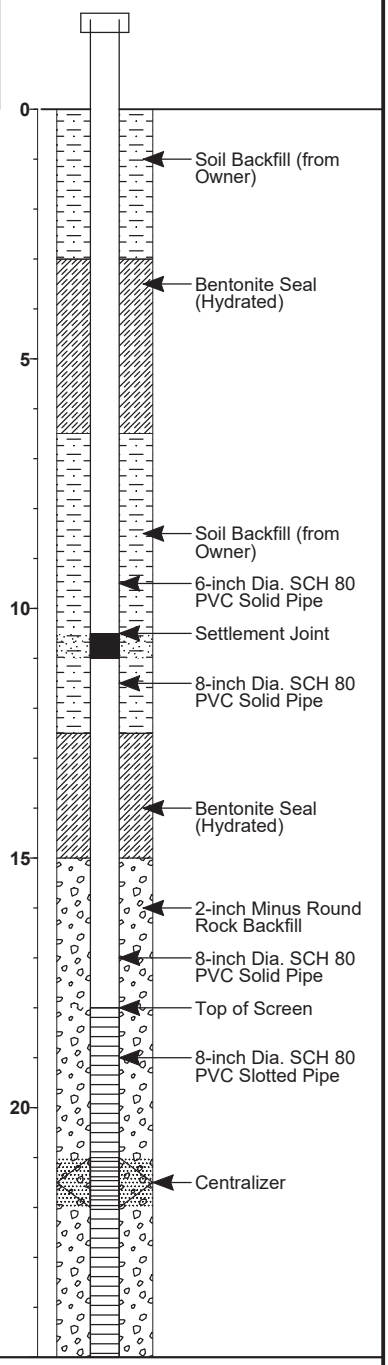
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-518. Drawing ID: VW-15. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1						REFUSE		Brown refuse. Dry. 60 °F. Plastics, textiles, wood, and soil
	5							
2								
3	10							
4						REFUSE		Brown refuse. Dry. 77 °F. Plastics, textiles, wood and soil
	15							
5								
6	20					REFUSE		Dark brown refuse. Moist. 68 °F. Plastics, textiles, amd soil Moderately decomposed
7								
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **1/31/22**
Date Ended: **1/31/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **10:12**
Time Ended: **14:40**
Total Depth: **72.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

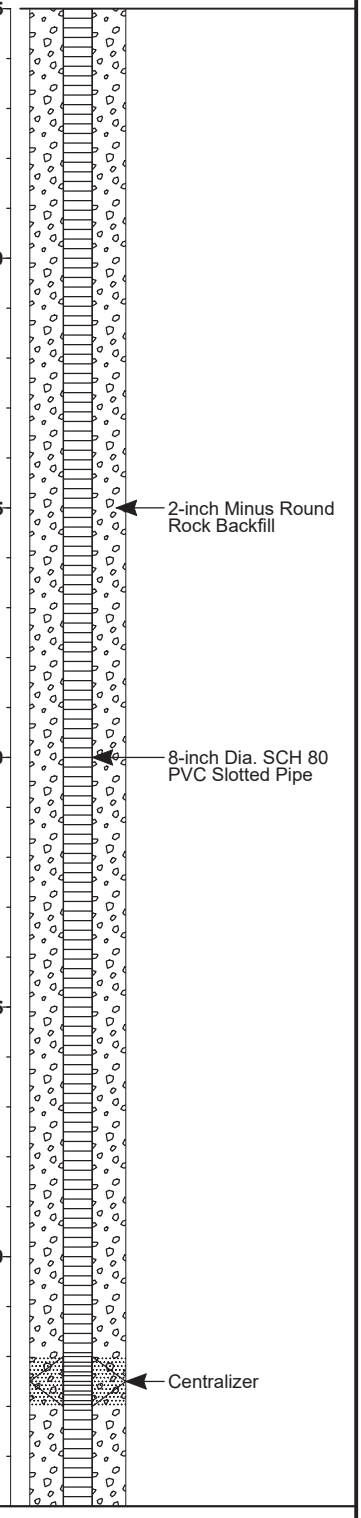
BORING NUMBER: WE-313

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25							
9	30							
10								
	35							
11						REFUSE		Black refuse. Moist. 76 °F. Plastics, textiles, and soil Moderately decomposed
12	40							
13								
	45							
14								
15								
	50					REFUSE		Black refuse. Moist. 77 °F. Plastics, textiles, and soil Moderately decomposed
16								
	55							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

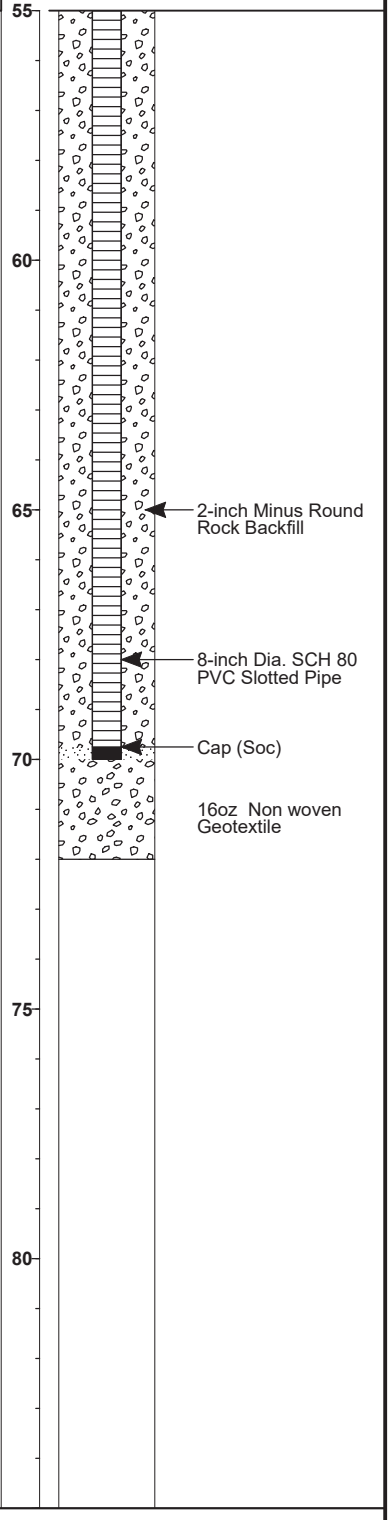
BORING NUMBER: WE-313

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60							
19								
20	65					REFUSE		Black refuse. Moist. 85 °F. Plastics, textiles, and soil. Some leachate. Moderately decomposed
21								
22	70					REFUSE		Black refuse. Moist. 89 °F. Plastics, textiles, and soil Moderately decomposed End of boring at 72'
23	75							
24								
25	80							
	85							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-314

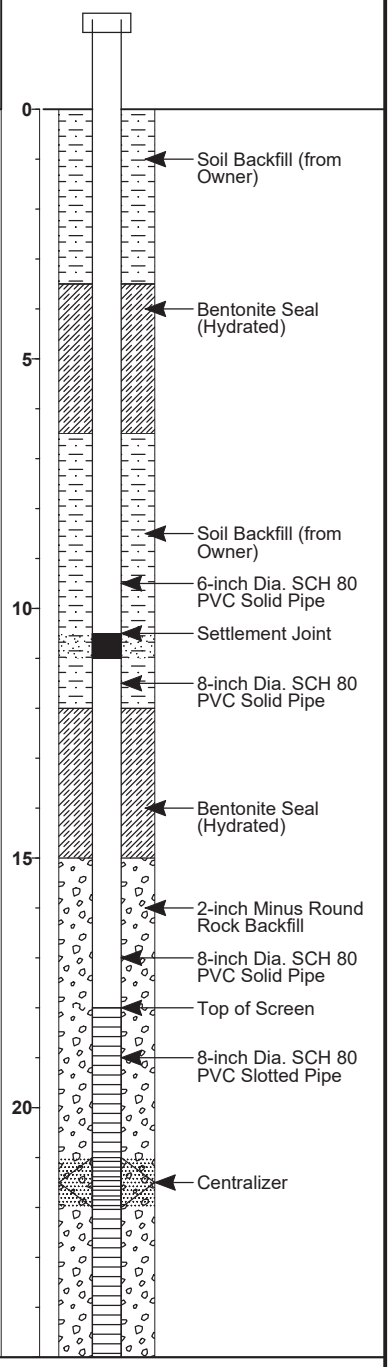
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-519. Drawing ID: VW-16. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1	5							
2						REFUSE		Dark briwn refuse. Dry. 72 °F. Plastics and soil
3	10							
4								
5	15							
6	20					REFUSE		Black refuse. Moist. 76 °F. Plastics, textiles, leachate and soil.
7								
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **1/31/22**
Date Ended: **1/31/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **08:00**
Time Ended: **08:00**
Total Depth: **71.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

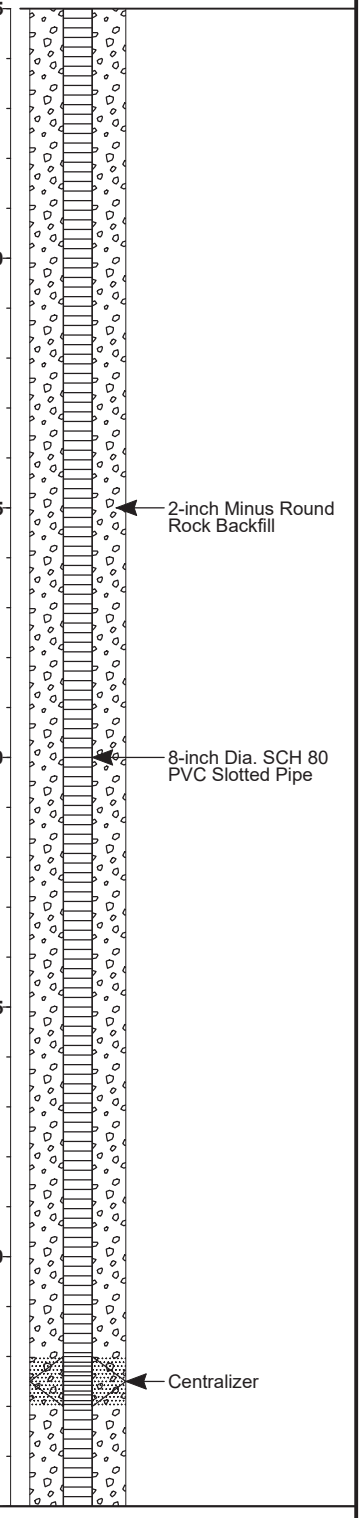
BORING NUMBER: WE-314

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25							
9	30							
10								
11	35							
12						REFUSE		Black refuse. Moist. 79 °F. Plastics, textiles, leachate and soil Heavily decomposed
13	40							
14								
15	45							
16	50							
						REFUSE		Black refuse. Moist. 68 °F. Plastics, textiles, leachate and soil Heavily decomposed
	55							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

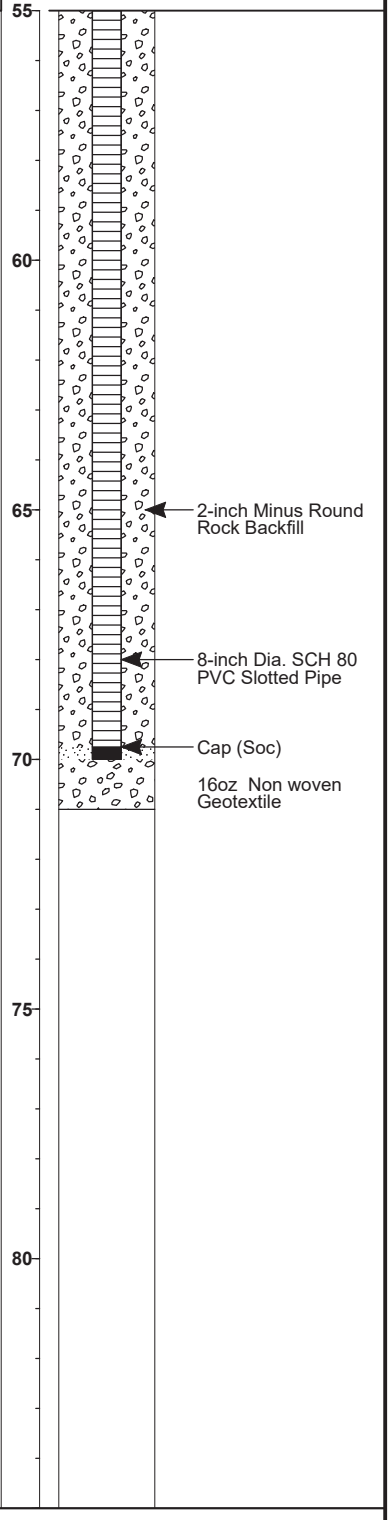
BORING NUMBER: WE-314

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60							
19								
20	65					REFUSE		Black refuse. Moist. 99 °F. Plastics, textiles, leachate and soil Heavily decomposed
21								
22	70					REFUSE		Black. Moist. 89 °F. Plastics, textiles, and soil Heavily Decomposed End of boring at 71'
23	75							
24								
25	80							
	85							

Completion Detail



STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-315 Page 1 of 5

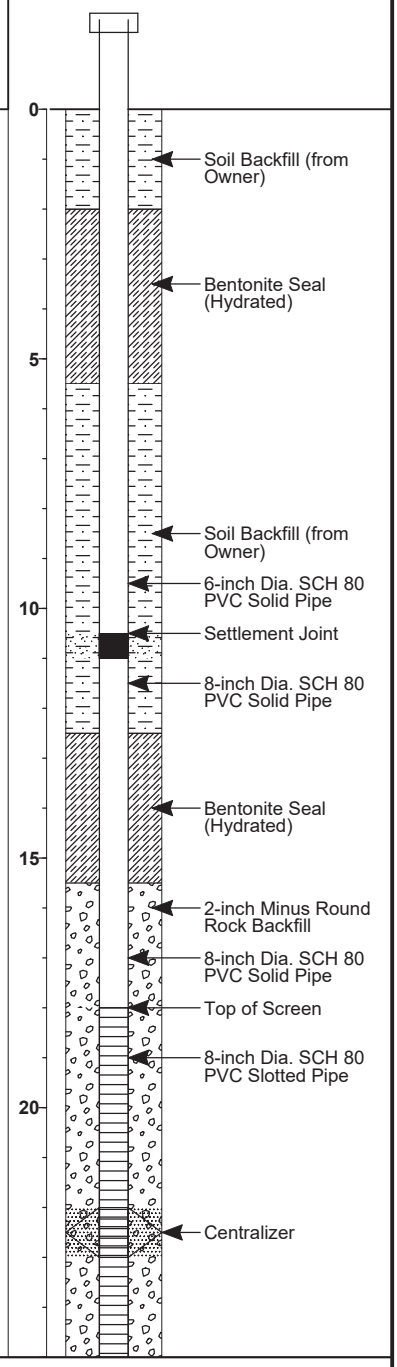
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-527. Drawing ID: VW-14. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1	5							
2								
3	10							
4								
	15							
5								
6	20							
7								
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/8/22**
Date Ended: **2/8/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **10:10**
Time Ended: **14:32**
Total Depth: **121.0 ft.**

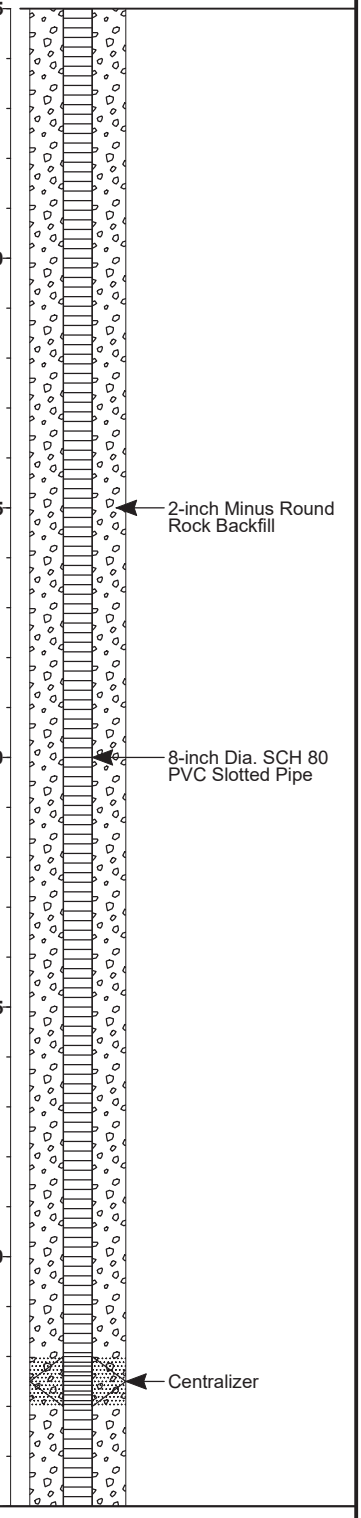
STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25							
9	30					REFUSE		Black refuse. Moist. 82 °F. Plastics, textiles and soil Lightly decomposed
10								
11	35							
12	40							
13								
14	45							
15								
16	50							
	55							

Completion Detail

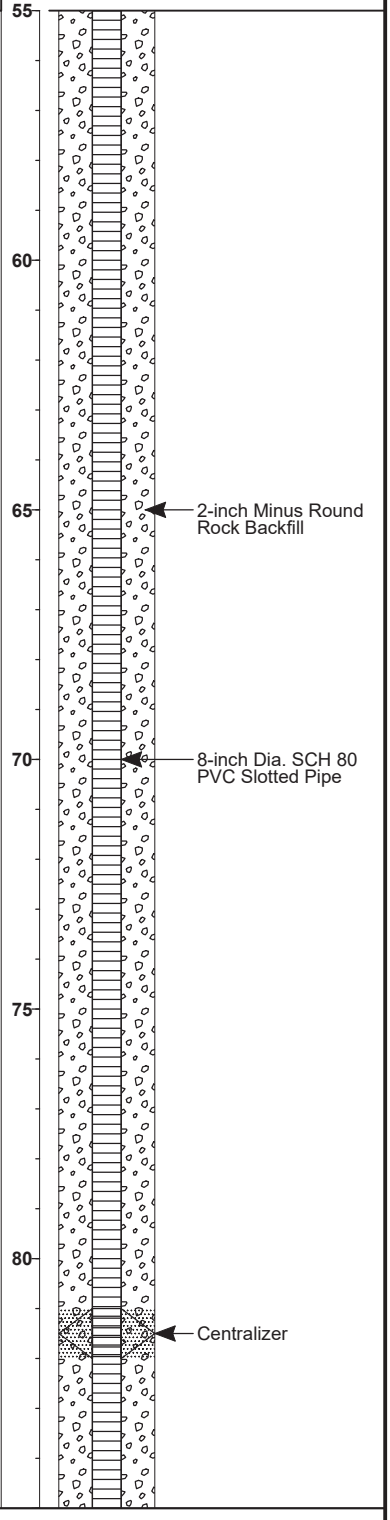


LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
						REFUSE		Black refuse. Moist. 98 °F. Plastics, textiles, and soil Moderately decomposed
18	60							
19								
20	65							
21								
	70							
22								
23	75							
24								
	80							
						REFUSE		Black refuse. Moist. 105 °F. Plastics, textiles, and soil Moderately decomposed
25								
	85							

Completion Detail

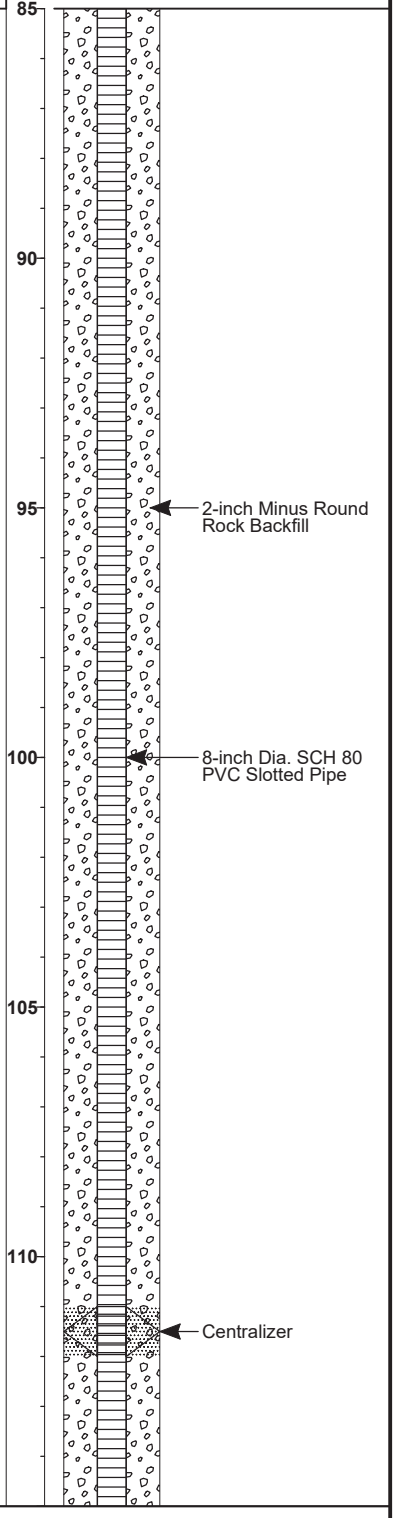


LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
26	85							
27								
	90							
28								
29	95					REFUSE		Black refuse. Moist. 104 °F. Plastics, textiles, and soil Moderately decomposed
30								
	100							
31								
32	105					REFUSE		Black refuse. Wet. 115 °F. Plastics, textiles, soil, and leachate Moderately decomposed
33								
	110							
34								
35	115							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

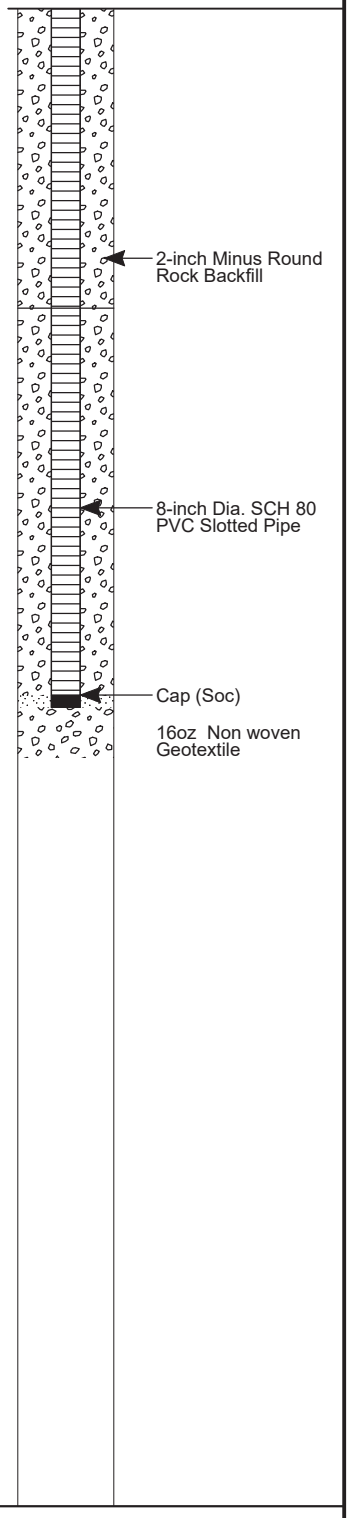
BORING NUMBER: WE-315

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	115					REFUSE		Black refuse. Wet. 111 °F. Plastics, textiles, soil, and leachate Moderately decomposed
36								
	120					REFUSE		Black refuse. Wet. 115 °F. Plastics, textiles, soil, and leachate Moderately decomposed
37								
38	125							
39								
	130							
40								
41	135							
42								
	140							
43								
44	145							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-316 Page 1 of 3

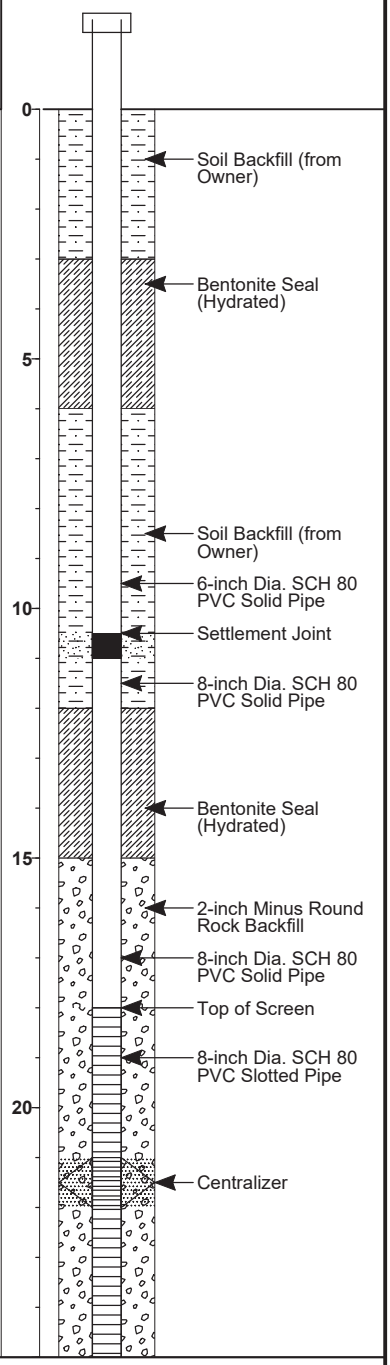
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-525. Drawing ID: VW-11. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1	5							
2								
3	10							
4								
5	15					REFUSE		Brown refuse. Dry. 65 °F. Plastics, textiles, and soil
6	20							
7	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/4/22**
Date Ended: **2/4/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **09:14**
Time Ended: **10:28**
Total Depth: **71.0 ft.**

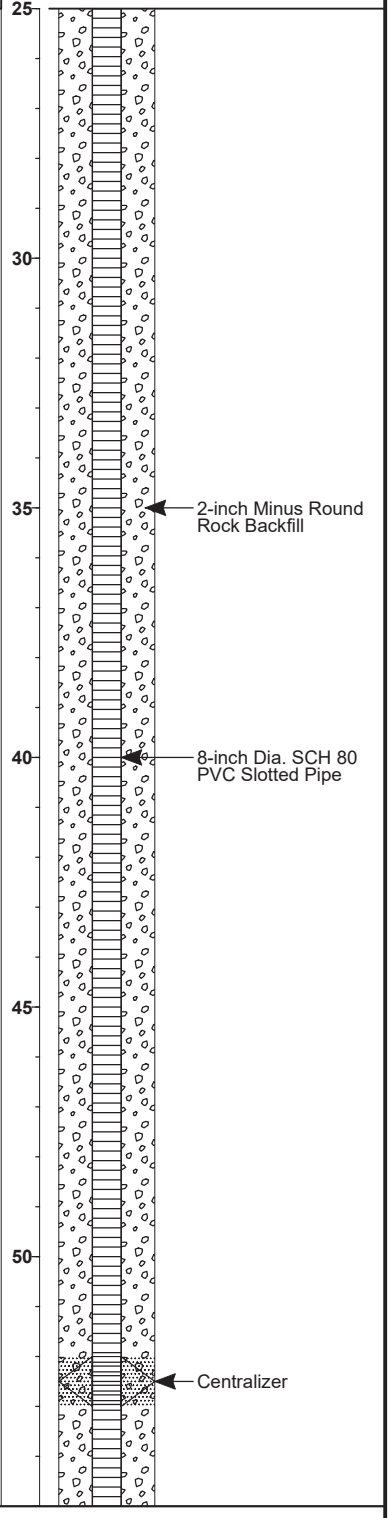
STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25							
9	30					REFUSE		Black refuse. Moist. 77 °F. Plastics, textiles, and soil. Lightly decomposed
10								
						REFUSE		Black refuse. Moist. 82 °F. Plastics, textiles, and soil. Lightly decomposed
11	35							
12	40							
13								
14	45							
15								
16	50					REFUSE		Black refuse. Moist. 94 °F. Plastics, textiles, and soil Moderately decomposed
	55							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

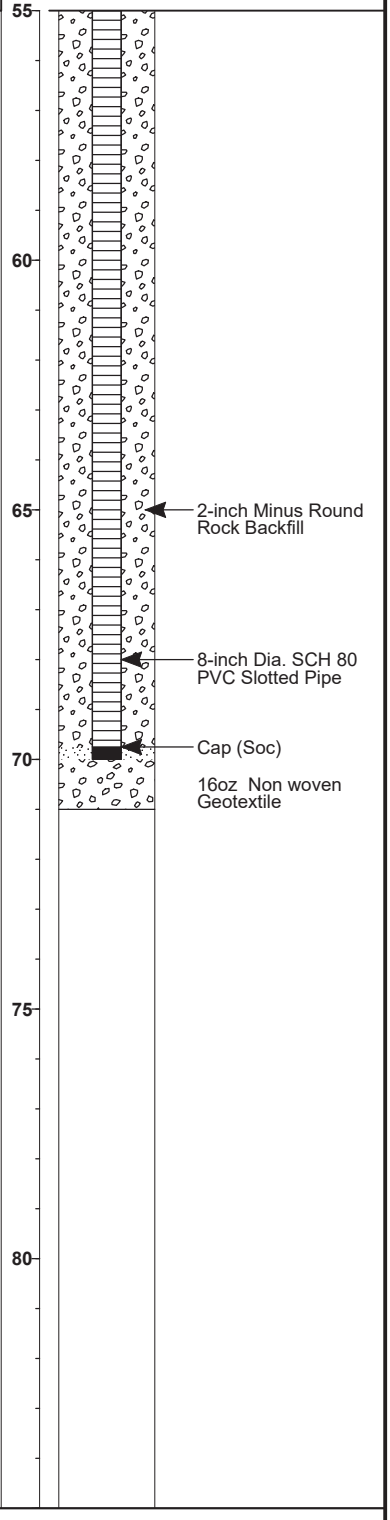
BORING NUMBER: WE-316

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60							
19	65							
20								
21	70					REFUSE		Black. Moist. 105 °F. Plastics, textiles, and soil. Heavy fumes Heavily Decomposed End of boring at 71'
22								
23	75							
24								
25	80							
	85							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-317

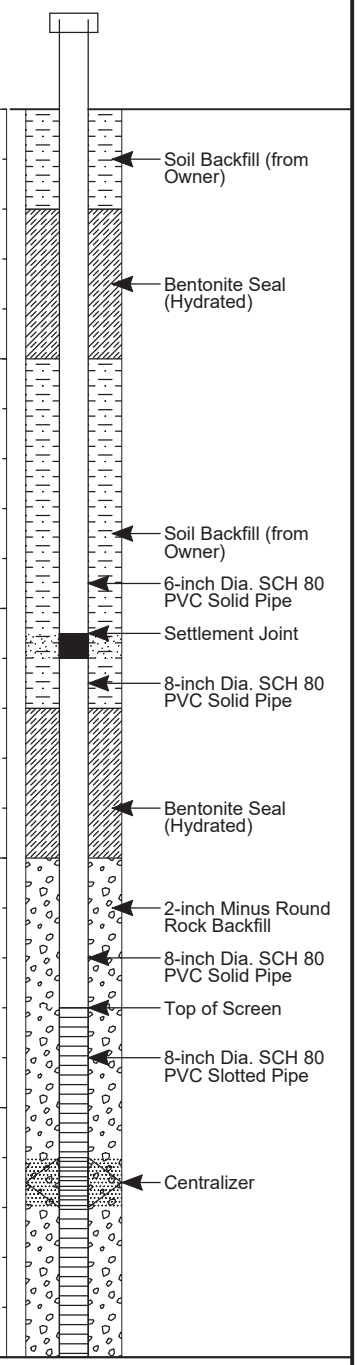
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-516. Drawing ID: VW-09. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1						REFUSE		
	5							
2								
3	10							
4								
	15							
5								
6	20							
7								
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **1/28/22**
Date Ended: **1/28/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **11:52**
Time Ended: **00:28**
Total Depth: **72.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

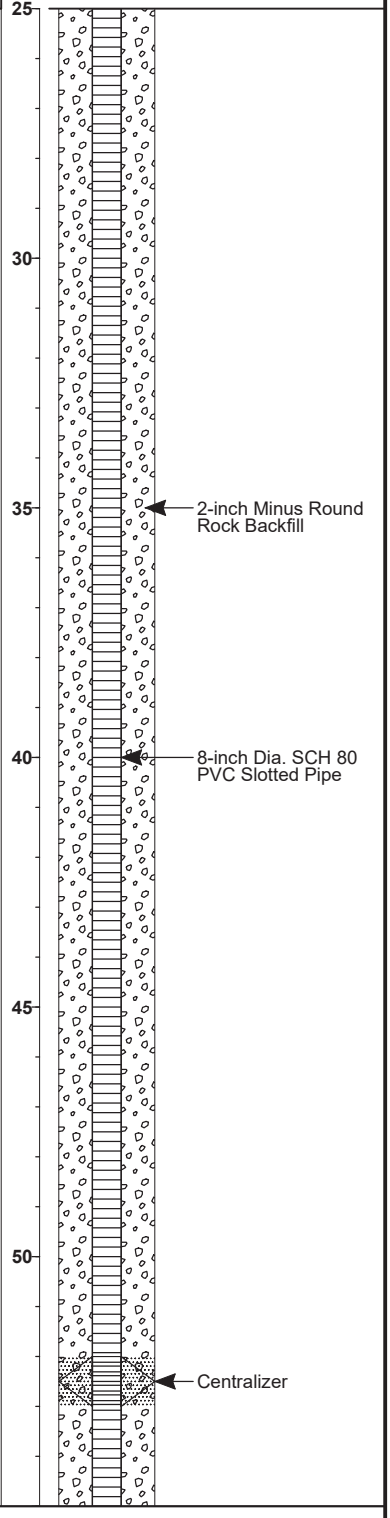
BORING NUMBER: WE-317

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25							
9	30					REFUSE		Brown refuse. Moist. 75 °F. Plastics, textiles, and soil Lightly decomposed
10								
11	35							
12	40					REFUSE		Brown refuse. Moist. 84 °F. Plastics, textiles, and soil Lightly Decomposed
13								
14	45							
15								
16	50					REFUSE		Brown. Moist. 87 °F. Plastics, textiles, wood, and soil Lightly Decomposed
17	55							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

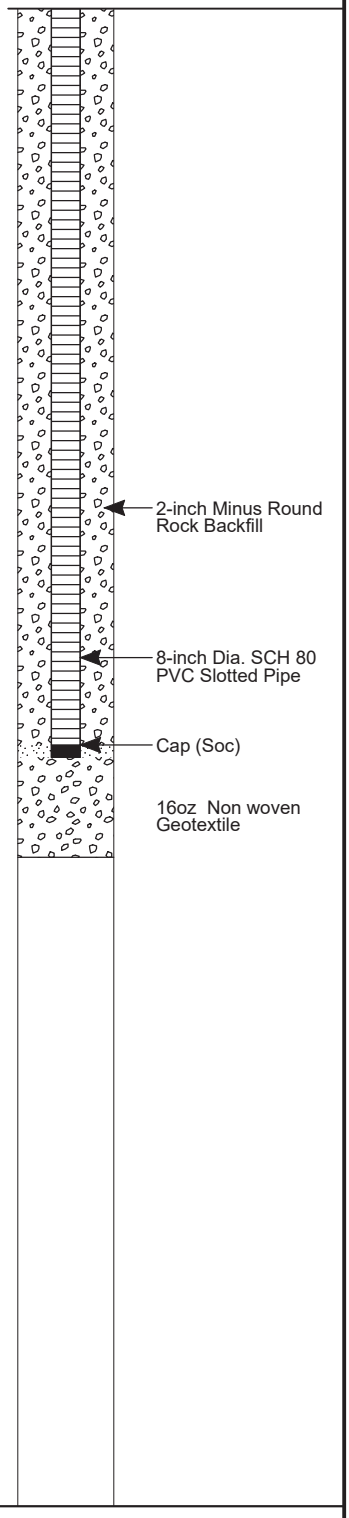
BORING NUMBER: WE-317

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60					REFUSE		Brown. Moist. 86 °F. Plastics, textiles, wood, and soil Lightly Decomposed
19						REFUSE		Black. Moist. 99 °F. Plastics, textiles, and soil Lightly Decomposed
20	65					REFUSE		Black. Moist. 94 °F. Plastics, textiles, and soil Lightly Decomposed
21								
22	70					REFUSE		Black. Moist. 101 °F. Plastics, textiles, and soil Lightly Decomposed
23	75							
24								
25	80							
	85							

Completion Detail



STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-318

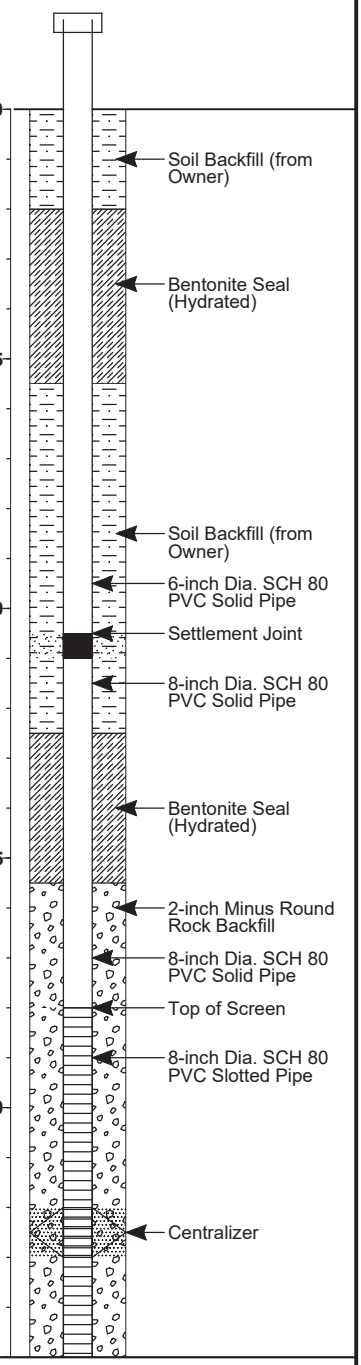
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-523. Drawing ID: VW-05. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
						REFUSE		Brown refuse. Dry. 76 °F. Plastics, textiles, and soil Not decomposed
1	5							
2								
3	10							
4								
5	15							
						REFUSE		Brown refuse. Dry. 89 °F. Plastics, textiles, and soil Lightly decomposed
6	20							
7	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/3/22**
Date Ended: **2/3/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **07:20**
Time Ended: **11:07**
Total Depth: **130.0 ft.**

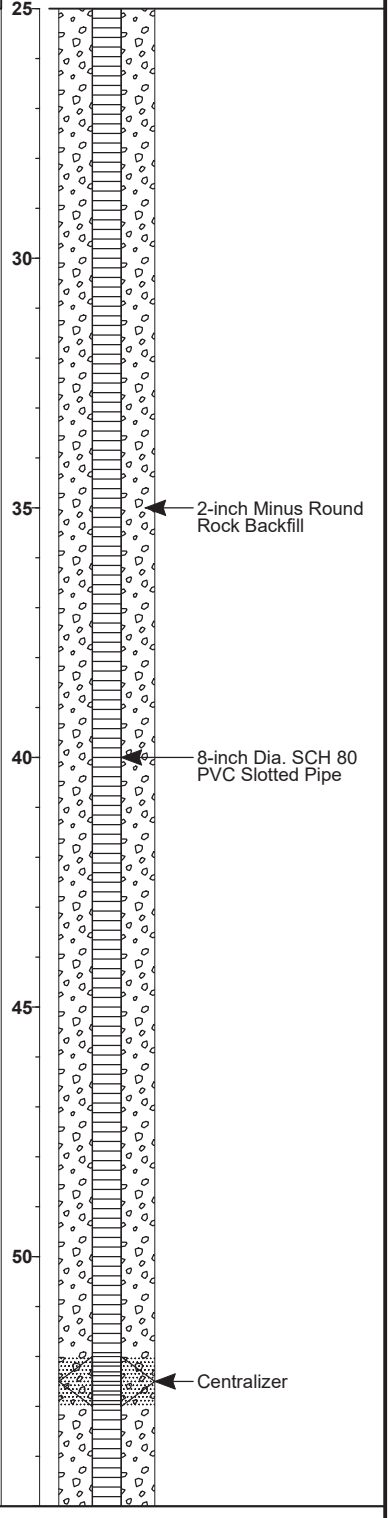
STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25							
9	30							
10						REFUSE		Black refuse. Moist. 98 °F. Plastics, textiles Lightly decomposed
11	35							
12	40							
13								
14	45							
15						REFUSE		Black refuse. Moist. 97 °F. Plastics, textiles, and soil Moderately decomposed
16	50							
	55							

Completion Detail

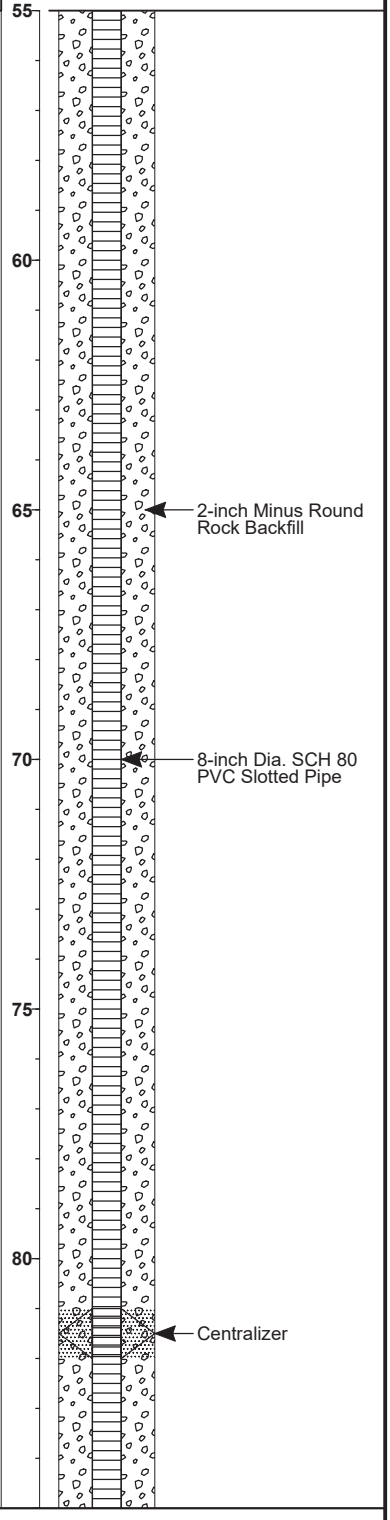


LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60							
19						REFUSE		Dark brown refuse. Moist. 97 °F. Plastics, textiles, and soil Moderately decomposed
20	65							
21								
22	70					REFUSE		Dark brown refuse. Moist. 98 °F. Plastics, textiles, and soil Moderately decomposed
23	75							
24								
25	80							
	85							

Completion Detail

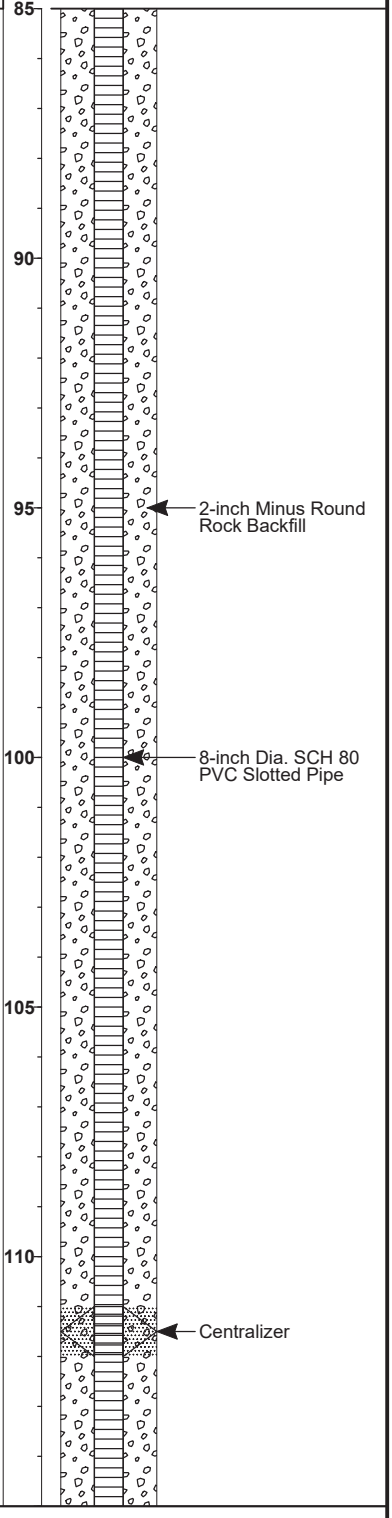


LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
26	85					REFUSE		Brown refuse. Dry. 105 °F. Plastics, textiles, and soil Moderately decomposed
27								
	90							
28								
						REFUSE		Black refuse. Moist. 106 °F. Plastics, textiles, and soil Moderately decomposed
29	95							
30								
	100							
31								
						REFUSE		Black refuse. Moist. 108 °F. Plastics, textiles, and soil Moderately decomposed
32	105							
33								
	110							
34								
						REFUSE		Black refuse. Moist. 105 °F. Plastics, textiles, and soil Moderately decomposed
35	115							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

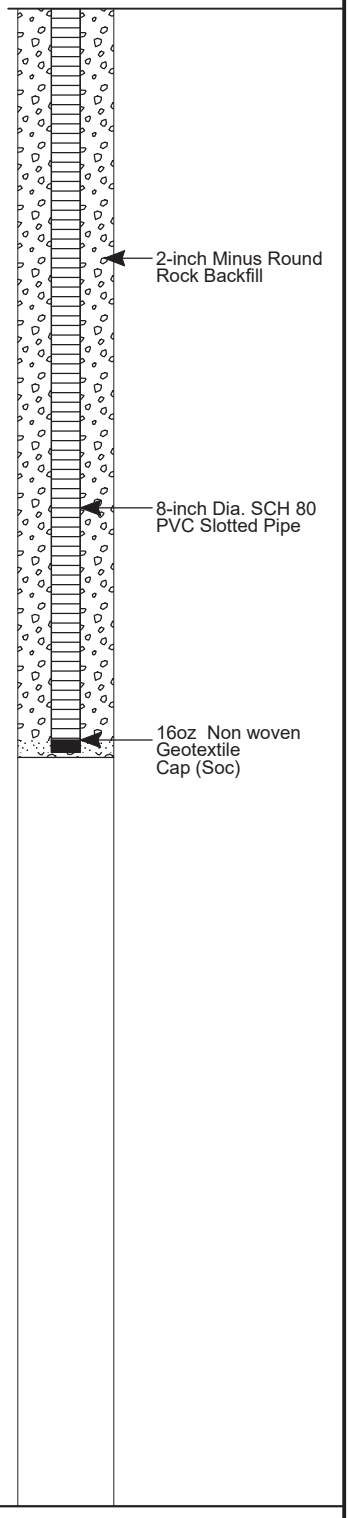
BORING NUMBER: WE-318

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	115							
	36							
	120							
	37					REFUSE		Black refuse. Moist. 113 °F. Plastics, textiles, and soil Lightly decomposed
	38							
	125							
	39							
	130					REFUSE		Black refuse. Moist. 113 °F. Plastics, textiles, and soil Moderately decomposed End of boring at 130'
	40							
	41							
	135							
	42							
	140							
	43							
	44							
	145							

Completion Detail



STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-319 Page 1 of 3

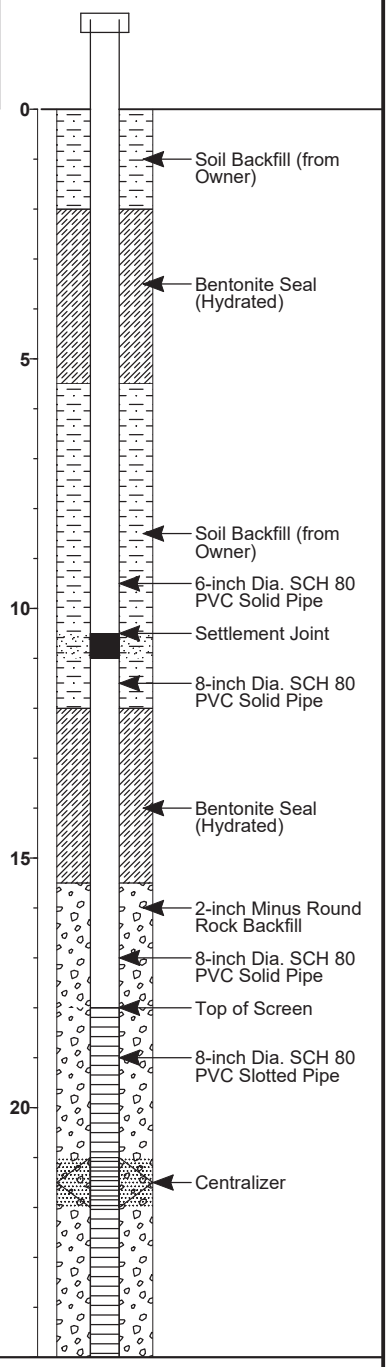
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-521. Drawing ID: VW-04. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1								
	5					REFUSE		Brown refuse. Dry. 61 °F. Plastics and soil Not decomposed
2								
3	10							
4								
	15					REFUSE		Brown refuse. Dry. 64 °F. Plastics, textiles, and soil Lightly decomposed
5								
6	20							
7						REFUSE		Black refuse. Moist. 76 °F. Plastics and textiles Decomposed
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/2/22**
Date Ended: **2/2/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **10:12**
Time Ended: **11:52**
Total Depth: **73.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

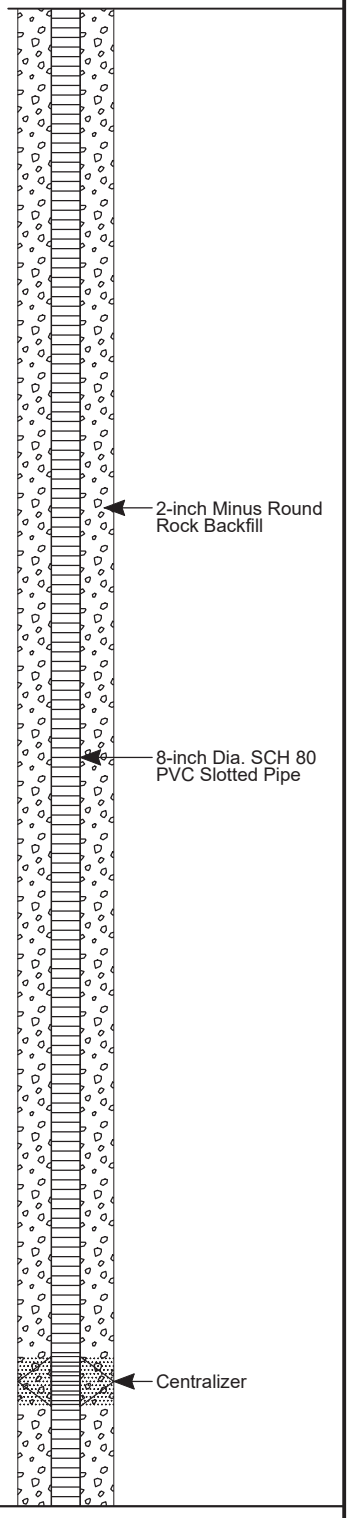
BORING NUMBER: WE-319

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25							
9	30					REFUSE		Black. Moist. 84 °F. Plastics, textiles, and wood Decomposed
10								
11	35							
12	40							
13								
14	45							
15	50					REFUSE		Black refuse. Wet. 90 °F. Plastics and textiles Decomposed
16								
	55							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

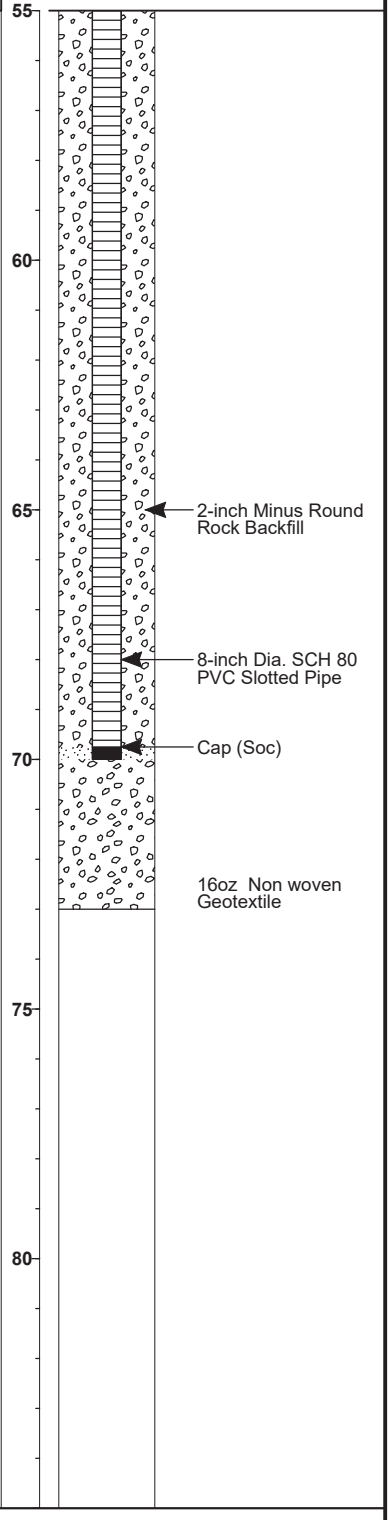
BORING NUMBER: WE-319

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60					REFUSE		Black refuse. Saturated. 101 °F. Plastics and textiles Decomposed
19								
20	65					REFUSE		Black refuse. Saturated. Plastics, textiles and soil Decomposed
21						REFUSE		
22	70							
23	75					REFUSE		Black refuse. Saturated. 102 °F. Plastics and textiles Decomposed End of boring at 73'.
24								
25	80							
	85							

Completion Detail



STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-320 Page 1 of 3

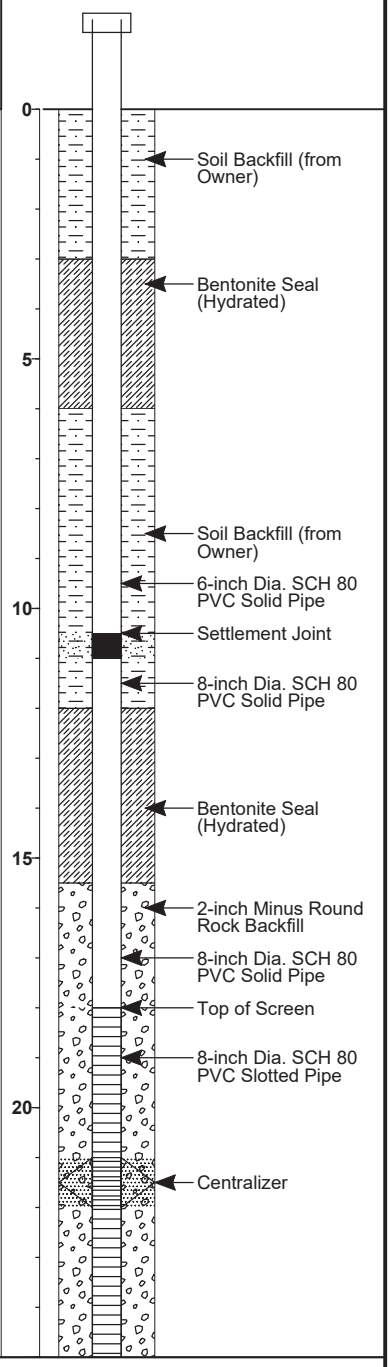
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-520. Drawing ID: VW-520. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1	5							
2								
3	10							
4								
5	15					REFUSE		Brown refuse. Moist. 66 °F. Plastics, textiles, and soil
6	20							
7	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/1/22**
Date Ended: **2/1/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **07:25**
Time Ended: **11:30**
Total Depth: **71.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

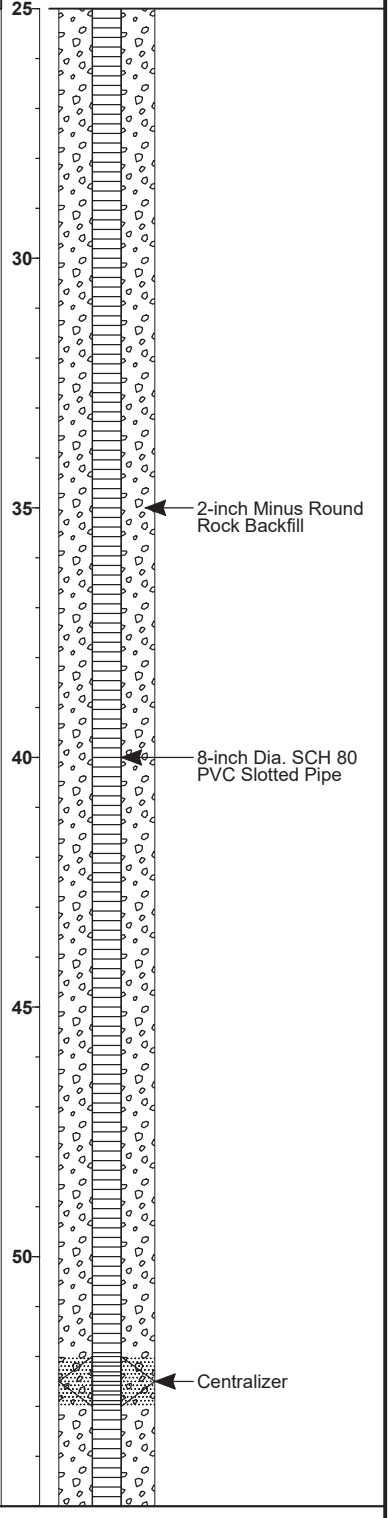
BORING NUMBER: WE-320

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25					REFUSE		Black refuse. Moist. 68 °F. Plastics, textiles, and soil. Heavy smoke Moderately decomposed
9	30							
10								
	35							
11								
12	40							
13								
	45					REFUSE		Black refuse. Moist. 68 °F. Plastics, textiles, and soil. Heavy smoke Moderately decomposed
14								
15								
	50							
16								
	55							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

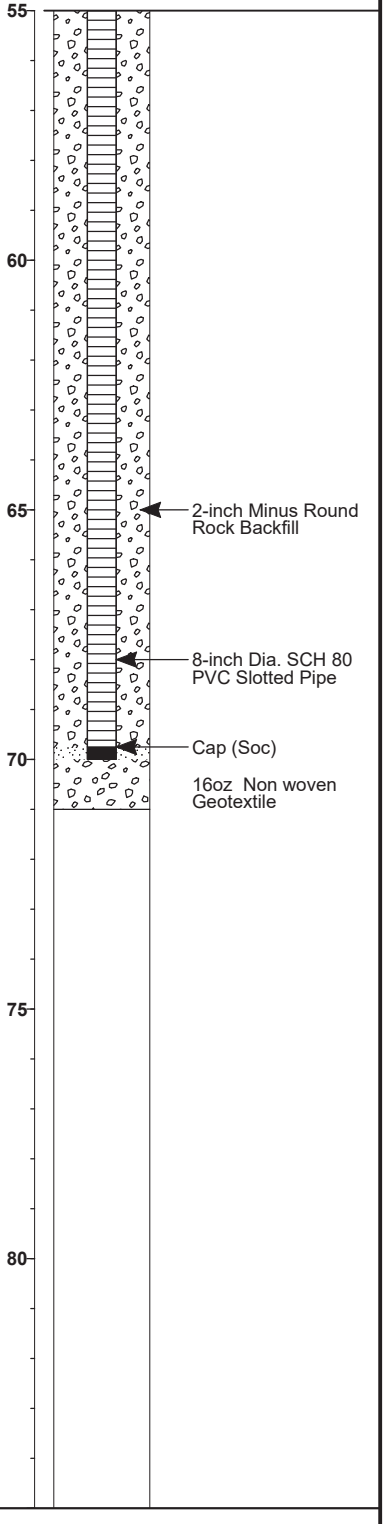
BORING NUMBER: WE-320

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55					REFUSE		Black refuse. Moist. 77 °F. Plastics, textiles, and soil Moderately decomposed
18	60							
19								
20	65							
21								
22	70					REFUSE		Black. Moist. 98 °F. Plastics, textiles, and soil. Heavy fumes Moderately Decomposed End of boring at 71'
23	75							
24								
25	80							
	85							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-321

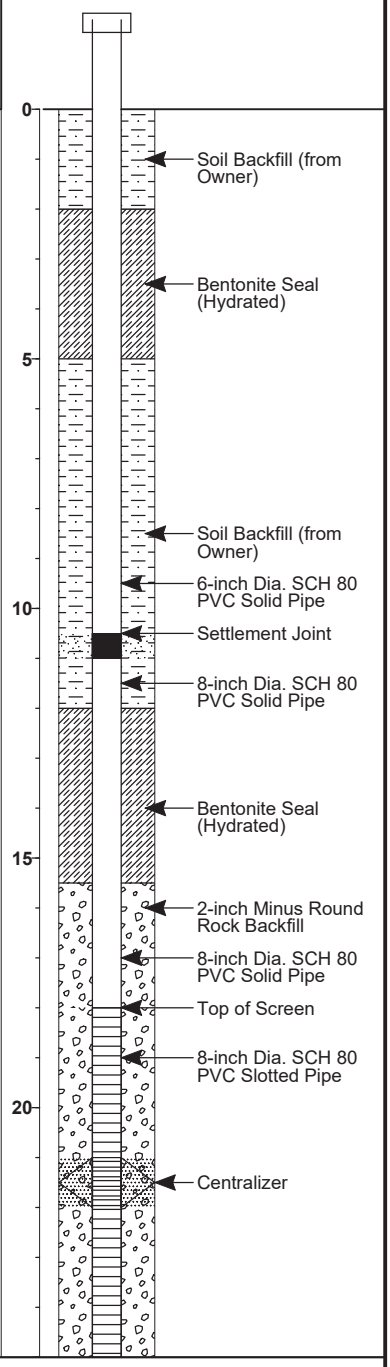
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-522. Drawing ID: VW-03. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1	5					REFUSE		Brown refuse. Dry. 65 °F. Plastics, textiles, and soil Not decomposed
2								
3	10							
4								
5	15							
6	20							
7	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/2/22**
Date Ended: **2/2/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **07:35**
Time Ended: **09:14**
Total Depth: **72.0 ft.**

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Bellevue, Washington 98005-1877

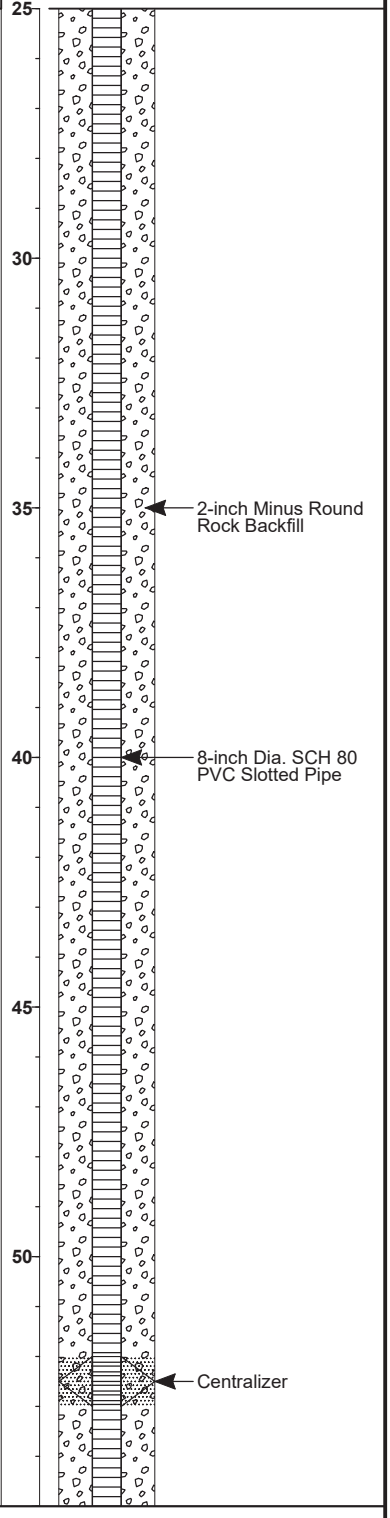
BORING NUMBER: WE-321

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25					REFUSE		Black refuse. Dry. 68 °F. Plastics, textiles, and soil Not decomposed
9	30							
10								
11	35							
12						REFUSE		Dark brown refuse. Moist. 77 °F. Plastics, textiles, amd soil Lightly decomposed
13	40							
14								
15	45							
16	50							
	55							

Completion Detail



SCS ENGINEERS

BORING LOG

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Bellevue, Washington 98005-1877

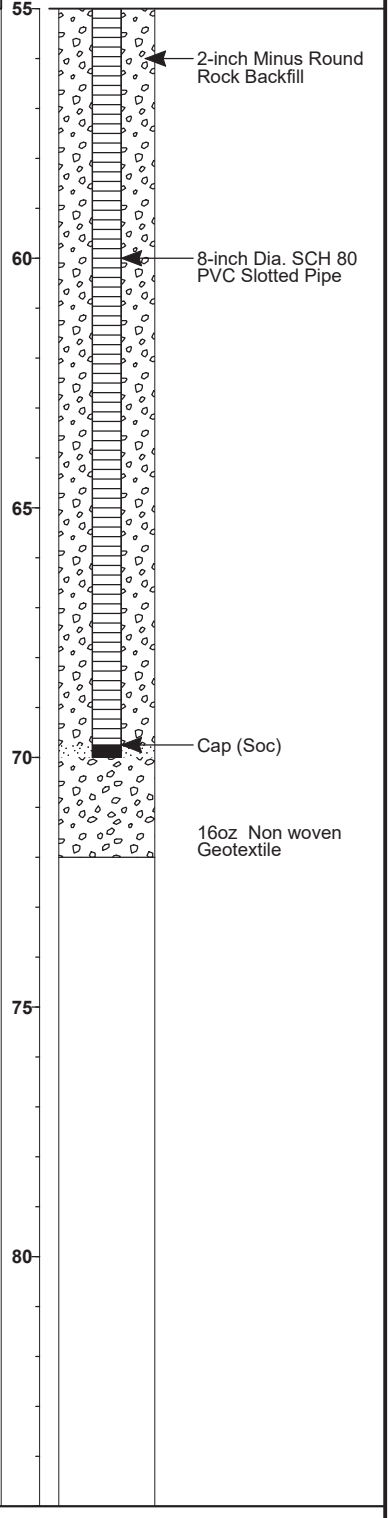
BORING NUMBER: WE-321

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60					REFUSE		Dark brown refuse. Moist. 77 °F. Plastics, textiles, and soil Moderately decomposed
19								
20	65							
21						REFUSE		Black refuse. Moist. 81 °F. Plastics, textiles, and soil Moderately decomposed
22	70					REFUSE		Black refuse. Moist. 85 °F. Plastics, textiles, and soil Moderately decomposed End of boring at 72'
23	75							
24								
25	80							
	85							

Completion Detail



STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-322

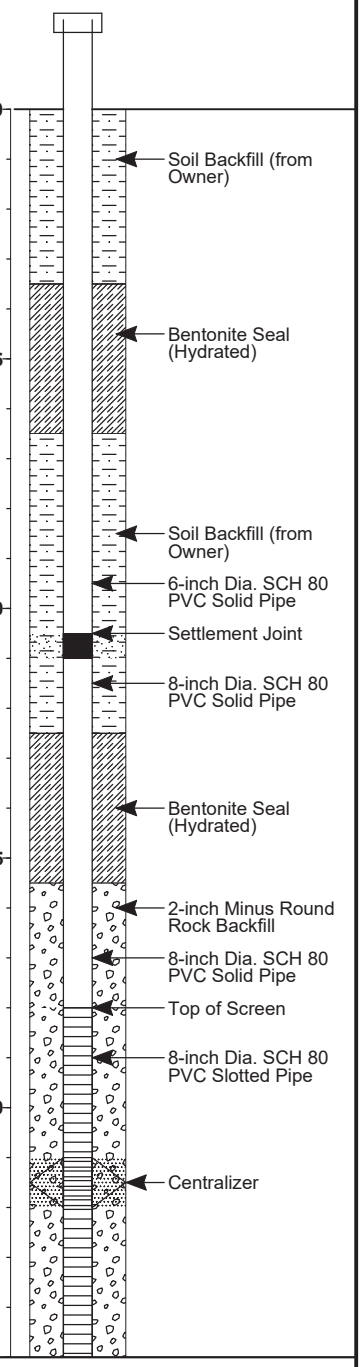
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-524. Drawing ID: 524. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1								
	5					REFUSE		Brown refuse. Dry. 65 °F. Plastics and soil Not decomposed
2								
3	10							
4								
	15					REFUSE		Brown refuse. Dry. 69 °F. Plastics, textiles, and soil Lightly decomposed
5								
6	20							
7								
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/4/22**
Date Ended: **2/4/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **07:12**
Time Ended: **11:52**
Total Depth: **74.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

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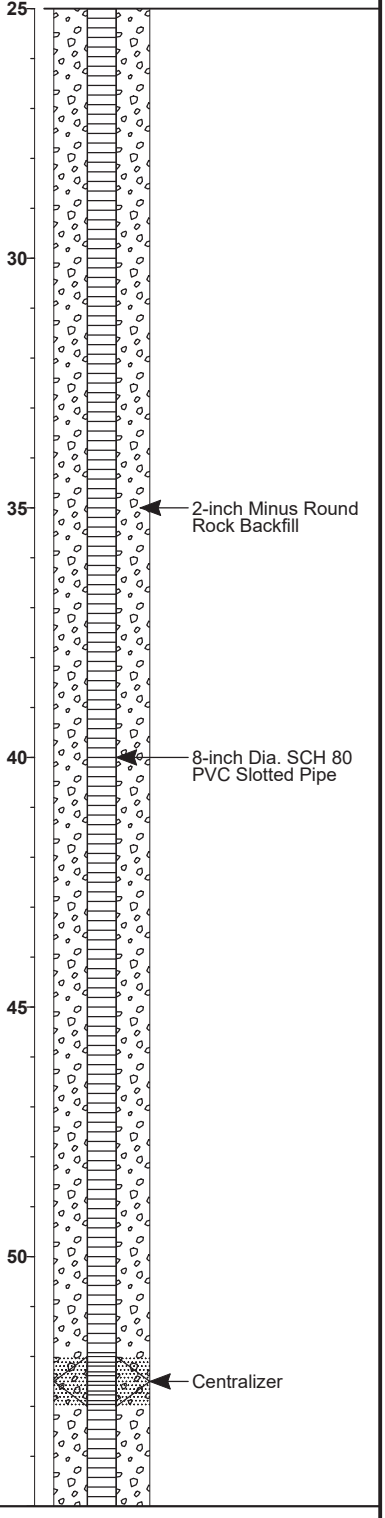
BORING NUMBER: WE-322

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25					REFUSE		Black refuse. Moist. 93 °F. Plastics, textiles, wood and soil Moderately decomposed
9	30							
10								
11	35							
12								
13	40					REFUSE		Dark brown. Moist. 80 °F. Plastics, textiles, wood and soil Moderately decomposed
14	45							
15								
16	50							
	55							

Completion Detail



SCS ENGINEERS

BORING LOG

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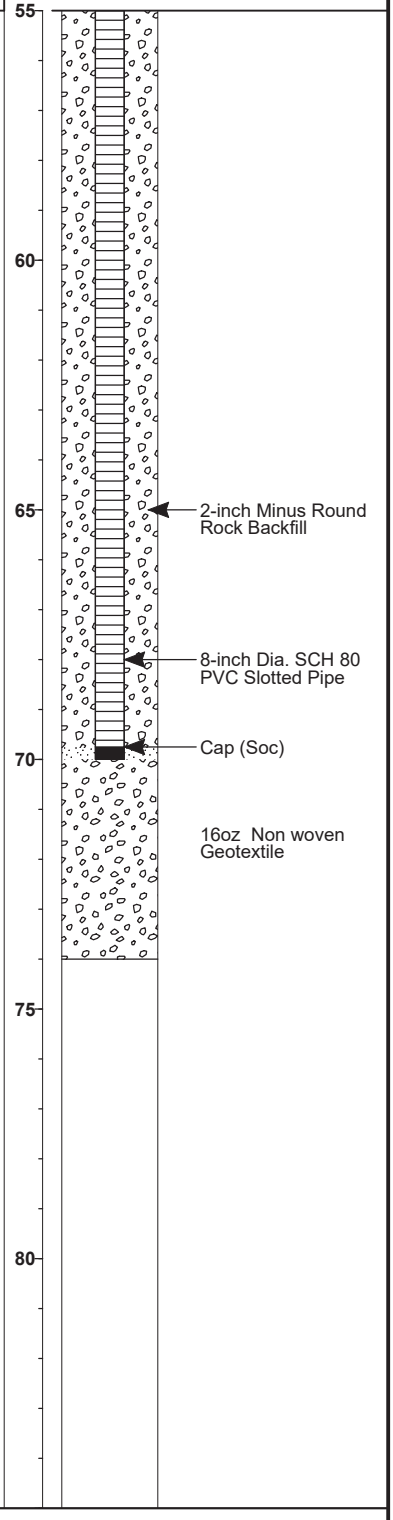
BORING NUMBER: WE-322

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60							
19						REFUSE		Black refuse. Moist. 90 °F. Plastics, textiles, and soil Decomposed
20	65							
21								
22	70							
23						REFUSE		Black refuse. Saturated. 91 °F. Plastics, textiles, and soil Decomposed
24	75							
25								
	80							
	85							

Completion Detail



STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

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BORING NUMBER: WE-323 Page 1 of 5

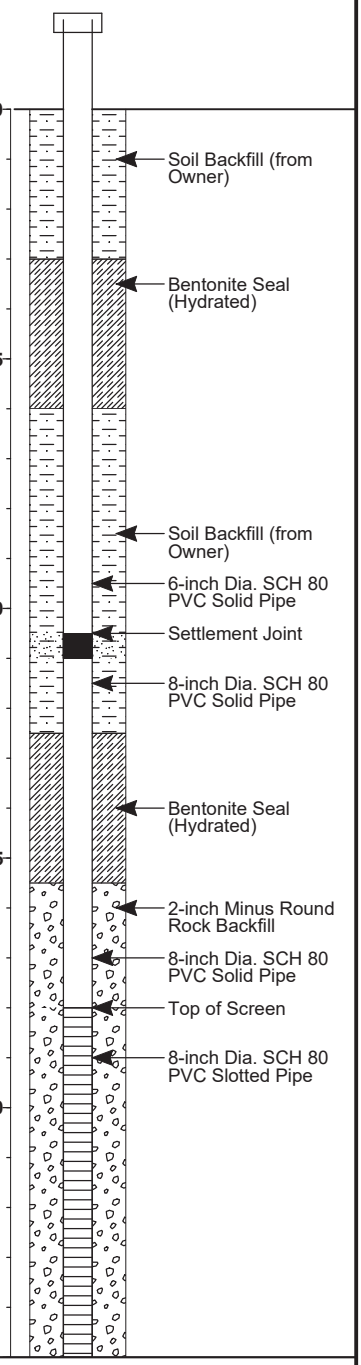
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-526. Drawing ID: VW-07. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1	5							
2								
3	10					REFUSE		Black refuse. Moist. 80 °F. Plastics, textiles, and soil Moderately decomposed
4								
5	15							
6	20					REFUSE		Brown refuse. Moist 83 °F. Plastics, textiles, and soil Moderately decomposed
7								
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/7/22**
Date Ended: **2/7/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **07:30**
Time Ended: **13:15**
Total Depth: **131.5 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

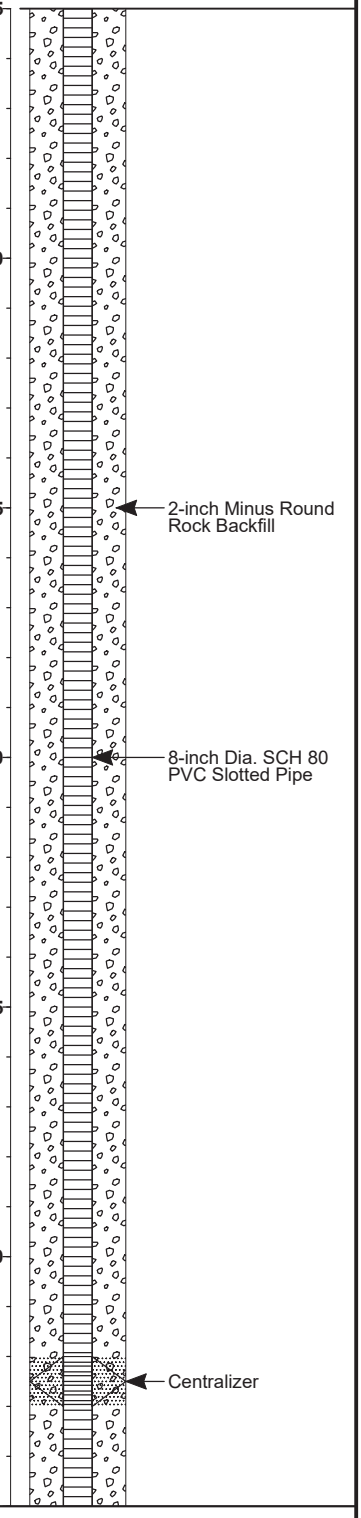
Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
8	25								Centralizer
9	30								
10									
	35								2-inch Minus Round Rock Backfill
11									
12	40					REFUSE		Black refuse. Moist. 87 °F. Plastics, textiles, and soil Moderately decomposed	8-inch Dia. SCH 80 PVC Slotted Pipe
13									
	45								
14									
15									
	50								Centralizer
16									
	55								

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55					REFUSE		Black refuse. Moist. 102 °F. Plastics, textiles, and soil Moderately decomposed
18	60							
19								
20	65							
21								
22	70					REFUSE		Black refuse. Moist. 104 °F. Plastics, textiles, and soil Moderately decomposed
23	75							
24								
25	80							
	85							

Completion Detail



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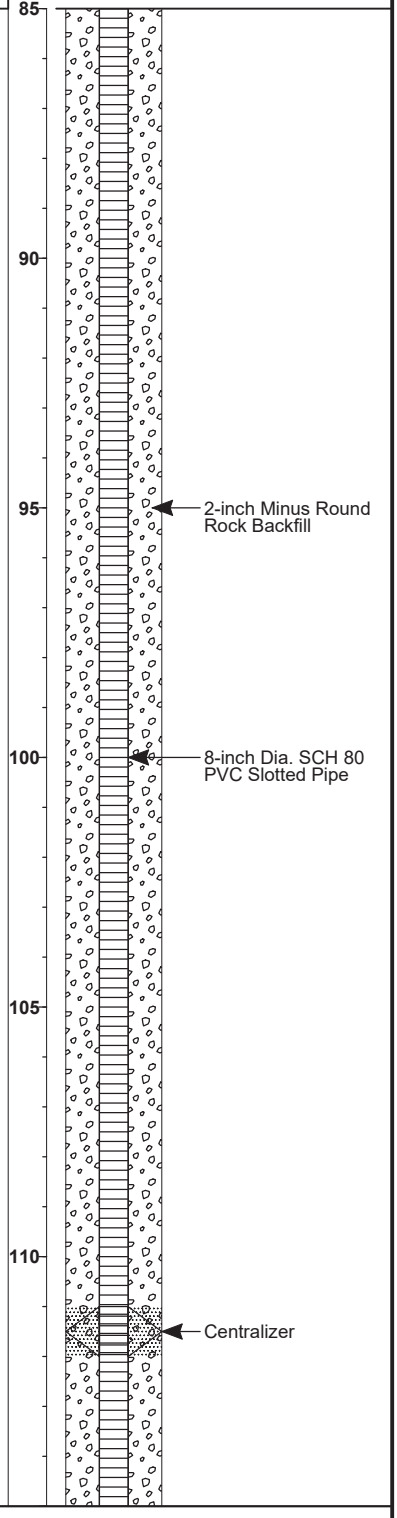
BORING NUMBER: WE-323

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
26	85					REFUSE		Black refuse. Moist. 100 °F. Plastics, textiles, and soil Moderately decomposed
27								
	90							
28								
29	95							
30								
	100							
31						REFUSE		Black refuse. Moist. 110 °F. Plastics, textiles, and soil Moderately decomposed
32	105							
33						REFUSE		Found leachate
	110							
34								
35	115					REFUSE		Black refuse. Wet. 112 °F. Plastics, textiles, soil and leachate Decomposed

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

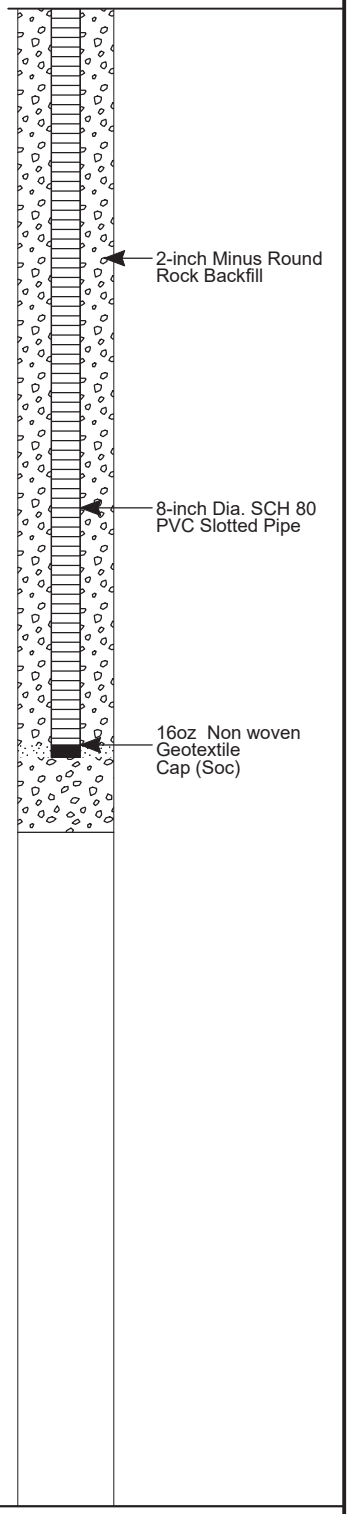
BORING NUMBER: WE-323

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	115							
	36							
	120					REFUSE		Black refuse. Wet. 107 °F. Plastics, textiles, soil and leachate Decomposed
	37							
	38							
	125							
	39							
	130							
	40					REFUSE		Black refuse. Wet. 112 °F. Plastics, textiles, soil and less leachate Decomposed End of boring at 131.5'
	41							
	135							
	42							
	140							
	43							
	44							
	145							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-324

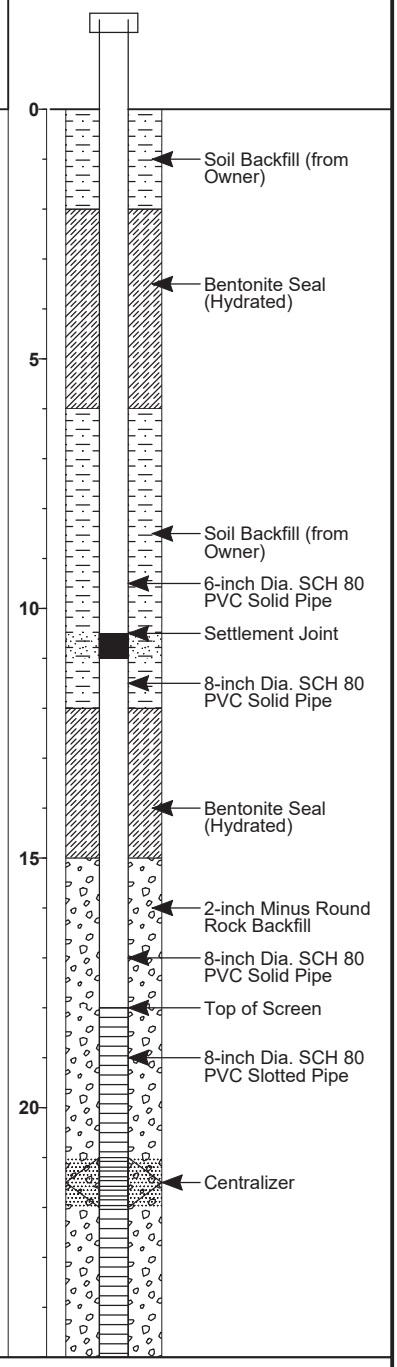
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-528. Drawing ID: VW-13. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
						REFUSE		Brown refuse. Dry. Plastics, textiles, wire and soil
1	5							
2								
3	10							
4								
5	15							
6	20					REFUSE		Brown refuse. Moist. 65 °F. Plastics, textiles, wire and soil
7	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/9/22**
Date Ended: **2/9/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**
Time Started: **08:45**
Time Ended: **10:42**
Total Depth: **71.0 ft.**

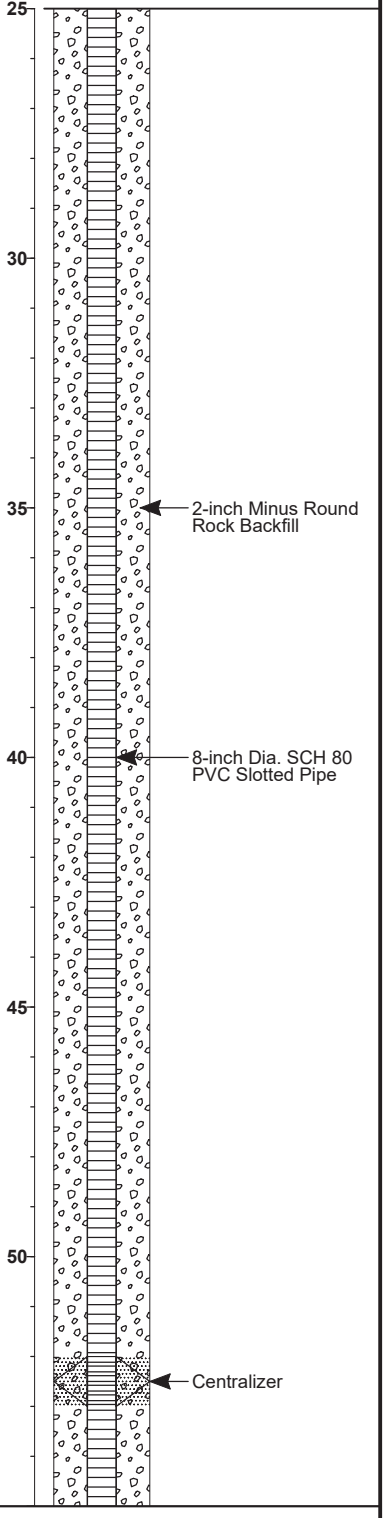
STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	25					REFUSE		Brown refuse. Moist. 77 °F. Plastics, textiles, wire and soil
8								
	30					REFUSE		Brown. Moist. 76 °F. Textiles and soil
9								
10								
	35							
11								
12								
	40							
13						REFUSE		Dark brown. Moist. Plastics, textiles, and soil
	45							
14								
15								
	50							
16						REFUSE		Dark brown. Moist. Plastics, textiles, and soil
	55							

Completion Detail



STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

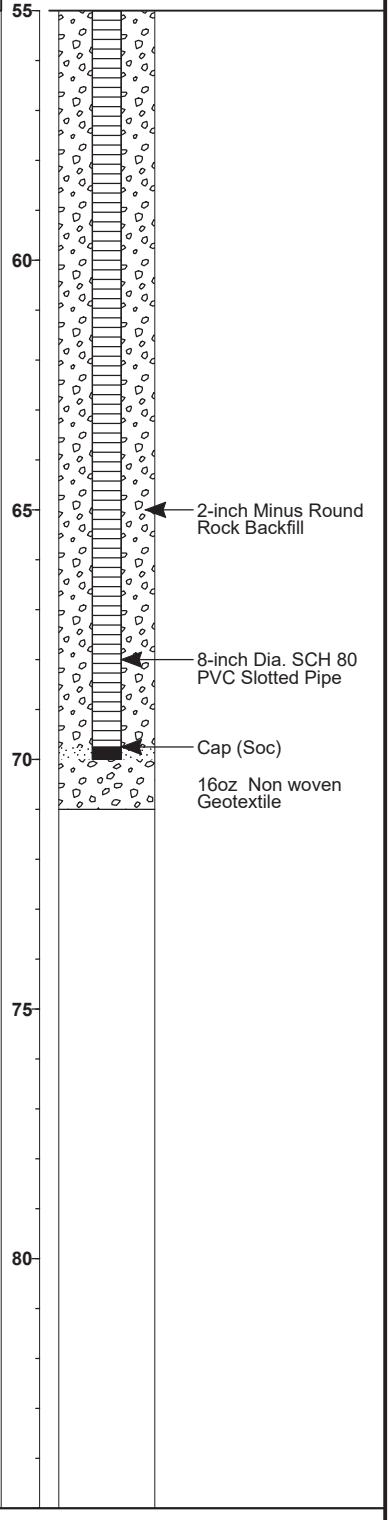
BORING NUMBER: WE-324

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
17	55							
18	60							
19						REFUSE		Dark brown. Moist. 98 °F. Plastics, textiles, and soil Moderately Decomposed
20	65							
21								
22	70					REFUSE		Dark borwn. Moist. 102 °F. Plastics, textiles, and soil Moderately Decomposed End of boring at 71'
23	75							
24								
25	80							
	85							

Completion Detail



STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-325

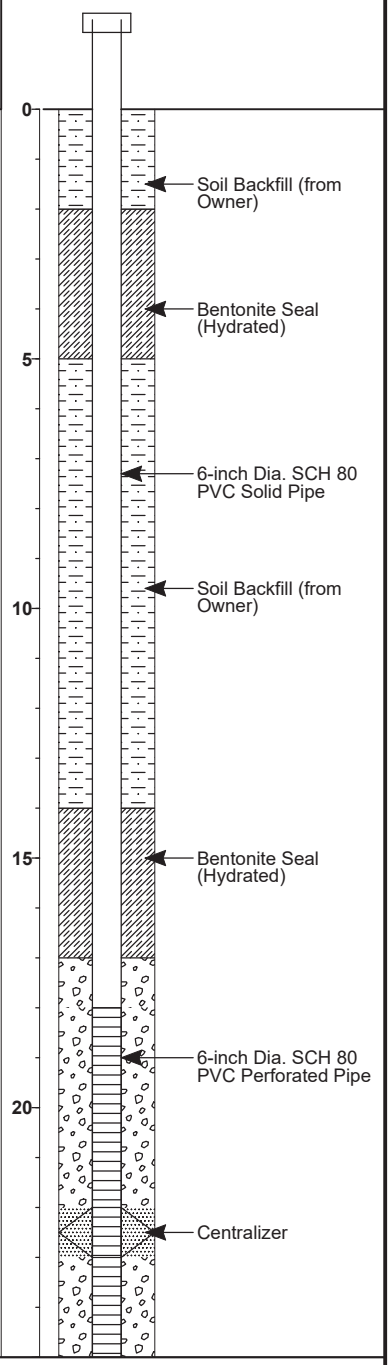
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-532. Drawing ID: TW-01. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1						REFUSE		Black refuse. Dry. 71 °F. Plastics, textiles, and soil Lightly decomposed.
2	5							
3	10							
4								
5	15					REFUSE		Dark brown refuse. Dry. 91 °F. Plastics, textiles, and soil Lightly decomposed.
6	20							
7								
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/11/22**
Date Ended: **2/11/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **09:48**
Time Ended: **10:48**
Total Depth: **42.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
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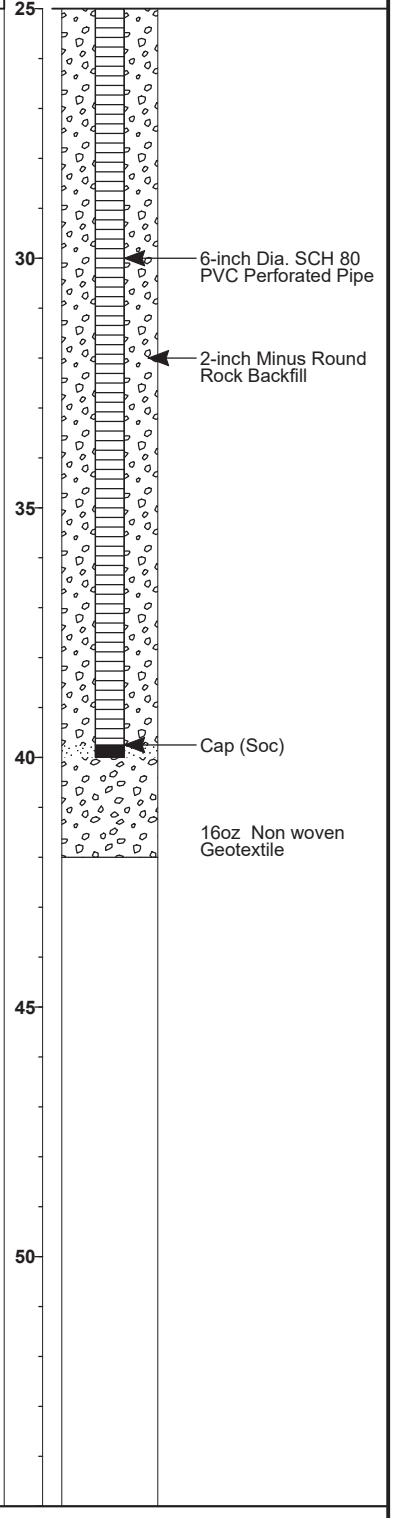
BORING NUMBER: WE-325

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25					REFUSE		Brown refuse. Moist. 96 °F. Plastics, textiles, and soil. Rope/fishnet Lightly decomposed.
9	30							
10								
11	35					REFUSE		Brown refuse. Moist. 98 °F. Plastics, textiles, wood,and soil Lightly decomposed.
12	40							
13						REFUSE		Black refuse. Wet. 98 °F. Plastics, textiles, and soil Lightly decomposed. End of boring at 42'.
14	45							
15								
16	50							
	55							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-327

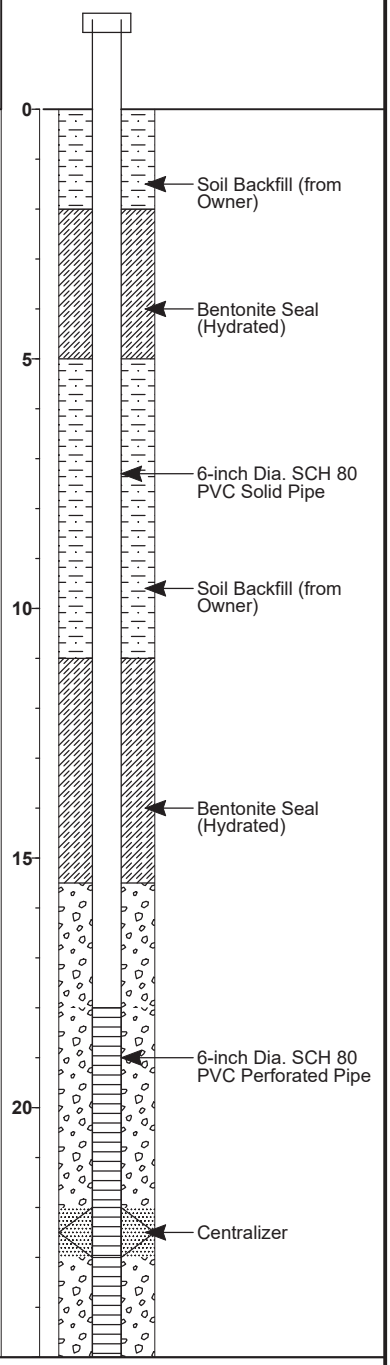
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-531. Drawing ID: TW-03. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1								
	5					REFUSE		Brown refuse. Dry. 76 °F. Plastics, textiles, and soil Lightly decomposed
2								
3	10							
4								
						REFUSE		Brown refuse. Dry. 78 °F. Plastics, textiles, and soil Lightly decomposed
	15							
5								
6	20							
						REFUSE		Brown refuse. Moist. 81 °F. Plastics, textiles, and soil Lightly decomposed
7								
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/10/22**
Date Ended: **2/10/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **12:12**
Time Ended: **12:42**
Total Depth: **32.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

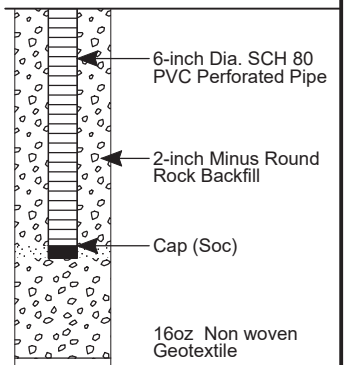
BORING NUMBER: WE-327

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25					REFUSE		Black refuse. Dry. 71 °F. Plastics, textiles, and soil Moderately decomposed
9	30							
10	30					REFUSE		Black refuse. Dry. 71 °F. Plastics, textiles, and soil Moderately decomposed End of boring at 32'.
11	35							
12	40							
13	40							
14	45							
15	50							
16	50							
55								

Completion Detail



STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-328

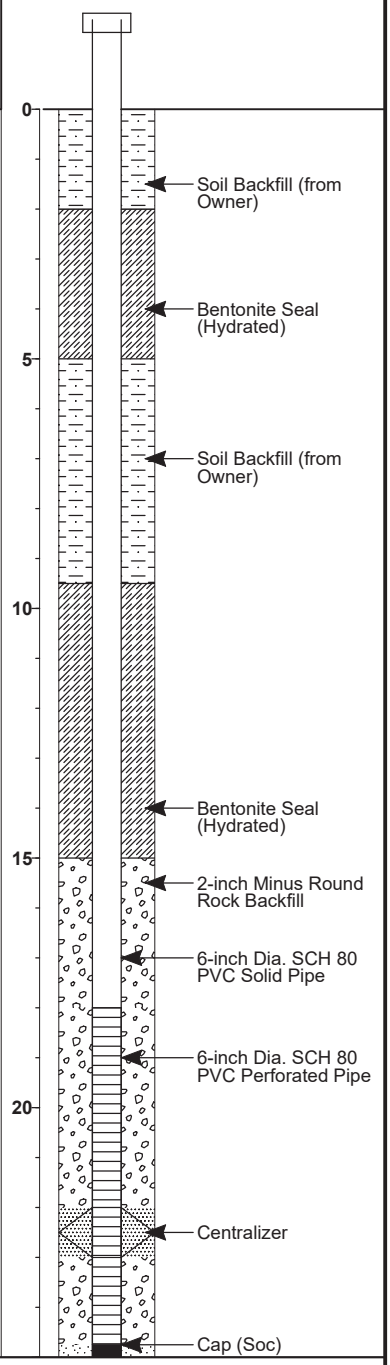
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-530. Drawing ID: TW-04. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Description
0	0					SM-GM	Brown-black soil. Dry.
1						REFUSE	Brown refuse. Dry. 56 °F. Plastics, textiles Lightly decomposed
	5						
2						REFUSE	Brown refuse. Dry. 57 °F. Plastics and soil Lightly decomposed
3	10						
4							
	15						
5						REFUSE	Black refuse. Dry. 74 °F. Plastics and soil Lightly decomposed
6	20					REFUSE	Black refuse. Dry. 78 °F. Plastics, textiles, and soil Lightly decomposed
7							
	25						

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/10/22**
Date Ended: **2/10/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **11:03**
Time Ended: **11:26**
Total Depth: **26.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS | **BORING LOG**

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

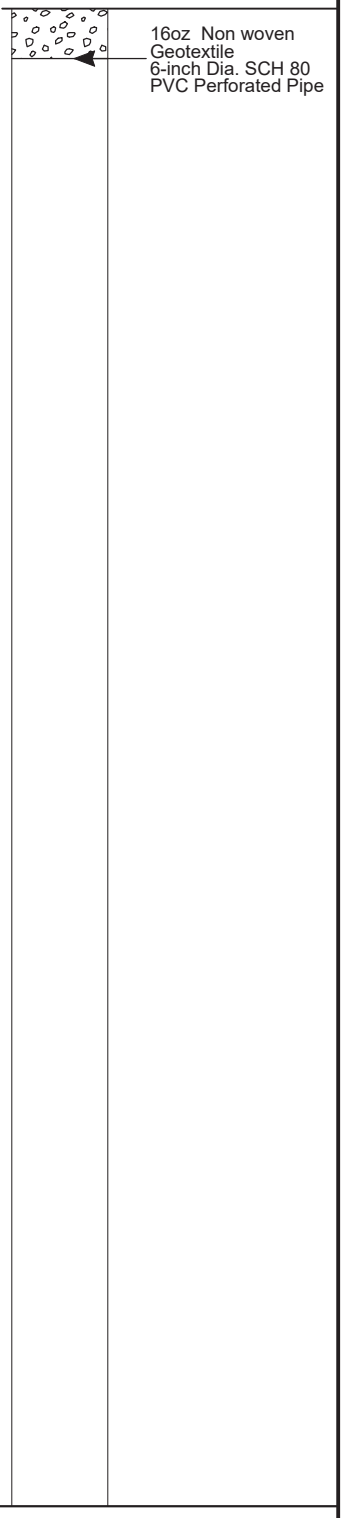
BORING NUMBER: WE-328

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
8	25					REFUSE		Black refuse. Dry. 79 °F. Plastics, textiles, and soil Moderately decomposed End of boring at 26'.
9	30							
10								
	35							
11								
12	40							
13								
14	45							
15								
	50							
16								
	55							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-329 Page 1 of 2

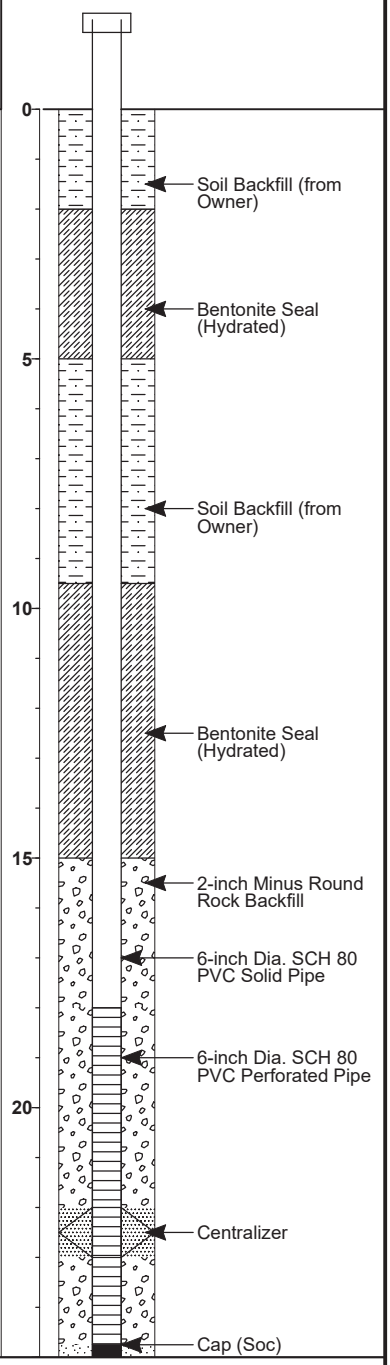
LRI Landfill, Gas Wells, February 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Start Card BKM-529 Drawing ID: TW-05. 5 ft-bgs stickup.

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown-black soil. Dry.
1						REFUSE		Brown refuse. Dry. 64 °F. Plastics and soil Lightly decomposed
	5							
2								
3	10					REFUSE		Brown refuse. Dry. 67 °F. Plastics and soil Lightly decomposed
4						REFUSE		Brown refuse. Moist. 68 °F. Plastics and soil Lightly decomposed
	15							
5								
6	20							
7						REFUSE		Brown refuse. Moist. 70 °F. Plastics and soil Lightly decomposed
	25							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **R. Martinez**

Date Started: **2/10/22**
Date Ended: **2/10/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **09:34**
Time Ended: **09:57**
Total Depth: **26.0 ft.**

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-329

LRI Landfill, Gas Wells, February 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
	25					REFUSE		Black refuse. Moist. 68 °F. Plastics, textiles, and soil Lightly decomposed End of boring at 26'.	16oz Non woven Geotextile 6-inch Dia. SCH 80 PVC Perforated Pipe
8									
	30								
9									
10									
	35								
11									
12									
	40								
13									
	45								
14									
15									
	50								
16									
	55								

STANDARD_LOG 04222001.11 - LRI GAS WELLS FEB 2021.GPJ STD_LOG.GDT 3/15/22

October 31, 2022
File No. 04222001.11

Mr. George Duvendack
Site Manager
Pierce County Recycling, Composting and Disposal, LLC dba LRI
17925 Meridian Street East
Puyallup, Washington 98375

Subject: **2022 July Gas Extraction Well Installation Report**
LRI Landfill, Graham, Washington

Dear George:

This letter report presents a summary of field activities performed by SCS Engineers (SCS) during the installation of 21 new landfill gas (LFG) extraction wells at the LRI Landfill located in Graham, Washington. The LFG extraction wells were installed in general accordance with the 2022 Gas System Expansion design plans, approved well construction variance, and well completion schedule issued by SCS on June 14, 2022. Following completion of the well installation work, each well was given a standard well designation consistent with LRI naming convention as shown in Table 1.

Summary

SCS personnel were onsite from June 16, 2022 through July 12, 2022 to observe drilling and installation of 21 new LFG extraction wells performed by DBM Contractors, Inc. (DBM). Observations of the cuttings from well drilling were logged for each boring and are included on the attached boring and construction logs prepared by SCS. The following table presents a summary of the completed well installation data.

Table 1: Summary of Well Completion

Well ID	Design ID	Surface Elevation (ft-msl)(1)	Well Material	ECY Well Tag(2)	Design Depth (ft)	Installed Depth (ft)	Length of Screen (ft)
WE-330	IW-01	738.26	HDPE	BKM-556	40	43	18
WE-331	IW-02	732.84	HDPE	BKM-555	40	42	18
WE-332	IW-03	728.66	HDPE	BKM-554	40	40	18
WE-333	IW-08	803.82	HDPE	BKM-560	40	42	18
WE-334	IW-07	802.90	HDPE	BKM-559	40	42	18
WE-336	IW-04	813.30	HDPE	BKM-558	40	42	18
WE-337	IW-05	818.88	HDPE	BKM-557	40	43	18
WE-338	VW-11	835.69	PVC	BKM-565	70	72	50
WE-339	VW-10	837.16	PVC	BKM-564	70	70	50
WE-340	VW-13	845.19	PVC	BKM-562	70	70	50
WE-341	VW-12	846.55	PVC	BKM-563	70	70	50
WE-342	VW-14	856.68	PVC	BKM-561	70	72	50
WE-343	VW-02	805.16	PVC	BKM-566	70	73	50
WE-344	VW-05	790.08	PVC	BKM-570	115	113	95

Well ID	Design ID	Surface Elevation (ft-msl)(1)	Well Material	ECY Well Tag(2)	Design Depth (ft)	Installed Depth (ft)	Length of Screen (ft)
WE-345	VW-04	776.06	PVC	BKM-568	70	72	50
WE-346	VW-01	797.58	PVC	BKM-567	70	72	50
WE-347	VW-03	752.30	PVC	BKM-569	70	73	50
WE-348	VW-06	729.01	PVC	BKM-572	70	57	50
WE-349	VW-07	751.34	PVC	BKM-571	70	71.5	50
WE-350	VW-09	728.06	PVC	BKM-573	70	71	50
WE-351	VW-08	705.03	PVC	BKM-574	38	39.5	18

Notes:

1. Survey data provided by HRK prior to drilling and installation. Elevations are for the original staked locations and do not account for minor relocation at time of installation.
2. ECY Well Tags were provided by DBM upon completion of each well.

LFG Extraction Well Drilling and Installation

The borings for the LFG extraction wells were drilled using an IMT AF250 drill rig with a 10 foot long, 36-inch diameter bucket auger, and a 36-inch diameter full flight auger as conditions dictated. For each of the extraction wells, the borings were advanced to within 1.0 to 9.0 feet of the design depths based on drilling conditions. The extraction wells were then constructed using 6 and 8-inch diameter Schedule 80 polyvinyl chloride (PVC) pipe and fittings or 6-inch diameter SDR 11 high-density polyethylene (HDPE) pipe and fittings. Backfill was completed with 2-inch minus round rock, hydrated bentonite chips, and clean soil as shown on the attached well construction logs. All construction materials were provided by DBM and verified by SCS prior to use, with the exception of clean soil backfill which was obtained from onsite sources. Drilling and installation of each well was completed in one day. No boreholes were left open overnight.

The wells were completed with approximately 5 feet of pipe stickup above the ground surface to allow for grading, landfill cover/closure, and connection to the existing LFG collection system. Upon completion, each well was issued a Washington State Department of Ecology (ECY) Well Tag in accordance with state regulations and connected to the existing gas collection and control system (GCCS) within one week.

The following variations to design were completed in conjunction with the well installations. Borings that were completed to within 4.0 feet of the design depth are not included on the following list.

- **WE-348** (VW-06): At approximately 55-feet bgs, a significant amount of water was encountered perched below a low-permeability soil layer that filled up the boring. Water was removed from this boring but the excess moisture at the bottom caused drilling progress to stall. The boring was completed and constructed at 57-feet bgs rather than the design depth of 70-feet.

Closing

If you have any questions regarding the information presented in this letter or the attached boring logs, please do not hesitate to contact us.

Sincerely,

Travis Berndahl, EIT
Project Professional
SCS Engineers

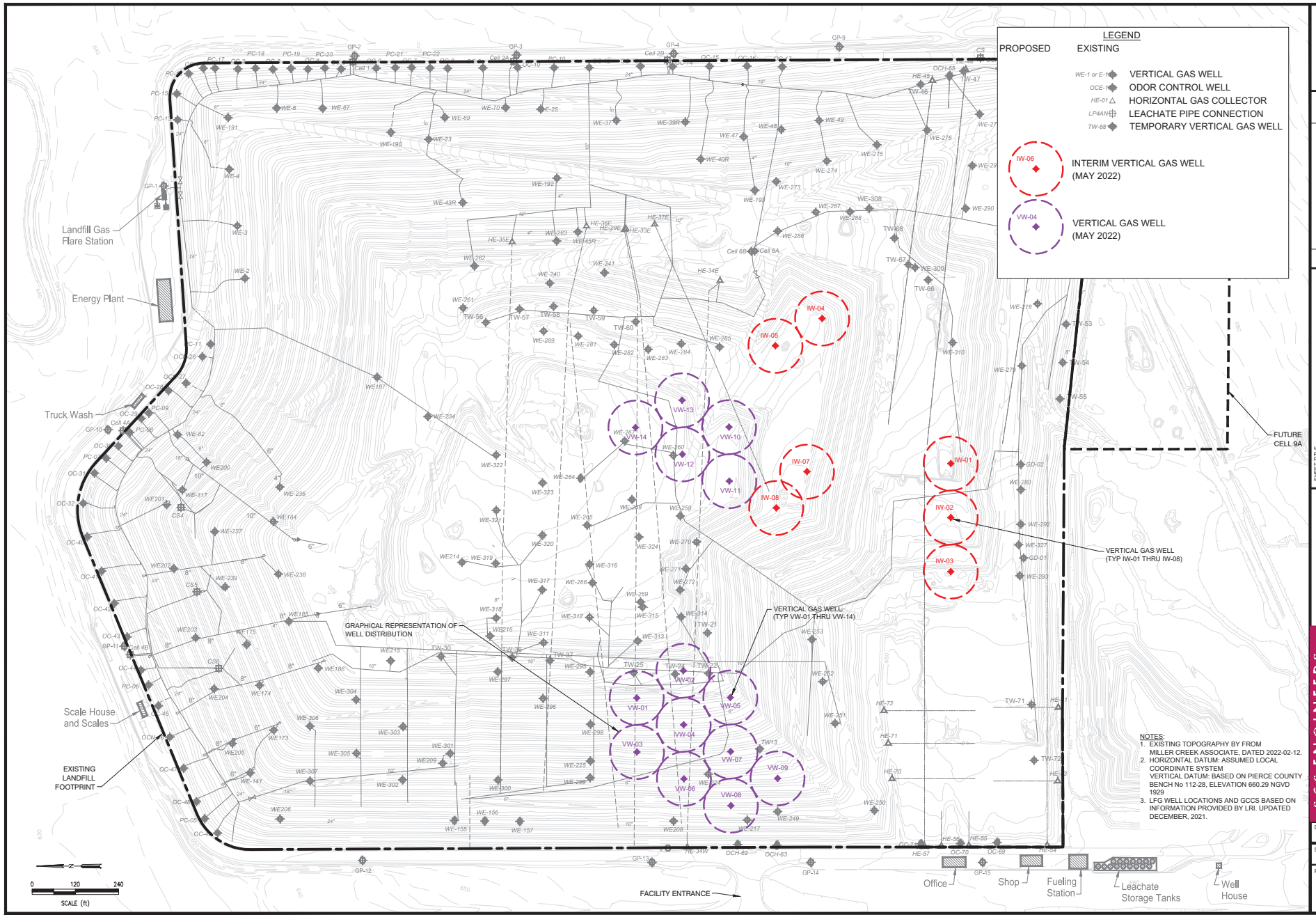
Karam Singh, P.E.
Senior Project Engineer
SCS Engineers

KS/TAB

cc: Ryan Roth, LRI
Olivier Moi, LRI
Kevin Green, LRI
Karam Singh, SCS
Kevin Lakey, SCS
Ruben Martinez-Barrientos, SCS
Jack Faille, SCS

Attachments:

2022 LFG Extraction Well Completion Logs
2022 LRI LF GCCS Site Plan



NO.	REVISION	DATE
1	ISSUED FOR REVIEW	04/04/2022
2	ISSUED FOR REVIEW	06/06/2022

SHEET TITLE: 2022 GCCS IMPROVEMENTS PHASE 2 MAY / JUNE - EXISTING GRADES

PROJECT TITLE: 2022 GAS SYSTEM EXPANSION
LRI LANDFILL
GRAHAM, WASHINGTON

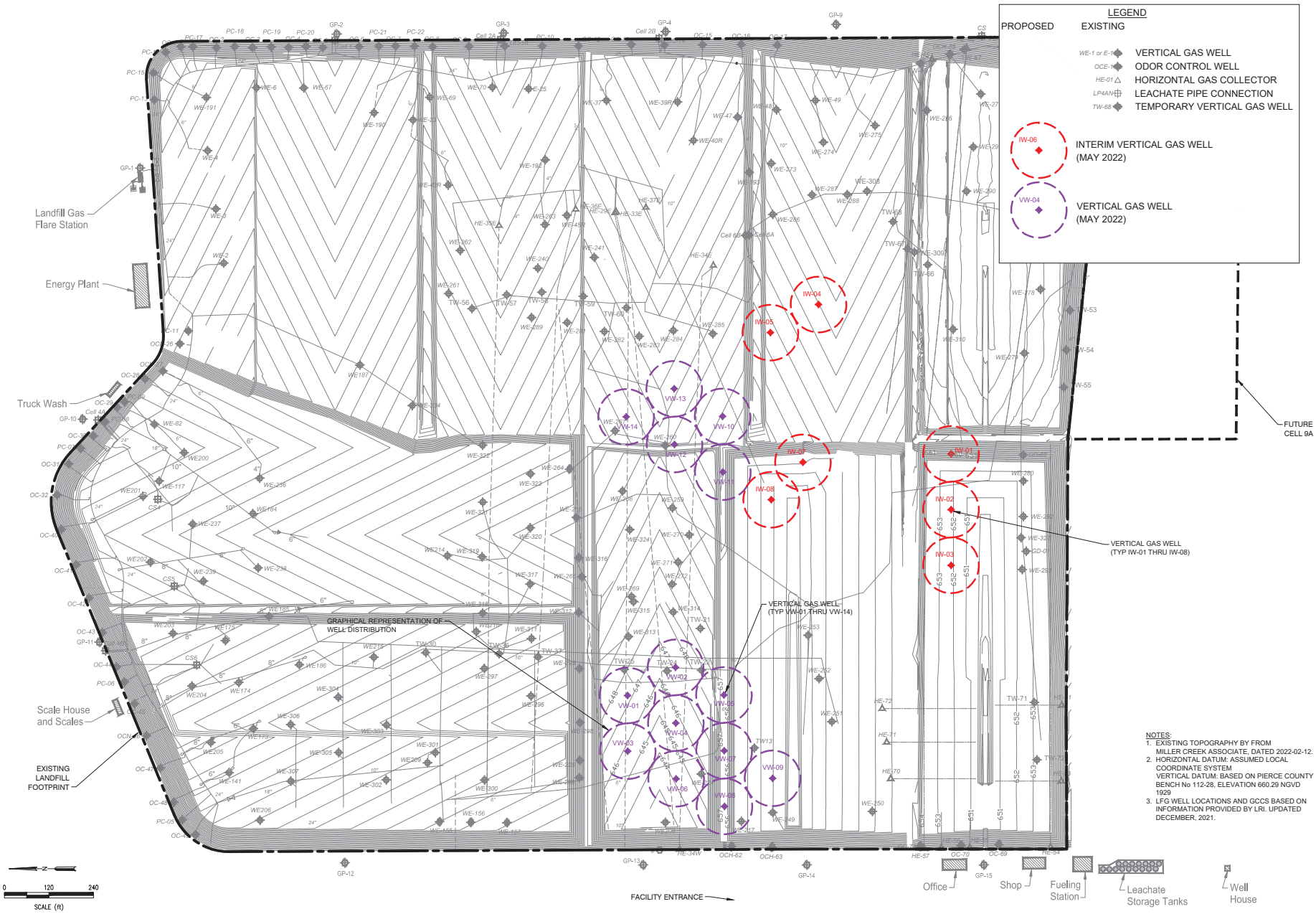
SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4900 FAX (425) 884-6948

PROJ NO.	04220011.10
DSN BY:	GDB
DWN BY:	GDB
CHK BY:	TAB
APP BY:	KQL
ACAD FILE:	
PLOT DATE:	

DATE: JUNE 2022

SCALE: AS SHOWN

FIGURE NO. 1



NOTES:
1. EXISTING TOPOGRAPHY BY FROM MILLER CREEK ASSOCIATE, DATED 2022-02-12.
2. HORIZONTAL DATUM: ASSUMED LOCAL COORDINATE SYSTEM
   VERTICAL DATUM: BASED ON PIERCE COUNTY BENCH No 112-28, ELEVATION 660.29 NGVD 1929
3. LFG WELL LOCATIONS AND GCCS BASED ON INFORMATION PROVIDED BY LRI. UPDATED DECEMBER, 2021.

NO.	REVISION	DATE
1	ISSUED FOR REVIEW	04/04/2022
2	ISSUED FOR REVIEW	06/06/2022

SHEET TITLE: 2022 GCCS IMPROVEMENTS PHASE 2 MAY / JUNE - OPERATIONS LAYER GRADES

PROJECT TITLE: 2022 GAS SYSTEM EXPANSION
LRI LANDFILL
GRAHAM, WASHINGTON

SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4606 FAX (253) 884-9748

PROJ NO.	04.22001.10
DSN. BY:	GDB
DWN. BY:	GDB
CHK. BY:	TAB
APP. BY:	KGL
ACAD FILE:	
PLOT SCALE:	
PLOT DRAWING ID:	

DATE: JUNE 2022

SCALE: AS SHOWN

FIGURE NO. 2

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-330 Page 1 of 2

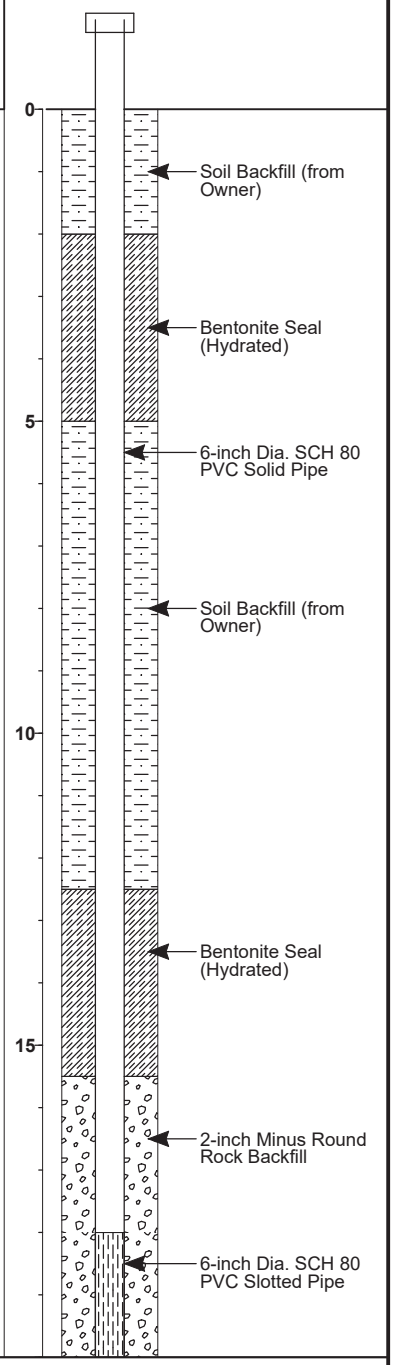
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-556. Drawing ID: 2022-C7. IW-01

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		
	1							
	2							
1	3							
	4							
	5							
	6							
2	7							
	8							
	9							
3	10							
	11							
	12							
4	13							
	14							
	15							
5	16							
	17							
	18							
6	19							
	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **6/17/22**
Date Ended: **6/17/22**
Boring Diameter: **36-inch**
Well Diameter: **6-inch**

Time Started: **09:15**
Time Ended: **10:28**
Total Depth: **40.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/21/22

SCS ENGINEERS

BORING LOG

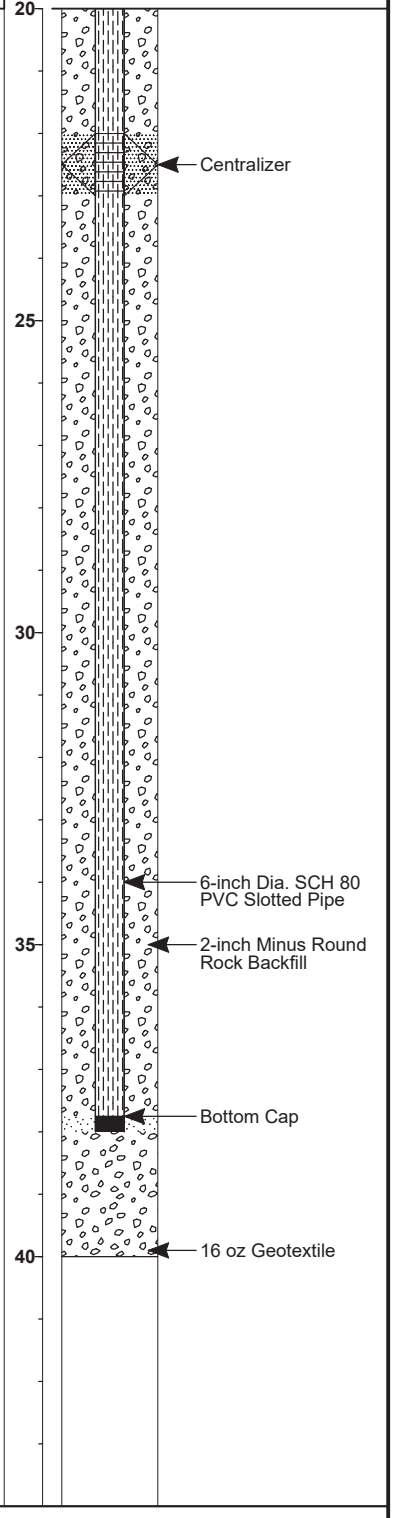
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-330

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20					REFUSE		0928 Mixed refuse (plastic, wood, paper, and textiles). Moist. Brown. Lite decomposition, T=84°F.
	21							
	22							
7	23							
	24							
	25					REFUSE		0936 Mixed refuse (plastics, textiles, no soil). Moist. Black with some colors. Moderate decomposition. T=100°F.
8	26							
	27							
	28							
	29							
9	30							
	31							
	32							
10	33							
	34					REFUSE		0946 Mixed refuse (plastic, wood, paper, and textiles). Moist. Black with some colors. Moderate decomposition T=100°F.
	35							
11	36							
	37							
	38							
	39							
12	40					REFUSE		0958 Mixed refuse (plastic and textiles). Moist. Black/ dark brown. Moderate decomposition. T=104°F. End of Boring at 40 ft
	41							
	42							
13	43							
	44							



STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/21/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-331 Page 1 of 2

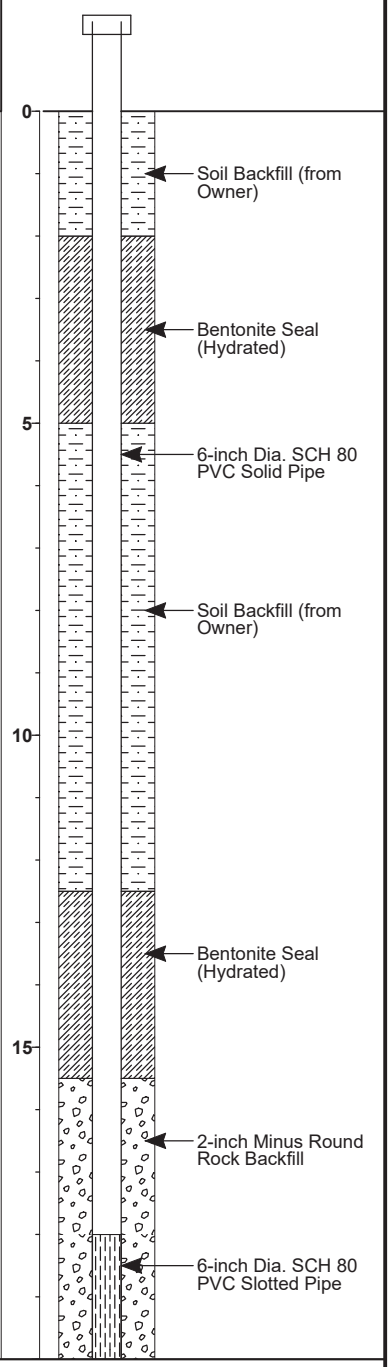
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-555. Drawing ID: 2022-C7. IW-02

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Little to no soil cover
	1							
	2					REFUSE		Mixed refuse (plastics and textiles, foam and rubber). Moist. Light brown. Lite decomposition.
1	3							
	4							
	5							
	6							
2	7							
	8							
	9							
3	10							
	11							
	12							
4	13					REFUSE		Mixed refuse (plastics, textiles, rubbers, little soil). Moist. Dark brown. Moderate decomposition. T=87°F
	14							
	15							
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **6/17/22**
Date Ended: **6/17/22**
Boring Diameter: **36-inch**
Well Diameter: **6-inch**

Time Started: **07:35**
Time Ended: **08:45**
Total Depth: **42.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/21/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

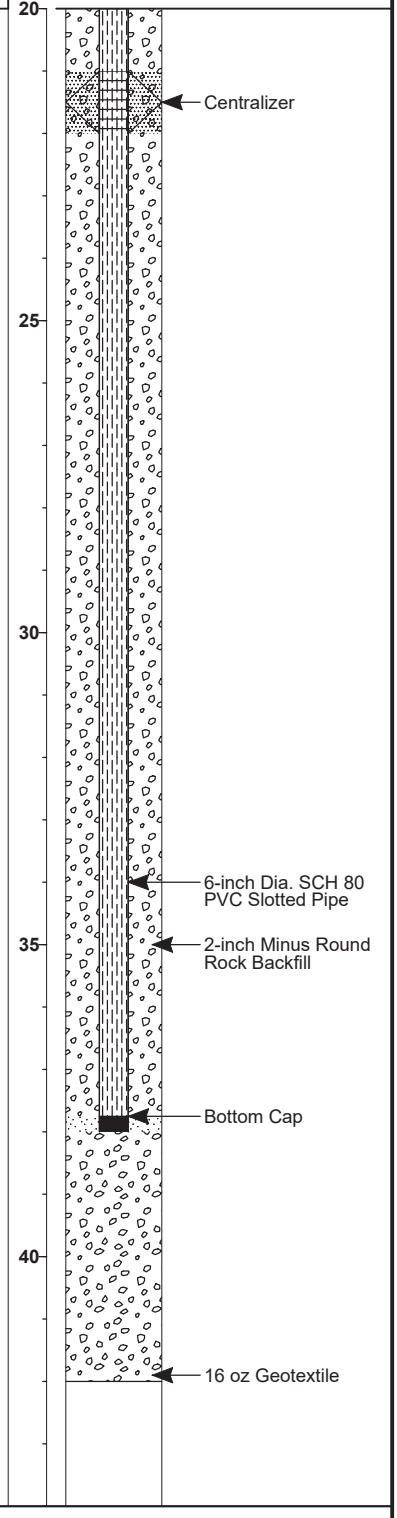
BORING NUMBER: WE-331

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20							
	21							
	22							
7	23							
	24					REFUSE		Mixed refuse (plastics, textiles, rubbers, soil). Moist. Dark brown. Moderate decomposition. T=87°F
	25							
8	26							
	27							
	28					REFUSE		Mixed refuse (plastic and textiles). Moist. Dark brown. Moderately decomposition. T=90°F.
	29							
9	30					REFUSE		Mixed refuse (plastic and textiles). Moist. Dark brown. Moderate decomposition. T=87°F.
	31							
	32							
10	33							
	34							
	35					REFUSE		Mixed refuse (plastic and textiles). Wet. Dark brown. Heavy decomposed. T=92°F.
11	36							
	37							
	38							
12	39							
	40							
	41							
	42					REFUSE		Mixed refuse (plastic and textiles). Shredded tires. Saturated. Black. Heavy decomposition. T=83°F. End of Boring at 42 ft
13	43							
	44							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-332 Page 1 of 2

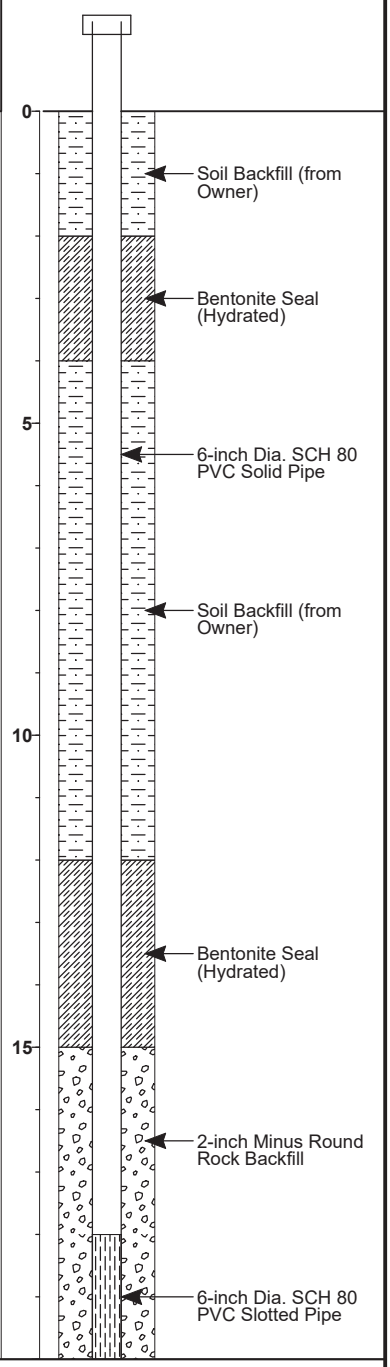
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-554. Drawing ID: 2022-C7. IW-03

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Little to no soil cover
	1							
	2					REFUSE		Mixed refuse (plastics, textiles, and rubber). Slightly moist. Colored. Lite decomposition.
1	3							
	4							
	5							
	6							
2	7							
	8							
	9							
3	10							
	11							
	12							
4	13					REFUSE		Mixed refuse (plastics, textiles, little soil). Moist. Brown. Lite decomposition. T=86°F
	14							
	15							
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **6/16/22**
Date Ended: **6/16/22**
Boring Diameter: **36-inch**
Well Diameter: **6-inch**

Time Started: **09:57**
Time Ended: **12:32**
Total Depth: **40.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/21/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

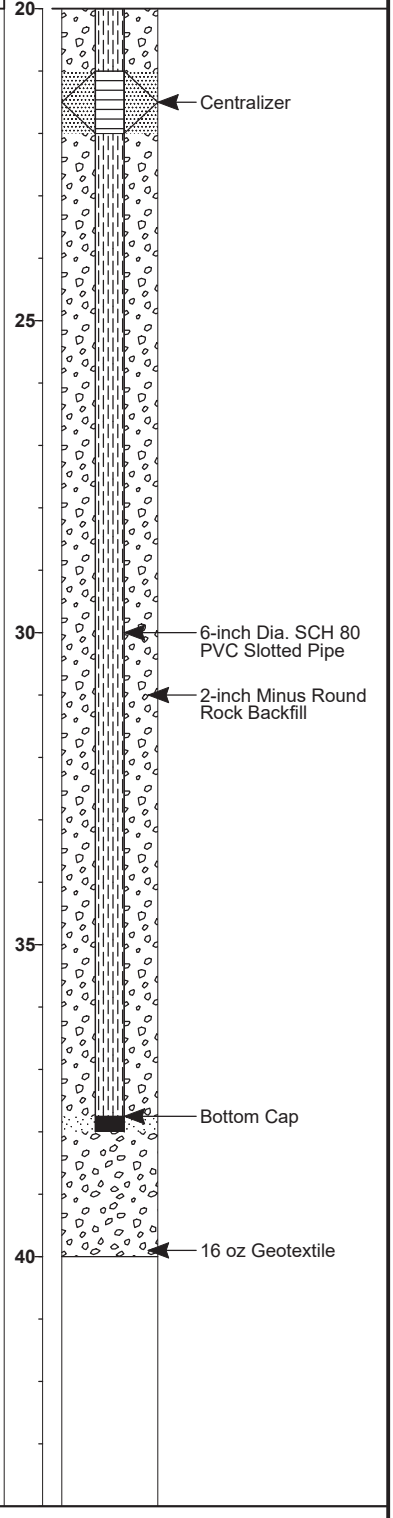
BORING NUMBER: WE-332

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20					REFUSE		Mixed refuse (plastics, textiles, little soil). Moist. Brown. Lite decomposition. T=89°F
	21							
	22							
7	23							
	24							
	25							
8	26					REFUSE		Mixed refuse (plastic, textiles, rubber, and soil). Moist. Dark brown. Moderate decomposition. T=95°F.
	27							
	28							
	29							
9	30							
	31							
	32							
10	33							
	34							
	35							
11	36					REFUSE		Mixed refuse (plastic and textiles). Moist. Black. Moderate decomposition. T=99°F.
	37							
	38							
	39							
12	40							End of Boring at 40 ft
	41							
	42							
13	43							
	44							

Completion Detail



STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/21/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-333

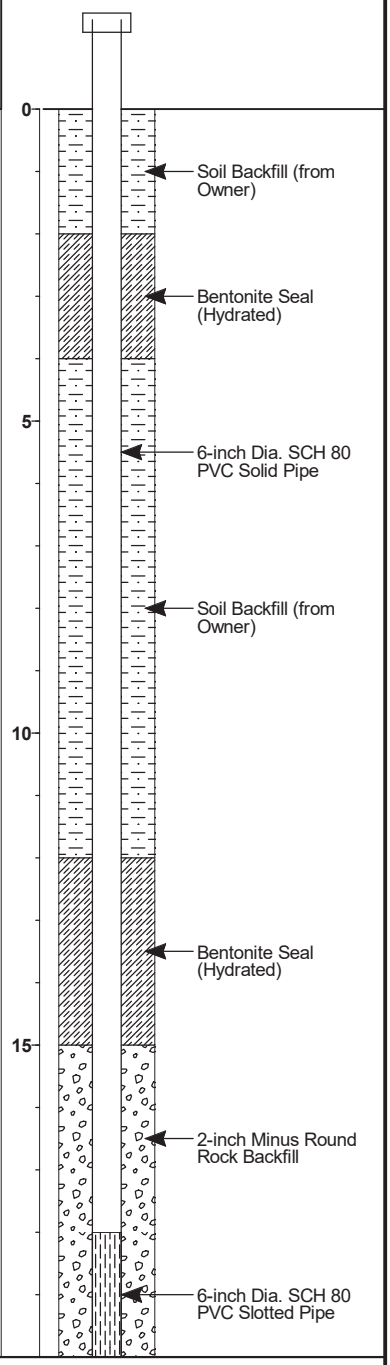
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-559. Drawing ID: 2022-C8. IW-08

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Minimal soil cover
	4					REFUSE		Mixed refuse (plastics, textiles, rope, shredded tires). Moist. Colors with black. Lite decomposition
	15					REFUSE		0844 Mixed refuse (plastics, textiles, tires). Moist. Colors & browns. Moderately decomposed. T=97°F

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **6/22/22**
Date Ended: **6/22/22**
Boring Diameter: **36-inch**
Well Diameter: **6-inch**

Time Started: **08:30**
Time Ended: **23:16**
Total Depth: **42.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

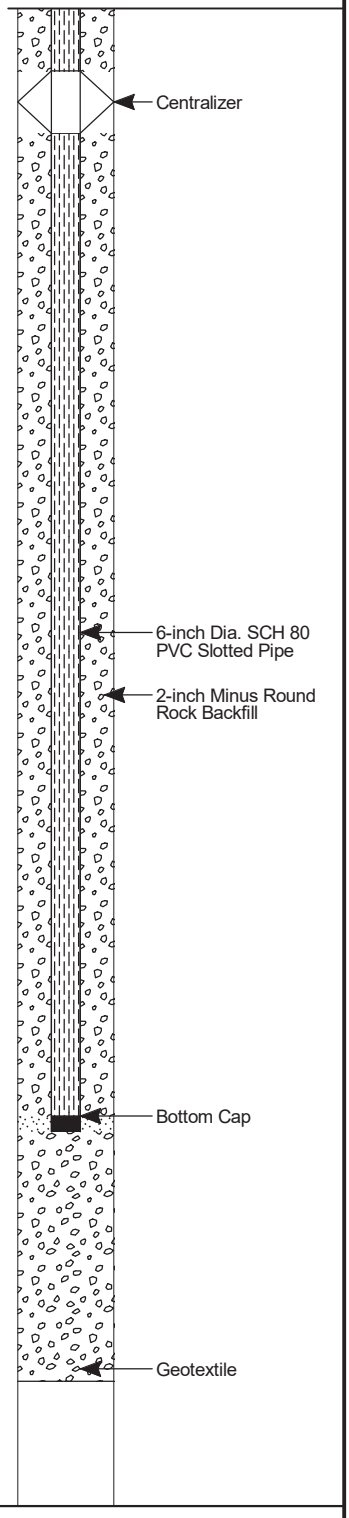
BORING NUMBER: WE-333

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20							
	21							
	22							
7	23							
	24							
	25					REFUSE		0851 Mixed refuse (plastics, textiles, metal, rubber, wood). Moist. Dark brown. Moderately decomposed. T=103°F
8	26							
	27							
	28							
	29							
9	30							
	31							
	32							
10	33							
	34							
	35					REFUSE		0909 Mixed refuse (plastics, textiles, metal, rubber, wood). Moist. Dark brown. Moderately decomposed. T=100°F
11	36							
	37							
	38							
	39							
12	40							
	41							
	42					REFUSE		0921 End of Boring at 42 ft
13	43							
	44							

Completion Detail



STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

SCS ENGINEERS

MmE.OR GmR

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

MmE.OR ONC MUE: d Ui- - 1

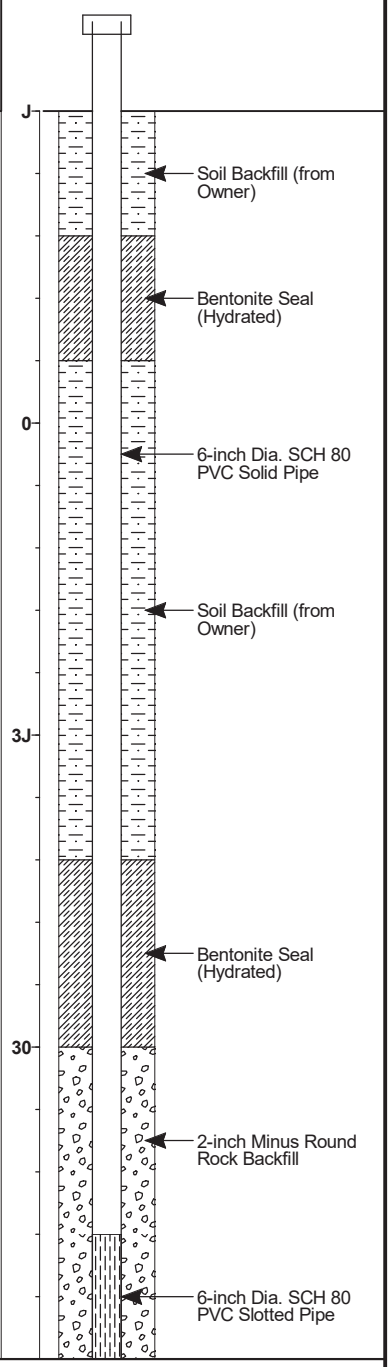
GE. GscL4ted Rs, d 8ee, l l Weu 2J22 - Jy3y C 8arLrsc Us, r RasDsS l d s, Drc9rt c

l mM ONC MUE: J1222JJ3T33

REMARKS:
Ecology Tag BKM-560. Drawing ID: 2022-C7. IW-07

B8f rD		psS f e8 .c4t aS srnt c						
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
J	J					SM-GM		Minimal soil cover
	3							
	2							
	-					REFUSE		Mixed refuse (plastics, textiles, and rubber). Moist. Dark brown. Moderately decomposed.
3	1							
	0							
	6							
2	g							
	7							
	y							
	-							
	3J							
	33							
	32							
1	3-							
	31							
	30					REFUSE		1041 Mixed refuse (plastics, textiles, and rubber). Moist. Dark brown. Moderately decomposed. T=95°F
	36							
0	3g							
	37							
	3y							
6	2J							

Completion Detail



Drilling Company: **BMC ot crashrt a, l .chT**

Drilling Method: **.CA F5i20J**

Logged By: **l T5srne8**

Date Started: **6/23/22**

Date Ended: **6/23/22**

Boring Diameter: **- 6irchD**

Well Diameter: **6irchD**

Time Started: **3J:- 0**

Time Ended: **2- :36**

Total Depth: **12TJ 4rT**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

GE. GscL4ted Rs, d 8ee, l l Wau 2J22

l mM ONC MUE: J1222JJ3T33

B8f rD		psS f e8 .c4t aS srnt c						Description	Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log		
	2J					REFUSE		1045 Mixed refuse (plastics, textiles, rubber, wood, soil). Moist. Dark brown. Moderately decomposed. T=101°F	2J
	23								Centralizer
	22								
g	2-								
	21								
	20					REFUSE		1053 Mixed refuse (plastic, textiles). Moist. Colors. Lightly decomposed. T=100°F.	20
7	26								
	2g								
	27								
	2y								
y									
	- J								- J
	- 3								6-inch Dia. SCH 80 PVC Slotted Pipe
	- 2								2-inch Minus Round Rock Backfill
3J	- -					REFUSE		1105 Mixed refuse (plastic, textiles, wood). Moist. Colors and browns. Moderately decomposed. Strong ammonia smell from waste steam. T=107°F.	
	- 1								
	- 0								- 0
33	- 6								
	- g								
	- 7					REFUSE			Bottom Cap
	- y								
32									
	1J								1J
	13								
	12					REFUSE		1116 Mixed refuse (plastic, textiles, wood). Moist. Colors and browns. Moderately decomposed. Strong ammonia smell from waste steam. T=108°F. End of Boring at 42 ft	Geotextile
3-									
	1-								
	11								

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-336 Page 1 of 2

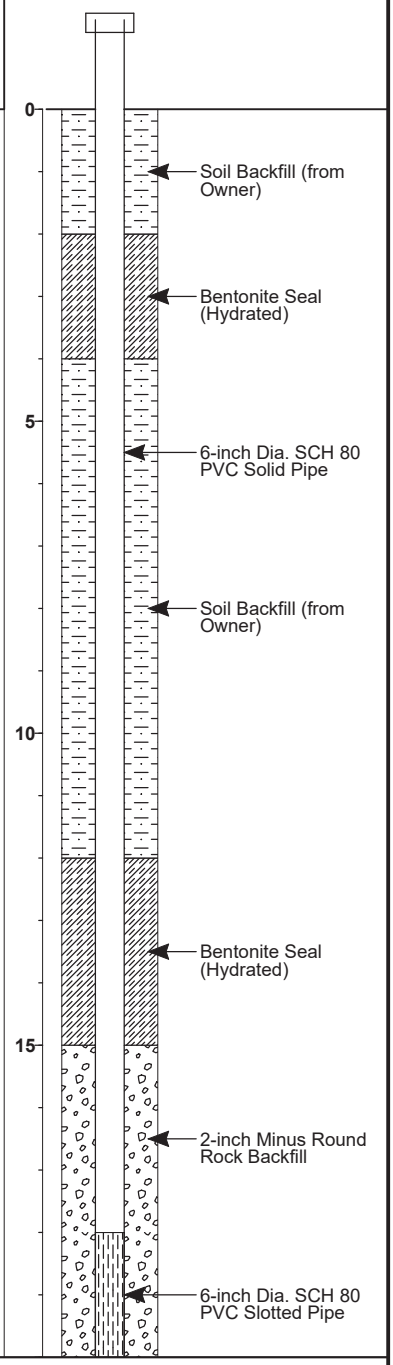
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-558. Drawing ID: 2022-C7. IW-04

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		No soil cover layer.
	1							
	2							
1	3					REFUSE		Mixed refuse (plastics and textiles). Moist. Blacks with some colors. Moderate decomposition.
	4							
	5							
	6							
2	7							
	8							
	9							
3	10							
	11							
	12							
4	13							
	14							
	15					REFUSE		1056 Mixed refuse (plastics and textiles). Moist. Colors. Moderate decomposition. T=107°F
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **6/21/22**
Date Ended: **6/21/22**
Boring Diameter: **36-inch**
Well Diameter: **6-inch**

Time Started: **10:50**
Time Ended: **12:15**
Total Depth: **42.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/21/22

SCS ENGINEERS

BORING LOG

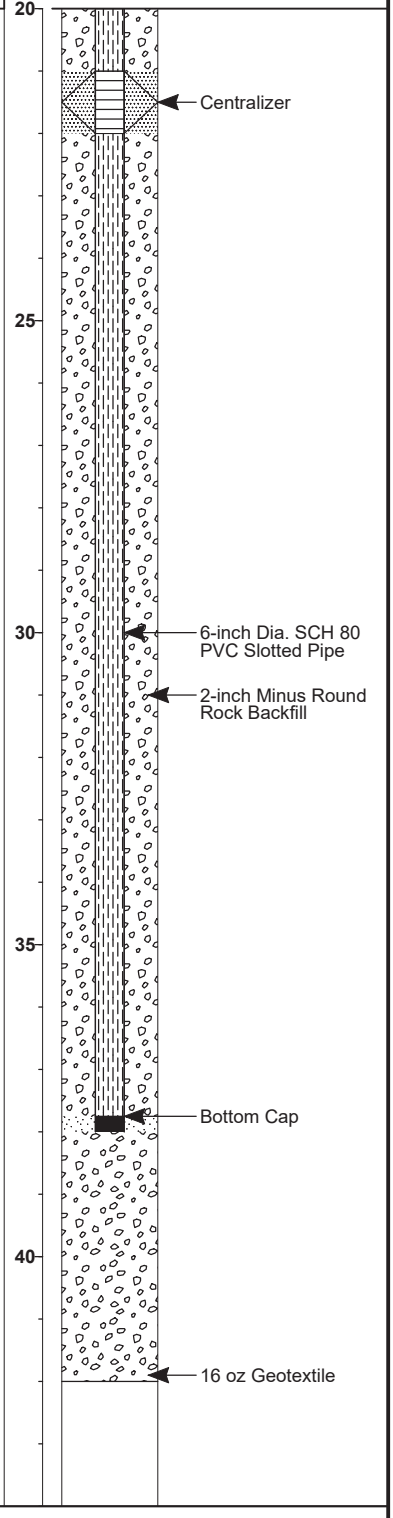
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-336

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20					REFUSE		1102 Mixed refuse (plastic, wood, and textiles). Very moist. Dark brown Moderate decomposition. T=118°F.
	21							
	22							
7	23							
	24							
	25					REFUSE		1109 Mixed refuse (plastic, wood, and textiles). Very moist. Dark brown, Moderate decomposition. T=119°F.
8	26							
	27							
	28							
	29							
9	30							
	31							
	32							
10	33							
	34							
	35					REFUSE		1118 Mixed refuse (plastic, wood, and textiles). Very moist. Dark brown. Moderate decomposition. T=119°F.
11	36							
	37							
	38							
	39							
12	40							
	41							
	42					REFUSE		1129 Mixed refuse (plastic, wood, and textiles). Very moist. Dark brown. Moderate decomposition. T=125°F. End of Boring at 42 ft
13	43							
	44							



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-337 Page 1 of 2

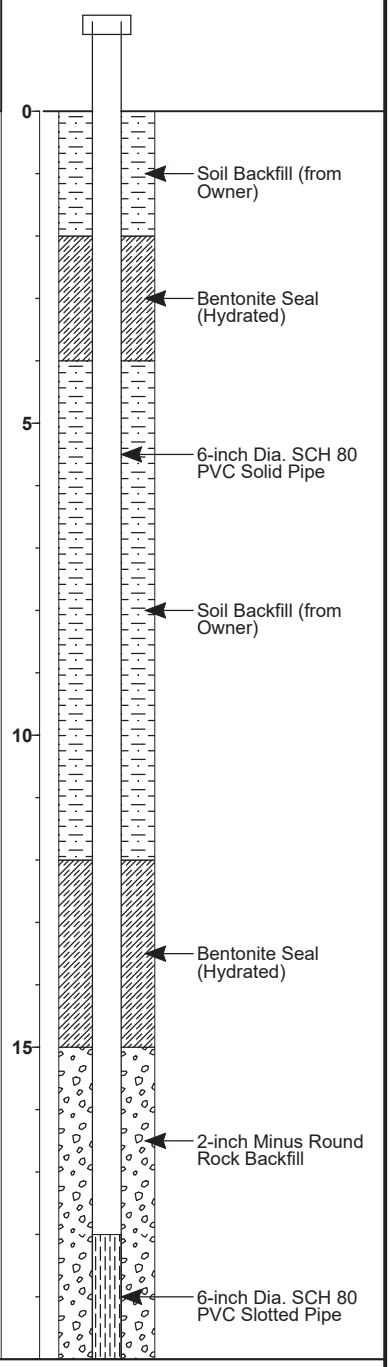
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-557. Drawing ID: 2022-C7. IW-05

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Little to no soil cover.
	1							
	2					REFUSE		Mixed refuse (plastics, textiles, and rubber). Slightly moist. Colors & Browns. Lite decomposition.
1	3							
	4							
	5							
	6							
2	7							
	8							
	9							
3	10							
	11							
	12					REFUSE		Mixed refuse (plastics, textiles, and soil). Moist. Colors & Browns. Moderate decomposition. T=100°F
4	13							
	14							
	15							
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **6/21/22**
Date Ended: **6/21/22**
Boring Diameter: **36-inch**
Well Diameter: **6-inch**

Time Started: **08:27**
Time Ended: **10:30**
Total Depth: **43.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/21/22

SCS ENGINEERS

BORING LOG

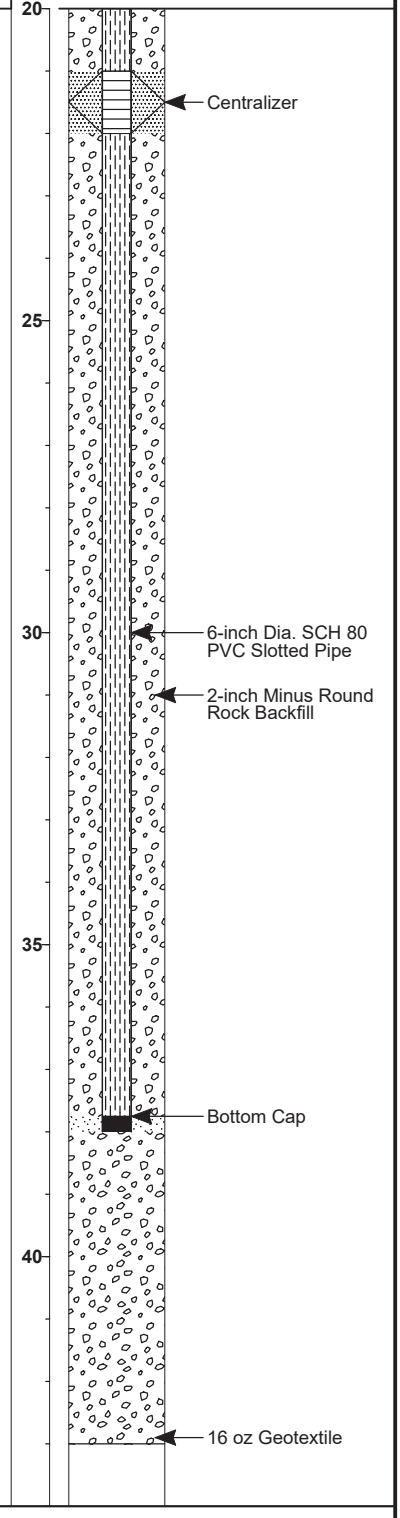
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-337

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20					REFUSE		Mixed refuse (plastics, textiles, and soil). Moist. Brown. Moderate decomposition. T=114°F
	21							
	22							
7	23							
	24							
	25							
8	26							
	27							
	28							
	29							
9	30							
	31					REFUSE		Mixed refuse (plastic, insulation, and some metal). Slightly moist. Brown. Moderate decomposition. T=118°F.
	32							
10	33							
	34							
	35					REFUSE		Mixed refuse (plastic, insulation, and some metal). Slightly moist. Brown. Moderate decomposition. T=113°F.
11	36							
	37							
	38					REFUSE		Mixed refuse (plastic, insulation, textiles, some soil). Moist. Dark brown. Moderate decomposition. T=121°F.
12	39							
	40							
	41							
	42							
13	43					REFUSE		End of Boring at 43 ft
	44							



STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/21/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-338 Page 1 of 4

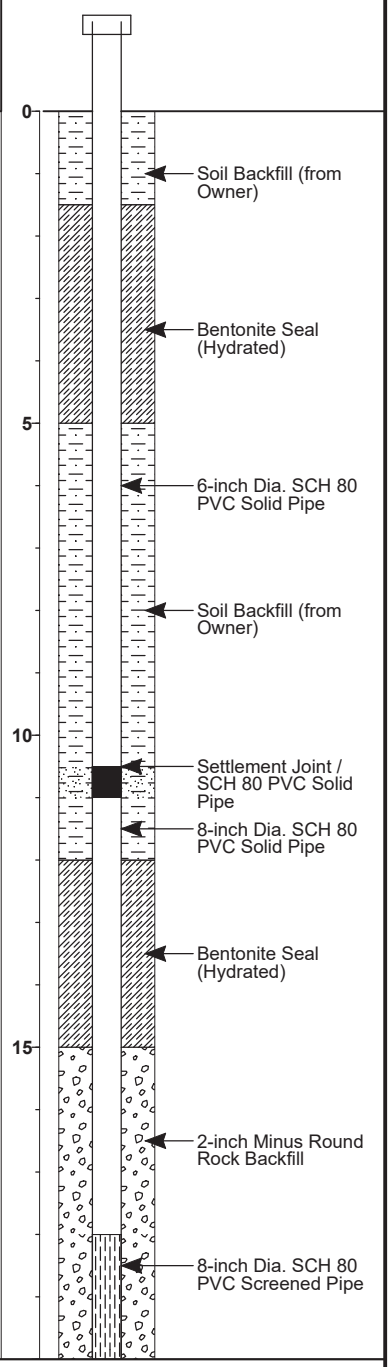
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-565. Drawing ID: 2022-C6. VW-11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown soil, dry.
	1							
						REFUSE		Mixed Refuse (plastics,textiles, foam, rubber, wood). Moist. Many colors. Lite decomposition.
1	2							
	3							
	4							
	5							
2	6							
	7							
	8							
	9							
3	10					REFUSE		0735 Mixed refuse (plastics, textiles, metal, wood, soil). Very moist. Black/dark brown, few colors. Medium decomposition. T=90°F
	11							
	12							
4	13							
	14							
	15							
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **6/27/22**
Date Ended: **6/27/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **07:25**
Time Ended: **09:20**
Total Depth: **71.0 ft.**

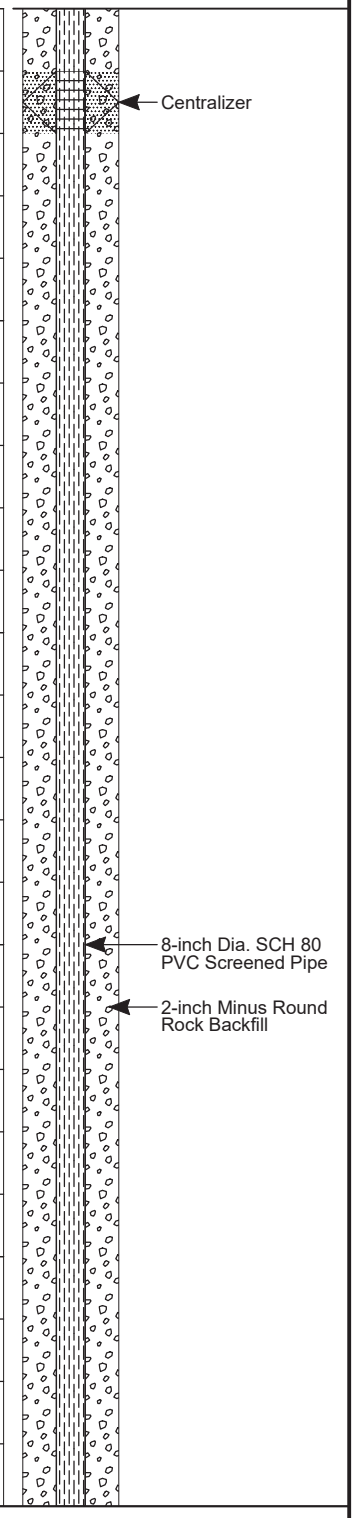
STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/23/22

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20							
	21							
	22							
7	23							
	24							
	25					REFUSE		0745 Mixed refuse (plastics, textiles, wire, soil). Very moist. Black/dark brown, few colors. Medium decomposition. T=105°
8	26							
	27							
	28							
	29							
9	30							
	31							
	32							
10	33							
	34							
	35							
11	36							
	37							
	38					REFUSE		0800 Mixed refuse (plastics, textiles, wood, soil). Moist. Browns, few colors. Medium decomposition. T=102°
12	39							
	40							
	41							
	42							
13	43							
	44							

Completion Detail

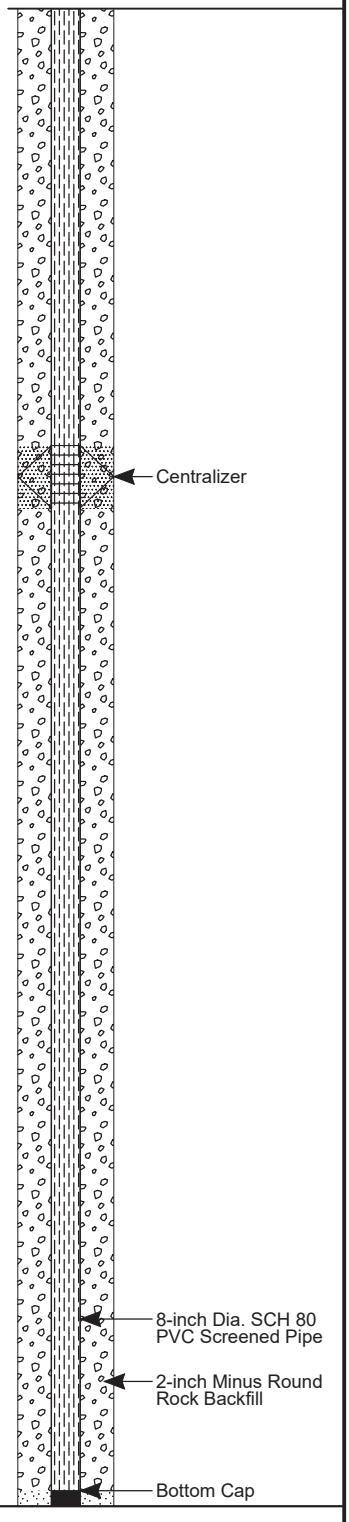


LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	44							
	45							
14	46							
	47							
	48							
15	49							
	50							
	51					REFUSE		0820 Mixed refuse (plastics, textiles, soil). Moist. Dark browns, few colors. Medium decomposition. T=111°
16	52							
	53							
	54							
	55							
17	56							
	57					REFUSE		0834 Mixed refuse (plastics, textiles, soil). Moist. Dark browns, few colors. Medium decomposition. T=115°
	58							
18	59							
	60							
	61							
	62					REFUSE		0847 Mixed refuse (plastics, textiles, soil). Moist. Black/dark browns, few colors. Medium decomposition. T=113°
19	63							
	64							
	65							
20	66							
	67							
	68							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-338

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
	68								
21	69								
	70								70
	71								Geotextile
22	72					REFUSE		0920 End of Boring at 71 ft. T=117°	
	73								
	74								
	75								75
23	76								
	77								
	78								
24	79								
	80								80
	81								
25	82								
	83								
	84								
26	85								85
	86								
	87								
	88								
27	89								
	90								90
	91								
28	92								

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-339 Page 1 of 4

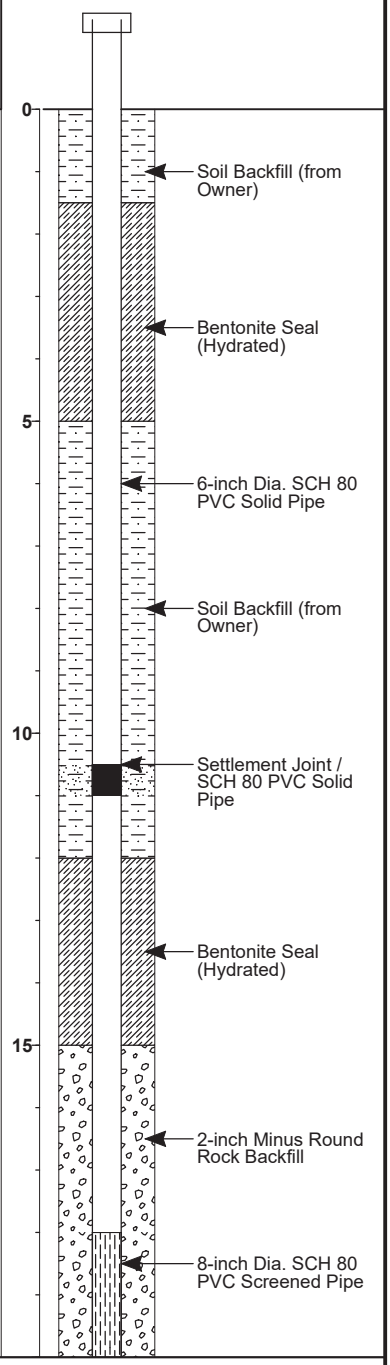
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-564. Drawing ID: 2022-C6. VW-10

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown soil, dry.
	1					REFUSE		Mixed Refuse (plastics, textiles, rubber, wood, metal wire, sheeting). Moist, Many colors. Lite decomposition.
	2							
1	3							
	4							
	5							
	6							
2	7							
	8							
	9							
3	10					REFUSE		0820 Mixed Refuse (plastics, textiles). Moist, Many colors. Medium decomposition. T=108°F
	11							
	12							
4	13							
	14							
	15							
5	16							
	17							
	18					REFUSE		0820 Mixed Refuse (plastics, textiles). Moist, Many colors. Medium decomposition. T=112°F
6	19							
	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **6/27/22**
Date Ended: **6/27/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **08:10**
Time Ended: **11:50**
Total Depth: **70.0 ft.**

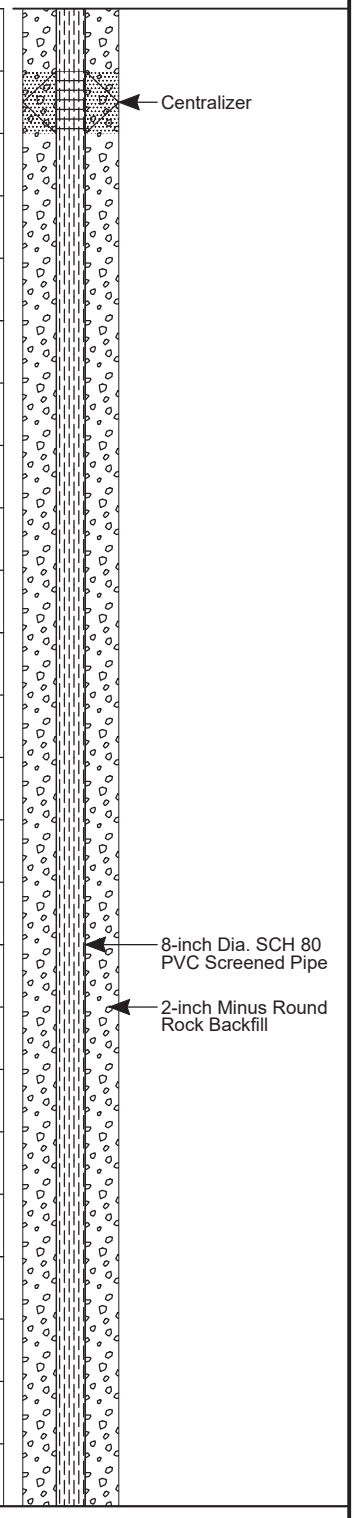
STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/23/22

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20							
	21							
	22							
7	23							
	24							
	25							
8	26					REFUSE		0841 Mixed Refuse (plastics, textiles, soil). Moist, Many colors. Lite decomposition. T=118°F
	27							
	28							
	29							
9	30							
	31							
	32							
10	33							
	34							
	35							
11	36							
	37							
	38					REFUSE		0911 Mixed refuse (plastics, textiles, soils). Wet. Browns and some colors. Medium decomposition. T=122°F
12	39							
	40							
	41							
	42							
13	43							
	44							

Completion Detail

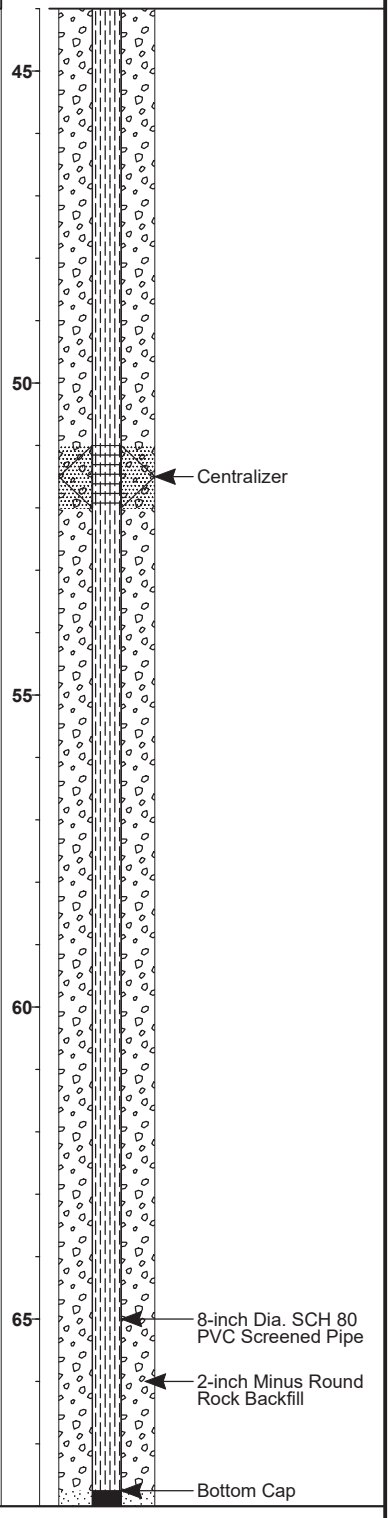


LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	44							
	45							
14	46							
	47							
	48							
15	49							
	50					REFUSE		0920 Mixed refuse (plastics, textiles, soils). Wet. Browns and some colors. Medium decomposition. T=124°F
	51							
16	52							
	53							
	54							
	55							
17	56							
	57							
	58							
18	59							
	60					REFUSE		0952 Mixed refuse (plastics, textiles, soils). Slightly moist. Browns and some colors. Medium decomposition. T=130°F
	61							
19	62					REFUSE		Blue clay layer
	63							
	64							
	65							
20	66							
	67							
	68							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-339

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
21	68								
	69								
	70					REFUSE		1000 End of Boring at 70 ft	70
	71								
22	72								
	73								
	74								
	75								75
23	76								
	77								
	78								
24	79								
	80								80
	81								
25	82								
	83								
	84								
26	85								85
	86								
	87								
	88								
27	89								
	90								90
	91								
28	92								

Geotextile

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-340 Page 1 of 4

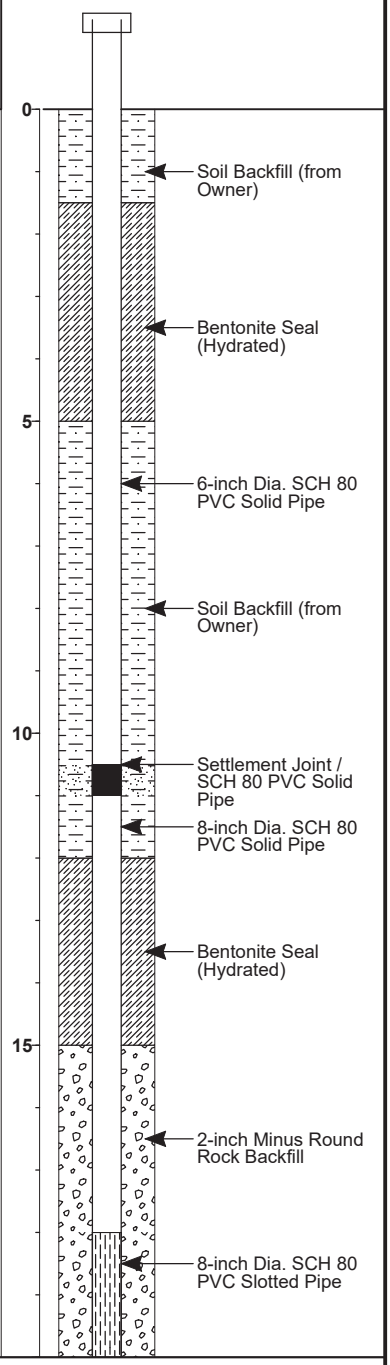
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-562. Drawing ID: 2022-C6. VW-13

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown soil, dry.
	1							
	2					REFUSE		Mixed Refuse (plastics,textiles, wood). Dry. Blacks, browns and some colors.
1	3							
	4							
	5							
	6							
2	7							
	8							
	9							
3	10							
	11							
	12							
4	13							
	14							
	15					REFUSE		0735 Mixed refuse (plastics, textiles, soil). Wet. Black. Lite decomposition. T=75°F
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **K. Shah**

Date Started: **6/24/22**
Date Ended: **6/24/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **07:15**
Time Ended: **11:40**
Total Depth: **70.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/24/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

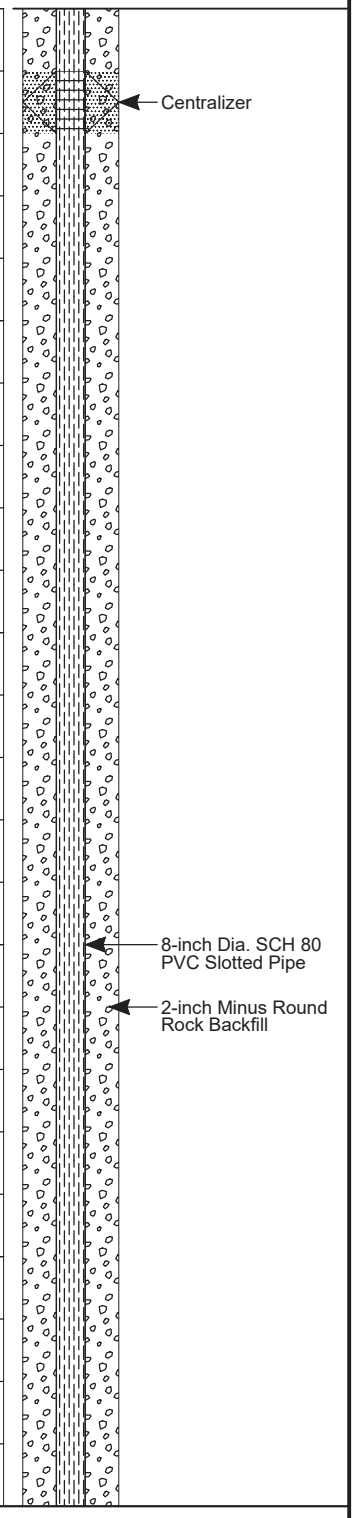
BORING NUMBER: WE-340

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20							
	21							
	22							
7	23							
	24							
	25							
8	26							
	27							
	28							
	29							
9	30					REFUSE		0807 Mixed refuse (plastics, textiles, soil). Wet. Black. Lite decomposition. T=95°F
	31							
	32							
10	33							
	34							
	35							
11	36							
	37							
	38							
	39							
12	40							
	41							
	42					REFUSE		0818 Mixed refuse (plastics, textiles, soil). Wet. Black. Lite decomposition. T=106°F
13	43							
	44							

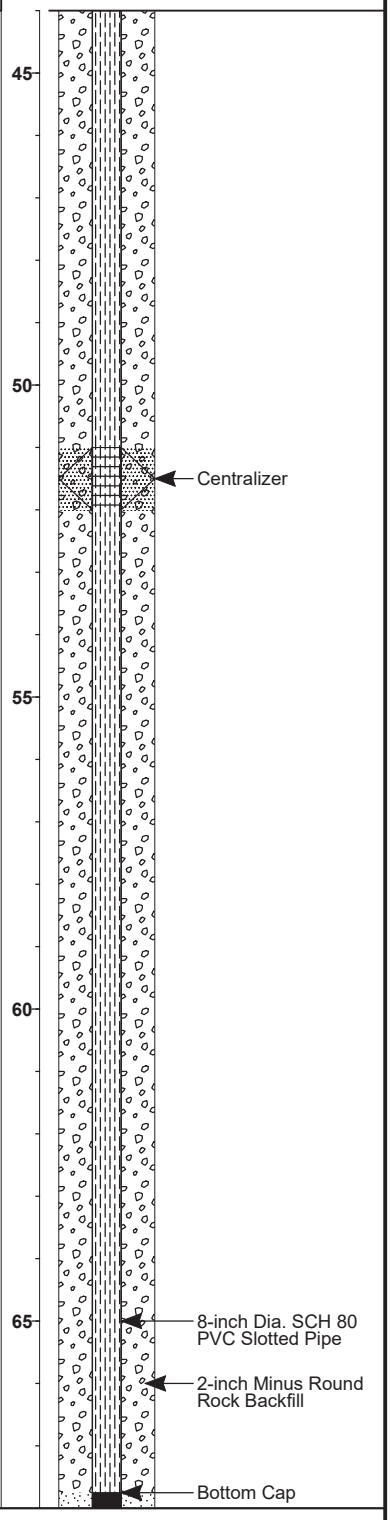
Completion Detail



LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth		Sample Information							Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	
	44								
	45								
14	46								
	47								
	48								
15	49								
	50								
	51								
	52								
16	53								
	54								
	55								
17	56								
	57								
	58								
18	59								
	60								
	61								
19	62								
	63								
	64								
20	65								
	66								
	67								
	68								



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-340

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
21	68								
	69								
	70					REFUSE		0905 Mixed refuse (plastics, textiles, soil). Black/brown. Medium decomposition. T=105°F End of Boring at 70 ft	70 — 16 oz Geotextile
22	71								
	72								
	73								
	74								
23	75								75
	76								
	77								
	78								
24	79								
	80								80
	81								
25	82								
	83								
	84								
26	85								85
	86								
	87								
	88								
27	89								
	90								90
	91								
28	92								

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-341 Page 1 of 4

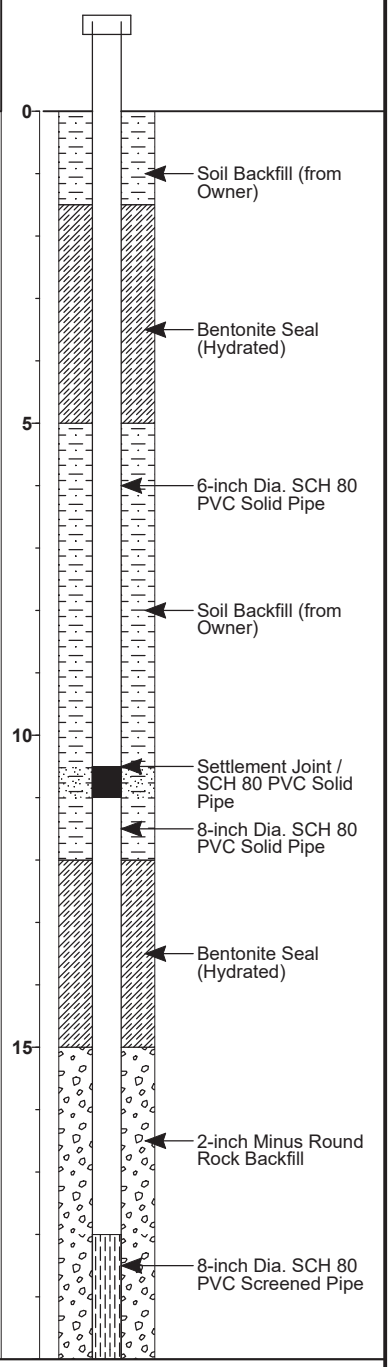
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-563. Drawing ID: 2022-C6. VW-12

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown soil, dry.
	1							
						REFUSE		Mixed Refuse (plastics,textiles, wood). Dry. Blacks, browns and some colors. Lite decomposition.
	2							
1	3							
	4							
	5							
	6							
2	7							
	8							
	9							
3	10							
	11							
	12							
4	13							
	14							
	15					REFUSE		1035 Mixed refuse (plastics, textiles, soil). Black/brown. Medium decomposition. T=105°F
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **K. Shah**

Date Started: **6/26/22**
Date Ended: **6/26/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **09:35**
Time Ended: **12:10**
Total Depth: **72.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/24/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

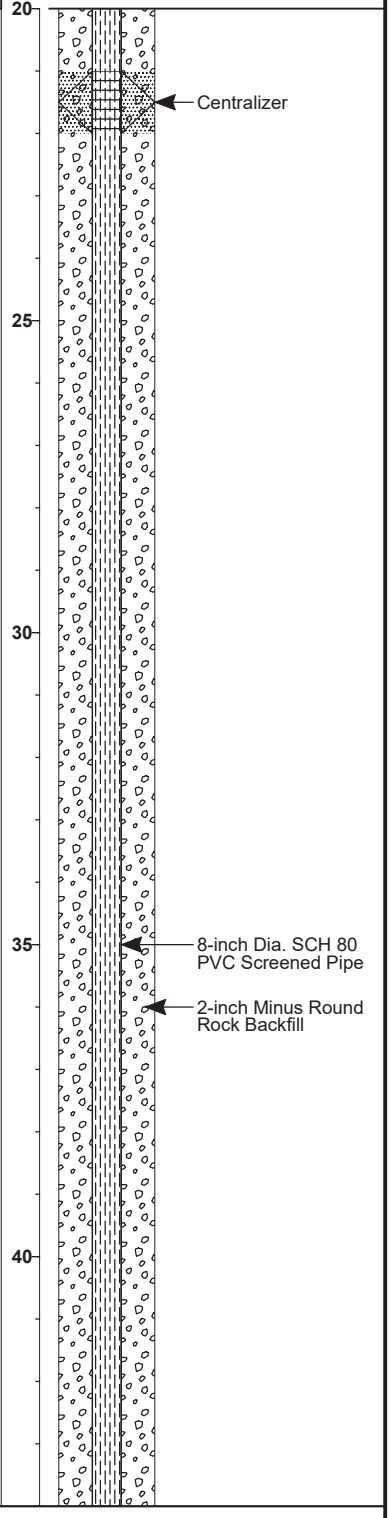
BORING NUMBER: WE-341

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20							
	21							
	22							
7	23							
	24							
	25							
8	26							
	27							
	28							
	29							
9	30					REFUSE		1047 Mixed refuse (plastics, textiles, wood, soil). T=95°F
	31							
	32							
10	33							
	34							
	35							
11	36							
	37							
	38							
	39							
12	40							
	41							
	42							
13	43							
	44							

Completion Detail



2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

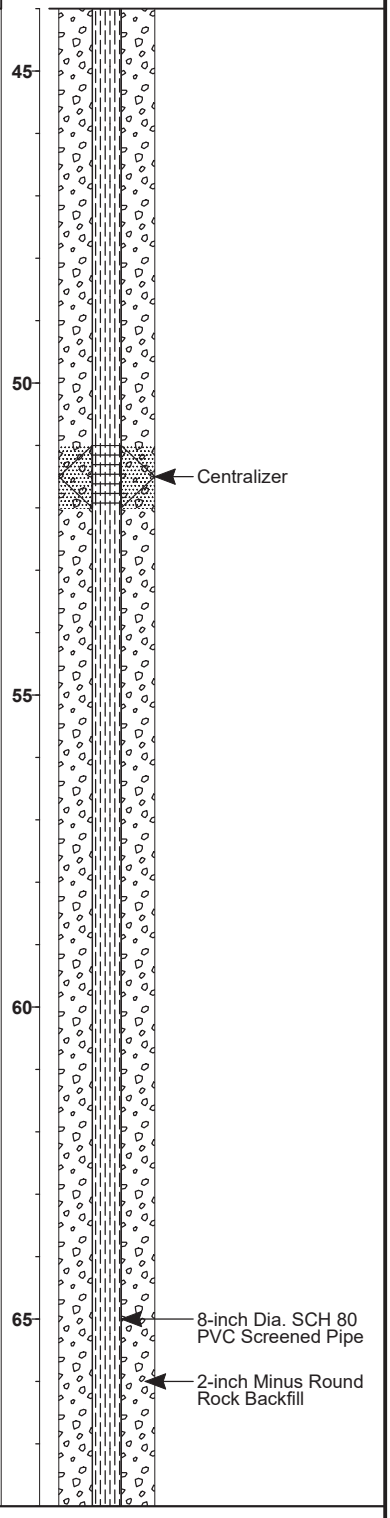
BORING NUMBER: WE-341

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	44							
	45							
14	46							
	47					REFUSE		1110 Mixed refuse (plastics, textiles, soil). Black. Medium decomposition. T=108°F
	48							
15	49							
	50							
	51							
16	52							
	53							
	54							
	55							
17	56							
	57							
	58							
18	59							
	60							
	61							
19	62							
	63							
	64							
20	65							
	66							
	67							
	68							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-341

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
21	68								
	69								
	70								Bottom Cap
	71								
22	72					REFUSE		1018 Mixed refuse (plastics, textiles, soil). Black/brown. Heavy decomposition. T=118°F End of Boring at 72 ft	Geotextile
	73								
	74								
23	75								
	76								
	77								
	78								
24	79								
	80								
	81								
25	82								
	83								
	84								
26	85								
	86								
	87								
	88								
27	89								
	90								
	91								
28	92								

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-342 Page 1 of 4

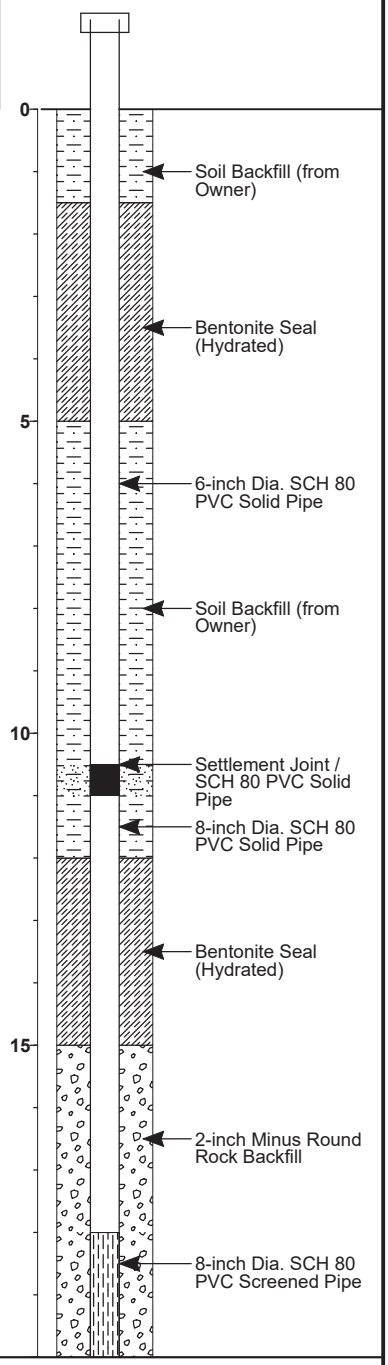
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-561. Drawing ID: 2022-C6. VW-14

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown soil, dry.
	1							
						REFUSE		Mixed Refuse (plastics,textiles, soil). Dry. Blacks, browns and some colors. T=65°F
1	2							
	3							
	4							
	5							
2	6							
	7							
	8							
	9							
3	10							
	11							
	12							
4	13							
	14							
	15					REFUSE		Mixed refuse (plastics, textiles, soil). Black. Lite decomposition. T=90°F
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **K. Shah**

Date Started: **6/23/22**
Date Ended: **6/23/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **08:15**
Time Ended: **12:00**
Total Depth: **72.0 ft.**

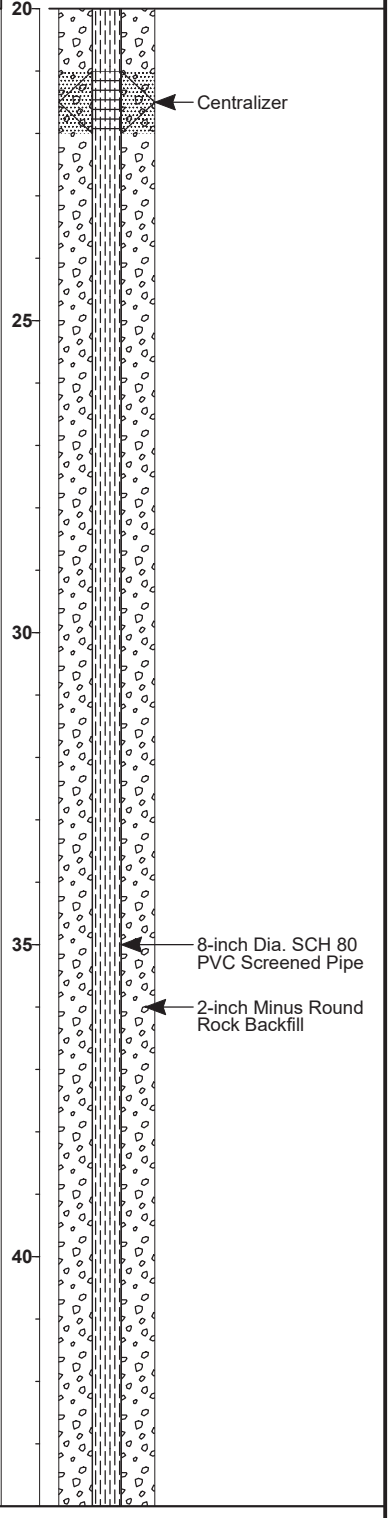
STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/24/22

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20							
	21							
	22							
7	23							
	24							
	25							
8	26							
	27							
	28							
	29							
9	30					REFUSE		Mixed refuse (plastics, textiles, soil). Wet. Brown. Lite decomposition. T=95°F
	31							
	32							
10	33							
	34							
	35							
11	36							
	37							
	38							
	39							
12	40							
	41							
	42							
13	43							
	44							

Completion Detail



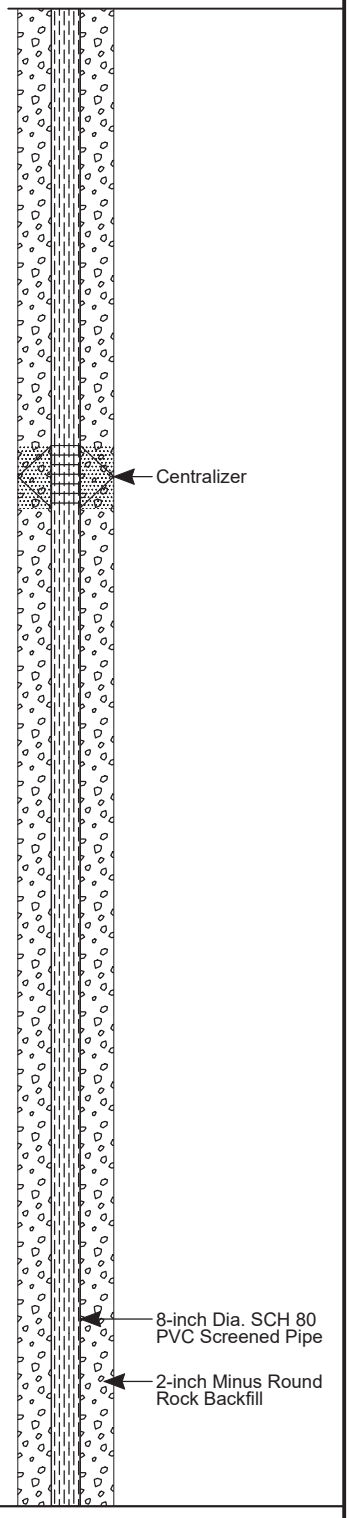
STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/24/22

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	44					REFUSE		0953 Mixed refuse (plastics). Wet. Black. Lite decomposition. T=107°F
	45							
14	46							
	47							
	48							
15	49							
	50							
	51							
	52					REFUSE		1012 Mixed refuse (plastics). Wet. Black. Medium decomposition. T=101°F
16	53							
	54							
	55							
17	56							
	57							
	58							
18	59							
	60							
	61							
19	62							
	63							
	64							
20	65							
	66							
	67							
	68							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

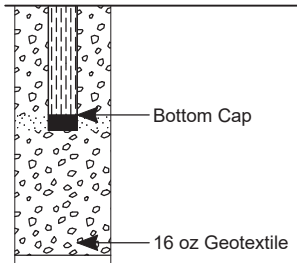
BORING NUMBER: WE-342

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
21	68							
	69							
	70							
	71							
22	72					REFUSE		1200 Mixed refuse (plastics, textiles, soil). Black/brown. Medium decomposition. T=103°F End of Boring at 72 ft
	73							
	74							
23	75							
	76							
	77							
	78							
24	79							
	80							
	81							
25	82							
	83							
	84							
26	85							
	86							
	87							
	88							
27	89							
	90							
	91							
28	92							

Completion Detail



STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/24/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-343

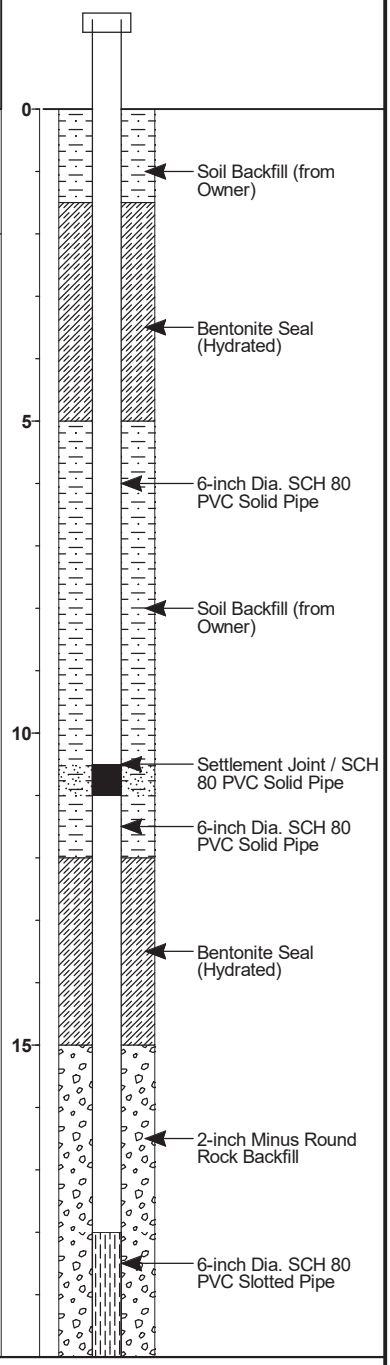
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-566. Drawing ID: 2022-C5. VW-02

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown soil, dry.
	1							
	2							
1	3							
	4							
	5							
	6							
2	7							
	8							
	9							
3	10							
	11							
	12					REFUSE		
4	13							
	14							
	15							0741 Mixed refuse (plastics, textiles, rubber, wood). Moist. Black, few colors. Moderate decomposition. T=88°F
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **6/29/22**
Date Ended: **6/29/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **07:30**
Time Ended: **00:35**
Total Depth: **73.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

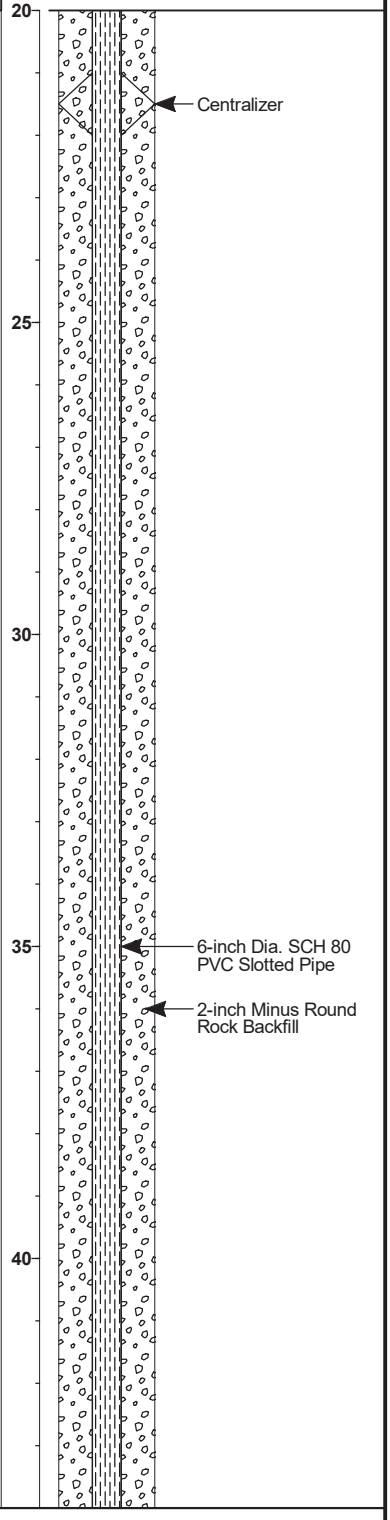
BORING NUMBER: WE-343

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20							
	21							
	22							
7	23							
	24							
	25							0750 Mixed refuse (plastics, textiles, wood, metal). Moist. Dark browns and colors. Moderate decomposition. T=96°F
8	26							
	27							
	28							
	29							
9	30					REFUSE		0759 Mixed refuse (plastics, metal wire). Moist. Black, few colors. Moderate decomposition. T=109°F
	31							
	32							
10	33							
	34							
	35							
11	36					REFUSE		
	37							
	38							
12	39							
	40							
	41							
	42							0816 Mixed refuse (plastics, metal wire). Moist. Black, few colors. Moderate decomposition. T=116°F
13	43							
	44							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

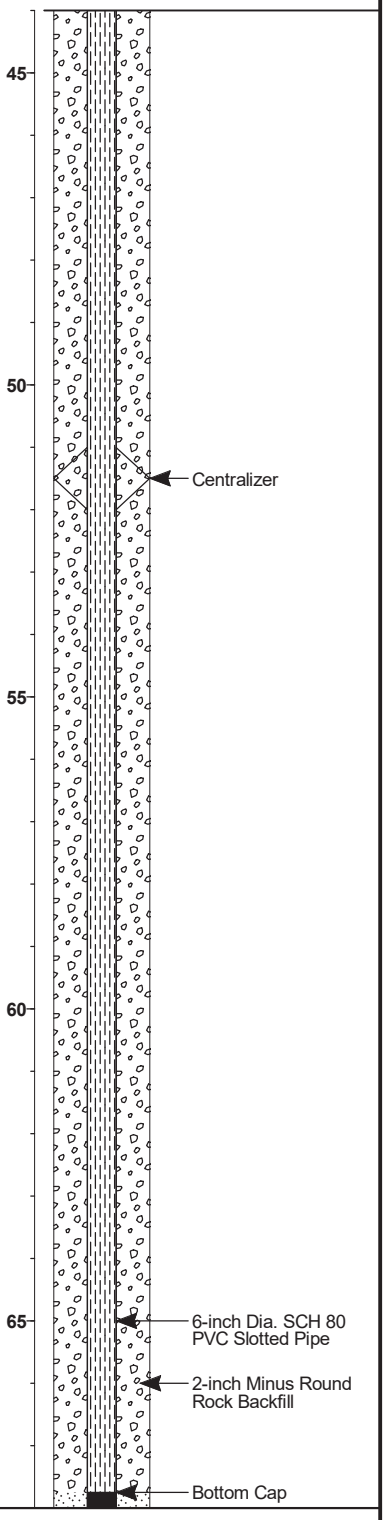
BORING NUMBER: WE-343

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	44					REFUSE		
	45							
14	46							
	47							
	48							
15	49							
	50							0831 Mixed refuse (plastics, textiles). Wet. Black, few colors. Moderate decomposition. T=125°F
	51							
	52							
16	53							
	54							
	55							
17	56					REFUSE		
	57							
	58							
18	59							
	60							
	61							
19	62							
	63							
	64							
20	65							
	66							
	67							
	68							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-343

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
21	68								
	69								
	70								70
	71					REFUSE		Browns and colors, saturated, mixed refuse (plastics, textiles, soil). Very decomposed. T=125°F	
22	72							End of boring at 72 ft	
	73								16 oz Geotextile
	74								
	75								75
23	76								
	77								
	78								
24	79								
	80								80
	81								
25	82								
	83								
	84								
26	85								85
	86								
	87								
	88								
27	89								
	90								90
	91								
28	92								

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-344 Page 1 of 5

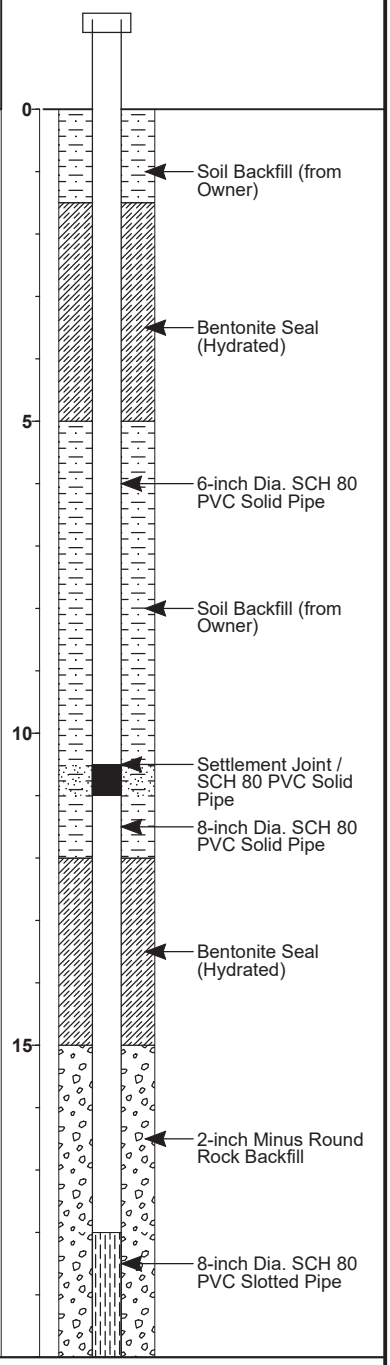
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-570. Drawing ID: 2022-C5. VW-05

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown soil, dry.
	4					REFUSE		Mixed refuse. Moist. Black and colors. Lite decomposition.
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **7/7/22**
Date Ended: **7/7/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **07:30**
Time Ended: **14:10**
Total Depth: **113.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/22/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

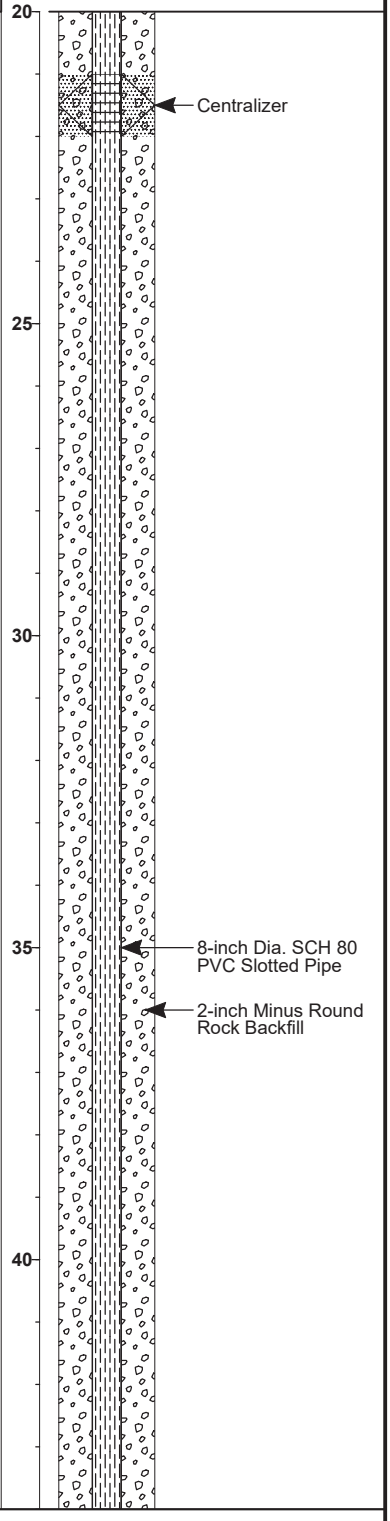
BORING NUMBER: WE-344

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20					REFUSE		Mixed refuse. Saturated. Black and colors. Lite decomposition.
	21							
	22							
7	23							
	24							
	25					REFUSE		0751 Mixed refuse (platics, textiles). Lite decomposition. Wet. Mostly Black and some colors. T=84°F
8	26							
	27							
	28							
	29							
9	30							
	31							
	32							
10	33							
	34							
	35					REFUSE		0805 Mixed refuse (platics, textiles). Moderate/heavy decomposition. Wet. T=111°F
11	36							
	37							
	38							
	39							
12	40							
	41							
	42							
13	43							
	44							

Completion Detail

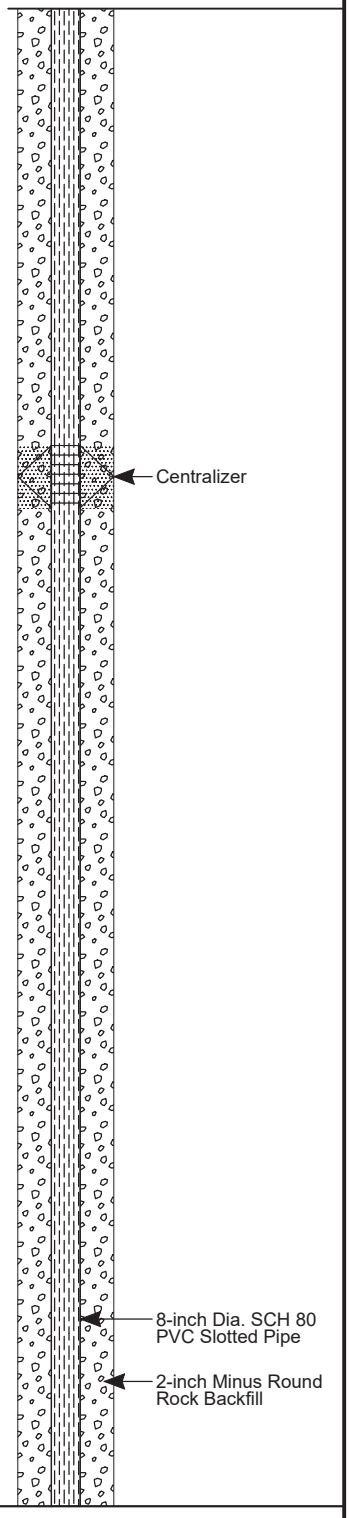


LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	44							
	45					REFUSE		0820 Mixed refuse (platics, textiles). Moderate decomposition. Slightly wet. Browns and colors. T=106°F
14	46							
	47							
	48							
15	49							
	50					REFUSE		0835 Mixed refuse (platics, textiles). Moderate decomposition. Very wet. Blacks, dark browns, and colors. T=103°F
	51							
	52							
16	53							
	54							
	55					REFUSE		0848 Soil layer with blue till. Mixed refuse (plastics). Heavy decomposition. Very Wet. Blacks, greys, few colors. T=117°F
17	56							
	57							
	58							
18	59							
	60							
	61							
19	62							
	63							
	64							
	65							
20	66					REFUSE		0902 Mixed refuse (platics, textiles). Moderate/heavy decomposition. Very wet. T=110°F
	67							
	68							

Completion Detail



STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/22/22

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth		Sample Information							
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
	68								
21	69								
	70								70
	71								
22	72								
	73								
	74								
	75								75
23	76								
	77								
	78								
24	79								
	80								80
	81								
25	82					REFUSE		0951 Mixed refuse (platics). Heavy decomposition. Wet. T=119°F	Centralizer
	83								
	84								
26	85								85
	86								
	87								
	88								
27	89								
	90								90
	91								
28	92								

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

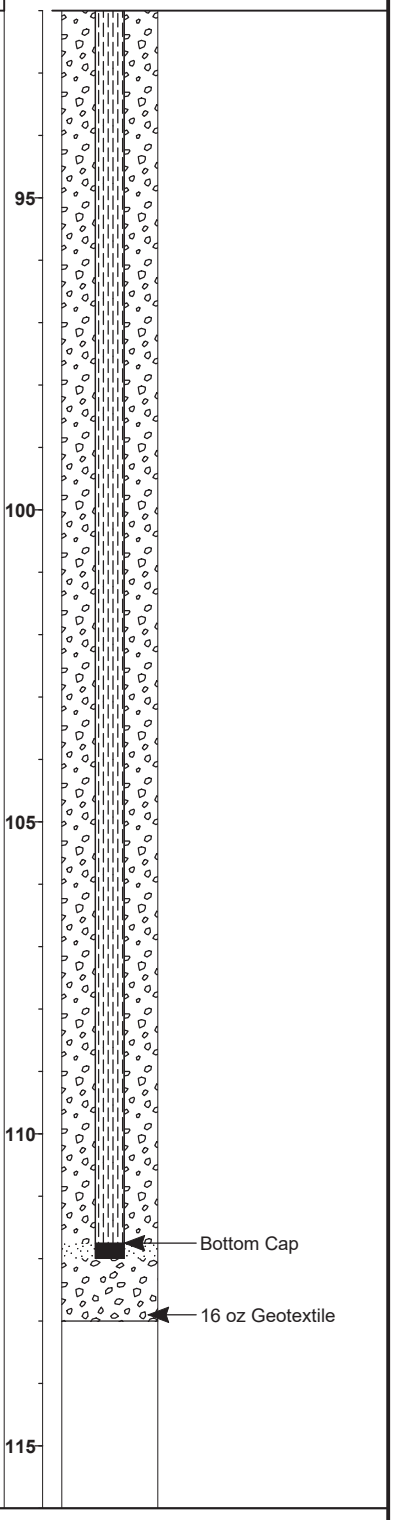
BORING NUMBER: WE-344

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	92							
	93							
	94							
29	95							
	96							
	97							
	98							
30	99							
	100					REFUSE		1030 Mixed refuse (platics, textiles). Heavy decomposition. Very wet. Blacks with few colors. T=115°F
	101							
31	102							
	103							
	104							
32	105							
	106							
	107							
33	108							
	109							
	110							
	111							
34	112							
	113					REFUSE		1137 End of Boring at 113 ft. T=128°F
	114							
35	115							
	116							

Completion Detail



STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/22/22

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-345 Page 1 of 4

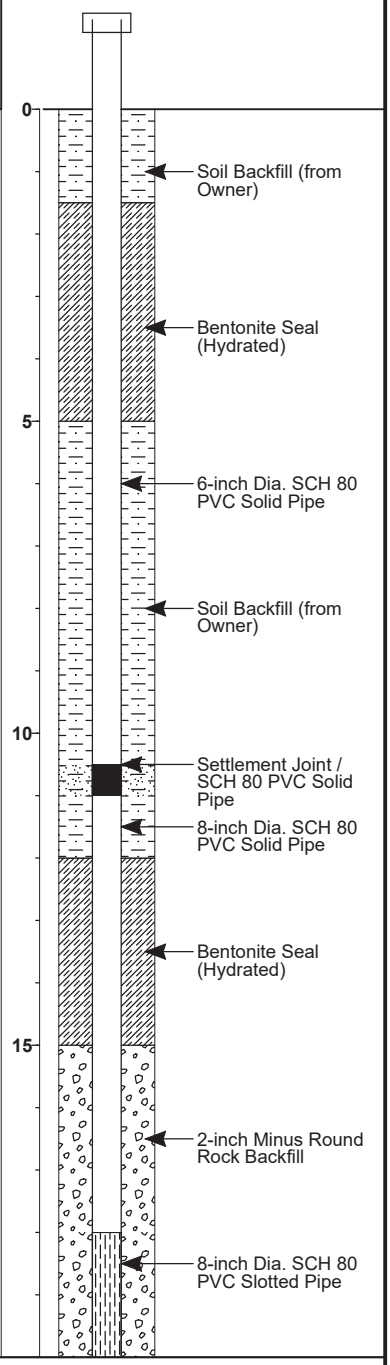
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-568. Drawing ID: 2022-C5. VW-04

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown soil, dry.
	4					REFUSE		Mixed refuse (plastics, textiles, rubber, wood, soil). Moist. Blacks and colors. Lite decomposition. Grey/white powdery residue, possibly ash.
1	1							
	2							
	3							
2	4							
	5							
	6							
3	7							
	8							
	9							
4	10							
	11							
	12							
5	13							
	14							
	15							
6	16							
	17							
	18							
	19							
	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **7/1/22**
Date Ended: **7/1/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **07:50**
Time Ended: **11:55**
Total Depth: **72.0 ft.**

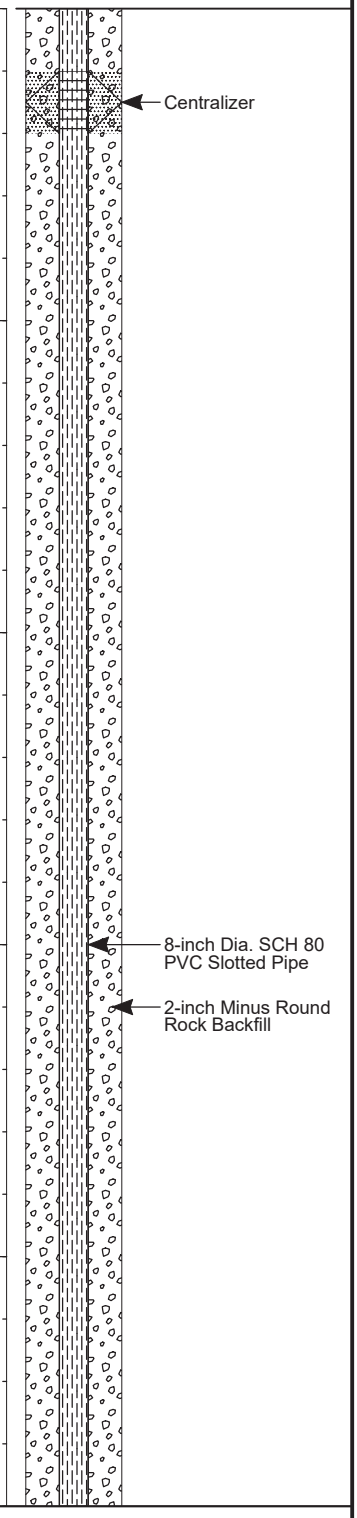
STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/22/22

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20					REFUSE		0808 Mixed refuse (plastics, textiles, metal, rubber, soil). Slightly moist. Blacks and colors, Lite/moderate decomposition. No sign of ashy substance. T=99°F
	21							
	22							
7	23							
	24							
	25							
8	26							
	27							
	28					REFUSE		0818 Mixed refuse (plastics, textiles, rubber, carpet). Moist. Blacks, browns, and colors. Moderate decomposition. T=109°F
	29							
9	30							
	31							
	32							
10	33							
	34							
	35							
11	36							
	37							
	38							
12	39							
	40					REFUSE		0833 Mixed refuse (plastics, textiles, rubber, carpet). Moist. Blacks, browns, and colors. Moderate decomposition. T=109°F
	41							
	42							
13	43							
	44							

Completion Detail



STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/22/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

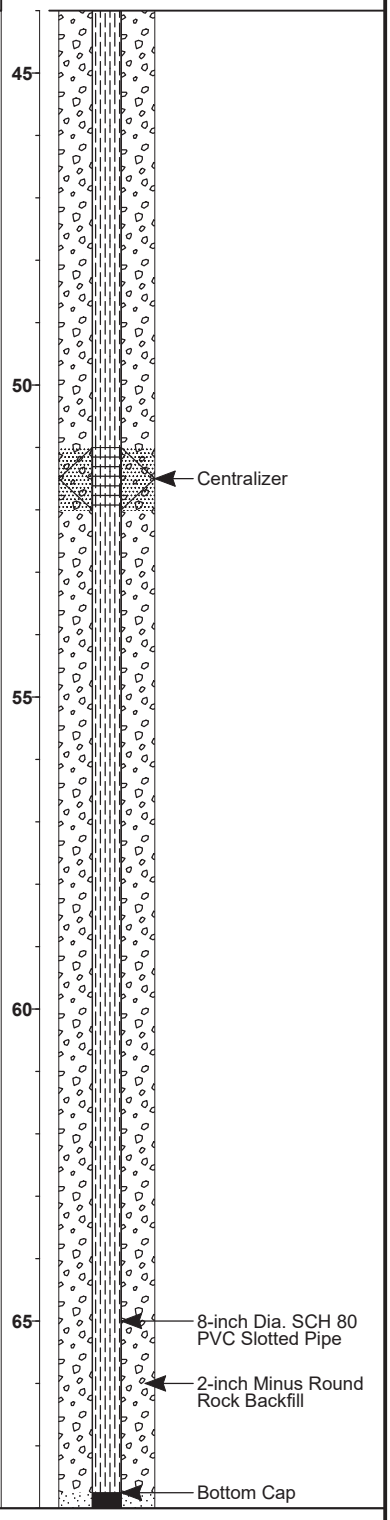
BORING NUMBER: WE-345

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	44							
	45							
14	46							
	47					REFUSE		Blue clay layer
	48							
15	49					REFUSE		0844 Mixed refuse (plastics, textiles). Very moist. Blacks and colors. Moderate decomposition. T=108°F
	50							
	51							
16	52							
	53							
	54							
	55							
17	56					REFUSE		0859 Mixed refuse (plastics, textiles). Very moist. Black. Moderate/heavy decomposition. T=111°F
	57							
	58							
18	59							
	60							
	61							
19	62							
	63							
	64					REFUSE		0925 Mixed refuse (plastics, textiles). Saturated. Black. Heavy decomposition. T=111°F
	65							
20	66							
	67							
	68							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-345

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
21	68								
	69								
	70								70
	71								
22	72					REFUSE		0945 End of Boring at 72 ft	16 oz Geotextile
	73								
	74								
	75								75
23	76								
	77								
	78								
24	79								
	80								80
	81								
25	82								
	83								
	84								
26	85								85
	86								
	87								
	88								
27	89								
	90								90
	91								
28	92								

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-346 Page 1 of 4

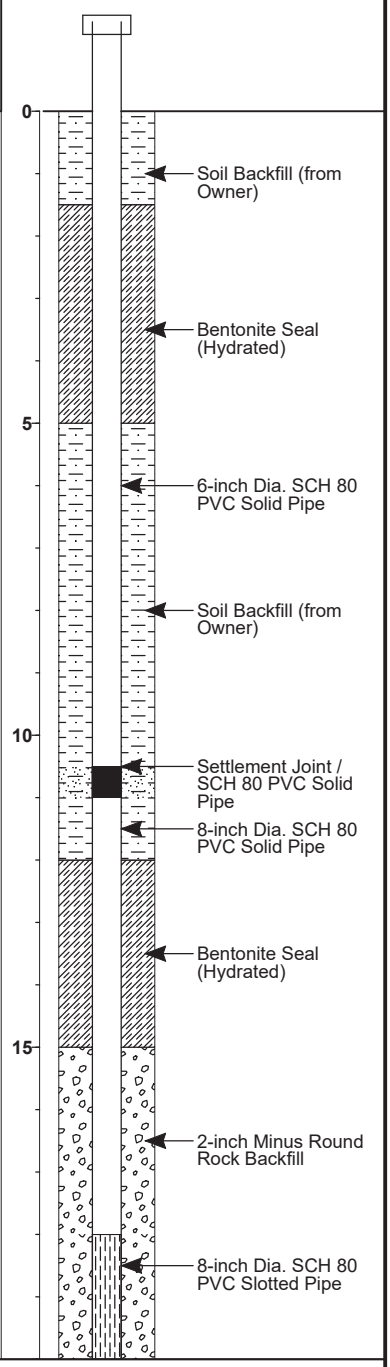
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-567. Drawing ID: 2022-C5. VW-01

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown soil, dry.
	1							
	2							
1	3							
	4							
	5							
	6							
2	7							
	8							
	9							
3	10							
	11							
	12					REFUSE		0927 Mixed refuse (plastics, textiles, rubber, wood). Slightly moist. Colored. Lite decomposition. T=108°F
4	13							
	14							
	15							
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **6/30/22**
Date Ended: **6/30/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

Time Started: **09:15**
Time Ended: **13:17**
Total Depth: **72.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/21/22

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

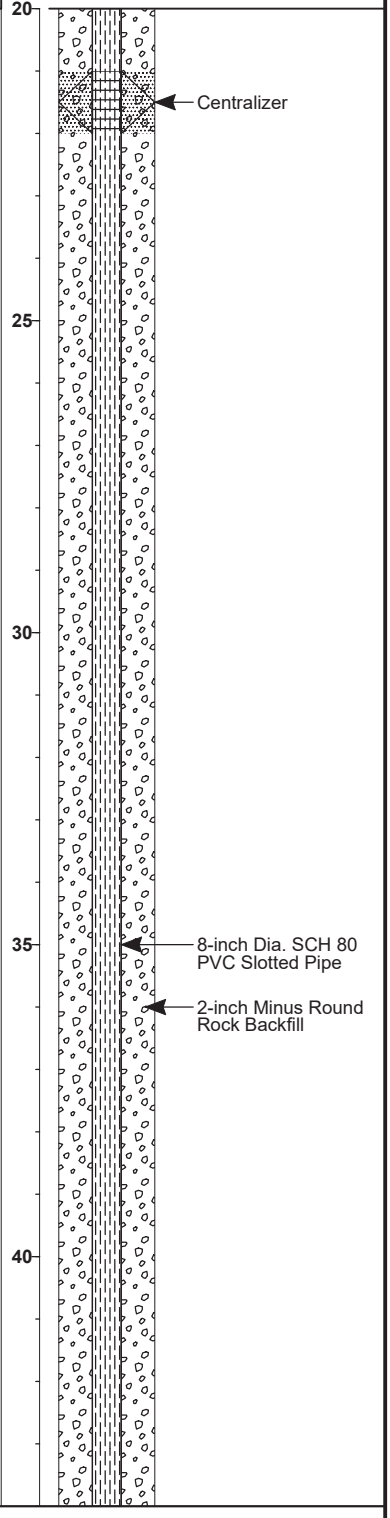
BORING NUMBER: WE-346

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	30					REFUSE		0950 Mixed refuse (plastics, textiles, rubber, carpet, soil). Moist. Browns and colors. Lite decomposition. T=118°F
	36					REFUSE		0958 Mixed refuse (plastics, textiles, rubber, carpet, soil). Moist. Browns and colors. Lite decomposition. T=118°F

Completion Detail



2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

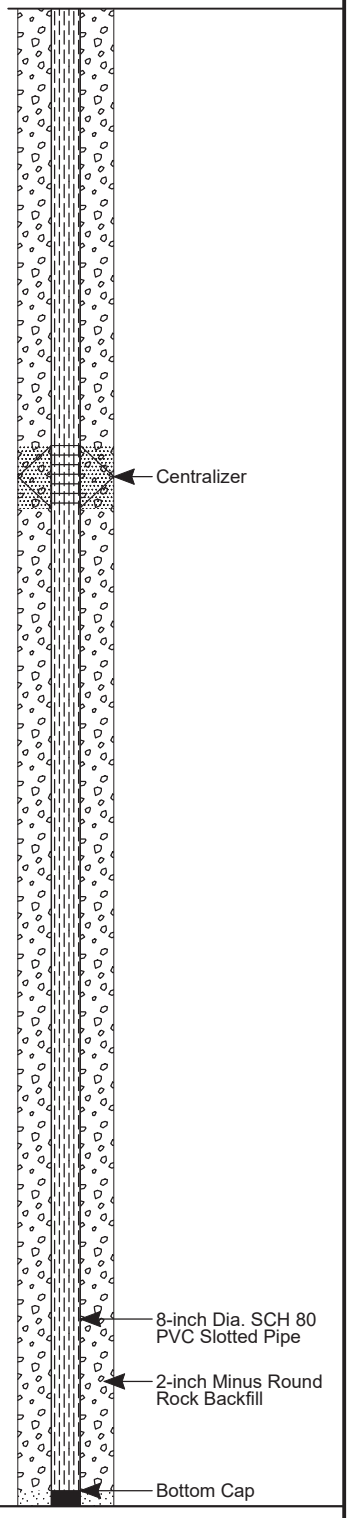
BORING NUMBER: WE-346

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	44					REFUSE		1017 Mixed refuse (plastics, textiles, soil). Saturated. Browns and colors. Lite decomposition. T=126°F
14	45							
	46							
	47							
	48							
15	49							
	50							
	51							
	52							
16	53							
	54							
	55							
17	56					REFUSE		Mixed refuse (plastics, textiles, soil). Saturated. Browns and colors. Moderate decomposition. T=123°F
	57							
	58							
18	59							
	60							
	61							
19	62							
	63							
	64							
20	65							
	66							
	67							
	68							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-346

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
21	68								
	69								
	70								70
	71								
22	72					REFUSE		1102 Mixed refuse (plastics, textiles, soil). Saturated. Browns and colors. Heavy decomposition. T=125°F End of boring at 72 ft	16 oz Geotextile
	73								
	74								
23	75								75
	76								
	77								
	78								
24	79								
	80								80
	81								
25	82								
	83								
	84								
26	85								85
	86								
	87								
	88								
27	89								
	90								90
	91								
28	92								

SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-347 Page 1 of 4

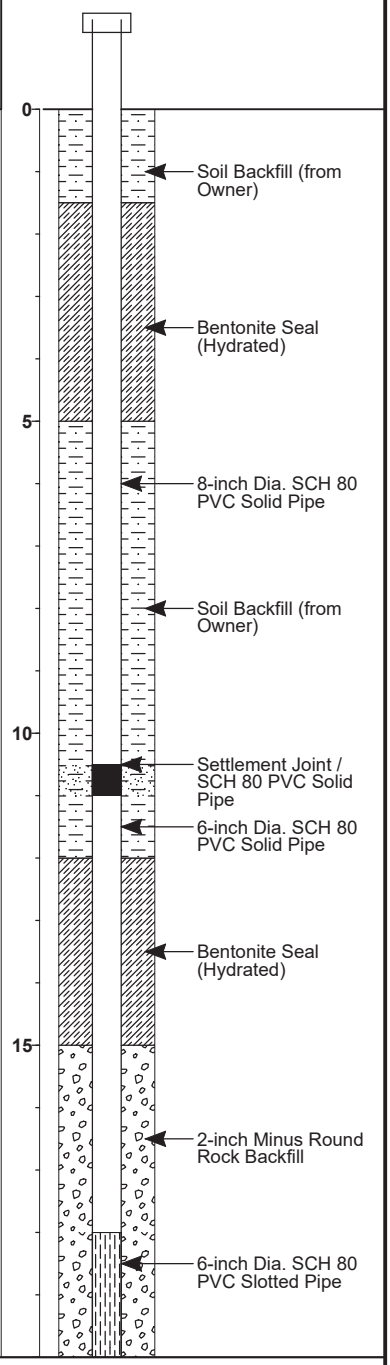
LRI Landfill, Gas Wells, July 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

REMARKS:
Ecology Tag BKM-569. Drawing ID: 2022-C5. VW-03

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
0	0					SM-GM		Brown soil, dry, approximately 0-8 ft thick
	1							
	2							
1	3							
	4							
	5							
	6							
2	7							
	8							
	9					Claystone		Blue clay, approximately 8-20 ft thick
3	10							
	11							
	12							
4	13							
	14							
	15							
5	16							
	17							
	18							
	19							
6	20							

Completion Detail



Drilling Company: **DBM Contractors, Inc.**
Drilling Method: **IMT AF-250**
Logged By: **J. Faille**

Date Started: **7/5/22**
Date Ended: **7/5/22**
Boring Diameter: **36-inch**
Well Diameter: **8-inch**

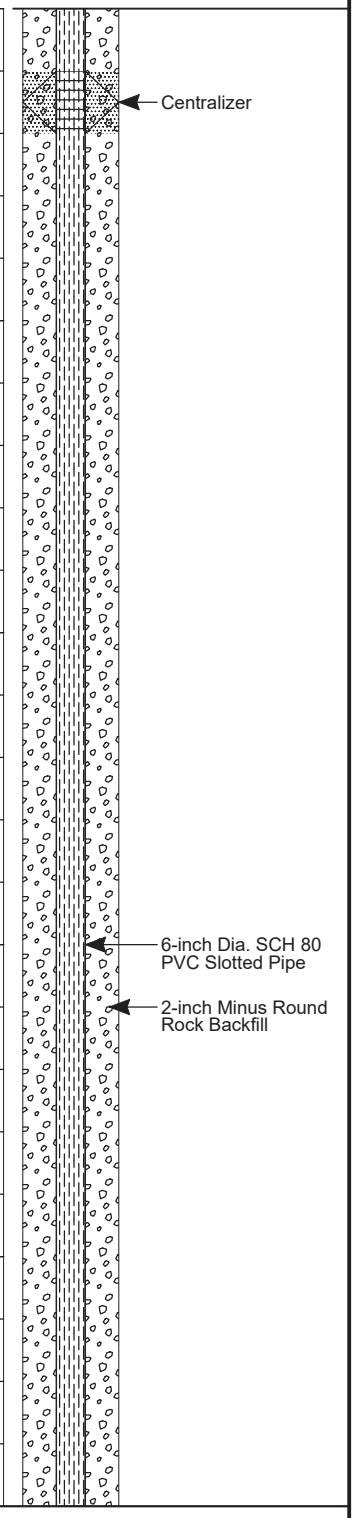
Time Started: **08:03**
Time Ended: **12:45**
Total Depth: **73.0 ft.**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/22/22

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	20							
	21							
	22							
7	23							
	24							
	25							
8	26					REFUSE		0830 Mixed refuse (plastics, textiles, shredded material, soil). Moist. Blacks and colors. Moderate decomposition. T=89°F
	27							
	28							
	29							
9	30					REFUSE		0847 Layer of plastic shreds/strips ~2 ft thick. T=102°F
	31							
	32							
10	33							
	34							
	35							
11	36							
	37							
	38					REFUSE		0908 Mixed refuse (plastics, textiles, soil). Very moist. Blacks and some colors. Moderate/heavy decomposition. T=106°F
12	39							
	40							
	41					REFUSE		0913 Mixed refuse (plastics, textiles, shredded material, soil). Very moist. Blacks and colors. Moderate decomposition.
	42							
13	43							
	44							

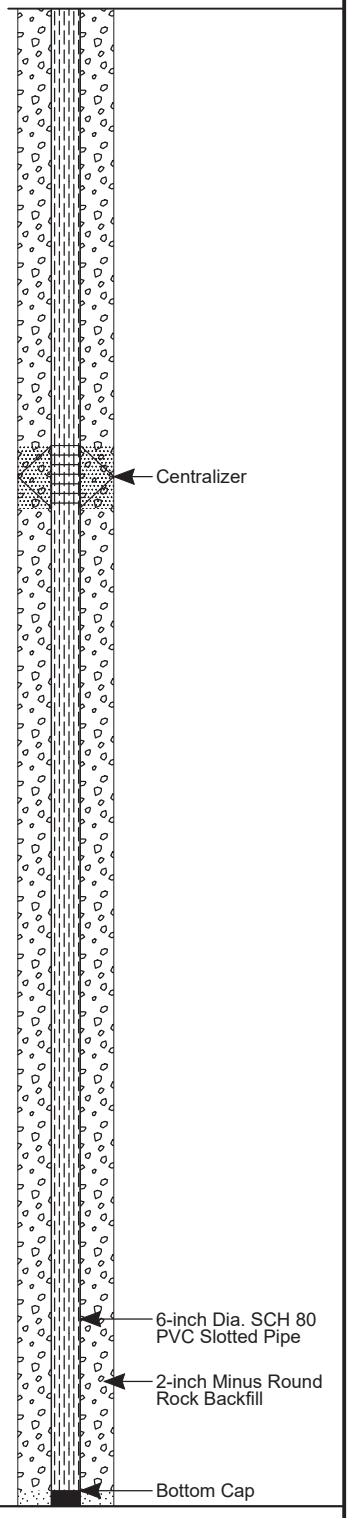


LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
	44							
	45							
14	46							
	47							
	48							
15	49							
	50							
	51							
16	52							
	53							
	54							
	55					REFUSE		0924 Mixed refuse (plastics, textiles, soil). Very moist. Blacks and some colors. Moderate/heavy decomposition. T=117°F
17	56							
	57							
	58							
18	59							
	60							
	61							
19	62							
	63							
	64					REFUSE		Mixed refuse (plastics, textiles, soil). Very wet. Blacks and greys/browns. Heavy decomposition.
20	65							
	66							
	67					REFUSE		1000 Mixed refuse (plastics, textiles, soil). Wet. Colors. Moderate decomposition. T=120°F
	68							

Completion Detail



SCS ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

BORING NUMBER: WE-347

LRI Landfill, Gas Wells, July 2022

JOB NUMBER: 04222001.11

Depth (meters)	Depth (feet)	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	Completion Detail
21	68								
	69								
	70								70
	71								
22	72								
	73					REFUSE		1011 End of Broing at 73 ft	16 oz Geotextile
	74								
23	75								75
	76								
	77								
	78								
24	79								
	80								80
	81								
25	82								
	83								
	84								
26	85								85
	86								
	87								
	88								
27	89								
	90								90
	91								
28	92								

SCS ENGINEERS

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

MmE.OR ONC MUE: d Ui-17

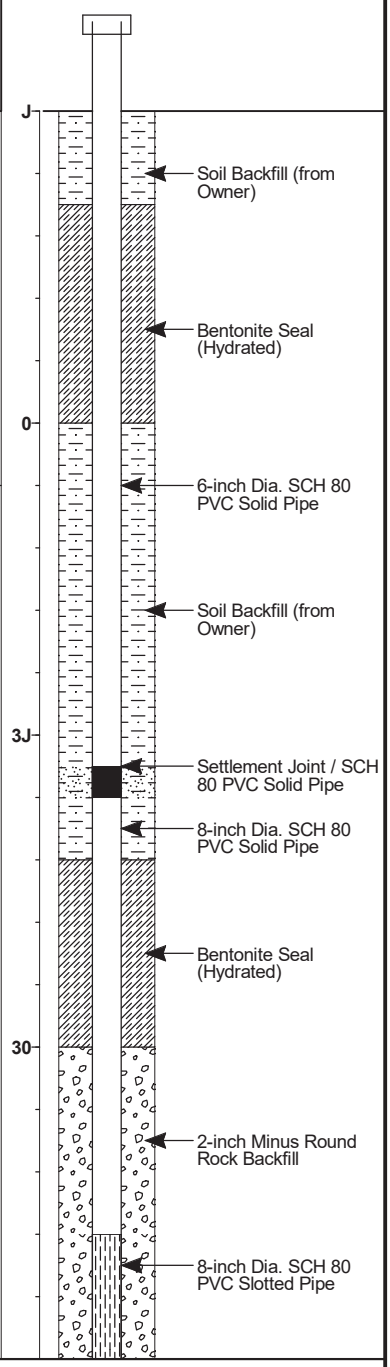
GE. GscL4ted Rs, d 8ee, l l Weu 2J22 - Jy3y C 8anLnsc Us, r RasDsS l d s, Dnc9rt c

l mM ONC MUE: J1222JJ3T33

REMARKS:
Ecology Tag BKM-572. Drawing ID: 2022-C5. VW-06

B8f rD		psS f e8 .c4t aS snrt c						
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
J	J					SM-GM		Brown soil, dry.
	3							
	2							
	-							
3	1							
	0							
	6							
2	g							
	7							
	y					REFUSE		Soil withmixed refuse (plastics, textiles, shredded material, soil). Medium decomposition.
-	3J							
	33							
	32							
1	3-							
	31							
	30					REFUSE		0812 Mixed refuse (plastics, textiles, soil). Moist. Blacks and browns, some colors. Medium/heavy decomposition. T=84°F
0	36							
	3g							
	37							
	3y							
6	2J							

Completion Detail



Drilling Company: **BMC ot crashrt a, l .chT**

Drilling Method: **.CA F5i20J**

Logged By: **l T5srne8**

Date Started: **g/7/22**

Date Ended: **g/7/22**

Boring Diameter: **- 6inchD**

Well Diameter: **7inchD**

Time Started: **J7:JJ**

Time Ended: **32:Jg**

Total Depth: **0gTJ 4T**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

GE. GscL4ntel Rs, d 8ee, l l Wau 2J22

l mM ONCMUE: J1222JJ3T33

B8f rD		psS f e8 .c4t aS srnt c						Description	Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log		
	2J								2J
	23								
	22								
g	2-								
	21								
	20								20
7	26								
	2g								
	27								
	2y								
y	- J					REFUSE		0823 Mixed refuse (plastics, textiles, wood). Moist. Blacks and some colors. Medium/heavy decomposition. Strong ammonia odor. T=97°F	- J
	- 3								
	- 2								
3J	- -								
	- 1								
	- 0								- 0
33	- 6								
	- g								
	- 7								
	- y								
32	1J					REFUSE		0839 Mixed refuse (plastics, textiles, wood). Moist. Blacks and some colors. Medium/heavy decomposition. Strong ammonia odor. T=104°F	1J
	13								
	12								
3-	1-								
	11								

Centralizer

8-inch Dia. SCH 80 PVC Slotted Pipe

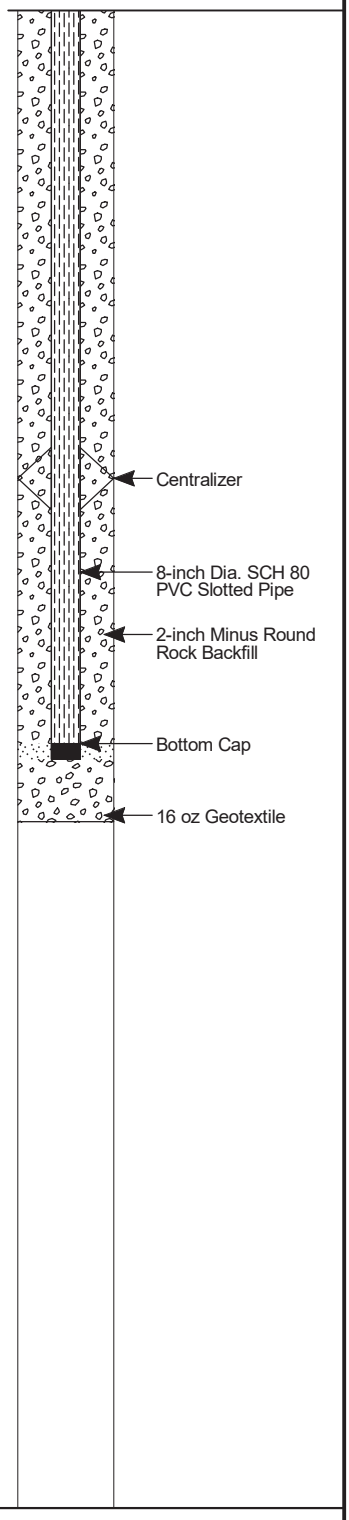
2-inch Minus Round Rock Backfill

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

GE. GscL4ted Rs, d 8ee, l l Wau 2J22

l mM ONCMUE: J1222JJ3T33

B8f rD		psS f e8 .c4t aS srnt c					Graphic Log	Description	Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.			
	11								
	10								
31	16								
	1g								
	17								
	1y								
30	0J					REFUSE		0854 Mixed refuse (plastics, textiles). Moist. Blacks and few colors. Medium/heavy decomposition. moderate ammonia odor. T=108°F	
	03								
	02								
36	0-								
	01								
	00								
3g	06								
	0g					REFUSE		0945 Very moist/wet. Blue till layer encountered with wet waste on top. Heavy decomposition. Waste under blue till is mildly decomposed. Many colors in waste under till. T=106°F End of Boring at 57 ft Large amounts of pressurized water encountered below layer of blue till. Refuse down to 55 ft moist, below till was saturated upon next attempt at drilling. Kelly bar and barrel were flooded. Hole tapped to reveal 60 ft. Water level at 17 ft. Observation is that water was trapped under till layer. Water taped and retaped at 1000 and 1020, with no change in level. After discussion with Oliver, SCS, and DBM, it was cdetermined to proceed with well installation at current depth, remeasured at 57 ft.	
	07								
37	0y								
	6J								
	63								
	62								
3y	6-								
	61								
	60								
2J	66								
	6g								
	67								



SCS ENGINEERS

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

MmE.OR ONC MUE: d Ui-1y

GE. GscL4ted Rs, d 8ee, l l Weu 2J22 -Jy3y C 8anLnsc Us, r RasDsS l d s, Dnc9rt c

l mM ONC MUE: J1222JJ3T33

REMARKS:
Ecology Tag BKM-571. Drawing ID: 2022-C5. VW-07

B8f rD		psS f e8 .c4t aS snnt c						Description	Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log		
J	J					SM-GM		Brown soil, dry.	
	3								
	2								
3	-								
	1								
	0								
	6								
2	g								
	7								
	y								
-	3J								
	33								
	32								
1	3-								
	31								
	30								
	36								
0	3g								
	37								
	3y								
6	2J								

Completion Detail

- J
- Soil Backfill (from Owner)
- Bentonite Seal (Hydrated)
- 0
- 8-inch Dia. SCH 80 PVC Solid Pipe
- Soil Backfill (from Owner)
- 3J
- Settlement Joint / SCH 80 PVC Solid Pipe
- 8-inch Dia. SCH 80 PVC Solid Pipe
- Bentonite Seal (Hydrated)
- 30
- 2-inch Minus Round Rock Backfill
- 8-inch Dia. SCH 80 PVC Screened Pipe

Drilling Company: **BMC ot crashrt a, l .chT**

Drilling Method: **.CA F5i20J**

Logged By: **l T5snes8**

Date Started: **g/6/22**

Date Ended: **g/6/22**

Boring Diameter: **- 6inchD**

Well Diameter: **7inchD**

Time Started: **Jg:1J**

Time Ended: **Jy:17**

Total Depth: **g3T0 4T**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

GE. GscL4ted Rs, d 8ee, l l Wau 2J22

l mM ONCMUE: J1222JJ3T33

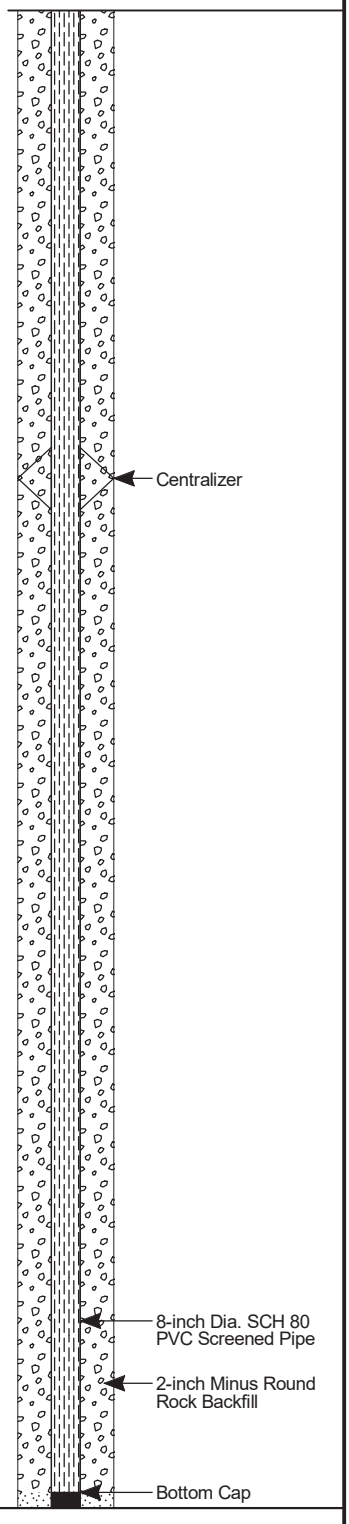
B8f rD		psS f e8 .c4t aS srnt c							Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description	
	2J					REFUSE			2J
	23								
	22								Centralizer
g	2-								
	21								
	20								20
7	26								
	2g								
	27								
	2y								
y									
	- J					REFUSE		Mixed Refuse (plastics,textiles), dry, Browns and colors. Lite decomposition. T=90°F Started on site at 0822. Drilling started prior to engineer on site, at 0740.	- J
	- 3								
	- 2								
3J	- -								
	- 1								
	- 0								- 0
33	- 6								8-inch Dia. SCH 80 PVC Screened Pipe
	- g								2-inch Minus Round Rock Backfill
	- 7								
	- y								
32									
	1J								1J
	13								
	12					REFUSE		0838 Mixed refuse (plastics, textiles, soil). Moist. Black/ dark brown. Medium decomposition. T=98°F	
3-									
	1-								
	11								

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

GE. GscL4ted Rs, d 8ee, l l Wau 2J22

l mM ONCMUE: J1222JJ3T33

B8f rD		psS f e8 .c4t aS srnt c						Description	Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log		
	11								
	10					REFUSE		0858 Mixed refuse (plastics, textiles, soil). Moist. Black. Medium decomposition. T=118°F	
31	16								
	1g								
	17								
	1y								
30	0J								
	03								
	02								
36	0-					REFUSE		0916 Mixed refuse (plastics, textiles). Wet. Black. Heavy decomposition. T=125°F	
	01								
	00								
3g	06								
	0g					REFUSE		0938 Mixed refuse (plastics, textiles, soils). Wet. Black. Heavy decomposition. T=136°F	
	07								
37	0y								
	6J					REFUSE		0926 Mixed refuse (plastics, textiles, soils). Wet. Black. Heavy decomposition. T=132°F	
	63								
	62								
3y	6-								
	61								
	60								
2J	66								
	6g								
	67								



GE. GscL4ntel Rs, d 8ee, l l Weu 2J22

l mM ONCMUE: J1222JJ3T33

B8f rD		psS f e8 .c4t aS srnt c						Description	Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log		
	67								
23	6y								
	gJ								gJ
	g3								
	g2					REFUSE		0938 Mixed refuse (plastics, textiles, soils). Wet. Black. Heavy decomposition. T=138°F	
22	g-							End of Boring at 71.5 ft	
	g1								
	g0								g0
2-	g6								
	gg								
	g7								
21	gy								
	7J								7J
	73								
20	72								
	7-								
	71								
26	70								70
	76								
	7g								
	77								
2g	7y								
	yJ								yJ
	y3								
27	y2								

Geotextile

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

SCS ENGINEERS | **MmE.OR GmR**

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

MmE.OR ONC MUE: d Ui - 0J

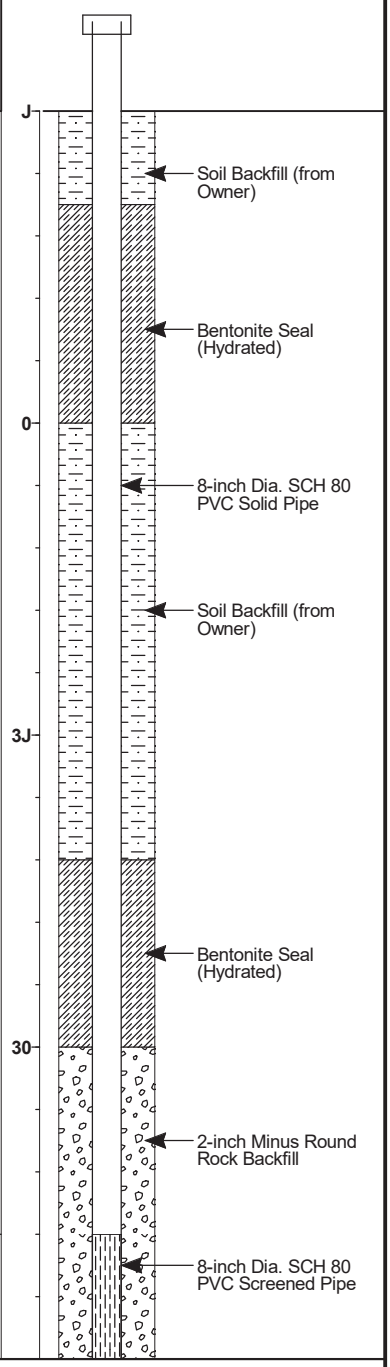
GE. GscL4ted Rs, d 8ee, l l Weu 2J22 - Jy3y C 8anLnsc Us, r RasDsS l d s, Drc9rt c

l mM ONC MUE: J1222JJ3T33

REMARKS:
Ecology Tag BKM-573. Drawing ID: 2022-C6. VW-09

B8f rD		psS f e8 .c4t aS srnt c						
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
J	J					SM-GM		Brown soil, dry.
	3							
	2							
3	-							
	1							
	0							
	6							
2	g							
	7							
	y							
-	3J							
	33							
	32							
1	3-							
	31							
	30							
	36							
0	3g							
	37							
	3y					REFUSE		Mixed Refuse (plastics,textiles, wood). Very moist. Blacks, browns and some colors. Lite/medium decomposition.
6	2J							

Completion Detail



Drilling Company: **BMC ot crashrt a, l .chT**
Drilling Method: **.CAF5i20J**
Logged By: **l T5srne8**

Date Started: **g/33/22**
Date Ended: **g/33/22**
Boring Diameter: **- 6irchD**
Well Diameter: **7irchD**

Time Started: **J7:10**
Time Ended: **33:1-**
Total Depth: **g3TJ 4T**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

GE. GscL4ted Rs, d 8ee, l l Wau 2J22

l mM ONC MUE: J1222JJ3T33

B8f rD		psS f e8 .c4t aS srnt c					Graphic Log	Description	Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.			
	2J								2J
	23								
	22					REFUSE		0907 Mixed refuse (plastics, textiles, soil). Wet. Black/dark brown and some colors. Medium decomposition. T=106°F	
g	2-								
	21								
	20								20
7	26								
	2g								
	27								
	2y								
y									
	- J					REFUSE		0913 Mixed refuse (plastics, textiles, soil). Slightly wet. Black/dark brown and some colors. Medium/heavy decomposition. T=110°F	- J
	- 3								
	- 2								
3J	- -								
	- 1								
	- 0								- 0
33	- 6								
	- g								
	- 7								
	- y								
32									
	1J					REFUSE		0926 Mixed refuse (plastics, textiles, soil). Slightly wet. Black/dark brown and some colors. Medium/heavy decomposition. T=117°F	1J
	13								
	12								
3-									
	1-								
	11								

Centralizer

8-inch Dia. SCH 80 PVC Screened Pipe

2-inch Minus Round Rock Backfill

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

GE. GscL4ted Rs, d 8ee, l l Wau 2J22

l mM ONCMUE: J1222JJ3T33

B8f rD		psS f e8 .c4t aS srnt c						Description	Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log		
	11								
	10								10
31	16								
	1g								
	17								
	1y								
30	0J								0J
	03								
	02								
36	0-								
	01								
	00								00
3g	06								
	0g								
	07								
37	0y								
	6J					REFUSE		1001 Mixed refuse (plastics, textiles, soil). Slightly wet. Black/dark brown and some colors. Medium/heavy decomposition. T=118°F	6J
	63								
	62								
3y	6-								
	61					REFUSE		1008 Mixed refuse (plastics, textiles, soil). Wet. Black/dark brown and some colors. Medium/heavy decomposition. T=120°F	
	60								60
2J	66								
	6g								
	67								

Centralizer

8-inch Dia. SCH 80 PVC Screened Pipe

2-inch Minus Round Rock Backfill

Bottom Cap

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

GE. GscL4ntel Rs, d 8ee, l l Weu 2J22

l mM ONCMUE: J1222JJ3T33

B8f rD		psS f e8 .c4t aS srnt c					Graphic Log	Description	Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.			
	67								
23	6y								
	gJ								gJ
	g3					REFUSE		1018 End of Boring at 71 ft	Geotextile
22	g2								
	g-								
	g1								
	g0								g0
2-	g6								
	gg								
	g7								
21	gy								
	7J								7J
	73								
20	72								
	7-								
	71								
26	70								70
	76								
	7g								
	77								
2g	7y								
	yJ								yJ
	y3								
27	y2								

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

SCS ENGINEERS

2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005-1877

MmE.OR ONCMUE: d Ui-03

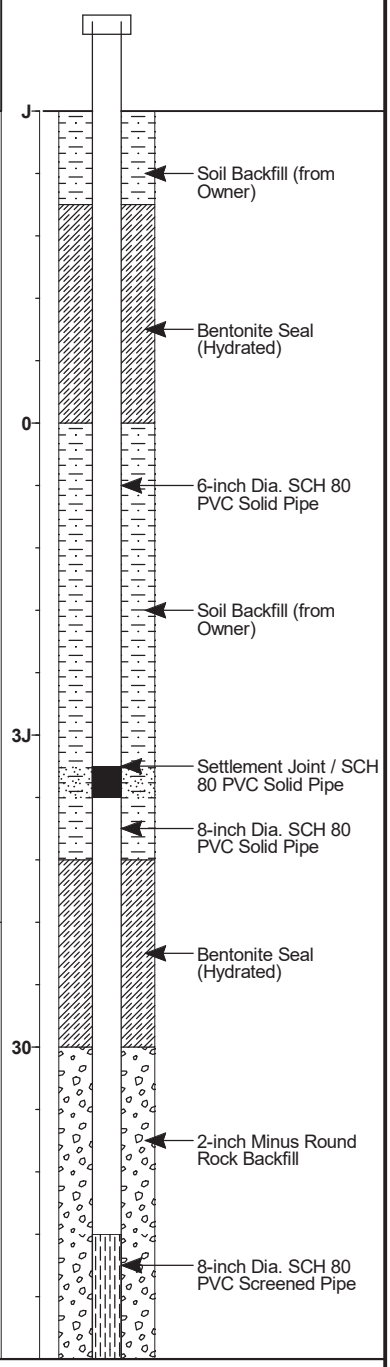
GE. GscL4ted Rs, d 8ee, l l Weu 2J22 - Jy3y C 8anLnsc Us, r RasDsS l d s, Dnc9rt c

l mM ONCMUE: J1222JJ3T33

REMARKS:
Ecology Tag BKM-574. Drawing ID: 2022-C6. VW-08

B8f rD		psS f e8 .c4t aS snt c						
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log	Description
J	J					SM-GM		Brown soil, dry.
	3							
	2							
	-							
3	1							
	0							
	6							
2	g							
	7							
	y							
	3J							
	33							
	32							
1	3-							
	31					REFUSE		Mixed refuse (plastics, textiles, soil). Moist. Moderate/heavy decomposition. Blacks and some browns, few colors.
	30							
	36							
0	3g							
	37							
	3y							
6	2J							

Completion Detail



Drilling Company: **BMC ot crashrt a, l .chT**

Drilling Method: **.CAF5i20J**

Logged By: **l T5sme8**

Date Started: **g/32/22**

Date Ended: **g/32/22**

Boring Diameter: **- 6inchD**

Well Diameter: **7inchD**

Time Started: **J7:10**

Time Ended: **JJ:2J**

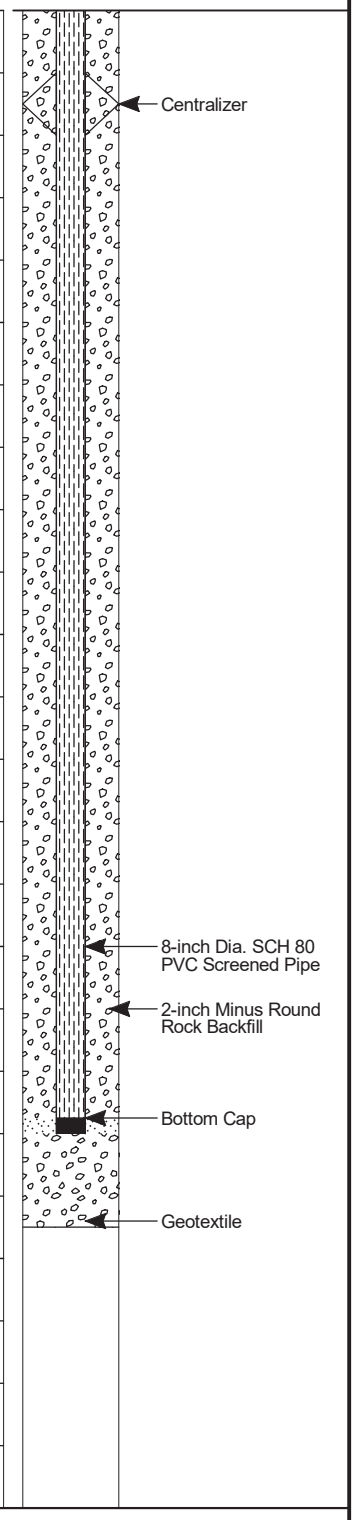
Total Depth: **- yTD 4T**

STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

GE. GscL4ntel Rs, d 8ee, l l Wau 2J22

l mM ONC MUE: J1222JJ3T33

B8f rD		psS f e8 .c4t aS srnt c						Description	Completion Detail
meters	feet	Sample Location	Sample Number	Blow Counts	OVM (ppm)	USCS Soil Class.	Graphic Log		
	2J					REFUSE		0901 Mixed refuse (plastics, textiles, rubber, soil). Moist. Moderate decomposition. Many colors. T=96°F	
	23								
	22								
g	2-								
	21								
	20								
7	26					REFUSE		0910 Mixed refuse (plastics, textiles, wood, soil). Moist. Moderate/heavy decomposition. Blacks and some colors. Strong ammonia smell. T=111°F	
	2g								
	27								
	2y								
y	- J								
	- 3								
	- 2								
3J	- -								
	- 1								
	- 0					REFUSE		0926 Mixed refuse (plastics, textiles, wood, soil). Moist. Moderate/heavy decomposition. Blacks and some colors. Strong ammonia smell. T=117°F	
33	- 6								
	- g								
	- 7								
	- y								
32	1J					REFUSE		0933 End of Boring at 39.5 ft	
	13								
	12								
3-	1-								
	11								



STANDARD_LOG 04222001.11 - LRI 304 GAS WELLS JUL 2022.GPJ STD_LOG.GDT 10/31/22

November 30, 2022
File No. 04222001.11

Mr. George Duvendack
Site Manager
Pierce County Recycling, Composting and Disposal, LLC dba LRI
17925 Meridian Street East
Puyallup, Washington 98375

Subject: **2022 October Gas Extraction Well Installation Report**
LRI Landfill, Graham, Washington

Dear George:

This letter report presents a summary of field activities performed by SCS Engineers (SCS) during the installation of 8 new interim landfill gas (LFG) extraction wells at the LRI Landfill located in Graham, Washington. The LFG extraction wells were installed in general accordance with the 2022 Gas System Expansion design plans, approved well construction variance, and well completion schedule issued by SCS on September 30, 2022. Following completion of the well installation work, each well was given a standard well designation consistent with LRI naming convention as shown in Table 1.

Summary

SCS personnel were onsite from October 26, 2022 through November 1, 2022 to observe drilling and installation of 8 new interim LFG extraction wells performed by DBM Contractors, Inc. (DBM). Observations of the cuttings from well drilling were logged for each boring and are included on the attached boring and construction logs prepared by SCS. The following table presents a summary of the completed well installation data.

Table 1: Summary of Well Completion

Well ID	Design ID	Surface Elevation (ft-msl)(1)	Well Material	ECY Well Tag(2)	Design Depth (ft)	Installed Depth (ft)	Length of Screen (ft)
WE-352	IW-02	729.41	HDPE	BLP-797	40	41	18
WE-353	IW-03	724.78	HDPE	BLP-798	40	31	18
WE-354	IW-04	719.78	HDPE	BLP-799	40	40	18
WE-355	IW-05	719.01	HDPE	BLP-800	40	40.5	18
WE-356	IW-01	699.25	HDPE	BLP-796	35	34	18
WE-357	IW-06	714.21	HDPE	BLP-795	40	43	18
WE-358	IW-07	718.39	HDPE	BLP-794	40	39.5	18
WE-359	IW-08	721.70	HDPE	BLP-793	40	40.5	18

Notes:
1. Survey data provided by HRK prior to drilling and installation. Elevations are for the original staked locations and do not account for minor relocation at time of installation.
2. ECY Well Tags were provided by DBM upon completion of each well.

LFG Extraction Well Drilling and Installation

The borings for the LFG extraction wells were drilled using an IMT AF220 drill rig with a 10 foot long, 36-inch diameter bucket auger, and a 36-inch diameter full flight auger as conditions dictated. For each of the extraction wells, the borings were advanced to within 1.0 to 9.0 feet of the design depths based on drilling conditions. The extraction wells were then constructed with 6-inch diameter SDR 11 high-density polyethylene (HDPE) pipe and fittings. Backfill was completed with 2-inch minus round rock, hydrated bentonite chips, and clean soil as shown on the attached well construction logs. All construction materials were provided by DBM and verified by SCS prior to use, with the exception of clean soil backfill which was obtained from onsite sources. Drilling and installation of each well was completed in one day. No boreholes were left open overnight.

The wells were completed with approximately 5 feet of pipe stickup above the ground surface to allow for grading, landfill cover/closure, and connection to the existing LFG collection system. Upon completion, each well was issued a Washington State Department of Ecology (ECY) Well Tag in accordance with state regulations and connected to the existing gas collection and control system (GCCS) within one week by LRI staff.

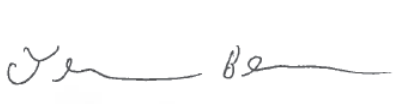
The following variations to design were completed in conjunction with the well installations. Borings that were completed to within 4.0 feet of the design depth are not included on the following list.

- WE-353 (IW-03): At approximately 31-feet bgs, a significant amount of liquid was encountered. Due to the interim nature of the well, the boring was completed and constructed at 31-feet bgs rather than the design depth of 40-feet.

Closing

If you have any questions regarding the information presented in this letter or the attached boring logs, please do not hesitate to contact us.

Sincerely,



Travis Berndahl, EIT
Project Professional
SCS Engineers

Karam Singh, P.E.
Senior Project Engineer
SCS Engineers

KS/TAB

cc: George Duvendack, LRI
Olivier Moi, LRI
Kevin Green, LRI
Kevin Lakey, SCS
Jack Faille, SCS

Attachments:

2022 LFG Extraction Well Completion Logs
2022 LRI LF GCCS Site Plan

NO.	REVISION	DATE
1	ISSUED FOR REVIEW	09/12/2022
2	ISSUED FOR CONSTRUCTION	09/30/2022
3	ISSUED FOR WELL REVISIONS	10/17/2022
4	ISSUED FOR WELL NAME REVISIONS	11/30/2022

SHEET TITLE: 2022 GCCS IMPROVEMENTS PHASE 3 OCTOBER - EXISTING GRADES

PROJECT TITLE: 2022 GAS SYSTEM EXPANSION
PHASE 3 OF 3
LRI LANDFILL
GRAHAM, WASHINGTON

SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4900 FAX (425) 884-6948

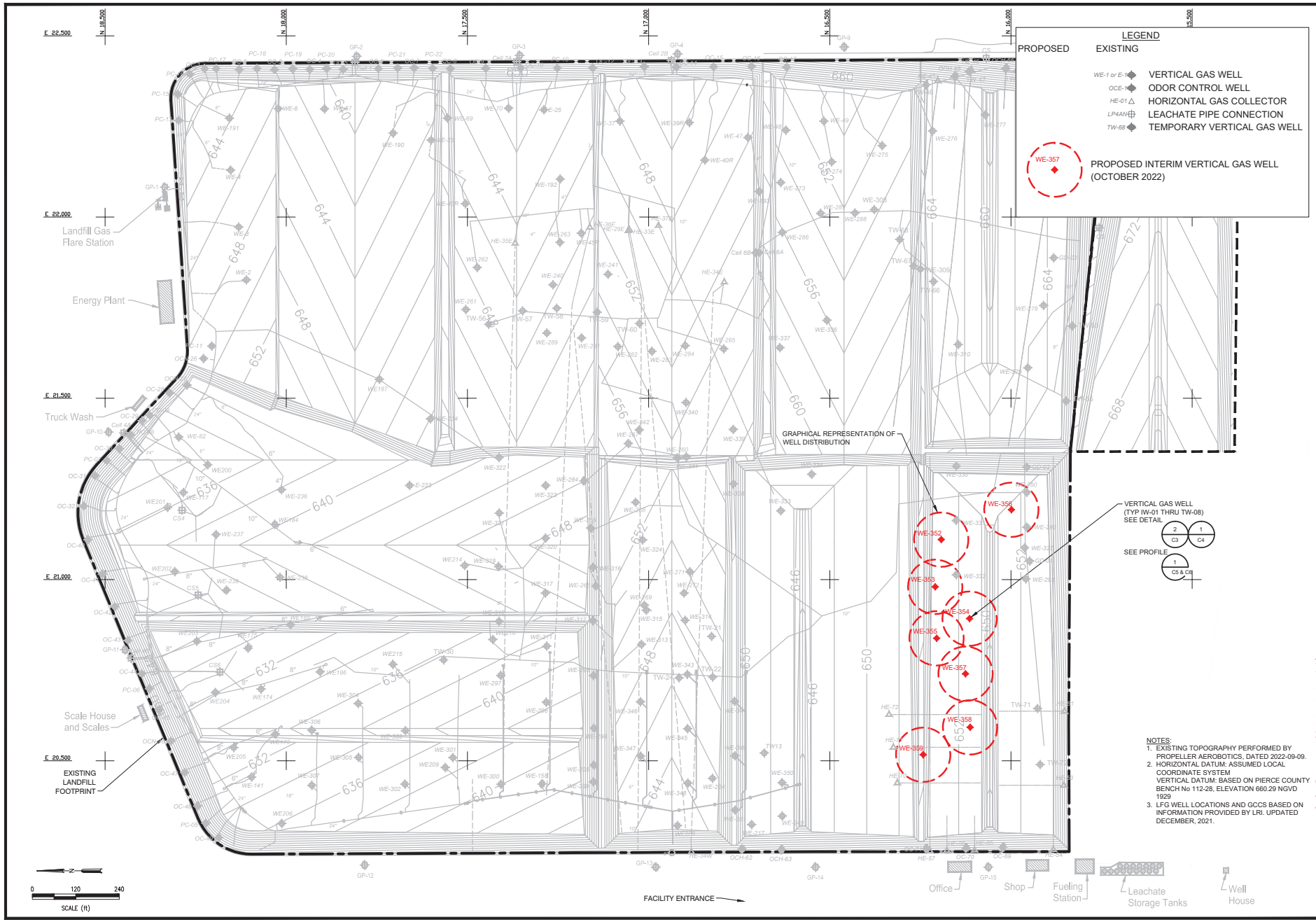
PROJ NO.	DSN BY:	DWN BY:	CHK BY:	APP BY:
04220011.10	GDB	GDB/LEL	TAB	KQL

ACAD FILE: 2022 GCCS Improvements Phase 3.dwg

DATE: NOVEMBER 2022

SCALE: AS SHOWN

FIGURE NO. C1



NO.	REVISION	DATE
	ISSUED FOR REVIEW	09/12/2022
	ISSUED FOR CONSTRUCTION	09/30/2022
	ISSUED FOR WELL REVISIONS	10/17/2022
	ISSUED FOR WELL NAME REVISIONS	11/30/2022

SHEET TITLE: 2022 GCCS IMPROVEMENTS PHASE 3 OCTOBER - OPERATIONS LAYER GRADES

PROJECT TITLE: 2022 GAS SYSTEM EXPANSION PHASE 3 OF 3 LRI LANDFILL GRAHAM, WASHINGTON

SCS ENGINEERS
Environmental Consultants and Contractors
2405 140th Avenue NE, Suite 107
Bellevue, Washington 98005
(425) 746-4808 FAX: (253) 884-9748

PROJ NO. 04220011.10 | DSN. BY: GDB | DWN. BY: GDB/LEL | CHK. BY: TAB | APP. BY: KQL | ACAD FILE: 04220011.10 Administrative 2022 GCCS

DATE: NOVEMBER 2022

SCALE: AS SHOWN

FIGURE NO. C2

SCS ENGINEERS

BORING LOG

er c7 Or c)P KI s9(s 5 RDM(n)s Ocl
Tsmnsl (sD: bpPn9U)i 9 vBcc78CBI l

BORING NUMBER: WE-352

2 bUs Oi ue

LRI Landfill, Gas Wells, October 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

VRx KV_ME
R. i mnU4 FbU Tg2 8l vl 10 ob= n9U 30 Eeceee8a l 13 8ce

Depth	Sample Information							
° s)scp uss)	Mb°, nsn gi . b)n i 9	Mb°, nsn 5(° Aso	Tnn= ai (9)p	- Wk t, , ° w	L Mta M M mm a nbppp1	Ncb, Pn gi U	0 sp. on,) ni 9	ai ° , nsn)ni 9 0 s)bnm
0 0								0
1							Mi nma i l so	
2								
3								
1 4							cver x ndsf osu(ps t, nbp)n D)sd)nnspDoi . kpDpi mpw	
5								5
6								
2 7								
8								
9								
3 10								10
11								
12								
4 13							cvyy x ndsf osu(ps t, nbp)n Dpi mpD)sd)nnspvn 10 o41 Toi = 91 5i f s. i ° , i pn)ni 9DFSBCH61	
14								
15								15
5 16								
17								
18								
19								
6 20								

Mi nn Tb. kunnbuoi ° - =9soow
Ts9)i 9n)s Msbnm th4f ob)sf w
C89. P0 nb1M0V OO h02R Mi ni 2n, s
Mi nn Tb. kunnbuoi ° - =9soow
Ts9)i 9n)s Msbnm th4f ob)sf w
e89. Px n9(p Vi (9f Vi . k Tb. kunnn
as9)obnnGso

MFK50KV0Jg- N creeeccOOO8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N N0F OOyczee

0 cnn9Uai ° , b94E **DBM Contractors, Inc.**

0 cnn9Ux s)Pi f E **IMT AF-220**

gi UUsf T4E **J. Faille**

0 b)s M)bo)sf E **10/31/22**

0 b)s R9f sf E **10/31/22**

Ti on9U 0 nb° s)scE **36-inch**

: snn0 nb° s)scE **6-inch**

Fn̂ s M)bo)sf E **09:24**

Fn̂ s R9f sf E **10:20**

Fi)bn0 s,)PE **41.0 ft.**

SCS ENGINEERS | **BORING LOG**

er c7 Or c)P KI s9(s 5 RDM(n)s Occl Tsmnsal (sD: bpPn9U)i 9 vBcc78CBI l

BORING NUMBER: WE-352

2bUs e i ue

LRI Landfill, Gas Wells, October 2022

JOB NUMBER: 04222001.11

Depth	Sample Information						0sp. on,)ni 9	ai °, rss)ni 9 0s)bmm
° s)scop uss)	Mb°, rss gi. b)ni 9	Mb°, rss 5(° Aso	Tm= ai(9)p	- Wk t,, ° w	L MaMMi mm a nbpp1	Ncb, Pn gi U		
20							cvry x rdsf osu(pst, nbp)n Dpi mpD)sd)mspv1x i np)1Trn. k =n)P. i mnq p1x i f scb)s f s. i °, i pn)ni 9DFSBBH61	20
21								
22								C89. P 0 rb1M0 V CO h02R Min))sf 2n, s
7 23								
24								
25								25
8 26								
27								
28								
29								
9 30								30 e89. P x n9(p Vi (9f Vi . k Tb. kumm
31								
32							cv7l x rdsf osu(pst=i i f D, nbp)n v1x i np)1h nUP f s. i °, i pn)ni 9DFSvO1	
10 33								
34							OcOc Mb)(cb)sf osu(ps b9f pi mp1Trn. k1h nUP f s. i °, i pn)ni 9DFSOce1	
35								35
11 36								
37								
38								
39								Ti))i ° ab,
12 40								40
41								OCi GNsi)sd)mm
42							OcO7 PnUP b° i (9)i umsb. Pb)s b))Ps s9f i uAi on9U1 R9f i uTi on9Ub)r Ouss)1	
13 43								
44								

MFK50KV0Jg- N cr eeeccOOO8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- NN0F COyczee

SCS ENGINEERS

BORING LOG

er c7 Or c)P KI s9(s 5 RDM(n)s Oc l
Tsmnsl (sD: bpPn9U)i 9 vBcc78CBl l

BORING NUMBER: WE-353

2 bUs Oi ue

LRI Landfill, Gas Wells, October 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

VRx KV_ME
R. i mnU4TFbUTg28l vB10 ob=n9U30 Eeceee8a l 13 8cy

Depth	Sample Information						0sp. on,)ni 9	a i ° , ns)ni 9 0 s)bnm
° s)scp uss)	Mb° , ns gi . b)ni 9	Mb° , ns 5(° Aso	Tim= ai (9)p	- Wk t, , ° w	L MaM Mi mm a nbpp1	Ncb, Pn gi U		
0 0								0
1							COEEc M)bo)sf f omm9U1Mi mm i l so	
2								
3 1								
4								
5								5
6 2								
7								
8								
9 3								
10								10
11								
12								
13 4								
14							x ndsf osu(ps t)sd)nspDpi nnpD, nbp)n pwi Tnb. k1x i np)1 x i f scb)s f s. i ° , i pn)ni 9DFSvCH61	
15								15
16 5								
17								
18								
19								
20 6								

M Fi nTb. kunnbui ° - =9sow

Ts9)i 9n)s Msbm th4f cb)sf w

C89. P 0nb1M0V CO h02R M ni 2n)s

M Fi nTb. kunnbui ° - =9sow

Ts9)i 9n)s Msbm th4f cb)sf w

e89. P x n9(p Vi (9f Vi . k Tb. kunnn

as9)cbnn0so

0 cnm9U ai ° , b94E **DBM Contractors, Inc.**

0 cnm9U x s)Pi f E **IMT AF-220**

gi UUsf T4E **J. Faille**

0 b)s M)bo)sf E **10/31/22**

0 b)s R9f sf E **10/31/22**

Ti on9U 0 nb° s)scE **36-inch**

: snn0 nb° s)scE **6-inch**

Fni s M)bo)sf E **11:10**

Fni s R9f sf E **12:15**

Fi)bm0 s,)PE **31.0 ft.**

MFK50KV0Jg- N cr eeeccCOD8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N'N0F COyczee

SCS ENGINEERS | **BORING LOG**

er c7 Or c)P KI s9(s 5 RDM(n)s Occl Tsmnsl (sD: bpPn9U)i 9 vBcc78CBl l

BORING NUMBER: WE-353

2 bUs e i ue

LRI Landfill, Gas Wells, October 2022

JOB NUMBER: 04222001.11

Depth	Sample Information						0 sp. cn,)ni 9	a i ° , ns)ni 9 0 s)bnm
° s)scop uss)	Mb° , ns gi . b)ni 9	Mb° , ns 5 (° Aso	Tm= a i (9)p	- Wk t, , ° w	L MaMMMi mm a nbpp1	Ncb, Pn gi U		
20								20
21								
22								
7 23								
24								
25								25
8 26								
27								
28								
29								
9 30							x ndsf osu(ps t)sd)nspDpi npD, nbp)n pwi Tnb. k1: s)1h nUP 0 s. i ° , i pn)ni 9	30
31							hnUP b° i (9) i uns b. Pb)s b))Ps s9f i uAi cn9U1 R9f i uTi cn9Ub) yOuss)1	
32								
10 33								
34								
35								35
11 36								
37								
38								
39								
12 40								40
41								
42								
13 43								
44								

C89. P 0 nb1M0 V CO h 02 R Min))sf 2n, s

e89. P x n9(p Vi (9f Vi . k Tb. kunm

Ti))i ° ab, OCi GNsi)sd)ms

MFK50 KV0 Jg- N cr eeeccOOO8gV3ycr NKM: RggM- aF eceeN2/ MF0 Jg- N'N0F COyczee

SCS ENGINEERS

BORING LOG

er c7 Or c)P KI s9(s 5 RDM(n)s Oc l
Tsmnsal (sD: bpPn9U)i 9 vBcc78CBI l

BORING NUMBER: WE-354

2 bUs Oi ue

LRI Landfill, Gas Wells, October 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

VRx KV_ME
R. i mnU4 FbU Tg2 8l vv10 ob= n9U3 0 Eeceee8a l 13 8cr

Depth	Sample Information							
° s)scp uss)	Mb° , nsn gi . b)ni 9	Mb° , nsn 5(° Aso	Tnm= ai (9)p	- Wk t, , ° w	L Mta M M mm a nbppp1	Ncb, Pn gi U	0 sp. on,)ni 9	ai ° , nsn)ni 9 0 s)bmm
0 0								0
1							Mi mm i l so	Mi mmTb. kummtuoi ° - =9sow
2							Ocr Ox mdsf osu(ps t, nbp)n D)sd)mnspw10 o41Toi =9 b9f An(ns1grnUP) f s. i ° , i pn)i 91	
1 3								Ts9)i 9n)s Msbm th4f cb)sf w
4								
5								5 C89. P 0 nb1M0 V CO h02R Mi mi 2n,s
6								
2 7								
8								Mi mmTb. kummtuoi ° - =9sow
9								
3 10								10
11								
12								
4 13							Oc7Cx mdsf osu(ps t, nbp)n Dpi mpw10 o41Toi =9 b9f An(ns1grnUP) f s. i ° , i pn)i 9DFSI CH61	Ts9)i 9n)s Msbm th4f cb)sf w
14								
15								15
5 16								
17								e89. Px n9(p Vi (9f Vi . k Tb. kumm
18								
19								as9)cbmnGso
6 20								

0 cmm9U ai ° , b94E **DBM Contractors, Inc.**

0 cmm9U x s)Pi f E **IMT AF-220**

gi UUsf T4E **J. Faille**

0 b)s M)bo)sf E **11/1/22**

0 b)s R9f sf E **11/1/22**

Ti on9U 0 nb° s)scE **36-inch**

: smn0 nb° s)scE **6-inch**

Fn i s M)bo)sf E **10:38**

Fn i s R9f sf E **11:25**

Fi)bm0 s,)PE **40.0 ft.**

MFK50 KV0Jg- N cr eeeccCOO8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N N0F COyczee

SCS ENGINEERS | **BORING LOG**

er c7 Or c)P KI s9(s 5 RDM(n)s Ocl
Tsmnsl (sD: bpPn9U)i 9 vBcc78CBl l

BORING NUMBER: WE-354

2bUs e i ue

LRI Landfill, Gas Wells, October 2022

JOB NUMBER: 04222001.11

Depth	Sample Information							
° s)scop uss)	Mb° , ns gi . b)ni 9	Mb° , ns 5 (° Aso	Tm= a i (9)p	- Wk t, , ° w	L Ma M M fi mm a nbppp1	Ncb, Pn gi U	0 sp. on,)ni 9	a i ° , ns)ni 9 0 s)bmm
20								20
21								
22								C89. P 0 nb1M0 V OO h02R Min))sf 2n, s
7 23								
24							OOcv x mdsf osu(ps t, nbp)n Dpi mpD)sd)mspwl 0 o41Tci = 9 b9f Am(ns1gnUP) f s. i ° , i pn)i 9DFSl BH61	
25								25
8 26								
27								
28								
29								
9 30								e89. P x n9(p Vi (9f Vi . k Tb. kumm
31								
32								
10 33								
34								
35								35
11 36							OOOB x mdsf osu(ps t, nbp)n Dpi mpD)sd)mspDo(AAso)mspwl x i np)10 bdk Aci = 9 b9f Am(ns1gnUP) f s. i ° , i pn)i 9D FSBCH61	
37								
38								Ti))i ° ab,
12 39								
40							OOeB x mdsf osu(ps t, nbp)n Dpi mpD)sd)mspwl x i np)10 bdk Aci = 91grUP) f s. i ° , i pn)i 9DFSBr H61	40 OCi GNsi)sd)ms
41							R9f i uTi on9Ub) r c uss)1	
13 42								
43								
44								

MFK50KV0Jg- N cr eeeccOOO8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N'N0F COyczee

SCS ENGINEERS

BORING LOG

er c7 Or c)P KI s9(s 5RDM(n)s Ocl
Tsmnsl (sD: bpPn9U)i 9 vBcc78CBl l

BORING NUMBER: WE-355

2bUs Oi ue

LRI Landfill, Gas Wells, October 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

VRx KV_ME
R. i mnU4TFbUTg28Bcc10 ob=n9U30Eeceee8a l 13 8c7

Depth	Sample Information							
° s)scp uss)	Mb°, ns gi . b)ni 9	Mb°, ns 5(° Aso	Tim= ai (9)p	- Wk t, , ° w	L Ma M M m ai nbpp1	Ncb, Pn gi U	0 sp. cn,)ni 9	ai °, ns)ni 9 0 s)bmm

0
1
2
1
3
4
5
6
2
7
8
3
9
10
11
12
4
13
14
15
5
16
17
18
19
6
20

Mi mm i l so

cBeB x mdsf osu(ps t, nbp)n D)sd)mspDo(AAso)mospwl x i np)10 bdk Aci =91gnUP) f s. i °, i pn)i 91

cBr e x mdsf osu(ps t, nbp)n D)sd)mspDpi mpwl x i np)10 bdk Aci =9 b9f l bcni (p. i mncp1x i f sdb)s f s. i °, i pn)i 91 FSBr H61

cvcc x mdsf osu(ps t, nbp)n Dpi mpD)sd)mspwl x i np)10 bdk Aci =91x i f sdb)s f s. i °, i pn)i 9DFSvCH61

0
5
10
15

Mi mm Tb. kummbuci ° - =9sow

Ts9)i 9n)s Msbm th4f db)sf w

C89. P0 nb1M0V CO h02R Mi mi 2n,s

Mi mm Tb. kummbuci ° - =9sow

Ts9)i 9n)s Msbm th4f db)sf w

as9)dbmGso

e89. Px n9(p Vi (9f Vi . k Tb. kumm

0 cmm9Uai °, b94E **DBM Contractors, Inc.**

0 cmm9Ux s)Pi f E **IMT AF-220**

gi UUsf T4E **J. Faille**

0 b)s M)bo)sf E **11/1/22**

0 b)s R9f sf E **11/1/22**

Ti cn9U0 nb° s)scE **36-inch**

: smn0 nb° s)scE **6-inch**

Fn i s M)bo)sf E **08:28**

Fn i s R9f sf E **10:01**

Fi)bm0 s,)PE **40.5 ft.**

MFK50KV0Jg- N cr eeeccCOD8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N'N0F COyczee

SCS ENGINEERS | **BORING LOG**

er c7 Or c)P KI s9(s 5 RDM(n)s Ocl Tsmnsl (sD: bpPn9U)i 9 vBcc78CBI l

BORING NUMBER: WE-355

2 bUs e i ue

LRI Landfill, Gas Wells, October 2022

JOB NUMBER: 04222001.11

Depth	Sample Information							
° s)scop uss)	Mb° , ns gi . b)ni 9	Mb° , ns 5 (° Aso	Tm= a i (9)p	- Wk t, , ° w	L MaMMi mm a nbpp1	Ncb, Pn gi U	0 sp. cn,)ni 9	a i ° , ns)ni 9 0 s)bmm
20								20
21								
22								C89. P 0 nb1M0 V CO h02 R Min))sf 2n, s
7 23								
24								
25							cvec x mdsf osu(ps t, nbp)n Dpi mpD)sd)mspDpb9f AbUpwl x i np)10 bdk Aci = 91gnUP) f s. i ° , i pn) i 9DFSB7H61	25
8 26								
27								
28							cvyc x mdsf osu(ps t, nbp)n Dpi mpD= i i f wl x i np)1Tnb. k1 x i f sdb)s f s. i ° , i pn) i 9DFSv7H61	
29								
9 30								e89. P x n9(p Vi (9f Vi . k Tb. kumm 30
31								
32								
10 33								
34								
35								35
11 36								
37								
38							cv7r x mdsf osu(ps t, nbp)n Dpi mpD)sd)mspwl x i np)10 bdk Aci = 9 b9f = Pn)s1 x i f sdb)s f s. i ° , i pn) i 9DFSv7H61	Ti))i ° ab,
12 39								
40							OccOx mdsf osu(ps t, nbp)n Dpi mpD)sd)mspwl x i np)1 x i f sdb)s f s. i ° , i pn) i 9DFSvvH61	40 OCi GNsi)sd)mm
41							R9f i uTi on9Ub) r c17 uss)1	
42								
13 43								
44								

MFK50KV0Jg- N cr eeeccOOO8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N'N0F COcyczee

SCS ENGINEERS

BORING LOG

er c7 Or c)P KI s9(s 5RDM(n)s Ocl
Tsmnsl (sD: bpPn9U)i 9 vBcc78CBI I

BORING NUMBER: WE-356

2bUs Oi ue

LRI Landfill, Gas Wells, October 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

VRx KV_ME
R. i mnU4TFbUTg28l vC10 ob=n9U30Eeceee8al 13 8cO

Depth	Sample Information							
° s)scp uss)	Mb°, nsn gi. b)ni 9	Mb°, nsn 5(° Aso	Tnm= ai (9)p	- Wk t, , ° w	L MaM Mmm a nbppp1	Ncb, Pn gi U	0 sp. cn,) ni 9	a i ° , nsn)ni 9 0 s)bmm
0 0								0
1								
2							Mmm i l so	
1 3								
4								
5								5 — Mmm Tb. kumntuci ° - =9sow
6								
2 7								
8								Ts9)i 9n)s Msbm th4f ob)sf w
9								
3 10								C89. P0 nb1M0V CO h02R Mmi 2n, s
11								
12							cB7I x nosf osu(ps t, nbp)n D=i i f D, b, sc Do(AAsc D=nos D)sd)nnspw1x i np)1Tnb. k =n)P . i nnop1x sf n(° f s. i ° , i pn)ni 9DFSBvH61	10 — Mmm Tb. kumntuci ° - =9sow
4 13								
14								
15							MnU9nn. b9)n4i ° i os ° i np)(os i Apsd sf Asn=)Pnp, i n9)	15 — Ts9)i 9n)s Msbm th4f ob)sf w
5 16								
17								e89. Px n9(p Vi (9f Vi . k Tb. kumm
18								as9)bnm Gso
19								C89. P0 nb1M0V CO h02R Mnn))sf 2n, s
6 20								

0 cnm9U ai ° , b94E **DBM Contractors, Inc.**

0 cnm9U x s)Pi f E **IMT AF-220**

gi UUsf T4E **J. Faille**

0 b)s M)bo)sf E **10/28/22**

0 b)s R9f sf E **10/28/22**

Ti cn9U 0 nb° s)scE **36-inch**

: snn0 nb° s)scE **6-inch**

Fn̂ s M)bo)sf E **08:30**

Fn̂ s R9f sf E **09:35**

Fi)bn0 s,)PE **34.0 ft.**

MFK50KV0Jg- N creeeccCOO8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N'N0F COcyczee

SCS ENGINEERS | **BORING LOG**

er c7 Or c)P KI s9(s 5 RDM(n)s Ocl Tsmnsal (sD: bpPn9U)i 9 vBcc78CBl l

BORING NUMBER: WE-356

2 bUs e i ue

LRI Landfill, Gas Wells, October 2022

JOB NUMBER: 04222001.11

Depth		Sample Information							
° s)scop	uss)	Mb° , ns gi . b)ni 9	Mb° , ns 5 (° Aso	Tm= a i (9)p	- Wk t, , ° w	L MaMMfmm a nbpp1	Ncb, Pn gi U	0 sp. on,)ni 9	a i ° , ns)ni 9 0 s)bmm
	20							cvOc x mdsf osu(ps t, mbp)n D=i i f D, b, scDo(AAscD=mosD)sd)mspw\Wso4 = s)1Tmb. k = r)P . i mncp1x sf n(° f s. i ° , i pm)ni 9DFSOcOH61	20
	21							x mdsf osu(ps t, mbp)n D=i i f D, b, scDo(AAscD=mosD)sd)mspw\Wso4 = s)1Tmb. k = r)P us= . i mncp1h nUP f s. i ° , i pm)ni 91	
	22								
7	23								
	24								
	25								25
8	26								
	27								
	28								
	29							cvyc Mb)(db)sf osu(ps t, mbp)n Do(AAscD=mosw\Tmb. k1 h nUP f s. i ° , i pm)ni 9DFSveH61	
9	30								30 — e89. P x n9(p Vi (9f Vi . k Tb. kumm
	31								
	32								
10	33								— Ti))i ° ab,
	34							cvy7 R9f i uTi on9Ub) yr uss) f (s)i n9. osbpn9U° i np)(os1	— OCi GNsi)sd)mss
	35								35
11	36								
	37								
	38								
12	39								
	40								40
	41								
	42								
13	43								
	44								

MFK50KV0Jg- N cr eeeccOOO8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N'N0F COoycaee

SCS ENGINEERS | **BORING LOG**

er c7 Or c)P KI s9(s 5 RDM(n)s Oc l
Tsmnsl (sD: bpPn9U)i 9 vBcc78CBI l

BORING NUMBER: WE-357 2 bUs Oi ue

LRI Landfill, Gas Wells, October 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

VRx KV_ME
R. i mnU4 FbUTg2 8l v710 ob= n9U3 0Eeceee8a l 13 8cC

Depth	Sample Information							
° s)scp uss)	Mb° , nsn gi . b)ni 9	Mb° , nsn 5(° Aso	Tnm= ai (9)p	- Wk t, , ° w	L MaM Mm ai nbppi 1	Ncb, Pn gi U	0 sp. on,)ni 9	ai ° , nsn)ni 9 0 s)bmm
0 0								0
1								
2							Mi mn i l so	
3								
1 4								
5								5
6								
2 7								
8							Oc77 x nds f os u(ps t, nbp)n D)sd)nsspDpi mpD= i i f Do(AAso)nospw1x i mp)10 bck Aci = 9 b9f Anb. kp1gnUP)) i ° i f scb)s f s. i ° , i pn i 91FSBBH61	
9								
3 10								10
11								
12								
4 13								
14								
15								15
16								
5 17								
18								
19								
6 20								

0 mnn9U ai ° , b94E **DBM Contractors, Inc.**

0 mnn9U x s)Pi f E **IMT AF-220**

gi UUsf T4E **J. Faille**

0 b)s M)bo)sf E **10/27/22**

0 b)s R9f sf E **10/27/22**

Ti on9U 0 nb° s)scE **36-inch**

: smn0 nb° s)scE **6-inch**

Fn i s M)bo)sf E **10:50**

Fn i s R9f sf E **11:35**

Fi)bm0 s,)PE **43.0 ft.**

MFK50 KV0Jg- N cr eeeccCOO8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N'N0F COoyczee

SCS ENGINEERS | **BORING LOG**

er c7 Or c)P KI s9(s 5 RDM(n)s Ocl
Tsmnsl (sD: bpPn9U)i 9 vBcc78CBI I

BORING NUMBER: WE-357

2bUs e i ue

LRI Landfill, Gas Wells, October 2022

JOB NUMBER: 04222001.11

Depth	Sample Information							
° s)scop uss)	Mb° , ns gi . b)ni 9	Mb° , ns 5 (° As o	Tm= a i (9)p	- Wk t, , ° w	L Ma M M fi mm a nbpp 1	Ncb, Pn gi U	0 sp. on,)ni 9	a i ° , ns)ni 9 0 s)bmm
20								20
21								
22								C89. P 0 nb 1M0 V CO h 02 R Mn))sf 2n, s
7 23								
24								
25							OOO7 x nds f os u(ps t, nbp)n. Dpi mpD)sd)ns pDpb9f AbUpvl x i mp))i =s)1x i p)n4 Anb. kDpi ° s Aci =91 gnUP) f s. i ° , i pn)ni 9DFSv7H61	25
8 26								
27								
28								
29								
9 30								e89. P x n9(p Vi (9f Vi . k Tb. kunm
31								
32								
10 33								
34								
35								35
11 36								
37								
38							x i mp( )(os p)sbf m4 n9. os bpn9U	Ti))i ° ab,
12 39								
40								40
41							OOy7 R9f i uTi on9Ub) r y uss)1	
42								
13 43								OCi GNsi)sd)ns
44								

MFK50KV0Jg- N cr eeeccOOO8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N'N0F OOyczee

SCS ENGINEERS

BORING LOG

er c7 Or c)P KI s9(s 5 RDM(n)s Oc l
Tsmnsal (sD: bpPn9U)i 9 vBcc78CBl l

BORING NUMBER: WE-358

2 bUs Oi ue

LRI Landfill, Gas Wells, October 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

VRx KV_ME
R. i mnU4 FbU Tg2 8l vr 10 db= n9U 30 Eeceee8a l 13 8c l

Depth	Sample Information								
° s)scp uss)	Mb° , ns gi . b)ni 9	Mb° , ns 5(° Aso	Tim= ai (9)p	- Wk t, , ° w	L Ma M M m a nbppp1	Ncb, Pn gi U	0 sp. on,)ni 9	ai ° , ns)ni 9 0 s)bmm
0 0								0
1							Mi mm i l so	Mi mmTb. kummbuci ° - =9sow
2								
3								Ts9)i 9n)s Msbm th 4f cb)sf w
1 4								
5							cBOc x mdsf osu(ps t, mbp)n pDpPosf f sf o(AAsowb9f pi mmhx i mp)1Tci =9p =n)P pi ° s . i mno1 grnUP))i ° i f scb)s f s. i ° , ipn)i 91	5 C89. P 0 nb1M0 V CO h 02 R Mi mi 2n, s
6								
2 7								
8								Mi mmTb. kummbuci ° - =9sow
9							cBel Mi mmi ° , ipn)ni 9 f s. osbpr9UDn9. osbpr9U, mbp)n p	
3 10								10
11								
12								
4 13								
14								Ts9)i 9n)s Msbm th 4f cb)sf w
15								15
16								
5 17								
18							x mdsf osu(ps t, mbp)n Dpi mpD= i i f D. bcf Ai bcf D)sd)mspvl x i mp)1Tci =9p =n)P pi ° s . i mno1 x i f scb)s f s. i ° , ipn)i 9DFSvvH61	as9)cbmGso
19								e89. P x n9(p Vi (9f Vi . k Tb. kumm
6 20								

0 cmm9U ai ° , b94E **DBM Contractors, Inc.**

0 cmm9U x s)Pi f E **IMT AF-220**

gi UUsf T4E **J. Faille**

0 b)s M)bo)sf E **10/27/22**

0 b)s R9f sf E **10/27/22**

Ti cn9U 0 nb° s)scE **36-inch**

: smn0 nb° s)scE **6-inch**

Fn i s M)bo)sf E **08:10**

Fn i s R9f sf E **09:26**

Fi)bm0 s,)PE **39.5 ft.**

MFK50 KV0Jg- N cr eeeccCOD8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- N N0F COyczee

SCS ENGINEERS | **BORING LOG**

er c7 Or c)P KI s9(s 5 RDM(n)s Ocl Tsmnsal (sD: bpPn9U)i 9 vBcc78CBI l

BORING NUMBER: WE-358

2 bUs e i ue

LRI Landfill, Gas Wells, October 2022

JOB NUMBER: 04222001.11

Depth	Sample Information						0 sp. on,)ni 9	a i ° , ns)ni 9 0 s)bmm
° s)scop uss)	Mb° , ns gi . b)ni 9	Mb° , ns 5 (° Aso	Tm= a i (9)p	- Wk t, , ° w	L Ma M M fi mm a nbpp1	Ndb, Pn gi U		
20								20
21								
22								
7 23								
24							cB7c x mdsf osu(ps t, mbp)n Db(AAscDpPosf f sf =, , f D)sd)mnspw1x i mp)1grUP))i ° sf n(° Aci = 9p = n)P . i mnqp1 grUP) f s. i ° , i pn)i 9DFSvyH61	
25								25
8 26								
27								
28								
29								
9 30							x mdsf osu(ps1x i mp)10 bdk Aci = 91grUP))i i f sdb)s f s. i ° , i pn)i 91	
31								
32								
10 33								
34								
35								35
11 36								
37							cvOc x mdsf osu(ps1: s)1Trnb. kp b9f f bdk Aci = 9p = n)P . i mnqp1x i f sdb)s f s. i ° , i pn)i 9DFSBvH61	
38							cver DFSBvH61	
12 39								
40							cveC R9f i uTi on9Ub) yv 17 uss)1	40
41								
42								
13 43								
44								

C89. P 0 nb1M0 V CO h 02 R Mn))sf 2n, s

e89. P x n9(p Vi (9f Vi . k Tb. kumm

Ti))i ° ab,

OCi GNsi)sd)mns

MFK50 KV0 Jg- N cr eeeccOOO8gV3ycr NKM: RggM- aF eceeN2/ MF0 Jg- N'N0F COoycaee

SCS ENGINEERS

BORING LOG

er c7 Or c)P KI s9(s 5 RDM(n)s Ocl
Tsmnsal (sD: bpPn9U)i 9 vBcc78CBI l

BORING NUMBER: WE-359

2 bUs Oi ue

LRI Landfill, Gas Wells, October 2022
30919 Meridian East
Graham, Washington

JOB NUMBER: 04222001.11

VRx KV_ME
R. i mnU4 FbUTg2 8l vy10 ob= n9U3 0Eeceee8a l 13 8cB

Depth	Sample Information							0sp. on,)ni 9	ai °, ns)ni 9 0s)bmm
° s)scp uss)	Mb°, ns gi. b)ni 9	Mb°, ns 5(° Aso	Tim= ai (9)p	- Wk t, , ° w	LMa MM mm a nbpp1	Ncb, Pn gi U			
0 0								Mi mn i lso	Mi mn Tb. kumntuci ° - =9sow
1									
2									
3								cEyc x mdsf osu(ps t, mbp)n pD, b, scD)sd)nsspDPi Uu(snD pPosf f sf =i i fwb9f pi mnMmuP)n4 ° i np)10 bck Aci =9 =n)P pi ° s . i mno1 grUP))i ° i f scb)s f s. i ° , i pn)i 91	Ts9)i 9n)s Msbm th4f cb)sf w
1 4									C89. P 0 nb1 M0 V CO h02 R Mi mn 2n, s
5									
6									
2 7									
8									Mi mn Tb. kumntuci ° - =9sow
9									
3 10								FSvvH61	10
11									
12									
4 13									Ts9)i 9n)s Msbm th4f cb)sf w
14									
15								x mdsf osu(ps t, mbp)n Dpi nnpD)sd)nsspwl MmuP)n4 ° i np)1 Tci =9p =n)P pi ° s . i mno1 grUP) f s. i ° , i pn)i 9DFSvvH61	15
5 16									
17									
18									as9)cbmGso
19									e89. P x n9(p Vi (9f Vi . k Tb. kumm
6 20									

0 cmm9U ai °, b94E **DBM Contractors, Inc.**

0 cmm9U x s)Pi f E **IMT AF-220**

gi UUsf T4E **J. Faille**

0 b)s M)bo)sf E **10/26/22**

0 b)s R9f sf E **10/26/22**

Ti on9U 0 nb° s)scE **36-inch**

: smn0 nb° s)scE **6-inch**

Fn i s M)bo)sf E **08:30**

Fn i s R9f sf E **09:54**

Fi)bm0 s,)PE **40.5 ft.**

MFK50 KV0 Jg- N cr eeeccCOD8gV3ycr NKM: RggM- aF eceeN2/ MF0 Jg- N N0 F COyczee

SCS ENGINEERS | **BORING LOG**

er c7 Or c)P KI s9(s 5 RDM(n)s Occl Tsmnsal (sD: bpPn9U)i 9 vBcc78CBI l

BORING NUMBER: WE-359

2bUs e i ue

LRI Landfill, Gas Wells, October 2022

JOB NUMBER: 04222001.11

Depth	Sample Information							
° s)scop uss)	Mb° , ns gi . b)ni 9	Mb° , ns 5 (° Aso	Tm= a i (9)p	- Wk t, , ° w	L MaMMf mm a nbpp1	Ncb, Pn gi U	0 sp. on,)ni 9	a i ° , ns)ni 9 0 s)bmm
20							cvOy x mdsf osu(ps1FSOcvH61	20
21								
22								C89. P 0 nb1M0 V OO h02 R Mn))sf 2n, s
7 23								
24								
25							x mdsf osu(ps t, nbp)n pD)sd)nnspDo(AAscDpi mpvwix i np)1 0 bck Aci = 91 grvUP) f s. i ° , i pn)i 91	25
8 26								
27								
28								
29								
9 30								e89. P x n9(p Vi (9f Vi . k Tb. kumm
31								
32								
10 33								
34								
35								35
11 36							cvr y x mdsf osu(ps t° i p)m4, nbp)n pw10 c41Wbcni (p . i nnop1	
37								
38							FSvvH61	Ti))i ° ab,
12 39								
40								40 OCi GNsi)sd)nns
41							cv7r R9f i uTi on9Ub) r c17 uss)1	
42								
13 43								
44								

MFK50KV0Jg- N cr eeeccOOO8gV3ycr NKM: RggM- aF eceeN2/ MF0Jg- NYN0F COyczee

Appendix I

Financial Assurance Cost Estimates

Table 1
Estimated Closure Costs
LRI Landfill, Pierce County, Washington
November 30, 2022 Update

Total Acreage at Full Build-Out: 169.20 Acres
Remaining Closure at Full Build-Out: 125.23 Acres
Remaining Closure at Full Build-Out: 5,455,019 SF

Item	Description	Unit	Unit Price	Quantity	Cost
1	Subgrade Preparation	SF	$ 0.10	5,455,019	$ 545,501.88
2	Bedding Layer	SF	$ 0.71	5,455,019	$ 3,873,063.35
3	Geosynthetic Clay Liner	SF	$ -	-	$ -
4	Geomembrane - Micro DrainLiner	SF	$ 1.38	5,455,019	$ 7,506,105.87
5	Geotextile Filter	SF	$ 0.34	5,455,019	$ 1,860,161.41
6	Vegetative / Topsoil Layer / (14-inch layer)	SF	$ 1.21	5,455,019	$ 6,599,899.29
7	Erosion Control Blanket	SF	$ 0.35	5,455,019	$ 1,909,256.58
8	Hydroseed	acre	$ 3,650.00	125.2	$ 457,089.50
9	Access Road (24 ft wide w/ 3-in asphalt layer)	LF	$ 126.53	1,060	$ 134,121.80
10	Storwater Ditches	LF	$ 51.00	11,024	$ 562,224.00
11	4-inch gas collection piping	LF	$ -	-	$ -
12	6-inch gas collection piping	LF	$ 55.70	19,264	$ 1,073,004.80
13	8-inch gas collection piping	LF	$ 63.00	1,157	$ 72,891.00
14	12-inch gas header piping	LF	$ -	1,919	$ -
15	18-inch gas header piping	LF	$ 124.80	3,001	$ 374,524.80
16	Condensate Sumps	EA	$ 15,825.00	5	$ 79,125.00
17	Vertical Gas Extraction Wells (avg. depth = 84 ft.)	EA	$ 8,728.00	92	$ 802,976.00
	Subtotal				$ 25,849,945
	Mobilization @	5.0%			$ 1,292,497
	Sales Tax @	7.9%			$ 2,042,146
	Engineering and Construction Management @	7.5%			$ 1,938,746
				Estimated Closure Cost:	**$ 31,123,334**
	Total Acreage at Full Build-Out:	169.20			
	Acreage with Final Closure through 2022:	43.97			
	Acres Remaining to be Closed at Full Build-Out:	125.23			
				Estimated Per Acre Unit Cost:	**$ 248,529.38**
	Constructed Acreage through 2022:	137.50			
	Acreage Closed through 2022:	43.97			
	Remaining Acres to be Closed as of January 1, 2022:	93.53			
				Estimated 2022 Closure Cost:	**$ 23,244,953**

Note: Closure and constructed acreages are plan-view.

Table 2
Estimated Annual Post-Closure Costs
LRI Landfill, Pierce County, Washington
November 30, 2022 Update

Total Acreage at Full Build-Out: 169.20
Constructed Acreage through 2022: 137.50

Description	Frequency	Quantity	Unit Cost	Total Cost
LDCRS Monitoring (11 sumps)				
sample collection	quarter	4	$ 1,929.00	$ 7,716.00
laboratory testing	quarter	4	$ 3,485.00	$ 13,940.00
data analysis and reporting	quarter	4	$ 2,572.00	$ 10,288.00
Groundwater Monitoring				
sample collection	quarter	4	$ 7,715.00	$ 30,860.00
laboratory testing	quarter	4	$ 7,732.00	$ 30,928.00
data analysis and reporting	quarter	4	$ 10,287.00	$ 41,148.00
Surface Water Monitoring				
sample collection	quarter	4	$ 707.00	$ 2,828.00
laboratory analysis	quarter	4	$ 653.00	$ 2,612.00
data analysis and reporting	quarter	4	$ 1,929.00	$ 7,716.00
Gas System Monitoring				
surface emission monitoring	quarterly	4	$ 1,286.00	$ 5,144.00
probe monitoring	month	12	$ 1,607.00	$ 19,284.00
data analysis and reporting	annual	1	$ 25,717.00	$ 25,717.00
General Facility Maintenance				
gas system maintenance	annual	1	$ 3,081.00	$ 3,081.00
gas flare replacement, 30 year amortization	annual	1	$ 13,779.00	$ 13,779.00
gas system operation	annual	1	$ 15,406.00	$ 15,406.00
cover maintenance	acre	137.50	$ 357.00	$ 49,087.50
cover replacement & repair	annual	1	$ 3,081.00	$ 3,081.00
sedimentation basin	annual	1	$ 3,562.00	$ 3,562.00
ditch / erosion maintenance	annual	1	$ 1,540.00	$ 1,540.00
buildings	month	12	$ 357.00	$ 4,284.00
equipment	month	12	$ 357.00	$ 4,284.00
General Operating Expenses				
administration	month	12	$ 1,425.00	$ 17,100.00
support services / accounting	month	12	$ 1,425.00	$ 17,100.00
real estate taxes	year	1	$ 56,997.00	$ 56,997.00
electricity	month	12	$ 1,383.00	$ 16,596.00
legal	year	1	$ 1,425.00	$ 1,425.00
engineering	year	1	$ 1,425.00	$ 1,425.00
Leachate System Operation & Maintenance				
pumps	year	2	$ 4,730.00	$ 9,460.00
collection pipe and force main	year	1	$ 2,956.00	$ 2,956.00
storage and load facility	year	1	$ 2,956.00	$ 2,956.00
trucking	gal	1,200,000	0.03	$ 36,000
treatment	gal	1,200,000	0.04	$ 48,000
			Estimated Annual Cost:	**$ 506,301**

Notes: 1) LDCRS monitoring costs assume sample collection, lab testing, and reporting for 10 sumps (LDCRS-1, 2A, 2B, 3A, 4A, 4B, 5, 6, 7, 8, and 9A).
2) Groundwater monitoring costs include sample collection, lab testing, and reporting for 9 wells (MW-1, 2, 3, 4, 5, 6, 7, 9, and 10) and 11 leachate sumps (LCRS-1, 2A, 2B, 3A, 4A, 4B, 5, 6, 7, 8, and 9A).
3) Surface water monitoring costs assume samples will be collected by LRI staff.

Appendix J

LRI Landfill 2022 Tonnage Report Form

DEPARTMENT OF ECOLOGY
State of Washington

ANNUAL REPORT
MUNICIPAL SOLID WASTE LANDFILL

FACILITY NAME: **LRI Landfill**	CALENDAR YEAR OF REPORT: **2022**	PERMIT NUMBER: **27-050**	FACILITY ID: **1948**
FACILITY LOCATION (street address): **30919 Meridian E. Graham, WA 98338**	COUNTY: **Pierce**		
FACILITY CONTACT (name): **George Duvendack**	FACILITY PHONE: **(253) 847-7555**		
FACILITY CONTACT MAILING ADDRESS (if different): **Same**	FACILITY CONTACT PHONE (if different): **Same**	FACILITY CONTACT EMAIL: **George.duvendack@wasteconnections.com**	

Did you operate in 2022 ?

☒ Yes ***If yes***, proceed to next section and complete the form.

☐No ***If no***, answer the following questions, sign and date the last page, and submit. This completes your reporting obligations.

When did you stop operations? _____

Do you plan to restart? ☐ No ☐ Yes When? _____

AMOUNTS AND TYPES OF WASTE DISPOSED PER YEAR

PLEASE CHECK IF DISPOSED	AMOUNT DISPOSED Please check: ☐Cubic Yards or ☒Tons
☒ Municipal/Commercial Solid Waste	685,421
☒ Construction/Demolition Waste	21,188
☒ Yard Waste (disposed)	591
☐ Food Processing Waste (disposed)	0
☐ Landclearing Debris	0
☒ Industrial Waste	73,800
☐ Inert Waste	0
☐ Wood Waste	0
☒ Ash (other than special incinerator ash)	34,583
☐ Dredged Materials	0
☐ Sewage Sludge	0
☒ Asbestos	768
☐ Petroleum Contaminated Soils	0
☒ Other Contaminated Soils	141,012
☐ Tires (disposed)	0
☒ Medical Waste	3
☒ Other (specify):Auto Fluff	148,629
☒ Other (specify):Saw Dust	8
☒ Other (specify): Compost Overs	37,873
☒ Other (specify): Manure	8
Total	**1,143,884**

DID YOU RECEIVE MATERIALS FOR RECYCLING? ☐ Yes (Please specify on pages 3-4.) ☒ No

ADDITIONAL INFORMATION (please check if attached):

☐ Attach results of ground water monitoring in accordance with WAC 173-351-415(1)

☐ Attach applicable financial assurance information in accordance with WAC 173-351-600

☐ For landfills with RD&D allowances, attach report showing progress toward project goals and a summary of monitoring and test results in accordance with WAC 173-351-710(3)(e)

Are you open to the public? ☐ Yes ☒ No

Tip fees (Attach schedule if available): $168.51 per ton

REMAINING PERMITTED CAPACITY:

In tons: 13,620,563

Estimated Date of Closure: 2036

Are you planning an expansion this year?

☐ Yes ☒ No

ENERGY RECOVERY FROM LANDFILL:

Power Produced Annually 32,318,753 kilowatt hours

During the reporting year, were there any changes in your management practices that would impact your operations?

☒ No ☐ Yes (specify) _____

Are there any new solid waste activities planned at your site for this calendar year? ☒ No ☐ Yes (specify) _____

_____

Planned start date: _____

DID YOU RECEIVE MATERIALS FOR DISPOSAL FROM:	WHERE FROM	TYPE OF WASTE	ESTIMATE AMOUNT ☒Tons or ☐Cubic Yards
Out of County? ☐ Yes ☒ No			
Out of State? ☐ Yes ☒ No			
Out of Country? ☐ Yes ☒ No			

NOTE: Please ONLY fill in this chart if you collected materials for RECYCLING or COMPOSTING

AMOUNTS AND TYPES OF MATERIALS COLLECTED FOR RECYCLING OR COMPOSTING

PLEASE CHECK IF RECEIVED FOR RECYCLING or COMPOSTING	COMMERCIAL Please check: ☐ Cubic Yards/Year or ☐ Scaled Tons/Year	RESIDENTIAL Please check: ☐ Cubic Yards/Year or ☐ Scaled Tons/Year	TOTAL AMOUNT RECEIVED Please check: ☐ Cubic Yards/Year or ☐ Scaled Tons/Year
☐ Newspaper			
☐ Corrugated Paper			
☐ Mixed Waste Paper			
☐ Container Glass			
☐ PET Plastics			
☐ HDPE Plastics			
☐ LDPE Plastics			
☐ Other Recyclable Plastics			
☐ Aluminum Cans			
☐ Tin Cans			
☐ Ferrous Metals (iron, steel)			
☐ Nonferrous Metals (excluding aluminum cans)			
☐ Appliances (white goods)			
☐ Electronics (computers, CPUs, hard drives)			
☐ Electronics (monitors, TVs)			
☐ Tires (collected)			
☐ Asphalt			
☐ Concrete			
☐ Construction/Demolition			
☐ Wood Waste			
☐ Landclearing Debris			
☐ Yard Debris			
☐ Food/Food Scraps			
☐ Textiles (rags, clothing)			
☐ Co-Mingled Recyclables (specify):			
☐ Other (specify):			
Total			

NOTE: Please ONLY fill in this chart if you collected materials for RECYCLING or COMPOSTING

DESTINATION AND FINAL USE OF OUTGOING MATERIALS COLLECTED FOR RECYCLING or COMPOSTING

MATERIAL	OUTGOING AMOUNT Please specify tons or cubic yards.	DESTINATION FACILITY Please specify name, city, state.	FINAL USE Please specify: disposed, recycled, reused, composted, treated, burned for energy, stockpiled, etc.

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