2025 Annual Environmental Monitoring Report
Westside Landfill, West Kelowna, BC



PRESENTED TO
Regional District of Central Okanagan

APRIL 7, 2026
ISSUED FOR USE
FILE: 704-SWM.SWOP05263-01

Tetra Tech Canada Inc.
14940 - 123 Avenue
Edmonton, AB T5V 1B4 CANADA
Tel 780.451.2121 Fax 780.454.5688

This page intentionally left blank.

EXECUTIVE SUMMARY

The Regional District of Central Okanagan (RDCO) retained Tetra Tech Canada Inc. (Tetra Tech) to undertake the 2025 annual environmental reporting for the Westside Landfill ("the Site" or "the Landfill"), which is located at 2640 Asquith Road, West Kelowna, British Columbia (BC). The legal description of the Site is District Lot 3794, Osoyoos Division of Yale Land District (ODYD).

The Landfill was previously operated under Operational Certificate (OC) PR-12217 as issued by the BC Ministry of Environment and Parks (BC MoEP) and has been closed to landfilling operations since 2010. The Site was partially covered in 2010, and closure work was completed in 2018. The Site currently contains an active transfer station on the south side of the Landfill. The objective of the environmental monitoring program is to assess the groundwater quality, landfill gas (LFG) monitoring data, the condition of the existing well network, and to identify potential groundwater quality concerns or LFG monitoring concerns related to operations of the Site.

Sixteen monitoring wells have been installed at the Site and seven remain as part of the groundwater monitoring network. Groundwater levels were recorded at all possible locations and were sampled for the following parameters: pH, electrical conductivity (EC), major ions, hardness, total dissolved solids (TDS), dissolved metals, total alkalinity, ammonia, and nitrate (i.e., group one parameters, collected semi-annually) for all monitoring wells. Additional analyses were conducted on samples retrieved from BH-1 which included: biochemical oxygen demand (BOD); chemical oxygen demand (COD); benzene, toluene, ethylbenzene, xylene, and styrene (BTEXS); light extractable petroleum hydrocarbons (LEPHs) and heavy extractable petroleum hydrocarbons (HEPHs); polycyclic aromatic hydrocarbons (PAHs); and volatile organic compounds (VOCs) (i.e., group two parameters, collected biennially).

The groundwater quality at the Site is overall similar to previous years with no significant differing trends noted in 2025.

- Hydraulically down-gradient to the south, but within the Site boundary, groundwater quality impacts were observed; BH-1 showed an increased trend in chloride concentration beginning in 2021, and concentrations exceeded the BC Contaminated Sites Regulation (CSR) Drinking Water (DW) Standard in 2025. However, the chloride concentration at BH-1 remained within the 5-year historical range in 2025 and was consistent with historical results. Concentrations of LEPH, HEPH, PAHs, VOC, and BTEXS in 2025 at BH-1 were found to be non-detect.

- Likewise, at BH-4, approximately 50 m to the south of the southern Landfill boundary, groundwater quality impacts were also observed, although to a lesser extent. Chloride concentrations exceeded the DW Standards in 2025. Chloride concentrations at BH-4 have remained generally stable in recent years; however, concentrations increased marginally in 2025 and have reached a 5-year historical high.

- Further hydraulically down-gradient to the south at BH-3 and BH-5, as well as at the hydraulically cross-gradient monitoring well BH-7, chloride concentrations remained stable or showed a decreasing trend in 2025 and remained within each well's respective 5-year historical range.

- The chloride concentrations at MW99-2, on the west side of the Site, have shown an increasing trend since 2022 and reached a historical high in 2025; however, concentrations did not exceed the DW Standard. The chloride concentrations at MW99-2 should be closely monitored in 2026. It is possible that the up-gradient monitoring well MW99-2 is being influenced by surface water collected and transmitted by the drainage feature to the north of the well as this drainage feature may collect surface water runoff from the development to the north of the Site (i.e., calcium chloride and sodium chloride road salt).

- All monitoring wells sampled as part of the 2025 environmental program recorded a CSR DW Standards exceedance during at least one event for at least one of the dissolved metals cobalt, lithium, manganese, and uranium. All exceedances for these parameters were less than the background water quality concentrations provided by Protocol 9 for the Thompson-Okanagan Region for the various parameters (BC MoEP 2023). The concentrations observed at the Site were either interpreted to reflect the representative background water quality conditions with respect to the varying dissolved metals parameter or the DW Standards did not apply based on the applicable land uses outlined in Schedule 2 of the CSR, or both. Consequently, the exceedances are not related to past operational activities at Site.

In 2025, methane concentrations were generally less than each LFG monitoring well's respective action level with two exceptions. The exceptions to this were BH-102 and BH-103, as they were the only locations that recorded methane concentrations exceeding of that location's applicable methane action level. Concentrations at these locations were 100% of the lower explosive limit (LEL, or 50,000 parts per million [ppm]) and 38% of the LEL (19,000 ppm) during the April 2025 monitoring event, respectively. The methane concentrations at the locations' respective offset (or step-out) vapour probes were below the applicable methane action levels for those locations and were therefore compliant with the 2013 LFG Management Plan by Golder Associates Ltd. Hydrogen sulphide concentrations were below the detection limit (i.e., less than 1% of the LEL, or 500 ppm) of the RKI Eagle 2 (serial number E2E406) at all locations in 2025.

Both the groundwater monitoring program and the LFG monitoring program should continue as completed in 2025, until the pending OC permit (PR-12217) is issued and the Updated Closure Plan is accepted. It is noted that the Updated Closure Plan will confirm the monitoring requirements for both the groundwater and LFG monitoring programs.

TABLE OF CONTENTS

LIST OF TABLES IN TEXT

APPENDIX SECTIONS

TABLES

FIGURES

APPENDICES

LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of the Regional District of Central Okanagan and their agents. Tetra Tech Canada Inc. (Tetra Tech) does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than The Regional District of Central Okanagan, or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this document is subject to the Limitations on the Use of this Document attached in the Appendix A or Contractual Terms and Conditions executed by both parties.

1.0 INTRODUCTION

The Regional District of Central Okanagan (RDCO) retained Tetra Tech Canada Inc. (Tetra Tech) to undertake the 2025 annual environmental reporting for the Westside Landfill ("the Site" or "the Landfill"), which is located at 2640 Asquith Road, West Kelowna, British Columbia (BC). The legal description of the Site is District Lot 3794, Osoyoos Division of Yale Land District (ODYD). A regional map showing the Site location and the Site plan are shown on Figure 1 and Figure 2, respectively.

The Landfill was previously operated under the Operational Certificate (OC) PR-12217[1] as issued by the BC Ministry of Environment and Parks (BC MoEP) and has been closed to landfilling operations since 2010. The Site was partially covered in 2010, a Closure Plan (Golder Associates Ltd. [Golder] 2015) was accepted by the BC MoEP in 2017, and closure work was completed in 2018 (WSP Canada Inc. [WSP] 2024). The Site currently contains an active transfer station on the south side of the Landfill. The objective of the environmental monitoring program is to assess the groundwater quality, landfill gas (LFG) monitoring data, the condition of the existing well network, and to identify potential groundwater quality concerns or LFG monitoring concerns related to post-closure operations of the Site.

1.1 Scope of Work

Tetra Tech's scope of work for the 2025 annual environmental reporting program at the Site included:

- Completing a Site inspection as described in Section 3.4 of the OC which included, but was not limited to, erosion, vegetation, slope stability, and safety concerns.
- Preparing an annual report summarizing field activities undertaken in 2025 including the results of the Site inspection, interpreting the measured LFG measurements, interpreting the measured groundwater levels and groundwater analytical results, and providing recommendations for the Site.
- Reviewing the LFG monitoring results collected by the RDCO within 24 hours and follow or advise any action items required.

The RDCO undertook the LFG, groundwater, and surface water monitoring and sampling in the field and supplied the results to Tetra Tech. Tetra Tech undertook the Site inspection along with staff from the RDCO.

The work was undertaken as part of Contract No. A25-110 issued by the RDCO for Landfill Monitoring Services.

1.2 Background

1.2.1 Site History, Development, and Operations

The 2024 Annual Report (WSP 2025) outlined the Site history, development, and operations, and is summarized in the following section. The Site was originally permitted under the OC in 1997 and was operated as a municipal solid waste (MSW) landfill until 2010 when the Site was closed. Upon closure in 2010 the Site was partially covered. In 2015, Golder developed a Closure Plan for submission to the BC MoEP and this document was accepted in September 2017 (WSP 2024). The Landfill closure work was overseen by Urban Systems Ltd. (USL) with work concluding in November 2018 (WSP 2024). The Site now operates as a transfer station.

[1] Originally termed PR 12217 dated May 28, 1997, amended as OC 12217 dated September 6, 2017. Currently a draft amended OC is in preparation but has not yet been finalized.

The 2025 Landfill Monitoring Program was conducted in accordance with the OC and following the recommendations outlined in the Updated Landfill Monitoring Program (Golder 2014) and the Closure Plan (Golder 2015). The BC MoEP accepted the proposed changes to the monitoring and inspection plan outlined in the Closure Plan (Golder 2015) in September 2017. The goal of the Updated Landfill Monitoring Program (Golder 2020) was to:

- Reflect the installation of the LFG monitoring locations since the previous Landfill Monitoring Program update in 2014;
- Reflect the decommissioning of vapour wells in 2018 and recommend replacements; and
- Review the monitoring and sampling requirements following closure activities at the Site.

This Updated Landfill Monitoring Program was submitted to the BC MoEP in 2020 as part of an amendment application for the OC (Golder 2020). This document has not been approved, but the BC MoEP has issued a draft OC amendment in April 2025 that is currently being finalized. The draft OC amendment reflects more recent changes to the monitoring and sampling program such as only analyzing biennially for the group two parameters at BH-1 as well as outlining partial (i.e., June, July, September, and October) and full (i.e., November through May and August) monthly LFG monitoring requirements. Tetra Tech is also supporting the RDCO with preparation of an update to the post-closure inspection, maintenance, and monitoring program. The OC (PR-12217 dated May 28, 1997) and the BC MoEP letter pertaining to the approval of the Closure Plan and request for an updated OC (dated September 6, 2017) are contained in Appendix C.

The Site has an area of approximately 21.4 hectares (Google Earth 2026) and is accessed from the southwest, off of Asquith Road. Onsite topography generally slopes to the south, with northern, eastern, and western components off of the closed Landfill mound.

1.2.2 Geological and Hydrogeological Background

A search of the BC Water Resource Atlas and Abacus Datagraphics Ltd. (AbaData) on January 29, 2026, identified the following information regarding bedrock, watersheds, aquifers, and water wells in proximity to the Site. The information is further supplemented by maps from the Geological Survey of Canada (GSC; Paradis 2009; Okulitch 2013).

- The surficial soil deposits are glacial sediments described as a *diamicton comprising lodgement and ablation facies; thickness generally over 1 m* (i.e., till) and ice contact sediments comprising *sand and gravel, boulders, may contain some diamicton layers; up to 12 m thick; forming eskers, kames, kames terraces and morainic* (Paradis 2009). This is consistent with the surficial material encountered at Site as described on the borehole logs (Appendix B).
- The bedrock underlying the Site is the Nimpit Lake Member of the Marron Formation, which is described as lava, trachyte, trachy andesite, and minor breccia (Okulitch 2013) of the Eocene. The Site is bounded on three sides by bedrock faults and the bedrock in the area is likely fractured.
- The Site lies within the Davidson Creek watershed, which progressively feeds into the Tomat Creek watershed, Smith Creek watershed, the Okanagan River watershed, and ultimately the Columbia River watershed (BC Water Resources Atlas 2026).
- The southern portion of the Site is underlain by Aquifer 301, identified as the Shannon Lake aquifer, consisting of confined sands and gravels of glacial origin with moderate productivity, moderate vulnerability, and subject to moderate demand. The Site is also underlain by Aquifer 304, consisting of fractured bedrock with low productivity, moderate vulnerability, and subject to moderate demand.

- Based upon historical groundwater elevations as well as the topography of the Site, the inferred groundwater flow direction at the Site is to the southeast. Tetra Tech has not been provided with, or reviewed, any hydraulic conductivity data collected at the Site.
- The closest aquatic receptors in the vicinity of the Site are:
  - Shannon Lake, which lies approximately 350 m to the northeast of the Site;
  - George Lake, which lies approximately 350 m to the south of the Site (and over 500 m from the waste footprint);
  - An unnamed watercourse approximately 500 m to the west of Site;
  - Davidson Creek, which lies approximately 650 m to the northeast of the Site and drains into Shannon Lake;
  - Smith Creek, approximately 700 m to the west of Site;
  - Tomat Creek, approximately 700 m to the south of Site;
  - McDougall Creek, approximately 1.8 km to the east of Site;
  - Okanagan Lake, approximately 3.0 km south of the Site at its closest point, and approximately 5.7 km to the east of Site; and
  - Various other unnamed watercourses to the north, east, south, and west of the Site.
- The records for fifty-eight (58) water wells were identified within 1.6 km of the Site (all of which were unlicensed), the search results are contained in Appendix E. The closest water wells are two wells, each approximately 240 m to the east and west of the Site, respectively. The east well has its intended use listed as commercial and industrial and the west well has its intended listed use as unknown. The intended use of the 58 wells were: private domestic (27), unknown well use (14), commercial and industrial (7), water supply system (6), not applicable (3), and other (1). The majority of these wells are to the east and northeast of the Site in proximity to Shannon Lake, with a smaller number of wells to the south, west, and southeast of the Site. This list includes the destroyed Dobbins Well and six other abandoned or closed wells within the 1.6 km search area, the five down- or cross-gradient off-site monitoring wells (BH-3, BH-4, BH-5, BH-7, and BH-8), and one on-site monitoring well (BH-6).
- Sixty-one (61) water rights licenses were identified within 1.6 km of the Site, 32 of which were listed as active and current. Listed purposes/uses include private irrigation (20), domestic (6), livestock watering (2), non-power stream storage (2), and lawn, fairway, and garden watering (2).

1.2.3 Monitoring Well Network

Sixteen monitoring wells have been installed at the Site; seven of which remain as part of the groundwater monitoring network. The monitoring well IDs, descriptions, and sampling frequency are noted in Table A below. A Site plan showing the locations of the groundwater monitoring wells is presented on Figure 2. Available borehole logs for the wells included in the monitoring program are included in Appendix B.

Table A: Monitoring Well Network

Monitoring Well ID	Description	Sampling Frequency
BH-1	Shallow	Semi-annual*
BH-2	Shallow	Semi-annual
BH-3	Deep	Semi-annual

Monitoring Well ID	Description	Sampling Frequency
BH-4	Shallow	Semi-annual
BH-5**	Deep	N/A
BH5-25	Deep	Semi-annual
BH-6	N/A	N/A
BH-7	Shallow	Semi-annual
BH-8	Shallow	N/A
BH-101D	Shallow	N/A
BH-101S	Shallow	N/A
BH-102	Shallow	N/A
BH-103	Shallow	N/A
MW07-1	Shallow	N/A
MW99-2	Shallow	Semi-annual
MW99-3	Shallow	N/A
MW99-4	Shallow	N/A

Note:
*BH-1 is sampled semi-annually for group one parameters and biennially for group two parameters.
**BH-5 was decommissioned and replaced with BH5-25 in October 2025, prior to the fall sampling event.
Semi-annual refers to spring (March to May) and fall (September to November) monitoring.
Shallow refers to well depths of less than 10 m and Deep refers to well depths greater than 10 m.

No sample was obtained from BH-1 in the spring of 2025 as the monitoring well's polyvinyl chloride (PVC) casing was noted as broken with soil infiltration. Likewise, no sample was obtained in the spring of 2025 at BH-5 as the Waterra pump tubing was obstructed. Samples were obtained from all monitoring wells in the network during the fall, including BH-1 and BH-5, which had been repaired/replaced.

As outlined in the Tetra Tech (2026) technical memo, *BH-1 Repair and New BH-5 Well Installation*, dated January 12, 2026, both BH-1 and BH-5 were repaired/replaced in October 2025. Monitoring well BH-1 was repaired by removing the damaged surficial PVC casing and replacing it with new PVC, and the old BH-5 was decommissioned and a new borehole, BH5-25, was advanced to a depth of 13.11 metres below ground surface (mbgs) and completed as a monitoring well.

1.2.4 Landfill Gas Monitoring Network

The 2024 Monitoring Report (WSP 2025) outlined the history of the LFG monitoring program and is summarized in this section.

An LFG Management Plan was developed in 2013 in consultation with the BC MoEP (Golder 2013); the 2015 Closure Plan (Golder 2015) proposed changes to the 2013 LFG Management Plan. Most of these proposed changes have been implemented as they are consistent with the 2013 LFG Management Plan.

In 2015, VP15-01, VP15-02, and VP15-03 were installed, the first two located along the eastern boundary of the Site, along the edge of the filling area, to serve as offset (or step-out) vapour probes for the existing VP07-02, and to provide additional monitoring points in proximity to the property boundary. Vapour probe VP15-03 was installed in proximity to BH102 to provide an additional LFG monitoring point at depth.

Seven vapour probes located to the north of the Site were decommissioned during earthworks completed in relation to the Tallus Developments Ltd. (Tallus) residential development. The wells removed included VP07-11, VP07-12, VP07-13, VP07-17, VP07-18, VP07-19, and VP07-20 and Tallus has not given permission for the re-installation of the decommissioned vapour probes. An updated LFG Management Plan (Golder 2020) was created in 2020 to reflect the above changes, which included the recommendation to install three replacement vapour probes, strategically placed and screened along the northern boundary of the Site. In a BC MoEP letter addressed to the RDCO, these three replacement vapour probes were to be installed by December 15, 2023. Consequently, these three vapour probes (VP23-01, VP23-05S, and VP23-05D) as well as four additional vapour probes (VP23-02, VP23-03, VP23-04, and VP23-06) were installed in November 2023 (WSP 2024).

1.2.5 Regulatory Framework

To date, landfill design and operation in BC are regulated by the following documentations:

- *Environmental Management Act* (October 2003) – covers waste disposal, MSW management, contaminated sites, and greenhouse gas (GHG) generation;
- *Landfill Criteria for Municipal Solid Waste* (June 2016) – guidance document for siting, design, and operation of landfills (the Landfill Criteria);
- *Landfill Gas Management Regulation* (December 2008) – covers subsurface LFG monitoring and management;
- *Guidelines for Environmental Monitoring at MSW Landfills* (January 1996) – covers parameters for environmental monitoring and reporting; and
- *BC Contaminated Sites Regulation* – covers parameters for assessing groundwater quality at contaminated sites.

The *BC Contaminated Sites Regulation* (CSR) provides the numerical standards for the evaluation of groundwater quality (Schedule 3.2) and has been determined to be appropriate to the Site in accordance with Section 4.1 of the Landfill Criteria. There are four groundwater quality standards and they include standards for the protection of the pathways for aquatic life (AW), irrigation water (IW), livestock watering (LW), and drinking water (DW). BC MoEP Protocol 21, Water Use Determination (BC MoEP 2017), provides guidance for determining the applicable groundwater uses at a site. The term “groundwater used for drinking water” is applicable to the Site. There are no active potable water wells identified at the Site. The closest well identified as having an intended water use of “private domestic” as identified by the BC Water Resource Atlas was identified in the Atlas as Well Tag 56228 and was colloquially referred to as the Dobbins Well in prior reporting, noted as having been previously destroyed (WSP 2024), and was located approximately 25 m west of the Site. The second closest well identified as having an intended water use of “private domestic” as identified by the BC Water Resources Atlas is located approximately 260 m east of Site and is identified by the Well Tag 61674.

Protocol 21 considers the AW Standards applicable *to all groundwater located within 500 m of an aquatic receiving environment unless it can be demonstrated that the groundwater does not flow to that receiving environment* (BC MoEP 2017). The closest aquatic receptors are noted in Section 1.2.2 are Shannon Lake (350 m to the east), George Lake (350 m to the south), and an unnamed watercourse (500 m to the west). Previous investigations have ruled out Shannon Lake and the unnamed watercourse as a receptors of groundwater from the Site as the groundwater flow direction has been historically interpreted to be to the southeast. George Lake is approximately 350 m from the Landfill property boundary; however, it is over 500 m from the waste footprint as outlined in the Closure Plan (i.e., closure area A; Golder 2015). Therefore, the AW Standards have not been applied to the Site.

Protocol 21 considers the IW or LW Standards applicable at sites *where groundwater or surface water at or nearby a site is currently used for irrigation or livestock watering* (i.e., irrigation or livestock watering wells or surface water intakes are located within a 500 m radius of a site; BC MoEP 2017). Protocol 21 also states that if groundwater flow at the Site has been reliably determined, the radius can be reduced to 100 m up-gradient of Site and 500 m cross-gradient or down-gradient of Site (BC MoEP 2017). Based on a review of water rights licenses, surface water intakes, and water wells, the IW and LW Standards are not applicable to the Site.

These Standards are summarized in Schedule 3.2 of the CSR and Schedule 2 of the CSR provides stipulations about the applicability of different standards for different land uses.

2.0 METHODS

A discussion of the methods used for the fieldwork, laboratory testing, and data evaluation is presented in Section 2.1, Section 2.2, and Section 2.3.

2.1 Field Program

The RDCO completed the 2025 spring and fall groundwater monitoring and sampling for the program on May 5 and May 6, 2025, and November 3 and November 4, 2025, respectively. The RDCO also completed monthly LFG monitoring at the designated LFG monitoring points in 2025. The RDCO's monitoring program included the measurement of the static groundwater levels within each well using an electronic water level probe. All monitoring wells included in the environmental monitoring plan (EMP) that required sampling were then purged of approximately three standing well volumes of water, or until practically dry. The groundwater levels in the wells were given sufficient time to recover and the groundwater samples were collected on May 6, 2025, and November 4, 2025. Field measurements for pH, electrical conductivity (EC), and groundwater temperature were recorded by the RDCO at each location at the time of sample collection using a Yellow Springs Instrument (YSI) water sampling meter.

LFG measurements obtained during the spring and fall groundwater monitoring and sampling events were collected using an RKI Eagle 2 (serial number E2E406) vapour meter at the designated locations on May 5, 2025, and November 3, 2025, respectively. Field calibration sheets were used to document the calibration and the bump test gas (Gasco Cylinder 25 parts per million [ppm] hydrogen sulfide, 50 ppm carbon monoxide, 12% oxygen, and 2.5% methane) used during the calibration. Likewise, the other monthly LFG monitoring events, which were not completed in association with the groundwater monitoring and sampling events, were completed with an RKI Eagle 2 and the field calibration documents were provided to Tetra Tech.

Section 1.2.3 discusses the monitoring well network and outlines that as per the RDCO's field notes, samples were not obtained from BH-1 and BH-5 during the spring 2025 monitoring and sampling event but were collected during the fall event after repair and replacement activities were undertaken in October 2025.

Groundwater samples were submitted to CARO Analytical Services (CARO) in Kelowna, BC, for analysis.

2.2 Analytical Testing

The 2025 analytical program for groundwater consisted of pH, EC, major ions, hardness, total dissolved solids (TDS), dissolved metals, total alkalinity, ammonia, and nitrate (i.e., group one parameters, collected semi-annually) for all monitoring wells. Additional analyses (i.e., group two parameters, collected biennially) were conducted on samples retrieved from BH-1 which included: biochemical oxygen demand (BOD); chemical oxygen demand (COD);

benzene, toluene, ethylbenzene, xylene, and styrene (BTEXS); light extractable petroleum hydrocarbons (LEPHs) and heavy extractable petroleum hydrocarbons (HEPHs); polycyclic aromatic hydrocarbons (PAHs); and volatile organic compounds (VOCs). CARO, an accredited laboratory located in Kelowna, BC, conducted all chemical analyses. Information on the analytical methods used by CARO and the chemical analysis reports are included in Appendix D.

2.2.1 Quality Assurance and Quality Control

As part of the quality assurance/quality control (QA/QC) program for the Site, Tetra Tech understands that the following protocols were used by RDCO personnel during the monitoring and sampling programs:

- Recording the results of field activities concurrently with the activities.
- Transporting temperature-sensitive samples to the laboratory in coolers using chain-of-custody (COC) procedures, minimizing holding times, and with the aim of adhering to recommended holding times.
- Obtaining blind duplicate samples for submission to the laboratory for analysis for each of the spring and fall events.
- Using a Canadian Association for Laboratory Accreditation (CALA)-accredited laboratory (i.e., CARO) qualified to analyze the samples using approved procedures.

The laboratory QA/QC program included the analysis of laboratory method blanks, duplicates, surrogate recovery, and chemical spikes. Surrogate recovery is analyzed by spiking samples with known quantities of surrogate chemicals which have similar chemical properties to the parameters being analyzed. The reported recovery provides an indication of the analytical method accuracy. Chemical spikes are conducted by adding known concentrations of the analyte of interest to a sample to evaluate the effects of the sample matrix on the analytical method. The results of the blind duplicate QA/QC analyses are presented in Section 3.4.

Field parameters (temperature, EC, and pH) were collected using the YSI device in the field in order to supplement the laboratory pH data as the laboratory hold time for pH testing is 15 minutes. To assess the reliability of the laboratory data, the RDCO submitted two blind duplicate groundwater samples during the annual program. The duplicate samples were submitted for laboratory analysis for the same suite of parameters as the parent samples.

The field sampling and laboratory testing reproducibility of each parent-duplicate pair was evaluated using the relative percent difference (RPD) method, involving calculation of the RPD when both parent-duplicate concentrations were greater than, or equal to, five times the reportable detection limit (RDL), as shown in Equation 1.

Equation 1:

$$RPD = \left[\frac{(V_1 - V_2)}{\frac{(V_1 + V_2)}{2}}\right] * 100\%$$

Where:

V_1 = Parent Sample

V_2 = Duplicate Sample

Chemical parameters were considered as having passed the QA/QC reproducibility procedure if the RPD was less than, or equal to, 20%, indicating a close correlation between the parent-duplicate pair. Values for the RPD were not calculated if one or both of the sample-duplicate concentrations were between the RDL and five times the RDL. In these cases, chemical parameters were still considered as having passed the QA/QC reproducibility procedure if the sample duplicate concentration difference was less than one RDL value. The results of the QA/QC program are discussed in Section 3.4.

2.3 Data Evaluation

The 2025 groundwater analytical results were compared relative to the CSR DW Standards and the background water quality concentrations for the Thompson-Okanagan region, outlined as follows.

Protocol 9 for Contaminated Sites (BC MoEP 2023) offers guidance on establishing local background concentrations in groundwater. The Government of BC has a published database of background concentrations in groundwater for various regions throughout the province (iMapBC). A check of the iMapBC database on February 2, 2026, found that the Site is directly adjacent to, and surrounded by, the identified Thompson-Okanagan region for background concentrations in groundwater. As none of the monitoring wells on Site represent background groundwater chemistry, these concentrations were selected as representing background groundwater conditions at the Site and have been used to aid in results interpretation.

It is noted that dissolved iron and dissolved manganese were compared to the CSR DW Standards. The Standards for these parameters do not apply at the Site based on the applicable specified land use listed in Schedule 2 of the CSR[2]; however, the comparison is of diagnostic value and presented for informational purposes rather than being considered in terms of an exceedance.

3.0 RESULTS

Results of the spring and fall groundwater monitoring and sampling event and trend analyses are presented in Section 3.1 to Section 3.3.

3.1 Groundwater Monitoring Results

The groundwater levels from 2020 to 2025 are presented in Table 1 and historical groundwater levels are presented in Table 2. A monitoring well hydrograph for the years 2020 to 2025 is presented on Figure 3. A historical hydrograph with groundwater elevations from 1997 to present is presented on Figure 4. The groundwater elevations and interpreted shallow groundwater elevation contours for spring and fall 2025 are presented on Figure 5 and Figure 6, respectively. Table B contains a summary of the groundwater elevation data, in metres above sea level (masl), since 2020.

The groundwater elevations in 2025 generally remain within the wells' individual and respective 5-year historical range. Exceptions include BH-3 and BH-7, where a 5-year peak groundwater elevation was recorded in May before decreasing to within the 5-year historical range in November at both wells, and at BH-5 where a 5-year historical low groundwater elevation was recorded in November. Marginal decreasing trends in groundwater elevation were observed at BH-1 and BH-5. An increasing trend in groundwater elevations could be seen at BH-3 and BH-7 from November 2023 to May 2025 before groundwater elevations decreased in November 2025. Groundwater elevations

[2] Category H13, municipal waste storage, recycling, composting, or landfilling under the waste disposal and recycling operations and activities category. Standards do not apply to this land use category as per Schedule 3.2 of the CSR.

were either stable or did not show a trend (i.e., were variable) at the remaining monitoring wells. Monitoring wells BH-4 and MW99-2 show the greatest seasonal variability with groundwater elevations typically being higher in the spring and lower in the fall.

Table B: 2020 to 2025 Groundwater Elevation Data

Monitoring Well ID	Groundwater Elevation Data – 2020 to 2025			Groundwater Elevation (masl)	
	Range (masl)	Average (masl)	Standard Deviation	Spring 2025	Fall 2025
Shallow Wells					
BH-1	515.73 – 516.65	516.38	0.30	516.47	515.81
BH-2	522.46 – 523.49	523.36	0.29	523.49	523.47
BH-4	491.01 – 492.59	491.88	0.50	492.26	491.15
BH-7	495.35 – 496.49	495.88	0.29	496.49	495.95
MW99-2	539.62 – 541.50	540.89	0.45	541.19	540.83
Deep Wells					
BH-3	457.10 – 458.05	457.55	0.25	458.05	457.77
BH-5	476.72 – 477.21	477.08	0.15	-	476.72

Notes:
*BH-5 was obstructed during the spring 2025 field event and was replaced in the summer months prior to the fall 2025 field event as **BH5-25.**

Based on the EMP and the monitoring well network configuration (i.e., no nested groundwater monitoring wells), it is not possible to determine a vertical hydraulic gradient at the Site.

Based on the calculated groundwater elevations for the wells, the inferred shallow groundwater flow direction was interpreted to be southeast under a calculated average horizontal gradient of approximately 0.11 m/m in the spring and 0.12 m/m in the fall of 2025. Figure 5 and Figure 6 present spring 2025 and fall 2025 results, respectively. The inferred groundwater flow direction is consistent with historical results.

3.2 Groundwater Analytical Results

Analytical results from 2020 to 2025 are summarized in Table 3. The dominant dissolved ions at the Site are calcium, magnesium, and bicarbonate. Historical groundwater analytical data is included in Appendix B. The following (Table C) contains a summary of pertinent analytical results for key indicator parameters and select dissolved metals. Results are presented in micrograms per litre (µg/L). Trend plots for selected parameters are included on Figure 8 to Figure 16. At BH-1, LEPH, HEPH, PAHs, VOC, and BTEXS were analyzed for in 2025. All of these parameters were found to be non-detect.

Table C: Groundwater Analytical Results

Parameter	Unit	CSR Standards	Protocol 9 Background Concentration Thompson-Okanagan Region	Measured Concentrations in 2025			Comments on Overall Trends
		BC Schedule 3.2 Water DW – Drinking Water		Range	Greater than Standard	Greater than Background Concentration	
Routine Parameters and Nutrients							
TDS	µg/L	None	None	272,000 (BH-7^{S}) – 1,480,00 (BH-2^{S})	N/A	N/A	The highest concentrations are at BH-1 on the south boundary, BH-4 south of the Site boundary, and BH-2 on the northeast boundary. Concentrations at BH-3, BH-4, BH-5 south of the Site boundary, and MW99-2 along the west boundary are relatively stable, the first three exhibiting a minor decreasing trend over 2020 to 2025 and MW99-2 exhibiting a minor increasing trend. Concentrations in BH-1, BH-2, and BH-7 east of the Site boundary have been highly variable over time, with the latter two exhibiting a decreasing trend since 2024. From 2024 to 2025, BH-4, MW99-2, and BH-7 increased, BH-2 and BH-5 decreased, and BH-3 remained unchanged.
Sulphate (Figure 8)	µg/L	500,000	None	12,600 (BH-7^{S}) – 80,600 (BH-2^{S})	None	N/A	The concentrations at BH-2 and BH-4 are elevated compared to the other monitoring wells at Site, but overall concentrations show a decreasing trend in the 5-year historical range. BH-1 shows the greatest variability, but concentrations also show a general decreasing trend in the 5-year historical range. Concentrations at BH-4, BH-5, and BH-7 remain within the 5-year historical range. The concentration at MW99-2 reached a 5-year historical peak concentration in the fall of 2025, exhibiting a minor increasing trend; however, concentrations remain significantly below the DW Standards at all locations.
Chloride (Figure 9)	µg/L	250,000	None	24,300 (BH-7^{S}) – 343,000 (BH-1^{F})	BH-1^{F} and BH-4^{SF}	N/A	The chloride concentration at BH-1 is variable year over year and season to season and has shown an increasing trend beginning in fall 2021; however, concentrations remain within the 5-year historical range. The concentration at BH-4 has remained relatively stable overall; however, concentrations exhibit a gradual increasing trend beginning in the spring of 2023, reaching a 5-year historical peak in the fall of 2025. Similarly, the concentration at MW99-2 shows an increasing trend starting in spring 2022 and concentrations have reached a 5-year historical high in fall 2025. Concentrations at BH-2 and BH-5 show gradual decreasing trends beginning in spring 2022 and fall 2023, respectively. Concentrations at BH-3 and BH-7 have remained within a narrow range over the same period.
Nitrate (Figure 10)	µg/L	10,000	None	Non-Detect (multiple wells) – 4,790 (BH-7^{F})	None	N/A	Nitrate concentrations at BH-3, BH-4, and BH-5 have shown a decreasing trend since fall 2022. Concentrations at BH-1 appear to exhibit a seasonal effect and concentrations at BH-7 have increased from an historical low in 2024 to near the historical high in 2025. Concentrations at BH-2 remained stable.
Ammonia (Figure 11)	µg/L	None	None	Non-Detect (multiple wells) – 1,380 (BH-1^{F})	N/A	N/A	Ammonia concentrations at BH-1 and BH-2 are an order of magnitude higher than in other wells. The ammonia concentration at BH-1 showed periodic wide variations, but an upward trend overall, whereas no trend was observed in the concentrations at BH-2. Concentrations in BH-3, BH-4, BH-5, BH-7, and MW99-2 are, and have been, largely below the detection limit and detectable concentrations are 119 µg/L or less. The fall 2024 and fall 2025 concentrations at BH-5 reached a 5-year historical high in the fall of 2025, well above the usual non-detect.
Dissolved Metals							
Dissolved Cobalt (Figure 12)	µg/L	1	16	Non-Detect (MW99-2) – 2.18 (BH-1^{F})	BH-1^{F}, BH-2^{S}, and BH-4^{SF}	None	Concentrations of dissolved cobalt at BH-1, BH-2, and BH-4 are approximately twice those measured at the other wells, with concentrations at BH-1 exhibiting the greatest variability and with no overall trend. It is noted the concentrations did increase from 2024 to 2025 (0.67 µg/L to 2.18 µg/L); however, concentrations remained within the historical range. The remaining monitoring wells have been stable or decreasing in the previous five years.
Dissolved Iron (Figure 13)	µg/L	6,500[1]	12,000	Non-Detect (multiple wells) – 11,400 (BH-1^{F})	BH-1^{F}	None	The dissolved iron concentrations have typically remained non-detect for most monitoring wells at the Site historically. Only monitoring wells BH-1 and BH-2 have consistently observable (i.e., greater than the detection limit) concentrations of dissolved iron. The concentration at BH-2 has remained stable overall in the 5-year historical data range with a marginal decreasing trend observed beginning in 2022. The concentration of dissolved iron at BH-1 is more variable historically and has shown a general increasing trend beginning in 2021 and concentrations have increased to the highest values to date within the 5-year historical range. The concentration at BH-1 exceeds the DW Standard but remains less than the background concentration.
Dissolved Lithium (Figure 14)	µg/L	8	96	12.9 (BH-7^{S}) – 46.2 (MW99-2^{S})	All wells sampled^{SF}	None	Concentrations at MW99-2 and BH-4 are approximately twice those measured in the other wells, and both exhibit an overall gradual increasing trend. BH-1 and BH-5 appear to exhibit seasonal variability. The remaining wells remain largely within a narrow range of concentrations.

Parameter	Unit	CSR Standards	Protocol 9 Background Concentration Thompson-Okanagan Region	Measured Concentrations in 2025			Comments on Overall Trends
		BC Schedule 3.2 Water DW – Drinking Water		Range	Greater than Standard	Greater than Background Concentration	
Dissolved Manganese (Figure 15)	µg/L	1,500[1]	7,600	0.43 (multiple wells) – 6,870 (BH-1^{F})	BH-1^{F} and BH-2^{SF}	None	Monitoring wells BH-1 and BH-2 historically have elevated dissolved manganese concentrations compared to the other monitoring wells at the Site. The concentrations at BH-2 show a decreasing trend in the 5-year historical range and concentrations have reached a 5-year historical low in fall 2025. The concentrations at BH-1 have shown an increasing trend since spring 2024 and have reached the highest concentration to date in the 5-year historical range in the fall of 2025. No trends are apparent at the other monitoring wells.
Dissolved Uranium (Figure 16)	µg/L	20	87	1.02 (BH-1^{F}) – 25.8 (BH-4^{S})	BH-4^{SF}	None	The dissolved uranium concentration at BH-4 is elevated compared to all other monitoring wells at Site. Concentrations remained generally stable and within the individual monitoring well's respective 5-year historical ranges in 2025, the exceptions include at MW99-2 and BH-02. At MW99-2, the dissolved uranium concentration reached a 5-year historical high in spring 2025 before decreasing to within the historical range in the fall of 2025. The concentrations at BH-2 show a decreasing trend throughout the well's 5-year historical range and concentrations have reached the lowest concentration in the 5-year historical range. No other trends are apparent at the remaining wells.

Notes:
1 Standards for dissolved iron and dissolved manganese presented for discussion only.
S Concentration during the spring 2025 event.
F Concentration during the fall 2025 event.
N/A Not applicable.

3.3 Landfill Gas Monitoring Results

LFG monitoring has been undertaken by the RDCO since 2016; the 2025 results were submitted to Tetra Tech for review and assessment within 24 hours of each event to allow support with addressing any required action items. The action levels outlined in the LFG Management Plan (Golder 2013) were based on the location of the vapour wells relative to the Landfill boundary and are as follows:

- Inside Boundary (i.e., no closer than 5 m to the Landfill boundary): 25% lower explosive limit (LEL; 12,500 ppm);
- Near Boundary (i.e., inside the boundary but within 5 m of the Landfill boundary): 10% LEL (5,000 ppm); and
- Outside Boundary (i.e., outside of the Landfill boundary): 10% LEL (5,000 ppm).

Figure 7 shows the locations of the vapour probes and their relation to the Site boundary.

If exceedances at a vapour probe are measured, the action plan is outlined as follows:

- Check the instrument calibration and retake the LFG measurement if there was a calibration error;
- If there is an offset (or step-out) vapour well which is located further from the Landfill in a direction approximately perpendicular to the Landfill boundary, then take an LFG measurement at this location and compare it to the appropriate action level;
- If the LFG measurement readings are less than the associated action level at the offset (or step-out) vapour probe, then no additional action is required; and
- If there is no offset (or step-out) vapour probe or if the offset (or step-out) vapour probe readings exceed the associated action level, then the BC MoEP needs to be notified, and an action plan developed.

The 2025 LFG monitoring program was completed by RDCO staff. Full LFG monitoring events were completed in January, February, March, April, May, August, November, and December, while partial LFG monitoring events (i.e., where only select wells were monitored) were completed in June, July, September, and October (as adopted from the Updated Landfill Monitoring Program [Golder 2020]).

The results of the 2025 LFG monitoring program are presented in Table 5, where concentrations are expressed as ppm. The pertinent results of the LFG monitoring program are presented in Table D. Trend graphs for the methane concentrations recorded during each monitoring event are shown on Figure 16 through Figure 19.

Table D: Exceedances of Methane Action Levels by Location in 2025

Location	Inside Boundary (>25% LEL)	Near Boundary (>10% LEL)	Outside Boundary (>10%)
North	0	0	0
East	BH-102 and BH-103 (April 2025)	0	N/A
South	0	N/A	N/A
West	0	0	0

There were action level exceedances recorded at BH-102 and BH-103, as indicated in Table D. These locations are located within the Landfill boundary on the east side of the Site and are over 5 m from the Landfill boundary. As the methane concentration exceeded the 25% LEL (12,500 ppm) action level, the action plan was followed. As no further methane detections were observed at the offset vapour probes (VP07-01S and VP07-02, VP15-01, VP15-02, and VP15-03), no further action was required.

A summary of the methane action exceedance at BH-102 and BH-103 are provided in Table E below, along with the other associated gas measurements.

Table E: Exceedances of Methane Action Levels by Sampling Location

Location	Date	Action Level (% LEL)	Methane (% LEL)	Carbon Dioxide (%)	Oxygen (%)
BH-102	April 6, 2025	25	100*	16.7	0
BH-103	April 6, 2025		38	13.1	3.9

Notes:
*RKI Eagle 2 device was over range; % = gas percent v/v; % LEL = percentage of LEL of 50,000 ppm.

Hydrogen sulphide concentrations were less than the detection limit of the RKI Eagle 2, which is consistent with previous monitoring events. The oxygen and carbon dioxide concentrations vary between locations and over time at specific locations. In 2025, the concentrations of these gases remained within the historical range and were consistent with previous monitoring events. Historically at Site, oxygen concentrations varied from near atmospheric (i.e., marginally below 21%) to non-detect, and carbon dioxide concentrations vary from non-detect to a maximum of 37.1% at BH-102 (WSP 2025). In 2025, the maximum carbon dioxide concentration (detection limit of 0.2%) observed at Site, 17.1%, was measured at BH-101D during the May monitoring event, this is consistent with previous monitoring events.

3.4 Quality Assurance/Quality Control

The QA/QC analysis of duplicate groundwater samples is presented in Table 4. These results indicate that all parameters had RPD less than or equal to the screening thresholds except for the following outlined in Table F.

Table F: Parameters With RPD Greater Than Screening Thresholds

Spring Event 2025	Fall Event 2025
BH-7 and DUP1	**BH-4 and DUP2**
None	Dissolved Cobalt = 23% Dissolved Molybdenum = 40%

The majority of the calculated RPD values were within the RPD thresholds, with the exceptions noted in Table F. The reason for the elevated RPD for the dissolved metals cobalt and molybdenum in fall 2025 is interpreted to be related to the heterogeneity of the water sample and/or filtration issues (as identified by the elevated concentration of dissolved aluminum in the BH-4 sample), or windblown contamination. The RPD exceedances are not considered to affect results interpretation.

Overall, the results for the QA/QC program are considered acceptable for the program. The laboratory (CARO) conducts an internal QA/QC on the laboratory analysis for all the samples. The QA/QC information provided by the laboratory was also reviewed and found to be acceptable. Therefore, the laboratory-measured groundwater analytical results meet the QA/QC guidelines and are considered valid for this assessment.

CARO is accredited by the CALA. As part of their internal QA/QC procedures, CARO tested for the potential of systematic bias in their analyses. Tetra Tech understands that CARO identified no such bias associated with the analysis for this project. Thus, we consider the analytical results presented here to adequately characterize the groundwater for the purposes of this current project.

3.5 Site Inspection

Tetra Tech staff performed a Site walkover on July 8, 2025, accompanied by RDCO personnel. The requirements for Site inspection are described in Section 3.4 of the OC and the Updated Landfill Monitoring Program. The walkover included making observations of the following:

- Erosion;
- Vegetation;
- Slope stability; and
- Safety concerns.

Overall, the Site was observed to be in good condition. The Site was interpreted to be in the 'growing season' as described in the OC, and vegetation was generally healthy across the Site. Staff walked both the cover area and the periphery areas along the Site boundaries. There was no obvious evidence of stressed vegetation, erosion, seepage, depressional areas or ponding, animal burrows, unstable slopes, and other items that might suggest impacts to the integrity of the cover. A few instances of exposed filter fabric associated with the original closure were noted on the east slope of the cover; however, there were no indications of significant erosion.

Notably along the northern Site perimeter, the new residential development is proximate to the Site boundary and up a steep slope and is consequently at a higher elevation than the Site. There were bedrock exposures on the north Site slope and in other Site areas. The transfer station at the southern end of the Site was not operational at the time of the visit; however, in general, operations appear to be maintained within the limits of its defined area. A small breach in the fence was noted at the southwest Site corner, and we understand that RDCO periodically has to conduct repairs to the fence to limit potential theft from the transfer station.

At the northwest corner of the cover, there is a gravel-lined swale that directs runoff around the west side of the Site and which would also collect drainage from the west. A relatively small area of standing water was noted at the south end of the swale with wetland-type vegetation. No obvious discolouration was noted on the standing water in this area. There was no further water drainage observed southward along the western Site extents.

During this inspection, Tetra Tech made observations of BH-1 and BH-5 to support planning for repairs and replacement, respectively, which occurred later in 2025.

4.0 DISCUSSION

4.1 Groundwater Monitoring Network

The existing groundwater monitoring network consists of five shallow monitoring wells and two deep monitoring wells. The existing monitoring wells are situated around the active area at the Site and the historical waste footprint. The current monitoring network is considered suitable to monitor trends in groundwater quality around the Site. As a concurrent activity, Tetra Tech is assisting the RDCO with updating the post-closure inspection, maintenance and monitoring program which may provide additional recommendations in regard to the groundwater monitoring program.

4.2 Groundwater Analytical Results

As discussed in Section 3.2, parameters that exceeded the CSR DW Standards in 2025 included chloride and the dissolved metals cobalt, lithium, manganese, and uranium.

Monitoring wells BH-1 and MW99-2 have shown an increasing trend in chloride concentrations beginning in 2021 and 2022, respectively. Concentrations at BH-1 and BH-4 exceeded the DW Standard in 2025. Monitoring wells BH-1 and MW99-2 are located on Site, to the south and west, respectively, while BH-4 is located approximately 50 m to the south of the southern Landfill boundary. The concentration at BH-1 remained within the 5-year historical range in 2025. The concentrations at BH-4 (hydraulically down-gradient of BH-1) have remained generally stable in recent years; however, concentrations increased marginally in 2025 and have reached a 5-year historical high. The concentrations at MW99-2 to the west of the closed Landfill reached a 5-year historical high in 2025; however, the chloride concentrations at MW99-2 did not exceed the DW Standard. The concentrations at the other monitoring wells either remained stable or showed a decreasing trend in 2025 and stayed within the 5-year historical range.

The chloride concentrations at MW99-2 should be closely monitored in 2026. It is possible that the up-gradient monitoring well MW99-2 has been, and is, influenced by surface water collected and transmitted by the drainage feature to the north of the well. This drainage feature may collect surface water runoff from the development to the north of the Site (i.e., calcium chloride and sodium chloride road salt) but may also collect runoff from the perimeter of the Landfill mound to the northeast. The chloride concentrations at BH-4 remained relatively stable overall, and the monitoring wells in the down-gradient and cross-gradient direction of its location, BH-3 to the south and BH-5 to the east, showed either stable or decreasing chloride concentration trends. These cross-gradient and down-gradient wells did not exceed the DW Standard.

Dissolved cobalt concentrations exceeded the CSR DW Standard at BH-1, BH-2, and BH-4 during at least one event in 2025. Dissolved cobalt concentrations at the Site ranged from 0.11 µg/L at multiple wells to 2.18 µg/L at BH-1. Based upon the Landfill background concentrations provided by Protocol 9 for the Thompson-Okanagan Region of 16 µg/L (BC MoEP 2023), and with no obvious concentration trends present, it is interpreted that the dissolved cobalt concentration observed at the Site reflected the representative background water quality conditions with respect to dissolved cobalt.

The dissolved lithium concentrations exceeded the CSR DW Standard at all monitoring wells sampled over all events in 2025. Dissolved lithium concentrations at the Site ranged from 12.9 µg/L at BH-7 in the spring to 46.2 µg/L at MW99-2 in the spring. Based upon the Landfill background concentration provided by Protocol 9 for the Thompson-Okanagan Region of 96 µg/L (BC MoEP 2023), it is interpreted that the dissolved lithium concentrations observed at the Site reflected the representative background water quality conditions with respect to dissolved lithium.

The dissolved uranium concentrations exceeded the CSR DW Standard at BH-4 during both 2025 events. Dissolved uranium concentrations at the Site ranged from 1.01 µg/L at BH-1 in the fall to 25.8 µg/L at BH-4 in the spring. Based upon the Landfill background concentration provided by Protocol 9 for the Thompson-Okanagan Region of 87 µg/L (BC MoEP 2023), it is interpreted that the dissolved uranium concentrations observed at the Site reflected the representative background water quality conditions with respect to dissolved uranium.

As noted in Section 2.3, dissolved manganese was compared to the CSR DW Standards for informational purposes only, as the CSR DW Standards for dissolved manganese do not apply at the Site based on the applicable land use listed in Schedule 2 of the CSR. Similar to the concentrations of the dissolved metals cobalt, lithium, and uranium, the dissolved manganese concentrations recorded at Site in 2025 (maximum concentration of 6,970 µg/L at BH-1 in the fall) was less than the background concentration of 7,600 µg/L provided by Protocol 9 for the Thompson-Okanagan Region (BC MoEP 2023).

Groundwater samples obtained from BH-1, which is located near the southern Site boundary and hydraulically down-gradient of the waste footprint, were also analyzed for LEPH, HEPH, PAHs, VOC, and BTEXS in 2025. All of these parameters were found to be non-detect.

The groundwater analytical results indicate that any groundwater quality impact as a result of landfill operations were either within the Landfill boundary or were immediately down-gradient of the Site. Groundwater quality impacts were observed at the on-site monitoring well BH-1, where elevated chloride concentrations, relatively higher boron concentrations (compared to other monitoring wells), and indications of reducing conditions (indicated by relatively higher ammonia, dissolved iron, and dissolved manganese concentrations compared to other monitoring wells) were observed. Groundwater quality impacts were observed at the off-site (within 50 m of the Landfill boundary) monitoring well BH-4, where elevated chloride concentrations were observed. However, other indicator parameters (i.e., dissolved boron, ammonia, dissolved manganese, and dissolved iron concentrations) indicate improvement in groundwater quality. Further hydraulically down-gradient of the Site at BH-3 and BH-5 no key leachate indicator parameters were observed to exceed the DW Standards. Similarly, no key leachate indicator parameters were found to be greater than the DW Standards at the hydraulically cross-gradient monitoring well BH-7. The concentrations of the dissolved metals parameters cobalt, lithium, and uranium were interpreted to be representative of the background water quality as identified by Protocol 9 (BC MoEP 2023).

4.3 Landfill Gas Monitoring Results

As outlined in Section 1.2.4 and Section 3.3, the LFG Management Plan (Golder 2013) and the Closure Plan (Golder 2015) state methane measurements are to be compared to specific methane action levels determined by the vapour probe's location relative to the property boundary. In 2025, BH-102 and BH-103 were the only locations that recorded a methane concentration that exceeded the pertinent methane action level of 25% LEL. Concentrations at these locations were 100% LEL (50,000 ppm, BH-102) and 38% LEL (19,000 ppm, BH-103) during the April 2025 monitoring event. The methane concentrations at the locations' respective offset (or step-out) vapour probes were below the methane action levels. Hydrogen sulphide concentrations were below the detection limit of the RKI Eagle 2 (i.e., 0.5 ppm); carbon dioxide and oxygen measurements were variable from location to location and from monitoring event to monitoring event but were consistent with historical results.

Most LFG monitoring locations to the northern side of the Landfill (Figure 17) showed seasonal fluctuations in methane concentrations. Marginal increasing trends were observed at MW07-01, VP07-05, VP07-09, VP07-09, VP11-01, VP11-02, and VP11-10 beginning in 2020. The other LFG monitoring locations on the northern side of the Site (VP23 series) showed either a decreasing trend (VP23-01), showed variability in trend (VP23-03), or showed no trend in concentrations. In 2025, methane concentrations at these wells were less than 1% LEL (i.e., 500 ppm), the only exception being VP23-03 in December 2025 (580 ppm).

Similarly, the LFG monitoring locations to the east side of the Landfill (Figure 18) generally showed the same seasonal fluctuations in methane concentrations. Concentrations at BH-103 were typically less than 1% LEL, the exception to this being the 38% LEL measurement recorded during the April 2025 monitoring event, as discussed prior. Concentrations returned to values consistent with historical events during the remainder of the 2025 monitoring season. Marginal increasing trends were observed at BH-101S/D; however, concentrations at these locations remained below 1% LEL. No trend is apparent at the remaining eastern locations, including at BH-102 where concentrations typically exceeded the measurement range capabilities of the RKI Eagle 2. The greater than 100% LEL value recorded at BH-102 in April 2025 (50,250 ppm), as discussed previously, was consistent with historical values for this location.

LFG monitoring locations to the southern limit of the Landfill (Figure 19) showed the same seasonal variations as the northern and eastern locations. VP11-06 and VP11-07 showed marginal increasing trends in methane concentrations beginning in 2019 and 2020, respectively. VP11-08 showed no trend in the methane concentrations. Concentrations at these locations are typically historically less than 1% LEL.

LFG monitoring locations on the west limit of the Landfill (Figure 20) showed the same seasonal variations as other monitoring locations at the Site. Increasing trends in methane concentration were observed at MW99-2 and MW99-3, both beginning in 2019, and at MW99-4, VP11-04, VP11-05, all beginning in 2016. Concentrations at the western monitoring locations are typically historically less than 1% LEL.

4.4 Analytical Program

In accordance with the OC permit (PR-12217) and following the recommendations outlined in the Updated Landfill Monitoring Program (Golder 2014) and the Closure Plan (Golder 2015), the groundwater should continue to be monitored and sampled semi-annually (i.e., spring and fall) in 2026 and the current analytical suite should be maintained. The LFG monitoring programs should continue as per the LFG Management Plan developed in consultation with the BC MoEP (Golder 2013) and subsequent updates outlined in the Closure Plan (Golder 2015) both in scope and frequency. As previously discussed, the BC MoEP has issued a draft OC amendment in April 2025 that is currently being finalized. Tetra Tech is currently preparing an updated monitoring plan which may present recommendations for modifications to both the groundwater monitoring program and the LFG monitoring program.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The objective of the groundwater monitoring program was to assess the groundwater quality, the condition of the existing well network, and to identify potential groundwater quality concerns related to historical operations at the Site.

The groundwater quality at the Site is overall similar to previous years with no significant differing trends noted in 2025.

- Hydraulically down-gradient to the south, but within the Site boundary, groundwater quality impacts were observed; BH-1 showed an increased trend in chloride concentration beginning in 2021, and concentrations exceeded the DW Standard in 2025. However, the chloride concentration at BH-1 remained within the 5-year historical range in 2025 and was consistent with historical results. Concentrations of LEPH, HEPH, PAHs, VOC, and BTEXS in 2025 at BH-1 were found to be non-detect.

- Likewise, at BH-4, approximately 50 m to the south of the southern Landfill boundary, groundwater quality impacts were also observed, although to a lesser extent. Chloride concentrations exceeded the DW Standards in 2025. Chloride concentrations at BH-4 have remained generally stable in recent years; however, concentrations increased marginally in 2025 and have reached a 5-year historical high.

- Further hydraulically down-gradient to the south at BH-3 and BH-5, as well as at the hydraulically cross-gradient monitoring well BH-7, chloride concentrations remained stable or showed a decreasing trend in 2025 and remained within each well's respective 5-year historical range.

- The chloride concentrations at MW99-2, on the west side of the Site, have shown an increasing trend since 2022 and reached a historical high in 2025; however, concentrations did not exceed the DW Standard. The chloride concentrations at MW99-2 should be closely monitored in 2026. It is possible that the up-gradient monitoring well MW99-2 is being influenced by surface water collected and transmitted by the drainage feature

to the north of the well as this drainage feature may collect surface water runoff from the development to the north of the Site (i.e., calcium chloride and sodium chloride road salt).

- All monitoring wells sampled as part of the 2025 environmental program recorded a CSR DW Standards exceedance during at least one event for at least one of the dissolved metals cobalt, lithium, manganese, and uranium. All exceedances for these parameters were less than the background water quality concentrations provided by Protocol 9 for the Thompson-Okanagan Region for the various parameters (BC MoEP 2023). The concentrations observed at the Site were either interpreted to reflect the representative background water quality conditions with respect to the varying dissolved metals parameter or the DW Standards did not apply based on the applicable land uses outlined in Schedule 2 of the CSR, or both. Consequently, the exceedances are not related to past operational activities at Site.

In 2025, methane concentrations were generally less than each LFG monitoring well's respective action level with two exceptions. The exceptions to this were BH-102 and BH-103, as they were the only locations that recorded methane concentrations exceeding that location's applicable methane action level. Concentrations at these locations were greater than 100% of the LEL (50,000 ppm) and 38% of the LEL (19,000 ppm) during the April 2025 monitoring event, respectively. The methane concentrations at the locations respective offset (or step-out) vapour probes were below the applicable methane action levels for those locations and were therefore compliant with the 2013 LFG Management Plan (Golder 2013). Hydrogen sulphide concentrations were below the detection limit of the RKI Eagle 2 at all locations in 2025.

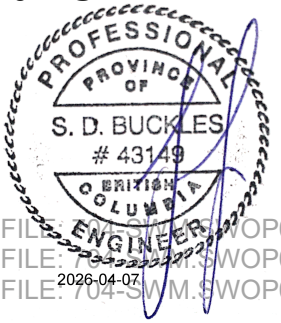
Both the groundwater monitoring program and the LFG monitoring program should continue as completed in 2025, until the pending OC permit (PR-12217) is issued and the Updated Closure Plan is accepted. It is noted that the Updated Closure Plan will confirm the monitoring requirements for both the groundwater and LFG monitoring programs.

CLOSURE

We trust this report meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted,
Tetra Tech Canada Inc.

Prepared by:
Linden Langlois, M.Sc., P.Geo.
Project Hydrogeologist
Solid Waste Management Practice
Direct Line: 587.986.2709
Linden.Langlois@tetratech.com



Reviewed by:
Sean Buckles, M.Sc., P.Eng.
Senior Project Engineer – Principal
Solid Waste Management Practice
Direct Line: 403.723.6876
Sean.Buckles@tetratech.com

/as

Reviewed by:
Colleen Wendeborn, M.Sc., P.Geol.
Senior Hydrogeologist
Solid Waste Management Practice
Direct Line: 403.723.1605
Colleen.Wendeborn@tetratech.com

PERMIT TO PRACTICE
TETRA TECH CANADA INC.
PERMIT NUMBER: 1001972

REFERENCES

Abacus Datagraphics Ltd. (2026). *AbaData Map Software.* AbaData | An Ecosystem Purpose-Built for Energy Operations [Accessed: January 29, 2026.]

Golder Associates Ltd. 2014. *Updated Landfill Monitoring Program Westside Landfill.* Report number: 041440062-022-R-Rev0-4001. May 6, 2014.

Golder Associates Ltd. 2015. *Closure Plan Westside Landfill, Kelowna, BC.* Report number: 1406505-003-R-Rev0-5000. May 12, 2015.

Government of British Columbia (2017). *Protocol 21 For Contaminated Sites*. October 31, 2017.

Government of British Columbia (2023). *Protocol 9 For Contaminated Sites*. February 1, 2023.

Government of British Columbia (2026). *BC Water Resources Atas*. https://maps.gov.bc.ca/ess/hm/wrbc/ [Accessed: January 29, 2026.]

Government of British Columbia (2026). *iMapBC*. iMapBC [Accessed: January 29, 2026.]

Okulitch, A. V. (2013). *Geology, Okanagan Watershed, British Columbia*. Geological Survey of Canada, Open File, 6839, Natural Resources Canada. https://doi.org/10.4095/292220. [Accessed January 29, 2026.]

Paradis, S.J. (2009). *Surficial geology, Kelowna, British Columbia*; Geological Survey of Canada, Open File 6146, scale 1:50 000.

Tetra Tech Canada Inc. (2026). *BH-1 Repair and New BH-5 Well Installation.* January 12, 2026.

WSP Canada Inc. (2024). *2023 Monitoring Report Westside Landfill, West Kelowna, BC.* Reference number 19127217-008-R-Rev0. April 29, 2024.

WSP Canada Inc. (2025). *2024 Monitoring Report Westside Landfill, West Kelowna, BC.* Reference number 19127217-011-R-Rev0. April 29, 2025.

TABLES

Table 1: Site Monitoring Results

Well ID	Well Description	Reference Elevation (mASL)**	Well Stickup (mABGS)	Depth to Bottom (mBTOC)	Depth to Groundwater (mBTOC)*												Groundwater Elevation (mASL)											
					16-May-20	14-Nov-20	11-May-21	23-Nov-21	03-May-22	08-Nov-22	10-May-23	14-Nov-23	28-May-24	05-Nov-24	06-May-25	04-Nov-25	16-May-20	14-Nov-20	11-May-21	23-Nov-21	03-May-22	08-Nov-22	10-May-23	14-Nov-23	28-May-24	05-Nov-24	06-May-25	04-Nov-25
BH-1	Shallow	519.31	0.63	5.73	2.82	3.58	2.97	2.66	2.80	2.70	2.88	2.91	2.80	2.70	2.84	3.51	516.49	515.73	516.34	516.65	516.51	516.61	516.43	516.40	516.51	516.61	516.47	515.81
BH-2	Shallow	526.92	0.56	4.65	3.47	3.52	3.46	3.51	4.46	3.55	3.45	3.53	3.47	3.47	3.43	3.45	523.45	523.40	523.46	523.41	522.46	523.37	523.47	523.39	523.45	523.45	523.49	523.47
BH-3	Deep	471.93	0.86	21.15	14.16	14.39	14.32	14.76	14.42	14.39	14.40	14.83	14.49	14.35	13.88	14.16	457.77	457.54	457.61	457.17	457.51	457.54	457.53	457.10	457.44	457.58	458.05	457.77
BH-4	Shallow	494.59	0.50	6.48	2.44	2.47	2.61	2.00	2.26	3.32	2.53	3.58	2.59	2.96	2.33	3.44	492.15	492.12	491.98	492.59	492.33	491.27	492.06	491.01	492.00	491.63	492.26	491.15
BH-5	Deep	488.75	0.38	13.11	11.54	11.64	11.55	11.78	11.63	11.63	11.57	11.79	11.57	11.64	-	12.03	477.21	477.11	477.20	476.97	477.12	477.12	477.18	476.96	477.18	477.11	-	476.72
BH-7	Shallow	500.16	0.56	9.75	4.11	4.35	4.30	4.75	4.25	4.22	4.20	4.81	4.16	4.31	3.67	4.21	496.05	495.81	495.86	495.41	495.91	495.94	495.96	495.35	496.00	495.85	496.49	495.95
MW99-2	Shallow	546.37	0.78	6.70	6.76	5.34	5.53	5.35	4.87	5.53	5.37	5.57	5.26	5.47	5.18	5.54	539.62	541.03	540.84	541.02	541.50	540.84	541.01	540.80	541.11	540.91	541.19	540.83

Notes:
mABGs - Metres above ground surface.
mASL - Metres above sea level.
mBTOC - Metres below top of casing.
'-' - Not monitored.
* - depth to groundwater calculated from historic elevation data.
** - Reference elevation for groundwater elevation calculations is the top of casing elevation not ground surface elevation.
In the well description, shallow refers to well depths of less than 10 m and deep refers to well depths greater than 10 m.

Table 1: Site Monitoring Results

Well ID	Well Description	Reference Elevation (mASL)**	Well Stickup (mABGS)	Depth to Bottom (mBTOC)	Field Parameters (May 6, 2025)				Field Parameters (November 4, 2025)			
					Temperature (°C)	pH	Conductivity (uS/cm)	Redox (mV)	Temperature (°C)	pH	Conductivity (uS/cm)	Redox (mV)
BH-1	Shallow	519.31	0.63	5.73	-	-	-	-	11.50	6.66	2740	-
BH-2	Shallow	526.92	0.56	4.65	10.56	6.77	1656	-5.5	12	6.72	2290	187.2
BH-3	Deep	471.93	0.86	21.15	12.0	7.06	667	137.6	11.2	6.94	968	232
BH-4	Shallow	494.59	0.50	6.48	11.8	7.01	1574	188.1	13.9	7.01	2270	213
BH-5	Deep	488.75	0.38	13.11	-	-	-	200.0	11.3	7.22	959	200
BH-7	Shallow	500.16	0.56	9.75	10.5	7.44	340	151.7	12.6	7.22	830	183
MW99-2	Shallow	546.37	0.78	6.70	11.4	7.14	1165	46.5	11.3	7.15	1862	216

Notes:
mABGs - Metres above ground surface.
mASL - Metres above sea level.
mBTOC - Metres below top of casing.
'-' - Not monitored.
* - depth to groundwater calculated from historic elevation data.
** - Reference elevation for groundwater elevation calculations is the top of casing elevation not ground surface elevation.
In the well description, shallow refers to well depths of less than 10 m and deep refers to well depths greater than 10 m.

Table 2: Historical Groundwater Elevation Data

Well ID	BH-1	BH-2	BH-3	BH-4	BH-5	BH-7	MW99-02
Well Description	Shallow	Shallow	Deep	Shallow	Deep	Shallow	Shallow
Reference Elevation (mASL)	519.31	526.92	471.93	494.59	488.75	500.16	546.37
Well Stickup (mABGS)	0.63	0.56	0.86	0.50	0.38	0.56	0.78
Depth to Bottom (mBTOC)	5.73	4.65	21.15	6.48	13.11	9.75	6.70
Groundwater Elevation (mASL)							
Date	**BH-1**	**BH-2**	**BH-3**	**BH-4**	**BH-5**	**BH-7**	**MW99-02**
12-Jan-94	516.09	524.07	457.75	494.12	477.44	497.06	-
17-Jul-97	516.27	524.13	459.07	494.05	477.78	498.2	-
24-Sep-98	516.17	-	458.27	-	-	-	-
07-Dec-98	516.18	-	458.37	-	-	-	-
03-Mar-99	516.69	-	457.97	-	-	-	-
26-Apr-99	-	-	-	-	-	-	541.63
01-Jun-99	516.32	524.12	458.45	493.78	477.52	497	-
08-Jul-99	-	-	458.084	-	477.568	-	-
01-Sep-99	516.34	524.1	-	494.02	477.54	-	-
01-Dec-99	-	524.12	-	493.45	477.59	496.99	-
28-Mar-00	516.71	524.21	-	494.45	477.56	-	-
13-Jul-00	516.32	524.12	458.45	493.78	477.52	497	-
27-Jul-00	516.22	524.145	-	493.32	477.558	-	541.21
06-Sep-00	516.24	524.117	-	493.294	477.533	496.655	-
18-Dec-00	516.002	524.098	-	493.117	477.375	496.525	-
21-Dec-00	516.007	524.106	-	493.072	477.375	496.525	540.365
01-Mar-01	516.271	524.152	-	494.005	477.352	496.554	-
01-Jun-01	516.05	524.091	-	493.802	477.391	496.782	-
10-Jul-01	516.035	524.08	-	493.18	477.457	-	540.847
01-Sep-01	516.102	524.078	457.688	493.682	477.45	496.197	-
01-Dec-01	516.305	524.116	-	493.989	477.293	496.204	-
07-Jan-02	516.734	524.094	-	494.642	477.31	-	540.835
13-Mar-02	516.32	524.12	-	494.295	477.308	496.415	-
17-Jun-02	516.175	524.111	-	493.582	477.455	496.829	-
04-Oct-02	516.527	524.133	-	-	477.655	496.416	-
18-Dec-02	516.268	524.095	-	493.551	477.35	496.505	-
10-Apr-03	516.228	524.084	-	493.882	477.388	496.635	-
09-Jun-03	516.11	524.065	-	493.2	477.38	496.495	-
26-Jul-03	516.14	524.33	-	492.99	477.4	-	540.3
11-Sep-03	516.1	524.53	-	492.81	477.14	495.58	-
17-Dec-03	516.39	524.07	-	494.37	-	-	539.73
17-Mar-04	516.6	524.177	456.885	494.377	-	-	-
27-May-04	516.58	524.11	457.055	494.455	477.49	497.127	-
01-Sep-04	516.635	524.14	-	494.33	477.645		540.92
23-Sep-04	516.65	524.165	-	494.43	477.645	497.242	-
17-Dec-04	516.712	524.185	-	494.72	477.625	-	541.46
24-Mar-05	516.525	524.214	457.61	494.117	477.705	497.635	541.687
30-May-05	516.33	524.19	457.86	493.585	477.77	497.84	-
23-Sep-05	516.25	524.115	457.65	493	477.64	497.175	541.015
13-Dec-05	516.145	523.79	-	493.007	477.577	-	-
15-Dec-05	516.145	523.925	457.495	492.915	477.58	497.07	540.745
26-Mar-06	516.41	523.966	457.32	494.23	477.59	497.117	541.5445
31-May-06	516.33	523.96	457.47	493.949	477.68	497.385	541.445
26-Jul-06	516.437	523.92	457.605	493.78	477.74	497.137	541.217
03-Oct-06	516.245	523.897	457.367	493.383	477.595	496.563	
05-Dec-06	516.36	523.925	457.24	493.419	477.577	496.88	
11-Dec-06	516.37	523.927	457.243	493.535	477.597	496.882	541.27
03-Apr-07	516.485	523.98	-	494.127	477.65	497.047	
01-Jun-07	516.297	523.95	-	493.538	477.657	497.19	
25-Sep-07	516.205	523.895	-	493.51	477.67	497.04	541.465
20-Dec-07	516.36	523.91	-	493.6	477.625	497.15	-
14-Apr-08	516.29	523.91	-	493.55	477.64	497.13	-
23-Jun-08	516.33	523.86	-	493.16	477.65	-	-
30-Sep-08	516.12	523.835	-	493.04	477.53	496.593	-
02-Dec-08	516.02	523.83	456.98	492.897	477.445	496.58	-
27-Mar-09	516.307	523.86	456.84	493.94	477.515	496.738	-
25-Jun-09	-	-	-	-	-	-	-
25-Sep-09	516.29	523.787	456.687	493.925	477.52	496.447	-
17-Dec-09	516.31	523.83	456.85	493.76	477.51	496.56	-
31-Mar-10	516.39	523.88	457.03	494.03	477.57	496.87	-
22-Jun-10	516.34	523.87	457.1	493.53	477.61	497.14	-
21-Sep-10	516.38	523.83	456.7	493.1	477.55	496.51	-
21-Dec-10	516.589	523.93	457.06	494.02	477.59	496.88	541.29
14-Mar-11	516.568	523.85	457.195	494.3	477.645	-	-
16-May-11	516.467	523.84	457.145	493.845	477.667	497.46	-
04-Oct-11	516.259	524.056	456.795	492.927	477.603	497.19	-
05-Jan-12	516.365	523.793	457.09	493.078	477.546	497.13	-
17-Apr-12	516.422	523.76	457.08	494.058	477.612	-	-
24-Jan-13	516.413	523.832	457.285	494.173	477.671	497.223	-
12-Mar-13	516.698	523.871	457.381	494.353	477.729	497.335	-
20-Mar-13	516.653	523.866	457.388	494.367	477.734	497.372	-
11-Jun-13	516.531	523.835	457.727	494.316	477.806	497.883	-
22-Oct-13	-	-	-	-	-	-	541.13
23-Oct-13	516.375	523.82	458	494.152	477.885	497.828	-
18-Dec-13	516.398	523.812	457.938	494.152	477.786	497.733	541.177

Groundwater Elevation (mASL)							
Date	**BH-1**	**BH-2**	**BH-3**	**BH-4**	**BH-5**	**BH-7**	**MW99-02**
29-Jan-15	517.027	524.322	458.168	493.671	478.061	496.73	542.404
18-Feb-15	516.962	524.332	458.678	493.581	478.086	496.99	543.725
10-Mar-15	516.834	524.252	458.723	493.431	478.021	497.07	542.745
27-Apr-15	516.702		458.813	493.186	477.981	497.134	543.1
26-May-15	516.742	524.209	458.863	493.189	477.996	497.05	541.935
23-Jun-15	516.642		458.888	493.266	475.921	497.05	541.77
12-Aug-15	516.472	524.18	458.723	492.441	477.936	496.675	541.89
03-Nov-15	516.807	524.167	458.488	492.376	477.851	496.52	547.36
08-Dec-15	-	-	-	-	-	-	541.802
26-Jan-16	517.005	-	457.605	494.505	477.865	497.45	541.585
23-Feb-16	516.825	523.995	457.825	494.275	477.87	497.795	543.184
29-Mar-16	516.745	-	458.015	494.405	477.855	498.095	542.445
19-Apr-16	516.61	-	458.13	494.18	477.86	498.425	541.85
17-May-16	516.64	523.9	458.29	494.19	477.88	498.32	541.5
08-Nov-16	516.655	523.845	458.295	494.815	477.805	497.95	541.445
06-Dec-16	516.71	-	458.305	494.37	477.815	497.995	541.94
24-Jan-17	516.657	-	459.003	492.841	477.961	497.065	541.81
21-Feb-17	517.112	-	459.118	493.591	478.066	497.1	542.46
20-Mar-17	517.042	-	459.223	493.576	478.091	497.35	544.025
10-Apr-17	517.072	-	459.548	493.336	478.151	497.765	543.69
15-May-17	-	-	-	-	-	-	542.92
21-Aug-17	-	-	-	-	-	-	542.09
06-Nov-17	-	-	-	-	-	-	541.83
05-Dec-17	-	-	-	-	-	-	541.77
30-Jan-18	517.217	-	-	493.936	478.081	496.805	542.435
27-Feb-18	516.997	-	-	493.276	478.091	498.385	543.155
17-Apr-18	517.127	-	-	493.331	478.171	497.78	543.575
08-May-18	516.922	524.402	459.638	493.201	478.136	497.55	542.76
13-Aug-18	516.367	-	-	492.546	477.866	496.62	542.06
19-Nov-18	-	-	-	-	-	-	542.275
20-Nov-18	516.872	524.217	459.318	493.546	477.946	496.925	542.27
03-Dec-18	-	-	-	-	-	-	541.515
08-Jan-19	-	-	-	-	-	-	541.92
25-Feb-19	-	-	-	-	-	-	542.01
13-Mar-19	-	-	-	-	-	-	541.84
15-Apr-19	-	-	-	-	-	-	542.17
13-May-19	516.709	524.293	458.673	492.856	477.899	496.779	542.095
12-Aug-19	-	-	-	-	-	-	542.04
18-Nov-19	516.902	524.217	458.328	492.921	477.691	496.34	541.76
02-Dec-19	-	-	-	-	-	-	540.965
27-Jan-20	-	-	-	-	-	-	541.64
03-Feb-20	-	-	-	-	-	-	542.985
09-Mar-20	-	-	-	-	-	-	541.945
07-Apr-20	-	-	-	-	-	-	541.34
16-May-20	516.485	523.453	457.768	492.152	477.214	496.049	539.615
23-Aug-20	-	-	-	-	-	-	541
14-Nov-20	515.73	523.403	457.538	492.122	477.109	495.809	541.03
05-Dec-20	-	-	-	-	-	-	540.99
09-Jan-21	-	-	-	-	-	-	541.54
07-Feb-21	-	-	-	-	-	-	541.34
11-Mar-21	-	-	-	-	-	-	541.11
03-Apr-21	-	-	-	-	-	-	541
09-May-21	-	-	-	-	-	-	-
11-May-21	516.34	523.46	457.61	491.98	477.2	495.86	540.84
07-Aug-21	-	-	-	-	-	-	541.02
23-Nov-21	516.65	523.41	457.17	492.59	476.97	495.41	541.02
27-Nov-21	-	-	-	-	-	-	540.55
07-Dec-21	-	-	-	-	-	-	540.99
17-Jan-22	-	-	-	-	-	-	541.105
15-Feb-22	-	-	-	-	-	-	541.475
08-Mar-22	-	-	-	-	-	-	542.81
25-Apr-22	-	-	-	-	-	-	541.365
02-May-22	-	-	-	-	-	-	541.485
03-May-22	516.505	522.458	457.513	492.327	477.119	495.909	541.501
08-Aug-22	-	-	-	-	-	-	541.2
12-Sep-22	-	-	-	-	-	-	-
03-Oct-22	-	-	-	-	-	-	-
08-Nov-22	516.605	523.37	457.538	491.272	477.119	495.939	540.84
05-Dec-22	-	-	-	-	-	-	540.96
10-Jan-23	-	-	-	-	-	-	541.01
11-Feb-23	-	-	-	-	-	-	541.42
13-Feb-23	-	-	-	-	-	-	-
04-Mar-23	-	-	-	-	-	-	541.265
07-Mar-23	-	-	-	-	-	-	-
11-Apr-23	-	-	-	-	-	-	541.055
17-Apr-23	-	-	-	-	-	-	-
08-May-23	-	-	-	-	-	-	541.005
10-May-23	516.425	523.473	457.533	492.062	477.179	495.964	-
15-Aug-23	-	-	-	-	-	-	541.035
06-Nov-23	-	-	-	-	-	-	540.8
14-Nov-23	516.395	523.388	457.098	491.012	476.959	495.349	-
03-Dec-23	-	-	-	-	-	-	539.645
05-Dec-23	-	-	-	-	-	-	-

Groundwater Elevation (mASL)							
Date	**BH-1**	**BH-2**	**BH-3**	**BH-4**	**BH-5**	**BH-7**	**MW99-02**
06-Feb-24	-	-	-	-	-	-	541.155
06-Mar-24	-	-	-	-	-	-	541.265
08-Apr-24	-	-	-	-	-	-	541.08
27-May-24	-	-	-	-	-	-	541.145
28-May-24	516.51	523.453	457.438	492.002	477.179	495.999	541.11
12-Aug-24	-	-	-	-	-	-	541.005
03-Nov-24	-	-	-	-	-	-	540.93
05-Nov-24	516.605	523.453	457.578	491.632	477.109	495.849	540.905
01-Dec-24	-	-	-	-	-	-	540.93
06-May-25	516.47	523.49	458.05	492.26	-	496.49	541.19
04-Nov-25	515.805	523.473	457.768	491.152	476.719	495.949	540.825

Notes:
- = no data

Table 3: Groundwater Analytical Results

			Location Code	BH-1												BH-2											
			Field ID	BH-1	BH-1	BH-1	BH-1	DUP	BH-1	BH-1	BH-1	BH-1	BH-1	BH-1	BH-1	BH-2	BH-2	BH-2	BH-2	BH-2	BH-2	BH-2	DUP	BH-2	BH-2	BH-2	BH-2
			Date	14 May 2020	17 Nov 2020	11 May 2021	23 Nov 2021	23 Nov 2021	03 May 2022	08 Nov 2022	10 May 2023	14 Nov 2023	28 May 2024	05 Nov 2024	04 Nov 2025	14 May 2020	17 Nov 2020	11 May 2021	23 Nov 2021	03 May 2022	08 Nov 2022	10 May 2023	14 Nov 2023	28 May 2024	05 Nov 2024	06 May 2025	04 Nov 2025
			Laboratory Report Number	0051274	20K1873	21E1381	21K3037	21K3037	22E0223	22K1436	23E1393	23K1686	24E3764	24K0564	25K0413	0051274	20K1873	21E1381	21K3037	22E0223	22K1436	23E1393	23K1686	23K1686	24E3764	24K0564	25E0628	25K0413
			Laboratory Sample ID	0051274-02	20K1873-02	21E1381-02	21K3037-02	21K3037-01	22E0223-02	22K1436-02	23E1393-02	23K1686-02	24E3764-02	24K0564-02	25K0413_25K0413-02	0051274-03	20K1873-03	21E1381-03	21K3037-03	22E0223-03	22K1436-03	23E1393-03	23K1686-03	23K1686-01	24E3764-03	24K0564-03	25E0628-02	25K0413_25K0413-03
	Unit	EQL	BC Schedule 3.2 Water DW - Drinking Water																								
Physical Parameters																											
pH	pH Units	0.1	-	7.33	7.32	7.66	7.57	7.58	6.79	7.95	7.33	7.46	7.46	7.39	7.31	7.49	7.55	7.49	7.54	6.94	7.52	7.5	7.52	7.49	7.7	7.53	7.56	7.43
Electrical Conductivity (EC)	µS/cm	2	-	2,510	1,850	3,030	1,200	1,180	1,930	1,500	2,040	1,870	2,170	1,440	2,480	2,810	3,040	2,810	2,860	2,700	2,730	2,650	2,620	2,640	2,650	2,610	2,360	2,080
TDS (calculated)	µg/L	15,000	-		1,100,000	1,920,000	719,000	702,000	1,080,000	-	1,170,000	1,110,000	1,460,000	-	1,400,000		2,120,000	-	1,890,000	1,130,000	-	1,710,000	1,700,000	1,740,000	1,640,000	-	1,480,000	1,260,000
Hardness as CaCO3	µg/L	500	-	1,160,000	905,000	1,240,000	311,000	311,000	736,000	501,000	808,000	753,000	769,000	554,000	1,070,000	1,690,000	1,700,000	1,520,000	1,340,000	1,500,000	1,310,000	1,450,000	1,560,000	1,500,000	1,330,000	1,440,000	1,270,000	1,030,000
Alkalinity (total as CaCO3)	µg/L	1,000	-	706,000	601,000	796,000	346,000	375,000	545,000	474,000	638,000	667,000	308,000	352,000	869,000	1,530,000	1,490,000	1,530,000	1,590,000	1,330,000	1,310,000	1,220,000	1,300,000	1,300,000	1,260,000	1,240,000	1,140,000	1,100,000
Alkalinity (pp as CaCO3)	µg/L	1,000	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Alkalinity (Bicarbonate)	µg/L	1,000	-	706,000	601,000	796,000	346,000	375,000	545,000	474,000	638,000	667,000	308,000	352,000	869,000	1,530,000	1,490,000	1,530,000	1,590,000	1,330,000	1,310,000	1,220,000	1,300,000	1,300,000	1,260,000	1,240,000	1,140,000	1,100,000
Alkalinity (Carbonate)	µg/L	1,000	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Hydroxide	µg/L	1,000	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Chloride	µg/L	100	**250,000**	**460,000**	218,000	**548,000**	139,000	133,000	**279,000**	165,000	248,000	203,000	**441,000**	208,000	**343,000**	177,000	163,000	146,000	141,000	145,000	145,000	136,000	135,000	133,000	127,000	124,000	99,600	76,000
Sulphate	µg/L	1,000	**500,000**	93,200	64,500	39,500	44,900	46,400	85,000	37,200	58,000	48,500	29,600	40,700	26,000	122,000	126,000	130,000	113,000	109,000	109,000	96,600	102,000	101,000	94,900	98,900	80,600	72,300
Nutrients																												
Ammonia as N	µg/L	50		199	454	574	54	<50	240	345	532	897	82	557	1,380	316	480	387	354	452	442	293	353	354	620	520	369	419
Nitrate (as N)	µg/L	10	**10,000**	<100	111	18	636	640	265	2,780	173	1,500	234	824	<10	<10	11	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Demand Parameters																												
Biochemical Oxygen Demand - 5 Day	µg/L	2.3	-	-	-	2,300	-	-	-	-	<7,400	-	-	-	<8,000	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand (COD)	µg/L	20,000	-	-	-	89,000	-	-	65,000	-	89,000	-	-	-	122,000	-	-	-	-	289,000	-	-	-	-	-	-	-	-
Dissolved Metals																												
Aluminum (filtered)	µg/L	5	**9,500**	<5.0	<5.0	<5.0	<5.0	<5.0	10.5	<5.0	5.4	43.5	<5.0	<5.0	<10.0	7.5	28.4	6.6	5.9	8.8	5.3	<10.0	<50.0	<25.0	10.4	12.9	14.6	<10.0
Antimony (filtered)	µg/L	0.2	**6**	0.25	<0.20	<0.20	0.3	0.29	<0.20	0.4	<0.20	<1.00	0.31	0.21	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.40	<2.00	<1.00	<0.40	<0.40	<0.40	<0.40
Arsenic (filtered)	µg/L	0.5	**10**	1.53	5.49	4.77	0.8	0.74	2.15	2.26	3.32	4.1	0.99	4.37	6.74	5.6	2.74	2.82	2.34	2.1	1.65	2.55	<5.00	3.98	5.76	3.52	2.57	8.55
Barium (filtered)	µg/L	5	**1,000**	66	49.3	60.6	21.3	21.3	45.5	37	46.3	47.6	67.8	45.5	65.3	10.7	10.9	7.9	10.1	11.1	8.8	<10.0	<50.0	<25.0	<10.0	<10.0	<10.0	<10.0
Beryllium (filtered)	µg/L	0.1	**8**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.20	<1.00	<0.50	<0.20	<0.20	<0.20	<0.20
Bismuth (filtered)	µg/L	0.1	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.20	<1.00	<0.50	<0.20	<0.20	<0.20	<0.20
Boron (filtered)	µg/L	50	**5,000**	1,760	1,040	887	353	353	925	689	846	904	455	465	1,540	734	467	444	423	364	387	410	666	415	367	402	333	238
Cadmium (filtered)	µg/L	0.01	**5**	0.294	0.096	0.149	0.044	0.045	0.08	0.096	0.048	<0.050	0.122	0.018	<0.020	0.021	<0.010	<0.010	0.022	0.025	<0.010	<0.020	<0.100	<0.050	<0.020	<0.020	<0.020	<0.020
Calcium (filtered)	µg/L	200	-	310,000	219,000	309,000	87,700	88,600	182,000	127,000	189,000	175,000	223,000	150,000	265,000	363,000	352,000	322,000	295,000	308,000	262,000	287,000	336,000	306,000	278,000	301,000	270,000	222,000
Chromium (filtered)	µg/L	0.5	**50[#3]**	0.67	0.74	0.57	<0.50	<0.50	<0.50	0.58	0.5	<1.00	<2.50	<0.50	<1.00	2.2	1.88	1.42	1.58	1.38	1.38	1.47	<5.00	<2.50	1.09	1.27	1.24	<1.00
Cobalt (filtered)	µg/L	0.1	**1**	**4.23**	**1.87**	**2.51**	0.6	0.54	**1.63**	**1.73**	**2.02**	**2.16**	0.86	0.67	**2.18**	**2.76**	**2.36**	**2.04**	**2.2**	**2.13**	**1.79**	**2.18**	**1.92**	**1.9**	**2.01**	**2.08**	**1.85**	0.97
Copper (filtered)	µg/L	0.4	**1,500**	9.23	2.54	1.46	6.4	6.33	3.82	7.3	3.79	3.38	4.18	2.62	<0.80	<0.40	<0.40	<0.40	<0.40	0.48	<0.40	<0.80	<4.00	<2.00	<0.80	<0.80	0.81	<0.80
Iron (filtered)	µg/L	10	**6,500**	868	**7,110**	**8,450**	45	41	2,240	657	4,990	5,250	160	6,300	**11,400**	1,790	2,090	1,670	1,940	1,410	2,140	2,070	2,130	2,010	1,730	1,200	1,700	1,550
Lead (filtered)	µg/L	0.2	**10**	<0.20	0.3	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.40	<2.00	<1.00	<0.40	<0.40	<0.40	<0.40
Lithium (filtered)	µg/L	0.1	**8**	**27**	**19.3**	**27.3**	**13.2**	**13.4**	**21.5**	**15.6**	**20.4**	**14.7**	**20.3**	**17.3**	**24**	**21.8**	**22**	**23.5**	**21.8**	**21.7**	**19.8**	**22.6**	**32.4**	**22.6**	**19.2**	**23.2**	**22.4**	**19**
Magnesium (filtered)	µg/L	10	-	94,200	87,100	113,000	22,300	21,800	67,900	44,500	81,700	76,600	51,200	43,400	98,600	189,000	200,000	175,000	147,000	178,000	160,000	178,000	175,000	178,000	154,000	166,000	144,000	115,000
Manganese (filtered)	µg/L	0.2	**1,500**	**2,930**	**4,140**	**5,810**	241	239	**2,850**	**1,860**	**3,440**	**2,980**	877	**1,740**	**6,870**	**7,800**	**8,300**	**6,640**	**6,210**	**6,560**	**7,300**	**6,620**	**6,960**	**6,730**	**6,650**	**6,410**	**5,690**	**5,220**
Mercury (filtered)	µg/L	0.01	**1**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	-	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	-	-	<0.010	<0.010	<0.010
Molybdenum (filtered)	µg/L	0.1	**250**	1.22	1.3	1.34	0.4	0.38	0.8	1.23	1.02	1.24	0.49	0.67	1.47	4.56	3.97	3.59	3.19	2.2	2.55	3.38	4.11	4.2	4.31	4.08	3.64	4.99
Nickel (filtered)	µg/L	0.4	**80**	23	16.1	16.5	3.7	3.53	11.9	11.6	13.4	13	4.75	3.95	15	19	18.6	14.8	14	12.8	12.2	12.8	14.4	13.3	12.4	12.1	9.27	6.21
Phosphorus, total	mg/L	0.05	-	0.059	0.205	0.176	0.075	0.073	0.087	0.067	0.095	<0.250	0.078	0.332	361	0.112	0.175	0.161	0.127	0.187	0.213	0.191	<0.500	<0.250	0.144	0.156	0.161	132
Potassium (filtered)	µg/L	100	-	14,000	9,980	9,860	9,820	9,610	10,900	10,600	10,600	11,100	15,000	10,300	7,700	2,300	2,620	2,680	1,990	2,860	2,940	1,980	2,170	2,220	2,430	2,120	2,010	2,210
Selenium (filtered)	µg/L	0.5	**10**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.50	<0.50	<0.50	<1.00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00
Silicon (filtered)	µg/L	1,000	-	19,100	19,300	19,800	13,400	13,200	17,200	14,600	18,900	17,900	14,700	18,000	21,200	28,600	25,400	25,400	23,000	26,300	23,000	25,500	27,700	25,800	24,000	24,500	24,700	24,800
Silver (filtered)	µg/L	0.05	**20**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.250	<0.050	<0.050	<0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.500	<0.250	<0.100	<0.100	<0.100	<0.100
Sodium (filtered)	µg/L	100	**200,000**	136,000	131,000	166,000	79,800	78,200	141,000	124,000	172,000	150,000	109,000	96,000	122,000	125,000	140,000	122,000	107,000	124,000	133,000	131,000	141,000	134,000	123,000	126,000	115,000	92,800
Strontium (filtered)	µg/L	1,000	**2,500**	2,180	1,750	2,160	570	564	1,570	1,100	1,530	1,380	1,730	1,120	2,320	**3,400**	**3,600**	**2,780**	2,280	**3,180**	**3,270**	**2,610**	**2,760**	**2,580**	**2,770**	**2,590**	2,320	1,980
Sulphur as S_	µg/L	3	-	37,200	25,300	15,000	13,500	13,200	30,900	14,300	20,000	16,100	10,800	13,400	10,800	48,400	57,400	45,500	38,400	41,900	35,800	38,100	40,000	37,000	33,100	35,900	31,500	29,600
Tellurium (filtered)	µg/L	0.5													<1.00													<1.00
Thallium (filtered)	µg/L	0.02	-	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.100	<0.020	<0.020	<0.040	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.040	<0.200	<0.100	<0.040	<0.040	<0.040	<0.040
Thorium (filtered)	µg/L	0.1													<0.20													<0.20
Tin (filtered)	µg/L	0.2	**2,500**	<0.20	<0.20	0.26	<0.20	<0.20	<0.20	<0.20	0.27	<1.00	<0.20	<0.20	<0.40	0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.40	<2.00	<1.00	<0.40	<0.40	<0.40	<0.40
Titanium (filtered)	µg/L	5	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<50.0	<25.0	<10.0	<10.0	<10.0	<10.0
Tungsten (filtered)	µg/L	1													<2.0													<2.0
Uranium (filtered)	µg/L	0.02	**20**	5.71	1.91	1.97	0.761	0.75	1.43	1	1.65	1.63	0.845	0.682	1.02	6.03	4.7	4.13	3.52	3.69	2.69	3.76	4.12	3.8	2.86	3.62	2.42	1.67
Vanadium (filtered)	µg/L	1	**20**	<1.0	<1.0	<1.0	<1.0	1.3	1.5	1.4	<5.0	<5.0	**<25.0**	<5.0	<10.0	5.4	<1.0	4.3	3.2	3.2	5.4	<10.0	**<50.0**	**<25.0**	<10.0	<10.0	<10.0	<10.0
Zinc (filtered)	µg/L	4	**3,000**	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20.0	9.9	<4.0	<8.0	<4.0	<4.0	<4.0	<4.0	4.5	<4.0	<8.0	<40.0	<20.0	<8.0	<8.0	<8.0	<8.0
Zirconium (filtered)	µg/L	0.1													1.51													1.87
BTEXS & MTBE																												
Benzene	µg/L	0.5	**5**	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	µg/L	1	**60**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/L	1	**140**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes Total	µg/L	2	**90**	-	-	-	-	-	-	-	-	-	-	-	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	1	**800**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl t-butyl ether (MTBE)	µg/L	1	**95**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																												
LEPH	µg/L	250	-	-	-	-	-	-	-	-	-	-	-	-	<250	-	-	-	-	-	-	-	-	-	-	-	-	-
HEPH	µg/L	250	-	-	-	-	-	-	-	-	-	-	-	-	<250	-	-	-	-	-	-	-	-	-	-	-	-	-
EPHw10-19	µg/L	250	-	-	-	-	-	-	-	-	-	-	-	-	<250	-	-	-	-	-	-	-	-	-	-	-	-	-
EPHw19-32	µg/L	250	-	-	-	-	-	-	-	-	-	-	-	-	<250	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons (PAHs)																												
Acenaphthene	µg/L	0.05	**250**	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	µg/L	0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-
Acridine	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	µg/L	0.01	**1,000**	-	-	-	-	-	-	-	-	-	-	-	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
Benz(a)anthracene	µg/L	0.01	**0.07**	-	-	-	-	-	-	-	-	-	-	-	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	µg/L	0.01	**0.01**	-	-	-	-	-	-	-	-	-	-	-	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b+j)fluoranthene	µg/L	0.05	**0.07**	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	µg/L	0.1	**300**	-	-	-	-	-	-	-	-	-	-	-	<0.100	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	µg/L	0.05	**7**	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	µg/L	0.01	**0.01**	-	-	-	-	-	-	-	-	-	-	-	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	µg/L	0.03	**150**	-	-	-	-	-	-	-	-	-	-	-	<0.030	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	µg/L	0.05	**150**	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Methylnaphthalene	µg/L	0.1	**5.5**	-	-	-	-	-	-	-	-	-	-	-	<0.100	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	µg/L	0.1	**15**	-	-	-	-	-	-	-	-	-	-	-	<0.100	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	µg/L	0.2	**80**	-	-	-	-	-	-	-	-	-	-	-	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	µg/L	0.1	-	-	-	-	-	-	-	-	-	-	-	-	<0.100	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	µg/L	0.02	**100**	-	-	-	-	-	-	-	-	-	-	-	<0.020	-	-	-	-	-	-	-	-	-	-	-	-	-
Quinoline	µg/L	0.05	**0.05**	-	-	-	-	-	-	-	-	-	-	-	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (VOCs)																												
1,1,1-Trichloroethane	µg/L	1	**8,000**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	µg/L	0.5	**2**	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	µg/L	1	**80**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	µg/L	2	-	-	-	-	-	-	-	-	-	-	-	-	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	µg/L	0.3	**0.5**	-	-	-	-	-	-	-	-	-	-	-	<0.3	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	µg/L	1	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/L	0.5	**200**	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	µg/L	1	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	µg/L	1	**30**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	µg/L	1	**14**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (cis)	µg/L	1	**8**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (trans)	µg/L	1	**80**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	µg/L	1	**4.5**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	µg/L	1	**1.5**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	µg/L	3	**50**	-	-	-	-	-	-	-	-	-	-	-	<3.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/L	0.5	**0.8**	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/L	1	**30**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	µg/L	1	**3**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	µg/L	1	**1,000**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	1	**2**	-	-	-	-	-	-	-	-	-	-	-	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Historic Total Metals																												
Calcium	µg/L	200	-	-	-	-	-	120,000	121,000	179,000	-	-	-	-	-	-	-	-	365,000	295,000	-	-	-	-	-	-	283,000	283,000
Magnesium	µg/L	10	-	-	-	-	-	29,300	28,900	60,400	-	-	-	-	-	-	-	-	187,000	176,000	-	-	-	-	-	-	136,000	136,000
Tellurium	µg/L	0.5	-	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<5.00	<2.50	<1.00	<1.00	<1.00	<1.00
Thorium	µg/L	0.1	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.20	<1.00	<0.50	<0.20	<0.20	<0.20	<0.20
Tungsten	µg/L	1	**3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<5.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	**<10.0**	**<5.0**	<2.0	<2.0	<2.0	<2.0
Zirconium	µg/L	0.1	-	0.77	1.27	1.08	0.28	0.25	0.8	1.3	1.06	1.45	0.33	0.49	0.49	3.95	4.35	3.64	3.16	4.25	3.73	3.43	3.67	3.31	2.93	3.22	2.52	2.52

Notes:
#1 Water hardness in mg/L CaCO3.
#2 Standard varies with pH and temperature. 10C is assumed. Consult a director for further advice.
#3 Standard is for Chromium VI.

Table 3: Groundwater Analytical Results

			Location Code	BH-3														BH-4													
			Field ID	BH-3	BH-3	BH-3	BH-3	BH-3	BH-3	BH-3 Dup	BH-3	BH-3	BH-3	DUP	BH-3	BH-3	BH-3	BH-4	BH-4	BH-4	BH-4	BH-4	DUP	BH-4	BH-4	BH-4	BH-4	BH-4	BH-4	BH-4	DUP
			Date	14 May 2020	17 Nov 2020	11 May 2021	23 Nov 2021	03 May 2022	08 Nov 2022	08 Nov 2022	10 May 2023	14 Nov 2023	28 May 2024	28 May 2024	05 Nov 2024	06 May 2025	04 Nov 2025	14 May 2020	17 Nov 2020	11 May 2021	23 Nov 2021	03 May 2022	03 May 2022	08 Nov 2022	10 May 2023	14 Nov 2023	28 May 2024	05 Nov 2024	06 May 2025	04 Nov 2025	04 Nov 2025
			Laboratory Report Number	0051274	20K1873	21E1381	21K3037	22E0223	22K1436	22K1436	23E1393	23K1686	24E3764	24E3764	24K0564	25E0628	25K0413	0051274	20K1873	21E1381	21K3037	22E0223	22E0223	22K1436	23E1393	23K1686	24E3764	24K0564	25E0628	25K0413	25K0413
			Laboratory Sample ID	0051274-04	20K1873-04	21E1381-04	21K3037-04	22E0223-04	22K1436-04	22K1436-01	23E1393-04	23K1686-04	24E3764-04	24E3764-01	24K0564-04	25E0628-03	25K0413_25K0413-04	0051274-05	20K1873-05	21E1381-05	21K3037-05	22E0223-05	22E0223-01	22K1436-05	23E1393-05	23K1686-05	24E3764-05	24K0564-05	25E0628-04	25K0413_25K0413-05	25K0413_25K0413-01
	Unit	EQL	BC Schedule 3.2 Water DW - Drinking Water																												
Physical Parameters																															
pH	pH Units	0.1	**-**	7.57	7.68	7.72	7.71	7.12	8.12	8.12	7.62	7.63	7.77	7.81	7.78	7.82	7.54	7.7	7.67	7.79	7.72	7.32	7.3	8.05	7.83	7.69	7.82	7.78	7.92	7.81	7.72
Electrical Conductivity (EC)	µS/cm	2	**-**	953	1,070	983	989	1,000	921	922	953	964	1,000	977	954	903	907	2,000	2,010	2,100	2,040	2,050	2,050	2,010	2,020	1,980	1,980	2,020	2,070	2,060	2,060
TDS (calculated)	µg/L	15,000	**-**	-	643,000	-	577,000	560,000	-	-	531,000	600,000	552,000	668,000	-	502,000	500,000	-	1,230,000	1,270,000	1,210,000	1,190,000	1,190,000	-	1,160,000	1,120,000	1,120,000	-	1,070,000	1,140,000	1,150,000
Hardness as CaCO3	µg/L	500	**-**	414,000	484,000	388,000	335,000	399,000	370,000	367,000	402,000	438,000	411,000	407,000	408,000	365,000	366,000	949,000	977,000	944,000	755,000	921,000	949,000	908,000	1,000,000	950,000	928,000	931,000	928,000	896,000	942,000
Alkalinity (total as CaCO3)	µg/L	1,000	**-**	366,000	379,000	376,000	403,000	374,000	340,000	341,000	304,000	360,000	335,000	335,000	330,000	313,000	377,000	692,000	676,000	733,000	701,000	668,000	691,000	586,000	618,000	644,000	630,000	613,000	599,000	668,000	668,000
Alkalinity (pp as CaCO3)	µg/L	1,000	**-**	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Alkalinity (Bicarbonate)	µg/L	1,000	**-**	366,000	379,000	376,000	403,000	374,000	340,000	341,000	304,000	360,000	335,000	335,000	330,000	313,000	377,000	692,000	676,000	733,000	7,010,000	668,000	691,000	586,000	618,000	644,000	630,000	613,000	599,000	668,000	668,000
Alkalinity (Carbonate)	µg/L	1,000	**-**	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Hydroxide	µg/L	1,000	**-**	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Chloride	µg/L	100	**250,000**	85,400	80,300	79,900	70,300	86,700	74,300	70,100	78,300	77,400	84,400	85,200	72,100	71,600	62,800	230,000	237,000	**277,000**	**256,000**	**278,000**	**282,000**	**279,000**	249,000	**256,000**	**251,000**	**267,000**	**284,000**	**291,000**	**292,000**
Sulphate	µg/L	1,000	**500,000**	38,700	60,500	36,200	34,500	39,100	34,100	34,000	34,300	39,600	36,900	37,100	33,300	26,500	32,200	99,700	91,600	90,500	85,600	83,100	86,300	83,300	78,600	77,800	74,100	76,300	65,400	71,800	70,200
Nutrients																															
Ammonia as N	µg/L	50	**-**	55	66	<50	83	<50	<50	<50	105	<50	66	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Nitrate (as N)	µg/L	10	**10,000**	2,550	1,960	2,310	2,360	3,070	2,650	2,640	2,530	2,550	2,490	2,610	2,530	2,030	2,700	3,620	2,130	1,390	661	607	584	584	200	205	75	210	<10	307	299
Demand Parameters																															
Biochemical Oxygen Demand - 5 Day	µg/L	2.3	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2,300	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand (COD)	µg/L	20,000	**-**	-	-	-	-	<20,000	-	-	-	-	-	-	-	-	-	-	-	<20,000	-	30,000	31,000	-	-	-	-	-	-	-	-
Dissolved Metals																															
Aluminum (filtered)	µg/L	5	**9,500**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	108	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.4	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25.0	<5.0	<5.0	<5.0	88.6	<5.0
Antimony (filtered)	µg/L	0.2	**6**	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (filtered)	µg/L	0.5	**10**	1.44	1.35	1.29	0.87	1.4	1.4	1.36	1.3	<2.50	1.27	1.31	1.38	1.31	1.26	<0.50	0.52	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.50	<0.50	<0.50	<0.50	<0.50	<0.50
Barium (filtered)	µg/L	5	**1,000**	11.6	14.7	10.9	8.4	12.6	10.6	10.4	11.9	<25.0	11.8	11.5	10.8	10.4	10	36.2	45.6	37.5	32.6	40.4	39.4	41.9	42.8	39	36.9	43.9	43.1	45.3	39.7
Beryllium (filtered)	µg/L	0.1	**8**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10
Bismuth (filtered)	µg/L	0.1	**-**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10
Boron (filtered)	µg/L	50	**5,000**	301	161	98.4	95.1	89.4	68.6	62.3	64.9	<250	78.1	75.9	65.3	62.4	57	605	514	494	388	486	487	493	440	396	421	462	449	450	516
Cadmium (filtered)	µg/L	0.01	**5**	0.02	0.017	0.015	0.013	0.017	0.013	0.014	0.013	<0.050	0.018	0.017	0.014	0.015	0.013	0.079	0.085	0.081	0.048	0.089	0.086	0.075	0.072	0.08	0.088	0.058	0.083	0.072	0.084
Calcium (filtered)	µg/L	200	**-**	110,000	120,000	102,000	87,900	102,000	97,500	95,800	99,800	109,000	108,000	106,000	104,000	95,100	97,000	185,000	181,000	180,000	148,000	172,000	178,000	174,000	176,000	171,000	173,000	180,000	175,000	176,000	180,000
Chromium (filtered)	µg/L	0.5	**50**[#3]	0.68	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cobalt (filtered)	µg/L	0.1	**1**	0.13	0.23	0.14	0.14	0.13	0.11	0.11	0.12	<0.50	0.14	0.14	0.12	0.11	0.11	**1.64**	**1.51**	**1.45**	**1.06**	**1.31**	**1.31**	**1.42**	**1.33**	**1.38**	**1.33**	**1.28**	**1.07**	**1.52**	**1.21**
Copper (filtered)	µg/L	0.4	**1,500**	1.46	<0.40	1.03	0.72	0.9	0.9	0.88	0.88	<2.00	0.76	0.88	0.73	0.72	0.79	2	1.61	1.93	1.34	1.56	1.62	1.66	1.74	<2.00	1.68	1.4	1.36	1.47	1.54
Iron (filtered)	µg/L	10	**6,500**	28	496	25	59	<10	<10	<10	<10	190	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50	<10	<10	<10	64	<10
Lead (filtered)	µg/L	0.2	**10**	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20
Lithium (filtered)	µg/L	0.1	**8**	**16.7**	**16.6**	**17.6**	**14.6**	**17.7**	**16.5**	**15.6**	**16.5**	**15.2**	**16.9**	**16.5**	**16.5**	**16.5**	**14.2**	**31.4**	**33**	**34.4**	**30**	**34.6**	**34.4**	**34.5**	**33.3**	**28.2**	**28.3**	**34.2**	**36.4**	**31.4**	**36.6**
Magnesium (filtered)	µg/L	10	**-**	34,100	44,300	32,300	28,000	34,900	30,700	31,000	36,900	40,000	34,500	34,700	35,700	30,800	29,900	118,000	127,000	120,000	93,300	119,000	122,000	115,000	137,000	127,000	120,000	117,000	119,000	110,000	120,000
Manganese (filtered)	µg/L	0.2	**1,500**	1.18	89	7.11	18.7	0.72	0.41	0.36	1.65	39.4	9.55	6.23	<0.20	0.43	0.43	482	378	374	189	365	370	435	275	405	320	333	216	485	516
Mercury (filtered)	µg/L	0.01	**1**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	-	<0.010	<0.010	<0.010	<0.010
Molybdenum (filtered)	µg/L	0.1	**250**	4.32	4.01	3.86	2.89	3.81	4.25	4.23	4.02	4.16	3.25	3.08	3.69	4.12	3.87	5.61	6.87	5.5	4.71	5.29	5.22	6.36	5.47	6.63	4.68	6.55	6.05	4.61	6.9
Nickel (filtered)	µg/L	0.4	**80**	1.05	3.01	1.28	1.32	1.26	1.07	1.03	1.29	<2.00	1.42	1.33	0.98	1.05	1	18.5	20.4	18.3	14.7	16.3	16.3	17.1	16.8	17.8	17.6	16.1	15.1	15.2	16.3
Phosphorus, total	mg/L	0.05	**-**	<0.050	0.08	0.053	<0.050	<0.050	<0.050	<0.050	<0.050	<0.250	<0.050	<0.050	<0.050	0.05	<50	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.250	<0.050	<0.050	<0.050	<50	<50
Potassium (filtered)	µg/L	100	**-**	4,710	4,640	4,220	3,380	4,340	4,060	3,870	4,240	4,300	4,240	4,240	3,960	3,760	3,510	5,490	5,720	5,380	4,690	5,390	5,400	5,680	5,440	5,660	5,560	5,660	5,060	5,150	5,800
Selenium (filtered)	µg/L	0.5	**10**	0.65	0.52	0.62	<0.50	0.72	0.56	0.59	0.62	<2.50	0.66	0.64	0.68	0.5	0.66	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silicon (filtered)	µg/L	1,000	**-**	14,700	12,400	12,600	10,600	13,100	11,600	11,400	13,300	12,600	12,500	12,400	12,600	12,000	11,700	13,200	11,800	11,600	9,800	11,900	11,700	11,000	12,200	11,400	11,000	11,900	10,600	11,400	12,800
Silver (filtered)	µg/L	0.05	**20**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.250	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.250	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (filtered)	µg/L	100	**200,000**	57,900	61,000	51,400	40,800	59,900	52,200	51,800	58,800	56,200	56,400	56,500	55,000	48,400	43,200	93,700	105,000	92,500	78,300	99,000	99,800	101,000	112,000	103,000	98,300	98,700	94,300	88,900	99,700
Strontium (filtered)	µg/L	1,000	**2,500**	708	806	602	508	746	729	713	687	725	714	733	694	624	620	2,040	2,320	1,890	1,530	2,130	2,120	2,220	2,150	2,000	2,050	2,060	2,150	2,150	2,150
Sulphur as S_	µg/L	3	**-**	13,400	27,400	12,000	12,200	13,900	11,600	11,400	11,600	16,800	13,100	12,600	11,100	10,300	9,600	39,400	41,400	33,000	25,800	31,900	32,100	30,200	29,100	27,800	27,000	27,500	23,900	24,700	23,900
Tellurium (filtered)	µg/L	0.5															<0.50													<0.50	<0.50
Thallium (filtered)	µg/L	0.02	**-**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.100	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.024	0.021	<0.020	0.02	0.021	0.023	0.028	<0.100	0.022	0.021	0.023	<0.020	0.024
Thorium (filtered)	µg/L	0.1															<0.10													<0.10	<0.10
Tin (filtered)	µg/L	0.2	**2,500**	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (filtered)	µg/L	5	**-**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tungsten (filtered)	µg/L	1															<1.0													<1.0	<1.0
Uranium (filtered)	µg/L	0.02	**20**	8.43	9.45	6.51	6.19	7.73	6.31	6.34	7.14	8.31	5.19	5.25	6.78	6.47	6.24	**29.9**	**29.2**	**26.1**	**23.1**	**26.5**	**28**	**25.6**	**27**	**27.5**	17.8	**27.8**	**25.8**	**25.6**	**26.8**
Vanadium (filtered)	µg/L	1	**20**	3.1	<1.0	3	2.4	3.3	<5.0	<5.0	<5.0	**<25.0**	<5.0	<5.0	<5.0	<5.0	<5.0	2.8	<1.0	2.9	1.8	3.1	3.1	<5.0	<5.0	**<25.0**	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc (filtered)	µg/L	4	**3,000**	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20.0	<4.0	<4.0	<4.0	<4.0	<4.0
Zirconium (filtered)	µg/L	0.1															<0.10													0.52	0.42
BTEXS & MTBE																															
Benzene	µg/L	0.5	**5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	µg/L	1	**60**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/L	1	**140**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes Total	µg/L	2	**90**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	1	**800**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl t-butyl ether (MTBE)	µg/L	1	**95**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																															
LEPH	µg/L	250	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEPH	µg/L	250	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPHw10-19	ug/L	250	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPHw19-32	ug/L	250	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons (PAHs)																															
Acenaphthene	µg/L	0.05	**250**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	µg/L	0.2	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acridine	µg/L	0.05	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	µg/L	0.01	**1,000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benz(a)anthracene	µg/L	0.01	**0.07**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	µg/L	0.01	**0.01**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b+j)fluoranthene	µg/L	0.05	**0.07**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	µg/L	0.05	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	µg/L	0.05	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	µg/L	0.1	**300**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	µg/L	0.05	**7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	µg/L	0.01	**0.01**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	µg/L	0.03	**150**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	µg/L	0.05	**150**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/L	0.05	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Methylnaphthalene	µg/L	0.1	**5.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	µg/L	0.1	**15**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	µg/L	0.2	**80**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	µg/L	0.1	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	µg/L	0.02	**100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quinoline	µg/L	0.05	**0.05**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (VOCs)																															
1,1,1-Trichloroethane	µg/L	1	**8,000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	µg/L	0.5	**2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	µg/L	1	**80**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	µg/L	2	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	µg/L	0.3	**0.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	µg/L	1	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/L	0.5	**200**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	µg/L	1	**-**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	µg/L	1	**30**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	µg/L	1	**14**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (cis)	µg/L	1	**8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (trans)	µg/L	1	**80**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	µg/L	1	**4.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	µg/L	1	**1.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	µg/L	3	**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/L	0.5	**0.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/L	1	**30**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	µg/L	1	**3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	µg/L	1	**1,000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	1	**2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Historic Total Metals																															
Calcium	µg/L	200	**-**	-	-	-	123,000	106,000	-	-	-	-	-	-	-	98,700	98,700	-	-	-	193,000	177,000	179,000	-	-	-	-	-	198,000	198,000	198,000
Magnesium	µg/L	10	**-**	-	-	-	38,100	37,000	-	-	-	-	-	-	-	29,700	29,700	-	-	-	127,000	126,000	130,000	-	-	-	-	-	115,000	115,000	115,000
Tellurium	µg/L	0.5	**-**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.50	<0.50	<0.50	<0.50	<0.50	<0.50
Thorium	µg/L	0.1	**-**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10
Tungsten	µg/L	1	**3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<5.0**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<5.0**	<1.0	<1.0	<1.0	<1.0	<1.0
Zirconium	µg/L	0.1	**-**	<0.10	0.12	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	0.54	0.44	0.52	0.29	0.52	0.51	0.46	0.49	<0.50	0.49	0.46	0.4	0.4	0.4

Notes:

#1 Water hardness in mg/L CaCO3.

#2 Standard varies with pH and temperature. 10C is assumed. Consult a director for further advice.

#3 Standard is for Chromium VI.

Table 3: Groundwater Analytical Results

			Location Code	BH-5													BH-7														
			Field ID	BH-5	BH-5	BH-5	BH-5	BH-5	BH-5	BH-5	DUP	BH-5	BH-5	BH-5	DUP	BH-5	BH-7	BH-7	DUP	BH-7	DUP	BH-7	BH-7	BH-7	BH-7	BH-7	BH-7	BH-7	BH-7	DUP	BH-7
			Date	14 May 2020	17 Nov 2020	11 May 2021	23 Nov 2021	03 May 2022	08 Nov 2022	10 May 2023	10 May 2023	14 Nov 2023	28 May 2024	05 Nov 2024	05 Nov 2024	04 Nov 2025	14 May 2020	17 Nov 2020	17 Nov 2020	11 May 2021	11 May 2021	23 Nov 2021	03 May 2022	08 Nov 2022	10 May 2023	14 Nov 2023	28 May 2024	05 Nov 2024	06 May 2025	06 May 2025	04 Nov 2025
			Laboratory Report Number	0051274	20K1873	21E1381	21K3037	22E0223	22K1436	23E1393	23E1393	23K1686	24E3764	24K0564	24K0564	25K0413	0051274	20K1873	20K1873	21E1381	21E1381	21K3037	22E0223	22K1436	23E1393	23K1686	24E3764	24K0564	25E0628	25E0628	25K0413
			Laboratory Sample ID	0051274-06	20K1873-06	21E1381-06	21K3037-06	22E0223-06	22K1436-06	23E1393-06	23E1393-01	23K1686-06	24E3764-06	24K0564-06	24K0564-01	25K0413_25K0413-06	0051274-07	20K1873-07	20K1873-01	21E1381-07	21E1381-08	21K3037-07	22E0223-07	22K1436-07	23E1393-07	23K1686-07	24E3764-07	24K0564-07	25E0628-05	25E0628-01	25K0413_25K0413-07
	Unit	EQL	**BC Schedule 3.2 Water DW - Drinking Water**																												
Physical Parameters																															
pH	pH Units	0.1	-	7.93	7.88	7.96	7.91	7.45	8.17	7.86	7.82	7.76	7.92	7.9	7.88	7.7	7.79	7.74	7.55	7.85	7.88	7.84	7.3	8.21	7.85	7.66	7.95	7.73	8	7.9	7.73
Electrical Conductivity (EC)	µS/cm	2	-	847	960	889	998	957	897	956	953	991	987	972	971	892	1,060	1,110	980	1,080	1,060	1,060	1,120	1,110	1,100	1,120	1,030	942	468	452	956
TDS (calculated)	µg/L	15,000	-	-	599,000	-	574,000	531,000	-	535,000	518,000	569,000	562,000	-	-	463,000	-	675,000	610,000	-	-	628,000	657,000	-	644,000	676,000	954,000	-	272,000	257,000	548,000
Hardness as CaCO3	µg/L	500	-	340,000	384,000	322,000	360,000	343,000	331,000	364,000	374,000	373,000	355,000	372,000	377,000	347,000	520,000	498,000	508,000	436,000	436,000	443,000	481,000	479,000	500,000	489,000	523,000	371,000	247,000	230,000	444,000
Alkalinity (total as CaCO3)	µg/L	1,000	-	245,000	243,000	244,000	259,000	260,000	247,000	217,000	214,000	232,000	216,000	211,000	212,000	275,000	470,000	446,000	373,000	458,000	467,000	482,000	482,000	454,000	434,000	441,000	442,000	346,000	175,000	168,000	414,000
Alkalinity (pp as CaCO3)	µg/L	1,000	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Alkalinity (Bicarbonate)	µg/L	1,000	-	245,000	243,000	244,000	259,000	260,000	247,000	217,000	214,000	232,000	216,000	211,000	212,000	275,000	470,000	446,000	373,000	458,000	467,000	482,000	482,000	454,000	434,000	441,000	442,000	346,000	175,000	168,000	414,000
Alkalinity (Carbonate)	µg/L	1,000	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Hydroxide	µg/L	1,000	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Chloride	µg/L	100	**250,000**	110,000	123,000	111,000	129,000	128,000	114,000	135,000	120,000	151,000	132,000	136,000	130,000	100,000	68,400	61,100	67,000	55,700	55,400	55,300	63,700	66,800	57,200	63,400	64,000	57,400	24,300	23,600	49,000
Sulphate	µg/L	1,000	**500,000**	38,000	31,800	31,100	32,900	46,000	27,900	34,700	32,400	34,500	43,500	34,500	34,500	26,800	37,400	42,300	44,100	37,800	37,900	38,400	40,100	40,400	45,300	44,600	45,800	33,800	12,600	11,800	37,600
Nutrients																															
Ammonia as N	µg/L	50	-	<50	<50	<50	<50	<50	<50	56	<50	<50	<50	<50	68	119	<50	<50	<50	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Nitrate (as N)	µg/L	10	**10,000**	5,540	6,100	4,120	6,070	7,620	5,620	5,580	5,660	5,910	5,600	4,670	5,350	4,270	3,730	3,710	2,230	3,560	3,540	4,070	3,880	4,240	5,380	5,630	5,040	2,890	1,500	1,460	4,790
Demand Parameters																															
Biochemical Oxygen Demand - 5 Day	µg/L	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand (COD)	µg/L	20,000	-	-	-	-	-	<20,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20,000	-	-	-	-	-	-	-	-
Dissolved Metals																															
Aluminum (filtered)	µg/L	5	**9,500**	<5.0	<5.0	<5.0	<5.0	<5.0	7.6	<5.0	1,850	<5.0	<5.0	<5.0	<5.0	21.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25.0	<5.0	<5.0	17.2	15.5	<5.0
Antimony (filtered)	µg/L	0.2	**6**	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (filtered)	µg/L	0.5	**10**	1.33	1.25	1.24	0.86	1.36	1.23	1.14	1.72	1.03	1.22	1.16	1.17	1	2.25	2.1	1.3	1.97	2.02	1.77	2.17	2.05	1.98	<2.50	2.03	2.01	1.72	1.82	2.11
Barium (filtered)	µg/L	5	**1,000**	11.9	12.7	11.4	14.4	13.2	11.7	12.7	34.8	16.4	13	12.8	12.9	19.2	21.5	20.6	15.6	17.8	17.7	17.7	21.8	20.8	20.6	<25.0	21.9	15.4	9.7	9	17.8
Beryllium (filtered)	µg/L	0.1	**8**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10
Bismuth (filtered)	µg/L	0.1	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10
Boron (filtered)	µg/L	50	**5,000**	238	<50.0	58.3	60.1	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	190	65.2	178	57.9	57.3	58.6	61.4	57.9	57.6	<250	60.1	<50.0	<50.0	<50.0	<50.0
Cadmium (filtered)	µg/L	0.01	**5**	<0.010	<0.010	0.012	0.011	0.01	<0.010	<0.010	0.059	<0.010	<0.010	<0.010	<0.010	0.035	0.122	0.092	0.023	0.056	0.053	0.028	0.062	0.047	0.07	0.065	0.085	0.038	<0.010	<0.010	0.016
Calcium (filtered)	µg/L	200	-	93,200	102,000	86,600	98,100	90,500	89,200	92,500	95,400	96,000	94,400	97,700	98,600	91,100	132,000	122,000	124,000	110,000	110,000	112,000	117,000	120,000	117,000	119,000	129,000	90,200	61,100	57,100	110,000
Chromium (filtered)	µg/L	0.5	**50**[#3]	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	<0.50	2.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cobalt (filtered)	µg/L	0.1	**1**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	**1.84**	<0.10	<0.10	<0.10	<0.10	0.13	0.78	0.74	0.29	0.5	0.5	0.48	0.56	0.56	0.56	0.57	0.65	0.42	0.24	0.21	0.3
Copper (filtered)	µg/L	0.4	**1,500**	0.7	<0.40	0.65	0.65	0.73	0.65	0.57	3.59	0.8	0.58	0.43	0.49	0.78	2.24	1.75	<0.40	1.58	1.56	1.41	1.67	1.47	1.74	<2.00	1.66	1.22	0.83	0.78	0.99
Iron (filtered)	µg/L	10	**6,500**	<10	<10	<10	<10	<10	<10	<10	2,790	<10	<10	<10	<10	26	<10	<10	674	<10	<10	<10	<10	<10	<10	<50	<10	<10	24	17	<10
Lead (filtered)	µg/L	0.2	**10**	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.67	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20
Lithium (filtered)	µg/L	0.1	**8**	**19.3**	**18.5**	**20**	**18.5**	**21**	**19.8**	**20.9**	**21.9**	**14.1**	**18.6**	**19.3**	**19.5**	**15.5**	**19.6**	**18**	**16.3**	**18.4**	**18.7**	**18.2**	**19.2**	**18.7**	**19.1**	**17**	**17.7**	**16.2**	**12.9**	**12**	**16.1**
Magnesium (filtered)	µg/L	10	-	26,100	31,500	25,700	27,800	28,400	26,300	32,200	32,900	32,400	28,900	31,100	31,700	28,800	46,200	46,800	47,800	39,000	39,100	39,400	45,600	43,400	50,300	46,300	48,400	35,300	22,800	21,300	41,100
Manganese (filtered)	µg/L	0.2	**1,500**	2.23	1.13	2.73	2.04	0.41	0.45	<0.20	156	2.71	0.65	2.89	2.98	24.7	283	197	118	80.3	79.9	29.2	79.5	88.9	103	150	132	39.4	4.14	4.14	3.35
Mercury (filtered)	µg/L	0.01	**1**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	-	<0.010	<0.010	<0.010	<0.010
Molybdenum (filtered)	µg/L	0.1	**250**	8.17	6.71	7.01	5.8	9.25	6.02	6.49	3.62	4.84	6.16	6.02	5.9	5.14	2.16	1.96	4.15	1.72	1.56	1.81	2.16	1.67	2.06	2.03	1.67	2.11	1.67	1.91	1.51
Nickel (filtered)	µg/L	0.4	**80**	<0.40	0.43	0.42	0.52	0.42	<0.40	<0.40	3.28	0.45	<0.40	<0.40	<0.40	0.91	4.34	4.24	3.45	2.92	2.94	2.37	3.14	2.84	3.31	3.13	3.7	1.91	0.82	0.75	1.43
Phosphorus, total	mg/L	0.05	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.327	<0.050	<0.050	<0.050	<0.050	<50	0.092	0.117	<0.050	0.074	0.079	0.071	0.087	0.09	0.091	<0.250	0.091	0.078	0.064	0.072	73
Potassium (filtered)	µg/L	100	-	2,920	2,880	2,810	2,640	3,050	2,550	2,880	3,070	2,750	2,920	2,700	2,750	2,660	2,970	2,660	4,820	2,530	2,520	2,600	2,680	2,480	2,690	2,620	2,880	2,460	1,750	1,710	2,290
Selenium (filtered)	µg/L	0.5	**10**	0.51	<0.50	0.5	<0.50	0.58	<0.50	0.52	0.51	<0.50	0.55	0.51	0.52	<0.50	0.93	0.83	0.53	0.88	0.96	0.71	1	0.91	1.12	<2.50	1.06	1.15	0.79	0.73	1.3
Silicon (filtered)	µg/L	1,000	-	10,200	9,700	8,700	9,400	8,200	8,800	9,700	12,500	9,100	8,900	9,400	9,500	9,800	17,800	13,600	12,400	13,500	14,000	13,800	14,400	12,800	14,800	13,200	13,800	13,100	11,900	11,700	12,900
Silver (filtered)	µg/L	0.05	**20**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.250	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (filtered)	µg/L	100	**200,000**	54,200	53,800	50,200	48,500	62,800	50,800	60,100	57,500	53,000	59,400	54,800	56,700	43,900	68,100	64,400	63,500	57,100	57,300	57,200	63,900	61,500	66,900	61,900	63,500	59,400	42,200	38,800	48,800
Strontium (filtered)	µg/L	1,000	**2,500**	446	499	383	427	478	493	461	486	518	495	485	491	430	877	805	853	638	627	644	842	852	756	716	845	541	343	323	626
Sulphur as S_	µg/L	3	-	13,300	13,800	11,600	11,200	15,900	9,500	11,700	11,800	10,800	15,000	12,100	11,900	10,400	15,600	16,500	33,700	13,500	13,400	12,900	14,100	13,600	15,000	<15000	16,600	9,900	7,200	6,600	15,400
Tellurium (filtered)	µg/L	0.5														<0.50															<0.50
Thallium (filtered)	µg/L	0.02	-	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.036	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.100	<0.020	<0.020	<0.020	<0.020	<0.020
Thorium (filtered)	µg/L	0.1														<0.10															<0.10
Tin (filtered)	µg/L	0.2	**2,500**	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (filtered)	µg/L	5	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	66.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<25.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tungsten (filtered)	µg/L	1														<1.0															<1.0
Uranium (filtered)	µg/L	0.02	**20**	6.07	5.35	5.09	4.98	5.94	4.67	5.69	6.04	5.01	4.04	4.94	4.96	5.07	11.7	10.1	10.2	9.14	9.08	9.68	11.3	9.51	9.99	10.4	7.75	7.32	4.69	4.45	8.7
Vanadium (filtered)	µg/L	1	**20**	4.8	<1.0	5.3	3.3	5.2	5.5	5.7	15.4	<5.0	<5.0	5	5	<5.0	12.9	6.2	<1.0	10.6	10.4	11	11.7	11.7	12.5	**<25.0**	12	10.7	9	9.1	11.7
Zinc (filtered)	µg/L	4	**3,000**	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	9.8	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	16	<4.0	<4.0	<20.0	<4.0	<4.0	<4.0	<4.0	<4.0
Zirconium (filtered)	µg/L	0.1														<0.10															0.12
BTEXS & MTBE																															
Benzene	µg/L	0.5	**5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	µg/L	1	**60**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/L	1	**140**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes Total	µg/L	2	**90**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	1	**800**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl t-butyl ether (MTBE)	µg/L	1	**95**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																															
LEPH	µg/L	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HEPH	µg/L	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPHw10-19	ug/L	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPHw19-32	ug/L	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons (PAHs)																															
Acenaphthene	µg/L	0.05	**250**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	µg/L	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acridine	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	µg/L	0.01	**1,000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benz(a)anthracene	µg/L	0.01	**0.07**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	µg/L	0.01	**0.01**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b+j)fluoranthene	µg/L	0.05	**0.07**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	µg/L	0.1	**300**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	µg/L	0.05	**7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	µg/L	0.01	**0.01**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	µg/L	0.03	**150**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	µg/L	0.05	**150**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Methylnaphthalene	µg/L	0.1	**5.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	µg/L	0.1	**15**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	µg/L	0.2	**80**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	µg/L	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	µg/L	0.02	**100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quinoline	µg/L	0.05	**0.05**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (VOCs)																															
1,1,1-Trichloroethane	µg/L	1	**8,000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	µg/L	0.5	**2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	µg/L	1	**80**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	µg/L	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	µg/L	0.3	**0.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	µg/L	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/L	0.5	**200**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	µg/L	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	µg/L	1	**30**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	µg/L	1	**14**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (cis)	µg/L	1	**8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (trans)	µg/L	1	**80**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	µg/L	1	**4.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	µg/L	1	**1.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	µg/L	3	**50**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/L	0.5	**0.8**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/L	1	**30**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	µg/L	1	**3**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	µg/L	1	**1,000**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	1	**2**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Historic Total Metals																															
Calcium	µg/L	200	-	-	-	-	116,000	96,700	-	-	-	-	-	-	-	-	-	-	-	-	-	120,000	119,000	-	-	-	-	-	44,000	42,700	42,700
Magnesium	µg/L	10	-	-	-	-	35,300	30,800	-	-	-	-	-	-	-	-	-	-	-	-	-	43,700	46,700	-	-	-	-	-	14,800	14,500	14,500
Tellurium	µg/L	0.5	-	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.50	<0.50	<0.50	<0.50	<0.50	<0.50
Thorium	µg/L	0.1	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.67	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10
Tungsten	µg/L	1	**3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**<5.0**	<1.0	<1.0	<1.0	<1.0	<1.0
Zirconium	µg/L	0.1	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.8	<0.10	<0.10	<0.10	<0.10	<0.10	0.2	0.17	0.13	0.15	0.19	0.16	0.21	0.18	0.2	<0.50	0.22	<0.10	<0.10	<0.10	<0.10

Notes:
#1 Water hardness in mg/L CaCO3.
#2 Standard varies with pH and temperature. 10C is assumed. Consult a director for further advice.
#3 Standard is for Chromium VI.

Table 3: Groundwater Analytical Results

			Location Code	MW99-2												
			Field ID	MW99-2	DUP	MW99-2	MW99-2	MW99-2	MW99-2	MW99-2	MW99-2	MW99-2	MW99-2	MW99-2	MW99-2	MW99-2
			Date	14 May 2020	14 May 2020	17 Nov 2020	11 May 2021	23 Nov 2021	03 May 2022	08 Nov 2022	10 May 2023	28 May 2024	05 Nov 2024	06 May 2025	04 Nov 2025
			Laboratory Report Number	0051274	0051274	20K1873	21E1381	21K3037	22E0223	22K1436	23E1393	24E3764	24K0564	25E0628	25K0413
			Laboratory Sample ID	0051274-08	0051274-01	20K1873-08	21E1381-01	21K3037-08	22E0223-08	22K1436-08	23E1393-08	24E3764-08	24K0564-08	25E0628-06	25K0413 25K0413-08
	Unit	EQL	BC Schedule 3.2 Water DW - Drinking Water													
Physical Parameters																
pH	pH Units	0.1	-	7.84	7.79	7.9	7.92	7.9	7.6	8.08	8.01	7.99	7.88	8.03	7.89
Electrical Conductivity (EC)	µS/cm	2	-	1,270	1,200	1,440	1,490	1,570	1,220	1,350	1,420	1,560	1,660	1,570	1,690
TDS (calculated)	µg/L	15,000	-	-	-	837,000	-	864,000	697,000		786,000	814,000	-	-	883000
Hardness as CaCO3	µg/L	500	-	694,000	677,000	755,000	711,000	690,000	657,000	696,000	755,000	791,000	843,000	807,000	850,000
Alkalinity (total as CaCO3)	µg/L	1,000	-	598,000	600,000	620,000	651,000	649,000	576,000	542,000	550,000	550,000	554,000	539,000	625,000
Alkalinity (pp as CaCO3)	µg/L	1,000	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Alkalinity (Bicarbonate)	µg/L	1,000	-	598,000	600,000	620,000	651,000	649,000	576,000	542,000	550,000	550,000	554,000	539,000	625,000
Alkalinity (Carbonate)	µg/L	1,000	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Hydroxide	µg/L	1,000	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Chloride	µg/L	100	**250,000**	97,900	98,300	119,000	127,000	136,000	73,100	124,000	132,000	164,000	199,000	195,000	217,000
Sulphate	µg/L	1,000	**500,000**	19,900	19,700	20,100	17,900	20,200	16,300	18,200	20,600	22,900	23,400	18,000	25,600
Nutrients																
Ammonia as N	µg/L	50	-	<50	<50	<50	<50	<50	<50	<50	62	97	<50	<50	<50
Nitrate (as N)	µg/L	10	**10,000**	669	622	652	986	476	458	247	614	880	855	402	485
Demand Parameters																
Biochemical Oxygen Demand - 5 Day	µg/L	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand (COD)	µg/L	20,000	-	-	-	-	-	-	24,000	-	-	-	-	-	-
Dissolved Metals																
Aluminum (filtered)	µg/L	5	**9,500**	<5.0	7.2	<5.0	177	<5.0	<5.0	25	<5.0	<5.0	52.5	5.5	<5.0
Antimony (filtered)	µg/L	0.2	**6**	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic (filtered)	µg/L	0.5	**10**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50
Barium (filtered)	µg/L	5	**1,000**	7.6	7.7	10.7	7.6	6.5	11.5	10.2	8.2	14.9	8.6	7.8	8.9
Beryllium (filtered)	µg/L	0.1	**8**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Bismuth (filtered)	µg/L	0.1	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Boron (filtered)	µg/L	50	**5,000**	114	33.5	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Cadmium (filtered)	µg/L	0.01	**5**	0.016	0.012	<0.010	0.018	<0.010	<0.010	<0.010	0.034	0.014	<0.010	<0.010	<0.010
Calcium (filtered)	µg/L	200	-	128,000	126,000	132,000	133,000	134,000	123,000	133,000	124,000	148,000	163,000	150,000	167,000
Chromium (filtered)	µg/L	0.5	**50**[#3]	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cobalt (filtered)	µg/L	0.1	**1**	0.22	0.21	0.23	0.43	<0.10	<0.10	0.12	0.32	<0.10	<0.10	<0.10	<0.10
Copper (filtered)	µg/L	0.4	**1,500**	4.92	4.84	2.41	7.11	2.86	3.71	4.08	5.66	4.32	4.53	4.02	2.98
Iron (filtered)	µg/L	10	**6,500**	15	<10	76	179	<10	<10	33	<10	<10	34	<10	<10
Lead (filtered)	µg/L	0.2	**10**	1.03	0.29	0.24	0.68	<0.20	<0.20	0.26	<0.20	<0.20	<0.20	<0.20	1.04
Lithium (filtered)	µg/L	0.1	**8**	**36.8**	**37.3**	**42.5**	**44.5**	**40.9**	**40.3**	**41.4**	**41.7**	**41**	**40**	**46.2**	**40.8**
Magnesium (filtered)	µg/L	10	-	90,700	87,800	104,000	92,000	86,200	84,900	88,000	108,000	102,000	106,000	105,000	105,000
Manganese (filtered)	µg/L	0.2	**1,500**	11.7	11.6	22.1	25.4	1.02	4.5	11.8	122	4.73	4.61	1.28	1.85
Mercury (filtered)	µg/L	0.01	**1**	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-		<0.010	<0.010	<0.010
Molybdenum (filtered)	µg/L	0.1	**250**	0.32	0.34	0.27	0.22	0.19	0.64	0.25	1.11	0.29	0.21	0.5	0.26
Nickel (filtered)	µg/L	0.4	**80**	<0.40	<0.40	<0.40	<0.40	3.79	<0.40	0.44	1.25	<0.40	<0.40	<0.40	<0.40
Phosphorus, total	mg/L	0.05	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<50
Potassium (filtered)	µg/L	100	-	590	510	410	450	500	810	530	800	630	480	500	460
Selenium (filtered)	µg/L	0.5	**10**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.5	<0.50	<0.50	<0.50	<0.50
Silicon (filtered)	µg/L	1,000	-	9,000	8,400	7,100	7,300	6,100	8,200	6,500	6,700	6,600	6,400	6,900	6,200
Silver (filtered)	µg/L	0.05	**20**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium (filtered)	µg/L	100	**200,000**	44,500	43,100	49,600	43,200	39,400	43,400	45,300	55,000	47,400	45,600	46,900	43,800
Strontium (filtered)	µg/L	1,000	**2,500**	1,890	1,850	2,110	1,720	1,590	1,820	2,040	1,860	2,070	2,180	2,170	2,330
Sulphur as S_	µg/L	3	-	8,300	7,600	9,300	8,500	6,300	6,400	6,200	7,600	7,900	8,000	7,400	9,200
Tellurium (filtered)	µg/L	0.5													<0.50
Thallium (filtered)	µg/L	0.02	-	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Thorium (filtered)	µg/L	0.1													<0.10
Tin (filtered)	µg/L	0.2	**2,500**	<0.20	0.22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Titanium (filtered)	µg/L	5	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tungsten (filtered)	µg/L	1													<1.0
Uranium (filtered)	µg/L	0.02	**20**	8.22	8.04	7.2	7	6.8	7.53	6.62	7.23	5.9	8.02	9.17	8.35
Vanadium (filtered)	µg/L	1	**20**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Zinc (filtered)	µg/L	4	**3,000**	<4.0	<4.0	<4.0	<4.0	4.9	<4.0	10.9	<4.0	6.7	<4.0	<4.0	<4.0
Zirconium (filtered)	µg/L	0.1													0.21
BTEXS & MTBE																
Benzene	µg/L	0.5	**5**	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	µg/L	1	**60**	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/L	1	**140**	-	-	-	-	-	-	-	-	-	-	-	-
Xylenes Total	µg/L	2	**90**	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	1	**800**	-	-	-	-	-	-	-	-	-	-	-	-
Methyl t-butyl ether (MTBE)	µg/L	1	**95**	-	-	-	-	-	-	-	-	-	-	-	-
Extractable Petroleum Hydrocarbons																
LEPH	µg/L	250	-	-	-	-	-	-	-	-	-	-	-	-	-
HEPH	µg/L	250	-	-	-	-	-	-	-	-	-	-	-	-	-
EPHw10-19	ug/L	250	-	-	-	-	-	-	-	-	-	-	-	-	-
EPHw19-32	µg/L	250	-	-	-	-	-	-	-	-	-	-	-	-	-
Polycyclic Aromatic Hydrocarbons (PAHs)																
Acenaphthene	µg/L	0.05	**250**	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	µg/L	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-
Acridine	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	µg/L	0.01	**1,000**	-	-	-	-	-	-	-	-	-	-	-	-
Benz(a)anthracene	µg/L	0.01	**0.07**	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	µg/L	0.01	**0.01**	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b+j)fluoranthene	µg/L	0.05	**0.07**	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	µg/L	0.1	**300**	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	µg/L	0.05	**7**	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	µg/L	0.01	**0.01**	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	µg/L	0.03	**150**	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	µg/L	0.05	**150**	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/L	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-
1-Methylnaphthalene	µg/L	0.1	**5.5**	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	µg/L	0.1	**15**	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	µg/L	0.2	**80**	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	µg/L	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	µg/L	0.02	**100**	-	-	-	-	-	-	-	-	-	-	-	-
Quinoline	µg/L	0.05	**0.05**	-	-	-	-	-	-	-	-	-	-	-	-
Volatile Organic Compounds (VOCs)																
1,1,1-Trichloroethane	µg/L	1	**8,000**	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	µg/L	0.5	**2**	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	µg/L	1	**80**	-	-	-	-	-	-	-	-	-	-	-	-
Chloroethane	µg/L	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	µg/L	1	**100**	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dibromoethane	µg/L	0.3	**0.5**	-	-	-	-	-	-	-	-	-	-	-	-
Dibromomethane	µg/L	1	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	µg/L	0.5	**200**	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	µg/L	1	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethane	µg/L	1	**30**	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethane	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene	µg/L	1	**14**	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (cis)	µg/L	1	**8**	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloroethene (trans)	µg/L	1	**80**	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane	µg/L	1	**4.5**	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichloropropene	µg/L	1	**1.5**	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	µg/L	3	**50**	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/L	0.5	**0.8**	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/L	1	**30**	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane	µg/L	1	**3**	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	µg/L	1	**5**	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	µg/L	1	**1,000**	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	1	**2**	-	-	-	-	-	-	-	-	-	-	-	-
Historic Total Metals																
Calcium	µg/L	200	-	-	-	-	-	154,000	119,000	-	-	-	-	148,000	148,000
Magnesium	µg/L	10	-	-	-	-	-	105,000	79,600	-	-	-	-	98,800	98,800
Tellurium	µg/L	0.5	-	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Thorium	µg/L	0.1	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tungsten	µg/L	1	**3**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Zirconium	µg/L	0.1	-	0.22	0.28	0.28	0.37	0.26	0.25	0.31	0.23	0.19	0.3	0.18	0.18

Notes:
#1 Water hardness in mg/L CaCO3.
#2 Standard varies with pH and temperature. 10C is assumed. Consult a director for further advice.
#3 Standard is for Chromium VI.

TETRA TECH

Table 4: Quality Assurance/Quality Control Analytical Results

			Location	BH-7	DUP	RPD (%)	BH-4	DUP	RPD (%)
			Laboratory Report Number	25E0628	25E0628		25K0413	25K0413	
			Laboratory Sample ID	25E0628-05	25E0628-01		25K0413_25K0413-05	25K0413_25K0413-01	
Paramaters	**Unit**	**RDL**							
Physical Parameters									
pH	pH Units	0.1	8	7.9	1	7.81	7.72	1
Electrical Conductivity (EC)	µS/cm	2	468	452	3	2060	2060	0
TDS (calculated)	µg/L	13000	272,000	257,000	6	1,140,000	1,150,000	1
Hardness as CaCO3	µg/L	3000	247,000	230,000	7	896,000	942,000	5
Alkalinity (total as CaCO3)	µg/L	600	175,000	168,000	4	668,000	668,000	0
Alkalinity (pp as CaCO3)	µg/L	600	<1,000	<1,000	-	<1,000	<1,000	-
Alkalinity (Bicarbonate)	µg/L	1000	175,000	168,000	4	668,000	668,000	0
Alkalinity (Carbonate)	µg/L	1000	<1,000	<1,000	-	<1,000	<1,000	-
Hydroxide	µg/L	1000	<1,000	<1,000	-	<1,000	<1,000	-
Chloride	µg/L	1000	24300	23600	3	291000	292000	0
Sulphate	µg/L	1000	12600	11800	7	71800	70200	2
Nutrients								
Ammonia as N	µg/L	5	<50	<50	-	<50	<50	-
Nitrate (as N)	µg/L	50	1500	1460	3	307	299	3
Demand Parameters								
Biochemical Oxygen Demand - 5 Day	µg/L	50	-	-	-	-	-	-
Chemical Oxygen Demand (COD)	µg/L	5	-	-	-	-	-	-
Dissolved Metals								
Aluminum (filtered)	µg/L	5	17	16	-	89	<5.0	-
Antimony (filtered)	µg/L	0.2	<0.20	<0.20	-	<0.20	<0.20	-
Arsenic (filtered)	µg/L	0.5	2	2	-	<0.50	<0.50	-
Barium (filtered)	µg/L	5	9.7	9	-	45.3	39.7	13
Beryllium (filtered)	µg/L	0.1	<0.10	<0.10	-	<0.10	<0.10	-
Chromium (filtered)	µg/L	0.5	<0.50	<0.50	-	<0.50	<0.50	-
Cobalt (filtered)	µg/L	0.1	0.24	0.21	-	1.52	1.21	**23**
Copper (filtered)	µg/L	0.4	0.83	0.78	-	1.47	1.54	-
Iron (filtered)	µg/L	10	24	17	-	64	<10	-
Lead (filtered)	µg/L	0.2	<0.20	<0.20	-	<0.20	<0.20	-
Lithium (filtered)	µg/L	0.1	13	12	7	31	37	15
Magnesium (filtered)	µg/L	10	22,800	21300	7	110,000	120,000	9
Manganese (filtered)	µg/L	0.2	4.14	4.14	0	485	516	6
Mercury (filtered)	µg/L	0.01	<0.010	<0.010	-	<0.010	<0.010	-
Molybdenum (filtered)	µg/L	0.1	2	2	13	5	7	**40**
Nickel (filtered)	µg/L	0.4	1	1	-	15	16	7
Phosphorus, total	mg/L	0.05	1750	1710	2	<50	<50	-
Potassium (filtered)	µg/L	100	0.79	0.73	-	5,150	5,800	12
Selenium (filtered)	µg/L	0.5	11900	11700	2	<0.50	<0.50	-
Silicon (filtered)	µg/L	1000	<0.050	<0.050	-	11400	12800	12
Silver (filtered)	µg/L	0.05	42200	38800	8	<0.050	<0.050	-
Sodium (filtered)	µg/L	100	343	323	-	88900	99700	11
Strontium (filtered)	µg/L	1000	<0.020	<0.020	-	2150	2150	0
Sulphur as S_	µg/L	3	<0.20	<0.20	-	24700	23900	3
Tellurium (filtered)	µg/L	0.5	<5.0	<5.0	-	<0.50	<0.50	-
Thallium (filtered)	µg/L	0.02	4.69	4.45	5	<0.020	0.024	-
Thorium (filtered)	µg/L	0.1	9	9.1	1	<0.10	<0.10	-
Tin (filtered)	µg/L	0.2	<4.0	<4.0	-	<0.20	<0.20	-
Titanium (filtered)	µg/L	5	17	16	-	<5.0	<5.0	-
Tungsten (filtered)	µg/L	1	<0.20	<0.20	-	<1.0	<1.0	-
Uranium (filtered)	µg/L	0.02	2	2	6	25.6	26.8	5
Vanadium (filtered)	µg/L	1	9.7	9	7	<5.0	<5.0	-
Zinc (filtered)	µg/L	4	<0.10	<0.10	-	<4.0	<4.0	-
Zirconium (filtered)	µg/L	0.1	<0.10	<0.10	-	0.52	0.42	-
Historic Total Metals								
Calcium	µg/L	200	<0.10	<0.10	-	3,200	3,190	0
Magnesium	µg/L	10	<0.10	<0.10	-	1.98	1.98	-
Tellurium	µg/L	0.5	<50.0	<50.0	-	1.4	1.46	-
Thorium	µg/L	0.1	<0.010	<0.010	-	-17.2	-15.1	-
Tungsten	µg/L	1	61100	57100	7	-	-	-
Zirconium	µg/L	0.1	<0.50	<0.50	-	<1.0	<1.0	-

Notes:
RDL - Reportable detection limit.
RPD - Relative Percentage Difference calculated as RPD(%)=(|V1-V2|)/[(V1+V2)/2])*100 where V1,V2 = concentrations of parent and duplicate sample, respectively.
"-" Indicates RPD not calculated. RPDs have only been considered where both concentrations are greater than 5 times the RDL.
N/A - Not applicable.
BOLD - RPD value greater than 20%.
Shaded- Detect Value in Blank Sample.

Table 5: Landfill Gas Monitoring Results

North Side Perimeter	Inside Boundary																							Near Boundary										
Parameter	VP07-05												VP07-09												MW07-1										
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A												N/A												3.45	3.42	3.42	3.40	3.75	-	-	3.60	-	-	5.42	5.75
CH_4 (ppm)	50	70	195	115	290	-	-	140	-	-	0	75	30	35	120	240	180	-	-	210	-	-	80	60	95	145	250	290	310	-	-	200	-	-	300	80
CO_2 (%)	0.8	0.6	1.1	0.0	3.1	-	-	1.8	-	-	1.0	0.7	0.2	0.1	0.2	0.6	0.3	-	-	0.7	-	-	0.5	0.3	1.2	1.4	1.7	1.4	2.2	-	-	3.7	-	-	0.0	1.0
O2 (%)	19.6	20.3	18.3	20.9	17.7	-	-	18.1	-	-	20.9	20.9	18.5	19.7	20.4	18.7	20.5	-	-	17.6	-	-	19.0	17.9	20.0	18.9	19.0	18.8	18.5	-	-	16.8	-	-	19.4	20.5
H_2S (ppm)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0
LEL (%)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0

North Side Perimeter	Near Boundary																																	
Parameter	VP23-01												VP23-02												VP23-03										
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A												N/A												N/A										
CH_4 (ppm)	15	50	115	140	180	220	0	40	175	125	0	50	30	70	40	185	220	250	135	170	220	175	0	45	175	260	450	210	185	165	85	130	155	140	0	580
CO_2 (%)	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	1.1	0.9	1.4	1.6	0.9	0.6	0.0	0.0	1.4	1.3	1.9	1.9	0.7	0.1	0.1	0.2	0.1	0.1	0.0	0.3
O2 (%)	20.9	20.9	20.9	20.9	20.9	20.9	20.7	19.6	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.9	19.6	20.9	19.2	18.1	20.8	20.8	20.9	20.9	18.9	19.9	17.8	18.7	20.3	20.9	20.5	19.2	20.9	20.9	20.9	20.9
H_2S (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LEL (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

East Side Perimeter	Inside Boundary																																	
Parameter	BH 102												BH 103												BH101D										
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A												N/A												N/A										
CH_4 (ppm)	130	145	6,800	**50,250**	1,450	530	230	210	2	125	95	300	195	0	360	**19,250**	510	430	260	200	220	185	130	-	450	380	510	0	700	-	-	10	-	-	370	700
CO_2 (%)	2.5	1.9	10.5	16.7	15.1	6.9	3.2	1.8	1.2	1.1	1.0	1.4	3.3	0.0	5.7	13.1	11.9	7.7	4.3	3.4	2.5	1.7	1.5	-	9.6	8.2	8.4	12.3	17.1	-	-	16.5	-	-	7.0	8.6
O2 (%)	17.0	16.9	3.5	0.0	7.4	13.7	18.2	18.2	20.5	20.1	20.6	19.6	15.9	20.9	12.0	3.9	12.1	14.8	17.9	17.6	19.0	19.2	20.6	-	11.8	15.2	8.1	1.4	3.1	-	-	8.2	-	-	16.6	14.0
H_2S (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	-	0	0
LEL (%)	0	0	13	100	3	0	0	3	0	0	0	0	0	0	0	38	0	0	0	0	0	0	0	-	0	0	0	0	0	-	-	0	-	-	0	0

East Side Perimeter	Inside Boundary																																	
Parameter	BH101S												VP11-09												VP12-01										
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A												N/A												N/A										
CH_4 (ppm)	180	185	240	270	270	-	-	200	-	-	165	300	55	95	200	180	200	210	190	310	180	130	75	100	45	60	115	180	195	-	-	370	-	-	60	0
CO_2 (%)	2.8	2.3	2.7	4.5	3.5	-	-	4.4	-	-	1.6	2.3	0.8	0.8	1.1	1.5	1.2	1.0	0.9	0.9	0.7	0.5	0.4	0.4	1.2	1.0	1.3	2.2	1.8	-	-	1.5	-	-	0.7	0.8
O2 (%)	18.5	18.1	17.0	14.5	17.7	-	-	16.8	-	-	19.6	19.0	20.4	20.5	19.5	18.6	20.3	20.5	20.5	19.1	20.9	20.8	20.9	20.9	18.7	18.6	17.8	17.4	18.9	-	-	18.7	-	-	20.9	19.5
H_2S (ppm)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	-	0	0
LEL (%)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	-	0	0

South Side Perimeter	Inside Boundary																																	
Parameter	VP11-06												VP11-07												VP11-08										
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A												N/A												N/A										
CH_4 (ppm)	90	75	160	175	210	320	155	170	160	175	0	75	90	100	230	220	300	195	155	175	165	200	100	100	85	65	160	165	320	195	360	70	430	370	100	30
CO_2 (%)	0.9	0.8	0.8	0.8	1.1	5.8	1.1	1.1	1.1	0.9	0.5	1.1	1.2	1.2	1.1	1.0	1.4	1.5	1.5	1.3	1.3	1.1	1.1	1.3	0.9	0.9	1.0	1.1	5.5	1.2	8.1	8.5	7.8	5.0	1.9	0.7
O2 (%)	20.9	20.3	20.9	20.8	20.3	14.4	20.3	18.9	20.5	20.4	20.9	19.2	20.2	20.1	20.0	20.1	19.6	19.8	20.0	18.7	20.2	20.4	20.9	19.2	20.5	20.7	20.2	20.2	14.5	20.3	12.8	11.2	13.2	16.2	19.7	20.9
H_2S (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LEL (%)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

West Side Perimeter	Near Boundary																																	
Parameter	W 99-2												MW99-3												MW99-4										
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	5.34	5.38	5.19	5.04	5.13	-	-	5.28	-	-	5.56	5.60	No water	No water	No water	No water	No water	-	-	No water	-	-	No water	No water	6.71	6.66	6.64	6.585	6.51	-	-	6.95	-	-	7.15	7.115
CH_4 (ppm)	130	175	250	270	290	-	-	150	-	-	0	150	95	125	185	240	380	-	-	170	-	-	100	115	240	270	270	290	270	-	-	-	-	-	200	150
CO_2 (%)	1.5	1.6	1.9	2.2	2.1	-	-	1.9	-	-	1.9	1.8	1.1	1.1	1.3	1.5	2.0	-	-	1.9	-	-	1.0	1.0	3.9	3.9	3.2	2.7	2.3	-	-	-	-	-	2.8	3.1
O2 (%)	20.0	19.0	18.4	17.7	18.1	-	-	18.2	-	-	20.6	18.7	20.4	20.5	19.4	18.4	18.4	-	-	18.0	-	-	20.8	19.8	16.5	16.8	17.5	17.7	18.8	-	-	-	-	-	18.3	17.1
H_2S (ppm)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	-	-	-	0	0
LEL (%)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	-	-	-	0	0

Notes:
Inside Boundary
Near Boundary
Outside Boundary
LEL - lower explosive limit.
mbtoc - metre below top of cap.
mbg - metre below ground.
N/A - Monitoring Location does not have a measurable water level.
ppm - parts per million.
"-" - Not measured.

TETRA TECH

Table 5: Landfill Gas Monitoring Results

North Side Perimeter	Near Boundary																																			
Parameter	VP07-08												VP11-01												VP11-02											
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A												N/A												N/A											
CH_4 (ppm)	20	70	130	175	210	-	-	200	-	-	80	50	20	30	130	140	210	-	-	155	-	-	100	25	90	75	180	220	270	-	-	190	-	-	0	35
CO_2 (%)	0.5	0.7	0.5	0.2	1.1	-	-	1.3	-	-	0.6	0.4	0.2	0.3	0.5	0.6	1.1	-	-	0.3	-	-	0.0	0.1	1.3	1.0	1.6	2.2	2.4	-	-	1.4	-	-	0.5	1.0
O2 (%)	19.0	19.9	19.8	19.4	19.4	-	-	18.9	-	-	20.9	20.5	20.9	20.3	19.9	19.4	20.1	-	-	19.4	-	-	20.9	20.9	19.6	19.2	18.3	17.8	18.5	-	-	18.7	-	-	20.9	19.0
H_2S (ppm)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0
LEL (%)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0

North Side Perimeter	Near Boundary																																			
Parameter	VP23-04												VP23-05D												VP23-05S											
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A												N/A												N/A											
CH_4 (ppm)	35	75	170	165	210	250	140	135	160	160	100	15	-	-	40	-	-	-	-	420	-	-	0	-	30	90	-	-	195	200	115	135	185	-	0	65
CO_2 (%)	0.3	0.0	0.0	0.0	0.9	0.5	0.8	0.5	0.1	0.0	0.8	0.0	-	-	0.0	-	-	-	-	0.0	-	-	0.1	-	0.1	0.1	-	-	0.8	0.8	0.6	0.6	0.8	-	0.3	1.0
O2 (%)	20.9	20.9	20.9	20.9	20.3	20.9	20.7	19.2	20.9	20.9	20.7	20.9	-	-	20.9	-	-	-	-	17.9	-	-	20.9	-	20.9	20.9	-	-	20.1	20.7	20.9	19.1	20.8	-	20.9	18.2
H_2S (ppm)	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	-	-	-	0	-	-	0	-	0	0	-	-	0	0	0	0	0	-	0	0
LEL (%)	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0	-	-	-	-	0	-	-	0	-	0	0	-	-	0	0	0	0	0	-	0	0

East Side Perimeter	Near Boundary																																			
Parameter	VP07-02												VP07-03												VP07-1D											
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A												N/A												N/A											
CH_4 (ppm)	120	125	140	990	190	-	-	190	-	-	115	0	25	80	95	10	30	-	-	95	-	-	35	100	120	35	120	195	195	-	-	290	-	-	135	100
CO_2 (%)	1.3	1.4	1.4	1.7	1.8	-	-	1.5	-	-	1.2	0.5	0.2	0.8	0.3	0.1	0.2	-	-	0.9	-	-	0.2	0.3	1.8	0.5	0.9	1.2	1.6	-	-	1.6	-	-	1.5	2.0
O2 (%)	19.2	20.0	19.1	17.7	19.1	-	-	18.2	-	-	19.6	20.9	20.9	20.9	20.9	20.9	20.9	-	-	19.4	-	-	20.9	20.9	18.8	20.3	19.4	18.8	18.6	-	-	18.7	-	-	19.5	19.9
H_2S (ppm)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0
LEL (%)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0

East Side Perimeter	Near Boundary																																			
Parameter	VP07-14												VP07-15												VP07-16											
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	2.05	1.075	1.45	1.89	2.06	-	-	-	-	-	-	-	N/A												N/A											
CH_4 (ppm)	-	-	-	-	250	-	-	290	-	-	170	200	140	110	230	310	290	-	-	180	-	-	155	400	150	180	270	230	185	-	-	145	-	-	195	300
CO_2 (%)	-	-	-	-	3.1	-	-	2.7	-	-	2.5	2.3	1.8	1.0	1.9	3.9	4.1	-	-	1.8	-	-	1.5	1.8	1.9	1.9	1.8	2.5	3.1	-	-	2.8	-	-	2.2	2.5
O2 (%)	-	-	-	-	17.6	-	-	17.9	-	-	19.5	19.2	19.3	20.3	16.4	15.4	17.4	-	-	18.2	-	-	19.6	19.6	19.8	19.9	19.2	18.1	17.9	-	-	17.4	-	-	19.2	19.2
H_2S (ppm)	-	-	-	-	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0
LEL (%)	-	-	-	-	0	-	-	0	-	-	0	0	0.0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0

South Side Perimeter
Parameter
Water Depth (mbtoc)
CH_4 (ppm)
CO_2 (%)
O2 (%)
H_2S (ppm)
LEL (%)

West Side Perimeter	Near Boundary												Outside Boundary											
Parameter	VP11-04												VP11-05											
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A												N/A											
CH_4 (ppm)	110	140	270	210	290	-	-	195	-	-	0	125	165	115	300	210	260	-	-	115	-	-	100	155
CO_2 (%)	1.4	1.5	1.4	2.0	2.0	-	-	1.6	-	-	1.0	1.3	2.5	1.4	2.3	1.9	1.8	-	-	1.4	-	-	2.3	2.4
O2 (%)	19.3	17.1	18.4	17.7	18.4	-	-	18.4	-	-	20.9	19.0	18.9	18.6	16.8	18.3	19.6	-	-	18.7	-	-	19.2	17.8
H_2S (ppm)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0
LEL (%)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	-	-	0	-	-	0	0

Notes:
Inside Boundary
Near Boundary
Outside Boundary
LEL - lower explosive limit.
mbtoc - metre below top of cap.
mbg - metre below ground.
N/A - Monitoring Location does not have a measurable water level.
ppm - parts per million.
'-' - Not measured.

TETRA TECH

Table 5: Landfill Gas Monitoring Results

North Side Perimeter	Outside Boundary											
Parameter	VP11-10											
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A											
CH_4 (ppm)	35	80	180	260	230	-	-	230	-	-	100	35
CO_2 (%)	0.3	0.4	0.6	1.0	0.9	-	-	0.2	-	-	0.1	0.1
O2 (%)	20.9	20.9	20.9	19.4	20.8	-	-	19.6	-	-	20.9	20.9
H_2S (ppm)	0	0	0	0	0	-	-	0	-	-	0	0
LEL (%)	0	0	0	0	0	-	-	0	-	-	0	0

North Side Perimeter	Near Boundary											
Parameter	VP23-06											
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A											
CH_4 (ppm)	15	45	95	175	155	175	75	115	125	130	0	10
CO_2 (%)	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.2	0.1	0.0	0.0
O2 (%)	20.9	20.9	20.9	20.9	20.9	20.9	20.9	19.2	20.9	20.9	20.9	20.9
H_2S (ppm)	0	0	0	0	0	0	0	0	0	0	0	0
LEL (%)	0	0	0	0	0	0	0	0	0	0	0	0

East Side Perimeter	Near Boundary																							
Parameter	VP07-1S												VP15-01											
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	N/A												No water	No water	No water	No water	No water	-	No Water	No water	No water	No Water	-	-
CH_4 (ppm)	65	60	115	75	155	-	-	170	-	-	55	100	90	115	170	250	210	230	210	140	155	75	95	200
CO_2 (%)	0.9	0.7	0.9	0.2	1.1	-	-	0.8	-	-	0.5	0.6	1.4	1.4	1.5	2.3	2.3	1.7	1.7	3.0	1.4	1.2	1.0	1.4
O2 (%)	19.4	19.7	19.4	20.6	19.9	-	-	19.4	-	-	20.9	20.9	19.1	19.0	18.5	17.0	18.9	18.6	19.3	16.8	19.8	20.1	19.8	19.7
H_2S (ppm)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LEL (%)	0	0	0	0	0	-	-	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0

East Side Perimeter	Near Boundary												Inside Boundary											
Parameter	VP15-02												VP15-03											
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25
Water Depth (mbtoc)	No water	No water	No water	No water	No water	-	No Water	No water	No water	No Water	-	-	8.98	8.91	8.73	8.14	8.68	-	8.91	8.30	8.95	8.95	-	-
CH_4 (ppm)	-	-	310	300	310	280	290	195	350	330	400	800	20	0	20	155	-	-	-	510	-	0	5	0
CO_2 (%)	-	-	5.5	5.2	5.4	4.4	5.6	1.6	7.8	7.8	8.8	9.0	0.0	0.0	0.0	0.2	-	-	-	-	-	0.0	0.0	0.0
O2 (%)	-	-	15.4	14.8	15.8	17.0	14.0	18.2	14.2	14.8	13.4	13.5	20.9	20.9	20.9	20.9	-	-	-	20.1	-	20.9	20.9	20.9
H_2S (ppm)	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	-	0	0	0
LEL (%)	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	0	0	0

Notes:

Inside Boundary

Near Boundary

Outside Boundary

LEL - lower explosive limit.

mbtoc - metre below top of cap.

mbg - metre below ground.

N/A - Monitoring Location does not have a measurable water level.

ppm - parts per million.

"-" - Not measured.

FIGURES

0 2 500 m

Scale: 1: 50 000

NOTES
BASED IMAGE FROM GOOGLE EARTH AUGUST 25, 2025.

CLIENT
REGIONAL DISTRICT OF CENTRAL OKANAGAN

CITY OF KELOWNA
WESTSIDE LANDFILL
WEST KELOWNA, BC

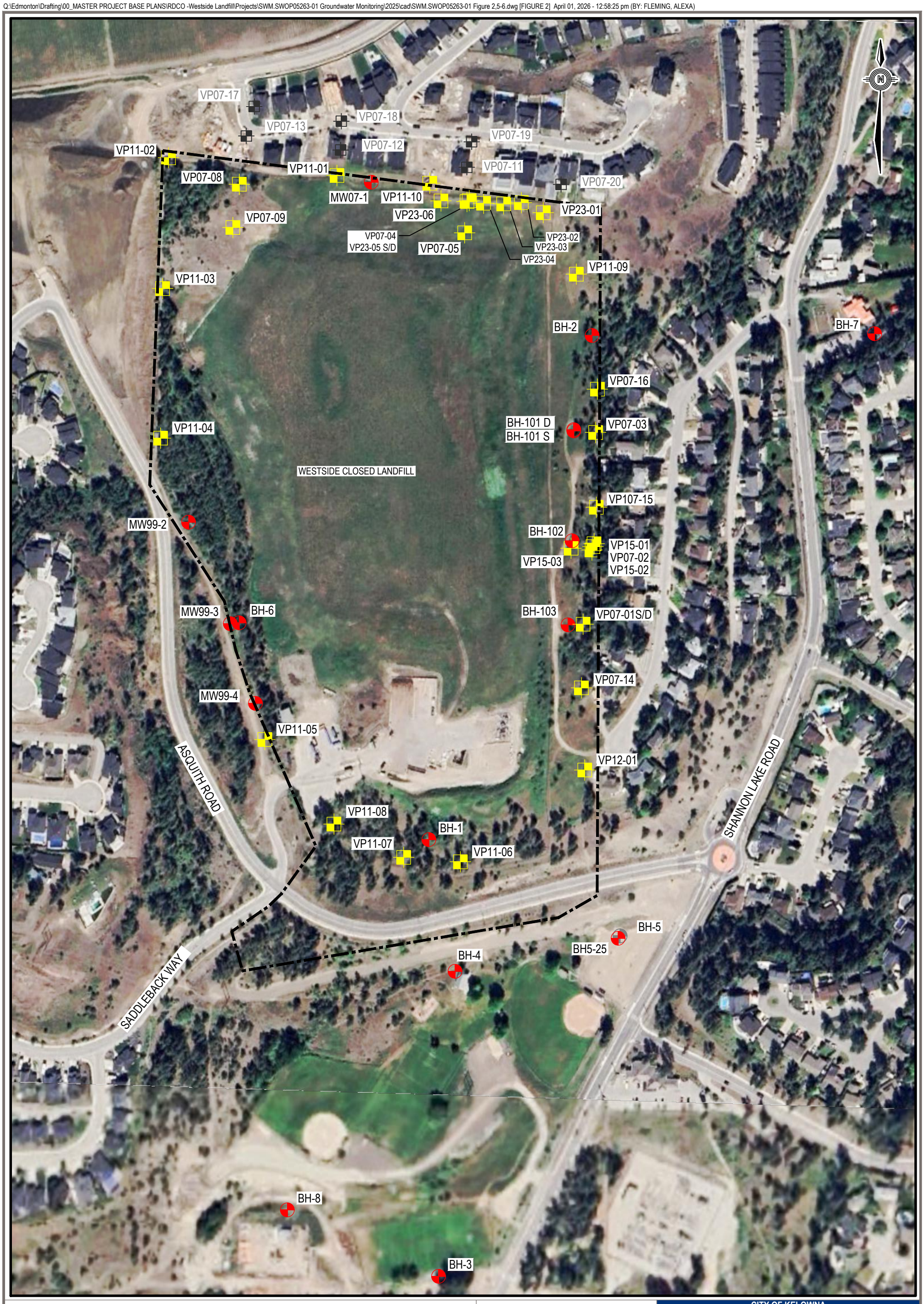
SITE LOCATION

TETRA TECH

PROJECT NO.	DWN	CKD	REV
SWM.SWOP05263-01	AF	LL	0
OFFICE: CGY	DATE: April 2026		

Figure 1

Q:\Edmonton\Drafting\00_MASTER PROJECT BASE PLANS\RDCO -Westside Landfill\Projects\SWM.SWOP05263-01 Groundwater Monitoring\2025\cad\SWM.SWOP05263-01 Figure 1dwg.dwg [FIGURE 1] March 31, 2026 - 4:05:15 pm (BY: FLEMING, ALEXA)



LEGEND:

- APPROXIMATE LANDFILL BOUNDARY
- MONITORING WELL
- SOIL VAPOUR WELL
- MONITORING WELL DECOMMISSIONED IN JUNE 2018
- MONITORING WELL DECOMMISSIONED IN OCTOBER 2025

NOTES
BASED IMAGE FROM GOOGLE EARTH MAY 7, 2025.

0 100 m

Scale: 1: 3 000

CLIENT

REGIONAL DISTRICT OF CENTRAL OKANAGAN

CITY OF KELOWNA
WESTSIDE LANDFILL
WEST KELOWNA, BC

SITE PLAN
GROUNDWATER AND SOIL VAPOUR WELL LOCATIONS

TETRA TECH

PROJECT NO.	DWN	CKD	REV
SWM.SWOP05363-01	AF	LL	0
OFFICE: CGY	DATE: April 2026		

Figure 2

Figure 3: Monitoring Well Hydrograph

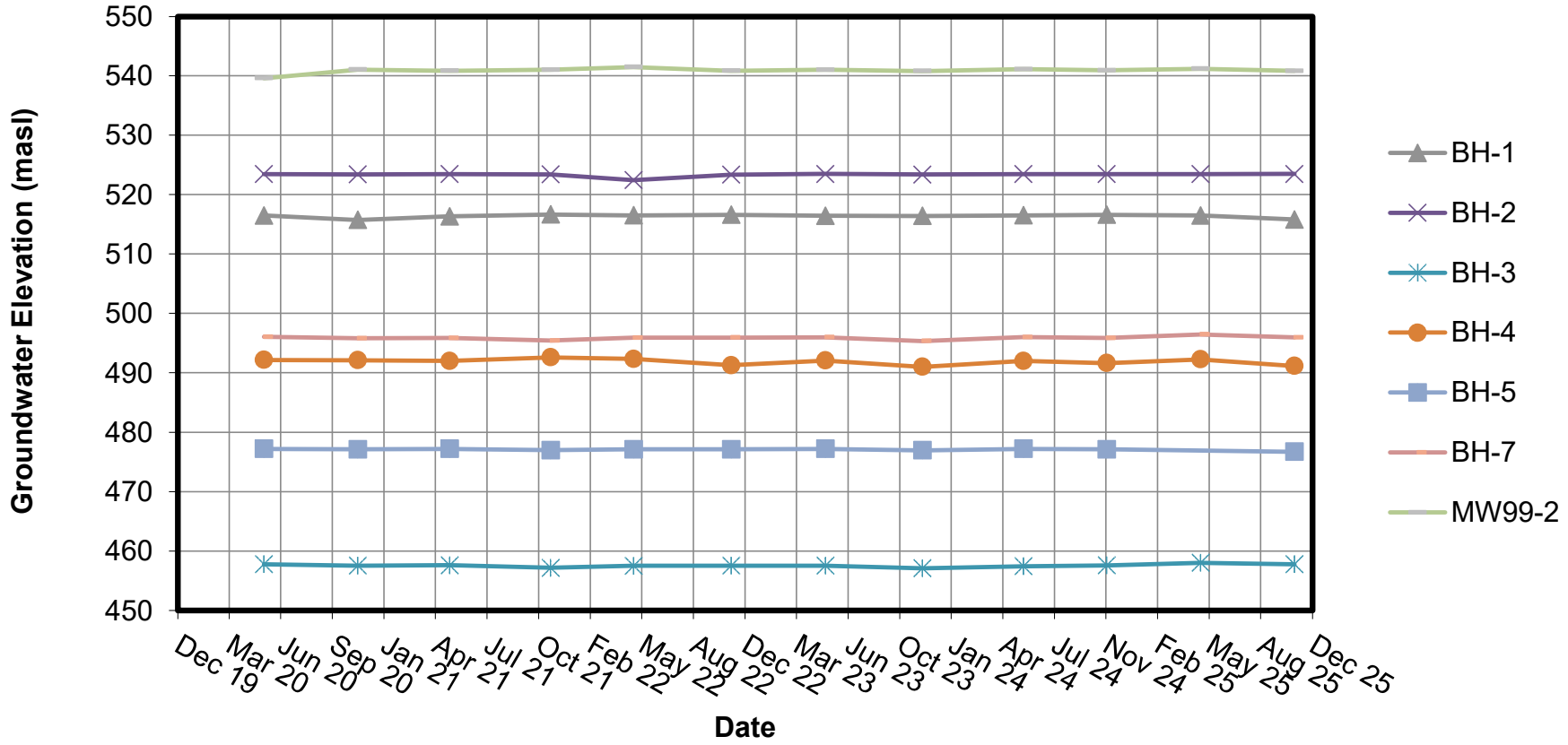
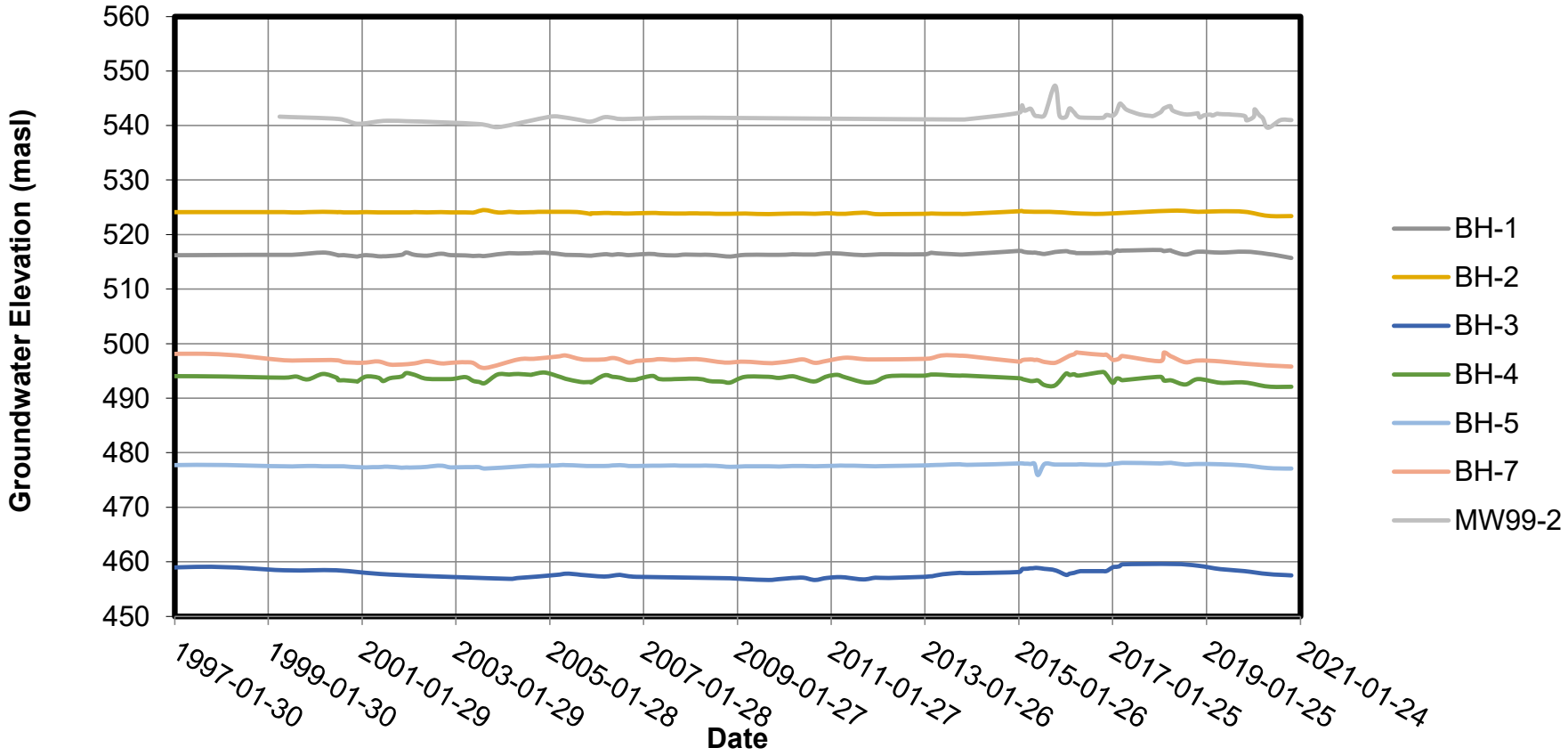


Figure 4: Monitoring Well Historical Hydrograph



MW07-1
BH-2 (523.49)
BH-7 (496.49)
BH-101 D
BH-101 S
MW99-2 (541.19)
BH-102
MW99-3
BH-6
BH-103
MW99-4
ASQUITH ROAD
SHANNON LAKE ROAD
BH-1 (516.47)
BH-5
BH5-25
BH-4 (492.26)
SADDLEBACK WAY
BH-8
BH-3 (458.05)

540.00
530.00
520.00
510.00
500.00
490.00
480.00
470.00
460.00

- INTERPRETED GROUNDWATER ELEVATION CONTOUR (m)
- INFERRED GROUNDWATER FLOW DIRECTION
(###.##) - GROUNDWATER ELEVATION (m) MEASURED ON MAY 6, 2025*

LEGEND:

- APPROXIMATE LANDFILL BOUNDARY
- MONITORING WELL
- SOIL VAPOUR WELL
- MONITORING WELL DECOMMISSIONED IN JUNE 2018

NOTES
BASED IMAGE FROM GOOGLE EARTH MAY 7, 2025.

*GROUNDWATER MEASUREMENTS WERE PROVIDED BY THE REGIONAL DISTRICT OF CENTRAL OKANAGAN

0 100 m
Scale: 1: 3 000

CLIENT
REGIONAL DISTRICT OF CENTRAL OKANAGAN

CITY OF KELOWNA
WESTSIDE LANDFILL
WEST KELOWNA, BC

GROUNDWATER ELEVATION CONTOURS
MAY 2025

TETRA TECH

PROJECT NO.	DWN	CKD	REV
SWM.SWOP05263-01	AF	LL	0
OFFICE	DATE		
CGY	April 2026		

Figure 5

LEGEND:

- APPROXIMATE LANDFILL BOUNDARY
- MONITORING WELL
- SOIL VAPOUR WELL
- MONITORING WELL DECOMMISSIONED IN JUNE 2018
- MONITORING WELL DECOMMISSIONED IN OCTOBER 2025

NOTES

BASED IMAGE FROM GOOGLE EARTH MAY 7, 2025.

*GROUNDWATER MEASUREMENTS WERE PROVIDED BY THE REGIONAL DISTRICT OF CENTRAL OKANAGAN

0 100 m

Scale: 1: 3 000

CLIENT

REGIONAL DISTRICT OF CENTRAL OKANAGAN

TETRA TECH

CITY OF KELOWNA
WESTSIDE LANDFILL
WEST KELOWNA, BC

GROUNDWATER ELEVATION CONTOURS NOVEMBER 2025

PROJECT NO.	DWN	CKD	REV
SWM.SWOP05263-01	AF	LL	0

OFFICE	DATE
CGY	April 2026

Figure 6

Q:\Edmonton\Drafting\00_MASTER PROJECT BASE PLANS\RDCO -Westside Landfill\Projects\SWM.SWOP05263-01 Groundwater Monitoring\2025\cad\SWM.SWOP05263-01 Figure 7.dwg [FIGURE 7] March 31, 2026 - 4:07:12 pm (BY: FLEMING, ALEXA)

LEGEND:

- APPROXIMATE LANDFILL BOUNDARY
- GAS VAPOUR PROBE INSIDE BOUNDARY
- GAS VAPOUR PROBE NEAR BOUNDARY
- GAS VAPOUR PROBE OUTSIDE BOUNDARY

NOTES
BASED IMAGE FROM GOOGLE EARTH MAY 7, 2025.

0 100 m
Scale: 1: 2 500

CLIENT
REGIONAL DISTRICT OF CENTRAL OKANAGAN

TETRA TECH

CITY OF KELOWNA
WESTSIDE LANDFILL
WEST KELOWNA, BC

LANDFILL GAS VAPOUR PROBE LOCATIONS AND CLASSIFICATION

PROJECT NO.	DWN	CKD	REV
SWM.SWOP05363-01	AF	LL	0

OFFICE	DATE
CGY	April 2026

Figure 7

Figure 8: Sulphate Trend Plot

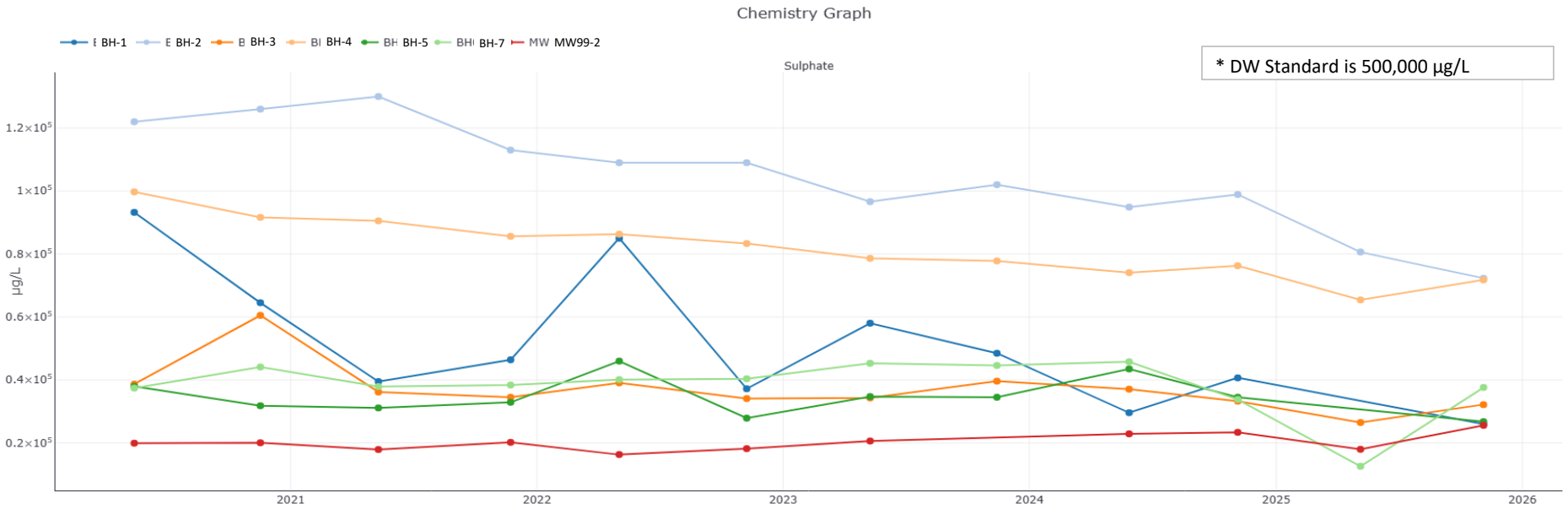


Figure 9: Chloride Trend Plot

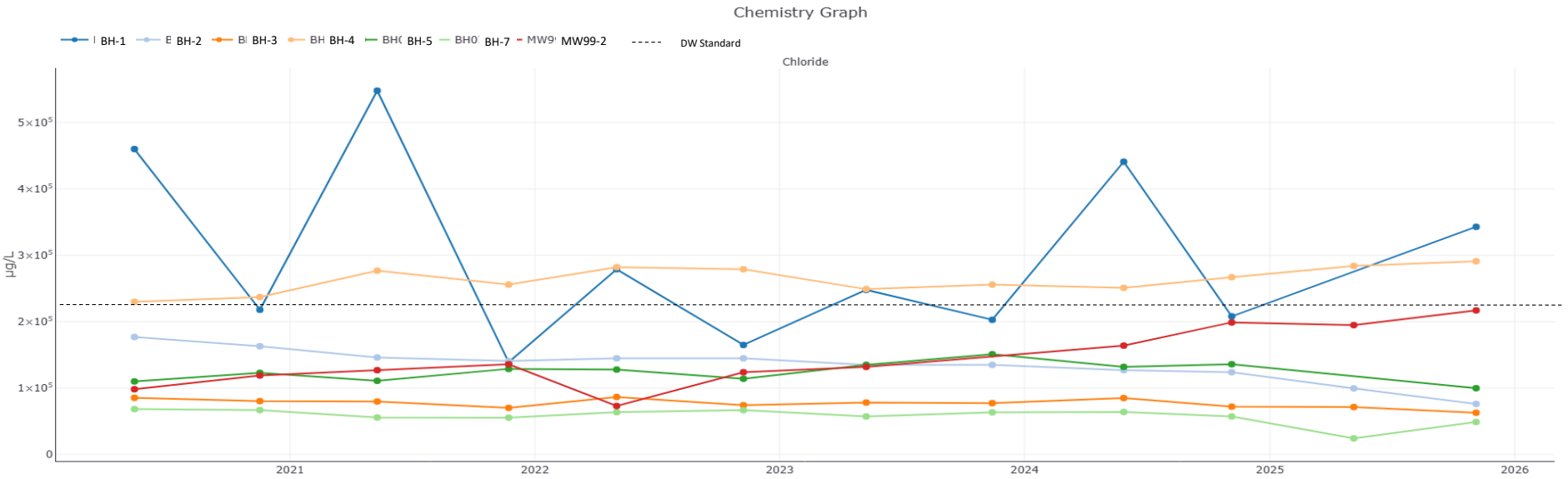


Figure 10: Nitrate (as NO3-N) Trend Plot

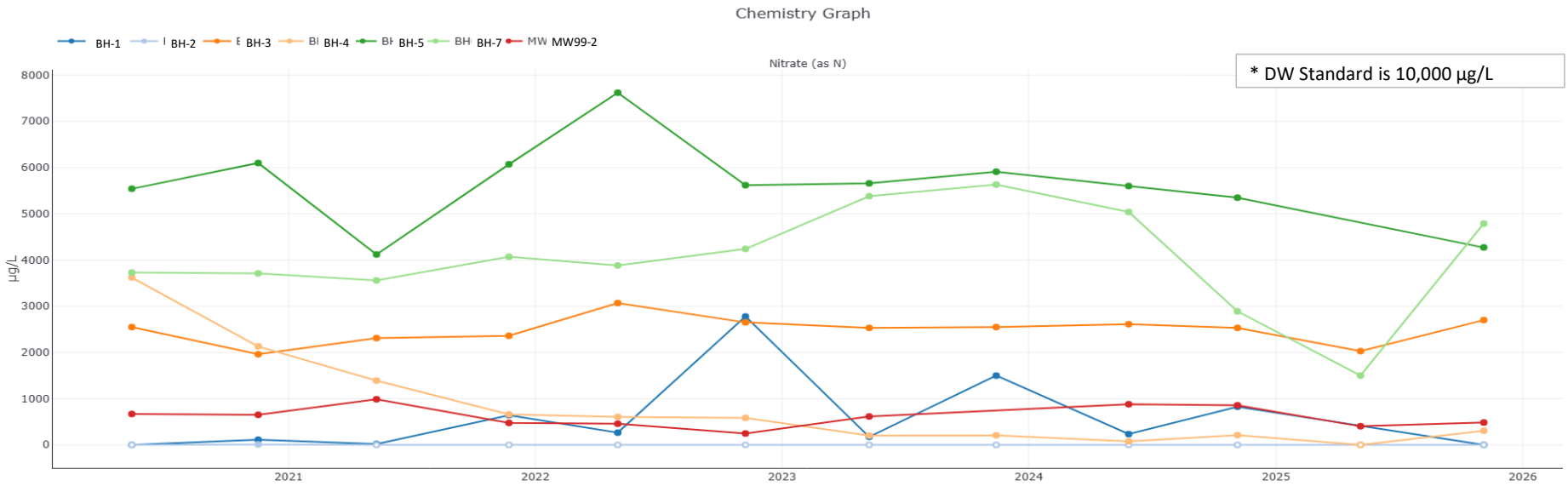


Figure 11: Ammonia (as N) Trend Plot

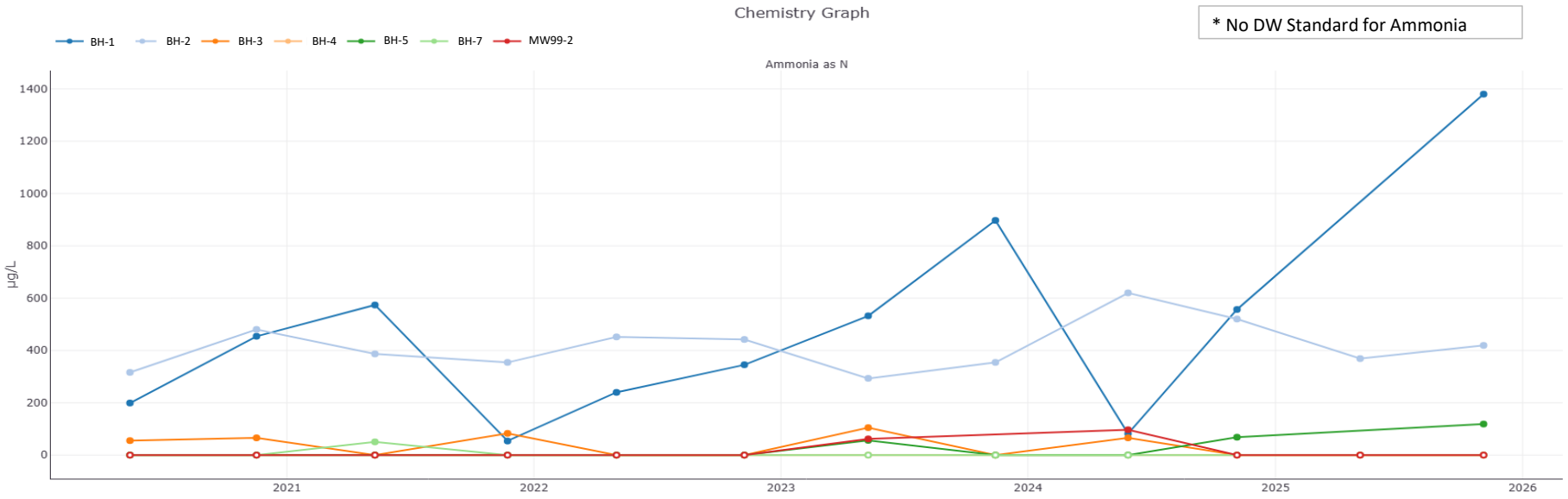


Figure 12: Dissolved Cobalt Trend Plot

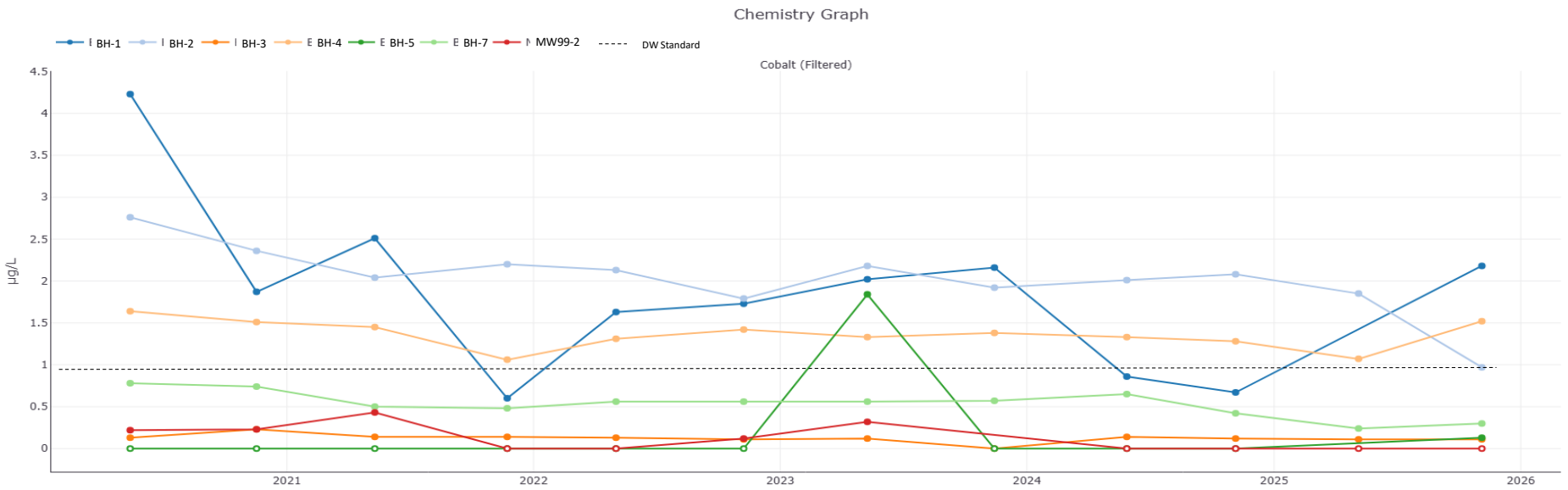


Figure 13: Dissolved Iron Trend Plot

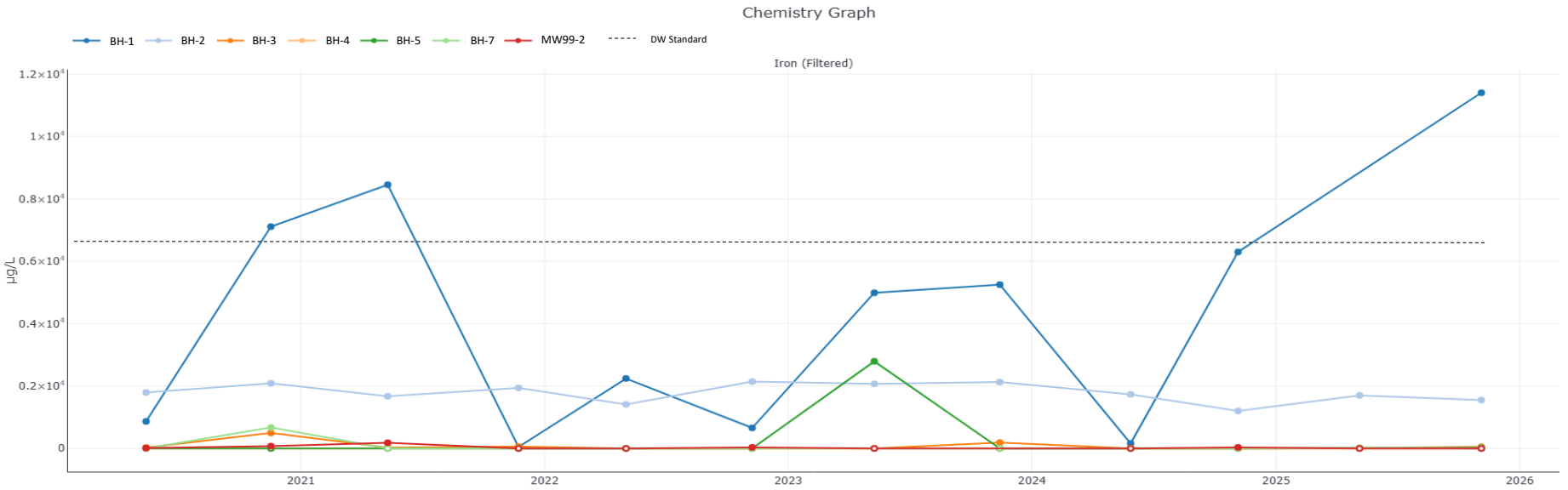


Figure 14: Dissolved Lithium Trend Plot

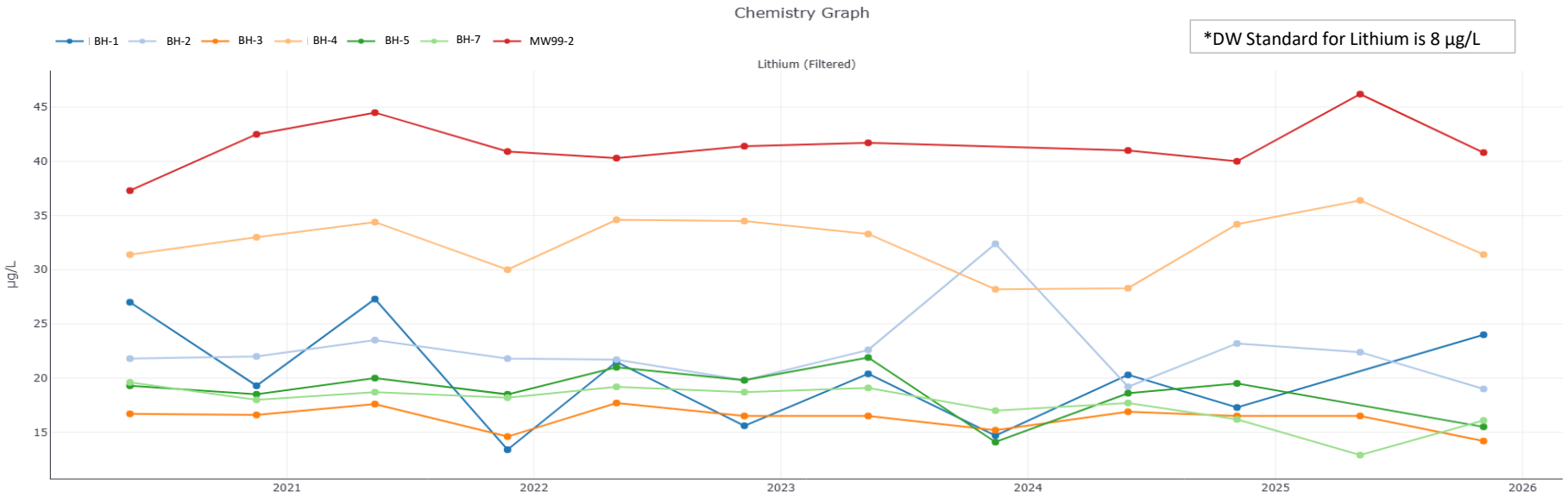


Figure 15: Dissolved Manganese Trend Plot

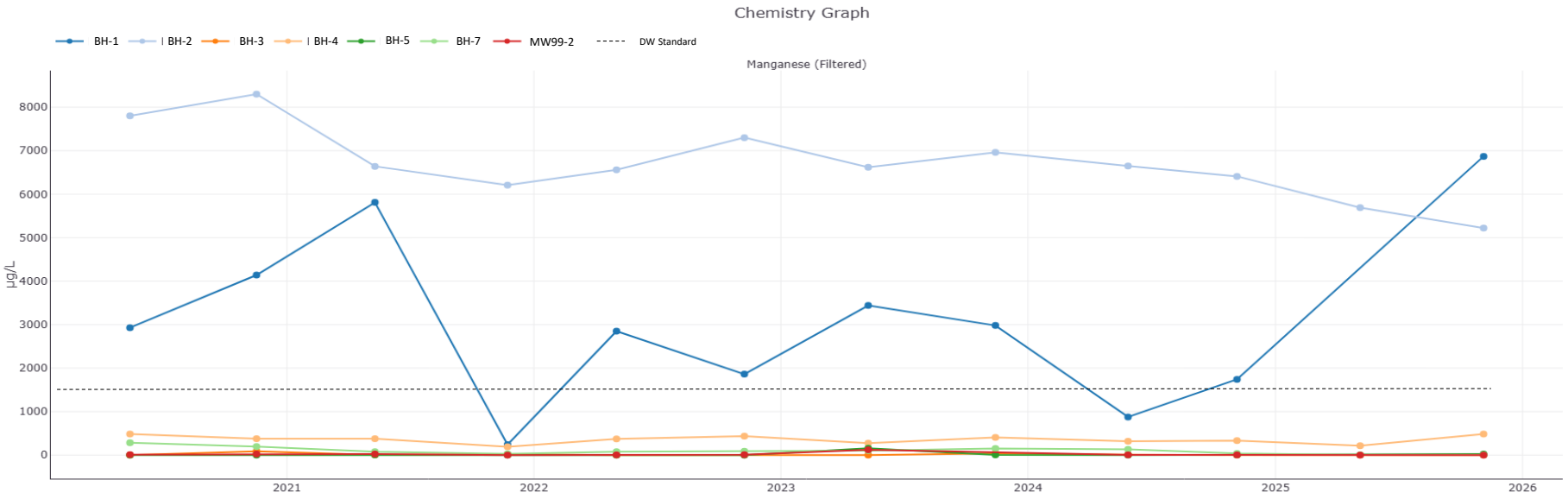


Figure 16: Dissolved Uranium Trend Plot

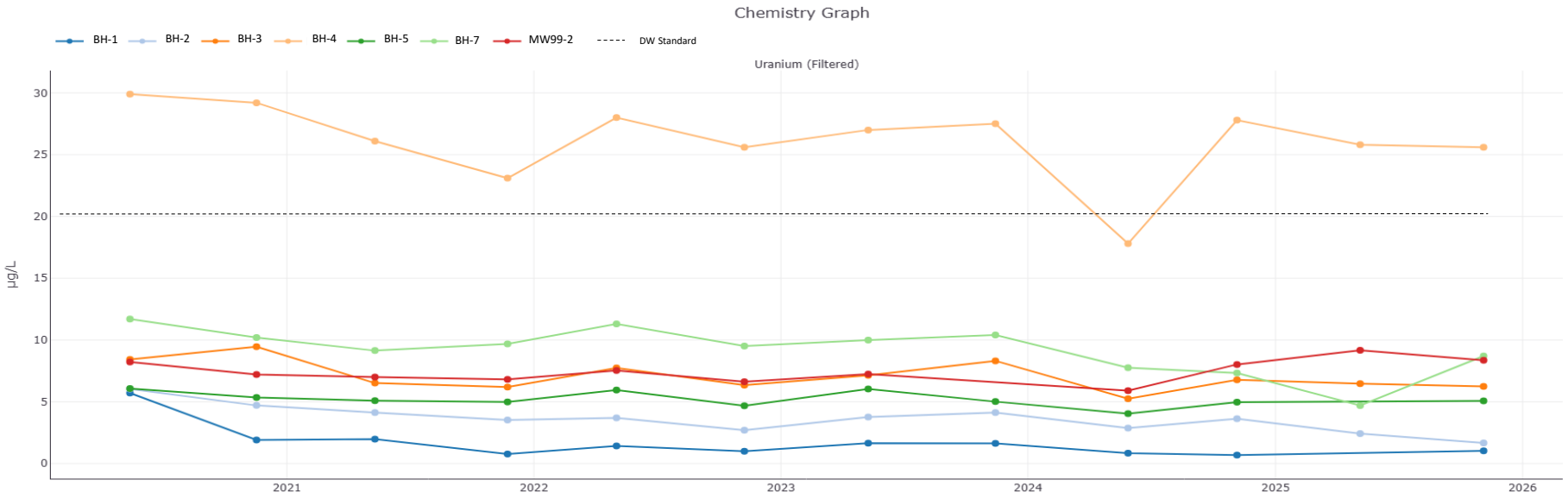


Figure 17: Historical Methane Concentrations North Monitoring Locations

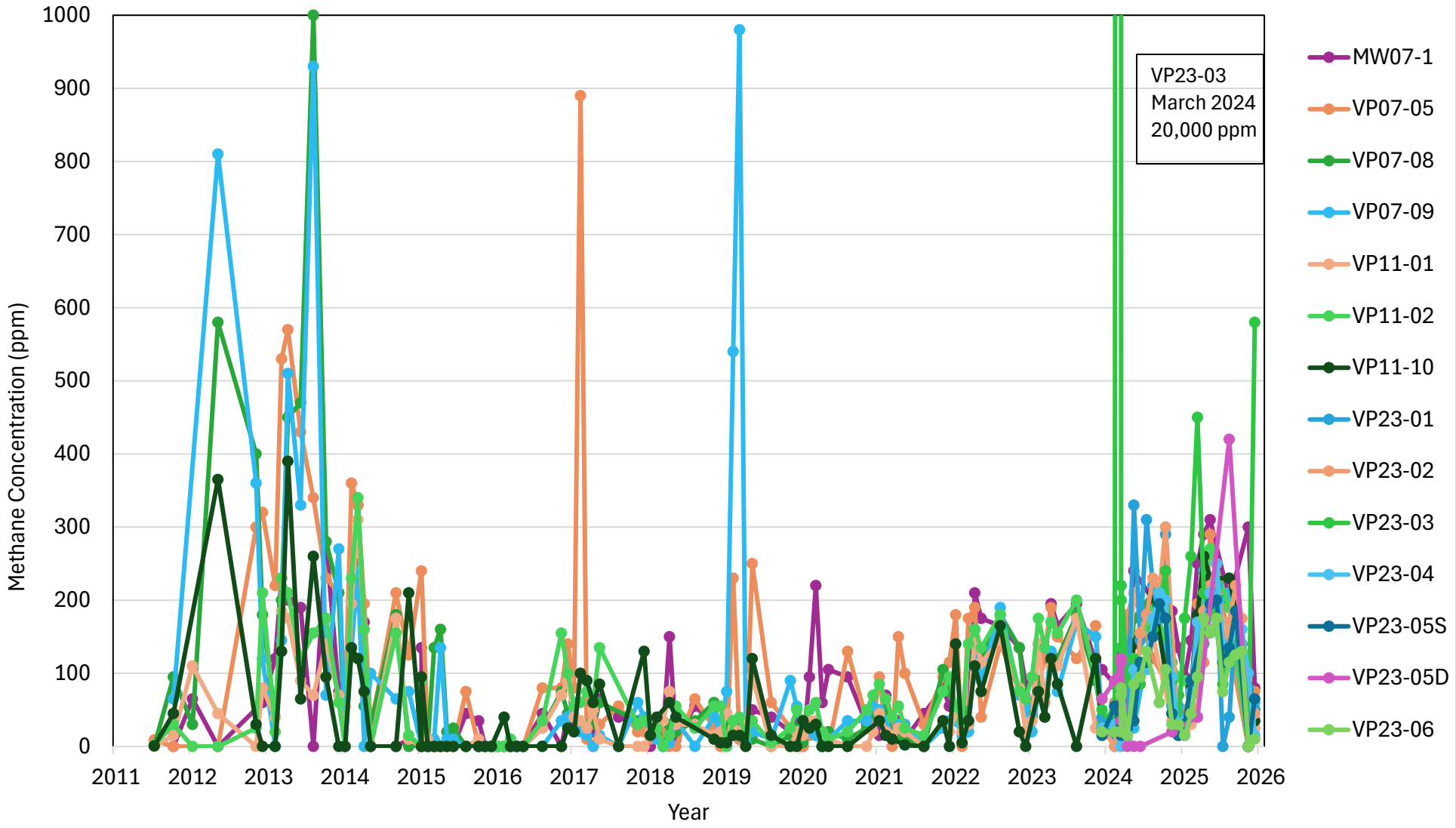


Figure 18: Historical Methane Concentrations East Monitoring Locations

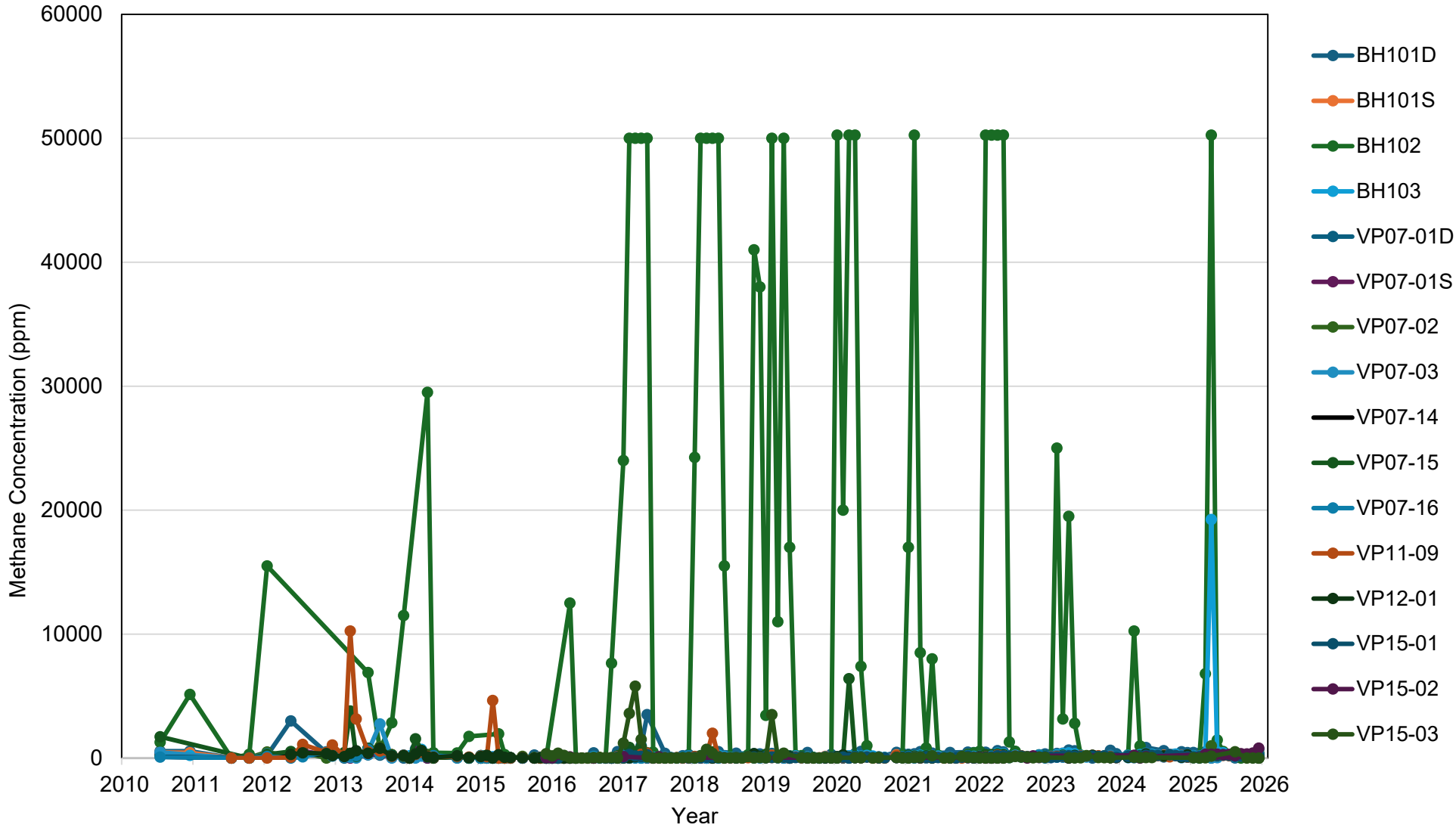


Figure 19: Historical Methane Concentrations South Monitoring Locations

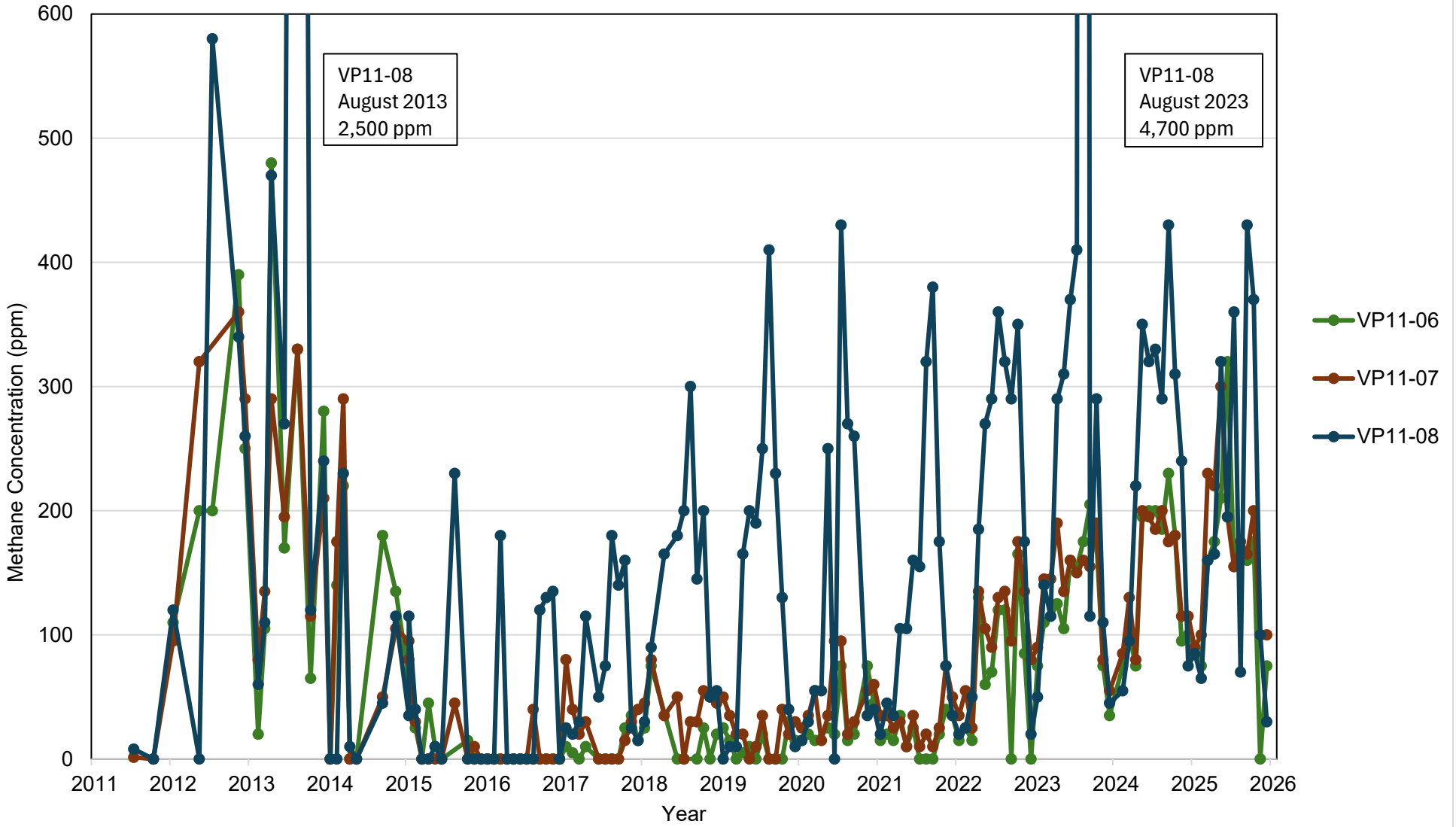
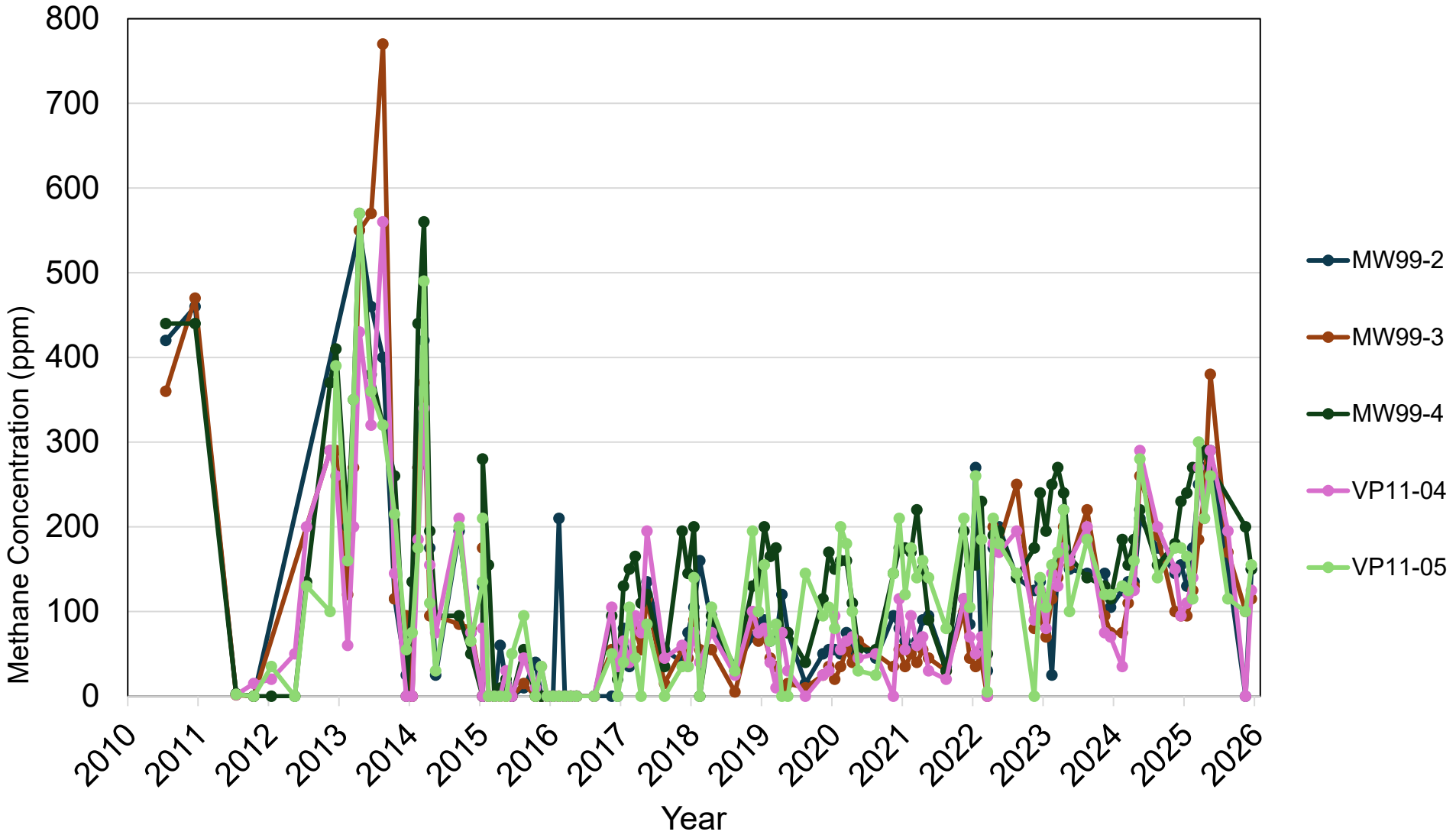


Figure 20: Historical Methane Concentrations West Monitoring Locations



APPENDIX A

TETRA TECH'S LIMITATIONS ON THE USE OF THIS DOCUMENT

LIMITATIONS ON USE OF THIS DOCUMENT

GEOENVIRONMENTAL

1.1 USE OF DOCUMENT AND OWNERSHIP

This document pertains to a specific site, a specific development, and a specific scope of work. The document may include plans, drawings, profiles and other supporting documents that collectively constitute the document (the "Professional Document").

The Professional Document is intended for the sole use of TETRA TECH's Client (the "Client") as specifically identified in the TETRA TECH Services Agreement or other Contractual Agreement entered into with the Client (either of which is termed the "Contract" herein). TETRA TECH does not accept any responsibility for the accuracy of any of the data, analyses, recommendations or other contents of the Professional Document when it is used or relied upon by any party other than the Client, unless authorized in writing by TETRA TECH.

Any unauthorized use of the Professional Document is at the sole risk of the user. TETRA TECH accepts no responsibility whatsoever for any loss or damage where such loss or damage is alleged to be or, is in fact, caused by the unauthorized use of the Professional Document.

Where TETRA TECH has expressly authorized the use of the Professional Document by a third party (an "Authorized Party"), consideration for such authorization is the Authorized Party's acceptance of these Limitations on Use of this Document as well as any limitations on liability contained in the Contract with the Client (all of which is collectively termed the "Limitations on Liability"). The Authorized Party should carefully review both these Limitations on Use of this Document and the Contract prior to making any use of the Professional Document. Any use made of the Professional Document by an Authorized Party constitutes the Authorized Party's express acceptance of, and agreement to, the Limitations on Liability.

The Professional Document and any other form or type of data or documents generated by TETRA TECH during the performance of the work are TETRA TECH's professional work product and shall remain the copyright property of TETRA TECH.

The Professional Document is subject to copyright and shall not be reproduced either wholly or in part without the prior, written permission of TETRA TECH. Additional copies of the Document, if required, may be obtained upon request.

1.2 ALTERNATIVE DOCUMENT FORMAT

Where TETRA TECH submits electronic file and/or hard copy versions of the Professional Document or any drawings or other project-related documents and deliverables (collectively termed TETRA TECH's "Instruments of Professional Service"), only the signed and/or sealed versions shall be considered final. The original signed and/or sealed electronic file and/or hard copy version archived by TETRA TECH shall be deemed to be the original. TETRA TECH will archive a protected digital copy of the original signed and/or sealed version for a period of 10 years.

Both electronic file and/or hard copy versions of TETRA TECH's Instruments of Professional Service shall not, under any circumstances, be altered by any party except TETRA TECH. TETRA TECH's Instruments of Professional Service will be used only and exactly as submitted by TETRA TECH.

Electronic files submitted by TETRA TECH have been prepared and submitted using specific software and hardware systems. TETRA TECH makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

1.3 STANDARD OF CARE

Services performed by TETRA TECH for the Professional Document have been conducted in accordance with the Contract, in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided. Professional judgment has been applied in developing the conclusions and/or recommendations provided in this Professional Document. No warranty or guarantee, express or implied, is made concerning the test results, comments, recommendations, or any other portion of the Professional Document.

If any error or omission is detected by the Client or an Authorized Party, the error or omission must be immediately brought to the attention of TETRA TECH.

1.4 DISCLOSURE OF INFORMATION BY CLIENT

The Client acknowledges that it has fully cooperated with TETRA TECH with respect to the provision of all available information on the past, present, and proposed conditions on the site, including historical information respecting the use of the site. The Client further acknowledges that in order for TETRA TECH to properly provide the services contracted for in the Contract, TETRA TECH has relied upon the Client with respect to both the full disclosure and accuracy of any such information.

1.5 INFORMATION PROVIDED TO TETRA TECH BY OTHERS

During the performance of the work and the preparation of this Professional Document, TETRA TECH may have relied on information provided by third parties other than the Client.

While TETRA TECH endeavours to verify the accuracy of such information, TETRA TECH accepts no responsibility for the accuracy or the reliability of such information even where inaccurate or unreliable information impacts any recommendations, design or other deliverables and causes the Client or an Authorized Party loss or damage.

1.6 GENERAL LIMITATIONS OF DOCUMENT

This Professional Document is based solely on the conditions presented and the data available to TETRA TECH at the time the data were collected in the field or gathered from available databases.

The Client, and any Authorized Party, acknowledges that the Professional Document is based on limited data and that the conclusions, opinions, and recommendations contained in the Professional Document are the result of the application of professional judgment to such limited data.

The Professional Document is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site conditions present, or variation in assumed conditions which might form the basis of design or recommendations as outlined in this report, at or on the development proposed as of the date of the Professional Document requires a supplementary exploration, investigation, and assessment.

TETRA TECH is neither qualified to, nor is it making, any recommendations with respect to the purchase, sale, investment or development of the property, the decisions on which are the sole responsibility of the Client.

1.7 NOTIFICATION OF AUTHORITIES

In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by TETRA TECH in its reasonably exercised discretion.

APPENDIX B

BOREHOLE LOGS

RECORD OF TEST PITS

24 November 1992 922-4210

TEST PIT NO.	DEPTH (m)	SOIL DESCRIPTION
TP 1	0.0 - 0.3	Loose brown sandy **SILT** with some gravel and occasional cobbles.
	0.3 - 3.2	Compact brown silty **SAND** and **GRAVEL** with some cobbles and occasional boulders grading to a dense gravelly silty **SAND** with occasional cobbles. Some oxidized staining noted throughout.
		No groundwater seepage observed at the time of excavation.
TP 2	0.0 - 0.2	Loose brown sandy **SILT** with a trace of gravel and root fibres throughout.
	0.2 - 3.4	Compact to dense light brown silty **SAND** with some gravel grading to a compact cobbly **SAND** and **GRAVEL** with occasional boulders at depth.
		Further excavation restricted by a large boulder at 3.4m. Increase in moisture content noted at 3.1m with no groundwater seepage observed during the time of excavation.
TP 3	0.0 - 0.4	Loose brown sandy **SILT**.
	0.4 - 0.6	Loose brown **SAND** with some cobbles.
	0.6 - 0.9	Compact brown cobbly **SAND** and **GRAVEL**.
	@0.9	Refusal on **BEDROCK**.
		No groundwater seepage observed at the time of excavation.
TP 4	0.0 - 0.2	Compact brown cobbly **SAND** and **GRAVEL**. **(ROADFILL)**
	0.2 - 2.0	Loose **WOOD CHIPS** and miscellaneous **MUNICIPAL DEBRIS. (FILL)**
	@2.0	Refusal on **BEDROCK**.
		No groundwater seepage observed at the time of excavation.

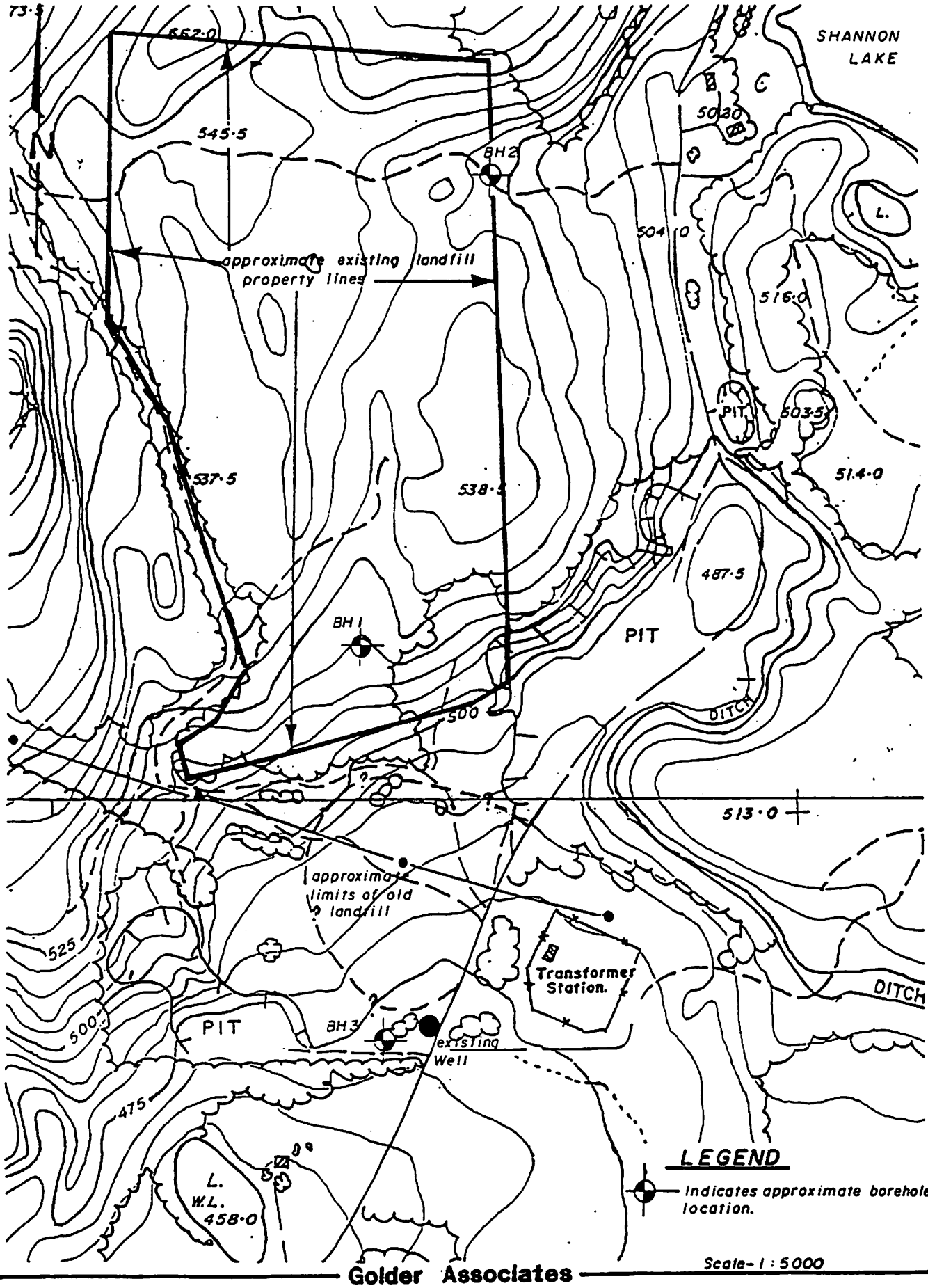
RECORD OF TEST PITS

24 November 1992 922-4210

TEST PIT NO.	DEPTH (m)	SOIL DESCRIPTION
TP 5	0.0 - 1.8	Compact brown cobbly SAND and GRAVEL with occasional boulders.
	@1.8	Refusal on BEDROCK.
		No groundwater seepage observed at the time of excavation.
TP 6	0.0 - 0.2	Loose dark brown SILT. (TOPSOIL)
	0.2 - 2.0	Compact brown cobbly SAND and GRAVEL with a trace of silt and occasional boulders.
	@2.0	Refusal on BEDROCK.
		No groundwater seepage observed at the time of excavation.
TP 7	0.0 - 0.2	Loose brown SILT. (TOPSOIL)
	0.2 - 1.6	Compact brown cobbly SAND and GRAVEL with a trace of silt.
	@1.6	Refusal on BEDROCK.
		No groundwater seepage observed at the time of excavation.
TP 8.	0.0 - 3.2	Loose to compact brown cobbly SAND and GRAVEL with occasional boulders.
		No groundwater seepage observed at the time of excavation.

BOREHOLE LOCATION PLAN

Figure 2



PROJECT No. 922-4210 DRAWN rr REVIEWED rl DATE Feb./93

Golder Associates

PROJECT: Landfill

RECORD OF BOREHOLE - BH 1

SHEET: 1 OF 1

PROJECT LOCATION: Westbank

BORING DATE: February 9/93

DATUM:

PROJECT NUMBER: 922-4210

BORING LOCATION: See Figure 1

BOREHOLE TYPE: 16.8cm Casing

Sampler Hammer: 63.5 kg., Drop 0.76m.

DEPTH SCALE (m)	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV / DEPTH	SAMPLES: NUMBER	TYPE	BLOWS / 0.15m.	N	OTHER TESTS	PENETRATION RESISTANCE BLOWS/0.3m / WATER CONTENT, PERCENT Wp W Wl	PIEZOMETER OR STANDPIPE INSTALLATION
0	GROUND SURFACE									
	Compact brown cobbly sandy GRAVEL with a trace of silt.		0.00	1	CS					Cuttings
1										
2				2	CS					Bentonite Seal
3	Compact brown SAND and GRAVEL with a trace of silt and occasional cobbles.		2.74	3	CS					0745hrs Feb. 10/93 Fraction Sand #2/12
4	Soft weathered BEDROCK.		3.66	4	CS					50 mm PVC .25mm Slots
	Hard BEDROCK.		4.11							
5										
6	END OF BOREHOLE		5.73							WL=2.48m Feb. 12/93
	Note: Strong odor noted within the monitoring well.									
7										
8										
9										
10										

DRILL RIG: Air Rotary

DRILLING CONTRACTOR: Capri Drilling

DRILLER: R.R.

LOGGED: R.T.

CHECKED: R.T.

DATE: Feb 9/93

Golder Associates

PROJECT: Landfill

PROJECT LOCATION: Westbank

PROJECT NUMBER: 922-4210

Sampler Hammer: 63.5 kg., Drop 0.76m.

RECORD OF BOREHOLE - BH 2

BORING DATE: February 9/93

BORING LOCATION: See Figure 1

SHEET: 1 OF 1

DATUM:

BOREHOLE TYPE: 16.8cm Casing

DEPTH SCALE (m)	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV / DEPTH	SAMPLES: NUMBER	TYPE	BLOWS / 0.15m.	N	OTHER TESTS	PENETRATION RESISTANCE BLOWS/0.3m / WATER CONTENT, PERCENT Wp W Wl	PIEZOMETER OR STANDPIPE INSTALLATION
	GROUND SURFACE		0.00							Cuttings
0	Compact brown cobbly SAND and GRAVEL with a trace of silt.			1	CS					Bentonite Seal
1				2	CS					
2	Soft BEDROCK		1.63	3	CS				.50mm Screen Slots from 1.60 to 3.13m.	1305hrs Feb. 10/93
3	Soft to hard BEDROCK		2.74							Fraction Sand #2/12
4				4	CS				.25mm Screen Slots from 3.13 to 4.65m.	50 mm PVC Screen
5	END OF BOREHOLE Note: No odor detected within the monitoring well.		4.65							WL=2.42m Feb. 12/93
6										
7										
8										
9										
10										

DRILL RIG: Air Rotary

DRILLING CONTRACTOR: Capri Drilling

DRILLER: R.R.

Golder Associates

LOGGED: R.T.

CHECKED: R.T.

DATE: Feb 9/93

PROJECT: Landfill

PROJECT LOCATION: Westbank

PROJECT NUMBER: 922-4210

Sampler Hammer: 63.5 kg., Drop 0.76m.

RECORD OF BOREHOLE - BH 3

BORING DATE: February 9-10/93

BORING LOCATION: See Figure 1

SHEET: 1 OF 2

DATUM:

BOREHOLE TYPE: 16.8cm Casing

DEPTH SCALE (m)	DESCRIPTION	STRATA PLOT	ELEV / DEPTH	NUMBER	TYPE	BLOWS / 0.15m.	N	OTHER TESTS	PENETRATION RESISTANCE BLOWS/0.3m / WATER CONTENT, PERCENT Wp W Wl	PIEZOMETER OR STANDPIPE INSTALLATION
0	GROUND SURFACE									
0	Compact brown silty gravelly SAND with occasional cobbles. (FILL)		0.00	1	CS					
1										
2	Stiff brown silty CLAY with a trace of gravel.		1.50	2	CS					
3										
3	Compact light brown SILT with a trace of clay and occasional thin clayey silt layers.		3.20	3	CS					
4	Compact light brown fine SAND with a trace of silt.		4.00	4	CS					
5	Interlayered compact fine silty SAND and stiff brown clayey SILT.		4.60	5	CS					
6	Compact brown SILT with a trace to some fine sand grading to a fine SAND and SILT at depth.		5.65	6	CS					
7	Compact to dense light brown SAND and GRAVEL with occasional cobbles at depth.		7.00	7	CS					Cuttings
8				8	CS					
9				9	CS					
10	Compact light brown medium to fine SAND becoming loose with increasing depth.		9.75	10	CS					
11										
12										
13										
14	Loose light brown gravelly SAND grading to a compact SAND and GRAVEL at depth.		14.00	11	CS					Bentonite Seal
15										1245hrs Feb. 10/93

CONTINUED ON NEXT PAGE

DRILL RIG: Air Rotary

DRILLING CONTRACTOR: Capri Drilling

DRILLER: R.R.

LOGGED: R.T.

CHECKED: R.T.

DATE: Feb 10/93

Golder Associates

PROJECT: Landfill

PROJECT LOCATION: Westbank

PROJECT NUMBER: 922-4210

Sampler Hammer: 63.5 kg., Drop 0.76m.

RECORD OF BOREHOLE - BH 3

BORING DATE: February 9-10/93

BORING LOCATION: See Figure 1

SHEET: 2 OF 2

DATUM:

BOREHOLE TYPE: 16.8cm Casing

DEPTH SCALE (m)	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV / DEPTH	SAMPLES: NUMBER	TYPE	BLOWS / 0.15m.	N	OTHER TESTS	PENETRATION RESISTANCE BLOWS/0.3m / WATER CONTENT, PERCENT Wp — W — Wl	PIEZOMETER OR STANDPIPE INSTALLATION
15	CONTINUED FROM PREVIOUS PAGE									
16	Loose light brown gravelly SAND grading to a compact SAND and GRAVEL at depth.									Fraction Sand #2/12
17			17.10							
18	Compact brown sandy GRAVEL with a trace of silt and occasional cobbles.			12	CS					50 mm PVC .50mm Slots
19			18.60							
20	Dense grey silty gravelly SAND. (GLACIAL TILL)			13	CS					Bentonite Seal
21										Cuttings
	END OF BOREHOLE		21.15							WL=14.80m Feb. 12/93
22	Note: No odor detected within the monitoring well.									
23										
24										
25										
26										
27										
28										
29										
30										

DRILL RIG: Air Rotary

DRILLING CONTRACTOR: Capri Drilling

DRILLER: R.R.

Golder Associates

LOGGED: R.T.

CHECKED: R.T.

DATE: Feb 10/93

DATA ENTRY

PROJECT No.: 04-1440-062

RECORD OF BOREHOLE: MW07-1

SHEET 1 OF 2

LOCATION: Westside Landfill

BORING DATE: April 16, 2007

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		GROUND SURFACE									MW07-1
	Geotech Drilling	Compact brown silty, gravelly SAND, with cobbles.		0.00							Concreted in steel well protector.
											Bentonite seal.
1		Reddish-brown weathered and fractured BEDROCK.		0.91							
2											
3											
4											50 mm PVC well screen.
5		Pinkish-red BEDROCK.		5.18							
6		*CONTINUED NEXT PAGE*									

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: MW07-1

BORING DATE: April 18, 2007

INCLINATION: -90°

SHEET 2 OF 2

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80); SHEAR STRENGTH Cu, kPa (20 40 60 80); nat V. + Ω-●; rem V. ⊕ U-○	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}); WATER CONTENT PERCENT (Wp, W, Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
6											MW07-1
	Geotech Drilling	Pinkish-red BEDROCK *(continued)*									50 mm PVC well screen.
7											Filter sand pack.
		Blue-grey BEDROCK.		7.32							Filter sand pack.
8											
		End of BOREHOLE.		8.38							
9											
10											
11											
12											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

APPENDIX III

Vapour Probe Installation and Borehole Logs

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-1D

BORING DATE: April 4, 2007

INCLINATION: -90°

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + Q - ● rem V. ⊕ U - ○	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT Wp — W — Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION VP07-1D
		GROUND SURFACE									
0	Geotech Drilling	Compact dark brown silty, gravelly SAND, some organics and roots (TOPSOIL).		0.00							Concreted in steel well protector.
1		Rust- brown, weathered and fractured BEDROCK.		0.61							Bentonite seal.
2		Brown to greyish-brown BEDROCK.		1.65							50 mm PVC well screen. Filter sand pack.
3		End of BOREHOLE.		3.05							
4											
5											
6											

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DATA ENTRY:

PROJECT No.: 04-1440-062

RECORD OF BOREHOLE: VP07-1S

SHEET 1 OF 1

LOCATION: Westside Landfill

BORING DATE: April 4, 2007

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + Q - ● rem V. ⊕ U - ○	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT Wp W Wl (10 20 30 40)	ADDITIONAL LAB TESTING	PIEZOMETER OR STANDPIPE INSTALLATION: VP07-1S
0		GROUND SURFACE									
	Geotech Drilling	Loose dark brown silty, gravelly SAND, some organics (TOPSOIL).		0.00							Concreted in steel well protector.
		Compact brown silty, gravelly SAND.		0.23	1	CS					Bentonite seal.
1		Rust- brown, weathered and fractured BEDROCK.		0.53							50 mm PVC well screen. Filter sand pack.
		Brown to greyish-brown BEDROCK.		1.22							
		End of BOREHOLE.		1.52							
2											
3											
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-2

BORING DATE: April 4, 2007

INCLINATION: -90°

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + Q - ● rem V. ⊕ U - ○	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT Wp W Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION: VP07-2
0	Geotech Drilling	GROUND SURFACE									
		Loose dark brown silty SAND, some gravel, organics and roots (TOPSOIL).		0.00							Concreted in steel well protector.
		Compact to dense greyish-brown SAND and GRAVEL, with cobbles, trace silt.		0.23	1	CS					
1					2	CS					Bentonite seal.
					3	CS					Native soil.
2		Rust- brown, weathered and fractured BEDROCK.		1.98							50 mm PVC well screen, Filter sand pack.
3		End of BOREHOLE.		3.05							
4											
5											
6											

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DATA ENTRY:

PROJECT No.: 04-1440-062

RECORD OF BOREHOLE: VP07-3

SHEET 1 OF 1

LOCATION: Westside Landfill

BORING DATE: April 4, 2007

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + Q - ⊕ rem V. ⊕ U - O	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									VP07-3
0	Geotech Drilling	loose dark brown silty SAND, some gravel and organics (TOPSOIL).		0.00							Concreted in steel well protector.
		Loose to compact brown SAND, some silt to silty, and some gravel.		0.23	1	CS					Bentonite seal.
1					2	CS					
		Compact brown silty, gravelly SAND.		1.22							50 mm PVC well screen.
		Blueish-grey BEDROCK.		1.52							Filter sand pack.
2											
		End of BOREHOLE.		2.29							
3											
4											
5											
6											

DEPTH SCALE
1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-4

BORING OATE: April 4, 2007

INCLINATION: -90°

SHEET 1 OF 1

OATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + O - ● rem V. ⊕ U - O	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT Wp W Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									VP07-4
0	Geotech Drilling	Very loose brown SILT, SAND, GRAVEL, and WOOD, trace refuse (FILL). No odours.		0.00							Bentonite seal.
1		Rust- brown, weathered and fractured BEDROCK.		0.30							
2		Pinkish-red slightly fractured BEDROCK		1.98							50 mm PVC well screen. Filter sand pack.
		End of BOREHOLE.		2.20							
3											
4											
5											
6											

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-5

BORING DATE: April 4, 2007

SHEET 1 OF 1

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION: VP07-5
0		GROUND SURFACE									
	Geotech Drilling	Very loose brown SILT, SAND, GRAVEL, and WOOD, occasional refuse (FILL). No odours.		0.00							Bentonite seal.
1		Rust- brown weathered and fractured BEDROCK.		1.07							
		Pinkish-red BEDROCK.		1.22							50 mm PVC well screen. Filter sand pack.
2		End of BOREHOLE.		1.69							
3											
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-6

BORING DATE: April 4, 2007

SHEET 1 OF 1

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; 20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									VP07-6
0	Geotech Drilling	Very loose brown SILT, SAND, GRAVEL, and WOOD, with cobbles and boulders, and occasional refuse (FILL). No odours.		0.00							
1		Intermixed REFUSE, and SILT, SAND, and WOOD (REFUSE/FILL). Strong odours.		0.61							Bentonite seal.
2											50 mm PVC well screen. Filter sand pack.
3		End of BOREHOLE.		2.90							
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY:

PROJECT No.: 04-1440-062

RECORD OF BOREHOLE: VP07-7

SHEET 1 OF 1

LOCATION: Westside Landfill

BORING DATE: April 5, 2007

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		GROUND SURFACE									VP07-7
	Geotech Drilling	Very loose brown SILT, SAND, GRAVEL, and WOOD, with cobbles and boulders, and occasional refuse (FILL). No odours.		0.00							
1		Light brown SILT, with cobbles, trace to some sand and gravel, trace clay and wood (FILL).		0.91							Bentonite seal.
2											50 mm PVC well screen. Filter sand pack.
3		End of BOREHOLE.		2.90							
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE
1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-8

BORING DATE: April 5, 2007

INCLINATION: -90°

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									VP07-8
0	Geotech Drilling	Compact to dense brown silty SAND and GRAVEL with angular cobles and boulders.		0.00							Bentonite seal.
1		Grey and light brown fractured BEDROCK.		1.22							50 mm PVC well screen. Filter sand pack.
		Blue grey and light brown BEDROCK.		1.52							
		End of BOREHOLE.		1.83							
2											
3											
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY:

PROJECT No.: 04-1440-062

RECORD OF BOREHOLE: VP07-9

SHEET 1 OF 1

LOCATION: Westside Landfill

BORING DATE: April 5, 2007

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80); SHEAR STRENGTH Cu, kPa nat V. + Q - ⊕ rem V. ⊕ U - O (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}); WATER CONTENT PERCENT Wp —○W— Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION VP07-9
		GROUND SURFACE									
0	Geotech Drilling	Compact brown silty SAND and GRAVEL with angular cobbles.		0.00							
		Grey fractured BEDROCK.		0.20							Bentonite seal.
1											
		Grey BEDROCK.		1.37							50 mm PVC well screen. Filter sand pack.
2		End of BOREHOLE.		1.98							
3											
4											
5											
6											

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-10

BORING DATE: April 5, 2007

INCLINATION: -90°

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + Q - ● rem V. ⊕ U - ○	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT Wp W Wl (10 20 30 40)	ADDITIONAL LAB TESTING	PIEZOMETER OR STANDPIPE INSTALLATION: VP07-10
0		GROUND SURFACE									
	Geotech Drilling	Very loose brown SILT and SAND, occasional wood (FILL).		0.00							Bentonite seal.
1											
2		Landfill waste interlayered with cover fills.		1.37							50 mm PVC well screen. Filter sand pack.
3		End of BOREHOLE.		3.05							
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY

PROJECT No.: 04-1440-062

RECORD OF BOREHOLE: VP07-11

SHEET 1 OF 1

LOCATION: Westside Landfill

BORING DATE: April 16, 2007

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + Q - ● rem V. ⊕ U - ○	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT Wp W Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									VP07-11
0	Geotech Drilling	Loose dark brown organic SILT and SAND, some roots (TOPSOIL).		0.00							Concreted in steel well protector.
		Compact brown silty, gravelly fine SAND.		0.30	1	CS					
1											Bentonite seal.
		Pinkish-red weathered and fractured BEDROCK.		1.37	2	CS					
2											50 mm PVC well screen. Filter sand pack.
		Orange-brown BEDROCK.		2.74	3	CS					
3		End of BOREHOLE.		3.05							
4											
5											
6											

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-12

BORING DATE: April 16, 2007

INCLINATION: -90°

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + Q - ⊗ rem V. ⊕ U - ○	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT Wp W Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									VP07-12
0	Geotech Drilling	Loose dark brown organic SILT and SAND, some gravel (TOPSOIL).		0.00							Concreted in steel well protector.
		Sifff brown SILT, some sand, trace clay and gravel.		0.23	1	CS					Bentonite seal.
1		Light greyish-brown fractured BEDROCK.		0.76							
		Light greyish-brown BEDROCK.		1.07							50 mm PVC well screen. Filter sand pack.
		End of BOREHOLE.		1.52							
2											
3											
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY:

PROJECT No.: 04-1440-062

RECORD OF BOREHOLE: VP07-13

SHEET 1 OF 1

LOCATION: Westside Landfill

BORING DATE: April 16, 2007

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-4} 10^{-5} 10^{-6} 10^{-7}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									VP07-13
0	Geotech Drilling	Loose dark brown organic SILT and SAND, some roots and trave gravel (TOPSOIL).		0.00							Concreted in steel well protector.
		Compact brown silty fine SAND, some to trace gravel.		0.46	1	CS					
1											Bentonite seal.
2											
					2	CS					50 mm PVC well screen. Filter sand pack.
3		End of BOREHOLE.		3.05							
4											
5											
6											

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-14

BORING DATE: June 18, 2007

INCLINATION: -90°

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB TESTING	PIEZOMETER OR STANDPIPE INSTALLATION: VP07-14
0	Geotech Drilling	GROUND SURFACE									
		Loose dark brown silty, gravelly SAND, some organics and roots (TOPSOIL).		0.00							Concreted in steel well protector.
		Rust- brown, weathered and fractured BEDROCK.		0.15							
1											Bentonite seal.
2											50 mm PVC well screen. Filter sand pack.
		Greyish-brown BEDROCK.		2.44							
3		End of BOREHOLE.		2.74							
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY:

PROJECT No.: 04-1440-062

RECORD OF BOREHOLE: VP07-15

SHEET 1 OF 1

LOCATION: Westside Landfill

BORING DATE: June 18, 2007

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + O - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION: VP07-15
0		GROUND SURFACE									
	Geotech Drilling	Loose dark brown silty SAND, some gravel, organics and roots (TOPSOIL).		0.00							Concreted in steel well protector.
		Compact to dense greyish brown SADN and GRAVEL, trace to some silt with cobbles.		0.15							
1											Bentonite seal.
2											
		Rust -brown weathered and fractured BEOROCK.		2.13							50 mm PVC well screen. Filter sand pack.
3		End of BOREHOLE.		3.05							
4											
5											
6											

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-16

BORING DATE: June 18, 2007

INCLINATION: -90°

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + rem V. ⊕	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT Wp W Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									VP07-16
0	Geotech Drilling	Loose dark brown silty, gravelly SAND, some organics and roots (TOPSOIL).		0.00							Concreted in steel well protector.
		Compact to dense greyish-brown silty SAND and GRAVEL with cobbles.		0.15							
1											Bentonite seal.
2											
		Rust-brown weathered and fractured BEDROCK.		2.13							
3											50 mm PVC well screen. Filter sand pack.
		End of BOREHOLE.									
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE
1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY:

PROJECT No.: 04-1440-062

RECORD OF BOREHOLE: VP07-17

SHEET 1 OF 1

LOCATION: Westside Landfill

BORING DATE: June 18, 2007

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-2} 10^{-3} 10^{-4} 10^{-5}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		GROUND SURFACE									VP07-17
		Loose dark brown silty SAND, some gravel, organics and roots (TOPSOIL).		0.00							Concreted in steel well protector.
		Compact brown SAND and GRAVEL, some silt with cobbles.		0.15	1	GRAB					
1	Geotech Drilling	Rust-brown to brown weathered and fractured BEDROCK.		0.91							Bentonite seal.
2					2	GRAB					50 mm PVC well screen. Filter sand pack.
3		End of BOREHOLE.		3.05							
4											
5											
6											

DEPTH SCALE
1 : 30

Golder Associates

LOGGED: AR
CHECKED: RP

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-18

BORING DATE: June 16, 2007

INCLINATION: -90°

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									VP07-18
0	Geotech Drilling	Loose brown silty, gravelly SAND, some organics and roots (TOPSOIL).		0.00							Concreted in steel well protector.
		Compact greyish-brown SAND and GRAVEL, some silt with cobbles and boulders.		0.10	1	GRAB					
1											Bentonite seal.
		Brown weathered and fractured BEDROCK.		1.52	2	GRAB					
2											50 mm PVC well screen. Filter sand pack.
3		End of BOREHOLE.		3.05							
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE

1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY:

PROJECT No.: 04-1440-062

RECORD OF BOREHOLE: VP07-19

SHEET 1 OF 1

LOCATION: Westside Landfill

BORING DATE: June 18, 2007

DATUM: Geodetic

INCLINATION: -90°

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ●, rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									VP07-19
0	Geotech Drilling	Compact brown silty, gravelly SAND.		0.00	1	GRAB					Concreted in steel well protector.
1											Bentonite seal.
											Native slough.
2		Brown weathered and fractured BEDROCK.		1.83							50 mm PVC well screen.
		Pinkish-brown slightly fractured BEDROCK.		2.13	2	GRAB					Filter sand pack.
		End of BOREHOLE.		2.44							
3											
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

DEPTH SCALE
1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP

DATA ENTRY:

PROJECT No.: 04-1440-062

LOCATION: Westside Landfill

RECORD OF BOREHOLE: VP07-20

BORING DATE: June 18, 2007

INCLINATION: -90°

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + Q - ● rem V. ⊕ U - ○	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT Wp — W — Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		GROUND SURFACE									VP07-20
	Geotech Drilling	Loose dark brown gravelly SILT and SAND, some organics and roots (TOPSOIL).		0.00							
1		Greyish-brown slightly fractured BEDROCK.		0.23							
		End of BOREHOLE.		1.52							
2											
3											
4											
5											
6											

BOREHOLE BOREHOLES.GPJ GLDR_CAN.GDT 6/20/07

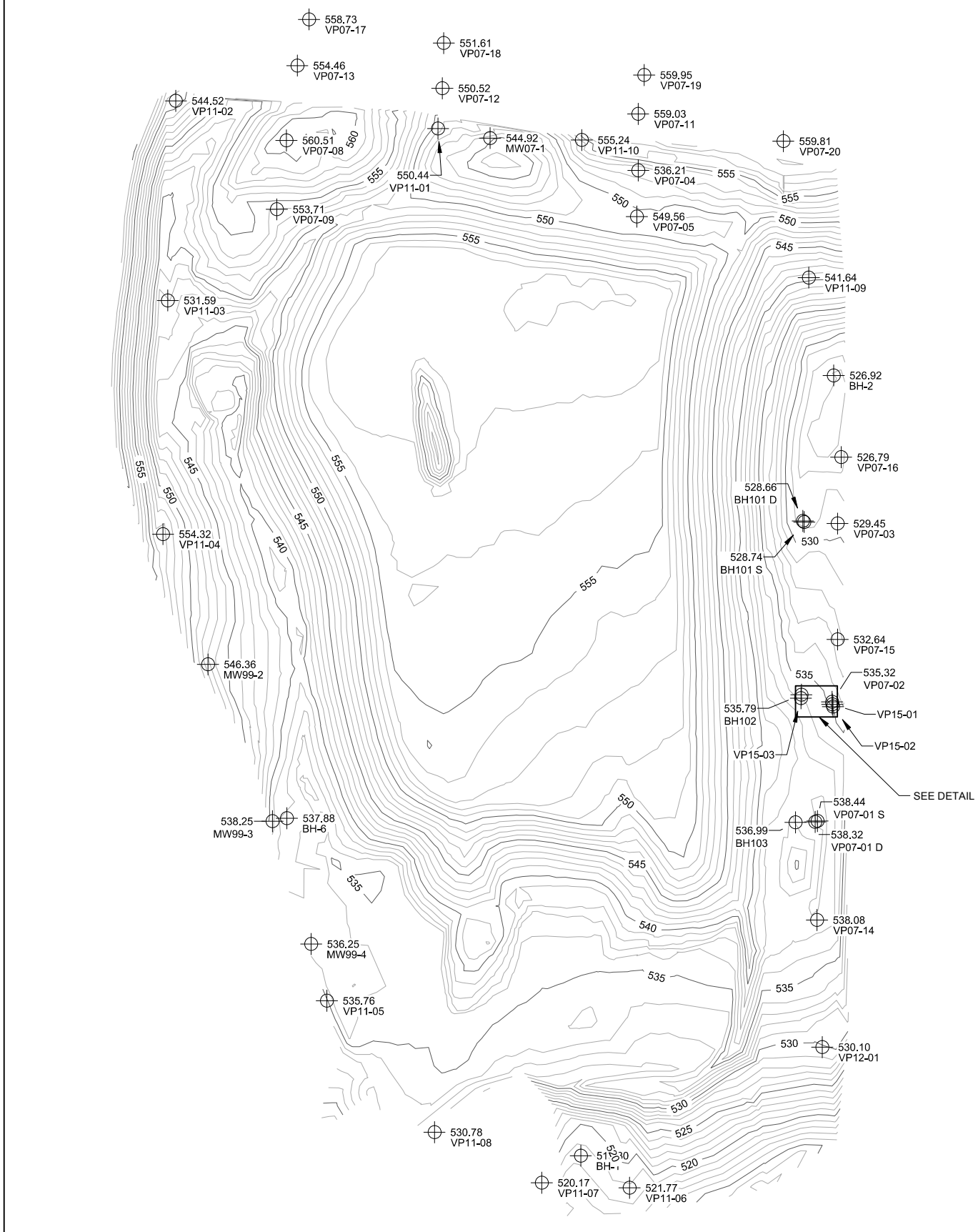
DEPTH SCALE

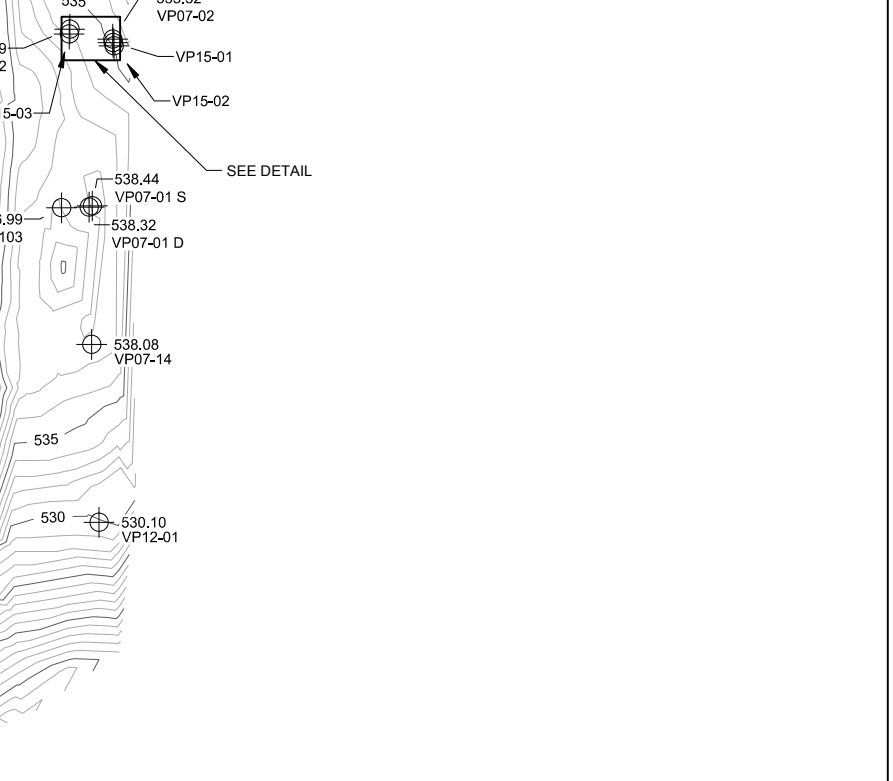
1 : 30

Golder Associates

LOGGED: AR

CHECKED: RP





500.16
BH-7

LEGEND

- TEST HOLE LOCATION AND ELEVATION
- 2013 MAJOR TOPOGRAPHIC CONTOUR (5 m INTERVAL)
- 2013 MINOR TOPOGRAPHIC CONTOUR (1 m INTERVAL)

NOTE
Elevations are displayed in Metres geodetic.

REFERENCE
Topographic Contours obtained from Fritsch Land Surveying Inc. File: 11-012Topo.dwg, dated May 15, 2013. Original scale 1:1000.

CLIENT
REGIONAL DISTRICT OF CENTRAL OKANAGAN (RDCO)

CONSULTANT
Golder Associates

YYYY-MM-DD	2015-12-09
PREPARED	J. FARAH
DESIGN	G. BARRETT
REVIEW	A. ROBINSON
APPROVED	J. FOLEY

PROJECT
LANDFILL CLOSURE PLAN
WESTSIDE LANDFILL
WEST KELOWNA, B.C.

TITLE
LOCATIONS OF TEST HOLES

PROJECT No.	PHASE	Rev.	FIGURE
1406505	1000	0	1

PROJECT No.: 1406505 / 1000

RECORD OF SOIL VAPOUR PROBE: VP15-01

SHEET 1 OF 1

CLIENT: Regional District of Central Okanagan (RDCO)
PROJECT: Westside Landfill
LOCATION: West Kelowna, B.C.

DRILLING DATE: November 23, 2015

DATUM: NAD 83

DEPTH SCALE METRES	DRILLING RIG	DRILLING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY %	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	ADDITIONAL LAB. TESTING	PIEZOMETER, STANDPIPE OR THERMISTOR INSTALLATION
			Ground Surface							SHEAR STRENGTH Cu, kPa: nat V. + Q - ●; rem V. ⊕ U - ○; Pocket Pen - ■ (20 40 60 80)	WATER CONTENT PERCENT: Wp — W — Wl; NP - Non-Plastic (10 20 30 40)		
0	ODEX Rig	Mobile B61	**(OL/SP/SM)** TOPSOIL, gravelly organic SILT and SAND; dark brown; non-cohesive, moist, very loose with roots.		0.00								
			(SW/GW) SAND and GRAVEL, well graded, trace non-plastic fines; brown, inferred cobbles; non-cohesive, moist to dry, compact.		0.23	01	CS						Steel Riser Well Protector Set in Concrete Hydrated Bentonite Seal
1						02	CS						Filter Sand 25mm PVC Screen
			End of Soil Vapour Probe.		1.83								
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE
1 : 50

Golder Associates

SOIL CLASSIFICATION SYSTEM: GACS
LOGGED: A. Robison
CHECKED: J. Foley

PROJECT No.: 1406505 / 1000

RECORD OF SOIL VAPOUR PROBE: VP15-02

SHEET 1 OF 1

CLIENT: Regional District of Central Okanagan (RDCO)
PROJECT: Westside Landfill
LOCATION: West Kelowna, B.C.

DRILLING DATE: November 23, 2015

DATUM: NAD 83

DEPTH SCALE METRES	DRILLING RIG	DRILLING METHOD	DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	NUMBER	TYPE	RECOVERY %	BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●; rem V. ⊕ U - ○; Pocket Pen - ■; 20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl; NP - Non-Plastic; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER, STANDPIPE OR THERMISTOR INSTALLATION
			Ground Surface												
0	ODEX Rig	Mobile B61	**(OL/SP/SM)** TOPSOIL, organic SILT and SAND, some gravel to gravelly; dark brown with roots; moist, loose.		0.00										Steel Riser Well Protector Set in Concrete
			(SW/GW) SAND and GRAVEL, well graded, trace non-plastic fines; brown, inferred cobbles; moist to dry, compact.		0.23										
1															
2			BEDROCK; weathered brown with fractures.		1.68										Hydrated Bentonite Seal
3			BEDROCK; brown to rust brown with fractures.		3.20										
			BEDROCK; purple blue-grey.		3.66										
4															Filter Sand 25mm PVC Screen
			End of Soil Vapour Probe.		4.57										
5															
6															
7															
8															
9															
10															

SOIL CLASSIFICATION SYSTEM: GACS

DEPTH SCALE
1 : 50

LOGGED: A. Robison
CHECKED: J. Foley

Golder Associates

PROJECT No.: 1406505 / 1000

RECORD OF SOIL VAPOUR PROBE: VP15-03

SHEET 1 OF 1

CLIENT: Regional District of Central Okanagan (RDCO)
PROJECT: Westside Landfill
LOCATION: West Kelowna, B.C.

DRILLING DATE: November 23, 2015

DATUM: NAD 83

DEPTH SCALE METRES	DRILLING RIG	DRILLING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: RECOVERY %	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●; rem V. ⊕ U - ○; Pocket Pen - ■) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp W Wl; NP - Non-Plastic) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER, STANDPIPE OR THERMISTOR INSTALLATION
			Ground Surface												
0	ODEX Rig	Mobile B61	**(OL/SP/SM)** TOPSOIL, organic SILT and SAND, some gravel; dark brown with roots; moist, loose.		0.00										Steel Riser Well Protector Set in Concrete
			(SP/GP/SM/GM) silty SAND and GRAVEL, poorly graded; brown, inferred cobbles; non-cohesive, dry, compact to dense.		0.15	01	CS								
1			BEDROCK; grey with fractures.		0.76	02	CS								
2															
3															
4			BEDROCK; brown with fractures.		3.66	03	CS								Hydrated Bentonite Seal
5															
6			BEDROCK; grey-brown with occasional fractures.		5.79	04	CS								
7															
8															Filter Sand 25mm PVC Screen
9															
			End of Soil Vapour Probe.		9.14										
10															

DEPTH SCALE
1 : 50

SOIL CLASSIFICATION SYSTEM: GACS
LOGGED: A. Robison
CHECKED: J. Foley

Golder Associates

APPENDIX C

OPERATIONAL CERTIFICATE PERMIT PR-12217

POLLUTION
PREVENTION

Suite 201
3547 Skaha Lake Road
Penticton
British Columbia V2A 7K2
Telephone: (250) 490-8200
Fax: (250) 492-1314

BRITISH COLUMBIA

MINISTRY OF ENVIRONMENT,
LANDS AND PARKS

OPERATIONAL CERTIFICATE
PR 12217

Under the provisions of the Waste Management Act and in accordance with the Approved Regional District of Central Okanagan Solid Waste Management Plan,

Regional District of Central Okanagan

1450 KLO Road

Kelowna, British Columbia

V1W 3Z4

is authorized to manage recyclable materials and to discharge refuse to the ground at a landfill facility located approximately 2.5 km north of Westbank, British Columbia, subject to the conditions listed below. Contravention of any of these conditions is a violation of the *Waste Management Act* and may result in prosecution.

1 AUTHORIZED DISCHARGES

1.1 The discharge of refuse to which this Sub-Section is applicable is shown on the attached Site Plan A. The reference number for this discharge is E223888.

1.1.1. The maximum rate at which refuse may be discharged to the landfill is 20,000 tonnes per year.

1.1.2 The type of refuse which may be discharged is municipal solid waste and other wastes as authorized by the Regional Waste Manager.

1.1.3 The works authorized are a sanitary landfill and related appurtenances.

1.1.4 The location from which the discharge originates is generally the area on the west side of Okanagan Lake within the boundaries of the Regional District of Central Okanagan.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

Date Issued: May 28, 1997
Amendment Date:
(most recent)

1.1.5 The location of the approximate area of discharge is that Part of District Lot 3794 ODYD shown on Plan C11135 Except Plan KAP46607 as shown on Site Plan A.

2 GENERAL REQUIREMENTS

2.1 Maintenance of Works and Emergency Procedures

The holder of the Operational Certificate shall inspect the landfill, any related pollution control works and designated areas for managing recyclable or reusable materials regularly and maintain them in good working order. In the event of an emergency or condition beyond the control of the holder of the Operational Certificate which prevents continuing operation of the authorized method of pollution control, the holder of the Operational Certificate shall immediately notify the Regional Waste Manager and take appropriate remedial action.

2.2 Process Modifications

The holder of the Operational Certificate shall notify the Regional Waste Manager prior to implementing changes to any process that may affect the quality and/or quantity of the discharge.

2.3 Plans - New Works

Plans and specifications of any new works related to this facility shall be submitted to the Regional Waste Manager and his consent obtained before construction commences. The works shall be constructed in accordance with such plans. Review of the submitted plans and specifications is for the purpose of administration of the Operational Certificate and only implies that the works specified therein meet the appropriate guidelines, criteria or standards.

2.4 Operational and Closure Plan

2.4.1 An *Operational and Closure Plan*, prepared by a suitably qualified professional shall be submitted for authorization by the Regional Waste Manager, on or before July 31, 1997.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

2.4.2 The *Operational and Closure Plan* shall include the following:

- Anticipated total waste volumes and tonnage, and life of the landfill (ie: closure date);
- A topographic plan showing the final elevation contours of the landfill and surface water diversion and drainage controls;
- Design of the final cover including the thickness and permeability of barrier layers and drainage layers, and information on topsoil, vegetative cover and erosion prevention controls;
- Procedures for notifying the public about the closure and about alternative waste disposal facilities;
- Rodent and nuisance wildlife control procedures;
- Proposed end use of the property after closure;
- A plan for monitoring groundwater, surface water and landfill gas, erosion and settlement for a minimum post-closure period of 25 years;
- A plan and accompanying design for the collection, storage and treatment/use of landfill gas for a minimum of 25 years;
- A plan for operation of any required pollution abatement engineering works such as leachate collection and treatment systems, for a minimum post-closure period of 25 years;
- A schedule of reserve funds or security to be collected each year until closure; to cover estimated costs of closure, post-closure and a contingency for remediation;
- A screening plan, ie: vegetative or berm, designed by a landscape architect with particular focus on the east side of the landfill;
- A detailed fill plan for the east side of the landfill;
- A perimeter and electric bear control fencing design;
- Litter and odour control measures;
- Design of gas monitoring wells for lateral migration and the proposed gas monitoring program;
- Final cover design and a schedule to cover previously filled areas that are no longer going to receive waste, particularly on the east side of the landfill;
- Contingency plan & notification procedures in the event of an emergency;
- Training procedures for operators; and
- Any other site specific concerns as identified by the Regional Waste Manager.

2.4.3 Terms of reference for the Operational and Closure Plan are subject to authorization by the Regional Waste Manager.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

Date Issued: May 28, 1997
Amendment Date:

2.4.4 The Regional Waste Manager may request revisions to the *Operational and Closure Plan*. Terms of reference for the revisions to the *Operational and Closure Plan* are subject to authorization by the Regional Waste Manager.

2.4.5 Operation of this landfill is to be in substantial accordance with the authorized *Operational and Closure Plan*.

2.4.6 If there is an inconsistency between this Operational Certificate and the authorized *Operational and Closure Plan*, the Operational Certificate shall take precedence.

2.5 Ground and Surface Water Quality Impairment

2.5.1 Landfills must not be operated in a manner such that ground or surface water quality decreases beyond that allowed by the *Approved and Working Criteria for Water Quality* dated 1995 prepared by the Water Quality Branch of the Ministry of Environment, Lands and Parks at or beyond the landfill property boundary. The appropriate water quality criteria will be specified by the Regional Waste Manager after reviewing uses of the ground and surface water resources.

2.5.2 If excursions result to the specified water quality criteria, the Regional Waste Manager may require that leachate management control measures or works be undertaken. Terms of reference for any leachate management study and/or design work is subject to the authorization of the Regional Waste Manager.

2.6 Landfill Gas Management

2.6.1 An assessment of the emissions of non-methane organic compounds (NMOCs) is required for landfills exceeding a total capacity of 100,000 tonnes. If NMOCs are determined to exceed 150 tonnes/year, landfill gas recovery and management systems will be required to be designed, installed and operational within 3 years. If NMOCs are projected to be less than 150 tonnes/year for the operating life of the landfill, an assessment for the need of passive gas venting will be required. Terms of reference for any landfill gas study or design is subject to the authorization of the Regional Waste Manager.

2.6.2 The gas monitoring wells, designed by a suitably qualified professional, are to be installed on or before August 31, 1998.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

Date Issued: May 28, 1997
Amendment Date:
(most recent)

2.7 Property Boundary

The buffer zone between any municipal solid waste discharged after the issuance of this Operational Certificate and the property boundary is to be at least 50 metres of which the 15 metres closest to the property boundary must be reserved for natural or landscaped screening (berms or vegetative screens). Depending on adjacent land use and environmental factors, buffer zones of less than 50 metres but not less than 15 metres may be authorized by the Regional Waste Manager.

2.8 Other Facilities

The distance between the discharged municipal solid waste and the nearest residence, water supply intake, hotel, restaurant, food processing facility, school, church or public park is to be a minimum of 300 metres. Greater or lesser separation distances may be authorized where justified. For those landfills designed to collect and recover methane gas generated, the issue of potential on-site or off-site users of the energy should be addressed in siting the landfill, consistent with the preceding regarding public places. An exemption is granted to discharge municipal solid waste closer than 300 m to the existing residences located in the subdivision to the east of the landfill.

2.9 Natural Control Landfill

2.9.1 The bottommost solid waste cell is to be at least 1.2 metres above the seasonal high water table. Greater or lesser separation depths may be authorized based on soil permeability and the leachate renovation capability of the soil.

2.9.2 There is to be at least a 2 metres thick layer of low permeability soil with a hydraulic conductivity of 1 x 10-6 cm/s or less (i.e. silt or clay), below each of the bottommost waste cells. Lesser thicknesses or no layer of low permeability soil may be authorized based on the potential for leachate generation and the unsaturated depth, permeability and leachate renovation capability of the existing soil.

2.10 Water

The disposal of municipal solid waste into water is unacceptable. Surface water diversion to restrict storm water runoff from contacting the wastes is required.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

Date Issued: May 28, 1997
Amendment Date:

2.11 Final Cover

Final cover for landfill sites is to consist of a minimum of 1 metre of low permeability (<1 x 10-5 cm/s) compacted soil plus a minimum of 0.15 metre of topsoil with authorized vegetation established. The depth of the topsoil layer should be related to the type of vegetation proposed (ie rooting depth). Soils of higher permeability may be authorized based on leachate generation potential at the landfill site. Final cover is to be constructed with slopes between 4% and 33% with appropriate run-on/run-off drainage controls and erosion controls. An assessment of the need for gas collection and recovery systems shall be made so that, in the event such systems are required, cover can be appropriately designed and constructed. Final cover is to be installed within 90 days of landfill closure or on any areas of the landfill which will not receive any more refuse within the next 12 months. Completed portions of the landfill are to progressively receive final cover during the active life of the landfill.

Additional layers of natural materials including earth and aggregate and/or synthetic materials may be necessary for inclusion in the final cover design due to site specific conditions and the presence of management systems for leachate and landfill gas.

2.12 Access Road

An appropriately constructed and maintained access road to, and a road system within the landfill site capable of supporting all vehicles hauling waste, are required during the operating life of the landfill.

2.13 Fencing and Access

2.13.1 Fencing is required to be installed around the perimeter of the landfill on or before April 1, 1998. The type and extent of fencing will depend on the existing natural vegetation and topographic features and is to be authorized by the Regional Waste Manager. All access points are to have locking gates.

2.13.2 Bears shall be prevented from accessing any and all putrescible refuse from April to November inclusive through the use of electric fencing. Electric fencing is to be installed on or before April 1, 1998 and maintained thereafter.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

2.13.3 The holder of the Operational Certificate is to conduct a public relations campaign 3 months prior to the installation of electric fencing. The purpose of the campaign is to inform the public of the impacts of installing electric fencing around the landfill. The Conservation Officer Service is to be consulted in the development of the public relations campaign.

2.13.4 Signage is to be attached to the electric fence at regular intervals with an appropriate safety warning indicating that the fence is electrified.

2.14 Design by Qualified Persons

All landfills are to be designed by persons qualified in landfill site selection, design and operation. All plans, specifications, and reports are to be sealed by a professional engineer or geoscientist licensed to practice in the province of British Columbia.

2.15 Prohibited Wastes

The co-disposal of the following wastes with the rest of the municipal solid waste is prohibited unless specifically authorized by the Regional Waste Manager:

- Special Wastes other than those specifically authorized in the *Special Waste Regulation*
- Bulk liquids and semisolid sludges which contain free liquid;
- Liquid or semisolid wastes including septage, black water, sewage treatment sludge, etc.;
- Automobiles, white goods, other large metallic objects and tires;
- Biomedical waste as defined in the document *Guidelines for the Management of Biomedical Waste in Canada* (CCME, February 1992); and
- Dead animals and slaughter house, fish hatchery and farming wastes or cannery wastes and byproducts.

Burial of these wastes in dedicated locations (i.e. avoiding co-disposal) at a landfill site may be authorized by the Regional Waste Manager only if there is no other viable alternative such as treatment/disposal, recycling, reprocessing or composting. The viability of alternatives is to be determined by the Regional Waste Manager based on submission of cost data by the holder of the Operational Certificate. For those cases in which the dedicated disposal of otherwise prohibited wastes is authorized, the specific on-site location of the disposal shall be recorded to allow ready access to the waste should corrective or further action pertaining to the management of these wastes be required by the Ministry at some time in the future.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

2.16 Hydrocarbon Contaminated Soils

The deposit of hydrocarbon contaminated soils below the *Special Waste Regulation* criteria is authorized at this landfill subject to the following conditions:

- Soil contaminated with hydrocarbons shall be deposited in layers less than 0.3 meters; and

- Soil contaminated with hydrocarbons shall be deposited a minimum of 1.2 meters above the seasonal high groundwater level and a minimum of 2.0 meters below the final grade of the landfill to prevent the impact on groundwater and any future vegetation on the site.

2.17 Designated Areas

Maintain areas for the separation, handling and storage of recyclable or reusable materials where applicable.

When a separated recyclable material is a special waste it is to be stored and managed in accordance with the *Special Waste Regulation*.

Composting of yard waste is to be in accordance with the *Production and Use of Compost Regulation*.

2.18 Signs

A sign is to be posted at each entrance of the landfill with the following current information:

- Site name
- Owner and operator
- Contact phone number and address for owner and operator
- Phone number in case of emergency (such as fire)
- Hours of operation (if applicable)
- Materials/wastes accepted for landfill and recycling
- Materials/wastes banned
- Tipping fees (if applicable)

Additional signs which clearly indicate the directions to the active tipping face, public disposal area, recycling and waste separation areas, etc. should also be displayed.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

2.19 Supervision

Fulltime, trained operators on-site are required at this landfill during operating hours. The gates are to be locked to prevent unauthorized access during non-operating hours. Properly designed and maintained public waste disposal and/or recyclable material bins situated outside the main gate may be provided for after hours use. The operator is required to be familiar with the Operational Certificate, inspection records, the authorized ***Operations and Closure Plan*** and all annual reports.

2.20 Scavenging

Scavenging of waste is to be prevented. The salvaging of wastes should be encouraged by providing areas and facilities for separation of recyclable or reusable materials.

2.21 Dust Control

Dust created within the landfill property is to be controlled, using methods and materials acceptable to the Regional Waste Manager, such that it does not cause a public nuisance.

2.22 Waste Compaction and Covering

2.22.1 Wastes are to be spread in thin layers (0.6 m or less) on the working face and compacted. The working face area should be minimized as much as possible. A compacted layer of cover material of at least 0.15 metre of soil or functionally equivalent depth of other cover material, as authorized by the Regional Waste Manager, is to be placed on all exposed solid waste at the end of each day of operation. If the landfill should operate continuously 24 hours per day, 0.15 m of cover material is to be applied at a frequency authorized by the Regional Waste Manager. Under specific circumstances, such as during bear season, the Regional Waste Manager may specify more stringent cover requirements. During periods of extreme weather conditions, such as those that cause the ground to freeze, an exemption to the normal cover requirements may be authorized at a frequency authorized by the Regional Waste Manager.

2.22.2 An intermediate cover consisting of a compacted layer of at least 0.30 metre of soil or functionally equivalent depth of other cover material is to be placed where no additional solid waste has been deposited or will be deposited within a period of 30 days.

2.23 Litter Control

Litter is to be controlled by compacting the waste, minimizing the working face area, applying cover, providing litter control fences and instituting a regular litter pickup and general good housekeeping program or any other measures required by the Regional Waste Manager.

2.24 Vectors

Vectors are to be controlled by the application of cover material at a specified frequency or by other control measures as required and authorized by the Regional Waste Manager.

2.25 Wildlife

The landfill is to be operated so as to minimize the attraction of wildlife such as bears and birds by applying cover at required frequencies and instituting a good housekeeping program. Further control measures, such as bear control fences, and bird control devices, may be specified by the Regional Waste Manager.

2.26 Fire Protection

Adequate fire fighting equipment is to be available to extinguish surface or underground fires. Recyclables and reusable materials are to be stored in such a manner to not constitute a fire hazard.

3 MONITORING AND REPORTING REQUIREMENTS

3.1 Municipal Solid Waste Measurement

3.1.1 Provide and maintain a weigh scale and record the weight of refuse discharged to the landfill over a 24-hour period.

3.1.2 Record the weight of recyclable and reusable materials not being discharged and that are being separated, stored or processed at the landfill over a 24-hour period.

3.1.3 Density tests are to be performed utilizing a known scaled volume of representative compacted refuse at a frequency of at least once per year and reported in kg per m3.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

3.2 Water Levels

Measure the water level and determine the elevation, on a quarterly basis, in monitoring wells BH1 (E224611), BH2 (E224612), BH4 (E224617), BH5 (E224618), BH6 (E224620), BH7 (E224621), BH8 (E224623) and Dobbin's Well (E224624) as shown on Site Plan B.

3.3 Water Quality

3.3.1 Install a suitable sampling facility and obtain a grab sample on a quarterly basis, of the groundwater, in monitoring wells BH1 (E224611), BH2 (E224612), BH4 (E224617), BH5 (E224618) and Dobbin's Well (E224624) as shown on Site Plan B.

3.3.2 Obtain analyses of the samples in section 3.3.1 for the following:

conductivity, total alkalinity ($CaCO_3$), chloride, sulphate, ammonia nitrogen, nitrate nitrogen, aluminum, antimony, arsenic, barium, beryllium, bismuth, cadmium, calcium, chromium, cobalt, copper, iron, lead, lithium, magnesium, manganese, molybdenum, nickel, phosphorous, potassium, selenium, strontium, thallium, tin, titanium, tungsten, vanadium, and zinc.

3.3.3 Obtain grab samples, every two years, of the groundwater in monitoring wells BH1 (E224611) and BH4 (E224617) as shown on Site Plan B.

3.3.4 Obtain analyses of the samples in section 3.3.3 for the following:

total dissolved solids, boron, total purgeable hydrocarbons, total extractable hydrocarbons, volatile organics (EPA 624) and acid and base/neutral extractable organics (EPA 625) , BOD, COD, and phenolics.

3.3.5 Obtain suitable grab samples, on an annual basis, of the groundwater in all domestic water wells being used for drinking water purposes within 1000m down-gradient of the landfill subject to obtaining permission from the water well owner.

3.3.6 Obtain analyses of the samples in section 3.3.5 for conductivity and chloride.

Date Issued: May 28, 1997
Amendment Date:

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

3.4 Vegetation Monitoring

Inspect vegetation during the growing season in the vicinity of the landfill at least once per year to determine if any environmental impacts are occurring.

3.5 Sampling and Analytical Requirements

3.5.1 The sampling and monitoring requirements specified above shall be carried out in accordance with the appropriate procedures listed in the table below. Alternative test methods may be used provided that the alternative test methods are authorized by the Regional Waste Manager prior to performing the actual source testing. Test methods for parameters not listed below require the consent of the Regional Waste Manager.

DISCHARGES TO AIR, AMBIENT AIR:		
Parameter	Source Testing Procedure	Analytical Procedure
Particulate Matter Rate of Discharge (flow rate) Gaseous emissions	Stationary Emission Testing Code - contained in British Columbia Field Sampling Manual for Continuous Monitoring plus the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 1996 Permittee Edition	A Laboratory Manual for the Chemical Analysis of Ambient Air, Emissions, Precipitation, Soil and Vegetation, 3rd edition, April, 1983, 253 pp.
LIQUID EFFLUENTS, SURFACE WATER, GROUND WATER, SOILS, SEDIMENTS, VEGETATIVE MATTER:		
Parameter	Source Testing Procedure	Analytical Procedure
Metals Nutrients Organics Toxicity	British Columbia Field Sampling Manual for Continuous Monitoring plus the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 1996 Permittee Edition	British Columbia Environmental Laboratory Manual for the Analysis of Water, Wastewater, Sediment and Biological Materials, March, 1994, Permittee Edition

The above manuals are available from Queen's Printer Publications Centre, P.O. Box 9452, Stn. Prov. Govt, Victoria, BC, V8W 9V7 (1-800-663-6105 or (250) 387-4609). The above manuals are also available for inspection at all Pollution Prevention offices.

3.5.2 Proper care should be taken in sampling, storing and transporting the samples to adequately control temperature and avoid contamination and breakage.

3.5.3 Maintain the groundwater monitoring wells including provisions to ensure protection from damage due to vehicles or vandalism.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

Date Issued: May 28, 1997
Amendment Date:
(most recent)

3.5.4 Groundwater monitoring wells are to be covered with lockable caps, fitted with locks all keyed alike, and a key is to be provided to the Regional Waste Manager.

3.5.5 Three well bore volumes are to be pumped from each monitoring well prior to sample collection.

3.6 Changes to Sampling and Monitoring Program

On the basis of findings during routine inspections and any other information related to the effect of the discharge on the receiving environment, the Regional Waste Manager may allow reductions or require additional sampling and monitoring of the discharge and receiving environment.

3.7 Annual Report

An annual operations and monitoring report is to be submitted to the Regional Waste Manager within 60 days of the end of the calendar year. The first annual report is due on March 1, 1998. These reports are to contain at least the following information:

- Total volume and/or weight of waste discharged into the landfill for the year;
- Service population and waste discharge rate for the year (in tonnes per capita per year) and a trend analysis with a comparison to the 1990 baseline waste discharge rate of 1.20 tonnes per capita per year ;
- Authorized design volume;
- Remaining site life and capacity;
- Operational plan for next 12 months;
- Operation and maintenance expenditures;
- Monitoring data compilation, interpretation and trend analysis prepared by a suitably qualified professional regarding landfill gas, vegetation and leachate/water quality including a review of groundwater elevations and flow direction and a comparison made to the drinking water parameters found in the *Approved and Working Criteria for Water Quality* dated April 1995.;
- Amounts of leachate collected, treated and disposed;
- Any changes from authorized reports, plans and specifications;
- any changes to the contingency plan;
- Amount of landfill gas collected and its disposition;
- Review of the closure plan and associated estimated costs, including an update of the schedule of reserve funds or security to be collected each year until closure; to cover estimated costs of closure, the 25 year post-closure period and a contingency for remediation; and
- Any other data relevant to this Operational Certificate

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

3.8 Format of Submission

Monitoring and/or reporting information shall be submitted in an electronic and/or printed format which is suitable for review by the public and/or other government agencies and is satisfactory to the Regional Waste Manager.

3.9 Financial Security

Provide a future financial security of the operations at and beyond closure by establishing a Closure Fund in a form acceptable to the Regional Waste Manager, such as upfront security or a fund financed on a charge per tonne of waste disposed basis. Such a fund would be analogous to the provincial Waste Management Trust Fund which the Minister may establish under Section 53 of the *Waste Management Act*. The ultimate amount of the financial security shall meet or exceed the currently estimated closure and post-closure costs as outlined in the closure plan plus a reasonable contingency for any remediation which may be required. For municipally owned landfills, the financial security can be built up over time according to a schedule authorized by the Regional Waste Manager.

3.10 Legal Survey

Landfills sited on titled land must register a covenant that the property was used for the purpose of waste disposal as a charge against the title to the property as provided for under Section 215.1 of the *Land Title Act*. Landfills located on crown land are to have a "notation on file" registered that the property was used for the purpose of waste disposal.

3.11 Buildings and Structures

The construction of buildings and other structures on landfills containing putrescible wastes is not recommended for a minimum period of 25 years after closure due to concerns about combustible gas and excessive settlement. Such activity will only be considered and /or authorized after an investigation and report by qualified persons. The report is to be submitted for authorization to the Regional Waste Manager prior to initiating construction activities.

3.12 Operation of Gas Recovery and Management System

Where landfill gas recovery and management is required, operation of the system should be considered an integral part of overall landfill management. The system should be planned for from the early design stage of the landfill and arrangements made for its operation for a minimum 25 year life after closure.

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

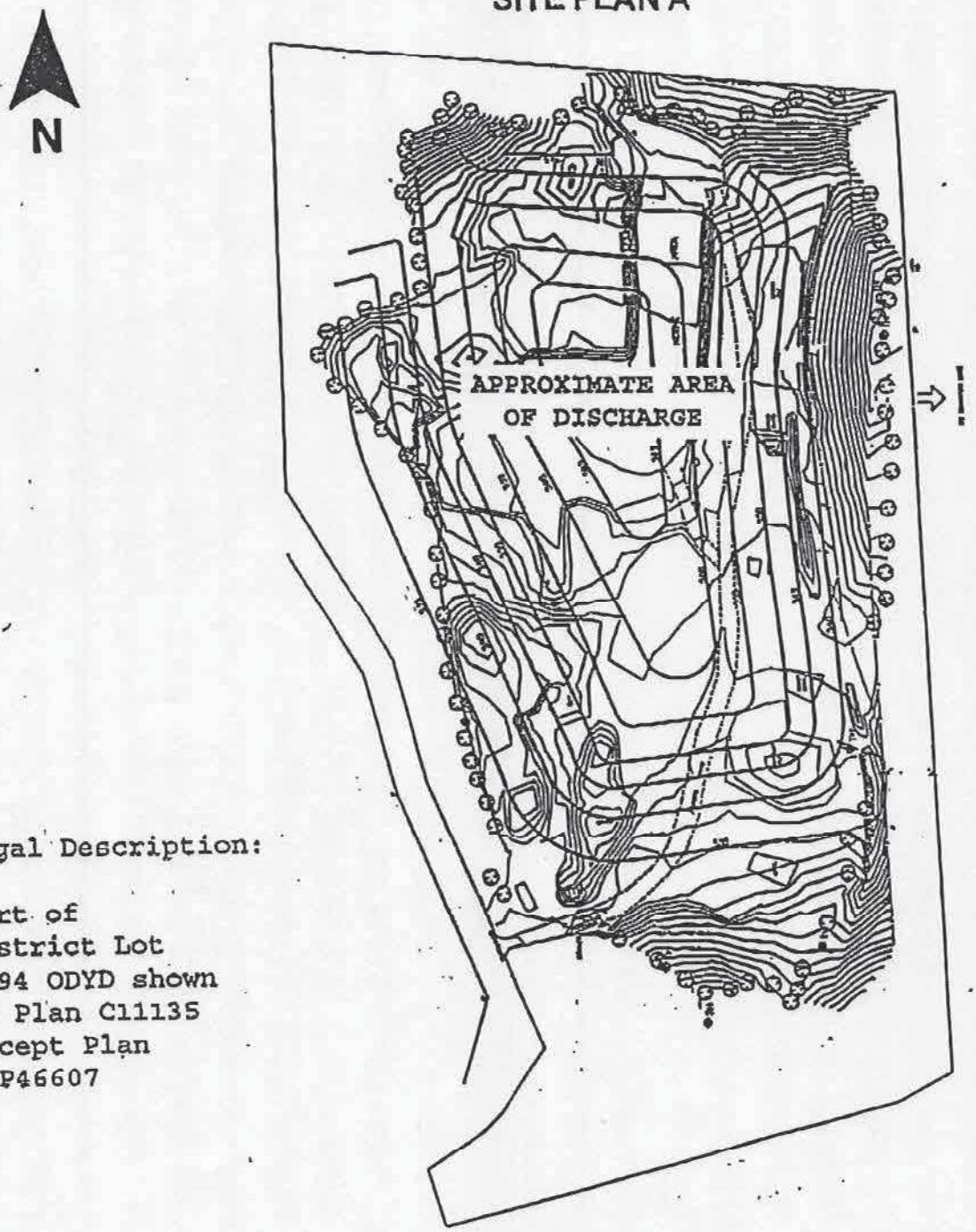
3.13 Operation of Other Control Systems

Operation of other environmental control systems for leachate and run-off as well as monitoring of leachate, groundwater and surface water must be continued during the entire post-closure period unless the early suspension of such operations or monitoring is authorized by the Regional Waste Manager.

Date Issued: May 28, 1997
Amendment Date:
(most recent)

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

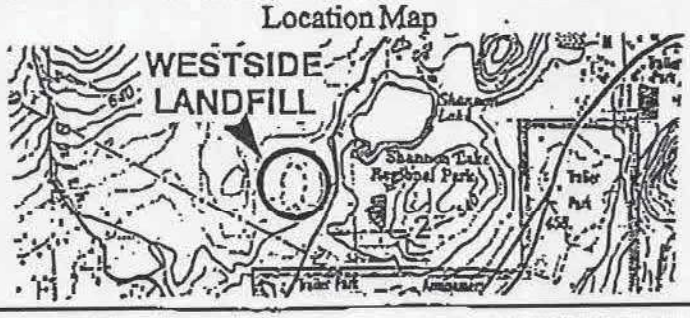
SITE PLAN A



Legal Description:

Part of
District Lot
3794 ODYD shown
on Plan C11135
Except Plan
KAP46607

Location Map

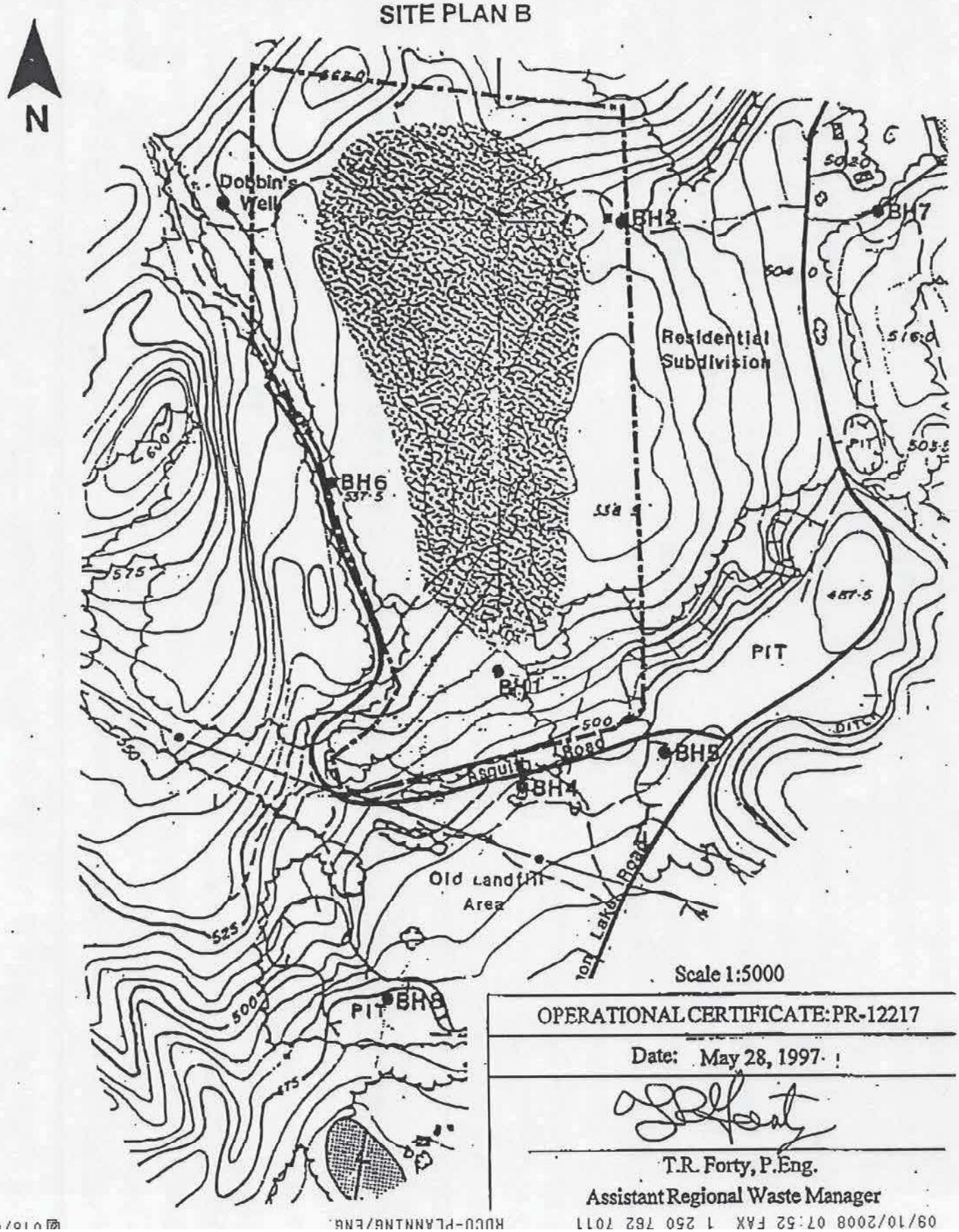


OPERATIONAL CERTIFICATE: PR-12217

Date: May 28, 1997

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

SITE PLAN B



OPERATIONAL CERTIFICATE: PR-12217

Date: May 28, 1997

T.R. Forty, P.Eng.
Assistant Regional Waste Manager

September 6, 2017 Authorization Number: 12217

VIA EMAIL: clarke.kruiswyk@cord.bc.ca

Clarke Kruiswyk
Environmental Services Analyst
Regional District of Central Okanagan
1450 KLO Road, Kelowna, BC, V1W 3Z4

Dear Mr. Clarke Kruiswyk:

Re: *Environmental Management Act* approval of Closure Plan for Westside Landfill (Authorization 122217).

Thank you for your email dated March 10, 2016 and submission of the Westside Landfill Closure Plan dated May 12, 2015 by Golder Associates (Report Number 1406505-003-R-Rev0-5000) (the "Closure Plan"). Ministry review of the Closure Plan indicates that it conforms with current ministry policy (Landfill Criteria, 2nd Edition – 2016), and with respect to final cover, it meets the intent of clause 2.11 (Final Cover) of Operational Certificate (OC) 12217. As such, the Closure Plan is hereby approved in accordance with clause 2.4 of the OC, and the detailed final cover requirements included in clause 2.11 are replaced by those contained in the Closure Plan.

The Ministry further acknowledges that OC 12217 should now be updated to reflect the closed status of the site. The Regional District of Central Okanagan is requested to submit an application to amend the current OC to remove requirements that are no longer relevant, and instead incorporate requirements related to ongoing closure and post-closure activities. For reference, the 2016 Landfill Criteria describe the ministry's expectations pertaining to post closure operation and maintenance including but not limited to those in sections 7.4 (Post Closure Operation and Maintenance), 7.4 (Contaminating Lifespan), 9.0 (Monitorimng Criteria), and 10.3.4 (Closure Plan).

Application instructions and forms are available on the Ministry's website at: http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/guidance-forms-and-fees.

If you have any questions, please contact Roshan D'Souza, Environmental Protection Officer at 250 354 6365 or email Roshan.Dsouza@gov.bc.ca.

Yours truly,

Luc Lachance, P.Eng.
For Director,
Environmental Management Act

APPENDIX D

CHEMICAL ANALYSIS REPORTS

CERTIFICATE OF ANALYSIS

REPORTED TO	Regional District of Central Okanagan 1450 KLO Road KELOWNA, BC V1W 3Z4		
ATTENTION	Angela Lambrecht	**WORK ORDER**	25E0628
PO NUMBER	60050 Landfill	**RECEIVED / TEMP**	2025-05-06 12:35 / 11.8°C
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39
PROJECT INFO	041440062	**COC NUMBER**	45772.46372

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at hhannaoui@caro.ca

Authorized By:

Hanane El Hannaoui
Junior Account Manager

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BHA (25E0628-01) | Matrix: Water | Sampled: 2025-05-06 09:14					F2, F3, PRES
Anions					
Chloride	**23.6**	0.10	mg/L	2025-05-07	
Nitrate (as N)	**1.46**	0.010	mg/L	2025-05-07	
Sulfate	**11.8**	1.0	mg/L	2025-05-07	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**230**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	**0.0155**	0.0050	mg/L	2025-05-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-05-07	
Arsenic, dissolved	**0.00182**	0.00050	mg/L	2025-05-07	
Barium, dissolved	**0.0090**	0.0050	mg/L	2025-05-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
Boron, dissolved	< 0.0500	0.0500	mg/L	2025-05-07	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2025-05-07	
Calcium, dissolved	**57.1**	0.20	mg/L	2025-05-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-05-07	
Cobalt, dissolved	**0.00021**	0.00010	mg/L	2025-05-07	
Copper, dissolved	**0.00078**	0.00040	mg/L	2025-05-07	
Iron, dissolved	**0.017**	0.010	mg/L	2025-05-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-05-07	
Lithium, dissolved	**0.0120**	0.00010	mg/L	2025-05-09	RE2
Magnesium, dissolved	**21.3**	0.010	mg/L	2025-05-09	RE2
Manganese, dissolved	**0.00414**	0.00020	mg/L	2025-05-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-05-07	
Molybdenum, dissolved	**0.00191**	0.00010	mg/L	2025-05-07	
Nickel, dissolved	**0.00075**	0.00040	mg/L	2025-05-07	
Phosphorus, dissolved	**0.072**	0.050	mg/L	2025-05-07	
Potassium, dissolved	**1.71**	0.10	mg/L	2025-05-07	
Selenium, dissolved	**0.00073**	0.00050	mg/L	2025-05-07	
Silicon, dissolved	**11.7**	1.0	mg/L	2025-05-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-05-07	
Sodium, dissolved	**38.8**	0.10	mg/L	2025-05-09	
Strontium, dissolved	**0.323**	0.0010	mg/L	2025-05-09	RE2
Sulfur, dissolved	**6.6**	3.0	mg/L	2025-05-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-05-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2025-05-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-05-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-05-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-05-07	
Uranium, dissolved	**0.00445**	0.000020	mg/L	2025-05-09	RE2

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BHA (25E0628-01) | Matrix: Water | Sampled: 2025-05-06 09:14, Continued					F2, F3, PRES
Dissolved Metals, Continued					
Vanadium, dissolved	**0.0091**	0.0050	mg/L	2025-05-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-05-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
General Parameters					
Alkalinity, Total (as CaCO3)	**168**	1.0	mg/L	2025-05-07	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Bicarbonate (as CaCO3)	**168**	1.0	mg/L	2025-05-07	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-05-07	
Conductivity (EC)	**452**	2.0	µS/cm	2025-05-07	
pH	**7.90**	0.10	pH units	2025-05-07	HT2
Solids, Total Dissolved	**257**	15	mg/L	2025-05-13	
Total Metals					
Calcium, total	**42.7**	0.20	mg/L	2025-05-07	
Magnesium, total	**14.5**	0.010	mg/L	2025-05-07	
BH2 (25E0628-02) | Matrix: Water | Sampled: 2025-05-06 10:56					F2, F3, PRES
Anions					
Chloride	**99.6**	0.10	mg/L	2025-05-07	
Nitrate (as N)	< 0.010	0.010	mg/L	2025-05-07	
Sulfate	**80.6**	1.0	mg/L	2025-05-07	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**1270**	1.00	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	**0.0146**	0.0050	mg/L	2025-05-07	RS1
Antimony, dissolved	< 0.00040	0.00020	mg/L	2025-05-07	RS1
Arsenic, dissolved	**0.00257**	0.00050	mg/L	2025-05-07	RS1
Barium, dissolved	< 0.0100	0.0050	mg/L	2025-05-07	RS1
Beryllium, dissolved	< 0.00020	0.00010	mg/L	2025-05-07	RS1
Bismuth, dissolved	< 0.00020	0.00010	mg/L	2025-05-07	RS1
Boron, dissolved	**0.333**	0.0500	mg/L	2025-05-07	RS1
Cadmium, dissolved	< 0.000020	0.000010	mg/L	2025-05-07	RS1
Calcium, dissolved	**270**	0.20	mg/L	2025-05-07	RS1
Chromium, dissolved	**0.00124**	0.00050	mg/L	2025-05-07	RS1
Cobalt, dissolved	**0.00185**	0.00010	mg/L	2025-05-07	RS1
Copper, dissolved	**0.00081**	0.00040	mg/L	2025-05-07	RS1
Iron, dissolved	**1.70**	0.010	mg/L	2025-05-07	RS1

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BH2 (25E0628-02) | Matrix: Water | Sampled: 2025-05-06 10:56, Continued					F2, F3, PRES
Dissolved Metals, Continued					
Lead, dissolved	< 0.00040	0.00020	mg/L	2025-05-07	RS1
Lithium, dissolved	**0.0224**	0.00010	mg/L	2025-05-07	RS1
Magnesium, dissolved	**144**	0.010	mg/L	2025-05-07	RS1
Manganese, dissolved	**5.69**	0.00020	mg/L	2025-05-07	RS1
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-05-07	
Molybdenum, dissolved	**0.00364**	0.00010	mg/L	2025-05-07	RS1
Nickel, dissolved	**0.00927**	0.00040	mg/L	2025-05-07	RS1
Phosphorus, dissolved	**0.161**	0.050	mg/L	2025-05-07	RS1
Potassium, dissolved	**2.01**	0.10	mg/L	2025-05-07	RS1
Selenium, dissolved	< 0.00100	0.00050	mg/L	2025-05-07	RS1
Silicon, dissolved	**24.7**	1.0	mg/L	2025-05-07	RS1
Silver, dissolved	< 0.000100	0.000050	mg/L	2025-05-07	RS1
Sodium, dissolved	**115**	0.10	mg/L	2025-05-07	RS1
Strontium, dissolved	**2.32**	0.0010	mg/L	2025-05-07	RS1
Sulfur, dissolved	**31.5**	3.0	mg/L	2025-05-07	RS1
Tellurium, dissolved	< 0.00100	0.00050	mg/L	2025-05-07	RS1
Thallium, dissolved	< 0.000040	0.000020	mg/L	2025-05-07	RS1
Thorium, dissolved	< 0.00020	0.00010	mg/L	2025-05-07	RS1
Tin, dissolved	< 0.00040	0.00020	mg/L	2025-05-07	RS1
Titanium, dissolved	< 0.0100	0.0050	mg/L	2025-05-07	RS1
Tungsten, dissolved	< 0.0020	0.0010	mg/L	2025-05-07	RS1
Uranium, dissolved	**0.00242**	0.000020	mg/L	2025-05-07	RS1
Vanadium, dissolved	< 0.0100	0.0050	mg/L	2025-05-07	RS1
Zinc, dissolved	< 0.0080	0.0040	mg/L	2025-05-07	RS1
Zirconium, dissolved	**0.00252**	0.00010	mg/L	2025-05-07	RS1
General Parameters					
Alkalinity, Total (as CaCO3)	**1140**	1.0	mg/L	2025-05-07	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Bicarbonate (as CaCO3)	**1140**	1.0	mg/L	2025-05-07	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Ammonia, Total (as N)	**0.369**	0.050	mg/L	2025-05-07	
Conductivity (EC)	**2360**	2.0	µS/cm	2025-05-07	
pH	**7.56**	0.10	pH units	2025-05-07	HT2
Solids, Total Dissolved	**1480**	15	mg/L	2025-05-13	
Total Metals					
Calcium, total	**283**	0.20	mg/L	2025-05-07	RS1
Magnesium, total	**136**	0.010	mg/L	2025-05-07	RS1
BH3 (25E0628-03) | Matrix: Water | Sampled: 2025-05-06 08:30					F2, F3, PRES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BH3 (25E0628-03) | Matrix: Water | Sampled: 2025-05-06 08:30, Continued					F2, F3, PRES
Anions					
Chloride	**71.6**	0.10	mg/L	2025-05-07	
Nitrate (as N)	**2.03**	0.010	mg/L	2025-05-07	
Sulfate	**26.5**	1.0	mg/L	2025-05-07	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**365**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2025-05-08	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-05-08	
Arsenic, dissolved	**0.00131**	0.00050	mg/L	2025-05-08	
Barium, dissolved	**0.0104**	0.0050	mg/L	2025-05-08	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-05-08	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-05-08	
Boron, dissolved	**0.0624**	0.0500	mg/L	2025-05-08	
Cadmium, dissolved	**0.000015**	0.000010	mg/L	2025-05-08	
Calcium, dissolved	**95.1**	0.20	mg/L	2025-05-08	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-05-08	
Cobalt, dissolved	**0.00011**	0.00010	mg/L	2025-05-08	
Copper, dissolved	**0.00072**	0.00040	mg/L	2025-05-08	
Iron, dissolved	< 0.010	0.010	mg/L	2025-05-08	
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-05-08	
Lithium, dissolved	**0.0165**	0.00010	mg/L	2025-05-08	
Magnesium, dissolved	**30.8**	0.010	mg/L	2025-05-08	
Manganese, dissolved	**0.00043**	0.00020	mg/L	2025-05-08	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-05-07	
Molybdenum, dissolved	**0.00412**	0.00010	mg/L	2025-05-08	
Nickel, dissolved	**0.00105**	0.00040	mg/L	2025-05-08	
Phosphorus, dissolved	**0.050**	0.050	mg/L	2025-05-08	
Potassium, dissolved	**3.76**	0.10	mg/L	2025-05-08	
Selenium, dissolved	**0.00050**	0.00050	mg/L	2025-05-08	
Silicon, dissolved	**12.0**	1.0	mg/L	2025-05-08	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-05-08	
Sodium, dissolved	**48.4**	0.10	mg/L	2025-05-08	
Strontium, dissolved	**0.624**	0.0010	mg/L	2025-05-08	
Sulfur, dissolved	**10.3**	3.0	mg/L	2025-05-08	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-05-08	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2025-05-08	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-05-08	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-05-08	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-05-08	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-05-08	
Uranium, dissolved	**0.00647**	0.000020	mg/L	2025-05-08	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BH3 (25E0628-03) | Matrix: Water | Sampled: 2025-05-06 08:30, Continued					F2, F3, PRES
Dissolved Metals, Continued					
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2025-05-08	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-05-08	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2025-05-08	
General Parameters					
Alkalinity, Total (as CaCO3)	**313**	1.0	mg/L	2025-05-07	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Bicarbonate (as CaCO3)	**313**	1.0	mg/L	2025-05-07	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-05-07	
Conductivity (EC)	**903**	2.0	µS/cm	2025-05-07	
pH	**7.82**	0.10	pH units	2025-05-07	HT2
Solids, Total Dissolved	**502**	15	mg/L	2025-05-13	
Total Metals					
Calcium, total	**98.7**	0.20	mg/L	2025-05-07	
Magnesium, total	**29.7**	0.010	mg/L	2025-05-07	
BH4 (25E0628-04) | Matrix: Water | Sampled: 2025-05-06 08:56					F2, F3, PRES
Anions					
Chloride	**284**	0.10	mg/L	2025-05-07	
Nitrate (as N)	< 0.010	0.010	mg/L	2025-05-07	
Sulfate	**65.4**	1.0	mg/L	2025-05-07	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**928**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2025-05-08	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-05-08	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2025-05-08	
Barium, dissolved	**0.0431**	0.0050	mg/L	2025-05-08	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-05-08	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-05-08	
Boron, dissolved	**0.449**	0.0500	mg/L	2025-05-08	
Cadmium, dissolved	**0.000083**	0.000010	mg/L	2025-05-08	
Calcium, dissolved	**175**	0.20	mg/L	2025-05-08	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-05-08	
Cobalt, dissolved	**0.00107**	0.00010	mg/L	2025-05-08	
Copper, dissolved	**0.00136**	0.00040	mg/L	2025-05-08	
Iron, dissolved	< 0.010	0.010	mg/L	2025-05-08	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BH4 (25E0628-04) | Matrix: Water | Sampled: 2025-05-06 08:56, Continued					F2, F3, PRES
Dissolved Metals, Continued					
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-05-08	
Lithium, dissolved	**0.0364**	0.00010	mg/L	2025-05-08	
Magnesium, dissolved	**119**	0.010	mg/L	2025-05-08	
Manganese, dissolved	**0.216**	0.00020	mg/L	2025-05-08	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-05-07	
Molybdenum, dissolved	**0.00605**	0.00010	mg/L	2025-05-08	
Nickel, dissolved	**0.0151**	0.00040	mg/L	2025-05-08	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2025-05-08	
Potassium, dissolved	**5.06**	0.10	mg/L	2025-05-08	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2025-05-08	
Silicon, dissolved	**10.6**	1.0	mg/L	2025-05-08	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-05-08	
Sodium, dissolved	**94.3**	0.10	mg/L	2025-05-08	
Strontium, dissolved	**2.15**	0.0010	mg/L	2025-05-08	
Sulfur, dissolved	**23.9**	3.0	mg/L	2025-05-08	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-05-08	
Thallium, dissolved	**0.000023**	0.000020	mg/L	2025-05-08	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-05-08	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-05-08	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-05-08	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-05-08	
Uranium, dissolved	**0.0258**	0.000020	mg/L	2025-05-08	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2025-05-08	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-05-08	
Zirconium, dissolved	**0.00040**	0.00010	mg/L	2025-05-08	
General Parameters					
Alkalinity, Total (as CaCO3)	**599**	1.0	mg/L	2025-05-07	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Bicarbonate (as CaCO3)	**599**	1.0	mg/L	2025-05-07	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-05-07	
Conductivity (EC)	**2070**	2.0	µS/cm	2025-05-07	
pH	**7.92**	0.10	pH units	2025-05-07	HT2
Solids, Total Dissolved	**1070**	15	mg/L	2025-05-13	
Total Metals					
Calcium, total	**198**	0.20	mg/L	2025-05-07	
Magnesium, total	**115**	0.010	mg/L	2025-05-07	
BH7 (25E0628-05) | Matrix: Water | Sampled: 2025-05-06 09:14					F2, F3, PRES

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BH7 (25E0628-05) | Matrix: Water | Sampled: 2025-05-06 09:14, Continued					F2, F3, PRES
Anions					
Chloride	**24.3**	0.10	mg/L	2025-05-07	RE2
Nitrate (as N)	**1.50**	0.010	mg/L	2025-05-07	RE2
Sulfate	**12.6**	1.0	mg/L	2025-05-07	RE2
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**247**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	**0.0172**	0.0050	mg/L	2025-05-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-05-07	
Arsenic, dissolved	**0.00172**	0.00050	mg/L	2025-05-07	
Barium, dissolved	**0.0097**	0.0050	mg/L	2025-05-09	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
Boron, dissolved	< 0.0500	0.0500	mg/L	2025-05-07	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2025-05-07	
Calcium, dissolved	**61.1**	0.20	mg/L	2025-05-09	RE2
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-05-07	
Cobalt, dissolved	**0.00024**	0.00010	mg/L	2025-05-07	
Copper, dissolved	**0.00083**	0.00040	mg/L	2025-05-07	
Iron, dissolved	**0.024**	0.010	mg/L	2025-05-09	
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-05-07	
Lithium, dissolved	**0.0129**	0.00010	mg/L	2025-05-09	RE2
Magnesium, dissolved	**22.8**	0.010	mg/L	2025-05-09	RE2
Manganese, dissolved	**0.00414**	0.00020	mg/L	2025-05-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-05-07	
Molybdenum, dissolved	**0.00167**	0.00010	mg/L	2025-05-07	
Nickel, dissolved	**0.00082**	0.00040	mg/L	2025-05-07	
Phosphorus, dissolved	**0.064**	0.050	mg/L	2025-05-07	
Potassium, dissolved	**1.75**	0.10	mg/L	2025-05-07	
Selenium, dissolved	**0.00079**	0.00050	mg/L	2025-05-07	
Silicon, dissolved	**11.9**	1.0	mg/L	2025-05-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-05-07	
Sodium, dissolved	**42.2**	0.10	mg/L	2025-05-09	RE2
Strontium, dissolved	**0.343**	0.0010	mg/L	2025-05-09	RE2
Sulfur, dissolved	**7.2**	3.0	mg/L	2025-05-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-05-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2025-05-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-05-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-05-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-05-07	
Uranium, dissolved	**0.00469**	0.000020	mg/L	2025-05-09	RE2

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
BH7 (25E0628-05) | Matrix: Water | Sampled: 2025-05-06 09:14, Continued					F2, F3, PRES
Dissolved Metals, Continued					
Vanadium, dissolved	**0.0090**	0.0050	mg/L	2025-05-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-05-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
General Parameters					
Alkalinity, Total (as CaCO3)	**175**	1.0	mg/L	2025-05-07	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Bicarbonate (as CaCO3)	**175**	1.0	mg/L	2025-05-07	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-05-07	
Conductivity (EC)	**468**	2.0	µS/cm	2025-05-07	
pH	**8.00**	0.10	pH units	2025-05-07	HT2
Solids, Total Dissolved	**272**	15	mg/L	2025-05-13	
Total Metals					
Calcium, total	**44.0**	0.20	mg/L	2025-05-07	
Magnesium, total	**14.8**	0.010	mg/L	2025-05-07	
MW 99-2 (25E0628-06) | Matrix: Water | Sampled: 2025-05-06 10:14					F2, F3, PRES
Anions					
Chloride	**195**	0.10	mg/L	2025-05-07	
Nitrate (as N)	**0.402**	0.010	mg/L	2025-05-07	
Sulfate	**18.0**	1.0	mg/L	2025-05-07	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**807**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	**0.0055**	0.0050	mg/L	2025-05-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-05-07	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2025-05-07	
Barium, dissolved	**0.0078**	0.0050	mg/L	2025-05-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
Boron, dissolved	< 0.0500	0.0500	mg/L	2025-05-07	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2025-05-07	
Calcium, dissolved	**150**	0.20	mg/L	2025-05-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-05-07	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
Copper, dissolved	**0.00402**	0.00040	mg/L	2025-05-07	
Iron, dissolved	< 0.010	0.010	mg/L	2025-05-07	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Analyzed	Qualifier
MW 99-2 (25E0628-06) | Matrix: Water | Sampled: 2025-05-06 10:14, Continued					F2, F3, PRES
Dissolved Metals, Continued					
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-05-07	
Lithium, dissolved	**0.0462**	0.00010	mg/L	2025-05-07	
Magnesium, dissolved	**105**	0.010	mg/L	2025-05-07	
Manganese, dissolved	**0.00128**	0.00020	mg/L	2025-05-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-05-07	
Molybdenum, dissolved	**0.00050**	0.00010	mg/L	2025-05-07	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2025-05-07	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2025-05-07	
Potassium, dissolved	**0.50**	0.10	mg/L	2025-05-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2025-05-07	
Silicon, dissolved	**6.9**	1.0	mg/L	2025-05-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-05-07	
Sodium, dissolved	**46.9**	0.10	mg/L	2025-05-07	
Strontium, dissolved	**2.17**	0.0010	mg/L	2025-05-07	
Sulfur, dissolved	**7.4**	3.0	mg/L	2025-05-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-05-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2025-05-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-05-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-05-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-05-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-05-07	
Uranium, dissolved	**0.00917**	0.000020	mg/L	2025-05-07	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2025-05-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-05-07	
Zirconium, dissolved	**0.00018**	0.00010	mg/L	2025-05-07	
General Parameters					
Alkalinity, Total (as CaCO3)	**539**	1.0	mg/L	2025-05-07	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Bicarbonate (as CaCO3)	**539**	1.0	mg/L	2025-05-07	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-05-07	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-05-07	
Conductivity (EC)	**1570**	2.0	µS/cm	2025-05-07	
pH	**8.03**	0.10	pH units	2025-05-07	HT2
Total Metals					
Calcium, total	**148**	0.20	mg/L	2025-05-07	
Magnesium, total	**98.8**	0.010	mg/L	2025-05-07	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Sample Qualifiers:

F2	The sample was not field-preserved with HNO3 and was therefore preserved in the laboratory and held for at least 16 hours prior to analysis for total metals.
F3	Results may be biased low due to sub-sampling from general container.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
PRES	Sample has been preserved for NH3 in the laboratory and the holding time has been extended.
RE2	Result was confirmed by re-analysis prior to reporting.
RS1	The Reporting Limits for this sample have been raised due to high analyte concentration.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	Kelowna
Ammonia, Total in Water	SM 4500-NH3 G* (2021)	Automated Colorimetry (Phenate)	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Conductivity in Water	SM 2510 B (2021)	Conductivity Meter	✓	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Hardness in Water	SM 2340 B (2021)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
Mercury, dissolved in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Solids, Total Dissolved in Water	Solids in Water, Filtered / SM 2540 C* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/L	Milligrams per litre
pH units	pH < 7 = acidic, ph > 7 = basic
µS/cm	Microsiemens per centimetre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed.

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline (s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B5E2111										
Blank (B5E2111-BLK1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Chloride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Sulfate	< 1.0	1.0	mg/L							
LCS (B5E2111-BS1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Chloride	16.3	0.10	mg/L	16.0		102	90-110			
Nitrate (as N)	4.15	0.010	mg/L	4.00		104	90-110			
Sulfate	16.3	1.0	mg/L	16.0		102	90-110			
Dissolved Metals, Batch B5E2309										
Blank (B5E2309-BLK1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5E2309, Continued										
Blank (B5E2309-BLK1), Continued				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B5E2309-BS1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Aluminum, dissolved	4.16	0.0050	mg/L	4.00		104	80-120			
Antimony, dissolved	0.0409	0.00020	mg/L	0.0400		102	80-120			
Arsenic, dissolved	0.406	0.00050	mg/L	0.400		101	80-120			
Barium, dissolved	0.0419	0.0050	mg/L	0.0400		105	80-120			
Beryllium, dissolved	0.0430	0.00010	mg/L	0.0400		108	80-120			
Bismuth, dissolved	0.0415	0.00010	mg/L	0.0400		104	80-120			
Boron, dissolved	0.435	0.0500	mg/L	0.400		109	80-120			
Cadmium, dissolved	0.0406	0.000010	mg/L	0.0400		102	80-120			
Calcium, dissolved	4.15	0.20	mg/L	4.00		104	80-120			
Chromium, dissolved	0.0400	0.00050	mg/L	0.0400		100	80-120			
Cobalt, dissolved	0.0407	0.00010	mg/L	0.0400		102	80-120			
Copper, dissolved	0.0398	0.00040	mg/L	0.0400		100	80-120			
Iron, dissolved	4.05	0.010	mg/L	4.00		101	80-120			
Lead, dissolved	0.0410	0.00020	mg/L	0.0400		103	80-120			
Lithium, dissolved	0.0444	0.00010	mg/L	0.0400		111	80-120			
Magnesium, dissolved	4.11	0.010	mg/L	4.00		103	80-120			
Manganese, dissolved	0.0402	0.00020	mg/L	0.0400		100	80-120			
Molybdenum, dissolved	0.0411	0.00010	mg/L	0.0400		103	80-120			
Nickel, dissolved	0.0412	0.00040	mg/L	0.0400		103	80-120			
Phosphorus, dissolved	4.15	0.050	mg/L	4.00		104	80-120			
Potassium, dissolved	4.01	0.10	mg/L	4.00		100	80-120			
Selenium, dissolved	0.401	0.00050	mg/L	0.400		100	80-120			
Silicon, dissolved	4.3	1.0	mg/L	4.00		107	80-120			
Silver, dissolved	0.0398	0.000050	mg/L	0.0400		99	80-120			
Sodium, dissolved	4.08	0.10	mg/L	4.00		102	80-120			
Strontium, dissolved	0.0409	0.0010	mg/L	0.0400		102	80-120			
Sulfur, dissolved	42.2	3.0	mg/L	40.0		105	80-120			
Tellurium, dissolved	0.0406	0.00050	mg/L	0.0400		101	80-120			
Thallium, dissolved	0.0421	0.000020	mg/L	0.0400		105	80-120			
Thorium, dissolved	0.0421	0.00010	mg/L	0.0400		105	80-120			
Tin, dissolved	0.0403	0.00020	mg/L	0.0400		101	80-120			
Titanium, dissolved	0.0408	0.0050	mg/L	0.0400		102	80-120			
Tungsten, dissolved	0.0406	0.0010	mg/L	0.0400		101	80-120			
Uranium, dissolved	0.0417	0.000020	mg/L	0.0400		104	80-120			
Vanadium, dissolved	0.0394	0.0050	mg/L	0.0400		98	80-120			
Zinc, dissolved	0.407	0.0040	mg/L	0.400		102	80-120			
Zirconium, dissolved	0.0415	0.00010	mg/L	0.0400		104	80-120			
Matrix Spike (B5E2309-MS1)		**Source: 25E0628-06**		Prepared: 2025-05-07, Analyzed: 2025-05-07						
Aluminum, dissolved	4.19	0.0050	mg/L	4.00	0.0055	105	70-130			
Antimony, dissolved	0.0431	0.00020	mg/L	0.0400	< 0.00020	108	70-130			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5E2309, Continued										
Matrix Spike (B5E2309-MS1), Continued	**Source: 25E0628-06**			Prepared: 2025-05-07, Analyzed: 2025-05-07						
Arsenic, dissolved	0.428	0.00050	mg/L	0.400	< 0.00050	107	70-130			
Barium, dissolved	0.0509	0.0050	mg/L	0.0400	0.0078	108	70-130			
Beryllium, dissolved	0.0431	0.00010	mg/L	0.0400	< 0.00010	108	70-130			
Bismuth, dissolved	0.0368	0.00010	mg/L	0.0400	< 0.00010	92	70-130			
Boron, dissolved	0.436	0.0500	mg/L	0.400	< 0.0500	105	70-130			
Cadmium, dissolved	0.0411	0.000010	mg/L	0.0400	< 0.000010	103	70-130			
Calcium, dissolved	148	0.20	mg/L	4.00	150	NR	70-130			MS2
Chromium, dissolved	0.0397	0.00050	mg/L	0.0400	< 0.00050	99	70-130			
Cobalt, dissolved	0.0378	0.00010	mg/L	0.0400	< 0.00010	94	70-130			
Copper, dissolved	0.0404	0.00040	mg/L	0.0400	0.00402	91	70-130			
Iron, dissolved	3.97	0.010	mg/L	4.00	< 0.010	99	70-130			
Lead, dissolved	0.0427	0.00020	mg/L	0.0400	< 0.00020	107	70-130			
Lithium, dissolved	0.0901	0.00010	mg/L	0.0400	0.0462	110	70-130			
Magnesium, dissolved	107	0.010	mg/L	4.00	105	42	70-130			MS2
Manganese, dissolved	0.0412	0.00020	mg/L	0.0400	0.00128	100	70-130			
Molybdenum, dissolved	0.0421	0.00010	mg/L	0.0400	0.00050	104	70-130			
Nickel, dissolved	0.0384	0.00040	mg/L	0.0400	0.00040	95	70-130			
Phosphorus, dissolved	4.46	0.050	mg/L	4.00	< 0.050	111	70-130			
Potassium, dissolved	4.74	0.10	mg/L	4.00	0.50	106	70-130			
Selenium, dissolved	0.439	0.00050	mg/L	0.400	< 0.00050	110	70-130			
Silicon, dissolved	10.7	1.0	mg/L	4.00	6.9	94	70-130			
Silver, dissolved	0.0364	0.000050	mg/L	0.0400	< 0.000050	91	70-130			
Sodium, dissolved	49.8	0.10	mg/L	4.00	46.9	72	70-130			
Strontium, dissolved	2.16	0.0010	mg/L	0.0400	2.17	NR	70-130			MS2
Sulfur, dissolved	51.0	3.0	mg/L	40.0	7.4	109	70-130			
Tellurium, dissolved	0.0440	0.00050	mg/L	0.0400	< 0.00050	110	70-130			
Thallium, dissolved	0.0437	0.000020	mg/L	0.0400	< 0.000020	109	70-130			
Thorium, dissolved	0.0454	0.00010	mg/L	0.0400	< 0.00010	114	70-130			
Tin, dissolved	0.0421	0.00020	mg/L	0.0400	< 0.00020	105	70-130			
Titanium, dissolved	0.0405	0.0050	mg/L	0.0400	< 0.0050	101	70-130			
Tungsten, dissolved	0.0425	0.0010	mg/L	0.0400	< 0.0010	106	70-130			
Uranium, dissolved	0.0542	0.000020	mg/L	0.0400	0.00917	113	70-130			
Vanadium, dissolved	0.0407	0.0050	mg/L	0.0400	< 0.0050	101	70-130			
Zinc, dissolved	0.386	0.0040	mg/L	0.400	< 0.0040	96	70-130			
Zirconium, dissolved	0.0436	0.00010	mg/L	0.0400	0.00018	109	70-130			
Dissolved Metals, Batch B5E2369										
Blank (B5E2369-BLK1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B5E2369-BLK2)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
LCS (B5E2369-BS1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Mercury, dissolved	0.00245	0.000010	mg/L	0.00250		98	80-120			
LCS (B5E2369-BS2)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Mercury, dissolved	0.00242	0.000010	mg/L	0.00250		97	80-120			
Dissolved Metals, Batch B5E2441										
Blank (B5E2441-BLK1)				Prepared: 2025-05-08, Analyzed: 2025-05-08						
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5E2441, Continued										
Blank (B5E2441-BLK1), Continued				Prepared: 2025-05-08, Analyzed: 2025-05-08						
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B5E2441-BS1)				Prepared: 2025-05-08, Analyzed: 2025-05-08						
Aluminum, dissolved	4.10	0.0050	mg/L	4.00		102	80-120			
Antimony, dissolved	0.0402	0.00020	mg/L	0.0400		100	80-120			
Arsenic, dissolved	0.402	0.00050	mg/L	0.400		101	80-120			
Barium, dissolved	0.0410	0.0050	mg/L	0.0400		102	80-120			
Beryllium, dissolved	0.0403	0.00010	mg/L	0.0400		101	80-120			
Bismuth, dissolved	0.0408	0.00010	mg/L	0.0400		102	80-120			
Boron, dissolved	0.409	0.0500	mg/L	0.400		102	80-120			
Cadmium, dissolved	0.0403	0.000010	mg/L	0.0400		101	80-120			
Calcium, dissolved	4.11	0.20	mg/L	4.00		103	80-120			
Chromium, dissolved	0.0404	0.00050	mg/L	0.0400		101	80-120			
Cobalt, dissolved	0.0402	0.00010	mg/L	0.0400		100	80-120			
Copper, dissolved	0.0399	0.00040	mg/L	0.0400		100	80-120			
Iron, dissolved	4.11	0.010	mg/L	4.00		103	80-120			
Lead, dissolved	0.0412	0.00020	mg/L	0.0400		103	80-120			
Lithium, dissolved	0.0407	0.00010	mg/L	0.0400		102	80-120			
Magnesium, dissolved	4.03	0.010	mg/L	4.00		101	80-120			
Manganese, dissolved	0.0411	0.00020	mg/L	0.0400		103	80-120			
Molybdenum, dissolved	0.0408	0.00010	mg/L	0.0400		102	80-120			
Nickel, dissolved	0.0407	0.00040	mg/L	0.0400		102	80-120			
Phosphorus, dissolved	4.10	0.050	mg/L	4.00		103	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5E2441, Continued										
LCS (B5E2441-BS1), Continued				Prepared: 2025-05-08, Analyzed: 2025-05-08						
Potassium, dissolved	3.99	0.10	mg/L	4.00		100	80-120			
Selenium, dissolved	0.395	0.00050	mg/L	0.400		99	80-120			
Silicon, dissolved	4.1	1.0	mg/L	4.00		101	80-120			
Silver, dissolved	0.0397	0.000050	mg/L	0.0400		99	80-120			
Sodium, dissolved	4.07	0.10	mg/L	4.00		102	80-120			
Strontium, dissolved	0.0406	0.0010	mg/L	0.0400		101	80-120			
Sulfur, dissolved	40.9	3.0	mg/L	40.0		102	80-120			
Tellurium, dissolved	0.0388	0.00050	mg/L	0.0400		97	80-120			
Thallium, dissolved	0.0408	0.000020	mg/L	0.0400		102	80-120			
Thorium, dissolved	0.0414	0.00010	mg/L	0.0400		103	80-120			
Tin, dissolved	0.0407	0.00020	mg/L	0.0400		102	80-120			
Titanium, dissolved	0.0404	0.0050	mg/L	0.0400		101	80-120			
Tungsten, dissolved	0.0410	0.0010	mg/L	0.0400		102	80-120			
Uranium, dissolved	0.0415	0.000020	mg/L	0.0400		104	80-120			
Vanadium, dissolved	0.0407	0.0050	mg/L	0.0400		102	80-120			
Zinc, dissolved	0.402	0.0040	mg/L	0.400		101	80-120			
Zirconium, dissolved	0.0399	0.00010	mg/L	0.0400		100	80-120			
Duplicate (B5E2441-DUP1)		**Source: 25E0628-03**		Prepared: 2025-05-08, Analyzed: 2025-05-08						
Aluminum, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Antimony, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Arsenic, dissolved	0.00129	0.00050	mg/L		0.00131				20	
Barium, dissolved	0.0101	0.0050	mg/L		0.0104				20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Boron, dissolved	0.0623	0.0500	mg/L		0.0624				20	
Cadmium, dissolved	0.000016	0.000010	mg/L		0.000015				20	
Calcium, dissolved	93.7	0.20	mg/L		95.1			2	20	
Chromium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Cobalt, dissolved	0.00012	0.00010	mg/L		0.00011				20	
Copper, dissolved	0.00073	0.00040	mg/L		0.00072				20	
Iron, dissolved	< 0.010	0.010	mg/L		< 0.010				20	
Lead, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Lithium, dissolved	0.0166	0.00010	mg/L		0.0165			< 1	20	
Magnesium, dissolved	30.5	0.010	mg/L		30.8			< 1	20	
Manganese, dissolved	0.00043	0.00020	mg/L		0.00043				20	
Molybdenum, dissolved	0.00414	0.00010	mg/L		0.00412			< 1	20	
Nickel, dissolved	0.00098	0.00040	mg/L		0.00105				20	
Phosphorus, dissolved	< 0.050	0.050	mg/L		0.050				20	
Potassium, dissolved	3.71	0.10	mg/L		3.76			1	20	
Selenium, dissolved	< 0.00050	0.00050	mg/L		0.00050				20	
Silicon, dissolved	11.9	1.0	mg/L		12.0			< 1	20	
Silver, dissolved	< 0.000050	0.000050	mg/L		< 0.000050				20	
Sodium, dissolved	47.8	0.10	mg/L		48.4			1	20	
Strontium, dissolved	0.622	0.0010	mg/L		0.624			< 1	20	
Sulfur, dissolved	10.5	3.0	mg/L		10.3				20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Thallium, dissolved	< 0.000020	0.000020	mg/L		< 0.000020				20	
Thorium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Tin, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Titanium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L		< 0.0010				20	
Uranium, dissolved	0.00641	0.000020	mg/L		0.00647			1	20	
Vanadium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Zinc, dissolved	< 0.0040	0.0040	mg/L		< 0.0040				20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B5E2247										
Blank (B5E2247-BLK1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	2.0	1.0	µS/cm							BLK
Blank (B5E2247-BLK2)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	2.0	1.0	µS/cm							BLK
LCS (B5E2247-BS1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Alkalinity, Total (as CaCO3)	94.7	1.0	mg/L	100		95	80-120			
LCS (B5E2247-BS2)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Conductivity (EC)	1430	1.0	µS/cm	1410		101	95-105			
LCS (B5E2247-BS3)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Alkalinity, Total (as CaCO3)	94.1	1.0	mg/L	100		94	80-120			
LCS (B5E2247-BS4)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Conductivity (EC)	1440	1.0	µS/cm	1410		102	95-105			
Reference (B5E2247-SRM1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
pH	7.02	0.10	pH units	7.01		100	98-102			
Reference (B5E2247-SRM2)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
pH	7.01	0.10	pH units	7.01		100	98-102			
General Parameters, Batch B5E2291										
Blank (B5E2291-BLK1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Ammonia, Total (as N)	< 0.050	0.050	mg/L							
Blank (B5E2291-BLK2)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Ammonia, Total (as N)	< 0.050	0.050	mg/L							
Blank (B5E2291-BLK3)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Ammonia, Total (as N)	< 0.050	0.050	mg/L							
LCS (B5E2291-BS1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Ammonia, Total (as N)	0.985	0.050	mg/L	1.00		98	85-115			
LCS (B5E2291-BS2)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Ammonia, Total (as N)	1.02	0.050	mg/L	1.00		102	85-115			
LCS (B5E2291-BS3)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Ammonia, Total (as N)	1.01	0.050	mg/L	1.00		101	85-115			
Duplicate (B5E2291-DUP1)		**Source: 25E0628-02**		Prepared: 2025-05-07, Analyzed: 2025-05-07						
Ammonia, Total (as N)	0.364	0.050	mg/L		0.369			1	15	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25E0628
PROJECT	Westside Landfill	**REPORTED**	2025-05-13 14:39

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B5E2291, Continued										
Matrix Spike (B5E2291-MS1)	**Source: 25E0628-02**			Prepared: 2025-05-07, Analyzed: 2025-05-07						
Ammonia, Total (as N)	0.571	0.050	mg/L	0.204	0.369	99	75-125			
General Parameters, Batch B5E2826										
Blank (B5E2826-BLK1)				Prepared: 2025-05-13, Analyzed: 2025-05-13						
Solids, Total Dissolved	< 15	15	mg/L							
LCS (B5E2826-BS1)				Prepared: 2025-05-13, Analyzed: 2025-05-13						
Solids, Total Dissolved	250	15	mg/L	240		104	85-115			
Duplicate (B5E2826-DUP1)	**Source: 25E0628-02**			Prepared: 2025-05-13, Analyzed: 2025-05-13						
Solids, Total Dissolved	1700	15	mg/L		1480			14	15	
Total Metals, Batch B5E2322										
Blank (B5E2322-BLK1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Calcium, total	< 0.20	0.20	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
LCS (B5E2322-BS1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Calcium, total	4.16	0.20	mg/L	4.00		104	80-120			
Magnesium, total	3.85	0.010	mg/L	4.00		96	80-120			
Total Metals, Batch B5E2419										
Blank (B5E2419-BLK1)				Prepared: 2025-05-07, Analyzed: 2025-05-07						
Calcium, total	< 0.20	0.20	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
LCS (B5E2419-BS1)				Prepared: 2025-05-07, Analyzed: 2025-05-08						
Calcium, total	4.15	0.20	mg/L	4.00		104	80-120			
Magnesium, total	3.86	0.010	mg/L	4.00		96	80-120			

QC Qualifiers:

BLK	Analyte concentration in the Method Blank is above the Reporting Limit (RL).
MS2	The native sample concentration is greater than the spike concentration hence the matrix spike limits do not apply.

CERTIFICATE OF ANALYSIS

REPORTED TO	Regional District of Central Okanagan 1450 KLO Road KELOWNA, BC V1W 3Z4		
ATTENTION	Angela Lambrecht	**WORK ORDER**	25K0413
PO NUMBER	60050 Landfill	**RECEIVED / TEMP**	2025-11-04 14:57 / 12.0°C
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53
PROJECT INFO	041440062	**COC NUMBER**	45926.40449

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at hhannaoui@caro.ca

Authorized By:

Hanane El Hannaoui
Junior Account Manager

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BHA (25K0413-01) | Matrix: Water | Sampled: 2025-11-04 09:50					
Anions					
Chloride	**292**	0.10	mg/L	2025-11-06	
Nitrate (as N)	**0.299**	0.010	mg/L	2025-11-06	
Sulfate	**70.2**	1.0	mg/L	2025-11-06	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**942**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2025-11-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-11-07	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2025-11-07	
Barium, dissolved	**0.0397**	0.0050	mg/L	2025-11-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-11-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-11-07	
Boron, dissolved	**0.516**	0.0500	mg/L	2025-11-07	
Cadmium, dissolved	**0.000084**	0.000010	mg/L	2025-11-07	
Calcium, dissolved	**180**	0.20	mg/L	2025-11-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-11-07	
Cobalt, dissolved	**0.00121**	0.00010	mg/L	2025-11-07	
Copper, dissolved	**0.00154**	0.00040	mg/L	2025-11-07	
Iron, dissolved	< 0.010	0.010	mg/L	2025-11-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-11-07	
Lithium, dissolved	**0.0366**	0.00010	mg/L	2025-11-07	
Magnesium, dissolved	**120**	0.010	mg/L	2025-11-07	
Manganese, dissolved	**0.516**	0.00020	mg/L	2025-11-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-11-12	
Molybdenum, dissolved	**0.00690**	0.00010	mg/L	2025-11-07	
Nickel, dissolved	**0.0163**	0.00040	mg/L	2025-11-07	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2025-11-07	
Potassium, dissolved	**5.80**	0.10	mg/L	2025-11-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2025-11-07	
Silicon, dissolved	**12.8**	1.0	mg/L	2025-11-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-11-07	
Sodium, dissolved	**99.7**	0.10	mg/L	2025-11-07	
Strontium, dissolved	**2.15**	0.0010	mg/L	2025-11-07	
Sulfur, dissolved	**23.9**	3.0	mg/L	2025-11-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-11-07	
Thallium, dissolved	**0.000024**	0.000020	mg/L	2025-11-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-11-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-11-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-11-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-11-07	
Uranium, dissolved	**0.0268**	0.000020	mg/L	2025-11-07	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2025-11-07	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BHA (25K0413-01) | Matrix: Water | Sampled: 2025-11-04 09:50, Continued					
Dissolved Metals, Continued					
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-11-07	
Zirconium, dissolved	**0.00042**	0.00010	mg/L	2025-11-07	
General Parameters					
Alkalinity, Total (as CaCO3)	**668**	1.0	mg/L	2025-11-06	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Bicarbonate (as CaCO3)	**668**	1.0	mg/L	2025-11-06	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-11-08	
Conductivity (EC)	**2060**	2.0	µS/cm	2025-11-06	
pH	**7.72**	0.10	pH units	2025-11-06	HT2
Solids, Total Dissolved	**1150**	15	mg/L	2025-11-08	
BH-1 (25K0413-02) | Matrix: Water | Sampled: 2025-11-04 11:02					
Anions					
Chloride	**343**	0.10	mg/L	2025-11-06	
Nitrate (as N)	< 0.010	0.010	mg/L	2025-11-06	
Sulfate	**26.0**	1.0	mg/L	2025-11-06	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2025-11-07	
EPHw19-32	< 250	250	µg/L	2025-11-07	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*70*	*60-140*	%	*2025-11-07*	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**1070**	1.00	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0100	0.0050	mg/L	2025-11-07	RS1
Antimony, dissolved	< 0.00040	0.00020	mg/L	2025-11-07	RS1
Arsenic, dissolved	**0.00674**	0.00050	mg/L	2025-11-07	RS1
Barium, dissolved	**0.0653**	0.0050	mg/L	2025-11-07	RS1
Beryllium, dissolved	< 0.00020	0.00010	mg/L	2025-11-07	RS1
Bismuth, dissolved	< 0.00020	0.00010	mg/L	2025-11-07	RS1
Boron, dissolved	**1.54**	0.0500	mg/L	2025-11-07	RS1
Cadmium, dissolved	< 0.000020	0.000010	mg/L	2025-11-07	RS1
Calcium, dissolved	**265**	0.20	mg/L	2025-11-07	RS1
Chromium, dissolved	< 0.00100	0.00050	mg/L	2025-11-07	RS1
Cobalt, dissolved	**0.00218**	0.00010	mg/L	2025-11-07	RS1
Copper, dissolved	< 0.00080	0.00040	mg/L	2025-11-07	RS1

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BH-1 (25K0413-02) | Matrix: Water | Sampled: 2025-11-04 11:02, Continued					
Dissolved Metals, Continued					
Iron, dissolved	**11.4**	0.010	mg/L	2025-11-07	RS1
Lead, dissolved	< 0.00040	0.00020	mg/L	2025-11-07	RS1
Lithium, dissolved	**0.0240**	0.00010	mg/L	2025-11-07	RS1
Magnesium, dissolved	**98.6**	0.010	mg/L	2025-11-07	RS1
Manganese, dissolved	**6.87**	0.00020	mg/L	2025-11-07	RS1
Molybdenum, dissolved	**0.00147**	0.00010	mg/L	2025-11-07	RS1
Nickel, dissolved	**0.0150**	0.00040	mg/L	2025-11-07	RS1
Phosphorus, dissolved	**0.361**	0.050	mg/L	2025-11-07	RS1
Potassium, dissolved	**7.70**	0.10	mg/L	2025-11-07	RS1
Selenium, dissolved	< 0.00100	0.00050	mg/L	2025-11-07	RS1
Silicon, dissolved	**21.2**	1.0	mg/L	2025-11-07	RS1
Silver, dissolved	< 0.000100	0.000050	mg/L	2025-11-07	RS1
Sodium, dissolved	**122**	0.10	mg/L	2025-11-07	RS1
Strontium, dissolved	**2.32**	0.0010	mg/L	2025-11-07	RS1
Sulfur, dissolved	**10.8**	3.0	mg/L	2025-11-07	RS1
Tellurium, dissolved	< 0.00100	0.00050	mg/L	2025-11-07	RS1
Thallium, dissolved	< 0.000040	0.000020	mg/L	2025-11-07	RS1
Thorium, dissolved	< 0.00020	0.00010	mg/L	2025-11-07	RS1
Tin, dissolved	< 0.00040	0.00020	mg/L	2025-11-07	RS1
Titanium, dissolved	< 0.0100	0.0050	mg/L	2025-11-07	RS1
Tungsten, dissolved	< 0.0020	0.0010	mg/L	2025-11-07	RS1
Uranium, dissolved	**0.00102**	0.000020	mg/L	2025-11-07	RS1
Vanadium, dissolved	< 0.0100	0.0050	mg/L	2025-11-07	RS1
Zinc, dissolved	< 0.0080	0.0040	mg/L	2025-11-07	RS1
Zirconium, dissolved	**0.00151**	0.00010	mg/L	2025-11-07	RS1
General Parameters					
Alkalinity, Total (as CaCO3)	**869**	1.0	mg/L	2025-11-06	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Bicarbonate (as CaCO3)	**869**	1.0	mg/L	2025-11-06	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Ammonia, Total (as N)	**1.38**	0.050	mg/L	2025-11-08	
BOD, 5-day	< 8.0	8.0	mg/L	2025-11-12	
Chemical Oxygen Demand	**122**	20	mg/L	2025-11-07	
Conductivity (EC)	**2480**	2.0	µS/cm	2025-11-06	
pH	**7.31**	0.10	pH units	2025-11-06	HT2
Solids, Total Dissolved	**1400**	15	mg/L	2025-11-11	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2025-11-10	
Acenaphthylene	< 0.200	0.200	µg/L	2025-11-10	
Acridine	< 0.050	0.050	µg/L	2025-11-10	
Anthracene	< 0.010	0.010	µg/L	2025-11-10	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BH-1 (25K0413-02) | Matrix: Water | Sampled: 2025-11-04 11:02, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Benz(a)anthracene	< 0.010	0.010	µg/L	2025-11-10	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2025-11-10	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2025-11-10	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2025-11-10	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2025-11-10	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2025-11-10	
Chrysene	< 0.050	0.050	µg/L	2025-11-10	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2025-11-10	
Fluoranthene	< 0.030	0.030	µg/L	2025-11-10	
Fluorene	< 0.050	0.050	µg/L	2025-11-10	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2025-11-10	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2025-11-10	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2025-11-10	
Naphthalene	< 0.200	0.200	µg/L	2025-11-10	
Phenanthrene	< 0.100	0.100	µg/L	2025-11-10	
Pyrene	< 0.020	0.020	µg/L	2025-11-10	
Quinoline	< 0.050	0.050	µg/L	2025-11-10	
Surrogate: Acridine-d9	*100*	*50-140*	%	*2025-11-10*	
Surrogate: Naphthalene-d8	*86*	*50-140*	%	*2025-11-10*	
Surrogate: Perylene-d12	*104*	*50-140*	%	*2025-11-10*	
Volatile Organic Compounds (VOC)					
Benzene	< 0.5	0.5	µg/L	2025-11-07	
Bromodichloromethane	< 1.0	1.0	µg/L	2025-11-07	
Bromoform	< 1.0	1.0	µg/L	2025-11-07	
Carbon tetrachloride	< 0.5	0.5	µg/L	2025-11-07	
Chlorobenzene	< 1.0	1.0	µg/L	2025-11-07	
Chloroethane	< 2.0	2.0	µg/L	2025-11-07	
Chloroform	< 1.0	1.0	µg/L	2025-11-07	
Dibromochloromethane	< 1.0	1.0	µg/L	2025-11-07	
1,2-Dibromoethane	< 0.3	0.3	µg/L	2025-11-07	
Dibromomethane	< 1.0	1.0	µg/L	2025-11-07	
1,2-Dichlorobenzene	< 0.5	0.5	µg/L	2025-11-07	
1,3-Dichlorobenzene	< 1.0	1.0	µg/L	2025-11-07	
1,4-Dichlorobenzene	< 1.0	1.0	µg/L	2025-11-07	
1,1-Dichloroethane	< 1.0	1.0	µg/L	2025-11-07	
1,2-Dichloroethane	< 1.0	1.0	µg/L	2025-11-07	
1,1-Dichloroethylene	< 1.0	1.0	µg/L	2025-11-07	
cis-1,2-Dichloroethylene	< 1.0	1.0	µg/L	2025-11-07	
trans-1,2-Dichloroethylene	< 1.0	1.0	µg/L	2025-11-07	
Dichloromethane	< 3.0	3.0	µg/L	2025-11-07	
1,2-Dichloropropane	< 1.0	1.0	µg/L	2025-11-07	
1,3-Dichloropropene (cis + trans)	< 1.0	1.0	µg/L	2025-11-07	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BH-1 (25K0413-02) | Matrix: Water | Sampled: 2025-11-04 11:02, Continued					
Volatile Organic Compounds (VOC), Continued					
Ethylbenzene	< 1.0	1.0	µg/L	2025-11-07	
Methyl tert-butyl ether	< 1.0	1.0	µg/L	2025-11-07	RA1
Styrene	< 1.0	1.0	µg/L	2025-11-07	
1,1,2,2-Tetrachloroethane	< 0.5	0.5	µg/L	2025-11-07	
Tetrachloroethylene	< 1.0	1.0	µg/L	2025-11-07	
Toluene	< 1.0	1.0	µg/L	2025-11-07	
1,1,1-Trichloroethane	< 1.0	1.0	µg/L	2025-11-07	
1,1,2-Trichloroethane	< 1.0	1.0	µg/L	2025-11-07	
Trichloroethylene	< 1.0	1.0	µg/L	2025-11-07	
Trichlorofluoromethane	< 1.0	1.0	µg/L	2025-11-07	
Vinyl chloride	< 1.0	1.0	µg/L	2025-11-07	
Xylenes (total)	< 2.0	2.0	µg/L	2025-11-07	
Surrogate: Toluene-d8	*110*	*70-130*	%	*2025-11-07*	
Surrogate: 4-Bromofluorobenzene	*79*	*70-130*	%	*2025-11-07*	
Surrogate: 1,4-Dichlorobenzene-d4	*95*	*70-130*	%	*2025-11-07*	
BH2 (25K0413-03) | Matrix: Water | Sampled: 2025-11-04 10:35					
Anions					
Chloride	**76.0**	0.10	mg/L	2025-11-06	
Nitrate (as N)	< 0.010	0.010	mg/L	2025-11-06	
Sulfate	**72.3**	1.0	mg/L	2025-11-06	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**1030**	1.00	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0100	0.0050	mg/L	2025-11-10	RS1
Antimony, dissolved	< 0.00040	0.00020	mg/L	2025-11-10	RS1
Arsenic, dissolved	**0.00855**	0.00050	mg/L	2025-11-10	RS1
Barium, dissolved	< 0.0100	0.0050	mg/L	2025-11-10	RS1
Beryllium, dissolved	< 0.00020	0.00010	mg/L	2025-11-10	RS1
Bismuth, dissolved	< 0.00020	0.00010	mg/L	2025-11-10	RS1
Boron, dissolved	**0.238**	0.0500	mg/L	2025-11-10	RS1
Cadmium, dissolved	< 0.000020	0.000010	mg/L	2025-11-10	RS1
Calcium, dissolved	**222**	0.20	mg/L	2025-11-10	RS1
Chromium, dissolved	< 0.00100	0.00050	mg/L	2025-11-10	RS1
Cobalt, dissolved	**0.00097**	0.00010	mg/L	2025-11-10	RS1
Copper, dissolved	< 0.00080	0.00040	mg/L	2025-11-10	RS1
Iron, dissolved	**1.55**	0.010	mg/L	2025-11-10	RS1
Lead, dissolved	< 0.00040	0.00020	mg/L	2025-11-10	RS1
Lithium, dissolved	**0.0190**	0.00010	mg/L	2025-11-10	RS1
Magnesium, dissolved	**115**	0.010	mg/L	2025-11-10	RS1

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BH2 (25K0413-03) | Matrix: Water | Sampled: 2025-11-04 10:35, Continued					
Dissolved Metals, Continued					
Manganese, dissolved	**5.22**	0.00020	mg/L	2025-11-10	RS1
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-11-12	
Molybdenum, dissolved	**0.00499**	0.00010	mg/L	2025-11-10	RS1
Nickel, dissolved	**0.00621**	0.00040	mg/L	2025-11-10	RS1
Phosphorus, dissolved	**0.132**	0.050	mg/L	2025-11-10	RS1
Potassium, dissolved	**2.21**	0.10	mg/L	2025-11-10	RS1
Selenium, dissolved	< 0.00100	0.00050	mg/L	2025-11-10	RS1
Silicon, dissolved	**24.8**	1.0	mg/L	2025-11-10	RS1
Silver, dissolved	< 0.000100	0.000050	mg/L	2025-11-10	RS1
Sodium, dissolved	**92.8**	0.10	mg/L	2025-11-10	RS1
Strontium, dissolved	**1.98**	0.0010	mg/L	2025-11-10	RS1
Sulfur, dissolved	**29.6**	3.0	mg/L	2025-11-10	RS1
Tellurium, dissolved	< 0.00100	0.00050	mg/L	2025-11-10	RS1
Thallium, dissolved	< 0.000040	0.000020	mg/L	2025-11-10	RS1
Thorium, dissolved	< 0.00020	0.00010	mg/L	2025-11-10	RS1
Tin, dissolved	< 0.00040	0.00020	mg/L	2025-11-10	RS1
Titanium, dissolved	< 0.0100	0.0050	mg/L	2025-11-10	RS1
Tungsten, dissolved	< 0.0020	0.0010	mg/L	2025-11-10	RS1
Uranium, dissolved	**0.00167**	0.000020	mg/L	2025-11-10	RS1
Vanadium, dissolved	< 0.0100	0.0050	mg/L	2025-11-10	RS1
Zinc, dissolved	< 0.0080	0.0040	mg/L	2025-11-10	RS1
Zirconium, dissolved	**0.00187**	0.00010	mg/L	2025-11-10	RS1
General Parameters					
Alkalinity, Total (as CaCO3)	**1100**	1.0	mg/L	2025-11-06	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Bicarbonate (as CaCO3)	**1100**	1.0	mg/L	2025-11-06	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Ammonia, Total (as N)	**0.419**	0.050	mg/L	2025-11-08	
Conductivity (EC)	**2080**	2.0	µS/cm	2025-11-06	
pH	**7.43**	0.10	pH units	2025-11-06	HT2
Solids, Total Dissolved	**1260**	15	mg/L	2025-11-11	
BH3 (25K0413-04) | Matrix: Water | Sampled: 2025-11-04 08:55					
Anions					
Chloride	**62.8**	0.10	mg/L	2025-11-06	
Nitrate (as N)	**2.70**	0.010	mg/L	2025-11-06	
Sulfate	**32.2**	1.0	mg/L	2025-11-06	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**366**	0.500	mg/L	N/A	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BH3 (25K0413-04) | Matrix: Water | Sampled: 2025-11-04 08:55, Continued					
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2025-11-10	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-11-10	
Arsenic, dissolved	**0.00126**	0.00050	mg/L	2025-11-10	
Barium, dissolved	**0.0100**	0.0050	mg/L	2025-11-10	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
Boron, dissolved	**0.0570**	0.0500	mg/L	2025-11-10	
Cadmium, dissolved	**0.000013**	0.000010	mg/L	2025-11-10	
Calcium, dissolved	**97.0**	0.20	mg/L	2025-11-10	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-11-10	
Cobalt, dissolved	**0.00011**	0.00010	mg/L	2025-11-10	
Copper, dissolved	**0.00079**	0.00040	mg/L	2025-11-10	
Iron, dissolved	< 0.010	0.010	mg/L	2025-11-10	
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-11-10	
Lithium, dissolved	**0.0142**	0.00010	mg/L	2025-11-10	
Magnesium, dissolved	**29.9**	0.010	mg/L	2025-11-10	
Manganese, dissolved	**0.00043**	0.00020	mg/L	2025-11-10	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-11-12	
Molybdenum, dissolved	**0.00387**	0.00010	mg/L	2025-11-10	
Nickel, dissolved	**0.00100**	0.00040	mg/L	2025-11-10	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2025-11-10	
Potassium, dissolved	**3.51**	0.10	mg/L	2025-11-10	
Selenium, dissolved	**0.00066**	0.00050	mg/L	2025-11-10	
Silicon, dissolved	**11.7**	1.0	mg/L	2025-11-10	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-11-10	
Sodium, dissolved	**43.2**	0.10	mg/L	2025-11-10	
Strontium, dissolved	**0.620**	0.0010	mg/L	2025-11-10	
Sulfur, dissolved	**9.6**	3.0	mg/L	2025-11-10	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-11-10	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2025-11-10	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-11-10	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-11-10	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-11-10	
Uranium, dissolved	**0.00624**	0.000020	mg/L	2025-11-10	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2025-11-10	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-11-10	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
General Parameters					
Alkalinity, Total (as CaCO3)	**377**	1.0	mg/L	2025-11-06	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Bicarbonate (as CaCO3)	**377**	1.0	mg/L	2025-11-06	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BH3 (25K0413-04) | Matrix: Water | Sampled: 2025-11-04 08:55, Continued					
General Parameters, Continued					
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-11-08	
Conductivity (EC)	**907**	2.0	µS/cm	2025-11-06	
pH	**7.54**	0.10	pH units	2025-11-06	HT2
Solids, Total Dissolved	**500**	15	mg/L	2025-11-11	
BH4 (25K0413-05) | Matrix: Water | Sampled: 2025-11-04 09:45					
Anions					
Chloride	**291**	0.10	mg/L	2025-11-06	
Nitrate (as N)	**0.307**	0.010	mg/L	2025-11-06	
Sulfate	**71.8**	1.0	mg/L	2025-11-06	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**896**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	**0.0886**	0.0050	mg/L	2025-11-10	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-11-10	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2025-11-10	
Barium, dissolved	**0.0453**	0.0050	mg/L	2025-11-10	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
Boron, dissolved	**0.450**	0.0500	mg/L	2025-11-10	
Cadmium, dissolved	**0.000072**	0.000010	mg/L	2025-11-10	
Calcium, dissolved	**176**	0.20	mg/L	2025-11-10	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-11-10	
Cobalt, dissolved	**0.00152**	0.00010	mg/L	2025-11-10	
Copper, dissolved	**0.00147**	0.00040	mg/L	2025-11-10	
Iron, dissolved	**0.064**	0.010	mg/L	2025-11-10	
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-11-10	
Lithium, dissolved	**0.0314**	0.00010	mg/L	2025-11-10	
Magnesium, dissolved	**110**	0.010	mg/L	2025-11-10	
Manganese, dissolved	**0.485**	0.00020	mg/L	2025-11-10	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-11-12	
Molybdenum, dissolved	**0.00461**	0.00010	mg/L	2025-11-10	
Nickel, dissolved	**0.0152**	0.00040	mg/L	2025-11-10	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2025-11-10	
Potassium, dissolved	**5.15**	0.10	mg/L	2025-11-10	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2025-11-10	
Silicon, dissolved	**11.4**	1.0	mg/L	2025-11-10	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-11-10	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BH4 (25K0413-05) | Matrix: Water | Sampled: 2025-11-04 09:45, Continued					
Dissolved Metals, Continued					
Sodium, dissolved	**88.9**	0.10	mg/L	2025-11-10	
Strontium, dissolved	**2.15**	0.0010	mg/L	2025-11-10	
Sulfur, dissolved	**24.7**	3.0	mg/L	2025-11-10	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-11-10	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2025-11-10	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-11-10	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-11-10	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-11-10	
Uranium, dissolved	**0.0256**	0.000020	mg/L	2025-11-10	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2025-11-10	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-11-10	
Zirconium, dissolved	**0.00052**	0.00010	mg/L	2025-11-10	
General Parameters					
Alkalinity, Total (as CaCO3)	**668**	1.0	mg/L	2025-11-06	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Bicarbonate (as CaCO3)	**668**	1.0	mg/L	2025-11-06	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-11-08	
Conductivity (EC)	**2060**	2.0	µS/cm	2025-11-06	
pH	**7.81**	0.10	pH units	2025-11-06	HT2
Solids, Total Dissolved	**1140**	15	mg/L	2025-11-11	
BH-5 (25K0413-06) | Matrix: Water | Sampled: 2025-11-04 09:25					
Anions					
Chloride	**100**	0.10	mg/L	2025-11-06	
Nitrate (as N)	**4.27**	0.010	mg/L	2025-11-06	
Sulfate	**26.8**	1.0	mg/L	2025-11-08	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**347**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	**0.0215**	0.0050	mg/L	2025-11-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-11-07	
Arsenic, dissolved	**0.00100**	0.00050	mg/L	2025-11-07	
Barium, dissolved	**0.0192**	0.0050	mg/L	2025-11-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-11-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-11-07	
Boron, dissolved	< 0.0500	0.0500	mg/L	2025-11-07	
Cadmium, dissolved	**0.000035**	0.000010	mg/L	2025-11-07	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BH-5 (25K0413-06) | Matrix: Water | Sampled: 2025-11-04 09:25, Continued					
Dissolved Metals, Continued					
Calcium, dissolved	**91.1**	0.20	mg/L	2025-11-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-11-07	
Cobalt, dissolved	**0.00013**	0.00010	mg/L	2025-11-07	
Copper, dissolved	**0.00078**	0.00040	mg/L	2025-11-07	
Iron, dissolved	**0.026**	0.010	mg/L	2025-11-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-11-07	
Lithium, dissolved	**0.0155**	0.00010	mg/L	2025-11-07	
Magnesium, dissolved	**28.8**	0.010	mg/L	2025-11-07	
Manganese, dissolved	**0.0247**	0.00020	mg/L	2025-11-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-11-12	
Molybdenum, dissolved	**0.00514**	0.00010	mg/L	2025-11-07	
Nickel, dissolved	**0.00091**	0.00040	mg/L	2025-11-07	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2025-11-07	
Potassium, dissolved	**2.66**	0.10	mg/L	2025-11-07	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2025-11-07	
Silicon, dissolved	**9.8**	1.0	mg/L	2025-11-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-11-07	
Sodium, dissolved	**43.9**	0.10	mg/L	2025-11-07	
Strontium, dissolved	**0.430**	0.0010	mg/L	2025-11-07	
Sulfur, dissolved	**10.4**	3.0	mg/L	2025-11-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-11-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2025-11-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-11-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-11-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-11-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-11-07	
Uranium, dissolved	**0.00507**	0.000020	mg/L	2025-11-07	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2025-11-07	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-11-07	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2025-11-07	
General Parameters					
Alkalinity, Total (as CaCO3)	**275**	1.0	mg/L	2025-11-06	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Bicarbonate (as CaCO3)	**275**	1.0	mg/L	2025-11-06	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Ammonia, Total (as N)	**0.119**	0.050	mg/L	2025-11-08	
Conductivity (EC)	**892**	2.0	µS/cm	2025-11-06	
pH	**7.70**	0.10	pH units	2025-11-06	HT2
Solids, Total Dissolved	**463**	15	mg/L	2025-11-11	
BH7 (25K0413-07) | Matrix: Water | Sampled: 2025-11-04 10:05					

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BH7 (25K0413-07) | Matrix: Water | Sampled: 2025-11-04 10:05, Continued					
Anions					
Chloride	**49.0**	0.10	mg/L	2025-11-06	
Nitrate (as N)	**4.79**	0.010	mg/L	2025-11-06	
Sulfate	**37.6**	1.0	mg/L	2025-11-06	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**444**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2025-11-07	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-11-07	
Arsenic, dissolved	**0.00211**	0.00050	mg/L	2025-11-07	
Barium, dissolved	**0.0178**	0.0050	mg/L	2025-11-07	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-11-07	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-11-07	
Boron, dissolved	< 0.0500	0.0500	mg/L	2025-11-07	
Cadmium, dissolved	**0.000016**	0.000010	mg/L	2025-11-07	
Calcium, dissolved	**110**	0.20	mg/L	2025-11-07	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-11-07	
Cobalt, dissolved	**0.00030**	0.00010	mg/L	2025-11-07	
Copper, dissolved	**0.00099**	0.00040	mg/L	2025-11-07	
Iron, dissolved	< 0.010	0.010	mg/L	2025-11-07	
Lead, dissolved	< 0.00020	0.00020	mg/L	2025-11-07	
Lithium, dissolved	**0.0161**	0.00010	mg/L	2025-11-07	
Magnesium, dissolved	**41.1**	0.010	mg/L	2025-11-07	
Manganese, dissolved	**0.00335**	0.00020	mg/L	2025-11-07	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-11-12	
Molybdenum, dissolved	**0.00151**	0.00010	mg/L	2025-11-07	
Nickel, dissolved	**0.00143**	0.00040	mg/L	2025-11-07	
Phosphorus, dissolved	**0.073**	0.050	mg/L	2025-11-07	
Potassium, dissolved	**2.29**	0.10	mg/L	2025-11-07	
Selenium, dissolved	**0.00130**	0.00050	mg/L	2025-11-07	
Silicon, dissolved	**12.9**	1.0	mg/L	2025-11-07	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-11-07	
Sodium, dissolved	**48.8**	0.10	mg/L	2025-11-07	
Strontium, dissolved	**0.626**	0.0010	mg/L	2025-11-07	
Sulfur, dissolved	**15.4**	3.0	mg/L	2025-11-07	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-11-07	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2025-11-07	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-11-07	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-11-07	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-11-07	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-11-07	
Uranium, dissolved	**0.00870**	0.000020	mg/L	2025-11-07	
Vanadium, dissolved	**0.0117**	0.0050	mg/L	2025-11-07	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
BH7 (25K0413-07) | Matrix: Water | Sampled: 2025-11-04 10:05, Continued					
Dissolved Metals, Continued					
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-11-07	
Zirconium, dissolved	**0.00012**	0.00010	mg/L	2025-11-07	
General Parameters					
Alkalinity, Total (as CaCO3)	**414**	1.0	mg/L	2025-11-06	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Bicarbonate (as CaCO3)	**414**	1.0	mg/L	2025-11-06	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-11-08	
Conductivity (EC)	**956**	2.0	µS/cm	2025-11-06	
pH	**7.73**	0.10	pH units	2025-11-06	HT2
Solids, Total Dissolved	**548**	15	mg/L	2025-11-11	
MW 99-2 (25K0413-08) | Matrix: Water | Sampled: 2025-11-04 11:25					
Anions					
Chloride	**217**	0.10	mg/L	2025-11-06	
Nitrate (as N)	**0.485**	0.010	mg/L	2025-11-06	
Sulfate	**25.6**	1.0	mg/L	2025-11-06	
Calculated Parameters					
Hardness, Dissolved (as CaCO3)	**850**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2025-11-10	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2025-11-10	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2025-11-10	
Barium, dissolved	**0.0089**	0.0050	mg/L	2025-11-10	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
Boron, dissolved	< 0.0500	0.0500	mg/L	2025-11-10	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2025-11-10	
Calcium, dissolved	**167**	0.20	mg/L	2025-11-10	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2025-11-10	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
Copper, dissolved	**0.00298**	0.00040	mg/L	2025-11-10	
Iron, dissolved	< 0.010	0.010	mg/L	2025-11-10	
Lead, dissolved	**0.00104**	0.00020	mg/L	2025-11-10	
Lithium, dissolved	**0.0408**	0.00010	mg/L	2025-11-10	
Magnesium, dissolved	**105**	0.010	mg/L	2025-11-10	
Manganese, dissolved	**0.00185**	0.00020	mg/L	2025-11-10	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2025-11-12	
Molybdenum, dissolved	**0.00026**	0.00010	mg/L	2025-11-10	

TEST RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Analyzed	Qualifier
MW 99-2 (25K0413-08) | Matrix: Water | Sampled: 2025-11-04 11:25, Continued					
Dissolved Metals, Continued					
Nickel, dissolved	< 0.00040	0.00040	mg/L	2025-11-10	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2025-11-10	
Potassium, dissolved	**0.46**	0.10	mg/L	2025-11-10	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2025-11-10	
Silicon, dissolved	**6.2**	1.0	mg/L	2025-11-10	
Silver, dissolved	< 0.000050	0.000050	mg/L	2025-11-10	
Sodium, dissolved	**43.8**	0.10	mg/L	2025-11-10	
Strontium, dissolved	**2.33**	0.0010	mg/L	2025-11-10	
Sulfur, dissolved	**9.2**	3.0	mg/L	2025-11-10	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2025-11-10	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2025-11-10	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2025-11-10	
Tin, dissolved	< 0.00020	0.00020	mg/L	2025-11-10	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2025-11-10	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2025-11-10	
Uranium, dissolved	**0.00835**	0.000020	mg/L	2025-11-10	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2025-11-10	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2025-11-10	
Zirconium, dissolved	**0.00021**	0.00010	mg/L	2025-11-10	
General Parameters					
Alkalinity, Total (as CaCO3)	**625**	1.0	mg/L	2025-11-06	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Bicarbonate (as CaCO3)	**625**	1.0	mg/L	2025-11-06	
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L	2025-11-06	
Ammonia, Total (as N)	< 0.050	0.050	mg/L	2025-11-08	
Conductivity (EC)	**1690**	2.0	µS/cm	2025-11-06	
pH	**7.89**	0.10	pH units	2025-11-06	HT2
Solids, Total Dissolved	**883**	15	mg/L	2025-11-11	

Sample Qualifiers:

HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
RA1	The Reporting Limit for this sample has been raised due to matrix interference.
RS1	The Reporting Limits for this sample have been raised due to high analyte concentration.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	Kelowna
Ammonia, Total in Water	SM 4500-NH3 G* (2021)	Automated Colorimetry (Phenate)	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Biochemical Oxygen Demand in Water	SM 5210 B (2019)	Dissolved Oxygen Meter	✓	Kelowna
Chemical Oxygen Demand in Water	SM 5220 D* (2022)	Closed Reflux, Colorimetry	✓	Kelowna
Conductivity in Water	SM 2510 B (2021)	Conductivity Meter	✓	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	✓	Richmond
Hardness in Water	SM 2340 B (2021)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
HEPHw in Water	BCMOE LEPH/HEPH	Calculation		N/A
LEPHw in Water	BCMOE LEPH/HEPH	Calculation		N/A
Mercury, dissolved in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MSD (SIM)	✓	Richmond
Solids, Total Dissolved in Water	Solids in Water, Filtered / SM 2540 C* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Volatile Organic Compounds in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/L	Milligrams per litre
pH units	pH < 7 = acidic, ph > 7 = basic
µg/L	Micrograms per litre
µS/cm	Microsiemens per centimetre
BCMOE	British Columbia Environmental Laboratory Manual, British Columbia Ministry of Environment
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed.

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: {@Email}

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B5K2287										
Blank (B5K2287-BLK1)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Chloride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Sulfate	< 1.0	1.0	mg/L							
Blank (B5K2287-BLK2)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Chloride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Sulfate	< 1.0	1.0	mg/L							
LCS (B5K2287-BS1)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Chloride	16.5	0.10	mg/L	16.0		103	90-110			
Nitrate (as N)	4.25	0.010	mg/L	4.00		106	90-110			
Sulfate	15.8	1.0	mg/L	16.0		99	90-110			
LCS (B5K2287-BS2)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Chloride	15.9	0.10	mg/L	16.0		100	90-110			
Nitrate (as N)	4.06	0.010	mg/L	4.00		101	90-110			
Sulfate	16.0	1.0	mg/L	16.0		100	90-110			
BCMOE Aggregate Hydrocarbons, Batch B5K2484										
Blank (B5K2484-BLK1)				Prepared: 2025-11-07, Analyzed: 2025-11-07						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*1800*		*µg/L*	2480		*73*	*60-140*			
LCS (B5K2484-BS2)				Prepared: 2025-11-07, Analyzed: 2025-11-07						
EPHw10-19	21500	250	µg/L	17400		124	70-130			
EPHw19-32	29300	250	µg/L	24800		118	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*1420*		*µg/L*	2480		*57*	*60-140*			*S09*
LCS Dup (B5K2484-BSD2)				Prepared: 2025-11-07, Analyzed: 2025-11-07						
EPHw10-19	21500	250	µg/L	17400		124	70-130	< 1	20	
EPHw19-32	29400	250	µg/L	24800		118	70-130	< 1	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*1340*		*µg/L*	2480		*54*	*60-140*			*S09*

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5K2407										
Blank (B5K2407-BLK1)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B5K2407-BS1)				Prepared: 2025-11-07, Analyzed: 2025-11-07						
Aluminum, dissolved	4.00	0.0050	mg/L	4.00		100	80-120			
Antimony, dissolved	0.0398	0.00020	mg/L	0.0400		100	80-120			
Arsenic, dissolved	0.395	0.00050	mg/L	0.400		99	80-120			
Barium, dissolved	0.0398	0.0050	mg/L	0.0400		100	80-120			
Beryllium, dissolved	0.0405	0.00010	mg/L	0.0400		101	80-120			
Bismuth, dissolved	0.0406	0.00010	mg/L	0.0400		102	80-120			
Boron, dissolved	0.401	0.0500	mg/L	0.400		100	80-120			
Cadmium, dissolved	0.0407	0.000010	mg/L	0.0400		102	80-120			
Calcium, dissolved	4.05	0.20	mg/L	4.00		101	80-120			
Chromium, dissolved	0.0398	0.00050	mg/L	0.0400		100	80-120			
Cobalt, dissolved	0.0398	0.00010	mg/L	0.0400		99	80-120			
Copper, dissolved	0.0393	0.00040	mg/L	0.0400		98	80-120			
Iron, dissolved	3.97	0.010	mg/L	4.00		99	80-120			
Lead, dissolved	0.0400	0.00020	mg/L	0.0400		100	80-120			
Lithium, dissolved	0.0402	0.00010	mg/L	0.0400		101	80-120			
Magnesium, dissolved	4.00	0.010	mg/L	4.00		100	80-120			
Manganese, dissolved	0.0400	0.00020	mg/L	0.0400		100	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5K2407, Continued										
LCS (B5K2407-BS1), Continued				Prepared: 2025-11-07, Analyzed: 2025-11-07						
Molybdenum, dissolved	0.0403	0.00010	mg/L	0.0400		101	80-120			
Nickel, dissolved	0.0397	0.00040	mg/L	0.0400		99	80-120			
Phosphorus, dissolved	3.92	0.050	mg/L	4.00		98	80-120			
Potassium, dissolved	4.02	0.10	mg/L	4.00		101	80-120			
Selenium, dissolved	0.401	0.00050	mg/L	0.400		100	80-120			
Silicon, dissolved	4.1	1.0	mg/L	4.00		102	80-120			
Silver, dissolved	0.0403	0.000050	mg/L	0.0400		101	80-120			
Sodium, dissolved	3.96	0.10	mg/L	4.00		99	80-120			
Strontium, dissolved	0.0399	0.0010	mg/L	0.0400		100	80-120			
Sulfur, dissolved	41.5	3.0	mg/L	40.0		104	80-120			
Tellurium, dissolved	0.0403	0.00050	mg/L	0.0400		101	80-120			
Thallium, dissolved	0.0400	0.000020	mg/L	0.0400		100	80-120			
Thorium, dissolved	0.0403	0.00010	mg/L	0.0400		101	80-120			
Tin, dissolved	0.0402	0.00020	mg/L	0.0400		101	80-120			
Titanium, dissolved	0.0391	0.0050	mg/L	0.0400		98	80-120			
Tungsten, dissolved	0.0401	0.0010	mg/L	0.0400		100	80-120			
Uranium, dissolved	0.0400	0.000020	mg/L	0.0400		100	80-120			
Vanadium, dissolved	0.0405	0.0050	mg/L	0.0400		101	80-120			
Zinc, dissolved	0.398	0.0040	mg/L	0.400		100	80-120			
Zirconium, dissolved	0.0405	0.00010	mg/L	0.0400		101	80-120			
Dissolved Metals, Batch B5K2422										
Blank (B5K2422-BLK1)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5K2422, Continued										
Blank (B5K2422-BLK1), Continued				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B5K2422-BS1)				Prepared: 2025-11-07, Analyzed: 2025-11-07						
Aluminum, dissolved	3.94	0.0050	mg/L	4.00		99	80-120			
Antimony, dissolved	0.0401	0.00020	mg/L	0.0400		100	80-120			
Arsenic, dissolved	0.390	0.00050	mg/L	0.400		98	80-120			
Barium, dissolved	0.0403	0.0050	mg/L	0.0400		101	80-120			
Beryllium, dissolved	0.0415	0.00010	mg/L	0.0400		104	80-120			
Bismuth, dissolved	0.0406	0.00010	mg/L	0.0400		101	80-120			
Boron, dissolved	0.408	0.0500	mg/L	0.400		102	80-120			
Cadmium, dissolved	0.0399	0.000010	mg/L	0.0400		100	80-120			
Calcium, dissolved	4.13	0.20	mg/L	4.00		103	80-120			
Chromium, dissolved	0.0396	0.00050	mg/L	0.0400		99	80-120			
Cobalt, dissolved	0.0393	0.00010	mg/L	0.0400		98	80-120			
Copper, dissolved	0.0396	0.00040	mg/L	0.0400		99	80-120			
Iron, dissolved	3.97	0.010	mg/L	4.00		99	80-120			
Lead, dissolved	0.0410	0.00020	mg/L	0.0400		103	80-120			
Lithium, dissolved	0.0420	0.00010	mg/L	0.0400		105	80-120			
Magnesium, dissolved	3.98	0.010	mg/L	4.00		99	80-120			
Manganese, dissolved	0.0397	0.00020	mg/L	0.0400		99	80-120			
Molybdenum, dissolved	0.0400	0.00010	mg/L	0.0400		100	80-120			
Nickel, dissolved	0.0401	0.00040	mg/L	0.0400		100	80-120			
Phosphorus, dissolved	3.90	0.050	mg/L	4.00		97	80-120			
Potassium, dissolved	4.05	0.10	mg/L	4.00		101	80-120			
Selenium, dissolved	0.407	0.00050	mg/L	0.400		102	80-120			
Silicon, dissolved	4.0	1.0	mg/L	4.00		101	80-120			
Silver, dissolved	0.0400	0.000050	mg/L	0.0400		100	80-120			
Sodium, dissolved	3.99	0.10	mg/L	4.00		100	80-120			
Strontium, dissolved	0.0401	0.0010	mg/L	0.0400		100	80-120			
Sulfur, dissolved	41.4	3.0	mg/L	40.0		103	80-120			
Tellurium, dissolved	0.0397	0.00050	mg/L	0.0400		99	80-120			
Thallium, dissolved	0.0417	0.000020	mg/L	0.0400		104	80-120			
Thorium, dissolved	0.0405	0.00010	mg/L	0.0400		101	80-120			
Tin, dissolved	0.0402	0.00020	mg/L	0.0400		100	80-120			
Titanium, dissolved	0.0390	0.0050	mg/L	0.0400		98	80-120			
Tungsten, dissolved	0.0407	0.0010	mg/L	0.0400		102	80-120			
Uranium, dissolved	0.0418	0.000020	mg/L	0.0400		105	80-120			
Vanadium, dissolved	0.0396	0.0050	mg/L	0.0400		99	80-120			
Zinc, dissolved	0.399	0.0040	mg/L	0.400		100	80-120			
Zirconium, dissolved	0.0400	0.00010	mg/L	0.0400		100	80-120			
Dissolved Metals, Batch B5K2663										
Blank (B5K2663-BLK1)				Prepared: 2025-11-09, Analyzed: 2025-11-09						
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5K2663, Continued										
Blank (B5K2663-BLK1), Continued				Prepared: 2025-11-09, Analyzed: 2025-11-09						
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B5K2663-BS1)				Prepared: 2025-11-10, Analyzed: 2025-11-10						
Aluminum, dissolved	4.05	0.0050	mg/L	4.00		101	80-120			
Antimony, dissolved	0.0397	0.00020	mg/L	0.0400		99	80-120			
Arsenic, dissolved	0.400	0.00050	mg/L	0.400		100	80-120			
Barium, dissolved	0.0410	0.0050	mg/L	0.0400		102	80-120			
Beryllium, dissolved	0.0411	0.00010	mg/L	0.0400		103	80-120			
Bismuth, dissolved	0.0398	0.00010	mg/L	0.0400		100	80-120			
Boron, dissolved	0.419	0.0500	mg/L	0.400		105	80-120			
Cadmium, dissolved	0.0406	0.000010	mg/L	0.0400		101	80-120			
Calcium, dissolved	4.08	0.20	mg/L	4.00		102	80-120			
Chromium, dissolved	0.0399	0.00050	mg/L	0.0400		100	80-120			
Cobalt, dissolved	0.0403	0.00010	mg/L	0.0400		101	80-120			
Copper, dissolved	0.0395	0.00040	mg/L	0.0400		99	80-120			
Iron, dissolved	3.95	0.010	mg/L	4.00		99	80-120			
Lead, dissolved	0.0403	0.00020	mg/L	0.0400		101	80-120			
Lithium, dissolved	0.0408	0.00010	mg/L	0.0400		102	80-120			
Magnesium, dissolved	4.00	0.010	mg/L	4.00		100	80-120			
Manganese, dissolved	0.0401	0.00020	mg/L	0.0400		100	80-120			
Molybdenum, dissolved	0.0396	0.00010	mg/L	0.0400		99	80-120			
Nickel, dissolved	0.0406	0.00040	mg/L	0.0400		101	80-120			
Phosphorus, dissolved	4.11	0.050	mg/L	4.00		103	80-120			
Potassium, dissolved	4.07	0.10	mg/L	4.00		102	80-120			
Selenium, dissolved	0.400	0.00050	mg/L	0.400		100	80-120			
Silicon, dissolved	4.1	1.0	mg/L	4.00		103	80-120			
Silver, dissolved	0.0402	0.000050	mg/L	0.0400		100	80-120			
Sodium, dissolved	3.93	0.10	mg/L	4.00		98	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5K2663, Continued										
LCS (B5K2663-BS1), Continued				Prepared: 2025-11-10, Analyzed: 2025-11-10						
Strontium, dissolved	0.0407	0.0010	mg/L	0.0400		102	80-120			
Sulfur, dissolved	42.8	3.0	mg/L	40.0		107	80-120			
Tellurium, dissolved	0.0385	0.00050	mg/L	0.0400		96	80-120			
Thallium, dissolved	0.0413	0.000020	mg/L	0.0400		103	80-120			
Thorium, dissolved	0.0404	0.00010	mg/L	0.0400		101	80-120			
Tin, dissolved	0.0412	0.00020	mg/L	0.0400		103	80-120			
Titanium, dissolved	0.0405	0.0050	mg/L	0.0400		101	80-120			
Tungsten, dissolved	0.0393	0.0010	mg/L	0.0400		98	80-120			
Uranium, dissolved	0.0406	0.000020	mg/L	0.0400		102	80-120			
Vanadium, dissolved	0.0404	0.0050	mg/L	0.0400		101	80-120			
Zinc, dissolved	0.405	0.0040	mg/L	0.400		101	80-120			
Zirconium, dissolved	0.0395	0.00010	mg/L	0.0400		99	80-120			
Duplicate (B5K2663-DUP1)			**Source: 25K0413-03**	Prepared: 2025-11-10, Analyzed: 2025-11-10						
Aluminum, dissolved	< 0.0100	0.0050	mg/L		< 0.0100				20	
Antimony, dissolved	< 0.00040	0.00020	mg/L		< 0.00040				20	
Arsenic, dissolved	0.00851	0.00050	mg/L		0.00855			< 1	20	
Barium, dissolved	< 0.0100	0.0050	mg/L		< 0.0100				20	
Beryllium, dissolved	< 0.00020	0.00010	mg/L		< 0.00020				20	
Bismuth, dissolved	< 0.00020	0.00010	mg/L		< 0.00020				20	
Boron, dissolved	0.233	0.0500	mg/L		0.238				20	
Cadmium, dissolved	< 0.000020	0.000010	mg/L		< 0.000020				20	
Calcium, dissolved	223	0.20	mg/L		222			< 1	20	
Chromium, dissolved	< 0.00100	0.00050	mg/L		< 0.00100				20	
Cobalt, dissolved	0.00096	0.00010	mg/L		0.00097				20	
Copper, dissolved	< 0.00080	0.00040	mg/L		< 0.00080				20	
Iron, dissolved	1.51	0.010	mg/L		1.55			3	20	
Lead, dissolved	< 0.00040	0.00020	mg/L		< 0.00040				20	
Lithium, dissolved	0.0188	0.00010	mg/L		0.0190			< 1	20	
Magnesium, dissolved	112	0.010	mg/L		115			3	20	
Manganese, dissolved	5.08	0.00020	mg/L		5.22			3	20	
Molybdenum, dissolved	0.00497	0.00010	mg/L		0.00499			< 1	20	
Nickel, dissolved	0.00624	0.00040	mg/L		0.00621			< 1	20	
Phosphorus, dissolved	0.130	0.050	mg/L		0.132				20	
Potassium, dissolved	2.16	0.10	mg/L		2.21			2	20	
Selenium, dissolved	< 0.00100	0.00050	mg/L		< 0.00100				20	
Silicon, dissolved	24.6	1.0	mg/L		24.8			< 1	20	
Silver, dissolved	< 0.000100	0.000050	mg/L		< 0.000100				20	
Sodium, dissolved	90.5	0.10	mg/L		92.8			2	20	
Strontium, dissolved	1.97	0.0010	mg/L		1.98			< 1	20	
Sulfur, dissolved	26.9	3.0	mg/L		29.6				20	
Tellurium, dissolved	< 0.00100	0.00050	mg/L		< 0.00100				20	
Thallium, dissolved	< 0.000040	0.000020	mg/L		< 0.000040				20	
Thorium, dissolved	< 0.00020	0.00010	mg/L		< 0.00020				20	
Tin, dissolved	< 0.00040	0.00020	mg/L		< 0.00040				20	
Titanium, dissolved	< 0.0100	0.0050	mg/L		< 0.0100				20	
Tungsten, dissolved	< 0.0020	0.0010	mg/L		< 0.0020				20	
Uranium, dissolved	0.00167	0.000020	mg/L		0.00167			< 1	20	
Vanadium, dissolved	< 0.0100	0.0050	mg/L		< 0.0100				20	
Zinc, dissolved	< 0.0080	0.0040	mg/L		< 0.0080				20	
Zirconium, dissolved	0.00188	0.00010	mg/L		0.00187			< 1	20	
Matrix Spike (B5K2663-MS1)			**Source: 25K0413-08**	Prepared: 2025-11-10, Analyzed: 2025-11-10						
Aluminum, dissolved	3.93	0.0050	mg/L	4.00	< 0.0050	98	70-130			
Antimony, dissolved	0.0430	0.00020	mg/L	0.0400	< 0.00020	107	70-130			
Arsenic, dissolved	0.431	0.00050	mg/L	0.400	< 0.00050	108	70-130			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5K2663, Continued										
Matrix Spike (B5K2663-MS1), Continued	**Source: 25K0413-08**			Prepared: 2025-11-10, Analyzed: 2025-11-10						
Barium, dissolved	0.0514	0.0050	mg/L	0.0400	0.0089	106	70-130			
Beryllium, dissolved	0.0397	0.00010	mg/L	0.0400	< 0.00010	99	70-130			
Bismuth, dissolved	0.0368	0.00010	mg/L	0.0400	< 0.00010	92	70-130			
Boron, dissolved	0.386	0.0500	mg/L	0.400	< 0.0500	92	70-130			
Cadmium, dissolved	0.0410	0.000010	mg/L	0.0400	< 0.000010	102	70-130			
Calcium, dissolved	162	0.20	mg/L	4.00	167	NR	70-130			MS2
Chromium, dissolved	0.0398	0.00050	mg/L	0.0400	< 0.00050	99	70-130			
Cobalt, dissolved	0.0380	0.00010	mg/L	0.0400	< 0.00010	95	70-130			
Copper, dissolved	0.0391	0.00040	mg/L	0.0400	0.00298	90	70-130			
Iron, dissolved	3.89	0.010	mg/L	4.00	< 0.010	97	70-130			
Lead, dissolved	0.0406	0.00020	mg/L	0.0400	0.00104	99	70-130			
Lithium, dissolved	0.0809	0.00010	mg/L	0.0400	0.0408	100	70-130			
Magnesium, dissolved	106	0.010	mg/L	4.00	105	25	70-130			MS2
Manganese, dissolved	0.0412	0.00020	mg/L	0.0400	0.00185	98	70-130			
Molybdenum, dissolved	0.0416	0.00010	mg/L	0.0400	0.00026	103	70-130			
Nickel, dissolved	0.0372	0.00040	mg/L	0.0400	< 0.00040	93	70-130			
Phosphorus, dissolved	4.31	0.050	mg/L	4.00	< 0.050	108	70-130			
Potassium, dissolved	4.28	0.10	mg/L	4.00	0.46	95	70-130			
Selenium, dissolved	0.440	0.00050	mg/L	0.400	< 0.00050	110	70-130			
Silicon, dissolved	10.2	1.0	mg/L	4.00	6.2	99	70-130			
Silver, dissolved	0.0370	0.000050	mg/L	0.0400	< 0.000050	93	70-130			
Sodium, dissolved	45.3	0.10	mg/L	4.00	43.8	36	70-130			MS2
Strontium, dissolved	2.33	0.0010	mg/L	0.0400	2.33	NR	70-130			MS2
Sulfur, dissolved	52.5	3.0	mg/L	40.0	9.2	108	70-130			
Tellurium, dissolved	0.0422	0.00050	mg/L	0.0400	< 0.00050	105	70-130			
Thallium, dissolved	0.0410	0.000020	mg/L	0.0400	< 0.000020	103	70-130			
Thorium, dissolved	0.0413	0.00010	mg/L	0.0400	< 0.00010	103	70-130			
Tin, dissolved	0.0434	0.00020	mg/L	0.0400	< 0.00020	108	70-130			
Titanium, dissolved	0.0424	0.0050	mg/L	0.0400	< 0.0050	105	70-130			
Tungsten, dissolved	0.0399	0.0010	mg/L	0.0400	< 0.0010	100	70-130			
Uranium, dissolved	0.0501	0.000020	mg/L	0.0400	0.00835	104	70-130			
Vanadium, dissolved	0.0419	0.0050	mg/L	0.0400	< 0.0050	104	70-130			
Zinc, dissolved	0.387	0.0040	mg/L	0.400	< 0.0040	96	70-130			
Zirconium, dissolved	0.0427	0.00010	mg/L	0.0400	0.00021	106	70-130			
Dissolved Metals, Batch B5K2819										
Blank (B5K2819-BLK1)				Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B5K2819-BLK2)				Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B5K2819-BLK3)				Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B5K2819-BLK4)				Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B5K2819-BLK5)				Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
LCS (B5K2819-BS1)				Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	0.00280	0.000010	mg/L	0.00250		112	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO Regional District of Central Okanagan
PROJECT Westside Landfill

WORK ORDER 25K0413
REPORTED 2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B5K2819, Continued										
LCS (B5K2819-BS2)				Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	0.00267	0.000010	mg/L	0.00250		107	80-120			
LCS (B5K2819-BS3)				Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	0.00267	0.000010	mg/L	0.00250		107	80-120			
LCS (B5K2819-BS4)				Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	0.00261	0.000010	mg/L	0.00250		104	80-120			
LCS (B5K2819-BS5)				Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	0.00277	0.000010	mg/L	0.00250		111	80-120			
Duplicate (B5K2819-DUP4)		**Source: 25K0413-05**		Prepared: 2025-11-12, Analyzed: 2025-11-12						
Mercury, dissolved	< 0.000010	0.000010	mg/L		< 0.000010				20	
General Parameters, Batch B5K2402										
Blank (B5K2402-BLK1)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
Blank (B5K2402-BLK2)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
Blank (B5K2402-BLK3)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Alkalinity, Total (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Bicarbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Carbonate (as CaCO3)	< 1.0	1.0	mg/L							
Alkalinity, Hydroxide (as CaCO3)	< 1.0	1.0	mg/L							
Conductivity (EC)	< 2.0	2.0	µS/cm							
LCS (B5K2402-BS1)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Alkalinity, Total (as CaCO3)	101	1.0	mg/L	100		101	80-120			
LCS (B5K2402-BS2)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Conductivity (EC)	1410	2.0	µS/cm	1410		100	95-105			
LCS (B5K2402-BS3)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Alkalinity, Total (as CaCO3)	103	1.0	mg/L	100		103	80-120			
LCS (B5K2402-BS4)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Conductivity (EC)	1410	2.0	µS/cm	1410		100	95-105			
LCS (B5K2402-BS5)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Alkalinity, Total (as CaCO3)	105	1.0	mg/L	100		105	80-120			
LCS (B5K2402-BS6)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
Conductivity (EC)	1410	2.0	µS/cm	1410		100	95-105			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B5K2402, Continued										
Reference (B5K2402-SRM1)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
pH	7.03	0.10	pH units	7.01		100	98-102			
Reference (B5K2402-SRM2)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
pH	7.03	0.10	pH units	7.01		100	98-102			
Reference (B5K2402-SRM3)				Prepared: 2025-11-06, Analyzed: 2025-11-06						
pH	7.03	0.10	pH units	7.01		100	98-102			
General Parameters, Batch B5K2428										
Blank (B5K2428-BLK1)				Prepared: 2025-11-07, Analyzed: 2025-11-07						
Chemical Oxygen Demand	< 20	20	mg/L							
LCS (B5K2428-BS1)				Prepared: 2025-11-07, Analyzed: 2025-11-07						
Chemical Oxygen Demand	536	20	mg/L	500		107	89-115			
General Parameters, Batch B5K2473										
Blank (B5K2473-BLK1)				Prepared: 2025-11-07, Analyzed: 2025-11-12						
BOD, 5-day	< 2.0	2.0	mg/L							
LCS (B5K2473-BS1)				Prepared: 2025-11-07, Analyzed: 2025-11-12						
BOD, 5-day	196	66.6	mg/L	198		99	85-115			
General Parameters, Batch B5K2592										
Blank (B5K2592-BLK1)				Prepared: 2025-11-08, Analyzed: 2025-11-08						
Ammonia, Total (as N)	< 0.050	0.050	mg/L							
Blank (B5K2592-BLK2)				Prepared: 2025-11-08, Analyzed: 2025-11-08						
Ammonia, Total (as N)	< 0.050	0.050	mg/L							
LCS (B5K2592-BS1)				Prepared: 2025-11-08, Analyzed: 2025-11-08						
Ammonia, Total (as N)	1.02	0.050	mg/L	1.00		102	85-115			
LCS (B5K2592-BS2)				Prepared: 2025-11-08, Analyzed: 2025-11-08						
Ammonia, Total (as N)	1.02	0.050	mg/L	1.00		102	85-115			
Duplicate (B5K2592-DUP1)		**Source: 25K0413-05**		Prepared: 2025-11-08, Analyzed: 2025-11-08						
Ammonia, Total (as N)	< 0.050	0.050	mg/L		< 0.050				15	
Matrix Spike (B5K2592-MS1)		**Source: 25K0413-05**		Prepared: 2025-11-08, Analyzed: 2025-11-08						
Ammonia, Total (as N)	0.215	0.050	mg/L	0.204	< 0.050	101	75-125			
General Parameters, Batch B5K2636										
Blank (B5K2636-BLK1)				Prepared: 2025-11-08, Analyzed: 2025-11-08						
Solids, Total Dissolved	< 15	15	mg/L							
LCS (B5K2636-BS1)				Prepared: 2025-11-08, Analyzed: 2025-11-08						
Solids, Total Dissolved	245	15	mg/L	240		102	85-115			
General Parameters, Batch B5K2782										

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B5K2782, Continued										
Blank (B5K2782-BLK1)				Prepared: 2025-11-11, Analyzed: 2025-11-11						
Solids, Total Dissolved	< 15	15	mg/L							
LCS (B5K2782-BS1)				Prepared: 2025-11-11, Analyzed: 2025-11-11						
Solids, Total Dissolved	245	15	mg/L	240		102	85-115			
Polycyclic Aromatic Hydrocarbons (PAH), Batch B5K2484										
Blank (B5K2484-BLK1)				Prepared: 2025-11-07, Analyzed: 2025-11-10						
Acenaphthene	< 0.050	0.050	µg/L							
Acenaphthylene	< 0.200	0.200	µg/L							
Acridine	< 0.050	0.050	µg/L							
Anthracene	< 0.010	0.010	µg/L							
Benz(a)anthracene	< 0.010	0.010	µg/L							
Benzo(a)pyrene	< 0.010	0.010	µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L							
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L							
Benzo(k)fluoranthene	< 0.050	0.050	µg/L							
2-Chloronaphthalene	< 0.100	0.100	µg/L							
Chrysene	< 0.050	0.050	µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L							
Fluoranthene	< 0.030	0.030	µg/L							
Fluorene	< 0.050	0.050	µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L							
1-Methylnaphthalene	< 0.100	0.100	µg/L							
2-Methylnaphthalene	< 0.100	0.100	µg/L							
Naphthalene	< 0.200	0.200	µg/L							
Phenanthrene	< 0.100	0.100	µg/L							
Pyrene	< 0.020	0.020	µg/L							
Quinoline	< 0.050	0.050	µg/L							
Surrogate: Acridine-d9	*4.60*		*µg/L*	25.0		*18*	*50-140*			*S02*
Surrogate: Naphthalene-d8	*22.7*		*µg/L*	25.0		*91*	*50-140*			
Surrogate: Perylene-d12	*24.9*		*µg/L*	25.0		*100*	*50-140*			
LCS (B5K2484-BS1)				Prepared: 2025-11-07, Analyzed: 2025-11-10						
Acenaphthene	4.73	0.050	µg/L	4.98		95	50-140			
Acenaphthylene	3.48	0.200	µg/L	4.92		71	50-140			
Acridine	3.99	0.050	µg/L	4.95		81	50-140			
Anthracene	4.92	0.010	µg/L	4.98		99	50-140			
Benz(a)anthracene	3.44	0.010	µg/L	4.98		69	50-140			
Benzo(a)pyrene	4.41	0.010	µg/L	4.92		90	50-140			
Benzo(b+j)fluoranthene	9.60	0.050	µg/L	9.85		97	50-140			
Benzo(g,h,i)perylene	4.58	0.050	µg/L	4.92		93	50-140			
Benzo(k)fluoranthene	4.36	0.050	µg/L	4.95		88	50-140			
2-Chloronaphthalene	4.04	0.100	µg/L	4.92		82	50-140			
Chrysene	5.69	0.050	µg/L	4.90		116	50-140			
Dibenz(a,h)anthracene	3.84	0.010	µg/L	5.00		77	50-140			
Fluoranthene	4.05	0.030	µg/L	5.00		81	50-140			
Fluorene	4.07	0.050	µg/L	5.08		80	50-140			
Indeno(1,2,3-cd)pyrene	4.26	0.050	µg/L	4.92		87	50-140			
1-Methylnaphthalene	5.52	0.100	µg/L	4.95		111	50-140			
2-Methylnaphthalene	3.71	0.100	µg/L	4.95		75	50-140			
Naphthalene	4.45	0.200	µg/L	4.95		90	50-140			
Phenanthrene	4.00	0.100	µg/L	4.92		81	50-140			
Pyrene	4.37	0.020	µg/L	5.02		87	50-140			
Quinoline	4.55	0.050	µg/L	5.02		91	50-140			
Surrogate: Acridine-d9	*24.6*		*µg/L*	25.0		*99*	*50-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B5K2484, Continued										
LCS (B5K2484-BS1), Continued				Prepared: 2025-11-07, Analyzed: 2025-11-10						
Surrogate: Naphthalene-d8	*21.1*		*µg/L*	25.0		*84*	*50-140*			
Surrogate: Perylene-d12	*26.4*		*µg/L*	25.0		*106*	*50-140*			
LCS Dup (B5K2484-BSD1)				Prepared: 2025-11-07, Analyzed: 2025-11-10						
Acenaphthene	4.36	0.050	µg/L	4.98		88	50-140	8	30	
Acenaphthylene	3.55	0.200	µg/L	4.92		72	50-140	2	30	
Acridine	3.57	0.050	µg/L	4.95		72	50-140	11	30	
Anthracene	5.03	0.010	µg/L	4.98		101	50-140	2	30	
Benz(a)anthracene	3.33	0.010	µg/L	4.98		67	50-140	3	30	
Benzo(a)pyrene	4.44	0.010	µg/L	4.92		90	50-140	< 1	30	
Benzo(b+j)fluoranthene	10.3	0.050	µg/L	9.85		105	50-140	8	30	
Benzo(g,h,i)perylene	4.46	0.050	µg/L	4.92		91	50-140	3	30	
Benzo(k)fluoranthene	3.54	0.050	µg/L	4.95		72	50-140	21	30	
2-Chloronaphthalene	4.28	0.100	µg/L	4.92		87	50-140	6	30	
Chrysene	4.73	0.050	µg/L	4.90		97	50-140	18	30	
Dibenz(a,h)anthracene	3.99	0.010	µg/L	5.00		80	50-140	4	30	
Fluoranthene	4.55	0.030	µg/L	5.00		91	50-140	12	30	
Fluorene	4.33	0.050	µg/L	5.08		85	50-140	6	30	
Indeno(1,2,3-cd)pyrene	4.03	0.050	µg/L	4.92		82	50-140	6	30	
1-Methylnaphthalene	5.93	0.100	µg/L	4.95		120	50-140	7	30	
2-Methylnaphthalene	3.17	0.100	µg/L	4.95		64	50-140	16	30	
Naphthalene	4.54	0.200	µg/L	4.95		92	50-140	2	30	
Phenanthrene	3.96	0.100	µg/L	4.92		80	50-140	1	30	
Pyrene	4.59	0.020	µg/L	5.02		91	50-140	5	30	
Quinoline	4.70	0.050	µg/L	5.02		93	50-140	3	30	
Surrogate: Acridine-d9	*22.2*		*µg/L*	25.0		*89*	*50-140*			
Surrogate: Naphthalene-d8	*21.3*		*µg/L*	25.0		*85*	*50-140*			
Surrogate: Perylene-d12	*26.2*		*µg/L*	25.0		*105*	*50-140*			
Volatile Organic Compounds (VOC), Batch B5K2541										
Blank (B5K2541-BLK1)				Prepared: 2025-11-07, Analyzed: 2025-11-07						
Benzene	< 0.5	0.5	µg/L							
Bromodichloromethane	< 1.0	1.0	µg/L							
Bromoform	< 1.0	1.0	µg/L							
Carbon tetrachloride	< 0.5	0.5	µg/L							
Chlorobenzene	< 1.0	1.0	µg/L							
Chloroethane	< 2.0	2.0	µg/L							
Chloroform	< 1.0	1.0	µg/L							
Dibromochloromethane	< 1.0	1.0	µg/L							
1,2-Dibromoethane	< 0.3	0.3	µg/L							
Dibromomethane	< 1.0	1.0	µg/L							
1,2-Dichlorobenzene	< 0.5	0.5	µg/L							
1,3-Dichlorobenzene	< 1.0	1.0	µg/L							
1,4-Dichlorobenzene	< 1.0	1.0	µg/L							
1,1-Dichloroethane	< 1.0	1.0	µg/L							
1,2-Dichloroethane	< 1.0	1.0	µg/L							
1,1-Dichloroethylene	< 1.0	1.0	µg/L							
cis-1,2-Dichloroethylene	< 1.0	1.0	µg/L							
trans-1,2-Dichloroethylene	< 1.0	1.0	µg/L							
Dichloromethane	< 3.0	3.0	µg/L							
1,2-Dichloropropane	< 1.0	1.0	µg/L							
1,3-Dichloropropene (cis + trans)	< 1.0	1.0	µg/L							
Ethylbenzene	< 1.0	1.0	µg/L							
Methyl tert-butyl ether	< 1.0	1.0	µg/L							
Styrene	< 1.0	1.0	µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B5K2541, Continued										
Blank (B5K2541-BLK1), Continued				Prepared: 2025-11-07, Analyzed: 2025-11-07						
1,1,2,2-Tetrachloroethane	< 0.5	0.5	µg/L							
Tetrachloroethylene	< 1.0	1.0	µg/L							
Toluene	< 1.0	1.0	µg/L							
1,1,1-Trichloroethane	< 1.0	1.0	µg/L							
1,1,2-Trichloroethane	< 1.0	1.0	µg/L							
Trichloroethylene	< 1.0	1.0	µg/L							
Trichlorofluoromethane	< 1.0	1.0	µg/L							
Vinyl chloride	< 1.0	1.0	µg/L							
Xylenes (total)	< 2.0	2.0	µg/L							
Surrogate: Toluene-d8	*22.8*		*µg/L*	25.0		*91*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*19.6*		*µg/L*	24.9		*79*	*70-130*			
Surrogate: 1,4-Dichlorobenzene-d4	*23.6*		*µg/L*	24.5		*97*	*70-130*			
LCS (B5K2541-BS1)				Prepared: 2025-11-07, Analyzed: 2025-11-07						
Benzene	18.8	0.5	µg/L	20.1		94	70-130			
Bromodichloromethane	20.0	1.0	µg/L	19.8		101	70-130			
Bromoform	19.5	1.0	µg/L	20.0		98	70-130			
Carbon tetrachloride	20.6	0.5	µg/L	20.0		103	70-130			
Chlorobenzene	18.2	1.0	µg/L	20.0		91	70-130			
Chloroethane	13.9	2.0	µg/L	20.0		69	60-140			
Chloroform	20.9	1.0	µg/L	19.8		106	70-130			
Dibromochloromethane	20.3	1.0	µg/L	20.0		101	70-130			
1,2-Dibromoethane	19.3	0.3	µg/L	20.0		96	70-130			
Dibromomethane	19.4	1.0	µg/L	19.8		98	70-130			
1,2-Dichlorobenzene	18.8	0.5	µg/L	19.6		96	70-130			
1,3-Dichlorobenzene	19.8	1.0	µg/L	20.0		99	70-130			
1,4-Dichlorobenzene	20.6	1.0	µg/L	20.0		103	70-130			
1,1-Dichloroethane	19.5	1.0	µg/L	19.7		99	70-130			
1,2-Dichloroethane	19.0	1.0	µg/L	20.0		95	70-130			
1,1-Dichloroethylene	21.4	1.0	µg/L	19.8		108	70-130			
cis-1,2-Dichloroethylene	20.4	1.0	µg/L	19.8		103	70-130			
trans-1,2-Dichloroethylene	20.9	1.0	µg/L	20.0		104	70-130			
Dichloromethane	22.0	3.0	µg/L	20.0		110	70-130			
1,2-Dichloropropane	18.6	1.0	µg/L	20.0		93	70-130			
1,3-Dichloropropene (cis + trans)	38.5	1.0	µg/L	39.0		99	70-130			
Ethylbenzene	18.0	1.0	µg/L	20.1		90	70-130			
Methyl tert-butyl ether	21.0	1.0	µg/L	20.0		105	70-130			
Styrene	19.7	1.0	µg/L	20.1		98	70-130			
1,1,2,2-Tetrachloroethane	21.0	0.5	µg/L	20.0		105	70-130			
Tetrachloroethylene	20.0	1.0	µg/L	20.0		100	70-130			
Toluene	19.9	1.0	µg/L	20.1		99	70-130			
1,1,1-Trichloroethane	19.4	1.0	µg/L	20.0		97	70-130			
1,1,2-Trichloroethane	20.8	1.0	µg/L	19.7		106	70-130			
Trichloroethylene	18.0	1.0	µg/L	20.0		90	70-130			
Trichlorofluoromethane	13.3	1.0	µg/L	19.8		67	60-140			
Vinyl chloride	14.3	1.0	µg/L	20.0		72	60-140			
Xylenes (total)	56.1	2.0	µg/L	60.1		93	70-130			
Surrogate: Toluene-d8	*26.7*		*µg/L*	25.0		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*21.2*		*µg/L*	24.9		*85*	*70-130*			
Surrogate: 1,4-Dichlorobenzene-d4	*25.3*		*µg/L*	24.5		*103*	*70-130*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	Regional District of Central Okanagan	**WORK ORDER**	25K0413
PROJECT	Westside Landfill	**REPORTED**	2025-11-12 16:53

QC Qualifiers:

MS2	The native sample concentration is greater than the spike concentration hence the matrix spike limits do not apply.
S02	Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.
S09	The surrogate recovery for this sample is outside of established control limits .

APPENDIX E

GROUNDWATER USERS WITHIN 1.6 KM

Groundwater Users Within 1.6 km

Well Tag Number	Well Status	Licence Status	Well Class	Intended Water Use	Street Address	Finished Well Depth (mbgl)	Well Diameter (cm)	Static Water Level (mbgl)	Bedrock Depth (mbgl)	Well Yield (USgpm)	Aquifer Material	Aquifer ID
53497	New	Unlicensed	Unknown	Unknown Well Use	WESTBANK	27.4		5.5		100	Unconsolidated	
56134	Closure	Unlicensed	Water Supply	Private Domestic	2749 Shannon Lake Rd	14.6	15.4	1.5		40	Unconsolidated	
85511	New	Unlicensed	Water Supply	Water Supply System	2649 Shannon Lake Road	24.4		6.1		664	Unconsolidated	301
34490	New	Unlicensed	Unknown	Unknown Well Use	LAKE RD.	61.0		13.7	8.8392	2	Bedrock	304
61680	New	Unlicensed	Water Supply	Private Domestic		134.1		40.5	18.4404	1.2	Bedrock	304
31015	New	Unlicensed	Unknown	Unknown Well Use		15.2			12.8016		Unconsolidated	304
85510	Abandoned	Unlicensed	Water Supply	Unknown Well Use	SHANNON LAKE	37.2			34.4424		Bedrock	
54807	New	Unlicensed	Water Supply	Private Domestic	SHANNON LK RD WESTBANK	68.6		65.5	5.1816	15	Bedrock	304
49961	New	Unlicensed	Water Supply	Private Domestic	Old Okanagan Highway	48.8			31.0896	0	Unconsolidated	838
54709	Closure	Unlicensed	Water Supply	Unknown Well Use	WESTBANK	97.5			27.432	1	Bedrock	304
50119	New	Unlicensed	Unknown	Unknown Well Use	WESTBANK	182.9			27.432	0	Bedrock	304
50055	New	Unlicensed	Unknown	Not Applicable	Old Okanagan Highway	97.5		0.0	23.1648	6	Bedrock	304
50065	New	Unlicensed	Water Supply	Private Domestic	WESTBANK	16.2			16.1544		Unconsolidated	
48687	New	Unlicensed	Water Supply	Commercial and Industrial	SHANNON LK RD	16.2		3.0		45	Unconsolidated	
101875	New	Unlicensed	Water Supply	Other		11.9		0.3		4500	Unknown	
41320	New	Unlicensed	Water Supply	Private Domestic		12.2				0	Unconsolidated	
61663	New	Unlicensed	Water Supply	Private Domestic	SHANNON LAKE ROAD	26.2				0	Unconsolidated	
61678	New	Unlicensed	Water Supply	Commercial and Industrial	WESTSIDE LANDFILL, N1/2 OF DL	17.1			3.3528	0	Bedrock	
61671	New	Unlicensed	Water Supply	Commercial and Industrial	SHANNON LAKE WAY	137.2		14.9	14.9352	36	Bedrock	304
61677	New	Unlicensed	Water Supply	Commercial and Industrial	WESTSIDE LANDFILL, N 1/2 OF DL	12.5				0	Unconsolidated	
61676	New	Unlicensed	Water Supply	Commercial and Industrial	WESTSIDE LANDFILL, N 1/2 OF DL	13.4			0.3048		Bedrock	
76622	Abandoned	Unlicensed	Water Supply	Water Supply System	3099 SHANNON LAKE ROAD	36.6	16.8				Unknown	
56125	New	Unlicensed	Water Supply	Private Domestic	WESTBANK	9.8		2.1		25	Unconsolidated	
56126	New	Unlicensed	Water Supply	Private Domestic	WESTBANK	11.3		2.1		50	Unconsolidated	
61674	New	Unlicensed	Water Supply	Commercial and Industrial	WESTSIDE LANDFILL	9.8		4.6		0	Unconsolidated	
43712	New	Unlicensed	Unknown	Unknown Well Use		14.0		3.4		30	Unconsolidated	
61679	New	Unlicensed	Water Supply	Private Domestic	SHANNON LAKE ROAD	12.0		2.1		96	Unconsolidated	
37259	New	Unlicensed	Unknown	Not Applicable	SHANNON LK RD WESTBANK	7.9		2.7	7.9248	6	Unconsolidated	
83236	New	Unlicensed	Water Supply	Water Supply System	2815 SHANNON LAKE ROAD	12.2					Unknown	301
130327	Closure	Unlicensed	Water Supply	Private Domestic	2749 Shannon Lake Rd		15.2					
135564	New	Unlicensed	Water Supply	Water Supply System	2575 Eagle Ridge Dr							
54500	New	Unlicensed	Water Supply	Private Domestic	OLD OKANAGAN ROAD KELOWNA	56.4		7.3	5.7912	8	Bedrock	304
58822	New	Unlicensed	Water Supply	Private Domestic	HWY 97	27.1			30.48		Unconsolidated	306
34499	New	Unlicensed	Unknown	Unknown Well Use	BOX 10 JENNENS RD WESTBANK	113.7			10.0584		Bedrock	304
54499	New	Unlicensed	Water Supply	Private Domestic	OLD OKANAGAN ROAD KELOWNA	114.3		1.5	6.4008	2	Bedrock	304
48633	New	Unlicensed	Water Supply	Private Domestic		5.8				4	Unconsolidated	306
34500	New	Unlicensed	Unknown	Unknown Well Use	WESTBANK	121.9			18.288		Unconsolidated	304
58819	New	Unlicensed	Water Supply	Private Domestic	HWY 97	2.7			2.4384	0	Bedrock	306
54647	New	Unlicensed	Water Supply	Private Domestic	OLD OKANAGAN RD KELOWNA	129.5			2.4384	0.5	Bedrock	304
49561	New	Unlicensed	Water Supply	Private Domestic	KELOWNA	97.5		29.6	45.72	2	Bedrock	304
29381	New	Unlicensed	Water Supply	Unknown Well Use		33.2		11.0		300	Unconsolidated	301
82793	New	Unlicensed	Water Supply	Private Domestic	2930 MARMOT LANE	42.7				20	Unknown	306
47769	New	Unlicensed	Monitoring	Not Applicable	S.W. CORNER OF SHANNON LAKE	29.0		12.2		20	Unconsolidated	
55019	New	Unlicensed	Unknown	Unknown Well Use	SHANNON LK RD WESTBANK	9.8		4.9		20	Unconsolidated	
58935	New	Unlicensed	Water Supply	Private Domestic	2781 DAIMLER RD.	11.0		1.2		75	Unconsolidated	
56047	New	Unlicensed	Water Supply	Private Domestic	WESTBANK	11.6		1.5		30	Unconsolidated	
56138	New	Unlicensed	Water Supply	Private Domestic	WESTBANK	11.6		1.5		40	Unconsolidated	
5150	New	Unlicensed	Unknown	Unknown Well Use	WESTBANK	0.0				0	Unconsolidated	
57005	New	Unlicensed	Water Supply	Private Domestic	ASQUITH RD	73.2			13.4112	0.5	Unconsolidated	304
57014	New	Unlicensed	Water Supply	Private Domestic	ASQUITH RD	73.2		3.7	15.8496	3	Unconsolidated	304
55063	Abandoned	Unlicensed	Unknown	Unknown Well Use	ASQUITH RD	18.9			17.3736		Unconsolidated	
55053	New	Unlicensed	Water Supply	Private Domestic	ASQUITH RD	152.4		14.6	4.8768	1	Bedrock	304
56998	New	Unlicensed	Unknown	Unknown Well Use	ASQUITH RD	103.6			1.2192		Unconsolidated	304
56228	New	Unlicensed	Water Supply	Private Domestic	ASQUITH RD	54.9			9.144	15	Bedrock	304
61661	New	Unlicensed	Water Supply	Water Supply System	VILLAGE GREEN WAY	134.1			27.7368	0	Bedrock	304
61675	New	Unlicensed	Water Supply	Commercial and Industrial	WESTSIDE LANDFILL, N 1/2 OF DL	12.2			7.0104	0	Bedrock	304
61669	New	Unlicensed	Water Supply	Water Supply System	VILLAGE GREEN WAY	146.3		2.4		45	Unconsolidated	304
61666	New	Unlicensed	Water Supply	Private Domestic	OLD OK. HWY	67.1		12.2	37.1856	4.8	Bedrock	304

Notes:
mbgl: metres below ground level.
cm: centimetres.
USgpm: United Stated gallon per minute.