

Phase I ESA Update and Groundwater Sampling

Prepared for:

Goodrich Group c/o Pacific Land Group

212-12992 76 Avenue Surrey, BC V3W 2V6

Project No. 103789-01

Prepared by:

Hemmera Envirochem Inc. 18th Floor, 4730 Kingsway Burnaby, BC V5H 0C6 T: 604.669.0424 F: 604.669.0430 hemmera.com

July 25, 2019

EXECUTIVE SUMMARY

Hemmera Envirochem Inc. (Hemmera), a wholly owned subsidiary of Ausenco Engineering Canada Inc. (Ausenco), was retained by Goodrich Group c/o Pacific Land Group (the Client), to conduct a Phase I Environmental Site Assessment Update (Phase I ESA update) and groundwater sampling for the property generally described as the Vancouver Fraser Port Authority (VFPA) Brownsville Site in Surrey, BC (Site). This Phase I ESA Update and groundwater sampling was conducted to satisfy VFPA requirements prior to leasing the Site.

This work was performed in accordance with Professional Services Agreement between Hemmera, and Goodrich Group c/o Pacific Land Group, dated March 29, 2019 (Contract). This report has been prepared by Hemmera, based on fieldwork conducted by Hemmera, for sole benefit and use by Goodrich Group c/o Pacific Land Group. In performing this work, Hemmera has relied in good faith on information provided by others, and has assumed that the information provided by those individuals is both complete and accurate. This work was performed to current industry standard practice for similar environmental work, within the relevant jurisdiction and same locale. The findings presented herein should be considered within the context of the scope of work and project terms of reference; further, the findings are time sensitive and are considered valid only at the time the report was produced. The conclusions and recommendations contained in this report are based upon the applicable guidelines, regulations, and legislation existing at the time the report was produced; any changes in the regulatory regime may alter the conclusions and/or recommendations.

Based on records reviewed, the Site appears to have been used for industrial purposes, namely the lumber and wood processing industry, from the 1950s or earlier, when a sawmill or shingle mill begin to operate on Site. Over the years, the mill was operated by a variety of companies until operations ceased at the end of Lindal Cedar Homes' ownership. Prior to Goodrich Group, the Site was operated by Mill & Timber Products Ltd. from 1998. Mill & Timber operated the sawmill until early 2004, when operations transitioned to fingerjoint production and wood chipping, then exclusively to wood chipping in 2008. Currently, the Site is leased to the Client from the Port of Vancouver, and is used for storage and distribution of untreated lumber.

Based on the findings of this Phase I ESA update and groundwater sampling program, contamination in soil and groundwater is present at the site from historical operation. Three areas of environmental concern (AECs) and two areas of potential environmental concern (APECs) were identified. The APECs and AECs and the associated PCOCs and COCs identified for the Site are summarized below. No new APECs were identified for the Site since the 2019 Phase I ESA update by Envirochem.

July 2019 Page | i

190725_Goodrich Group Phase 1 Update_Final.docx

Summary APECs and AECs and PCOCs and COCs

APEC/AEC No.	APEC Description	PCOCs/COCs	
APEC 1	Former Sawmill Operations (Including Former Kiln)	PCOCs: PAH, F2/F3 (L/HEPH), BTEX, F1(VPH), phenols and metals	
APEC 2	Former Green Chain	Metals, PAH, F2/F3 (L/HEPH), chlorinated phenols	
AEC 1	Off-site Historical Activities or Spills and Suspect Former Storage Tank	COCs: VPH in soil, LEPH and PAHs in groundwater	
AEC 2	Former Oil Storage Shed/Former Single- Walled Gravity-Fed Diesel Storage Tank	COCs: PAHs in soil and LEPH and PAHs in groundwater	
AEC 3	Fill (Other Areas)	COCs: PAHs and arsenic in soil and Several dissolved metals and PAHs in groundwater	

The above APECs/AECs have been previously investigated. This Phase I ESA update confirmed current groundwater quality on portions of the Site, however, due to a number of the previously installed monitoring wells being destroyed, current groundwater quality could not be assessed in the northeastern portion of the Site. Additionally, soil investigation in the northeast portion of the Site was limited. Hemmera recommends soil samples from this area be collected on a grid basis to confirm current soil quality at this location. Further groundwater testing in this area may also be required to confirm current groundwater quality.

This Executive Summary is not intended to be a "stand-alone" document, but a summary of findings as described in the following Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

TABLE OF CONTENTS

EXEC	UTIVE	SUMMARY	
1.0	INTR	ODUCTION	1
	1.1	Objectives	1
2.0	SCO	PE OF WORK	
3.0		INFORMATION	
4.0	REC	ORDS REVIEW	ı
-1.0	4.1	British Columbia Ministry of Environment Site Registry	
5.0	PRE\	/IOUS REPORTS	6
	5.1	Phase I ESA, Hemmera, September 2006	
	5.2	Phase II ESA, Hemmera, May 2008	
	5.3	Supplemental Phase II ESA, Hemmera, December 2008	9
	5.4	Supplemental Site Investigation, Franz Environmental, June 2013	10
	5.5	Phase I ESA Update, Envirochem Services Inc., March 2019	11
	5.6	Review of Environmental Conditions/Updated Groundwater Quality Investigation, Envirochem Services Inc., March 2019	11
	5.7	Contamination Arising from Third-Party Sources Independent of Mill & Timber Products Ltd., March 2019	11
6.0	SITE	VISIT	12
	6.1	Ground Observations	12
	6.2	Building Observations	13
	6.3	Special Attention Substances	13
	6.4	Current Surrounding Land Use	14
7.0	INTE	RVIEWS	14
8.0	SITE	HISTORY	15
9.0	BASI	ELINE – SOIL AND GROUNDWATER QUALITY	17
	9.1	Soil Quality	17
	9.2	Groundwater Quality	18
10.0	SUM	MARY DISCUSSION AND CONCLUSIONS	20
11.0	REFE	RENCES	21

LIST OF TABLES (WITHIN TEXT)

Table 1	Site Description	4
Table 2	Legal Description and Current Title Information	4
Table 3	Surficial Geology (Geological Survey of Canada, 1980)	5
Table 4	Topography and Groundwater Flow (Appendix B)	5
Table 5	Summary APECs and PCOCs	7
Table 6	Summary APECs and PCOCs	10
Table 7	Summary APECs and AECs and PCOCs and COCs	11
Table 8	Summary of Ground Observations	12
Table 9	Summary of Building Observations	13
Table 10	Site History	15
Table 11	Impacts Identified in Soil (Baseline Assessment)	17
Table 12	Impacts Identified in Groundwater (Baseline Assessment)	19
Table 13	Summary APECs and AECs and PCOCs and COCs	20

LIST OF APPENDICES

FIGURES (APPENDED)

Figure 1	Site Location and Aerial View
Figure 2	Investigative Locations
Figure 3	BC MOE Site Registry Locations
Figure 4	Soil Analytical Results
Figure 5	Groundwater Analytical Results

TABLES (APPENDED)

Table A Groundwater Analytical Data

APPENDICES

Appendix A	Site Photographs
Appendix B	Site Information
Appendix C	Historical Reports
Appendix D	Laboratory COC



1.0 INTRODUCTION

Hemmera Envirochem Inc. (Hemmera), a wholly owned subsidiary of Ausenco Engineering Canada Inc. (Ausenco), was retained by Goodrich Group c/o Pacific Land Group, to conduct a Phase I Environmental Site Assessment Update (Phase I ESA update) and groundwater sampling for the property generally described as the Vancouver Fraser Port Authority (VFPA) Brownsville Site in Surrey, BC (Site). This Phase I ESA Update and groundwater sampling was conducted to satisfy VFPA requirements prior to leasing the Site. The location of the Site is provided on **Figure 1** and the investigative locations are shown on **Figure 2**. Site photographs are provided in **Appendix A**.

This work was performed in accordance with Professional Services Agreement between Hemmera, and Goodrich Group c/o Pacific Land Group, dated March 29, 2019 (Contract). This report has been prepared by Hemmera, based on fieldwork conducted by Hemmera, for sole benefit and use by Goodrich Group c/o Pacific Land Group. In performing this work, Hemmera has relied in good faith on information provided by others, and has assumed that the information provided by those individuals is both complete and accurate. This work was performed to current industry standard practice for similar environmental work, within the relevant jurisdiction and same locale. The findings presented herein should be considered within the context of the scope of work and project terms of reference; further, the findings are time sensitive and are considered valid only at the time the report was produced. The conclusions and recommendations contained in this report are based upon the applicable guidelines, regulations, and legislation existing at the time the report was produced; any changes in the regulatory regime may alter the conclusions and/or recommendations.

1.1 Objectives

Hemmera completed a Phase I ESA for the Site in September 2006 and a Phase II ESA in May and December 2008. The objective of this Phase I ESA Update was to evaluate whether any changes have occurred at the Site or surrounding area since 2008 that would present additional environmental concerns and to provide a baseline for soil and groundwater at the Site based on previous investigations conducted.

The objective of the groundwater sampling was to characterize current groundwater quality at the Site.

2.0 SCOPE OF WORK

Phase I ESA Update

The Phase I ESA update has been completed in general accordance with the Canadian Standards Association's (CSA's) *Standard Z-768-01 for Phase I Environmental Site Assessments*. The Phase I ESA Update involved:

- Reviewing the previous Hemmera Phase I and II ESA reports;
- Reviewing other environmental investigation reports completed by others for the Site since 2008;
- Conducting a current records search for records that may have changed since 2006 (e.g. BC Online Site Registry). Historical records such as city directories and fire insurance plans were not reviewed as no new records are available; and,
- Conducted a site visit.

The Site visit included a visual inspection of the Site for areas of potential environmental concern (i.e., observed or suspected spills, storage tanks, etc.), as well as other potential environmental concerns (i.e., proximity of the Site to sensitive areas, activities on adjacent properties). Interviews were conducted with personnel familiar with the Site.'

Groundwater Sampling

To assess current groundwater sampling, the groundwater sampling included:

- Completing a Site-Specific Health and Safety Plan (HASP) for the field work program;
- Assessing the status of existing groundwater monitor wells at the Site and collecting groundwater samples from existing monitoring wells at the Site to assess current groundwater quality; and,
- Submitting groundwater samples to an accredited laboratory for potential contaminants of concern identified for the Site.

Hemmera's groundwater monitoring and sampling program was carried out according to established procedures outlined in the BC MOE's *British Columbia Field Sampling Manual* and consisted of the following:

- a. Measurement of combustible headspace vapours (CHVs) in the monitoring wells using a photoionization detector (PID), calibrated to measure volatile organic compounds or RKI Eagle;
- b. Measurement of light and dense non-aqueous phased liquid (LNAPL/ DNAPL) thickness (if any), static water levels, and total well depth in all monitoring wells using a Heron H.01L interface probe;
- c. Groundwater sampling using a low-flow sampling technique. Groundwater was purged at a rate not exceeding 150 mL/min using a peristaltic pump. Groundwater temperature, pH, and conductivity, dissolved oxygen, and oxidation-reduction potential were monitored using an YSI566 meter during purging until measurements stabilized, which indicated collection of representative formation groundwater. Visual and olfactory observations of the groundwater were also noted during sampling (sheen, colour, transparency, silt content, and odour if present);



- d. Collection of groundwater samples in pre-cleaned bottles supplied by Maxxam and specific to the requested analysis;
- e. Samples were packed in coolers with ice and delivered to Maxxam for analysis, under chain of custody; and
- f. Monitoring well purge water was placed in closed, labeled drums on-Site prior to off-site disposal.

Groundwater samples were collected according to established procedures outlined in the BC MOE's *British Columbia Field Sampling Manual*.

A site-specific chain-of-custody form accompanied the samples submitted to Maxxam for analysis. This form contained pertinent sampling information and analytical requirements and followed the samples through the analytical process to final sample disposal. This documentation provided a traceable history of the sample from the time of collection to disposal and ensured that analytical determinations were performed within recommended holding times. Details of pertinent sampling information for this site were also recorded in a field notebook.

The locations of the monitoring wells are shown on Figure 2.



3.0 SITE INFORMATION

Table 1 Site Description

Site Address	10880 Dyke Road, Surrey, BC	
Latitude and Longitude	49° 12' 4.4" N (approximate centre of Site) 122° 53' 47.2" W (approximate centre of Site)	
Current Use	Lumber storage and distribution	
Zoning	Light Impact Industrial 1 (IL-1)	
Area	12,000 m ²	
Percent Site Coverage	Approximately 20% of the Site is covered by equipment and buildings, storage sheds, trailer offices, and a distribution warehouse. Approximately 50% of the Site is paved (with evidence of repairs), and 30% consists of unpaved gravel towards the northeast. Vegetation (i.e., blackberry) is present around the perimeter of the Site.	

 Table 2
 Legal Description and Current Title Information

	 Parcel A (Plan in Absolute Fees Parcel Book 12 Folio 75 No. 4114F) District Lot 6 Group 2 New Westminster District Parcel B (Plan in Absolute Fees Parcel Book 12 Folio 75 	
	No. 4113F) District Lot 6 Group 2 New Westminster District	
Legal Description	 Parcel C (Plan in Absolute Fees Parcel Book 12 Folio 93 No. 4222F) District Lot 6 Group 2 New Westminster District 	
	 Parcel Rem-C (Plan in Absolute Fees Parcel Book 12 Folio 78 No. 4128F) District Lot 5 Group 2 New Westminster District Except: Parcel One (Statutory Right of Way Plan NWP88158) 	
	Parcel 7 District Lot 4 Group 2 Plan 2620	
	Parcel 8 District Lot 4 Group 2 Plan 2620	
	Parcel A: 012-878-260	
	Parcel B: 012-878-278	
Parcel Identifier Number (PID)	Parcel C: 012-878-286	
r arcer rachance (varioer (r 15)	• Parcel Rem-C: 012-878-308	
	• Parcel 7: 000-732-770	
	Parcel 8: 000-732-664	
Registered Land Owner	Her Majesty the Queen in Right of Canada as Represented by the Minister of Transport c/o Vancouver Fraser Port Authority	
Leases, Covenants or Land Title Transfers Related to Environmental Contamination Issues	None Identified	

Copies of the land titles are provided in **Appendix B** of the Phase I ESA Update by Envirochem (2019a) and **Appendix B** of the Phase I ESA by Hemmera (2006).

Table 3 Surficial Geology (Geological Survey of Canada, 1980)

Туре	Lowland peat (Sab)		
Description	Surficial geology at the Site consists of bog, swamp and shallow lake deposits, particularly organic peat up to 14 m thick. Previous environmental reports described the shallow stratigraphy at the Site as follows: 1 to 3 m of variable fill (e.g. sand, gravel, some wood waste at specific locations) 1.2 to 3.7 m of native silt followed by variable sand and silt layers 0.3 m of peat, observed at depths between 7 m and 8 m		

Table 4 **Topography and Groundwater Flow (Appendix B)**

Site Topography	The local topography of the Site is relatively flat, with the Site situated at approximately 4 m above sea level	
Regional Topography	The regional topography is relatively flat, increasing in elevation up to 80 m above sea level towards the southeast	
Closest Surface Water Body	The Fraser River is located adjacent to the northwest boundary of the Site. 380 m southwest of the Site is Manson Canal, a tributary that discharges into the Fraser River. The reach of Fraser River between the Pattullo Bridge and the George Massey Tunnel is both a freshwater and marine water habitat, therefore, both aquatic water uses must be considered in all site assessments (MoE Ministry Technical Guidance Document No. 15).	
Description of Water Bodies on the Site	Aside from localized surface water ponding, no water bodies were observed on Site during the Site visit.	
Inferred Groundwater Flow Direction	Groundwater is inferred to be controlled by Site topography, and discharge into the Fraser River. Therefore, the inferred groundwater flow direction is from southeast to northwest.	
Areas Considered Up-Gradient	Southeast boundary of the Site, distal to the Fraser River	
Areas Considered Cross-Gradient	Areas parallel to the Fraser River	
Areas Considered Down-Gradient	Northwest boundary of the Site, proximal to the Fraser River	

4.0 RECORDS REVIEW

4.1 **British Columbia Ministry of Environment Site Registry**

A search of the BC MOE Online Site Registry was conducted on April 26, 2019. The BC Online Site Registry is a database of sites that have submitted information to the BC MOE with respect to the BC Environmental Management Act. A search of the Site Registry was conducted using a one square kilometre (km²) search centred on the approximate longitude and latitude of the Site. The search resulted in a total of ten records, of which the Site was not included, summarized below. Consistent with Envirochem's findings in their 2019 Phase 1 ESA Update, nine of the 10 records are considered to pose a low environmental risk to the Site due to the properties locations cross-gradient from the Site, and, their distance from the Site. The property at 11940 Old Yale Road (occupied by the Brownsville Pub and RV Park), reported a diesel spill in 1999 that impacted approximately 52 m² of soil. The impacted soil was excavated to 1.5 ft (0.46 m) below surface, as required by the BC MoE, and therefore is considered to pose a low environmental risk to the Site.

Properties listed in the Site Registry are and shown on Figure 3. Results of the BC Online Site Registry search are included in Appendix B as well as Appendix E of Envirochem (2019a) report.

5.0 PREVIOUS REPORTS

Historical reports reviewed for this Phase I ESA update are attached in Appendix C.

5.1 Phase I ESA, Hemmera, September 2006

Hemmera was retained by the Fraser River Port Authority (FRPA) to complete a Phase I ESA for the Site. This Phase I ESA program was conducted in support of a proposed property transfer from the Canadian National Railway (CNR) Company to the Government of Canada, to be administered by the FRPA.

The Site was a 1.43-hecatre property owned by CNR that was zoned IL-1 (light impact industrial zone). The subject property comprised of six (6) parcels (from southwest to northeast: Parcel A, B, C, Rem-C, 9 and 7) situated between the Fraser River and the CNR line southwest of the Patullo Bridge.

Parcel A was occupied by Smallwood Sawmills, which carried out wood chipping activities on Site. Parcels B, C and the southwest portion of Rem-C were occupied by Lindal Cedar Homes, which used the site for wood storage (i.e., warehousing) and distribution activities. Parcels 7, 8 and the northeast portion of Rem-C are occupied by Lyndowana Lumber Ltd, a private log salvage operation.

The land use on-Site was light industrial (wood manufacturing and processing) from at least 1932 to present day. Wood manufacturing and processing operations occupied the northeast side of the Site (Parcels 7 and 8) from the early 1930's, and this area of the site was predominately used for wood storage since the early 1960's. Small house sized buildings were evident in the southwest part of the Site (Parcels A, B and C) from the early 1930's to the early 1950's (likely part of the fishing community). The house-sized buildings were removed by 1952 at which time the Parcels were overgrown with vegetation. By 1963, the vegetation was removed from Parcels A, B and C, and Brown Lee Mills was constructed in this area. Also by 1963, Parcels Rem-C, 7 and 8 were occupied by Brownsville Mills and were primarily used for wood storage. The Brown Lee Mill occupied Parcels A, B and C until the late 1970's when the current Site buildings were built. The Brownsville Mill occupied Parcels Rem-C, 7 and 8 until the early 1980's when multiple buildings were removed, vegetation began to grow, and the area was used for storage purposes. Smallwood Sawmills and Lindal Cedar Homes occupied the Site from the early 1980's to time of reporting in 2006.

The land use surrounding the Site was predominantly light industrial and commercial since at least 1952, with some residential areas prior to approximately 1980. Before 1952, the surrounding and up gradient properties were woodland and/or farmland. From 1952 to present day, the surrounding industrial and commercial operations consisted of wood manufacturing and processing, with increasing numbers of automobile and truck service-type commercial operations after approximately 1980.

Based on records review, interviews and Site visit information; it was concluded there were four (4) on-Site areas of potential environmental concern (APECs) and three (3) off-Site APECs that could potentially impact soil and/or groundwater on-Site. The APECs and their potential contaminants of concern (PCOCs) are summarized in **Table 6** below.

Table 5 Summary APECs and PCOCs

APEC No.	APEC Description	PCOCs	Investigation Rationale
1	Oil Storage Shed	Petroleum Hydrocarbons	 Extensive staining inside and outside of storage shed and unprotected drums stored outside shed, as observed by PWGSC in 1996, by FRPA in July 2000, and by Hemmera during 2006 Site visit. No secondary containment for drums in use inside shed. Smallwood Sawmill Ltd reportedly removed outside drums and oil-stained soil in September 2000, but extent of soil removal is unknown and many outside drums and staining are still present.
2	Sawmill operations located on-Site (Parcels A, B, C, Rem-C, 7, and 8) from approximately 1932 to present	Petroleum Hydrocarbons, Metals, Chlorophenols	Specific sawmill activities/locations are not known.
3	Oil stains/odours observed beneath the green chain	Petroleum Hydrocarbons, Chlorphenols	 Petroleum hydrocarbon odours and potential staining were observed beneath the green chain during 2006 Site visit. The ground surface beneath green chain is concrete of unknown condition.
4	Historic fill materials of unknown origin, within top 2 to 3 m below ground surface (bgs) across the Site	Petroleum Hydrocarbons, Metals (particularly Zinc)	 The age and origin of the fill materials is unknown, though the materials were likely placed on the site prior to 1932. Historic soil samples within the Site fill materials indicated levels of zinc above the CSR standards. Site fill materials have never been sampled for petroleum hydrocarbons, the primary site COPC.
5 (off- site)	Former pentachlorophenol (PCP) spraying tank reportedly located immediately southeast of Parcel 7 (near railroad tracks). PCP-treated wood was also stored adjacent to the Site for drying.	Petroleum Hydrocarbons, Chlorophenols	 Identified during 1996 investigation by PWGSC, and discussed in 2000 FRPA report and 2002 Keystone report. Stacked wood reportedly placed on supports and handsprayed with PCP pumped from a tank. Surface below tank was apparently asphalt paved, but the extent and condition of the historic paving is unknown. Treated products were then reportedly stored south of the railroad tracks.
6 (off- Site)	Adjacent and up gradient historical industrial activities and Brownsville rail spur adjacent to Parcels A, B and C, Rem-C, 7 and 8.	Petroleum Hydrocarbons, Metals, Chlorophenols	 Milling operations or related industries have been adjacent to the Site since at least 1932, and the rail spur has been present since 1891. A metal depot was operated adjacent (northwest of the Site) from 1970 to 1985. Historical light industrial operations, including auto body repair shops, shingle production, and concrete production were located within 300 m of the Site.
7 (off- site)	RV Park Diesel Spill	Petroleum Hydrocarbons	 BC Site registry search indicated a diesel spill occurred at 11940 Old Yale Road (RV Park) in 1999. The site is currently "ACTIVE UNDER ASSESSMENT" according to BC MOE.

Based on the APECs identified during the Phase I ESA and outlined above, Hemmera concluded that additional investigation through a Phase II ESA process is warranted to confirm or refute if soil and/or groundwater contamination is present at the identified APECs.

It was also recommended that prior to the proposed property transfer, FRPA should identify and quantify the on-Site waste materials (e.g. small pieces of abandoned machinery, tires, wood pallets, scrap wood, etc.) in order to assess future disposal costs. These waste materials would not likely result in Site contamination and do not represent an immediate environmental concern, but the assumption of a property with waste materials could represent a liability to FRPA, since the cost and responsibility associated with the appropriate off-site disposal of these materials would also be assumed.

5.2 Phase II ESA, Hemmera, May 2008

Hemmera was retained by FRPA to complete a Phase II ESA for the Site. This Phase II ESA program was conducted in support of a proposed property transfer from CNR to the Government of Canada, to be administered by the FRPA.

The objective of the Phase II ESA program was to assess soil and groundwater quality in APECs identified in a Phase I ESA (Hemmera, 2006) and to identify areas of environmental concern (AECs). The Phase II ESA program included:

- A borehole drilling program and monitoring well installation program to assess soil and groundwater quality at identified APECs; and,
- An investigation of the area beneath the green chain.

Five monitoring wells were installed to investigate the soil and groundwater quality at APECs 1 to 7.

The results of the Phase 2 ESA program indicated the following:

- Soil and groundwater samples collected to assess APECs 1 and 4 met the applicable standards/guidelines at the time. Therefore, these APECs were considered fully investigated.
- A detailed review of the area beneath the green chain (APEC 3) indicated that the green chain concrete base was continuous and intact (no cracks or holes) with the exception of one small hole (approximately 0.3 m in diameter). A surface soil sample was collected from within this hole. No odour or evidence of hydrocarbon impacts were observed in this sample.
- A volatile petroleum hydrocarbon (VPH) concentration greater than the Contaminated Sites Regulation (CSR) industrial land use (IL) standard was identified in one soil sample collected from MW06-2.
- VPH and light extractable petroleum hydrocarbon (LEPH) concentrations greater than the CSR aquatic life (AW) standard were identified in the groundwater sample collected from MW06-2.
- Based on a review of the laboratory chromatograms for the exceeding soil and groundwater samples, the VPH and LEPH detected are consistent with Varsol (a hydrocarbon fluid often used as a solvent).

The sampling location MW06-2 was situated immediately down gradient of the CNR rail and Brownsville rail spur, and immediately upgradient of the current Lindal Cedar Homes warehouse and distribution building. Based on the distribution and types of parameters measured in excess of the applicable CSR



standards, the VPH exceedances in the soil and groundwater at MW06-2 appeared to be associated with either APEC-2 (on-site Sawmill operations from approximately 1932 to present) or APEC-6 (Adjacent and up gradient historical industrial activities and Brownsville rail spur adjacent to Parcels A, B and C, Rem-C, 7 and 8).

The recommended actions were as follows:

- 1. Delineate the VPH and LEPH impacts in the groundwater at MW06-2 (AEC-1);
- 2. Delineate the horizontal and vertical extent of VPH impacts in the soil at MW06-2 (AEC-1); and
- 3. Investigate the area up gradient of MW06-2 to assess whether background concentrations could be migrating onto the Site from off-site sources.

5.3 Supplemental Phase II ESA, Hemmera, December 2008

Hemmera, on behalf of Port Metro Vancouver (PMV), conducted a Supplemental Phase II ESA at the Site. The Supplemental Phase II ESA program was based on the following work previously completed by Hemmera and the objectives were to:

- Delineate soil contamination identified in vicinity of AEC-1.
- Delineate groundwater contamination identified in vicinity of AEC-1.
- Evaluate potential remedial/Site management options.

The Phase II ESA included:

- Advancement of four boreholes (MW07-6, MW07-7, MW07-8 and MW07-9) and installation of four monitoring wells in June-August 2007.
- Advancement of four boreholes (MW08-10, MW08-11, BH08-12 and MW08-13) and installation of three monitoring wells in September 2008.
- Soil analysis.
- Groundwater monitoring and sampling.

The Supplemental Phase II ESA included the following findings:

- VPH impacted soil was present within the upper sand unit and the lower silt unit (from approximately
 1.4 to 2.4 m below ground surface (bgs)) in AEC-1. VPH contaminated soil has essentially been
 delineated (laterally and vertically) on-site; however, the lateral extent of VPH contamination offsite to southeast of BH08-12 was unknown.
- It was estimated that approximately 400 m³ of soil impacted with VPH concentrations greater than the applicable provincial industrial land use (IL) standards was present within AEC-1.
- Light extractable petroleum hydrocarbon (LEPH) contaminated groundwater was identified in MW06-2, MW07-6 and MW07-7, and was essentially delineated on-site. A source for the contamination was not identified in upgradient monitoring well MW07-9. LEPH concentrations in groundwater decreased between July/August 2007 and September 2008.
- The groundwater samples collected in September 2008 did not exceed the applicable provincial standards for VPH.
- Based on a review of the laboratory chromatograms, the elevated VPH in soil and groundwater samples is consistent with an aromatic petroleum hydrocarbon solvent (i.e. Varsol ©).



Overall, the contamination appeared to be localized and the concentrations of VPH and LEPH in groundwater decreased between July/August 2007 and September 2008.

5.4 Supplemental Site Investigation, Franz Environmental, June 2013

Franz Environmental (Franz) completed a data gap analysis and subsurface environmental investigation for Lots 2, 3, 4, 5, 6. Lot 6 is the Site. The APECs and PCOCs identified by Franz are summarized in **Table 7** below.

Table 6 Summary APECs and PCOCs

APEC No.	APEC Description	PCOCs
21 (Formerly Hemmera APEC 1)	Oil Storage Shed	PAH, F2/F3 (L/HEPH), BTEX, F1(VPH)
22 (Formerly Hemmera APEC 2)	Former Kiln	PAH, F2/F3 (L/HEPH), BTEX, F1(VPH)
23 (Formerly Hemmera APEC 3)	Former Green Chain	Metals, PAH, F2/F3 (L/HEPH), Penols/Chlorophenols
24 (Formerly Hemmera APEC 5)	Former PCP Spray Tank, Spray Area and Lumber Storage	Metals, PAH, F2/F3 (L/HEPH), Phenols/Chlorophenols
25 (new APEC)	Lumber Storage Area	Metals, PAH, F2/F3 (L/HEPH), Phenols/Chlorophenols
30 (Formerly Hemmera APEC 4)	Fill Lot 6	Metals, PAH, F2/F3 (L/HEPH), BTEX, F1(VPH)
33 (Formerly Hemmera APEC 6)	Diesel Spill - Railway	PAH, F2/F3 (L/HEPH)
34 (Source Unknown)	VPH and LEPH Plume by Warehouse – Lot 6	PAH, F2/F3 (L/HEPH), BTEX, F1(VPH)

In 2013, the Site was occupied by Lindal Cedar Homes Warehouse and Distribution Building, an oil storage shed (APEC 21), the Former Kiln (APEC 22), the Sawmill building, and an office trailer. The green chain (APEC 23) was no longer present onsite at the time of reporting. APEC 30 – Fill of Unknown Quality was added as a site wide APEC based on Hemmera's Phase II ESA indicating approximately 1 m of wood waste in onsite fill. As well, APEC 25 – Lumber Storage Area was added as a site wide APEC due to the potential of historical chlorophenol-treated lumber storage throughout the Site.

Franz monitored the drilling of 8 additional boreholes, each installed with a monitoring well. The locations of BV-11-BH-01M to 05M and BV-11-BH-07M to 09M are shown on the attached Figure 2.

Analytical results indicated:

- Arsenic in soil at two locations at depths of 3 to 4 m bgs exceeding the federal Canadian Council
 of Ministers of the Environment (CCME) IL guidelines and one of the locations also exceeded the
 provincial CSR IL standard;
- VPH in soil at one location at APEC 34 exceeding the CSR IL standard. The VPH contamination was delineated and estimated at an area of 400 m² and a vertical thickness of 1.5 m;
- VPH in groundwater at one location at APEC 22 exceeding the CSR groundwater standards;



- LEPH in groundwater at two locations (APEC 21 and APEC 34) exceeding the CSR groundwater standards:
- PAHs in groundwater at two locations at APEC 34 exceeding the applicable federal and provincial groundwater standards.

5.5 Phase I ESA Update, Envirochem Services Inc., March 2019

Envirochem Services Inc. (Envirochem) completed a Phase I ESA update for 10880 Dyke Road (i.e. the paved portion of the Site). The Phase I ESA update was completed as part of the exit assessment for Mill & Timber. The APECs and areas of environmental concern (AECs) identified for 10880 Dyke Road are summarized in the below table.

Table 7 **Summary APECs and AECs and PCOCs and COCs**

APEC/AEC No.	APEC Description	PCOCs/COCs
APEC 1 (Formerly Franz APEC 22 and Hemmera APEC 2)	Former Sawmill Operations (Including Former Kiln)	PAH, F2/F3 (L/HEPH), BTEX, F1(VPH) and metals
APEC 2 (Formerly Franz APEC 23 and Formerly Hemmera APEC 3)	Former Green Chain	Metals, PAH, F2/F3 (L/HEPH)
APEC 3 (Formerly Franz APEC 30 and Hemmera APEC 4)	Fill Lot 6	Metals, PAH, F2/F3 (L/HEPH), BTEX, F1(VPH)
AEC 1 (Formerly Franz APEC 34)	Off-site Historical Activities or Spills and Suspect Former Storage Tank	PAH, F2/F3 (L/HEPH), BTEX, F1(VPH) and metals
AEC 2 (Formerly Franz APEC 21 and Formerly Hemmera APEC 1)	Former Oil Storage Shed/Former Single-Walled Gravity-Fed Diesel Storage Tank	PAH, F2/F3 (L/HEPH), BTEX, F1(VPH), and metals

No new APECs were identified by Envirochem.

5.6 Review of Environmental Conditions/Updated Groundwater Quality Investigation, **Envirochem Services Inc., March 2019**

Envirochem completed a groundwater sampling program of all existing monitoring wells on 10880 Dyke Road and provided a summary of current environmental condition for both soil and groundwater for this portion of the Site. A summary of these results is discussed further in Section 8.

5.7 Contamination Arising from Third-Party Sources Independent of Mill & Timber Products Ltd., March 2019

Envirochem completed a review of contamination sources for the Site on behalf of Mill & Timber, the previous tenant for the Site. Envirochem concluded that contamination identified for the Site in both soil and groundwater was resulting from activities prior to when Mill & Timber first leased the Site.

6.0 SITE VISIT

Hemmera conducted a Site visit on April 12, 2019, accompanied by Mr. Sucha Seikhon, property manager at the Site. Mr. Seikhon has been familiar with the Site since acquiring it in March 15, 2019. The Site is currently used for Light Impact Industrial (IL-1) purposes, specifically lumber storage and distribution. Photos of the Site and surrounding land uses have been included in **Appendix A**. Interview information obtained from Mr. Seikhon during the site visit has been incorporated into the sections below.

6.1 Ground Observations

Observations of the grounds of the Site are provided below.

Table 8 Summary of Ground Observations

Approximately 20% of the Site is covered by equipment and buildings such lumber, storage sheds, trailer offices, and a distribution warehouse. Approximately 50% of the Site is paved (with evidence of repairs), and 30% consists of unpaved gravel towards the northeast. Vegetation (i.e., blackberry) is present around the perimeter of the Site. Evidence of Fill Site is at-grade with surrounding properties. Based on historical reports, the surficial 2-3 metres of the Site is filled with wood waste and sand. Site Drainage Surface water from Site are collected in drains and discharges directly to Fraser River. Surface Water Surface water ponding, especially in the unpaved areas on Site, is evident. No sheen observed. Monitoring Wells Several monitoring wells, some destroyed, are present across the Site. Sewage Disposal and/or Connection Waste Water or Other Discharges from Site Vater Connection Not observed on Site. Water Wells Not observed on Site. Water Wells Not observed on Site. Evidence of USTs Not observed on Site. Evidence of USTs Not observed on Site. Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Not observed on Site. Evidence of Surface Contamination Not observed on Site. Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Not observed on Site. Evidence of Surface Contamination Not observed on Site. Currently being upgraded. Previous electrical lines presented a fire hazard. Right of Ways Not observed on Site.		
surficial 2-3 metres of the Site is filled with wood waste and sand. Site Drainage Surface water from Site are collected in drains and discharges directly to Fraser River. Surface Water Surface water ponding, especially in the unpaved areas on Site, is evident. No sheen observed. Monitoring Wells Several monitoring wells, some destroyed, are present across the Site. Sewage Disposal and/or Connection Waste Water or Other Discharges from Site Surface water is collected by drains and discharged to Fraser River. Currently, no wastewater is being discharged from Site. Water Connection Not observed on Site. Water Wells Not observed on Site. Sevidence of USTs Not observed on Site. Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Signs of Spills, Staining on Ground Transformers or Capacitors Surface water is collected by drains and discharged to Fraser River. Currently, no wastewater is being discharged from Site. Not observed on Site. Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Not observed on Site. Signs of Spills, Staining on Ground Transformers or Capacitors Currently being upgraded. Previous electrical lines presented a fire hazard.	Ground Cover	lumber, storage sheds, trailer offices, and a distribution warehouse. Approximately 50% of the Site is paved (with evidence of repairs), and 30% consists of unpaved gravel towards the northeast. Vegetation (i.e.,
Surface Water Surface Water Surface water ponding, especially in the unpaved areas on Site, is evident. No sheen observed. Monitoring Wells Several monitoring wells, some destroyed, are present across the Site. Sewage Disposal and/or Connection Not observed on Site. Waste Water or Other Discharges from Site Surface water is collected by drains and discharged to Fraser River. Currently, no wastewater is being discharged from Site. Water Connection Not observed on Site. Water Wells Not observed on Site. Gas Connection Not observed on Site. Evidence of USTs Not observed on Site. Storage of Hazardous Materials and/or Wastes Three unlabeled 40-gallon drums adjacent to electrical shed, one of which is damaged. Evidence of Surface Contamination Not observed on Site. Signs of Spills, Staining on Ground Not observed on Site. Currently being upgraded. Previous electrical lines presented a fire hazard.	Evidence of Fill	
Monitoring Wells Several monitoring wells, some destroyed, are present across the Site. Not observed on Site. Not observed on Site. Surface water is collected by drains and discharged to Fraser River. Currently, no wastewater is being discharged from Site. Water Connection Not observed on Site. Not observed on Site. Only small propane tanks stored in the open warehouse. Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Not observed on Site. Not observed on Site. Only small propane tanks stored in the open warehouse. Evidence of Surface Contamination Not observed on Site. Not observed on Site. Currently being upgraded. Previous electrical lines presented a fire hazard.	Site Drainage	
Sewage Disposal and/or Connection Waste Water or Other Discharges from Site Surface water is collected by drains and discharged to Fraser River. Currently, no wastewater is being discharged from Site. Water Connection Not observed on Site. Water Wells Not observed on Site. Sewage Disposal and/or Not observed by drains and discharged to Fraser River. Currently, no wastewater is being discharged from Site. Not observed on Site. Not observed on Site. Storage of USTs Not observed on Site. Only small propane tanks stored in the open warehouse. Storage of Hazardous Materials and/or Wastes Three unlabeled 40-gallon drums adjacent to electrical shed, one of which is damaged. Evidence of Surface Contamination Not observed on Site. Signs of Spills, Staining on Ground Transformers or Capacitors Currently being upgraded. Previous electrical lines presented a fire hazard.	Surface Water	
Waste Water or Other Discharges from Site Surface water is collected by drains and discharged to Fraser River. Currently, no wastewater is being discharged from Site. Water Connection Not observed on Site. Not observed on Site. Sides Connection Not observed on Site. Not observed on Site. Not observed on Site. Not observed on Site. Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Not observed on Site. Not observed on Site. Three unlabeled 40-gallon drums adjacent to electrical shed, one of which is damaged. Evidence of Surface Contamination Not observed on Site. Signs of Spills, Staining on Ground Not observed on Site. Currently being upgraded. Previous electrical lines presented a fire hazard.	Monitoring Wells	Several monitoring wells, some destroyed, are present across the Site.
From Site Currently, no wastewater is being discharged from Site. Water Connection Not observed on Site. Not observed on Site. Signs of Spills, Staining on Ground Currently being upgraded. Previous electrical lines presented a fire hazard.		Not observed on Site.
Water Wells Gas Connection Not observed on Site. Evidence of USTs Not observed on Site. Not observed on Site. Only small propane tanks stored in the open warehouse. Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Signs of Spills, Staining on Ground Transformers or Capacitors Not observed on Site. Currently being upgraded. Previous electrical lines presented a fire hazard.		
Gas Connection Not observed on Site. Not observed on Site. ASTs Only small propane tanks stored in the open warehouse. Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Not observed on Site. Signs of Spills, Staining on Ground Transformers or Capacitors Not observed on Site. Currently being upgraded. Previous electrical lines presented a fire hazard.	Water Connection	Not observed on Site.
Evidence of USTs Not observed on Site. Only small propane tanks stored in the open warehouse. Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Signs of Spills, Staining on Ground Transformers or Capacitors Not observed on Site. Currently being upgraded. Previous electrical lines presented a fire hazard.	Water Wells	Not observed on Site.
ASTs Only small propane tanks stored in the open warehouse. Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Signs of Spills, Staining on Ground Transformers or Capacitors Only small propane tanks stored in the open warehouse. Three unlabeled 40-gallon drums adjacent to electrical shed, one of which is damaged. Not observed on Site. Currently being upgraded. Previous electrical lines presented a fire hazard.	Gas Connection	Not observed on Site.
Storage of Hazardous Materials and/or Wastes Evidence of Surface Contamination Signs of Spills, Staining on Ground Transformers or Capacitors Transformers or Capacitors Transformers or Capacitors Transformers or Capacitors Three unlabeled 40-gallon drums adjacent to electrical shed, one of which is damaged. Not observed on Site. Currently being upgraded. Previous electrical lines presented a fire hazard.	Evidence of USTs	Not observed on Site.
and/or Wastes damaged. Evidence of Surface Contamination Not observed on Site. Signs of Spills, Staining on Ground Not observed on Site. Transformers or Capacitors Currently being upgraded. Previous electrical lines presented a fire hazard.	ASTs	Only small propane tanks stored in the open warehouse.
Signs of Spills, Staining on Ground Not observed on Site. Transformers or Capacitors Currently being upgraded. Previous electrical lines presented a fire hazard.		
Transformers or Capacitors Currently being upgraded. Previous electrical lines presented a fire hazard.	Evidence of Surface Contamination	Not observed on Site.
	Signs of Spills, Staining on Ground	Not observed on Site.
Right of Ways Not observed on Site.	Transformers or Capacitors	Currently being upgraded. Previous electrical lines presented a fire hazard.
	Right of Ways	Not observed on Site.

6.2 Building Observations

The building observations are summarized below.

Table 9 Summary of Building Observations

General Description	Distribution warehouse
Operations in Building	Lumber storage and distribution
Size	5,200 m ²
Age	~ 50 years old
Construction Materials	Wood-framed, metal-roofed, concrete slab-on-grade, open to elements
Heating and Cooling Systems	Not observed.
Tanks	Not observed.
Hydraulic Elevators, In ground Hoists or Lifts	Not observed.
Transformers or Capacitors	Not observed.
Staining/Cracking of Floors	Not observed.
Storage of Hazardous Materials	Not observed.
Drains / Sumps / Oil Water Separators	Not observed.
General Description	Old oil storage shed/storage bunkers
Operations in Building	Miscellaneous storage/electrical room
Size	180 m ²
Age	~30 years old
Construction Materials	Wood-framed, metal-roofed, concrete slab-on-grade, open to elements
Heating and Cooling Systems	Not observed.
Tanks	Not observed.
Hydraulic Elevators, In ground Hoists or Lifts	Not observed.
Transformers or Capacitors	Not observed.
Staining/Cracking of Floors	Not observed.
Storage of Hazardous Materials	Not observed.
Drains / Sumps / Oil Water Separators	Not observed.

6.3 Special Attention Substances

Special attention items or substances, as defined by the *Canadian Standards Association*, are "substances that require special attention because of heightened public concern or specific environmental legislation". The presences of these substances - asbestos, urea formaldehyde foam insulation (UFFI), polychlorinated biphenyls (PCBs), lead, and mercury.

Based on the records review and Site visit, special attention substances are not likely present on-Site. The holding tank for the sawmill air compressor did not contain any pipe-wrap insulation or elbows containing asbestos. According to historical reports, no PCBs are present in the Site transformers, and all electrical components on Site have been upgraded since March 2019. According to Envirochem (2019a), a hazardous materials survey had been completed for Mill & Timber in a report dated July 4, 2018, however, the findings were not considered as directly relevant to their Phase I ESA Update. A hazardous materials survey was not performed as part of this Phase I ESA Update, therefore, the absence of special attention items cannot be confirmed or refuted.

6.4 Current Surrounding Land Use

The Site is situated in a lumber and automotive-based industrial/commercial neighbourhood. The Site is bounded to the southeast by the Canadian National Railway. Properties adjacent to the CN Railway are occupied by Kwest Lumber, a lumber supplier, and RDM Enterprises Ltd., a demolition contractor. Kwest Lumber also occupies property west of the CN Railway. The Site is bound by Fraser River in the north/northwest. The property southwest of the Site is owned by Apex Terminals, a lumber exporter.

7.0 INTERVIEWS

During the Site visit, an interview was conducted with Mr. Seikhon. The following details were discussed:

- The Site is currently used for lumber storage and distribution. There are no lumber treatment processes on Site, and all lumber stored on Site is untreated.
- The surface drains were upgraded and cleared during March 2019.
- Any surface water collected on site is diverted through the drains into ditches that discharge directly
 to Fraser River. No treatment method is applied to the discharge, and it is unknown if previous
 owners treated discharge water.
- Previous owners did not maintain on-Site drainage, and allowed surface water to collect at surface.
 It is unknown if lumber was treated or covered by previous owners.
- There are plans to pave currently unpaved gravel areas in the northeast of the Site, and install proper drainage.
- According to Mr. Seikhon, the unpaved area in the northeast portion of the Site had been excavated
 and scoured by Port of Vancouver to prevent squatters from setting up dwellings. As a result, three
 wells in that area (MW06-4, MW06-5, and BV-11BH-05M) could not be located.
- Trucks on Site are fueled by the Site entrance by third-party fuel trucks. The area is paved, and according to Mr. Seikhon, spill management procedures are in place. Therefore, this area is not considered a potential environmental concern.
- Currently, there are no on-Site ASTs or USTs.
- Old electrical lines (not up to code) were removed. New lines and electrical panel are being upgraded.
- CN Rail extension is to be constructed on Site, parallel to and northwest of the current railway.



8.0 SITE HISTORY

Based on the Site information reviewed by Hemmera, previous environmental reports (Envirochem, 2019), and the Site visit conducted by Hemmera, the following Site history has been compiled:

Table 10 Site History

Year	Site Use
1938 to 1949	The Site was originally occupied by a small fishing village with a portion of the Site transitioning to industrial use. The Site was potentially flooded by the Fraser River in 1948. A sawmill or shingle mill appeared to be in operation by 1949 towards the southwest area of the Site, however, the remainder appeared to be abandoned due to flooding.
	Supreme Shingles and Brownlee Industries, a saw/shingle mill, operated at the site with references to a kiln as early as 1959. The northeast area of the Site remained vacant until the late 1950s until it was used as a lumber storage area for Brownsville Mills.
1949 to 1975	Brown Lee Mills operated on Site in 1963. An AST on Site in an unpaved area may have been the source of hydrocarbon contamination in soil and groundwater at AEC-1. The current distribution warehouse was built between 1970 and 1974, when the suspect AST appear to have been removed.
1975 to 1997	The Site was operated by Lindal Cedar Homes (Lindal), a manufacturer of pre-fabricated cedar homes, between 1968 and 1986. Brownsville Mills was decommissioned in 1982, and remained vacant until Lindal began to use it for lumber storage in the late 1980s. Public Works and Government Services Canada (PWGSC) determined that there was potential hydrocarbon contamination in soil near the oil storage shed in their environmental audit in 1996.
	Mill & Timber acquired Smallwood Sawmill Ltd. in 1997 and purchased the sawmill from Lindal on December 22, 1998. Envirochem completed a baseline environmental audit for Mill & Timber in 1999 to assess potential environmental liabilities associated with the sawmill. The results of the environmental audit found a gravity-fed diesel AST adjacent to the oil storage shed. Oil staining was identified at ground surface in front of the shed, consistent with the PWGSC audit.
1997 to 2004	Mill & Timber began operating the sawmill on March 31, 2000 and began sub-leasing the Site from Lindal and Apex Terminals in 2003. Tannery Park was constructed in 2001, southwest of the Site. The Park was constructed on the former Imperial Lumber property, a contaminated site, but is not an environmental concern due to the cross-gradient distance from the Site. Brownsville RV Park was also identified as a contaminated site in the Site Registry search, however, is also not considered an environmental concern due to its distance from the Site.
2004 to 2006	Mill & Timber stopped operating the sawmill in April 2004, and transitioned into fingerjoint production and wood chipping in May 2004. Lindal continued operations on-Site at the distribution warehouse, and hydrocarbon contamination was identified that may have been related to a propane AST owned by Lindal.
2006 to 2012	Mill & Timber and Lindal continued operations on the Site from 2006-2012, however, Mill & Timber terminated their sub-lease payments to Apex Terminals. Hemmera (2008) and Franz (2013) completed environmental baseline investigations for the Site for VFPA, and both identified contamination in soil and groundwater southwest of the distribution warehouse and near the oil storage shed. The sawmill was decommissioned during this time, including the grain chain in 2007/2008, the oil storage shed in 2010, and the remainder in 2012. The Site was sold to Her Majesty the Queen in Right of Canada as Represented by the Minister of Transport in 2011, and was managed by VFPA. Smallwood Sawmill purchase the remainder of the Site from Lindal in July 2011.

Year	Site Use
	Port of Vancouver leased the Site to Mill & Timber from September 2012, and Lindal likely exited prior to this time. Mill & Timber continued their wood chipping operations until their exit in November 30, 2018, leaving the Site vacant. Their division, Panabode Homes International, created portal offices on Site in 2017, and used a portion of the distribution warehouse for manufacturing pre-fabricated cedar homes.
2012 to 2018	Wood treatment or storage/distribution of treated wood has not been documented as a part of on-Site activities, therefore contamination related to lumber treatment have not been recognized. Hydrocarbon impacts have also not been observed from the wood chipping operations.
	A diesel AST was used from 2017 for fueling Panabode's forklift, downgradient of the contaminated soil and groundwater. The AST was observed by Envirochem to be in good condition with no staining of the surrounding asphalt / concrete, therefore, the environmental risk surrounding the Panabode operations on-Site is considered to be low.
2019 to Present	The Site was leased to the Goodrich Group c/o Pacific Land Group on March 15, 2019. The Site is currently used for the storage and distribution of untreated lumber. From the Site visit conducted by Hemmera on April 12, 2019, it was reported that surface drains were upgraded on Site in March 2019 to prevent surface water ponding that have historically occurred on Site. The surface water collected on site is diverted through the drains into ditches that discharge directly to Fraser River. No treatment method is applied to the discharge, and it is unknown if previous owners treated discharge water. There are also plans to pave currently unpaved gravel areas in the northwest areas of the Site, and install proper drainage. The vacant lot in the northeast area of the Site had historically been used by squatters for temporary dwelling. It was reported that VFPA excavated and scoured the lot to prevent this. Trucks on Site are also fueled by the Site entrance by third-party trucks. The fueling area is paved, and spill management procedures are in place, therefore the environmental risk is considered low.

9.0 BASELINE - SOIL AND GROUNDWATER QUALITY

9.1 Soil Quality

Baseline soil quality was assessed using historical data collected between 2006 and 2011. The results of the chemical analysis for soil are compared to the following standards:

- Federal Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines (CEQG) for the Protection of Environmental and Human Health Industrial Land Use for Coarse and Fine-Grained Soils, including the CCME Canada-Wide Standards for petroleum hydrocarbons (F1 to F4).
- Provincial Contaminated Sites Regulation (CSR) criteria for Industrial Land Use for the Protection
 of Ecological and Human Health and in consideration of Drinking Water Use (DW) and Aquatic
 Water Use (AW) criteria.

A summary of previous soil analytical results for the Site are illustrated on **Figure 4**. Detailed soil analytical results are reported in Table 1 of the Hemmera (2008) ESA, Tables 61-72 of the Franz (2013) ESA, and Tables S1-S3 **in** Appendix A of the Envirochem (2019a) Review of Environmental Conditions/Updated Groundwater Quality Investigation report.

Table 11 below summarizes soil exceedances identified at the Site during previous investigations conducted by others.

Table 11 Impacts Identified in Soil (Baseline Assessment)

APECs / AECs	Impacts in Soil
AEC-1 Offsite Historical Activities or Spills and Suspect Former Storage Tank	Volatile Petroleum Hydrocarbons (VPH) F1
AEC-2 Former Oil Storage Shed / Former Single-Walled Gravity-Fed Diesel Storage Tank	Naphthalene Phenanthrene
APEC-1 Former Sawmill Operations (Kiln)	None
APEC-2 Former Green Chain	Naphthalene
APEC-3 Imported Fill Materials	Naphthalene Phenanthrene Index of Additive Cancer Risk (IACR) Arsenic

According to historical reports, the soil quality impacts are suspected to be related to historical fill materials, except at AEC-1 and AEC-2, where petroleum hydrocarbon contamination is present. At AEC-1, the hydrocarbon-impacted soil extends from 1.3 m to 2.3 m below ground surface and straddles the water table. Fluctuation of the water table due to seasonality or tidal influence may cause smearing of hydrocarbon across this depth interval. The contamination appears to be contained within native silt or sand, and does not appear to impact the sand unit directly beneath the asphalt at MW07-6 to MW08-13 (Hemmera, 2008), therefore, it was concluded that the source of the contamination likely did not occur at surface within AEC-1, but rather to the south of current monitoring well locations. The contamination may also have originated off-Site and migrated on Site with groundwater. The area of contamination was estimated at 400 m².

July 2019 Page | 17

190725_Goodrich Group Phase 1 Update_Final.docx

Only one borehole was drilled at AEC-2, and soil samples yielded no BTEXS, VPH, or LEPH impacts in the top 2 m despite the presence of slight hydrocarbon odour detected in the field. The naphthalene and phenanthrene concentrations in soil exceeded standards/guidelines applied, however, they are were also present at other locations on Site where they were not considered to represent contamination. Therefore, it is unknown whether the exceedances in soil at this location are a result of oil/fuel storage or from historical fill materials.

9.2 Groundwater Quality

Baseline groundwater quality was assessed using historical data collected between 2006 and 2018, as well as data from the groundwater sampling event conducted by Hemmera in April 2019. The results of the chemical analysis for groundwater are compared to the following standards:

- Federal Health Canada Guidelines for Canadian Drinking Water Quality
- Federal Contaminated Site Action Plan (FCSAP) Federal Interim Groundwater Quality Guidelines (FIGQG) (apply at distances greater than 10 m from the high-water mark of surface water bodies, i.e. the Fraser River)
- Federal Canadian Council of Ministers (CCME) Canadian Water Quality Guidelines (CEQG) for the Protection of Aquatic Life (apply at distances within 10 m of the highwater mark of surface water bodies, i.e. the Fraser River)
- Provincial Contaminated Sites Regulation (CSR) criteria for Aquatic Water Use (AW) and Drinking Water Use (DW) (apply at distances greater than 10 m from the high-water mark of surface water bodies, i.e. the Fraser River)

Hemmera summarized all historical groundwater quality data for the Site, from a Supplemental Phase 2 Environmental Site Assessment (Hemmera, 2008), an Environmental Supplemental Site Investigation (Franz, 2013), Review of Environmental Conditions/Updated Groundwater Quality Investigation (Envirochem 2019a) as well as new groundwater data form April 2019, and compared it to the applicable standards and guidelines above.

Table 12 below summarizes the groundwater exceedances of guidelines and/ir standards on Site, with detailed analytical data compiled in **Table A**, attached. The groundwater analytical results are also shown in **Figure 5**.

Table 12 Impacts Identified in Groundwater (Baseline Assessment)

APECs / AECs	Impacts in Groundwater**
	Dissolved Aluminum Dissolved Arsenic Dissolved Barium Dissolved Cadmium Dissolved Copper
	Dissolved Vanadium Dissolved Zinc
	Benzene* VPHw*
AEC-1 Offsite Historical Activities or Spills and Suspect Former Storage Tank	Light Extractable Petroleum Hydrocarbons (LEPHw) Acridine Anthracene Benz(a)anthracene Benzo(a)pyrene
	Benzo(b+j)fluoranthene* Benzo(g,h,i)perylene Dibenz(a,h)anthracene Indeno(1,2,3-cd)pyrene Fluoranthene Fluorene Phenanthrene Pyrene
AEC-2	Dissolved Aluminum Dissolved Arsenic
Former Oil Storage Shed / Former Single Walled Gravity-Fed Diesel Storage Tank	LEPHw Fluoranthene Pyrene
APEC-1 Former Sawmill Operations (Kiln)	None
APEC-2	Dissolved Aluminum
Former Green Chain	Dissolved Arsenic Dissolved Titanium
APEC-3	Dissolved Aluminum
Imported Fill Materials	Dissolved Arsenic Dissolved Zinc

^{*}Exceedances were historically identified in groundwater, but not in the most recent sampling event(s) prior to 2018 (typically 2012). Concentrations appeared to be decreasing due to natural attenuation.

Consistent with historical reports, Hemmera concludes that identified groundwater contamination are likely related to historical fill material at the Site, or contamination (e.g., dissolved metals, PAHs) transported on Site by the Fraser River, except for the hydrocarbon contamination in groundwater identified at AEC-1 and AEC-2. The laboratory data for the new groundwater results presented in this report is presented in the laboratory Certificate of Analysis in **Appendix D**.

^{**}Dissolved iron and dissolved manganese have not been considered as impacts at the Site based on the provincial CSR Stage 8 Amendments, which illustrate that groundwater use standards for these substances only need to be applied if specific Schedule 2 site activities occurred on-Site, which is not the case for this property. Therefore, any impacts for those metals can be presumed to be due to natural background groundwater quality.

10.0 SUMMARY DISCUSSION AND CONCLUSIONS

Based on the findings of the Phase I ESA update, soil and groundwater contamination has been previously identified at the Site. **Table 13** below summarizes the APECs and AECs and the associated PCOCs and COCs identified for the Site. No new APECs were identified for the Site since the 2019 Phase I ESA update by Envirochem.

Table 13 Summary APECs and AECs and PCOCs and COCs

APEC/AEC No.	APEC Description	PCOCs/COCs
APEC 1	Former Sawmill Operations (Including Former Kiln)	PCOCs: PAH, F2/F3 (L/HEPH), BTEX, F1(VPH), phenols and metals
APEC 2	Former Green Chain	Metals, PAH, F2/F3 (L/HEPH), chlorinated phenols
AEC 1	Off-site Historical Activities or Spills and Suspect Former Storage Tank	COCs: VPH in soil, LEPH and PAHs in groundwater
AEC 2	Former Oil Storage Shed/Former Single-Walled Gravity-Fed Diesel Storage Tank	COCs: PAHs in soil and LEPH and PAHs in groundwater
AEC 3	Fill (Other Areas)	COCs: PAHs and arsenic in soil and Several dissolved metals and PAHs in groundwater

The above APECs/AECs have been previously investigated. This Phase I ESA update confirmed current groundwater quality on portions of the Site, however, due to a number of the previously installed monitoring wells being destroyed, current groundwater quality could not be assessed in the northeastern portion of the Site. Additionally, soil investigation in the northeast portion of the Site was limited. Hemmera recommends soil samples from this area be collected on a grid basis to confirm current soil quality at this location. Further groundwater testing in this area may also be required to confirm current groundwater quality.

Report prepared by: **Hemmera Envirochem Inc.**

Report reviewed by: **Hemmera Envirochem Inc.**

ORIGINAL SIGNED AND STAMPED

Lora Paul, P.Eng., CSAP Senior Project Manager

Amy Hsieh, M.Sc., GIT Hydrogeologist

This document represents an electronic version of the original hard copy document, sealed, signed and dated by Lora Paul, P.Eng., CSAP and retained on file. The content of the electronically transmitted document can be confirmed by referring to the original hard copy and file. This document is provided in electronic format for convenience only. Hemmera Envirochem Inc. shall not be liable in any way for errors or omissions in any electronic version of its report document.

11.0 REFERENCES

- Envirochem Services Inc., 2019a. Phase I Environmental Site Assessment Update. 10800 Dyke Road, Surrey, BC. Prepared for: Mill & Timber Products Ltd. March 2019.
- Envirochem Services Inc., 2019b. Review of Environmental Conditions/Updated Groundwater Quality Investigation. 10800 Dyke Road, Surrey, BC. Prepared for: Mill & Timber Products Ltd. March 2019.
- Envirochem Services Inc., 2019c. Contamination Arising from Third-Party Sources Independent of Mill & Timber Products Ltd. 10800 Dyke Road, Surrey, BC. Prepared for: Mill & Timber Products Ltd. March 2019.
- Franz Environmental, 2013. Supplemental Site Investigation. Surrey Brownsville Site (Lots 2, 3, 4, 5, 6), Surrey, BC. Prepared for: Vancouver Fraser Port Authority. New Westminster, BC, June 2013.
- Geological Survey of Canada, 1980. Department of Energy, Mines and Resources, Map 1484A, Surficial Geology New Westminster, BC, 1980.
- Hemmera, 2006. Phase I Environmental Site Assessment. Brownsville Site, Surrey, BC. Prepared for: Fraser River Port Authority. New Westminster, BC, September 2006.
- Hemmera, 2008. Phase II Environmental Site Assessment. Brownsville Site, Surrey, BC. Prepared for: Fraser River Port Authority. New Westminster, BC, May 2008.
- Hemmera, 2008. Supplemental Phase II ESA. Brownsville Site, Surrey, BC. Prepared for: Fraser River Port Authority. New Westminster, BC, December 2008.
- Seikhon, S. Interviewed by: Hsieh, A. on April 12, 2019

FIGURES

C:	0:4-1	I. A: - I. \ /:
Figure 1	Site Location ar	id Aeriai View

Figure 2 Investigative Locations

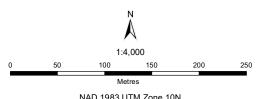
Figure 3 BC MOE Site Registry Locations

Figure 4 Soil Analytical Results

Figure 5 Groundwater Analytical Results

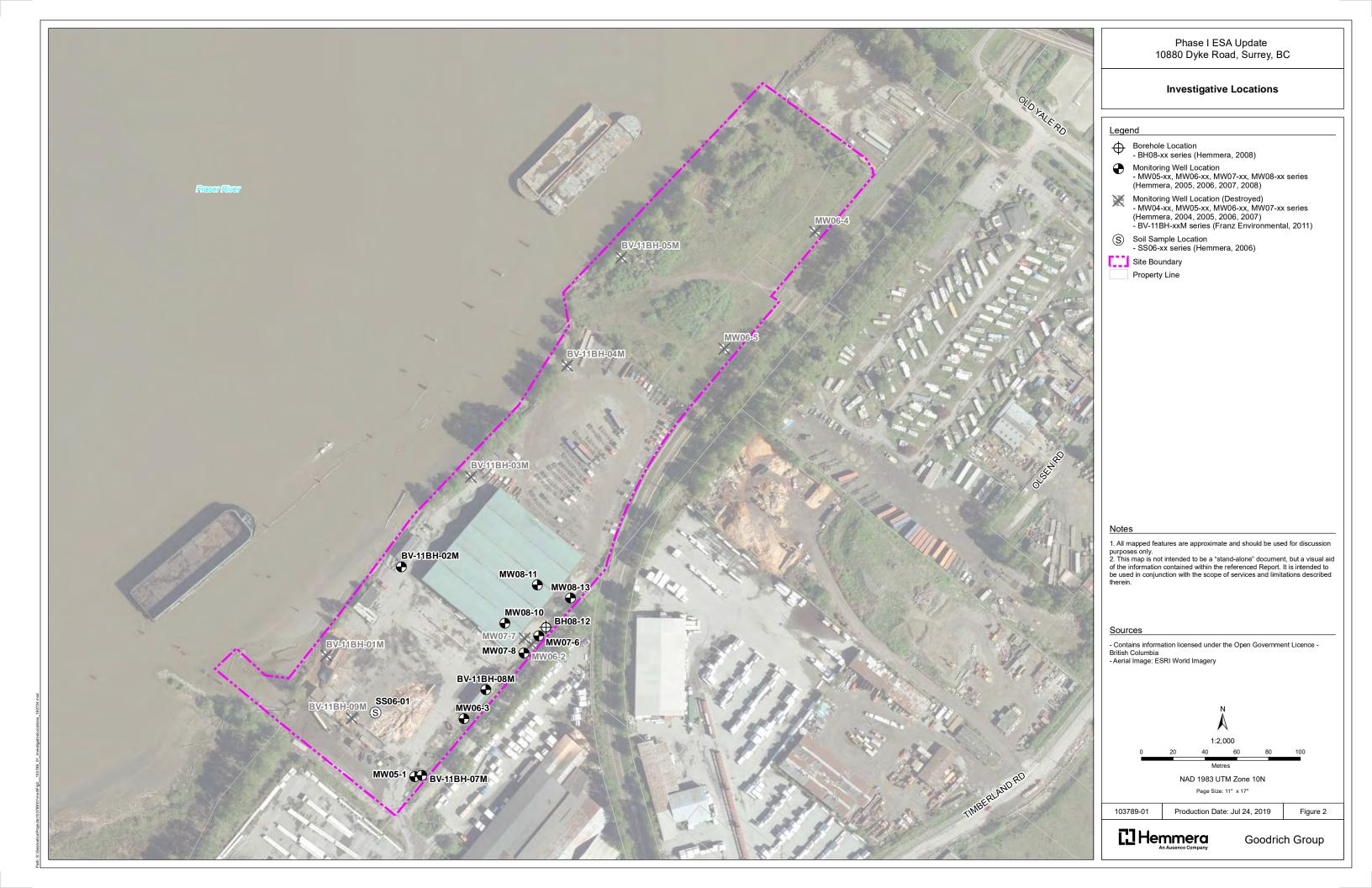




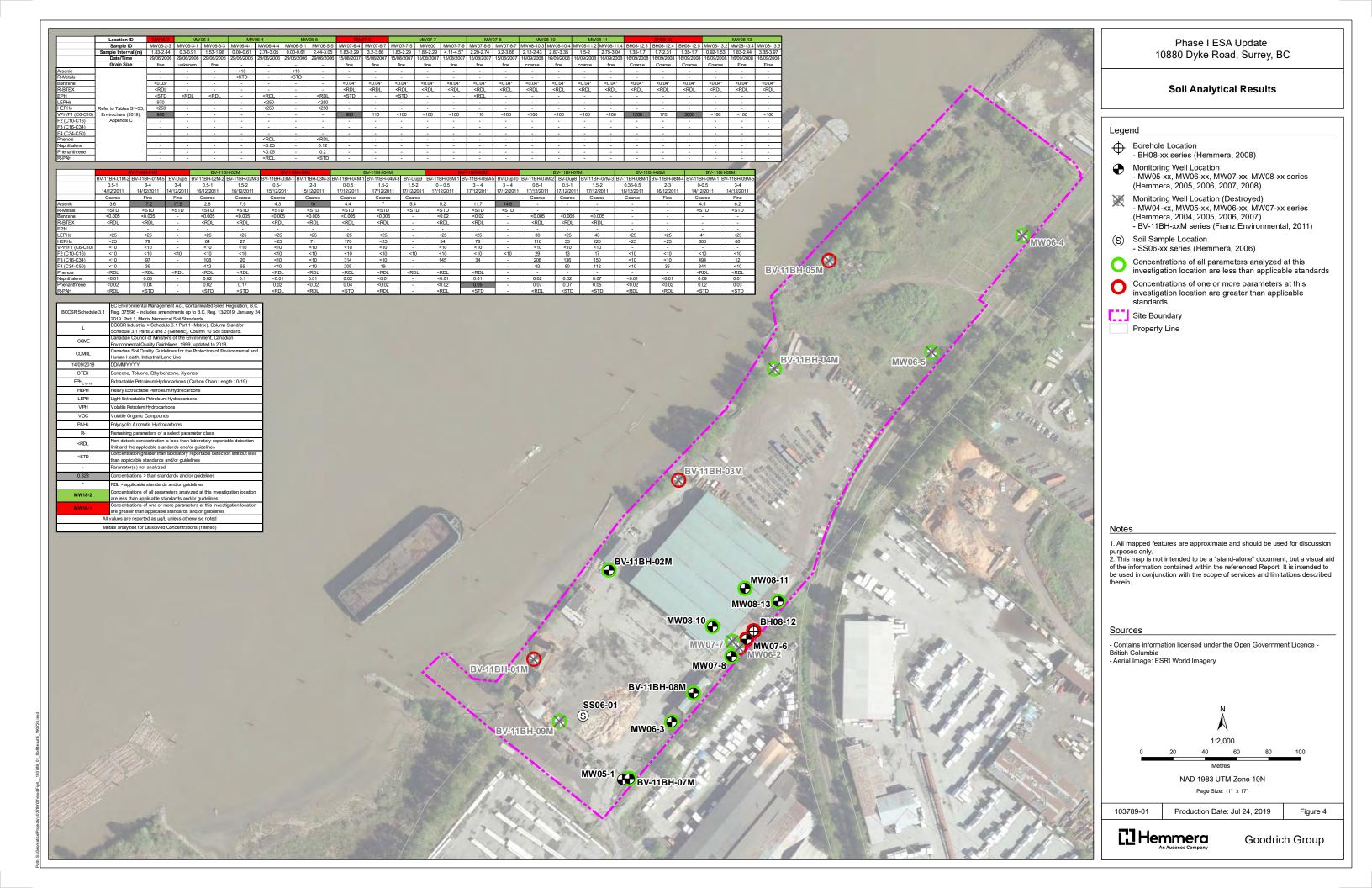


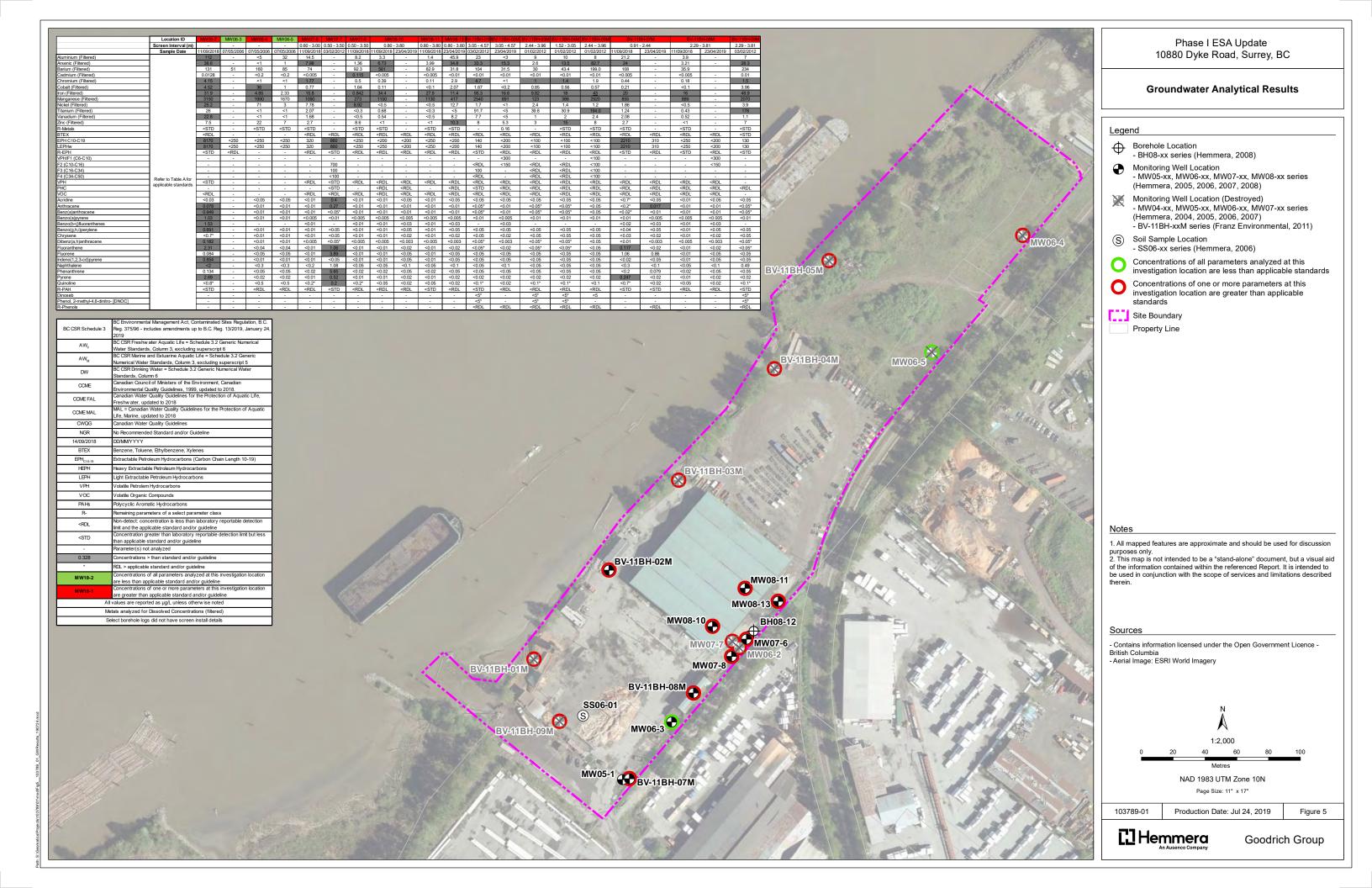
Production Date: Jul 24, 2019

Goodrich Group









TABLE

Table A Groundwater Analytical Data

																					Sample ID Screen Interval (m)	3.05 - 4.57	M BV-11BH-02M	BV-11B 1 BV-GWDUP1 3.05 -	BV-11BH-02M 4.57	1
				Federal Guidelines for Canadian Drinking Water (2017)	BC WQG FW Aquatic Life - Working	BC WQG FW Aquatic Life Long-Term Avg Approved	Marine	Marine Aquatic - Life Long-Term	BCCSR 3.2 - AWf	BCCSR 3.2 - AWm	BCCSR 3.2 DW		CCME of Protection of Aquatic Life (MAL, long term)	Federal Guidelines for Canadian Drinking Water (2017) AO	Federal Guidelines for Canadian Drinking Wate (2017) MAC	dustrial (Coarse	Federal Interim GW Tier 1 - Commercial/In dustrial (Fine Grained)	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Coarse Grained)	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Fine Grained)	Federal Interim GW Tier 2 - CL/IL Marine Life (Coarse Grained)	Sample Date Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained)	03/02/2012	02/02/2012	02/02/2012	11/09/2018	23/04/2019
Method_Type Field	CHVs (%LEL)	% LEL	EQL																			-	-	-	-	0
	Temperature (Field) DO (Field)	°C mg/L		0.001		8- 8- 11-		8- 8- 11-				>5.5-	>8-	0.001								-	-	-		11.1 0.21
	Field Conductance, Specific	μS/cm		-		0 0 11		0 10 111				0.0										-	-	-	-	278.6
	Field ORP (mV) pH (Field)	mV pH_Units		-											7-10.5							6.36	7.16	7.16	6.6	-88.2 6.98
Physical Properties	pH (Lab) Hardness as CaCO3 (Filtered)	pH_Units	1	-																		193	152	154	103	7.72 111
Inorganics Metals	Aluminium (Filtered)	mg/L μg/L	3			Eqn 50					9500					Note	Note	Note	Note			23	4	2	3.8	<3
	Antimony (Filtered) Arsenic (Filtered)	μg/L μg/L	1	6 10	9				90 50	2500 125	6 10				6 10	2000	2000	2000 5	2000 5	12.5	12.5	0.14 33.3	0.06	<0.05 25.9	<0.1 29.8	<0.5 15.3
	Barium (Filtered)	µg/L	1	1000	1000				10000	5000	1000				1000	500	500	2900	2900	500	500	104	58.1	58.4	42.1	31.5
	Beryllium (Filtered) Bismuth (Filtered)	μg/L μg/L	1	-	0.13		100		1.5	1000	8					5.3	5.3	5.3	5.3	100	100	0.02	<0.01	<0.01	<0.05	<0.1 <1
	Boron (Filtered)	µg/L	50	5000					12000	12000	5000				5000	500	500			5000	5000	64	128	129	60	<50
	Cadmium (Filtered) Calcium (Filtered)	μg/L mg/L	0	5		Eqn	0.12		Varies. See notes.	15	5				5	0.017	0.017	0.017	0.017	0.12	0.12	<0.01 58.3	0.01 45.6	<0.01 46	<0.005 29.9	<0.01 33.2
	Chromium (Filtered)	μg/L	1	50					10	15	50				50	8.9	8.9	8.9	8.9	56	56	4.7	1.2	1.2	0.55	<1
	Cobalt (Filtered) Copper (Filtered)	μg/L μg/L	0	1000		Eqn 2			40 Varies. See notes.	40 20	20 1500			1000		50 Note	50 Note	Note	Note	2	2	1.67 0.9	0.15 0.4	0.14	0.11 <0.2	<0.2 0.26
	Iron (Filtered) Lead (Filtered)	mg/L μg/L	0	0.3 10		-			Varies. See notes.	20	6.5 10			0.3	10	0.3 Note	0.3 Note	0.3 Note	0.3 Note	2	2	95.3 0.1	37.2 0.03	37.8 <0.01	22.8 <0.05	16.6 <0.2
	Lithium (Filtered)	μg/L	2	-					varies. See notes.	20	8				10	Note	Note	Note	Note	2	2	3.8	2.1	2	2.1	<2
	Magnesium (Filtered) Manganese (Filtered)	mg/L μg/L	0	50			100				1500			50		200	200					11.4 2540	9.37 1630	9.47 1640	6.78 1030	6.73 891
	Mercury	µg/L	Ė	1		Eqn			0.25	0.25	1	0.026	0.016		1	0.016	0.016	0.026	0.026	0.016	0.016	<0.003	<0.003	<0.003	<0.005	-
	Molybdenum (Filtered) Nickel (Filtered)	μg/L μg/L	1	-					10000 Varies. See notes.	10000	250 80					73 Note	73 Note	73 Note	73 Note	83	83	0.63 1.7	0.57	0.32	0.415 <0.5	<1 <1
	Potassium (Filtered)	mg/L	0	-																		-	-	-	1.58	1.13
	Selenium (Filtered) Silicon (Filtered)	μg/L μg/L	100	50		2			20	20	10				50	1	1	1	1	54	54	<0.1	0.1	<0.1	<0.05 17,600	<0.1 15,500
	Silver (Filtered)	μg/L	0	-					0.5 15	15	20					0.1	0.1	0.1	0.1	1.5	1.5	<0.01	<0.01	<0.01	<0.01	<0.02
	Sodium (Filtered) Strontium (Filtered)	mg/L μg/L	1	200							2500			200								8.86	9.31	9.42	6.55 131	4.81 123
	Sulphur (S) (Filtered) Thallium (Filtered)	μg/L	3,000	-					2	2						0.0	0.0	0.0	0.0			- 0.011			<500	<3000
	Tin (Filtered)	μg/L μg/L	5	-					3	3	2500					0.8	8.0	8.0	0.8			0.011	<0.002	<0.002	<0.01 <0.1	<0.01 <5
	Titanium (Filtered) Uranium (Filtered)	μg/L	5	20					1000 85	1000 85	20				20	100 10	100 10	100 15	100 15			91.7 0.03	58.3 0.01	58.3 <0.01	1.06 <0.01	<5 <0.1
	Vanadium (Filtered)	μg/L μg/L	5	-					00		20				20	100	100	13	13			7.7	0.8	0.9	1.14	<5
	Zinc (Filtered) Zirconium (Filtered)	μg/L μg/L	5	5000					Varies. See notes.	100	3000			5000		10	10	30	30	10	10	8	7	2	<1 <0.3	5.3 0.16
BTEX	Benzene	μg/L	0	5		40		110	400	1000	5	370	110		5	88	88	690	33000	200	9800	<0.5	<0.5	<0.5	<0.5	<0.4
	Ethylbenzene Styrene	μg/L μg/L	0	1.6	72	200			2000 720	2500 720	140 800	90 72	25	1.6	140	3200 72	3200 72	41000 72	NGR 72	11000	NGR	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.4 <0.4
	Toluene	μg/L	0	24		0.5			5	2000	60	2	215	24	60	83	4900	83	NGR	8900	NGR	<0.5	<0.5	<0.5	<0.45	<0.4
	Xylene (m & p) Xylene (o)	μg/L μg/L	0	-																		-	-	-	-	<0.4 <0.4
EDIL	Xylenes, total	μg/L	0	20		30			300	300	90			20	90	3900	13000	18000	NGR			<0.5	<0.5	<0.5	<0.75	<0.4
EPH	EPH C10-C19 EPH C19-C32	μg/L μg/L	200	-					5000	5000	5000											140 150	<100 <100	<100 <100	<250 <250	<200 <200
	LEPHw HEPHw	μg/L	200 200						500	500												140 150	<100 <100	<100 <100	<250 <250	<200 <200
VPH	VPHw	μg/L μg/L	300						1500	1500												<100	<100	<100	<100	<300
PHC	VH6-10 F1 (C6-C10)	μg/L μg/L	300 300	-				1	15000	15000	15000	+ -				810	6500	9800	NGR	ļ		<100	<100	<100	<100	<300 <300
	F2 (C10-C16)	μg/L	150	-												1300	1800	1300	NGR			<100	<100	<100	-	<150
	F3 (C16-C34) F4 (C34-C50)	μg/L μg/L	-																			100 <100	<100 <100	<100 <100	-	-
VOC	Methyl tert-butyl ether [MTBE]	μg/L	4	15		1000			34000	4400	95	10000	5000	15		340	5000	10000	10000	5000	5000	<1	<1	<1	<0.5	<4
PAH	Low Molecular Weight PAHs High Molecular Weight PAHs	μg/L μg/L	0	-																		-	-	-	-	<0.1 <0.05
	Polycyclic aromatichydrocarbons, total [PAHs]	µg/L	0	-		6			60	60	250	E 0				E 0	E 0	E 0	E 0			- 3 08	- 0.05		- 0.01	<0.1
	Acenaphthene Acenaphthylene	μg/L μg/L	0	-		0			60	60	250	5.8				5.8 46	5.8 46	5.8 46	5.8 46			3.98 <0.05	<0.05 <0.05	<0.05 <0.05	<0.01 <0.01	<0.05 <0.05
	Acridine Anthracene	μg/L	0	-		3 4			0.5	0.5	1000	4.4 0.012		-		0.05 0.012	0.05 0.012	0.05 0.012	0.05 0.012			<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.01 <0.01	<0.05 <0.01
	Benz(a)anthracene	μg/L μg/L	0	-		0.1			1	1	0.07	0.018				0.018	0.018	0.018	0.018			<0.05	<0.05	<0.05	<0.01	<0.01
	Benzo(a)pyrene Benzo(b)fluoranthene	μg/L	0	0.04		0.01			0.1	0.1	0.01	0.015			0.04	0.01	0.01	0.015	0.017			<0.01 <0.05	<0.01 <0.05	<0.01 <0.05	<0.005	<0.005
	Benzo(b+j)fluoranthenes	μg/L μg/L	0	-							0.07					0.48	0.48	0.48	0.48			-	-	-	<0.01	<0.03
	Benzo(g,h,i)perylene Benzo(k)fluoranthene	μg/L μg/L	0	-							1	1				0.17 0.48	0.21 0.48	0.17 0.48	0.21 0.48			<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.01 <0.01	<0.05 <0.05
	Chrysene	μg/L	0	-					1	1	7					0.1	0.1	1.4	1.4			<0.05	<0.05	<0.05	<0.01	<0.02
	Dibenz(a,h)anthracene Fluoranthene	μg/L μg/L	0	-		4			2	2	0.01 150	0.04				0.26 0.04	0.28	0.26	0.28			<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.005 <0.01	<0.003 <0.02
	Fluorene	μg/L	0	-		12			120	120	150	3				3	3	3	3			<0.05	<0.05	<0.05	<0.01	<0.05
	Indeno(1,2,3-cd)pyrene Methylnaphthalene, 1-	μg/L μg/L	0	-							5.5	+				0.21	0.23	0.21	0.23	-		<0.05	<0.05	<0.05	<0.01 <0.05	<0.05 <0.05
	Methylnaphthalene, 2-	μg/L	0	-							15							4.			4.	-	-	-	<0.05	<0.1
	Naphthalene Phenanthrene	μg/L μg/L	0	-		0.3			10 3	10 3	80	1.1 0.4	1.4			1.1 0.4	1.1 0.4	1.1 0.4	1.1 0.4	1.4	1.4	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.02	<0.1 <0.05
	Pyrene Quinoline	μg/L	0	-	3 4				0.2	0.2	100	0.025				0.025	0.025	0.025	0.025			<0.02 <0.1	<0.02 <0.1	<0.02	<0.01 <0.05	<0.02 <0.02
	Quinollile	μg/L	U	-	3.4		1	1	34	34	0.05	3.4	1		I.	3.4	3.4	3.4	3.4	1	l .	<0.1	<0.1	<0.1	\U.U5	\U.UZ

																						BV-11BH-03M			BV-11BH-07M	BV-11BH-07M	
																					Screen Interval (m)	2.44 - 3.96	1.52 - 3.05	2.44 - 3.96		0.91 - 2.44	
			Ē		1	1	1		1		1		1		1	1	1	1	1	1	Sample Date	01/02/2012	01/02/2012	01/02/2012	02/02/2012	11/09/2018	23/04/2019
												CCME	CCME	Fadanal	Fadaval	Federal Interim	 	Federal	Federal	Federal							
				Federal Guidelines for	BC WQG FW	BC WQG FW		BC WQG arine Aquatic		DCCCD 2 2	BCCSR 3.2			Federal Guidelines for	Federal Guidelines for	GW Tier 1 -	Federal Interim GW Tier 1 -	Interim GW Tier 2 - CL/IL	Interim GW	Interim GW Tier 2 - CL/IL	Federal Interim GW Tier 2 -						
				Canadian Drinking	Aquatic Life -	Aquatic Life Long-Term Avg			BCCSR 3.2 - AWf	BCCSR 3.2 - AWm	DW		Aquatic Life		Canadian	Commercial/In dustrial	Commercial/In	Freshwater	Tier 2 - CL/IL Freshwater		CL/IL Marine Life (Fine Grained)						
				Water (2017)	Working	Approved	Working Ave	g - Approved				(FAL, long term)	term)	(2017) AO	Drinking Water (2017) MAC	(Coarse Grained)	dustrial (Fine Grained)	Life (Coarse	Life (Fine	(Coarse							
Method Type	ChemName	output unit	EQL													Grained)		Grained)	Grained)	Grained)							
Field	CHVs (%LEL)	% LEL																				-	-	-	-	-	0
	Temperature (Field) DO (Field)	°C		0.001		8- 8- 11-		8- 8- 11-				>5.5-	>8-	0.001								-	-	-	-	-	10.4 0.37
	Field Conductance, Specific	mg/L µS/cm		-		0- 0- 11-		0- 0- 11-				>5.5-	70-									-	-	-	-	-	362.3
	Field ORP (mV)	mV		-																		-	-	-	-	-	-89.6
Physical Properties	pH (Field) pH (Lab)	pH_Units pH_Units	-	-											7-10.5							7.12	7.4	7.12	-	6.4	6.68 7.62
Inorganics		mg/L	1	-																		145	180	482	-	147	-
Metals		μg/L	3			Eqn 50			00	0500	9500					Note	Note	Note	Note			9	10	8	-	21.2	-
	Antimony (Filtered) Arsenic (Filtered)	μg/L μg/L	0	10	9				90 50	2500 125	6 10				10	2000	2000 5	2000	2000	12.5	12.5	<0.05 2.6	0.06 13.5	0.06 <u>82.7</u>	-	0.25 24	-
	· ,	µg/L	1	1000	1000				10000	5000	1000				1000	500	500	2900	2900	500	500	30	43.4	199.0	-	108	-
	Beryllium (Filtered)	μg/L	0	-	0.13		100		1.5	1000	8					5.3	5.3	5.3	5.3	100	100	<0.01	<0.01	<0.01	-	<0.05	-
	Bismuth (Filtered) Boron (Filtered)	μg/L μg/L	50	5000					12000	12000	5000				5000	500	500			5000	5000	16	57	42	-	62	-
	Cadmium (Filtered)	µg/L	0	5		Eqn	0.12		Varies. See notes.	15	5				5	0.017	0.017	0.017	0.017	0.12	0.12	<0.01	<0.01	<0.01	-	<0.005	-
	Calcium (Filtered) Chromium (Filtered)	mg/L	0	50					10	15	50				50	8.9	8.9	8.9	8.9	56	56	31.5	22.7 1.4	153 1.9	-	47.7 0.44	-
	Cobalt (Filtered)	μg/L μg/L	0	-					40	40	20				30	50	50	0.5	0.0	30	50	0.85	0.56	0.57	-	0.44	-
		μg/L	0	1000		Eqn 2			Varies. See notes.	20	1500			1000		Note	Note	Note	Note	2	2	0.6	0.8	0.6	-	<0.2	-
	Iron (Filtered) Lead (Filtered)	mg/L µg/L	0	0.3 10					Varies. See notes.	20	6.5			0.3	10	0.3 Note	0.3 Note	0.3 Note	0.3 Note	2	2	9.82 0.04	18 0.25	0.03	-	0.054	-
	Lithium (Filtered)	µg/L	2	-							8											0.7	2	2.2	-	1.5	-
	Magnesium (Filtered)	mg/L	0	- 50			100				4500			50		200	200					16.2	30	24	-	6.73	-
	Manganese (Filtered) Mercury	μg/L μg/L	1	1		Eqn	100		0.25	0.25	1500	0.026	0.016	50	1	200 0.016	200 0.016	0.026	0.026	0.016	0.016	123 <0.003	386 0.004	<u>2520</u> <0.003	-	855 <0.005	-
	Molybdenum (Filtered)	μg/L	1	-		-1.			10000	10000	250					73	73	73	73			0.62	0.47	0.56	-	4.34	-
	Nickel (Filtered)	µg/L	1	-					Varies. See notes.	83	80					Note	Note	Note	Note	83	83	2.4	1.4	1.2	-	1.86	-
	Potassium (Filtered) Selenium (Filtered)	mg/L μg/L	0	50		2			20	20	10				50	1	1	1	1	54	54	<0.1	<0.1	0.2	-	4.19 0.196	-
	Silicon (Filtered)	μg/L	100	-																		-	ı	-	-	12,200	-
	Silver (Filtered) Sodium (Filtered)	µg/L	0	200					0.5 15	15	20			200		0.1	0.1	0.1	0.1	1.5	1.5	<0.01 4.98	<0.01 5.77	<0.01 14	-	<0.01 9.25	-
	Strontium (Filtered)	mg/L μg/L	1	-							2500			200								4.96	-	-	-	224	-
	Sulphur (S) (Filtered)	μg/L	3,000	-																		-	-	-	-	1590	-
	Thallium (Filtered) Tin (Filtered)	μg/L μg/L	5	-					3	3	2500					0.8	0.8	0.8	0.8			<0.002	<0.002	<0.002	-	<0.01 <0.1	-
	Titanium (Filtered)	μg/L	5	-					1000	1000	2000					100	100	100	100			39.8	30.9	194.0	-	1.24	-
	Uranium (Filtered)	μg/L	0	20					85	85	20				20	10	10	15	15			0.01	0.06	0.06	-	0.606	-
	Vanadium (Filtered) Zinc (Filtered)	μg/L μg/L	5	5000					Varies. See notes.	100	20 3000			5000		100 10	100	30	30	10	10	3	2 15	2.4 8	-	2.08	-
	Zirconium (Filtered)	μg/L	0	-																		-	-	-	-	<0.3	-
BTEX	Benzene Ethylbenzene	µg/L	0	5 1.6		40 200		110	400 2000	1000 2500	5 140	370 90	110 25	1.6	5 140	88 3200	88 3200	690 41000	33000 NGR	200 11000	9800 NGR	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.4 <0.4
	Styrene	μg/L μg/L	0	-	72	200			720	720	800	72	23	1.0	140	72	72	72	72	11000	NOIN	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4
		μg/L	0	24		0.5			5	2000	60	2	215	24	60	83	4900	83	NGR	8900	NGR	<0.5	<0.5	<0.5	<0.5	<0.45	<0.4
	Xylene (m & p) Xylene (o)	μg/L μg/L	0	-																		-	-	-	-	-	<0.4 <0.4
	Xylenes, total	μg/L	0	20		30			300	300	90			20	90	3900	13000	18000	NGR			<0.5	<0.5	<0.5	<0.5	<0.75	<0.4
EPH	EPH C10-C19 EPH C19-C32	μg/L	200						5000	5000	5000											<100	<100 <100	<100	550	2210 5430	310
		μg/L μg/L	200	<u> </u>					500	500												<100 <100	<100	<100 <100	390 550	2210	<200 310
	HEPHw	µg/L	200	-																		<100	<100	<100	390	5430	<200
VPH	VPHw VH6-10	µg/L	300	-					1500 15000	1500 15000	15000											<100 <100	<100 <100	<100 <100	200 200	<100 <100	<300 <300
PHC	F1 (C6-C10)	μg/L μg/L	300	-					10000	10000	13000			<u> </u>		810	6500	9800	NGR			-100	-	<100	-	-	<300
	F2 (C10-C16)	μg/L	150	-												1300	1800	1300	NGR		-	<100	<100	<100	300	-	<150
		μg/L μg/L	-																			<100 <100	<100 <100	<100 <100	100 <100	-	-
VOC	Methyl tert-butyl ether [MTBE]	µg/L	4	15		1000			34000	4400	95	10000	5000	15		340	5000	10000	10000	5000	5000	<1	<1	<1	<1	<0.5	<4
PAH	Low Molecular Weight PAHs High Molecular Weight PAHs	µg/L	0	-																		-	1	-	-	-	3.6 <0.05
	3	μg/L μg/L	0	-																		-	-	-	-	-	3.6
	Acenaphthene	μg/L	0			6			60	60	250	5.8				5.8	5.8	5.8	5.8			<0.05	<0.05	<0.05	0.14	0.97	0.63
	Acenaphthylene Acridine	μg/L μg/L	0	-		3			0.5	0.5		4.4				46 0.05	46 0.05	46 0.05	46 0.05			<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.3 <0.7	<0.05 <0.05
	Anthracene	µg/L	0	-		4			1	1	1000	0.012				0.012	0.012	0.012	0.012			<0.05	<0.05	<0.05	<0.05	<0.2	0.017
1	Benz(a)anthracene	μg/L	0	-		0.1			1	1	0.07	0.018			0.04	0.018	0.018	0.018	0.018		-	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01
	Benzo(a)pyrene Benzo(b)fluoranthene	μg/L μg/L	0	0.04		0.01			0.1	0.1	0.01	0.015			0.04	0.01	0.01	0.015	0.017			<0.01 <0.05	<0.01 <0.05	<0.01 <0.05	<0.01 <0.05	<0.01	<0.005
1	Benzo(b+j)fluoranthenes	μg/L	0	-							0.07					0.48	0.48	0.48	0.48			-	-	-	-	<0.02	<0.03
	Benzo(g,h,i)perylene Benzo(k)fluoranthene	µg/L	0	-												0.17 0.48	0.21 0.48	0.17 0.48	0.21 0.48			<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.04 <0.01	<0.05 <0.05
	Chrysene	μg/L μg/L	0	-					1	1	7					0.46	0.46	1.4	1.4			<0.05	<0.05	<0.05	<0.05	<0.01	<0.05
	Dibenz(a,h)anthracene	μg/L	0	-							0.01					0.26	0.28	0.26	0.28			<0.05	<0.05	<0.05	<0.05	<0.01	<0.003
1	Fluoranthene Fluorene	μg/L μg/L	0	-		4 12			2 120	120	150 150	0.04				0.04	0.04	0.04	0.04			<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 0.18	0.117 1.06	<0.02 0.86
	Indeno(1,2,3-cd)pyrene	μg/L μg/L	0			12			120	120	130	,				0.21	0.23	0.21	0.23			<0.05	<0.05	<0.05	<0.05	<0.02	<0.05
	Methylnaphthalene, 1-	μg/L	0	-				-			5.5										-	-	-	-	-	0.421	2
	Methylnaphthalene, 2- Naphthalene	μg/L μg/L	0	-					10	10	15 80	1.1	1.4			1.1	1.1	1.1	1.1	1.4	1.4	<0.05	<0.05	<0.05	0.05	<0.05 <0.3	<0.1 <0.1
	Phenanthrene	µg/L	0	-		0.3			3	3		0.4				0.4	0.4	0.4	0.4			<0.05	<0.05	<0.05	0.11	<0.2	0.079
	Pyrene	μg/L	0	-	3.4				0.2 34	0.2 34	100	0.025 3.4				0.025 3.4	0.025 3.4	0.025 3.4	0.025 3.4			<0.02 <0.1	<0.02 <0.1	<0.02 <0.1	<0.02 <0.1	0.247 <0.7	<0.02 <0.02
	Quitollife	µg/L	ľ		3.4	<u> </u>			34	34	0.05	3.4	1	1	1	3.4	3.4	3.4	3.4	1		V 0.1	70.1	~ U.1	\0.1	70.1	~0.02

																				Location ID		BV-11BH-08M		BV-11BH-09
																				Sample ID Screen Interval (m		BV-11BH-08M 2.29 - 3.81	BV-11BH-08M	1 BV-11BH-09 2.29 - 3.81
																						11/09/2018	23/04/2019	
															Fadasal latavia		Fadasal	Fadaral	Fadasal					
				Federal	DO 14/00 F14/	BC WQG FW	BC WQG	BC WQG				CCME CCM		ederal Federal	Federal Interin	Federal Interim	Federal Interim GW	Federal Interim GW	Federal Interim GW					
			Gui	idelines for	BC WQG FW Aquatic Life -	Aquatic Life	Marine	Marine Aquatio	BCCSR 3.2 - AWf	BCCSR 3.2 -	BCCSR 3.2 -	Protection of Protecti Aquatic Life Aquatic		elines for Guidelines f anadian Canadian	Commercial/Ir	GW Tier 1 - Commercial/In	Tier 2 - CL/IL	Tier 2 - CL/IL		Federal Interim GW Tier 2 -				
				idian Drinking ater (2017)	Working	Long-Term Avg - Approved	Aquatic Life - Working	Life Long-Term Avg - Approved		AWm	DW	(FAL, long (MAL,	ong Drinki	ing Water Drinking Wa	er (Coarse	dustrial (Fine	Freshwater Life (Coarse	Freshwater Life (Fine	Marine Life (Coarse	CL/IL Marine Life (Fine Grained))			
				(=+)								term) term) (20	017) AO (2017) MA	Grained)	Grained)	Grained)	Grained)	Grained)					
Method_Type Field	ChemName CHVs (%LEL)	% LEL	QL																		-	-	0	
rield	Temperature (Field)	°C		0.001									0	0.001							-	-	9.7	-
	DO (Field)	mg/L		-		8- 8- 11-		8- 8- 11-				>5.5- >8-									-	-	0.3	-
	Field Conductance, Specific Field ORP (mV)	μS/cm mV		-																	-	-	343.6 -57.2	-
	pH (Field)	pH_Units		-										7-10.5							-	6.84	6.46	6.62
Physical Properties	pH (Lab)	pH_Units																			-	-	-	-
Inorganics Metals	Hardness as CaCO3 (Filtered) Aluminium (Filtered)	mg/L 1 μg/L 3		-		Eqn 50					9500				Note	Note	Note	Note			-	79.4 3.9	-	533 7
Wetais	Antimony (Filtered)	µg/L 1		6	9	Equipo			90	2500	6			6	2000	2000	2000	2000			-	0.15	-	0.09
	Arsenic (Filtered)	μg/L 0		10					50	125	10			10	5	5	5	5	12.5	12.5	-	3.21	-	28.3
	Barium (Filtered) Beryllium (Filtered)	μg/L 1 μg/L 0		1000	1000 0.13		100		10000	5000 1000	1000			1000	500 5.3	500 5.3	2900 5.3	2900 5.3	500 100	500 100	-	35.9 <0.05	-	234 <0.01
	Bismuth (Filtered)	µg/L 1		-	0.10		100		1.0	1000					0.0	0.0	0.0	0.0	100	100	-	-	-	-0.01
	Boron (Filtered)	μg/L 50)	5000					12000	12000	5000			5000	500	500			5000	5000	-	19	-	243
	Cadmium (Filtered) Calcium (Filtered)	µg/L 0		5		Eqn	0.12		Varies. See notes.	15	5			5	0.017	0.017	0.017	0.017	0.12	0.12	-	<0.005 19.7	-	0.01 145
	Chromium (Filtered)	mg/L 0 μg/L 1		50					10	15	50			50	8.9	8.9	8.9	8.9	56	56	-	0.18	-	1.5
	Cobalt (Filtered)	μg/L 0		-					40	40	20				50	50					-	<0.1	-	3.96
	Copper (Filtered) Iron (Filtered)	μg/L 0 mg/L 0		1000 0.3		Eqn 2			Varies. See notes.	20	1500 6.5			1000 0.3	Note 0.3	Note 0.3	Note 0.3	Note 0.3	2	2	-	<0.2 16	-	0.6 48.9
	Lead (Filtered)	µg/L 0		10					Varies. See notes.	20	10			10	Note	Note	Note	Note	2	2	-	<0.05	-	0.15
	Lithium (Filtered)	μg/L 2		-							8			-							-	1.2	-	3.6
	Magnesium (Filtered)	mg/L 0		50			100				1500			F0	200	200					-	7.33	-	41.5
	Manganese (Filtered) Mercury	μg/L 1 μg/L -		1		Egn	100		0.25	0.25	1500	0.026 0.01		50	200 0.016	200 0.016	0.026	0.026	0.016	0.016	-	<0.005	-	2070 <0.003
	Molybdenum (Filtered)	µg/L 1		-		-4			10000	10000	250				73	73	73	73		0.0.0	-	0.458	-	1.07
	Nickel (Filtered)	μg/L 1		-					Varies. See notes.	83	80				Note	Note	Note	Note	83	83	-	<0.5	-	3.9
	Potassium (Filtered) Selenium (Filtered)	mg/L 0 µg/L 0		50		2			20	20	10			50	1	1	1	1	54	54	-	2.17 <0.05	-	<0.1
	Silicon (Filtered)		00	-		_			20	20							·	,	0.	0.	-	10,200	-	-
	Silver (Filtered)	μg/L 0		-					0.5 15	15	20				0.1	0.1	0.1	0.1	1.5	1.5	-	<0.01	-	<0.01
	Sodium (Filtered) Strontium (Filtered)	mg/L 0 μg/L 1		200							2500			200							-	5.59 90.9	-	71.8
	Sulphur (S) (Filtered)		000	-							2000										-	<500	-	-
	Thallium (Filtered)	μg/L 0		-					3	3					0.8	0.8	0.8	0.8			-	<0.01	-	0.022
	Tin (Filtered) Titanium (Filtered)	μg/L 5		-					1000	1000	2500				100	100	100	100			-	<0.1 0.43	-	178
	Uranium (Filtered)	μg/L 5 μg/L 0		20					85	85	20			20	100	100	15	15			-	0.02	-	0.3
	Vanadium (Filtered)	μg/L 5		-							20				100	100					-	0.52	-	1.1
	Zinc (Filtered) Zirconium (Filtered)	μg/L 5 μg/L 0		5000					Varies. See notes.	100	3000			5000	10	10	30	30	10	10	-	<1 <0.3	-	7
BTEX	Benzene	µg/L 0		5		40		110	400	1000	5	370 110		5	88	88	690	33000	200	9800	<0.5	<0.5	<0.4	<0.5
	Ethylbenzene	μg/L 0		1.6		200			2000	2500	140	90 25		1.6 140	3200	3200	41000	NGR	11000	NGR	<0.5	<0.5	<0.4	0.9
	Styrene Toluene	μg/L 0 μg/L 0		24	72	0.5			720 5	720 2000	800 60	72 215		24 60	72 83	72 4900	72 83	72 NGR	8900	NGR	<0.5	<0.5 <0.45	<0.4 <0.4	<0.5
	Xylene (m & p)	µg/L 0		-		0.5			3	2000	00	2 210		24 00	03	4900	00	NON	0300	NOIX	-		<0.4	
	Xylene (o)	μg/L 0		-																	-	-	<0.4	-
EPH	Xylenes, total EPH C10-C19	µg/L 0	00	20		30			300 5000	300 5000	90 5000			20 90	3900	13000	18000	NGR			<0.5 <100	<0.75 <250	<0.4 <200	4.8 130
Lini	EPH C19-C32	10	00	-					3000	3000	3000										<100	<250	<200	140
	LEPHw	μg/L 20	00						500	500											<100	<250	<200	130
VPH	HEPHw VPHw	10	00	-					1500	1500											<100	<250 <100	<200 <300	140
	VH6-10		00	-					15000	15000	15000											<100	<300	
PHC	F1 (C6-C10)	μg/L 30	00	-											810	6500	9800	NGR			-		<300	-
	F2 (C10-C16) F3 (C16-C34)	μg/L 15 μg/L -	50	-							1				1300	1800	1300	NGR			<100 <100	-	<150	<100 <100
	F4 (C34-C50)	μg/L -																			<100	_	_	<100
VOC	Methyl tert-butyl ether [MTBE]	µg/L 4		15		1000			34000	4400	95	10000 500)	15	340	5000	10000	10000	5000	5000	-	<0.5	<4	-
PAH	Low Molecular Weight PAHs High Molecular Weight PAHs	μg/L 0 μg/L 0		-																	-	-	<0.1 <0.05	-
	Polycyclic aromatichydrocarbons, total [PAHs]	μg/L 0		-																	-	-	<0.1	-
	Acenaphthene	µg/L 0				6			60	60	250	5.8			5.8	5.8	5.8	5.8			<0.05	<0.01	<0.05	<0.05
	Acenaphthylene Acridine	μg/L 0	-	-		3			0.5	0.5	1	4.4			46 0.05	46 0.05	46 0.05	46 0.05			<0.05 <0.05	<0.01 <0.01	<0.05 <0.05	<0.05 <0.05
	Anthracene	μg/L 0 μg/L 0		-		4			1	1	1000	0.012			0.012	0.012	0.03	0.012			<0.05	<0.01	<0.03	<0.05
	Benz(a)anthracene	μg/L 0		-		0.1			1	1	0.07	0.018			0.018	0.018	0.018	0.018			<0.05	<0.01	<0.01	<0.05
	Benzo(a)pyrene Benzo(b)fluoranthene	µg/L 0		0.04		0.01	-		0.1	0.1	0.01	0.015		0.04	0.01	0.01	0.015	0.017			<0.01 <0.05	<0.005	<0.005	<0.01 <0.05
	Benzo(b+j)fluoranthenes	μg/L 0 μg/L 0		-				1			0.07				0.48	0.48	0.48	0.48				<0.01	<0.03	
	Benzo(g,h,i)perylene	μg/L 0		-											0.17	0.21	0.17	0.21			<0.05	<0.01	<0.05	<0.05
	Benzo(k)fluoranthene Chrysene	µg/L 0	_	-					1	1	7				0.48	0.48	0.48 1.4	0.48 1.4			<0.05 <0.05	<0.01 <0.01	<0.05 <0.02	<0.05 <0.05
	Dibenz(a,h)anthracene	μg/L 0 μg/L 0		-			1		1	1	0.01		-		0.1	0.1	1.4 0.26	0.28			<0.05	<0.01	<0.02	<0.05
	Fluoranthene	μg/L 0		-		4			2	2	150	0.04			0.04	0.04	0.04	0.04			<0.05	<0.01	<0.02	<0.05
	Fluorene	μg/L 0		-		12			120	120	150	3			3	3	3	3			<0.05	<0.01	<0.05	<0.05
	Indeno(1,2,3-cd)pyrene Methylnaphthalene, 1-	µg/L 0		-							5.5				0.21	0.23	0.21	0.23			<0.05	<0.01 <0.05	<0.05 <0.05	<0.05
	Methylnaphthalene, 2-	μg/L 0 μg/L 0		-							15										-	<0.05	<0.05	-
	Naphthalene	μg/L 0		-					10	10	80	1.1 1.4			1.1	1.1	1.1	1.1	1.4	1.4	<0.05	<0.05	<0.1	0.49
							1	1		_		0.4	1 -	1	0.4	0.4	0.4			1	40.0E	< 0.02	< 0.05	< 0.05
	Phenanthrene Pyrene	μg/L 0 μg/L 0		-		0.3			0.2	0.2	100	0.4 0.025			0.025	0.4 0.025	0.4 0.025	0.4 0.025			<0.05 <0.02	<0.02	<0.03	<0.02

																				Screen Interval (m)	MW06-2		-			MW06-3 MW06-3 - 07/05/2006	MW06-4 -
			(Federal Guidelines for Canadian Drinkir Water (2017)	ng Aquatic Life	- I ong-Term Avo	BC WQG BC WQG Marine Marine Aquat Aquatic Life - Life Long-Ter Working Avg - Approve	m BCCSR 3.2 - AVVI	BCCSR 3.2 - AWm	BCCSR 3.2 - DW	Aquatic Life	Aquatic Life		Canadian Drinking Water	Federal Interim GW Tier 1 - Commercial/In dustrial (Coarse Grained)	Federal Interin GW Tier 1 - Commercial/In dustrial (Fine Grained)	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Coarse Grained)	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Fine Grained)	Federal Interim GW Tier 2 - CL/IL Marine Life (Coarse Grained)	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained)		,					
Method_Type Field	ChemName CHVs (%LEL)	output unit % LEL	EQL										1								- 1	- 1	-	_	-	0	0
	Temperature (Field)	°C		0.001		0.10.144	9 19 11 1						0.001								-	-	-	-	-	-	-
	DO (Field) Field Conductance, Specific	mg/L µS/cm		-		8- 8- 11-	8- 8- 11-				>5.5-	>8-									-	-	-	-	-	321	612
	Field ORP (mV)	mV		-																	-	-	-	-	-	-	-
Physical Properties	pH (Field) pH (Lab)	pH_Units pH_Units		-										7-10.5							-	-	-	-	6.07	6.54 6.2	6.09 5.8
Inorganics Metals	Hardness as CaCO3 (Filtered) Aluminium (Filtered)	mg/L	1	-		Eqn 50				9500					Note	Note	Note	Note			-	-	-	- 1	270 112	147	194 <5
ivietais	Antimony (Filtered)	μg/L μg/L	1	6	9	Eqrijou		90	2500	6				6	2000	2000	2000	2000			-	-	-		0.61	<1	<1
	Arsenic (Filtered) Barium (Filtered)	μg/L μg/L	0	10 1000	1000			50 10000	125 5000	10 1000				10 1000	5 500	5 500	5 2900	5 2900	12.5 500	12.5 500	-	-	-		38.6 131	3 51	<1 160
	Beryllium (Filtered)	μg/L	0	-	0.13		100	1.5	1000	8				1000	5.3	5.3	5.3	5.3	100	100	-	-	-	-	<0.05	<1	<1
	Bismuth (Filtered) Boron (Filtered)	μg/L μg/L	1 50	5000				12000	12000	5000				5000	500	500			5000	5000	-	-	-	-	37	<1 <50	<1 <50
	Cadmium (Filtered)	μg/L	0	5		Eqn	0.12	Varies. See notes.		5				5	0.017	0.017	0.017	0.017	0.12	0.12	-	-	-	-	0.0128	<0.2	<0.2
	Calcium (Filtered) Chromium (Filtered)	mg/L μg/L	0	50				10	15	50	-		 	50	8.9	8.9	8.9	8.9	56	56	-	-	-	-	69.2 4.15	46600 <1	53.9 <1
	Cobalt (Filtered)	μg/L	0	-				40	40	20					50	50				_	-	-	-	-	4.52	4	36
	Copper (Filtered) Iron (Filtered)	μg/L mg/L	0	1000 0.3		Eqn 2		Varies. See notes.	20	1500 6.5	-		1000 0.3		Note 0.3	Note 0.3	Note 0.3	Note 0.3	2	2	-	-	-	-	1.43 31.9	<1 720	<1 4.85
	Lead (Filtered)	μg/L	0	10				Varies. See notes.	20	10				10	Note	Note	Note	Note	2	2	-	-	-	-	1.21	<1	<1
	Lithium (Filtered) Magnesium (Filtered)	μg/L mg/L	0	-						8											-	-	-	-	2.8	7310	3 14.5
	Manganese (Filtered)	μg/L	1	50 1			100	0.05	0.05	1500 1	0.000	0.040	50		200	200	0.000	0.000	0.040	0.040	-	-	-	-	3150	1010	1990 <0.02
	Mercury Molybdenum (Filtered)	μg/L μg/L	1	-		Eqn		0.25 10000	0.25 10000	250	0.026	0.016		1	0.016 73	0.016 73	0.026 73	0.026 73	0.016	0.016	-	-	-	-	<0.005 2.19	<0.02 1.3	0.02
	Nickel (Filtered) Potassium (Filtered)	μg/L	1	-				Varies. See notes.	83	80					Note	Note	Note	Note	83	83	-	-	-	•	25.2	8	71
	Selenium (Filtered)	mg/L μg/L	0	50		2		20	20	10				50	1	1	1	1	54	54	-	-	-	-	0.84	4400 <1	5.4 <1
	Silicon (Filtered) Silver (Filtered)	μg/L	100	-				0.5 15	15	20					0.1	0.1	0.1	0.1	1.5	1.5	-	-	-	-	14,200 0.026	13700 <0.25	12400 <0.25
	Sodium (Filtered)	μg/L mg/L	0	200				0.5[15	15	20			200		0.1	0.1	0.1	0.1	1.5	1.5	-	-	-	1	13.6	8800	10
	Strontium (Filtered) Sulphur (S) (Filtered)	μg/L μg/L	3.000	-						2500											-	-	-	1 1	320 1880	110	250
	Thallium (Filtered)	μg/L	0	-				3	3						0.8	0.8	0.8	0.8			-	-	-	-	<0.01	<0.1	0.1
	Tin (Filtered) Titanium (Filtered)	μg/L μg/L	5	-				1000	1000	2500					100	100	100	100			-	-	-	-	0.15 26	<1 1	<1 <1
	Uranium (Filtered)	μg/L	0	20				85	85	20				20	10	10	15	15			-	-	-	-	0.457	<0.5	0.6
	Vanadium (Filtered) Zinc (Filtered)	μg/L μg/L	5 5	5000				Varies. See notes.	100	20 3000			5000		100 10	100 10	30	30	10	10	-	-	-	-	22.8 7.5	<1 7	<1 22
	Zirconium (Filtered)	μg/L	0	-										_							-	-	-	-	3.52		<10
BTEX	Benzene Ethylbenzene	μg/L μg/L	0	5 1.6		40 200	110	400 2000	1000 2500	5 140	370 90	110 25	1.6	5 140	88 3200	88 3200	690 41000	33000 NGR	200 11000	9800 NGR	<0.5 0.7	1.1	5.8 1.1	<0.5 <0.5	<0.5 <0.5	-	-
	Styrene	μg/L	0	-	72			720	720	800	72				72	72	72	72		NOD	<0.5	<0.5	<0.1	<0.5	<0.5	-	-
	Toluene Xylene (m & p)	μg/L μg/L	0	- 24		0.5		5	2000	60	2	215	24	60	83	4900	83	NGR	8900	NGR	<0.5	3	2.8	<0.5	<0.45	-	-
	Xylene (o)	μg/L	0	-		20		200	200	00			20	00	2000	42000	10000	NCD			-	-	-	- -0.F		-	-
EPH	Xylenes, total EPH C10-C19	μg/L μg/L	200	20		30		300 5000	300 5000	90 5000			20	90	3900	13000	18000	NGR			2.5 2900	2.8 3000	2.9 870	<0.5 1640	<0.75 8170	<250	<250
	EPH C19-C32 LEPHw	μg/L	200 200	-				500	500												350	330	<250	140 1640	470 8170	<250 <250	<250 <250
	HEPHw	μg/L μg/L	200	-				300	500												2900 350	-	-	140		<250	<250
VPH	VPHw VH6-10	μg/L μg/L	300 300	-				1500 15000	1500 15000	15000											2400 2400	2600 2600	990 1000	790 790	660 660	-	-
PHC	F1 (C6-C10)	μg/L	300	-				13000	13000	13000					810	6500	9800	NGR			-	-	-	•	-	-	-
	F2 (C10-C16) F3 (C16-C34)	μg/L μg/L	150	-							1		1		1300	1800	1300	NGR			<100 <100	-	-	800 <100	-	-	-
100	F4 (C34-C50)	μg/L	-					0.1000			10000						10000	10000			<100	-	-	<100	-	-	-
VOC PAH	Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs	μg/L μg/L	0	15		1000		34000	4400	95	10000	5000	15		340	5000	10000	10000	5000	5000	-	-	-	<1 -	<0.5	-	-
	High Molecular Weight PAHs	μg/L	0	-																	-	-	-	-	-	-	-
	Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene	l] μg/L μg/L	0	-		6		60	60	250	5.8				5.8	5.8	5.8	5.8			-	-	-	0.05	0.154	<0.1	<0.1
	Acenaphthylene	μg/L	0	-		2		0.5			4.4				46	46	46	46			-	-	-	<0.05	0.111	<0.1	<0.1
	Acridine Anthracene	μg/L μg/L	0	-		3 4		0.5	0.5	1000	0.012				0.05 0.012	0.05 0.012	0.05 0.012	0.05 0.012			-	-	-	<0.05 <0.05	<0.03 0.078	<0.05 <0.01	<0.05 <0.01
	Benz(a)anthracene	μg/L	0	0.04		0.1		1 0.1	1	0.07	0.018			0.04	0.018	0.018	0.018	0.018			-	-	-	0.05 0.04		<0.01	<0.01
	Benzo(a)pyrene Benzo(b)fluoranthene	μg/L μg/L	0	0.04		0.01		0.1	0.1	0.01	0.015			0.04	0.01	0.01	0.015	0.017			-	-	-	0.04	-	<0.01 <0.01	<0.01 <0.01
	Benzo(b+j)fluoranthenes Benzo(g,h,i)perylene	μg/L	0	-						0.07					0.48 0.17	0.48 0.21	0.48 0.17	0.48 0.21			-	-	-	<0.05	1.53 0.691	- <0.01	- <0.01
	Benzo(k)fluoranthene	μg/L μg/L	0	-											0.48	0.48	0.48	0.48			-	-	-	<0.05	0.474	-	-
	Chrysene Dibenz(a,h)anthracene	μg/L	0	-				1	1	7 0.01					0.1 0.26	0.1 0.28	1.4 0.26	1.4 0.28			-	-	-	0.06 <0.05	<0.7 0.182	<0.01 <0.04	<0.01 <0.01
	Fluoranthene	μg/L μg/L	0			4		2	2	150	0.04				0.04	0.04	0.04	0.04			-	-	-	0.27	2.31	<0.05	<0.04
	Fluorene Indeno(1,2,3-cd)pyrene	μg/L	0	-		12		120	120	150	3	-	-	-	3 0.21	3 0.23	3 0.21	3 0.23			-	-	-	<0.05 <0.05	0.084 0.854	<0.01 <0.3	<0.05 <0.01
	Methylnaphthalene, 1-	μg/L μg/L	0							5.5					0.21	0.23	0.21	0.23			-	-	-		0.757		-
	Methylnaphthalene, 2- Naphthalene	μg/L	0	-				10	10	15 80	1.1	1.4	 		1.1	1.1	1.1	1.1	1.4	1.4	-	-	-	0.07	0.383	<0.05	<0.3
	Phenanthrene	μg/L μg/L	0			0.3		3	3		0.4	1.4			0.4	0.4	0.4	0.4	1.4	1.9	-	-	-	<0.05	0.134	0.02	<0.05
	Pyrene Quinoline	μg/L μg/L	0	-	3.4			0.2	0.2 34	100 0.05	0.025 3.4				0.025 3.4	0.025 3.4	0.025 3.4	0.025 3.4			-	-	-	0.29 <0.1		<0.5 0.02	<0.02 <0.5
L	Scali (OIII IC	µg/L	J		3.4	1	1	34	34	0.00	3.4	1	1	1	J. 4	3.4	J.4	5.4	l	I .		-		-0.1	-0.0	0.02	٥.٥٠

																				MW06-5	MW07-6		MW07-6 MW07-6
																			Screen Interval (m)		10101-0		- 3.00
																					16/08/2007		02/02/2012 11/09/2018
														Fadami total		Favore	Fadini	F-4	·				
		Federal		BC WQG FW	BC WQG	BC WQG				CCME	CCME	Federal	Federal	Federal Interim GW Tier 1 -	Federal Interin	Federal Interim GW	Federal Interim GW	Federal Interim GW					
		Guidelines for	BC WQG FW Aquatic Life -	Aquatic Life	Marine	Marine Aquation	BCCSR 3.2 - AWf	BCCSR 3.2 -		Protection of F Aquatic Life		Guidelines for Canadian	Guidelines for Canadian	Commercial/In	GW Tier 1 - Commercial/In	Tier 2 - CL/IL	Tier 2 - CL/IL	Tier 2 - CL/IL	Federal Interim GW Tier 2 -				
		Canadian Drinkin	Working	Long-Term Avg			1	AWm	DW			Drinking Water		dustrial	dustrial (Fine	Freshwater	Freshwater	Marine Life	CL/IL Marine Life (Fine Grained)				
		Water (2017)		Approved	Working	Avg - Approved				term)	term)	(2017) AO	(2017) MAC	(Coarse Grained)	Grained)	Life (Coarse Grained)	Life (Fine Grained)	(Coarse Grained)					
Method_Type	ChemName output unit EC	L.														,		,					
Field	CHVs (%LEL) % LEL																			0	-	-	
	Temperature (Field) °C DO (Field) mg/L	0.001		8- 8- 11-		0.10.144				>5.5.5	>8-	0.001								-	-	-	
	DO (Field) mg/L Field Conductance, Specific µS/cm	-		0- 0- 11-		8- 8- 11-				>5.5-	~o-									342		-	
	Field ORP (mV)	-																		-	-	-	
	pH (Field) pH_Units	-											7-10.5							6.09	-	-	- 6.36
Physical Properties	pH (Lab) pH_Units																			5.9	-	-	
Inorganics Metals	Hardness as CaCO3 (Filtered) mg/L 1 Aluminium (Filtered) µg/L 3	-		Eqn 50					9500					Note	Note	Note	Note			145 32	-	-	- 236 - 14.5
motaio	Antimony (Filtered) µg/L 1	6	9	24.100			90	2500	6				6	2000	2000	2000	2000			<1	-	-	- 0.47
	Arsenic (Filtered) µg/L 0	10					50	125	10				10	5	5	5	5	12.5	12.5	1	-	-	- 7.98
	Barium (Filtered) μg/L 1	1000	1000		100		10000	5000	1000				1000	500	500	2900	2900	500	500	85	-	-	- 74
	Beryllium (Filtered) µg/L 0 Bismuth (Filtered) µg/L 1	-	0.13		100		1.5	1000	8					5.3	5.3	5.3	5.3	100	100	<1 <1	-	-	- <0.05
	Bismuth (Filtered) µg/L 1 Boron (Filtered) µg/L 50	5000					12000	12000	5000				5000	500	500			5000	5000	<50		-	- 44
	Cadmium (Filtered) µg/L 0	5		Eqn	0.12		Varies. See notes.	15	5				5	0.017	0.017	0.017	0.017	0.12	0.12	<0.2	-	-	- <0.005
	Calcium (Filtered) mg/L 0	-																		43.2	-	-	- 71.5
	Chromium (Filtered) µg/L 1	50					10	15	50				50	8.9	8.9	8.9	8.9	56	56	<1	-	-	- 1.77
	Cobalt (Filtered) µg/L 0	1000	1	F10	1	+	40	40	20			4000		50 Note	50 Note	NI_1.	NI-4-	2	2	1	-	-	- 0.77
	Copper (Filtered) µg/L 0 Iron (Filtered) mg/L 0	1000 0.3	+	Eqn 2	1	+	Varies. See notes.	20	1500 6.5			1000 0.3		Note 0.3	Note 0.3	Note 0.3	Note 0.3	2	2	<1 2.33	-	-	- <0.2 - 15.8
	Iron (Filtered) mg/L 0 Lead (Filtered) μg/L 0	10	+		+	+	Varies. See notes.	20	10			0.0	10	Note	Note	Note	Note	2	2	<1		-	- 0.153
	Lithium (Filtered) µg/L 2	-	1			1			8				-					 	<u> </u>	2	-	-	- 2.2
	Magnesium (Filtered) mg/L 0	-																		8.96	-	-	- 13.9
	Manganese (Filtered) µg/L 1	50			100	1 -	2.05		1500	0.000	0.015	50		200	200		0.00-	0.01	2.212	1670	-	-	- 1090
	Mercury µg/L - Molyhdenum (Filtered) µg/L 1	1	1	Eqn	1	+	0.25	0.25	250	0.026	0.016		1	0.016	0.016	0.026 73	0.026 73	0.016	0.016	<0.02	-	-	- <0.005
	Molybdenum (Filtered) μg/L 1 Nickel (Filtered) μg/L 1	-	+ +			+	10000 Varies. See notes.	10000 83	250 80					73 Note	73 Note	73 Note	73 Note	83	83	<0.5 3		-	- 0.338 - 7.78
	Potassium (Filtered) mg/L 0	-					varies. Occ notes.	- 00	- 00					14010	14010	14010	11010	00		2.9	-	-	- 5.93
	Selenium (Filtered) µg/L 0	50		2			20	20	10				50	1	1	1	1	54	54	<1	-	-	- 0.28
	Silicon (Filtered) µg/L 10	-																		10000	-	-	- 13,000
	Silver (Filtered) µg/L 0	-					0.5 15	15	20					0.1	0.1	0.1	0.1	1.5	1.5	<0.25	-	-	- <0.01
	Sodium (Filtered) mg/L 0 Strontium (Filtered) µg/L 1	200							2500			200						-		3.19 180	-	-	- 13.3
	Strontium (Filtered) µg/L 1 Sulphur (S) (Filtered) µg/L 3,								2500											-	-	-	- 280 - 770
	Thallium (Filtered) µg/L 0	-					3	3						0.8	0.8	0.8	0.8			<0.1	-	-	- <0.01
	Tin (Filtered) μg/L 5	-							2500											<1	-	-	- <0.1
	Titanium (Filtered) µg/L 5	-					1000	1000						100	100	100	100			<1	-	-	- 2.07
	Uranium (Filtered) μg/L 0	20					85	85	20				20	10	10	15	15			<0.5	-	-	- 0.171
	Vanadium (Filtered) μg/L 5 Zinc (Filtered) μg/L 5	5000					Varies. See notes.	100	20 3000			5000		100 10	100 10	30	30	10	10	<1 7		-	- 1.68 - 2.7
	Zirconium (Filtered) µg/L 0	-					varies, occ notes.	100	5555			5000		10	10	50	- 00	10	10	<10	-	-	- 0.59
BTEX	Benzene µg/L 0	5		40		110	400	1000	5	370	110		5	88	88	690	33000	200	9800	-	<0.5	<0.1	<0.5 <0.5
	Ethylbenzene µg/L 0	1.6		200			2000	2500	140	90	25	1.6	140	3200	3200	41000	NGR	11000	NGR	-	1.2	<0.1	<0.5 <0.5
	Styrene μg/L 0	-	72	0.5			720	720	800	72	045	0.4	00	72	72	72	72	0000	NOD	-	<0.5	<0.1	<0.5 <0.5
	Toluene μg/L 0	24		0.5			5	2000	60	2	215	24	60	83	4900	83	NGR	8900	NGR	-	<0.5	<0.1	<0.5 <0.45
	Xylene (ο) μg/L 0	-																		-		-	
	Xylenes, total μg/L 0	20		30			300	300	90			20	90	3900	13000	18000	NGR			-	4.4	<0.1	<0.5 <0.75
EPH	EPH C10-C19 μg/L 20						5000	5000	5000											<250	2300	700	360 320
	EPH C19-C32 μg/L 20						===	=00												<250	<250	<250	<100 <250
	LEPHw μg/L 20 HEPHw μg/L 20						500	500												<250 <250	-	-	360 320 <100 <250
VPH	VPHw µg/L 30		+ +		1	+	1500	1500							 					- <250	3600	1100	730 <100
	VH6-10 µg/L 30						15000	15000	15000												3600	1100	730 <100
PHC	F1 (C6-C10) µg/L 30	-		•										0.0	0000	9800	11011			-	-	-	
1	F2 (C10-C16) μg/L 15	-	1			1								1300	1800	1300	NGR			- 1	-	-	400 -
	F3 (C16-C34) μg/L - F4 (C34-C50) μg/L -	+	+			+	+		-				-		-					-	-	-	<100 - <100 -
VOC	Methyl tert-butyl ether [MTBE] µg/L 4	15	+	1000		+	34000	4400	95	10000	5000	15		340	5000	10000	10000	5000	5000	-		-	<1 <0.5
PAH	Low Molecular Weight PAHs µg/L 0	-	1															1111		-	-	-	
	High Molecular Weight PAHs µg/L 0	-																		-	-	-	
	Polycyclic aromatichydrocarbons, total [PAHs] µg/L 0	-				1					-				L						-	-	
	Acenaphthylene µg/L 0	+	1	6		+	60	60	250	5.8				5.8	5.8	5.8	5.8			<0.1	-	-	<0.05 <0.01 <0.05 <0.01
	Acenaphthylene µg/L 0 Acridine µg/L 0	-	+ +	3		+	0.5	0.5		4.4				46 0.05	46 0.05	46 0.05	46 0.05			<0.1 <0.05	-	-	<0.05 <0.01
	Anthracene µg/L 0	-	+	4		+	1	1	1000	0.012				0.012	0.03	0.03	0.03	 		<0.03		-	<0.05 <0.01
	Benz(a)anthracene μg/L 0	-		0.1	<u> </u>		1	1	0.07	0.018				0.018	0.018	0.018	0.018			<0.01	-	-	<0.05 <0.01
	Benzo(a)pyrene µg/L 0	0.04		0.01			0.1	0.1	0.01	0.015			0.04	0.01	0.01	0.015	0.017			<0.01	-	-	<0.01 <0.005
	Benzo(b)fluoranthene µg/L 0 Benzo(b+i)fluoranthenes µg/L 0		1			1			0.07					0.40	0.40	0.40	0.40			<0.01	-	-	<0.05 -
1		-	1			+			0.07					0.48 0.17	0.48 0.21	0.48 0.17	0.48			<0.01		-	- <0.01 <0.05 <0.01
			1			+								0.17	0.48	0.17	0.48						<0.05 <0.01
	Benzo(g,h,i)perylene μg/L 0	-			1	1	1	1	7					0.1	0.1	1.4	1.4			<0.01	-	-	<0.05 <0.01
	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$																					_	
	Benzo(g,h,i)perylene μg/L 0 Benzo(k)fluoranthene μg/L 0 Chrysene μg/L 0 Dibenz(a,h)anthracene μg/L 0	-							0.01					0.26	0.28	0.26	0.28			<0.01	-	-	<0.05 <0.005
	Benzo(g,h,i)perylene μg/L 0 Benzo(k)fluoranthene μg/L 0 Chrysene μg/L 0 Dibenz(a,h)anthracene μg/L 0 Fluoranthene μg/L 0			4			2	2	150	0.04				0.04	0.04	0.26 0.04	0.28 0.04			<0.04	-		<0.05 <0.005 <0.05 <0.01
	Benzo(g,h,i)perylene µg/L 0 Benzo(k)fluoranthene µg/L 0 Chrysene µg/L 0 Dibenz(a,h)anthracene µg/L 0 Fluoranthene µg/L 0 Fluorene µg/L 0			4 12				2 120		0.04				0.04	0.04 3	0.26 0.04 3	0.28 0.04 3			<0.04 <0.05	-		<0.05 <0.005 <0.05 <0.01 <0.05 <0.01
	Benzo(g,h,i)perylene μg/L 0 Benzo(k)fluoranthene μg/L 0 Chrysene μg/L 0 Dibenz(a,h)anthracene μg/L 0 Fluoranthene μg/L 0 Fluorene μg/L 0 Indeno(1,2,3-od)pyrene μg/L 0						2		150 150					0.04	0.04	0.26 0.04	0.28 0.04			<0.04 <0.05 <0.01	- -	- - -	<0.05 <0.005 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01
	Benzo(g,h,i)perylene μg/L 0 Benzo(k)fluoranthene μg/L 0 Chrysene μg/L 0 Diben/(a,h)anthracene μg/L 0 Fluoranthene μg/L 0 Fluorene μg/L 0 Indeno(1,2,3-cd)pyrene μg/L 0 Methylnaphthalene, 1- μg/L 0						2		150 150 5.5					0.04	0.04 3	0.26 0.04 3	0.28 0.04 3			<0.04 <0.05 <0.01	- - -	- - - -	<0.05 <0.005 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01 - <0.2
	Benzo(g,h.i)perylene µg/L 0 Benzo(k)fluoranthene µg/L 0 Chrysene µg/L 0 Dibenz(a,h)anthracene µg/L 0 Fluoranthene µg/L 0 Fluorene µg/L 0 Indeno(1,2,3-cd)pyrene µg/L 0 Methylnaphthalene, 1- µg/L 0 Methylnaphthalene, 2- µg/L 0						2		150 150		1.4			0.04	0.04 3	0.26 0.04 3	0.28 0.04 3	1.4	1.4	<0.04 <0.05 <0.01	- -		<0.05 <0.005 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01
	Benzo(g,h,i)perylene μg/L 0 Benzo(k)fluoranthene μg/L 0 Chrysene μg/L 0 Dibenz(a,h)anthracene μg/L 0 Fluoranthene μg/L 0 Fluorene μg/L 0 Indeno(1,2,3-cd)pyrene μg/L 0 Methylnaphthalene, 1- μg/L 0 Methylnaphthalene, 2- μg/L 0 Naphthalene μg/L 0						2 120	120	150 150 5.5 15	3	1.4			0.04 3 0.21	0.04 3 0.23	0.26 0.04 3 0.21	0.28 0.04 3 0.23	1.4	1.4	<0.04 <0.05 <0.01 - - <0.3 <0.05	- - - -		<0.05 <0.005 <0.005 <0.005 <0.01 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01 <0.05 <0.02 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.
	Benzo(g,h,i)perylene µg/L 0 Benzo(k)fluoranthene µg/L 0 Chrysene µg/L 0 Dibenz(a,h)anthracene µg/L 0 Fluoranthene µg/L 0 Fluorene µg/L 0 Indeno(1,2,3-cd)pyrene µg/L 0 Methylnaphthalene, 1- µg/L 0 Methylnaphthalene, 2- µg/L 0 Naphthalene µg/L 0		3.4	12			2 120	120	150 150 5.5 15	1.1	1.4			0.04 3 0.21	0.04 3 0.23	0.26 0.04 3 0.21	0.28 0.04 3 0.23	1.4	1.4	<0.04 <0.05 <0.01 - - <0.3	- - - -	- - - - - -	<0.05 <0.05 <0.005 <0.001 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01 <0.05 <0.01 <0.02 <0.02 <0.05 <0.07 <0.05 <0.07 <0.05 <0.07 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.0

Location ID MW06-5

MW07-6

																				Location	ID MW07-7	MW900/1000	MW07-7	MW08-12	MW07-7
																				Screen Interval (0.50 - 3.50		1
			1																	Sample Da	ate 16/08/2007 1	16/08/2007	22/09/2008	22/09/2008	03/02/2012
															Federal Interim		Federal	Federal	Federal						
			Federa		BC WQG FW	BC WQG	BC WQG				CCME	CCME	Federal	Federal	GW Tier 1 -	Federal Interin	Interim GW	Interim GW	Interim GW						
			Guideline	ofor Advatic Life	Aquatic Life	Marine	Marine Aquation	BCCSR 3.2 - AWf	BCCSR 3.2 -	BCCSR 3.2 -	Protection of Aquatic Life	Protection of Aquatic Life	Guidelines for Canadian	Guidelines for Canadian	Commercial/In	GW Tier 1 - Commercial/In	Tier 2 - CL/IL	Tier 2 - CL/IL		Federal Interim GW Tier 2 -					
			Canadian D	Working Working	Long-Term Avg	g - Aquatic Life		TI CONTRACTOR OF THE CONTRACTO	AWm	DW	(FAL, long		Drinking Water	Drinking Water	dustrial	dustrial (Fine	Freshwater	Freshwater	Marine Life	CL/IL Marine Life (Fine Graine	:d)				
			Water (20	117)	Approved	Working	Avg - Approved	d			term)	term)	(2017) AO	(2017) MAC	(Coarse Grained)	Grained)	Life (Coarse Grained)	Life (Fine Grained)	(Coarse Grained)						
Method_Type	ChemName	output unit EQ													Grained)		Graineu)	Graineu)	Graineu)						
Field		% LEL	-																		-		-	-	-
		°C	0.001										0.001								-	1	-	-	-
		mg/L	-		8- 8- 11-		8- 8- 11-				>5.5-	>8-									-		-	-	-
		μS/cm	-																		-	-	-	-	-
		mV	-											7.40.5							-		-	-	-
Physical Properties		pH_Units pH_Units	-											7-10.5							-	-	-	-	-
Inorganics			-																		-	-	-	-	
Metals		mg/L 1 μg/L 3			Eqn 50					9500					Note	Note	Note	Note			-	-	-	-	-
		μg/L 1	6	9				90	2500	6				6	2000	2000	2000	2000			-	-	-	-	-
		μg/L 0	10					50	125	10				10	5	5	5	5	12.5	12.5	-	-	-		-
		μg/L 1	1000					10000	5000	1000				1000	500	500	2900	2900	500	500	-	-	-	-	-
		µg/L 0	-	0.13		100		1.5	1000	8					5.3	5.3	5.3	5.3	100	100	-	-	-	-	-
		μg/L 1	-					12000	12000	5000				5000	500	500			5000	5000	-	-	-	-	-
		μg/L 50	5000		Ean	0.12		12000 Varies. See notes.	12000 15	5000 5				5000 5	500 0.017	500 0.017	0.017	0.017	5000 0.12	5000 0.12	-	-	-	-	-
1	,	μg/L 0 mg/L 0	- 5		Eqn	U. 1Z		varies. See notes.	10	5				J	0.017	0.017	0.017	0.017	0.12	0.12	-	-	-		-
1		µg/L 1	50					10	15	50				50	8.9	8.9	8.9	8.9	56	56	-	-	-	-	
	` '	µg/L 0	-					40	40	20					50	50					-	-	-	-	-
1	Copper (Filtered)	μg/L 0	1000		Eqn 2			Varies. See notes.	20	1500			1000		Note	Note	Note	Note	2	2	-	-	-	-	-
	Iron (Filtered)	mg/L 0	0.3							6.5			0.3		0.3	0.3	0.3	0.3			-	ū	-		-
		μg/L 0	10					Varies. See notes.	20	10				10	Note	Note	Note	Note	2	2	-	-	-	-	-
	Lithium (Filtered)	µg/L 2	-					1		8											-	•	-	-	-
		mg/L 0	50			100		1		1500			50		200	200			1		-	-	-	-	-
		μg/L 1 μg/L -	1		Eqn	100		0.25	0.25	1500	0.026	0.016	50	1	0.016	0.016	0.026	0.026	0.016	0.016	-	-	-	-	-
		μg/L 1	-		_q;;			10000	10000	250	5.520	5.510			73	73	73	73	5.510	5.010	-	-	-	-	-
	, , ,	μg/L 1	-					Varies. See notes.	83	80					Note	Note	Note	Note	83	83	-	-	-	-	-
		mg/L 0	-																		-	-	-	-	-
	Selenium (Filtered)	μg/L 0	50		2			20	20	10				50	1	1	1	1	54	54	-	-	-	-	-
		μg/L 100	-																		-	-	-	-	-
		µg/L 0	-					0.5 15	15	20			000		0.1	0.1	0.1	0.1	1.5	1.5	-		-	-	-
		mg/L 0	200							2500			200								-	-	-	-	-
	` '	μg/L 1 μg/L 3,00								2300												-	-	-	-
		μg/L 0	-					3	3						0.8	0.8	0.8	0.8			-	-	-	-	-
		μg/L 5	-							2500											-	-	-	-	-
		μg/L 5	-					1000	1000						100	100	100	100			-	0	-	•	-
		μg/L 0	20					85	85	20				20	10	10	15	15			-	-	-	-	-
		µg/L 5								20					100	100					-	-	-	-	-
		μg/L 5	5000					Varies. See notes.	100	3000			5000		10	10	30	30	10	10	-	-	-	-	-
BTEX	Zirodinam (rinorda)	μg/L 0 μg/L 0	5		40		110	400	1000	5	370	110		5	88	88	690	33000	200	9800	<1	1.9	1.9	2.1	<0.5
DILX		μg/L 0	1.6		200		110	2000	2500	140	90	25	1.6	140	3200	3200	41000	NGR	11000	NGR	<1	0.8	0.6	0.6	<0.5
		μg/L 0	-	72	200			720	720	800	72	2.0	1.0		72	72	72	72	11000	non	<1	<0.1	<0.1	<0.1	<0.5
		μg/L 0	24		0.5			5	2000	60	2	215	24	60	83	4900	83	NGR	8900	NGR	1.7	1.8	1.7	2	<0.5
	Xylene (m & p)	μg/L 0	-																		-	i	-	•	-
		μg/L 0	-																		-	-	-	-	-
5011		μg/L 0	20		30			300	300	90			20	90	3900	13000	18000	NGR			2.9	3.8	2.6	2.7	<0.5
EPH		μg/L 200						5000	5000	5000											1700	1900	1700	1900	860
		μg/L 200 μg/L 200	-					500	500												300	<250	<250	<250	130 860
		μg/L 200	_					500	500												-		+ -	-	130
VPH		μg/L 300	_					1500	1500												1700	1400	590	780	270
		μg/L 300	-					15000	15000	15000											1700	1400	600	790	270
PHC		μg/L 300	-												0.0	6500	0000	NGR			-	-	-		-
		μg/L 150	-					1							1300	1800	1300	NGR	1		-	-	-	-	700
	` ,	µg/L -																			-	-	-	-	100 <100
VOC		μg/L - μg/L 4	15		1000			34000	4400	95	10000	5000	15		340	5000	10000	10000	5000	5000	-	-	-	-	<1
PAH		µg/L 0	-					0.000	1.00			0000			0.0	0000	10000		0000	0000	-		-	-	-
		μg/L 0	-																		-	-	-	-	-
		μg/L 0	-																		-	-	-	-	-
1		μg/L 0			6			60	60	250	5.8				5.8	5.8	5.8	5.8			-	-	-	-	5.43
1		µg/L 0	-						6 -		4.				46	46	46	46			-	-	-	-	0.06
1		μg/L 0	-		3	+		0.5	0.5	4000	4.4				0.05	0.05	0.05	0.05			-	-	-	-	0.4
		µg/L 0	-		0.1	+		1	1	1000 0.07	0.012 0.018				0.012 0.018	0.012 0.018	0.012 0.018	0.012 0.018			-	-	-	-	0.27 <0.05
		μg/L 0 μg/L 0	0.04		0.01			0.1	0.1	0.07	0.015			0.04	0.018	0.018	0.015	0.018	+		-	-	-	-	<0.05
		μg/L 0	0.04		5.51			V	Ų	0.01	3.0.0			0.0 /	0.01	0.01	5.0.0	3.5.7			-	-	-	-	<0.05
	17	μg/L 0	-					İ		0.07					0.48	0.48	0.48	0.48			-		-	-	-
	Benzo(g,h,i)perylene	μg/L 0	-												0.17	0.21	0.17	0.21			-	-	-	-	<0.05
		μg/L 0	-												0.48	0.48	0.48	0.48			-	-	-	-	<0.05
1		μg/L 0	-					1	1	7					0.1	0.1	1.4	1.4			-	•	-	-	<0.05
1		μg/L 0	-		4	-	-	2	2	0.01 150	0.04				0.26 0.04	0.28	0.26 0.04	0.28	+		-	-	-	-	<0.05 1.06
1		μg/L 0 μg/L 0	-		12			120	120	150	3				3	0.04	3	3	+		-		-	-	3.89
		μg/L 0	-		12	+		120	120	100					0.21	0.23	0.21	0.23	1		-	-	-	-	<0.05
1		μg/L 0	-							5.5											-	-	-	-	-
		μg/L 0	-							15											-	-	-	-	-
				(1	1 -		10	10	80	1.1	1.4			1.1	1.1	1.1	1.1	1.4	1.4	-	-	-		1.08
	Naphthalene	μg/L 0	-												1				+						
	Naphthalene Phenanthrene	μg/L 0	-		0.3			3	3		0.4				0.4	0.4	0.4	0.4			-	-	-	-	5.65
	Naphthalene Phenanthrene Pyrene			3.4	0.3			3 0.2 34	3 0.2 34	100					0.4 0.025 3.4	0.4 0.025 3.4					-				5.65 0.52 0.2

MW07-7

Location ID

																					Location ID	J	MW	/07-8			MW07-9	
																					Sample ID	0 MW07-8	MW07-8		MW07-8 N	MW07-9 M	1W07-9 N	MW07-9
			_																		Screen Interval (m) Sample Date				11/09/2018 1			03/02/2012
			(Federal Guidelines for Canadian Drinki Water (2017)	ng Aquatic Life	BC WQG FW Aquatic Life Long-Term Avg Approved		BC WQG Marine Aquatio Life Long-Tern Avg - Approved	m BCCSR 3.2 - AVVI	BCCSR 3.2 - AWm	BCCSR 3.2 -	Aquatic Life	Aquatic Life	Federal Guidelines for Canadian Drinking Water (2017) AO	Federal Guidelines for Canadian Drinking Water (2017) MAC	Federal Interim GW Tier 1 - Commercial/In dustrial (Coarse	Federal Interim GW Tier 1 - Commercial/In dustrial (Fine Grained)	Freshwater Life (Coarse	Life (Fine	Federal Interim GW Tier 2 - CL/IL Marine Life (Coarse	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained))						
Method_Type	ChemName	output unit	EQL									,	,	(==)	(== /	Grained)	2.22,	Grained)	Grained)	Grained)								
Field	CHVs (%LEL) Temperature (Field)	% LEL		0.001										0.001								-	-	-	-	-	-	-
	DO (Field)	mg/L		-		8- 8- 11-		8- 8- 11-				>5.5-	>8-	0.001								-	-	-	-	-	-	-
	Field Conductance, Specific Field ORP (mV)	μS/cm mV		-																		-	-	-	-	-	-	-
	pH (Field)	pH_Units		-											7-10.5							_	-	-	5.9		-	-
Physical Properties Inorganics	pH (Lab) Hardness as CaCO3 (Filtered)	pH_Units mg/L	1	-																		-	-	-	134	-	-	
Metals	Aluminium (Filtered)	μg/L	3			Eqn 50			00	0500	9500				•	Note	Note	Note	Note			-	-	-	8.2	-	-	-
	Antimony (Filtered) Arsenic (Filtered)	μg/L μg/L	0	6 10	9				90 50	2500 125	10				10	2000 5	2000 5	2000 5	2000 5	12.5	12.5	-	-	-	0.33 1.36	-	-	
	Barium (Filtered)	μg/L	1	1000	1000		400		10000	5000	1000				1000	500	500	2900	2900	500	500	-	-	-	92.3	-	-	-
	Beryllium (Filtered) Bismuth (Filtered)	μg/L μg/L	1	-	0.13		100		1.5	1000	8					5.3	5.3	5.3	5.3	100	100	-	-	-	<0.05	-	-	-
	Boron (Filtered)	μg/L	50	5000		Γ	0.10		12000	12000	5000				5000 5	500	500	0.047	0.017	5000	5000	-	-	-	30	-	-	-
	Cadmium (Filtered) Calcium (Filtered)	μg/L mg/L	0	5 -		Eqn	0.12		Varies. See notes.	15	5				o	0.017	0.017	0.017	0.017	0.12	0.12	-	-	-	0.115 38	-	-	-
	Chromium (Filtered) Cobalt (Filtered)	μg/L	1	50	1				10 40	15 40	50 20			-	50	8.9 50	8.9 50	8.9	8.9	56	56	-	-	-	0.5 1.64	-	-	-
	Copper (Filtered)	μg/L μg/L	0	1000		Eqn 2			Varies. See notes.	20	1500			1000		Note	Note	Note	Note	2	2	-	-	-	2.25	-	-	-
	Iron (Filtered) Lead (Filtered)	mg/L µg/L	0	0.3 10					Varies. See notes.	20	6.5 10			0.3	10	0.3 Note	0.3 Note	0.3 Note	0.3 Note	2	2	-	-	-	0.842 <0.05	-	-	-
	Lithium (Filtered)	μg/L	2	-					varies. dec notes.	20	8				10	14010	14010	Note	14010	-	2	-	-	-	1.1	-	-	-
	Magnesium (Filtered) Manganese (Filtered)	mg/L μg/L	0	50			100				1500			50		200	200					-	-	-	9.48	-	-	-
	Mercury	μg/L	-	1		Eqn			0.25	0.25	1	0.026	0.016		1	0.016	0.016	0.026	0.026	0.016	0.016	-	-	-	<0.005	-	-	-
	Molybdenum (Filtered) Nickel (Filtered)	μg/L μg/L	1	-					10000 Varies. See notes.	10000	250 80					73 Note	73 Note	73 Note	73 Note	83	83	-	-	-	0.478 8.92	-	-	-
	Potassium (Filtered)	mg/L	0	-																		-	-	-	5.38	-	-	-
	Selenium (Filtered) Silicon (Filtered)	μg/L μg/L	100	50		2			20	20	10				50	1	1	1	1	54	54	-	-	-	0.141 10,600	-	-	-
	Silver (Filtered)	μg/L	0	-					0.5 15	15	20					0.1	0.1	0.1	0.1	1.5	1.5	-	-	-	<0.01	-	-	-
	Sodium (Filtered) Strontium (Filtered)	mg/L μg/L	0	200							2500			200								-	-	-	12.9 232	-	-	-
	Sulphur (S) (Filtered)	μg/L	3,000	-																		-	-	-	2180	-	-	-
	Thallium (Filtered) Tin (Filtered)	μg/L μg/L	5	-					3	3	2500					0.8	8.0	0.8	0.8			-	-	-	0.018 <0.1	-	-	-
	Titanium (Filtered)	μg/L	5	-					1000	1000						100	100	100	100			-	-	-	<0.3	-	-	-
	Uranium (Filtered) Vanadium (Filtered)	μg/L μg/L	5	20					85	85	20 20				20	10 100	10 100	15	15			-	-	-	0.14 <0.5	-	-	-
	Zinc (Filtered) Zirconium (Filtered)	μg/L	5	5000					Varies. See notes.	100	3000			5000		10	10	30	30	10	10	-	-	-	8.6 <0.3	-	-	-
BTEX	Benzene	μg/L μg/L	0	5		40		110	400	1000	5	370	110		5	88	88	690	33000	200	9800	<0.1	<0.1	<0.5	<0.5	<0.1	<0.1	<0.5
	Ethylbenzene Styrene	μg/L	0	1.6	72	200			2000 720	2500 720	140 800	90 72	25	1.6	140	3200 72	3200 72	41000 72	NGR 72	11000	NGR	0.4 <0.1	<0.1 <0.1	<0.5 <0.5	<0.5 <0.5	<0.1 <0.1	<0.1 <0.1	<0.5 <0.5
	Toluene	μg/L μg/L	0	24	12	0.5			5	2000	60	2	215	24	60	83	4900	83	NGR	8900	NGR	0.3	<0.1	<0.5	<0.45	<0.1	<0.1	<0.5
	Xylene (m & p) Xylene (o)	μg/L μg/L	0	-																		-	-	-	-	-	-	-
	Xylenes, total	µg/L	0	20		30			300	300	90			20	90	3900	13000	18000	NGR			2	<0.1	<0.5	<0.75	<0.1	<0.1	-
EPH	EPH C10-C19 EPH C19-C32	µg/L	200						5000	5000	5000											1400 <250	<250 <250	<100 <100	<250 <250	<250 <250	<250 <250	
	LEPHw	μg/L μg/L	200						500	500												-	-	<100	<250	-	-	-
VPH	HEPHw VPHw	µg/L ua/L	200 300	<u> </u>					1500	1500												- 590	- <100	<100 <100		- <100	- <100	<100
200	VH6-10	μg/L	300	-	1				15000	15000	15000						05.7					590	<100	<100	<100	<100	<100	<100
PHC	F1 (C6-C10) F2 (C10-C16)	μg/L μg/L	300 150	-					1							810 1300	6500 1800	9800 1300	NGR NGR			-	-	<100	-	-	-	-
	F3 (C16-C34) F4 (C34-C50)	μg/L	F																			-	-	<100	-	-	-	-
VOC	Methyl tert-butyl ether [MTBE]	μg/L μg/L	4	15	+	1000			34000	4400	95	10000	5000	15		340	5000	10000	10000	5000	5000	-	-	<100 <1	<0.5	-	-	- <1
PAH	Low Molecular Weight PAHs	µg/L	0	-																		-	-	-	-	-	-	-
	High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs]	μg/L μg/L	0	-																		-	-	-	-	-	-	-
	Acenaphthene Acenaphthylene	μg/L	0	-		6			60	60	250	5.8				5.8 46	5.8 46	5.8 46	5.8 46			-	-	<0.05 <0.05	<0.01 <0.01	-	-	-
	Acridine	μg/L μg/L	0	-		3			0.5	0.5		4.4				0.05	0.05	0.05	0.05			-	-	<0.05	<0.01	-	-	
	Anthracene Benz(a)anthracene	μg/L	0	-	1	4 0.1			1	1	1000 0.07	0.012 0.018		-	-	0.012 0.018	0.012 0.018	0.012 0.018	0.012 0.018				-	<0.05 <0.05	<0.01 <0.01	-	-	-
	Benzo(a)pyrene	μg/L μg/L	0	0.04		0.1			0.1	0.1	0.07	0.018			0.04	0.018	0.018	0.016	0.018			-	-	<0.01	<0.005	-	-	-
	Benzo(b)fluoranthene Benzo(b+j)fluoranthenes	μg/L μg/L	0	_						<u> </u>	0.07	+				0.48	0.48	0.48	0.48			-	-	<0.05	- <0.01	-	-	-
	Benzo(g,h,i)perylene	μg/L	0	-							3.07					0.17	0.21	0.17	0.21			-	-	<0.05	<0.01	-	-	-
	Benzo(k)fluoranthene Chrysene	µg/L µg/L	0	-					1	1	7		 			0.48 0.1	0.48	0.48 1.4	0.48 1.4			-	-	<0.05 <0.05	<0.01 <0.01	-	-	-
	Dibenz(a,h)anthracene	μg/L	0	-					·		0.01					0.26	0.28	0.26	0.28			-	-	<0.05	<0.005	-	-	-
	Fluoranthene Fluorene	μg/L μg/L	0	-		4 12			120	2 120	150 150	0.04				0.04	0.04	0.04	0.04			-	-	<0.05 <0.05	<0.01 <0.01	-	-	-
	Indeno(1,2,3-cd)pyrene	μg/L	0	-					.25	.20						0.21	0.23	0.21	0.23			-	-	<0.05	<0.01	-	-	-
	Methylnaphthalene, 1- Methylnaphthalene, 2-	μg/L μg/L	0	-	-				1		5.5 15											-	-	-	<0.05 <0.05	-	-	-
	Naphthalene	μg/L	0	-					10	10	80	1.1	1.4			1.1	1.1	1.1	1.1	1.4	1.4	-	-	<0.05	<0.05	-	-	-
	Phenanthrene Pyrene	μg/L μg/L	0	-		0.3			0.2	0.2	100	0.4				0.4 0.025	0.4	0.4 0.025	0.4 0.025			-	-	<0.05 <0.02	<0.02 <0.01	-	-	-
1	Quinoline	µg/L	0	-	3.4				34	34	0.05	3.4				3.4	3.4	3.4				-	-	<0.1		-	-	-

																					Location ID		D. D. A. C.	MW08-10	Innarao a	MM400 40 N	MW08	
																					Sample ID Screen Interval (m)		MW08-10	0.80 - 3.80	MVV 18-1	MW08-10 N	0.80 - 3	
			Г		1	1	1	1	T				ı			1			1	ı	Sample Date	22/09/2008	02/02/2012	11/09/2018	11/09/2018	23/04/2019 2	2/09/2008 1	1/09/2018
			(Federal Guidelines fo Canadian Drink Water (2017	king Aquatic Life	Aquatic Life	Marine - Aquatic Life -	BC WQG Marine Aquatio Life Long-Term Avg - Approved	m BCCSR 3.2 - AVVI	BCCSR 3.2 - AWm	BCCSR 3.2 - DW	Aquatic Life	Aquatic Life	Federal Guidelines for Canadian Drinking Water (2017) AO	Federal Guidelines for Canadian Drinking Water (2017) MAC	Federal Interim GW Tier 1 - Commercial/In dustrial (Coarse Grained)	Federal Interim GW Tier 1 - Commercial/In dustrial (Fine Grained)	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Coarse Grained)	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Fine Grained)	Federal Interim GW Tier 2 - CL/IL Marine Life (Coarse Grained)	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained)							
Method_Type Field	ChemName CHVs (%LEL)	output unit % LEL	EQL																			_	_	T -	-	0		
1 1014	Temperature (Field)	°C		0.001										0.001								-	-	-	-	10.9	-	-
	DO (Field) Field Conductance, Specific	mg/L µS/cm		-		8- 8- 11-		8- 8- 11-				>5.5-	>8-									-	-	-	-	0.22 524	-	-
	Field ORP (mV)	mV		-																		-	-	-	-	-63.6	-	-
Physical Properties	pH (Field) pH (Lab)	pH_Units pH_Units		-											7-10.5							-	-	6.98	6.98	6.7	-	7.07
Inorganics	Hardness as CaCO3 (Filtered)	mg/L	1	-																		-	-	250	251	-	-	272
Metals	Aluminium (Filtered) Antimony (Filtered)	µg/L	3	6	0	Eqn 50			90	2500	9500 6				4	Note 2000	Note 2000	Note 2000	Note 2000			-	-	3.3 <0.1	2.7 <0.1	-	-	1.4 <0.1
	Arsenic (Filtered)	μg/L μg/L	0	10	9				50	125	10				10	5	5	5	5	12.5	12.5	-	-	6.73	7.08	-	-	3.99
	Barium (Filtered)	μg/L	1	1000	1000		400		10000	5000	1000				1000	500	500	2900	2900	500	500	-	-	561	568	-	-	82.9
	Beryllium (Filtered) Bismuth (Filtered)	μg/L μg/L	1		0.13		100		1.5	1000	8					5.3	5.3	5.3	5.3	100	100	-	-	<0.05	<0.05	-	-	<0.05
	Boron (Filtered)	μg/L	50	5000					12000	12000	5000				5000	500	500	0.6:-		5000	5000	-	-	93	92	-	-	58
	Cadmium (Filtered) Calcium (Filtered)	μg/L mg/L	0	5		Eqn	0.12		Varies. See notes.	15	5				5	0.017	0.017	0.017	0.017	0.12	0.12	-	-	<0.005 56.4	<0.005 56.2	-	-	<0.005 57.6
	Chromium (Filtered)	μg/L	1	50					10	15	50				50	8.9	8.9	8.9	8.9	56	56	-	-	0.39	0.42	-	-	0.11
	Cobalt (Filtered) Copper (Filtered)	µg/L ug/L	0	1000		Eqn 2			40 Varies. See notes.	40 20	20 1500			1000		50 Note	50 Note	Note	Note	2	2	-	-	0.11 <0.2	0.1 <0.2	-	-	<0.1
	Iron (Filtered)	μg/L mg/L	0	0.3		-4114					6.5			0.3		0.3	0.3	0.3	0.3			-	-	34.4	34.6	-	-	27.9
	Lead (Filtered) Lithium (Filtered)	µg/L	0	10					Varies. See notes.	20	10				10	Note	Note	Note	Note	2	2	-	-	<0.05 3.3	<0.05 3.4	-	-	<0.05 3.7
	Magnesium (Filtered)	μg/L mg/L	0	-				<u></u>														-	-	26.6	26.8	-	-	31.1
	Manganese (Filtered)	μg/L	1	50 1		F	100		0.25	0.25	1500	0.000	0.046	50	,	200	200	0.000	0.006	0.046	0.046	-	-	1150	1170	-	-	1130
	Mercury Molybdenum (Filtered)	μg/L μg/L	1	- 1		Eqn			0.25 10000	0.25 10000	250	0.026	0.016		1	0.016 73	0.016 73	0.026 73	0.026 73	0.016	0.016	-	-	<0.005 0.388	<0.005 0.387	-	-	<0.005 0.408
	Nickel (Filtered)	μg/L	1	-					Varies. See notes.	83	80					Note	Note	Note	Note	83	83	-	-	<0.5	<0.5	-	-	<0.5
	Potassium (Filtered) Selenium (Filtered)	mg/L μg/L	0	50		2			20	20	10				50	1	1	1	1	54	54	-	-	4.43 0.221	4.54 0.236	-	-	2.55 0.294
	Silicon (Filtered)	μg/L	100	-		_				20	.0					·				Ü.	0.	-	-	16,700	16,500	-	-	16,700
	Silver (Filtered) Sodium (Filtered)	µg/L	0	200					0.5 15	15	20			200		0.1	0.1	0.1	0.1	1.5	1.5	-	-	<0.01 19.2	<0.01 19.7	-	-	<0.01 5.14
	Strontium (Filtered)	mg/L μg/L	1	-							2500			200								-	-	277	278	-	-	180
	Sulphur (S) (Filtered) Thallium (Filtered)	µg/L	3,000	-					3	3						0.0	0.0	0.0	0.0			-	-	1680 <0.01	1840 <0.01	-	-	1870 <0.01
	Tin (Filtered)	μg/L μg/L	5	-					3	3	2500					8.0	0.8	0.8	8.0			-	-	<0.01	<0.01	-	-	<0.1
	Titanium (Filtered)	μg/L	5	-					1000	1000						100	100	100	100			-	-	0.68	0.61	-	-	<0.3
	Uranium (Filtered) Vanadium (Filtered)	μg/L μg/L	5	20					85	85	20				20	10 100	10 100	15	15			-	-	0.09	0.093	-	-	0.032 <0.5
	Zinc (Filtered)	μg/L	5	5000					Varies. See notes.	100	3000			5000		10	10	30	30	10	10	-	-	<1	<1	-	-	<1
BTEX	Zirconium (Filtered) Benzene	μg/L μg/L	0	- 5		40		110	400	1000	5	370	110		5	88	88	690	33000	200	9800	<0.1	<0.5	<0.3 <0.5	<0.3 <0.5	<0.4	<0.1	<0.3 <0.5
	Ethylbenzene	μg/L	0	1.6		200			2000	2500	140	90	25	1.6	140	3200	3200	41000	NGR	11000	NGR	<0.1	<0.5	<0.5	<0.5	<0.4	<0.1	<0.5
	Styrene Toluene	μg/L μg/L	0	24	72	0.5			720 5	720 2000	800 60	72	215	24	60	72 83	72 4900	72 83	72 NGR	8900	NGR	<0.1 <0.1	<0.5 <0.5	<0.5 <0.45	<0.5 <0.45	<0.4 <0.4	<0.1 <0.1	<0.5 <0.45
	Xylene (m & p)	µg/L	0	-		0.0				2000		-	210	ī		00	1000	00	HOIT	0000	Non	-	-	-	-	<0.4	-	-
	Xylene (o) Xylenes, total	μg/L	0	20		30			300	300	90			20	90	3900	13000	18000	NGR			- <0.1	-	<0.75	<0.75	<0.4 <0.4	<0.1	<0.75
EPH	EPH C10-C19	μg/L μg/L	200	20		30			5000	5000	5000			20	90	3900	13000	16000	NGK			<250	-	<250	<250	<200	<250	<250
	EPH C19-C32	μg/L	200	-					500	500												<250	-	<250	<250	<200	<250	<250
	LEPHw HEPHw	μg/L μg/L	200 200	-					500	500												-	-	<250 <250	<250 <250	<200 <200	-	<250 <250
VPH	VPHw	μg/L	300	-					1500	1500	4											<100	<100	<100	<100	<300	<100	<100
PHC	VH6-10 F1 (C6-C10)	μg/L μg/L	300	-		+	+	1	15000	15000	15000	+				810	6500	9800	NGR			<100	<100	<100	<100	<300 <300	<100	<100
	F2 (C10-C16)	μg/L	150	-												1300	1800	1300	NGR			-	-	-	-	<150	-	-
	F3 (C16-C34) F4 (C34-C50)	μg/L μg/L	-			+	+		1													-	-	-	-	-	-	-
VOC	Methyl tert-butyl ether [MTBE]	μg/L	4	15		1000			34000	4400	95	10000	5000	15		340	5000	10000	10000	5000	5000	-	<1	<0.5	<0.5	<4	-	<0.5
PAH	Low Molecular Weight PAHs High Molecular Weight PAHs	μg/L μg/L	0	-																		-	-	-	-	<0.1 <0.05	-	-
	Polycyclic aromatichydrocarbons, total [PAHs]	µg/L	0																			-	-	-	-	<0.03	-	
	Acenaphthene	μg/L	0			6			60	60	250	5.8		-	_	5.8	5.8	5.8	5.8			-	-	0.021	0.025	<0.05	-	0.716
	Acenaphthylene Acridine	μg/L μg/L	0	-		3	+		0.5	0.5		4.4				46 0.05	46 0.05	46 0.05	46 0.05			-	-	<0.01 <0.01	<0.01 <0.01	<0.05 <0.05	-	<0.01
	Anthracene	μg/L	0	-		4			1	1	1000	0.012				0.012	0.012	0.012	0.012			-	-	<0.01	<0.01	<0.01	-	<0.01
	Benz(a)anthracene Benzo(a)pyrene	μg/L μg/L	0	0.04		0.1	1		0.1	0.1	0.07	0.018			0.04	0.018	0.018 0.01	0.018 0.015	0.018 0.017			-	-	<0.01 <0.005	<0.01 <0.005	<0.01 <0.005	-	<0.01
	Benzo(b)fluoranthene	μg/L	0									5.5.0										-	-	-	-	-	-	-
	Benzo(b+j)fluoranthenes Benzo(g,h,i)perylene	μg/L μg/L	0	-		1	1		1		0.07					0.48 0.17	0.48 0.21	0.48 0.17	0.48 0.21			-	-	<0.01 <0.01	<0.01 <0.01	<0.03 <0.05	-	<0.01 <0.01
	Benzo(k)fluoranthene	μg/L	0													0.48	0.48	0.48	0.48			-	-	<0.01	<0.01	<0.05	-	<0.01
	Chrysene Dibenz(a,h)anthracene	μg/L	0	-		1	1		1	1	7 0.01					0.1 0.26	0.1 0.28	1.4 0.26	1.4 0.28			-	-	<0.01 <0.005	<0.01 <0.005	<0.02 <0.003	-	<0.01 <0.005
	Fluoranthene	μg/L μg/L	0	-		4	+		2	2	150	0.04				0.26	0.28	0.26	0.28			-	-	<0.005	<0.005	<0.003	-	<0.005
	Fluorene	μg/L	0	-		12			120	120	150	3				3	3	3	3			-	-	<0.01	<0.01	<0.05	-	<0.01
	Indeno(1,2,3-cd)pyrene Methylnaphthalene, 1-	μg/L μg/L	0	-		+	1		1		5.5					0.21	0.23	0.21	0.23			-	-	<0.01 <0.05	<0.01 <0.05	<0.05 <0.05	-	<0.01 <0.05
	Methylnaphthalene, 2-	μg/L	0	-							15										4 :	-	-	<0.05	<0.05	<0.1	-	<0.05
	Naphthalene Phenanthrene	μg/L μg/L	0	-		0.3			10	10	80	1.1 0.4	1.4			1.1 0.4	1.1 0.4	1.1 0.4	1.1 0.4	1.4	1.4	-	-	<0.05 <0.02	<0.05 <0.02	<0.1 <0.05	-	<0.05 <0.02
1	Pyrene	μg/L	0	-		5.0			0.2	0.2	100	0.025				0.025	0.025	0.025	0.025			-	-	<0.01	<0.01	<0.02	-	<0.01
	Quinoline	μg/L	0	-	3.4				34	34	0.05	3.4				3.4	3.4	3.4	3.4			-	-	<0.05	<0.05	<0.02	-	<0.05

																			Sample ID N	MW08-13 MW0	MVVU8- 108-13 M		MW08-1
																			Screen Interval (m)	1000-13	0.80 - 3		101000-1
																				22/09/2008 13/0			23/04/20
					!					CCME	CCME	Federal	Federal Federal	deral Interim	ederal Interim	Federal	Federal	Federal	1				
			Federal	BC WQG FW	BC WQG FW	BC WQG	BC WQG				Protection of (Guidelines for	SW Her 1 -	GW Tier 1 -	Interim GW	Interim GW	Interim GW	1				
			Guidelines for	Aquatic Life	Aquatic Life	Marine	Marine Aquatic BCCSR 3.2 - AW	BCCSR 3.2 -		Aquatic Life	Aquatic Life	Canadian	Canadian	mmerciai/in	Commercial/In	Tier 2 - CL/IL	Tier 2 - CL/IL	Tier 2 - CL/IL					
			Canadian Drinking	Working	Long-Term Avg		Life Long-Term	AWm	DW	(FAL, long	(MAL, long E	rinking Water	Drinking Water	dustriai	dustrial (Fine	Freshwater	Freshwater		CL/IL Marine Life (Fine Grained)				
			Water (2017)		Approved	Working	Avg - Approved			term)	term)	(2017) AO	(2017) MAC	(Coarse	Grained)	Life (Coarse	Life (Fine	(Coarse	1				
ethod_Type	ChemName	output unit EQL												Grained)		Grained)	Grained)	Grained)	1				
eld	CHVs (%LEL)	% LEL	•		 														 	-	-	-	0
,iu	Temperature (Field)	°C	0.001									0.001							<u> </u>	-			10.6
	DO (Field)	mg/L	-		8- 8- 11-		8- 8- 11-			>5.5-	>8-	0.001							<u> </u>	-	-		0.27
	Field Conductance, Specific	uS/cm	_		0 10 111		0 0 1 1			0.0											-	-	206.1
	Field ORP (mV)	mV	_		-																-	-	-17
	pH (Field)	pH Units	_		-								7-10.5								-	6.12	6.24
hysical Properties	pH (Lab)	pH Units																		-	-	-	-
organics	Hardness as CaCO3 (Filtered)	mg/L 1	-																	-	-	75.1	69.5
etals	Aluminium (Filtered)	μg/L 3			Eqn 50				9500					Note	Note	Note	Note			-	-	41.6	45.9
	Antimony (Filtered)	μg/L 1	6	9			90	2500	6				6	2000	2000	2000	2000		1	-	-	0.7	<0.5
	Arsenic (Filtered)	μg/L 0	10				50	125	10				10	5	5	5	5	12.5	12.5	-	-	12.7	34.8
	Barium (Filtered)	µg/L 1	1000	1000			10000	5000	1000				1000	500	500	2900	2900	500	500	-	-	51.9	31.8
	Beryllium (Filtered)	μg/L 0	-	0.13		100	1.5	1000	8					5.3	5.3	5.3	5.3	100	100	-	-	<0.05	<0.1
	Bismuth (Filtered)	µg/L 1	-																	-	-	-	<1
	Boron (Filtered)	μg/L 50	5000				12000	12000	5000				5000	500	500			5000	5000	-	-	23	<50
	Cadmium (Filtered)	μg/L 0	5		Eqn	0.12	Varies. See notes	. 15	5				5	0.017	0.017	0.017	0.017	0.12	0.12	-	-	0.0217	<0.0
	Calcium (Filtered)	mg/L 0	-	1															<u> </u>	-	-	17.2	15
	Chromium (Filtered)	μg/L 1	50				10	15	50				50	8.9	8.9	8.9	8.9	56	56	-	-	1.57	2.9
	Cobalt (Filtered)	μg/L 0	-				40	40	20					50	50				1	-	-	3.05	2.07
	Copper (Filtered)	μg/L 0	1000		Eqn 2		Varies. See notes	. 20	1500			1000		Note	Note	Note	Note	2	2	-	-	0.65	0.38
	Iron (Filtered)	mg/L 0	0.3						6.5			0.3		0.3	0.3	0.3	0.3			-	-	8.52	11.4
	Lead (Filtered)	μg/L 0	10				Varies. See notes	. 20	10				10	Note	Note	Note	Note	2	2	-	-	0.222	<0.2
	Lithium (Filtered)	μg/L 2	-						8											-	-	2.4	2.2
	Magnesium (Filtered)	mg/L 0	-																	-	-	7.77	7.78
	Manganese (Filtered)	μg/L 1	50			100			1500			50		200	200					-	-	595	417
	Mercury	μg/L -	1		Eqn		0.25	0.25	1	0.026	0.016		1	0.016	0.016	0.026	0.026	0.016	0.016	-	-	<0.005	-
	Molybdenum (Filtered)	μg/L 1	-		<u> </u>		10000	10000	250					73	73	73	73				-	1.21	1.5
	Nickel (Filtered)	μg/L 1	-				Varies. See notes	. 83	80					Note	Note	Note	Note	83	83	-	-	37.8	12.7
	Potassium (Filtered)	mg/L 0	-																		-	3.23	1.78
	Selenium (Filtered)	μg/L 0	50		2		20	20	10				50	1	1	1	1	54	54	-	-	0.401	0.34
	Silicon (Filtered)	μg/L 100																		-	-	11,000	18,10
	Silver (Filtered)	μg/L 0	-				0.5 15	15	20					0.1	0.1	0.1	0.1	1.5	1.5	-	-	0.019	<0.02
	Sodium (Filtered)	mg/L 0	200									200								-	-	6.67	5.95
	Strontium (Filtered)	μg/L 1							2500												-	95.1	61
	Sulphur (S) (Filtered)	μg/L 3,00																			-	<500	<300
	Thallium (Filtered)	μg/L 0	-				3	3						0.8	0.8	0.8	0.8			_	-	<0.01	<0.0
	Tin (Filtered)	μg/L 5	-						2500											_	-	<0.1	<5
	Titanium (Filtered)	μg/L 5	-				1000	1000						100	100	100	100			-	-	1.78	<5
	Uranium (Filtered)	μg/L 0	20				85	85	20				20	10	10	15	15			-	-	0.57	<0.1
	Vanadium (Filtered)	μg/L 5	-						20					100	100					-	-	6.08	8.2
	Zinc (Filtered)	μg/L 5	5000				Varies. See notes	. 100	3000			5000		10	10	30	30	10	10	-	-	31.1	10.3
	Zirconium (Filtered)	µg/L 0	-																	-	-	0.75	0.89
EX	Benzene	μg/L 0	5		40		110 400	1000	5	370	110		5	88	88	690	33000	200	9800	<0.1	<0.5	<0.5	<0.4
	Ethylbenzene	μg/L 0	1.6		200		2000	2500	140	90	25	1.6	140	3200	3200	41000	NGR	11000	NGR	<0.1	<0.5	<0.5	<0.4
	Styrene	μg/L 0	-	72			720	720	800	72				72	72	72	72			<0.1	<0.5	<0.5	<0.4
	Toluene	μg/L 0	24		0.5		5	2000	60	2	215	24	60	83	4900	83	NGR	8900	NGR	<0.1	<0.5	<0.45	<0.4
	Xylene (m & p)	μg/L 0	-																	-	-	-	<0.4
	Xylene (o)	μg/L 0	-																	-	-	-	<0.4
	Xylenes, total	μg/L 0	20		30		300	300	90			20	90	3900	13000	18000	NGR			<0.1	<0.5	<0.75	<0.4
Н	EPH C10-C19	μg/L 200					5000	5000	5000											<250	110	<250	<200
	EPH C19-C32	μg/L 200		1																	<100	<250	<200
	LEPHw	μg/L 200		1			500	500								-				-	110	<250	<200
	HEPHw	μg/L 200	-																			<250	<200
Н	VPHw					1															<100		<300
	to a constant	μg/L 300					1500	1500												- < <100 <	<100	<100	
	VH6-10	μg/L 300					1500 15000	1500 15000	15000											- < <100 <		<100 <100	<300
С	F1 (C6-C10)	μg/L 300 μg/L 300	-						15000					0.0	0000	9800	11011			- < <100 < <100 <	<100 <100 -		<300
C	F1 (C6-C10) F2 (C10-C16)	μg/L 300 μg/L 300 μg/L 150	-						15000					810 1300	6500 1800	9800 1300	NGR NGR			- <100 < <100 < - <	<100 <100 - <100		<300 <150
С	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34)	μg/L 300 μg/L 300 μg/L 150 μg/L -	-						15000					0.0	0000	0000	11011			- < <100 < <100 < < - < < < < < < < < < < < < < < < <	<100 <100 - <100 <100	<100 - - -	<300 <150
С	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50)	µg/L 300 µg/L 300 µg/L 150 µg/L - µg/L -					15000	15000						1300	1800	1300	NGR			- < <100 < <100 < < <100 < < < < < < < <	<100 <100 - <100 <100 <100	<100 - - - -	<300 <150 -
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE]	µg/L 300 µg/L 300 µg/L 150 µg/L - µg/L - µg/L - µg/L 4	- - - 15		1000				15000	10000	5000	15		0.0	0000	0000	11011	5000	5000	- < <100 < <100 < < <100 < < < < < < < <	<100 <100 - <100 <100 <100 <1	<100 - - -	<300 <150 - - - <4
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs	µg/L 300 µg/L 300 µg/L 150 µg/L - µg/L - µg/L 4 µg/L 0			1000		15000	15000		10000	5000	15		1300	1800	1300	NGR	5000	5000	-	<100 <100 - <100 <100 <100	<100 - - - -	<300 <150 - - - <4 <0.1
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs	µg/L 300 µg/L 300 µg/L 150 µg/L - µg/L - µg/L 4 µg/L 0 µg/L 0	- - - 15		1000		15000	15000		10000	5000	15		1300	1800	1300	NGR	5000	5000	-	<100 <100 - <100 <100 <100 <1	<100 - - - -	<300 <150 - - - <4 <0.1 <0.0
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs]	µg/L 300 µg/L 300 µg/L 150 µg/L - µg/L - µg/L 4 µg/L 0 µg/L 0 µg/L 0	- - - - 15				34000	15000 4400	95		5000	15		1300	1800	1300	NGR 10000	5000	5000	-	<100 <100 - <100 <100 <100 <1 - - -	<100 <0.5	<300 <150 - - <4 <0.1 <0.05 <0.1
	F1 (C8-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene	ig/L 300 ig/L 300 ig/L 150 ig/L - ig/L - ig/L 4 ig/L 0 ig/L 0 ig/L 0 ig/L 0	- - - - 15		1000		15000	15000		10000	5000	15		340	1800 5000 5.8	1300	NGR 10000	5000	5000	- « <100 « <100 « - « - « - « - « - « - « - « - « - « -	<100 <100 - <100 <100 <100 <1 - - - <0.05	<100 <0.5 0.014	<300 <150 - - <4 <0.1 <0.05 <0.1
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene	µg/L 300 µg/L 300 µg/L 150 µg/L - µg/L - µg/L 0 µg/L 0 µg/L 0 µg/L 0 µg/L 0	- - - - 15		6		34000 60	15000 4400 60	95	5.8	5000	15		1300 340 5.8 46	1800 5000 5.8 46	1300 10000 5.8 46	10000 10000 5.8 46	5000	5000	-	<100 <100 - <100 <100 <100 <1 - - - - - <0.05 <0.00	<100 <0.5 0.014 <0.01	<300 <150
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene Acridine	µg/L 300 µg/L 300 µg/L 150 µg/L - µg/L 4 µg/L 0 µg/L 0 µg/L 0 µg/L 0 µg/L 0	15		6 3		34000 60 0.5	4400 60 0.5	95	5.8	5000	15		1300 340 5.8 46 0.05	1800 5000 5.8 46 0.05	1300 10000 10000 5.8 46 0.05	NGR 10000 5.8 46 0.05	5000	5000	-	<100 <100 - <100 - <100 <100 <1 - - - - <0.05 <0.05	<100 0.05 0.014 0.011	<300 <150 <150
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphtylene Acridine Anthracene	µg/L 300 µg/L 300 µg/L 300 µg/L 50 µg/L -	15 - -		6 3 4		34000 60 0.5 1	4400 60 0.5	95 250	5.8 4.4 0.012	5000	15		1300 340 5.8 46 0.05 0.012	5000 5000 5.8 46 0.05 0.012	1300 10000 10000 5.8 46 0.05 0.012	10000 10000 5.8 46 0.05 0.012	5000	5000	-	<100 <100 - <100 - <100 <100 <1 - - - - <0.05 <0.05 <0.05	<100 <0.5 0.014 <0.01 <0.01 <0.01	<300 <150 <4 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene Acridine	µg/L 300 µg/L 300 µg/L 300 µg/L 150 µg/L - µg/L - µg/L 0 µ	15 - - - - - - -		6 3 4 0.1		15000 34000 60 0.5 1	15000 4400 60 0.5 1	95 250 1000 0.07	5.8 4.4 0.012 0.018	5000	15		340 340 5.8 46 0.05 0.012 0.018	5000 5000 5.8 46 0.05 0.012 0.018	1300 10000 5.8 46 0.05 0.012 0.018	10000 10000 5.8 46 0.05 0.012 0.018	5000	5000	-	<100 <100 - (100 <100 <100 <100 <1	<100	<300 <150 - <4 <0.1 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthylene Acenaphthylene Acridine Anthracene Benz(a)anthracene Benz(a)pyrene	µg/L 300 µg/L 300 µg/L 300 µg/L 300 µg/L 50 µg/L 0	15		6 3 4		34000 60 0.5 1	4400 60 0.5	95 250	5.8 4.4 0.012	5000	15		1300 340 5.8 46 0.05 0.012	5000 5000 5.8 46 0.05 0.012	1300 10000 10000 5.8 46 0.05 0.012	10000 10000 5.8 46 0.05 0.012	5000	5000	-	<100 <100 - 100 <100 <100 <100 <100 <10	<100 <0.5 0.014 <0.01 <0.01 <0.01	<300 <150 - <4 <0.1 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthene Acndine Anthracene Benz(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene	µg/L 300 µg/L 300 µg/L 300 µg/L 150 µg/L -	15 - - - - - - -		6 3 4 0.1		15000 34000 60 0.5 1	15000 4400 60 0.5 1	250 250 1000 0.07 0.01	5.8 4.4 0.012 0.018	5000	15		340 340 5.8 46 0.05 0.012 0.018 0.01	5000 5000 5.8 46 0.05 0.012 0.018 0.01	1300 10000 10000 5.8 46 0.05 0.012 0.018 0.015	10000 10000 5.8 46 0.05 0.012 0.018 0.017	5000	5000	-	<100 <100 - (100 <100 <100 <100 <1	<100	<300 <155
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene Acridine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b+jfluoranthene Benzo(b+jfluoranthene)	µg/L 300 µg/L 300 µg/L 300 µg/L 150 µg/L 4 µg/L 0 µ	15 - - - - - - -		6 3 4 0.1		15000 34000 60 0.5 1	15000 4400 60 0.5 1	95 250 1000 0.07	5.8 4.4 0.012 0.018	5000	15		5.8 46 0.05 0.012 0.018 0.01	5.8 46 0.05 0.012 0.018 0.01	1300 10000 5.8 46 0.05 0.012 0.018 0.015	10000 5.8 46 0.05 0.012 0.018 0.017	5000	5000	-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<300 <150 - <4 <0.1 <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 <0.0 <0.0 <0.0 <0.0
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene Acridine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(g,h,i)perylene	jugit. 300 jugit. 300 jugit. 300 jugit. 300 jugit. 50 jugit. 5			6 3 4 0.1		15000 34000 60 0.5 1	15000 4400 60 0.5 1	250 250 1000 0.07 0.01	5.8 4.4 0.012 0.018	5000	15		5.8 46 0.05 0.012 0.018 0.01 0.48 0.17	5000 5000 5.8 46 0.05 0.012 0.018 0.01 0.48 0.21	5.8 46 0.05 0.012 0.018 0.015 0.48 0.17	5.8 46 0.05 0.012 0.018 0.017 0.48 0.21	5000	5000	-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<300 <150 <4 <0.1 <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 <0.0 <0.0 <0.0
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthene Acenaphthene Acidine Anthracene Benz(a)anthracene Benz(a)anthracene Benzo(b)fluoranthene Benzo(b+f)fluoranthene Benzo(b+f)fluoranthene Benzo(k)fluoranthene Benzo(k)fluoranthene	µg/L 300 µg/L 300 µg/L 300 µg/L 50 µg/L 50 µg/L 50 µg/L 60 µ	15 - - - - - - - - - - - - - - -		6 3 4 0.1		15000 34000 60 0.5 1 1 0.1	15000 4400 60 0.5 1	250 250 1000 0.07 0.01	5.8 4.4 0.012 0.018	5000	15		340 340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.48	5000 5000 5.8 46 0.05 0.012 0.018 0.01 0.48 0.21 0.48	1300 10000 5.8 46 0.05 0.012 0.018 0.015 0.48 0.17 0.48	10000 5.8 46 0.05 0.012 0.018 0.017 0.48 0.21 0.48	5000	5000	-	<100 <100 <100 - <100 <100 <100 <100 <10	<100	<30 <15 - <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 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene Acridine Anthracene Benza(a)anthracene Benza(a)apyrene Benzo(b)fluoranthene	jugit. 300 jugit. 300 jugit. 300 jugit. 300 jugit. 50 jugit. 5	15		6 3 4 0.1		15000 34000 60 0.5 1	15000 4400 60 0.5 1	95 250 1000 0.07 0.01 0.07	5.8 4.4 0.012 0.018	5000	15		340 340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.17 0.48 0.1	5.8 46 0.05 0.012 0.018 0.01 0.48 0.21 0.48 0.21	1300 10000 5.8 46 0.05 0.012 0.018 0.015 0.48 0.17 0.48 1.4	5.8 46 0.05 0.012 0.018 0.017	5000	5000	-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<30 <15
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthene Acenaphthene Acidine Anthracene Benz(a)anthracene Benz(a)anthracene Benzo(b)fluoranthene Benzo(b+f)fluoranthene Benzo(b+f)fluoranthene Benzo(k)fluoranthene Benzo(k)fluoranthene	µg/L 300 µg/L 300 µg/L 300 µg/L 50 µg/L 50 µg/L 50 µg/L 60 µ			6 3 4 0.1		15000 34000 60 0.5 1 1 0.1	15000 4400 60 0.5 1 1 0.1	250 250 1000 0.07 0.01	5.8 4.4 0.012 0.018	5000	15		340 340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.17 0.48 0.1 0.26	5000 5000 5.8 46 0.05 0.012 0.018 0.01 0.48 0.21 0.48	5.8 46 0.05 0.012 0.018 0.015 0.48 0.17 0.48 1.4 0.26	10000 5.8 46 0.05 0.012 0.018 0.017 0.48 0.21 0.48	5000	5000	-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<30 <15 <4 <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 <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 <0.0 <0.0 <0.0 <0.0 <0.0
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene Acridine Anthracene Benza(a)anthracene Benza(a)apyrene Benzo(b)fluoranthene	µg/L 300 µg/L 300 µg/L 300 µg/L 50 µg/L 5 µg			6 3 4 0.1		15000 34000 60 0.5 1 1 0.1	15000 4400 60 0.5 1 1 0.1	95 250 1000 0.07 0.01 0.07	5.8 4.4 0.012 0.018	5000	15		340 340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.17 0.48 0.1	5.8 46 0.05 0.012 0.018 0.01 0.48 0.21 0.48 0.21	1300 10000 5.8 46 0.05 0.012 0.018 0.015 0.48 0.17 0.48 1.4	5.8 46 0.05 0.012 0.018 0.017	5000	5000	-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<30 <15 <4 <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. <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.
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene Acridine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(g,h,i)perylene Benzo(k)ffuoranthene Chrysene Dibenz(a,h)anthracene	µg/L 300 µg/L 300 µg/L 300 µg/L 50 µg/L 50 µg/L 0 µ	- 15 		6 3 4 0.1 0.01		15000 34000 60 0.5 1 1 0.1	15000 4400 60 0.5 1 1 0.1	95 250 1000 0.07 0.01 0.07	5.8 4.4 0.012 0.018 0.015	5000	15		340 340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.17 0.48 0.1 0.26	5000 5000 5.8 46 0.05 0.012 0.018 0.01 0.48 0.21 0.48 0.1 0.28	1300 10000 5.8 46 0.05 0.012 0.018 0.015 0.48 0.17 0.48 1.4 0.26 0.04 3	5.8 46 0.05 0.012 0.017 0.017 0.48 0.21 0.48 1.4 0.28	5000	5000	-	<100 <100 <100 - <100 <100 <100 <100 <1 - <100 <1 - <100 <1	<100	<30 <15 <4 <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. <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.
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthene Acenaphthene Acridine Anthracene Benza(a)anthracene Benza(a)apyrene Benza(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(k)fluoranthene Chrysene Dibenza(a,h)anthracene Fluoranthene Chrysene Dibenza(a,h)anthracene Fluoranthene	Hg/L 300 Hg/L 300 Hg/L 300 Hg/L 300 Hg/L 150 Hg/L 1 150 Hg/L 0 Hg/L	- 15 		6 3 4 0.1 0.01		15000 34000 60 0.5 1 1 0.1	15000 4400 60 0.5 1 1 0.1	95 250 1000 0.07 0.01 0.07 7 0.01 150	5.8 4.4 0.012 0.018 0.015	5000	15		340 340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.17 0.48 0.1 0.26 0.04	5.8 46 0.05 0.012 0.018 0.01 0.48 0.1 0.28 0.04	1300 10000 5.8 46 0.05 0.012 0.018 0.015 0.48 1.4 0.26 0.04	5.8 46 0.05 0.012 0.018 0.017 0.48 1.4 0.28 0.04	5000	5000	-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<300 <15 <4 <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 <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 <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 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0 <0.0
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl terl-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene Acridine Anthracene Benza(a)anthracene Benza(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Chrysene Dibenza(a,h)anthracene Fluoranthene Fluoranthene Fluorene	µg/L 300 µg/L 300 µg/L 300 µg/L 300 µg/L 150 µg/L 150 µg/L 0 µg/L 0	- 15		6 3 4 0.1 0.01		15000 34000 60 0.5 1 1 0.1	15000 4400 60 0.5 1 1 0.1	95 250 1000 0.07 0.01 0.07 7 0.01 150	5.8 4.4 0.012 0.018 0.015	5000	15		340 340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.17 0.48 0.1 0.26 0.04 3	5.8 46 0.05 0.012 0.48 0.21 0.48 0.21 0.28 0.04 3	1300 10000 5.8 46 0.05 0.012 0.018 0.015 0.48 0.17 0.48 1.4 0.26 0.04 3	5.8 46 0.05 0.012 0.018 0.017 0.48 0.21 0.48 1.4 0.28 0.04	5000	5000	-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<300 <15 <4 <0.1 <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 <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 <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 <0.0
	F1 (C8-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene Acridine Arridine Anthracene Benz(a)anthracene Benz(a)anthracene Benzo(b)fluoranthene Benzo(b+f)fluoranthenes Benzo(b,1)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene Fluoranthene Fluorene Fluorene Indeno(1,2,3-cd)pyrene	µg/L 300 µg/L 300 µg/L 300 µg/L 300 µg/L 50 µg/L 50 µg/L 00	- 15		6 3 4 0.1 0.01		15000 34000 60 0.5 1 1 0.1	15000 4400 60 0.5 1 1 0.1	95 250 1000 0.07 0.01 0.07 7 0.01 150	5.8 4.4 0.012 0.018 0.015	5000	15		340 340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.17 0.48 0.1 0.26 0.04 3	5.8 46 0.05 0.012 0.48 0.21 0.48 0.21 0.28 0.04 3	1300 10000 5.8 46 0.05 0.012 0.018 0.015 0.48 0.17 0.48 1.4 0.26 0.04 3	5.8 46 0.05 0.012 0.018 0.017 0.48 0.21 0.48 1.4 0.28 0.04	5000	5000	-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<300 <150
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthene Acandine Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene Fluoranthene Indeno(1,2,3-cd)pyrene Methylnaphthalene, 1-	Hg/L 300 Hg/L 300 Hg/L 300 Hg/L 300 Hg/L 5 H			6 3 4 0.1 0.01		15000 34000 60 0.5 1 1 0.1	15000 4400 60 0.5 1 1 0.1	250 1000 0.07 0.01 0.07 7 0.01 150 150	5.8 4.4 0.012 0.018 0.015	5000	15		340 340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.17 0.48 0.1 0.26 0.04 3	5.8 46 0.05 0.012 0.48 0.21 0.48 0.21 0.28 0.04 3	1300 10000 5.8 46 0.05 0.012 0.018 0.015 0.48 0.17 0.48 1.4 0.26 0.04 3	5.8 46 0.05 0.012 0.018 0.017 0.48 0.21 0.48 1.4 0.28 0.04	5000	5000	-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<300 <156 <4 <0.01 <0.01 <0.02 <0.02 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00
С Н	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl terl-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acridine Acridine Anthracene Benz(a)anthracene Benz(a)apyrene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Methylnaphthalene, 1- Methylnaphthalene, 2-				6 3 4 0.1 0.01		15000 34000 60 0.5 1 1 0.1	15000 4400 60 0.5 1 0.1 1 2 120	95 250 1000 0.07 0.01 7 0.01 150 150 150	5.8 4.4 0.012 0.018 0.015 0.015		15		340 340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.17 0.48 0.1 0.26 0.04 3 0.21	5.8 46 0.05 0.012 0.018 0.01 0.21 0.48 0.21 0.28 0.04 3 0.23	1300 10000 5.8 46 0.05 0.012 0.018 0.015 0.48 0.17 0.48 1.4 0.26 0.04 3 0.21	10000 5.8 46 0.05 0.012 0.018 0.017 0.48 0.21 0.48 0.24 0.28 0.04 3 0.23			-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<300 <156 <4 <0.11 <0.11 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00
	F1 (C6-C10) F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Methyl tert-butyl ether [MTBE] Low Molecular Weight PAHs High Molecular Weight PAHs Polycyclic aromatichydrocarbons, total [PAHs] Acenaphthene Acenaphthylene Acridine Arridine Arridine Anthracene Benz(a)anthracene Benz(a)anthracene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Benzo(b)fluoranthene Fluoranthene Fluorene Fluorene Fluorene Indeno(1,2,3-cd)pyrene Methylnaphthalene, 1- Methylnaphthalene, 2- Naphthalene	Hg/L 300 Hg/L 300 Hg/L 300 Hg/L 300 Hg/L 5 H			6 3 4 0.1 0.01 4 12		15000 34000 60 0.5 1 1 0.1 1 2 120	15000 4400 60 0.5 1 1 0.1 1 2 120	95 250 1000 0.07 0.01 7 0.01 150 150 150	5.8 4.4 0.012 0.018 0.015 0.04 3		15	0.04	340 5.8 46 0.05 0.012 0.018 0.01 0.48 0.17 0.48 0.17 0.48 0.10 0.26 0.04 3 0.21	5000 5000 5.8 46 0.05 0.012 0.018 0.01 0.48 0.21 0.48 0.1 0.28 0.04 3 0.23	5.8 46 0.05 0.012 0.018 0.015 0.015 0.015 0.02 0.048 0.17 0.48 0.26 0.04 3 0.21	5.8 46 0.05 0.012 0.018 0.017 0.48 0.21 0.48 1.4 0.28 0.04 3 0.23			-	<100 <100 <100 <100 <100 <100 <100 <100	<100	<300 <156 <4 <0.01 <0.01 <0.02 <0.02 <0.02 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00

Location ID

MW08-13

																					Sample ID	BV-11BH-01M	BV-11BH-02M	M BV-GWDUP1	BV-11BH-02N	M BV-11BH-02M
																					Screen Interval (m)	3.05 - 4.57		3.0	- 4.57	
																					Sample Date	03/02/2012	02/02/2012	02/02/2012	11/09/2018	23/04/2019
				Federal Guidelines for Canadian Drinking Water (2017)	BC WQG FW Aquatic Life - Working	BC WQG FW Aquatic Life Long-Term Avg Approved	Aquatic Life -	BC WQG Marine Aquatic Life Long-Term Avg - Approved	BCCSR 3.2 - AVVI	BCCSR 3.2 - AWm	BCCSR 3.2 DW	Aquatic Life	Aquatic Life (MAL, long		Federal Guidelines for Canadian Drinking Wate (2017) MAC	dustrial	GW Tier 1 -	Tier 2 - CL/IL	Freshwater	Tier 2 - CL/IL	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained)					
Method_Type	ChemName	output un	nit EQL																							
Phenols	Chlorophenol, 2-	μg/L	0						Varies. See notes	Varies. See note	es. 45					330	330	330	330			<0.5	<0.5	<0.5	-	<0.1
	Chlorophenol, 3- & 4-	μg/L	0	-																		-	-	-	-	<0.1
	Dichlorophenol, 2,3-	μg/L	0	-					Varies. See notes	Varies. See note	es.											-	-	-	-	<0.1
	Dichlorophenol, 2,4- & 2,5-	μg/L	0	-																		<0.1	<0.1	<0.1	-	<0.1
	Dichlorophenol, 2,6-	μg/L	0	-					Varies. See notes													<0.1	<0.1	<0.1	-	<0.1
	Dichlorophenol, 3,4-	μg/L	0	-					Varies. See notes													-	-	-	-	<0.1
	Dichlorophenol, 3,5-	μg/L	0	-					Varies. See notes													-	-	-	-	<0.1
	Pentachlorophenol [PCP]	μg/L	0	60					Varies. See notes			0.5			60	0.5	0.5	0.5	0.5			<0.5	<0.5	<0.5	-	<0.1
	Tetrachlorophenol, 2,3,4,5-	μg/L	0	-					Varies. See notes													<0.5	<0.5	<0.5	-	<0.1
	Tetrachlorophenol, 2,3,4,6-	μg/L	0	1					Varies. See notes					1	100	1	1	1	1			< 0.5	<0.5	<0.5	-	<0.1
	Tetrachlorophenol, 2,3,5,6-	μg/L	0	-					Varies. See notes	Varies. See note	es.											< 0.5	<0.5	<0.5	-	<0.1
	Trichlorophenol, 2,3,4-	μg/L	0	-					Varies. See notes	Varies. See note	es.											<0.5	<0.5	<0.5	-	<0.1
	Trichlorophenol, 2,3,5-	μg/L	0	-					Varies. See notes	Varies. See note	es.											<0.5	<0.5	<0.5	-	<0.1
	Trichlorophenol, 2,3,6-	μg/L	0	-					Varies. See notes	Varies. See note	es.											<0.5	<0.5	<0.5	-	<0.1
	Trichlorophenol, 2,4,5-	μg/L	0	-					Varies. See notes	Varies. See note	es. 400					160	160	160	160			<0.5	<0.5	<0.5	-	<0.1
	Trichlorophenol, 2,4,6-	μg/L	0	2					Varies. See notes					2	5	18	18	18	18			<0.5	<0.5	<0.5	-	<0.1
	Trichlorophenol, 3,4,5-	μg/L	0	-					Varies. See notes	Varies. See note	es.											<0.5	<0.5	<0.5	-	<0.1
	Methylphenol, 4-chloro-3-	μg/L	10	-							400											<0.5	<0.5	<0.5	-	<10
	Tetrachlorophenol	μg/L	0	-																		-	-	-	-	<0.1
	Total Chlorophenols	μg/L	0	-																		-	-	-	-	<0.1
	Total dichlorophenols	μg/L	0	-								0.2										-	-	-	-	<0.1
1	Total monochlorophenols	μg/L	0	-								7										-	-	-	-	<0.1
	Total trichlorophenols	μg/L	0	-								18										-	-	-	-	<0.1
	Dinoseb	μg/L	0	-	0.05				0.5	0.5	4	0.05				0.05	0.05	0.05	0.05			<5	<5	<5	-	-
	Dimethylphenol, 2,4-	μg/L	0	-							80					3900	3900	3900	3900			<0.5	<0.5	<0.5	-	-
	Dinitrophenol, 2,4-	μg/L	0	-					2000	2000	8					1100	1100	1100	1100			<5	<5	<5	-	-
	Methylphenol, 2-	μg/L	0	-					2500	2500	200											<0.5	<0.5	<0.5	-	-
	Nitrophenol, 2-	μg/L	0	-																		<5	<5	<5	-	-
	Nitrophenol, 4-	µg/L	0	-																		<5	<5	<5	-	-
	Phenol	µg/L	0	-					2000	2000	1000					4	4	4	4			<2	<2	<2	-	-
	Phenol, 2-methyl-4,6-dinitro- [DNOC]	µg/L	0	-					750	750	1											<5	<5	<5	-	

Hemmera File: 103789-01 July 2019

Location ID BV-11BH-01M

BV-11BH-02M

																		Sample ID	BV-11BH-03M	BV-11BH-04M			A BV-11BH-07	7M BV-11BH-07M
																		Screen Interval (m)		1.52 - 3.05	2.44 - 3.96		0.91 - 2.4	
																		Sample Date	01/02/2012	01/02/2012	01/02/2012	02/02/2012	11/09/2018	23/04/2019
<u> </u>			Water (2017)	V BC WQG FW Aquatic Life - Long-Term Avg - Approved	Marine Aquatic Life -	BC WQG Marine Aquatic Life Long-Term Avg - Approved	BCCSR 3.2 - AWm	BCCSR 3.2 - DW	Aquatic Life	Aquatic Life	Canadian Drinking Water	Canadian	Federal Interir GW Tier 1 - Commercial/Ir dustrial (Coarse Grained)	Federal Interin GW Tier 1 - Commercial/In dustrial (Fine Grained)	Tier 2 - CL/IL	Tier 2 - CL/IL Freshwater	Federal Interim GW Tier 2 - CL/IL Marine Life (Coarse Grained)	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained)						
Method_Type	ChemName	output unit EQ	L						ļ		1													
Phenols	Chlorophenol, 2-	μg/L 0				Varies. See notes.	Varies. See notes	s. 45					330	330	330	330			<0.5	<0.5	<0.5	-	-	<0.1
	Chlorophenol, 3- & 4-	μg/L 0	-																-	-	-	-	-	<0.1
	Dichlorophenol, 2,3-	μg/L 0	-			Varies. See notes.	Varies. See notes	S.											-	-	-	-	-	<0.1
	Dichlorophenol, 2,4- & 2,5-	μg/L 0	-																<0.1	<0.1	<0.1	-	-	<0.1
	Dichlorophenol, 2,6-	μg/L 0	-			Varies. See notes.													<0.1	<0.1	<0.1	-	-	<0.1
	Dichlorophenol, 3,4-	μg/L 0	-			Varies. See notes.													-	-	-	-	-	<0.1
	Dichlorophenol, 3,5-	μg/L 0	-			Varies. See notes.													-	-	-	-	-	<0.1
	Pentachlorophenol [PCP]	μg/L 0	60			Varies. See notes.			0.5			60	0.5	0.5	0.5	0.5			<0.5	<0.5	<0.5	-	-	<0.1
	Tetrachlorophenol, 2,3,4,5-	μg/L 0	-			Varies. See notes.													<0.5	<0.5	<0.5	-	-	<0.1
	Tetrachlorophenol, 2,3,4,6-	μg/L 0	1			Varies. See notes.					1	100	1	1	1	1			<0.5	<0.5	<0.5	-	-	<0.1
	Tetrachlorophenol, 2,3,5,6-	μg/L 0	-			Varies. See notes.													<0.5	<0.5	<0.5	-	-	<0.1
	Trichlorophenol, 2,3,4-	μg/L 0	-			Varies. See notes.													<0.5	<0.5	<0.5	-	-	<0.1
	Trichlorophenol, 2,3,5-	μg/L 0	-			Varies. See notes.													<0.5	<0.5	<0.5	-	-	<0.1
	Trichlorophenol, 2,3,6-	μg/L 0	-			Varies. See notes.													<0.5	<0.5	<0.5	-	-	<0.1
	Trichlorophenol, 2,4,5-	μg/L 0	-			Varies. See notes.							160	160	160	160			<0.5	<0.5	<0.5	-	-	<0.1
	Trichlorophenol, 2,4,6-	μg/L 0	2			Varies. See notes.					2	5	18	18	18	18			<0.5	<0.5	<0.5	-	-	<0.1
	Trichlorophenol, 3,4,5-	μg/L 0	-			Varies. See notes.	Varies. See notes												<0.5	<0.5	<0.5	-	-	<0.1
	Methylphenol, 4-chloro-3-	μg/L 10	-					400											<0.5	<0.5	<0.5	-	-	<10
	Tetrachlorophenol	μg/L 0	-																-	-	-	-	-	<0.1
	Total Chlorophenols	μg/L 0	-																-	-	-	-	-	<0.1
	Total dichlorophenols	μg/L 0	-						0.2										-	-	-	-	-	<0.1
	Total monochlorophenols	μg/L 0	-						7										-	-	-	-	-	<0.1
	Total trichlorophenols	μg/L 0	-						18										-	-	-	-	-	<0.1
	Dinoseb	μg/L 0	- 0.05			0.5	0.5	4	0.05				0.05	0.05	0.05	0.05			<5	<5	<5	-	-	-
	Dimethylphenol, 2,4-	μg/L 0	-					80					3900	3900	3900	3900			<0.5	<0.5	<0.5	-	-	-
	Dinitrophenol, 2,4-	μg/L 0	-			2000	2000	8					1100	1100	1100	1100			<5	<5	<5	-	-	-
	Methylphenol, 2-	μg/L 0	-			2500	2500	200											<0.5	< 0.5	-	-	-	-
1	Nitrophenol, 2-	µg/L 0	-															1	<5	<5	<5	-	-	-
	Nitrophenol, 4-	μg/L 0	-																<5	<5	<5	-	-	-
1	Phenol	μg/L 0	-			2000	2000	1000					4	4	4	4			<2	<2	<2	-	-	-
	Phenol, 2-methyl-4,6-dinitro- [DNOC]	µg/L 0	-			750	750	1											<5	<5	-	_	-	-

Location ID BV-11BH-03M BV-11BH-04M BV-11BH-05M

BV-11BH-07M

																				Location ib		DV-11D1F00K		DV-11D11-03W
																								M BV-11BH-09M
																				Screen Interval (m)		2.29 - 3.81		2.29 - 3.81
																				Sample Date	03/02/2012	11/09/2018	23/04/2019	03/02/2012
Method_Type	ChemName	output unit	leoi	Federal Guidelines for Canadian Drinking Water (2017)	BC WQG FW Aquatic Life Long-Term Avg Approved	Marine - Aquatic Life	BC WQG Marine Aquatic Life Long-Term Avg - Approved	BCCSR 3.2 - AWf	BCCSR 3.2 - AWm	BCCSR 3.2 DW	- Aquatic Life	CCME of Protection of Aquatic Life (MAL, long term)	Canadian Drinking Water	Federal Guidelines for Canadian Drinking Water (2017) MAC	Federal Interin GW Tier 1 - Commercial/Ir dustrial (Coarse Grained)	Federal Interir GW Tier 1 - Commercial/Ir dustrial (Fine Grained)	Tier 2 - CL/IL	Tier 2 - CL/II Freshwater	Tier 2 - CL/IL Marine Life	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained)				
Phenois	Chlorophenol. 2-	ug/L	O EQL					Varies. See notes.	Varios Cas notas	45					330	330	330	330			_	_	-	<0.5
FIIEIIOIS	Chlorophenol. 3- & 4-	ug/L	0	_				varies. See notes.	varies. See notes	s. 40	+			1	330	330	330	330			-	-	-	-0.5
	Dichlorophenol, 2.3-	1.5	0	-				Varies. See notes.	Varios Cas notas							-					-	-	-	-
	Dichlorophenol, 2,4- & 2.5-	μg/L μg/L	0	-				varies. See notes.	varies. See notes	·.						-					-	-	-	<0.1
	Dichlorophenol, 2,6-	µg/L	0	-				Varies. See notes.	Varios Cas notas												-	-	-	<0.1
	Dichlorophenol, 3.4-	ug/L	0	-				Varies. See notes.														-	-	
	Dichlorophenol, 3,5-	ug/L	0					Varies. See notes.																
	Pentachlorophenol [PCP]	1.0	0	-				Varies. See notes.			0.5			60	0.5	0.5	0.5	0.5			-	-	-	<0.5
	Tetrachlorophenol, 2,3,4,5-	µg/L	0	60				Varies. See notes.			0.5			60	0.5	0.5	0.5	0.5			-	-	-	<0.5
	Tetrachlorophenol, 2,3,4,5-	μg/L ua/L	0	1				Varies. See notes.					1	100	4	1	-	4			-	-	-	<0.5
	Tetrachlorophenol, 2,3,4,6-	µg/L µg/L	0	-				Varies. See notes.						100		- '	1	ı			-	-	-	<0.5
	Trichlorophenol, 2,3,4-		0					Varies. See notes.														-	-	<0.5
	Trichlorophenol, 2,3,5-	μg/L	0	-				Varies. See notes.													-	-	-	<0.5
		μg/L	0	-				Varies. See notes.													-	-	-	
	Trichlorophenol, 2,3,6-	μg/L	0	-											400	400	400	100			-	-	-	<0.5
	Trichlorophenol, 2,4,5-	μg/L	0	-				Varies. See notes.						-	160	160	160	160			-	-	-	<0.5
	Trichlorophenol, 2,4,6-	μg/L	0	2				Varies. See notes.					2	5	18	18	18	18			-	-	-	<0.5
	Trichlorophenol, 3,4,5-	μg/L	0	-				Varies. See notes.	varies. See notes												-	-	-	<0.5
	Methylphenol, 4-chloro-3-	μg/L	10	-						400											-	-	-	<0.5
	Tetrachlorophenol	μg/L	U	-																	-	-	-	-
	Total Chlorophenols	μg/L	U	-												1					-	-	-	-
1	Total dichlorophenols	μg/L	0	-							0.2					1					-	-	-	-
1	Total monochlorophenols	μg/L	0	-							7					1					-	-	-	-
	Total trichlorophenols	μg/L	0	-							18										-	-	-	-
	Dinoseb	μg/L	0	- 0.05				0.5	0.5	4	0.05				0.05	0.05	0.05	0.05			-	-	-	<5
	Dimethylphenol, 2,4-	μg/L	0	-						80					3900	3900	3900	3900			-	-	-	<0.5
	Dinitrophenol, 2,4-	μg/L	0	-				2000	2000	8					1100	1100	1100	1100			-	-	-	<5
	Methylphenol, 2-	μg/L	0	-				2500	2500	200											-	-	-	<0.5
	Nitrophenol, 2-	μg/L	0	-																	1	-	-	<5
	Nitrophenol, 4-	μg/L	0	-																	i	-	-	<5
	Phenol	μg/L	0	-			1	2000	2000	1000			-		4	4	4	4			-	-	-	<2
1	Phenol, 2-methyl-4,6-dinitro- [DNOC]	ua/L	0	-				750	750	1											-	-	-	<5

Location ID

BV-11BH-08M

BV-11BH-09M

																			Location ID		MW06-2			MW06-3	
																			Sample ID MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-3	MW06-4
																			Screen Interval (m)		-			-	-
													•						Sample Date 05/07/2006	06/07/200)7 22/09/2008	02/02/2012	11/09/2018	07/05/2006	3 07/05/2006
Method Type	ChemName	output unit EQ	Federal Guidelines Canadian Dri Water (20	for Aquatic Life	BC WQG FW Aquatic Life Long-Term Avg Approved	Marine Aquatic Life	BC WQG Marine Aquatic Life Long-Term Avg - Approved	BCCSR 3.2 - AVVI	BCCSR 3.2 - AWm	BCCSR 3.2 - DW	Aquatic Life	Aquatic Life	Federal Guidelines for Canadian Drinking Wate (2017) AO		dustrial	Federal Interir GW Tier 1 - Commercial/li dustrial (Fine Grained)	T	Tier 2 - CL/IL Freshwater	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained)						
Phenols	Chlorophenol, 2-	ua/L 0						Varies, See notes.	Varies. See note:	s. 45					330	330	330	330	_	-	_	_	-	-	_
	Chlorophenol, 3- & 4-	µg/L 0	_																_	_		-	-	-	_
	Dichlorophenol, 2.3-	µg/L 0	_					Varies. See notes.	Varies. See note:	s.										_		-	-	-	_
	Dichlorophenol, 2,4- & 2,5-	µg/L 0	-																-	-	-	-	-	-	-
	Dichlorophenol, 2,6-	μg/L 0	-					Varies. See notes.	Varies. See note:	S.									_	-	-	_	-	-	-
	Dichlorophenol, 3,4-	μg/L 0	-					Varies. See notes.	Varies. See note:	S.									_	-	-	_	-	-	-
	Dichlorophenol, 3,5-	μg/L 0	-					Varies. See notes.	Varies. See note:	S.									_	-	-	_	-	-	-
	Pentachlorophenol [PCP]	μg/L 0	60					Varies. See notes.	Varies. See note:	s. 60	0.5			60	0.5	0.5	0.5	0.5	_	-	-	_	-	0.3	< 0.05
	Tetrachlorophenol, 2,3,4,5-	μg/L 0	-					Varies. See notes.	Varies. See note:	s.									-	-	-	-	-	< 0.05	< 0.05
	Tetrachlorophenol, 2,3,4,6-	μg/L 0	1					Varies. See notes.	Varies. See note:	s. 100			1	100	1	1	1	1	-	-	-	-	-	-	-
	Tetrachlorophenol, 2,3,5,6-	μg/L 0	-					Varies. See notes.	Varies. See note:	s.									-	-	-	-	-	< 0.05	< 0.05
	Trichlorophenol, 2,3,4-	μg/L 0	-					Varies. See notes.	Varies. See note:	S.									-	-	-	-	-	<0.1	<0.1
	Trichlorophenol, 2,3,5-	μg/L 0	-					Varies. See notes.	Varies. See note:	S.									-	-	-	-	-	<0.1	<0.1
	Trichlorophenol, 2,3,6-	μg/L 0	-					Varies. See notes.	Varies. See note:	S.									-	-	-	-	-	<0.1	<0.1
	Trichlorophenol, 2,4,5-	μg/L 0	-					Varies. See notes.	Varies. See note:	s. 400					160	160	160	160	-	-	-	-	-	<0.1	<0.1
	Trichlorophenol, 2,4,6-	μg/L 0	2					Varies. See notes.	Varies. See note:	s. 5			2	5	18	18	18	18	-	-	-	-	-	<0.1	<0.1
	Trichlorophenol, 3,4,5-	μg/L 0	-					Varies. See notes.	Varies. See note:	S.									-	-	-	-	-	<0.1	<0.1
	Methylphenol, 4-chloro-3-	μg/L 10	-							400									-	-	-	-	-	-	
1	Tetrachlorophenol	μg/L 0	-																-	-	-	-	-	<0.05	<0.05
	Total Chlorophenols	μg/L 0	-																-	-	-	-	-	0.3	<0.05
	Total dichlorophenols	μg/L 0	-								0.2								-	-	-	-	-	-	-
	Total monochlorophenols	μg/L 0	-								7								-	-	-	-	-	-	-
	Total trichlorophenols	μg/L 0	-								18								-	-	-	-	-	<0.1	<0.1
	Dinoseb	μg/L 0	-	0.05				0.5	0.5	4	0.05				0.05	0.05	0.05	0.05	-	-	-	-	-	-	-
	Dimethylphenol, 2,4-	μg/L 0	-							80					3900	3900	3900	3900	-	-	-	-	-	-	-
	Dinitrophenol, 2,4-	μg/L 0	-					2000	2000	8					1100	1100	1100	1100	-	-	-	-	-	-	-
	Methylphenol, 2-	μg/L 0	-					2500	2500	200									-	-	-	-	-	-	-
1	Nitrophenol, 2-	μg/L 0	-																-	-	-	-	-	-	-
	Nitrophenol, 4-	μg/L 0	-																-	-	-	-	-	-	-
	Phenol	μg/L 0	-					2000	2000	1000					4	4	4	4	-	-	-	-	-	-	-
1	Phenol, 2-methyl-4,6-dinitro- [DNOC]	μg/L 0	-			1		750	750	1								1	-	-	-	-	-	-	-

																					Location ID				07-6	
																							MW07-6	MW07-6		MW07-6
																					Screen Interval (m)			0.60		
																					Sample Date	07/05/2006	16/08/2007	22/09/2008	02/02/2012	11/09/201
/lethod_Type	ChemName	output u	nit EQL	Federal Guidelines for Canadian Drinking Water (2017)	BC WQG FW Aquatic Life Working	BC WQG FW Aquatic Life Long-Term Avg Approved	Marine - Aquatic Life -	BC WQG Marine Aquatio Life Long-Tern Avg - Approved	n BCCSR 3.2 - AVVI	BCCSR 3.2 - AWm	BCCSR 3.: DW	Aquatic Life	Aquatic Life		Canadian	Commercial/I	CW Tier 1	Tier 2 - CL/IL	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Fine Grained)	Federal Interim GW Tier 2 - CL/IL Marine Life (Coarse Grained)	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained)					
henols	Chlorophenol, 2-	ua/L	0						Varies. See notes.	Varies See notes	45					330	330	330	330			-	-	-		-
ICITOIO	Chlorophenol, 3- & 4-	µg/L µg/L	0	_	+	+	1	+	varies. See 110tes.	varies. See fibles	. 40	+	+	 	1	330	330	330	330		 	-	-	-	-	-
	Dichlorophenol. 2.3-	µg/L	0	-		1			Varies. See notes.	Varies See notes	 		1	1		1	+	+				-	-	-	-	-
	Dichlorophenol, 2,4- & 2,5-	µg/L	0	-					varies. See notes.	varios. See notes			1				+	1						-	-	-
	Dichlorophenol, 2,6-	µg/L	0	-					Varies. See notes.	Varies See notes												-	-	-	-	-
	Dichlorophenol, 3.4-	ua/L	0	_					Varies. See notes.													_	-	_	_	_
	Dichlorophenol, 3,5-	µg/L	0	-					Varies. See notes.													-	-	_	-	-
	Pentachlorophenol [PCP]	µg/L	0	60					Varies. See notes.			0.5			60	0.5	0.5	0.5	0.5			<0.05	-	-	_	_
	Tetrachlorophenol, 2.3.4.5-	μg/L	0	-					Varies. See notes.		. 00	0.0			- 00	0.0	0.0	0.0	0.0			<0.05	-		_	
	Tetrachlorophenol, 2,3,4,6-	µg/L	0	1					Varies. See notes.		. 100			1	100	1	1	1	1			-0.00	-		_	
	Tetrachlorophenol, 2,3,5,6-	µg/L	0	-					Varies. See notes.						100	· ·		· ·				<0.05				
	Trichlorophenol. 2.3.4-	ua/L	0	_					Varies. See notes.													<0.1	-	_	-	-
	Trichlorophenol, 2,3,5-	µg/L	0	_					Varies. See notes.													<0.1	-	_	-	-
	Trichlorophenol, 2,3,6-	µg/L	0	_					Varies. See notes.													<0.1	-	_	-	-
	Trichlorophenol, 2,4,5-	µg/L	0	_					Varies. See notes.							160	160	160	160			<0.1		_	_	-
	Trichlorophenol, 2,4,6-	μg/L	0	2					Varies. See notes.					2	5	18	18	18	18			<0.1		-	-	-
	Trichlorophenol, 3,4,5-	µg/L	0	-					Varies. See notes.					_								<0.1	-	-	-	-
	Methylphenol, 4-chloro-3-	µg/L	10	-							400												-	-	-	-
	Tetrachlorophenol	ua/L	0	-																		<0.05	-	-	-	_
	Total Chlorophenols	μg/L	0	-									1				1	1				<0.05	-	-	-	-
	Total dichlorophenols	ua/L	0	_								0.2										-	-	-	-	-
	Total monochlorophenols	µg/L	0	-								7										-	-	-	-	-
	Total trichlorophenols	ua/L	0	_								18										<0.1	-	_	-	-
	Dinoseb	ua/L	0	_	0.05				0.5	0.5	4	0.05				0.05	0.05	0.05	0.05			-	_	_	_	-
	Dimethylphenol, 2,4-	µg/L	0	_						,,,,	80					3900	3900	3900	3900			-	_	_	_	-
	Dinitrophenol. 2.4-	ua/L	0	_					2000	2000	8					1100	1100	1100	1100			-	_	_	_	-
	Methylphenol, 2-	µg/L	0	_					2500	2500	200					1.00						-	_	_	_	-
	Nitrophenol, 2-	ua/L	0	_																		-	_	_	_	-
	Nitrophenol, 4-	µg/L	0	-																		-	-	-	-	-
	Phenol	µg/L	0	-					2000	2000	1000					4	4	4	4			-	-	-	-	-
	Phenol, 2-methyl-4,6-dinitro- [DNOC]	ua/L	n		1	1	1	1	750	750	1				1	1	+	1	1			-	-	-	-	-

																					Location			MW07-7		
																					Sample	ID MW07-7	MW900/1000	MW07-7	MW08-12	MW07-7
																					Screen Interval (i			0.50 - 3.50		
																					Sample Da	te 16/08/2007	16/08/2007	22/09/2008	22/09/2008	03/02/2012
Method_Type	ChemName	output u	unit EQL	Federal Guidelines for Canadian Drinkin Water (2017)	BC WQG FW Aquatic Life Working	BC WQG FW Aquatic Life Long-Term Avg Approved	Marine - Aquatic Life	BC WQG Marine Aquatic - Life Long-Term Avg - Approved		BCCSR 3.2 - AWm	BCCSR 3.2 DW		CCME Protection of Aquatic Life (MAL, long term)	Federal Guidelines for Canadian Drinking Water (2017) AO	Federal Guidelines for Canadian Drinking Water (2017) MAC	Federal Interin GW Tier 1 - Commercial/In dustrial (Coarse Grained)	Federal Interin GW Tier 1 - Commercial/In dustrial (Fine Grained)	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Coarse Grained)	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Fine Grained)	Tier 2 - CL/IL	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Graine	(t:				
Phenols	Chlorophenol. 2-	ua/L	0	+	+	<u> </u>	+		Varies, See notes.	Varies See note	s. 45	1	1			330	330	330	330	+		_	-	-		-
THORNIS	Chlorophenol, 3- & 4-	µg/L	0	-					varies, occ notes.	varies, occ note	.5. 40					000	000	000	550					_		-
	Dichlorophenol, 2.3-	µg/L	0						Varies, See notes.	Varies See note	20															-
	Dichlorophenol, 2.4- & 2.5-	µg/L	0	-					variou. God notoc.	vance: eee nete												_	-	-	-	-
	Dichlorophenol, 2.6-	µg/L	0	-					Varies. See notes.	Varies. See note	ıs.											-	-	-	-	_
	Dichlorophenol, 3.4-	µg/L	0	-					Varies. See notes.													-	-	-	-	_
	Dichlorophenol, 3,5-	µg/L	0	-					Varies. See notes.													_	-	-	-	-
	Pentachlorophenol [PCP]	µg/L	0	60					Varies. See notes.			0.5			60	0.5	0.5	0.5	0.5			-	-	-	-	_
	Tetrachlorophenol. 2.3.4.5-	μg/L	0	-					Varies, See notes.													_	-	-	-	-
	Tetrachlorophenol, 2,3,4,6-	µg/L	0	1					Varies, See notes.	Varies. See note	s. 100			1	100	1	1	1	1			_	-	_	-	_
	Tetrachlorophenol, 2,3,5,6-	µg/L	0	-					Varies. See notes.	Varies. See note	s.											_	-	_	-	_
	Trichlorophenol, 2.3.4-	μg/L	0	-					Varies, See notes.													_	-	_	-	_
	Trichlorophenol, 2,3,5-	µg/L	0	-					Varies. See notes.	Varies. See note	s.											-	-	-	-	-
	Trichlorophenol, 2,3,6-	µg/L	0	-					Varies, See notes.	Varies. See note	s.											_	-	_	-	_
	Trichlorophenol, 2.4.5-	µg/L	0	-					Varies, See notes.	Varies. See note	s. 400					160	160	160	160			_	-	_	-	_
	Trichlorophenol, 2,4,6-	μg/L	0	2					Varies, See notes.	Varies. See note	s. 5			2	5	18	18	18	18			_	-	_	-	_
	Trichlorophenol, 3,4,5-	μg/L	0	-					Varies. See notes.	Varies. See note	s.				-							-	-	-	-	-
	Methylphenol, 4-chloro-3-	μg/L	10	-							400											-	-	-	-	-
	Tetrachlorophenol	μg/L	0	-																		-	-	-	-	-
	Total Chlorophenols	μg/L	0	-																		-	-	-	-	-
	Total dichlorophenols	μg/L	0	-								0.2										-	-	-	-	-
	Total monochlorophenols	μg/L	0	-								7										-	-	-	-	-
	Total trichlorophenols	μg/L	0	-								18										-	-	-	-	-
	Dinoseb	μg/L	0	-	0.05				0.5	0.5	4	0.05				0.05	0.05	0.05	0.05			-	-	-	-	-
	Dimethylphenol, 2,4-	μg/L	0	-							80					3900	3900	3900	3900			-	-	-	-	-
	Dinitrophenol, 2,4-	μg/L	0	-					2000	2000	8					1100	1100	1100	1100			-	-	-	-	-
	Methylphenol, 2-	μg/L	0	-					2500	2500	200											-	-	-	-	-
	Nitrophenol, 2-	μg/L	0	-																		-	-	-	-	-
	Nitrophenol, 4-	μg/L	0	-																		÷	-	-	-	-
	Phenol	μg/L	0	-					2000	2000	1000					4	4	4	4			-	-	-	-	-
1	Phenol, 2-methyl-4,6-dinitro- [DNOC]	μg/L	0	-					750	750	1											-	-	-	-	-

Hemmera File: 103789-01 July 2019

																					Location ID			MW07-8		$\overline{}$	MW07-9	\neg
																									MW07-8	MW07-9	MW07-9 MW07	-9
																					Screen Interval (m)			50 - 3.50			0.60 - 2.10	
																		•			Sample Date	a 16/08/200)7 22/09/200	8 03/02/201	12 11/09/2018	16/08/2007	7 22/09/2008 03/02/2	2012
Method Type	ChemName	output unit	ĪΕΩΙ	Federal Guidelines for Canadian Drinki Water (2017)	ng Aquatic Life	BC WQG FW Aquatic Life Long-Term Avg Approved	Marine Aquatic Life	BC WQG Marine Aquatic Life Long-Term Avg - Approved	BCCSR 3.2 - AVVI	BCCSR 3.2 - AWm	BCCSR 3.2 - DW	Aquatic Life	CCME Protection of Aquatic Life (MAL, long term)		Federal Guidelines for Canadian Drinking Water (2017) MAC	Federal Interir GW Tier 1 - Commercial/li dustrial (Coarse Grained)	Federal Interi GW Tier 1 - Commercial/I dustrial (Fine Grained)	Tier 2 - CL/II	Tier 2 - CL/IL Freshwater		Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained))						
Phenols	Chlorophenol. 2-	ua/L	0						Varies, See notes.	Varies. See note:	s. 45		+			330	330	330	330			-	-	_	_	-		_
	Chlorophenol, 3- & 4-	µg/L	0	-				1					+									-	_	_		-		-
	Dichlorophenol, 2,3-	µg/L	0	-					Varies. See notes.	Varies. See note:	s.		+									-	-	-	-	-		-
	Dichlorophenol, 2,4- & 2,5-	μg/L	0	-									1									-	-	-	-	-		-
	Dichlorophenol, 2,6-	μg/L	0	-					Varies. See notes.	Varies. See note:	s.											-	-	-	-	-		
	Dichlorophenol, 3,4-	μg/L	0	-					Varies. See notes.	Varies. See note:	s.											-	-	-	-	-		-
	Dichlorophenol, 3,5-	μg/L	0	-					Varies. See notes.	Varies. See note:	s.											-	-	-	-	-		-
	Pentachlorophenol [PCP]	μg/L	0	60					Varies. See notes.	Varies. See note:	s. 60	0.5			60	0.5	0.5	0.5	0.5			-	-	-	-	-		-
	Tetrachlorophenol, 2,3,4,5-	μg/L	0	-					Varies. See notes.	Varies. See note:	S.											-	-	-	-	-		
	Tetrachlorophenol, 2,3,4,6-	μg/L	0	1					Varies. See notes.	Varies. See note:	s. 100			1	100	1	1	1	1			-	-	-	-	-		-
	Tetrachlorophenol, 2,3,5,6-	μg/L	0	-					Varies. See notes.													-	-	-	-	-		-
	Trichlorophenol, 2,3,4-	μg/L	0	-					Varies. See notes.													-	-	-	-	-		-
	Trichlorophenol, 2,3,5-	μg/L	0	-					Varies. See notes.													-	-	-	-	-		
	Trichlorophenol, 2,3,6-	μg/L	0	-					Varies. See notes.													-	-	-	-	-		-
	Trichlorophenol, 2,4,5-	μg/L	0	-					Varies. See notes.							160	160	160	160			-	-	-	-	-		-
	Trichlorophenol, 2,4,6-	μg/L	0	2					Varies. See notes.					2	5	18	18	18	18			-	-	-	-	-		
	Trichlorophenol, 3,4,5-	μg/L	0	-					Varies. See notes.	Varies. See note:												-	-	-		-		
	Methylphenol, 4-chloro-3-	μg/L	10	-							400											-	-	-		-		-
1	Tetrachlorophenol	μg/L	0	-																		-	-	-		-		
	Total Chlorophenols	μg/L	0	-																		-	-	-	_	-		-
	Total dichlorophenols	μg/L	0	-								0.2										-	-	-		-		-
	Total monochlorophenols	μg/L	0	-								7										-	-	-		-		-
	Total trichlorophenols	μg/L	0	-								18										-	-	-		-		
	Dinoseb	μg/L	0	-	0.05				0.5	0.5	4	0.05				0.05	0.05	0.05	0.05			-	-	-		-		-
	Dimethylphenol, 2,4-	μg/L	U	-							80					3900	3900	3900	3900			-	-	-		-		-
	Dinitrophenol, 2,4-	μg/L	U	-					2000	2000	8					1100	1100	1100	1100			-	-	-		-		-
1	Methylphenol, 2-	μg/L	U	-				1	2500	2500	200		+				+					-	-	-	_	-		
1	Nitrophenol, 2-	μg/L	U	-				1	1				+				+					-	-	-		-		
1	Nitrophenol, 4-	µg/L	U	-				1	2000	2000	1000		+				1	-	-			-	-	-		-		
	Phenol	μg/L	U	-					2000	2000	1000					4	4	4	4			-	-	-	-	-		
1	Phenol, 2-methyl-4,6-dinitro- [DNOC]	μg/L	U	-			1		750	750	1	1	1	1		1		1		1		-	-	-	-	-		-

																					Location ID			MW08-10			MW08-11
																							MW08-10		MW18-1	MW08-10	MW08-11 MW08-11
																					Screen Interval (m)			0.80 - 3.8			0.80 - 3.80
			_																		Sample Date	22/09/2008 و	3 02/02/201	2 11/09/201	8 11/09/2018	23/04/2019	22/09/2008 11/09/2018
			C	Federal Guidelines for Canadian Drinkin Water (2017)	Aquatic Life	V BC WQG FW Aquatic Life - Long-Term Avg Approved	Marine - Aquatic Life -	BC WQG Marine Aquatic Life Long-Term Avg - Approved	BCCSR 3.2 - AVVI	BCCSR 3.2 - AWm	BCCSR 3.2 - DW	Aquatic Life	CCME Protection of Aquatic Life (MAL, long term)	Drinking Water	Federal Guidelines for Canadian Drinking Water (2017) MAC	Federal Interin GW Tier 1 - Commercial/Ir dustrial (Coarse Grained)	Federal Interir GW Tier 1 - Commercial/Ir dustrial (Fine Grained)	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Coarse Grained)	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Fine Grained)	Tier 2 - CL/IL Marine Life	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained))					
Method_Type	ChemName	output unit	EQL																								
Phenols	Chlorophenol, 2-	μg/L	0						Varies. See notes.	Varies. See note:	s. 45					330	330	330	330			-	-	-	-	-	
	Chlorophenol, 3- & 4-	μg/L	0	-																		-	-	-	-	-	
	Dichlorophenol, 2,3-	μg/L	0	-					Varies. See notes.	Varies. See note:	S.											-	-	-	-	-	
	Dichlorophenol, 2,4- & 2,5-	μg/L	0	-																		-	-	-	-	-	
	Dichlorophenol, 2,6-	μg/L	0	-					Varies. See notes.													-	-	-	-	-	
	Dichlorophenol, 3,4-	μg/L	0	-					Varies. See notes.													-	-	-	-	-	
	Dichlorophenol, 3,5-	μg/L	0	-					Varies. See notes.													-	-	-	-	-	
	Pentachlorophenol [PCP]	μg/L	0	60					Varies. See notes.			0.5			60	0.5	0.5	0.5	0.5			-	-	-	-	-	
	Tetrachlorophenol, 2,3,4,5-	μg/L	0	-					Varies. See notes.													-	-	-	-	-	
	Tetrachlorophenol, 2,3,4,6-	μg/L	0	1					Varies. See notes.					1	100	1	1	1	1			-	-	-	-	-	
	Tetrachlorophenol, 2,3,5,6-	μg/L	0	-					Varies. See notes.													-	-	-	-	-	
	Trichlorophenol, 2,3,4-	μg/L	0	-					Varies. See notes.													-	-	-	-	-	
	Trichlorophenol, 2,3,5-	μg/L	0	-					Varies. See notes.													-	-	-	-	-	
	Trichlorophenol, 2,3,6-	μg/L	0	-					Varies. See notes.													-	-	-	-	-	
	Trichlorophenol, 2,4,5-	μg/L	0	-					Varies. See notes.							160	160	160	160			-	-	-	-	-	
	Trichlorophenol, 2,4,6-	μg/L	0	2					Varies. See notes.					2	5	18	18	18	18			-	-	-	-	-	
	Trichlorophenol, 3,4,5-	μg/L	0	-					Varies. See notes.	Varies. See note:	s.											-	-	-	-	-	
	Methylphenol, 4-chloro-3-	μg/L	10	-							400											-	-	-	-	-	
	Tetrachlorophenol	μg/L	0	-																		-	-	-	-	-	
	Total Chlorophenols	μg/L	0	-																		-	-	-	-	-	
	Total dichlorophenols	μg/L	0	-								0.2										-	-	-	-	-	
	Total monochlorophenols	μg/L	0	-								7										-	-	-	-	-	
	Total trichlorophenols	μg/L	0	-								18										-	-	-	-	-	
	Dinoseb	μg/L	0	-	0.05				0.5	0.5	4	0.05				0.05	0.05	0.05	0.05			-	-	-	-	-	
	Dimethylphenol, 2,4-	μg/L	0	-							80		T			3900	3900	3900	3900			-	-	-	-	-	
	Dinitrophenol, 2,4-	μg/L	0	-					2000	2000	8		T			1100	1100	1100	1100			-	-	-	-	-	
	Methylphenol, 2-	μg/L	0	-					2500	2500	200											-	-	-	-	-	
	Nitrophenol, 2-	μg/L	0	-																		-	-	-	-	-	
	Nitrophenol, 4-	μg/L	0	-																		-	-	-	-	-	
	Phenol	μg/L	0	-					2000	2000	1000					4	4	4	4			-	-	-	-	-	
	Phenol, 2-methyl-4,6-dinitro- [DNOC]	μg/L	0	-					750	750	1											-	-	-	-	-	

																		Location ID		MW	/08-13	
																		Sample ID	MW08-13	MW08-13	MW08-13	MW08-13
																		Screen Interval (m)		0.80	0 - 3.80	-1
																		Sample Date	22/09/2008	13/02/2012	11/09/2018	23/04/201
Method Type	ChemName	output unit EQ	Federal Guidelines for Canadian Drinking Water (2017) BC WQG FW Aquatic Life - Working Working	BC WQG FW Aquatic Life Long-Term Avg Approved	BC WQG Marine Aquatic Life Long-Term Avg - Approved	BCCSR 3.2 - AWf	BCCSR 3.2 - AWm	BCCSR 3.2 - DW		Aquatic Life	Federal f Guidelines for Canadian Drinking Water (2017) AO	Federal Guidelines for Canadian Drinking Water (2017) MAC	Federal Interin GW Tier 1 - Commercial/In dustrial (Coarse Grained)	Federal Interim GW Tier 1 - Commercial/In dustrial (Fine Grained)	Tier 2 - CL/II	Federal Interim GW Tier 2 - CL/IL Freshwater Life (Fine Grained)	Federal Interim GW Tier 2 - CL/IL Marine Life (Coarse Grained)	Federal Interim GW Tier 2 - CL/IL Marine Life (Fine Grained)				
Phenols	Chlorophenol. 2-	ua/L 0	-			Varies. See notes.	Varios Cas notas	45					330	330	330	330		1		-	-	-
i nenois	Chlorophenol, 3- & 4-	μg/L 0				varies. See notes.	varies. See notes	. 45			+		330	330	330	330				-		-
	Dichlorophenol, 2.3-		-			Varies. See notes.	Varies See notes													-		-
1	Dichlorophenol, 2,4- & 2,5-	μg/L 0 μg/L 0	-			varies. See notes.	varies. See notes	-												-	-	-
1	Dichlorophenol, 2.6-	µg/L 0				Varies. See notes.	Varies See notes													-	-	-
	Dichlorophenol, 3.4-	µg/L 0	-			Varies. See notes.												1		-	-	
	Dichlorophenol, 3,5-	μg/L 0	-			Varies. See notes.					-									-	-	-
	Pentachlorophenol [PCP]	ug/L 0	60			Varies. See notes.			0.5		-	60	0.5	0.5	0.5	0.5				-	-	
	Tetrachlorophenol, 2,3,4,5-	μg/L 0	-			Varies. See notes.			0.5			00	0.5	0.5	0.5	0.5						-
	Tetrachlorophenol, 2,3,4,5-	μg/L 0	1			Varies. See notes.					1	100	1	1	1	1				-	-	-
	Tetrachlorophenol, 2,3,5,6-	μg/L 0				Varies. See notes.						100								-	-	-
	Trichlorophenol, 2.3.4-	ug/L 0				Varies. See notes.																-
	Trichlorophenol, 2.3.5-	μg/L 0	-			Varies. See notes.														-	-	
	Trichlorophenol, 2,3,6-	µg/L 0				Varies. See notes.														-	-	
	Trichlorophenol, 2,4,5-	ug/L 0	-			Varies. See notes.							160	160	160	160						
	Trichlorophenol, 2,4,5	μg/L 0	2			Varies. See notes.					2	5	18	18	18	18				-		-
	Trichlorophenol, 3.4.5-	μg/L 0	-			Varies. See notes.						3	10	10	10	10				+ :	+ :	
	Methylphenol, 4-chloro-3-	μg/L 10	_			variou. God riotoc.	variou. God riotoc	400											-	-	-	-
	Tetrachlorophenol	ug/L 0	_					100												-	-	_
	Total Chlorophenols	µg/L 0	-																	-	-	_
	Total dichlorophenols	ug/L 0	_						0.2										_	-	-	-
	Total monochlorophenols	µg/L 0	_						7										-	-	-	-
	Total trichlorophenols	ug/L 0	-						18										-	-	-	-
	Dinoseb	µg/L 0	- 0.05			0.5	0.5	4	0.05				0.05	0.05	0.05	0.05			_	-	-	_
	Dimethylphenol, 2,4-	µg/L 0				2.0	2.0	80	2.00				3900	3900	3900	3900			_	-	-	-
	Dinitrophenol, 2.4-	ug/L 0	-			2000	2000	8					1100	1100	1100	1100			-	-	-	_
	Methylphenol, 2-	µg/L 0	-			2500	2500	200	1					1		1			-	-	-	-
	Nitrophenol, 2-	µg/L 0	-																-	-	-	-
	Nitrophenol, 4-	µg/L 0	-																-	-	-	-
	Phenol	µg/L 0	-			2000	2000	1000					4	4	4	4			-	-	-	-
	Phenol. 2-methyl-4.6-dinitro- [DNOC]	ug/L 0	_			750	750	1	1		1			1						-	-	_

Hemmera File: 103789-01 July 2019

Notes

- (1) All values are reported as μg/L unless otherwise noted.
- (2) = No standard or not analyzed.
- (3) BCCSR = BC Environmental Management Act, Contaminated Sites Regulation, B.C. Reg. 375/96 includes amendments up to B.C. Reg. 13/2019, January 24, 20
- (4) BC CSR Freshwater Aquatic Life (AW_F) = Schedule 3.2 Generic Numerical Water Standards, Column 3, excluding superscript 6.
- (5) BC CSR Marine and Estuarine Aquatic Life (AW_M) = Schedule 3.2 Generic Numerical Water Standards, Column 3, excluding superscript 5.
- (6) BC CSR Drinking Water (DW) = Schedule 3.2 Generic Numerical Water Standards, Column 6.
- (7) For aquatic life (AW) Standards, the most stringent of the freshwater and marine/estuarine standards were used.
- (8) Phenol concentrations were conservatively compared to the lower value of the range indicated in Schedule 3.2, Column 3.

Notes

- (1) All values are reported as µg/L unless otherwise noted.
- (2) = No guideline or not analyzed.
- (3) CCME = Canadian Council of Ministers of the Environment, Canadian Environmental Quality Guidelines, 1999, updated to 2018
- (4) CCME FAL = Canadian Water Quality Guidelines for the Protection of Aquatic Life, Freshwater, updated to 2018.
- (5) CCME MAL = Canadian Water Quality Guidelines for the Protection of Aquatic Life, Marine, updated to 2018.
- (6) CWQG = Canadian Water Quality Guidelines.
- (7) NGR = No Recomended Guideline
- (8) Boron CWQG varies for short and long term for both FAL and MAL.
- (9) pH MAL the pH of marine and estuarine waters should be within 7.0 8.7, unless it can be demonstrated that a pH outside of this range is a result of natural processes.
- (10) Dissolved Oxygen (DO) FAL CWQG varies with life stages of water biota.

The lowest acceptable DO concentrations are as follows:

6000 µg/L for warm water biota, early life stages

5500 μg/L for warm water biota, other life stages

9500 µg/L for cold water biota, early life stages

6500 µg/L for cold water biota, other life stages

(11) DO MAL recommended minimum concentration in marine and estuarine waters is 8 mg/L.

When the natural DO level is less than the recommended interim guideline, the natural

concentration should become the interim guideline at the site.

When ambient DO concentrations are > 8.0 mg/L, human activities should not cause DO levels

to decrease by more than 10% of the natural concentration expected in the receiving environment at that time.

BC CSR Schedule 3.2 - Variable Groundwater Standard Summary

Hardness	AW _F	AW _M				
	Cadmium	<u> </u>				
H < 30	0.5					
30 = H < 90	1.5					
90 = H < 150	2.5	15				
150 = H < 210	3.5					
H ≥ 210	4					
	Copper	•				
H < 50	20					
50 = H < 75	30					
75 = H < 100	40					
100 = H < 125	50	20				
125 = H < 150	60	20				
150 = H < 175	70					
175 = H < 200	80					
H ≥ 200	90					
	Flouride					
H < 50	2,000	15,000				
H ≥ 50	3,000	10,000				
	Lead	1				
H < 50	40					
50 = H < 100	50					
100 = H < 200	60	20				
200 = H <300	110					
H ≥ 300	160					
	Nickel	1				
H < 60	250					
60 = H < 120	650	83				
120 = H < 180	110					
H ≥ 180	1,500					
11 4 400	Silver	ı				
H ≤ 100	0.5	15				
H > 100	15 Sulfate					
H ≤ 30		(mg/L)				
≥ 31 H ≤75 ≥ 76 H ≤ 180	2180 (mg/L)					
2 76 H ≤ 180 H ≥ 180	3090 (mg/L) 4290 (mg/L)					
П ≥ 100	Zinc	(mg/L)				
H < 90	75					
90 = H < 100	150					
100 = H < 200	900 100					
200 = H <300	1,650					
300 = H <400	2,400					
pH		l ion (IW)				
pH < 6.0		000				
6 = pH < 7.0	2,000					
pH > 7.0		000				

pН	AW_F	AW _M
A	mmonia, total (as N	1)
pH ≥ 8.5	1,310	2,300
8 = pH < 8.5	3,700	6,850
7.5 = pH < 8.0	11,300	20,000
7 = pH < 7.5	18,500	64,000
pH < 7.0	18,400	200,000

CI (mg/L)	AW_F	AW_{M}					
	Nitrite						
Cl < 2	2	00					
2 = Cl < 4	400						
4 = CI < 6	600						
6 = CI < 8	8	00					
8 = CI < 10	1,0	000					
Cl ≥ 10	2,0	000					

Salinity⁵ (NS)	AW _F	AW_{M}
	Salinity	
0 = NS < 3.5		10
3.5 = NS < 13.5	15	20
4 = NS ≥ 35		40

Phenols ⁶	AW _{F+M}
2-chlorophenol	19.5 - 2,600
3-chlorophenol	17 - 2300
4-chlorophenol	8.5 - 1180
2,3-dichlorophenol	5.5 - 760
2,4-dichlorophenol	3 - 400
2,5-dichlorophenol	2.5 - 340
2,6-dichlorophenol	10 - 1360
3,4-dichlorophenol	3 - 400
3,5-dichlorophenol	2.5-300
Pentachlorophenol (PCP)	1 - 110
2,3,4,5-tetrachlorophenol	2 - 260
2,3,4,6-tetrachlorophenol	5.5 - 720
2,3,5,6-tetrachlorophenol	2.5 - 340
2,3,4-trichlorophenol	2.5 - 320
2,3,5-trichlorophenol	2.5 - 340
2,3,6-trichlorophenol	8 - 1,080
2,4,5-trichlorophenol	2.5 - 320
2,4,6-trichlorophenol	6 - 800
3,4,5-trichlorophenol	1 - 128

Boron ⁷	IW
Boron	500 - 6000

- (1) All standards are in $\mu g/L$ unless otherwise noted
- (2) $H = Water hardness in CaCO_3$.
- (3) AW_F = Standard to protect freshwater aquatic life.
- (4) AW_M = Standard to protect marine and estuarine aquatic life.
- 5) NS = Natural Salinity measured by eletrical conductivity or density methods, using Practical Salinity Scale.
- (6) Phenols standards vary with pH, temperature and substance isomer. If concentrations are measured within the indicated range, further advice required from a Director.
- (7) Boron standards vary by crop, refer to CSR Schedule 3.2 for more information.
- (8) BCCSR = BC *Environmental Management Act*, Contaminated Sites Regulation, B.C. Reg. 375/96 includes amendments up to B.C. Reg. 13/2019, January 24, 2019.