



Your C.O.C. #: 603981-01-01

Attention: Public Works Super Attendant

Village of Tahsis
977 South Maquinna Drive
Box 219
Tahsis, BC
Canada VOP 1X0

Report Date: 2020/04/01
Report #: R2864495
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C019997

Received: 2020/03/18, 12:45

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Chloride/Sulphate by Auto Colourimetry	1	N/A	2020/03/19	BBY6SOP-00011 / BBY6SOP-00017	SM23-4500-Cl/SO4-E m
Conductivity @25C	1	N/A	2020/03/20	BBY6SOP-00026	SM 23 2510 B m
EPH in Water when PAH required	1	2020/03/19	2020/03/19	BBY8SOP-00029	BCMOE BCLM Sep2017 m
Nitrate + Nitrite (N)	1	N/A	2020/03/19	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrite (N) by CFA	1	N/A	2020/03/19	BBY6SOP-00010	SM 23 4500-NO3- I m
Nitrogen - Nitrate (as N)	1	N/A	2020/03/19	BBY WI-00033	Auto Calc
PAH in Water by GC/MS (SIM)	1	2020/03/30	2020/03/30	BBY8SOP-00021	BCMOE BCLM Jul2017m
Total LMW, HMW, Total PAH Calc (3)	1	N/A	2020/03/31	BBY WI-00033	Auto Calc
pH @25°C (4)	1	N/A	2020/03/20	BBY6SOP-00026	SM 23 4500-H+ B m
Phenols (4-AAP) (1)	1	N/A	2020/03/23	AB SOP-00088	EPA 9066 R0 m
Phenoxyalkyl acid Pesticides (1)	1	2020/03/21	2020/03/21	CAL SOP-00094	EPA 8151 R1 m
Resin and Fatty Acids (1)	1	2020/03/21	2020/03/21	CAL SOP-00099	AE129.0
Total Dissolved Solids (Filt. Residue)	1	2020/03/19	2020/03/20	BBY6SOP-00033	SM 23 2540 C m
EPH less PAH in Water by GC/FID (5)	1	N/A	2020/03/31	BBY WI-00033	Auto Calc
Tannin & Lignin (Total) (1)	1	N/A	2020/03/23	CAL SOP-00272	SM 23-5550B m
Carbon (Total Organic) (1, 6)	1	N/A	2020/03/23	AB SOP-00087	MMCW 119 1996 m
VOCs, VH, F1, LH in Water by HS GC/MS	1	N/A	2020/03/22	BBY8SOP-00009 / BBY8SOP-00011 / BBY8SOP-00012	BCMOE BCLM Jul2017 m
Volatile HC-BTEX (7)	1	N/A	2020/03/23	BBY WI-00033	Auto Calc
Glyphosate (2)	1	2020/03/23	2020/03/23	CAM SOP-00305	HPLC in-house method
OC Pesticides (Selected) & PCB (2, 8)	1	2020/03/20	2020/03/23	CAM SOP-00307	EPA 8081A/ 8082B m
OC Pesticides Summed Parameters (2)	1	N/A	2020/03/24	CAM SOP-00307	EPA 8081A/8082B m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless



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indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by BV Labs Calgary Environmental
- (2) This test was performed by BV Labs Ontario (From Burnaby)
- (3) Total PAHs in Water include: Quinoline, Naphthalene, 1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Acridine, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b&j)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(g,h,i)perylene.
- (4) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas Laboratories endeavours to analyze samples as soon as possible after receipt.
- (5) LEPH = EPH (C10 to C19) - (Acenaphthene + Acridine + Anthracene + Fluorene + Naphthalene + Phenanthrene)
- HEPH = EPH (C19 to C32) - (Benzo(a)anthracene + Benzo(a)pyrene + Fluoranthene + Pyrene)
- (6) TOC present in the sample should be considered as non-purgeable TOC.
- (7) VPH = VH - (Benzene + Toluene + Ethylbenzene + m & p-Xylene + o-Xylene + Styrene)
- (8) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Customer Solutions, Western Canada Customer Experience Team

Email: customersolutionswest@bvlabs.com

Phone# (604) 734 7276

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This report has been generated and distributed using a secure automated process.

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



RESULTS OF CHEMICAL ANALYSES OF WATER

BV Labs ID		XO3150		
Sampling Date		2020/03/17 08:00		
COC Number		603981-01-01		
	UNITS	TAHSIS WELL	RDL	QC Batch
ANIONS				
Nitrite (N)	mg/L	<0.0050	0.0050	9802876
Calculated Parameters				
Nitrate (N)	mg/L	0.081	0.020	9801262
Misc. Inorganics				
Conductivity	uS/cm	100	2.0	9802786
pH	pH	7.78	N/A	9802784
Total Organic Carbon (C)	mg/L	<0.50	0.50	9805075
Total Dissolved Solids	mg/L	48	10	9803110
Anions				
Dissolved Chloride (Cl)	mg/L	1.9	1.0	9803176
Dissolved Sulphate (SO4)	mg/L	3.4	1.0	9803176
MISCELLANEOUS				
Tannins and Lignins	mg/L	<0.10	0.10	9805491
Nutrients				
Nitrate plus Nitrite (N)	mg/L	0.081	0.020	9802875
Misc. Organics				
Phenols	mg/L	<0.0015	0.0015	9804840
RDL = Reportable Detection Limit N/A = Not Applicable				



PHENOXYALKYL ACID PESTICIDES/HERBICIDES (WATER)

BV Labs ID		XO3150		
Sampling Date		2020/03/17 08:00		
COC Number		603981-01-01		
	UNITS	TAHSIS WELL	RDL	QC Batch
Phenoxyalkyl acid Pest.				
3,5-dichlorobenzoic acid	ug/L	<0.080	0.080	9803610
Dicamba	ug/L	<0.0050	0.0050	9803610
MCPP	ug/L	<0.080	0.080	9803610
MCPA	ug/L	<0.020	0.020	9803610
Dichlorprop	ug/L	<0.080	0.080	9803610
Bromoxynil	ug/L	<0.020	0.020	9803610
2,4-D	ug/L	<0.050	0.050	9803610
Pentachlorophenol	ug/L	<0.080	0.080	9803610
2,4,5-TP	ug/L	<0.080	0.080	9803610
2,4,5-T	ug/L	<0.080	0.080	9803610
Chloramben	ug/L	<1.0	1.0	9803610
Dinoseb (DNBP)	ug/L	<0.020	0.020	9803610
Bentazon	ug/L	<0.080	0.080	9803610
2,4-DB	ug/L	<0.080	0.080	9803610
Picloram	ug/L	<0.080	0.080	9803610
Diclofop-methyl	ug/L	<0.080	0.080	9803610
Surrogate Recovery (%)				
2,4-Dichlorophenyl Acetic Acid	%	80		9803610
RDL = Reportable Detection Limit				



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PESTICIDES & HERBICIDES BY HPLC (WATER)

BV Labs ID		XO3150		
Sampling Date		2020/03/17 08:00		
COC Number		603981-01-01		
	UNITS	TAHSIS WELL	RDL	QC Batch
Pesticides & Herbicides				
Glyphosate	ug/L	<10	10	9806834
RDL = Reportable Detection Limit				



ORGANOCHLORINATED PESTICIDES BY GC-ECD (WATER)

BV Labs ID		XO3150		
Sampling Date		2020/03/17 08:00		
COC Number		603981-01-01		
	UNITS	TAHSIS WELL	RDL	QC Batch
Calculated Parameters				
Aldrin + Dieldrin	ug/L	<0.006	0.006	9807589
Chlordane (Total)	ug/L	<0.006	0.006	9807589
DDT + Metabolites	ug/L	<0.006	0.006	9807589
Heptachlor + Heptachlor epoxide	ug/L	<0.006	0.006	9807589
o,p-DDD + p,p-DDD	ug/L	<0.006	0.006	9807589
o,p-DDE + p,p-DDE	ug/L	<0.006	0.006	9807589
o,p-DDT + p,p-DDT	ug/L	<0.006	0.006	9807589
Total Endosulfan	ug/L	<0.005	0.005	9807589
Total PCB	ug/L	<0.05	0.05	9807589
Pesticides & Herbicides				
Lindane	ug/L	<0.0060	0.0060	9807588
Heptachlor	ug/L	<0.0060	0.0060	9807588
Aldrin	ug/L	<0.0060	0.0060	9807588
Heptachlor Epoxide	ug/L	<0.0060	0.0060	9807588
Oxychlordane	ug/L	<0.0060	0.0060	9807588
g-Chlordane	ug/L	<0.0060	0.0060	9807588
a-Chlordane	ug/L	<0.0060	0.0060	9807588
Dieldrin	ug/L	<0.0060	0.0060	9807588
o,p'-DDE	ug/L	<0.0060	0.0060	9807588
p,p'-DDE	ug/L	<0.0060	0.0060	9807588
o,p'-DDD	ug/L	<0.0060	0.0060	9807588
p,p'-DDD	ug/L	<0.0060	0.0060	9807588
o,p'-DDT	ug/L	<0.0060	0.0060	9807588
p,p'-DDT	ug/L	<0.0060	0.0060	9807588
Methoxychlor	ug/L	<0.024	0.024	9807588
Aroclor 1016	ug/L	<0.050	0.050	9807588
Aroclor 1221	ug/L	<0.050	0.050	9807588
Aroclor 1232	ug/L	<0.050	0.050	9807588
Aroclor 1242	ug/L	<0.050	0.050	9807588
Aroclor 1248	ug/L	<0.050	0.050	9807588
Aroclor 1254	ug/L	<0.050	0.050	9807588
Aroclor 1260	ug/L	<0.050	0.050	9807588
Surrogate Recovery (%)				
2,4,5,6-Tetrachloro-m-xylene	%	85		9807588
RDL = Reportable Detection Limit				



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ORGANOCHLORINATED PESTICIDES BY GC-ECD (WATER)

BV Labs ID		XO3150		
Sampling Date		2020/03/17 08:00		
COC Number		603981-01-01		
	UNITS	TAHSIS WELL	RDL	QC Batch
Decachlorobiphenyl	%	123		9807588
RDL = Reportable Detection Limit				



RESIN AND FATTY ACIDS BY GC-MS (WATER)

BV Labs ID		XO3150		
Sampling Date		2020/03/17 08:00		
COC Number		603981-01-01		
	UNITS	TAHSIS WELL	RDL	QC Batch
Misc. Organics				
Decanoic acid (C10)	mg/L	<0.0060	0.0060	9804549
Undecanoic acid (C11)	mg/L	<0.0060	0.0060	9804549
Dodecanoic acid (C12)	mg/L	<0.0060	0.0060	9804549
Tetradecanoic acid (C14)	mg/L	<0.0060	0.0060	9804549
Hexadecanoic acid (C16)	mg/L	<0.0060	0.0060	9804549
Octadecanoic acid (C18)	mg/L	<0.0060	0.0060	9804549
Oleic acid (C18:1)	mg/L	<0.0060	0.0060	9804549
Linoleic acid (C18:2)	mg/L	<0.0060	0.0060	9804549
Linolenic acid (C18:3)	mg/L	<0.0060	0.0060	9804549
Eicosanoic acid (C20)	mg/L	<0.0060	0.0060	9804549
Docosanoic acid (C22)	mg/L	<0.0060	0.0060	9804549
9,10-dichlorostearic acid (C18)	mg/L	<0.0060	0.0060	9804549
Pimaric acid	mg/L	<0.0060	0.0060	9804549
Sandaracopimaric acid	mg/L	<0.0060	0.0060	9804549
Isopimaric acid	mg/L	<0.0060	0.0060	9804549
Palustric acid	mg/L	<0.0060	0.0060	9804549
Dehydroabietic acid	mg/L	<0.0060	0.0060	9804549
Abietic acid	mg/L	<0.0060	0.0060	9804549
Neobietic acid	mg/L	<0.0060	0.0060	9804549
14-chlorodehydroabietic acid	mg/L	<0.0060	0.0060	9804549
12-chlorodehydroabietic acid	mg/L	<0.0060	0.0060	9804549
12,14-dichlorodehydroabietic acid	mg/L	<0.0060	0.0060	9804549
* Total of Resin Acids Detected	mg/L	<0.060	0.060	9804549
* Total of Fatty Acids Detected	mg/L	<0.072	0.072	9804549
Surrogate Recovery (%)				
HEPTADECANOIC ACID (sur.)	%	81		9804549
O-METHYLPODOCARPIC ACID (sur.)	%	34 (1)		9804549
RDL = Reportable Detection Limit (1) Surrogate recovery below acceptance criteria due to matrix interference. Reanalysis yields similar results.				



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LEPH & HEPH WITH CSR/CCME PAH IN WATER (WATER)

BV Labs ID		XO3150		
Sampling Date		2020/03/17 08:00		
COC Number		603981-01-01		
	UNITS	TAHSIS WELL	RDL	QC Batch
Calculated Parameters				
Low Molecular Weight PAH`s	ug/L	<0.10	0.10	9800865
High Molecular Weight PAH`s	ug/L	<0.050	0.050	9800865
Total PAH	ug/L	<0.10	0.10	9800865
Polycyclic Aromatics				
Quinoline	ug/L	<0.020	0.020	9810698
Naphthalene	ug/L	<0.10	0.10	9810698
1-Methylnaphthalene	ug/L	<0.050	0.050	9810698
2-Methylnaphthalene	ug/L	<0.10	0.10	9810698
Acenaphthylene	ug/L	<0.050	0.050	9810698
Acenaphthene	ug/L	<0.050	0.050	9810698
Fluorene	ug/L	<0.050	0.050	9810698
Phenanthrene	ug/L	<0.050	0.050	9810698
Anthracene	ug/L	<0.010	0.010	9810698
Acridine	ug/L	<0.050	0.050	9810698
Fluoranthene	ug/L	<0.020	0.020	9810698
Pyrene	ug/L	<0.020	0.020	9810698
Benzo(a)anthracene	ug/L	<0.010	0.010	9810698
Chrysene	ug/L	<0.020	0.020	9810698
Benzo(b&j)fluoranthene	ug/L	<0.030	0.030	9810698
Benzo(k)fluoranthene	ug/L	<0.050	0.050	9810698
Benzo(a)pyrene	ug/L	<0.0050	0.0050	9810698
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	0.050	9810698
Dibenz(a,h)anthracene	ug/L	<0.0030	0.0030	9810698
Benzo(g,h,i)perylene	ug/L	<0.050	0.050	9810698
Calculated Parameters				
LEPH (C10-C19 less PAH)	mg/L	<0.20	0.20	9800868
HEPH (C19-C32 less PAH)	mg/L	<0.20	0.20	9800868
Ext. Pet. Hydrocarbon				
EPH (C10-C19)	mg/L	<0.20	0.20	9802683
EPH (C19-C32)	mg/L	<0.20	0.20	9802683
Surrogate Recovery (%)				
O-TERPHENYL (sur.)	%	118		9802683
D10-ANTHRACENE (sur.)	%	92		9810698
D8-ACENAPHTHYLENE (sur.)	%	88		9810698
RDL = Reportable Detection Limit				



LEPH & HEPH WITH CSR/CCME PAH IN WATER (WATER)

BV Labs ID		XO3150		
Sampling Date		2020/03/17 08:00		
COC Number		603981-01-01		
	UNITS	TAHSIS WELL	RDL	QC Batch
D8-NAPHTHALENE (sur.)	%	89		9810698
TERPHENYL-D14 (sur.)	%	97		9810698
RDL = Reportable Detection Limit				



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CSR VOC + VPH IN WATER (WATER)

BV Labs ID		XO3150		
Sampling Date		2020/03/17 08:00		
COC Number		603981-01-01		
	UNITS	TAHSIS WELL	RDL	QC Batch
Calculated Parameters				
VPH (VH6 to 10 - BTEX)	ug/L	<300	300	9800870
Volatiles				
VH C6-C10	ug/L	<300	300	9802690
1,1,1,2-tetrachloroethane	ug/L	<0.50	0.50	9802690
1,1,1-trichloroethane	ug/L	<0.50	0.50	9802690
1,1,2,2-tetrachloroethane	ug/L	<0.50	0.50	9802690
1,1,2Trichloro-1,2,2Trifluoroethane	ug/L	<2.0	2.0	9802690
1,1,2-trichloroethane	ug/L	<0.50	0.50	9802690
1,1-dichloroethane	ug/L	<0.50	0.50	9802690
1,1-dichloroethene	ug/L	<0.50	0.50	9802690
1,2-dichlorobenzene	ug/L	<0.50	0.50	9802690
1,2-dichloroethane	ug/L	<0.50	0.50	9802690
1,2-dichloropropane	ug/L	<0.50	0.50	9802690
1,3-Butadiene	ug/L	<0.50	0.50	9802690
1,3-dichlorobenzene	ug/L	<0.50	0.50	9802690
1,4-dichlorobenzene	ug/L	<0.50	0.50	9802690
Benzene	ug/L	<0.40	0.40	9802690
Bromobenzene	ug/L	<2.0	2.0	9802690
Bromodichloromethane	ug/L	<1.0	1.0	9802690
Bromoform	ug/L	<1.0	1.0	9802690
Bromomethane	ug/L	<1.0	1.0	9802690
Carbon tetrachloride	ug/L	<0.50	0.50	9802690
Chlorobenzene	ug/L	<0.50	0.50	9802690
Chlorodibromomethane	ug/L	<1.0	1.0	9802690
Chloroethane	ug/L	<1.0	1.0	9802690
Chloroform	ug/L	<1.0	1.0	9802690
Chloromethane	ug/L	<1.0	1.0	9802690
cis-1,2-dichloroethene	ug/L	<1.0	1.0	9802690
cis-1,3-dichloropropene	ug/L	<1.0	1.0	9802690
Dibromomethane	ug/L	<0.90	0.90	9802690
Dichlorodifluoromethane	ug/L	<2.0	2.0	9802690
Dichloromethane	ug/L	<2.0	2.0	9802690
Ethylbenzene	ug/L	<0.40	0.40	9802690
Methyl-tert-butylether (MTBE)	ug/L	<4.0	4.0	9802690
RDL = Reportable Detection Limit				



CSR VOC + VPH IN WATER (WATER)

BV Labs ID		XO3150		
Sampling Date		2020/03/17 08:00		
COC Number		603981-01-01		
	UNITS	TAHSIS WELL	RDL	QC Batch
Styrene	ug/L	<0.50	0.50	9802690
Tetrachloroethene	ug/L	<0.50	0.50	9802690
Toluene	ug/L	<0.40	0.40	9802690
trans-1,2-dichloroethene	ug/L	<1.0	1.0	9802690
trans-1,3-dichloropropene	ug/L	<1.0	1.0	9802690
Trichloroethene	ug/L	<0.50	0.50	9802690
Trichlorofluoromethane	ug/L	<4.0	4.0	9802690
Vinyl chloride	ug/L	<0.50	0.50	9802690
m & p-Xylene	ug/L	<0.40	0.40	9802690
o-Xylene	ug/L	<0.40	0.40	9802690
Xylenes (Total)	ug/L	<0.40	0.40	9802690
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	98		9802690
4-Bromofluorobenzene (sur.)	%	85		9802690
D4-1,2-Dichloroethane (sur.)	%	110		9802690
RDL = Reportable Detection Limit				



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GENERAL COMMENTS

Results relate only to the items tested.



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QUALITY ASSURANCE REPORT

Village of Tahsis

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9802683	O-TERPHENYL (sur.)	2020/03/19	108	60 - 140	100	60 - 140	119	%		
9802690	1,4-Difluorobenzene (sur.)	2020/03/20	99	50 - 140	98	50 - 140	100	%		
9802690	4-Bromofluorobenzene (sur.)	2020/03/20	104	50 - 140	102	50 - 140	84	%		
9802690	D4-1,2-Dichloroethane (sur.)	2020/03/20	111	50 - 140	107	50 - 140	107	%		
9803610	2,4-Dichlorophenyl Acetic Acid	2020/03/20			88	50 - 140	69	%		
9804549	HEPTADECANOIC ACID (sur.)	2020/03/21	82	50 - 130	83	50 - 130	84	%		
9804549	O-METHYLPODOCARPIC ACID (sur.)	2020/03/21	32 (1)	50 - 130	82	50 - 130	85	%		
9807588	2,4,5,6-Tetrachloro-m-xylene	2020/03/23	89	30 - 130	77	30 - 130	68	%		
9807588	Decachlorobiphenyl	2020/03/23	128	30 - 130	114	30 - 130	102	%		
9810698	D10-ANTHRACENE (sur.)	2020/03/30	88	50 - 140	94	50 - 140	92	%		
9810698	D8-ACENAPHTHYLENE (sur.)	2020/03/30	91	50 - 140	95	50 - 140	87	%		
9810698	D8-NAPHTHALENE (sur.)	2020/03/30	81	50 - 140	91	50 - 140	89	%		
9810698	TERPHENYL-D14 (sur.)	2020/03/30	99	50 - 140	103	50 - 140	97	%		
9802683	EPH (C10-C19)	2020/03/19	111	60 - 140	108	70 - 130	<0.20	mg/L	3.0	30
9802683	EPH (C19-C32)	2020/03/19	127	60 - 140	102	70 - 130	<0.20	mg/L		
9802690	1,1,1,2-tetrachloroethane	2020/03/20	107	50 - 140	106	60 - 130	<0.50	ug/L	NC	30
9802690	1,1,1-trichloroethane	2020/03/20	107	50 - 140	105	60 - 130	<0.50	ug/L	NC	30
9802690	1,1,2,2-tetrachloroethane	2020/03/20	110	50 - 140	105	60 - 130	<0.50	ug/L	NC	30
9802690	1,1,2Trichloro-1,2,2Trifluoroethane	2020/03/20	102	50 - 140	97	60 - 130	<2.0	ug/L	NC	30
9802690	1,1,2-trichloroethane	2020/03/20	119	50 - 140	116	60 - 130	<0.50	ug/L	NC	30
9802690	1,1-dichloroethane	2020/03/20	109	50 - 140	107	60 - 130	<0.50	ug/L	NC	30
9802690	1,1-dichloroethene	2020/03/20	102	50 - 140	98	60 - 130	<0.50	ug/L	NC	30
9802690	1,2-dichlorobenzene	2020/03/20	113	50 - 140	111	60 - 130	<0.50	ug/L	NC	30
9802690	1,2-dichloroethane	2020/03/20	100	50 - 140	97	60 - 130	<0.50	ug/L	NC	30
9802690	1,2-dichloropropane	2020/03/20	110	50 - 140	109	60 - 130	<0.50	ug/L	NC	30
9802690	1,3-Butadiene	2020/03/20	134	50 - 140	138	50 - 140	<0.50	ug/L	NC	30
9802690	1,3-dichlorobenzene	2020/03/20	113	50 - 140	112	60 - 130	<0.50	ug/L	NC	30
9802690	1,4-dichlorobenzene	2020/03/20	109	50 - 140	106	60 - 130	<0.50	ug/L	NC	30
9802690	Benzene	2020/03/20	108	50 - 140	106	60 - 130	<0.40	ug/L	NC	30
9802690	Bromobenzene	2020/03/20	109	50 - 140	106	60 - 130	<2.0	ug/L	NC	30
9802690	Bromodichloromethane	2020/03/20	110	50 - 140	107	60 - 130	<1.0	ug/L	NC	30
9802690	Bromoform	2020/03/20	111	50 - 140	107	60 - 130	<1.0	ug/L	NC	30
9802690	Bromomethane	2020/03/20	90	50 - 140	85	50 - 140	<1.0	ug/L	NC	30
9802690	Carbon tetrachloride	2020/03/20	111	50 - 140	109	60 - 130	<0.50	ug/L	NC	30



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Village of Tahsis

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9802690	Chlorobenzene	2020/03/20	99	50 - 140	98	60 - 130	<0.50	ug/L	NC	30
9802690	Chlorodibromomethane	2020/03/20	110	50 - 140	108	60 - 130	<1.0	ug/L	NC	30
9802690	Chloroethane	2020/03/20	84	50 - 140	83	50 - 140	<1.0	ug/L	NC	30
9802690	Chloroform	2020/03/20	108	50 - 140	105	60 - 130	<1.0	ug/L	3.5	30
9802690	Chloromethane	2020/03/20	62	50 - 140	64	50 - 140	<1.0	ug/L	NC	30
9802690	cis-1,2-dichloroethene	2020/03/20	108	50 - 140	107	60 - 130	<1.0	ug/L	NC	30
9802690	cis-1,3-dichloropropene	2020/03/20	109	50 - 140	101	50 - 140	<1.0	ug/L	NC	30
9802690	Dibromomethane	2020/03/20	111	50 - 140	106	60 - 130	<0.90	ug/L		
9802690	Dichlorodifluoromethane	2020/03/20	105	50 - 140	106	50 - 140	<2.0	ug/L	NC	30
9802690	Dichloromethane	2020/03/20	111	50 - 140	107	60 - 130	<2.0	ug/L	NC	30
9802690	Ethylbenzene	2020/03/20	111	50 - 140	111	60 - 130	<0.40	ug/L	NC	30
9802690	m & p-Xylene	2020/03/20	112	50 - 140	113	60 - 130	<0.40	ug/L	NC	30
9802690	Methyl-tert-butylether (MTBE)	2020/03/20	101	50 - 140	100	60 - 130	<4.0	ug/L	NC	30
9802690	o-Xylene	2020/03/20	113	50 - 140	113	60 - 130	<0.40	ug/L	NC	30
9802690	Styrene	2020/03/20	96	50 - 140	96	60 - 130	<0.50	ug/L	NC	30
9802690	Tetrachloroethene	2020/03/20	107	50 - 140	113	60 - 130	<0.50	ug/L	NC	30
9802690	Toluene	2020/03/20	108	50 - 140	106	60 - 130	<0.40	ug/L	NC	30
9802690	trans-1,2-dichloroethene	2020/03/20	106	50 - 140	106	60 - 130	<1.0	ug/L	NC	30
9802690	trans-1,3-dichloropropene	2020/03/20	105	50 - 140	96	50 - 140	<1.0	ug/L	NC	30
9802690	Trichloroethene	2020/03/20	102	50 - 140	102	60 - 130	<0.50	ug/L	NC	30
9802690	Trichlorofluoromethane	2020/03/20	98	50 - 140	87	60 - 130	<4.0	ug/L	NC	30
9802690	VH C6-C10	2020/03/20			90	70 - 130	<300	ug/L	NC	30
9802690	Vinyl chloride	2020/03/20	75	50 - 140	74	50 - 140	<0.50	ug/L	NC	30
9802690	Xylenes (Total)	2020/03/20					<0.40	ug/L	NC	30
9802784	pH	2020/03/20			101	97 - 103				
9802786	Conductivity	2020/03/19			99	80 - 120	<2.0	uS/cm		
9802875	Nitrate plus Nitrite (N)	2020/03/19			109	80 - 120	<0.020	mg/L		
9802876	Nitrite (N)	2020/03/19			100	80 - 120	<0.0050	mg/L		
9803110	Total Dissolved Solids	2020/03/20	103	80 - 120	95	80 - 120	<10	mg/L	9.5	20
9803176	Dissolved Chloride (Cl)	2020/03/19	94	80 - 120	101	80 - 120	<1.0	mg/L		
9803176	Dissolved Sulphate (SO4)	2020/03/19	NC	80 - 120	97	80 - 120	<1.0	mg/L	0.80	20
9803610	2,4,5-T	2020/03/20			98	50 - 140	<0.080	ug/L		
9803610	2,4,5-TP	2020/03/20			92	50 - 140	<0.080	ug/L		
9803610	2,4-D	2020/03/20			97	50 - 140	<0.050	ug/L		



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Village of Tahsis

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9803610	2,4-DB	2020/03/20			72	50 - 140	<0.080	ug/L		
9803610	3,5-dichlorobenzoic acid	2020/03/20			97	50 - 140	<0.080	ug/L		
9803610	Bentazon	2020/03/20			96	50 - 140	<0.080	ug/L		
9803610	Bromoxynil	2020/03/20			100	50 - 140	<0.020	ug/L		
9803610	Chloramben	2020/03/20			57	30 - 130	<1.0	ug/L		
9803610	Dicamba	2020/03/20			92	50 - 140	<0.0050	ug/L		
9803610	Dichlorprop	2020/03/20			89	50 - 140	<0.080	ug/L		
9803610	Diclofop-methyl	2020/03/20			88	50 - 140	<0.080	ug/L		
9803610	Dinoseb (DNBP)	2020/03/20			72	30 - 130	<0.020	ug/L		
9803610	MCPA	2020/03/20			90	50 - 140	<0.020	ug/L		
9803610	MCPP	2020/03/20			96	50 - 140	<0.080	ug/L		
9803610	Pentachlorophenol	2020/03/20			89	50 - 140	<0.080	ug/L		
9803610	Picloram	2020/03/20			63	30 - 130	<0.080	ug/L		
9804549	* Total of Fatty Acids Detected	2020/03/22					<0.072	mg/L	NC	30
9804549	* Total of Resin Acids Detected	2020/03/22					<0.060	mg/L	NC	30
9804549	12,14-dichlorodehydroabiatic acid	2020/03/22	100	50 - 130	94	50 - 130	<0.0060	mg/L	NC	30
9804549	12-chlorodehydroabiatic acid	2020/03/22	103	50 - 130	86	50 - 130	<0.0060	mg/L	NC	30
9804549	14-chlorodehydroabiatic acid	2020/03/22	104	50 - 130	88	50 - 130	<0.0060	mg/L	NC	30
9804549	9,10-dichlorostearic acid (C18)	2020/03/22	77	50 - 130	99	50 - 130	<0.0060	mg/L	NC	30
9804549	Abiatic acid	2020/03/22	65	50 - 130	74	50 - 130	<0.0060	mg/L	NC	30
9804549	Decanoic acid (C10)	2020/03/22	85	50 - 130	86	50 - 130	<0.0060	mg/L	NC	30
9804549	Dehydroabiatic acid	2020/03/22	92	50 - 130	88	50 - 130	<0.0060	mg/L	NC	30
9804549	Docosanoic acid (C22)	2020/03/22	84	50 - 130	92	50 - 130	<0.0060	mg/L	NC	30
9804549	Dodecanoic acid (C12)	2020/03/22	90	50 - 130	88	50 - 130	<0.0060	mg/L	NC	30
9804549	Eicosanoic acid (C20)	2020/03/22	98	50 - 130	88	50 - 130	<0.0060	mg/L	NC	30
9804549	Hexadecanoic acid (C16)	2020/03/22	83	50 - 130	91	50 - 130	<0.0060	mg/L	NC	30
9804549	Isopimaric acid	2020/03/22	88	50 - 130	87	50 - 130	<0.0060	mg/L	NC	30
9804549	Linoleic acid (C18:2)	2020/03/22	109	50 - 130	109	50 - 130	<0.0060	mg/L	NC	30
9804549	Linolenic acid (C18:3)	2020/03/22	95	50 - 130	92	50 - 130	<0.0060	mg/L	NC	30
9804549	Neoabiatic acid	2020/03/22	64	50 - 130	95	50 - 130	<0.0060	mg/L	NC	30
9804549	Octadecanoic acid (C18)	2020/03/22	96	50 - 130	97	50 - 130	<0.0060	mg/L	NC	30
9804549	Oleic acid (C18:1)	2020/03/22	90	50 - 130	92	50 - 130	<0.0060	mg/L	NC	30
9804549	Palustric acid	2020/03/22	78	50 - 130	99	50 - 130	<0.0060	mg/L	NC	30
9804549	Pimaric acid	2020/03/22	79	50 - 130	85	50 - 130	<0.0060	mg/L	NC	30



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			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9804549	Sandaracopimaric acid	2020/03/22	76	50 - 130	86	50 - 130	<0.0060	mg/L	NC	30
9804549	Tetradecanoic acid (C14)	2020/03/22	108	50 - 130	90	50 - 130	<0.0060	mg/L	NC	30
9804549	Undecanoic acid (C11)	2020/03/22	98	50 - 130	92	50 - 130	<0.0060	mg/L	NC	30
9804840	Phenols	2020/03/23	103	80 - 120	97	80 - 120	<0.0015	mg/L	NC	20
9805075	Total Organic Carbon (C)	2020/03/23	87	80 - 120	105	80 - 120	<0.50	mg/L	3.3	20
9805491	Tannins and Lignins	2020/03/23	101	80 - 120	104	80 - 120	<0.10	mg/L	20	20
9806834	Glyphosate	2020/03/23	129	50 - 130	112	50 - 130	<10	ug/L	NC	40
9807588	a-Chlordane	2020/03/23	100	30 - 130	87	30 - 130	<0.0060	ug/L	16	40
9807588	Aldrin	2020/03/23	85	30 - 130	76	30 - 130	<0.0060	ug/L	20	40
9807588	Aroclor 1016	2020/03/23					<0.050	ug/L		
9807588	Aroclor 1221	2020/03/23					<0.050	ug/L		
9807588	Aroclor 1232	2020/03/23					<0.050	ug/L		
9807588	Aroclor 1242	2020/03/23					<0.050	ug/L		
9807588	Aroclor 1248	2020/03/23					<0.050	ug/L		
9807588	Aroclor 1254	2020/03/23					<0.050	ug/L		
9807588	Aroclor 1260	2020/03/23					<0.050	ug/L		
9807588	Dieldrin	2020/03/23	119	30 - 130	100	30 - 130	<0.0060	ug/L	16	40
9807588	g-Chlordane	2020/03/23	111	30 - 130	92	30 - 130	<0.0060	ug/L	12	40
9807588	Heptachlor Epoxide	2020/03/23	94	30 - 130	83	30 - 130	<0.0060	ug/L	18	40
9807588	Heptachlor	2020/03/23	78	30 - 130	66	30 - 130	<0.0060	ug/L	24	40
9807588	Lindane	2020/03/23	85	30 - 130	76	30 - 130	<0.0060	ug/L	25	40
9807588	Methoxychlor	2020/03/23	88	30 - 130	73	30 - 130	<0.024	ug/L	20	40
9807588	o,p'-DDD	2020/03/23	110	30 - 130	97	30 - 130	<0.0060	ug/L	17	40
9807588	o,p'-DDE	2020/03/23	99	30 - 130	86	30 - 130	<0.0060	ug/L	16	40
9807588	o,p'-DDT	2020/03/23	101	30 - 130	82	30 - 130	<0.0060	ug/L	16	40
9807588	Oxychlorane	2020/03/23	96	30 - 130	84	30 - 130	<0.0060	ug/L	16	40
9807588	p,p'-DDD	2020/03/23	106	30 - 130	94	30 - 130	<0.0060	ug/L	17	40
9807588	p,p'-DDE	2020/03/23	88	30 - 130	86	30 - 130	<0.0060	ug/L	20	40
9807588	p,p'-DDT	2020/03/23	96	30 - 130	77	30 - 130	<0.0060	ug/L	20	40
9810698	1-Methylnaphthalene	2020/03/30	88	50 - 140	93	50 - 140	<0.050	ug/L		
9810698	2-Methylnaphthalene	2020/03/30	89	50 - 140	93	50 - 140	<0.10	ug/L	0.74	40
9810698	Acenaphthene	2020/03/30	92	50 - 140	96	50 - 140	<0.050	ug/L	NC	40
9810698	Acenaphthylene	2020/03/30	98	50 - 140	102	50 - 140	<0.050	ug/L	NC	40
9810698	Acridine	2020/03/30	103	50 - 140	105	50 - 140	<0.050	ug/L	NC	40



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QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9810698	Anthracene	2020/03/30	88	50 - 140	94	50 - 140	<0.010	ug/L	NC	40
9810698	Benzo(a)anthracene	2020/03/30	89	50 - 140	96	50 - 140	<0.010	ug/L	NC	40
9810698	Benzo(a)pyrene	2020/03/30	77	50 - 140	102	50 - 140	<0.0050	ug/L	NC	40
9810698	Benzo(b&j)fluoranthene	2020/03/30	71	50 - 140	100	50 - 140	<0.030	ug/L	NC	40
9810698	Benzo(g,h,i)perylene	2020/03/30	59	50 - 140	102	50 - 140	<0.050	ug/L	NC	40
9810698	Benzo(k)fluoranthene	2020/03/30	85	50 - 140	95	50 - 140	<0.050	ug/L	NC	40
9810698	Chrysene	2020/03/30	84	50 - 140	92	50 - 140	<0.020	ug/L	NC	40
9810698	Dibenz(a,h)anthracene	2020/03/30	64	50 - 140	108	50 - 140	<0.0030	ug/L	NC	40
9810698	Fluoranthene	2020/03/30	98	50 - 140	99	50 - 140	<0.020	ug/L	NC	40
9810698	Fluorene	2020/03/30	92	50 - 140	96	50 - 140	<0.050	ug/L	1.4	40
9810698	Indeno(1,2,3-cd)pyrene	2020/03/30	67	50 - 140	107	50 - 140	<0.050	ug/L	NC	40
9810698	Naphthalene	2020/03/30	87	50 - 140	94	50 - 140	<0.10	ug/L	0.99	40
9810698	Phenanthrene	2020/03/30	87	50 - 140	94	50 - 140	<0.050	ug/L	NC	40
9810698	Pyrene	2020/03/30	97	50 - 140	101	50 - 140	<0.020	ug/L	NC	40
9810698	Quinoline	2020/03/30	131	50 - 140	117	50 - 140	<0.020	ug/L	NC	40

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



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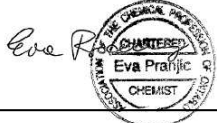
BV Labs Job #: C019997
Report Date: 2020/04/01

Village of Tahsis

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Andy Lu, Ph.D., P.Chem., Scientific Specialist



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Harry (Peng) Liang, Senior Analyst

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



INVOICE TO:		Report Information		Project Information	
Company Name	#5529 Village of Tahsis	Company Name		Quotation #	B71255
Contact Name	Accounts Payable	Contact Name	Public Works Super Attendant	P.O. #	
Address	977 South Maquinna Drive Box 219 Tahsis BC V0P 1X0	Address		Project #	
Phone	(250) 934-6344 Fax: (250) 934-6622	Phone	(250) 934-6337 Fax:	Project Name	
Email	publicworks@villageoftahsis.com, reception@villageoft	Email	publicworks@villageoftahsis.com; espencer@villageoft	Site #	
				Sampled By	



C019997_COC

nly
Bottle Order #:



603961
Project Manager



CR603961-01-01
Customer Solutions

Regulatory Criteria:

CSR

CCME

BC Water Quality

Other _____

Special Instructions

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Metals Field Filtered ? (Y/N)	Chloride and Sulphate by Automated Colourimetry	Conductance and pH	Tannin & Lignin (Total), TDS, Nitrate + Nitrite	Carbon (Total Organic) and Phenol (4-AAP)	LEPH & HEPH with CSR/CCME PAH in Water	CSR VOC + VPH in Water	Glyphosate Water Subcontract	RFA Water Subcontract	Pesticides in Water by LCMS Subcontract	Phenoxyalkyl acid Pesticides
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Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT - 5-7 Working days for most tests.

Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)

1 DAY 2 Day 3 Day Date Required: _____

Rush Confirmation Number: _____ (call lab for #)

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

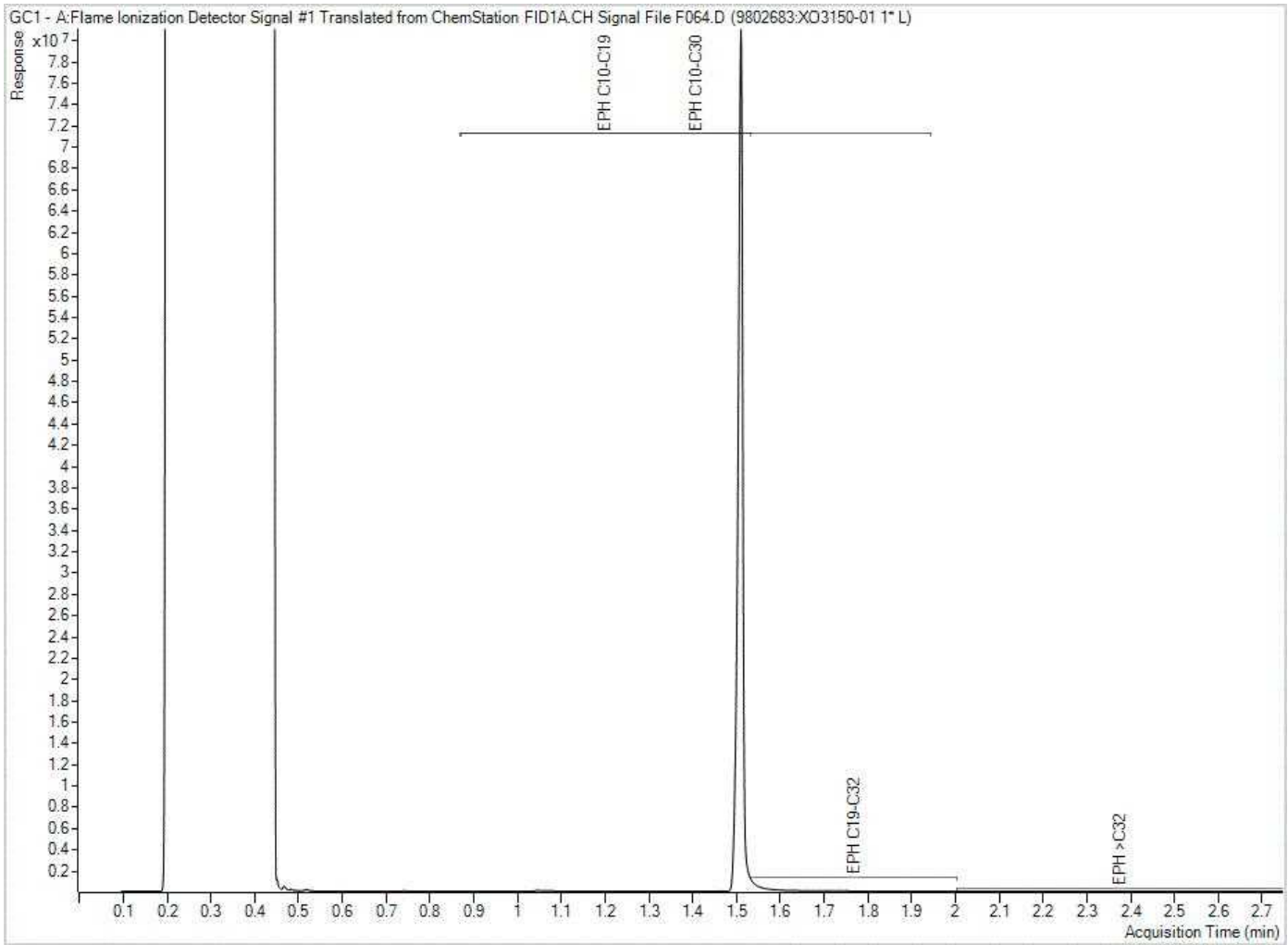
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y/N)	Chloride and Sulphate by Automated Colourimetry	Conductance and pH	Tannin & Lignin (Total), TDS, Nitrate + Nitrite	Carbon (Total Organic) and Phenol (4-AAP)	LEPH & HEPH with CSR/CCME PAH in Water	CSR VOC + VPH in Water	Glyphosate Water Subcontract	RFA Water Subcontract	Pesticides in Water by LCMS Subcontract	Phenoxyalkyl acid Pesticides
1	Tahsis well	2020 03 17	08:00			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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RELINQUISHED BY: (Signature/Print) Erin Spencer	Date: (YY/MM/DD) 2020 03 17	Time 08:30	RECEIVED BY: (Signature/Print) J. Williams	Date: (YY/MM/DD) 2020 03 18	Time 12:45	# Jars used and not submitted	Lab Use Only
						<input type="checkbox"/> Time Sensitive <input checked="" type="checkbox"/> Temperature (°C) on Receipt: 8.7.17	<input checked="" type="checkbox"/> Custody Seal Intact on Cooler? <input type="checkbox"/> No

UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

EPH in Water when PAH required Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.