



Town of Cochrane
 101 Ranchehouse Rd
 Cochrane AB T4C 2K8
 ATTN: Richard Gaida

Date: 29-FEB-20
 PO No.:
 WO No.: L2413935
 Project Ref: SCHEDULE 4 MONITORING (BI-ANNUAL)
 Sample ID: WTP
 Sampled By: Richard
 Date Collected: 04-FEB-20
 Lab Sample ID: L2413935-1
 Matrix: Water

Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Chloramines						
Chlorine, Total	0.90		mg/L			06-FEB-20
Chlorine, Free	0.70		mg/L			06-FEB-20
Total Chloramines (as Cl ₂)	<0.23		mg/L			06-FEB-20
Chlorate, Chlorite, and Bromate in Water						
Chlorite by IC						
Chlorite	<0.050		mg/L	1.0		07-FEB-20
Chlorate by IC						
Chlorate	<0.050		mg/L	1.0		07-FEB-20
Bromate in Water by LC/MS-MS						
Bromate	0.46		ug/L	10		09-FEB-20
Diquat and Paraquat by LC/MS-MS						
Paraquat in Water by LC/MS-MS						
Paraquat	<1.0		ug/L	7		11-FEB-20
Diquat by LC/MS-MS						
Diquat	<1.0		ug/L	70		11-FEB-20
Herb Screen GC/MS						
Miscellaneous Pesticides						
Trifluralin	<0.00010		mg/L	0.045		10-FEB-20
Triallate	<0.00010		mg/L			10-FEB-20
Fluazifop-p-butyl	<0.00010		mg/L			10-FEB-20
Diclofop-methyl	<0.00010		mg/L	0.009		10-FEB-20
Ethalfuralin	<0.00010		mg/L			10-FEB-20
Surr: D14-Terphenyl	68.7		%			10-FEB-20
Herbicides in Water						
Clopyralid	<0.00010		mg/L			10-FEB-20
Dicamba	<0.00010		mg/L	0.12		10-FEB-20
Mecoprop	<0.00010		mg/L			10-FEB-20
MCPA	<0.00010		mg/L			10-FEB-20
2,4-D	<0.00010		mg/L	0.1		10-FEB-20
Bromoxynil	<0.00010		mg/L	0.005		10-FEB-20
Triclopyr	<0.00010		mg/L			10-FEB-20
2,4,5-T	<0.00010		mg/L			10-FEB-20
2,4,5-TP	<0.00010		mg/L			10-FEB-20
Picloram	<0.00010		mg/L	0.19		10-FEB-20
2,4-DB	<0.00010		mg/L			10-FEB-20
2,4-DP	<0.00010		mg/L			10-FEB-20
Dinoseb	<0.00010		mg/L			10-FEB-20
MCPB	<0.00010		mg/L			10-FEB-20
Surr: 2,4-Dichlorophenylacetic Acid	104.0		%			10-FEB-20
Total Metals (ABT1)						



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Total Metals (ABT1)						
Total Metals in Water by CRC ICPMS						
Aluminum (Al)-Total	0.0439		mg/L		0.1	10-FEB-20
Antimony (Sb)-Total	0.00016		mg/L	0.006		10-FEB-20
Arsenic (As)-Total	<0.00010		mg/L	0.01		10-FEB-20
Barium (Ba)-Total	0.0409		mg/L	2		10-FEB-20
Boron (B)-Total	<0.010		mg/L	5		10-FEB-20
Cadmium (Cd)-Total	<0.0000050		mg/L	0.005		10-FEB-20
Calcium (Ca)-Total	50.3		mg/L			10-FEB-20
Chromium (Cr)-Total	0.00011		mg/L	0.05		10-FEB-20
Copper (Cu)-Total	<0.00050		mg/L	2.0	1.0	10-FEB-20
Iron (Fe)-Total	<0.010		mg/L		0.3	10-FEB-20
Lead (Pb)-Total	0.000790		mg/L	0.005		10-FEB-20
Magnesium (Mg)-Total	15.6		mg/L			10-FEB-20
Manganese (Mn)-Total	0.00034		mg/L	0.12	0.02	10-FEB-20
Nickel (Ni)-Total	<0.00050		mg/L			10-FEB-20
Potassium (K)-Total	0.568		mg/L			10-FEB-20
Selenium (Se)-Total	0.000614		mg/L	0.05		10-FEB-20
Silver (Ag)-Total	<0.000010		mg/L			10-FEB-20
Sodium (Na)-Total	3.32		mg/L		200	10-FEB-20
Uranium (U)-Total	0.000251		mg/L	0.02		10-FEB-20
Zinc (Zn)-Total	<0.0030		mg/L		5.0	10-FEB-20
Total Mercury in Water by CVAAS						
Mercury (Hg)-Total	<0.0000050		mg/L	0.001		07-FEB-20
Acid Extractable for ABT1						
Additional Acid Extractables in Water						
Surr: 2,5-Dichlorophenol	<0.10		ug/L			11-FEB-20
2,4,6-Tribromophenol	150.2	SURR-ND	%			11-FEB-20
Acid Extractables in Water						
2,3,4,6-Tetrachlorophenol	<0.10		ug/L	100	1	11-FEB-20
2,4,6-Trichlorophenol	<0.10		ug/L	5	2	11-FEB-20
2,4-Dichlorophenol	<0.10		ug/L	900	0.3	11-FEB-20
Pentachlorophenol	<0.10		ug/L	60	30	11-FEB-20
Phenol	<0.10		ug/L			11-FEB-20
Routine Water Analysis						
*Nitrate and Nitrite (as N)	0.176		mg/L	10		07-FEB-20
pH, Conductivity and Total Alkalinity						
pH	8.27		pH		7-10.5	06-FEB-20
Conductivity (EC)	354		uS/cm			06-FEB-20
Bicarbonate (HCO3)	169		mg/L			06-FEB-20
Carbonate (CO3)	<5.0		mg/L			06-FEB-20
Hydroxide (OH)	<5.0		mg/L			06-FEB-20
Alkalinity, Total (as	139		mg/L			06-FEB-20



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Routine Water Analysis						
pH, Conductivity and Total Alkalinity						
CaCO3)						
Sulfate in Water by IC						
Sulfate (SO4)	51.4		mg/L		500	06-FEB-20
Nitrite in Water by IC						
*Nitrite (as N)	<0.010		mg/L	1		06-FEB-20
Nitrate in Water by IC						
*Nitrate (as N)	0.176		mg/L	10		06-FEB-20
Ion Balance Calculation						
Ion Balance	101		%			11-FEB-20
TDS (Calculated)	220		mg/L		500	11-FEB-20
Hardness (as CaCO3)	201		mg/L		500	11-FEB-20
Fluoride in Water by IC						
Fluoride (F)	0.134		mg/L	1.5		06-FEB-20
Dissolved Metals by ICPOES						
Dissolved Metals	LAB					07-FEB-20
Filtration Location						
Calcium (Ca)-Dissolved	55.2		mg/L			07-FEB-20
Magnesium (Mg)-Dissolved	15.3		mg/L			07-FEB-20
Potassium (K)-Dissolved	0.52		mg/L			07-FEB-20
Sodium (Na)-Dissolved	3.4		mg/L		200	07-FEB-20
Chloride in Water by IC						
Chloride (Cl)	10.1		mg/L		250	06-FEB-20
EPA 8260 Volatile Organics						
VOCs in Water						
1,1,1,2-Tetrachloroethane	<0.0010		mg/L			10-FEB-20
1,1,1-Trichloroethane	<0.00050		mg/L			10-FEB-20
1,1,2,2-Tetrachloroethane	<0.00050		mg/L			10-FEB-20
1,1,2-Trichloroethane	<0.00050		mg/L			10-FEB-20
1,1-Dichloroethane	<0.00050		mg/L			10-FEB-20
1,1-Dichloroethene	<0.00050		mg/L	0.014		10-FEB-20
1,1-Dichloropropene	<0.0010		mg/L			10-FEB-20
1,2,3-Trichlorobenzene	<0.0010		mg/L			10-FEB-20
1,2,3-Trichloropropane	<0.00050		mg/L			10-FEB-20
1,2,4-Trichlorobenzene	<0.0010		mg/L			10-FEB-20
1,2,4-Trimethylbenzene	<0.0010		mg/L			10-FEB-20
1,2-Dibromo-3-chloropropane	<0.0010		mg/L			10-FEB-20
1,2-Dichlorobenzene	<0.00050		mg/L	0.2	0.003	10-FEB-20
1,2-Dichloroethane	<0.0010		mg/L	0.005		10-FEB-20
1,2-Dichloropropane	<0.00050		mg/L			10-FEB-20

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EPA 8260 Volatile Organics						
VOCs in Water						
1,3,5-Trimethylbenzene	<0.0010		mg/L			10-FEB-20
1,3-Dichlorobenzene	<0.00050		mg/L			10-FEB-20
1,3-Dichloropropane	<0.0010		mg/L			10-FEB-20
1,4-Dichlorobenzene	<0.00050		mg/L	0.005	0.001	10-FEB-20
2,2-Dichloropropane	<0.0010		mg/L			10-FEB-20
2-Chlorotoluene	<0.0010		mg/L			10-FEB-20
4-Chlorotoluene	<0.0010		mg/L			10-FEB-20
p-Isopropyltoluene	<0.0010		mg/L			10-FEB-20
Benzene	<0.00050		mg/L	0.005		10-FEB-20
Bromobenzene	<0.0010		mg/L			10-FEB-20
Bromochloromethane	<0.0010		mg/L			10-FEB-20
Bromodichloromethane	0.00124		mg/L			10-FEB-20
Bromoform	<0.00050		mg/L			10-FEB-20
Bromomethane	<0.0010		mg/L			10-FEB-20
Carbon tetrachloride	<0.00050		mg/L	0.005		10-FEB-20
Chlorobenzene	<0.00050		mg/L	0.08		10-FEB-20
Chloroethane	<0.0010		mg/L			10-FEB-20
Chloroform	0.00289		mg/L			10-FEB-20
Chloromethane	<0.0010		mg/L			10-FEB-20
cis-1,2-Dichloroethene	<0.0010		mg/L			10-FEB-20
cis-1,3-Dichloropropene	<0.00050		mg/L			10-FEB-20
Dibromochloromethane	0.00050		mg/L			10-FEB-20
Dibromomethane	<0.00050		mg/L			10-FEB-20
Dichlorodifluoromethane	<0.00050		mg/L			10-FEB-20
Ethylbenzene	<0.00050		mg/L	0.14	0.0016	10-FEB-20
Ethylene dibromide	<0.00050		mg/L			10-FEB-20
Hexachlorobutadiene	<0.0010		mg/L			10-FEB-20
Isopropylbenzene	<0.0010		mg/L			10-FEB-20
m+p-Xylenes	<0.00050		mg/L			10-FEB-20
Methylene chloride	<0.0010		mg/L	0.05		10-FEB-20
n-Butylbenzene	<0.0010		mg/L			10-FEB-20
n-Propylbenzene	<0.0010		mg/L			10-FEB-20
o-Xylene	<0.00050		mg/L			10-FEB-20
sec-Butylbenzene	<0.0010		mg/L			10-FEB-20
Styrene	<0.00050		mg/L			10-FEB-20
tert-Butylbenzene	<0.0010		mg/L			10-FEB-20
Tetrachloroethylene	<0.00050		mg/L	0.03		10-FEB-20
Toluene	<0.00050		mg/L	0.06	0.024	10-FEB-20
trans-1,2-Dichloroethene	<0.00050		mg/L			10-FEB-20
trans-1,3-Dichloropropene	<0.0010		mg/L			10-FEB-20
Trichloroethene	<0.00050		mg/L	0.005		10-FEB-20
Trichlorofluoromethane	<0.0010		mg/L			10-FEB-20
Vinyl chloride	<0.00050		mg/L	0.002		10-FEB-20
Surr:	1,4-Difluorobenzene	97.2	%			10-FEB-20
Surr:	4-Bromofluorobenzene	82.5	%			10-FEB-20



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Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
EPA 8260 Volatile Organics						
Cyanide, Total	<0.0020		mg/L	0.2		07-FEB-20
Ammonia, Total (as N)	<0.050		mg/L			06-FEB-20
Colour, True	<5.0		CU		15	06-FEB-20
Diuron	<1.0		ug/L	150		10-FEB-20
Total cyanobacterial cell count	<1		cells/mL			10-FEB-20
Note: No cyanobacteria observed.						
Glyphosate	<5.0		ug/L	280		10-FEB-20
Methyl tert-butyl ether	<0.0050		mg/L		0.015	10-FEB-20
Microcystin	<0.20		ug/L	1.5		12-FEB-20
Nitritotriacetic Acid (NTA)	<0.20		mg/L	0.4		11-FEB-20
Sulphide (as S)	<0.0015		mg/L		0.05	11-FEB-20
Xylenes	<0.00071		mg/L	0.09	0.02	11-FEB-20
Total Organic Carbon	<1.0		mg/L			07-FEB-20
Trihalomethanes						
Chloroform	0.0029		mg/L			11-FEB-20
Bromodichloromethane	<0.0010		mg/L			11-FEB-20
Dibromochloromethane	<0.0010		mg/L			11-FEB-20
Bromoform	<0.0050		mg/L			11-FEB-20
Surr: 1,4-Difluorobenzene	101.9		%			11-FEB-20
Surr: 4-Bromofluorobenzene	100.0		%			11-FEB-20
Surr: 3,4-Dichlorotoluene	128.6		%			11-FEB-20
Total THMs	<0.005		mg/L	0.1		11-FEB-20
Pesticides, Organochlorine						
Aldrin	<0.10		ug/L			12-FEB-20
a-chlordane	<0.10		ug/L			12-FEB-20
g-chlordane	<0.10		ug/L			12-FEB-20
alpha-BHC	<0.10		ug/L			12-FEB-20
beta-BHC	<0.10		ug/L			12-FEB-20
delta-BHC	<0.10		ug/L			12-FEB-20
o,p-DDD	<0.10		ug/L			12-FEB-20
pp-DDD	<0.10		ug/L			12-FEB-20
o,p-DDE	<0.10		ug/L			12-FEB-20
pp-DDE	<0.10		ug/L			12-FEB-20
op-DDT	<0.10		ug/L			12-FEB-20
pp-DDT	<0.10		ug/L			12-FEB-20
Dieldrin	<0.10		ug/L			12-FEB-20
alpha-Endosulfan	<0.10		ug/L			12-FEB-20
beta-Endosulfan	<0.10		ug/L			12-FEB-20
Endosulfan Sulfate	<0.10		ug/L			12-FEB-20
Endrin	<0.10		ug/L			12-FEB-20

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Pesticides, Organochlorine						
Endrin Aldehyde	<0.10		ug/L			12-FEB-20
Hexachlorobenzene	<0.10		ug/L			12-FEB-20
Heptachlor	<0.10		ug/L			12-FEB-20
Heptachlor Epoxide	<0.10		ug/L			12-FEB-20
Lindane	<0.10		ug/L			12-FEB-20
Methoxychlor	<0.10		ug/L			12-FEB-20
Mirex	<0.10		ug/L			12-FEB-20
Oxychlorane	<0.10		ug/L			12-FEB-20
Surr: 2-Fluorobiphenyl	93.8		%			12-FEB-20
Surr: d14-Terphenyl	110.1		%			12-FEB-20
N-Nitrosodimethylamine by HRMS						
N-Nitrosodimethylamine	1.26	M,B	ng/L	40		28-FEB-20
Surr: N-Nitrosodimethylamine (Surr.)	52.0		%			28-FEB-20
Miscellaneous Pesticides						
Alachlor	<0.10		ug/L			10-FEB-20
Ametryn	<0.10		ug/L			10-FEB-20
Atrazine	<0.10		ug/L			10-FEB-20
Atrazine Desethyl	<0.10		ug/L			10-FEB-20
Azinphos-methyl	<0.10		ug/L	20		10-FEB-20
Bendiocarb	<0.50		ug/L			10-FEB-20
Carbaryl	<0.50		ug/L	90		10-FEB-20
Carbofuran	<0.50		ug/L	90		10-FEB-20
Chlorpyrifos	<0.10		ug/L	90		10-FEB-20
Cyanazine	<0.10		ug/L			10-FEB-20
Diazinon	<0.10		ug/L	20		10-FEB-20
Diclofop-methyl	<0.10		ug/L	9		10-FEB-20
Dimethoate	<0.10		ug/L	20		10-FEB-20
Malathion	<0.10		ug/L	190		10-FEB-20
Methyl Parathion	<0.10		ug/L			10-FEB-20
Metolachlor	<0.10		ug/L	50		10-FEB-20
Metribuzin	<1.0		ug/L	80		10-FEB-20
Parathion	<0.10		ug/L	50		10-FEB-20
Phorate	<0.10		ug/L	2		10-FEB-20
Prometon	<0.10		ug/L			10-FEB-20
Prometryne	<0.10		ug/L			10-FEB-20
Propazine	<0.10		ug/L			10-FEB-20
Simazine	<0.10		ug/L	10		10-FEB-20
Temephos	<1.0		ug/L			10-FEB-20
Terbufos	<0.10		ug/L	1		10-FEB-20
Terbutryn	<0.10		ug/L			10-FEB-20
Triallate	<0.10		ug/L			10-FEB-20

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Miscellaneous Pesticides						
Trifluralin	<0.10		ug/L	45		10-FEB-20
Atrazine+N-Dealkylated Metabolites	<0.20		ug/L	5		10-FEB-20
Surr: 2-Fluorobiphenyl	82.4		%			10-FEB-20
Surr: d14-Terphenyl	68.7		%			10-FEB-20
Benzo(a)pyrene						
Benzo(a)pyrene	<0.0050		ug/L	0.04		11-FEB-20
Surr: d14-Terphenyl	77.6		%			11-FEB-20

CDWQG = Health Canada Guideline Limits updated JUNE 2019

- * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only. If present as Nitrate then the limit is 10mg/L < or N.D. = less than detection limit.
- * Turbidity guideline based on membrane filtration. For guidelines on conventional treatment and slow sand or diatomaceous earth filtration please see Summary Table of Guidelines for Canadian Drinking Water Quality
- A blank entry designates no known limit.
- A shaded value in the Results column exceeds CDWQG MAC and/ or Aesthetic Objective.

Approved by 
 Patryk Wojciak, B.Sc., P.Chem.
 Account Manager

Guidelines & Objectives

Sample Parameter Qualifier key listed:

Qualifier	Description
SURR-ND	Surrogate recovery marginally exceeded ALS DQO. Reported non-detect results for associated samples were deemed to be

unaffected.

M,B A peak has been manually integrated and the analyte was detected in the Method Blank at >10% of the sample concentration.

Health Canada MAC Health Related Criteria Limits

Nitrate/Nitrite-N*	Criteria limit is 10 mg/L (1.0 mg/L if present as all Nitrite-N). High concentrations may contribute to blue baby syndrome in infants.
Lead*	A cumulative body poison, uncommon in naturally occurring hard waters.
Fluoride*	Present in fluoridated water supplies at 0.8 mg/L to reduce dental caries. Elevated levels causes fluorosis (mottling of teeth).
Total Coliforms*	Criteria is 0 CFU/100mL. Adverse health effects.
E. Coli*	Criteria is 0 CFU/100 mL. Certain E. Coli bacteria can be life threatening.
Manganese*	Criteria limit is 0.12 mg/L. Possible neurological effects in infants.

*Health Canada Canadian Drinking Water Quality Guidelines (MAC limit)

Aesthetic Objective Concentration Levels

Alkalinity	Acid neutralizing capacity. Usually a measure of carbonate and bicarbonates and calculated and reported as calcium carbonate.
Balance	Quality control parameter ratioing cations to anions
Bicarbonate	See Alkalinity. Report as the anion HCO ₃ -1
Carbonate	See Alkalinity. Reported at the anion CO ₃ -2
Calcium	See Hardness. Common major cation of water chemistry.
Chloride	Common major anion of water chemistry.
Conductance	Physical test measuring water salinity (dissolved ions or solids)
Hardness	Classical measure or capacity of water to precipitate soap (chiefly calcium and magnesium ions). Causes scaling tendency in water if carbonates/bicarbonates are present (if >200 mg/L). For drinking water purposes waters with results <200 mg/L are considered acceptable, results >200 mg/L are considered poor but can be tolerated. Results >500 mg/L are unacceptable.
Hydroxide	See alkalinity
Magnesium	See hardness. Common major cation of water chemistry. Elevated levels (>125 mg/L) may exert a cathartic or diuretic action.
pH	Measure of water acidity/alkalinity. Normal range is 7.0-8.5.
Potassium	Common major cation of water chemistry.
Sodium	Common major cation of water chemistry. Measure of salinity (saltiness).The aesthetic objective (not related to health) for sodium in drinking water is 200 mg/L. However, where sodium concentration of the drinking water exceeds 20 mg/L, it is recommended that any person on a sodium restricted diet consult with his/her physician or Medical Officer of Health concerning the use of that water.
Sulphate	Common major anion of water chemistry. Elevated levels may exert a cathartic or diuretic action.
Total Dissolved Solids	A measure of water salinity.
Iron	Causes staining to laundry and porcelain and astringent taste. Oxidizes to red-brown precipitate on exposure to air.
Heterotrophic	
Plate Count	Criteria is 500 cfu/mL Measure of heterotrophic bacteria present.

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 1 of 25

Client: Town of Cochrane
 101 Ranchehouse Rd
 Cochrane AB T4C 2K8

Contact: Richard Gaida

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
625-ACID-LOW-WT		Water						
Batch	R4993578							
WG3272942-2	LCS							
2,3,4,6-Tetrachlorophenol			114.1		%		50-150	11-FEB-20
2,4,6-Trichlorophenol			110.4		%		50-150	11-FEB-20
2,4-Dichlorophenol			109.4		%		50-150	11-FEB-20
Pentachlorophenol			135.2		%		50-150	11-FEB-20
Phenol			107.3		%		50-150	11-FEB-20
WG3272942-1	MB							
2,3,4,6-Tetrachlorophenol			<0.10		ug/L		0.1	11-FEB-20
2,4,6-Trichlorophenol			<0.10		ug/L		0.1	11-FEB-20
2,4-Dichlorophenol			<0.10		ug/L		0.1	11-FEB-20
Pentachlorophenol			<0.10		ug/L		0.1	11-FEB-20
Phenol			<0.10		ug/L		0.1	11-FEB-20
625-ACIDEXTRA-LOW-WT		Water						
Batch	R4993628							
WG3272942-2	LCS							
2,5-Dichlorophenol			112.9		%		50-150	11-FEB-20
WG3272942-1	MB							
2,5-Dichlorophenol			<0.10		ug/L		0.1	11-FEB-20
Surrogate: 2,4,6-Tribromophenol			142.9		%		50-150	11-FEB-20
BAP-WT		Water						
Batch	R4992959							
WG3272163-2	LCS							
Benzo(a)pyrene			79.6		%		60-130	11-FEB-20
WG3272163-1	MB							
Benzo(a)pyrene			<0.0050		ug/L		0.005	11-FEB-20
Surrogate: d14-Terphenyl			79.8		%		40-130	11-FEB-20
BROMATE-ONT-DW-WT		Water						
Batch	R4992325							
WG3272374-2	LCS							
Bromate			92.8		%		70-130	09-FEB-20
WG3272374-1	MB							
Bromate			<0.30		ug/L		0.3	09-FEB-20
C-TOT-ORG-CL		Water						



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 2 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
C-TOT-ORG-CL	Water							
Batch	R4991635							
WG3270863-6	LCS							
Total Organic Carbon			100.2		%		80-120	07-FEB-20
WG3270863-5	MB							
Total Organic Carbon			<1.0		mg/L		1	07-FEB-20
CHLORATE-IC-WT	Water							
Batch	R4992388							
WG3271841-2	LCS							
Chlorate			106.0		%		85-115	07-FEB-20
WG3271841-1	MB							
Chlorate			<0.050		mg/L		0.05	07-FEB-20
CHLORITE-IC-WT	Water							
Batch	R4992388							
WG3271841-2	LCS							
Chlorite			102.5		%		85-115	07-FEB-20
WG3271841-1	MB							
Chlorite			<0.050		mg/L		0.05	07-FEB-20
CL-IC-N-CL	Water							
Batch	R4991777							
WG3271946-3	DUP	L2413935-1						
Chloride (Cl)		10.1	10.2		mg/L	1.6	20	06-FEB-20
WG3271946-2	LCS							
Chloride (Cl)			100.6		%		90-110	06-FEB-20
WG3271946-1	MB							
Chloride (Cl)			<0.50		mg/L		0.5	06-FEB-20
WG3271946-4	MS	L2413935-1						
Chloride (Cl)			109.3		%		75-125	06-FEB-20
CL2-FREE-CL	Water							
Batch	R4991176							
WG3271171-2	DUP	L2413935-1						
Chlorine, Free		0.70	0.70		mg/L	0.0	15	06-FEB-20
WG3271171-1	MB							
Chlorine, Free			<0.10		mg/L		0.1	06-FEB-20
CL2-TOT-CL	Water							
Batch	R4991176							
WG3271171-2	DUP	L2413935-1						
Chlorine, Total		0.90	0.90		mg/L	0.0	15	06-FEB-20
WG3271171-1	MB							

Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 3 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL2-TOT-CL	Water							
Batch	R4991176							
WG3271171-1 MB								
Chlorine, Total			<0.10		mg/L		0.1	06-FEB-20
CN-TOT-WT	Water							
Batch	R4991656							
WG3271704-2 LCS								
Cyanide, Total			85.0		%		80-120	07-FEB-20
WG3271704-1 MB								
Cyanide, Total			<0.0020		mg/L		0.002	07-FEB-20
COLOUR-TRUE-CL	Water							
Batch	R4990457							
WG3270211-2 LCS								
Colour, True			100.7		%		85-115	05-FEB-20
WG3270211-1 MB								
Colour, True			<5.0		CU		5	05-FEB-20
DIQUAT-WT	Water							
Batch	R4994987							
WG3272852-3 DUP		L2413935-1						
Diquat		<1.0	<1.0	RPD-NA	ug/L	N/A	30	11-FEB-20
WG3272852-2 LCS								
Diquat			97.2		%		70-130	11-FEB-20
WG3272852-1 MB								
Diquat			<1.0		ug/L		1	11-FEB-20
WG3272852-4 MS		L2413935-1						
Diquat			62.5	K	%		70-130	11-FEB-20
DIURON-WT	Water							
Batch	R4992507							
WG3272373-3 DUP		L2413935-1						
Diuron		<1.0	<1.0	RPD-NA	ug/L	N/A	30	10-FEB-20
WG3272373-2 LCS								
Diuron			101.5		%		70-130	10-FEB-20
WG3272373-1 MB								
Diuron			<1.0		ug/L		1	10-FEB-20
WG3272373-4 MS		L2413935-1						
Diuron			89.7		%		70-130	10-FEB-20
F-IC-N-CL	Water							



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 4 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-CL								
Water								
Batch	R4991777							
WG3271946-3	DUP	L2413935-1						
Fluoride (F)		0.134	0.127		mg/L	5.6	20	06-FEB-20
WG3271946-2	LCS							
Fluoride (F)			107.2		%		90-110	06-FEB-20
WG3271946-1	MB							
Fluoride (F)			<0.020		mg/L		0.02	06-FEB-20
WG3271946-4	MS	L2413935-1						
Fluoride (F)			113.4		%		75-125	06-FEB-20
GLYPHOSATE-WT								
Water								
Batch	R4992467							
WG3272342-2	LCS							
Glyphosate			104.2		%		50-150	10-FEB-20
WG3272342-1	MB							
Glyphosate			<5.0		ug/L		5	10-FEB-20
HERBSCR-LCMS-WT								
Water								
Batch	R4992746							
WG3272667-3	DUP	L2413935-1						
Clopyralid		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
Dicamba		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
Mecoprop		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
MCPA		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
2,4-D		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
Bromoxynil		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
Triclopyr		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
2,4,5-T		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
2,4,5-TP		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
Picloram		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
2,4-DB		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
2,4-DP		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
Dinoseb		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
MCPB		<0.00010	<0.00010	RPD-NA	mg/L	N/A	30	10-FEB-20
WG3272667-2	LCS							
Clopyralid			95.5		%		50-150	10-FEB-20
Dicamba			100.0		%		65-130	10-FEB-20
Mecoprop			89.7		%		65-130	10-FEB-20
MCPA			93.5		%		65-130	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 5 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HERBSCR-LCMS-WT								
	Water							
Batch	R4992746							
WG3272667-2	LCS							
2,4-D			92.1		%		65-130	10-FEB-20
Bromoxynil			91.7		%		65-130	10-FEB-20
Triclopyr			87.0		%		65-130	10-FEB-20
2,4,5-T			83.2		%		65-130	10-FEB-20
2,4,5-TP			95.3		%		65-130	10-FEB-20
Picloram			110.0		%		50-150	10-FEB-20
2,4-DB			87.9		%		65-130	10-FEB-20
2,4-DP			87.7		%		65-130	10-FEB-20
Dinoseb			96.0		%		50-150	10-FEB-20
MCPB			88.8		%		65-130	10-FEB-20
WG3272667-1	MB							
Clopyralid			<0.00010		mg/L		0.0001	10-FEB-20
Dicamba			<0.00010		mg/L		0.0001	10-FEB-20
Mecoprop			<0.00010		mg/L		0.0001	10-FEB-20
MCPA			<0.00010		mg/L		0.0001	10-FEB-20
2,4-D			<0.00010		mg/L		0.0001	10-FEB-20
Bromoxynil			<0.00010		mg/L		0.0001	10-FEB-20
Triclopyr			<0.00010		mg/L		0.0001	10-FEB-20
2,4,5-T			<0.00010		mg/L		0.0001	10-FEB-20
2,4,5-TP			<0.00010		mg/L		0.0001	10-FEB-20
Picloram			<0.00010		mg/L		0.0001	10-FEB-20
2,4-DB			<0.00010		mg/L		0.0001	10-FEB-20
2,4-DP			<0.00010		mg/L		0.0001	10-FEB-20
Dinoseb			<0.00010		mg/L		0.0001	10-FEB-20
MCPB			<0.00010		mg/L		0.0001	10-FEB-20
Surrogate: 2,4-Dichlorophenylacetic Acid			97.0		%		50-130	10-FEB-20
WG3272667-4	MS	L2413935-1						
Clopyralid			55.5		%		50-150	10-FEB-20
Dicamba			97.5		%		50-130	10-FEB-20
Mecoprop			86.3		%		50-130	10-FEB-20
MCPA			83.3		%		50-130	10-FEB-20
2,4-D			85.6		%		50-130	10-FEB-20
Bromoxynil			97.0		%		50-130	10-FEB-20
Triclopyr			82.7		%		50-130	10-FEB-20
2,4,5-T			74.9		%		50-130	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 6 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HERBSCR-LCMS-WT								
	Water							
Batch	R4992746							
WG3272667-4	MS	L2413935-1						
2,4,5-TP			80.5		%		50-130	10-FEB-20
Picloram			94.0		%		50-150	10-FEB-20
2,4-DB			80.0		%		50-130	10-FEB-20
2,4-DP			89.9		%		50-130	10-FEB-20
Dinoseb			98.8		%		50-150	10-FEB-20
MCPB			73.1		%		50-130	10-FEB-20
HG-T-CVAA-CL								
	Water							
Batch	R4991072							
WG3271090-2	LCS							
Mercury (Hg)-Total			116.0		%		80-120	07-FEB-20
WG3271090-1	MB							
Mercury (Hg)-Total			<0.0000050		mg/L		0.000005	07-FEB-20
MET-DIS-ICP-CL								
	Water							
Batch	R4991691							
WG3271832-2	LCS	TMRM						
Calcium (Ca)-Dissolved			102.9		%		80-120	07-FEB-20
Magnesium (Mg)-Dissolved			97.4		%		80-120	07-FEB-20
Potassium (K)-Dissolved			97.7		%		80-120	07-FEB-20
Sodium (Na)-Dissolved			97.9		%		80-120	07-FEB-20
WG3271832-1	MB							
Calcium (Ca)-Dissolved			<0.10		mg/L		0.1	07-FEB-20
Magnesium (Mg)-Dissolved			<0.10		mg/L		0.1	07-FEB-20
Potassium (K)-Dissolved			<0.50		mg/L		0.5	07-FEB-20
Sodium (Na)-Dissolved			<1.0		mg/L		1	07-FEB-20
WG3271832-4	MS	L2413935-1						
Calcium (Ca)-Dissolved			94.5		%		70-130	07-FEB-20
Magnesium (Mg)-Dissolved			90.7		%		70-130	07-FEB-20
Potassium (K)-Dissolved			94.8		%		70-130	07-FEB-20
Sodium (Na)-Dissolved			94.9		%		70-130	07-FEB-20
MET-T-CCMS-CL								
	Water							
Batch	R4991763							
WG3271599-2	LCS	TMRM						
Aluminum (Al)-Total			108.6		%		80-120	10-FEB-20
Antimony (Sb)-Total			104.7		%		80-120	10-FEB-20
Arsenic (As)-Total			107.6		%		80-120	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 7 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-CL								
	Water							
Batch	R4991763							
WG3271599-2	LCS	TMRM						
Barium (Ba)-Total			110.7		%		80-120	10-FEB-20
Boron (B)-Total			94.5		%		80-120	10-FEB-20
Cadmium (Cd)-Total			105.0		%		80-120	10-FEB-20
Calcium (Ca)-Total			106.7		%		80-120	10-FEB-20
Chromium (Cr)-Total			104.1		%		80-120	10-FEB-20
Copper (Cu)-Total			103.0		%		80-120	10-FEB-20
Iron (Fe)-Total			104.9		%		80-120	10-FEB-20
Lead (Pb)-Total			103.8		%		80-120	10-FEB-20
Magnesium (Mg)-Total			104.4		%		80-120	10-FEB-20
Manganese (Mn)-Total			104.4		%		80-120	10-FEB-20
Nickel (Ni)-Total			103.9		%		80-120	10-FEB-20
Potassium (K)-Total			108.3		%		80-120	10-FEB-20
Selenium (Se)-Total			102.4		%		80-120	10-FEB-20
Silver (Ag)-Total			103.0		%		80-120	10-FEB-20
Sodium (Na)-Total			102.1		%		80-120	10-FEB-20
Uranium (U)-Total			101.7		%		80-120	10-FEB-20
Zinc (Zn)-Total			106.8		%		80-120	10-FEB-20
WG3271599-6	LCS	TMRM						
Aluminum (Al)-Total			107.7		%		80-120	10-FEB-20
Antimony (Sb)-Total			110.3		%		80-120	10-FEB-20
Arsenic (As)-Total			106.3		%		80-120	10-FEB-20
Barium (Ba)-Total			110.5		%		80-120	10-FEB-20
Boron (B)-Total			90.7		%		80-120	10-FEB-20
Cadmium (Cd)-Total			106.2		%		80-120	10-FEB-20
Calcium (Ca)-Total			105.9		%		80-120	10-FEB-20
Chromium (Cr)-Total			104.9		%		80-120	10-FEB-20
Copper (Cu)-Total			102.5		%		80-120	10-FEB-20
Iron (Fe)-Total			109.4		%		80-120	10-FEB-20
Lead (Pb)-Total			108.8		%		80-120	10-FEB-20
Magnesium (Mg)-Total			106.2		%		80-120	10-FEB-20
Manganese (Mn)-Total			104.7		%		80-120	10-FEB-20
Nickel (Ni)-Total			103.9		%		80-120	10-FEB-20
Potassium (K)-Total			107.4		%		80-120	10-FEB-20
Selenium (Se)-Total			104.7		%		80-120	10-FEB-20

Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 8 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-CL								
	Water							
Batch	R4991763							
WG3271599-6	LCS	TMRM						
Silver (Ag)-Total			108.0		%		80-120	10-FEB-20
Sodium (Na)-Total			101.1		%		80-120	10-FEB-20
Uranium (U)-Total			104.9		%		80-120	10-FEB-20
Zinc (Zn)-Total			101.6		%		80-120	10-FEB-20
WG3271599-1	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	10-FEB-20
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	10-FEB-20
Arsenic (As)-Total			<0.00010		mg/L		0.0001	10-FEB-20
Barium (Ba)-Total			<0.00010		mg/L		0.0001	10-FEB-20
Boron (B)-Total			<0.010		mg/L		0.01	10-FEB-20
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	10-FEB-20
Calcium (Ca)-Total			<0.050		mg/L		0.05	10-FEB-20
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	10-FEB-20
Copper (Cu)-Total			<0.00050		mg/L		0.0005	10-FEB-20
Iron (Fe)-Total			<0.010		mg/L		0.01	10-FEB-20
Lead (Pb)-Total			<0.000050		mg/L		0.00005	10-FEB-20
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	10-FEB-20
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	10-FEB-20
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	10-FEB-20
Potassium (K)-Total			<0.050		mg/L		0.05	10-FEB-20
Selenium (Se)-Total			<0.000050		mg/L		0.00005	10-FEB-20
Silver (Ag)-Total			<0.000010		mg/L		0.00001	10-FEB-20
Sodium (Na)-Total			<0.050		mg/L		0.05	10-FEB-20
Uranium (U)-Total			<0.000010		mg/L		0.00001	10-FEB-20
Zinc (Zn)-Total			<0.0030		mg/L		0.003	10-FEB-20
WG3271599-5	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	10-FEB-20
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	10-FEB-20
Arsenic (As)-Total			<0.00010		mg/L		0.0001	10-FEB-20
Barium (Ba)-Total			<0.00010		mg/L		0.0001	10-FEB-20
Boron (B)-Total			<0.010		mg/L		0.01	10-FEB-20
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	10-FEB-20
Calcium (Ca)-Total			<0.050		mg/L		0.05	10-FEB-20
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	10-FEB-20
Copper (Cu)-Total			<0.00050		mg/L		0.0005	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 9 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-CL		Water						
Batch	R4991763							
WG3271599-5	MB							
Iron (Fe)-Total			<0.010		mg/L		0.01	10-FEB-20
Lead (Pb)-Total			<0.000050		mg/L		0.00005	10-FEB-20
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	10-FEB-20
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	10-FEB-20
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	10-FEB-20
Potassium (K)-Total			<0.050		mg/L		0.05	10-FEB-20
Selenium (Se)-Total			<0.000050		mg/L		0.00005	10-FEB-20
Silver (Ag)-Total			<0.000010		mg/L		0.00001	10-FEB-20
Sodium (Na)-Total			<0.050		mg/L		0.05	10-FEB-20
Uranium (U)-Total			<0.000010		mg/L		0.00001	10-FEB-20
Zinc (Zn)-Total			<0.0030		mg/L		0.003	10-FEB-20
MICROCYSTIN-WP		Water						
Batch	R4995304							
WG3274131-2	LCS							
Microcystin			71.0		%		70-130	12-FEB-20
WG3274131-1	MB							
Microcystin			<0.20		ug/L		0.2	12-FEB-20
MISCSCR-WT		Water						
Batch	R4993034							
WG3272163-2	LCS							
Trifluralin			89.6		%		60-130	10-FEB-20
Triallate			97.1		%		60-130	10-FEB-20
Fluazifop-p-butyl			107.8		%		50-150	10-FEB-20
Diclofop-methyl			96.8		%		60-140	10-FEB-20
Ethalfuralin			104.8		%		50-150	10-FEB-20
WG3272163-1	MB							
Trifluralin			<0.00010		mg/L		0.0001	10-FEB-20
Triallate			<0.00010		mg/L		0.0001	10-FEB-20
Fluazifop-p-butyl			<0.00010		mg/L		0.0001	10-FEB-20
Diclofop-methyl			<0.00010		mg/L		0.0001	10-FEB-20
Ethalfuralin			<0.00010		mg/L		0.0001	10-FEB-20
Surrogate: D14-Terphenyl			71.8		%		40-130	10-FEB-20
MTBE-CL		Water						



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 11 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO3-IC-N-CL								
Batch R4991777								
WG3271946-1 MB								
Nitrate (as N)			<0.020		mg/L		0.02	06-FEB-20
WG3271946-4 MS		L2413935-1						
Nitrate (as N)			117.4		%		75-125	06-FEB-20
NTA-WT								
Batch R4994009								
WG3273568-2 LCS								
Nitritotriacetic Acid (NTA)			98.4		%		75-125	11-FEB-20
WG3273568-1 MB								
Nitritotriacetic Acid (NTA)			<0.20		mg/L		0.2	11-FEB-20
PARAQUAT-WT								
Batch R4994987								
WG3272852-3 DUP		L2413935-1						
Paraquat		<1.0	<1.0	RPD-NA	ug/L	N/A	30	11-FEB-20
WG3272852-2 LCS								
Paraquat			108.4		%		70-130	11-FEB-20
WG3272852-1 MB								
Paraquat			<1.0		ug/L		1	11-FEB-20
WG3272852-4 MS		L2413935-1						
Paraquat			74.8		%		70-130	11-FEB-20
PEST-MISC-WT								
Batch R4993034								
WG3272163-2 LCS								
Alachlor			110.0		%		60-130	10-FEB-20
Ametryn			97.3		%		60-130	10-FEB-20
Atrazine			79.7		%		60-130	10-FEB-20
Atrazine Desethyl			55.9		%		50-130	10-FEB-20
Azinphos-methyl			86.0		%		60-140	10-FEB-20
Bendiocarb			106.6		%		50-140	10-FEB-20
Carbaryl			105.1		%		50-140	10-FEB-20
Carbofuran			110.1		%		60-140	10-FEB-20
Chlorpyrifos			91.9		%		60-130	10-FEB-20
Cyanazine			103.3		%		50-140	10-FEB-20
Diazinon			83.9		%		60-130	10-FEB-20
Diclofop-methyl			96.8		%		60-140	10-FEB-20
Dimethoate			87.7		%		60-130	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 12 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-WT		Water						
Batch	R4993034							
WG3272163-2	LCS							
Malathion			80.3		%		60-130	10-FEB-20
Methyl Parathion			84.3		%		60-130	10-FEB-20
Metolachlor			102.0		%		60-130	10-FEB-20
Metribuzin			88.4		%		60-130	10-FEB-20
Parathion			102.6		%		60-140	10-FEB-20
Phorate			94.9		%		30-140	10-FEB-20
Prometon			98.3		%		60-130	10-FEB-20
Prometryne			95.7		%		60-130	10-FEB-20
Propazine			93.1		%		60-130	10-FEB-20
Simazine			97.4		%		60-130	10-FEB-20
Temephos			92.5		%		50-140	10-FEB-20
Terbufos			89.0		%		60-130	10-FEB-20
Terbutryn			82.7		%		60-130	10-FEB-20
Triallate			97.1		%		60-130	10-FEB-20
Trifluralin			89.6		%		60-130	10-FEB-20
WG3272163-1	MB							
Alachlor			<0.10		ug/L		0.1	10-FEB-20
Ametryn			<0.10		ug/L		0.1	10-FEB-20
Atrazine			<0.10		ug/L		0.1	10-FEB-20
Atrazine Desethyl			<0.10		ug/L		0.1	10-FEB-20
Azinphos-methyl			<0.10		ug/L		0.1	10-FEB-20
Bendiocarb			<0.50		ug/L		0.5	10-FEB-20
Carbaryl			<0.50		ug/L		0.5	10-FEB-20
Carbofuran			<0.50		ug/L		0.5	10-FEB-20
Chlorpyrifos			<0.10		ug/L		0.1	10-FEB-20
Cyanazine			<0.10		ug/L		0.1	10-FEB-20
Diazinon			<0.10		ug/L		0.1	10-FEB-20
Diclofop-methyl			<0.10		ug/L		0.1	10-FEB-20
Dimethoate			<0.10		ug/L		0.1	10-FEB-20
Malathion			<0.10		ug/L		0.1	10-FEB-20
Methyl Parathion			<0.10		ug/L		0.1	10-FEB-20
Metolachlor			<0.10		ug/L		0.1	10-FEB-20
Metribuzin			<1.0		ug/L		1	10-FEB-20
Parathion			<0.10		ug/L		0.1	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 13 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-MISC-WT		Water						
Batch	R4993034							
WG3272163-1	MB							
Phorate			<0.10		ug/L		0.1	10-FEB-20
Prometon			<0.10		ug/L		0.1	10-FEB-20
Prometryne			<0.10		ug/L		0.1	10-FEB-20
Propazine			<0.10		ug/L		0.1	10-FEB-20
Simazine			<0.10		ug/L		0.1	10-FEB-20
Temephos			<1.0		ug/L		1	10-FEB-20
Terbufos			<0.10		ug/L		0.1	10-FEB-20
Terbutryn			<0.10		ug/L		0.1	10-FEB-20
Triallate			<0.10		ug/L		0.1	10-FEB-20
Trifluralin			<0.10		ug/L		0.1	10-FEB-20
Surrogate: 2-Fluorobiphenyl			83.7		%		40-130	10-FEB-20
Surrogate: d14-Terphenyl			71.8		%		40-130	10-FEB-20
PEST-OC-WT		Water						
Batch	R4993611							
WG3272163-2	LCS							
Aldrin			73.4		%		50-150	11-FEB-20
a-chlordane			83.4		%		50-150	11-FEB-20
g-chlordane			83.9		%		50-150	11-FEB-20
alpha-BHC			95.1		%		50-150	11-FEB-20
beta-BHC			88.8		%		50-150	11-FEB-20
delta-BHC			89.2		%		50-150	11-FEB-20
o,p-DDD			77.8		%		50-150	11-FEB-20
pp-DDD			70.5		%		50-150	11-FEB-20
o,p-DDE			69.7		%		50-150	11-FEB-20
pp-DDE			59.2		%		50-150	11-FEB-20
op-DDT			73.1		%		50-150	11-FEB-20
pp-DDT			75.5		%		50-150	11-FEB-20
Dieldrin			102.3		%		50-150	11-FEB-20
alpha-Endosulfan			93.9		%		50-150	11-FEB-20
beta-Endosulfan			92.2		%		50-150	11-FEB-20
Endosulfan Sulfate			86.3		%		50-150	11-FEB-20
Endrin			142.8		%		50-150	11-FEB-20
Endrin Aldehyde			59.1		%		50-150	11-FEB-20
Hexachlorobenzene			76.9		%		40-130	11-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 14 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-WT		Water						
Batch	R4993611							
WG3272163-2	LCS							
Heptachlor			75.9		%		50-150	11-FEB-20
Heptachlor Epoxide			96.0		%		50-150	11-FEB-20
Lindane			95.9		%		50-150	11-FEB-20
Methoxychlor			100.5		%		50-150	11-FEB-20
Mirex			51.2		%		50-150	11-FEB-20
Oxychlorane			87.2		%		50-150	11-FEB-20
WG3272163-1	MB							
Aldrin			<0.10		ug/L		0.1	11-FEB-20
a-chlordane			<0.10		ug/L		0.1	11-FEB-20
g-chlordane			<0.10		ug/L		0.1	11-FEB-20
alpha-BHC			<0.10		ug/L		0.1	11-FEB-20
beta-BHC			<0.10		ug/L		0.1	11-FEB-20
delta-BHC			<0.10		ug/L		0.1	11-FEB-20
o,p-DDD			<0.10		ug/L		0.1	11-FEB-20
pp-DDD			<0.10		ug/L		0.1	11-FEB-20
o,p-DDE			<0.10		ug/L		0.1	11-FEB-20
pp-DDE			<0.10		ug/L		0.1	11-FEB-20
op-DDT			<0.10		ug/L		0.1	11-FEB-20
pp-DDT			<0.10		ug/L		0.1	11-FEB-20
Dieldrin			<0.10		ug/L		0.1	11-FEB-20
alpha-Endosulfan			<0.10		ug/L		0.1	11-FEB-20
beta-Endosulfan			<0.10		ug/L		0.1	11-FEB-20
Endosulfan Sulfate			<0.10		ug/L		0.1	11-FEB-20
Endrin			<0.10		ug/L		0.1	11-FEB-20
Endrin Aldehyde			<0.10		ug/L		0.1	11-FEB-20
Hexachlorobenzene			<0.10		ug/L		0.1	11-FEB-20
Heptachlor			<0.10		ug/L		0.1	11-FEB-20
Heptachlor Epoxide			<0.10		ug/L		0.1	11-FEB-20
Lindane			<0.10		ug/L		0.1	11-FEB-20
Methoxychlor			<0.10		ug/L		0.1	11-FEB-20
Mirex			<0.10		ug/L		0.1	11-FEB-20
Oxychlorane			<0.10		ug/L		0.1	11-FEB-20
Surrogate: 2-Fluorobiphenyl			96.7		%		40-130	11-FEB-20
Surrogate: d14-Terphenyl			123.3		%		40-130	11-FEB-20

Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 15 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH/EC/ALK-CL		Water						
Batch	R4991818							
WG3271983-3	DUP	L2413935-1						
pH		8.27	8.30	J	pH	0.03	0.2	06-FEB-20
Conductivity (EC)		354	357		uS/cm	0.8	10	06-FEB-20
Bicarbonate (HCO3)		169	161		mg/L	5.1	20	06-FEB-20
Carbonate (CO3)		<5.0	<5.0	RPD-NA	mg/L	N/A	20	06-FEB-20
Hydroxide (OH)		<5.0	<5.0	RPD-NA	mg/L	N/A	20	06-FEB-20
Alkalinity, Total (as CaCO3)		139	134		mg/L	3.9	20	06-FEB-20
WG3271983-2	LCS							
Conductivity (EC)			97.4		%		90-110	06-FEB-20
Alkalinity, Total (as CaCO3)			97.6		%		85-115	06-FEB-20
WG3271983-1	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	06-FEB-20
SO4-IC-N-CL		Water						
Batch	R4991777							
WG3271946-3	DUP	L2413935-1						
Sulfate (SO4)		51.4	51.5		mg/L	0.1	20	06-FEB-20
WG3271946-2	LCS							
Sulfate (SO4)			104.7		%		90-110	06-FEB-20
WG3271946-1	MB							
Sulfate (SO4)			<0.30		mg/L		0.3	06-FEB-20
WG3271946-4	MS	L2413935-1						
Sulfate (SO4)			109.2		%		75-125	06-FEB-20
SULPHIDE-CFA-ED		Water						
Batch	R4995245							
WG3273931-6	LCS							
Sulphide (as S)			90.4		%		75-125	11-FEB-20
WG3273931-5	MB							
Sulphide (as S)			<0.0015		mg/L		0.0015	11-FEB-20
THM-PT-MS-CL		Water						
Batch	R4993286							
WG3273541-3	LCS							
Chloroform			88.9		%		70-130	10-FEB-20
Bromodichloromethane			90.8		%		70-130	10-FEB-20
Dibromochloromethane			92.3		%		70-130	10-FEB-20
Bromoform			101.6		%		70-130	10-FEB-20
WG3273541-1	MB							
Chloroform			<0.0010		mg/L		0.001	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 16 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
THM-PT-MS-CL		Water						
Batch	R4993286							
WG3273541-1	MB							
Bromodichloromethane			<0.0010		mg/L		0.001	10-FEB-20
Dibromochloromethane			<0.0010		mg/L		0.001	10-FEB-20
Bromoform			<0.0050		mg/L		0.005	10-FEB-20
WG3273541-2	MB							
Chloroform			<0.0010		mg/L		0.001	10-FEB-20
Bromodichloromethane			<0.0010		mg/L		0.001	10-FEB-20
Dibromochloromethane			<0.0010		mg/L		0.001	10-FEB-20
Bromoform			<0.0050		mg/L		0.005	10-FEB-20
VOC-HS-MS-CL		Water						
Batch	R4993286							
WG3273541-4	DUP	L2413935-1						
1,1,1,2-Tetrachloroethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
1,1,1-Trichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
1,1,2,2-Tetrachloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
1,1,2-Trichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
1,1-Dichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
1,1-Dichloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
1,1-Dichloropropene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
1,2,3-Trichlorobenzene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
1,2,3-Trichloropropane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
1,2,4-Trichlorobenzene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
1,2,4-Trimethylbenzene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
1,2-Dibromo-3-chloropropane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
1,2-Dichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
1,2-Dichloroethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
1,2-Dichloropropane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
1,3,5-Trimethylbenzene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
1,3-Dichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
1,3-Dichloropropane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
1,4-Dichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
2,2-Dichloropropane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
2-Chlorotoluene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
4-Chlorotoluene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
p-Isopropyltoluene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	10-FEB-20

Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 17 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HS-MS-CL								
	Water							
Batch	R4993286							
WG3273541-4	DUP	L2413935-1						
Benzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Bromobenzene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
Bromochloromethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
Bromodichloromethane		0.00124	0.00101		mg/L	20	30	10-FEB-20
Bromoform		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Bromomethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
Carbon tetrachloride		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Chlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Chloroethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
Chloroform		0.00289	0.00237		mg/L	20	30	10-FEB-20
Chloromethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
cis-1,2-Dichloroethene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
cis-1,3-Dichloropropene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Dibromochloromethane		0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Dibromomethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Dichlorodifluoromethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Ethylbenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Ethylene dibromide		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Hexachlorobutadiene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
Isopropylbenzene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
m+p-Xylenes		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Methylene chloride		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
n-Butylbenzene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
n-Propylbenzene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
o-Xylene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
sec-Butylbenzene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
Styrene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
tert-Butylbenzene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
Tetrachloroethylene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Toluene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
trans-1,2-Dichloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
trans-1,3-Dichloropropene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20
Trichloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
Trichlorofluoromethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 18 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HS-MS-CL								
	Water							
Batch	R4993286							
WG3273541-4	DUP	L2413935-1						
Vinyl chloride		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	10-FEB-20
WG3273541-3	LCS							
1,1,1,2-Tetrachloroethane			107.0		%		70-130	10-FEB-20
1,1,1-Trichloroethane			85.6		%		70-130	10-FEB-20
1,1,2,2-Tetrachloroethane			106.5		%		70-130	10-FEB-20
1,1,2-Trichloroethane			96.0		%		70-130	10-FEB-20
1,1-Dichloroethane			90.2		%		70-130	10-FEB-20
1,1-Dichloroethene			86.3		%		70-130	10-FEB-20
1,1-Dichloropropene			83.9		%		70-130	10-FEB-20
1,2,3-Trichlorobenzene			113.3		%		70-130	10-FEB-20
1,2,3-Trichloropropane			117.3		%		70-130	10-FEB-20
1,2,4-Trichlorobenzene			110.4		%		70-130	10-FEB-20
1,2,4-Trimethylbenzene			110.9		%		70-130	10-FEB-20
1,2-Dibromo-3-chloropropane			121.2		%		70-130	10-FEB-20
1,2-Dichlorobenzene			109.1		%		70-130	10-FEB-20
1,2-Dichloroethane			94.8		%		70-130	10-FEB-20
1,2-Dichloropropane			90.2		%		70-130	10-FEB-20
1,3,5-Trimethylbenzene			112.3		%		70-130	10-FEB-20
1,3-Dichlorobenzene			106.0		%		70-130	10-FEB-20
1,3-Dichloropropane			96.4		%		70-130	10-FEB-20
1,4-Dichlorobenzene			110.2		%		70-130	10-FEB-20
2,2-Dichloropropane			81.9		%		70-130	10-FEB-20
2-Chlorotoluene			103.1		%		70-130	10-FEB-20
4-Chlorotoluene			109.7		%		70-130	10-FEB-20
p-Isopropyltoluene			107.3		%		50-150	10-FEB-20
Benzene			89.3		%		70-130	10-FEB-20
Bromobenzene			107.4		%		70-130	10-FEB-20
Bromochloromethane			93.4		%		70-130	10-FEB-20
Bromodichloromethane			90.8		%		70-130	10-FEB-20
Bromoform			101.6		%		70-130	10-FEB-20
Bromomethane			104.2		%		60-140	10-FEB-20
Carbon tetrachloride			84.1		%		70-130	10-FEB-20
Chlorobenzene			108.0		%		70-130	10-FEB-20
Chloroethane			110.4		%		60-140	10-FEB-20

Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 19 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HS-MS-CL		Water						
Batch	R4993286							
WG3273541-3	LCS							
Chloroform			88.9		%		70-130	10-FEB-20
Chloromethane			116.0		%		60-140	10-FEB-20
cis-1,2-Dichloroethene			87.0		%		70-130	10-FEB-20
cis-1,3-Dichloropropene			86.6		%		70-130	10-FEB-20
Dibromochloromethane			92.3		%		70-130	10-FEB-20
Dibromomethane			96.0		%		70-130	10-FEB-20
Dichlorodifluoromethane			130.3		%		60-140	10-FEB-20
Ethylbenzene			104.6		%		70-130	10-FEB-20
Ethylene dibromide			90.6		%		70-130	10-FEB-20
Hexachlorobutadiene			107.5		%		70-130	10-FEB-20
Isopropylbenzene			106.9		%		70-130	10-FEB-20
m+p-Xylenes			106.9		%		70-130	10-FEB-20
Methylene chloride			93.4		%		60-140	10-FEB-20
n-Butylbenzene			109.1		%		70-130	10-FEB-20
n-Propylbenzene			106.2		%		70-130	10-FEB-20
o-Xylene			107.0		%		70-130	10-FEB-20
sec-Butylbenzene			111.7		%		70-130	10-FEB-20
Styrene			94.0		%		70-130	10-FEB-20
tert-Butylbenzene			108.9		%		70-130	10-FEB-20
Tetrachloroethylene			88.8		%		70-130	10-FEB-20
Toluene			85.0		%		70-130	10-FEB-20
trans-1,2-Dichloroethene			87.0		%		70-130	10-FEB-20
trans-1,3-Dichloropropene			90.4		%		70-130	10-FEB-20
Trichloroethene			88.1		%		70-130	10-FEB-20
Trichlorofluoromethane			88.7		%		60-140	10-FEB-20
Vinyl chloride			107.3		%		60-140	10-FEB-20
WG3273541-1		MB						
1,1,1,2-Tetrachloroethane			<0.0010		mg/L		0.001	10-FEB-20
1,1,1-Trichloroethane			<0.00050		mg/L		0.0005	10-FEB-20
1,1,2,2-Tetrachloroethane			<0.00050		mg/L		0.0005	10-FEB-20
1,1,2-Trichloroethane			<0.00050		mg/L		0.0005	10-FEB-20
1,1-Dichloroethane			<0.00050		mg/L		0.0005	10-FEB-20
1,1-Dichloroethene			<0.00050		mg/L		0.0005	10-FEB-20
1,1-Dichloropropene			<0.0010		mg/L		0.001	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 20 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HS-MS-CL		Water						
Batch	R4993286							
WG3273541-1	MB							
1,2,3-Trichlorobenzene			<0.0010		mg/L		0.001	10-FEB-20
1,2,3-Trichloropropane			<0.00050		mg/L		0.0005	10-FEB-20
1,2,4-Trichlorobenzene			<0.0010		mg/L		0.001	10-FEB-20
1,2,4-Trimethylbenzene			<0.0010		mg/L		0.001	10-FEB-20
1,2-Dibromo-3-chloropropane			<0.0010		mg/L		0.001	10-FEB-20
1,2-Dichlorobenzene			<0.00050		mg/L		0.0005	10-FEB-20
1,2-Dichloroethane			<0.0010		mg/L		0.001	10-FEB-20
1,2-Dichloropropane			<0.00050		mg/L		0.0005	10-FEB-20
1,3,5-Trimethylbenzene			<0.0010		mg/L		0.001	10-FEB-20
1,3-Dichlorobenzene			<0.00050		mg/L		0.0005	10-FEB-20
1,3-Dichloropropane			<0.0010		mg/L		0.001	10-FEB-20
1,4-Dichlorobenzene			<0.00050		mg/L		0.0005	10-FEB-20
2,2-Dichloropropane			<0.0010		mg/L		0.001	10-FEB-20
2-Chlorotoluene			<0.0010		mg/L		0.001	10-FEB-20
4-Chlorotoluene			<0.0010		mg/L		0.001	10-FEB-20
p-Isopropyltoluene			<0.0010		mg/L		0.001	10-FEB-20
Benzene			<0.00050		mg/L		0.0005	10-FEB-20
Bromobenzene			<0.0010		mg/L		0.001	10-FEB-20
Bromochloromethane			<0.0010		mg/L		0.001	10-FEB-20
Bromodichloromethane			<0.00050		mg/L		0.0005	10-FEB-20
Bromoform			<0.00050		mg/L		0.0005	10-FEB-20
Bromomethane			<0.0010		mg/L		0.001	10-FEB-20
Carbon tetrachloride			<0.00050		mg/L		0.0005	10-FEB-20
Chlorobenzene			<0.00050		mg/L		0.0005	10-FEB-20
Chloroethane			<0.0010		mg/L		0.001	10-FEB-20
Chloroform			<0.00050		mg/L		0.0005	10-FEB-20
Chloromethane			<0.0010		mg/L		0.001	10-FEB-20
cis-1,2-Dichloroethene			<0.0010		mg/L		0.001	10-FEB-20
cis-1,3-Dichloropropene			<0.00050		mg/L		0.0005	10-FEB-20
Dibromochloromethane			<0.00050		mg/L		0.0005	10-FEB-20
Dibromomethane			<0.00050		mg/L		0.0005	10-FEB-20
Dichlorodifluoromethane			<0.00050		mg/L		0.0005	10-FEB-20
Ethylbenzene			<0.00050		mg/L		0.0005	10-FEB-20
Ethylene dibromide			<0.00050		mg/L		0.0005	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 21 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HS-MS-CL		Water						
Batch	R4993286							
WG3273541-1 MB								
Hexachlorobutadiene			<0.0010		mg/L		0.001	10-FEB-20
Isopropylbenzene			<0.0010		mg/L		0.001	10-FEB-20
m+p-Xylenes			<0.00050		mg/L		0.0005	10-FEB-20
Methylene chloride			<0.0010		mg/L		0.001	10-FEB-20
n-Butylbenzene			<0.0010		mg/L		0.001	10-FEB-20
n-Propylbenzene			<0.0010		mg/L		0.001	10-FEB-20
o-Xylene			<0.00050		mg/L		0.0005	10-FEB-20
sec-Butylbenzene			<0.0010		mg/L		0.001	10-FEB-20
Styrene			<0.00050		mg/L		0.0005	10-FEB-20
tert-Butylbenzene			<0.0010		mg/L		0.001	10-FEB-20
Tetrachloroethylene			<0.00050		mg/L		0.0005	10-FEB-20
Toluene			<0.00050		mg/L		0.0005	10-FEB-20
trans-1,2-Dichloroethene			<0.00050		mg/L		0.0005	10-FEB-20
trans-1,3-Dichloropropene			<0.0010		mg/L		0.001	10-FEB-20
Trichloroethene			<0.00050		mg/L		0.0005	10-FEB-20
Trichlorofluoromethane			<0.0010		mg/L		0.001	10-FEB-20
Vinyl chloride			<0.00050		mg/L		0.0005	10-FEB-20
Surrogate: 1,4-Difluorobenzene			98.3		%		70-130	10-FEB-20
Surrogate: 4-Bromofluorobenzene			87.5		%		70-130	10-FEB-20
WG3273541-2 MB								
1,1,1,2-Tetrachloroethane			<0.0010		mg/L		0.001	10-FEB-20
1,1,1-Trichloroethane			<0.00050		mg/L		0.0005	10-FEB-20
1,1,2,2-Tetrachloroethane			<0.00050		mg/L		0.0005	10-FEB-20
1,1,2-Trichloroethane			<0.00050		mg/L		0.0005	10-FEB-20
1,1-Dichloroethane			<0.00050		mg/L		0.0005	10-FEB-20
1,1-Dichloroethene			<0.00050		mg/L		0.0005	10-FEB-20
1,1-Dichloropropene			<0.0010		mg/L		0.001	10-FEB-20
1,2,3-Trichlorobenzene			<0.0010		mg/L		0.001	10-FEB-20
1,2,3-Trichloropropane			<0.00050		mg/L		0.0005	10-FEB-20
1,2,4-Trichlorobenzene			<0.0010		mg/L		0.001	10-FEB-20
1,2,4-Trimethylbenzene			<0.0010		mg/L		0.001	10-FEB-20
1,2-Dibromo-3-chloropropane			<0.0010		mg/L		0.001	10-FEB-20
1,2-Dichlorobenzene			<0.00050		mg/L		0.0005	10-FEB-20
1,2-Dichloroethane			<0.0010		mg/L		0.001	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 22 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HS-MS-CL		Water						
Batch	R4993286							
WG3273541-2	MB							
1,2-Dichloropropane			<0.00050		mg/L		0.0005	10-FEB-20
1,3,5-Trimethylbenzene			<0.0010		mg/L		0.001	10-FEB-20
1,3-Dichlorobenzene			<0.00050		mg/L		0.0005	10-FEB-20
1,3-Dichloropropane			<0.0010		mg/L		0.001	10-FEB-20
1,4-Dichlorobenzene			<0.00050		mg/L		0.0005	10-FEB-20
2,2-Dichloropropane			<0.0010		mg/L		0.001	10-FEB-20
2-Chlorotoluene			<0.0010		mg/L		0.001	10-FEB-20
4-Chlorotoluene			<0.0010		mg/L		0.001	10-FEB-20
p-Isopropyltoluene			<0.0010		mg/L		0.001	10-FEB-20
Benzene			<0.00050		mg/L		0.0005	10-FEB-20
Bromobenzene			<0.0010		mg/L		0.001	10-FEB-20
Bromochloromethane			<0.0010		mg/L		0.001	10-FEB-20
Bromodichloromethane			<0.00050		mg/L		0.0005	10-FEB-20
Bromoform			<0.00050		mg/L		0.0005	10-FEB-20
Bromomethane			<0.0010		mg/L		0.001	10-FEB-20
Carbon tetrachloride			<0.00050		mg/L		0.0005	10-FEB-20
Chlorobenzene			<0.00050		mg/L		0.0005	10-FEB-20
Chloroethane			<0.0010		mg/L		0.001	10-FEB-20
Chloroform			<0.00050		mg/L		0.0005	10-FEB-20
Chloromethane			<0.0010		mg/L		0.001	10-FEB-20
cis-1,2-Dichloroethene			<0.0010		mg/L		0.001	10-FEB-20
cis-1,3-Dichloropropene			<0.00050		mg/L		0.0005	10-FEB-20
Dibromochloromethane			<0.00050		mg/L		0.0005	10-FEB-20
Dibromomethane			<0.00050		mg/L		0.0005	10-FEB-20
Dichlorodifluoromethane			<0.00050		mg/L		0.0005	10-FEB-20
Ethylbenzene			<0.00050		mg/L		0.0005	10-FEB-20
Ethylene dibromide			<0.00050		mg/L		0.0005	10-FEB-20
Hexachlorobutadiene			<0.0010		mg/L		0.001	10-FEB-20
Isopropylbenzene			<0.0010		mg/L		0.001	10-FEB-20
m+p-Xylenes			<0.00050		mg/L		0.0005	10-FEB-20
Methylene chloride			<0.0010		mg/L		0.001	10-FEB-20
n-Butylbenzene			<0.0010		mg/L		0.001	10-FEB-20
n-Propylbenzene			<0.0010		mg/L		0.001	10-FEB-20
o-Xylene			<0.00050		mg/L		0.0005	10-FEB-20



Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 23 of 25

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-HS-MS-CL		Water						
Batch	R4993286							
WG3273541-2	MB							
sec-Butylbenzene			<0.0010		mg/L		0.001	10-FEB-20
Styrene			<0.00050		mg/L		0.0005	10-FEB-20
tert-Butylbenzene			<0.0010		mg/L		0.001	10-FEB-20
Tetrachloroethylene			<0.00050		mg/L		0.0005	10-FEB-20
Toluene			<0.00050		mg/L		0.0005	10-FEB-20
trans-1,2-Dichloroethene			<0.00050		mg/L		0.0005	10-FEB-20
trans-1,3-Dichloropropene			<0.0010		mg/L		0.001	10-FEB-20
Trichloroethene			<0.00050		mg/L		0.0005	10-FEB-20
Trichlorofluoromethane			<0.0010		mg/L		0.001	10-FEB-20
Vinyl chloride			<0.00050		mg/L		0.0005	10-FEB-20
Surrogate: 1,4-Difluorobenzene			98.5		%		70-130	10-FEB-20
Surrogate: 4-Bromofluorobenzene			85.3		%		70-130	10-FEB-20

Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 24 of 25

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
K	Matrix Spike recovery outside ALS DQO due to sample matrix effects.
M	A peak has been manually integrated.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L2413935

Report Date: 29-FEB-20

Page 25 of 25

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Inorganic Parameters							
Chlorine, Free	1	04-FEB-20 07:30	06-FEB-20 09:00	0.25	49	hours	EHTR-FM
Chlorine, Total	1	04-FEB-20 07:30	06-FEB-20 09:00	0.25	49	hours	EHTR-FM

Legend & Qualifier Definitions:

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).


Notes*:

Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2413935 were received on 04-FEB-20 14:00.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Report To:		Report Format / Distribution		Service Turn-Around Time (TAT) Requested (Rush for routine analysis subject to availability)																	
Company: Town of Cochrane (acct# 25461)		<input checked="" type="checkbox"/> COWQGC_ALS (PDF + Excel) <input type="checkbox"/> EDD: AEPMUN		<input checked="" type="radio"/> Regular (Standard Turnaround Times - Business Days)																	
Contact: Richard Gaida (403-851-2560)		Email 1: richard.gaida@cochrane.ca		<input type="radio"/> Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT																	
Address: 101 Ranchehouse Rd		Email 2:		<input type="radio"/> Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT																	
Cochrane, AB T4C 2K8		Email 3:		<input type="radio"/> Same Day or Weekend Emergency - Contact ALS to Confirm TAT																	
Phone: 403-851-2590 Fax:		Email 4:		Analysis Request																	
Invoice To Same as Report? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Client / Project Information		Please indicate below Filtered, Preserved or both (F, P, F/P)																	
Hardcopy of Invoice with Report? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Job #: Schedule 4 Monitoring (bi-annual)																			
Company:		PO / AFE:																			
Contact: richard.gaida@cochrane.ca		LSD:																			
Address:		Quote #: Q58367																			
Phone: Fax:		ALS Contact: Patryk Wojciak Sampler: Richard																			
Lab Work Order # (lab use only):																					
Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Algae-Cyanobacteria (WP)	BROMATE-KL	C-TOT-ORG.COLOUR.TRUE	CHLORAMINES-CL	CN-TOT-WT. HERBSCR-P-WT	DIURON. GLYPHOSATE (WT)	NDMA-HM-HRMS-BU	MET-TOT-ABT1-CL	MICROCYSTIN-WP	PEST-MISC, PEST-OC, NTA (WT)	NH3-F-CL. ROU-CL	PHN-ABT1-ED. SULPHIDE-CFA-B	CHLORATE + CHLORITE-KL	VOC-8260. XYLENES-CALC	THM-PT-MS-CL	(REP) WT-METHOXYCHLOR	Number of Containers
	WTP	01-Feb-20	07:30	Water	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
 L2413935-COFC																					
Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details																					
Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab. Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.																					
SHIPMENT RELEASE (client use)						SHIPMENT RECEPTION (lab use only)						SHIPMENT VERIFICATION (lab use only)									
Released by:	Date (dd-mm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ?											
						2															