

Your C.O.C. #: V019187

Attention:ANDREW WEAVER

ANDREW WEAVER MLA
LEGISLATURE
VICTORIA, BC
Canada

Report Date: 2016/03/01
Report #: R2137090
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B613143

Received: 2016/02/22, 15:30

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Elements by ICPMS (total)	5	2016/02/25	2016/02/25	BBY7SOP-00001	EPA 6020a R1 m
Moisture	5	2016/02/24	2016/02/25	BBY8SOP-00017	BC MOE Lab Manual
pH (2:1 DI Water Extract)	5	2016/02/25	2016/02/25	BBY6SOP-00028	BCMOE BCLM Mar2005 m
EPH in Soil by GC/FID	5	2016/02/24	2016/02/26	BBY8SOP-00029	BCMOE EPH s 07/99 m
VOCs, VH, F1, LH in Soil by HS GC/MS	5	2016/02/24	2016/02/26	BBY8-SOP-00009	EPA 8260c R3 m
Volatile HC-BTEX for Soil	4	N/A	2016/02/26	BBY WI-00033	Auto Calc
Volatile HC-BTEX for Soil	1	N/A	2016/02/29	BBY WI-00033	Auto Calc

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.

Encryption Key

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

Debbie Nordbruket, Project Manager

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B613143
Report Date: 2016/03/01

ANDREW WEAVER MLA

PHYSICAL TESTING (SOIL)

Maxxam ID		OD7483	OD7484	OD7485	OD7486	OD7487		
Sampling Date		2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00		
COC Number		V019187	V019187	V019187	V019187	V019187		
	UNITS	1	2	3	4	5	RDL	QC Batch
Physical Properties								
Moisture	%	16	18	44	19	33	0.30	8200105
RDL = Reportable Detection Limit								

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ANDREW WEAVER MLA

TOTAL PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID		OD7483	OD7484	OD7485	OD7486	OD7487		
Sampling Date		2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00		
COC Number		V019187	V019187	V019187	V019187	V019187		
	UNITS	1	2	3	4	5	RDL	QC Batch
Hydrocarbons								
EPH (C10-C19)	mg/kg	<100	<100	<100	<100	<100	100	8202116
EPH (C19-C32)	mg/kg	<100	<100	<100	<100	<100	100	8202116
Surrogate Recovery (%)								
O-TERPHENYL (sur.)	%	84	89	84	84	88		8202116
RDL = Reportable Detection Limit								

CSR/CCME METALS IN SOIL (SOIL)

Maxxam ID		OD7483	OD7484	OD7485	OD7486	OD7487		
Sampling Date		2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00		
COC Number		V019187	V019187	V019187	V019187	V019187		
	UNITS	1	2	3	4	5	RDL	QC Batch
Physical Properties								
Soluble (2:1) pH	pH	8.16	10.7	11.0	7.81	6.86	N/A	8200422
Total Metals by ICPMS								
Total Aluminum (Al)	mg/kg	19800	20000	19300	21200	17300	100	8200396
Total Antimony (Sb)	mg/kg	1.14	4.96	5.40	0.51	0.60	0.10	8200396
Total Arsenic (As)	mg/kg	4.50	7.09	6.86	4.81	4.43	0.50	8200396
Total Barium (Ba)	mg/kg	123	251	322	120	73.0	0.10	8200396
Total Beryllium (Be)	mg/kg	<0.40	0.45	0.43	<0.40	<0.40	0.40	8200396
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	0.12	0.10	<0.10	0.10	8200396
Total Cadmium (Cd)	mg/kg	0.178	0.354	0.541	0.225	0.174	0.050	8200396
Total Calcium (Ca)	mg/kg	16600	52600	96200	8110	5820	100	8200396
Total Chromium (Cr)	mg/kg	34.0	30.0	32.0	42.0	30.2	1.0	8200396
Total Cobalt (Co)	mg/kg	9.75	10.7	11.1	10.9	10.1	0.30	8200396
Total Copper (Cu)	mg/kg	40.2	63.6	84.7	38.9	35.8	0.50	8200396
Total Iron (Fe)	mg/kg	26100	26200	23900	29800	89800	100	8200396
Total Lead (Pb)	mg/kg	20.8	31.6	13.4	61.6	13.0	0.10	8200396
Total Lithium (Li)	mg/kg	11.9	11.6	8.7	16.5	9.2	5.0	8200396
Total Magnesium (Mg)	mg/kg	6720	6920	5930	7530	5730	100	8200396
Total Manganese (Mn)	mg/kg	419	416	405	493	500	0.20	8200396
Total Mercury (Hg)	mg/kg	0.055	<0.050	<0.050	0.066	0.078	0.050	8200396
Total Molybdenum (Mo)	mg/kg	0.56	0.79	1.89	0.44	0.69	0.10	8200396
Total Nickel (Ni)	mg/kg	25.0	22.8	18.4	34.1	23.2	0.80	8200396
Total Phosphorus (P)	mg/kg	680	522	1470	634	518	10	8200396
Total Potassium (K)	mg/kg	850	797	306	1280	549	100	8200396
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8200396
Total Silver (Ag)	mg/kg	0.117	0.243	0.363	0.367	0.087	0.050	8200396
Total Sodium (Na)	mg/kg	259	442	196	408	233	100	8200396
Total Strontium (Sr)	mg/kg	79.4	160	86.2	51.3	33.4	0.10	8200396
Total Thallium (Tl)	mg/kg	0.072	0.062	0.085	0.093	<0.050	0.050	8200396
Total Tin (Sn)	mg/kg	1.60	6.35	7.33	3.38	0.75	0.10	8200396
Total Titanium (Ti)	mg/kg	1010	1220	1090	1030	1040	1.0	8200396
Total Uranium (U)	mg/kg	0.480	0.843	1.49	0.525	0.331	0.050	8200396
Total Vanadium (V)	mg/kg	65.5	66.5	51.7	71.8	61.5	2.0	8200396
Total Zinc (Zn)	mg/kg	92.7	173	241	98.7	49.1	1.0	8200396
Total Zirconium (Zr)	mg/kg	2.62	5.96	9.74	2.22	3.33	0.50	8200396
RDL = Reportable Detection Limit								
N/A = Not Applicable								

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ANDREW WEAVER MLA

CSR VOC + VPH IN SOIL (SOIL)

Maxxam ID		OD7483	OD7484	OD7485	OD7486	OD7487		
Sampling Date		2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00		
COC Number		V019187	V019187	V019187	V019187	V019187		
	UNITS	1	2	3	4	5	RDL	QC Batch
Volatiles								
VPH (VH6 to 10 - BTEX)	mg/kg	<10	<10	<10	<10	<10	10	8198772
Vinyl chloride	mg/kg	<0.060	<0.060	<0.060	<0.060	<0.060	0.060	8200877
Bromomethane	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	8200877
Chloroethane	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8200877
Trichlorofluoromethane	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8200877
1,1-dichloroethene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
Dichloromethane	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8200877
trans-1,2-dichloroethene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
1,1-dichloroethane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
cis-1,2-dichloroethene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
Chloroform	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	8200877
1,1,1-trichloroethane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
1,2-dichloroethane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
Carbon tetrachloride	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8200877
Methyl-tert-butylether (MTBE)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	8200877
1,2-dichloropropane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
Trichloroethene	mg/kg	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	0.0090	8200877
Bromodichloromethane	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	8200877
cis-1,3-dichloropropene	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	8200877
trans-1,3-dichloropropene	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	8200877
1,1,2-trichloroethane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
Toluene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	8200877
Chlorodibromomethane	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	8200877
1,2-dibromoethane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
Tetrachloroethene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
Chlorobenzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
1,1,1,2-tetrachloroethane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8200877
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8200877
Bromoform	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	8200877
Styrene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	8200877
o-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8200877
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8200877
1,1,2,2-tetrachloroethane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
1,2-dichlorobenzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
1,3-dichlorobenzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
RDL = Reportable Detection Limit								

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Maxxam ID		OD7483	OD7484	OD7485	OD7486	OD7487		
Sampling Date		2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00	2016/02/19 10:00		
COC Number		V019187	V019187	V019187	V019187	V019187		
	UNITS	1	2	3	4	5	RDL	QC Batch
1,4-dichlorobenzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
1,2,3-trichlorobenzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
Hexachlorobutadiene	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8200877
1,2,4-trichlorobenzene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	8200877
VH C6-C10	mg/kg	<10	<10	<10	<10	<10	10	8200877
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	99	102	102	103	100		8200877
4-Bromofluorobenzene (sur.)	%	104	106	108	110	94		8200877
D10-ETHYLBENZENE (sur.)	%	122	122	128	128	106		8200877
D4-1,2-Dichloroethane (sur.)	%	108	113	114	113	95		8200877
RDL = Reportable Detection Limit								

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ANDREW WEAVER MLA

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B613143
Report Date: 2016/03/01

QUALITY ASSURANCE REPORT

ANDREW WEAVER MLA

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8200877	1,4-Difluorobenzene (sur.)	2016/02/26	102	70 - 130	100	70 - 130	102	%				
8200877	4-Bromofluorobenzene (sur.)	2016/02/26	119	70 - 130	115	70 - 130	108	%				
8200877	D10-ETHYLBENZENE (sur.)	2016/02/26	121	50 - 130	107	50 - 130	116	%				
8200877	D4-1,2-Dichloroethane (sur.)	2016/02/26	126	70 - 130	121	70 - 130	108	%				
8202116	O-TERPHENYL (sur.)	2016/02/26	96	50 - 130	99	50 - 130	98	%				
8200105	Moisture	2016/02/25					<0.30	%	2.3	20		
8200396	Total Aluminum (Al)	2016/02/25					<100	mg/kg	0.21	35	107	70 - 130
8200396	Total Antimony (Sb)	2016/02/25	97	75 - 125	94	75 - 125	<0.10	mg/kg	NC	30	99	70 - 130
8200396	Total Arsenic (As)	2016/02/25	116	75 - 125	95	75 - 125	<0.50	mg/kg	5.0	30	94	70 - 130
8200396	Total Barium (Ba)	2016/02/25	NC	75 - 125	99	75 - 125	<0.10	mg/kg	2.2	35	103	70 - 130
8200396	Total Beryllium (Be)	2016/02/25	98	75 - 125	99	75 - 125	<0.40	mg/kg	NC	30		
8200396	Total Bismuth (Bi)	2016/02/25					<0.10	mg/kg	NC	30		
8200396	Total Cadmium (Cd)	2016/02/25	97	75 - 125	99	75 - 125	<0.050	mg/kg	NC	30	110	70 - 130
8200396	Total Calcium (Ca)	2016/02/25					<100	mg/kg	0.79	30	101	70 - 130
8200396	Total Chromium (Cr)	2016/02/25	96	75 - 125	98	75 - 125	<1.0	mg/kg	1.9	30	105	70 - 130
8200396	Total Cobalt (Co)	2016/02/25	91	75 - 125	100	75 - 125	<0.30	mg/kg	3.7	30	96	70 - 130
8200396	Total Copper (Cu)	2016/02/25	96	75 - 125	101	75 - 125	<0.50	mg/kg	1.2	30	96	70 - 130
8200396	Total Iron (Fe)	2016/02/25					<100	mg/kg	0.11	30	99	70 - 130
8200396	Total Lead (Pb)	2016/02/25	97	75 - 125	101	75 - 125	<0.10	mg/kg	5.6	35	99	70 - 130
8200396	Total Lithium (Li)	2016/02/25	101	75 - 125	97	75 - 125	<5.0	mg/kg	NC	30		
8200396	Total Magnesium (Mg)	2016/02/25					<100	mg/kg	0.85	30	100	70 - 130
8200396	Total Manganese (Mn)	2016/02/25	NC	75 - 125	101	75 - 125	<0.20	mg/kg	1.9	30	101	70 - 130
8200396	Total Mercury (Hg)	2016/02/25	102	75 - 125	101	75 - 125	<0.050	mg/kg	NC	35	103	70 - 130
8200396	Total Molybdenum (Mo)	2016/02/25	112	75 - 125	97	75 - 125	<0.10	mg/kg	4.7	35	116	70 - 130
8200396	Total Nickel (Ni)	2016/02/25	101	75 - 125	99	75 - 125	<0.80	mg/kg	3.1	30	92	70 - 130
8200396	Total Phosphorus (P)	2016/02/25					<10	mg/kg	0.46	30	93	70 - 130
8200396	Total Potassium (K)	2016/02/25					<100	mg/kg	5.9	35		
8200396	Total Selenium (Se)	2016/02/25	98	75 - 125	102	75 - 125	<0.50	mg/kg	NC	30		
8200396	Total Silver (Ag)	2016/02/25	98	75 - 125	101	75 - 125	<0.050	mg/kg	NC	35	99	60 - 140
8200396	Total Sodium (Na)	2016/02/25					<100	mg/kg	NC	35		
8200396	Total Strontium (Sr)	2016/02/25	NC	75 - 125	99	75 - 125	<0.10	mg/kg	0.11	35	101	70 - 130
8200396	Total Thallium (Tl)	2016/02/25	96	75 - 125	100	75 - 125	<0.050	mg/kg	NC	30	92	70 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

ANDREW WEAVER MLA

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8200396	Total Tin (Sn)	2016/02/25	95	75 - 125	90	75 - 125	<0.10	mg/kg	NC	35		
8200396	Total Titanium (Ti)	2016/02/25	NC	75 - 125	94	75 - 125	<1.0	mg/kg	6.9	35	103	70 - 130
8200396	Total Uranium (U)	2016/02/25	97	75 - 125	94	75 - 125	<0.050	mg/kg	4.0	30	116	70 - 130
8200396	Total Vanadium (V)	2016/02/25	98	75 - 125	97	75 - 125	<2.0	mg/kg	NC	30	101	70 - 130
8200396	Total Zinc (Zn)	2016/02/25	NC	75 - 125	112	75 - 125	<1.0	mg/kg	2.5	30	96	70 - 130
8200396	Total Zirconium (Zr)	2016/02/25					<0.50	mg/kg	1.6	30		
8200422	Soluble (2:1) pH	2016/02/25			101	97 - 103			0.55	N/A		
8200877	1,1,1,2-tetrachloroethane	2016/02/26	116	60 - 140	110	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,1,1-trichloroethane	2016/02/26	111	60 - 140	107	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,1,2,2-tetrachloroethane	2016/02/26	109	60 - 140	109	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,1,2-trichloroethane	2016/02/26	118	60 - 140	113	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,1-dichloroethane	2016/02/26	110	60 - 140	105	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,1-dichloroethene	2016/02/26	103	60 - 140	99	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,2,3-trichlorobenzene	2016/02/26	111	60 - 140	117	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,2,4-trichlorobenzene	2016/02/26	111	60 - 140	116	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,2-dibromoethane	2016/02/26	119	60 - 140	113	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,2-dichlorobenzene	2016/02/26	113	60 - 140	114	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,2-dichloroethane	2016/02/26	117	60 - 140	111	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,2-dichloropropane	2016/02/26	114	60 - 140	109	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,3-dichlorobenzene	2016/02/26	110	60 - 140	111	60 - 140	<0.025	mg/kg	NC	40		
8200877	1,4-dichlorobenzene	2016/02/26	113	60 - 140	113	60 - 140	<0.025	mg/kg	NC	40		
8200877	Benzene	2016/02/26	112	60 - 140	107	60 - 140	<0.0050	mg/kg	NC	40		
8200877	Bromodichloromethane	2016/02/26	111	60 - 140	107	60 - 140	<0.050	mg/kg	NC	40		
8200877	Bromoform	2016/02/26	110	60 - 140	108	60 - 140	<0.050	mg/kg	NC	40		
8200877	Bromomethane	2016/02/26	113	50 - 150	111	50 - 150	<0.30	mg/kg	NC	40		
8200877	Carbon tetrachloride	2016/02/26	113	60 - 140	110	60 - 140	<0.025	mg/kg	NC	40		
8200877	Chlorobenzene	2016/02/26	112	60 - 140	108	60 - 140	<0.025	mg/kg	NC	40		
8200877	Chlorodibromomethane	2016/02/26	119	60 - 140	113	60 - 140	<0.050	mg/kg	NC	40		
8200877	Chloroethane	2016/02/26	151 (1)	50 - 150	143	50 - 150	<0.10	mg/kg	NC	40		
8200877	Chloroform	2016/02/26	113	60 - 140	108	60 - 140	<0.050	mg/kg	NC	40		
8200877	cis-1,2-dichloroethene	2016/02/26	121	60 - 140	115	60 - 140	<0.025	mg/kg	NC	40		
8200877	cis-1,3-dichloropropene	2016/02/26	117	60 - 140	113	60 - 140	<0.050	mg/kg	NC	40		

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Report Date: 2016/03/01

QUALITY ASSURANCE REPORT(CONT'D)

ANDREW WEAVER MLA

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8200877	Dichloromethane	2016/02/26	110	60 - 140	103	60 - 140	<0.10	mg/kg	NC	40		
8200877	Ethylbenzene	2016/02/26	125	60 - 140	121	60 - 140	<0.010	mg/kg	NC	40		
8200877	Hexachlorobutadiene	2016/02/26	107	50 - 150	106	50 - 150	<0.20	mg/kg	NC	40		
8200877	m & p-Xylene	2016/02/26	127	60 - 140	122	60 - 140	<0.040	mg/kg	NC	40		
8200877	Methyl-tert-butylether (MTBE)	2016/02/26					<0.10	mg/kg	NC	40		
8200877	o-Xylene	2016/02/26	126	60 - 140	121	60 - 140	<0.040	mg/kg	NC	40		
8200877	Styrene	2016/02/26	127	60 - 140	121	60 - 140	<0.030	mg/kg	NC	40		
8200877	Tetrachloroethene	2016/02/26	114	60 - 140	111	60 - 140	<0.025	mg/kg	NC	40		
8200877	Toluene	2016/02/26	117	60 - 140	114	60 - 140	<0.020	mg/kg	NC	40		
8200877	trans-1,2-dichloroethene	2016/02/26	99	60 - 140	95	60 - 140	<0.025	mg/kg	NC	40		
8200877	trans-1,3-dichloropropene	2016/02/26	111	60 - 140	109	60 - 140	<0.050	mg/kg	NC	40		
8200877	Trichloroethene	2016/02/26	113	60 - 140	110	60 - 140	<0.0090	mg/kg	NC	40		
8200877	Trichlorofluoromethane	2016/02/26	126	50 - 150	120	50 - 150	<0.20	mg/kg	NC	40		
8200877	VH C6-C10	2016/02/26			116	60 - 140	<10	mg/kg	NC	40		
8200877	Vinyl chloride	2016/02/26	113	50 - 150	110	50 - 150	<0.060	mg/kg	NC	40		
8200877	Xylenes (Total)	2016/02/26					<0.040	mg/kg	NC	40		
8202116	EPH (C10-C19)	2016/02/26	104	50 - 130	107	50 - 130	<100	mg/kg	NC	40		
8202116	EPH (C19-C32)	2016/02/26	102	50 - 130	109	50 - 130	<100	mg/kg	NC	40		

N/A = Not Applicable

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.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

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 spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of 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 (one or both samples < 5x RDL).

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

Maxxam Job #: B613143
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VALIDATION SIGNATURE PAGE

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



Rob Reinert, Data Validation Coordinator

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.