

<p>RESULTS: Karla Reesor 403 807 2995 Peace River Area Monitoring Program Committee</p> <p>INVOICE: Office Manager</p>	<p style="text-align: center;">CLIENT SAMPLE ID PRAMP_RENO-2019-10-18</p> <p>Matrix Ambient Air</p> <p>CANISTER ID: 32240</p> <p>PRIORITY: Normal</p> <p>DESCRIPTION: NMHC trigger</p> <p>DATE SAMPLED: 17-Oct-19 0:00 DATE RECEIVED: 21-Oct-19</p> <p>REPORT CREATED: 07-Nov-19 REPORT NUMBER: 19100309</p> <p style="text-align: right;">VERSION: Version 01</p>
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Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
19100309-001	1-Butene	K, T, U	< 0.17 ppmv	0.17	NA-025	23-Oct-19
19100309-001	Acetylene	K, T, U	< 0.13 ppmv	0.13	NA-025	23-Oct-19
19100309-001	n-Butane	K, T, U	< 0.3 ppmv	0.3	NA-025	23-Oct-19
19100309-001	cis-2-Butene	K, T, U	< 0.07 ppmv	0.07	NA-025	23-Oct-19
19100309-001	Ethane	K, T, U	< 0.2 ppmv	0.2	NA-025	23-Oct-19
19100309-001	Ethylacetylene	K, T, U	< 0.10 ppmv	0.10	NA-025	23-Oct-19
19100309-001	Ethylene	K, T, U	< 0.12 ppmv	0.12	NA-025	23-Oct-19
19100309-001	Isobutane	K, T, U	< 0.2 ppmv	0.2	NA-025	23-Oct-19
19100309-001	Isobutylene	K, T, U	< 0.2 ppmv	0.2	NA-025	23-Oct-19
19100309-001	Methane		2.2 ppmv	0.2	NA-025	23-Oct-19
19100309-001	n-Propane	K, T, U	< 0.12 ppmv	0.12	NA-025	23-Oct-19
19100309-001	Propylene	K, T, U	< 0.2 ppmv	0.2	NA-025	23-Oct-19
19100309-001	Propyne	K, T, U	< 0.2 ppmv	0.2	NA-025	23-Oct-19
19100309-001	trans-2-Butene	K, T, U	< 0.15 ppmv	0.15	NA-025	23-Oct-19
19100309-001	2,5-Dimethylthiophene	K, T, U	< 0.5 ppbv	0.5	NA-024	22-Oct-19
19100309-001	2-Ethylthiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	22-Oct-19
19100309-001	2-Methylthiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	22-Oct-19
19100309-001	3-Methylthiophene	K, T, U	< 0.5 ppbv	0.5	NA-024	22-Oct-19

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PRAMP_RENO-2019-10-18	32240	Ambient Air	17-Oct-19	0:00
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REPORT NUMBER:	19100309	REPORT CREATED:	07-Nov-19	VERSION: Version 01

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
19100309-001	Butyl mercaptan	K, T, U	< 0.5 ppbv	0.5	NA-024	22-Oct-19
19100309-001	Carbon disulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	22-Oct-19
19100309-001	Carbonyl sulphide		0.5 ppbv	0.5	NA-024	22-Oct-19
19100309-001	Dimethyl disulphide		0.5 ppbv	0.3	NA-024	22-Oct-19
19100309-001	Dimethyl sulphide		1.2 ppbv	0.3	NA-024	22-Oct-19
19100309-001	Ethyl mercaptan	K, T, U	< 0.5 ppbv	0.5	NA-024	22-Oct-19
19100309-001	Ethyl sulphide	K, T, U	< 0.5 ppbv	0.5	NA-024	22-Oct-19
19100309-001	Hydrogen sulphide		1.5 ppbv	0.2	NA-024	22-Oct-19
19100309-001	Isobutyl mercaptan	K, T, U	< 0.5 ppbv	0.5	NA-024	22-Oct-19
19100309-001	Isopropyl mercaptan	K, T, U	< 0.5 ppbv	0.5	NA-024	22-Oct-19
19100309-001	Methyl mercaptan	K, T, U	< 0.3 ppbv	0.3	NA-024	22-Oct-19
19100309-001	Pentyl mercaptan	K, T, U	< 0.7 ppbv	0.7	NA-024	22-Oct-19
19100309-001	Propyl mercaptan	K, T, U	< 0.7 ppbv	0.7	NA-024	22-Oct-19
19100309-001	tert-Butyl mercaptan	K, T, U	< 0.5 ppbv	0.5	NA-024	22-Oct-19
19100309-001	Thiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	22-Oct-19
19100309-001	1,1,1-Trichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	1,1,2,2-Tetrachloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	1,1,2-Trichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	1,1-Dichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	1,1-Dichloroethylene	K, T, U	< 0.07 ppbv	0.07	AC-058	29-Oct-19
19100309-001	1,2,3-Trimethylbenzene	K, T, U	< 0.08 ppbv	0.08	AC-058	29-Oct-19
19100309-001	1,2,4-Trichlorobenzene	K, T, U	< 1.3 ppbv	1.3	AC-058	29-Oct-19
19100309-001	1,2,4-Trimethylbenzene		0.29 ppbv	0.08	AC-058	29-Oct-19
19100309-001	1,2-Dibromoethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	1,2-Dichlorobenzene	K, T, U	< 0.05 ppbv	0.05	AC-058	29-Oct-19

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19100309-001	1,2-Dichloroethane	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	1,2-Dichloropropane	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	1,3,5-Trimethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	1,3-Butadiene		1.19 ppbv	0.03	AC-058	29-Oct-19
19100309-001	1,3-Dichlorobenzene	K, T, U	< 0.5 ppbv	0.5	AC-058	29-Oct-19
19100309-001	1,4-Dichlorobenzene	K, T, U	< 0.7 ppbv	0.7	AC-058	29-Oct-19
19100309-001	1,4-Dioxane	K, T, U	< 0.7 ppbv	0.7	AC-058	29-Oct-19
19100309-001	1-Butene/Isobutylene		5.70 ppbv	0.03	AC-058	29-Oct-19
19100309-001	1-Hexene/2-Methyl-1-pentene	I	0.48 ppbv	0.03	AC-058	29-Oct-19
19100309-001	1-Pentene	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	2,2,4-Trimethylpentane	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	2,2-Dimethylbutane	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	2,3,4-Trimethylpentane	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	2,3-Dimethylbutane		0.29 ppbv	0.03	AC-058	29-Oct-19
19100309-001	2,3-Dimethylpentane		0.09 ppbv	0.03	AC-058	29-Oct-19
19100309-001	2,4-Dimethylpentane	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	2-Methylheptane		0.10 ppbv	0.02	AC-058	29-Oct-19
19100309-001	2-Methylhexane		0.07 ppbv	0.02	AC-058	29-Oct-19
19100309-001	2-Methylpentane		0.21 ppbv	0.02	AC-058	29-Oct-19
19100309-001	3-Methylheptane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	3-Methylhexane		0.10 ppbv	0.03	AC-058	29-Oct-19
19100309-001	3-Methylpentane		0.14 ppbv	0.02	AC-058	29-Oct-19
19100309-001	Acetone		30.7 ppbv	2.0	AC-058	29-Oct-19
19100309-001	Acrolein		5.5 ppbv	0.5	AC-058	29-Oct-19
19100309-001	Benzene		6.99 ppbv	0.02	AC-058	29-Oct-19

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19100309-001	Benzyl chloride	K, T, U	< 0.7 ppbv	0.7	AC-058	29-Oct-19
19100309-001	Bromodichloromethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Bromoform	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Bromomethane	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	Carbon disulfide	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	Carbon tetrachloride	I	0.14 ppbv	0.02	AC-058	29-Oct-19
19100309-001	Chlorobenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Chloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Chloroform	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Chloromethane		0.91 ppbv	0.03	AC-058	29-Oct-19
19100309-001	cis-1,2-Dichloroethene	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	cis-1,3-Dichloropropene	K, T, U	< 0.07 ppbv	0.07	AC-058	29-Oct-19
19100309-001	cis-2-Butene		0.72 ppbv	0.03	AC-058	29-Oct-19
19100309-001	cis-2-Pentene		0.48 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Cyclohexane		0.23 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Cyclopentane		1.06 ppbv	0.02	AC-058	29-Oct-19
19100309-001	Dibromochloromethane	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	Ethanol		8.1 ppbv	0.5	AC-058	29-Oct-19
19100309-001	Ethyl acetate	K, T, U	< 0.7 ppbv	0.7	AC-058	29-Oct-19
19100309-001	Ethylbenzene		0.52 ppbv	0.02	AC-058	29-Oct-19
19100309-001	Freon-11		0.55 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Freon-113	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	Freon-114	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Freon-12		0.76 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Hexachloro-1,3-butadiene	K, T, U	< 0.83 ppbv	0.83	AC-058	29-Oct-19

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19100309-001	Isobutane		2.57	ppbv	0.03	AC-058	29-Oct-19
19100309-001	Isopentane		1.53	ppbv	0.05	AC-058	29-Oct-19
19100309-001	Isoprene		0.57	ppbv	0.02	AC-058	29-Oct-19
19100309-001	Isopropyl alcohol		0.8	ppbv	0.7	AC-058	29-Oct-19
19100309-001	Isopropylbenzene		0.03	ppbv	0.02	AC-058	29-Oct-19
19100309-001	m,p-Xylene		0.79	ppbv	0.05	AC-058	29-Oct-19
19100309-001	m-Diethylbenzene	K, T, U	< 0.07	ppbv	0.07	AC-058	29-Oct-19
19100309-001	m-Ethyltoluene	I	0.26	ppbv	0.13	AC-058	29-Oct-19
19100309-001	Methyl butyl ketone	K, T, U	< 0.83	ppbv	0.83	AC-058	29-Oct-19
19100309-001	Methyl ethyl ketone		2.8	ppbv	0.5	AC-058	29-Oct-19
19100309-001	Methyl isobutyl ketone	K, T, U	< 0.7	ppbv	0.7	AC-058	29-Oct-19
19100309-001	Methyl methacrylate	K, T, U	< 0.12	ppbv	0.12	AC-058	29-Oct-19
19100309-001	Methyl tert butyl ether	K, T, U	< 0.05	ppbv	0.05	AC-058	29-Oct-19
19100309-001	Methylcyclohexane		0.14	ppbv	0.02	AC-058	29-Oct-19
19100309-001	Methylcyclopentane		0.17	ppbv	0.03	AC-058	29-Oct-19
19100309-001	Methylene chloride	K, T, U	< 0.5	ppbv	0.5	AC-058	29-Oct-19
19100309-001	n-Butane		2.88	ppbv	0.05	AC-058	29-Oct-19
19100309-001	n-Decane		0.22	ppbv	0.10	AC-058	29-Oct-19
19100309-001	n-Dodecane	K, T, U	< 0.7	ppbv	0.7	AC-058	29-Oct-19
19100309-001	n-Heptane		0.36	ppbv	0.02	AC-058	29-Oct-19
19100309-001	n-Hexane		0.47	ppbv	0.02	AC-058	29-Oct-19
19100309-001	n-Octane		0.25	ppbv	0.03	AC-058	29-Oct-19
19100309-001	n-Pentane		1.7	ppbv	0.2	AC-058	29-Oct-19
19100309-001	n-Propylbenzene		0.23	ppbv	0.08	AC-058	29-Oct-19
19100309-001	n-Undecane	K, T, U	< 0.8	ppbv	0.8	AC-058	29-Oct-19

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19100309-001	Naphthalene	K, T, U	< 0.8 ppbv	0.8	AC-058	29-Oct-19
19100309-001	n-Nonane		0.22 ppbv	0.02	AC-058	29-Oct-19
19100309-001	o-Ethyltoluene	I	0.15 ppbv	0.02	AC-058	29-Oct-19
19100309-001	o-Xylene		0.38 ppbv	0.02	AC-058	29-Oct-19
19100309-001	p-Diethylbenzene	K, T, U	< 0.07 ppbv	0.07	AC-058	29-Oct-19
19100309-001	p-Ethyltoluene	K, T, U	< 0.12 ppbv	0.12	AC-058	29-Oct-19
19100309-001	Styrene		0.63 ppbv	0.07	AC-058	29-Oct-19
19100309-001	Tetrachloroethylene	K, T, U	< 0.07 ppbv	0.07	AC-058	29-Oct-19
19100309-001	Tetrahydrofuran	K, T, U	< 0.7 ppbv	0.7	AC-058	29-Oct-19
19100309-001	Toluene		3.46 ppbv	0.02	AC-058	29-Oct-19
19100309-001	trans-1,2-Dichloroethylene	K, T, U	< 0.02 ppbv	0.02	AC-058	29-Oct-19
19100309-001	trans-1,3-Dichloropropylene	K, T, U	< 0.07 ppbv	0.07	AC-058	29-Oct-19
19100309-001	trans-2-Butene		0.94 ppbv	0.02	AC-058	29-Oct-19
19100309-001	trans-2-Pentene		0.47 ppbv	0.03	AC-058	29-Oct-19
19100309-001	Trichloroethylene	K, T, U	< 0.07 ppbv	0.07	AC-058	29-Oct-19
19100309-001	Vinyl acetate	K, T, U	< 0.7 ppbv	0.7	AC-058	29-Oct-19
19100309-001	Vinyl chloride	K, T, U	< 0.03 ppbv	0.03	AC-058	29-Oct-19



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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Revision History

Order ID	Ver	Date	Reason
19100309	01	07-Nov-19	Report created

Methods

Method	Description
AC-058	Determination of Volatile Organic Compounds in Ambient Air by Gas Chromatography Mass Spectrometry
NA-024	Analysis for Reduced Sulfur Compounds in Air Samples
NA-025	Determination of Light Hydrocarbons (C1C4) in Ambient Air by Gas Chromatography Flame Ionization Detector

Qualifiers

Data Qualifier	Translation
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B	Blank contamination; Analyte detected above the method reporting limit in an associated blank
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
J1	Reported value is estimated; Surrogate recoveries limits were exceeded
J2	Reported value is estimated; No known QC criteria for this component
J3	Reported value is estimated; The value failed to meet QC criteria for either precision or accuracy
J4	Reported value is estimated; The sample matrix interfered with the analysis
K	Off-scale low. Actual value is known to be less than the value given
L	Off-scale high. Actual value is known to be greater than value given
N	Non-target analyte; Tentatively identified compound (using mass spectroscopy)
Q	Sample held beyond the accepted holding time
R	Rejected data; Not suitable for the projects intended use
T	Value reported is less than the laboratory method detection limit
U	Compound was analyzed for but not detected
V	Analyte was detected in both the sample and the associated method blank



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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Order Comments

19100309

Send results to pramptech@prampairshed.ca. Unknowns to be reported.



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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Sample Comments

Result Comments

Note:

- 1. Results relate only to items tested and apply to the sample as received.*
- 2. This report shall not be reproduced, except in full, without the explicit approval of the laboratory.*