

<p>RESULTS: Karla Reesor PRAMP Committee</p> <p style="text-align: right;">403 807 2995</p>	<p>CLIENT SAMPLE ID PRAMP_RENO_20170907</p> <p>CANISTER ID 2643</p> <p>Matrix Ambient Air</p> <p>Priority Normal</p>
<p>INVOICE: PRAMP Committee Suite 91, 305 – 4625 Varsity Drive NW</p> <p>Calgary AB T3A 0Z9</p>	<p>DESCRIPTION:</p> <p>DATE SAMPLED: 07-Sep-17 19:00 DATE RECEIVED: 11-Sep-17</p> <p>REPORT CREATED: 25-Oct-17 REPORT NUMBER: 17090080</p> <p>VERSION: Version 01</p>

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
17090080-001	1-Butene	K, T, U	< 0.14 ppmv	0.14	NA-025	12-Sep-17
17090080-001	Acetylene	K, T, U	< 0.3 ppmv	0.3	NA-025	12-Sep-17
17090080-001	n-Butane	K, T, U	< 0.3 ppmv	0.3	NA-025	12-Sep-17
17090080-001	cis-2-Butene	K, T, U	< 0.1 ppmv	0.1	NA-025	12-Sep-17
17090080-001	Ethane	K, T, U	< 0.1 ppmv	0.1	NA-025	12-Sep-17
17090080-001	Ethylacetylene	K, T, U	< 0.08 ppmv	0.08	NA-025	12-Sep-17
17090080-001	Ethylene	K, T, U	< 0.3 ppmv	0.3	NA-025	12-Sep-17
17090080-001	Isobutane	K, T, U	< 0.1 ppmv	0.1	NA-025	12-Sep-17
17090080-001	Isobutylene	K, T, U	< 0.1 ppmv	0.1	NA-025	12-Sep-17
17090080-001	Methane		3.1 ppmv	0.1	NA-025	12-Sep-17
17090080-001	n-Propane	K, T, U	< 0.10 ppmv	0.10	NA-025	12-Sep-17
17090080-001	Propylene	K, T, U	< 0.1 ppmv	0.1	NA-025	12-Sep-17
17090080-001	Propyne	K, T, U	< 0.1 ppmv	0.1	NA-025	12-Sep-17
17090080-001	trans-2-Butene	K, T, U	< 0.12 ppmv	0.12	NA-025	12-Sep-17
17090080-001	2,5-Dimethylthiophene	K, T, U	< 0.4 ppbv	0.4	NA-024	13-Sep-17
17090080-001	2-Ethylthiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	13-Sep-17
17090080-001	2-Methylthiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	13-Sep-17
17090080-001	3-Methylthiophene	K, T, U	< 0.4 ppbv	0.4	NA-024	13-Sep-17

CLIENT SAMPLE ID PRAMP_RENO_20170907	CANISTER ID 2643	Matrix Ambient Air	DATE SAMPLED 07-Sep-17 19:00	
DESCRIPTION:				
REPORT NUMBER: 17090080	REPORT CREATED: 25-Oct-17	VERSION: Version 01		

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
17090080-001	Butyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	13-Sep-17
17090080-001	Carbon disulphide		0.3	ppbv	0.3	NA-024	13-Sep-17
17090080-001	Carbonyl sulphide		1.3	ppbv	0.4	NA-024	13-Sep-17
17090080-001	Dimethyl disulphide	K, T, U	< 0.3	ppbv	0.3	NA-024	13-Sep-17
17090080-001	Dimethyl sulphide		0.9	ppbv	0.3	NA-024	13-Sep-17
17090080-001	Ethyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	13-Sep-17
17090080-001	Ethyl sulphide	K, T, U	< 0.4	ppbv	0.4	NA-024	13-Sep-17
17090080-001	Hydrogen sulphide	K, T, U	< 0.1	ppbv	0.1	NA-024	13-Sep-17
17090080-001	Isobutyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	13-Sep-17
17090080-001	Isopropyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	13-Sep-17
17090080-001	Methyl mercaptan	K, T, U	< 0.3	ppbv	0.3	NA-024	13-Sep-17
17090080-001	Pentyl mercaptan	K, T, U	< 0.6	ppbv	0.6	NA-024	13-Sep-17
17090080-001	Propyl mercaptan	K, T, U	< 0.6	ppbv	0.6	NA-024	13-Sep-17
17090080-001	tert-Butyl mercaptan	K, T, U	< 0.4	ppbv	0.4	NA-024	13-Sep-17
17090080-001	Thiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	13-Sep-17
17090080-001	1,1,1-Trichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	1,1,2,2-Tetrachloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	1,1,2-Trichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	1,1-Dichloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	1,1-Dichloroethylene	K, T, U	< 0.06	ppbv	0.06	AC-058	23-Sep-17
17090080-001	1,2,3-Trimethylbenzene	K, T, U	< 0.07	ppbv	0.07	AC-058	23-Sep-17
17090080-001	1,2,4-Trichlorobenzene	K, T, U	< 1.1	ppbv	1.1	AC-058	23-Sep-17
17090080-001	1,2,4-Trimethylbenzene		0.09	ppbv	0.07	AC-058	23-Sep-17
17090080-001	1,2-Dibromoethane	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	1,2-Dichlorobenzene	K, T, U	< 0.04	ppbv	0.04	AC-058	23-Sep-17

Report certified by: Rebecca Holgate, Account Coordinator

On behalf of: PJ Pretorius, Manager, Analysis and Testing Services

Date: Wednesday, October 25, 2017

Inquiries: (780) 632 8455

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CLIENT SAMPLE ID PRAMP_RENO_20170907	CANISTER ID 2643	Matrix Ambient Air	DATE SAMPLED 07-Sep-17 19:00	
DESCRIPTION:				
REPORT NUMBER: 17090080	REPORT CREATED: 25-Oct-17	VERSION: Version 01		

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
17090080-001	1,2-Dichloroethane	I	0.02	ppbv	0.01	AC-058	23-Sep-17
17090080-001	1,2-Dichloropropane	K, T, U	< 0.01	ppbv	0.01	AC-058	23-Sep-17
17090080-001	1,3,5-Trimethylbenzene		0.04	ppbv	0.03	AC-058	23-Sep-17
17090080-001	1,3-Butadiene	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	1,3-Dichlorobenzene	K, T, U	< 0.4	ppbv	0.4	AC-058	23-Sep-17
17090080-001	1,4-Dichlorobenzene	K, T, U	< 0.6	ppbv	0.6	AC-058	23-Sep-17
17090080-001	1,4-Dioxane	K, T, U	< 0.6	ppbv	0.6	AC-058	23-Sep-17
17090080-001	1-Butene		0.07	ppbv	0.03	AC-058	23-Sep-17
17090080-001	1-Hexene	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	1-Pentene	K, T, U	< 0.01	ppbv	0.01	AC-058	23-Sep-17
17090080-001	2,2,4-Trimethylpentane	K, T, U	< 0.01	ppbv	0.01	AC-058	23-Sep-17
17090080-001	2,2-Dimethylbutane		0.12	ppbv	0.01	AC-058	23-Sep-17
17090080-001	2,3,4-Trimethylpentane		0.02	ppbv	0.01	AC-058	23-Sep-17
17090080-001	2,3-Dimethylbutane		0.35	ppbv	0.03	AC-058	23-Sep-17
17090080-001	2,3-Dimethylpentane		0.29	ppbv	0.03	AC-058	23-Sep-17
17090080-001	2,4-Dimethylpentane		0.10	ppbv	0.01	AC-058	23-Sep-17
17090080-001	2-Methylheptane		0.06	ppbv	0.01	AC-058	23-Sep-17
17090080-001	2-Methylhexane		0.21	ppbv	0.01	AC-058	23-Sep-17
17090080-001	2-Methylpentane		0.97	ppbv	0.01	AC-058	23-Sep-17
17090080-001	3-Methylheptane		0.06	ppbv	0.03	AC-058	23-Sep-17
17090080-001	3-Methylhexane		0.32	ppbv	0.03	AC-058	23-Sep-17
17090080-001	3-Methylpentane		0.74	ppbv	0.01	AC-058	23-Sep-17
17090080-001	Acetone		6.4	ppbv	0.6	AC-058	23-Sep-17
17090080-001	Acrolein	K, T, U	< 0.4	ppbv	0.4	AC-058	23-Sep-17
17090080-001	Benzene		0.39	ppbv	0.01	AC-058	23-Sep-17

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DESCRIPTION:			
REPORT NUMBER: 17090080	REPORT CREATED: 25-Oct-17	VERSION: Version 01	

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
17090080-001	Benzyl chloride	K, T, U	< 0.6	ppbv	0.6	AC-058	23-Sep-17
17090080-001	Bromodichloromethane	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Bromoform	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Bromomethane	I	0.02	ppbv	0.01	AC-058	23-Sep-17
17090080-001	Carbon disulfide		0.46	ppbv	0.01	AC-058	23-Sep-17
17090080-001	Carbon tetrachloride	I	0.09	ppbv	0.01	AC-058	23-Sep-17
17090080-001	Chlorobenzene	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Chloroethane	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Chloroform	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Chloromethane		0.55	ppbv	0.03	AC-058	23-Sep-17
17090080-001	cis-1,2-Dichloroethene	K, T, U	< 0.01	ppbv	0.01	AC-058	23-Sep-17
17090080-001	cis-1,3-Dichloropropene	K, T, U	< 0.06	ppbv	0.06	AC-058	23-Sep-17
17090080-001	cis-2-Butene	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	cis-2-Pentene	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Cyclohexane		0.69	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Cyclopentane		0.21	ppbv	0.01	AC-058	23-Sep-17
17090080-001	Dibromochloromethane	K, T, U	< 0.01	ppbv	0.01	AC-058	23-Sep-17
17090080-001	Ethanol		2.2	ppbv	0.4	AC-058	23-Sep-17
17090080-001	Ethyl acetate	K, T, U	< 0.6	ppbv	0.6	AC-058	23-Sep-17
17090080-001	Ethylbenzene		0.05	ppbv	0.01	AC-058	23-Sep-17
17090080-001	Freon-11	I	0.31	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Freon-113	I	0.08	ppbv	0.01	AC-058	23-Sep-17
17090080-001	Freon-114	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Freon-12		0.66	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Hexachloro-1,3-butadiene	K, T, U	< 0.69	ppbv	0.69	AC-058	23-Sep-17

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17090080-001	Isobutane		2.38	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Isopentane		2.50	ppbv	0.04	AC-058	23-Sep-17
17090080-001	Isoprene		3.18	ppbv	0.01	AC-058	23-Sep-17
17090080-001	Isopropyl alcohol	K, T, U	< 0.6	ppbv	0.6	AC-058	23-Sep-17
17090080-001	Isopropylbenzene	K, T, U	< 0.01	ppbv	0.01	AC-058	23-Sep-17
17090080-001	m,p-Xylene		0.09	ppbv	0.04	AC-058	23-Sep-17
17090080-001	m-Diethylbenzene	K, T, U	< 0.06	ppbv	0.06	AC-058	23-Sep-17
17090080-001	m-Ethyltoluene	K, T, U	< 0.11	ppbv	0.11	AC-058	23-Sep-17
17090080-001	Methyl butyl ketone	K, T, U	< 0.69	ppbv	0.69	AC-058	23-Sep-17
17090080-001	Methyl ethyl ketone		0.7	ppbv	0.4	AC-058	23-Sep-17
17090080-001	Methyl isobutyl ketone	K, T, U	< 0.6	ppbv	0.6	AC-058	23-Sep-17
17090080-001	Methyl methacrylate	K, T, U	< 0.10	ppbv	0.10	AC-058	23-Sep-17
17090080-001	Methyl tert butyl ether	K, T, U	< 0.04	ppbv	0.04	AC-058	23-Sep-17
17090080-001	Methylcyclohexane		0.80	ppbv	0.01	AC-058	23-Sep-17
17090080-001	Methylcyclopentane		0.74	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Methylene chloride	K, T, U	< 0.4	ppbv	0.4	AC-058	23-Sep-17
17090080-001	n-Butane		2.90	ppbv	0.04	AC-058	23-Sep-17
17090080-001	n-Decane	K, T, U	< 0.08	ppbv	0.08	AC-058	23-Sep-17
17090080-001	n-Dodecane	K, T, U	< 0.6	ppbv	0.6	AC-058	23-Sep-17
17090080-001	n-Heptane		0.11	ppbv	0.01	AC-058	23-Sep-17
17090080-001	n-Hexane		0.38	ppbv	0.01	AC-058	23-Sep-17
17090080-001	n-Octane		0.04	ppbv	0.03	AC-058	23-Sep-17
17090080-001	n-Pentane		1.0	ppbv	0.1	AC-058	23-Sep-17
17090080-001	n-Propylbenzene	K, T, U	< 0.07	ppbv	0.07	AC-058	23-Sep-17
17090080-001	n-Undecane	K, T, U	< 0.7	ppbv	0.7	AC-058	23-Sep-17

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DESCRIPTION:			
REPORT NUMBER: 17090080	REPORT CREATED: 25-Oct-17	VERSION: Version 01	

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
17090080-001	Naphthalene	K, T, U	< 0.7	ppbv	0.7	AC-058	23-Sep-17
17090080-001	n-Nonane		0.03	ppbv	0.01	AC-058	23-Sep-17
17090080-001	o-Ethyltoluene	I	0.02	ppbv	0.01	AC-058	23-Sep-17
17090080-001	o-Xylene		0.04	ppbv	0.01	AC-058	23-Sep-17
17090080-001	p-Diethylbenzene	K, T, U	< 0.06	ppbv	0.06	AC-058	23-Sep-17
17090080-001	p-Ethyltoluene	K, T, U	< 0.10	ppbv	0.10	AC-058	23-Sep-17
17090080-001	Styrene	K, T, U	< 0.06	ppbv	0.06	AC-058	23-Sep-17
17090080-001	Tetrachloroethylene	K, T, U	< 0.06	ppbv	0.06	AC-058	23-Sep-17
17090080-001	Tetrahydrofuran	K, T, U	< 0.6	ppbv	0.6	AC-058	23-Sep-17
17090080-001	Toluene		0.54	ppbv	0.01	AC-058	23-Sep-17
17090080-001	trans-1,2-Dichloroethylene	K, T, U	< 0.01	ppbv	0.01	AC-058	23-Sep-17
17090080-001	trans-1,3-Dichloropropylene	K, T, U	< 0.06	ppbv	0.06	AC-058	23-Sep-17
17090080-001	trans-2-Butene		0.03	ppbv	0.01	AC-058	23-Sep-17
17090080-001	trans-2-Pentene	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17
17090080-001	Trichloroethylene	K, T, U	< 0.06	ppbv	0.06	AC-058	23-Sep-17
17090080-001	Vinyl acetate	K, T, U	< 0.6	ppbv	0.6	AC-058	23-Sep-17
17090080-001	Vinyl chloride	K, T, U	< 0.03	ppbv	0.03	AC-058	23-Sep-17

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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

Revision History

Order ID	Ver	Date	Reason
17090080	01	25-Oct-17	Report created

Methods

Method	Description
AC-058	VOC - GC/MS Volatile Organic Compounds
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

17090080

E-mail results to pramptech@prampairshed.ca and officemanager@prampairshed.ca. PRAMP Reno Station



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ENVIRONMENTAL ANALYTICAL SERVICES

TEST REPORT

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Sample Comments



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Result Comments

Note: Results relate only to items tested