



PO Bag 4000  
 Vegreville, Alberta  
 Canada T9C 1T4  
 (780) 632-8211

**ENVIRONMENTAL ANALYTICAL SERVICES**

TEST REPORT

<p><b>RESULTS:</b> Karla Reesor                      403 807 2995          Peace River Area Monitoring Program Committee</p> <p><b>INVOICE:</b> Office Manager</p>	<table border="0" style="width: 100%;"> <tr> <td style="width: 30%;"><b>CLIENT SAMPLE ID</b></td> <td style="width: 20%;">PRAMP_RENO-NMHL-2019-0206</td> <td style="width: 20%;"><b>CANISTER ID</b></td> <td style="width: 20%;">H2823</td> <td style="width: 10%;"><b>Matrix</b></td> <td style="width: 10%;">Ambient Air</td> <td style="width: 10%;"><b>Priority</b></td> <td style="width: 10%;">Normal</td> </tr> <tr> <td colspan="8"><b>DESCRIPTION:</b></td> </tr> <tr> <td><b>DATE SAMPLED:</b></td> <td>06-Feb-19</td> <td>13:50</td> <td><b>DATE RECEIVED:</b></td> <td colspan="4">13-Feb-19</td> </tr> <tr> <td><b>REPORT CREATED:</b></td> <td colspan="2">13-Mar-19</td> <td><b>REPORT NUMBER:</b></td> <td colspan="4">19020077</td> </tr> <tr> <td></td> <td></td> <td></td> <td><b>VERSION:</b></td> <td colspan="4">Version 01</td> </tr> </table>	<b>CLIENT SAMPLE ID</b>	PRAMP_RENO-NMHL-2019-0206	<b>CANISTER ID</b>	H2823	<b>Matrix</b>	Ambient Air	<b>Priority</b>	Normal	<b>DESCRIPTION:</b>								<b>DATE SAMPLED:</b>	06-Feb-19	13:50	<b>DATE RECEIVED:</b>	13-Feb-19				<b>REPORT CREATED:</b>	13-Mar-19		<b>REPORT NUMBER:</b>	19020077							<b>VERSION:</b>	Version 01			
<b>CLIENT SAMPLE ID</b>	PRAMP_RENO-NMHL-2019-0206	<b>CANISTER ID</b>	H2823	<b>Matrix</b>	Ambient Air	<b>Priority</b>	Normal																																		
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			<b>VERSION:</b>	Version 01																																					

Lab ID	Parameter	Qualifier	Result	Units	RDL	Method	Analysis Date
19020077-001	1-Butene	K, T, U	< 0.14	ppmv	0.14	NA-025	14-Feb-19
19020077-001	Acetylene	K, T, U	< 0.12	ppmv	0.12	NA-025	14-Feb-19
19020077-001	n-Butane	K, T, U	< 0.3	ppmv	0.3	NA-025	14-Feb-19
19020077-001	cis-2-Butene	K, T, U	< 0.06	ppmv	0.06	NA-025	14-Feb-19
19020077-001	Ethane	K, T, U	< 0.1	ppmv	0.1	NA-025	14-Feb-19
19020077-001	Ethylacetylene	K, T, U	< 0.09	ppmv	0.09	NA-025	14-Feb-19
19020077-001	Ethylene	K, T, U	< 0.10	ppmv	0.10	NA-025	14-Feb-19
19020077-001	Isobutane	K, T, U	< 0.1	ppmv	0.1	NA-025	14-Feb-19
19020077-001	Isobutylene	K, T, U	< 0.1	ppmv	0.1	NA-025	14-Feb-19
19020077-001	Methane		2.0	ppmv	0.1	NA-025	14-Feb-19
19020077-001	n-Propane	K, T, U	< 0.10	ppmv	0.10	NA-025	14-Feb-19
19020077-001	Propylene	K, T, U	< 0.1	ppmv	0.1	NA-025	14-Feb-19
19020077-001	Propyne	K, T, U	< 0.1	ppmv	0.1	NA-025	14-Feb-19
19020077-001	trans-2-Butene	K, T, U	< 0.13	ppmv	0.13	NA-025	14-Feb-19
19020077-001	2,5-Dimethylthiophene	K, T, U	< 0.4	ppbv	0.4	NA-024	13-Feb-19
19020077-001	2-Ethylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	13-Feb-19
19020077-001	2-Methylthiophene	K, T, U	< 0.3	ppbv	0.3	NA-024	13-Feb-19
19020077-001	3-Methylthiophene	K, T, U	< 0.4	ppbv	0.4	NA-024	13-Feb-19

<b>CLIENT SAMPLE ID</b>	<b>CANISTER ID</b>	<b>Matrix</b>	<b>DATE SAMPLED</b>
PRAMP_RENO-NMHL-2019-0206	H2823	Ambient Air	06-Feb-19 13:50
<b>DESCRIPTION:</b>			
<b>REPORT NUMBER:</b> 19020077	<b>REPORT CREATED:</b> 13-Mar-19	<b>VERSION:</b> Version 01	

Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
19020077-001	Butyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	13-Feb-19
19020077-001	Carbon disulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	13-Feb-19
19020077-001	Carbonyl sulphide		1.2 ppbv	0.4	NA-024	13-Feb-19
19020077-001	Dimethyl disulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	13-Feb-19
19020077-001	Dimethyl sulphide	K, T, U	< 0.3 ppbv	0.3	NA-024	13-Feb-19
19020077-001	Ethyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	13-Feb-19
19020077-001	Ethyl sulphide	K, T, U	< 0.4 ppbv	0.4	NA-024	13-Feb-19
19020077-001	Hydrogen sulphide		1.6 ppbv	0.1	NA-024	13-Feb-19
19020077-001	Isobutyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	13-Feb-19
19020077-001	Isopropyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	13-Feb-19
19020077-001	Methyl mercaptan	K, T, U	< 0.3 ppbv	0.3	NA-024	13-Feb-19
19020077-001	Pentyl mercaptan	K, T, U	< 0.6 ppbv	0.6	NA-024	13-Feb-19
19020077-001	Propyl mercaptan	K, T, U	< 0.6 ppbv	0.6	NA-024	13-Feb-19
19020077-001	tert-Butyl mercaptan	K, T, U	< 0.4 ppbv	0.4	NA-024	13-Feb-19
19020077-001	Thiophene	K, T, U	< 0.3 ppbv	0.3	NA-024	13-Feb-19
19020077-001	1,1,1-Trichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	1,1,2,2-Tetrachloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	1,1,2-Trichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	1,1-Dichloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	1,1-Dichloroethylene	K, T, U	< 0.06 ppbv	0.06	AC-058	20-Feb-19
19020077-001	1,2,3-Trimethylbenzene	K, T, U	< 0.07 ppbv	0.07	AC-058	20-Feb-19
19020077-001	1,2,4-Trichlorobenzene	K, T, U	< 1.2 ppbv	1.2	AC-058	20-Feb-19
19020077-001	1,2,4-Trimethylbenzene	K, T, U	< 0.07 ppbv	0.07	AC-058	20-Feb-19
19020077-001	1,2-Dibromoethane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	1,2-Dichlorobenzene	K, T, U	< 0.04 ppbv	0.04	AC-058	20-Feb-19

Report certified by: Krista Gegolick, Account Coordinator

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

Date: March-13-19

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

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19020077-001	1,2-Dichloroethane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	1,2-Dichloropropane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	1,3,5-Trimethylbenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	1,3-Butadiene	I	0.19 ppbv	0.03	AC-058	20-Feb-19
19020077-001	1,3-Dichlorobenzene	K, T, U	< 0.4 ppbv	0.4	AC-058	20-Feb-19
19020077-001	1,4-Dichlorobenzene	K, T, U	< 0.6 ppbv	0.6	AC-058	20-Feb-19
19020077-001	1,4-Dioxane	K, T, U	< 0.6 ppbv	0.6	AC-058	20-Feb-19
19020077-001	1-Butene/Isobutylene		0.92 ppbv	0.03	AC-058	20-Feb-19
19020077-001	1-Hexene/2-Methyl-1-pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	1-Pentene	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	2,2,4-Trimethylpentane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	2,2-Dimethylbutane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	2,3,4-Trimethylpentane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	2,3-Dimethylbutane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	2,3-Dimethylpentane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	2,4-Dimethylpentane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	2-Methylheptane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	2-Methylhexane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	2-Methylpentane		0.19 ppbv	0.01	AC-058	20-Feb-19
19020077-001	3-Methylheptane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	3-Methylhexane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	3-Methylpentane		0.06 ppbv	0.01	AC-058	20-Feb-19
19020077-001	Acetone		3.0 ppbv	0.6	AC-058	20-Feb-19
19020077-001	Acrolein	K, T, U	< 0.4 ppbv	0.4	AC-058	20-Feb-19
19020077-001	Benzene		0.27 ppbv	0.01	AC-058	20-Feb-19

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19020077-001	Benzyl chloride	K, T, U	< 0.6 ppbv	0.6	AC-058	20-Feb-19
19020077-001	Bromodichloromethane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Bromoform	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Bromomethane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	Carbon disulfide	I	0.07 ppbv	0.01	AC-058	20-Feb-19
19020077-001	Carbon tetrachloride	I	0.07 ppbv	0.01	AC-058	20-Feb-19
19020077-001	Chlorobenzene	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Chloroethane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Chloroform	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Chloromethane		0.63 ppbv	0.03	AC-058	20-Feb-19
19020077-001	cis-1,2-Dichloroethene	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	cis-1,3-Dichloropropene	K, T, U	< 0.06 ppbv	0.06	AC-058	20-Feb-19
19020077-001	cis-2-Butene	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	cis-2-Pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Cyclohexane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Cyclopentane		0.08 ppbv	0.01	AC-058	20-Feb-19
19020077-001	Dibromochloromethane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	Ethanol		3.0 ppbv	0.4	AC-058	20-Feb-19
19020077-001	Ethyl acetate	K, T, U	< 0.6 ppbv	0.6	AC-058	20-Feb-19
19020077-001	Ethylbenzene	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	Freon-11	I	0.28 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Freon-113	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	Freon-114	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Freon-12		0.51 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Hexachloro-1,3-butadiene	K, T, U	< 0.72 ppbv	0.72	AC-058	20-Feb-19

Report certified by: Krista Gegolick, Account Coordinator

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

Date: March-13-19

Inquiries: (780) 632 8455

E-mail: EAS.Results@innotechalberta.ca

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19020077-001	Isobutane		1.17 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Isopentane		0.86 ppbv	0.04	AC-058	20-Feb-19
19020077-001	Isoprene	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	Isopropyl alcohol	K, T, U	< 0.6 ppbv	0.6	AC-058	20-Feb-19
19020077-001	Isopropylbenzene	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	m,p-Xylene	K, T, U	< 0.04 ppbv	0.04	AC-058	20-Feb-19
19020077-001	m-Diethylbenzene	K, T, U	< 0.06 ppbv	0.06	AC-058	20-Feb-19
19020077-001	m-Ethyltoluene	K, T, U	< 0.12 ppbv	0.12	AC-058	20-Feb-19
19020077-001	Methyl butyl ketone	K, T, U	< 0.72 ppbv	0.72	AC-058	20-Feb-19
19020077-001	Methyl ethyl ketone	K, T, U	< 0.4 ppbv	0.4	AC-058	20-Feb-19
19020077-001	Methyl isobutyl ketone	K, T, U	< 0.6 ppbv	0.6	AC-058	20-Feb-19
19020077-001	Methyl methacrylate	K, T, U	< 0.10 ppbv	0.10	AC-058	20-Feb-19
19020077-001	Methyl tert butyl ether	K, T, U	< 0.04 ppbv	0.04	AC-058	20-Feb-19
19020077-001	Methylcyclohexane		0.04 ppbv	0.01	AC-058	20-Feb-19
19020077-001	Methylcyclopentane		0.05 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Methylene chloride	K, T, U	< 0.4 ppbv	0.4	AC-058	20-Feb-19
19020077-001	n-Butane		1.64 ppbv	0.04	AC-058	20-Feb-19
19020077-001	n-Decane	K, T, U	< 0.09 ppbv	0.09	AC-058	20-Feb-19
19020077-001	n-Dodecane	K, T, U	< 0.6 ppbv	0.6	AC-058	20-Feb-19
19020077-001	n-Heptane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	n-Hexane		0.13 ppbv	0.01	AC-058	20-Feb-19
19020077-001	n-Octane	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	n-Pentane		0.8 ppbv	0.1	AC-058	20-Feb-19
19020077-001	n-Propylbenzene	K, T, U	< 0.07 ppbv	0.07	AC-058	20-Feb-19
19020077-001	n-Undecane	K, T, U	< 0.7 ppbv	0.7	AC-058	20-Feb-19

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Lab ID	Parameter	Qualifier	Result Units	RDL	Method	Analysis Date
19020077-001	Naphthalene	K, T, U	< 0.7 ppbv	0.7	AC-058	20-Feb-19
19020077-001	n-Nonane	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	o-Ethyltoluene	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	o-Xylene	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	p-Diethylbenzene	K, T, U	< 0.06 ppbv	0.06	AC-058	20-Feb-19
19020077-001	p-Ethyltoluene	K, T, U	< 0.10 ppbv	0.10	AC-058	20-Feb-19
19020077-001	Styrene	K, T, U	< 0.06 ppbv	0.06	AC-058	20-Feb-19
19020077-001	Tetrachloroethylene	K, T, U	< 0.06 ppbv	0.06	AC-058	20-Feb-19
19020077-001	Tetrahydrofuran	K, T, U	< 0.6 ppbv	0.6	AC-058	20-Feb-19
19020077-001	Toluene		0.24 ppbv	0.01	AC-058	20-Feb-19
19020077-001	trans-1,2-Dichloroethylene	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	trans-1,3-Dichloropropylene	K, T, U	< 0.06 ppbv	0.06	AC-058	20-Feb-19
19020077-001	trans-2-Butene	K, T, U	< 0.01 ppbv	0.01	AC-058	20-Feb-19
19020077-001	trans-2-Pentene	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19
19020077-001	Trichloroethylene	K, T, U	< 0.06 ppbv	0.06	AC-058	20-Feb-19
19020077-001	Vinyl acetate	K, T, U	< 0.6 ppbv	0.6	AC-058	20-Feb-19
19020077-001	Vinyl chloride	K, T, U	< 0.03 ppbv	0.03	AC-058	20-Feb-19



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### Revision History

Order ID	Ver	Date	Reason
19020077	01	13-Mar-19	Report created



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### Methods

<b>Method</b>	<b>Description</b>
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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### Order Comments

19020077

Send results to [pramptech@prampairshed.ca](mailto:pramptech@prampairshed.ca). Unknowns to be reported.



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### Sample Comments



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### **Result Comments**

*Note: Results relate only to items tested*