



Zedi US  
541 E. Garden Dive, Unit O  
Windsor, CO 80550  
(970) 518-8647

*Realize Production Potential*

<b>Client:</b>	Enerplus	<b>Analysis Date:</b>	3/27/2018
<b>Sample ID:</b>	Maple #8-67-36-25C Sales	<b>Date Sampled:</b>	3/27/2018
<b>Unique #:</b>	N/A	<b>Purpose:</b>	Request
<b>Sample Temperature:</b>	89°F	<b>Sample Pressure:</b>	85 PSIG
<b>Sampled By:</b>	Jacob Stephens	<b>Type Sample:</b>	On-Site
<b>County:</b>	Weld		

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<u>Components</u>	<u>Mole %</u>	<u>Weight %</u>	<u>Liq. Vol. %</u>
Carbon Dioxide.....	2.3154	3.994	1.909
Hydrogen Sulfide.....	0.0002	0.000	0.000
Nitrogen.....	0.7473	0.820	0.397
Methane.....	63.8581	40.150	52.314
Ethane.....	13.2155	15.574	17.079
Propane.....	13.6460	23.583	18.167
iso-Butane.....	1.0203	2.324	1.613
n-Butane.....	3.1432	7.160	4.789
iso-Pentane.....	0.5871	1.660	1.038
n-Pentane.....	0.6578	1.860	1.152
Cyclopentane.....	0.1620	0.445	0.232
n-Hexane.....	0.1244	0.420	0.247
Cyclohexane.....	0.0474	0.156	0.078
Other Hexanes .....	0.0582	0.197	0.116
Heptanes.....	0.1002	0.393	0.223
Methylcyclohexane.....	0.0304	0.117	0.059
2,2,4-Trimethylpentane...	0.0000	0.000	0.000
Benzene.....	0.0895	0.274	0.121
Toluene.....	0.0116	0.042	0.019
Ethylbenzene.....	0.0072	0.030	0.013
Xylenes.....	0.0197	0.082	0.037
Octanes.....	0.1477	0.661	0.366
Nonanes.....	0.0072	0.036	0.020
Decanes+.....	0.0036	0.020	0.011
Totals .....	100.000	100.000	100.000

**ADDITIONAL BETX DATA**

<u>Components</u>	<u>Mole %</u>	<u>Weight %</u>	<u>Liq. Vol. %</u>
Cyclopentane	0.1620	0.445	0.232
Cyclohexane	0.0474	0.156	0.078
2-Methylpentane	0.0366	0.124	0.073
3-Methylpentane	0.0216	0.073	0.043
n-Hexane	0.1244	0.420	0.247
Methylcyclohexane	0.0304	0.117	0.059
2,2,4-Trimethylpentane	0.0000	0.000	0.000
Benzene	0.0895	0.274	0.121
Toluene	0.0116	0.042	0.019
Ethylbenzene	0.0072	0.030	0.013
m-Xylene	0.0031	0.013	0.006
p-Xylene	0.0133	0.055	0.025
o-Xylene	0.0032	0.013	0.006

SPECIFIC GRAVITY @ 60/60 F, calculated.....	0.8810
TOTAL GPM (Ethane Inclusive).....	9.360
CALCULATED BTU / REAL CF @ 14.73 PSIA, dry basis.....	1441.426
CALCULATED BTU / REAL CF @ 14.73 PSIA, wet basis.....	1417.081
AVERAGE MOLECULAR WEIGHT.....	25.515
MOLAR MASS RATIO.....	0.8805
RELATIVE DENSITY ( G x Z (Air) / Z ), calculated.....	0.8858
IDEAL GROSS HEATING VALUE, BTU / IDEAL CF @ 14.696 PSIA.....	1445.962
COMPRESSIBILITY FACTOR (Z).....	0.99458

PROPANE GPM .....	3.7498
BUTANE GPM .....	1.3214
GASOLINE GPM (PENTANE AND HEAVIER) .....	0.7636

TOTAL ACID GAS MOLE %.....	2.3156
H2S MOLE % .....	0.0002
H2S PPM .....	2

VOC WEIGHT FRACTION .....	0.394
HIGHER HEATING VALUE (BTU/ft <sup>3</sup> ).....	1451.142
LOWER HEATING VALUE (BTU/ft <sup>3</sup> ).....	1322.138

NOTATION: ALL CALCULATIONS PERFORMED USING PHYSICAL CONSTANTS FROM GPA 2145-09, THE TABLES OF PHYSICAL CONSTANTS FOR HYDROCARBONS AND OTHER COMPOUNDS OF INTEREST TO THE NATURAL GAS INDUSTRY.