

Diablo Analytical BTU Report

GPA 2145-03 Analysis

Sample Information

30-045-29583

Sample Information	
Sample Name	Mexico Fed 2M BradenHead
Station Number	2300450108
Taken By	Alpine Analysis LLC
Operator	Travis Tapp
Method Name	StandardNatGas.met
Injection Date	2018-03-19 18:30:51
Report Date	2018-03-19 18:34:51
EZReporter Configuration File	default Standard Sample.cfgx
Source Data File	2018-03-19 18-30-30 (GMT -06-00)Mexico Fed 2M BradenHead.dat
EZReporter Data File	Mexico Fed 2M BradenHead-20180319-183451.ezrx
Data Source	Agilent EZChrom Connector

Component Results

Component Name	Ret. Time	Peak Area	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	0.320	1015327.0	1.42990	0.0	0.01383	0.158
Methane	0.324	46095693.0	94.28603	954.5	0.52225	16.015
Carbon Dioxide	0.377	0.0	0.00000	0.0	0.00000	0.000
Ethane	0.426	2322284.0	3.13503	55.6	0.03255	0.840
Hydrogen Sulfide	0.601	0.0	0.00000	0.0	0.00000	0.000
Propane	0.528	1823511.0	0.90235	22.8	0.01374	0.249
i-Butane	0.576	259156.0	0.11013	3.6	0.00221	0.036
n-Butane	0.610	252037.0	0.10501	3.4	0.00211	0.033
i-Pentane	0.715	37921.0	0.01417	0.6	0.00035	0.005
n-Pentane	0.758	28991.0	0.01045	0.4	0.00026	0.004
Hexanes Plus	0.000	23383.0	0.00693	0.0	0.00000	0.000
Water	0.000	0.0	0.00000	0.0	0.00000	0.000
Total:			100.00000	1040.9	0.58730	17.340

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	99.51750	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Water Mole%	-	1.74067
Gross Heating Value (BTU / Ideal cu.ft.)	1040.9	1022.8
Gross Heating Value (BTU / Real cu.ft.)	1043.1	1025.3
Relative Density (G), Real	0.5883	0.5891
Compressibility (Z) Factor	0.9978	0.9975
Total GPM	17.340	17.144

Diablo Analytical BTU Report

GPA 2145-03 Analysis

Sample Information

30-045-29583

Sample Information	
Sample Name	Mexico Fed 2M Casing
Station Number	2300450108
Taken By	Alpine Analysis LLC
Operator	Travis Tapp
Method Name	StandardNatGas.met
Injection Date	2018-03-19 18:40:09
Report Date	2018-03-19 18:44:46
EZReporter Configuration File	default Standard Sample.cfgx
Source Data File	2018-03-19 18-39-57 (GMT -06-00)Mexico Fed 2M Casing
EZReporter Data File	Mexico Fed 2M Casing-20180319-184446.ezrx
Data Source	Agilent EZChrom Connector

Component Results

Component Name	Ret. Time	Peak Area	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	0.320	955472.0	1.36740	0.0	0.01323	0.151
Methane	0.324	45924265.0	95.45040	966.3	0.52870	16.211
Carbon Dioxide	0.376	1759941.0	2.54579	0.0	0.03868	0.435
Ethane	0.431	133226.0	0.18277	3.2	0.00190	0.049
Hydrogen Sulfide	0.601	0.0	0.00000	0.0	0.00000	0.000
Propane	0.526	518946.0	0.26098	6.6	0.00397	0.072
i-Butane	0.564	251881.0	0.10874	3.5	0.00218	0.036
n-Butane	0.608	38372.0	0.01623	0.5	0.00033	0.005
i-Pentane	0.706	152774.0	0.05820	2.3	0.00145	0.021
n-Pentane	0.756	8244.0	0.00306	0.1	0.00008	0.001
Hexanes Plus	0.000	21343.0	0.00643	0.0	0.00000	0.000
Water	0.000	0.0	0.00000	0.0	0.00000	0.000
Total:			100.00000	982.6	0.59051	16.981

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	97.93800	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Water Mole%	-	1.74067
Gross Heating Value (BTU / Ideal cu.ft.)	982.6	965.5
Gross Heating Value (BTU / Real cu.ft.)	984.7	967.9
Relative Density (G), Real	0.5915	0.5922
Compressibility (Z) Factor	0.9979	0.9976
Total GPM	16.981	16.791

Diablo Analytical BTU Report

GPA 2145-03 Analysis

Sample Information

30-045-29583

Sample Information	
Sample Name	Mexico Fed 2M Tubing
Station Number	2300450108
Taken By	Alpine Analysis LLC
Operator	Travis Tapp
Method Name	StandardNatGas.met
Injection Date	2018-03-19 18:53:03
Report Date	2018-03-19 18:56:56
EZReporter Configuration File	default Standard Sample.cfgx
Source Data File	2018-03-19 18-52-52 (GMT -06-00)Mexico Fed 2M Tubing
EZReporter Data File	Mexico Fed 2M Tubing-20180319-185656.ezrx
Data Source	Agilent EZChrom Connector

Component Results

Component Name	Ret. Time	Peak Area	Norm%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	0.320	1431442.0	2.03778	0.0	0.01971	0.225
Methane	0.324	45773870.0	94.63786	958.1	0.52420	16.073
Carbon Dioxide	0.376	1938417.0	2.78929	0.0	0.04238	0.477
Ethane	0.431	64353.0	0.08786	1.6	0.00091	0.024
Hydrogen Sulfide	0.601	0.0	0.00000	0.0	0.00000	0.000
Propane	0.524	575424.0	0.28785	7.3	0.00438	0.079
i-Butane	0.563	280166.0	0.12036	3.9	0.00242	0.039
n-Butane	0.607	22195.0	0.00934	0.3	0.00019	0.003
i-Pentane	0.705	56188.0	0.02123	0.9	0.00053	0.008
n-Pentane	0.755	8257.0	0.00305	0.1	0.00008	0.001
Hexanes Plus	0.000	17865.0	0.00538	0.0	0.00000	0.000
Water	0.000	0.0	0.00000	0.0	0.00000	0.000
Total:			100.00000	972.1	0.59479	16.929

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	98.45530	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Water Mole%	-	1.74067
Gross Heating Value (BTU / Ideal cu.ft.)	972.1	955.2
Gross Heating Value (BTU / Real cu.ft.)	974.1	957.4
Relative Density (G), Real	0.5958	0.5964
Compressibility (Z) Factor	0.9979	0.9976
Total GPM	16.929	16.739



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
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AZTEC NM 87410
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<http://emnr.state.nm.us/ocd/DistrictIII/3district.htm>

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

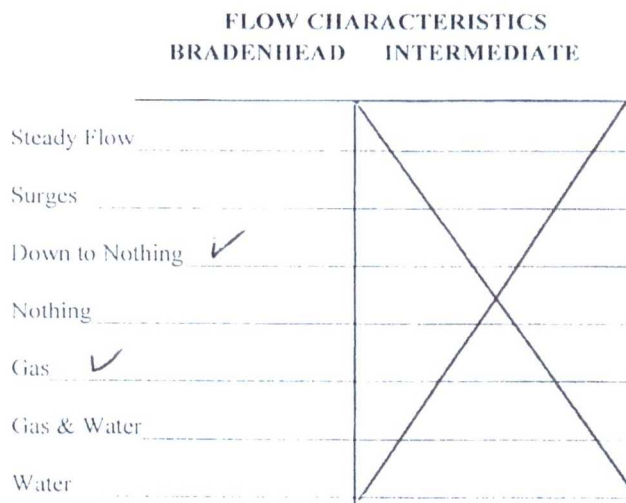
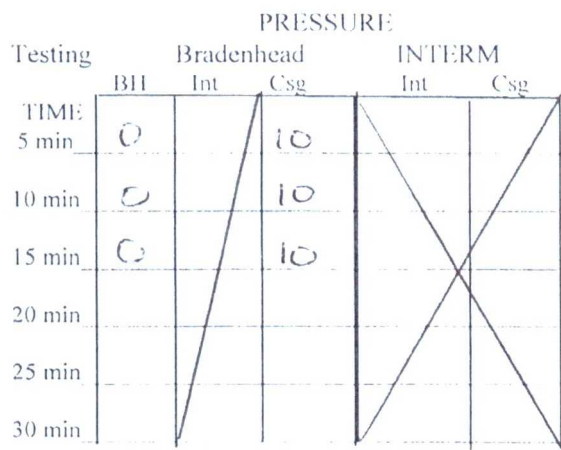
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Date of Test 3-8-18 Operator Enduring Resources API # 30-045-29583

Property Name MEXICO FEDERAL Well No. m-2 Location: Unit Section 12 Township 31N Range 3W

Well Status (Shut-In or Producing) Initial PSI: Tubing 2 Intermediate N/A Casing 10 Bradenhead 113

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH



If bradenhead flowed water, check all of the descriptions that apply below:

CLEAR FRESH SALTY SULFUR BLACK

5 MINUTE SHUT-IN PRESSURE BRADENHEAD 0 INTERMEDIATE N/A

REMARKS:

DOWN TO ZERO IN 4min THROUGH A 1/4" inch Fitting

By

Witness

AIR QUALITY SPECIALIST
(Position)

E-mail address sharrett@enduringresources.com

NMOCD

MAR 22 2018

DISTRICT III