

Diablo Analytical BTU Report

GPA 2145-03 Analysis

Sample Information

30-045-30604

Sample Information	
Sample Name	JohnCharles 6C BradenHead
Station Number	2300450022
Taken By	Alpine Analysis LLC
Operator	Travis Tapp
Method Name	StandardNatGas.met
Injection Date	2018-03-19 15:46:33
Report Date	2018-03-19 15:56:00
EZReporter Configuration File	default Standard Sample.cfgx
Source Data File	2018-03-19 15-46-22 (GMT -06-00)JohnCharles 6C BradenHead
EZReporter Data File	JohnCharles 6C BradenHead-20180319-155600.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	0.321	4582665.0	6.66809	0.0	0.06449	0.736
Methane	0.326	37382454.0	78.99950	799.7	0.43758	13.429
Carbon Dioxide	0.379	5634.0	0.00831	0.0	0.00013	0.001
Ethane	0.423	4221340.0	5.88779	104.4	0.06113	1.579
Hydrogen Sulfide	0.601	0.0	0.00000	0.0	0.00000	0.000
Propane	0.527	9368321.0	4.78972	120.8	0.07292	1.323
i-Butane	0.575	2543555.0	1.11687	36.4	0.02241	0.366
n-Butane	0.609	2906470.0	1.25110	40.9	0.02511	0.395
i-Pentane	0.714	1219853.0	0.47206	18.9	0.01176	0.173
n-Pentane	0.757	912005.0	0.33917	13.6	0.00845	0.123
Hexanes Plus	0.000	1531511.0	0.46739	0.0	0.00000	0.000
Water	0.000	0.0	0.00000	0.0	0.00000	0.000
Total:			100.00000	1134.8	0.70398	18.126

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	96.32300	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Water Mole%	-	1.74067
Gross Heating Value (BTU / Ideal cu.ft.)	1134.8	1115.1
Gross Heating Value (BTU / Real cu.ft.)	1138.2	1118.8
Relative Density (G), Real	0.7057	0.7046
Compressibility (Z) Factor	0.9971	0.9967
Total GPM	18.126	17.917

Diablo Analytical BTU Report

GPA 2145-03 Analysis

Sample Information

30-045-30604

Sample Information	
Sample Name	John Charles 6C Casing
Station Number	2300450022
Taken By	Alpine Analysis LLC
Operator	Travis Tapp
Method Name	StandardNatGas.met
Injection Date	2018-03-19 15:14:41
Report Date	2018-03-19 15:18:59
EZReporter Configuration File	default Standard Sample.cfgx
Source Data File	2018-03-19 15-14-09 (GMT -06-00)John Charles 6C Casing
EZReporter Data File	John Charles 6C Casing-20180319-151859.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	0.321	678946.0	0.95428	0.0	0.00923	0.105
Methane	0.325	36393495.0	74.28999	752.1	0.41149	12.642
Carbon Dioxide	0.378	351672.0	0.49960	0.0	0.00759	0.086
Ethane	0.417	7786464.0	10.49033	186.1	0.10891	2.816
Hydrogen Sulfide	0.601	0.0	0.00000	0.0	0.00000	0.000
Propane	0.524	15046687.0	7.43084	187.4	0.11313	2.055
i-Butane	0.574	4238842.0	1.79784	58.6	0.03608	0.591
n-Butane	0.607	5301566.0	2.20438	72.1	0.04424	0.698
i-Pentane	0.712	2420991.0	0.90504	36.3	0.02255	0.332
n-Pentane	0.756	1767039.0	0.63478	25.5	0.01581	0.231
Hexanes Plus	0.000	2690167.0	0.79292	0.0	0.00000	0.000
Water	0.000	0.0	0.00000	0.0	0.00000	0.000
Total:			100.00000	1318.0	0.76903	19.556

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	99.71950	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Water Mole%	-	1.74067
Gross Heating Value (BTU / Ideal cu.ft.)	1318.0	1295.1
Gross Heating Value (BTU / Real cu.ft.)	1323.4	1300.9
Relative Density (G), Real	0.7718	0.7696
Compressibility (Z) Factor	0.9960	0.9955
Total GPM	19.556	19.323

Diablo Analytical BTU Report

GPA 2145-03 Analysis

Sample Information

30-045-30604

Sample Information	
Sample Name	John Charles 6C Tubing
Station Number	2300450022
Taken By	Alpine Analysis LLC
Operator	Travis Tapp
Method Name	StandardNatGas.met
Injection Date	2018-03-19 15:23:59
Report Date	2018-03-19 15:28:02
EZReporter Configuration File	default Standard Sample.cfgx
Source Data File	2018-03-19 15-23-47 (GMT -06-00)John Charles 6C Tubing
EZReporter Data File	John Charles 6C Tubing-20180319-152801.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	0.321	478968.0	0.67559	0.0	0.00653	0.075
Methane	0.326	35312172.0	72.34030	732.3	0.40069	12.312
Carbon Dioxide	0.378	532579.0	0.75933	0.0	0.01154	0.130
Ethane	0.416	9203401.0	12.44359	220.7	0.12919	3.341
Hydrogen Sulfide	0.601	0.0	0.00000	0.0	0.00000	0.000
Propane	0.523	16918045.0	8.38489	211.5	0.12766	2.319
i-Butane	0.573	3258972.0	1.38722	45.2	0.02784	0.456
n-Butane	0.606	5433614.0	2.26731	74.1	0.04550	0.718
i-Pentane	0.711	1852051.0	0.69482	27.9	0.01731	0.255
n-Pentane	0.755	1392133.0	0.50189	20.2	0.01250	0.183
Hexanes Plus	0.000	1842497.0	0.54506	0.0	0.00000	0.000
Water	0.000	0.0	0.00000	0.0	0.00000	0.000
Total:			100.00000	1331.9	0.77876	19.788

Results Summary

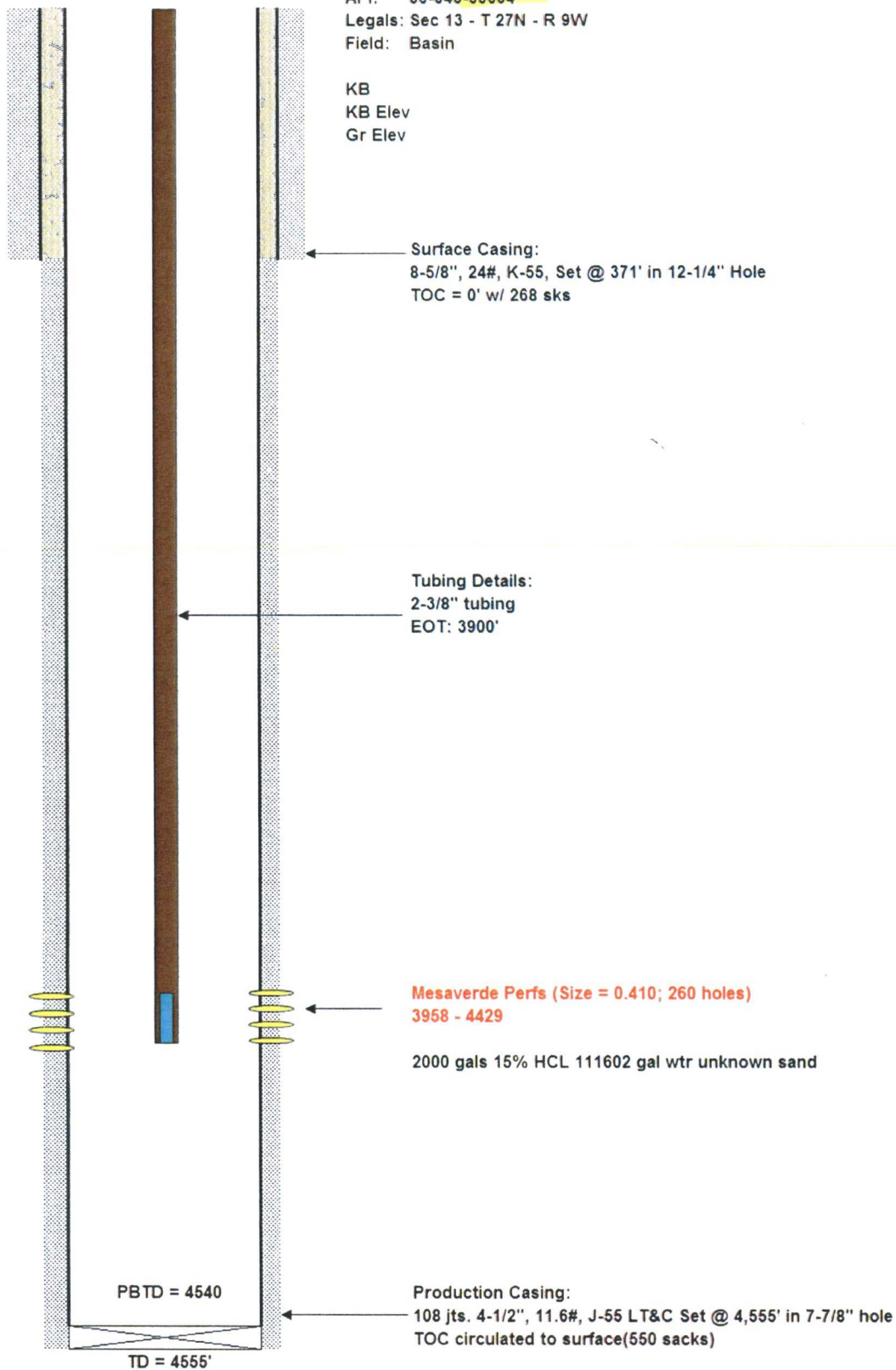
Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	99.36440	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Water Mole%	-	1.74067
Gross Heating Value (BTU / Ideal cu.ft.)	1331.9	1308.7
Gross Heating Value (BTU / Real cu.ft.)	1337.5	1314.8
Relative Density (G), Real	0.7817	0.7793
Compressibility (Z) Factor	0.9958	0.9954
Total GPM	19.788	19.552

CHARLES 6C - API# 300453060400

John Charles #6C
San Juan, New Mexico
Current Well Schematic as of 3-30-09

API: 30-045-30604
Legals: Sec 13 - T 27N - R 9W
Field: Basin

KB
KB Elev
Gr Elev



Prepared b Jeannie Kohoutek
Date: 3/30/2009



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC NM 87410
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[http://emnr.state.nm.us/ocd/District III3district.htm](http://emnr.state.nm.us/ocd/District%20III3district.htm)

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

copy

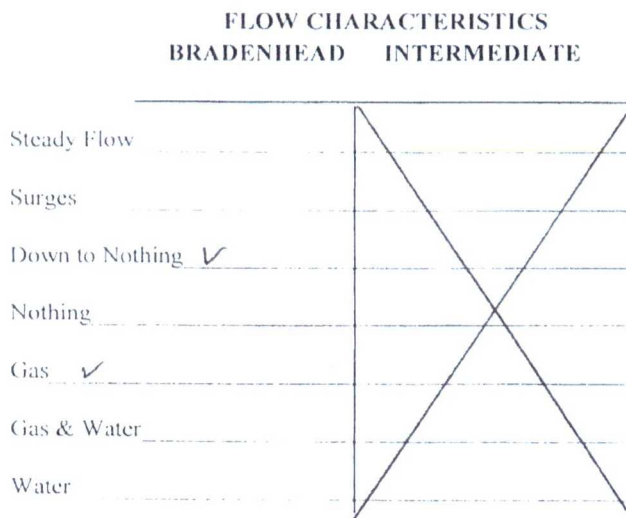
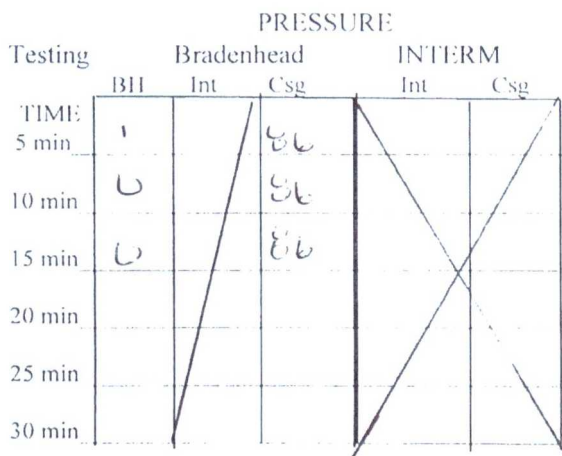
30604

Date of Test 3-5-18 Operator ENDANGERED RESOURCES API #30-0 45-2266

Property Name John Charles Well No. 66 Location: Unit Section 3 Township 27N Range 9W

Well Status (Shut-In or Producing) Initial PSI: Tubing 66 Intermediate N/A Casing 66 Bradenhead 39

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:

LIGHT BLOWN DOWN TO DEAD AFTER 5 min S.I.

NO WATER

WITNESSED BY MONICA

By [Signature]

Witness

AIR QUALITY SPECIALIST
(Position)

E-mail address sharrett@endangerresources.com

NMOC

MAR 22 2018

DISTRICT III