



Bruington GC B 1E
30-045-24008
Bradenhead Sample

2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: SO180114
Cust No: 15950-11000

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: BRUINGTON GC B #1E; BHD
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004524008

Source: BRADENHEAD
Well Flowing: Y
Pressure: 22 PSIA
Flow Temp: DEG. F
Ambient Temp: 76 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/20/2018
Sample Time: 7.32 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N
Remarks:

NMOCD
FEB 13 2019
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3444	0.3427	0.0380	0.00	0.0033
CO2	0.0154	0.0153	0.0030	0.00	0.0002
Methane	87.0357	86.6099	14.7960	879.06	0.4821
Ethane	6.9550	6.9210	1.8650	123.08	0.0722
Propane	3.1255	3.1102	0.8630	78.64	0.0476
Iso-Butane	0.6063	0.6033	0.1990	19.72	0.0122
N-Butane	0.8554	0.8512	0.2700	27.91	0.0172
I-Pentane	0.3308	0.3292	0.1210	13.23	0.0082
N-Pentane	0.2333	0.2322	0.0850	9.35	0.0058
Hexane Plus	0.4982	0.4958	0.2230	26.26	0.0165
Total	100.0000	99.5108	18.4630	1177.25	0.6653

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
BTU/CU.FT IDEAL: 1180.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1183.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1162.9
DRY BTU @ 15.025: 1207.2
REAL SPECIFIC GRAVITY: 0.6671

CYLINDER #: 048
CYLINDER PRESSURE: 18 PSIG
ANALYSIS DATE: 07/31/2018
ANALYSIS TIME: 09:29:54 AM
ANALYSIS RUN BY: CAMERON MANGAN

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500

GC Method: C6+ Gas

Last Cal/Verify: 08/02/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: BRUINGTON GC B #1E; BHD
Stn. No.: API 3004524008
Mtr. No.:

BRADENHEAD
PC

08/02/2018
15950-11000

Smpl Date: 07/20/2018
Test Date: 07/31/2018
Run No: SO180114
Nitrogen: 0.3444
CO2: 0.0154
Methane: 87.0357
Ethane: 6.9550
Propane: 3.1255
I-Butane: 0.6063
N-Butane: 0.8554
I-Pentane: 0.3308
N-Pentane: 0.2333
Hexane+: 0.4982
BTU: 1183.5
GPM: 18.4630
SPG: 0.6671



Brington GC B 1E
30-045-24008
Casing Sample

2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: SO180115
Cust No: 15950-11005

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: BRUINGTON GC B #1E; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API 3004524008

Source: CASING
Well Flowing: Y
Pressure: 70 PSIA
Flow Temp: DEG. F
Ambient Temp: 76 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/20/2018
Sample Time: 7.49 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

Heat Trace: N

Remarks:

NMOC
FEB 13 2019
DISTRICT III

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4370	0.4314	0.0480	0.00	0.0042
CO2	1.6141	1.5934	0.2760	0.00	0.0245
Methane	82.4432	81.3880	14.0210	832.68	0.4567
Ethane	8.9727	8.8579	2.4070	158.79	0.0932
Propane	3.4066	3.3630	0.9410	85.71	0.0519
Iso-Butane	0.5379	0.5310	0.1770	17.49	0.0108
N-Butane	0.9146	0.9029	0.2890	29.84	0.0184
I-Pentane	0.3282	0.3240	0.1200	13.13	0.0082
N-Pentane	0.2762	0.2727	0.1000	11.07	0.0069
Hexane Plus	1.0695	1.0558	0.4780	56.37	0.0354
Total	100.0000	98.7201	18.8570	1205.09	0.7100

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
BTU/CU.FT IDEAL: 1207.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1212.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1190.9
DRY BTU @ 15.025: 1236.3
REAL SPECIFIC GRAVITY: 0.7122

CYLINDER #: 041
CYLINDER PRESSURE: 66 PSIG
ANALYSIS DATE: 07/30/2018
ANALYSIS TIME: 03:41:17 PM
ANALYSIS RUN BY: SHYANN ELLEDGE

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500

GC Method: C6+ Gas

Last Cal/Verify: 08/02/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: BRUINGTON GC B #1E; CSG
Stn. No.: API 3004524008
Mtr. No.:

CASING
PC

08/02/2018
15950-11005

Smpl Date: 07/20/2018
Test Date: 07/30/2018
Run No: SO180115
Nitrogen: 0.4370
CO2: 1.6141
Methane: 82.4432
Ethane: 8.9727
Propane: 3.4066
I-Butane: 0.5379
N-Butane: 0.9146
I-Pentane: 0.3282
N-Pentane: 0.2762
Hexane+: 1.0695
BTU: 1212.0
GPM: 18.8570
SPG: 0.7122