



Navajo Allotted GC A1
30-045-13252
Casing Sample

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

Analysis No: SO180186
Cust No: 15950-11365

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NAVAJO ALLOTTED GC A1; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: 3004513252

Source: CASING
Well Flowing: Y
Pressure: 166 PSIA
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/14/2018
Sample Time: 11.02 AM
Sampled By: SCOTT WILLARD
Sampled by (CO): PESCO

NMOC

FEB 13 2019

DISTRICT III

Heat Trace: N
Remarks:

well plugged
10/18/18

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3352	0.3346	0.0370	0.00	0.0032
CO2	0.4568	0.4560	0.0780	0.00	0.0069
Methane	75.4832	75.3588	12.8480	762.38	0.4181
Ethane	11.9878	11.9680	3.2190	212.15	0.1245
Propane	6.6574	6.6464	1.8420	167.51	0.1014
Iso-Butane	1.3103	1.3081	0.4310	42.61	0.0263
N-Butane	1.6487	1.6460	0.5220	53.79	0.0331
I-Pentane	0.5752	0.5743	0.2110	23.01	0.0143
N-Pentane	0.4507	0.4500	0.1640	18.07	0.0112
Hexane Plus	1.0947	1.0929	0.4900	57.70	0.0362
Total	100.0000	99.8351	19.8420	1337.21	0.7753

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0043
BTU/CU.FT IDEAL: 1340.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1346.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1322.6
DRY BTU @ 15.025: 1373.0
REAL SPECIFIC GRAVITY: 0.7782

CYLINDER #: 7066
CYLINDER PRESSURE: 87 PSIG
ANALYSIS DATE: 09/07/2018
ANALYSIS TIME: 08:59:23 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

Last Cal/Verify: 09/12/2018

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease:	NAVAJO ALLOTTED GC A1; CSG	CASING	09/12/2018
Stn. No.:	3004513252	PC	15950-11365
Mtr. No.:			

Smpl Date:	08/14/2018
Test Date:	09/07/2018
Run No:	SO180186
Nitrogen:	0.3352
CO2:	0.4568
Methane:	75.4832
Ethane:	11.9878
Propane:	6.6574
I-Butane:	1.3103
N-Butane:	1.6487
I-Pentane:	0.5752
N-Pentane:	0.4507
Hexane+:	1.0947
BTU:	1346.0
GPM:	19.8420
SPG:	0.7782



Navajo Allotted GC A1
30-045-13252
Tubing Sample

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

Analysis No: SO180187
Cust No: 15950-11370

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NAVAJO ALLOTTED GC 1A; TBG
County/State: SAN JUAN NM
Location:
Field:
Formation: PC
Cust. Stn. No.: API # 3004513252

Source: TUBING
Well Flowing: Y
Pressure: 70 PSIA
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/14/2018
Sample Time: 10.46 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	0.4307	0.4327	0.0480	0.00	0.0042
CO2	0.7019	0.7052	0.1200	0.00	0.0107
Methane	73.9319	74.2802	12.5840	746.71	0.4095
Ethane	12.9968	13.0580	3.4900	230.00	0.1349
Propane	6.8077	6.8398	1.8830	171.29	0.1036
Iso-Butane	1.0897	1.0948	0.3580	35.44	0.0219
N-Butane	1.9179	1.9269	0.6070	62.57	0.0385
I-Pentane	0.5947	0.5975	0.2180	23.79	0.0148
N-Pentane	0.4682	0.4704	0.1700	18.77	0.0117
Hexane Plus	1.0605	1.0655	0.4750	55.90	0.0351
Total	100.0000	100.4710	19.9530	1344.47	0.7849

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0043
BTU/CU.FT IDEAL: 1347.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1353.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1329.9
DRY BTU @ 15.025: 1380.5
REAL SPECIFIC GRAVITY: 0.7879

CYLINDER #: 7009
CYLINDER PRESSURE: 26 PSIG
ANALYSIS DATE: 09/06/2018
ANALYSIS TIME: 04:10:23 AM
ANALYSIS RUN BY: RICHARD WILSON

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: 09/12/2018



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NAVAJO ALLOTTED GC 1A; TBG
Stn. No.: API # 3004513252
Mtr. No.:

TUBING
PC

09/12/2018
15950-11370

Smpl Date: 08/14/2018
Test Date: 09/06/2018
Run No: SO180187
Nitrogen: 0.4307
CO2: 0.7019
Methane: 73.9319
Ethane: 12.9968
Propane: 6.8077
I-Butane: 1.0897
N-Butane: 1.9179
I-Pentane: 0.5947
N-Pentane: 0.4682
Hexane+: 1.0605
BTU: 1353.4
GPM: 19.9530
SPG: 0.7879