



NMOCD REC'D
10/12/20

Well Name: NEBU 23; CSG
API #: API # 300451333200
Source: CASING
Sample Type: GAS
Analysis No: SO200145
Cust No: 15950-12090

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEBU 23; CSG
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 300451333200

Source: CASING
Well Flowing: Y
Pressure: 56 PSIG
Flow Temp: DEG. F
Ambient Temp: 62 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 09/17/2020
Sample Time: 10.15 AM
Sampled By: SEAN CASAUS
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2055	0.1994	0.0230	0.00	0.0020
CO2	1.2469	1.2100	0.2130	0.00	0.0189
Methane	87.1003	84.5235	14.8050	879.71	0.4824
Ethane	6.8876	6.6838	1.8470	121.89	0.0715
Propane	2.5521	2.4766	0.7050	64.21	0.0389
Iso-Butane	0.6345	0.6157	0.2080	20.63	0.0127
N-Butane	0.5815	0.5643	0.1840	18.97	0.0117
I-Pentane	0.2483	0.2410	0.0910	9.93	0.0062
N-Pentane	0.1648	0.1599	0.0600	6.61	0.0041
Hexane Plus	0.3785	0.3673	0.1690	19.95	0.0125
Total	100.0000	97.0415	18.3050	1141.91	0.6610

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029
BTU/CU.FT IDEAL: 1144.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1147.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1127.9
DRY BTU @ 15.025: 1170.9
REAL SPECIFIC GRAVITY: 0.6626

CYLINDER #: 16
CYLINDER PRESSURE: 336 PSIG
ANALYSIS DATE: 09/24/2020
ANALYSIS TIME: 02:03:31 PM
ANALYSIS RUN BY: PATRICIA KING

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: 09/29/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEBU 23; CSG
Stn. No.: API #
Mtr. No.:

CASING

09/29/2020
15950-12090

Smpl Date: 09/17/2020
Test Date: 09/24/2020
Run No: SO200145

Nitrogen: 0.2055
CO2: 1.2469
Methane: 87.1003
Ethane: 6.8876
Propane: 2.5521
I-Butane: 0.6345
N-Butane: 0.5815
I-Pentane: 0.2483
N-Pentane: 0.1648
Hexane+: 0.3785

BTU: 1147.9
GPM: 18.3050
SPG: 0.6626



NMOCD REC'D
10/12/20

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

Analysis No: SO200146
Cust No: 15950-12095

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEBU 23; INT
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 300451333200

Source: INTERMEDIATE
Well Flowing:
Pressure: 56 PSIG
Flow Temp: DEG. F
Ambient Temp: 62 DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 09/17/2020
Sample Time: 10.10 AM
Sampled By: SEAN CASAUS
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1154	0.1128	0.0130	0.00	0.0011
CO2	1.2267	1.1987	0.2100	0.00	0.0186
Methane	87.1032	85.1145	14.8060	879.74	0.4825
Ethane	6.9158	6.7579	1.8540	122.39	0.0718
Propane	2.5611	2.5026	0.7070	64.44	0.0390
Iso-Butane	0.6424	0.6277	0.2110	20.89	0.0129
N-Butane	0.5978	0.5842	0.1890	19.50	0.0120
I-Pentane	0.2622	0.2562	0.0960	10.49	0.0065
N-Pentane	0.1772	0.1732	0.0640	7.10	0.0044
Hexane Plus	0.3982	0.3891	0.1780	20.99	0.0132
Total	100.0000	97.7169	18.3280	1145.55	0.6620

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029
BTU/CU.FT IDEAL: 1148.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1151.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1131.5
DRY BTU @ 15.025: 1174.6
REAL SPECIFIC GRAVITY: 0.6637

CYLINDER #: 234
CYLINDER PRESSURE: 54 PSIG
ANALYSIS DATE: 09/24/2020
ANALYSIS TIME: 02:16:47 PM
ANALYSIS RUN BY: PATRICIA KING

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: 09/29/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEBU 23; INT
Stn. No.: API #
Mtr. No.:

INTERMEDIATE

09/29/2020
15950-12095

Smpl Date: 09/17/2020
Test Date: 09/24/2020
Run No: SO200146

Nitrogen: 0.1154
CO2: 1.2267
Methane: 87.1032
Ethane: 6.9158
Propane: 2.5611
I-Butane: 0.6424
N-Butane: 0.5978
I-Pentane: 0.2622
N-Pentane: 0.1772
Hexane+: 0.3982

BTU: 1151.5
GPM: 18.3280
SPG: 0.6637



NMOCD REC'D
10/12/20

Well Name: NEBU 23; TBG
API #: API # 300451333200
Source: TUBING
Sample Type: GAS
Analysis No: SO200147
Cust No: 15950-12100

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: NEBU 23; TBG
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 300451333200

Source: TUBING
Well Flowing: Y
Pressure: 56 PSIG
Flow Temp: DEG. F
Ambient Temp: 62 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 09/17/2020
Sample Time: 10.20 AM
Sampled By: SEAN CASAUS
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0981	0.0982	0.0110	0.00	0.0009
CO2	2.2253	2.2272	0.3810	0.00	0.0338
Methane	88.9430	89.0207	15.1150	898.32	0.4927
Ethane	5.6090	5.6139	1.5040	99.26	0.0582
Propane	1.5864	1.5878	0.4380	39.92	0.0242
Iso-Butane	0.3116	0.3119	0.1020	10.13	0.0063
N-Butane	0.3900	0.3903	0.1230	12.72	0.0078
I-Pentane	0.1756	0.1758	0.0640	7.03	0.0044
N-Pentane	0.1181	0.1182	0.0430	4.73	0.0029
Hexane Plus	0.5429	0.5434	0.2430	28.62	0.0180
Total	100.0000	100.0874	18.0240	1100.73	0.6492

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
BTU/CU.FT IDEAL: 1103.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1106.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1087.1
DRY BTU @ 15.025: 1128.5
REAL SPECIFIC GRAVITY: 0.6507

CYLINDER #: 42
CYLINDER PRESSURE: 19 PSIG
ANALYSIS DATE: 09/24/2020
ANALYSIS TIME: 02:10:35 PM
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

Last Cal/Verify: 09/29/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: NEBU 23; TBG
Stn. No.: API #
Mtr. No.:

TUBING

09/29/2020
15950-12100

Smpl Date: 09/17/2020
Test Date: 09/24/2020
Run No: SO200147

Nitrogen: 0.0981
CO2: 2.2253
Methane: 88.9430
Ethane: 5.6090
Propane: 1.5864
I-Butane: 0.3116
N-Butane: 0.3900
I-Pentane: 0.1756
N-Pentane: 0.1181
Hexane+: 0.5429

BTU: 1106.3
GPM: 18.0240
SPG: 0.6507