



NMOCD REC'D
10/12/20

Well Name: RIDDLE C LS 3;BHD
API #: API # 300451025800
Source: BRADENHEAD
Sample Type: GAS
Analysis No: SO200043
Cust No: 15950-10370

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: RIDDLE C LS 3;BHD
County/State: SAN JUAN NM
Location:
Lease/PA/CA: NMSF078319A
Formation:
Cust. Stn. No.: API # 300451025800

Source: BRADENHEAD
Well Flowing: Y
Pressure: 35 PSIG
Flow Temp: DEG. F
Ambient Temp: 69 DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 06/30/2020
Sample Time: 1.15 PM
Sampled By: CADE S.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	3.9564	3.9024	0.4360	0.00	0.0383
CO2	0.0028	0.0028	0.0000	0.00	0.0000
Methane	88.5553	87.3468	15.0440	894.41	0.4905
Ethane	5.3808	5.3074	1.4420	95.22	0.0559
Propane	1.5808	1.5592	0.4360	39.77	0.0241
Iso-Butane	0.0977	0.0964	0.0320	3.18	0.0020
N-Butane	0.1767	0.1743	0.0560	5.76	0.0035
I-Pentane	0.0325	0.0321	0.0120	1.30	0.0008
N-Pentane	0.0097	0.0096	0.0040	0.39	0.0002
Hexane Plus	0.2073	0.2045	0.0930	10.93	0.0069
Total	100.0000	98.6355	17.5550	1050.96	0.6222

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0023
BTU/CU.FT IDEAL: 1053.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1055.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1037.4
DRY BTU @ 15.025: 1076.9
REAL SPECIFIC GRAVITY: 0.6234

CYLINDER #: 4130
CYLINDER PRESSURE: 37 PSIG
ANALYSIS DATE: 07/01/2020
ANALYSIS TIME: 12:59:09 AM
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

Last Cal/Verify: 07/02/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: RIDDLE C LS 3;BHD
Stn. No.: API #
Mtr. No.:

BRADENHEAD

07/02/2020
15950-10370

Smpl Date:	06/30/2020	02/07/2020	06/17/2019	09/27/2017
Test Date:	07/01/2020	02/10/2020	06/25/2019	09/27/2017
Run No:	SO200043	SO200014	SO190073	SO170074
Nitrogen:	3.9564	4.1309	0.1487	9.5670
CO2:	0.0028	0.0042	2.0272	0.0186
Methane:	88.5553	88.5158	84.2225	84.6044
Ethane:	5.3808	5.3381	7.4810	4.2377
Propane:	1.5808	1.5628	2.9906	1.0479
I-Butane:	0.0977	0.0873	0.5988	0.1052
N-Butane:	0.1767	0.1808	0.8114	0.0492
I-Pentane:	0.0325	0.0270	0.3125	0.0551
N-Pentane:	0.0097	0.0076	0.2388	0.0180
Hexane+:	0.2073	0.1455	1.1685	0.2969
BTU:	1055.8	1050.4	1194.6	983.8
GPM:	17.5550	17.5190	18.6970	17.0600
SPG:	0.6234	0.6218	0.7047	0.6372



NMOCD REC'D
10/12/20

Well Name: RIDDLE C LS 3;CSG
API #: API # 300451025800
Source: CASING
Sample Type: GAS
Analysis No: SO200044
Cust No: 15950-10360

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: RIDDLE C LS 3;CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA: NMSF078319A
Formation:
Cust. Stn. No.: API # 300451025800

Source: CASING
Well Flowing: Y
Pressure: 50 PSIG
Flow Temp: DEG. F
Ambient Temp: 68 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/30/2020
Sample Time: 1.30 PM
Sampled By: CADE S.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1720	0.1676	0.0190	0.00	0.0017
CO2	1.8904	1.8417	0.3240	0.00	0.0287
Methane	83.9463	81.7841	14.2750	847.86	0.4650
Ethane	7.8216	7.6201	2.0980	138.42	0.0812
Propane	3.2069	3.1243	0.8860	80.69	0.0488
Iso-Butane	0.6212	0.6052	0.2040	20.20	0.0125
N-Butane	0.8778	0.8552	0.2780	28.64	0.0176
I-Pentane	0.3386	0.3299	0.1240	13.55	0.0084
N-Pentane	0.2576	0.2510	0.0940	10.33	0.0064
Hexane Plus	0.8676	0.8453	0.3880	45.73	0.0287
Total	100.0000	97.4244	18.6900	1185.41	0.6990

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
BTU/CU.FT IDEAL: 1188.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1192.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1171.4
DRY BTU @ 15.025: 1216.0
REAL SPECIFIC GRAVITY: 0.7011

CYLINDER #: 4029
CYLINDER PRESSURE: 42 PSIG
ANALYSIS DATE: 07/01/2020
ANALYSIS TIME: 01:23:28 AM
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

Last Cal/Verify: 07/02/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: RIDDLE C LS 3;CSG
Stn. No.: API #
Mtr. No.:

CASING

07/02/2020
15950-10360

Smpl Date:	06/30/2020	02/07/2020	06/17/2019	09/27/2017
Test Date:	07/01/2020	02/10/2020	06/26/2019	09/27/2017
Run No:	SO200044	SO200015	SO190074	SO170075
Nitrogen:	0.1720	0.2199	0.1807	0.1481
CO2:	1.8904	1.1939	1.4615	1.3129
Methane:	83.9463	82.2808	81.9257	82.1609
Ethane:	7.8216	8.8323	8.6227	8.7622
Propane:	3.2069	4.2394	4.0603	4.2041
I-Butane:	0.6212	0.7277	0.6920	0.7226
N-Butane:	0.8778	1.1646	1.1158	1.1454
I-Pentane:	0.3386	0.3851	0.4003	0.3973
N-Pentane:	0.2576	0.2902	0.3131	0.3132
Hexane+:	0.8676	0.6661	1.2279	0.8333
BTU:	1192.1	1224.8	1241.7	1231.0
GPM:	18.6900	18.9150	19.0310	18.9600
SPG:	0.7011	0.7112	0.7261	0.7164



NMOCD REC'D
10/12/20

Well Name: RIDDLE C LS 3;TBG
API #: API # 300451025800
Source: TUBING
Sample Type: GAS
Analysis No: SO200045
Cust No: 15950-10365

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: RIDDLE C LS 3;TBG
County/State: SAN JAUN NM
Location:
Lease/PA/CA: NMSF078319A
Formation:
Cust. Stn. No.: API # 300451025800

Source: TUBING
Well Flowing:
Pressure: 50 PSIG
Flow Temp: DEG. F
Ambient Temp: 68 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/30/2020
Sample Time: 1.45 PM
Sampled By: CADE S.
Sampled by (CO): ABC

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1390	0.1353	0.0150	0.00	0.0013
CO2	1.9328	1.8819	0.3310	0.00	0.0294
Methane	83.9770	81.7674	14.2800	848.17	0.4651
Ethane	7.7847	7.5799	2.0880	137.77	0.0808
Propane	3.1981	3.1139	0.8840	80.47	0.0487
Iso-Butane	0.6187	0.6024	0.2030	20.12	0.0124
N-Butane	0.8734	0.8504	0.2760	28.49	0.0175
I-Pentane	0.3317	0.3230	0.1220	13.27	0.0083
N-Pentane	0.2495	0.2429	0.0910	10.00	0.0062
Hexane Plus	0.8951	0.8715	0.4000	47.18	0.0296
Total	100.0000	97.3686	18.6900	1185.47	0.6994

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
BTU/CU.FT IDEAL: 1188.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1192.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1171.4
DRY BTU @ 15.025: 1216.0
REAL SPECIFIC GRAVITY: 0.7015

CYLINDER #: 6164
CYLINDER PRESSURE: 49 PSIG
ANALYSIS DATE: 07/01/2020
ANALYSIS TIME: 01:10:37 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

Last Cal/Verify: 07/02/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: RIDDLE C LS 3;TBG
Stn. No.: API #
Mtr. No.:

TUBING

07/02/2020
15950-10365

Smpl Date:	06/30/2020	02/07/2020	06/17/2019	09/27/2017
Test Date:	07/01/2020	02/10/2020	06/25/2019	09/27/2017
Run No:	SO200045	SO200017	SO190075	SO170076
Nitrogen:	0.1390	0.2020	4.7600	0.1167
CO2:	1.9328	1.6540	0.0650	1.5801
Methane:	83.9770	84.8278	87.6941	84.7960
Ethane:	7.7847	7.6581	5.3155	7.7133
Propane:	3.1981	3.0508	1.5644	3.0763
I-Butane:	0.6187	0.5878	0.0878	0.5906
N-Butane:	0.8734	0.7988	0.1827	0.8110
I-Pentane:	0.3317	0.3024	0.0312	0.3047
N-Pentane:	0.2495	0.2245	0.0117	0.2214
Hexane+:	0.8951	0.6938	0.2876	0.7899
BTU:	1192.1	1178.3	1049.7	1185.2
GPM:	18.6900	18.5740	17.5200	18.6150
SPG:	0.7015	0.6887	0.6290	0.6911