



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

Analysis No: MG180023
Cust No: 50000-10170

30.045-32645

Well/Lease Information

Customer Name: M & G DRILLING CO., INC.
Well Name: GRAHAM #1B; BHD
County/State:
Location:
Field:
Formation:
Cust. Stn. No.:

NMOCD
OCT 24 2018
DISTRICT III

Source: BRADENHEAD
Well Flowing: N
Pressure: 93 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 10/01/2018
Sample Time: 9.58 AM
Sampled By: DANIEL
Sampled by (CO): M&G DRILLING

Heat Trace:

Remarks: PRESSURED WITH HELIUM TO 30LBS.

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	2.8610	1.1715	0.3160	0.00	0.0277
CO2	0.0217	0.0089	0.0040	0.00	0.0003
Methane	83.0640	34.0123	14.1260	838.95	0.4601
Ethane	5.1098	2.0923	1.3710	90.43	0.0530
Propane	4.2328	1.7332	1.1700	106.50	0.0644
Iso-Butane	1.3249	0.5425	0.4350	43.08	0.0266
N-Butane	1.2648	0.5179	0.4000	41.26	0.0254
I-Pentane	0.6555	0.2684	0.2400	26.23	0.0163
N-Pentane	0.4513	0.1848	0.1640	18.09	0.0112
Hexane Plus	1.0142	0.4153	0.4540	53.46	0.0336
Total	100.0000	40.9471	18.6800	1218.00	0.7187

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0034
BTU/CU.FT IDEAL: 1220.8
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1225.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1203.7
DRY BTU @ 15.025: 1249.5
REAL SPECIFIC GRAVITY: 0.7209

CYLINDER #: 4157
CYLINDER PRESSURE: 5 PSIG
ANALYSIS DATE: 10/09/2018
ANALYSIS TIME: 09:20:29 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: 10/10/2018

GC Method: C6+ Gas

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M & G DRILLING CO., INC.
WELL ANALYSIS COMPARISON

Lease: GRAHAM #1B; BHD
Stn. No.:
Mtr. No.:

BRADENHEAD

10/10/2018
50000-10170

Smpl Date: 10/01/2018
Test Date: 10/09/2018
Run No: MG180023
Nitrogen: 2.8610
CO2: 0.0217
Methane: 83.0640
Ethane: 5.1098
Propane: 4.2328
I-Butane: 1.3249
N-Butane: 1.2648
I-Pentane: 0.6555
N-Pentane: 0.4513
Hexane+: 1.0142
BTU: 1225.0
GPM: 18.6800
SPG: 0.7209



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

Analysis No: MG180024
Cust No: 50000-10175

Well/Lease Information

Customer Name: M & G DRILLING CO., INC.
Well Name: GRAHAM #1B; CSG
County/State:
Location:
Field:
Formation:
Cust. Stn. No.:

Source: CASING
Well Flowing: N
Pressure: 93 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 10/01/2018
Sample Time: 10.14 AM
Sampled By: DANIEL
Sampled by (CO): M&G DRILLING

Heat Trace:
Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4234	0.4230	0.0470	0.00	0.0041
CO2	0.5524	0.5519	0.0950	0.00	0.0084
Methane	81.5653	81.4932	13.8740	823.81	0.4518
Ethane	9.1187	9.1106	2.4470	161.37	0.0947
Propane	4.4852	4.4812	1.2400	112.85	0.0683
Iso-Butane	0.9175	0.9167	0.3010	29.84	0.0184
N-Butane	1.2072	1.2061	0.3820	39.38	0.0242
I-Pentane	0.5083	0.5078	0.1870	20.34	0.0127
N-Pentane	0.3525	0.3522	0.1280	14.13	0.0088
Hexane Plus	0.8695	0.8687	0.3890	45.83	0.0288
Total	100.0000	99.9114	19.0900	1247.55	0.7201

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0036
BTU/CU.FT IDEAL: 1250.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1255.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1233.2
DRY BTU @ 15.025: 1280.1
REAL SPECIFIC GRAVITY: 0.7224

CYLINDER #: 4041
CYLINDER PRESSURE: 137 PSIG
ANALYSIS DATE: 10/09/2018
ANALYSIS TIME: 08:30:06 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 Last Cal/Verify: 10/10/2018

GC Method: C6+ Gas



M & G DRILLING CO., INC.
WELL ANALYSIS COMPARISON

Lease: GRAHAM #1B; CSG
Stn. No.:
Mtr. No.:

CASING

10/10/2018
50000-10175

Smpl Date: 10/01/2018
Test Date: 10/09/2018
Run No: MG180024

Nitrogen: 0.4234
CO2: 0.5524
Methane: 81.5653
Ethane: 9.1187
Propane: 4.4852
I-Butane: 0.9175
N-Butane: 1.2072
I-Pentane: 0.5083
N-Pentane: 0.3525
Hexane+: 0.8695

BTU: 1255.0
GPM: 19.0900
SPG: 0.7224



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

Analysis No: MG180025
Cust No: 50000-10180

Well/Lease Information

Customer Name: M & G DRILLING CO., INC.
Well Name: GRAHAM #1B; TBG
County/State:
Location:
Field:
Formation:
Cust. Stn. No.:

Source: TUBING
Well Flowing: N
Pressure: 93 PSIG
Flow Temp: DEG. F
Ambient Temp: DEG. F
Flow Rate: MCF/D
Sample Method:
Sample Date: 10/01/2018
Sample Time: 10.10 AM
Sampled By: DANIEL
Sampled by (CO): M&G DRILLING

Heat Trace:
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3674	0.3692	0.0410	0.00	0.0036
CO2	0.7837	0.7876	0.1340	0.00	0.0119
Methane	76.4637	76.8460	13.0110	772.28	0.4235
Ethane	11.9094	11.9690	3.1970	210.76	0.1236
Propane	6.0947	6.1252	1.6850	153.35	0.0928
Iso-Butane	1.0102	1.0153	0.3320	32.85	0.0203
N-Butane	1.6497	1.6580	0.5220	53.82	0.0331
I-Pentane	0.5299	0.5326	0.1950	21.20	0.0132
N-Pentane	0.3871	0.3890	0.1410	15.52	0.0096
Hexane Plus	0.8042	0.8082	0.3600	42.39	0.0266
Total	100.0000	100.5001	19.6180	1302.17	0.7583

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.004
BTU/CU.FT IDEAL: 1305.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1310.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1287.6
DRY BTU @ 15.025: 1336.6
REAL SPECIFIC GRAVITY: 0.761

CYLINDER #: 6175
CYLINDER PRESSURE: 135 PSIG
ANALYSIS DATE: 10/09/2018
ANALYSIS TIME: 08:47:23 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

Last Cal/Verify: 10/10/2018

GC Method: C6+ Gas



M & G DRILLING CO., INC.
WELL ANALYSIS COMPARISON

Lease: GRAHAM #1B; TBG
Stn. No.:
Mtr. No.:

TUBING

10/10/2018
50000-10180

Smpl Date: 10/01/2018
Test Date: 10/09/2018
Run No: MG180025

Nitrogen: 0.3674
CO2: 0.7837
Methane: 76.4637
Ethane: 11.9094
Propane: 6.0947
I-Butane: 1.0102
N-Butane: 1.6497
I-Pentane: 0.5299
N-Pentane: 0.3871
Hexane+: 0.8042

BTU: 1310.4
GPM: 19.6180
SPG: 0.7610