



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

Analysis No: DR190008
Cust No: 21300-10325

Well/Lease Information

Customer Name: D.J.R.
Well Name: JICARILLA 159 #1; TBG
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 30-039-05054

NMOC

NOV 21 2019

DISTRICT III

Source: TUBING
Well Flowing: Y
Pressure: 76 PSIG
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/02/2019
Sample Time: 11.00 AM
Sampled By: J. HARTER
Sampled by (CO): COTTONWOOD

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.8840	0.8819	0.0980	0.00	0.0086
CO2	0.0254	0.0253	0.0040	0.00	0.0004
Methane	85.6496	85.4436	14.5620	865.06	0.4744
Ethane	7.1954	7.1781	1.9300	127.34	0.0747
Propane	3.6506	3.6418	1.0090	91.85	0.0556
Iso-Butane	0.7043	0.7026	0.2310	22.90	0.0141
N-Butane	0.7943	0.7924	0.2510	25.91	0.0159
I-Pentane	0.2955	0.2948	0.1080	11.82	0.0074
N-Pentane	0.2006	0.2001	0.0730	8.04	0.0050
Hexane Plus	0.6003	0.5989	0.2680	31.64	0.0199
Total	100.0000	99.7595	18.5340	1184.57	0.6759

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0031
BTU/CU.FT IDEAL: 1187.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1191.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1170.3
DRY BTU @ 15.025: 1214.9
REAL SPECIFIC GRAVITY: 0.6778

CYLINDER #: 4123
CYLINDER PRESSURE: 68 PSIG
ANALYSIS DATE: 08/15/2019
ANALYSIS TIME: 09:46:43 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: 08/22/2019

GC Method: C6+ Gas



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

Analysis No: DR190007
Cust No: 21300-10320

Well/Lease Information

Customer Name: D.J.R.
Well Name: JICARILLA 159 #1; CSG
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 30-039-05054

NMOC
NOV 21 2019
DISTRICT III

Source: CASING
Well Flowing: Y
Pressure: 31 PSIG
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/02/2019
Sample Time: 11.05 AM
Sampled By: J. HARTER
Sampled by (CO): COTTONWOOD

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.9924	0.9943	0.1100	0.00	0.0096
CO2	0.0754	0.0755	0.0130	0.00	0.0011
Methane	82.9005	83.0627	14.1000	837.30	0.4592
Ethane	7.5839	7.5987	2.0350	134.21	0.0787
Propane	4.5230	4.5318	1.2500	113.80	0.0689
Iso-Butane	1.0224	1.0244	0.3360	33.25	0.0205
N-Butane	1.1994	1.2017	0.3790	39.13	0.0241
I-Pentane	0.4757	0.4766	0.1750	19.03	0.0119
N-Pentane	0.3244	0.3250	0.1180	13.00	0.0081
Hexane Plus	0.9029	0.9047	0.4040	47.59	0.0299
Total	100.0000	100.1954	18.9200	1237.31	0.7119

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035
BTU/CU.FT IDEAL: 1240.2
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1244.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1222.8
DRY BTU @ 15.025: 1269.4
REAL SPECIFIC GRAVITY: 0.7141

CYLINDER #: 6043
CYLINDER PRESSURE: 19 PSIG
ANALYSIS DATE: 08/15/2019
ANALYSIS TIME: 09:38:59 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: 08/22/2019

GC Method: C6+ Gas



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

Analysis No: DR190006
Cust No: 21300-10315

Well/Lease Information

Customer Name: D.J.R.
Well Name: JICARILLA 159 #1; BHD
County/State: NM
Location:
Lease/PA/CA:
Formation:
Cust. Str. No.: API # 30-039-05054

Source: BRADENHEAD
Well Flowing: Y
Pressure: 31 PSIG
Flow Temp: DEG. F
Ambient Temp: 80 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 08/02/2019
Sample Time: 11.10 AM
Sampled By: J. HARTER
Sampled by (CO): COTTONWOOD

Heat Trace: N

Remarks:

NMOC
NOV 21 2019
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.8846	0.8836	0.0980	0.00	0.0086
CO2	0.0720	0.0719	0.0120	0.00	0.0011
Methane	83.0992	83.0071	14.1340	839.30	0.4603
Ethane	7.5842	7.5758	2.0350	134.22	0.0787
Propane	4.4975	4.4925	1.2430	113.16	0.0685
Iso-Butane	1.0061	1.0050	0.3300	32.72	0.0202
N-Butane	1.1979	1.1966	0.3790	39.08	0.0240
I-Pentane	0.4745	0.4740	0.1740	18.98	0.0118
N-Pentane	0.3234	0.3230	0.1180	12.96	0.0081
Hexane Plus	0.8606	0.8596	0.3850	45.36	0.0285
Total	100.0000	99.8891	18.9080	1235.79	0.7097

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035
BTU/CU.FT IDEAL: 1238.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1243.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1221.4
DRY BTU @ 15.025: 1267.9
REAL SPECIFIC GRAVITY: 0.7119

CYLINDER #: 4180
CYLINDER PRESSURE: 29 PSIG
ANALYSIS DATE: 08/15/2019
ANALYSIS TIME: 09:31:06 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: 08/22/2019

GC Method: C6+ Gas