



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

Analysis No: LG180177
Cust No: 46600-11285

30-045-07256

Well/Lease Information

Customer Name: LOGOS OPERATING LLC
Well Name: ANGEL PEAK B 25; TBG
County/State: SAN JUAN NM
Location:
Field: SOUTH
Formation: DK
Cust. Stn. No.: CC# 3132147A

Source: TUBING
Well Flowing: N
Pressure: 157 PSIG
Flow Temp: DEG. F
Ambient Temp: 87 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/03/2018
Sample Time: 12.15 PM
Sampled By: EUGENE BURBANK
Sampled by (CO): LOGOS

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5840	0.5923	0.0640	0.00	0.0056
CO2	1.3194	1.3383	0.2260	0.00	0.0200
Methane	78.7965	79.9228	13.4060	795.84	0.4365
Ethane	10.2874	10.4344	2.7610	182.06	0.1068
Propane	5.0127	5.0843	1.3860	126.12	0.0763
Iso-Butane	0.6809	0.6906	0.2240	22.14	0.0137
N-Butane	1.5819	1.6045	0.5000	51.61	0.0317
I-Pentane	0.4634	0.4700	0.1700	18.54	0.0115
N-Pentane	0.4719	0.4786	0.1720	18.92	0.0118
Hexane Plus	0.8019	0.8134	0.3590	42.27	0.0265
Total	100.0000	101.4292	19.2680	1257.50	0.7405

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0038
BTU/CU.FT IDEAL: 1260.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1265.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1243.1
DRY BTU @ 15.025: 1290.4
REAL SPECIFIC GRAVITY: 0.743

CYLINDER #: 4247
CYLINDER PRESSURE: 149 PSIG
ANALYSIS DATE: 07/09/2018
ANALYSIS TIME: 09:31:45 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

GC Method: C6+ Gas

Last Cal/Verify: 07/11/2018

NMOC

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DISTRICT III

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LOGOS OPERATING LLC
WELL ANALYSIS COMPARISON

Lease: ANGEL PEAK B 25; TBG
Stn. No.: CC# 3132147A
Mtr. No.:

TUBING
DK

07/11/2018
46600-11285

Smpl Date: 07/03/2018
Test Date: 07/09/2018
Run No: LG180177
Nitrogen: 0.5840
CO2: 1.3194
Methane: 78.7965
Ethane: 10.2874
Propane: 5.0127
I-Butane: 0.6809
N-Butane: 1.5819
I-Pentane: 0.4634
N-Pentane: 0.4719
Hexane+: 0.8019
BTU: 1265.1
GPM: 19.2680
SPG: 0.7430



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

Analysis No: LG180176
Cust No: 46600-11280

Well/Lease Information

Customer Name: LOGOS OPERATING LLC
Well Name: ANGLE PEAK B 25; CSG
County/State: SAN JUAN NM
Location:
Field: SOUTH
Formation: DK
Cust. Stn. No.: CC# 3132147A

Source: CASING
Well Flowing: N
Pressure: 157 PSIG
Flow Temp: DEG. F
Ambient Temp: 87 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/03/2018
Sample Time: 11.57 AM
Sampled By: EUGENE BURBANK
Sampled by (CO): LOGOS

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5620	0.5623	0.0620	0.00	0.0054
CO2	1.2315	1.2321	0.2110	0.00	0.0187
Methane	79.0258	79.0671	13.4430	798.16	0.4377
Ethane	10.3900	10.3954	2.7880	183.87	0.1079
Propane	4.9960	4.9986	1.3810	125.70	0.0761
Iso-Butane	0.6213	0.6216	0.2040	20.20	0.0125
N-Butane	1.5329	1.5337	0.4850	50.01	0.0308
I-Pentane	0.4478	0.4480	0.1640	17.92	0.0112
N-Pentane	0.4692	0.4694	0.1710	18.81	0.0117
Hexane Plus	0.7235	0.7239	0.3240	38.14	0.0239
Total	100.0000	100.0521	19.2330	1252.81	0.7358

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0037
BTU/CU.FT IDEAL: 1255.7
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1260.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1238.5
DRY BTU @ 15.025: 1285.6
REAL SPECIFIC GRAVITY: 0.7383

CYLINDER #: 4035
CYLINDER PRESSURE: 151 PSIG
ANALYSIS DATE: 07/09/2018
ANALYSIS TIME: 09:43:07 AM
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

GC Method: C6+ Gas

Last Cal/Verify: 07/11/2018

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LOGOS OPERATING LLC
WELL ANALYSIS COMPARISON

Lease: ANGLE PEAK B 25; CSG
Stn. No.: CC# 3132147A
Mtr. No.:

CASING
DK

07/11/2018
46600-11280

Smpl Date: 07/03/2018
Test Date: 07/09/2018
Run No: LG180176
Nitrogen: 0.5620
CO2: 1.2315
Methane: 79.0258
Ethane: 10.3900
Propane: 4.9960
I-Butane: 0.6213
N-Butane: 1.5329
I-Pentane: 0.4478
N-Pentane: 0.4692
Hexane+: 0.7235
BTU: 1260.4
GPM: 19.2330
SPG: 0.7383



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

Analysis No: LG180175
Cust No: 46600-11275

Well/Lease Information

Customer Name: LOGOS OPERATING LLC
Well Name: ANGEL PEAK B 25; BHD
County/State: SAN JUAN NM
Location:
Field: SOUTH
Formation: DK
Cust. Stn. No.: CC# 3132147A

Source: BRADENHEAD
Well Flowing: N
Pressure: 155 PSIG
Flow Temp: DEG. F
Ambient Temp: 87 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/03/2018
Sample Time: 12.05 PM
Sampled By: EUGENE BURBANK
Sampled by (CO): LOGOS

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5640	0.5647	0.0620	0.00	0.0055
CO2	1.1544	1.1558	0.1980	0.00	0.0175
Methane	79.1443	79.2420	13.4640	799.36	0.4384
Ethane	10.3700	10.3828	2.7830	183.52	0.1077
Propane	4.9755	4.9816	1.3750	125.19	0.0758
Iso-Butane	0.6184	0.6192	0.2030	20.11	0.0124
N-Butane	1.5318	1.5337	0.4850	49.97	0.0307
I-Pentane	0.4524	0.4530	0.1660	18.10	0.0113
N-Pentane	0.4757	0.4763	0.1730	19.07	0.0119
Hexane Plus	0.7135	0.7144	0.3190	37.61	0.0236
Total	100.0000	100.1235	19.2280	1252.92	0.7347

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0037
BTU/CU.FT IDEAL: 1255.8
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1260.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1238.6
DRY BTU @ 15.025: 1285.7
REAL SPECIFIC GRAVITY: 0.7371

CYLINDER #: 7051
CYLINDER PRESSURE: 96 PSIG
ANALYSIS DATE: 07/10/2018
ANALYSIS TIME: 04:35:35 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

GC Method: C6+ Gas

Last Cal/Verify: 07/11/2018

NMOC
JUL 19 2018
DISTRICT III



LOGOS OPERATING LLC
WELL ANALYSIS COMPARISON

Lease: ANGEL PEAK B 25; BHD
Stn. No.: CC# 3132147A
Mtr. No.:

BRADENHEAD
DK

07/11/2018
46600-11275

Smpl Date: 07/03/2018
Test Date: 07/10/2018
Run No: LG180175
Nitrogen: 0.5640
CO2: 1.1544
Methane: 79.1443
Ethane: 10.3700
Propane: 4.9755
I-Butane: 0.6184
N-Butane: 1.5318
I-Pentane: 0.4524
N-Pentane: 0.4757
Hexane+: 0.7135
BTU: 1260.5
GPM: 19.2280
SPG: 0.7371