GAS ANALYSIS SERVICE

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

Analysis No: GW170034
Cust No: 33050-10175

Well/Lease Information

Customer Name:	GREAT WESTERN DRILLING	Source:	BRADENHEAD
Well Name:	J. E. DECKER #2; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	43 PSIG
Location:		Flow Temp:	DEG. F
Field:		Ambient Temp:	64 DEG. F
Formation:	BLANCO MV	Flow Rate:	MCF/D
Cust. Stn. No.:	70797	Sample Method:	Purge & Fill
		Date Sampled:	10/23/2017
		Sample Time:	12.20 PM
		Sampled By:	CULLAN
		Sampled by (CO):	GWDC

OIL CONS. DIV DIST. 3
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Remarks:

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6755	0.6613	0.0740	0.00	0.0065
CO2	0.0079	0.0077	0.0010	0.00	0.0001
Methane	91.2076	89.2936	15.4990	921.20	0.5052
Ethane	4.0744	3.9889	1.0920	72.10	0.0423
Propane	2.2953	2.2471	0.6340	57.75	0.0349
Iso-Butane	0.5140	0.5032	0.1690	16.71	0.0103
N-Butane	0.5527	0.5411	0.1750	18.03	0.0111
I-Pentane	0.2189	0.2143	0.0800	8.76	0.0055
N-Pentane	0.1436	0.1406	0.0520	5.76	0.0036
Hexane Plus	0.3101	0.3036	0.1390	16.35	0.0103
Total	100.0000	97.9014	17.9150	1116.66	0.6298

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0026	CYLINDER #:	7053
BTU/CU.FT IDEAL:	1119.2	CYLINDER PRESSURE:	46 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1122.2	DATE RUN:	10/30/17 12:20 PM
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1102.7	ANALYSIS RUN BY:	RICHARD WILSON
DRY BTU @ 15.025:	1144.7		
REAL SPECIFIC GRAVITY:	0.6312		

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: 10/30/2017**
GC Method: C6+ Gas

GAS ANALYSIS SERVICE

2030 Afton Place
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Analysis No: GW170046
Cust No: 33050-10355

Well/Lease Information

Customer Name:	GREAT WESTERN DRILLING	Source:	TUBING
Well Name:	J.E. DECKER 2; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	156 PSIG
Location:		Flow Temp:	DEG. F
Field:		Ambient Temp:	57 DEG. F
Formation:	BMV	Flow Rate:	MCF/D
Cust. Stn. No.:	API 30-045-11490	Sample Method:	Purge & Fill
		Date Sampled:	10/25/2017
		Sample Time:	10.10 AM
		Sampled By:	CULLAN
		Sampled by (CO):	GWDC

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Remarks:

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1480	0.1463	0.0160	0.00	0.0014
CO2	1.2897	1.2750	0.2210	0.00	0.0196
Methane	84.0729	83.1122	14.2950	849.14	0.4657
Ethane	8.4481	8.3516	2.2660	149.51	0.0877
Propane	3.4303	3.3911	0.9480	86.31	0.0522
Iso-Butane	0.6261	0.6189	0.2050	20.36	0.0126
N-Butane	0.8854	0.8753	0.2800	28.88	0.0178
I-Pentane	0.3077	0.3042	0.1130	12.31	0.0077
N-Pentane	0.2316	0.2290	0.0840	9.28	0.0058
Hexane Plus	0.5602	0.5538	0.2510	29.53	0.0185
Total	100.0000	98.8574	18.6790	1185.32	0.6890

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0032	CYLINDER #:	4110
BTU/CU.FT IDEAL:	1188.1	CYLINDER PRESSURE:	164 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1191.9	DATE RUN:	10/31/17 12:00 AM
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1171.2	ANALYSIS RUN BY:	PATRICIA KING
DRY BTU @ 15.025:	1215.8		
REAL SPECIFIC GRAVITY:	0.6909		

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: 11/01/2017**
GC Method: C6+ Gas

GAS ANALYSIS SERVICE

2030 Afton Place
Farmington, NM 87401
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Analysis No: GW170045
Cust No: 33050-10350

Well/Lease Information

Customer Name:	GREAT WESTERN DRILLING	Source:	CASING
Well Name:	J.E. DECKER 2; CSG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	240 PSIG
Location:		Flow Temp:	DEG. F
Field:		Ambient Temp:	57 DEG. F
Formation:	BMV	Flow Rate:	MCF/D
Cust. Stn. No.:	API 30-045-11490	Sample Method:	Purge & Fill
		Date Sampled:	10/25/2017
		Sample Time:	10.00 AM
		Sampled By:	CULLAN
		Sampled by (CO):	GWDC

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Remarks: PRESSURED WITH HELIUM TO 30 LBS. CYLINDER WAS PRESSURE TESTED, NO LEAKS FOUND.

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	99.2376	3.9572	10.9180	0.00	0.9598
CO2	0.2733	0.0109	0.0470	0.00	0.0042
Methane	0.4565	0.0182	0.0770	4.61	0.0025
Ethane	0.0326	0.0013	0.0090	0.58	0.0003
Propane	0.0000	0.0000	0.0000	0.00	0.0000
Iso-Butane	0.0000	0.0000	0.0000	0.00	0.0000
N-Butane	0.0000	0.0000	0.0000	0.00	0.0000
I-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.0000	0.0000	0.0000	0.00	0.0000
Total	100.0000	3.9876	11.0510	5.19	0.9668

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR	(1/Z):	1.0003	CYLINDER #:	4009
BTU/CU.FT IDEAL:		5.2	CYLINDER PRESSURE:	7 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):		5.2	DATE RUN:	10/31/17 12:00 AM
BTU/CU.FT (WET) CORRECTED FOR (1/Z):		5.1	ANALYSIS RUN BY:	PATRICIA KING
DRY BTU @ 15.025:		5.3		
REAL SPECIFIC GRAVITY:		0.9667		

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: 11/01/2017**
GC Method: C6+ Gas

GAS ANALYSIS SERVICE

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

Analysis No: GW170035
Cust No: 33050-10345

Well/Lease Information

Customer Name:	GREAT WESTERN DRILLING	Source:	METER RUN
Well Name:	J.E. DECKER 2; INT	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	216 PSIG
Location:		Flow Temp:	DEG. F
Field:		Ambient Temp:	64 DEG. F
Formation:	BMV	Flow Rate:	MCF/D
Cust. Stn. No.:	API 30-045-11490	Sample Method:	Purge & Fill
		Date Sampled:	10/23/2017
		Sample Time:	12.30 PM
		Sampled By:	CULLEN
		Sampled by (CO):	GWDC

OIL CONS. DIV DIST. 3
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Remarks:

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2166	0.2145	0.0240	0.00	0.0021
CO2	1.1817	1.1700	0.2020	0.00	0.0180
Methane	79.5872	78.8019	13.5390	803.83	0.4408
Ethane	10.4006	10.2980	2.7910	184.06	0.1080
Propane	4.6289	4.5832	1.2800	116.47	0.0705
Iso-Butane	0.7929	0.7851	0.2600	25.78	0.0159
N-Butane	1.3615	1.3481	0.4310	44.42	0.0273
I-Pentane	0.4928	0.4879	0.1810	19.72	0.0123
N-Pentane	0.4084	0.4044	0.1490	16.37	0.0102
Hexane Plus	0.9294	0.9202	0.4160	48.99	0.0308
Total	100.0000	99.0133	19.2730	1259.64	0.7358

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0037	CYLINDER #:	6148
BTU/CU.FT IDEAL:	1262.5	CYLINDER PRESSURE:	182 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1267.2	DATE RUN:	10/30/17 12:30 PM
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1245.2	ANALYSIS RUN BY:	RICHARD WILSON
DRY BTU @ 15.025:	1292.6		
REAL SPECIFIC GRAVITY:	0.7382		

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: 10/30/2017**
GC Method: C6+ Gas