



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

Analysis No: DR180006
Cust No: 21300-10030

Well/Lease Information

Customer Name: D.J.R.
Well Name: WEST BISTI COAL 22 #1;BHD
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Str. No.:

API 30 045 28916

Source: BRADENHEAD
Well Flowing:
Pressure: 66 PSIG
Flow Temp: DEG. F
Ambient Temp: 60 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 05/03/2018
Sample Time: 11.00 AM
Sampled By: J. HARTER
Sampled by (CO): COTTONWOOD

Heat Trace:
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	3.7899	3.7918	0.4180	0.00	0.0367
CO2	0.9185	0.9190	0.1570	0.00	0.0140
Methane	94.8717	94.9194	16.1100	958.20	0.5255
Ethane	0.4199	0.4201	0.1120	7.43	0.0044
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	100.0503	16.7970	965.64	0.5805

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0019
BTU/CU.FT IDEAL: 967.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 969.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 952.8
DRY BTU @ 15.025: 989.1
REAL SPECIFIC GRAVITY: 0.5813

CYLINDER #: 7047
CYLINDER PRESSURE: 70 PSIG
ANALYSIS DATE: 05/04/2018
ANALYSIS TIME: 12:26:24 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

GC Method: C6+ Gas

Last Cal/Verify: 05/11/2018

NWOOD

JUN 21 2018

DISTRICT III



D.J.R.

WELL ANALYSIS COMPARISON

Lease: WEST BISTI COAL 22 #1;BHD
Stn. No.:
Mtr. No.: API 30 045 28916

BRADENHEAD

05/11/2018
21300-10030

Smpl Date: 05/03/2018
Test Date: 05/04/2018
Run No: DR180006

Nitrogen: 3.7899
CO2: 0.9185
Methane: 94.8717
Ethane: 0.4199
Propane: 0.0000
I-Butane: 0.0000
N-Butane: 0.0000
I-Pentane: 0.0000
N-Pentane: 0.0000
Hexane+: 0.0000

BTU: 969.7
GPM: 16.7970
SPG: 0.5813



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

Analysis No: DR180007
Cust No: 21300-10035

Well/Lease Information

Customer Name: D.J.R.
Well Name: WEST BISTI COAL 22 #1;CSG
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Stn. No.:
API 30 045 28916

Source: CASING
Well Flowing: Y
Pressure: 72 PSIG
Flow Temp: DEG. F
Ambient Temp: 60 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 05/03/2018
Sample Time: 10.55 AM
Sampled By: J. HARTER
Sampled by (CO): COTTONWOOD

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	3.7968	3.8138	0.4180	0.00	0.0367
CO2	0.9324	0.9366	0.1590	0.00	0.0142
Methane	94.8504	95.2739	16.1060	957.99	0.5254
Ethane	0.4204	0.4223	0.1130	7.44	0.0044
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	100.4466	16.7960	965.43	0.5806

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0019
BTU/CU.FT IDEAL: 967.7
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 969.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 952.6
DRY BTU @ 15.025: 988.9
REAL SPECIFIC GRAVITY: 0.5815

CYLINDER #: 4220
CYLINDER PRESSURE: 77 PSIG
ANALYSIS DATE: 05/04/2018
ANALYSIS TIME: 12:13:29 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: 05/11/2018

GC Method: C6+ Gas



D.J.R.

WELL ANALYSIS COMPARISON

Lease: WEST BISTI COAL 22 #1;CSG

CASING

05/11/2018

Stn. No.:

21300-10035

Mtr. No.: API 30 045 28916

Smpl Date: 05/03/2018

Test Date: 05/04/2018

Run No: DR180007

Nitrogen: 3.7968

CO2: 0.9324

Methane: 94.8504

Ethane: 0.4204

Propane: 0.0000

I-Butane: 0.0000

N-Butane: 0.0000

I-Pentane: 0.0000

N-Pentane: 0.0000

Hexane+: 0.0000

BTU: 969.5

GPM: 16.7960

SPG: 0.5815



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

Analysis No: DR180008
Cust No: 21300-10040

Well/Lease Information

Customer Name: D.J.R.
Well Name: WEST BISTI COAL 22 #1;TBG
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Stn. No.:

API 30 045 28916

Source: TUBING
Well Flowing: Y
Pressure: 46 PSIG
Flow Temp: DEG. F
Ambient Temp: 60 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 05/03/2018
Sample Time: 10.50 AM
Sampled By: J. HARTER
Sampled by (CO): COTTONWOOD

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	3.7905	3.7899	0.4180	0.00	0.0367
CO2	0.9384	0.9382	0.1600	0.00	0.0143
Methane	94.8508	94.8357	16.1070	957.99	0.5254
Ethane	0.4203	0.4202	0.1130	7.44	0.0044
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	99.9840	16.7980	965.43	0.5807

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0019
BTU/CU.FT IDEAL: 967.7
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 969.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 952.6
DRY BTU @ 15.025: 988.9
REAL SPECIFIC GRAVITY: 0.5815

CYLINDER #: 7011
CYLINDER PRESSURE: 46 PSIG
ANALYSIS DATE: 05/04/2018
ANALYSIS TIME: 11:58:47 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: 05/11/2018

GC Method: C6+ Gas



D.J.R.

WELL ANALYSIS COMPARISON

Lease: WEST BISTI COAL 22 #1;TBG
Stn. No.:
Mtr. No.: API 30 045 28916

TUBING

05/11/2018
21300-10040

Smpl Date: 05/03/2018
Test Date: 05/04/2018
Run No: DR180008

Nitrogen: 3.7905
CO2: 0.9384
Methane: 94.8508
Ethane: 0.4203
Propane: 0.0000
I-Butane: 0.0000
N-Butane: 0.0000
I-Pentane: 0.0000
N-Pentane: 0.0000
Hexane+: 0.0000

BTU: 969.5
GPM: 16.7980
SPG: 0.5815