



30-040-20301
Braden head

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

Analysis No: SO170023
Cust No: 15950-10135

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CHILDERS 5R
County/State: NM
Location:
Field:
Formation: MV
Cust. Str. No.:
API 3004525351

Source: BRADENHEAD
Pressure: 68 PSIA
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 06/22/2017
Sampled By: E. HAMILTON
Foreman/Engr.: KEVIN IRELAND

OIL CONS. DIV DIST. 3

JAN 02 2018

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	6.454	0.7120	0.00	0.0624
CO2	0.028	0.0050	0.00	0.0004
Methane	86.788	14.7430	876.56	0.4807
Ethane	4.509	1.2080	79.79	0.0468
Propane	1.296	0.3580	32.61	0.0197
Iso-Butane	0.289	0.0950	9.41	0.0058
N-Butane	0.271	0.0860	8.85	0.0054
I-Pentane	0.102	0.0380	4.10	0.0026
N-Pentane	0.061	0.0220	2.46	0.0015
Hexane Plus	0.200	0.0890	10.54	0.0066
Total	100.000	17.3560	1024.33	0.6321

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0023

BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1029.1

BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1011.2

REAL SPECIFIC GRAVITY: 0.6333

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1023.5

DRY BTU @ 14.696: 1026.7

DRY BTU @ 14.730: 1029.1

DRY BTU @ 15.025: 1049.7

CYLINDER #: 7054

CYLINDER PRESSURE: 67 PSIG

DATE RUN: 7/5/17 4:03 PM

ANALYSIS RUN BY: RICHARD WILSON

U

30-045-25351
Bradenhead



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CHILDERS 5R
Stn. No.:
Mtr. No.: API 3004525351

BRADENHEAD
MV

07/11/2017
15950-10135

Smpl Date: 06/22/2017
Test Date: 07/05/2017
Run No: SO170023
Nitrogen: 6.454
CO2: 0.028
Methane: 86.788
Ethane: 4.509
Propane: 1.296
I-Butane: 0.289
N-Butane: 0.271
I-Pentane: 0.102
N-Pentane: 0.061
Hexane+: 0.200
BTU: 1029.1
GPM: 17.3560
SPG: 0.6333



30-045-25351
Casing

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

Analysis No: SO170024
Cust No: 15950-10170

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CHILDERS 5R
County/State: NM
Location:
Field:
Formation: MV
Cust. Strn. No.:
API 3004525351

OIL CONS. DIV DIST. 3

JAN 02 2018

Source: CASING
Pressure: 94 PSIA
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 06/22/2017
Sampled By: E. HAMILTON
Foreman/Engr.: KEVIN IRELAND

Remarks: PRESSURED WITH HELIUM TO 30 LBS.

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	30.471	3.3580	0.00	0.2947
CO2	0.736	0.1260	0.00	0.0112
Methane	59.086	10.0340	596.77	0.3273
Ethane	5.833	1.5630	103.22	0.0606
Propane	2.022	0.5580	50.87	0.0308
Iso-Butane	0.295	0.0970	9.60	0.0059
N-Butane	0.535	0.1690	17.45	0.0107
I-Pentane	0.212	0.0780	8.48	0.0053
N-Pentane	0.167	0.0610	6.68	0.0042
Hexane Plus	0.643	0.2870	33.88	0.0213
Total	100.000	16.3310	826.97	0.7719

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.002
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 830.5
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 816.0
REAL SPECIFIC GRAVITY: 0.7731

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 826.0
DRY BTU @ 14.696: 828.6
DRY BTU @ 14.730: 830.5
DRY BTU @ 15.025: 847.1

CYLINDER #: 7076
CYLINDER PRESSURE: 1 PSIG
DATE RUN: 7/5/17 4:17 PM
ANALYSIS RUN BY: RICHARD WILSON

30-045-25351
Casing



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CHILDERS 5R
Stn. No.:
Mtr. No.: API 3004525351

CASING
MV

07/11/2017
15950-10170

Smpl Date: 06/22/2017
Test Date: 07/05/2017
Run No: SO170024

Nitrogen: 30.471
CO2: 0.736
Methane: 59.086
Ethane: 5.833
Propane: 2.022
I-Butane: 0.295
N-Butane: 0.535
I-Pentane: 0.212
N-Pentane: 0.167
Hexane+: 0.643

BTU: 830.5
GPM: 16.3310
SPG: 0.7731



30-045-25501
tubing

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

Analysis No: SO170025
Cust No: 15950-10150

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: CHILDERS 5R
County/State: NM
Location:
Field:
Formation: MV
Cust. Stn. No.:
API 3004525351

Source: TUBING
Pressure: 30 PSIA
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 06/22/2017
Sampled By: E. HAMILTON
Foreman/Engr.: KEVIN IRELAND

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.237	0.0260	0.00	0.0023
CO2	1.728	0.2960	0.00	0.0263
Methane	80.074	13.6230	808.75	0.4435
Ethane	9.118	2.4470	161.36	0.0947
Propane	4.256	1.1770	107.08	0.0648
Iso-Butane	0.780	0.2560	25.37	0.0157
N-Butane	1.403	0.4440	45.77	0.0282
I-Pentane	0.560	0.2060	22.42	0.0140
N-Pentane	0.448	0.1630	17.95	0.0112
Hexane Plus	1.396	0.6250	73.57	0.0462
Total	100.000	19.2630	1262.27	0.7467

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0038
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1270.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1247.9
REAL SPECIFIC GRAVITY: 0.7492

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1263.1
DRY BTU @ 14.696: 1267.1
DRY BTU @ 14.730: 1270.0
DRY BTU @ 15.025: 1295.4

CYLINDER #: 7008
CYLINDER PRESSURE: 29 PSIG
DATE RUN: 7/5/17 4:47 PM
ANALYSIS RUN BY: RICHARD WILSON

30-045-25351
tubing



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: CHILDERS 5R
Stn. No.:
Mtr. No.: API 3004525351

TUBING
MV

07/11/2017
15950-10150

Smpl Date: 06/22/2017
Test Date: 07/05/2017
Run No: SO170025

Nitrogen: 0.237
CO2: 1.728
Methane: 80.074
Ethane: 9.118
Propane: 4.256
I-Butane: 0.780
N-Butane: 1.403
I-Pentane: 0.560
N-Pentane: 0.448
Hexane+: 1.396

BTU: 1270.0
GPM: 19.2630
SPG: 0.7492