



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

Analysis No: HS190209
Cust No: 35825-11790

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: MONTOYA 1R; BHD
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: MV
Cust. Stn. No.: API #3004532335

Source: BRADENHEAD
Well Flowing:
Pressure: 75 PSIG
Flow Temp: DEG. F
Ambient Temp: 90 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/25/2019
Sample Time: 3.45 PM
Sampled By: DANIEL RIOS
Sampled by (CO): HILCORP

RUN 2 / AREA 211

Heat Trace:
Remarks:

NMOCB
SEP 09 2019
DISTRICT III

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1635	0.1622	0.0180	0.00	0.0016
CO2	0.0070	0.0069	0.0010	0.00	0.0001
Methane	90.9564	90.2274	15.4580	918.66	0.5038
Ethane	5.3050	5.2625	1.4220	93.88	0.0551
Propane	1.6741	1.6607	0.4620	42.12	0.0255
Iso-Butane	0.7351	0.7292	0.2410	23.90	0.0148
N-Butane	0.4109	0.4076	0.1300	13.40	0.0082
I-Pentane	0.3798	0.3768	0.1390	15.20	0.0095
N-Pentane	0.0731	0.0725	0.0270	2.93	0.0018
Hexane Plus	0.2951	0.2927	0.1320	15.55	0.0098
Total	100.0000	99.1985	18.0300	1125.65	0.6301

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
BTU/CU.FT IDEAL: 1128.3
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1131.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1111.6
DRY BTU @ 15.025: 1154.0
REAL SPECIFIC GRAVITY: 0.6316

CYLINDER #: 7058
CYLINDER PRESSURE: 56 PSIG
ANALYSIS DATE: 08/07/2019
ANALYSIS TIME: 02:54:10 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

Last Cal/Verify: 08/09/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: MONTROYA 1R; BHD
Stn. No.: API #3004532335
Mtr. No.:

BRADENHEAD
MV

08/09/2019
35825-11790

Smpl Date:	07/25/2019	07/25/2019
Test Date:	08/07/2019	08/07/2019
Run No:	HS190208	HS190209
Nitrogen:	0.1433	0.1635
CO2:	0.8145	0.0070
Methane:	84.6261	90.9564
Ethane:	8.0878	5.3050
Propane:	3.0661	1.6741
I-Butane:	0.6116	0.7351
N-Butane:	0.8711	0.4109
I-Pentane:	0.4136	0.3798
N-Pentane:	0.2945	0.0731
Hexane+:	1.0714	0.2951
BTU:	1214.9	1131.3
GPM:	18.7760	18.0300
SPG:	0.6980	0.6316



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Analysis No: HS190208
Cust No: 35825-11790

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: MONTOYA 1R; BHD
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: MV
Cust. Stn. No.: API #3004532335

Source: BRADENHEAD
Well Flowing: Y
Pressure: 75 PSIG
Flow Temp: DEG. F
Ambient Temp: 90 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/25/2019
Sample Time: 3.35 PM
Sampled By: DANIEL RIOS
Sampled by (CO):

Heat Trace: N
Remarks: RUN 2 / AREA 211

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1433	0.1399	0.0160	0.00	0.0014
CO2	0.8145	0.7953	0.1390	0.00	0.0124
Methane	84.6261	82.6305	14.3900	854.72	0.4687
Ethane	8.0878	7.8971	2.1700	143.13	0.0840
Propane	3.0661	2.9938	0.8470	77.15	0.0467
Iso-Butane	0.6116	0.5972	0.2010	19.89	0.0123
N-Butane	0.8711	0.8506	0.2750	28.42	0.0175
I-Pentane	0.4136	0.4038	0.1520	16.55	0.0103
N-Pentane	0.2945	0.2876	0.1070	11.81	0.0073
Hexane Plus	1.0714	1.0461	0.4790	56.47	0.0355
Total	100.0000	97.6419	18.7760	1208.13	0.6960

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
BTU/CU.FT IDEAL: 1210.9
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1214.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1193.8
DRY BTU @ 15.025: 1239.2
REAL SPECIFIC GRAVITY: 0.698

CYLINDER #: 7032
CYLINDER PRESSURE: 38 PSIG
ANALYSIS DATE: 08/07/2019
ANALYSIS TIME: 03:10:55 PM
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

Last Cal/Verify: 08/09/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: MONTOKA 1R; BHD
Stn. No.: API #3004532335
Mtr. No.:

BRADENHEAD
MV

08/09/2019
35825-11790

Smpl Date:	07/25/2019	07/25/2019
Test Date:	08/07/2019	08/07/2019
Run No:	HS190208	HS190209
Nitrogen:	0.1433	0.1635
CO ₂ :	0.8145	0.0070
Methane:	84.6261	90.9564
Ethane:	8.0878	5.3050
Propane:	3.0661	1.6741
I-Butane:	0.6116	0.7351
N-Butane:	0.8711	0.4109
I-Pentane:	0.4136	0.3798
N-Pentane:	0.2945	0.0731
Hexane+:	1.0714	0.2951
BTU:	1214.9	1131.3
GPM:	18.7760	18.0300
SPG:	0.6980	0.6316



2030 Afton Place
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Analysis No: HS190210
Cust No: 35825-11800

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: MONTOKA 1R; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: MV
Cust. Stn. No.: API #3004532335

Source: CASING
Well Flowing: Y
Pressure: 51 PSIG
Flow Temp: DEG. F
Ambient Temp: 90 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 07/25/2019
Sample Time: 3.40 PM
Sampled By: DANIEL RIOS
Sampled by (CO): HILCORP

Heat Trace: AREA 2 / RUN 211
Remarks: N

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1365	0.1340	0.0150	0.00	0.0013
CO2	1.3761	1.3508	0.2360	0.00	0.0209
Methane	82.5456	81.0276	14.0420	833.71	0.4572
Ethane	7.9481	7.8019	2.1330	140.66	0.0825
Propane	3.5462	3.4810	0.9800	89.23	0.0540
Iso-Butane	0.7909	0.7764	0.2600	25.72	0.0159
N-Butane	1.2344	1.2117	0.3910	40.27	0.0248
I-Pentane	0.5528	0.5426	0.2030	22.12	0.0138
N-Pentane	0.4530	0.4447	0.1650	18.16	0.0113
Hexane Plus	1.4164	1.3904	0.6340	74.66	0.0469
Total	100.0000	98.1611	19.0590	1244.52	0.7285

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0037
BTU/CU.FT IDEAL: 1247.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1252.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1230.2
DRY BTU @ 15.025: 1277.1
REAL SPECIFIC GRAVITY: 0.7309

CYLINDER #: 5003
CYLINDER PRESSURE: 54 PSIG
ANALYSIS DATE: 08/07/2019
ANALYSIS TIME: 02:35:32 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

Last Cal/Verify: 08/09/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: MONTOKA 1R; CSG
Stn. No.: API #3004532335
Mtr. No.:

CASING
MV

08/09/2019
35825-11800

Smpl Date: 07/25/2019
Test Date: 08/07/2019
Run No: HS190210

Nitrogen: 0.1365
CO₂: 1.3761
Methane: 82.5456
Ethane: 7.9481
Propane: 3.5462
I-Butane: 0.7909
N-Butane: 1.2344
I-Pentane: 0.5528
N-Pentane: 0.4530
Hexane+: 1.4164

BTU: 1252.0
GPM: 19.0590
SPG: 0.7309