

**NMOC****APR 26 2019****DISTRICT III**2030 Afton Place
Farmington, NM 87401
(505) 325-6622Analysis No: HS190012
Cust No: 35825-10970**Well/Lease Information**Customer Name: HILCORP (BHD PROJECT)
Well Name: CANYON LARGO UNIT #20; BHD
County/State: RIO ARRIBA NM
Location: P-12-24N-6W API: 3003905554
Lease/PA/CA: AREA 14 / RUN 1409
Formation: NAC,OA,KL, FC, PC
Cust. Stn. No.: 74-432-01Source: BRADENHEAD
Well Flowing: N
Pressure: 36 PSIG
Flow Temp: DEG. F
Ambient Temp: 56 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 03/25/2019
Sample Time: 11.50 AM
Sampled By: ROMAN LUCERO JR.
Sampled by (CO):Heat Trace: N
Remarks:**Analysis**

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.9269	0.9116	0.1020	0.00	0.0090
CO2	0.0727	0.0715	0.0120	0.00	0.0011
Methane	84.3756	82.9823	14.3460	852.19	0.4674
Ethane	7.4799	7.3564	2.0060	132.37	0.0777
Propane	4.2037	4.1343	1.1620	105.77	0.0640
Iso-Butane	0.9470	0.9314	0.3110	30.80	0.0190
N-Butane	0.9969	0.9804	0.3150	32.52	0.0200
I-Pentane	0.3743	0.3681	0.1370	14.98	0.0093
N-Pentane	0.2228	0.2191	0.0810	8.93	0.0056
Hexane Plus	0.4002	0.3936	0.1790	21.09	0.0132
Total	100.0000	98.3487	18.6510	1198.65	0.6862

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0032
BTU/CU.FT IDEAL: 1201.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1205.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1184.3
DRY BTU @ 15.025: 1229.4
REAL SPECIFIC GRAVITY: 0.6881CYLINDER #: 6167
CYLINDER PRESSURE: 31 PSIG
ANALYSIS DATE: 03/28/2019
ANALYSIS TIME: 01:05:14 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: 04/23/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CANYON LARGO UNIT #20; BHD	BRADENHEAD	04/23/2019
Stn. No.:	74-432-01	NAC,OA,KL, FC, PC	35825-10970
Mtr. No.:			

Smpl Date:	03/25/2019
Test Date:	03/28/2019
Run No:	HS190012
Nitrogen:	0.9269
CO2:	0.0727
Methane:	84.3756
Ethane:	7.4799
Propane:	4.2037
I-Butane:	0.9470
N-Butane:	0.9969
I-Pentane:	0.3743
N-Pentane:	0.2228
Hexane+:	0.4002
BTU:	1205.3
GPM:	18.6510
SPG:	0.6881



2030 Afton Place
Farmington, NM 87401
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Analysis No: HS190013
Cust No: 35825-10975

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: CANYON LARGO UNIT #20; CSG
County/State: RIO ARRIBA NM
Location: P-12-24N-6W API: 3003905554
Lease/PA/CA: AREA 14 / AREA 1409
Formation: NAC,OA,KL,FC, PC
Cust. Str. No.: 74-432-01

Source: CASING
Well Flowing: N
Pressure: 36 PSIG
Flow Temp: DEG. F
Ambient Temp: 56 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 03/25/2019
Sample Time: 11.55 AM
Sampled By: ROMAN LUCERO JR.
Sampled by (CO): HILCORP

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.9297	0.9152	0.1030	0.00	0.0090
CO2	0.0519	0.0511	0.0090	0.00	0.0008
Methane	84.2960	82.9790	14.3330	851.39	0.4669
Ethane	7.5048	7.3876	2.0130	132.81	0.0779
Propane	4.2220	4.1560	1.1670	106.23	0.0643
Iso-Butane	0.9532	0.9383	0.3130	31.00	0.0191
N-Butane	1.0042	0.9885	0.3180	32.76	0.0202
I-Pentane	0.3779	0.3720	0.1390	15.12	0.0094
N-Pentane	0.2254	0.2219	0.0820	9.04	0.0056
Hexane Plus	0.4349	0.4281	0.1950	22.92	0.0144
Total	100.0000	98.4377	18.6720	1201.27	0.6876

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0032
BTU/CU.FT IDEAL: 1204.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1207.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1186.9
DRY BTU @ 15.025: 1232.1
REAL SPECIFIC GRAVITY: 0.6895

CYLINDER #: 7013
CYLINDER PRESSURE: 35 PSIG
ANALYSIS DATE: 03/28/2019
ANALYSIS TIME: 01:21:19 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: 04/23/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CANYON LARGO UNIT #20; CSG	CASING	04/23/2019
Stn. No.:	74-432-01	NAC,OA,KL,FC, PC	35825-10975
Mtr. No.:			

Smpl Date: 03/25/2019
Test Date: 03/28/2019
Run No: HS190013

Nitrogen: 0.9297
CO2: 0.0519
Methane: 84.2960
Ethane: 7.5048
Propane: 4.2220
I-Butane: 0.9532
N-Butane: 1.0042
I-Pentane: 0.3779
N-Pentane: 0.2254
Hexane+: 0.4349

BTU: 1207.9
GPM: 18.6720
SPG: 0.6895



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Analysis No: HS190014
Cust No: 35825-10980

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: CANYON LARGO UNIT #20; TBG
County/State: RIO ARriba NM
Location: P-12-24N-6W API: 3003905554
Lease/PA/CA: AREA 14 / RUN 1409
Formation: NAC,OA,KL,FC, PC
Cust. Stn. No.: 74-432-01

Source: TUBING
Well Flowing: N
Pressure: 38 PSIG
Flow Temp: DEG. F
Ambient Temp: 56 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 03/25/2019
Sample Time: 11.50 AM
Sampled By: ROMAN LUCERO JR.
Sampled by (CO): HILCORP

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.2064	1.1888	0.1330	0.00	0.0117
CO2	0.5209	0.5133	0.0890	0.00	0.0079
Methane	80.9561	79.7729	13.7690	817.66	0.4484
Ethane	8.6894	8.5624	2.3310	153.78	0.0902
Propane	4.8004	4.7303	1.3270	120.78	0.0731
Iso-Butane	0.6805	0.6706	0.2230	22.13	0.0137
N-Butane	1.5358	1.5134	0.4860	50.10	0.0308
I-Pentane	0.4515	0.4449	0.1660	18.06	0.0112
N-Pentane	0.3991	0.3933	0.1450	16.00	0.0099
Hexane Plus	0.7599	0.7488	0.3400	40.05	0.0251
Total	100.0000	98.5387	19.0090	1238.57	0.7221

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0035
BTU/CU.FT IDEAL: 1241.4
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1245.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1224.1
DRY BTU @ 15.025: 1270.7
REAL SPECIFIC GRAVITY: 0.7244

CYLINDER #: 7000
CYLINDER PRESSURE: 36 PSIG
ANALYSIS DATE: 03/28/2019
ANALYSIS TIME: 01:37:15 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: 04/23/2019

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CANYON LARGO UNIT #20; TBG	TUBING	04/23/2019
Stn. No.:	74-432-01	NAC,OA,KL,FC, PC	35825-10980
Mtr. No.:			

Smpl Date:	03/25/2019
Test Date:	03/28/2019
Run No:	HS190014
Nitrogen:	1.2064
CO2:	0.5209
Methane:	80.9561
Ethane:	8.6894
Propane:	4.8004
I-Butane:	0.6805
N-Butane:	1.5358
I-Pentane:	0.4515
N-Pentane:	0.3991
Hexane+:	0.7599
BTU:	1245.8
GPM:	19.0090
SPG:	0.7244