



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

Analysis No: HS20230186
Cust No: 35825-13320

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: HOWELL C #1; INT
County/State: SAN JUAN NM
Location:
Lease/PA/CA: 078596
Formation: MV
Cust. Stn. No.: 3004508811
70-035-01

Source: INTERMEDIATE
Well Flowing: Y
Pressure: 22 PSIG
Flow Temp: 81 DEG. F
Ambient Temp: 64 DEG. F
Flow Rate: 103 MCF/D
Sample Method:
Sample Date: 08/03/2023
Sample Time: 3.28 PM
Sampled By: DYLAN RYBACKI
Sampled by (CO): HILCORP

Heat Trace: AREA 10; RUN 1000

Remarks: N

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1817	0.1827	0.0200	0.00	0.0018
CO2	1.4316	1.4398	0.2450	0.00	0.0218
Methane	78.0063	78.4523	13.2750	787.86	0.4321
Ethane	10.2553	10.3140	2.7530	181.49	0.1065
Propane	5.0115	5.0402	1.3860	126.09	0.0763
Iso-Butane	1.0594	1.0655	0.3480	34.45	0.0213
N-Butane	1.6133	1.6225	0.5110	52.63	0.0324
I-Pentane	0.6059	0.6094	0.2220	24.24	0.0151
N-Pentane	0.4659	0.4686	0.1700	18.68	0.0116
Hexane Plus	1.3691	1.3769	0.6130	72.17	0.0453
Total	100.0000	100.5719	19.5430	1297.61	0.7640

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0041
BTU/CU.FT IDEAL: 1300.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1306.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1283.3
DRY BTU @ 15.025: 1332.2
REAL SPECIFIC GRAVITY: 0.7668

CYLINDER #: 053
CYLINDER PRESSURE: 22 PSIG
ANALYSIS DATE: 08/03/2023
ANALYSIS TIME: 12:35:29 AM
ANALYSIS RUN BY: ACEDA GOODNOH

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: 08/03/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	HOWELL C #1; INT	INTERMEDIATE	08/03/2023
Stn. No.:	3004508811	MV	35825-13320
Mtr. No.:	70-035-01		

Smpl Date:	08/03/2023	09/17/2020
Test Date:	08/03/2023	09/23/2020
Run No:	HS20230186	HS200302
Nitrogen:	0.1817	0.2106
CO2:	1.4316	1.1907
Methane:	78.0063	77.7694
Ethane:	10.2553	10.6080
Propane:	5.0115	5.1336
I-Butane:	1.0594	1.0190
N-Butane:	1.6133	1.6161
I-Pentane:	0.6059	0.6498
N-Pentane:	0.4659	0.5017
Hexane+:	1.3691	1.3011
BTU:	1306.0	1311.3
GPM:	19.5430	19.5800
SPG:	0.7668	0.7667



Well Name: HOWELL C #1; CSG

API #: 3004508811

Source: CASING

Sample Type: GAS

Analysis No: HS20230185

Cust No: 35825-13315

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: HOWELL C #1; CSG

County/State: SAN JUAN NM

Location:

Lease/PA/CA: 078596

Formation: MV

Cust. Stn. No.: 3004508811

70-035-01

AREA 10; RUN 1000

Heat Trace: N

Remarks:

Source: CASING

Well Flowing: Y

Pressure: 22 PSIG

Flow Temp: 81 DEG. F

Ambient Temp: 64 DEG. F

Flow Rate: 103 MCF/D

Sample Method: PURGE & FILL

Sample Date: 08/01/2023

Sample Time: 9.06 AM

Sampled By: DYLAN RYBACKI

Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1815	0.1817	0.0200	0.00	0.0018
CO2	1.4154	1.4167	0.2420	0.00	0.0215
Methane	78.7075	78.7812	13.3930	794.95	0.4360
Ethane	9.9833	9.9926	2.6800	176.67	0.1036
Propane	4.8627	4.8672	1.3450	122.35	0.0740
Iso-Butane	0.9742	0.9751	0.3200	31.68	0.0196
N-Butane	1.5336	1.5350	0.4850	50.03	0.0308
I-Pentane	0.6066	0.6072	0.2230	24.27	0.0151
N-Pentane	0.4800	0.4804	0.1750	19.24	0.0120
Hexane Plus	1.2552	1.2564	0.5620	66.16	0.0415
Total	100.0000	100.0935	19.4450	1285.35	0.7558

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.004
 BTU/CU.FT IDEAL: 1288.3
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1293.5
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1271.0
 DRY BTU @ 15.025: 1319.4
 REAL SPECIFIC GRAVITY: 0.7586

CYLINDER #: 1811
 CYLINDER PRESSURE: 22 PSIG
 ANALYSIS DATE: 08/03/2023
 ANALYSIS TIME: 12:05:27 PM
 ANALYSIS RUN BY: SARAH BALLARD

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: 08/03/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	HOWELL C #1; CSG	CASING	08/03/2023
Stn. No.:	3004508811	MV	35825-13315
Mtr. No.:	70-035-01		

Smpl Date:	08/01/2023	09/17/2020
Test Date:	08/03/2023	09/23/2020
Run No:	HS20230185	HS200301
Nitrogen:	0.1815	0.2108
CO2:	1.4154	1.1900
Methane:	78.7075	77.4793
Ethane:	9.9833	10.5593
Propane:	4.8627	5.1060
I-Butane:	0.9742	1.0134
N-Butane:	1.5336	1.6081
I-Pentane:	0.6066	0.6482
N-Pentane:	0.4800	0.5020
Hexane+:	1.2552	1.6829
BTU:	1293.5	1326.7
GPM:	19.4450	19.6770
SPG:	0.7586	0.7766

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 252267

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 252267
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	intermediate and production casing same gas	9/18/2023