



Well Name: MCCORD 11; BHD
 API #: 73800-01
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS2021193
 Cust No: 35825-10195

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: MCCORD 11; BHD
 County/State: SAN JUAN NM
 Location: N09-30N-13W
 Lease/PA/CA:
 Formation: DK
 Cust. Stn. No.: 73800-01

Source: BRADENHEAD
 Well Flowing: Y
 Pressure: PSIG
 Flow Temp: DEG. F
 Ambient Temp: DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 08/19/2021
 Sample Time: 4.30 PM
 Sampled By: JOHN RUSSELL
 Sampled by (CO): HILCORP

AREA 2 / RUN 205

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4327	0.4442	0.0480	0.00	0.0042
CO2	0.0211	0.0217	0.0040	0.00	0.0003
Methane	97.4673	100.0597	16.5540	984.42	0.5399
Ethane	1.3017	1.3363	0.3490	23.04	0.0135
Propane	0.6237	0.6403	0.1720	15.69	0.0095
Iso-Butane	0.1258	0.1291	0.0410	4.09	0.0025
N-Butane	0.0094	0.0097	0.0030	0.31	0.0002
I-Pentane	0.0065	0.0067	0.0020	0.26	0.0002
N-Pentane	0.0044	0.0045	0.0020	0.18	0.0001
Hexane Plus	0.0074	0.0076	0.0030	0.39	0.0002
Total	100.0000	102.6598	17.1780	1028.37	0.5706

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0021
 BTU/CU.FT IDEAL: 1030.8
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1032.9
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1014.9
 DRY BTU @ 15.025: 1053.6
 REAL SPECIFIC GRAVITY: 0.5716

CYLINDER #: 7040
 CYLINDER PRESSURE: 107 PSIG
 ANALYSIS DATE: 08/27/2021
 ANALYSIS TIME: 01:13:48 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: 08/31/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	MCCORD 11; BHD	BRADENHEAD	08/31/2021
Stn. No.:	73800-01	DK	35825-10195
Mtr. No.:			

Smpl Date:	08/19/2021	05/15/2018
Test Date:	08/27/2021	05/17/2018
Run No:	HS2021193	HS180047
Nitrogen:	0.4327	0.4332
CO2:	0.0211	0.0324
Methane:	97.4673	97.6324
Ethane:	1.3017	1.1588
Propane:	0.6237	0.5514
I-Butane:	0.1258	0.1085
N-Butane:	0.0094	0.0457
I-Pentane:	0.0065	0.0045
N-Pentane:	0.0044	0.0029
Hexane+:	0.0074	0.0302
BTU:	1032.9	1031.9
GPM:	17.1780	17.1640
SPG:	0.5716	0.5711



Well Name: MCCORD 11; CSG

API #: 73800-01

Source: CASING

Sample Type: GAS

Analysis No: HS2021194

Cust No: 35825-10200

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: MCCORD 11; CSG
 County/State: SAN JUAN NM
 Location: DK
 Lease/PA/CA:
 Formation: N09-30N-13W
 Cust. Stn. No.: 73800-01

Source: CASING
 Well Flowing: Y
 Pressure: 132 PSIG
 Flow Temp: DEG. F
 Ambient Temp: DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 08/19/2021
 Sample Time: 4.30 PM
 Sampled By: JOHN RUSSELL
 Sampled by (CO): HILCORP

AREA 2 / RUN 205

Heat Trace:

Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5892	0.5599	0.0650	0.00	0.0057
CO2	0.2223	0.2112	0.0380	0.00	0.0034
Methane	75.4136	71.6630	12.8380	761.68	0.4177
Ethane	10.9904	10.4438	2.9510	194.50	0.1141
Propane	6.2292	5.9194	1.7230	156.73	0.0948
Iso-Butane	1.1317	1.0754	0.3720	36.80	0.0227
N-Butane	2.3959	2.2767	0.7580	78.16	0.0481
I-Pentane	1.0061	0.9561	0.3690	40.25	0.0251
N-Pentane	1.0130	0.9626	0.3690	40.61	0.0252
Hexane Plus	1.0086	0.9584	0.4520	53.16	0.0334
Total	100.0000	95.0265	19.9350	1361.90	0.7902

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0044
 BTU/CU.FT IDEAL: 1365.0
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1371.1
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1347.2
 DRY BTU @ 15.025: 1398.6
 REAL SPECIFIC GRAVITY: 0.7934

CYLINDER #: 7028
 CYLINDER PRESSURE: 132 PSIG
 ANALYSIS DATE: 08/27/2021
 ANALYSIS TIME: 01:45:00 PM
 ANALYSIS RUN BY: ALEXIS MITCHELL

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: 08/31/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	MCCORD 11; CSG	CASING	08/31/2021
Stn. No.:	73800-01	N09-30N-13W	35825-10200
Mtr. No.:			

Smpl Date:	08/19/2021	05/15/2018
Test Date:	08/27/2021	05/17/2018
Run No:	HS2021194	HS180048
Nitrogen:	0.5892	0.7904
CO2:	0.2223	0.0195
Methane:	75.4136	77.6761
Ethane:	10.9904	9.9296
Propane:	6.2292	5.6420
I-Butane:	1.1317	1.0003
N-Butane:	2.3959	2.2724
I-Pentane:	1.0061	0.9466
N-Pentane:	1.0130	0.9205
Hexane+:	1.0086	0.8026
BTU:	1371.1	1334.5
GPM:	19.9350	19.6250
SPG:	0.7934	0.7688



Well Name: MCCORD 11; TBG
 API #: 73800-01
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS2021195
 Cust No: 35825-10205

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: MCCORD 11; TBG
 County/State: SAN JUAN NM
 Location: N09-30N-13W
 Lease/PA/CA:
 Formation: DK
 Cust. Stn. No.: 73800-01

Source: TUBING
 Well Flowing: Y
 Pressure: 132 PSIG
 Flow Temp: DEG. F
 Ambient Temp: DEG. F
 Flow Rate: MCF/D
 Sample Method: Purge & Fill
 Sample Date: 08/19/2021
 Sample Time: 4.30 PM
 Sampled By: JOHN RUSSELL
 Sampled by (CO): HILCORP

AREA 2 / RUN 205

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5880	0.5875	0.0650	0.00	0.0057
CO2	1.4266	1.4253	0.2440	0.00	0.0217
Methane	78.2783	78.2083	13.3160	790.61	0.4336
Ethane	10.7390	10.7294	2.8820	190.05	0.1115
Propane	5.2559	5.2512	1.4530	132.24	0.0800
Iso-Butane	0.7852	0.7845	0.2580	25.53	0.0158
N-Butane	1.4599	1.4586	0.4620	47.63	0.0293
I-Pentane	0.4304	0.4300	0.1580	17.22	0.0107
N-Pentane	0.3924	0.3920	0.1430	15.73	0.0098
Hexane Plus	0.6443	0.6437	0.2880	33.96	0.0213
Total	100.0000	99.9105	19.2690	1252.97	0.7393

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0037
 BTU/CU.FT IDEAL: 1255.9
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1260.5
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1238.6
 DRY BTU @ 15.025: 1285.7
 REAL SPECIFIC GRAVITY: 0.7418

CYLINDER #: 6171
 CYLINDER PRESSURE: 126 PSIG
 ANALYSIS DATE: 08/27/2021
 ANALYSIS TIME: 01:30:56 PM
 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: 08/31/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	MCCORD 11; TBG	TUBING	08/31/2021
Stn. No.:	73800-01	DK	35825-10205
Mtr. No.:			

Smpl Date:	08/19/2021	05/15/2018
Test Date:	08/27/2021	05/17/2018
Run No:	HS2021195	HS180049
Nitrogen:	0.5880	0.5691
CO2:	1.4266	1.4012
Methane:	78.2783	78.5900
Ethane:	10.7390	10.7029
Propane:	5.2559	5.0595
I-Butane:	0.7852	0.7625
N-Butane:	1.4599	1.4451
I-Pentane:	0.4304	0.4337
N-Pentane:	0.3924	0.3886
Hexane+:	0.6443	0.6474
BTU:	1260.5	1257.0
GPM:	19.2690	19.2400
SPG:	0.7418	0.7389

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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 46978

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 46978
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	10/18/2021