



Well Name: CULPEPPER MARTIN 7C;
 API #: 3004530118
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS20230199
 Cust No: 35825-12975

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	CULPEPPER MARTIN 7C; BHD	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	63 PSIG
Location:		Flow Temp:	105 DEG. F
Lease/PA/CA:	SF-078146	Ambient Temp:	96 DEG. F
Formation:	MV / DK	Flow Rate:	0 MCF/D
Cust. Stn. No.:	3004530118	Sample Method:	Purge & Fill
	3627430	Sample Date:	08/03/2023
	AREA 2 / RUN 201	Sample Time:	3.20 PM
Heat Trace:	N	Sampled By:	JEFF HOWE
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2954	0.2939	0.0330	0.00	0.0029
CO2	0.0037	0.0037	0.0010	0.00	0.0001
Methane	89.6586	89.2163	15.2370	905.55	0.4966
Ethane	6.1522	6.1219	1.6490	108.88	0.0639
Propane	2.3988	2.3870	0.6620	60.36	0.0365
Iso-Butane	0.4881	0.4857	0.1600	15.87	0.0098
N-Butane	0.5473	0.5446	0.1730	17.85	0.0110
I-Pentane	0.1806	0.1797	0.0660	7.23	0.0045
N-Pentane	0.0942	0.0937	0.0340	3.78	0.0023
Hexane Plus	0.1811	0.1802	0.0810	9.55	0.0060
Total	100.0000	99.5067	18.0960	1129.06	0.6335

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
 BTU/CU.FT IDEAL: 1131.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1134.7
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1115.0
 DRY BTU @ 15.025: 1157.4
 REAL SPECIFIC GRAVITY: 0.635

CYLINDER #: 2164
 CYLINDER PRESSURE: 82 PSIG
 ANALYSIS DATE: 08/08/2023
 ANALYSIS TIME: 04:03:05 AM
 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: 08/15/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CULPEPPER MARTIN 7C; BHD	BRADENHEAD	08/15/2023
Stn. No.:	3004530118	MV / DK	35825-12975
Mtr. No.:	3627430		

Smpl Date:	08/03/2023	08/21/2020
Test Date:	08/08/2023	08/26/2020
Run No:	HS20230199	HS200216
Nitrogen:	0.2954	0.5462
CO2:	0.0037	0.0110
Methane:	89.6586	88.9076
Ethane:	6.1522	6.4606
Propane:	2.3988	2.5668
I-Butane:	0.4881	0.5049
N-Butane:	0.5473	0.5483
I-Pentane:	0.1806	0.1546
N-Pentane:	0.0942	0.1047
Hexane+:	0.1811	0.1953
BTU:	1134.7	1137.6
GPM:	18.0960	18.1330
SPG:	0.6350	0.6396



Well Name: CULPEPPER MARTIN 7C;
 API #: 3004530118
 Source: CASING
 Sample Type: GAS
 Analysis No: HS20230200
 Cust No: 35825-12980

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: CULPEPPER MARTIN 7C; CSG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: SF-078146
 Formation: MV / DK
 Cust. Stn. No.: 3004530118
 3627430

Source: CASING
 Well Flowing:
 Pressure: 90 PSIG
 Flow Temp: 105 DEG. F
 Ambient Temp: 96 DEG. F
 Flow Rate: 0 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 08/03/2023
 Sample Time: 3.35 PM
 Sampled By: JEFF HOWE
 Sampled by (CO): HILCORP

AREA 2 / RUN 201

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.2102	1.1983	0.1330	0.00	0.0117
CO2	0.8941	0.8853	0.1530	0.00	0.0136
Methane	93.2498	92.3293	15.8440	941.82	0.5165
Ethane	3.2663	3.2341	0.8750	57.80	0.0339
Propane	0.0073	0.0072	0.0020	0.18	0.0001
Iso-Butane	0.0047	0.0047	0.0020	0.15	0.0001
N-Butane	0.0157	0.0155	0.0050	0.51	0.0003
I-Pentane	0.0298	0.0295	0.0110	1.19	0.0007
N-Pentane	0.0287	0.0284	0.0100	1.15	0.0007
Hexane Plus	1.2934	1.2806	0.5780	68.18	0.0428
Total	100.0000	99.0129	17.6130	1070.99	0.6205

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
 BTU/CU.FT IDEAL: 1073.5
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1076.2
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1057.5
 DRY BTU @ 15.025: 1097.8
 REAL SPECIFIC GRAVITY: 0.6218

CYLINDER #: 2186
 CYLINDER PRESSURE: 93 PSIG
 ANALYSIS DATE: 08/09/2023
 ANALYSIS TIME: 10:39:52 AM
 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: 08/15/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CULPEPPER MARTIN 7C; CSG	CASING	08/15/2023
Stn. No.:	3004530118	MV / DK	35825-12980
Mtr. No.:	3627430		

Smpl Date:	08/03/2023	08/21/2020
Test Date:	08/09/2023	08/26/2020
Run No:	HS20230200	HS200217
Nitrogen:	1.2102	0.5767
CO2:	0.8941	0.9327
Methane:	93.2498	79.9767
Ethane:	3.2663	9.9769
Propane:	0.0073	5.6303
I-Butane:	0.0047	1.0068
N-Butane:	0.0157	1.1473
I-Pentane:	0.0298	0.3069
N-Pentane:	0.0287	0.2037
Hexane+:	1.2934	0.2420
BTU:	1076.2	1236.5
GPM:	17.6130	19.0480
SPG:	0.6218	0.7182



Well Name: CULPEPPER MARTIN 7C;
 API #: 3004530118
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS20230201
 Cust No: 35825-12985

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	CULPEPPER MARTIN 7C; TBG	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	88 PSIG
Location:		Flow Temp:	105 DEG. F
Lease/PA/CA:	SF-078146	Ambient Temp:	96 DEG. F
Formation:	MV / DK	Flow Rate:	0 MCF/D
Cust. Stn. No.:	3004530118	Sample Method:	Purge & Fill
	3627430	Sample Date:	08/03/2023
	AREA 2 / RUN 201	Sample Time:	3.30 PM
Heat Trace:	N	Sampled By:	JEFF HOWE
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2358	0.2320	0.0260	0.00	0.0023
CO2	1.1585	1.1400	0.1980	0.00	0.0176
Methane	78.9585	77.6990	13.4320	797.48	0.4374
Ethane	10.6822	10.5118	2.8670	189.04	0.1109
Propane	5.2124	5.1293	1.4410	131.15	0.0794
Iso-Butane	0.8350	0.8217	0.2740	27.15	0.0168
N-Butane	1.3850	1.3629	0.4380	45.18	0.0278
I-Pentane	0.4647	0.4573	0.1710	18.59	0.0116
N-Pentane	0.3628	0.3570	0.1320	14.54	0.0090
Hexane Plus	0.7051	0.6939	0.3160	37.17	0.0233
Total	100.0000	98.4049	19.2950	1260.31	0.7360

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0037	CYLINDER #:	2142
BTU/CU.FT IDEAL:	1263.2	CYLINDER PRESSURE:	86 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1267.9	ANALYSIS DATE:	08/09/2023
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1245.8	ANALYSIS TIME:	11:06:24 AM
DRY BTU @ 15.025:	1293.3	ANALYSIS RUN BY:	SARAH BALLARD
REAL SPECIFIC GRAVITY:	0.7384		

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: 08/15/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CULPEPPER MARTIN 7C; TBG	TUBING	08/15/2023
Stn. No.:	3004530118	MV / DK	35825-12985
Mtr. No.:	3627430		

Smpl Date:	08/03/2023	08/21/2020
Test Date:	08/09/2023	08/26/2020
Run No:	HS20230201	HS200218
Nitrogen:	0.2358	0.2705
CO2:	1.1585	1.2153
Methane:	78.9585	78.6840
Ethane:	10.6822	10.7338
Propane:	5.2124	4.8062
I-Butane:	0.8350	0.7780
N-Butane:	1.3850	1.4272
I-Pentane:	0.4647	0.5047
N-Pentane:	0.3628	0.4139
Hexane+:	0.7051	1.1664
BTU:	1267.9	1283.7
GPM:	19.2950	19.4020
SPG:	0.7384	0.7499

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District III
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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 252537

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 252537
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	does not appear to be same gas	9/18/2023