



Well Name: CAIN 1E; BHD

API #: 3004524321

Source: BRADENHEAD

Sample Type: GAS

Analysis No: HS20240029

Cust No: 35825-11520

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: CAIN 1E; BHD
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: SF-078464
 Formation: MV/GL
 Cust. Stn. No.: 34852308

Source: BRADENHEAD
 Well Flowing: Y
 Pressure: 95 PSIG
 Flow Temp: 71 DEG. F
 Ambient Temp: 56 DEG. F
 Flow Rate: 0 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 04/12/2024
 Sample Time: 9.00 AM
 Sampled By: SHAWN FINCHER
 Sampled by (CO): HILCORP

AREA 2 / RUN 203

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3922	0.3944	0.0430	0.00	0.0038
CO2	0.4099	0.4122	0.0700	0.00	0.0062
Methane	78.6929	79.1285	13.3890	794.80	0.4359
Ethane	10.1509	10.2071	2.7250	179.64	0.1054
Propane	5.2668	5.2960	1.4560	132.52	0.0802
Iso-Butane	1.0342	1.0399	0.3400	33.63	0.0208
N-Butane	1.9715	1.9824	0.6240	64.32	0.0396
I-Pentane	0.7789	0.7832	0.2860	31.16	0.0194
N-Pentane	0.7015	0.7054	0.2550	28.12	0.0175
Hexane Plus	0.6012	0.6045	0.2690	31.69	0.0199
Total	100.0000	100.5536	19.4570	1295.88	0.7486

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0039
 BTU/CU.FT IDEAL: 1298.9
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1304.0
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1281.3
 DRY BTU @ 15.025: 1330.1
 REAL SPECIFIC GRAVITY: 0.7512

CYLINDER #: 7018
 CYLINDER PRESSURE: 90 PSIG
 ANALYSIS DATE: 04/17/2024
 ANALYSIS TIME: 09:10:06 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: 06/10/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CAIN 1E; BHD	BRADENHEAD	06/10/2024
Stn. No.:	34852308	MV/GL	35825-11520
Mtr. No.:			

Smpl Date:	04/12/2024	06/18/2019
Test Date:	04/17/2024	06/26/2019
Run No:	HS20240029	HS190147
Nitrogen:	0.3922	0.2963
CO2:	0.4099	0.6075
Methane:	78.6929	72.6814
Ethane:	10.1509	15.4265
Propane:	5.2668	6.4302
I-Butane:	1.0342	0.7015
N-Butane:	1.9715	1.7160
I-Pentane:	0.7789	0.5378
N-Pentane:	0.7015	0.5596
Hexane+:	0.6012	1.0432
BTU:	1304.0	1355.5
GPM:	19.4570	20.0740
SPG:	0.7512	0.7862



Well Name: CAIN 1E; CSG

API #: 3004524321

Source: CASING

Sample Type: GAS

Analysis No: HS20240030

Cust No: 35825-11525

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: CAIN 1E; CSG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: SF-078464
 Formation: MV/GL
 Cust. Stn. No.: 34852308

Source: CASING
 Well Flowing: Y
 Pressure: 105 PSIG
 Flow Temp: 71 DEG. F
 Ambient Temp: 56 DEG. F
 Flow Rate: 0 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 04/12/2024
 Sample Time: 9.00 AM
 Sampled By: SHAWN FINCHER
 Sampled by (CO): HILCORP

AREA 2 / RUN 203

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3725	0.3742	0.0410	0.00	0.0036
CO2	0.4167	0.4186	0.0710	0.00	0.0063
Methane	78.2134	78.5621	13.3110	789.96	0.4332
Ethane	10.0973	10.1423	2.7110	178.69	0.1048
Propane	5.2493	5.2727	1.4520	132.08	0.0799
Iso-Butane	1.0429	1.0476	0.3430	33.91	0.0209
N-Butane	2.0043	2.0132	0.6340	65.39	0.0402
I-Pentane	0.8412	0.8450	0.3090	33.66	0.0210
N-Pentane	0.7969	0.8005	0.2900	31.95	0.0199
Hexane Plus	0.9655	0.9698	0.4320	50.89	0.0320
Total	100.0000	100.4460	19.5940	1316.52	0.7618

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0041
 BTU/CU.FT IDEAL: 1319.6
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1325.0
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1301.9
 DRY BTU @ 15.025: 1351.5
 REAL SPECIFIC GRAVITY: 0.7647

CYLINDER #: 7009
 CYLINDER PRESSURE: 101 PSIG
 ANALYSIS DATE: 04/17/2024
 ANALYSIS TIME: 09:01:40 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: 06/10/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CAIN 1E; CSG	CASING	06/10/2024
Stn. No.:	34852308	MV/GL	35825-11525
Mtr. No.:			

Smpl Date:	04/12/2024	06/18/2019
Test Date:	04/17/2024	06/26/2019
Run No:	HS20240030	HS190148
Nitrogen:	0.3725	0.2976
CO2:	0.4167	0.6116
Methane:	78.2134	72.6995
Ethane:	10.0973	15.4228
Propane:	5.2493	6.4219
I-Butane:	1.0429	0.7002
N-Butane:	2.0043	1.7127
I-Pentane:	0.8412	0.5366
N-Pentane:	0.7969	0.5576
Hexane+:	0.9655	1.0395
BTU:	1325.0	1355.0
GPM:	19.5940	20.0700
SPG:	0.7647	0.7859



Well Name: CAIN 1E; TBG

API #: 3004524321

Source: TUBING

Sample Type: GAS

Analysis No: HS20240031

Cust No: 35825-11530

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: CAIN 1E; TBG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: SF-078464
 Formation: MV/GL
 Cust. Stn. No.: 34852308

Source: TUBING
 Well Flowing: Y
 Pressure: 105 PSIG
 Flow Temp: 71 DEG. F
 Ambient Temp: 56 DEG. F
 Flow Rate: 0 MCF/D
 Sample Method: Purge & Fill
 Sample Date: 04/12/2024
 Sample Time: 9.00 AM
 Sampled By: SHAWN FINCHER
 Sampled by (CO): HILCORP

AREA 2 / RUN 203

Heat Trace: N

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2583	0.2596	0.0290	0.00	0.0025
CO2	1.0004	1.0054	0.1710	0.00	0.0152
Methane	72.5985	72.9611	12.3560	733.24	0.4021
Ethane	15.2533	15.3295	4.0950	269.94	0.1584
Propane	6.7882	6.8221	1.8780	170.80	0.1034
Iso-Butane	0.7653	0.7691	0.2510	24.89	0.0154
N-Butane	1.7937	1.8027	0.5680	58.52	0.0360
I-Pentane	0.4484	0.4506	0.1650	17.94	0.0112
N-Pentane	0.4233	0.4254	0.1540	16.97	0.0105
Hexane Plus	0.6706	0.6739	0.3000	35.35	0.0222
Total	100.0000	100.4994	19.9670	1327.64	0.7768

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0042
 BTU/CU.FT IDEAL: 1330.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1336.3
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1313.0
 DRY BTU @ 15.025: 1363.1
 REAL SPECIFIC GRAVITY: 0.7798

CYLINDER #: 5006
 CYLINDER PRESSURE: 106 PSIG
 ANALYSIS DATE: 04/17/2024
 ANALYSIS TIME: 08:49:11 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: 06/10/2024

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	CAIN 1E; TBG	TUBING	06/10/2024
Stn. No.:	34852308	MV/GL	35825-11530
Mtr. No.:			

Smpl Date:	04/12/2024	06/18/2019
Test Date:	04/17/2024	06/26/2019
Run No:	HS20240031	HS190149
Nitrogen:	0.2583	0.2628
CO2:	1.0004	0.9052
Methane:	72.5985	72.2069
Ethane:	15.2533	15.7317
Propane:	6.7882	6.9032
I-Butane:	0.7653	0.7426
N-Butane:	1.7937	1.7708
I-Pentane:	0.4484	0.4367
N-Pentane:	0.4233	0.4046
Hexane+:	0.6706	0.6355
BTU:	1336.3	1339.2
GPM:	19.9670	20.0030
SPG:	0.7798	0.7801

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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 355517

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 355517
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	BH = 95 psi - same gas	8/27/2024