



Well Name: KAUFMAN IE; BHD
 API #: 3004525972
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS2021233
 Cust No: 35825-14030

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: KAUFMAN IE; BHD
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: SF-078463-A
 Formation: GL / DK
 Cust. Stn. No.: 3004525972
 20007

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: 08/30/2021
 Sample Time: 9.30 AM
 Sampled By: JOHN RUSSELL
 Sampled by (CO):

AREA 2 / RUN 0205

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5097	0.5088	0.0560	0.00	0.0049
CO2	0.0063	0.0063	0.0010	0.00	0.0001
Methane	91.5374	91.3786	15.5530	924.53	0.5070
Ethane	4.8176	4.8092	1.2910	85.26	0.0500
Propane	2.0474	2.0438	0.5650	51.51	0.0312
Iso-Butane	0.4961	0.4952	0.1630	16.13	0.0100
N-Butane	0.4058	0.4051	0.1280	13.24	0.0081
I-Pentane	0.1105	0.1103	0.0410	4.42	0.0028
N-Pentane	0.0446	0.0445	0.0160	1.79	0.0011
Hexane Plus	0.0246	0.0246	0.0110	1.30	0.0008
Total	100.0000	99.8264	17.8250	1098.18	0.6160

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
 BTU/CU.FT IDEAL: 1100.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1103.5
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1084.3
 DRY BTU @ 15.025: 1125.6
 REAL SPECIFIC GRAVITY: 0.6173

CYLINDER #: 5011
 CYLINDER PRESSURE: 76 PSIG
 ANALYSIS DATE: 09/10/2021
 ANALYSIS TIME: 07:59:53 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: 09/14/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: KAUFMAN IE; BHD
Stn. No.: 3004525972
Mtr. No.: 20007

BRADENHEAD
GL / DK

09/14/2021
35825-14030

Smpl Date: 08/30/2021
Test Date: 09/10/2021
Run No: HS2021233

Nitrogen: 0.5097
CO2: 0.0063
Methane: 91.5374
Ethane: 4.8176
Propane: 2.0474
I-Butane: 0.4961
N-Butane: 0.4058
I-Pentane: 0.1105
N-Pentane: 0.0446
Hexane+: 0.0246

BTU: 1103.5
GPM: 17.8250
SPG: 0.6173



Well Name: KAUFMAN 1E; CSG

API #: 3004525972

Source: CASING

Sample Type: GAS

Analysis No: HS2021234

Cust No: 35825-14035

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: KAUFMAN 1E; CSG

County/State: SAN JUAN NM

Location:

Lease/PA/CA: SF-078463-A

Formation: GL / DK

Cust. Stn. No.: 3004525972
20007

AREA 2 / RUN 0205

Heat Trace:

Remarks:

Source: CASING

Well Flowing: Y

Pressure: PSIG

Flow Temp: DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 08/30/2021

Sample Time: 9.30 AM

Sampled By: JOHN RUSSELL

Sampled by (CO):

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5552	0.5565	0.0610	0.00	0.0054
CO2	0.8704	0.8725	0.1490	0.00	0.0132
Methane	77.7720	77.9593	13.2310	785.50	0.4308
Ethane	11.3510	11.3783	3.0460	200.88	0.1178
Propane	5.5232	5.5365	1.5270	138.97	0.0841
Iso-Butane	0.5816	0.5830	0.1910	18.91	0.0117
N-Butane	1.6724	1.6764	0.5290	54.56	0.0336
I-Pentane	0.4190	0.4200	0.1540	16.76	0.0104
N-Pentane	0.4447	0.4458	0.1620	17.83	0.0111
Hexane Plus	0.8105	0.8125	0.3630	42.72	0.0268
Total	100.0000	100.2408	19.4130	1276.13	0.7449

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0038
 BTU/CU.FT IDEAL: 1279.1
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1284.0
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1261.7
 DRY BTU @ 15.025: 1309.7
 REAL SPECIFIC GRAVITY: 0.7474

CYLINDER #: 4099
 CYLINDER PRESSURE: 110 PSIG
 ANALYSIS DATE: 09/10/2021
 ANALYSIS TIME: 08:22:39 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: 09/14/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	KAUFMAN 1E; CSG	CASING	09/14/2021
Stn. No.:	3004525972	GL / DK	35825-14035
Mtr. No.:	20007		

Smpl Date: 08/30/2021
Test Date: 09/10/2021
Run No: HS2021234

Nitrogen: 0.5552
CO2: 0.8704
Methane: 77.7720
Ethane: 11.3510
Propane: 5.5232
I-Butane: 0.5816
N-Butane: 1.6724
I-Pentane: 0.4190
N-Pentane: 0.4447
Hexane+: 0.8105

BTU: 1284.0
GPM: 19.4130
SPG: 0.7474



Well Name: KAUFMAN 1E; TBG

API #: 3004525972

Source: TUBING

Sample Type: GAS

Analysis No: HS2021235

Cust No: 35825-14040

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: KAUFMAN 1E; TBG

County/State: SAN JUAN NM

Location:

Lease/PA/CA: SF-078463-A

Formation:

Cust. Stn. No.: 3004525972
20007

AREA 2 / RUN 0205

Heat Trace:

Remarks:

Source: TUBING

Well Flowing: Y

Pressure: PSIG

Flow Temp: DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 08/30/2021

Sample Time: 9.30 AM

Sampled By: JOHN RUSSELL

Sampled by (CO):

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4666	0.4667	0.0520	0.00	0.0045
CO2	1.1964	1.1968	0.2050	0.00	0.0182
Methane	78.9029	78.9273	13.4210	796.92	0.4370
Ethane	11.1958	11.1993	3.0040	198.13	0.1162
Propane	5.0910	5.0926	1.4070	128.09	0.0775
Iso-Butane	0.6013	0.6015	0.1970	19.55	0.0121
N-Butane	1.3785	1.3789	0.4360	44.97	0.0277
I-Pentane	0.2830	0.2831	0.1040	11.32	0.0070
N-Pentane	0.2416	0.2417	0.0880	9.69	0.0060
Hexane Plus	0.6429	0.6431	0.2880	33.89	0.0213
Total	100.0000	100.0310	19.2020	1242.57	0.7276

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0036
 BTU/CU.FT IDEAL: 1245.4
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1249.9
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1228.2
 DRY BTU @ 15.025: 1274.9
 REAL SPECIFIC GRAVITY: 0.7299

CYLINDER #: 5034
 CYLINDER PRESSURE: 69 PSIG
 ANALYSIS DATE: 09/10/2021
 ANALYSIS TIME: 08:40:47 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: 09/14/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	KAUFMAN 1E; TBG	TUBING	09/14/2021
Stn. No.:	3004525972		35825-14040
Mtr. No.:	20007		

Smpl Date: 08/30/2021
Test Date: 09/10/2021
Run No: HS2021235

Nitrogen: 0.4666
CO2: 1.1964
Methane: 78.9029
Ethane: 11.1958
Propane: 5.0910
I-Butane: 0.6013
N-Butane: 1.3785
I-Pentane: 0.2830
N-Pentane: 0.2416
Hexane+: 0.6429

BTU: 1249.9
GPM: 19.2020
SPG: 0.7299

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 48890

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 48890
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	10/12/2021