



Well Name: FEDERAL GAS COM H #1E;
 API #: 95618
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS20220005
 Cust No: 35825-10590

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	FEDERAL GAS COM H #1E; BHD	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	59 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	28 DEG. F
Formation:	DAKOTA	Flow Rate:	MCF/D
Cust. Stn. No.:	95618	Sample Method:	
	API # 3004526122	Sample Date:	02/17/2022
	AREA 2 / RUN 0209	Sample Time:	8.30 AM
Heat Trace:	N	Sampled By:	JESSE RANGEL
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.3345	1.3235	0.1470	0.00	0.0129
CO2	0.0120	0.0119	0.0020	0.00	0.0002
Methane	95.9238	95.1364	16.2920	968.83	0.5313
Ethane	2.1218	2.1044	0.5680	37.55	0.0220
Propane	0.2266	0.2247	0.0630	5.70	0.0034
Iso-Butane	0.2353	0.2334	0.0770	7.65	0.0047
N-Butane	0.0467	0.0463	0.0150	1.52	0.0009
I-Pentane	0.0192	0.0190	0.0070	0.77	0.0005
N-Pentane	0.0118	0.0117	0.0040	0.47	0.0003
Hexane Plus	0.0683	0.0677	0.0310	3.60	0.0023
Total	100.0000	99.1790	17.2060	1026.10	0.5786

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0021	CYLINDER #:	4096
BTU/CU.FT IDEAL:	1028.5	CYLINDER PRESSURE:	54 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1030.6	ANALYSIS DATE:	02/18/2022
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1012.7	ANALYSIS TIME:	03:53:02 PM
DRY BTU @ 15.025:	1051.2	ANALYSIS RUN BY:	ALEXIS MITCHELL
REAL SPECIFIC GRAVITY:	0.5796		

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: 02/21/2022

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	FEDERAL GAS COM H #1E; BHD	BRADENHEAD	02/21/2022
Stn. No.:	95618	DAKOTA	35825-10590
Mtr. No.:	API # 3004526122		

Smpl Date:	02/17/2022	04/23/2021	04/15/2020	08/26/2019	04/05/2019	08/24/2018
Test Date:	02/18/2022	04/29/2021	04/15/2020	08/29/2019	04/10/2019	09/04/2018
Run No:	HS20220005	HS2021041	HS200004	HS190255	HS190020	HS180154
Nitrogen:	1.3345	1.9341	1.4267	6.4969	1.1485	1.1190
CO2:	0.0120	0.0146	0.0081	0.0074	0.0213	0.0229
Methane:	95.9238	95.3088	95.8969	90.9995	96.1330	96.2247
Ethane:	2.1218	2.1186	2.0899	1.9560	2.0758	2.0602
Propane:	0.2266	0.2342	0.2159	0.2012	0.2048	0.1937
I-Butane:	0.2353	0.2356	0.2311	0.2188	0.2380	0.2206
N-Butane:	0.0467	0.0502	0.0493	0.0420	0.0416	0.0377
I-Pentane:	0.0192	0.0201	0.0186	0.0173	0.0168	0.0153
N-Pentane:	0.0118	0.0124	0.0116	0.0113	0.0096	0.0097
Hexane+:	0.0683	0.0714	0.0519	0.0496	0.1106	0.0962
BTU:	1030.6	1024.9	1028.6	975.2	1033.4	1032.2
GPM:	17.2060	17.1730	17.1910	16.8680	17.2210	17.2120
SPG:	0.5796	0.5823	0.5792	0.5989	0.5795	0.5785



Well Name: FEDERAL GAS COM H #1E;
 API #: 95618
 Source: CASING
 Sample Type: GAS
 Analysis No: HS20220004
 Cust No: 35825-10595

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	FEDERAL GAS COM H #1E; CSG	Well Flowing:	N
County/State:	SAN JUAN NM	Pressure:	59 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	28 DEG. F
Formation:	DAKOTA	Flow Rate:	MCF/D
Cust. Stn. No.:	95618	Sample Method:	
	API # 3004526122	Sample Date:	02/17/2022
	AREA 2 / RUN 0209	Sample Time:	8.30 AM
Heat Trace:	N	Sampled By:	JESSE RANGEL
Remarks:		Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.9052	0.9037	0.1000	0.00	0.0088
CO2	0.2301	0.2297	0.0390	0.00	0.0035
Methane	87.3576	87.2134	14.8500	882.31	0.4839
Ethane	6.6328	6.6218	1.7790	117.38	0.0689
Propane	2.6155	2.6112	0.7230	65.81	0.0398
Iso-Butane	0.3965	0.3958	0.1300	12.89	0.0080
N-Butane	0.5992	0.5982	0.1890	19.55	0.0120
I-Pentane	0.1974	0.1971	0.0720	7.90	0.0049
N-Pentane	0.2065	0.2062	0.0750	8.28	0.0051
Hexane Plus	0.8592	0.8578	0.3840	45.29	0.0284
Total	100.0000	99.8349	18.3410	1159.41	0.6633

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.003	CYLINDER #:	4086
BTU/CU.FT IDEAL:	1162.1	CYLINDER PRESSURE:	64 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1165.6	ANALYSIS DATE:	02/18/2022
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1145.3	ANALYSIS TIME:	04:05:03 PM
DRY BTU @ 15.025:	1188.9	ANALYSIS RUN BY:	ALEXIS MITCHELL
REAL SPECIFIC GRAVITY:	0.665		

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: 02/21/2022

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	FEDERAL GAS COM H #1E; CSG	CASING	02/21/2022
Stn. No.:	95618	DAKOTA	35825-10595
Mtr. No.:	API # 3004526122		

Smpl Date:	02/17/2022	04/23/2021	04/15/2020	08/26/2019	04/05/2019	08/24/2018
Test Date:	02/18/2022	04/29/2021	04/15/2020	08/29/2019	04/10/2019	09/04/2018
Run No:	HS20220004	HS2021042	HS200005	HS190256	HS190021	HS180155
Nitrogen:	0.9052	0.5831	0.5350	0.7223	0.5334	0.5700
CO2:	0.2301	1.4347	1.4203	1.3988	1.3782	1.2525
Methane:	87.3576	82.3191	81.6193	80.4255	81.1424	82.0103
Ethane:	6.6328	9.3820	10.0147	10.0896	10.2252	9.4793
Propane:	2.6155	3.6588	4.1503	4.4056	4.3267	4.1270
I-Butane:	0.3965	0.4945	0.5324	0.5849	0.5186	0.5639
N-Butane:	0.5992	0.9348	1.0093	1.1895	1.0143	1.1308
I-Pentane:	0.1974	0.3216	0.2705	0.3737	0.2467	0.3299
N-Pentane:	0.2065	0.2959	0.2246	0.3288	0.1864	0.2877
Hexane+:	0.8592	0.5755	0.2236	0.4813	0.4281	0.2486
BTU:	1165.6	1197.9	1194.4	1220.0	1206.0	1199.6
GPM:	18.3410	18.7770	18.7880	18.9610	18.8720	18.7860
SPG:	0.6650	0.7017	0.6986	0.7167	0.7053	0.6996

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

COMMENTS

Action 82986

COMMENTS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 82986
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

COMMENTS

Created By	Comment	Comment Date
mkuehling	accepted for record	8/5/2022

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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CONDITIONS

Action 82986

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Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 82986
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	8/5/2022