



Well Name: UTE #22; BHD  
 API #: API # 3004529395  
 Source: BRADENHEAD  
 Sample Type: GAS  
 Analysis No: HS2021071  
 Cust No: 35825-11210

**Well/Lease Information**

Customer Name: HILCORP (BHD PROJECT)	Source: BRADENHEAD
Well Name: UTE #22; BHD	Well Flowing: N
County/State: SAN JUAN NM	Pressure: 80 PSIG
Location:	Flow Temp: 59 DEG. F
Lease/PA/CA: I-02-INO-2772	Ambient Temp: DEG. F
Formation:	Flow Rate: MCF/D
Cust. Stn. No.: API # 3004529395	Sample Method: Purge & Fill
	Sample Date: 04/27/2021
	Sample Time: 1.55 PM
AREA 2 / RUN 0200	Sampled By: DANIEL RIOS
Heat Trace:	Sampled by (CO): HILCORP
Remarks: H2S	

**Analysis**

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.4421	1.4216	0.1590	0.00	0.0139
CO2	0.0327	0.0322	0.0060	0.00	0.0005
Methane	89.1394	87.8739	15.1490	900.31	0.4937
Ethane	5.0806	5.0085	1.3620	89.91	0.0527
Propane	2.4245	2.3901	0.6700	61.00	0.0369
Iso-Butane	0.3494	0.3444	0.1150	11.36	0.0070
N-Butane	0.6946	0.6847	0.2200	22.66	0.0139
I-Pentane	0.2252	0.2220	0.0830	9.01	0.0056
N-Pentane	0.2202	0.2171	0.0800	8.83	0.0055
Hexane Plus	0.3913	0.3857	0.1750	20.63	0.0130
<b>Total</b>	<b>100.0000</b>	<b>98.5802</b>	<b>18.0190</b>	<b>1123.71</b>	<b>0.6428</b>

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0027	CYLINDER #:	4179
BTU/CU.FT IDEAL:	1126.3	CYLINDER PRESSURE:	25 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1129.4	ANALYSIS DATE:	05/04/2021
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1109.7	ANALYSIS TIME:	02:58:22 PM
DRY BTU @ 15.025:	1152.0	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.6443		

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: 05/05/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

<b>Lease:</b>	UTE #22; BHD	BRADENHEAD	05/05/2021
<b>Stn. No.:</b>	API # 3004529395		35825-11210
<b>Mtr. No.:</b>			

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<b>Smpl Date:</b>	04/27/2021	06/30/2020	05/14/2019
<b>Test Date:</b>	05/04/2021	07/01/2020	05/20/2019
<b>Run No:</b>	HS2021071	HS200059	HS190068
<b>Nitrogen:</b>	1.4421	1.3674	1.4256
<b>CO2:</b>	0.0327	0.0025	0.0044
<b>Methane:</b>	89.1394	89.7259	89.4814
<b>Ethane:</b>	5.0806	5.0688	5.0580
<b>Propane:</b>	2.4245	2.3599	2.4052
<b>I-Butane:</b>	0.3494	0.3324	0.3579
<b>N-Butane:</b>	0.6946	0.6308	0.6661
<b>I-Pentane:</b>	0.2252	0.1780	0.1969
<b>N-Pentane:</b>	0.2202	0.1589	0.1819
<b>Hexane+:</b>	0.3913	0.1754	0.2226
<b>BTU:</b>	1129.4	1114.9	1119.6
<b>GPM:</b>	18.0190	17.9180	17.9480
<b>SPG:</b>	0.6443	0.6337	0.6374



Well Name: UTE #22; CSG  
 API #: API # 3004529395  
 Source: CASING  
 Sample Type: GAS  
 Analysis No: HS2021072  
 Cust No: 35825-11215

**Well/Lease Information**

Customer Name: HILCORP (BHD PROJECT)  
 Well Name: UTE #22; CSG  
 County/State: SAN JUAN NM  
 Location:  
 Lease/PA/CA: I-02-INO-2772  
 Formation:  
 Cust. Stn. No.: API # 3004529395  
 AREA 2 / RUN 0200  
 Heat Trace:  
 Remarks: H2S

Source: CASING  
 Well Flowing: N  
 Pressure: 901 PSIG  
 Flow Temp: 59 DEG. F  
 Ambient Temp: DEG. F  
 Flow Rate: MCF/D  
 Sample Method: Purge & Fill  
 Sample Date: 04/27/2021  
 Sample Time: 1.50 PM  
 Sampled By: DANIEL RIOS  
 Sampled by (CO): HILCORP

**Analysis**

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6512	0.6420	0.0720	0.00	0.0063
CO2	0.0398	0.0392	0.0070	0.00	0.0006
Methane	86.2033	84.9850	14.6530	870.65	0.4775
Ethane	8.1837	8.0680	2.1940	144.83	0.0850
Propane	2.8652	2.8247	0.7910	72.09	0.0436
Iso-Butane	0.6787	0.6691	0.2230	22.07	0.0136
N-Butane	0.7361	0.7257	0.2330	24.01	0.0148
I-Pentane	0.2930	0.2889	0.1070	11.72	0.0073
N-Pentane	0.1643	0.1620	0.0600	6.59	0.0041
Hexane Plus	0.1847	0.1821	0.0830	9.74	0.0061
<b>Total</b>	<b>100.0000</b>	<b>98.5867</b>	<b>18.4230</b>	<b>1161.70</b>	<b>0.6589</b>

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0029	CYLINDER #:	7039
BTU/CU.FT IDEAL:	1164.4	CYLINDER PRESSURE:	101 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1167.8	ANALYSIS DATE:	05/05/2021
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1147.5	ANALYSIS TIME:	08:05:43 AM
DRY BTU @ 15.025:	1191.2	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.6605		

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: 05/05/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

<b>Lease:</b>	UTE #22; CSG	CASING	05/05/2021
<b>Stn. No.:</b>	API # 3004529395		35825-11215
<b>Mtr. No.:</b>			

<b>Smpl Date:</b>	04/27/2021	06/30/2020	05/14/2019
<b>Test Date:</b>	05/05/2021	07/01/2020	05/20/2019
<b>Run No:</b>	HS2021072	HS200060	HS190069
<b>Nitrogen:</b>	0.6512	0.8095	4.0445
<b>CO2:</b>	0.0398	0.0014	0.0016
<b>Methane:</b>	86.2033	83.4942	60.5787
<b>Ethane:</b>	8.1837	9.1646	15.3184
<b>Propane:</b>	2.8652	3.6448	10.0393
<b>I-Butane:</b>	0.6787	0.9222	3.0675
<b>N-Butane:</b>	0.7361	1.0662	3.7736
<b>I-Pentane:</b>	0.2930	0.4079	1.7061
<b>N-Pentane:</b>	0.1643	0.2327	0.9716
<b>Hexane+:</b>	0.1847	0.2565	0.4987
<b>BTU:</b>	1167.8	1207.8	1503.8
<b>GPM:</b>	18.4230	18.7400	21.0820
<b>SPG:</b>	0.6605	0.6872	0.9118



Well Name: UTE #22; TBG  
 API #: API # 3004529395  
 Source: TUBING  
 Sample Type: GAS  
 Analysis No: HS2021073  
 Cust No: 35825-11220

**Well/Lease Information**

Customer Name: HILCORP (BHD PROJECT)  
 Well Name: UTE #22; TBG  
 County/State: SAN JUAN NM  
 Location:  
 Lease/PA/CA: I-02-INO-2772  
 Formation:  
 Cust. Stn. No.: API # 3004529395  
 AREA 2 / RUN 0200  
 Heat Trace:  
 Remarks: H2S

Source: TUBING  
 Well Flowing: N  
 Pressure: 901 PSIG  
 Flow Temp: 45 DEG. F  
 Ambient Temp: DEG. F  
 Flow Rate: MCF/D  
 Sample Method: Purge & Fill  
 Sample Date: 04/27/2021  
 Sample Time: 2.00 PM  
 Sampled By: DANIEL RIOS  
 Sampled by (CO): HILCORP

**Analysis**

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.5895	0.5768	0.0650	0.00	0.0057
CO2	0.0028	0.0027	0.0000	0.00	0.0000
Methane	86.9109	85.0408	14.7730	877.80	0.4814
Ethane	7.7777	7.6103	2.0860	137.64	0.0807
Propane	2.7255	2.6669	0.7530	68.58	0.0415
Iso-Butane	0.6749	0.6604	0.2210	21.95	0.0135
N-Butane	0.7469	0.7308	0.2360	24.37	0.0150
I-Pentane	0.2787	0.2727	0.1020	11.15	0.0069
N-Pentane	0.1518	0.1485	0.0550	6.09	0.0038
Hexane Plus	0.1413	0.1383	0.0630	7.45	0.0047
<b>Total</b>	<b>100.0000</b>	<b>97.8482</b>	<b>18.3540</b>	<b>1155.02</b>	<b>0.6533</b>

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029  
 BTU/CU.FT IDEAL: 1157.7  
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1161.1  
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1140.9  
 DRY BTU @ 15.025: 1184.4  
 REAL SPECIFIC GRAVITY: 0.655

CYLINDER #: 4056  
 CYLINDER PRESSURE: 948 PSIG  
 ANALYSIS DATE: 05/04/2021  
 ANALYSIS TIME: 04:37:25 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: 05/05/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

<b>Lease:</b>	UTE #22; TBG	TUBING	05/05/2021
<b>Stn. No.:</b>	API # 3004529395		35825-11220
<b>Mtr. No.:</b>			

<b>Smpl Date:</b>	04/27/2021	06/30/2020	05/14/2019
<b>Test Date:</b>	05/04/2021	07/01/2020	05/20/2019
<b>Run No:</b>	HS2021073	HS200061	HS190070
<b>Nitrogen:</b>	0.5895	0.7153	9.6903
<b>CO2:</b>	0.0028	0.0000	0.0090
<b>Methane:</b>	86.9109	83.5977	59.7158
<b>Ethane:</b>	7.7777	9.1949	14.6520
<b>Propane:</b>	2.7255	3.6646	9.0008
<b>I-Butane:</b>	0.6749	0.9261	2.5063
<b>N-Butane:</b>	0.7469	1.0653	2.7728
<b>I-Pentane:</b>	0.2787	0.3976	1.0003
<b>N-Pentane:</b>	0.1518	0.2223	0.4808
<b>Hexane+:</b>	0.1413	0.2162	0.1719
<b>BTU:</b>	1161.1	1207.0	1338.3
<b>GPM:</b>	18.3540	18.7370	19.9860
<b>SPG:</b>	0.6550	0.6857	0.8659

**District I**  
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**District III**  
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**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 27335

**CONDITIONS OF APPROVAL**

Operator:			OGRID:	Action Number:	Action Type:
HILCORP ENERGY COMPANY      1111 Travis Street      Houston, TX77002			372171	27335	GAS ANALYSIS
OCD Reviewer			Condition		
mkuehling			None		