



Well Name: PAYNE 3E; BHD
 API #: 3004525953
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS2021230
 Cust No: 35825-14015

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: PAYNE 3E; BHD
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: SF-078464
 Formation: DK
 Cust. Stn. No.: 3004525953
 20017

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: 08/26/2021
 Sample Time: 4.00 PM
 Sampled By: JOHN RUSSELL
 Sampled by (CO):

AREA 2 / RUN 0205

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.3469	1.3112	0.1490	0.00	0.0130
CO2	0.0045	0.0044	0.0010	0.00	0.0001
Methane	88.4570	86.1123	15.0330	893.42	0.4900
Ethane	4.9776	4.8457	1.3340	88.09	0.0517
Propane	3.1847	3.1003	0.8800	80.13	0.0485
Iso-Butane	0.8646	0.8417	0.2840	28.12	0.0174
N-Butane	0.6718	0.6540	0.2120	21.92	0.0135
I-Pentane	0.2629	0.2559	0.0960	10.52	0.0065
N-Pentane	0.1228	0.1195	0.0450	4.92	0.0031
Hexane Plus	0.1072	0.1044	0.0480	5.65	0.0035
Total	100.0000	97.3494	18.0820	1132.76	0.6472

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
 BTU/CU.FT IDEAL: 1135.4
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1138.5
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1118.7
 DRY BTU @ 15.025: 1161.3
 REAL SPECIFIC GRAVITY: 0.6487

CYLINDER #: 4149
 CYLINDER PRESSURE: 71 PSIG
 ANALYSIS DATE: 09/08/2021
 ANALYSIS TIME: 12:55:35 AM
 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: 09/10/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	PAYNE 3E; BHD	BRADENHEAD	09/10/2021
Stn. No.:	3004525953	DK	35825-14015
Mtr. No.:	20017		

Smpl Date: 08/26/2021
Test Date: 09/08/2021
Run No: HS2021230

Nitrogen: 1.3469
CO2: 0.0045
Methane: 88.4570
Ethane: 4.9776
Propane: 3.1847
I-Butane: 0.8646
N-Butane: 0.6718
I-Pentane: 0.2629
N-Pentane: 0.1228
Hexane+: 0.1072

BTU: 1138.5
GPM: 18.0820
SPG: 0.6487



Well Name: PAYNE 3E; CSG
 API #: 3004525953
 Source: CASING
 Sample Type: GAS
 Analysis No: HS2021231
 Cust No: 35825-14020

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
 Well Name: PAYNE 3E; CSG
 County/State: SAN JUAN NM
 Location:
 Lease/PA/CA: SF-078464
 Formation: DK
 Cust. Stn. No.: 3004525953
 20017

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: 08/26/2021
 Sample Time: 4.00 PM
 Sampled By: JOHN RUSSELL
 Sampled by (CO):

AREA 2 / RUN 0205

Heat Trace:

Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4284	0.4161	0.0470	0.00	0.0041
CO2	0.0390	0.0379	0.0070	0.00	0.0006
Methane	76.4674	74.2744	13.0190	772.32	0.4236
Ethane	11.2253	10.9034	3.0150	198.65	0.1165
Propane	5.4450	5.2888	1.5060	137.00	0.0829
Iso-Butane	0.6728	0.6535	0.2210	21.88	0.0135
N-Butane	2.1235	2.0626	0.6720	69.27	0.0426
I-Pentane	0.8050	0.7819	0.2960	32.21	0.0201
N-Pentane	0.9616	0.9340	0.3500	38.55	0.0240
Hexane Plus	1.8320	1.7795	0.8200	96.57	0.0606
Total	100.0000	97.1321	19.9530	1366.45	0.7885

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0045
 BTU/CU.FT IDEAL: 1369.6
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1375.8
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1351.9
 DRY BTU @ 15.025: 1403.4
 REAL SPECIFIC GRAVITY: 0.7917

CYLINDER #: 6192
 CYLINDER PRESSURE: 39 PSIG
 ANALYSIS DATE: 09/08/2021
 ANALYSIS TIME: 01:21:27 AM
 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: 09/10/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	PAYNE 3E; CSG	CASING	09/10/2021
Stn. No.:	3004525953	DK	35825-14020
Mtr. No.:	20017		

Smpl Date: 08/26/2021
Test Date: 09/08/2021
Run No: HS2021231

Nitrogen: 0.4284
CO2: 0.0390
Methane: 76.4674
Ethane: 11.2253
Propane: 5.4450
I-Butane: 0.6728
N-Butane: 2.1235
I-Pentane: 0.8050
N-Pentane: 0.9616
Hexane+: 1.8320

BTU: 1375.8
GPM: 19.9530
SPG: 0.7917



Well Name: PAYNE 3E; TBG

API #: 3004525953

Source: TUBING

Sample Type: GAS

Analysis No: HS2021232

Cust No: 35825-14025

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: PAYNE 3E; TBG

County/State: SAN JUAN NM

Location:

Lease/PA/CA: SF-078464

Formation: DK

Cust. Stn. No.: 3004525953
20017

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: 08/26/2021

Sample Time: 4.00 PM

Sampled By: JOHN RUSSELL

Sampled by (CO):

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3557	0.3491	0.0390	0.00	0.0034
CO2	1.1374	1.1163	0.1950	0.00	0.0173
Methane	73.9118	72.5392	12.5810	746.51	0.4094
Ethane	13.9096	13.6513	3.7350	246.16	0.1444
Propane	6.2221	6.1066	1.7210	156.55	0.0947
Iso-Butane	0.7864	0.7718	0.2580	25.57	0.0158
N-Butane	1.5927	1.5631	0.5040	51.96	0.0320
I-Pentane	0.4871	0.4781	0.1790	19.49	0.0121
N-Pentane	0.4483	0.4400	0.1630	17.97	0.0112
Hexane Plus	1.1489	1.1276	0.5140	60.56	0.0380
Total	100.0000	98.1431	19.8890	1324.77	0.7783

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0043
 BTU/CU.FT IDEAL: 1327.8
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1333.4
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1310.2
 DRY BTU @ 15.025: 1360.1
 REAL SPECIFIC GRAVITY: 0.7813

CYLINDER #: 4114
 CYLINDER PRESSURE: 17 PSIG
 ANALYSIS DATE: 09/08/2021
 ANALYSIS TIME: 11:22:19 AM
 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: 09/10/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	PAYNE 3E; TBG	TUBING	09/10/2021
Stn. No.:	3004525953	DK	35825-14025
Mtr. No.:	20017		

Smpl Date: 08/26/2021
Test Date: 09/08/2021
Run No: HS2021232

Nitrogen: 0.3557
CO2: 1.1374
Methane: 73.9118
Ethane: 13.9096
Propane: 6.2221
I-Butane: 0.7864
N-Butane: 1.5927
I-Pentane: 0.4871
N-Pentane: 0.4483
Hexane+: 1.1489

BTU: 1333.4
GPM: 19.8890
SPG: 0.7813

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 48790

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 48790
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	10/13/2021