



OCD Received 10/20/2020

Well Name: GERK GAS COM B 1M ;
 API #: API # 3004524953
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS200323
 Cust No: 35825-13395

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	GERK GAS COM B 1M ; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	215 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	64 DEG. F
Formation:		Flow Rate:	32 MCF/D
Cust. Stn. No.:	API # 3004524953	Sample Method:	Purge & Fill
		Sample Date:	10/02/2020
		Sample Time:	11.30 AM
	AREA 08/ RUN 0804	Sampled By:	SHANE MOHLER
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2166	0.2130	0.0240	0.00	0.0021
CO2	0.2686	0.2642	0.0460	0.00	0.0041
Methane	87.6839	86.2355	14.9040	885.61	0.4857
Ethane	6.9928	6.8773	1.8750	123.75	0.0726
Propane	2.9330	2.8846	0.8100	73.80	0.0447
Iso-Butane	0.4443	0.4370	0.1460	14.45	0.0089
N-Butane	0.6999	0.6883	0.2210	22.83	0.0140
I-Pentane	0.2179	0.2143	0.0800	8.72	0.0054
N-Pentane	0.1633	0.1606	0.0590	6.55	0.0041
Hexane Plus	0.3797	0.3734	0.1700	20.01	0.0126
Total	100.0000	98.3482	18.3350	1155.72	0.6541

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0029	CYLINDER #:	4066
BTU/CU.FT IDEAL:	1158.4	CYLINDER PRESSURE:	213 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1161.8	ANALYSIS DATE:	10/07/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1141.6	ANALYSIS TIME:	02:03:13 PM
DRY BTU @ 15.025:	1185.1	ANALYSIS RUN BY:	PATRICIA KING
REAL SPECIFIC GRAVITY:	0.6558		

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: 10/09/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: GERK GAS COM B 1M ; BHD
Stn. No.: API # 3004524953
Mtr. No.:

BRADENHEAD

10/09/2020
35825-13395

Smpl Date: 10/02/2020
Test Date: 10/07/2020
Run No: HS200323

Nitrogen: 0.2166
CO2: 0.2686
Methane: 87.6839
Ethane: 6.9928
Propane: 2.9330
I-Butane: 0.4443
N-Butane: 0.6999
I-Pentane: 0.2179
N-Pentane: 0.1633
Hexane+: 0.3797

BTU: 1161.8
GPM: 18.3350
SPG: 0.6558



2030 Afton Place
Farmington, NM 87401
(505) 325-6622
GAS

Analysis No: HS200324
Cust No: 35825-13400

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: GERK GAS COM B 1M ; INT
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.: API # 3004524953

Source: INTERMEDIATE
Well Flowing: Y
Pressure: 189 PSIG
Flow Temp: DEG. F
Ambient Temp: 63 DEG. F
Flow Rate: 32 MCF/D
Sample Method: Purge & Fill
Sample Date: 10/02/2020
Sample Time: 11.10 AM
Sampled By: SHANE MOHLER
Sampled by (CO): HILCORP

Heat Trace: N
Remarks: AREA 08 / RUN 0804

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2043	0.2001	0.0230	0.00	0.0020
CO2	0.2661	0.2606	0.0460	0.00	0.0040
Methane	87.6753	85.8574	14.9030	885.52	0.4856
Ethane	7.0088	6.8635	1.8790	124.03	0.0728
Propane	2.9529	2.8917	0.8160	74.30	0.0450
Iso-Butane	0.4579	0.4484	0.1500	14.89	0.0092
N-Butane	0.7078	0.6931	0.2240	23.09	0.0142
I-Pentane	0.2175	0.2130	0.0800	8.70	0.0054
N-Pentane	0.1632	0.1598	0.0590	6.54	0.0041
Hexane Plus	0.3462	0.3390	0.1550	18.25	0.0115
Total	100.0000	97.9266	18.3350	1155.33	0.6537

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029
BTU/CU.FT IDEAL: 1158.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1161.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1141.2
DRY BTU @ 15.025: 1184.7
REAL SPECIFIC GRAVITY: 0.6553

CYLINDER #: 6032
CYLINDER PRESSURE: 189 PSIG
ANALYSIS DATE: 10/07/2020
ANALYSIS TIME: 01:57:46 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: 10/09/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: GERK GAS COM B 1M ; INT
Stn. No.: API # 3004524953
Mtr. No.:

INTERMEDIATE

10/09/2020
35825-13400

Smpl Date: 10/02/2020
Test Date: 10/07/2020
Run No: HS200324

Nitrogen: 0.2043
CO2: 0.2661
Methane: 87.6753
Ethane: 7.0088
Propane: 2.9529
I-Butane: 0.4579
N-Butane: 0.7078
I-Pentane: 0.2175
N-Pentane: 0.1632
Hexane+: 0.3462

BTU: 1161.4
GPM: 18.3350
SPG: 0.6553



Well Name: GERK GAS COM B 1M ;
 API #: API # 3004524953
 Source: CASING
 Sample Type: GAS
 Analysis No: HS200325
 Cust No: 35825-13405

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	GERK GAS COM B 1M ; CSG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	4.3 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	57 DEG. F
Formation:		Flow Rate:	32 MCF/D
Cust. Stn. No.:	API # 3004524953	Sample Method:	Purge & Fill
		Sample Date:	10/02/2020
		Sample Time:	10.50 AM
	AREA 08 / RUN 0804	Sampled By:	SHANE MOHLER
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:	PRESSURED WITH HELIUM TO 30LBS		

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.6562	0.2557	0.0730	0.00	0.0063
CO2	0.9955	0.3879	0.1710	0.00	0.0151
Methane	74.2690	28.9390	12.6460	750.12	0.4114
Ethane	11.5280	4.4919	3.0960	204.01	0.1197
Propane	6.4968	2.5315	1.7980	163.47	0.0989
Iso-Butane	1.1372	0.4431	0.3740	36.98	0.0228
N-Butane	1.8606	0.7250	0.5890	60.70	0.0373
I-Pentane	0.6288	0.2450	0.2310	25.16	0.0157
N-Pentane	0.4987	0.1943	0.1820	19.99	0.0124
Hexane Plus	1.9292	0.7517	0.8640	101.69	0.0638
Total	100.0000	38.9651	20.0240	1362.11	0.8035

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0046	CYLINDER #:	4078
BTU/CU.FT IDEAL:	1365.3	CYLINDER PRESSURE:	PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1371.6	ANALYSIS DATE:	10/07/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1347.7	ANALYSIS TIME:	01:52:21 PM
DRY BTU @ 15.025:	1399.1	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.8069		

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: 10/09/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: GERK GAS COM B 1M ; CSG
Stn. No.: API # 3004524953
Mtr. No.:

CASING

10/09/2020
35825-13405

Smpl Date: 10/02/2020
Test Date: 10/07/2020
Run No: HS200325
Nitrogen: 0.6562
CO2: 0.9955
Methane: 74.2690
Ethane: 11.5280
Propane: 6.4968
I-Butane: 1.1372
N-Butane: 1.8606
I-Pentane: 0.6288
N-Pentane: 0.4987
Hexane+: 1.9292
BTU: 1371.6
GPM: 20.0240
SPG: 0.8069