Well Name: STATE GAS COM BB 1;
API #: API # 3004510701
Source: BRADENHEAD
Sample Type: GAS

Analysis No: HS2021118
Cust No: 35825-11880

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	STATE GAS COM BB 1; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	35 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	API # 3004510701	Sample Method:	
		Sample Date:	06/04/2021
		Sample Time:	7.56 AM
	AREA 2 / RUN 0211	Sampled By:	MIKE L.
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	5.9197	5.8067	0.6530	0.00	0.0573
CO2	0.0195	0.0191	0.0030	0.00	0.0003
Methane	76.4346	74.9756	12.9970	771.99	0.4234
Ethane	9.9419	9.7521	2.6670	175.94	0.1032
Propane	4.3308	4.2481	1.1970	108.97	0.0659
Iso-Butane	0.7975	0.7823	0.2620	25.93	0.0160
N-Butane	1.2500	1.2261	0.3950	40.78	0.0251
I-Pentane	0.4440	0.4355	0.1630	17.76	0.0111
N-Pentane	0.3215	0.3154	0.1170	12.89	0.0080
Hexane Plus	0.5405	0.5302	0.2420	28.49	0.0179
Total	100.0000	98.0911	18.6960	1182.75	0.7281

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0033	CYLINDER #:	6212
BTU/CU.FT IDEAL:	1185.5	CYLINDER PRESSURE:	22 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1189.4	ANALYIS DATE:	06/16/2021
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1168.7	ANALYIS TIME:	09:17:15 AM
DRY BTU @ 15.025:	1213.2	ANALYSIS RUN BY:	SHYANN GALLEGOS
REAL SPECIFIC GRAVITY:	0.7302		

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: 06/17/2021**
GC Method: C6+ Gas

HILCORP (BHD PROJECT)

WELL ANALYSIS COMPARISON

Lease:	STATE GAS COM BB 1; BHD	BRADENHEAD	06/17/2021
Stn. No.:	API # 3004510701		35825-11880
Mtr. No.:			

Smpl Date:	06/04/2021	04/21/2021	08/07/2020	08/09/2019
Test Date:	06/16/2021	04/26/2021	08/12/2020	08/19/2019
Run No:	HS2021118	HS2021018	HS200181	HS190225
Nitrogen:	5.9197	8.9353	5.1887	4.2272
CO2:	0.0195	0.0578	0.0201	0.1102
Methane:	76.4346	74.3344	77.1036	77.7247
Ethane:	9.9419	9.4591	9.9397	10.1064
Propane:	4.3308	4.1468	4.3743	4.4194
I-Butane:	0.7975	0.7722	0.8137	0.8117
N-Butane:	1.2500	1.1842	1.2647	1.2894
I-Pentane:	0.4440	0.4216	0.4564	0.4678
N-Pentane:	0.3215	0.2956	0.3314	0.3438
Hexane+:	0.5405	0.3930	0.5074	0.4994
BTU:	1189.4	1141.9	1197.4	1209.1
GPM:	18.6960	18.3820	18.7430	18.8280
SPG:	0.7302	0.7325	0.7276	0.7263

Well Name: STATE GAS COM BB 1; CSG
API #: API # 3004510701
Source: CASING
Sample Type: GAS

Analysis No: HS2021119
Cust No: 35825-11885

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	STATE GAS COM BB 1; CSG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	145 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	API # 3004510701	Sample Method:	
		Sample Date:	06/04/2021
		Sample Time:	8.15 AM
	AREA 2 / RUN 0211	Sampled By:	
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2696	0.2690	0.0300	0.00	0.0026
CO2	1.9727	1.9683	0.3380	0.00	0.0300
Methane	79.9026	79.7260	13.5910	807.02	0.4426
Ethane	10.1424	10.1200	2.7220	179.49	0.1053
Propane	4.2189	4.2096	1.1660	106.15	0.0642
Iso-Butane	0.7406	0.7390	0.2430	24.08	0.0149
N-Butane	1.2140	1.2113	0.3840	39.60	0.0244
I-Pentane	0.4855	0.4844	0.1780	19.42	0.0121
N-Pentane	0.3484	0.3476	0.1270	13.97	0.0087
Hexane Plus	0.7053	0.7037	0.3160	37.18	0.0233
Total	100.0000	99.7789	19.0950	1226.91	0.7280

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0036	CYLINDER #:	4111
BTU/CU.FT IDEAL:	1229.8	CYLINDER PRESSURE:	151 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1234.2	ANALYIS DATE:	06/16/2021
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1212.7	ANALYIS TIME:	09:01:00 AM
DRY BTU @ 15.025:	1258.9	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.7304		

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: 06/17/2021**
GC Method: C6+ Gas

HILCORP (BHD PROJECT)

WELL ANALYSIS COMPARISON

Lease:	STATE GAS COM BB 1; CSG	CASING	06/17/2021
Stn. No.:	API # 3004510701		35825-11885
Mtr. No.:			

Smpl Date:	06/04/2021	08/07/2020	08/09/2019
Test Date:	06/16/2021	08/12/2020	08/19/2019
Run No:	HS2021119	HS200182	HS190226
Nitrogen:	0.2696	0.2974	0.3317
CO2:	1.9727	0.0078	0.6431
Methane:	79.9026	82.6060	81.0805
Ethane:	10.1424	9.8224	9.8295
Propane:	4.2189	4.2098	4.1929
I-Butane:	0.7406	0.7757	0.7926
N-Butane:	1.2140	1.1595	1.2888
I-Pentane:	0.4855	0.4248	0.6070
N-Pentane:	0.3484	0.3009	0.4318
Hexane+:	0.7053	0.3957	0.8021
BTU:	1234.2	1233.9	1257.5
GPM:	19.0950	18.9440	19.1430
SPG:	0.7304	0.6987	0.7245

Well Name: STATE GAS COM BB 1; TBG
API #: API # 3004510701
Source: TUBING
Sample Type: GAS

Analysis No: HS2021120
Cust No: 35825-11890

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	STATE GAS COM BB 1; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	130 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:		Ambient Temp:	DEG. F
Formation:		Flow Rate:	MCF/D
Cust. Stn. No.:	API # 3004510701	Sample Method:	
		Sample Date:	06/04/2021
		Sample Time:	8.00 AM
	AREA 2 / RUN 0211	Sampled By:	
Heat Trace:	N	Sampled by (CO):	HILCORP

Remarks: PRESSURED WITH HELIUM TO 30LBS. BOTTOM VALVE OPEN

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	3.8095	1.0471	0.4200	0.00	0.0368
CO2	2.6118	0.7179	0.4470	0.00	0.0397
Methane	77.2419	21.2311	13.1360	780.14	0.4278
Ethane	8.9102	2.4491	2.3900	157.68	0.0925
Propane	3.9576	1.0878	1.0940	99.58	0.0603
Iso-Butane	0.7364	0.2024	0.2420	23.95	0.0148
N-Butane	1.1260	0.3095	0.3560	36.73	0.0226
I-Pentane	0.4766	0.1310	0.1750	19.07	0.0119
N-Pentane	0.3896	0.1071	0.1420	15.62	0.0097
Hexane Plus	0.7404	0.2035	0.3310	39.03	0.0245
Total	100.0000	27.4865	18.7330	1171.80	0.7406

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY
**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBLITY FACTOR (1/Z):	1.0034	CYLINDER #:	5009
BTU/CU.FT IDEAL:	1174.5	CYLINDER PRESSURE:	0 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1178.5	ANALYIS DATE:	06/16/2021
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1158.0	ANALYIS TIME:	09:00:23 AM
DRY BTU @ 15.025:	1202.1	ANALYSIS RUN BY:	SHYANN GALLEGOS
REAL SPECIFIC GRAVITY:	0.7428		

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: 06/17/2021**
GC Method: C6+ Gas

HILCORP (BHD PROJECT)

WELL ANALYSIS COMPARISON

Lease:	STATE GAS COM BB 1; TBG	TUBING	06/17/2021
Stn. No.:	API # 3004510701		35825-11890
Mtr. No.:			

Smpl Date:	06/04/2021	08/07/2020	08/09/2019
Test Date:	06/16/2021	08/12/2020	08/19/2019
Run No:	HS2021120	HS200184	HS190227
Nitrogen:	3.8095	0.3478	0.4733
CO2:	2.6118	2.6129	0.0066
Methane:	77.2419	79.1091	81.7747
Ethane:	8.9102	9.9483	9.7685
Propane:	3.9576	4.3171	4.5601
I-Butane:	0.7364	0.7969	0.8265
N-Butane:	1.1260	1.2321	1.1912
I-Pentane:	0.4766	0.4753	0.4477
N-Pentane:	0.3896	0.3394	0.3342
Hexane+:	0.7404	0.8211	0.6172
BTU:	1178.5	1233.0	1250.4
GPM:	18.7330	19.1220	19.0520
SPG:	0.7428	0.7408	0.7111

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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 32717

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 32717
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	None	6/18/2021