



NMOCD REC'D
9/24/20

Well Name: GRENIER 2A; BHD
API #: API #3004522262
Source: BRADENHEAD
Sample Type: GAS
Analysis No: HS200177
Cust No: 35825-12540

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	GRENIER 2A; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	75 PSIG
Location:		Flow Temp:	61 DEG. F
Lease/PA/CA:	SF-078115	Ambient Temp:	70 DEG. F
Formation:	MV	Flow Rate:	0 MCF/D
Cust. Stn. No.:	API #3004522262 3451630	Sample Method:	Purge & Fill
		Sample Date:	08/07/2020
		Sample Time:	7.45 AM
	AREA 1 / RUN 109	Sampled By:	
Heat Trace:	N	Sampled by (CO):	
Remarks:	PRESSURED WITH HELIUM TO 30 LBS.		

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	82.0554	1.4180	9.0330	0.00	0.7936
CO2	0.2315	0.0040	0.0400	0.00	0.0035
Methane	14.2700	0.2466	2.4210	144.13	0.0790
Ethane	0.5613	0.0097	0.1500	9.93	0.0058
Propane	0.4109	0.0071	0.1130	10.34	0.0063
Iso-Butane	0.1273	0.0022	0.0420	4.14	0.0026
N-Butane	0.1678	0.0029	0.0530	5.47	0.0034
I-Pentane	0.1273	0.0022	0.0470	5.09	0.0032
N-Pentane	0.0926	0.0016	0.0340	3.71	0.0023
Hexane Plus	1.9559	0.0338	0.8730	103.10	0.0647
Total	100.0000	1.7281	12.8060	285.91	0.9644

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0009	CYLINDER #:	4126
BTU/CU.FT IDEAL:	286.6	CYLINDER PRESSURE:	7 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	286.8	ANALYSIS DATE:	08/11/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	281.8	ANALYSIS TIME:	04:05:04 PM
DRY BTU @ 15.025:	292.5	ANALYSIS RUN BY:	SHYANN ELLEDGE
REAL SPECIFIC GRAVITY:	0.9649		

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: 09/17/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: GRENIER 2A; BHD
Stn. No.: API #3004522262
Mtr. No.: 3451630

BRADENHEAD
MV

09/17/2020
35825-12540

Smpl Date:	08/07/2020	07/28/2020
Test Date:	08/11/2020	07/31/2020
Run No:	HS200177	HS200114
Nitrogen:	82.0554	85.0388
CO2:	0.2315	0.5583
Methane:	14.2700	11.6985
Ethane:	0.5613	0.3926
Propane:	0.4109	0.3664
I-Butane:	0.1273	0.0785
N-Butane:	0.1678	0.1134
I-Pentane:	0.1273	0.0916
N-Pentane:	0.0926	0.0785
Hexane+:	1.9559	1.5834
BTU:	286.8	231.5
GPM:	12.8060	12.4750
SPG:	0.9649	0.9662



NMOCD REC'D
9/24/20

Well Name: GRENIER 2A; CSG
API #: API #3004522262
Source: CASING
Sample Type: GAS
Analysis No: HS200115
Cust No: 35825-12545

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: GRENIER 2A; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA: SF-078115
Formation: MV
Cust. Stn. No.: API #3004522262
3451630

Source: CASING
Well Flowing: Y
Pressure: 95 PSIG
Flow Temp: 103 DEG. F
Ambient Temp: 81 DEG. F
Flow Rate: 0 MCF/D
Sample Method: Purge & Fill
Sample Date: 07/28/2020
Sample Time: 11.00 AM
Sampled By:
Sampled by (CO): HILCORP

Heat Trace: AREA 1 / RUN 109
N
Remarks:

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2898	0.2819	0.0320	0.00	0.0028
CO2	0.8524	0.8292	0.1460	0.00	0.0130
Methane	84.8645	82.5561	14.4310	857.13	0.4701
Ethane	7.8186	7.6059	2.0970	138.37	0.0812
Propane	2.9665	2.8858	0.8200	74.64	0.0452
Iso-Butane	0.6486	0.6310	0.2130	21.09	0.0130
N-Butane	0.8824	0.8584	0.2790	28.79	0.0177
I-Pentane	0.3907	0.3801	0.1430	15.63	0.0097
N-Pentane	0.2984	0.2903	0.1080	11.96	0.0074
Hexane Plus	0.9881	0.9612	0.4420	52.08	0.0327
Total	100.0000	97.2799	18.7110	1199.69	0.6927

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0033
BTU/CU.FT IDEAL: 1202.5
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1206.4
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1185.4
DRY BTU @ 15.025: 1230.6
REAL SPECIFIC GRAVITY: 0.6948

CYLINDER #: 4011
CYLINDER PRESSURE: 107 PSIG
ANALYSIS DATE: 07/31/2020
ANALYSIS TIME: 03:55:31 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: 09/17/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: GRENIER 2A; CSG
Stn. No.: API #3004522262
Mtr. No.: 3451630

CASING
MV

09/17/2020
35825-12545

Smpl Date: 07/28/2020
Test Date: 07/31/2020
Run No: HS200115

Nitrogen: 0.2898
CO2: 0.8524
Methane: 84.8645
Ethane: 7.8186
Propane: 2.9665
I-Butane: 0.6486
N-Butane: 0.8824
I-Pentane: 0.3907
N-Pentane: 0.2984
Hexane+: 0.9881

BTU: 1206.4
GPM: 18.7110
SPG: 0.6948



Well Name: GRENIER 2A; TBG
 API #: API #3004522262
 Source: TUBING
 Sample Type: GAS
 Analysis No: HS200116
 Cust No: 35825-12550

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	GRENIER 2A; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	95 PSIG
Location:		Flow Temp:	103 DEG. F
Lease/PA/CA:	SF-078115	Ambient Temp:	81 DEG. F
Formation:	MV	Flow Rate:	0 MCF/D
Cust. Stn. No.:	API #3004522262	Sample Method:	Purge & Fill
	3451630	Sample Date:	07/28/2020
		Sample Time:	11.00 AM
	AREA 1 / RUN 109	Sampled By:	
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1779	0.1748	0.0200	0.00	0.0017
CO2	1.0743	1.0558	0.1840	0.00	0.0163
Methane	83.0123	81.5839	14.1170	838.42	0.4598
Ethane	8.9181	8.7646	2.3930	157.82	0.0926
Propane	3.4591	3.3996	0.9560	87.03	0.0527
Iso-Butane	0.6869	0.6751	0.2250	22.34	0.0138
N-Butane	1.0139	0.9965	0.3210	33.08	0.0203
I-Pentane	0.4216	0.4143	0.1550	16.87	0.0105
N-Pentane	0.3082	0.3029	0.1120	12.35	0.0077
Hexane Plus	0.9277	0.9117	0.4150	48.90	0.0307
Total	100.0000	98.2792	18.8980	1216.82	0.7061

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0034	CYLINDER #:	5015
BTU/CU.FT IDEAL:	1219.6	CYLINDER PRESSURE:	93 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1223.8	ANALYSIS DATE:	07/31/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1202.5	ANALYSIS TIME:	04:13:48 PM
DRY BTU @ 15.025:	1248.3	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.7082		

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: 09/17/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: GRENIER 2A; TBG
Stn. No.: API #3004522262
Mtr. No.: 3451630

TUBING
MV

09/17/2020
35825-12550

Smpl Date: 07/28/2020
Test Date: 07/31/2020
Run No: HS200116

Nitrogen: 0.1779
CO2: 1.0743
Methane: 83.0123
Ethane: 8.9181
Propane: 3.4591
I-Butane: 0.6869
N-Butane: 1.0139
I-Pentane: 0.4216
N-Pentane: 0.3082
Hexane+: 0.9277

BTU: 1223.8
GPM: 18.8980
SPG: 0.7082