Well Name: MCDURMITT 1P; BHD
API #: API # 3004534478
Source: BRADENHEAD
Sample Type: GAS

Analysis No: HS200206
Cust No: 35825-12925

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	MCDURMITT 1P; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	22 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	FEE	Ambient Temp:	84 DEG. F
Formation:	MV/DK	Flow Rate:	MCF/D
Cust. Stn. No.:	API # 3004534478	Sample Method:	Purge & Fill
	88-522-01	Sample Date:	08/21/2020
		Sample Time:	10.02 AM
	AREA 2 / RUN 0201	Sampled By:	DANIEL RIOS
Heat Trace:		Sampled by (CO):	HILCORP
Remarks:	PRESSURED WITH HELIUM TO 30LBS.		

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	6.2465	4.7578	0.6880	0.00	0.0604
CO2	0.0668	0.0509	0.0110	0.00	0.0010
Methane	89.8692	68.4514	15.2640	907.68	0.4978
Ethane	2.1929	1.6703	0.5880	38.81	0.0228
Propane	0.8950	0.6817	0.2470	22.52	0.0136
Iso-Butane	0.1896	0.1444	0.0620	6.17	0.0038
N-Butane	0.2321	0.1768	0.0730	7.57	0.0047
I-Pentane	0.0851	0.0648	0.0310	3.40	0.0021
N-Pentane	0.0676	0.0515	0.0250	2.71	0.0017
Hexane Plus	0.1552	0.1182	0.0690	8.18	0.0051
Total	100.0000	76.1678	17.0580	997.04	0.6130

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

COMPRESSIBLITY FACTOR (1/Z):	1.0021	CYLINDER #:	4053
BTU/CU.FT IDEAL:	999.3	CYLINDER PRESSURE:	1 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1001.4	ANALYIS DATE:	08/25/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	984.0	ANALYIS TIME:	01:12:54 PM
DRY BTU @ 15.025:	1021.5	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.6141		

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:	MCDURMITT 1P; BHD	BRADENHEAD	09/17/2020
Stn. No.:	API # 3004534478	MV/DK	35825-12925
Mtr. No.:	88-522-01		

Smpl Date:	08/21/2020
Test Date:	08/25/2020
Run No:	HS200206
Nitrogen:	6.2465
CO2:	0.0668
Methane:	89.8692
Ethane:	2.1929
Propane:	0.8950
I-Butane:	0.1896
N-Butane:	0.2321
I-Pentane:	0.0851
N-Pentane:	0.0676
Hexane+:	0.1552
BTU:	1001.4
GPM:	17.0580
SPG:	0.6141

Well Name: MCDURMITT 1P; CSG
API #: API # 3004534478
Source: CASING
Sample Type: GAS

Analysis No: HS200207
Cust No: 35825-12930

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	CASING
Well Name:	MCDURMITT 1P; CSG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	33 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	FEE	Ambient Temp:	84 DEG. F
Formation:	MV/DK	Flow Rate:	MCF/D
Cust. Stn. No.:	API # 3004534478	Sample Method:	Purge & Fill
	88-522-01	Sample Date:	08/21/2020
		Sample Time:	10.06 AM
	AREA 2 / RUN 0201	Sampled By:	DANIEL RIOS
Heat Trace:		Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.3669	0.3598	0.0410	0.00	0.0035
CO2	1.1708	1.1482	0.2000	0.00	0.0178
Methane	80.2509	78.7016	13.6520	810.53	0.4445
Ethane	9.5465	9.3622	2.5620	168.94	0.0991
Propane	4.5710	4.4828	1.2640	115.01	0.0696
Iso-Butane	0.9164	0.8987	0.3010	29.80	0.0184
N-Butane	1.1727	1.1501	0.3710	38.26	0.0235
I-Pentane	0.4647	0.4557	0.1710	18.59	0.0116
N-Pentane	0.3446	0.3379	0.1250	13.81	0.0086
Hexane Plus	1.1955	1.1724	0.5350	63.02	0.0396
Total	100.0000	98.0694	19.2220	1257.97	0.7362

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

COMPRESSIBLITY FACTOR (1/Z):	1.0037	CYLINDER #:	4200
BTU/CU.FT IDEAL:	1260.9	CYLINDER PRESSURE:	31 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1265.6	ANALYIS DATE:	08/25/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1243.6	ANALYIS TIME:	01:32:00 PM
DRY BTU @ 15.025:	1290.9	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.7386		

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:	MCDURMITT 1P; CSG	CASING	09/17/2020
Stn. No.:	API # 3004534478	MV/DK	35825-12930
Mtr. No.:	88-522-01		

Smpl Date:	08/21/2020
Test Date:	08/25/2020
Run No:	HS200207
Nitrogen:	0.3669
CO2:	1.1708
Methane:	80.2509
Ethane:	9.5465
Propane:	4.5710
I-Butane:	0.9164
N-Butane:	1.1727
I-Pentane:	0.4647
N-Pentane:	0.3446
Hexane+:	1.1955
BTU:	1265.6
GPM:	19.2220
SPG:	0.7386

Well Name: MCDURMITT 1P; TBG
API #: API # 3004534478
Source: TUBING
Sample Type: GAS

Analysis No: HS200208
Cust No: 35825-12935

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	TUBING
Well Name:	MCDURMITT 1P; TBG	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	32 PSIG
Location:		Flow Temp:	DEG. F
Lease/PA/CA:	FEE	Ambient Temp:	84 DEG. F
Formation:	MV/DK	Flow Rate:	MCF/D
Cust. Stn. No.:	API # 3004534478	Sample Method:	Purge & Fill
	88-522-01	Sample Date:	08/21/2020
		Sample Time:	10.04 AM
	AREA 2 / RUN 0201	Sampled By:	DANIEL RIOS
Heat Trace:		Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2906	0.2840	0.0320	0.00	0.0028
CO2	1.4385	1.4059	0.2460	0.00	0.0219
Methane	80.0977	78.2814	13.6270	808.99	0.4437
Ethane	9.6379	9.4193	2.5870	170.56	0.1001
Propane	4.1343	4.0405	1.1430	104.02	0.0629
Iso-Butane	0.7993	0.7812	0.2620	25.99	0.0160
N-Butane	1.2023	1.1750	0.3800	39.22	0.0241
I-Pentane	0.5050	0.4935	0.1850	20.20	0.0126
N-Pentane	0.3807	0.3721	0.1380	15.26	0.0095
Hexane Plus	1.5137	1.4794	0.6770	79.79	0.0501
Total	100.0000	97.7323	19.2770	1264.04	0.7437

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

COMPRESSIBLITY FACTOR (1/Z):	1.0038	CYLINDER #:	6182
BTU/CU.FT IDEAL:	1267.0	CYLINDER PRESSURE:	15 PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1271.8	ANALYIS DATE:	08/25/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1249.7	ANALYIS TIME:	02:26:44 PM
DRY BTU @ 15.025:	1297.3	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.7462		

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:	MCDURMITT 1P; TBG	TUBING	09/17/2020
Stn. No.:	API # 3004534478	MV/DK	35825-12935
Mtr. No.:	88-522-01		

Smpl Date:	08/21/2020
Test Date:	08/25/2020
Run No:	HS200208
Nitrogen:	0.2906
CO2:	1.4385
Methane:	80.0977
Ethane:	9.6379
Propane:	4.1343
I-Butane:	0.7993
N-Butane:	1.2023
I-Pentane:	0.5050
N-Pentane:	0.3807
Hexane+:	1.5137
BTU:	1271.8
GPM:	19.2770
SPG:	0.7462

Well Name: MCDURMITT 1P; INT
API #: API # 3004534478
Source: INTERMEDIATE CASING
Sample Type: GAS

Analysis No: HS200209
Cust No: 35825-12940

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	INTERMEDIATE CASING
Well Name:	MCDURMITT 1P; INT	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	0 PSIG
Location:		Flow Temp:	84 DEG. F
Lease/PA/CA:	FEE	Ambient Temp:	84 DEG. F
Formation:	MV/DK	Flow Rate:	MCF/D
Cust. Stn. No.:	API # 3004534478	Sample Method:	Purge & Fill
	88-522-01	Sample Date:	08/21/2020
		Sample Time:	10.00 AM
	AREA 2 / RUN 0201	Sampled By:	DANIEL RIOS
Heat Trace:		Sampled by (CO):	HILCORP
Remarks:	PRESSURED WITH HELIUM TO 30LBS.		

Analysis

Component::	Mole%:	Unormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	3.9039	1.1057	0.4310	0.00	0.0378
CO2	0.0515	0.0146	0.0090	0.00	0.0008
Methane	82.4870	23.3627	14.0270	833.12	0.4569
Ethane	5.8610	1.6600	1.5720	103.72	0.0608
Propane	3.7644	1.0662	1.0400	94.72	0.0573
Iso-Butane	0.6804	0.1927	0.2230	22.13	0.0137
N-Butane	0.9801	0.2776	0.3100	31.97	0.0197
I-Pentane	0.3478	0.0985	0.1280	13.92	0.0087
N-Pentane	0.2945	0.0834	0.1070	11.81	0.0073
Hexane Plus	1.6294	0.4615	0.7290	85.89	0.0539
Total	100.0000	28.3229	18.5760	1197.26	0.7168

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

COMPRESSIBLITY FACTOR (1/Z):	1.0033	CYLINDER #:	6153
BTU/CU.FT IDEAL:	1200.0	CYLINDER PRESSURE:	PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1204.0	ANALYIS DATE:	08/25/2020
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1183.1	ANALYIS TIME:	01:11:00 PM
DRY BTU @ 15.025:	1228.1	ANALYSIS RUN BY:	RICHARD WILSON
REAL SPECIFIC GRAVITY:	0.7189		

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:	MCDURMITT 1P; INT	INTERMEDIATE CASING	09/17/2020
Stn. No.:	API # 3004534478	MV/DK	35825-12940
Mtr. No.:	88-522-01		

Smpl Date:	08/21/2020
Test Date:	08/25/2020
Run No:	HS200209
Nitrogen:	3.9039
CO2:	0.0515
Methane:	82.4870
Ethane:	5.8610
Propane:	3.7644
I-Butane:	0.6804
N-Butane:	0.9801
I-Pentane:	0.3478
N-Pentane:	0.2945
Hexane+:	1.6294
BTU:	1204.0
GPM:	18.5760
SPG:	0.7189