



OCD Received
8/12/2020

Well Name: SAN JUAN 32-8 UNIT 34;
API #: API # 3004533150
Source: CASING
Sample Type: GAS
Analysis No: HS200108
Cust No: 35825-12510

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)
Well Name: SAN JUAN 32-8 UNIT 34; CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: MV/DK
Cust. Stn. No.: API # 3004533150

Source: CASING
Well Flowing: Y
Pressure: 112 PSIG
Flow Temp: 93 DEG. F
Ambient Temp: 74 DEG. F
Flow Rate: 0 MCF/D
Sample Method:
Sample Date: 07/23/2020
Sample Time: 10.00 AM
Sampled By: TC SCANLAN
Sampled by (CO): HILCORP

Heat Trace: AREA 4 / RUN 406
N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0941	0.0937	0.0100	0.00	0.0009
CO2	2.2293	2.2200	0.3810	0.00	0.0339
Methane	93.0301	92.6441	15.8050	939.60	0.5153
Ethane	3.3064	3.2927	0.8860	58.51	0.0343
Propane	0.7549	0.7518	0.2080	18.99	0.0115
Iso-Butane	0.1669	0.1662	0.0550	5.43	0.0033
N-Butane	0.1488	0.1482	0.0470	4.85	0.0030
I-Pentane	0.0712	0.0709	0.0260	2.85	0.0018
N-Pentane	0.0392	0.0390	0.0140	1.57	0.0010
Hexane Plus	0.1591	0.1584	0.0710	8.39	0.0053
Total	100.0000	99.5850	17.5030	1040.20	0.6102

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0024
BTU/CU.FT IDEAL: 1042.6
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1045.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1026.8
DRY BTU @ 15.025: 1065.9
REAL SPECIFIC GRAVITY: 0.6114

CYLINDER #: 4069
CYLINDER PRESSURE: 108 PSIG
ANALYSIS DATE: 07/30/2020
ANALYSIS TIME: 08:13:42 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: 08/04/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	SAN JUAN 32-8 UNIT 34; CSG	CASING	08/04/2020
Stn. No.:	API # 3004533150	MV/DK	35825-12510
Mtr. No.:			

Smpl Date:	07/23/2020
Test Date:	07/30/2020
Run No:	HS200108
Nitrogen:	0.0941
CO2:	2.2293
Methane:	93.0301
Ethane:	3.3064
Propane:	0.7549
I-Butane:	0.1669
N-Butane:	0.1488
I-Pentane:	0.0712
N-Pentane:	0.0392
Hexane+:	0.1591
BTU:	1045.0
GPM:	17.5030
SPG:	0.6114



Well Name: SAN JUAN 32-8 UNIT 34;
API #: API # 3004533150
Source: INTERMEDIATE CASING
Sample Type: GAS
Analysis No: HS200110
Cust No: 35825-12520

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	INTERMEDIATE CASING
Well Name:	SAN JUAN 32-8 UNIT 34; INT	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	112 PSIG
Location:		Flow Temp:	93 DEG. F
Lease/PA/CA:		Ambient Temp:	74 DEG. F
Formation:	MV/DK	Flow Rate:	0 MCF/D
Cust. Stn. No.:	API # 3004533150	Sample Method:	Purge & Fill
		Sample Date:	07/23/2020
		Sample Time:	10.00 AM
	AREA 4 /RUN 406	Sampled By:	TC SCANLAN
Heat Trace:	N	Sampled by (CO):	HILCORP
Remarks:			

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1035	0.1033	0.0110	0.00	0.0010
CO2	2.4320	2.4276	0.4160	0.00	0.0370
Methane	91.7957	91.6281	15.5960	927.14	0.5085
Ethane	3.9593	3.9521	1.0610	70.07	0.0411
Propane	1.0480	1.0461	0.2890	26.37	0.0160
Iso-Butane	0.2108	0.2104	0.0690	6.86	0.0042
N-Butane	0.2098	0.2094	0.0660	6.84	0.0042
I-Pentane	0.0831	0.0829	0.0300	3.32	0.0021
N-Pentane	0.0416	0.0415	0.0150	1.67	0.0010
Hexane Plus	0.1162	0.1160	0.0520	6.12	0.0038
Total	100.0000	99.8174	17.6050	1048.39	0.6189

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.0024
BTU/CU.FT IDEAL:	1050.8
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	1053.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	1035.0
DRY BTU @ 15.025:	1074.4
REAL SPECIFIC GRAVITY:	0.6201

CYLINDER #:	4166
CYLINDER PRESSURE:	110 PSIG
ANALYSIS DATE:	07/30/2020
ANALYSIS TIME:	08:33:28 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: 08/04/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	SAN JUAN 32-8 UNIT 34; INT	INTERMEDIATE CASING	08/04/2020
Stn. No.:	API # 3004533150	MV/DK	35825-12520
Mtr. No.:			

Smpl Date:	07/23/2020
Test Date:	07/30/2020
Run No:	HS200110
Nitrogen:	0.1035
CO2:	2.4320
Methane:	91.7957
Ethane:	3.9593
Propane:	1.0480
I-Butane:	0.2108
N-Butane:	0.2098
I-Pentane:	0.0831
N-Pentane:	0.0416
Hexane+:	0.1162
BTU:	1053.3
GPM:	17.6050
SPG:	0.6201



Well Name: SAN JUAN 32-8 UNIT 34;
API #: API # 3004533150
Source: TUBING
Sample Type: GAS
Analysis No: HS200109
Cust No: 35825-12515

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT) Source: TUBING
Well Name: SAN JUAN 32-8 UNIT 34; TBG Well Flowing: Y
County/State: SAN JUAN NM Pressure: 112 PSIG
Location: Flow Temp: 93 DEG. F
Lease/PA/CA: Ambient Temp: 74 DEG. F
Formation: MV/DK Flow Rate: 0 MCF/D
Cust. Stn. No.: API # 3004533150 Sample Method: Purge & Fill
Sample Date: 07/23/2020
Sample Time: 10.15 AM
Sampled By: TC SCANLAN
Sampled by (CO): HILCORP
AREA 4 / RUN 406
Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0882	0.0879	0.0100	0.00	0.0009
CO2	2.2266	2.2193	0.3810	0.00	0.0338
Methane	93.0693	92.7639	15.8100	940.00	0.5155
Ethane	3.3012	3.2904	0.8850	58.42	0.0343
Propane	0.7511	0.7486	0.2070	18.90	0.0114
Iso-Butane	0.1660	0.1655	0.0540	5.40	0.0033
N-Butane	0.1483	0.1478	0.0470	4.84	0.0030
I-Pentane	0.0709	0.0707	0.0260	2.84	0.0018
N-Pentane	0.0389	0.0388	0.0140	1.56	0.0010
Hexane Plus	0.1395	0.1390	0.0620	7.35	0.0046
Total	100.0000	99.6719	17.4960	1039.30	0.6096

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0023
BTU/CU.FT IDEAL: 1041.7
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1044.1
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1025.9
DRY BTU @ 15.025: 1065.0
REAL SPECIFIC GRAVITY: 0.6107

CYLINDER #: 6193
CYLINDER PRESSURE: 110 PSIG
ANALYSIS DATE: 07/30/2020
ANALYSIS TIME: 08:24:15 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: 08/04/2020

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	SAN JUAN 32-8 UNIT 34; TBG	TUBING	08/04/2020
Stn. No.:	API # 3004533150	MV/DK	35825-12515
Mtr. No.:			

Smpl Date:	07/23/2020
Test Date:	07/30/2020
Run No:	HS200109
Nitrogen:	0.0882
CO2:	2.2266
Methane:	93.0693
Ethane:	3.3012
Propane:	0.7511
I-Butane:	0.1660
N-Butane:	0.1483
I-Pentane:	0.0709
N-Pentane:	0.0389
Hexane+:	0.1395
BTU:	1044.1
GPM:	17.4960
SPG:	0.6107