



NMOCD REC'D
10/12/20

Well Name: HEATH GC K 001;CSG
API #: API # 300451166100
Source: CASING
Sample Type: GAS
Analysis No: SO200041
Cust No: 15950-10400

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: HEATH GC K 001;CSG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: DK
Cust. Stn. No.: API # 300451166100

Source: CASING
Well Flowing: Y
Pressure: 105 PSIG
Flow Temp: 74.7 DEG. F
Ambient Temp: 78 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/26/2020
Sample Time: 9.30 AM
Sampled By: CELIA L.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1477	0.1466	0.0160	0.00	0.0014
CO2	1.8222	1.8089	0.3120	0.00	0.0277
Methane	90.9760	90.3128	15.4620	918.86	0.5039
Ethane	3.5932	3.5670	0.9630	63.59	0.0373
Propane	0.9110	0.9044	0.2520	22.92	0.0139
Iso-Butane	0.4135	0.4105	0.1360	13.45	0.0083
N-Butane	0.3181	0.3158	0.1010	10.38	0.0064
I-Pentane	0.4019	0.3990	0.1470	16.08	0.0100
N-Pentane	0.2226	0.2210	0.0810	8.92	0.0055
Hexane Plus	1.1938	1.1851	0.5340	62.93	0.0395
Total	100.0000	99.2711	18.0040	1117.12	0.6540

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028
BTU/CU.FT IDEAL: 1119.7
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1122.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1103.3
DRY BTU @ 15.025: 1145.3
REAL SPECIFIC GRAVITY: 0.6555

CYLINDER #: 43
CYLINDER PRESSURE: 99 PSIG
ANALYSIS DATE: 07/01/2020
ANALYSIS TIME: 10:37:22 AM
ANALYSIS RUN BY: PATRICIA KING

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: 07/01/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: HEATH GC K 001;CSG
Stn. No.: API #
Mtr. No.:

CASING
DK

07/01/2020
15950-10400

Smpl Date:	06/26/2020	06/27/2019	10/16/2017
Test Date:	07/01/2020	07/08/2019	10/16/2017
Run No:	SO200041	SO190089	SO170080
Nitrogen:	0.1477	0.1900	0.1545
CO2:	1.8222	2.0352	1.9429
Methane:	90.9760	91.2018	90.5029
Ethane:	3.5932	3.8087	3.7823
Propane:	0.9110	0.9248	0.9956
I-Butane:	0.4135	0.3488	0.4140
N-Butane:	0.3181	0.2611	0.3339
I-Pentane:	0.4019	0.2678	0.3521
N-Pentane:	0.2226	0.1426	0.2129
Hexane+:	1.1938	0.8192	1.3089
BTU:	1122.8	1096.8	1127.9
GPM:	18.0040	17.8570	18.0550
SPG:	0.6555	0.6426	0.6608



NMOCD REC'D
10/12/20

Well Name: HEATH GC K 001;TBG
API #: API # 300451166100
Source: TUBING
Sample Type: GAS
Analysis No: SO200042
Cust No: 15950-10395

Well/Lease Information

Customer Name: BP - SOUTH BHD PROJECT
Well Name: HEATH GC K 001;TBG
County/State: SAN JUAN NM
Location:
Lease/PA/CA:
Formation: DK
Cust. Stn. No.: API # 300451166100

Source: TUBING
Well Flowing: Y
Pressure: 108 PSIG
Flow Temp: 75.4 DEG. F
Ambient Temp: 78 DEG. F
Flow Rate: MCF/D
Sample Method: Purge & Fill
Sample Date: 06/26/2020
Sample Time: 9.37 AM
Sampled By: CELIA L.
Sampled by (CO): ABC

Heat Trace: N
Remarks:

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1481	0.1466	0.0160	0.00	0.0014
CO2	1.9688	1.9491	0.3370	0.00	0.0299
Methane	92.2502	91.3292	15.6740	931.73	0.5110
Ethane	3.7033	3.6663	0.9930	65.54	0.0384
Propane	0.8347	0.8264	0.2300	21.00	0.0127
Iso-Butane	0.2923	0.2894	0.0960	9.51	0.0059
N-Butane	0.1880	0.1861	0.0590	6.13	0.0038
I-Pentane	0.1487	0.1472	0.0550	5.95	0.0037
N-Pentane	0.0690	0.0683	0.0250	2.77	0.0017
Hexane Plus	0.3969	0.3929	0.1770	20.92	0.0131
Total	100.0000	99.0015	17.6620	1063.54	0.6217

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0025
BTU/CU.FT IDEAL: 1066.0
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1068.7
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1050.1
DRY BTU @ 15.025: 1090.1
REAL SPECIFIC GRAVITY: 0.623

CYLINDER #: 1097
CYLINDER PRESSURE: 101 PSIG
ANALYSIS DATE: 07/01/2020
ANALYSIS TIME: 10:14:55 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: 07/01/2020

GC Method: C6+ Gas



BP - SOUTH BHD PROJECT
WELL ANALYSIS COMPARISON

Lease: HEATH GC K 001;TBG
Stn. No.: API #
Mtr. No.:

TUBING
DK

07/01/2020
15950-10395

Smpl Date:	06/26/2020	06/27/2019	10/16/2017
Test Date:	07/01/2020	07/08/2019	10/16/2017
Run No:	SO200042	SO190090	SO170081
Nitrogen:	0.1481	0.1684	0.1523
CO2:	1.9688	1.9751	1.9229
Methane:	92.2502	92.0952	92.4069
Ethane:	3.7033	3.8019	3.6553
Propane:	0.8347	0.8701	0.8086
I-Butane:	0.2923	0.2926	0.2851
N-Butane:	0.1880	0.2029	0.1983
I-Pentane:	0.1487	0.1487	0.1349
N-Pentane:	0.0690	0.0686	0.0803
Hexane+:	0.3969	0.3765	0.3554
BTU:	1068.7	1069.2	1066.6
GPM:	17.6620	17.6720	17.6440
SPG:	0.6230	0.6236	0.6209