



Well Name: RANDLEMON #100 RTU;
 API #: 3004534711
 Source: BRADENHEAD
 Sample Type: GAS
 Analysis No: HS20230222
 Cust No: 35825-12860

Well/Lease Information

Customer Name:	HILCORP (BHD PROJECT)	Source:	BRADENHEAD
Well Name:	RANDLEMON #100 RTU; BHD	Well Flowing:	Y
County/State:	SAN JUAN NM	Pressure:	10 PSIG
Location:		Flow Temp:	91 DEG. F
Lease/PA/CA:	FE	Ambient Temp:	86 DEG. F
Formation:	EC	Flow Rate:	191 MCF/D
Cust. Stn. No.:	3004534711	Sample Method:	Purge & Fill
	ELB88764	Sample Date:	08/03/2023
	AREA 3 / RUN 302	Sample Time:	12.15 PM
Heat Trace:	N	Sampled By:	LIONEL GLEASON
Remarks:	PRESSURED WITH HELIUM TO 30LBS.	Sampled by (CO):	HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	5.9814	3.7945	0.6590	0.00	0.0579
CO2	0.0169	0.0107	0.0030	0.00	0.0003
Methane	90.0304	57.1134	15.2900	909.31	0.4987
Ethane	3.4024	2.1584	0.9120	60.21	0.0353
Propane	0.4671	0.2963	0.1290	11.75	0.0071
Iso-Butane	0.0270	0.0171	0.0090	0.88	0.0005
N-Butane	0.0422	0.0268	0.0130	1.38	0.0008
I-Pentane	0.0069	0.0044	0.0030	0.28	0.0002
N-Pentane	0.0025	0.0016	0.0010	0.10	0.0001
Hexane Plus	0.0232	0.0147	0.0100	1.22	0.0008
Total	100.0000	63.4379	17.0290	985.13	0.6016

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z):	1.002	CYLINDER #:	6022
BTU/CU.FT IDEAL:	987.4	CYLINDER PRESSURE:	PSIG
BTU/CU.FT (DRY) CORRECTED FOR (1/Z):	989.4	ANALYSIS DATE:	08/09/2023
BTU/CU.FT (WET) CORRECTED FOR (1/Z):	972.2	ANALYSIS TIME:	01:40:08 AM
DRY BTU @ 15.025:	1009.2	ANALYSIS RUN BY:	ACEDA GOODNOH
REAL SPECIFIC GRAVITY:	0.6026		

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: 08/15/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	RANDLEMON #100 RTU; BHD	BRADENHEAD	08/15/2023
Stn. No.:	3004534711	FC	35825-12860
Mtr. No.:	ELB88764		

Smpl Date:	08/03/2023	08/14/2020
Test Date:	08/09/2023	08/18/2020
Run No:	HS20230222	HS200192
Nitrogen:	5.9814	8.1612
CO2:	0.0169	0.0040
Methane:	90.0304	88.1752
Ethane:	3.4024	3.0383
Propane:	0.4671	0.5056
I-Butane:	0.0270	0.0386
N-Butane:	0.0422	0.0538
I-Pentane:	0.0069	0.0084
N-Pentane:	0.0025	0.0036
Hexane+:	0.0232	0.0113
BTU:	989.4	965.3
GPM:	17.0290	16.8670
SPG:	0.6026	0.6101



Well Name: RANDLEMON #100; CSG

API #: 3004534711

Source: CASING

Sample Type: GAS

Analysis No: HS20230223

Cust No: 35825-12865

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: RANDLEMON #100; CSG

County/State: SAN JUAN NM

Location:

Lease/PA/CA: FE

Formation: EC

Cust. Stn. No.: 3004534711

ELB88764

AREA 3 / RUN 302

Heat Trace: N

Remarks: PRESSURED WITH HELIUM TO 30LBS.

Source: CASING

Well Flowing: Y

Pressure: 10 PSIG

Flow Temp: 91 DEG. F

Ambient Temp: 86 DEG. F

Flow Rate: 191 MCF/D

Sample Method: Purge & Fill

Sample Date: 08/03/2023

Sample Time: 12.27 PM

Sampled By: LIONEL GLEASON

Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.4162	0.3130	0.0460	0.00	0.0040
CO2	0.4671	0.3513	0.0800	0.00	0.0071
Methane	92.5225	69.5828	15.7190	934.48	0.5125
Ethane	4.1663	3.1333	1.1170	73.73	0.0433
Propane	1.7060	1.2830	0.4710	42.92	0.0260
Iso-Butane	0.3497	0.2630	0.1150	11.37	0.0070
N-Butane	0.1828	0.1375	0.0580	5.96	0.0037
I-Pentane	0.0755	0.0568	0.0280	3.02	0.0019
N-Pentane	0.0340	0.0256	0.0120	1.36	0.0008
Hexane Plus	0.0799	0.0601	0.0360	4.21	0.0026
Total	100.0000	75.2064	17.6820	1077.06	0.6089

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0024
 BTU/CU.FT IDEAL: 1079.6
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1082.2
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1063.4
 DRY BTU @ 15.025: 1103.9
 REAL SPECIFIC GRAVITY: 0.6101

CYLINDER #: 6084
 CYLINDER PRESSURE: PSIG
 ANALYSIS DATE: 08/09/2023
 ANALYSIS TIME: 01:23:25 AM
 ANALYSIS RUN BY: ACEDA GOODNOH

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: 08/15/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	RANDLEMON #100; CSG	CASING	08/15/2023
Stn. No.:	3004534711	FC	35825-12865
Mtr. No.:	ELB88764		

Smpl Date:	08/03/2023	08/14/2020
Test Date:	08/09/2023	08/18/2020
Run No:	HS20230223	HS200193
Nitrogen:	0.4162	0.4593
CO2:	0.4671	0.4372
Methane:	92.5225	90.0244
Ethane:	4.1663	5.2844
Propane:	1.7060	2.3551
I-Butane:	0.3497	0.4764
N-Butane:	0.1828	0.4300
I-Pentane:	0.0755	0.1711
N-Pentane:	0.0340	0.0970
Hexane+:	0.0799	0.2651
BTU:	1082.2	1121.9
GPM:	17.6820	18.0010
SPG:	0.6101	0.6356

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811 S. First St., Artesia, NM 88210
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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
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 261812

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 261812
	Action Type: [UF-GA] Gas Analysis (GAS ANALYSIS)

CONDITIONS

Created By	Condition	Condition Date
mkuehling	is it being affected by the intermediate	9/15/2023