



ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY: **05-045-11718** NAME/DESCRIP : **D27 EF12B-22**
 LEASE #: **110165700** **BRAIDEN HEAD**
 FIELD/AREA:

PROJECT NO. : **202409055** ANALYSIS NO. : **06**
 COMPANY NAME : **QB ENERGY OPERATING, LLC** ANALYSIS DATE: **SEPTEMBER 24, 2024 00:00**
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **SEPTEMBER 4, 2024 9:30**
 CUSTOMER REF: **TO:**
 PRODUCER : **QB ENERGY OPERATING, LLC** EFFECTIVE DATE:

*****FIELD DATA*****

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : **203** psig PROBE : **NO**
 FLOW PRES. : psig CYLINDER NO. : **ECA-800**
 LAB PRES: psig SAMPLED BY : **MIKE KELLEY**
 SAMPLE TEMP. : **57** °f SAMPLING COMPANY: **QB ENERGY**
 AMBIENT TEMP.: °f H2S BY STAIN TUBE: **-** ppm mol
 H2O BY STAIN TUBE: **-** #/mmcf CO2 BY STAIN TUBE: **-** Mol %
 FIELD COMMENTS:
 LAB COMMENTS:

COMPONENTS	NORM. MOLE%	GPM @ 14.65	d13C ‰ VPDB	dD ‰ VSMOW
HELIUM	0.01	-	-	-
HYDROGEN	0.00	-	-	-
OXYGEN/ARGON	0.00	-	-	-
NITROGEN	0.38	-	-	-
CO2	0.02	-	0.0	-
METHANE	93.73	-	-34.9	-160
ETHANE	3.11	0.8294	-27.3	-
PROPANE	1.34	0.3707	-28.5	-
ISOBUTANE	0.29	0.0949	-27.7	-
N-BUTANE	0.53	0.1669	-30.7	-
ISOPENTANE	0.17	0.0580	-27.0	-
N-PENTANE	0.14	0.0510	-29.6	-
HEXANES+	0.28	0.1469	-	-
TOTAL	100.00	1.7178		

BTU @ 60 DEG F

14.65
 GROSS DRY REAL = **1090.4** /scf
 GROSS SATURATED REAL = **1071.3** /scf

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F) **0.6105**
 GRAVITY (LB/SCF) **0.04659**
 COMPRESSIBILITY FACTOR : **0.99760**

NOTE: REFERENCE GPA 2261(ASTM D1945 & ASME-PTC), 2145, & 2172 CURRENT PUBLICATIONS

Reference: Per GPA 2172-14 sec 9 **The C6+ is derived from the following ratios of C6, C7 & C8+ respectively: 60% 30% 10%**

The NG Composition File #: **202409055-06-A-232**
 The Isotopic Data File #: **DIG-037073**

Note: Stable isotope results based on multi-point laboratory calibration

Precision δ¹³C < 0.5 ‰ Precision δD < 5.0 ‰

Values in red represent low peak heights. Interpret with caution.

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