



ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY: **05-045-05130** NAME/DESCRIP : **120286008 DOUBLE WILLOW 8610A J19 497**
 LEASE #: **COC-50268** **BRADEN HEAD**
 FIELD/AREA: **WILLOW CREEK**

PROJECT NO. : **202603103** ANALYSIS NO. : **02**
 COMPANY NAME : **QB ENERGY OPERATING, LLC** ANALYSIS DATE: **APRIL 03, 2026 00:00**
 OFFICE / BRANCH: **PARACHUTE, CO** SAMPLE DATE : **MARCH 15, 2026**
 CUSTOMER REF: **TO:**
 PRODUCER : **QB ENERGY OPERATING LLC** EFFECTIVE DATE:

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

SAMPLE CYCLE: SAMPLE TYPE: **SPOT**
 SAMPLE PRES. : **68** psig PROBE : **NO**
 FLOW PRES. : psig CYLINDER NO. : **ECA-742**
 LAB PRES: psig SAMPLED BY : **MIKE KELLEY**
 SAMPLE TEMP. : **38** °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	0.00	-	-	-
HYDROGEN	0.00	-	-	-
OXYGEN/ARGON	0.02	-	-	-
NITROGEN	0.77	-	-	-
CO2	0.63	-	-12.7	-
METHANE	98.56	-	-61.9	-182
ETHANE	0.02	0.0160	-30.3	-
PROPANE	0.00	0.0000	-26.3	-
ISOBUTANE	0.00	0.0000	0.0	-
N-BUTANE	0.00	0.0000	0.0	-
ISOPENTANE	0.00	0.0000	0.0	-
N-PENTANE	0.00	0.0000	0.0	-
HEXANES+	0.00	0.0000	-	-
TOTAL	100.00	0.0160		

BTU @ 60 DEG F

14.65
 GROSS DRY REAL = **995.1** /scf
 GROSS SATURATED REAL = **977.7** /scf

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F) **0.5635**
 GRAVITY (LB/SCF) **0.04301**
 COMPRESSIBILITY FACTOR : **0.99800**

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 #: **202603103-02-A-675**
 The Isotopic Data File #: **DIG-043334**

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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