EMPACT

ISOTOPIC NATURAL GAS ANALYSIS

PRIMARY DB KEY:	**05-103-10519**	NAME/DESCRIP :	**FF UNIT 8010D J11 498**
LEASE #:			**PRODUCTION CASING**
FIELD/AREA:			
PROJECT NO. :	**202509082**	ANALYSIS NO. :	**01**
COMPANY NAME :	**QB ENERGY OPERATING, LLC**	ANALYSIS DATE:	OCTOBER 01, 2025 00:00
OFFICE / BRANCH:	PARACHUTE, CO	SAMPLE DATE :	SEPTEMBER 11, 2025
CUSTOMER REF:		TO:	
PRODUCER :		EFFECTIVE DATE:	

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

SAMPLE CYCLE:		SAMPLE TYPE:	
SAMPLE PRES. :	psig	PROBE :	
FLOW PRES. :	psig	CYLINDER NO. :	0039
LAB PRES:	psig	SAMPLED BY :	NICK CROY
SAMPLE TEMP. :	ºf	SAMPLING COMPANY:	QB ENERGY
AMBIENT TEMP.:	ºf	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	0.00	-	-	-
NITROGEN	0.08	-	-	-
CO2	4.63	-	-4.1	-
METHANE	87.27	-	-36.0	-183
ETHANE	5.85	1.5570	-28.0	-
PROPANE	1.20	0.3318	-27.4	-
ISOBUTANE	0.27	0.0879	-23.4	-
N-BUTANE	0.20	0.0630	-30.2	-
ISOPENTANE	0.10	0.0330	-23.7	-
N-PENTANE	0.06	0.0220	-24.1	-
HEXANES+	0.34	0.1559	-	-
TOTAL	100.00	2.2506		

BTU @ 60 DEG F		**14.65**	
	GROSS DRY REAL =	1054.2	**/scf**
	GROSS SATURATED REAL =	1035.8	**/scf**

RELATIVE DENSITY (AIR=1 @14.696 PSIA 60F)	0.6582
GRAVITY (LB/SCF)	0.05024
COMPRESSIBILITY FACTOR :	0.99750

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 #: **202509082-01-A-526**

The Isotopic Data File #: **DIG-041602**

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

Presicion $\delta^{13}C$ < 0.5 ‰ **Precision δD < 5.0 ‰**

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

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