



Certificate of Analysis
 Number: 2500-21070039-001A

Greeley Laboratory
 2881 S. 31st Ave
 Unit 6-8
 Greeley, CO 80631

Whiting Petroleum Corporation
 Tyler Gray
 1700 Lincoln Street
 Suite 4700
 Denver, CO 80290

July 12, 2021

Field: Redtail
 Station Name: CTW 08R-0504 FG
 Station Number: RTP0311FG
 Station Location:
 Sample Point:
 Analyzed: 07/09/2021 09:39:26 by RGA

Sampled By: DK Jones
 Sample Of: Gas Spot
 Sample Date: 07/07/2021 14:30
 Sample Conditions: 60 psig, @ 60 °F
 Method: GPA-2261M
 Cylinder No: 2500-01882

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.73 psia		
Hydrogen Sulfide	0.000	0.000		GPM TOTAL C2+	6.470
Nitrogen	1.551	1.878		GPM TOTAL C3+	4.117
Carbon Dioxide	2.438	4.636		GPM TOTAL iC5+	0.740
Methane	73.733	51.112			
Ethane	8.765	11.389	2.353		
Propane	7.724	14.718	2.136		
Iso-butane	0.887	2.228	0.291		
n-Butane	3.002	7.540	0.950		
Iso-pentane	0.575	1.793	0.211		
n-Pentane	0.693	2.161	0.252		
Hexanes Plus	0.632	2.545	0.277		
	100.000	100.000	6.470		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8021	3.2176
Calculated Molecular Weight	23.14	93.19
Compressibility Factor	0.9958	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.73 psia & 60°F		
Real Gas Dry BTU	1313	5141
Water Sat. Gas Base BTU	1290	5052

Comments: H2S Lab Content 0 ppm; Filed Content 16 ppm

Data reviewed by: Carson Souther, Laboratory Analyst

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.