



Certificate of Analysis

Number: 2500-23110036-001A

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

Jeff Braden
Ensolum
11049 W 44th Ave, Ste 100
Wheat Ridge, CO 80033

Nov. 21, 2023

Station Name: Bernhardt-PM K 6-4
Sample Conditions:

Sampled By: Jeff Braden
Sample Of: Liquid Spot
Sample Date: 11/02/2023 10:30

Analytical Data

Test	Method	Result	Units	Detection Limit	Lab Tech.	Analysis Date
Total Sediment and Water	ASTM D-4007	0.50	vol%		SO	11/06/2023
Sulfur Content by X-ray	ASTM D-4294	0.164	wt%		SO	11/06/2023
Viscosity - Kinematic @ 104°F	ASTM D-445	0.9960	cSt		MRL	11/02/2023
Viscosity - Kinematic @ 104°F	ASTM D-445	29.10	SUS		MRL	11/02/2023
API Gravity @ 60° F	ASTM D-5002	55.01	°		SO	11/06/2023
Specific Gravity @ 60/60° F	ASTM D-5002	0.7587	—		SO	11/06/2023
Density @ 60° F	ASTM D-5002	0.7543	g/ml		SO	11/06/2023
VP of Crude Oil: V/L = 4:1 @ 100 °F	ASTM D-6377	9.48	psi		SO	11/06/2023
RVPE (D323 Equivalent) @ 100 °F	ASTM D-6377	7.91	psi		SO	11/06/2023
Initial Boiling Point	ASTM D-86-IBP	110	°F		MRL	11/02/2023
Pour Point	ASTM D-97	-65	°C		SO	11/08/2023

Data reviewed by: Ryleigh Jacobs, Laboratory Analyst
Methods: ASTM D-4007, ASTM D-4294, ASTM D-5002, ASTM D-6377, ASTM D-97

Data reviewed by: Matthew Loveley, Laboratory Manager
Methods: ASTM D-445, ASTM D-86-IBP

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