

Certificate of Analysis

Client:	Rubis Eastern Caribbean	Client Reference Number:	
Job Location:	Citgo Petroleum Corporation		UOG Constantine G V01/24
Our Reference Number:	US250-0023600		
Lab Reference Number:	2024-LACH-000273		

Sample ID:	2024-LACH-000273-040	Date Taken:	12-Mar-2024
Sample Designated As:	Ultra Low Sulfur Diesel, ULSD	Date Submitted:	12-Mar-2024
Vessel/Location:	UOG CONSTANTINE	Date Tested:	12-Mar-2024
Representing:	UOG Constantine - ULSD Composite After Load		

Method	Test	Result	Unit	Specs	Pass / Fail
ASTM D93	Corrected Flash Point	64.0	°C	Min 60	Pass
ASTM D2709	Sediment and Water	<0.01	Vol %	Max 0.05	Pass
ASTM D86	10% Recovery	195.7	°C	Report	
ASTM D86	50% Recovery	250.6	°C	Max 292	Pass
ASTM D86	90% Recovery	315.7	°C	282-340	Pass
ASTM D86	Final Boiling Point	346.5	°C	Report	
ASTM D6217	Particulate Contamination	0.0	g/m ³	Report	
ASTM D445	Kinematic Viscosity 40 °C	2.439	cSt	1.9-4.1	Pass
ASTM D482	Ash	<0.010	% mass	Max 0.01	Pass
ASTM D2622	Sulfur Content	6.4	ppm	Max 15	Pass
ASTM D130	Copper Corrosion @ 50°C (122°F)/3 hr	1a		Max 1	Pass
ASTM D613	Cetane Number	48.0		Min 40	Pass
ASTM D976	Cetane Index	50.9		Min 45	Pass
ASTM D1319	Aromatics	18.2	Vol %	Max 35	Pass
ASTM D97	Pour Point	-18	°C	Max 0	Pass
ASTM D4530	Average Micro Method Carbon Residue 10	<0.1	% mass	Max 0.1	Pass
ASTM D6079	Lubricity HFRR	420	µm	Max 460	Pass
ASTM D2624	Electrical Conductivity	100	pS/m	Min 50	Pass
ASTM D4052	API Gravity @ 60°F	39.3	°API	30-41	Pass
ASTM D1298	Density @ 15°C	828.0	kg/m ³	820-876	Pass
ASTM D1500	ASTM Color	<0.5		Max 2	Pass
ASTM D4868	Lower Heating Value @ 60°F	131,317	BTU/USG	Min 127,000	Pass
ASTM D1296	Odor	Marketable		Marketable	Pass
ITM 5005	Visual Color	Undyed		Undyed	Pass
ASTM D4176	Appearance	Clear, Bright & Free		Clear, Bright and Visually Free from solid matter	Pass



Date: 3/13/24

Redacted under Sec 23 (1) FOI Act (2021 Revision)