

Certificate of Quality – VLSFO (ISO 8217:2017)

Vessel	—
Date	November 7, 2025
Port	Cartagena, Colombia
Product	VLSFO – Very Low Sulphur Fuel Oil
Company	CI Prolexport de Colombia S.A.S

Test Results – VLSFO (ISO 8217:2017)

Parameter	Method	Limit	Result
API Gravity @ 60°F	ASTM D1298	Min 11.2	19.3
Viscosity @ 50°C (cSt)	ASTM D445	Max 80	80.16
Density @ 15°C (kg/m³)	ASTM D1298	Max 991	937.8
CCAI	Calculated	Max 870	817.2
Flash Point (°C)	ASTM D93	Min 60	75.2
Pour Point (°C)	ASTM D97	Max 30	-14.1
Carbon Residue (%m/m)	ASTM D189	Max 18.0	8.70
Ash Content (%m/m)	ASTM D482	Max 0.15	0.009
Vanadium (mg/kg)	ASTM D5863	Max 350	31.65
Aluminum + Silicon (mg/kg)	IP 501	Max 60	16.80
Aluminum (mg/kg)	IP 501	-	8.09
Silicon (mg/kg)	IP 501	-	8.71
Sulphur (%m/m)	ASTM D4294	Max 0.5	0.443
Water (%v/v)	ASTM D95	Max 0.5	0.20
Sodium (mg/kg)	IP 501	Max 15	0.85
Zinc (mg/kg)	IP 501	Max 15	0.85
Phosphorus (mg/kg)	IP 501	Max 30	11.28
Total Sediment (%m/m)	ASTM D4870	Max 0.10	0.01
Acidity (mgKOH/g)	ASTM D664	Max 2.5	0.724
Calcium (mg/kg)	IP 501	Max 100	5.86
Net Calorific Value (MJ/kg)	-	-	41.38

Additional Observations

The fuel sample meets the requirements of ISO 8217:2017 for Very Low Sulphur Fuel Oil (VLSFO). The product is free from used lubricating oils (ULO). Fuel is considered to contain ULO when Calcium > 30 and either Zinc > 15 or Phosphorus > 15. All results comply with international specifications for marine fuel quality.