

Certificate of Analysis

Vessel / Object: SEAFRONTIER (9457268)

Location: Port Arthur, TX / GT Gulfway (United States)

Job Type: Load

<u>Sample</u>

160-24-05880-069

Product Grade: Mogas CUR-95 RON

Client Reference: Atlantic Trading & Marketing Inc. / HV53196

Job No: 160-24-05880

Date Sampled: 12/01/24

Version: 1 / 07 Dec 2024 13:45

12/04/24

Sample ID, Type & Description

3P,3S,SLOP-P,SLOP-S Volumetric Composite After Load

Date Tested:

| <u>Method</u> | <u>Test</u> | <u>Min</u> | <u>Max</u> | Result | <u>Units</u> | <u>Remarks</u> |
|--------------------|---|-------------------|------------|------------------|--------------|----------------|
| ASTM D4052 | Gravity by Digital Density Meter | | | | | |
| | API Gravity @60°F | | | 58.5 | • | |
| | Density @15°C | 720.0 | 775.0 | 744.5 | kg/m³ | |
| Visual | Visual Appearance at 20°C | Clear & Bright | | Clear and Bright | | |
| ASTM D130 | Copper Strip Corrosion Rating @50°C/122°F for 3 Hours | | 1 | 1A | | |
| ASTM D86 | Distillation Evaporated | | | | | |
| | IBP | 30 | | 31.6 | °C | |
| | 10% | 40 | 70 | 51.9 | °C | |
| | 50% | 80 | 115 | 90.5 | °C | |
| | 90% | | 180 | 153.2 | °C | |
| | FBP | | 215 | 188.9 | °C | |
| | Residue | | 2.0 | 1.0 | %vol | |
| | % Evaporated @ 70°C | | | 31.6 | %vol | |
| ASTM D381 | Existent Gum Content | | 4.0 | < 1 | mg/100ml | |
| ASTM D2699 | Research Octane Number | 95.0 | | 95.0 | | |
| ASTM D2700 | Motor Octane Number | 85.0 | | 85.2 | | |
| ASTM D4814 | Antiknock Index (R+M)/2 | | | 90.1 | | |
| ASTM D1319 | Hydrocarbon types by FIA (Aromatics, Olefins & Saturates) | | | | | |
| | Aromatics | | 35.0 | 27.9 | %vol | |
| | Olefins | | 18.0 | 11.1 | %vol | |
| | Aromatics and Olefins | | 45.0 | 39.0 | %vol | |
| ASTM D3606 Proc. B | Benzene | | | 0.34 | %vol | |
| ASTM D6304A | Water Concentration | | | 217 | ppmw | |
| ASTM D525 | Oxidation Stability @100°C | 360 | | > 360 | mins | |
| ASTM D4815 | Oxygenates in Gasoline | | | | | |
| | Total Oxygen Content | | 2.70 | 2.58 | %wt | |
| | Total Oxygenates Total oxygenates (MTBE + ETBE + ETHANOL) | | | 14.20 | %wt | |
| | Methanol | | 3.0 | ND | %vol | |
| ASTM D5191 | DVPE @ 100F° (ASTM CALC AVG) | | 8.7 | 8.50 | psi | |
| ASTM D2622-16 | Total Sulfur Content (Origin) | | 30 | 4.3 | mg/kg | |
| ASTM D4952 | Doctor Test | Negative | | Negative | | |
| ASTM D3227 | Mercaptan Sulfur | | 0.0015 | < 0.0003 | %wt | |
| ASTM D3231 | Phosphorus | | 1 | ND | mg/L | |
| ASTM D3831 | Manganese Content of Gasoline | | 0 | ND | mg/L Mn | |
| ASTM D3237 | Lead | | 5 | ND | mg/L | |
| ASTM D5708A** | Silicon Content | | • | ND | mg/kg | |
| ACTIVI DOTOCA | Onicon Content | | | IND | mg/kg | |



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Method Test Min Max Result Units Remarks

ASTM D7536 Total Chloride Concentration ND mg/kg

Notes: RESULTS ARE VALID "AS AT" DATE AND LOCATION LISTED

All samples were obtained per ASTM D4057, 40 CFR1090.1335 and are retained in compliance with 40 CFR 1090.1345

**Method Modification: Reported Metal is not supported by the method

