



Certificate of Analysis

Vessel / Object: CASTOR (9864356)
Location: Port Arthur, TX / GT Gulfway (United States)
Job Type: Load
Product Grade: Mogas 95 RON
Client Reference: Atlantic Trading & Marketing Inc. / HV51112

Job No: 160-24-00796
Date Sampled: 02/19/24
Date Tested: 02/20/24
Version: 1 / 20 Feb 2024 12:25

<u>Sample</u>	<u>Sample ID, Type & Description</u>					
160-24-00796-049	Volumetric Composite After Load					
<u>Method</u>	<u>Test</u>	<u>Min</u>	<u>Max</u>	<u>Result</u>	<u>Units</u>	<u>Remarks</u>
ASTM D4052	Gravity by Digital Density Meter					
	API Gravity @60°F	51	65	57.2	°	
	Density @15°C	720	775	749.8300	g/mL	
ASTM D5191	Vapor Pressure of Petroleum Products (DVPE)					
	DVPE @ 100F° (ASTM CALC AVG)		8.7	8.59	psi	
	Volume of Container in mL			1000	mL	
ASTM D2699	Research Octane Number					
	Research Octane Number by Compression Ratio	95.0		95.4		
	Room Barometric Pressure			30.2	in. Hg	
	Intake Air Temperature			129	°F	
ASTM D2700	Motor Octane Number					
	Motor Octane Number by Compression Ratio	85.0		86.9		
	Room Barometric Pressure			30.2	in. Hg	
	Mixture Temperature			292	°F	
ASTM D4814	Antiknock Index (R+M)/2			91.2		
ASTM D381	Solvent Washed Gum Content		4	< 0.5	mg/100ml	
ASTM D130	Copper Strip Corrosion Rating @50°C/122°F for 3 Hours			1A		
ASTM D2622	Total Sulfur Content		30	15.4	ppmw	
ASTM D525	Oxidation Stability @100°C	360		> 360	mins	
ASTM D86	Distillation Evaporated					
	IBP	30		32.3	°C	
	10%	40	70	51.5	°C	
	50%	80	115	88.9	°C	
	90%		180	149.2	°C	
	FBP		215	185.2	°C	
	Residue		2.0	1.0	%vol	
	Barometric Pressure			102.2	kPa	
	Procedure Used			Automatic		
	E70			33.9	%vol	
Visual	Color	Undyed		Undyed		
ASTM D3237	Lead		5	< 2.5	mg/L	
ASTM D3831	Manganese Content of Gasoline		0	< 0.2	mg/L Mn	
ASTM D5708A	Iron Content		1	< 1.000	ppmw	
ASTM D3231	Phosphorus		1	< 0.20	mg/L	
ASTM D4176B proc. 1	Free Water			Absent		
ASTM D4176A proc. 1	Appearance		C&B	C&B		
ASTM D4815	Total Oxygen Content		2.7	2.38	%wt	



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Sample 160-24-00796-049 **Sample ID, Type & Description** VESSEL COMP Volumetric Composite After Load

<u>Method</u>	<u>Test</u>	<u>Min</u>	<u>Max</u>	<u>Result</u>	<u>Units</u>	<u>Remarks</u>
ASTM D4815 (Correlated to ASTM D5599)	Oxygenates in Gasoline					
	MTBE			13.20	%vol	
	Methanol			< 0.10	%vol	
	Total Oxygenates			13.13	%wt	
ASTM D3606!!	Benzene		1.0	0.98	%vol	
ASTM D1319	Hydrocarbon types by FIA (Aromatics, Olefins & Saturates)					
	Olefins			3.4	%vol	
	Aromatics		35	33.4	%vol	
ASTM D6304B	Water Concentration		0	0.02	%vol	
ASTM D4952	Doctor Test	NEGATIVE		Negative		
ASTM D3227	Mercaptan Sulfur		0.0015	< 0.0003	mass%	
ASTM D7757	Silicon			< 1.0	mg/kg	
ASTM D5808	Chloride			< 1.0	mg/kg	