

Certificate of Analysis

Vessel / Object: AMIRANTE (9629706)

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

Job Type: Load

<u>Sample</u>

160-24-01684-039

Product Grade: 95 Ron Gasoline

Client Reference: Atlantic Trading & Marketing Inc. / HV50996

Job No: 160-24-01684

Date Sampled: 04/08/24

Date Tested:

Version: 1 / 12 Apr 2024 15:42

04/12/24

Sample ID, Type & Description

3P,3S,5P,5S Volumetric Composite After Load

<u>Method</u>	<u>Test</u>	<u>Min</u>	<u>Max</u>	Result	<u>Units</u>	<u>Remarks</u>
ASTM D86	Distillation Evaporated					
	IBP	30		30.5	°C	
	10%	40	70	42.0	°C	
	50%	80	115	93.0	°C	
	90%		180	150.0	°C	
	FBP		215	181.4	°C	
	Residue		2.0	0.8	%vol	
	% Evaporated @70°C			28.1	%vol	
ASTM D381	Existent Gum Content		4.0	< 1	mg/100m l	
ASTM D2699	Research Octane Number	95.0		95.2		
ASTM D2700	Motor Octane Number	85.0		85.1		
ASTM D4814	Antiknock Index (R+M)/2			90.2		
ASTM D3606-20e1	Benzene		1.00	0.45	%vol	
ASTM D1319	Hydrocarbon types by FIA (Aromatics, Olefins & Saturates)					
	Aromatics		35	33.8	%vol	
	Olefins		18.0	9.1	%vol	
	Aromatics and Olefins		45.0	42.9	%vol	
ASTM D6304A	Water Concentration			253	ppmw	
ASTM D525	Oxidation Stability @100°C	360		>360	mins	
ASTM D5191	DVPE @ 100F° (ASTM CALC AVG)		9	8.62	psi	
ASTM D2622-16	Total Sulfur Content (Origin)		30	18.3	mg/kg	
ASTM D4952	Doctor Test	Negative		Negative		
ASTM D3227	Mercaptan Sulfur		0.0015	0.0005	%wt	
ASTM D3231	Phosphorus		1	< 0.20	mg/L	
ASTM D3831	Manganese Content of Gasoline		0	< 0.2	mg/L Mn	
ASTM D3237	Lead		5	< 2.5	mg/L	
ASTM D5708A**	Silicon Content			< 1.0	mg/kg	
ASTM D7536	Total Chloride Concentration			< 0.2	mg/kg	
Visual/Olfactory	Odour			Marketab l e		
ASTM D4815-15b(19) Corr to ASTM D5599	Oxygenates in Gasoline					
	MTBE			14.67	%vol	
	Total Oxygenates			14.67	%vol	
	Total Oxygen Content	1.0	2.7	2.62	%wt	

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

ASTM D5191 was performed on virgin running sample

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