

# Area CITY OF ROCK HILL [17790] [CITY OF ROCK HILL] RAW WATER D1

Diesel Fuel Fluid

No.2 DIESEL FUEL (ULTRALOW SULPHUR) (1000 GAL)

# DIAGNOSIS

#### Recommendation

All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel.

## Corrosion

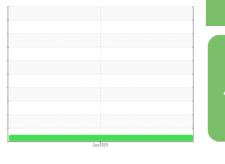
All metal levels are normal indicating no corrosion in the system.

#### Contaminants

The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. There is no indication of any contamination in the fuel. The amount and size of particulates present in the system are acceptable.

### **Fuel Condition**

Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.



Sample Rating Trend

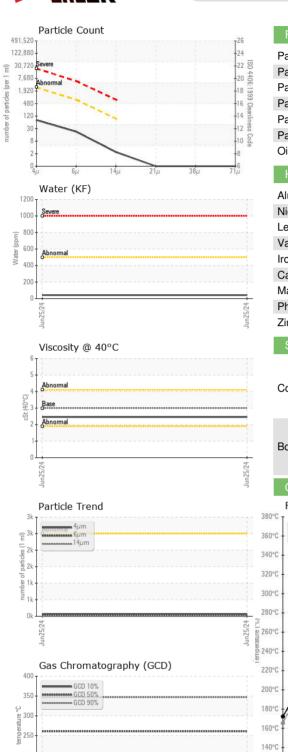


NORMAL

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0957751		
Sample Date		Client Info		25 Jun 2024		
Machine Age	hrs	Client Info		0		
Sample Status				NORMAL		
PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
Fuel Color	text	*Visual Screen	Yllow	Red		
ASTM Color	scalar	*ASTM D1500		L4.0		
Visc @ 40°C	cSt	ASTM D445	3.0	2.46		
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	61.7		
SULFUR CONTER	NT	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	0		
Sulfur (UVF)	ppm	ASTM D5453		10		
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	172		
5% Distillation Point	°C	ASTM D86		195		
10% Distill Point	°C	ASTM D86	201	204		
15% Distillation Point	°C	ASTM D86		211		
20% Distill Point	°C	ASTM D86	216	219		
30% Distill Point	°C	ASTM D86	230	233		
40% Distill Point	°C	ASTM D86	243	246		
50% Distill Point	°C	ASTM D86	255	259		
60% Distill Point	°C	ASTM D86	267	273		
70% Distill Point	°C	ASTM D86	280	287		
80% Distill Point	°C	ASTM D86	295	303		
85% Distillation Point	°C	ASTM D86		315		
90% Distill Point	°C	ASTM D86	310	326		
95% Distillation Point	°C	ASTM D86		345		
Final Boiling Point	°C	ASTM D86	341	361		
IGNITION QUALIT	ΓY	method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	36		
Cetane Index		ASTM D4737	<40.0	48		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	<1		
Sodium	ppm	ASTM D5185m	<0.1	1		
Potassium	ppm	ASTM D5185m	<0.1	<1		
Water	%	ASTM D6304	<0.05	0.004		
ppm Water	ppm	ASTM D6304	<500	42		
% Gasoline	%	*In-House	<0.50	0.0		
% Biodiesel	%	*In-House	<20.0	0.0		



# **FUEL REPORT**



	NESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	68		
Particles >6µm		ASTM D7647	>640	19		
Particles >14µm		ASTM D7647	>80	2		
Particles >21µm		ASTM D7647	>20	0		
Particles >38μm		ASTM D7647	>4	0		
Particles >71µm		ASTM D7647		0		
Dil Cleanliness		ISO 4406 (c)	>18/16/13	13/11/9		
HEAVY METALS		method	limit/base	current	history1	history2
luminum	ppm	ASTM D5185m	<0.1	0		
lickel	ppm	ASTM D5185m	<0.1	0		
ead	ppm	ASTM D5185m	<0.1	0		
/anadium	ppm	ASTM D5185m	<0.1	<1		
ron	ppm	ASTM D5185m	<0.1	0		
Calcium	ppm	ASTM D5185m	<0.1	0		
lagnesium	ppm	ASTM D5185m	<0.1	0		
hosphorus	ppm	ASTM D5185m	<0.1	<1		
linc	ppm	ASTM D5185m	<0.1	0		
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color Bottom					no image no image	no image
GRAPHS				Pensky-Marten	ns Flash Point (	°C)
Fuel Distillation Cu	irve					
	irve		ູ <sup>8</sup> ຍາ	°T		
T 10 2 25 1	irve		serature °C 2	°T		
Sample	irve			0 0 Base		
Sample	irve			Base		
Sample	Jrve			0 0 Base		21.72 21.72
Sample	Jrve			Base		
Sample	Jr Ve		ampaduat 5	GCD Spectrum		
Sample	Jrve		and the second s	GCD Spectrum	1	
Sample	Jrve		60 55	GCD Spectrum	1	
Sample	Ji ve		60 55 50 45	GCD Spectrum	1	
Sample	Ji ve		60 55 50 45	GCD Spectrum	1	
Sample	Ji ve		60 55 50 45	GCD Spectrum	1	
Sample	Ji ve		60 55 50 45 45 45 45 50 45 45 50 45 20 20	GCD Spectrum	1	
Sample	Ji ve		60 60 55 50 45 40 45 40 80 40 80 40 20 20 15	GCD Spectrum	1	
Sample	Ji ve		60 55 50 45 45 45 45 50 45 45 50 45 20 20	GCD Spectrum	1	
Sample Baseline 500 500		20%- 80%-	60 60 55 50 40 40 40 40 40 40 55 50 45 40 40 55 50 45 50 45 50 40 55 50 40 55 50 40 55 50 40 55 50 40 55 50 50 50 50 50 50 50 50 50 50 50 50	GCD Spectrum	1	
Sample Baseline 500 500	50% -		60 55 50 45 (Vd) 35 8000022 52 15 10 5	GCD Spectrum		



200

150

: WC0957751 Sample No. Received : 25 Jun 2024 Lab Number : 06220290 Tested : 28 Jun 2024 SUMMERVILLE, SC Unique Number : 11098487 Diagnosed : 28 Jun 2024 - Elizabeth Valachovic Test Package : DF-2 (Additional Tests: Fuel, Screen) Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Jun25/24

Laboratory

Report Id: PETSUM [WUSCAR] 06220290 (Generated: 06/30/2024 18:04:48) Rev: 2

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