

# **FUEL REPORT**

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#### Area [W96424] Machine Id GENERAC 2112903 - TRINITY GLENN Component

Diesel Fuel

No.2 DIESEL FUEL (ULTRALOW SULPHUR) (12 GAL)

## DIAGNOSIS

#### Recommendation

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

## Corrosion

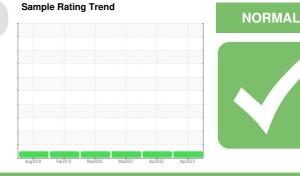
All metal levels are normal indicating no corrosion in the system.

#### 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.

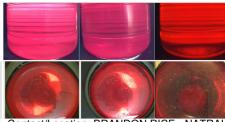
# **Fuel Condition**

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



SAMPLE INFORM	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0770641	WC0663329	WCDF03739
Sample Date		Client Info		18 Apr 2023	06 Apr 2022	23 Mar 2021
Machine Age	hrs	Client Info		0	0	0
Sample Status				NORMAL	NORMAL	NORMAL
PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
ASTM Color	scalar	*ASTM D1500		L4.0	L4.0	L5.5
Visc @ 40°C	cSt	ASTM D445	3.0	2.6	2.56	2.51
SULFUR CONTER	NT	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	0	16	0
Sulfur (UVF)	ppm	ASTM D5453		12	10	10
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0	<1	0
Sodium	ppm	ASTM D5185m	<0.1	0	0	<1
Potassium	ppm	ASTM D5185m	<0.1	1	<1	0
Water	%	ASTM D6304	<0.05	0.002	0.001	0.004
ppm Water	ppm	ASTM D6304	<500	22.7	12.4	42.7
% Gasoline	%	*In-House	<0.50	0.0	0.0	0.0
% Biodiesel	%	*In-House	<20.0	0.0	0.0	1.4
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
FLUID CLEANLIN Particles >4µm	ESS	method ASTM D7647	limit/base >2500	current 38384	history1 21164	history2
	ESS		>2500			
Particles >4µm	ESS	ASTM D7647	>2500	38384	21164	
Particles >4μm Particles >6μm	ESS	ASTM D7647 ASTM D7647	>2500 >640 >80	38384 6214	21164 5503	
Particles >4µm Particles >6µm Particles >14µm	ESS	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>2500 >640 >80 >20 >4	38384 6214 400	21164 5503 475	
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ESS	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>2500 >640 >80 >20 >4 >3	38384 6214 400 107 2 0	21164 5503 475 78 3 0	
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ESS	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>2500 >640 >80 >20 >4	38384 6214 400 107 2	21164 5503 475 78 3	
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ESS	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>2500 >640 >80 >20 >4 >3	38384 6214 400 107 2 0	21164 5503 475 78 3 0	  
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness	ESS	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c)	>2500 >640 >80 >20 >4 >3 >18/16/13	38384 6214 400 107 2 0 22/20/16	21164 5503 475 78 3 0 22/20/16 history1 <1	    history2
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness HEAVY METALS Aluminum Nickel		ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) <b>method</b> ASTM D5185m ASTM D5185m	>2500 >640 >80 >20 >4 >3 >18/16/13 <b>imit/base</b> <0.1 <0.1	38384 6214 400 107 2 0 22/20/16 22/20/16 0 0	21164 5503 475 78 3 0 22/20/16 history1 <1 0	    history2 0 0
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness HEAVY METALS Aluminum Nickel Lead	ppm ppm	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) <b>Method</b> ASTM D5185m ASTM D5185m	>2500 >640 >80 >20 >4 >3 >18/16/13 <b>Imit/base</b> <0.1 <0.1 <0.1	38384 6214 400 107 2 0 22/20/16 <u>current</u> 0 0 0	21164 5503 475 78 3 0 22/20/16 history1 <1 0 0	    history2 0 0 0 <1
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness HEAVY METALS Aluminum Nickel Lead Vanadium	ppm	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m	>2500 >640 >80 >20 >4 >3 >18/16/13 <b>limit/base</b> <0.1 <0.1 <0.1 <0.1	38384 6214 400 107 2 0 22/20/16 <u>current</u> 0 0 0 0 0	21164 5503 475 78 3 0 22/20/16 history1 <1 0 0 0 0	    history2 0 0 0 <1 0
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness ICLEANY METALS Aluminum Nickel Lead Vanadium Iron	ppm ppm ppm ppm ppm	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>2500 >640 >80 >20 >4 >3 >18/16/13 <b>limit/base</b> <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	38384 6214 400 107 2 0 22/20/16 22/20/16 0 0 0 0 0 0	21164 5503 475 78 3 0 22/20/16 history1 <1 0 0 0 0 0 0	    history2 0 0 0 <1 0 0
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness <b>HEAVY METALS</b> Aluminum Nickel Lead Vanadium Iron Calcium	ppm ppm ppm ppm ppm ppm	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>2500 >640 >80 >20 >4 >3 >18/16/13 <b>limit/base</b> <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	38384 6214 400 107 2 0 22/20/16 22/20/16 0 0 0 0 0 0 0 0 0 0	21164 5503 475 78 3 0 22/20/16 <b>history1</b> <1 0 0 0 0 0 0 0 0	     history2 0 0 0 <1 0 0 0 0 0 0
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Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Oil Cleanliness HEAVY METALS Aluminum Nickel Lead Vanadium Iron Calcium Magnesium Phosphorus	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>2500 >640 >80 >20 >4 >3 >18/16/13 <18/16/13 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	38384 6214 400 107 2 0 22/20/16 22/20/16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21164 5503 475 78 3 0 22/20/16 <b>history1</b> <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	     history2 0 0 0 0 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm Oil Cleanliness VICLEANINE NICLEANINE Aluminum Nickel Lead Vanadium Iron Calcium Magnesium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ISO 4406 (c) <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>2500 >640 >80 >20 >4 >3 >18/16/13 <b>limi/base</b> <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	38384 6214 400 107 2 0 22/20/16 22/20/16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	21164 5503 475 78 3 0 22/20/16 <b>history1</b> <1 0 0 0 0 0 0 0 0 0 0 0 0 0	     history2 0 0 0 <1 0 0 0 0 0 0 0 0 0 0 0

Color

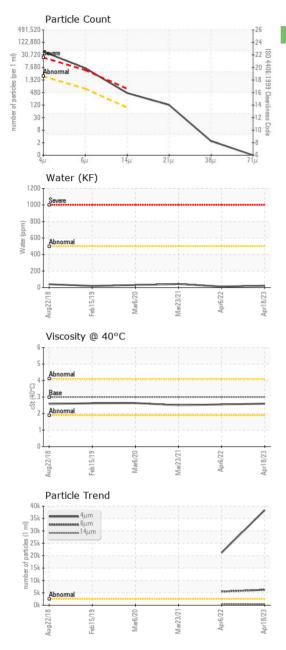


Bottom

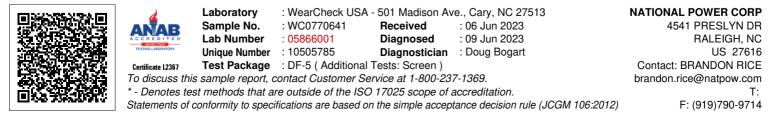
Contact/Location: BRANDON RICE - NATRAL



# **FUEL REPORT**



Pensky-Martens Flash Point (°C)



Contact/Location: BRANDON RICE - NATRAL