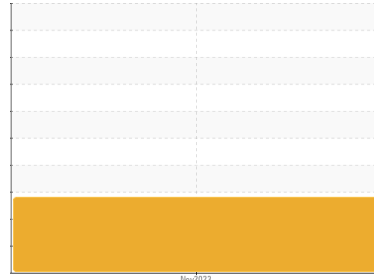




# FUEL REPORT

Sample Rating Trend



WATER



Machine Id  
**EPA UST 1**

Component  
**Tank Diesel Fuel**

Fluid  
**DIESEL FUEL No. 2 (--- GAL)**

## DIAGNOSIS

### Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the fuel. We were unable to perform a particle count due to a high concentration of particles present in this sample.

### Corrosion

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

### Contaminants

There is a light concentration of water present in the fuel. Moderate concentration of visible dirt/debris present in the fuel. There is a high amount of visible silt present in the sample. There is no bacteria or fungus (yeast and/or mold) present in the sample.

### Fuel Condition

Sulfur value derived by ASTM D5453 method for ULSD validation.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0879218</b>	---	---
Sample Date	Client Info			<b>13 Nov 2023</b>	---	---
Machine Age	hrs	Client Info		<b>0</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		<b>0.848</b>	---	---
Fuel Color	text	*Visual Screen		<b>Red</b>	---	---
ASTM Color	scalar	*ASTM D1500		<b>L5.0</b>	---	---
Visc @ 40°C	cSt	ASTM D445	4.1	<b>2.6</b>	---	---
Pensky-Martens Flash Point	°C	*PMCC Calculated		<b>59</b>	---	---

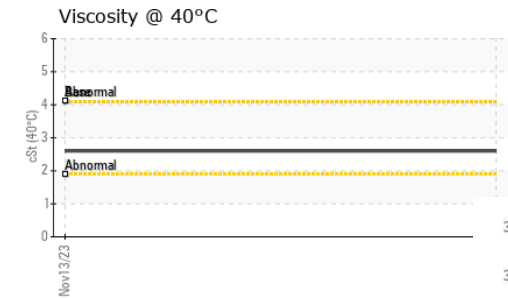
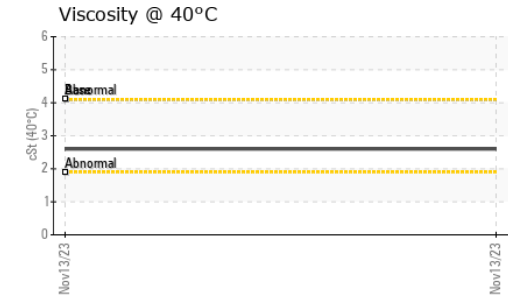
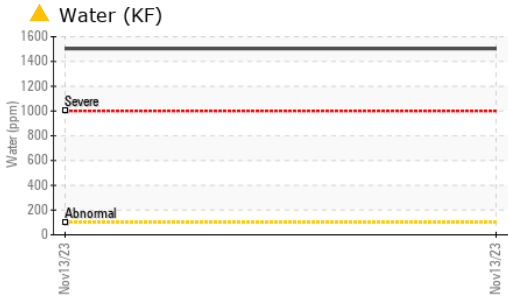
SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		<b>0</b>	---	---
Sulfur (UVF)	ppm	ASTM D5453		<b>312</b>	---	---

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		<b>164</b>	---	---
5% Distillation Point	°C	ASTM D86		<b>195</b>	---	---
10% Distill Point	°C	ASTM D86		<b>206</b>	---	---
15% Distillation Point	°C	ASTM D86		<b>215</b>	---	---
20% Distill Point	°C	ASTM D86		<b>223</b>	---	---
30% Distill Point	°C	ASTM D86		<b>238</b>	---	---
40% Distill Point	°C	ASTM D86		<b>252</b>	---	---
50% Distill Point	°C	ASTM D86		<b>265</b>	---	---
60% Distill Point	°C	ASTM D86		<b>279</b>	---	---
70% Distill Point	°C	ASTM D86		<b>293</b>	---	---
80% Distill Point	°C	ASTM D86		<b>308</b>	---	---
85% Distillation Point	°C	ASTM D86		<b>317</b>	---	---
90% Distill Point	°C	ASTM D86		<b>327</b>	---	---
95% Distillation Point	°C	ASTM D86		<b>341</b>	---	---
Final Boiling Point	°C	ASTM D86		<b>351</b>	---	---
Distillation Residue	%	ASTM D86		<b>1.4</b>	---	---
Distillation Loss	%	ASTM D86		<b>0.2</b>	---	---

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777		<b>35.4</b>	---	---
Cetane Index		ASTM D4737	<40.0	<b>46.6</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	<b>1</b>	---	---
Sodium	ppm	ASTM D5185m	<0.1	<b>2</b>	---	---
Potassium	ppm	ASTM D5185m	<0.1	<b>0</b>	---	---
Water	%	ASTM D6304	<0.05	<b>▲ 0.150</b>	---	---
ppm Water	ppm	ASTM D6304	<500	<b>▲ 1503.8</b>	---	---
% Gasoline	%	*In-House	<0.50	<b>0.0</b>	---	---
% Biodiesel	%	*In-House	<20.0	<b>2.3</b>	---	---

# FUEL REPORT

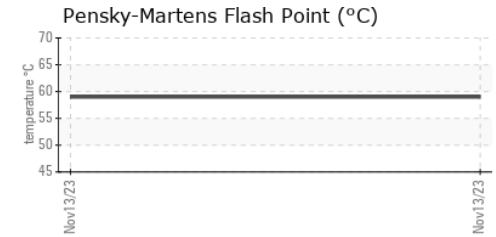
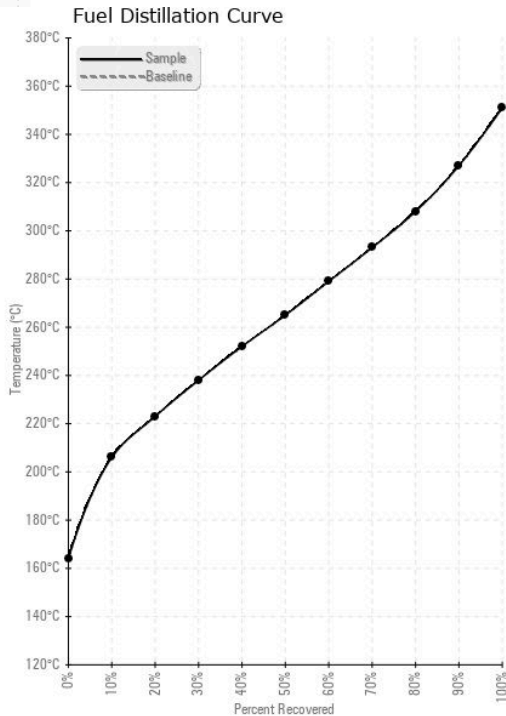


MICROBIAL	method	limit/base	current	history1	history2
Bacteria	CFU/ml WC-Method	$\geq 100000$	0	---	---
Yeast	CFU/ml WC-Method	$\geq 100000$	0	---	---
Mold	Colonies WC-Method	MODER	---	---	---

HEAVY METALS	method	limit/base	current	history1	history2
Aluminum	ppm ASTM D5185m	<0.1	0	---	---
Nickel	ppm ASTM D5185m	<0.1	0	---	---
Lead	ppm ASTM D5185m	<0.1	0	---	---
Vanadium	ppm ASTM D5185m	<0.1	0	---	---
Iron	ppm ASTM D5185m	<0.1	0	---	---
Calcium	ppm ASTM D5185m	<0.1	0	---	---
Magnesium	ppm ASTM D5185m	<0.1	0	---	---
Phosphorus	ppm ASTM D5185m	<0.1	0	---	---
Zinc	ppm ASTM D5185m	<0.1	0	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0879218 **Received** : 16 Nov 2023  
**Lab Number** : 06010448 **Diagnosed** : 13 Dec 2023  
**Unique Number** : 10749592 **Diagnostician** : Doug Bogart  
**Test Package** : DF-2 ( Additional Tests: Bacteria, Screen )

**Red Star Oil Co.**  
 802 Purser Drive  
 Raleigh, NC  
 US 27603  
 Contact: DANNY DURHAM  
 ddurham@redstaroil.com  
 T:  
 F: (919)779-8871

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)