



# FUEL REPORT

Sample Rating Trend



VISUAL METAL



Machine Id

## EPA UST 2

Component

### Tank Diesel Fuel

Fluid

### DIESEL FUEL No. 2 (--- GAL)

#### DIAGNOSIS

##### ▲ Recommendation

We advise that you filter this fluid before use. We advise that you inspect for the source(s) of rust. All other laboratory tests indicate that this sample meets specifications for No.2 low-sulfur diesel fuel. We were unable to perform a particle count due to a high concentration of particles present in this sample.

##### ▲ Corrosion

Moderate concentration of visible metal present as rust.

##### ▲ Contaminants

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. The water content is negligible.

##### 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>WC0879223</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>0.847</b>	---	---
Fuel Color	text *Visual Screen	<b>Red</b>	---	---
ASTM Color	scalar *ASTM D1500	<b>L5.5</b>	---	---
Visc @ 40°C	cSt ASTM D445	4.1 <b>2.54</b>	---	---
Pensky-Martens Flash Point	°C *PMCC Calculated	<b>58</b>	---	---

#### SULFUR CONTENT

method	limit/base	current	history1	history2
Sulfur	ppm ASTM D5185m	<b>410</b>	---	---
Sulfur (UVF)	ppm ASTM D5453	<b>357</b>	---	---

#### DISTILLATION

method	limit/base	current	history1	history2
Initial Boiling Point	°C ASTM D86	<b>161</b>	---	---
5% Distillation Point	°C ASTM D86	<b>190</b>	---	---
10% Distill Point	°C ASTM D86	<b>202</b>	---	---
15% Distillation Point	°C ASTM D86	<b>212</b>	---	---
20% Distill Point	°C ASTM D86	<b>220</b>	---	---
30% Distill Point	°C ASTM D86	<b>234</b>	---	---
40% Distill Point	°C ASTM D86	<b>248</b>	---	---
50% Distill Point	°C ASTM D86	<b>262</b>	---	---
60% Distill Point	°C ASTM D86	<b>276</b>	---	---
70% Distill Point	°C ASTM D86	<b>291</b>	---	---
80% Distill Point	°C ASTM D86	<b>306</b>	---	---
85% Distillation Point	°C ASTM D86	<b>316</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>350</b>	---	---
Distillation Residue	% ASTM D86	<b>1.4</b>	---	---
Distillation Loss	% ASTM D86	<b>0.5</b>	---	---

#### IGNITION QUALITY

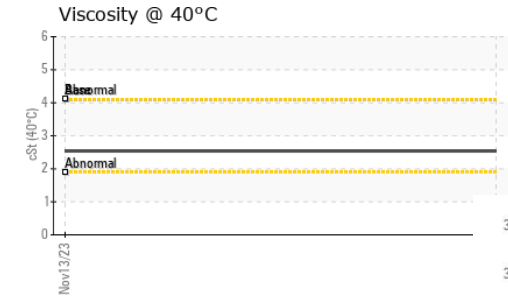
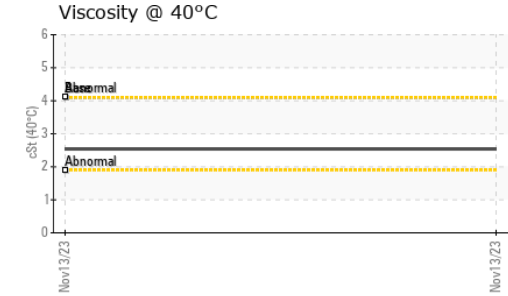
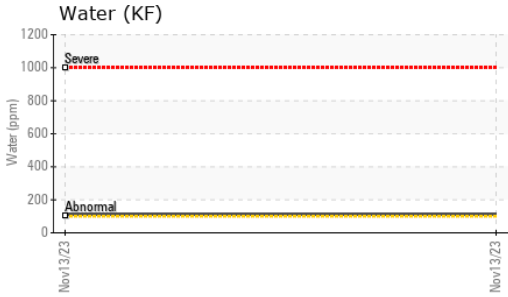
method	limit/base	current	history1	history2
API Gravity	ASTM D7777	<b>35.6</b>	---	---
Cetane Index	ASTM D4737 <40.0	<b>46.2</b>	---	---

#### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m <1.0	<b>0</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>0.011</b>	---	---
ppm Water	ppm ASTM D6304 <500	<b>112.3</b>	---	---
% Gasoline	% *In-House <0.50	<b>0.0</b>	---	---
% Biodiesel	% *In-House <20.0	<b>2.5</b>	---	---


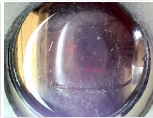


# FUEL REPORT

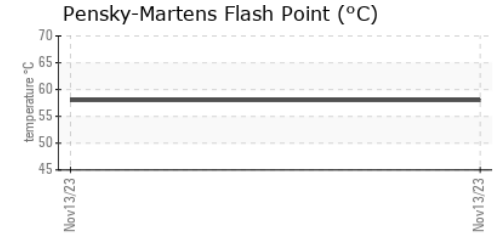
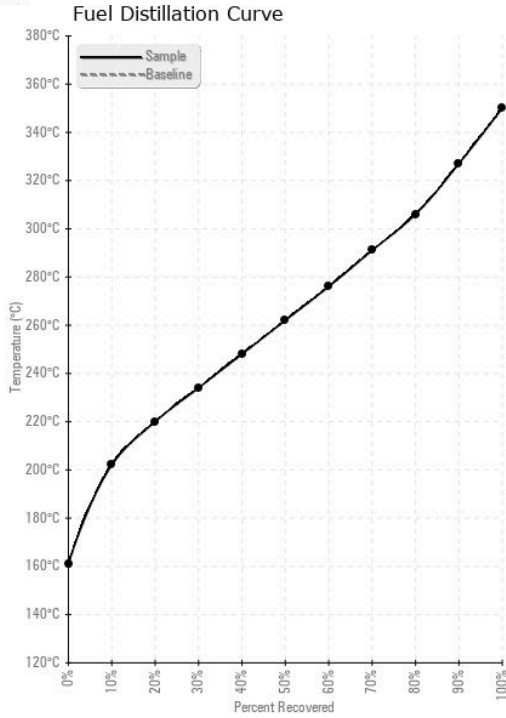


MICROBIAL	method	limit/base	current	history1	history2
Bacteria	CFU/ml WC-Method	>=100000	0	---	---
Yeast	CFU/ml WC-Method	>=100000	0	---	---
Mold	Colonies WC-Method	MODER	---	---	---

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	3	---	---
Zinc	ppm ASTM D5185m	<0.1	0	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0879223 **Received** : 16 Nov 2023  
**Lab Number** : 06010445 **Diagnosed** : 13 Dec 2023  
**Unique Number** : 10749589 **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)