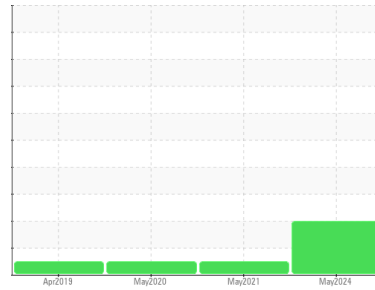




# FUEL REPORT

Sample Rating Trend



ISO



Machine Id  
**LONGISTICS**

Component  
**Diesel Fuel**

Fluid  
**No.2 DIESEL FUEL (LOW-SULPHUR) (--- QTS)**

## DIAGNOSIS

### Recommendation

We advise that you filter this fluid before use. All laboratory tests indicate that this sample meets specifications for No.2 low-sulfur diesel fuel.

### Corrosion

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

### Contaminants

There is a high amount of particulates present in the fuel. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample.

### Fuel Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC06184859</b>	WC05253229	WC04976142
Sample Date	Client Info			<b>16 May 2024</b>	12 May 2021	12 May 2020
Machine Age	hrs	Client Info		<b>0</b>	0	0
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298	0.839	---	0.843	0.844
Fuel Color	text	*Visual Screen	Yellow	<b>Red</b>	Red	Red
ASTM Color	scalar	*ASTM D1500		<b>L4.5</b>	L5.5	L5.5
Visc @ 40°C	cSt	ASTM D445	3.0	<b>2.59</b>	2.46	2.64
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	<b>62.3</b>	64	66

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	250	<b>136</b>	101	211
Sulfur (UVF)	ppm	ASTM D5453		<b>123</b>	129	176

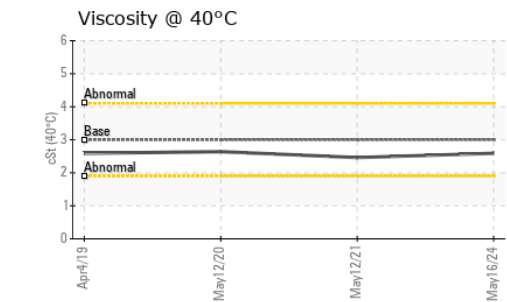
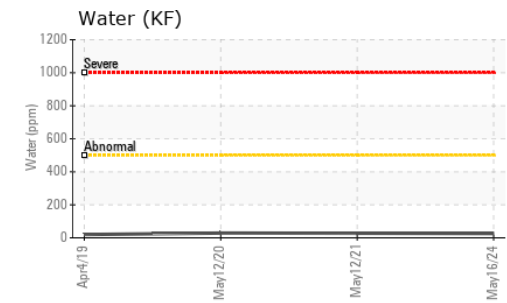
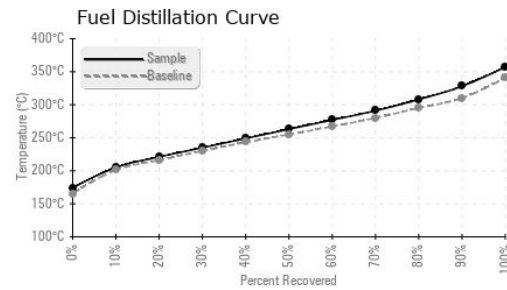
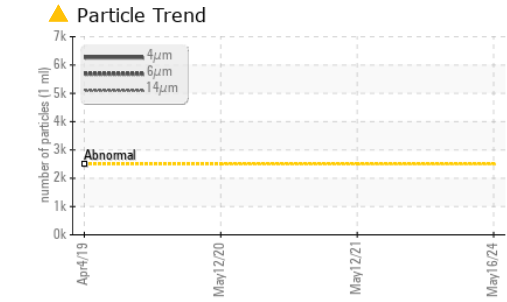
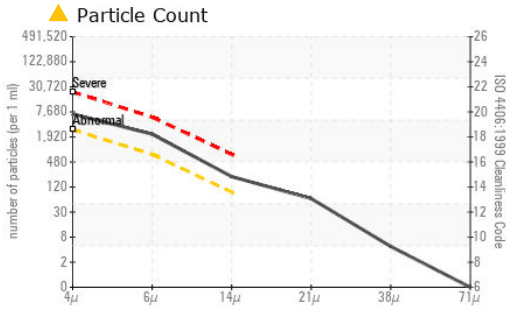
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	<b>174</b>	166	157
5% Distillation Point	°C	ASTM D86		<b>196</b>	192	188
10% Distill Point	°C	ASTM D86	201	<b>205</b>	201	201
15% Distillation Point	°C	ASTM D86		<b>213</b>	209	210
20% Distill Point	°C	ASTM D86	216	<b>221</b>	217	218
30% Distill Point	°C	ASTM D86	230	<b>235</b>	230	234
40% Distill Point	°C	ASTM D86	243	<b>249</b>	245	249
50% Distill Point	°C	ASTM D86	255	<b>263</b>	260	262
60% Distill Point	°C	ASTM D86	267	<b>277</b>	275	276
70% Distill Point	°C	ASTM D86	280	<b>291</b>	290	290
80% Distill Point	°C	ASTM D86	295	<b>308</b>	306	306
85% Distillation Point	°C	ASTM D86		<b>318</b>	316	316
90% Distill Point	°C	ASTM D86	310	<b>328</b>	327	327
95% Distillation Point	°C	ASTM D86		<b>344</b>	342	346
Final Boiling Point	°C	ASTM D86	341	<b>357</b>	349	347
Distillation Residue	%	ASTM D86	3.0	---	1.4	1.4
Distillation Loss	%	ASTM D86	3.0	---	0.6	1.8

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	<b>36</b>	36.4	36.2
Cetane Index		ASTM D4737	<40.0	<b>48</b>	47.4	47.2

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	<b>&lt;1</b>	0	<1
Sodium	ppm	ASTM D5185m	<0.1	<b>&lt;1</b>	0	<1
Potassium	ppm	ASTM D5185m	<0.1	<b>0</b>	0	0
Water	%	ASTM D6304	<0.05	<b>0.003</b>	0.003	0.003
ppm Water	ppm	ASTM D6304	<500	<b>26</b>	27.6	28.9
% Gasoline	%	*In-House	<0.50	<b>0.0</b>	0.0	0.0
% Biodiesel	%	*In-House	<20.0	<b>1.6</b>	1.7	0.0



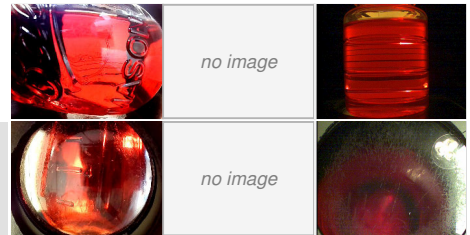
# FUEL REPORT



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ 5946	---	---
Particles >6µm	ASTM D7647	>640	▲ 1954	---	---
Particles >14µm	ASTM D7647	>80	▲ 188	---	---
Particles >21µm	ASTM D7647	>20	▲ 56	---	---
Particles >38µm	ASTM D7647	>4	4	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 20/18/15	---	---

HEAVY METALS	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m <0.1	0	0	0
Nickel	ppm	ASTM D5185m <0.1	0	0	0
Lead	ppm	ASTM D5185m <0.1	0	<1	0
Vanadium	ppm	ASTM D5185m <0.1	<1	0	0
Iron	ppm	ASTM D5185m <0.1	0	0	<1
Calcium	ppm	ASTM D5185m <0.1	0	0	0
Magnesium	ppm	ASTM D5185m <0.1	0	0	0
Phosphorus	ppm	ASTM D5185m <0.1	0	1	<1
Zinc	ppm	ASTM D5185m <0.1	0	0	0

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



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06184859  
**Lab Number** : 06184859  
**Unique Number** : 11036185  
**Test Package** : DF-2 ( Additional Tests: Fuel, Screen )

**Received** : 20 May 2024  
**Tested** : 31 May 2024  
**Diagnosed** : 31 May 2024 - Doug Bogart

**COUCH OIL COMPANY**  
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 T: (919)285-5408  
 F:

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)