

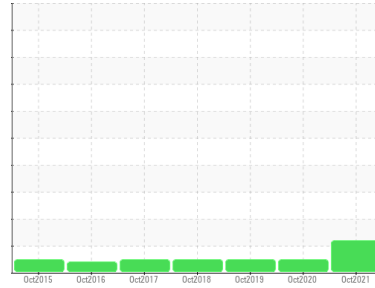


# FUEL REPORT

Sample Rating Trend

VISUAL METAL

Area  
**HOSPITAL**  
 Machine Id  
**DUKE AERI DAY TANK 200G**  
 Component  
**Diesel Fuel**  
 Fluid  
**No.2 DIESEL FUEL (ULTRALOW SULPHUR) (200 GAL)**



## DIAGNOSIS

### Recommendation

We advise that you inspect for the source(s) of metal. Please note that this is a corrected copy for data entry update for unit ID location.

### Corrosion

Moderate concentration of visible metal present as rust.

### Contaminants

The water content is negligible. There is no Bacteria, Yeast and/or Fungus indicated in the sample. No other contaminants were detected in the fuel.

### 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	history 1	history 2
Sample Number	Client Info			<b>WC05367395</b>	WC05088161	WC04835598
Sample Date	Client Info			<b>05 Oct 2021</b>	11 Oct 2020	30 Oct 2019
Machine Age	hrs	Client Info		<b>0</b>	0	0
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history 1	history 2
Specific Gravity		*ASTM D1298	0.839	<b>0.842</b>	0.843	0.843
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>2.52</b>	2.45	2.42
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	<b>63</b>	61	61

SULFUR CONTENT		method	limit/base	current	history 1	history 2
Sulfur	ppm	ASTM D5185m	10	<b>0</b>	7	13
Sulfur (UVF)	ppm	ASTM D5453		<b>11</b>	10	10

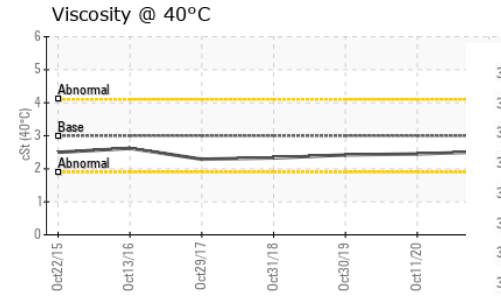
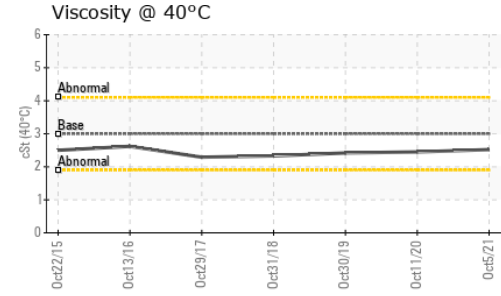
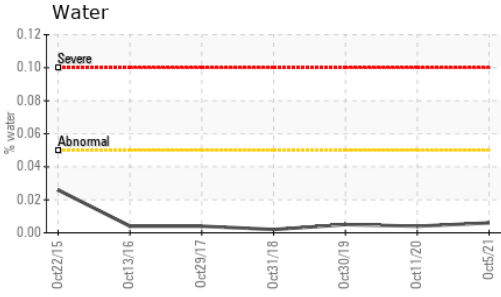
DISTILLATION		method	limit/base	current	history 1	history 2
Initial Boiling Point	°C	ASTM D86	165	<b>165</b>	160	159
5% Distillation Point	°C	ASTM D86		<b>191</b>	188	186
10% Distill Point	°C	ASTM D86	201	<b>201</b>	200	199
15% Distillation Point	°C	ASTM D86		<b>209</b>	209	209
20% Distill Point	°C	ASTM D86	216	<b>217</b>	217	216
30% Distill Point	°C	ASTM D86	230	<b>232</b>	231	231
40% Distill Point	°C	ASTM D86	243	<b>245</b>	245	246
50% Distill Point	°C	ASTM D86	255	<b>260</b>	260	260
60% Distill Point	°C	ASTM D86	267	<b>274</b>	274	274
70% Distill Point	°C	ASTM D86	280	<b>290</b>	290	290
80% Distill Point	°C	ASTM D86	295	<b>307</b>	306	306
85% Distillation Point	°C	ASTM D86		<b>316</b>	316	316
90% Distill Point	°C	ASTM D86	310	<b>327</b>	327	327
95% Distillation Point	°C	ASTM D86		<b>343</b>	343	343
Final Boiling Point	°C	ASTM D86	341	<b>352</b>	351	351
Distillation Residue	%	ASTM D86	3.0	<b>1.4</b>	1.4	1.4
Distillation Loss	%	ASTM D86	3.0	<b>0.5</b>	0.6	0.6

IGNITION QUALITY		method	limit/base	current	history 1	history 2
API Gravity		ASTM D7777	37.7	<b>36.6</b>	36.4	36.4
Cetane Index		ASTM D4737	<40.0	<b>47.7</b>	47.3	47.3

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	<1.0	<b>0</b>	<1	0
Sodium	ppm	ASTM D5185m	<0.1	<b>0</b>	0	0
Potassium	ppm	ASTM D5185m	<0.1	<b>0</b>	0	0
Water	%	ASTM D6304	<0.05	<b>0.006</b>	0.004	0.005
ppm Water	ppm	ASTM D6304	<500	<b>61.7</b>	49.4	55.5
% Gasoline	%	*In-House	<0.50	<b>0.0</b>	0.0	0.0
% Biodiesel	%	*In-House	<20.0	<b>2.3</b>	1.4	1.1



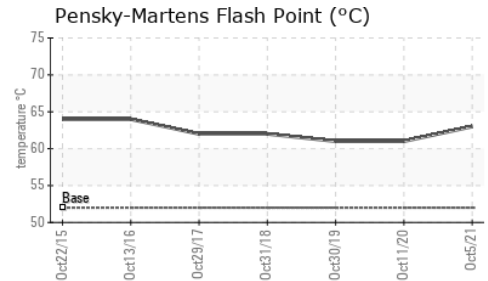
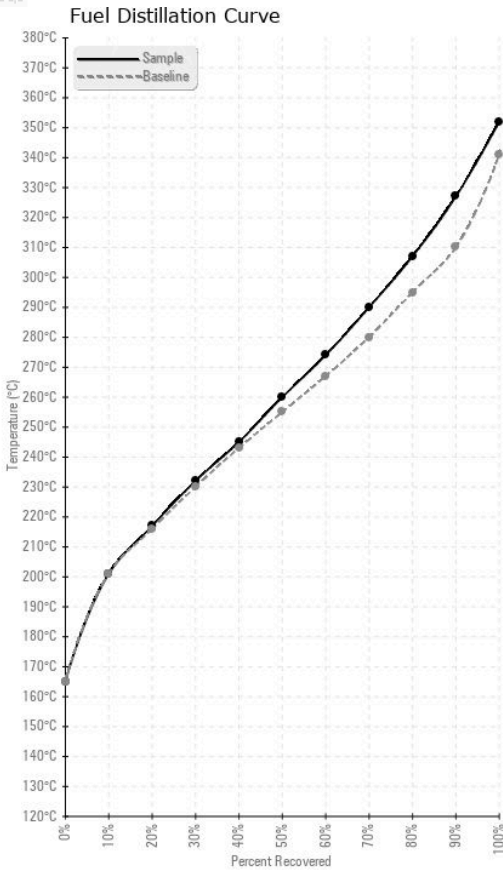
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HEAVY METALS		method	limit/base	current	history 1	history 2
Aluminum	ppm	ASTM D5185m	<0.1	<1	0	<1
Nickel	ppm	ASTM D5185m	<0.1	0	0	<1
Lead	ppm	ASTM D5185m	<0.1	0	2	0
Vanadium	ppm	ASTM D5185m	<0.1	0	0	0
Iron	ppm	ASTM D5185m	<0.1	<1	0	<1
Calcium	ppm	ASTM D5185m	<0.1	0	1	0
Magnesium	ppm	ASTM D5185m	<0.1	0	0	0
Phosphorus	ppm	ASTM D5185m	<0.1	0	<1	0
Zinc	ppm	ASTM D5185m	<0.1	0	0	<1

SAMPLE IMAGES		method	limit/base	current	history 1	history 2
Color					no image	no image
Bottom					no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC05367395 **Received** : 06 Oct 2021  
**Lab Number** : **05367395** **Diagnosed** : 15 Sep 2022  
**Unique Number** : 9686501 **Diagnostician** : Doug Bogart  
**Test Package** : DF-2 ( Additional Tests: Screen )

**COUCH OIL COMPANY**  
 2907 HILLSBOROUGH RD  
 DURHAM, NC  
 US 27705  
 Contact: JESSE BROWN  
 jesse@couchoilcompany.com  
 T: (919)285-5408  
 F:

Certificate L2367  
 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)