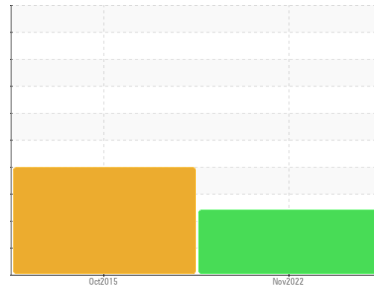




FUEL REPORT

Sample Rating Trend



ISO



Machine Id
DUKE HOSP HUDSON BLDG GEN

Component
Diesel Fuel
Fluid
{not provided} (--- QTS)

DIAGNOSIS

Recommendation

We recommend pre-filter before use. All other 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

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

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			WC05687552	WC03850254	---
Sample Date	Client Info			07 Nov 2022	22 Oct 2015	---
Machine Age	hrs	Client Info		0	0	---
Sample Status				ABNORMAL	ABNORMAL	---

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298		0.842	0.841	---
Fuel Color	text	*Visual Screen		Red	Red	---
ASTM Color	scalar	*ASTM D1500		L4.0	---	---
Visc @ 40°C	cSt	ASTM D445		2.6	2.66	---
Pensky-Martens Flash Point	°C	*PMCC Calculated		57	63	---

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m		0	0	---
Sulfur (UVF)	ppm	ASTM D5453		9	---	---

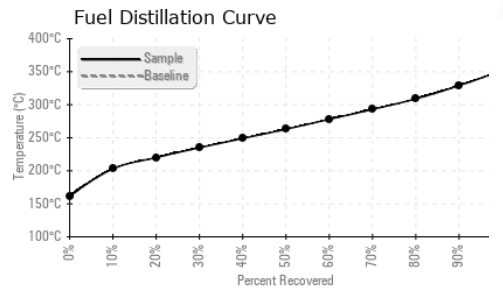
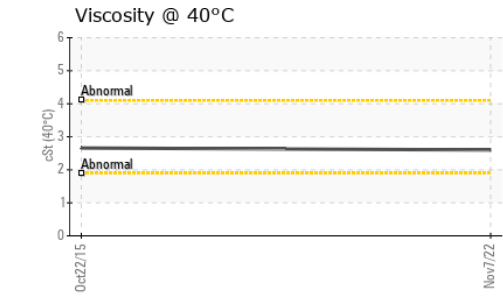
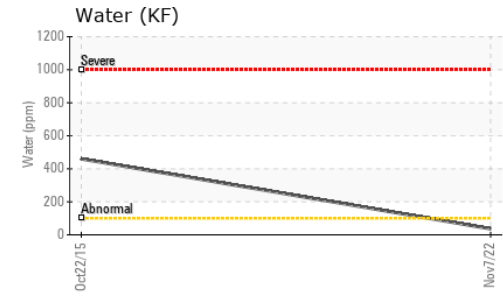
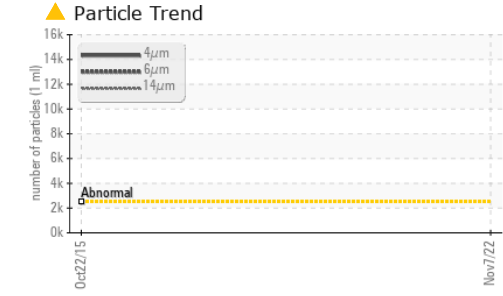
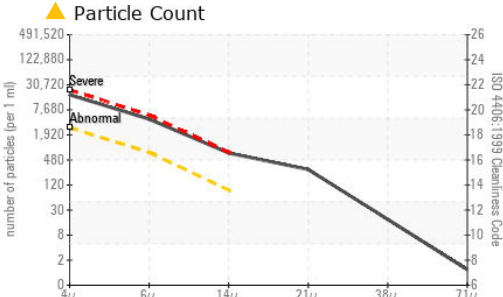
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86		161	175	---
5% Distillation Point	°C	ASTM D86		190	196	---
10% Distill Point	°C	ASTM D86		203	208	---
15% Distillation Point	°C	ASTM D86		212	217	---
20% Distill Point	°C	ASTM D86		220	224	---
30% Distill Point	°C	ASTM D86		235	239	---
40% Distill Point	°C	ASTM D86		249	252	---
50% Distill Point	°C	ASTM D86		263	266	---
60% Distill Point	°C	ASTM D86		278	279	---
70% Distill Point	°C	ASTM D86		293	292	---
80% Distill Point	°C	ASTM D86		309	308	---
85% Distillation Point	°C	ASTM D86		318	316	---
90% Distill Point	°C	ASTM D86		329	327	---
95% Distillation Point	°C	ASTM D86		346	344	---
Final Boiling Point	°C	ASTM D86		352	351	---
Distillation Residue	%	ASTM D86		1.4	1.4	---
Distillation Loss	%	ASTM D86		0.8	0.7	---

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777		36.6	36.8	---
Cetane Index		ASTM D4737	<40.0	48.3	49.5	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0	0	---
Sodium	ppm	ASTM D5185m	<0.1	0	0	---
Potassium	ppm	ASTM D5185m	<0.1	0	0	---
Water	%	ASTM D6304	<0.05	0.003	▲ 0.046	---
ppm Water	ppm	ASTM D6304	<500	36.5	▲ 460	---
% Gasoline	%	*In-House	<0.50	0.0	---	---
% Biodiesel	%	*In-House	<20.0	0.0	---	---



FUEL REPORT

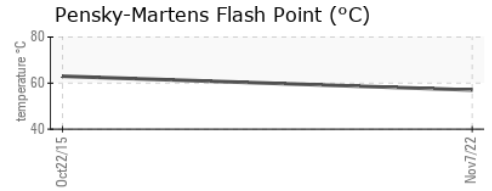
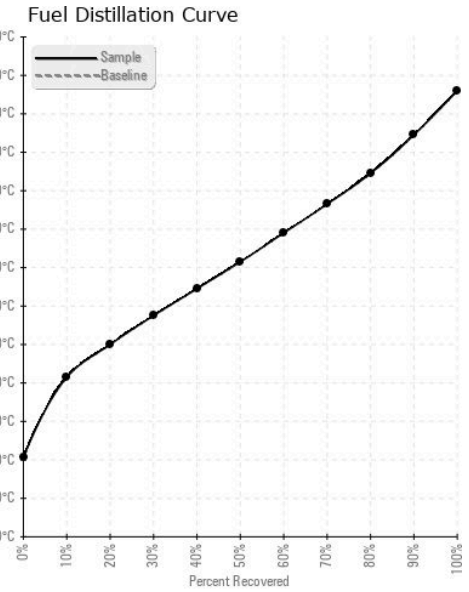


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ 15344	---	---
Particles >6µm	ASTM D7647	>640	▲ 4003	---	---
Particles >14µm	ASTM D7647	>80	▲ 620	---	---
Particles >21µm	ASTM D7647	>20	▲ 249	---	---
Particles >38µm	ASTM D7647	>4	▲ 16	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 21/19/16	---	---

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

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC05687552 **Received** : 07 Nov 2022
Lab Number : 05687552 **Tested** : 15 Nov 2022
Unique Number : 10207124 **Diagnosed** : 15 Nov 2022 - 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)