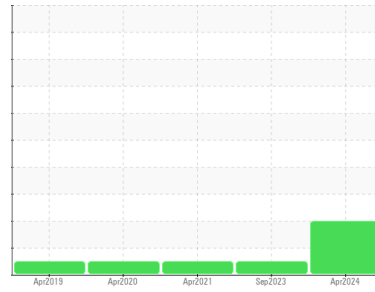




FUEL REPORT

Sample Rating Trend



ISO



Machine Id
NUVOTRONICS

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. 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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC06141901	WC05941682	WC05224172
Sample Date	Client Info	05 Apr 2024	04 Sep 2023	07 Apr 2021
Machine Age	hrs	0	0	0
Sample Status		ABNORMAL	NORMAL	NORMAL

PHYSICAL PROPERTIES

method	limit/base	current	history1	history2		
Specific Gravity	*ASTM D1298	0.839	---	0.837	0.844	
Fuel Color	text	*Visual Screen	Yellow	Red	Red	Orang
ASTM Color	scalar	*ASTM D1500		L4.5	L4.0	L5.5
Visc @ 40°C	cSt	ASTM D445	3.0	2.46	2.4	2.46
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	60.1	58	63

SULFUR CONTENT

method	limit/base	current	history1	history2		
Sulfur	ppm	ASTM D5185m	250	0	0	19
Sulfur (UVF)	ppm	ASTM D5453		21	9	22

DISTILLATION

method	limit/base	current	history1	history2		
Initial Boiling Point	°C	ASTM D86	165	170	161	161
5% Distillation Point	°C	ASTM D86		194	187	189
10% Distill Point	°C	ASTM D86	201	203	197	200
15% Distillation Point	°C	ASTM D86		211	205	209
20% Distill Point	°C	ASTM D86	216	219	213	217
30% Distill Point	°C	ASTM D86	230	234	227	232
40% Distill Point	°C	ASTM D86	243	247	241	245
50% Distill Point	°C	ASTM D86	255	260	255	259
60% Distill Point	°C	ASTM D86	267	274	270	274
70% Distill Point	°C	ASTM D86	280	288	287	289
80% Distill Point	°C	ASTM D86	295	304	304	306
85% Distillation Point	°C	ASTM D86		315	314	315
90% Distill Point	°C	ASTM D86	310	325	326	326
95% Distillation Point	°C	ASTM D86		343	341	343
Final Boiling Point	°C	ASTM D86	341	357	351	350
Distillation Residue	%	ASTM D86	3.0	---	1.4	1.4
Distillation Loss	%	ASTM D86	3.0	---	0.6	0.6

IGNITION QUALITY

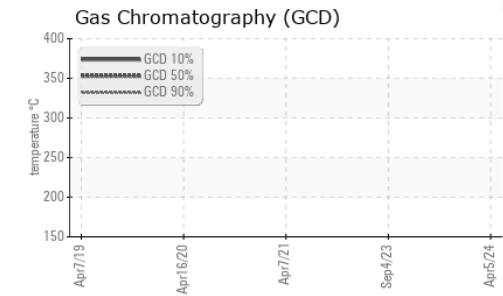
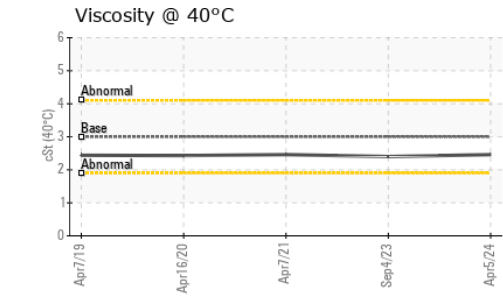
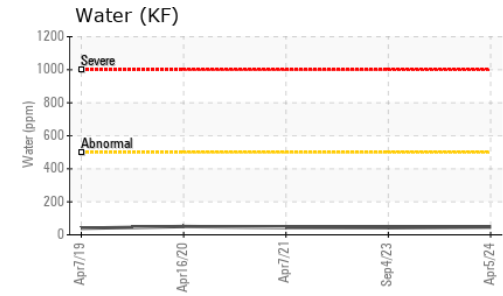
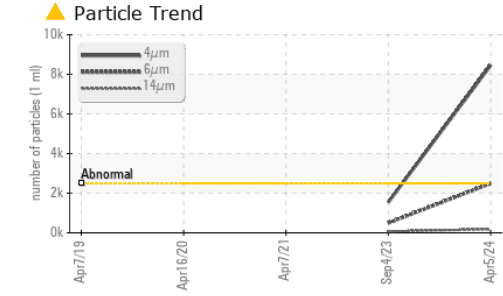
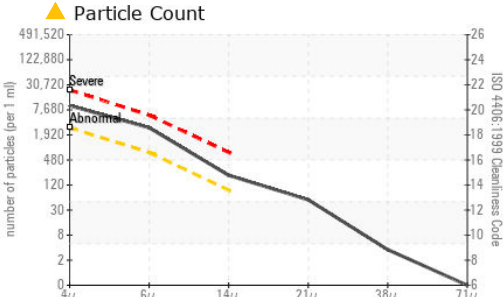
method	limit/base	current	history1	history2	
API Gravity	ASTM D7777	37.7	36	37.6	36.2
Cetane Index	ASTM D4737	<40.0	47	48.4	46.8

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	<1.0	0	<1	0
Sodium	ppm	ASTM D5185m	<0.1	2	1	<1
Potassium	ppm	ASTM D5185m	<0.1	0	0	0
Water	%	ASTM D6304	<0.05	0.004	0.004	0.004
ppm Water	ppm	ASTM D6304	<500	47	42.7	43.9
% Gasoline	%	*In-House	<0.50	0.0	0.0	0.0
% Biodiesel	%	*In-House	<20.0	0.0	2.2	1.3



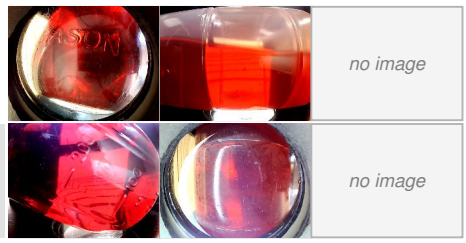
FUEL REPORT



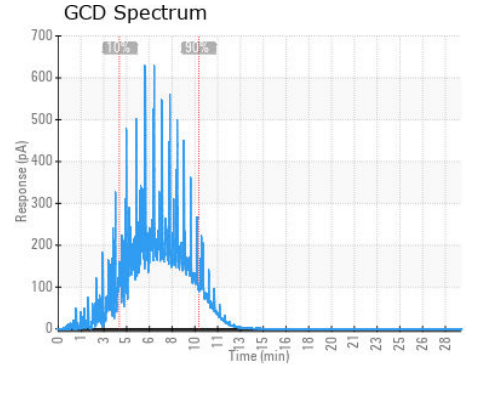
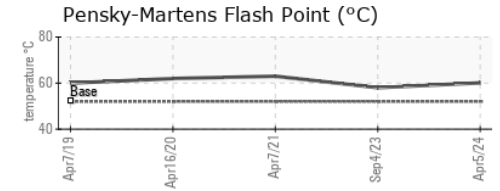
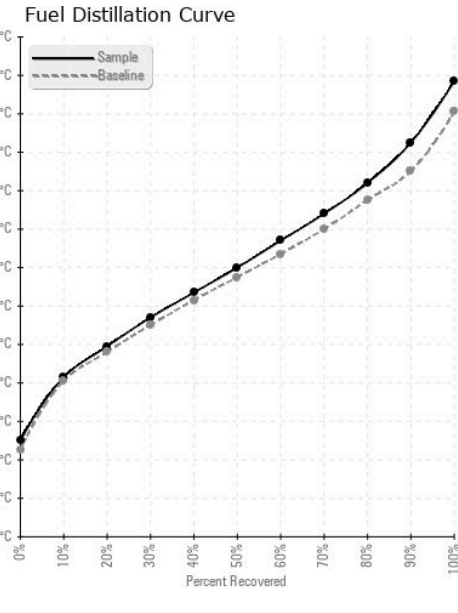
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ 8452	1542	---
Particles >6µm	ASTM D7647	>640	▲ 2495	496	---
Particles >14µm	ASTM D7647	>80	▲ 181	67	---
Particles >21µm	ASTM D7647	>20	▲ 47	27	---
Particles >38µm	ASTM D7647	>4	3	3	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 20/18/15	18/16/13	---

HEAVY METALS	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m <0.1	0	<1	0
Nickel	ppm	ASTM D5185m <0.1	0	0	0
Lead	ppm	ASTM D5185m <0.1	0	0	<1
Vanadium	ppm	ASTM D5185m <0.1	0	<1	0
Iron	ppm	ASTM D5185m <0.1	0	0	0
Calcium	ppm	ASTM D5185m <0.1	0	0	0
Magnesium	ppm	ASTM D5185m <0.1	0	3	0
Phosphorus	ppm	ASTM D5185m <0.1	0	3	0
Zinc	ppm	ASTM D5185m <0.1	0	0	0

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06141901 **Received** : 08 Apr 2024
Lab Number : 06141901 **Tested** : 16 Apr 2024
Unique Number : 10966709 **Diagnosed** : 16 Apr 2024 - Doug Bogart
Test Package : DF-2 (Additional Tests: Fuel, Screen)

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 jesse@couchoilcompany.com
 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)