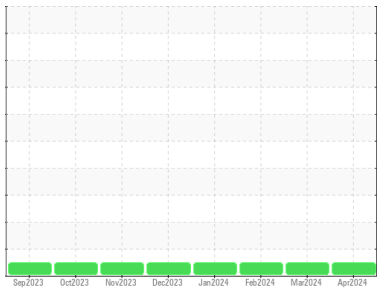
FUEL REPORT

Sample Rating Trend



NORMAL

Machine Id
IDEM FODT 6
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation
ASTM D240 result 17,874 BTU/lb. Test performed at subcontracted ISO 17025 laboratory. 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 no bacteria or fungus (yeast and/or mold) indicated in the sample. The water content is negligible. The amount and size of particulates present in the system are acceptable.

Fuel Condition
Sulfur value derived by ASTM D5453 method for ULSD validation.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0934836**	WC0926730	WC0911757
Sample Date		Client Info		**15 Apr 2024**	15 Mar 2024	15 Feb 2024
Machine Age	hrs	Client Info		**0**	0	0
Sample Status				**NORMAL**	NORMAL	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		*ASTM D1298	0.839	**---**	0.863	0.862
Specific Gravity		*ASTM D1298		**0.863**	0.863	---
Fuel Color	text	*Visual Screen	Yllow	**Red**	Red	Red
ASTM Color	scalar	*ASTM D1500		**L4.0**	L4.5	L4.5
Visc @ 40°C	cSt	ASTM D445	3.0	**2.53**	2.62	2.64
Pensky-Martens Flash Point	°C	*PMCC Calculated	52	**65.2**	65.8	60
Cloud Point	°C	ASTM D5771		**-23**	-22	-23
Pour Point	°C	ASTM D5950		**-37**	-36	-36

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	**8**	6	6
Sulfur (UVF)	ppm	ASTM D5453		**20**	14	14

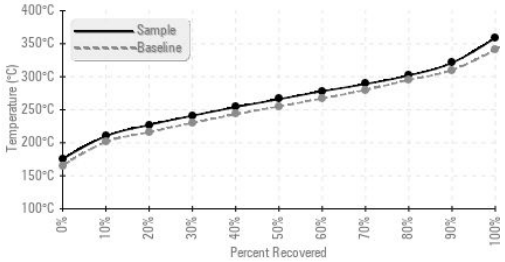
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D86	165	**175**	152	166
5% Distillation Point	°C	ASTM D86		**200**	183	193
10% Distill Point	°C	ASTM D86	201	**210**	200	205
15% Distillation Point	°C	ASTM D86		**219**	213	216
20% Distill Point	°C	ASTM D86	216	**227**	223	224
30% Distill Point	°C	ASTM D86	230	**241**	239	239
40% Distill Point	°C	ASTM D86	243	**254**	252	252
50% Distill Point	°C	ASTM D86	255	**266**	264	264
60% Distill Point	°C	ASTM D86	267	**278**	276	277
70% Distill Point	°C	ASTM D86	280	**289**	288	289
80% Distill Point	°C	ASTM D86	295	**302**	302	302
85% Distillation Point	°C	ASTM D86		**312**	310	311
90% Distill Point	°C	ASTM D86	310	**321**	320	321
95% Distillation Point	°C	ASTM D86		**337**	337	337
Final Boiling Point	°C	ASTM D86	341	**359**	350	348
Distillation Residue	%	ASTM D86	3.0	**---**	1.4	1.4
Distillation Loss	%	ASTM D86	3.0	**---**	0.3	0.6

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D7777	37.7	**32**	32.5	32.7
Cetane Index		ASTM D4737	<40.0	**41**	40.4	41.0

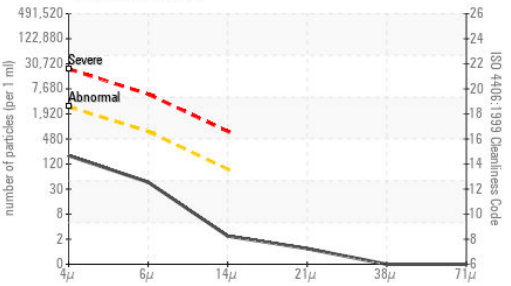
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	**0**	0	0
Sodium	ppm	ASTM D5185m	<0.1	**<1**	2	<1
Potassium	ppm	ASTM D5185m	<0.1	**0**	<1	<1
Water	%	ASTM D6304	<0.05	**0.002**	0.003	0.003
ppm Water	ppm	ASTM D6304	<500	**23**	34	29
% Gasoline	%	*In-House	<0.50	**0.0**	0.0	0.0
% Biodiesel	%	*In-House	<20.0	**0.0**	0.0	0.0

FUEL REPORT

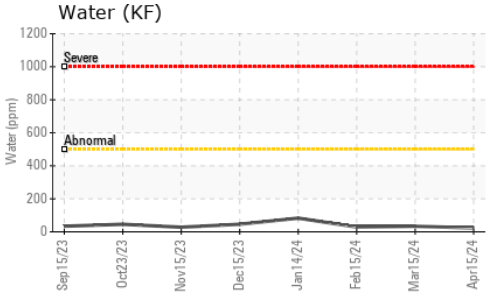
Fuel Distillation Curve



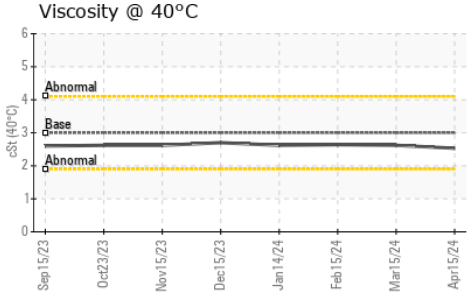
Particle Count



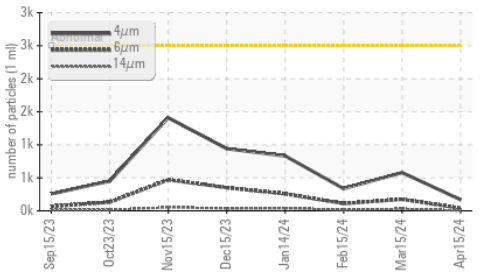
Water (KF)



Viscosity @ 40°C



Particle Trend



FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	**168**	579	336
Particles >6µm		ASTM D7647	>640	**39**	175	110
Particles >14µm		ASTM D7647	>80	**2**	29	13
Particles >21µm		ASTM D7647	>20	**1**	7	4
Particles >38µm		ASTM D7647	>4	**0**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	**15/12/9**	16/15/12	16/14/11

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**	0	0
Vanadium	ppm	ASTM D5185m	<0.1	**0**	0	0
Iron	ppm	ASTM D5185m	<0.1	**0**	0	0
Calcium	ppm	ASTM D5185m	<0.1	**0**	0	<1
Magnesium	ppm	ASTM D5185m	<0.1	**0**	0	0
Phosphorus	ppm	ASTM D5185m	<0.1	**2**	0	0
Zinc	ppm	ASTM D5185m	<0.1	**0**	0	0

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0934836
Lab Number : 06155024
Unique Number : 10990447
Test Package : DF-3 (Additional Tests: Fuel, Screen)

Received : 19 Apr 2024
Tested : 01 May 2024
Diagnosed : 01 May 2024 - Doug Bogart

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)

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