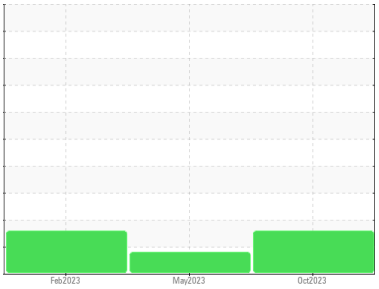
FUEL REPORT

Sample Rating Trend



ISO

Machine Id
FWD CRANE
Component
Forward Diesel Fuel
Fluid
No.2 DIESEL FUEL (LOW-SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

Laboratory test indicate that this fuel is suitable for use and meets all test requirements. We advise that you filter this fluid before use. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Corrosion

{not applicable}

Contaminants

There is a moderate amount of silt (particulates < 14 microns in size) present in the fuel. The water content is negligible.

Fuel Condition

All laboratory tests indicate that this sample meets specifications for No.2 diesel fuel, low sulfur (US EPA/CGSB-3.517-3 type B). The fuel is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC**	PC	PC
Sample Date		Client Info		**05 Oct 2023**	06 May 2023	05 Feb 2023
Machine Age	hrs	Client Info		**0**	0	0
Sample Status				**ABNORMAL**	ATTENTION	ABNORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		ASTM D1298*	0.839	**0.845**	0.840	0.859
Fuel Color	text	Visual Screen*	Yllow	**Yllow**	Red	Purpl
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	**2.7**	2.8	4
Pensky-Martens Flash Point	°C	ASTM D7215*	52	**62.3**	62.4	68

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	250	**34**	34	462

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	**174**	173	180
5% Distillation Point	°C	ASTM D2887*		**200**	196	207
10% Distill Point	°C	ASTM D2887*	201	**211**	208	221
15% Distillation Point	°C	ASTM D2887*		**220**	217	233
20% Distill Point	°C	ASTM D2887*	216	**228**	226	244
30% Distill Point	°C	ASTM D2887*	230	**243**	242	266
40% Distill Point	°C	ASTM D2887*	243	**255**	255	284
50% Distill Point	°C	ASTM D2887*	255	**268**	269	303
60% Distill Point	°C	ASTM D2887*	267	**281**	284	323
70% Distill Point	°C	ASTM D2887*	280	**294**	298	344
80% Distill Point	°C	ASTM D2887*	295	**309**	314	364
85% Distillation Point	°C	ASTM D2887*		**320**	325	377
90% Distill Point	°C	ASTM D2887*	310	**331**	335	390
95% Distillation Point	°C	ASTM D2887*		**349**	353	409
Final Boiling Point	°C	ASTM D2887*	341	**368**	370	422

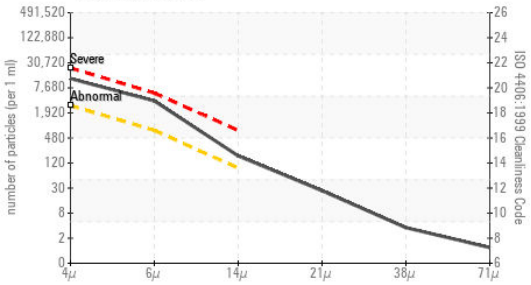
IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D1298*	37.7	**35**	36	33
Cetane Index		ASTM D4737*	<40.0	**48**	50	49

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	**0**	0	0
Sodium	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Potassium	ppm	ASTM D5185(m)	<0.1	**<1**	0	0
Water	%	ASTM D6304*	<0.05	**0.004**	0.026	0.011
ppm Water	ppm	ASTM D6304*	<500	**44.0**	269.7	110.7

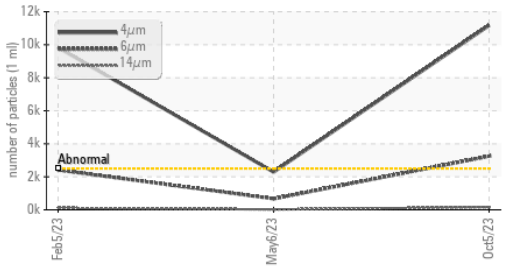
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	▲ **11169**	2288	▲ 9828
Particles >6µm		ASTM D7647	>640	▲ **3252**	▲ 670	▲ 2414
Particles >14µm		ASTM D7647	>80	▲ **157**	20	▲ 115
Particles >21µm		ASTM D7647	>20	**23**	3	20
Particles >38µm		ASTM D7647	>4	**3**	0	0
Particles >71µm		ASTM D7647	>3	**1**	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ **21/19/14**	▲ 18/17/11	▲ 20/18/14

FUEL REPORT

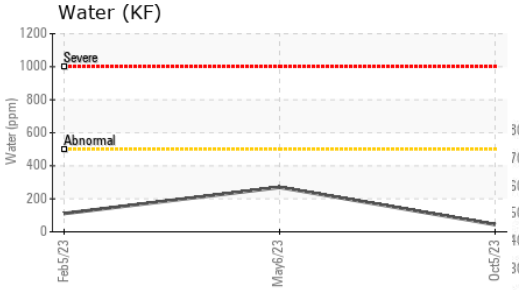
Particle Count



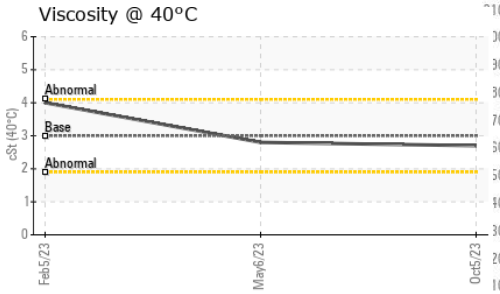
Particle Trend



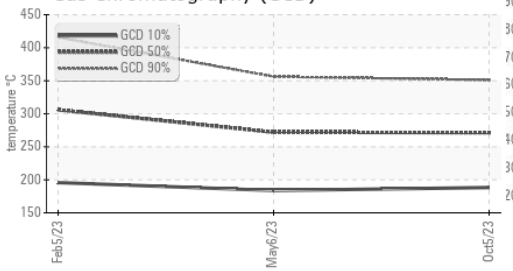
Water (KF)



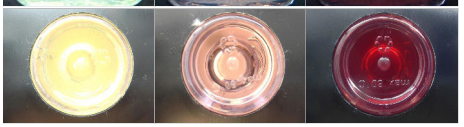
Viscosity @ 40°C



Gas Chromatography (GCD)

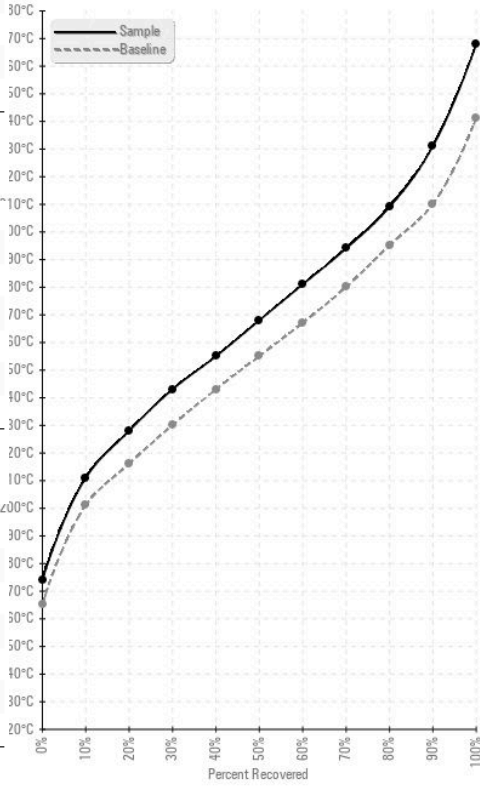


HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Nickel	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Lead	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Vanadium	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Iron	ppm	ASTM D5185(m)	<0.1	**<1**	<1	<1
Calcium	ppm	ASTM D5185(m)	<0.1	**0**	<1	<1
Magnesium	ppm	ASTM D5185(m)	<0.1	**0**	<1	<1
Phosphorus	ppm	ASTM D5185(m)	<0.1	**0**	0	<1
Zinc	ppm	ASTM D5185(m)	<0.1	**0**	<1	<1

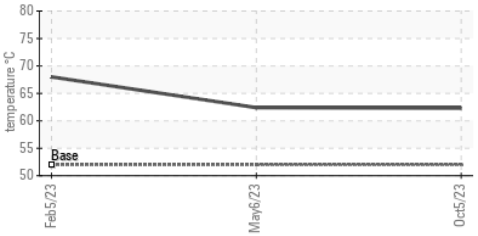
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

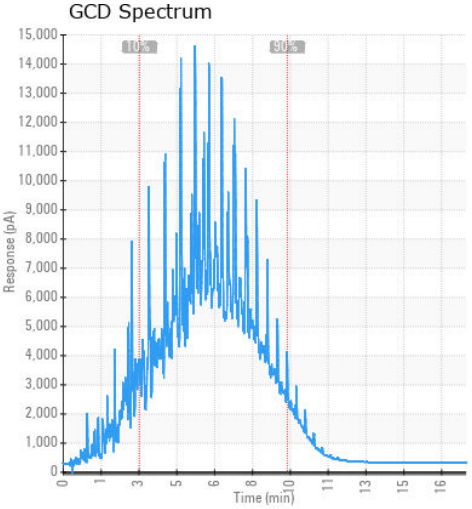
Fuel Distillation Curve



Pensky-Martens Flash Point (°C)



GCD Spectrum



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02590152
Unique Number : 5659218
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)
Received : 18 Oct 2023
Diagnosed : 23 Oct 2023
Diagnostician : Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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