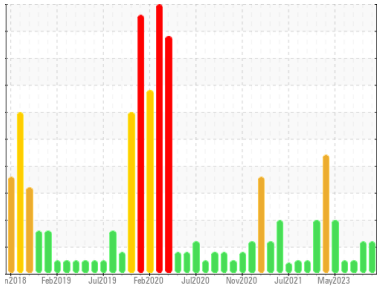
FUEL REPORT

Sample Rating Trend



ISO

Machine Id
Crane - Mid Ship Fuel Sample (S/N Sample Tag: MA-04002)
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW 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. Resample at the next service interval to monitor.

Contaminants

There is a light 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 ultra-low-sulfur diesel fuel (US EPA/CGSB-3.517-3 type B).

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC**	PC	PC
Sample Date		Client Info		**07 Feb 2024**	24 Jan 2024	06 Sep 2023
Machine Age	hrs	Client Info		**0**	0	0
Sample Status				**ATTENTION**	ATTENTION	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		ASTM D1298*	0.839	**0.851**	0.850	0.844
Fuel Color	text	Visual Screen*	Yllow	**Yllow**	Yllow	Yllow
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	**2.8**	2.8	3.1
Pensky-Martens Flash Point	°C	ASTM D7215*	52	**64.7**	64.1	62.2

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	10	**13**	14	14

DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	**177**	176	173
5% Distillation Point	°C	ASTM D2887*		**202**	201	197
10% Distill Point	°C	ASTM D2887*	201	**214**	213	209
15% Distillation Point	°C	ASTM D2887*		**222**	221	218
20% Distill Point	°C	ASTM D2887*	216	**231**	229	227
30% Distill Point	°C	ASTM D2887*	230	**245**	243	243
40% Distill Point	°C	ASTM D2887*	243	**256**	254	256
50% Distill Point	°C	ASTM D2887*	255	**268**	266	268
60% Distill Point	°C	ASTM D2887*	267	**280**	278	282
70% Distill Point	°C	ASTM D2887*	280	**292**	290	295
80% Distill Point	°C	ASTM D2887*	295	**306**	304	311
85% Distillation Point	°C	ASTM D2887*		**316**	314	321
90% Distill Point	°C	ASTM D2887*	310	**327**	325	332
95% Distillation Point	°C	ASTM D2887*		**345**	343	350
Final Boiling Point	°C	ASTM D2887*	341	**362**	360	371

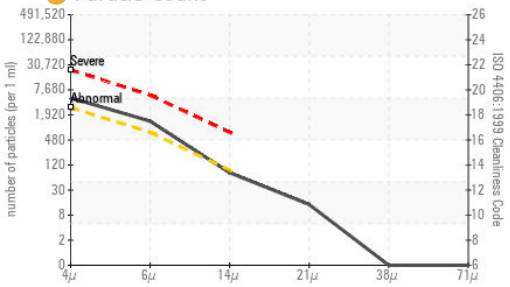
IGNITION QUALITY	method	limit/base	current	history1	history2
API Gravity	ASTM D1298*	37.7	**34**	34	36
Cetane Index	ASTM D4737*	<40.0	**46**	46	49

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**	<1	0
Potassium	ppm	ASTM D5185(m)	<0.1	**0**	0	<1
Water	%	ASTM D6304*	<0.05	**0.003**	0.013	0.004
ppm Water	ppm	ASTM D6304*	<500	**38**	135	46.5

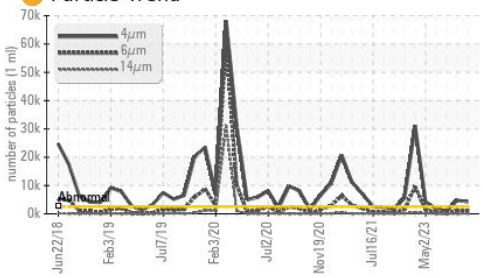
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	**4281**	4766	851
Particles >6µm	ASTM D7647	>640	**1188**	1192	163
Particles >14µm	ASTM D7647	>80	**69**	36	4
Particles >21µm	ASTM D7647	>20	**12**	5	1
Particles >38µm	ASTM D7647	>4	**0**	0	0
Particles >71µm	ASTM D7647	>3	**0**	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	**19/17/13**	19/17/12	17/15/9

FUEL REPORT

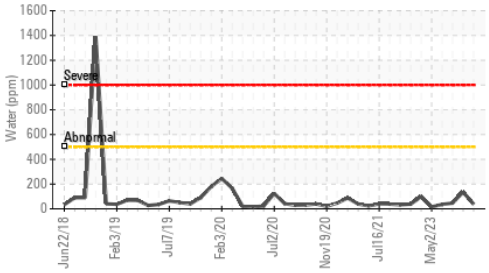
Particle Count



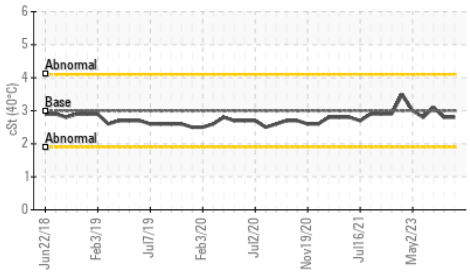
Particle Trend



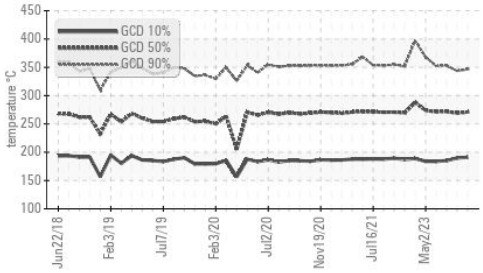
Water (KF)



Viscosity @ 40°C



Gas Chromatography (GCD)

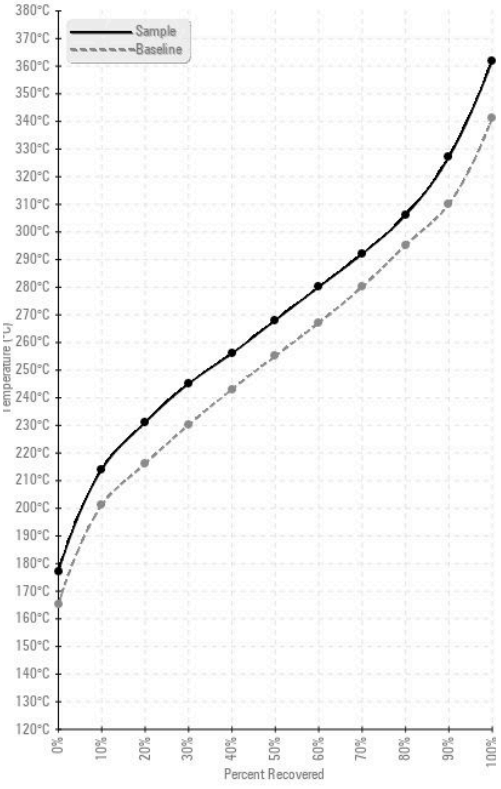


HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Nickel	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Lead	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Vanadium	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Iron	ppm	ASTM D5185(m)	<0.1	**0**	0	<1
Calcium	ppm	ASTM D5185(m)	<0.1	**0**	0	0
Magnesium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

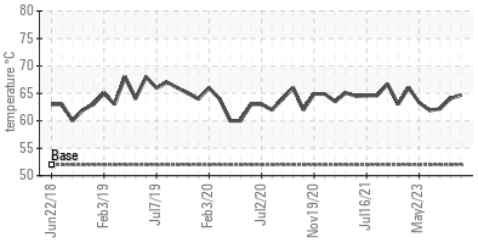
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

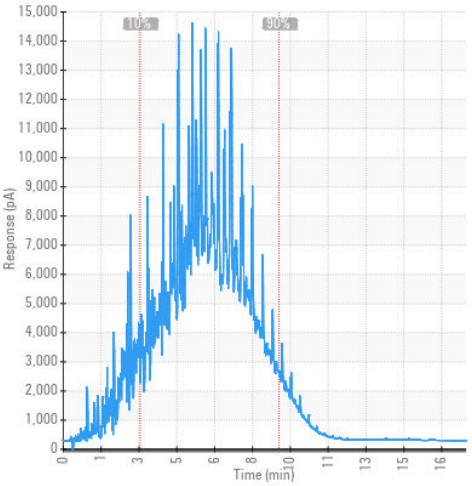
Fuel Distillation Curve



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 : 02618518
Unique Number : 5735628
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)
Received : 27 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 29 Feb 2024 - 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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