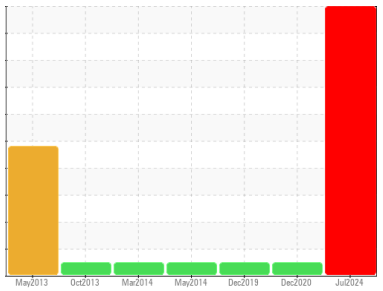
FUEL REPORT

Sample Rating Trend



WATER

Machine Id
26-T-6265 NO 1 MGO SERVICE TANK
Component
Diesel Fuel
Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you filter this fluid before use. Resample in 30-45 days to monitor this situation. Diagnostician's Note: This fuel has higher boiling points for 10%, 20% and EBP. The FT-IR analysis does not indicate any contaminants. This appears to be a different grade fuel from the original IMO 9274501 bunker sample.

Contaminants

There is a high amount of particulates (2 to 100 microns in size) present in the fuel. There is a high concentration of water present in the fuel.

Fuel Condition

10% Distill Point results are abnormally high. 20% Distill Point results are abnormally high. Final Boiling Point results are abnormally high. 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		**PP**	PP	PP
Sample Date		Client Info		**02 Jul 2024**	27 Dec 2020	05 Dec 2019
Machine Age	hrs	Client Info		**0**	0	0
Sample Status				**SEVERE**	NORMAL	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
Specific Gravity		ASTM D1298*	0.839	**0.852**	0.846	0.844
Fuel Color	text	Visual Screen*	Yllow	**Yllow**	Yllow	Yllow
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	**3.5**	2.7	2.6
Pensky-Martens Flash Point	°C	ASTM D7215*	52	**97.7**	63.4	65

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185(m)	10	**6**	9	9

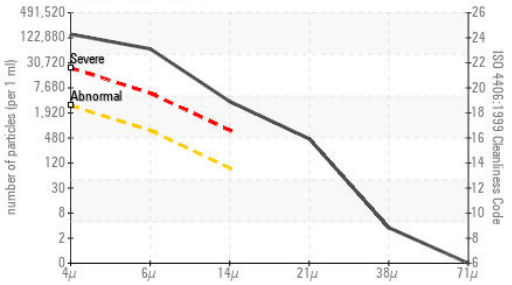
DISTILLATION		method	limit/base	current	history1	history2
Initial Boiling Point	°C	ASTM D2887*	165	**216**	160	161
5% Distillation Point	°C	ASTM D2887*		**231**	193	192
10% Distill Point	°C	ASTM D2887*	201	▲ **236**	204	205
15% Distillation Point	°C	ASTM D2887*		**242**	213	213
20% Distill Point	°C	ASTM D2887*	216	▲ **247**	221	221
30% Distill Point	°C	ASTM D2887*	230	**258**	235	234
40% Distill Point	°C	ASTM D2887*	243	**268**	248	247
50% Distill Point	°C	ASTM D2887*	255	**277**	261	259
60% Distill Point	°C	ASTM D2887*	267	**289**	274	272
70% Distill Point	°C	ASTM D2887*	280	**301**	288	285
80% Distill Point	°C	ASTM D2887*	295	**315**	306	300
85% Distillation Point	°C	ASTM D2887*		**325**	315	309
90% Distill Point	°C	ASTM D2887*	310	**336**	327	320
95% Distillation Point	°C	ASTM D2887*		**354**	341	337
Final Boiling Point	°C	ASTM D2887*	341	▲ **378**	350	347
Distillation Residue	%	ASTM D86(e)*	3.0	**---**	---	1.4
Distillation Loss	%	ASTM D86(e)*	3.0	**---**	---	0.5

IGNITION QUALITY		method	limit/base	current	history1	history2
API Gravity		ASTM D1298*	37.7	**34**	35	36.2
Cetane Index		ASTM D4737*	<40.0	**49**	46	47.3

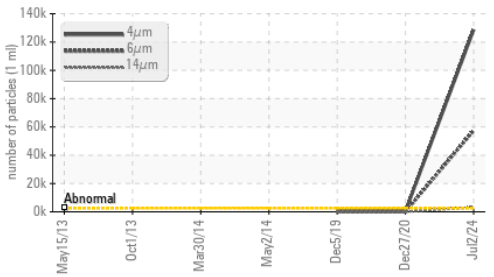
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	<1.0	**0**	0	0
Sodium	ppm	ASTM D5185(m)	<0.1	**0**	<1	0
Potassium	ppm	ASTM D5185(m)	<0.1	**0**	0	<1
Water	%	ASTM D6304*	<0.05	▲ **0.108**	0.003	0.001
ppm Water	ppm	ASTM D6304*	<500	▲ **1085**	36.2	14.2

FUEL REPORT

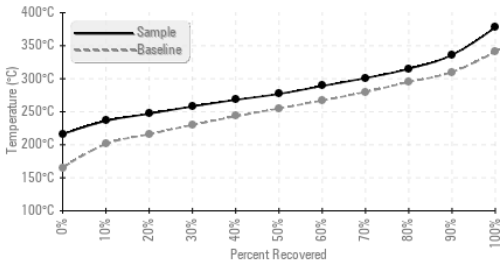
Particle Count



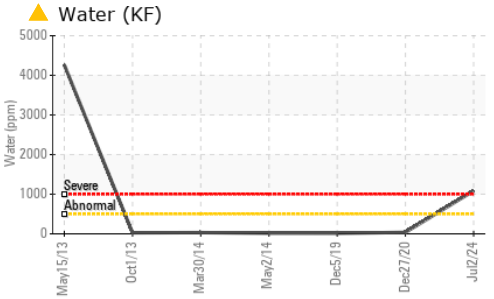
Particle Trend



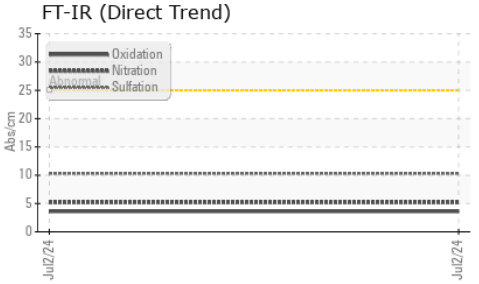
Fuel Distillation Curve



Water (KF)

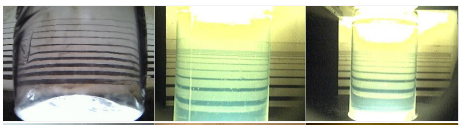


FT-IR (Direct Trend)



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ **128653**	290	331
Particles >6µm	ASTM D7647	>640	▲ **57460**	74	100
Particles >14µm	ASTM D7647	>80	▲ **3159**	10	8
Particles >21µm	ASTM D7647	>20	▲ **403**	2	2
Particles >38µm	ASTM D7647	>4	**3**	0	0
Particles >71µm	ASTM D7647	>3	**0**	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ **24/23/19**	15/13/10	16/14/10

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**	0	0
Magnesium	ppm	ASTM D5185(m)	<0.1	**0**	<1	<1
Phosphorus	ppm	ASTM D5185(m)	<0.1	**0**	<1	0
Zinc	ppm	ASTM D5185(m)	<0.1	**0**	0	0

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PP
Lab Number : 02646810
Unique Number : 5812362
Test Package : FUEL (Additional Tests: Bacteria, CC Flash, FT-IR, PrtCount)

Received : 09 Jul 2024
Tested : 10 Jul 2024
Diagnosed : 10 Jul 2024 - Bill Quesnel

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.

HUSKY SEA ROSE /AKER SOLUTIONS
PO BOX 20
ST. JOHN`S, NL
CA A1C 6C9
Contact: Nick Fewer
nick.fewer@akersolutions.com
T: (709)757-4582
F: (709)722-8730