



FUEL REPORT

CORROSION	NORMAL
CONTAMINANTS	SEVERE
FUEL CONDITION	NORMAL

Area
System 61 - Diesel
 Machine Id
F-6101A EAST RAW
 Component
Diesel Fuel
 Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- LTR)

RECOMMENDATION

We advise that you filter this fluid before use. We advise that you follow the water drain-off procedure for this component. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

CORROSION

{not applicable}

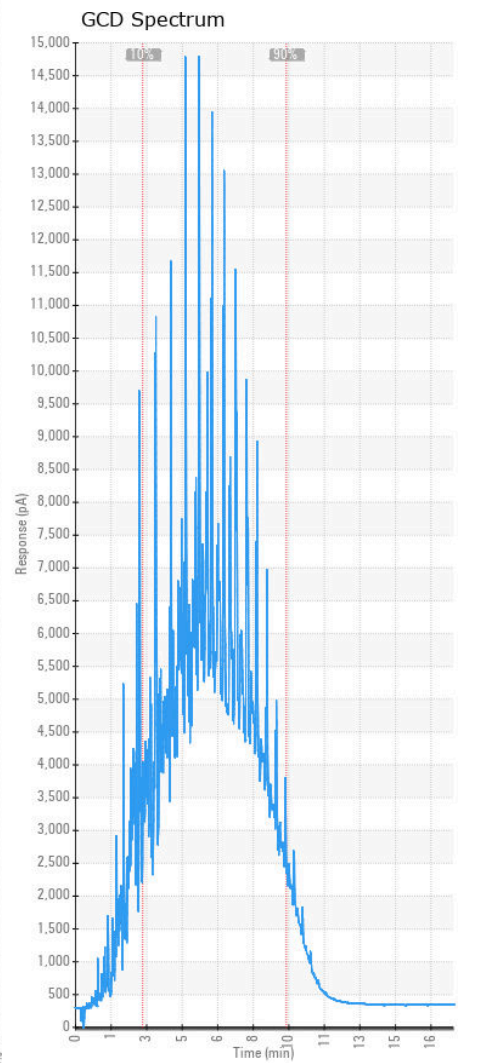
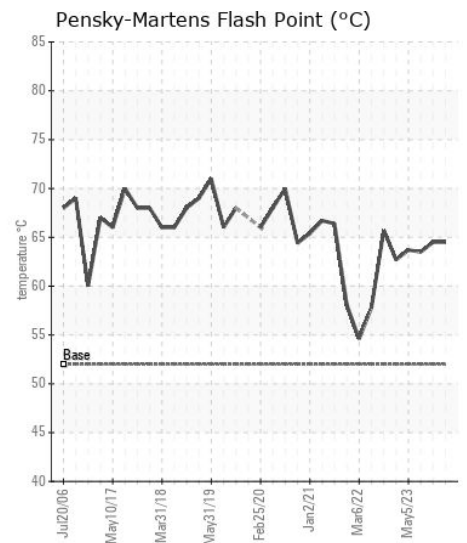
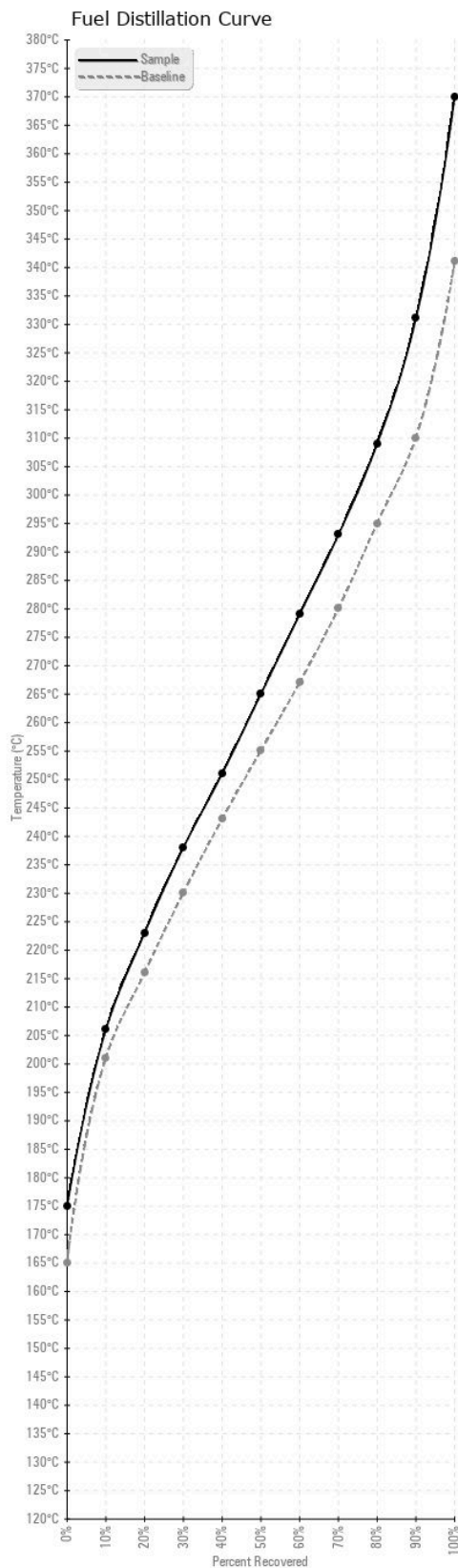
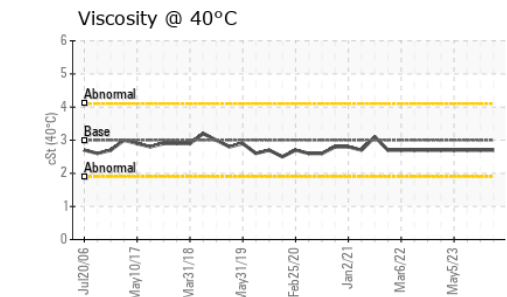
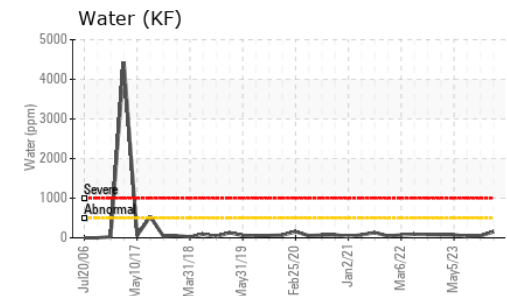
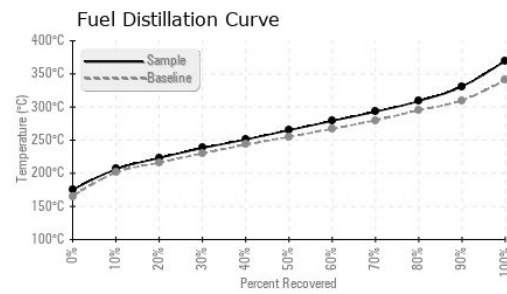
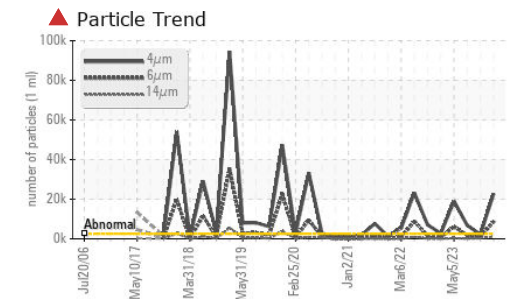
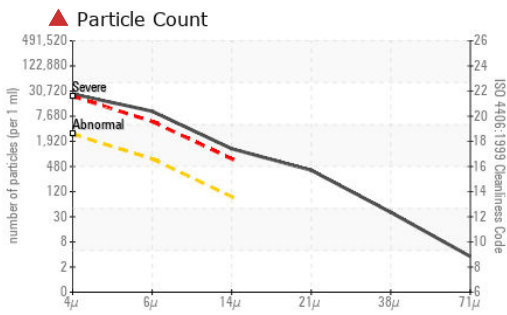
CONTAMINANTS

There is a high amount of particulates (2 to 100 microns in size) present in the fuel. Free water present. There is no bacteria or fungus (yeast and/or mold) present in the sample.

FUEL CONDITION

The fuel is still serviceable provided that the contaminant(s) can be reduced to acceptable levels. 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).

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PP	PP	PP
Sample Date		Client Info		14 Oct 2023	23 Jul 2023	07 Jun 2023
Machine Age	hrs	Client Info		0	0	1930
Sample Status				SEVERE	ABNORMAL	ABNORMAL
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
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	<1	<1
Water	%	ASTM D6304*	<0.05	0.015	0.004	0.003
ppm Water	ppm	ASTM D6304*	<500	150.6	49.9	38.5
Particles >4µm		ASTM D7647	>2500	▲ 22680	2226	▲ 6790
Particles >6µm		ASTM D7647	>640	▲ 8778	● 882	▲ 1772
Particles >14µm		ASTM D7647	>80	▲ 1119	▲ 219	● 81
Particles >21µm		ASTM D7647	>20	▲ 343	▲ 134	14
Particles >38µm		ASTM D7647	>4	▲ 34	▲ 13	0
Particles >71µm		ASTM D7647	>3	3	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ 22/20/17	▲ 18/17/15	▲ 20/18/14
Sediment	%	ASTM D1796(e)*	<0.05	0.034	0.091	0.003
Bacteria	CFU/ml	ASTM D6469*	>=100000	0	100	● 10000
Yeast	CFU/ml	ASTM D6469*	>=100000	0	0	0
Mold	Colonies	ASTM D6469*	MODER	NONE	NONE	● LIGHT
Calcium	ppm	ASTM D5185(m)	<0.1	0	0	0
Magnesium	ppm	ASTM D5185(m)	<0.1	0	0	0
Phosphorus	ppm	ASTM D5185(m)	<0.1	0	0	0
Zinc	ppm	ASTM D5185(m)	<0.1	0	0	0
Specific Gravity		ASTM D1298*	0.839	0.838	0.837	0.837
Fuel Color	text	Visual Screen*	Yllow	Yllow	Yllow	Yllow
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2.7	2.7	2.7
Pensky-Martens Flash Point	°C	ASTM D7215*	52	64.5	64.5	63.5
Cloud Point	°C	ASTM D2500*		-15	-15	-15
Sulfur	ppm	ASTM D5185(m)	10	6	6	6
Initial Boiling Point	°C	ASTM D2887*	165	175	175	174
10% Distill Point	°C	ASTM D2887*	201	206	208	206
20% Distill Point	°C	ASTM D2887*	216	223	225	223
30% Distill Point	°C	ASTM D2887*	230	238	241	239
40% Distill Point	°C	ASTM D2887*	243	251	254	252
50% Distill Point	°C	ASTM D2887*	255	265	267	266
60% Distill Point	°C	ASTM D2887*	267	279	281	280
70% Distill Point	°C	ASTM D2887*	280	293	295	294
80% Distill Point	°C	ASTM D2887*	295	309	310	310
90% Distill Point	°C	ASTM D2887*	310	331	332	332
Final Boiling Point	°C	ASTM D2887*	341	370	367	374
API Gravity		ASTM D1298*	37.7	37	37	37
Cetane Index		ASTM D4737*	<40.0	50	51	51



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : PP **Received** : 30 Oct 2023

Lab Number : 02592774 **Tested** : 03 Nov 2023

Unique Number : 5669853 **Diagnosed** : 03 Nov 2023 - Kevin Marson

Test Package : FUEL (Additional Tests: Bacteria, CC Flash, CldPt, GC-PercFuel, PrtCount, SedimentContact: Sam Nash

HIBERNIA MGMT & DEVELOPMENT CO. LTD

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F: (709)722-3766

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.