MOB I

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
[44639581]
Machine Id
1373M
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

WEAR

Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

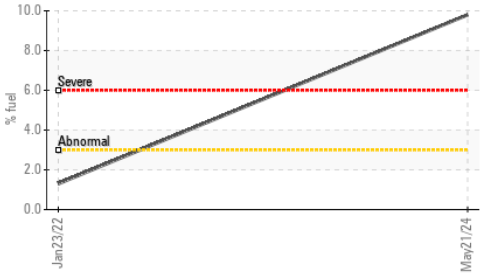
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

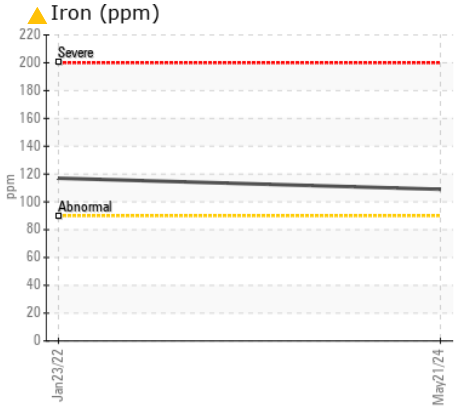
Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0924095	WC0654599	---
Sample Date		Client Info		21 May 2024	23 Jan 2022	---
Machine Age	kms	Client Info		0	239641	---
Oil Age	kms	Client Info		0	0	---
Filter Age	kms	Client Info		0	0	---
Oil Changed		Client Info		N/A	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				SEVERE	ABNORMAL	---
PQ		ASTM D8184*		0	0	---
Iron	ppm	ASTM D5185(m)	>90	▲ 109	▲ 117	---
Chromium	ppm	ASTM D5185(m)	>20	6	4	---
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	---
Titanium	ppm	ASTM D5185(m)	>2	0	<1	---
Silver	ppm	ASTM D5185(m)	>2	0	<1	---
Aluminum	ppm	ASTM D5185(m)	>20	10	30	---
Lead	ppm	ASTM D5185(m)	>40	6	10	---
Copper	ppm	ASTM D5185(m)	>330	6	14	---
Tin	ppm	ASTM D5185(m)	>15	1	2	---
Vanadium	ppm	ASTM D5185(m)		0	<1	---
Silicon	ppm	ASTM D5185(m)	>25	15	8	---
Potassium	ppm	ASTM D5185(m)	>20	13	76	---
Fuel	%	ASTM D7593*	>3.0	▲ 9.8	▲ 1.3	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>6	0.8	0	---
Nitration	Abs/cm	ASTM D7624*	>20	15.6	4.5	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	30.6	14.7	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185(m)	>158	4	4	---
Boron	ppm	ASTM D5185(m)	250	21	19	---
Barium	ppm	ASTM D5185(m)	10	0	0	---
Molybdenum	ppm	ASTM D5185(m)	100	14	2	---
Manganese	ppm	ASTM D5185(m)		1	3	---
Magnesium	ppm	ASTM D5185(m)	450	681	791	---
Calcium	ppm	ASTM D5185(m)	3000	1265	1353	---
Phosphorus	ppm	ASTM D5185(m)	1150	610	748	---
Zinc	ppm	ASTM D5185(m)	1350	716	823	---
Sulfur	ppm	ASTM D5185(m)	4250	2208	2552	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	31.5	7.5	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 10.1	▲ 11.3	---

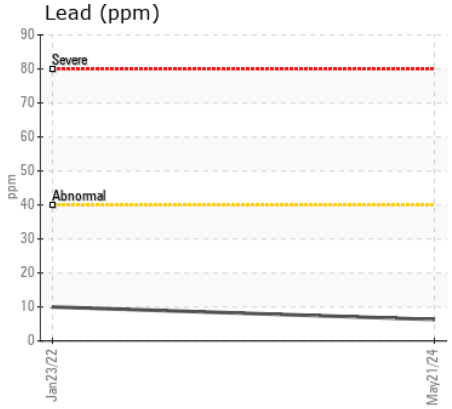
Fuel Dilution



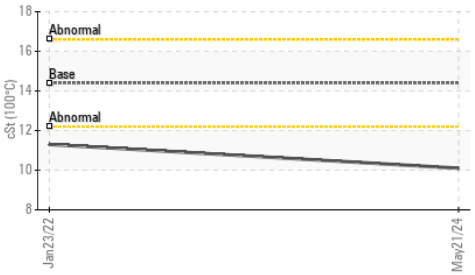
Iron (ppm)



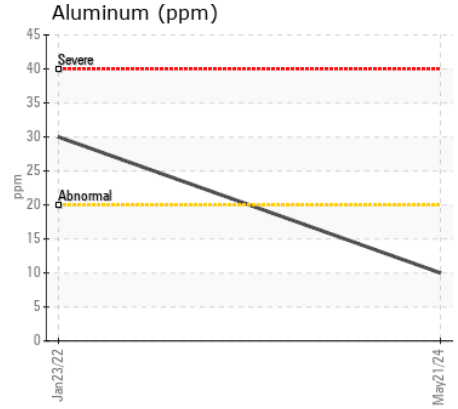
Lead (ppm)



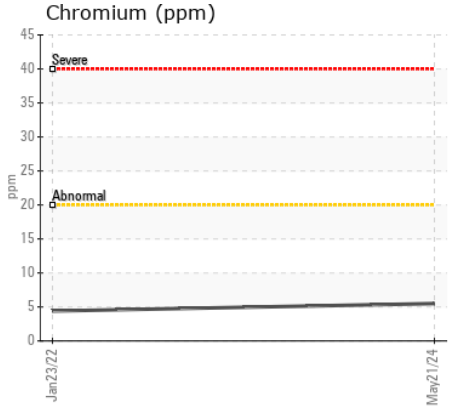
Viscosity @ 100°C



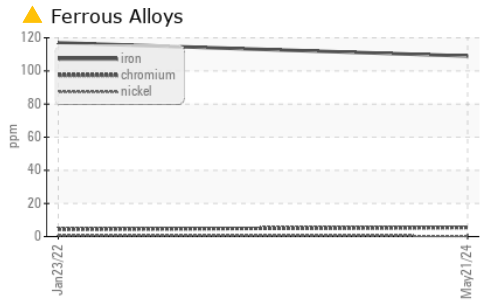
Aluminum (ppm)



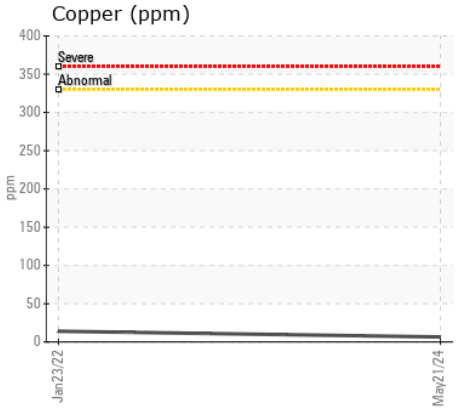
Chromium (ppm)



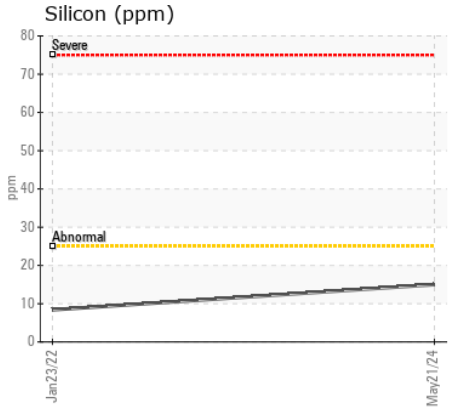
Ferrous Alloys



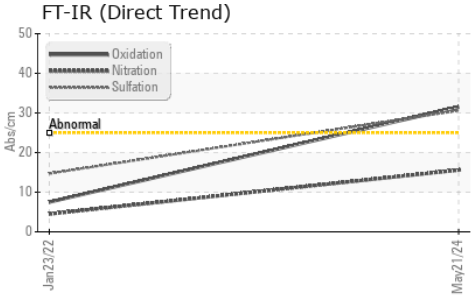
Copper (ppm)



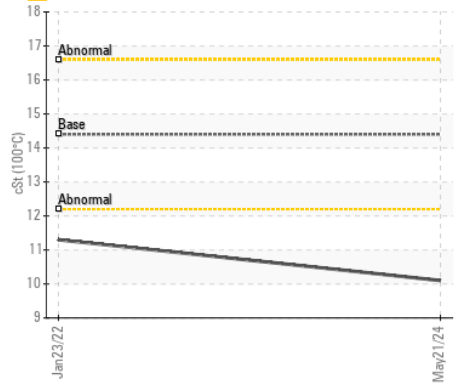
Silicon (ppm)



FT-IR (Direct Trend)

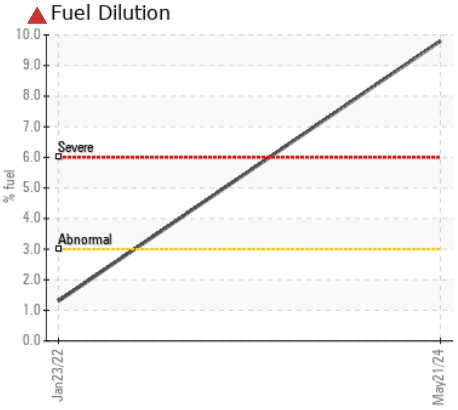


Viscosity @ 100°C



PQ

Fuel Dilution



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0924095 **Received** : 22 May 2024
Lab Number : 02636914 **Tested** : 23 May 2024
Unique Number : 5786076 **Diagnosed** : 23 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, PQ)

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.

Rush Truck Centres
7450 Torbram Rd.
Mississauga, ON
CA L4T 1G9
Contact: Serdar Okur
sokur@rushtruckcentres.ca
T: (905)671-7600
F: