



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(GMK 163) City Of Mount Pearl
Machine Id
INTERNATIONAL Vacuum Truck, 1532
Component
Diesel Engine
Fluid
IRVING 15W40 (24 LTR)

RECOMMENDATION

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		OF0000731	OF0001008	OF0000319
Sample Date		Client Info		17 Jun 2024	08 Dec 2023	28 Feb 2022
Machine Age	hrs	Client Info		6465	0	5180
Oil Age	hrs	Client Info		175	1039	715
Filter Age	hrs	Client Info		175	1039	363
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Changed
Sample Status				ABNORMAL	SEVERE	SEVERE

WEAR

Aluminum ppm levels are abnormal. Piston wear is indicated.

Iron	ppm	ASTM D5185(m)	>90	23	▲ 202	▲ 322
Chromium	ppm	ASTM D5185(m)	>20	<1	5	5
Nickel	ppm	ASTM D5185(m)	>2	<1	2	▲ 4
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	▲ 28	▲ 177	▲ 207
Lead	ppm	ASTM D5185(m)	>40	0	3	9
Copper	ppm	ASTM D5185(m)	>330	2	11	13
Tin	ppm	ASTM D5185(m)	>15	0	<1	1
Vanadium	ppm	ASTM D5185(m)		0	0	<1
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

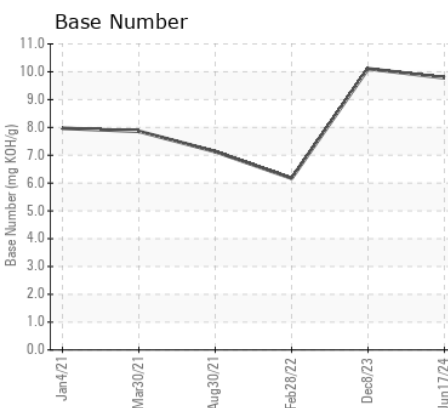
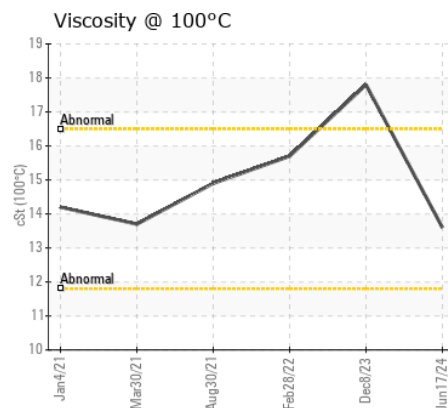
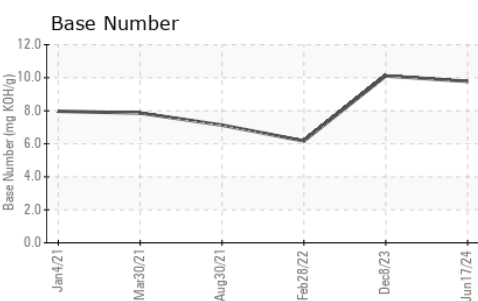
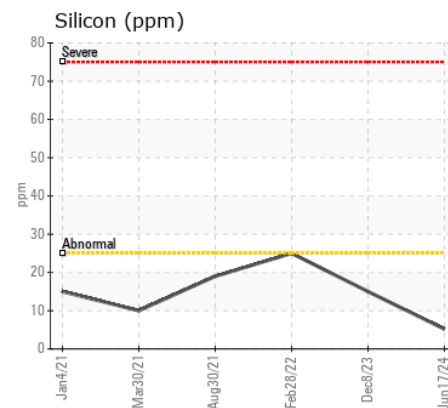
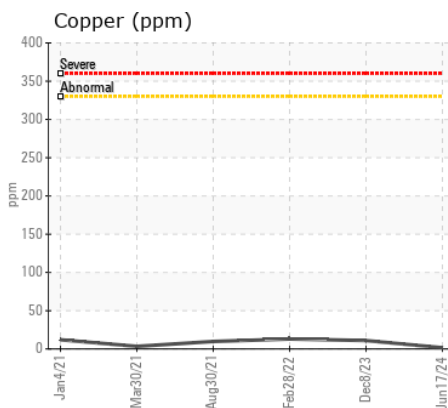
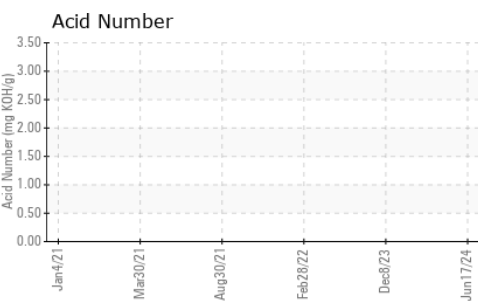
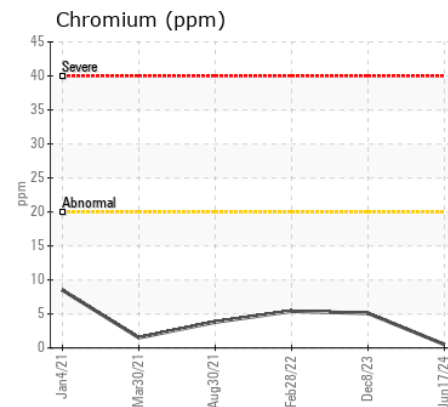
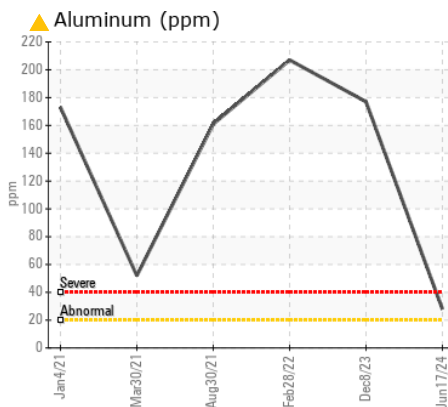
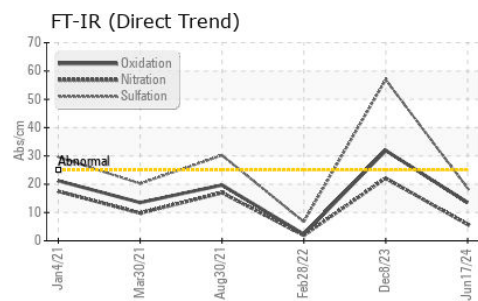
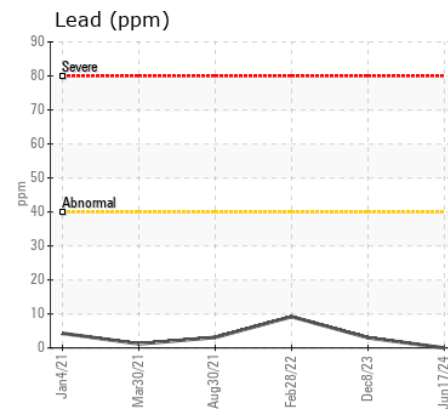
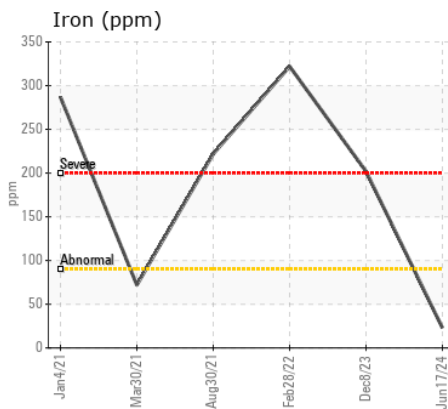
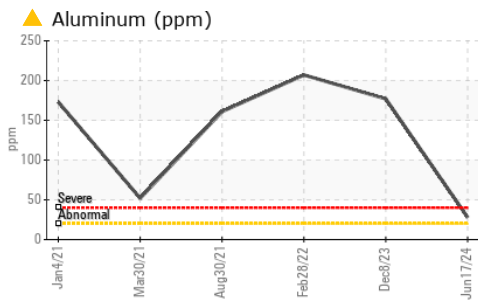
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	15	25
Potassium	ppm	ASTM D5185(m)	>20	2	30	▲ 660
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	0.0
Soot %	%	ASTM D7844*	>6	0.3	▲ 6.6	0.3
Nitration	Abs/cm	ASTM D7624*	>20	5.8	22.1	1.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.6	56.9	6.7
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)	>101	3	43	● 657
Boron	ppm	ASTM D5185(m)		<1	1	20
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		58	76	145
Manganese	ppm	ASTM D5185(m)		<1	2	3
Magnesium	ppm	ASTM D5185(m)		947	1100	217
Calcium	ppm	ASTM D5185(m)		1014	1210	2142
Phosphorus	ppm	ASTM D5185(m)		989	1080	1113
Zinc	ppm	ASTM D5185(m)		1164	1310	1260
Sulfur	ppm	ASTM D5185(m)		2569	2592	3458
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.5	31.9	2.3
Acid Number (AN)	mg KOH/g	ASTM D974*		3.16	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*		9.78	10.11	6.17
Visc @ 40°C	cSt	ASTM D7279(m)		97.8	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		13.6	▲ 17.8	15.7
Viscosity Index (VI)	Scale	ASTM D2270*		139	---	---



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : OF0000731
Lab Number : 02644123
Unique Number : 5801662
Test Package : MOB 2 (Additional Tests: KV40, TAN Auto, VI, Visual)

Received : 26 Jun 2024
Tested : 27 Jun 2024
Diagnosed : 27 Jun 2024 - Kevin Marson

Oil Filtration Solutions Ltd.

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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.