MOB II LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
1153
Component
Front Diesel Engine
Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (22 LTR)

RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

Aluminum and iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated. Piston wear is indicated.

CONTAMINATION

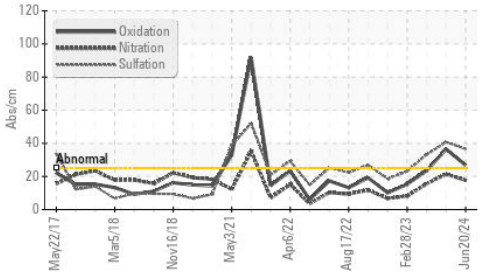
There is a moderate amount of fuel present in the oil. There is an abnormal amount of solids and carbon present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

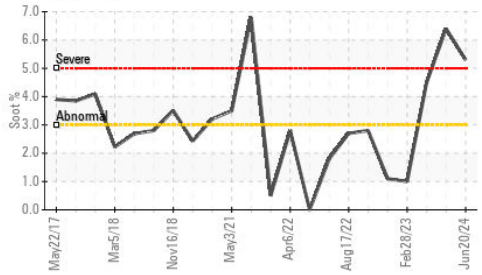
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**GFL0117319**	GFL0099618	GFL0084307
Sample Date		Client Info		**20 Jun 2024**	30 Jan 2024	03 Aug 2023
Machine Age	hrs	Client Info		**17100**	16550	16054
Oil Age	hrs	Client Info		**0**	0	500
Filter Age	hrs	Client Info		**0**	0	500
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	SEVERE	ABNORMAL
PQ		ASTM D8184*		**0**	3	0
Iron	ppm	ASTM D5185(m)	>100	▲ **126**	▲ 174	▲ 140
Chromium	ppm	ASTM D5185(m)	>20	**3**	4	3
Nickel	ppm	ASTM D5185(m)	>4	**<1**	1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	▲ **21**	▲ 23	▲ 20
Lead	ppm	ASTM D5185(m)	>40	**6**	6	5
Copper	ppm	ASTM D5185(m)	>330	**2**	2	2
Tin	ppm	ASTM D5185(m)	>15	**<1**	<1	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	<1
Silicon	ppm	ASTM D5185(m)	>25	**5**	9	4
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Fuel	%	ASTM D7593*	>2.0	▲ **3.4**	▲ 5.7	▲ 4.5
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	ASTM D7844*	>3	▲ **5.3**	▲ 6.4	▲ 4.5
Nitration	Abs/cm	ASTM D7624*	>20	**17.7**	21.4	15.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	**36.6**	40.7	33.2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185(m)		**1**	2	2
Boron	ppm	ASTM D5185(m)	1	**2**	2	2
Barium	ppm	ASTM D5185(m)	1	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	60	**54**	52	55
Manganese	ppm	ASTM D5185(m)	1	**<1**	<1	1
Magnesium	ppm	ASTM D5185(m)	1010	**844**	803	868
Calcium	ppm	ASTM D5185(m)	1070	**934**	975	954
Phosphorus	ppm	ASTM D5185(m)	1150	**868**	852	947
Zinc	ppm	ASTM D5185(m)	1270	**1057**	1003	1083
Sulfur	ppm	ASTM D5185(m)	2060	**2119**	2255	2287
Oxidation	Abs/.1mm	ASTM D7414*	>25	**26.8**	36.5	23.5
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	**7.79**	7.58	7.26
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	**16.4**	16.2	15.2

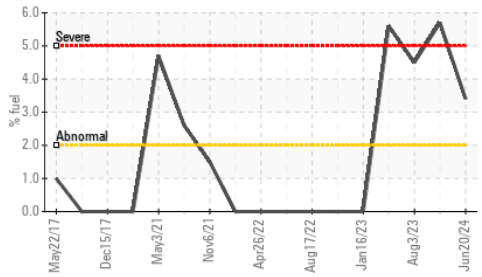
FT-IR (Direct Trend)



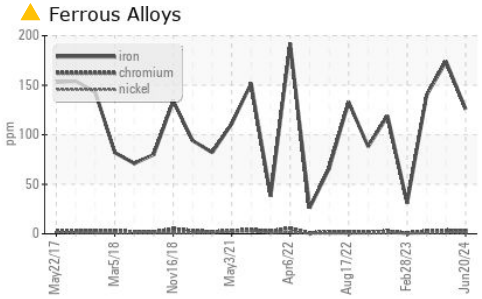
Soot %



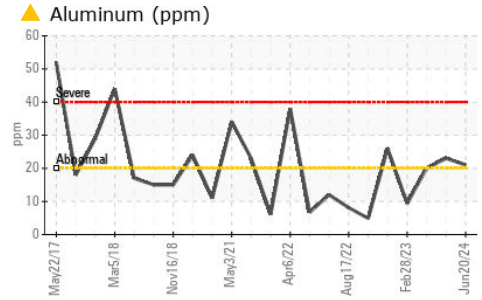
Fuel Dilution



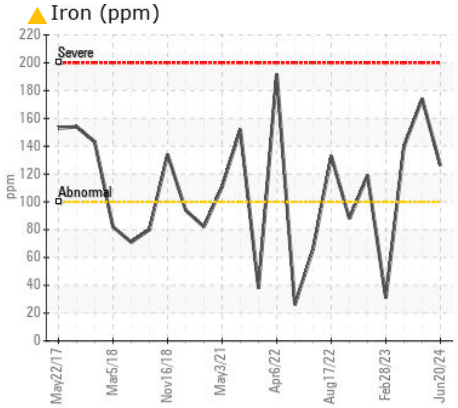
Ferrous Alloys



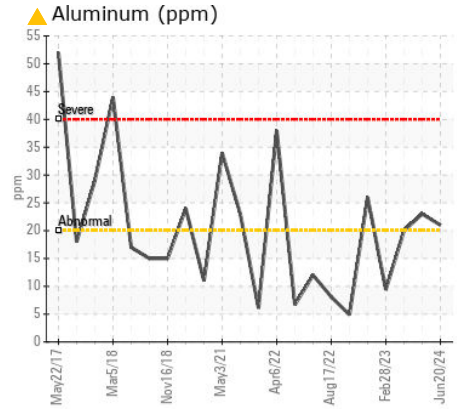
Aluminum (ppm)



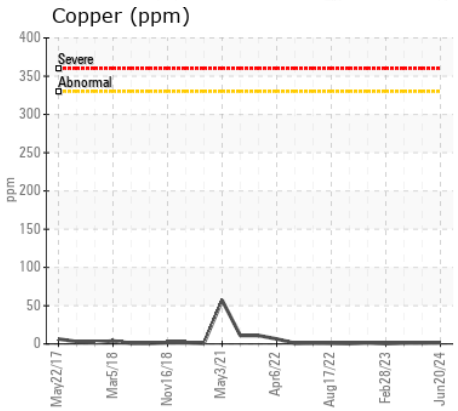
Iron (ppm)



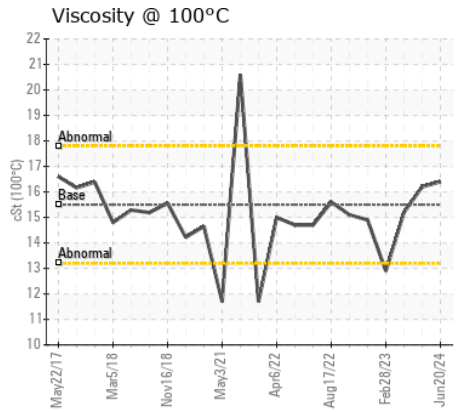
Aluminum (ppm)



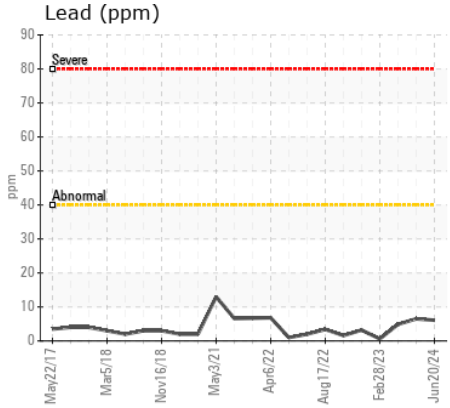
Copper (ppm)



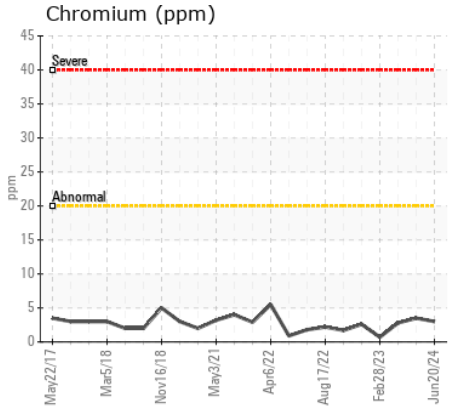
Viscosity @ 100°C



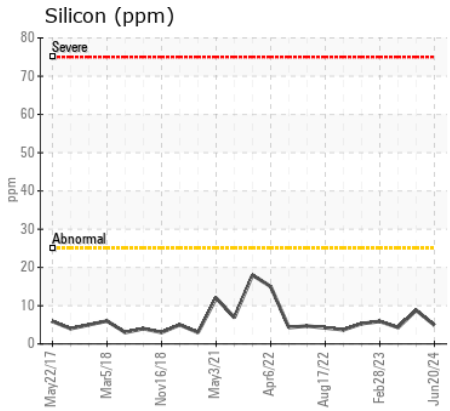
Lead (ppm)



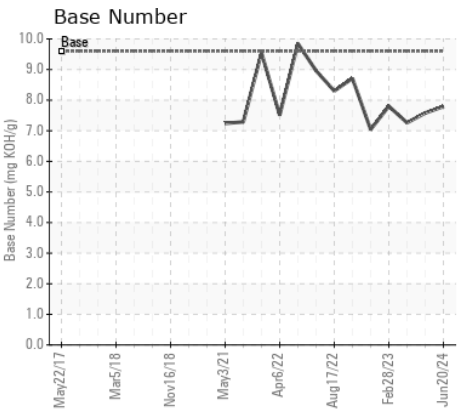
Chromium (ppm)



Silicon (ppm)



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0117319
Lab Number : 02643979
Unique Number : 5801518
Test Package : MOB 2 (Additional Tests: PercentFuel, PQ)

Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 26 Jun 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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