MOB I LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
4794
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

RECOMMENDATION

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

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

CONTAMINATION

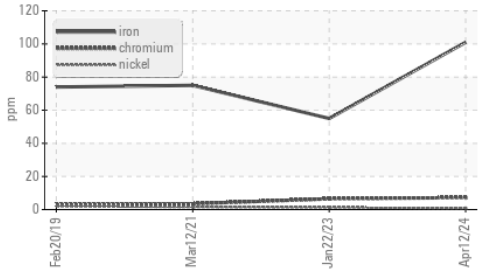
Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil.

FLUID CONDITION

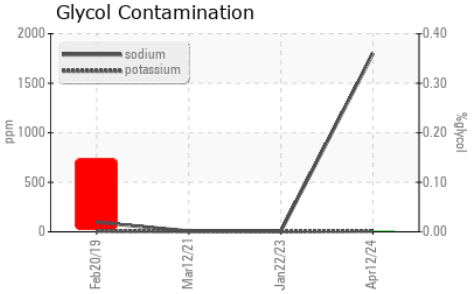
The oil is no longer serviceable as a result of the abnormal and/or severe wear. The condition of the oil is acceptable for the time in service (see recommendation).

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0111774	GFL0063214	GFL0020201
Sample Date		Client Info		12 Apr 2024	22 Jan 2023	12 Mar 2021
Machine Age	hrs	Client Info		22552	20777	18435
Oil Age	hrs	Client Info		480	650	0
Filter Age	hrs	Client Info		480	650	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
PQ		ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m)	>100	▲ 101	55	75
Chromium	ppm	ASTM D5185(m)	>20	7	6	4
Nickel	ppm	ASTM D5185(m)	>4	<1	1	2
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	12	4	6
Lead	ppm	ASTM D5185(m)	>40	6	4	5
Copper	ppm	ASTM D5185(m)	>330	6	2	11
Tin	ppm	ASTM D5185(m)	>15	<1	1	3
Vanadium	ppm	ASTM D5185(m)		0	0	<1
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>25	14	8	12
Potassium	ppm	ASTM D5185(m)	>20	7	<1	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	NEG	NEG
Soot %	%	ASTM D7844*	>3	1.6	0.6	0.9
Nitration	Abs/cm	ASTM D7624*	>20	15.6	11.2	13.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.0	22.3	25.2
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	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		● 1799	7	8
Boron	ppm	ASTM D5185(m)	2	4	2	3
Barium	ppm	ASTM D5185(m)	0	<1	0	2
Molybdenum	ppm	ASTM D5185(m)	50	145	61	52
Manganese	ppm	ASTM D5185(m)	0	1	<1	2
Magnesium	ppm	ASTM D5185(m)	950	917	969	926
Calcium	ppm	ASTM D5185(m)	1050	1049	1126	1274
Phosphorus	ppm	ASTM D5185(m)	995	863	1066	973
Zinc	ppm	ASTM D5185(m)	1180	1137	1189	1292
Sulfur	ppm	ASTM D5185(m)	2600	2401	2508	2387
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.2	19.7	22.9
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.9	12.2	14.6

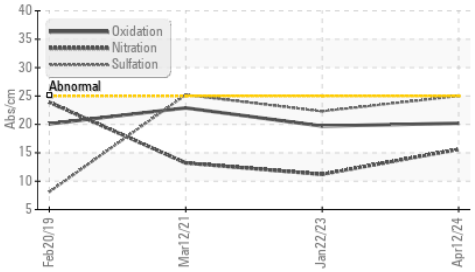
Ferrous Alloys



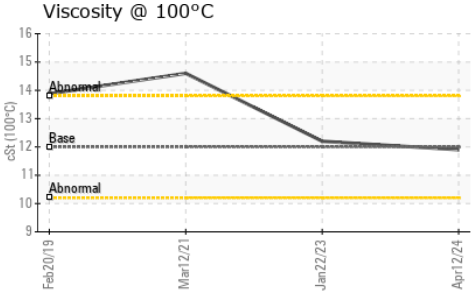
Glycol Contamination



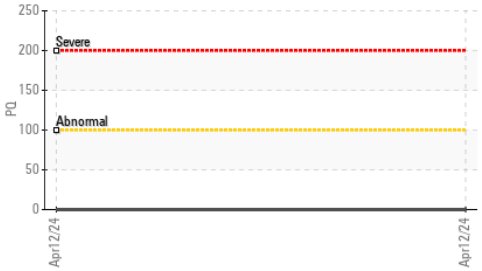
FT-IR (Direct Trend)



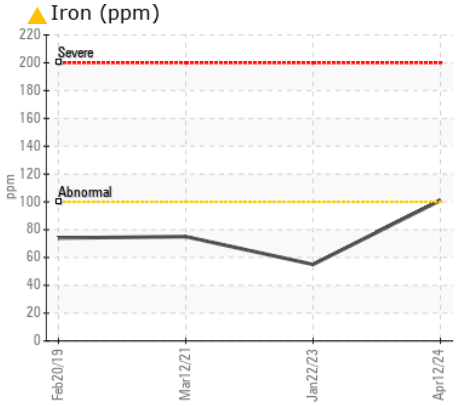
Viscosity @ 100°C



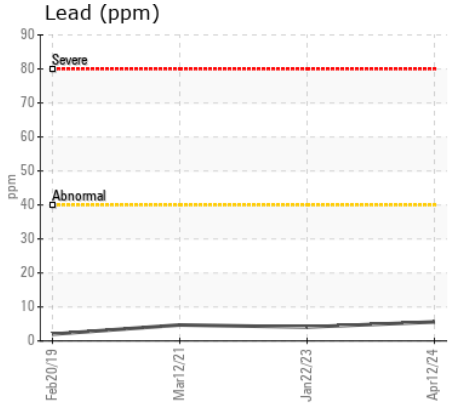
PQ



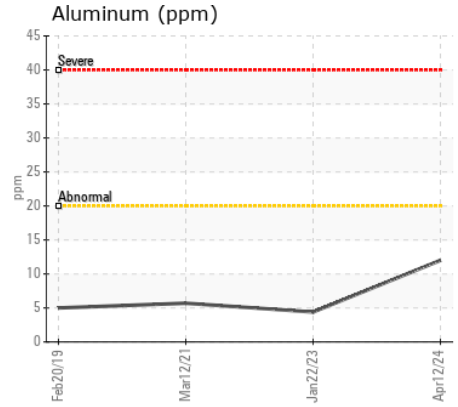
Iron (ppm)



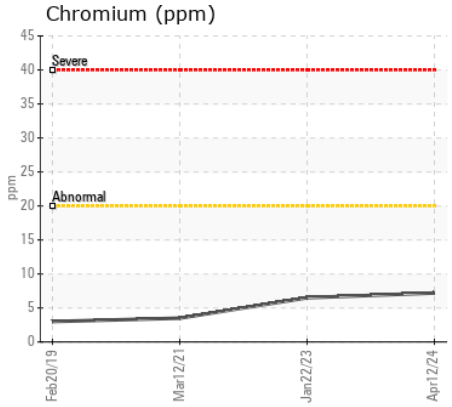
Lead (ppm)



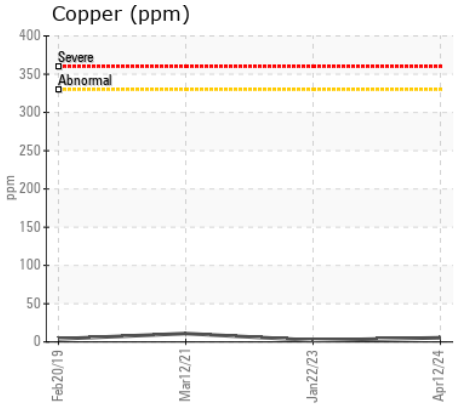
Aluminum (ppm)



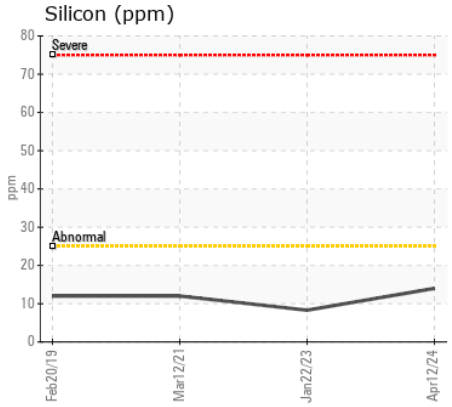
Chromium (ppm)



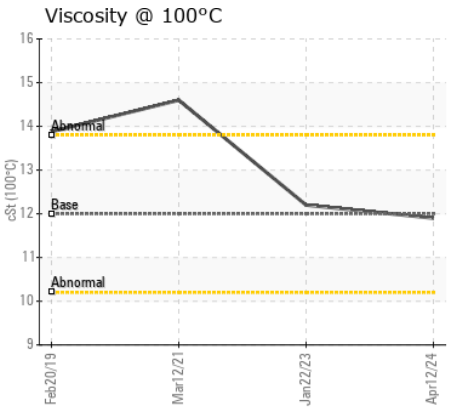
Copper (ppm)



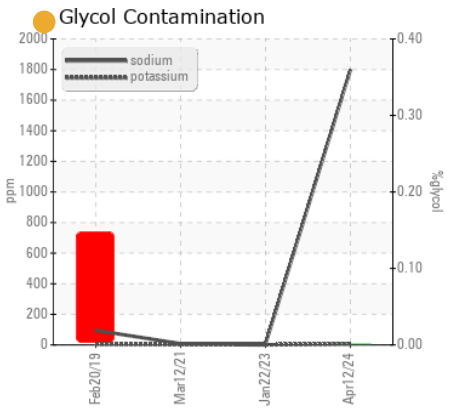
Silicon (ppm)



Viscosity @ 100°C



Glycol Contamination



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0111774
Lab Number : 02632726
Unique Number : 5773879
Test Package : MOB 1 (Additional Tests: Glycol, PQ, Visual)
Received : 02 May 2024
Tested : 02 May 2024
Diagnosed : 02 May 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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