MOB LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
OR128
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- LTR)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

WEAR

Iron ppm levels are severe. PQ levels are abnormal. Aluminum ppm levels are noted. Cylinder, crank, or cam shaft wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring.

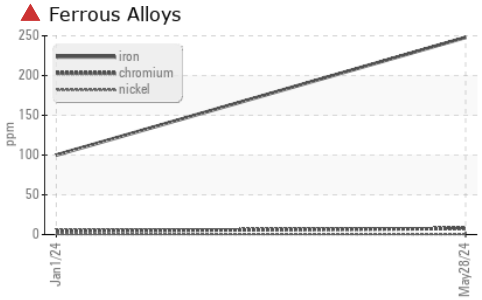
CONTAMINATION

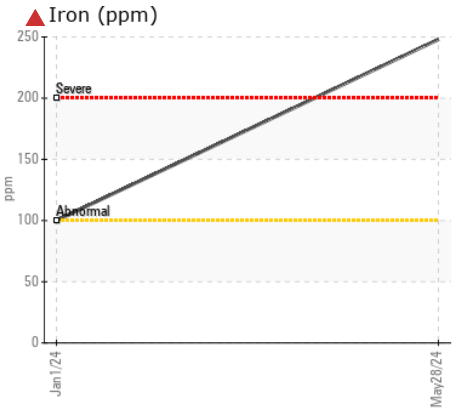
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. High amount of ingressed dirt has caused abrasive wear to the component.

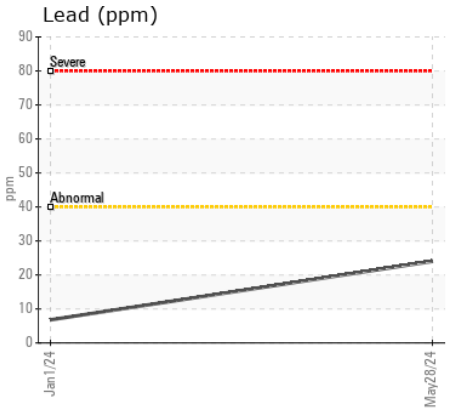
FLUID CONDITION

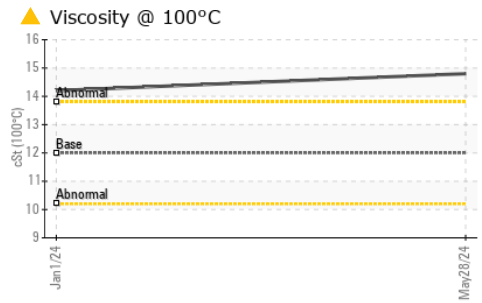
Viscosity of sample indicates oil is within SAE 40 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

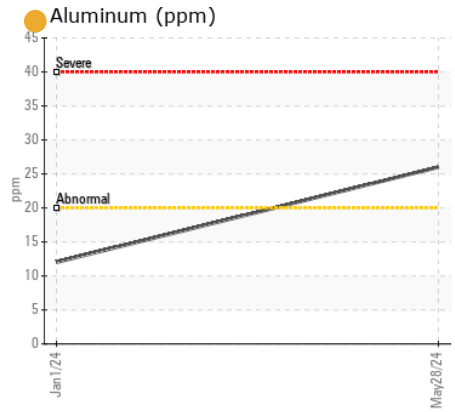
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0119015	GFL0101697	---
Sample Date		Client Info		28 May 2024	01 Jan 2024	---
Machine Age	hrs	Client Info		3029	3079	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				SEVERE	ABNORMAL	---
PQ		ASTM D8184*		▲ 57	41	---
Iron	ppm	ASTM D5185(m)	>100	▲ 248	▲ 100	---
Chromium	ppm	ASTM D5185(m)	>20	8	4	---
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	---
Titanium	ppm	ASTM D5185(m)		<1	0	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>20	● 26	12	---
Lead	ppm	ASTM D5185(m)	>40	24	7	---
Copper	ppm	ASTM D5185(m)	>330	47	15	---
Tin	ppm	ASTM D5185(m)	>15	3	1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>25	▲ 64	24	---
Potassium	ppm	ASTM D5185(m)	>20	2	3	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	10.4	6.3	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.6	19.9	---
Silt	scalar	Visual*	NONE	VLITE	---	---
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	---
Sodium	ppm	ASTM D5185(m)		7	3	---
Boron	ppm	ASTM D5185(m)	2	22	36	---
Barium	ppm	ASTM D5185(m)	0	<1	0	---
Molybdenum	ppm	ASTM D5185(m)	50	67	53	---
Manganese	ppm	ASTM D5185(m)	0	3	<1	---
Magnesium	ppm	ASTM D5185(m)	950	● 517	595	---
Calcium	ppm	ASTM D5185(m)	1050	● 1492	1427	---
Phosphorus	ppm	ASTM D5185(m)	995	● 611	781	---
Zinc	ppm	ASTM D5185(m)	1180	● 823	887	---
Sulfur	ppm	ASTM D5185(m)	2600	1928	2144	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.9	15.3	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	▲ 14.8	14.2	---

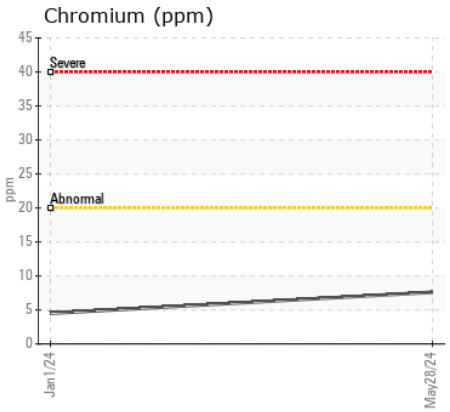


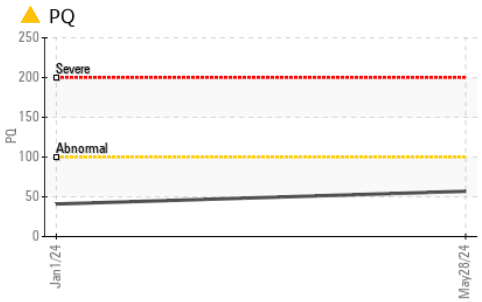


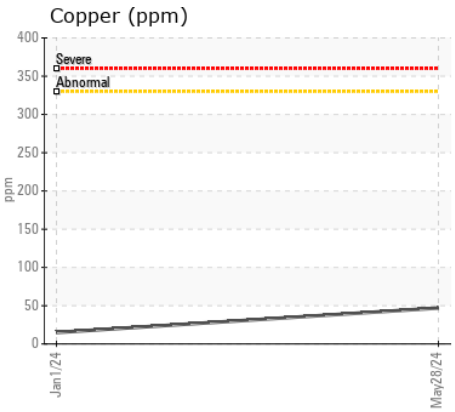


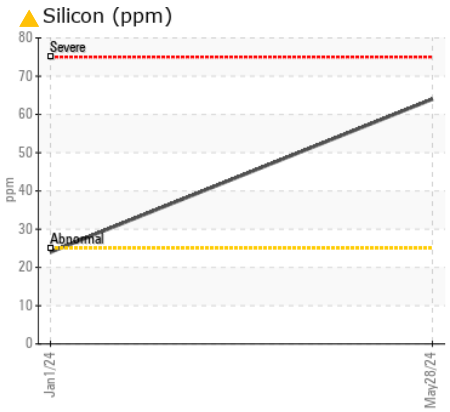


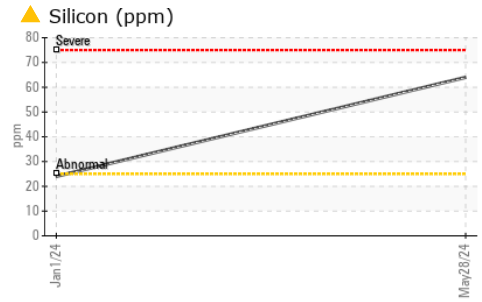


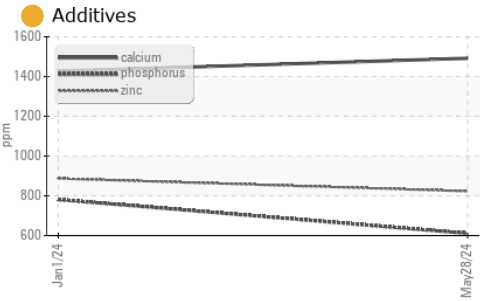


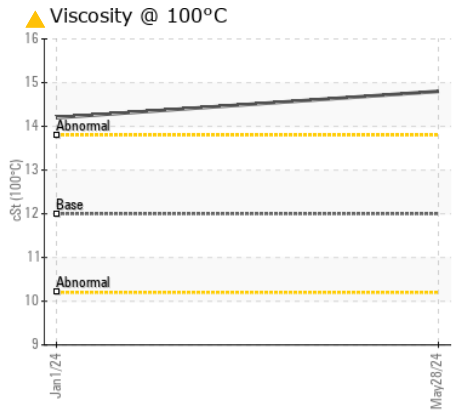


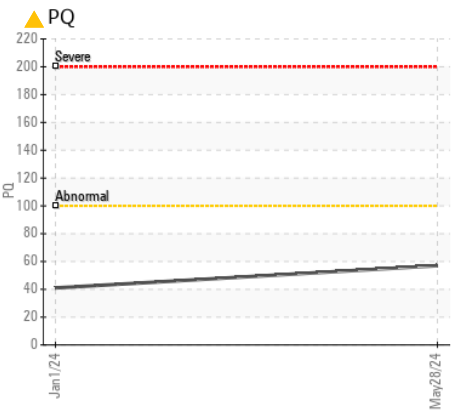












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0119015
Lab Number : 02638394
Unique Number : 5787556
Test Package : MOB 1 (Additional Tests: PQ, Visual)

Received : 29 May 2024
Tested : 30 May 2024
Diagnosed : 30 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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