MOB I LUBE 360 OIL DIAGNOSTICS

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
69
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (--- GAL)

RECOMMENDATION

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

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

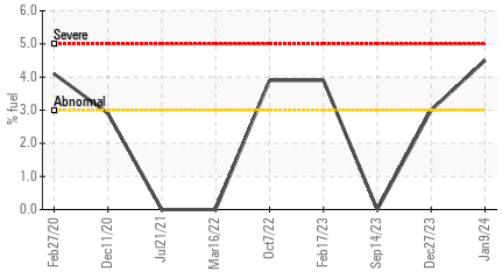
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is a moderate amount of fuel present in the oil. Light concentration of carbon/soot present in the oil.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

FLUID CONDITION

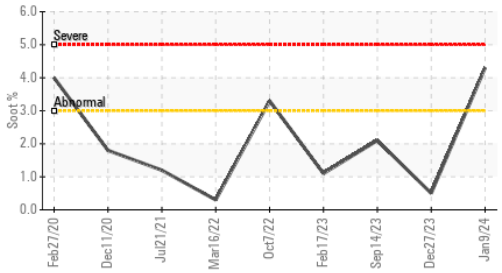
The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**PC0078529**	PC0078524	PC0077497
Sample Date		Client Info		**09 Jan 2024**	27 Dec 2023	14 Sep 2023
Machine Age	kms	Client Info		**89052**	18358	12162
Oil Age	kms	Client Info		**8000**	8000	8000
Filter Age	kms	Client Info		**8000**	8000	8000
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>200	**17**	6	23
Chromium	ppm	ASTM D5185(m)	>20	**<1**	<1	2
Nickel	ppm	ASTM D5185(m)	>2	**<1**	0	0
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>30	**2**	1	3
Lead	ppm	ASTM D5185(m)	>30	**2**	<1	13
Copper	ppm	ASTM D5185(m)	>30	**1**	<1	<1
Tin	ppm	ASTM D5185(m)	>15	**<1**	0	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Silicon	ppm	ASTM D5185(m)	>30	**3**	2	4
Potassium	ppm	ASTM D5185(m)	>20	**5**	<1	2
Fuel	%	ASTM D7593*	>3.0	▲ **4.5**	▲ 3	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	ASTM D7844*	>3	▲ **4.3**	0.5	2.1
Nitration	Abs/cm	ASTM D7624*	>20	**12.1**	8.8	11.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	**27.6**	20.9	25.7
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185(m)		**2**	2	5
Boron	ppm	ASTM D5185(m)	0	**4**	17	4
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	60	**57**	56	59
Manganese	ppm	ASTM D5185(m)	0	**0**	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	**935**	837	964
Calcium	ppm	ASTM D5185(m)	1070	**1105**	1218	1106
Phosphorus	ppm	ASTM D5185(m)	1150	**1019**	1020	1067
Zinc	ppm	ASTM D5185(m)	1270	**1176**	1157	1194
Sulfur	ppm	ASTM D5185(m)	2060	**2737**	2876	2614
Oxidation	Abs/.1mm	ASTM D7414*	>25	**16.6**	17.0	19.9
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	**93.7**	90.2	99.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	**13.3**	▲ 12.8	13.7
Viscosity Index (VI)	Scale	ASTM D2270*	139	**141**	139	138

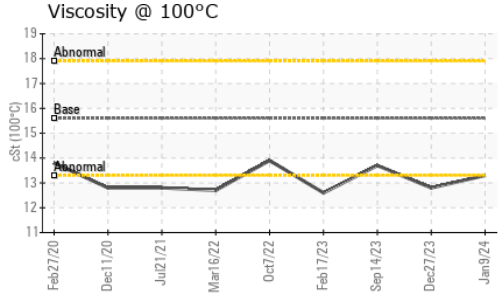
Fuel Dilution



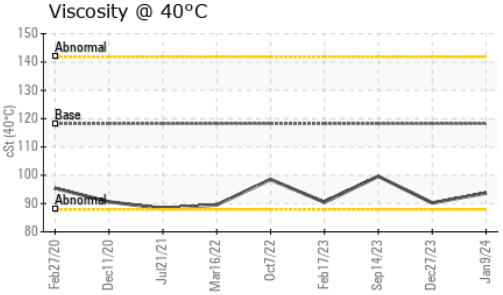
Soot %



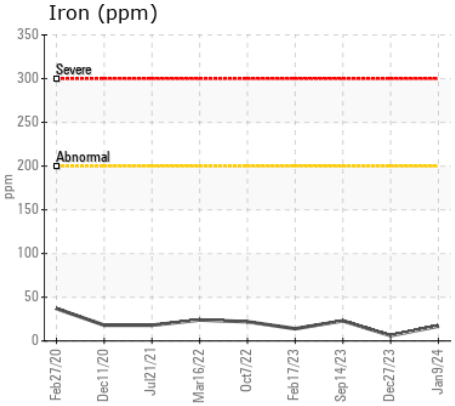
Viscosity @ 100°C



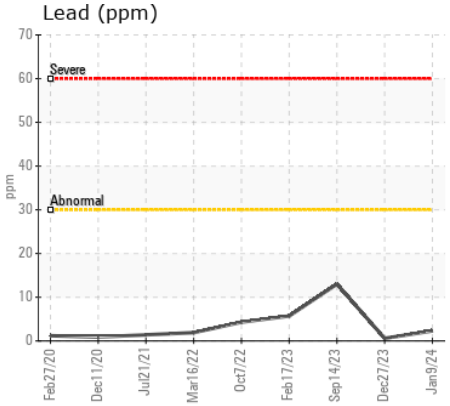
Viscosity @ 40°C



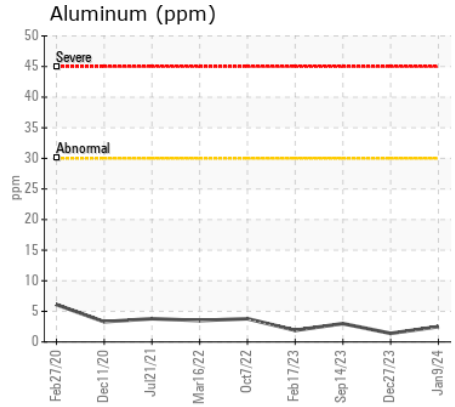
Iron (ppm)



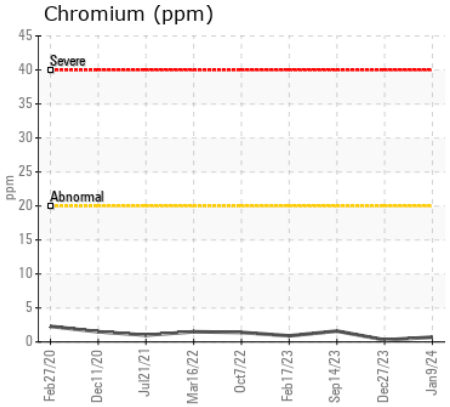
Lead (ppm)



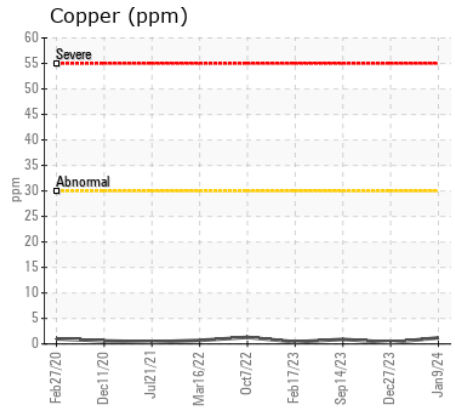
Aluminum (ppm)



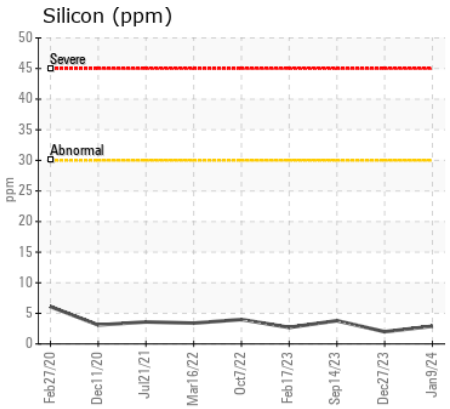
Chromium (ppm)



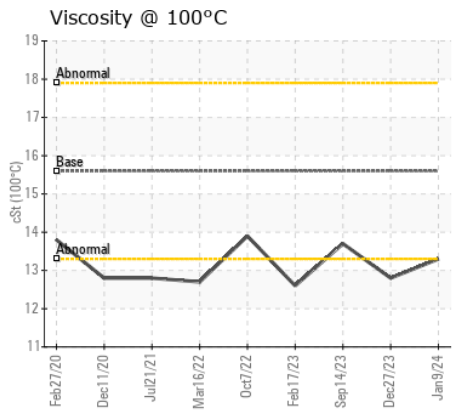
Copper (ppm)



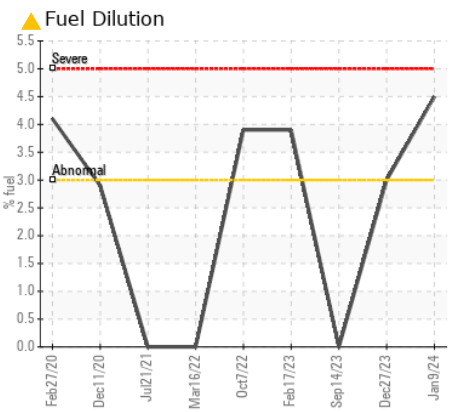
Silicon (ppm)



Viscosity @ 100°C



Fuel Dilution



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0078529 **Recieved** : 22 Jan 2024
Lab Number : 02610153 **Diagnosed** : 23 Jan 2024
Unique Number : 5711239 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, PercentFuel, VI)

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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