MOB II WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
ROSENBAUR 4043
Component
Front Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (24 LTR)

RECOMMENDATION

We advise that you check for faulty combustion and a possible overheat condition. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

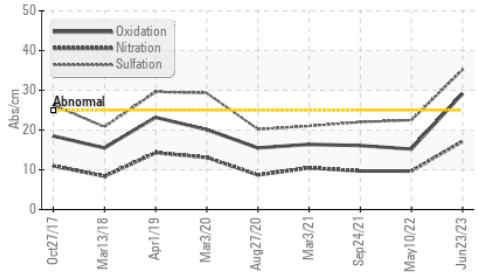
There is an abnormal level of sulfation indicated.

FLUID CONDITION

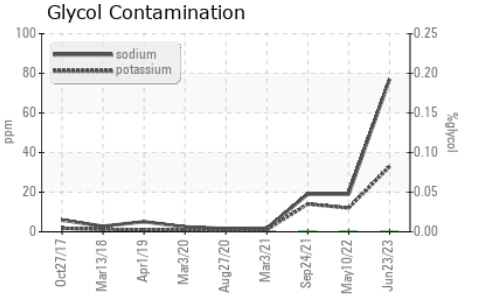
A small degree of oil oxidation was indicated. Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0777338**	WC0699956	WC0606953
Sample Date		Client Info		**23 Jun 2023**	10 May 2022	24 Sep 2021
Machine Age	kms	Client Info		**4356**	3338	0
Oil Age	kms	Client Info		**1018**	280	4468
Filter Age	kms	Client Info		**1018**	280	4468
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>75	**95**	37	51
Chromium	ppm	ASTM D5185(m)	>5	**4**	2	3
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	1
Titanium	ppm	ASTM D5185(m)	>2	**<1**	0	0
Silver	ppm	ASTM D5185(m)	>2	**<1**	<1	<1
Aluminum	ppm	ASTM D5185(m)	>15	**9**	6	9
Lead	ppm	ASTM D5185(m)	>25	**1**	<1	<1
Copper	ppm	ASTM D5185(m)	>100	**6**	2	4
Tin	ppm	ASTM D5185(m)	>4	**<1**	<1	<1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Silicon	ppm	ASTM D5185(m)	>25	**10**	5	6
Potassium	ppm	ASTM D5185(m)	>20	**33**	12	14
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol	%	ASTM D7922*		**0.0**	0.0	0.0
Soot %	%	ASTM D7844*	>6	**2.5**	0.7	0.8
Nitration	Abs/cm	ASTM D7624*	>20	**17.2**	9.7	9.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	▲ **35.2**	22.5	22.0
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185(m)		**77**	19	19
Boron	ppm	ASTM D5185(m)	0	**3**	9	4
Barium	ppm	ASTM D5185(m)	0	**<1**	<1	6
Molybdenum	ppm	ASTM D5185(m)	60	**29**	37	61
Manganese	ppm	ASTM D5185(m)	0	**1**	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	**323**	473	989
Calcium	ppm	ASTM D5185(m)	1070	**1865**	1667	1068
Phosphorus	ppm	ASTM D5185(m)	1150	**922**	989	1070
Zinc	ppm	ASTM D5185(m)	1270	**1066**	1147	1246
Sulfur	ppm	ASTM D5185(m)	2060	**2613**	2899	2649
Oxidation	Abs/.1mm	ASTM D7414*	>25	▲ **29.2**	15.2	16.1
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	**3.79**	6.83	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	**14.6**	13.4	13.9

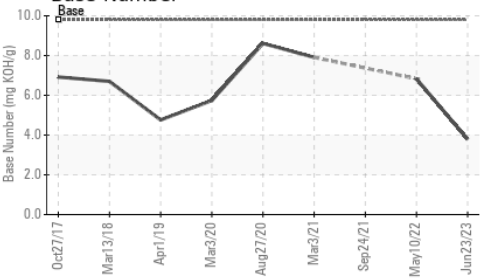
FT-IR (Direct Trend)



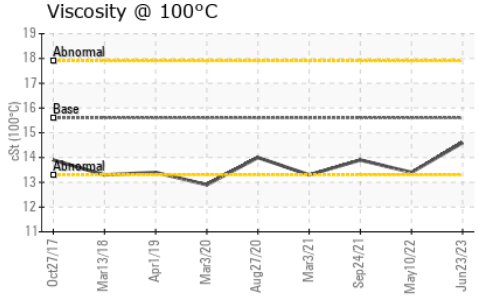
Glycol Contamination



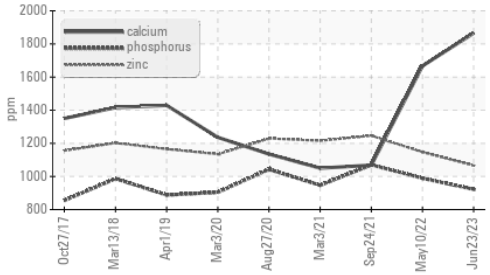
Base Number



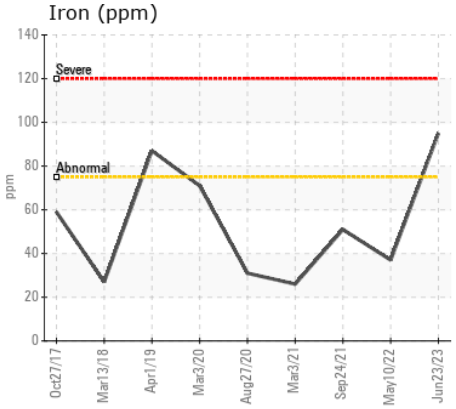
Viscosity @ 100°C



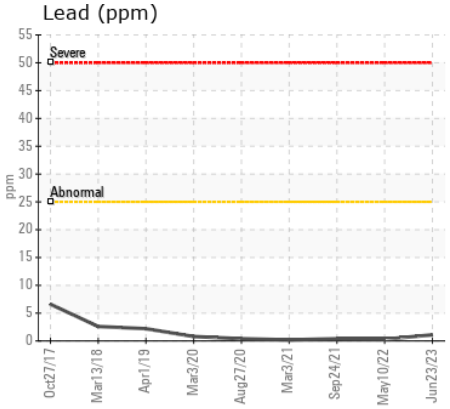
Additives



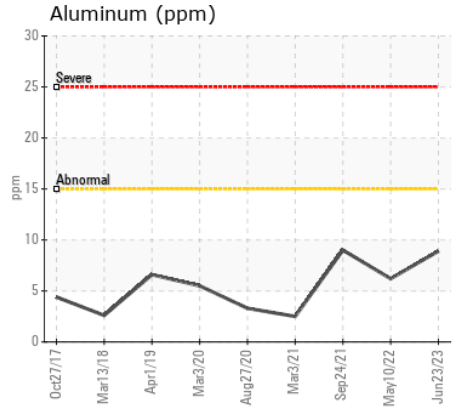
Iron (ppm)



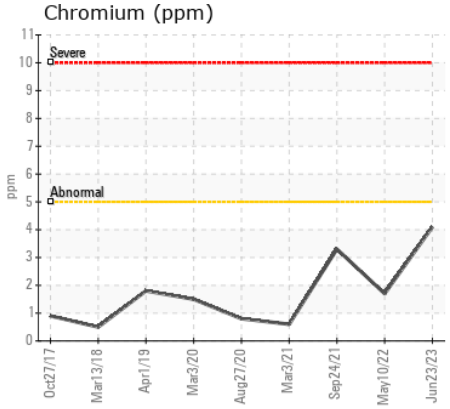
Lead (ppm)



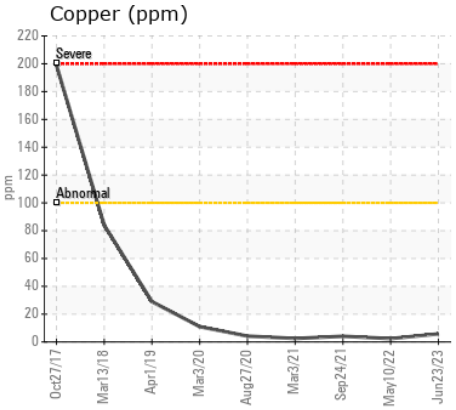
Aluminum (ppm)



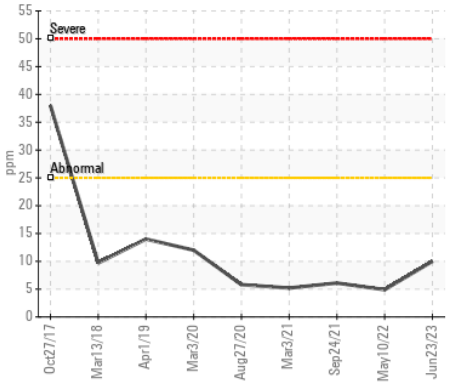
Chromium (ppm)



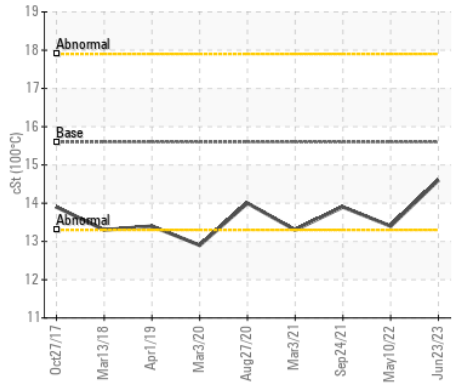
Copper (ppm)



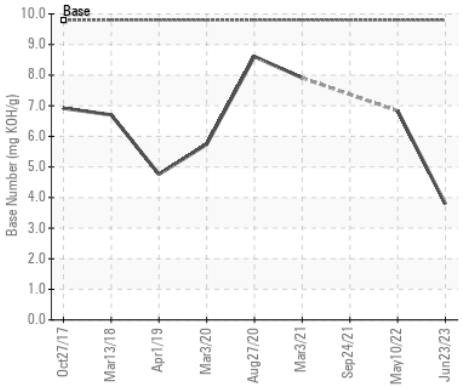
Silicon (ppm)



Viscosity @ 100°C



Base Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0777338 **Received** : 10 Jul 2023
Lab Number : 02568675 **Tested** : 10 Jul 2023
Unique Number : 5605721 **Diagnosed** : 11 Jul 2023 - Kevin Marson
Test Package : MOB 2 (Additional Tests: Glycol)

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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