



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>ABNORMAL</b>

Machine Id  
**137 GLASGOW ST KITCHENER MIOVISION 32000938**  
 Component  
**Rear Diesel Engine**  
 Fluid  
**ESSO XD-3 EXTRA 10W30 (6 LTR)**

**RECOMMENDATION**

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as ESSO XD-3 EXTRA 10W30, however, a fluid match indicates that this fluid is SAE 40 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PN0006270</b>	PN0005023	PN0003664
Sample Date		Client Info		<b>13 Jun 2024</b>	21 Jul 2023	02 Jun 2022
Machine Age	hrs	Client Info		<b>45</b>	41	36
Oil Age	hrs	Client Info		<b>4</b>	0	0
Filter Age	hrs	Client Info		<b>4</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	<b>6</b>	6	14
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>4	<b>1</b>	1	3
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	1
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	2	3
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	1	2
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	2	4
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

There is no indication of any contamination in the oil.

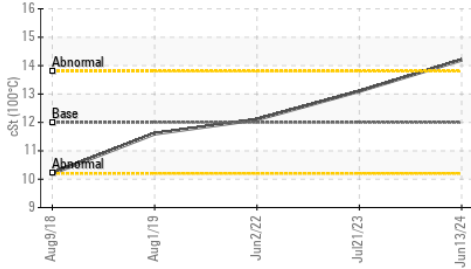
Silicon	ppm	ASTM D5185(m)	>25	<b>46</b>	50	91
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>5.8</b>	6.6	6.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.6</b>	22.6	24.0
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

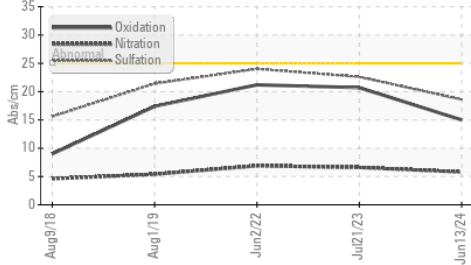
Viscosity of sample indicates oil is within SAE 40 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>4</b>	7	10
Boron	ppm	ASTM D5185(m)		<b>22</b>	59	51
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>60</b>	61	46
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	1	3
Magnesium	ppm	ASTM D5185(m)		<b>661</b>	251	455
Calcium	ppm	ASTM D5185(m)	2360	<b>1321</b>	1777	1559
Phosphorus	ppm	ASTM D5185(m)	1110	<b>910</b>	836	719
Zinc	ppm	ASTM D5185(m)	1220	<b>1054</b>	916	801
Sulfur	ppm	ASTM D5185(m)		<b>2518</b>	2414	1951
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.0</b>	20.7	21.2
Visc @ 100°C	cSt	ASTM D7279(m)	12.0	<b>▲ 14.2</b>	13.1	▲ 12.1

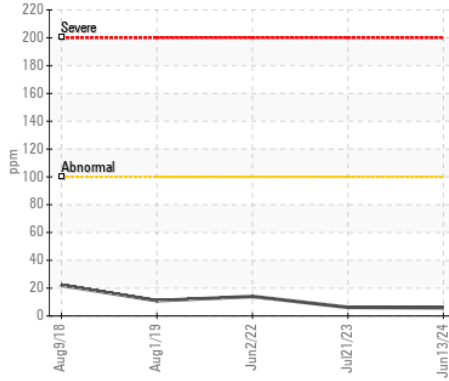
▲ Viscosity @ 100°C



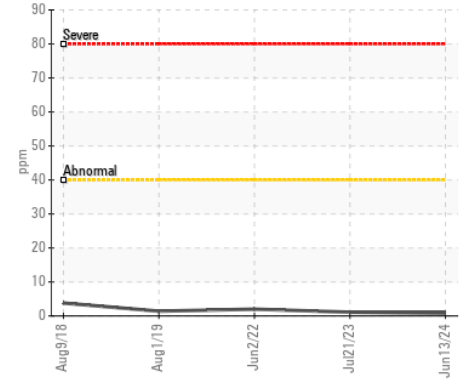
FT-IR (Direct Trend)



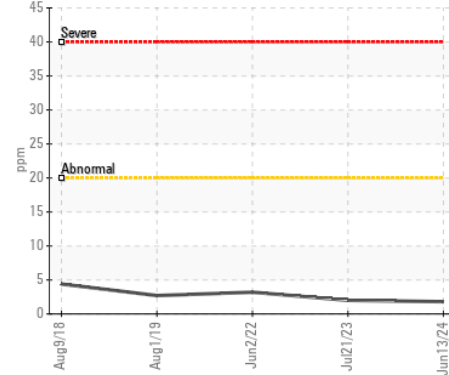
Iron (ppm)



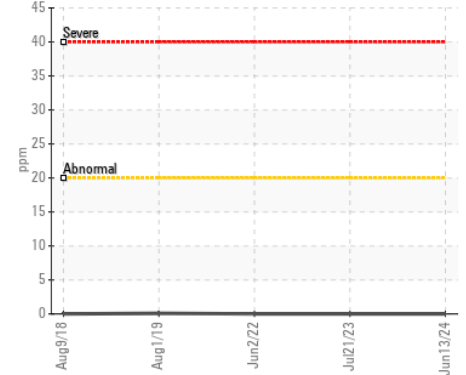
Lead (ppm)



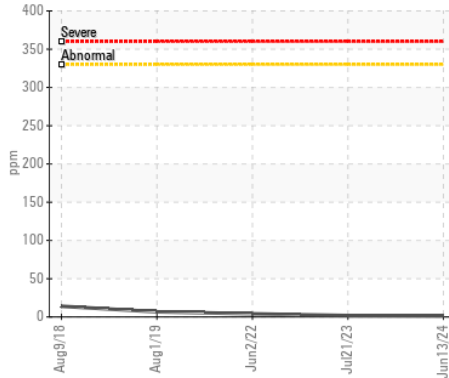
Aluminum (ppm)



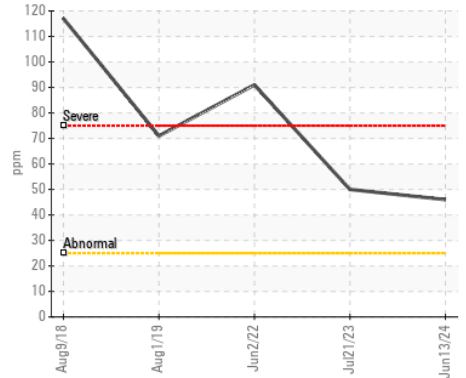
Chromium (ppm)



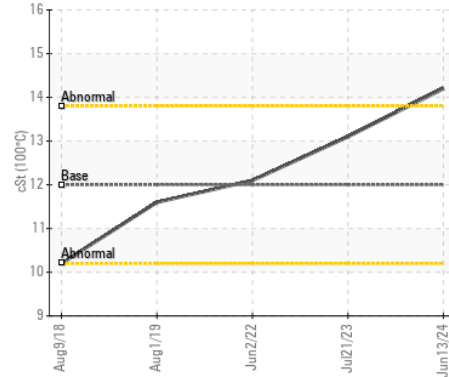
Copper (ppm)



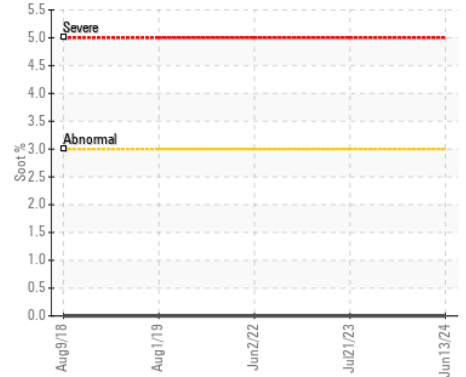
Silicon (ppm)



▲ Viscosity @ 100°C



Soot %



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PN0006270 **Received** : 25 Jun 2024  
**Lab Number** : 02643943 **Tested** : 25 Jun 2024  
**Unique Number** : 5801482 **Diagnosed** : 25 Jun 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Visual )

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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