



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**1821**  
Component  
**Diesel Engine**  
Fluid  
**SHELL ROTELLA T 15W40 (--- LTR)**

## RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0887384</b>	WC0882992	WC0864997
Sample Date		Client Info		<b>08 Jan 2024</b>	23 Nov 2023	11 Oct 2023
Machine Age	hrs	Client Info		<b>18775</b>	18261	17687
Oil Age	hrs	Client Info		<b>514</b>	574	500
Filter Age	hrs	Client Info		<b>0</b>	574	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>16</b>	17	20
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	1	1
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>4</b>	4	4
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

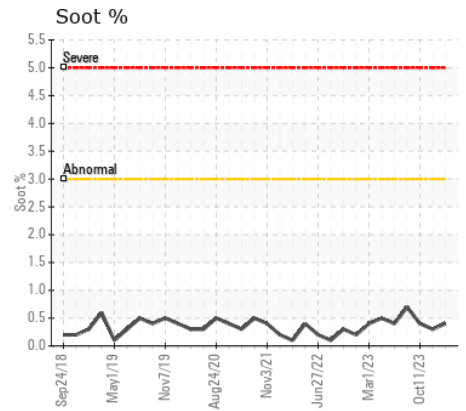
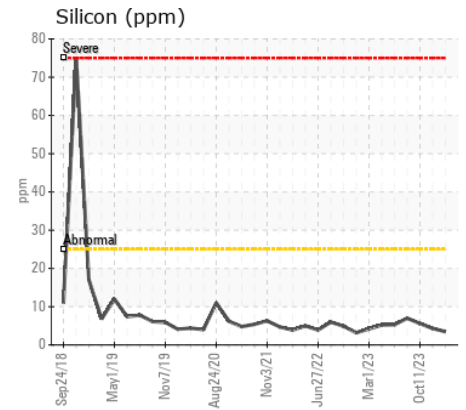
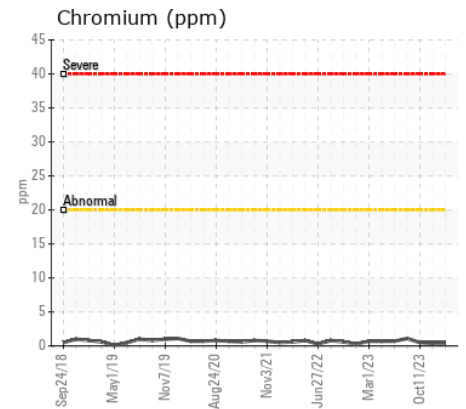
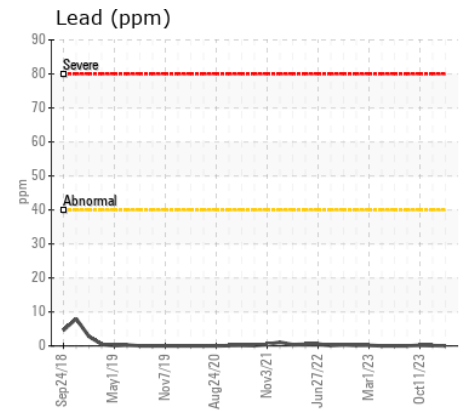
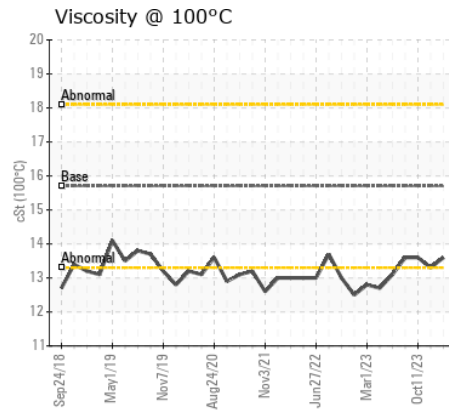
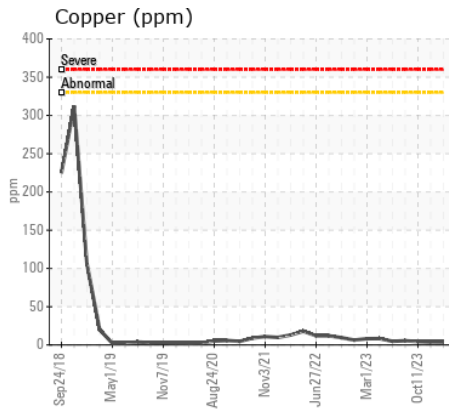
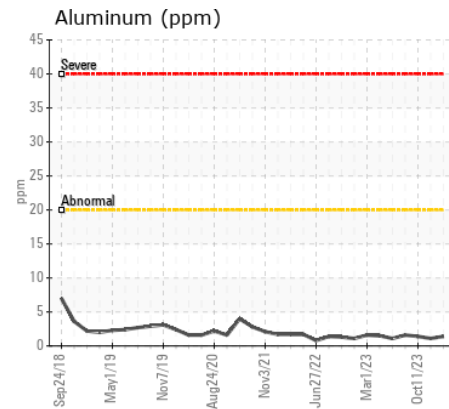
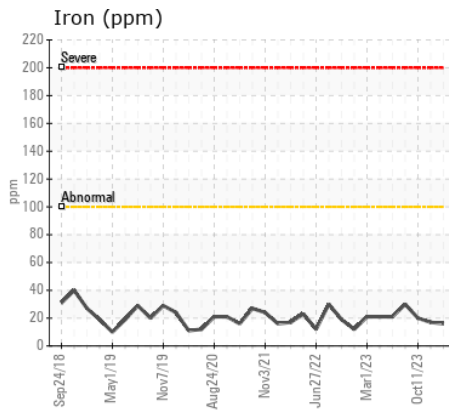
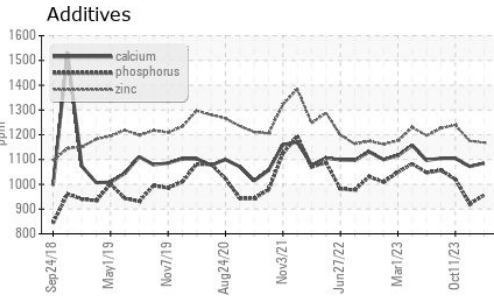
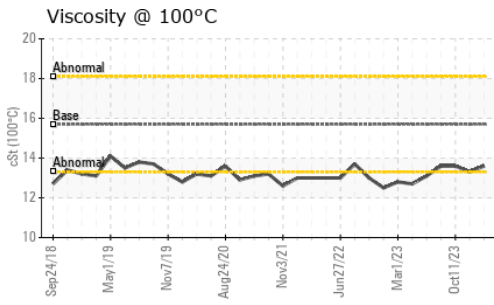
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	4	6
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
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>0.4</b>	0.3	0.4
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.7</b>	10.9	10.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>25.5</b>	27.1	27.0
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>1</b>	2	3
Boron	ppm	ASTM D5185(m)	35	<b>3</b>	2	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	<b>60</b>	60	63
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	10	<b>966</b>	970	1007
Calcium	ppm	ASTM D5185(m)	2340	<b>1085</b>	1072	1105
Phosphorus	ppm	ASTM D5185(m)	1110	<b>956</b>	921	1020
Zinc	ppm	ASTM D5185(m)	1210	<b>1168</b>	1175	1239
Sulfur	ppm	ASTM D5185(m)	3890	<b>2586</b>	2406	2449
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>26.0</b>	30.4	29.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	<b>13.6</b>	13.3	13.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0887384  
**Lab Number** : 02608879  
**Unique Number** : 5709965  
**Test Package** : MOB 1

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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.