



# OIL ANALYSIS REPORT

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

Area  
**MARS [136034]**  
Machine Id  
**UNIT #2 (S/N 25291510)**  
Component  
**Diesel Engine**  
Fluid  
**VALVOLINE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>CU0017622</b>	CU0017149	CU0013698
Sample Date		Client Info		<b>08 Sep 2022</b>	04 Jan 2021	17 Jan 2018
Machine Age	hrs	Client Info		<b>334</b>	304	272
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>90	<b>2</b>	2	2
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	20
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	1
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	<1

## CONTAMINATION

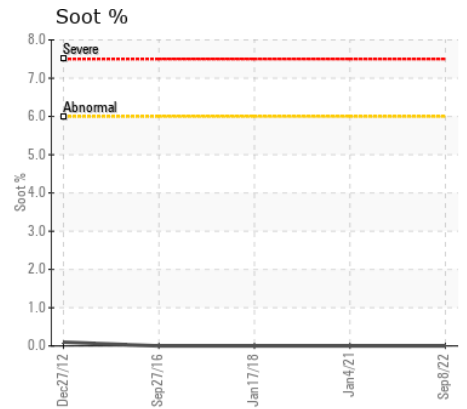
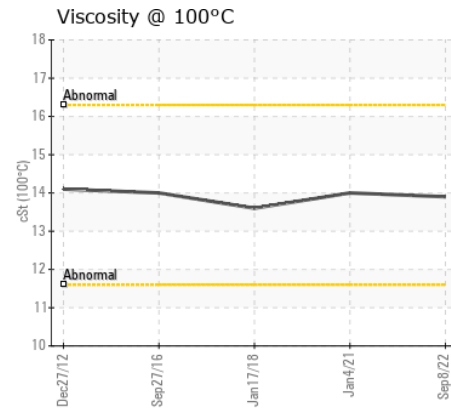
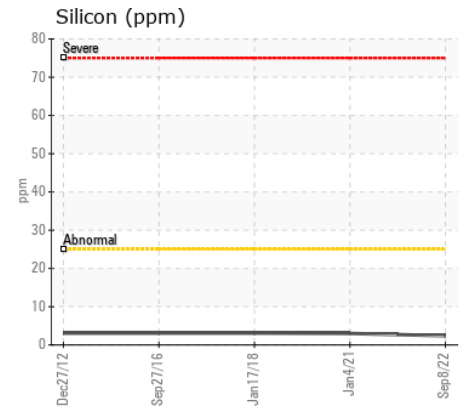
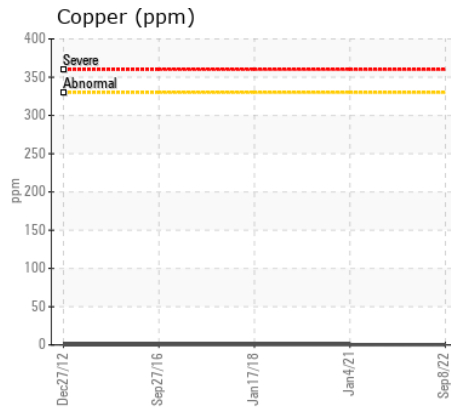
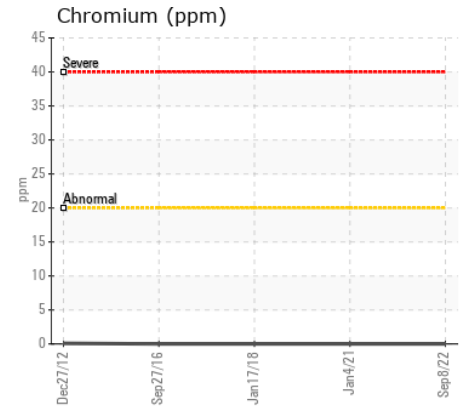
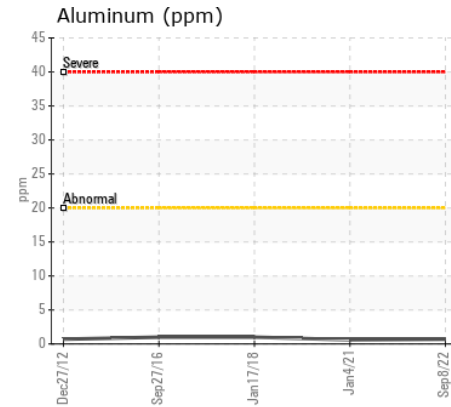
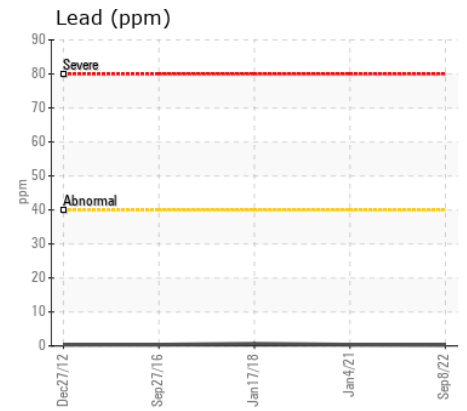
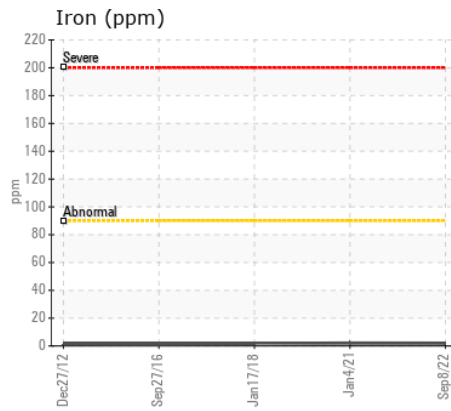
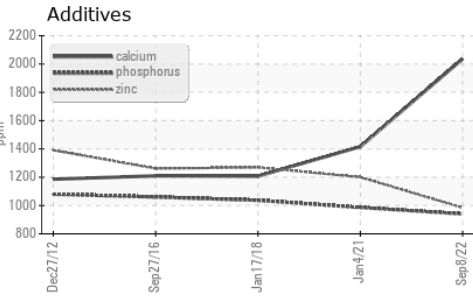
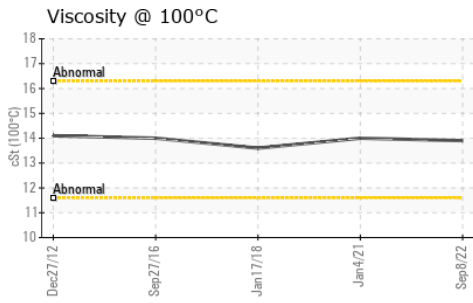
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>2</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Fuel		WC Method	>3.0	<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*	>6	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.7</b>	6.0	5.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>17.8</b>	19.2	14.9
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	4	3
Boron	ppm	ASTM D5185(m)		<b>17</b>	57	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>13</b>	44	41
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185(m)		<b>153</b>	615	961
Calcium	ppm	ASTM D5185(m)		<b>2036</b>	1416	1207
Phosphorus	ppm	ASTM D5185(m)		<b>940</b>	986	1037
Zinc	ppm	ASTM D5185(m)		<b>984</b>	1200	1269
Sulfur	ppm	ASTM D5185(m)		<b>2926</b>	2690	2917
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>11.6</b>	15.8	11.2
Visc @ 100°C	cSt	ASTM D7279(m)		<b>13.9</b>	14.0	13.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : CU0017622  
**Lab Number** : 02510464  
**Unique Number** : 5451434  
**Test Package** : MOB 1  
**Received** : 14 Sep 2022  
**Tested** : 14 Sep 2022  
**Diagnosed** : 14 Sep 2022 - Wes Davis

**CUMMINS CANADA ULC - GENERATOR DIVISION**  
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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.