



# OIL ANALYSIS REPORT

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

Machine Id  
**CAT MARC 26**  
 Component  
**Diesel Engine**  
 Fluid  
**DURALENE Dura-Max 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0034574</b>	DC0030029	DC0008796
Sample Date		Client Info		<b>12 Feb 2024</b>	07 Nov 2023	11 Oct 2023
Machine Age	mls	Client Info		<b>0</b>	0	0
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Changed	N/A
Filter Changed		Client Info		<b>N/A</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>23</b>	16	11
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	0	2
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	8	8
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

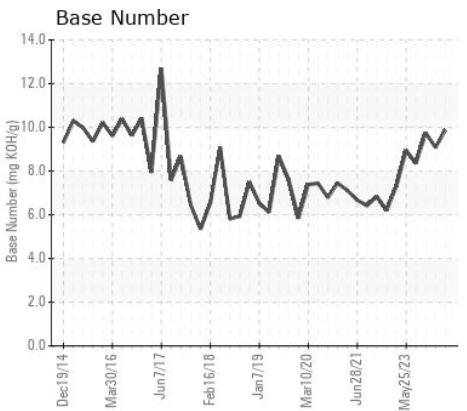
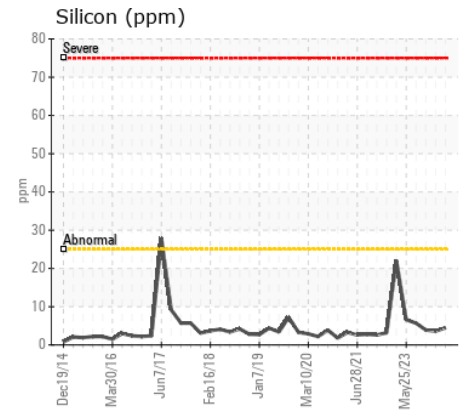
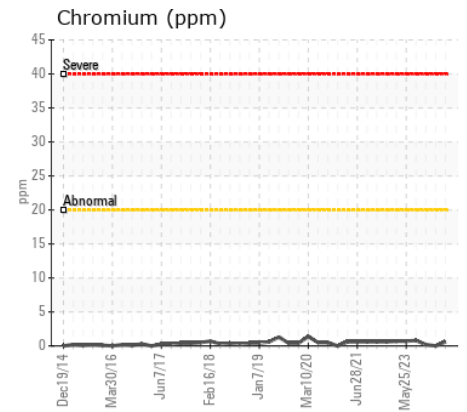
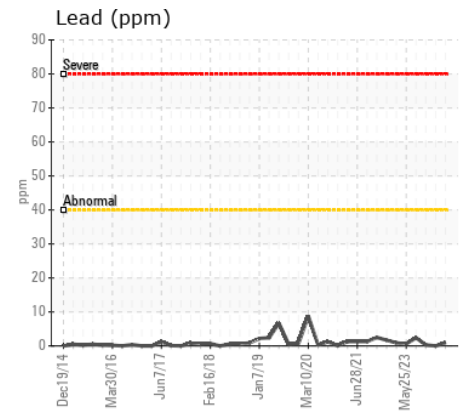
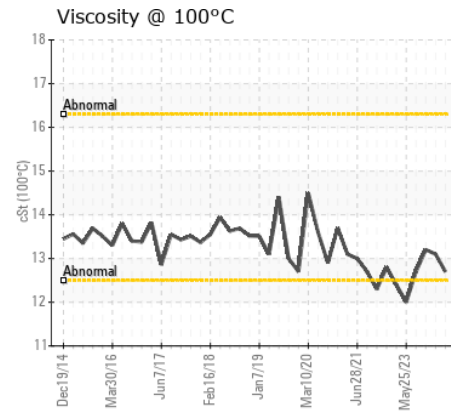
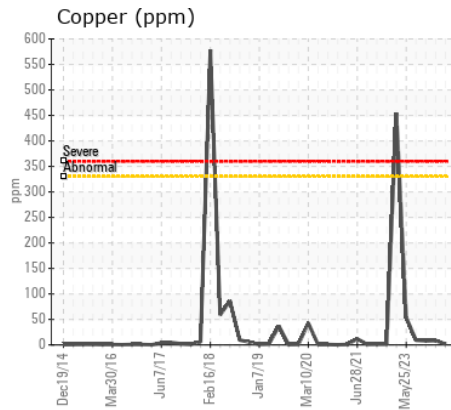
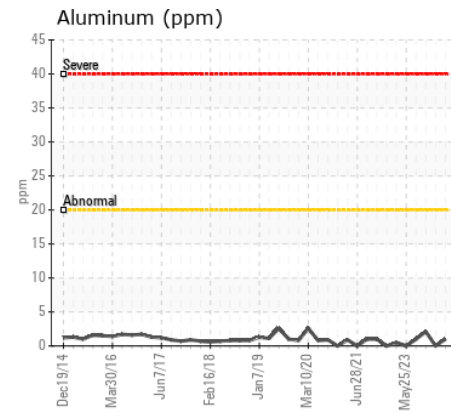
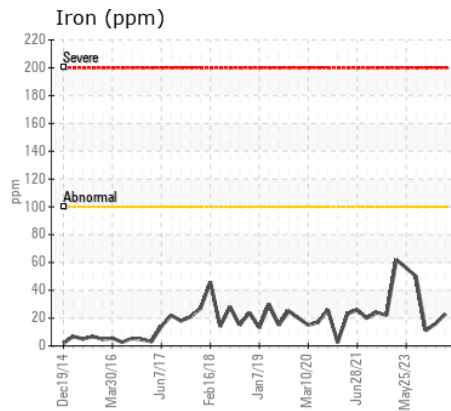
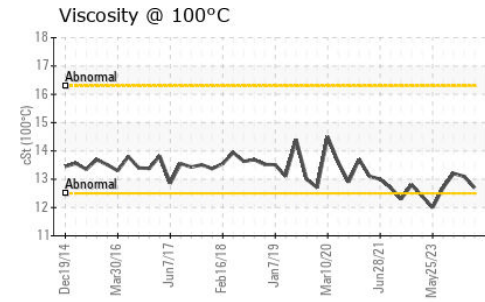
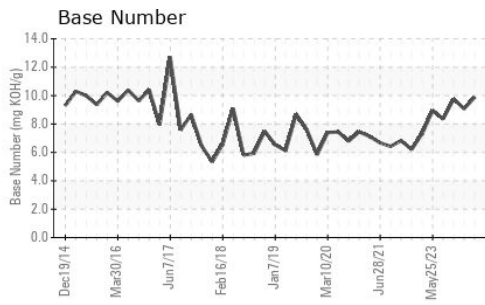
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	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>0.3</b>	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	9.0	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.7</b>	21.0	20.4
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	1	1
Boron	ppm	ASTM D5185m		<b>38</b>	29	31
Barium	ppm	ASTM D5185m		<b>11</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>44</b>	38	41
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>686</b>	647	677
Calcium	ppm	ASTM D5185m		<b>1072</b>	1139	1219
Phosphorus	ppm	ASTM D5185m		<b>679</b>	659	734
Zinc	ppm	ASTM D5185m		<b>814</b>	766	849
Sulfur	ppm	ASTM D5185m		<b>2319</b>	1974	2619
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.7</b>	19.0	17.4
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.87</b>	9.08	9.75
Visc @ 100°C	cSt	ASTM D445		<b>12.7</b>	13.1	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0034574 **Received** : 14 Feb 2024  
**Lab Number** : 06089665 **Tested** : 16 Feb 2024  
**Unique Number** : 10877110 **Diagnosed** : 16 Feb 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**ALSTOM - BALTIMORE**  
 1600 LUDLOW ST  
 BALTIMORE, MD  
 US 21230

Contact: SEAN MCCARTY  
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To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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