



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**KOVATERA MC100F FMC037**

Component  
**Diesel Engine**

Fluid  
**MOBIL 15W40 (--- GAL)**

## RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC</b>	WC0879212	WC0871927
Sample Date		Client Info		<b>16 Jan 2024</b>	13 Nov 2023	26 Oct 2023
Machine Age	hrs	Client Info		<b>7922</b>	7596	7503
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>N/A</b>	Changed	N/A
Filter Changed		Client Info		<b>N/A</b>	Changed	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>50</b>	66	52
Chromium	ppm	ASTM D5185(m)	>20	<b>3</b>	4	3
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>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>8</b>	8	7
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	2	<1
Copper	ppm	ASTM D5185(m)	>330	<b>4</b>	15	14
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

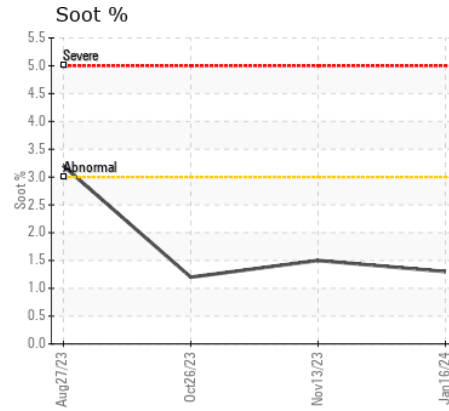
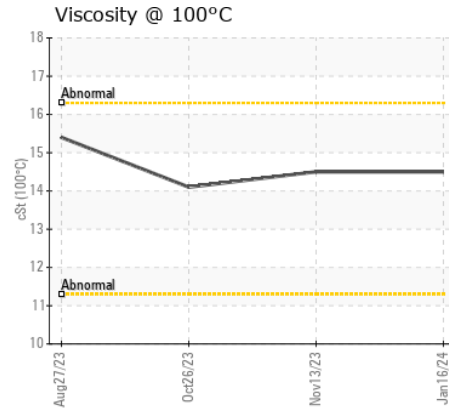
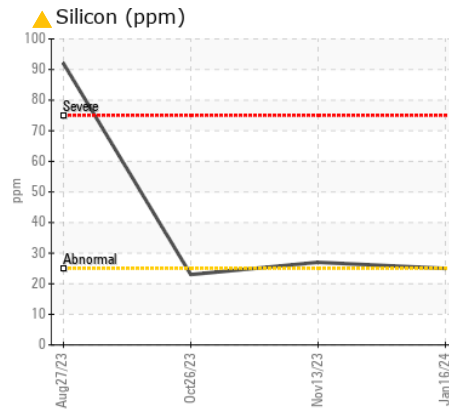
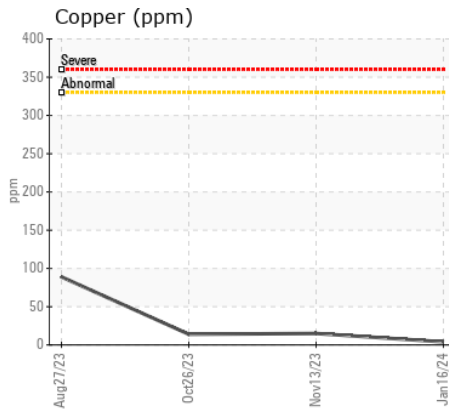
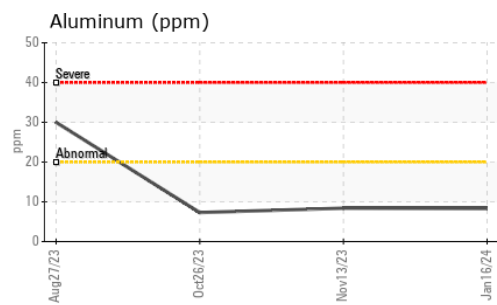
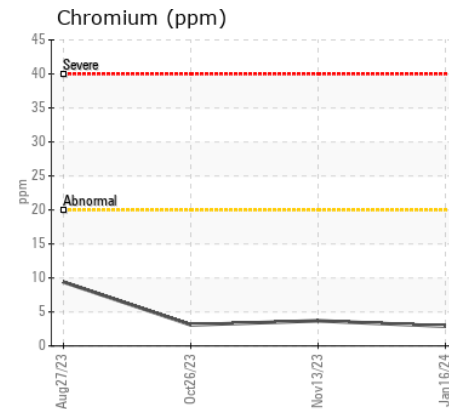
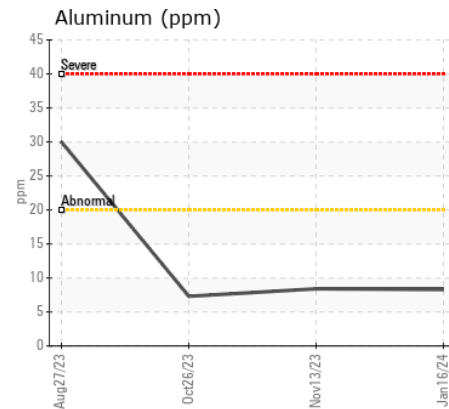
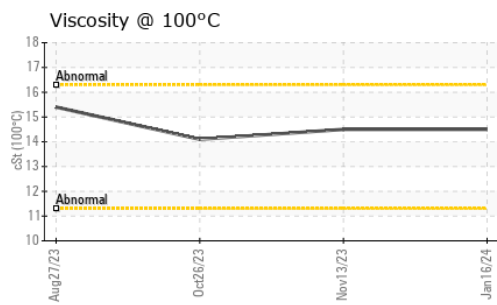
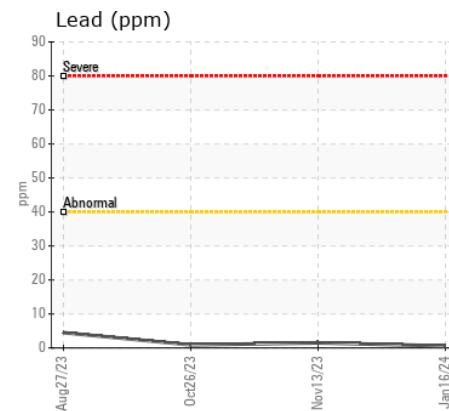
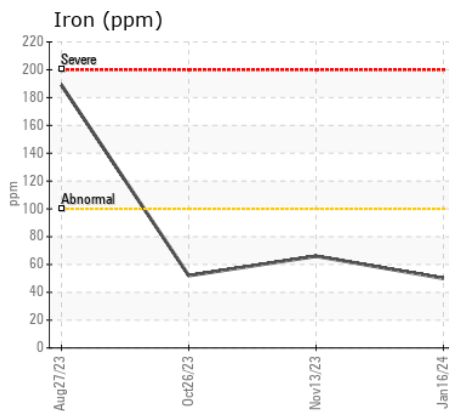
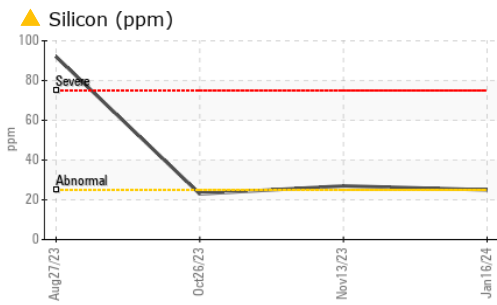
There is a moderate concentration of dirt present in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>▲ 25</b>	▲ 27	23
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	3	2
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>1.3</b>	1.5	1.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.1</b>	10.8	9.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>26.0</b>	26.8	25.7
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)	>118	<b>7</b>	9	8
Boron	ppm	ASTM D5185(m)		<b>30</b>	24	27
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)		<b>40</b>	46	45
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>505</b>	597	588
Calcium	ppm	ASTM D5185(m)		<b>1705</b>	1778	1741
Phosphorus	ppm	ASTM D5185(m)		<b>749</b>	803	800
Zinc	ppm	ASTM D5185(m)		<b>886</b>	983	984
Sulfur	ppm	ASTM D5185(m)		<b>2206</b>	2047	2092
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>23.3</b>	24.0	22.9
Visc @ 100°C	cSt	ASTM D7279(m)		<b>14.5</b>	14.5	14.1



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC **Received** : 17 Jan 2024  
**Lab Number** : 02609244 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 5710330 **Diagnostician** : Kevin Marson  
**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.