



# OIL ANALYSIS REPORT

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

Machine Id  
**MINECAT MC100E FMC-005 (S/N 6302)**  
 Component  
**Diesel Engine**  
 Fluid  
**SHELL 15W40 (8 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0940455</b>	WC0915114	WC0861361
Sample Date		Client Info		<b>29 Jun 2024</b>	04 Apr 2024	28 Jan 2024
Machine Age	hrs	Client Info		<b>3728</b>	3470	3240
Oil Age	hrs	Client Info		<b>250</b>	0	250
Filter Age	hrs	Client Info		<b>250</b>	0	250
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>15</b>	12	11
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

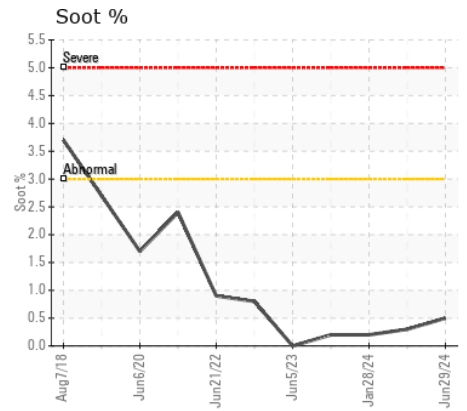
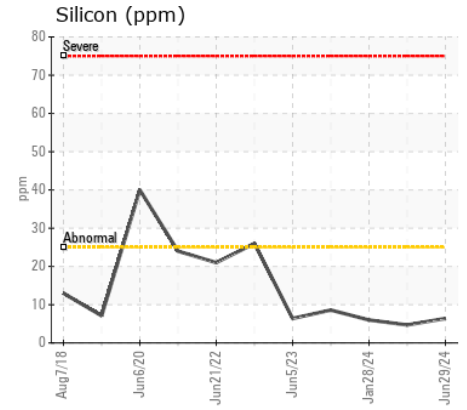
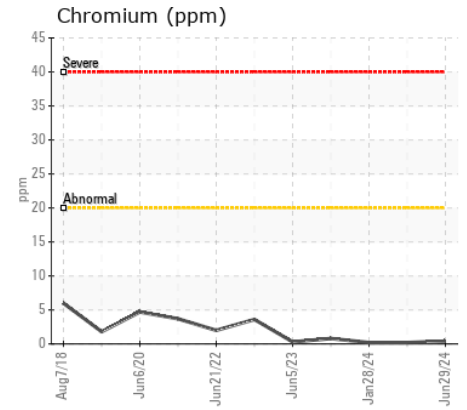
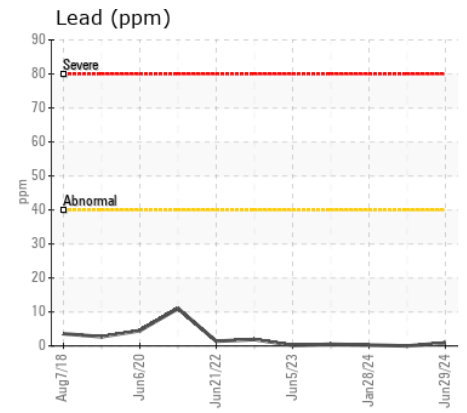
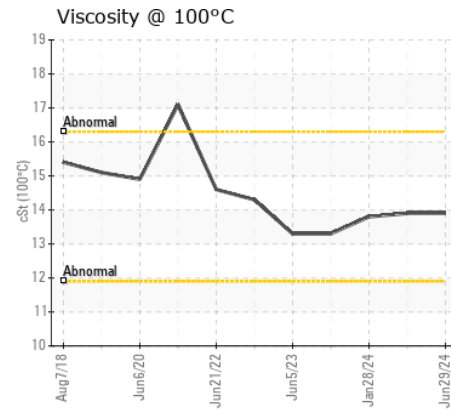
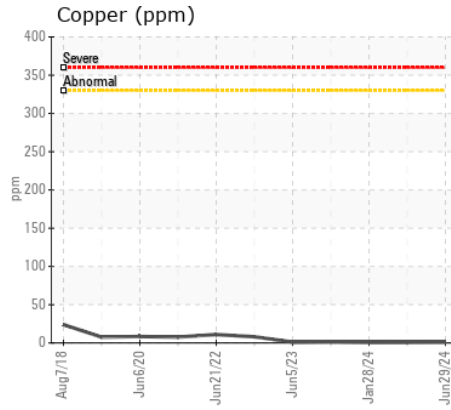
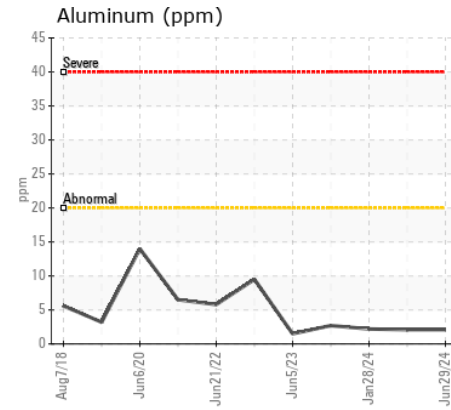
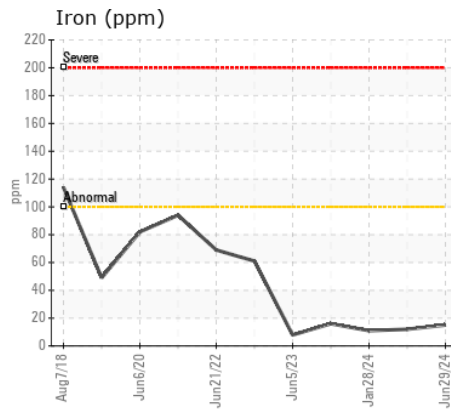
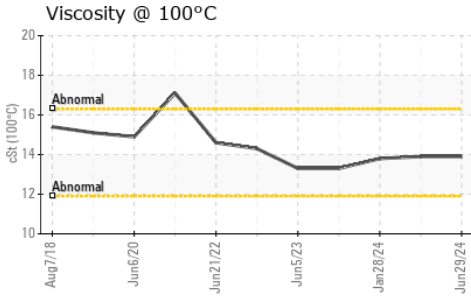
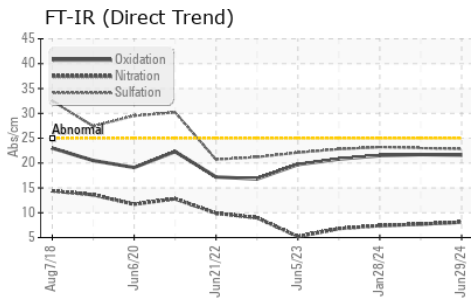
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	5	6
Potassium	ppm	ASTM D5185(m)	>20	<b>2</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>0.5</b>	0.3	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.1</b>	7.7	7.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.8</b>	23.0	23.2
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)	>150	<b>4</b>	4	5
Boron	ppm	ASTM D5185(m)		<b>36</b>	40	39
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>40</b>	39	40
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>501</b>	518	516
Calcium	ppm	ASTM D5185(m)		<b>1727</b>	1743	1676
Phosphorus	ppm	ASTM D5185(m)		<b>723</b>	737	753
Zinc	ppm	ASTM D5185(m)		<b>867</b>	872	861
Sulfur	ppm	ASTM D5185(m)		<b>2064</b>	2090	2205
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>21.6</b>	21.7	21.5
Visc @ 100°C	cSt	ASTM D7279(m)		<b>13.9</b>	13.9	13.8



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0940455  
**Lab Number** : 02645418  
**Unique Number** : 5802957  
**Test Package** : MOB 1

**Received** : 04 Jul 2024  
**Tested** : 04 Jul 2024  
**Diagnosed** : 04 Jul 2024 - Wes Davis

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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.