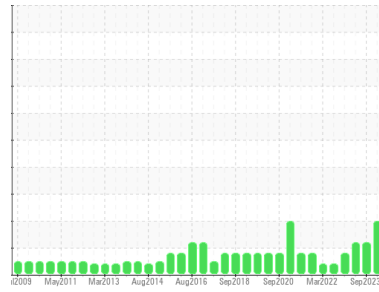




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**OPK/CL03**  
 Machine Id  
**101799 Calender**

Component  
**Gearbox**  
 Fluid  
**MOBIL MOBILGEAR 600 XP 320 (200 LTR)**

## DIAGNOSIS

### Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0889286</b>	WC0799533	WC0763708
Sample Date	Client Info	<b>27 Feb 2024</b>	19 Sep 2023	07 Mar 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >200	<b>18</b>	18	18
Chromium	ppm ASTM D5185(m) >15	<b>0</b>	0	0
Nickel	ppm ASTM D5185(m) >15	<b>0</b>	<1	0
Titanium	ppm ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm ASTM D5185(m) >25	<b>0</b>	0	<1
Lead	ppm ASTM D5185(m) >100	<b>1</b>	2	3
Copper	ppm ASTM D5185(m) >200	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185(m) >25	<b>0</b>	0	0
Antimony	ppm ASTM D5185(m) >5	<b>0</b>	0	<1
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)	<b>9</b>	8	9
Barium	ppm ASTM D5185(m)	<b>&lt;1</b>	1	<1
Molybdenum	ppm ASTM D5185(m)	<b>0</b>	0	<1
Manganese	ppm ASTM D5185(m)	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Calcium	ppm ASTM D5185(m)	<b>25</b>	25	25
Phosphorus	ppm ASTM D5185(m)	<b>259</b>	261	291
Zinc	ppm ASTM D5185(m)	<b>4</b>	4	4
Sulfur	ppm ASTM D5185(m)	<b>8129</b>	8483	8601
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

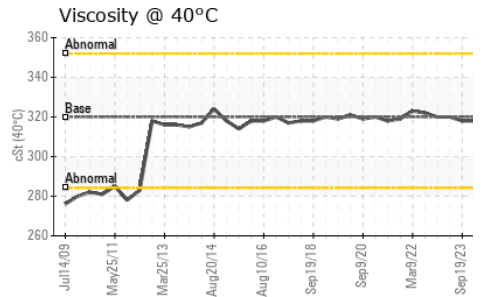
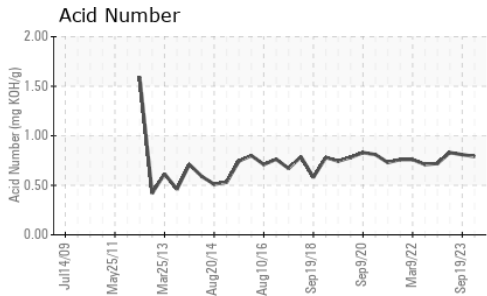
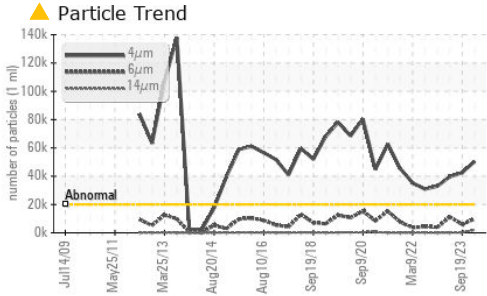
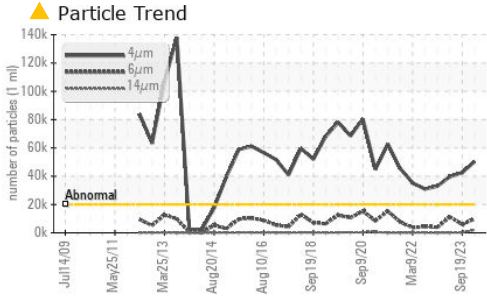
## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >50	<b>0</b>	1	<1
Sodium	ppm ASTM D5185(m)	<b>3</b>	3	3
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	<1	1

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	<b>▲ 50446</b>	▲ 42535	● 39687
Particles >6µm	ASTM D7647 >5000	<b>● 9911</b>	● 5948	▲ 11294
Particles >14µm	ASTM D7647 >640	<b>▲ 2090</b>	161	145
Particles >21µm	ASTM D7647 >160	<b>▲ 944</b>	35	31
Particles >38µm	ASTM D7647 >40	<b>1</b>	2	2
Particles >71µm	ASTM D7647 >10	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >21/19/16	<b>▲ 23/20/18</b>	▲ 23/20/15	▲ 22/21/14

# OIL ANALYSIS REPORT

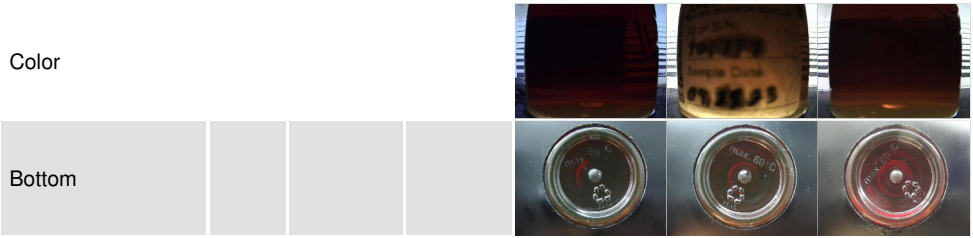


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>0.79</b>	0.81	0.83

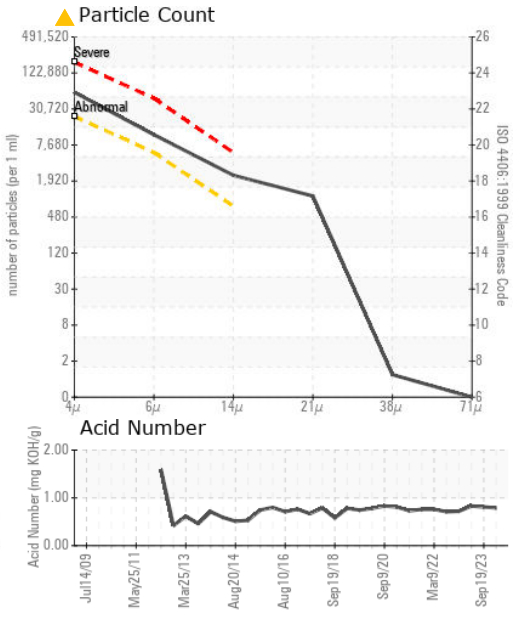
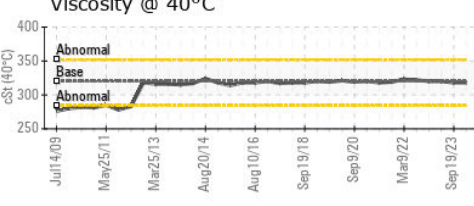
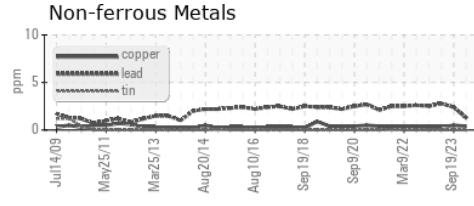
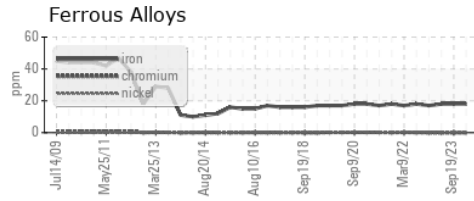
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>VLITE</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
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	320	<b>318</b>	318	320

### SAMPLE IMAGES



### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0889286 **Received** : 11 Apr 2024  
**Lab Number** : **02628288** **Tested** : 12 Apr 2024  
**Unique Number** : 5761420 **Diagnosed** : 12 Apr 2024 - Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: PrtCount, TAN Man )

**MICHELIN TIRE**  
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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.