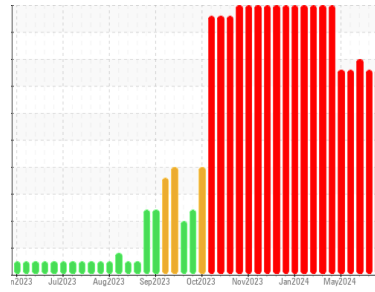




# PROBLEM SUMMARY

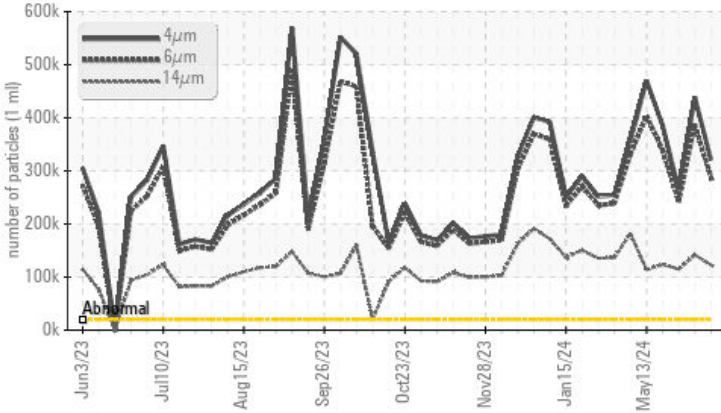
Area  
**3**  
 Machine Id  
**3-101-MG Primary**  
 Component  
**Crusher**  
 Fluid  
**MOBIL MOBILGEAR 600 XP 320 (2900 LTR)**

Sample Rating Trend



## COMPONENT CONDITION SUMMARY

▲ Particle Trend



## RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

## PROBLEMATIC TEST RESULTS

| Sample Status   |              |           | SEVERE     | SEVERE     | SEVERE     |
|-----------------|--------------|-----------|------------|------------|------------|
| Particles >4µm  | ASTM D7647   | >20000    | ▲ 320843   | ▲ 438286   | ▲ 264959   |
| Particles >6µm  | ASTM D7647   | >5000     | ▲ 288381   | ▲ 386715   | ▲ 241324   |
| Particles >14µm | ASTM D7647   | >640      | ▲ 122922   | ▲ 141651   | ▲ 114653   |
| Particles >21µm | ASTM D7647   | >160      | ▲ 31674    | ▲ 27733    | ▲ 35826    |
| Oil Cleanliness | ISO 4406 (c) | >21/19/16 | ▲ 26/25/24 | ▲ 26/26/24 | ▲ 25/25/24 |

Customer Id: STMBOW  
 Sample No.: WC0925311  
 Lab Number: 02643486  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Kevin Marson +1 (289)291-4644 x4644  
[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)


To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

RECOMMENDED ACTIONS

| Action            | Status | Date | Done By | Description  |
|-------------------|--------|------|---------|--|
| Change Filter     | ---    | ---  | ?       | We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.   |
| Resample          | ---    | ---  | ?       | Resample in 30-45 days to monitor this situation.  |
| Check Breathers   | ---    | ---  | ?       | The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. |
| Check Dirt Access | ---    | ---  | ?       | We advise that you check all areas where contaminants can enter the system.  |
| Filter Fluid      | ---    | ---  | ?       | We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.   |

HISTORICAL DIAGNOSIS


ISO




**10 Jun 2024 Diag: Wes Davis**

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report




ISO




**03 Jun 2024 Diag: Kevin Marson**

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. Calcium and/or magnesium levels higher than normal indicating possible lime contamination, advise investigate. The water content is negligible. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.

view report




ISO



**29 May 2024 Diag: Wes Davis**

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

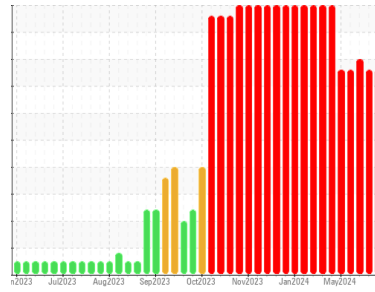
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

3

Machine Id

3-101-MG Primary

Component

Crusher

Fluid

MOBIL MOBILGEAR 600 XP 320 (2900 LTR)

## DIAGNOSIS

### Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

### Wear

All component wear rates are normal.

### Contamination

There is a high 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 |             | WC0925311   | WC0873669   | WC0902000   |
| Sample Date   | Client Info |             | 17 Jun 2024 | 10 Jun 2024 | 03 Jun 2024 |
| Machine Age   | hrs         | Client Info | 0           | 0           | 0           |
| Oil Age       | hrs         | Client Info | 0           | 0           | 0           |
| Oil Changed   | Client Info |             | N/A         | N/A         | N/A         |
| Sample Status |             |             | SEVERE      | SEVERE      | SEVERE      |

## CONTAMINATION

|       | method    | limit/base | current | history1 | history2 |
|-------|-----------|------------|---------|----------|----------|
| Water | WC Method | >0.1       | NEG     | NEG      | NEG      |

## WEAR METALS

|           | method | limit/base    | current | history1 | history2 |    |
|-----------|--------|---------------|---------|----------|----------|----|
| Iron      | ppm    | ASTM D5185(m) | >200    | 53       | 48       | 49 |
| Chromium  | ppm    | ASTM D5185(m) | >15     | <1       | 0        | 0  |
| Nickel    | ppm    | ASTM D5185(m) | >15     | <1       | <1       | <1 |
| Titanium  | ppm    | ASTM D5185(m) |         | 2        | 2        | 2  |
| Silver    | ppm    | ASTM D5185(m) |         | <1       | 0        | 0  |
| Aluminum  | ppm    | ASTM D5185(m) | >50     | 35       | 34       | 35 |
| Lead      | ppm    | ASTM D5185(m) | >100    | 7        | 7        | 7  |
| Copper    | ppm    | ASTM D5185(m) | >200    | 38       | 38       | 38 |
| Tin       | ppm    | ASTM D5185(m) | >15     | 4        | 4        | 4  |
| Antimony  | ppm    | ASTM D5185(m) | >5      | 0        | 0        | 0  |
| Vanadium  | ppm    | ASTM D5185(m) |         | 0        | 0        | 0  |
| Beryllium | ppm    | ASTM D5185(m) |         | 0        | 0        | 0  |
| Cadmium   | ppm    | ASTM D5185(m) |         | 0        | 0        | 0  |

## ADDITIVES

|            | method | limit/base    | current | history1 | history2 |       |
|------------|--------|---------------|---------|----------|----------|-------|
| Boron      | ppm    | ASTM D5185(m) | 57      | 24       | 25       | 25    |
| Barium     | ppm    | ASTM D5185(m) | 0.0     | <1       | <1       | <1    |
| Molybdenum | ppm    | ASTM D5185(m) | 2.0     | 0        | 0        | 0     |
| Manganese  | ppm    | ASTM D5185(m) | 0.0     | <1       | <1       | <1    |
| Magnesium  | ppm    | ASTM D5185(m) | 0.0     | 17       | 16       | 16    |
| Calcium    | ppm    | ASTM D5185(m) | 42      | 378      | 330      | 324   |
| Phosphorus | ppm    | ASTM D5185(m) | 399     | 305      | 309      | 329   |
| Zinc       | ppm    | ASTM D5185(m) | 13      | 6        | 6        | 7     |
| Sulfur     | ppm    | ASTM D5185(m) | 13649   | 14221    | 14237    | 14518 |
| Lithium    | ppm    | ASTM D5185(m) |         | <1       | <1       | <1    |

## CONTAMINANTS

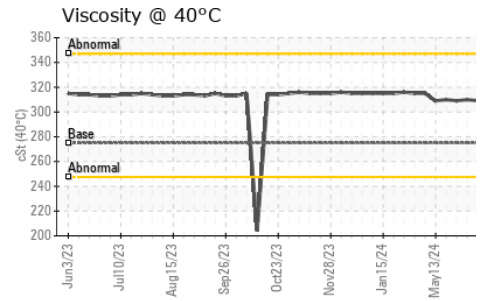
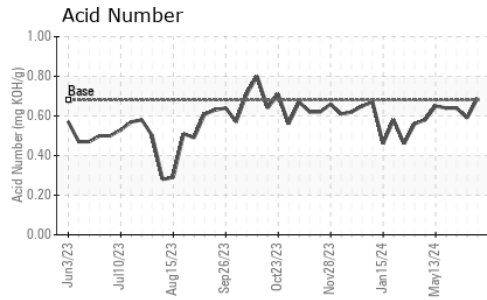
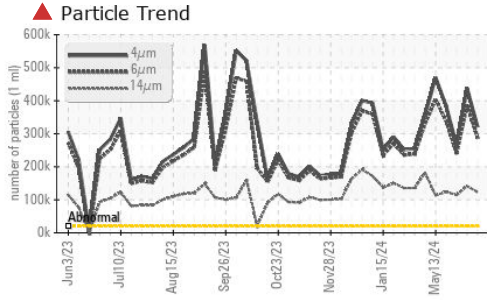
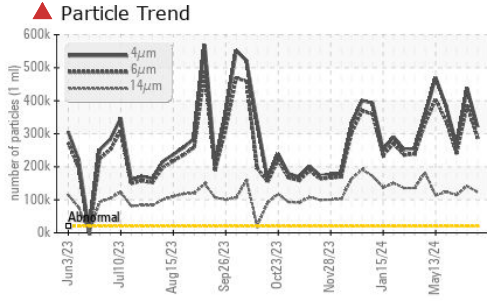
|           | method | limit/base    | current | history1 | history2 |    |
|-----------|--------|---------------|---------|----------|----------|----|
| Silicon   | ppm    | ASTM D5185(m) | >100    | 102      | 92       | 92 |
| Sodium    | ppm    | ASTM D5185(m) |         | 4        | 4        | 4  |
| Potassium | ppm    | ASTM D5185(m) | >20     | 16       | 14       | 15 |

## FLUID CLEANLINESS

|                 | method       | limit/base | current    | history1   | history2   |
|-----------------|--------------|------------|------------|------------|------------|
| Particles >4µm  | ASTM D7647   | >20000     | ▲ 320843   | ▲ 438286   | ▲ 264959   |
| Particles >6µm  | ASTM D7647   | >5000      | ▲ 288381   | ▲ 386715   | ▲ 241324   |
| Particles >14µm | ASTM D7647   | >640       | ▲ 122922   | ▲ 141651   | ▲ 114653   |
| Particles >21µm | ASTM D7647   | >160       | ▲ 31674    | ▲ 27733    | ▲ 35826    |
| Particles >38µm | ASTM D7647   | >40        | 50         | 18         | 52         |
| Particles >71µm | ASTM D7647   | >10        | 1          | 1          | 0          |
| Oil Cleanliness | ISO 4406 (c) | >21/19/16  | ▲ 26/25/24 | ▲ 26/26/24 | ▲ 25/25/24 |



# OIL ANALYSIS REPORT

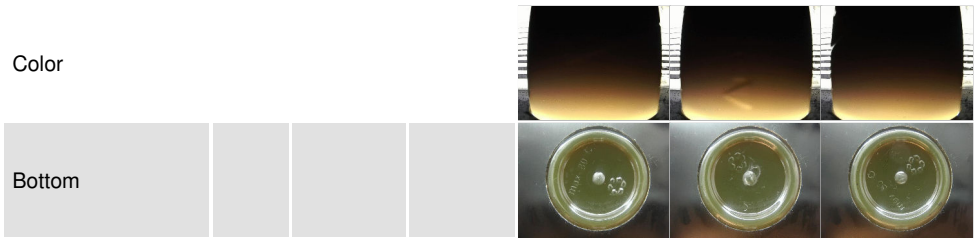


| FLUID DEGRADATION | method   | limit/base | current | history1    | history2 |      |
|-------------------|----------|------------|---------|-------------|----------|------|
| Acid Number (AN)  | mg KOH/g | ASTM D974* | 0.68    | <b>0.69</b> | 0.59     | 0.64 |

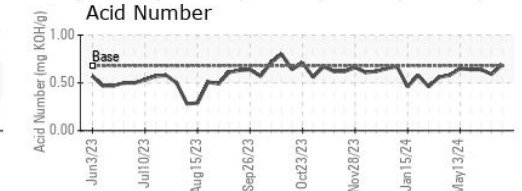
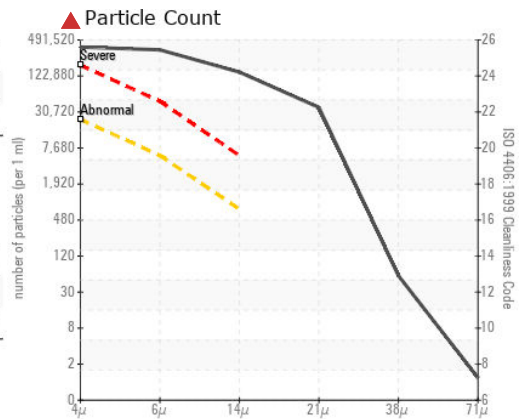
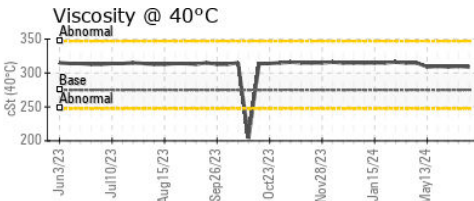
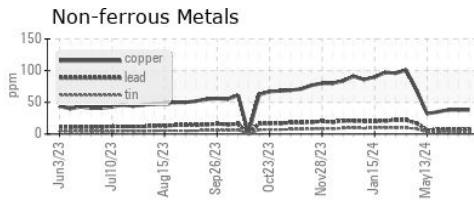
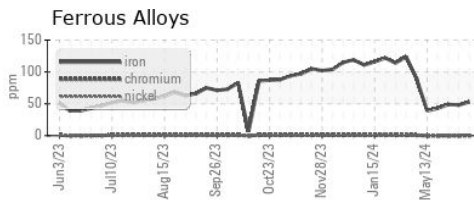
| VISUAL           | method | limit/base | current | history1     | history2 |       |
|------------------|--------|------------|---------|--------------|----------|-------|
| White Metal      | scalar | Visual*    | NONE    | <b>NONE</b>  | NONE     | NONE  |
| Yellow Metal     | scalar | Visual*    | 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     | VLITE |
| Sand/Dirt        | scalar | Visual*    | NONE    | <b>NONE</b>  | NONE     | NONE  |
| Appearance       | scalar | Visual*    | NORML   | <b>HAZY</b>  | NORML    | HAZY  |
| Odor             | scalar | Visual*    | NORML   | <b>NORML</b> | NORML    | NORML |
| Emulsified Water | scalar | Visual*    | >0.1    | <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) | 275     | <b>309</b> | 310      | 309 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0925311 **Received** : 21 Jun 2024  
**Lab Number** : **02643486** **Tested** : 24 Jun 2024  
**Unique Number** : 5801025 **Diagnosed** : 24 Jun 2024 - Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: TAN Man )

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.

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