



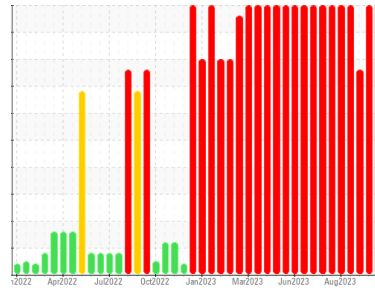
PROBLEM SUMMARY

Sample Rating Trend

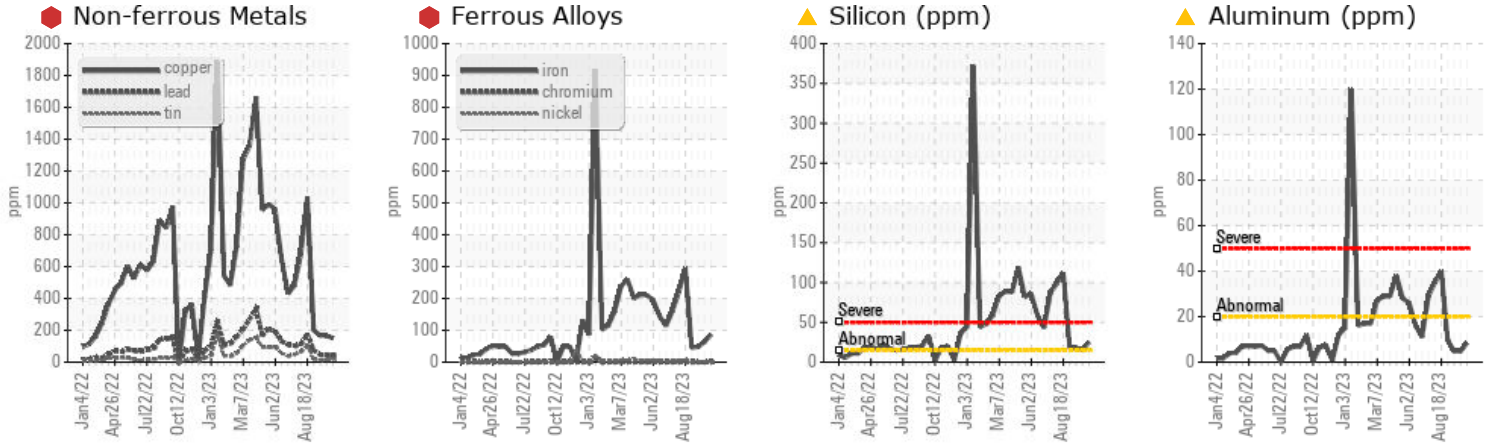
WEAR



Area
Building 12
 Machine Id
Cone 2B
 Component
Bulk Tank Lube System
 Fluid
MOBIL MOBILGEAR 600 XP 320 (--- GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil filtered at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | SEVERE | SEVERE | SEVERE |
|---------------|-----|-------------|-----|--------|--------|--------|
| Iron | ppm | ASTM D5185m | >20 | 87 | 64 | 48 |
| Aluminum | ppm | ASTM D5185m | >20 | 8 | 5 | 5 |
| Lead | ppm | ASTM D5185m | >20 | 42 | 42 | 47 |
| Copper | ppm | ASTM D5185m | >20 | 151 | 165 | 169 |
| Silicon | ppm | ASTM D5185m | >15 | 25 | 16 | 18 |

Customer Id: THRPIT
 Sample No.: WC0853765
 Lab Number: 06008467
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---------------------|--------|------|---------|---|
| Inspect Wear Source | --- | --- | ? | We advise that you inspect for the source(s) of wear. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |
| Check Dirt Access | --- | --- | ? | We advise that you check all areas where dirt can enter the system. |

HISTORICAL DIAGNOSIS

26 Sep 2023 Diag: Don Baldrige

WEAR



We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid.

view report



18 Sep 2023 Diag: Don Baldrige

WEAR



We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid.

view report



05 Sep 2023 Diag: Don Baldrige

WEAR



We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid.

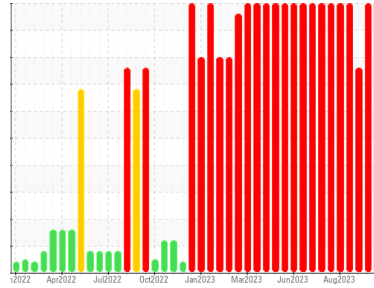
view report





OIL ANALYSIS REPORT

Sample Rating Trend



Area
Building 12
Machine Id
Cone 2B
Component
Bulk Tank Lube System
Fluid
MOBIL MOBILGEAR 600 XP 320 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. The oil filtered at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

Gear wear is indicated. Bearing and/or bushing wear is indicated.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0853765 | WC0853761 | WC05981301 |
| Sample Date | Client Info | | 27 Oct 2023 | 26 Sep 2023 | 18 Sep 2023 |
| Machine Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | 873 | 400 | 0 |
| Oil Changed | Client Info | | Filtered | Filtered | N/A |
| Sample Status | | | SEVERE | SEVERE | SEVERE |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >20 | 87 | 64 | 48 |
| Chromium | ppm | ASTM D5185m >20 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >20 | 1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >20 | 8 | 5 | 5 |
| Lead | ppm | ASTM D5185m >20 | 42 | 42 | 47 |
| Copper | ppm | ASTM D5185m >20 | 151 | 165 | 169 |
| Tin | ppm | ASTM D5185m >20 | 16 | 13 | 13 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|-------------|----------|----------|
| Boron | ppm | ASTM D5185m | 17 | 15 | 15 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 2 | 1 | 0 |
| Manganese | ppm | ASTM D5185m | 1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 5 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | 8 | <1 | 0 |
| Phosphorus | ppm | ASTM D5185m | 185 | 219 | 219 |
| Zinc | ppm | ASTM D5185m | 3 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 7013 | 6449 | 6643 |

CONTAMINANTS

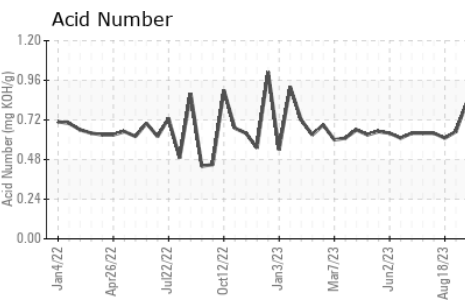
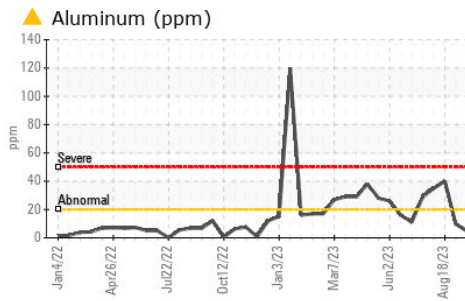
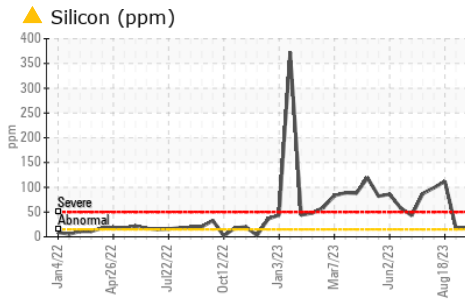
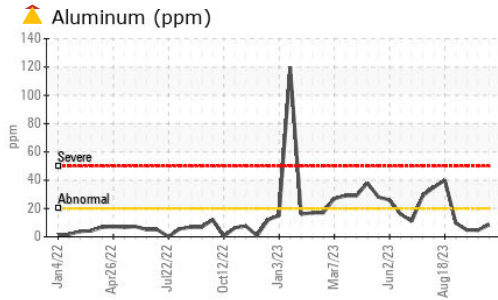
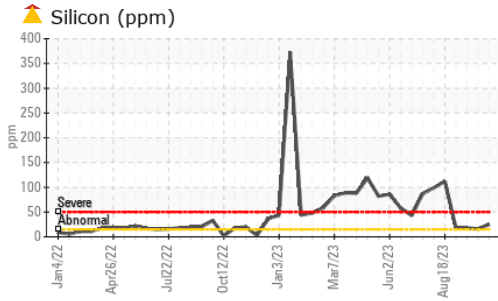
| | method | limit/base | current | history1 | history2 |
|-----------|--------|-----------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >15 | 25 | 16 | 18 |
| Sodium | ppm | ASTM D5185m | 3 | 2 | 2 |
| Potassium | ppm | ASTM D5185m >20 | <1 | 0 | 0 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.76 | 0.86 | 0.83 |

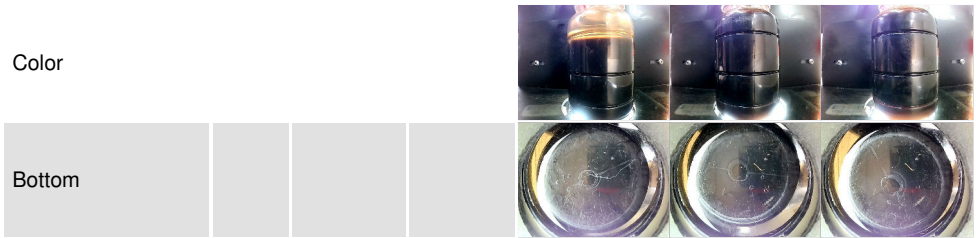
VISUAL

| | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|--------------|----------|----------|
| White Metal | scalar | *Visual NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual NONE | NONE | NONE | LIGHT |
| Debris | scalar | *Visual NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual >0.05 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | NEG | NEG | NEG |

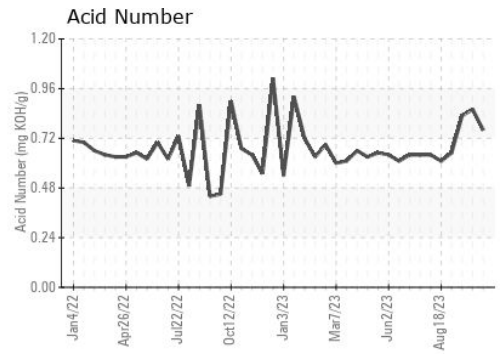
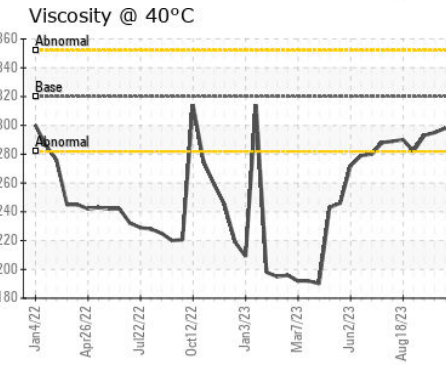
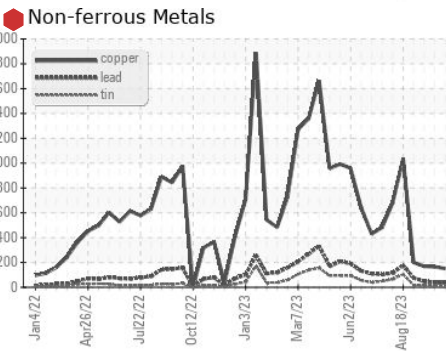
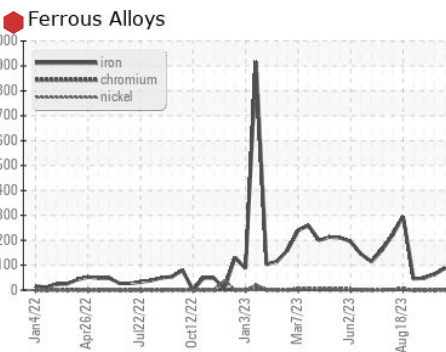


| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|-----------|------------|------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 320 | 298 | 295 | 293 |

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



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0853765 **Received** : 15 Nov 2023
Lab Number : 06008467 **Diagnosed** : 17 Nov 2023
Unique Number : 10742229 **Diagnostician** : Don Baldrige
Test Package : IND 2

3M - PITTSBORO
 4191 NC 87 S
 MONCURE, NC
 US 27559
 Contact: CHARLES JARRELL
 cjarrell@mmm.com

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)