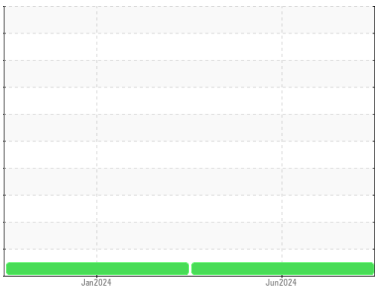
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Area
## Paper Machine
Machine Id
## Unwind Stand Drive Gearbox
Component
**Gearbox**
Fluid
**MOBIL MOBILGEAR 600 XP 220 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

**Wear**
All component wear rates are normal.

**Contamination**
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

**Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0776427** | WC0776489 | --- |
| Sample Date | | Client Info | | **06 Jun 2024** | 26 Jan 2024 | --- |
| Machine Age | hrs | Client Info | | **0** | 0 | --- |
| Oil Age | hrs | Client Info | | **0** | 0 | --- |
| Oil Changed | | Client Info | | **N/A** | N/A | --- |
| Sample Status | | | | **NORMAL** | NORMAL | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >200 | **6** | 4 | --- |
| Chromium | ppm | ASTM D5185m | >15 | **0** | 0 | --- |
| Nickel | ppm | ASTM D5185m | >15 | **0** | 0 | --- |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Silver | ppm | ASTM D5185m | | **0** | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >25 | **0** | 0 | --- |
| Lead | ppm | ASTM D5185m | >100 | **4** | 1 | --- |
| Copper | ppm | ASTM D5185m | >200 | **0** | <1 | --- |
| Tin | ppm | ASTM D5185m | >25 | **<1** | 0 | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | --- |

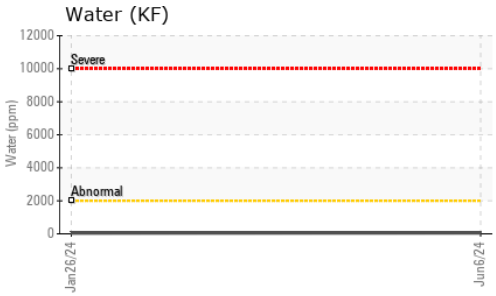
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **25** | 23 | --- |
| Barium | ppm | ASTM D5185m | | **<1** | <1 | --- |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | --- |
| Magnesium | ppm | ASTM D5185m | | **1** | 0 | --- |
| Calcium | ppm | ASTM D5185m | | **2** | 2 | --- |
| Phosphorus | ppm | ASTM D5185m | | **339** | 338 | --- |
| Zinc | ppm | ASTM D5185m | | **16** | 6 | --- |
| Sulfur | ppm | ASTM D5185m | | **19484** | 16194 | --- |

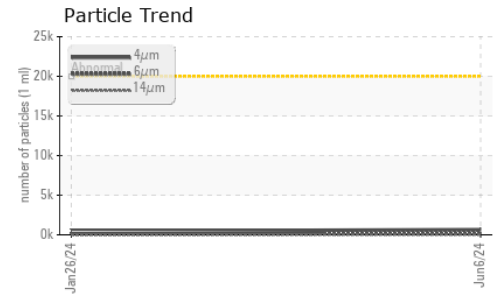
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **7** | 5 | --- |
| Sodium | ppm | ASTM D5185m | | **4** | 2 | --- |
| Potassium | ppm | ASTM D5185m | >20 | **3** | 0 | --- |
| Water | % | ASTM D6304 | >0.2 | **0.005** | 0.004 | --- |
| ppm Water | ppm | ASTM D6304 | >2000 | **55** | 47 | --- |

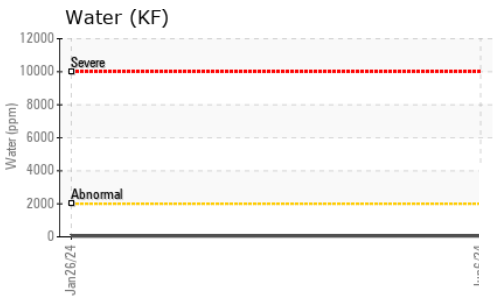
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >20000 | **668** | 472 | --- |
| Particles >6µm | | ASTM D7647 | >5000 | **170** | 109 | --- |
| Particles >14µm | | ASTM D7647 | >640 | **15** | 9 | --- |
| Particles >21µm | | ASTM D7647 | >160 | **4** | 1 | --- |
| Particles >38µm | | ASTM D7647 | >40 | **1** | 0 | --- |
| Particles >71µm | | ASTM D7647 | >10 | **0** | 0 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | **17/15/11** | 16/14/10 | --- |

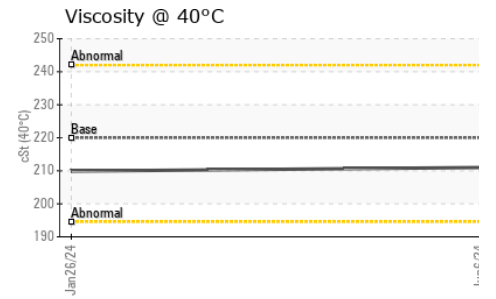
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **0.76** | 0.75 | --- |

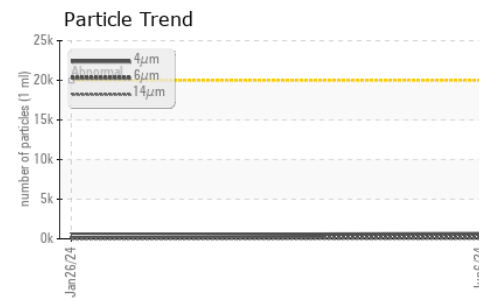
# OIL ANALYSIS REPORT



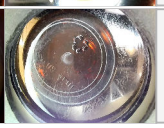



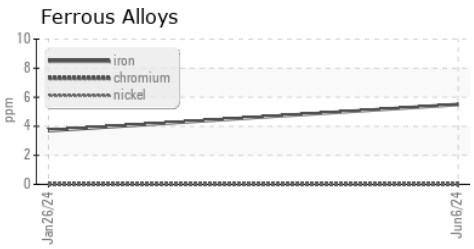



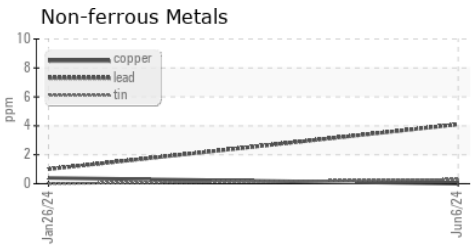

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Debris | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Appearance | scalar | *Visual | NORML | **NORML** | NORML | --- |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.2 | **NEG** | NEG | --- |
| Free Water | scalar | *Visual | | **NEG** | NEG | --- |

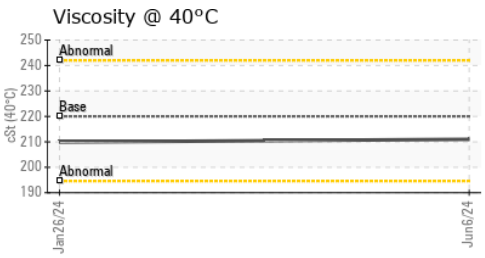
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 220 | **211** | 209.9 | --- |

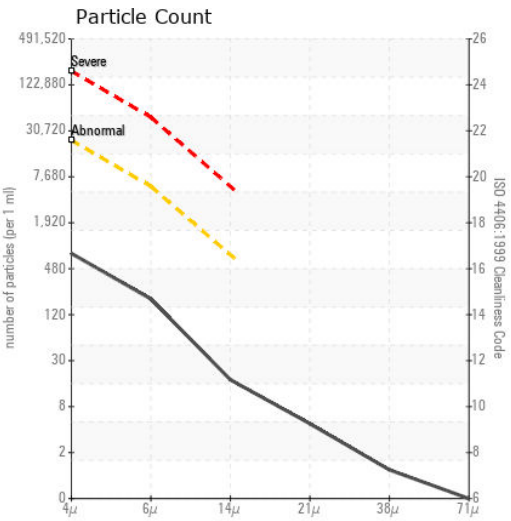
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  |  | *no image* |
| Bottom | | |  |  | *no image* |

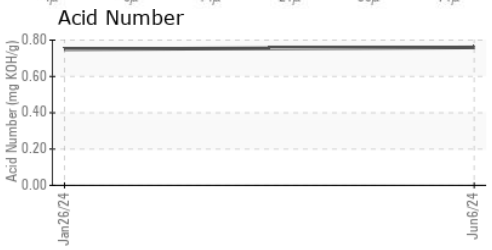
## GRAPHS




**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0776427
**Lab Number** : 06204618
**Unique Number** : 11072079
**Test Package** : PLANT

**Received** : 10 Jun 2024
**Tested** : 12 Jun 2024
**Diagnosed** : 12 Jun 2024 - Wes Davis

Certificate L2367

*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)*

CASCADES CONTAINERBOARD PACKAGING - BEARPACK PROJECT
10026 OLD RIDGE ROAD
ASHLAND, VA
US 23005
Contact: MARC-ANDRE HUBERT
marc-andre_hubert@cascades.com
T:
F:

Report Id: CASASH [WUSCAR] 06204618 (Generated: 06/12/2024 07:56:08) Rev: 1

Submitted By: MARC-ANDRE HUBERT