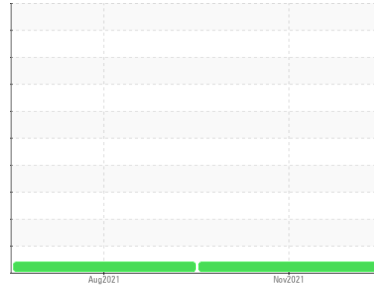




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**Fermentation**  
 Machine Id  
**1304-B Seed Tank**  
 Component  
**Agitator Gearbox**  
 Fluid  
**Mobilgear 629 (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

### 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 |             | <b>WC0614182</b>   | WC0608854   | ---      |
| Sample Date   | Client Info |             | <b>30 Nov 2021</b> | 12 Aug 2021 | ---      |
| Machine Age   | hrs         | Client Info | <b>0</b>           | 0           | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 0           | ---      |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | ---      |
| Sample Status |             |             | <b>ABNORMAL</b>    | ABNORMAL    | ---      |

## WEAR METALS

|          | method | limit/base       | current      | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >150 | <b>6</b>     | 4        | ---      |
| Chromium | ppm    | ASTM D5185m >10  | <b>0</b>     | 0        | ---      |
| Nickel   | ppm    | ASTM D5185m >10  | <b>0</b>     | 0        | ---      |
| Titanium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | ---      |
| Silver   | ppm    | ASTM D5185m      | <b>0</b>     | <1       | ---      |
| Aluminum | ppm    | ASTM D5185m >25  | <b>0</b>     | 0        | ---      |
| Lead     | ppm    | ASTM D5185m >100 | <b>0</b>     | <1       | ---      |
| Copper   | ppm    | ASTM D5185m >50  | <b>&lt;1</b> | 0        | ---      |
| Tin      | ppm    | ASTM D5185m >10  | <b>0</b>     | 0        | ---      |
| Antimony | ppm    | ASTM D5185m      | <b>2</b>     | <1       | ---      |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | ---      |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>     | <1       | ---      |

## ADDITIVES

|            | method | limit/base  | current      | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>11</b>    | 30       | ---      |
| Barium     | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Molybdenum | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Manganese  | ppm    | ASTM D5185m | <b>&lt;1</b> | <1       | ---      |
| Magnesium  | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Calcium    | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Phosphorus | ppm    | ASTM D5185m | <b>346</b>   | 343      | ---      |
| Zinc       | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Sulfur     | ppm    | ASTM D5185m | <b>14868</b> | 14461    | ---      |

## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >50  | <b>0</b>     | <1       | ---      |
| Sodium    | ppm    | ASTM D5185m      | <b>&lt;1</b> | <1       | ---      |
| Potassium | ppm    | ASTM D5185m >20  | <b>0</b>     | <1       | ---      |
| Water     | %      | ASTM D6304 >0.1  | <b>0.006</b> | 0.005    | ---      |
| ppm Water | ppm    | ASTM D6304 >1000 | <b>63.1</b>  | 57.6     | ---      |

## FLUID CLEANLINESS

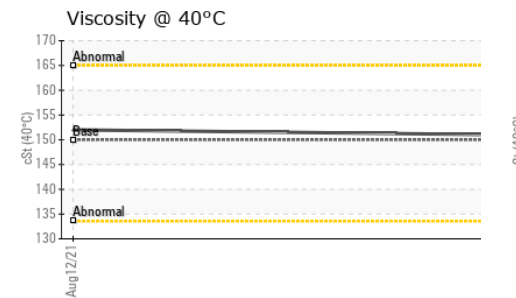
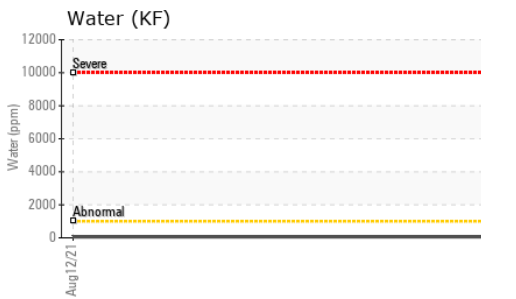
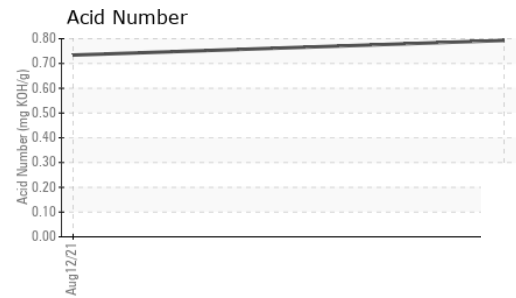
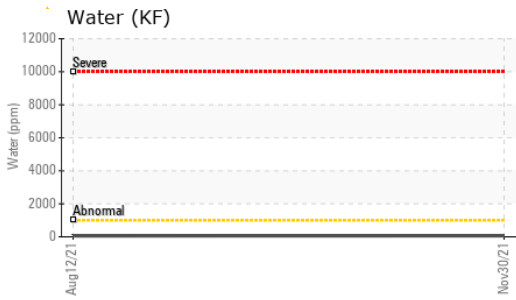
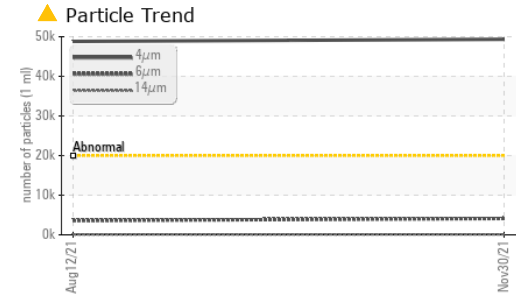
|                 | method       | limit/base | current           | history1   | history2 |
|-----------------|--------------|------------|-------------------|------------|----------|
| Particles >4µm  | ASTM D7647   | >20000     | <b>▲ 49348</b>    | ▲ 48817    | ---      |
| Particles >6µm  | ASTM D7647   | >5000      | <b>4120</b>       | 3592       | ---      |
| Particles >14µm | ASTM D7647   | >640       | <b>85</b>         | 84         | ---      |
| Particles >21µm | ASTM D7647   | >160       | <b>10</b>         | 16         | ---      |
| Particles >38µm | ASTM D7647   | >40        | <b>0</b>          | 1          | ---      |
| Particles >71µm | ASTM D7647   | >10        | <b>0</b>          | 0          | ---      |
| Oil Cleanliness | ISO 4406 (c) | >21/19/16  | <b>▲ 23/19/14</b> | ▲ 23/19/14 | ---      |

## FLUID DEGRADATION

|                  | method   | limit/base | current      | history1 | history2 |
|------------------|----------|------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | <b>0.793</b> | 0.734    | ---      |



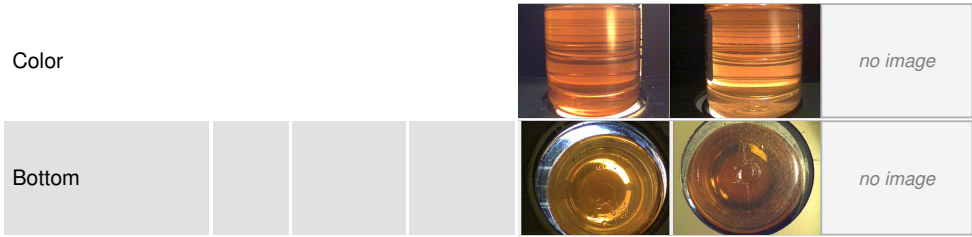
# OIL ANALYSIS REPORT



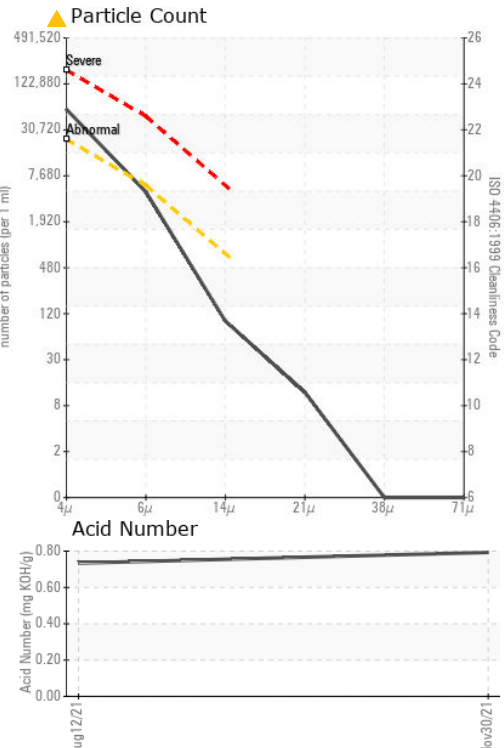
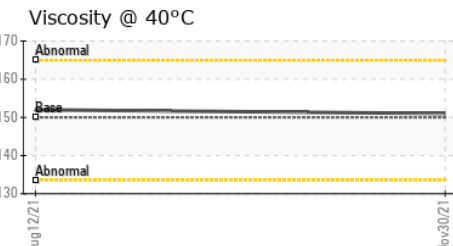
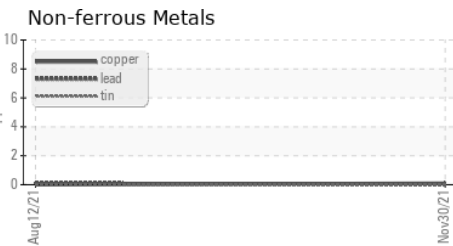
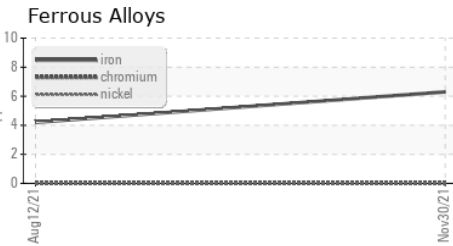
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | NONE     | ---      |
| Debris           | scalar | *Visual    | NONE    | NONE     | ---      |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | ---      |
| Appearance       | scalar | *Visual    | NORML   | NORML    | ---      |
| Odor             | scalar | *Visual    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | *Visual    | >0.1    | NEG      | ---      |
| Free Water       | scalar | *Visual    |         | NEG      | ---      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 150     | 152      | ---      |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0614182 **Received** : 09 Dec 2021  
**Lab Number** : 05418977 **Diagnosed** : 10 Dec 2021  
**Unique Number** : 9773168 **Diagnostician** : Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

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 T: (919)723-2142  
 F:

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)