



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**CARS**  
 Machine Id  
**CARS05JUNE23-231**  
 Component  
**Gearbox**  
 Fluid  
**XPDC 048 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please note that this is a corrected copy for laboratory data updates for viscosity.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are 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            | history 1 | history 2 |
|--------------------|-------------|-------------|------------|--------------------|-----------|-----------|
| Sample Number      | Client Info |             |            | <b>WC0577483</b>   | ---       | ---       |
| Sample Date        | Client Info |             |            | <b>06 Jun 2023</b> | ---       | ---       |
| Machine Age        | mls         | Client Info |            | <b>0</b>           | ---       | ---       |
| Oil Age            | mls         | Client Info |            | <b>0</b>           | ---       | ---       |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | ---       | ---       |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ---       | ---       |

| WEAR METALS |     | method      | limit/base | current      | history 1 | history 2 |
|-------------|-----|-------------|------------|--------------|-----------|-----------|
| Iron        | ppm | ASTM D5185m | >200       | <b>0</b>     | ---       | ---       |
| Chromium    | ppm | ASTM D5185m | >10        | <b>0</b>     | ---       | ---       |
| Nickel      | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | ---       | ---       |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | ---       | ---       |
| Silver      | ppm | ASTM D5185m |            | <b>0</b>     | ---       | ---       |
| Aluminum    | ppm | ASTM D5185m | >25        | <b>0</b>     | ---       | ---       |
| Lead        | ppm | ASTM D5185m | >50        | <b>0</b>     | ---       | ---       |
| Copper      | ppm | ASTM D5185m | >200       | <b>0</b>     | ---       | ---       |
| Tin         | ppm | ASTM D5185m | >10        | <b>0</b>     | ---       | ---       |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | ---       | ---       |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | ---       | ---       |

| ADDITIVES  |     | method      | limit/base | current      | history 1 | history 2 |
|------------|-----|-------------|------------|--------------|-----------|-----------|
| Boron      | ppm | ASTM D5185m |            | <b>83</b>    | ---       | ---       |
| Barium     | ppm | ASTM D5185m |            | <b>0</b>     | ---       | ---       |
| Molybdenum | ppm | ASTM D5185m |            | <b>0</b>     | ---       | ---       |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>     | ---       | ---       |
| Magnesium  | ppm | ASTM D5185m |            | <b>188</b>   | ---       | ---       |
| Calcium    | ppm | ASTM D5185m |            | <b>0</b>     | ---       | ---       |
| Phosphorus | ppm | ASTM D5185m |            | <b>1606</b>  | ---       | ---       |
| Zinc       | ppm | ASTM D5185m |            | <b>2</b>     | ---       | ---       |
| Sulfur     | ppm | ASTM D5185m |            | <b>23944</b> | ---       | ---       |

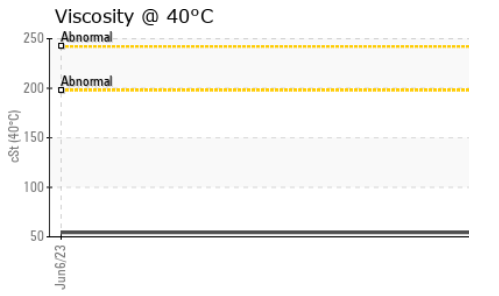
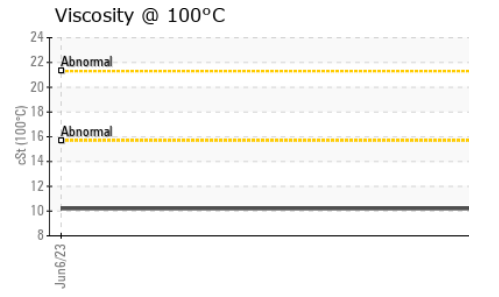
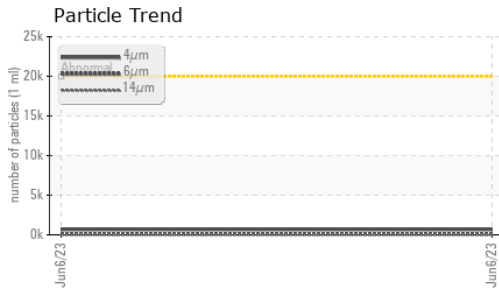
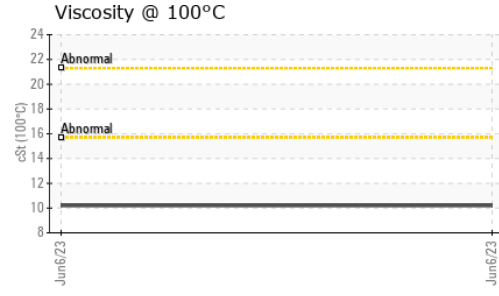
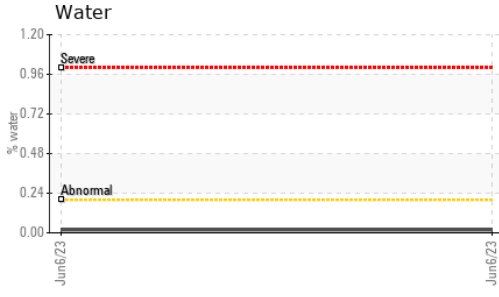
| CONTAMINANTS |     | method      | limit/base | current      | history 1 | history 2 |
|--------------|-----|-------------|------------|--------------|-----------|-----------|
| Silicon      | ppm | ASTM D5185m | >50        | <b>1</b>     | ---       | ---       |
| Sodium       | ppm | ASTM D5185m |            | <b>&lt;1</b> | ---       | ---       |
| Potassium    | ppm | ASTM D5185m | >20        | <b>0</b>     | ---       | ---       |
| Water        | %   | ASTM D6304  | >0.2       | <b>0.018</b> | ---       | ---       |
| ppm Water    | ppm | ASTM D6304  | >2000      | <b>180.0</b> | ---       | ---       |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history 1 | history 2 |
|-------------------|--|--------------|------------|-----------------|-----------|-----------|
| Particles >4µm    |  | ASTM D7647   | >20000     | <b>673</b>      | ---       | ---       |
| Particles >6µm    |  | ASTM D7647   | >5000      | <b>131</b>      | ---       | ---       |
| Particles >14µm   |  | ASTM D7647   | >640       | <b>9</b>        | ---       | ---       |
| Particles >21µm   |  | ASTM D7647   | >160       | <b>3</b>        | ---       | ---       |
| Particles >38µm   |  | ASTM D7647   | >40        | <b>0</b>        | ---       | ---       |
| Particles >71µm   |  | ASTM D7647   | >10        | <b>0</b>        | ---       | ---       |
| Oil Cleanliness   |  | ISO 4406 (c) | >21/19/16  | <b>17/14/10</b> | ---       | ---       |

| FLUID DEGRADATION |          | method     | limit/base | current     | history 1 | history 2 |
|-------------------|----------|------------|------------|-------------|-----------|-----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 |            | <b>0.62</b> | ---       | ---       |



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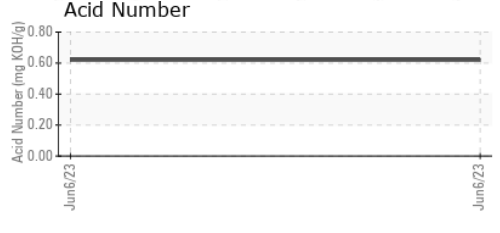
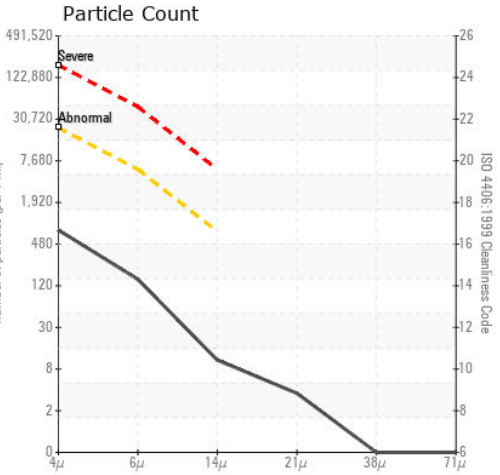
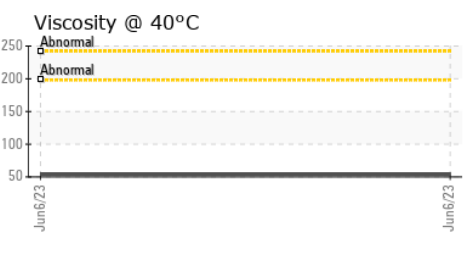
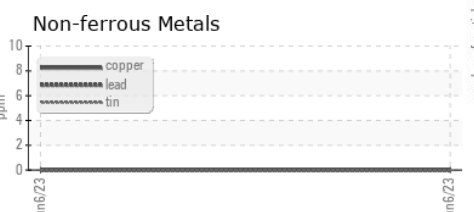
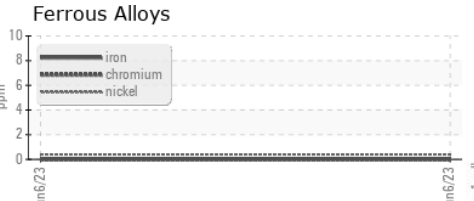


| VISUAL           | method | limit/base | current | history 1 | history 2 |
|------------------|--------|------------|---------|-----------|-----------|
| White Metal      | scalar | *Visual    | NONE    | NONE      | ---       |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE      | ---       |
| 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    | >0.2    | NEG       | ---       |
| Free Water       | scalar | *Visual    |         | NEG       | ---       |

| FLUID PROPERTIES     | method | limit/base | current | history 1 | history 2 |
|----------------------|--------|------------|---------|-----------|-----------|
| Visc @ 40°C          | cSt    | ASTM D445  | 54.4    | ---       | ---       |
| Visc @ 100°C         | cSt    | ASTM D445  | 10.2    | ---       | ---       |
| Viscosity Index (VI) | Scale  | ASTM D2270 | 178     | ---       | ---       |

| SAMPLE IMAGES | method | limit/base | current | history 1 | history 2 |
|---------------|--------|------------|---------|-----------|-----------|
| Color         |        |            |         | no image  | no image  |
| Bottom        |        |            |         | no image  | no image  |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0577483 **Received** : 08 Jun 2023  
**Lab Number** : 05868687 **Diagnosed** : 19 Jun 2023  
**Unique Number** : 10508471 **Diagnostician** : Doug Bogart  
**Test Package** : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**COMPLIANCE and RESEARCH SERVICES**  
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 PLAINFIELD, NJ  
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 blending@complianceandresearch.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)