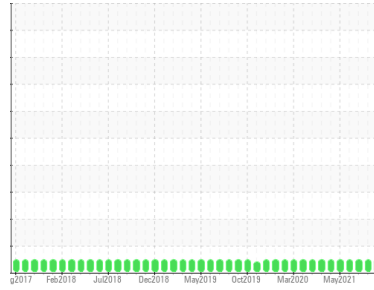




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**7255**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL ISO 150 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. 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 |             |            | <b>PTK0000387</b>  | PTK0000350  | PTK0001281  |
| Sample Date        | Client Info |             |            | <b>09 Nov 2023</b> | 13 Jun 2023 | 23 Nov 2022 |
| Machine Age        | mths        | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Age            | mths        | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | N/A         | N/A         |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

| CONTAMINATION |           | method | limit/base | current    | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water         | WC Method |        | >0.2       | <b>NEG</b> | NEG      | NEG      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >200       | <b>0</b>     | 4        | 5        |
| Chromium    | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | 0        |
| Nickel      | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | <1       |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Silver      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >25        | <b>0</b>     | 0        | <1       |
| Lead        | ppm | ASTM D5185m | >50        | <b>0</b>     | <1       | <1       |
| Copper      | ppm | ASTM D5185m | >200       | <b>&lt;1</b> | 1        | 2        |
| Tin         | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | <1       |
| Antimony    | ppm | ASTM D5185m | >5         | <b>---</b>   | ---      | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

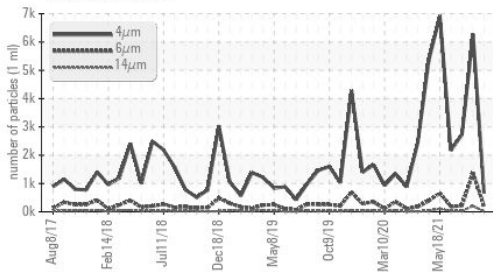
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 50         | <b>27</b>    | 2        | 0        |
| Barium     | ppm | ASTM D5185m | 15         | <b>0</b>     | 2        | 0        |
| Molybdenum | ppm | ASTM D5185m | 15         | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Magnesium  | ppm | ASTM D5185m | 50         | <b>0</b>     | <1       | <1       |
| Calcium    | ppm | ASTM D5185m | 50         | <b>&lt;1</b> | 3        | 2        |
| Phosphorus | ppm | ASTM D5185m | 350        | <b>313</b>   | 305      | 320      |
| Zinc       | ppm | ASTM D5185m | 100        | <b>7</b>     | 7        | 3        |
| Sulfur     | ppm | ASTM D5185m | 12500      | <b>14267</b> | 15969    | 15510    |

| CONTAMINANTS |     | method      | limit/base | current  | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >50        | <b>0</b> | 0        | 2        |
| Sodium       | ppm | ASTM D5185m |            | <b>1</b> | 0        | 2        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>0</b> | 2        | <1       |

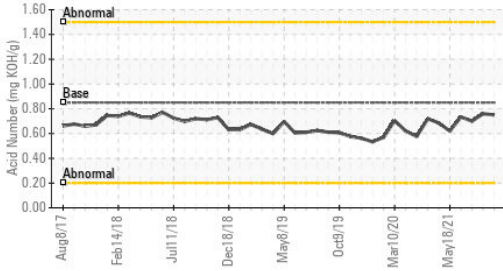
| FLUID CLEANLINESS |  | method       | limit/base | current      | history1 | history2 |
|-------------------|--|--------------|------------|--------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>668</b>   | 6271     | 2730     |
| Particles >6µm    |  | ASTM D7647   | >2500      | <b>200</b>   | 1380     | 217      |
| Particles >14µm   |  | ASTM D7647   | >320       | <b>17</b>    | 208      | 23       |
| Particles >21µm   |  | ASTM D7647   | >80        | <b>5</b>     | 66       | 7        |
| Particles >38µm   |  | ASTM D7647   | >20        | <b>0</b>     | 2        | 0        |
| Particles >71µm   |  | ASTM D7647   | >4         | <b>0</b>     | 0        | 0        |
| Oil Cleanliness   |  | ISO 4406 (c) | >18/15     | <b>15/11</b> | 18/15    | 15/12    |

# OIL ANALYSIS REPORT

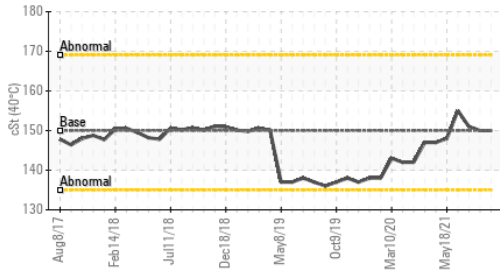
Particle Trend



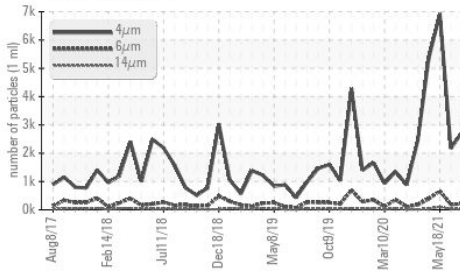
Acid Number



Viscosity @ 40°C



Particle Trend



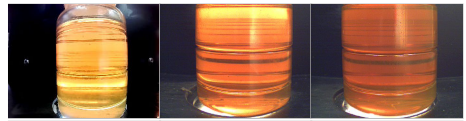
| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.85       | <b>0.75</b> | 0.76     | 0.70     |

| 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>  | LIGHT    | NONE     |
| Sand/Dirt        | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Appearance       | scalar | *Visual | NORML      | <b>NORML</b> | NORML    | NORML    |
| Odor             | scalar | *Visual | NORML      | <b>NORML</b> | NORML    | NORML    |
| Emulsified Water | scalar | *Visual | >0.2       | <b>NEG</b>   | NEG      | NEG      |
| Free Water       | scalar | *Visual |            | <b>NEG</b>   | NEG      | NEG      |

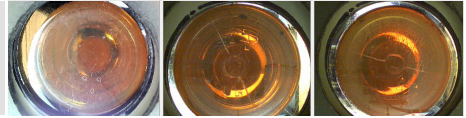
| FLUID PROPERTIES |     | method    | limit/base | current    | history1 | history2 |
|------------------|-----|-----------|------------|------------|----------|----------|
| Visc @ 40°C      | cSt | ASTM D445 | 150        | <b>150</b> | 150      | 151      |

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

Color

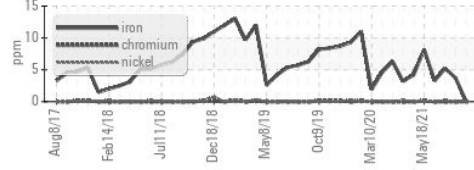


Bottom

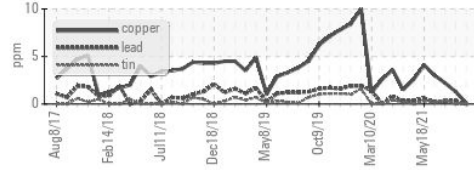


## GRAPHS

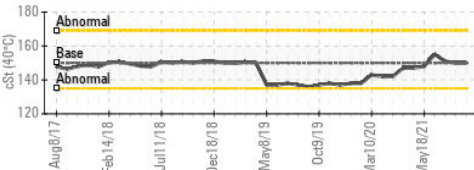
Ferrous Alloys



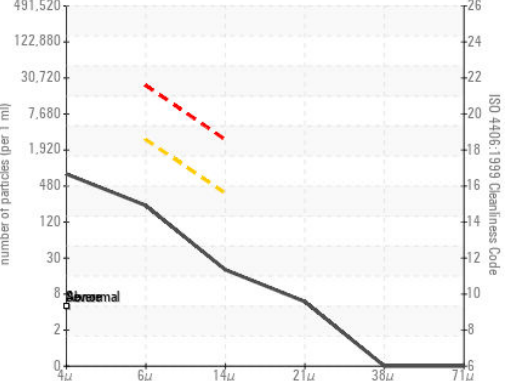
Non-ferrous Metals



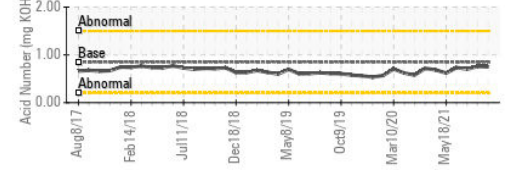
Viscosity @ 40°C



Particle Count



Acid Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PTK0000387 **Received** : 24 Nov 2023  
**Lab Number** : 06017329 **Diagnosed** : 28 Nov 2023  
**Unique Number** : 10756473 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

**GRAPHIC PACKAGING**  
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 ELK GROVE, IL  
 US 60017  
 Contact: TONY HILDY  
 anthonyhildy@graphicpkg.com  
 T: (847)437-1700  
 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)