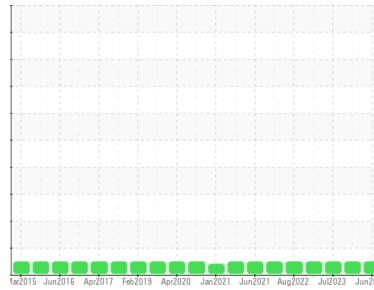




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**CMPL**

Machine Id

**CMPL CUT TO LENGTH SHEAR UNIT (S/N 16-5300-0360)**

Component

**Gearbox**

Fluid

**GEAR OIL ISO 220 (--- QTS)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination 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>RP0042761</b>   | RP0039151   | RP0035032   |
| Sample Date   | Client Info |             | <b>17 Jun 2024</b> | 12 Jan 2024 | 07 Jul 2023 |
| Machine Age   | hrs         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Age       | hrs         | 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      |

## WEAR METALS

|          | method     | limit/base       | current   | history1 | history2 |
|----------|------------|------------------|-----------|----------|----------|
| PQ       | ASTM D8184 |                  | <b>32</b> | 31       | 21       |
| Iron     | ppm        | ASTM D5185m >200 | <b>18</b> | 26       | 22       |
| Chromium | ppm        | ASTM D5185m >15  | <b>0</b>  | 0        | 0        |
| Nickel   | ppm        | ASTM D5185m >15  | <b>0</b>  | 0        | 0        |
| Titanium | ppm        | ASTM D5185m      | <b>11</b> | 17       | 16       |
| Silver   | ppm        | ASTM D5185m      | <b>0</b>  | 0        | 0        |
| Aluminum | ppm        | ASTM D5185m >25  | <b>1</b>  | 2        | 4        |
| Lead     | ppm        | ASTM D5185m >100 | <b>0</b>  | 0        | 0        |
| Copper   | ppm        | ASTM D5185m >200 | <b>0</b>  | <1       | <1       |
| Tin      | ppm        | ASTM D5185m >25  | <b>0</b>  | 0        | 0        |
| Vanadium | ppm        | ASTM D5185m      | <b>0</b>  | 0        | <1       |
| Cadmium  | ppm        | ASTM D5185m      | <b>0</b>  | 0        | 0        |

## ADDITIVES

|            | method | limit/base      | current      | history1 | history2 |
|------------|--------|-----------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 50  | <b>2</b>     | 0        | 0        |
| Barium     | ppm    | ASTM D5185m 15  | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m 15  | <b>0</b>     | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m     | <b>0</b>     | 0        | <1       |
| Magnesium  | ppm    | ASTM D5185m 50  | <b>&lt;1</b> | 0        | 0        |
| Calcium    | ppm    | ASTM D5185m 50  | <b>27</b>    | 31       | 27       |
| Phosphorus | ppm    | ASTM D5185m 350 | <b>154</b>   | 126      | 121      |
| Zinc       | ppm    | ASTM D5185m 100 | <b>15</b>    | 0        | 0        |

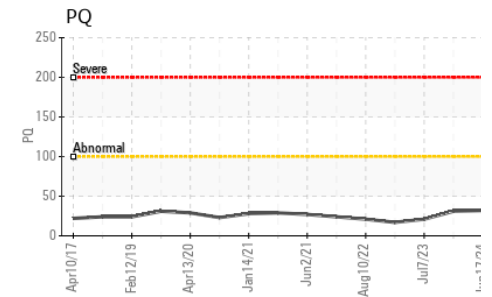
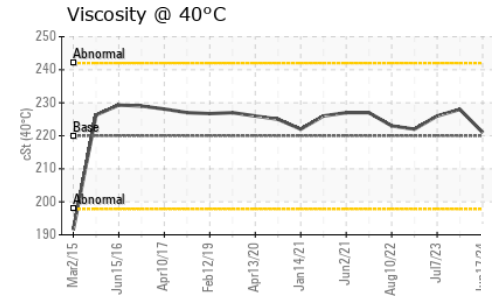
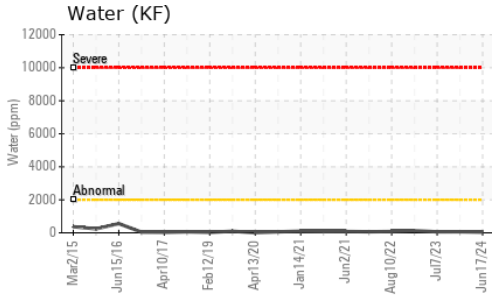
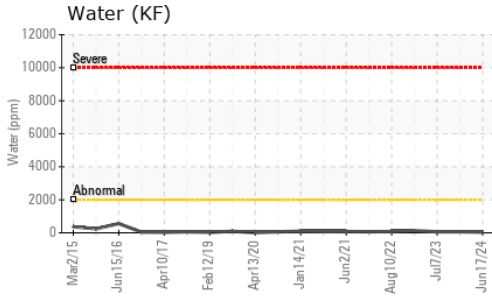
## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >50  | <b>5</b>     | 6        | 5        |
| Sodium    | ppm    | ASTM D5185m      | <b>1</b>     | <1       | <1       |
| Potassium | ppm    | ASTM D5185m >20  | <b>0</b>     | <1       | <1       |
| Water     | %      | ASTM D6304 >0.2  | <b>0.004</b> | 0.006    | 0.005    |
| ppm Water | ppm    | ASTM D6304 >2000 | <b>41</b>    | 63       | 59.3     |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.85 | <b>0.34</b> | 0.24     | 0.22     |

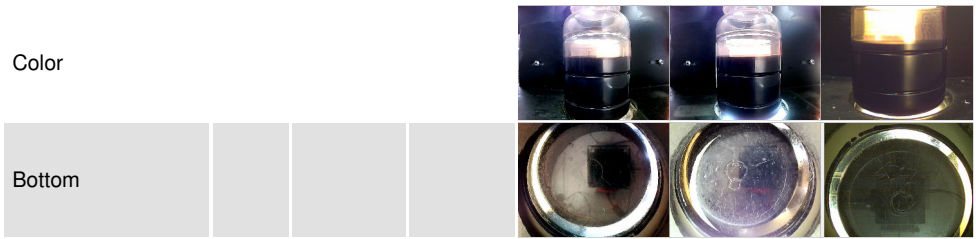
# OIL ANALYSIS REPORT



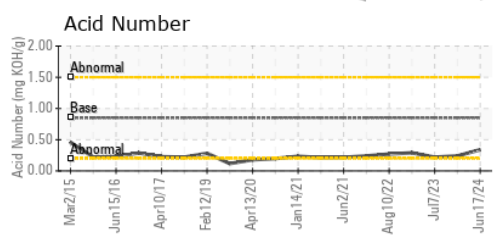
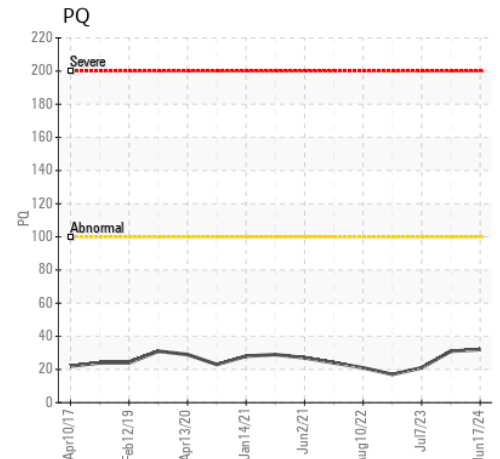
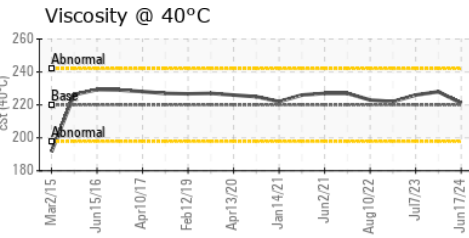
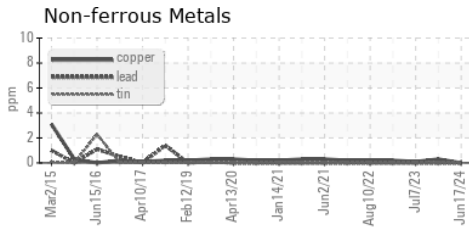
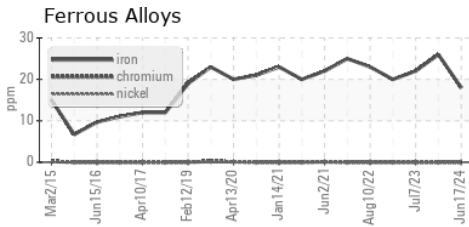
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | LIGHT    |
| 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     | 221      | 228      |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RP0042761 **Received** : 18 Jun 2024  
**Lab Number** : 06213569 **Tested** : 20 Jun 2024  
**Unique Number** : 11086433 **Diagnosed** : 20 Jun 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: PQ )

**OUTOKUMPU STAINLESS USA**  
 HWY 43 N  
 CALVERT, AL 36513  
 Contact: MARIO JOHNSON  
 Mario.johnson@outokumpu.com  
 T: (251)321-4105  
 F: x:

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)