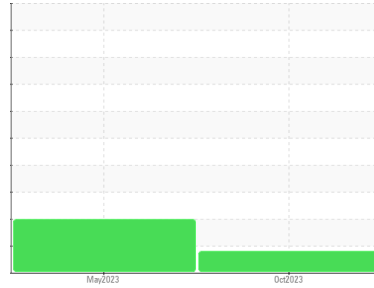




# OIL ANALYSIS REPORT

Sample Rating Trend

SEDIMENT



Area  
**PITT OHIO**  
Machine Id  
**PITT OHIO D2682**  
Component  
**Rear Differential**  
Fluid  
**NOT GIVEN (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of visible silt present in the sample.

### 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>WC0876015</b>   | WC0828722   | ---      |
| Sample Date   | Client Info |             | <b>19 Oct 2023</b> | 22 May 2023 | ---      |
| Machine Age   | mls         | Client Info | <b>51574</b>       | 72          | ---      |
| Oil Age       | mls         | 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 >500 | <b>109</b>   | 12       | ---      |
| Chromium | ppm    | ASTM D5185m >10  | <b>&lt;1</b> | 0        | ---      |
| Nickel   | ppm    | ASTM D5185m >10  | <b>&lt;1</b> | 0        | ---      |
| Titanium | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0        | ---      |
| Silver   | ppm    | ASTM D5185m      | <b>0</b>     | 0        | ---      |
| Aluminum | ppm    | ASTM D5185m >25  | <b>&lt;1</b> | <1       | ---      |
| Lead     | ppm    | ASTM D5185m >25  | <b>0</b>     | 0        | ---      |
| Copper   | ppm    | ASTM D5185m >100 | <b>&lt;1</b> | 0        | ---      |
| Tin      | ppm    | ASTM D5185m >10  | <b>0</b>     | <1       | ---      |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | <1       | ---      |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>     | 0        | ---      |

## ADDITIVES

|            | method | limit/base  | current      | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>100</b>   | 109      | ---      |
| Barium     | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Molybdenum | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Manganese  | ppm    | ASTM D5185m | <b>9</b>     | 2        | ---      |
| Magnesium  | ppm    | ASTM D5185m | <b>171</b>   | 188      | ---      |
| Calcium    | ppm    | ASTM D5185m | <b>4</b>     | 0        | ---      |
| Phosphorus | ppm    | ASTM D5185m | <b>1761</b>  | 1711     | ---      |
| Zinc       | ppm    | ASTM D5185m | <b>0</b>     | 0        | ---      |
| Sulfur     | ppm    | ASTM D5185m | <b>25693</b> | 25056    | ---      |

## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >75  | <b>12</b>    | 4        | ---      |
| Sodium    | ppm    | ASTM D5185m      | <b>3</b>     | 0        | ---      |
| Potassium | ppm    | ASTM D5185m >20  | <b>0</b>     | 0        | ---      |
| Water     | %      | ASTM D6304 >.2   | <b>0.011</b> | 0.029    | ---      |
| ppm Water | ppm    | ASTM D6304 >2000 | <b>112</b>   | 297.3    | ---      |

## FLUID CLEANLINESS

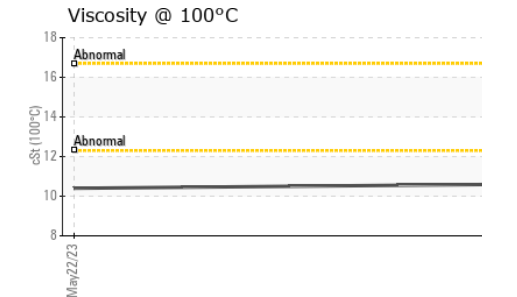
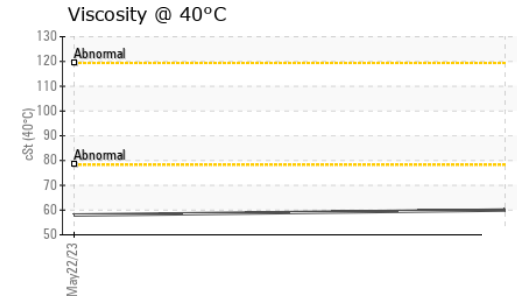
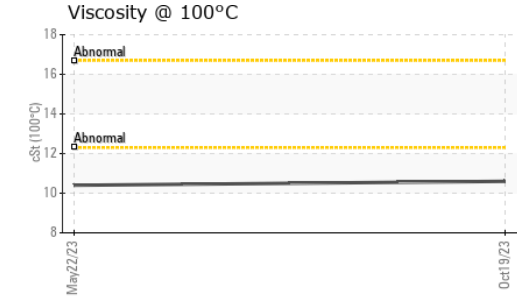
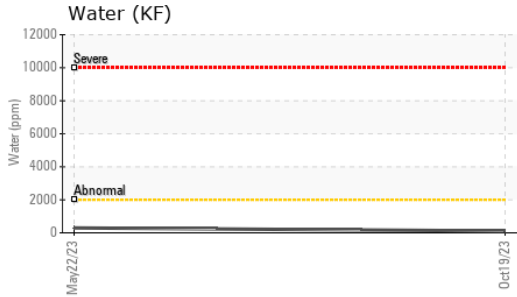
|                 | method       | limit/base | current | history1   | history2 |
|-----------------|--------------|------------|---------|------------|----------|
| Particles >4µm  | ASTM D7647   | >20000     | ---     | ▲ 168782   | ---      |
| Particles >6µm  | ASTM D7647   | >5000      | ---     | ▲ 65640    | ---      |
| Particles >14µm | ASTM D7647   | >640       | ---     | ▲ 1248     | ---      |
| Particles >21µm | ASTM D7647   | >160       | ---     | ▲ 256      | ---      |
| Particles >38µm | ASTM D7647   | >40        | ---     | 5          | ---      |
| Particles >71µm | ASTM D7647   | >10        | ---     | 0          | ---      |
| Oil Cleanliness | ISO 4406 (c) | >21/19/16  | ---     | ▲ 25/23/17 | ---      |

## FLUID DEGRADATION

|                  | method   | limit/base | current     | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | <b>0.59</b> | 0.80     | ---      |



# OIL ANALYSIS REPORT



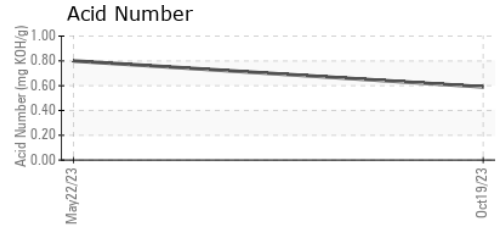
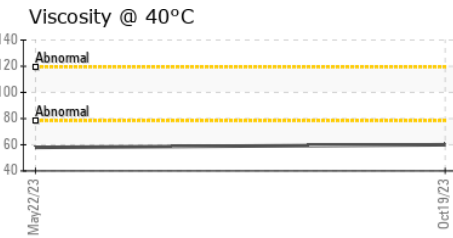
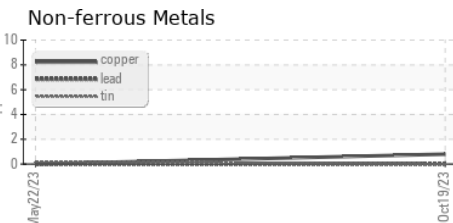
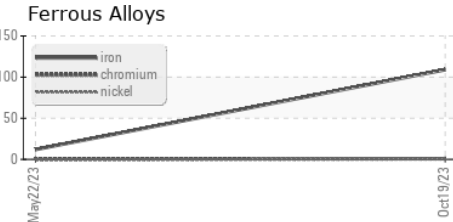
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | ▲ MODER  | ---      |
| Debris           | scalar | *Visual    | NONE    | NONE     | LIGHT    |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | ---      |
| Appearance       | scalar | *Visual    | NORML   | NORML    | ---      |
| Odor             | scalar | *Visual    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | *Visual    | >.2     | NEG      | ---      |
| Free Water       | scalar | *Visual    |         | NEG      | ---      |

| FLUID PROPERTIES     | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C          | cSt    | ASTM D445  | 60.0    | 58.0     | ---      |
| Visc @ 100°C         | cSt    | ASTM D445  | 10.6    | 10.4     | ---      |
| Viscosity Index (VI) | Scale  | ASTM D2270 | 168     | 170      | ---      |

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



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0876015     **Received** : 05 Dec 2023  
**Lab Number** : 06025724     **Diagnosed** : 07 Dec 2023  
**Unique Number** : 10770224     **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**BASF - GIANNA CREDAROLI**  
 500 WHITE PLAINS RD  
 TARRYTOWN, NY  
 US 10591  
 Contact: GIANNA CREDAROLI  
 gianna.credaroli@basf.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)

T:  
F: