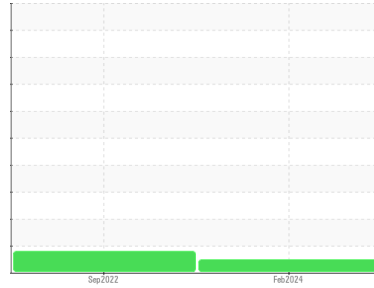




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

**ERS-0017-BL**

Component

**Hydraulic System**

Fluid

**AW HYDRAULIC OIL ISO 32 (--- 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>WC0679372</b>   | WC0658252   | ---      |
| Sample Date        | Client Info |             |            | <b>29 Feb 2024</b> | 01 Sep 2022 | ---      |
| Machine Age        | hrs         | Client Info |            | <b>1433</b>        | 0           | ---      |
| Oil Age            | hrs         | Client Info |            | <b>1433</b>        | 0           | ---      |
| Oil Changed        | Client Info |             |            | <b>Not Chngd</b>   | Not Chngd   | ---      |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ABNORMAL    | ---      |

| CONTAMINATION |           | method | limit/base | current    | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water         | WC Method |        | >0.1       | <b>NEG</b> | NEG      | ---      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >20        | <b>2</b>     | 8        | ---      |
| 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 | >10        | <b>2</b>     | 0        | ---      |
| Lead        | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | ---      |
| Copper      | ppm | ASTM D5185m | >75        | <b>1</b>     | 1        | ---      |
| Tin         | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |
| Cadmium     | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | ---      |

| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 5          | <b>0</b>     | 0        | ---      |
| Barium     | ppm | ASTM D5185m | 5          | <b>0</b>     | 0        | ---      |
| Molybdenum | ppm | ASTM D5185m | 5          | <b>&lt;1</b> | 0        | ---      |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | ---      |
| Magnesium  | ppm | ASTM D5185m | 25         | <b>&lt;1</b> | <1       | ---      |
| Calcium    | ppm | ASTM D5185m | 200        | <b>10</b>    | 45       | ---      |
| Phosphorus | ppm | ASTM D5185m | 300        | <b>177</b>   | 352      | ---      |
| Zinc       | ppm | ASTM D5185m | 370        | <b>225</b>   | 452      | ---      |
| Sulfur     | ppm | ASTM D5185m | 2500       | <b>923</b>   | 6803     | ---      |

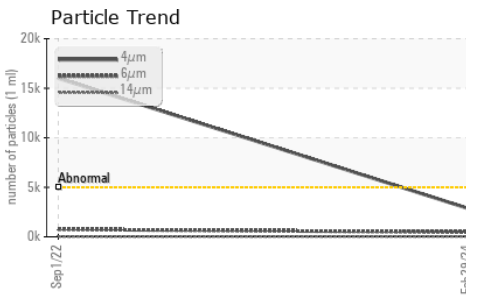
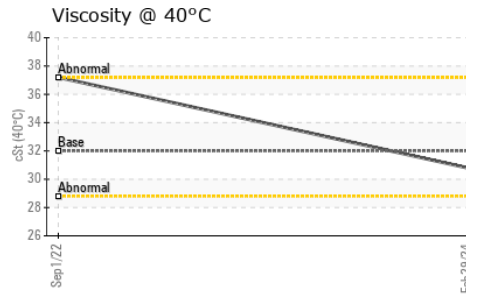
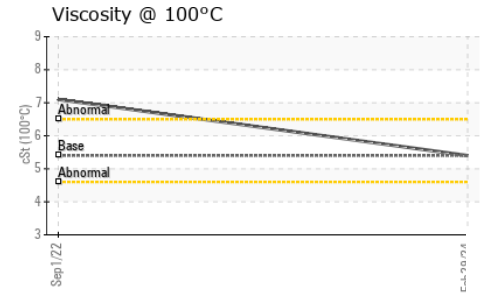
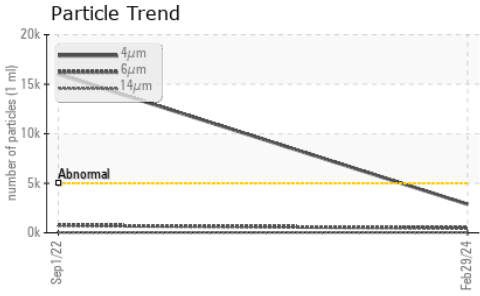
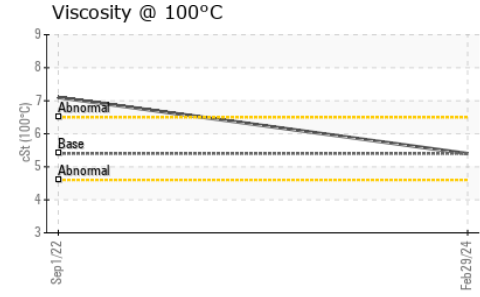
| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >20        | <b>1</b>     | 1        | ---      |
| Sodium       | ppm | ASTM D5185m |   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

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1   | history2 |
|-------------------|--|--------------|------------|-----------------|------------|----------|
| Particles >4µm    |  | ASTM D7647   | >5000      | <b>2879</b>     | ▲ 16009    | ---      |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>471</b>      | 752        | ---      |
| Particles >14µm   |  | ASTM D7647   | >160       | <b>23</b>       | 15         | ---      |
| Particles >21µm   |  | ASTM D7647   | >40        | <b>3</b>        | 3          | ---      |
| Particles >38µm   |  | ASTM D7647   | >10        | <b>0</b>        | 0          | ---      |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>        | 0          | ---      |
| Oil Cleanliness   |  | ISO 4406 (c) | >19/17/14  | <b>19/16/12</b> | ▲ 21/17/11 | ---      |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.57       | <b>0.11</b> | 0.36     | ---      |



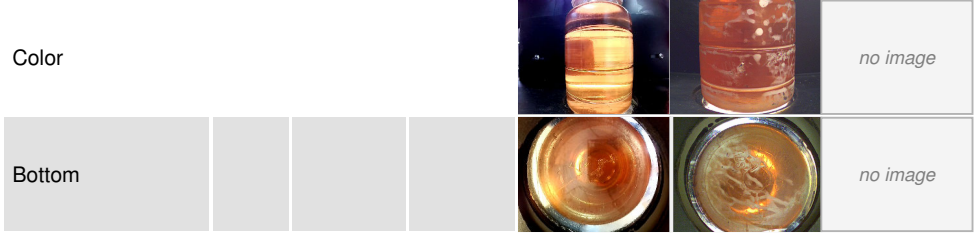
# OIL ANALYSIS REPORT



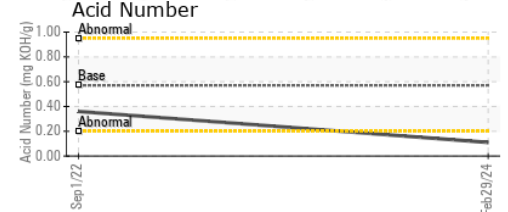
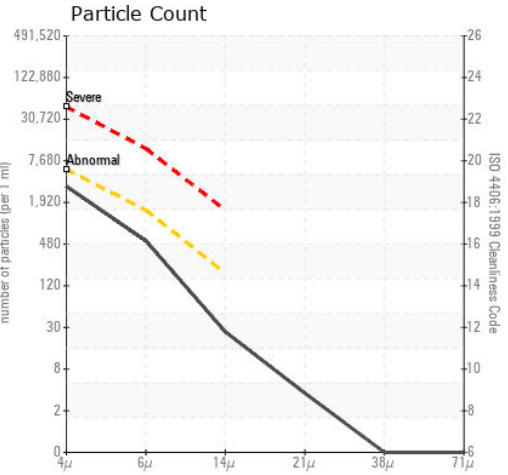
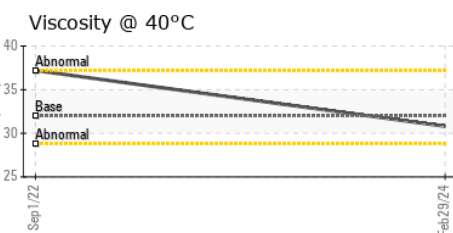
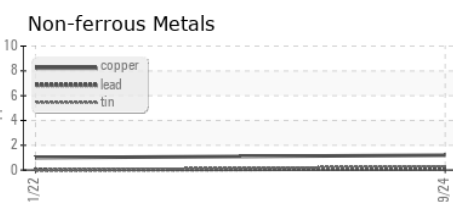
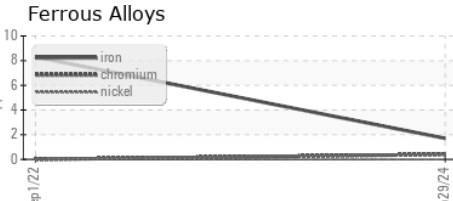
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | NONE     | ---      |
| Debris           | scalar | *Visual    | NONE    | LIGHT    | ---      |
| 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  | 32      | 30.8     | 37.2     |
| Visc @ 100°C         | cSt    | ASTM D445  | 5.4     | 5.4      | 7.1      |
| Viscosity Index (VI) | Scale  | ASTM D2270 | 102     | 109      | 156      |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0679372      **Received** : 17 Jun 2024  
**Lab Number** : 06211554      **Tested** : 18 Jun 2024  
**Unique Number** : 11084418      **Diagnosed** : 18 Jun 2024 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI )

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 F: (636)677-5800

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)