



# OIL ANALYSIS REPORT

|                 |                 |
|-----------------|-----------------|
| WEAR            | <b>NORMAL</b>   |
| CONTAMINATION   | <b>ABNORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b>   |

Machine Id  
**PRESS 321C/D (S/N M-5417-1 M-5417-2)**  
 Component  
**Hydraulic System**  
 Fluid  
**GULF AW68 (--- GAL)**

## RECOMMENDATION

We recommend you service the filters on this component. 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.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0933126</b>   | WC0761477   | WC0718292   |
| Sample Date    |     | Client Info |           | <b>15 Apr 2024</b> | 13 Mar 2024 | 09 Aug 2022 |
| Machine Age    | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ABNORMAL    | ABNORMAL    |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | 2    | 0    |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>0</b>     | 0    | 0    |
| Nickel       | ppm    | ASTM D5185m | >20  | <b>0</b>     | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | 3    | 0    |
| Lead         | ppm    | ASTM D5185m | >20  | <b>0</b>     | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >20  | <b>3</b>     | <1   | 0    |
| Tin          | ppm    | ASTM D5185m | >20  | <b>0</b>     | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

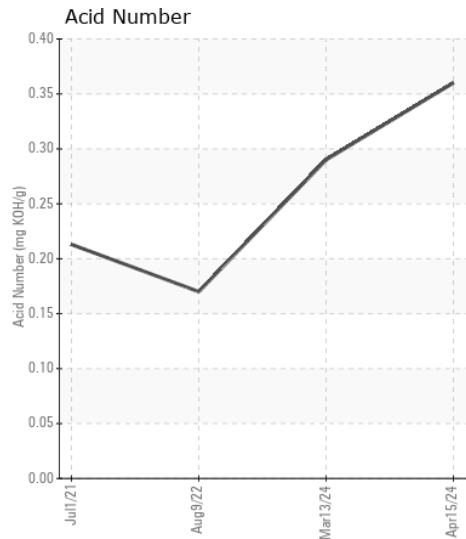
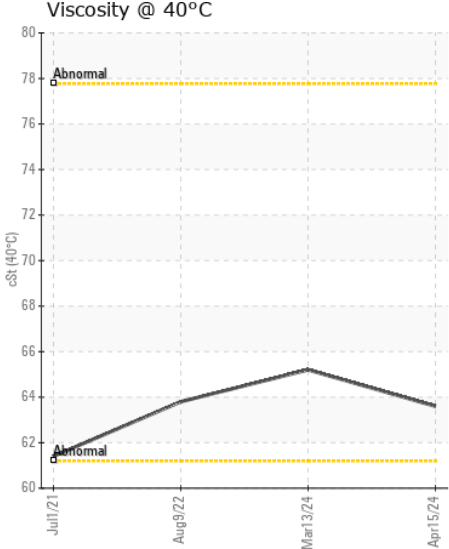
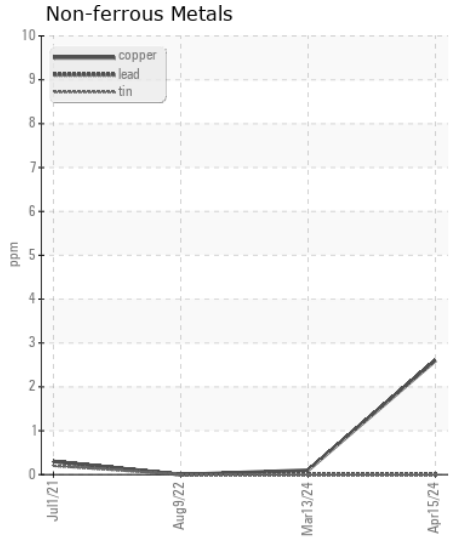
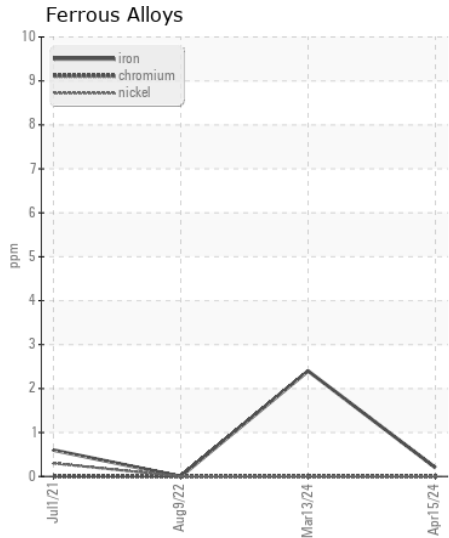
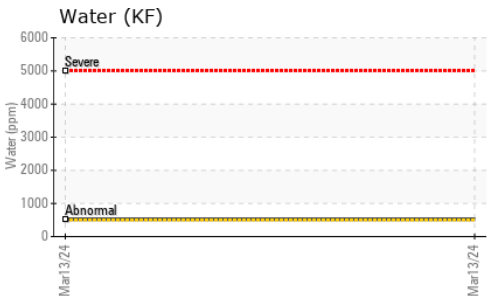
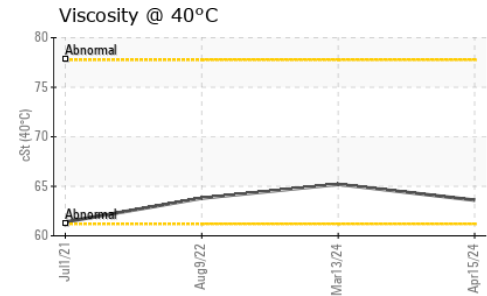
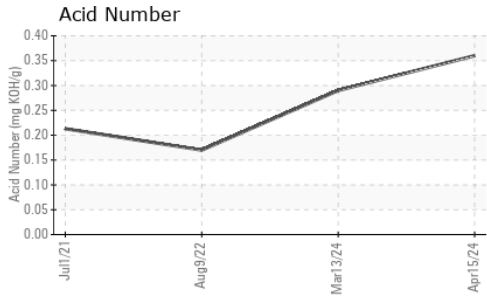
Moderate concentration of visible dirt/debris present in the oil.

|                  |        |              |           |                |         |            |
|------------------|--------|--------------|-----------|----------------|---------|------------|
| Silicon          | ppm    | ASTM D5185m  | >15       | <b>0</b>       | <1      | <1         |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>1</b>       | 0       | 0          |
| Water            | %      | ASTM D6304   | >0.05     | <b>NEG</b>     | ▲ 0.052 | NEG        |
| ppm Water        | ppm    | ASTM D6304   | >500      | <b>---</b>     | ▲ 520   | ---        |
| Particles >4µm   |        | ASTM D7647   | >5000     | <b>---</b>     | ---     | ▲ 10083    |
| Particles >6µm   |        | ASTM D7647   | >1300     | <b>---</b>     | ---     | ● 1478     |
| Particles >14µm  |        | ASTM D7647   | >160      | <b>---</b>     | ---     | 101        |
| Particles >21µm  |        | ASTM D7647   | >40       | <b>---</b>     | ---     | 19         |
| Particles >38µm  |        | ASTM D7647   | >10       | <b>---</b>     | ---     | 1          |
| Particles >71µm  |        | ASTM D7647   | >3        | <b>---</b>     | ---     | 0          |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | <b>---</b>     | ---     | ▲ 21/18/14 |
| Silt             | scalar | *Visual      | NONE      | <b>NONE</b>    | NONE    | NONE       |
| Debris           | scalar | *Visual      | NONE      | ▲ <b>MODER</b> | ▲ MODER | 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      | >0.05     | <b>NEG</b>     | 0.2%    | NEG        |

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

|                  |          |             |  |              |      |      |
|------------------|----------|-------------|--|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |  | <b>2</b>     | 3    | 0    |
| Boron            | ppm      | ASTM D5185m |  | <b>0</b>     | 0    | 0    |
| Barium           | ppm      | ASTM D5185m |  | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |  | <b>0</b>     | 0    | <1   |
| Manganese        | ppm      | ASTM D5185m |  | <b>&lt;1</b> | 0    | <1   |
| Magnesium        | ppm      | ASTM D5185m |  | <b>2</b>     | 0    | 0    |
| Calcium          | ppm      | ASTM D5185m |  | <b>65</b>    | 55   | 54   |
| Phosphorus       | ppm      | ASTM D5185m |  | <b>348</b>   | 286  | 319  |
| Zinc             | ppm      | ASTM D5185m |  | <b>422</b>   | 357  | 408  |
| Sulfur           | ppm      | ASTM D5185m |  | <b>2301</b>  | 1863 | 1327 |
| Acid Number (AN) | mg KOH/g | ASTM D8045  |  | <b>0.36</b>  | 0.29 | 0.17 |
| Visc @ 40°C      | cSt      | ASTM D445   |  | <b>63.6</b>  | 65.2 | 63.8 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0933126 **Received** : 18 Apr 2024  
**Lab Number** : 06153040 **Tested** : 22 Apr 2024  
**Unique Number** : 10983118 **Diagnosed** : 22 Apr 2024 - Don Baldrige  
**Test Package** : PLANT

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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)