



OIL ANALYSIS REPORT

| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | SEVERE |
| FLUID CONDITION | NORMAL |

Machine Id
TR-4
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

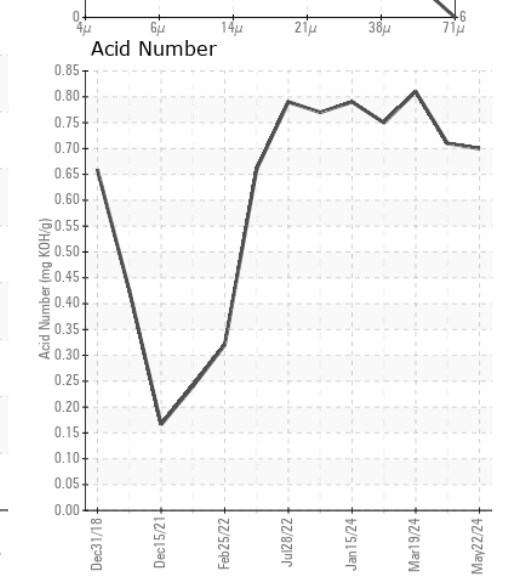
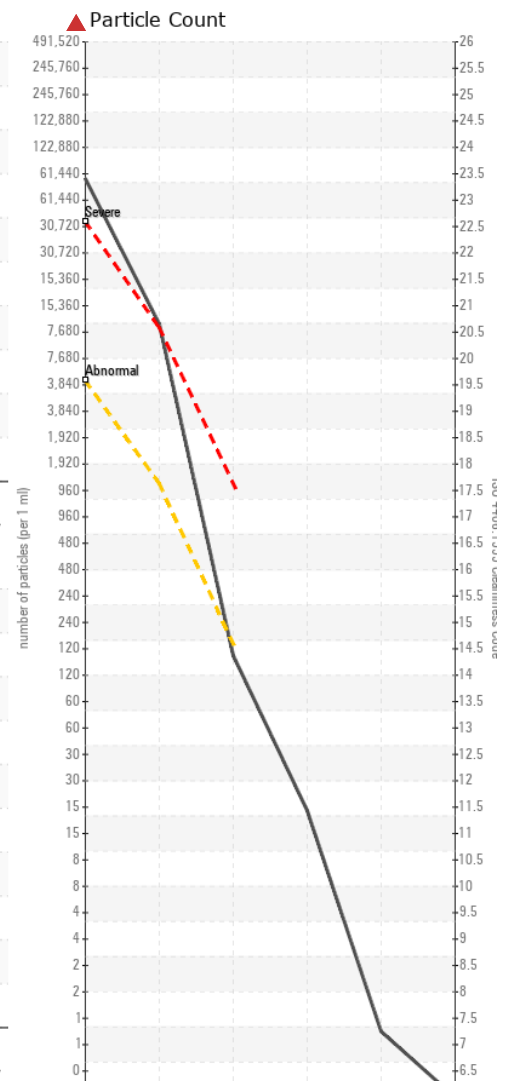
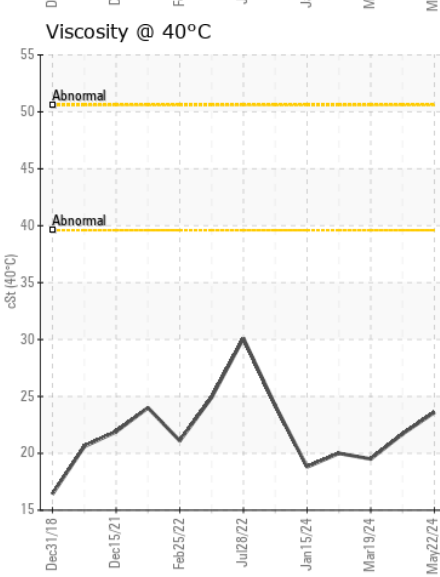
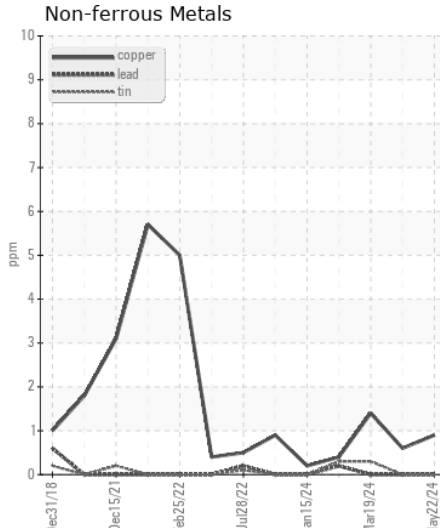
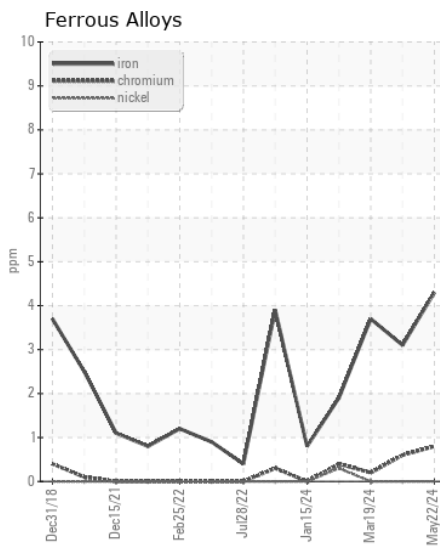
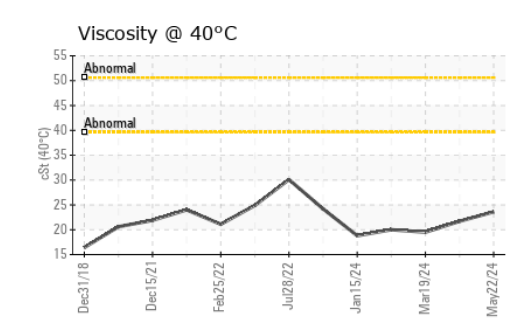
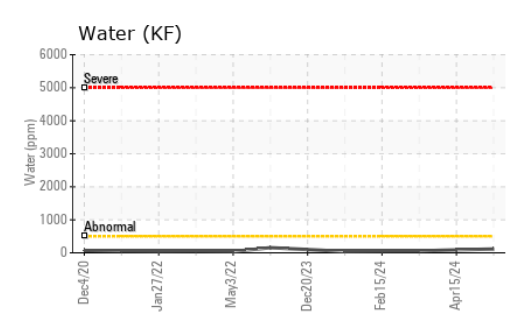
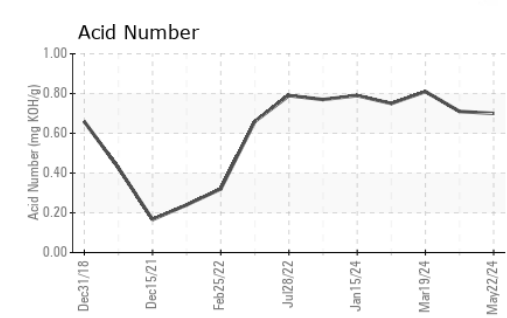
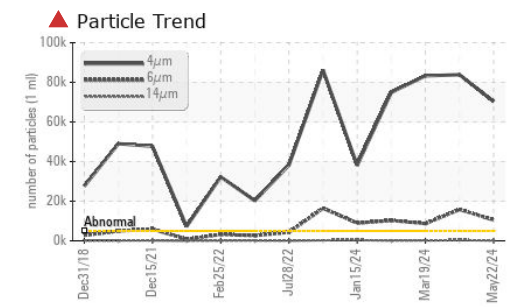
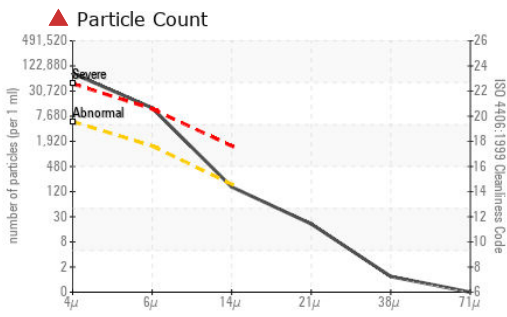
CONTAMINATION

There is a high amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|----------|--------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC06189728 | WC06152002 | WC06124928 |
| Sample Date | | Client Info | | 22 May 2024 | 15 Apr 2024 | 19 Mar 2024 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | SEVERE | ABNORMAL | SEVERE |
| Iron | ppm | ASTM D5185m | >20 | 4 | 3 | 4 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >20 | <1 | <1 | 1 |
| Tin | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >15 | <1 | <1 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 2 | 0 |
| Water | % | ASTM D6304 | >0.05 | 0.011 | 0.009 | 0.005 |
| ppm Water | ppm | ASTM D6304 | >500 | 116 | 90 | 58 |
| Particles >4µm | | ASTM D7647 | >5000 | ▲ 70354 | ▲ 83851 | ▲ 83270 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ 10520 | ▲ 15831 | ▲ 8688 |
| Particles >14µm | | ASTM D7647 | >160 | 137 | ▲ 357 | 158 |
| Particles >21µm | | ASTM D7647 | >40 | 18 | ▲ 50 | 34 |
| Particles >38µm | | ASTM D7647 | >10 | 1 | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ 23/21/14 | ▲ 24/21/16 | ▲ 24/20/14 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185m | | 2 | 2 | 1 |
| Boron | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Barium | ppm | ASTM D5185m | | 28 | 32 | 16 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | 70 | 77 | 29 |
| Phosphorus | ppm | ASTM D5185m | | 242 | 241 | 256 |
| Zinc | ppm | ASTM D5185m | | 11 | 14 | 0 |
| Sulfur | ppm | ASTM D5185m | | 4025 | 3854 | 4329 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.70 | 0.71 | 0.81 |
| Visc @ 40°C | cSt | ASTM D445 | | 23.6 | 21.7 | 19.5 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC06189728 **Received** : 23 May 2024
Lab Number : 06189728 **Tested** : 25 May 2024
Unique Number : 11046480 **Diagnosed** : 25 May 2024 - Wes Davis
Test Package : IND 2 (Additional Tests: KF)

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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)