

# WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

#### Machine Id **TR-6** 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. Resample at the next service interval to monitor. 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.

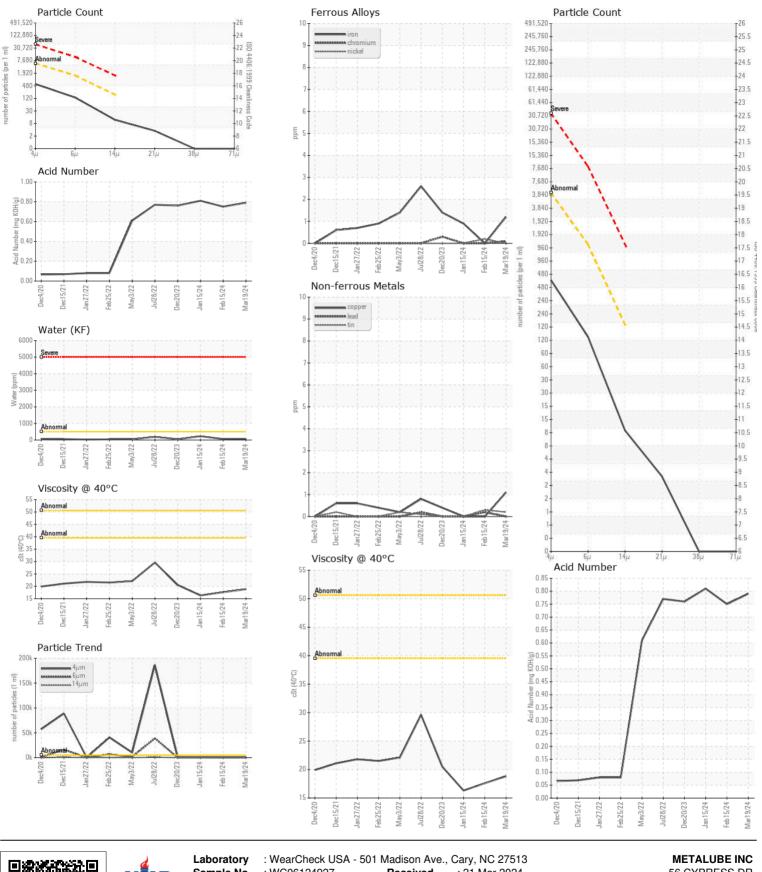
#### CONTAMINATION

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. 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.

|  | Test             | UOM      | Method       | Limit/Abn | Current     | History1    | History2    |
|--|------------------|----------|--------------|-----------|-------------|-------------|-------------|
|  | Sample Number    |          | Client Info  |           | WC06124927  | WC06093616  | WC06062686  |
|  | Sample Date      |          | Client Info  |           | 19 Mar 2024 | 15 Feb 2024 | 15 Jan 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    |          |              |           | NORMAL      | NORMAL      | NORMAL      |
|  |                  |          |              |           |             |             |             |
|  | Iron             | ppm      | ASTM D5185m  | >20       | 1           | 0           | <1          |
|  | Chromium         | ppm      | ASTM D5185m  | >20       | <1          | 0           | 0           |
|  | Nickel           | ppm      | ASTM D5185m  | >20       | 0           | <1          | 0           |
|  | Titanium         | ppm      | ASTM D5185m  |           | 0           | 0           | <1          |
|  | Silver           | ppm      | ASTM D5185m  |           | 0           | 0           | 0           |
|  | Aluminum         | ppm      | ASTM D5185m  | >20       | 0           | 0           | 1           |
|  | Lead             | ppm      | ASTM D5185m  | >20       | 0           | <1          | 0           |
|  | Copper           | ppm      | ASTM D5185m  | >20       | 1           | 0           | 0           |
|  | Tin              | ppm      | ASTM D5185m  | >20       | <1          | <1          | 0           |
|  | Vanadium         | ppm      | ASTM D5185m  | NONE      | 0           | 0           | 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       | 0           | 3           | 5           |
|  | Water            | %        | ASTM D6304   | >0.05     | 0.006       | 0.006       | 0.022       |
|  | ppm Water        | ppm      | ASTM D6304   | >500      | 66          | 61          | 223         |
|  | Particles >4µm   |          | ASTM D7647   | >5000     | 511         | 327         | 1001        |
|  | Particles >6µm   |          | ASTM D7647   | >1300     | 116         | 84          | 201         |
|  | Particles >14µm  |          | ASTM D7647   | >160      | 10          | 9           | 15          |
|  | Particles >21µm  |          | ASTM D7647   | >40       | 3           | 1           | 4           |
|  | Particles >38µm  |          | ASTM D7647   | >10       | 0           | 0           | 0           |
|  | Particles >71µm  |          | ASTM D7647   | >3        | 0           | 0           | 0           |
|  | Oil Cleanliness  |          | ISO 4406 (c) | >19/17/14 | 16/14/10    | 16/14/10    | 17/15/11    |
|  | 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  |           | 3           | 5           | 7           |
|  | Boron            | ppm      | ASTM D5185m  |           | <1          | 2           | 2           |
|  | Barium           | ppm      | ASTM D5185m  |           | <1          | 3           | 0           |
|  | Molybdenum       | ppm      | ASTM D5185m  |           | <1          | 0           | 0           |
|  | Manganese        | ppm      | ASTM D5185m  |           | <1          | <1          | 0           |
|  | Magnesium        | ppm      | ASTM D5185m  |           | 0           | 1           | <1          |
|  | Calcium          | ppm      | ASTM D5185m  |           | 2           | 6           | 5           |
|  | Phosphorus       | ppm      | ASTM D5185m  |           | 262         | 266         | 298         |
|  | Zinc             | ppm      | ASTM D5185m  |           | <1          | 2           | 0           |
|  | Sulfur           | ppm      | ASTM D5185m  |           | 4319        | 3530        | 3795        |
|  | Acid Number (AN) | mg KOH/g | ASTM D8045   |           | 0.79        | 0.75        | 0.81        |
|  | Visc @ 40°C      | cSt      | ASTM D445    |           | 18.8        | 17.6        | 16.3        |
|  |                  |          |              |           |             |             |             |



: WC06124927 56 CYPRESS DR Sample No. Received : 21 Mar 2024 YOUNGSVILLE, NC Lab Number : 06124927 Tested : 22 Mar 2024 Unique Number : 10939078 : 22 Mar 2024 - Wes Davis US 27596 Diagnosed Test Package : IND 2 (Additional Tests: KF) Contact: CHRIS BARNES Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. cbarnes@metalubeinc.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (919)554-3024 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (919)554-3023

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