WEAR CONTAMINATION FLUID CONDITION

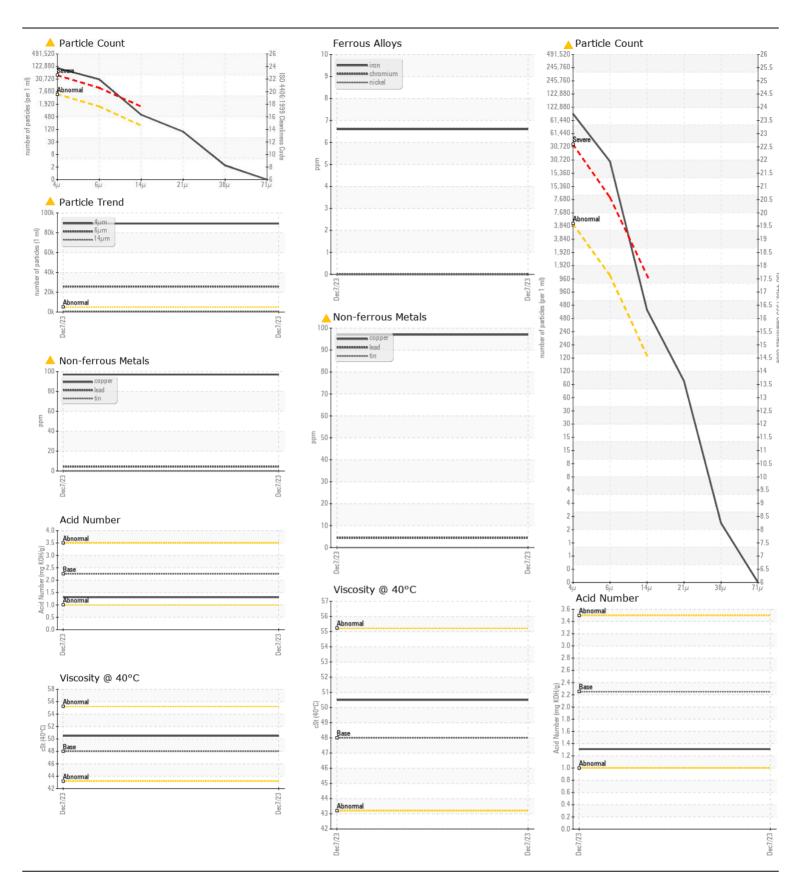
ABNORMAL ABNORMAL NORMAL

INGERSOLL RAND DD34HF ROLLER RA235 (S/N 173166)

Component Hydraulic System

TDH FLUID SAE 75W80 (--- GAL)

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|------------------|----------|--------------|-----------|-------------------|----------|----------|
| The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. | Sample Number | | Client Info | | WC0675094 | | |
| | Sample Date | | Client Info | | 07 Dec 2023 | | |
| | Machine Age | hrs | Client Info | | 6848 | | |
| | Oil Age | hrs | Client Info | | 107 | | |
| | Filter Age | hrs | Client Info | | 107 | | |
| | Oil Changed | | Client Info | | Not Changd | | |
| | Filter Changed | | Client Info | | Changed | | |
| | Sample Status | | | | ABNORMAL | | |
| WEAR | Iron | ppm | ASTM D5185m | >20 | 7 | | |
| | Chromium | ppm | ASTM D5185m | >10 | 0 | | |
| The copper level is abnormal. All other component wear rates are normal. | Nickel | ppm | ASTM D5185m | >10 | 0 | | |
| | Titanium | ppm | ASTM D5185m | | <1 | | |
| | Silver | ppm | ASTM D5185m | | 0 | | |
| | Aluminum | ppm | ASTM D5185m | >10 | 1 | | |
| | Lead | ppm | ASTM D5185m | >10 | 4 | | |
| | Copper | ppm | ASTM D5185m | >75 | <u> </u> | | |
| | Tin | ppm | ASTM D5185m | >10 | 0 | | |
| | Vanadium | ppm | ASTM D5185m | | 0 | | |
| | White Metal | scalar | *Visual | NONE | NONE | | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >20 | 4 | | |
| There is a high amount of particulates present in the oil. | Potassium | ppm | ASTM D5185m | >20 | <1 | | |
| | Water | | WC Method | >0.1 | NEG | | |
| | Particles >4µm | | ASTM D7647 | >5000 | A 89247 | | |
| | Particles >6µm | | ASTM D7647 | >1300 | 25668 | | |
| | Particles >14μm | | ASTM D7647 | >160 | △ 528 | | |
| | Particles >21µm | | ASTM D7647 | >40 | A 82 | | |
| | Particles >38μm | | ASTM D7647 | >10 | 2 | | |
| | Particles >71μm | | ASTM D7647 | >3 | 0 | | |
| | Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | 4 24/22/16 | | |
| | Silt | scalar | *Visual | NONE | NONE | | |
| | Debris | scalar | *Visual | NONE | NONE | | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | | |
| | Appearance | scalar | *Visual | NORML | NORML | | |
| | Odor | scalar | *Visual | NORML | NORML | | |
| | Emulsified Water | scalar | *Visual | >0.1 | NEG | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | <1 | | |
| | Boron | ppm | ASTM D5185m | 10 | 17 | | |
| The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. | Barium | ppm | ASTM D5185m | | 0 | | |
| | Molybdenum | ppm | ASTM D5185m | | <1 | | |
| | Manganese | ppm | ASTM D5185m | | 0 | | |
| | Magnesium | ppm | ASTM D5185m | 100 | 17 | | |
| | Calcium | ppm | ASTM D5185m | | 2690 | | |
| | Phosphorus | ppm | ASTM D5185m | 1150 | 907 | | |
| | Zinc | ppm | ASTM D5185m | | 1112 | | |
| | Sulfur | ppm | ASTM D5185m | | 6304 | | |
| | Acid Number (AN) | mg KOH/g | ASTM D8045 | | 1.31 | | |
| | Visc @ 40°C | cSt | ASTM D445 | | 50.5 | | |





Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: 06062583 : 10833965 Test Package : CONST

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0675094 : 17 Jan 2024 Recieved Diagnosed : 19 Jan 2024 : Jonathan Hester Diagnostician

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)

GRAY & SON INC 430 W PADONIA RD TIMONIUM, MD US 21093-2274

Contact: DON WIMER dwimer@graynson.com

T: (410)771-4311 F: (410)560-0394