

WEAR CONTAMINATION **FLUID CONDITION**

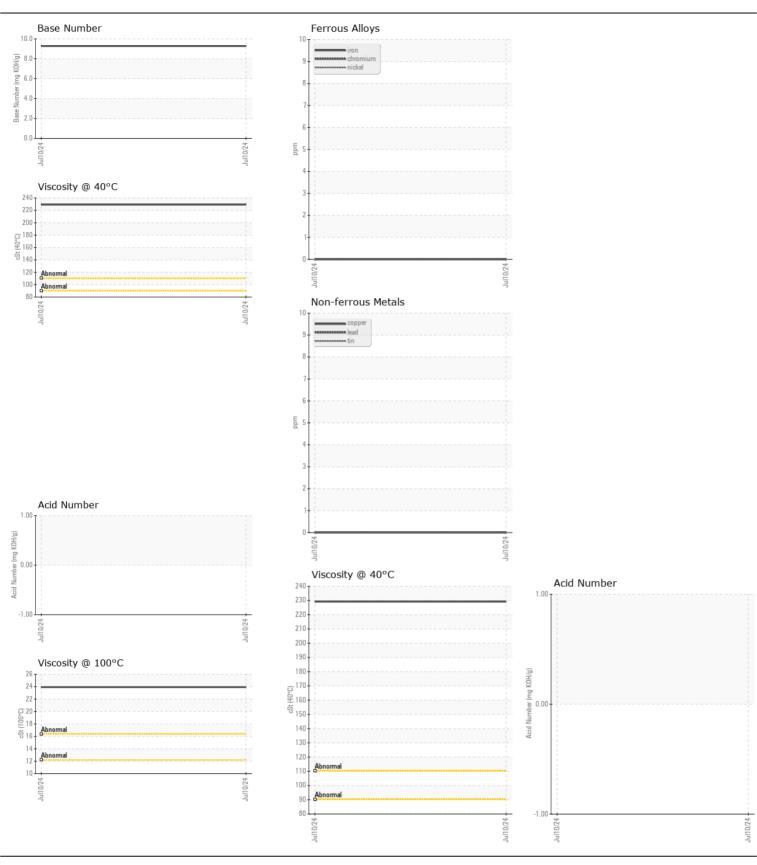
NORMAL NORMAL NORMAL

Machine Id

24G1001 MATV-435

Component New (Unused) Oil

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History |
|--|---|------------------------|--------------------------------------|-----------|----------------|----------|---------|
| | Sample Number | | Client Info | | HPL0005644 | | |
| This is a baseline read-out on the submitted sample. (Customer Sample Comment: Please run a TBN) | Sample Date | | Client Info | | 10 Jul 2024 | | |
| | Machine Age | hrs | Client Info | | 0 | | |
| | Oil Age | hrs | Client Info | | 0 | | |
| | Filter Age | hrs | Client Info | | 0 | | |
| | Oil Changed | | Client Info | | Not Changd | | |
| | Filter Changed | | Client Info | | N/A | | |
| | Sample Status | | | | NORMAL | | |
| WEAR | | | ACTM DE10E | | • | | |
| | Iron | ppm | ASTM D5185m | | 0 | | |
| | Chromium | ppm | ASTM D5185m | | 0 | | |
| | Nickel | ppm | ASTM D5185m | | 0 | | |
| | Titanium | ppm | ASTM D5185m | | 0 | | |
| | Silver | ppm | ASTM D5185m | | 0 | | |
| | Aluminum | ppm | ASTM D5185m | | 1 | | |
| | Lead | ppm | ASTM D5185m | | 0 | | |
| | Copper | ppm | ASTM D5185m | | 0 | | |
| | Tin | ppm | ASTM D5185m | | 0 | | |
| | Vanadium | ppm | ASTM D5185m | NONE | 0 | | |
| | White Metal | scalar | *Visual | NONE | NONE | | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | | 4 | | |
| | Potassium | ppm | ASTM D5185m | >20 | 1 | | |
| | Water | | WC Method | | NEG | | |
| | 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 | | NEG | | |
| FLUID CONDITION | | | | | | | |
| | Sodium | ppm | ASTM D5185m | | <1 | | |
| | Boron | | ASTM D5185m | | 0 | | |
| | Barium | ppm | ASTM D5185m | | 0 | | |
| | Molybdenum | ppm | ASTM D5185m | | 34 | | |
| | Manganese | ppm | ASTM D5185m | | <1 | | |
| | Magnesium | ppm | ASTM D5185m | | 46 | | |
| | Calcium | ppm | ASTM D5185m | | 1862 | | |
| | Phosphorus | ppm | ASTM D5185m | | 1041 | | |
| | Zinc | ppm | ASTM D5185m | | 1181 | | |
| | Sulfur | ppm | ASTM D5185m | | 8729 | | |
| | D N | 1/011/ | | | | | |
| | Base Number (BN) | mg KOH/g | ASTM D2896 | | 9.28 | | |
| | Base Number (BN) Visc @ 40°C Visc @ 100°C | mg KOH/g cSt cSt | ASTM D2896 ASTM D445 ASTM D445 | | 229.2 23.92 | | |





Certificate L2367

Laboratory Sample No.

Lab Number : 06237459

: HPL0005644 Unique Number : 11126293

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 15 Jul 2024

Tested : 18 Jul 2024 : 18 Jul 2024 - Jonathan Hester Diagnosed

500 S SPRUCE ST MANTENO, IL

HIGH PERFORMANCE LUBRICANTS LLC

Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TBN, VI) Contact: DAVID WARD

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. sampledata@hplubricants.com T: (815)468-3535

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: x:

US 60950