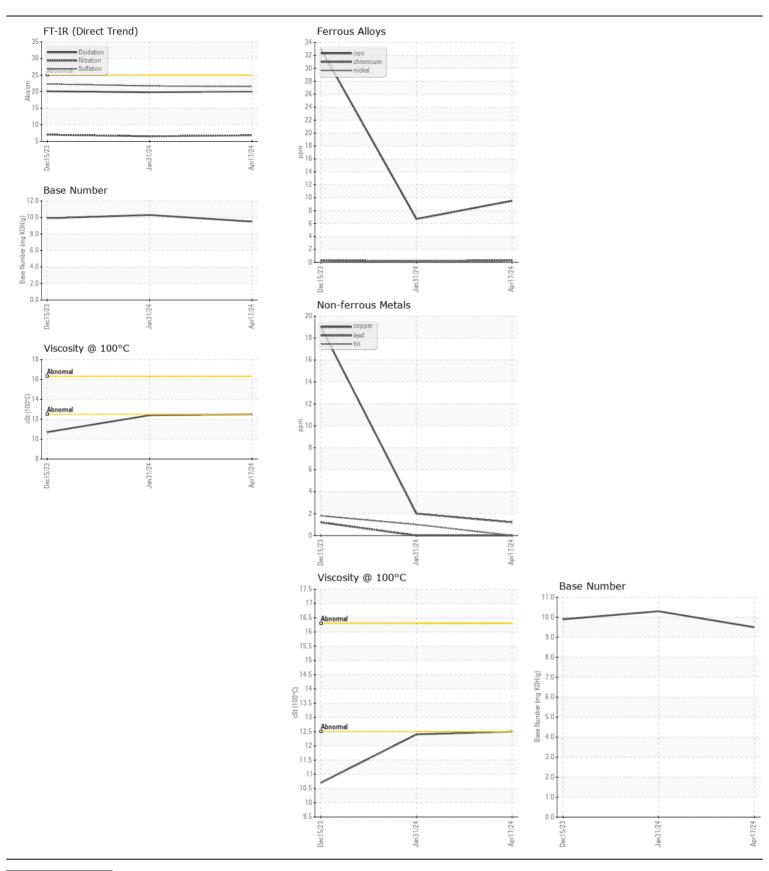


WEAR CONTAMINATION FLUID CONDITION **NORMAL NORMAL NORMAL**



OKLAHOMA/3/EG - TRUCK-OFF-HWY-HEAVY HAUL 69.04 [OKLAHOMA^3^EG - TRUCK-OFF-HWY-HEAVY HAUL] Diesel Engine

| MOBIL 15W40 (GAL) | | | | | | | |
|---|---------------------|------------------|----------------------------|-------------|--------------|--------------|---------------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| TECOMMENDATION | Sample Number | OOW | Client Info | LIIIIU/ADII | WC0914455 | WC0874011 | WC0874027 |
| Resample at the next service interval to monitor. | Sample Date | | Client Info | | 17 Apr 2024 | 31 Jan 2024 | 15 Dec 2023 |
| | Machine Age | hrs | Client Info | | 1969 | 1453 | 604 |
| | Oil Age | hrs | Client Info | | 59 | 1050 | 604 |
| | Filter Age | hrs | Client Info | | 59 | 500 | 604 |
| | Oil Changed | | Client Info | | Changed | Changed | Changed |
| | Filter Changed | | Client Info | | Changed | Changed | Changed |
| | Sample Status | | | | NORMAL | NORMAL | ABNORMAL |
| WEAD | lvan | | ACTM DE10Em | . 100 | 40 | 7 | 00 |
| WEAR | Iron | ppm | ASTM D5185m | | 10 | 7 | 33 |
| All component wear rates are normal. | Chromium Nickel | ppm | ASTM D5185m | | <1 0 | <1 | <1 0 |
| | Titanium | ppm | ASTM D5185m ASTM D5185m | | | <1 0 | <1 |
| | Silver | ppm | | | 0 | | |
| | Aluminum | ppm | ASTM D5185m ASTM D5185m | | 2 | 0 2 | 0 |
| | Lead | ppm | ASTM D5185m | | 0 | 0 | 1 |
| | Copper | ppm | ASTM D5185m | | 1 | 2 | 19 |
| | Tin | ppm | ASTM D5185m | | 0 | 1 | 2 |
| | Vanadium | ppm | ASTM D5185m | 710 | 0 | 0 | 0 |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | | | | | | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 4 | 6 | 41 |
| There is no indication of any contamination in the oil. | Potassium | ppm | ASTM D5185m | >20 | 0 | 1 | 2 |
| | Fuel | | WC Method | >5 | <1.0 | <1.0 | <u>^</u> 2.6 |
| | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| | Glycol | | WC Method | - | NEG | NEG | NEG |
| | Soot % | % | *ASTM D7844 | | 0.2 | 0.2 | 0.3 |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 6.8 | 6.5 | 7.0 |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 21.5 | 21.7 | 22.3 |
| | Silt | scalar | *Visual | NONE | NONE | NONE | NONE NONE |
| | Debris Sand/Dirt | scalar scalar | *Visual *Visual | NONE | NONE NONE | NONE NONE | NONE |
| | Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| | Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| | Emulsified Water | | *Visual | >0.2 | NEG | NEG | NEG |
| | | | | | | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | >118 | 3 | 3 | 0 |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Boron | ppm | ASTM D5185m | | 49 | 49 | 46 |
| | Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Molybdenum | ppm | ASTM D5185m | | 42 | 36 | 42 |
| | Manganese | ppm | ASTM D5185m | | 0 | <1 | 2 |
| | Magnesium | ppm | ASTM D5185m | | 544 | 467 | 497 |
| | Calcium | ppm | ASTM D5185m | | 1863 | 1518 | 1634 |
| | Phosphorus | ppm | ASTM D5185m | | 823 | 731 | 826 |
| | Zinc | ppm | ASTM D5185m | | 969 | 833 | 1056 |
| | Sulfur Oxidation | ppm Abo/ 1mm | ASTM D5185m | - OF | 3146 | 2350 | 2865 |
| | Base Number (BN) | Abs/.1mm | *ASTM D7414 | >20 | 20.0 9.5 | 19.8 10.3 | 20.1 9.9 |
| | Visc @ 100°C | mg KUH/g cSt | ASTM D2896 ASTM D445 | | | 10.3 | 9.9 ▲ 10.7 |
| | VISC W TOU-C | USI | 49 INI D445 | | 12.5 | 12.4 | 10./ |







Certificate L2367

Laboratory Sample No.

: WC0914455 Lab Number : 06160084 Unique Number: 10995507

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Diagnosed Test Package : CONST (Additional Tests: TBN)

Received : 25 Apr 2024 **Tested** : 25 Apr 2024

: 25 Apr 2024 - Wes Davis

SHERWOOD CONSTRUCTION CO INC 3219 WEST MAY ST WICHITA, KS US 67213

Contact: SHAWN SOUTH shawn.south@sherwood.net T: x:

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.

F: x: