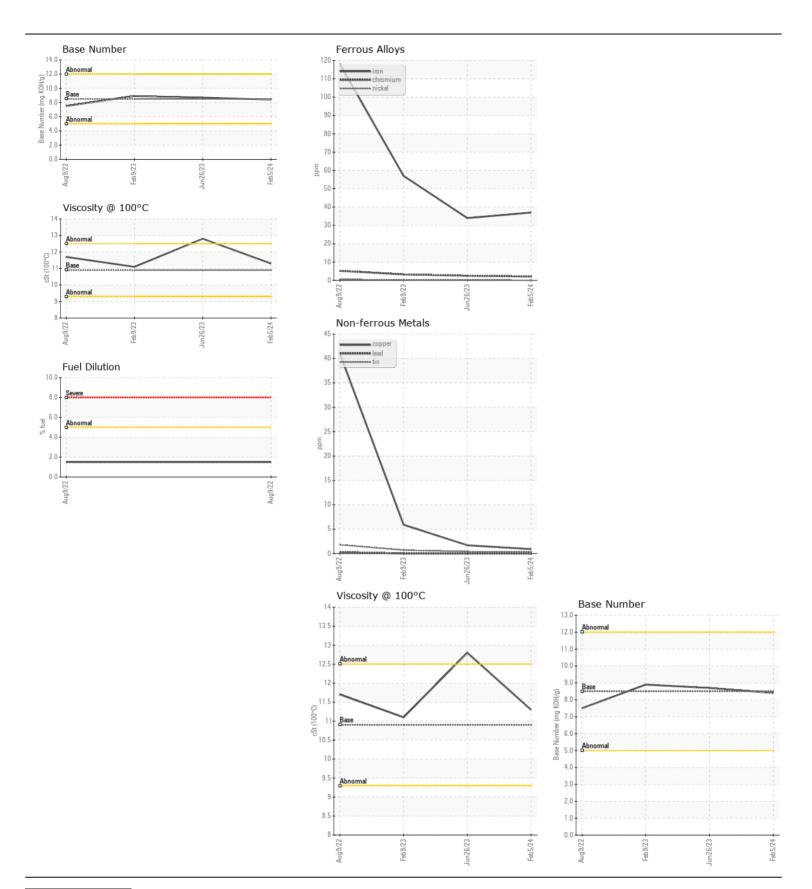
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

Machine Id **6221294**

Component
Diesel Engine

| Test | Diesel Engine Fluid DIESEL ENGINE OIL SAE 30 (GAL) | | | | | | | |
|--|---|------------------|----------|-------------|-------------|---------|----------|----------|
| Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENDINGE OIL SAE 30. Please confirm. Please specify the component make and model with your next sample. Please specify the component make and model with your next sample. Please specify the component make and model with your next sample. Please specify the component make and model with your next sample. Please specify the component make and model with your next sample. Please specify the component make and model with your next sample. Please specify the component make and model with your next sample. Please specify the component make and model with your next sample. Please specify the component make and model with your next sample. Please specify the component make and model with your next sample. Please specify the component wear rates are normal. Please specify the component wear | | Teet | LIOM | Method | Limit/Ahn | Current | History1 | History2 |
| Assample at the next service interval to monifor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL \$28.20. Please confirm. Please specify the component make and model with your next sample. Please specify the component make and model with your next sample. Coll Ange mils Collent Info O O O O O O O O O | | | OOW | | LITTION | | - | _ |
| Mechane Age mis Citent Info 98512 896179 53500 200000 200000 200000 200000 200000 200000 200000 200000 200000 200000 2000000 2000000 20000000 20000000 200000000 | specified, however, a fluid match indicates that this fluid is (GENERIC) | • | | | | | | |
| Collage | | | mls | | | | | |
| Filter Age | | J | | | | | | |
| Maching Mach | Please specify the component make and model with your flext sample. | | | | | | | |
| State | | - | | | | | | |
| NORMAL N | | • | | Client Info | | | | |
| Iron | | _ | | | | | | |
| All component wear rates are normal. Chromium ppm ASTM 0585m 20 2 2 3 Nickel ppm ASTM 0585m 40 0 0 0 Auturinum ppm ASTM 0585m 30 0 0 0 Auturinum ppm ASTM 0585m 30 0 0 0 Auturinum ppm ASTM 0585m 30 0 0 0 Auturinum ppm ASTM 0585m 320 14 14 26 Lead ppm ASTM 0585m 320 14 14 26 Copper ppm ASTM 0585m 320 14 14 26 Copper ppm ASTM 0585m 320 14 14 26 Copper ppm ASTM 0585m 320 14 2 6 Tin ppm ASTM 0585m 320 21 2 2 6 Tin ppm ASTM 0585m 320 21 2 2 6 Tin ppm ASTM 0585m 320 21 2 2 6 Tin ppm ASTM 0585m 320 2 2 2 3 Tin ppm ASTM 0585m 320 2 2 2 3 Tin ppm ASTM 0585m 320 2 2 3 3 3 Tin ppm ASTM 0585m 320 2 3 3 3 Tin ppm ASTM 0585m 320 3 3 3 3 Tin ppm ASTM 0585m 320 3 3 3 3 Tin ppm ASTM 0585m 320 3 3 Tin ppm ASTM 0585m 320 3 3 Tin ppm ASTM 0585m 320 3 3 Tin ppm ASTM 05 | | | | | | | | |
| All component wear rates are normal. Nickel ppm ASTM DS155m 44 0 0 0 0 | WEAR | Iron | ppm | | | | | |
| Titanium ppm ASTMOBISSES | All component wear rates are normal. | | ppm | | | | | |
| Silver | | | ppm | | >4 | | | |
| Aluminum ppm ASTM D5185m >20 14 14 26 | | | ppm | | | | | |
| Lead ppm ASTM DS185m 340 0 0 0 0 0 0 0 0 0 | | | | | | | | |
| Copper | | | ppm | | | | | |
| Tin | | | • • | | | | | |
| Vanadium ppm ASTM D5185m NONE | | | | | | | | |
| White Metal Yellow Metal Scalar "Visual NONE NONE NONE NONE NONE NONE NONE NON | | | | | >15 | | | |
| Vellow Metal Scalar Visual NONE NO | | | | | | | | |
| CONTAMINATION | | | | | | | | |
| Potassium ppm ASTM D5185m >20 17 22 64 | | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Potassium ppm ASTM D5185m >20 17 22 64 | CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 8 | 7 | 12 |
| Flevalted aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil. | | | | | | | | |
| Value | your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no | Fuel | | | | <1.0 | <1.0 | <1.0 |
| Sot % % ASTM D784 | | Water | | WC Method | >0.2 | | NEG | NEG |
| Soot % | | Glycol | | WC Method | | NEG | NEG | NEG |
| Sulfation Abs/.fmm *ASTM D7415 >30 21.8 21.3 22.7 | | - | % | *ASTM D7844 | >3 | 0.4 | 0.5 | 0.6 |
| Silt Scalar *Visual NONE NORML | | Nitration | Abs/cm | *ASTM D7624 | >20 | 9.4 | 10.3 | 9.8 |
| Debris Scalar *Visual NONE NORML NORM | | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.8 | 21.3 | 22.7 |
| Sand/Dirt Scalar *Visual NONE NONE NONE NORML | | Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | | Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| NORML NORML NORML NORML Emulsified Water scalar *Visual *Visual *Visual *O.2 NEG | | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Emulsified Water scalar *Visual >0.2 NEG NEG NEG | | | scalar | *Visual | NORML | NORML | NORML | NORML |
| Sodium ppm ASTM D5185m >75 3 2 0 | | Odor | scalar | | NORML | NORML | NORML | |
| Boron ppm ASTM D5185m 250 58 18 31 | | Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |
| Boron ppm ASTM D5185m 250 58 18 31 | ELUID CONDITION | Sodium | nnm | ASTM D5185m | ~ 75 | ą | 2 | 0 |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Barium ppm ASTM D5185m 100 0 0 0 0 0 0 0 0 | I LOID CONDITION | | | | | | | |
| Molybdenum ppm ASTM D5185m 100 48 38 49 Manganese ppm ASTM D5185m 450 508 452 508 Calcium ppm ASTM D5185m 3000 1652 1668 1638 Phosphorus ppm ASTM D5185m 1150 809 777 735 Zinc ppm ASTM D5185m 1350 960 973 905 Sulfur ppm ASTM D5185m 4250 2450 2571 2453 Oxidation Abs/.1mm *ASTM D7414 >25 21.0 19.6 21.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.4 8.7 8.9 | | | | | | | | |
| Manganese ppm ASTM D5185m <1 | | | • • | | | | | |
| Magnesium ppm ASTM D5185m 450 508 452 508 Calcium ppm ASTM D5185m 3000 1652 1668 1638 Phosphorus ppm ASTM D5185m 1150 809 777 735 Zinc ppm ASTM D5185m 1350 960 973 905 Sulfur ppm ASTM D5185m 4250 2450 2571 2453 Oxidation Abs/.1mm *ASTM D7414 >25 21.0 19.6 21.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.4 8.7 8.9 | | | | | 100 | | | |
| Calcium ppm ASTM D5185m 3000 1652 1668 1638 Phosphorus ppm ASTM D5185m 1150 809 777 735 Zinc ppm ASTM D5185m 1350 960 973 905 Sulfur ppm ASTM D5185m 4250 2450 2571 2453 Oxidation Abs/.1mm *ASTM D7414 >25 21.0 19.6 21.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.4 8.7 8.9 | | | | | 450 | | | |
| Phosphorus ppm ASTM D5185m 1150 809 777 735 Zinc ppm ASTM D5185m 1350 960 973 905 Sulfur ppm ASTM D5185m 4250 2450 2571 2453 Oxidation Abs/.1mm *ASTM D7414 >25 21.0 19.6 21.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.4 8.7 8.9 | | • | | | | | | |
| Zinc ppm ASTM D5185m 1350 960 973 905 Sulfur ppm ASTM D5185m 4250 2450 2571 2453 Oxidation Abs/.1mm *ASTM D7414 >25 21.0 19.6 21.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.4 8.7 8.9 | | | | | | | | |
| Sulfur ppm ASTM D5185m 4250 2450 2571 2453 Oxidation Abs/.1mm *ASTM D7414 >25 21.0 19.6 21.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.4 8.7 8.9 | | | | | | | | |
| Oxidation Abs/.1mm *ASTM D7414 >25 21.0 19.6 21.2 Base Number (BN) mg KOH/g ASTM D2896 8.5 8.4 8.7 8.9 | | | | | | | | |
| Base Number (BN) mg KOH/g ASTM D2896 8.5 8.4 8.7 8.9 | | | | | | | | |
| | | | | | | | | |
| | | () | | | | | | |







Laboratory Sample No.

: IL0034837 Lab Number : 06085884

Unique Number: 10873329

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 12 Feb 2024 **Tested**

Diagnosed Test Package : FLEET (Additional Tests: FuelDilution)

: 13 Feb 2024

: 13 Feb 2024 - Wes Davis

4675 BAKERS FERRY ROAD ATLANTA, GA US 30331 Contact: DAVID JOHNS

davidjohns@idealease.com

IDEALEASE OF ATLANTA - FULTON

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)

T: (404)699-5571 F: (404)699-7420

Contact/Location: DAVID JOHNS - IDEATLGA