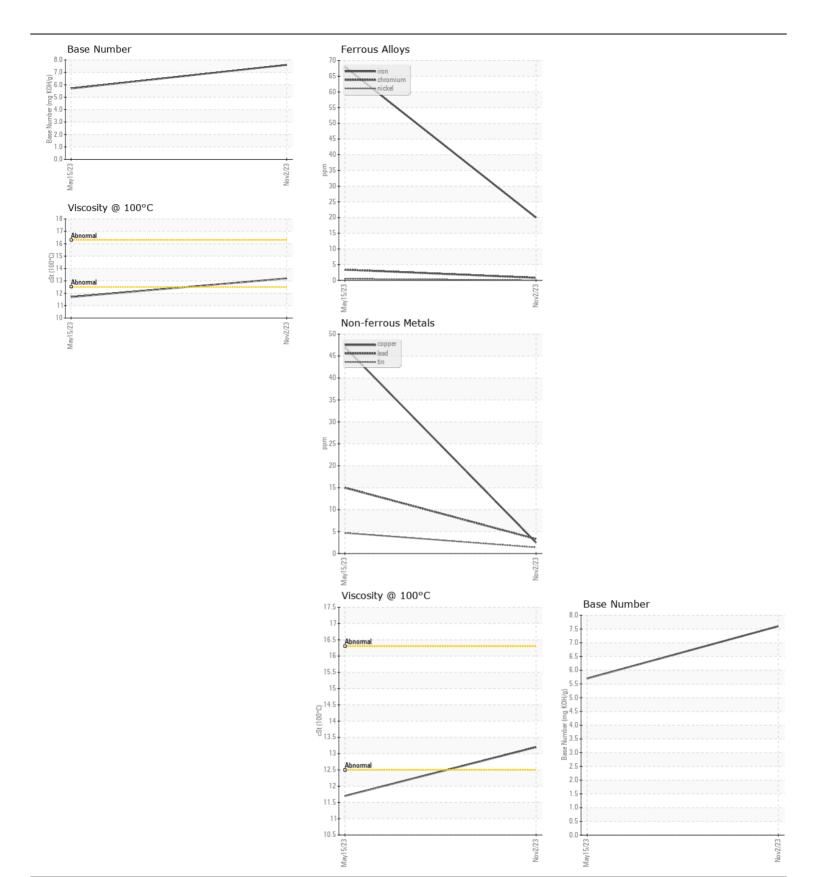


WEAR CONTAMINATION **FLUID CONDITION** **NORMAL NORMAL NORMAL**

Machine Id **813609**

| Diesel Engine | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------|----------------------------------------------------------------------|----------|
| MODU 45W40 (OAL) | | | | | | | |
| MOBIL 15W40 (GAL) | | | | | | | |
| RECOMMENDATION Te | est | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Resample at the next service interval to monitor. Please specify the | ample Number | | Client Info | | RPL0008083 | RPL0008169 | |
| component make and model with your next sample. | ample Date | | Client Info | | 02 Nov 2023 | 15 May 2023 | |
| | lachine Age | mls | Client Info | | 115160 | 38851 | |
| | oil Age | mls | Client Info | | 33574 | 38851 | |
| | ilter Age | mls | Client Info | | 33574 | 38851 | |
| | il Changed | | Client Info | | Changed | Changed | |
| | ilter Changed | | Client Info | | Changed | Changed | |
| | ample Status | | | | NORMAL | NORMAL | |
| WEAR | on | ppm | ASTM D5185m | >100 | 20 | 68 | |
| All | Chromium | ppm | ASTM D5185m | >20 | <1 | 3 | |
| All component wear rates are normal. | lickel | ppm | ASTM D5185m | >4 | 0 | <1 | |
| | itanium | ppm | ASTM D5185m | | 0 | <1 | |
| Si | ilver | ppm | ASTM D5185m | >3 | <1 | 0 | |
| | luminum | ppm | ASTM D5185m | >20 | 11 | 47 | |
| Le | ead | ppm | ASTM D5185m | >40 | 3 | 15 | |
| | Copper | ppm | ASTM D5185m | >330 | 2 | 47 | |
| | ïn | ppm | ASTM D5185m | >15 | 1 | 5 | |
| Va | anadium | ppm | ASTM D5185m | | 0 | 0 | |
| | Vhite Metal | scalar | *Visual | NONE | NONE | NONE | |
| | ellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| | | | | | _ | | |
| Elevated 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. | ilicon | ppm | ASTM D5185m | | 7 | 37 | |
| | otassium | ppm | ASTM D5185m | | 27 | 150 | |
| | uel | | | >5 | <1.0 | 0.4 | |
| | Vater | | WC Method | >0.2 | NEG | NEG | |
| | ilycol | 21 | WC Method | 0 | NEG | NEG | |
| | oot % | % | *ASTM D7844 | | 0.5 | 0.7 | |
| | litration | Abs/cm | | >20 | 9.9 | 11.8 | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 21.8 | 24.8 | |
| | ilt Nataria | scalar | *Visual | NONE | NONE | NONE | |
| | ebris | scalar | *Visual | NONE | NONE | NONE | |
| | and/Dirt | scalar | *Visual | NONE | NONE | NONE NORML | |
| | ppearance Odor | scalar | *Visual | NORML NORML | NORML | NORML | |
| | JUUI | scalar | Visuai | NONIVIL | NORML | | |
| | | scalar | *Visual | >0.2 | NEG | NEG | |
| Er | mulsified Water | | | >0.2 | NEG | NEG | |
| FLUID CONDITION So | mulsified Water odium | ppm | ASTM D5185m | | <1 | 4 | |
| FLUID CONDITION So The PN result indicates that there is quitable alkeligity remaining in the | mulsified Water odium oron | ppm ppm | ASTM D5185m ASTM D5185m | | <1 4 | 4 19 | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | mulsified Water codium coron darium | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | | <1 4 0 | 4 19 0 | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | mulsified Water codium coron carium folybdenum | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 4 0 66 | 4 19 0 19 | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Er Ba M M | mulsified Water codium coron darium dolybdenum danganese | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 4 0 66 <1 | 4 19 0 19 6 | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Back MM MM | mulsified Water codium coron carium dolybdenum danganese dagnesium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 4 0 66 <1 990 | 4 19 0 19 6 728 | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Baseline | mulsified Water codium coron carium dolybdenum danganese dagnesium calcium | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 4 0 66 <1 990 1072 | 4 19 0 19 6 728 1442 | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. M M M Ci | mulsified Water dodium doron derium dolybdenum danganese dagnesium calcium chosphorus | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 4 0 66 <1 990 1072 1075 | 4 19 0 19 6 728 1442 751 | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Back MM MM Care Price | mulsified Water codium coron carium dolybdenum danganese dagnesium calcium chosphorus | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | | <1 4 0 66 <1 990 1072 1075 1305 | 4 19 0 19 6 728 1442 751 938 | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. M M M Ca Pf Zi St | mulsified Water codium doron darium dolybdenum danganese dagnesium calcium chosphorus inc | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | >118 | <1 4 0 66 <1 990 1072 1075 1305 2899 | 4 19 0 19 6 728 1442 751 938 3108 | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. M M M Ca Pr Zi Si O: | mulsified Water codium doron darium dolybdenum danganese dagnesium calcium chosphorus inc culfur oxidation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m *ASTM D7414 | >118 | <1 4 0 66 <1 990 1072 1075 1305 2899 18.0 | 4 19 0 19 6 728 1442 751 938 3108 21.7 | |
| FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. M M Ca Pr Zi Su Oi Ba | mulsified Water codium doron darium dolybdenum danganese dagnesium calcium chosphorus inc culfur oxidation | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | >118 | <1 4 0 66 <1 990 1072 1075 1305 2899 | 4 19 0 19 6 728 1442 751 938 3108 | |







Laboratory Sample No. Lab Number Unique Number : 10832288

: RPL0008083 : 06060906 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 16 Jan 2024 : 17 Jan 2024 Diagnosed

Diagnostician : Wes Davis RTL PACLEASE - 7017 - Oklahoma City

8700 West I-40 Oklahoma City, OK US 73128

Contact: TECHNICIAN ACCOUNT catherine.anastasio@wearcheck.com

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:

F: