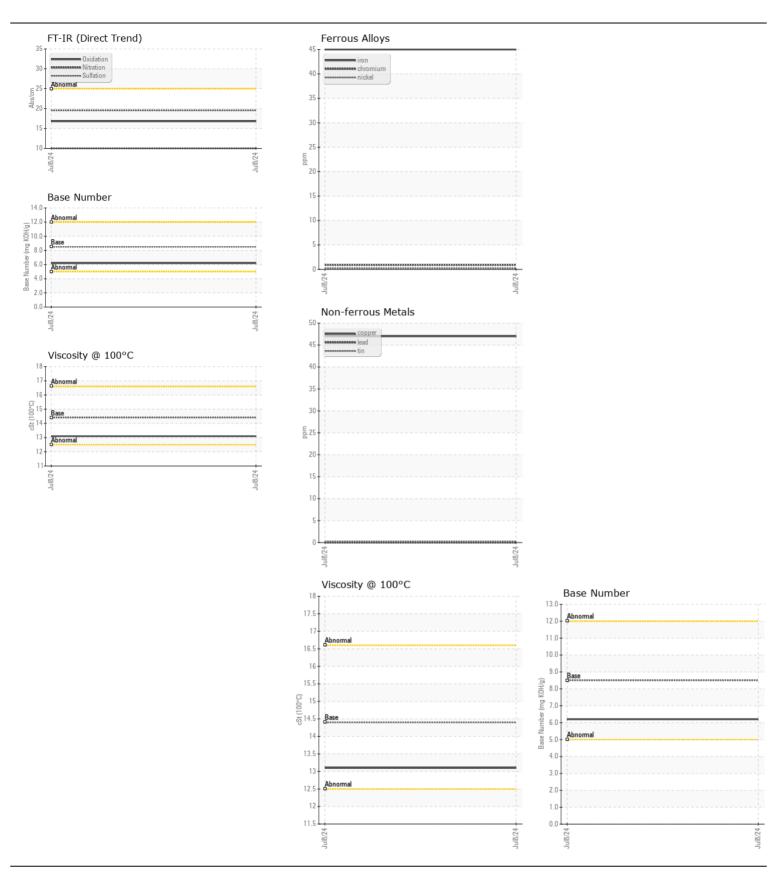
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

Machine Id 147183

Component Diesel Engine

| Test | DIESEL ENGINE OIL SAE 15W40 (QTS) | | | | | | | |
|--|---|------------------|----------|-------------|-----------|-------------|----------|----------|
| Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the pleas | RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. All the brands of the coll on your next sample. All the brands of the coll on your next sample. All the brands of the collection o | | Sample Number | | Client Info | | WC0945807 | - | |
| Machine Age mis Client Info 60000 mis 600000 mis 60000 mis 600000 mis 6000000 mis 6000000 mis 6000000 mis 6000000 mis 6000000 mis 6000000 mis 600000000 mis 6000000000 mis 600000000000000000000000000000000000 | component make and model with your next sample. Please specify the | Sample Date | | Client Info | | 08 Jul 2024 | | |
| Oil Age | | Machine Age | mls | Client Info | | 60000 | | |
| Cilchanged Cilent Info Changed Cilent Info Changed Changed Cilent Info Changed | | Oil Age | mls | Client Info | | 60000 | | |
| Cilchanged Cilent Info Changed Cilent Info Changed Changed Cilent Info Changed | | | mls | Client Info | | 60000 | | |
| Filter Changed Client Info Changed Change Changed Chan | | _ | | Client Info | | Changed | | |
| Nome | | | | Client Info | | | | |
| Metal levels are typical for a components first oil change. Chromium Shi Nokel pm ASTM 05185 4 4 | | • | | | | _ | | |
| Metal levels are typical for a components first oil change. Chromium Spm ASTM D61555 4.4 -1 Nickel ppm ASTM D61555 4.5 -1 Titanium ppm ASTM D61555 4.5 -1 Titanium ppm ASTM D61555 4.5 -1 Titanium ppm ASTM D61555 4.5 -1 Titanium ppm ASTM D61555 4.5 -1 Titanium ppm ASTM D61555 4.5 -1 Titanium ppm ASTM D61555 4.5 -1 Titanium ppm ASTM D61555 4.5 | WFAR | Iron | mag | ASTM D5185m | >100 | 45 | | |
| Nickel ppm ASTM D5185m >4 <1 | | | | | | | | |
| Titanium ppm ASTM D5185m >3 0 | Metal levels are typical for a components first oil change. | | | | | | | |
| Silver ppm ASTM.D5185m >20 9 | | | | | 7 7 | | | |
| Aluminum ppm ASTM DS185m >20 9 | | | | | \3 | | | |
| Lead ppm ASTM D5185m >40 0 | | | | | | - | | |
| Copper | | | | | | | | |
| Tin | | | | | | | | |
| Vanadium ppm ASTM D5185m NONE NONE | | | | | | | | |
| White Metal Scalar *Visual NONE NO | | | | | /10 | | | |
| Vallow Metal Scalar Visual NONE NO | | | | | NONE | - | | |
| Silicon ppm ASTM D5185m 22 32 | | | | | | | | |
| Potassium Pota | | | | | | | | |
| 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. FLUID CONDITION The Sn result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Fuel | CONTAMINATION | | | | | | | |
| 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. Water | your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no | | ppm | | | | | |
| Water WC Method Sol.2 NEG NEG Sol.2 | | | | | | | | |
| Soot % | | | | | >0.2 | | | |
| Nitration | | - | | | | | | |
| Sulfation Abs/.fmm *ASTM D7415 >30 19.5 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML | | | | | | | | |
| Silt scalar *Visual NONE NONE NONE | | | | | | | | |
| Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NORML NORML Scalar *Visual NORML Scalar *Visual NORML Scalar *Visual NORML NORML *Visual NORML *Visual NORML *Visual NORML *Visual *Visual NORML *Visual NORML *Visual NORML *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Vis | | | | | | | | |
| Sand/Dirt Scalar *Visual NONE Appearance Scalar *Visual NORML NORML | | | | | | | | |
| Appearance | | | | | | | | |
| Codor Scalar *Visual NORML NORML NORML Emulsified Water Scalar *Visual >0.2 NEG | | | | | | | | |
| Emulsified Water scalar *Visual >0.2 NEG | | | | | | | | |
| Sodium ppm ASTM D5185m >158 6 | | | | | | | | |
| Boron ppm ASTM D5185m 250 112 | | Emulsified Water | scalar | *Visual | >0.2 | NEG | | |
| 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 100 138 Molybdenum ppm ASTM D5185m 100 138 Manganese ppm ASTM D5185m 450 750 Calcium ppm ASTM D5185m 3000 1309 Phosphorus ppm ASTM D5185m 1150 736 Zinc ppm ASTM D5185m 1350 914 Sulfur ppm ASTM D5185m 4250 2982 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 | FLUID CONDITION | Sodium | ppm | ASTM D5185m | >158 | 6 | | |
| oil. The condition of the oil is suitable for further service. Molybdenum ppm ASTM D5185m 100 138 Manganese ppm ASTM D5185m 450 750 Calcium ppm ASTM D5185m 3000 1309 Phosphorus ppm ASTM D5185m 1150 736 Zinc ppm ASTM D5185m 1350 914 Sulfur ppm ASTM D5185m 4250 2982 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 | The BN result indicates that there is suitable alkalinity remaining in the | | ppm | ASTM D5185m | 250 | | | |
| Molybdenum ppm ASTM D5185m 100 138 Manganese ppm ASTM D5185m 4 Magnesium ppm ASTM D5185m 450 750 Calcium ppm ASTM D5185m 3000 1309 Phosphorus ppm ASTM D5185m 1150 736 Zinc ppm ASTM D5185m 1350 914 Sulfur ppm ASTM D5185m 4250 2982 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 | · · · · · · · · · · · · · · · · · · · | Barium | ppm | ASTM D5185m | 10 | 4 | | |
| Magnesium ppm ASTM D5185m 450 750 Calcium ppm ASTM D5185m 3000 1309 Phosphorus ppm ASTM D5185m 1150 736 Zinc ppm ASTM D5185m 1350 914 Sulfur ppm ASTM D5185m 4250 2982 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 | | - | ppm | | 100 | 138 | | |
| Calcium ppm ASTM D5185m 3000 1309 Phosphorus ppm ASTM D5185m 1150 736 Zinc ppm ASTM D5185m 1350 914 Sulfur ppm ASTM D5185m 4250 2982 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 | | Manganese | ppm | ASTM D5185m | | 4 | | |
| Phosphorus ppm ASTM D5185m 1150 736 Zinc ppm ASTM D5185m 1350 914 Sulfur ppm ASTM D5185m 4250 2982 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 | | | ppm | ASTM D5185m | 450 | 750 | | |
| Zinc ppm ASTM D5185m 1350 914 Sulfur ppm ASTM D5185m 4250 2982 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 | | | ppm | | | 1309 | | |
| Sulfur ppm ASTM D5185m 4250 2982 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 | | Phosphorus | ppm | | | | | |
| Oxidation Abs/.1mm *ASTM D7414 >25 16.8 Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 | | | | | | 914 | | |
| Base Number (BN) mg KOH/g ASTM D2896 8.5 6.2 | | | ppm | ASTM D5185m | 4250 | 2982 | | |
| | | | | | | | | |
| Visc @ 100°C cSt ASTM D445 14.4 13.1 | | | mg KOH/g | | | | | |
| | | Visc @ 100°C | cSt | ASTM D445 | 14.4 | 13.1 | | |







Certificate L2367

Laboratory Sample No.

: WC0945807 Lab Number : 06241217 Unique Number : 11130051 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 18 Jul 2024 **Tested** : 19 Jul 2024

: 19 Jul 2024 - Wes Davis Diagnosed

SALEM NATIONALEASE CORPORATION

198 PARK PLAZA DRIVE WINSTON SALEM, NC US 27105

Contact: Audrey Hopkins Audrey.Hopkins@salemcorp.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)

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