



# OIL ANALYSIS REPORT

|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |

Machine Id  
**58454**  
Component  
**Diesel Engine**  
Fluid  
**EXXON 15W40 (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number  |     | Client Info |           | <b>WC0903319</b>   | WC0684328   | ---      |
| Sample Date    |     | Client Info |           | <b>13 Mar 2024</b> | 14 Apr 2022 | ---      |
| Machine Age    | mls | Client Info |           | <b>113328</b>      | 20874       | ---      |
| Oil Age        | mls | Client Info |           | <b>0</b>           | 0           | ---      |
| Filter Age     | mls | Client Info |           | <b>0</b>           | 0           | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | ---      |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ATTENTION   | ---      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |     |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron         | ppm    | ASTM D5185m | >100 | <b>13</b>    | 41   | --- |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>0</b>     | 3    | --- |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>0</b>     | <1   | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | --- |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | --- |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>2</b>     | 16   | --- |
| Lead         | ppm    | ASTM D5185m | >40  | <b>0</b>     | 2    | --- |
| Copper       | ppm    | ASTM D5185m | >330 | <b>2</b>     | 235  | --- |
| Tin          | ppm    | ASTM D5185m | >15  | <b>0</b>     | 5    | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |

## CONTAMINATION

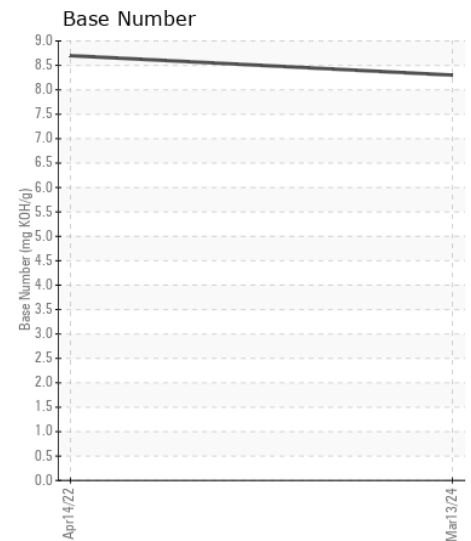
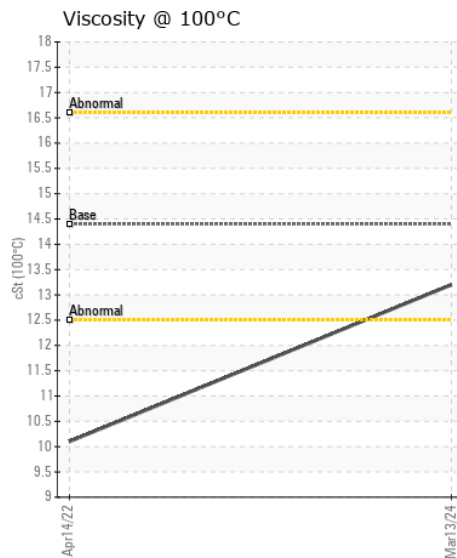
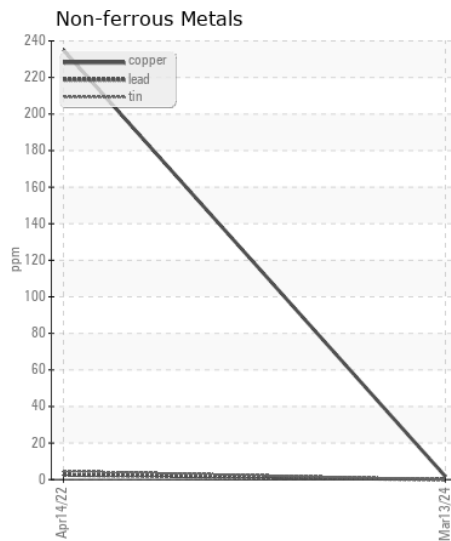
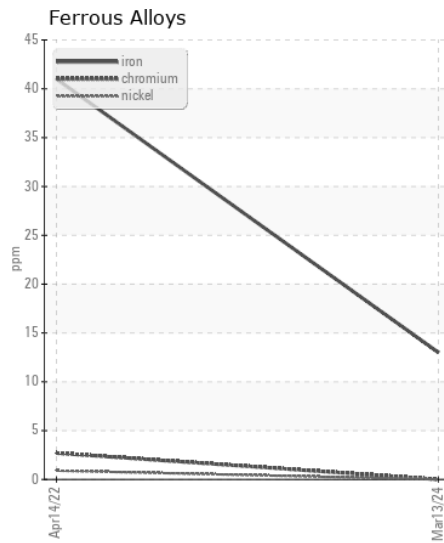
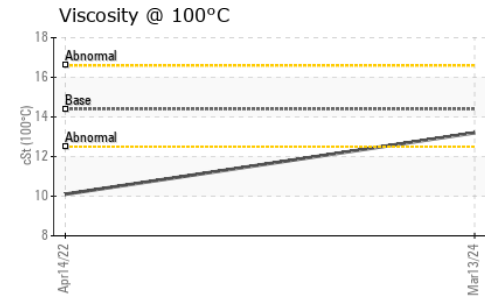
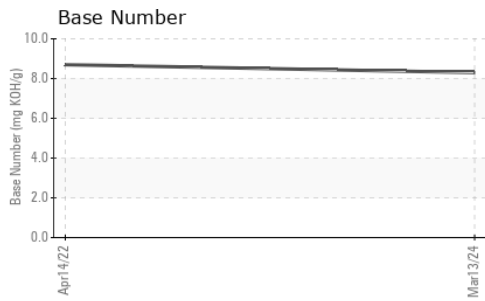
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |     |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>5</b>       | 6     | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>2</b>       | 54    | --- |
| Fuel             |          | WC Method   | >5    | <b>&lt;1.0</b> | 0.3   | --- |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>     | NEG   | --- |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | --- |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.1</b>     | 0.4   | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>4.5</b>     | 8.9   | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>18.9</b>    | 22.7  | --- |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | --- |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | --- |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | --- |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | --- |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | --- |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>     | NEG   | --- |

## 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.

|                  |          |             |      |             |      |     |
|------------------|----------|-------------|------|-------------|------|-----|
| Sodium           | ppm      | ASTM D5185m |      | <b>0</b>    | 2    | --- |
| Boron            | ppm      | ASTM D5185m |      | <b>283</b>  | 54   | --- |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>    | 0    | --- |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>83</b>   | 48   | --- |
| Manganese        | ppm      | ASTM D5185m |      | <b>0</b>    | 2    | --- |
| Magnesium        | ppm      | ASTM D5185m |      | <b>577</b>  | 433  | --- |
| Calcium          | ppm      | ASTM D5185m |      | <b>1370</b> | 1785 | --- |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>1130</b> | 664  | --- |
| Zinc             | ppm      | ASTM D5185m |      | <b>1318</b> | 936  | --- |
| Sulfur           | ppm      | ASTM D5185m |      | <b>4274</b> | 1096 | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>12.9</b> | 21.5 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  |      | <b>8.3</b>  | 8.7  | --- |
| Visc @ 100°C     | cSt      | ASTM D445   | 14.4 | <b>13.2</b> | 10.1 | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0903319  
**Lab Number** : 06123047  
**Unique Number** : 10937198  
**Test Package** : FLEET

**Received** : 19 Mar 2024  
**Tested** : 20 Mar 2024  
**Diagnosed** : 21 Mar 2024 - Don Baldrige

**SALEM NATIONALEASE CORPORATION**  
 198 PARK PLAZA DRIVE  
 WINSTON SALEM, NC  
 US 27105

Contact: Audrey Hopkins  
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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)

F: x: