



# OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | NORMAL |
| FLUID CONDITION | NORMAL |

Area

**Contracting**

Machine Id

**1518 1518**

Component

**Diesel Engine**

Fluid

**MOBIL DELVAC 1300 SUPER 10W30 (8 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0902796</b>   | WC0770926   | WC0710679   |
| Sample Date    |     | Client Info |           | <b>20 Feb 2024</b> | 06 Mar 2023 | 29 Jul 2022 |
| Machine Age    | hrs | Client Info |           | <b>16746</b>       | 16251       | 15554       |
| Oil Age        | hrs | Client Info |           | <b>495</b>         | 866         | 912         |
| Filter Age     | hrs | Client Info |           | <b>495</b>         | 866         | 912         |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ATTENTION   | ABNORMAL    |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >75  | <b>4</b>     | 43   | 40   |
| Chromium     | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 1    | 2    |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>0</b>     | <1   | <1   |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | <1   |
| Aluminum     | ppm    | ASTM D5185m | >15  | <b>1</b>     | 3    | 4    |
| Lead         | ppm    | ASTM D5185m | >15  | <b>0</b>     | <1   | 2    |
| Copper       | ppm    | ASTM D5185m | >30  | <b>0</b>     | 2    | 3    |
| Tin          | ppm    | ASTM D5185m | >4   | <b>0</b>     | <1   | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

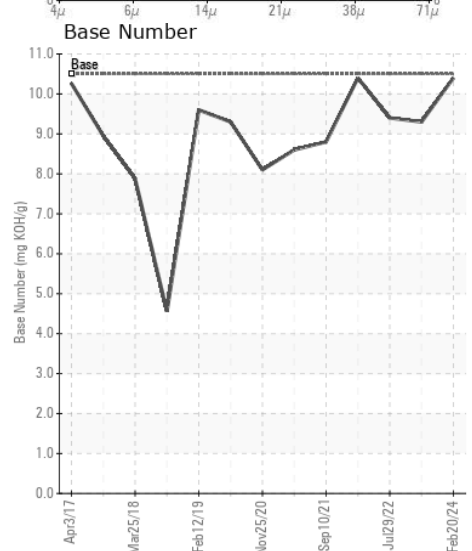
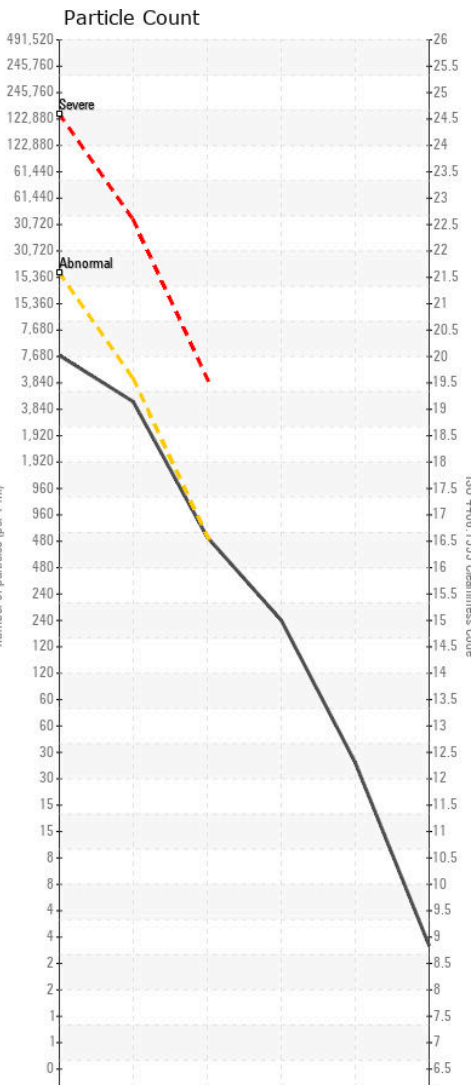
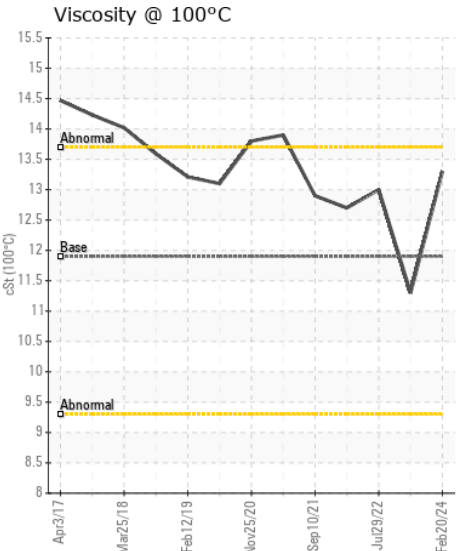
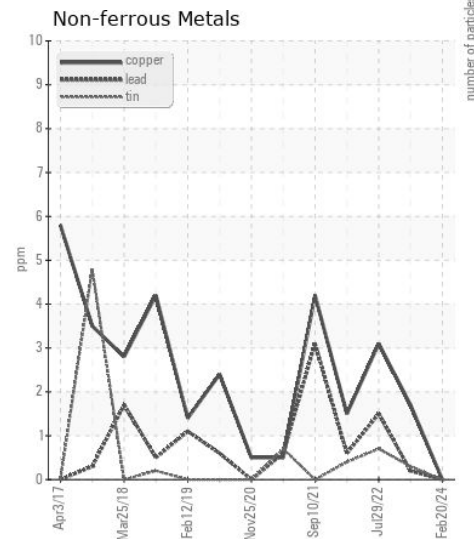
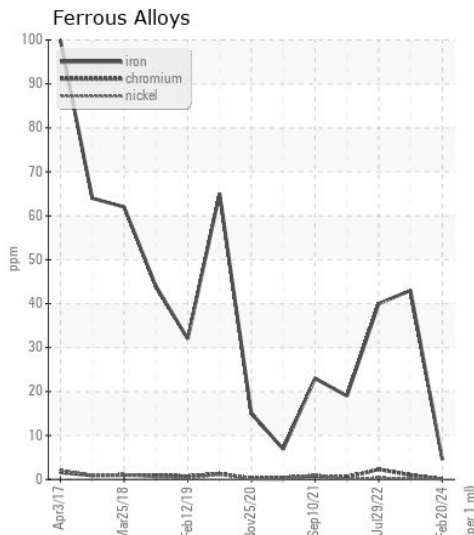
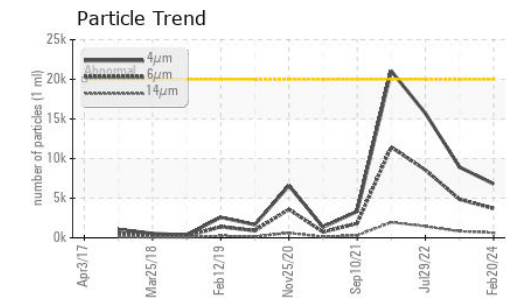
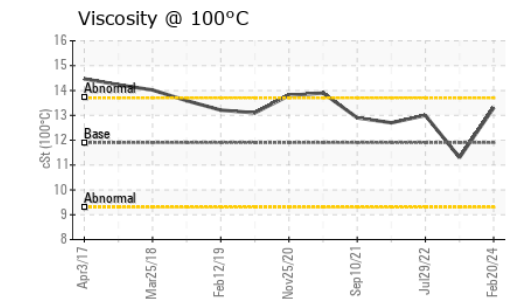
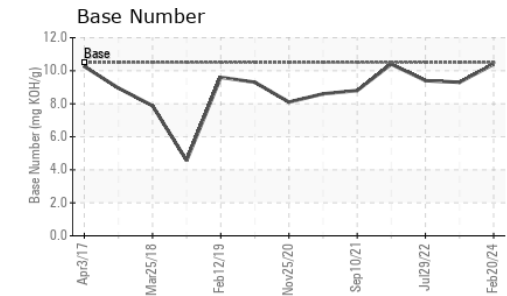
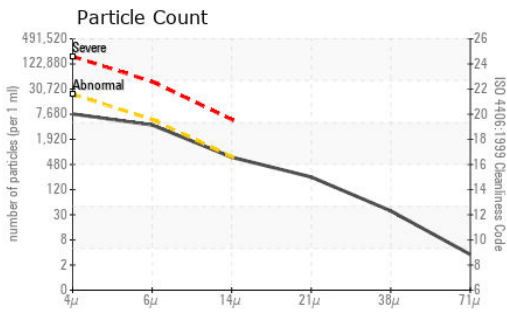
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

|                  |          |              |           |                 |            |            |
|------------------|----------|--------------|-----------|-----------------|------------|------------|
| Silicon          | ppm      | ASTM D5185m  | >20       | <b>11</b>       | 6          | 6          |
| Potassium        | ppm      | ASTM D5185m  | >20       | <b>0</b>        | 0          | 0          |
| Fuel             |          | WC Method    | >2.0      | <b>&lt;1.0</b>  | 0.3        | <1.0       |
| Water            |          | WC Method    | >0.2      | <b>NEG</b>      | NEG        | NEG        |
| Glycol           |          | WC Method    |           | <b>NEG</b>      | NEG        | NEG        |
| Soot %           | %        | *ASTM D7844  | >3        | <b>0.1</b>      | 0.8        | 1.1        |
| Nitration        | Abs/cm   | *ASTM D7624  | >20       | <b>4.7</b>      | 8.5        | 9.1        |
| Sulfation        | Abs/.1mm | *ASTM D7415  | >30       | <b>21.0</b>     | 21.3       | 25.3       |
| Particles >4µm   |          | ASTM D7647   | >20000    | <b>6786</b>     | 8926       | 15716      |
| Particles >6µm   |          | ASTM D7647   | >5000     | <b>3697</b>     | 4862       | 8561       |
| Particles >14µm  |          | ASTM D7647   | >640      | <b>629</b>      | ▲ 828      | ▲ 1457     |
| Particles >21µm  |          | ASTM D7647   | >160      | <b>212</b>      | ▲ 279      | ▲ 491      |
| Particles >38µm  |          | ASTM D7647   | >40       | <b>33</b>       | ▲ 43       | ▲ 76       |
| Particles >71µm  |          | ASTM D7647   | >10       | <b>3</b>        | 4          | 8          |
| Oil Cleanliness  |          | ISO 4406 (c) | >21/19/16 | <b>20/19/16</b> | ▲ 20/19/17 | ▲ 21/20/18 |
| Silt             | scalar   | *Visual      | NONE      | <b>NONE</b>     | NONE       | NONE       |
| Debris           | scalar   | *Visual      | NONE      | <b>NONE</b>     | NONE       | NONE       |
| Sand/Dirt        | scalar   | *Visual      | NONE      | <b>NONE</b>     | NONE       | NONE       |
| Appearance       | scalar   | *Visual      | NORML     | <b>NORML</b>    | NORML      | NORML      |
| Odor             | scalar   | *Visual      | NORML     | <b>NORML</b>    | NORML      | NORML      |
| Emulsified Water | scalar   | *Visual      | >0.2      | <b>NEG</b>      | NEG        | 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>1</b>     | 3      | 5    |
| Boron            | ppm      | ASTM D5185m |      | <b>66</b>    | 35     | 40   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0      | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>42</b>    | 48     | 40   |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 1      | <1   |
| Magnesium        | ppm      | ASTM D5185m |      | <b>483</b>   | 582    | 519  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1431</b>  | 1578   | 1671 |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>693</b>   | 737    | 695  |
| Zinc             | ppm      | ASTM D5185m |      | <b>837</b>   | 937    | 894  |
| Sulfur           | ppm      | ASTM D5185m |      | <b>2294</b>  | 2568   | 2828 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>18.0</b>  | 16.8   | 21.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10.5 | <b>10.4</b>  | 9.3    | 9.4  |
| Visc @ 100°C     | cSt      | ASTM D445   | 11.9 | <b>13.3</b>  | ▲ 11.3 | 13.0 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0902796 **Received** : 22 Feb 2024  
**Lab Number** : 06097591 **Tested** : 23 Feb 2024  
**Unique Number** : 10890444 **Diagnosed** : 24 Feb 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PrtCount, TBN )

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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