



# VOLVO

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO A40G 353294**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>VCP436753</b>   | VCP441674   | VCP432467   |
| Sample Date    |     | Client Info |           | <b>15 Jun 2024</b> | 30 Jan 2024 | 16 Oct 2023 |
| Machine Age    | hrs | Client Info |           | <b>2575</b>        | 1796        | 1215        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 500         | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | N/A         |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ABNORMAL    | ABNORMAL    |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |      |       |
|--------------|--------|-------------|------|--------------|------|-------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>5</b>     | 11   | 28    |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>0</b>     | <1   | <1    |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>&lt;1</b> | 4    | 7     |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | 0     |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 0    | 0     |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>&lt;1</b> | 2    | 2     |
| Lead         | ppm    | ASTM D5185m | >40  | <b>0</b>     | <1   | 1     |
| Copper       | ppm    | ASTM D5185m | >330 | <b>21</b>    | ▲ 57 | ▲ 148 |
| Tin          | ppm    | ASTM D5185m | >15  | <b>0</b>     | 2    | 4     |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | 0     |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE  |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE  |

### CONTAMINATION

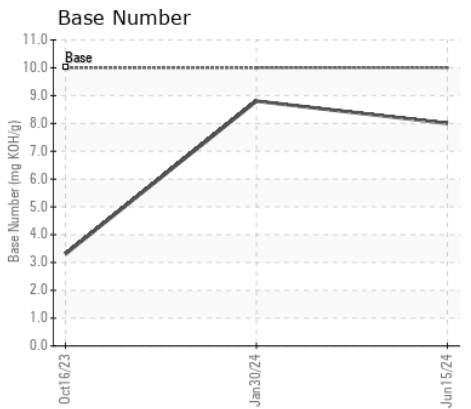
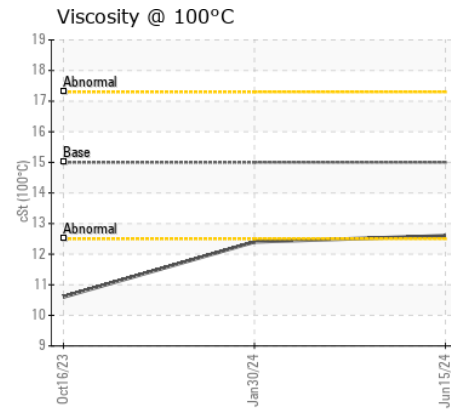
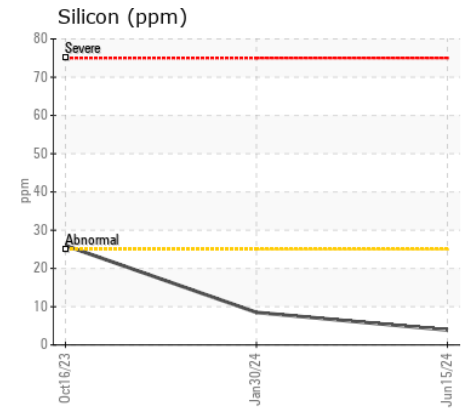
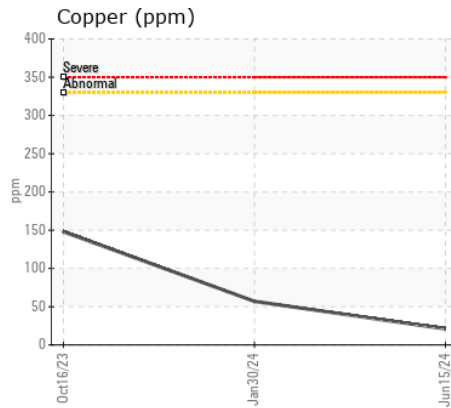
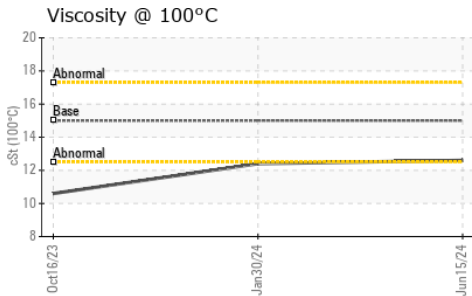
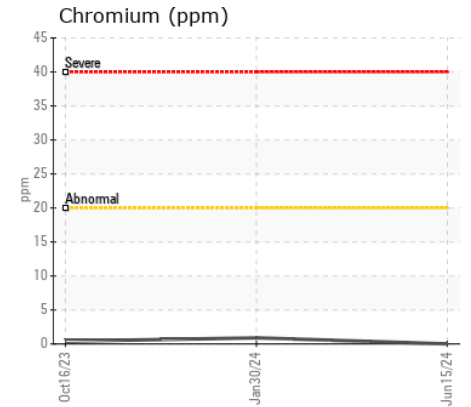
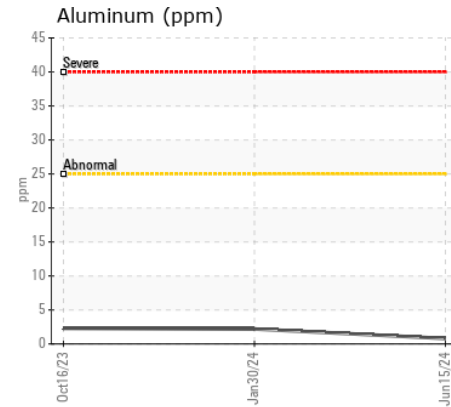
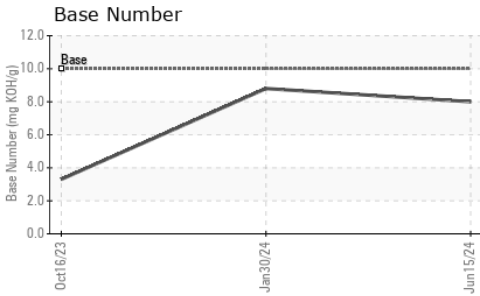
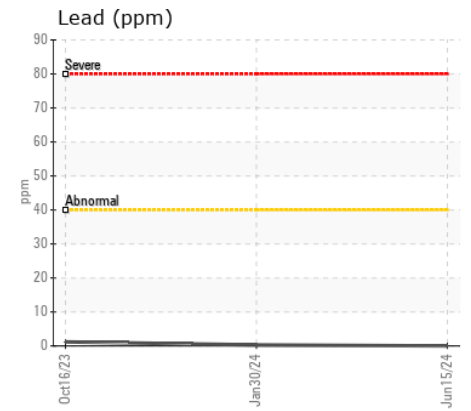
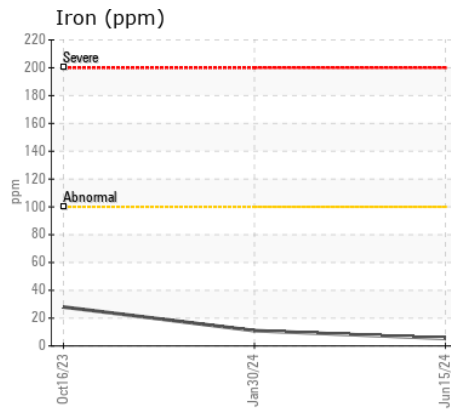
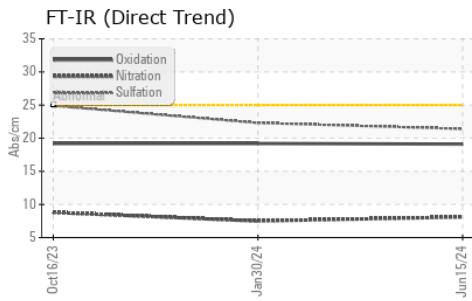
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>4</b>       | 8     | ▲ 26  |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>&lt;1</b>   | 2     | 5     |
| Fuel             |          | WC Method   | >6.0  | <b>&lt;1.0</b> | <1.0  | 0.8   |
| Water            |          | WC Method   | >0.2  | <b>NEG</b>     | NEG   | NEG   |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.2</b>     | 0.2   | 0.5   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>8.1</b>     | 7.5   | 8.8   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>21.4</b>    | 22.3  | 24.9  |
| 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>     | 2      | 6    |
| Boron            | ppm      | ASTM D5185m | 2.5  | <b>12</b>    | 28     | 7    |
| Barium           | ppm      | ASTM D5185m | 0.0  | <b>0</b>     | 1      | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 0.7  | <b>40</b>    | 44     | 57   |
| Manganese        | ppm      | ASTM D5185m | 0.0  | <b>&lt;1</b> | 2      | 4    |
| Magnesium        | ppm      | ASTM D5185m | 256  | <b>442</b>   | 457    | 261  |
| Calcium          | ppm      | ASTM D5185m | 2057 | <b>1677</b>  | 1738   | 1200 |
| Phosphorus       | ppm      | ASTM D5185m | 935  | <b>914</b>   | 903    | 895  |
| Zinc             | ppm      | ASTM D5185m | 1223 | <b>1036</b>  | 1112   | 1008 |
| Sulfur           | ppm      | ASTM D5185m | 4079 | <b>3293</b>  | 3260   | 2501 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>19.1</b>  | 19.2   | 19.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10   | <b>8.0</b>   | 8.8    | 3.3  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.0 | <b>12.6</b>  | ● 12.4 | 10.6 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP436753  
**Lab Number** : 06214340  
**Unique Number** : 11087204  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Received** : 19 Jun 2024  
**Tested** : 20 Jun 2024  
**Diagnosed** : 20 Jun 2024 - Wes Davis

**ALTA EQUIPMENT COMPANY**  
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 FORT MYERS, FL  
 US 33905  
 Contact: TODD LARK  
 tlark@altaequipfl.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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