



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 352199 - DIESEL ENGINE



**Sample No:** VCP392522  
**Oil Type:** MOBIL 15W40  
**Job No:**



### SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP392522</b>   | VCP396998   | VCP406816   | VCP404651   |
| Sample Date   | <b>30 Oct 2023</b> | 25 Sep 2023 | 29 Aug 2023 | 19 Jul 2023 |
| Machine Hours | <b>6410</b>        | 6129        | 5949        | 5644        |
| Oil Hours     | <b>281</b>         | 180         | 305         | 263         |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | Changed     |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | NORMAL      |

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### OIL CONDITION

|                  |          |             |      |      |      |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C     | cSt      | <b>12.9</b> | 12.9 | 12.4 | 12.6 |
| Base Number (BN) | mg KOH/g | <b>7.0</b>  | 8.1  | 9.4  | 10.1 |
| Oxidation (PA)   | %        | <b>61</b>   | 65   | 78   | 81   |

### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



### CONTAMINATION

|                |     |                |      |     |      |
|----------------|-----|----------------|------|-----|------|
| Soot %         | %   | <b>0.1</b>     | 0.1  | 0.1 | 0.1  |
| Nitration (PA) | %   | <b>71</b>      | 58   | 53  | 54   |
| Sulfation (PA) | %   | <b>50</b>      | 52   | 58  | 60   |
| Glycol         | %   | <b>NEG</b>     | NEG  | NEG | NEG  |
| Fuel           | %   | <b>&lt;1.0</b> | <1.0 | 0.4 | <1.0 |
| Silicon        | ppm | <b>4</b>       | 4    | 4   | 2    |
| Sodium         | ppm | <b>2</b>       | 2    | 2   | 0    |
| Potassium      | ppm | <b>&lt;1</b>   | 0    | 0   | 1    |



### WEAR METALS

|            |     |              |    |    |    |
|------------|-----|--------------|----|----|----|
| Iron       | ppm | <b>1</b>     | <1 | 2  | 3  |
| Copper     | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Lead       | ppm | <b>0</b>     | 0  | 0  | 0  |
| Tin        | ppm | <b>0</b>     | <1 | <1 | 0  |
| Aluminum   | ppm | <b>3</b>     | 2  | 1  | <1 |
| Chromium   | ppm | <b>0</b>     | 0  | 0  | 0  |
| Molybdenum | ppm | <b>113</b>   | 81 | 39 | 42 |
| Nickel     | ppm | <b>&lt;1</b> | <1 | <1 | 1  |
| Titanium   | ppm | <b>0</b>     | 0  | 0  | 0  |
| Silver     | ppm | <b>0</b>     | 0  | 0  | 0  |
| Manganese  | ppm | <b>0</b>     | <1 | <1 | <1 |
| Vanadium   | ppm | <b>0</b>     | 0  | 0  | 0  |



### ADDITIVES

|            |     |             |      |      |      |
|------------|-----|-------------|------|------|------|
| Calcium    | ppm | <b>1303</b> | 1407 | 1672 | 1656 |
| Magnesium  | ppm | <b>681</b>  | 593  | 537  | 478  |
| Zinc       | ppm | <b>906</b>  | 856  | 915  | 888  |
| Phosphorus | ppm | <b>728</b>  | 735  | 791  | 757  |
| Barium     | ppm | <b>0</b>    | 0    | 0    | 2    |
| Boron      | ppm | <b>113</b>  | 81   | 46   | 56   |

**Depot:** SCHGRE  
**Unique No:** 10736456  
**Signed:** Sean Felton  
**Report Date:** 10 Nov 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

