



# CONSTRUCTION EQUIPMENT

## VOLVO A45G 352036 - DIESEL ENGINE



**Sample No:** VCP406277  
**Oil Type:** MOBIL 15W40  
**Job No:**



### SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP406277</b>   | VCP362557   | VCP360510   | VCP350412   |
| Sample Date   | <b>23 Oct 2023</b> | 06 Feb 2023 | 05 Jul 2022 | 07 Apr 2022 |
| Machine Hours | <b>6565</b>        | 6006        | 4974        | 4511        |
| Oil Hours     | <b>0</b>           | 500         | 500         | 500         |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | Changed     |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | NORMAL      |

**ARNOLD MACHINERY COMPANY**  
 3330 NORTH YELLOWSTONE HIGHWAY  
 IDAHO FALLS, ID  
 US 83401  
 Contact: JASON MERRILL  
 jmerrill@arnoldmachinery.com  
 T: (208)523-0822  
 F: (208)523-9918



### OIL CONDITION

|                  |          |             |      |      |      |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C     | cSt      | <b>12.8</b> | 13.7 | 13.6 | 13.4 |
| Base Number (BN) | mg KOH/g | <b>6.3</b>  | 7.5  | 8.9  | 8.2  |
| Oxidation (PA)   | %        | <b>67</b>   | 82   | 86   | 68   |

### 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>0.4</b>     | 0.5  | 0.5  | 0.3  |
| Nitration (PA) | %   | <b>83</b>      | 100  | 98   | 94   |
| Sulfation (PA) | %   | <b>57</b>      | 67   | 69   | 62   |
| Glycol         | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Fuel           | %   | <b>&lt;1.0</b> | <1.0 | <1.0 | <1.0 |
| Silicon        | ppm | <b>6</b>       | 4    | 4    | 7    |
| Sodium         | ppm | <b>0</b>       | 2    | 2    | 2    |
| Potassium      | ppm | <b>2</b>       | 0    | 2    | 1    |



### WEAR METALS

|            |     |              |    |    |    |
|------------|-----|--------------|----|----|----|
| Iron       | ppm | <b>11</b>    | 13 | 11 | 8  |
| Copper     | ppm | <b>2</b>     | 1  | 2  | 1  |
| Lead       | ppm | <b>&lt;1</b> | 2  | 1  | <1 |
| Tin        | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Aluminum   | ppm | <b>&lt;1</b> | 2  | 2  | 2  |
| Chromium   | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Molybdenum | ppm | <b>72</b>    | 68 | 62 | 67 |
| Nickel     | ppm | <b>&lt;1</b> | 2  | 1  | <1 |
| Titanium   | ppm | <b>0</b>     | 0  | 0  | <1 |
| 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>1270</b> | 1427 | 1554 | 2053 |
| Magnesium  | ppm | <b>889</b>  | 914  | 788  | 448  |
| Zinc       | ppm | <b>1249</b> | 1354 | 1284 | 1382 |
| Phosphorus | ppm | <b>1010</b> | 1042 | 1054 | 1121 |
| Barium     | ppm | <b>0</b>    | 0    | 0    | 0    |
| Boron      | ppm | <b>26</b>   | 36   | 30   | 47   |

**Depot:** VOLVO0077  
**Unique No:** 10724889  
**Signed:** Wes Davis  
**Report Date:** 02 Nov 2023



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## VOLVO GRAPHS

