



# CONSTRUCTION EQUIPMENT

IMPACT AUTO 8-398003 VOLVO L90H 624434 - DIESEL ENGINE



**Sample No:** VCP393036  
**Oil Type:** DIESEL ENGINE OIL SAE 15W40  
**Job No:** 8-398003



## SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP393036</b>   | VCP450322   | VCP430268   | VCP391932   |
| Sample Date   | <b>21 Mar 2024</b> | 17 Jan 2024 | 28 Sep 2023 | 31 May 2023 |
| Machine Hours | <b>10547</b>       | 10170       | 9630        | 8995        |
| Oil Hours     | <b>500</b>         | 2000        | 0           | 0           |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | Changed     |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | NORMAL      |

### STRONGCO EQUIPMENT INC.

1640 ENTERPRISE ROAD  
 MISSISSAUGA, ON  
 CA L4W 4L4

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## OIL CONDITION

|                |     |             |      |      |      |
|----------------|-----|-------------|------|------|------|
| Visc @ 100°C   | cSt | <b>13.0</b> | 13.4 | 13.6 | 13.3 |
| Oxidation (PA) | %   | <b>81</b>   | 82   | 82   | 85   |



## CONTAMINATION

|                |     |                |      |      |      |
|----------------|-----|----------------|------|------|------|
| Water          | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Soot %         | %   | <b>0.4</b>     | 0.7  | 0.9  | 0.5  |
| Nitration (PA) | %   | <b>61</b>      | 65   | 71   | 63   |
| Sulfation (PA) | %   | <b>63</b>      | 65   | 65   | 64   |
| Glycol         | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Fuel           | %   | <b>&lt;1.0</b> | <1.0 | <1.0 | <1.0 |
| Silicon        | ppm | <b>4</b>       | 5    | 4    | 4    |
| Sodium         | ppm | <b>2</b>       | 2    | 3    | 2    |
| Potassium      | ppm | <b>&lt;1</b>   | <1   | <1   | 0    |

### 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 condition of the oil is acceptable for the time in service.



## WEAR METALS

|            |     |              |    |    |    |
|------------|-----|--------------|----|----|----|
| Iron       | ppm | <b>8</b>     | 11 | 11 | 7  |
| Copper     | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Lead       | ppm | <b>0</b>     | <1 | 0  | 0  |
| Tin        | ppm | <b>0</b>     | 0  | 0  | 0  |
| Aluminum   | ppm | <b>2</b>     | 3  | 3  | 2  |
| Chromium   | ppm | <b>&lt;1</b> | <1 | <1 | <1 |
| Molybdenum | ppm | <b>41</b>    | 40 | 42 | 39 |
| Nickel     | ppm | <b>0</b>     | <1 | 0  | <1 |
| Titanium   | ppm | <b>0</b>     | 0  | 0  | <1 |
| Silver     | ppm | <b>0</b>     | 0  | <1 | 0  |
| Manganese  | ppm | <b>&lt;1</b> | 0  | 0  | <1 |
| Vanadium   | ppm | <b>0</b>     | 0  | 0  | 0  |



## ADDITIVES

|            |     |             |      |      |      |
|------------|-----|-------------|------|------|------|
| Calcium    | ppm | <b>1764</b> | 1745 | 1780 | 1833 |
| Magnesium  | ppm | <b>523</b>  | 509  | 525  | 498  |
| Zinc       | ppm | <b>1075</b> | 1038 | 1144 | 1120 |
| Phosphorus | ppm | <b>907</b>  | 901  | 963  | 1019 |
| Barium     | ppm | <b>0</b>    | 0    | <1   | 0    |
| Boron      | ppm | <b>41</b>   | 32   | 21   | 36   |

**Depot:** SHEMIS  
**Unique No:** 5760977  
**Signed:** Wes Davis  
**Report Date:** 10 Apr 2024

**VOLVO** **GRAPHS**

