



# CONSTRUCTION EQUIPMENT

## 19 VOLVO L90H 25607 - DIESEL ENGINE



**Sample No:** VCP405785  
**Oil Type:** MOBIL DELVAC 1300 SUPER15W40  
**Job No:** 19



### SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP405785</b>   | VCP366255   | VCP387344   | VCP325020   |
| Sample Date   | <b>19 Jul 2023</b> | 05 May 2023 | 23 Feb 2023 | 11 Jan 2023 |
| Machine Hours | <b>11984</b>       | 11430       | 11022       | 10618       |
| Oil Hours     | <b>500</b>         | 400         | 500         | 600         |
| Oil Changed   | <b>Changed</b>     | Changed     | Changed     | Changed     |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | NORMAL      |



### PLEASANT RIVER LUMBER

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### OIL CONDITION

|                  |          |             |      |      |      |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C     | cSt      | <b>13.6</b> | 13.0 | 13.4 | 13.3 |
| Base Number (BN) | mg KOH/g | <b>9.3</b>  | 9.1  | 8.4  | 9.9  |
| Oxidation (PA)   | %        | <b>65</b>   | 62   | 59   | 59   |



### CONTAMINATION

|                |     |                |      |      |      |
|----------------|-----|----------------|------|------|------|
| Soot %         | %   | <b>0.4</b>     | 0.2  | 0.2  | 0.2  |
| Nitration (PA) | %   | <b>76</b>      | 66   | 62   | 61   |
| Sulfation (PA) | %   | <b>54</b>      | 53   | 48   | 52   |
| Glycol         | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Fuel           | %   | <b>&lt;1.0</b> | <1.0 | <1.0 | <1.0 |
| Silicon        | ppm | <b>4</b>       | 2    | 4    | 2    |
| Sodium         | ppm | <b>2</b>       | 1    | <1   | <1   |
| Potassium      | ppm | <b>&lt;1</b>   | 1    | 2    | 0    |



### WEAR METALS

|            |     |              |    |    |    |
|------------|-----|--------------|----|----|----|
| Iron       | ppm | <b>8</b>     | 4  | 4  | 3  |
| Copper     | ppm | <b>&lt;1</b> | <1 | 0  | <1 |
| Lead       | ppm | <b>0</b>     | 0  | <1 | 0  |
| Tin        | ppm | <b>&lt;1</b> | 0  | 1  | 0  |
| Aluminum   | ppm | <b>4</b>     | <1 | 0  | 1  |
| Chromium   | ppm | <b>&lt;1</b> | 0  | <1 | <1 |
| Molybdenum | ppm | <b>64</b>    | 61 | 62 | 63 |
| Nickel     | ppm | <b>0</b>     | 0  | <1 | 0  |
| Titanium   | ppm | <b>0</b>     | 0  | 0  | 0  |
| Silver     | ppm | <b>0</b>     | 0  | 0  | 0  |
| Manganese  | ppm | <b>&lt;1</b> | 0  | <1 | <1 |
| Vanadium   | ppm | <b>0</b>     | 0  | <1 | 0  |



### ADDITIVES

|            |     |              |      |      |      |
|------------|-----|--------------|------|------|------|
| Calcium    | ppm | <b>1153</b>  | 1111 | 1082 | 1128 |
| Magnesium  | ppm | <b>1040</b>  | 983  | 1031 | 992  |
| Zinc       | ppm | <b>1346</b>  | 1288 | 1349 | 1290 |
| Phosphorus | ppm | <b>1090</b>  | 1035 | 1100 | 1049 |
| Barium     | ppm | <b>0</b>     | 0    | 0    | 0    |
| Boron      | ppm | <b>&lt;1</b> | 2    | 3    | 2    |

### 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.

**Depot:** PLEDOV  
**Unique No:** 10631755  
**Signed:** Don Baldrige  
**Report Date:** 06 Sep 2023

**VOLVO** **GRAPHS**

