



# CONSTRUCTION EQUIPMENT

TRANSPORT LEASING VOLVO L220H 3068 - DIESEL ENGINE



**Sample No:** VCP440410  
**Oil Type:** MOBIL 15W40  
**Job No:** TRANSPORT LEASING



## SAMPLE INFORMATION

|               |                    |             |             |             |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | <b>VCP440410</b>   | VCP406613   | VCP401917   | VCP429837   |
| Sample Date   | <b>02 Apr 2024</b> | 20 Feb 2024 | 09 Jan 2024 | 01 Dec 2023 |
| Machine Hours | <b>13386</b>       | 12905       | 12343       | 11878       |
| Oil Hours     | <b>0</b>           | 0           | 0           | 0           |
| Oil Changed   | <b>Changed</b>     | N/A         | Changed     | Changed     |
| Sample Status | <b>NORMAL</b>      | NORMAL      | NORMAL      | NORMAL      |

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## OIL CONDITION

|                  |          |             |      |      |      |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C     | cSt      | <b>12.7</b> | 12.3 | 12.5 | 12.9 |
| Base Number (BN) | mg KOH/g | <b>9.0</b>  | 6.1  | 8.9  | 8.7  |
| Oxidation (PA)   | %        | <b>57</b>   | 54   | 57   | 60   |



## CONTAMINATION

|                |     |                |      |      |      |
|----------------|-----|----------------|------|------|------|
| Water          | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Soot %         | %   | <b>0.2</b>     | 0.2  | 0.2  | 0.3  |
| Nitration (PA) | %   | <b>57</b>      | 58   | 57   | 59   |
| Sulfation (PA) | %   | <b>52</b>      | 48   | 51   | 53   |
| Glycol         | %   | <b>NEG</b>     | NEG  | NEG  | NEG  |
| Fuel           | %   | <b>&lt;1.0</b> | <1.0 | <1.0 | <1.0 |
| Silicon        | ppm | <b>2</b>       | 4    | 3    | 8    |
| Sodium         | ppm | <b>1</b>       | <1   | 2    | 3    |
| Potassium      | ppm | <b>0</b>       | 0    | 1    | 7    |



## WEAR METALS

|            |     |           |    |    |    |
|------------|-----|-----------|----|----|----|
| Iron       | ppm | <b>1</b>  | 3  | 3  | 28 |
| Copper     | ppm | <b>0</b>  | 1  | <1 | 2  |
| Lead       | ppm | <b>0</b>  | 0  | <1 | 0  |
| Tin        | ppm | <b>0</b>  | 0  | 0  | <1 |
| Aluminum   | ppm | <b>0</b>  | <1 | <1 | 7  |
| Chromium   | ppm | <b>0</b>  | 0  | 0  | <1 |
| Molybdenum | ppm | <b>64</b> | 75 | 65 | 67 |
| Nickel     | ppm | <b>0</b>  | 0  | 0  | 0  |
| Titanium   | ppm | <b>0</b>  | 0  | 0  | 0  |
| Silver     | ppm | <b>0</b>  | 0  | 0  | 0  |
| Manganese  | ppm | <b>0</b>  | 0  | <1 | <1 |
| Vanadium   | ppm | <b>0</b>  | 0  | <1 | 0  |



## ADDITIVES

|            |     |             |      |      |      |
|------------|-----|-------------|------|------|------|
| Calcium    | ppm | <b>1241</b> | 1164 | 1109 | 1228 |
| Magnesium  | ppm | <b>1024</b> | 935  | 998  | 868  |
| Zinc       | ppm | <b>1328</b> | 1186 | 1276 | 1203 |
| Phosphorus | ppm | <b>1157</b> | 1006 | 1085 | 1006 |
| Barium     | ppm | <b>0</b>    | 0    | 0    | 0    |
| Boron      | ppm | <b>2</b>    | 12   | 7    | 18   |

## 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:** VOLVO1835  
**Unique No:** 10977079  
**Signed:** Wes Davis  
**Report Date:** 15 Apr 2024

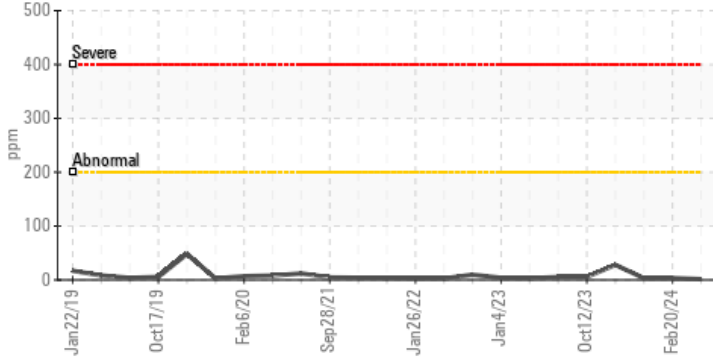


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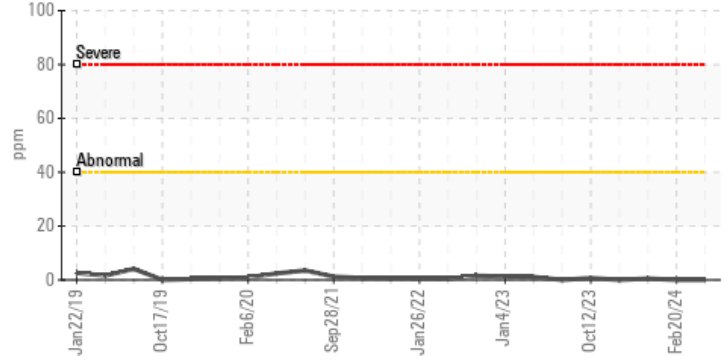


## GRAPHS

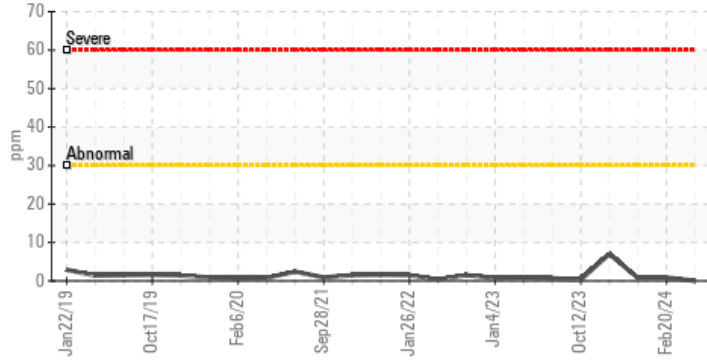
### Iron (ppm)



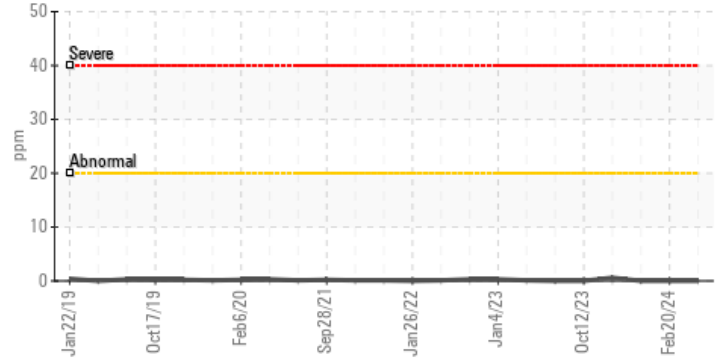
### Lead (ppm)



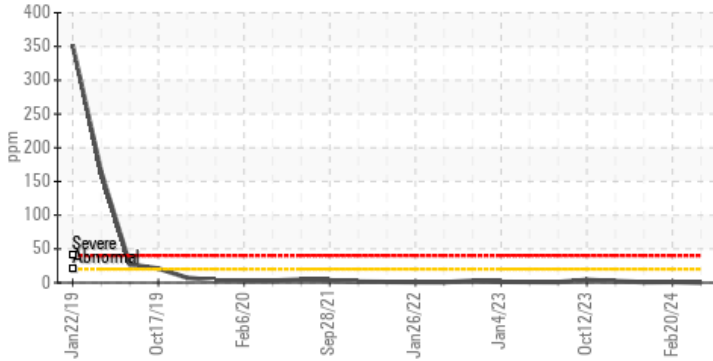
### Aluminum (ppm)



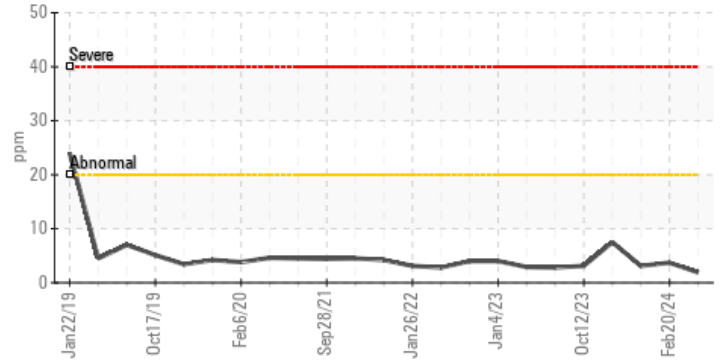
### Chromium (ppm)



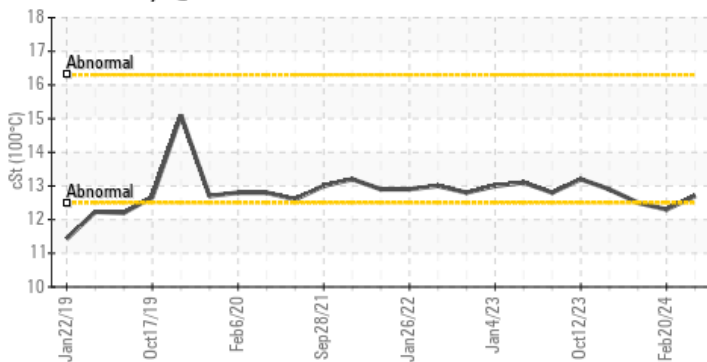
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

