



# CONSTRUCTION EQUIPMENT

CBM 368488 VOLVO L220H 3261 - DIESEL ENGINE



**Sample No:** VCP392231  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 368488



## SAMPLE INFORMATION

|               |                    |             |     |     |
|---------------|--------------------|-------------|-----|-----|
| Sample Number | <b>VCP392231</b>   | VCP392341   | --- | --- |
| Sample Date   | <b>22 Jun 2023</b> | 17 Mar 2023 | --- | --- |
| Machine Hours | <b>3435</b>        | 2646        | --- | --- |
| Oil Hours     | <b>800</b>         | 200         | --- | --- |
| Oil Changed   | <b>Changed</b>     | Changed     | --- | --- |
| Sample Status | <b>NORMAL</b>      | SEVERE      | --- | --- |

### Strongco Equipment

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## OIL CONDITION

|                |     |             |     |     |     |
|----------------|-----|-------------|-----|-----|-----|
| Visc @ 100°C   | cSt | <b>12.8</b> | 7.6 | --- | --- |
| Oxidation (PA) | %   | <b>85</b>   | 67  | --- | --- |



## CONTAMINATION

|                |     |              |      |     |     |
|----------------|-----|--------------|------|-----|-----|
| Soot %         | %   | <b>0</b>     | 0    | --- | --- |
| Nitration (PA) | %   | <b>63</b>    | 56   | --- | --- |
| Sulfation (PA) | %   | <b>62</b>    | 62   | --- | --- |
| Glycol         | %   | <b>NEG</b>   | NEG  | --- | --- |
| Fuel           | %   | <b>1.4</b>   | 23.2 | --- | --- |
| Silicon        | ppm | <b>5</b>     | 4    | --- | --- |
| Sodium         | ppm | <b>3</b>     | 2    | --- | --- |
| Potassium      | ppm | <b>&lt;1</b> | <1   | --- | --- |

### Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The condition of the oil is acceptable for the time in service.



## WEAR METALS

|            |     |              |    |     |     |
|------------|-----|--------------|----|-----|-----|
| Iron       | ppm | <b>9</b>     | 3  | --- | --- |
| Copper     | ppm | <b>2</b>     | 3  | --- | --- |
| Lead       | ppm | <b>&lt;1</b> | <1 | --- | --- |
| Tin        | ppm | <b>&lt;1</b> | <1 | --- | --- |
| Aluminum   | ppm | <b>1</b>     | <1 | --- | --- |
| Chromium   | ppm | <b>&lt;1</b> | 0  | --- | --- |
| Molybdenum | ppm | <b>40</b>    | 32 | --- | --- |
| Nickel     | ppm | <b>&lt;1</b> | 0  | --- | --- |
| Titanium   | ppm | <b>0</b>     | 0  | --- | --- |
| Silver     | ppm | <b>0</b>     | 0  | --- | --- |
| Manganese  | ppm | <b>&lt;1</b> | <1 | --- | --- |
| Vanadium   | ppm | <b>0</b>     | 0  | --- | --- |



## ADDITIVES

|            |     |             |      |     |     |
|------------|-----|-------------|------|-----|-----|
| Calcium    | ppm | <b>1649</b> | 1336 | --- | --- |
| Magnesium  | ppm | <b>503</b>  | 382  | --- | --- |
| Zinc       | ppm | <b>1070</b> | 817  | --- | --- |
| Phosphorus | ppm | <b>979</b>  | 751  | --- | --- |
| Barium     | ppm | <b>0</b>    | 0    | --- | --- |
| Boron      | ppm | <b>37</b>   | 42   | --- | --- |

**Depot:** CASKIT  
**Unique No:** 5603887  
**Signed:** Wes Davis  
**Report Date:** 29 Jun 2023



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## GRAPHS

