## LIEBHERR

**CONSTRUCTION EQUIPMENT** 

### LIEBHERR L566 071183-1758 - Diesel Engine

Sample No: LH0251932

Oil Type: PETRO CANADA 10W40

| SAMPLEINFORMATION |             |             |  |  |  |  |
|-------------------|-------------|-------------|--|--|--|--|
| Sample Number     | LH0251932   | LH0260616   |  |  |  |  |
| Sample Date       | 29 Dec 2023 | 19 May 2023 |  |  |  |  |
| Machine Hours     | 3102        | 1190        |  |  |  |  |
| Oil Hours         | 0           | 0           |  |  |  |  |
| Oil Changed       | Changed     | Changed     |  |  |  |  |
| Sample Status     | NORMAL      | NORMAL      |  |  |  |  |
|                   |             |             |  |  |  |  |

| OIL CO         | <b>ONDITION</b> |             |        |      |
|----------------|-----------------|-------------|--------|------|
| Visc @ 100°C   | cSt             | <b>14.5</b> | O 13.2 | <br> |
| Oxidation (PA) | %               | 67          | 72     | <br> |

| CONTAMINATION  |     |          |          |  |  |  |
|----------------|-----|----------|----------|--|--|--|
| Water          | %   | NEG      | NEG      |  |  |  |
| Soot %         | %   | <b>0</b> | O 0      |  |  |  |
| Nitration (PA) | %   | 51       | 59       |  |  |  |
| Sulfation (PA) | %   | 57       | 56       |  |  |  |
| Glycol         | %   | NEG      | NEG      |  |  |  |
| Fuel           | %   | <1.0     | <1.0     |  |  |  |
| Silicon        | ppm | <b>2</b> | <b>4</b> |  |  |  |
| Sodium         | ppm | <b>2</b> | <b>4</b> |  |  |  |
| Potassium      | ppm | <b>2</b> | O 0      |  |  |  |

| Ø WEA      |          |             |           |      |
|------------|----------|-------------|-----------|------|
| WEA WEA    | R METALS |             |           |      |
| Iron       | ppm      | <b>2</b>    | <b>3</b>  | <br> |
| Copper     | ppm      | O <1        | 01        | <br> |
| Lead       | ppm      | <b>0</b>    | O 0       | <br> |
| Tin        | ppm      | <b>0</b>    | O <1      | <br> |
| Aluminum   | ppm      | <b>1</b>    | O 2       | <br> |
| Chromium   | ppm      | <b>0</b>    | O 0       | <br> |
| Molybdenum | ppm      | <b>0</b> <1 | <b>58</b> | <br> |
| Nickel     | ppm      | <b>○</b> <1 | O <1      | <br> |
| Titanium   | ppm      | 0           | <1        | <br> |
| Silver     | ppm      | <b>0</b>    | O 0       | <br> |
| Manganese  | ppm      | <b>0</b>    | O <1      | <br> |
| Vanadium   | ppm      | 0           | 0         | <br> |

| WII.       |     |             |          |  |  |  |
|------------|-----|-------------|----------|--|--|--|
| ADDITIVES  |     |             |          |  |  |  |
| Calcium    | ppm | <b>1852</b> | ○ 887    |  |  |  |
| Magnesium  | ppm | <b>86</b>   | O 1065   |  |  |  |
| Zinc       | ppm | <b>1038</b> | O 1151   |  |  |  |
| Phosphorus | ppm | <b>884</b>  | O 1040   |  |  |  |
| Barium     | ppm | <b>0</b>    | <b>0</b> |  |  |  |
| Boron      | ppm | <b>139</b>  | ○ 38     |  |  |  |
|            |     |             |          |  |  |  |



**Abbycel Substrate Ltd.** 3545 Ross Road Abbotsford, BC CA V4X 1M6

Contact: Service Manager

T: F:

#### 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.

Depot:ABB354ABBUnique No:5708031Signed:Kevin MarsonReport Date:08 Jan 2024

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#### **GRAPHS**

