# LIEBHERR

### **CONSTRUCTION EQUIPMENT**

### LIEBHERR A944C 063266 - Diesel Engine

**NEG** 

0.7

**3** 

**2** 

**1** 

Sample No: LH0274437

Glycol

Silicon

Sodium

Potassium

Fuel

Oil Type: PETRO CANADA 10W40

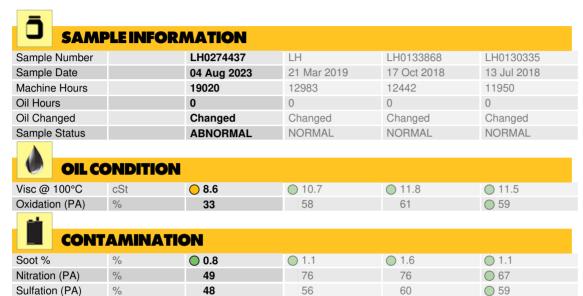
%

%

ppm

ppm

maa



NEG

<1.0

 $\bigcirc$  5

02

NEG

<1.0

**6** 

02

NEG

06

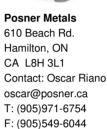
02

<1.0

| 1 Otacolani | PPIII | •            | 0 1      |           | 0 1        |  |  |  |  |  |
|-------------|-------|--------------|----------|-----------|------------|--|--|--|--|--|
|             |       |              |          |           |            |  |  |  |  |  |
| WEAR METALS |       |              |          |           |            |  |  |  |  |  |
| Iron        | ppm   | <b>10</b>    | O 25     | O 26      | ○ 23       |  |  |  |  |  |
| Copper      | ppm   | <b>5</b>     | O 2      | O 2       | <b>2</b>   |  |  |  |  |  |
| Lead        | ppm   | <b>3</b>     | O 2      | O 2       | <b>1</b>   |  |  |  |  |  |
| Tin         | ppm   | <b>0</b> <1  | 0        | 0         | 0          |  |  |  |  |  |
| Aluminum    | ppm   | <b>1</b>     | <b>1</b> | <b>1</b>  | <1         |  |  |  |  |  |
| Chromium    | ppm   | <b>1</b>     | O <1     | O <1      | <b></b> <1 |  |  |  |  |  |
| Molybdenum  | ppm   | <b>33</b>    | O 54     | <b>60</b> | <b>59</b>  |  |  |  |  |  |
| Nickel      | ppm   | <b>0</b>     | O 0      | O <1      | 0          |  |  |  |  |  |
| Titanium    | ppm   | 8            | 1        | 1         | 4          |  |  |  |  |  |
| Silver      | ppm   | <b>0</b>     | 0        | 0         | 0          |  |  |  |  |  |
| Manganese   | ppm   | <b>()</b> <1 | O <1     | O <1      | O <1       |  |  |  |  |  |
| Vanadium    | ppm   | 0            | 0        | 0         | 0          |  |  |  |  |  |
|             |       |              |          |           |            |  |  |  |  |  |

| Variadiaiii | PPIII  | •          |        | 0           | 0           |
|-------------|--------|------------|--------|-------------|-------------|
|             |        |            |        |             |             |
| ADD         | ITIVES |            |        |             |             |
| Calcium     | ppm    | <b>964</b> | 989    | <b>1057</b> | O 1086      |
| Magnesium   | ppm    | <b>68</b>  | ○ 855  | 957         | 965         |
| Zinc        | ppm    | <b>749</b> | O 1184 | O 1232      | O 1260      |
| Phosphorus  | ppm    | <b>671</b> | 951    | <b>1005</b> | <b>1074</b> |
| Barium      | ppm    | <b>0</b>   | O 0    | O 0         | O 0         |
| Boron       | ppm    | <b>16</b>  | O 2    | O 2         | O 2         |
|             |        |            |        |             |             |





#### Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 20 range, advise investigate. The condition of the oil is acceptable for the time in service.

Depot:POSHAMUnique No:5619846Signed:Kevin MarsonReport Date:10 Aug 2023

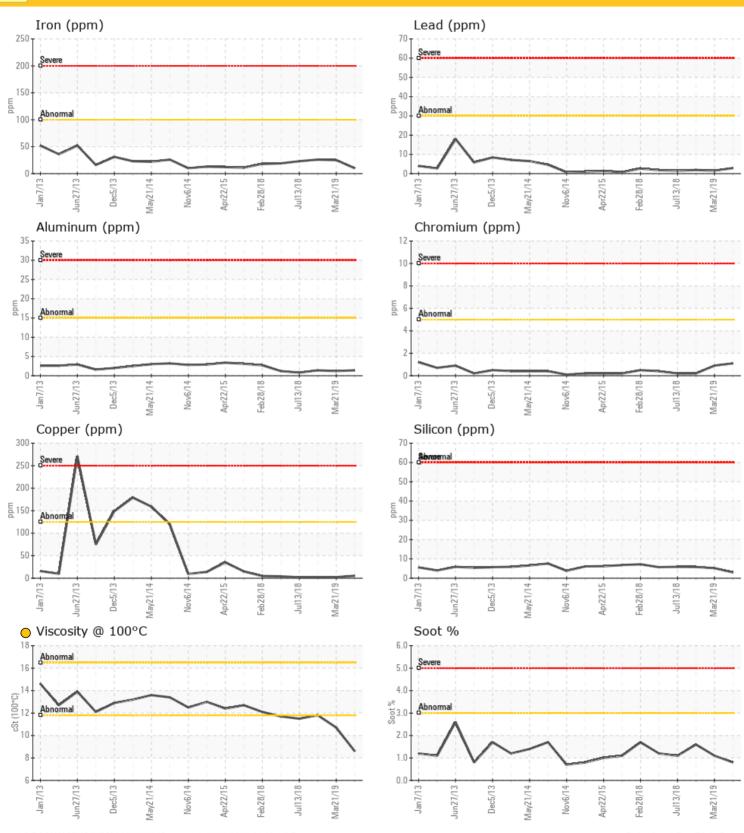
# LIEBHERR

CONSTRUCTION EQUIPMENT





#### **GRAPHS**



Report Id: POSHAM [WCAMIS] 02574795 (Generated: 08/10/2023 11:18:44) Rev: 1

Submitted By: Rick Cule