# **CONSTRUCTION EQUIPMENT**

PETRO CANADA 10W40

### LIEBHERR LH60M 146891-1217 - Diesel Engine

Sample No: LH0271810

Oil Type:

#### . . . . .

| - Sample Information |     |               |             |  |  |  |  |
|----------------------|-----|---------------|-------------|--|--|--|--|
| Sample Number        |     | LH0271810     | LH0281173   |  |  |  |  |
| Sample Date          |     | 24 May 2024   | 22 Dec 2023 |  |  |  |  |
| Machine Hours        |     | 1000          | 519         |  |  |  |  |
| Oil Hours            |     | 0             | 0           |  |  |  |  |
| Oil Changed          |     | Changed       | Changed     |  |  |  |  |
| Sample Status        |     | NORMAL        | ABNORMAL    |  |  |  |  |
| <b>Oil Condition</b> |     |               |             |  |  |  |  |
| Visc @ 100°C         | cSt | <b>0</b> 13.0 | 0 11.7      |  |  |  |  |
| Oxidation (PA)       | %   | 89            | 202         |  |  |  |  |

**Contamination** Water % 0.094 NEG %  $\bigcirc 0$ Soot % 0 0 Nitration (PA) % 99 78 Sulfation (PA) % 63 109 Glycol % 0.0 NEG Fuel % 0 2.3 <1.0 Silicon 06 08 ppm Sodium ppm 02  $\bigcirc$  3 Potassium 0 <1 ppm  $\bigcirc 4$ 

#### Wear Metals

| The second | II MEIUIS |             |      |      |
|------------|-----------|-------------|------|------|
| Iron       | ppm       | 07          | 0 14 | <br> |
| Copper     | ppm       | ◯ 50        | 214  | <br> |
| Lead       | ppm       | 0 2         | 8 🔘  | <br> |
| Tin        | ppm       | <b>○</b> <1 | 0 2  | <br> |
| Aluminum   | ppm       | 0 2         | 5    | <br> |
| Chromium   | ppm       | ◯ <1        | 0 2  | <br> |
| Molybdenum | ppm       | <b>56</b>   | 0 47 | <br> |
| Nickel     | ppm       | 0 ()        | ○ <1 | <br> |
| Titanium   | ppm       | 0           | 0    | <br> |
| Silver     | ppm       | 0 🔘         | 0    | <br> |
| Manganese  | ppm       | <b>○</b> <1 | ○ <1 | <br> |
| Vanadium   | ppm       | 0           | 0    | <br> |

| Additives  |     |        |        |  |  |  |  |
|------------|-----|--------|--------|--|--|--|--|
| Calcium    | ppm | 0 1118 | 0 1321 |  |  |  |  |
| Magnesium  | ppm | 940    | 913    |  |  |  |  |
| Zinc       | ppm | 0 1112 | 869    |  |  |  |  |
| Phosphorus | ppm | 0 887  | 0 705  |  |  |  |  |
| Barium     | ppm | 04     | 23     |  |  |  |  |
| Boron      | ppm | 08     | 66     |  |  |  |  |
|            |     |        |        |  |  |  |  |





#### RICHMOND STEEL RECYCLING

11760 MITCHELL ROAD RICHMOND, BC CA V6V 1V8 Contact: Aaron Kaetler AKaetler@richmondsteel.ca T: F: (604)324-8617

#### Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. The water content is negligible. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

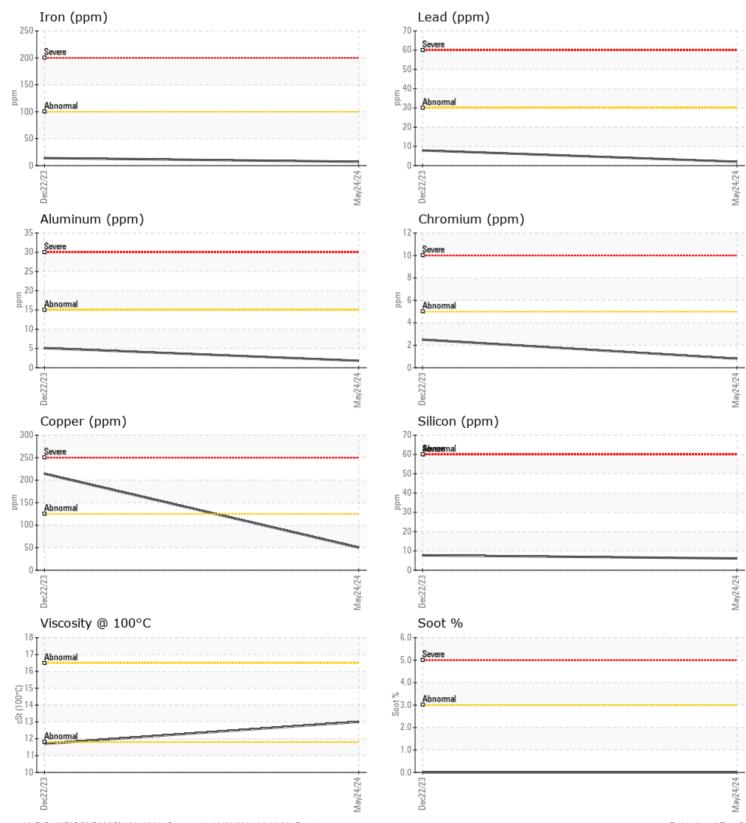


## **LEBHERR CONSTRUCTION EQUIPMENT**



Graphs

 $\odot$ 



Report Id: RIC117RIC [WCAMIS] 02642506 (Generated: 06/20/2024 08:55:38) Rev: 1