



# LIEBHERR

## OIL ANALYSIS REPORT

|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |



Machine Id  
**LIEBHERR LH30M 142539-1253**  
Component  
**Transmission (Manual)**  
Fluid  
**PETRO CANADA 10W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>LH0284075</b>   | LH0260399   | LH0260656   |
| Sample Date    |     | Client Info |           | <b>15 Feb 2024</b> | 17 Aug 2023 | 03 May 2023 |
| Machine Age    | hrs | Client Info |           | <b>0</b>           | 1138        | 732         |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### WEAR

All component wear rates are normal.

|              |        |               |      |              |       |      |
|--------------|--------|---------------|------|--------------|-------|------|
| Iron         | ppm    | ASTM D5185(m) | >200 | <b>16</b>    | 18    | 19   |
| Chromium     | ppm    | ASTM D5185(m) | >5   | <b>0</b>     | <1    | 0    |
| Nickel       | ppm    | ASTM D5185(m) | >5   | <b>&lt;1</b> | 0     | <1   |
| Titanium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | 0     | <1   |
| Silver       | ppm    | ASTM D5185(m) | >7   | <b>0</b>     | 0     | 0    |
| Aluminum     | ppm    | ASTM D5185(m) | >25  | <b>2</b>     | 2     | 3    |
| Lead         | ppm    | ASTM D5185(m) | >45  | <b>&lt;1</b> | <1    | 1    |
| Copper       | ppm    | ASTM D5185(m) | >225 | <b>13</b>    | 19    | 23   |
| Tin          | ppm    | ASTM D5185(m) | >10  | <b>&lt;1</b> | 0     | <1   |
| Vanadium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | 0     | <1   |
| White Metal  | scalar | Visual*       | NONE | <b>NONE</b>  | VLITE | NONE |
| Yellow Metal | scalar | Visual*       | NONE | <b>NONE</b>  | NONE  | NONE |

### CONTAMINATION

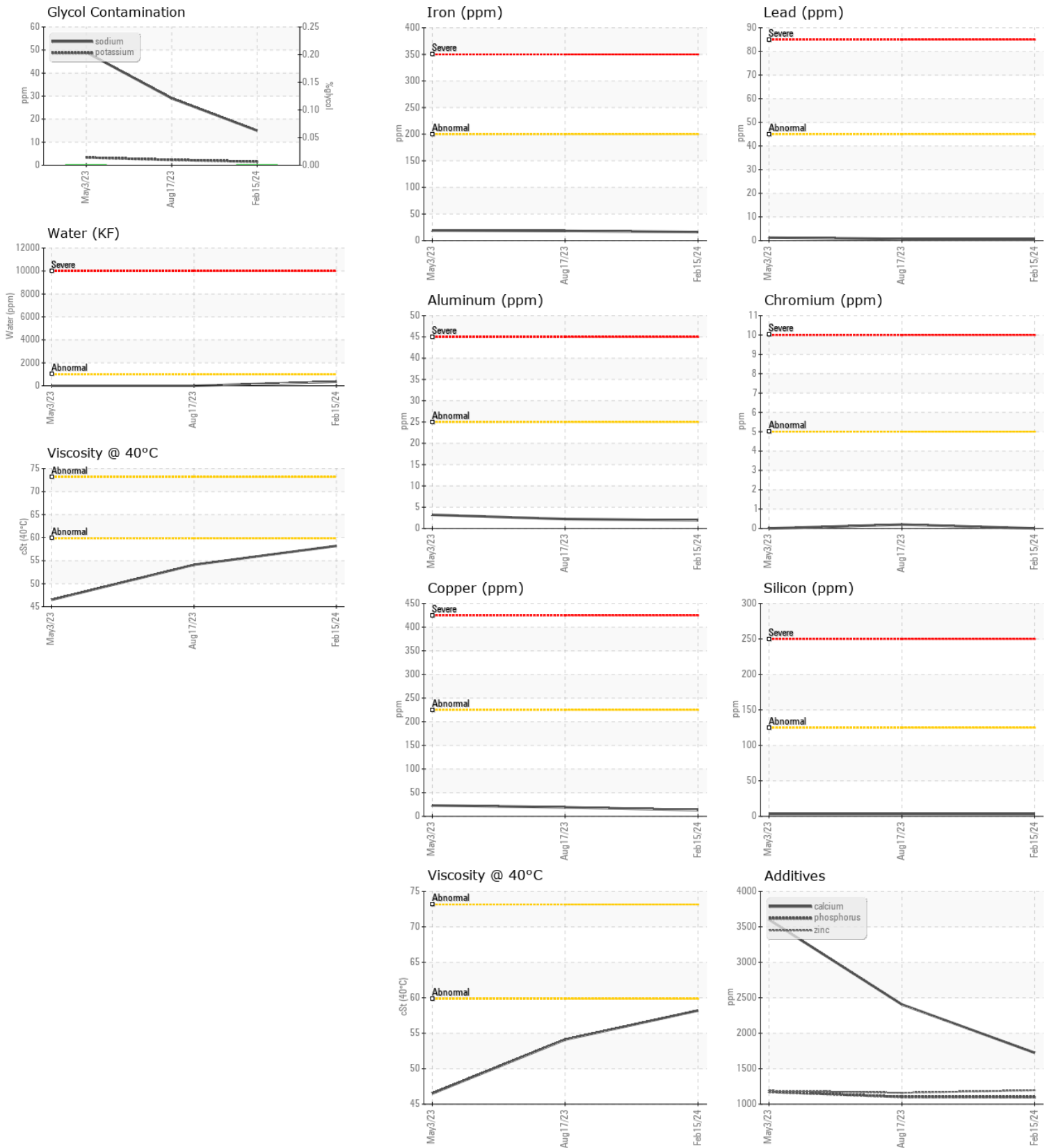
The water content is negligible. There is no indication of any contamination in the fluid.

|                  |        |               |       |              |       |       |
|------------------|--------|---------------|-------|--------------|-------|-------|
| Silicon          | ppm    | ASTM D5185(m) | >125  | <b>3</b>     | 3     | 3     |
| Potassium        | ppm    | ASTM D5185(m) | >20   | <b>2</b>     | 2     | 3     |
| Water            | %      | ASTM D6304*   | >0.1  | <b>0.035</b> | ---   | ---   |
| ppm Water        | ppm    | ASTM D6304*   | >1000 | <b>353</b>   | ---   | ---   |
| Glycol           | %      | ASTM D7922*   |       | <b>0.0</b>   | ---   | 0.0   |
| Silt             | scalar | Visual*       | NONE  | <b>VLITE</b> | NONE  | NONE  |
| Debris           | scalar | Visual*       | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Sand/Dirt        | scalar | Visual*       | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Appearance       | scalar | Visual*       | NORML | <b>NORML</b> | NORML | NORML |
| Odor             | scalar | Visual*       | NORML | <b>NORML</b> | NORML | NORML |
| Emulsified Water | scalar | Visual*       | >0.1  | <b>.2%</b>   | NEG   | NEG   |

### FLUID CONDITION

The fluid viscosity is higher than typical. The condition of the fluid is acceptable for the time in service.

|             |     |               |     |             |      |      |
|-------------|-----|---------------|-----|-------------|------|------|
| Sodium      | ppm | ASTM D5185(m) | >20 | <b>15</b>   | 29   | 49   |
| Boron       | ppm | ASTM D5185(m) |     | <b>4</b>    | 4    | 4    |
| Barium      | ppm | ASTM D5185(m) |     | <b>0</b>    | <1   | <1   |
| Molybdenum  | ppm | ASTM D5185(m) |     | <b>44</b>   | 23   | <1   |
| Manganese   | ppm | ASTM D5185(m) |     | <b>3</b>    | 7    | 10   |
| Magnesium   | ppm | ASTM D5185(m) |     | <b>720</b>  | 372  | 10   |
| Calcium     | ppm | ASTM D5185(m) |     | <b>1724</b> | 2406 | 3601 |
| Phosphorus  | ppm | ASTM D5185(m) |     | <b>1098</b> | 1101 | 1174 |
| Zinc        | ppm | ASTM D5185(m) |     | <b>1195</b> | 1160 | 1188 |
| Sulfur      | ppm | ASTM D5185(m) |     | <b>4351</b> | 5565 | 7668 |
| Visc @ 40°C | cSt | ASTM D7279(m) |     | <b>58.2</b> | 54.1 | 46.5 |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0284075 **Received** : 16 Feb 2024  
**Lab Number** : 02616305 **Tested** : 20 Feb 2024  
**Unique Number** : 5733415 **Diagnosed** : 20 Feb 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, KF )

**Goodies Trading Ltd.**  
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 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

T:  
F: