



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH80M 120282-1218**

Component  
**Front Left Wheel Hub**

Fluid  
**CHEVRON DELO SYNTHETIC GEAR 75W90 (9 LTR)**

### RECOMMENDATION

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>LH0279398</b>   | LH0280270   | LH0270036   |
| Sample Date    |     | Client Info |           | <b>12 Jan 2024</b> | 02 Dec 2023 | 27 Sep 2023 |
| Machine Age    | hrs | Client Info |           | <b>12934</b>       | 12550       | 11869       |
| 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>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### WEAR

Les taux d'usure de tous les composants sont normaux.

|              |        |               |      |              |      |      |
|--------------|--------|---------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185(m) | >650 | <b>116</b>   | 119  | 237  |
| Chromium     | ppm    | ASTM D5185(m) | >4   | <b>&lt;1</b> | <1   | 2    |
| Nickel       | ppm    | ASTM D5185(m) | >4   | <b>&lt;1</b> | <1   | <1   |
| Titanium     | ppm    | ASTM D5185(m) | >4   | <b>0</b>     | 0    | 0    |
| Silver       | ppm    | ASTM D5185(m) |      | <b>0</b>     | <1   | <1   |
| Aluminum     | ppm    | ASTM D5185(m) | >25  | <b>1</b>     | 1    | 2    |
| Lead         | ppm    | ASTM D5185(m) | >4   | <b>&lt;1</b> | <1   | <1   |
| Copper       | ppm    | ASTM D5185(m) | >60  | <b>4</b>     | 4    | 10   |
| Tin          | ppm    | ASTM D5185(m) | >4   | <b>0</b>     | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | 0    | 0    |
| White Metal  | scalar | Visual*       | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | Visual*       | NONE | <b>NONE</b>  | NONE | NONE |

### CONTAMINATION

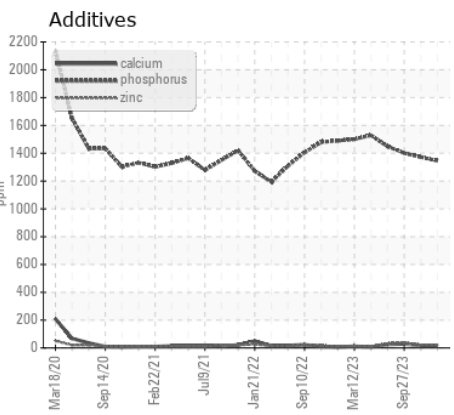
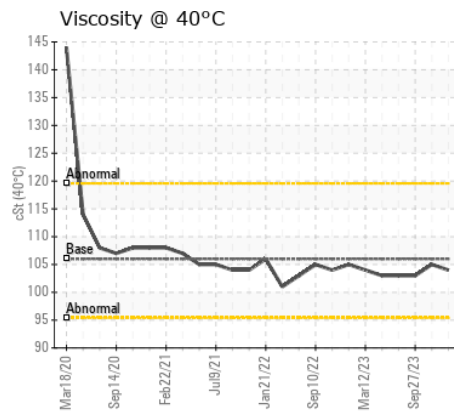
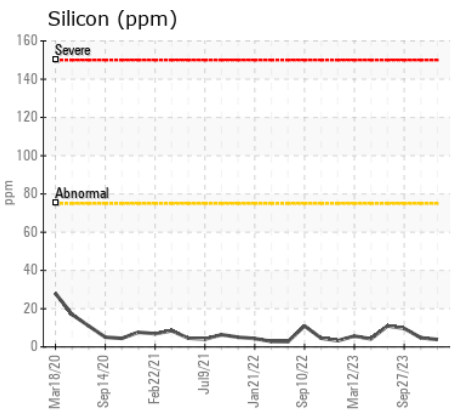
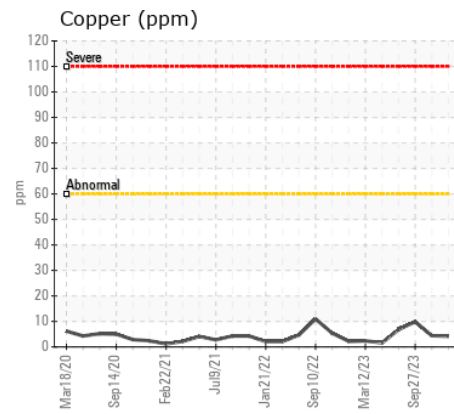
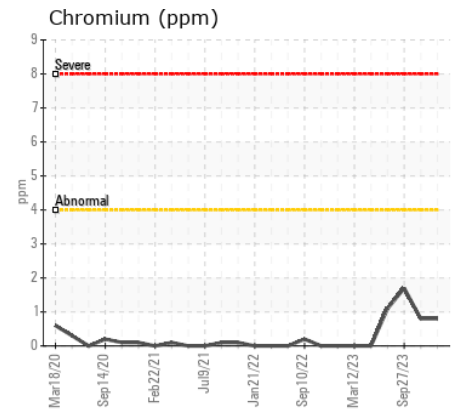
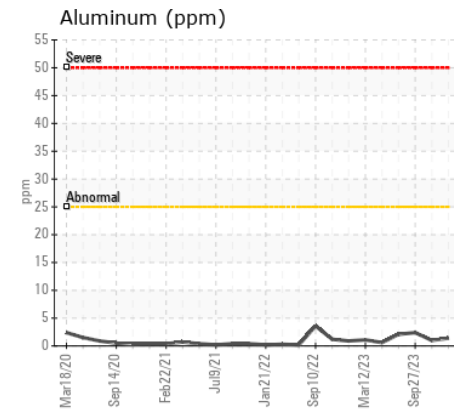
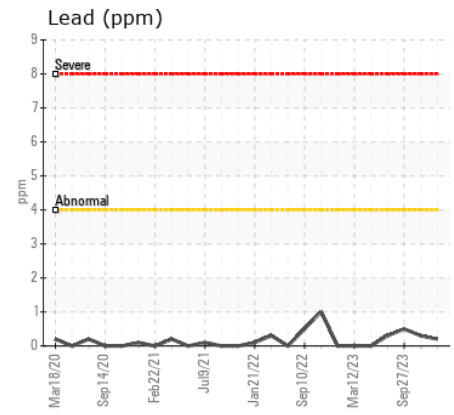
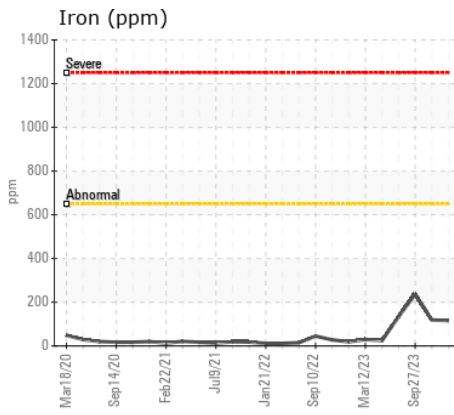
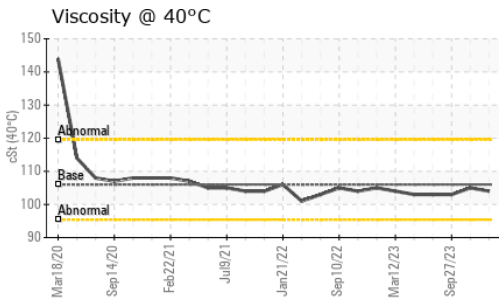
Il n'y a aucun indice de contamination dans l'huile.

|                  |        |               |       |              |       |       |
|------------------|--------|---------------|-------|--------------|-------|-------|
| Silicon          | ppm    | ASTM D5185(m) | >75   | <b>4</b>     | 5     | 10    |
| Potassium        | ppm    | ASTM D5185(m) | >20   | <b>1</b>     | 2     | 2     |
| Water            |        | WC Method     | >0.2  | <b>NEG</b>   | NEG   | NEG   |
| Silt             | scalar | Visual*       | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Debris           | scalar | Visual*       | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Sand/Dirt        | scalar | Visual*       | NONE  | <b>NONE</b>  | NONE  | VLITE |
| Appearance       | scalar | Visual*       | NORML | <b>NORML</b> | NORML | NORML |
| Odor             | scalar | Visual*       | NORML | <b>NORML</b> | NORML | NORML |
| Emulsified Water | scalar | Visual*       | >0.2  | <b>NEG</b>   | NEG   | NEG   |

### FLUID CONDITION

L'état de l'huile est acceptable pour la durée de service.

|             |     |               |     |              |       |       |
|-------------|-----|---------------|-----|--------------|-------|-------|
| Sodium      | ppm | ASTM D5185(m) |     | <b>10</b>    | 10    | 17    |
| Boron       | ppm | ASTM D5185(m) |     | <b>168</b>   | 185   | 118   |
| Barium      | ppm | ASTM D5185(m) |     | <b>0</b>     | <1    | <1    |
| Molybdenum  | ppm | ASTM D5185(m) |     | <b>1</b>     | 2     | 3     |
| Manganese   | ppm | ASTM D5185(m) |     | <b>2</b>     | 2     | 4     |
| Magnesium   | ppm | ASTM D5185(m) |     | <b>3</b>     | 4     | 6     |
| Calcium     | ppm | ASTM D5185(m) |     | <b>16</b>    | 17    | 28    |
| Phosphorus  | ppm | ASTM D5185(m) |     | <b>1346</b>  | 1372  | 1401  |
| Zinc        | ppm | ASTM D5185(m) |     | <b>20</b>    | 22    | 38    |
| Sulfur      | ppm | ASTM D5185(m) |     | <b>22360</b> | 22847 | 22952 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 106 | <b>104</b>   | 105   | 103   |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 ARCELORMITTAL LONG PRODUITS CANADA  
**Sample No.** : LH0279398 **Received** : 16 Jan 2024 3185 ROUTE MARIE-VICTORIN  
**Lab Number** : 02609094 **Diagnosed** : 16 Jan 2024 CONTRECOEUR, QC  
**Unique Number** : 5710180 **Diagnostician** : Kevin Marson CA J0L 1C0  
**Test Package** : MOB 1

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.

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