



# LIEBHERR

## RAPPORT D'ANALYSE D'HUILE

|                |               |
|----------------|---------------|
| USURE          | <b>NORMAL</b> |
| CONTAMINATION  | <b>NORMAL</b> |
| ÉTAT DU FLUIDE | <b>NORMAL</b> |



Identité de la machine  
**LIEBHERR LH50M 074503-1203**  
 Composant  
**Moteur diesel**  
 Fluide  
**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

### RECOMMANDATION

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

| Test                | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|---------------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Numéro d'échant.    |     | Client Info |           | <b>LH0135273</b>   | LH0215361   | LH0215355   |
| Date d'échant.      |     | Client Info |           | <b>01 Dec 2023</b> | 09 Feb 2022 | 29 Dec 2021 |
| Âge d la Machine    | hrs | Client Info |           | <b>32385</b>       | 25996       | 25544       |
| Âge de l'huile      | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Âge du filtre       | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Huile changée       |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filtre changé       |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Statut de l'échant. |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### USURE

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

|           |     |               |      |              |    |    |
|-----------|-----|---------------|------|--------------|----|----|
| Fer       | ppm | ASTM D5185(m) | >100 | <b>20</b>    | 24 | 14 |
| Chrome    | ppm | ASTM D5185(m) | >5   | <b>&lt;1</b> | <1 | <1 |
| Nickel    | ppm | ASTM D5185(m) | >5   | <b>&lt;1</b> | <1 | <1 |
| Titane    | ppm | ASTM D5185(m) |      | <b>0</b>     | 0  | <1 |
| Argent    | ppm | ASTM D5185(m) | >3   | <b>&lt;1</b> | <1 | <1 |
| Aluminium | ppm | ASTM D5185(m) | >15  | <b>4</b>     | 10 | 5  |
| Plomb     | ppm | ASTM D5185(m) | >30  | <b>2</b>     | <1 | <1 |
| Cuivre    | ppm | ASTM D5185(m) | >125 | <b>11</b>    | 4  | 2  |
| Étain     | ppm | ASTM D5185(m) | >5   | <b>&lt;1</b> | <1 | <1 |
| Vanadium  | ppm | ASTM D5185(m) |      | <b>0</b>     | 0  | 0  |

### CONTAMINATION

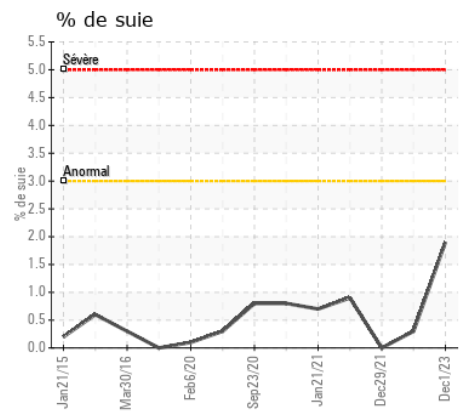
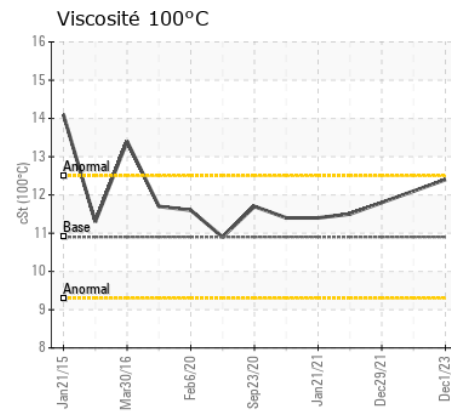
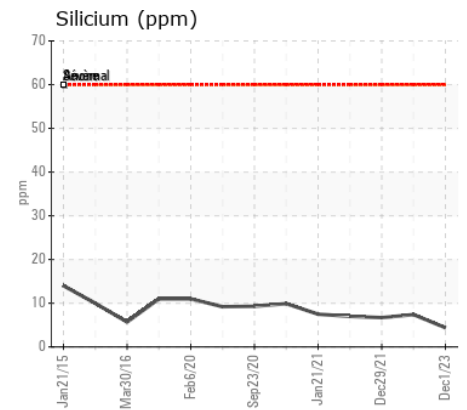
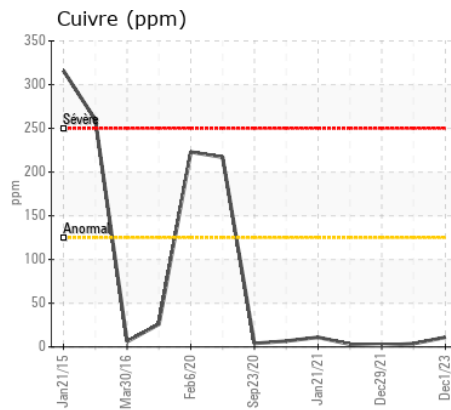
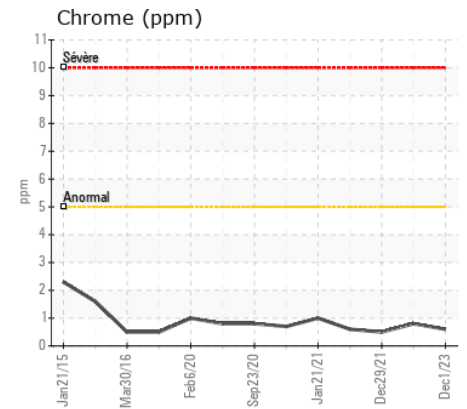
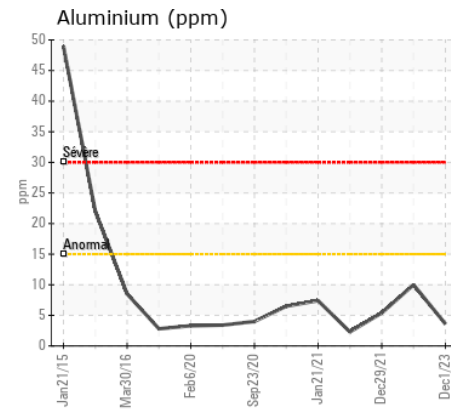
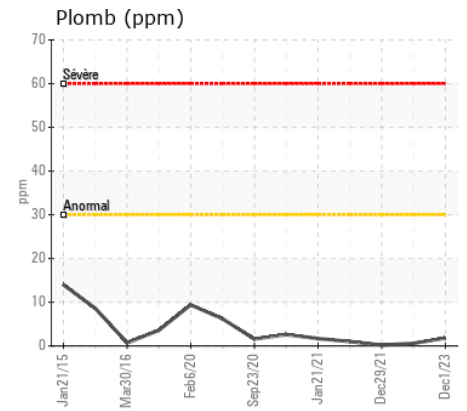
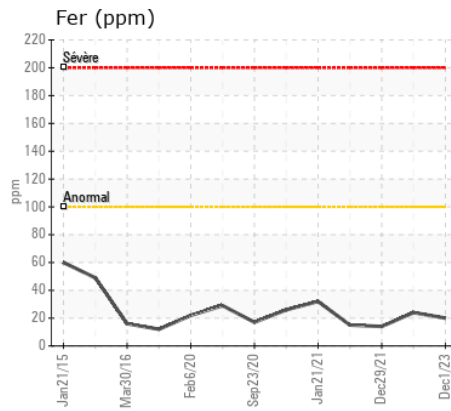
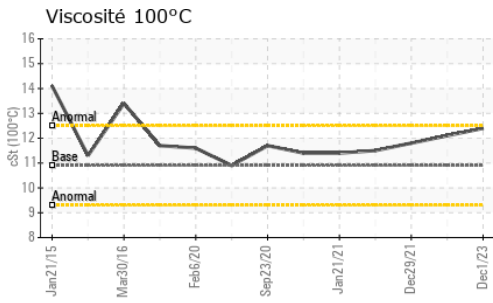
Il n'y a aucun indice de contamination dans l'huile.

|                |          |               |      |                |      |      |
|----------------|----------|---------------|------|----------------|------|------|
| Silicium       | ppm      | ASTM D5185(m) | >60  | <b>4</b>       | 7    | 7    |
| Potassium      | ppm      | ASTM D5185(m) | >20  | <b>2</b>       | 5    | 5    |
| Essence        |          | WC Method     | >5   | <b>&lt;1.0</b> | <1.0 | <1.0 |
| L'eau          |          | WC Method     | >0.2 | <b>NEG</b>     | NEG  | NEG  |
| Glycol         |          | WC Method     |      | <b>NEG</b>     | NEG  | NEG  |
| % de suie      | %        | ASTM D7844*   | >3   | <b>1.9</b>     | 0.3  | 0    |
| Nitration      | Abs/cm   | ASTM D7624*   | >20  | <b>10.5</b>    | 5.2  | 4.1  |
| Sulfatation    | Abs/.1mm | ASTM D7415*   | >30  | <b>25.6</b>    | 16.0 | 14.5 |
| Eau émulsifiée | scalar   | Visual*       | >0.2 | <b>NEG</b>     | NEG  | NEG  |

### ÉTAT DU FLUIDE

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

|            |          |               |      |              |      |      |
|------------|----------|---------------|------|--------------|------|------|
| Sodium     | ppm      | ASTM D5185(m) |      | <b>3</b>     | 2    | 2    |
| Bore       | ppm      | ASTM D5185(m) | 250  | <b>9</b>     | 35   | 31   |
| Baryum     | ppm      | ASTM D5185(m) | 10   | <b>&lt;1</b> | 0    | 0    |
| Molybdène  | ppm      | ASTM D5185(m) | 100  | <b>19</b>    | 5    | 4    |
| Manganèse  | ppm      | ASTM D5185(m) |      | <b>0</b>     | <1   | <1   |
| Magnésium  | ppm      | ASTM D5185(m) | 450  | <b>83</b>    | 33   | 21   |
| Calcium    | ppm      | ASTM D5185(m) | 3000 | <b>2250</b>  | 2307 | 2198 |
| Phosphore  | ppm      | ASTM D5185(m) | 1150 | <b>843</b>   | 971  | 967  |
| Zinc       | ppm      | ASTM D5185(m) | 1350 | <b>1042</b>  | 1163 | 1110 |
| Soufre     | ppm      | ASTM D5185(m) | 4250 | <b>2772</b>  | 3144 | 2980 |
| Oxydation  | Abs/.1mm | ASTM D7414*   | >25  | <b>15.0</b>  | 7.8  | 6.3  |
| Visc 100°C | cSt      | ASTM D7279(m) | 10.9 | <b>12.4</b>  | 12.1 | 11.8 |



**Laboratoire** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Cooperative Forestiere Du Haut ST-Maurice (CFHSM)  
**N° d'échantillon** : LH0135273 **Reçu** : 08 Dec 2023 2399 Route 155 Sud  
**N° de laboratoire** : 02601763 **Diagnostiqué** : 08 Dec 2023 La Tuque, QC  
**Numéro unique** : 5694848 **Diagnostiqueur** : Wes Davis CA G9X 3N8  
**Analyse** : MOBCE

Pour discuter ce rapport, contacter le service à la clientèle au 1-800-268-2131.

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.

La validez de los resultados y la interpretación se basan en la muestra y la información proporcionada.

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