



# 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 R934 054794-1550**

Composant  
**Moteur diesel**

Fluide  
**PETRO CANADA SUPREME 5W30 (--- 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>LH0270076</b>   | LH0251031   | ---      |
| Date d'échant.      |     | Client Info |           | <b>12 Sep 2023</b> | 30 Jan 2023 | ---      |
| Âge d la Machine    | hrs | Client Info |           | <b>925</b>         | 500         | ---      |
| Âge de l'huile      | hrs | Client Info |           | <b>0</b>           | 0           | ---      |
| Âge du filtre       | hrs | Client Info |           | <b>0</b>           | 0           | ---      |
| Huile changée       |     | Client Info |           | <b>Changed</b>     | N/A         | ---      |
| Filtre changé       |     | Client Info |           | <b>N/A</b>         | N/A         | ---      |
| Statut de l'échant. |     |             |           | <b>NORMAL</b>      | NORMAL      | ---      |

### USURE

Les taux de métaux sont typiques pour la période de rodage d'un nouveau composant.

|           |     |               |      |              |     |     |
|-----------|-----|---------------|------|--------------|-----|-----|
| Fer       | ppm | ASTM D5185(m) | >100 | <b>9</b>     | 12  | --- |
| Chrome    | ppm | ASTM D5185(m) | >5   | <b>&lt;1</b> | 1   | --- |
| Nickel    | ppm | ASTM D5185(m) | >5   | <b>&lt;1</b> | 0   | --- |
| Titane    | ppm | ASTM D5185(m) |      | <b>0</b>     | <1  | --- |
| Argent    | ppm | ASTM D5185(m) | >3   | <b>0</b>     | 0   | --- |
| Aluminium | ppm | ASTM D5185(m) | >15  | <b>2</b>     | 3   | --- |
| Plomb     | ppm | ASTM D5185(m) | >30  | <b>4</b>     | 7   | --- |
| Cuivre    | ppm | ASTM D5185(m) | >125 | <b>120</b>   | 262 | --- |
| Étain     | ppm | ASTM D5185(m) | >5   | <b>&lt;1</b> | 2   | --- |
| Vanadium  | ppm | ASTM D5185(m) |      | <b>0</b>     | 0   | --- |

### CONTAMINATION

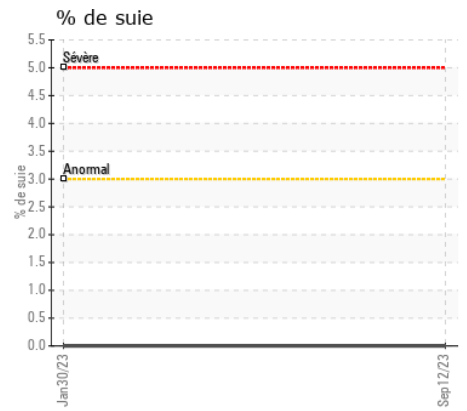
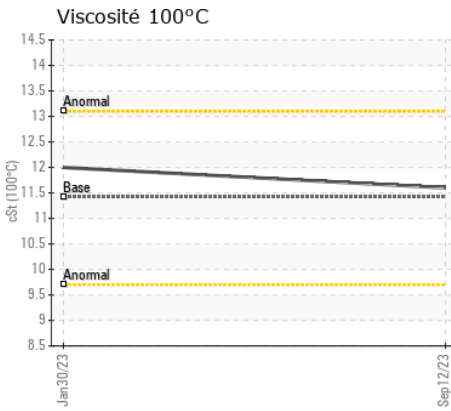
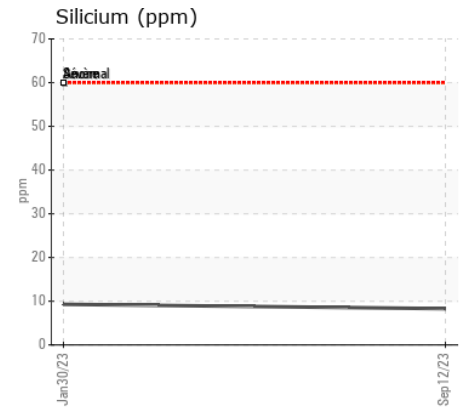
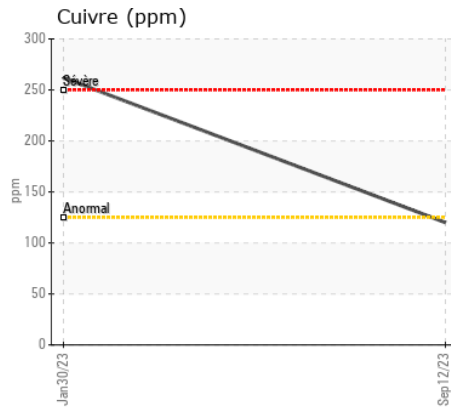
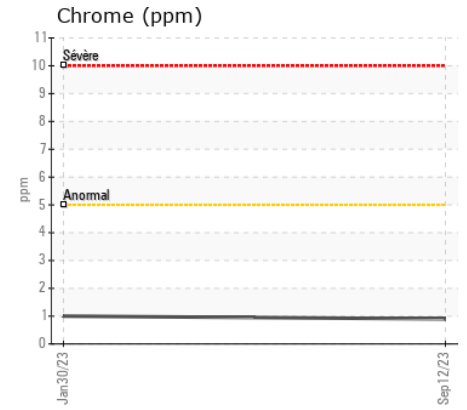
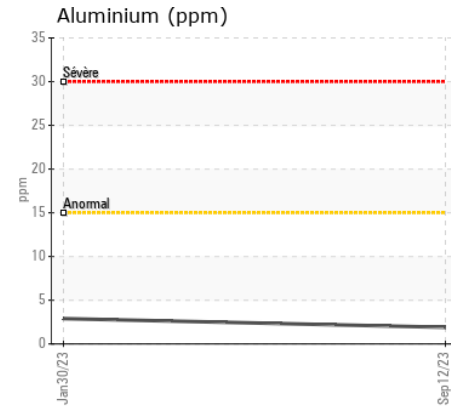
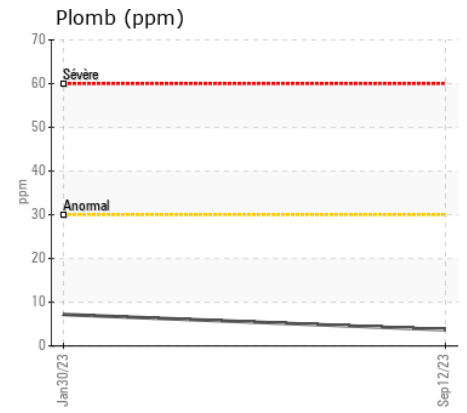
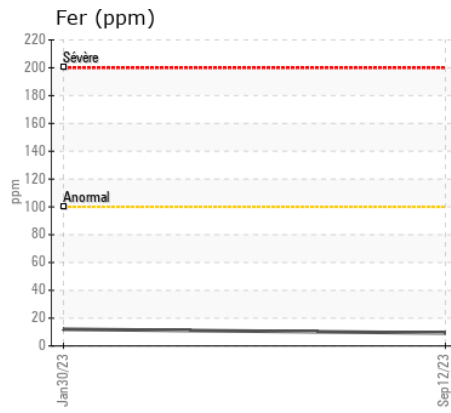
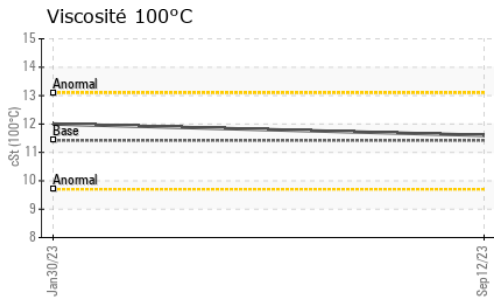
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Il n'y a aucun indice de contamination dans l'huile.

|                |          |               |      |                |      |     |
|----------------|----------|---------------|------|----------------|------|-----|
| Silicium       | ppm      | ASTM D5185(m) | >60  | <b>8</b>       | 9    | --- |
| Potassium      | ppm      | ASTM D5185(m) | >20  | <b>6</b>       | 3    | --- |
| Essence        |          | WC Method     | >5   | <b>&lt;1.0</b> | 0.9  | --- |
| Glycol         |          | WC Method     |      | <b>NEG</b>     | NEG  | --- |
| % de suie      | %        | ASTM D7844*   | >3   | <b>0</b>       | 0    | --- |
| Nitration      | Abs/cm   | ASTM D7624*   | >20  | <b>10.1</b>    | 11.2 | --- |
| Sulfatation    | Abs/.1mm | ASTM D7415*   | >30  | <b>23.6</b>    | 38.6 | --- |
| Eau émulsifiée | scalar   | Visual*       | >0.2 | <b>NEG</b>     | NEG  | --- |

### ÉTAT DU FLUIDE

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

|            |          |               |       |              |      |     |
|------------|----------|---------------|-------|--------------|------|-----|
| Sodium     | ppm      | ASTM D5185(m) |       | <b>4</b>     | 3    | --- |
| Bore       | ppm      | ASTM D5185(m) | 186   | <b>29</b>    | 79   | --- |
| Baryum     | ppm      | ASTM D5185(m) | <1    | <b>5</b>     | 28   | --- |
| Molybdène  | ppm      | ASTM D5185(m) | 79    | <b>57</b>    | 46   | --- |
| Manganèse  | ppm      | ASTM D5185(m) | 0     | <b>&lt;1</b> | 1    | --- |
| Magnésium  | ppm      | ASTM D5185(m) | 578   | <b>1120</b>  | 919  | --- |
| Calcium    | ppm      | ASTM D5185(m) | 1002  | <b>892</b>   | 1346 | --- |
| Phosphore  | ppm      | ASTM D5185(m) | 745   | <b>1017</b>  | 782  | --- |
| Zinc       | ppm      | ASTM D5185(m) | 837   | <b>1171</b>  | 882  | --- |
| Soufre     | ppm      | ASTM D5185(m) | 2502  | <b>2390</b>  | 1867 | --- |
| Oxydation  | Abs/.1mm | ASTM D7414*   | >25   | <b>24.0</b>  | 47.4 | --- |
| Visc 100°C | cSt      | ASTM D7279(m) | 11.42 | <b>11.6</b>  | 12.0 | --- |



ISO 17025:2017  
Accredited  
Laboratory

**Laboratoire** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 METAL EXPRESS (9055-2480 QUEBEC INC)  
**N° d'échantillon** : LH0270076 **Reçu** : 14 Sep 2023  
**N° de laboratoire** : 02582480 **Diagnostiqué** : 14 Sep 2023  
**Numéro unique** : 5643545 **Diagnostiqueur** : Wes Davis  
**Analyse** : MOB 1

254 RUE RICHARD-AUDET  
ROXTON FALLS, QC  
CA J0H 1E0  
Contact: Service Manager

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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F: