



# RAPPORT D'ANALYSE D'HUILE

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

Secteur

**3000 series**

Identité de la machine

**Navistar 3285**

Composant

**Moteur diesel**

Fluid

**PETRO CANADA DURON SHP 10W30 (26 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test                | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|---------------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Numéro d'échant.    |     | Client Info |           | <b>WC0909553</b>   | WC0889993   | WC0857921   |
| Date d'échant.      |     | Client Info |           | <b>28 Mar 2024</b> | 05 Feb 2024 | 30 Sep 2023 |
| Âge d la Machine    | mls | Client Info |           | <b>498643</b>      | 484052      | 467078      |
| Âge de l'huile      | mls | Client Info |           | <b>14591</b>       | 16974       | 17907       |
| Âge du filtre       | mls | Client Info |           | <b>14591</b>       | 16974       | 17907       |
| Huile changée       |     | Client Info |           | <b>Changed</b>     | N/A         | Changed     |
| Filtre changé       |     | Client Info |           | <b>Changed</b>     | N/A         | Changed     |
| Statut de l'échant. |     |             |           | <b>MARGINAL</b>    | NORMAL      | NORMAL      |

## USURE

All component wear rates are normal.

|           |     |               |      |              |    |    |
|-----------|-----|---------------|------|--------------|----|----|
| Fer       | ppm | ASTM D5185(m) | >100 | <b>23</b>    | 61 | 33 |
| Chrome    | ppm | ASTM D5185(m) | >20  | <b>&lt;1</b> | 2  | <1 |
| Nickel    | ppm | ASTM D5185(m) | >4   | <b>0</b>     | <1 | <1 |
| Titane    | ppm | ASTM D5185(m) |      | <b>0</b>     | 0  | 0  |
| Argent    | ppm | ASTM D5185(m) | >3   | <b>0</b>     | 0  | <1 |
| Aluminium | ppm | ASTM D5185(m) | >20  | <b>4</b>     | 10 | 8  |
| Plomb     | ppm | ASTM D5185(m) | >40  | <b>0</b>     | 0  | 0  |
| Cuivre    | ppm | ASTM D5185(m) | >330 | <b>1</b>     | 3  | 4  |
| Étain     | ppm | ASTM D5185(m) | >15  | <b>0</b>     | 0  | 0  |
| Vanadium  | ppm | ASTM D5185(m) |      | <b>0</b>     | 0  | 0  |

## CONTAMINATION

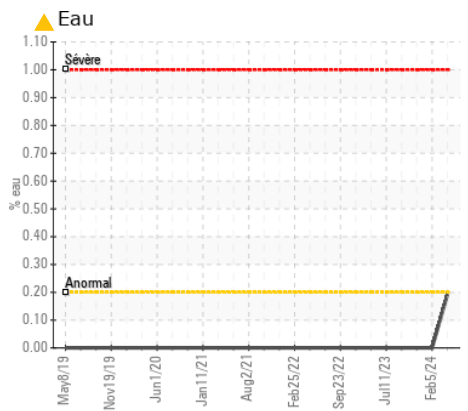
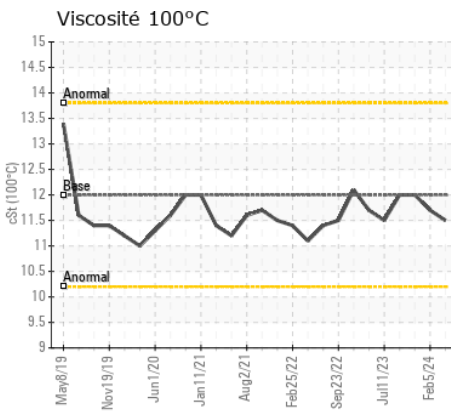
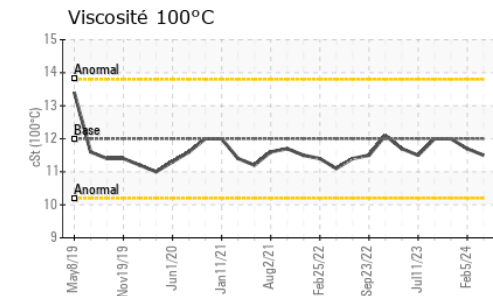
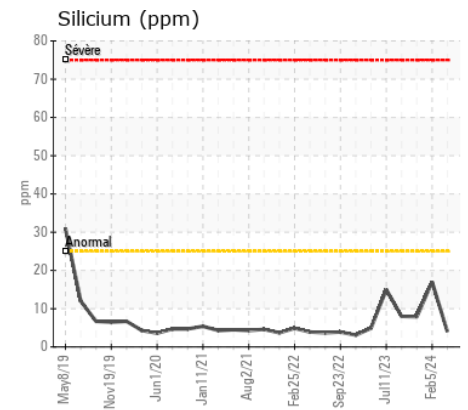
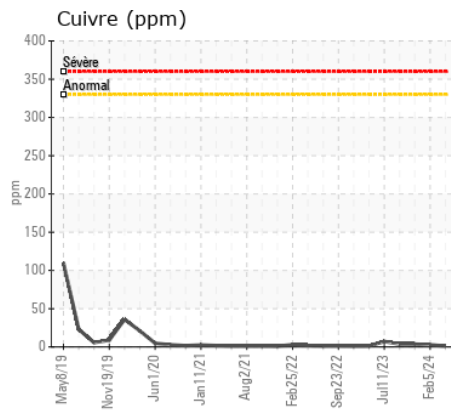
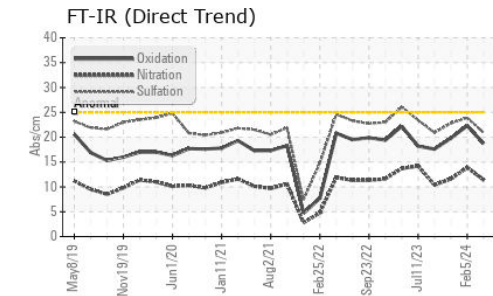
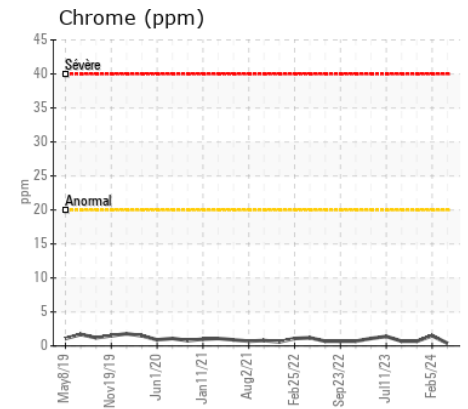
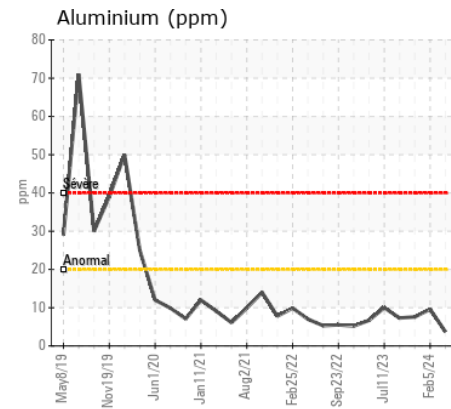
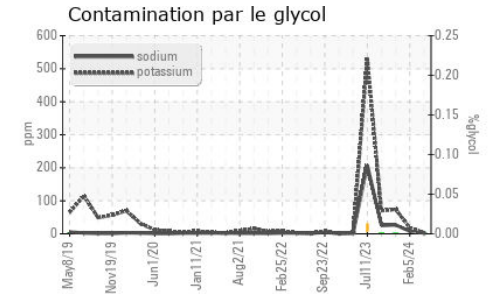
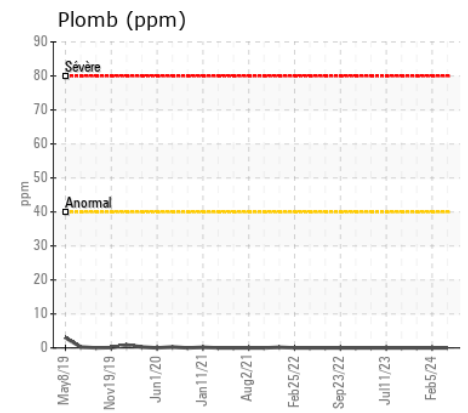
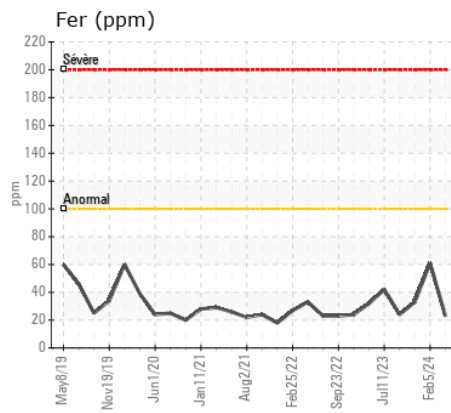
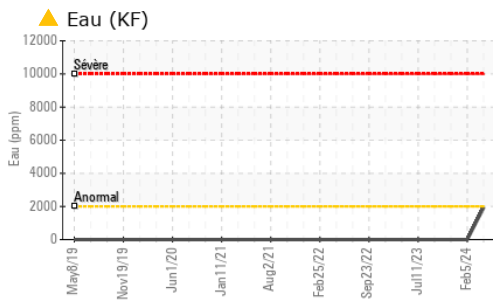
There is a trace of moisture present in the oil. Test for glycol is negative.

|                |          |               |       |                |      |      |
|----------------|----------|---------------|-------|----------------|------|------|
| Silicium       | ppm      | ASTM D5185(m) | >25   | <b>4</b>       | 17   | 8    |
| Potassium      | ppm      | ASTM D5185(m) | >20   | <b>3</b>       | 18   | 74   |
| Essence        |          | WC Method     | >5    | <b>&lt;1.0</b> | <1.0 | <1.0 |
| Eau            | %        | ASTM D6304*   | >0.2  | <b>▲ 0.192</b> | ---  | ---  |
| ppm d'eau      | ppm      | ASTM D6304*   | >2000 | <b>▲ 1927</b>  | ---  | ---  |
| Glycol         | %        | ASTM D7922*   |       | <b>0.0</b>     | NEG  | 0.0  |
| % de suie      | %        | ASTM D7844*   | >3    | <b>0.2</b>     | 0.6  | 0.6  |
| Nitration      | Abs/cm   | ASTM D7624*   | >20   | <b>11.4</b>    | 13.9 | 11.6 |
| Sulfatation    | Abs/.1mm | ASTM D7415*   | >30   | <b>20.9</b>    | 23.9 | 22.8 |
| Eau émulsifiée | scalar   | Visual*       | >0.2  | <b>▲ .2%</b>   | NEG  | NEG  |

## ÉTAT DU FLUIDE

The condition of the oil is acceptable for the time in service.

|            |          |               |       |             |      |      |
|------------|----------|---------------|-------|-------------|------|------|
| Sodium     | ppm      | ASTM D5185(m) |       | <b>2</b>    | 8    | 27   |
| Bore       | ppm      | ASTM D5185(m) | 2     | <b>1</b>    | 1    | 3    |
| Baryum     | ppm      | ASTM D5185(m) | 0     | <b>0</b>    | 0    | <1   |
| Molybdène  | ppm      | ASTM D5185(m) | 50    | <b>59</b>   | 60   | 60   |
| Manganèse  | ppm      | ASTM D5185(m) | 0     | <b>0</b>    | <1   | <1   |
| Magnésium  | ppm      | ASTM D5185(m) | 950   | <b>985</b>  | 918  | 830  |
| Calcium    | ppm      | ASTM D5185(m) | 1050  | <b>1087</b> | 1240 | 966  |
| Phosphore  | ppm      | ASTM D5185(m) | 995   | <b>1000</b> | 994  | 838  |
| Zinc       | ppm      | ASTM D5185(m) | 1180  | <b>1214</b> | 1207 | 1069 |
| Soufre     | ppm      | ASTM D5185(m) | 2600  | <b>2483</b> | 2778 | 2314 |
| Oxydation  | Abs/.1mm | ASTM D7414*   | >25   | <b>18.7</b> | 22.3 | 19.8 |
| Visc 100°C | cSt      | ASTM D7279(m) | 12.00 | <b>11.5</b> | 11.7 | 12.0 |



ISO 17025:2017  
Accredited  
Laboratory

**Laboratoire** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

**N° d'échantillon** : WC0909553

**N° de laboratoire** : 02626938

**Numéro unique** : 5760070

**Analyse** : MOB 1 ( Additional Tests: Glycol, KF )

**Reçu** : 05 Apr 2024

**Tested** : 08 Apr 2024

**Diagnostiqué** : 08 Apr 2024 - Kevin Marson

**MANITOU LIN TRANSPORT**  
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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.