



# OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id  
**INTERNATIONAL 2004 16-LAPV-01-145-M (S/N 1HTTXAHR54J021179)**

Component  
**CUMMINS Front Diesel Engine**

Fluid  
**LUBRI-DELTA 15W40 (38 LTR)**

**PRODUIT : ZP-700 ADDITIF MOTEUR - Cas d'étude #01-b / 2de3**



## RECOMMENDATION

*Texte & Soulignement en bleu par Adrenalube*

Resample at the next service interval to monitor.

### Commentaires :

**Current & History 2 & 1 : L'huile n'a pas été changée.**

**2 L / ZP-700 avait été ajouté le 14 nov 2016.**

**À ce jour du 01-04-2016, la ville a été exemptée de faire 6 changements d'huile.**

## WEAR

Metal levels are typical for a new component breaking in.

**History 2&1 - Current : Légère hausse des métaux d'usure.**

## CONTAMINATION

There is no indication of any contamination in the oil.

### History 2&1 - Current :

**La contamination externe est acceptable.**

**Les taux d'usure sont acceptables.**

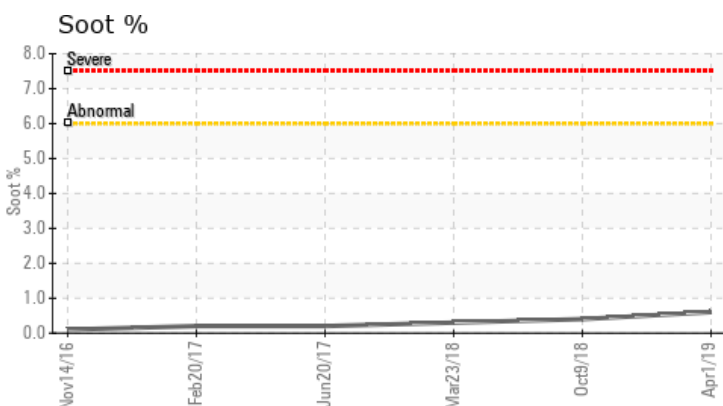
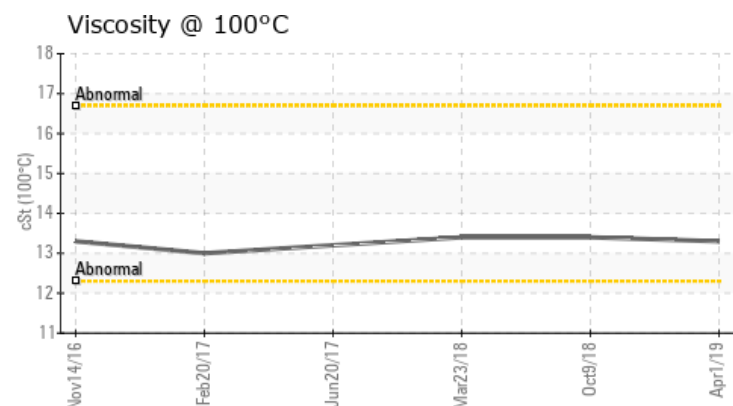
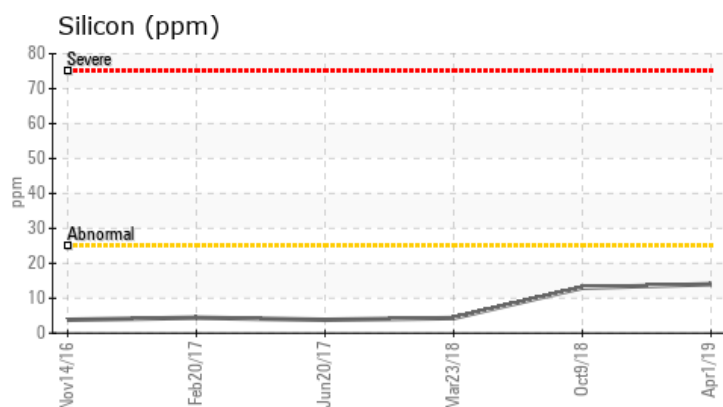
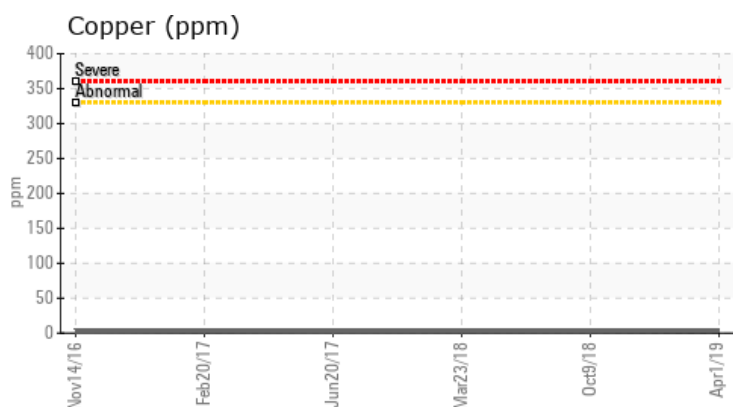
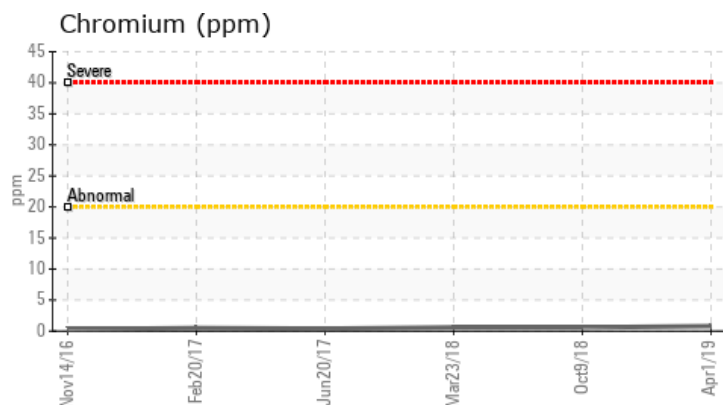
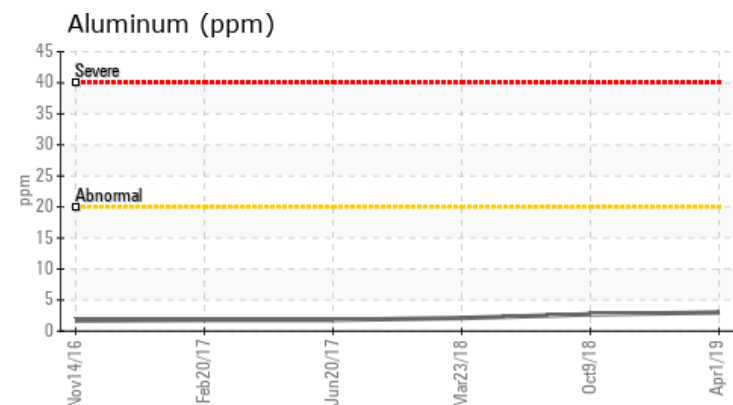
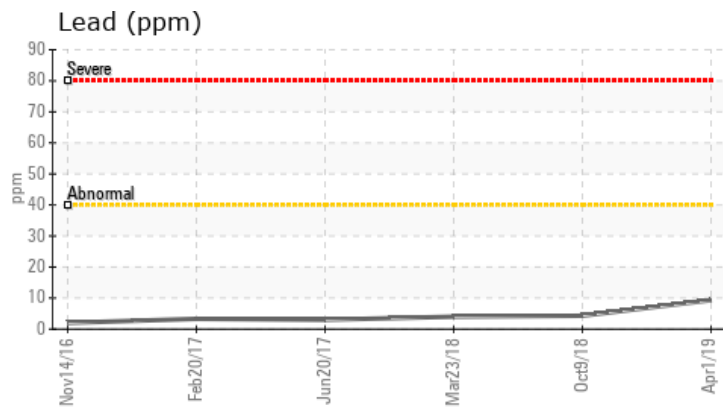
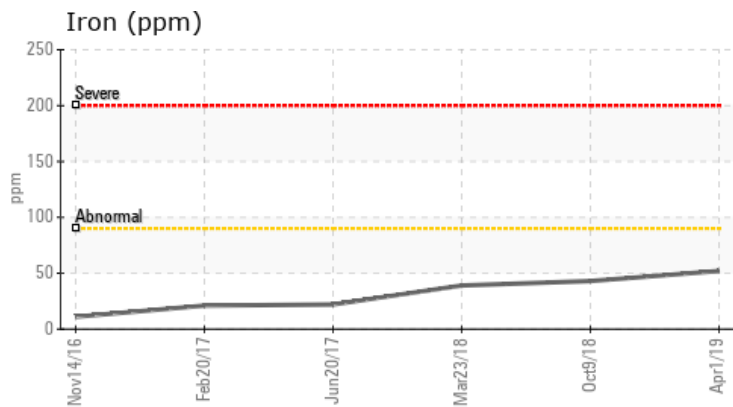
**Les concentrations des métaux d'usure sont acceptables.**

## FLUID CONDITION

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

**L'état de l'huile est acceptable.**

| Test             | UOM      | Method     | Limit/Abn | Current            | History1    | History2    |
|------------------|----------|------------|-----------|--------------------|-------------|-------------|
| Sample Number    |          |            |           | <b>WC0323758</b>   | WC113763    | WC110377    |
| Sample Date      |          |            |           | <b>01 Apr 2019</b> | 09 Oct 2018 | 23 Mar 2018 |
| Machine Age      | kms      |            |           | <b>112570</b>      | 108570      | 105070      |
| Oil Age          | kms      |            |           | <b>23773</b>       | 19773       | 16273       |
| Filter Age       | kms      |            |           | <b>23773</b>       | 19773       | 16273       |
| Oil Changed      |          |            |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Filter Changed   |          |            |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Sample Status    |          |            |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |
| Iron             | ppm      | ASTM D5185 | >90       | <b>52</b>          | 43          | 39          |
| Chromium         | ppm      | ASTM D5185 | >20       | <b>&lt;1</b>       | <1          | <1          |
| Nickel           | ppm      | ASTM D5185 | >2        | <b>&lt;1</b>       | 0           | <1          |
| Titanium         | ppm      | ASTM D5185 | >2        | <b>&lt;1</b>       | <1          | <1          |
| Silver           | ppm      | ASTM D5185 | >2        | <b>0</b>           | 0           | <1          |
| Aluminum         | ppm      | ASTM D5185 | >20       | <b>3</b>           | 3           | 2           |
| Lead             | ppm      | ASTM D5185 | >40       | <b>9</b>           | 4           | 4           |
| Copper           | ppm      | ASTM D5185 | >330      | <b>4</b>           | 3           | 3           |
| Tin              | ppm      | ASTM D5185 | >15       | <b>&lt;1</b>       | <1          | <1          |
| Vanadium         | ppm      | ASTM D5185 |           | <b>0</b>           | 0           | 0           |
| Silicon          | ppm      | ASTM D5185 | >25       | <b>14</b>          | 13          | 4           |
| Potassium        | ppm      | ASTM D5185 | >20       | <b>&lt;1</b>       | <1          | <1          |
| Fuel             |          | ASTM D3524 | >3.0      | <b>&lt;1.0</b>     | <1.0        | <1.0        |
| Glycol           |          | ASTM D2982 |           | <b>NEG</b>         | NEG         | NEG         |
| Soot %           | %        | ASTM D7686 | >6        | <b>0.6</b>         | 0.4         | 0.3         |
| Nitration        | Abs/cm   | ASTM D7624 | >20       | <b>9.6</b>         | 8.7         | 8.1         |
| Sulfation        | Abs/.1mm | ASTM D7415 | >30       | <b>23.2</b>        | 21.2        | 20.8        |
| Emulsified Water | scalar   | Visual     | >0.2      | <b>NEG</b>         | NEG         | NEG         |
| Sodium           | ppm      | ASTM D5185 |           | <b>6</b>           | 5           | 5           |
| Boron            | ppm      | ASTM D5185 |           | <b>2</b>           | 1           | 2           |
| Barium           | ppm      | ASTM D5185 |           | <b>&lt;1</b>       | <1          | 0           |
| Molybdenum       | ppm      | ASTM D5185 |           | <b>73</b>          | 72          | 77          |
| Manganese        | ppm      | ASTM D5185 |           | <b>&lt;1</b>       | <1          | <1          |
| Magnesium        | ppm      | ASTM D5185 |           | <b>745</b>         | 708         | 737         |
| Calcium          | ppm      | ASTM D5185 |           | <b>1284</b>        | 1225        | 1272        |
| Phosphorus       | ppm      | ASTM D5185 |           | <b>964</b>         | 942         | 987         |
| Zinc             | ppm      | ASTM D5185 |           | <b>1208</b>        | 1166        | 1242        |
| Sulfur           | ppm      | ASTM D5185 |           | <b>2659</b>        | 2721        | 2746        |
| Oxidation        | Abs/.1mm | ASTM D7414 | >25       | <b>18.1</b>        | 16.0        | 15.5        |
| Visc @ 100°C     | cSt      | ASTM D7279 |           | <b>13.3</b>        | 13.4        | 13.4        |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0323758      **Received** : 05 Apr 2019  
**Lab Number** : 02277657      **Diagnosed** : 22 Apr 2019  
**Unique Number** : 4848896      **Diagnostician** : Bill Quesnel  
**Test Package** : MOB 1

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 To change component or sample information, contact Customer Service at 1-800-268-2131.