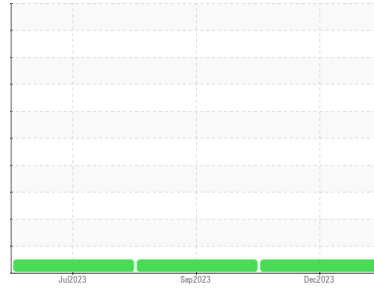




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id

**1181**

Component

**Diesel Engine**

Fluid

**CHEVRON DELO 400 XLE 10W30 (35 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>WC0851821</b>   | WC0733135   | WC0733106   |
| Sample Date   | Client Info |             | <b>22 Dec 2023</b> | 29 Sep 2023 | 28 Jul 2023 |
| Machine Age   | kms         | Client Info | <b>158329</b>      | 96933       | 35855       |
| Oil Age       | kms         | Client Info | <b>65000</b>       | 65000       | 35855       |
| Oil Changed   | Client Info |             | <b>Changed</b>     | Changed     | Changed     |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## CONTAMINATION

|        | method    | limit/base | current        | history1 | history2 |
|--------|-----------|------------|----------------|----------|----------|
| Fuel   | WC Method | >5         | <b>&lt;1.0</b> | <1.0     | <1.0     |
| Water  | WC Method | >0.2       | <b>NEG</b>     | NEG      | NEG      |
| Glycol | WC Method |            | <b>NEG</b>     | NEG      | NEG      |

## WEAR METALS

|          | method | limit/base       | current      | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >100 | <b>34</b>    | 32       | 68       |
| Chromium | ppm    | ASTM D5185m >20  | <b>2</b>     | 3        | 3        |
| Nickel   | ppm    | ASTM D5185m >4   | <b>&lt;1</b> | 0        | <1       |
| Titanium | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |
| Silver   | ppm    | ASTM D5185m >3   | <b>0</b>     | <1       | <1       |
| Aluminum | ppm    | ASTM D5185m >20  | <b>10</b>    | 16       | 29       |
| Lead     | ppm    | ASTM D5185m >40  | <b>&lt;1</b> | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >330 | <b>97</b>    | 322      | 168      |
| Tin      | ppm    | ASTM D5185m >15  | <b>&lt;1</b> | <1       | 4        |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>     | 0        | 0        |

## ADDITIVES

|            | method | limit/base       | current      | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m      | <b>34</b>    | 25       | 39       |
| Barium     | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m      | <b>2</b>     | 5        | 40       |
| Manganese  | ppm    | ASTM D5185m      | <b>&lt;1</b> | 1        | 5        |
| Magnesium  | ppm    | ASTM D5185m      | <b>760</b>   | 648      | 550      |
| Calcium    | ppm    | ASTM D5185m 2900 | <b>1335</b>  | 1284     | 1842     |
| Phosphorus | ppm    | ASTM D5185m 1100 | <b>754</b>   | 623      | 779      |
| Zinc       | ppm    | ASTM D5185m 1200 | <b>837</b>   | 718      | 932      |
| Sulfur     | ppm    | ASTM D5185m 4000 | <b>2615</b>  | 1970     | 2633     |

## CONTAMINANTS

|           | method | limit/base      | current   | history1 | history2 |
|-----------|--------|-----------------|-----------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25 | <b>6</b>  | 5        | 7        |
| Sodium    | ppm    | ASTM D5185m     | <b>0</b>  | 1        | 5        |
| Potassium | ppm    | ASTM D5185m >20 | <b>33</b> | 44       | 81       |

## INFRA-RED

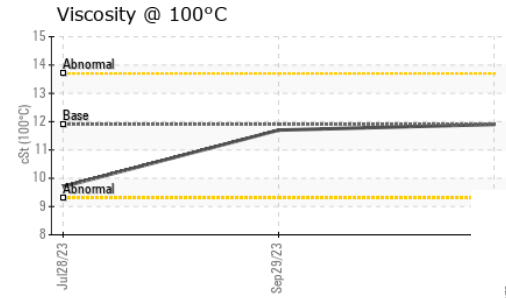
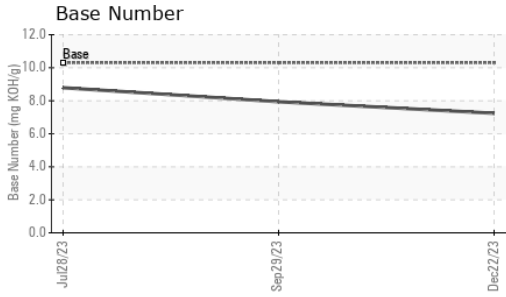
|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 >3  | <b>0.4</b>  | 0.4      | 0.3      |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>9.8</b>  | 10.2     | 9.0      |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>20.8</b> | 21.0     | 22.8     |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>17.7</b> | 18.9     | 22.3     |
| Base Number (BN) | mg KOH/g | ASTM D2896 10.3 | <b>7.24</b> | 7.94     | 8.79     |



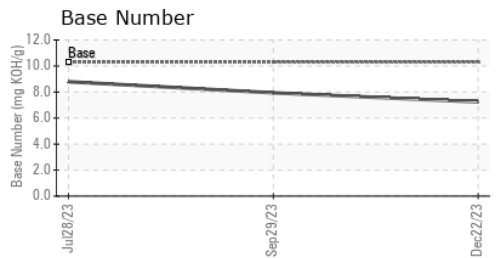
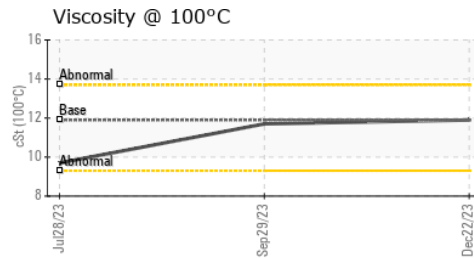
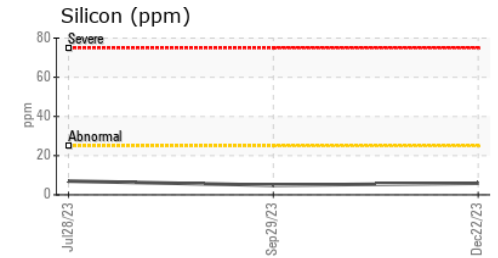
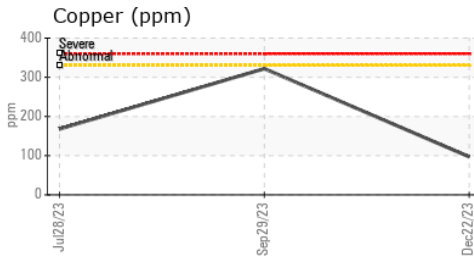
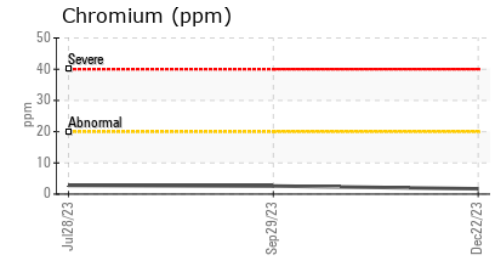
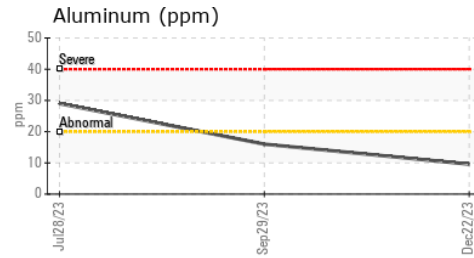
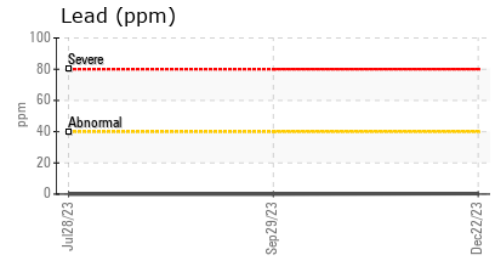
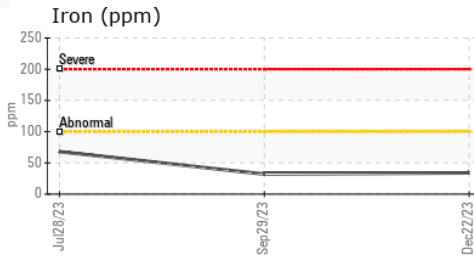
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.2    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 100°C     | cSt    | ASTM D445  | 11.9    | 11.7     | 9.7      |

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0851821 **Received** : 18 Jan 2024  
**Lab Number** : 06065117 **Diagnosed** : 22 Jan 2024  
**Unique Number** : 10836499 **Diagnostician** : Sean Felton  
**Test Package** : MOB 2

**LYNDEN TRANSPORT - SPRUCE GROVE**  
 27340 ACHESON RD, ACHESON INDUSTRIAL PARK  
 ACHESON, AB  
 CA T7X 6B1  
 Contact: Mathieu Carby  
 mcarby@lynden.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:  
F: