



# OIL ANALYSIS REPORT

|                 |                 |
|-----------------|-----------------|
| WEAR            | <b>NORMAL</b>   |
| CONTAMINATION   | <b>NORMAL</b>   |
| FLUID CONDITION | <b>ABNORMAL</b> |

Machine Id  
**ACELA TECUMSEH SUPPORT #2**

Component  
**Front Differential**

Fluid  
**CHEVRON DELO GEAR ESI OIL 80W90 (--- GAL)**

## RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.  
Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number  |     | Client Info |           | <b>WC0766740</b>   | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>08 Mar 2023</b> | ---      | ---      |
| Machine Age    | mls | Client Info |           | <b>15669</b>       | ---      | ---      |
| Oil Age        | mls | Client Info |           | <b>5000</b>        | ---      | ---      |
| Filter Age     | mls | Client Info |           | <b>0</b>           | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | ---      | ---      |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ---      | ---      |

## WEAR

All component wear rates are normal.

|              |        |               |      |              |     |     |
|--------------|--------|---------------|------|--------------|-----|-----|
| Iron         | ppm    | ASTM D5185(m) | >500 | <b>89</b>    | --- | --- |
| Chromium     | ppm    | ASTM D5185(m) | >10  | <b>2</b>     | --- | --- |
| Nickel       | ppm    | ASTM D5185(m) | >10  | <b>&lt;1</b> | --- | --- |
| Titanium     | ppm    | ASTM D5185(m) |      | <b>&lt;1</b> | --- | --- |
| Silver       | ppm    | ASTM D5185(m) |      | <b>0</b>     | --- | --- |
| Aluminum     | ppm    | ASTM D5185(m) | >25  | <b>2</b>     | --- | --- |
| Lead         | ppm    | ASTM D5185(m) | >25  | <b>&lt;1</b> | --- | --- |
| Copper       | ppm    | ASTM D5185(m) | >100 | <b>3</b>     | --- | --- |
| Tin          | ppm    | ASTM D5185(m) | >10  | <b>0</b>     | --- | --- |
| Vanadium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | --- | --- |
| White Metal  | scalar | Visual*       | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | Visual*       | NONE | <b>NONE</b>  | --- | --- |

## CONTAMINATION

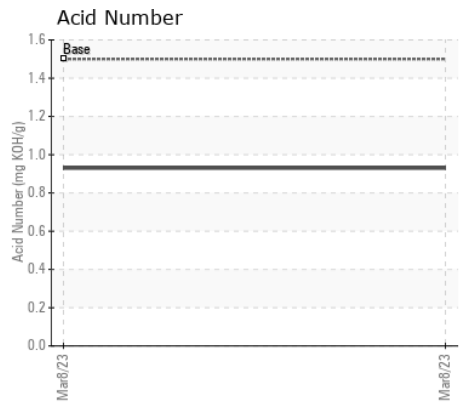
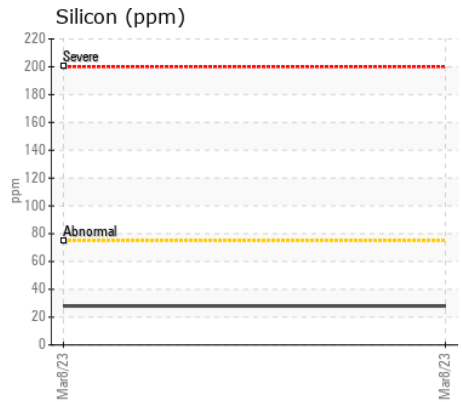
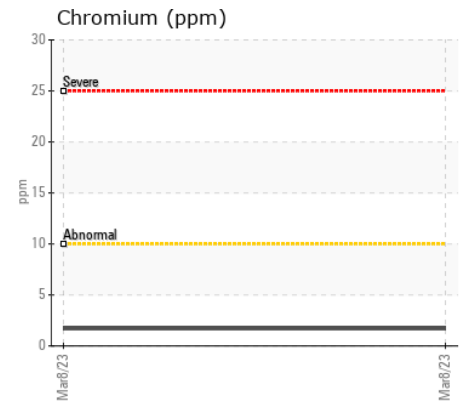
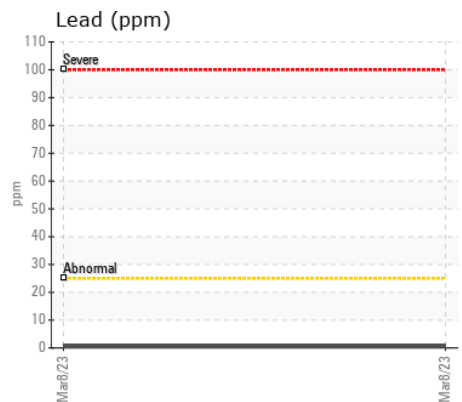
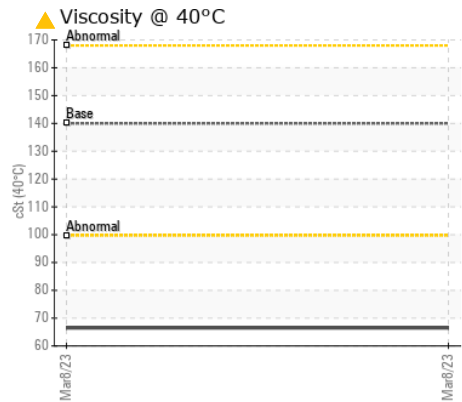
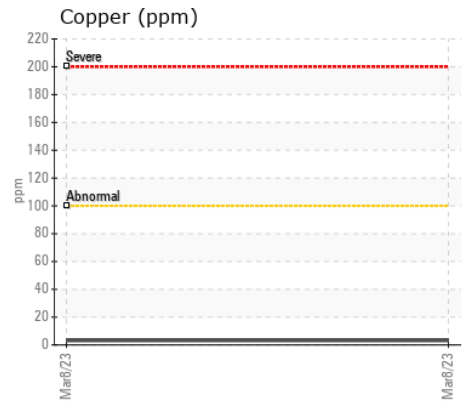
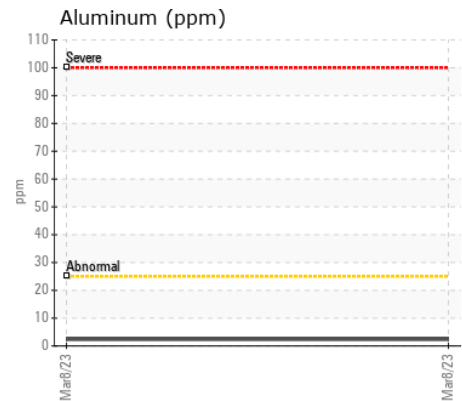
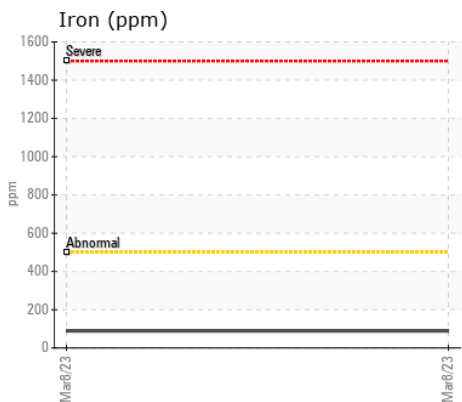
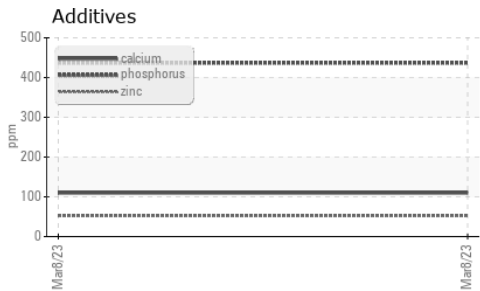
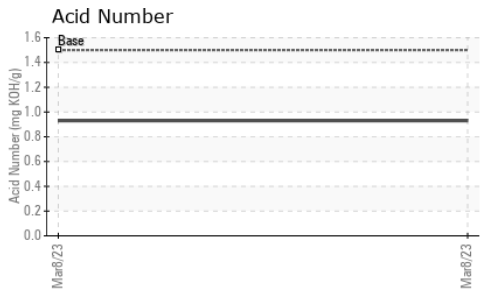
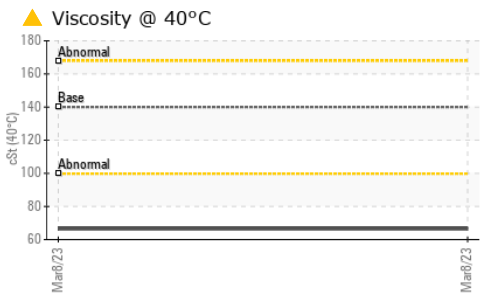
There is no indication of any contamination in the oil.

|                  |        |               |       |              |     |     |
|------------------|--------|---------------|-------|--------------|-----|-----|
| Silicon          | ppm    | ASTM D5185(m) | >75   | <b>28</b>    | --- | --- |
| Potassium        | ppm    | ASTM D5185(m) | >20   | <b>1</b>     | --- | --- |
| Water            |        | WC Method     | >.2   | <b>NEG</b>   | --- | --- |
| Silt             | scalar | Visual*       | NONE  | <b>NONE</b>  | --- | --- |
| Debris           | scalar | Visual*       | NONE  | <b>NONE</b>  | --- | --- |
| Sand/Dirt        | scalar | Visual*       | NONE  | <b>NONE</b>  | --- | --- |
| Appearance       | scalar | Visual*       | NORML | <b>NORML</b> | --- | --- |
| Odor             | scalar | Visual*       | NORML | <b>NORML</b> | --- | --- |
| Emulsified Water | scalar | Visual*       | >.2   | <b>NEG</b>   | --- | --- |

## FLUID CONDITION

Viscosity of sample indicates oil is within ISO 68 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|                  |          |               |       |               |     |     |
|------------------|----------|---------------|-------|---------------|-----|-----|
| Sodium           | ppm      | ASTM D5185(m) |       | <b>2</b>      | --- | --- |
| Boron            | ppm      | ASTM D5185(m) | 15    | <b>35</b>     | --- | --- |
| Barium           | ppm      | ASTM D5185(m) | 0     | <b>3</b>      | --- | --- |
| Molybdenum       | ppm      | ASTM D5185(m) | 0     | <b>6</b>      | --- | --- |
| Manganese        | ppm      | ASTM D5185(m) |       | <b>13</b>     | --- | --- |
| Magnesium        | ppm      | ASTM D5185(m) | 0     | <b>14</b>     | --- | --- |
| Calcium          | ppm      | ASTM D5185(m) | 5     | <b>110</b>    | --- | --- |
| Phosphorus       | ppm      | ASTM D5185(m) | 600   | <b>437</b>    | --- | --- |
| Zinc             | ppm      | ASTM D5185(m) | 0     | <b>52</b>     | --- | --- |
| Sulfur           | ppm      | ASTM D5185(m) | 22000 | <b>15494</b>  | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D974*    | 1.5   | <b>0.93</b>   | --- | --- |
| Visc @ 40°C      | cSt      | ASTM D7279(m) | 140   | <b>▲ 66.5</b> | --- | --- |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0766740 **Received** : 24 Mar 2023  
**Lab Number** : 02547378 **Diagnosed** : 24 Mar 2023  
**Unique Number** : 5552388 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 2 ( Additional Tests: TAN Man )

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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.