

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend



# L-1 REDUCTION

#### Gearbox

#### Fluid PETRO CANADA ENDURATEX EP 150 (15 GAL)

### 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.

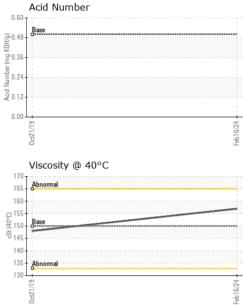
### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORI    | MATION   | method      | limit/base | current     | history1    | history2 |
|------------------|----------|-------------|------------|-------------|-------------|----------|
| Sample Number    |          | Client Info |            | PCA0030551  | PCA0006583  |          |
| Sample Date      |          | Client Info |            | 16 Feb 2024 | 21 Oct 2019 |          |
| Machine Age      | hrs      | Client Info |            | 0           | 0           |          |
| Oil Age          | hrs      | Client Info |            | 0           | 0           |          |
| Oil Changed      |          | Client Info |            | N/A         | N/A         |          |
| Sample Status    |          |             |            | NORMAL      | ATTENTION   |          |
| CONTAMINAT       | ION      | method      | limit/base | current     | history1    | history2 |
| Water            |          | WC Method   | >0.2       | NEG         | NEG         |          |
| WEAR METAL       | S        | method      | limit/base | current     | history1    | history2 |
| Iron             | ppm      | ASTM D5185m | >200       | 25          | 20          |          |
| Chromium         | ppm      | ASTM D5185m | >15        | <1          | <1          |          |
| Nickel           | ppm      | ASTM D5185m | >15        | 0           | 0           |          |
| Titanium         | ppm      | ASTM D5185m |            | <1          | <1          |          |
| Silver           | ppm      | ASTM D5185m |            | 0           | 0           |          |
| Aluminum         | ppm      | ASTM D5185m | >25        | 2           | 0           |          |
| Lead             | ppm      | ASTM D5185m | >100       | 0           | 0           |          |
| Copper           | ppm      | ASTM D5185m | >200       | <1          | <1          |          |
| Tin              | ppm      | ASTM D5185m | >25        | 0           | <1          |          |
| Antimony         | ppm      | ASTM D5185m | >5         |             | 0           |          |
| Vanadium         | ppm      | ASTM D5185m |            | 0           | 0           |          |
| Cadmium          | ppm      | ASTM D5185m |            | 0           | 0           |          |
| ADDITIVES        |          | method      | limit/base | current     | history1    | history2 |
| Boron            | ppm      | ASTM D5185m | 55         | 67          | 54          |          |
| Barium           | ppm      | ASTM D5185m | 0          | 0           | 0           |          |
| Molybdenum       | ppm      | ASTM D5185m | 0          | 0           | 0           |          |
| Manganese        | ppm      | ASTM D5185m | 0          | 0           | <1          |          |
| Magnesium        | ppm      | ASTM D5185m | 2          | 0           | 0           |          |
| Calcium          | ppm      | ASTM D5185m | 6          | 7           | 7           |          |
| Phosphorus       | ppm      | ASTM D5185m | 250        | 270         | 245         |          |
| Zinc             | ppm      | ASTM D5185m | 3          | 0           | 3           |          |
| Sulfur           | ppm      | ASTM D5185m | 7500       | 7879        | 3650        |          |
| CONTAMINAN       | TS       | method      | limit/base | current     | history1    | history2 |
| Silicon          | ppm      | ASTM D5185m | >50        | 9           | 9           |          |
| Sodium           | ppm      | ASTM D5185m |            | 0           | 0           |          |
| Potassium        | ppm      | ASTM D5185m | >20        | 1           | 0           |          |
| FLUID DEGRAD     | DATION   | method      | limit/base | current     | history1    | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 0.5        | 0.46        |             |          |



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|             | VISUAL           |        | method    | limit/base  | current     | history1    | history2 |
|-------------|------------------|--------|-----------|---|-------------|-------------|----------|
|             | White Metal      | scalar | *Visual   | NONE  | MODER       | LIGHT       |          |
|             | 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        |          |
| Feb16/24    | Appearance       | scalar | *Visual   | NORML   | NORML       | NORML       |          |
| Feb         | Odor             | scalar | *Visual   | NORML   | NORML       | NORML       |          |
|             | Emulsified Water | scalar | *Visual   | >0.2  | NEG         | NEG         |          |
|             | Free Water       | scalar | *Visual   |   | NEG         | NEG         |          |
|             | FLUID PROP       | ERTIES | method    | limit/base  | current     | history1    | history2 |
|             | Visc @ 40°C      | cSt    | ASTM D445 | 150.0   | 157         | <b>1</b> 48 |          |
|             | SAMPLE IMA       | GES    | method    | limit/base  | current     | history1    | history2 |
| Feb 16/24 + | Color            |        |           |   |             |             | no image |
|             | Bottom           |        |           |   |             |             | no image |
|             | 25<br>20         |        |           | 1   |             |             |          |
|             | Non-ferrous Met  | als    |           | Feb16/24  |             |             |          |
|             | Non-ferrous Met  |        |           | Feb16/24  |             |             |          |
|             | Non-ferrous Met  |        |           |   | Acid Number |             |          |
|             | Non-ferrous Met  |        |           | 4209.02<br>(0.100 X01/10<br>(0.110 X01/10<br>(0.110 X01/10<br>(0.110 X01/10<br>(0.110 X01/10<br>(0.110 X01/10)<br>(0.110 X01/10)<br>(0. |             |             |          |

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