



# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**[133250]**  
 Machine Id  
**FPEC BLEND 3-2**  
 Component  
**Gearbox**  
 Fluid  
**PETRO CANADA 220 (3 LTR)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

The water content is negligible. 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 INFORMATION

|               | method      | limit/base  | current            | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info |             | <b>WC0869282</b>   | ---      | ---      |
| Sample Date   | Client Info |             | <b>04 Jan 2024</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed   | Client Info |             | <b>N/A</b>         | ---      | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | ---      | ---      |

## WEAR METALS

|           | method      | limit/base         | current      | history1 | history2 |
|-----------|-------------|--------------------|--------------|----------|----------|
| PQ        | ASTM D8184* |                    | <b>0</b>     | ---      | ---      |
| Iron      | ppm         | ASTM D5185(m) >200 | <b>8</b>     | ---      | ---      |
| Chromium  | ppm         | ASTM D5185(m) >10  | <b>0</b>     | ---      | ---      |
| Nickel    | ppm         | ASTM D5185(m) >10  | <b>0</b>     | ---      | ---      |
| Titanium  | ppm         | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Silver    | ppm         | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Aluminum  | ppm         | ASTM D5185(m) >25  | <b>&lt;1</b> | ---      | ---      |
| Lead      | ppm         | ASTM D5185(m) >50  | <b>&lt;1</b> | ---      | ---      |
| Copper    | ppm         | ASTM D5185(m) >200 | <b>&lt;1</b> | ---      | ---      |
| Tin       | ppm         | ASTM D5185(m) >10  | <b>0</b>     | ---      | ---      |
| Antimony  | ppm         | ASTM D5185(m) >5   | <b>0</b>     | ---      | ---      |
| Vanadium  | ppm         | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Beryllium | ppm         | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |
| Cadmium   | ppm         | ASTM D5185(m)      | <b>0</b>     | ---      | ---      |

## ADDITIVES

|            | method | limit/base    | current      | history1 | history2 |
|------------|--------|---------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185(m) | <b>8</b>     | ---      | ---      |
| Barium     | ppm    | ASTM D5185(m) | <b>0</b>     | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185(m) | <b>0</b>     | ---      | ---      |
| Manganese  | ppm    | ASTM D5185(m) | <b>0</b>     | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185(m) | <b>&lt;1</b> | ---      | ---      |
| Calcium    | ppm    | ASTM D5185(m) | <b>1</b>     | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185(m) | <b>304</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185(m) | <b>8</b>     | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185(m) | <b>14890</b> | ---      | ---      |
| Lithium    | ppm    | ASTM D5185(m) | <b>2</b>     | ---      | ---      |

## CONTAMINANTS

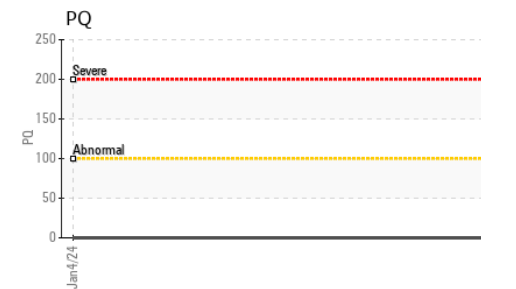
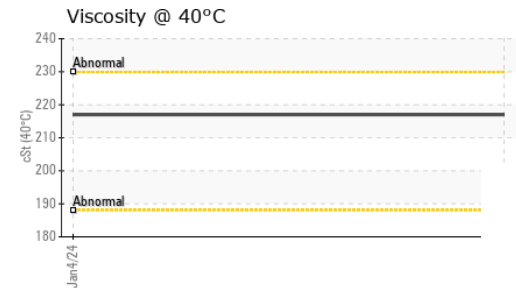
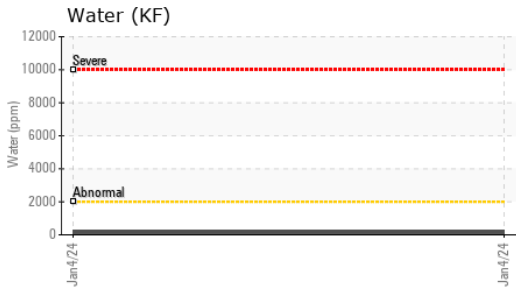
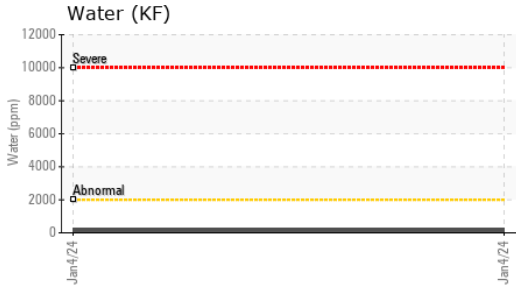
|           | method | limit/base        | current      | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185(m) >50 | <b>&lt;1</b> | ---      | ---      |
| Sodium    | ppm    | ASTM D5185(m)     | <b>&lt;1</b> | ---      | ---      |
| Potassium | ppm    | ASTM D5185(m) >20 | <b>&lt;1</b> | ---      | ---      |
| Water     | %      | ASTM D6304* >0.2  | <b>0.014</b> | ---      | ---      |
| ppm Water | ppm    | ASTM D6304* >2000 | <b>144</b>   | ---      | ---      |

## FLUID DEGRADATION

|                  | method   | limit/base | current     | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D974* | <b>0.67</b> | ---      | ---      |



# OIL ANALYSIS REPORT



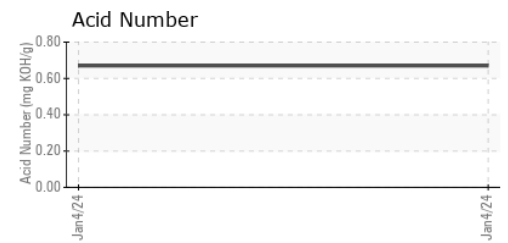
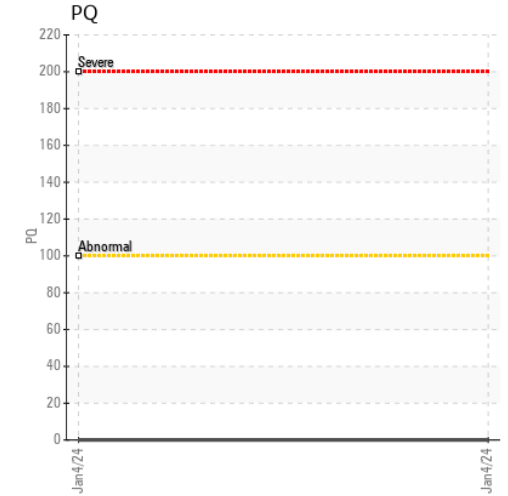
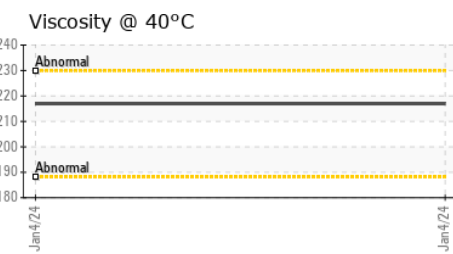
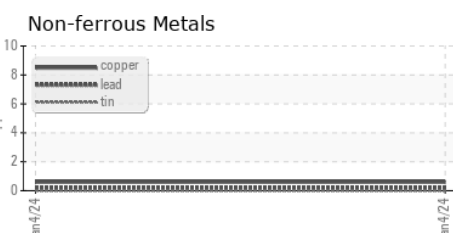
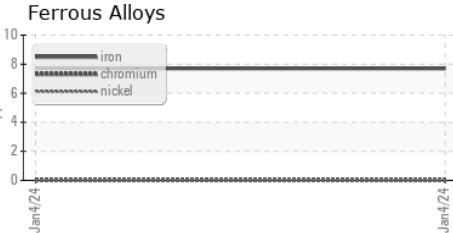
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | Visual*    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | Visual*    | NONE    | NONE     | ---      |
| Precipitate      | scalar | Visual*    | NONE    | NONE     | ---      |
| Silt             | scalar | Visual*    | NONE    | NONE     | ---      |
| Debris           | scalar | Visual*    | NONE    | NONE     | ---      |
| Sand/Dirt        | scalar | Visual*    | NONE    | NONE     | ---      |
| Appearance       | scalar | Visual*    | NORML   | NORML    | ---      |
| Odor             | scalar | Visual*    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | Visual*    | >0.2    | .2%      | ---      |
| Free Water       | scalar | Visual*    |         | NEG      | ---      |

| FLUID PROPERTIES | method | limit/base    | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D7279(m) | 217     | ---      | ---      |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

|        |  |          |          |
|--------|--|----------|----------|
| Color  |  | no image | no image |
| Bottom |  | no image | no image |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0869282      **Received** : 05 Jan 2024  
**Lab Number** : 02606847      **Diagnosed** : 09 Jan 2024  
**Unique Number** : 5707933      **Diagnostician** : Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: KF, TAN Man )

**GRAND RIVER FOODS**  
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 F:

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.