

No relevant graphs to display

service interval to monitor.

| RECOMMENDATION                                  | PROBLEMATIC TEST RESULTS |        |         |      |          |          |        |
|---|--------------------------|--------|---------|------|----------|----------|--------|
| We suspect abnormal metal contamination may be  | Sample Status            |        |         |      | ABNORMAL | ABNORMAL | NORMAL |
| due to sampling method. No corrective action is | White Metal              | scalar | *Visual | NONE | A MODER  | 🔺 MODER  | NONE   |

Customer Id: SMICUD Sample No.: PCA0092585 Lab Number: 05788582 Test Package: IND 2



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recommended at this time. Resample at the next

*To discuss the diagnosis or test data:* Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

### **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

### **HISTORICAL DIAGNOSIS**

### 10 Aug 2022 Diag: Jonathan Hester

VISUAL METAL



We suspect abnormal contamination may be due to sampling method. We advise that you inspect for possible wear. Resample at the next service interval to monitor.Moderate concentration of visible metal present. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

### 08 Feb 2022 Diag: Angela Borella





Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the component. The condition of the oil is acceptable for the time in service.

08 Oct 2021 Diag: Doug Bogart

#### NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.





view report



### **OIL ANALYSIS REPORT**

Sample Rating Trend

**VISUAL METAL** 

# FRICK FRICK 3 (S/N 201365)

Compressor

### Fluid PETRO CANADA REFLO SYNTHETIC 68A LOW TEMP FLUID (--- GAL)

### DIAGNOSIS

### Recommendation

We suspect abnormal metal contamination may be due to sampling method. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### 🔺 Wear

Moderate concentration of visible metal present. All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

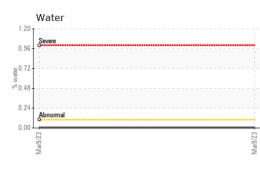
### **Fluid Condition**

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

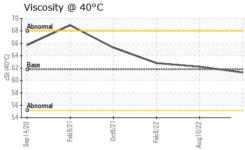
| SAMPLE INFORI   | MATION   | method  | limit/base  | current  | history 1  | history 2   |
|---|--|---|---|--|--|---|
| Sample Number   |  | Client Info   |   | PCA0092585   | PCA0067429   | PCA0043030  |
| Sample Date   |  | Client Info   |   | 09 Mar 2023  | 10 Aug 2022  | 08 Feb 2022   |
| Machine Age   | hrs  | Client Info   |   | 0  | 0  | 0   |
| Oil Age   | hrs  | Client Info   |   | 0  | 0  | 0   |
| Oil Changed   |  | Client Info   |   | N/A  | N/A  | N/A   |
| Sample Status   |  |   |   | ABNORMAL   | ABNORMAL   | NORMAL  |
| WEAR METAL  | S  | method  | limit/base  | current  | history 1  | history 2   |
| Iron  | ppm  | ASTM D5185m   | >50   | 3  | 2  | <1  |
| Chromium  | ppm  | ASTM D5185m   | >10   | 0  | 0  | 0   |
| Nickel  | ppm  | ASTM D5185m   |   | <1   | 0  | 0   |
| Titanium  | ppm  | ASTM D5185m   |   | 0  | 0  | 0   |
| Silver  | ppm  | ASTM D5185m   |   | 0  | 0  | 0   |
| Aluminum  | ppm  | ASTM D5185m   | >25   | 1  | <1   | 2   |
| Lead  | ppm  | ASTM D5185m   | >25   | 0  | 0  | 0   |
| Copper  | ppm  | ASTM D5185m   | >50   | <1   | <1   | 0   |
| Tin   | ppm  | ASTM D5185m   | >15   | 0  | <1   | 0   |
| Antimony  | ppm  | ASTM D5185m   |   |  |  | 0   |
| Vanadium  | ppm  | ASTM D5185m   |   | 0  | 0  | 0   |
| Cadmium   | ppm  | ASTM D5185m   |   | 0  | 0  | 0   |
| ADDITIVES   |  | method  | limit/base  | current  | history 1  | history 2   |
|   |  |   |   |  |  |   |
| Boron   | ppm  | ASTM D5185m   | 0   | 0  | <1   | <1  |
|   | ppm<br>ppm   |   | 0   | 0<br>0   | <1<br>0  | <1<br>0   |
| Boron   |  |   |   |  |  |   |
| Boron<br>Barium   | ppm  | ASTM D5185m   | 0   | 0  | 0  | 0   |
| Boron<br>Barium<br>Molybdenum   | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m  | 0   | 0<br>0   | 0<br>0   | 0<br>0  |
| Boron<br>Barium<br>Molybdenum<br>Manganese  | ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 0<br>0  | 0<br>0<br>0  | 0<br>0<br>0  | 0<br>0<br>0   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium   | ppm<br>ppm<br>ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 0<br>0<br>0   | 0<br>0<br>0<br>0   | 0<br>0<br>0<br>0   | 0<br>0<br>0<br>0<br>2   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 0<br>0<br>0<br>0  | 0<br>0<br>0<br>0<br>0  | 0<br>0<br>0<br>0   | 0<br>0<br>0<br>0  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                                   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 0<br>0<br>0<br>0<br>0   | 0<br>0<br>0<br>0<br>0<br>0   | 0<br>0<br>0<br>0<br>4  | 0<br>0<br>0<br>0<br>2   |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                            | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 0<br>0<br>0<br>0<br>0<br>0  | 0<br>0<br>0<br>0<br>0<br>0<br>11   | 0<br>0<br>0<br>0<br>4<br><1  | 0<br>0<br>0<br>0<br>2<br>0  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                            | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 0<br>0<br>0<br>0<br>0<br>0<br>0   | 0<br>0<br>0<br>0<br>0<br>0<br>11<br>10   | 0<br>0<br>0<br>0<br>4<br><1<br>10                                  | 0<br>0<br>0<br>0<br>2<br>0<br>21                                  |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINAN  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                     | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 0<br>0<br>0<br>0<br>0<br>0<br>11<br>10<br>current                              | 0<br>0<br>0<br>0<br>4<br><1<br>10<br>history 1                     | 0<br>0<br>0<br>0<br>2<br>0<br>21<br>history 2                     |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINAN<br>Silicon                                 | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>TS               | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0                                    | 0<br>0<br>0<br>0<br>0<br>0<br>11<br>10<br>2<br>current<br>3                    | 0<br>0<br>0<br>0<br>4<br><1<br>10<br>history 1<br>2                | 0<br>0<br>0<br>0<br>2<br>0<br>21<br>history 2<br>1                |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINAN<br>Silicon<br>Sodium                       | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>TS               | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br><b>method</b><br>ASTM D5185m<br>ASTM D5185m                             | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>1<br>imit/base<br>>25                               | 0<br>0<br>0<br>0<br>0<br>0<br>11<br>10<br>2<br>0<br>2<br>3<br>0                | 0<br>0<br>0<br>0<br>4<br><1<br>10<br>history 1<br>2<br><1          | 0<br>0<br>0<br>0<br>2<br>0<br>21<br>history 2<br>1<br><1          |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINAN<br>Silicon<br>Sodium<br>Potassium          | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>TS<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>1<br>imit/base<br>>25<br>>20                        | 0<br>0<br>0<br>0<br>0<br>0<br>11<br>10<br>2<br>0<br>2<br>0<br>2<br>3<br>0<br>2 | 0<br>0<br>0<br>0<br>4<br><1<br>10<br>history 1<br>2<br><1<br>0     | 0<br>0<br>0<br>0<br>2<br>0<br>21<br>history 2<br>1<br><1<br>0     |
| Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINAN<br>Silicon<br>Sodium<br>Potassium<br>Water | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>TS               | ASTM D5185m<br>ASTM D5185m | 0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0 | 0<br>0<br>0<br>0<br>0<br>0<br>11<br>10<br>current<br>3<br>0<br><1<br>0.003     | 0<br>0<br>0<br>0<br>4<br><1<br>10<br>history 1<br>2<br><1<br>0<br> | 0<br>0<br>0<br>0<br>2<br>0<br>21<br>history 2<br>1<br><1<br>0<br> |



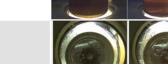
## **OIL ANALYSIS REPORT**



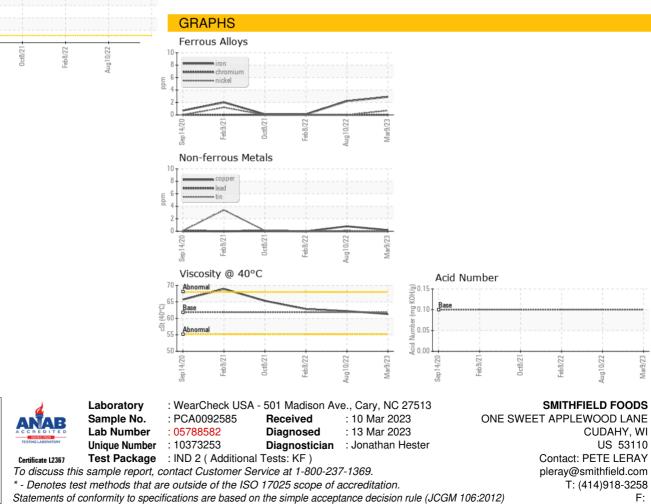




| VISUAL           |        | method    | limit/base | current | history 1 | history 2 |
|------------------|--------|-----------|------------|---------|-----------|-----------|
| White Metal      | scalar | *Visual   | NONE       | A MODER | 🔺 MODER   | NONE      |
| Yellow Metal     | scalar | *Visual   | NONE       | NONE    | NONE      | NONE      |
| Precipitate      | scalar | *Visual   | NONE       | NONE    | NONE      | NONE      |
| Silt             | scalar | *Visual   | NONE       | NONE    | NONE      | NONE      |
| Debris           | scalar | *Visual   | NONE       | LIGHT   | NONE      | LIGHT     |
| Sand/Dirt        | scalar | *Visual   | NONE       | NONE    | NONE      | NONE      |
| Appearance       | scalar | *Visual   | NORML      | NORML   | NORML     | NORML     |
| Odor             | scalar | *Visual   | NORML      | NORML   | NORML     | NORML     |
| Emulsified Water | scalar | *Visual   | >0.1       | NEG     | NEG       | NEG       |
| Free Water       | scalar | *Visual   |            | NEG     | NEG       | NEG       |
| FLUID PROPE      | RTIES  | method    | limit/base | current | history 1 | history 2 |
| Visc @ 40°C      | cSt    | ASTM D445 | 61.8       | 61.3    | 62.2      | 62.8      |
| SAMPLE IMAG      | ES     | method    | limit/base | current | history 1 | history 2 |
| Color            |        |           |            |         |           |           |



Bottom



Contact/Location: PETE LERAY - SMICUD