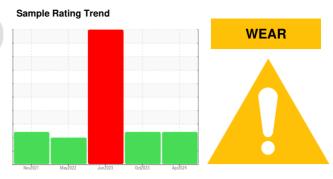


# **OIL ANALYSIS REPORT**

HOLD-BAG **HOLDING KETTLE D** 

Refrigeration Compressor

PETRO CANADA PURITY FG EP GEAR OIL 220 (1 GAL)



## **DIAGNOSIS**

#### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

## Wear

The iron level is abnormal.

## Contamination

Insufficient sample was received to conduct all the routine laboratory tests. There is a high amount of particulates present in the oil.

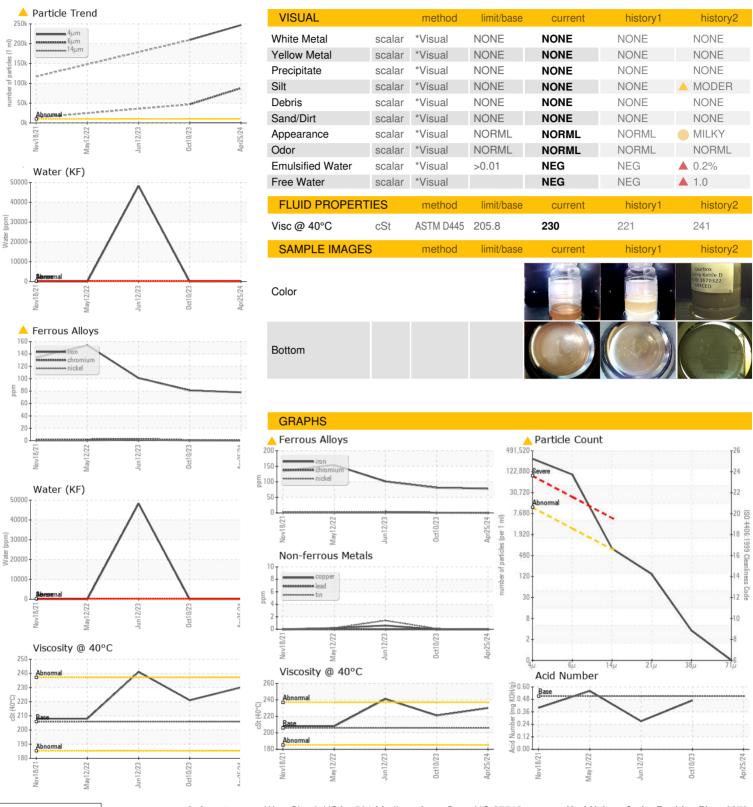
#### **Fluid Condition**

The condition of the oil is acceptable for the time in service.

| SAMPLE INFORM    | MATION   | method       | limit/base | current                           | history1          | history2      |
|------------------|----------|--------------|------------|-----------------------------------|-------------------|---------------|
| Sample Number    |          | Client Info  |            | USP0006685                        | USP0001367        | USP244789     |
| Sample Date      |          | Client Info  |            | 25 Apr 2024                       | 10 Oct 2023       | 12 Jun 2023   |
| 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          | SEVERE        |
| WEAR METALS      |          | method       | limit/base | current                           | history1          | history2      |
| Iron             | ppm      | ASTM D5185m  | >8         | <b>^</b> 78                       | <b>▲</b> 81       | <u> </u>      |
| Chromium         | ppm      | ASTM D5185m  | >2         | 0                                 | <1                | 3             |
| Nickel           | ppm      | ASTM D5185m  |            | 0                                 | 0                 | <1            |
| Titanium         | ppm      | ASTM D5185m  |            | <1                                | 0                 | 0             |
| Silver           | ppm      | ASTM D5185m  | >2         | 0                                 | 0                 | 0             |
| Aluminum         | ppm      | ASTM D5185m  | >3         | <1                                | <1                | 1             |
| Lead             | ppm      | ASTM D5185m  | >2         | 0                                 | 0                 | 0             |
| Copper           | ppm      | ASTM D5185m  | >8         | 0                                 | 0                 | <1            |
| Tin              | ppm      | ASTM D5185m  | >4         | 0                                 | <1                | 1             |
| Vanadium         | ppm      | ASTM D5185m  |            | 0                                 | 0                 | 0             |
| Cadmium          | ppm      | ASTM D5185m  |            | 0                                 | 0                 | 0             |
| ADDITIVES        |          | method       | limit/base | current                           | history1          | history2      |
| Boron            | ppm      | ASTM D5185m  |            | 0                                 | 0                 | 3             |
| Barium           | ppm      | ASTM D5185m  |            | 0                                 | 0                 | 0             |
| Molybdenum       | ppm      | ASTM D5185m  |            | 0                                 | 0                 | <1            |
| Manganese        | ppm      | ASTM D5185m  |            | <1                                | <1                | 2             |
| Magnesium        | ppm      | ASTM D5185m  |            | 0                                 | 1                 | 5             |
| Calcium          | ppm      | ASTM D5185m  |            | 0                                 | 5                 | 15            |
| Phosphorus       | ppm      | ASTM D5185m  |            | 536                               | 591               | 518           |
| Zinc             | ppm      | ASTM D5185m  |            | 0                                 | 0                 | 14            |
| Sulfur           | ppm      | ASTM D5185m  |            | 439                               | 562               | 3161          |
| CONTAMINANTS     | }        | method       | limit/base | current                           | history1          | history2      |
| Silicon          | ppm      | ASTM D5185m  | >15        | 12                                | 11                | <b>△</b> 35   |
| Sodium           | ppm      | ASTM D5185m  | >10        | <1                                | 1                 | 10            |
| Potassium        | ppm      | ASTM D5185m  | >20        | 0                                 | 0                 | 3             |
| Water            | %        | ASTM D6304   |            | 0.002                             | 0.003             | <b>▲</b> 4.83 |
| ppm Water        | ppm      | ASTM D6304   | >100       | 21                                | 29.7              | ▲ 48300       |
| FLUID CLEANLIN   | IESS     | method       | limit/base | current                           | history1          | history2      |
| Particles >4µm   |          | ASTM D7647   | >10000     | <u> </u>                          | <u>^</u> 209510   |               |
| Particles >6µm   |          | ASTM D7647   | >2500      | <b>A</b> 87790                    | <b>47003</b>      |               |
| Particles >14µm  |          | ASTM D7647   | >640       | <b>△</b> 668                      | <b>▲</b> 686      |               |
| Particles >21µm  |          | ASTM D7647   | >160       | 123                               | 55                |               |
| Particles >38µm  |          | ASTM D7647   | >40        | 3                                 | 1                 |               |
| Particles >71µm  |          | ASTM D7647   | >10        | 0                                 | 0                 |               |
| Oil Cleanliness  |          | ISO 4406 (c) | >20/18/16  | <u>\$\text{\scale}\$ 25/24/17</u> | <u>△</u> 25/23/17 |               |
| FLUID DEGRADA    | ATION    | method       | limit/base | current                           | history1          | history2      |
| Acid Number (AN) | mg KOH/g | ASTM D974    | 0.51       |                                   | 0.47              | 0.27          |



# **OIL ANALYSIS REPORT**





Certificate 12367

Laboratory Sample No.

: USP0006685 Lab Number : 06161483 Unique Number : 10996906 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 26 Apr 2024

Tested : 30 Apr 2024 Diagnosed : 30 Apr 2024 - Jonathan Hester

KraftHeinz - Cedar Rapids - Plant 8370 4601 C ST SW

CEDAR RAPIDS, IA US 52404

Contact: Service Manager

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)

Report Id: KRACED [WUSCAR] 06161483 (Generated: 05/04/2024 01:12:10) Rev: 1

Contact/Location: Service Manager - KRACED

T:

F: