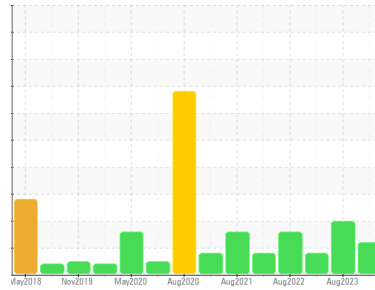




PROBLEM SUMMARY

Sample Rating Trend



VISCOSITY



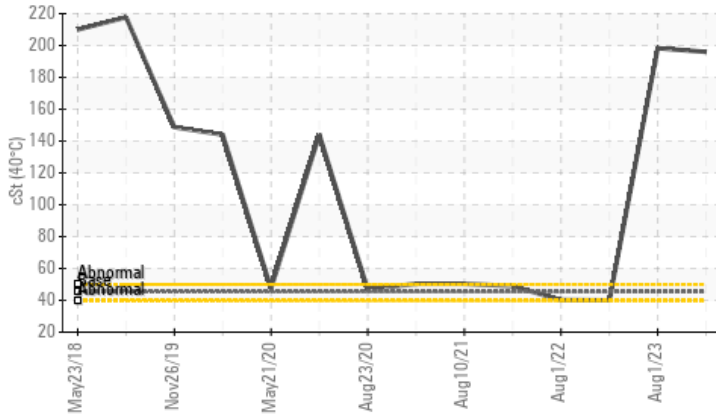
Machine Id
A15685

Component
Hydraulic System

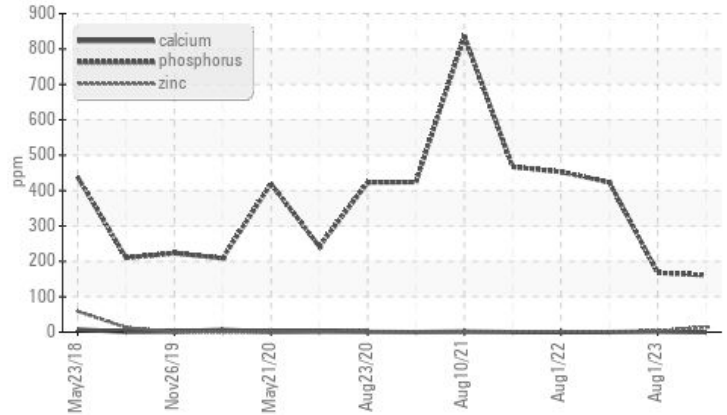
Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 46 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



▲ Additives



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | | ATTENTION | ABNORMAL | ATTENTION |
|---------------|-----|-------------|-----------|----------|-----------|
| Phosphorus | ppm | ASTM D5185m | ▲ 161 | ▲ 168 | 423 |
| Zinc | ppm | ASTM D5185m | ▲ 14 | ▲ 4 | 0 |
| Visc @ 40°C | cSt | ASTM D445 | ▲ 196 | ▲ 198.3 | 40.0 |

Customer Id: ROCROCUS
Sample No.: WC0866710
Lab Number: 06008293
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

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

01 Aug 2023 Diag: Jonathan Hester

VISCOSITY



We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within ISO 220 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

view report



31 Oct 2022 Diag: Don Baldrige

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



01 Aug 2022 Diag: Jonathan Hester

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

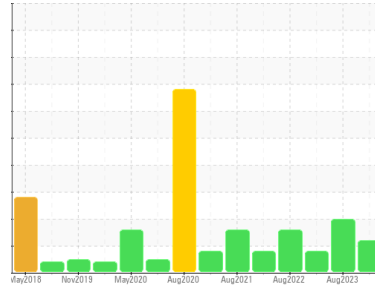
view report





OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
A15685

Component
Hydraulic System

Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 46 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within ISO 220 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | WC0866710 | WC0814211 | WC0717132 |
| Sample Date | Client Info | 03 Nov 2023 | 01 Aug 2023 | 31 Oct 2022 |
| Machine Age | hrs | Client Info | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | ATTENTION | ABNORMAL | ATTENTION |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|-----------------|--------------|----------|----|
| Iron | ppm | ASTM D5185m >20 | 0 | 4 | <1 |
| Chromium | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >10 | 0 | 2 | <1 |
| Lead | ppm | ASTM D5185m >10 | <1 | <1 | 0 |
| Copper | ppm | ASTM D5185m >75 | 3 | 2 | <1 |
| Tin | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | <1 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|-------------|--------------|----------|-----|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | 0 | 2 | 0 |
| Phosphorus | ppm | ASTM D5185m | ▲ 161 | ▲ 168 | 423 |
| Zinc | ppm | ASTM D5185m | ▲ 14 | ▲ 4 | 0 |
| Sulfur | ppm | ASTM D5185m | 781 | ▲ 834 | 333 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|-----------------|--------------|----------|---|
| Silicon | ppm | ASTM D5185m >20 | 2 | 3 | 6 |
| Sodium | ppm | ASTM D5185m | <1 | <1 | 0 |
| Potassium | ppm | ASTM D5185m >20 | <1 | 0 | 0 |

FLUID CLEANLINESS

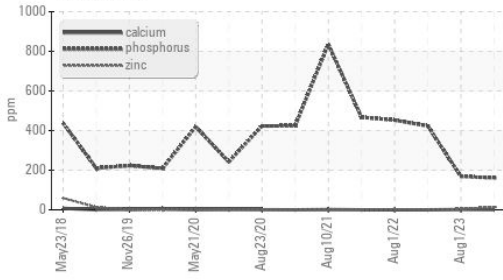
| method | limit/base | current | history1 | history2 |
|-----------------|------------------------|-----------------|----------|------------|
| Particles >4µm | ASTM D7647 | 5139 | --- | 6148 |
| Particles >6µm | ASTM D7647 >1300 | 1053 | --- | ▲ 1520 |
| Particles >14µm | ASTM D7647 >160 | 81 | --- | 86 |
| Particles >21µm | ASTM D7647 >40 | 21 | --- | 12 |
| Particles >38µm | ASTM D7647 >10 | 0 | --- | 1 |
| Particles >71µm | ASTM D7647 >3 | 0 | --- | 0 |
| Oil Cleanliness | ISO 4406 (c) >--/17/14 | 20/17/14 | --- | ▲ 20/18/14 |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 | |
|------------------|------------|-----------------|-------------|----------|------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.26 | 0.42 | 0.42 | 0.21 |

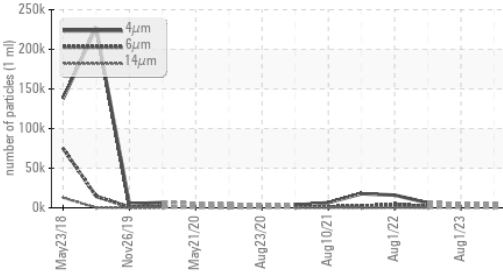
OIL ANALYSIS REPORT

▲ Additives



| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | ▲ MODER |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

Particle Trend



| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 45.36 | ▲ 196 | ▲ 198.3 |

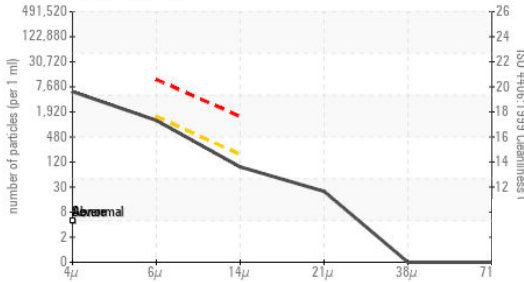
SAMPLE IMAGES

Color

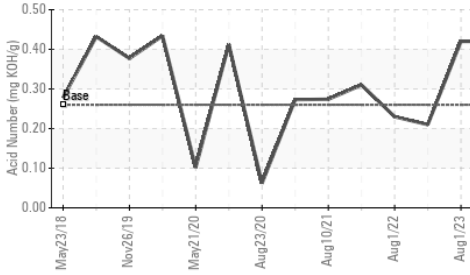
Bottom

GRAPHS

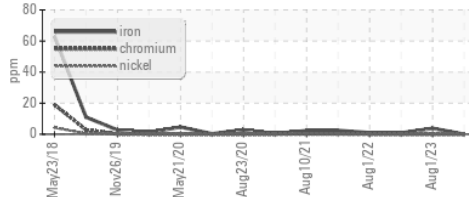
Particle Count



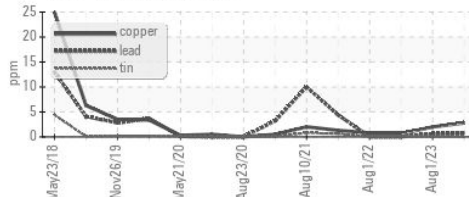
Acid Number



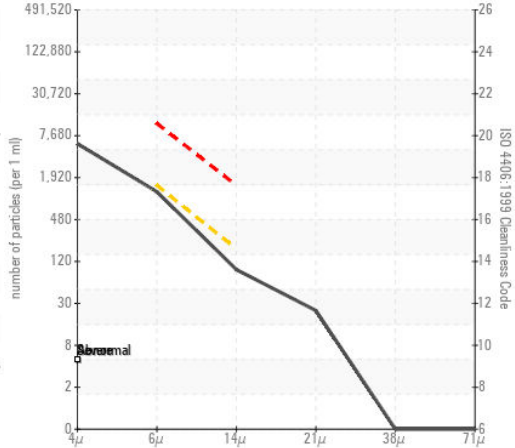
Ferrous Alloys



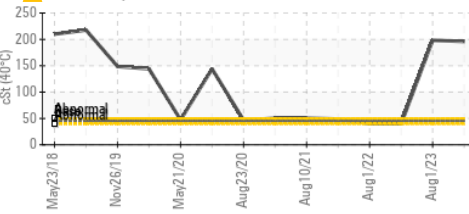
Non-ferrous Metals



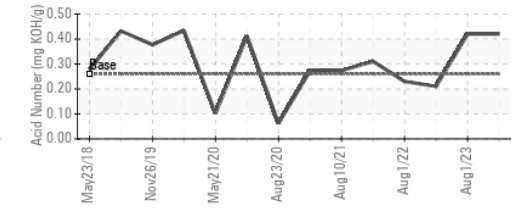
Particle Count



▲ Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0866710 **Received** : 15 Nov 2023
Lab Number : 06008293 **Diagnosed** : 17 Nov 2023
Unique Number : 10742055 **Diagnostician** : Don Baldrige
Test Package : IND 2

Rochelle Foods - PRE
 1001 South Main, P.O. Box 45
 Rochelle, IL
 US 61068
 Contact: JAMES ROBINSON III
 jrobinson3@hormel.com

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)

T: (815)562-4147