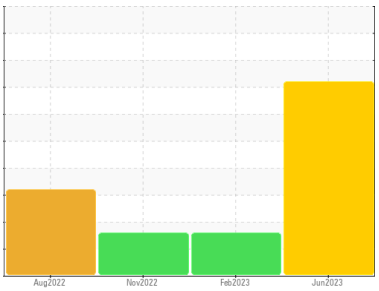
# PROBLEM SUMMARY

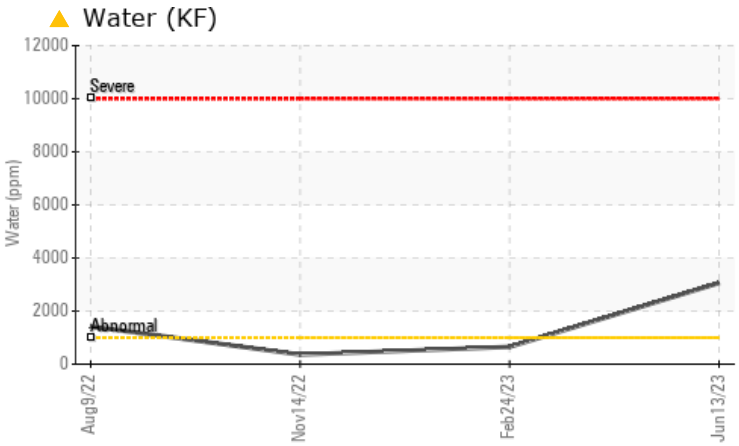
Sample Rating Trend




**WATER**

Area
## S2 BATCH
Machine Id
## 10136755 MAJOR HOMOGENIZER CRANKCASE
Component
**Gear Case**
Fluid
**PETRO CANADA PURITY FG EP GEAR OIL 220 (45 LTR)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | SEVERE | ABNORMAL | ABNORMAL |
|---|---|---|---|---|---|---|
| Water | % | ASTM D6304 | >0.1 | ▲ **0.306** | 0.065 | 0.036 |
| ppm Water | ppm | ASTM D6304 | >1000 | ▲ **3060** | 650 | 360 |
| Free Water | scalar | *Visual | | ▲ **>10%** | ▲ 1.0 | ▲ 1.0 |

**Customer Id:** CONWATIA
**Sample No.:** WC0763517
**Lab Number:** 05876938
**Test Package:** PLANT

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
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jhester@wearcheckusa.com

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

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Water Drain-off | --- | --- | ? | We advise that you follow the water drain-off procedure for this component. |
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |
| Check Water Access | --- | --- | ? | We advise that you check for the source of water entry. |

## HISTORICAL DIAGNOSIS

WATER

**24 Feb 2023 Diag: Angela Borella**
We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.All component wear rates are normal. Free water present. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

WATER

**14 Nov 2022 Diag: Angela Borella**
We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.All component wear rates are normal. Free water present. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

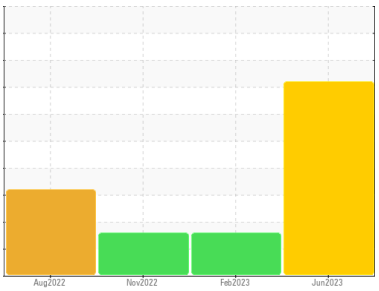
WATER

**09 Aug 2022 Diag: Jonathan Hester**
We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor.All component wear rates are normal. Free water present. There is a light concentration of water 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




**WATER**

Area
## S2 BATCH
Machine Id
## 10136755 MAJOR HOMOGENIZER CRANKCASE
Component
**Gear Case**
Fluid
**PETRO CANADA PURITY FG EP GEAR OIL 220 (45 LTR)**

## DIAGNOSIS

**▲ Recommendation**
We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

**Wear**
All component wear rates are normal.

**▲ Contamination**
Appearance is hazy. Excessive free water present. There is a light concentration of water present in the oil.

**Fluid Condition**
The AN level is acceptable for this fluid.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC0763517** | WC0763512 | WC0692714 |
| Sample Date | | Client Info | | **13 Jun 2023** | 24 Feb 2023 | 14 Nov 2022 |
| Machine Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **Not Changd** | Not Changd | Not Changd |
| Sample Status | | | | **SEVERE** | ABNORMAL | ABNORMAL |

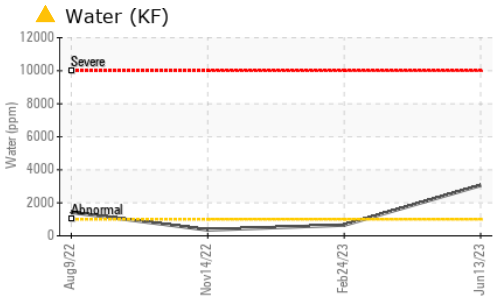
| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184 | | **33** | 14 | --- |
| Iron | ppm | ASTM D5185m | >150 | **6** | 3 | 2 |
| Chromium | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **<1** | <1 | 0 |
| Lead | ppm | ASTM D5185m | >100 | **3** | 5 | 6 |
| Copper | ppm | ASTM D5185m | >50 | **0** | <1 | <1 |
| Tin | ppm | ASTM D5185m | >10 | **<1** | 1 | 1 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

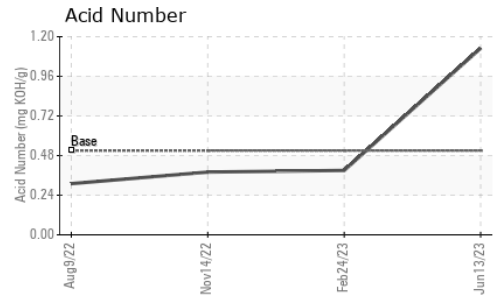
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Barium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Calcium | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Phosphorus | ppm | ASTM D5185m | | **125** | 133 | 138 |
| Zinc | ppm | ASTM D5185m | | **0** | 7 | 3 |
| Sulfur | ppm | ASTM D5185m | | **933** | 881 | 797 |

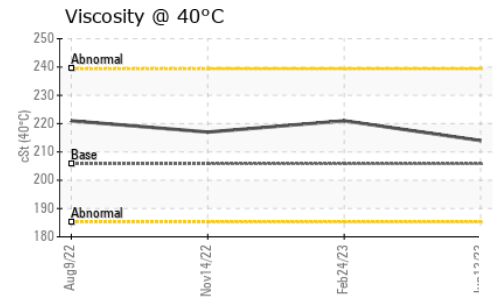
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **1** | 3 | 2 |
| Sodium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | **<1** | 0 | 0 |
| Water | % | ASTM D6304 | >0.1 | ▲ **0.306** | 0.065 | 0.036 |
| ppm Water | ppm | ASTM D6304 | >1000 | ▲ **3060** | 650 | 360 |

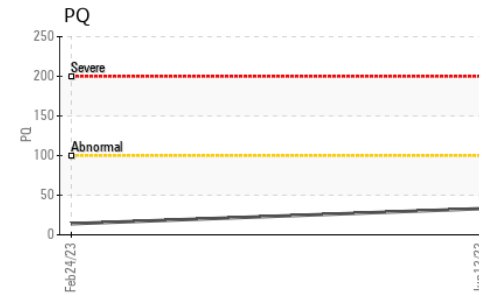
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.51 | **1.13** | 0.39 | 0.38 |

# OIL ANALYSIS REPORT



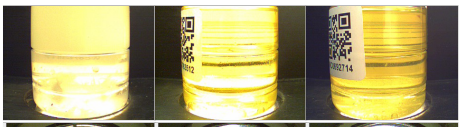
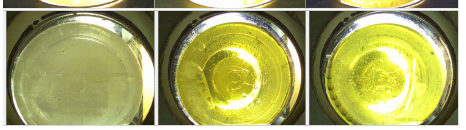



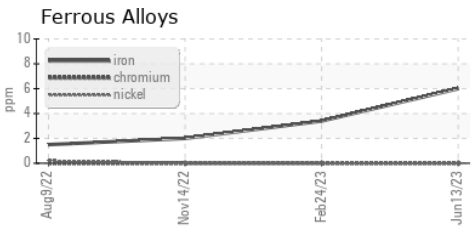



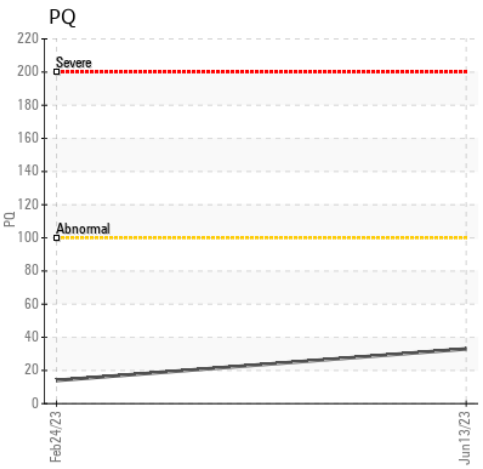

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | **NONE** | LIGHT | LIGHT |
| Sand/Dirt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Appearance | scalar | *Visual | NORML | ● **HAZY** | NORML | NORML |
| Odor | scalar | *Visual | NORML | **NORML** | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | **0.2%** | 0.2% | 0.2% |
| Free Water | scalar | *Visual | | ▲ **>10%** | ▲ 1.0 | ▲ 1.0 |

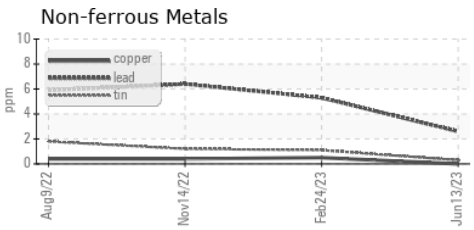
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 205.8 | **214** | 221 | 217 |

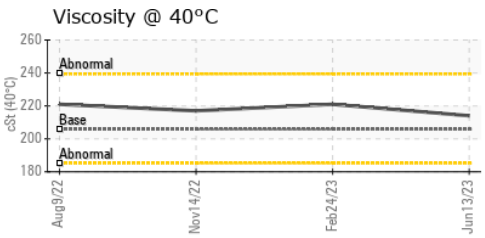
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

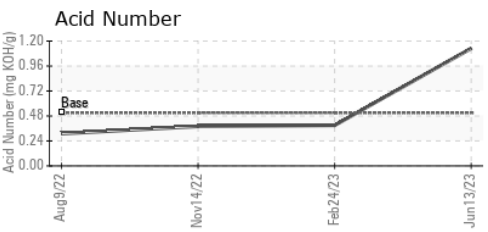
## GRAPHS




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC0763517
**Lab Number** : 05876938
**Unique Number** : 10522041
**Test Package** : PLANT

**Received** : 19 Jun 2023
**Tested** : 20 Jun 2023
**Diagnosed** : 21 Jun 2023 - Jonathan Hester

*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)*

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