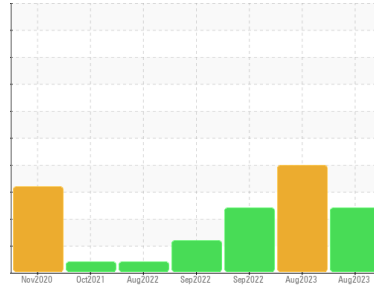




# PROBLEM SUMMARY

## Sample Rating Trend

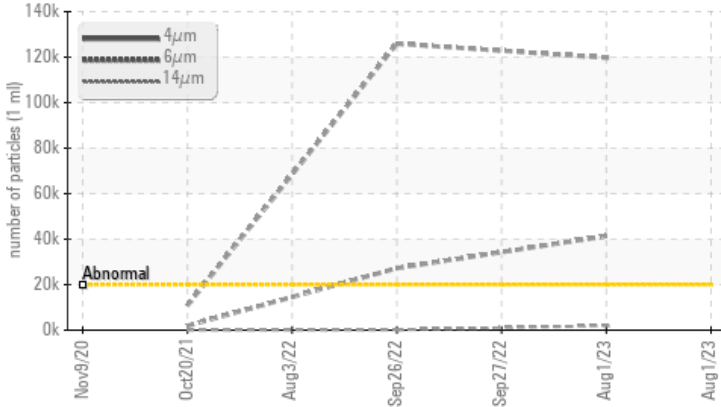
ISO



Machine Id  
**B40392**  
 Component  
**Gearbox**  
 Fluid  
**PETRO CANADA 220 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>20000	▲ 119744	---	---
Particles >6µm	ASTM D7647	>5000	▲ 41356	---	---
Particles >14µm	ASTM D7647	>640	▲ 1925	---	---
Particles >21µm	ASTM D7647	>160	▲ 316	---	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 24/23/18	---	---
Debris	scalar *Visual	NONE	▲ MODER	LIGHT	LIGHT

Customer Id: ROCROCUS  
 Sample No.: WC0820551  
 Lab Number: 05922164  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

## HISTORICAL DIAGNOSIS

### 01 Aug 2023 Diag: Jonathan Hester

WATER



We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. 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. Gear wear is indicated. Appearance is milky. There is a light concentration of water present in the oil. There is a high amount of visible silt present in the sample. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 27 Sep 2022 Diag: Don Baldrige

WATER



We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. There is too much water present in this sample to perform a particle count. All component wear rates are normal. Appearance is hazy. There is a moderate concentration of water present in the oil. The AN level is acceptable for this fluid.

view report



### 26 Sep 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 high 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.

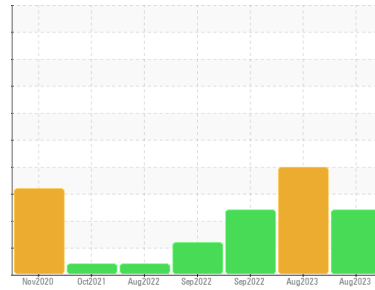
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**B40392**

Component  
**Gearbox**

Fluid  
**PETRO CANADA 220 (--- GAL)**

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of particulates present 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>WC0820551</b>	WC0820547	WC0732433
Sample Date	Client Info	<b>01 Aug 2023</b>	01 Aug 2023	27 Sep 2022
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >200	<b>3</b>	▲ 314	82
Chromium	ppm	ASTM D5185m >10	<b>0</b>	3	<1
Nickel	ppm	ASTM D5185m >10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>1</b>	2	<1
Lead	ppm	ASTM D5185m >50	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >200	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m >10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	2	<1
Magnesium	ppm	ASTM D5185m	<b>0</b>	0	0
Calcium	ppm	ASTM D5185m	<b>0</b>	2	5
Phosphorus	ppm	ASTM D5185m	<b>154</b>	144	145
Zinc	ppm	ASTM D5185m	<b>0</b>	0	<1
Sulfur	ppm	ASTM D5185m	<b>830</b>	842	820

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	<b>9</b>	6	4
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	4	2
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	0

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	<b>▲ 119744</b>	---	---
Particles >6µm	ASTM D7647 >5000	<b>▲ 41356</b>	---	---
Particles >14µm	ASTM D7647 >640	<b>▲ 1925</b>	---	---
Particles >21µm	ASTM D7647 >160	<b>▲ 316</b>	---	---
Particles >38µm	ASTM D7647 >40	<b>8</b>	---	---
Particles >71µm	ASTM D7647 >10	<b>4</b>	---	---
Oil Cleanliness	ISO 4406 (c) >21/19/16	<b>▲ 24/23/18</b>	---	---

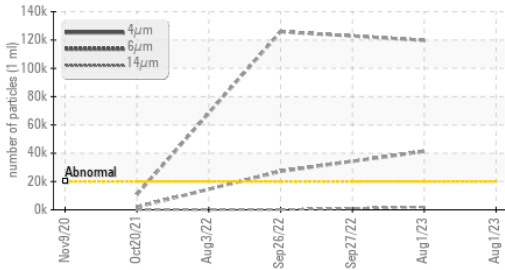
## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.44</b>	0.38	0.39

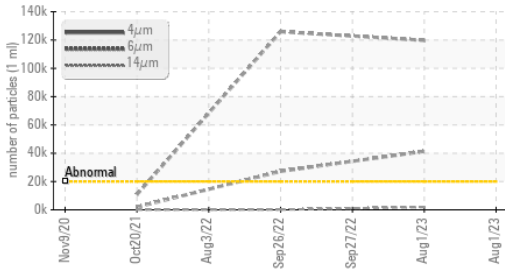


# OIL ANALYSIS REPORT

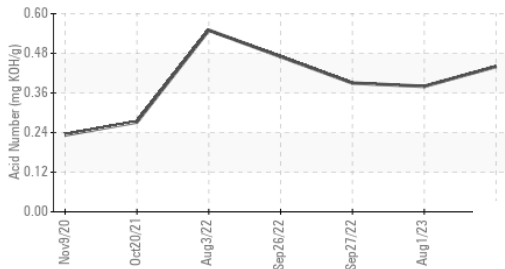
▲ Particle Trend



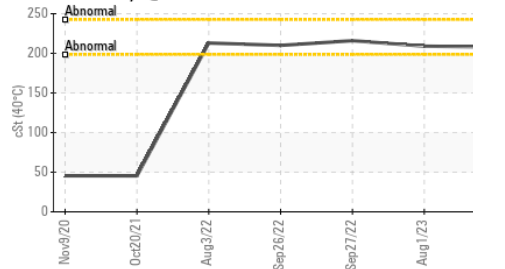
▲ Particle Trend



Acid Number



Viscosity @ 40°C



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	▲ HEAVY	NONE
Debris	scalar	*Visual	▲ MODER	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ MILKY	▲ HAZY
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	▲ 0.2%
Free Water	scalar	*Visual		NEG	NEG

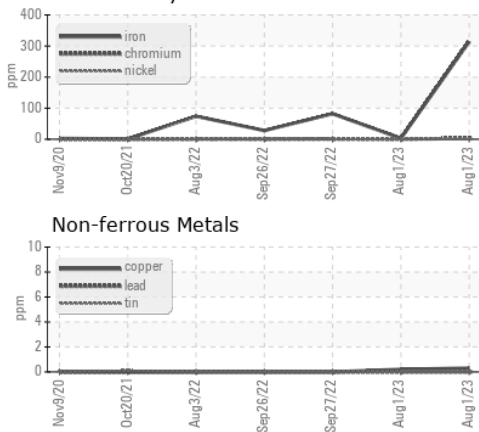
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	208	209	216

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

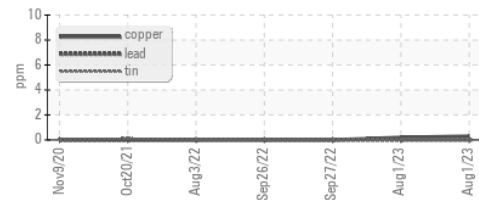


### GRAPHS

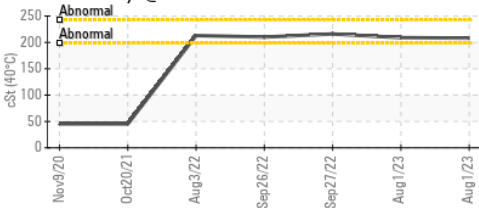
Ferrous Alloys



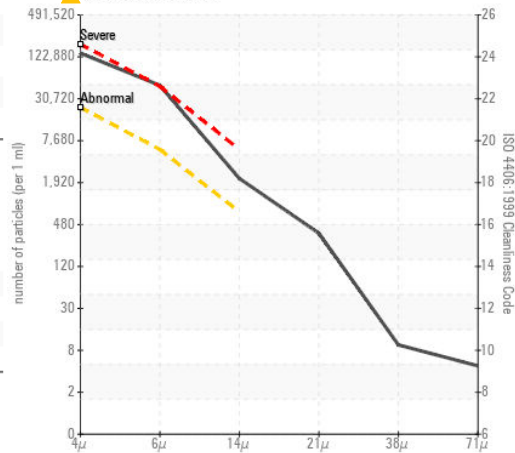
Non-ferrous Metals



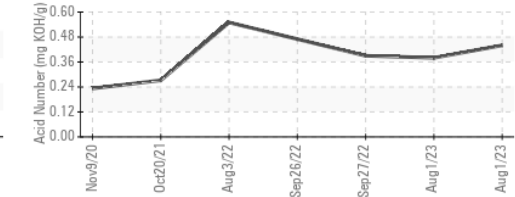
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0820551 **Received** : 11 Aug 2023  
**Lab Number** : 05922164 **Diagnosed** : 14 Aug 2023  
**Unique Number** : 10602111 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: PrtCount )

**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