



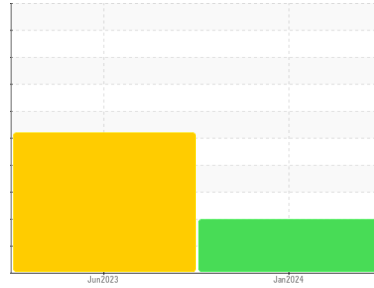
# PROBLEM SUMMARY

## Sample Rating Trend

ISO

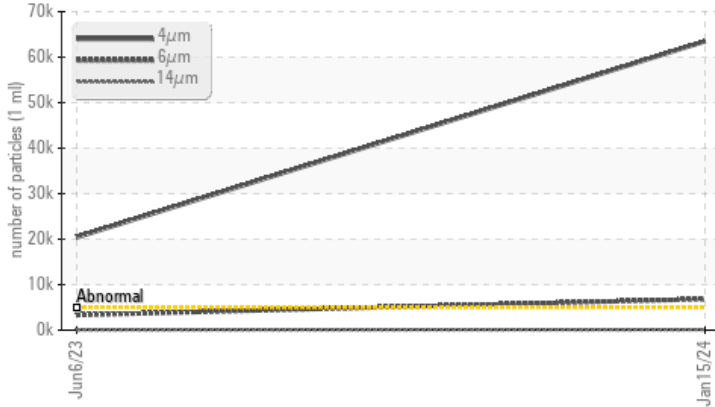


Area  
**[133370]**  
 Machine Id  
**COMBO #6**  
 Component  
**Hydraulic System**  
 Fluid  
**PETRO CANADA PURITY FG AW HYDRAULIC 32 (5 GAL)**



## COMPONENT CONDITION SUMMARY

### Particle Trend



## RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the component make and model with your next sample.

## PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	ABNORMAL	---
Particles >4µm	ASTM D7647	>5000	63488	20393	---
Particles >6µm	ASTM D7647	>1300	6823	3311	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	23/20/14	22/19/13	---

Customer Id: GRA685CAM

Sample No.: WC0898880

Lab Number: 02609352

Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:

Kevin Marson +1 (289)291-4644 x4644

[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:

Gloria Gonzalez +1 (289)291-4643 x4643

[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	Please specify the component make and model with your next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

## HISTORICAL DIAGNOSIS

### 06 Jun 2023 Diag: Kevin Marson

#### 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. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil. Free water present. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report





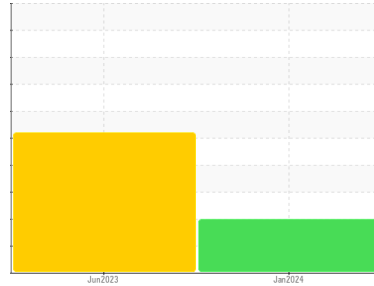
# OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area  
**[133370]**  
 Machine Id  
**COMBO #6**  
 Component  
**Hydraulic System**  
 Fluid  
**PETRO CANADA PURITY FG AW HYDRAULIC 32 (5 GAL)**



## DIAGNOSIS

### Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0898880</b>	WC0808201	---
Sample Date	Client Info		<b>15 Jan 2024</b>	06 Jun 2023	---
Machine Age	hrs	Client Info	<b>0</b>	0	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>SEVERE</b>	ABNORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>4</b>	3
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1
Lead	ppm	ASTM D5185(m)	>10	<b>0</b>	0
Copper	ppm	ASTM D5185(m)	>75	<b>0</b>	0
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	0
Barium	ppm	ASTM D5185(m)		<b>0</b>	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0
Magnesium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0
Calcium	ppm	ASTM D5185(m)		<b>3</b>	0
Phosphorus	ppm	ASTM D5185(m)		<b>444</b>	510
Zinc	ppm	ASTM D5185(m)		<b>3</b>	3
Sulfur	ppm	ASTM D5185(m)		<b>474</b>	540
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1

## CONTAMINANTS

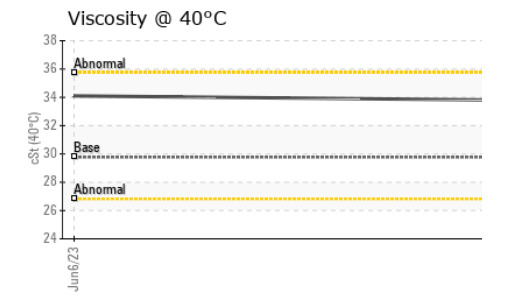
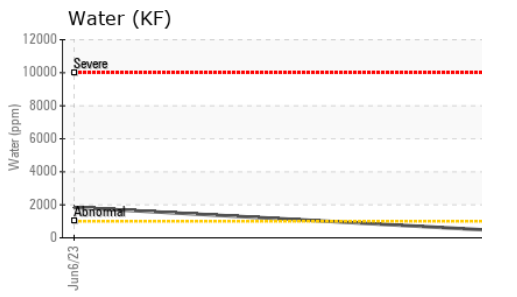
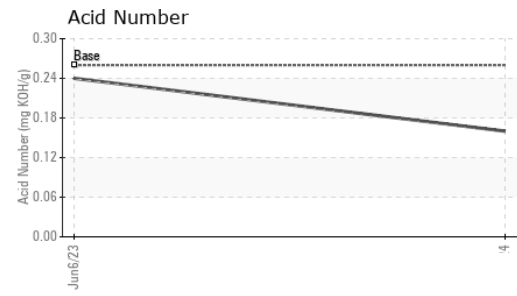
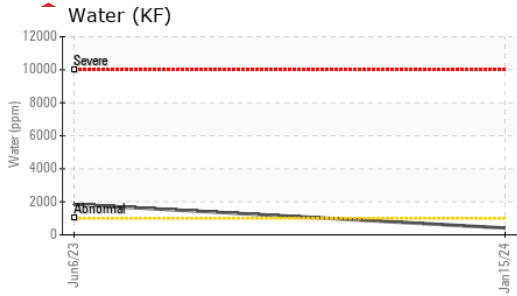
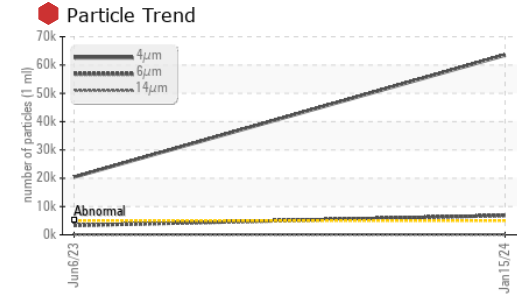
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	<b>1</b>	3
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	1
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1
Water	%	ASTM D6304*	>0.1	<b>0.041</b>	▲ 0.184
ppm Water	ppm	ASTM D6304*	>1000	<b>411</b>	▲ 1843.0

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>63488</b>	▲ 20393	---
Particles >6µm	ASTM D7647	>1300	<b>6823</b>	▲ 3311	---
Particles >14µm	ASTM D7647	>160	<b>85</b>	64	---
Particles >21µm	ASTM D7647	>40	<b>18</b>	5	---
Particles >38µm	ASTM D7647	>10	<b>1</b>	0	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>23/20/14</b>	▲ 22/19/13	---



# OIL ANALYSIS REPORT



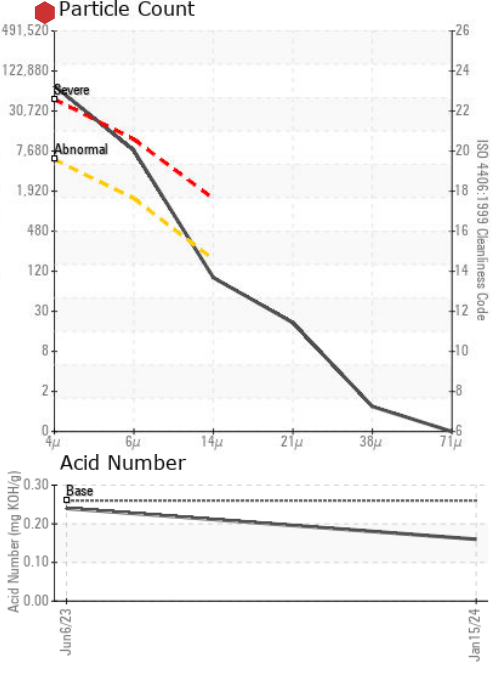
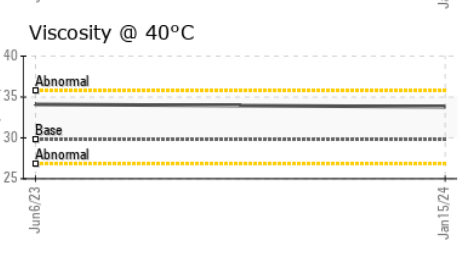
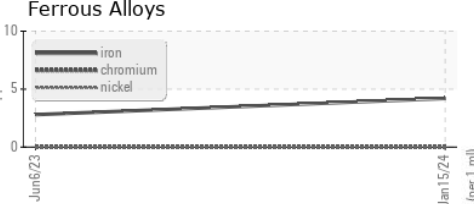
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.26	<b>0.16</b>	0.24	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>HAZY</b>	▲ WGOIL	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.1	<b>.2%</b>	▲ .2%	---
Free Water	scalar	Visual*		<b>NEG</b>	▲ 1%	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	29.77	<b>33.8</b>	34.1	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						no image
Bottom						no image

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0898880      **Received** : 17 Jan 2024  
**Lab Number** : **02609352**      **Diagnosed** : 18 Jan 2024  
**Unique Number** : 5710438      **Diagnostician** : Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: KF )

**GRAND RIVER FOODS**  
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 T: (519)653-3577  
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.