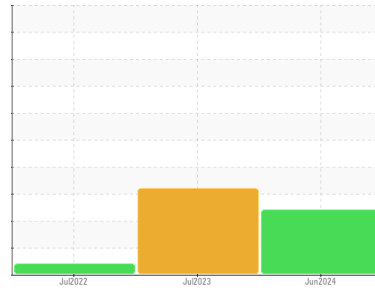




# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Machine Id

**731115**

Component

**Hydraulic System**

Fluid

**PETRO CANADA HYDREX MV 46 (--- GAL)**

### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. 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

Viscosity of sample indicates oil is within ISO 32 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	<b>GFL0124053</b>	GFL0087238	GFL0050587
Sample Date	Client Info	<b>26 Jun 2024</b>	07 Jul 2023	26 Jul 2022
Machine Age	hrs	<b>7516</b>	5214	3279
Oil Age	hrs	<b>2400</b>	5214	3279
Oil Changed	Client Info	<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ATTENTION

### CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	<b>NEG</b>	NEG	NEG

### WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >20	<b>10</b>	7	3
Chromium	ppm ASTM D5185m >10	<b>&lt;1</b>	0	0
Nickel	ppm ASTM D5185m >10	<b>&lt;1</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185m >10	<b>2</b>	<1	0
Lead	ppm ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Copper	ppm ASTM D5185m >75	<b>3</b>	2	2
Tin	ppm ASTM D5185m >10	<b>&lt;1</b>	0	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	0	0

### ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>&lt;1</b>	0	<1
Barium	ppm ASTM D5185m 0	<b>1</b>	0	0
Molybdenum	ppm ASTM D5185m 0	<b>1</b>	<1	0
Manganese	ppm ASTM D5185m 1	<b>&lt;1</b>	0	0
Magnesium	ppm ASTM D5185m 0	<b>5</b>	0	<1
Calcium	ppm ASTM D5185m 50	<b>47</b>	39	34
Phosphorus	ppm ASTM D5185m 330	<b>256</b>	286	262
Zinc	ppm ASTM D5185m 430	<b>346</b>	340	311
Sulfur	ppm ASTM D5185m 760	<b>758</b>	839	855

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	<b>4</b>	3	2
Sodium	ppm ASTM D5185m	<b>3</b>	0	0
Potassium	ppm ASTM D5185m >20	<b>1</b>	1	1

### FLUID CLEANLINESS

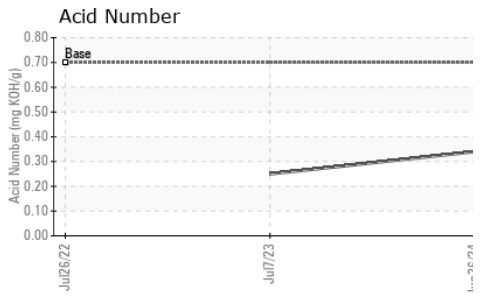
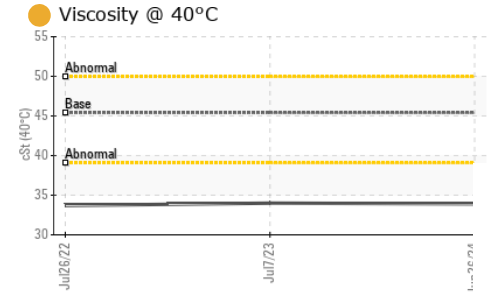
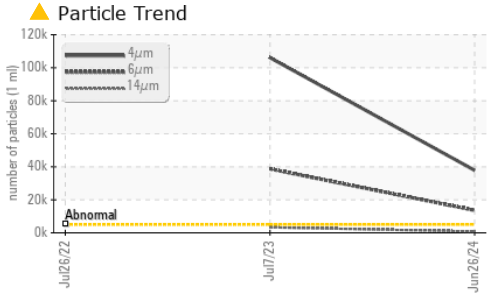
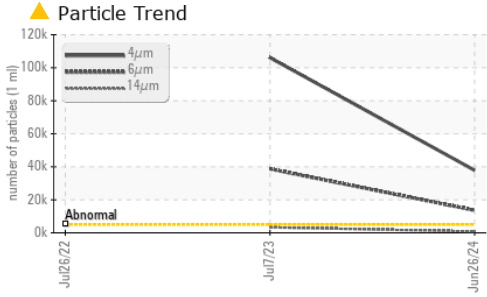
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 37863</b>	▲ 106086	---
Particles >6µm	ASTM D7647 >1300	<b>▲ 13609</b>	▲ 38711	---
Particles >14µm	ASTM D7647 >160	<b>▲ 812</b>	▲ 3293	---
Particles >21µm	ASTM D7647 >40	<b>▲ 136</b>	▲ 847	---
Particles >38µm	ASTM D7647 >10	<b>2</b>	▲ 57	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	▲ 4	---
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 22/21/17</b>	▲ 24/22/19	---

### FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 0.70	<b>0.34</b>	0.25	---



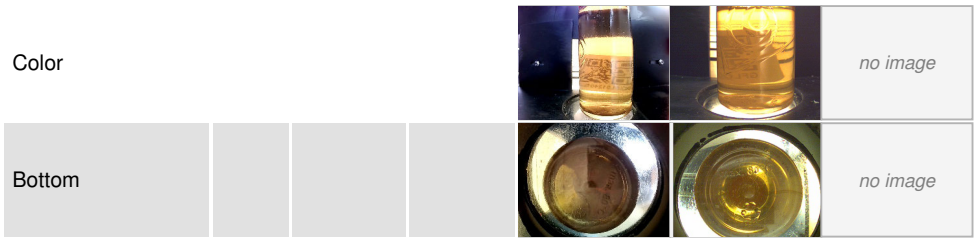
# OIL ANALYSIS REPORT



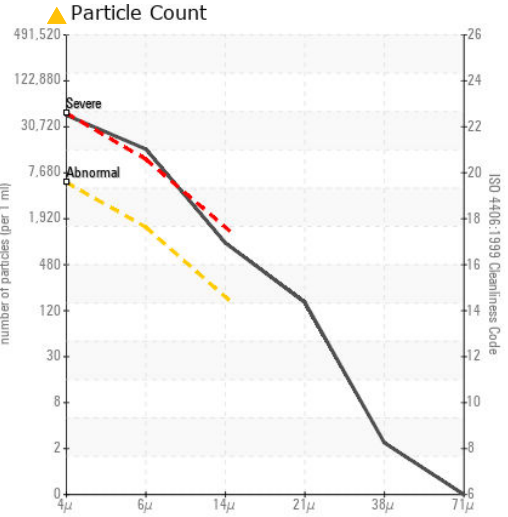
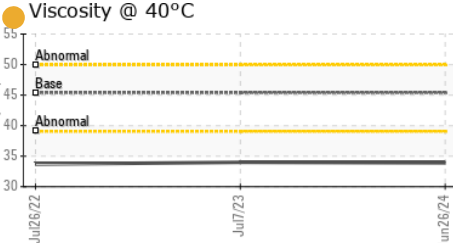
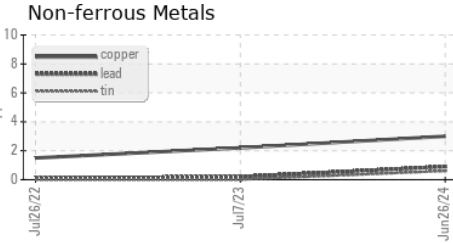
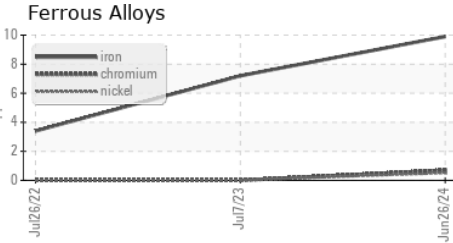
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	LIGHT	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	45.4	<span style="color: orange;">●</span> 33.9	<span style="color: orange;">●</span> 34.0	<span style="color: orange;">●</span> 33.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0124053      **Received** : 28 Jun 2024  
**Lab Number** : 06223437      **Tested** : 01 Jul 2024  
**Unique Number** : 11101634      **Diagnosed** : 01 Jul 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests : PrtCount )

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Loyce Stewart  
 loyce.stewart@gflenv.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)