



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**(27KM1B)**  
Machine Id  
**413116**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA HYDREX MV 46 (--- QTS)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) 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>GFL0102457</b>	---	---
Sample Date	Client Info	<b>06 Jan 2024</b>	---	---
Machine Age	hrs	Client Info	<b>2292</b>	---
Oil Age	hrs	Client Info	<b>0</b>	---
Oil Changed	Client Info	<b>Not Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>2</b>	---
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	---
Nickel	ppm	ASTM D5185m >4	<b>0</b>	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	---
Silver	ppm	ASTM D5185m	<b>0</b>	---
Aluminum	ppm	ASTM D5185m >5	<b>2</b>	---
Lead	ppm	ASTM D5185m >4	<b>0</b>	---
Copper	ppm	ASTM D5185m >15	<b>&lt;1</b>	---
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	---
Molybdenum	ppm	ASTM D5185m 0	<b>&lt;1</b>	---
Manganese	ppm	ASTM D5185m 1	<b>0</b>	---
Magnesium	ppm	ASTM D5185m 0	<b>37</b>	---
Calcium	ppm	ASTM D5185m 50	<b>28</b>	---
Phosphorus	ppm	ASTM D5185m 330	<b>296</b>	---
Zinc	ppm	ASTM D5185m 430	<b>332</b>	---
Sulfur	ppm	ASTM D5185m 760	<b>806</b>	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>&lt;1</b>	---
Sodium	ppm	ASTM D5185m	<b>0</b>	---
Potassium	ppm	ASTM D5185m >20	<b>1</b>	---

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 13201</b>	---	---
Particles >6µm	ASTM D7647 >1300	<b>1159</b>	---	---
Particles >14µm	ASTM D7647 >160	<b>95</b>	---	---
Particles >21µm	ASTM D7647 >40	<b>37</b>	---	---
Particles >38µm	ASTM D7647 >10	<b>2</b>	---	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 21/17/14</b>	---	---

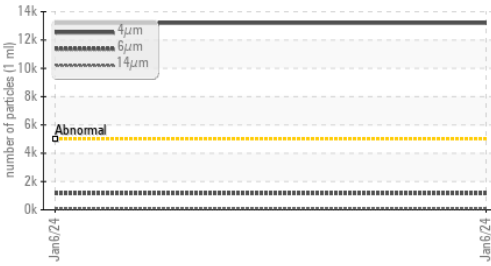
## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.70	<b>0.28</b>	---



# OIL ANALYSIS REPORT

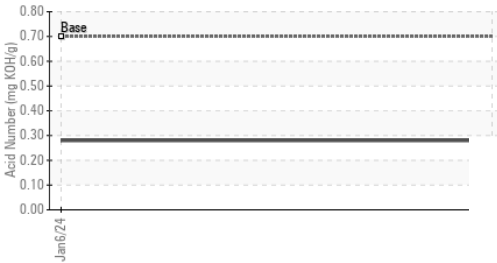
## Particle Trend



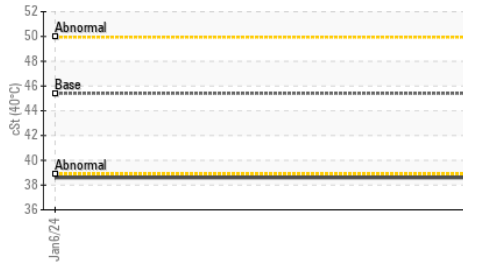
## Particle Trend



## Acid Number



## Viscosity @ 40°C



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.4	38.6	---

## SAMPLE IMAGES

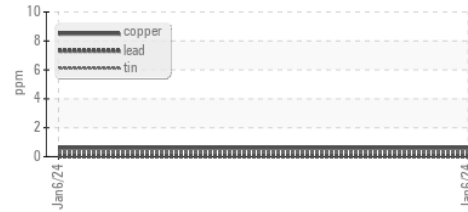
method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

## GRAPHS

### Ferrous Alloys



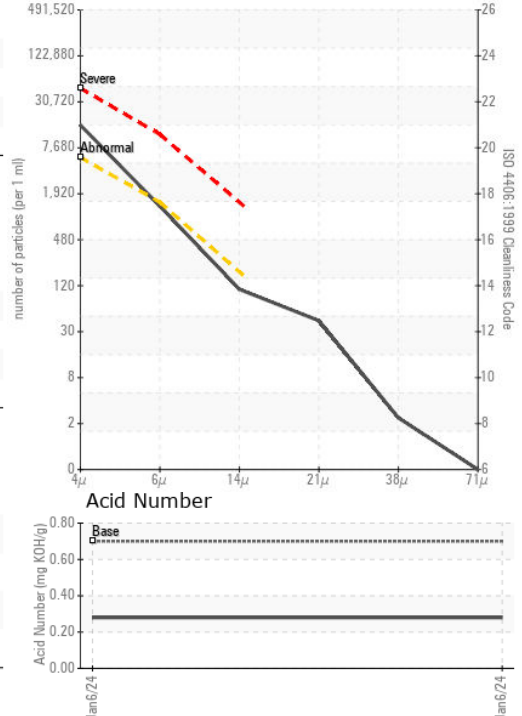
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0102457 Recieved : 16 Jan 2024  
 Lab Number : 06061905 Diagnosed : 17 Jan 2024  
 Unique Number : 10833287 Diagnostician : Don Baldrige  
 Test Package : FLEET ( Additional Tests: PrtCount )

GFL Environmental - 836 - Kansas City Hauling  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Robert Hart  
 rhart@gflenv.com  
 T: (580)461-1509  
 F:

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)