



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id  
**T001090 (S/N 11-M-03-1412)**

Component  
**Hydraulic System**

Fluid  
**PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)**

## RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL, however, a fluid match indicates that this fluid is ISO 46 AW Hydraulic Oil. Please confirm the oil type and grade on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0848451	---	---
Sample Date		Client Info		13 Feb 2024	---	---
Machine Age	hrs	Client Info		8124	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	8	---	---
Chromium	ppm	ASTM D5185(m)	>20	0	---	---
Nickel	ppm	ASTM D5185(m)	>20	0	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<1	---	---
Lead	ppm	ASTM D5185(m)	>20	0	---	---
Copper	ppm	ASTM D5185(m)	>20	2	---	---
Tin	ppm	ASTM D5185(m)	>20	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

## CONTAMINATION

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

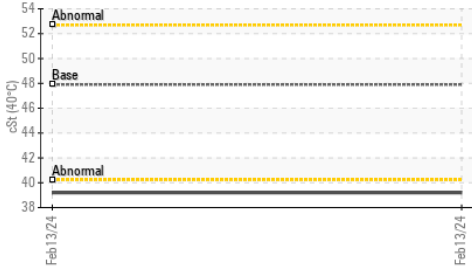
Silicon	ppm	ASTM D5185(m)	>15	<1	---	---
Potassium	ppm	ASTM D5185(m)	>20	1	---	---
Water		WC Method	>0.05	NEG	---	---
Particles >4µm		ASTM D7647	>5000	4364	---	---
Particles >6µm		ASTM D7647	>1300	434	---	---
Particles >14µm		ASTM D7647	>160	20	---	---
Particles >21µm		ASTM D7647	>40	4	---	---
Particles >38µm		ASTM D7647	>10	0	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/16/11	---	---
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*	>0.05	NEG	---	---

## FLUID CONDITION

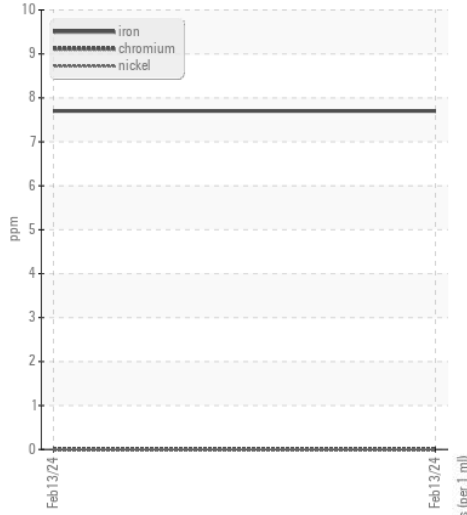
The oil viscosity is lower than typical, possibly indicating the addition of lighter grade oil. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<1	---	---
Boron	ppm	ASTM D5185(m)	0	0	---	---
Barium	ppm	ASTM D5185(m)	0	0	---	---
Molybdenum	ppm	ASTM D5185(m)	0	0	---	---
Manganese	ppm	ASTM D5185(m)	1	0	---	---
Magnesium	ppm	ASTM D5185(m)	0	<1	---	---
Calcium	ppm	ASTM D5185(m)	100	43	---	---
Phosphorus	ppm	ASTM D5185(m)	670	384	---	---
Zinc	ppm	ASTM D5185(m)	850	465	---	---
Sulfur	ppm	ASTM D5185(m)	1600	1087	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	▲ 39.2	---	---

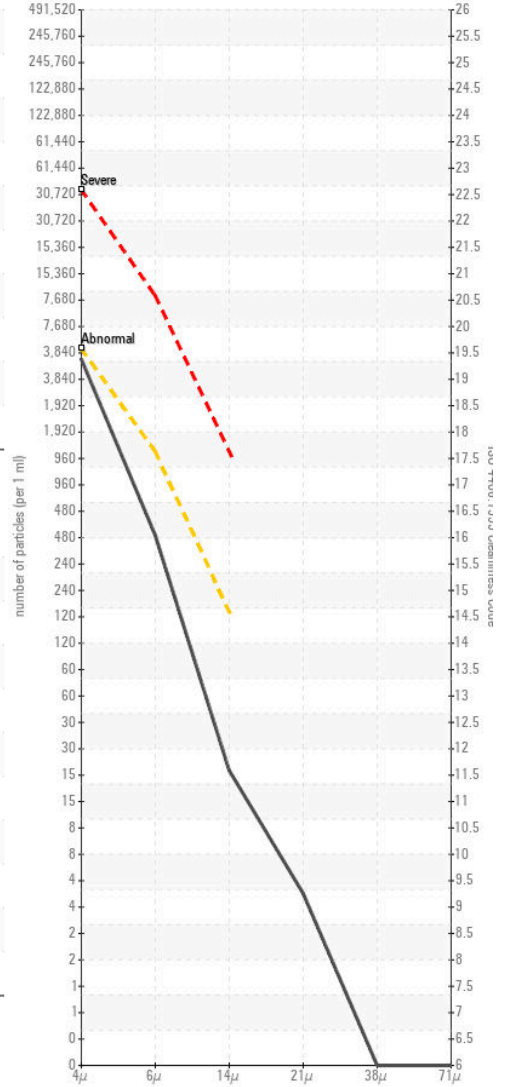
▲ Viscosity @ 40°C



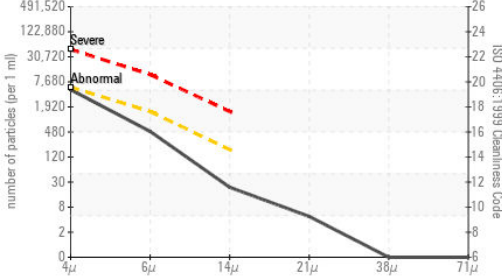
Ferrous Alloys



Particle Count



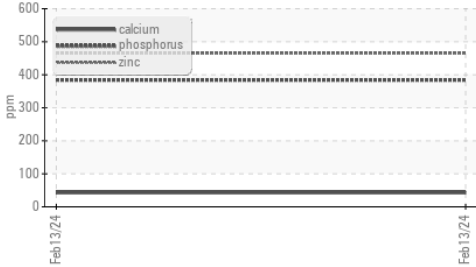
Particle Count



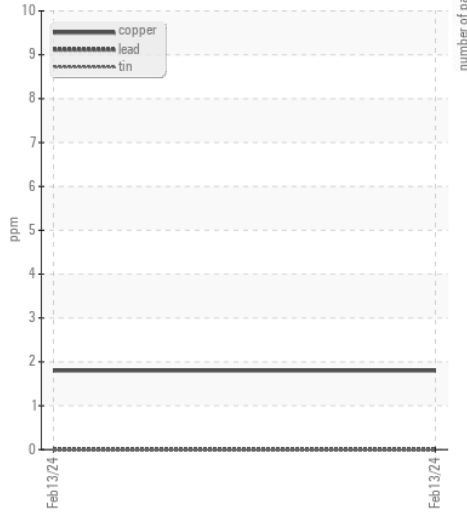
Particle Trend



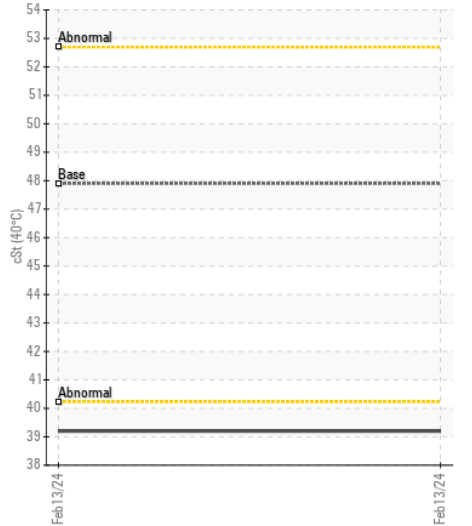
Additives



Non-ferrous Metals



▲ Viscosity @ 40°C



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0848451 **Received** : 15 Feb 2024  
**Lab Number** : 02616003 **Tested** : 20 Feb 2024  
**Unique Number** : 5733113 **Diagnosed** : 20 Feb 2024 - Kevin Marson  
**Test Package** : MOB 2

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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.