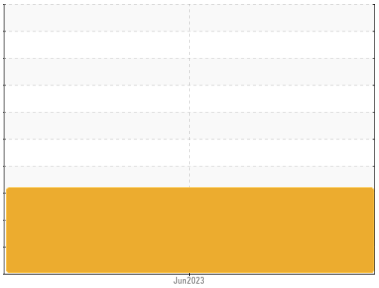
PROBLEM SUMMARY

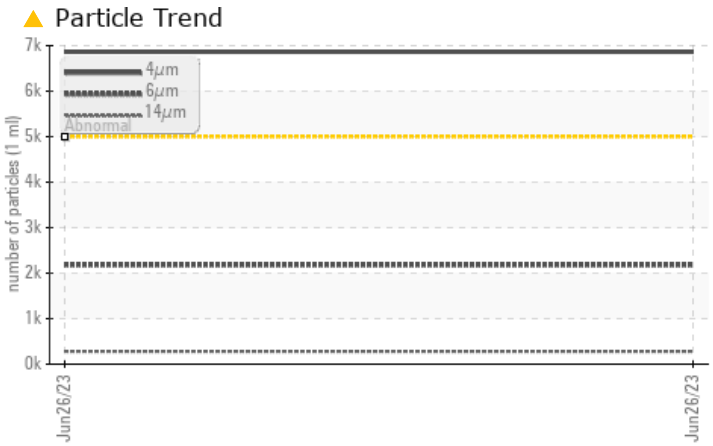
Sample Rating Trend



VISUAL METAL

Machine Id
2939
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (50 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for visible metal particles in the oil. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	---	---
Particles >4µm		ASTM D7647	>5000	▲ **6866**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **2181**	---	---
Particles >14µm		ASTM D7647	>160	▲ **279**	---	---
Particles >21µm		ASTM D7647	>40	▲ **81**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/18/15**	---	---
White Metal	scalar	Visual*	NONE	▲ **VLITE**	---	---
PrtFilter					*no image*	*no image*

Customer Id: WALFER
Sample No.: PC0076494
Lab Number: 02567316
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

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

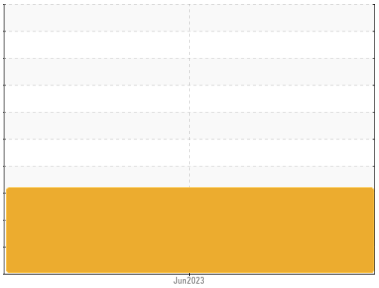
RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check For Visual Metal	---	---	?	We advise that you check for visible metal particles in the oil.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Machine Id
2939
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (50 LTR)

DIAGNOSIS

Recommendation
We advise that you check for visible metal particles in the oil. We recommend an early resample to monitor this condition.

Wear
Light concentration of visible metal present.

Contamination
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

Particle Filter (Magn: 100 x)

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**PC0076494**	---	---
Sample Date		Client Info		**26 Jun 2023**	---	---
Machine Age	yrs	Client Info		**0**	---	---
Oil Age	yrs	Client Info		**2**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**ABNORMAL**	---	---

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185(m)	>20	**<1**	---	---
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	**0**	---	---
Lead	ppm	ASTM D5185(m)	>20	**0**	---	---
Copper	ppm	ASTM D5185(m)	>20	**1**	---	---
Tin	ppm	ASTM D5185(m)	>20	**0**	---	---
Antimony	ppm	ASTM D5185(m)		**0**	---	---
Vanadium	ppm	ASTM D5185(m)		**0**	---	---
Beryllium	ppm	ASTM D5185(m)		**0**	---	---
Cadmium	ppm	ASTM D5185(m)		**0**	---	---

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185(m)	0	**<1**	---	---
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	**96**	---	---
Phosphorus	ppm	ASTM D5185(m)	670	**641**	---	---
Zinc	ppm	ASTM D5185(m)	850	**779**	---	---
Sulfur	ppm	ASTM D5185(m)	1600	**1395**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

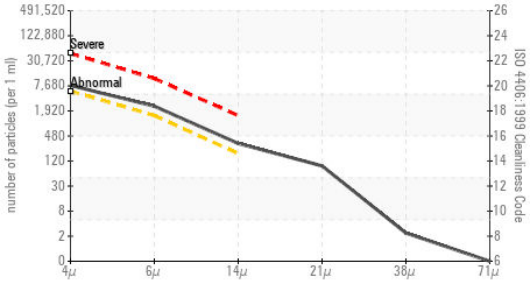
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185(m)	>15	**<1**	---	---
Sodium	ppm	ASTM D5185(m)		**0**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**0**	---	---

FLUID CLEANLINESS		method	limit/base	current	history 1	history 2
Particles >4µm		ASTM D7647	>5000	▲ **6866**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **2181**	---	---
Particles >14µm		ASTM D7647	>160	▲ **279**	---	---
Particles >21µm		ASTM D7647	>40	▲ **81**	---	---
Particles >38µm		ASTM D7647	>10	**2**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/18/15**	---	---

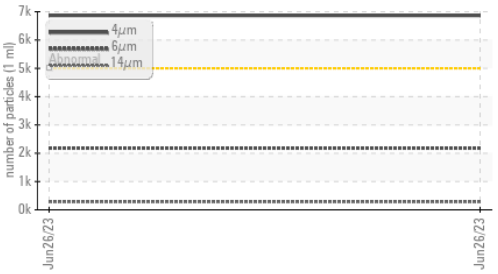
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	**0.48**	---	---

OIL ANALYSIS REPORT

Particle Count

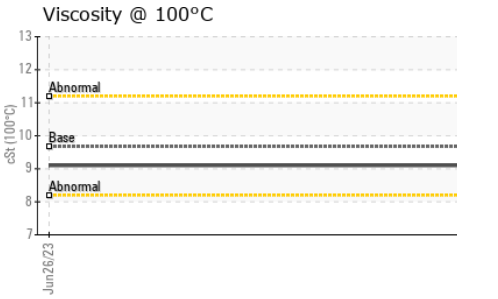


Particle Trend

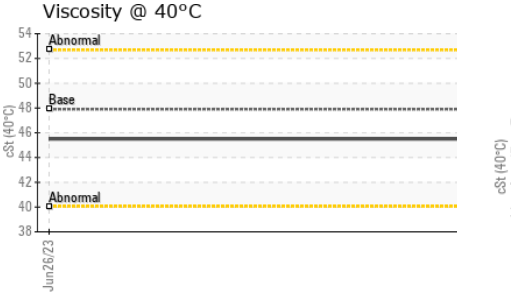


Viscosity @ 100°C

Viscosity @ 100°C

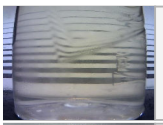
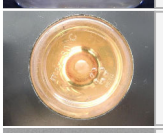


Viscosity @ 40°C



VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	Visual*	NONE	▲ **VLITE**	---	---
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*	>0.05	**NEG**	---	---
Free Water	scalar	Visual*		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	**45.5**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	9.67	**9.1**	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	192	**186**	---	---

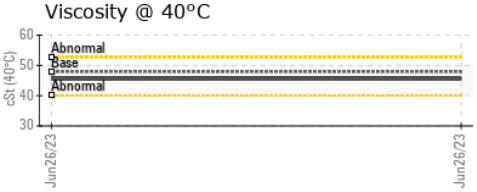
SAMPLE IMAGES	method	limit/base	current	history 1	history 2
Color				*no image*	*no image*
Bottom				*no image*	*no image*
PrtFilter				*no image*	*no image*

GRAPHS

Ferrous Alloys

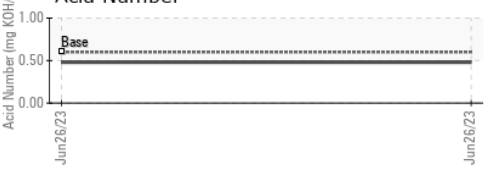
Non-ferrous Metals

Viscosity @ 40°C



Particle Filter (Magn: 100 x)

Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0076494 **Received** : 29 Jun 2023
Lab Number : 02567316 **Diagnosed** : 30 Jun 2023
Unique Number : 5604362 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, KV100, PrtFilter, VI)

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.

WALINGA
938 GLENGARRY CRESCENT
FERGUS, ON
CA N1M 2W7
Contact: Duane Swaving
duane.swaving@walinga.com
T: (519)787-8227
F: (519)787-8210