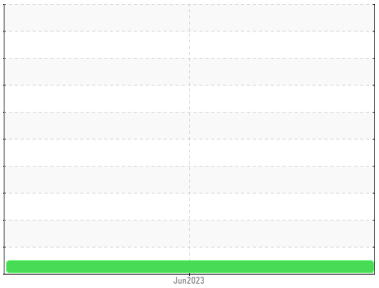
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
Case
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (144 LTR)

DIAGNOSIS

Recommendation
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

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

Fluid Condition
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**GFL0087340**	---	---
Sample Date		Client Info		**29 Jun 2023**	---	---
Machine Age	hrs	Client Info		**12851**	---	---
Oil Age	hrs	Client Info		**4000**	---	---
Oil Changed		Client Info		**Not Changd**	---	---
Sample Status				**NORMAL**	---	---

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185(m)	>65	**31**	---	---
Chromium	ppm	ASTM D5185(m)	>6	**<1**	---	---
Nickel	ppm	ASTM D5185(m)	>10	**<1**	---	---
Titanium	ppm	ASTM D5185(m)		**0**	---	---
Silver	ppm	ASTM D5185(m)		**0**	---	---
Aluminum	ppm	ASTM D5185(m)	>5	**2**	---	---
Lead	ppm	ASTM D5185(m)	>45	**<1**	---	---
Copper	ppm	ASTM D5185(m)	>120	**2**	---	---
Tin	ppm	ASTM D5185(m)	>4	**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**	---	---

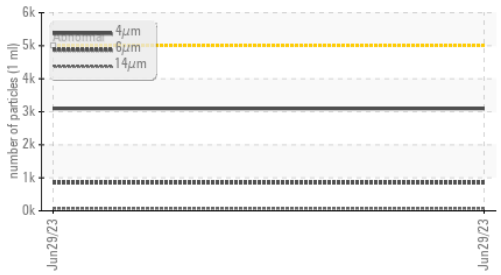
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185(m)	0	**28**	---	---
Barium	ppm	ASTM D5185(m)	0	**<1**	---	---
Molybdenum	ppm	ASTM D5185(m)	0	**<1**	---	---
Manganese	ppm	ASTM D5185(m)	1	**<1**	---	---
Magnesium	ppm	ASTM D5185(m)	0	**9**	---	---
Calcium	ppm	ASTM D5185(m)	100	**1693**	---	---
Phosphorus	ppm	ASTM D5185(m)	670	**399**	---	---
Zinc	ppm	ASTM D5185(m)	850	**145**	---	---
Sulfur	ppm	ASTM D5185(m)	1600	**4287**	---	---
Lithium	ppm	ASTM D5185(m)		**<1**	---	---

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185(m)	>25	**7**	---	---
Sodium	ppm	ASTM D5185(m)		**5**	---	---
Potassium	ppm	ASTM D5185(m)	>20	**3**	---	---

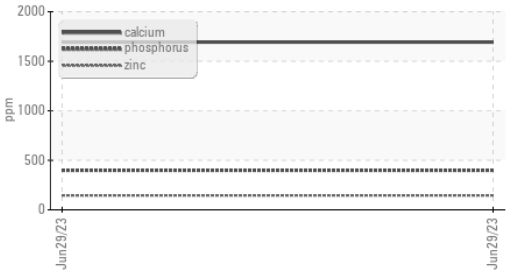
FLUID CLEANLINESS		method	limit/base	current	history 1	history 2
Particles >4µm		ASTM D7647	>5000	**3098**	---	---
Particles >6µm		ASTM D7647	>1300	**848**	---	---
Particles >14µm		ASTM D7647	>160	**72**	---	---
Particles >21µm		ASTM D7647	>40	**26**	---	---
Particles >38µm		ASTM D7647	>10	**3**	---	---
Particles >71µm		ASTM D7647	>3	**0**	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**19/17/13**	---	---

OIL ANALYSIS REPORT

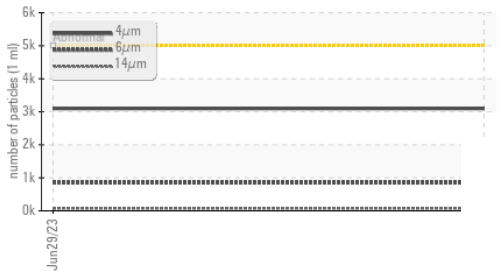
Particle Trend



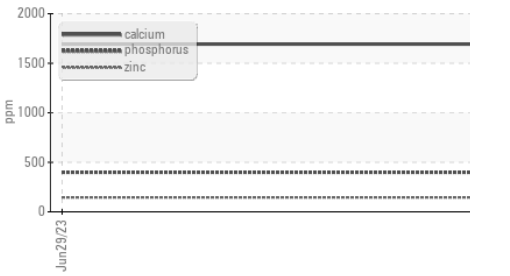
Additives



Particle Trend

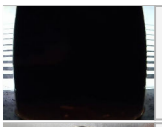


Additives



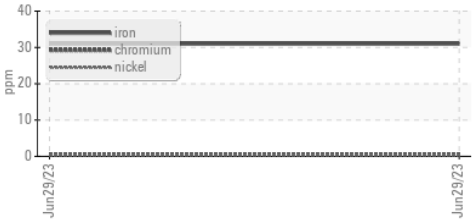
VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	Visual*	NONE	**NONE**	---	---
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	---
Precipitate	scalar	Visual*	NONE	**NONE**	---	---
Silt	scalar	Visual*	NONE	**NONE**	---	---
Debris	scalar	Visual*	NONE	**NONE**	---	---
Sand/Dirt	scalar	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	history 1	history 2
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	**43.5**	---	---

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

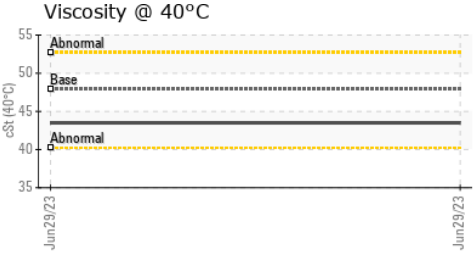
GRAPHS

Ferrous Alloys

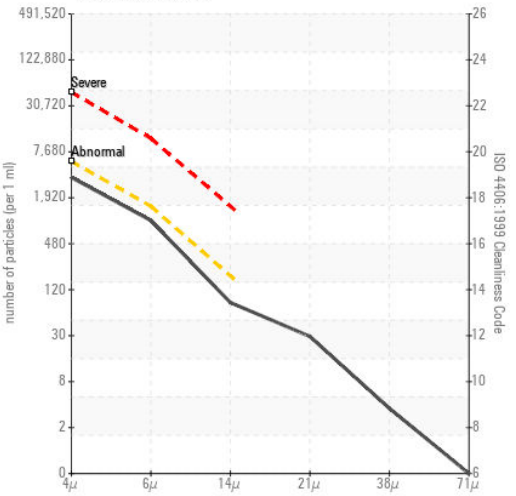


Non-ferrous Metals

Viscosity @ 40°C



Particle Count



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 720 - Lafleche - Landfill**
Sample No. : GFL0087340 **Received** : 10 Jul 2023 17125 Lafleche Road,
Lab Number : 02568824 **Diagnosed** : 11 Jul 2023 Moose Creek, ON
Unique Number : 5605870 **Diagnostician** : Kevin Marson CA K0C 1W0
Test Package : MOB 1 (Additional Tests: PrtCount) Contact: Charles Bergeron
cbergeron@gflenv.com
T: (613)538-4853
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.