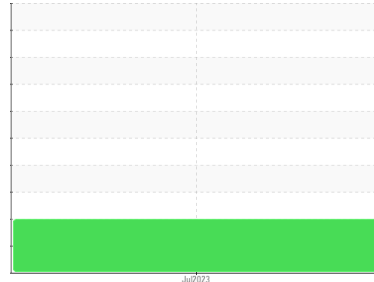




OIL ANALYSIS REPORT

Area
{UNASSIGNED}
Machine Id
OR779
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (143 LTR)

Sample Rating Trend



ISO

DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

Viscosity of sample indicates oil is within ISO 32 range, advise investigate. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

method	limit/base	current	history 1	history 2
Sample Number	Client Info	GFL0087396	---	---
Sample Date	Client Info	05 Jul 2023	---	---
Machine Age	hrs	Client Info	16325	---
Oil Age	hrs	Client Info	500	---
Oil Changed	Client Info	Not Chngd	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history 1	history 2		
Iron	ppm	ASTM D5185(m)	>20	9	---	---
Chromium	ppm	ASTM D5185(m)	>10	2	---	---
Nickel	ppm	ASTM D5185(m)	>10	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>10	<1	---	---
Lead	ppm	ASTM D5185(m)	>10	0	---	---
Copper	ppm	ASTM D5185(m)	>75	3	---	---
Tin	ppm	ASTM D5185(m)	>10	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	<1	---	---
Manganese	ppm	ASTM D5185(m)	1	0	---	---
Magnesium	ppm	ASTM D5185(m)	0	5	---	---
Calcium	ppm	ASTM D5185(m)	100	172	---	---
Phosphorus	ppm	ASTM D5185(m)	670	586	---	---
Zinc	ppm	ASTM D5185(m)	850	660	---	---
Sulfur	ppm	ASTM D5185(m)	1600	1332	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

CONTAMINANTS

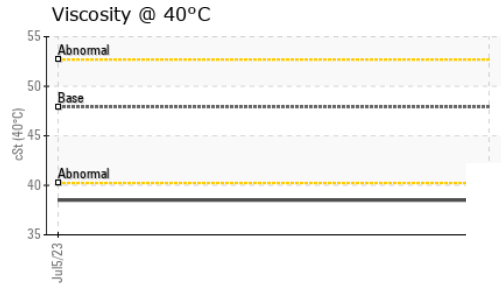
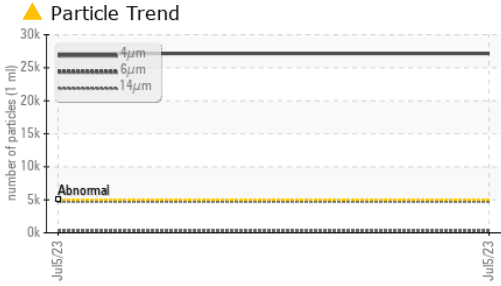
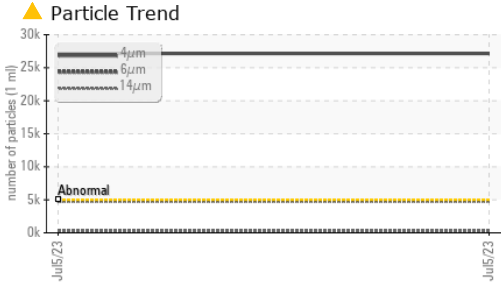
method	limit/base	current	history 1	history 2		
Silicon	ppm	ASTM D5185(m)	>20	2	---	---
Sodium	ppm	ASTM D5185(m)		<1	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---

FLUID CLEANLINESS

method	limit/base	current	history 1	history 2	
Particles >4µm	ASTM D7647	>5000	▲ 27152	---	---
Particles >6µm	ASTM D7647	>1300	▲ 4854	---	---
Particles >14µm	ASTM D7647	>160	▲ 265	---	---
Particles >21µm	ASTM D7647	>40	▲ 106	---	---
Particles >38µm	ASTM D7647	>10	8	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 22/19/15	---	---



OIL ANALYSIS REPORT



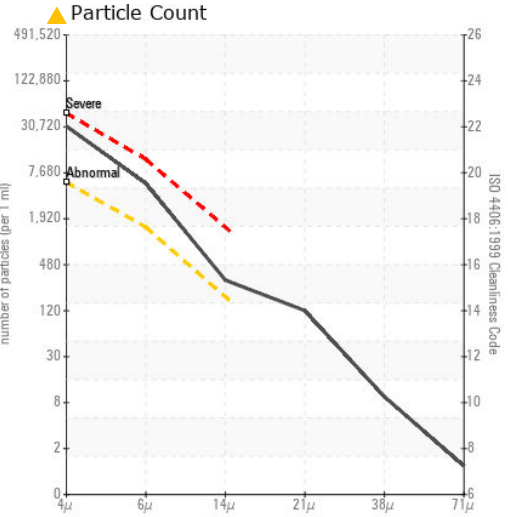
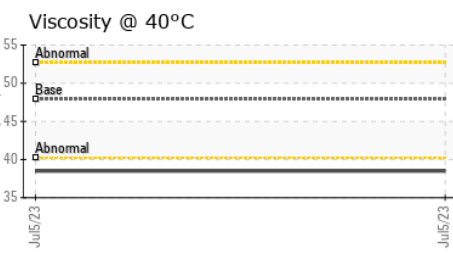
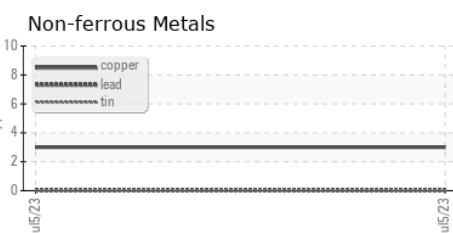
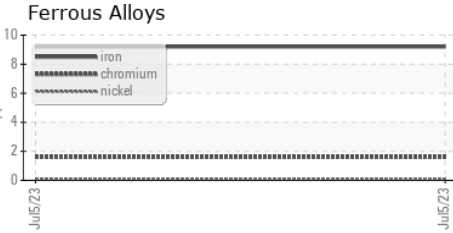
VISUAL	method	limit/base	current	history 1	history 2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
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	38.5	---	---

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 720 - Lafleche - Landfill
Sample No. : GFL0087396 **Received** : 10 Jul 2023 17125 Lafleche Road,
Lab Number : 02568825 **Diagnosed** : 11 Jul 2023 Moose Creek, ON
Unique Number : 5605871 **Diagnostician** : Kevin Marson CA K0C 1W0
Test Package : MOB 1 (Additional Tests: PrtCount) Contact: Charles Bergeron
 cbergeron@gflenv.com

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.