



Machine Id
OR342
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (--- GAL)

RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113393	GFL0056403	GFL0030495
Sample Date		Client Info		22 May 2024	31 May 2023	02 Dec 2021
Machine Age	hrs	Client Info		19943	19943	17348
Oil Age	hrs	Client Info		500	2000	500
Filter Age	hrs	Client Info		500	2000	500
Oil Changed		Client Info		Changed	Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	6	2	2
Chromium	ppm	ASTM D5185(m)	>10	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>10	0	<1	<1
Lead	ppm	ASTM D5185(m)	>10	0	<1	0
Copper	ppm	ASTM D5185(m)	>75	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>10	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

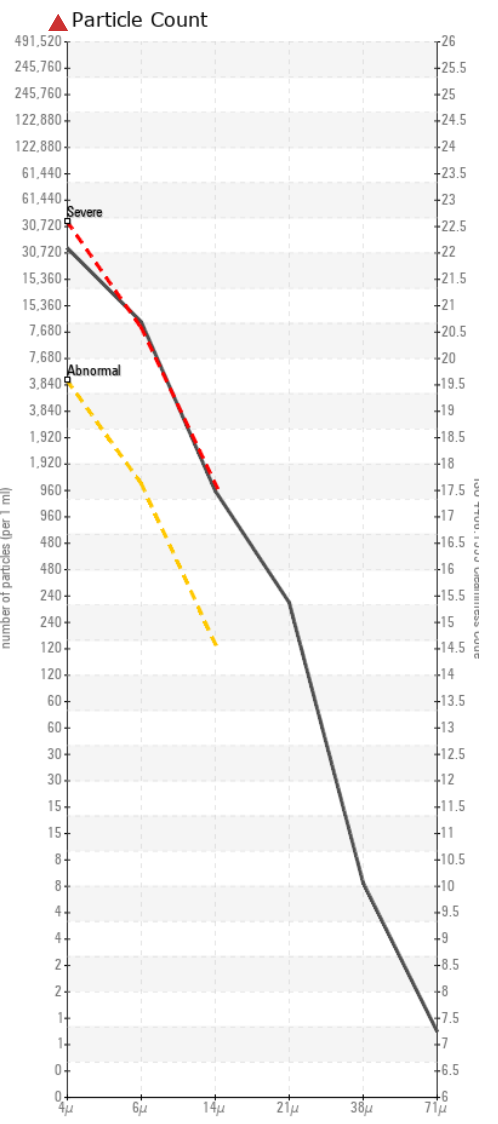
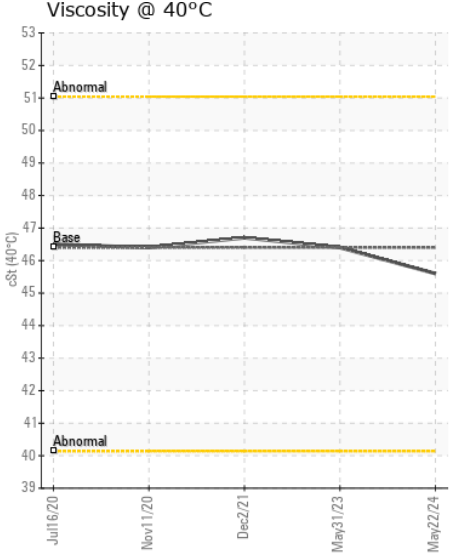
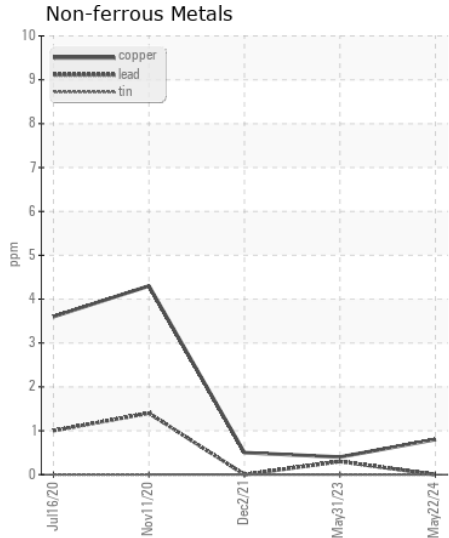
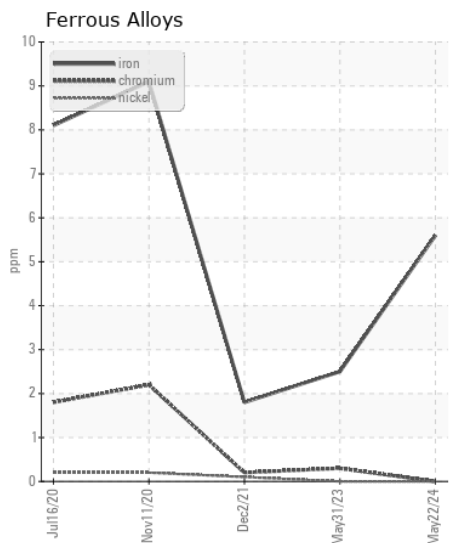
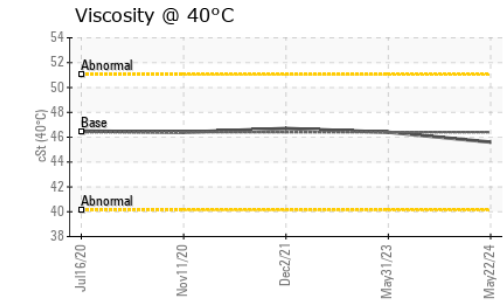
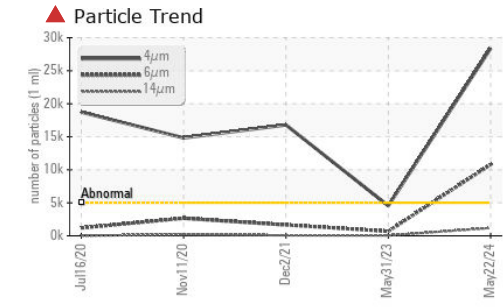
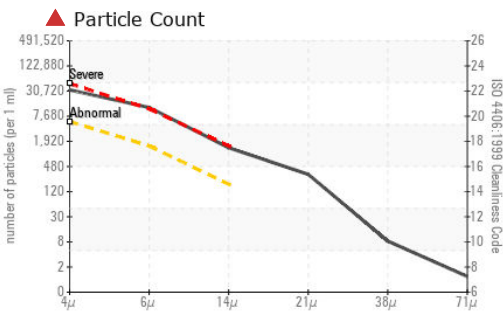
There is a high amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>20	0	1	<1
Potassium	ppm	ASTM D5185(m)	>20	1	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 28372	4547	▲ 16798
Particles >6µm		ASTM D7647	>1300	▲ 10789	682	● 1650
Particles >14µm		ASTM D7647	>160	▲ 1183	42	70
Particles >21µm		ASTM D7647	>40	▲ 274	7	14
Particles >38µm		ASTM D7647	>10	7	0	0
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 22/21/17	19/17/13	▲ 21/18/13
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185(m)		<1	<1	0
Boron	ppm	ASTM D5185(m)	0	<1	0	<1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	<1	1
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	4	8	17
Calcium	ppm	ASTM D5185(m)	50	99	118	120
Phosphorus	ppm	ASTM D5185(m)	330	587	690	633
Zinc	ppm	ASTM D5185(m)	430	798	823	797
Sulfur	ppm	ASTM D5185(m)	760	1429	1558	1432
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	45.6	46.4	46.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113393
Lab Number : 02637210
Unique Number : 5786372
Test Package : MOB 1 (Additional Tests: PrtCount)
Received : 23 May 2024
Tested : 27 May 2024
Diagnosed : 27 May 2024 - Wes Davis

GFL Environmental - 720 - Lafleche - Landfill
 17125 Lafleche Road,
 Moose Creek, ON
 CA K0C 1W0
 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.