



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L580 49059

Component
Hydraulic System

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

RECOMMENDATION

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0282768	LH0242993	---
Sample Date		Client Info		03 Apr 2024	15 Dec 2022	---
Machine Age	hrs	Client Info		4723	3987	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ATTENTION	ABNORMAL	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184*		0	2	---
Iron	ppm	ASTM D5185(m)	>20	21	20	---
Chromium	ppm	ASTM D5185(m)	>10	2	2	---
Nickel	ppm	ASTM D5185(m)	>10	0	<1	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)		0	0	---
Aluminum	ppm	ASTM D5185(m)	>10	4	4	---
Lead	ppm	ASTM D5185(m)	>10	6	6	---
Copper	ppm	ASTM D5185(m)	>75	4	4	---
Tin	ppm	ASTM D5185(m)	>10	0	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

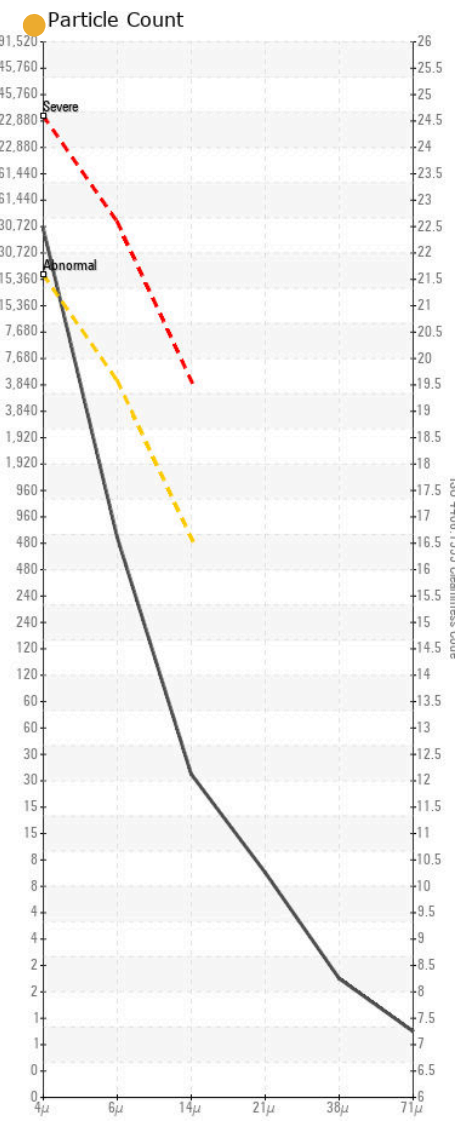
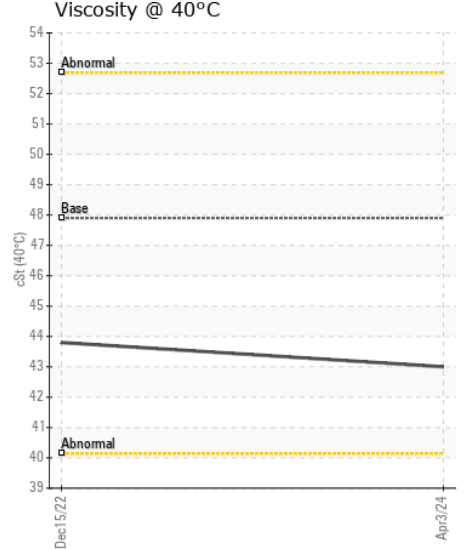
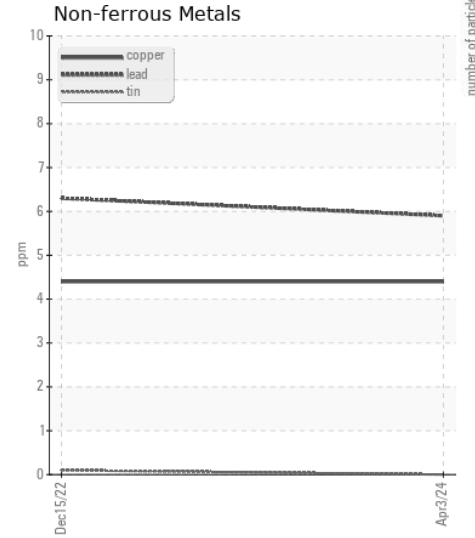
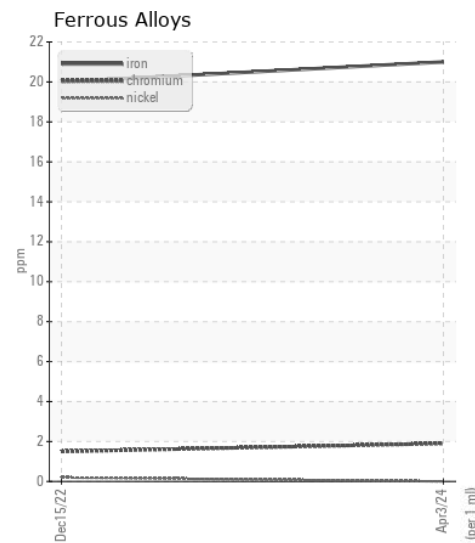
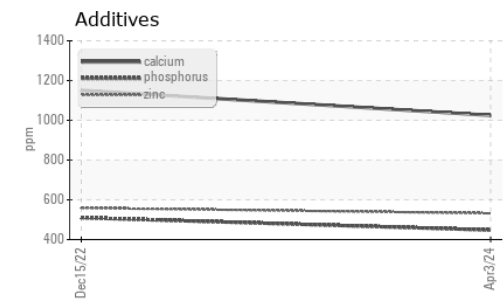
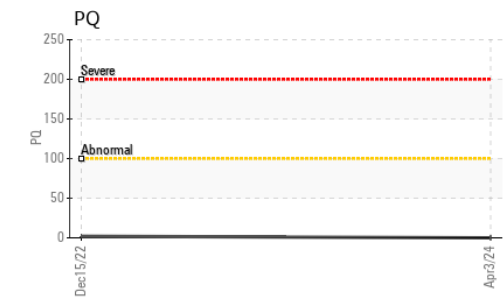
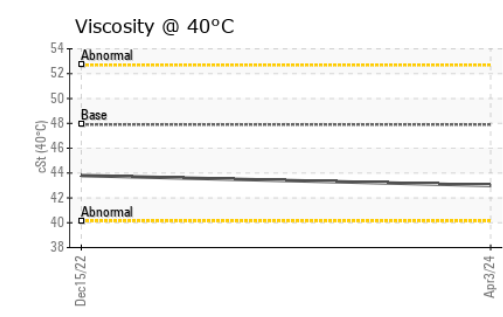
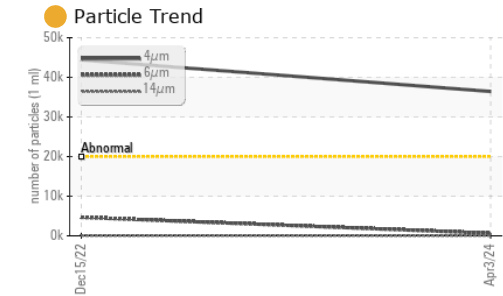
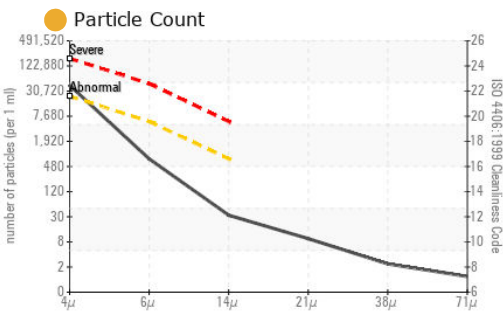
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>20	5	7	---
Potassium	ppm	ASTM D5185(m)	>20	2	1	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>20000	36431	44406	---
Particles >6µm		ASTM D7647	>5000	642	4666	---
Particles >14µm		ASTM D7647	>640	29	19	---
Particles >21µm		ASTM D7647	>160	8	2	---
Particles >38µm		ASTM D7647	>40	2	1	---
Particles >71µm		ASTM D7647	>10	1	1	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	22/17/12	23/19/11	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	---

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.

Sodium	ppm	ASTM D5185(m)		1	2	---
Boron	ppm	ASTM D5185(m)	0	2	3	---
Barium	ppm	ASTM D5185(m)	0	<1	0	---
Molybdenum	ppm	ASTM D5185(m)	0	0	<1	---
Manganese	ppm	ASTM D5185(m)	1	0	<1	---
Magnesium	ppm	ASTM D5185(m)	0	18	17	---
Calcium	ppm	ASTM D5185(m)	100	1025	1151	---
Phosphorus	ppm	ASTM D5185(m)	670	448	510	---
Zinc	ppm	ASTM D5185(m)	850	532	559	---
Sulfur	ppm	ASTM D5185(m)	1600	2901	3106	---
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	43.0	43.8	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0282768 **Received** : 08 Apr 2024
Lab Number : 02627397 **Tested** : 10 Apr 2024
Unique Number : 5760529 **Diagnosed** : 10 Apr 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ, PrtCount)

WHISCO LIMITED
 158 CLARK ST
 FREDERICTON, NB
 CA E3A 2W7
 Contact: Service Manager

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.

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F: