



LIEBHERR

OIL ANALYSIS REPORT



Area

(336343)

Machine Id

LIEBHERR LH50M 124905-1216

Component

Hydraulic System

Fluid

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

WEAR

NORMAL

CONTAMINATION

ABNORMAL

FLUID CONDITION

NORMAL

RECOMMENDATION

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0290552	LH0224935	LH0182504
Sample Date		Client Info		27 Jun 2024	30 Aug 2022	21 Jun 2021
Machine Age	hrs	Client Info		22075	13313	4702
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Chngd	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	10	25	39
Chromium	ppm	ASTM D5185(m)	>5	3	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>2	1	<1	<1
Lead	ppm	ASTM D5185(m)	>4	0	<1	<1
Copper	ppm	ASTM D5185(m)	>10	2	2	2
Tin	ppm	ASTM D5185(m)	>2	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

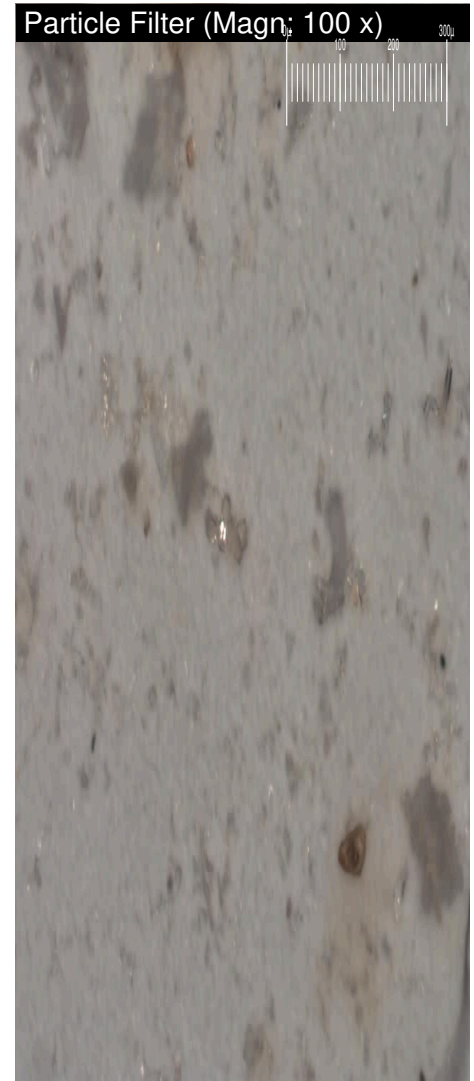
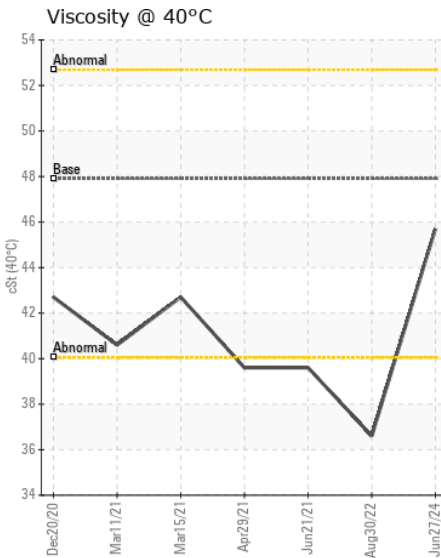
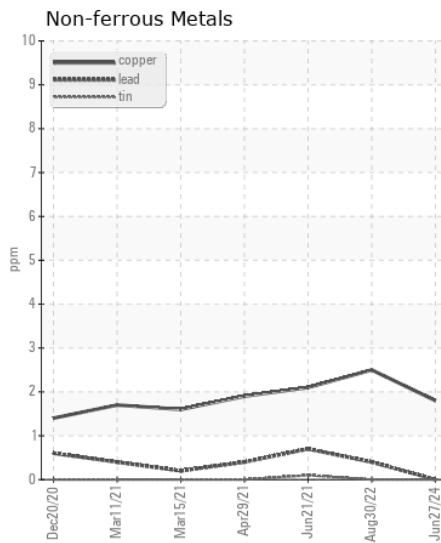
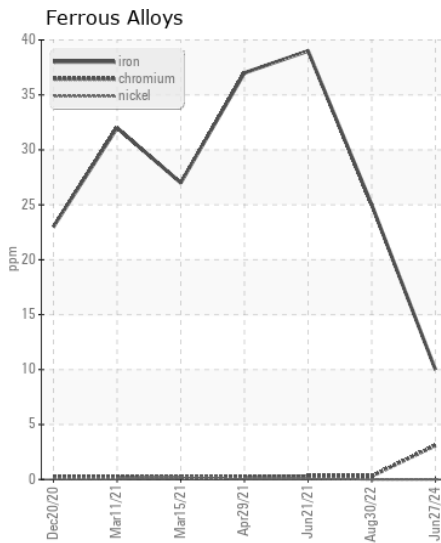
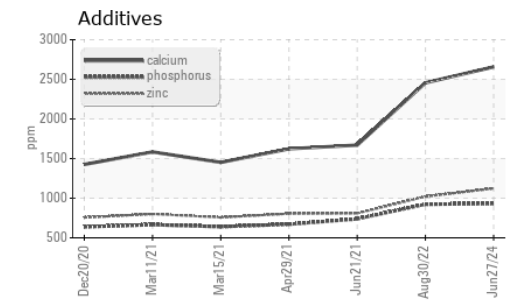
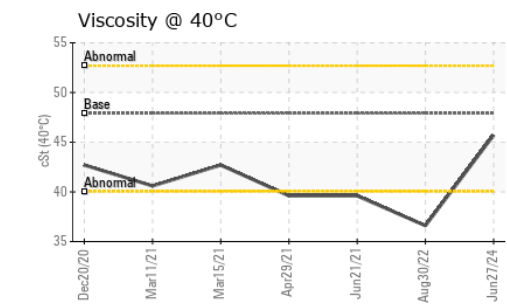
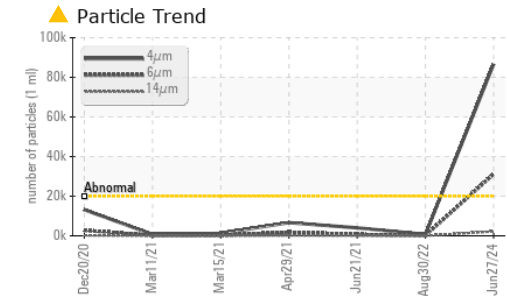
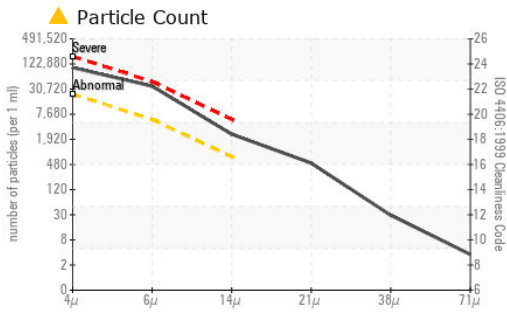
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>17	3	4	2
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	▲ 86671	721	4031
Particles >6µm		ASTM D7647	>5000	▲ 31162	136	663
Particles >14µm		ASTM D7647	>640	▲ 2228	11	55
Particles >21µm		ASTM D7647	>160	▲ 456	3	22
Particles >38µm		ASTM D7647	>40	26	0	2
Particles >71µm		ASTM D7647	>10	3	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 24/22/18	17/14/11	19/17/13
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	VLITE
Sand/Dirt	scalar	Visual*	NONE	LIGHT	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

Additive levels indicate the addition of a different brand, or type of oil. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185(m)		2	3	2
Boron	ppm	ASTM D5185(m)	0	1	1	<1
Barium	ppm	ASTM D5185(m)	0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	0	3	<1	0
Manganese	ppm	ASTM D5185(m)	1	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	0	56	10	6
Calcium	ppm	ASTM D5185(m)	100	2657	2456	1670
Phosphorus	ppm	ASTM D5185(m)	670	933	923	738
Zinc	ppm	ASTM D5185(m)	850	1123	1021	809
Sulfur	ppm	ASTM D5185(m)	1600	3747	3747	3658
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	45.7	▲ 36.6	39.6



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0290552 **Received** : 04 Jul 2024
Lab Number : 02645524 **Tested** : 10 Jul 2024
Unique Number : 5803063 **Diagnosed** : 10 Jul 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, PrtCount, PrtFilter)

CANFOR
 101-161 E 4TH AVE
 VANCOUVER, BC
 CA V5T 3C1
 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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