



LIEBHERR

OIL ANALYSIS REPORT



Area

(353690)

Machine Id

LIEBHERR LH60M 131944-1475

Component

Front Right Wheel Hub

Fluid

PETRO CANADA TRAXON 75W90 SYNTHETIC (4 LTR)

WEAR

MARGINAL

CONTAMINATION

NORMAL

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		LH0288316	LH0259799	LH0276948
Sample Date		Client Info		27 Apr 2024	28 Jan 2024	22 Nov 2023
Machine Age	hrs	Client Info		12400	11193	10354
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				MARGINAL	NORMAL	NORMAL

WEAR

Chromium ppm levels are marginal.

Iron	ppm	ASTM D5185(m)	>650	392	376	176
Chromium	ppm	ASTM D5185(m)	>4	▲ 4	3	1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>4	0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<1	4	5
Lead	ppm	ASTM D5185(m)	>4	0	0	0
Copper	ppm	ASTM D5185(m)	>60	2	3	2
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	VLITE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

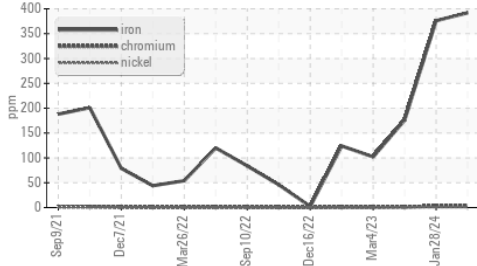
Silicon	ppm	ASTM D5185(m)	>75	4	17	18
Potassium	ppm	ASTM D5185(m)	>20	1	2	3
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	LIGHT
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

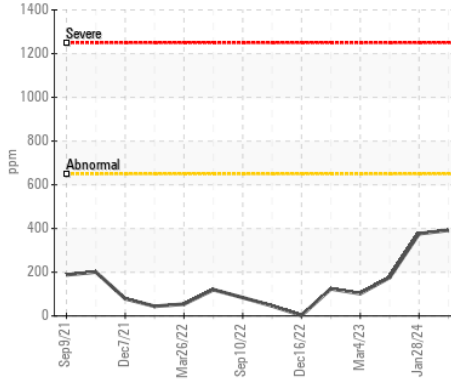
Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within SAE 80 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		2	2	1
Boron	ppm	ASTM D5185(m)	328	7	14	49
Barium	ppm	ASTM D5185(m)	1	<1	<1	1
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		4	3	2
Magnesium	ppm	ASTM D5185(m)	1	1	2	2
Calcium	ppm	ASTM D5185(m)	7	3	8	7
Phosphorus	ppm	ASTM D5185(m)	1145	652	448	564
Zinc	ppm	ASTM D5185(m)	3	6	9	10
Sulfur	ppm	ASTM D5185(m)	17909	19817	17027	17627
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	76.7	75.9	81.2

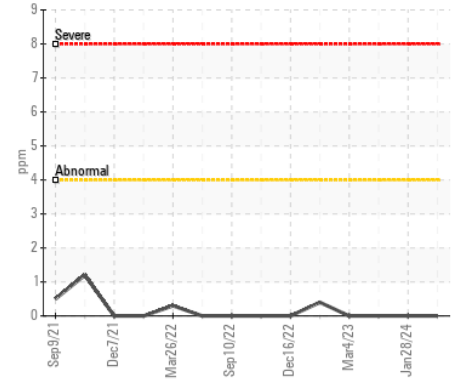
▲ Ferrous Alloys



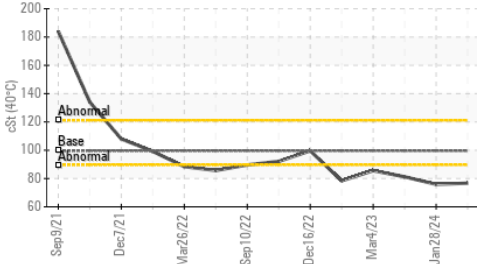
Iron (ppm)



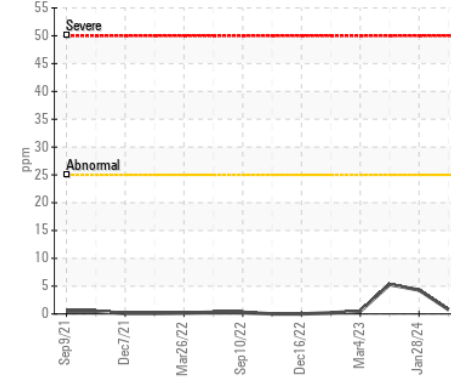
Lead (ppm)



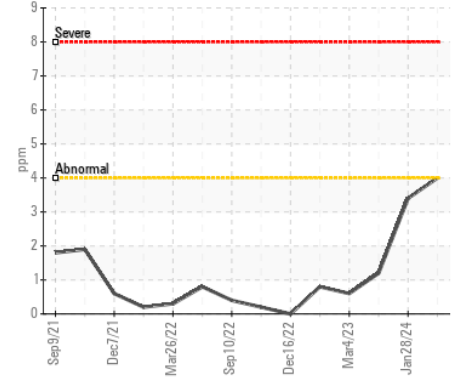
Viscosity @ 40°C



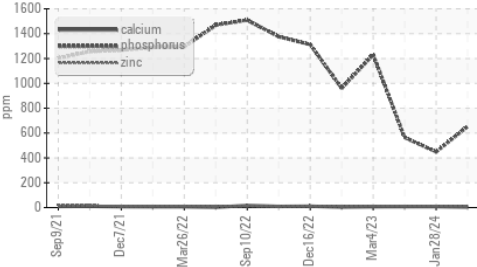
Aluminum (ppm)



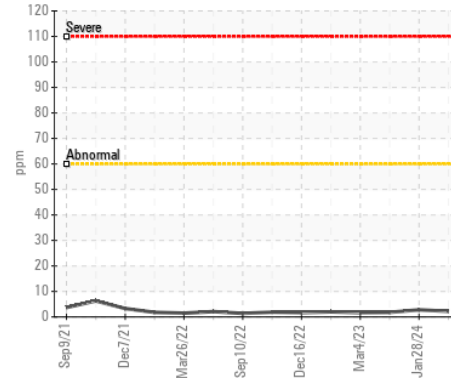
▲ Chromium (ppm)



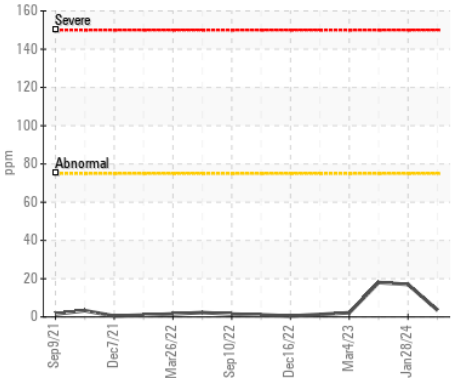
Additives



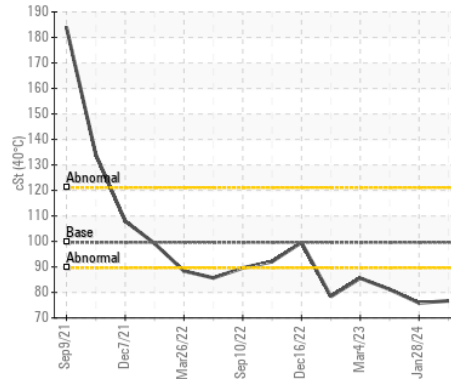
Copper (ppm)



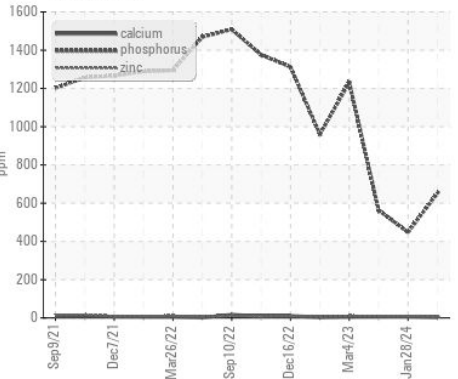
Silicon (ppm)



Viscosity @ 40°C



Additives



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Sample No. : LH0288316

Lab Number : 02635035

Unique Number : 5776188

Test Package : MOB 1

Received : 13 May 2024

Tested : 13 May 2024

Diagnosed : 13 May 2024 - Kevin Marson

Eacom Timber Corporation

100 Old Nairn Centre Road

Nairn Centre, ON

CA P0M 2L0

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.

T:

F: