



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH50M 124550-1216
Component
Diesel Engine
Fluid
PETRO CANADA 10W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0278894	LH0270140	LH0270577
Sample Date		Client Info		09 Jan 2024	27 Sep 2023	01 Aug 2023
Machine Age	hrs	Client Info		13772	12565	11935
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>66	3	4	4
Chromium	ppm	ASTM D5185(m)	>4	0	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>8	2	2	3
Lead	ppm	ASTM D5185(m)	>10	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>74	2	2	3
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

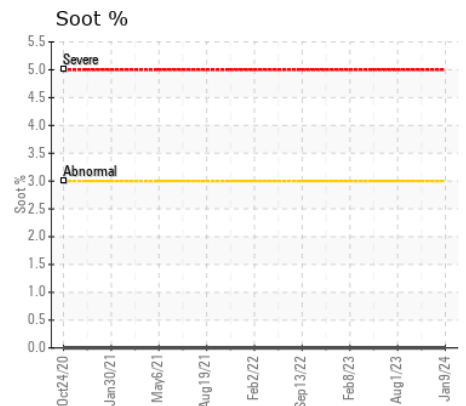
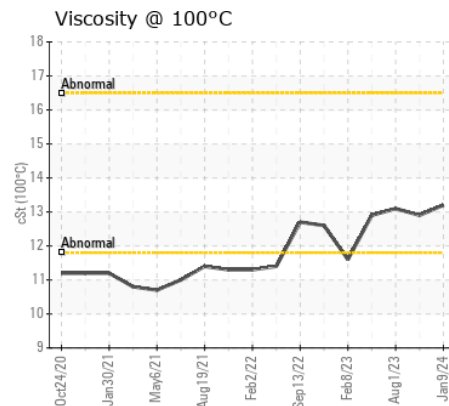
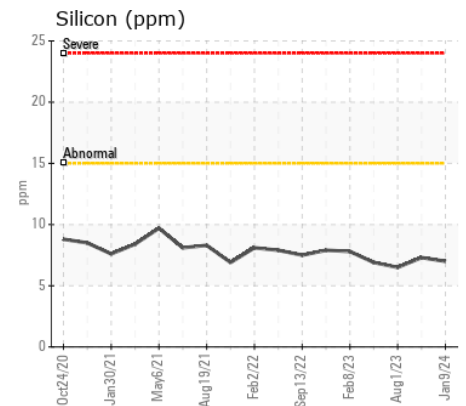
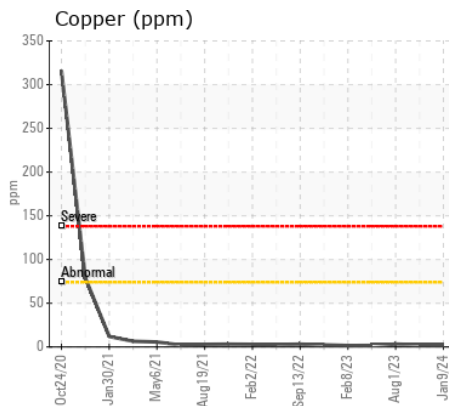
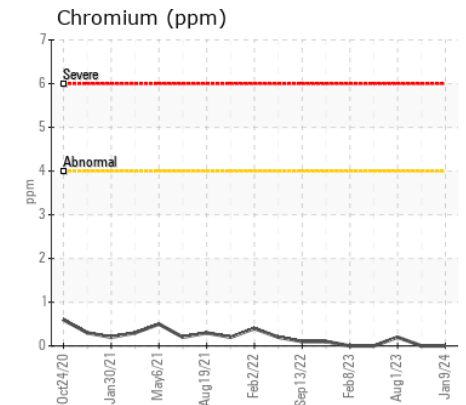
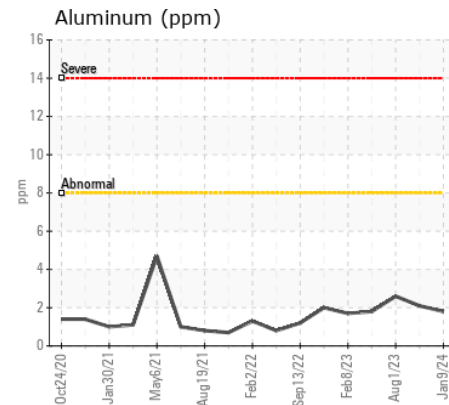
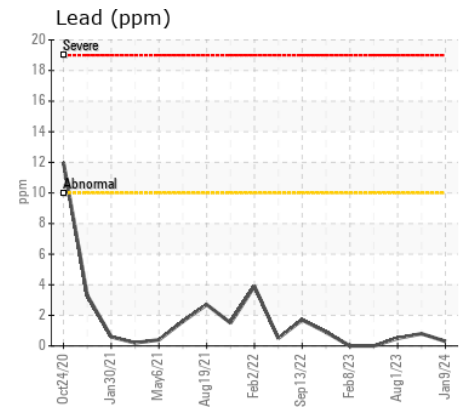
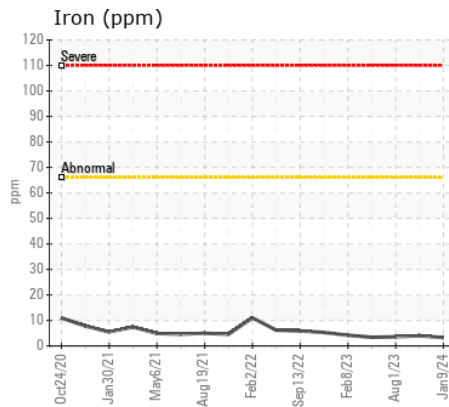
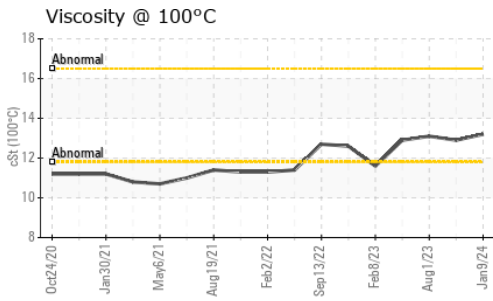
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	7	7	6
Potassium	ppm	ASTM D5185(m)	>20	<1	4	6
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	8.5	8.5	8.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.6	20.5	20.9
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>20	1	2	2
Boron	ppm	ASTM D5185(m)		2	<1	2
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		56	59	59
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		943	982	996
Calcium	ppm	ASTM D5185(m)		1129	1066	1044
Phosphorus	ppm	ASTM D5185(m)		986	959	1047
Zinc	ppm	ASTM D5185(m)		1167	1198	1211
Sulfur	ppm	ASTM D5185(m)		2624	2387	2494
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.3	18.6	18.3
Visc @ 100°C	cSt	ASTM D7279(m)		13.2	12.9	13.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 COMBINED METAL INDUSTRIES-PUBLIC YARD
Sample No. : LH0278894 **Received** : 16 Jan 2024 129 FENMAR DR
Lab Number : 02608972 **Diagnosed** : 16 Jan 2024 TORONTO, ON
Unique Number : 5710058 **Diagnostician** : Kevin Marson CA M9L 1M7
Test Package : MOB 1

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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