



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH50 14799
Component
Diesel Engine
Fluid
CHEVRON DELO 400 XSP 5W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0277069	LH0274028	LH0260764
Sample Date		Client Info		08 May 2024	13 Mar 2024	30 Oct 2023
Machine Age	hrs	Client Info		17000	16501	15500
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	4	8	3
Chromium	ppm	ASTM D5185(m)	>4	<1	2	0
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0
Titanium	ppm	ASTM D5185(m)		<1	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>8	<1	2	1
Lead	ppm	ASTM D5185(m)	>10	0	2	0
Copper	ppm	ASTM D5185(m)	>74	1	6	<1
Tin	ppm	ASTM D5185(m)	>4	0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

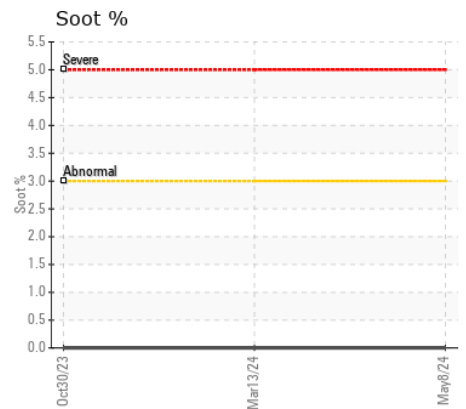
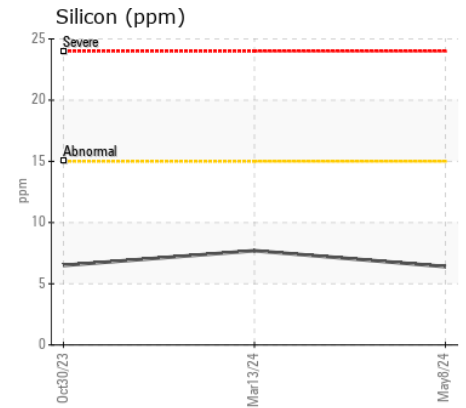
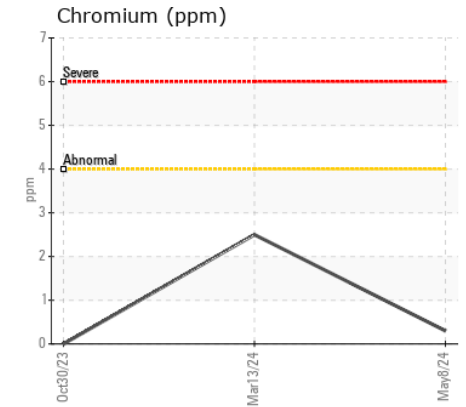
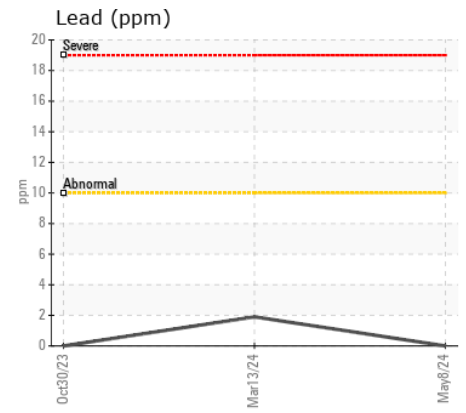
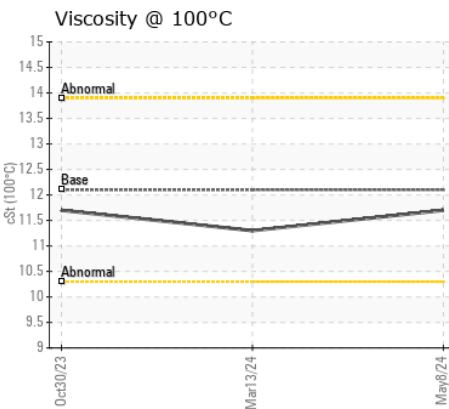
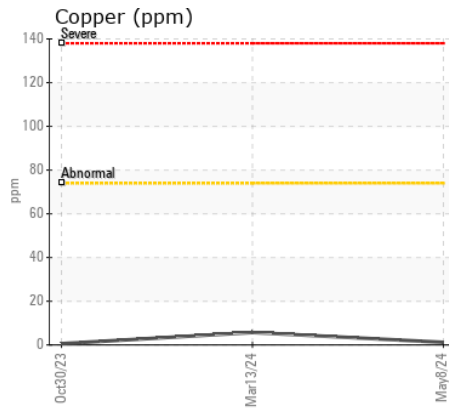
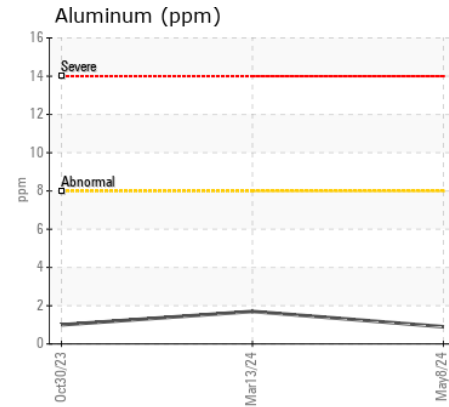
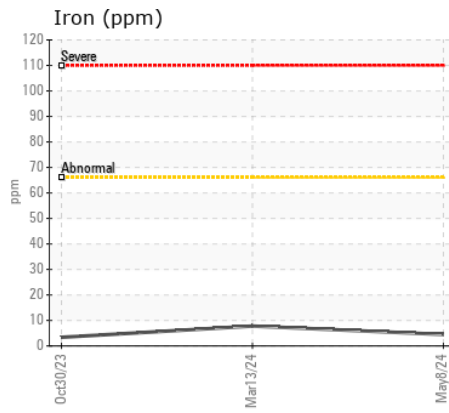
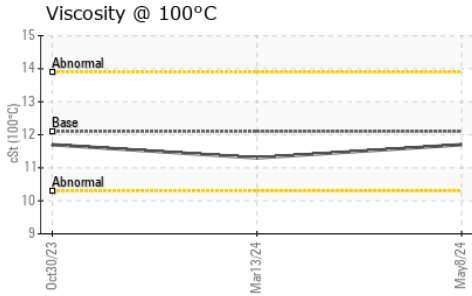
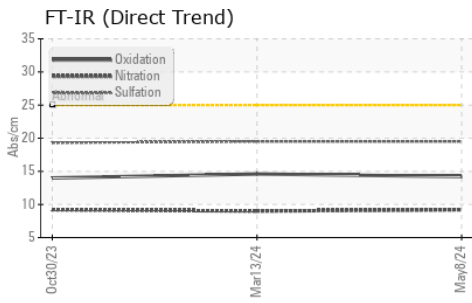
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	6	8	6
Potassium	ppm	ASTM D5185(m)	>20	2	3	2
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	9.2	9.0	9.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.5	19.5	19.3
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)		3	3	3
Boron	ppm	ASTM D5185(m)		54	49	45
Barium	ppm	ASTM D5185(m)		0	0	<1
Molybdenum	ppm	ASTM D5185(m)		2	<1	<1
Manganese	ppm	ASTM D5185(m)		<1	0	0
Magnesium	ppm	ASTM D5185(m)		676	692	641
Calcium	ppm	ASTM D5185(m)		1348	1317	1337
Phosphorus	ppm	ASTM D5185(m)	800	685	685	663
Zinc	ppm	ASTM D5185(m)	800	770	742	742
Sulfur	ppm	ASTM D5185(m)	3000	2362	2493	2296
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.2	14.6	14.0
Visc @ 100°C	cSt	ASTM D7279(m)	12.1	11.7	11.3	11.7



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0277069 **Received** : 23 May 2024
Lab Number : 02637078 **Tested** : 23 May 2024
Unique Number : 5786240 **Diagnosed** : 23 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Visual)

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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