MOB I

LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
[20230600]
Machine Id
LIEBHERR LH30M 135986
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

WEAR

All component wear rates are normal.

CONTAMINATION

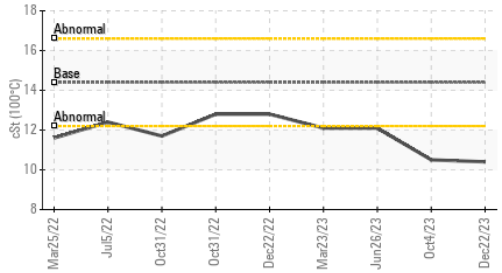
Light fuel dilution occurring. No other contaminants were detected in the oil.

FLUID CONDITION

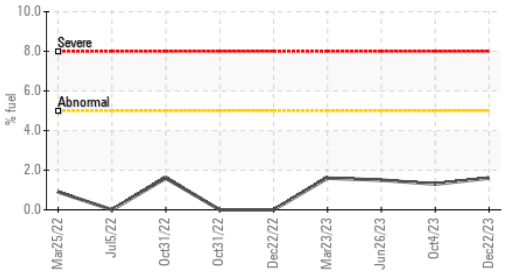
Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0278480	LH	LH0265910
Sample Date		Client Info		22 Dec 2023	04 Oct 2023	26 Jun 2023
Machine Age	hrs	Client Info		3966	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	N/A
Filter Changed		Client Info		N/A	Not Changd	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>66	5	3	3
Chromium	ppm	ASTM D5185(m)	>4	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>8	2	1	<1
Lead	ppm	ASTM D5185(m)	>10	1	<1	<1
Copper	ppm	ASTM D5185(m)	>74	4	2	2
Tin	ppm	ASTM D5185(m)	>4	<1	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>15	6	6	6
Potassium	ppm	ASTM D5185(m)	>20	0	0	0
Fuel	%	ASTM D7593*	>5	1.6	1.3	1.5
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	9.0	7.4	6.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.4	18.9	18.5
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
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
Sodium	ppm	ASTM D5185(m)	>216	1	2	1
Boron	ppm	ASTM D5185(m)	250	<1	2	1
Barium	ppm	ASTM D5185(m)	10	<1	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	59	60	57
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)	450	979	998	972
Calcium	ppm	ASTM D5185(m)	3000	1070	1069	1036
Phosphorus	ppm	ASTM D5185(m)	1150	992	1008	1047
Zinc	ppm	ASTM D5185(m)	1350	1176	1230	1195
Sulfur	ppm	ASTM D5185(m)	4250	2649	2592	2559
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.2	16.1	15.3
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	▲ 10.4	▲ 10.5	12.1

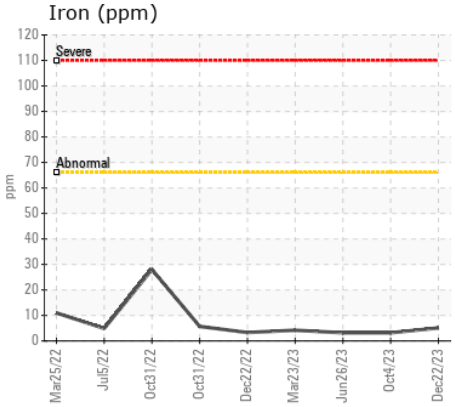
Viscosity @ 100°C



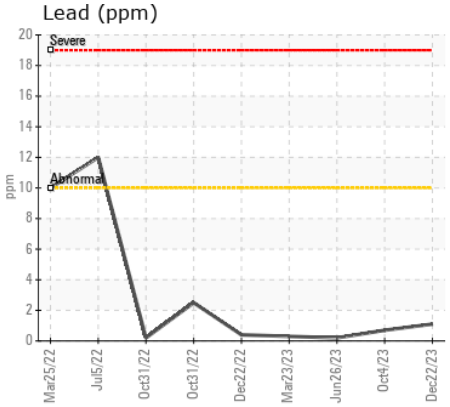
Fuel Dilution



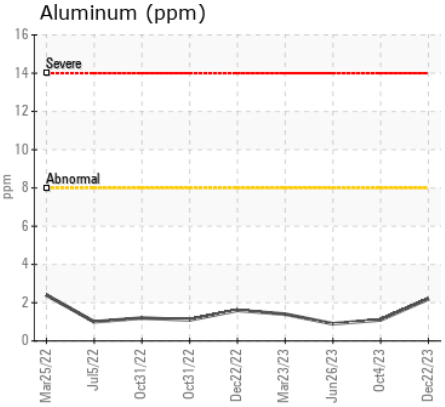
Iron (ppm)



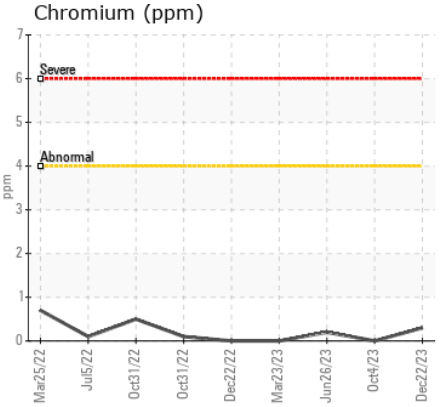
Lead (ppm)



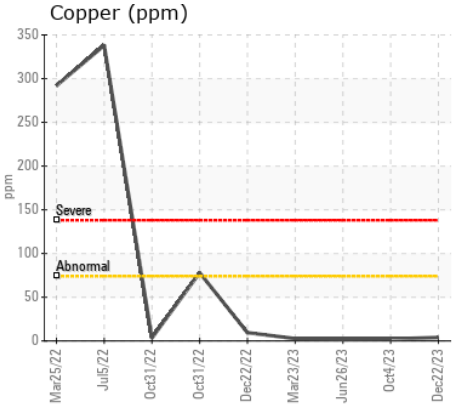
Aluminum (ppm)



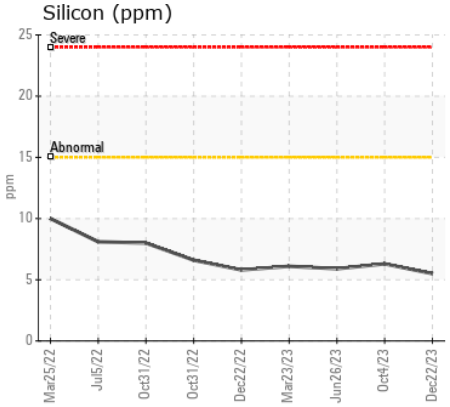
Chromium (ppm)



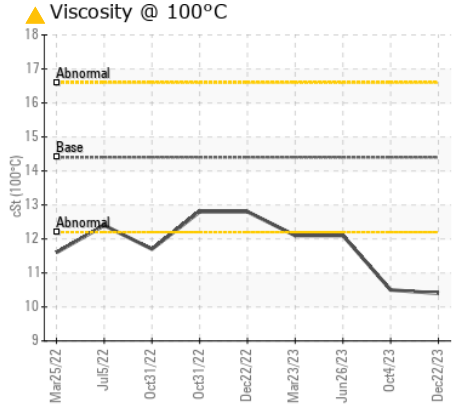
Copper (ppm)



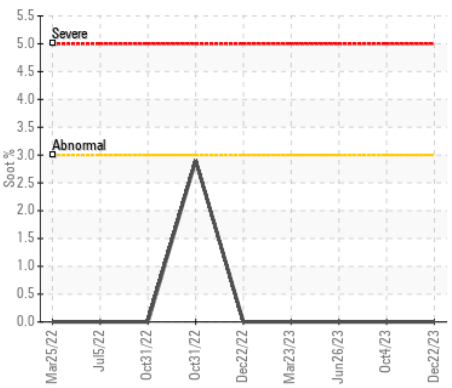
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0278480 **Recieved** : 04 Jan 2024
Lab Number : 02606493 **Diagnosed** : 05 Jan 2024
Unique Number : 5707579 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: FUELDILUTION, PercentFuel, 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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