



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(335553)
Machine Id
LIEBHERR T60-9s 021026-1709
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0282601	LH	LH
Sample Date		Client Info		29 Jun 2023	18 May 2023	27 Apr 2021
Machine Age	hrs	Client Info		1000	2330	0
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		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	24	12	79
Chromium	ppm	ASTM D5185(m)	>5	2	<1	▲ 8
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		<1	<1	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	15	9	14
Lead	ppm	ASTM D5185(m)	>30	0	<1	1
Copper	ppm	ASTM D5185(m)	>125	3	2	12
Tin	ppm	ASTM D5185(m)	>5	<1	<1	4
Vanadium	ppm	ASTM D5185(m)		0	0	<1

CONTAMINATION

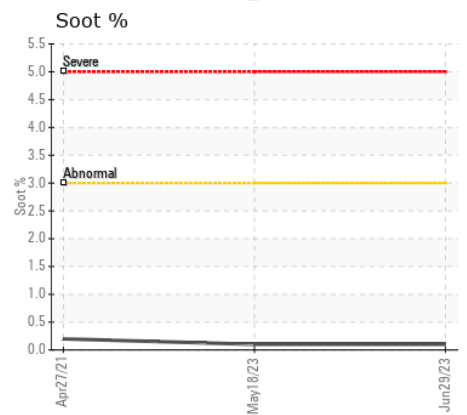
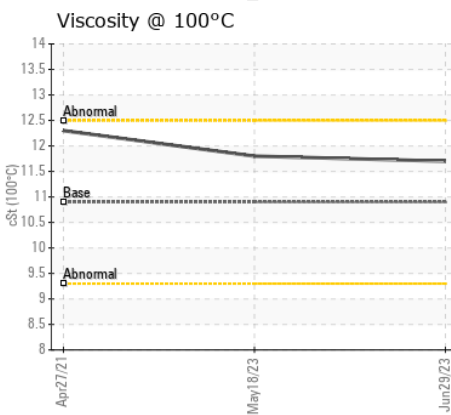
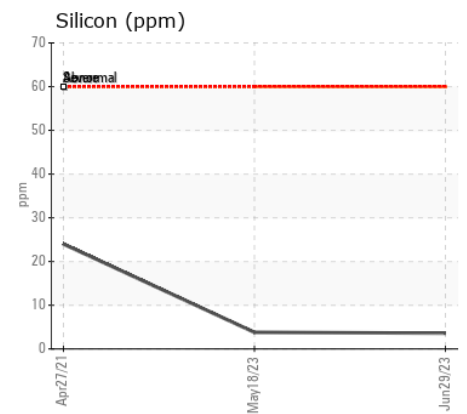
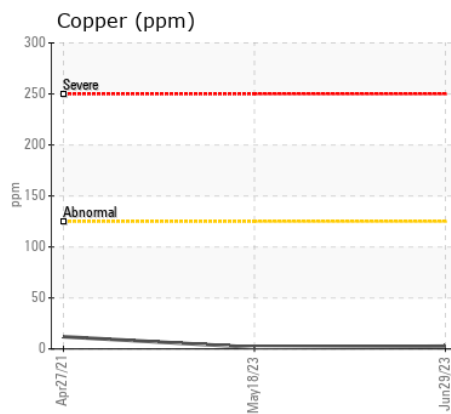
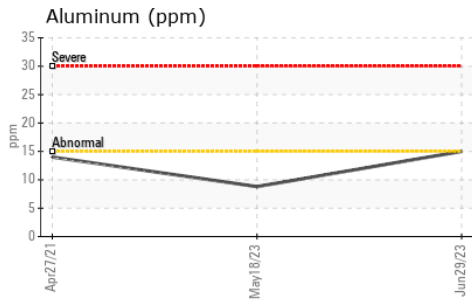
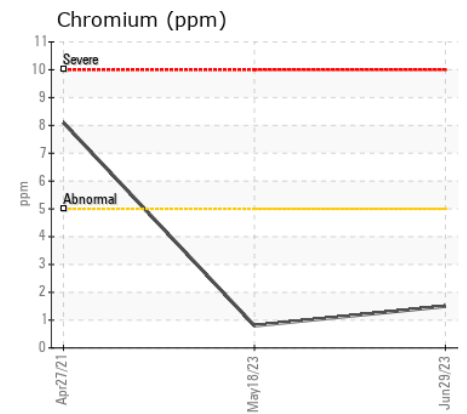
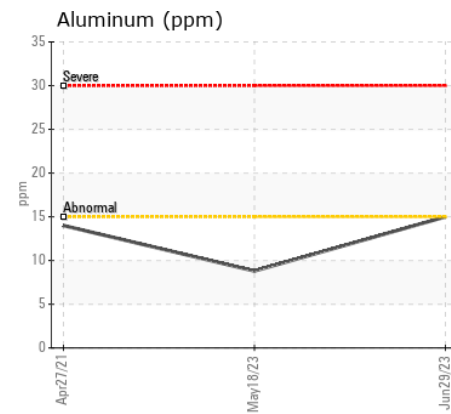
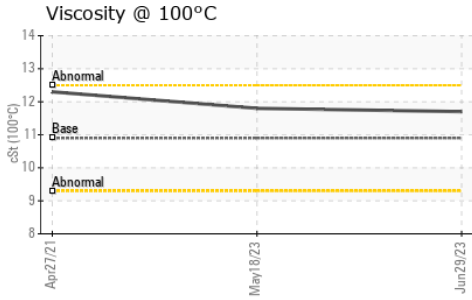
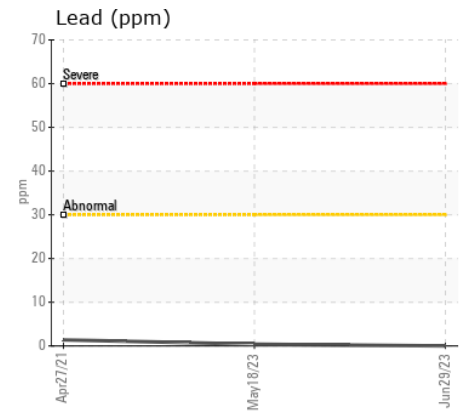
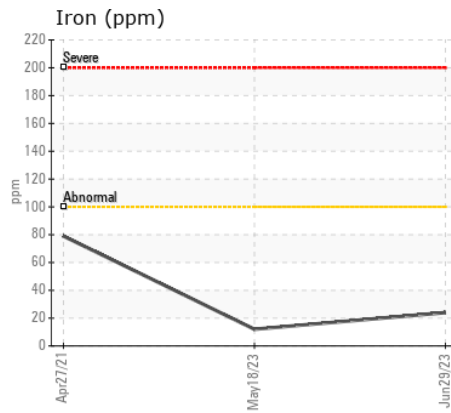
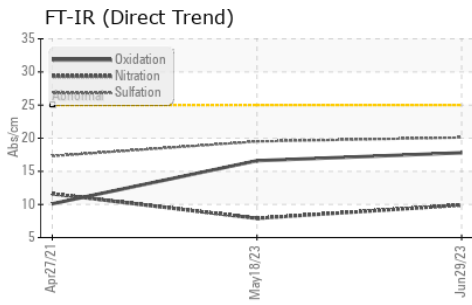
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	4	4	24
Potassium	ppm	ASTM D5185(m)	>20	4	1	5
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	ASTM D7844*	>3	0.1	0.1	0.2
Nitration	Abs/cm	ASTM D7624*	>20	9.9	7.9	11.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.1	19.5	17.3
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)	>75	5	4	6
Boron	ppm	ASTM D5185(m)	250	32	41	181
Barium	ppm	ASTM D5185(m)	10	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	100	57	58	1
Manganese	ppm	ASTM D5185(m)		<1	<1	6
Magnesium	ppm	ASTM D5185(m)	450	1109	1093	246
Calcium	ppm	ASTM D5185(m)	3000	877	911	3647
Phosphorus	ppm	ASTM D5185(m)	1150	991	1115	1062
Zinc	ppm	ASTM D5185(m)	1350	1226	1211	1231
Sulfur	ppm	ASTM D5185(m)	4250	2772	2928	3536
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.8	16.6	10.1
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.7	11.8	12.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0282601 **Received** : 31 May 2024
Lab Number : 02639077 **Tested** : 31 May 2024
Unique Number : 5788239 **Diagnosed** : 31 May 2024 - Kevin Marson
Test Package : MOB 1

9168-3094 QC INC.
 379 DU COLLEGE
 St Donat de Montcalm, QC
 CA J0T 2C0
 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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F: