



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
056328-1783
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0252390	LH0252383	---
Sample Date		Client Info		04 Jun 2024	11 Sep 2023	---
Machine Age	hrs	Client Info		2000	1314	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	4	8	---
Chromium	ppm	ASTM D5185(m)	>5	0	<1	---
Nickel	ppm	ASTM D5185(m)	>5	0	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	0	<1	---
Aluminum	ppm	ASTM D5185(m)	>15	2	5	---
Lead	ppm	ASTM D5185(m)	>30	0	3	---
Copper	ppm	ASTM D5185(m)	>125	13	57	---
Tin	ppm	ASTM D5185(m)	>5	0	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

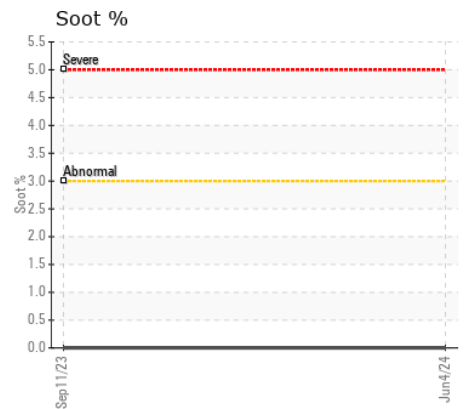
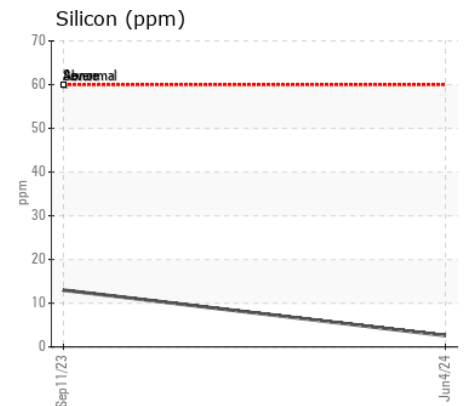
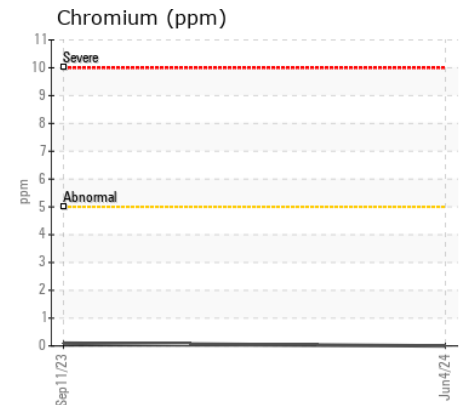
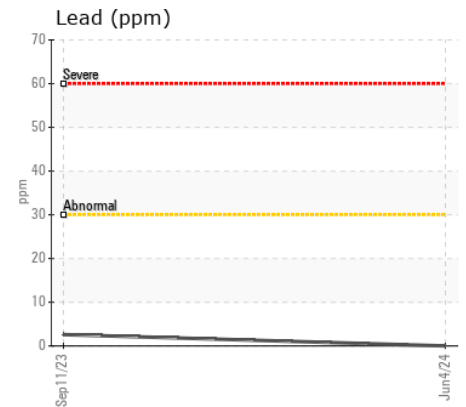
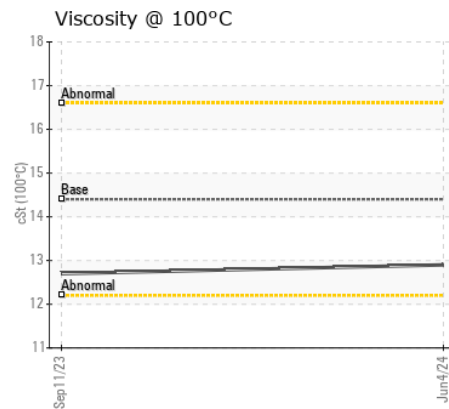
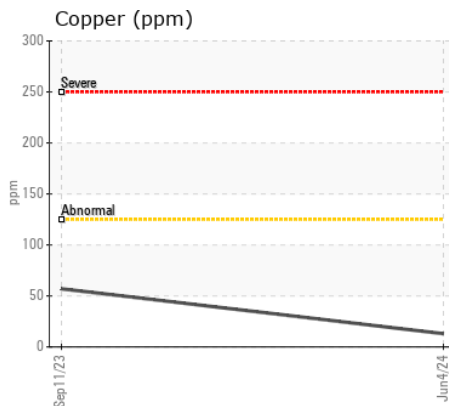
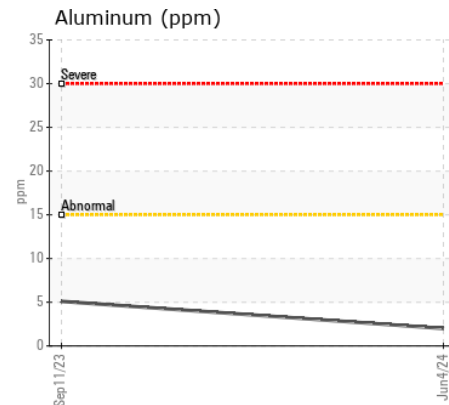
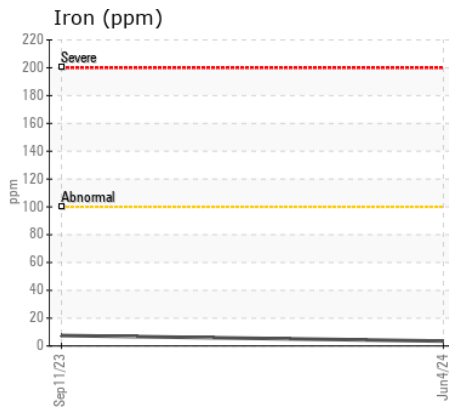
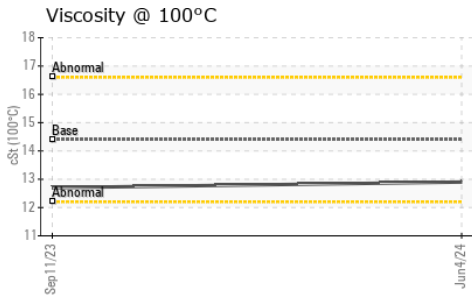
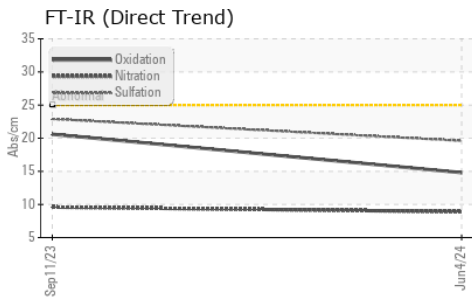
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	3	13	---
Potassium	ppm	ASTM D5185(m)	>20	2	12	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	8.9	9.6	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.6	22.9	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>216	2	4	---
Boron	ppm	ASTM D5185(m)	250	40	24	---
Barium	ppm	ASTM D5185(m)	10	<1	3	---
Molybdenum	ppm	ASTM D5185(m)	100	91	86	---
Manganese	ppm	ASTM D5185(m)		0	<1	---
Magnesium	ppm	ASTM D5185(m)	450	74	160	---
Calcium	ppm	ASTM D5185(m)	3000	2186	2117	---
Phosphorus	ppm	ASTM D5185(m)	1150	999	1001	---
Zinc	ppm	ASTM D5185(m)	1350	1122	1086	---
Sulfur	ppm	ASTM D5185(m)	4250	2987	2694	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	14.8	20.6	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	12.9	12.7	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0252390 **Received** : 05 Jun 2024
Lab Number : 02639758 **Tested** : 05 Jun 2024
Unique Number : 5788920 **Diagnosed** : 05 Jun 2024 - Wes Davis
Test Package : MOBCE

American Iron and Metal
 10301 Metropolitan Est
 Montreal, QC
 CA H1B 1A1
 Contact: Sebastien Liautaud
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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: