MOB I

LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR L580 048547-1464
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

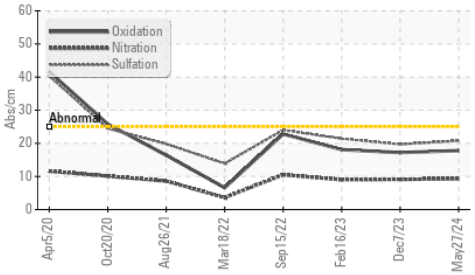
There is no indication of any contamination in the oil.

FLUID CONDITION

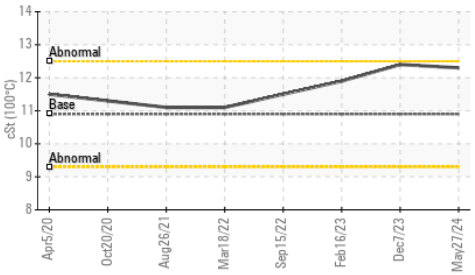
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0290954	LH0281483	LH0251462
Sample Date		Client Info		27 May 2024	07 Dec 2023	16 Feb 2023
Machine Age	hrs	Client Info		10162	9037	7024
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
Iron	ppm	ASTM D5185(m)	>100	6	6	4
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>5	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	1	1	1
Lead	ppm	ASTM D5185(m)	>30	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>125	2	2	<1
Tin	ppm	ASTM D5185(m)	>5	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>60	3	5	6
Potassium	ppm	ASTM D5185(m)	>20	3	0	0
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	9.3	9.1	9.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.8	19.7	21.4
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	VLITE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)	>75	3	2	4
Boron	ppm	ASTM D5185(m)	250	15	3	30
Barium	ppm	ASTM D5185(m)	10	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	62	61	58
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)	450	993	980	1094
Calcium	ppm	ASTM D5185(m)	3000	1099	1070	949
Phosphorus	ppm	ASTM D5185(m)	1150	995	952	1115
Zinc	ppm	ASTM D5185(m)	1350	1188	1206	1221
Sulfur	ppm	ASTM D5185(m)	4250	2511	2442	2827
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.8	17.2	18.1
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	12.3	12.4	11.9

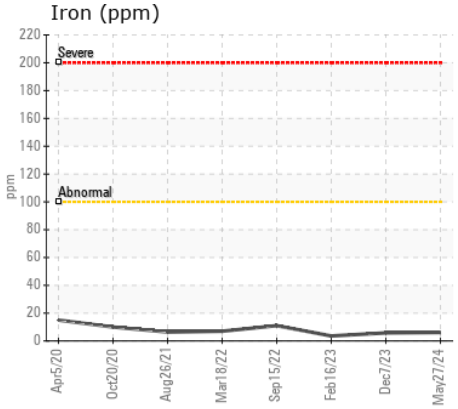
FT-IR (Direct Trend)



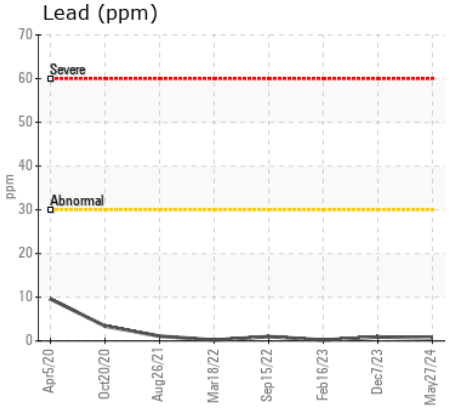
Viscosity @ 100°C



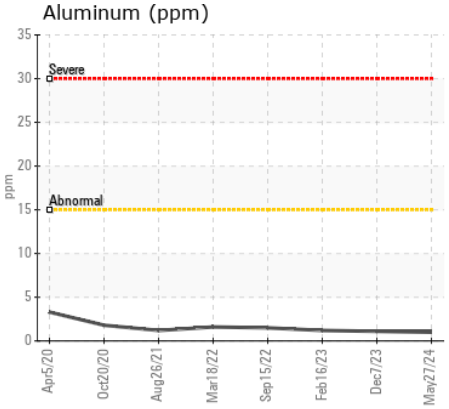
Iron (ppm)



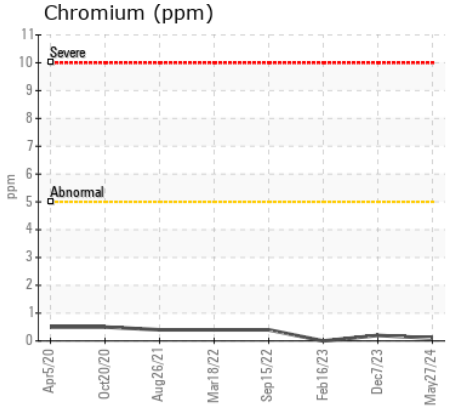
Lead (ppm)



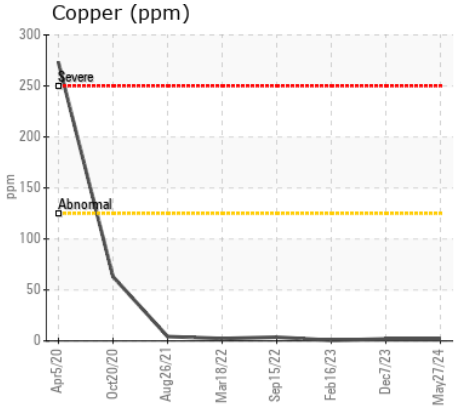
Aluminum (ppm)



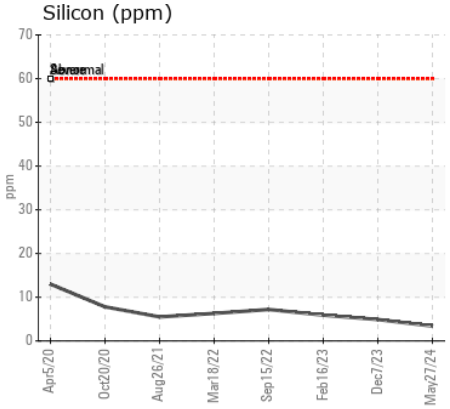
Chromium (ppm)



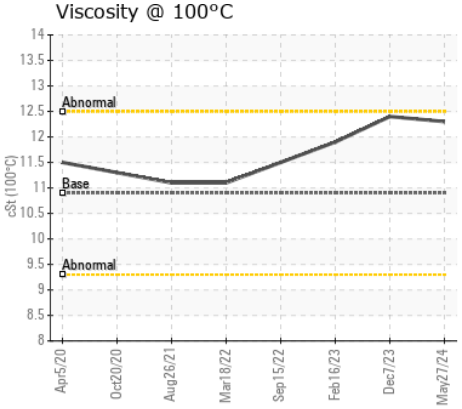
Copper (ppm)



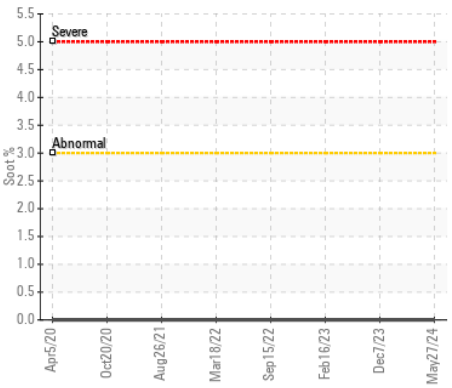
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0290954 **Received** : 28 May 2024
Lab Number : 02637934 **Tested** : 28 May 2024
Unique Number : 5787096 **Diagnosed** : 28 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.

Summit Aggregates
2686 Greenfield Blvd.
Ayr, ON
CA N0B 1E0
Contact: Bill .
bill@summitagg.com
T: (519)500-8146
F: