



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
LIEBHERR
Machine Id
LIEBHERR LH50M 102002-1216
Component
Front Right Wheel Hub
Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0023735	DJJ0011145	LH0236557
Sample Date		Client Info		02 Jul 2024	30 Jan 2024	01 Sep 2022
Machine Age	hrs	Client Info		12993	12313	9562
Oil Age	hrs	Client Info		0	0	500
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Not Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>325	90	162	89
Chromium	ppm	ASTM D5185m	>3	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	2
Titanium	ppm	ASTM D5185m	>4	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	3	2
Lead	ppm	ASTM D5185m	>3	0	<1	0
Copper	ppm	ASTM D5185m	>70	10	27	10
Tin	ppm	ASTM D5185m	>2	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

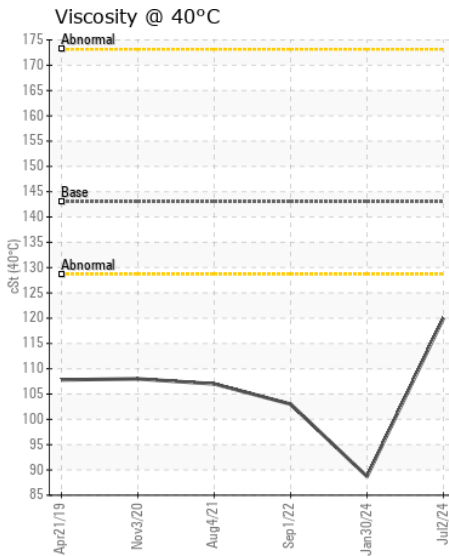
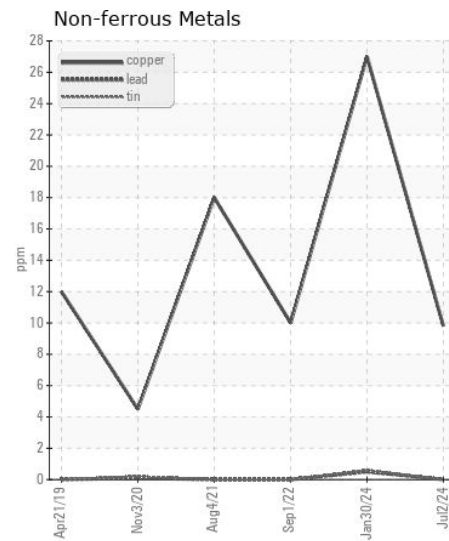
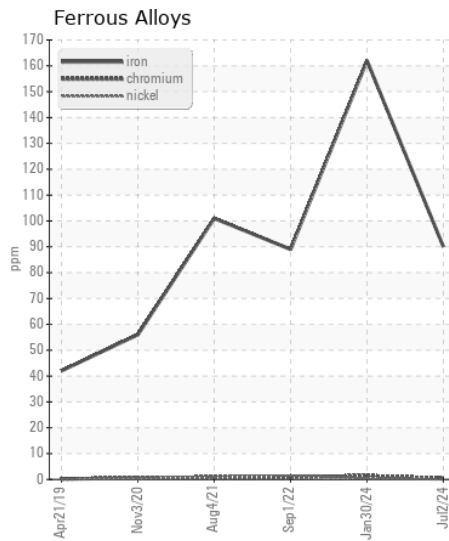
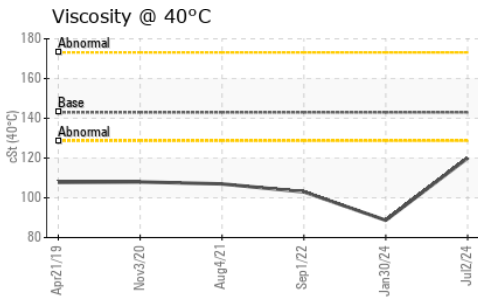
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>70	11	17	13
Potassium	ppm	ASTM D5185m	>20	2	4	2
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	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 D5185m	>170	4	5	4
Boron	ppm	ASTM D5185m	400	<1	0	3
Barium	ppm	ASTM D5185m	200	<1	1	0
Molybdenum	ppm	ASTM D5185m	12	0	1	2
Manganese	ppm	ASTM D5185m		1	2	1
Magnesium	ppm	ASTM D5185m	12	4	7	9
Calcium	ppm	ASTM D5185m	150	52	33	88
Phosphorus	ppm	ASTM D5185m	1650	348	400	311
Zinc	ppm	ASTM D5185m	125	30	37	41
Sulfur	ppm	ASTM D5185m	22500	18345	17407	16368
Visc @ 40°C	cSt	ASTM D445	143	120	88.7	103



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0023735
Lab Number : 06232634
Unique Number : 11116127
Test Package : CONST

Received : 10 Jul 2024
Tested : 11 Jul 2024
Diagnosed : 11 Jul 2024 - Wes Davis

METAL RECYCLING SERVICES - MONROE
 150 S BIVENS RD
 MONROE, NC
 US 28112
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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