



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH50 1216-118499
Component
Front Differential
Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0236510	LH0207668	LH0199995
Sample Date		Client Info		23 Aug 2022	02 Mar 2022	11 Oct 2021
Machine Age	hrs	Client Info		4046	3020	2045
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		Not Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>190	5	2	2
Chromium	ppm	ASTM D5185m	>2	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>5	0	0	0
Lead	ppm	ASTM D5185m	>15	<1	0	0
Copper	ppm	ASTM D5185m	>70	2	1	1
Tin	ppm	ASTM D5185m	>2	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

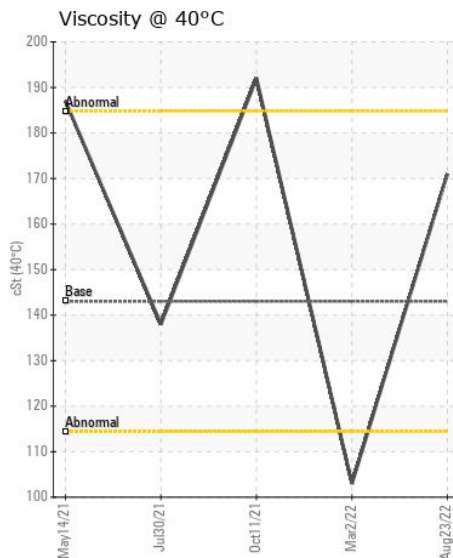
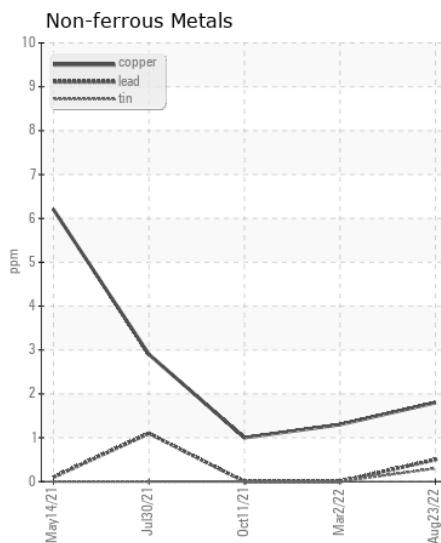
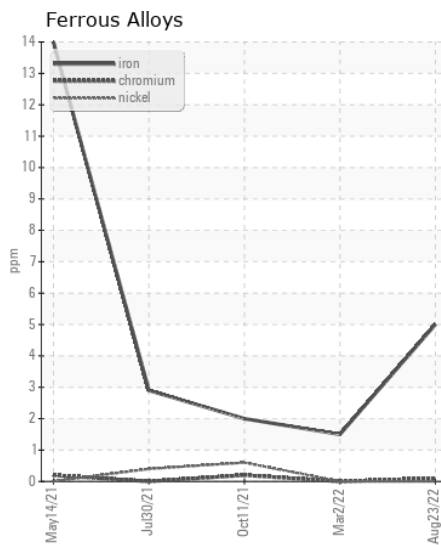
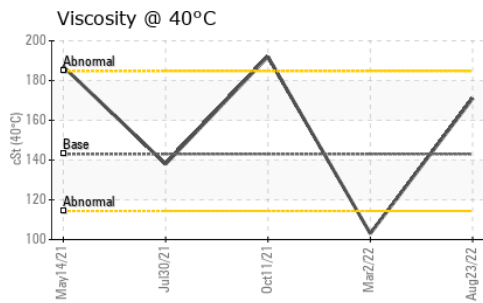
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<1	1	1
Potassium	ppm	ASTM D5185m	>20	3	<1	0
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	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	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>170	3	0	2
Boron	ppm	ASTM D5185m	400	6	164	24
Barium	ppm	ASTM D5185m	200	0	0	0
Molybdenum	ppm	ASTM D5185m	12	0	0	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	12	0	11	2
Calcium	ppm	ASTM D5185m	150	5	37	6
Phosphorus	ppm	ASTM D5185m	1650	2212	1099	1953
Zinc	ppm	ASTM D5185m	125	<1	22	4
Sulfur	ppm	ASTM D5185m	22500	25056	20654	39310
Visc @ 40°C	cSt	ASTM D445	143	171	103	192



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : LH0236510

Lab Number : 05632596

Unique Number : 10117117

Test Package : CONST

Received : 01 Sep 2022

Tested : 02 Sep 2022

Diagnosed : 03 Sep 2022 - Don Baldrige

SADOFF IRON AND METAL

240 ARNDT STREET

FOND DU LAC, WI

US 54936

Contact: DAVE CASPER

casperd@sadoff.com

T:

F:

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)