



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH30 1200-72685
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0263904	LH0244925	LH0230022
Sample Date		Client Info		22 Sep 2023	07 Apr 2023	01 Feb 2023
Machine Age	hrs	Client Info		16368	15487	15074
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	19	15	14
Chromium	ppm	ASTM D5185m	>5	3	2	3
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>2	1	<1	0
Lead	ppm	ASTM D5185m	>4	<1	0	<1
Copper	ppm	ASTM D5185m	>10	4	3	3
Tin	ppm	ASTM D5185m	>2	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

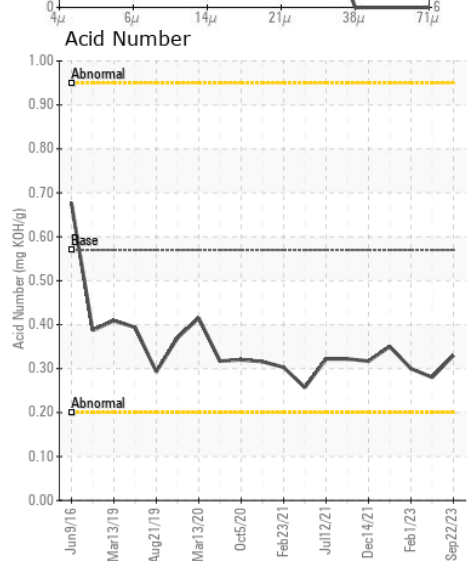
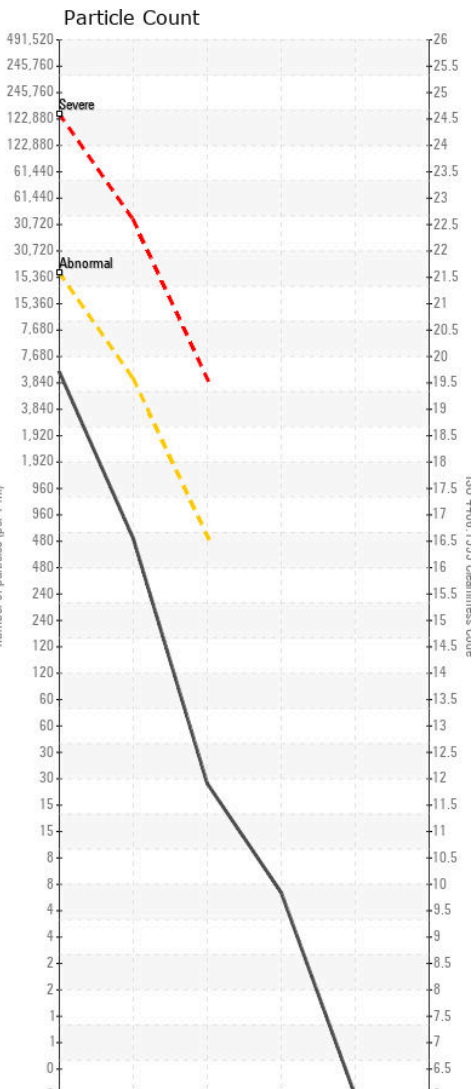
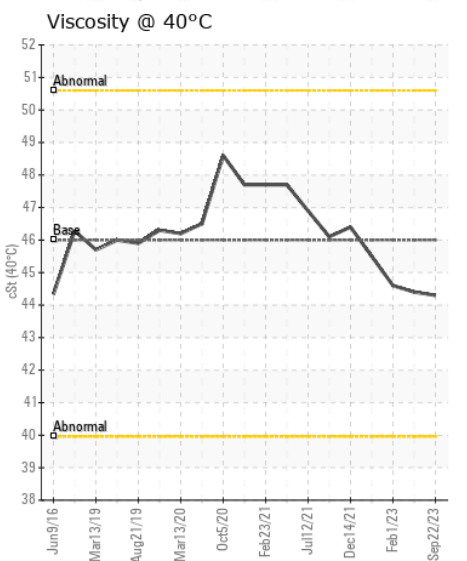
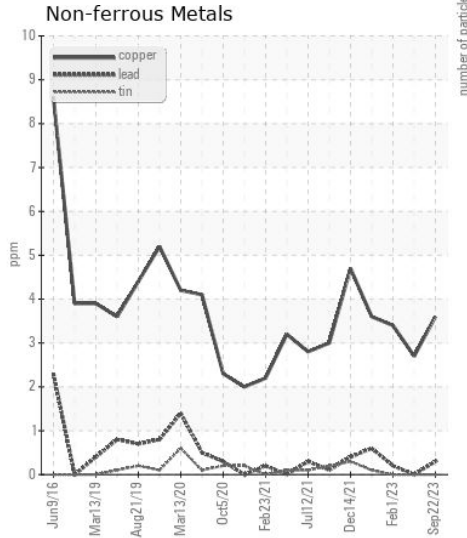
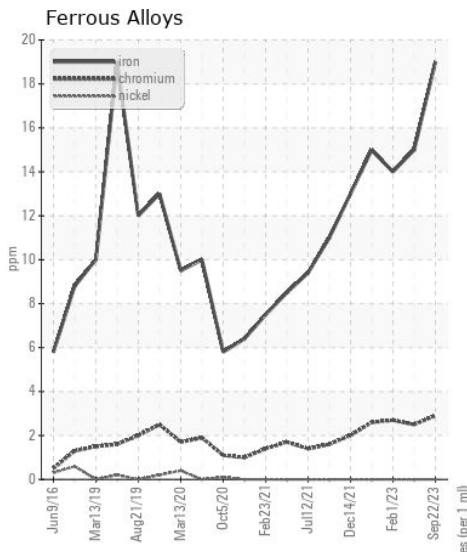
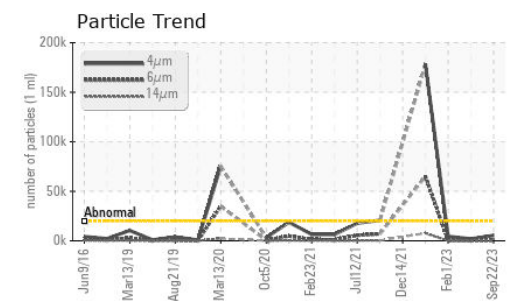
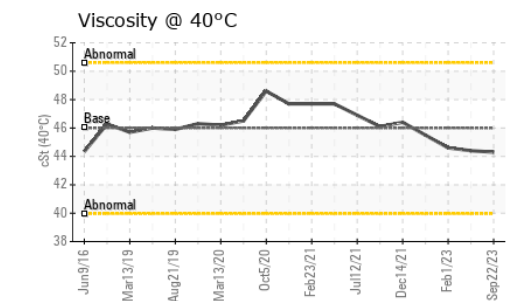
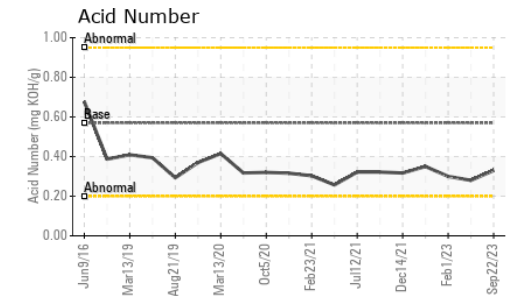
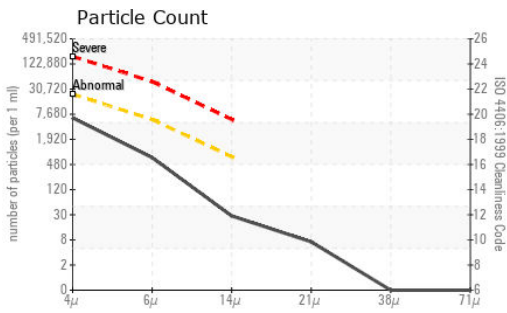
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>17	1	<1	<1
Potassium	ppm	ASTM D5185m	>20	<1	0	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	5469	2009	4498
Particles >6µm		ASTM D7647	>5000	617	364	450
Particles >14µm		ASTM D7647	>640	25	19	35
Particles >21µm		ASTM D7647	>160	6	5	10
Particles >38µm		ASTM D7647	>40	0	0	2
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/16/12	18/16/11	19/16/12
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	0	<1
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	25	1	5	<1
Calcium	ppm	ASTM D5185m	200	41	37	25
Phosphorus	ppm	ASTM D5185m	300	310	323	299
Zinc	ppm	ASTM D5185m	370	356	348	336
Sulfur	ppm	ASTM D5185m	2500	4438	4969	4389
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.33	0.28	0.30
Visc @ 40°C	cSt	ASTM D445	46	44.3	44.4	44.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0263904
Lab Number : 05967001
Unique Number : 10673552
Test Package : CONST
Received : 02 Oct 2023
Tested : 03 Oct 2023
Diagnosed : 04 Oct 2023 - Jonathan Hester

GREEN METALS INC
 234 E 350 S
 PRINCETON, IN
 US 47670
 Contact: Keith May
 kmay@gmiky.com
 T: (812)270-3865
 F: (812)386-3694

Certificate L2367
 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)