



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH30M 1253-118648
Component
Hydraulic System
Fluid
LIEBHERR HYDRAULIC HVI (255 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0268301	LH0229220	LH0207390
Sample Date		Client Info		17 Jun 2024	07 Mar 2023	09 Nov 2021
Machine Age	hrs	Client Info		2346	1690	952
Oil Age	hrs	Client Info		2346	952	952
Filter Age	hrs	Client Info		0	0	952
Oil Changed		Client Info		N/A	N/A	Filtered
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	20	29	22
Chromium	ppm	ASTM D5185m	>5	2	3	2
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	2
Aluminum	ppm	ASTM D5185m	>2	1	1	<1
Lead	ppm	ASTM D5185m	>4	<1	<1	2
Copper	ppm	ASTM D5185m	>10	2	4	6
Tin	ppm	ASTM D5185m	>2	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

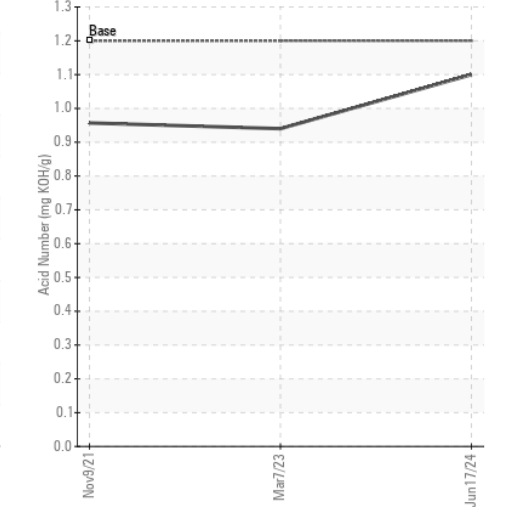
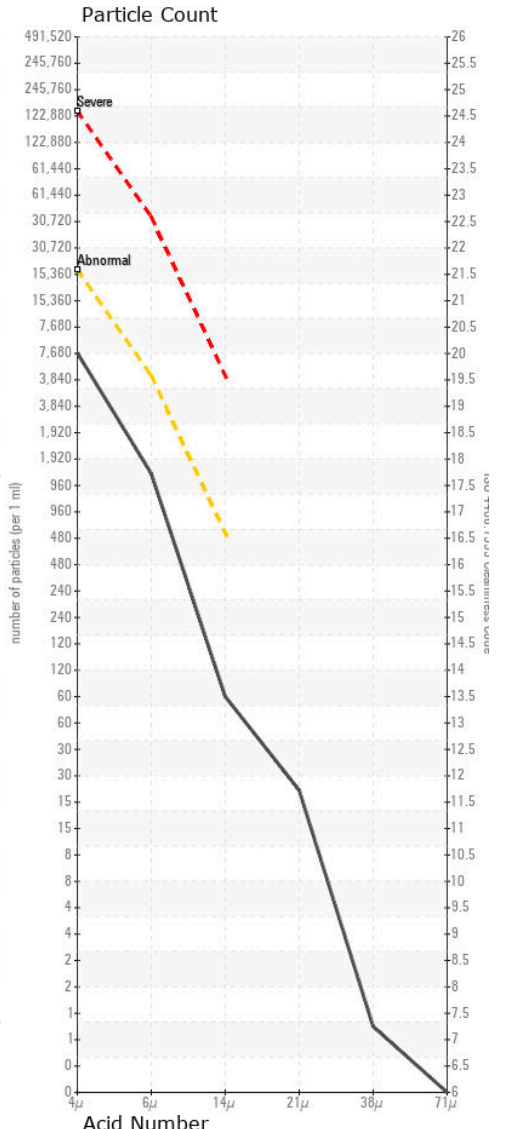
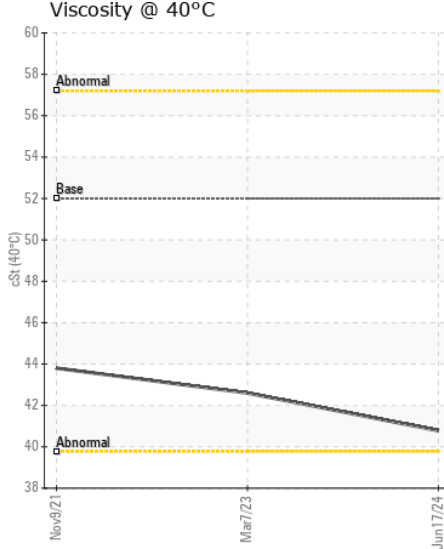
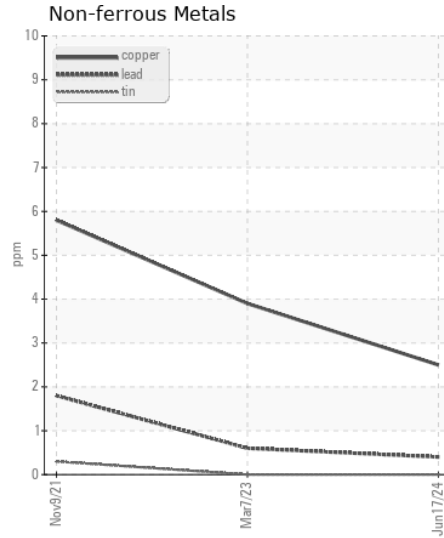
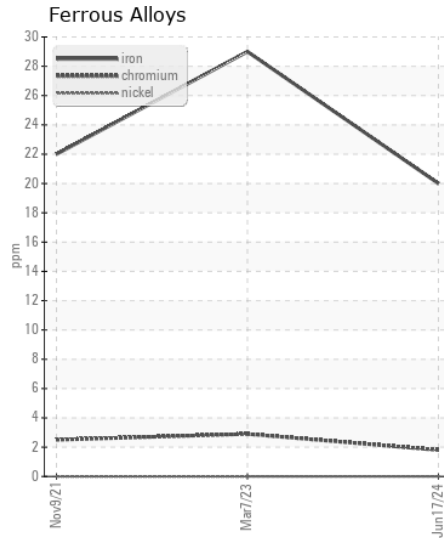
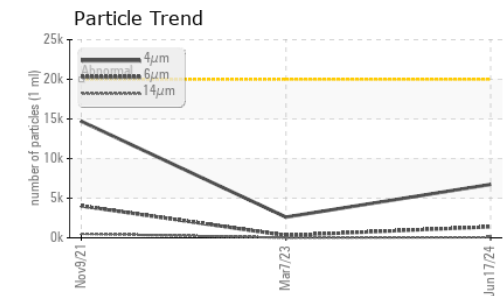
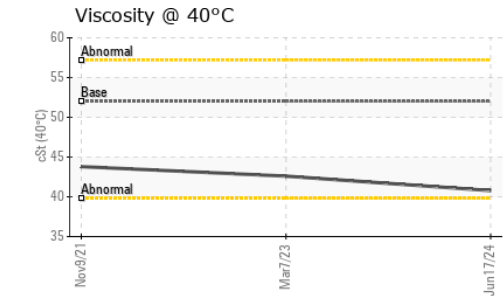
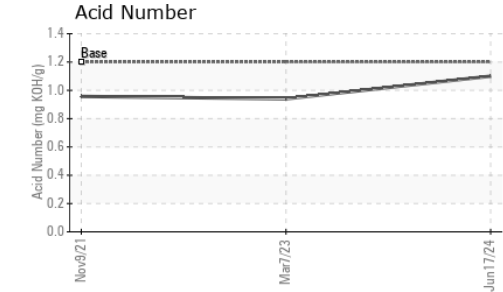
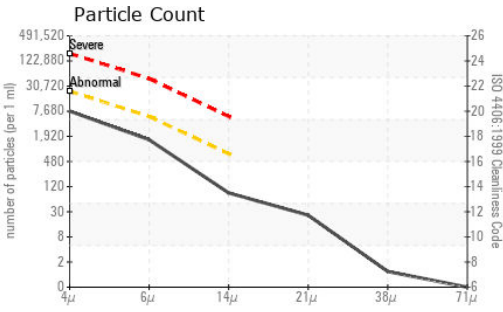
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>17	8	3	2
Potassium	ppm	ASTM D5185m	>20	2	1	3
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	6735	2615	14707
Particles >6µm		ASTM D7647	>5000	1390	303	4025
Particles >14µm		ASTM D7647	>640	75	13	509
Particles >21µm		ASTM D7647	>160	22	4	121
Particles >38µm		ASTM D7647	>40	1	0	12
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/18/13	19/15/11	21/19/16
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		2	<1	<1
Boron	ppm	ASTM D5185m		9	9	6
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		4	4	4
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	7	35	34	31
Calcium	ppm	ASTM D5185m	1500	2525	2221	2006
Phosphorus	ppm	ASTM D5185m	750	808	689	683
Zinc	ppm	ASTM D5185m	820	960	855	815
Sulfur	ppm	ASTM D5185m	4000	4530	5263	4448
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	1.10	0.94	0.957
Visc @ 40°C	cSt	ASTM D445	52	40.78	42.6	43.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0268301 **Received** : 25 Jun 2024
Lab Number : 06220356 **Tested** : 28 Jun 2024
Unique Number : 11098553 **Diagnosed** : 28 Jun 2024 - Jonathan Hester
Test Package : CONST

JR VINAGRO
 2208 PLAINFIELD PIKE
 JOHNSTON, RI
 US 02919
 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)