



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id  
**LIEBHERR LH30 1200-72683**  
Component  
**Hydraulic System**  
Fluid  
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

### RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH06062595</b>	LH0235770	LH0217616
Sample Date		Client Info		<b>12 Jan 2024</b>	27 Sep 2023	23 Mar 2023
Machine Age	hrs	Client Info		<b>14822</b>	14243	13667
Oil Age	hrs	Client Info		<b>0</b>	0	1000
Filter Age	hrs	Client Info		<b>0</b>	0	1000
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	MARGINAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>16</b>	20	20
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>2	<b>1</b>	0	<1
Lead	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>10	<b>2</b>	3	3
Tin	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

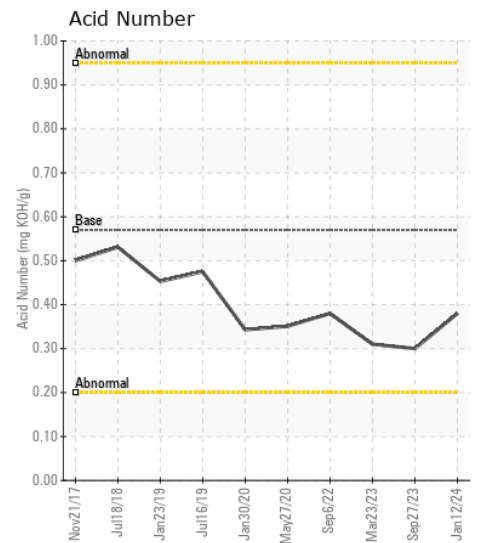
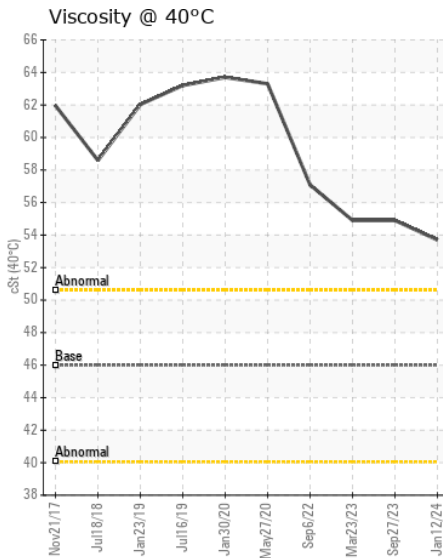
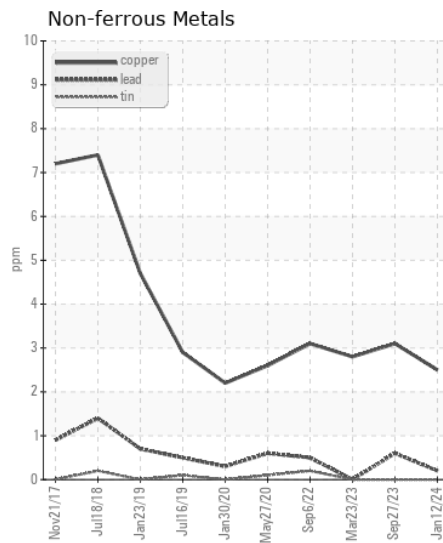
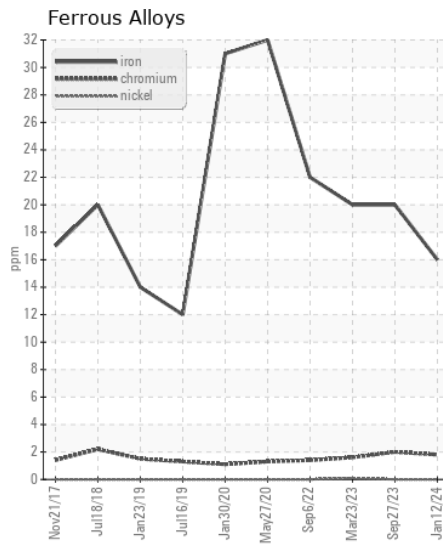
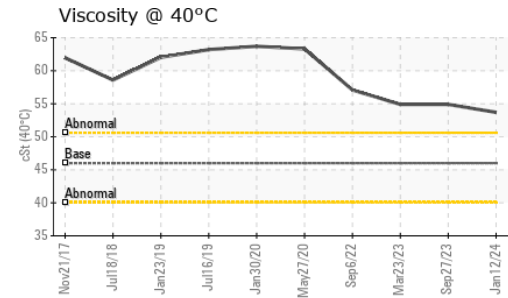
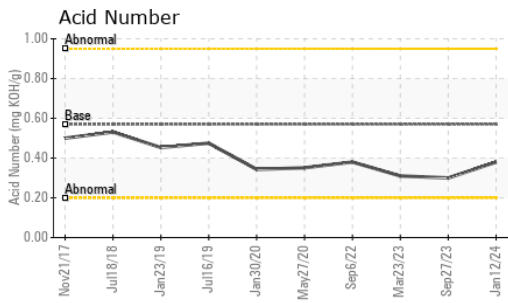
Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>17	<b>2</b>	2	<1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>---</b>	---	7779
Particles >6µm		ASTM D7647	>5000	<b>---</b>	---	785
Particles >14µm		ASTM D7647	>640	<b>---</b>	---	22
Particles >21µm		ASTM D7647	>160	<b>---</b>	---	3
Particles >38µm		ASTM D7647	>40	<b>---</b>	---	0
Particles >71µm		ASTM D7647	>10	<b>---</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>---</b>	---	20/17/12
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>▲ MODER</b>	<b>▲ HEAVY</b>	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	0.2%	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		<b>1</b>	0	1
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	5	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	25	<b>24</b>	26	30
Calcium	ppm	ASTM D5185m	200	<b>28</b>	27	29
Phosphorus	ppm	ASTM D5185m	300	<b>275</b>	265	288
Zinc	ppm	ASTM D5185m	370	<b>270</b>	297	307
Sulfur	ppm	ASTM D5185m	2500	<b>997</b>	1154	1309
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	<b>0.38</b>	0.30	0.31
Visc @ 40°C	cSt	ASTM D445	46	<b>53.7</b>	▲ 54.9	▲ 54.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH06062595 **Received** : 17 Jan 2024  
**Lab Number** : 06062595 **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10833977 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2

**SPARTAN RECYCLING**  
 3071 HOWARD ST  
 SPARTANBURG, SC  
 US 29303  
 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)

T:  
F: