



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH30 1200-72685
Component
Swing Drive
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

We advise that you check for the source of water entry. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0244927	LH0230021	LH0207592
Sample Date		Client Info		07 Apr 2023	01 Feb 2023	15 Feb 2022
Machine Age	hrs	Client Info		15487	15074	12769
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Not Changed
Sample Status				ABNORMAL	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>1450	256	640	378
Chromium	ppm	ASTM D5185m	>11	1	6	4
Nickel	ppm	ASTM D5185m	>3	0	2	3
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>4	<1	2	1
Lead	ppm	ASTM D5185m	>4	0	2	3
Copper	ppm	ASTM D5185m	>542	24	122	67
Tin	ppm	ASTM D5185m	>38	<1	9	3
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

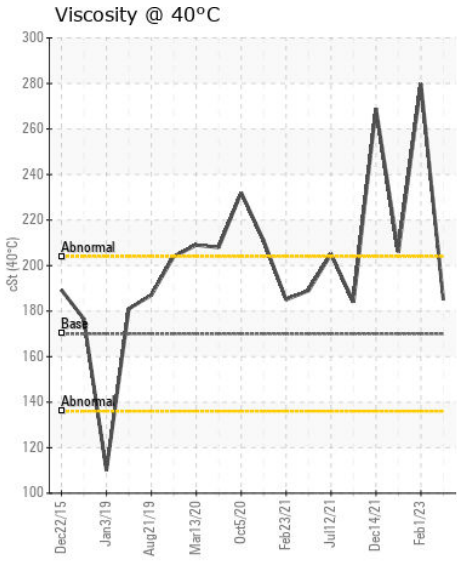
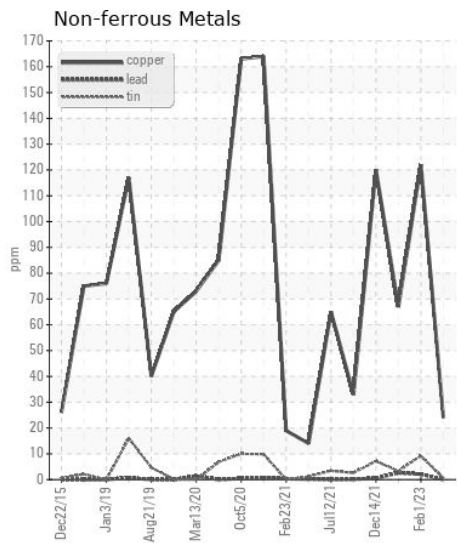
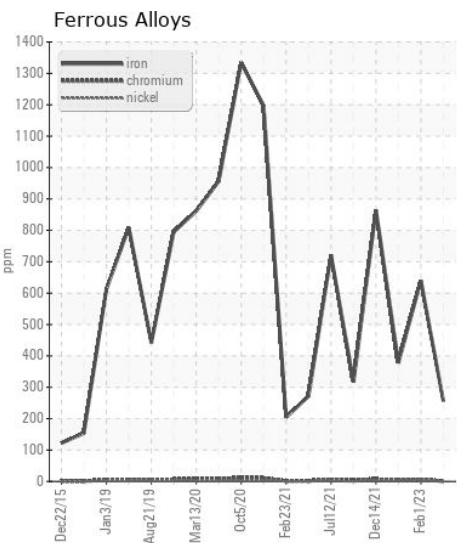
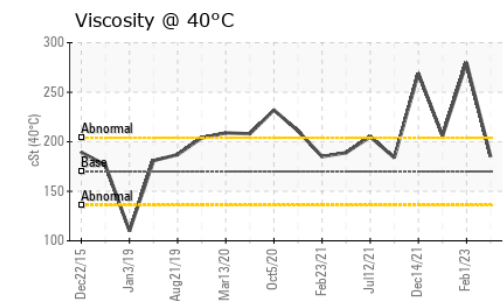
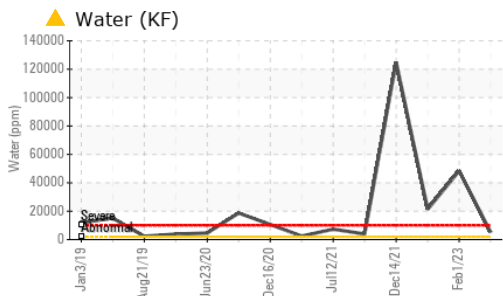
Moderate concentration of visible dirt/debris present in the oil. There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>15	<1	4	5
Potassium	ppm	ASTM D5185m	>20	0	0	3
Water	%	ASTM D6304	>0.2	▲ 0.521	▲ 4.83	▲ 2.13
ppm Water	ppm	ASTM D6304	>2000	▲ 5210	▲ 48300	▲ 21300
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	● MILKY	● HAZY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	▲ 0.2%	▲ 0.2%

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	0	3
Boron	ppm	ASTM D5185m	0	0	6	6
Barium	ppm	ASTM D5185m	0	0	2	7
Molybdenum	ppm	ASTM D5185m	0	0	<1	<1
Manganese	ppm	ASTM D5185m	0	2	5	4
Magnesium	ppm	ASTM D5185m	<1	4	4	5
Calcium	ppm	ASTM D5185m	<1	25	13	29
Phosphorus	ppm	ASTM D5185m	2143	1893	2198	2399
Zinc	ppm	ASTM D5185m	<1	0	35	27
Sulfur	ppm	ASTM D5185m	23468	25056	35965	25056
Visc @ 40°C	cSt	ASTM D445	170	185	▲ 279.8	206



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0244927 **Received** : 20 Apr 2023
Lab Number : 05825812 **Tested** : 21 Apr 2023
Unique Number : 10439305 **Diagnosed** : 24 Apr 2023 - Don Baldrige
Test Package : CONST (Additional Tests: KF)

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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)