



LIEBHERR

OIL ANALYSIS REPORT

WEAR	MARGINAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR R924C 028643-1069
Component
Hydraulic System
Fluid
LORDCO AW 46 (--- GAL)

RECOMMENDATION

We advise that you check for visible metal particles in the oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0270334	LH0281208	LH0185817
Sample Date		Client Info		12 Apr 2024	01 Feb 2024	20 Jan 2021
Machine Age	hrs	Client Info		18936	18438	11574
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Light concentration of visible metal present.

Iron	ppm	ASTM D5185(m)	>50	13	11	11
Chromium	ppm	ASTM D5185(m)	>15	2	2	4
Nickel	ppm	ASTM D5185(m)	>5	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>8	0	<1	<1
Lead	ppm	ASTM D5185(m)	>5	0	<1	1
Copper	ppm	ASTM D5185(m)	>15	4	2	12
Tin	ppm	ASTM D5185(m)	>5	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	▲ VLITE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

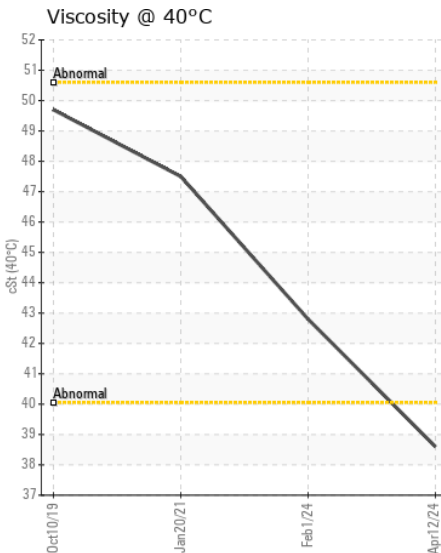
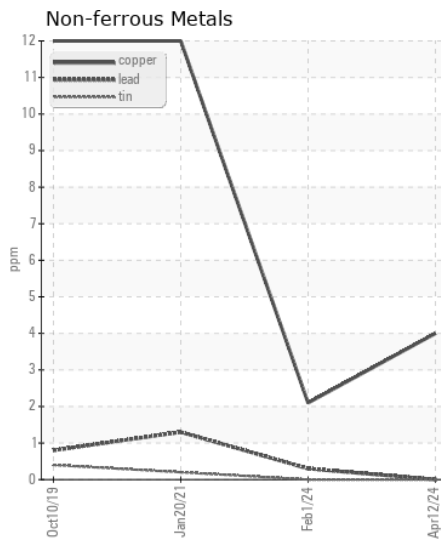
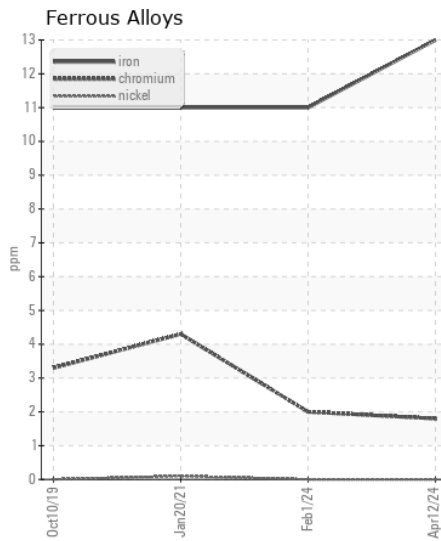
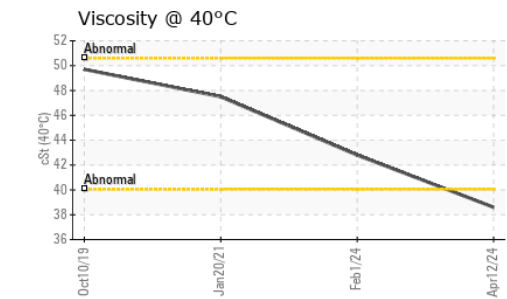
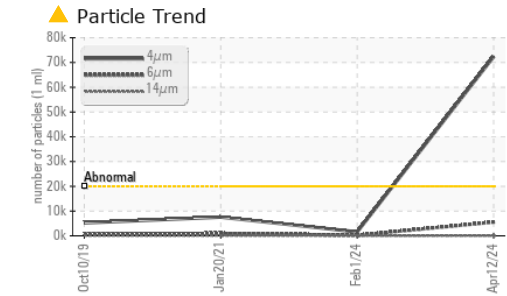
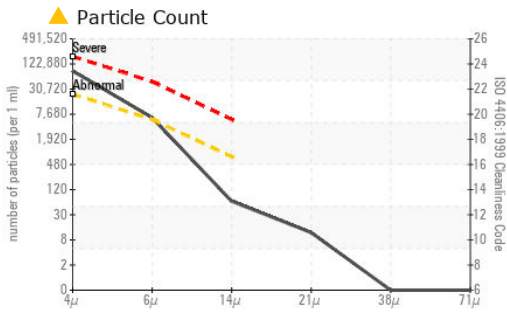
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>25	0	<1	2
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	▲ 72329	1581	7553
Particles >6µm		ASTM D7647	>5000	● 5540	201	978
Particles >14µm		ASTM D7647	>640	56	16	80
Particles >21µm		ASTM D7647	>160	10	6	23
Particles >38µm		ASTM D7647	>40	0	1	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/20/13	18/15/11	20/17/13
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	.2%	NEG

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		<1	0	2
Boron	ppm	ASTM D5185(m)		<1	<1	9
Barium	ppm	ASTM D5185(m)		0	0	<1
Molybdenum	ppm	ASTM D5185(m)		0	0	6
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		1	2	63
Calcium	ppm	ASTM D5185(m)		29	25	716
Phosphorus	ppm	ASTM D5185(m)		307	321	472
Zinc	ppm	ASTM D5185(m)		373	376	592
Sulfur	ppm	ASTM D5185(m)		981	1243	4129
Visc @ 40°C	cSt	ASTM D7279(m)		38.6	42.8	47.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0270334 **Received** : 23 Apr 2024
Lab Number : 02630985 **Tested** : 24 Apr 2024
Unique Number : 5772138 **Diagnosed** : 24 Apr 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, PrtCount, PrtF

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.