CONST

LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR A944C 038730-194
Component
Hydraulic System
Fluid
LIEBHERR HYDRAULIC HVI (--- GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

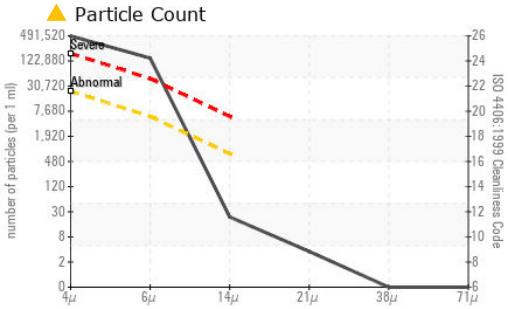
CONTAMINATION

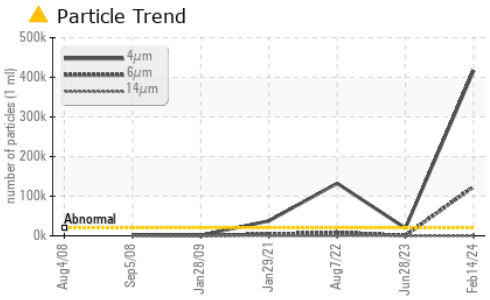
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

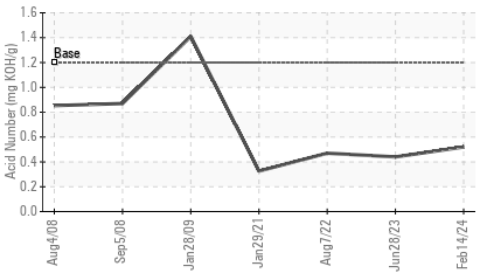
FLUID CONDITION

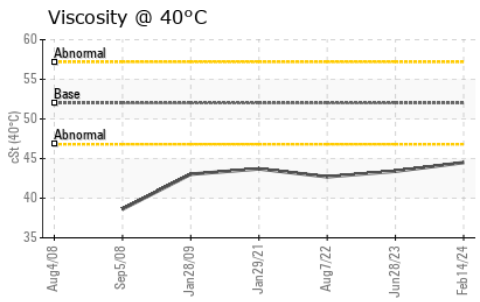
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

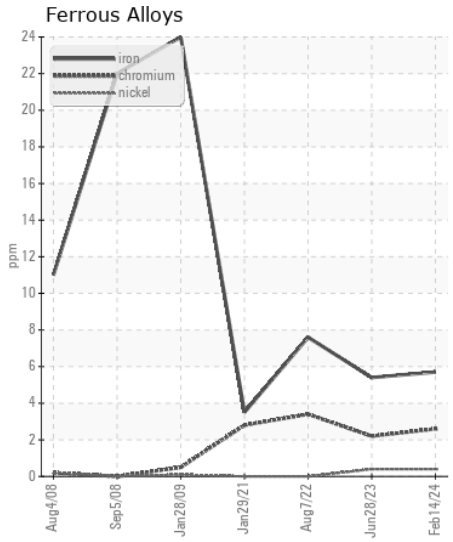
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0258746	LH0263827	LH0217654
Sample Date		Client Info		14 Feb 2024	28 Jun 2023	07 Aug 2022
Machine Age	hrs	Client Info		30984	29970	28573
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>60	6	5	8
Chromium	ppm	ASTM D5185m	>40	3	2	3
Nickel	ppm	ASTM D5185m	>10	<1	<1	0
Titanium	ppm	ASTM D5185m		2	0	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>5	<1	0	<1
Lead	ppm	ASTM D5185m	>5	<1	<1	<1
Copper	ppm	ASTM D5185m	>15	2	2	3
Tin	ppm	ASTM D5185m	>5	<1	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
Silicon	ppm	ASTM D5185m	>15	1	<1	2
Potassium	ppm	ASTM D5185m	>20	1	<1	1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	▲ 416830	19303	▲ 132371
Particles >6µm		ASTM D7647	>5000	▲ 124071	478	● 8894
Particles >14µm		ASTM D7647	>640	20	9	44
Particles >21µm		ASTM D7647	>160	3	2	8
Particles >38µm		ASTM D7647	>40	0	0	1
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 26/24/11	21/16/10	▲ 24/20/13
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	NEG	NEG
Sodium	ppm	ASTM D5185m		0	0	0
Boron	ppm	ASTM D5185m		8	5	14
Barium	ppm	ASTM D5185m		5	0	0
Molybdenum	ppm	ASTM D5185m		2	2	5
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	7	20	17	32
Calcium	ppm	ASTM D5185m	1500	157	115	148
Phosphorus	ppm	ASTM D5185m	750	339	354	381
Zinc	ppm	ASTM D5185m	820	451	449	493
Sulfur	ppm	ASTM D5185m	4000	1095	975	1153
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	0.52	0.44	0.47
Visc @ 40°C	cSt	ASTM D445	52	44.5	43.4	42.7

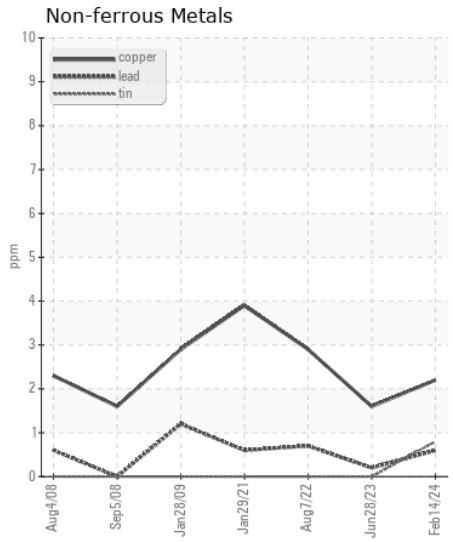


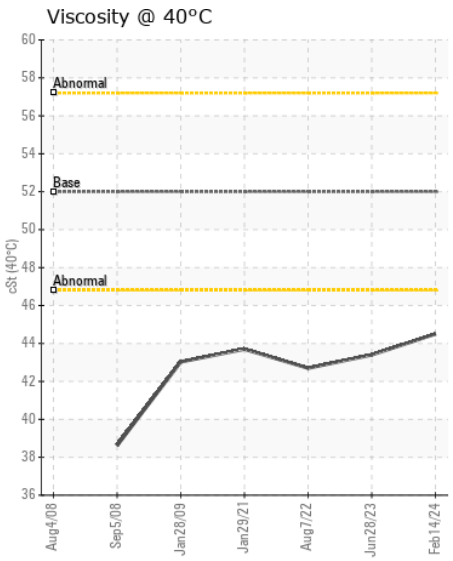


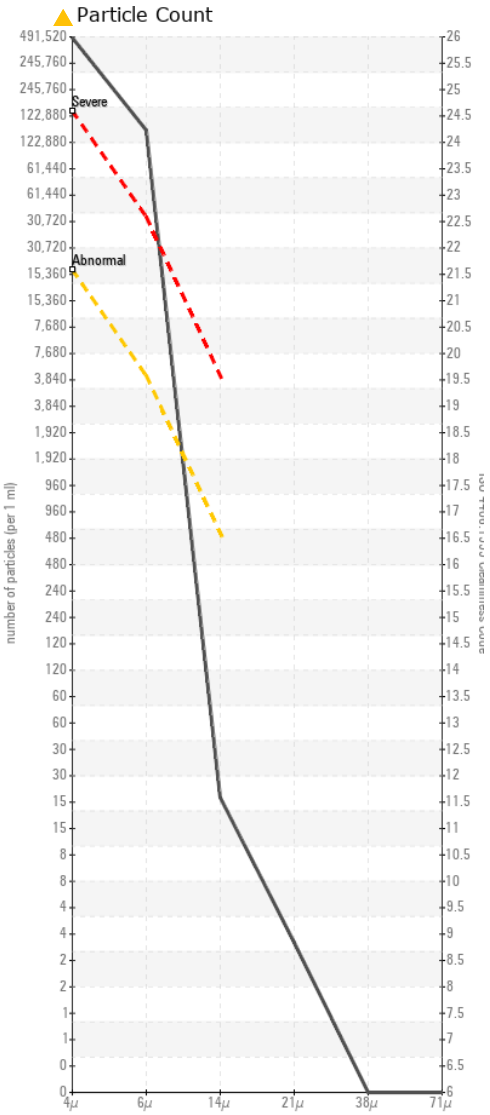


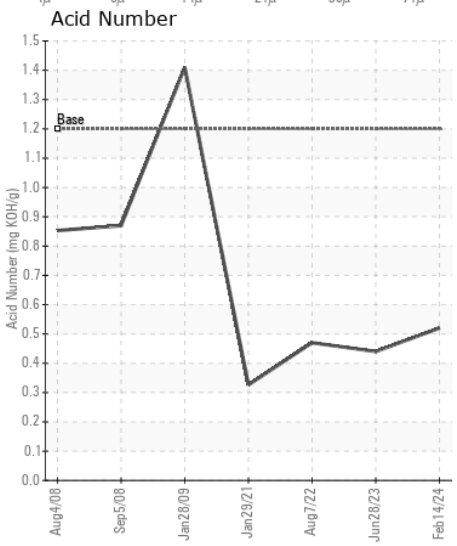












Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: LH0258746	**Received**	: 23 Feb 2024
Lab Number	: 06098311	**Tested**	: 29 Feb 2024
Unique Number	: 10896541	**Diagnosed**	: 29 Feb 2024 - Jonathan Hester
Test Package	: CONST		

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)

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