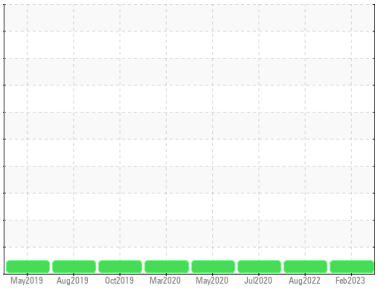
LIEBHERR

OIL ANALYSIS REPORT

Machine Id
LIEBHERR LH50M 110225-1216
Component
Swing Drive
Fluid
GEAR OIL SAE 80W90 (--- GAL)

Sample Rating Trend



NORMAL

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**LH05776956**	LH05617410	LHMC163630
Sample Date		Client Info		**23 Feb 2023**	14 Aug 2022	14 Jul 2020
Machine Age	hrs	Client Info		**11995**	11011	7927
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>1450	**282**	108	28
Chromium	ppm	ASTM D5185m	>11	**3**	<1	<1
Nickel	ppm	ASTM D5185m	>3	**<1**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**<1**	<1	<1
Aluminum	ppm	ASTM D5185m	>4	**1**	1	0
Lead	ppm	ASTM D5185m	>4	**0**	0	0
Copper	ppm	ASTM D5185m	>542	**54**	30	8
Tin	ppm	ASTM D5185m	>38	**5**	<1	0
Antimony	ppm	ASTM D5185m	>5	**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	400	**3**	10	147
Barium	ppm	ASTM D5185m	200	**<1**	2	0
Molybdenum	ppm	ASTM D5185m	12	**<1**	<1	0
Manganese	ppm	ASTM D5185m		**2**	1	<1
Magnesium	ppm	ASTM D5185m	12	**<1**	<1	2
Calcium	ppm	ASTM D5185m	150	**10**	15	4
Phosphorus	ppm	ASTM D5185m	1650	**2099**	2233	816
Zinc	ppm	ASTM D5185m	125	**18**	17	11
Sulfur	ppm	ASTM D5185m	22500	**31508**	27829	11230

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**1**	3	<1
Sodium	ppm	ASTM D5185m	>170	**2**	<1	0
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	<1

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
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	>0.2	**NEG**	0.2%	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

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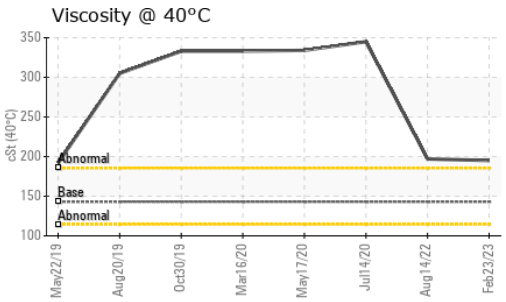
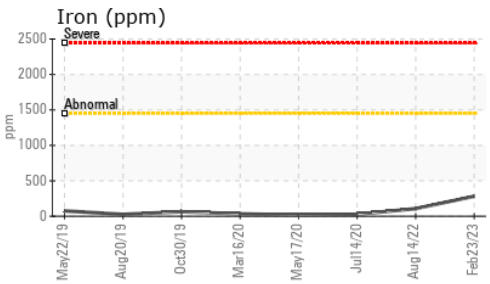
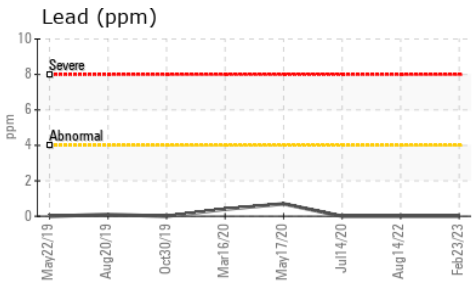


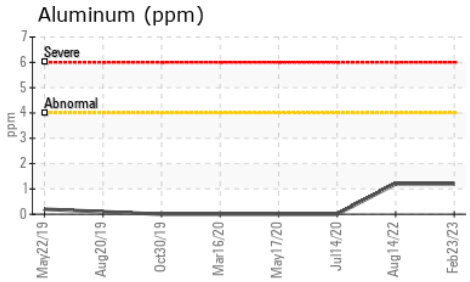
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	143	**195**	197	345

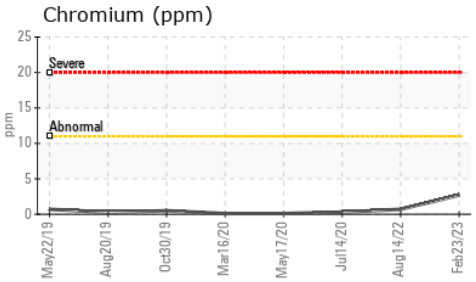
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

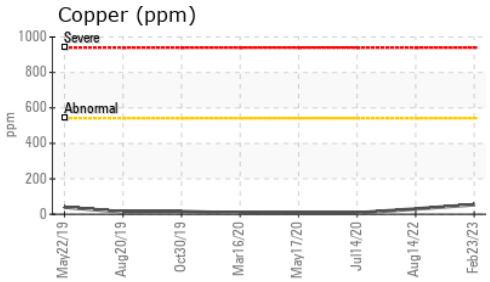
GRAPHS

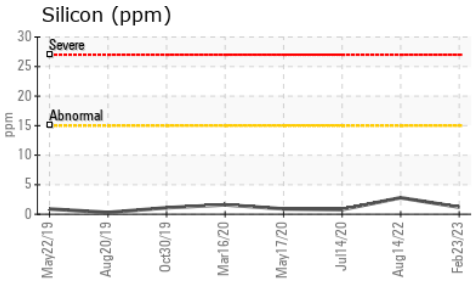


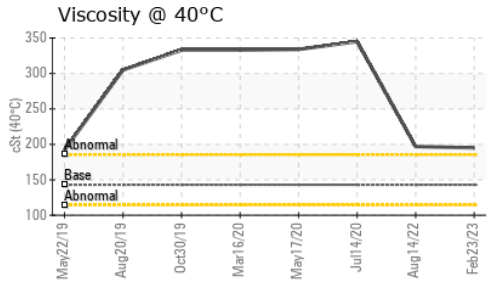


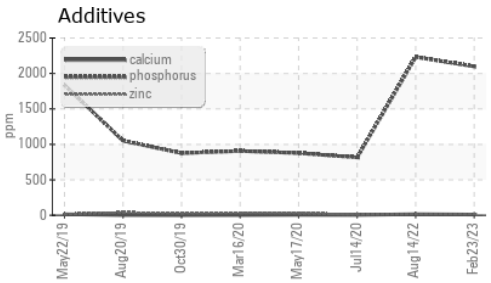












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH05776956
Lab Number : 05776956
Unique Number : 10351573
Test Package : MOB 1

Received : 24 Feb 2023
Diagnosed : 27 Feb 2023
Diagnostician : Wes Davis

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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US 49876
Contact: ERIC LARSON
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F:

Report Id: VERQUI [WUSCAR] 05776956 (Generated: 11/09/2023 08:32:40) Rev: 1

Submitted By: ?