



# OIL ANALYSIS REPORT

WEAR	<b>SEVERE</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**[MH-11]**  
 Machine Id  
**LIEBHERR LH-60 MH11 (S/N 1212-92011)**  
 Component  
**Rear Right Final Drive**  
 Fluid  
**DURALENE Posi-Traction 80W90 (11 LTR)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0033547</b>	DC0022341	LH0142104
Sample Date		Client Info		<b>08 May 2024</b>	16 Jan 2023	28 Feb 2020
Machine Age	hrs	Client Info		<b>11359</b>	9179	5008
Oil Age	hrs	Client Info		<b>2180</b>	300	500
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>SEVERE</b>	ABNORMAL	MARGINAL

## WEAR

Gear wear is indicated. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>350	<b>▲ 1632</b>	261	58
Chromium	ppm	ASTM D5185m	>5	<b>▲ 15</b>	2	2
Nickel	ppm	ASTM D5185m	>5	<b>▲ 10</b>	2	<1
Titanium	ppm	ASTM D5185m		<b>16</b>	3	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>10	<b>● 224</b>	● 51	4
Lead	ppm	ASTM D5185m	>10	<b>5</b>	5	3
Copper	ppm	ASTM D5185m	>125	<b>▲ 142</b>	55	24
Tin	ppm	ASTM D5185m	>10	<b>▲ 9</b>	2	0
Vanadium	ppm	ASTM D5185m		<b>1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	MODER	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

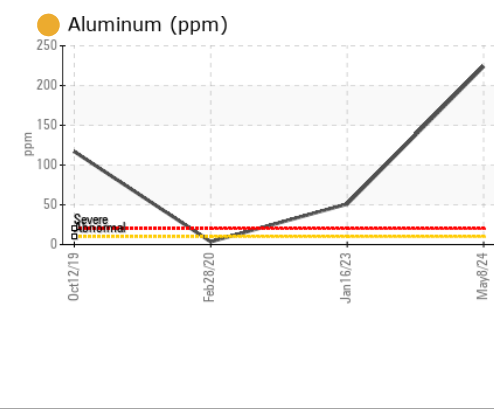
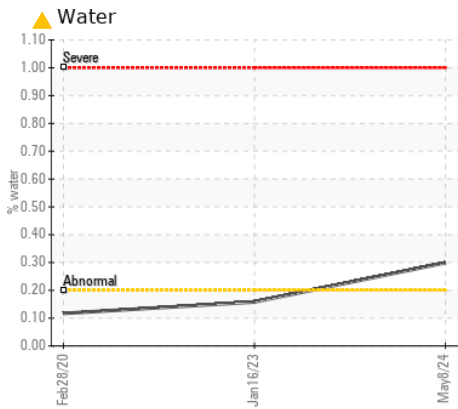
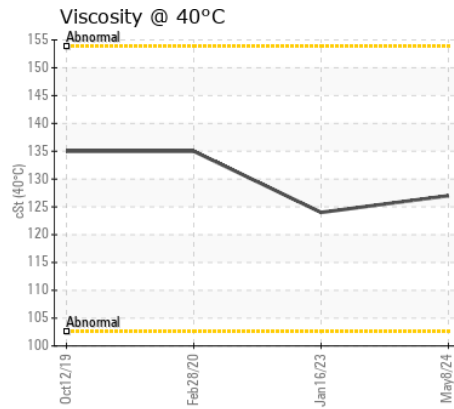
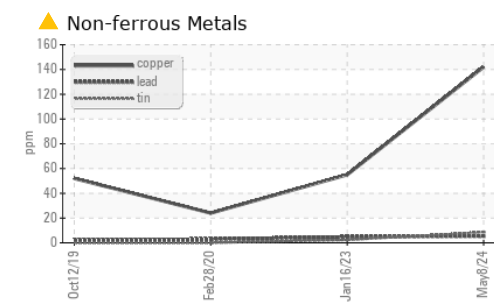
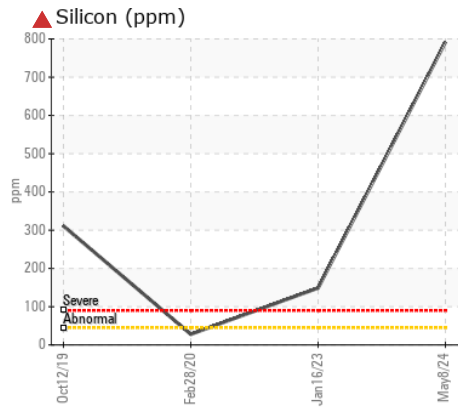
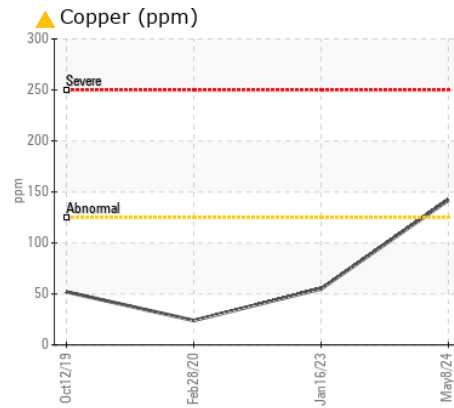
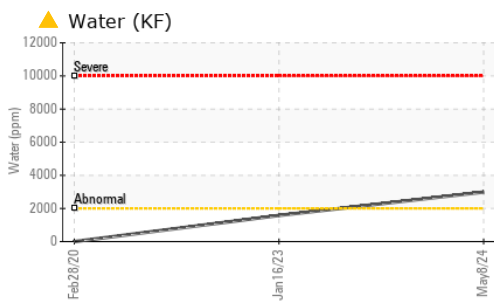
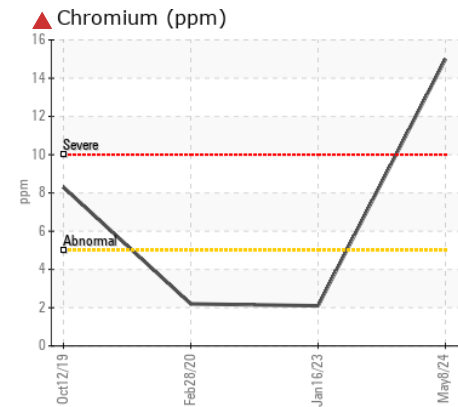
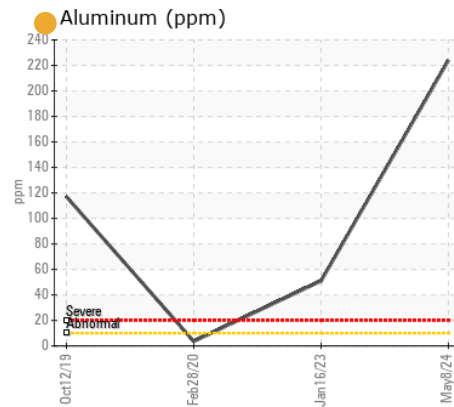
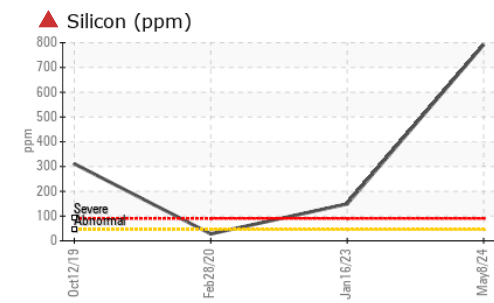
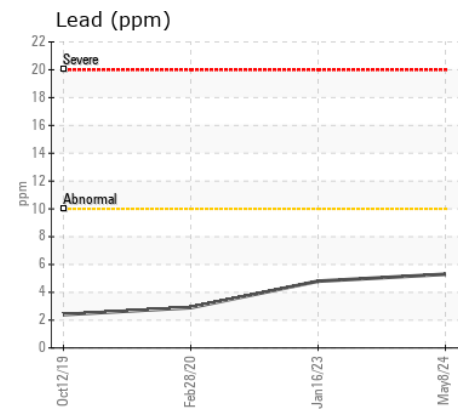
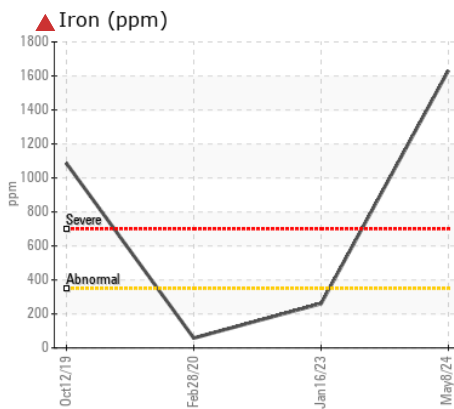
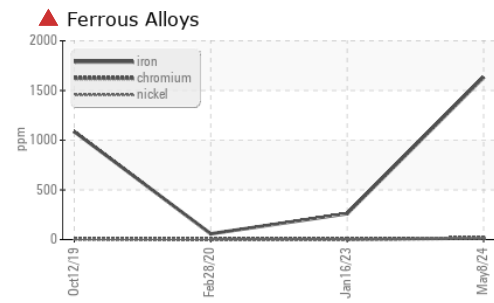
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>45	<b>▲ 792</b>	▲ 149	28
Potassium	ppm	ASTM D5185m	>20	<b>81</b>	13	<1
Water	%	ASTM D6304	>0.2	<b>▲ 0.299</b>	▲ 0.158	▲ 0.117
ppm Water	ppm	ASTM D6304	>2000	<b>▲ 2990</b>	▲ 1580	▲ ---
Silt	scalar	*Visual	NONE	<b>NONE</b>	MODER	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	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	>0.2	<b>▲ 0.2%</b>	▲ 0.2%	▲ 0.2%

## FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<b>20</b>	5	2
Boron	ppm	ASTM D5185m		<b>132</b>	61	3
Barium	ppm	ASTM D5185m		<b>5</b>	<1	<1
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	2	2
Manganese	ppm	ASTM D5185m		<b>16</b>	3	<1
Magnesium	ppm	ASTM D5185m		<b>178</b>	56	15
Calcium	ppm	ASTM D5185m		<b>788</b>	241	4030
Phosphorus	ppm	ASTM D5185m		<b>1398</b>	1298	813
Zinc	ppm	ASTM D5185m		<b>134</b>	60	965
Sulfur	ppm	ASTM D5185m		<b>25413</b>	25056	5678
Visc @ 40°C	cSt	ASTM D445		<b>127</b>	124	135



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0033547 **Received** : 13 May 2024  
**Lab Number** : 06177954 **Tested** : 15 May 2024  
**Unique Number** : 11029280 **Diagnosed** : 15 May 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: KF )

**CONSERVIT INC.**  
 PO BOX 1517  
 HAGERSTOWN, MD  
 US 21740  
 Contact: DON LONG

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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