



# LIEBHERR

## OIL ANALYSIS REPORT



Area  
**[CLEVELAND CLIFF]**  
 Machine Id  
**LIEBHERR LH60M 119014-1217**  
 Component  
**Front Differential**  
 Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- GAL)**

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

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0258931</b>	---	---
Sample Date		Client Info		<b>14 Mar 2024</b>	---	---
Machine Age	hrs	Client Info		<b>2268</b>	---	---
Oil Age	hrs	Client Info		<b>1000</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>16</b>	---	---
Chromium	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Lead	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>125	<b>9</b>	---	---
Tin	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

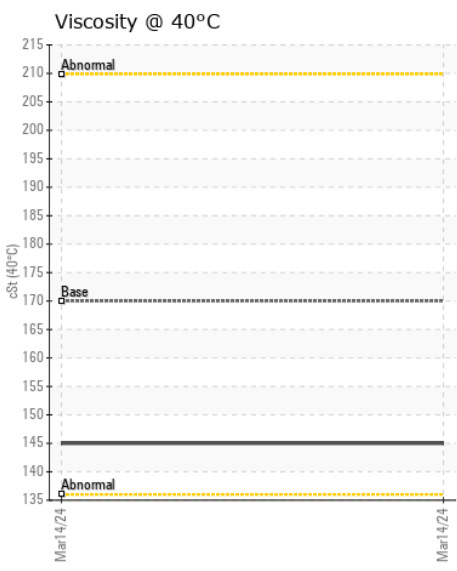
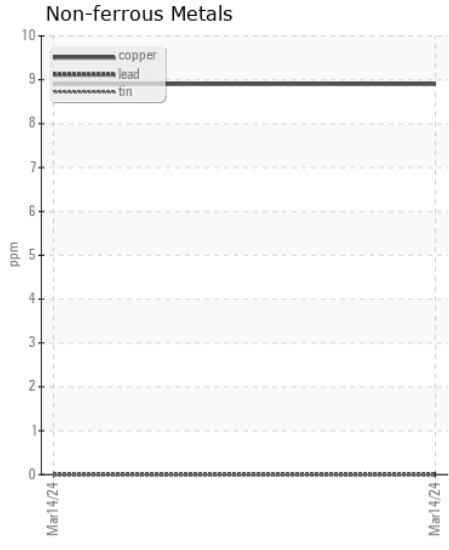
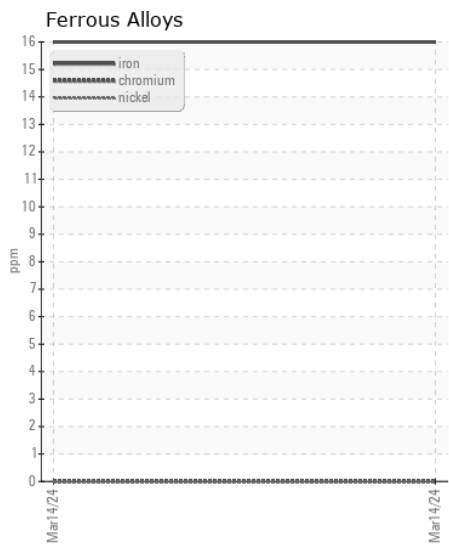
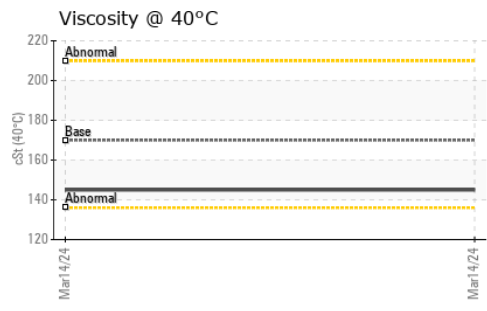
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>1</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>1</b>	---	---
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	---	---
Barium	ppm	ASTM D5185m	0	<b>46</b>	---	---
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	---	---
Manganese	ppm	ASTM D5185m	0	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185m	<1	<b>0</b>	---	---
Calcium	ppm	ASTM D5185m	<1	<b>6</b>	---	---
Phosphorus	ppm	ASTM D5185m	2143	<b>698</b>	---	---
Zinc	ppm	ASTM D5185m	<1	<b>6</b>	---	---
Sulfur	ppm	ASTM D5185m	23468	<b>25868</b>	---	---
Visc @ 40°C	cSt	ASTM D445	170	<b>145</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0258931  
**Lab Number** : 06146824  
**Unique Number** : 10976902  
**Test Package** : CONST  
**Received** : 11 Apr 2024  
**Tested** : 12 Apr 2024  
**Diagnosed** : 15 Apr 2024 - Sean Felton

**FINKBINER EQUIPMENT CO.**  
 15 W 400 N FRONTAGE RD  
 BURR RIDGE, IL  
 US 60527  
 Contact: TROY MILLER  
 tmiller@finkbiner.com  
 T: (630)654-3700  
 F: (630)654-3792

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)