



# LIEBHERR

## OIL ANALYSIS REPORT

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



Area  
**(360524)**  
Machine Id  
**LIEBHERR R926 053645-1827**  
Component  
**Hydraulic System**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is ISO 46 Synthetic (PAG) Fire-Resistant Fluid. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0216695</b>	LH0216688	LH0216681
Sample Date		Client Info		<b>12 Jun 2024</b>	19 Nov 2023	07 Oct 2023
Machine Age	hrs	Client Info		<b>4000</b>	3000	2000
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	ATTENTION	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	<b>29</b>	26	26
Chromium	ppm	ASTM D5185(m)	>15	<b>8</b>	6	5
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>8	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>15	<b>11</b>	11	11
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

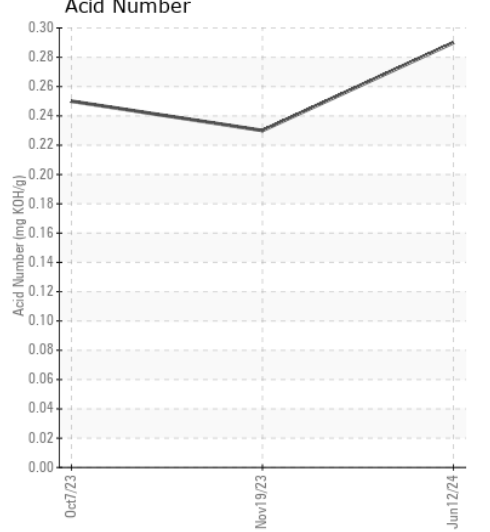
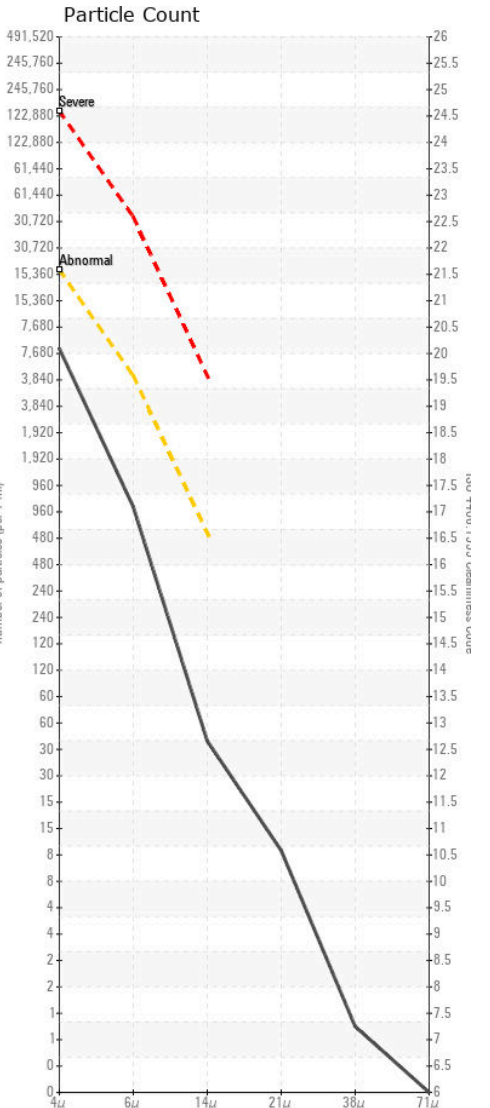
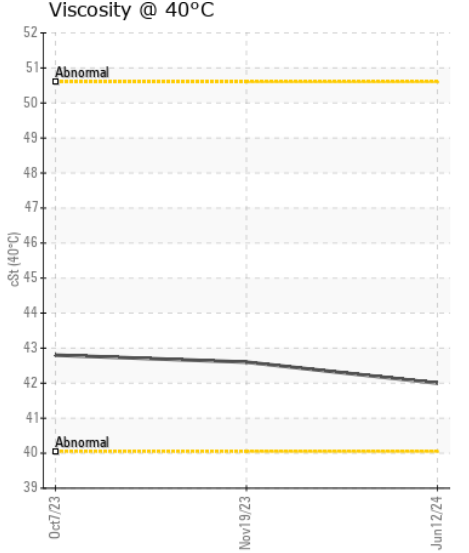
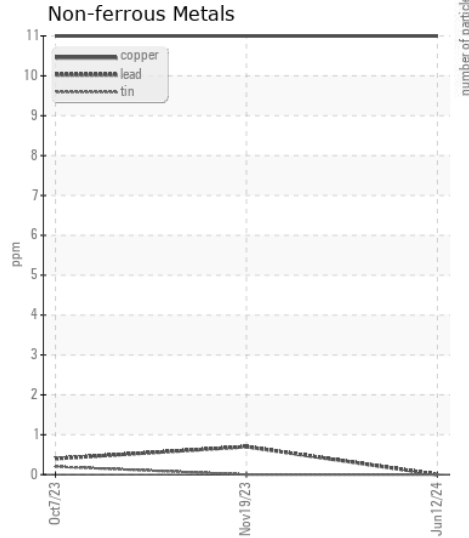
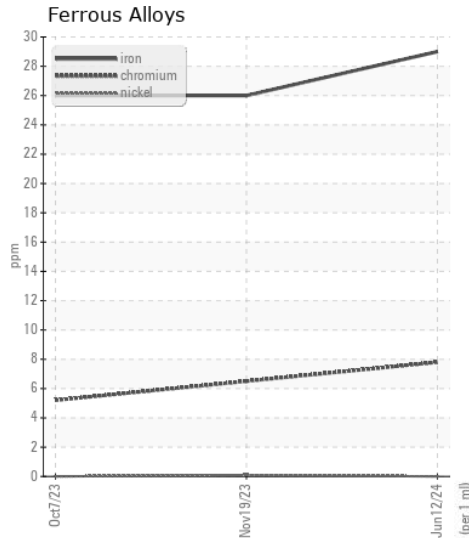
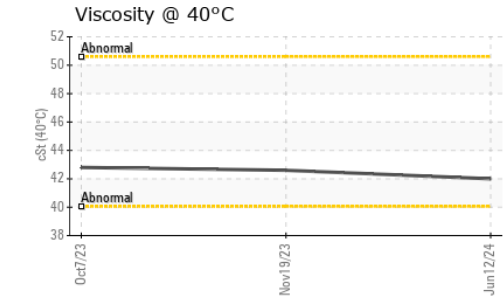
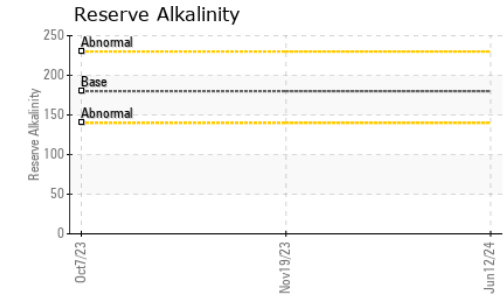
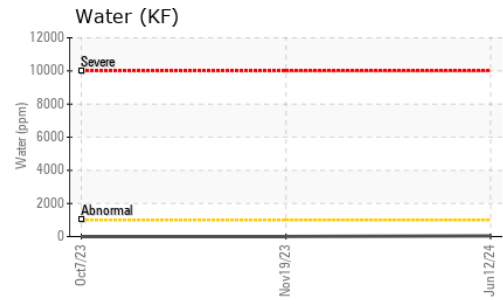
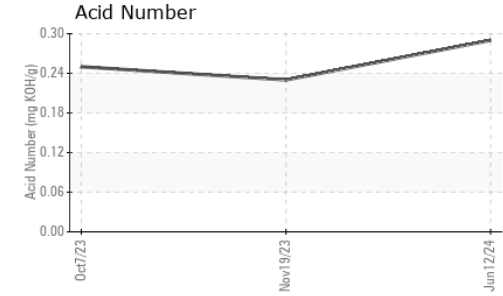
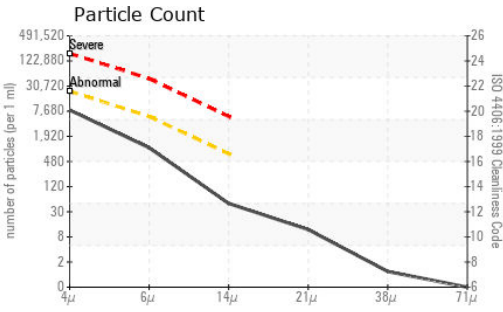
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>25	<b>8</b>	9	9
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Water	%	ASTM D6304*	>0.1	<b>0.004</b>	---	---
ppm Water	ppm	ASTM D6304*	>1000	<b>42</b>	---	---
Particles >4µm		ASTM D7647	>20000	<b>7136</b>	23415	13781
Particles >6µm		ASTM D7647	>5000	<b>898</b>	4218	625
Particles >14µm		ASTM D7647	>640	<b>42</b>	273	10
Particles >21µm		ASTM D7647	>160	<b>10</b>	57	2
Particles >38µm		ASTM D7647	>40	<b>1</b>	2	1
Particles >71µm		ASTM D7647	>10	<b>0</b>	1	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>20/17/13</b>	22/19/15	21/16/10
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	VLITE	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*	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>1</b>	<1	<1
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Calcium	ppm	ASTM D5185(m)		<b>4</b>	5	3
Phosphorus	ppm	ASTM D5185(m)		<b>78</b>	90	104
Zinc	ppm	ASTM D5185(m)		<b>72</b>	73	66
Sulfur	ppm	ASTM D5185(m)		<b>381</b>	398	413
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>0.29</b>	0.23	0.25
Visc @ 40°C	cSt	ASTM D7279(m)		<b>42.0</b>	42.6	42.8



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0216695 **Received** : 13 Jun 2024  
**Lab Number** : 02641771 **Tested** : 17 Jun 2024  
**Unique Number** : 5799310 **Diagnosed** : 17 Jun 2024 - Kevin Marson  
**Test Package** : MOBCE ( Additional Tests: KF, pH, ReserveAlk, TAN Man )

**HAWKESBURY TRANSPORT EXCAVATION**  
 668 MAIN STREET EAST, CP 715  
 HAWKESBURY, ON  
 CA K6A 1A9  
 Contact: Service Manager

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.

T:  
F: