



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR PR766 24176
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0238154	LH0151017	---
Sample Date		Client Info		29 Mar 2024	04 Dec 2023	---
Machine Age	hrs	Client Info		6049	4477	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	4	10	---
Chromium	ppm	ASTM D5185(m)	>10	<1	<1	---
Nickel	ppm	ASTM D5185(m)	>10	<1	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)		0	<1	---
Aluminum	ppm	ASTM D5185(m)	>10	1	2	---
Lead	ppm	ASTM D5185(m)	>10	<1	2	---
Copper	ppm	ASTM D5185(m)	>75	9	23	---
Tin	ppm	ASTM D5185(m)	>10	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	VLITE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

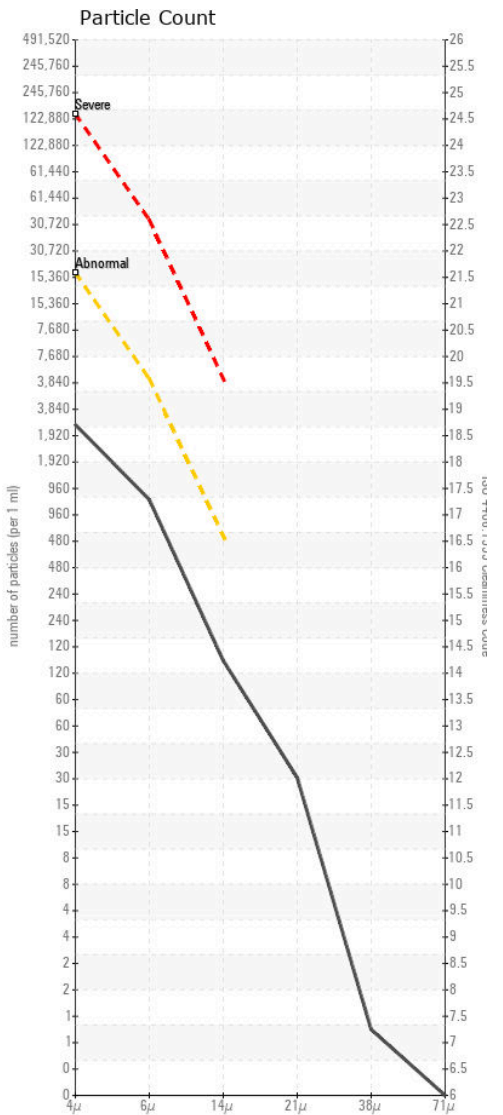
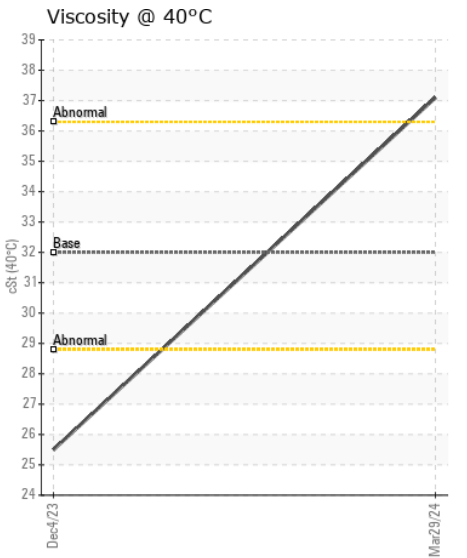
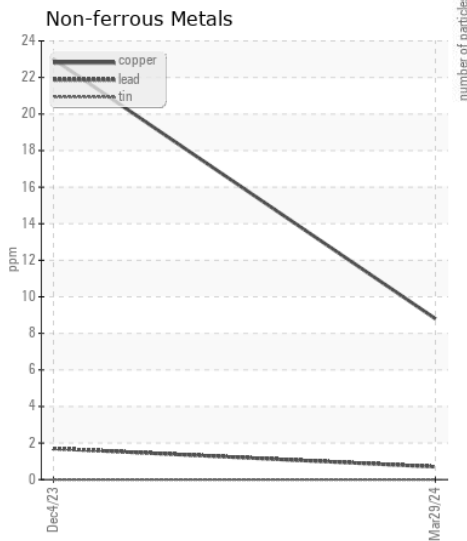
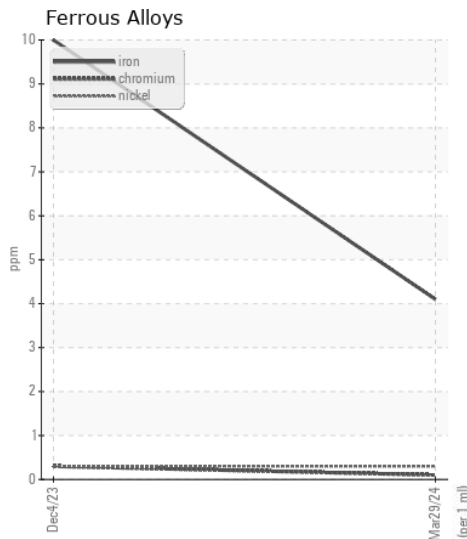
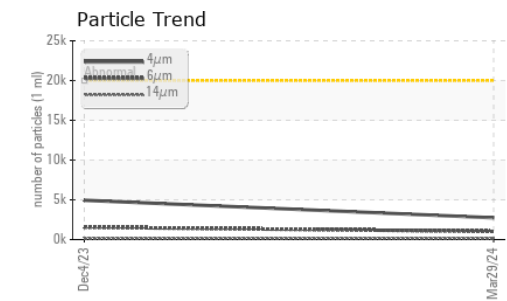
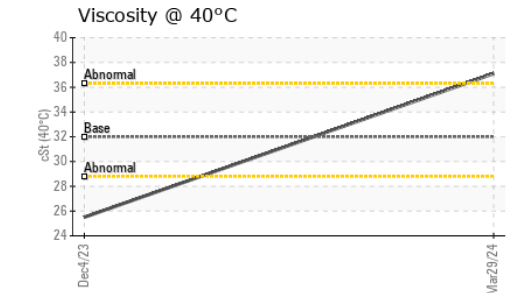
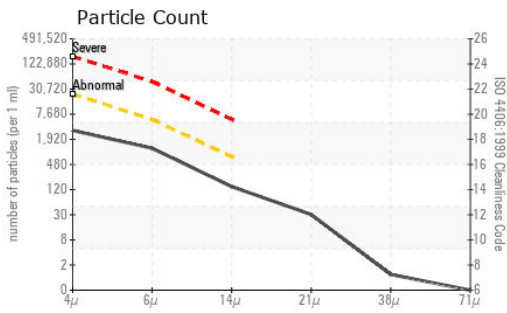
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>20	3	10	---
Potassium	ppm	ASTM D5185(m)	>20	7	3	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>20000	2739	4946	---
Particles >6µm		ASTM D7647	>5000	1028	1552	---
Particles >14µm		ASTM D7647	>640	125	108	---
Particles >21µm		ASTM D7647	>160	27	26	---
Particles >38µm		ASTM D7647	>40	1	2	---
Particles >71µm		ASTM D7647	>10	0	1	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	19/17/14	19/18/14	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	---

FLUID CONDITION

The oil viscosity is higher than typical. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		5	3	---
Boron	ppm	ASTM D5185(m)	5	<1	<1	---
Barium	ppm	ASTM D5185(m)	5	0	<1	---
Molybdenum	ppm	ASTM D5185(m)	5	0	0	---
Manganese	ppm	ASTM D5185(m)		<1	0	---
Magnesium	ppm	ASTM D5185(m)	25	<1	3	---
Calcium	ppm	ASTM D5185(m)	200	48	17	---
Phosphorus	ppm	ASTM D5185(m)	300	301	136	---
Zinc	ppm	ASTM D5185(m)	370	357	118	---
Sulfur	ppm	ASTM D5185(m)	2500	798	770	---
Visc @ 40°C	cSt	ASTM D7279(m)	32	37.1	25.5	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0238154 **Received** : 17 Jun 2024
Lab Number : 02642361 **Tested** : 18 Jun 2024
Unique Number : 5799900 **Diagnosed** : 19 Jun 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PrtCount)

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.

ARGONAUT GOLD
 DUBREUILVILLE MINE
 DUBREUILVILLE, ON
 CA
 Contact: Service Manager

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