



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR A934C 057446-1007
Component
Rear Right Wheel Hub
Fluid
KLONDIKE FULL SYNTHETIC 75W90 (3 GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0281183	LH0191985	LH0226703
Sample Date		Client Info		22 Jan 2024	02 Dec 2022	01 Jun 2022
Machine Age	hrs	Client Info		26482	25052	24519
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>500	8	8	5
Chromium	ppm	ASTM D5185(m)	>4	0	0	0
Nickel	ppm	ASTM D5185(m)	>3	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>4	<1	0	<1
Copper	ppm	ASTM D5185(m)	>100	6	4	4
Tin	ppm	ASTM D5185(m)	>3	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

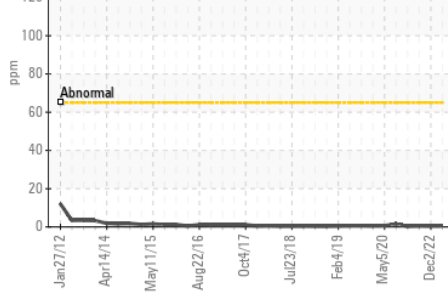
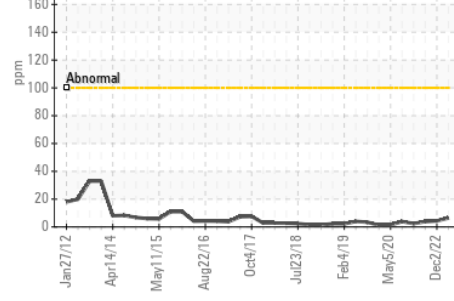
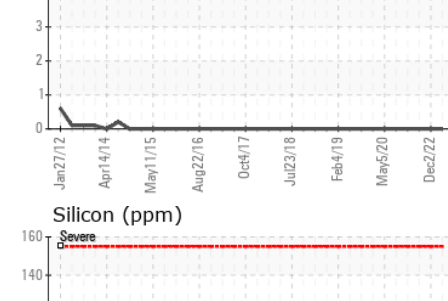
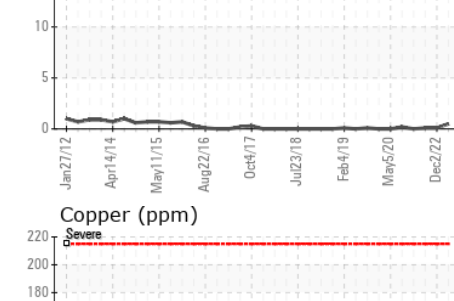
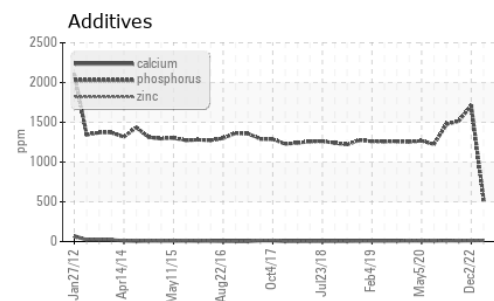
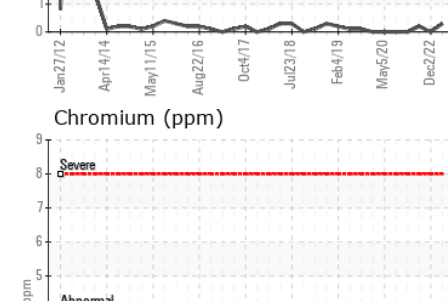
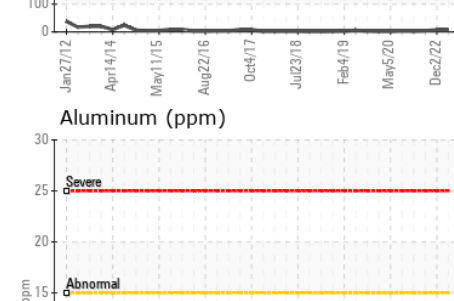
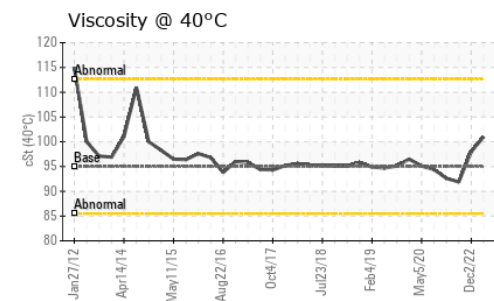
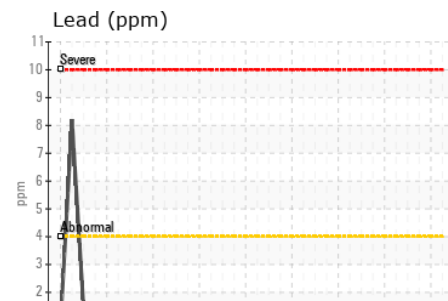
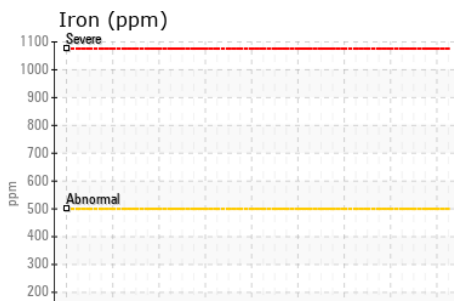
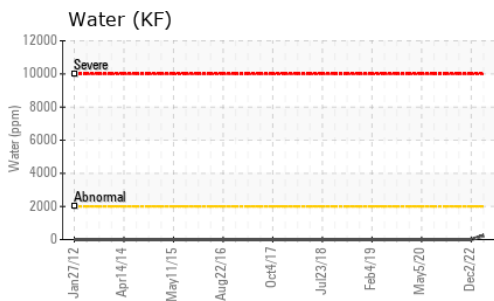
The water content is negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>65	<1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Water	%	ASTM D6304*	>0.2	0.024	---	---
ppm Water	ppm	ASTM D6304*	>2000	245	---	---
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	.2%	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		0	1	<1
Boron	ppm	ASTM D5185(m)		31	193	223
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		2	<1	<1
Calcium	ppm	ASTM D5185(m)		14	12	10
Phosphorus	ppm	ASTM D5185(m)		528	1711	1514
Zinc	ppm	ASTM D5185(m)		11	9	8
Sulfur	ppm	ASTM D5185(m)		17192	22645	20975
Visc @ 40°C	cSt	ASTM D7279(m)	95	101	98.0	91.9



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0281183 **Received** : 16 Feb 2024
Lab Number : 02616320 **Tested** : 20 Feb 2024
Unique Number : 5733430 **Diagnosed** : 20 Feb 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: KF)

ABC RECYCLING
 8081 MEADOW AVE.
 BURNABY, BC
 CA V3N 2V9
 Contact: John Anderson
 john.anderson@abcrcycling.com
 T: (778)988-9944
 F:

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.