



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Machine Id
LIEBHERR A934C 057446-1007
Component
Transmission (Manual)
Fluid
KLONDIKE HEAVY DUTY 15W40 (3 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0281193	LH0191987	LH0177449
Sample Date		Client Info		22 Jan 2024	02 Dec 2022	14 Feb 2021
Machine Age	hrs	Client Info		26482	25052	23033
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				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	11	12	7
Chromium	ppm	ASTM D5185(m)	>5	0	0	<1
Nickel	ppm	ASTM D5185(m)	>5	0	0	0
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>7	0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	2	2	1
Lead	ppm	ASTM D5185(m)	>45	3	4	4
Copper	ppm	ASTM D5185(m)	>225	104	171	168
Tin	ppm	ASTM D5185(m)	>10	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

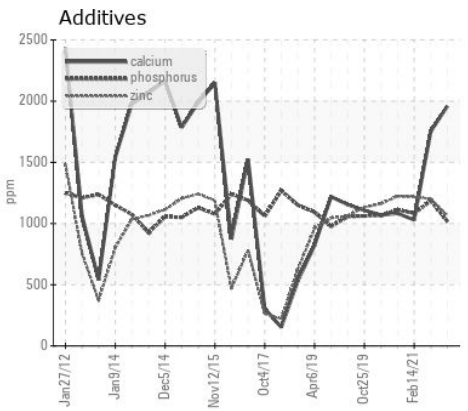
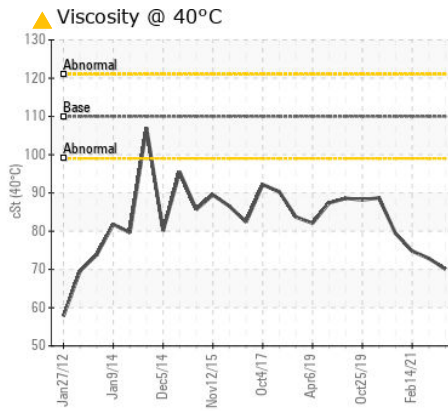
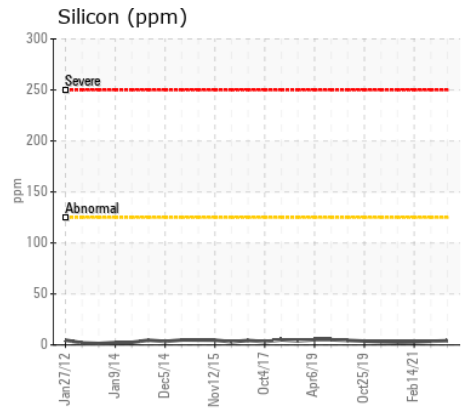
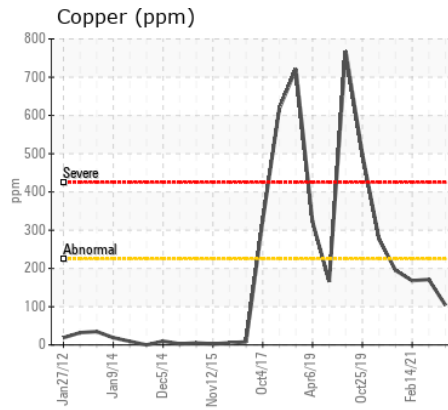
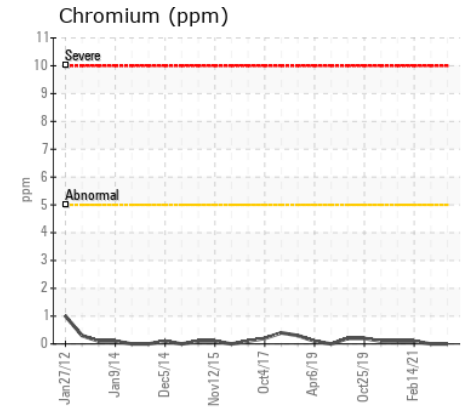
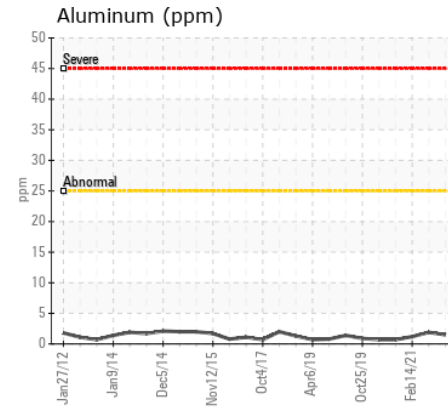
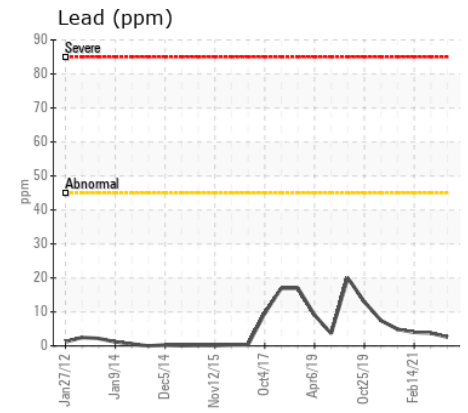
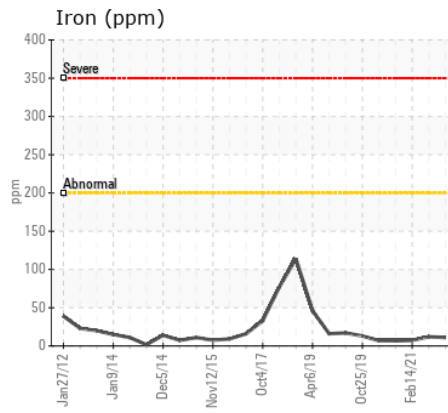
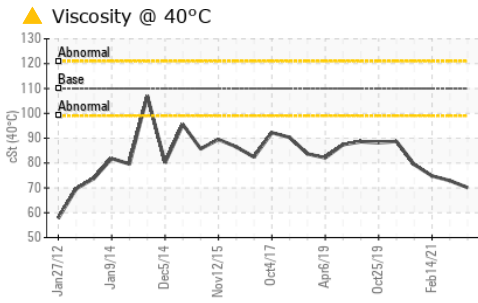
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185(m)	>125	4	4	3
Potassium	ppm	ASTM D5185(m)	>20	1	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	LIGHT
Sand/Dirt	scalar	Visual*	NONE	NONE	VLITE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the fluid is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		1	2	4
Boron	ppm	ASTM D5185(m)	70	27	49	18
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		37	74	57
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	50	248	491	969
Calcium	ppm	ASTM D5185(m)	2000	1959	1753	1029
Phosphorus	ppm	ASTM D5185(m)	1000	1017	1185	1084
Zinc	ppm	ASTM D5185(m)	1100	1066	1202	1217
Sulfur	ppm	ASTM D5185(m)	3400	3676	3646	3354
Visc @ 40°C	cSt	ASTM D7279(m)	110	▲ 70.1	▲ 72.9	▲ 74.8



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0281193
Lab Number : 02616313
Unique Number : 5733423
Test Package : MOB 1

Received : 16 Feb 2024
Tested : 16 Feb 2024
Diagnosed : 16 Feb 2024 - Kevin Marson

ABC RECYCLING
 8081 MEADOW AVE.
 BURNABY, BC
 CA V3N 2V9

Contact: John Anderson
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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.