



LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH26M 124532-1252
Component
Swing Drive
Fluid
GEAR OIL SAE 75W90 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0181020	LH0181007	LH0180994
Sample Date		Client Info		08 Sep 2023	10 Jan 2023	04 Apr 2022
Machine Age	hrs	Client Info		4078	3035	1978
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		None	None	None
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

A decrease in the iron level is noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184*		0	0	---
Iron	ppm	ASTM D5185(m)	>350	▲ 357	▲ 544	52
Chromium	ppm	ASTM D5185(m)	>15	3	3	<1
Nickel	ppm	ASTM D5185(m)	>5	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	0	0
Aluminum	ppm	ASTM D5185(m)	>5	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>10	2	2	1
Copper	ppm	ASTM D5185(m)	>300	72	75	51
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
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

There is no indication of any contamination in the oil.

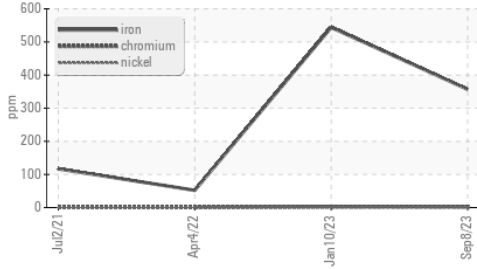
Silicon	ppm	ASTM D5185(m)	>15	2	3	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	▲ .2%	NEG

FLUID CONDITION

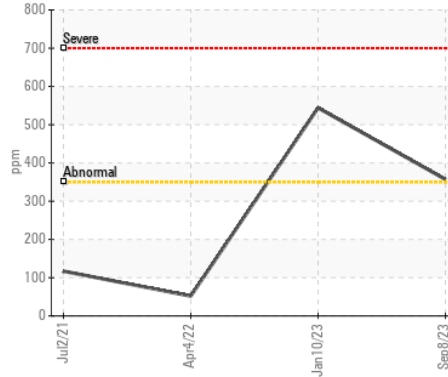
The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		1	2	1
Boron	ppm	ASTM D5185(m)	400	268	218	280
Barium	ppm	ASTM D5185(m)	200	0	0	2
Molybdenum	ppm	ASTM D5185(m)	12	<1	<1	<1
Manganese	ppm	ASTM D5185(m)		2	4	<1
Magnesium	ppm	ASTM D5185(m)	12	2	3	2
Calcium	ppm	ASTM D5185(m)	150	22	21	10
Phosphorus	ppm	ASTM D5185(m)	1650	1283	1325	1326
Zinc	ppm	ASTM D5185(m)	125	15	27	10
Sulfur	ppm	ASTM D5185(m)	22500	20632	22100	20867
Visc @ 40°C	cSt	ASTM D7279(m)	109	103	98.2	94.8

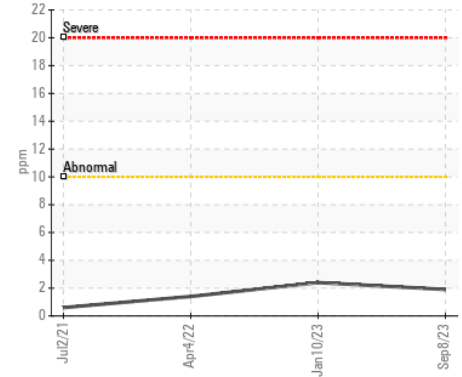
▲ Ferrous Alloys



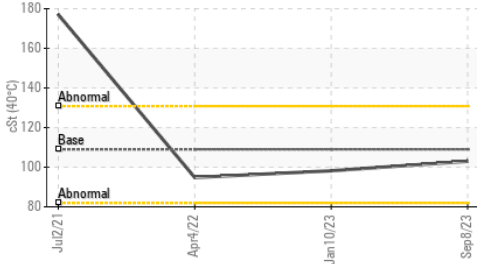
▲ Iron (ppm)



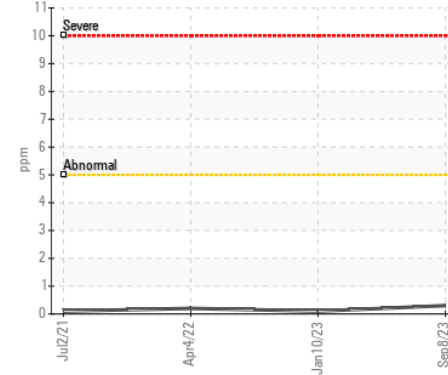
Lead (ppm)



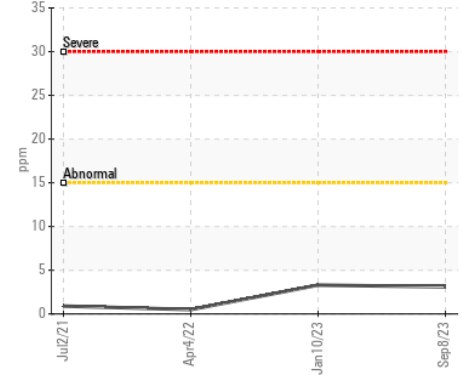
Viscosity @ 40°C



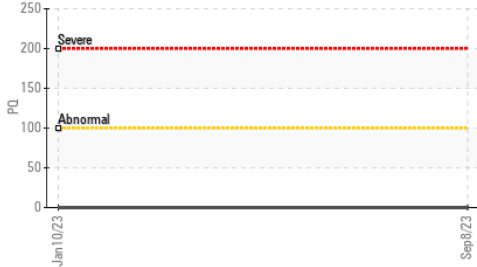
Aluminum (ppm)



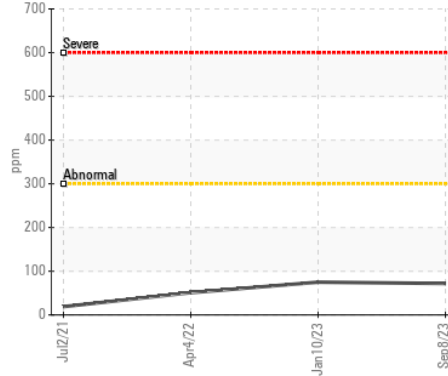
Chromium (ppm)



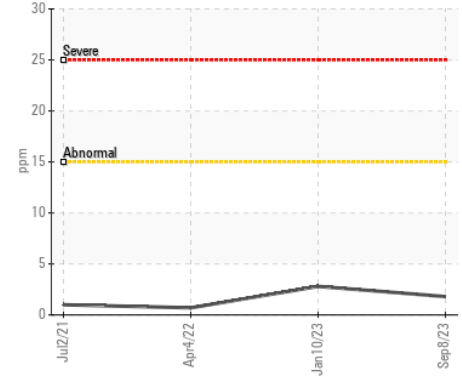
PQ



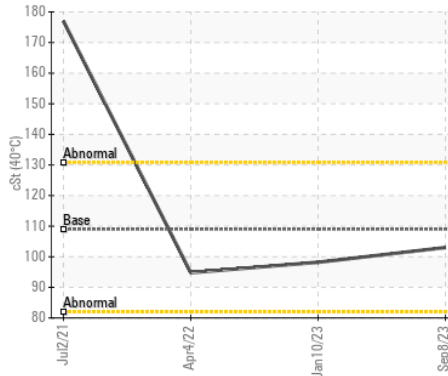
Copper (ppm)



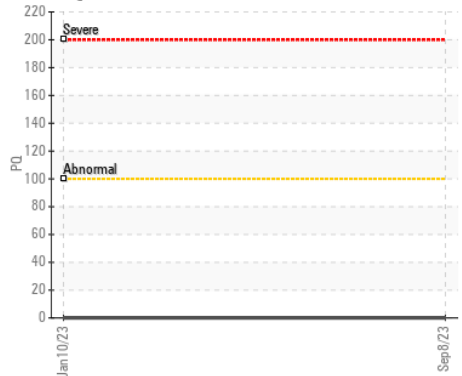
Silicon (ppm)



Viscosity @ 40°C



PQ



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0181020 **Received** : 20 Sep 2023
Lab Number : 02584088 **Tested** : 21 Sep 2023
Unique Number : 5645153 **Diagnosed** : 21 Sep 2023 - Bill Quesnel
Test Package : MOBCE (Additional Tests: PQ, Visual)

Amix Recycling
 11698 140 Street
 Surrey, BC
 CA V3R 2V4
 Contact: Kenji Wong
 kwong@amixgroup.ca
 T:
 F: (250)802-1002

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.