



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR 31248
 Component
Left Final Drive
 Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0913549	WC0924549	WC0882769
Sample Date		Client Info		15 Jul 2024	17 Apr 2024	14 Dec 2023
Machine Age	hrs	Client Info		6427	5968	5481
Oil Age	hrs	Client Info		500	2000	1500
Filter Age	hrs	Client Info		500	2000	1500
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	103	290	49
Chromium	ppm	ASTM D5185m	>10	1	4	<1
Nickel	ppm	ASTM D5185m	>10	<1	2	0
Titanium	ppm	ASTM D5185m		1	4	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	18	78	3
Lead	ppm	ASTM D5185m	>25	0	<1	0
Copper	ppm	ASTM D5185m	>50	<1	3	0
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

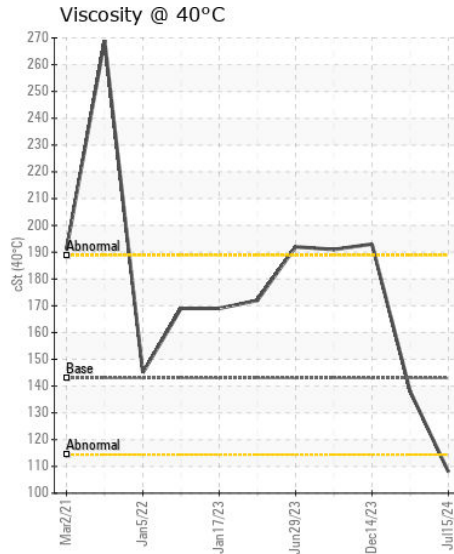
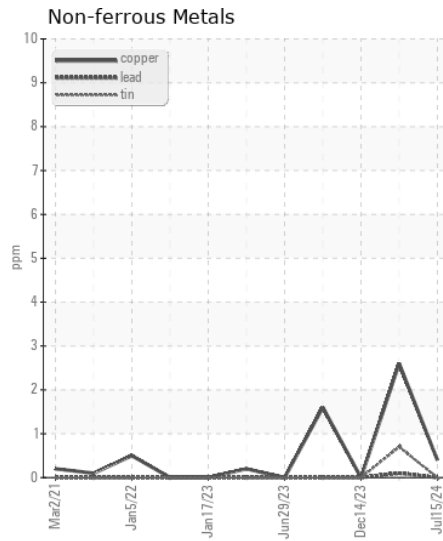
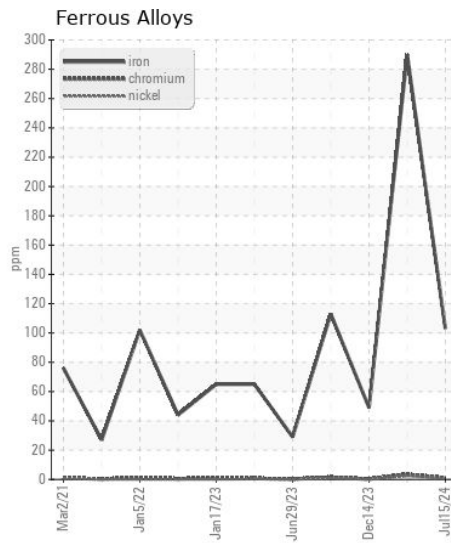
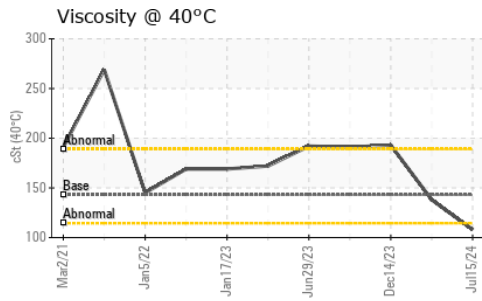
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	63	269	17
Potassium	ppm	ASTM D5185m	>20	5	18	0
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	MODER	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	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>170	0	4	<1
Boron	ppm	ASTM D5185m	400	94	97	4
Barium	ppm	ASTM D5185m	200	0	0	0
Molybdenum	ppm	ASTM D5185m	12	14	10	0
Manganese	ppm	ASTM D5185m		<1	3	<1
Magnesium	ppm	ASTM D5185m	12	58	21	0
Calcium	ppm	ASTM D5185m	150	175	73	2
Phosphorus	ppm	ASTM D5185m	1650	2232	1920	2202
Zinc	ppm	ASTM D5185m	125	141	59	0
Sulfur	ppm	ASTM D5185m	22500	15845	24114	28372
Visc @ 40°C	cSt	ASTM D445	143	108	138	193



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0913549
Lab Number : 06240734
Unique Number : 11129568
Test Package : CONST

Received : 18 Jul 2024
Tested : 19 Jul 2024
Diagnosed : 20 Jul 2024 - Don Baldrige

SULLIVAN EASTERN INC-LIEBHERR
 2860 C SLATER RD
 MORRISVILLE, NC
 US 27560
 Contact: CHRIS CALTON

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
 F: (919)484-2136