



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
22702
 Component
Left Final Drive
 Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0950648	WC0924554	WC0846621
Sample Date		Client Info		16 Jul 2024	17 Apr 2024	19 Dec 2023
Machine Age	hrs	Client Info		2988	2519	2035
Oil Age	hrs	Client Info		1000	500	250
Filter Age	hrs	Client Info		1000	500	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

The copper level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	76	80	140
Chromium	ppm	ASTM D5185m	>10	<1	1	1
Nickel	ppm	ASTM D5185m	>10	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	1	3
Lead	ppm	ASTM D5185m	>25	0	1	0
Copper	ppm	ASTM D5185m	>50	▲ 103	▲ 86	▲ 178
Tin	ppm	ASTM D5185m	>10	3	4	7
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

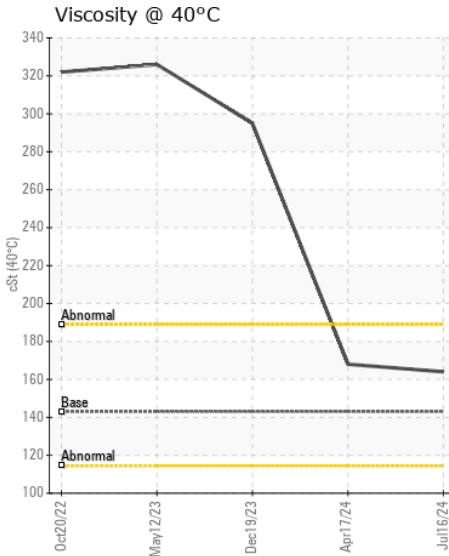
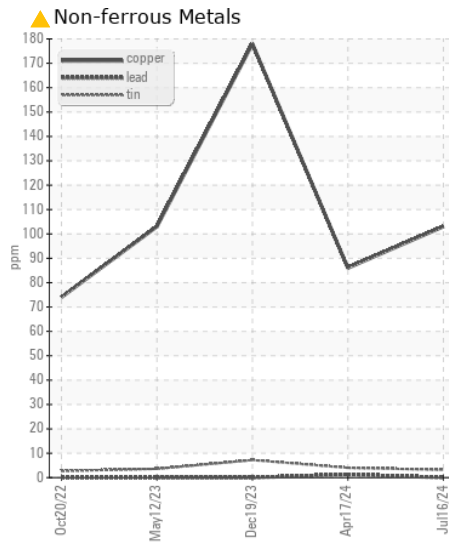
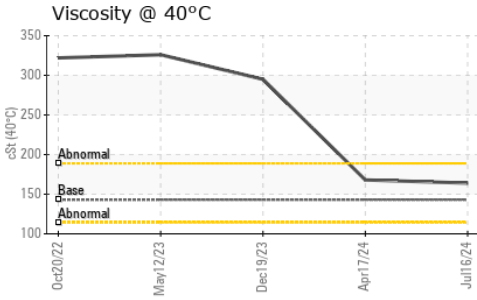
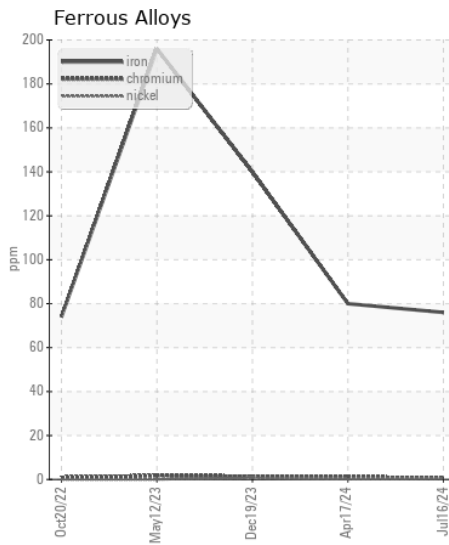
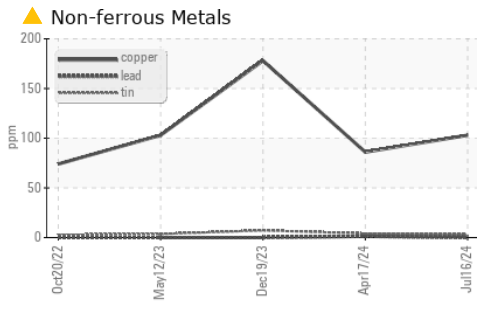
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	10	7	10
Potassium	ppm	ASTM D5185m	>20	2	2	2
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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	1	3	4
Boron	ppm	ASTM D5185m	400	67	90	5
Barium	ppm	ASTM D5185m	200	17	22	61
Molybdenum	ppm	ASTM D5185m	12	7	8	0
Manganese	ppm	ASTM D5185m		<1	1	3
Magnesium	ppm	ASTM D5185m	12	12	10	2
Calcium	ppm	ASTM D5185m	150	17	45	33
Phosphorus	ppm	ASTM D5185m	1650	1358	1460	1214
Zinc	ppm	ASTM D5185m	125	33	49	73
Sulfur	ppm	ASTM D5185m	22500	20286	24832	26089
Visc @ 40°C	cSt	ASTM D445	143	164	168	295



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0950648
Lab Number : 06240721
Unique Number : 11129555
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)

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