



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

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

## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0924554</b>	WC0846621	WC0786686
Sample Date		Client Info		<b>17 Apr 2024</b>	19 Dec 2023	12 May 2023
Machine Age	hrs	Client Info		<b>2519</b>	2035	1014
Oil Age	hrs	Client Info		<b>500</b>	250	1000
Filter Age	hrs	Client Info		<b>500</b>	0	1000
Oil Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changed</b>	N/A	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

The copper level has decreased, but is still abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>80</b>	140	196
Chromium	ppm	ASTM D5185m	>10	<b>1</b>	1	2
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	3	3
Lead	ppm	ASTM D5185m	>25	<b>1</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>▲ 86</b>	▲ 178	▲ 103
Tin	ppm	ASTM D5185m	>10	<b>4</b>	7	4
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

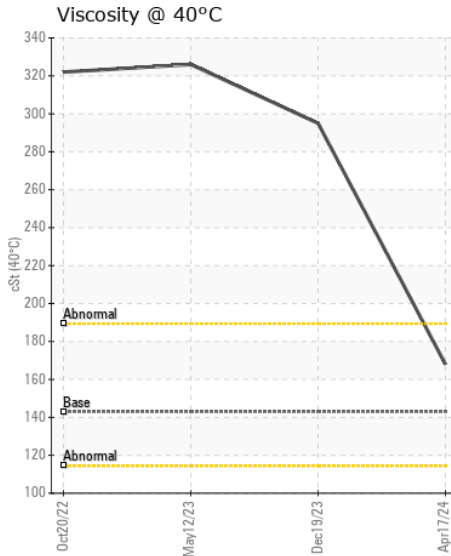
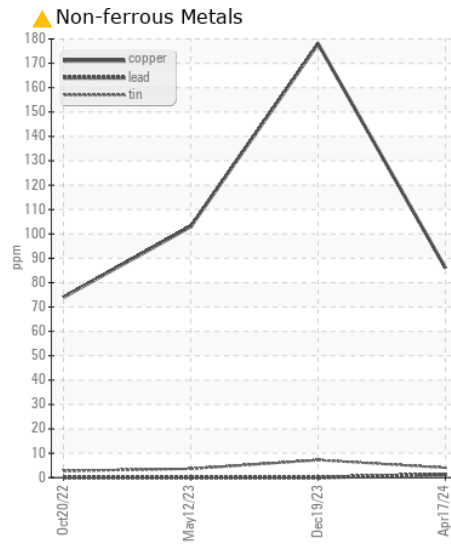
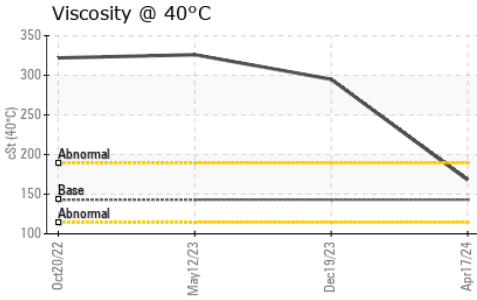
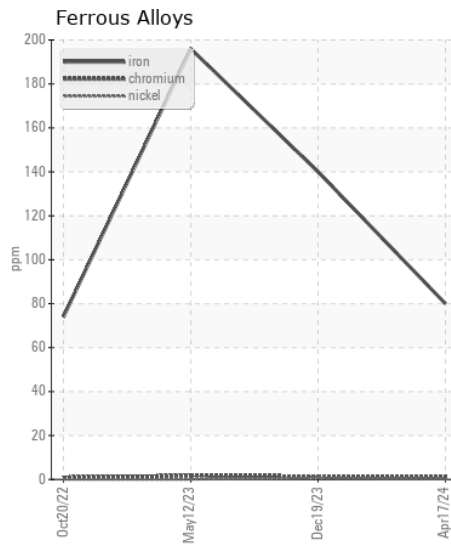
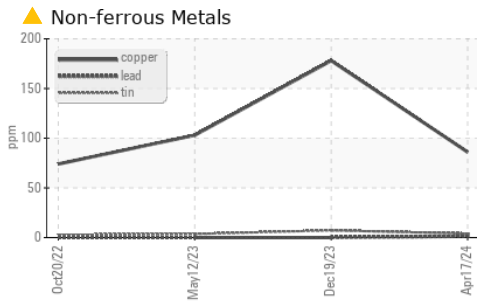
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>7</b>	10	8
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>170	<b>3</b>	4	5
Boron	ppm	ASTM D5185m	400	<b>90</b>	5	2
Barium	ppm	ASTM D5185m	200	<b>22</b>	61	39
Molybdenum	ppm	ASTM D5185m	12	<b>8</b>	0	0
Manganese	ppm	ASTM D5185m		<b>1</b>	3	2
Magnesium	ppm	ASTM D5185m	12	<b>10</b>	2	0
Calcium	ppm	ASTM D5185m	150	<b>45</b>	33	17
Phosphorus	ppm	ASTM D5185m	1650	<b>1460</b>	1214	1097
Zinc	ppm	ASTM D5185m	125	<b>49</b>	73	29
Sulfur	ppm	ASTM D5185m	22500	<b>24832</b>	26089	25056
Visc @ 40°C	cSt	ASTM D445	143	<b>168</b>	295	326



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0924554  
**Lab Number** : 06156443  
**Unique Number** : 10991866  
**Test Package** : CONST

**Received** : 22 Apr 2024  
**Tested** : 23 Apr 2024  
**Diagnosed** : 24 Apr 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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