



Machine Id  
**427192**  
 Component  
**2 Differential**  
 Fluid  
**GEAR OIL LS 80W90 (--- GAL)**

**RECOMMENDATION**

We advise that you check all areas where dirt can enter the system. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. ( Customer Sample Comment: 2nd Axle / Tag )

**WEAR**

Gear wear is indicated.

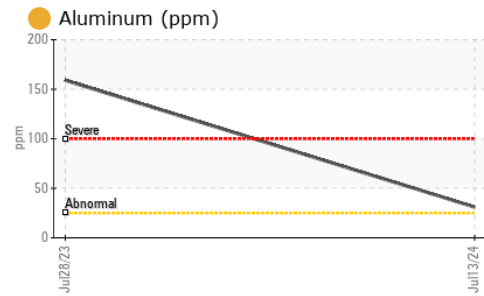
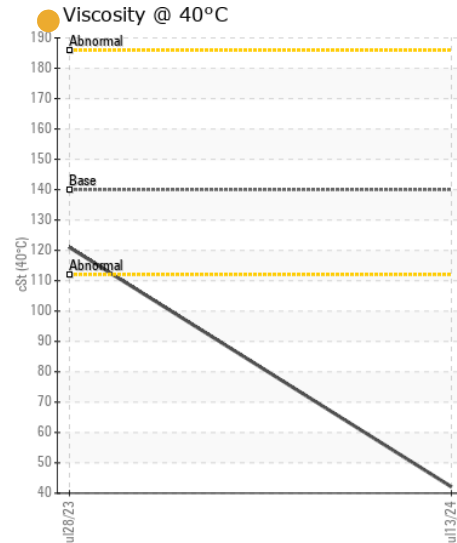
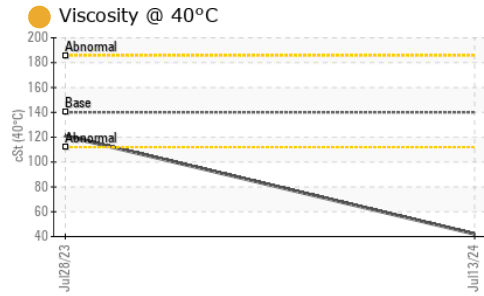
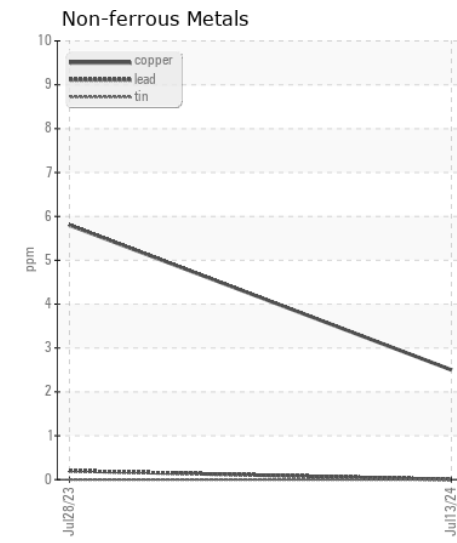
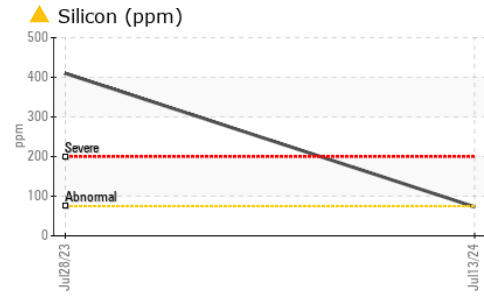
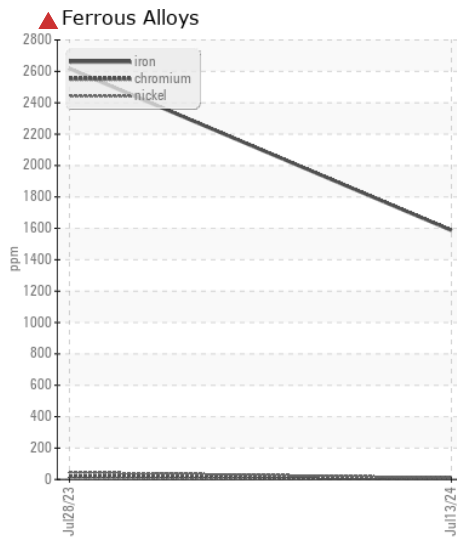
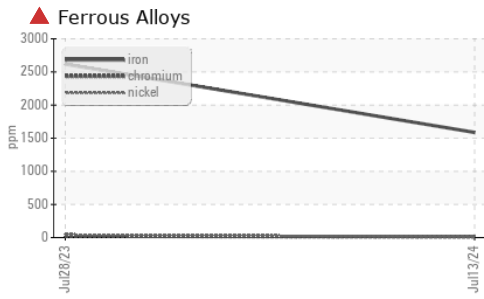
**CONTAMINATION**

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

**FLUID CONDITION**

The oil viscosity is lower than normal. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0128776</b>	GFL0089436	---
Sample Date		Client Info		<b>13 Jul 2024</b>	28 Jul 2023	---
Machine Age	mls	Client Info		<b>355324</b>	329996	---
Oil Age	mls	Client Info		<b>25328</b>	329996	---
Filter Age	mls	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	---
Filter Changed		Client Info		<b>Not Chngd</b>	N/A	---
Sample Status				<b>SEVERE</b>	SEVERE	---
Iron	ppm	ASTM D5185m	>500	<b>▲ 1587</b>	▲ 2618	---
Chromium	ppm	ASTM D5185m	>10	<b>▲ 10</b>	▲ 19	---
Nickel	ppm	ASTM D5185m	>10	<b>▲ 10</b>	▲ 45	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	4	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>● 31</b>	● 159	---
Lead	ppm	ASTM D5185m	>25	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m	>100	<b>2</b>	6	---
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Silicon	ppm	ASTM D5185m	>75	<b>▲ 73</b>	▲ 410	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	15	---
Water		WC Method	>.2	<b>NEG</b>	NEG	---
Silt	scalar	*Visual	NONE	<b>MODER</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>.2	<b>NEG</b>	NEG	---
Sodium	ppm	ASTM D5185m		<b>2</b>	4	---
Boron	ppm	ASTM D5185m	150	<b>6</b>	28	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>3</b>	6	---
Manganese	ppm	ASTM D5185m		<b>16</b>	29	---
Magnesium	ppm	ASTM D5185m	10	<b>3</b>	12	---
Calcium	ppm	ASTM D5185m	70	<b>49</b>	303	---
Phosphorus	ppm	ASTM D5185m	2000	<b>512</b>	420	---
Zinc	ppm	ASTM D5185m	50	<b>10</b>	95	---
Sulfur	ppm	ASTM D5185m	20000	<b>19129</b>	17615	---
Visc @ 40°C	cSt	ASTM D445	140	<b>● 42.1</b>	121	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0128776  
**Lab Number** : 06240768  
**Unique Number** : 11129602  
**Test Package** : FLEET

**Received** : 18 Jul 2024  
**Tested** : 19 Jul 2024  
**Diagnosed** : 22 Jul 2024 - Don Baldrige

**GFL Environmental - 983 - Sugar Land Hauling**  
 16011 West Belfort Street  
 Sugar Land, TX  
 US 77498  
 Contact: Adrian Martinez  
 adrianmartinez@gflenv.com

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: