



# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**WALPOLE**  
 Machine Id  
**134 - WALPOLE**  
 Component  
**Rear Differential**  
 Fluid  
**GEAR OIL SAE 80 (--- GAL)**

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0900837</b>	---	---
Sample Date	Client Info	<b>07 Mar 2024</b>	---	---
Machine Age	mls	Client Info	<b>38538</b>	---
Oil Age	mls	Client Info	<b>0</b>	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	<b>107</b>	---
Chromium	ppm	ASTM D5185m >10	<b>1</b>	---
Nickel	ppm	ASTM D5185m >10	<b>&lt;1</b>	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	---
Silver	ppm	ASTM D5185m	<b>&lt;1</b>	---
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	---
Lead	ppm	ASTM D5185m >25	<b>&lt;1</b>	---
Copper	ppm	ASTM D5185m >100	<b>1</b>	---
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 400	<b>199</b>	---
Barium	ppm	ASTM D5185m 200	<b>0</b>	---
Molybdenum	ppm	ASTM D5185m 12	<b>&lt;1</b>	---
Manganese	ppm	ASTM D5185m	<b>6</b>	---
Magnesium	ppm	ASTM D5185m 12	<b>60</b>	---
Calcium	ppm	ASTM D5185m 150	<b>9</b>	---
Phosphorus	ppm	ASTM D5185m 1650	<b>1663</b>	---
Zinc	ppm	ASTM D5185m 125	<b>15</b>	---
Sulfur	ppm	ASTM D5185m 22500	<b>27644</b>	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>32</b>	---
Sodium	ppm	ASTM D5185m	<b>3</b>	---
Potassium	ppm	ASTM D5185m >20	<b>2</b>	---
Water	%	ASTM D6304 >.2	<b>0.042</b>	---
ppm Water	ppm	ASTM D6304 >2000	<b>421</b>	---

## FLUID CLEANLINESS

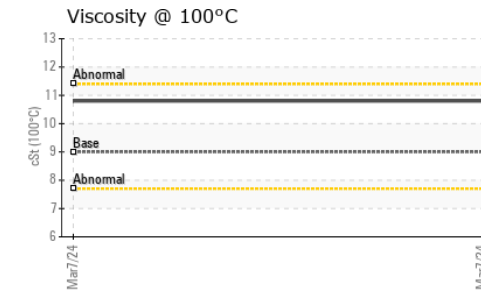
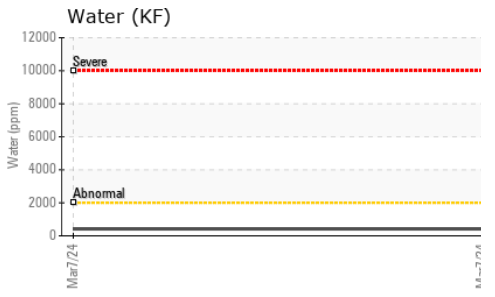
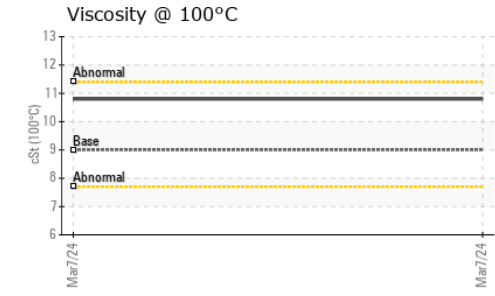
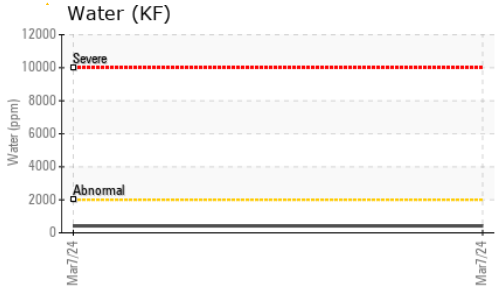
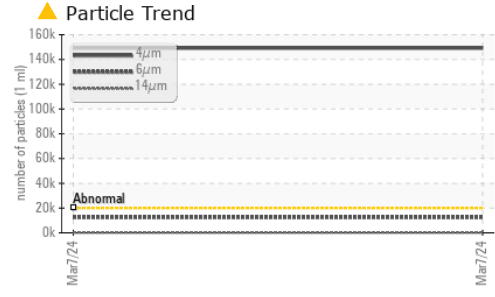
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>▲ 149160</b>	---
Particles >6µm	ASTM D7647	>5000	<b>▲ 12510</b>	---
Particles >14µm	ASTM D7647	>640	<b>189</b>	---
Particles >21µm	ASTM D7647	>160	<b>51</b>	---
Particles >38µm	ASTM D7647	>40	<b>4</b>	---
Particles >71µm	ASTM D7647	>10	<b>1</b>	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>▲ 24/21/15</b>	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 2.00	<b>1.73</b>	---





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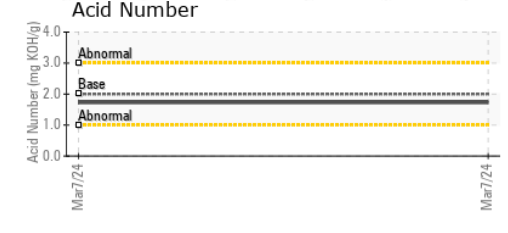
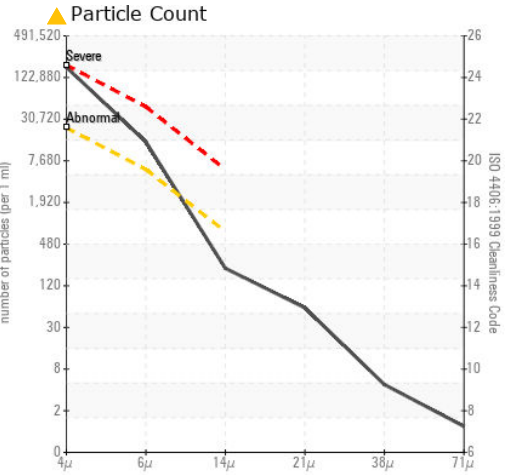
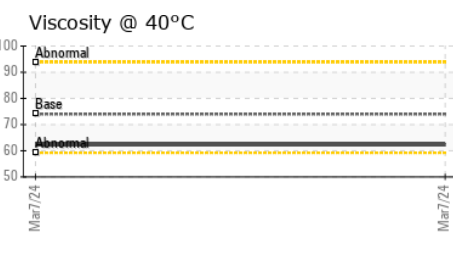
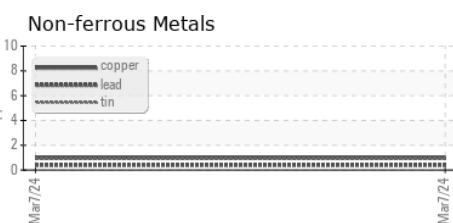
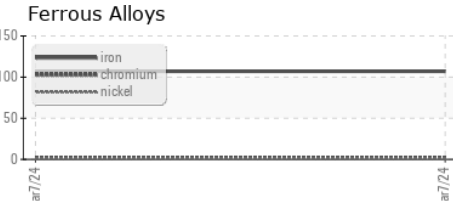
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	74	62.3	---
Visc @ 100°C	cSt	ASTM D445	9.0	10.8	---
Viscosity Index (VI)	Scale	ASTM D2270	94	165	---

### SAMPLE IMAGES

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0900837      **Received** : 27 Mar 2024  
**Lab Number** : 06131408      **Tested** : 28 Mar 2024  
**Unique Number** : 10950873      **Diagnosed** : 02 Apr 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**BASF - GIANNA CREDAROLI**  
 500 WHITE PLAINS RD  
 TARRYTOWN, NY  
 US 10591  
 Contact: GIANNA CREDAROLI  
 gianna.credaroli@basf.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)