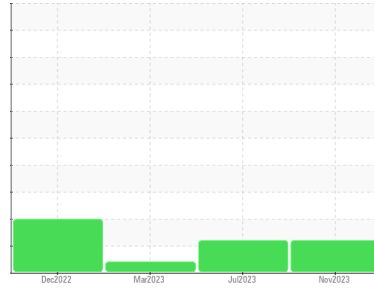




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**WALPOLE**  
Machine Id  
**941 - WALPOLE**  
Component  
**Rear Differential**  
Fluid  
**NOT GIVEN (--- 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>WC0876013</b>	WC0828729	WC0815597
Sample Date	Client Info		<b>14 Nov 2023</b>	11 Jul 2023	22 Mar 2023
Machine Age	mls	Client Info	<b>162386</b>	118161	76823
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	<b>188</b>	183	151
Chromium	ppm	ASTM D5185m >10	<b>3</b>	3	3
Nickel	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>6</b>	9	5
Lead	ppm	ASTM D5185m >25	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >100	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>60</b>	78	68
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>10</b>	10	8
Magnesium	ppm	ASTM D5185m	<b>197</b>	180	179
Calcium	ppm	ASTM D5185m	<b>8</b>	7	6
Phosphorus	ppm	ASTM D5185m	<b>1765</b>	1675	1587
Zinc	ppm	ASTM D5185m	<b>0</b>	14	14
Sulfur	ppm	ASTM D5185m	<b>24906</b>	25441	25470

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>43</b>	44	39
Sodium	ppm	ASTM D5185m	<b>3</b>	0	<1
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	2
Water	%	ASTM D6304 >.2	<b>0.018</b>	0.045	0.015
ppm Water	ppm	ASTM D6304 >2000	<b>181</b>	456.3	153.1

## FLUID CLEANLINESS

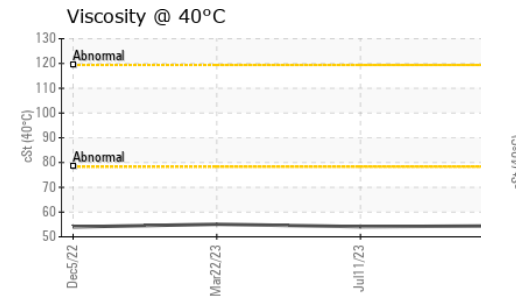
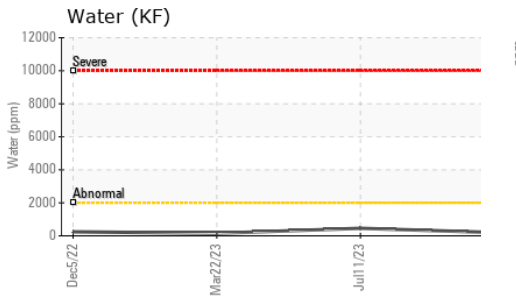
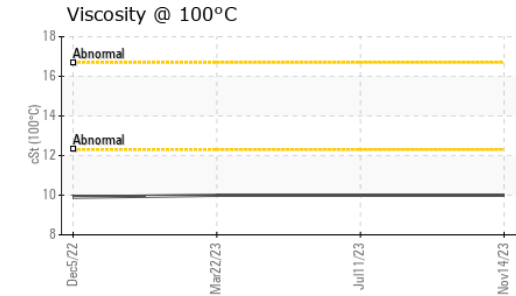
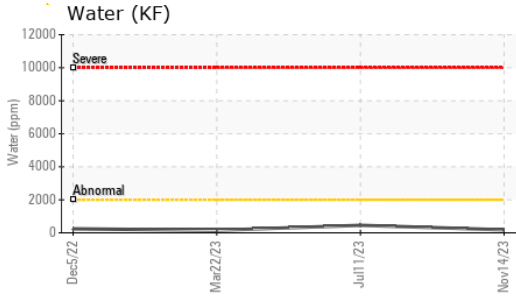
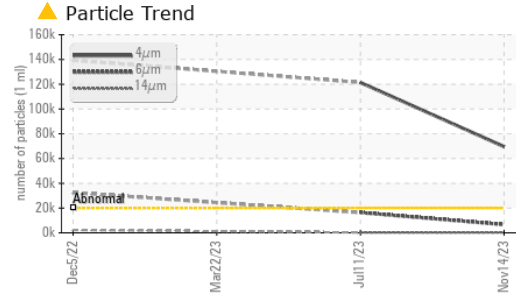
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>▲ 69600</b>	▲ 121397	---
Particles >6µm	ASTM D7647	>5000	<b>▲ 6614</b>	▲ 16327	---
Particles >14µm	ASTM D7647	>640	<b>226</b>	218	---
Particles >21µm	ASTM D7647	>160	<b>62</b>	44	---
Particles >38µm	ASTM D7647	>40	<b>2</b>	1	---
Particles >71µm	ASTM D7647	>10	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>▲ 23/20/15</b>	▲ 24/21/15	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.47</b>	0.64	0.57



# OIL ANALYSIS REPORT

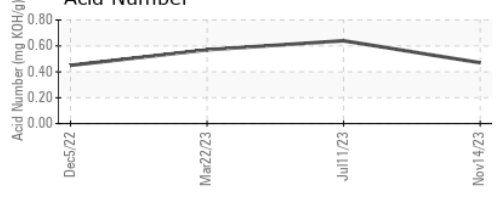
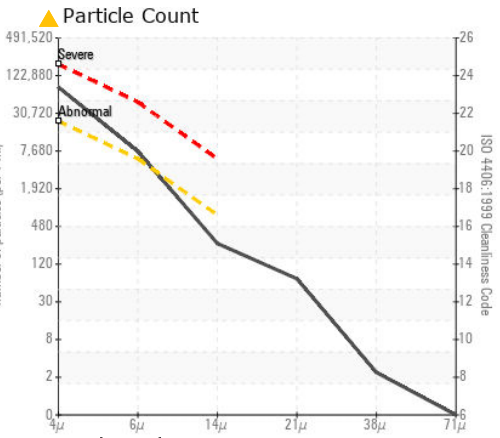
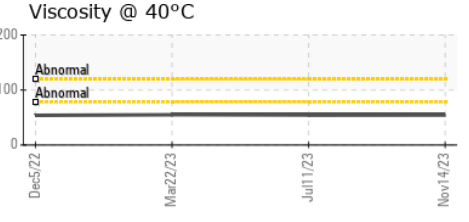
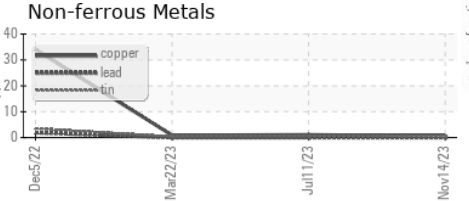
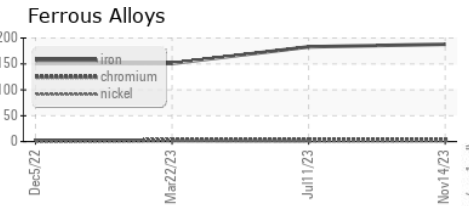


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	54.4	54.1	55.08
Visc @ 100°C	cSt	ASTM D445	10.0	10.0	10.0
Viscosity Index (VI)	Scale	ASTM D2270	173	174	170

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0876013 **Received** : 05 Dec 2023  
**Lab Number** : 06025722 **Diagnosed** : 07 Dec 2023  
**Unique Number** : 10770222 **Diagnostician** : Don Baldrige  
**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)