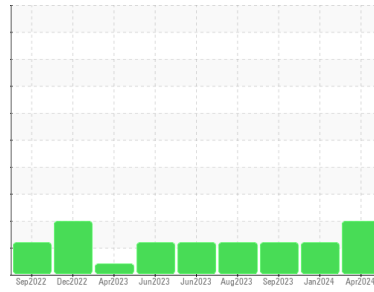




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**WALPOLE**  
 Machine Id  
**943 - WALPOLE**  
 Component  
**Rear Differential**  
 Fluid  
**{not provided} (--- 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 particulates 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>WC0934500</b>	WC0900919	WC0853877
Sample Date	Client Info		<b>24 Apr 2024</b>	18 Jan 2024	21 Sep 2023
Machine Age	mls	Client Info	<b>220893</b>	184102	144700
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>192</b>	172	164
Chromium	ppm	ASTM D5185m >10	<b>3</b>	3	3
Nickel	ppm	ASTM D5185m >10	<b>1</b>	1	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>9</b>	8	7
Lead	ppm	ASTM D5185m >25	<b>0</b>	2	0
Copper	ppm	ASTM D5185m >100	<b>2</b>	3	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>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>70</b>	66	62
Barium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m	<b>8</b>	9	7
Magnesium	ppm	ASTM D5185m	<b>195</b>	197	197
Calcium	ppm	ASTM D5185m	<b>10</b>	10	7
Phosphorus	ppm	ASTM D5185m	<b>1792</b>	1687	1684
Zinc	ppm	ASTM D5185m	<b>11</b>	11	10
Sulfur	ppm	ASTM D5185m	<b>29888</b>	23606	24796

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>48</b>	48	49
Sodium	ppm	ASTM D5185m	<b>4</b>	5	3
Potassium	ppm	ASTM D5185m >20	<b>2</b>	4	<1
Water	%	ASTM D6304 >.2	<b>0.030</b>	0.036	0.019
ppm Water	ppm	ASTM D6304 >2000	<b>305</b>	367	197.5

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ <b>304455</b>	▲ 82076	▲ 87305
Particles >6µm	ASTM D7647	>5000	▲ <b>120005</b>	● 9145	● 5826
Particles >14µm	ASTM D7647	>640	▲ <b>5202</b>	161	46
Particles >21µm	ASTM D7647	>160	▲ <b>635</b>	32	5
Particles >38µm	ASTM D7647	>40	<b>4</b>	2	0
Particles >71µm	ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ <b>25/24/20</b>	▲ 24/20/15	▲ 24/20/13

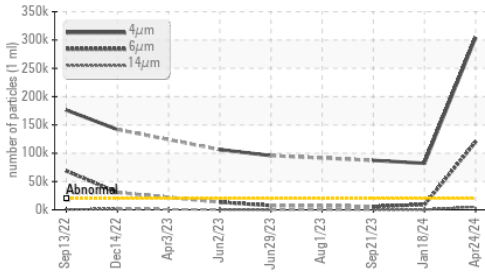
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.44</b>	0.47	0.46

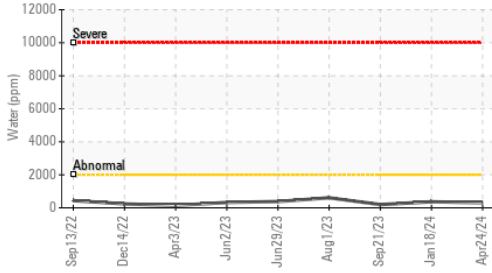


# OIL ANALYSIS REPORT

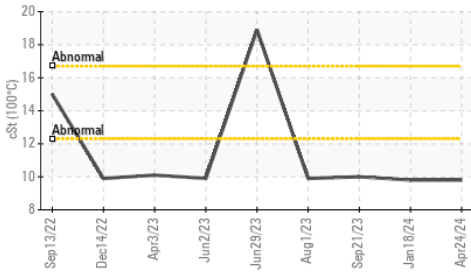
## Particle Trend



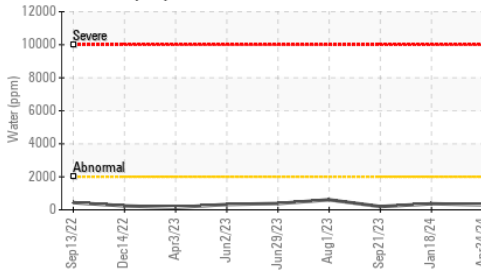
## Water (KF)



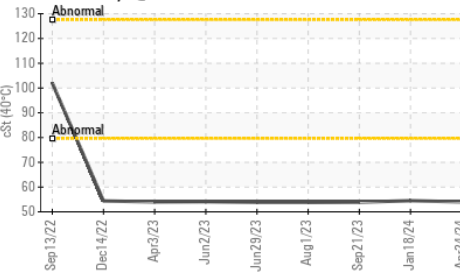
## Viscosity @ 100°C



## Water (KF)



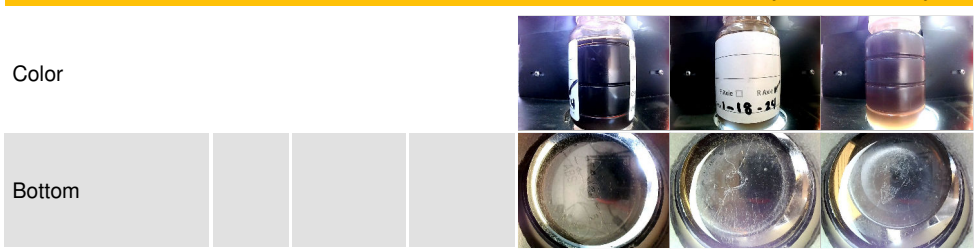
## Viscosity @ 40°C



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	NONE
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

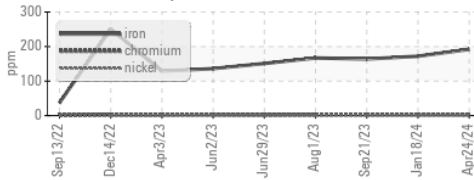
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	54.0	54.5	53.9
Visc @ 100°C	cSt	ASTM D445	9.8	9.8	10.0
Viscosity Index (VI)	Scale	ASTM D2270	169	167	175

## SAMPLE IMAGES

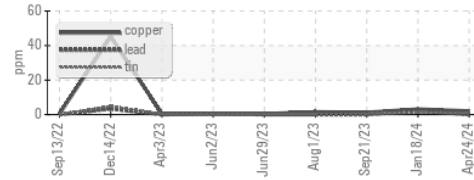


## GRAPHS

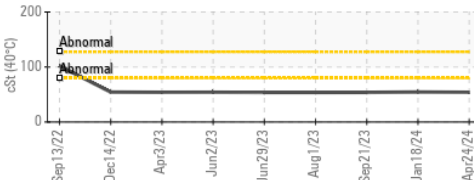
### Ferrous Alloys



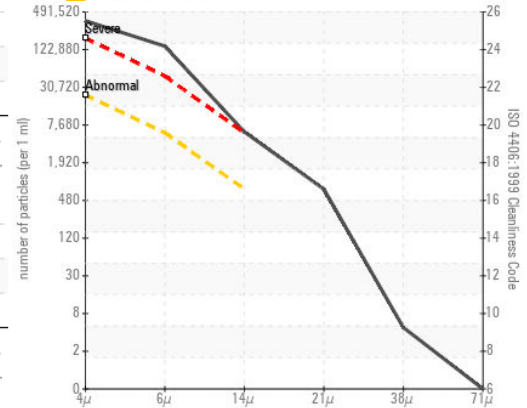
### Non-ferrous Metals



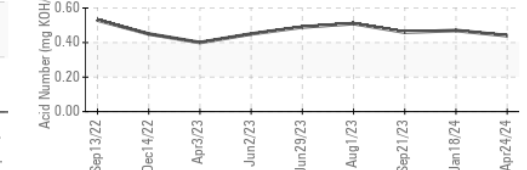
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0934500

Lab Number : 06179389

Unique Number : 11030715

Test Package : MOB 2 ( Additional Tests: KF, KV100, PrtCount, VI )

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)

Received : 14 May 2024

Tested : 16 May 2024

Diagnosed : 16 May 2024 - Angela Borella

BASF - GIANNA CREDAROLI

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US 10591

Contact: GIANNA CREDAROLI

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