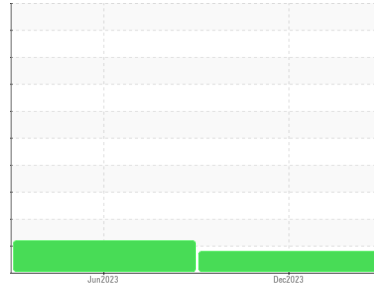




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**DAYTON FREIGHT**  
 Machine Id  
**DAYTON FREIGHT 423812**  
 Component  
**Front Differential**  
 Fluid  
**GEAR OIL SAE 75W90 (--- 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 < 6 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>WC0900832</b>	WC0828706	---
Sample Date	Client Info		<b>13 Dec 2023</b>	23 Jun 2023	---
Machine Age	mls	Client Info	<b>40725</b>	1674	---
Oil Age	mls	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>ABNORMAL</b>	ABNORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	<b>87</b>	36	---
Chromium	ppm	ASTM D5185m >10	<b>1</b>	<1	---
Nickel	ppm	ASTM D5185m >10	<b>2</b>	<1	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	2	---
Lead	ppm	ASTM D5185m >25	<b>2</b>	2	---
Copper	ppm	ASTM D5185m >100	<b>23</b>	6	---
Tin	ppm	ASTM D5185m >10	<b>1</b>	<1	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 400	<b>240</b>	298	---
Barium	ppm	ASTM D5185m 200	<b>3</b>	4	---
Molybdenum	ppm	ASTM D5185m 12	<b>&lt;1</b>	0	---
Manganese	ppm	ASTM D5185m	<b>8</b>	4	---
Magnesium	ppm	ASTM D5185m 12	<b>6</b>	1	---
Calcium	ppm	ASTM D5185m 150	<b>15</b>	11	---
Phosphorus	ppm	ASTM D5185m 1650	<b>1435</b>	1392	---
Zinc	ppm	ASTM D5185m 125	<b>10</b>	9	---
Sulfur	ppm	ASTM D5185m 22500	<b>26982</b>	29492	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>39</b>	31	---
Sodium	ppm	ASTM D5185m	<b>56</b>	48	---
Potassium	ppm	ASTM D5185m >20	<b>2</b>	1	---
Water	%	ASTM D6304 >.2	<b>0.038</b>	0.038	---
ppm Water	ppm	ASTM D6304 >2000	<b>382</b>	389.0	---

## FLUID CLEANLINESS

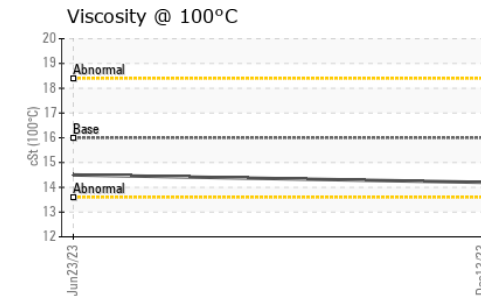
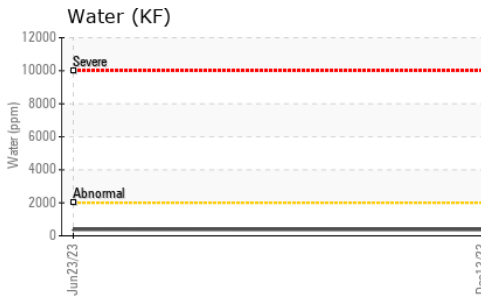
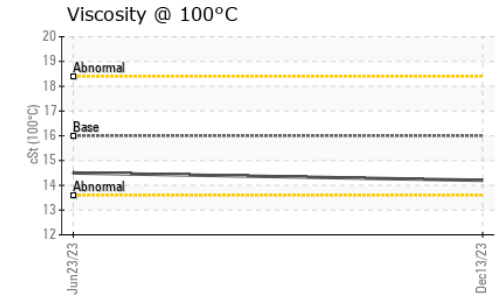
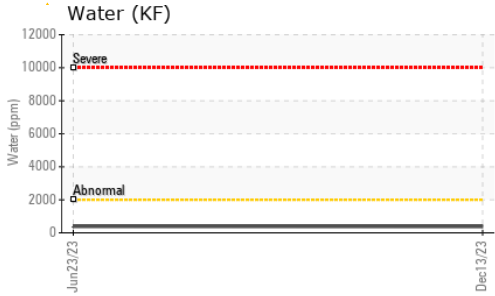
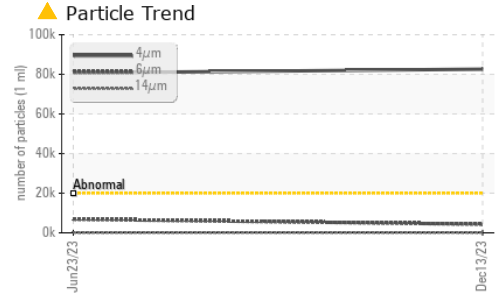
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>▲ 82615</b>	▲ 80715	---
Particles >6µm	ASTM D7647	>5000	<b>▲ 4327</b>	● 6864	---
Particles >14µm	ASTM D7647	>640	<b>75</b>	50	---
Particles >21µm	ASTM D7647	>160	<b>14</b>	11	---
Particles >38µm	ASTM D7647	>40	<b>0</b>	1	---
Particles >71µm	ASTM D7647	>10	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>▲ 24/19/13</b>	▲ 24/20/13	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 2.00	<b>2.17</b>	2.04	---



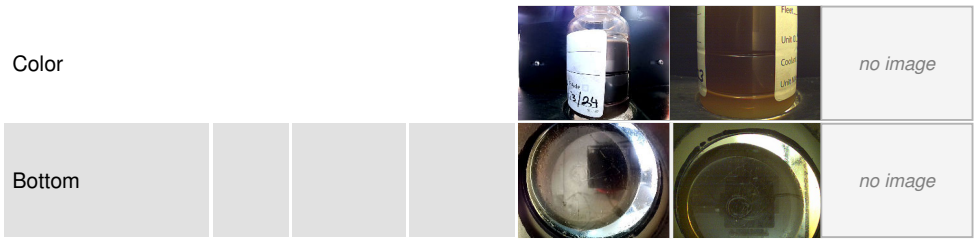
# OIL ANALYSIS REPORT



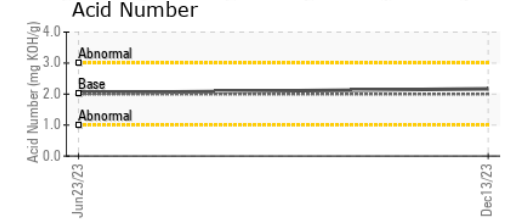
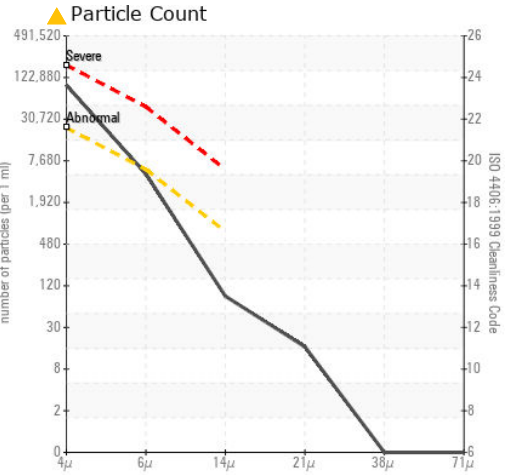
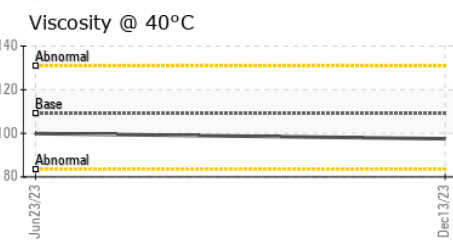
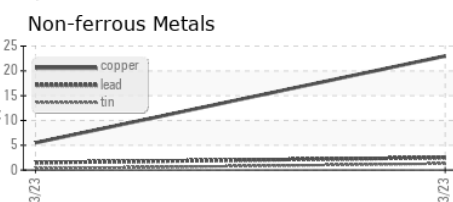
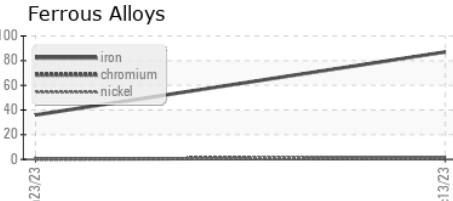
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	109	97.5	99.9
Visc @ 100°C	cSt	ASTM D445	16.0	14.2	14.5
Viscosity Index (VI)	Scale	ASTM D2270	157	149	149

### SAMPLE IMAGES



### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0900832      **Received** : 27 Mar 2024  
**Lab Number** : **06131403**      **Tested** : 28 Mar 2024  
**Unique Number** : 10950868      **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)