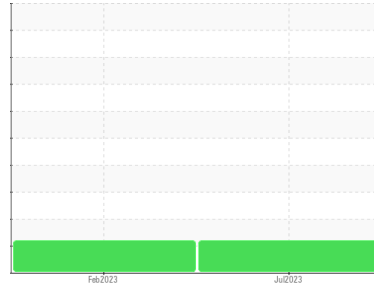




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**TSI**  
 Machine Id  
**TSI 12856**  
 Component  
**Front 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>WC0843265</b>	WC0771174	---
Sample Date	Client Info		<b>20 Jul 2023</b>	05 Feb 2023	---
Machine Age	mls	Client Info	<b>52854</b>	0	---
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>60</b>	12	---
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m >10	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	0	---
Lead	ppm	ASTM D5185m >25	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >100	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	---
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>285</b>	276	---
Barium	ppm	ASTM D5185m 200	<b>0</b>	4	---
Molybdenum	ppm	ASTM D5185m 12	<b>0</b>	0	---
Manganese	ppm	ASTM D5185m	<b>4</b>	4	---
Magnesium	ppm	ASTM D5185m 12	<b>2</b>	<1	---
Calcium	ppm	ASTM D5185m 150	<b>2</b>	5	---
Phosphorus	ppm	ASTM D5185m 1650	<b>1497</b>	1304	---
Zinc	ppm	ASTM D5185m 125	<b>3</b>	7	---
Sulfur	ppm	ASTM D5185m 22500	<b>25056</b>	22154	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>10</b>	12	---
Sodium	ppm	ASTM D5185m	<b>3</b>	3	---
Potassium	ppm	ASTM D5185m >20	<b>3</b>	1	---
Water	%	ASTM D6304 >.2	<b>0.036</b>	0.030	---
ppm Water	ppm	ASTM D6304 >2000	<b>363.1</b>	303.8	---

## FLUID CLEANLINESS

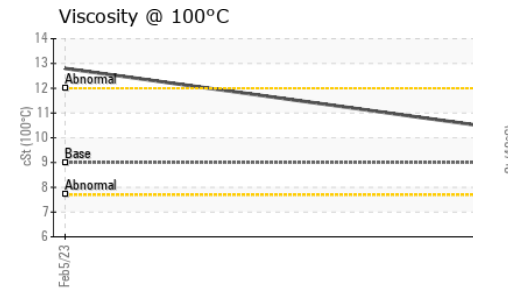
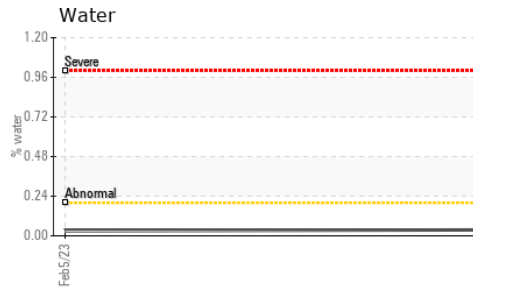
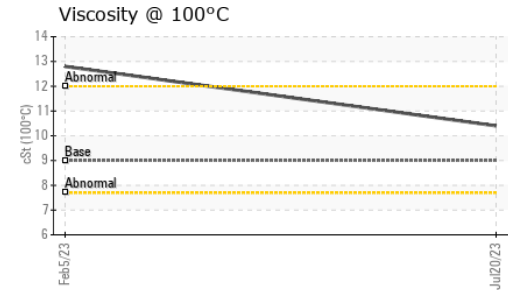
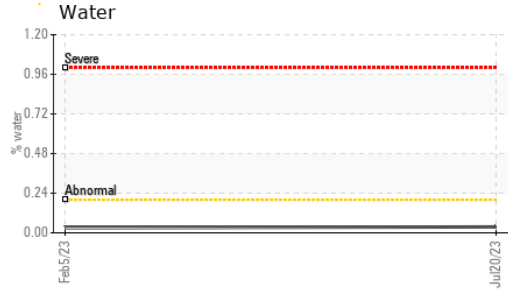
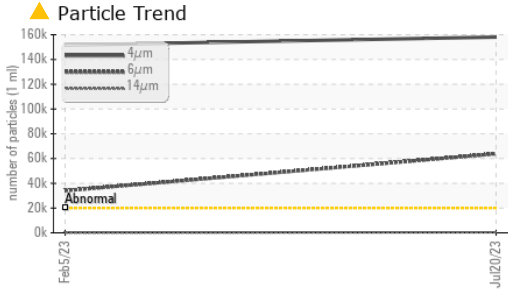
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	<b>▲ 158073</b>	▲ 151649	---
Particles >6µm	ASTM D7647	>5000	<b>▲ 63840</b>	▲ 34016	---
Particles >14µm	ASTM D7647	>640	<b>438</b>	166	---
Particles >21µm	ASTM D7647	>160	<b>29</b>	13	---
Particles >38µm	ASTM D7647	>40	<b>1</b>	0	---
Particles >71µm	ASTM D7647	>10	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>▲ 24/23/16</b>	▲ 24/22/15	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 2.00	<b>2.40</b>	2.59	---



# OIL ANALYSIS REPORT



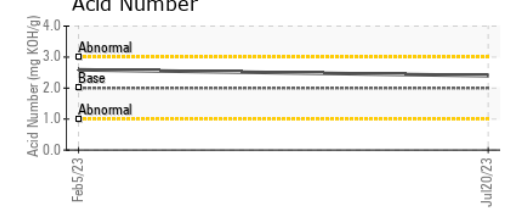
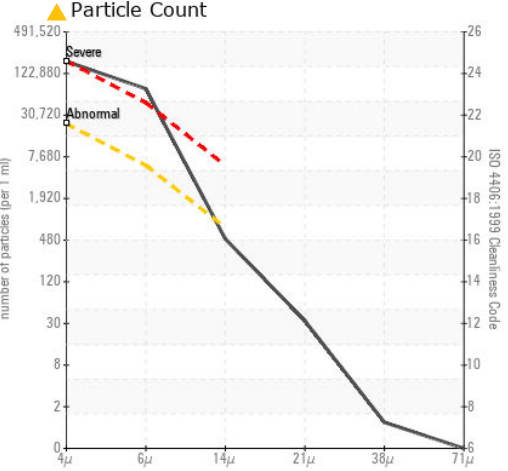
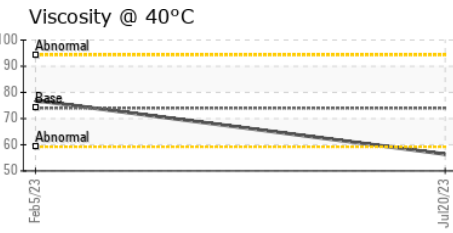
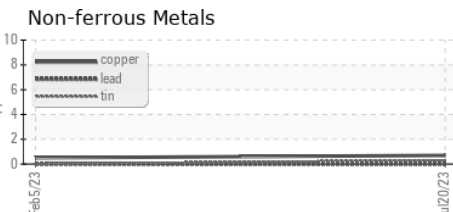
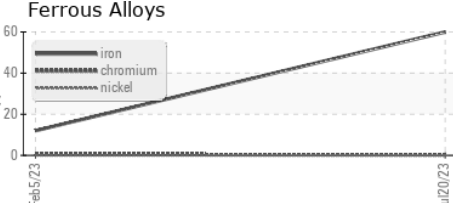
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	56.4	76.9
Visc @ 100°C	cSt	ASTM D445	9.0	10.4	12.8
Viscosity Index (VI)	Scale	ASTM D2270	94	176	167

## SAMPLE IMAGES



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0843265 **Received** : 16 Aug 2023  
**Lab Number** : 05926705 **Diagnosed** : 18 Aug 2023  
**Unique Number** : 10606652 **Diagnostician** : 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)