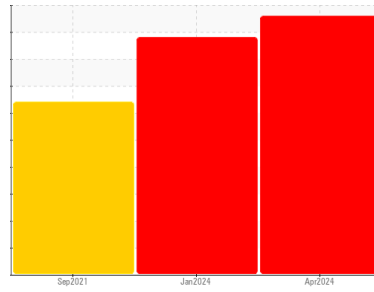




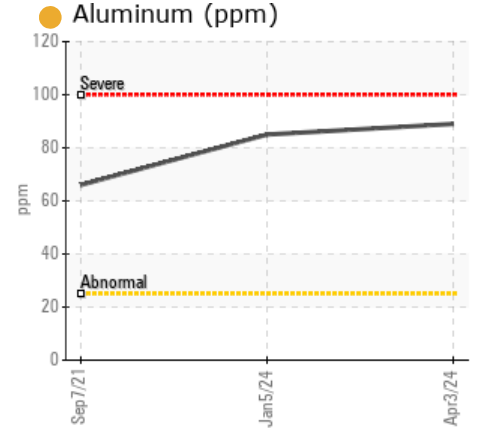
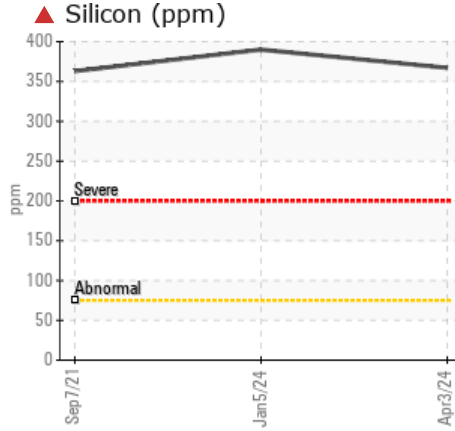
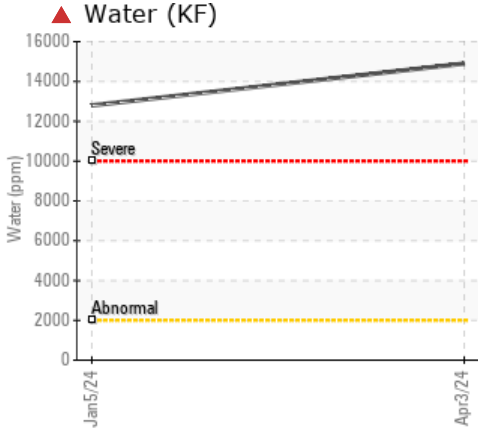
# PROBLEM SUMMARY

Area  
**[22662]**  
 Machine Id  
**60-08L**  
 Component  
**Right Final Drive**  
 Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

Sample Rating Trend



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. ( Customer Sample Comment: ConocoPhillips sae 80w/90 )

## PROBLEMATIC TEST RESULTS

Sample Status				<b>SEVERE</b>	SEVERE	SEVERE
Silicon	ppm	ASTM D5185m	>75	<b>▲ 367</b>	▲ 390	▲ 363
Water	%	ASTM D6304	>0.2	<b>▲ 1.49</b>	▲ 1.28	---
ppm Water	ppm	ASTM D6304	>2000	<b>▲ 14900</b>	▲ 12800	---
Emulsified Water	scalar	*Visual	>0.2	<b>▲ 0.2%</b>	▲ 0.2%	NEG

Customer Id: MANTUL  
 Sample No.: WC0836209  
 Lab Number: 06149699  
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

## HISTORICAL DIAGNOSIS

### DIRT



#### 05 Jan 2024 Diag: Jonathan Hester

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil is no longer serviceable due to the presence of contaminants.

[view report](#)



### DIRT



#### 07 Sep 2021 Diag: Jonathan Hester

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil is no longer serviceable due to the presence of contaminants.

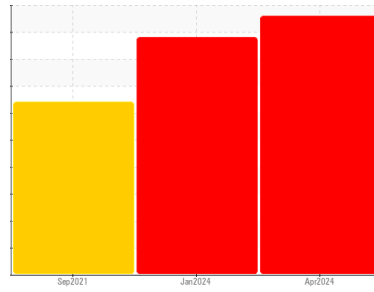
[view report](#)





# OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Area  
[22662]

Machine Id  
60-08L

Component  
Right Final Drive

Fluid  
GEAR OIL SAE 80W90 (--- GAL)

## DIAGNOSIS

### Recommendation

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. ( Customer Sample Comment: ConocoPhillips sae 80w/90 )

### Wear

All component wear rates are normal.

### Contamination

There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0836209</b>	WC0836224	WC0549020
Sample Date	Client Info		<b>03 Apr 2024</b>	05 Jan 2024	07 Sep 2021
Machine Age	hrs	Client Info	<b>5981</b>	5860	5106
Oil Age	hrs	Client Info	<b>1000</b>	652	1020
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status			<b>SEVERE</b>	SEVERE	SEVERE

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	<b>293</b>	479	▲ 536
Chromium	ppm	ASTM D5185m >10	<b>4</b>	5	7
Nickel	ppm	ASTM D5185m >10	<b>2</b>	2	3
Titanium	ppm	ASTM D5185m	<b>5</b>	5	4
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	● <b>89</b>	● 85	● 66
Lead	ppm	ASTM D5185m >25	<b>2</b>	0	<1
Copper	ppm	ASTM D5185m >50	<b>33</b>	18	58
Tin	ppm	ASTM D5185m >10	<b>3</b>	3	4
Antimony	ppm	ASTM D5185m >5	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 400	<b>11</b>	10	15
Barium	ppm	ASTM D5185m 200	<b>3</b>	0	0
Molybdenum	ppm	ASTM D5185m 12	<b>&lt;1</b>	0	2
Manganese	ppm	ASTM D5185m	<b>4</b>	5	6
Magnesium	ppm	ASTM D5185m 12	<b>20</b>	17	23
Calcium	ppm	ASTM D5185m 150	<b>58</b>	80	82
Phosphorus	ppm	ASTM D5185m 1650	<b>257</b>	278	376
Zinc	ppm	ASTM D5185m 125	<b>17</b>	17	34
Sulfur	ppm	ASTM D5185m 22500	<b>18446</b>	17750	16768

## CONTAMINANTS

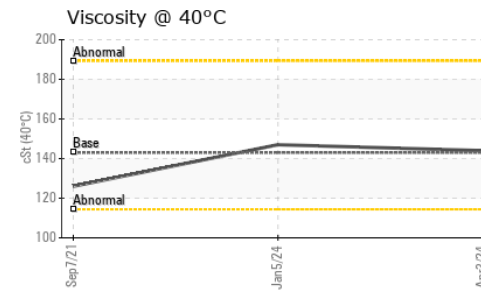
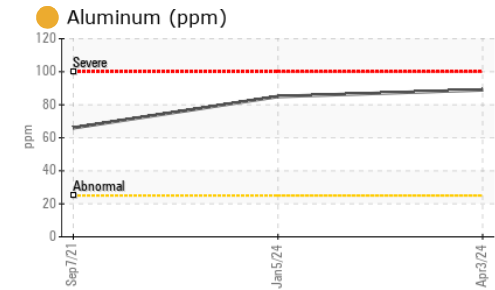
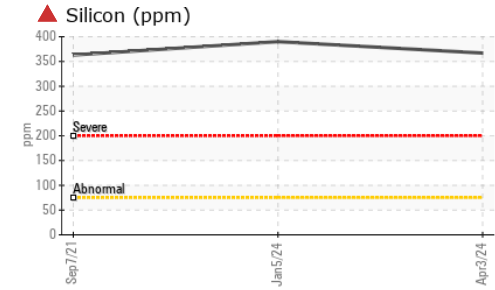
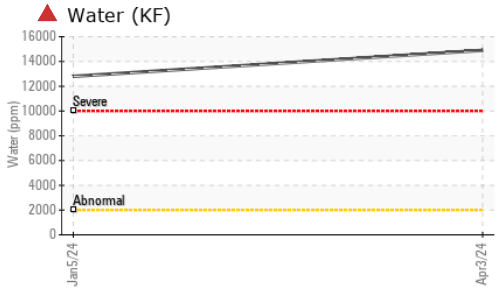
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	▲ <b>367</b>	▲ 390	▲ 363
Sodium	ppm	ASTM D5185m >170	<b>8</b>	5	8
Potassium	ppm	ASTM D5185m >20	<b>27</b>	25	19
Water	%	ASTM D6304 >0.2	▲ <b>1.49</b>	▲ 1.28	---
ppm Water	ppm	ASTM D6304 >2000	▲ <b>14900</b>	▲ 12800	---

## VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	LIGHT
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual NONE	<b>MODER</b>	LIGHT	NONE
Debris	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual NORML	● <b>HAZY</b>	NORML	NORML
Odor	scalar	*Visual NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual >0.2	▲ <b>0.2%</b>	▲ 0.2%	NEG
Free Water	scalar	*Visual	<b>NEG</b>	NEG	NEG



# OIL ANALYSIS REPORT

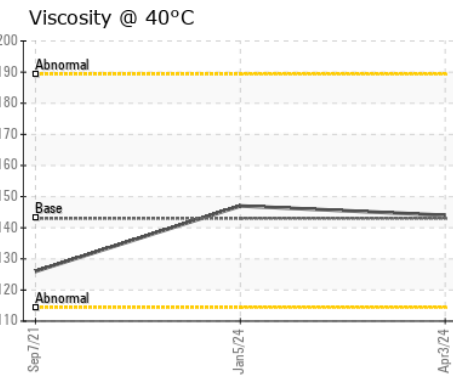
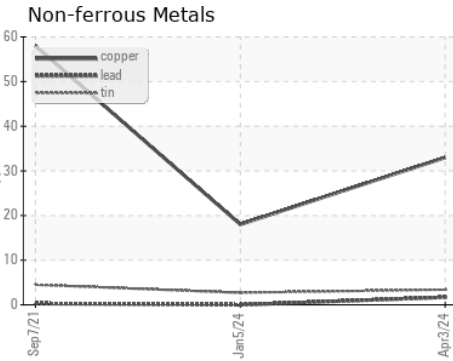
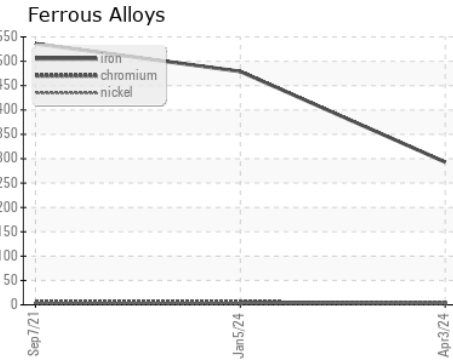


FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	143	<b>144</b>	147	126

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

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0836209      **Received** : 15 Apr 2024  
**Lab Number** : 06149699      **Tested** : 18 Apr 2024  
**Unique Number** : 10979777      **Diagnosed** : 18 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: KF )

**MANHATTAN ROAD AND BRIDGE**  
 5601 S 122ND E AVE  
 TULSA, OK  
 US 74146  
 Contact: BEN CALDWELL  
 kevin.marson@wearcheck.com  
 T: (918)728-5749  
 F:

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)