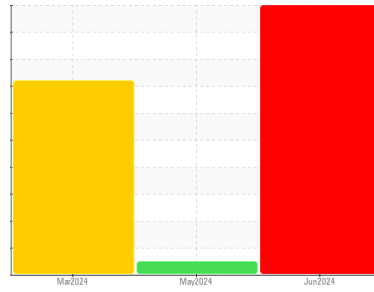




# PROBLEM SUMMARY

Sample Rating Trend

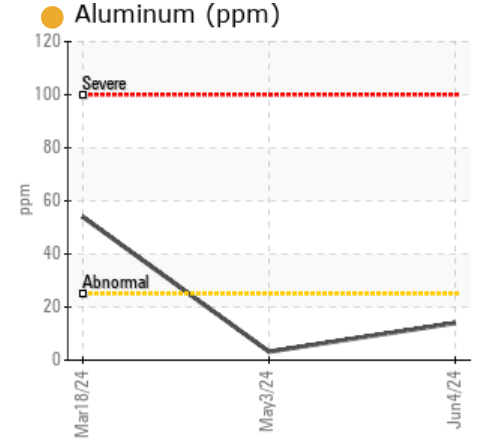
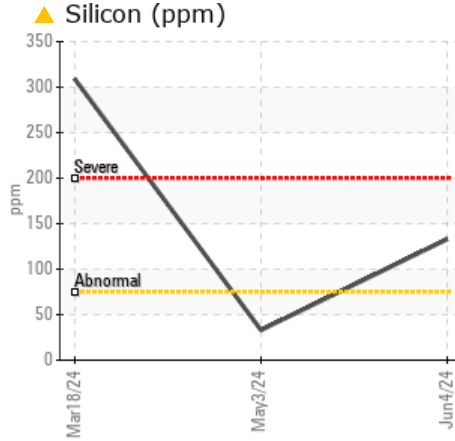
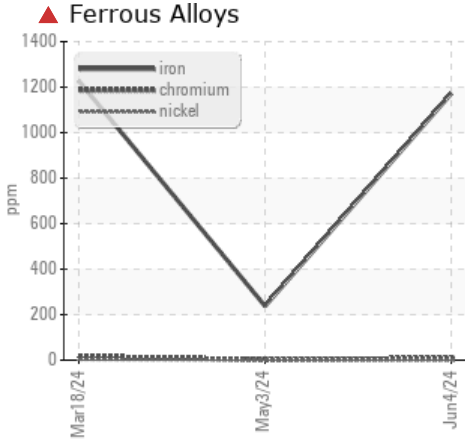


WEAR



Machine Id  
**E-180**  
 Component  
**Right Final Drive**  
 Fluid  
**PHILLIPS 80W90 (--- GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

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 advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	SEVERE
Iron	ppm	ASTM D5185m	>500	▲ 1172	238	▲ 1227
Chromium	ppm	ASTM D5185m	>10	▲ 9	2	▲ 17
Silicon	ppm	ASTM D5185m	>75	▲ 133	33	▲ 309
White Metal	scalar	*Visual	NONE	▲ HEAVY	NONE	NONE

Customer Id: DUKRAL  
 Sample No.: WC0878672  
 Lab Number: 06203163  
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Sean Felton +1 919-379-4092  
[sfelton@wearcheckusa.com](mailto:sfelton@wearcheckusa.com)

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
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
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.

## HISTORICAL DIAGNOSIS

### NORMAL



#### 03 May 2024 Diag: Wes Davis

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

view report



### DIRT



#### 18 Mar 2024 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.

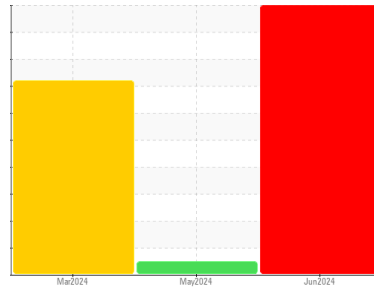
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id  
**E-180**  
 Component  
**Right Final Drive**  
 Fluid  
**PHILLIPS 80W90 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

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 advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

### ▲ Wear

Gear wear is indicated. High concentration of visible metal present.

### ▲ Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0878672</b>	WC0828450	WC0878707
Sample Date	Client Info		<b>04 Jun 2024</b>	03 May 2024	18 Mar 2024
Machine Age	hrs	Client Info	<b>1700</b>	1425	1140
Oil Age	hrs	Client Info	<b>560</b>	285	1140
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status			<b>SEVERE</b>	NORMAL	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>500	▲ <b>1172</b>	238	▲ 1227
Chromium	ppm	ASTM D5185m	>10	▲ <b>9</b>	2	▲ 17
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	1	3
Titanium	ppm	ASTM D5185m		<b>2</b>	<1	4
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	● <b>14</b>	3	● 54
Lead	ppm	ASTM D5185m	>25	<b>0</b>	2	0
Copper	ppm	ASTM D5185m	>50	<b>1</b>	<1	2
Tin	ppm	ASTM D5185m	>10	<b>0</b>	2	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	2	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>14</b>	6	68
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>0</b>	1	<1
Manganese	ppm	ASTM D5185m		<b>15</b>	4	19
Magnesium	ppm	ASTM D5185m		<b>9</b>	1	4
Calcium	ppm	ASTM D5185m		<b>51</b>	42	46
Phosphorus	ppm	ASTM D5185m		<b>443</b>	436	499
Zinc	ppm	ASTM D5185m		<b>47</b>	53	25
Sulfur	ppm	ASTM D5185m		<b>19467</b>	17878	17671

## CONTAMINANTS

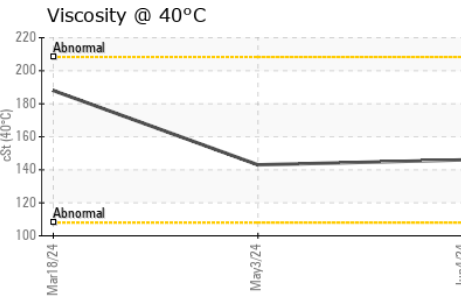
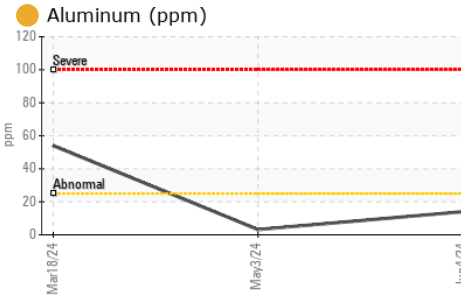
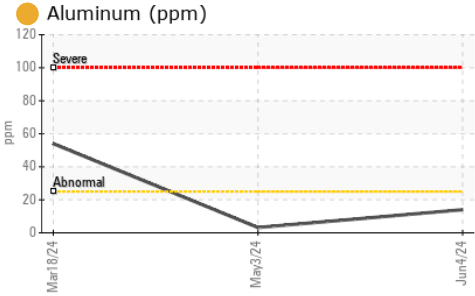
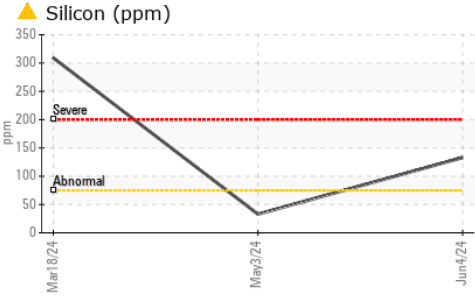
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>75	▲ <b>133</b>	33	▲ 309
Sodium	ppm	ASTM D5185m		<b>1</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	14

## VISUAL

	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	▲ <b>HEAVY</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	MODER	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>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG	NEG



# OIL ANALYSIS REPORT

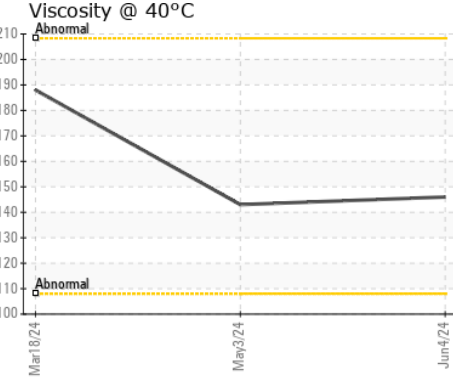
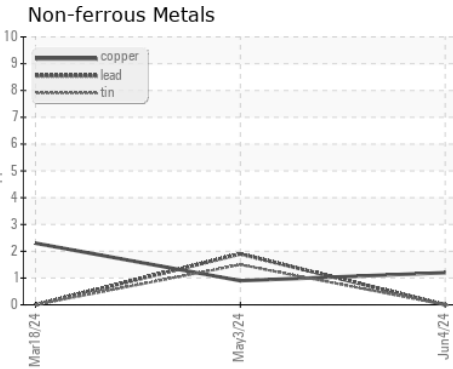
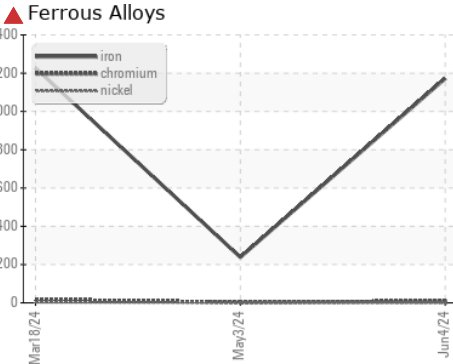


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	146	143	188

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

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0878672      **Received** : 07 Jun 2024  
**Lab Number** : 06203163      **Tested** : 10 Jun 2024  
**Unique Number** : 11070624      **Diagnosed** : 11 Jun 2024 - Sean Felton  
**Test Package** : CONST

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)

**DUKE LAZZARA**  
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