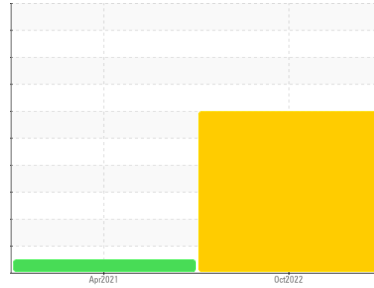




# PROBLEM SUMMARY

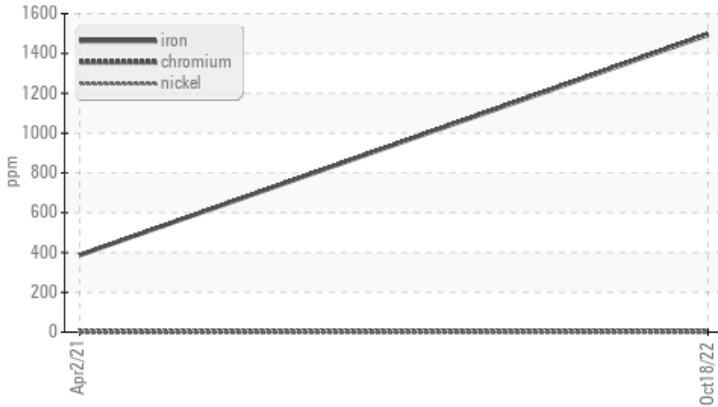
Sample Rating Trend



Machine Id  
**80-217**  
 Component  
**Front Differential**  
 Fluid  
**CONOCO PHILLIPS POWERTRAN (--- GAL)**

## COMPONENT CONDITION SUMMARY

### Ferrous Alloys



## RECOMMENDATION

The oil change at the time of sampling has been noted. 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	---
Iron	1494	387	---

Customer Id: MANTUL  
 Sample No.: WC0619518  
 Lab Number: 05679500  
 Test Package: MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@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.
Resample	---	---	?	We recommend an early resample to monitor this condition.

## HISTORICAL DIAGNOSIS

**02 Apr 2021 Diag: Don Baldrige**

NORMAL



Resample at the next service interval to monitor. 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.

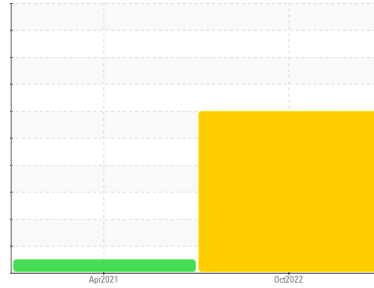
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**80-217**

Component  
**Front Differential**

Fluid  
**CONOCO PHILLIPS POWERTRAN (--- GAL)**

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. 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.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0619518</b>	WC0548864	---
Sample Date	Client Info		<b>18 Oct 2022</b>	02 Apr 2021	---
Machine Age	hrs	Client Info	<b>5863</b>	4870	---
Oil Age	hrs	Client Info	<b>730</b>	250	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>SEVERE</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.2	<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	<b>1494</b>	387	---
Chromium	ppm	ASTM D5185m >10	<b>5</b>	2	---
Nickel	ppm	ASTM D5185m	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m	<b>2</b>	1	---
Silver	ppm	ASTM D5185m	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >25	<b>7</b>	6	---
Lead	ppm	ASTM D5185m >25	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m >100	<b>2</b>	2	---
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	---
Antimony	ppm	ASTM D5185m	<b>---</b>	2	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>85</b>	98	---
Barium	ppm	ASTM D5185m	<b>2</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>27</b>	11	---
Manganese	ppm	ASTM D5185m	<b>13</b>	6	---
Magnesium	ppm	ASTM D5185m	<b>19</b>	22	---
Calcium	ppm	ASTM D5185m	<b>3027</b>	3119	---
Phosphorus	ppm	ASTM D5185m	<b>1061</b>	1057	---
Zinc	ppm	ASTM D5185m	<b>1146</b>	1325	---
Sulfur	ppm	ASTM D5185m	<b>4266</b>	2916	---

## CONTAMINANTS

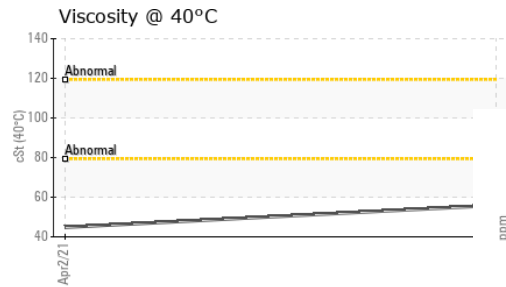
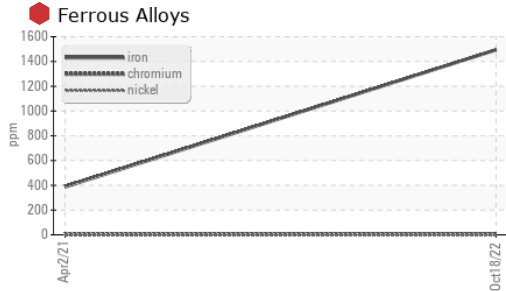
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>24</b>	18	---
Sodium	ppm	ASTM D5185m	<b>5</b>	5	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	---

## VISUAL

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



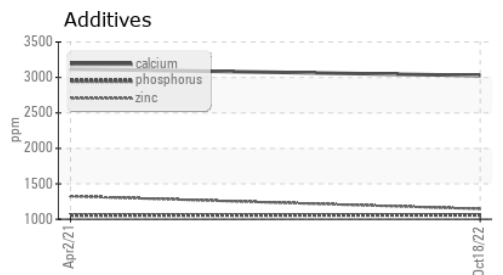
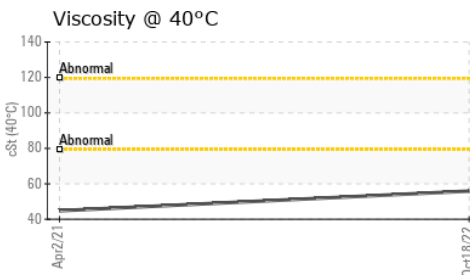
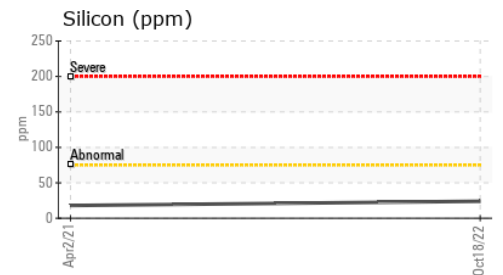
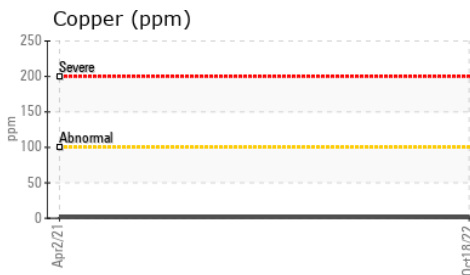
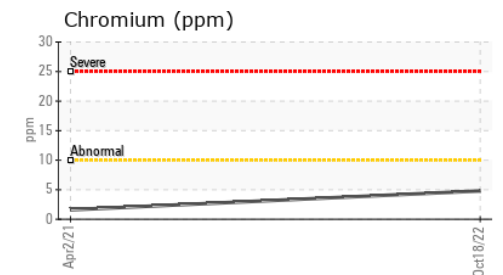
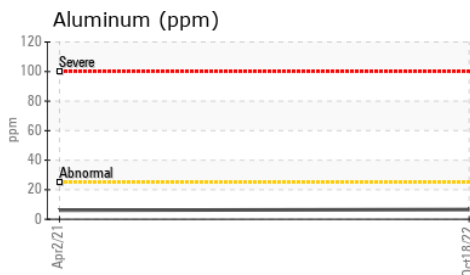
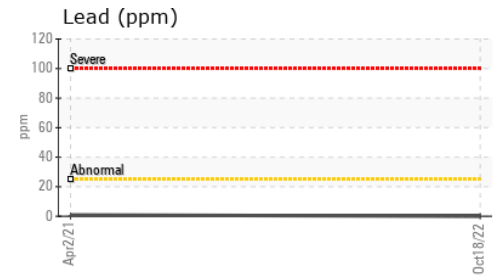
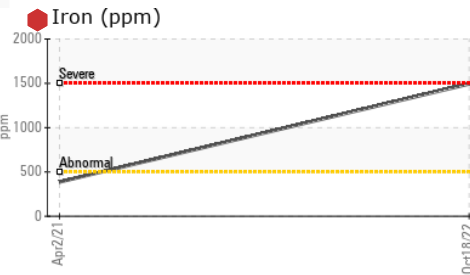
# OIL ANALYSIS REPORT



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	55.9	44.8	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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.** : WC0619518 **Received** : 28 Oct 2022  
**Lab Number** : 05679500 **Diagnosed** : 03 Nov 2022  
**Unique Number** : 10194071 **Diagnostician** : Doug Bogart  
**Test Package** : MOBCE

**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)