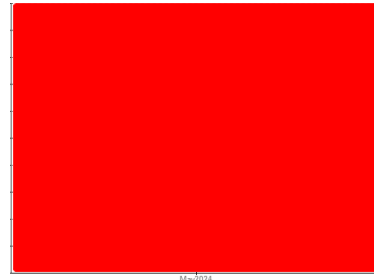




PROBLEM SUMMARY

Sample Rating Trend



WEAR



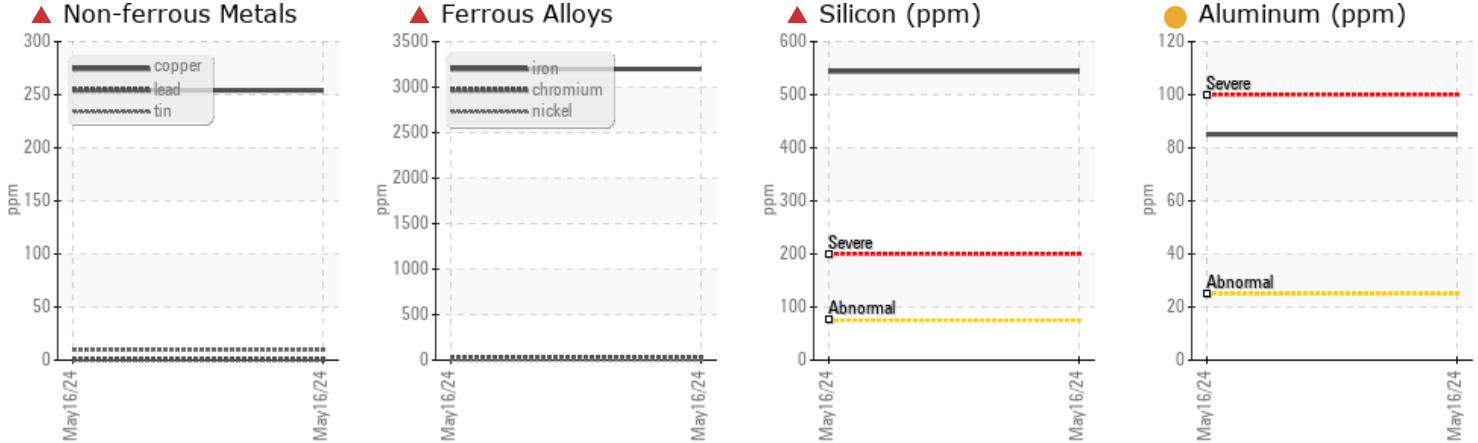
Area
TULSA [22921]

Machine Id
80-257

Component
Front Right Final Drive

Fluid
CONOCO PHILLIPS 80W90 MP (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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 advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. (Customer Sample Comment: ConocoPhillips 80w/90 no gear oil)

PROBLEMATIC TEST RESULTS

Sample Status	SEVERE	---	---
Iron	▲ 3199	---	---
Chromium	▲ 25	---	---
Copper	▲ 254	---	---
Tin	▲ 10	---	---
Silicon	▲ 544	---	---

Customer Id: MANTUL
 Sample No.: WC0923313
 Lab Number: 06220074
 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

To change component or sample information:
 Customer Service +1 1-800-237-1369
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.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

WEAR

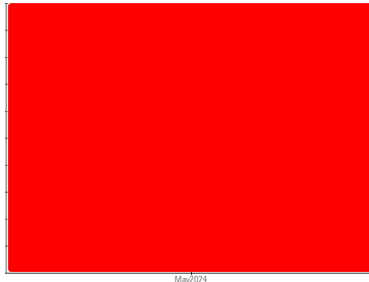


Area
TULSA [22921]

Machine Id
80-257

Component
Front Right Final Drive

Fluid
CONOCO PHILLIPS 80W90 MP (--- GAL)



DIAGNOSIS

▲ Recommendation

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 advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. (Customer Sample Comment: ConocoPhillips 80w/90 no gear oil)

▲ Wear

Bearing and/or gear wear is indicated.

▲ Contamination

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			WC0923313	---	---
Sample Date	Client Info			16 May 2024	---	---
Machine Age	hrs	Client Info		5478	---	---
Oil Age	hrs	Client Info		1478	---	---
Oil Changed	Client Info			Changed	---	---
Sample Status				SEVERE	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.2	NEG	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	▲ 3199	---	---
Chromium	ppm	ASTM D5185m	>10	▲ 25	---	---
Nickel	ppm	ASTM D5185m	>10	4	---	---
Titanium	ppm	ASTM D5185m		8	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	● 85	---	---
Lead	ppm	ASTM D5185m	>25	<1	---	---
Copper	ppm	ASTM D5185m	>50	▲ 254	---	---
Tin	ppm	ASTM D5185m	>10	▲ 10	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
Cadmium	ppm	ASTM D5185m		<1	---	---

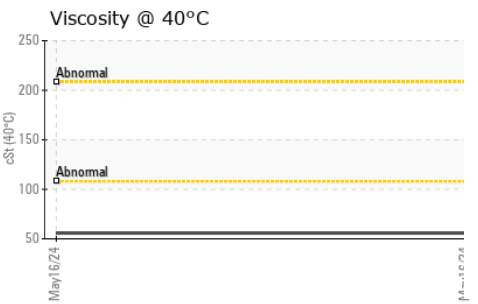
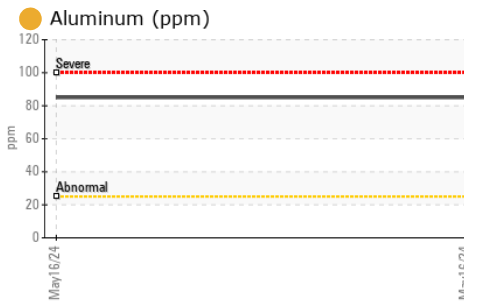
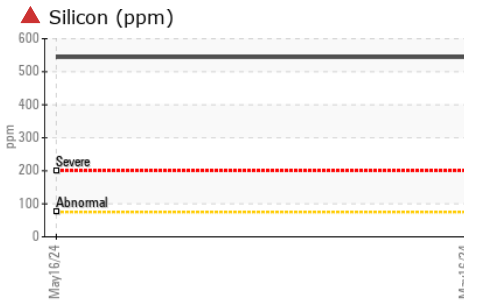
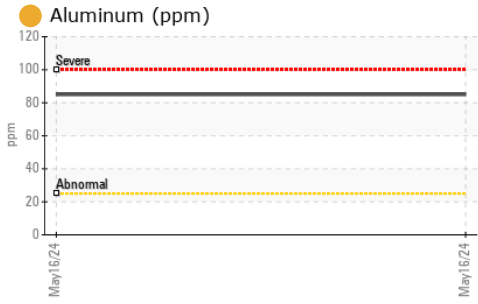
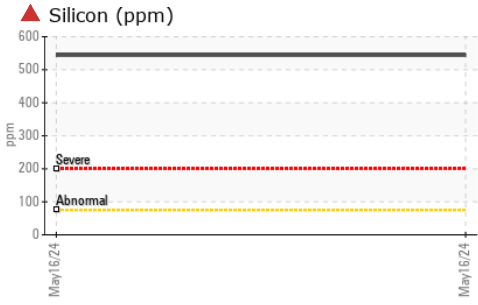
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		21	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		2	---	---
Manganese	ppm	ASTM D5185m		34	---	---
Magnesium	ppm	ASTM D5185m		36	---	---
Calcium	ppm	ASTM D5185m		1728	---	---
Phosphorus	ppm	ASTM D5185m		1096	---	---
Zinc	ppm	ASTM D5185m		1029	---	---
Sulfur	ppm	ASTM D5185m		4632	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	▲ 544	---	---
Sodium	ppm	ASTM D5185m		13	---	---
Potassium	ppm	ASTM D5185m	>20	28	---	---

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	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---



OIL ANALYSIS REPORT

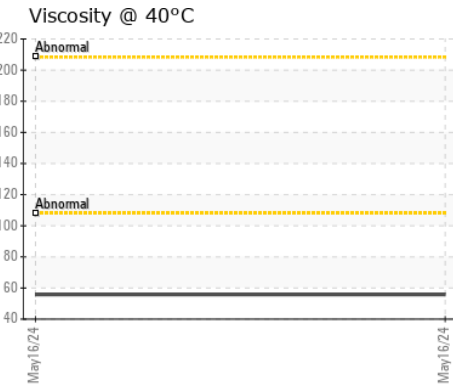
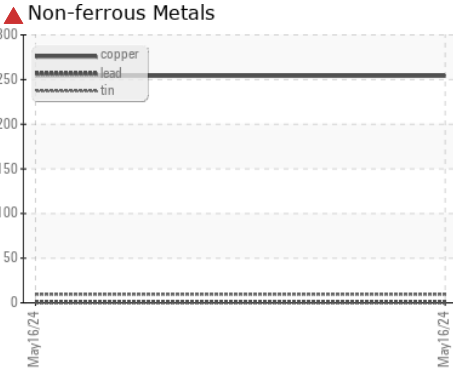
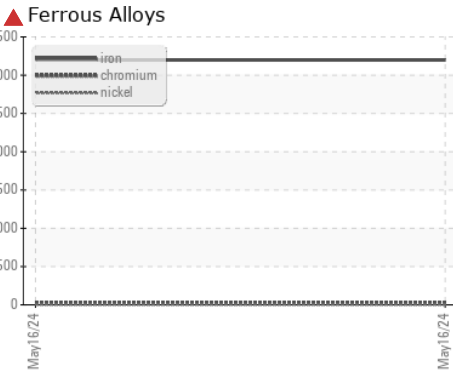


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	55.8	---	---

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. : WC0923313
Lab Number : 06220074
Unique Number : 11098271
Test Package : CONST

Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 27 Jun 2024 - Sean Felton

MANHATTAN ROAD AND BRIDGE
 5601 S 122ND E AVE
 TULSA, OK
 US 74146
 Contact: JAMES STEELMON
 james.steelmon@manhattanrb.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)

T:
F: