



# OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Machine Id  
**CATERPILLAR 745D 13399 (S/N 3T606049)**  
Component  
**Rear Differential**  
Fluid  
**TDTO FLUID SAE 30 (--- GAL)**



## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

The copper level is abnormal. All other component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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>WC0888213</b>	---	---
Sample Date	Client Info		<b>14 Mar 2024</b>	---	---
Machine Age	hrs	Client Info	<b>2169</b>	---	---
Oil Age	hrs	Client Info	<b>2169</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	<b>164</b>	---
Chromium	ppm	ASTM D5185m	>3	<b>2</b>	---
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	---
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---
Aluminum	ppm	ASTM D5185m	>30	<b>14</b>	---
Lead	ppm	ASTM D5185m	>13	<b>0</b>	---
Copper	ppm	ASTM D5185m	>103	<b>▲ 162</b>	---
Tin	ppm	ASTM D5185m	>5	<b>1</b>	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	37	<b>1</b>	---
Barium	ppm	ASTM D5185m	7	<b>0</b>	---
Molybdenum	ppm	ASTM D5185m	5	<b>4</b>	---
Manganese	ppm	ASTM D5185m		<b>3</b>	---
Magnesium	ppm	ASTM D5185m	40	<b>9</b>	---
Calcium	ppm	ASTM D5185m	2650	<b>3042</b>	---
Phosphorus	ppm	ASTM D5185m	1050	<b>997</b>	---
Zinc	ppm	ASTM D5185m	1075	<b>1207</b>	---
Sulfur	ppm	ASTM D5185m	5750	<b>8988</b>	---

## CONTAMINANTS

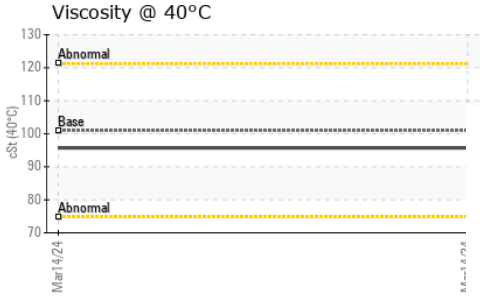
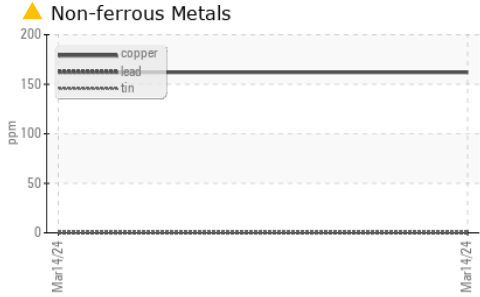
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>100	<b>23</b>	---
Sodium	ppm	ASTM D5185m		<b>0</b>	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---

## VISUAL

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



# OIL ANALYSIS REPORT



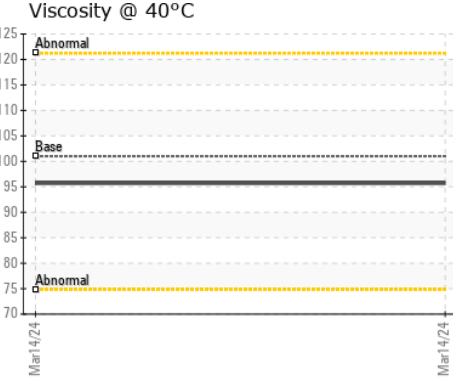
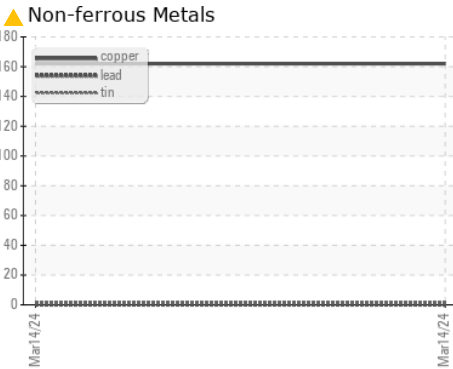
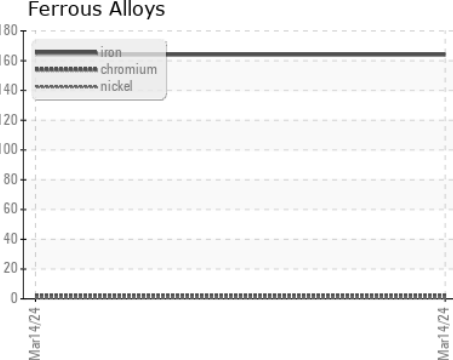
FLUID PROPERTIES	method	limit/base	current	history1	history2
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Visc @ 40°C	cSt	ASTM D445	101	<b>95.7</b>	---	---
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SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color			no image	no image	no image
Bottom			no image	no image	no image

GRAPHS
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Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0888213

**Lab Number** : 06122755

**Unique Number** : 10936906

**Test Package** : CONST

**Received** : 19 Mar 2024

**Tested** : 20 Mar 2024

**Diagnosed** : 21 Mar 2024 - Jonathan Hester

**TRADER CONSTRUCTION CO.**

PO DRAWER 1578

NEW BERN, NC

US 28563

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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)