



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**CATERPILLAR 775D 6441 (S/N 8AS00350)**  
Component  
**Rear Differential**  
Fluid  
**TULCO LUBSOIL TO-4 50 (29 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TO10002874</b>	TO10002445	TO10002302
Sample Date		Client Info		<b>13 Nov 2023</b>	09 Aug 2023	26 May 2023
Machine Age	hrs	Client Info		<b>42811</b>	42272	41797
Oil Age	hrs	Client Info		<b>3602</b>	3063	2588
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>None</b>	None	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>500	<b>82</b>	84	91
Chromium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>4</b>	2	8
Lead	ppm	ASTM D5185m	>13	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185m	>103	<b>3</b>	2	1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

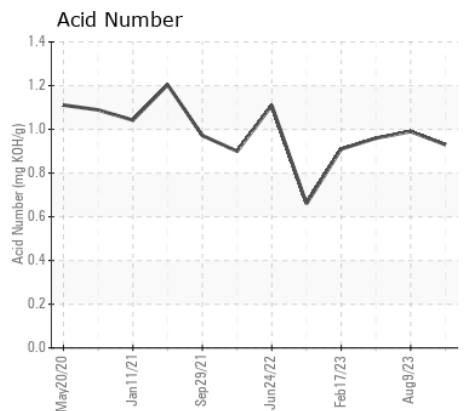
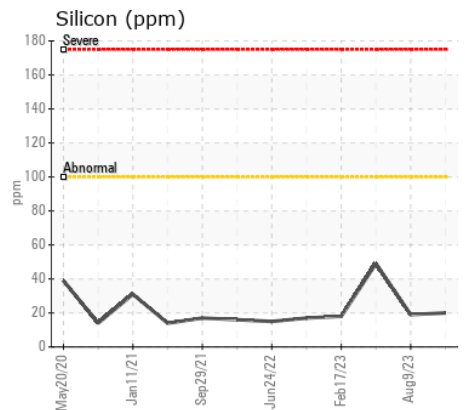
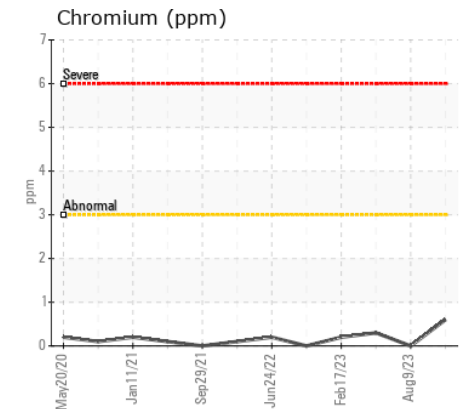
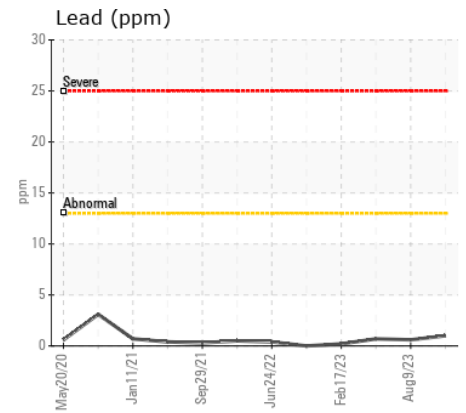
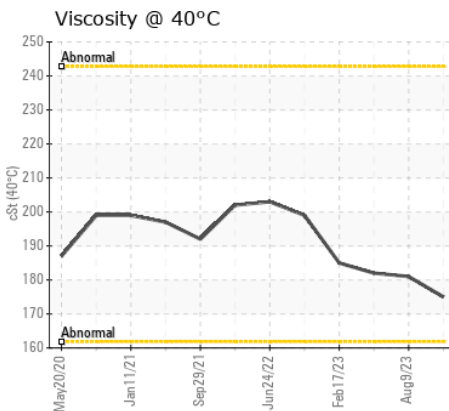
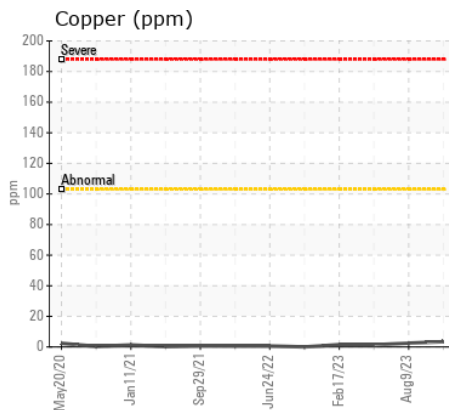
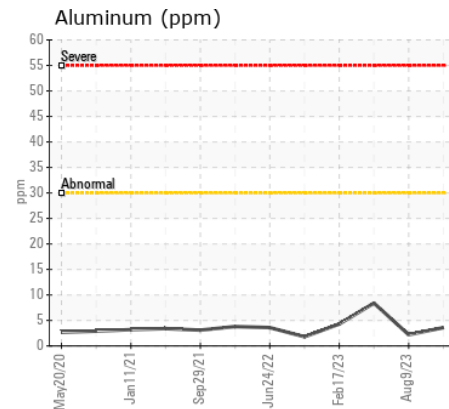
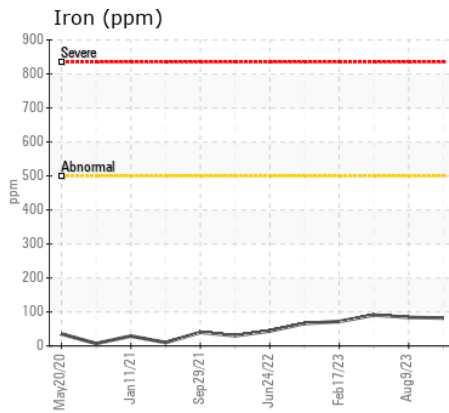
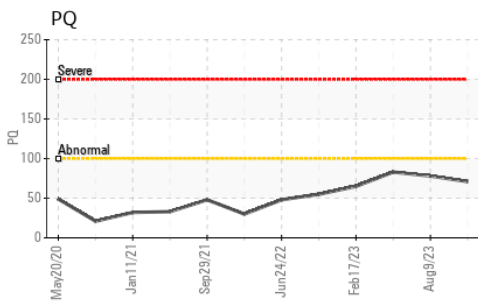
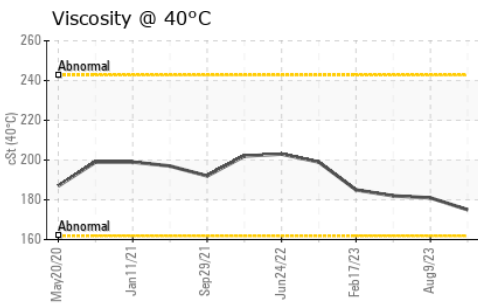
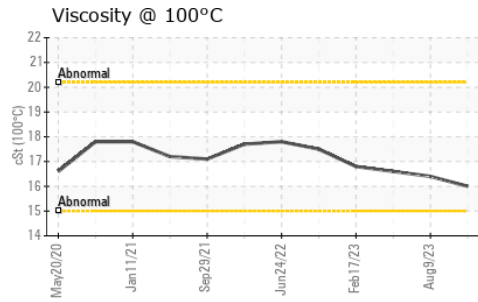
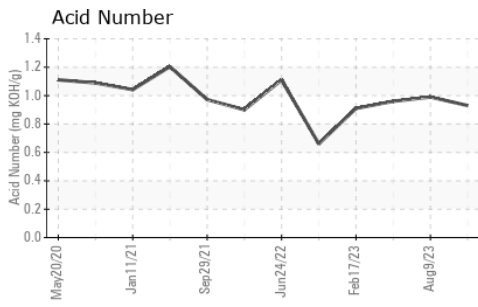
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	<b>20</b>	19	49
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	2
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	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	>.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>5</b>	5	4
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	1
Magnesium	ppm	ASTM D5185m		<b>0</b>	30	36
Calcium	ppm	ASTM D5185m		<b>3918</b>	4215	4436
Phosphorus	ppm	ASTM D5185m		<b>710</b>	819	820
Zinc	ppm	ASTM D5185m		<b>970</b>	1022	1028
Sulfur	ppm	ASTM D5185m		<b>4193</b>	5449	5674
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.93</b>	0.99	0.96
Visc @ 40°C	cSt	ASTM D445		<b>175</b>	181	182
Visc @ 100°C	cSt	ASTM D445		<b>16.0</b>	16.4	16.6
Viscosity Index (VI)	Scale	ASTM D2270		<b>93</b>	94	95



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10002874  
**Lab Number** : 06011565  
**Unique Number** : 10750709  
**Test Package** : MOB 2 ( Additional Tests: KV100, PQ, VI )

**Received** : 17 Nov 2023  
**Tested** : 20 Nov 2023  
**Diagnosed** : 20 Nov 2023 - Wes Davis

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)

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