



# OIL ANALYSIS REPORT

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



Area  
**DE Samples - CAT LAB**  
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>TO10001694</b>	TO10002874	TO10002445
Sample Date		Client Info		<b>20 Feb 2024</b>	13 Nov 2023	09 Aug 2023
Machine Age	hrs	Client Info		<b>43280</b>	42811	42272
Oil Age	hrs	Client Info		<b>4071</b>	3602	3063
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>77</b>	82	84
Chromium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>3</b>	4	2
Lead	ppm	ASTM D5185m	>13	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m	>103	<b>3</b>	3	2
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

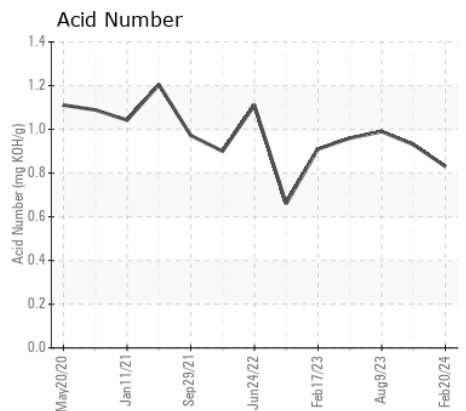
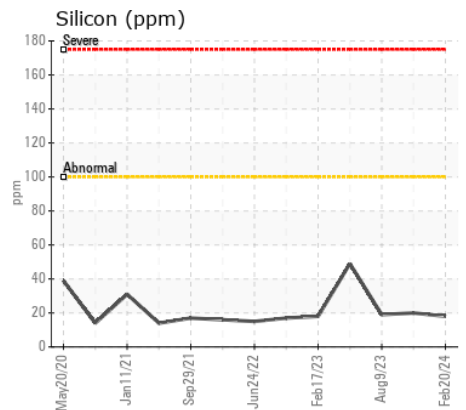
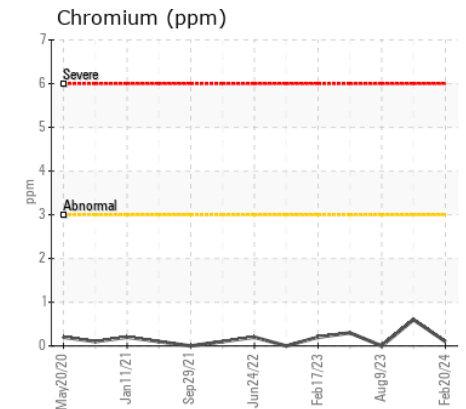
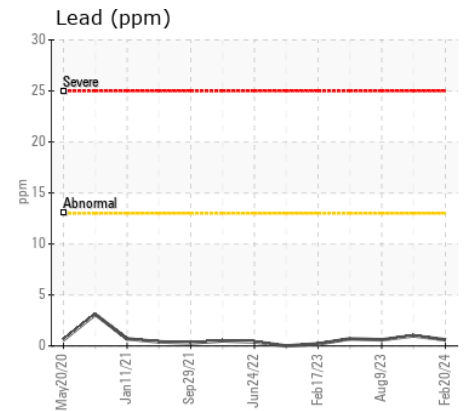
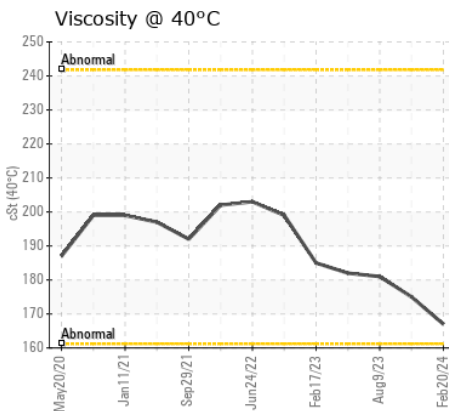
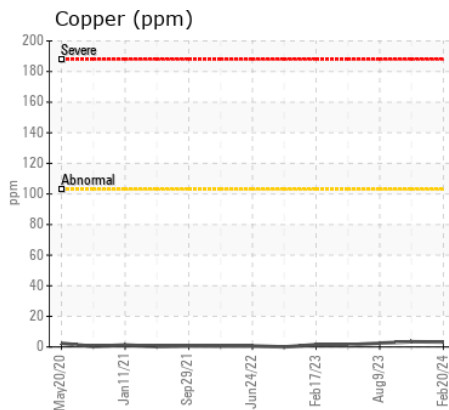
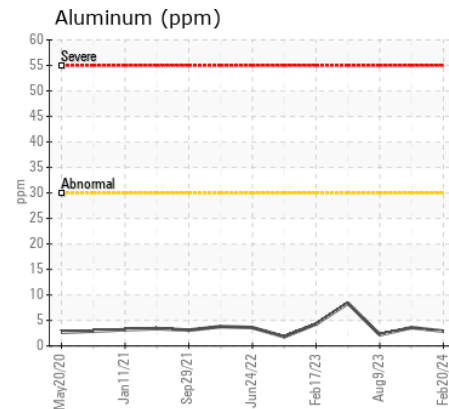
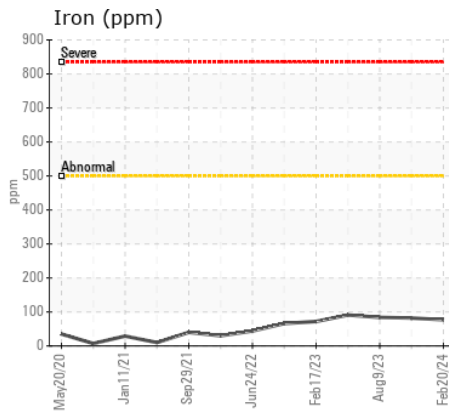
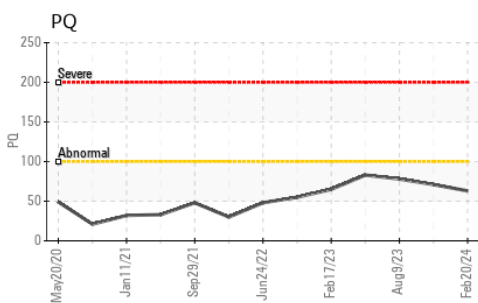
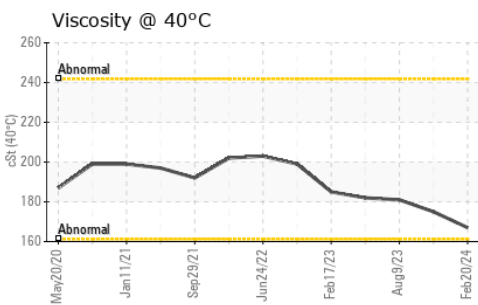
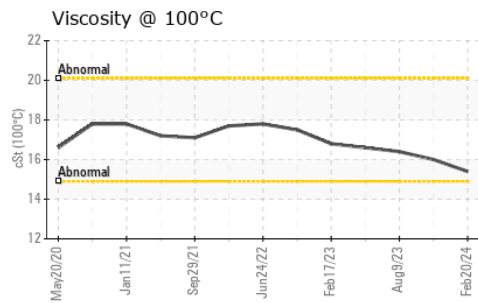
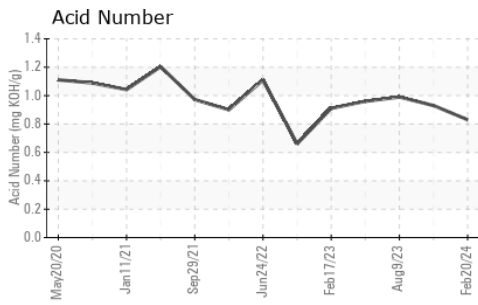
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	<b>18</b>	20	19
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	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>4</b>	5	5
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>36</b>	0	30
Calcium	ppm	ASTM D5185m		<b>3672</b>	3918	4215
Phosphorus	ppm	ASTM D5185m		<b>818</b>	710	819
Zinc	ppm	ASTM D5185m		<b>992</b>	970	1022
Sulfur	ppm	ASTM D5185m		<b>4599</b>	4193	5449
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.83</b>	0.93	0.99
Visc @ 40°C	cSt	ASTM D445		<b>167</b>	175	181
Visc @ 100°C	cSt	ASTM D445		<b>15.4</b>	16.0	16.4
Viscosity Index (VI)	Scale	ASTM D2270		<b>92</b>	93	94



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10001694  
**Lab Number** : 06105381  
**Unique Number** : 10903611  
**Test Package** : MOB 2 ( Additional Tests: KV100, PQ, VI )

**Received** : 29 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - 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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