



# OIL ANALYSIS REPORT

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



Machine Id  
**CATERPILLAR 775D HAUL TRUCK 6451 (S/N 6KR00212)**  
 Component  
**Transmission (Manual)**  
 Fluid  
**TULCO LUBSOIL TO-4 30 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TO10002089</b>	TO10002753	TO10002363
Sample Date		Client Info		<b>13 Jun 2024</b>	09 Oct 2023	05 Jul 2023
Machine Age	hrs	Client Info		<b>43445</b>	42649	42147
Oil Age	hrs	Client Info		<b>1298</b>	502	998
Filter Age	hrs	Client Info		<b>796</b>	502	482
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

PQ		ASTM D8184	>95	<b>19</b>	16	17
Iron	ppm	ASTM D5185m	>200	<b>2</b>	3	3
Chromium	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>7	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	1	1
Lead	ppm	ASTM D5185m	>45	<b>18</b>	26	22
Copper	ppm	ASTM D5185m	>225	<b>16</b>	19	22
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

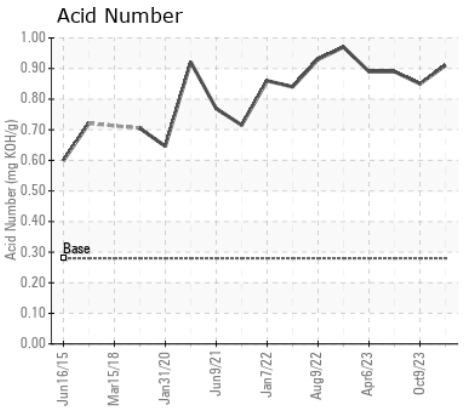
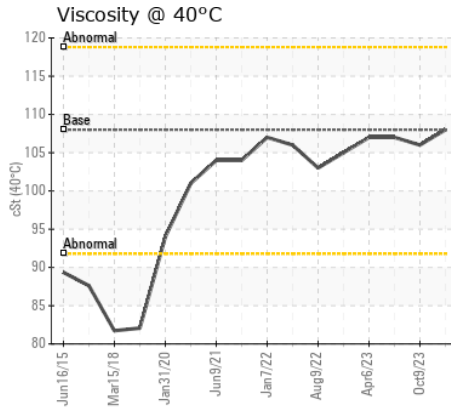
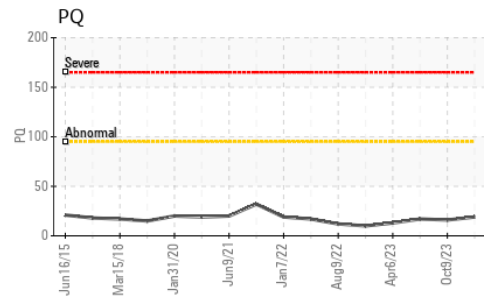
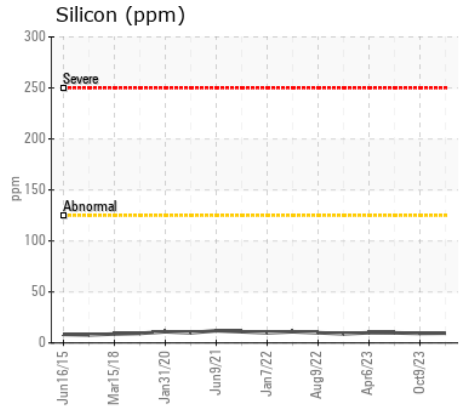
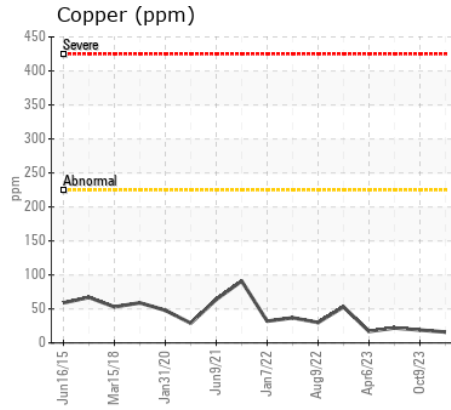
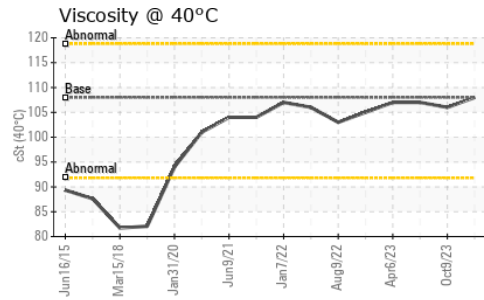
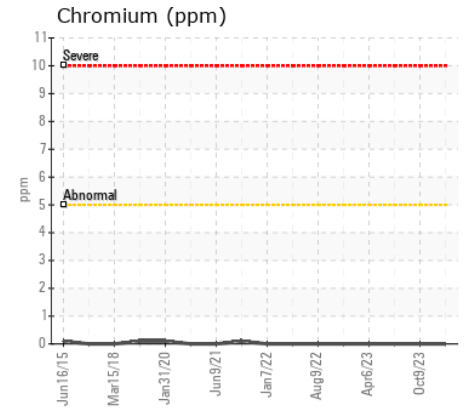
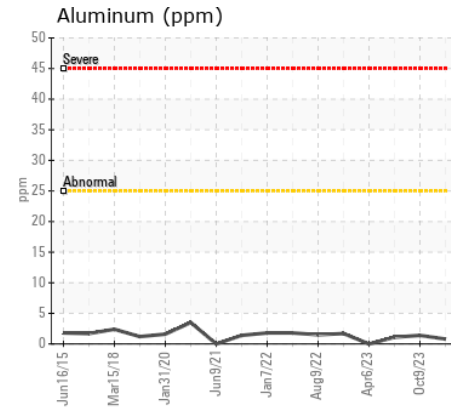
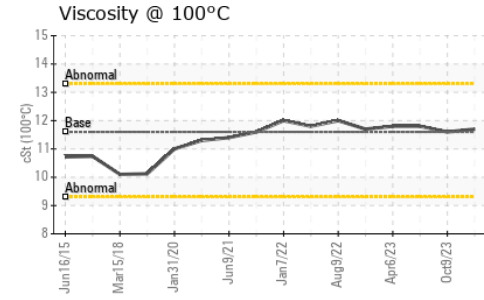
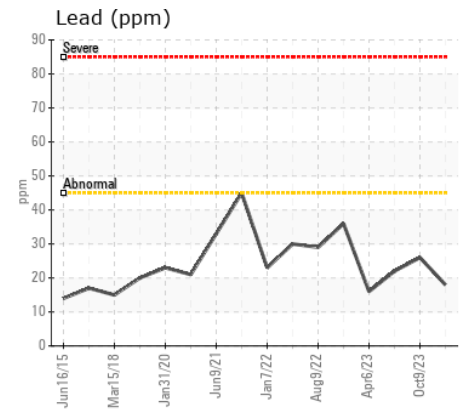
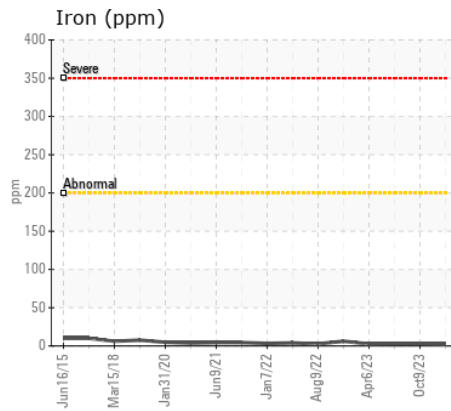
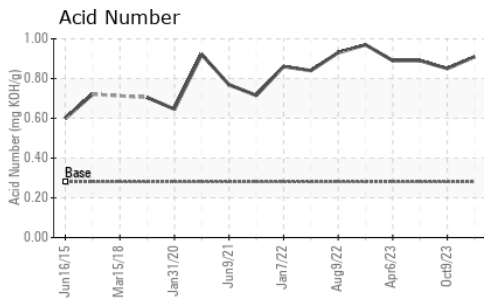
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185m	>125	<b>10</b>	9	10
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Water		WC Method	>0.1	<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	>0.1	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>4</b>	3	3
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>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	9	<b>19</b>	0	15
Calcium	ppm	ASTM D5185m	4500	<b>3364</b>	3210	2886
Phosphorus	ppm	ASTM D5185m	1150	<b>936</b>	992	853
Zinc	ppm	ASTM D5185m	1250	<b>1133</b>	1284	1085
Sulfur	ppm	ASTM D5185m	4500	<b>4891</b>	4652	4668
Acid Number (AN)	mg KOH/g	ASTM D8045	0.28	<b>0.91</b>	0.85	0.89
Visc @ 40°C	cSt	ASTM D445	108	<b>108</b>	106	107
Visc @ 100°C	cSt	ASTM D445	11.6	<b>11.7</b>	11.6	11.8
Viscosity Index (VI)	Scale	ASTM D2270	94	<b>95</b>	96	98



Certificate L2367

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

Sample No. : TO10002089

Lab Number : 06213651

Unique Number : 11086515

Test Package : MOB 2 ( Additional Tests: KV100, PQ, VI )

Received : 18 Jun 2024

Tested : 20 Jun 2024

Diagnosed : 20 Jun 2024 - Wes Davis

**ANCHOR STONE TULSA ROCK**

TULSA ROCK QUARRY, 66TH ST N 145TH AVENUE

TULSA, OK

US 74137

Contact: MIKE SNYDER

msnyder@anchorstoneco.com

T: (417)850-9635

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)