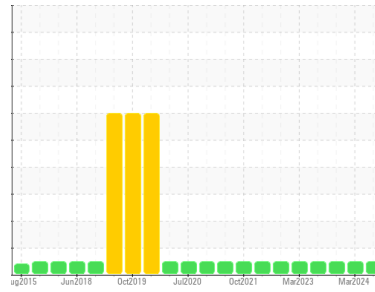


OIL ANALYSIS REPORT



Area
DE Samples - CAT LAB
Machine Id
CATERPILLAR 990 LOADER G 6427 (S/N BCR00127)
Component
Transmission (Manual)
Fluid
TULCO LUBSOIL TO-4 30 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		TO10002108	TO10003367	TO10002878
Sample Date	Client Info		31 May 2024	05 Mar 2024	13 Nov 2023
Machine Age	hrs	Client Info	49260	48658	48135
Oil Age	hrs	Client Info	602	1123	586
Oil Changed	Client Info		Not Changed	Changed	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184	>95	15	14	11
Iron	ppm	ASTM D5185m	>200	4	2
Chromium	ppm	ASTM D5185m	>5	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0
Titanium	ppm	ASTM D5185m		0	<1
Silver	ppm	ASTM D5185m	>7	0	<1
Aluminum	ppm	ASTM D5185m	>25	3	1
Lead	ppm	ASTM D5185m	>45	4	2
Copper	ppm	ASTM D5185m	>225	5	2
Tin	ppm	ASTM D5185m	>10	1	1
Vanadium	ppm	ASTM D5185m		0	<1
Cadmium	ppm	ASTM D5185m		0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	<1
Barium	ppm	ASTM D5185m		0	0
Molybdenum	ppm	ASTM D5185m		3	2
Manganese	ppm	ASTM D5185m		2	<1
Magnesium	ppm	ASTM D5185m	9	25	24
Calcium	ppm	ASTM D5185m	4500	3859	2913
Phosphorus	ppm	ASTM D5185m	1150	970	847
Zinc	ppm	ASTM D5185m	1250	1145	955
Sulfur	ppm	ASTM D5185m	4500	5158	4352

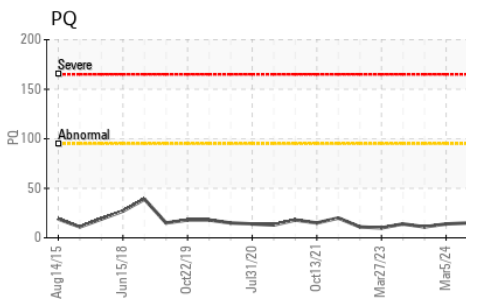
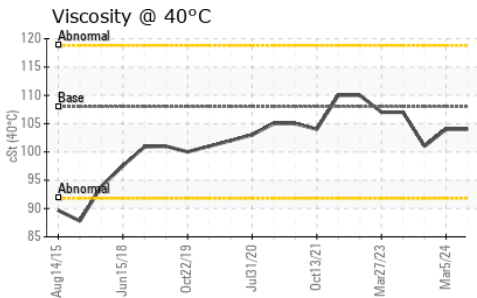
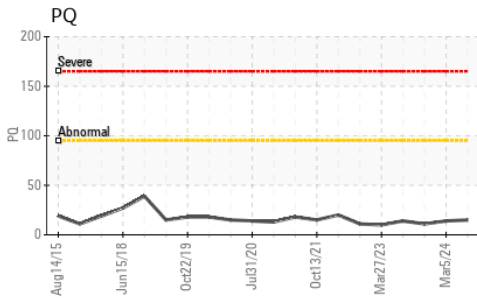
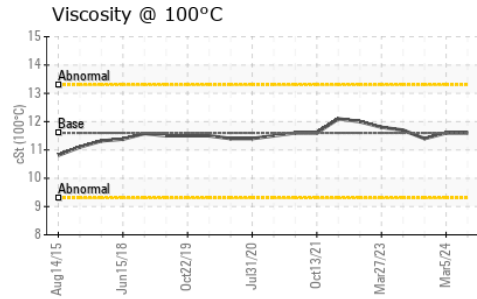
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>125	13	9
Sodium	ppm	ASTM D5185m		7	5
Potassium	ppm	ASTM D5185m	>20	4	2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.28	0.96	0.97

OIL ANALYSIS REPORT

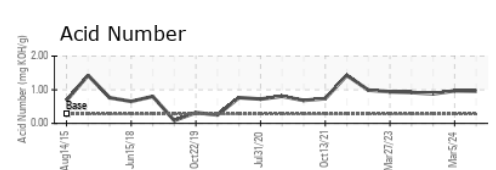
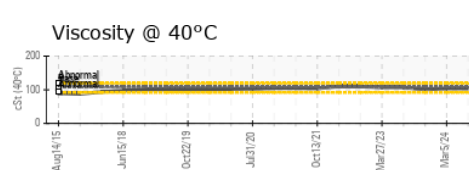
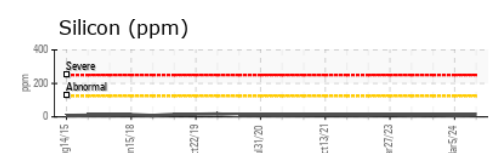
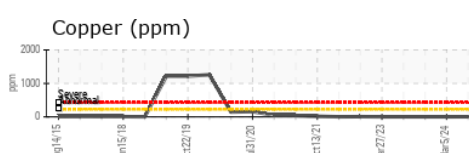
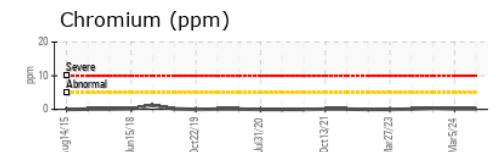
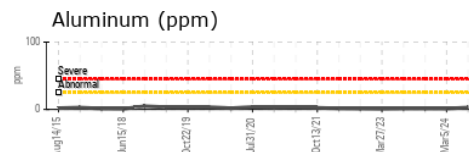
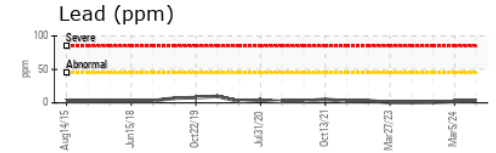
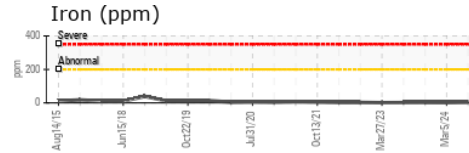


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	108	104	101
Visc @ 100°C	cSt	ASTM D445	11.6	11.6	11.4
Viscosity Index (VI)	Scale	ASTM D2270	94	98	99

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10002108 **Received** : 10 Jun 2024
Lab Number : 06205686 **Tested** : 12 Jun 2024
Unique Number : 11073147 **Diagnosed** : 12 Jun 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: KV100, PQ, VI)

ANCHOR STONE TULSA ROCK
 TULSA ROCK QUARRY, 66TH ST N 145TH AVENUE
 TULSA, OK
 US 74137

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: MIKE SNYDER
 msnyder@anchorstoneco.com

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

T: (417)850-9635

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: