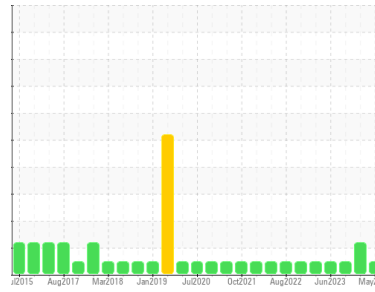


OIL ANALYSIS REPORT



Area
DE Samples - CAT LAB
Machine Id
CATERPILLAR 990H LOADER 6572 (S/N BWX00474)
Component
Front Differential
Fluid
TULCO LUBSOIL TO-4 50 (52 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 oil.
- Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info	TO10002096	TO10003376	TO10002849
Sample Date	Client Info	29 May 2024	04 Mar 2024	27 Nov 2023
Machine Age	hrs	32161	31604	31072
Oil Age	hrs	5867	5310	4778
Oil Changed	Client Info	Not Chngd	Not Chngd	Not Chngd
Sample Status		NORMAL	ABNORMAL	NORMAL

CONTAMINATION method limit/base current history1 history2

Water	WC Method	>.2	NEG	NEG	NEG
-------	-----------	-----	------------	-----	-----

WEAR METALS method limit/base current history1 history2

PQ		ASTM D8184		36	32	21
Iron	ppm	ASTM D5185m	>500	36	30	33
Chromium	ppm	ASTM D5185m	>3	<1	<1	<1
Nickel	ppm	ASTM D5185m	>3	2	1	1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>30	3	3	1
Lead	ppm	ASTM D5185m	>13	8	8	6
Copper	ppm	ASTM D5185m	>103	78	63	58
Tin	ppm	ASTM D5185m	>5	5	5	4
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		<1	<1	0

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		32	26	31
Calcium	ppm	ASTM D5185m		3941	3426	3993
Phosphorus	ppm	ASTM D5185m		800	766	896
Zinc	ppm	ASTM D5185m		1048	816	1034
Sulfur	ppm	ASTM D5185m		5368	4664	4798

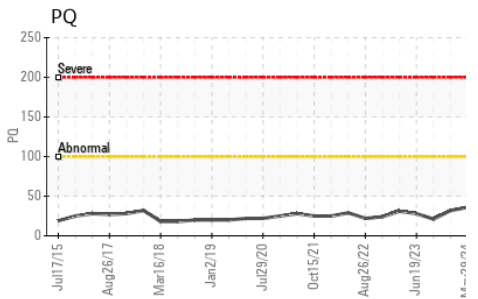
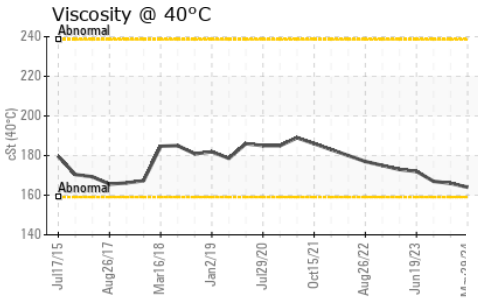
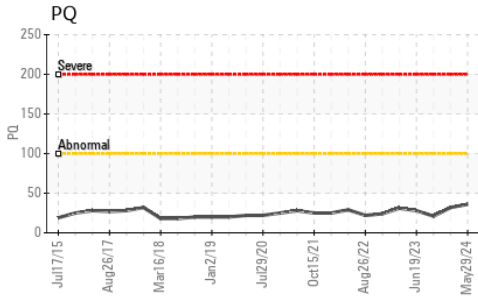
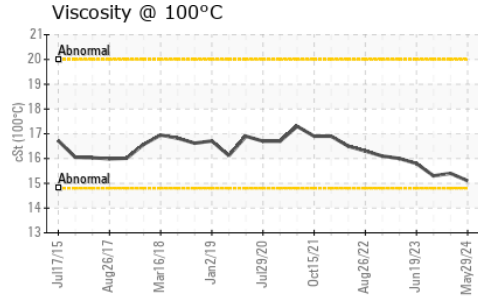
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>100	21	18	20
Sodium	ppm	ASTM D5185m		2	6	0
Potassium	ppm	ASTM D5185m	>20	3	3	3

FLUID DEGRADATION method limit/base current history1 history2

Acid Number (AN)	mg KOH/g	ASTM D8045		0.85	0.76	0.84
------------------	----------	------------	--	-------------	------	------

OIL ANALYSIS REPORT

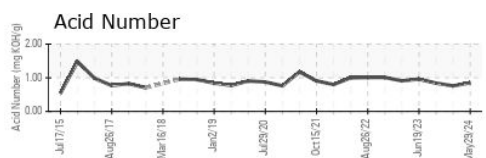
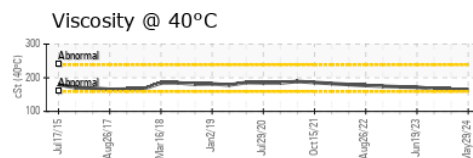
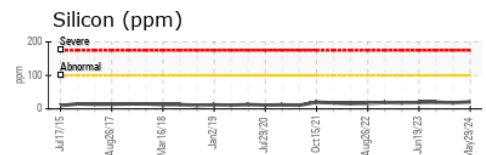
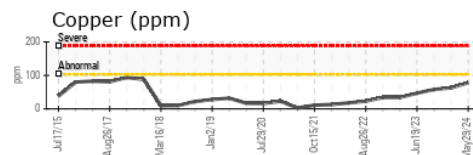
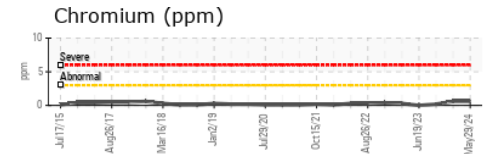
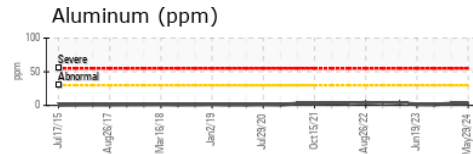
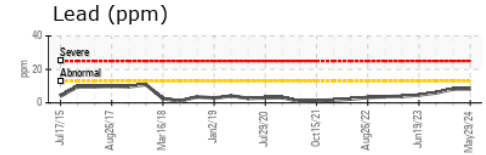
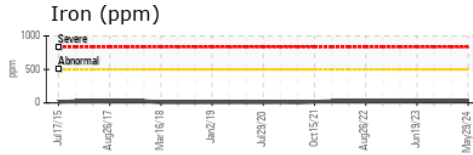


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	▲ HEAVY	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	164	166	167
Visc @ 100°C	cSt	ASTM D445	15.1	15.4	15.3
Viscosity Index (VI)	Scale	ASTM D2270	91	93	91

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. : TO10002096 **Received** : 03 Jun 2024
Lab Number : 06198320 **Tested** : 04 Jun 2024
Unique Number : 11060443 **Diagnosed** : 06 Jun 2024 - Jonathan Hester
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

Contact: MIKE SNYDER
 msnyder@anchorstoneco.com
 T: (417)850-9635

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)

F: