



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 980M 6141 (S/N KRS00885)
 Component
Rear Left Final Drive
 Fluid
TULCO LUBSOIL TO-4 50 (3 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TO10003648	TO10003322	TO10003373
Sample Date		Client Info		15 Jun 2024	08 Apr 2024	04 Mar 2024
Machine Age	hrs	Client Info		13913	13425	13158
Oil Age	hrs	Client Info		755	267	1685
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		None	N/A	None
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>500	44	60	422
Iron	ppm	ASTM D5185m	>800	59	51	549
Chromium	ppm	ASTM D5185m	>10	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m	>15	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>75	2	<1	8
Lead	ppm	ASTM D5185m	>10	0	0	3
Copper	ppm	ASTM D5185m	>75	6	5	52
Tin	ppm	ASTM D5185m	>8	<1	0	1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

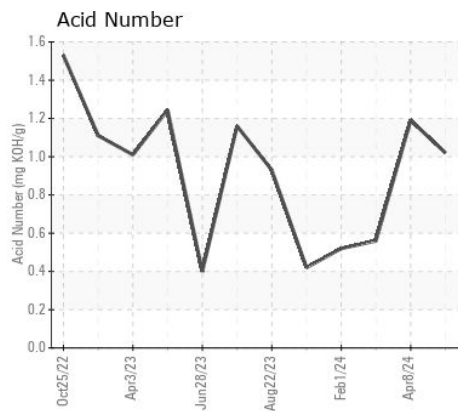
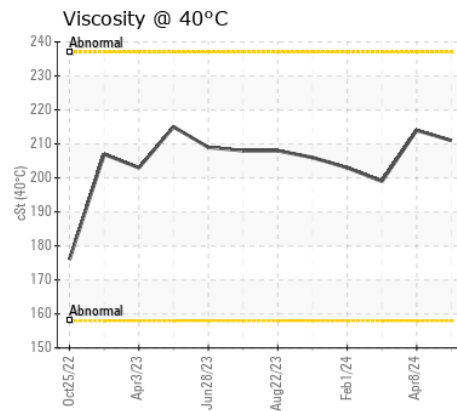
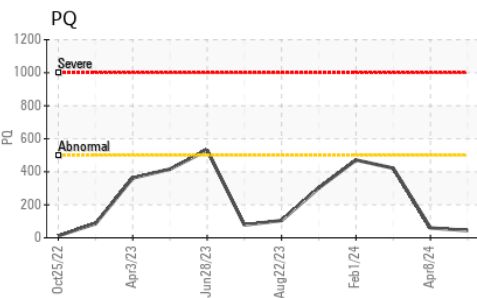
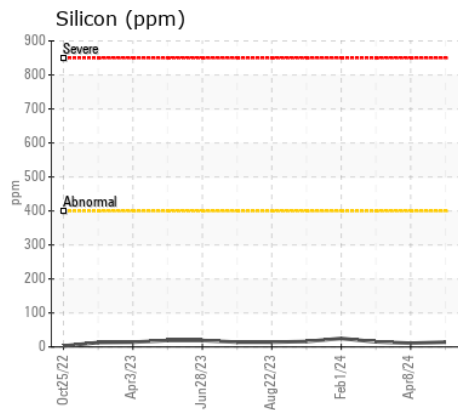
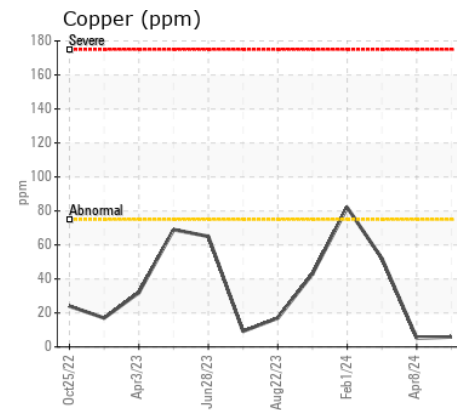
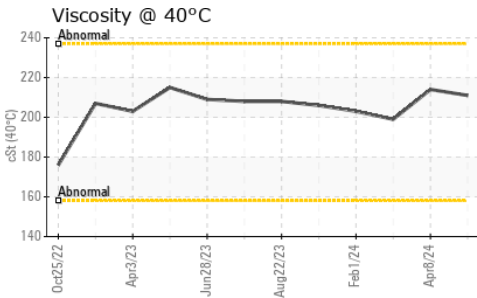
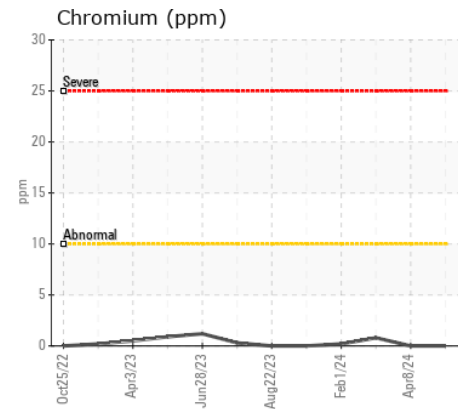
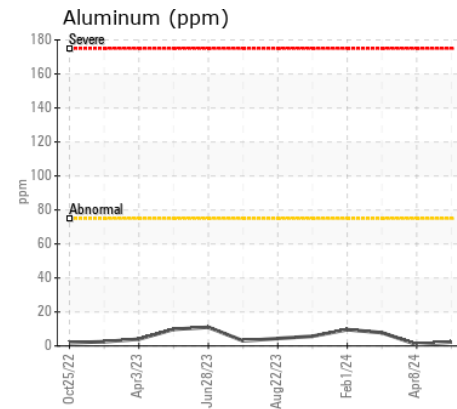
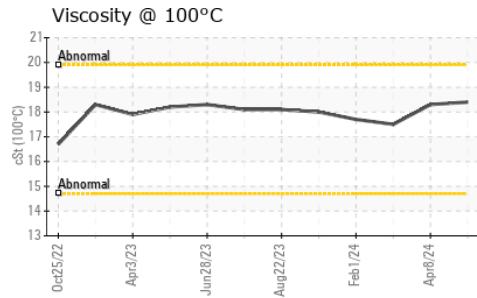
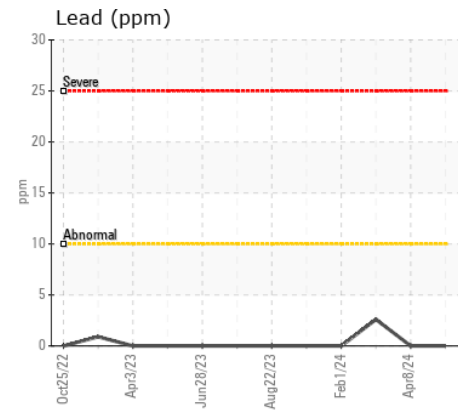
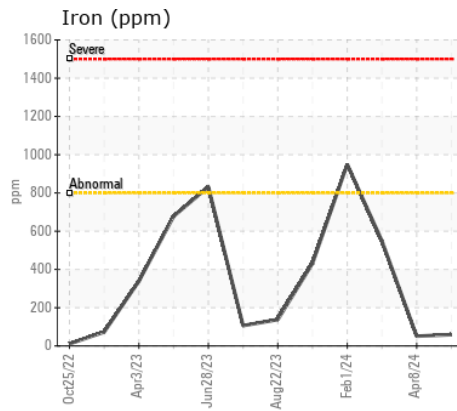
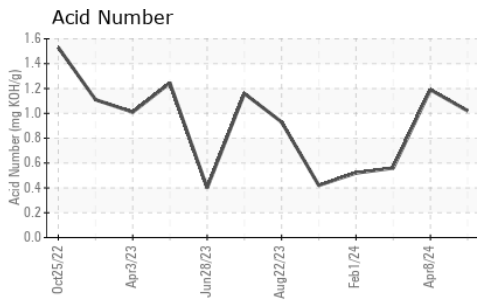
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>400	14	11	15
Potassium	ppm	ASTM D5185m	>20	2	0	3
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	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		5	6	5
Boron	ppm	ASTM D5185m		0	0	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		1	<1	6
Magnesium	ppm	ASTM D5185m		13	8	14
Calcium	ppm	ASTM D5185m		3378	2901	2752
Phosphorus	ppm	ASTM D5185m		1072	817	881
Zinc	ppm	ASTM D5185m		1279	1010	985
Sulfur	ppm	ASTM D5185m		5914	4658	4903
Acid Number (AN)	mg KOH/g	ASTM D8045		1.02	1.19	0.56
Visc @ 40°C	cSt	ASTM D445		211	214	199
Visc @ 100°C	cSt	ASTM D445		18.4	18.3	17.5
Viscosity Index (VI)	Scale	ASTM D2270		96	94	94



Certificate L2367

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

Sample No. : TO10003648

Lab Number : 06216335

Unique Number : 11089199

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

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)

Received : 20 Jun 2024

Tested : 21 Jun 2024

Diagnosed : 21 Jun 2024 - Wes Davis

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