



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**CATERPILLAR 980M 6141 (S/N KRS00885)**  
Component  
**Front 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		<b>TO10003650</b>	TO10003321	TO10002986
Sample Date		Client Info		<b>15 Jun 2024</b>	08 Apr 2024	01 Feb 2024
Machine Age	hrs	Client Info		<b>13913</b>	13425	12901
Oil Age	hrs	Client Info		<b>4111</b>	3623	3099
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>	N/A	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

PQ		ASTM D8184	>500	<b>93</b>	201	---
Iron	ppm	ASTM D5185m	>800	<b>403</b>	352	427
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>75	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>18</b>	17	19
Tin	ppm	ASTM D5185m	>8	<b>&lt;1</b>	0	0
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**

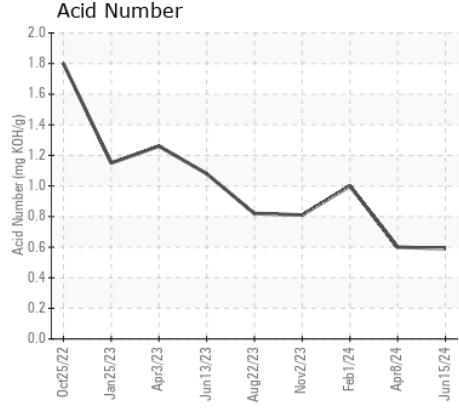
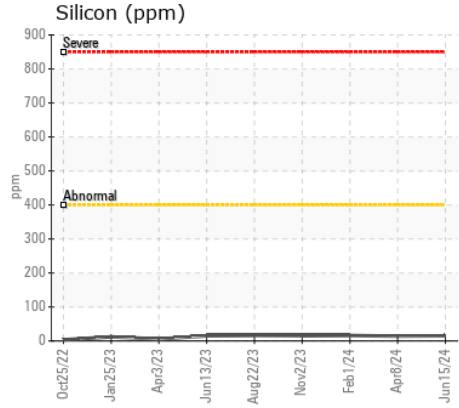
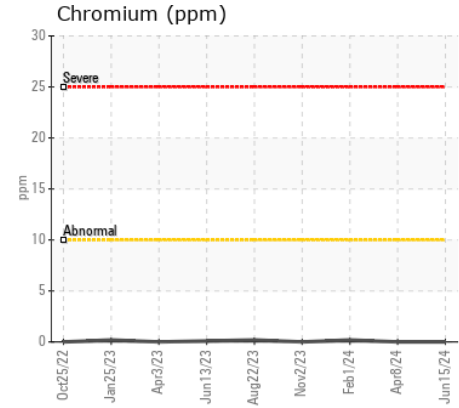
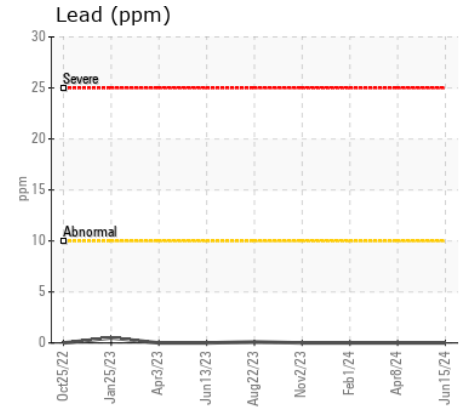
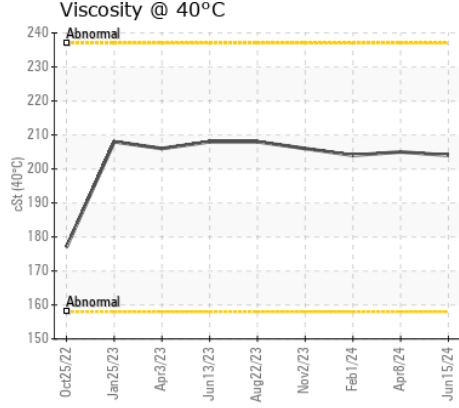
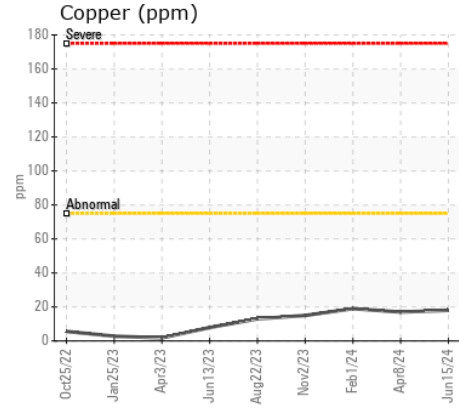
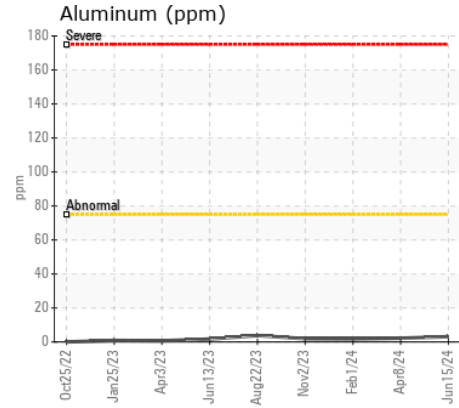
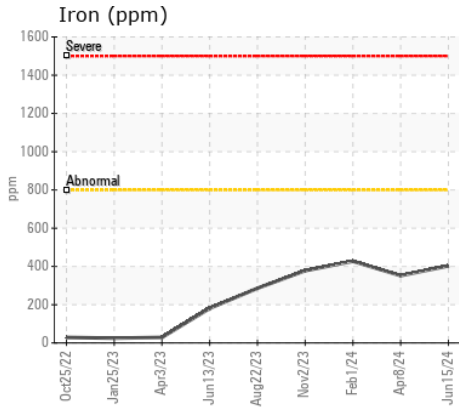
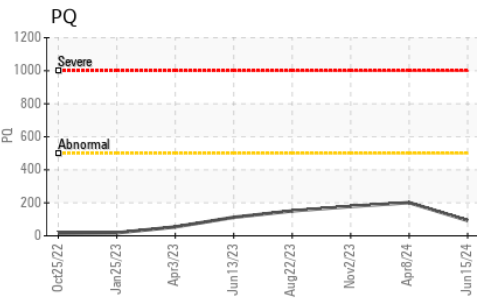
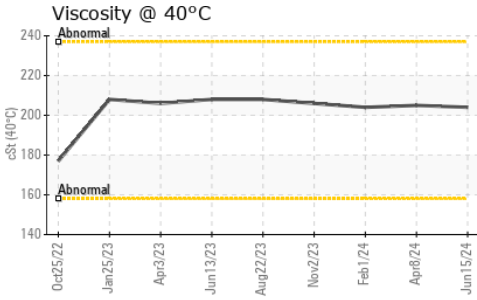
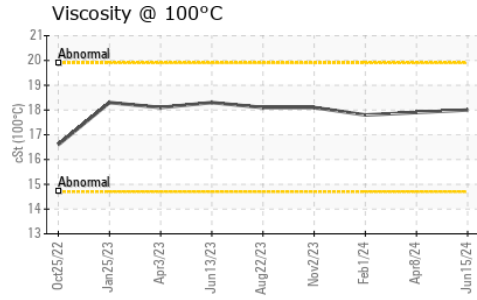
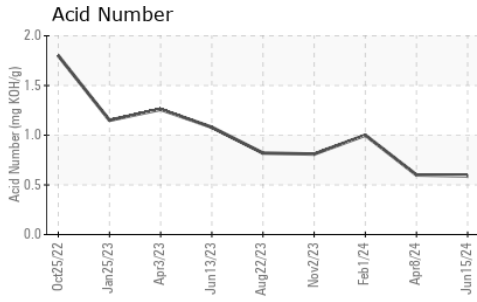
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>400	<b>15</b>	14	16
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	2
Water		WC Method	>0.2	<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	>0.2	<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>3</b>	4	0
Boron	ppm	ASTM D5185m		<b>1</b>	<1	2
Barium	ppm	ASTM D5185m		<b>0</b>	0	5
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	2	1
Manganese	ppm	ASTM D5185m		<b>4</b>	3	3
Magnesium	ppm	ASTM D5185m		<b>21</b>	15	20
Calcium	ppm	ASTM D5185m		<b>3042</b>	2682	2929
Phosphorus	ppm	ASTM D5185m		<b>1044</b>	795	882
Zinc	ppm	ASTM D5185m		<b>1217</b>	964	1202
Sulfur	ppm	ASTM D5185m		<b>5646</b>	4620	4893
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.59</b>	0.60	1.00
Visc @ 40°C	cSt	ASTM D445		<b>204</b>	205	204
Visc @ 100°C	cSt	ASTM D445		<b>18.0</b>	17.9	17.8
Viscosity Index (VI)	Scale	ASTM D2270		<b>96</b>	95	94



Certificate L2367

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

Sample No. : TO10003650

Lab Number : 06216337

Unique Number : 11089201

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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