



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 980K 6058 (S/N W7K00517)
 Component
Hydraulic System
 Fluid
TULCO LUBSOIL SUPER HYDRAULIC HZ 46 (45 GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TO10003655	TO10003320	TO10002972
Sample Date		Client Info		17 Jun 2024	06 Apr 2024	26 Jan 2024
Machine Age	hrs	Client Info		20455	19983	19449
Oil Age	hrs	Client Info		6140	5668	5134
Filter Age	hrs	Client Info		6140	534	559
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		None	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	1	2	4
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	0	<1
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	2	2	2
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

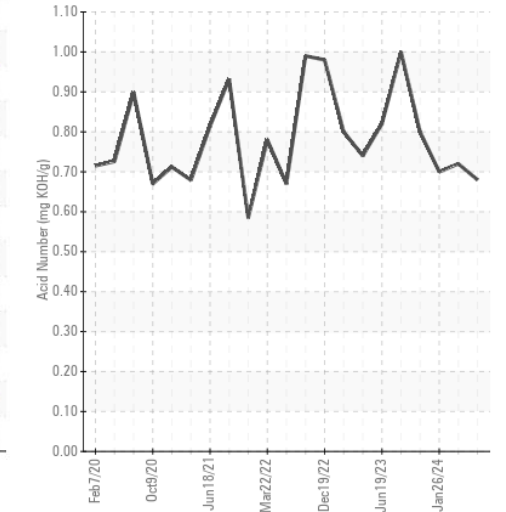
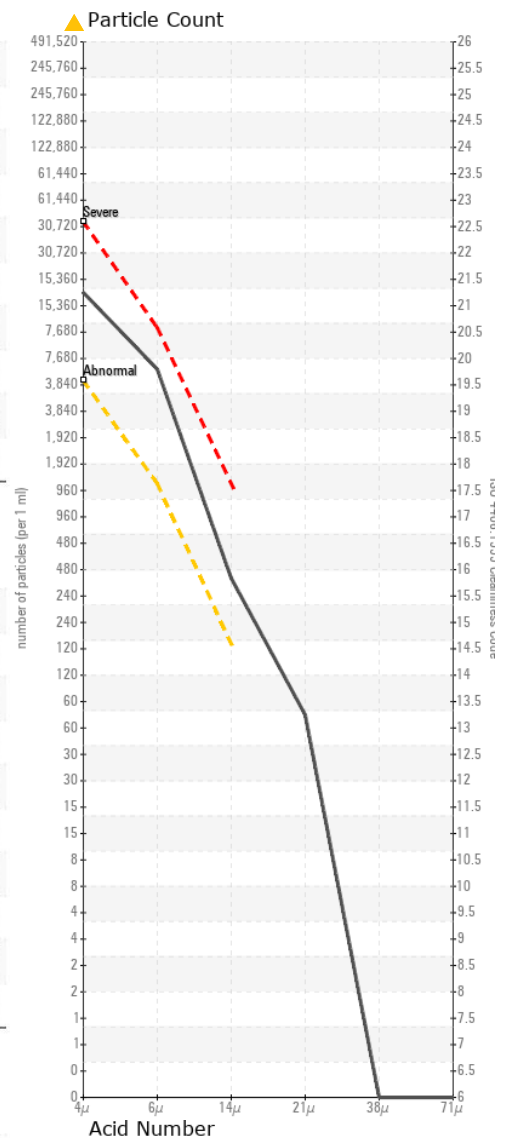
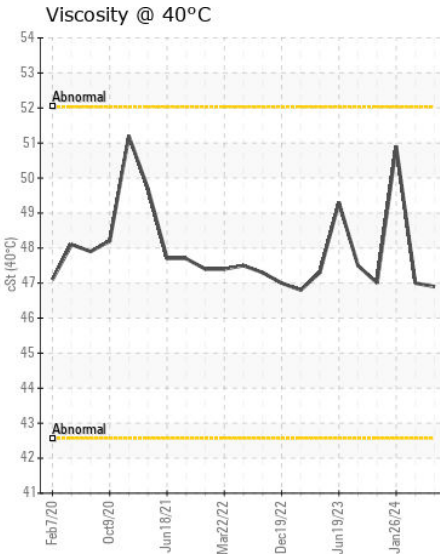
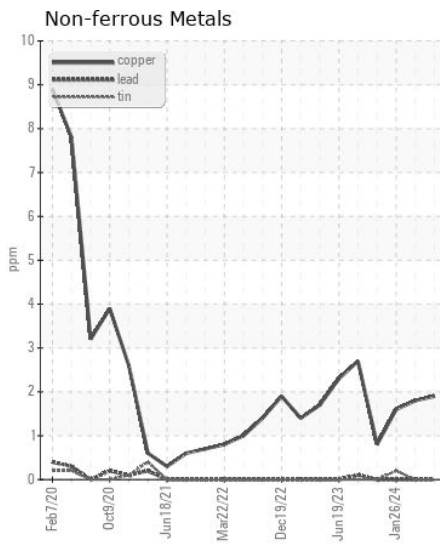
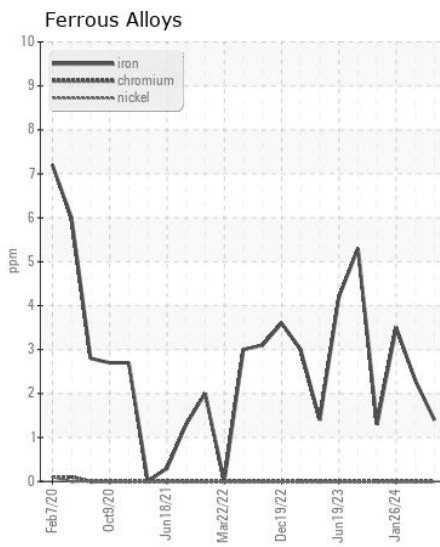
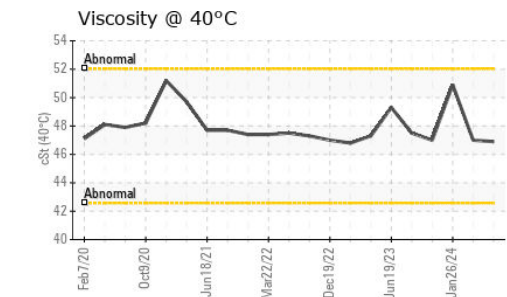
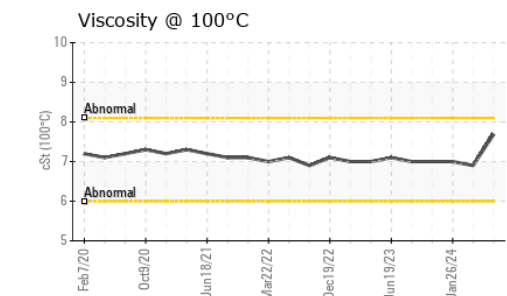
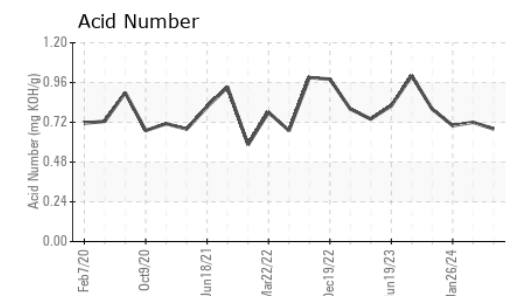
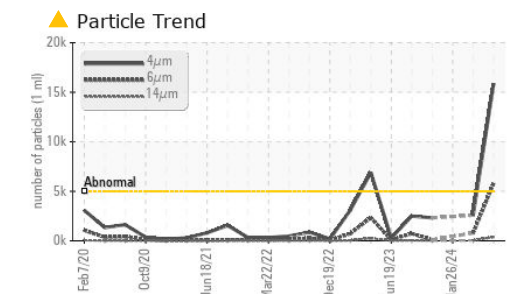
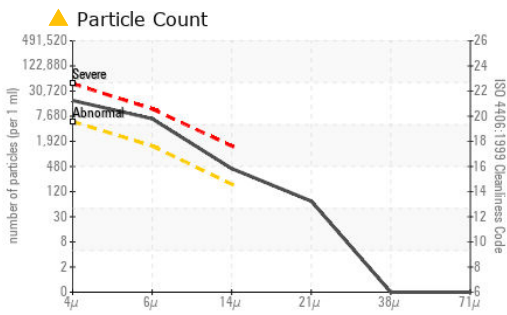
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	1	<1	1
Potassium	ppm	ASTM D5185m	>20	4	0	<1
Water	%	ASTM D6304	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 15842	2586	---
Particles >6µm		ASTM D7647	>1300	▲ 5810	787	---
Particles >14µm		ASTM D7647	>160	▲ 377	33	---
Particles >21µm		ASTM D7647	>40	▲ 63	5	---
Particles >38µm		ASTM D7647	>10	0	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/20/16	19/17/12	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	▲ MODER
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	>0.1	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		4	5	2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		170	137	167
Calcium	ppm	ASTM D5185m		155	140	144
Phosphorus	ppm	ASTM D5185m		852	673	755
Zinc	ppm	ASTM D5185m		1043	799	896
Sulfur	ppm	ASTM D5185m		3616	2780	2693
Acid Number (AN)	mg KOH/g	ASTM D8045		0.68	0.72	0.70
Visc @ 40°C	cSt	ASTM D445		46.9	47.0	50.9
Visc @ 100°C	cSt	ASTM D445		7.69	6.9	7
Viscosity Index (VI)	Scale	ASTM D2270		131	101	92



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10003655
Lab Number : 06216289
Unique Number : 11089153
Test Package : MOB 2 (Additional Tests: KF, KV100, VI)

Received : 20 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Jonathan Hester

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

Contact: MIKE SNYDER
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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)

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