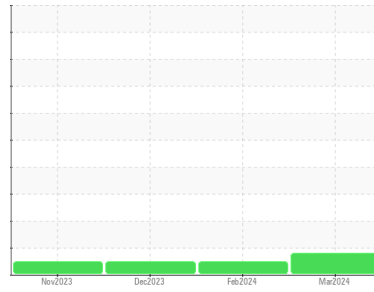




OIL ANALYSIS REPORT

Area
MINING
Machine Id
ME-60 CATERPILLAR 982M MK800210
Component
Hydraulic System
Fluid
CAT HYDO (43 GAL)

Sample Rating Trend



ISO



DIAGNOSIS

● Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

● Contamination

There is a light amount of silt (particulates < 14 microns in size) present 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			WC0909681	WC0909662	WC0880660
Sample Date	Client Info			28 Mar 2024	28 Feb 2024	26 Dec 2023
Machine Age	hrs	Client Info		11887	11413	10932
Oil Age	hrs	Client Info		1000	500	1000
Oil Changed	Client Info			N/A	Not Changd	Changed
Sample Status				ATTENTION	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
Iron	ppm	ASTM D5185m	>20	2	<1	3
Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	<1	2
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	<1	<1	1
Tin	ppm	ASTM D5185m	>10	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	<1
Barium	ppm	ASTM D5185m		0	0	7
Molybdenum	ppm	ASTM D5185m		1	1	2
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		9	5	15
Calcium	ppm	ASTM D5185m		196	215	235
Phosphorus	ppm	ASTM D5185m	1100	651	730	696
Zinc	ppm	ASTM D5185m	1210	876	869	1000
Sulfur	ppm	ASTM D5185m		1638	1740	1802

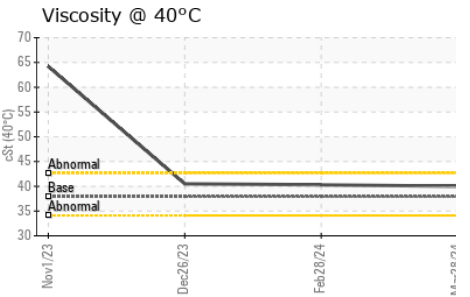
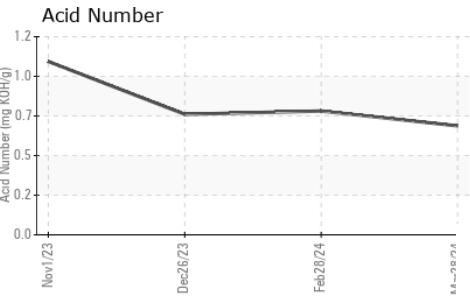
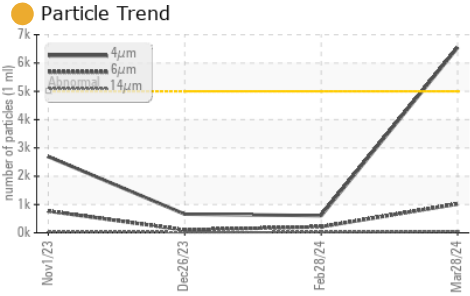
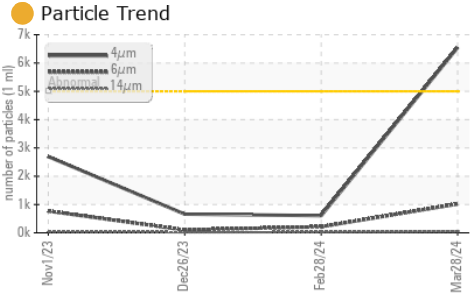
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	3	1	3
Sodium	ppm	ASTM D5185m		0	2	0
Potassium	ppm	ASTM D5185m	>20	1	0	1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	● 6546	606	660
Particles >6µm		ASTM D7647	>1300	1019	216	100
Particles >14µm		ASTM D7647	>160	45	22	18
Particles >21µm		ASTM D7647	>40	14	5	6
Particles >38µm		ASTM D7647	>10	0	1	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	● 20/17/13	16/15/12	17/14/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.66	0.75	0.73



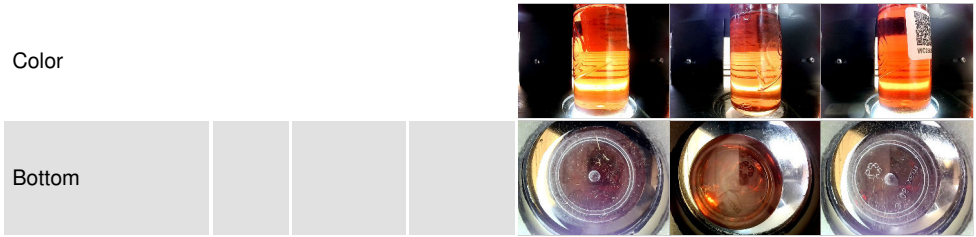
OIL ANALYSIS REPORT



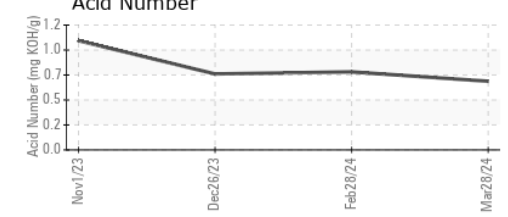
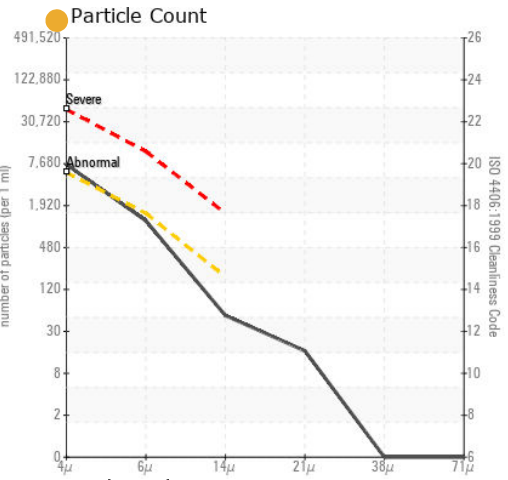
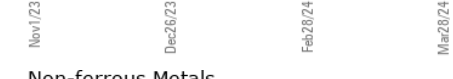
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	37.9	40.0	40.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0909681 **Received** : 04 Apr 2024
Lab Number : 06138493 **Tested** : 05 Apr 2024
Unique Number : 10963301 **Diagnosed** : 05 Apr 2024 - Wes Davis
Test Package : CONST

COVIA - CAMDEN - 094
 1700 SAND MILL RD
 CAMDEN, TN
 US 38320
 Contact: TRACY KEE
 tracy.kee@coviacorp.com

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)