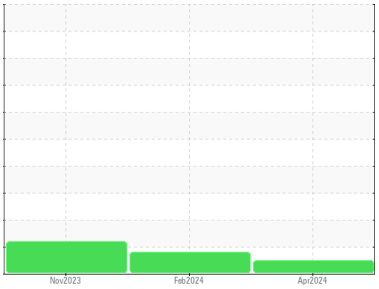
OIL ANALYSIS REPORT

Area
MINING
Machine Id
ME-62 CATERPILLAR 336 CYBN20963
Component
Hydraulic System
Fluid
CAT TDTO 10W (43 GAL)

Sample Rating Trend



NORMAL

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
The amount and size of particulates present in the system are acceptable. 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		**WC0909686**	WC06090095	WC0866094
Sample Date		Client Info		**15 Apr 2024**	14 Feb 2024	06 Nov 2023
Machine Age	hrs	Client Info		**2600**	0	0
Oil Age	hrs	Client Info		**1000**	0	2000
Oil Changed		Client Info		**Not Changd**	N/A	Changed
Sample Status				**NORMAL**	ATTENTION	ABNORMAL

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	**12**	12	17
Chromium	ppm	ASTM D5185m	>10	**7**	5	6
Nickel	ppm	ASTM D5185m	>10	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**4**	4	6
Lead	ppm	ASTM D5185m	>10	**0**	0	<1
Copper	ppm	ASTM D5185m	>75	**5**	7	10
Tin	ppm	ASTM D5185m	>10	**0**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	0	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		**0**	1	1
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**5**	6	0
Calcium	ppm	ASTM D5185m	2980	**195**	164	143
Phosphorus	ppm	ASTM D5185m	1100	**692**	652	632
Zinc	ppm	ASTM D5185m	1270	**904**	826	894
Sulfur	ppm	ASTM D5185m		**1929**	1603	1429

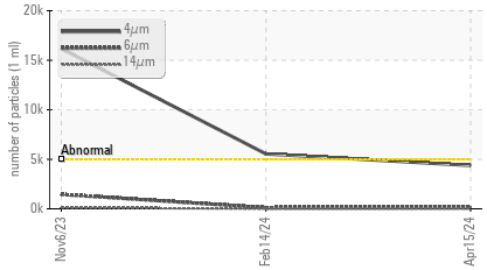
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**5**	6	8
Sodium	ppm	ASTM D5185m		**4**	3	5
Potassium	ppm	ASTM D5185m	>20	**<1**	0	3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**4377**	● 5542	▲ 16167
Particles >6µm		ASTM D7647	>1300	**220**	114	● 1457
Particles >14µm		ASTM D7647	>160	**16**	7	107
Particles >21µm		ASTM D7647	>40	**6**	2	28
Particles >38µm		ASTM D7647	>10	**0**	0	1
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**19/15/11**	● 20/14/10	▲ 21/18/14

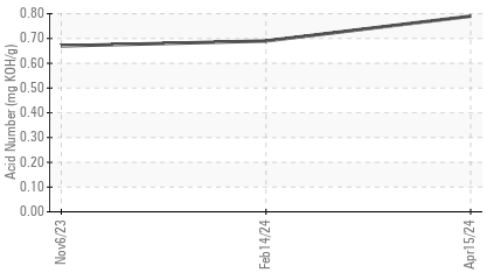
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.79**	0.69	0.67

OIL ANALYSIS REPORT

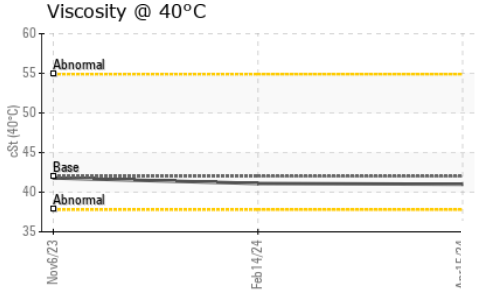
Particle Trend



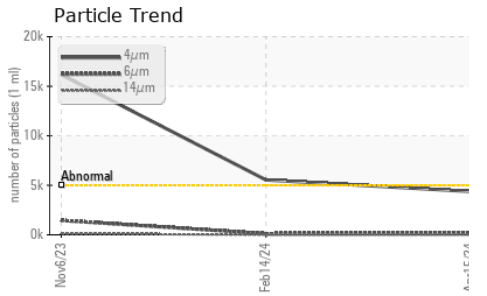
Acid Number



Viscosity @ 40°C

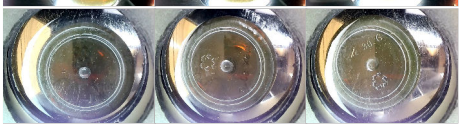


Particle Trend



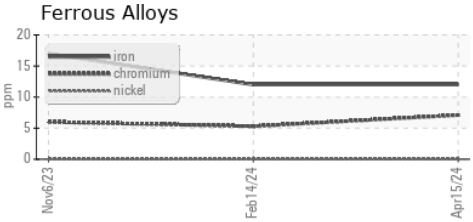
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	42.0	**41.0**	41.1	41.8

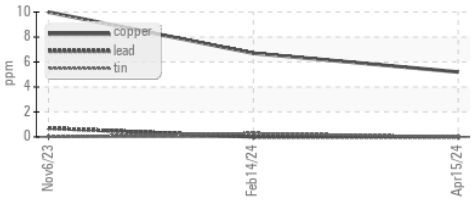
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

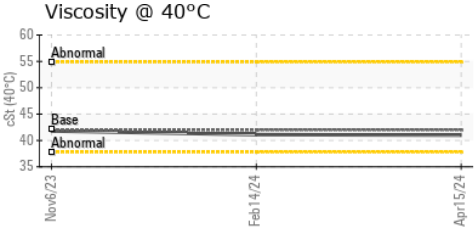
Ferrous Alloys



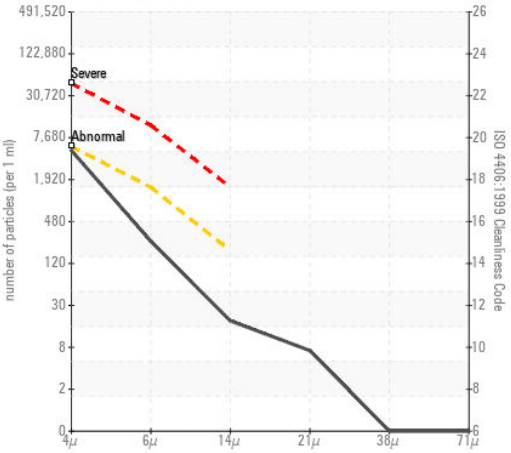
Non-ferrous Metals



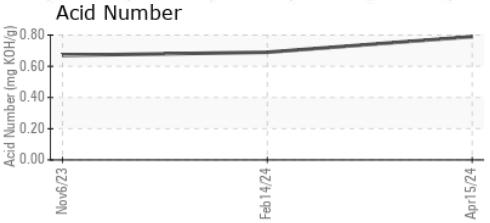
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0909686
Lab Number : 06159003
Unique Number : 10994426
Test Package : CONST

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Don Baldridge

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)

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