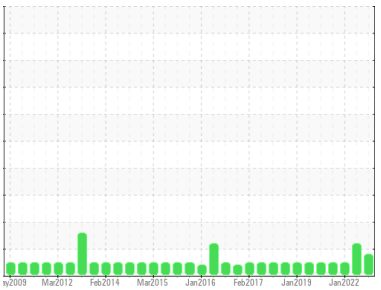
OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Machine Id
356.XX403 (S/N 356-403-29)
Component
Hydraulic System
Fluid
MOBIL DTE 10 EXCEL 46 (20 GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor. Please submit a sample of the new (unused) oil to verify and confirm current baseline.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. MPC (Membrane Patch Colorimetry) test indicates acceptable levels of varnish present.

Fluid Condition
Linear Sweep Voltammetry (RULER – ASTM D6971) testing indicates normal levels of anti-oxidants present in the oil. 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		**RP0008489**	WC0799242	RP0001030
Sample Date		Client Info		**28 Mar 2024**	31 Mar 2023	14 Jan 2022
Machine Age	yrs	Client Info		**0**	0	0
Oil Age	yrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ATTENTION**	ATTENTION	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**0**	0	<1
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	0	0
Lead	ppm	ASTM D5185m	>20	**0**	0	0
Copper	ppm	ASTM D5185m	>20	**0**	0	3
Tin	ppm	ASTM D5185m	>20	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
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**	0	0
Manganese	ppm	ASTM D5185m		**0**	<1	0
Magnesium	ppm	ASTM D5185m		**0**	4	0
Calcium	ppm	ASTM D5185m		**110**	116	117
Phosphorus	ppm	ASTM D5185m		**432**	445	547
Zinc	ppm	ASTM D5185m		**6**	1	191

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**0**	<1	0
Sodium	ppm	ASTM D5185m		**1**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Water	%	ASTM D6304	>0.05	**0.007**	0.007	0.006
ppm Water	ppm	ASTM D6304	>500	**71**	71.6	67.0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>320	**291**	381	291
Particles >6µm		ASTM D7647	>80	**90**	94	51
Particles >14µm		ASTM D7647	>20	**9**	7	7
Particles >21µm		ASTM D7647	>4	**3**	2	2
Particles >38µm		ASTM D7647	>3	**1**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>15/13/11	**15/14/10**	16/14/10	15/13/10

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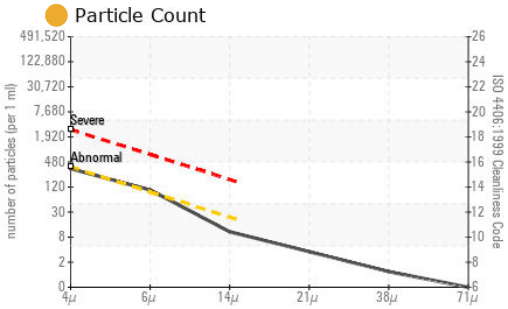
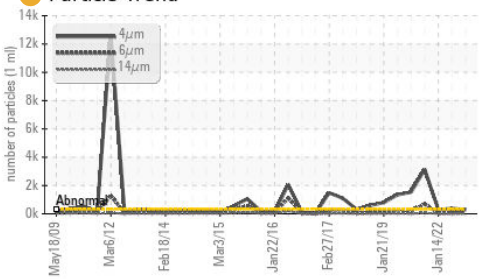
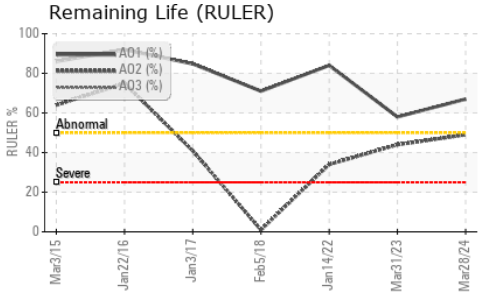
Particle Count



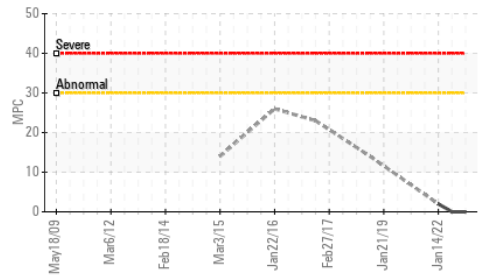
Particle Trend



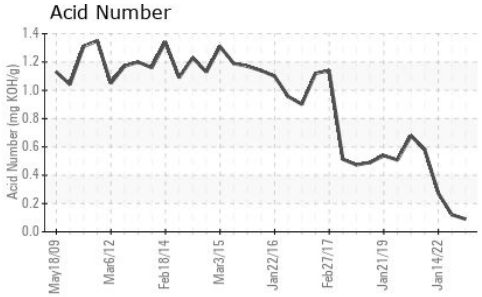
Remaining Life (RULER)



Varnish Potential



Acid Number

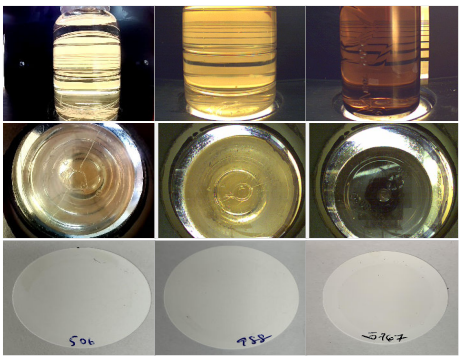


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.09**	0.12	0.273
Anti-Oxidant 1	%	ASTM D6971	<25	**67**	58	84
Anti-Oxidant 2	%	ASTM D6971	<25	**49**	44	34
MPC Varnish Potential	Scale	ASTM D7843	>15	**0**	0	2

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	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.6	**45.6**	45.6	44.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					
MPC					



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0008489 **Received** : 03 Apr 2024
Lab Number : 06137506 **Tested** : 12 Apr 2024
Unique Number : 10956971 **Diagnosed** : 12 Apr 2024 - Doug Bogart
Test Package : AOM 1 (Additional Tests: KF)

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)

INTERNATIONAL PAPER
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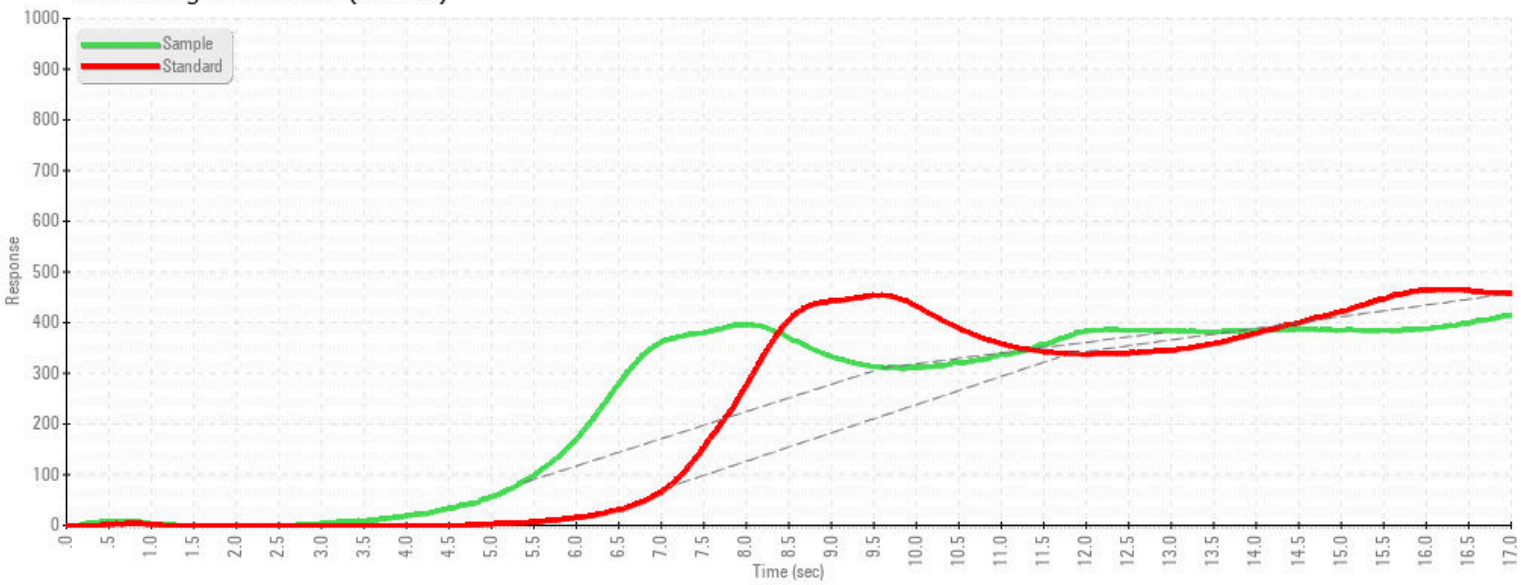
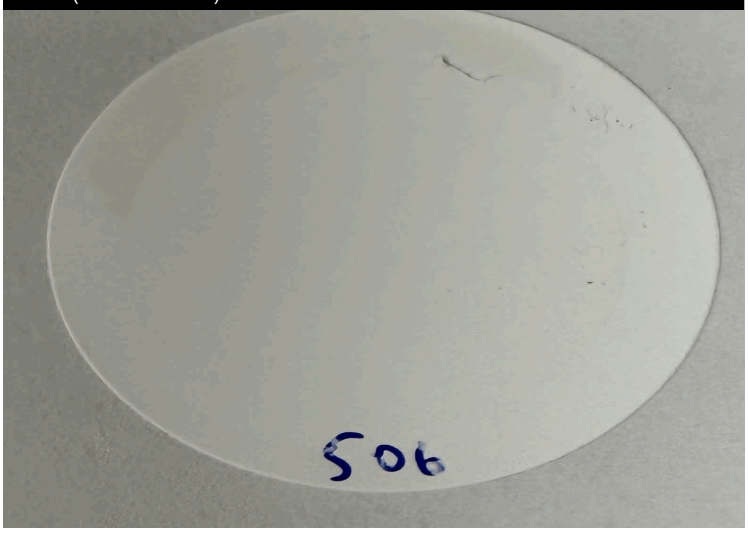
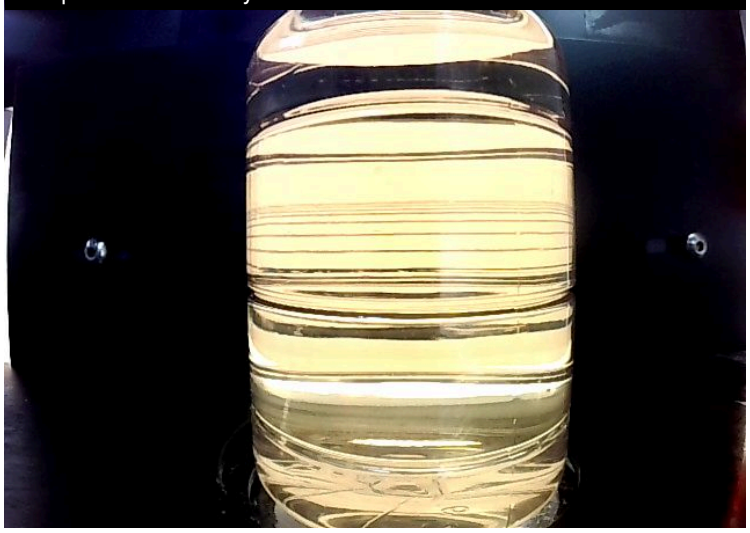
Remaining Useful Life (RULER)



MPC (Varnish Test)



Sample Color & Clarity



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