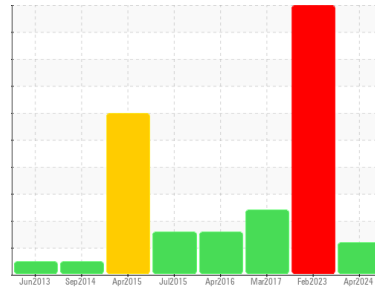




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
CHW-032 (S/N 22KL294534)
 Component
Hydraulic System
 Fluid
MOBIL DTE 10 EXCEL 32 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate 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		WC0925990	WC0788615	MHII2263291
Sample Date	Client Info		01 Apr 2024	22 Feb 2023	23 Mar 2017
Machine Age	hrs	Client Info	0	0	30106
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ATTENTION	SEVERE	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		11	38	---
Iron	ppm	ASTM D5185m >20	2	▲ 128	4
Chromium	ppm	ASTM D5185m >20	0	5	<1
Nickel	ppm	ASTM D5185m >20	0	0	<1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	0	<1	0
Lead	ppm	ASTM D5185m >20	<1	1	7
Copper	ppm	ASTM D5185m >20	0	<1	<1
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	<1
Barium	ppm	ASTM D5185m	0	0	<1
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	0	1	3
Calcium	ppm	ASTM D5185m 120	101	103	99
Phosphorus	ppm	ASTM D5185m 475	225	379	653
Zinc	ppm	ASTM D5185m	19	29	211
Sulfur	ppm	ASTM D5185m 1275	970	1261	1257

CONTAMINANTS

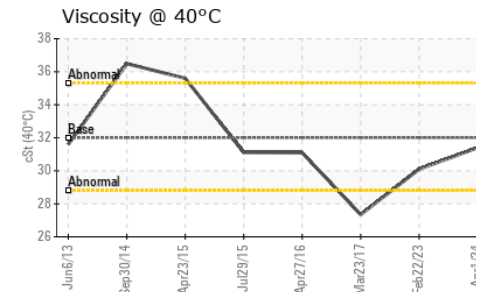
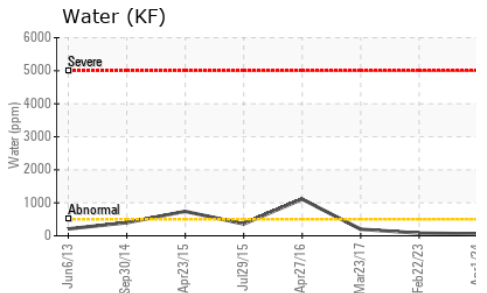
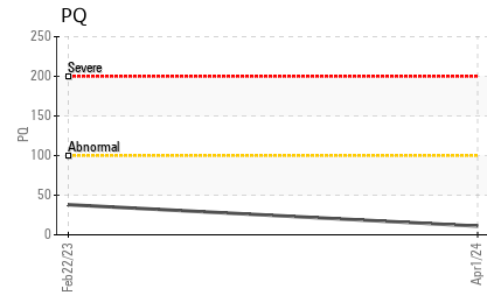
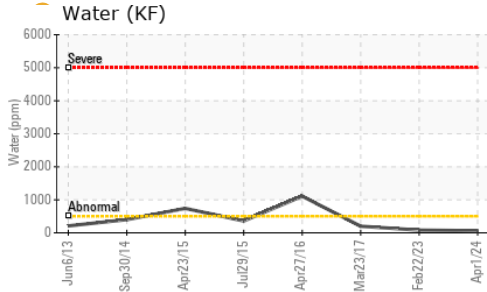
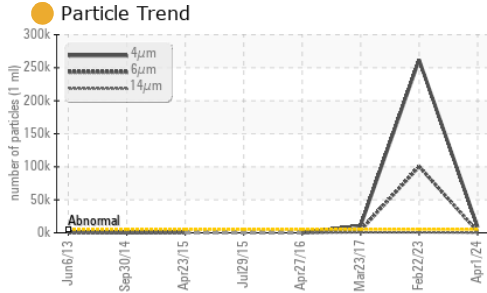
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	1	5	2
Sodium	ppm	ASTM D5185m	3	4	4
Potassium	ppm	ASTM D5185m >20	<1	0	2
Water	%	ASTM D6304 >0.05	0.006	0.008	0.020
ppm Water	ppm	ASTM D6304 >500	64	81.1	200

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	● 8711	▲ 261869	▲ 10884
Particles >6µm	ASTM D7647	>1300	● 2145	▲ 100457	▲ 3848
Particles >14µm	ASTM D7647	>160	152	▲ 688	▲ 767
Particles >21µm	ASTM D7647	>40	36	51	▲ 230
Particles >38µm	ASTM D7647	>10	1	1	▲ 16
Particles >71µm	ASTM D7647	>3	0	0	▲ 4
Oil Cleanliness	ISO 4406 (c)	>19/17/14	● 20/18/14	▲ 25/24/17	▲ 21/19/17



OIL ANALYSIS REPORT

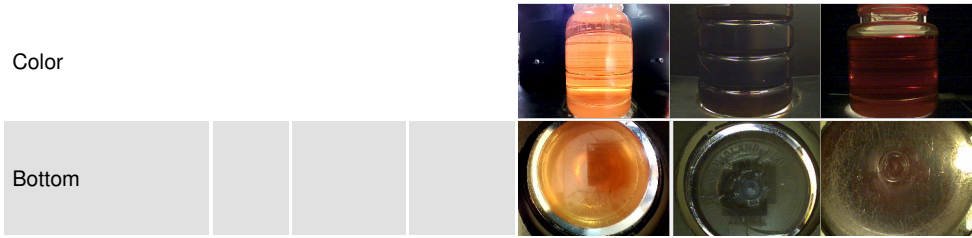


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.08	0.18	0.421

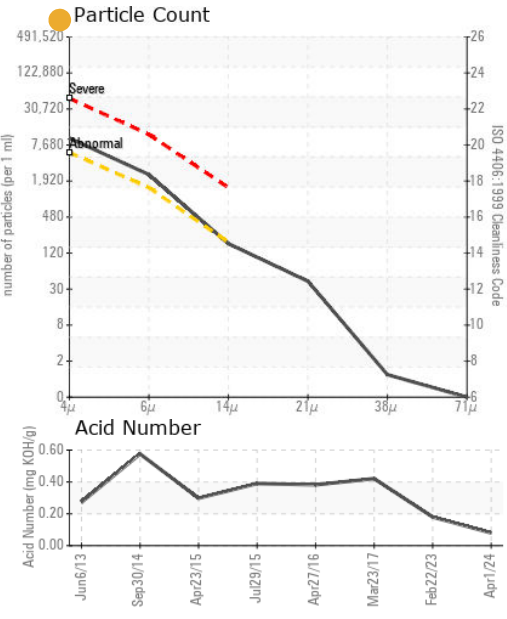
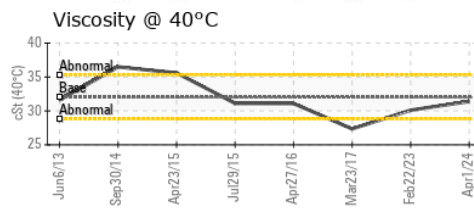
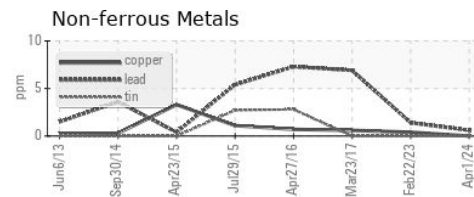
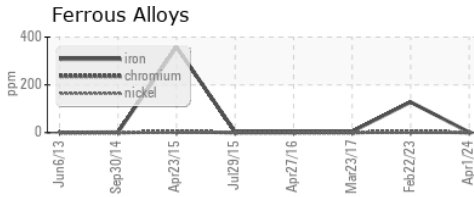
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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	32	31.4	30.1	27.35

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0925990 **Received** : 25 Apr 2024
Lab Number : 06160370 **Tested** : 26 Apr 2024
Unique Number : 10995793 **Diagnosed** : 27 Apr 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PQ)

DEUTSCHE WINDTECHNIK - CANADIAN HILLS - MPS CH
 14730 EDMOND RD NW
 CALUMET, OK
 US 73014
 Contact: ANGEL LAUZARA
 a.lauzara@deutsche-windtechnik.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)