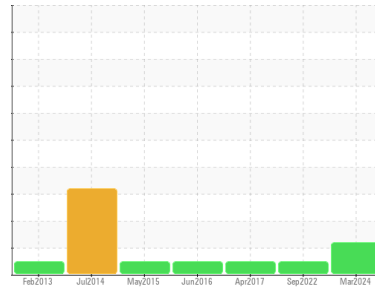




OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL



Machine Id

CHW-010

Component

Hydraulic System

Fluid

MOBIL DTE 10 EXCEL 32 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We advise that you inspect for possible wear. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

Wear

Moderate concentration of visible metal present. All component wear rates are normal.

Contamination

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		WC0925982	WC0778731	MHI171761
Sample Date	Client Info		19 Mar 2024	29 Sep 2022	25 Apr 2017
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		---	2	---
Iron	ppm	ASTM D5185m >50	11	5	4
Chromium	ppm	ASTM D5185m >20	<1	0	<1
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	2	0	0
Lead	ppm	ASTM D5185m >20	<1	<1	6
Copper	ppm	ASTM D5185m >20	<1	<1	<1
Tin	ppm	ASTM D5185m >20	0	<1	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	0	<1
Magnesium	ppm	ASTM D5185m	<1	0	2
Calcium	ppm	ASTM D5185m 120	102	98	96
Phosphorus	ppm	ASTM D5185m 475	158	275	484
Zinc	ppm	ASTM D5185m	9	4	116
Sulfur	ppm	ASTM D5185m 1275	643	1000	1227

CONTAMINANTS

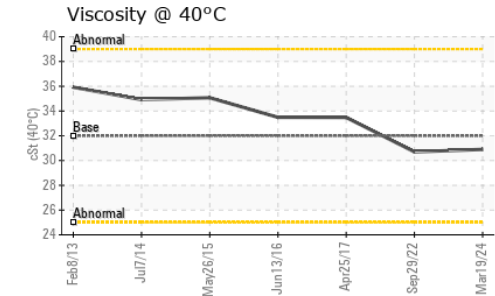
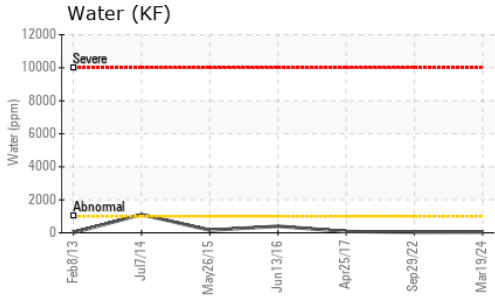
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+30	0	<1	6
Sodium	ppm	ASTM D5185m	<1	3	3
Potassium	ppm	ASTM D5185m >20	<1	0	1
Water	%	ASTM D6304 >0.1	0.004	0.003	0.008
ppm Water	ppm	ASTM D6304 >1000	45.1	39.6	80

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	---	3401	1270
Particles >6µm	ASTM D7647	>1300	---	480	528
Particles >14µm	ASTM D7647	>160	---	22	94
Particles >21µm	ASTM D7647	>40	---	4	32
Particles >38µm	ASTM D7647	>10	---	0	3
Particles >71µm	ASTM D7647	>3	---	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	---	19/16/12	17/16/14



OIL ANALYSIS REPORT

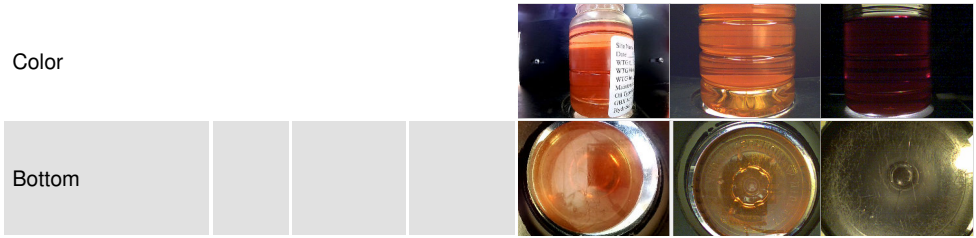


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.14	0.128	0.306

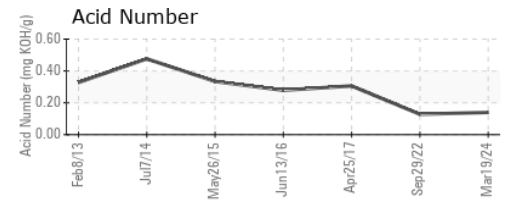
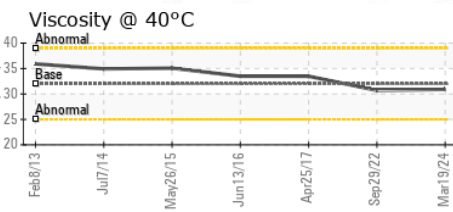
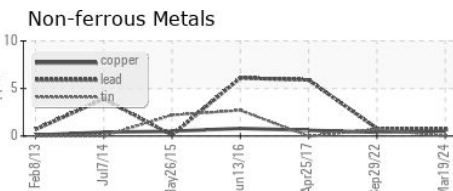
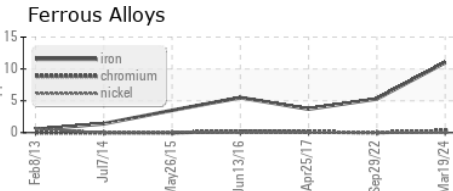
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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	32	30.9	30.7	33.48

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0925982 **Received** : 03 Apr 2024
Lab Number : **06137358** **Tested** : 10 Apr 2024
Unique Number : 10956823 **Diagnosed** : 10 Apr 2024 - Jonathan Hester
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)