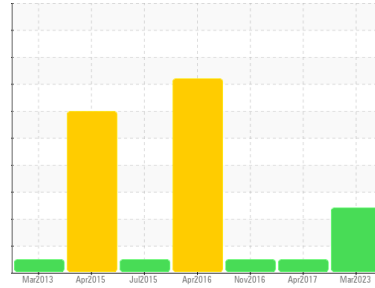




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
CHW-039

Component
Hydraulic System

Fluid
MOBIL DTE 10 EXCEL 32 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

▲ Wear

The iron level is abnormal.

▲ Contamination

There is a high amount of particulates 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		WC0809814	MHI148404	MHI12263371
Sample Date	Client Info		31 Mar 2023	06 Apr 2017	22 Nov 2016
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		31	---	---
Iron	ppm	ASTM D5185m >50	▲ 83	5	8
Chromium	ppm	ASTM D5185m >20	2	<1	0
Nickel	ppm	ASTM D5185m >20	0	<1	<1
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	2	5	4
Copper	ppm	ASTM D5185m >20	2	2	<1
Tin	ppm	ASTM D5185m >20	0	<1	0
Antimony	ppm	ASTM D5185m	---	0	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	<1	<1
Barium	ppm	ASTM D5185m	0	<1	0
Molybdenum	ppm	ASTM D5185m	0	0	2
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	2	2	4
Calcium	ppm	ASTM D5185m 120	112	94	119
Phosphorus	ppm	ASTM D5185m 475	414	534	788
Zinc	ppm	ASTM D5185m	17	171	303
Sulfur	ppm	ASTM D5185m 1275	1169	1286	2075

CONTAMINANTS

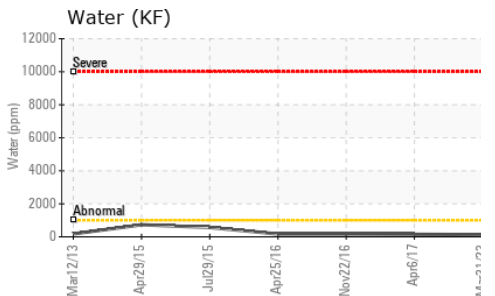
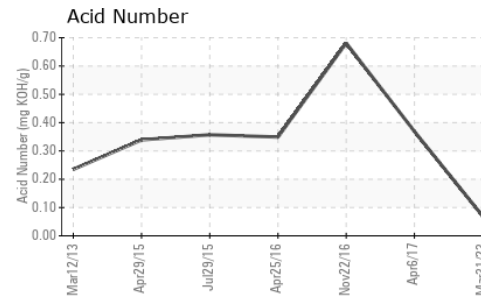
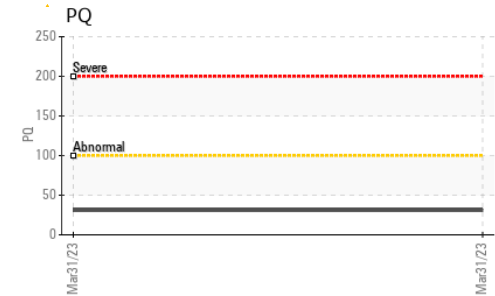
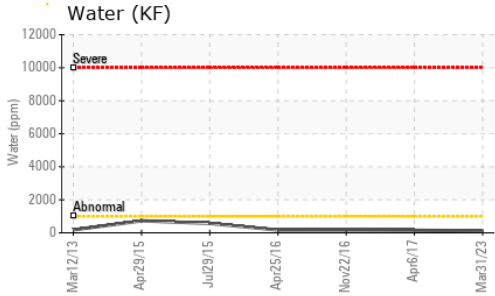
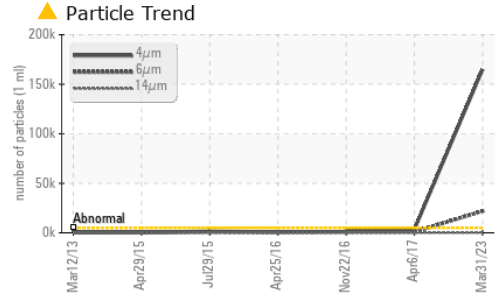
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+30	3	2	<1
Sodium	ppm	ASTM D5185m	5	3	5
Potassium	ppm	ASTM D5185m >20	1	3	0
Water	%	ASTM D6304 >0.1	0.013	0.015	0.017
ppm Water	ppm	ASTM D6304 >1000	133.0	150	170

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 164880	3492	1230
Particles >6µm	ASTM D7647	>1300	▲ 21941	826	670
Particles >14µm	ASTM D7647	>160	▲ 175	82	114
Particles >21µm	ASTM D7647	>40	33	25	38
Particles >38µm	ASTM D7647	>10	0	6	5
Particles >71µm	ASTM D7647	>3	0	4	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 25/22/15	19/17/14	17/17/14



OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.07	0.369	0.681

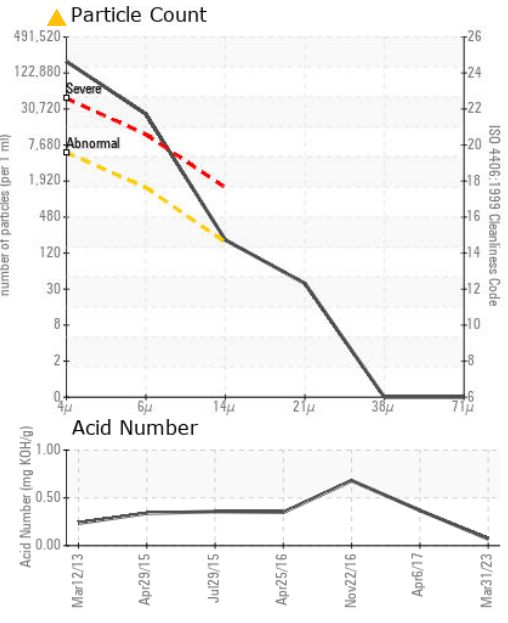
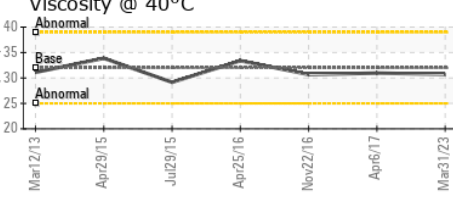
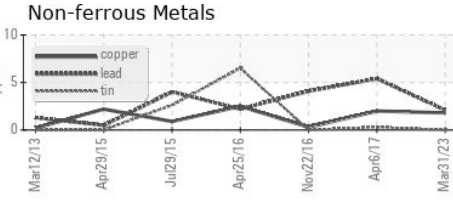
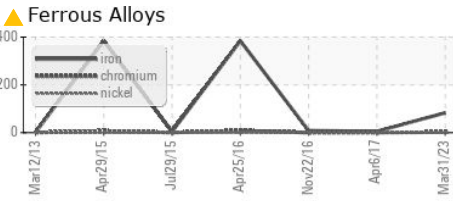
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE	VLITE
Sand/Dirt	scalar	*Visual	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	30.7	30.96	30.67

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0809814 **Received** : 13 Apr 2023
Lab Number : 05818776 **Tested** : 14 Apr 2023
Unique Number : 10426859 **Diagnosed** : 16 Apr 2023 - Doug Bogart
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)