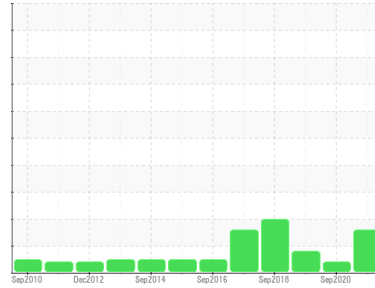


PROBLEM SUMMARY

Sample Rating Trend



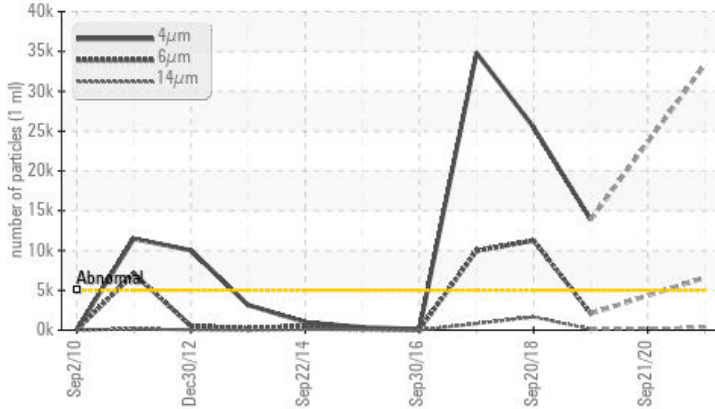
ISO



Machine Id
D-25
Component
Hydraulic System
Fluid
MOBIL DTE 10 EXCEL 32 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

Re-sample to verify the actual oil condition. Replace filter elements. Change oil if cleanliness level does not improve after replacing the filter(s).

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>5000	▲ 33370	---	▲ 13866
Particles >6µm	ASTM D7647	>1300	▲ 6605	---	▲ 2092
Particles >14µm	ASTM D7647	>160	▲ 335	---	120
Particles >21µm	ASTM D7647	>40	▲ 70	---	31
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 22/20/16	---	▲ 21/18/14

Customer Id: MITODO
Sample No.: MHI017541
Lab Number: 05370414
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	Re-sample to verify the actual oil condition. Replace filter elements. Change oil if cleanliness level does not improve after replacing the filter(s).
Resample	---	---	?	Re-sample to verify the actual oil condition. Replace filter elements. Change oil if cleanliness level does not improve after replacing the filter(s).

HISTORICAL DIAGNOSIS

21 Sep 2020 Diag: Don Baldrige

VIS DEBRIS



We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



04 Nov 2019 Diag: Doug Bogart

ISO



Re-sample to verify the actual oil condition. Replace filter elements. Change oil if cleanliness level does not improve after replacing the filter(s). All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid.

[view report](#)



20 Sep 2018 Diag: Jonathan Hester

ISO



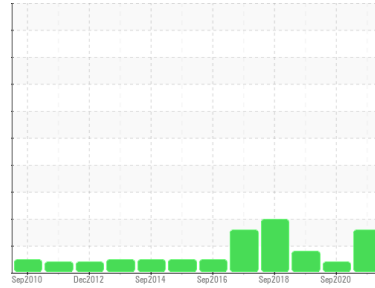
Re-sample to verify the actual oil condition. Replace filter elements. Change oil if cleanliness level does not improve after replacing the filter(s). All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid.

[view report](#)



OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
D-25
Component
Hydraulic System
Fluid
MOBIL DTE 10 EXCEL 32 (--- GAL)

DIAGNOSIS

Recommendation

Re-sample to verify the actual oil condition. Replace filter elements. Change oil if cleanliness level does not improve after replacing the filter(s).

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	MHI017541	MHI025850	MHI019745
Sample Date	Client Info	17 Sep 2021	21 Sep 2020	04 Nov 2019
Machine Age	hrs	0	0	0
Oil Age	hrs	90376	83947	77453
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	1	6	4
Chromium	ppm	ASTM D5185m	0	0	<1
Nickel	ppm	ASTM D5185m	<1	4	3
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	<1	0	0
Aluminum	ppm	ASTM D5185m	<1	0	0
Lead	ppm	ASTM D5185m	<1	2	1
Copper	ppm	ASTM D5185m	2	4	2
Tin	ppm	ASTM D5185m	0	0	0
Antimony	ppm	ASTM D5185m	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	1	2	<1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m	<1	1	<1
Calcium	ppm	ASTM D5185m 120	58	101	107
Phosphorus	ppm	ASTM D5185m 475	373	396	442
Zinc	ppm	ASTM D5185m	406	97	103
Sulfur	ppm	ASTM D5185m 1275	1127	2008	882

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+30	<1	<1	<1
Sodium	ppm	ASTM D5185m	1	2	2
Potassium	ppm	ASTM D5185m >20	0	0	2
Water	%	ASTM D6304 >0.1	0.005	0.007	0.006
ppm Water	ppm	ASTM D6304 >1000	59.9	74.1	69.7

FLUID CLEANLINESS

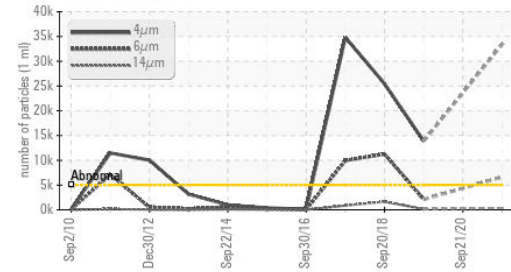
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 33370	---	▲ 13866
Particles >6µm	ASTM D7647 >1300	▲ 6605	---	▲ 2092
Particles >14µm	ASTM D7647 >160	▲ 335	---	120
Particles >21µm	ASTM D7647 >40	▲ 70	---	31
Particles >38µm	ASTM D7647 >10	2	---	0
Particles >71µm	ASTM D7647 >3	0	---	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 22/20/16	---	▲ 21/18/14

FLUID DEGRADATION

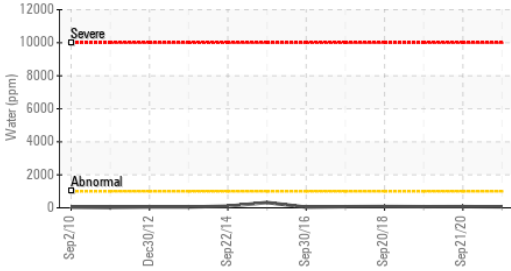
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.364	0.158	0.154

OIL ANALYSIS REPORT

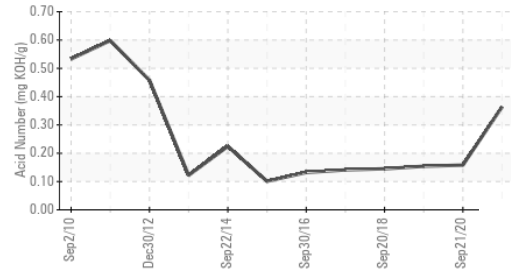
▲ Particle Trend



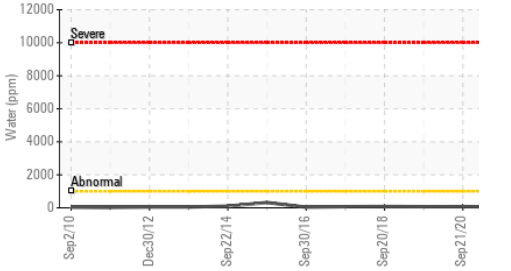
Water (KF)



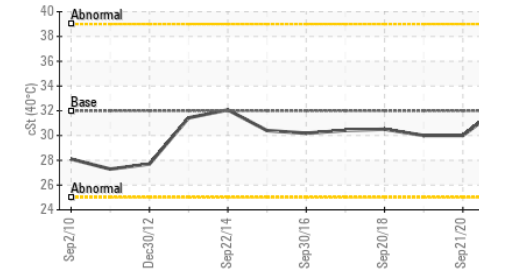
Acid Number



Water (KF)



Viscosity @ 40°C



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

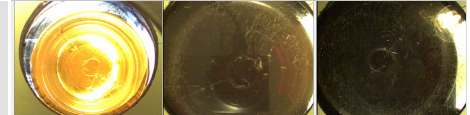
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 32	32.4	30.0	30.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

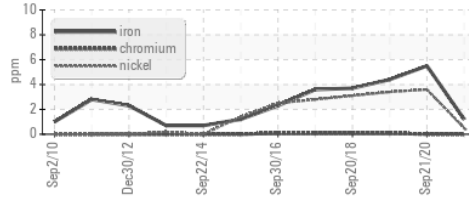


Bottom

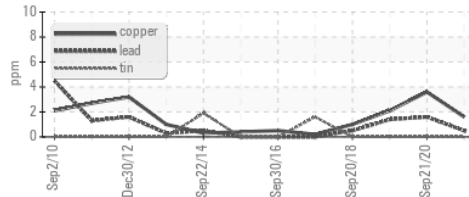


GRAPHS

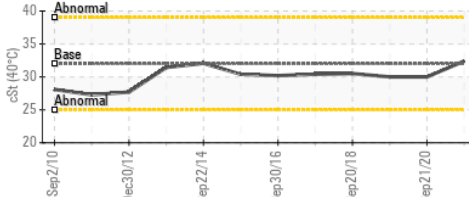
Ferrous Alloys



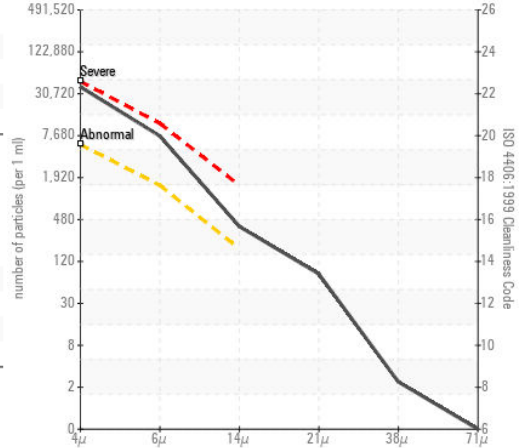
Non-ferrous Metals



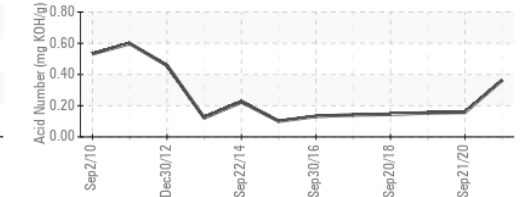
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MH1017541 **Received** : 11 Oct 2021
Lab Number : 05370414 **Diagnosed** : 12 Oct 2021
Unique Number : 9694525 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF)

DIAMOND WTG - BULL CREEK - MPS BC
 PO BOX 454
 O'DONNELL, TX
 US 79351
 Contact: GARY GRANT
 gary.grant@diamondwtg.com
 T: (806)439-6660
 F: (806)439-6659

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)