

PROBLEM SUMMARY

Sample Rating Trend

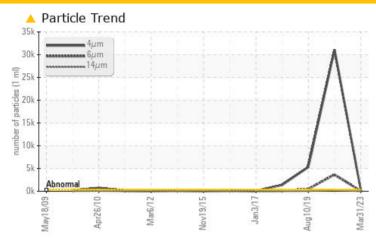


356.XX410 RECLAIM CHAIN

Hydraulic System

MOBIL DTE 10 EXCEL 46 (10 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS									
Sample Status		ATTENTIO	ABNORMAL	ATTENTION					
Particles >4µm	ASTM D7647 >3	320 429	▲ 31096	<u></u> 5304					
Particles >6µm	ASTM D7647 >8	30 4 97	▲ 3630	519					
Oil Cleanliness	ISO 4406 (c) >1	5/13/11 🔺 16/14/10	<u>^</u> 22/19/15	2 0/16/12					

Customer Id: WEYNEW Sample No.: WC0799244 Lab Number: 05808986 Test Package: AOM 1



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

29 Oct 2019 Diag: Jonathan Hester

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor.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. The condition of the oil is suitable for further service.



10 Aug 2019 Diag: Doug Bogart

ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



05 Feb 2018 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. MPC (Membrane Patch Calorimetery) test indicates acceptable levels of varnish present. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. Linear Sweep Voltammetry (RULER – ASTM D6971) testing indicates normal levels of anti-oxidants present in the oil. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

356.XX410 RECLAIM CHAIN

Component

Hydraulic System

MOBIL DTE 10 EXCEL 46 (10 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. MPC (Membrane Patch Colorimetry) test indicates acceptable levels of varnish present.

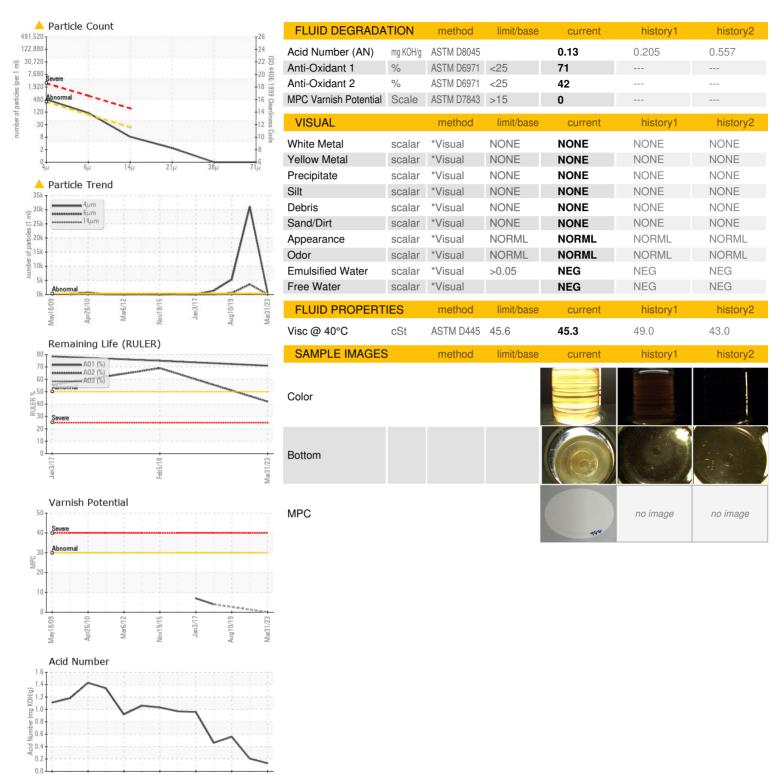
Fluid Condition

Linear Sweep Voltammetry (RULER – ASTM D6971) testing indicates normal levels of antioxidants present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Date Client Info 31 Mar 2023 29 Oct 2019 10 Aug 2019 Machine Age mths Client Info 0 0 0 0 Oil Oil Age mths Client Info 0 1 3 Oil Changed Client Info N/A Not Changd ATTENTION Sample Status METHOR Imition N/A Not Changd ATTENTION WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 0 4 8 Chromium ppm ASTM D5185m >20 0 <1 <1 Nickel ppm ASTM D5185m >20 0 <1 <1 Alluminum ppm ASTM D5185m >20 0 <1 <1 Alluminum ppm ASTM D5185m >20 0 <1 <1 Alluminum ppm ASTM D5185m >20 0 <1 <1 <th></th> <th></th> <th>May2009</th> <th>Apr2010 Mar2012</th> <th>Nov2015 Jan2017 Aug2015</th> <th>Mar2023</th> <th></th>			May2009	Apr2010 Mar2012	Nov2015 Jan2017 Aug2015	Mar2023	
Sample Date Client Info 31 Mar 2023 29 Oct 2019 10 Aug 2019 Machine Age mths Client Info 0 0 0 0 Oil Age mths Client Info 0 1 3 Oil Changed Client Info N/A Not Changd Not Changd Sample Status Client Info N/A Not Changd ATTENTION WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 0 4 8 Chromium ppm ASTM D5185m >20 0 0 0 Nickel ppm ASTM D5185m >20 0 <1	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age mths Client Info 0 0 0 Oil Age mths Client Info 0 1 3 Oil Changed Client Info N/A Not Changd Not Changd Sample Status method limit/base current history1 history2 Iron ppm ASTM D5185m ≥20 0 4 8 Chromium ppm ASTM D5185m >20 0 0 0 Nickel ppm ASTM D5185m >20 0 -1 -1 Silver ppm ASTM D5185m >20 0 -1 -1 Aluminum ppm ASTM D5185m >20 0 -1 -1 Aluminum ppm ASTM D5185m >20 0 -1 -1 Aluminum ppm ASTM D5185m >20 0 -1 2 Copper ppm ASTM D5185m >20 0 -1 2	Sample Number		Client Info		WC0799244	RP0001037	RP0000987
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Cilient Info	Machine Age	mths	Client Info		0	0	0
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WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 0 4 8 Chromium ppm ASTM D5185m >20 0 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 <1	Oil Changed		Client Info		N/A	Not Changd	Not Changd
Chromium	Sample Status				ATTENTION	ABNORMAL	ATTENTION
Chromium ppm ASTM D5185m >20 0 0 0 Nickel ppm ASTM D5185m >20 0 <1 <1 Tittanium ppm ASTM D5185m 0 0 0 0 Siliver ppm ASTM D5185m 20 0 <1 <1 Aluminum ppm ASTM D5185m >20 0 <1 <1 Lead ppm ASTM D5185m >20 0 <1 2 Copper ppm ASTM D5185m >20 0 <1 <1 Antimony ppm ASTM D5185m >20 0 <1 <1 Antimony ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>20	0	4	8
Titanium ppm ASTM D5185m	Chromium	ppm	ASTM D5185m	>20	0	0	0
Silver	Nickel	ppm	ASTM D5185m	>20	0	<1	<1
Aluminum ppm ASTM D5185m >20 0 0 <1 Lead ppm ASTM D5185m >20 0 13 20 Tin ppm ASTM D5185m >20 0 13 20 Tin ppm ASTM D5185m >20 0 <1 <1 Antimony ppm ASTM D5185m >20 0 <1 <1 Antimony ppm ASTM D5185m >20 0 0 Antimony ppm ASTM D5185m >20 0 0 ADITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 ADITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 ADITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 ANDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 ASTM D5185m 0 0 0 0 Alanganese ppm ASTM D5185m 4 <1 <1 Calcium ppm ASTM D5185m 4 <1 <1 Calcium ppm ASTM D5185m 456 559 774 Zinc ppm ASTM D5185m 2 134 474 Sulfur ppm ASTM D5185m 2020 2548 6095 CONTAMINANTS method limit/base current history1 history2 Sodium ppm ASTM D5185m <1 2 1 Sodium ppm ASTM D5185m >15 <1 2 1 Sodium ppm ASTM D6304 >500 130.8 94.2 213.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >320 429 31096 5304 Particles >21µm ASTM D7647 >4 2 84 10 Particles >38µm ASTM D7647 >3 0 10 1 Particles >21µm ASTM D7647 >3 0 0 0	Titanium	ppm	ASTM D5185m		0	0	0
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Tin	Lead	ppm	ASTM D5185m	>20		<1	
Antimony ppm ASTM D5185m 0 0 0 0 0 0 0 0	Copper	ppm	ASTM D5185m	>20	0	13	20
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 <1 <1 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 4 <1 <1 Magnesium ppm ASTM D5185m 4 <1 <1 Calcium ppm ASTM D5185m 116 115 122 Phosphorus ppm ASTM D5185m 2 134 474 Sulfur ppm ASTM D5185m 2 134 474 Sulfur ppm ASTM D5185m 2 134 474 Sodium ppm ASTM D5185m <1 2 1 <1 <1 </td <td>Tin</td> <td>ppm</td> <td></td> <td>>20</td> <th>0</th> <td><1</td> <td></td>	Tin	ppm		>20	0	<1	
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ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 <1	Vanadium	ppm				0	
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Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m <1 0 <1 Magnesium ppm ASTM D5185m 4 <1 <1 Calcium ppm ASTM D5185m 456 559 774 Zinc ppm ASTM D5185m 2 134 474 Sulfur ppm ASTM D5185m 2020 2548 6095 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1 2 1 Sodium ppm ASTM D5185m >15 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	ADDITIVES		method	limit/base	current	history1	history2
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Magnesium ppm ASTM D5185m 4 <1 <1 Calcium ppm ASTM D5185m 116 115 122 Phosphorus ppm ASTM D5185m 456 559 774 Zinc ppm ASTM D5185m 2 134 474 Sulfur ppm ASTM D5185m 2020 2548 6095 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1	Molybdenum	ppm	ASTM D5185m		0	0	0
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Phosphorus ppm ASTM D5185m 456 559 774 Zinc ppm ASTM D5185m 2 134 474 Sulfur ppm ASTM D5185m 2020 2548 6095 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1	Magnesium	ppm	ASTM D5185m				<1
Zinc ppm ASTM D5185m 2 134 474 Sulfur ppm ASTM D5185m 2020 2548 6095 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1	Calcium	ppm	ASTM D5185m		116	115	122
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CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 <1		ppm			_		
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Sodium ppm ASTM D5185m <1	CONTAMINANTS	5	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 0 0 Water % ASTM D6304 >0.05 0.013 0.009 0.021 ppm Water ppm ASTM D6304 >500 130.8 94.2 213.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >320 Δ 429 Δ 31096 Δ 5304 Particles >6μm ASTM D7647 >80 Δ 97 Δ 3630 519 Particles >14μm ASTM D7647 >20 7 Δ 228 40 Particles >21μm ASTM D7647 >4 2 Δ 84 10 Particles >38μm ASTM D7647 >3 0 10 1 Particles >71μm ASTM D7647 >3 0 0 0	Silicon	ppm	ASTM D5185m	>15	<1	2	1
Water % ASTM D6304 >0.05 0.013 0.009 0.021 ppm Water ppm ASTM D6304 >500 130.8 94.2 213.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >320 Δ 429 Δ 31096 Δ 5304 Particles >6μm ASTM D7647 >80 Δ 97 Δ 3630 519 Particles >14μm ASTM D7647 >20 7 Δ 228 40 Particles >21μm ASTM D7647 >4 2 Δ 84 10 Particles >38μm ASTM D7647 >3 0 10 1 Particles >71μm ASTM D7647 >3 0 0 0	Sodium	ppm	ASTM D5185m		<1	<1	<1
ppm Water ppm ASTM D6304 >500 130.8 94.2 213.6 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >320 429 31096 5304 Particles >6μm ASTM D7647 >80 97 3630 519 Particles >14μm ASTM D7647 >20 7 228 40 Particles >21μm ASTM D7647 >4 2 84 10 Particles >38μm ASTM D7647 >3 0 10 1 Particles >71μm ASTM D7647 >3 0 0 0	Potassium	ppm	ASTM D5185m	>20	0	0	0
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Particles >4μm ASTM D7647 >320 429 31096 5304 Particles >6μm ASTM D7647 >80 97 3630 519 Particles >14μm ASTM D7647 >20 7 228 40 Particles >21μm ASTM D7647 >4 2 84 10 Particles >38μm ASTM D7647 >3 0 10 1 Particles >71μm ASTM D7647 >3 0 0 0	ppm Water	ppm	ASTM D6304	>500	130.8	94.2	213.6
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Particles >21μm ASTM D7647 >4 2 84 10 Particles >38μm ASTM D7647 >3 0 10 1 Particles >71μm ASTM D7647 >3 0 0 0	Particles >6μm		ASTM D7647	>80	<u> </u>	△ 3630	519
Particles >38μm ASTM D7647 >3 0 10 1 Particles >71μm ASTM D7647 >3 0 0 0	Particles >14µm		ASTM D7647	>20	7	<u>^</u> 228	40
Particles >71μm ASTM D7647 >3 0 0	Particles >21µm		ASTM D7647	>4	2	▲ 84	10
·	Particles >38µm		ASTM D7647	>3	0	10	1
Oil Cleanliness ISO 4406 (c) >15/13/11 🛕 16/14/10 🛕 22/19/15 🛕 20/16/12	Particles >71μm		ASTM D7647	>3	0	0	0
	Oil Cleanliness		ISO 4406 (c)	>15/13/11	<u> </u>	<u>22/19/15</u>	2 0/16/12



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: 05808986 : 10406515

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 03 Apr 2023 : WC0799244 Diagnosed : 14 Apr 2023 : Doug Bogart Diagnostician

Test Package : AOM 1 (Additional Tests: KF)

Contact: DOUG WEIR Doug. Weir@ipaper.com; jon.fazenbaker@wearcheck.com

INTERNATIONAL PAPER

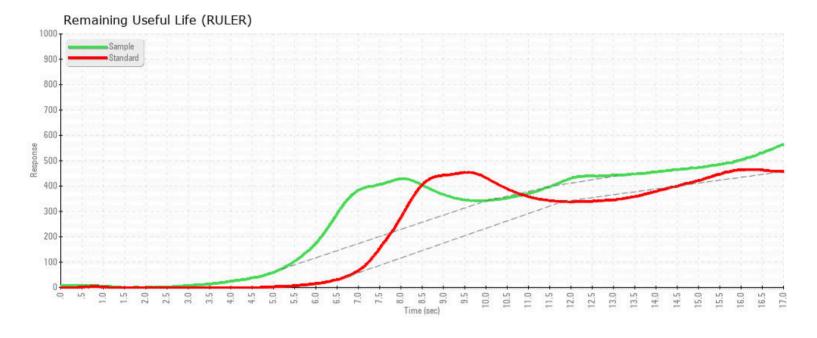
1785 Weyerhaeuser Road

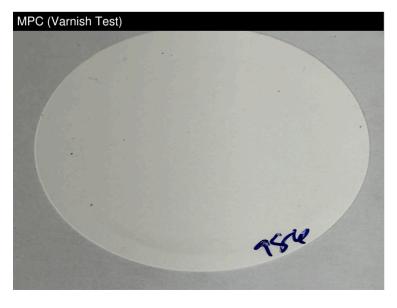
VANCEBORO, NC

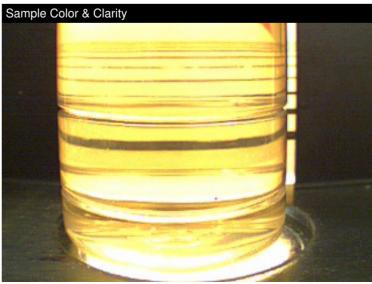
US 28586

T: (252)633-7350 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (252)633-7761

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.







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