

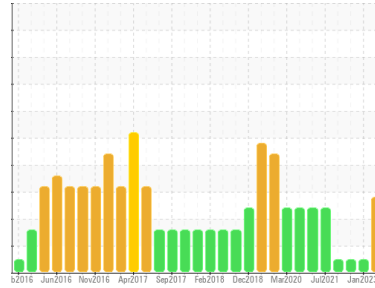


PROBLEM SUMMARY



Machine Id
CATERPILLAR D6T 8156 (S/N HTZ00468)
 Component
Hydraulic System
 Fluid
TDH FLUID SAE 70W80 (--- QTS)

Sample Rating Trend

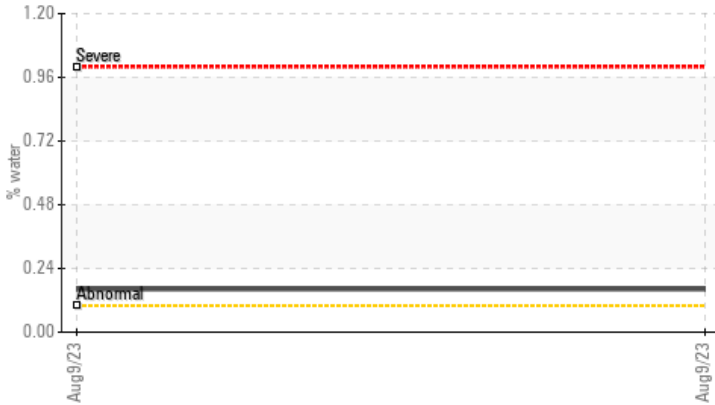


WATER

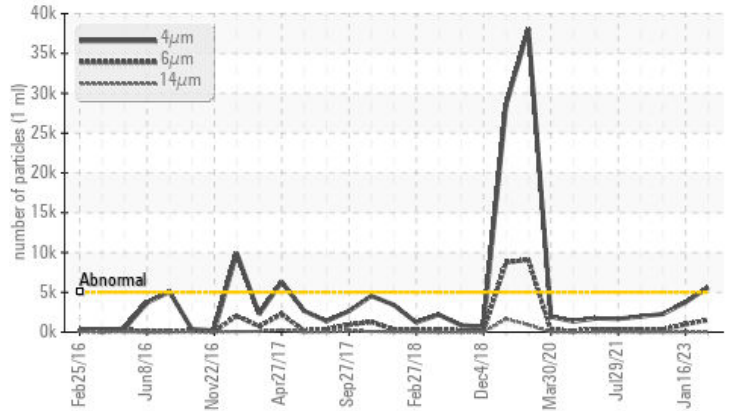


COMPONENT CONDITION SUMMARY

▲ Water



▲ Particle Trend



RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Water	%	ASTM D6304	>0.1	▲ 0.162	---	---
ppm Water	ppm	ASTM D6304	>1000	▲ 1620	---	---
Particles >4µm		ASTM D7647	>5000	▲ 5612	3758	2282
Particles >6µm		ASTM D7647	>1300	▲ 1528	962	336
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 20/18/13	19/17/13	18/16/12

Customer Id: TRANEW
 Sample No.: WC0837065
 Lab Number: 05925422
 Test Package: CONST



To manage this report scan the QR code

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jhester@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

16 Jan 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



23 Sep 2022 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



13 Sep 2021 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

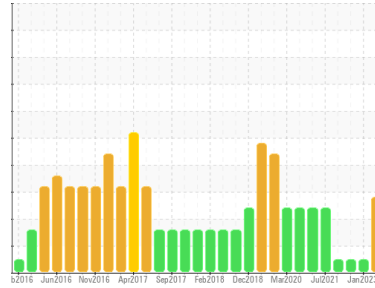
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OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
CATERPILLAR D6T 8156 (S/N HTZ00468)
 Component
Hydraulic System
 Fluid
TDH FLUID SAE 70W80 (--- QTS)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. 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. There is a light concentration of water 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		WC0837065	WC0775853	WC0734362
Sample Date	Client Info		09 Aug 2023	16 Jan 2023	23 Sep 2022
Machine Age	hrs	Client Info	15393	14825	14517
Oil Age	hrs	Client Info	15393	14825	14517
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			ABNORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	6	7	8
Chromium	ppm	ASTM D5185m >10	<1	<1	<1
Nickel	ppm	ASTM D5185m >10	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >10	5	5	7
Lead	ppm	ASTM D5185m >10	2	1	2
Copper	ppm	ASTM D5185m >75	6	6	6
Tin	ppm	ASTM D5185m >10	0	0	0
Antimony	ppm	ASTM D5185m	---	---	---
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 10	109	106	108
Barium	ppm	ASTM D5185m 10	0	0	0
Molybdenum	ppm	ASTM D5185m 10	3	4	3
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m 100	58	56	57
Calcium	ppm	ASTM D5185m 3500	3312	3324	3456
Phosphorus	ppm	ASTM D5185m 1150	1081	1128	1165
Zinc	ppm	ASTM D5185m 1150	1422	1386	1435
Sulfur	ppm	ASTM D5185m 5000	3817	3397	3970

CONTAMINANTS

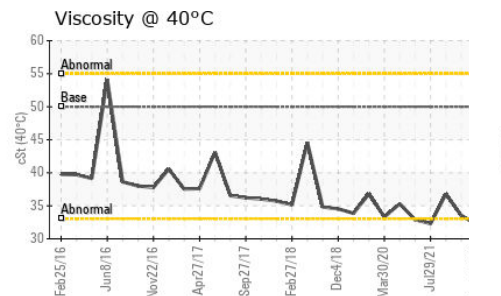
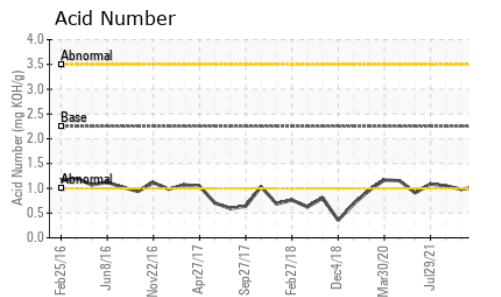
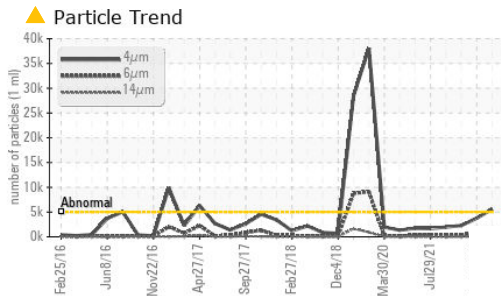
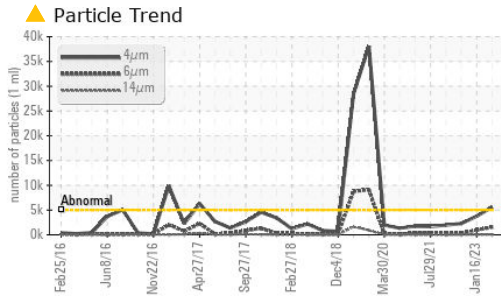
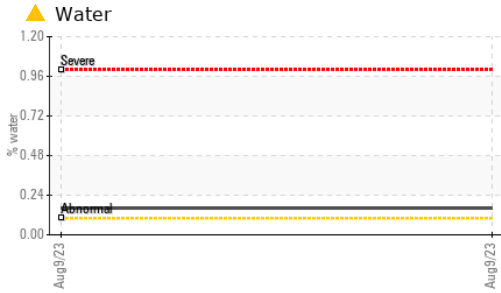
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	17	17	17
Sodium	ppm	ASTM D5185m	5	4	3
Potassium	ppm	ASTM D5185m >20	1	2	3
Water	%	ASTM D6304 >0.1	▲ 0.162	---	---
ppm Water	ppm	ASTM D6304 >1000	▲ 1620	---	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 5612	3758	2282
Particles >6µm	ASTM D7647	>1300	▲ 1528	962	336
Particles >14µm	ASTM D7647	>160	55	44	33
Particles >21µm	ASTM D7647	>40	9	10	9
Particles >38µm	ASTM D7647	>10	1	1	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 20/18/13	19/17/13	18/16/12

FLUID DEGRADATION

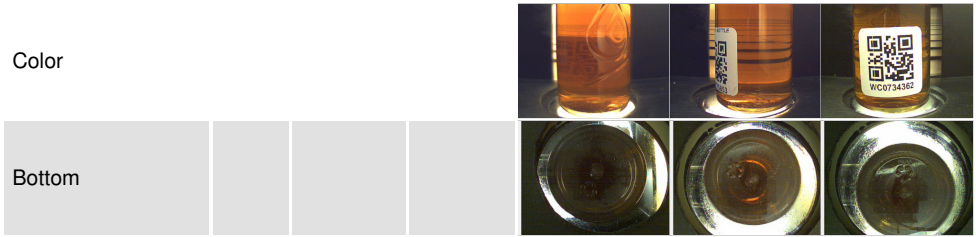
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 2.25	1.11	1.03	0.98



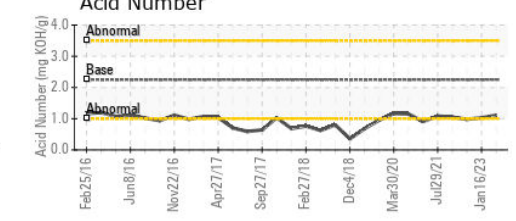
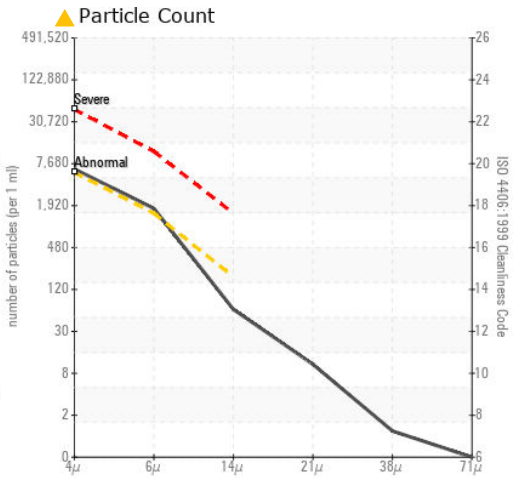
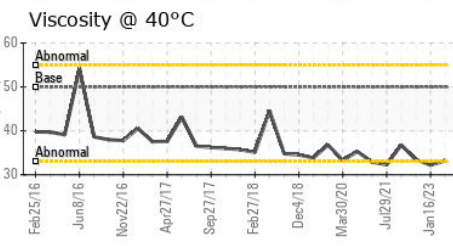
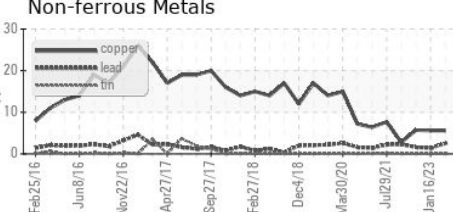
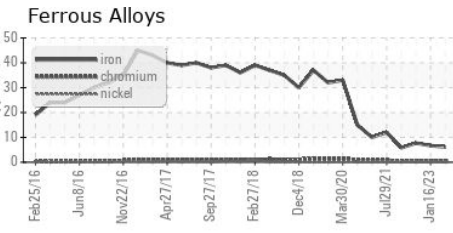
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	50	33.2	32.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0837065
 Lab Number : 05925422
 Unique Number : 10605369
 Test Package : CONST (Additional Tests: KF)

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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)