

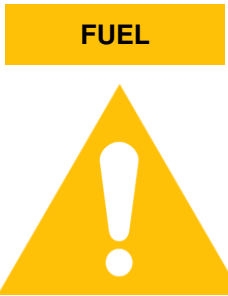
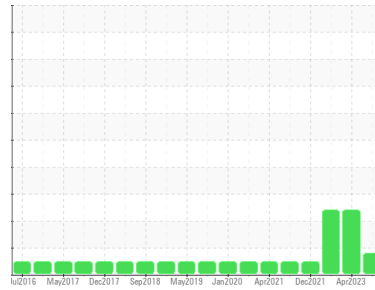


PROBLEM SUMMARY



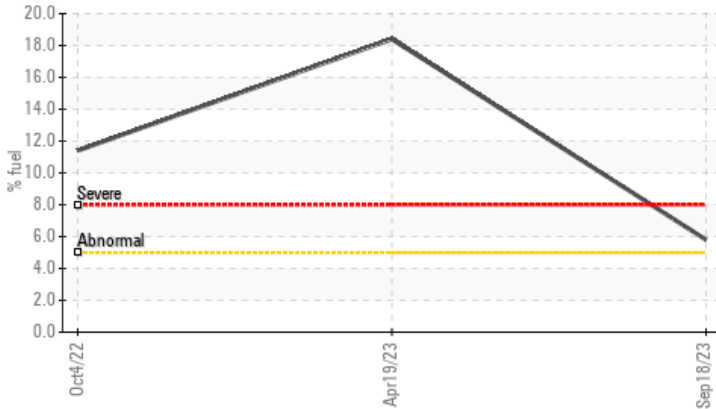
Machine Id
CATERPILLAR 262D 001860 (S/N CAT0262DEDTB02428)
 Component
Diesel Engine
 Fluid
CASTROL VECTON 15W40 CK4 (3 GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	SEVERE	SEVERE
Fuel	%	ASTM D3524	>5	▲ 5.8	◆ 18.4	◆ 11.4

Customer Id: CJMHAM
 Sample No.: WC0823912
 Lab Number: 05965174
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

19 Apr 2023 Diag: Don Baldrige

FUEL



We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report



04 Oct 2022 Diag: Jonathan Hester

FUEL



We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



23 Dec 2021 Diag: Angela Borella

NORMAL



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report





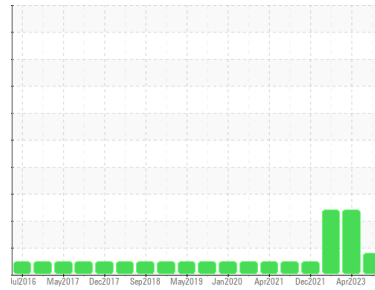
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
CATERPILLAR 262D 001860 (S/N CAT0262DEDTB02428)
 Component
Diesel Engine
 Fluid
CASTROL VECTON 15W40 CK4 (3 GAL)



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0823912	WC0724691	WC0701049
Sample Date	Client Info		18 Sep 2023	19 Apr 2023	04 Oct 2022
Machine Age	hrs	Client Info	10476	9744	9106
Oil Age	hrs	Client Info	732	638	900
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	SEVERE	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	5	35	34
Chromium	ppm	ASTM D5185m >20	<1	1	2
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m >2	0	0	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >25	2	10	7
Lead	ppm	ASTM D5185m >40	0	0	0
Copper	ppm	ASTM D5185m >330	0	5	3
Tin	ppm	ASTM D5185m >15	0	0	<1
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	32	37	28
Barium	ppm	ASTM D5185m	1	0	0
Molybdenum	ppm	ASTM D5185m	84	79	86
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	104	85	107
Calcium	ppm	ASTM D5185m	1994	1915	2116
Phosphorus	ppm	ASTM D5185m	921	874	950
Zinc	ppm	ASTM D5185m	1133	1134	1194
Sulfur	ppm	ASTM D5185m	3215	3094	3774

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	7	18	14
Sodium	ppm	ASTM D5185m	2	3	3
Potassium	ppm	ASTM D5185m >20	1	<1	2
Fuel	%	ASTM D3524 >5	▲ 5.8	◆ 18.4	◆ 11.4

INFRA-RED

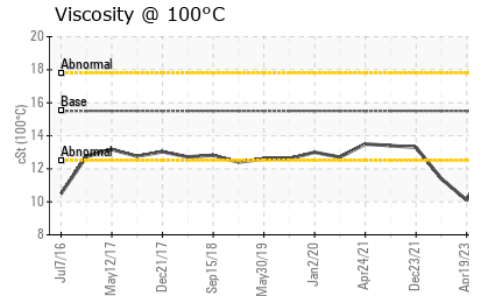
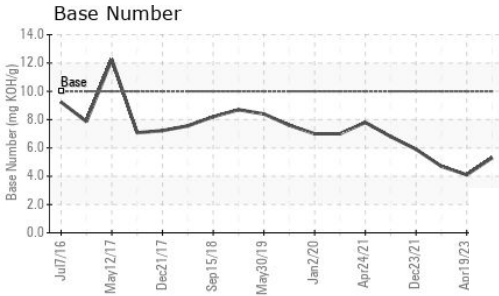
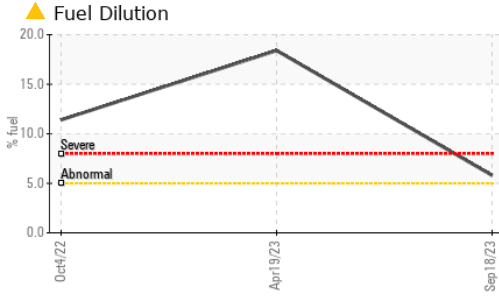
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.2	0.4
Nitration	Abs/cm	*ASTM D7624 >20	9.9	13.2	14.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.0	26.0	30.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	16.8	25.4	28.0
Base Number (BN)	mg KOH/g	ASTM D2896 10	5.3	4.1	4.7



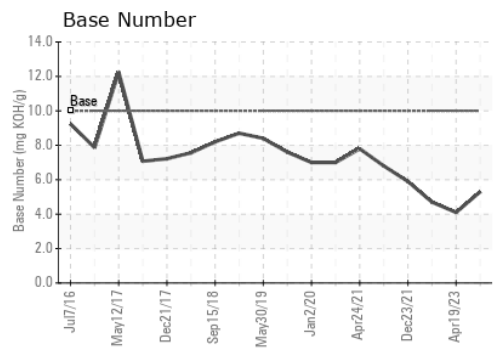
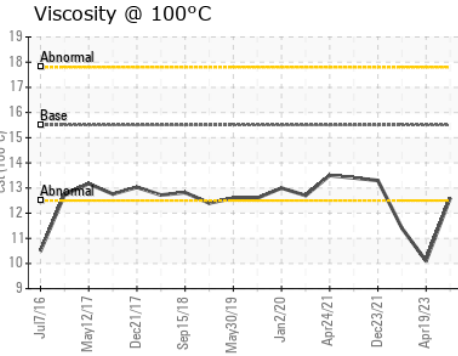
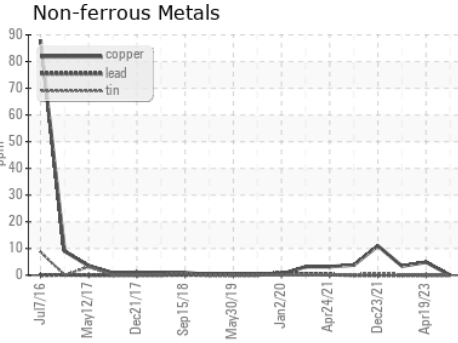
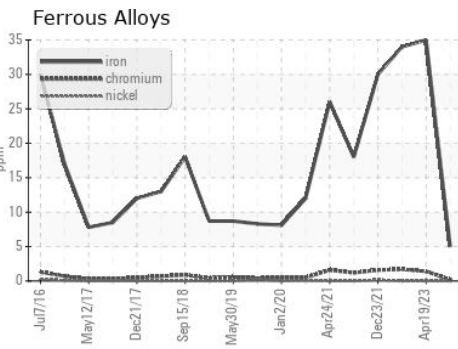
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	12.6	▲ 10.1 ▲ 11.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0823912 **Received** : 29 Sep 2023
Lab Number : 05965174 **Diagnosed** : 03 Oct 2023
Unique Number : 10671725 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: PercentFuel, TBN)

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)

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