

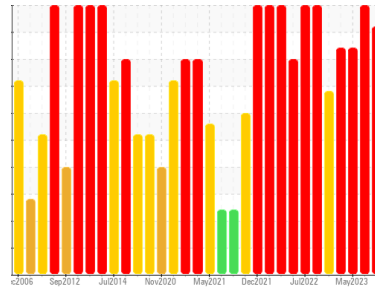


PROBLEM SUMMARY

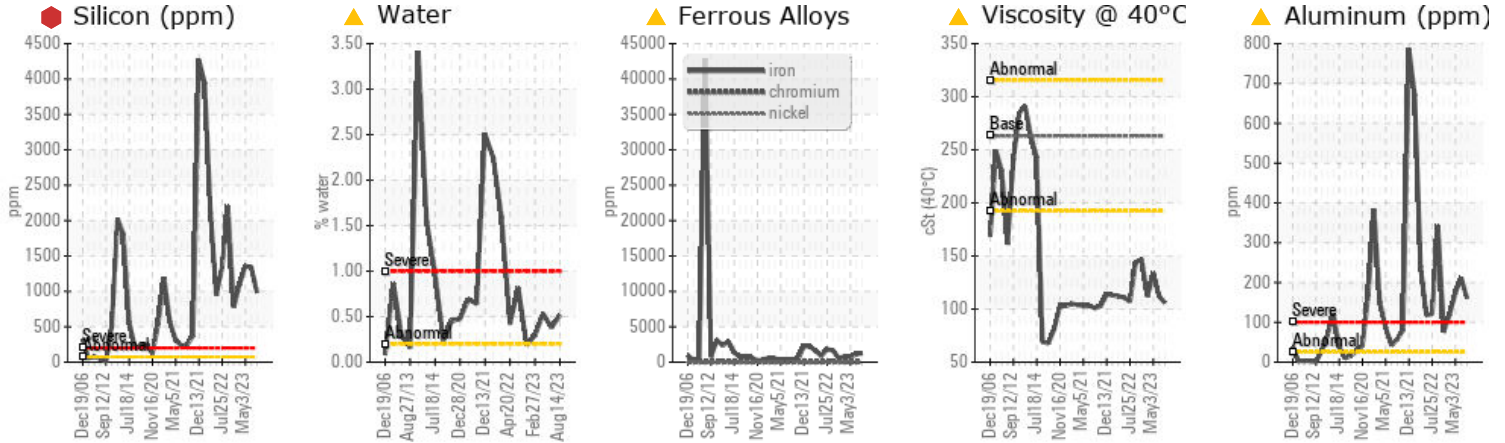


Machine Id
VOLVO EC460BLC 8302 (S/N 80363)
 Component
Left Final Drive
 Fluid
GEAR OIL SAE 80W140 (--- GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. 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				SEVERE	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>500	▲ 1257	▲ 1149	▲ 696
Chromium	ppm	ASTM D5185m	>10	▲ 11	▲ 11	6
Aluminum	ppm	ASTM D5185m	>25	▲ 161	▲ 212	▲ 174
Silicon	ppm	ASTM D5185m	>75	● 986	● 1343	● 1358
Water	%	ASTM D6304	>0.2	▲ 0.516	▲ 0.378	▲ 0.531
ppm Water	ppm	ASTM D6304	>2000	▲ 5160	▲ 3780	▲ 5310
Visc @ 40°C	cSt	ASTM D445	263	▲ 105.9	▲ 112	▲ 134

Customer Id: TRANEW
 Sample No.: WC0837173
 Lab Number: 05932335
 Test Package: CONST



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

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS

13 Jun 2023 Diag: Don Baldrige



We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The iron level is abnormal. Gear wear is indicated. Appearance is milky. There is a light concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is lower than normal. Confirm oil type. The oil is no longer serviceable due to the presence of contaminants.



03 May 2023 Diag: Angela Borella



We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The iron level is abnormal. Gear wear is indicated. There is a light concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is lower than normal. Confirm oil type. The oil is no longer serviceable due to the presence of contaminants.



27 Feb 2023 Diag: Don Baldrige



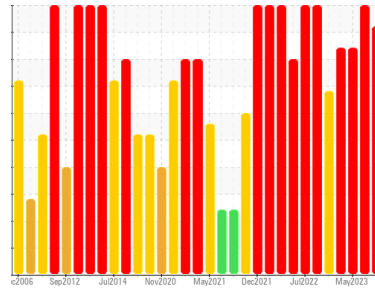
We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The iron level is abnormal. Gear wear is indicated. There is a light concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is lower than normal. Confirm oil type. The oil is no longer serviceable due to the presence of contaminants.





OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
VOLVO EC460BLC 8302 (S/N 80363)
 Component
Left Final Drive
 Fluid
GEAR OIL SAE 80W140 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

The iron level is abnormal. Gear wear is indicated.

Contamination

There is a light concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The oil viscosity is lower than normal. Confirm oil type. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0837173	WC0816308	WC0797673
Sample Date	Client Info		14 Aug 2023	13 Jun 2023	03 May 2023
Machine Age	hrs	Client Info	11439	10939	10652
Oil Age	hrs	Client Info	500	280	557
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	SEVERE	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >500	▲ 1257	▲ 1149	▲ 696
Chromium	ppm	ASTM D5185m >10	▲ 11	▲ 11	6
Nickel	ppm	ASTM D5185m >10	2	3	1
Titanium	ppm	ASTM D5185m	13	16	17
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >25	▲ 161	▲ 212	▲ 174
Lead	ppm	ASTM D5185m >25	0	0	0
Copper	ppm	ASTM D5185m >50	1	2	4
Tin	ppm	ASTM D5185m >10	<1	1	<1
Vanadium	ppm	ASTM D5185m	<1	<1	<1
Cadmium	ppm	ASTM D5185m	<1	<1	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 400	151	106	35
Barium	ppm	ASTM D5185m 200	0	0	0
Molybdenum	ppm	ASTM D5185m 12	<1	1	<1
Manganese	ppm	ASTM D5185m	10	9	6
Magnesium	ppm	ASTM D5185m 12	15	19	22
Calcium	ppm	ASTM D5185m 150	138	408	1911
Phosphorus	ppm	ASTM D5185m 1650	342	361	689
Zinc	ppm	ASTM D5185m 125	24	154	635
Sulfur	ppm	ASTM D5185m 22500	2285	3053	3083

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	● 986	● 1343	● 1358
Sodium	ppm	ASTM D5185m	7	8	13
Potassium	ppm	ASTM D5185m >20	34	37	44
Water	%	ASTM D6304 >0.2	▲ 0.516	▲ 0.378	▲ 0.531
ppm Water	ppm	ASTM D6304 >2000	▲ 5160	▲ 3780	▲ 5310

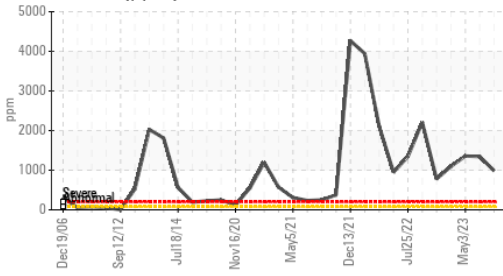
VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	NONE	NONE
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	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual NONE	NONE	NONE	NONE
Appearance	scalar	*Visual NORML	NORML	▲ MILKY	NORML
Odor	scalar	*Visual NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual >0.2	0.2%	0.2%	0.2%
Free Water	scalar	*Visual	NEG	NEG	NEG

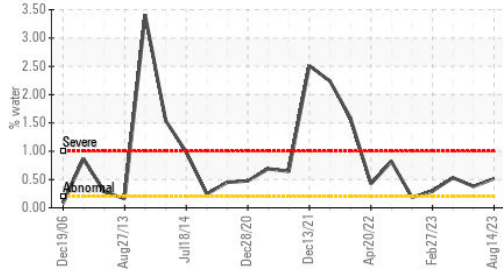


OIL ANALYSIS REPORT

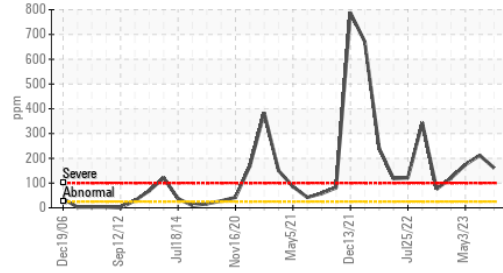
Silicon (ppm)



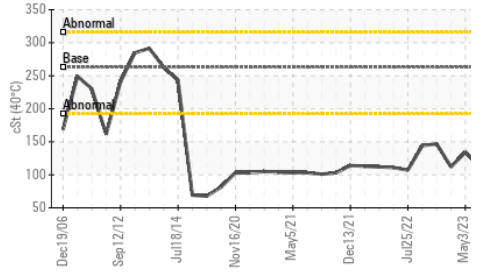
Water



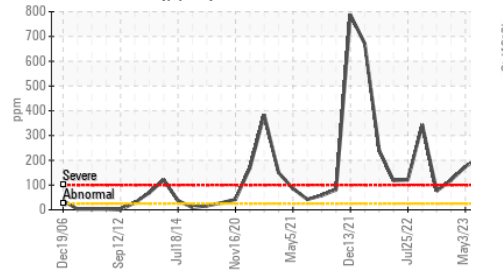
Aluminum (ppm)



Viscosity @ 40°C



Aluminum (ppm)



FLUID PROPERTIES

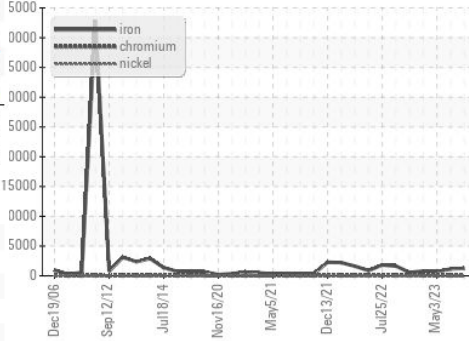
method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	263	▲ 105.9	▲ 112

SAMPLE IMAGES

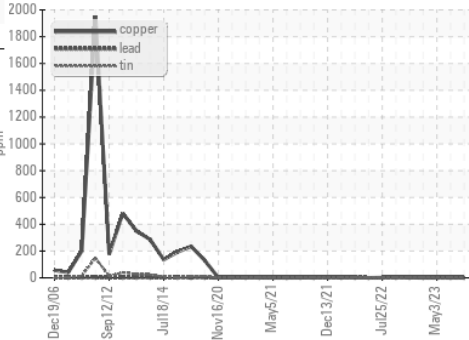
method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

GRAPHS

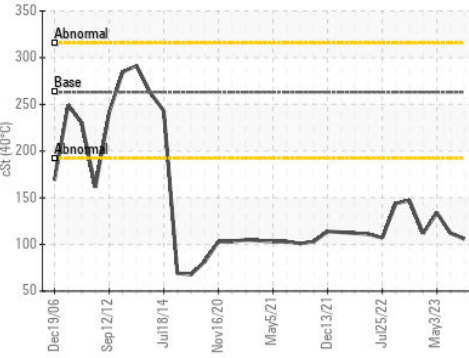
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0837173
Lab Number : 05932335
Unique Number : 10617606
Test Package : CONST (Additional Tests: KF, PQ)

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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