



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Area  
**[RSO037006]**  
Machine Id  
**VOLVO EC550EL 310082**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP430880</b>	VCP422326	---
Sample Date		Client Info		<b>16 Feb 2024</b>	25 Sep 2023	---
Machine Age	hrs	Client Info		<b>1232</b>	643	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>ATTENTION</b>	ABNORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>7</b>	13	---
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	4	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	<1	---
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	---
Copper	ppm	ASTM D5185m	>15	<b>25</b>	▲ 120	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	3	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

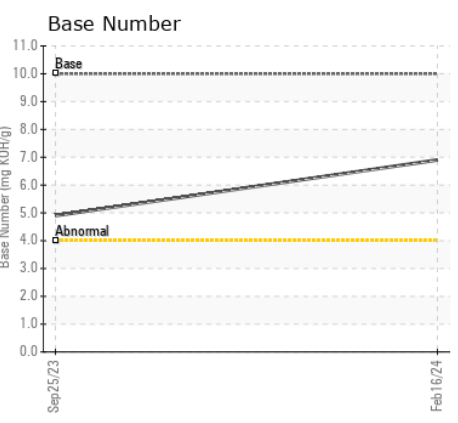
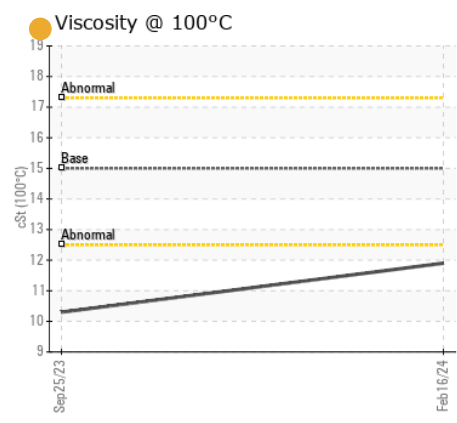
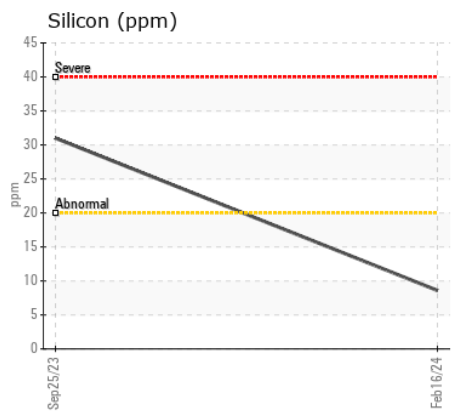
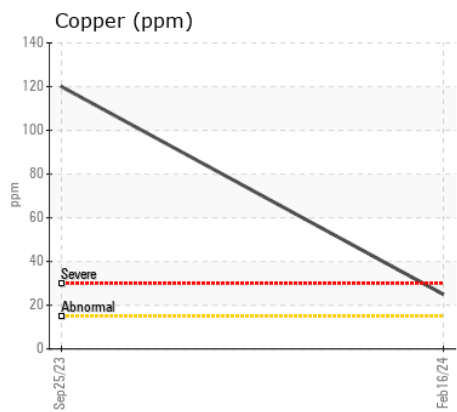
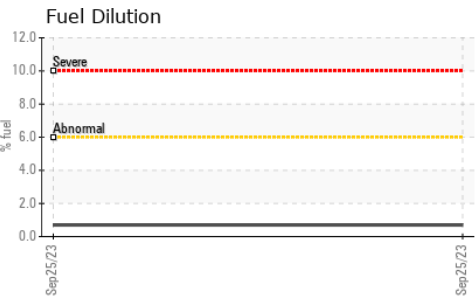
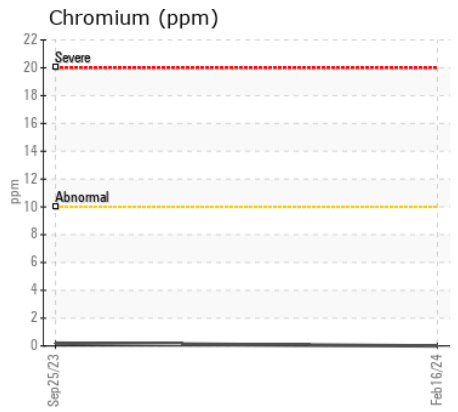
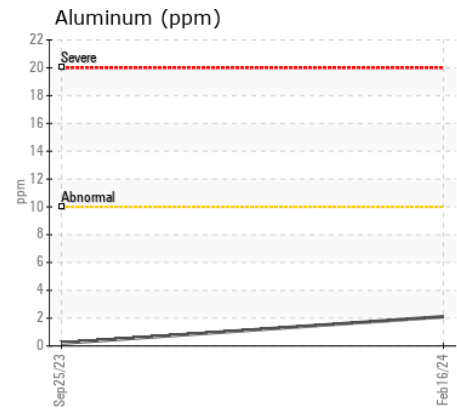
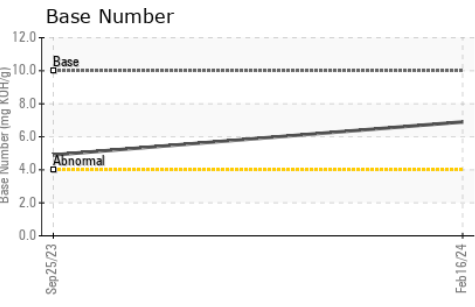
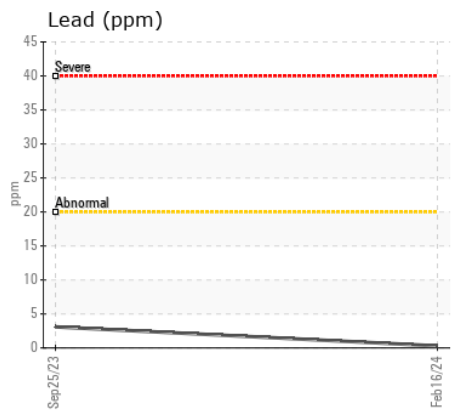
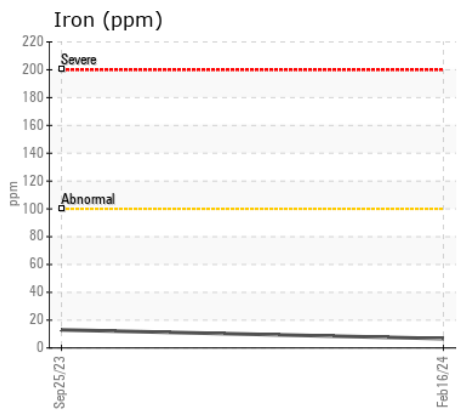
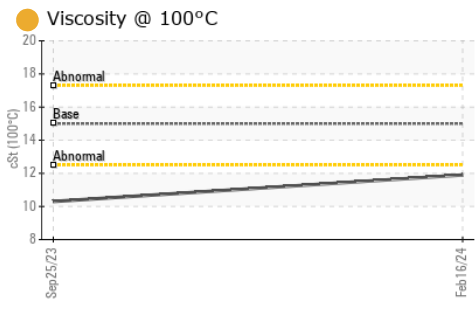
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>9</b>	▲ 31	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Fuel	%	ASTM D3524	>6.0	<b>&lt;1.0</b>	0.7	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	0.0	---
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.3</b>	10.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.7</b>	20.7	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	---

### FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>2</b>	2	---
Boron	ppm	ASTM D5185m	2.5	<b>44</b>	18	---
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0.7	<b>76</b>	87	---
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	3	---
Magnesium	ppm	ASTM D5185m	256	<b>519</b>	25	---
Calcium	ppm	ASTM D5185m	2057	<b>1638</b>	2082	---
Phosphorus	ppm	ASTM D5185m	935	<b>810</b>	955	---
Zinc	ppm	ASTM D5185m	1223	<b>927</b>	1181	---
Sulfur	ppm	ASTM D5185m	4079	<b>2955</b>	3894	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.8</b>	16.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>6.9</b>	4.9	---
Visc @ 100°C	cSt	ASTM D445	15.0	● <b>11.9</b>	● 10.3	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP430880 **Received** : 27 Feb 2024  
**Lab Number** : 06101281 **Tested** : 28 Feb 2024  
**Unique Number** : 10899511 **Diagnosed** : 28 Feb 2024 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, TBN )

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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)