



# VOLVO

## OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>ATTENTION</b>



Machine Id  
**VOLVO EC250EL 310111**  
Component  
**Hydraulic System**  
Fluid  
**MOBIL DTE 10 EXCEL 46 (--- GAL)**

### RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP416954</b>	VCP406124	VCP386166
Sample Date		Client Info		<b>08 Feb 2024</b>	07 Aug 2023	12 May 2023
Machine Age	hrs	Client Info		<b>6098</b>	5474	5225
Oil Age	hrs	Client Info		<b>1833</b>	1209	960
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

The aluminum level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	<b>7</b>	5	5
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>▲ 23</b>	10	9
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>150	<b>67</b>	37	31
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

Moderate concentration of visible dirt/debris present in the oil.

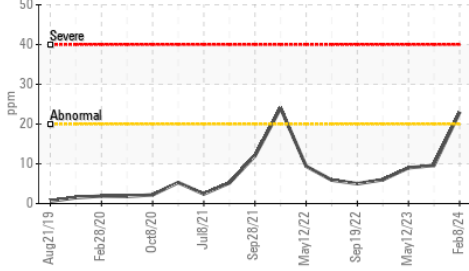
Silicon	ppm	ASTM D5185m	>50	<b>6</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>40000	<b>---</b>	---	<b>▲ 143265</b>
Particles >6µm		ASTM D7647	>10000	<b>---</b>	---	<b>▲ 26495</b>
Particles >14µm		ASTM D7647	>2500	<b>---</b>	---	<b>42</b>
Particles >21µm		ASTM D7647	>640	<b>---</b>	---	<b>9</b>
Particles >38µm		ASTM D7647	>160	<b>---</b>	---	<b>0</b>
Particles >71µm		ASTM D7647	>40	<b>---</b>	---	<b>0</b>
Oil Cleanliness		ISO 4406 (c)	>22/20/18	<b>---</b>	---	<b>▲ 24/22/13</b>
Silt	scalar	*Visual	NONE	<b>NONE</b>	<b>▲ MODER</b>	NONE
Debris	scalar	*Visual	NONE	<b>▲ MODER</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

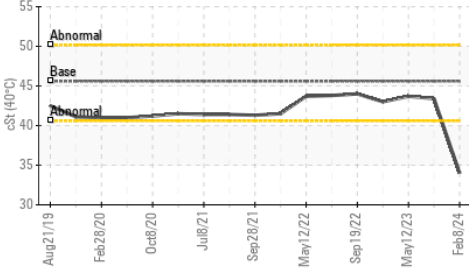
Viscosity of sample indicates oil is within ISO 32 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>4</b>	2	2
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	2	3
Calcium	ppm	ASTM D5185m		<b>324</b>	422	442
Phosphorus	ppm	ASTM D5185m		<b>419</b>	490	519
Zinc	ppm	ASTM D5185m		<b>224</b>	260	267
Sulfur	ppm	ASTM D5185m		<b>1562</b>	2226	2483
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.28</b>	0.29	0.26
Visc @ 40°C	cSt	ASTM D445	45.6	<b>▲ 34.0</b>	43.4	43.7

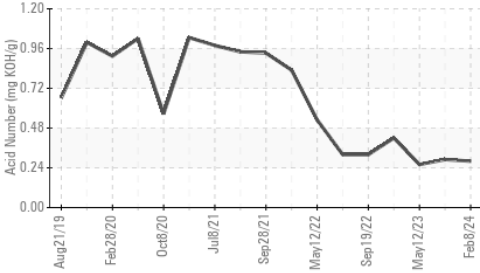
▲ Aluminum (ppm)



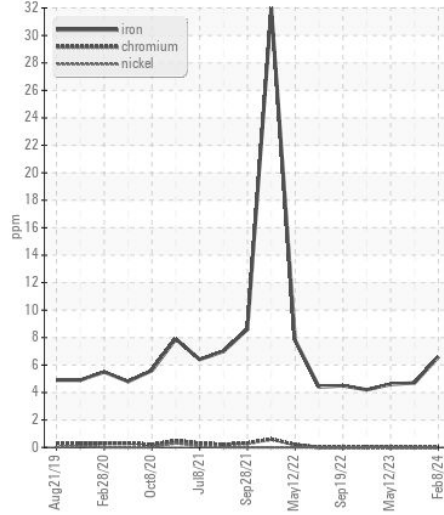
▲ Viscosity @ 40°C



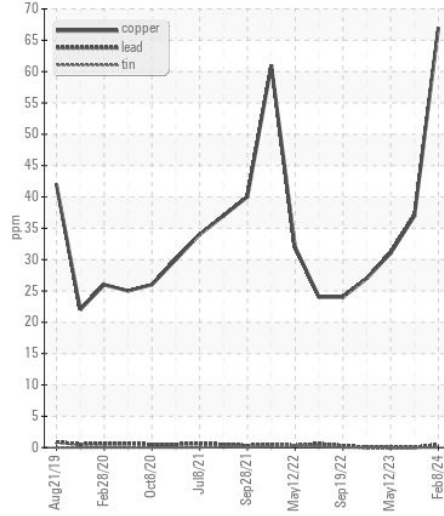
Acid Number



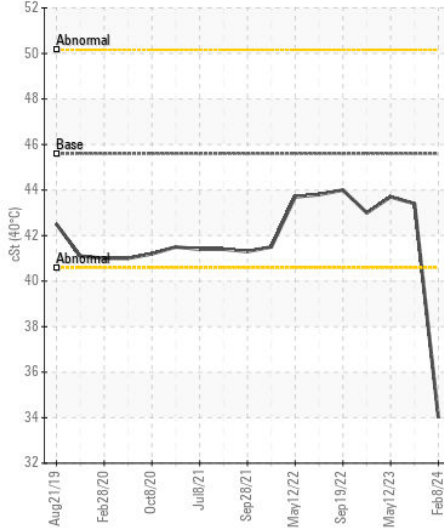
Ferrous Alloys



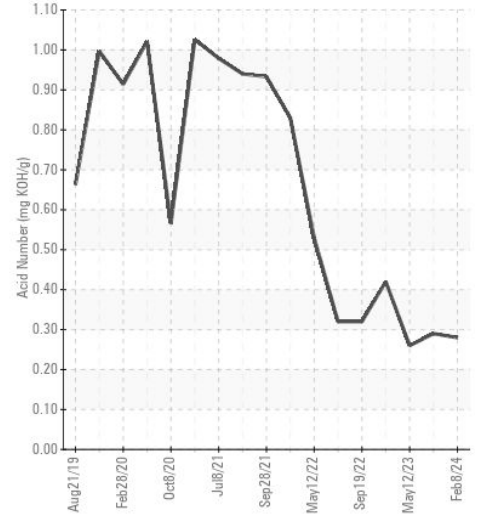
Non-ferrous Metals



▲ Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : VCP416954  
 Lab Number : 06100086  
 Unique Number : 10898316  
 Test Package : MOB 2

Received : 26 Feb 2024  
 Tested : 27 Feb 2024  
 Diagnosed : 27 Feb 2024 - Don Baldrige

**SCHILDBERG CONSTRUCTION COMPANY**  
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 US 50849  
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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)