



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area

[5]

Machine Id

**VOLVO L110H 631235**

Component

**Diesel Engine**

Fluid

**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP438542</b>	VCP439679	VCP429373D
Sample Date		Client Info		<b>09 Jul 2024</b>	21 May 2024	17 Jan 2024
Machine Age	hrs	Client Info		<b>10281</b>	12318	11636
Oil Age	hrs	Client Info		<b>0</b>	500	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Changed	N/A
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>10</b>	49	▲ 132
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	3
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>5</b>	2	● 6
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>15	<b>0</b>	<1	6
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

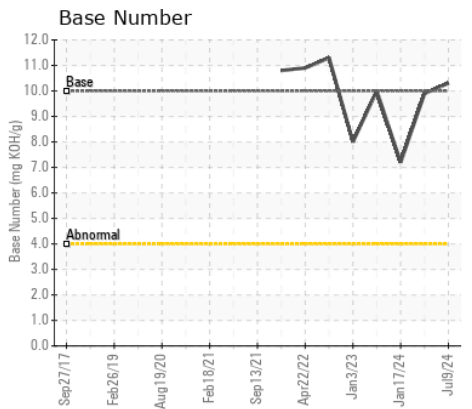
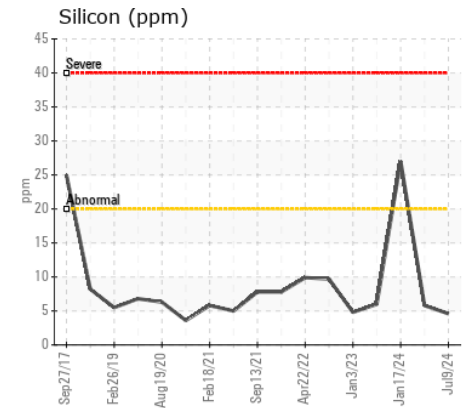
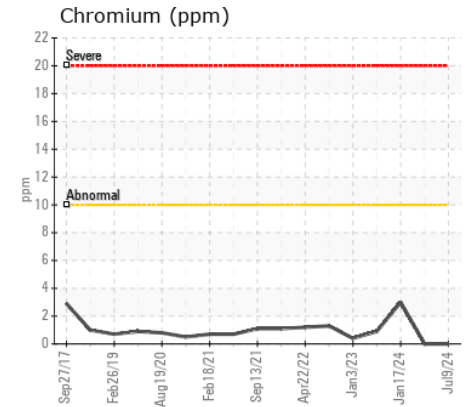
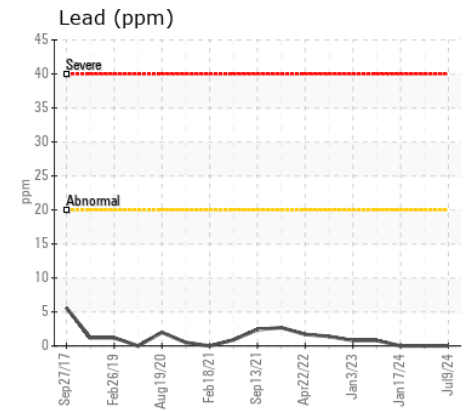
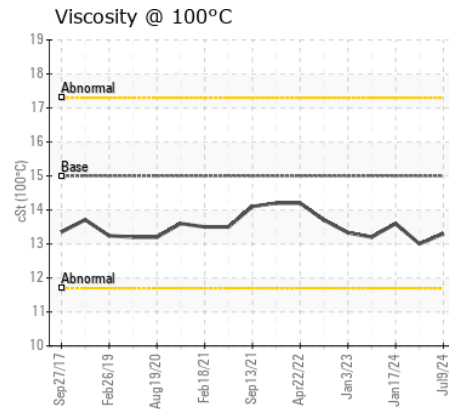
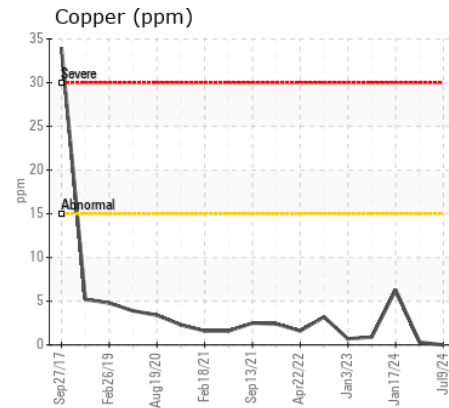
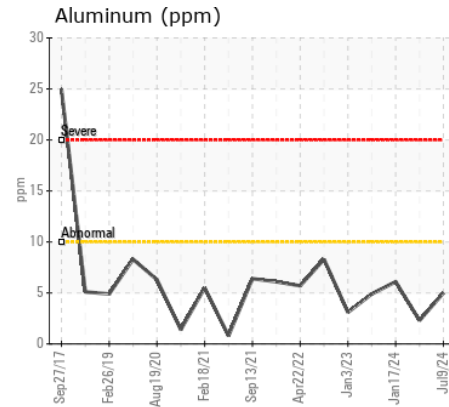
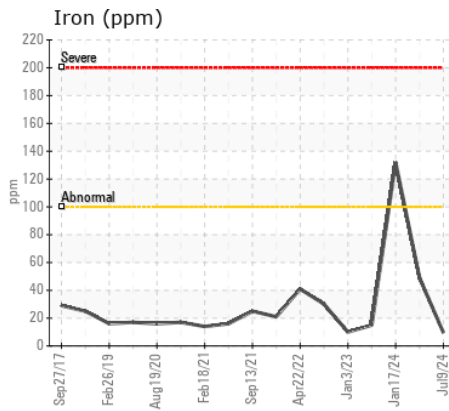
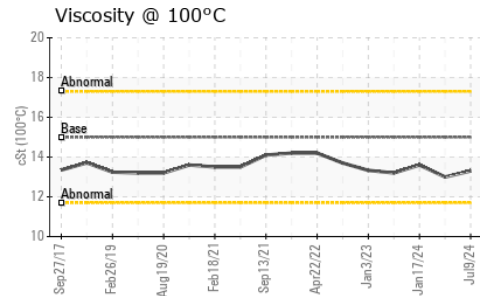
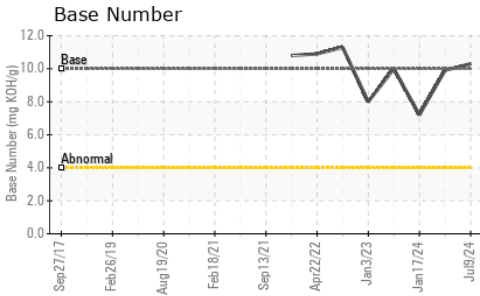
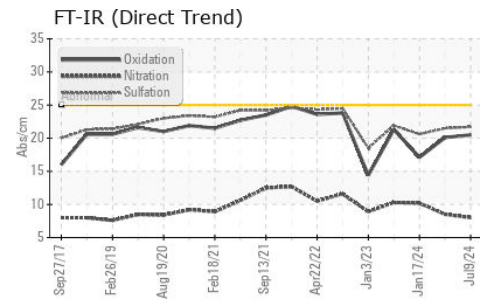
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>5</b>	6	▲ 27
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	3
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.0</b>	8.5	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	21.5	20.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</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

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>10</b>	2	0
Boron	ppm	ASTM D5185m	2.5	<b>31</b>	21	28
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	5
Molybdenum	ppm	ASTM D5185m	0.7	<b>40</b>	42	63
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	256	<b>541</b>	410	234
Calcium	ppm	ASTM D5185m	2057	<b>1759</b>	1783	1929
Phosphorus	ppm	ASTM D5185m	935	<b>1026</b>	897	949
Zinc	ppm	ASTM D5185m	1223	<b>1231</b>	1039	1196
Sulfur	ppm	ASTM D5185m	4079	<b>3737</b>	3196	3507
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.5</b>	20.1	17.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>10.3</b>	9.9	7.2
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.3</b>	13.0	13.6



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP438542 **Received** : 11 Jul 2024  
**Lab Number** : 06232894 **Tested** : 11 Jul 2024  
**Unique Number** : 11116387 **Diagnosed** : 11 Jul 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**RIPA AND ASSOCIATES**  
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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)