



# VOLVO

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**[SPM647553-10]**  
Machine Id  
**VOLVO L90H 625804**  
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>VCP436715</b>	VCP418609	---
Sample Date		Client Info		<b>10 Jan 2024</b>	01 Sep 2023	---
Machine Age	hrs	Client Info		<b>3506</b>	3029	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	<b>11</b>	16	---
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	1	---
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	---
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m	>30	<b>7</b>	6	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185m	>20	<b>1</b>	4	---
Tin	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

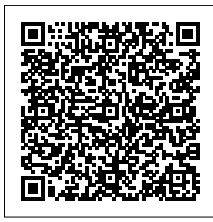
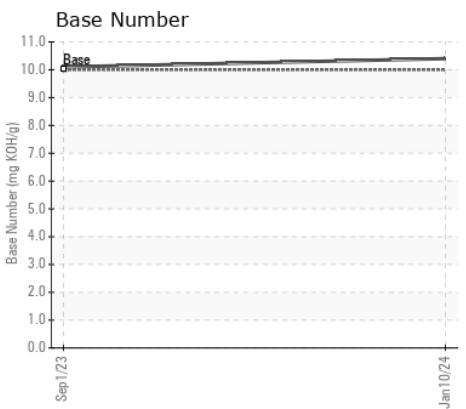
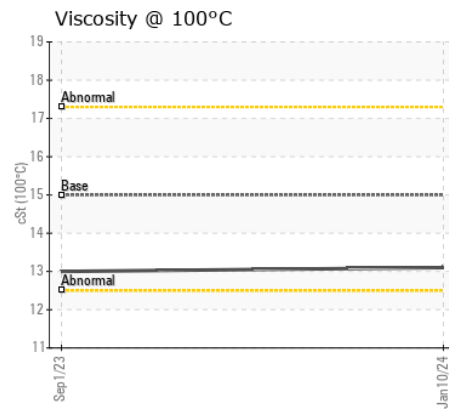
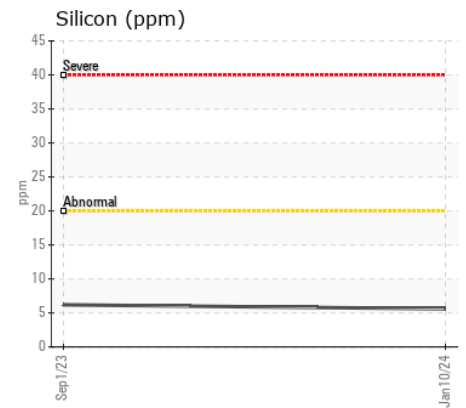
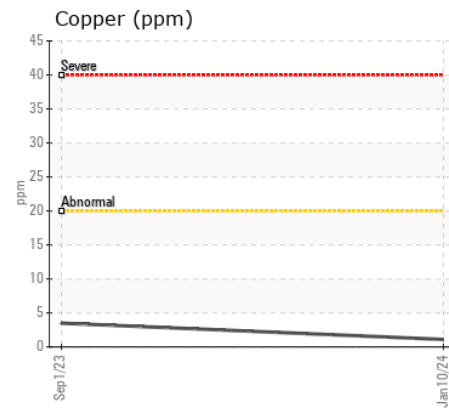
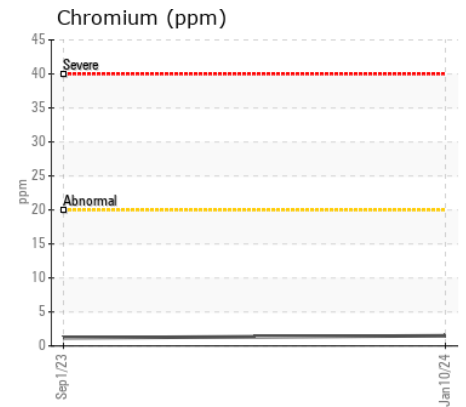
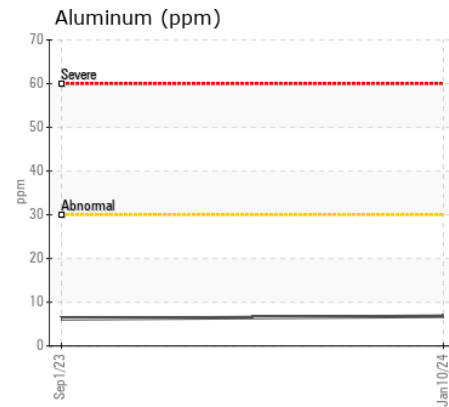
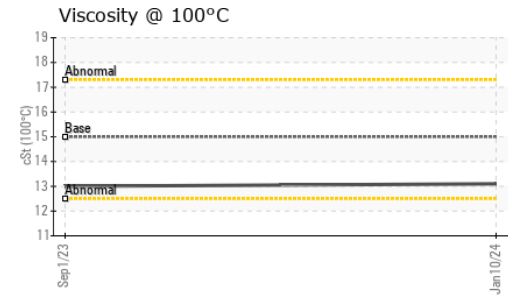
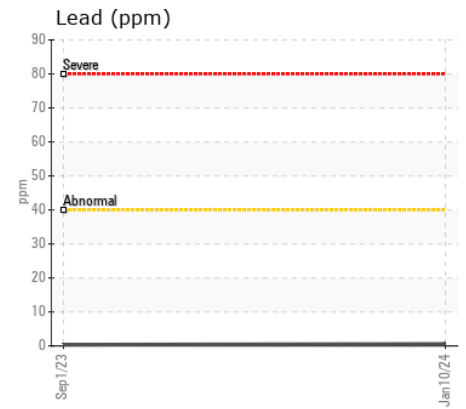
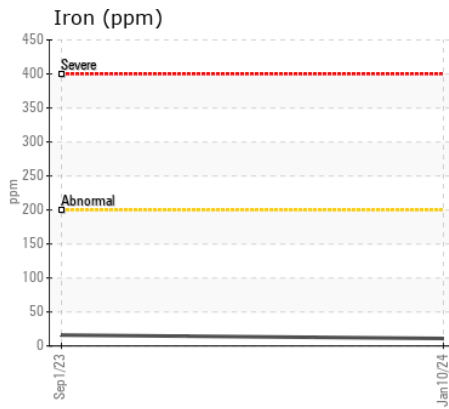
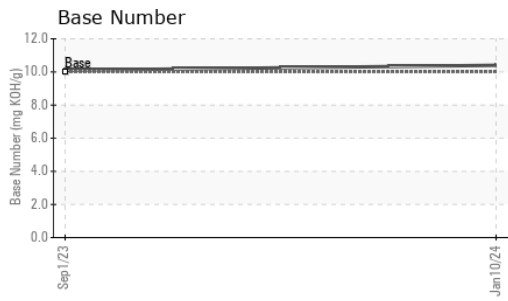
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>6</b>	6	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	---
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.2</b>	7.3	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	20.6	---
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	>0.2	<b>NEG</b>	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>&lt;1</b>	2	---
Boron	ppm	ASTM D5185m	2.5	<b>22</b>	33	---
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0.7	<b>47</b>	52	---
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	256	<b>544</b>	583	---
Calcium	ppm	ASTM D5185m	2057	<b>1607</b>	1818	---
Phosphorus	ppm	ASTM D5185m	935	<b>908</b>	938	---
Zinc	ppm	ASTM D5185m	1223	<b>1174</b>	1176	---
Sulfur	ppm	ASTM D5185m	4079	<b>2994</b>	3521	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.7</b>	18.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>10.4</b>	10.1	---
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.1</b>	13.0	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP436715 **Received** : 12 Jan 2024  
**Lab Number** : 06059071 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830453 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**ALTA EQUIPMENT COMPANY**  
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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)