



# VOLVO

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO L90H 623865**

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>VCP432493</b>	VCP411050	VCP399114
Sample Date		Client Info		<b>30 Oct 2023</b>	17 May 2023	10 Jan 2023
Machine Age	hrs	Client Info		<b>7761</b>	7224	6705
Oil Age	hrs	Client Info		<b>0</b>	0	500
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>17</b>	19	21
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>4</b>	6	7
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>15	<b>1</b>	1	1
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<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

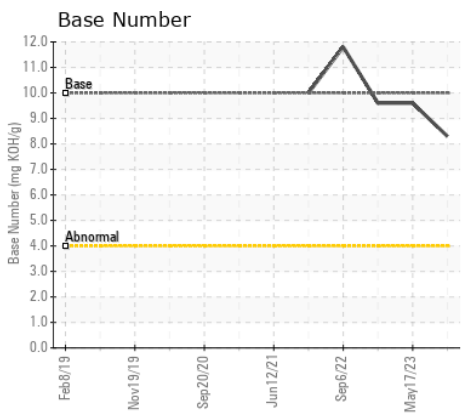
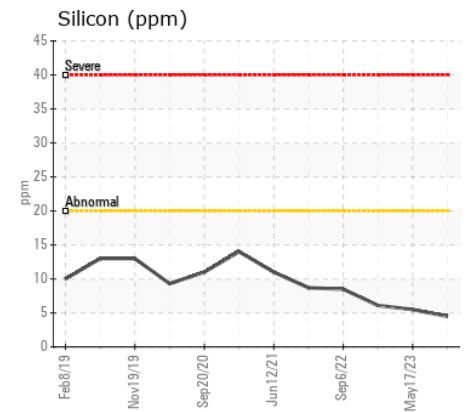
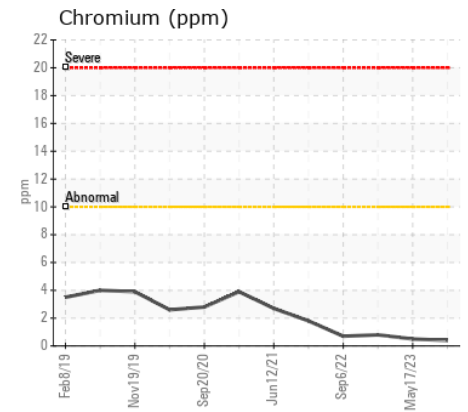
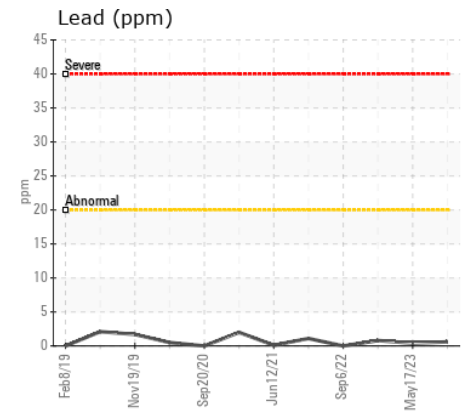
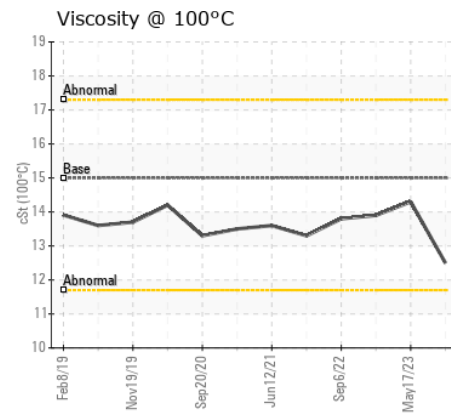
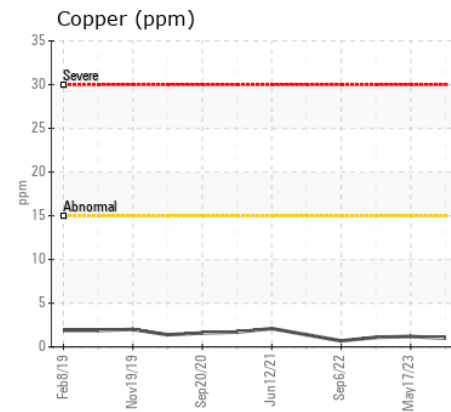
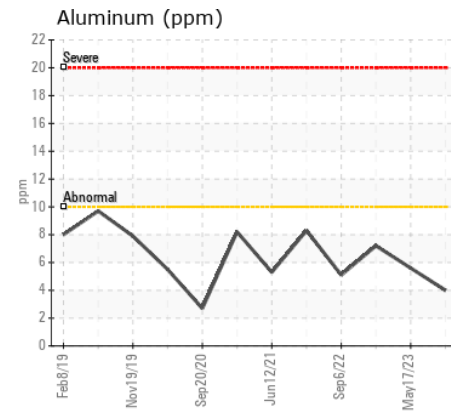
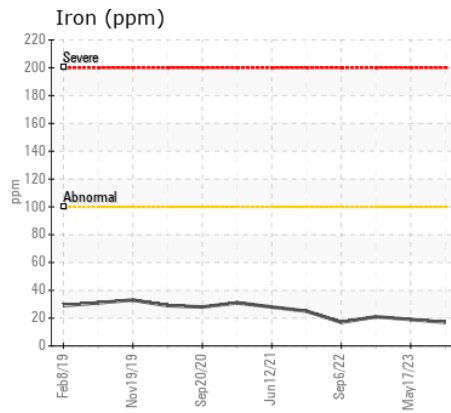
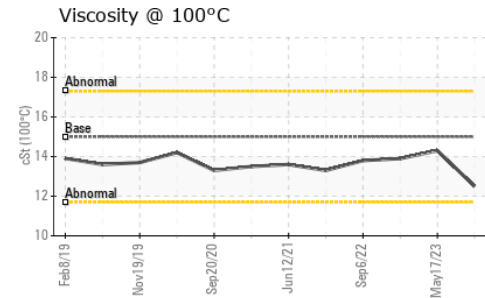
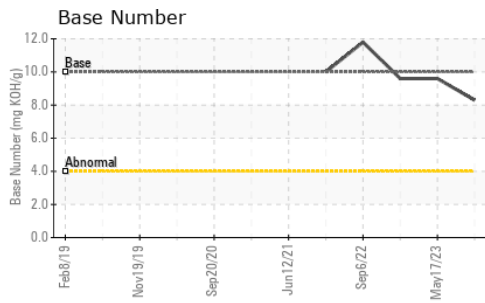
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	<1
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>0.9</b>	0.9	1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.8</b>	11.4	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.1</b>	21.1	22.5
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>0</b>	0	3
Boron	ppm	ASTM D5185m	2.5	<b>12</b>	<1	21
Barium	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>40</b>	63	44
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	256	<b>487</b>	887	549
Calcium	ppm	ASTM D5185m	2057	<b>1295</b>	1201	1789
Phosphorus	ppm	ASTM D5185m	935	<b>786</b>	1057	958
Zinc	ppm	ASTM D5185m	1223	<b>1106</b>	1252	1158
Sulfur	ppm	ASTM D5185m	4079	<b>2352</b>	3099	3661
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.6</b>	17.3	21.0
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>8.3</b>	9.6	9.6
Visc @ 100°C	cSt	ASTM D445	15.0	<b>12.5</b>	14.3	13.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP432493 **Received** : 08 Feb 2024  
**Lab Number** : 06083337 **Tested** : 08 Feb 2024  
**Unique Number** : 10870782 **Diagnosed** : 08 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**RIPA AND ASSOCIATES**  
 10149 FISHER AVENUE  
 TAMPA, FL  
 US 33619

Contact: PM Services  
 PMServices@ripaconstruction.com

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)

T:  
 F: