



# VOLVO

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO L90H 626609**

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>VCP450601</b>	VCP441171	VCP412125
Sample Date		Client Info		<b>20 May 2024</b>	24 Jan 2024	20 Oct 2023
Machine Age	hrs	Client Info		<b>2388</b>	1465	770
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	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	>200	<b>19</b>	19	35
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	2	9
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>1</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>6</b>	12	71
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	0
Copper	ppm	ASTM D5185m	>20	<b>2</b>	3	7
Tin	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

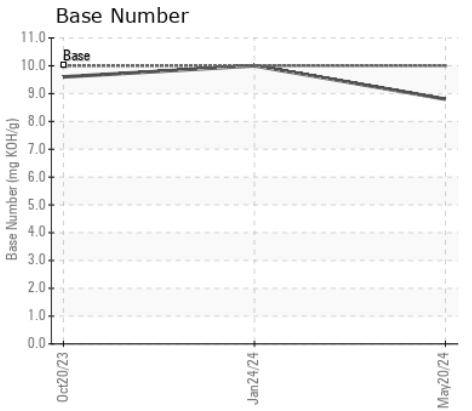
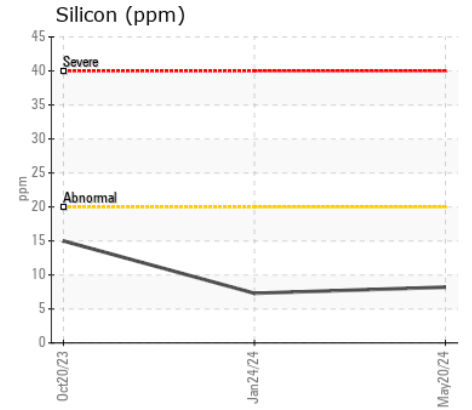
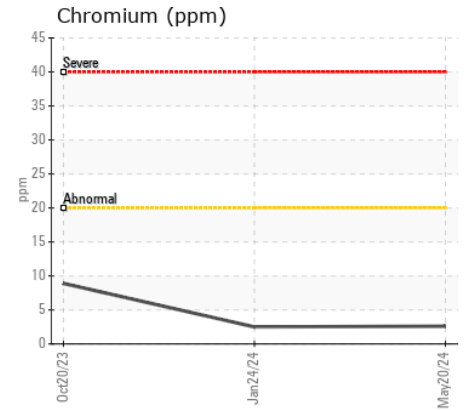
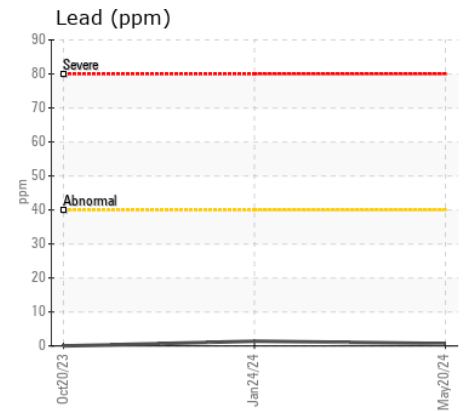
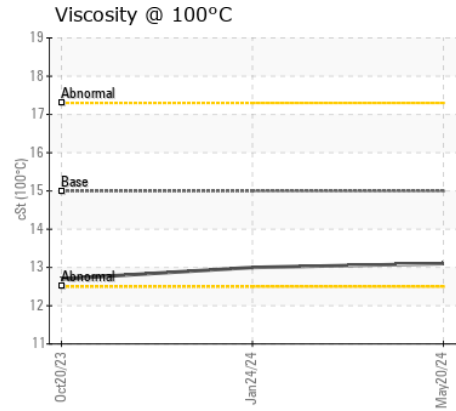
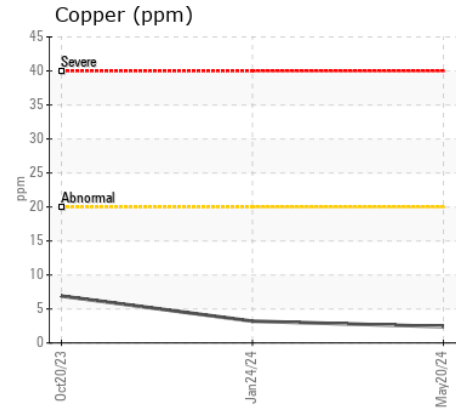
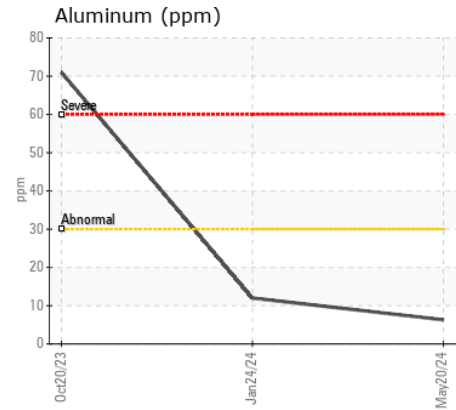
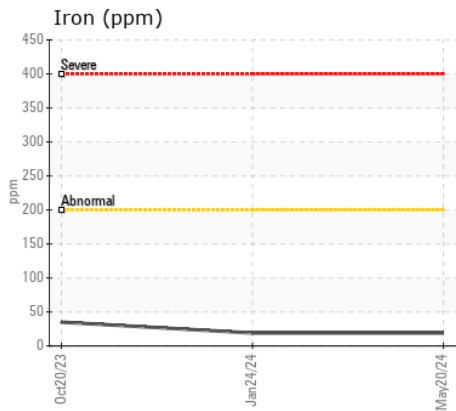
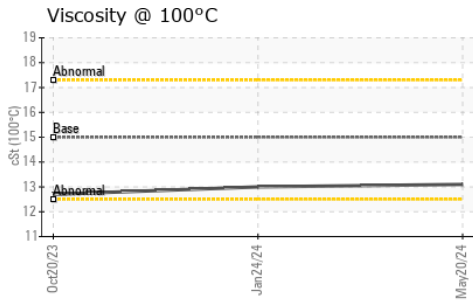
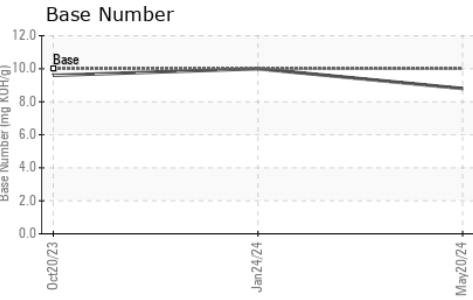
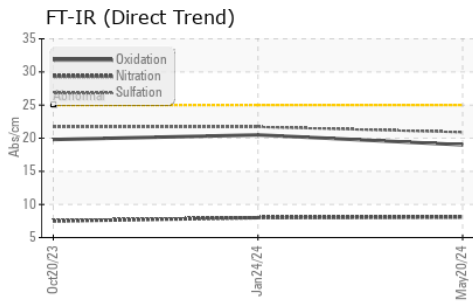
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>8</b>	7	15
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	0
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	8.0	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.9</b>	21.7	21.7
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	>0.2	<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>3</b>	2	4
Boron	ppm	ASTM D5185m	2.5	<b>23</b>	34	42
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	0.7	<b>41</b>	47	39
Manganese	ppm	ASTM D5185m	0.0	<b>1</b>	1	4
Magnesium	ppm	ASTM D5185m	256	<b>492</b>	527	620
Calcium	ppm	ASTM D5185m	2057	<b>1563</b>	1621	1568
Phosphorus	ppm	ASTM D5185m	935	<b>901</b>	986	842
Zinc	ppm	ASTM D5185m	1223	<b>1074</b>	1153	1152
Sulfur	ppm	ASTM D5185m	4079	<b>3367</b>	2982	3276
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.0</b>	20.5	19.8
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>8.8</b>	10.0	9.6
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.1</b>	13.0	12.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP450601 **Received** : 29 May 2024  
**Lab Number** : 06193676 **Tested** : 30 May 2024  
**Unique Number** : 11050428 **Diagnosed** : 30 May 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**ALTA EQUIPMENT COMPANY**  
 5151 DR MARTIN LUTHER KING BLVD  
 FORT MYERS, FL  
 US 33905  
 Contact: TODD LARK  
 tlark@altaequipfl.com  
 T:  
 F: (239)481-3302

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)