



# VOLVO

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO L90H 624818**

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>VCP446314</b>	VCP452250	VCP416360
Sample Date		Client Info		<b>01 Jul 2024</b>	30 Jan 2024	04 Oct 2023
Machine Age	hrs	Client Info		<b>4539</b>	4037	3598
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	>100	<b>9</b>	13	10
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>9</b>	6	9
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>15	<b>2</b>	<1	1
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</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

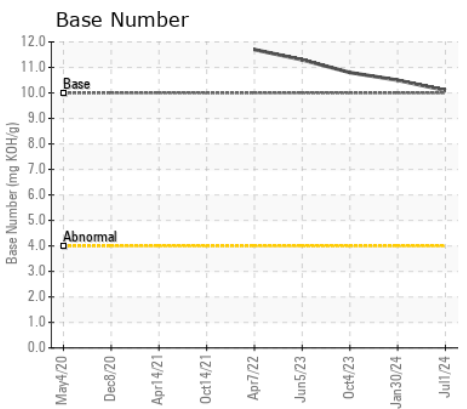
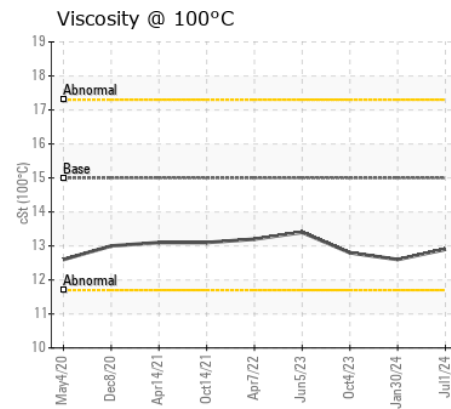
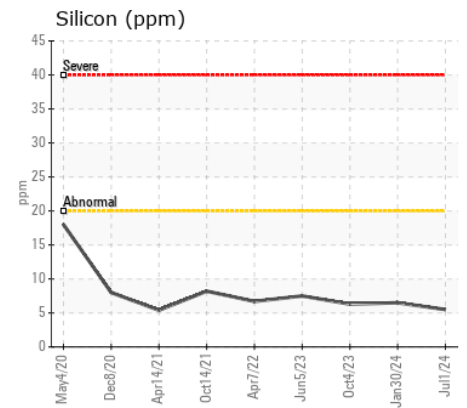
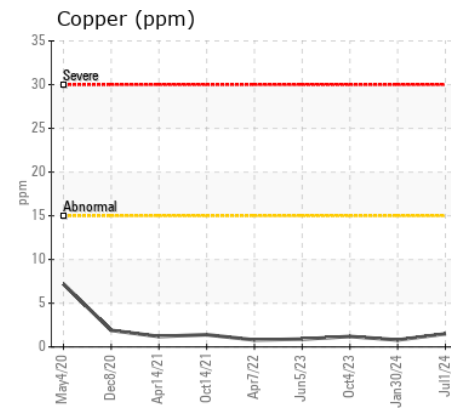
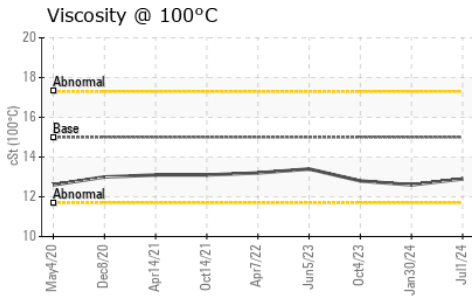
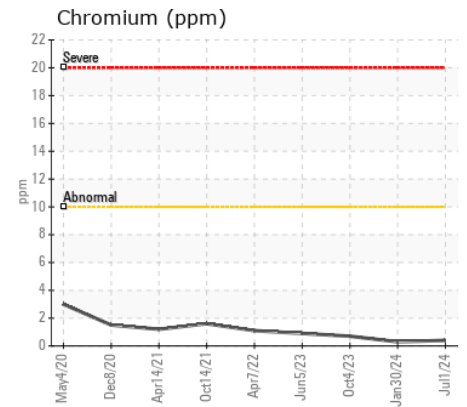
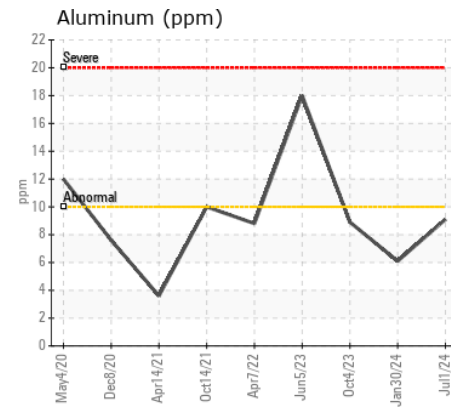
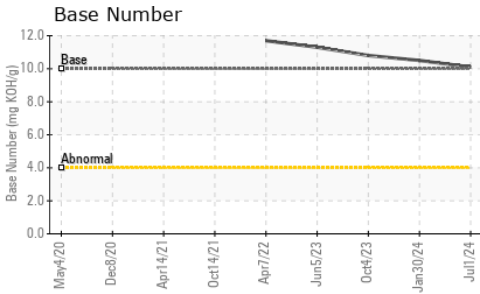
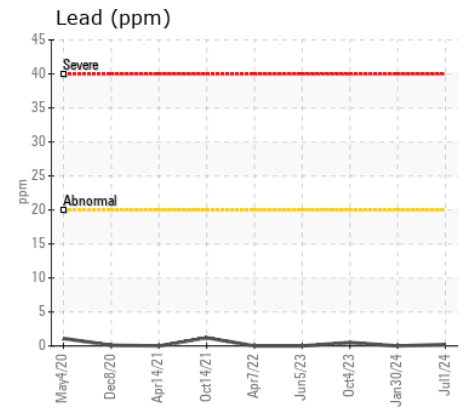
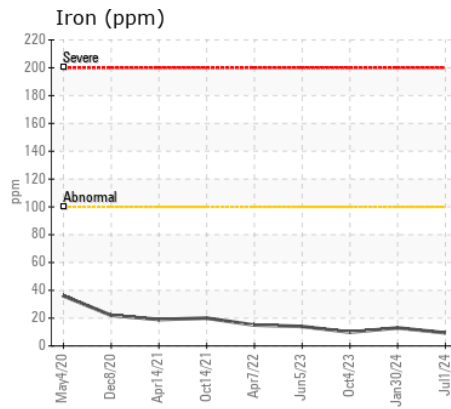
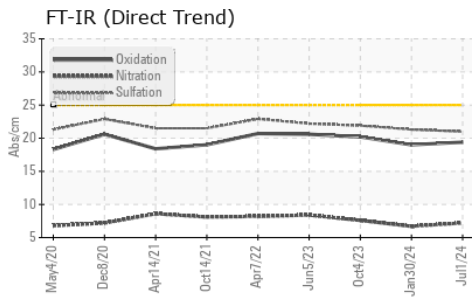
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>6</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	2
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>	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.2</b>	6.7	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.0</b>	21.3	21.9
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>2</b>	0	2
Boron	ppm	ASTM D5185m	2.5	<b>42</b>	43	41
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	5	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>42</b>	38	39
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	256	<b>511</b>	486	487
Calcium	ppm	ASTM D5185m	2057	<b>1796</b>	1741	1544
Phosphorus	ppm	ASTM D5185m	935	<b>997</b>	872	896
Zinc	ppm	ASTM D5185m	1223	<b>1180</b>	1138	1061
Sulfur	ppm	ASTM D5185m	4079	<b>3676</b>	2980	2694
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.4</b>	19.0	20.2
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>10.1</b>	10.5	10.8
Visc @ 100°C	cSt	ASTM D445	15.0	<b>12.9</b>	12.6	12.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP446314 **Received** : 08 Jul 2024  
**Lab Number** : 06229778 **Tested** : 09 Jul 2024  
**Unique Number** : 11113271 **Diagnosed** : 09 Jul 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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)

**RIPA AND ASSOCIATES**

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