



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[730054 IAA]**  
Machine Id  
**VOLVO L90G 3573**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP439818</b>	VCP278631	VCP248189
Sample Date		Client Info		<b>17 Jun 2024</b>	11 Aug 2020	05 Apr 2019
Machine Age	hrs	Client Info		<b>13010</b>	12325	11889
Oil Age	hrs	Client Info		<b>0</b>	0	11889
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>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

The aluminum level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>23</b>	30	22
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>10	<b>▲ 26</b>	15	4
Lead	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>15	<b>3</b>	2	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
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

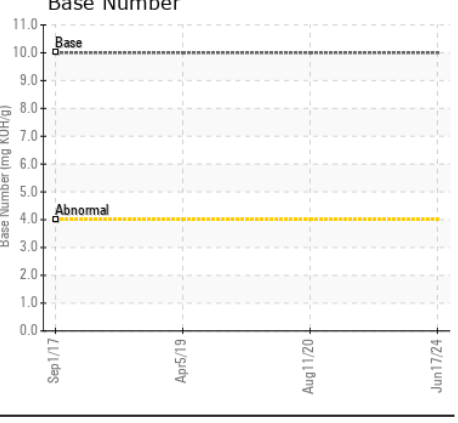
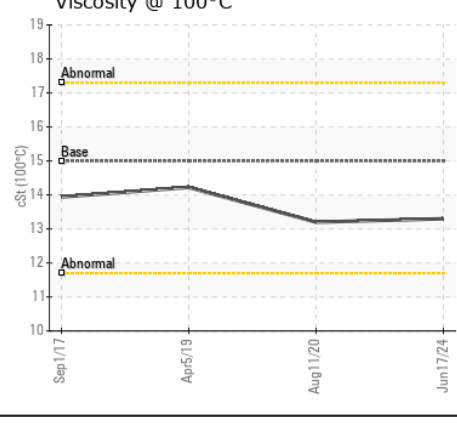
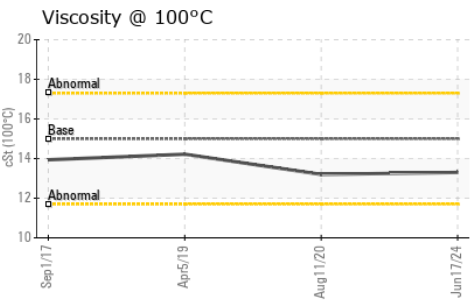
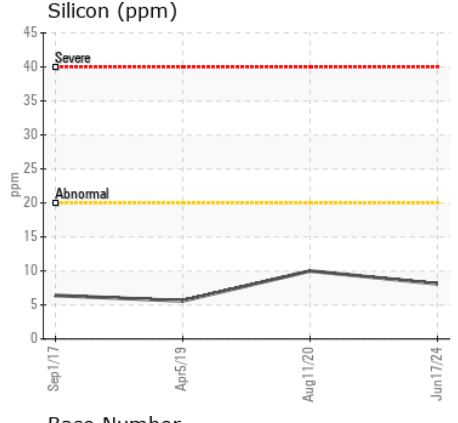
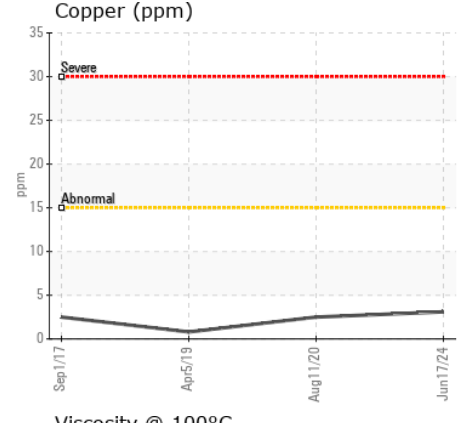
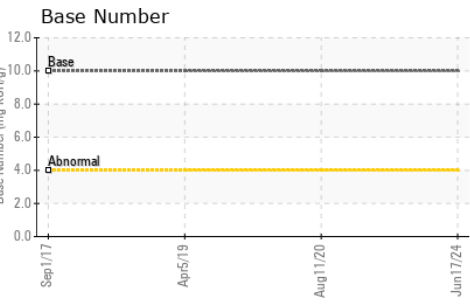
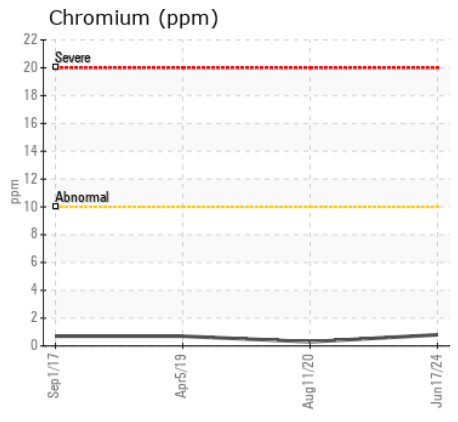
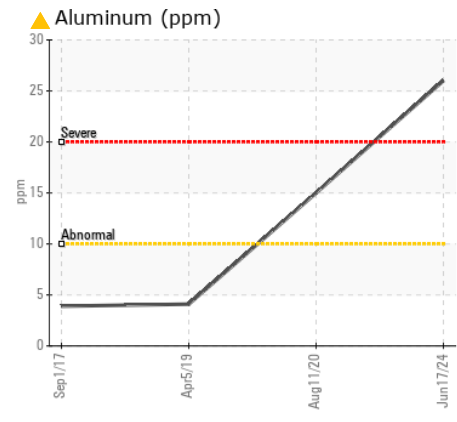
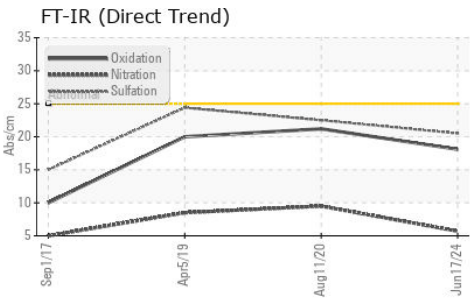
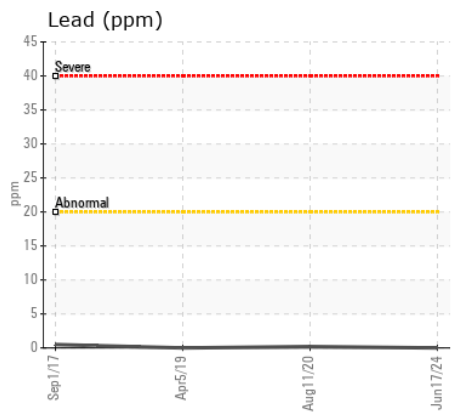
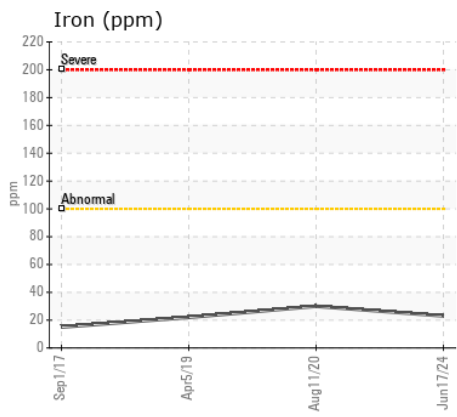
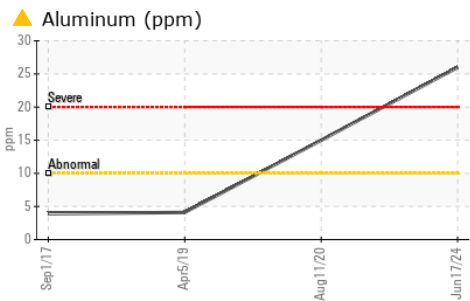
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>8</b>	10	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	0
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>0.1</b>	0.7	1.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.7</b>	9.5	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.5</b>	22.5	24.4
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>56</b>	49	45
Boron	ppm	ASTM D5185m	2.5	<b>61</b>	33	23
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>39</b>	51	39
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	256	<b>471</b>	554	505
Calcium	ppm	ASTM D5185m	2057	<b>1583</b>	1733	1690
Phosphorus	ppm	ASTM D5185m	935	<b>938</b>	775	704
Zinc	ppm	ASTM D5185m	1223	<b>1119</b>	972	834
Sulfur	ppm	ASTM D5185m	4079	<b>3901</b>	2113	2015
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.1</b>	21.2	20
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>8.7</b>	---	---
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.3</b>	13.2	14.22



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP439818 **Received** : 26 Jun 2024  
**Lab Number** : 06220749 **Tested** : 27 Jun 2024  
**Unique Number** : 11098946 **Diagnosed** : 27 Jun 2024 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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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)