



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id  
**VOLVO L70H 624288**

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		VCP437537	VCP425009	VCP355080
Sample Date		Client Info		21 Jun 2024	16 Aug 2023	20 Jun 2022
Machine Age	hrs	Client Info		3537	2287	925
Oil Age	hrs	Client Info		0	0	300
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				ATTENTION	ATTENTION	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	8	14	8
Chromium	ppm	ASTM D5185m	>20	<1	1	1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	5	6	4
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>20	<1	2	<1
Tin	ppm	ASTM D5185m	>20	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

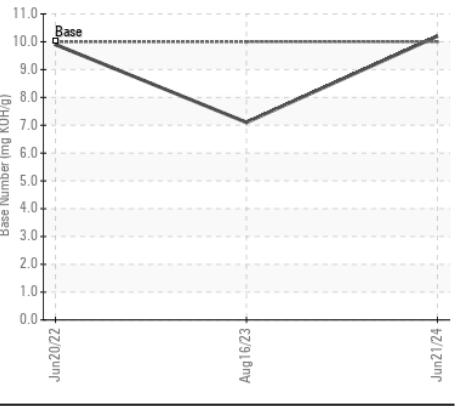
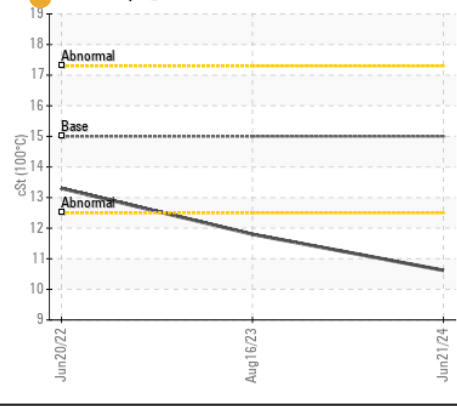
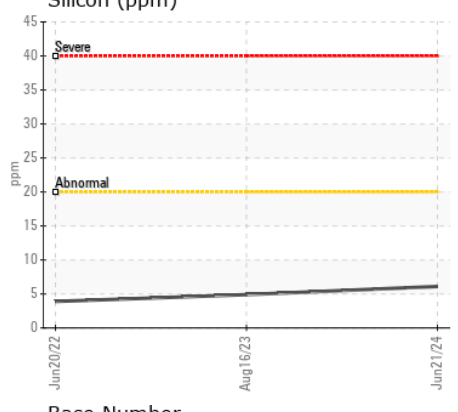
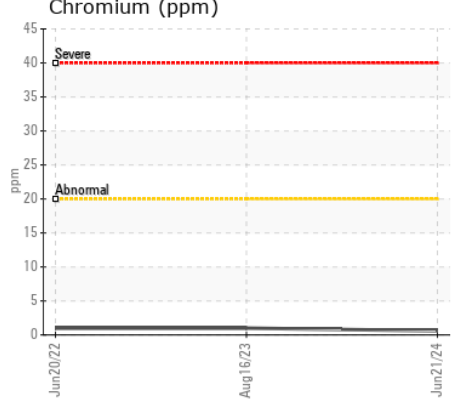
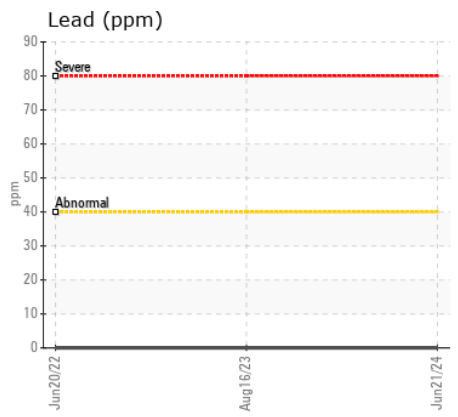
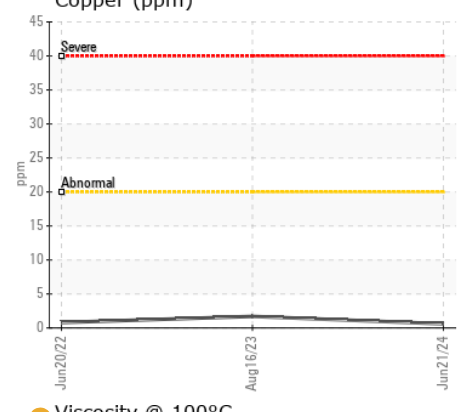
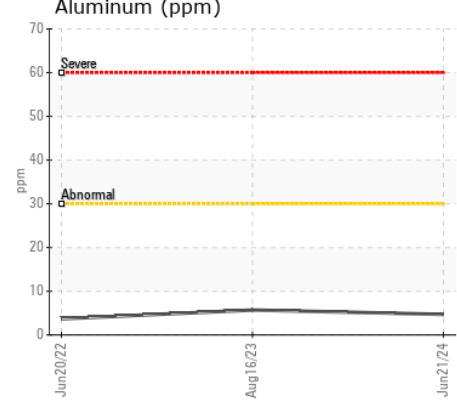
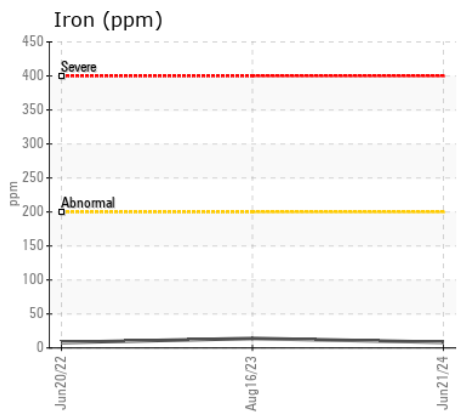
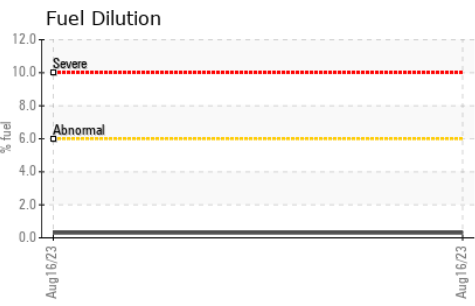
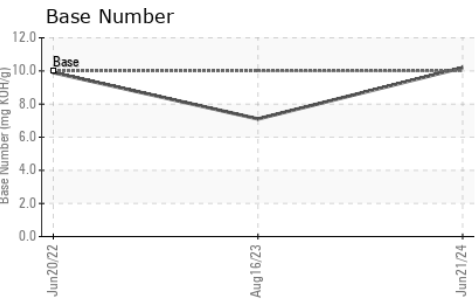
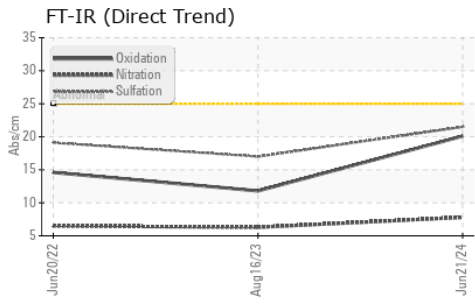
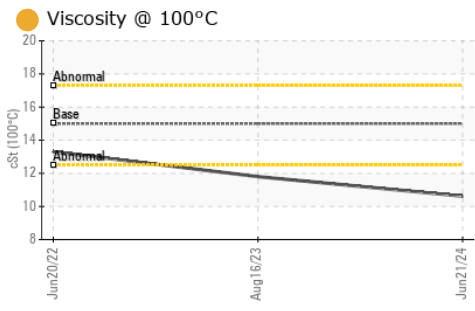
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	6	5	4
Potassium	ppm	ASTM D5185m	>20	2	2	2
Fuel	%	ASTM D3524	>6.0	<1.0	0.3	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.8	6.3	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.5	17.0	19.1
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

### FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		2	2	<1
Boron	ppm	ASTM D5185m	2.5	26	<1	6
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	41	52	61
Manganese	ppm	ASTM D5185m	0.0	0	<1	<1
Magnesium	ppm	ASTM D5185m	256	514	378	393
Calcium	ppm	ASTM D5185m	2057	1726	1692	1726
Phosphorus	ppm	ASTM D5185m	935	940	969	1028
Zinc	ppm	ASTM D5185m	1223	1224	1232	1242
Sulfur	ppm	ASTM D5185m	4079	2950	3761	3951
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.1	11.8	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	10.2	7.1	9.9
Visc @ 100°C	cSt	ASTM D445	15.0	10.62	11.8	13.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP437537 **Received** : 26 Jun 2024  
**Lab Number** : 06220756 **Tested** : 01 Jul 2024  
**Unique Number** : 11098953 **Diagnosed** : 01 Jul 2024 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, TBN )

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Certificate L2367  
 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)