



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id  
**VOLVO L60H 622532**  
Component  
**Hydraulic System**  
Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP445588	VCP452263	VCP433333
Sample Date		Client Info		10 Jun 2024	14 Feb 2024	11 Oct 2023
Machine Age	hrs	Client Info		11558	10530	9385
Oil Age	hrs	Client Info		0	2000	9385
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Not Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	10	9	9
Chromium	ppm	ASTM D5185m	>20	2	2	2
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	0	<1
Lead	ppm	ASTM D5185m	>20	<1	2	<1
Copper	ppm	ASTM D5185m	>150	2	3	3
Tin	ppm	ASTM D5185m	>20	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

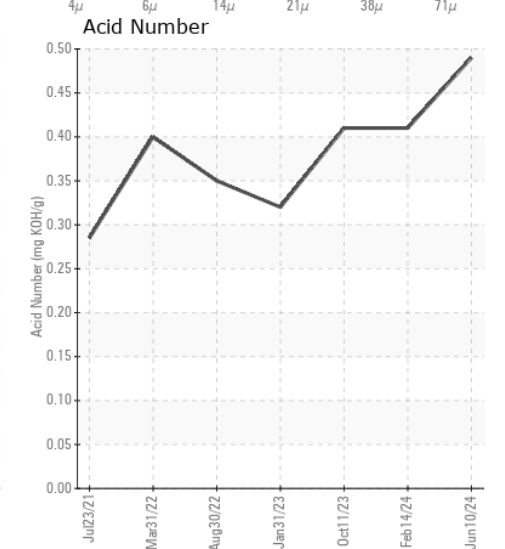
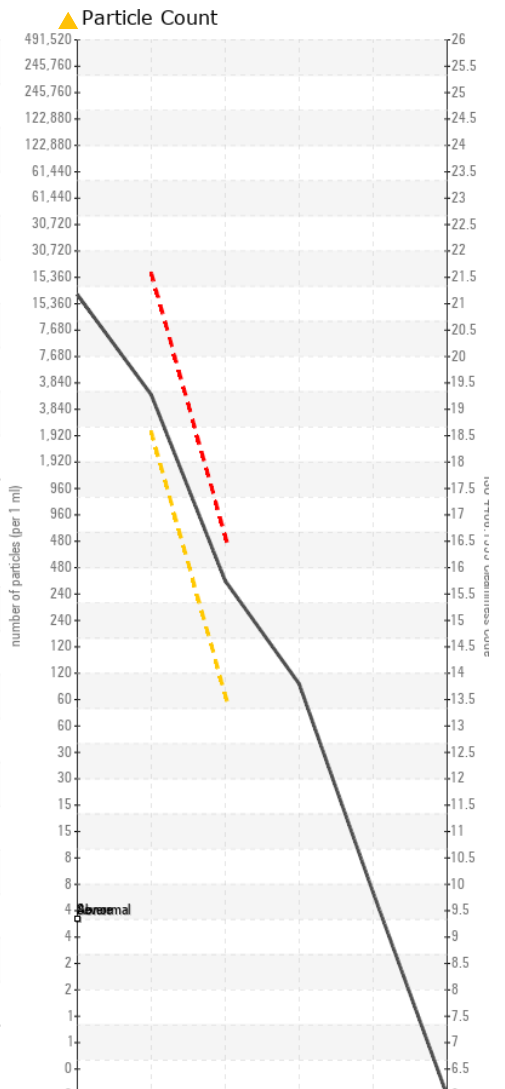
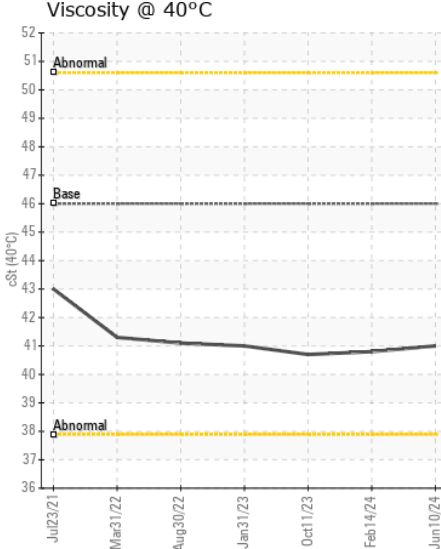
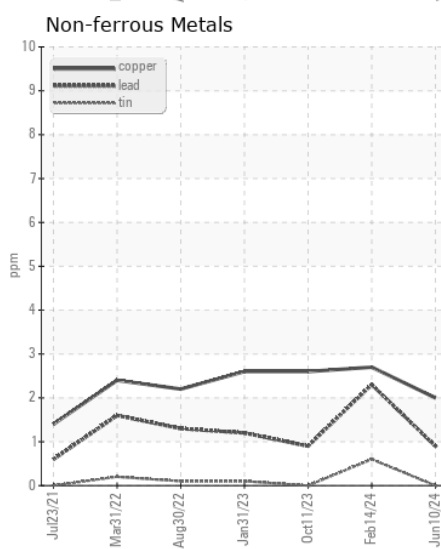
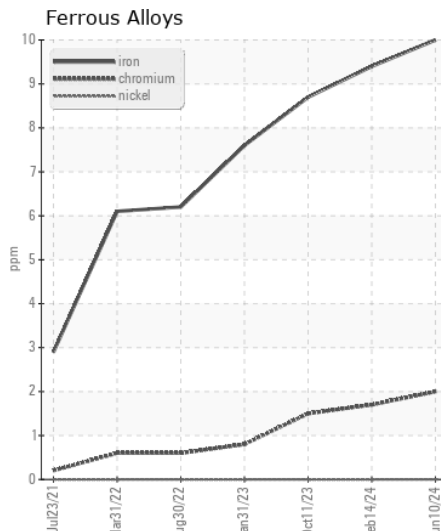
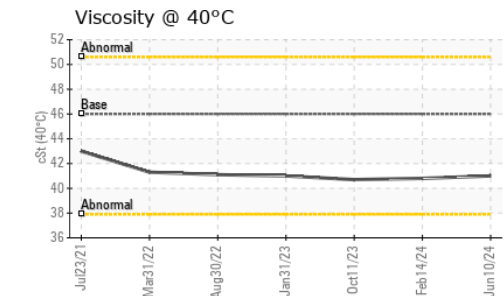
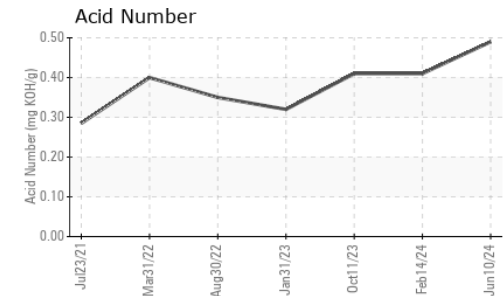
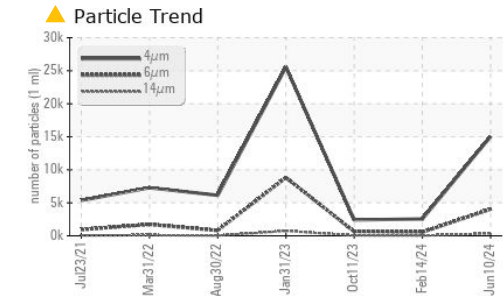
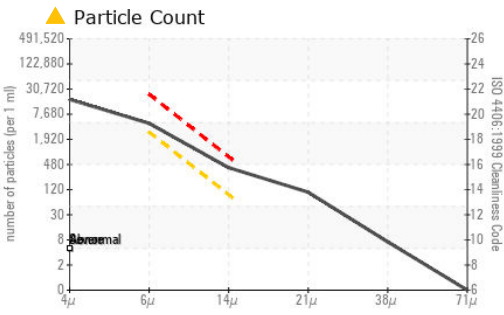
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	5	5	4
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		15035	2550	2405
Particles >6µm		ASTM D7647	>2500	4049	560	652
Particles >14µm		ASTM D7647	>80	355	30	56
Particles >21µm		ASTM D7647	>20	92	7	16
Particles >38µm		ASTM D7647	>4	6	0	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>-/18/13	21/19/16	19/16/12	18/17/13
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	>0.1	NEG	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		6	8	6
Boron	ppm	ASTM D5185m	14	0	2	0
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<1	<1	<1
Manganese	ppm	ASTM D5185m	0.0	0	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	3	0	0
Calcium	ppm	ASTM D5185m	49	224	160	54
Phosphorus	ppm	ASTM D5185m	354	385	349	313
Zinc	ppm	ASTM D5185m	419	517	381	409
Sulfur	ppm	ASTM D5185m	3719	2510	2122	1757
Acid Number (AN)	mg KOH/g	ASTM D8045		0.49	0.41	0.41
Visc @ 40°C	cSt	ASTM D445	46	41.0	40.8	40.7



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP445588  
**Lab Number** : 06210006  
**Unique Number** : 11082870  
**Test Package** : MOB 2  
**Received** : 14 Jun 2024  
**Tested** : 17 Jun 2024  
**Diagnosed** : 17 Jun 2024 - Wes Davis

**WASTE MANAGEMENT TAMPA TRANSFER**  
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 US 33605  
 Contact: JOHN POLLOCK  
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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)