



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[SWO-071952]**  
 Machine Id  
**VOLVO A45G 352969**  
 Component  
**Hydraulic System**  
 Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP452459</b>	VCP446716	VCP414707
Sample Date		Client Info		<b>23 May 2024</b>	27 Feb 2024	20 Dec 2023
Machine Age	hrs	Client Info		<b>3944</b>	3453	2980
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>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>8</b>	3	5
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185m	>20	<b>3</b>	1	2
Copper	ppm	ASTM D5185m	>150	<b>3</b>	<1	2
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	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

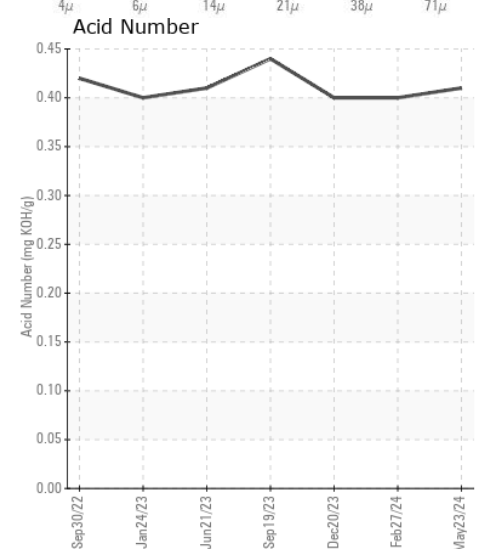
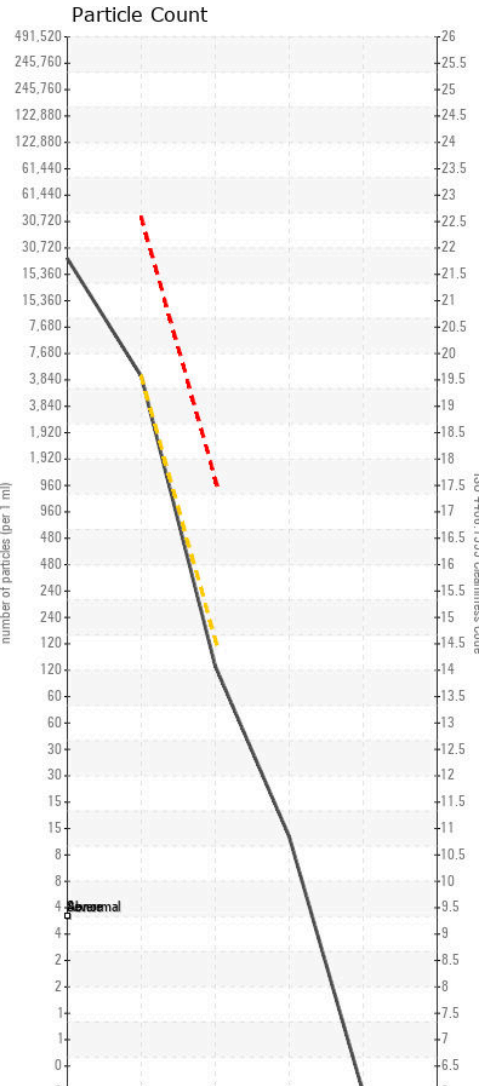
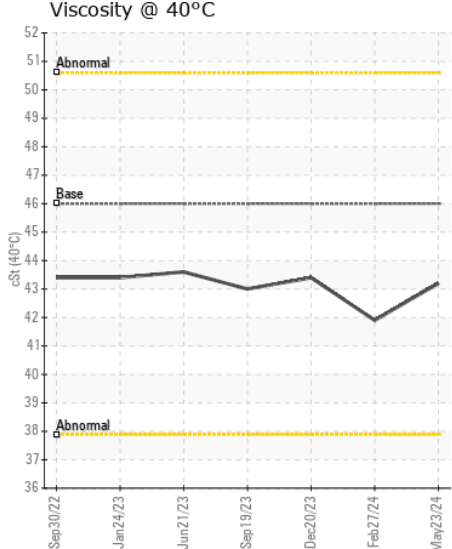
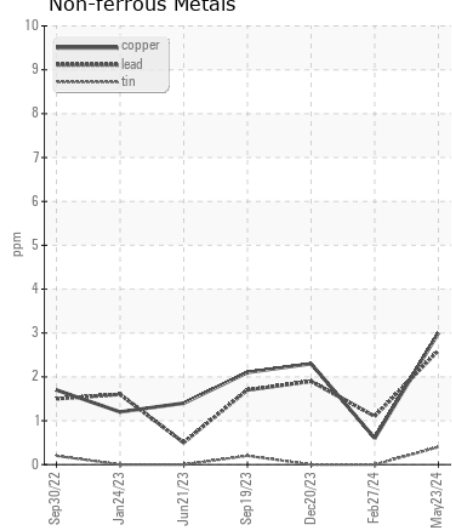
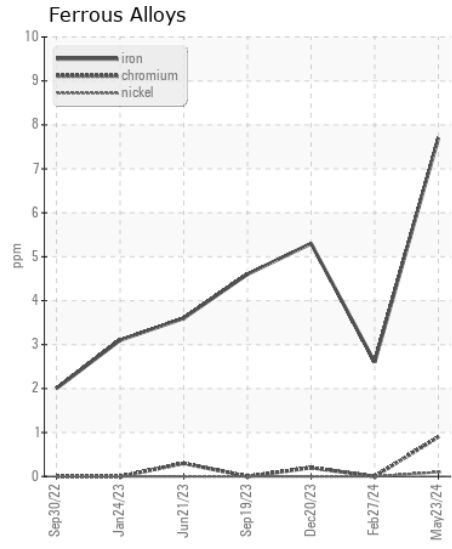
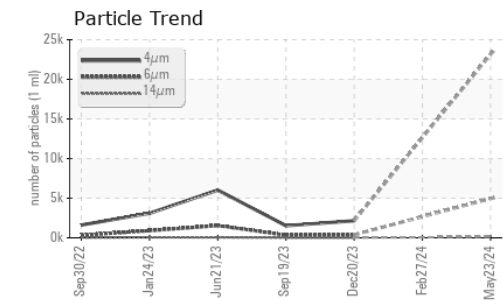
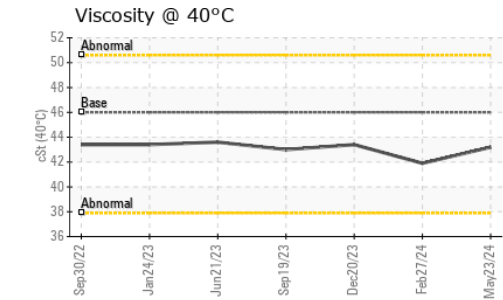
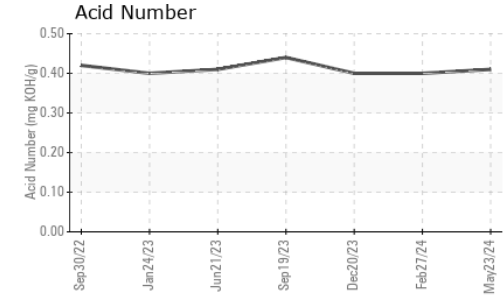
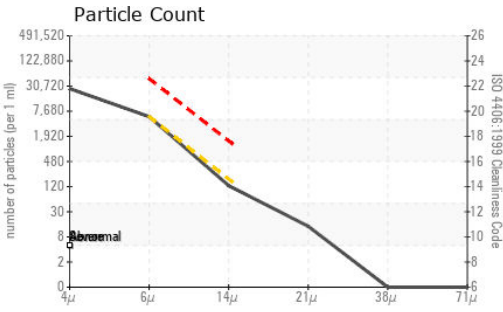
There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

Silicon	ppm	ASTM D5185m	>20	<b>6</b>	4	5
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647		<b>23155</b>	---	2152
Particles >6µm		ASTM D7647	>5000	<b>4957</b>	---	387
Particles >14µm		ASTM D7647	>160	<b>112</b>	---	19
Particles >21µm		ASTM D7647	>40	<b>12</b>	---	6
Particles >38µm		ASTM D7647	>10	<b>0</b>	---	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>-/19/14	<b>22/19/14</b>	---	18/16/11
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	LIGHT
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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	0	<1
Boron	ppm	ASTM D5185m	14	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	2.6	<b>66</b>	20	17
Calcium	ppm	ASTM D5185m	49	<b>97</b>	118	83
Phosphorus	ppm	ASTM D5185m	354	<b>385</b>	358	369
Zinc	ppm	ASTM D5185m	419	<b>517</b>	467	471
Sulfur	ppm	ASTM D5185m	3719	<b>1558</b>	1201	1375
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.41</b>	0.40	0.40
Visc @ 40°C	cSt	ASTM D445	46	<b>43.2</b>	41.9	43.4



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP452459 **Received** : 30 May 2024  
**Lab Number** : 06195347 **Tested** : 31 May 2024  
**Unique Number** : 11057470 **Diagnosed** : 01 Jun 2024 - Don Baldrige  
**Test Package** : MOB 2

**SAIIA CONSTRUCTION LLC**  
 4400 LEWISBURG RD  
 BIRMINGHAM, AL  
 US 35207  
 Contact: STEPHANI BRITTON  
 sbritton@saiia.com; doug.bogart@wearcheck.com  
 T: (205)943-2268  
 F: (205)943-2269

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)