



# ASCENDUM

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO L90H 623682**  
Component  
**Hydraulic System**  
Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ASC0009029</b>	VCP421689	VCP398777
Sample Date		Client Info		<b>08 Jul 2024</b>	05 Sep 2023	16 Jan 2023
Machine Age	hrs	Client Info		<b>13553</b>	12074	11072
Oil Age	hrs	Client Info		<b>500</b>	0	0
Filter Age	hrs	Client Info		<b>500</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Changed	Not Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Not Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>5</b>	4	4
Chromium	ppm	ASTM D5185m	>20	<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		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	0
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>150	<b>2</b>	2	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

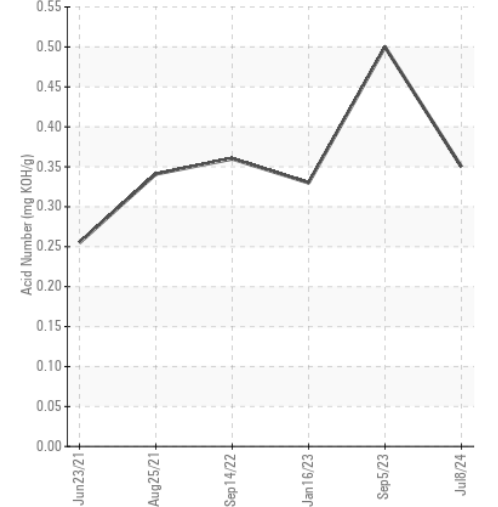
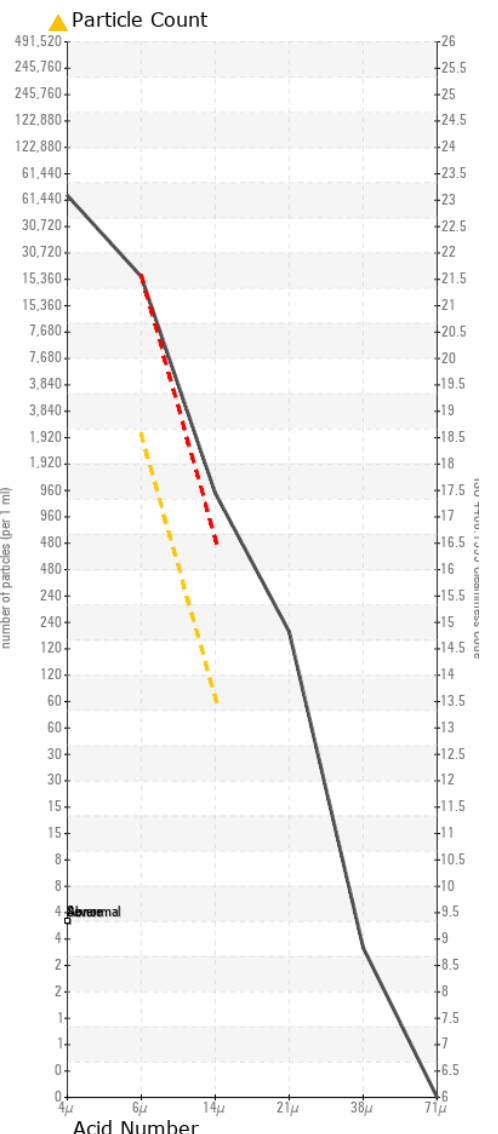
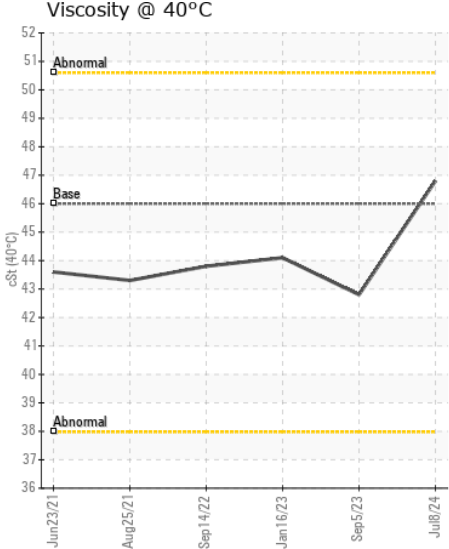
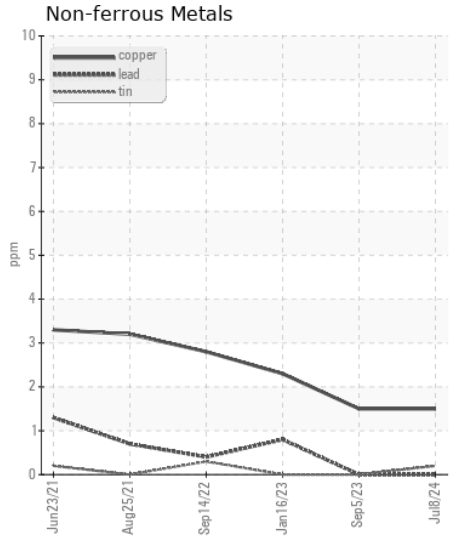
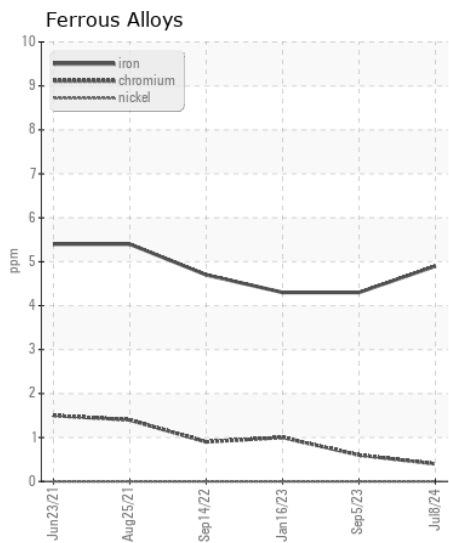
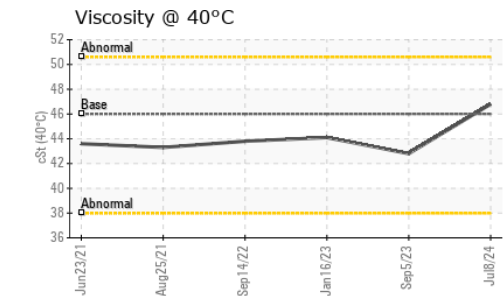
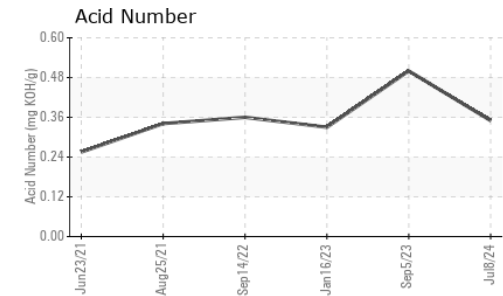
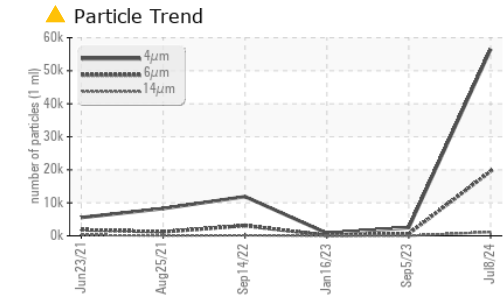
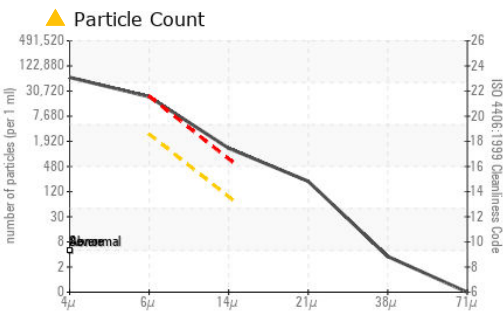
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>3</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647		<b>56488</b>	2477	785
Particles >6µm		ASTM D7647	>2500	<b>▲ 19524</b>	607	138
Particles >14µm		ASTM D7647	>80	<b>▲ 1150</b>	28	13
Particles >21µm		ASTM D7647	>20	<b>▲ 187</b>	5	5
Particles >38µm		ASTM D7647	>4	<b>3</b>	0	2
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>-/18/13	<b>▲ 23/21/17</b>	18/16/12	17/14/11
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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	1	1
Boron	ppm	ASTM D5185m	14	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m	2.6	<b>2</b>	0	3
Calcium	ppm	ASTM D5185m	49	<b>76</b>	115	87
Phosphorus	ppm	ASTM D5185m	354	<b>381</b>	413	360
Zinc	ppm	ASTM D5185m	419	<b>495</b>	543	433
Sulfur	ppm	ASTM D5185m	3719	<b>1392</b>	2046	1943
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.35</b>	0.50	0.33
Visc @ 40°C	cSt	ASTM D445	46	<b>46.8</b>	42.8	44.1



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0009029 **Received** : 10 Jul 2024  
**Lab Number** : 06232234 **Tested** : 11 Jul 2024  
**Unique Number** : 11115727 **Diagnosed** : 11 Jul 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**IAA - INSURANCE AUTO AUCTIONS - CLAYTON**  
 60 SADISCO RD  
 CLAYTON, NC  
 US 27520  
 Contact: Service Manager

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)