



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[74848 LAKE CONWAY]**  
Machine Id  
**VOLVO L20H 1220189**  
Component  
**Hydraulic System**  
Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP445681</b>	VCP385465	VCP346555
Sample Date		Client Info		<b>20 Feb 2024</b>	14 Oct 2022	02 Mar 2022
Machine Age	hrs	Client Info		<b>3401</b>	2655	2089
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>Not Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>5</b>	4	25
Chromium	ppm	ASTM D5185m	>20	<b>0</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>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185m	>20	<b>1</b>	0	3
Copper	ppm	ASTM D5185m	>150	<b>2</b>	1	8
Tin	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

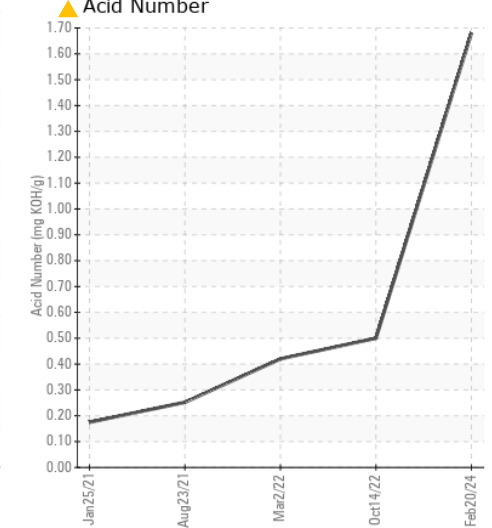
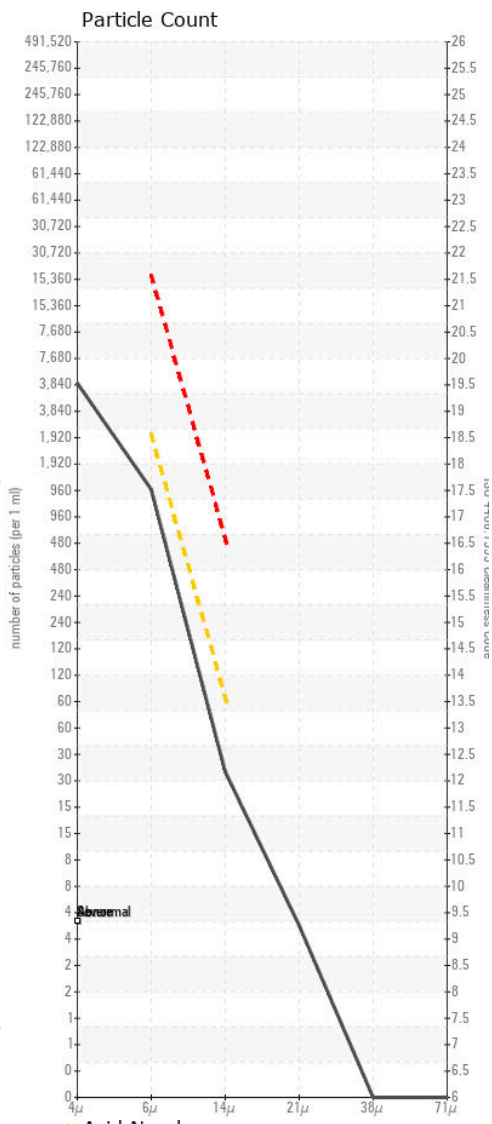
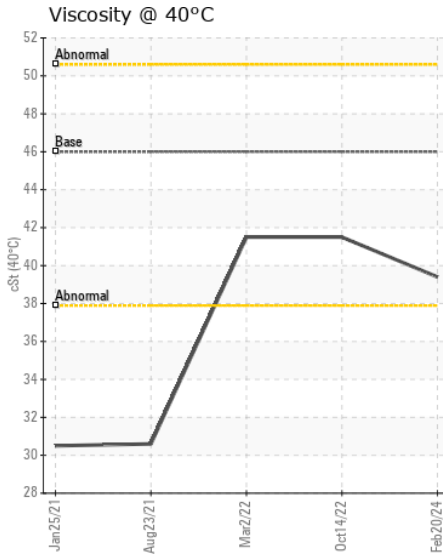
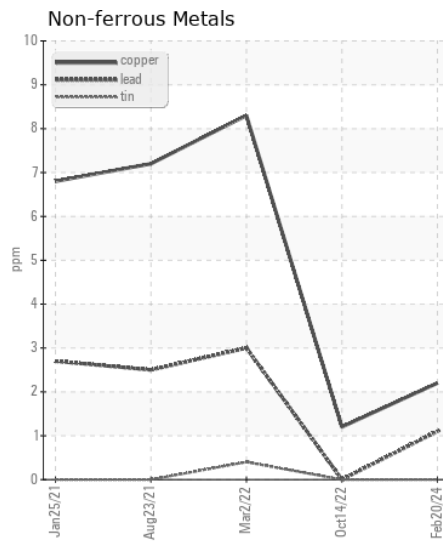
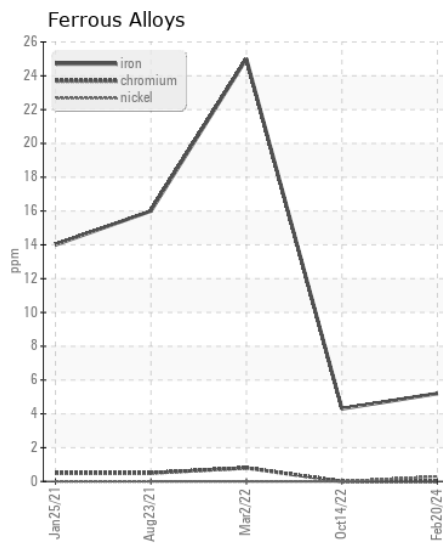
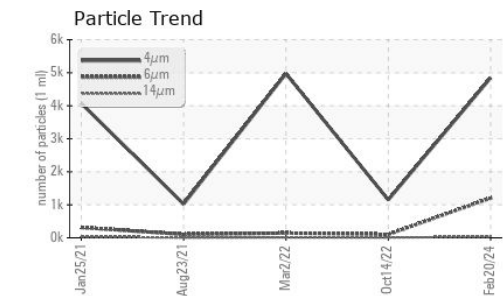
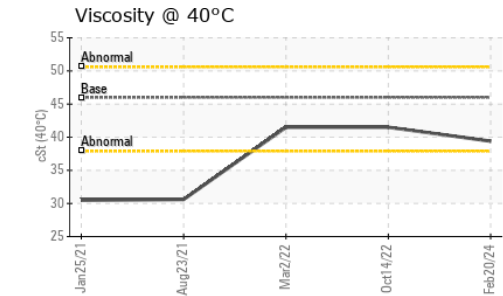
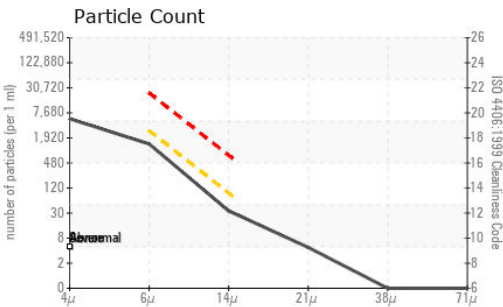
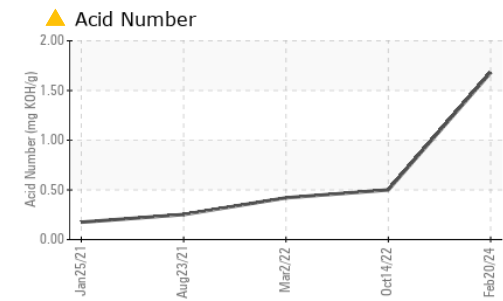
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>1</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647		<b>4843</b>	1150	4972
Particles >6µm		ASTM D7647	>2500	<b>1204</b>	102	144
Particles >14µm		ASTM D7647	>80	<b>30</b>	8	12
Particles >21µm		ASTM D7647	>20	<b>4</b>	2	3
Particles >38µm		ASTM D7647	>4	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>-/18/13	<b>19/17/12</b>	17/14/10	19/14/11
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 at the top-end of the recommended limit.

Sodium	ppm	ASTM D5185m		<b>2</b>	1	2
Boron	ppm	ASTM D5185m	14	<b>4</b>	0	<1
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>6</b>	10	<1
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	<b>70</b>	77	0
Calcium	ppm	ASTM D5185m	49	<b>193</b>	200	43
Phosphorus	ppm	ASTM D5185m	354	<b>315</b>	332	343
Zinc	ppm	ASTM D5185m	419	<b>376</b>	388	319
Sulfur	ppm	ASTM D5185m	3719	<b>2563</b>	3099	3667
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>▲ 1.68</b>	0.50	0.42
Visc @ 40°C	cSt	ASTM D445	46	<b>39.4</b>	41.5	41.5



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP445681  
**Lab Number** : 06102912  
**Unique Number** : 10901142  
**Test Package** : MOB 2  
**Received** : 28 Feb 2024  
**Tested** : 29 Feb 2024  
**Diagnosed** : 01 Mar 2024 - Don Baldrige

**ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC**  
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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)