



# CONSTRUCTION EQUIPMENT

## VOLVO L110H 631235 - HYDRAULIC SYSTEM



**Sample No:** VCP399407  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP399407</b>	VCP359356	VCP320497	VCP310728
Sample Date	<b>03 Jan 2023</b>	22 Apr 2022	13 Sep 2021	07 May 2021
Machine Hours	<b>9673</b>	8372	7033	6168
Oil Hours	<b>1500</b>	4000	1500	2000
Oil Changed	<b>Not Changd</b>	Changed	Not Changd	Not Changd
Sample Status	<b>ABNORMAL</b>	ATTENTION	ABNORMAL	ABNORMAL

### RIPA AND ASSOCIATES

10149 FISHER AVENUE  
TAMPA, FL  
US 33619  
Contact: ROBERT TURNER  
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T:  
F:

### OIL CONDITION

Visc @ 40°C	cSt	<b>54.1</b>	59.3	54.8	50.3
Acid Number (AN)	mg KOH/g	<b>0.42</b>	0.35	0.529	0.359

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		<b>35022</b>	14466	---	48624
Particles >6µm		<b>▲ 11594</b>	2120	---	9797
Particles >14µm		<b>▲ 1225</b>	134	---	353
ISO 4406:1999 (c)		<b>22/21/17</b>	21/18/14	---	23/20/16
Silicon	ppm	<b>2</b>	2	3	2
Sodium	ppm	<b>2</b>	0	2	0
Potassium	ppm	<b>0</b>	1	2	0

### Diagnosis

We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

### WEAR METALS

Iron	ppm	<b>5</b>	2	5	4
Copper	ppm	<b>14</b>	1	1	1
Lead	ppm	<b>1</b>	<1	3	1
Tin	ppm	<b>&lt;1</b>	0	0	0
Aluminum	ppm	<b>0</b>	1	1	0
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>7</b>	4	5	1
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	<1
Manganese	ppm	<b>&lt;1</b>	0	0	0
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>1473</b>	170	302	89
Magnesium	ppm	<b>9</b>	7	7	7
Zinc	ppm	<b>522</b>	491	511	429
Phosphorus	ppm	<b>407</b>	374	430	349
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>5</b>	4	10	3

**Depot:** RIPTAM  
**Unique No:** 10331619  
**Signed:** Don Baldrige  
**Report Date:** 09 Feb 2023

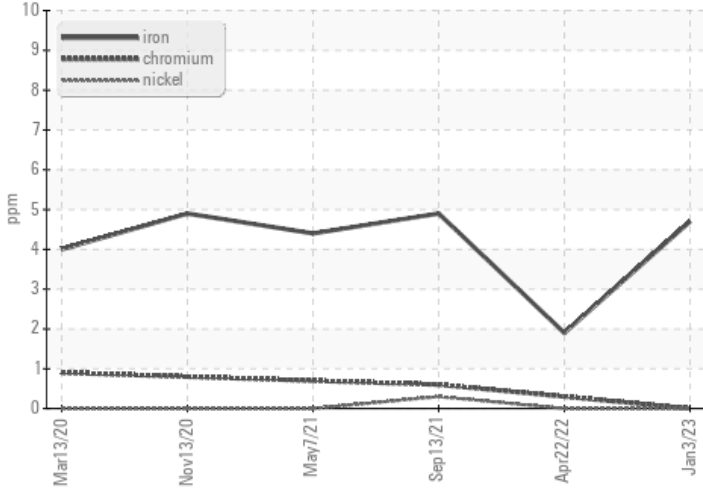


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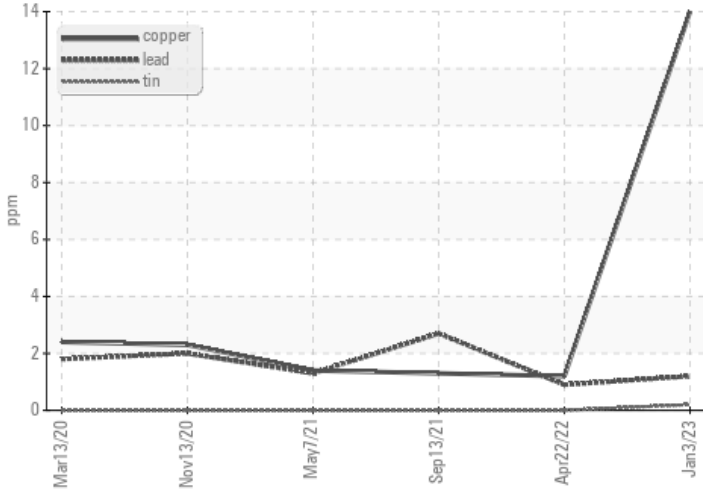


## VOLVO GRAPHS

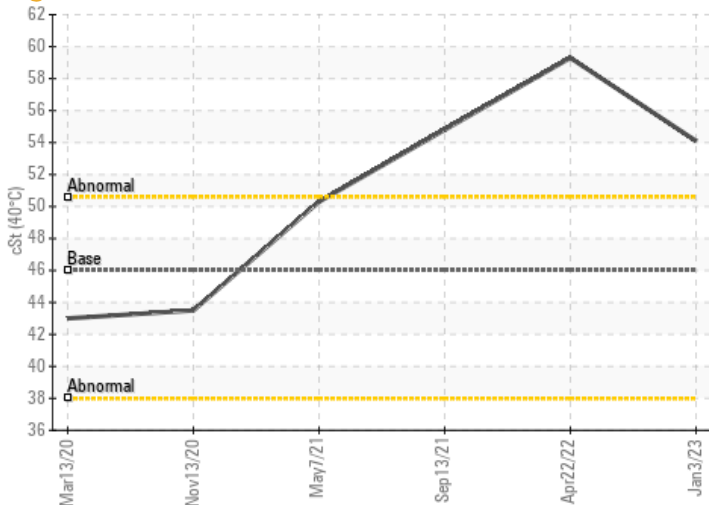
### Ferrous Alloys



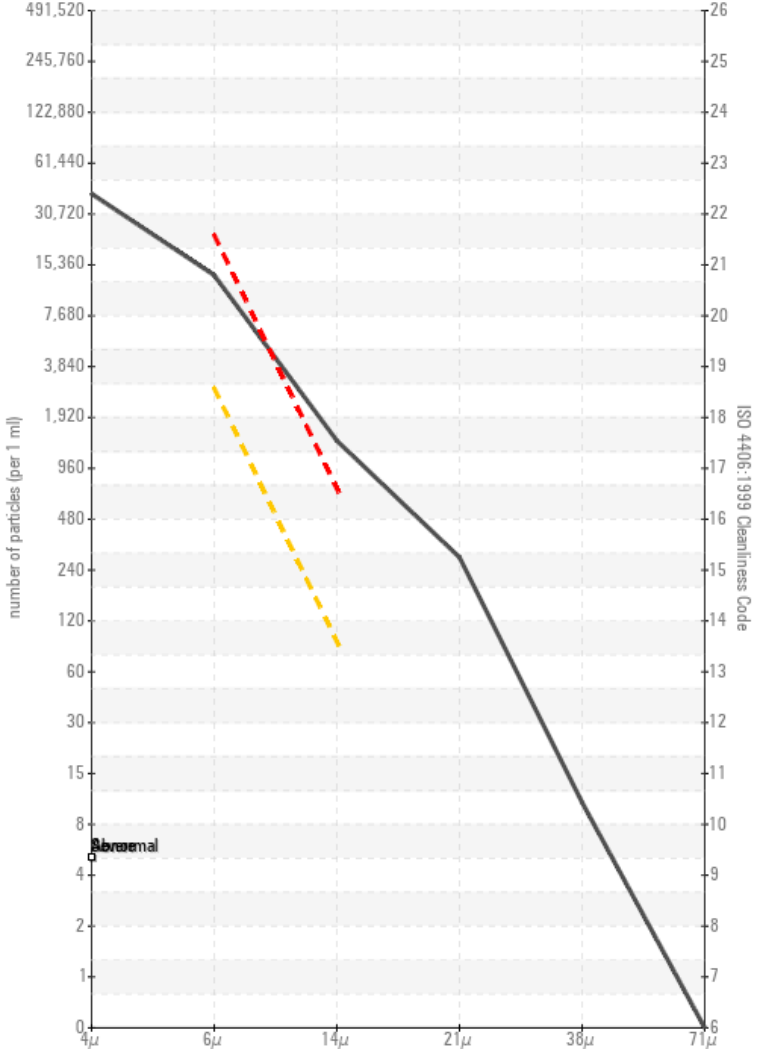
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

