



# CONSTRUCTION EQUIPMENT

## VOLVO L220H 3069 - HYDRAULIC SYSTEM



**Sample No:** VCP440142  
**Oil Type:** MOBIL HYDRAULIC OIL AW 46  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP440142</b>	VCP339799	VCP322318	VCP255126
Sample Date	<b>27 Feb 2024</b>	11 Apr 2022	20 Sep 2021	21 Jan 2020
Machine Hours	<b>15532</b>	10745	7950	3734
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	N/A	Changed	Changed
Sample Status	<b>SEVERE</b>	ATTENTION	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 40°C	cSt	<b>44.4</b>	44.6	46.1	37.5
Acid Number (AN)	mg KOH/g	<b>0.54</b>	0.51	0.516	0.395

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		<b>▲ 27626</b>	● 9204	■ 570	■ 455
Particles >6µm		<b>▲ 10310</b>	● 1697	■ 165	■ 84
Particles >14µm		<b>▲ 1140</b>	■ 106	■ 25	■ 7
ISO 4406:1999 (c)		<b>22/21/17</b>	20/18/14	16/15/12	16/14/10
Silicon	ppm	<b>5</b>	3	4	2
Sodium	ppm	<b>4</b>	0	2	3
Potassium	ppm	<b>&lt;1</b>	2	0	<1

### WEAR METALS

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

### ADDITIVES

Calcium	ppm	<b>241</b>	263	391	39
Magnesium	ppm	<b>16</b>	47	92	0
Zinc	ppm	<b>426</b>	571	501	414
Phosphorus	ppm	<b>337</b>	439	435	340
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>8</b>	10	17	0

### Diagnosis

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

**Depot:** VOLVO1835  
**Unique No:** 10940530  
**Signed:** Wes Davis  
**Report Date:** 25 Mar 2024

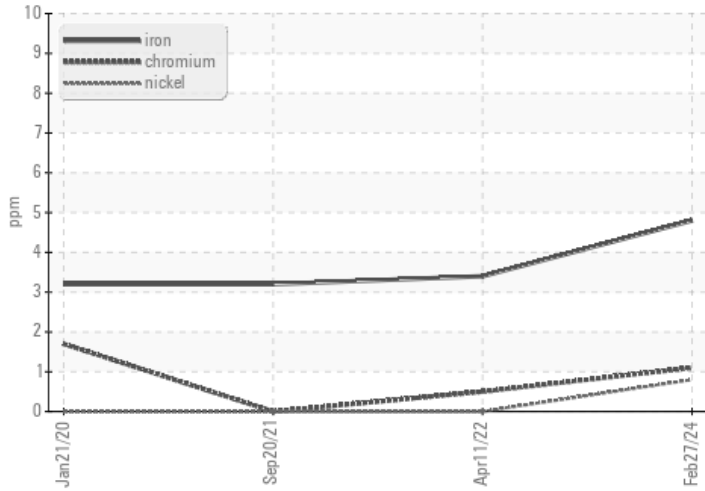


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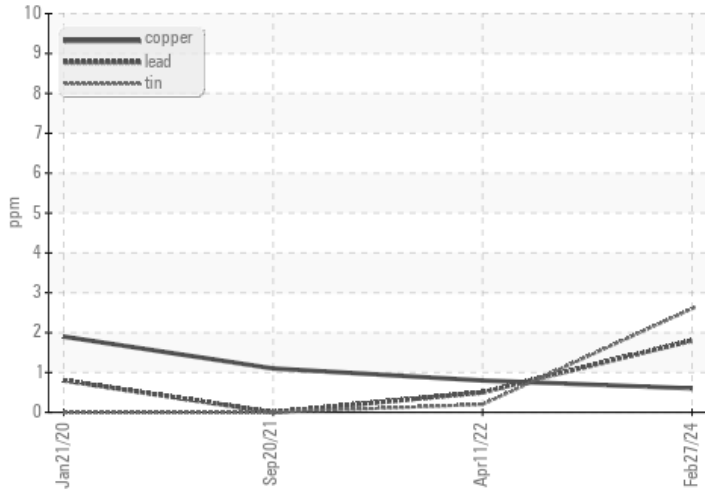


## GRAPHS

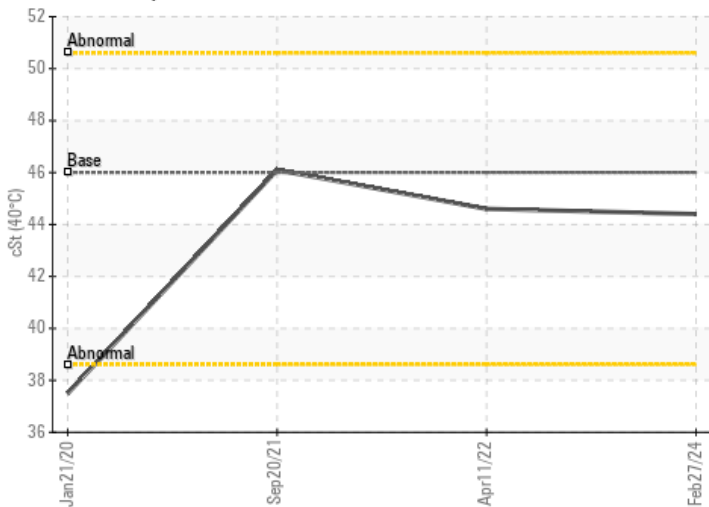
### Ferrous Alloys



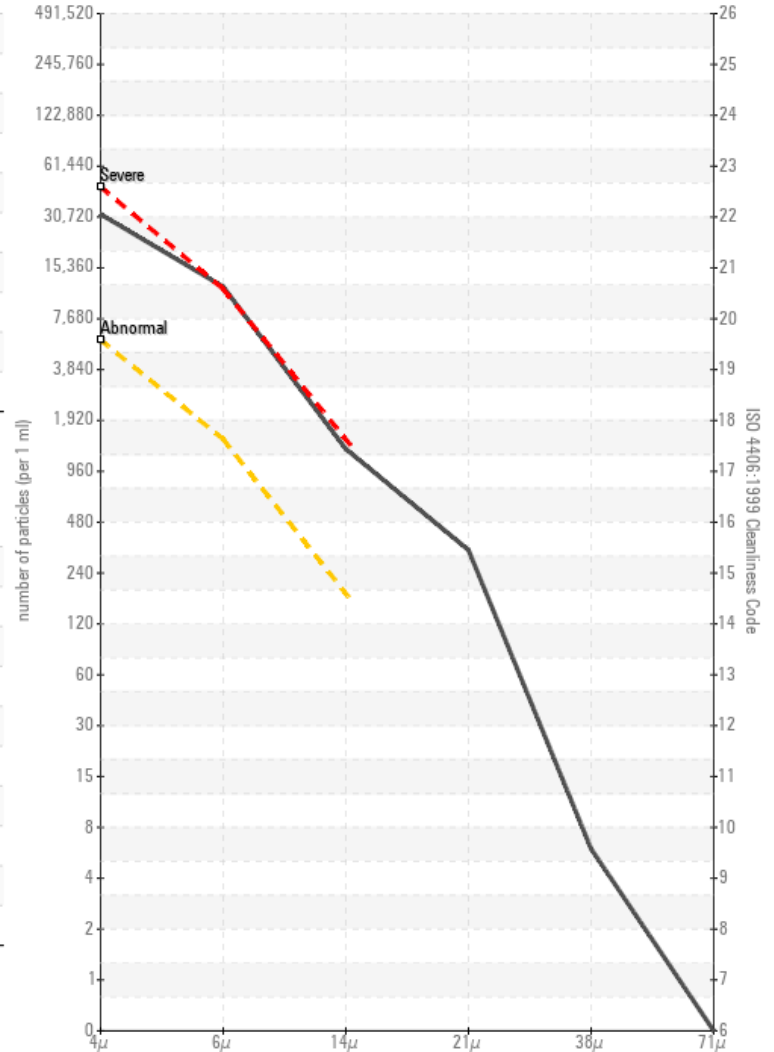
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

