



# CONSTRUCTION EQUIPMENT

W14889 VOLVO L220H 2820 - HYDRAULIC SYSTEM



**Sample No:** VCP380821  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** W14889



## SAMPLE INFORMATION

Sample Number	<b>VCP380821</b>	VCP510539	VCP426831	VCP382404
Sample Date	<b>31 Oct 2023</b>	15 Aug 2023	31 May 2023	07 Dec 2022
Machine Hours	<b>9548</b>	9046	8553	8016
Oil Hours	<b>500</b>	1000	500	4000
Oil Changed	<b>Not Chngd</b>	Not Chngd	Not Chngd	Changed
Sample Status	<b>ABNORMAL</b>	ATTENTION	ATTENTION	ABNORMAL

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## OIL CONDITION

Visc @ 40°C	cSt	<b>41.9</b>	42.0	42.5	40.1
Acid Number (AN)	mg KOH/g	<b>0.39</b>	0.32	0.30	0.35



## CONTAMINATION

Particles >4µm		<b>20756</b>	2939	8748	31562
Particles >6µm		<b>7214</b>	1078	2485	11398
Particles >14µm		<b>633</b>	195	118	987
ISO 4406:1999 (c)		<b>22/20/16</b>	19/17/15	20/18/14	22/21/17
Silicon	ppm	<b>3</b>	4	2	4
Sodium	ppm	<b>1</b>	2	<1	0
Potassium	ppm	<b>0</b>	<1	0	1

## Diagnosis

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate 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.



## WEAR METALS

Iron	ppm	<b>4</b>	6	5	10
Copper	ppm	<b>&lt;1</b>	1	0	2
Lead	ppm	<b>0</b>	<1	0	<1
Tin	ppm	<b>0</b>	0	0	0
Aluminum	ppm	<b>0</b>	0	0	<1
Chromium	ppm	<b>1</b>	2	1	2
Molybdenum	ppm	<b>&lt;1</b>	2	2	3
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	0	0	0
Vanadium	ppm	<b>0</b>	0	0	0



## ADDITIVES

Calcium	ppm	<b>130</b>	124	133	226
Magnesium	ppm	<b>8</b>	7	9	11
Zinc	ppm	<b>449</b>	484	487	489
Phosphorus	ppm	<b>353</b>	361	374	368
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>1</b>	<1	<1	6

**Depot:** VOLVO0080  
**Unique No:** 10728159  
**Signed:** Wes Davis  
**Report Date:** 07 Nov 2023

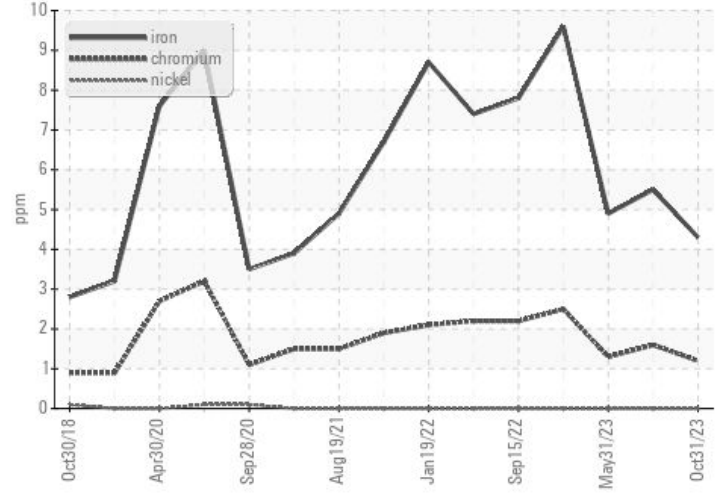


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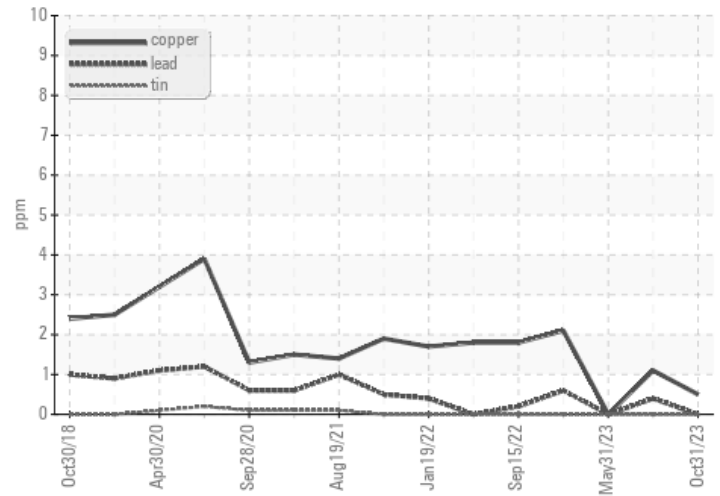


## GRAPHS

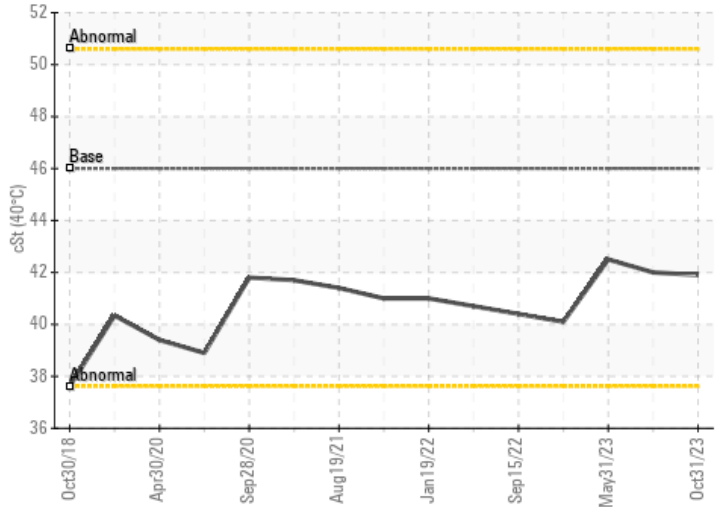
Ferrous Alloys



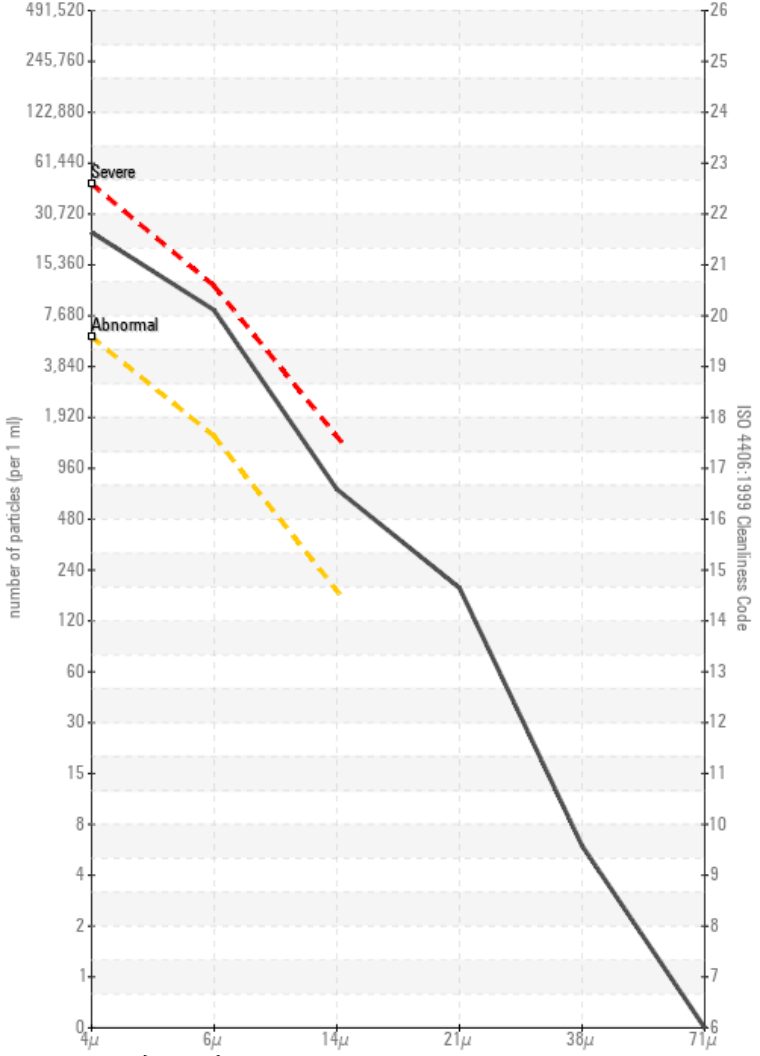
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

