



CONSTRUCTION EQUIPMENT

SWA392504-10 VOLVO L90F 68122 - HYDRAULIC SYSTEM



Sample No: VCP431199
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: SWA392504-10



SAMPLE INFORMATION

Sample Number	VCP431199	VCP359498	VCP345125	VCP317584
Sample Date	20 Oct 2023	15 Mar 2022	07 Dec 2021	14 Oct 2021
Machine Hours	22060	25099	24475	20556
Oil Hours	0	0	0	0
Oil Changed	N/A	Not Changd	Not Changd	N/A
Sample Status	SEVERE	ATTENTION	NORMAL	NORMAL

EISS BROTHERS
 28250 NEW YORK 37
 WATERTOWN, NY
 US 13601
 Contact: SERVICE MANAGER

OIL CONDITION

Visc @ 40°C	cSt	38.8	36.7	38.7	38.5
Acid Number (AN)	mg KOH/g	0.86	0.30	0.257	0.182

T: (315)629-4370
 F:

CONTAMINATION

Particles >4µm		82181	10034	5387	7579
Particles >6µm		26599	1621	1272	1558
Particles >14µm		1664	106	72	48
ISO 4406:1999 (c)		24/22/18	21/18/14	20/17/13	20/18/13
Silicon	ppm	4	7	5	5
Sodium	ppm	2	0	0	<1
Potassium	ppm	1	1	0	0

Diagnosis

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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 system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code. 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	1	3	3	2
Copper	ppm	<1	1	<1	<1
Lead	ppm	0	0	0	0
Tin	ppm	0	0	0	0
Aluminum	ppm	<1	2	<1	<1
Chromium	ppm	<1	2	2	2
Molybdenum	ppm	0	<1	<1	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	0	0	0
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	53	70	66	66
Magnesium	ppm	2	2	<1	<1
Zinc	ppm	408	410	371	373
Phosphorus	ppm	314	324	300	307
Barium	ppm	0	0	0	0
Boron	ppm	<1	<1	2	0

Depot: EISWAT
Unique No: 10723878
Signed: Wes Davis
Report Date: 02 Nov 2023

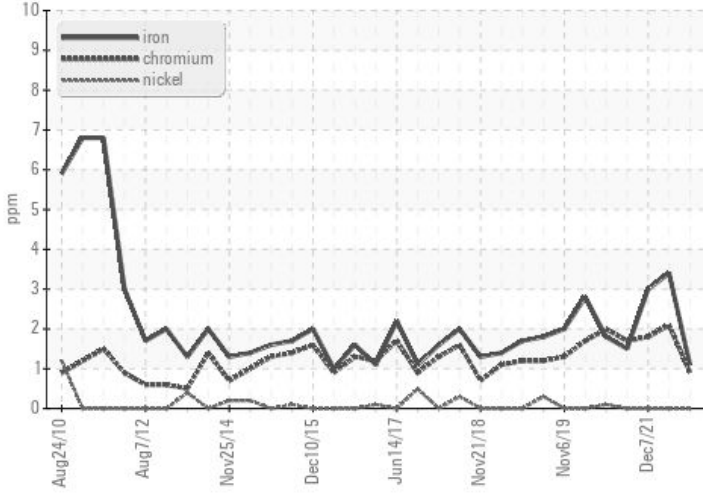


CONSTRUCTION EQUIPMENT

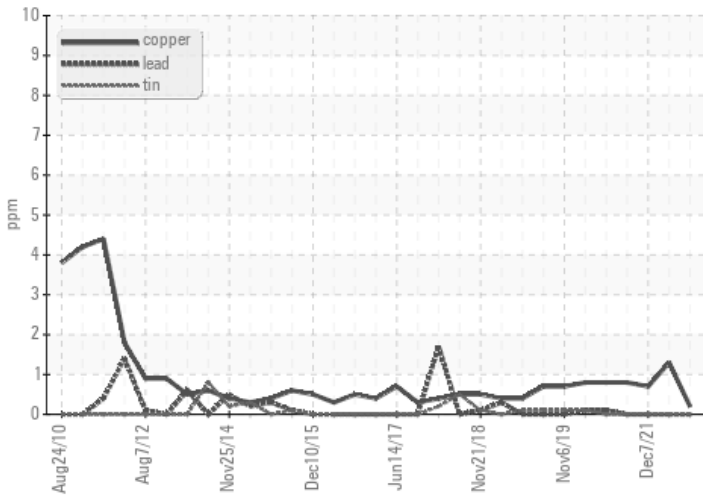


GRAPHS

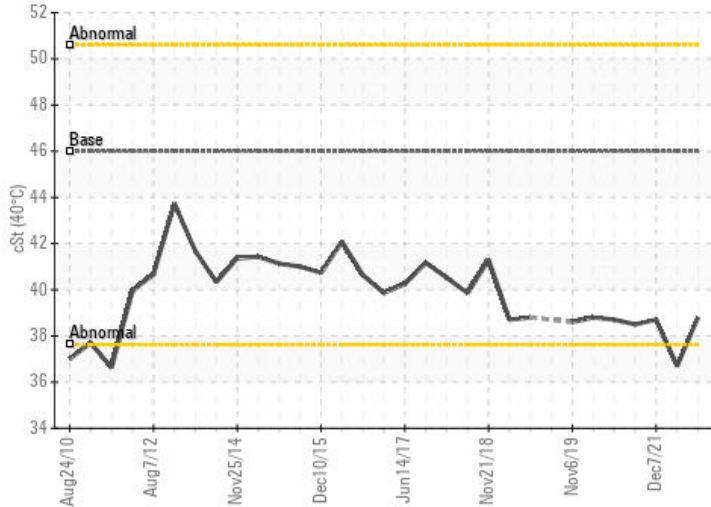
Ferrous Alloys



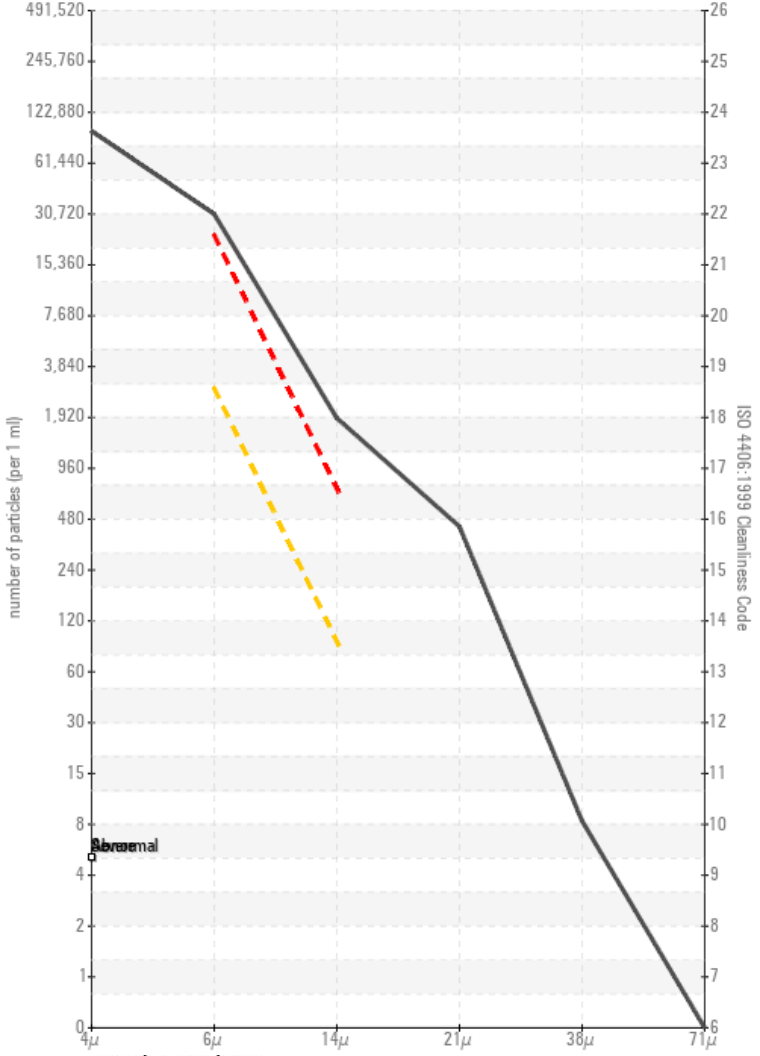
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

