



CONSTRUCTION EQUIPMENT

VOLVO L110H 631237 - HYDRAULIC SYSTEM



Sample No: VCP414663
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP414663	VCP388242	VCP332851	VCP300046
Sample Date	06 Sep 2023	02 Nov 2022	03 Mar 2022	25 Jan 2021
Machine Hours	9867	8131	7211	6064
Oil Hours	0	4000	3200	2000
Oil Changed	Not Changd	Changed	Not Changd	Not Changd
Sample Status	SEVERE	NORMAL	NORMAL	NORMAL

RIPA AND ASSOCIATES
 10149 FISHER AVENUE
 TAMPA, FL
 US 33619
 Contact: PM Services
 PMServices@ripaconstruction.com
 T:
 F:

OIL CONDITION

Visc @ 40°C	cSt	█ 41.4	█ 39.5	█ 39.9	█ 44.1
Acid Number (AN)	mg KOH/g	█ 0.37	█ 0.35	█ 0.29	█ 0.342

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		33798	855	1991	12434
Particles >6µm		▲ 12328	█ 162	█ 353	█ 641
Particles >14µm		▲ 1700	█ 18	█ 30	█ 17
ISO 4406:1999 (c)		22/21/18	17/15/11	18/16/12	21/17/11
Silicon	ppm	█ 7	█ 11	█ 12	█ 12
Sodium	ppm	█ 0	█ 2	█ <1	█ 0
Potassium	ppm	█ <1	█ 0	█ 1	█ <1

WEAR METALS

Iron	ppm	█ 8	█ 12	█ 11	█ 10
Copper	ppm	█ 3	█ 3	█ 4	█ 4
Lead	ppm	█ 2	█ 3	█ 3	█ 2
Tin	ppm	█ <1	█ <1	█ <1	█ <1
Aluminum	ppm	█ 0	█ 2	█ 2	█ <1
Chromium	ppm	█ 2	█ 3	█ 2	█ 2
Molybdenum	ppm	█ 11	█ 2	█ 3	█ 3
Nickel	ppm	█ <1	█ 0	█ 0	█ 0
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	█ 0	█ 0	█ 0	█ <1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	█ 120	█ 93	█ 102	█ 133
Magnesium	ppm	█ 25	█ 10	█ 12	█ 13
Zinc	ppm	█ 452	█ 371	█ 418	█ 434
Phosphorus	ppm	█ 334	█ 309	█ 313	█ 328
Barium	ppm	█ 0	█ 0	█ 0	█ 0
Boron	ppm	█ 4	█ 3	█ 3	█ 3

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 AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Depot: RIPTAM
Unique No: 10683340
Signed: Wes Davis
Report Date: 09 Oct 2023

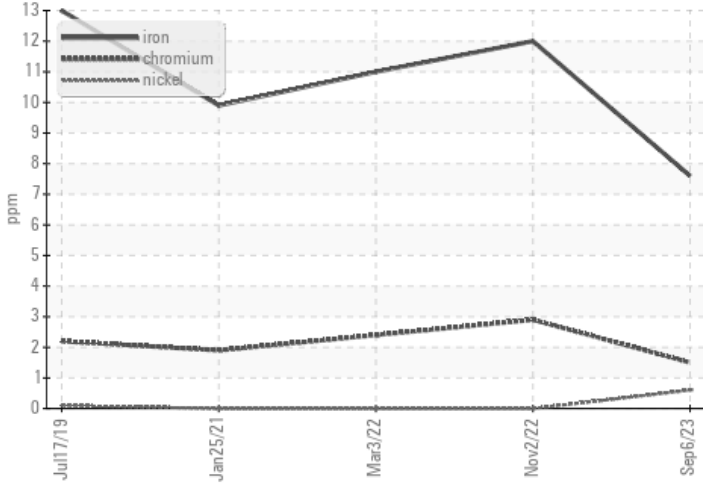


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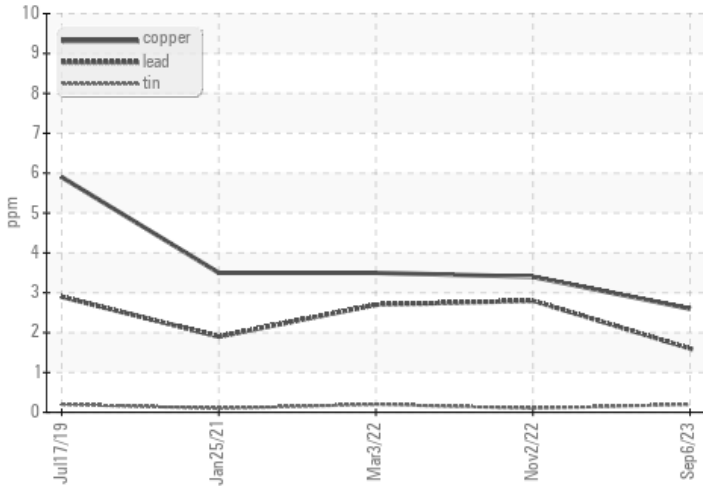


GRAPHS

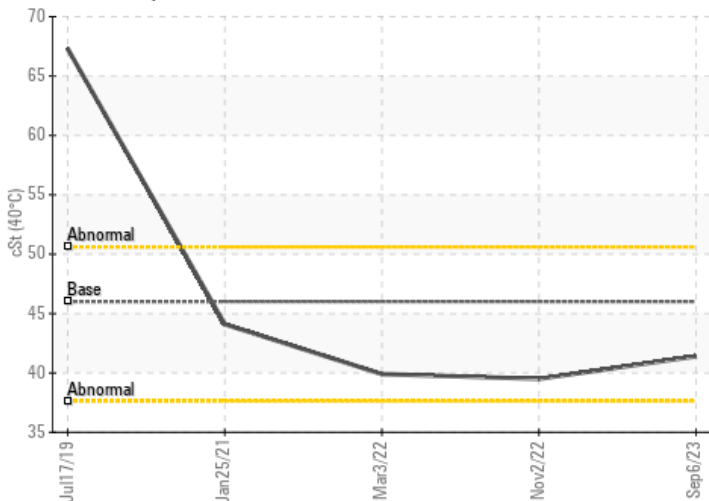
Ferrous Alloys



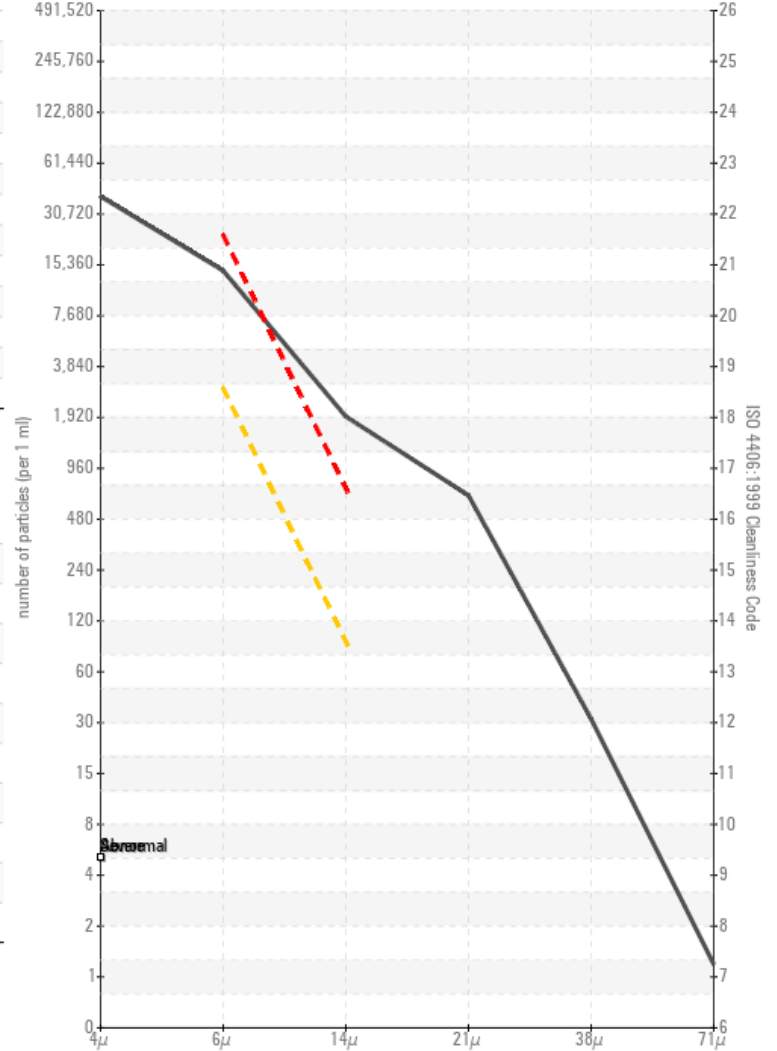
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

