



CONSTRUCTION EQUIPMENT

VOLVO L110H 631237 - HYDRAULIC SYSTEM



Sample No: VCP444060
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP444060	VCP414663	VCP388242	VCP332851
Sample Date	22 Apr 2024	06 Sep 2023	02 Nov 2022	03 Mar 2022
Machine Hours	10498	9867	8131	7211
Oil Hours	0	0	4000	3200
Oil Changed	Not Chngd	Not Chngd	Changed	Not Chngd
Sample Status	NORMAL	SEVERE	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	43.2	41.4	39.5	39.9
Acid Number (AN)	mg KOH/g	0.40	0.37	0.35	0.29



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		12262	33798	855	1991
Particles >6µm		789	12328	162	353
Particles >14µm		19	1700	18	30
ISO 4406:1999 (c)		21/17/11	22/21/18	17/15/11	18/16/12
Silicon	ppm	5	7	11	12
Sodium	ppm	2	0	2	<1
Potassium	ppm	0	<1	0	1

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



WEAR METALS

Iron	ppm	5	8	12	11
Copper	ppm	<1	3	3	4
Lead	ppm	<1	2	3	3
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	0	0	2	2
Chromium	ppm	1	2	3	2
Molybdenum	ppm	7	11	2	3
Nickel	ppm	0	<1	0	0
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	0	0	0
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	117	120	93	102
Magnesium	ppm	25	25	10	12
Zinc	ppm	444	452	371	418
Phosphorus	ppm	365	334	309	313
Barium	ppm	1	0	0	0
Boron	ppm	3	4	3	3

Depot: RIPTAM
Unique No: 11029966
Signed: Wes Davis
Report Date: 15 May 2024

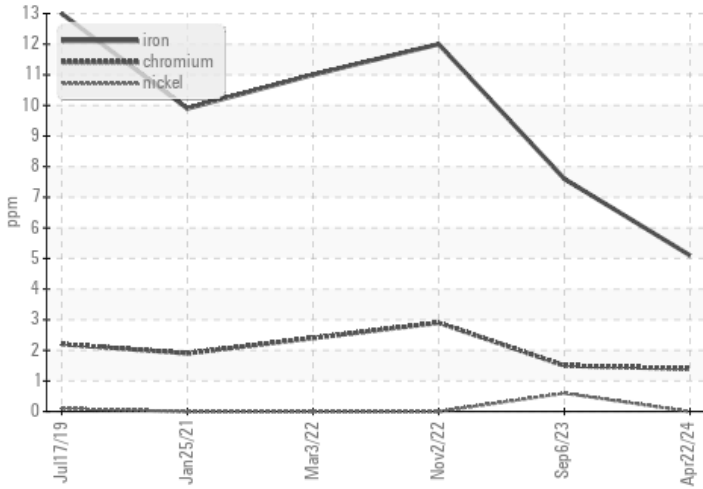


CONSTRUCTION EQUIPMENT

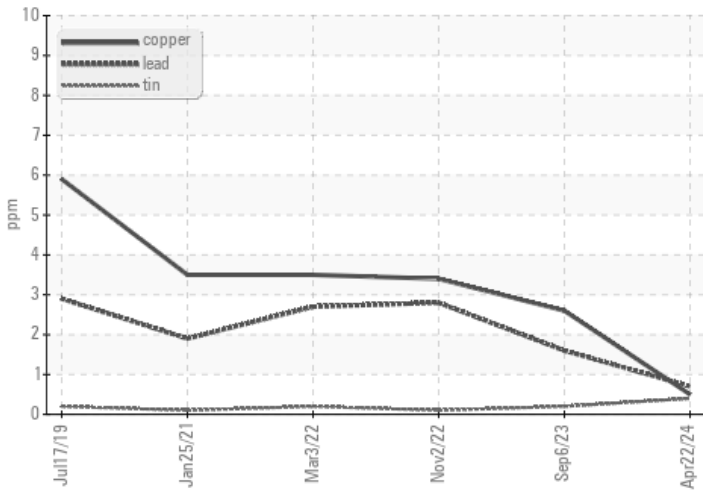


GRAPHS

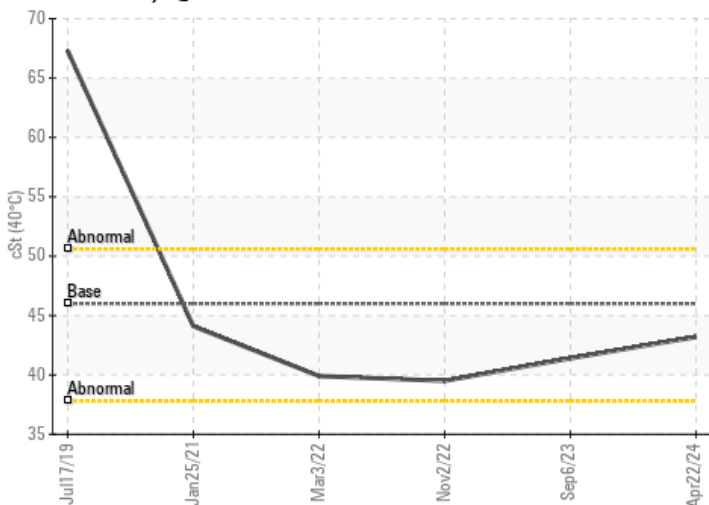
Ferrous Alloys



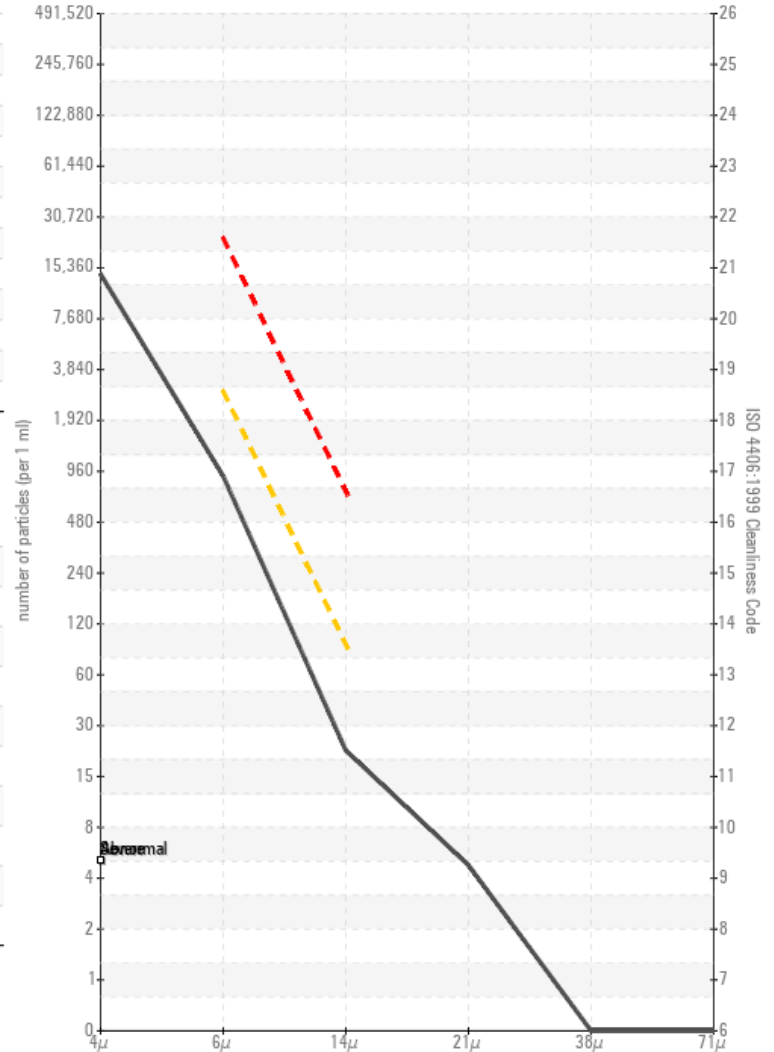
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

