



CONSTRUCTION EQUIPMENT

VOLVO L110H 631123 - HYDRAULIC SYSTEM



Sample No: VCP431769
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP431769	VCP410372	VCP367280	VCP284881
Sample Date	06 Oct 2023	11 Apr 2023	09 Sep 2022	07 Aug 2020
Machine Hours	8299	7290	6136	4074
Oil Hours	0	3290	500	4074
Oil Changed	N/A	Not Changd	Not Changd	Changed
Sample Status	ABNORMAL	ABNORMAL	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	55.0	49.26	44.9	40.8
Acid Number (AN)	mg KOH/g	0.897	0.48	0.37	0.367



CONTAMINATION

Particles >4µm	45386	13334	3114	3661	
Particles >6µm	14021	3807	449	657	
Particles >14µm	974	345	14	49	
ISO 4406:1999 (c)	23/21/17	21/19/16	19/16/11	19/17/13	
Silicon	ppm	44	1	2	4
Sodium	ppm	2	0	1	2
Potassium	ppm	<1	<1	0	6

Diagnosis

We advise that you check all areas where dirt can enter the system. We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal. Confirm oil type. The AN level is acceptable for this fluid.



WEAR METALS

Iron	ppm	4	3	4	6
Copper	ppm	2	2	4	6
Lead	ppm	<1	<1	2	6
Tin	ppm	0	0	0	0
Aluminum	ppm	1	0	1	1
Chromium	ppm	<1	0	<1	2
Molybdenum	ppm	3	1	<1	0
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	0	0	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	213	122	58	54
Magnesium	ppm	25	13	2	2
Zinc	ppm	418	429	393	411
Phosphorus	ppm	340	337	328	324
Barium	ppm	0	0	0	0
Boron	ppm	6	<1	0	0

Depot: RIPTAM
Unique No: 10723872
Signed: Don Baldrige
Report Date: 03 Nov 2023

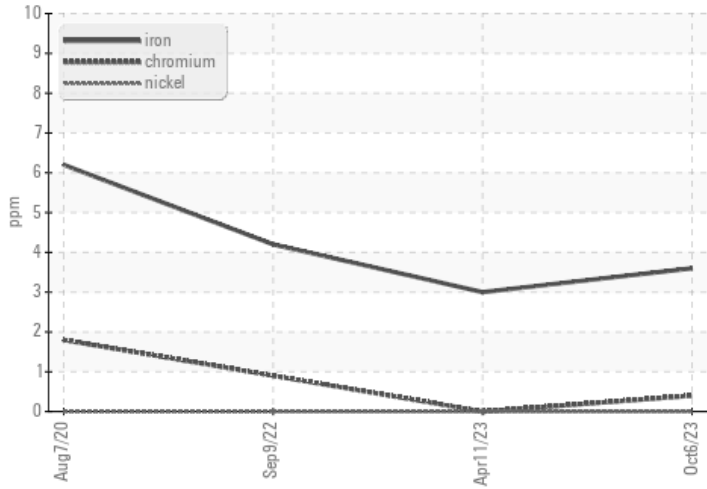


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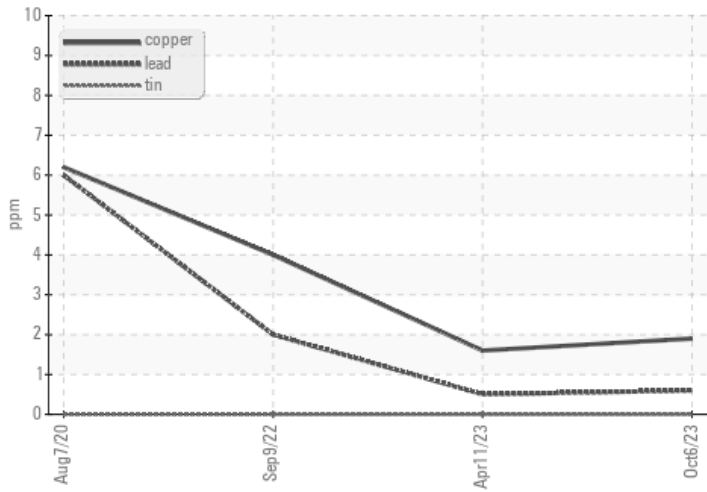


GRAPHS

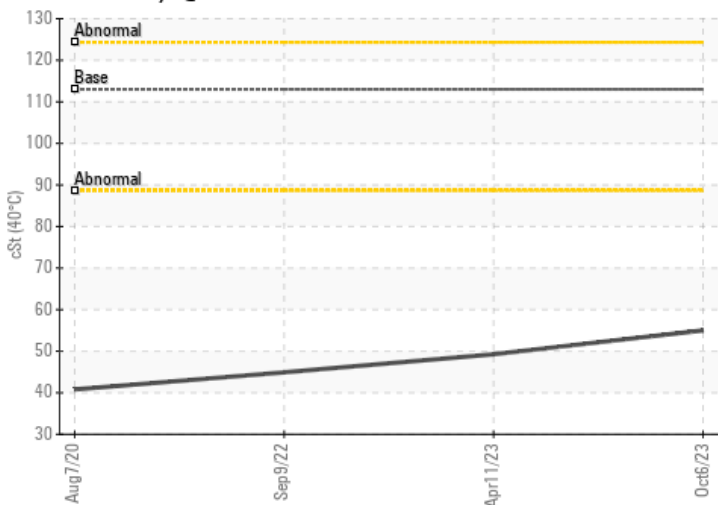
Ferrous Alloys



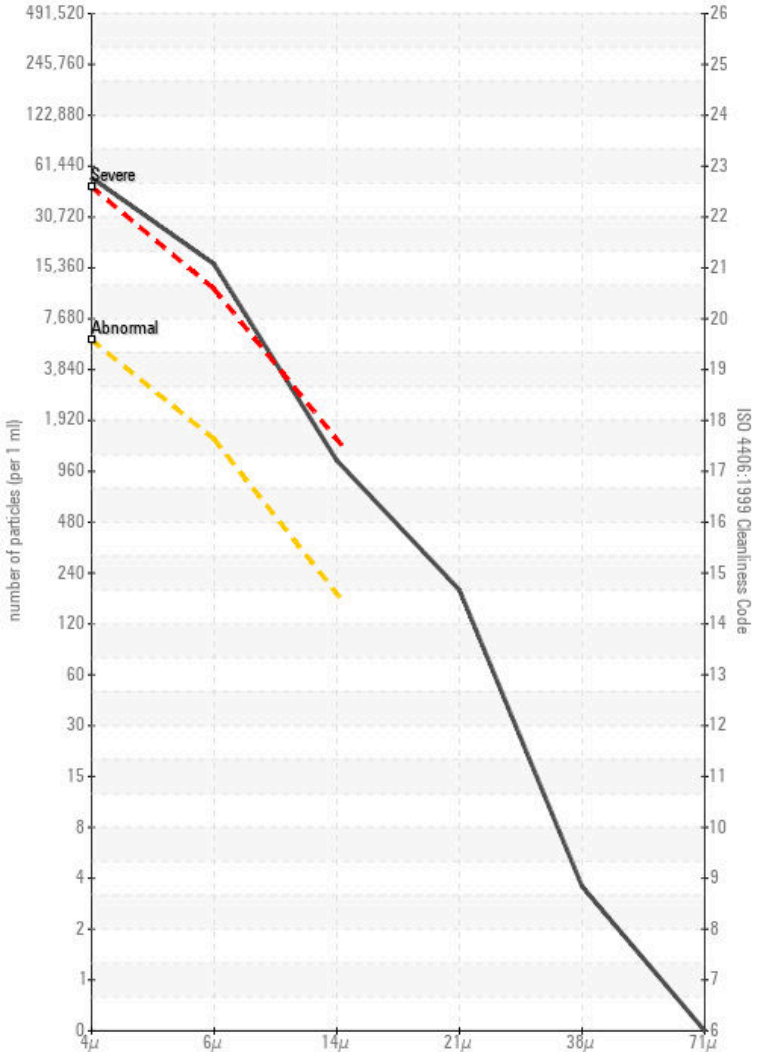
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

