



CONSTRUCTION EQUIPMENT

SWA316463-10 VOLVO L220F 6214 - HYDRAULIC SYSTEM



Sample No: VCP418948
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: SWA316463-10



SAMPLE INFORMATION

Sample Number	VCP418948	VCP328198	VCP322957	VCP303877
Sample Date	03 Aug 2023	12 Oct 2021	03 Aug 2021	19 May 2021
Machine Hours	34165	33000	32500	32000
Oil Hours	0	3000	0	2000
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	ABNORMAL	NORMAL	ATTENTION	ABNORMAL

WHEELABRATOR
 1 CHARLES POINT AVE
 PEEKSKILL, NY
 US 10566
 Contact: Service Manager

OIL CONDITION

Visc @ 40°C	cSt	46.6	44.7	44.7	45.0
Acid Number (AN)	mg KOH/g	0.52	0.549	0.511	0.642

T:
F:

CONTAMINATION

Particles >4µm		17981	4367	6291	---
Particles >6µm		4203	520	1111	---
Particles >14µm		242	42	96	---
ISO 4406:1999 (c)		21/19/15	19/16/13	20/17/14	---
Silicon	ppm	3	4	4	4
Sodium	ppm	<1	2	2	2
Potassium	ppm	0	0	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	2	5	5	5
Copper	ppm	<1	2	2	2
Lead	ppm	0	0	<1	<1
Tin	ppm	0	<1	0	<1
Aluminum	ppm	<1	<1	0	0
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	6	9	9	10
Nickel	ppm	0	0	0	0
Titanium	ppm	0	<1	0	<1
Silver	ppm	0	<1	0	0
Manganese	ppm	<1	<1	0	<1
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	324	653	711	680
Magnesium	ppm	56	51	56	58
Zinc	ppm	507	575	607	622
Phosphorus	ppm	419	479	466	469
Barium	ppm	0	0	0	0
Boron	ppm	15	47	95	64

Depot: WHEPEE
Unique No: 10617364
Signed: Wes Davis
Report Date: 24 Aug 2023

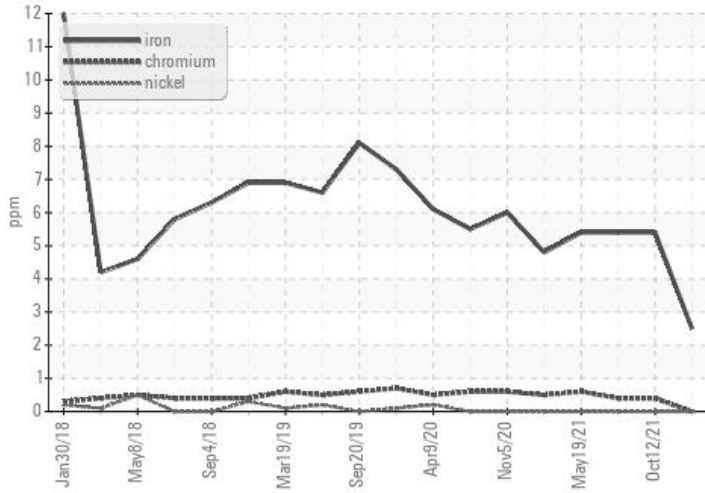


CONSTRUCTION EQUIPMENT

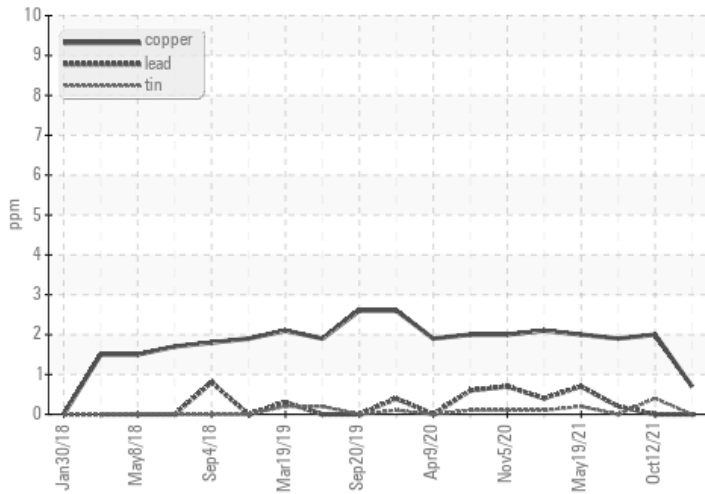


GRAPHS

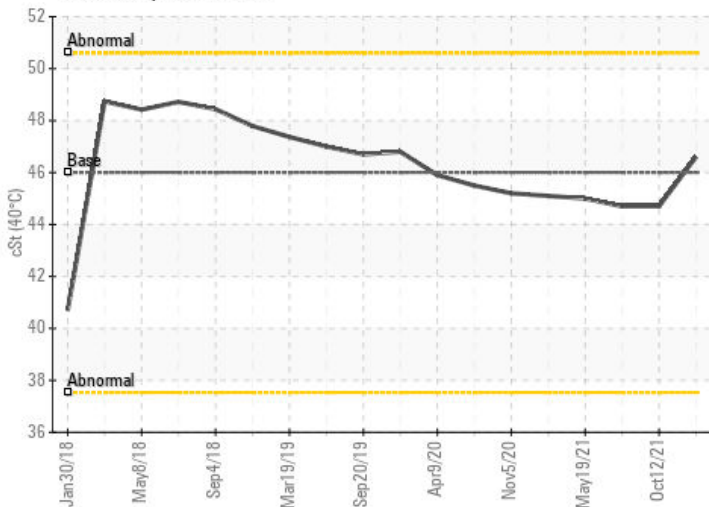
Ferrous Alloys



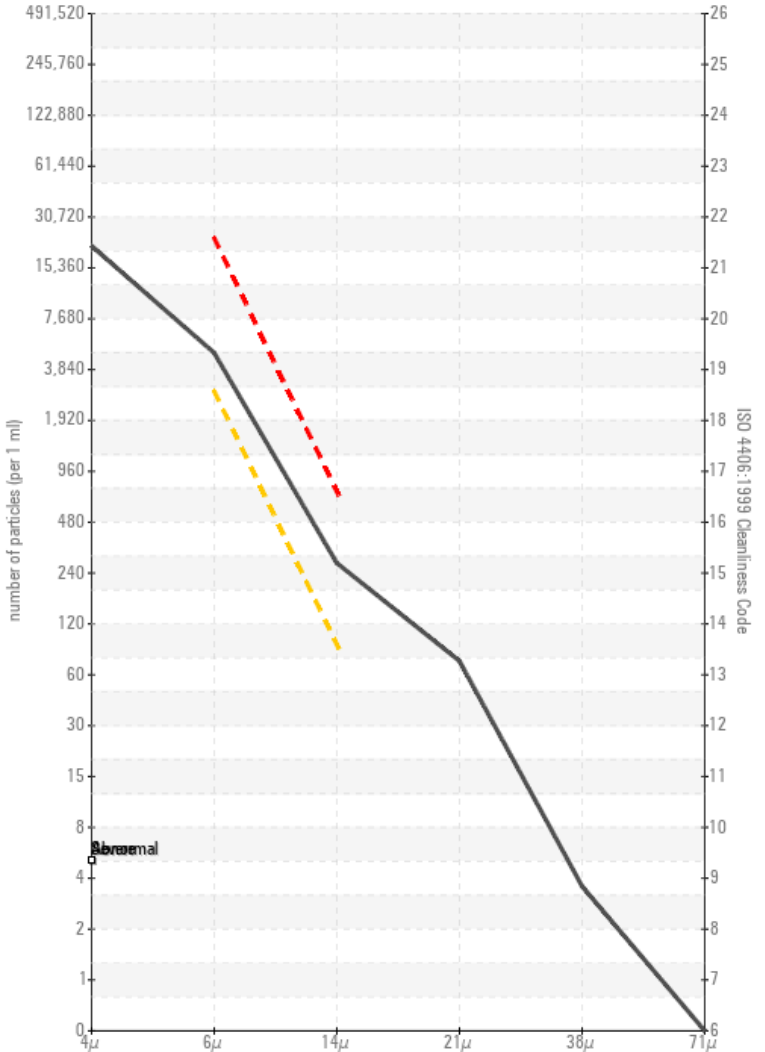
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

