



CONSTRUCTION EQUIPMENT

216445 VOLVO L220H 3 193 - HYDRAULIC SYSTEM



Sample No: VCP342776
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 216445



SAMPLE INFORMATION

Sample Number	VCP342776	VCP321792	VCP269175	VCP267656
Sample Date	20 Jan 2022	22 Jul 2021	14 Jul 2020	22 May 2020
Machine Hours	6018	4950	2646	2289
Oil Hours	0	4950	2646	2289
Oil Changed	Not Chngd	Changed	Not Chngd	Not Chngd
Sample Status	ABNORMAL	ABNORMAL	ATTENTION	ATTENTION

CALLANAN
 RT 32 677 FLATBUSH RD
 EAST KINGSTON, NY
 US 12401
 Contact:

OIL CONDITION

Visc @ 40°C	cSt	39.9	37.4	37.6	37.71
Acid Number (AN)	mg KOH/g	0.35	0.331	0.389	0.380

T:
F:

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		▲ 63243	---	■ 2044	■ 1447
Particles >6µm		▲ 8421	---	■ 166	■ 146
Particles >14µm		▲ 375	---	■ 18	■ 11
ISO 4406:1999 (c)		23/20/16	---	18/15/11	18/14/11
Silicon	ppm	■ 4	■ 4	■ 3	■ 0
Sodium	ppm	■ 2	■ 1	■ <1	■ 0
Potassium	ppm	■ 0	■ <1	■ <1	■ 0

Diagnosis

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. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

WEAR METALS

Iron	ppm	■ 8	■ 8	■ 4	■ 2
Copper	ppm	■ 3	■ 6	■ 5	■ 5
Lead	ppm	■ <1	■ 2	■ 1	■ 1
Tin	ppm	■ <1	■ <1	■ 0	■ <1
Aluminum	ppm	■ 1	■ 2	■ <1	■ 0
Chromium	ppm	■ 1	■ 3	■ 1	■ 1
Molybdenum	ppm	■ <1	■ <1	■ 0	■ 0
Nickel	ppm	■ 0	■ 0	■ <1	■ 0
Titanium	ppm	0	0	0	0
Silver	ppm	<1	0	0	<1
Manganese	ppm	■ <1	■ <1	■ <1	■ 0
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	■ 464	■ 72	■ 57	■ 59
Magnesium	ppm	■ 4	■ <1	■ <1	■ <1
Zinc	ppm	■ 544	■ 425	■ 378	■ 434
Phosphorus	ppm	■ 424	■ 325	■ 315	■ 343
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 17	■ 2	■ 1	■ 1

Depot: CALEAS
Unique No: 9825507
Signed: Don Baldrige
Report Date: 26 Jan 2022

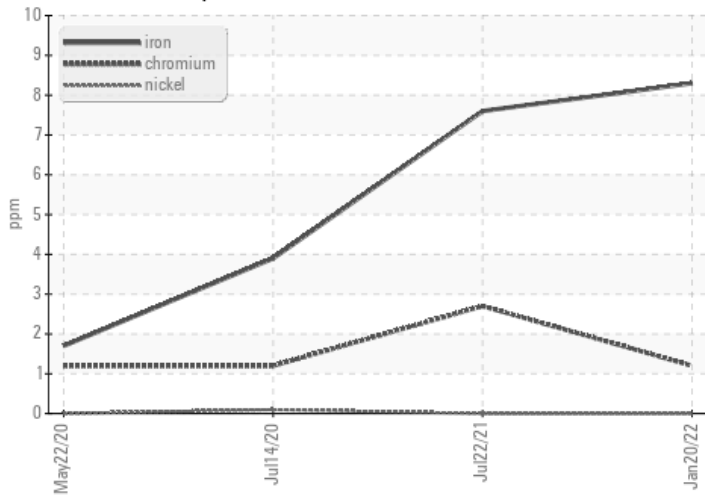


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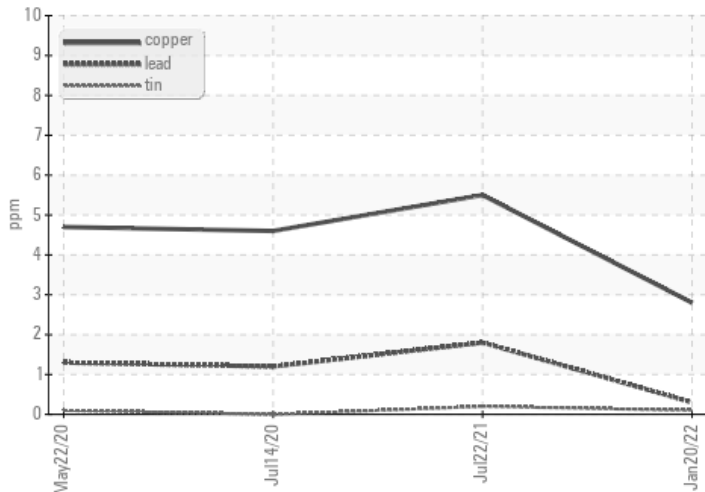


GRAPHS

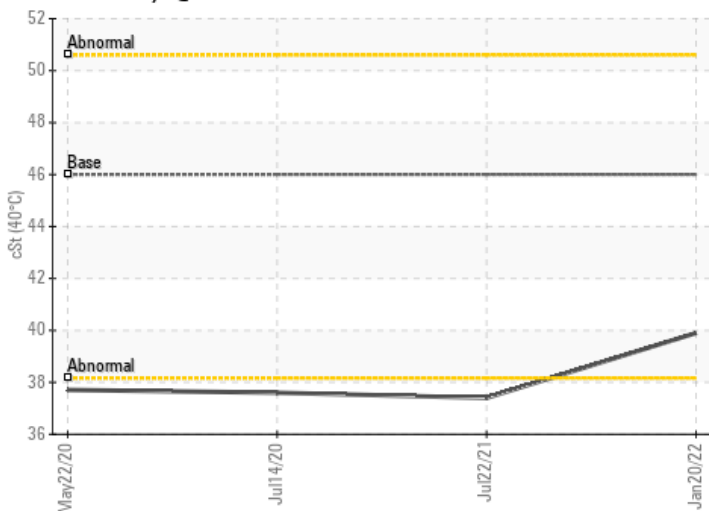
Ferrous Alloys



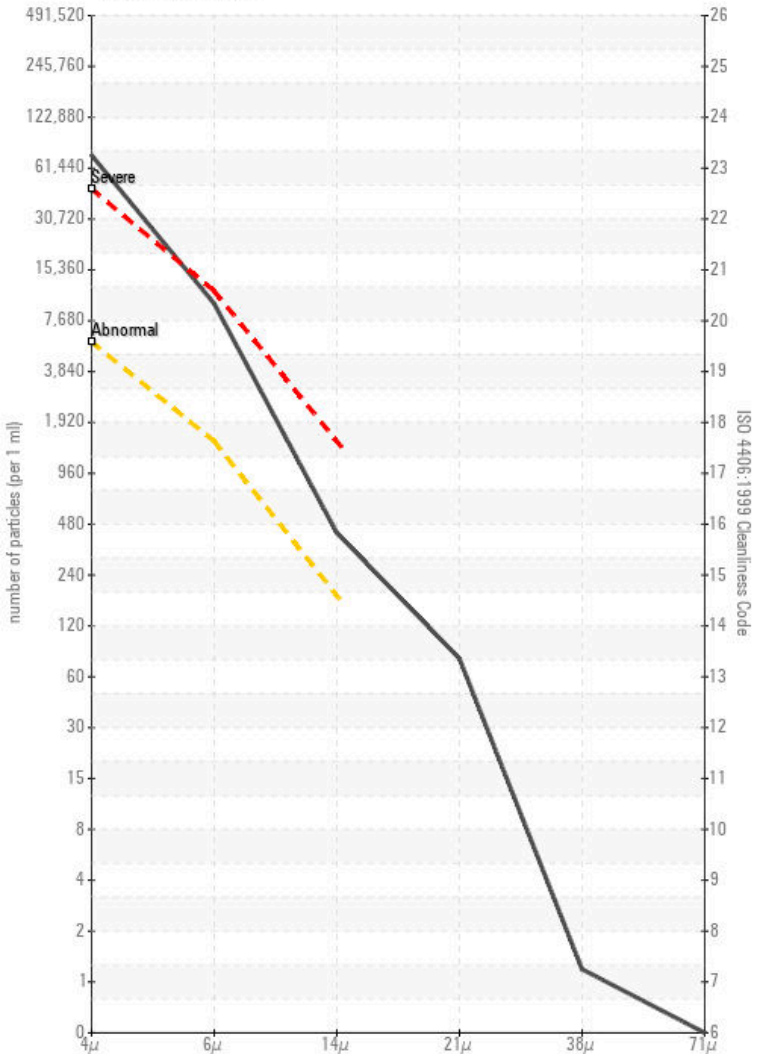
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

