



CONSTRUCTION EQUIPMENT

688274 VOLVO EC220E 314134 - HYDRAULIC SYSTEM



Sample No: VCP455398
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 688274



SAMPLE INFORMATION

Sample Number	VCP455398	VCP435647	VCP418343	VCP417240
Sample Date	18 Mar 2024	21 Dec 2023	12 Sep 2023	21 Jun 2023
Machine Hours	8240	7771	7093	6525
Oil Hours	0	0	0	0
Oil Changed	Changed	Not Changd	Not Changd	Not Changd
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ATTENTION

ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC
 8418 PALM RIVER ROAD
 TAMPA, FL
 US 33619
 Contact: KENNY HANEY
 khaney@flaglerce.com
 T: (813)630-0077
 F: (813)630-2233



OIL CONDITION

Visc @ 40°C	cSt	45.1	45.0	45.0	45.1
Acid Number (AN)	mg KOH/g	0.53	0.69	0.39	0.38



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		22150	270381	28493	7367
Particles >6µm		964	97329	3181	1563
Particles >14µm		52	867	23	94
ISO 4406:1999 (c)		22/17/13	25/24/17	22/19/12	20/18/14
Silicon	ppm	5	6	6	5
Sodium	ppm	4	5	4	2
Potassium	ppm	2	2	0	<1

Diagnosis

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 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	17	21	17	15
Copper	ppm	34	36	29	26
Lead	ppm	0	0	0	0
Tin	ppm	<1	0	0	0
Aluminum	ppm	1	1	0	1
Chromium	ppm	0	0	<1	<1
Molybdenum	ppm	1	<1	1	2
Nickel	ppm	<1	0	0	0
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	107	77	91	87
Magnesium	ppm	15	0	15	10
Zinc	ppm	410	370	376	402
Phosphorus	ppm	331	296	302	337
Barium	ppm	0	0	0	0
Boron	ppm	2	0	0	0

Depot: VOLVO0093
Unique No: 10941175
Signed: Wes Davis
Report Date: 26 Mar 2024

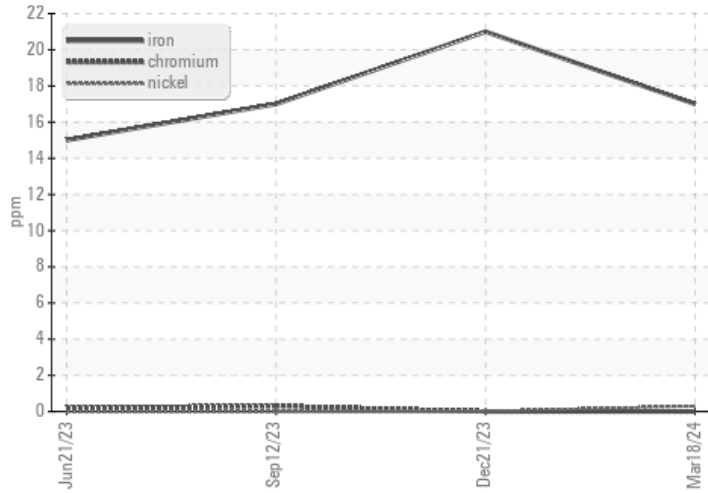


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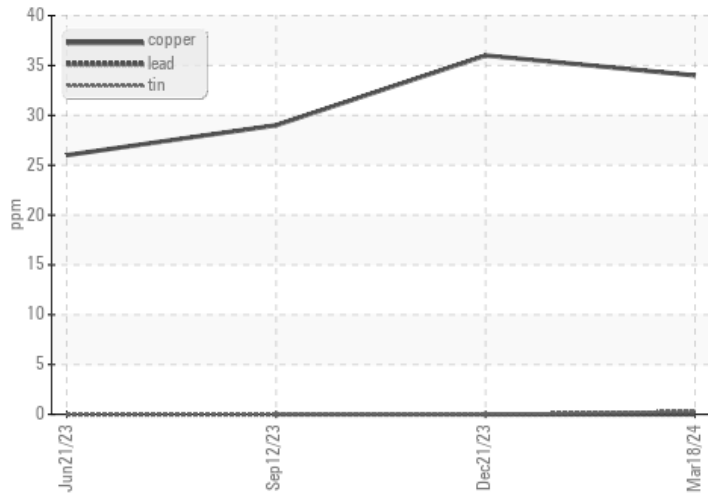


GRAPHS

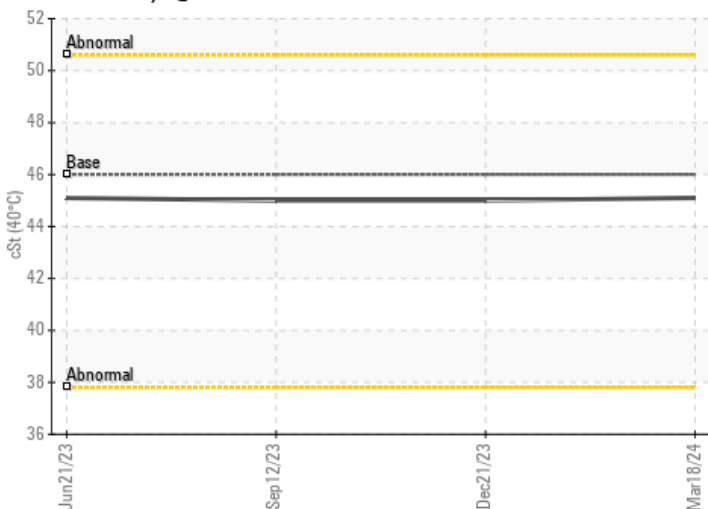
Ferrous Alloys



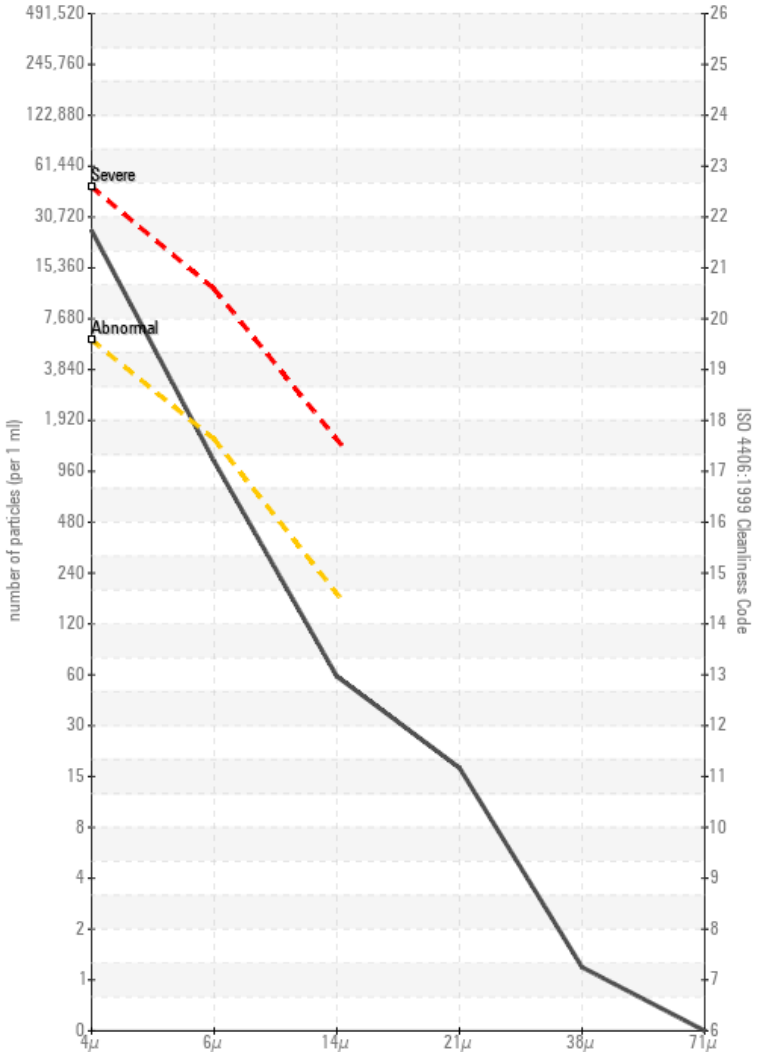
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

