



CONSTRUCTION EQUIPMENT

SWA404611-10 VOLVO EW180E 322003 - HYDRAULIC SYSTEM



Sample No: VCP430849
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: SWA404611-10



SAMPLE INFORMATION

Sample Number	VCP430849	VCP401272	VCP330861	VCP317755
Sample Date	29 Nov 2023	21 Feb 2023	01 Apr 2022	13 Jul 2021
Machine Hours	3015	2525	2006	1591
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

ALTA EQUIPMENT

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 SYRACUSE, NY
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OIL CONDITION

Visc @ 40°C	cSt	39.8	41.5	39.8	40.2
Acid Number (AN)	mg KOH/g	0.68	0.61	0.63	0.591



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		▲ 136114	13234	12448	26400
Particles >6µm		▲ 44395	3485	2073	6764
Particles >14µm		■ 2013	113	137	342
ISO 4406:1999 (c)		24/23/18	21/19/14	21/18/14	22/20/16
Silicon	ppm	■ 7	8	3	7
Sodium	ppm	■ 3	0	1	1
Potassium	ppm	■ 0	<1	<1	<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	■ 8	6	5	5
Copper	ppm	■ 15	15	12	12
Lead	ppm	■ <1	2	2	2
Tin	ppm	■ 0	0	<1	<1
Aluminum	ppm	■ <1	<1	<1	0
Chromium	ppm	■ <1	<1	<1	<1
Molybdenum	ppm	■ 0	<1	<1	<1
Nickel	ppm	■ 0	0	0	<1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	■ <1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 290	128	135	132
Magnesium	ppm	■ 2	0	1	1
Zinc	ppm	■ 658	679	650	679
Phosphorus	ppm	■ 491	493	517	498
Barium	ppm	■ 0	0	0	0
Boron	ppm	■ 0	0	1	<1

Depot: VOLV00142
Unique No: 10769614
Signed: Wes Davis
Report Date: 06 Dec 2023

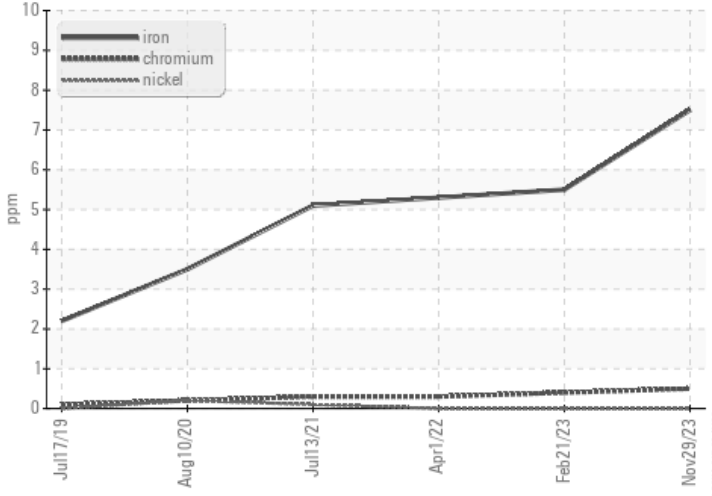


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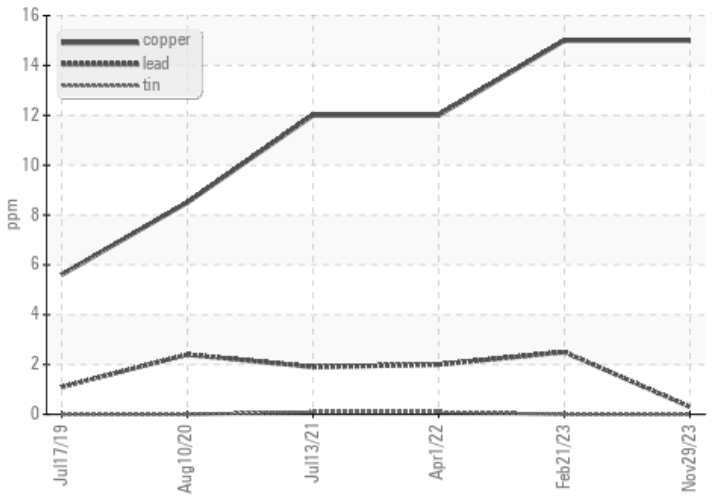


GRAPHS

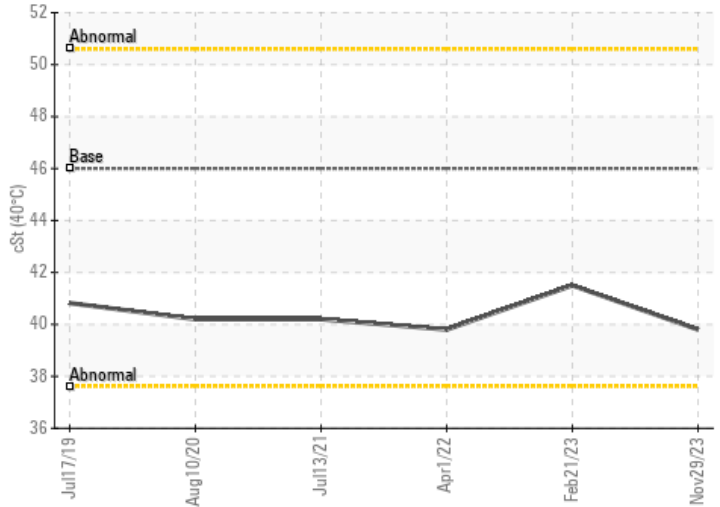
Ferrous Alloys



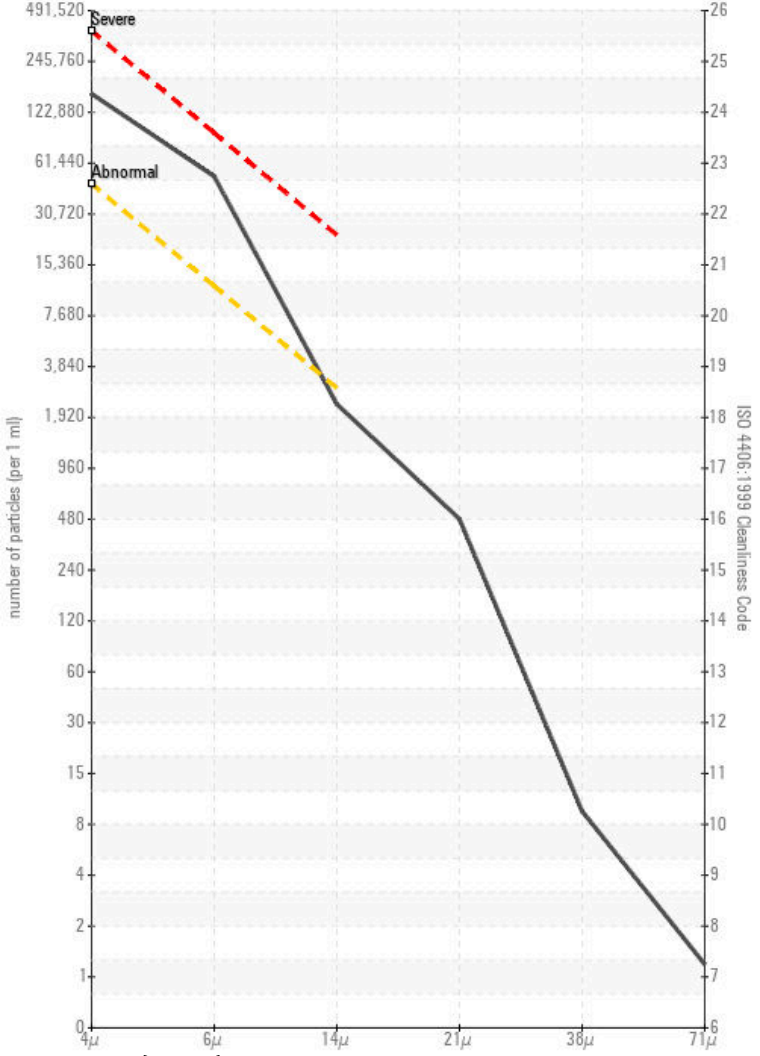
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

