



CONSTRUCTION EQUIPMENT

2036 SUWANNEE VOLVO L180H 5419 - HYDRAULIC SYSTEM



Sample No: VCP438163
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 2036 SUWANNEE



SAMPLE INFORMATION

Sample Number	VCP438163	VCP413240	VCP418114	VCP404984
Sample Date	18 Jan 2024	18 Jul 2023	02 Jun 2023	14 Apr 2023
Machine Hours	11783	9778	9285	8764
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	SEVERE	ABNORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 40°C	cSt	46.6	46.7	46.9	46.7
Acid Number (AN)	mg KOH/g	0.27	0.27	0.22	0.27



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		51548	13331	1479	2183
Particles >6µm		12678	2591	289	335
Particles >14µm		1280	72	15	14
ISO 4406:1999 (c)		23/21/17	21/19/13	18/15/11	18/16/11
Silicon	ppm	3	2	2	2
Sodium	ppm	4	4	0	1
Potassium	ppm	0	0	1	0

Diagnosis

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high 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	6	4	5	3
Copper	ppm	2	2	2	2
Lead	ppm	0	0	1	0
Tin	ppm	<1	0	<1	0
Aluminum	ppm	<1	<1	0	<1
Chromium	ppm	1	<1	<1	0
Molybdenum	ppm	1	1	2	2
Nickel	ppm	0	0	0	0
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	0	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	204	205	209	178
Magnesium	ppm	2	6	7	7
Zinc	ppm	417	462	478	441
Phosphorus	ppm	352	378	353	365
Barium	ppm	0	0	0	0
Boron	ppm	0	0	0	0

Depot: VOLVO0093
Unique No: 10847083
Signed: Wes Davis
Report Date: 26 Jan 2024

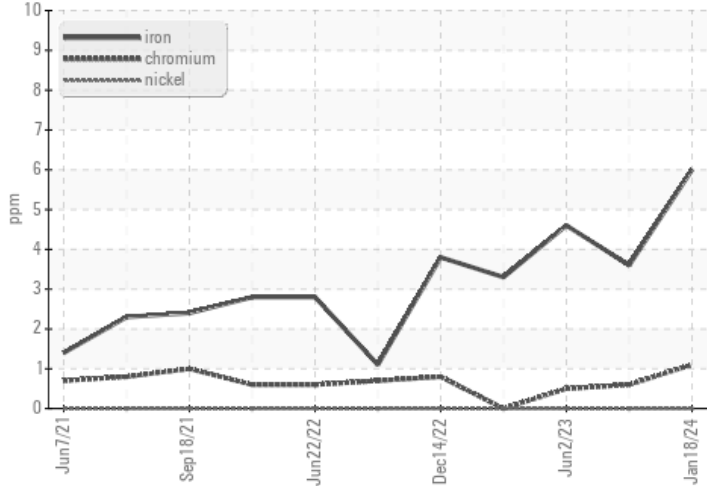


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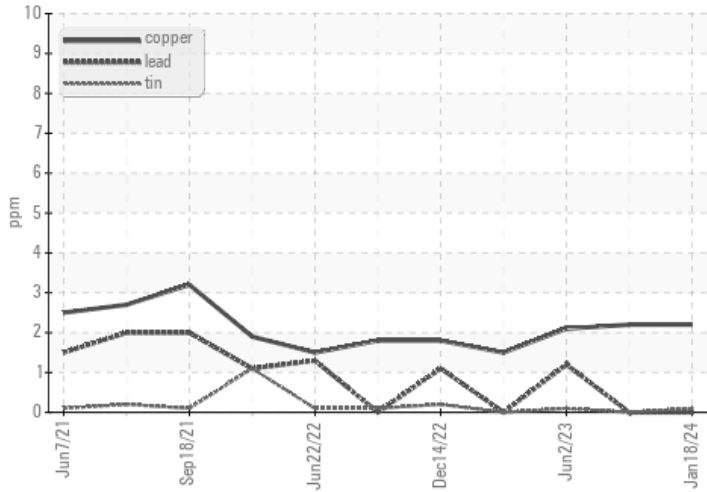


GRAPHS

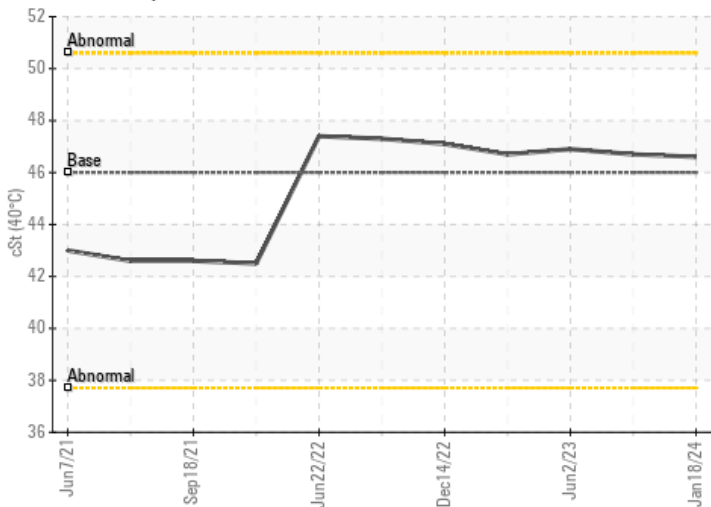
Ferrous Alloys



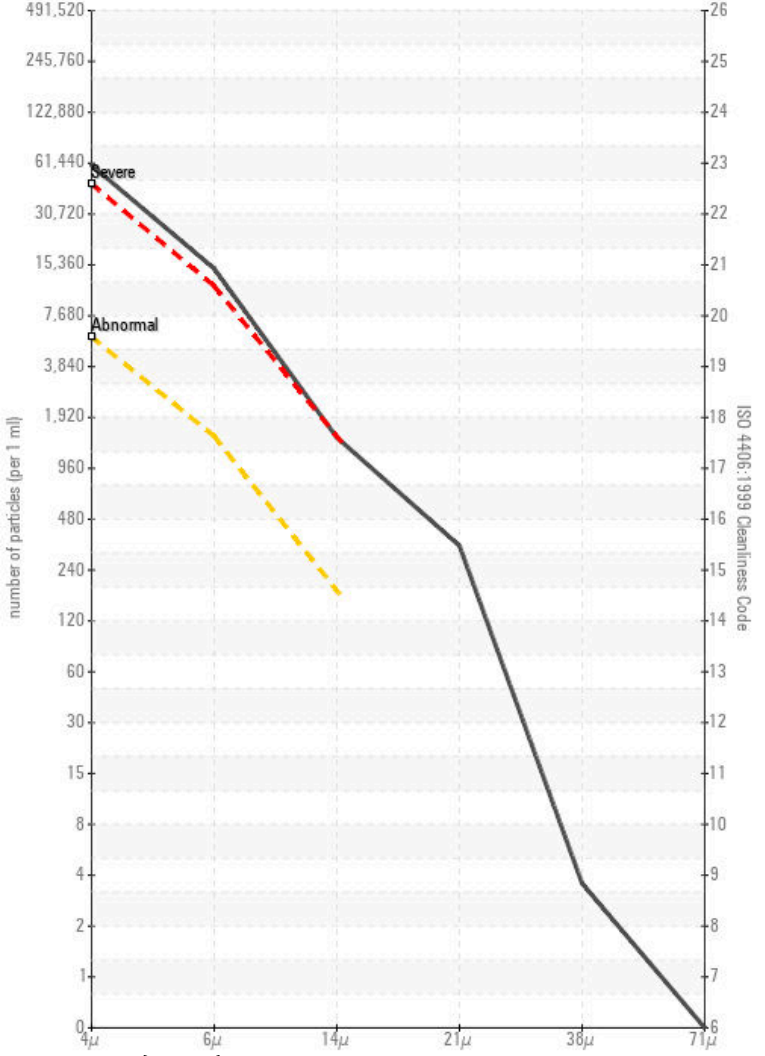
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

