



# CONSTRUCTION EQUIPMENT

## SWO-070832 EPIROC T45-10SF TMG18SEDO183 - HYDRAULIC SYSTEM



**Sample No:** VCP436297  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** SWO-070832



### SAMPLE INFORMATION

Sample Number	VCP436297	VCP445722	VCP431122	VCP424667
Sample Date	01 Apr 2024	13 Nov 2023	31 Aug 2023	02 May 2023
Machine Hours	6670	6283	5911	5181
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	SEVERE	SEVERE	ABNORMAL	NORMAL

**WHITAKER CONTRACTING**  
 692 CONVICT CAMP RD  
 GUNTERVILLE, AL  
 US 35976  
 Contact: BROTHER WHITAKER  
 BrotherWhitaker@whitaker-contracting.com  
 T: (256)298-3905  
 F:



### OIL CONDITION

Visc @ 40°C	cSt	46.3	46.5	46.3	46.3
Acid Number (AN)	mg KOH/g	0.42	0.38	0.41	0.43



### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		▲ 119526	▲ 54951	▲ 11055	■ 3037
Particles >6µm		▲ 57290	▲ 10311	■ 1192	■ 472
Particles >14µm		▲ 2757	● 248	■ 11	■ 12
ISO 4406:1999 (c)		24/23/19	23/21/15	21/17/11	19/16/11
Silicon	ppm	■ 11	■ 4	■ 3	■ 3
Sodium	ppm	■ <1	■ 0	■ 1	■ 2
Potassium	ppm	■ 2	■ <1	■ <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	■ 2	■ 3
Copper	ppm	■ 7	■ 4	■ 3	■ 4
Lead	ppm	■ <1	■ <1	■ 0	■ 0
Tin	ppm	■ <1	■ 0	■ 0	■ 0
Aluminum	ppm	■ 2	■ <1	■ <1	■ 0
Chromium	ppm	■ <1	■ 0	■ 0	■ <1
Molybdenum	ppm	■ 4	■ 2	■ 2	■ 2
Nickel	ppm	■ 0	■ 0	■ 0	■ 0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	■ 0	■ 0	■ 0	■ <1
Vanadium	ppm	<1	0	0	0



### ADDITIVES

Calcium	ppm	■ 114	■ 68	■ 66	■ 80
Magnesium	ppm	■ 19	■ 13	■ 8	■ 14
Zinc	ppm	■ 537	■ 407	■ 431	■ 441
Phosphorus	ppm	■ 404	■ 330	■ 347	■ 355
Barium	ppm	■ 0	■ 7	■ 0	■ 0
Boron	ppm	■ 2	■ 0	■ 0	■ 1

**Depot:** WHIGUN  
**Unique No:** 10963299  
**Signed:** Wes Davis  
**Report Date:** 05 Apr 2024

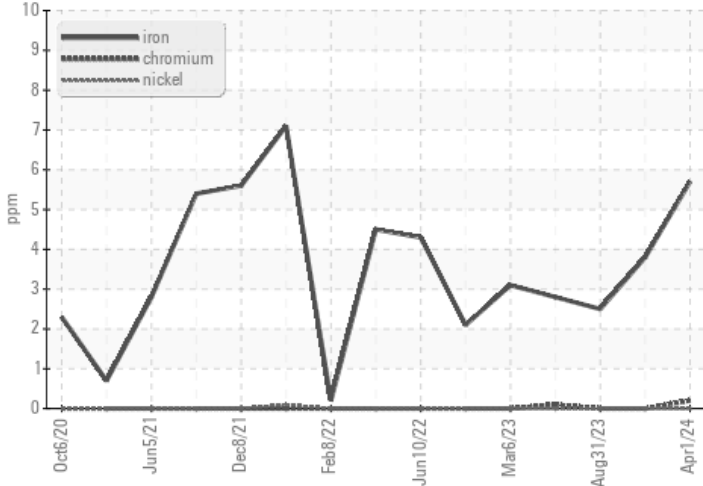


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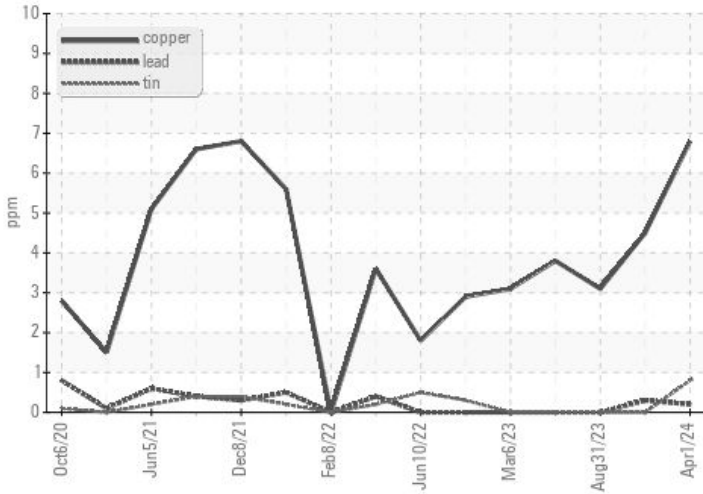


## GRAPHS

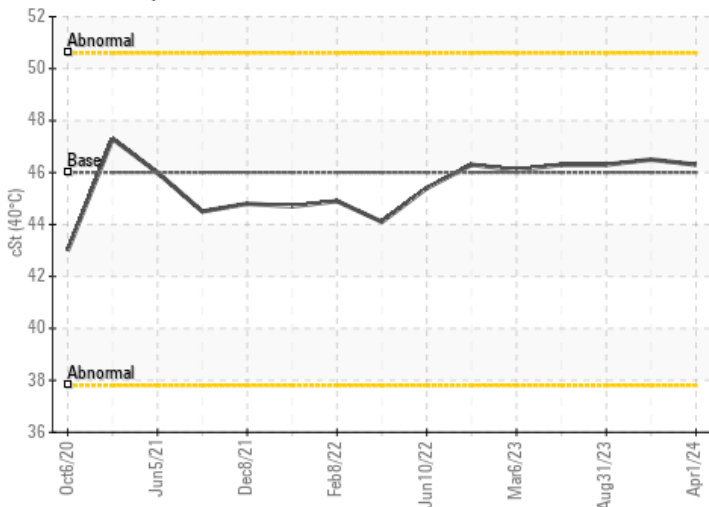
### Ferrous Alloys



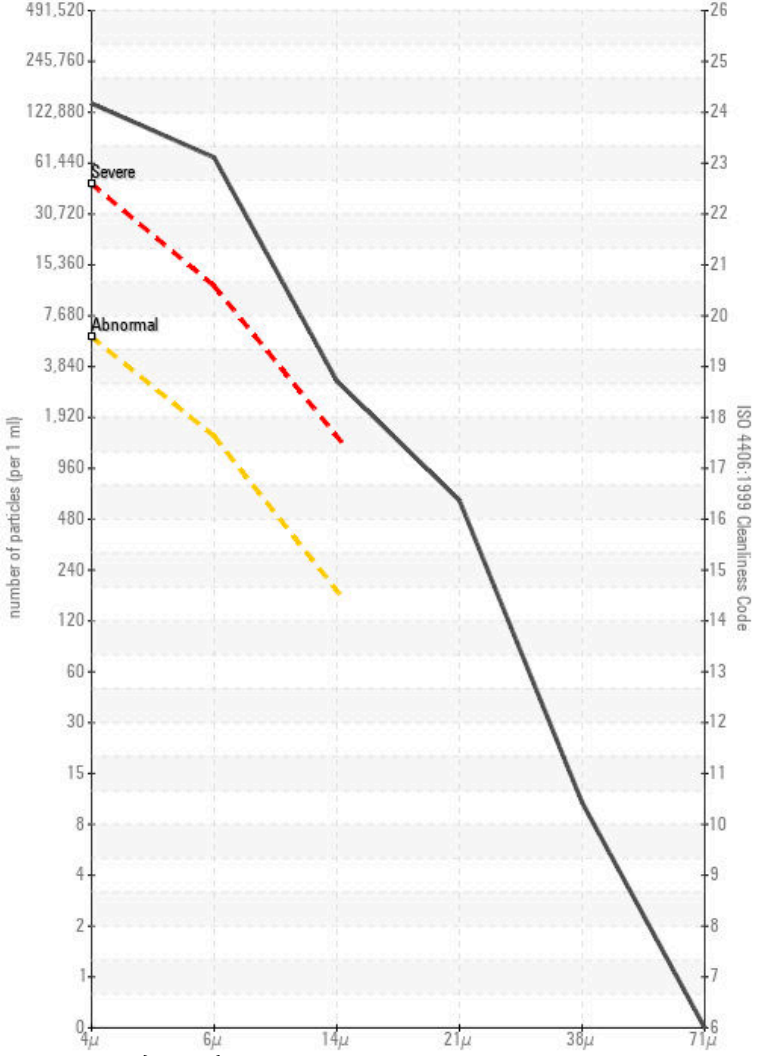
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

