



# CONSTRUCTION EQUIPMENT

## SWO-071782 VOLVO EC380EL 310021 - HYDRAULIC SYSTEM



**Sample No:** VCP452724  
**Oil Type:** AW HYDRAULIC OIL ISO 46  
**Job No:** SWO-071782



### SAMPLE INFORMATION

Sample Number	<b>VCP452724</b>	VCP428710	VCP431087	VCP407505
Sample Date	<b>06 May 2024</b>	21 Dec 2023	07 Sep 2023	18 May 2023
Machine Hours	<b>11224</b>	10648	10247	9662
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Not Chngd	Changed	Not Chngd
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	ATTENTION

### 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	<b>44.5</b>	44.8	45.0	44.2
Acid Number (AN)	mg KOH/g	<b>0.39</b>	0.37	0.37	0.36



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		---	4003	21572	53088
Particles >6µm		---	1244	2884	12131
Particles >14µm		---	375	34	335
ISO 4406:1999 (c)		---	19/17/16	22/19/12	23/21/16
Silicon	ppm	<b>10</b>	7	7	12
Sodium	ppm	<b>0</b>	<1	3	3
Potassium	ppm	<b>&lt;1</b>	0	2	2

### Diagnosis

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. There is a moderate amount of visible silt present in the sample. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



### WEAR METALS

Iron	ppm	<b>9</b>	8	8	14
Copper	ppm	<b>11</b>	9	9	15
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>&lt;1</b>	0	<1	0
Aluminum	ppm	<b>4</b>	3	<1	6
Chromium	ppm	<b>&lt;1</b>	<1	1	2
Molybdenum	ppm	<b>0</b>	0	0	2
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>&lt;1</b>	0	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	0	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>104</b>	125	134	136
Magnesium	ppm	<b>0</b>	0	4	9
Zinc	ppm	<b>396</b>	419	453	406
Phosphorus	ppm	<b>376</b>	379	392	369
Barium	ppm	<b>&lt;1</b>	0	0	0
Boron	ppm	<b>0</b>	0	0	<1

**Depot:** WHIGUN  
**Unique No:** 11019890  
**Signed:** Don Baldrige  
**Report Date:** 14 May 2024

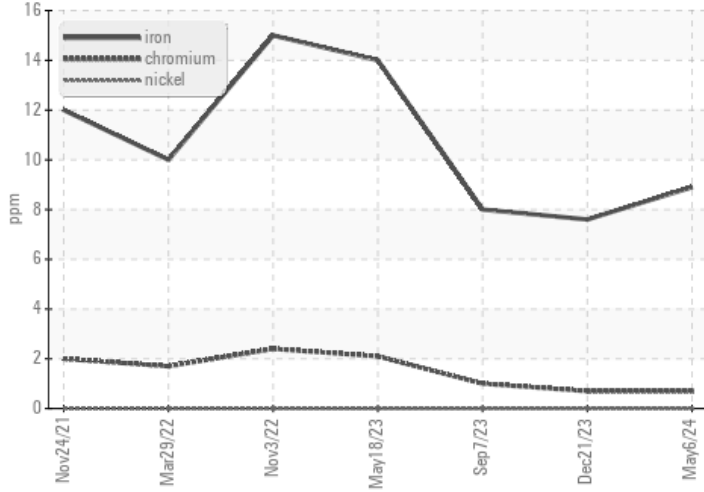


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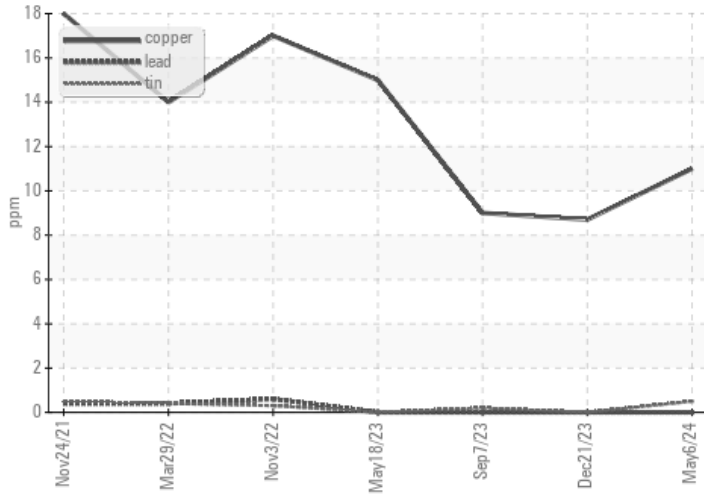


## GRAPHS

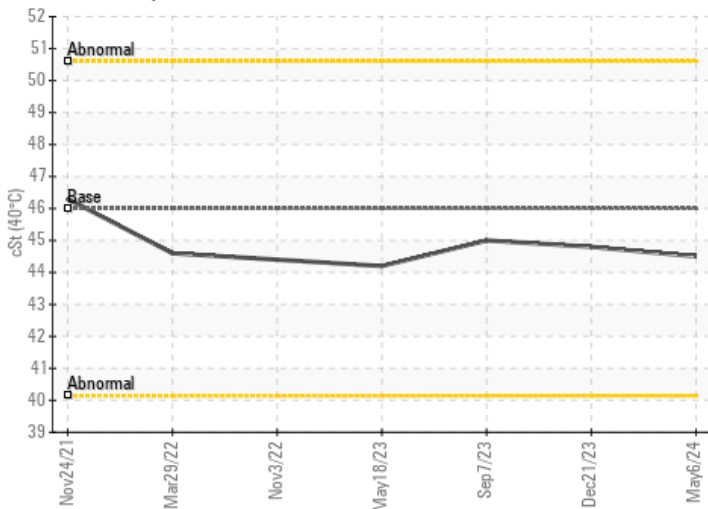
### Ferrous Alloys



### Non-ferrous Metals



### Viscosity @ 40°C



### Acid Number

