



# CONSTRUCTION EQUIPMENT

## SPM646118 SENNEBOGEN 840M 840.0.2024 - HYDRAULIC SYSTEM



**Sample No:** VCP388571  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** SPM646118



### SAMPLE INFORMATION

Sample Number	<b>VCP388571</b>	VCP404242	VCP379191	VCP366815
Sample Date	<b>17 Oct 2023</b>	20 Apr 2023	23 Jan 2023	11 Oct 2022
Machine Hours	<b>20758</b>	19606	19636	19054
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Chngd</b>	Changed	Not Chngd	Changed
Sample Status	<b>ABNORMAL</b>	ABNORMAL	SEVERE	ABNORMAL

### SIMS METAL MANAGEMENT

2500 S. PAULINA  
 CHICAGO, IL  
 US 60608  
 Contact: RYAN WISE  
 ryan.wise@simsmm.com  
 T:  
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### OIL CONDITION

Visc @ 40°C	cSt	<b>42.7</b>	44.6	42.7	44.3
Acid Number (AN)	mg KOH/g	<b>0.42</b>	0.46	0.43	0.54

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Particles >4µm		<b>▲ 18821</b>	▲ 49980	▲ 53981	▲ 15219
Particles >6µm		<b>■ 267</b>	▲ 15218	▲ 10184	▲ 4669
Particles >14µm		<b>■ 7</b>	▲ 563	▲ 450	▲ 712
ISO 4406:1999 (c)		<b>21/15/10</b>	23/21/16	23/21/16	21/19/17
Silicon	ppm	<b>■ &lt;1</b>	■ 1	■ <1	■ 1
Sodium	ppm	<b>■ 4</b>	■ 3	■ 2	■ <1
Potassium	ppm	<b>■ 0</b>	■ <1	■ 0	■ 1

### Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

### WEAR METALS

Iron	ppm	<b>■ 11</b>	■ 8	■ 8	■ 10
Copper	ppm	<b>■ 2</b>	■ 1	■ 1	■ 3
Lead	ppm	<b>■ 0</b>	■ 0	■ 0	■ <1
Tin	ppm	<b>■ &lt;1</b>	■ 0	■ 0	■ <1
Aluminum	ppm	<b>■ 0</b>	■ <1	■ 0	■ <1
Chromium	ppm	<b>■ 10</b>	■ 12	■ 9	■ 14
Molybdenum	ppm	<b>■ &lt;1</b>	■ <1	■ 0	■ <1
Nickel	ppm	<b>■ 0</b>	■ 0	■ 0	■ 0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ <1
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>■ 135</b>	■ 104	■ 169	■ 96
Magnesium	ppm	<b>■ 33</b>	■ 33	■ 43	■ 61
Zinc	ppm	<b>■ 539</b>	■ 576	■ 605	■ 756
Phosphorus	ppm	<b>■ 440</b>	■ 439	■ 464	■ 583
Barium	ppm	<b>■ 0</b>	■ 0	■ 0	■ 0
Boron	ppm	<b>■ &lt;1</b>	■ 0	■ <1	■ <1

**Depot:** SIMCHIL  
**Unique No:** 10882937  
**Signed:** Don Baldrige  
**Report Date:** 16 Feb 2024

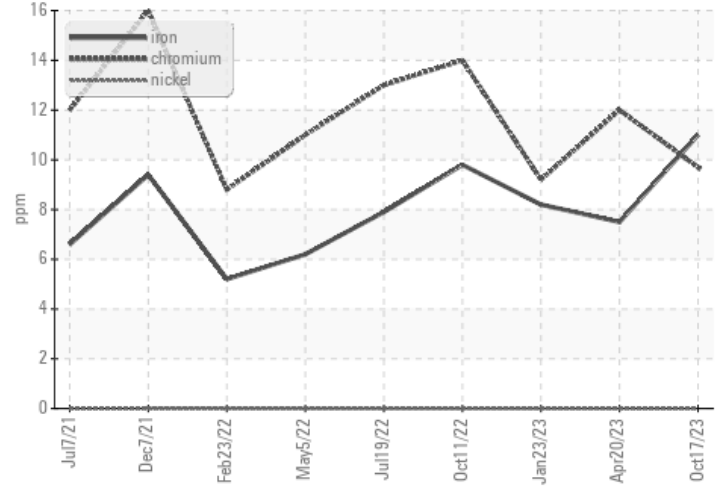


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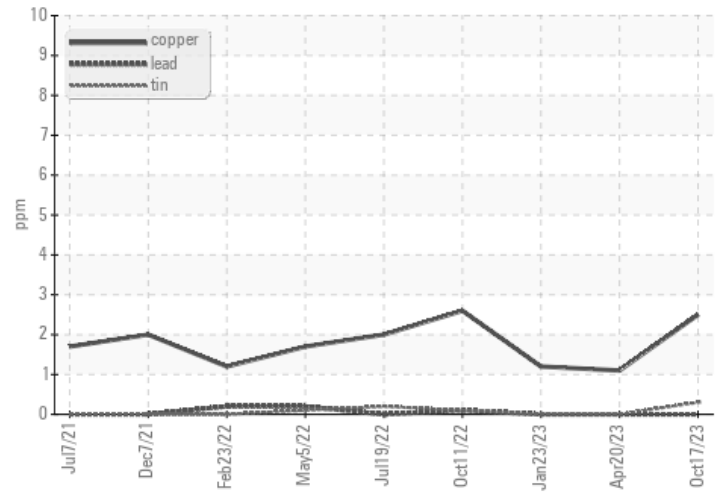


## GRAPHS

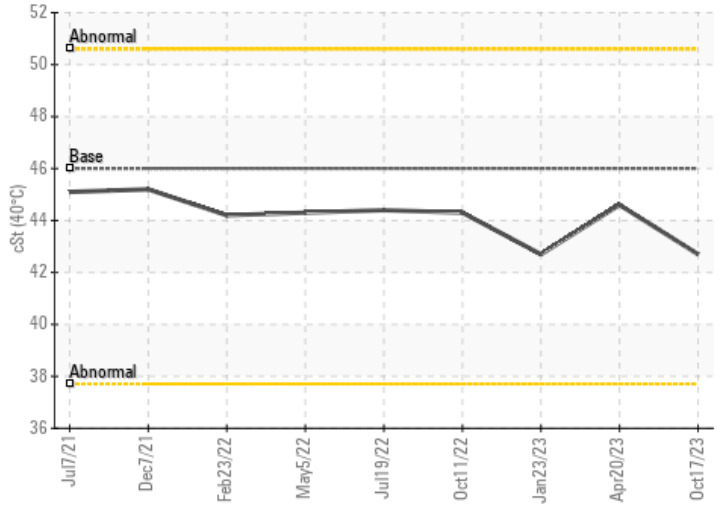
### Ferrous Alloys



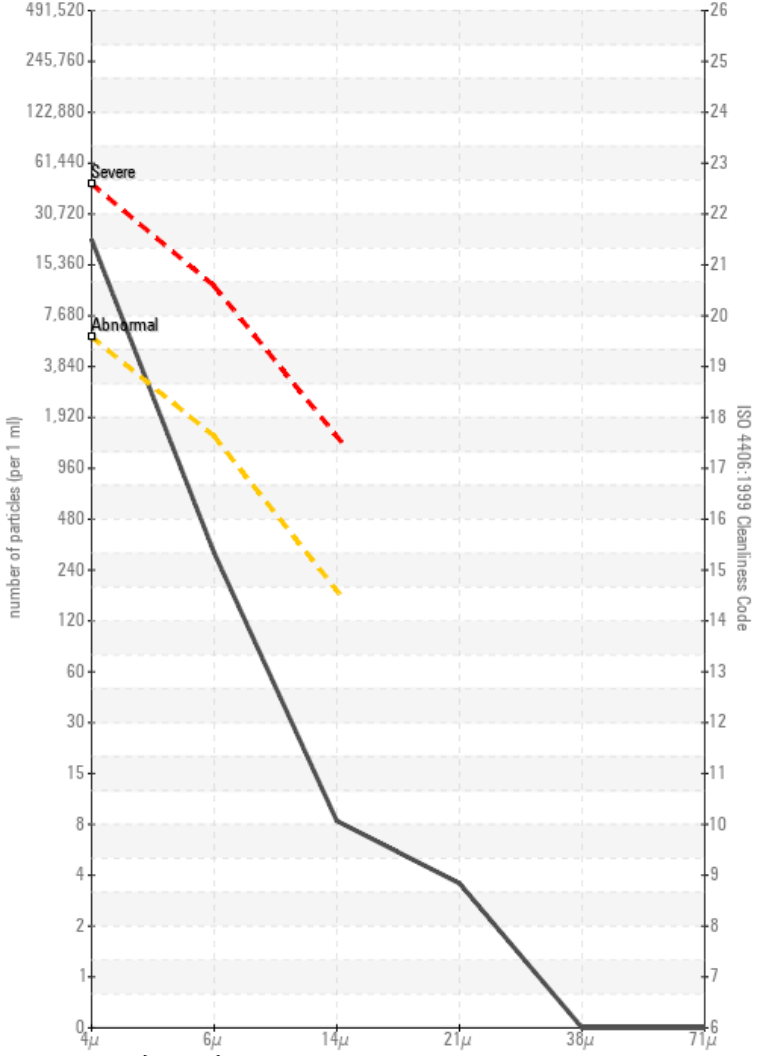
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

