



# CONSTRUCTION EQUIPMENT

## 646971 VOLVO EC380EL 311542 - HYDRAULIC SYSTEM



**Sample No:** VCP452296  
**Oil Type:** VOLVO SUPER HYDRAULIC OIL 46  
**Job No:** 646971



### SAMPLE INFORMATION

Sample Number	VCP452296	VCP233940	---	---
Sample Date	20 Dec 2023	27 Feb 2019	---	---
Machine Hours	3878	404	---	---
Oil Hours	3878	404	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ATTENTION	---	---

### FERROUS PROCESSING AND TRADING

3400 E LAFAYETTE  
 DETROIT, MI  
 US 48207  
 Contact: KEITH HALL  
 keith.hall@fpt1.com  
 T:  
 F:



### OIL CONDITION

Visc @ 40°C	cSt	47.2	43.98	---	---
Acid Number (AN)	mg KOH/g	0.39	0.463	---	---



### CONTAMINATION

Water	%	NEG	NEG	---	---
Particles >4µm		127851	61566	---	---
Particles >6µm		49241	18625	---	---
Particles >14µm		3224	2586	---	---
ISO 4406:1999 (c)		24/23/19	23/21/19	---	---
Silicon	ppm	2	1	---	---
Sodium	ppm	<1	0	---	---
Potassium	ppm	<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	4	3	---	---
Copper	ppm	9	11	---	---
Lead	ppm	0	<1	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	<1	<1	---	---
Chromium	ppm	2	<1	---	---
Molybdenum	ppm	0	0	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	<1	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



### ADDITIVES

Calcium	ppm	170	86	---	---
Magnesium	ppm	15	<1	---	---
Zinc	ppm	459	464	---	---
Phosphorus	ppm	367	364	---	---
Barium	ppm	0	0	---	---
Boron	ppm	<1	<1	---	---

**Depot:** FERDET  
**Unique No:** 10822555  
**Signed:** Wes Davis  
**Report Date:** 11 Jan 2024

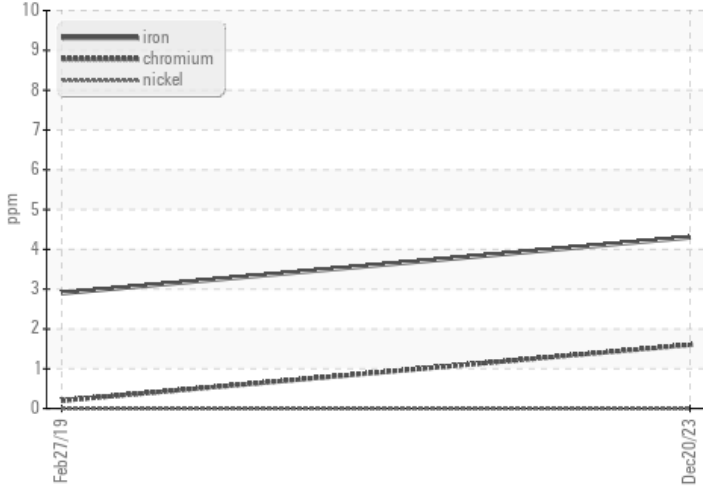


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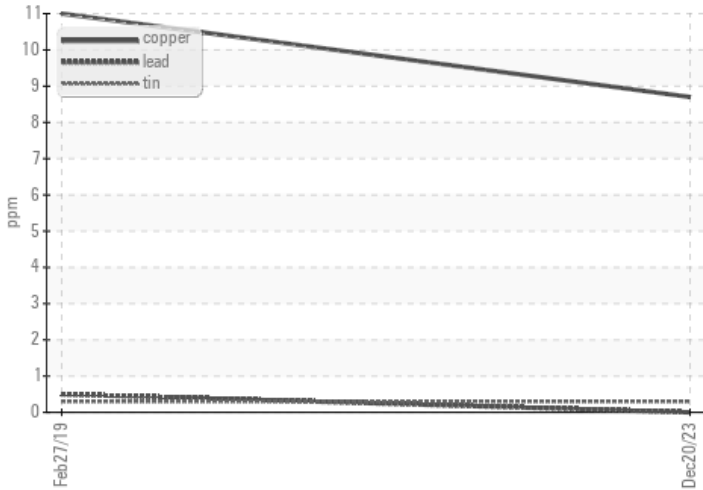


## GRAPHS

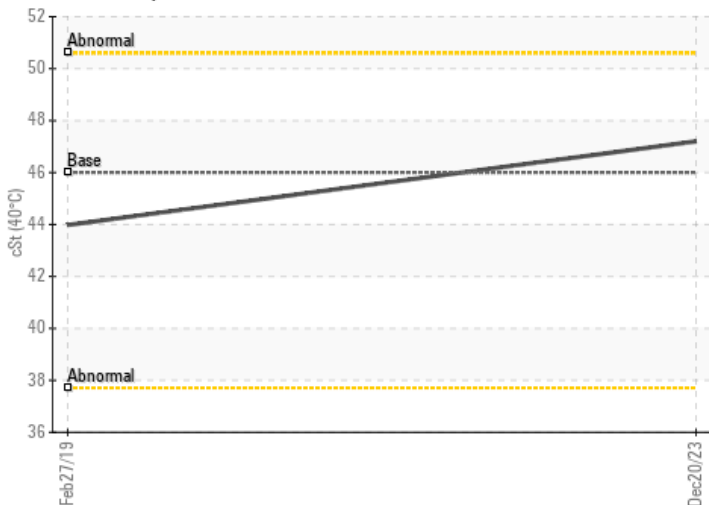
### Ferrous Alloys



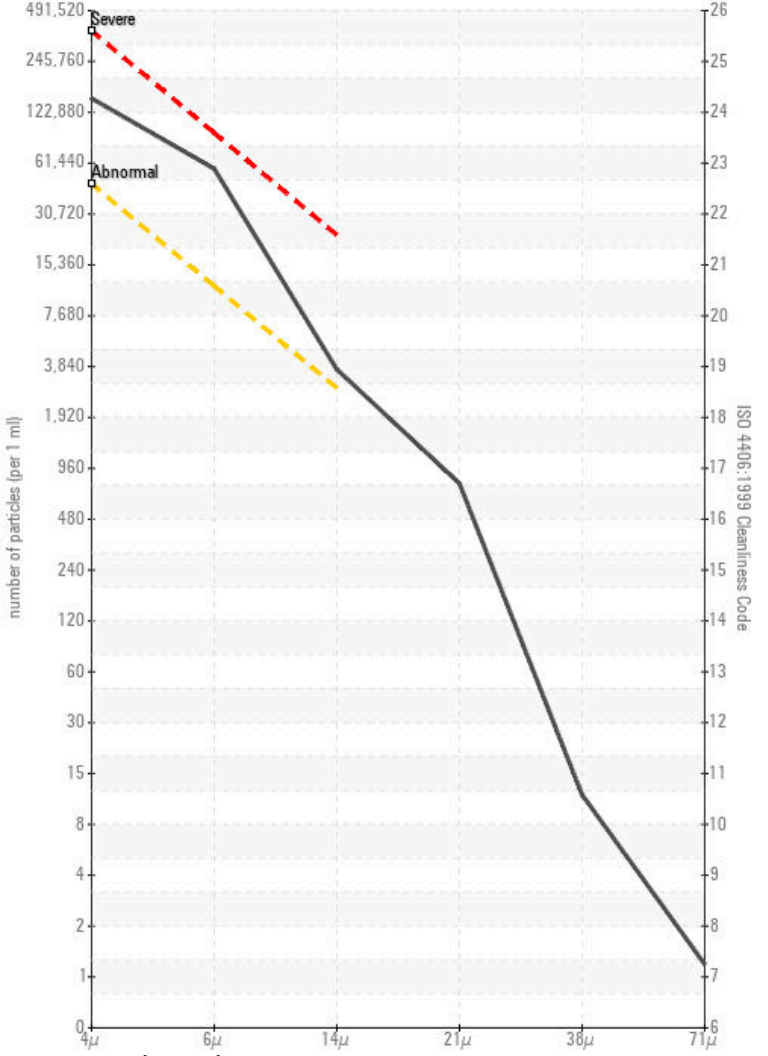
### Non-ferrous Metals



### Viscosity @ 40°C



### Particle Count



### Acid Number

