



CONSTRUCTION EQUIPMENT

VOLVO ECR145EL 311251 - HYDRAULIC SYSTEM



Sample No: VCP423432
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP423432	VCP374607	---	---
Sample Date	20 Jun 2023	13 Jun 2022	---	---
Machine Hours	2299	1890	---	---
Oil Hours	0	1500	---	---
Oil Changed	Not Chngd	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

RIPA AND ASSOCIATES

10149 FISHER AVENUE
TAMPA, FL
US 33619
Contact: ROBERT TURNER
rturner@ripatampa.com
T:
F:



OIL CONDITION

Visc @ 40°C	cSt	█ 45.1	█ 44.0	---	---
Acid Number (AN)	mg KOH/g	█ 0.24	█ 0.60	---	---



CONTAMINATION

Particles >4µm		█ 14545	█ 783	---	---
Particles >6µm		█ 4629	█ 143	---	---
Particles >14µm		█ 262	█ 9	---	---
ISO 4406:1999 (c)		21/19/15	17/14/10	---	---
Silicon	ppm	█ 3	█ 4	---	---
Sodium	ppm	█ <1	█ 0	---	---
Potassium	ppm	█ 0	█ <1	---	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



WEAR METALS

Iron	ppm	█ 9	█ 6	---	---
Copper	ppm	█ 16	█ 28	---	---
Lead	ppm	█ 0	█ 1	---	---
Tin	ppm	█ 0	<1	---	---
Aluminum	ppm	█ <1	█ <1	---	---
Chromium	ppm	█ 0	█ 0	---	---
Molybdenum	ppm	█ <1	█ 0	---	---
Nickel	ppm	█ 0	█ 0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	<1	---	---
Manganese	ppm	█ 0	█ 0	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	█ 76	█ 123	---	---
Magnesium	ppm	█ 3	█ 2	---	---
Zinc	ppm	█ 436	█ 583	---	---
Phosphorus	ppm	█ 430	█ 469	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ 0	█ 0	---	---

Depot: RIPTAM
Unique No: 10551886
Signed: Wes Davis
Report Date: 13 Jul 2023

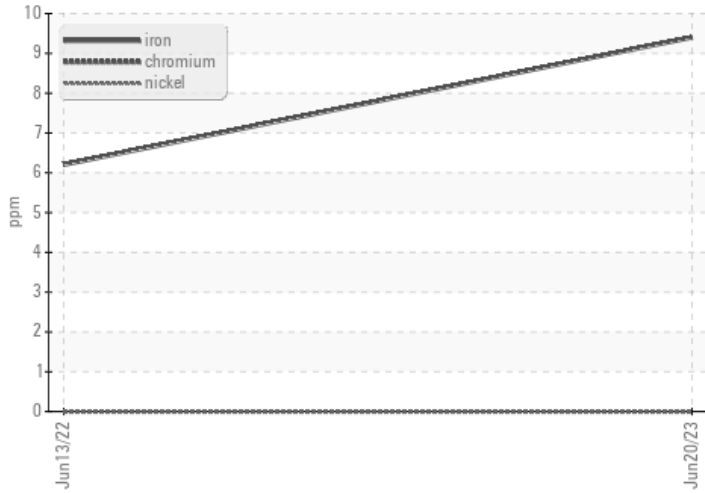


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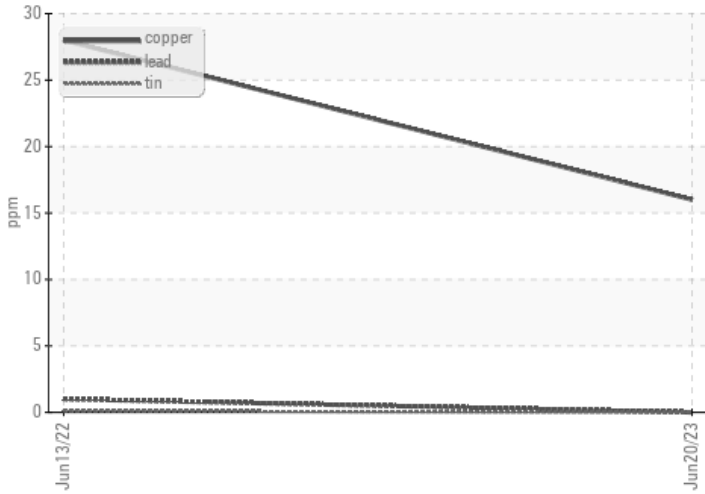


GRAPHS

Ferrous Alloys



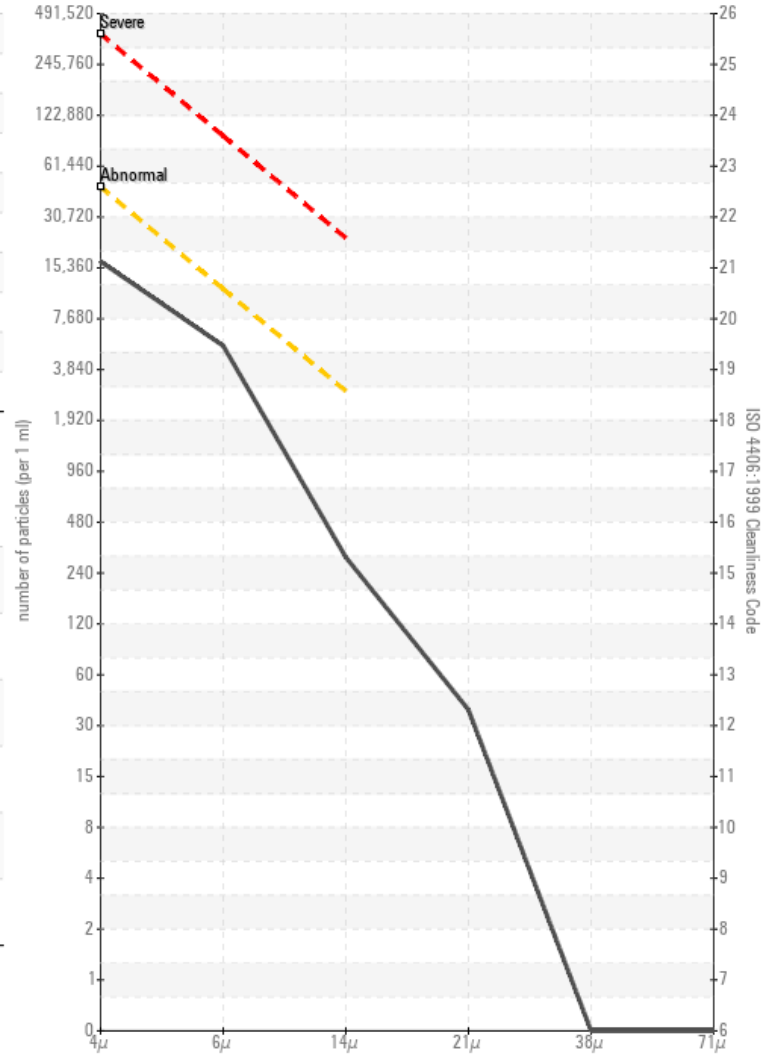
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

