



CONSTRUCTION EQUIPMENT

VOLVO ECR145EL 314057 - HYDRAULIC SYSTEM



Sample No: VCP392705
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No:



SAMPLE INFORMATION

Sample Number	VCP392705	VCP367196	VCP375972	VCP335433
Sample Date	27 Jun 2023	12 Sep 2022	06 Jun 2022	20 Sep 2021
Machine Hours	4163	2982	2493	1572
Oil Hours	4163	500	1500	1572
Oil Changed	Changed	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

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

OIL CONDITION

Visc @ 40°C	cSt	■ 44.6	■ 42.2	■ 42.7	■ 39.6
Acid Number (AN)	mg KOH/g	■ 0.44	■ 0.46	■ 0.43	■ 0.61

CONTAMINATION

Particles >4µm	■ 3609	■ 3228	■ 7685	---
Particles >6µm	■ 541	■ 504	■ 1887	---
Particles >14µm	■ 23	■ 15	■ 173	---
ISO 4406:1999 (c)	19/16/12	19/16/11	20/18/15	---
Silicon	ppm	■ 2	■ 2	■ 11
Sodium	ppm	■ 2	■ <1	■ 7
Potassium	ppm	■ 3	■ 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	■ 4	■ 2	■ 2	■ 9
Copper	ppm	■ 28	■ 30	■ 29	▲ 239
Lead	ppm	■ <1	■ <1	■ <1	■ 2
Tin	ppm	■ 0	■ <1	■ <1	■ <1
Aluminum	ppm	■ 2	■ <1	■ <1	■ <1
Chromium	ppm	■ 0	■ 0	■ 0	■ 0
Molybdenum	ppm	■ 0	■ 0	■ 0	■ <1
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	■ 44	■ 43	■ 47	▲ 3696
Magnesium	ppm	■ 2	■ 0	■ <1	■ 8
Zinc	ppm	■ 410	■ 386	■ 424	▲ 1454
Phosphorus	ppm	■ 352	■ 343	■ 342	▲ 1293
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 0	■ 0	■ 0	▲ 118

Depot: RIPTAM
Unique No: 10553163
Signed: Wes Davis
Report Date: 14 Jul 2023

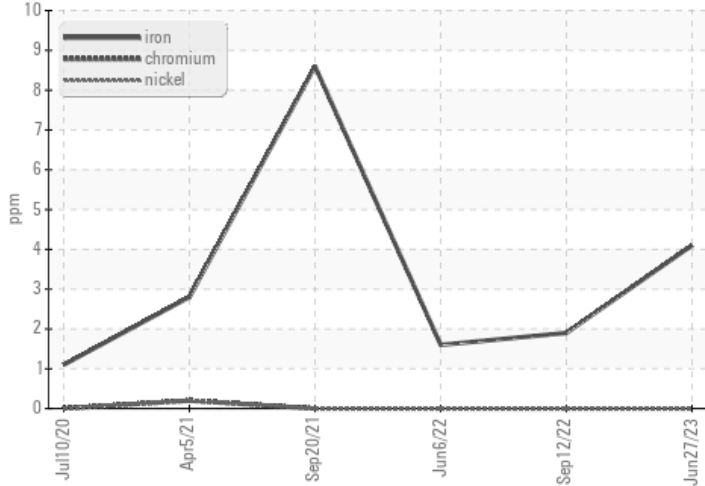


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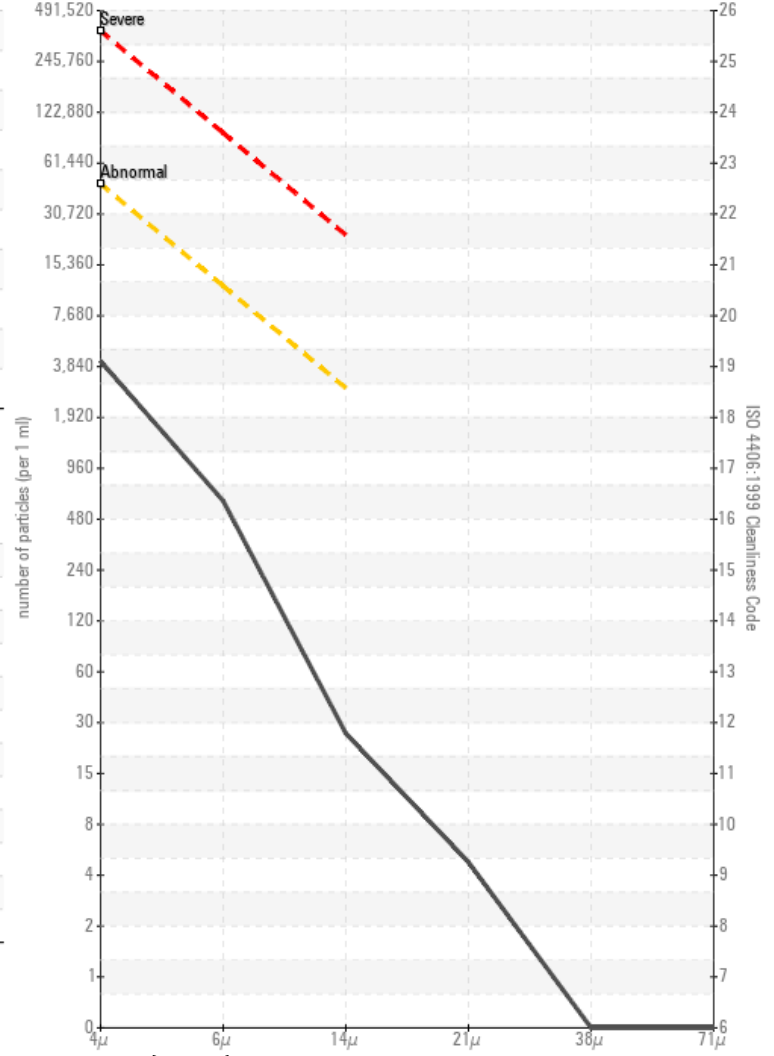


VOLVO GRAPHS

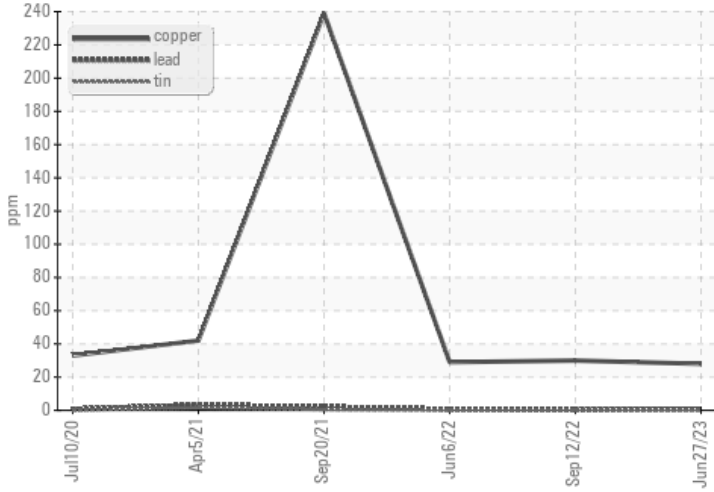
Ferrous Alloys



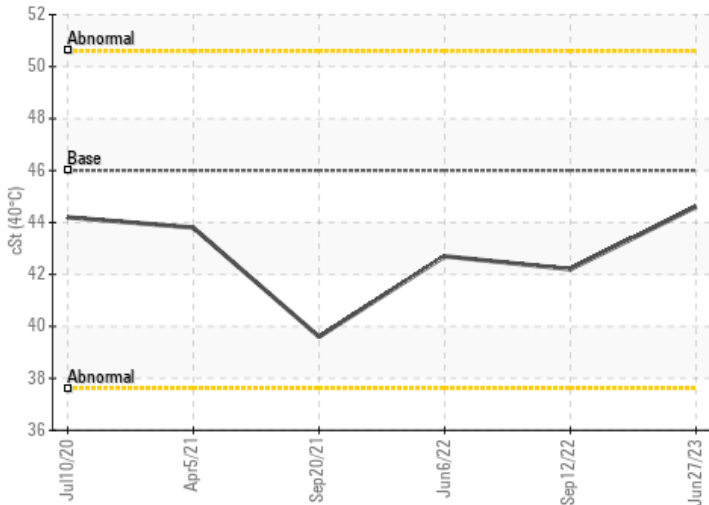
Particle Count



Non-ferrous Metals



Viscosity @ 40°C



Acid Number

