



CONSTRUCTION EQUIPMENT

5809HO VOLVO ECR355EL 310191 - HYDRAULIC SYSTEM



Sample No: VCP452209
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 5809HO



SAMPLE INFORMATION

Sample Number	VCP452209	VCP414533	VCP366150	VCP336349
Sample Date	09 Feb 2024	20 Sep 2023	16 Sep 2022	14 Sep 2021
Machine Hours	3809	3368	2172	1035
Oil Hours	500	0	0	0
Oil Changed	Changed	N/A	Changed	Not Changd
Sample Status	NORMAL	NORMAL	ABNORMAL	ABNORMAL

PENNSYLVANIA SUPPLY
 833 PAXTON STREET
 HARRISBURG, PA
 US 17104
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 F: (717)238-5831



OIL CONDITION

Visc @ 40°C	cSt	41.5	42.3	42.3	43.4
Acid Number (AN)	mg KOH/g	1.07	1.10	1.16	0.925



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		15195	2641	196273	---
Particles >6µm		849	271	21058	---
Particles >14µm		28	43	521	---
ISO 4406:1999 (c)		21/17/12	19/15/13	25/22/16	---
Silicon	ppm	7	6	6	5
Sodium	ppm	2	2	2	3
Potassium	ppm	<1	0	0	1

Diagnosis
 Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



WEAR METALS

Iron	ppm	4	4	10	8
Copper	ppm	17	17	20	12
Lead	ppm	2	1	4	<1
Tin	ppm	<1	0	<1	<1
Aluminum	ppm	1	<1	1	2
Chromium	ppm	0	<1	0	<1
Molybdenum	ppm	5	4	2	1
Nickel	ppm	0	0	<1	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	0	0
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	2170	2195	2409	1699
Magnesium	ppm	70	62	30	19
Zinc	ppm	1047	1071	1062	885
Phosphorus	ppm	800	878	899	732
Barium	ppm	<1	0	0	0
Boron	ppm	59	60	58	41

Depot: PENHAR
Unique No: 10885127
Signed: Jonathan Hester
Report Date: 20 Feb 2024

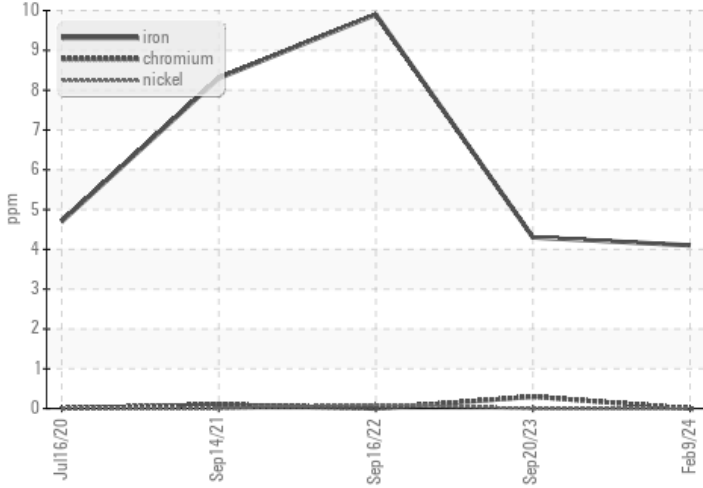


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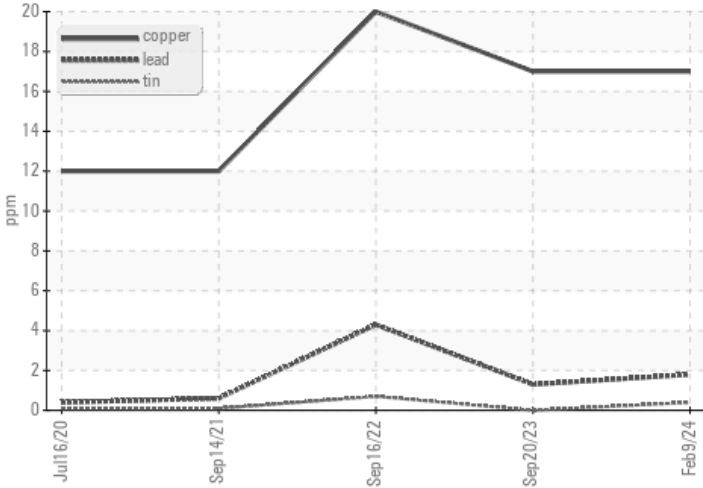


GRAPHS

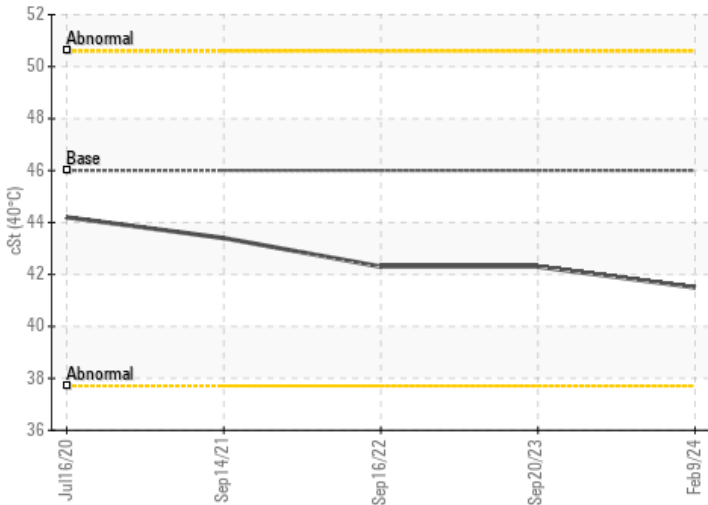
Ferrous Alloys



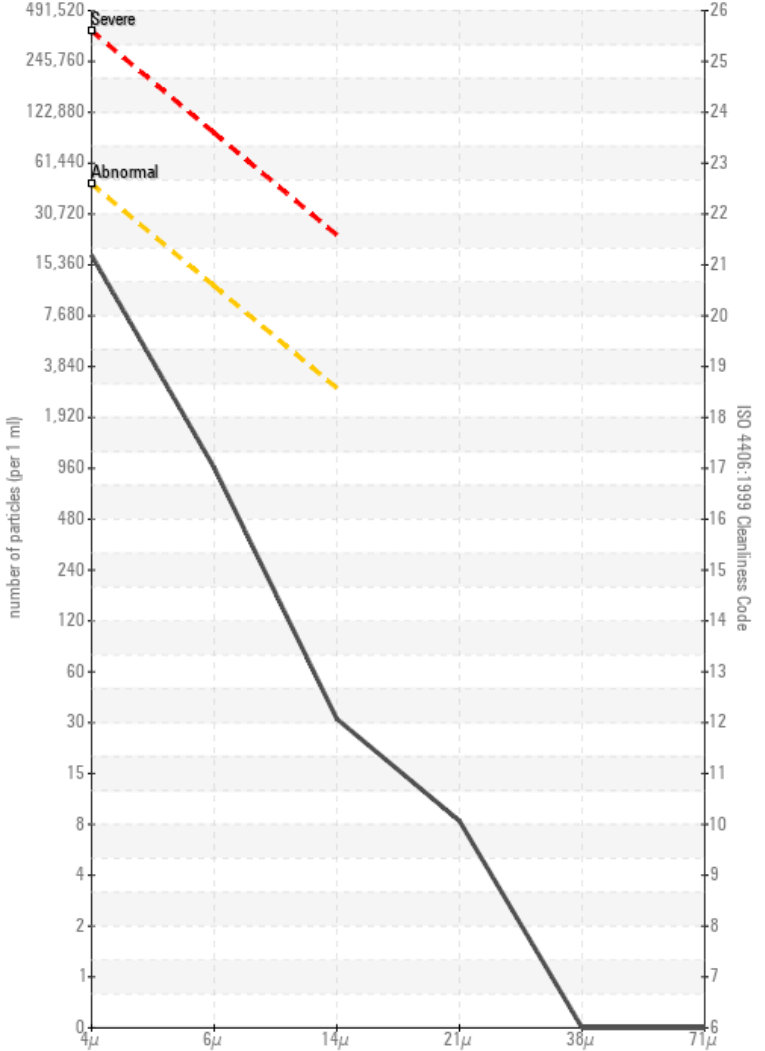
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

