



CONSTRUCTION EQUIPMENT

11387 FREEDOM CONSTR VOLVO ECR145E 315603 - HYDRAULIC SYSTEM



Sample No: VCP434113
Oil Type: MOBIL HYDRAULIC OIL AW 46
Job No: 11387 FREEDOM CONSTR



SAMPLE INFORMATION

Sample Number	VCP434113	VCP393369	VCP376503	VCP358529
Sample Date	03 Nov 2023	28 Mar 2023	12 Jul 2022	20 Apr 2022
Machine Hours	3308	2335	1002	577
Oil Hours	0	2000	0	0
Oil Changed	N/A	Changed	Not Changd	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	NORMAL

HOFFMAN EQUIPMENT - LIONVILLE
 120 GORDON DRIVE
 LIONVILLE, PA
 US 19341
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OIL CONDITION

Visc @ 40°C	cSt	37.0	39.5	41.5	42.1
Acid Number (AN)	mg KOH/g	0.48	0.54	0.56	0.47



CONTAMINATION

Particles >4µm	171838	131737	14430	25257	
Particles >6µm	69215	54566	3188	2887	
Particles >14µm	3741	239	207	206	
ISO 4406:1999 (c)	25/23/19	24/23/15	21/19/15	22/19/15	
Silicon	ppm	17	13	6	4
Sodium	ppm	0	2	0	0
Potassium	ppm	2	1	<1	0

Diagnosis
 No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates 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	10	9	2	1
Copper	ppm	17	29	27	24
Lead	ppm	0	<1	<1	<1
Tin	ppm	0	<1	0	0
Aluminum	ppm	3	3	<1	<1
Chromium	ppm	<1	<1	0	0
Molybdenum	ppm	3	1	0	0
Nickel	ppm	0	0	0	<1
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	0	<1	0	0
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	174	85	74	87
Magnesium	ppm	17	4	<1	0
Zinc	ppm	471	453	535	552
Phosphorus	ppm	356	359	395	447
Barium	ppm	0	<1	0	0
Boron	ppm	<1	0	0	0

Depot: VOLVO8879
Unique No: 10737255
Signed: Don Baldrige
Report Date: 13 Nov 2023

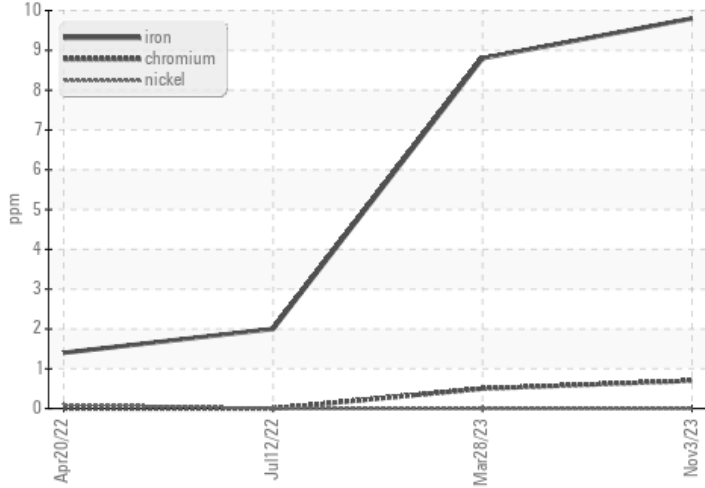


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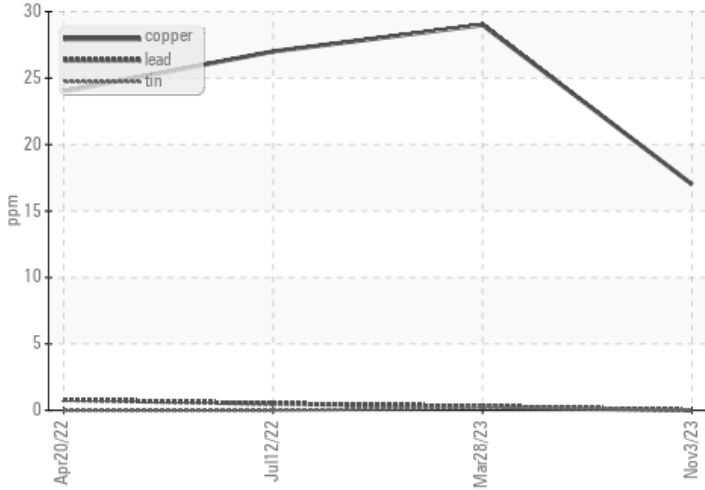


GRAPHS

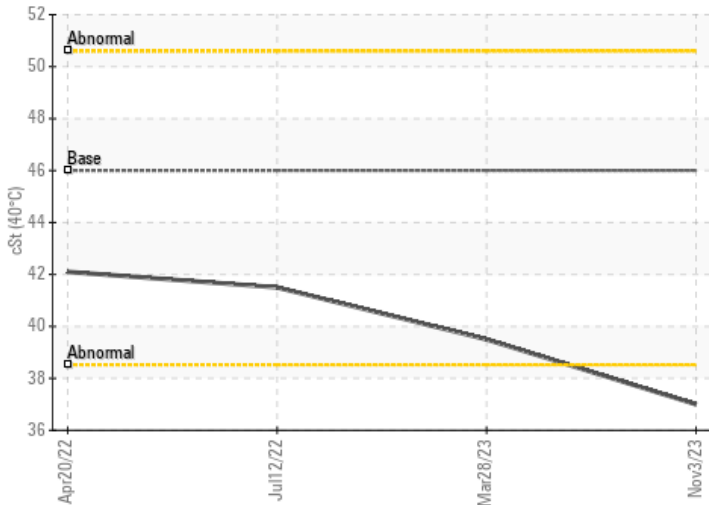
Ferrous Alloys



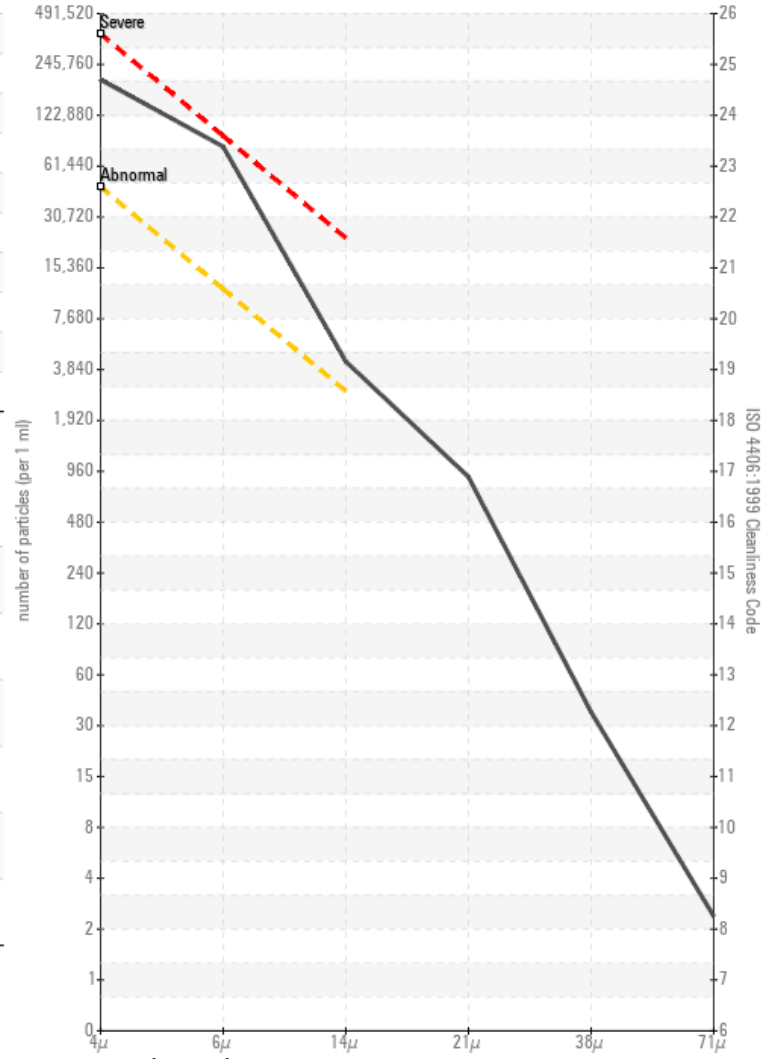
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

