



CONSTRUCTION EQUIPMENT

TMR-SANFORD 687391 17726 VOLVO L90E 67148 - HYDRAULIC SYSTEM



Sample No: VCP455170
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 687391



SAMPLE INFORMATION

Sample Number	VCP455170	VCP405818	DJJ0017445	DJJ0017414
Sample Date	28 Mar 2024	01 May 2023	06 Dec 2022	27 Oct 2022
Machine Hours	15012	14253	14005	13914
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	N/A	Not Changd
Sample Status	ABNORMAL	ABNORMAL	ATTENTION	ABNORMAL

TRADEMARK METALS RECYCLING - SANFORD
3301 W FL 46
SANFORD, FL
US 32771
Contact: RYAN BOWDEN



OIL CONDITION

Visc @ 40°C	cSt	57.8	56.6	55.3	53.0
Acid Number (AN)	mg KOH/g	0.38	0.33	0.36	0.43

T:
F: (407)321-0177



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		▲ 29125	36383	26346	47057
Particles >6µm		● 2201	▲ 6292	■ 3952	▲ 7007
Particles >14µm		■ 76	▲ 183	■ 65	▲ 186
ISO 4406:1999 (c)		22/18/13	22/20/15	22/19/13	23/20/15
Silicon	ppm	■ 5	■ 3	■ 2	■ 5
Sodium	ppm	■ <1	■ <1	■ 0	■ 0
Potassium	ppm	■ 2	■ 0	■ 1	■ 0

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.



WEAR METALS

Iron	ppm	■ 6	■ 3	■ 4	■ 5
Copper	ppm	■ 2	■ <1	■ 1	■ 1
Lead	ppm	■ <1	■ 0	■ 0	■ 0
Tin	ppm	■ <1	■ 0	■ 0	■ 0
Aluminum	ppm	■ 2	■ <1	■ 0	■ <1
Chromium	ppm	■ <1	■ 0	■ <1	■ <1
Molybdenum	ppm	■ 3	■ 2	■ 2	■ 2
Nickel	ppm	■ 0	■ 0	■ 0	■ 0
Titanium	ppm	<1	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	■ 0	■ <1	■ 0	■ 0
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 134	■ 113	■ 116	■ 125
Magnesium	ppm	■ 20	■ 9	■ 6	■ 10
Zinc	ppm	■ 411	■ 416	■ 401	■ 389
Phosphorus	ppm	■ 320	■ 344	■ 311	■ 384
Barium	ppm	■ 0	■ 0	■ 0	■ <1
Boron	ppm	■ 4	■ 1	■ 3	■ 0

Depot: TRASTAFL
Unique No: 10963294
Signed: Don Baldrige
Report Date: 06 Apr 2024

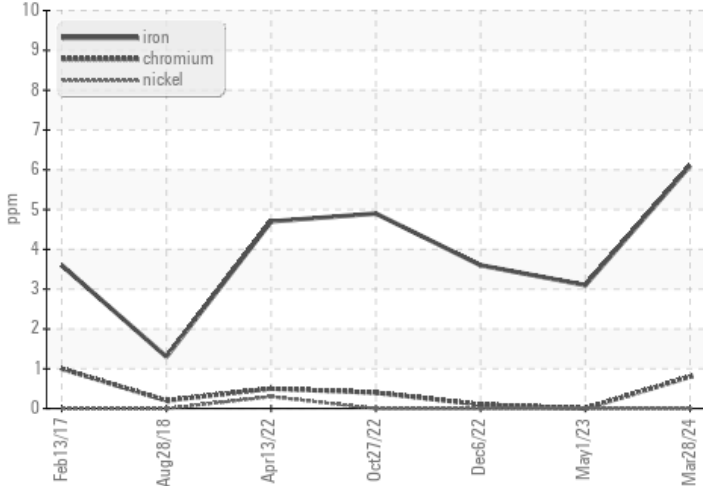


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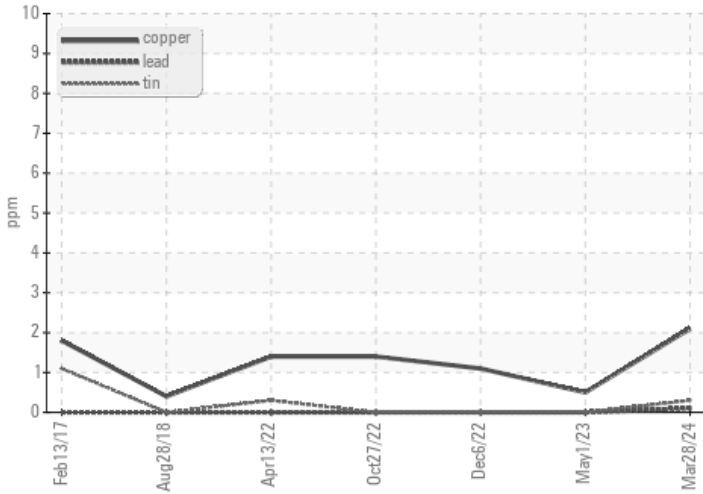


VOLVO GRAPHS

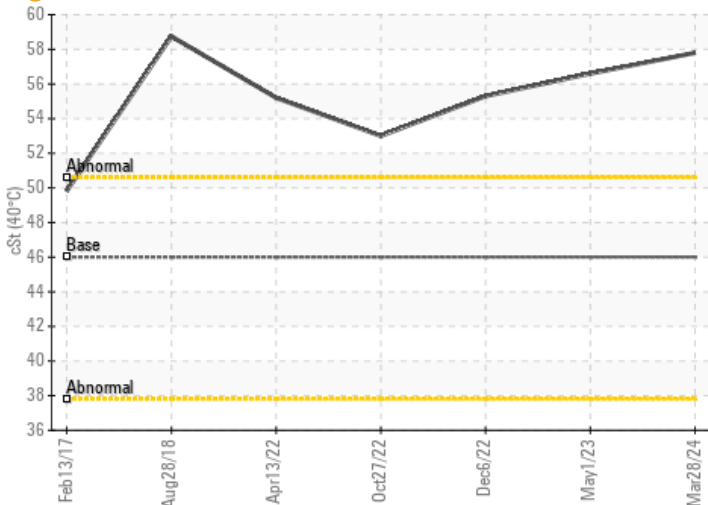
Ferrous Alloys



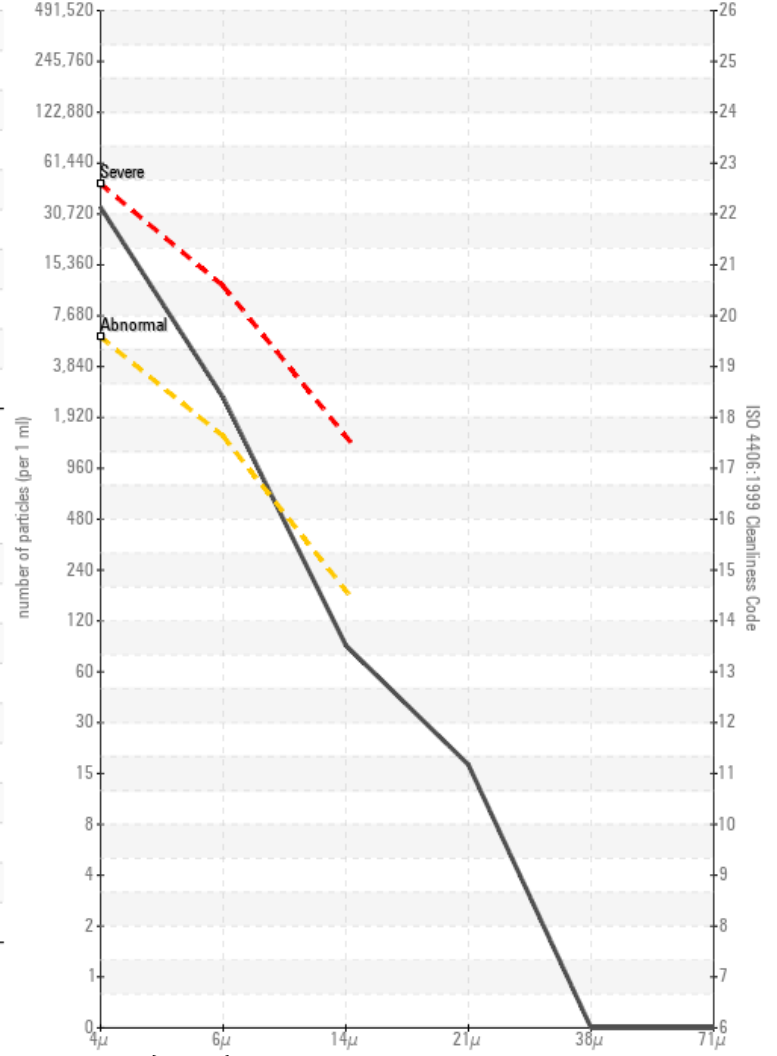
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

