



CONSTRUCTION EQUIPMENT

3017 VOLVO EC380EL 310195 - HYDRAULIC SYSTEM



Sample No: VCP382956
Oil Type: VOLVO SUPER HYDRAULIC OIL 32
Job No: 3017



SAMPLE INFORMATION

Sample Number	VCP382956	VCP358383	VCP304973	VCP271406
Sample Date	04 Jan 2024	09 Jan 2023	09 Feb 2021	04 Feb 2020
Machine Hours	5715	4735	3030	2495
Oil Hours	0	1000	0	1
Oil Changed	N/A	Not Changd	Not Changd	Changed
Sample Status	ABNORMAL	ATTENTION	ATTENTION	NORMAL

LEONARDS CONTRACTING
 30850 STEPHENSON HWY
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 US 48071
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OIL CONDITION

Visc @ 40°C	cSt	▲ 45.2	▲ 45.2	▲ 46.1	■ 46.2
Acid Number (AN)	mg KOH/g	■ 0.18	■ 0.16	■ 0.126	■ 0.216

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		■ 6255	■ 1112	▲ 43514	■ 2249
Particles >6µm		■ 854	■ 327	▲ 11057	■ 507
Particles >14µm		■ 32	■ 25	■ 615	■ 29
ISO 4406:1999 (c)		20/17/12	17/16/12	23/21/16	18/16/12
Silicon	ppm	■ 5	■ 3	■ <1	■ <1
Sodium	ppm	■ 3	■ 1	■ 0	■ 0
Potassium	ppm	■ 0	■ 0	■ <1	■ 0

Diagnosis

We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The amount and size of particulates present in the system are acceptable. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

WEAR METALS

Iron	ppm	■ 15	■ 10	■ 5	■ <1
Copper	ppm	■ 15	■ 15	■ 7	■ 2
Lead	ppm	■ 0	■ 0	■ <1	■ 0
Tin	ppm	■ <1	■ <1	<1	0
Aluminum	ppm	■ 2	■ <1	■ 1	■ 0
Chromium	ppm	■ 6	■ 4	■ 2	■ <1
Molybdenum	ppm	■ <1	■ <1	■ 0	0
Nickel	ppm	■ 0	■ 0	■ 0	■ 0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	<1	<1
Manganese	ppm	■ <1	■ <1	■ <1	0
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	■ 53	■ 56	■ 12	9
Magnesium	ppm	■ 1	■ 3	■ <1	0
Zinc	ppm	■ 88	■ 101	■ 69	38
Phosphorus	ppm	■ 110	■ 121	■ 87	74
Barium	ppm	■ 0	■ 0	■ 0	0
Boron	ppm	■ 0	■ 0	■ <1	<1

Depot: LEOMAD
Unique No: 10847085
Signed: Don Baldrige
Report Date: 26 Jan 2024

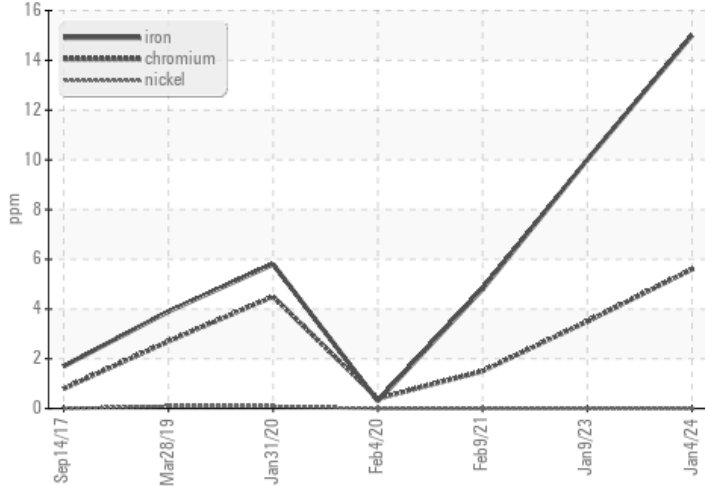


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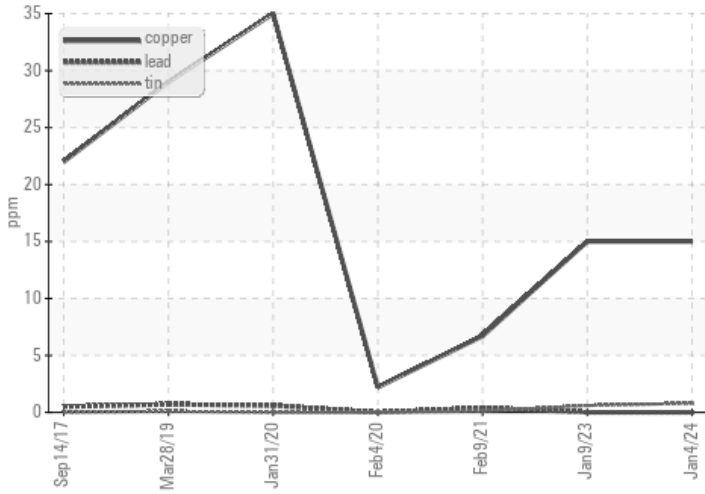


VOLVO GRAPHS

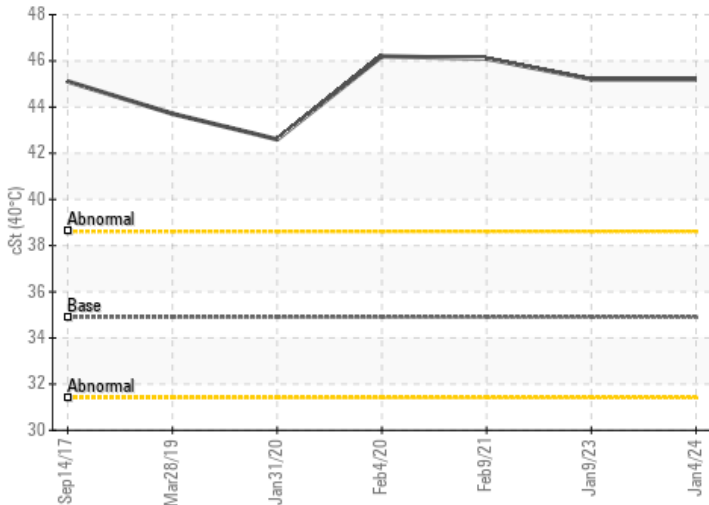
Ferrous Alloys



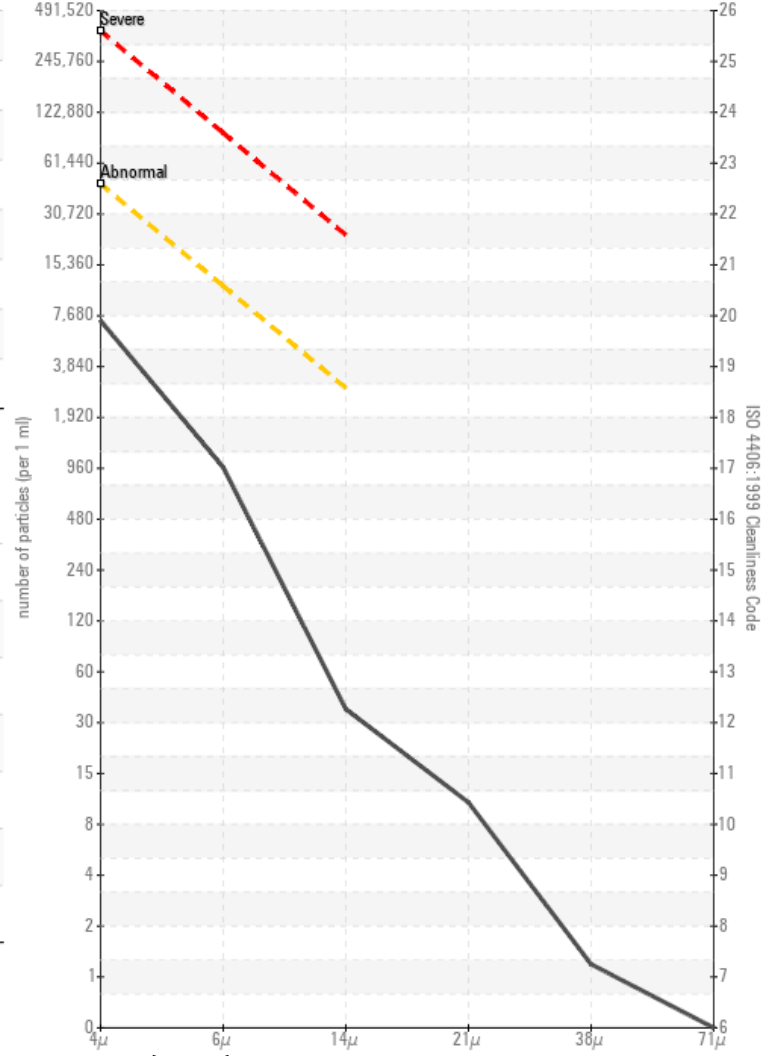
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

