



CONSTRUCTION EQUIPMENT

270334 VOLVO SD115B 236555 - HYDRAULIC SYSTEM



Sample No: VCP311959
Oil Type: VOLVO SUPER HYDRAULIC OIL 46
Job No: 270334



SAMPLE INFORMATION

Sample Number	VCP311959	VCP305550	VCP284933	VCP269939
Sample Date	12 Jun 2021	18 Jan 2021	06 Aug 2020	09 Mar 2020
Machine Hours	3986	3328	3841	2324
Oil Hours	3986	3328	1600	2324
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Changed
Sample Status	ATTENTION	NORMAL	NORMAL	NORMAL

RIPA AND ASSOCIATES

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



OIL CONDITION

Visc @ 40°C	cSt	▲ 30.49	■ 42.8	■ 43.4	■ 43.0
Acid Number (AN)	mg KOH/g	■ 0.431	■ 0.302	■ 0.414	■ 0.193



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		■ 2865	■ 3062	■ 2149	■ 8656
Particles >6µm		■ 318	■ 170	■ 621	■ 1814
Particles >14µm		■ 33	■ 29	■ 25	■ 50
ISO 4406:1999 (c)		19/15/12	19/15/12	18/16/12	20/18/13
Silicon	ppm	■ 14	■ 2	■ 3	■ 4
Sodium	ppm	■ 3	■ <1	■ <1	■ 2
Potassium	ppm	■ <1	■ <1	■ <1	■ 2

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.



WEAR METALS

Iron	ppm	■ 16	■ 38	■ 30	■ 38
Copper	ppm	■ 6	■ 7	■ 5	■ <1
Lead	ppm	■ 2	■ 4	■ 4	■ 10
Tin	ppm	■ 0	■ 0	■ 0	■ <1
Aluminum	ppm	■ <1	■ 0	■ 7	■ 2
Chromium	ppm	■ <1	■ <1	■ <1	■ <1
Molybdenum	ppm	■ 7	■ 1	■ 1	■ <1
Nickel	ppm	■ 0	■ <1	■ <1	■ 0
Titanium	ppm	■ <1	■ 0	■ 0	■ 0
Silver	ppm	■ 0	■ 0	■ 0	■ 0
Manganese	ppm	■ <1	■ <1	■ <1	■ 1
Vanadium	ppm	■ 0	■ 0	■ 0	■ 0



ADDITIVES

Calcium	ppm	■ 266	■ 112	■ 106	■ 119
Magnesium	ppm	■ 43	■ 14	■ 14	■ 0
Zinc	ppm	■ 323	■ 342	■ 349	■ 89
Phosphorus	ppm	■ 312	■ 380	■ 368	■ 443
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 24	■ 2	■ 5	■ <1

Depot: RIPTAM
Unique No: 9565104
Signed: Don Baldrige
Report Date: 02 Jul 2021

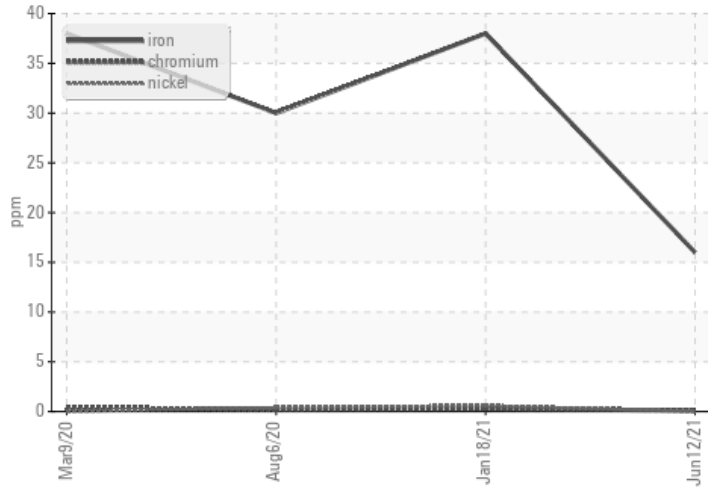


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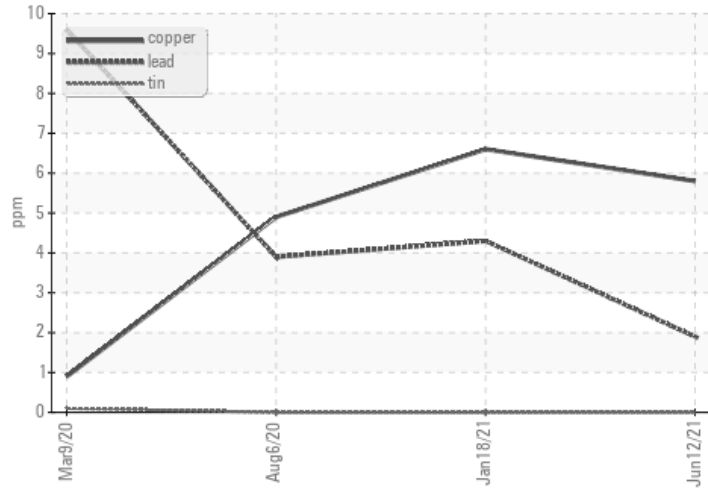


GRAPHS

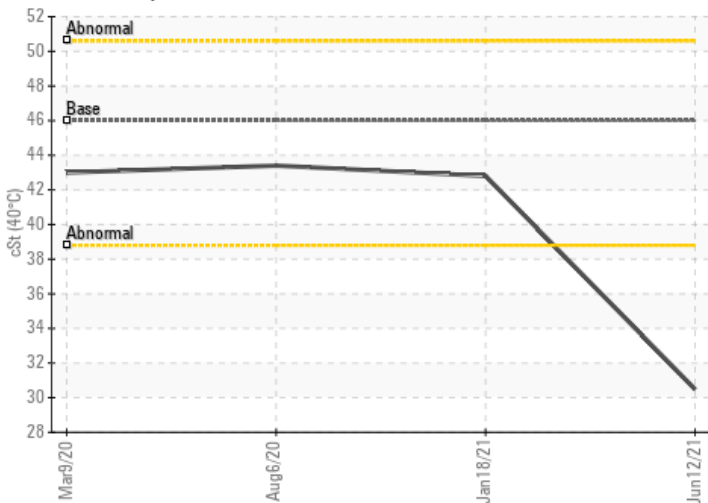
Ferrous Alloys



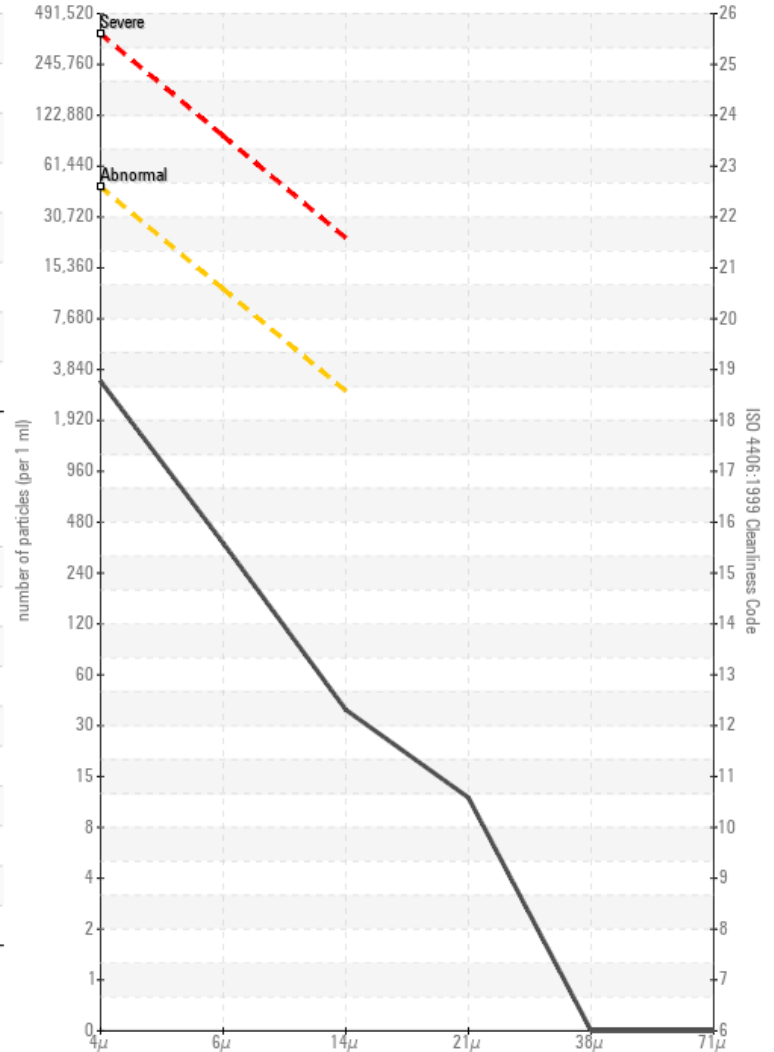
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

