



CONSTRUCTION EQUIPMENT

TRIPLE M 390108 VOLVO EC480E 310173 - DIESEL ENGINE



Sample No: VCP392147
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 390108



SAMPLE INFORMATION

Sample Number	VCP392147	VCP391691	VCP353479	VCP347377
Sample Date	03 Jan 2024	12 Jul 2023	26 Oct 2022	26 Oct 2022
Machine Hours	17767	17146	15967	15976
Oil Hours	0	500	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	NORMAL

STRONGCO EQUIPMENT (CE)

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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.6	▲ 11.3	■ 13.2	■ 12.6
Oxidation (PA)	%	80	73	80	90



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	■ 0.1	■ 0	■ 0	■ 0
Nitration (PA)	%	60	56	65	69
Sulfation (PA)	%	61	57	62	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	■ 1.9	■ 1.7	<1.0	<1.0
Silicon	ppm	■ 4	■ 5	■ 4	■ 4
Sodium	ppm	■ 5	■ 3	■ 2	■ 4
Potassium	ppm	■ 0	■ <1	■ 0	■ 0

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	■ 67	▲ 142	■ 5	■ 6
Copper	ppm	■ 1	■ 2	■ <1	■ <1
Lead	ppm	■ <1	■ <1	■ <1	■ 1
Tin	ppm	■ 0	■ <1	■ 0	■ <1
Aluminum	ppm	■ 3	■ 1	■ 1	■ 1
Chromium	ppm	■ <1	■ <1	■ 0	■ 0
Molybdenum	ppm	■ 35	■ 33	■ 36	■ 41
Nickel	ppm	■ <1	■ <1	■ 0	■ 0
Titanium	ppm	0	0	<1	<1
Silver	ppm	■ 0	■ <1	0	0
Manganese	ppm	■ <1	■ 1	■ <1	■ <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 1537	■ 1374	■ 1761	■ 1574
Magnesium	ppm	■ 442	■ 425	■ 438	■ 558
Zinc	ppm	■ 974	■ 947	■ 1069	■ 1097
Phosphorus	ppm	■ 842	■ 862	■ 966	■ 1003
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 27	■ 31	■ 23	■ 19

Depot: VOLVO0252
Unique No: 5707539
Signed: Kevin Marson
Report Date: 05 Jan 2024

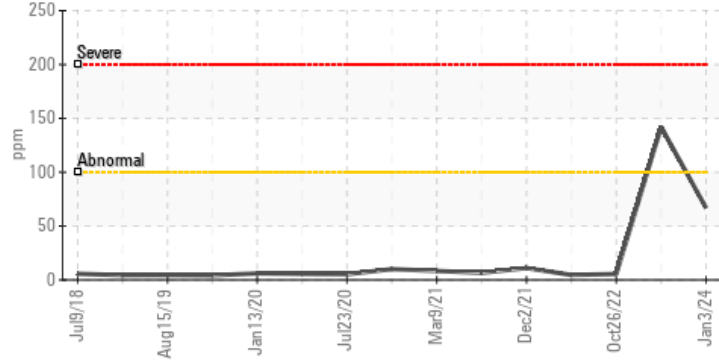


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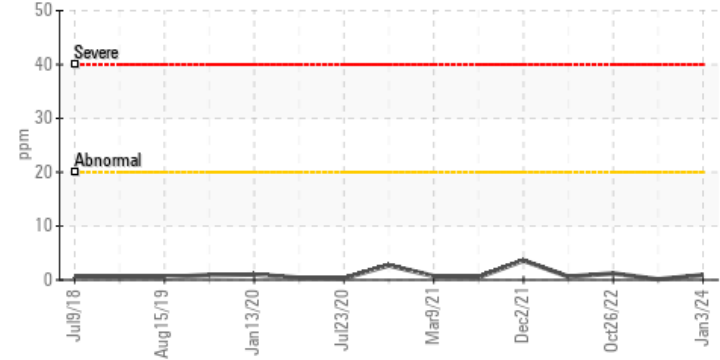


GRAPHS

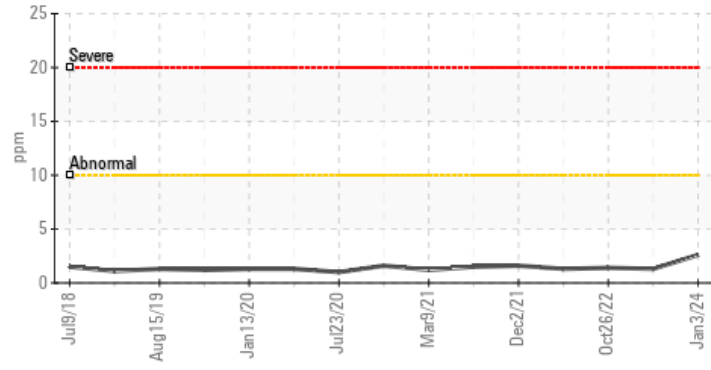
Iron (ppm)



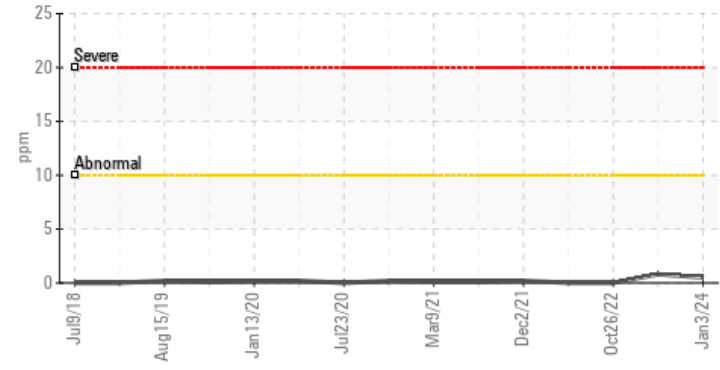
Lead (ppm)



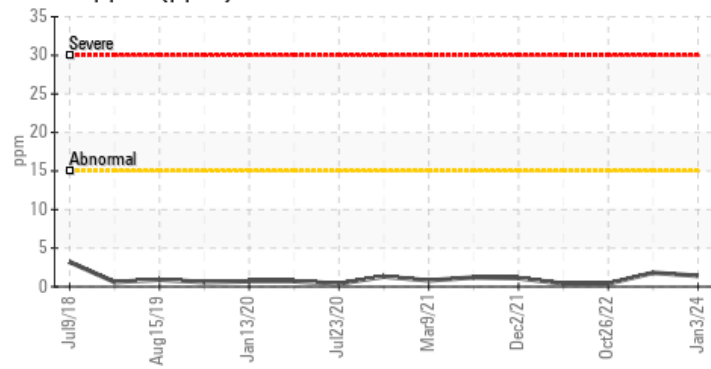
Aluminum (ppm)



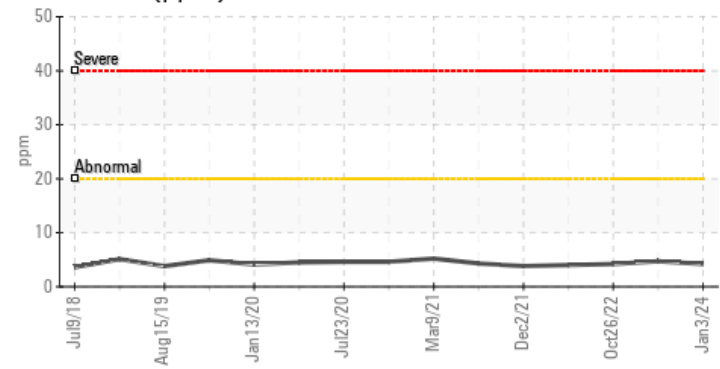
Chromium (ppm)



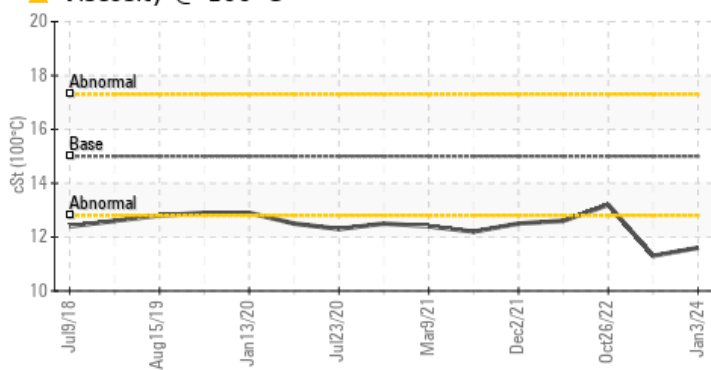
Copper (ppm)



Silicon (ppm)



▲ Viscosity @ 100°C



Soot %

