



CONSTRUCTION EQUIPMENT

225208 CRC WM VOLVO L120H 632191 - DIESEL ENGINE



Sample No: VCP424198
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 225208 CRC WM



SAMPLE INFORMATION

Sample Number	VCP424198	VCP371204	VCP363792	VCP305100
Sample Date	07 Sep 2023	13 Jan 2023	11 Oct 2022	22 Sep 2021
Machine Hours	17291	16571	16520	14382
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.0	14.3	14.9	14.7
Base Number (BN)	mg KOH/g	9.8	9.1	7.8	---
Oxidation (PA)	%	73	63	121	101



CONTAMINATION

Soot %	%	0.2	0.4	0.9	0.8
Nitration (PA)	%	61	75	128	104
Sulfation (PA)	%	58	59	92	73
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	10	32	18	19
Sodium	ppm	5	17	4	4
Potassium	ppm	0	16	0	0



WEAR METALS

Iron	ppm	16	24	29	28
Copper	ppm	1	2	3	2
Lead	ppm	0	1	3	<1
Tin	ppm	<1	<1	1	1
Aluminum	ppm	16	7	10	6
Chromium	ppm	<1	1	2	1
Molybdenum	ppm	44	20	30	31
Nickel	ppm	0	<1	0	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1892	1963	2685	2180
Magnesium	ppm	571	299	449	400
Zinc	ppm	1226	1136	1464	1220
Phosphorus	ppm	1053	923	1206	1002
Barium	ppm	0	0	0	0
Boron	ppm	66	26	23	20

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Depot: VOLVO1271
Unique No: 10648382
Signed: Sean Felton
Report Date: 19 Sep 2023

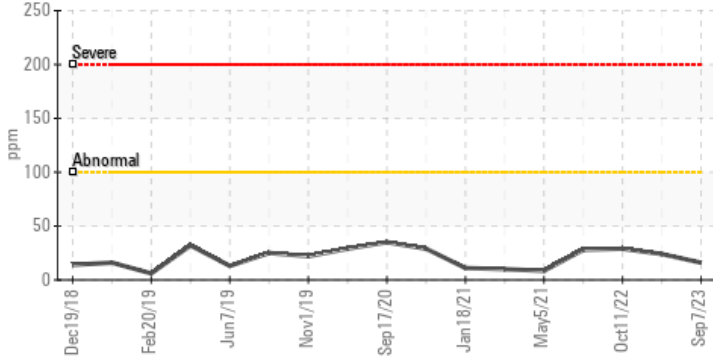


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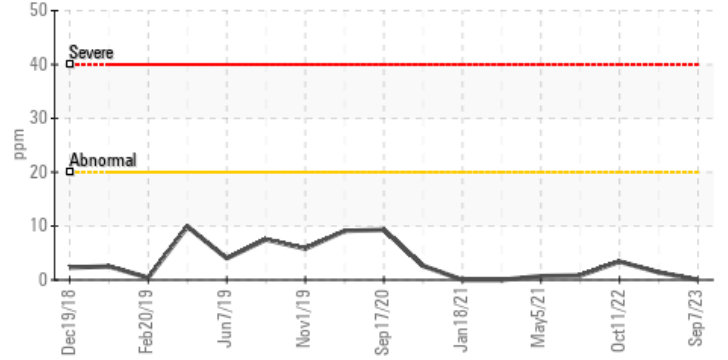


GRAPHS

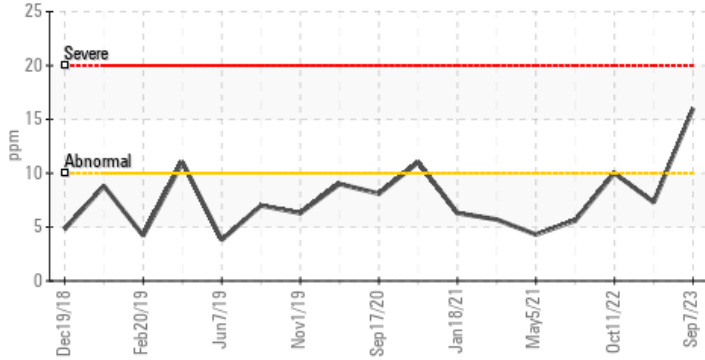
Iron (ppm)



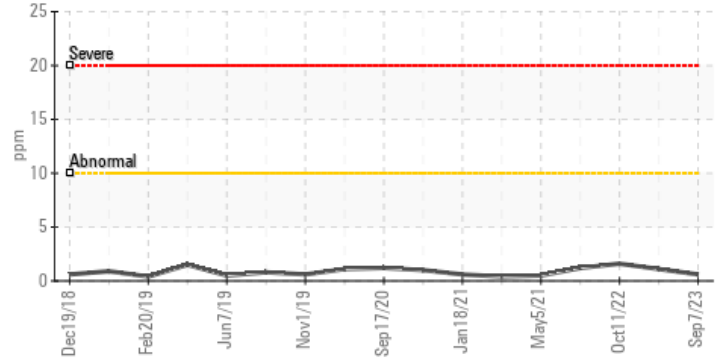
Lead (ppm)



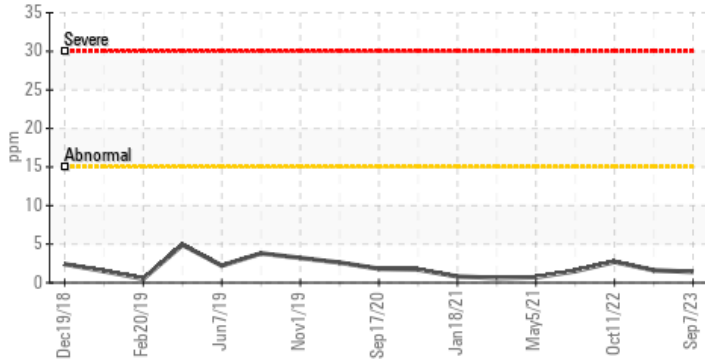
Aluminum (ppm)



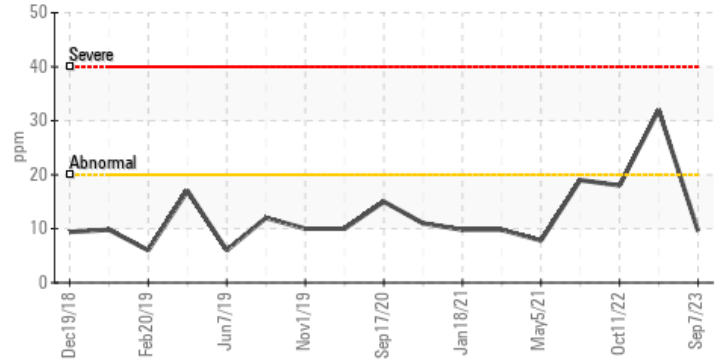
Chromium (ppm)



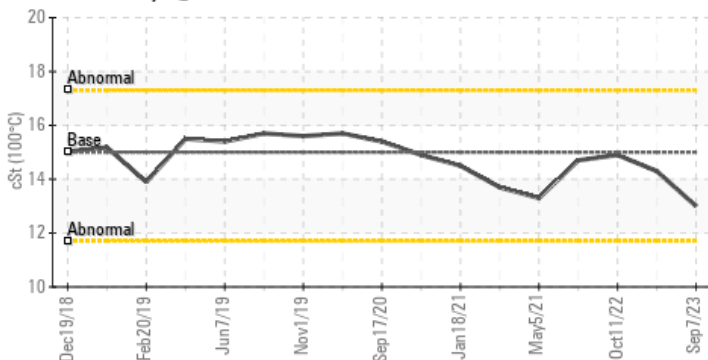
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

