



CONSTRUCTION EQUIPMENT

VOLVO A40F 12386 - DIESEL ENGINE



Sample No: VCP435803
Oil Type: MOBIL 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP435803	VCP433632	VCP331517	VCP362810
Sample Date	22 Apr 2024	19 Mar 2024	05 Feb 2024	19 Oct 2023
Machine Hours	12894	2744	12336	11856
Oil Hours	262	296	480	204
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.7	12.7	12.5	13.0
Base Number (BN)	mg KOH/g	8.9	7.0	6.7	8.7
Oxidation (PA)	%	69	57	59	68



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.3	0.5	0.3
Nitration (PA)	%	57	69	76	55
Sulfation (PA)	%	57	49	51	56
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	7	7	13	10
Sodium	ppm	2	3	5	5
Potassium	ppm	2	1	3	3



WEAR METALS

Iron	ppm	5	3	9	6
Copper	ppm	<1	<1	1	<1
Lead	ppm	<1	0	<1	0
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	4	6	7	5
Chromium	ppm	<1	0	<1	<1
Molybdenum	ppm	67	121	115	78
Nickel	ppm	<1	<1	1	<1
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	0
Vanadium	ppm	<1	<1	<1	<1



ADDITIVES

Calcium	ppm	1515	1301	1144	1440
Magnesium	ppm	534	660	600	575
Zinc	ppm	887	849	827	903
Phosphorus	ppm	755	706	658	749
Barium	ppm	0	0	34	<1
Boron	ppm	82	123	95	78

Diagnosis

Resample at the next service interval to monitor. All 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 suitable for further service.

Depot: SCHGRE
Unique No: 11004799
Signed: Wes Davis
Report Date: 01 May 2024

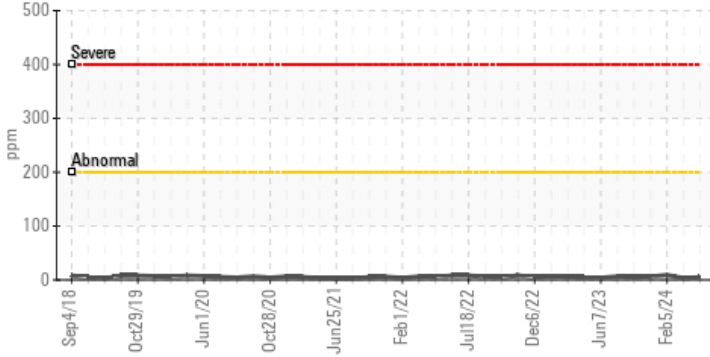


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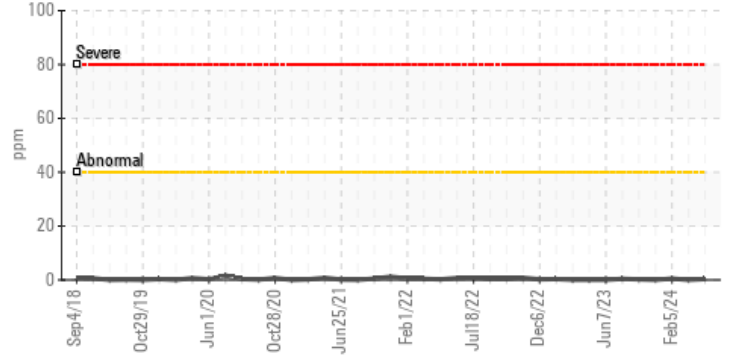


GRAPHS

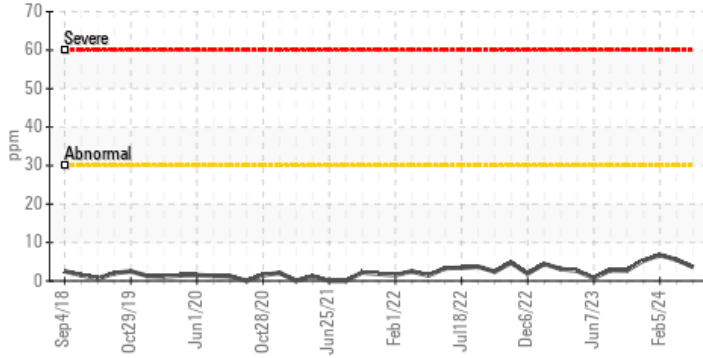
Iron (ppm)



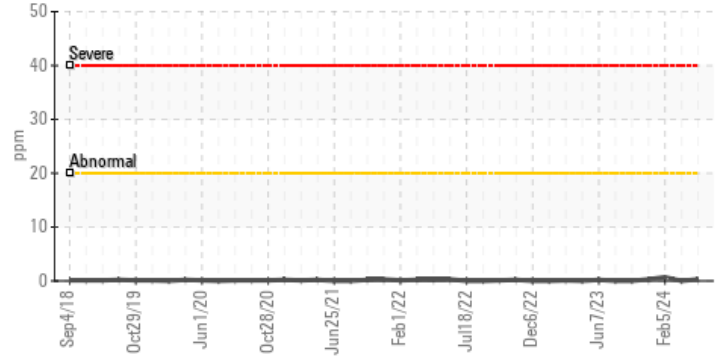
Lead (ppm)



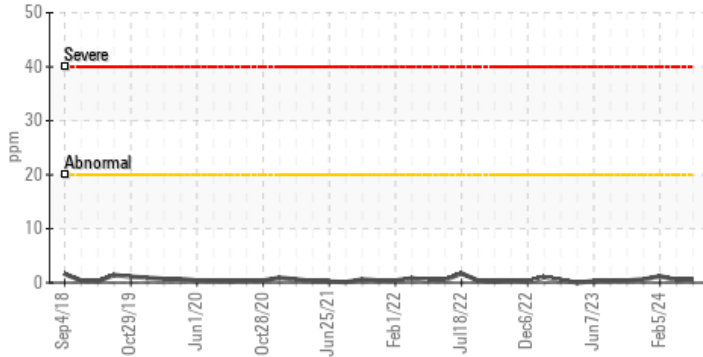
Aluminum (ppm)



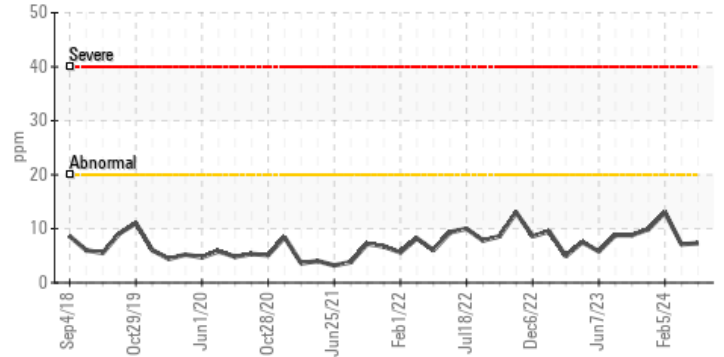
Chromium (ppm)



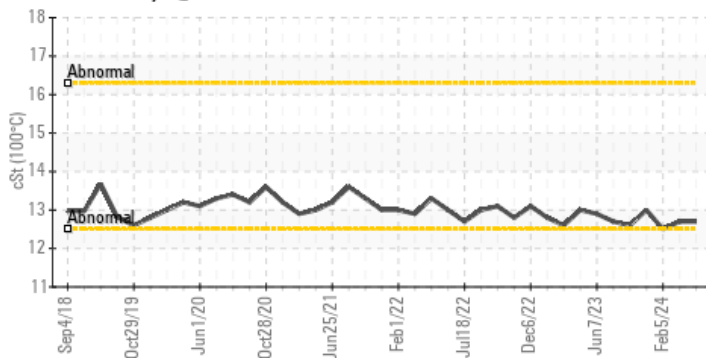
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

