



CONSTRUCTION EQUIPMENT

VOLVO A45G 352071 - DIESEL ENGINE



Sample No: VCP450922
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP450922	VCP435598	VCP427485	VCP412987
Sample Date	06 May 2024	29 Jan 2024	09 Oct 2023	12 Jul 2023
Machine Hours	8023	7545	7028	6523
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ATTENTION	ATTENTION

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OIL CONDITION

Visc @ 100°C	cSt	■ 12.6	■ 12.4	● 12.2	● 12.4
Base Number (BN)	mg KOH/g	■ 9.6	■ 7.1	■ 9.9	■ 10.1
Oxidation (PA)	%	76	64	77	79

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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	■ 0.2	■ 0.1	■ 0.1	■ 0.1
Nitration (PA)	%	58	74	53	55
Sulfation (PA)	%	58	51	59	59
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	■ 5	■ 4	■ 5	■ 5
Sodium	ppm	■ <1	■ 2	■ 2	■ 3
Potassium	ppm	■ 2	■ <1	■ <1	■ 0



WEAR METALS

Iron	ppm	■ 4	■ <1	■ 2	■ 4
Copper	ppm	■ 1	■ 1	■ 0	■ <1
Lead	ppm	■ <1	■ 1	■ 1	■ 0
Tin	ppm	■ 1	■ 1	■ 1	■ 0
Aluminum	ppm	■ 2	■ 3	■ 2	■ <1
Chromium	ppm	■ <1	■ <1	■ 0	■ 0
Molybdenum	ppm	■ 50	■ 92	■ 42	■ 41
Nickel	ppm	■ <1	■ <1	■ <1	■ 0
Titanium	ppm	<1	<1	■ 0	■ <1
Silver	ppm	■ <1	■ 0	■ 0	■ 0
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	<1	<1	0	<1



ADDITIVES

Calcium	ppm	■ 1647	■ 1200	■ 1663	■ 1802
Magnesium	ppm	■ 501	■ 588	■ 506	■ 539
Zinc	ppm	■ 1054	■ 816	■ 959	■ 1139
Phosphorus	ppm	■ 903	■ 691	■ 794	■ 964
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 72	■ 102	■ 50	■ 70

Depot: SAIBIR
Unique No: 11035293
Signed: Sean Felton
Report Date: 21 May 2024

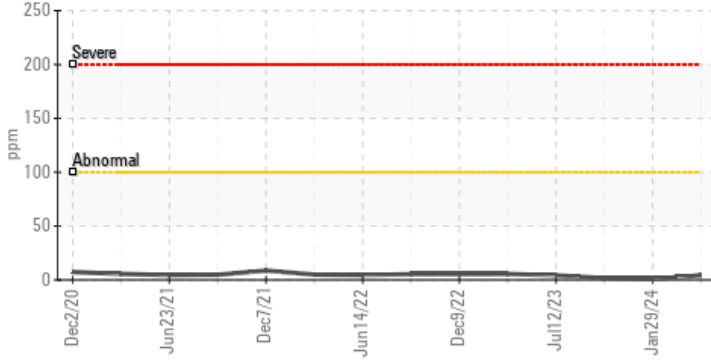


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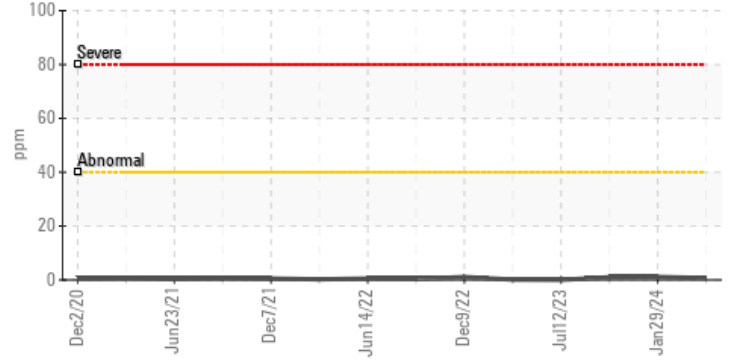


GRAPHS

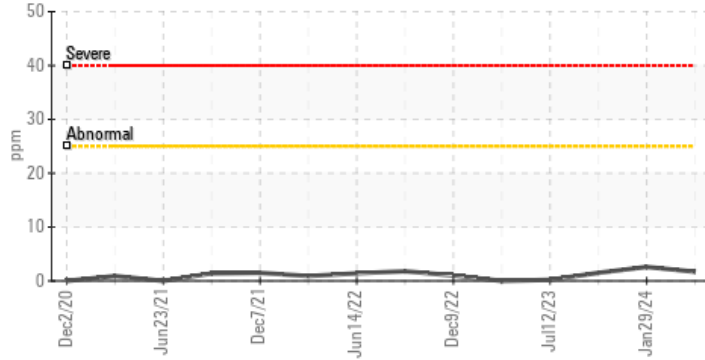
Iron (ppm)



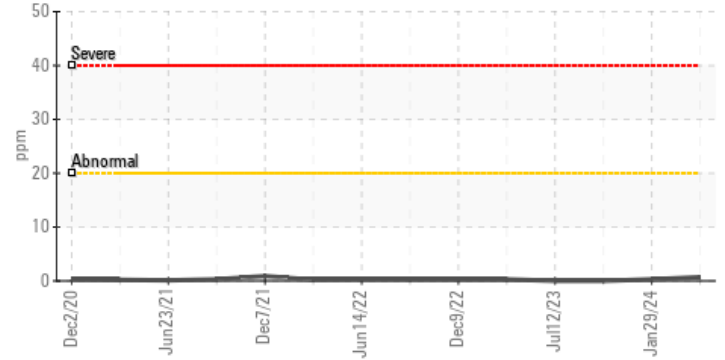
Lead (ppm)



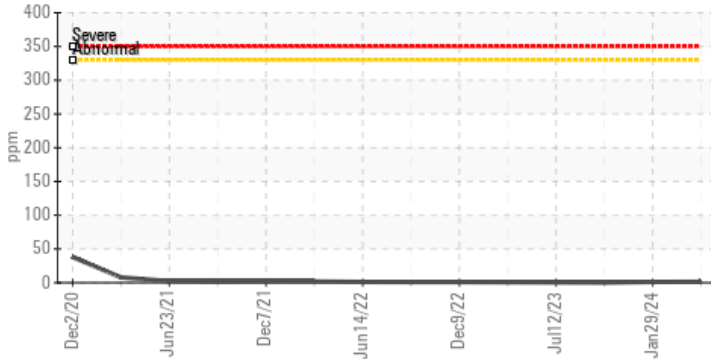
Aluminum (ppm)



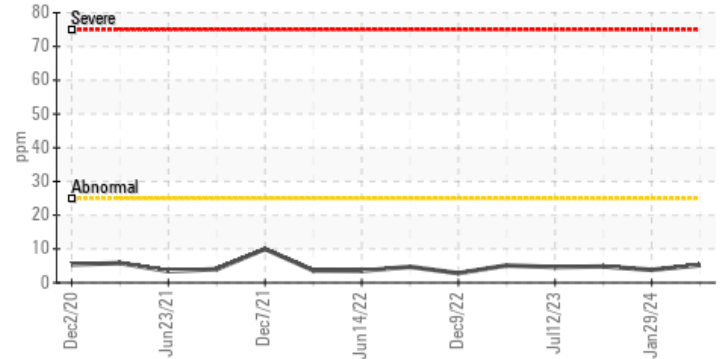
Chromium (ppm)



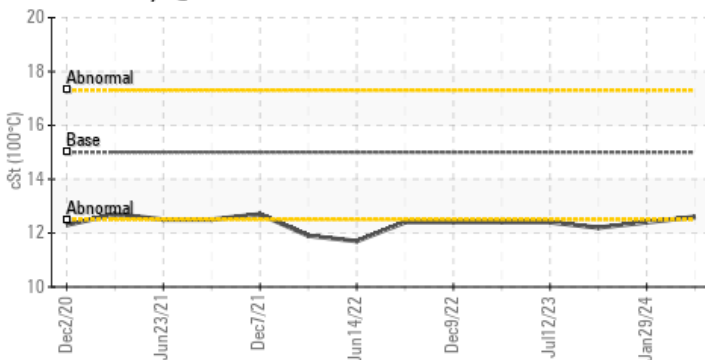
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

