



CONSTRUCTION EQUIPMENT

W02007680 VOLVO L90H 623805 - DIESEL ENGINE



Sample No: VCP420837
Oil Type: MOBIL 15W40
Job No: W02007680



SAMPLE INFORMATION

Sample Number	VCP420837	VCP419406	VCP367936	VCP364876
Sample Date	27 Oct 2023	06 Jun 2023	13 Jan 2023	22 Sep 2022
Machine Hours	11538	11000	10276	9691
Oil Hours	500	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.1	13.0	13.1	12.9
Base Number (BN)	mg KOH/g	8.2	8.2	8.8	10.2
Oxidation (PA)	%	66	69	69	76



CONTAMINATION

Soot %	%	0.3	0.4	0.4	0.3
Nitration (PA)	%	64	76	70	68
Sulfation (PA)	%	61	62	60	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	7	8	▲ 23	5
Sodium	ppm	0	1	3	2
Potassium	ppm	1	0	<1	1



WEAR METALS

Iron	ppm	9	12	30	6
Copper	ppm	<1	1	2	<1
Lead	ppm	0	0	<1	<1
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	2	3	▲ 8	2
Chromium	ppm	<1	2	4	<1
Molybdenum	ppm	127	113	103	47
Nickel	ppm	<1	0	<1	<1
Titanium	ppm	0	<1	<1	0
Silver	ppm	<1	0	0	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	<1



ADDITIVES

Calcium	ppm	1445	1635	1480	1484
Magnesium	ppm	587	656	643	646
Zinc	ppm	837	889	882	1121
Phosphorus	ppm	729	713	717	924
Barium	ppm	4	0	0	0
Boron	ppm	302	231	227	32

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: VOLVO0002
Unique No: 10724913
Signed: Jonathan Hester
Report Date: 03 Nov 2023



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GRAPHS

