



CONSTRUCTION EQUIPMENT

WO7013061 VOLVO L90E 67920 - DIESEL ENGINE



Sample No: VCP407217
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: WO7013061



SAMPLE INFORMATION

Sample Number	VCP407217	VCP372988	VCP245654	VCP321337
Sample Date	31 Jul 2023	25 Jul 2022	09 Mar 2022	03 Aug 2021
Machine Hours	6146	5746	5432	4732
Oil Hours	500	0	0	0
Oil Changed	N/A	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	SEVERE	ABNORMAL



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OIL CONDITION

Visc @ 100°C	cSt	12.0	11.5	11.59	11.4
Base Number (BN)	mg KOH/g	6.4	8.3	6.6	---
Oxidation (PA)	%	66	59	81	74



CONTAMINATION

Soot %	%	0.3	0.3	0.4	0.3
Nitration (PA)	%	82	67	96	90
Sulfation (PA)	%	52	54	59	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	5.6	4.5	10.4	7.1
Silicon	ppm	4	3	3	2
Sodium	ppm	3	<1	2	3
Potassium	ppm	2	0	0	1



WEAR METALS

Iron	ppm	8	5	7	5
Copper	ppm	<1	<1	<1	<1
Lead	ppm	<1	<1	1	<1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	<1	2	2	0
Chromium	ppm	0	0	<1	<1
Molybdenum	ppm	54	73	40	45
Nickel	ppm	0	<1	0	0
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	<1	0	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1392	1539	1165	1214
Magnesium	ppm	774	396	717	595
Zinc	ppm	971	1055	752	777
Phosphorus	ppm	729	841	658	656
Barium	ppm	0	0	0	0
Boron	ppm	38	104	31	33

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected 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: VOLVO8882
Unique No: 10603841
Signed: Wes Davis
Report Date: 16 Aug 2023



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GRAPHS

