



CONSTRUCTION EQUIPMENT

SW-33097-2 MANHEIM VOLVO L90F 68702 - DIESEL ENGINE



Sample No: VCP446580
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-33097-2 MANHEIM



SAMPLE INFORMATION

Sample Number	VCP446580	VCP324494	VCP435843	VCP443484
Sample Date	19 Apr 2024	23 Feb 2024	22 Dec 2023	25 Oct 2023
Machine Hours	17594	17345	17058	16793
Oil Hours	250	300	250	200
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.6	13.9	14.1	14.3
Base Number (BN)	mg KOH/g	7.5	8.5	8.1	9.0
Oxidation (PA)	%	41	51	54	50

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.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.2	0.1	0.1
Nitration (PA)	%	47	48	52	40
Sulfation (PA)	%	45	48	50	48
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	2	4	2	2
Sodium	ppm	<1	1	1	2
Potassium	ppm	<1	1	1	1



WEAR METALS

Iron	ppm	1	3	<1	0
Copper	ppm	0	<1	<1	1
Lead	ppm	0	0	<1	0
Tin	ppm	0	0	<1	0
Aluminum	ppm	<1	2	2	1
Chromium	ppm	0	<1	0	0
Molybdenum	ppm	31	61	63	58
Nickel	ppm	0	0	0	<1
Titanium	ppm	1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	1895	1238	1430	996
Magnesium	ppm	401	730	611	949
Zinc	ppm	1156	1150	1265	1280
Phosphorus	ppm	970	1053	1060	1036
Barium	ppm	0	0	0	0
Boron	ppm	29	25	38	8

Depot: VOLVO8770
Unique No: 11003253
Signed: Wes Davis
Report Date: 29 Apr 2024



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VOLVO GRAPHS

