



CONSTRUCTION EQUIPMENT

A11864 ALPHA VOLVO EC160E 314175 - DIESEL ENGINE



Sample No: VCP428747
Oil Type: MOBIL 15W40
Job No: A11864 ALPHA



SAMPLE INFORMATION

Sample Number	VCP428747	VCP430930	VCP416349	VCP425986
Sample Date	12 Jan 2024	31 Oct 2023	16 Aug 2023	07 Jun 2023
Machine Hours	6540	5950	5360	4935
Oil Hours	500	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	NORMAL	NORMAL

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 120 GORDON DRIVE
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OIL CONDITION

Visc @ 100°C	cSt	11.8	11.5	12.0	12.0
Base Number (BN)	mg KOH/g	5.0	6.1	5.8	5.8
Oxidation (PA)	%	50	54	43	55

Diagnosis

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.2	0.2	0.2
Nitration (PA)	%	60	64	60	72
Sulfation (PA)	%	53	51	47	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	4.2
Silicon	ppm	4	4	4	3
Sodium	ppm	1	1	0	2
Potassium	ppm	2	2	2	0



WEAR METALS

Iron	ppm	13	18	11	14
Copper	ppm	1	2	1	1
Lead	ppm	<1	0	<1	0
Tin	ppm	<1	0	<1	<1
Aluminum	ppm	8	20	8	4
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	10	28	12	15
Nickel	ppm	0	0	2	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	<1	0	2	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	0	<1	<1	0



ADDITIVES

Calcium	ppm	2011	1723	2114	2034
Magnesium	ppm	144	348	106	185
Zinc	ppm	1062	1074	1050	963
Phosphorus	ppm	878	897	845	812
Barium	ppm	<1	7	0	0
Boron	ppm	3	4	3	4

Depot: VOLVO8879
Unique No: 10836335
Signed: Jonathan Hester
Report Date: 19 Jan 2024



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GRAPHS

