



CONSTRUCTION EQUIPMENT

VOLVO L220H 3440 - DIESEL ENGINE



Sample No: VCP440504
Oil Type: SHELL ROTELLA T3 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP440504	VCP440713	VCP440501	VCP441740
Sample Date	19 Apr 2024	05 Apr 2024	22 Mar 2024	07 Mar 2024
Machine Hours	9005	8728	8460	8197
Oil Hours	277	268	263	276
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

COVANTA ENERGY
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OIL CONDITION

Visc @ 100°C	cSt	13.4	13.3	13.3	13.5
Base Number (BN)	mg KOH/g	6.6	6.6	6.7	6.6
Oxidation (PA)	%	39	39	39	40



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	53	53	53	53
Sulfation (PA)	%	47	47	46	46
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	4	6	8
Sodium	ppm	<1	1	<1	<1
Potassium	ppm	<1	<1	<1	2



WEAR METALS

Iron	ppm	0	<1	1	4
Copper	ppm	3	<1	0	5
Lead	ppm	0	<1	0	<1
Tin	ppm	0	0	0	<1
Aluminum	ppm	0	<1	<1	2
Chromium	ppm	0	0	0	<1
Molybdenum	ppm	10	11	13	18
Nickel	ppm	0	0	0	<1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	0	0	0	<1
Vanadium	ppm	0	<1	0	<1



ADDITIVES

Calcium	ppm	2485	2295	2491	2290
Magnesium	ppm	44	56	67	59
Zinc	ppm	1184	964	1173	1050
Phosphorus	ppm	981	899	1023	916
Barium	ppm	0	0	0	0
Boron	ppm	5	10	12	17

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: COVWES
Unique No: 10994119
Signed: Wes Davis
Report Date: 25 Apr 2024



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GRAPHS

