



CONSTRUCTION EQUIPMENT

CARR BROS VOLVO A40F 11213 - DIESEL ENGINE



Sample No: VCP388213
Oil Type: SHELL ROTELLA T 15W40
Job No: CARR BROS



SAMPLE INFORMATION

Sample Number	VCP388213	VCE159402	VCP114699	VCE114706
Sample Date	08 Sep 2023	27 Jun 2012	08 May 2012	05 Apr 2012
Machine Hours	15586	1582	0	830
Oil Hours	0	0	0	0
Oil Changed	Changed	Not Chngd	N/A	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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 56195 PONTIAC TRAIL
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OIL CONDITION

Visc @ 100°C	cSt	13.2	12.54	12.96	12.59
Base Number (BN)	mg KOH/g	8.6	---	---	---
Oxidation (PA)	%	73	52	12	40



CONTAMINATION

Soot %	%	0	0.1	0	0
Nitration (PA)	%	72	50	17	42
Sulfation (PA)	%	65	50	30	42
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	5	5	8
Sodium	ppm	2	6	8	4
Potassium	ppm	8	6	0	0



WEAR METALS

Iron	ppm	9	9	7	11
Copper	ppm	2	16	6	14
Lead	ppm	<1	0	2	5
Tin	ppm	<1	<1	0	0
Aluminum	ppm	3	3	4	1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	10	2	5	4
Nickel	ppm	3	4	1	2
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	<1	0	0
Manganese	ppm	<1	<1	0	<1
Vanadium	ppm	0	<1	0	0



ADDITIVES

Calcium	ppm	2200	2300	2289	2069
Magnesium	ppm	96	24	21	40
Zinc	ppm	1231	1167	1199	1039
Phosphorus	ppm	1024	1080	1029	932
Barium	ppm	0	0	0	0
Boron	ppm	146	26	39	25

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: VOLVO2990
Unique No: 10656955
Signed: Wes Davis
Report Date: 21 Sep 2023



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GRAPHS

