



CONSTRUCTION EQUIPMENT

W07013419-1 VOLVO A35G 340231 - DIESEL ENGINE



Sample No: VCP415409
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: W07013419-1



SAMPLE INFORMATION

Sample Number	VCP415409	VCP402992	VCP386288	VCP290461
Sample Date	20 Sep 2023	13 Mar 2023	07 Jan 2023	15 Oct 2020
Machine Hours	6297	5716	4454	3490
Oil Hours	0	0	0	500
Oil Changed	Changed	N/A	Changed	Changed
Sample Status	ATTENTION	ATTENTION	NORMAL	NORMAL

McClung-Logan Virginia LLC- RICHMOND
 1345 MOUNTAIN ROAD
 GLEN ALLEN, VA
 US 23060
 Contact: KYLE RATLIFF
 KRATLIFF@MCCCLUNG-LOGAN.COM
 T:
 F: (804)266-1611



OIL CONDITION

Visc @ 100°C	cSt	▲ 11.8	▲ 12.0	■ 12.6	■ 12.7
Base Number (BN)	mg KOH/g	■ 7.0	■ 7.6	■ 8.8	---
Oxidation (PA)	%	52	52	80	48



CONTAMINATION

Soot %	%	■ 0.2	■ 0.1	■ 0.2	■ 0.2
Nitration (PA)	%	60	55	68	70
Sulfation (PA)	%	51	51	60	52
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	■ 0.4	<1.0	<1.0
Silicon	ppm	■ 7	■ 8	■ 10	■ 5
Sodium	ppm	■ 2	■ 2	■ 3	■ 2
Potassium	ppm	■ <1	■ 1	■ 0	■ 1

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.



WEAR METALS

Iron	ppm	■ 10	■ 6	■ 12	■ 14
Copper	ppm	■ <1	■ <1	■ 2	■ 38
Lead	ppm	■ <1	■ 0	■ 1	■ <1
Tin	ppm	■ <1	■ <1	■ <1	■ <1
Aluminum	ppm	■ 6	■ 3	■ 6	■ 0
Chromium	ppm	■ <1	■ <1	■ <1	■ <1
Molybdenum	ppm	■ 74	■ 79	■ 42	■ 10
Nickel	ppm	■ <1	■ <1	■ <1	■ 3
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	■ 0	■ 0	■ 0	■ 0
Manganese	ppm	■ <1	■ 1	■ <1	■ 1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 1396	■ 1783	■ 1596	■ 2056
Magnesium	ppm	■ 631	■ 514	■ 491	106
Zinc	ppm	■ 1188	■ 1292	■ 832	■ 969
Phosphorus	ppm	■ 1020	■ 1074	688	■ 866
Barium	ppm	■ 3	■ 0	■ 0	■ 0
Boron	ppm	107	268	■ 23	■ 14

Depot: VOLVO8882
Unique No: 10660729
Signed: Doug Bogart
Report Date: 28 Sep 2023



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VOLVO GRAPHS

