



CONSTRUCTION EQUIPMENT

SWO-068391 VOLVO A45G 352969 - DIESEL ENGINE



Sample No: VCP447587
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SWO-068391



SAMPLE INFORMATION

Sample Number	VCP447587	VCP433941	VCP408935	VCP403260
Sample Date	20 Dec 2023	19 Sep 2023	21 Jun 2023	24 Jan 2023
Machine Hours	2980	2491	2003	1469
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	NORMAL	NORMAL	NORMAL

SAIIA CONSTRUCTION LLC

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.4	■ 12.5	■ 12.7	■ 12.8
Base Number (BN)	mg KOH/g	■ 6.9	■ 9.4	■ 10.2	■ 10.6
Oxidation (PA)	%	66	76	80	78

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. Fuel content negligible. 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 %	%	■ 0.3	■ 0.3	■ 0.3	■ 0.1
Nitration (PA)	%	77	56	59	54
Sulfation (PA)	%	54	59	61	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	■ 0.3	<1.0	<1.0	<1.0
Silicon	ppm	■ 6	■ 6	■ 6	■ 6
Sodium	ppm	■ 2	■ 5	■ 3	■ 2
Potassium	ppm	■ <1	■ <1	■ <1	■ 0



WEAR METALS

Iron	ppm	■ 7	■ 11	■ 17	■ 10
Copper	ppm	■ 2	■ 2	■ 1	■ <1
Lead	ppm	■ <1	■ 0	■ 1	■ 1
Tin	ppm	■ 1	■ 2	■ 2	■ 1
Aluminum	ppm	■ 3	■ 1	■ 0	■ <1
Chromium	ppm	■ <1	■ <1	■ <1	■ <1
Molybdenum	ppm	■ 96	■ 43	■ 42	■ 44
Nickel	ppm	■ 4	■ 2	■ 3	■ 4
Titanium	ppm	0	■ 0	■ <1	0
Silver	ppm	■ 0	■ 0	■ <1	■ 0
Manganese	ppm	■ <1	■ 1	■ 1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 1384	■ 1793	■ 1789	■ 1978
Magnesium	ppm	■ 656	■ 529	■ 541	■ 573
Zinc	ppm	■ 956	■ 1154	■ 1147	■ 1203
Phosphorus	ppm	■ 815	■ 978	■ 966	■ 979
Barium	ppm	■ 0	■ 0	■ 4	■ 0
Boron	ppm	■ 69	■ 43	■ 54	■ 62

Depot: SAIBIR
Unique No: 10809261
Signed: Don Baldrige
Report Date: 04 Jan 2024



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GRAPHS

