



CONSTRUCTION EQUIPMENT

SWA305295 SOM-MARO CATERPILLAR GENERATOR 09EP02244 - DIESEL ENGINE



Sample No: VCP416316
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SWA305295 SOM-MARO



SAMPLE INFORMATION

Sample Number	VCP416316	VCP359912	---	---
Sample Date	12 Jul 2023	24 May 2022	---	---
Machine Hours	922	876	---	---
Oil Hours	50	60	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ATTENTION	ATTENTION	---	---

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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.3	▲ 11.7	---	---
Base Number (BN)	mg KOH/g	■ 10.5	■ 11.5	---	---
Oxidation (PA)	%	77	83	---	---

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

Soot %	%	■ 0.1	■ 0.1	---	---
Nitration (PA)	%	52	58	---	---
Sulfation (PA)	%	59	62	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	■ 0.7	■ 0.6	---	---
Silicon	ppm	■ 7	■ 6	---	---
Sodium	ppm	■ 3	■ 2	---	---
Potassium	ppm	■ 0	■ 0	---	---



WEAR METALS

Iron	ppm	■ 2	■ 3	---	---
Copper	ppm	■ 6	■ 1	---	---
Lead	ppm	■ 0	■ <1	---	---
Tin	ppm	■ <1	■ <1	---	---
Aluminum	ppm	■ <1	■ <1	---	---
Chromium	ppm	■ 0	■ <1	---	---
Molybdenum	ppm	■ 43	■ 40	---	---
Nickel	ppm	■ 0	■ 0	---	---
Titanium	ppm	■ <1	■ <1	---	---
Silver	ppm	■ 0	■ <1	---	---
Manganese	ppm	■ <1	■ <1	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	■ 1674	■ 1717	---	---
Magnesium	ppm	■ 597	■ 511	---	---
Zinc	ppm	■ 1147	■ 1064	---	---
Phosphorus	ppm	■ 955	■ 929	---	---
Barium	ppm	■ 0	■ 0	---	---
Boron	ppm	■ 63	■ 68	---	---

Depot: VOLVO2990
Unique No: 10565403
Signed: Don Baldrige
Report Date: 25 Jul 2023



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GRAPHS

