



CONSTRUCTION EQUIPMENT

SPM619831 VOLVO EC380E 315082 - DIESEL ENGINE



Sample No: VCP414543
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SPM619831



SAMPLE INFORMATION

Sample Number	VCP414543	VCP420645	VCP418538	VCP405711
Sample Date	11 Oct 2023	13 Jul 2023	02 May 2023	16 Mar 2023
Machine Hours	3862	3213	2700	2412
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	ATTENTION	ATTENTION	ATTENTION

UNITED SCRAP

1545 S CICERO AVE
 CICERO, IL
 US 60804

Contact: RON LUCHTENBURG
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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.7	▲ 12.1	▲ 12.3	▲ 12.1
Base Number (BN)	mg KOH/g	■ 6.6	■ 8.2	■ 8.9	■ 7.8
Oxidation (PA)	%	76	65	61	64



CONTAMINATION

Soot %	%	■ 0.1	■ 0.1	■ 0.1	■ 0.1
Nitration (PA)	%	73	63	55	69
Sulfation (PA)	%	58	55	53	55
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	■ 0.4
Silicon	ppm	■ 7	■ 5	■ 4	■ 4
Sodium	ppm	■ 3	■ 3	■ 2	■ 2
Potassium	ppm	■ 3	■ 0	■ <1	■ 0



WEAR METALS

Iron	ppm	■ 8	■ 8	■ 5	■ 5
Copper	ppm	■ 3	■ 3	■ 2	■ 8
Lead	ppm	■ <1	■ 0	■ 0	■ 0
Tin	ppm	■ <1	■ 0	■ <1	■ 0
Aluminum	ppm	■ 2	■ <1	■ <1	■ <1
Chromium	ppm	■ <1	■ <1	■ 0	■ 0
Molybdenum	ppm	■ 59	■ 62	■ 60	■ 55
Nickel	ppm	■ <1	■ 0	■ 0	■ 0
Titanium	ppm	■ <1	■ <1	■ 0	■ 0
Silver	ppm	■ 0	■ 0	■ 0	■ 0
Manganese	ppm	■ 0	■ <1	■ 0	■ <1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	■ 1068	■ 1152	■ 1131	■ 1101
Magnesium	ppm	■ 866	■ 1007	■ 1008	■ 843
Zinc	ppm	■ 1173	■ 1267	■ 1300	■ 1104
Phosphorus	ppm	■ 936	■ 1061	■ 1052	■ 922
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 2	■ 3	■ 0	■ 3

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.

Depot: UNICICIL
Unique No: 10712803
Signed: Jonathan Hester
Report Date: 31 Oct 2023



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GRAPHS

