



CONSTRUCTION EQUIPMENT

50652 VOLVO ECR235EL 311165 - DIESEL ENGINE



Sample No: VCP424489
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 50652



SAMPLE INFORMATION

Sample Number	VCP424489	VCP344882	VCP311611	VCP281588
Sample Date	28 Sep 2023	30 Jan 2023	26 Jan 2023	14 Nov 2020
Machine Hours	9006	8302	0	5831
Oil Hours	0	500	0	0
Oil Changed	Not Changd	N/A	Not Changd	Changed
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	NORMAL

CITY CARTING
 221 OLD GATE LN
 MILFORD, CT
 US 06460
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 F:

OIL CONDITION

Visc @ 100°C	cSt	█ 12.3	▲ 8.4	▲ 8.4	█ 13.0
Base Number (BN)	mg KOH/g	█ 6.7	▲ 2.8	▲ 3.3	---
Oxidation (PA)	%	33	57	58	61

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other component wear rates are normal. Fuel content negligible. 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.

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	█ 0.1	█ 0.5	█ 0.5	█ 0.2
Nitration (PA)	%	40	49	52	75
Sulfation (PA)	%	40	53	54	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	█ 0.5	█ 1.3	█ 1.3	<1.0
Silicon	ppm	█ 7	█ 17	█ 17	█ 9
Sodium	ppm	█ 4	█ <1	█ 2	█ 2
Potassium	ppm	█ 5	█ 2	█ 2	█ <1

WEAR METALS

Iron	ppm	█ 24	█ 28	█ 28	█ 9
Copper	ppm	█ 3	█ 6	█ 6	█ 1
Lead	ppm	█ <1	█ <1	█ <1	█ <1
Tin	ppm	█ <1	█ 1	█ 2	█ <1
Aluminum	ppm	▲ 20	▲ 19	▲ 19	█ 3
Chromium	ppm	█ 2	▲ 15	▲ 15	█ <1
Molybdenum	ppm	█ 23	█ 20	█ 20	█ 24
Nickel	ppm	█ <1	█ <1	█ <1	█ 0
Titanium	ppm	0	<1	█ <1	█ <1
Silver	ppm	█ 0	█ 0	█ 0	█ 0
Manganese	ppm	█ 1	█ <1	█ <1	█ <1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	█ 1646	█ 711	█ 727	█ 2479
Magnesium	ppm	114	█ 169	█ 173	154
Zinc	ppm	█ 902	█ 730	█ 750	█ 1124
Phosphorus	ppm	█ 761	█ 563	█ 566	█ 995
Barium	ppm	█ 0	█ 0	█ 0	█ 0
Boron	ppm	█ 14	█ 11	█ 11	█ 14

Depot: CITMILCON
Unique No: 10672679
Signed: Jonathan Hester
Report Date: 06 Oct 2023



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VOLVO GRAPHS

