



CONSTRUCTION EQUIPMENT

19244 VOLVO EC140 31556 - DIESEL ENGINE



Sample No: VCP412249
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 19244



SAMPLE INFORMATION

Sample Number	VCP412249	VCP381098	---	---
Sample Date	23 Jul 2023	24 Feb 2023	---	---
Machine Hours	2129	651	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	MARGINAL	---	---

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OIL CONDITION

Visc @ 100°C	cSt	█ 12.8	12.4	---	---
Base Number (BN)	mg KOH/g	█ 6.7	█ 6.9	---	---
Oxidation (PA)	%	73	48	---	---

CONTAMINATION

Soot %	%	█ 0.3	█ 0.1	---	---
Nitration (PA)	%	78	66	---	---
Sulfation (PA)	%	60	49	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	▲ 2.4	---	---
Silicon	ppm	▲ 28	█ 15	---	---
Sodium	ppm	█ 2	█ <1	---	---
Potassium	ppm	█ <1	█ 2	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

WEAR METALS

Iron	ppm	█ 29	█ 17	---	---
Copper	ppm	█ 6	█ 6	---	---
Lead	ppm	█ 0	█ 1	---	---
Tin	ppm	█ 2	█ 2	---	---
Aluminum	ppm	█ 5	█ 12	---	---
Chromium	ppm	█ 2	█ 2	---	---
Molybdenum	ppm	█ 54	█ 3	---	---
Nickel	ppm	█ <1	█ 5	---	---
Titanium	ppm	█ 13	█ 18	---	---
Silver	ppm	█ 0	█ 0	---	---
Manganese	ppm	█ 1	3	---	---
Vanadium	ppm	<1	0	---	---

ADDITIVES

Calcium	ppm	█ 1381	█ 2243	---	---
Magnesium	ppm	922	█ 162	---	---
Zinc	ppm	█ 1339	█ 1094	---	---
Phosphorus	ppm	█ 1049	█ 882	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ 21	█ 19	---	---

Depot: HILGREVC
Unique No: 10586915
Signed: Don Baldrige
Report Date: 05 Aug 2023



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GRAPHS

