



CONSTRUCTION EQUIPMENT

715570 VOLVO ECR145EL 315939 - DIESEL ENGINE



Sample No: VCP437943
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 715570



SAMPLE INFORMATION

Sample Number	VCP437943	VCP393563	VCP386104	---
Sample Date	14 Jun 2024	28 Apr 2023	12 Sep 2022	---
Machine Hours	2070	1009	495	---
Oil Hours	500	500	495	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ABNORMAL	NORMAL	NORMAL	---

RIPA AND ASSOCIATES

10149 FISHER AVENUE
 TAMPA, FL
 US 33619
 Contact: PM Services
 PMServices@ripaconstruction.com
 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	12.8	12.6	13.2	---
Base Number (BN)	mg KOH/g	10.6	10.0	8.1	---
Oxidation (PA)	%	81	81	45	---

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. The aluminum level is abnormal. All other component wear rates are normal. 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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.3	0.2	0.2	---
Nitration (PA)	%	68	59	63	---
Sulfation (PA)	%	60	62	50	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	17	7	16	---
Sodium	ppm	4	3	2	---
Potassium	ppm	<1	3	4	---



WEAR METALS

Iron	ppm	52	11	18	---
Copper	ppm	3	2	12	---
Lead	ppm	0	<1	<1	---
Tin	ppm	0	1	1	---
Aluminum	ppm	▲ 12	5	6	---
Chromium	ppm	2	1	1	---
Molybdenum	ppm	36	34	8	---
Nickel	ppm	0	2	8	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	<1	0	---
Manganese	ppm	<1	<1	2	---
Vanadium	ppm	0	<1	0	---



ADDITIVES

Calcium	ppm	1952	1660	2126	---
Magnesium	ppm	460	460	137	---
Zinc	ppm	1121	1141	1036	---
Phosphorus	ppm	984	907	877	---
Barium	ppm	0	0	0	---
Boron	ppm	39	37	3	---

Depot: RIPTAM
Unique No: 11126335
Signed: Sean Felton
Report Date: 18 Jul 2024



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GRAPHS

