



CONSTRUCTION EQUIPMENT

25354 VOLVO ECR145EL 311468 - DIESEL ENGINE



Sample No: VCP408868
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 25354



SAMPLE INFORMATION

Sample Number	VCP408868	VCP371898	VCP285417	VCP266014
Sample Date	10 Apr 2024	07 Jul 2022	04 Jun 2020	17 Mar 2020
Machine Hours	1404	951	567	562
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	N/A	N/A
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.0	12.9	13.3	13.5
Base Number (BN)	mg KOH/g	10.5	10.7	---	---
Oxidation (PA)	%	80	75	61	47

Diagnosis

The oil change at the time of sampling has been noted. 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 suitable for further service.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.2	0.2	0.2
Nitration (PA)	%	64	63	56	60
Sulfation (PA)	%	60	58	53	48
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	12	23	19
Sodium	ppm	2	2	3	2
Potassium	ppm	0	1	2	4



WEAR METALS

Iron	ppm	84	78	53	32
Copper	ppm	3	6	14	15
Lead	ppm	0	1	1	<1
Tin	ppm	0	2	2	1
Aluminum	ppm	▲ 40	▲ 49	▲ 77	16
Chromium	ppm	5	7	10	4
Molybdenum	ppm	44	32	14	3
Nickel	ppm	0	2	11	9
Titanium	ppm	0	<1	0	0
Silver	ppm	0	<1	0	0
Manganese	ppm	0	1	4	4
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1953	1890	2208	2158
Magnesium	ppm	550	353	52	48
Zinc	ppm	1231	1095	1024	933
Phosphorus	ppm	1073	894	951	864
Barium	ppm	0	0	0	0
Boron	ppm	41	71	3	3

Depot: VOLVO3387
Unique No: 10977084
Signed: Sean Felton
Report Date: 15 Apr 2024



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GRAPHS

