



CONSTRUCTION EQUIPMENT

VOLVO ECR145EL 314057 - DIESEL ENGINE



Sample No: VCP454974
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP454974	VCP429666	VCP422672	VCP386067
Sample Date	10 May 2024	13 Dec 2023	27 Jun 2023	12 Sep 2022
Machine Hours	5111	4615	4163	2982
Oil Hours	0	0	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	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	13.0	12.5	12.8	13.7
Base Number (BN)	mg KOH/g	10.4	10.8	10.7	11.9
Oxidation (PA)	%	71	78	83	67

Diagnosis

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 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 %	%	0.3	0.4	0.5	0.6
Nitration (PA)	%	58	63	70	70
Sulfation (PA)	%	57	58	63	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	6	5	6
Sodium	ppm	2	2	3	<1
Potassium	ppm	2	0	4	<1



WEAR METALS

Iron	ppm	16	27	18	17
Copper	ppm	2	1	2	2
Lead	ppm	<1	0	<1	0
Tin	ppm	1	<1	<1	<1
Aluminum	ppm	5	9	5	4
Chromium	ppm	1	<1	<1	1
Molybdenum	ppm	46	46	46	57
Nickel	ppm	<1	0	0	0
Titanium	ppm	<1	0	<1	0
Silver	ppm	<1	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	<1	0



ADDITIVES

Calcium	ppm	1616	1654	1687	1172
Magnesium	ppm	544	494	514	877
Zinc	ppm	1102	1078	1109	1221
Phosphorus	ppm	946	919	893	1007
Barium	ppm	0	0	0	0
Boron	ppm	39	37	26	3

Depot: RIPTAM
Unique No: 11035264
Signed: Wes Davis
Report Date: 21 May 2024



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VOLVO GRAPHS

