



CONSTRUCTION EQUIPMENT

VOLVO ECR145EL 311251 - DIESEL ENGINE



Sample No: VCP440095
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP440095	VCP392688	VCP374612	VCP264576
Sample Date	06 Mar 2024	20 Jun 2023	13 Jun 2022	17 Mar 2020
Machine Hours	2772	2299	1890	941
Oil Hours	0	500	1500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	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	12.5	13.3	13.0	12.8
Base Number (BN)	mg KOH/g	10.3	11.2	12.0	---
Oxidation (PA)	%	80	86	89	79

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	0.2	0.3	0.3
Nitration (PA)	%	68	65	76	62
Sulfation (PA)	%	59	63	65	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	12	8	10	15
Sodium	ppm	<1	2	3	3
Potassium	ppm	1	0	<1	0



WEAR METALS

Iron	ppm	50	41	59	48
Copper	ppm	3	2	3	4
Lead	ppm	<1	0	<1	<1
Tin	ppm	<1	<1	1	0
Aluminum	ppm	8	10	▲ 25	18
Chromium	ppm	1	1	3	2
Molybdenum	ppm	47	38	40	35
Nickel	ppm	<1	0	<1	4
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	4	0
Manganese	ppm	<1	<1	<1	1
Vanadium	ppm	0	<1	0	0



ADDITIVES

Calcium	ppm	1722	1660	1676	1632
Magnesium	ppm	506	481	490	418
Zinc	ppm	1162	1050	1128	788
Phosphorus	ppm	1007	869	914	694
Barium	ppm	0	0	0	0
Boron	ppm	43	44	41	32

Depot: RIPTAM
Unique No: 10940245
Signed: Wes Davis
Report Date: 22 Mar 2024



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GRAPHS

