



CONSTRUCTION EQUIPMENT

VOLVO L110H 631294 - DIESEL ENGINE



Sample No: VCP446275
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP446275	VCP452337	VCP424508	VCP386116
Sample Date	01 May 2024	10 Jan 2024	30 May 2023	22 Nov 2022
Machine Hours	11432	10887	10414	9308
Oil Hours	0	500	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	13.2	12.9	13.3	12.8
Base Number (BN)	mg KOH/g	9.9	10.4	9.5	11.0
Oxidation (PA)	%	65	80	85	86

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 %	%	0.4	0.4	0.3	0.2
Nitration (PA)	%	58	68	71	68
Sulfation (PA)	%	55	60	60	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	10	5	5
Sodium	ppm	1	2	2	2
Potassium	ppm	2	0	<1	0



WEAR METALS

Iron	ppm	18	31	11	8
Copper	ppm	2	1	<1	<1
Lead	ppm	<1	0	0	<1
Tin	ppm	1	<1	<1	<1
Aluminum	ppm	5	9	3	2
Chromium	ppm	<1	1	<1	<1
Molybdenum	ppm	53	42	50	41
Nickel	ppm	<1	0	0	0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1466	1677	1785	1571
Magnesium	ppm	714	506	466	529
Zinc	ppm	1184	1140	1135	1145
Phosphorus	ppm	1070	974	947	889
Barium	ppm	<1	<1	0	0
Boron	ppm	19	29	28	24

Depot: RIPTAM
Unique No: 11031008
Signed: Wes Davis
Report Date: 15 May 2024



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GRAPHS

