



CONSTRUCTION EQUIPMENT

VOLVO L110H 631951 - DIESEL ENGINE



Sample No: VCP432257
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP432257	VCP415950	VCP393928	VCP386755
Sample Date	10 Jan 2024	21 Jul 2023	09 Mar 2023	22 Sep 2022
Machine Hours	2989	2484	1953	1413
Oil Hours	0	0	500	500
Oil Changed	N/A	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	11.7	13.0	13.4	13.2
Base Number (BN)	mg KOH/g	8.3	10.2	10.1	11.5
Oxidation (PA)	%	80	80	78	85

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	0.3	0.4	0.4
Nitration (PA)	%	55	64	64	70
Sulfation (PA)	%	64	60	62	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	5	4	6
Sodium	ppm	0	2	<1	1
Potassium	ppm	2	<1	2	0



WEAR METALS

Iron	ppm	11	11	17	18
Copper	ppm	5	5	6	7
Lead	ppm	0	1	1	0
Tin	ppm	<1	2	2	1
Aluminum	ppm	3	7	8	12
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	35	41	35	42
Nickel	ppm	0	<1	<1	0
Titanium	ppm	<1	5	17	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	0
Vanadium	ppm	0	0	<1	0



ADDITIVES

Calcium	ppm	1295	1722	1728	1619
Magnesium	ppm	379	533	472	533
Zinc	ppm	978	1209	1148	1108
Phosphorus	ppm	731	972	949	951
Barium	ppm	5	0	2	0
Boron	ppm	40	33	43	26

Depot: RIPTAM
Unique No: 10863265
Signed: Wes Davis
Report Date: 06 Feb 2024



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GRAPHS

