



CONSTRUCTION EQUIPMENT

661396 VOLVO L110H 631024 - DIESEL ENGINE



Sample No: VCP438085
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 661396



SAMPLE INFORMATION

Sample Number	VCP438085	VCP405127	VCP381269	VCP354924
Sample Date	10 Feb 2024	18 Apr 2023	02 Nov 2022	20 Sep 2022
Machine Hours	10869	9834	9345	9223
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.9	13.4	13.3	13.1
Base Number (BN)	mg KOH/g	8.9	9.2	12	11.2
Oxidation (PA)	%	93	80	85	91

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.6	0.2	0.1	0.3
Nitration (PA)	%	86	58	53	74
Sulfation (PA)	%	63	57	65	68
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	4	4	5
Sodium	ppm	4	3	2	2
Potassium	ppm	1	0	0	<1

WEAR METALS

Iron	ppm	31	8	5	11
Copper	ppm	6	2	<1	2
Lead	ppm	<1	0	<1	<1
Tin	ppm	1	<1	<1	<1
Aluminum	ppm	10	3	2	4
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	68	42	42	41
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	2472	1560	1704	1713
Magnesium	ppm	789	527	509	497
Zinc	ppm	1703	1051	1078	1091
Phosphorus	ppm	1381	931	918	891
Barium	ppm	8	0	<1	0
Boron	ppm	33	44	64	26

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.

Depot: HUBORL
Unique No: 10875913
Signed: Don Baldrige
Report Date: 15 Feb 2024



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GRAPHS

