



CONSTRUCTION EQUIPMENT

TERRA FIRMA VOLVO L110H 631395 - DIESEL ENGINE



Sample No: VCP397965
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: TERRA FIRMA



SAMPLE INFORMATION

Sample Number	VCP397965	VCP396569	VCP385585	VCP313627
Sample Date	17 Nov 2023	16 Mar 2023	13 Oct 2022	02 Mar 2022
Machine Hours	9026	7586	6672	5220
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	N/A
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	14.3	13.9	14.1	13.6
Base Number (BN)	mg KOH/g	6.6	7.4	8.1	11.3
Oxidation (PA)	%	57	73	73	90

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.5	0.7	0.4
Nitration (PA)	%	71	81	83	73
Sulfation (PA)	%	57	62	63	68
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	5	4	5
Sodium	ppm	2	2	2	3
Potassium	ppm	1	<1	2	0

WEAR METALS

Iron	ppm	11	20	17	17
Copper	ppm	4	2	2	3
Lead	ppm	1	2	3	1
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	3	6	5	9
Chromium	ppm	<1	<1	<1	1
Molybdenum	ppm	22	59	41	37
Nickel	ppm	0	0	<1	0
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	<1	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	<1	0

ADDITIVES

Calcium	ppm	2113	1536	1581	1747
Magnesium	ppm	196	667	528	511
Zinc	ppm	1274	1292	1135	1111
Phosphorus	ppm	963	967	913	964
Barium	ppm	0	0	0	0
Boron	ppm	13	61	21	33

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: VOLVO5856
Unique No: 10762486
Signed: Wes Davis
Report Date: 28 Nov 2023



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GRAPHS

