



CONSTRUCTION EQUIPMENT

SPM606190 VOLVO L90F 71881 - DIESEL ENGINE



Sample No: VCP412844
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SPM606190



SAMPLE INFORMATION

Sample Number	VCP412844	VCP303402	VCP289685	VCP271343
Sample Date	18 Sep 2023	25 Mar 2021	27 Oct 2020	12 Apr 2020
Machine Hours	12646	12113	11636	11045
Oil Hours	0	0	0	0
Oil Changed	N/A	Changed	Changed	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



ALTA EQUIPMENT

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 SYRACUSE, NY
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OIL CONDITION

Visc @ 100°C	cSt	14.2	13.6	14.2	14.3
Base Number (BN)	mg KOH/g	10.4	---	---	---
Oxidation (PA)	%	90	94	80	95



CONTAMINATION

Soot %	%	1.2	0.5	0.5	0.6
Nitration (PA)	%	85	75	80	80
Sulfation (PA)	%	66	72	64	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	4	5	12
Sodium	ppm	3	2	3	3
Potassium	ppm	<1	<1	2	7



WEAR METALS

Iron	ppm	27	13	16	34
Copper	ppm	2	2	6	<1
Lead	ppm	0	1	5	3
Tin	ppm	<1	<1	<1	0
Aluminum	ppm	3	2	<1	3
Chromium	ppm	1	<1	<1	<1
Molybdenum	ppm	42	39	20	42
Nickel	ppm	0	<1	<1	<1
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	<1	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	<1	0



ADDITIVES

Calcium	ppm	1886	1724	1491	1949
Magnesium	ppm	561	555	680	590
Zinc	ppm	1228	1162	891	919
Phosphorus	ppm	973	942	773	772
Barium	ppm	0	0	0	0
Boron	ppm	21	54	47	43

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: VOLVO0142
Unique No: 10660834
Signed: Wes Davis
Report Date: 26 Sep 2023



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GRAPHS

