



CONSTRUCTION EQUIPMENT

SWA388432 VOLVO A45G 352411 - DIESEL ENGINE



Sample No: VCP427066
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SWA388432



SAMPLE INFORMATION

Sample Number	VCP427066	VCP381256	VCP377494	VCP327540
Sample Date	19 Jun 2023	29 Oct 2022	30 Apr 2022	06 Nov 2021
Machine Hours	5591	4395	3478	2774
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ORANGE COUNTY SOLID WASTE
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OIL CONDITION

Visc @ 100°C	cSt	13.7	13.3	13.4	13.2
Base Number (BN)	mg KOH/g	6.3	8.4	9.1	---
Oxidation (PA)	%	96	98	96	90



CONTAMINATION

Soot %	%	0.7	0.7	0.5	0.5
Nitration (PA)	%	106	107	94	80
Sulfation (PA)	%	73	71	70	69
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	5	6	4
Sodium	ppm	6	5	3	2
Potassium	ppm	3	1	0	0



WEAR METALS

Iron	ppm	20	13	13	10
Copper	ppm	20	4	8	27
Lead	ppm	7	2	2	1
Tin	ppm	2	1	1	1
Aluminum	ppm	<1	2	2	1
Chromium	ppm	1	<1	<1	<1
Molybdenum	ppm	52	46	47	42
Nickel	ppm	4	1	3	<1
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	2000	1815	1878	1648
Magnesium	ppm	396	471	543	521
Zinc	ppm	1228	1152	1203	1125
Phosphorus	ppm	971	940	999	942
Barium	ppm	<1	0	0	0
Boron	ppm	16	15	24	22

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: ORAORL
Unique No: 10535836
Signed: Don Baldrige
Report Date: 30 Jun 2023



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GRAPHS

