



CONSTRUCTION EQUIPMENT

SPM554450-10 CARMUES VOLVO A60H 350126 - DIESEL ENGINE



Sample No: VCP390779
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SPM554450-10 CARMUES



SAMPLE INFORMATION

Sample Number	VCP390779	VCP385924	VCP403904	VCP346300
Sample Date	19 Jul 2023	12 Apr 2023	20 Jan 2023	02 May 2022
Machine Hours	5055	4503	3769	2176
Oil Hours	500	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	NORMAL

ALTA EQUIPMENT COMPANY - METRO WEST
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OIL CONDITION

Visc @ 100°C	cSt	13.0	12.8	13.3	13.1
Base Number (BN)	mg KOH/g	9.9	8.0	8.9	10.1
Oxidation (PA)	%	79	60	56	90



CONTAMINATION

Soot %	%	0.7	0.5	0.5	0.9
Nitration (PA)	%	68	69	67	86
Sulfation (PA)	%	63	54	55	68
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	4	6	8
Sodium	ppm	11	33	66	2
Potassium	ppm	10	53	76	<1

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Valve wear is indicated. All other 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 acceptable for the time in service.



WEAR METALS

Iron	ppm	13	14	10	31
Copper	ppm	1	2	<1	6
Lead	ppm	1	0	<1	2
Tin	ppm	<1	0	<1	2
Aluminum	ppm	3	4	2	11
Chromium	ppm	<1	<1	<1	1
Molybdenum	ppm	44	55	23	40
Nickel	ppm	4	6	<1	1
Titanium	ppm	<1	0	0	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	1759	1213	1462	1840
Magnesium	ppm	582	945	606	517
Zinc	ppm	1179	1269	904	1027
Phosphorus	ppm	943	982	749	800
Barium	ppm	0	0	0	0
Boron	ppm	33	7	60	42

Depot: VOLVO2990
Unique No: 10576313
Signed: Don Baldrige
Report Date: 31 Jul 2023



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GRAPHS

