



CONSTRUCTION EQUIPMENT

MARTIN MARIETTA VOLVO A60H 340053 - DIESEL ENGINE



Sample No: VCP423982
Oil Type: CHEVRON 15W40
Job No: MARTIN MARIETTA



SAMPLE INFORMATION

Sample Number	VCP423982	VCP420965	VCP309342	VCP293940
Sample Date	28 Aug 2023	28 Mar 2023	17 May 2021	06 Mar 2021
Machine Hours	7391	6735	4220	3845
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	ABNORMAL	ABNORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.6	12.6	13.1	13.3
Base Number (BN)	mg KOH/g	8.2	10.4	---	---
Oxidation (PA)	%	71	80	74	80



CONTAMINATION

Soot %	%	0.5	0.6	0.5	0.5
Nitration (PA)	%	71	63	75	87
Sulfation (PA)	%	64	64	70	69
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	7	6	6	8
Sodium	ppm	16	96	308	180
Potassium	ppm	8	64	81	45

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.



WEAR METALS

Iron	ppm	11	11	12	16
Copper	ppm	1	5	28	71
Lead	ppm	2	<1	1	3
Tin	ppm	<1	<1	1	0
Aluminum	ppm	8	7	4	6
Chromium	ppm	<1	<1	<1	1
Molybdenum	ppm	121	52	108	112
Nickel	ppm	<1	<1	3	4
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1700	1791	1494	1564
Magnesium	ppm	704	557	542	600
Zinc	ppm	969	1216	992	901
Phosphorus	ppm	805	999	784	802
Barium	ppm	0	0	0	0
Boron	ppm	224	33	292	145

Depot: VOLVO0088
Unique No: 10659625
Signed: Wes Davis
Report Date: 22 Sep 2023



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VOLVO GRAPHS

