



CONSTRUCTION EQUIPMENT

W07012960 VOLVO A45G 342207 - DIESEL ENGINE



Sample No: VCP423614
Oil Type: MOBIL 15W40
Job No: W07012960



SAMPLE INFORMATION

Sample Number	VCP423614	VCP399448	VCP246332	VCP372946
Sample Date	28 Jun 2023	02 May 2023	09 Dec 2022	28 Jul 2022
Machine Hours	9652	9278	8521	7899
Oil Hours	500	0	600	0
Oil Changed	Changed	N/A	Changed	Changed
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.9	12.7	12.8	12.6
Base Number (BN)	mg KOH/g	9.9	5.3	7.7	7.3
Oxidation (PA)	%	68	63	80	61



CONTAMINATION

Soot %	%	0.4	0.4	0.6	0.6
Nitration (PA)	%	90	77	93	81
Sulfation (PA)	%	56	55	63	59
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	17	6	3	5
Sodium	ppm	▲ 499	3	0	2
Potassium	ppm	▲ 209	3	2	1

Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.



WEAR METALS

Iron	ppm	19	11	10	11
Copper	ppm	2	2	3	5
Lead	ppm	5	2	1	1
Tin	ppm	1	1	<1	<1
Aluminum	ppm	7	3	4	4
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	62	65	46	43
Nickel	ppm	1	1	0	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	<1	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	1428	2081	1384	2013
Magnesium	ppm	727	173	569	224
Zinc	ppm	971	1239	878	1106
Phosphorus	ppm	773	1009	693	906
Barium	ppm	0	0	0	0
Boron	ppm	17	30	25	32

Depot: VOLVO8882
Unique No: 10563375
Signed: Jonathan Hester
Report Date: 20 Jul 2023



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GRAPHS

