



CONSTRUCTION EQUIPMENT

SPM568105 VOLVO A40G 352677 - DIESEL ENGINE



Sample No: VCP409286
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SPM568105



SAMPLE INFORMATION

Sample Number	VCP409286	VCP397318	VCP365263	VCP356714
Sample Date	03 Jul 2023	26 Oct 2022	23 Aug 2022	03 Feb 2022
Machine Hours	2820	2300	1797	1011
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	N/A
Sample Status	ABNORMAL	ATTENTION	ABNORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.4	11.8	12.8	11.0
Base Number (BN)	mg KOH/g	8.6	11.2	7.3	10.4
Oxidation (PA)	%	74	78	85	88



CONTAMINATION

Soot %	%	0.8	0.2	0.8	0.4
Nitration (PA)	%	90	54	106	76
Sulfation (PA)	%	61	63	69	68
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	0.3	<1.0	0.2
Silicon	ppm	8	4	6	9
Sodium	ppm	2	2	<1	2
Potassium	ppm	4	0	0	0



WEAR METALS

Iron	ppm	41	5	25	23
Copper	ppm	42	5	62	19
Lead	ppm	<1	<1	2	2
Tin	ppm	<1	<1	2	2
Aluminum	ppm	4	2	5	3
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	63	44	53	42
Nickel	ppm	<1	<1	4	6
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	<1	0
Manganese	ppm	1	<1	<1	1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1206	1535	1327	1761
Magnesium	ppm	1008	611	747	514
Zinc	ppm	1380	939	1143	939
Phosphorus	ppm	1081	804	899	810
Barium	ppm	0	0	<1	0
Boron	ppm	8	48	8	39

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. 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 suitable for further service.

Depot: VOLVO8885
Unique No: 10560508
Signed: Jonathan Hester
Report Date: 18 Jul 2023



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GRAPHS

