



CONSTRUCTION EQUIPMENT

9401 VOLVO L90H 623144 - DIESEL ENGINE



Sample No: VCP408897
Oil Type: CHEVRON 15W40
Job No: 9401



SAMPLE INFORMATION

Sample Number	VCP408897	VCP388000	VCP340171	VCP338111
Sample Date	08 Aug 2023	16 Dec 2022	02 Aug 2022	08 Feb 2022
Machine Hours	11630	10681	10013	9187
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.8	13.5	13.3	13.5
Base Number (BN)	mg KOH/g	5.3	7.8	8.1	9.0
Oxidation (PA)	%	86	78	82	76



CONTAMINATION

Soot %	%	0.6	0.5	0.6	0.4
Nitration (PA)	%	80	78	87	76
Sulfation (PA)	%	69	68	69	67
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	7	6	6	7
Sodium	ppm	3	2	0	1
Potassium	ppm	1	2	2	<1



WEAR METALS

Iron	ppm	28	14	18	15
Copper	ppm	2	1	2	2
Lead	ppm	2	1	2	1
Tin	ppm	<1	1	<1	<1
Aluminum	ppm	32	21	25	34
Chromium	ppm	1	1	1	1
Molybdenum	ppm	104	112	129	120
Nickel	ppm	0	<1	0	0
Titanium	ppm	2	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1696	1541	1484	1556
Magnesium	ppm	540	553	614	663
Zinc	ppm	1248	1031	830	857
Phosphorus	ppm	977	859	674	730
Barium	ppm	0	0	0	0
Boron	ppm	81	217	143	237

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. The aluminum 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 acceptable for the time in service.

Depot: VOLV00150
Unique No: 10603845
Signed: Don Baldrige
Report Date: 15 Aug 2023



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GRAPHS

