



CONSTRUCTION EQUIPMENT

SW-20706-2 CMC ROCK VOLVO L180H 5503 - DIESEL ENGINE



Sample No: VCP419290
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-20706-2 CMC ROCK



SAMPLE INFORMATION

Sample Number	VCP419290	VCP396448	VCP350356	VCP318517
Sample Date	28 Jun 2023	17 Nov 2022	31 May 2022	22 Feb 2022
Machine Hours	3902	2955	2046	1525
Oil Hours	1000	900	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.0	13.0	12.84	13.0
Base Number (BN)	mg KOH/g	8.3	10.2	10.5	9.8
Oxidation (PA)	%	67	73	84	75



CONTAMINATION

Soot %	%	0.2	0.2	0.1	0.1
Nitration (PA)	%	70	70	58	52
Sulfation (PA)	%	57	61	64	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	5	4	5
Sodium	ppm	4	2	2	2
Potassium	ppm	4	1	1	0



WEAR METALS

Iron	ppm	10	7	6	5
Copper	ppm	12	4	8	▲ 59
Lead	ppm	<1	<1	<1	1
Tin	ppm	1	1	<1	<1
Aluminum	ppm	2	2	2	<1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	63	58	44	40
Nickel	ppm	<1	0	<1	<1
Titanium	ppm	<1	0	0	0
Silver	ppm	0	<1	0	0
Manganese	ppm	1	<1	<1	<1
Vanadium	ppm	0	<1	0	0



ADDITIVES

Calcium	ppm	1152	1319	1667	1681
Magnesium	ppm	991	809	485	527
Zinc	ppm	1319	1236	1135	1121
Phosphorus	ppm	1067	1028	929	978
Barium	ppm	0	2	0	0
Boron	ppm	4	12	64	58

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.

Depot: VOLVO8770
Unique No: 10546909
Signed: Sean Felton
Report Date: 07 Jul 2023



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GRAPHS

