



CONSTRUCTION EQUIPMENT

SPM540026 THOMPSON CATERPILLAR C27 1235 - CAT - DIESEL ENGINE



Sample No: VCP406760
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SPM540026 THOMPSON



SAMPLE INFORMATION

Sample Number	VCP406760	VCP324002	VCP337791	VCP355359
Sample Date	18 Apr 2023	08 Sep 2022	18 Jun 2022	20 Apr 2022
Machine Hours	7539	6142	4968	4004
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.2	12.8	13.7	12.6
Base Number (BN)	mg KOH/g	8.7	9.9	7.7	9.5
Oxidation (PA)	%	68	76	69	59



CONTAMINATION

Soot %	%	0.5	0.9	1	0.5
Nitration (PA)	%	68	88	77	63
Sulfation (PA)	%	57	63	62	56
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	3	4	6	3
Sodium	ppm	2	2	1	<1
Potassium	ppm	0	1	8	1

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	37	61	16	31
Copper	ppm	2	3	8	2
Lead	ppm	0	3	<1	1
Tin	ppm	0	<1	2	<1
Aluminum	ppm	1	0	3	<1
Chromium	ppm	<1	2	<1	<1
Molybdenum	ppm	45	43	46	72
Nickel	ppm	<1	3	2	<1
Titanium	ppm	0	<1	<1	0
Silver	ppm	0	0	<1	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	1411	1412	1449	1067
Magnesium	ppm	672	647	678	834
Zinc	ppm	1237	1147	1268	1142
Phosphorus	ppm	954	975	963	936
Barium	ppm	0	0	0	0
Boron	ppm	42	29	19	43

Depot: VOLVO5023
Unique No: 10444386
Signed: Wes Davis
Report Date: 27 Apr 2023



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GRAPHS

