



CONSTRUCTION EQUIPMENT

VOLVO EC160EL 310424 - DIESEL ENGINE



Sample No: VCP413253
Oil Type: CHEVRON DELO 400 XLE 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP413253	VCP361159	VCP335942	VCP186429
Sample Date	20 Nov 2023	14 Jun 2022	03 Jan 2022	08 Oct 2019
Machine Hours	4000	3000	2500	566
Oil Hours	500	500	500	0
Oil Changed	Changed	Changed	Changed	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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 T:
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OIL CONDITION

Visc @ 100°C	cSt	12.9	13.2	13.3	13.4
Base Number (BN)	mg KOH/g	6.9	7.7	7.7	---
Oxidation (PA)	%	59	58	60	61

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.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.2	0.2	0.2
Nitration (PA)	%	75	80	81	56
Sulfation (PA)	%	53	55	55	56
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	9	6	9	6
Sodium	ppm	3	4	4	5
Potassium	ppm	2	3	2	7



WEAR METALS

Iron	ppm	41	21	32	22
Copper	ppm	3	2	2	1
Lead	ppm	0	<1	0	<1
Tin	ppm	<1	<1	<1	0
Aluminum	ppm	4	4	4	3
Chromium	ppm	1	1	1	<1
Molybdenum	ppm	55	31	31	97
Nickel	ppm	<1	2	<1	1
Titanium	ppm	<1	9	14	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	<1	0



ADDITIVES

Calcium	ppm	1615	1722	1432	1608
Magnesium	ppm	494	507	656	438
Zinc	ppm	1209	968	729	889
Phosphorus	ppm	868	781	671	804
Barium	ppm	0	0	0	0
Boron	ppm	12	58	63	326

Depot: DHFCOL
Unique No: 10755222
Signed: Jonathan Hester
Report Date: 27 Nov 2023



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GRAPHS

