



CONSTRUCTION EQUIPMENT

VOLVO EC160EL 310424 - REAR LEFT FINAL DRIVE



Sample No: VCP413215
Oil Type: DRYDENE LIMITED SLIP GEAR 80W90
Job No:



SAMPLE INFORMATION

Sample Number	VCP413215	VCP335946	VCP361151	VCP319477
Sample Date	20 Nov 2023	16 Jan 2023	14 Jun 2022	15 Sep 2021
Machine Hours	4000	3500	3000	2000
Oil Hours	1000	500	1000	225
Oil Changed	Changed	Changed	Changed	Not Changd
Sample Status	ABNORMAL	ABNORMAL	SEVERE	ABNORMAL

DH FUNK AND SONS LLC
 3995 CONTINENTAL DRIVE
 COLUMBIA, PA
 US 17512
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OIL CONDITION

Visc @ 40°C	cSt	■ 124	■ 127	■ 132	■ 126
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CONTAMINATION

Water	%	■ NEG	NEG	■ 0.120	NEG
Silicon	ppm	▲ 135	▲ 259	◆ 2433	▲ 110
Sodium	ppm	■ 3	■ 4	■ 33	■ 2
Potassium	ppm	■ 10	■ 20	■ 191	■ 10

Diagnosis

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	▲ 694	▲ 775	◆ 3557	■ 365
Copper	ppm	■ <1	■ 1	■ 5	■ <1
Lead	ppm	■ 0	■ <1	■ 2	■ <1
Tin	ppm	■ 0	■ 0	■ <1	■ <1
Aluminum	ppm	▲ 28	▲ 72	▲ 120	▲ 33
Chromium	ppm	■ 3	■ 3	◆ 25	■ 4
Molybdenum	ppm	■ 2	■ 3	■ 5	■ 3
Nickel	ppm	■ <1	■ 1	■ 11	■ <1
Titanium	ppm	2	4	■ 47	3
Silver	ppm	0	0	0	<1
Manganese	ppm	4	■ 6	■ 30	■ 4
Vanadium	ppm	0	<1	2	<1



ADDITIVES

Calcium	ppm	■ 94	■ 108	■ 510	■ 137
Magnesium	ppm	■ 12	■ 33	■ 185	■ 79
Zinc	ppm	■ 61	■ 64	■ 80	■ 86
Phosphorus	ppm	■ 582	755	■ 851	■ 938
Barium	ppm	■ <1	■ <1	■ 3	■ 0
Boron	ppm	■ 40	■ 93	■ 129	■ 153

Depot: DHFCOL
Unique No: 10755952
Signed: Sean Felton
Report Date: 28 Nov 2023



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GRAPHS

