



# CONSTRUCTION EQUIPMENT

## SPM608314 VOLVO EC380EL 311492 - LEFT FINAL DRIVE



**Sample No:** VCP426427  
**Oil Type:** GEAR OIL SAE 80W90  
**Job No:** SPM608314



### SAMPLE INFORMATION

Sample Number	<b>VCP426427</b>	VCP414195	VCP403439	VCP312888
Sample Date	<b>15 Sep 2023</b>	21 Jul 2023	28 Feb 2023	09 Mar 2022
Machine Hours	<b>7993</b>	7780	6944	5012
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Not Chngd	Changed	Changed
Sample Status	<b>ABNORMAL</b>	ABNORMAL	ABNORMAL	SEVERE

**BELSON STEEL**  
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### OIL CONDITION

Visc @ 40°C	cSt	<b>151</b>	149	164	88.0
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### CONTAMINATION

Water	%	<b>0.086</b>	0.113	0.229	NEG
Silicon	ppm	<b>113</b>	109	210	112
Sodium	ppm	<b>3</b>	4	8	4
Potassium	ppm	<b>7</b>	6	10	7

### WEAR METALS

Iron	ppm	<b>847</b>	400	1330	1614
Copper	ppm	<b>4</b>	2	6	7
Lead	ppm	<b>6</b>	3	5	5
Tin	ppm	<b>0</b>	<1	2	2
Aluminum	ppm	<b>29</b>	32	56	28
Chromium	ppm	<b>7</b>	6	23	20
Molybdenum	ppm	<b>2</b>	<1	4	2
Nickel	ppm	<b>1</b>	<1	1	<1
Titanium	ppm	<b>3</b>	3	6	2
Silver	ppm	<b>&lt;1</b>	0	<1	0
Manganese	ppm	<b>18</b>	14	32	19
Vanadium	ppm	<b>&lt;1</b>	<1	<1	<1

### ADDITIVES

Calcium	ppm	<b>411</b>	377	2784	202
Magnesium	ppm	<b>35</b>	42	129	57
Zinc	ppm	<b>237</b>	147	885	15
Phosphorus	ppm	<b>2295</b>	1371	799	508
Barium	ppm	<b>0</b>	0	3	0
Boron	ppm	<b>81</b>	69	7	6

### 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.

**Depot:** BELBOU  
**Unique No:** 10883414  
**Signed:** Don Baldrige  
**Report Date:** 19 Feb 2024



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## GRAPHS

