



# CONSTRUCTION EQUIPMENT

## VOLVO L220H 3347 - DIESEL ENGINE



**Sample No:** VCP432427  
**Oil Type:** SHELL ROTELLA T3 15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP432427</b>	VCP415086	VCP415087	VCP420406
Sample Date	<b>23 Oct 2023</b>	15 Sep 2023	01 Sep 2023	22 Jun 2023
Machine Hours	<b>10055</b>	9485	9226	8924
Oil Hours	<b>285</b>	261	302	284
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**COVANTA ENERGY**  
 141 CRANBERRY HWY  
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 US 02576  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.2</b>	13.5	13.3	13.3
Base Number (BN)	mg KOH/g	<b>7.2</b>	7.2	8.1	8.3
Oxidation (PA)	%	<b>44</b>	43	53	55

### CONTAMINATION

Soot %	%	<b>0.1</b>	0.1	0.1	0.1
Nitration (PA)	%	<b>53</b>	48	52	51
Sulfation (PA)	%	<b>48</b>	46	51	52
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>9</b>	7	11	6
Sodium	ppm	<b>2</b>	1	<1	3
Potassium	ppm	<b>0</b>	<1	<1	3

### 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. Confirm oil type. The condition of the oil is suitable for further service.

### WEAR METALS

Iron	ppm	<b>2</b>	2	5	2
Copper	ppm	<b>0</b>	<1	<1	<1
Lead	ppm	<b>0</b>	<1	0	<1
Tin	ppm	<b>0</b>	<1	0	<1
Aluminum	ppm	<b>2</b>	0	4	0
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>25</b>	32	52	53
Nickel	ppm	<b>2</b>	<1	2	<1
Titanium	ppm	<b>0</b>	<1	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	0

### ADDITIVES

Calcium	ppm	<b>2090</b>	2089	1996	1905
Magnesium	ppm	<b>157</b>	196	335	335
Zinc	ppm	<b>1157</b>	1158	1231	1236
Phosphorus	ppm	<b>840</b>	935	1027	1013
Barium	ppm	<b>0</b>	0	0	<1
Boron	ppm	<b>31</b>	38	70	71

**Depot:** COVWES  
**Unique No:** 10711616  
**Signed:** Sean Felton  
**Report Date:** 27 Oct 2023



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## VOLVO GRAPHS

