



# CONSTRUCTION EQUIPMENT

SPM540449 VOLVO L220E 2 194 - DIESEL ENGINE



**Sample No:** VCP404600  
**Oil Type:** DIESEL ENGINE OIL SAE 15W40  
**Job No:** SPM540449



## SAMPLE INFORMATION

Sample Number	<b>VCP404600</b>	VCP365279	VCP358392	---
Sample Date	<b>25 Apr 2023</b>	10 Oct 2022	14 Apr 2022	---
Machine Hours	<b>24189</b>	25053	25025	---
Oil Hours	<b>0</b>	0	0	---
Oil Changed	<b>Changed</b>	Not Changd	Not Changd	---
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	---

**WASTE MANAGEMENT - GARY**  
 1508 SHERMAN ST  
 GARY, IN  
 US 46406  
 Contact: TARA RORK

## OIL CONDITION

Visc @ 100°C	cSt	<b>14.2</b>	13.7	13.4	---
Base Number (BN)	mg KOH/g	<b>8.9</b>	10.5	10.8	---
Oxidation (PA)	%	<b>50</b>	63	59	---

T:  
F:

## 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

Soot %	%	<b>0.1</b>	0.9	0.7	---
Nitration (PA)	%	<b>38</b>	68	68	---
Sulfation (PA)	%	<b>45</b>	58	57	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	---
Silicon	ppm	<b>3</b>	4	4	---
Sodium	ppm	<b>0</b>	0	2	---
Potassium	ppm	<b>2</b>	0	0	---

## WEAR METALS

Iron	ppm	<b>2</b>	12	12	---
Copper	ppm	<b>0</b>	<1	1	---
Lead	ppm	<b>0</b>	1	<1	---
Tin	ppm	<b>0</b>	<1	0	---
Aluminum	ppm	<b>&lt;1</b>	1	2	---
Chromium	ppm	<b>0</b>	<1	<1	---
Molybdenum	ppm	<b>60</b>	56	55	---
Nickel	ppm	<b>0</b>	<1	0	---
Titanium	ppm	<b>0</b>	0	0	---
Silver	ppm	<b>0</b>	0	<1	---
Manganese	ppm	<b>&lt;1</b>	<1	<1	---
Vanadium	ppm	<b>0</b>	0	0	---

## ADDITIVES

Calcium	ppm	<b>1096</b>	1160	1158	---
Magnesium	ppm	<b>1043</b>	873	872	---
Zinc	ppm	<b>1383</b>	1206	1138	---
Phosphorus	ppm	<b>1090</b>	1016	1029	---
Barium	ppm	<b>0</b>	0	0	---
Boron	ppm	<b>0</b>	8	16	---

**Depot:** WASGARIN  
**Unique No:** 10457764  
**Signed:** Wes Davis  
**Report Date:** 08 May 2023



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## GRAPHS

