



# CONSTRUCTION EQUIPMENT

## SPM580303 SUWANNEE VOLVO L180H 5419 - DIESEL ENGINE



**Sample No:** VCP413222  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SPM580303 SUWANNEE



### SAMPLE INFORMATION

Sample Number	<b>VCP413222</b>	VCP417255	VCP404980	VCP399225
Sample Date	<b>18 Jul 2023</b>	02 Jun 2023	14 Apr 2023	14 Dec 2022
Machine Hours	<b>9778</b>	9285	8764	7772
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC  
 8418 PALM RIVER ROAD  
 TAMPA, FL  
 US 33619  
 Contact: KENNY HANEY  
 khaney@flaglerce.com  
 T: (813)630-0077  
 F: (813)630-2233



### OIL CONDITION

Visc @ 100°C	cSt	<b>12.5</b>	12.6	12.4	12.6
Base Number (BN)	mg KOH/g	<b>10.2</b>	10.3	8.7	10.5
Oxidation (PA)	%	<b>79</b>	80	78	64



### CONTAMINATION

Soot %	%	<b>0.1</b>	0.1	0.1	0.1
Nitration (PA)	%	<b>53</b>	53	61	68
Sulfation (PA)	%	<b>60</b>	61	55	56
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	1.3	<1.0
Silicon	ppm	<b>3</b>	4	4	4
Sodium	ppm	<b>3</b>	2	3	0
Potassium	ppm	<b>0</b>	0	0	2



### WEAR METALS

Iron	ppm	<b>2</b>	3	4	4
Copper	ppm	<b>2</b>	2	2	7
Lead	ppm	<b>0</b>	0	0	<1
Tin	ppm	<b>&lt;1</b>	<1	0	<1
Aluminum	ppm	<b>&lt;1</b>	<1	<1	2
Chromium	ppm	<b>0</b>	0	0	0
Molybdenum	ppm	<b>43</b>	43	36	43
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>&lt;1</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	<1
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	<1	0	<1



### ADDITIVES

Calcium	ppm	<b>1803</b>	1745	1142	1718
Magnesium	ppm	<b>525</b>	524	444	502
Zinc	ppm	<b>1134</b>	1110	783	1103
Phosphorus	ppm	<b>956</b>	926	723	924
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>48</b>	45	30	44

### 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.

**Depot:** VOLVO0093  
**Unique No:** 10565421  
**Signed:** Wes Davis  
**Report Date:** 25 Jul 2023



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## GRAPHS

