



# CONSTRUCTION EQUIPMENT

## SPM606158 LKQ ORLAND VOLVO L90H 625664 - DIESEL ENGINE



**Sample No:** VCP434869  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SPM606158 LKQ ORLAND



### SAMPLE INFORMATION

Sample Number	<b>VCP434869</b>	VCP403668	VCP370543	VCP356994
Sample Date	<b>06 Sep 2023</b>	17 Mar 2023	24 Oct 2022	31 Mar 2022
Machine Hours	<b>4016</b>	3023	2347	1497
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>13.0</b>	13.0	12.8	12.8
Base Number (BN)	mg KOH/g	<b>9.4</b>	10.8	11.4	11.0
Oxidation (PA)	%	<b>81</b>	81	87	86



### CONTAMINATION

Soot %	%	<b>0.8</b>	0.4	0.4	0.4
Nitration (PA)	%	<b>68</b>	59	68	76
Sulfation (PA)	%	<b>60</b>	61	65	64
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>7</b>	6	8	9
Sodium	ppm	<b>2</b>	2	2	3
Potassium	ppm	<b>&lt;1</b>	<1	1	1



### WEAR METALS

Iron	ppm	<b>21</b>	17	23	31
Copper	ppm	<b>2</b>	1	3	4
Lead	ppm	<b>&lt;1</b>	<1	<1	<1
Tin	ppm	<b>1</b>	<1	2	2
Aluminum	ppm	<b>12</b>	16	13	13
Chromium	ppm	<b>1</b>	2	2	2
Molybdenum	ppm	<b>44</b>	43	46	42
Nickel	ppm	<b>0</b>	<1	0	<1
Titanium	ppm	<b>0</b>	0	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	1
Vanadium	ppm	<b>&lt;1</b>	0	<1	0



### ADDITIVES

Calcium	ppm	<b>1845</b>	1720	1892	1809
Magnesium	ppm	<b>541</b>	538	551	572
Zinc	ppm	<b>1194</b>	1143	1214	1310
Phosphorus	ppm	<b>946</b>	932	1005	1052
Barium	ppm	<b>0</b>	0	2	0
Boron	ppm	<b>18</b>	38	32	31

### 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:** 10647149  
**Signed:** Wes Davis  
**Report Date:** 16 Sep 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

