



# CONSTRUCTION EQUIPMENT

## W05003944 VOLVO A40F 11613 - DIESEL ENGINE



**Sample No:** VCP413806  
**Oil Type:** MOBIL 15W40  
**Job No:** W05003944



### SAMPLE INFORMATION

Sample Number	<b>VCP413806</b>	VCP418326	VCP420895	VCP384502
Sample Date	<b>27 Nov 2023</b>	11 Oct 2023	03 Aug 2023	08 Jun 2023
Machine Hours	<b>15059</b>	14811	14546	14229
Oil Hours	<b>250</b>	250	500	250
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**MCCLUNG-LOGAN EQUIPMENT CO - MANASSAS**  
 8450 QUARRY ROAD  
 MANASSAS, VA  
 US 20110  
 Contact: MIKE MAYHUGH  
 MMAYHUGH@MCCLUNG-LOGAN.COM  
 T: (703)393-7344  
 F: (703)393-7844



### OIL CONDITION

Visc @ 100°C	cSt	<b>12.5</b>	12.9	12.8	12.6
Base Number (BN)	mg KOH/g	<b>9.3</b>	9.0	8.5	8.7
Oxidation (PA)	%	<b>66</b>	63	59	58

### 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

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.3	0.5	0.7
Nitration (PA)	%	<b>51</b>	53	56	50
Sulfation (PA)	%	<b>60</b>	63	59	53
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>5</b>	6	6	4
Sodium	ppm	<b>0</b>	2	2	2
Potassium	ppm	<b>1</b>	<1	0	2



### WEAR METALS

Iron	ppm	<b>5</b>	7	12	6
Copper	ppm	<b>&lt;1</b>	<1	1	<1
Lead	ppm	<b>0</b>	<1	0	0
Tin	ppm	<b>0</b>	<1	0	<1
Aluminum	ppm	<b>3</b>	4	1	2
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>91</b>	117	116	56
Nickel	ppm	<b>&lt;1</b>	<1	0	<1
Titanium	ppm	<b>0</b>	<1	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	<1	<1



### ADDITIVES

Calcium	ppm	<b>1510</b>	1429	1631	1740
Magnesium	ppm	<b>541</b>	598	633	536
Zinc	ppm	<b>933</b>	793	932	1248
Phosphorus	ppm	<b>761</b>	650	785	1032
Barium	ppm	<b>2</b>	4	0	0
Boron	ppm	<b>247</b>	373	284	72

**Depot:** VOLVO0002  
**Unique No:** 10767951  
**Signed:** Wes Davis  
**Report Date:** 05 Dec 2023



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## GRAPHS

