



# CONSTRUCTION EQUIPMENT

## W07013296 CHESTERFIE VOLVO L90H 625 196 - DIESEL ENGINE



**Sample No:** VCP399843  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** W07013296 CHESTERFIE



### SAMPLE INFORMATION

Sample Number	<b>VCP399843</b>	VCP423656	VCP400979	VCP389082
Sample Date	<b>18 Aug 2023</b>	02 Jun 2023	27 Jan 2023	28 Oct 2022
Machine Hours	<b>6418</b>	6175	5556	5113
Oil Hours	<b>500</b>	600	500	500
Oil Changed	<b>Not Chngd</b>	Changed	Changed	Changed
Sample Status	<b>SEVERE</b>	ABNORMAL	ABNORMAL	NORMAL

**McClung-Logan Virginia LLC- RICHMOND**  
 1345 MOUNTAIN ROAD  
 GLEN ALLEN, VA  
 US 23060  
 Contact: KYLE RATLIFFE  
 KRATLIFFE@MCCLUNG-LOGAN.COM  
 T:  
 F: (804)266-1611



### OIL CONDITION

Visc @ 100°C	cSt	<b>14.8</b>	14.9	14.8	14.6
Base Number (BN)	mg KOH/g	<b>6.7</b>	6.6	6.4	7.5
Oxidation (PA)	%	<b>55</b>	71	49	57



### CONTAMINATION

Soot %	%	<b>0.8</b>	1.2	0.9	1.3
Nitration (PA)	%	<b>77</b>	90	72	83
Sulfation (PA)	%	<b>53</b>	65	55	63
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>6</b>	7	5	5
Sodium	ppm	<b>2</b>	2	2	2
Potassium	ppm	<b>&lt;1</b>	<1	2	1



### WEAR METALS

Iron	ppm	<b>17</b>	24	18	19
Copper	ppm	<b>1</b>	1	1	1
Lead	ppm	<b>&lt;1</b>	0	0	<1
Tin	ppm	<b>&lt;1</b>	0	<1	<1
Aluminum	ppm	<b>30</b>	17	23	15
Chromium	ppm	<b>2</b>	2	1	1
Molybdenum	ppm	<b>87</b>	65	7	26
Nickel	ppm	<b>&lt;1</b>	<1	0	<1
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>2390</b>	2299	2263	2160
Magnesium	ppm	<b>71</b>	150	83	158
Zinc	ppm	<b>1345</b>	1453	1042	1079
Phosphorus	ppm	<b>1116</b>	1120	866	837
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>39</b>	22	2	9

### Diagnosis

**KNOCKING NOISE.**The aluminum level is severe for time on oil. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.

**Depot:** VOLVO8882  
**Unique No:** 10620388  
**Signed:** Don Baldrige  
**Report Date:** 28 Aug 2023

**VOLVO** **GRAPHS**

