



# CONSTRUCTION EQUIPMENT

646226 BARTON MALLON VOLVO L150H 6885 - DIESEL ENGINE



**Sample No:** VCP454096  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 646226 BARTON MALLON



## SAMPLE INFORMATION

Sample Number	<b>VCP454096</b>	VCP403674	VCP386822	VCP363236
Sample Date	<b>04 Jan 2024</b>	10 Jan 2023	04 Aug 2022	26 May 2022
Machine Hours	<b>5588</b>	3604	2582	2069
Oil Hours	<b>500</b>	500	500	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	NORMAL

**ALTA EQUIPMENT COMPANY - METRO WEST**  
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## OIL CONDITION

Visc @ 100°C	cSt	<b>13.1</b>	13.0	12.8	13.2
Base Number (BN)	mg KOH/g	<b>7.1</b>	9.1	9.8	9.5
Oxidation (PA)	%	<b>75</b>	65	66	61



## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.2	0.2	0.2
Nitration (PA)	%	<b>83</b>	63	70	68
Sulfation (PA)	%	<b>58</b>	54	59	53
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>3</b>	3	2	3
Sodium	ppm	<b>2</b>	2	<1	2
Potassium	ppm	<b>&lt;1</b>	<1	1	<1



## WEAR METALS

Iron	ppm	<b>7</b>	8	7	7
Copper	ppm	<b>▲ 201</b>	1	2	2
Lead	ppm	<b>2</b>	<1	<1	<1
Tin	ppm	<b>0</b>	<1	<1	<1
Aluminum	ppm	<b>&lt;1</b>	0	1	<1
Chromium	ppm	<b>0</b>	<1	0	<1
Molybdenum	ppm	<b>54</b>	55	60	58
Nickel	ppm	<b>&lt;1</b>	2	0	<1
Titanium	ppm	<b>&lt;1</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>1238</b>	1270	1057	1169
Magnesium	ppm	<b>798</b>	865	888	1032
Zinc	ppm	<b>1133</b>	1273	1226	1204
Phosphorus	ppm	<b>917</b>	1012	1011	1086
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>11</b>	12	3	2

## Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other 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:** VOLVO2990  
**Unique No:** 10845935  
**Signed:** Sean Felton  
**Report Date:** 26 Jan 2024



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## GRAPHS

