



# CONSTRUCTION EQUIPMENT

## SWO-065516 ATLAS COPCO T45-10SF TMG18SEDO183 - DIESEL ENGINE



**Sample No:** VCP428983  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWO-065516



### SAMPLE INFORMATION

Sample Number	<b>VCP428983</b>	VCP424718	VCP402458	VCP368392
Sample Date	<b>31 Aug 2023</b>	02 May 2023	06 Mar 2023	08 Nov 2022
Machine Hours	<b>5911</b>	5181	4738	4017
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>MARGINAL</b>	NORMAL	NORMAL	NORMAL

**WHITAKER CONTRACTING**  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.2</b>	13.7	13.8	14.0
Base Number (BN)	mg KOH/g	<b>9.9</b>	8.7	9.4	10
Oxidation (PA)	%	<b>82</b>	86	92	108

### Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected 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

Soot %	%	<b>0.4</b>	0.5	0.5	0.7
Nitration (PA)	%	<b>83</b>	85	89	103
Sulfation (PA)	%	<b>60</b>	60	66	74
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>3.5</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>7</b>	8	9	10
Sodium	ppm	<b>3</b>	2	2	2
Potassium	ppm	<b>2</b>	<1	0	2



### WEAR METALS

Iron	ppm	<b>10</b>	19	18	25
Copper	ppm	<b>3</b>	32	37	47
Lead	ppm	<b>3</b>	2	2	5
Tin	ppm	<b>&lt;1</b>	<1	<1	1
Aluminum	ppm	<b>3</b>	4	2	7
Chromium	ppm	<b>&lt;1</b>	<1	<1	1
Molybdenum	ppm	<b>48</b>	53	49	47
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	<1	0	<1
Silver	ppm	<b>0</b>	0	0	2
Manganese	ppm	<b>1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	<1



### ADDITIVES

Calcium	ppm	<b>1647</b>	1787	1639	1884
Magnesium	ppm	<b>706</b>	714	608	549
Zinc	ppm	<b>1317</b>	1225	1134	1237
Phosphorus	ppm	<b>996</b>	1004	876	964
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>19</b>	20	19	24

**Depot:** WHIGUN  
**Unique No:** 10642995  
**Signed:** Wes Davis  
**Report Date:** 13 Sep 2023



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## VOLVO GRAPHS

