



CONSTRUCTION EQUIPMENT

SW-26366-2 CASTLE VA VOLVO A40G 340313 - DIESEL ENGINE



Sample No: VCP441953
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-26366-2 CASTLE VA



SAMPLE INFORMATION

Sample Number	VCP441953	VCP412189	VCP419291	VCP406296
Sample Date	15 Nov 2023	11 Sep 2023	26 Jun 2023	19 Apr 2023
Machine Hours	17580	17019	16501	16023
Oil Hours	490	519	500	580
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ARNOLD MACHINERY COMPANY
 2975 WEST 2100 SOUTH
 SALT LAKE CITY, UT
 US 84119
 Contact: TONY PAYAN
 tpayan@arnoldmachinery.com
 T: (801)972-4000
 F: (801)975-9434



OIL CONDITION

Visc @ 100°C	cSt	12.6	12.5	12.7	12.1
Base Number (BN)	mg KOH/g	8.9	9.2	9.8	8.5
Oxidation (PA)	%	53	55	61	72

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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.2	0.3
Nitration (PA)	%	49	47	53	53
Sulfation (PA)	%	50	50	54	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	0.3
Silicon	ppm	2	2	3	7
Sodium	ppm	2	2	1	3
Potassium	ppm	0	<1	1	0



WEAR METALS

Iron	ppm	2	2	5	13
Copper	ppm	<1	<1	1	2
Lead	ppm	0	0	0	0
Tin	ppm	0	<1	<1	0
Aluminum	ppm	<1	<1	1	2
Chromium	ppm	0	0	<1	0
Molybdenum	ppm	59	63	64	50
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	1019	1226	1195	1422
Magnesium	ppm	938	1083	950	560
Zinc	ppm	1226	1368	1325	1133
Phosphorus	ppm	1106	1108	1068	905
Barium	ppm	0	0	0	0
Boron	ppm	8	5	24	90

Depot: VOLVO8770
Unique No: 10754009
Signed: Don Baldrige
Report Date: 25 Nov 2023



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GRAPHS

