



CONSTRUCTION EQUIPMENT

SW-35464-2 HOLCIM VOLVO L180H 5636 - DIESEL ENGINE



Sample No: VCP454200
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SW-35464-2 HOLCIM



SAMPLE INFORMATION

Sample Number	VCP454200	VCP446706	VCP442150	VCP400952
Sample Date	13 Jun 2024	01 Mar 2024	09 Nov 2023	04 May 2023
Machine Hours	3089	2460	1756	650
Oil Hours	600	730	1100	650
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	ABNORMAL

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	12.8	12.8	12.7	10.8
Base Number (BN)	mg KOH/g	6.5	7.4	6.7	6.3
Oxidation (PA)	%	44	57	69	61



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.2	0.3	0.1
Nitration (PA)	%	57	63	72	79
Sulfation (PA)	%	50	52	60	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	0.6
Silicon	ppm	5	4	11	29
Sodium	ppm	<1	3	<1	4
Potassium	ppm	2	1	0	4



WEAR METALS

Iron	ppm	8	<1	15	48
Copper	ppm	5	13	66	450
Lead	ppm	<1	2	1	6
Tin	ppm	<1	<1	2	2
Aluminum	ppm	2	1	2	5
Chromium	ppm	<1	<1	<1	0
Molybdenum	ppm	24	61	63	94
Nickel	ppm	0	0	0	<1
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	2
Vanadium	ppm	0	<1	0	0



ADDITIVES

Calcium	ppm	1924	1259	1226	2340
Magnesium	ppm	312	830	876	16
Zinc	ppm	1129	1187	1221	1311
Phosphorus	ppm	922	977	896	1099
Barium	ppm	0	0	0	0
Boron	ppm	13	14	4	51

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.

Depot: VOLVO8770
Unique No: 11089401
Signed: Wes Davis
Report Date: 24 Jun 2024



CONSTRUCTION EQUIPMENT



GRAPHS

