



CONSTRUCTION EQUIPMENT

A12262 VOLVO L110H 632316 - DIESEL ENGINE



Sample No: VCP446067
Oil Type: MOBIL 15W40
Job No: A12262



SAMPLE INFORMATION

Sample Number	VCP446067	VCP439454	VCP412833	VCP408982
Sample Date	15 Mar 2024	20 Dec 2023	04 Oct 2023	28 Jun 2023
Machine Hours	4670	4140	3650	3074
Oil Hours	500	500	500	0
Oil Changed	Changed	Changed	Changed	N/A
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

HMR ASSOCIATES
 PO BOX 485
 TOUGHKENAMON, PA
 US 19374
 Contact: SERVICE MANAGER



OIL CONDITION

Visc @ 100°C	cSt	13.6	13.3	13.3	13.6
Base Number (BN)	mg KOH/g	6.2	6.8	7.1	6.2
Oxidation (PA)	%	47	47	57	57

T:
 F: (610)268-2225

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.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.2	0.3	0.3
Nitration (PA)	%	63	58	65	72
Sulfation (PA)	%	52	50	53	54
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	3	4	4
Sodium	ppm	2	<1	0	2
Potassium	ppm	2	<1	2	2



WEAR METALS

Iron	ppm	10	8	21	15
Copper	ppm	1	<1	2	1
Lead	ppm	<1	0	<1	0
Tin	ppm	1	<1	1	<1
Aluminum	ppm	5	3	4	4
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	10	20	41	16
Nickel	ppm	<1	0	<1	0
Titanium	ppm	1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	2254	1881	1528	2305
Magnesium	ppm	107	282	508	187
Zinc	ppm	1107	1120	1132	1234
Phosphorus	ppm	941	935	916	987
Barium	ppm	0	0	2	0
Boron	ppm	5	7	7	4

Depot: HMRTOU
Unique No: 10937575
Signed: Wes Davis
Report Date: 21 Mar 2024



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VOLVO GRAPHS

