



CONSTRUCTION EQUIPMENT

659872 VOLVO L150H 6945 - DIESEL ENGINE



Sample No: VCP437449
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 659872



SAMPLE INFORMATION

Sample Number	VCP437449	VCP432766	VCP408209	VCP386610
Sample Date	15 Jan 2024	05 Sep 2023	29 Mar 2023	07 Jan 2023
Machine Hours	7995	6908	5534	4991
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	ABNORMAL

ORANGE COUNTY SOLID WASTE
 5901 YOUNG PINE ROAD
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OIL CONDITION

Visc @ 100°C	cSt	13.0	12.6	12.8	13.0
Base Number (BN)	mg KOH/g	7.7	8.3	9.2	10.1
Oxidation (PA)	%	84	86	64	85

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.3	0.2	0.2
Nitration (PA)	%	74	68	61	64
Sulfation (PA)	%	61	61	55	62
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	▲ 29	▲ 24	16	▲ 26
Sodium	ppm	0	5	<1	3
Potassium	ppm	3	<1	<1	0

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. All component wear rates are normal. Elemental level of silicon (Si) above normal. 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.

WEAR METALS

Iron	ppm	8	7	4	6
Copper	ppm	8	3	2	1
Lead	ppm	1	2	<1	<1
Tin	ppm	<1	<1	0	<1
Aluminum	ppm	2	4	0	<1
Chromium	ppm	<1	0	0	<1
Molybdenum	ppm	48	45	58	43
Nickel	ppm	<1	0	0	<1
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	1645	1794	1133	1681
Magnesium	ppm	576	523	890	538
Zinc	ppm	1188	1122	1241	1148
Phosphorus	ppm	953	947	949	917
Barium	ppm	3	0	0	0
Boron	ppm	16	20	4	31

Depot: ORAORL
Unique No: 10835348
Signed: Don Baldrige
Report Date: 20 Jan 2024



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GRAPHS

