



CONSTRUCTION EQUIPMENT

VOLVO L220H 2211 - DIESEL ENGINE



Sample No: VCP404566
Oil Type: SHELL ROTELLA T3 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP404566	VCP429286	VCP404570	VCP415084
Sample Date	15 Dec 2023	15 Nov 2023	10 Oct 2023	15 Sep 2023
Machine Hours	41530	41238	40945	40651
Oil Hours	292	293	294	270
Oil Changed	N/A	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

COVANTA ENERGY
 141 CRANBERRY HWY
 WEST WAREHAM, MA
 US 02576
 Contact: SAWYER
 ssawyer@woodcomachinery.com
 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	13.1	13.0	13.1	13.3
Base Number (BN)	mg KOH/g	6.5	6.5	6.6	6.7
Oxidation (PA)	%	44	45	47	45

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	55	56	57	52
Sulfation (PA)	%	48	50	50	47
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	10	16	8	9
Sodium	ppm	3	0	3	1
Potassium	ppm	20	2	3	1

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.

WEAR METALS

Iron	ppm	1	7	2	4
Copper	ppm	3	<1	1	<1
Lead	ppm	0	0	<1	<1
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	1	2	2	0
Chromium	ppm	<1	1	<1	<1
Molybdenum	ppm	24	27	20	30
Nickel	ppm	1	4	2	2
Titanium	ppm	0	<1	0	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	<1	0	0	<1

ADDITIVES

Calcium	ppm	2053	2118	2188	2070
Magnesium	ppm	105	146	134	192
Zinc	ppm	1092	1077	1183	1139
Phosphorus	ppm	961	902	995	919
Barium	ppm	0	0	0	0
Boron	ppm	21	28	20	32

Depot: COVWES
Unique No: 10803548
Signed: Wes Davis
Report Date: 26 Dec 2023



CONSTRUCTION EQUIPMENT



GRAPHS

