



CONSTRUCTION EQUIPMENT

WASTE CONNECTIONS 8-389757 VOLVO EC220D 210875 - DIESEL ENGINE



Sample No: VCP450327
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 8-389757



SAMPLE INFORMATION

Sample Number	VCP450327	VCE036145	VCP212569	VCE241971
Sample Date	28 Dec 2023	22 Oct 2018	04 Oct 2018	21 Sep 2017
Machine Hours	10383	2933	2856	995
Oil Hours	250	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

STRONGCO EQUIPMENT INC.

1640 ENTERPRISE ROAD
 MISSISSAUGA, ON
 CA L4W 4L4

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OIL CONDITION

Visc @ 100°C	cSt	12.7	13.1	12.7	13.1
Oxidation (PA)	%	80	77	78	81



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0.1
Nitration (PA)	%	51	43	47	61
Sulfation (PA)	%	60	61	61	72
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	1.5	<1.0	0.6	<1.0
Silicon	ppm	12	10	14	13
Sodium	ppm	52	2	2	3
Potassium	ppm	1	<1	<1	<1

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	4	3	4	11
Copper	ppm	<1	0	4	<1
Lead	ppm	<1	0	<1	0
Tin	ppm	0	0	0	<1
Aluminum	ppm	3	2	3	7
Chromium	ppm	0	0	0	<1
Molybdenum	ppm	39	38	39	39
Nickel	ppm	<1	0	0	<1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1705	1583	1606	1677
Magnesium	ppm	497	471	470	581
Zinc	ppm	1061	846	842	935
Phosphorus	ppm	939	716	738	775
Barium	ppm	0	0	0	<1
Boron	ppm	37	54	45	40

Depot: SHEMIS
Unique No: 5735406
Signed: Kevin Marson
Report Date: 28 Feb 2024



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GRAPHS

