



CONSTRUCTION EQUIPMENT

621497-01 VOLVO 6157 - DIESEL ENGINE



Sample No: VCP135324
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 621497-01



SAMPLE INFORMATION

Sample Number	VCP135324	VCP123030	VCP112078	VCP076958
Sample Date	01 Feb 2013	09 Dec 2011	31 Aug 2011	21 Mar 2011
Machine Hours	7506	5932	5493	5000
Oil Hours	500	0	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

RIDEAU BULK TERMINALS
 6960 4TH LINE ROAD,, OLD HWY 16
 KEMPTVILLE, ON
 CA K0G 1J0
 Contact: Mark Yelle
 myelle@rideaubulk.com
 T: (613)489-1440
 F: (613)489-1428

OIL CONDITION

Visc @ 100°C	cSt	14.9	14.6	14.6	15.0
Oxidation (PA)	%	82	84	89	82

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.4	0.5	0.2
Nitration (PA)	%	90	91	94	84
Sulfation (PA)	%	84	77	78	67
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	2	4	3	3
Sodium	ppm	4	7	10	7
Potassium	ppm	1	2	0	<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 component. The condition of the oil is acceptable for the time in service.

WEAR METALS

Iron	ppm	8	12	17	11
Copper	ppm	2	12	13	28
Lead	ppm	3	5	10	3
Tin	ppm	<1	<1	1	<1
Aluminum	ppm	1	2	2	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	35	38	43	44
Nickel	ppm	<1	<1	1	1
Titanium	ppm	21	19	26	21
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	<1	0	0	<1

ADDITIVES

Calcium	ppm	1372	1548	1816	1620
Magnesium	ppm	708	709	824	795
Zinc	ppm	1164	1138	1322	1365
Phosphorus	ppm	908	874	972	1077
Barium	ppm	0	0	0	0
Boron	ppm	38	31	31	41

Depot: RIDNOR
Unique No: 3663622
Signed: Bill Quesnel
Report Date: 21 Feb 2013

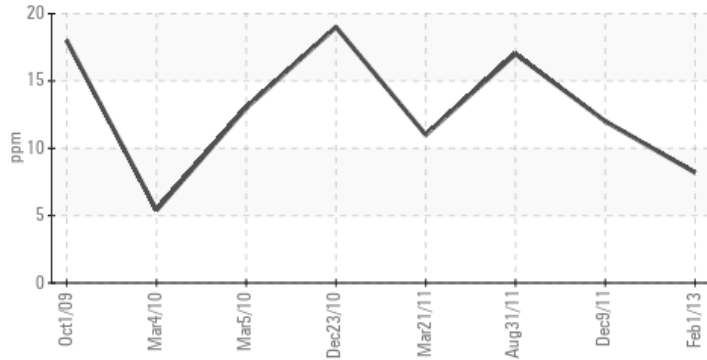


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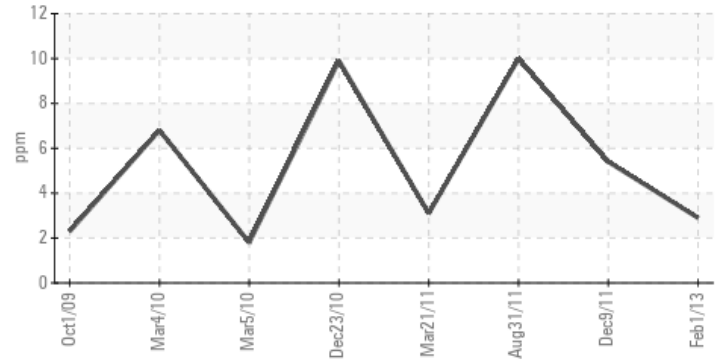


GRAPHS

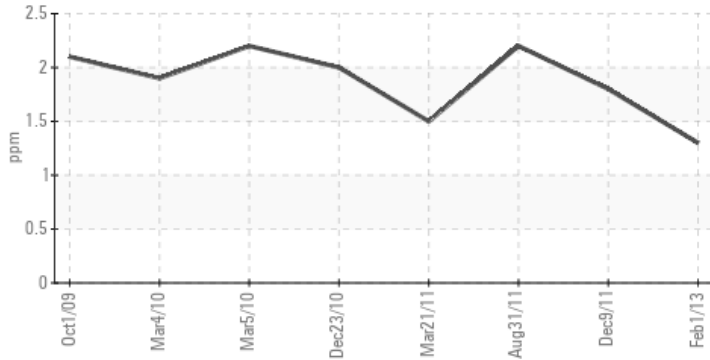
Iron (ppm)



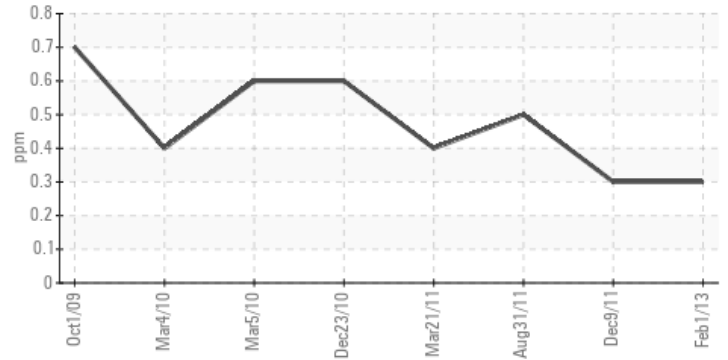
Lead (ppm)



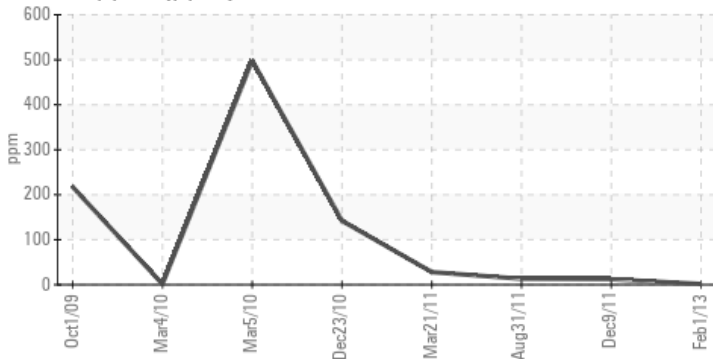
Aluminum (ppm)



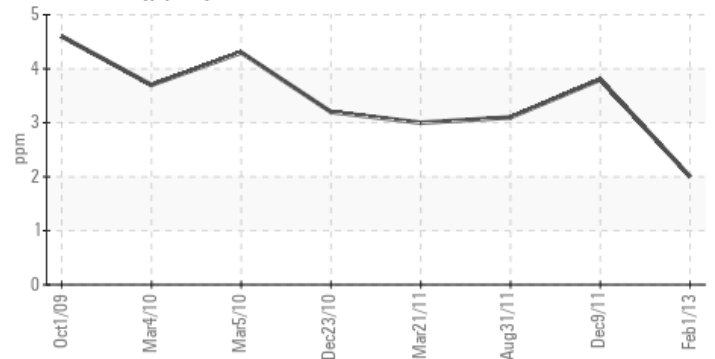
Chromium (ppm)



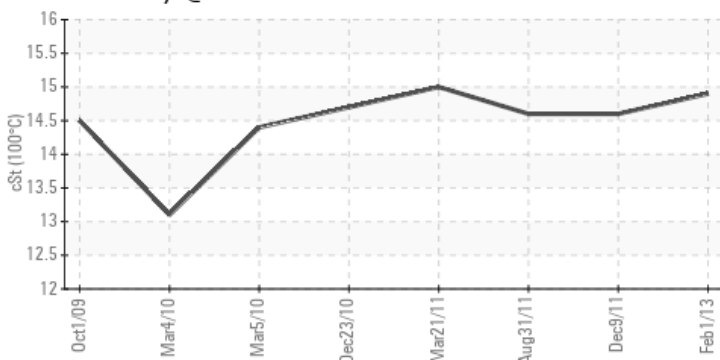
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Soot %

