



CONSTRUCTION EQUIPMENT

25211 VOLVO EC200EL 310140 - DIESEL ENGINE



Sample No: VCP455197
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 25211



SAMPLE INFORMATION

Sample Number	VCP455197	VCP400705	VCP363560	VCP348102
Sample Date	27 Mar 2024	14 Feb 2023	19 Sep 2022	10 Mar 2022
Machine Hours	3707	2919	2525	2076
Oil Hours	500	1000	0	0
Oil Changed	Changed	Changed	Changed	N/A
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

218 - ASCENDUM MACHINERY INC - N. CHARLESTON
 7235 CROSS COUNTRY RD.
 NORTH CHARLESTON, SC
 US 29418
 Contact: MATT MITCHAM
 matt.mitcham@ascendummachinery.com
 T:
 F: (843)414-1129



OIL CONDITION

Visc @ 100°C	cSt	13.1	13.1	13.1	13.6
Base Number (BN)	mg KOH/g	9.0	9.4	12.0	8.4
Oxidation (PA)	%	85	80	85	68

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The aluminum level is abnormal. All other 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 %	%	0.6	0.9	0.5	0.3
Nitration (PA)	%	85	89	78	83
Sulfation (PA)	%	60	60	64	61
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	16	9	13	10
Sodium	ppm	25	5	2	1
Potassium	ppm	0	0	<1	<1



WEAR METALS

Iron	ppm	83	24	52	2
Copper	ppm	5	2	4	0
Lead	ppm	0	0	<1	<1
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	▲ 18	7	10	<1
Chromium	ppm	2	1	2	<1
Molybdenum	ppm	40	45	42	44
Nickel	ppm	0	<1	0	<1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1803	1658	1635	1644
Magnesium	ppm	524	536	539	534
Zinc	ppm	1173	1169	1065	1089
Phosphorus	ppm	986	943	887	920
Barium	ppm	0	0	0	0
Boron	ppm	25	47	22	76

Depot: VOLVO3387
Unique No: 10965824
Signed: Jonathan Hester
Report Date: 10 Apr 2024

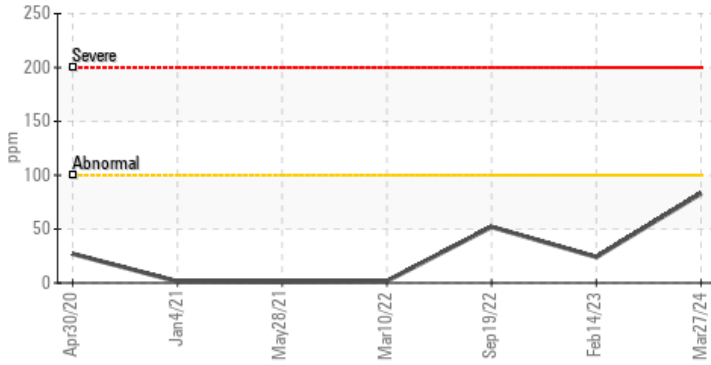


CONSTRUCTION EQUIPMENT

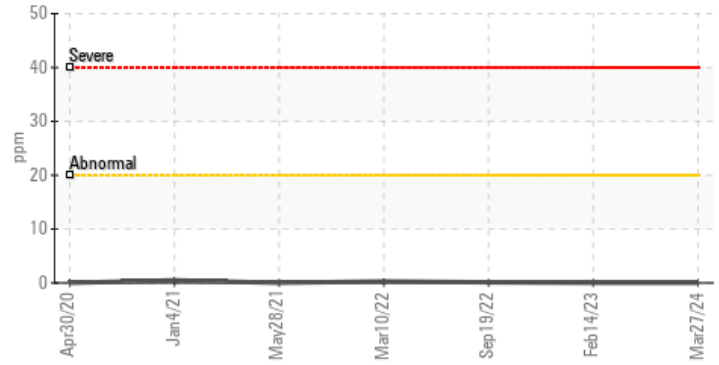


GRAPHS

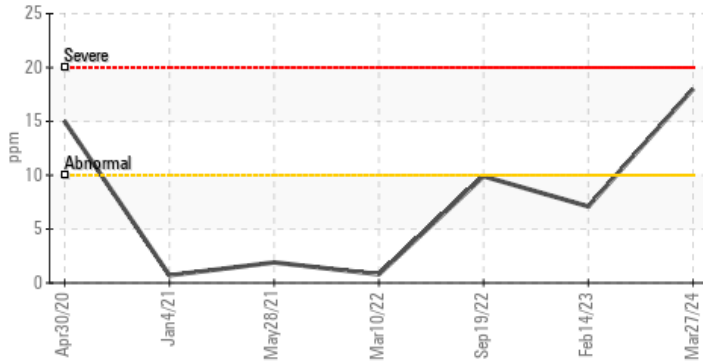
Iron (ppm)



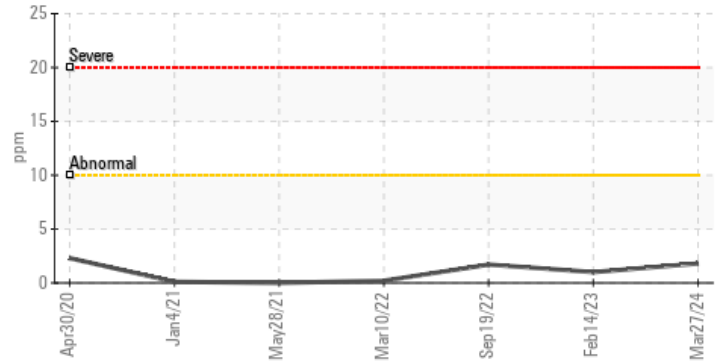
Lead (ppm)



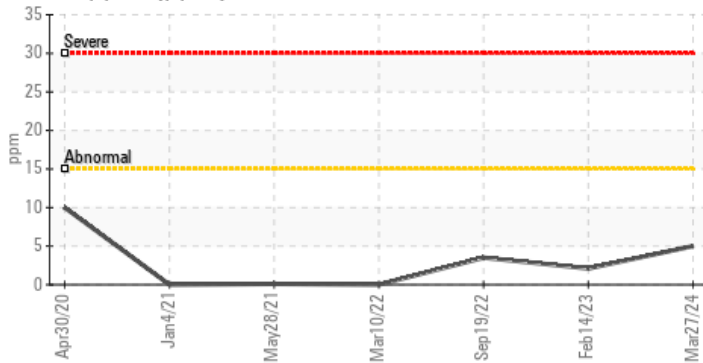
Aluminum (ppm)



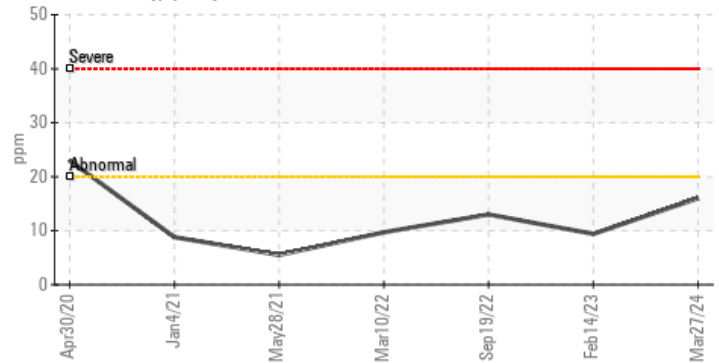
Chromium (ppm)



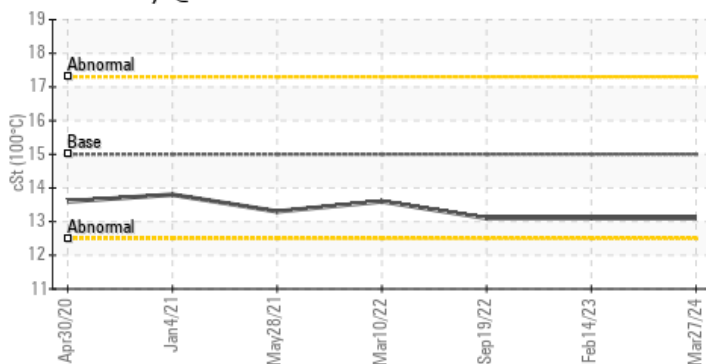
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

