



CONSTRUCTION EQUIPMENT

VOLVO EC480EL 314022 - DIESEL ENGINE



Sample No: VCP270465
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP270465	VCP265185	---	---
Sample Date	18 Feb 2020	27 Nov 2019	---	---
Machine Hours	1219	730	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

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OIL CONDITION

Visc @ 100°C	cSt	12.5	12.4	---	---
Oxidation (PA)	%	71	74	---	---



CONTAMINATION

Soot %	%	0.1	0.1	---	---
Nitration (PA)	%	79	69	---	---
Sulfation (PA)	%	60	59	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	10	25	---	---
Sodium	ppm	3	3	---	---
Potassium	ppm	2	0	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level has decreased, but is still abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	7	15	---	---
Copper	ppm	72	244	---	---
Lead	ppm	<1	<1	---	---
Tin	ppm	<1	0	---	---
Aluminum	ppm	1	3	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	13	13	---	---
Nickel	ppm	<1	<1	---	---
Titanium	ppm	0	<1	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	2	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	1458	2142	---	---
Magnesium	ppm	563	103	---	---
Zinc	ppm	759	1051	---	---
Phosphorus	ppm	675	802	---	---
Barium	ppm	0	0	---	---
Boron	ppm	16	12	---	---

Depot: VOLVO0090
Unique No: 8932741
Signed: Don Baldrige
Report Date: 24 Feb 2020

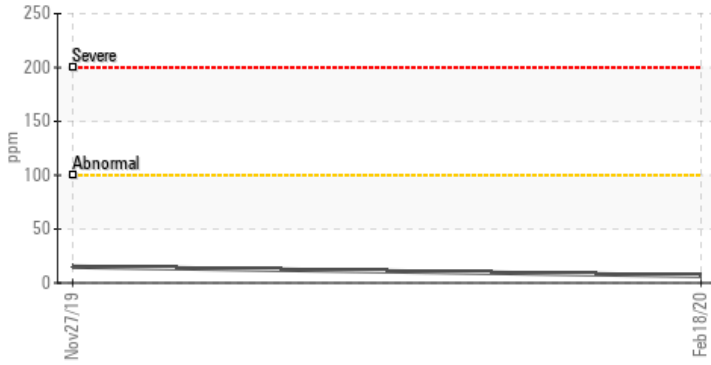


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GRAPHS

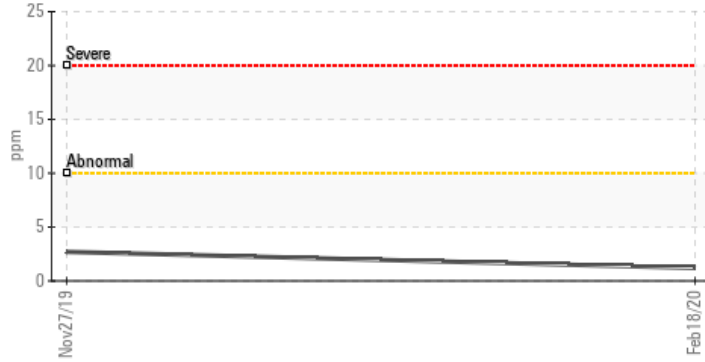
Iron (ppm)



Lead (ppm)



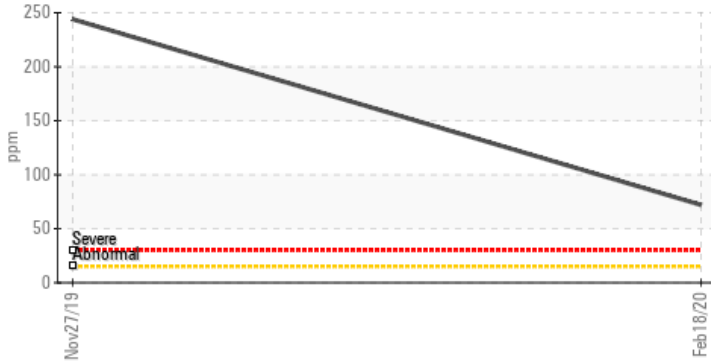
Aluminum (ppm)



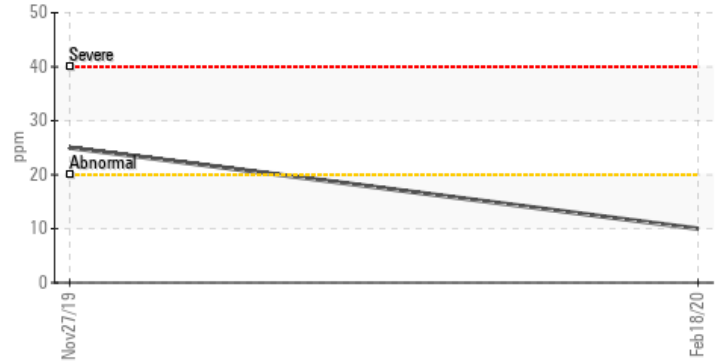
Chromium (ppm)



▲ Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Soot %

