



CONSTRUCTION EQUIPMENT

5520DR KINSLEY CONST VOLVO A40E 13563 - DIESEL ENGINE



Sample No: VCP431948
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 5520DR KINSLEY CONST



SAMPLE INFORMATION

Sample Number	VCP431948	VCP124766	---	---
Sample Date	03 May 2024	21 Jun 2013	---	---
Machine Hours	13358	2149	---	---
Oil Hours	500	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

HIGHWAY EQUIPMENT & SUPPLY CO
 PO BOX 127
 DRUMS, PA
 US 18222
 Contact: JUSTIN BLOSS
 justin@hwyequip.com
 T: (570)788-1127
 F: (570)708-2933



OIL CONDITION

Visc @ 100°C	cSt	12.8	13.2	---	---
Base Number (BN)	mg KOH/g	8.8	---	---	---
Oxidation (PA)	%	50	48	---	---

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 acceptable for the time in service.



CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.3	0.8	---	---
Nitration (PA)	%	46	58	---	---
Sulfation (PA)	%	49	50	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	2	5	---	---
Sodium	ppm	2	3	---	---
Potassium	ppm	0	2	---	---



WEAR METALS

Iron	ppm	3	28	---	---
Copper	ppm	<1	28	---	---
Lead	ppm	0	<1	---	---
Tin	ppm	0	0	---	---
Aluminum	ppm	0	2	---	---
Chromium	ppm	0	<1	---	---
Molybdenum	ppm	54	38	---	---
Nickel	ppm	0	2	---	---
Titanium	ppm	0	7	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	1176	1754	---	---
Magnesium	ppm	858	688	---	---
Zinc	ppm	1096	1177	---	---
Phosphorus	ppm	979	1003	---	---
Barium	ppm	0	0	---	---
Boron	ppm	4	32	---	---

Depot: VOLVO0022
Unique No: 11019674
Signed: Don Baldrige
Report Date: 11 May 2024

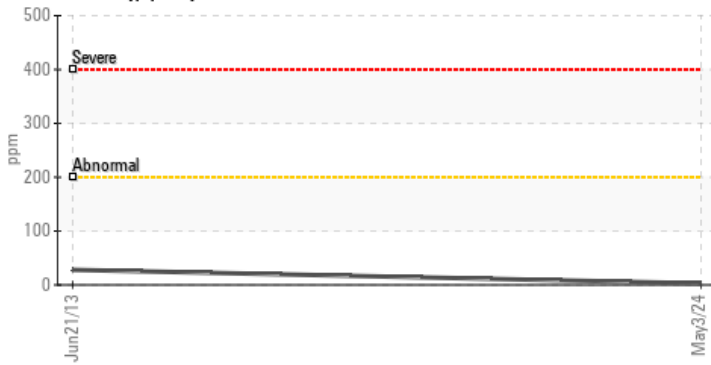


CONSTRUCTION EQUIPMENT



GRAPHS

Iron (ppm)



Lead (ppm)



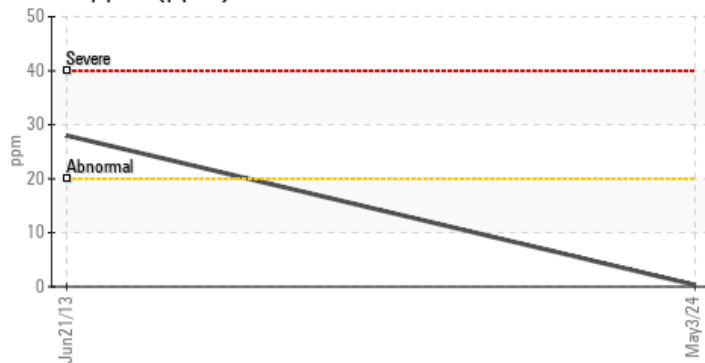
Aluminum (ppm)



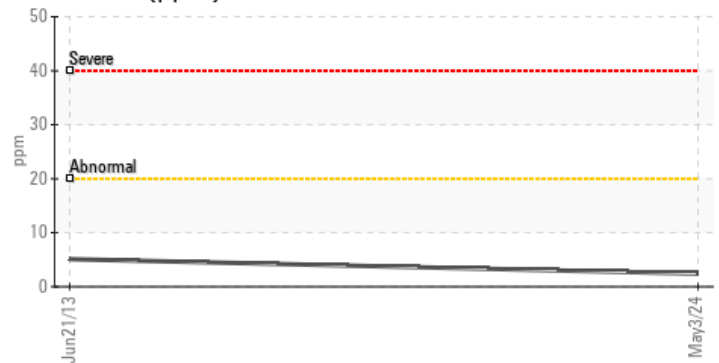
Chromium (ppm)



Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

