



CONSTRUCTION EQUIPMENT

VOLVO L220H 3589 - DIESEL ENGINE



Sample No: VCP441737
Oil Type: SHELL ROTELLA T3 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP441737	VCP441804	---	---
Sample Date	13 Feb 2024	31 Jan 2024	---	---
Machine Hours	308	108	---	---
Oil Hours	200	108	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	ATTENTION	---	---

COVANTA ENERGY
 141 CRANBERRY HWY
 WEST WAREHAM, MA
 US 02576
 Contact: SAWYER
 ssawyer@woodcomachinery.com
 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	13.1	▲ 11.4	---	---
Base Number (BN)	mg KOH/g	7.1	■ 7.3	---	---
Oxidation (PA)	%	44	■ 54	---	---



CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.1	■ 0.1	---	---
Nitration (PA)	%	53	■ 60	---	---
Sulfation (PA)	%	46	■ 48	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	■ 0.3	---	---
Silicon	ppm	9	■ 19	---	---
Sodium	ppm	1	■ 0	---	---
Potassium	ppm	<1	■ 3	---	---



WEAR METALS

Iron	ppm	4	■ 8	---	---
Copper	ppm	8	■ 62	---	---
Lead	ppm	0	■ 2	---	---
Tin	ppm	<1	■ 2	---	---
Aluminum	ppm	1	■ 2	---	---
Chromium	ppm	0	■ <1	---	---
Molybdenum	ppm	20	■ 87	---	---
Nickel	ppm	0	■ 1	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	0	■ 0	---	---
Manganese	ppm	<1	■ 3	---	---
Vanadium	ppm	0	■ 0	---	---



ADDITIVES

Calcium	ppm	2104	■ 1976	---	---
Magnesium	ppm	63	■ 51	---	---
Zinc	ppm	1063	■ 1204	---	---
Phosphorus	ppm	897	■ 905	---	---
Barium	ppm	0	■ 0	---	---
Boron	ppm	22	■ 75	---	---

Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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.

Depot: COVWES
Unique No: 10884422
Signed: Wes Davis
Report Date: 19 Feb 2024



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GRAPHS

Iron (ppm)



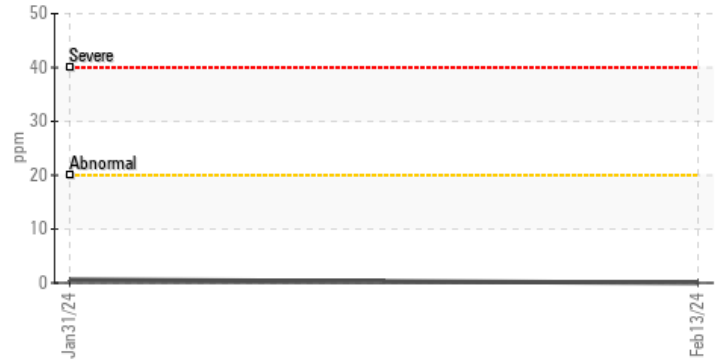
Lead (ppm)



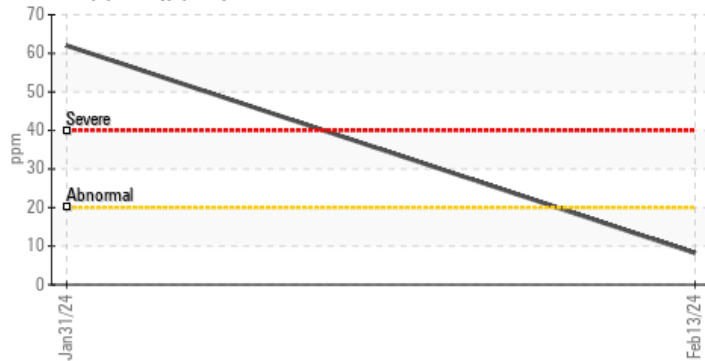
Aluminum (ppm)



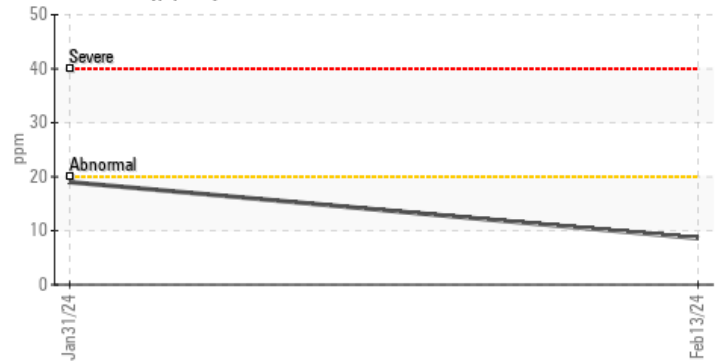
Chromium (ppm)



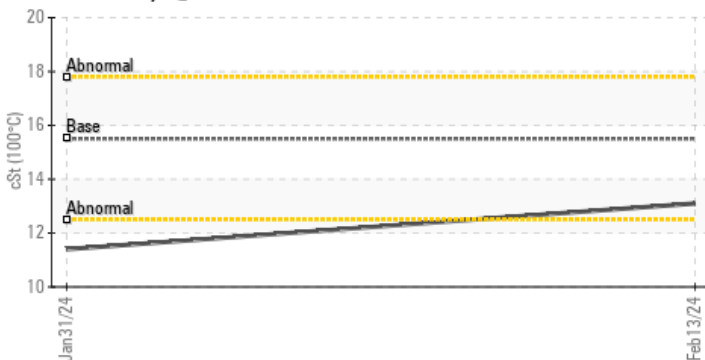
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

