



# CONSTRUCTION EQUIPMENT

## MOSAIC VOLVO EC480EL 314204 - DIESEL ENGINE



**Sample No:** VCP452351  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** MOSAIC



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### SAMPLE INFORMATION

Sample Number	VCP452351	VCP386638	---	---
Sample Date	14 May 2024	19 Jan 2023	---	---
Machine Hours	5353	4222	---	---
Oil Hours	10	0	---	---
Oil Changed	Changed	Not Chngd	---	---
Sample Status	ABNORMAL	ATTENTION	---	---



### OIL CONDITION

Visc @ 100°C	cSt	█ 12.8	● 12.1	---	---
Base Number (BN)	mg KOH/g	█ 11.0	█ 6.7	---	---
Oxidation (PA)	%	77	69	---	---



### CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	█ 0.1	█ 0.2	---	---
Nitration (PA)	%	42	80	---	---
Sulfation (PA)	%	60	64	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	▲ 2.6	---	---
Silicon	ppm	▲ 39	█ 14	---	---
Sodium	ppm	█ 19	█ 2	---	---
Potassium	ppm	█ 7	█ 0	---	---



### WEAR METALS

Iron	ppm	█ 18	█ 15	---	---
Copper	ppm	█ 4	█ 6	---	---
Lead	ppm	█ 4	█ 0	---	---
Tin	ppm	█ 2	█ 0	---	---
Aluminum	ppm	█ 3	█ 2	---	---
Chromium	ppm	█ 1	█ 1	---	---
Molybdenum	ppm	█ 51	█ 64	---	---
Nickel	ppm	▲ 16	█ 1	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	█ <1	█ 0	---	---
Manganese	ppm	█ 4	█ <1	---	---
Vanadium	ppm	<1	0	---	---



### ADDITIVES

Calcium	ppm	█ 2227	█ 1769	---	---
Magnesium	ppm	█ 652	█ 330	---	---
Zinc	ppm	█ 1500	█ 1101	---	---
Phosphorus	ppm	█ 1337	█ 877	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ 80	█ 44	---	---

### Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Valve wear is indicated. Elemental level of silicon (Si) above normal indicating ingress of seal material. 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.

**Depot:** VOLVO0093  
**Unique No:** 11032231  
**Signed:** Jonathan Hester  
**Report Date:** 18 May 2024



# CONSTRUCTION EQUIPMENT

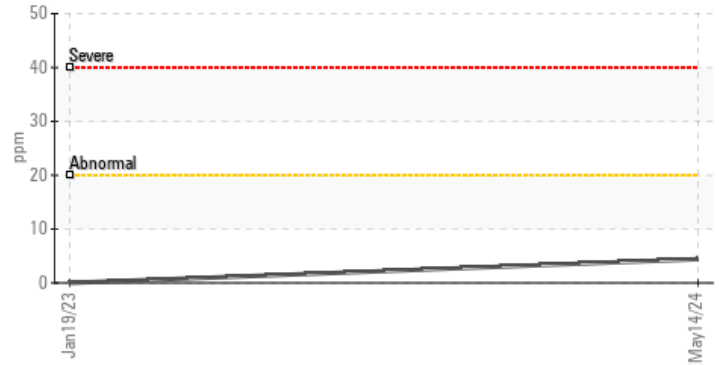


## GRAPHS

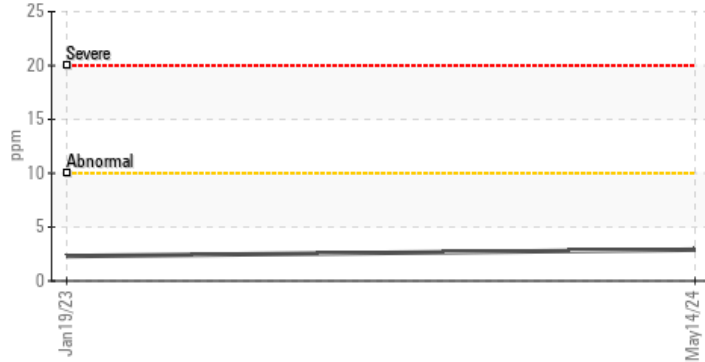
### Iron (ppm)



### Lead (ppm)



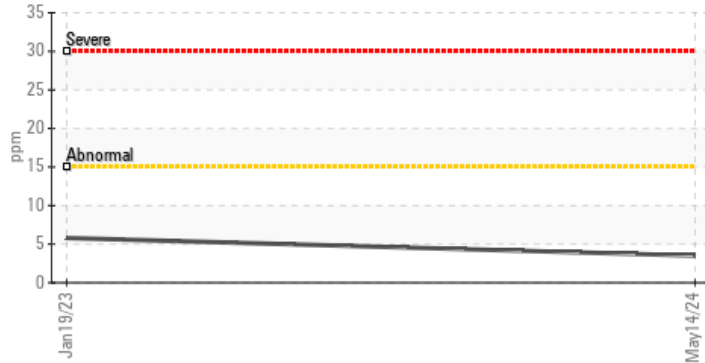
### Aluminum (ppm)



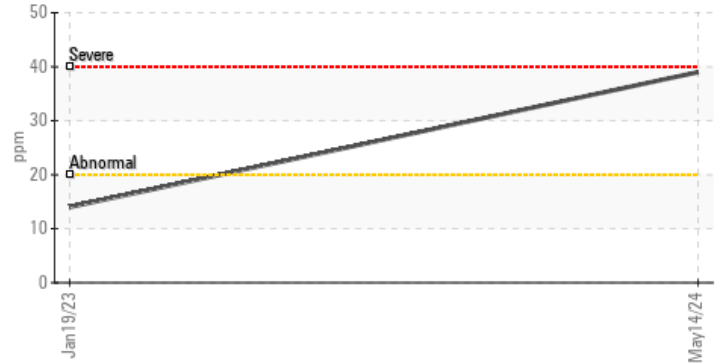
### Chromium (ppm)



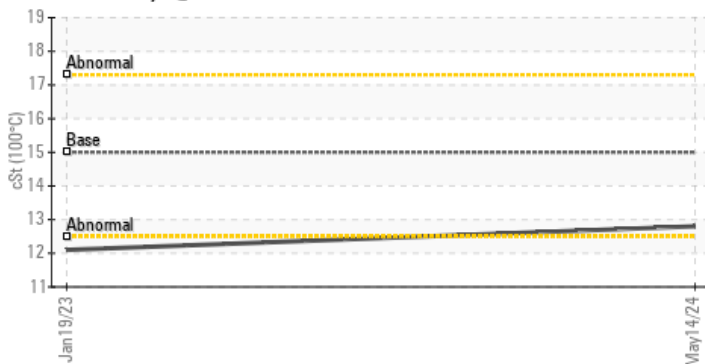
### Copper (ppm)



### ▲ Silicon (ppm)



### Viscosity @ 100°C



### Base Number

