



# CONSTRUCTION EQUIPMENT

## 2644-1 VOLVO EC250DL 210030 - DIESEL ENGINE



**Sample No:** VCP408372  
**Oil Type:** CHEVRON DELO 400 MULTIGRADE 15W40  
**Job No:** 2644-1



### SAMPLE INFORMATION

Sample Number	<b>VCP408372</b>	VCP380616	VCP318300	VCP05181922
Sample Date	<b>21 Sep 2023</b>	09 Nov 2022	09 Dec 2021	10 Feb 2021
Machine Hours	<b>12928</b>	12040	10972	10082
Oil Hours	<b>0</b>	0	500	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.6</b>	13.9	13.8	14.1
Base Number (BN)	mg KOH/g	<b>7.9</b>	10.7	9.7	---
Oxidation (PA)	%	<b>64</b>	85	74	86

### CONTAMINATION

Soot %	%	<b>0.6</b>	1.5	0.7	1.4
Nitration (PA)	%	<b>65</b>	109	78	105
Sulfation (PA)	%	<b>61</b>	74	68	74
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>7</b>	8	8	8
Sodium	ppm	<b>12</b>	12	4	31
Potassium	ppm	<b>13</b>	3	4	6

### 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 suitable for further service.

### WEAR METALS

Iron	ppm	<b>19</b>	33	22	37
Copper	ppm	<b>3</b>	4	4	5
Lead	ppm	<b>0</b>	<1	<1	0
Tin	ppm	<b>1</b>	1	<1	0
Aluminum	ppm	<b>4</b>	12	6	14
Chromium	ppm	<b>&lt;1</b>	1	<1	2
Molybdenum	ppm	<b>91</b>	106	113	115
Nickel	ppm	<b>0</b>	<1	0	2
Titanium	ppm	<b>&lt;1</b>	<1	<1	<1
Silver	ppm	<b>0</b>	2	<1	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	<1	0

### ADDITIVES

Calcium	ppm	<b>1510</b>	1536	1748	2005
Magnesium	ppm	<b>564</b>	735	595	682
Zinc	ppm	<b>1367</b>	1057	884	1013
Phosphorus	ppm	<b>1155</b>	866	851	919
Barium	ppm	<b>0</b>	0	1	0
Boron	ppm	<b>343</b>	116	266	96

**Depot:** VOLVO1023  
**Unique No:** 10662245  
**Signed:** Don Baldrige  
**Report Date:** 27 Sep 2023

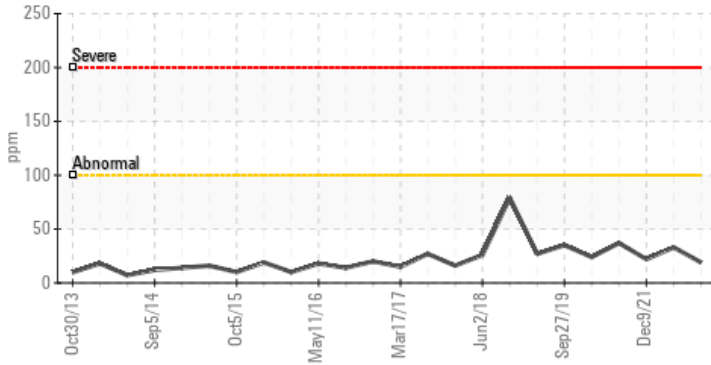


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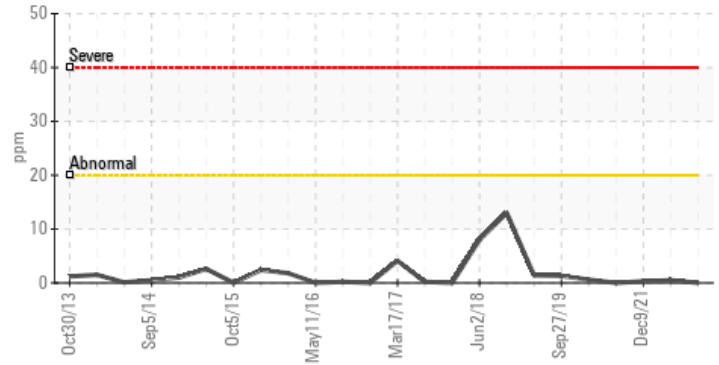


## GRAPHS

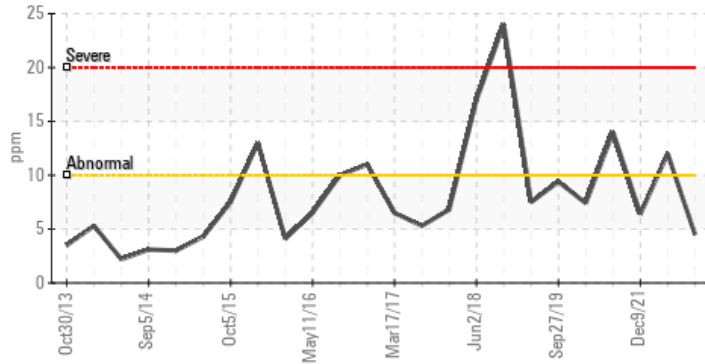
### Iron (ppm)



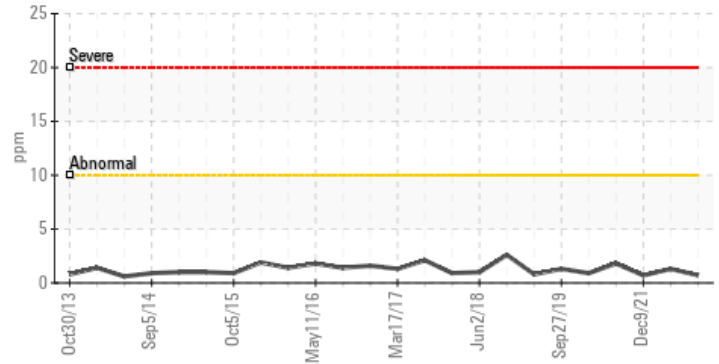
### Lead (ppm)



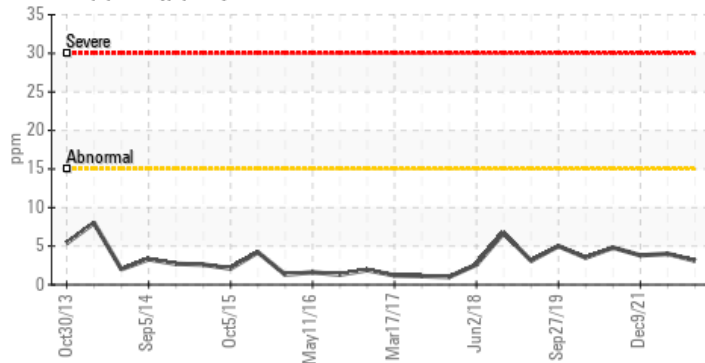
### Aluminum (ppm)



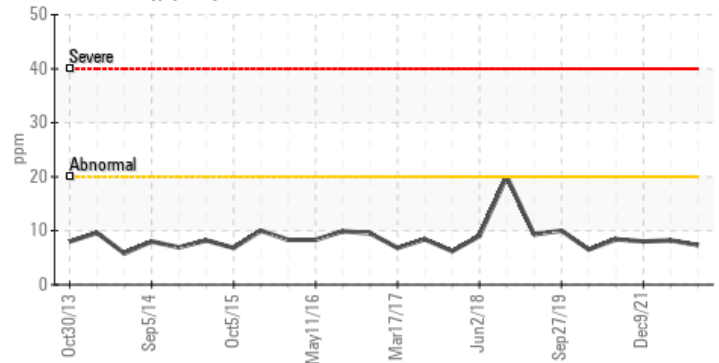
### Chromium (ppm)



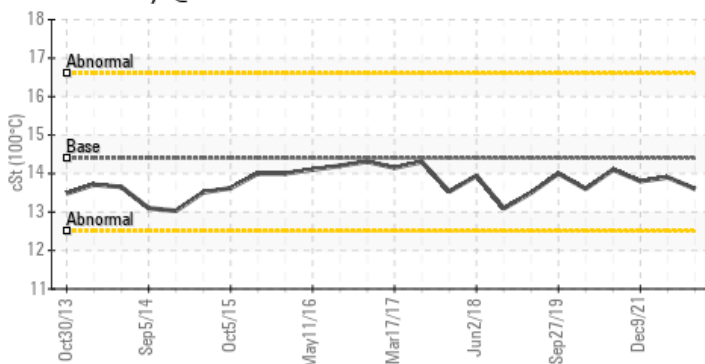
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

