



# CONSTRUCTION EQUIPMENT

## GRASSEY CREEK VOLVO L180G 22208 - DIESEL ENGINE



**Sample No:** VCP426944  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** GRASSEY CREEK



### SAMPLE INFORMATION

Sample Number	<b>VCP426944</b>	VCE69642	---	---
Sample Date	<b>27 Jul 2023</b>	09 Jan 2015	---	---
Machine Hours	<b>6318</b>	2007	---	---
Oil Hours	<b>0</b>	0	---	---
Oil Changed	<b>Changed</b>	Changed	---	---
Sample Status	<b>ABNORMAL</b>	NORMAL	---	---



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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.2</b>	14.07	---	---
Base Number (BN)	mg KOH/g	<b>7.3</b>	---	---	---
Oxidation (PA)	%	<b>71</b>	56	---	---



### CONTAMINATION

Soot %	%	<b>0.5</b>	0.3	---	---
Nitration (PA)	%	<b>89</b>	58	---	---
Sulfation (PA)	%	<b>59</b>	50	---	---
Glycol	%	<b>NEG</b>	NEG	---	---
Fuel	%	<b>&lt;1.0</b>	<1.0	---	---
Silicon	ppm	<b>7</b>	5	---	---
Sodium	ppm	<b>13</b>	5	---	---
Potassium	ppm	<b>3</b>	4	---	---



### WEAR METALS

Iron	ppm	<b>37</b>	7	---	---
Copper	ppm	<b>13</b>	8	---	---
Lead	ppm	<b>2</b>	2	---	---
Tin	ppm	<b>1</b>	4	---	---
Aluminum	ppm	<b>▲ 12</b>	2	---	---
Chromium	ppm	<b>1</b>	<1	---	---
Molybdenum	ppm	<b>45</b>	47	---	---
Nickel	ppm	<b>▲ 12</b>	2	---	---
Titanium	ppm	<b>&lt;1</b>	<1	---	---
Silver	ppm	<b>0</b>	0	---	---
Manganese	ppm	<b>2</b>	<1	---	---
Vanadium	ppm	<b>&lt;1</b>	0	---	---



### ADDITIVES

Calcium	ppm	<b>1520</b>	1314	---	---
Magnesium	ppm	<b>652</b>	877	---	---
Zinc	ppm	<b>1051</b>	1094	---	---
Phosphorus	ppm	<b>732</b>	946	---	---
Barium	ppm	<b>0</b>	0	---	---
Boron	ppm	<b>25</b>	32	---	---

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. Valve wear is indicated. 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.

**Depot:** VOLVO1672  
**Unique No:** 10576316  
**Signed:** Don Baldrige  
**Report Date:** 31 Jul 2023

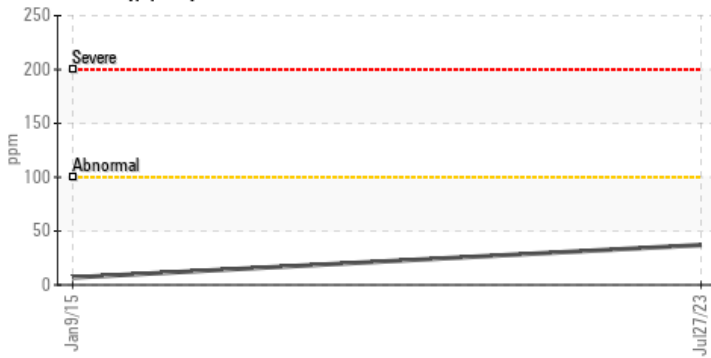


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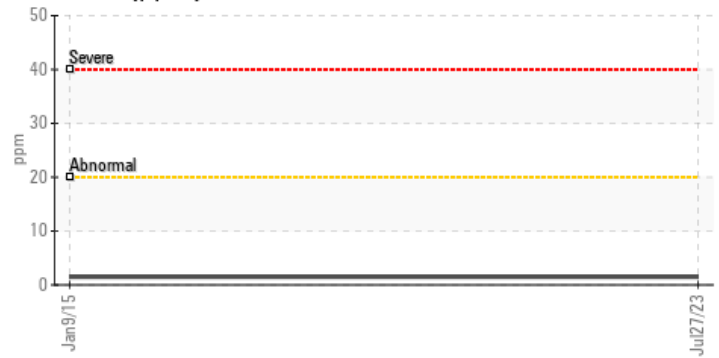


## GRAPHS

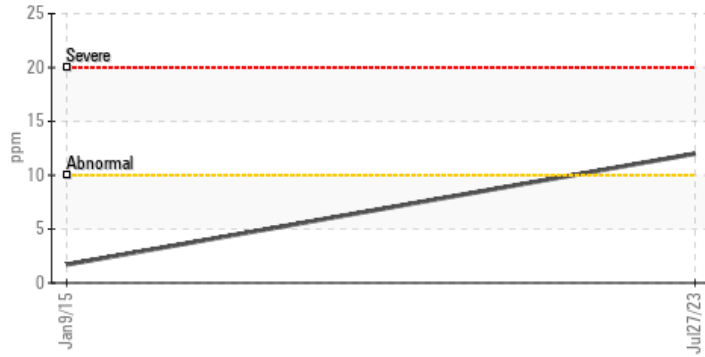
### Iron (ppm)



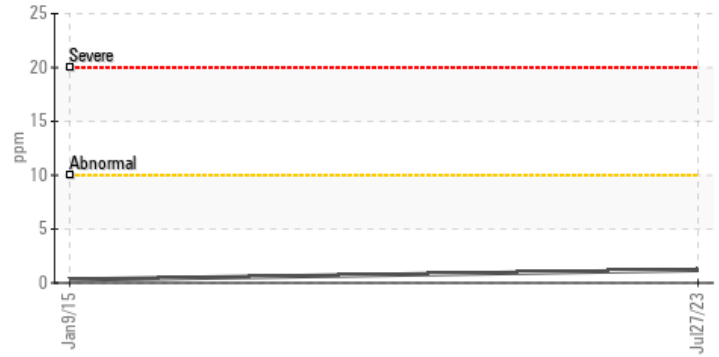
### Lead (ppm)



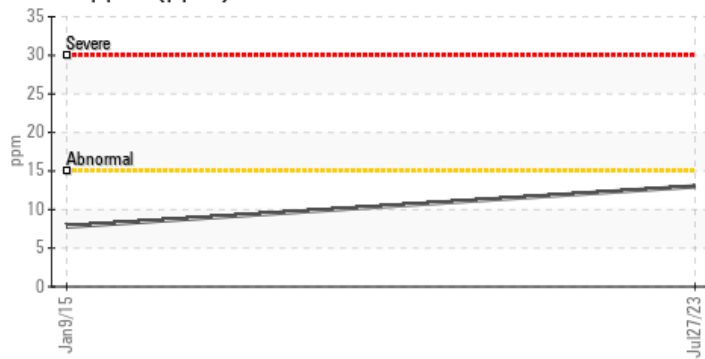
### Aluminum (ppm)



### Chromium (ppm)



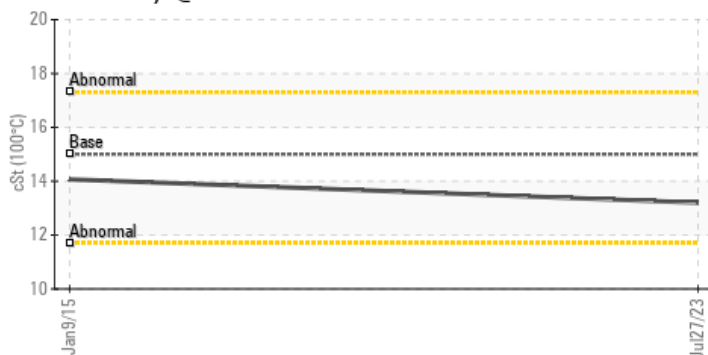
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

