



# CONSTRUCTION EQUIPMENT

## 619686 IHFT SENNEBOGEN 830R 2296 - DIESEL ENGINE



**Sample No:** VCP431175  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 619686 IHFT



### SAMPLE INFORMATION

Sample Number	VCP431175	VCP399391	---	---
Sample Date	05 Dec 2023	09 Feb 2023	---	---
Machine Hours	2444	619	---	---
Oil Hours	500	500	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	SEVERE	NORMAL	---	---

**ALTA EQUIPMENT COMPANY - METRO WEST**  
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### OIL CONDITION

Visc @ 100°C	cSt	▲ 18.1	■ 13.5	---	---
Base Number (BN)	mg KOH/g	▲ 0.0	■ 7.6	---	---
Oxidation (PA)	%	180	68	---	---

### Diagnosis

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value. All component wear rates are normal. There is an abnormal amount of solids and carbon present in the oil. The oil viscosity is higher than normal. The BN level is low. The oil is no longer serviceable.



### CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	◆ 7.3	■ 0.3	---	---
Nitration (PA)	%	222	83	---	---
Sulfation (PA)	%	127	56	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	■ 8	■ 4	---	---
Sodium	ppm	■ 1	■ 2	---	---
Potassium	ppm	■ 5	■ 2	---	---



### WEAR METALS

Iron	ppm	■ 72	■ 23	---	---
Copper	ppm	■ 3	■ 1	---	---
Lead	ppm	■ 0	■ <1	---	---
Tin	ppm	■ 0	■ <1	---	---
Aluminum	ppm	■ 6	■ 4	---	---
Chromium	ppm	■ 2	■ <1	---	---
Molybdenum	ppm	■ 89	■ 70	---	---
Nickel	ppm	■ <1	■ 0	---	---
Titanium	ppm	<1	0	---	---
Silver	ppm	■ 0	■ 0	---	---
Manganese	ppm	■ 0	■ <1	---	---
Vanadium	ppm	0	0	---	---



### ADDITIVES

Calcium	ppm	■ 1724	■ 1491	---	---
Magnesium	ppm	752	743	---	---
Zinc	ppm	■ 1446	■ 1361	---	---
Phosphorus	ppm	■ 1193	■ 1067	---	---
Barium	ppm	■ 3	■ 0	---	---
Boron	ppm	■ 21	■ 21	---	---

**Depot:** VOLVO2990  
**Unique No:** 10778860  
**Signed:** Don Baldrige  
**Report Date:** 11 Dec 2023

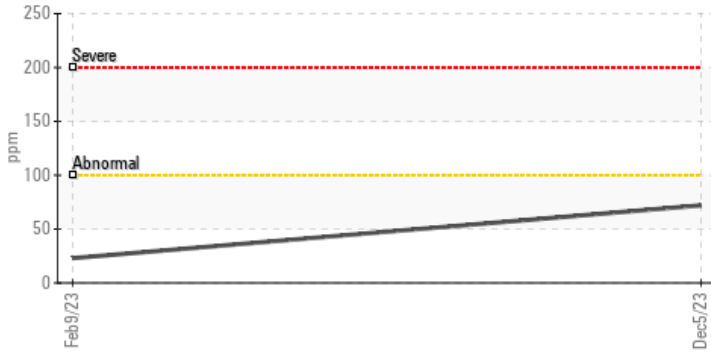


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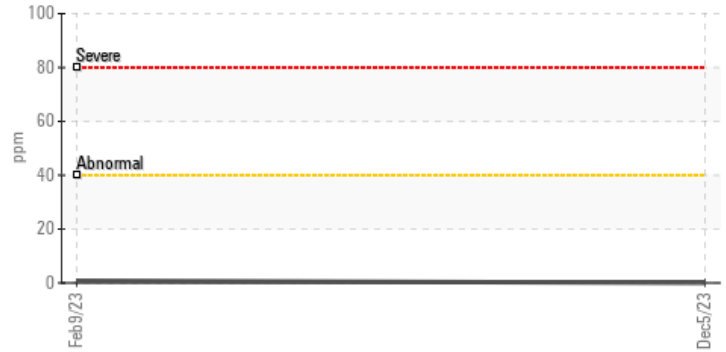


## GRAPHS

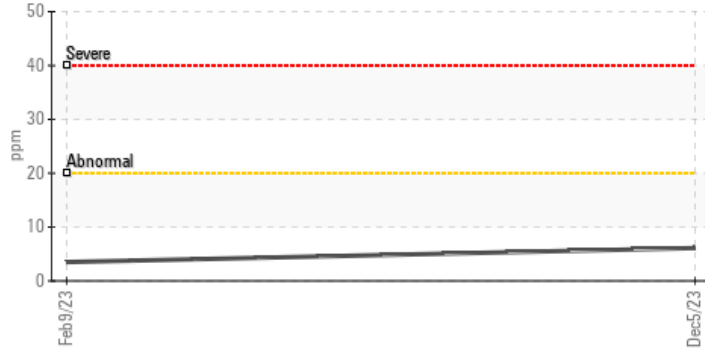
### Iron (ppm)



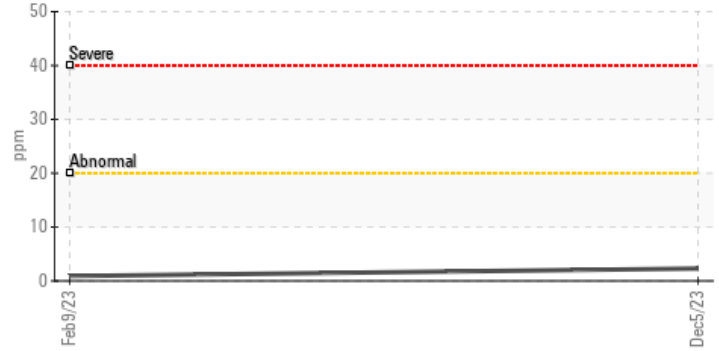
### Lead (ppm)



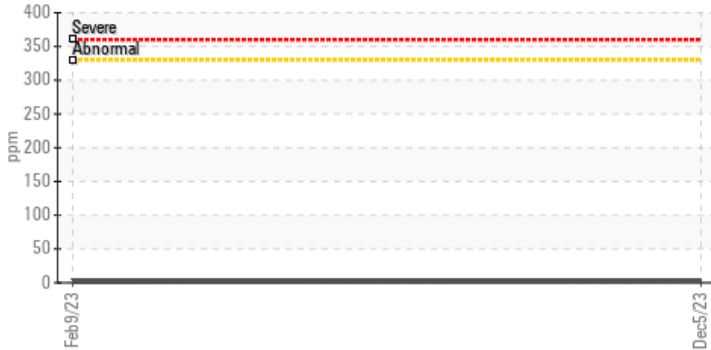
### Aluminum (ppm)



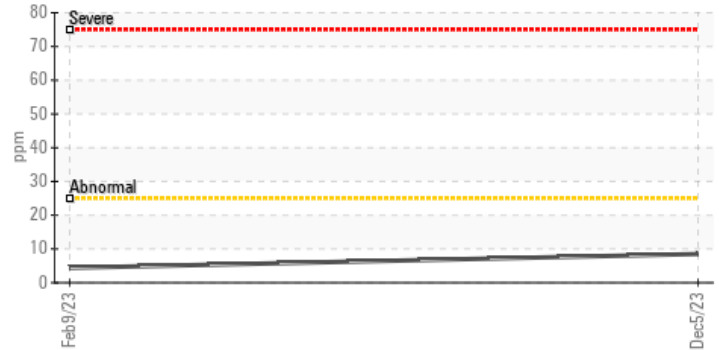
### Chromium (ppm)



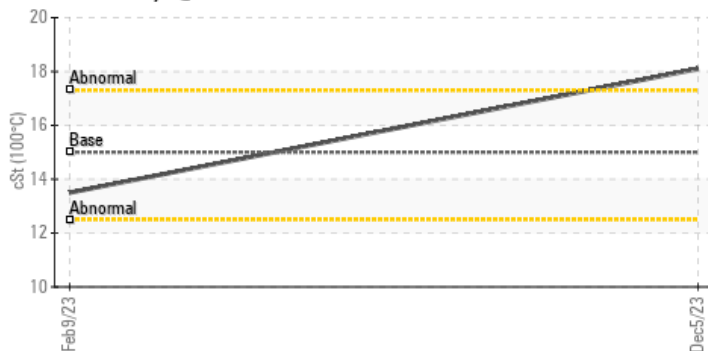
### Copper (ppm)



### Silicon (ppm)



### ▲ Viscosity @ 100°C



### ▲ Base Number

