



# CONSTRUCTION EQUIPMENT

673135 SENNEBOGEN 840 840.0.2369 - DIESEL ENGINE



**Sample No:** VCP445839  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 673135



## SAMPLE INFORMATION

Sample Number	<b>VCP445839</b>	VCP424040	VCP408794	---
Sample Date	<b>10 Feb 2024</b>	10 Aug 2023	18 May 2023	---
Machine Hours	<b>2322</b>	1119	534	---
Oil Hours	<b>500</b>	500	534	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>ATTENTION</b>	NORMAL	ABNORMAL	---

### FERROUS PROCESSING AND TRADING

3400 E LAFAYETTE  
 DETROIT, MI  
 US 48207

Contact: KEITH HALL  
 keith.hall@fpt1.com

T:  
 F:



## OIL CONDITION

Visc @ 100°C	cSt	<span style="color: green;">■</span> <b>12.4</b>	<span style="color: green;">■</span> 13.3	<span style="color: orange;">▲</span> 11.3	---
Base Number (BN)	mg KOH/g	<span style="color: green;">■</span> <b>8.3</b>	<span style="color: green;">■</span> 6.2	<span style="color: green;">■</span> 6.4	---
Oxidation (PA)	%	<b>61</b>	73	73	---

### Diagnosis

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	---
Soot %	%	<span style="color: green;">■</span> <b>0.3</b>	<span style="color: green;">■</span> 0.2	<span style="color: green;">■</span> 0.2	---
Nitration (PA)	%	<b>68</b>	91	88	---
Sulfation (PA)	%	<b>55</b>	59	57	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<span style="color: orange;">▲</span> <b>3.6</b>	<1.0	<span style="color: orange;">▲</span> 2.5	---
Silicon	ppm	<span style="color: green;">■</span> <b>2</b>	<span style="color: green;">■</span> 5	<span style="color: green;">■</span> 16	---
Sodium	ppm	<span style="color: green;">■</span> <b>2</b>	<span style="color: green;">■</span> 2	<span style="color: green;">■</span> 8	---
Potassium	ppm	<span style="color: green;">■</span> <b>2</b>	<span style="color: green;">■</span> 19	<span style="color: green;">■</span> 24	---



## WEAR METALS

Iron	ppm	<span style="color: green;">■</span> <b>9</b>	<span style="color: green;">■</span> 13	<span style="color: green;">■</span> 26	---
Copper	ppm	<span style="color: green;">■</span> <b>&lt;1</b>	<span style="color: green;">■</span> 2	<span style="color: green;">■</span> 14	---
Lead	ppm	<span style="color: green;">■</span> <b>0</b>	<span style="color: green;">■</span> <1	<span style="color: green;">■</span> <1	---
Tin	ppm	<span style="color: green;">■</span> <b>&lt;1</b>	<span style="color: green;">■</span> <1	<span style="color: green;">■</span> <1	---
Aluminum	ppm	<span style="color: green;">■</span> <b>3</b>	<span style="color: green;">■</span> 8	<span style="color: green;">■</span> 8	---
Chromium	ppm	<span style="color: green;">■</span> <b>&lt;1</b>	<span style="color: green;">■</span> <1	<span style="color: green;">■</span> <1	---
Molybdenum	ppm	<span style="color: green;">■</span> <b>60</b>	<span style="color: green;">■</span> 90	<span style="color: green;">■</span> 79	---
Nickel	ppm	<span style="color: green;">■</span> <b>0</b>	<span style="color: green;">■</span> 0	<span style="color: green;">■</span> <1	---
Titanium	ppm	<b>0</b>	0	3	---
Silver	ppm	<span style="color: green;">■</span> <b>0</b>	<span style="color: green;">■</span> 0	<span style="color: green;">■</span> 0	---
Manganese	ppm	<span style="color: green;">■</span> <b>&lt;1</b>	<span style="color: green;">■</span> <1	<span style="color: green;">■</span> 5	---
Vanadium	ppm	<b>0</b>	0	0	---



## ADDITIVES

Calcium	ppm	<span style="color: green;">▲</span> <b>1262</b>	<span style="color: green;">■</span> 2325	<span style="color: green;">■</span> 2124	---
Magnesium	ppm	<span style="color: green;">▲</span> <b>719</b>	46	<span style="color: green;">■</span> 147	---
Zinc	ppm	<span style="color: green;">■</span> <b>1032</b>	<span style="color: green;">■</span> 1349	<span style="color: green;">■</span> 1248	---
Phosphorus	ppm	<span style="color: green;">■</span> <b>947</b>	<span style="color: green;">■</span> 1055	<span style="color: green;">■</span> 964	---
Barium	ppm	<span style="color: green;">■</span> <b>0</b>	<span style="color: green;">■</span> 0	<span style="color: green;">■</span> 0	---
Boron	ppm	<span style="color: green;">■</span> <b>11</b>	<span style="color: green;">■</span> 34	<span style="color: green;">■</span> 40	---

**Depot:** FERDET  
**Unique No:** 10896455  
**Signed:** Wes Davis  
**Report Date:** 27 Feb 2024



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## GRAPHS

