



# CONSTRUCTION EQUIPMENT

674365 GERDAU SENNEBOGEN 850 3143 - DIESEL ENGINE



**Sample No:** VCP440683  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 674365 GERDAU



## SAMPLE INFORMATION

Sample Number	<b>VCP440683</b>	VCP439602	VCP431429	VCP415307
Sample Date	<b>21 Feb 2024</b>	17 Jan 2024	27 Nov 2023	23 Aug 2023
Machine Hours	<b>5238</b>	4697	3954	3022
Oil Hours	<b>500</b>	500	500	800
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ATTENTION</b>	ABNORMAL	NORMAL	NORMAL

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

Visc @ 100°C	cSt	█ <b>12.8</b>	▲ 11.6	█ 12.9	█ 13.9
Base Number (BN)	mg KOH/g	█ <b>9.0</b>	█ 8.0	█ 6.1	█ 7.8
Oxidation (PA)	%	<b>76</b>	86	92	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	NEG
Soot %	%	█ <b>0.2</b>	█ 0.2	█ 0.2	█ 0.1
Nitration (PA)	%	<b>76</b>	86	87	78
Sulfation (PA)	%	<b>57</b>	59	65	58
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	▲ <b>3.7</b>	▲ 6.9	<1.0	<1.0
Silicon	ppm	█ <b>3</b>	█ 2	█ 2	█ 3
Sodium	ppm	█ <b>2</b>	█ 2	█ 2	█ 5
Potassium	ppm	█ <b>2</b>	█ <1	█ 5	█ 4



## WEAR METALS

Iron	ppm	█ <b>11</b>	█ 14	█ 22	█ 10
Copper	ppm	█ <b>1</b>	█ <1	█ 1	█ 2
Lead	ppm	█ <1	█ 0	█ 0	█ 0
Tin	ppm	█ <1	█ 0	█ 0	█ 0
Aluminum	ppm	█ <b>2</b>	█ <1	█ 1	█ 2
Chromium	ppm	█ <1	█ <1	█ <1	█ <1
Molybdenum	ppm	█ <b>60</b>	█ 55	█ 67	█ 67
Nickel	ppm	█ <1	█ 0	█ 0	█ 0
Titanium	ppm	<1	0	0	0
Silver	ppm	█ <b>0</b>	█ 0	█ 0	█ 0
Manganese	ppm	█ <b>1</b>	█ <1	█ 0	█ <1
Vanadium	ppm	<1	0	0	0



## ADDITIVES

Calcium	ppm	● <b>1032</b>	1078	█ 1092	█ 1383
Magnesium	ppm	● <b>931</b>	913	█ 965	902
Zinc	ppm	█ <b>1220</b>	█ 1145	█ 1277	█ 1381
Phosphorus	ppm	█ <b>952</b>	█ 924	█ 1040	█ 1086
Barium	ppm	█ <b>1</b>	█ 0	█ 3	█ 0
Boron	ppm	█ <b>3</b>	█ 1	█ 0	█ 8

**Depot:** VOLVO2990  
**Unique No:** 10900928  
**Signed:** Wes Davis  
**Report Date:** 04 Mar 2024



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## GRAPHS

