



CONSTRUCTION EQUIPMENT

SPM686818 SENNEBOGEN 835 835.0.2015 - DIESEL ENGINE



Sample No: VCP407398
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SPM686818



SAMPLE INFORMATION

Sample Number	VCP407398	VCP429129	VCP365830	VCP373875
Sample Date	15 Mar 2024	10 Nov 2023	26 Jan 2023	02 Aug 2022
Machine Hours	24766	24233	23836	23382
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	SEVERE	SEVERE	ABNORMAL

SIMS METAL MANAGEMENT

2500 S. PAULINA
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OIL CONDITION

Visc @ 100°C	cSt	▲ 10.7	▲ 10.1	▲ 11.3	▲ 11.6
Base Number (BN)	mg KOH/g	■ 8.8	■ 9.1	■ 8.7	■ 9.7
Oxidation (PA)	%	65	65	57	119

Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	■ 0.1	■ 0.1	■ 0.2	■ 1.1
Nitration (PA)	%	83	85	81	148
Sulfation (PA)	%	55	55	51	80
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	▲ 7.8	▲ 9.2	▲ 8.4	▲ 6.1
Silicon	ppm	■ 10	■ 3	■ 4	■ 9
Sodium	ppm	■ <1	■ 0	■ 2	■ 5
Potassium	ppm	■ 6	■ 4	■ 1	■ 4



WEAR METALS

Iron	ppm	■ 10	■ 11	■ 15	■ 63
Copper	ppm	■ 1	■ <1	■ <1	■ 2
Lead	ppm	■ 3	■ 0	■ <1	■ 6
Tin	ppm	■ 2	■ 0	■ <1	■ 1
Aluminum	ppm	■ 6	■ 2	■ 2	■ 6
Chromium	ppm	■ 1	■ 0	■ <1	■ 4
Molybdenum	ppm	■ 3	■ 3	■ 13	■ 8
Nickel	ppm	■ <1	■ 0	■ <1	■ <1
Titanium	ppm	■ <1	■ <1	■ 0	■ <1
Silver	ppm	■ <1	■ 0	■ 0	■ 0
Manganese	ppm	■ <1	■ 0	■ <1	■ <1
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	■ 1417	■ 1258	■ 1745	■ 1692
Magnesium	ppm	■ 758	■ 672	■ 334	■ 887
Zinc	ppm	■ 870	■ 767	■ 972	■ 1079
Phosphorus	ppm	■ 701	■ 626	■ 767	■ 871
Barium	ppm	■ <1	■ 0	■ 0	■ 0
Boron	ppm	■ 87	■ 72	■ 23	■ 57

Depot: SIMCHIIL
Unique No: 10940991
Signed: Wes Davis
Report Date: 26 Mar 2024



CONSTRUCTION EQUIPMENT



VOLVO GRAPHS

