



CONSTRUCTION EQUIPMENT

2176BO VOLVO EC220EL 314082 - REAR LEFT FINAL DRIVE



Sample No: VCP400587
Oil Type: VOLVO PREMIUM GEAR OIL 85W-140 GL-5
Job No: 2176BO



SAMPLE INFORMATION

Sample Number	VCP400587	VCP335957	VCP305110	VCP296542
Sample Date	12 Jan 2023	04 Nov 2021	23 Mar 2021	30 Dec 2020
Machine Hours	6283	4319	3056	2582
Oil Hours	0	2000	0	0
Oil Changed	Changed	Changed	Not Changd	Not Changd
Sample Status	ATTENTION	NORMAL	NORMAL	NORMAL

LCSWMA - LANCASTER COUNTY SOLID WASTE
 1299 HARRISBURG PIKE
 LANCASTER, PA
 US 17604
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 russin@lcswma.org
 T: (717)735-0166
 F: (717)735-0197



OIL CONDITION

Visc @ 40°C	cSt	▲ 55.9	■ 170	■ 166	■ 168
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CONTAMINATION

Silicon	ppm	■ 4	■ 6	■ 6	■ 6
Sodium	ppm	■ 2	■ 4	■ 3	■ 4
Potassium	ppm	■ 1	■ 1	■ 0	■ 2



WEAR METALS

Iron	ppm	■ 93	■ 321	■ 253	■ 261
Copper	ppm	■ <1	■ <1	■ <1	■ <1
Lead	ppm	■ <1	■ 0	■ 1	■ 0
Tin	ppm	■ <1	■ <1	■ 0	■ <1
Aluminum	ppm	■ 0	■ <1	■ <1	■ 1
Chromium	ppm	■ 1	■ 3	■ 3	■ 3
Molybdenum	ppm	■ <1	■ 2	■ 0	■ 2
Nickel	ppm	■ <1	0	<1	0
Titanium	ppm	■ 0	<1	0	<1
Silver	ppm	■ 0	<1	0	<1
Manganese	ppm	■ 1	■ 5	■ 3	■ 4
Vanadium	ppm	■ 0	0	0	0



ADDITIVES

Calcium	ppm	▲ 23	■ 9	■ 9	■ 20
Magnesium	ppm	■ 7	■ 2	■ 0	■ 7
Zinc	ppm	▲ 0	■ 25	■ 18	■ 25
Phosphorus	ppm	▲ 2164	■ 476	■ 397	■ 434
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 215	■ 20	■ 2	■ 9

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type. The condition of the oil is acceptable for the time in service.

Depot: LANLANPA
Unique No: 10298905
Signed: Don Baldrige
Report Date: 23 Jan 2023

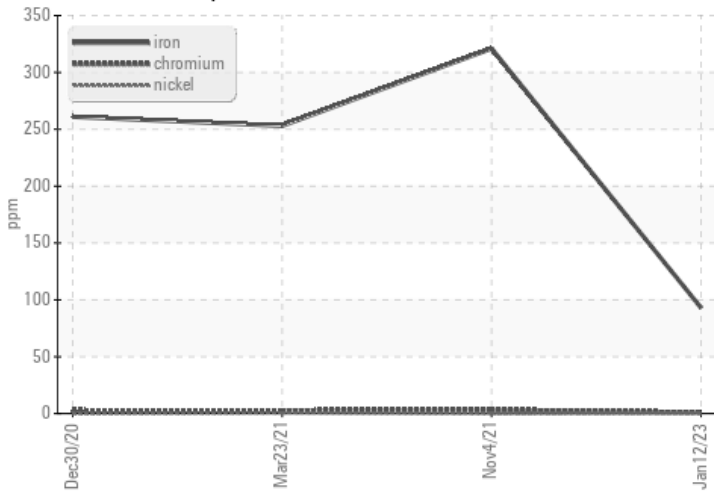


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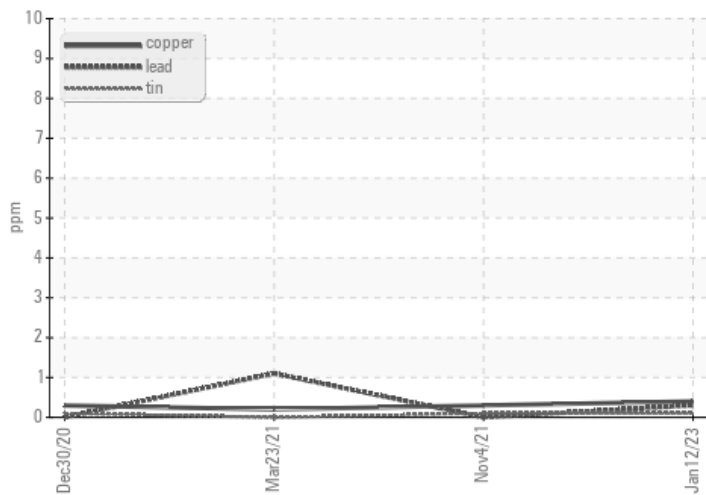


GRAPHS

Ferrous Alloys



Non-ferrous Metals



▲ Viscosity @ 40°C

