



# CONSTRUCTION EQUIPMENT

## SW1027980 DIAMOND VOLVO A40D 12032 - DROP BOX



**Sample No:** VCP412922  
**Oil Type:** GEAR OIL SAE 80W90  
**Job No:** SW1027980 DIAMOND



### SAMPLE INFORMATION

Sample Number	VCP412922	---	---	---
Sample Date	04 Jan 2024	---	---	---
Machine Hours	6905	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	SEVERE	---	---	---

**ARNOLD MACHINERY COMPANY**  
 4323 EAST WINSLOW AVENUE  
 PHOENIX, AZ  
 US 85040  
 Contact: RANDY PRZEKURAT  
 randyp@arnoldmachinery.com  
 T:  
 F: (602)414-1904



### OIL CONDITION

Visc @ 40°C	cSt	▲ 88.5	---	---	---
-------------	-----	--------	-----	-----	-----



### CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	● 630	---	---	---
Sodium	ppm	■ 49	---	---	---
Potassium	ppm	■ 44	---	---	---



### WEAR METALS

Iron	ppm	● 2175	---	---	---
Copper	ppm	■ 73	---	---	---
Lead	ppm	■ 1	---	---	---
Tin	ppm	■ 0	---	---	---
Aluminum	ppm	▲ 185	---	---	---
Chromium	ppm	● 23	---	---	---
Molybdenum	ppm	■ 5	---	---	---
Nickel	ppm	● 20	---	---	---
Titanium	ppm	■ 16	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	■ 21	---	---	---
Vanadium	ppm	<1	---	---	---



### ADDITIVES

Calcium	ppm	■ 203	---	---	---
Magnesium	ppm	■ 59	---	---	---
Zinc	ppm	■ 207	---	---	---
Phosphorus	ppm	■ 523	---	---	---
Barium	ppm	■ 1	---	---	---
Boron	ppm	■ 47	---	---	---

### Diagnosis

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is lower than normal. The oil is no longer serviceable due to the presence of contaminants.

**Depot:** VOLVO6174  
**Unique No:** 10842666  
**Signed:** Don Baldrige  
**Report Date:** 23 Jan 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

