



# CONSTRUCTION EQUIPMENT

S50401210 DOOSAN HP1600 494124UEA - DIESEL ENGINE



**Sample No:** VCP424208  
**Oil Type:** DOOSAN 15W40  
**Job No:** s50401210



## SAMPLE INFORMATION

Sample Number	VCP424208	VCP400442	---	---
Sample Date	11 Aug 2023	26 Jul 2023	---	---
Machine Hours	1162	1161	---	---
Oil Hours	0	37	---	---
Oil Changed	N/A	N/A	---	---
Sample Status	NORMAL	ABNORMAL	---	---

## VCES- VOLVO CONSTRUCTION EQUIPMENT

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## OIL CONDITION

Visc @ 100°C	cSt	█ 14.8	█ 13.5	---	---
Base Number (BN)	mg KOH/g	█ 12.7	█ 6.8	---	---
Oxidation (PA)	%	47	119	---	---



## CONTAMINATION

Soot %	%	█ 0	█ 0.4	---	---
Nitration (PA)	%	43	90	---	---
Sulfation (PA)	%	44	79	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	█ 4	▲ 24	---	---
Sodium	ppm	█ <1	█ 4	---	---
Potassium	ppm	█ 2	█ 3	---	---



## WEAR METALS

Iron	ppm	█ 1	▲ 62	---	---
Copper	ppm	█ 0	█ 15	---	---
Lead	ppm	█ <1	█ 1	---	---
Tin	ppm	█ <1	█ 2	---	---
Aluminum	ppm	█ 0	▲ 6	---	---
Chromium	ppm	█ 0	█ 2	---	---
Molybdenum	ppm	█ 45	█ 35	---	---
Nickel	ppm	█ 0	█ <1	---	---
Titanium	ppm	<1	█ 0	---	---
Silver	ppm	█ 0	█ <1	---	---
Manganese	ppm	<1	█ 4	---	---
Vanadium	ppm	0	0	---	---



## ADDITIVES

Calcium	ppm	█ 2678	█ 2155	---	---
Magnesium	ppm	█ 522	█ 426	---	---
Zinc	ppm	█ 1538	█ 1150	---	---
Phosphorus	ppm	█ 1248	█ 877	---	---
Barium	ppm	█ 0	█ 2	---	---
Boron	ppm	█ 79	█ 27	---	---

## Diagnosis

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

**Depot:** VOLVO4486  
**Unique No:** 10603851  
**Signed:** Wes Davis  
**Report Date:** 15 Aug 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

