

OIL ANALYSIS REPORT

**VOLVO
PENTA**

FUTURE DEFENSE CATERPILLAR CS700622 - STARBOARD DIESEL ENGINE

Sample No: VPA044364
Oil Type: CAT DEO ULS 15W40

SAMPLE INFORMATION

Sample Number	VPA044364	---	---	---
Sample Date	11 Jul 2023	---	---	---
Machine Hours	74	---	---	---
Oil Hours	74	---	---	---
Oil Changed	Not Changd	---	---	---
Sample Status	NORMAL	---	---	---

OIL CONDITION

Visc @ 100°C	cSt	█ 13.4	---	---	---
Base Number (BN)	mg KOH/g	█ 8.7	---	---	---
Oxidation (PA)	%	31	---	---	---

CONTAMINATION

Soot %	%	█ 0.2	---	---	---
Nitration (PA)	%	41	---	---	---
Sulfation (PA)	%	39	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 8	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ 3	---	---	---

WEAR METALS

Iron	ppm	█ 25	---	---	---
Copper	ppm	█ 9	---	---	---
Lead	ppm	█ 3	---	---	---
Tin	ppm	█ 1	---	---	---
Aluminum	ppm	█ 4	---	---	---
Chromium	ppm	█ 2	---	---	---
Molybdenum	ppm	5	---	---	---
Nickel	ppm	█ < 1	---	---	---
Titanium	ppm	█ < 1	---	---	---
Silver	ppm	█ < 1	---	---	---
Manganese	ppm	2	---	---	---
Vanadium	ppm	< 1	---	---	---

ADDITIVES

Calcium	ppm	1320	---	---	---
Magnesium	ppm	1023	---	---	---
Zinc	ppm	1437	---	---	---
Phosphorus	ppm	█ 1165	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	10	---	---	---

MARINE EVOLUTIONS

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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: VP446360
Unique No: 10560501
Signed: Jonathan Hester
Report Date: 18 Jul 2023

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GRAPHS

