



# CONSTRUCTION EQUIPMENT

## CAT CATERPILLAR GMS00793 - DIESEL ENGINE



**Sample No:** VCP452143  
**Oil Type:** SHELL ROTELLA T5 10W30 (CJ4)  
**Job No:** CAT



### SAMPLE INFORMATION

Sample Number	<b>VCP452143</b>	VCP406791	VCP405783	VCP365896
Sample Date	<b>19 Jan 2024</b>	06 Nov 2023	28 Jul 2023	03 May 2023
Machine Hours	<b>9241</b>	8774	8212	7688
Oil Hours	<b>430</b>	500	500	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**PLEASANT RIVER LUMBER**  
 PO BOX 68  
 DOVER FOXCROFT, ME  
 US 04426  
 Contact: BURLEY HIGGINS  
 burley@pleasantriverlumber.com  
 T:  
 F: (207)564-8259

### OIL CONDITION

Visc @ 100°C	cSt	<b>11.9</b>	11.7	11.7	11.6
Base Number (BN)	mg KOH/g	<b>8.5</b>	10.2	10.2	9.7
Oxidation (PA)	%	<b>63</b>	61	62	67

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.7</b>	1	1	0.8
Nitration (PA)	%	<b>73</b>	68	74	79
Sulfation (PA)	%	<b>56</b>	56	57	58
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>2</b>	4	4	3
Sodium	ppm	<b>2</b>	<1	0	2
Potassium	ppm	<b>1</b>	1	2	3

### 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.

### WEAR METALS

Iron	ppm	<b>7</b>	9	12	12
Copper	ppm	<b>&lt;1</b>	<1	2	2
Lead	ppm	<b>0</b>	1	1	<1
Tin	ppm	<b>0</b>	0	0	<1
Aluminum	ppm	<b>3</b>	3	3	<1
Chromium	ppm	<b>&lt;1</b>	0	<1	<1
Molybdenum	ppm	<b>47</b>	60	60	64
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	0	0	0
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>1422</b>	1217	1223	1218
Magnesium	ppm	<b>746</b>	1098	1099	1058
Zinc	ppm	<b>1280</b>	1313	1309	1397
Phosphorus	ppm	<b>1090</b>	1189	1187	1117
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>26</b>	0	0	0

**Depot:** PLEDOV  
**Unique No:** 10873255  
**Signed:** Wes Davis  
**Report Date:** 13 Feb 2024



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## GRAPHS

