



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 277D 9900 (S/N CAT0277DKFMT00778)
 Component
Diesel Engine
 Fluid
{not provided} (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 0W40 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

WEAR

All component wear rates are normal.

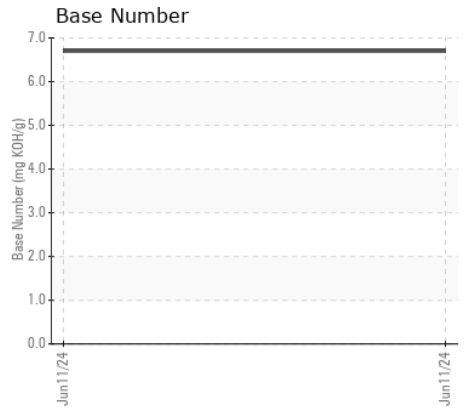
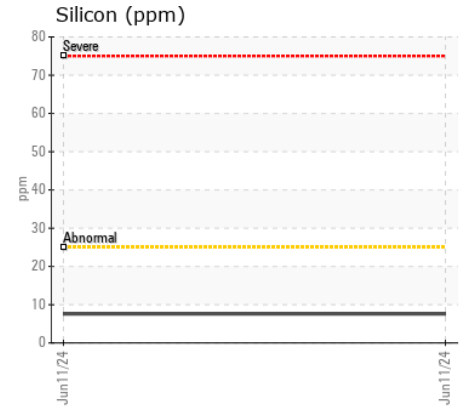
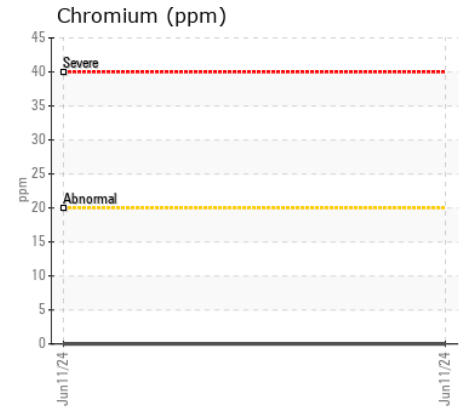
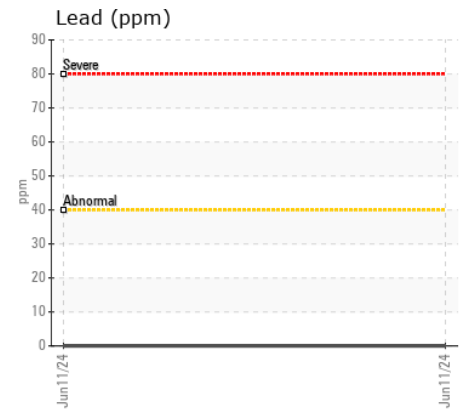
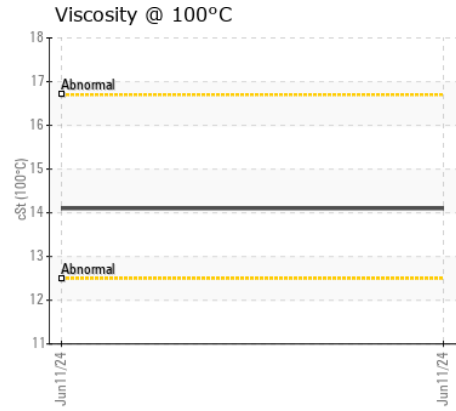
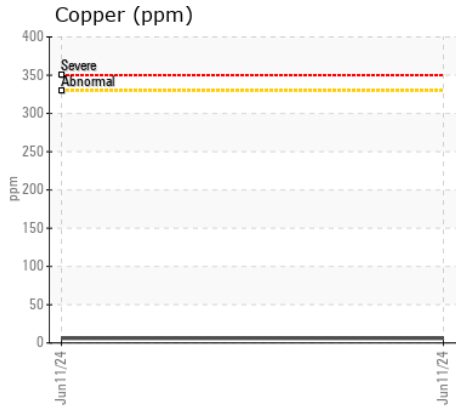
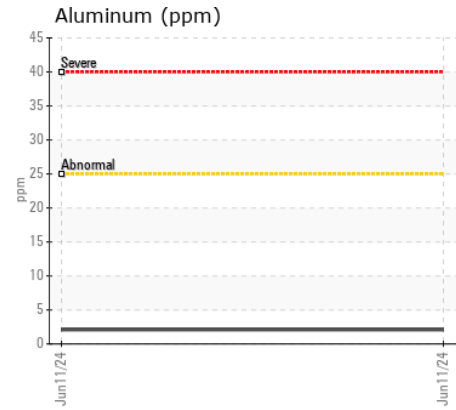
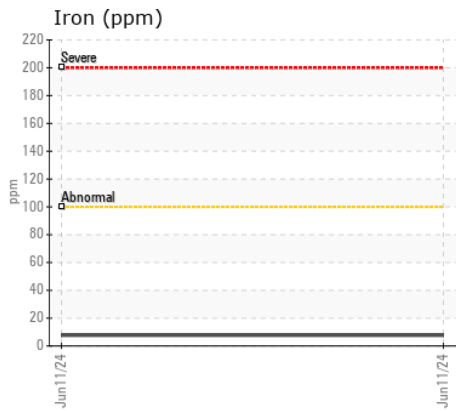
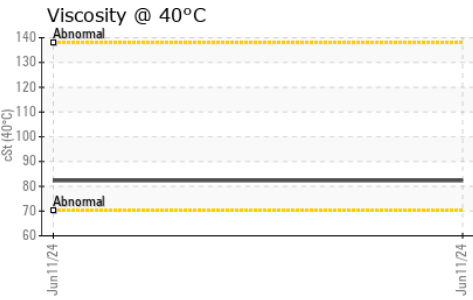
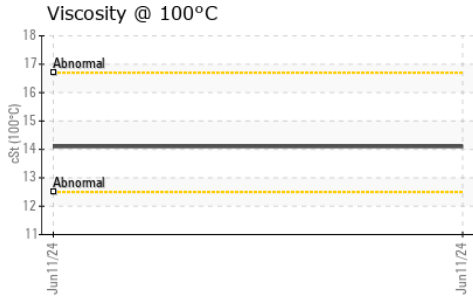
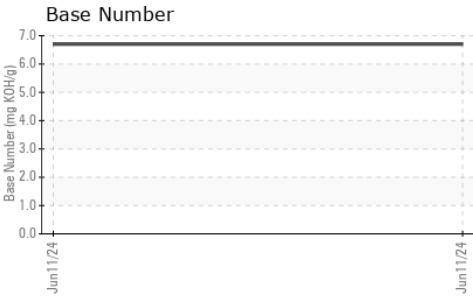
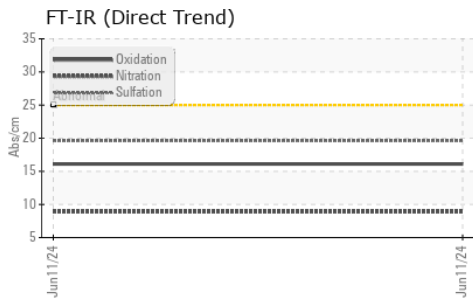
CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JCB005528	---	---
Sample Date		Client Info		11 Jun 2024	---	---
Machine Age	hrs	Client Info		1576	---	---
Oil Age	hrs	Client Info		196	---	---
Filter Age	hrs	Client Info		196	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				NORMAL	---	---
<hr/>						
Iron	ppm	ASTM D5185m	>100	8	---	---
Chromium	ppm	ASTM D5185m	>20	0	---	---
Nickel	ppm	ASTM D5185m	>2	<1	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>25	2	---	---
Lead	ppm	ASTM D5185m	>40	0	---	---
Copper	ppm	ASTM D5185m	>330	6	---	---
Tin	ppm	ASTM D5185m	>15	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
<hr/>						
Silicon	ppm	ASTM D5185m	>25	8	---	---
Potassium	ppm	ASTM D5185m	>20	5	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.2	---	---
Nitration	Abs/cm	*ASTM D7624	>20	8.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	LIGHT	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
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Sodium	ppm	ASTM D5185m		4	---	---
Boron	ppm	ASTM D5185m		66	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		<1	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		625	---	---
Calcium	ppm	ASTM D5185m		1306	---	---
Phosphorus	ppm	ASTM D5185m		1117	---	---
Zinc	ppm	ASTM D5185m		1272	---	---
Sulfur	ppm	ASTM D5185m		4371	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.1	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.7	---	---
Visc @ 40°C	cSt	ASTM D445		82.3	---	---
Visc @ 100°C	cSt	ASTM D445		14.1	---	---
Viscosity Index (VI)	Scale	ASTM D2270		177	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JCB005528 **Received** : 17 Jun 2024
Lab Number : 06211475 **Tested** : 18 Jun 2024
Unique Number : 11084339 **Diagnosed** : 18 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: KV40, TBN, VI)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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