



Machine Id  
**JOHN DEERE 544K C233350 (S/N 1DW544KPHBD637560)**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

### RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.  
 NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199401	---	---
Sample Date		Client Info		09 Jan 2024	---	---
Machine Age	hrs	Client Info		13567	---	---
Oil Age	hrs	Client Info		13567	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				SEVERE	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	54	---	---
Chromium	ppm	ASTM D5185m	>11	2	---	---
Nickel	ppm	ASTM D5185m	>5	1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>31	6	---	---
Lead	ppm	ASTM D5185m	>26	2	---	---
Copper	ppm	ASTM D5185m	>26	1	---	---
Tin	ppm	ASTM D5185m	>4	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

### CONTAMINATION

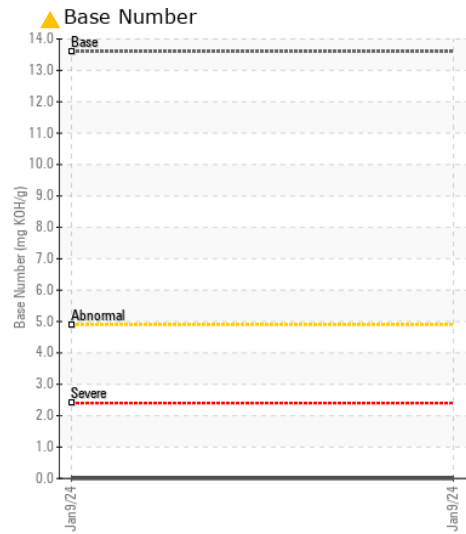
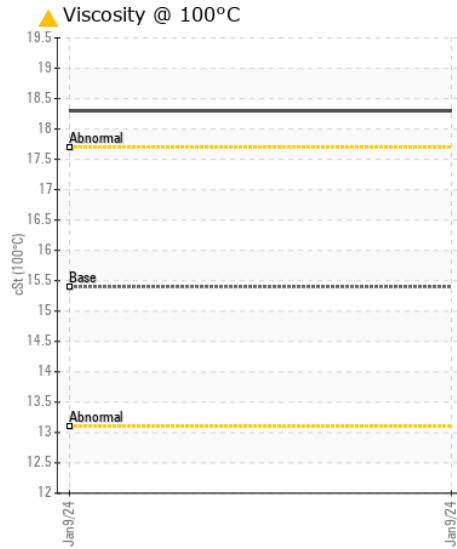
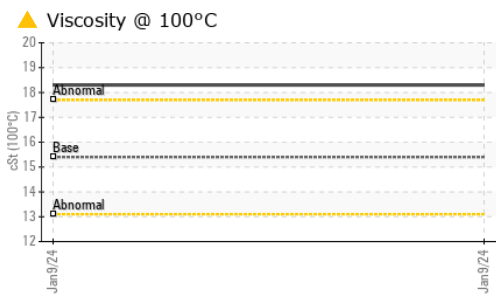
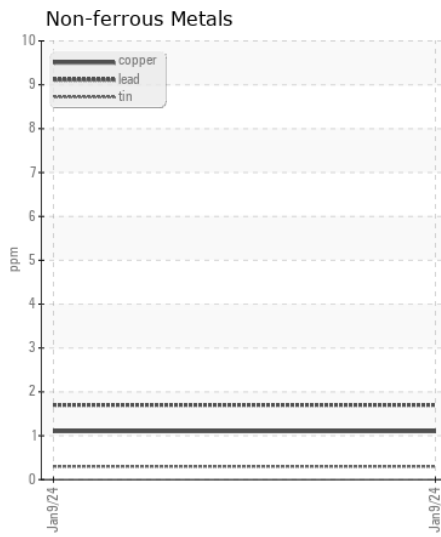
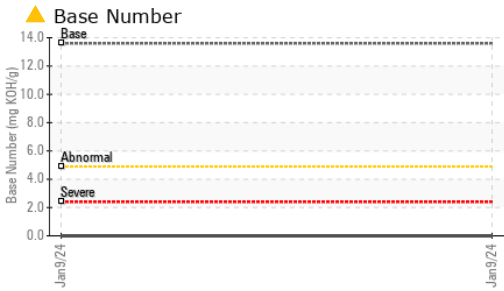
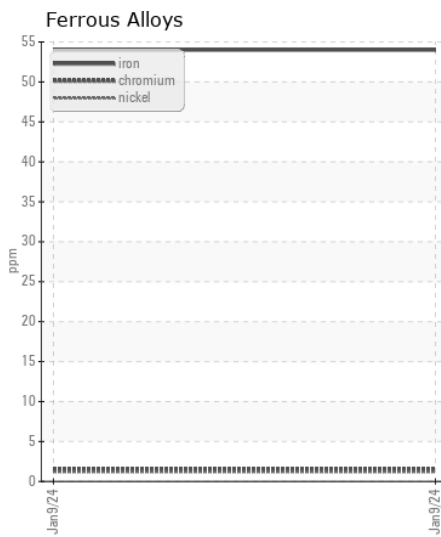
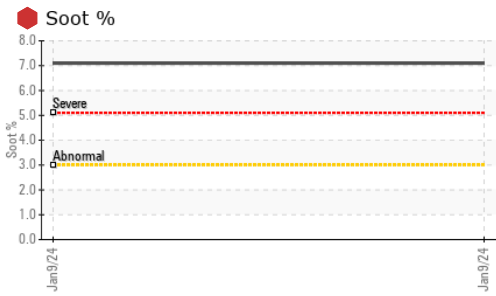
There is a moderate concentration of glycol present in the oil. There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>22	9	---	---
Potassium	ppm	ASTM D5185m	>20	18	---	---
Fuel	%	ASTM D3524	>2.1	<1.0	---	---
Water		WC Method	>0.21	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	7.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	16.2	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	37.4	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.21	NEG	---	---

### FLUID CONDITION

The oil viscosity is higher than normal. The BN level is low. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>31	30	---	---
Boron	ppm	ASTM D5185m		118	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		205	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		664	---	---
Calcium	ppm	ASTM D5185m		1457	---	---
Phosphorus	ppm	ASTM D5185m		874	---	---
Zinc	ppm	ASTM D5185m		1009	---	---
Sulfur	ppm	ASTM D5185m		3130	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.0	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	0.0	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	18.3	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0199401 **Received** : 11 Jan 2024  
**Lab Number** : 06058681 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10830063 **Diagnostician** : Jonathan Hester  
**Test Package** : CONST ( Additional Tests: FuelDilution, TBN )

**C & D RECOVERY**  
 24024 FREDERICK RD  
 CLARKSBURG, MD  
 US 20871  
 Contact: HERBIE TRENT

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)

T:  
F: