



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
Z15641
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0200947	---	---
Sample Date		Client Info		18 Jan 2024	---	---
Machine Age	hrs	Client Info		646	---	---
Oil Age	hrs	Client Info		646	---	---
Filter Age	hrs	Client Info		646	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				SEVERE	---	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	34	---	---
Chromium	ppm	ASTM D5185m	>20	1	---	---
Nickel	ppm	ASTM D5185m	>4	4	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	4	---	---
Lead	ppm	ASTM D5185m	>40	5	---	---
Copper	ppm	ASTM D5185m	>330	376	---	---
Tin	ppm	ASTM D5185m	>15	2	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

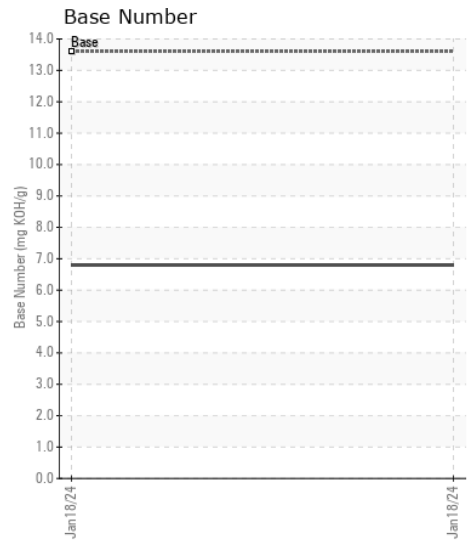
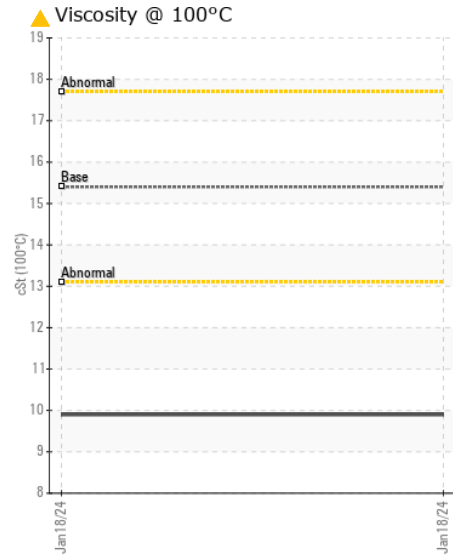
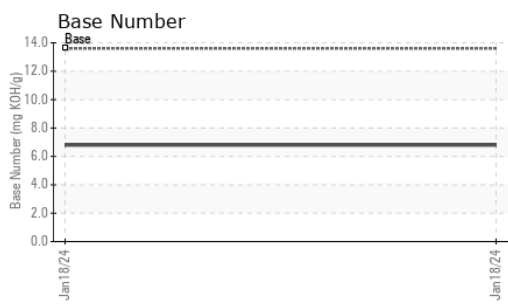
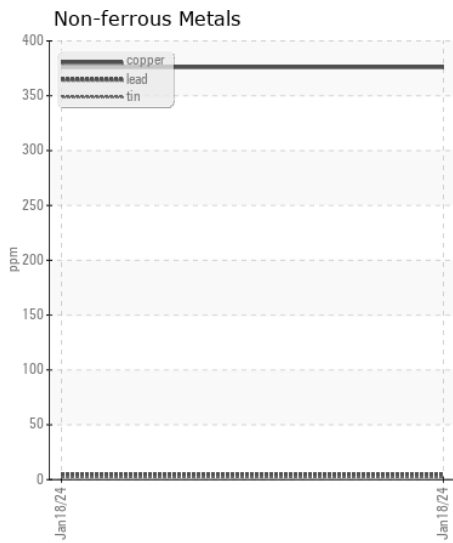
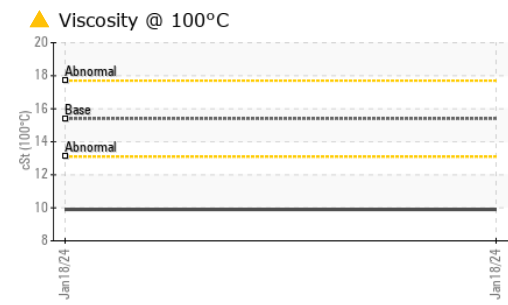
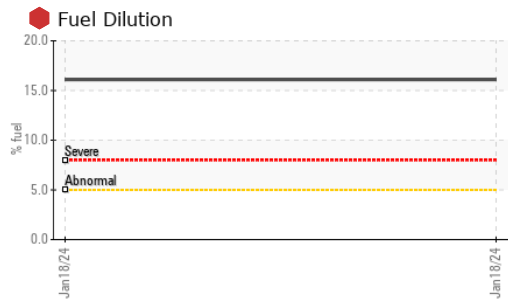
There is a high amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	12	---	---
Potassium	ppm	ASTM D5185m	>20	1	---	---
Fuel	%	ASTM D3524	>5	16.1	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	9.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	---	---
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	>0.2	NEG	---	---

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		5	---	---
Boron	ppm	ASTM D5185m		175	---	---
Barium	ppm	ASTM D5185m		3	---	---
Molybdenum	ppm	ASTM D5185m		251	---	---
Manganese	ppm	ASTM D5185m		5	---	---
Magnesium	ppm	ASTM D5185m		896	---	---
Calcium	ppm	ASTM D5185m		1460	---	---
Phosphorus	ppm	ASTM D5185m		953	---	---
Zinc	ppm	ASTM D5185m		1165	---	---
Sulfur	ppm	ASTM D5185m		3098	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.8	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	9.9	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0200947 **Recieved** : 19 Jan 2024
Lab Number : 06065424 **Diagnosed** : 23 Jan 2024
Unique Number : 10836806 **Diagnostician** : Sean Felton
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

JRE - GARNER
 4161 AUBURN CHURCH RD
 GARNER, NC
 US 27529

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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)