



Area
[W20701-KELLEY]
 Machine Id
JOHN DEERE 3032E 1LV3032EHAH312055
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. The oil 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		JR0196662	JR0041726	---
Sample Date		Client Info		08 Jan 2024	19 Mar 2020	---
Machine Age	hrs	Client Info		456	301	---
Oil Age	hrs	Client Info		456	301	---
Filter Age	hrs	Client Info		456	301	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				SEVERE	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

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

CONTAMINATION

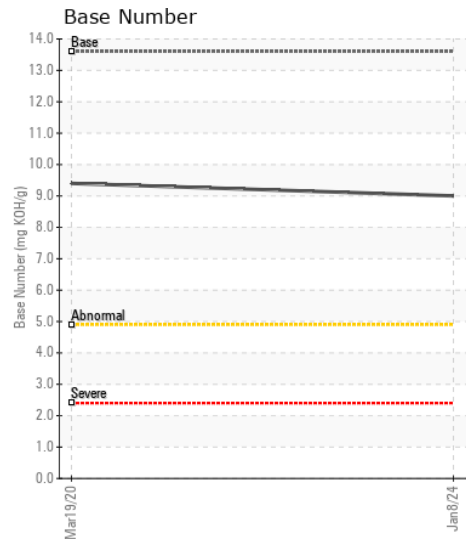
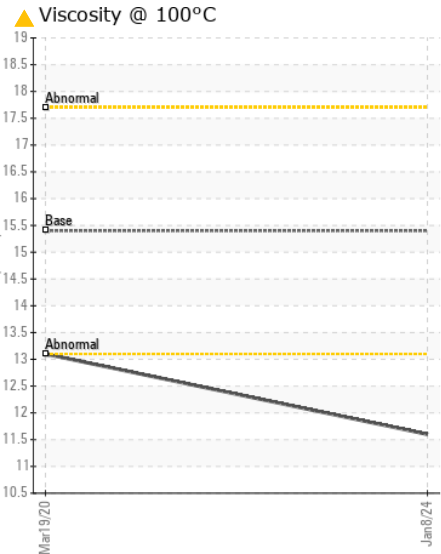
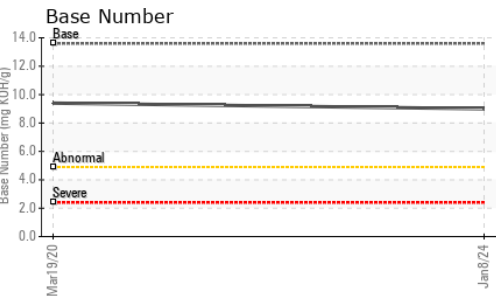
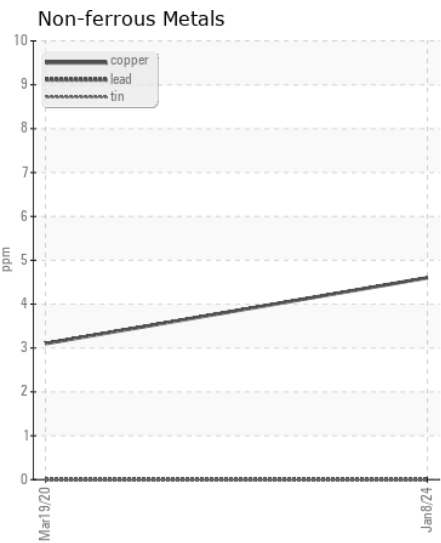
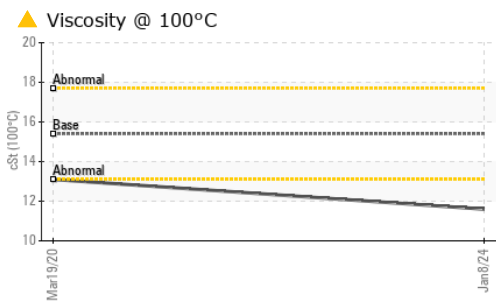
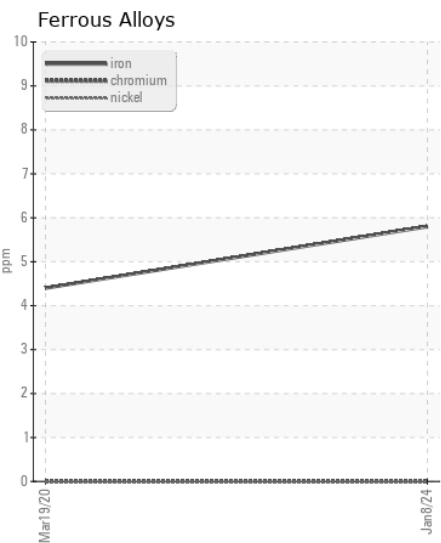
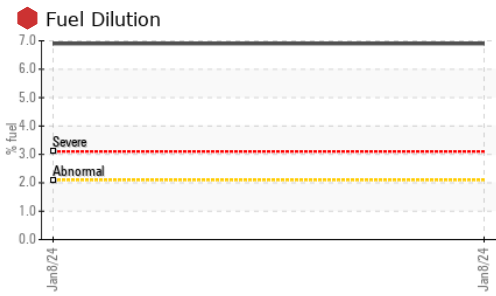
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>22	10	7	---
Potassium	ppm	ASTM D5185m	>20	0	3	---
Fuel	%	ASTM D3524	>2.1	6.9	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	7.9	6.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	19.4	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. 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	>31	2	2	---
Boron	ppm	ASTM D5185m		255	239	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		234	235	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		776	741	---
Calcium	ppm	ASTM D5185m		1349	1332	---
Phosphorus	ppm	ASTM D5185m		811	830	---
Zinc	ppm	ASTM D5185m		982	925	---
Sulfur	ppm	ASTM D5185m		2800	2176	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	14.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.0	9.4	---
Visc @ 100°C	cSt	ASTM D445	15.4	11.6	13.1	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0196662 **Received** : 12 Jan 2024
Lab Number : 06060031 **Diagnosed** : 16 Jan 2024
Unique Number : 10831413 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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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)