



## Area **Store 9 - Marietta** Machine Id **JOHN DEERE 950K 1T0950KPPJF340943**

Component Diesel Engine

## JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Number		Client Info		LEC0046614	LEC0006296	
	Sample Date		Client Info		04 Dec 2023	23 Aug 2019	
	Machine Age	hrs	Client Info		3189	491	
	Oil Age	hrs	Client Info		478	491	
	Filter Age	hrs	Client Info		478	491	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				ABNORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	<u>\</u> 51	<b>8</b> 0	13	
<b>HEAN</b>	Chromium	ppm	ASTM D5185m		2	<1	
The iron level is abnormal. All other component wear rates are normal.	Nickel	ppm	ASTM D5185m		_ <1	<1	
	Titanium	ppm	ASTM D5185m	20	9	<1	
	Silver	ppm	ASTM D5185m	<u>\</u> 3	0	0	
	Aluminum		ASTM D5185m		3	5	
	Lead	ppm	ASTM D5185m		3 1	2	
	Copper	ppm ppm	ASTM D5185m		6	2 18	
	Tin			>20	1	0	
	Vanadium	ppm	ASTM D5185m	>4	י <1	0	
	White Metal	ppm	*Visual	NONE	NONE	NONE	
		scalar		NONE	-		
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m		9	8	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	28	0	
	Fuel		WC Method	>2.1	<1.0	<1.0	
	Water		WC Method	>0.21	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	1.2	0.1	
	Nitration	Abs/cm	*ASTM D7624	>20	9.8	5.1	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	22.4	
	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	Sodium	ppm	ASTM D5185m	>31	45	2	
	Boron	ppm	ASTM D5185m		16	336	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m		91	133	
	Manganese	ppm	ASTM D5185m		<1	<1	
	Magnesium	ppm	ASTM D5185m		993	680	
	Calcium	ppm	ASTM D5185m		1349	1539	
	Phosphorus	ppm	ASTM D5185m		1079	720	
	Zinc	ppm	ASTM D5185m		1339	849	
	Sulfur	ppm	ASTM D5185m		3160	2189	
	Oxidation	Abs/.1mm	*ASTM D310311	>25	16.4	15.5	
	Base Number (BN)				9.7	10	
		ing itoriy	AOTH D2030	10.0	5.1	10 7	

Visc @ 100°C cSt

13.7

13.6

ASTM D445 15.4



