



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**Store 4 - Fairmont**  
Machine Id  
**JOHN DEERE 950K 1T0950KPEJF332286**  
Component  
**Diesel Engine**  
Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (7 GAL)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0013980</b>	LECP179532	LECP186121
Sample Date		Client Info		<b>20 Oct 2020</b>	06 Apr 2019	23 Oct 2018
Machine Age	hrs	Client Info		<b>1303</b>	865	494
Oil Age	hrs	Client Info		<b>438</b>	371	494
Filter Age	hrs	Client Info		<b>438</b>	371	494
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

## WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	<b>▲ 105</b>	40	92
Chromium	ppm	ASTM D5185m	>11	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	1	2
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	6	6
Lead	ppm	ASTM D5185m	>26	<b>1</b>	<1	0
Copper	ppm	ASTM D5185m	>26	<b>▲ 52</b>	34	<b>▲ 289</b>
Tin	ppm	ASTM D5185m	>4	<b>1</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

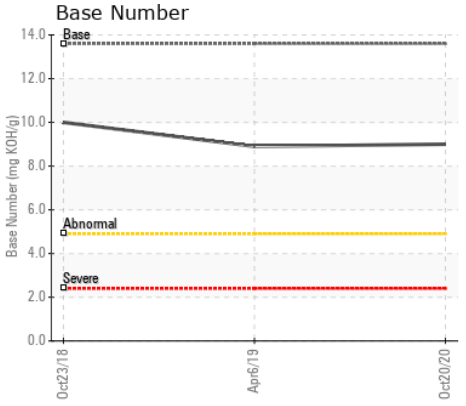
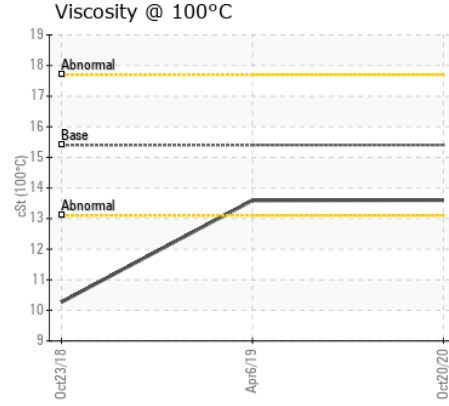
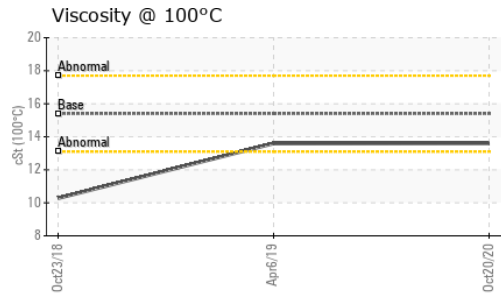
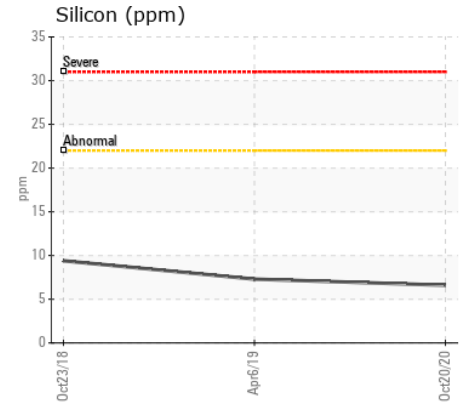
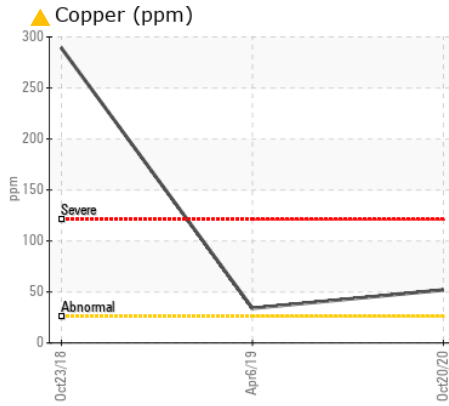
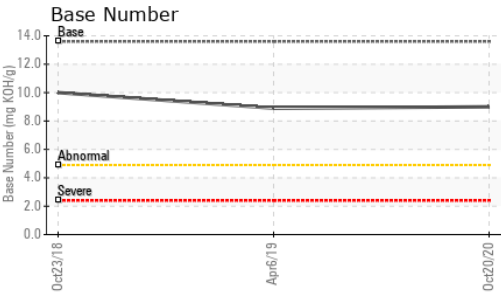
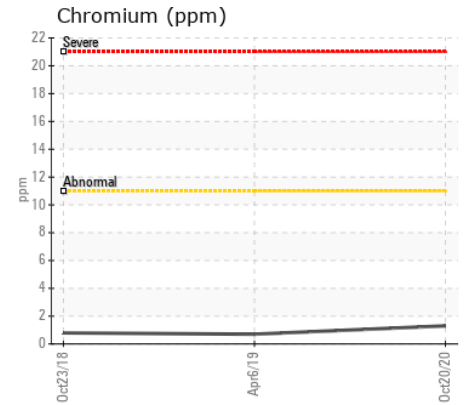
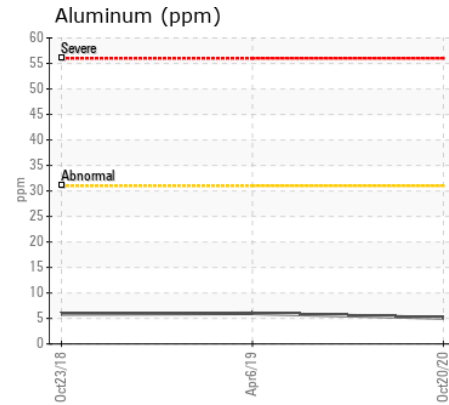
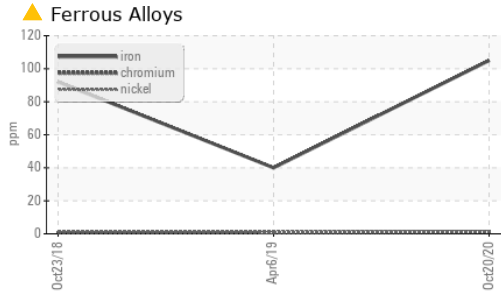
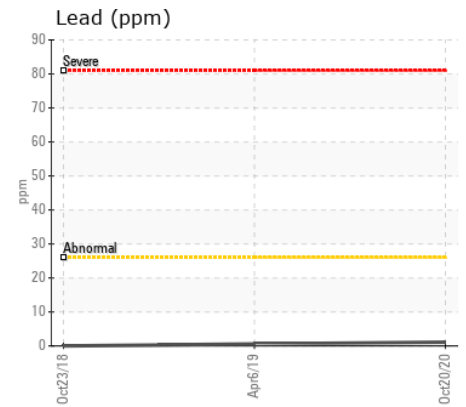
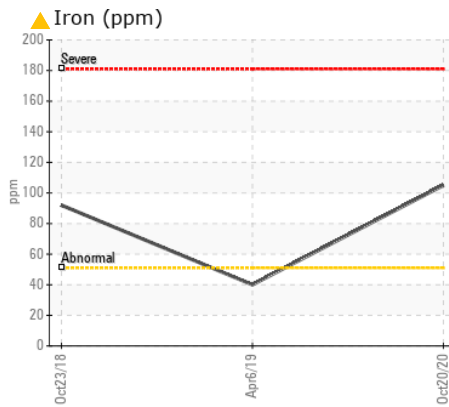
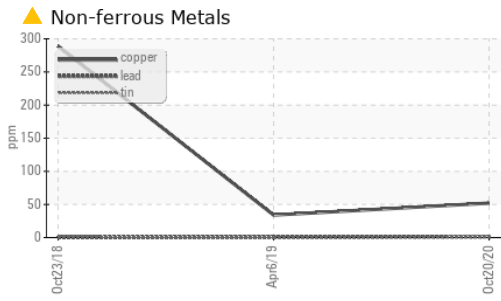
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>7</b>	7	9
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	14	18
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	8.1	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.5</b>	20.9	22.5
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>31	<b>4</b>	4	26
Boron	ppm	ASTM D5185m		<b>224</b>	191	143
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>246</b>	203	233
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	3
Magnesium	ppm	ASTM D5185m		<b>799</b>	754	822
Calcium	ppm	ASTM D5185m		<b>1604</b>	1543	1438
Phosphorus	ppm	ASTM D5185m		<b>892</b>	843	721
Zinc	ppm	ASTM D5185m		<b>1111</b>	1012	944
Sulfur	ppm	ASTM D5185m		<b>2626</b>	2574	2378
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.7</b>	15.6	17.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9</b>	8.9	10
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.59	10.27



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0013980 **Received** : 23 Oct 2020  
**Lab Number** : 05098869 **Diagnosed** : 04 Nov 2020  
**Unique Number** : 9229123 **Diagnostician** : Doug Bogart  
**Test Package** : MOBCE ( Additional Tests: PQ, TBN )

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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