



# OIL ANALYSIS REPORT

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



Area  
**Store 1 - Cowen**  
Machine Id  
**JOHN DEERE 544K 1DW544KZCDE654148**  
Component  
**Diesel Engine**  
Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0009563</b>	LEC0005303	LEC0002691
Sample Date		Client Info		<b>24 Jan 2020</b>	24 Oct 2019	11 Jun 2019
Machine Age	hrs	Client Info		<b>14647</b>	14069	13331
Oil Age	hrs	Client Info		<b>578</b>	738	573
Filter Age	hrs	Client Info		<b>578</b>	738	573
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>37</b>	57	10
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	2	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	6	6
Lead	ppm	ASTM D5185m	>26	<b>0</b>	0	3
Copper	ppm	ASTM D5185m	>26	<b>1</b>	2	<1
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

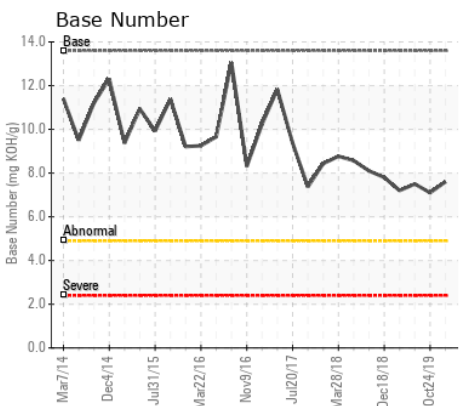
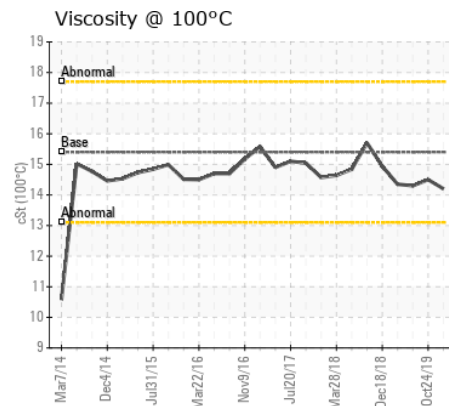
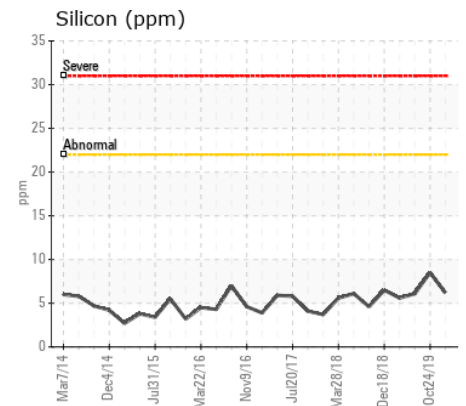
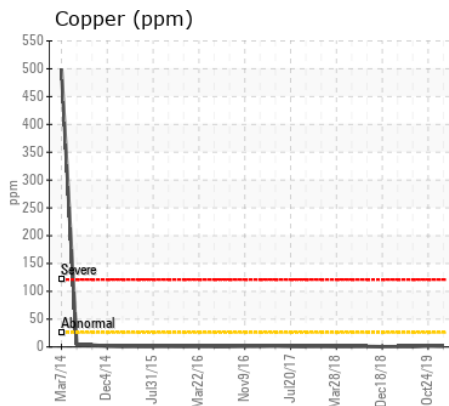
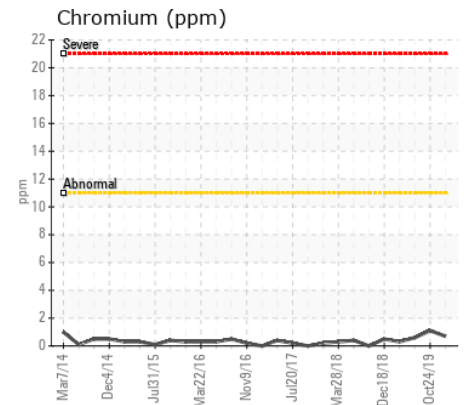
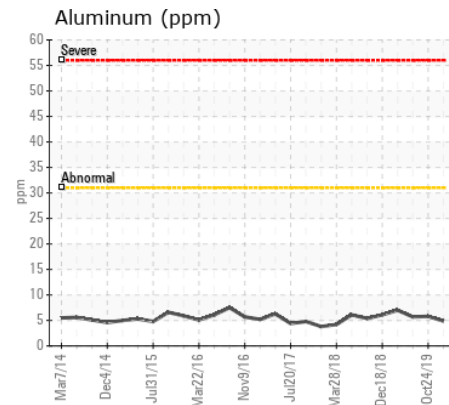
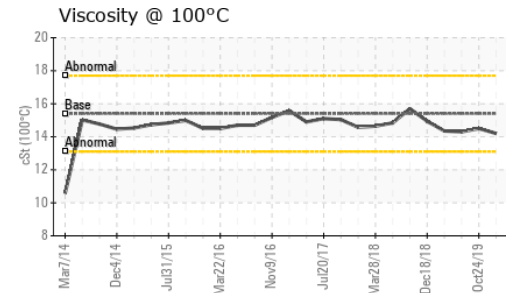
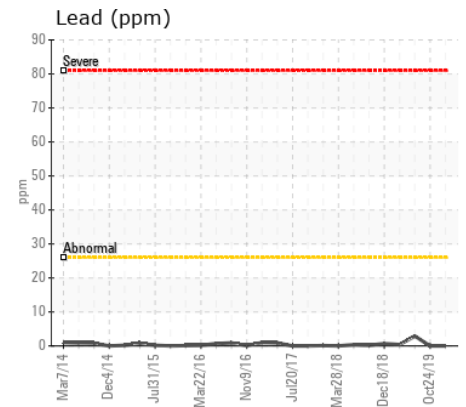
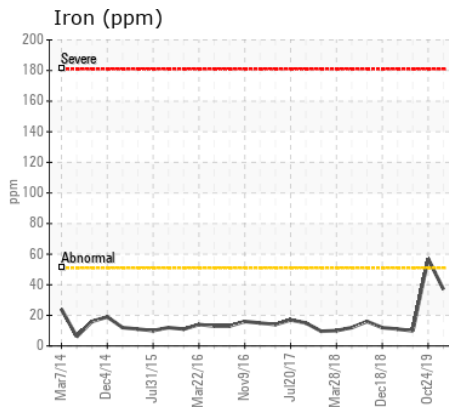
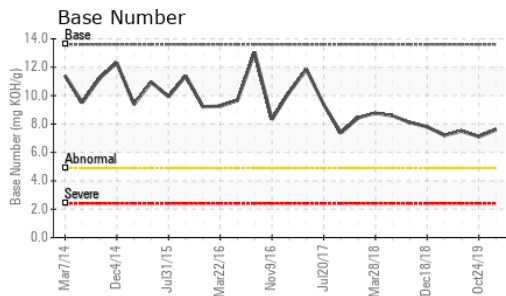
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>6</b>	8	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	10
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>0.6</b>	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.6</b>	11	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.5</b>	26.5	24.6
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. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>4</b>	4	4
Boron	ppm	ASTM D5185m		<b>113</b>	79	117
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>225</b>	243	263
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>741</b>	759	901
Calcium	ppm	ASTM D5185m		<b>1337</b>	1357	1442
Phosphorus	ppm	ASTM D5185m		<b>761</b>	706	794
Zinc	ppm	ASTM D5185m		<b>847</b>	892	972
Sulfur	ppm	ASTM D5185m		<b>3095</b>	2554	2562
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.9</b>	22.7	20.1
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.6</b>	7.1	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.2</b>	14.5	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0009563 **Received** : 29 Jan 2020  
**Lab Number** : 04899740 **Diagnosed** : 30 Jan 2020  
**Unique Number** : 8904801 **Diagnostician** : Wes Davis  
**Test Package** : MOBCE ( Additional Tests: TBN )

**LESLIE EQUIPMENT COMPANY**  
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 MARIETTA, OH  
 US 45750-9765  
 Contact: LEANNE KENDALL  
 KendalLeanne@lec1.com

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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