



OIL ANALYSIS REPORT

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

Area **Store 9 - Marietta [RO#149836]**

Machine Id **L06210V230345**

Component **Diesel Engine**

Fluid **JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (14 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0048890</b>	LEC0034806	LEC0006905
Sample Date		Client Info		<b>11 Apr 2024</b>	16 Nov 2022	24 Oct 2019
Machine Age	hrs	Client Info		<b>2226</b>	2061	0
Oil Age	hrs	Client Info		<b>165</b>	408	0
Filter Age	hrs	Client Info		<b>165</b>	408	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>12</b>	▲ 59	44
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	2	1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	2	2
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	4	2
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	4	0
Copper	ppm	ASTM D5185m	>26	<b>0</b>	2	15
Tin	ppm	ASTM D5185m	>4	<b>0</b>	1	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.

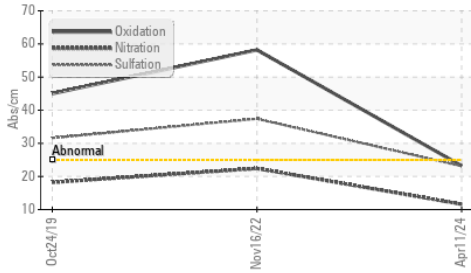
Silicon	ppm	ASTM D5185m	>120	<b>6</b>	6	4
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	11
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.6</b>	22.4	18.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.1</b>	37.4	31.6
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**

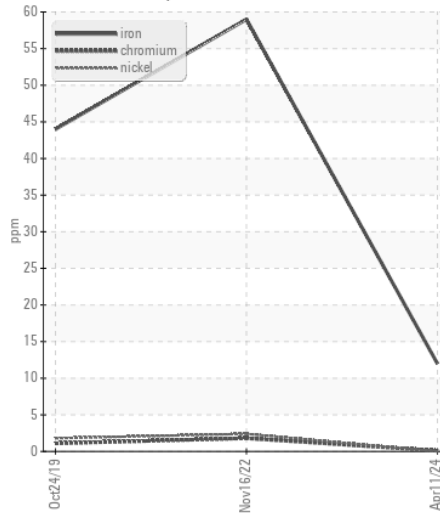
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>1</b>	2	5
Boron	ppm	ASTM D5185m		<b>274</b>	168	119
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>256</b>	225	30
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m		<b>883</b>	724	88
Calcium	ppm	ASTM D5185m		<b>1503</b>	1591	2211
Phosphorus	ppm	ASTM D5185m		<b>991</b>	843	911
Zinc	ppm	ASTM D5185m		<b>1158</b>	1124	1148
Sulfur	ppm	ASTM D5185m		<b>3737</b>	3435	2876
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.2</b>	58.2	45
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.7</b>	7.4	5.4
Visc @ 100°C	cSt	ASTM D445	15.4	<b>15.1</b>	▲ 20.7	▲ 18.4

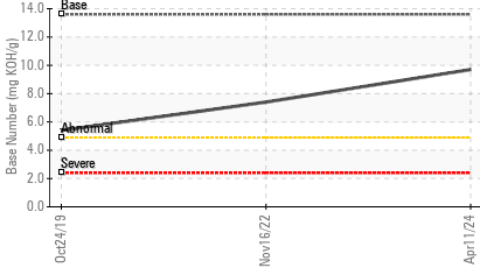
**FT-IR (Direct Trend)**



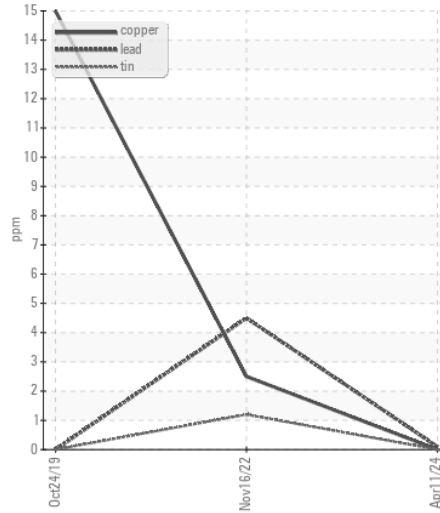
**Ferrous Alloys**



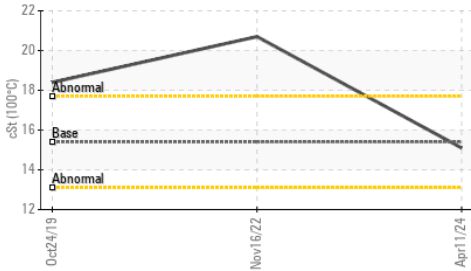
**Base Number**



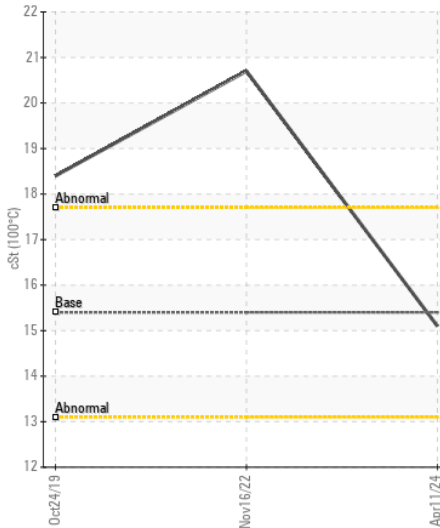
**Non-ferrous Metals**



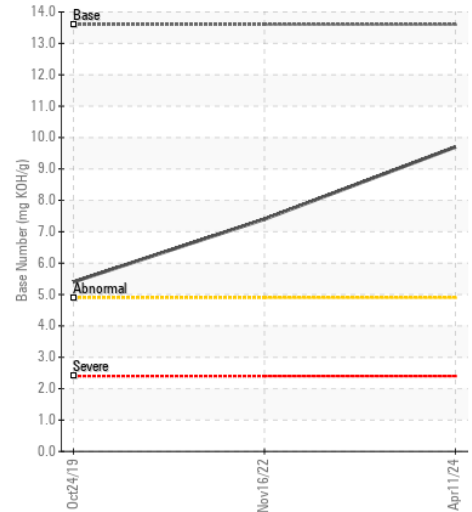
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0048890 **Received** : 15 Apr 2024  
**Lab Number** : 06149261 **Tested** : 16 Apr 2024  
**Unique Number** : 10979339 **Diagnosed** : 16 Apr 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**LESLIE EQUIPMENT COMPANY**  
 105 TENNIS CENTER DR.  
 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)

T: (740)373-5570