



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



Machine Id  
**JOHN DEERE 310E 1DW310EXHMF709515**  
Component  
**Center Differential**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

The oil 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>JR0171889</b>	JR0150961	JR0135104
Sample Date		Client Info		<b>19 Jun 2023</b>	12 Dec 2022	03 Aug 2022
Machine Age	hrs	Client Info		<b>2991</b>	2445	2017
Oil Age	hrs	Client Info		<b>2445</b>	500	500
Filter Age	hrs	Client Info		<b>0</b>	500	500
Oil Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

### WEAR

Bearing and/or bushing wear is indicated.

PQ		ASTM D8184		<b>119</b>	55	317
Iron	ppm	ASTM D5185m	>500	<b>180</b>	120	512
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	3
Nickel	ppm	ASTM D5185m	>10	<b>3</b>	3	8
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	3	6
Lead	ppm	ASTM D5185m	>25	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m	>100	<b>▲ 108</b>	67	▲ 361
Tin	ppm	ASTM D5185m	>10	<b>▲ 5</b>	4	▲ 16
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

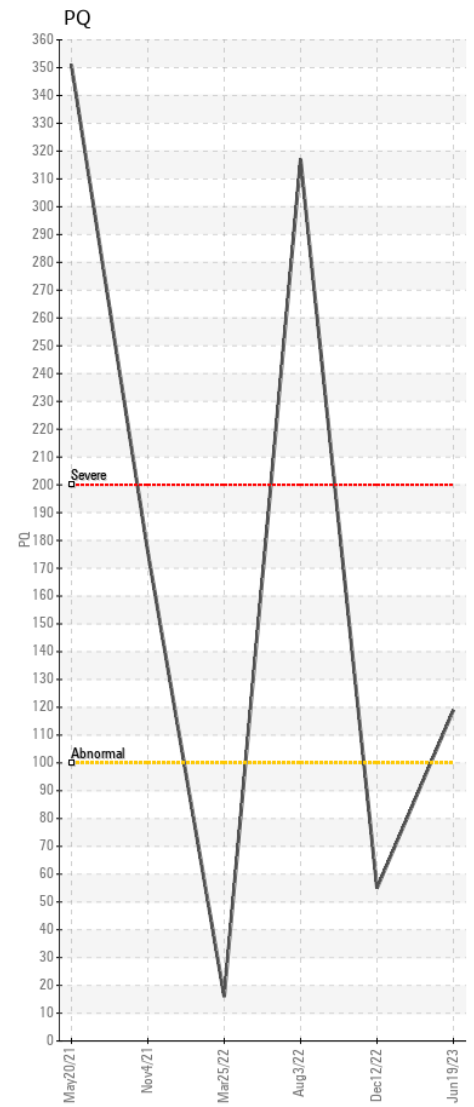
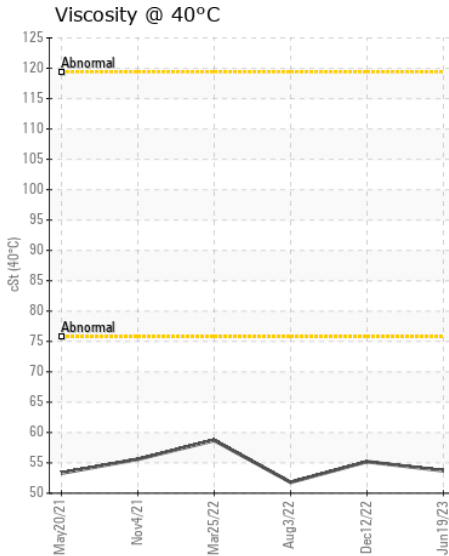
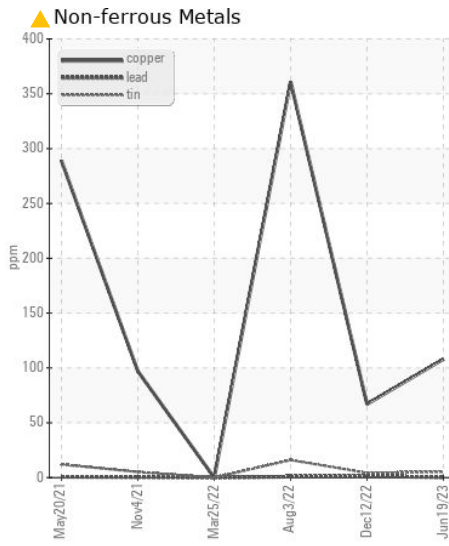
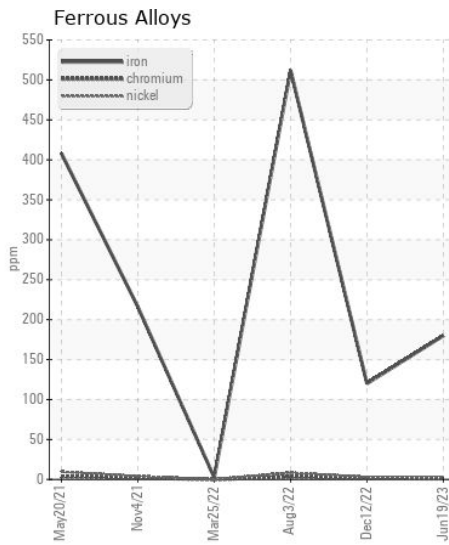
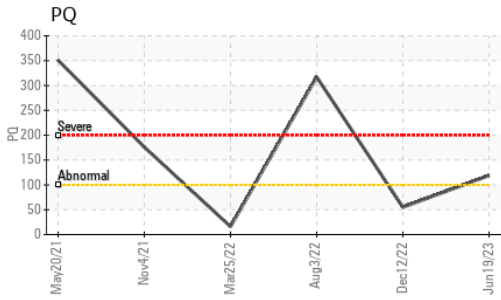
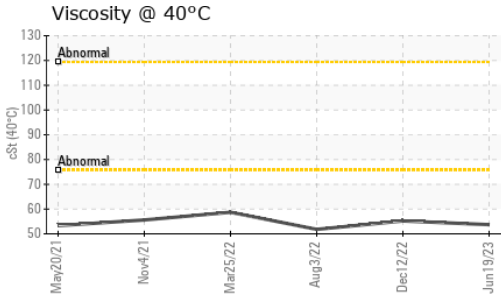
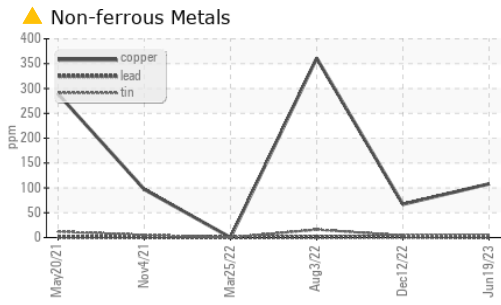
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>11</b>	10	19
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>LIGHT</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	>.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>5</b>	4	14
Boron	ppm	ASTM D5185m		<b>8</b>	10	44
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>10</b>	9	33
Magnesium	ppm	ASTM D5185m		<b>92</b>	95	67
Calcium	ppm	ASTM D5185m		<b>3366</b>	3430	3479
Phosphorus	ppm	ASTM D5185m		<b>965</b>	953	1011
Zinc	ppm	ASTM D5185m		<b>1217</b>	1232	1236
Sulfur	ppm	ASTM D5185m		<b>3928</b>	3611	4106
Visc @ 40°C	cSt	ASTM D445		<b>53.7</b>	55.2	51.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0171889 **Received** : 21 Jun 2023  
**Lab Number** : 05879734 **Diagnosed** : 23 Jun 2023  
**Unique Number** : 10524837 **Diagnostician** : Sean Felton  
**Test Package** : CONST ( Additional Tests: PQ )

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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