



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



Machine Id  
**JOHN DEERE 310E 1DW310EXJPF716428**  
Component  
**Center Differential**  
Fluid  
**JOHN DEERE HY-GARD HYDRAULIC/RANSMISSION (39 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0211182</b>	JR0192248	JR0168705
Sample Date		Client Info		<b>10 Apr 2024</b>	08 Nov 2023	03 Aug 2023
Machine Age	hrs	Client Info		<b>1950</b>	1475	962
Oil Age	hrs	Client Info		<b>917</b>	955	520
Filter Age	hrs	Client Info		<b>917</b>	0	520
Oil Changed		Client Info		<b>Changed</b>	N/A	Not Changd
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184		<b>249</b>	209	194
Iron	ppm	ASTM D5185m	>500	<b>325</b>	265	227
Chromium	ppm	ASTM D5185m	>10	<b>3</b>	2	2
Nickel	ppm	ASTM D5185m	>10	<b>8</b>	6	4
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>3</b>	3	4
Lead	ppm	ASTM D5185m	>25	<b>16</b>	15	9
Copper	ppm	ASTM D5185m	>100	<b>145</b>	104	84
Tin	ppm	ASTM D5185m	>10	<b>8</b>	6	5
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

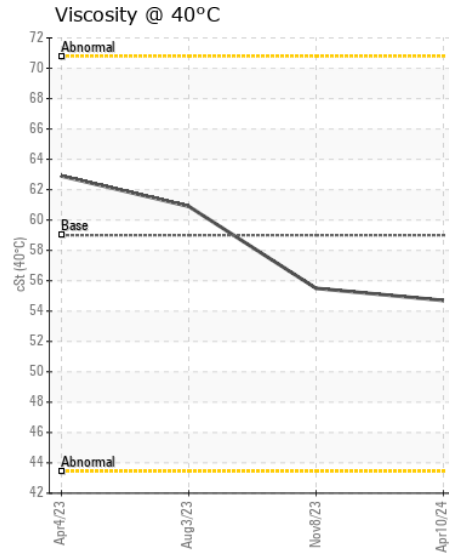
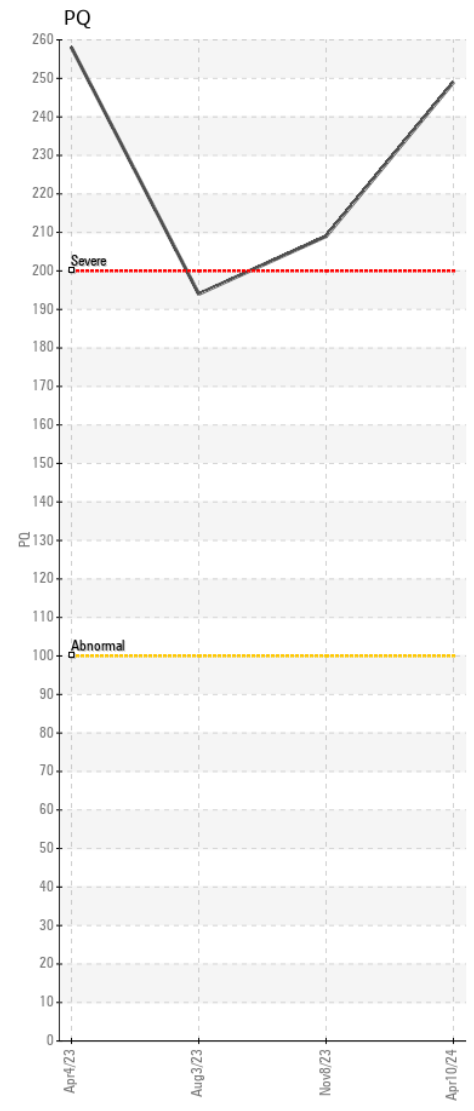
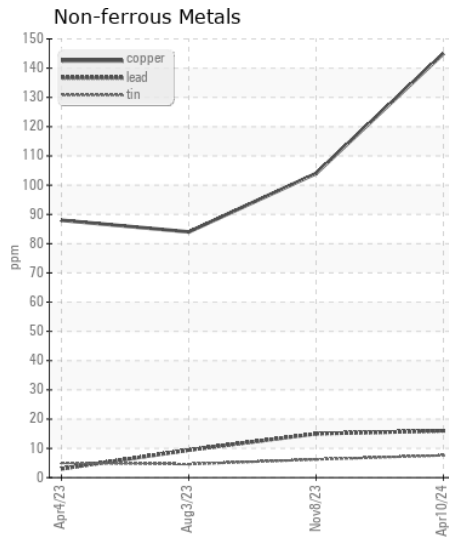
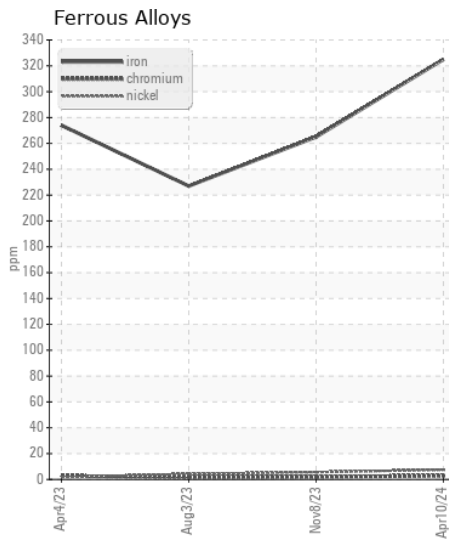
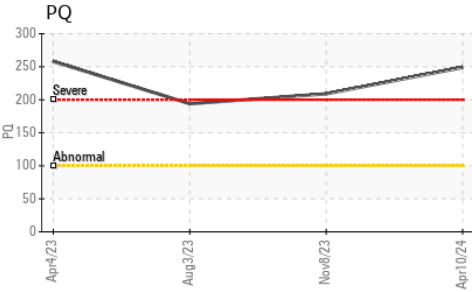
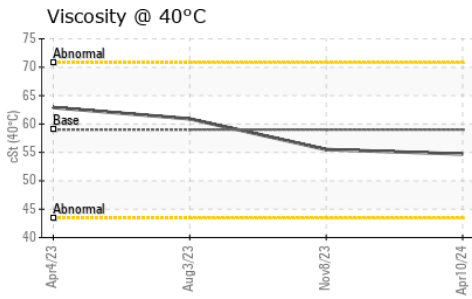
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>12</b>	11	11
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	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>10</b>	10	6
Boron	ppm	ASTM D5185m		<b>51</b>	45	53
Barium	ppm	ASTM D5185m		<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>7</b>	5	7
Manganese	ppm	ASTM D5185m		<b>29</b>	25	29
Magnesium	ppm	ASTM D5185m		<b>85</b>	96	93
Calcium	ppm	ASTM D5185m		<b>3482</b>	3467	3705
Phosphorus	ppm	ASTM D5185m		<b>1140</b>	1102	1157
Zinc	ppm	ASTM D5185m		<b>1241</b>	1355	1381
Sulfur	ppm	ASTM D5185m		<b>4025</b>	3462	4004
Visc @ 40°C	cSt	ASTM D445	59	<b>54.7</b>	55.5	60.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0211182 **Received** : 11 Apr 2024  
**Lab Number** : 06146121 **Tested** : 12 Apr 2024  
**Unique Number** : 10976199 **Diagnosed** : 15 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - MANASSAS PARK**  
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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)