



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



Machine Id  
**JOHN DEERE 310E 1DW310EXJPF716428**  
Component  
**Rear Differential**  
Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (39 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0211180</b>	JR0192312	JR0168724
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>183</b>	172	149
Iron	ppm	ASTM D5185m	>500	<b>283</b>	222	195
Chromium	ppm	ASTM D5185m	>10	<b>3</b>	2	2
Nickel	ppm	ASTM D5185m	>10	<b>8</b>	6	5
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	4
Lead	ppm	ASTM D5185m	>25	<b>15</b>	15	9
Copper	ppm	ASTM D5185m	>100	<b>185</b>	125	105
Tin	ppm	ASTM D5185m	>10	<b>9</b>	8	6
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

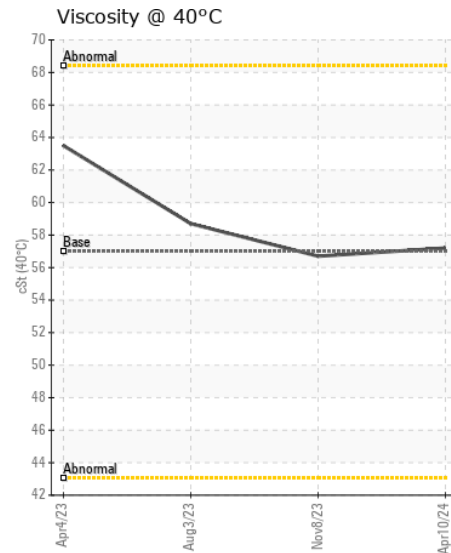
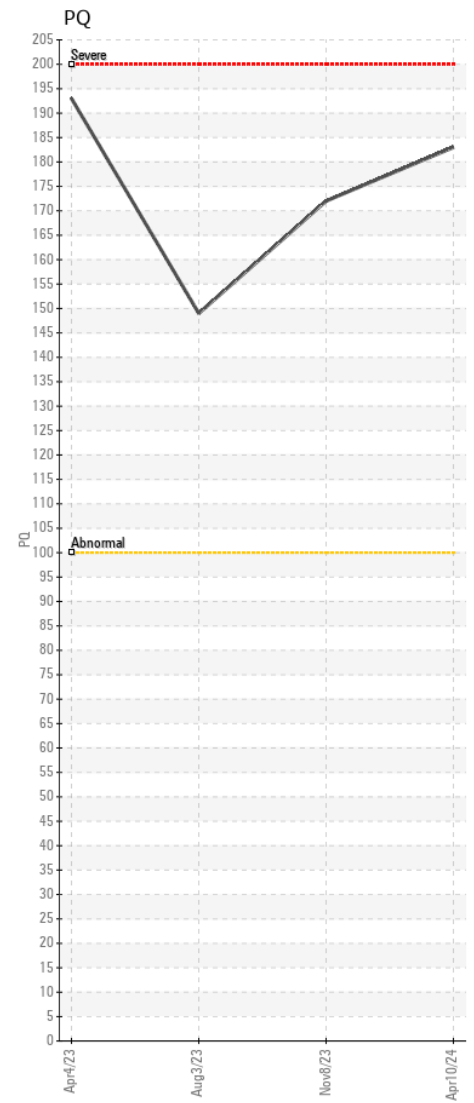
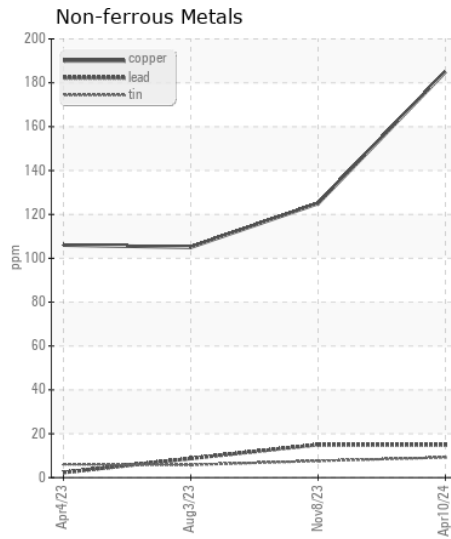
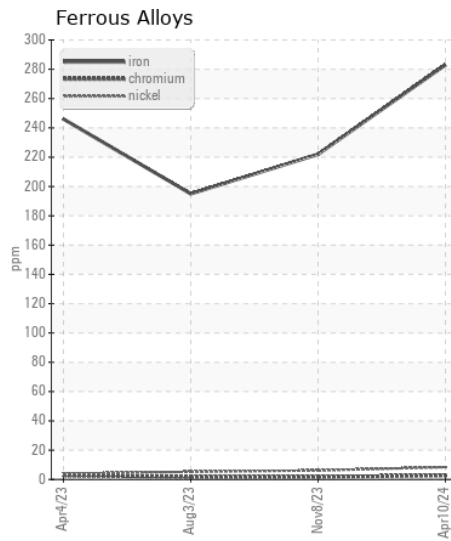
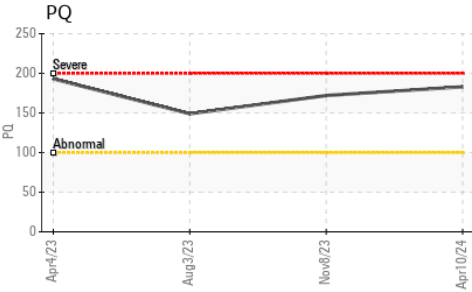
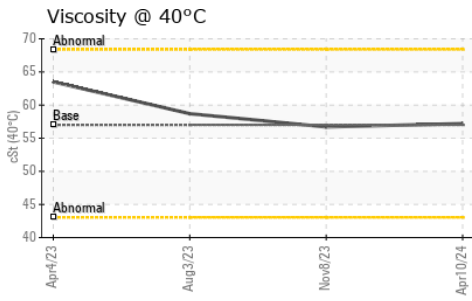
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>13</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>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	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>9</b>	9	5
Boron	ppm	ASTM D5185m	6	<b>53</b>	45	49
Barium	ppm	ASTM D5185m	0	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>7</b>	4	7
Manganese	ppm	ASTM D5185m		<b>32</b>	28	32
Magnesium	ppm	ASTM D5185m	145	<b>87</b>	96	93
Calcium	ppm	ASTM D5185m	3570	<b>3526</b>	3458	3739
Phosphorus	ppm	ASTM D5185m	1290	<b>1204</b>	1087	1158
Zinc	ppm	ASTM D5185m	1640	<b>1273</b>	1380	1395
Sulfur	ppm	ASTM D5185m		<b>4468</b>	3491	4059
Visc @ 40°C	cSt	ASTM D445	57.0	<b>57.2</b>	56.7	58.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0211180 **Received** : 11 Apr 2024  
**Lab Number** : 06146119 **Tested** : 12 Apr 2024  
**Unique Number** : 10976197 **Diagnosed** : 15 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - MANASSAS PARK**  
 9107 OWENS DRIVE  
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 US 20111

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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)