



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



Machine Id  
**JOHN DEERE 310E 1DW310ETLGF678170**  
Component  
**Center Differential**  
Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0206812</b>	JR0162307	JR0143323
Sample Date		Client Info		<b>10 Apr 2024</b>	30 May 2023	16 Dec 2022
Machine Age	hrs	Client Info		<b>7317</b>	6732	6295
Oil Age	hrs	Client Info		<b>6880</b>	6732	500
Filter Age	hrs	Client Info		<b>0</b>	0	500
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

### WEAR

Bearing and/or gear wear is indicated.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>302</b>	13	238
Iron	ppm	ASTM D5185m	>500	<b>▲ 1160</b>	2	<b>▲ 844</b>
Chromium	ppm	ASTM D5185m	>10	<b>4</b>	0	3
Nickel	ppm	ASTM D5185m	>10	<b>2</b>	0	2
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>5</b>	<1	6
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	<b>▲ &lt;1</b>
Copper	ppm	ASTM D5185m	>100	<b>▲ 416</b>	<1	<b>▲ 240</b>
Tin	ppm	ASTM D5185m	>10	<b>▲ 18</b>	<1	<b>▲ 12</b>
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

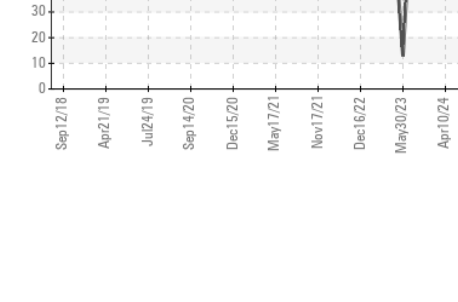
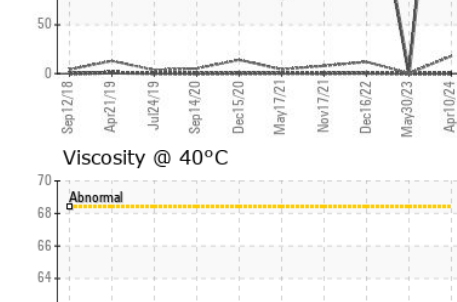
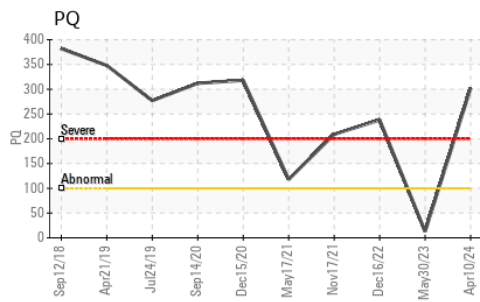
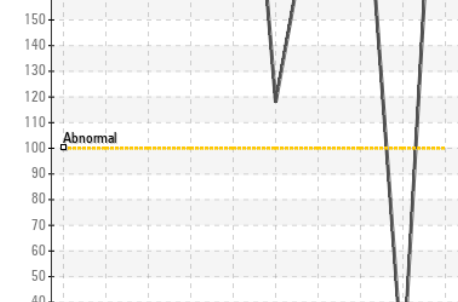
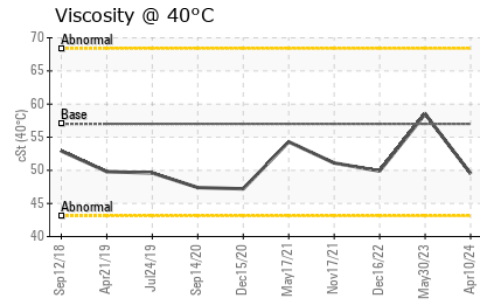
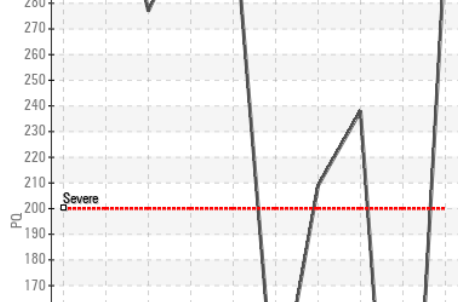
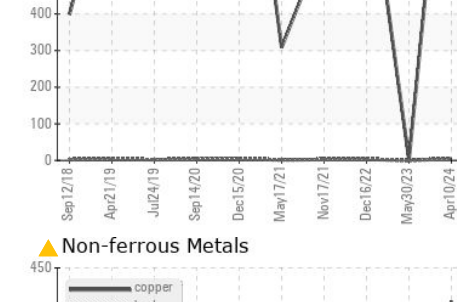
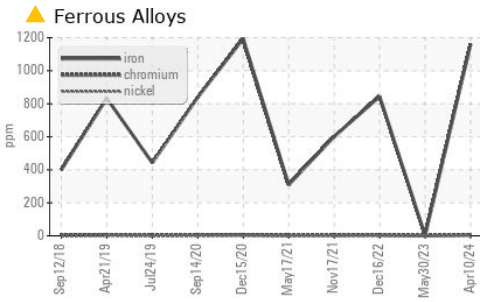
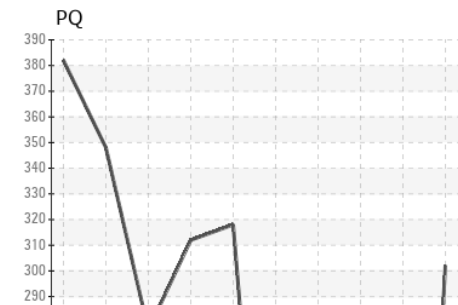
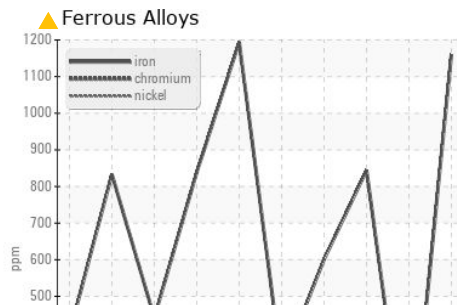
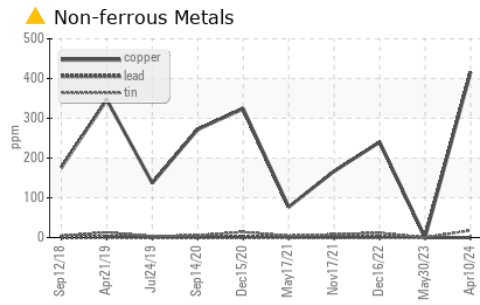
There is no indication of any contamination in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Silicon	ppm	ASTM D5185m	>75	<b>21</b>	6	17
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	1
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>	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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sodium	ppm	ASTM D5185m		<b>4</b>	1	3
Boron	ppm	ASTM D5185m	6	<b>8</b>	0	6
Barium	ppm	ASTM D5185m	0	<b>2</b>	0	<1
Molybdenum	ppm	ASTM D5185m	0	<b>4</b>	<1	3
Manganese	ppm	ASTM D5185m		<b>13</b>	<1	10
Magnesium	ppm	ASTM D5185m	145	<b>98</b>	97	105
Calcium	ppm	ASTM D5185m	3570	<b>3489</b>	3456	3692
Phosphorus	ppm	ASTM D5185m	1290	<b>1049</b>	953	1026
Zinc	ppm	ASTM D5185m	1640	<b>1217</b>	1214	1273
Sulfur	ppm	ASTM D5185m		<b>3971</b>	3968	4176
Visc @ 40°C	cSt	ASTM D445	57.0	<b>49.5</b>	58.5	49.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0206812 **Received** : 12 Apr 2024  
**Lab Number** : 06147629 **Tested** : 15 Apr 2024  
**Unique Number** : 10977707 **Diagnosed** : 16 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - CHARLOTTE**  
 9550 STATESVILLE ROAD  
 CHARLOTTE, NC  
 US 28269  
 Contact: CHARLOTTE SHOP  
 myoung@jamesriverequipment.com  
 T: (704)597-0211  
 F: (704)596-6198

Certificate L2367  
 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)