



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



Machine Id  
**JOHN DEERE 310E 1DW310EXTKF697898**  
Component  
**Center Differential**  
Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### WEAR

Bearing and/or bushing wear is indicated.

### CONTAMINATION

There is a light concentration of water present in the oil.

### FLUID CONDITION

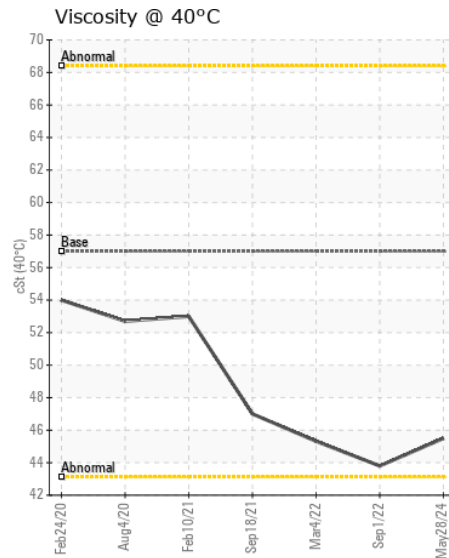
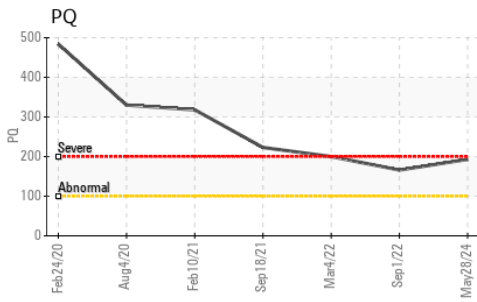
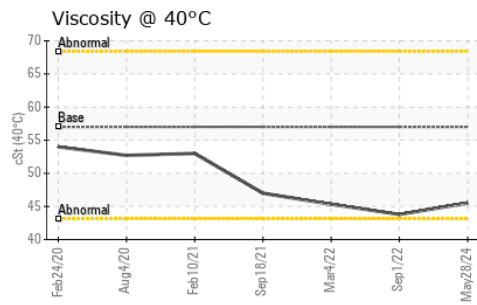
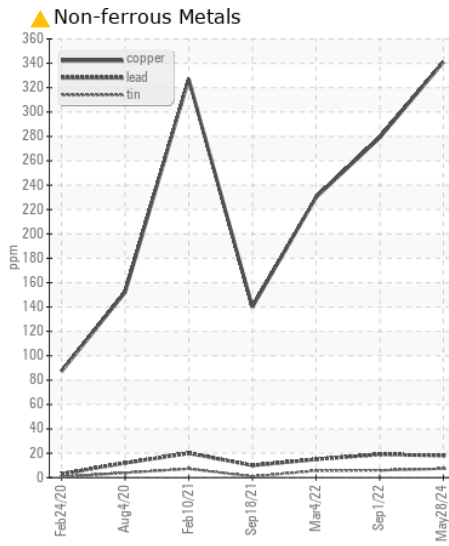
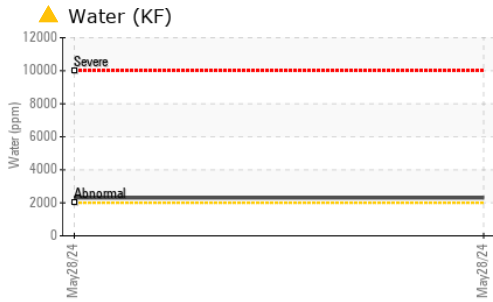
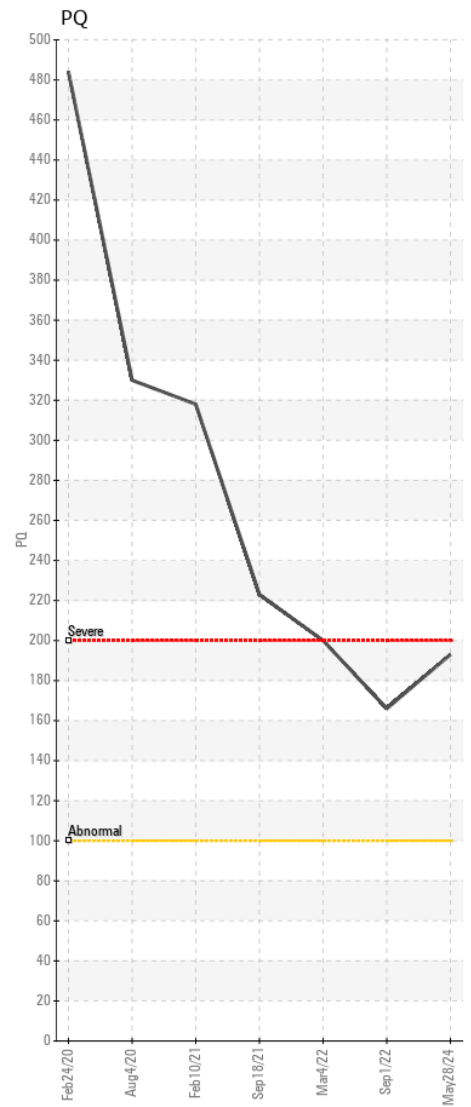
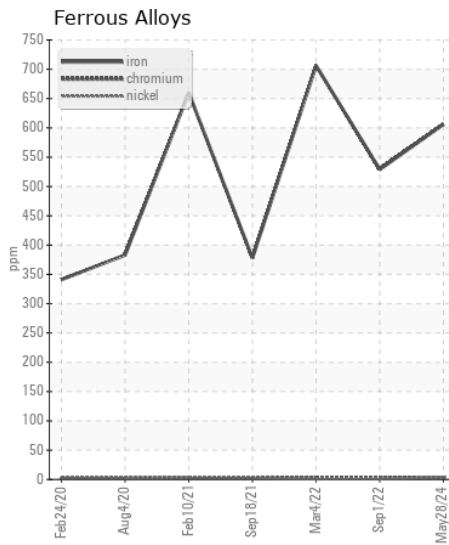
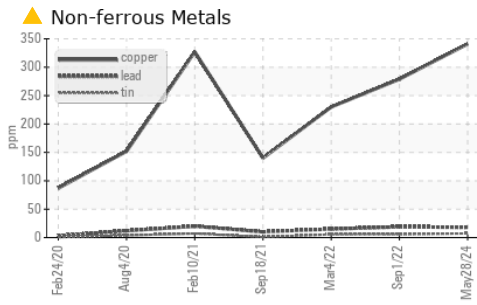
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0211656</b>	JR0135957	JR0110273
Sample Date		Client Info		<b>28 May 2024</b>	01 Sep 2022	04 Mar 2022
Machine Age	hrs	Client Info		<b>4359</b>	3515	2957
Oil Age	hrs	Client Info		<b>4359</b>	1468	910
Filter Age	hrs	Client Info		<b>4359</b>	558	910
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

PQ		ASTM D8184		<b>193</b>	166	200
Iron	ppm	ASTM D5185m	>500	<b>606</b>	▲ 529	▲ 706
Chromium	ppm	ASTM D5185m	>10	<b>3</b>	2	3
Nickel	ppm	ASTM D5185m	>10	<b>4</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	3	5
Lead	ppm	ASTM D5185m	>25	<b>18</b>	19	15
Copper	ppm	ASTM D5185m	>100	▲ <b>341</b>	▲ 279	▲ 230
Tin	ppm	ASTM D5185m	>10	<b>7</b>	6	6
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

Silicon	ppm	ASTM D5185m	>75	<b>17</b>	14	18
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Water	%	ASTM D6304	>.2	▲ <b>0.230</b>	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ <b>2300</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	MODER	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
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>0.2%</b>	NEG	NEG

Sodium	ppm	ASTM D5185m		<b>2</b>	3	3
Boron	ppm	ASTM D5185m	6	<b>49</b>	59	62
Barium	ppm	ASTM D5185m	0	<b>3</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>3</b>	3	6
Manganese	ppm	ASTM D5185m		<b>11</b>	10	14
Magnesium	ppm	ASTM D5185m	145	<b>67</b>	55	64
Calcium	ppm	ASTM D5185m	3570	<b>3360</b>	3405	3826
Phosphorus	ppm	ASTM D5185m	1290	<b>1183</b>	1083	1187
Zinc	ppm	ASTM D5185m	1640	<b>1350</b>	1337	1486
Sulfur	ppm	ASTM D5185m		<b>4799</b>	3435	3272
Visc @ 40°C	cSt	ASTM D445	57.0	<b>45.5</b>	43.8	45.32



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0211656 **Received** : 29 May 2024  
**Lab Number** : 06194713 **Tested** : 31 May 2024  
**Unique Number** : 11056836 **Diagnosed** : 31 May 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: KF, 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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