



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



Machine Id  
**JOHN DEERE 310E 1DW310EXKMF711403**  
Component  
**Rear Differential**  
Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (10 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0218759</b>	JR0183429	JR0157991
Sample Date		Client Info		<b>07 Jun 2024</b>	12 Sep 2023	04 May 2023
Machine Age	hrs	Client Info		<b>4185</b>	3137	2578
Oil Age	hrs	Client Info		<b>0</b>	3137	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Not Changd	N/A
Filter Changed		Client Info		<b>N/A</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>118</b>	187	317
Iron	ppm	ASTM D5185m	>500	<b>335</b>	217	398
Chromium	ppm	ASTM D5185m	>10	<b>3</b>	2	3
Nickel	ppm	ASTM D5185m	>10	<b>9</b>	8	13
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>5</b>	<1	<1
Lead	ppm	ASTM D5185m	>25	<b>22</b>	18	▲ 28
Copper	ppm	ASTM D5185m	>100	<b>236</b>	▲ 126	▲ 214
Tin	ppm	ASTM D5185m	>10	<b>9</b>	6	8
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>MODER</b>	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

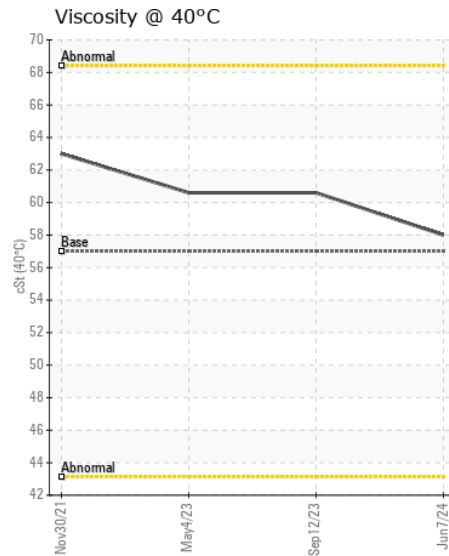
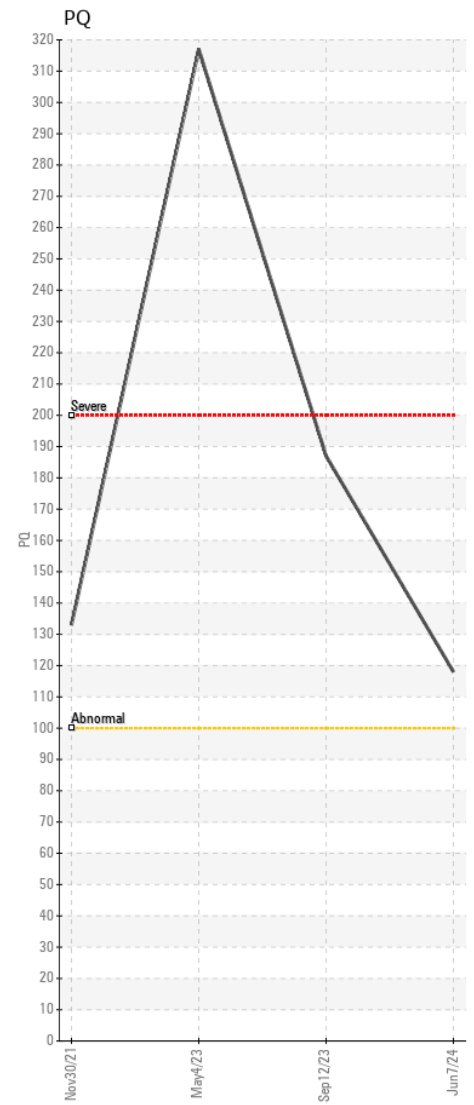
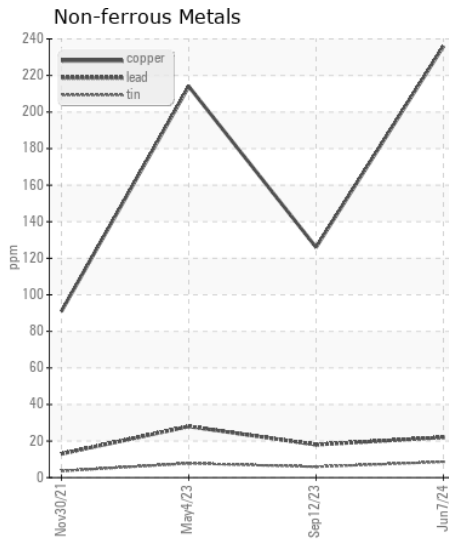
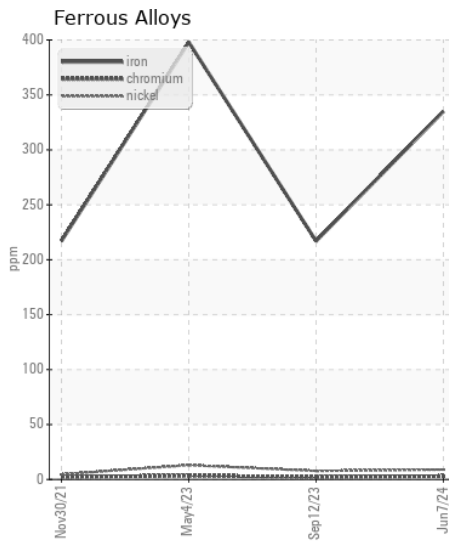
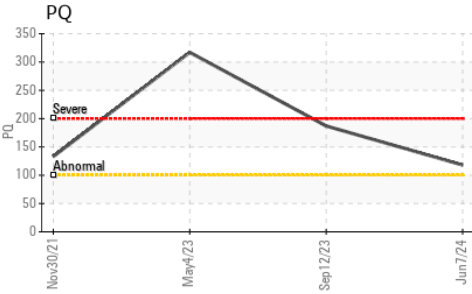
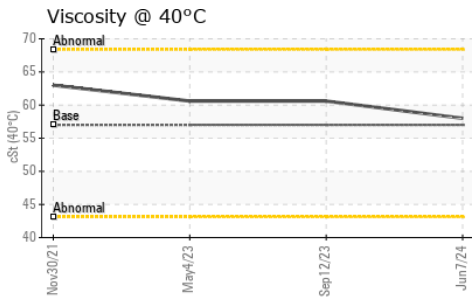
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>22</b>	17	21
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
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>11</b>	12	19
Boron	ppm	ASTM D5185m	6	<b>76</b>	84	95
Barium	ppm	ASTM D5185m	0	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>29</b>	28	<1
Manganese	ppm	ASTM D5185m		<b>34</b>	35	44
Magnesium	ppm	ASTM D5185m	145	<b>150</b>	155	24
Calcium	ppm	ASTM D5185m	3570	<b>3324</b>	3354	3385
Phosphorus	ppm	ASTM D5185m	1290	<b>1068</b>	1062	1100
Zinc	ppm	ASTM D5185m	1640	<b>1321</b>	1325	1434
Sulfur	ppm	ASTM D5185m		<b>4029</b>	4130	3410
Visc @ 40°C	cSt	ASTM D445	57.0	<b>58.0</b>	60.6	60.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0218759 **Received** : 14 Jun 2024  
**Lab Number** : 06210434 **Tested** : 18 Jun 2024  
**Unique Number** : 11083298 **Diagnosed** : 18 Jun 2024 - Don Baldrige  
**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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