



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



Area

**[46029]**

Machine Id

**JOHN DEERE 310E 1DW310EXHNF715994**

Component

**Rear Differential**

Fluid

**JOHN DEERE HY-GARD HYD/TRANS (30 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0211186</b>	JR0196186	JR0184174
Sample Date		Client Info		<b>16 Apr 2024</b>	15 Dec 2023	31 Aug 2023
Machine Age	hrs	Client Info		<b>2479</b>	1952	1442
Oil Age	hrs	Client Info		<b>527</b>	972	939
Filter Age	hrs	Client Info		<b>0</b>	972	0
Oil Changed		Client Info		<b>Not Changed</b>	Changed	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Changed	Not Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>69</b>	135	99
Iron	ppm	ASTM D5185m	>500	<b>108</b>	234	145
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	2	1
Nickel	ppm	ASTM D5185m	>10	<b>5</b>	9	7
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	3	<1
Lead	ppm	ASTM D5185m	>25	<b>7</b>	▲ 20	14
Copper	ppm	ASTM D5185m	>100	<b>56</b>	140	90
Tin	ppm	ASTM D5185m	>10	<b>4</b>	7	5
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

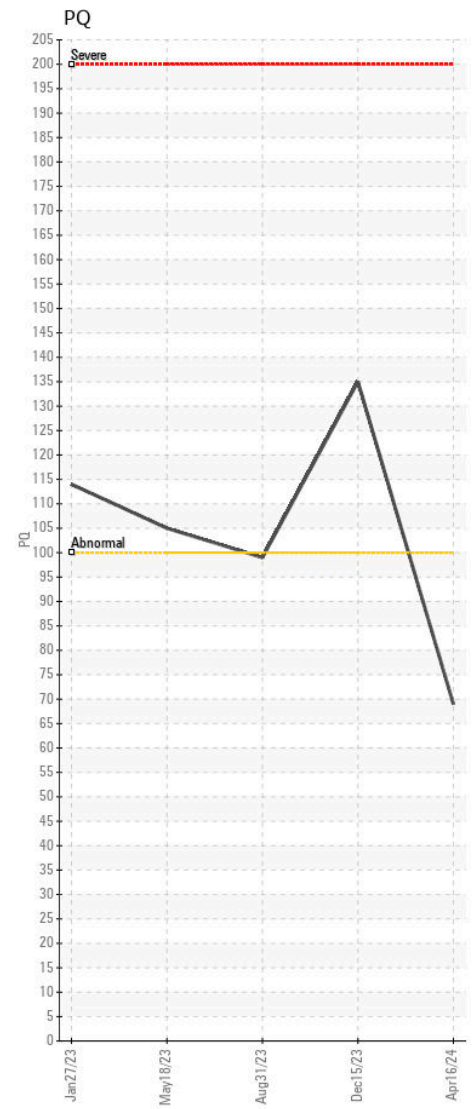
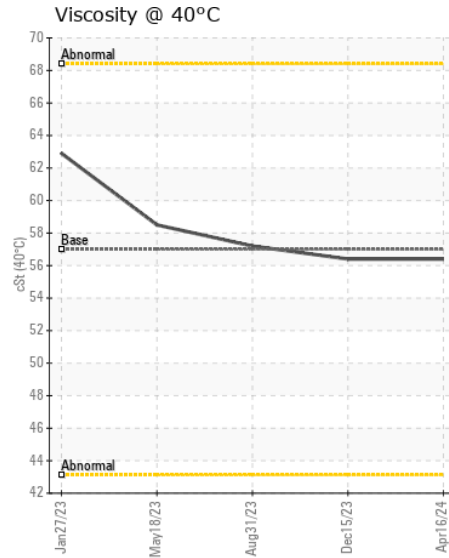
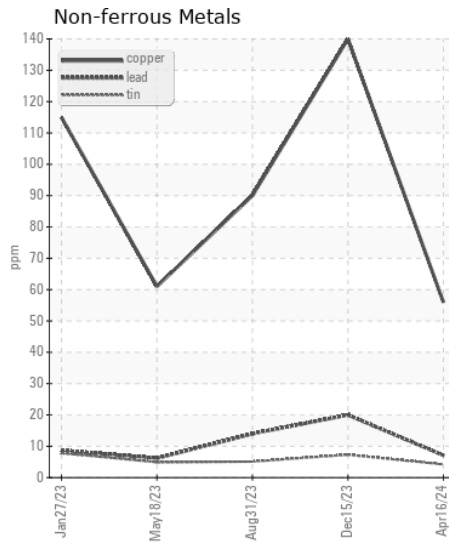
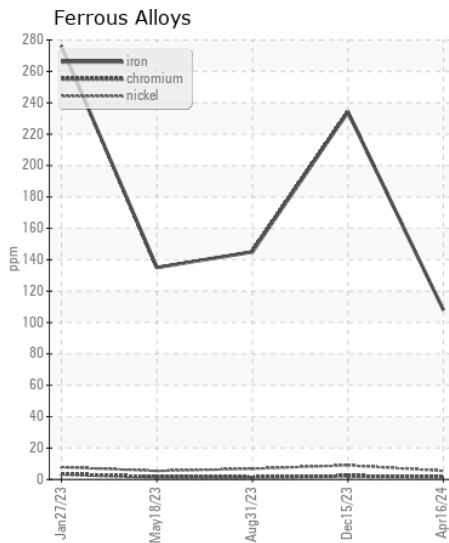
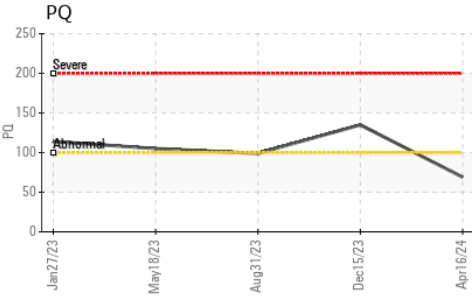
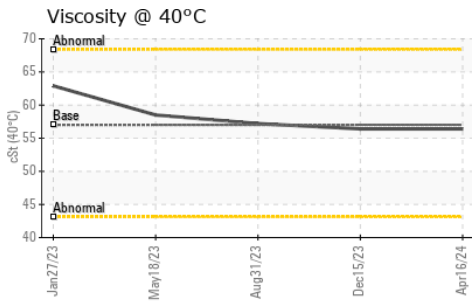
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>10</b>	11	10
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	0
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.

Sodium	ppm	ASTM D5185m		<b>3</b>	11	9
Boron	ppm	ASTM D5185m	6	<b>21</b>	51	47
Barium	ppm	ASTM D5185m	0	<b>1</b>	2	0
Molybdenum	ppm	ASTM D5185m	0	<b>6</b>	4	4
Manganese	ppm	ASTM D5185m		<b>12</b>	25	21
Magnesium	ppm	ASTM D5185m	145	<b>97</b>	83	83
Calcium	ppm	ASTM D5185m	3570	<b>3279</b>	3533	3415
Phosphorus	ppm	ASTM D5185m	1290	<b>1055</b>	1129	1037
Zinc	ppm	ASTM D5185m	1640	<b>1176</b>	1347	1285
Sulfur	ppm	ASTM D5185m		<b>4259</b>	3716	3996
Visc @ 40°C	cSt	ASTM D445	57.0	<b>56.4</b>	56.4	57.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0211186 **Received** : 17 Apr 2024  
**Lab Number** : 06152290 **Tested** : 18 Apr 2024  
**Unique Number** : 10982368 **Diagnosed** : 18 Apr 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

**B & S SITE DEVELOPMENT**  
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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)