



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



Machine Id  
**JOHN DEERE 310E 1DW310EXCNF714251**  
Component  
**Hydraulic System**  
Fluid  
**JOHN DEERE HYDRAU (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0212753</b>	JR0202422	JR0190892
Sample Date		Client Info		<b>29 May 2024</b>	05 Mar 2024	01 Dec 2023
Machine Age	hrs	Client Info		<b>2965</b>	2459	2020
Oil Age	hrs	Client Info		<b>2965</b>	2459	2020
Filter Age	hrs	Client Info		<b>0</b>	439	2020
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>10</b>	14	19
Iron	ppm	ASTM D5185m	>71	<b>4</b>	5	4
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>6	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>11	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>13	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>21	<b>3</b>	2	2
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

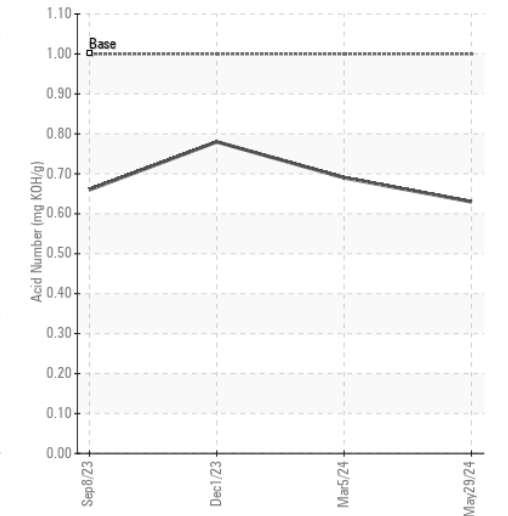
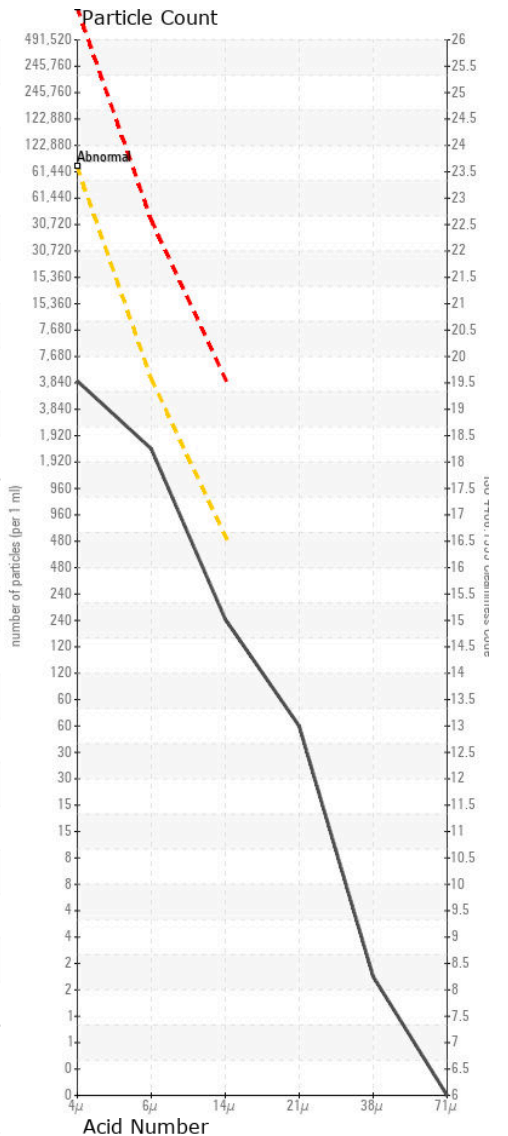
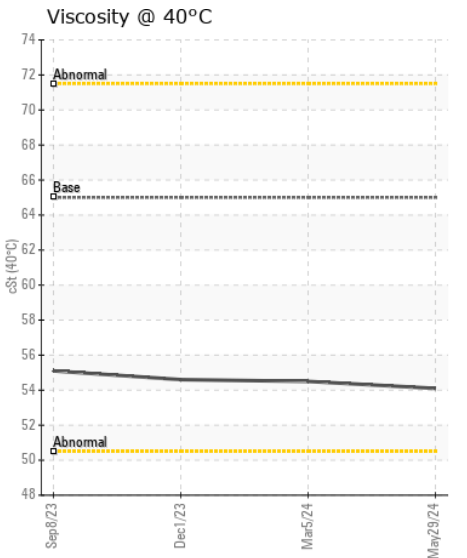
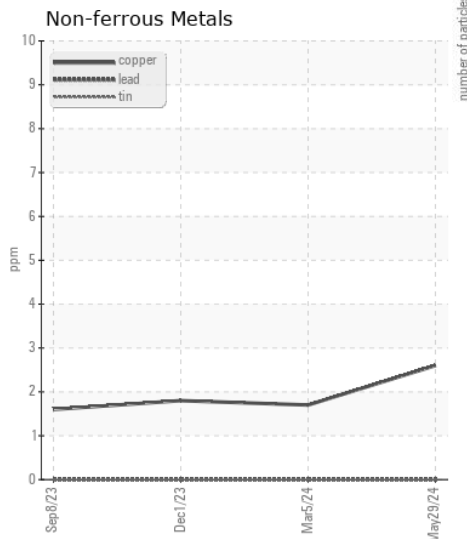
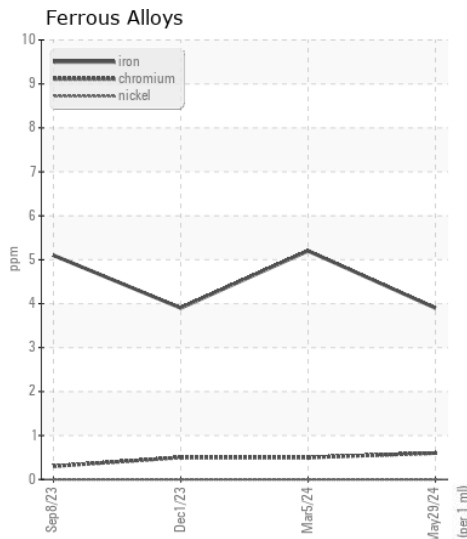
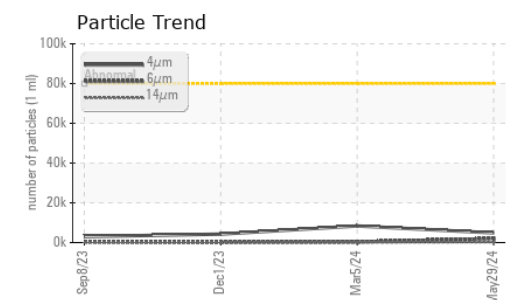
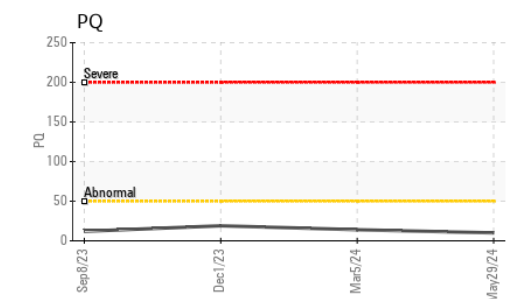
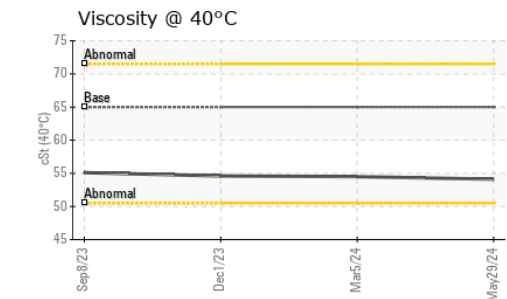
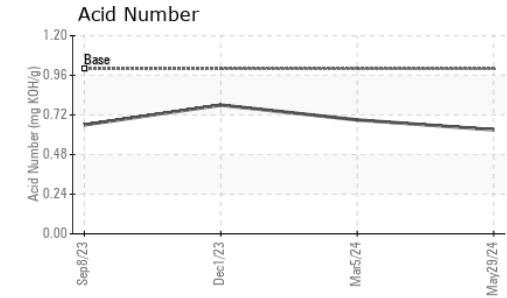
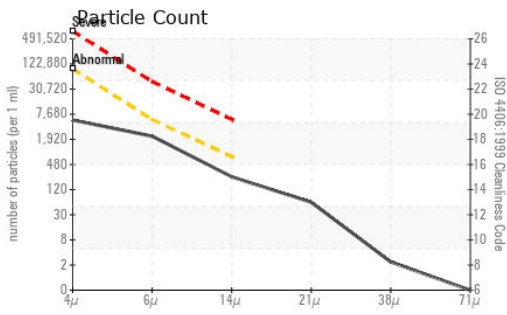
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>24	<b>&lt;1</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	<1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>4854</b>	8367	4266
Particles >6µm		ASTM D7647	>5000	<b>1997</b>	337	117
Particles >14µm		ASTM D7647	>640	<b>215</b>	33	20
Particles >21µm		ASTM D7647	>160	<b>53</b>	11	8
Particles >38µm		ASTM D7647	>40	<b>2</b>	1	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	<b>19/18/15</b>	20/16/12	19/14/11
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</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	>0.075	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<b>3</b>	0	2
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>2</b>	3	2
Calcium	ppm	ASTM D5185m	87	<b>111</b>	101	96
Phosphorus	ppm	ASTM D5185m	727	<b>605</b>	588	578
Zinc	ppm	ASTM D5185m	900	<b>767</b>	795	747
Sulfur	ppm	ASTM D5185m	1500	<b>1726</b>	1482	1508
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.63</b>	0.69	0.78
Visc @ 40°C	cSt	ASTM D445	65	<b>54.1</b>	54.5	54.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0212753 **Received** : 03 Jun 2024  
**Lab Number** : 06197546 **Tested** : 04 Jun 2024  
**Unique Number** : 11059669 **Diagnosed** : 04 Jun 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - GARNER**  
 4161 AUBURN CHURCH RD  
 GARNER, NC  
 US 27529

Contact: RALEIGH SHOP  
 sean.betts@jamesriverequipment.com; catherine.anastasio@wearcheck.com

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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