



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



Machine Id  
**JOHN DEERE 310E 1DW310EXPMF712212**  
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>JR0224446</b>	JR0199951	JR0180062
Sample Date		Client Info		<b>25 Jun 2024</b>	27 Feb 2024	19 Sep 2023
Machine Age	hrs	Client Info		<b>3453</b>	2998	2502
Oil Age	hrs	Client Info		<b>3453</b>	0	2502
Filter Age	hrs	Client Info		<b>3453</b>	0	2502
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>14</b>	9	14
Iron	ppm	ASTM D5185m	>71	<b>7</b>	8	7
Chromium	ppm	ASTM D5185m	>11	<b>2</b>	2	2
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>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m	>13	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>21	<b>1</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	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

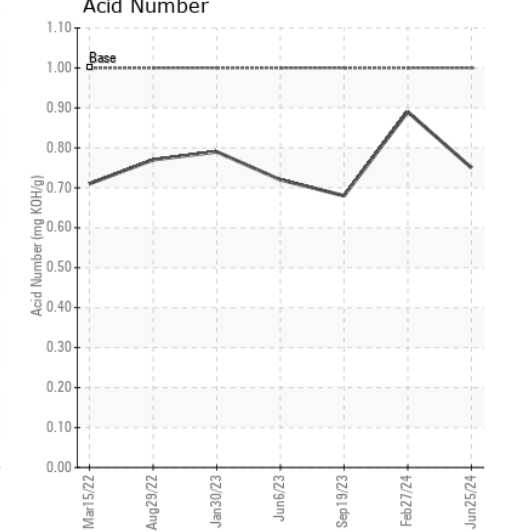
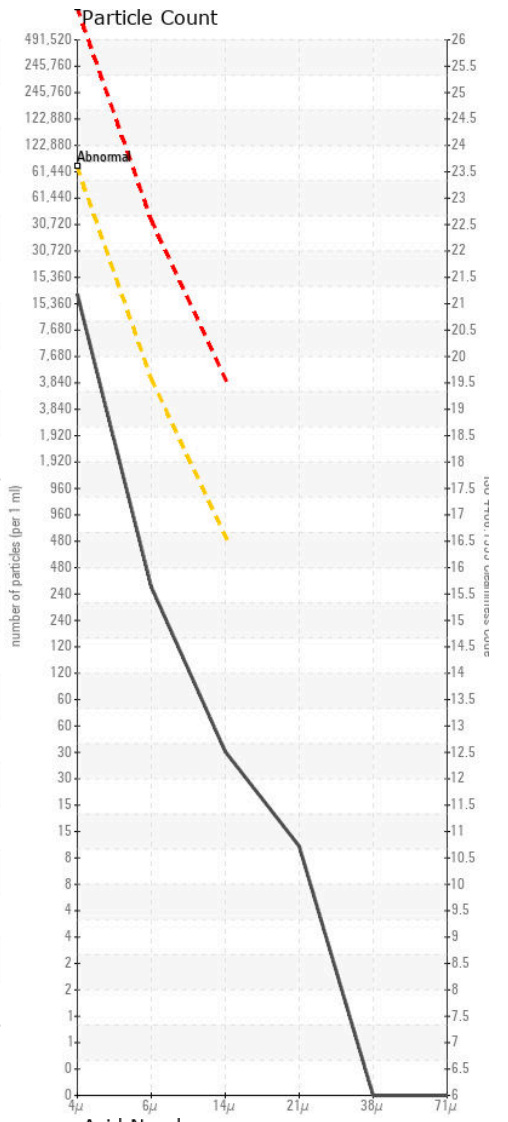
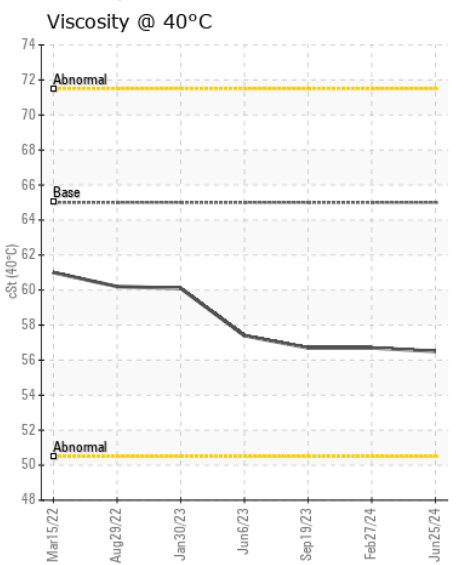
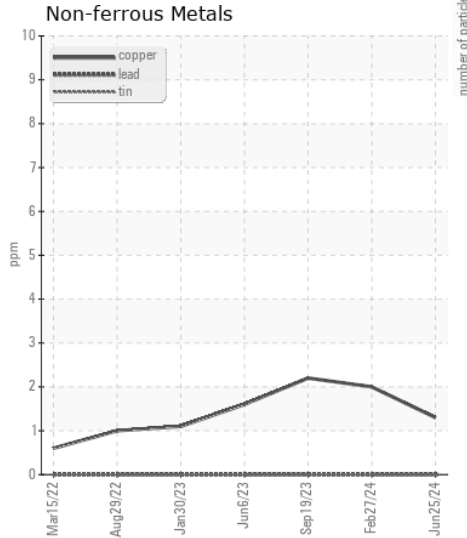
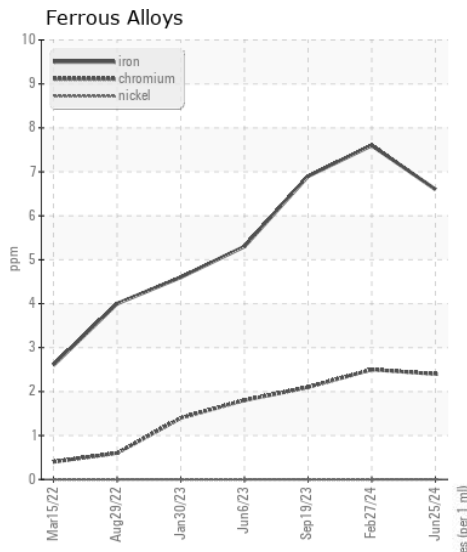
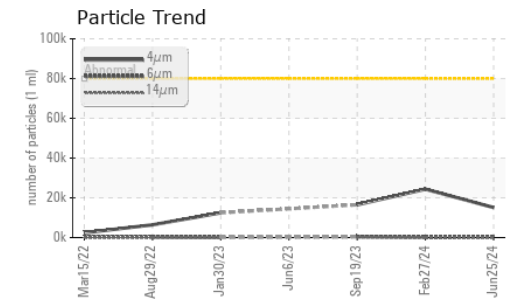
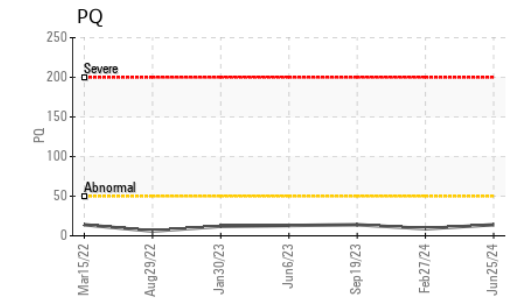
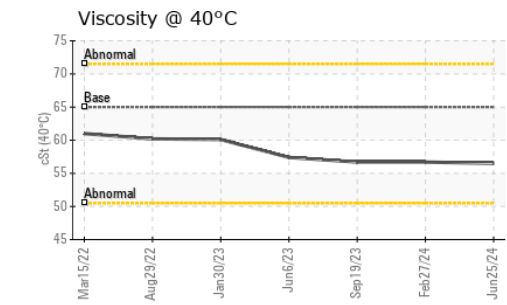
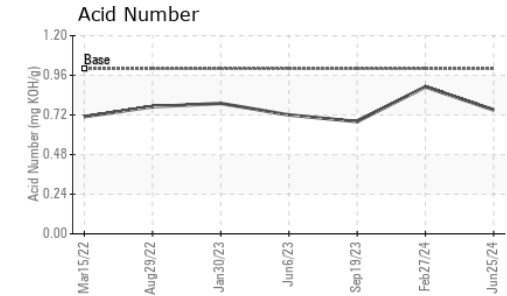
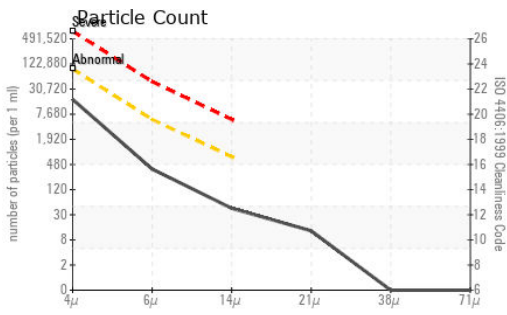
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>24	<b>2</b>	3	2
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	3	2
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>15117</b>	24360	16497
Particles >6µm		ASTM D7647	>5000	<b>328</b>	86	589
Particles >14µm		ASTM D7647	>640	<b>38</b>	5	72
Particles >21µm		ASTM D7647	>160	<b>11</b>	2	20
Particles >38µm		ASTM D7647	>40	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	<b>21/16/12</b>	22/14/10	21/16/13
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	>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>2</b>	2	3
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>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	3	2
Calcium	ppm	ASTM D5185m	87	<b>78</b>	88	94
Phosphorus	ppm	ASTM D5185m	727	<b>556</b>	607	568
Zinc	ppm	ASTM D5185m	900	<b>755</b>	827	799
Sulfur	ppm	ASTM D5185m	1500	<b>1662</b>	1546	1535
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.75</b>	0.89	0.68
Visc @ 40°C	cSt	ASTM D445	65	<b>56.5</b>	56.7	56.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0224446 **Received** : 27 Jun 2024  
**Lab Number** : 06222256 **Tested** : 28 Jun 2024  
**Unique Number** : 11100453 **Diagnosed** : 28 Jun 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - ASHLAND**  
 11047 LEADBETTER RD  
 ASHLAND, VA  
 US 23005  
 Contact: DAVID ZIEG  
 dzieg@jamesriverequipment.com  
 T: (804)798-6001  
 F: (804)798-0292

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)