



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

Area

**[11646]**

Machine Id

**JOHN DEERE 304J LU304JX920900**

Component

**Hydraulic System**

Fluid

**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

### WEAR

All component wear rates are normal.

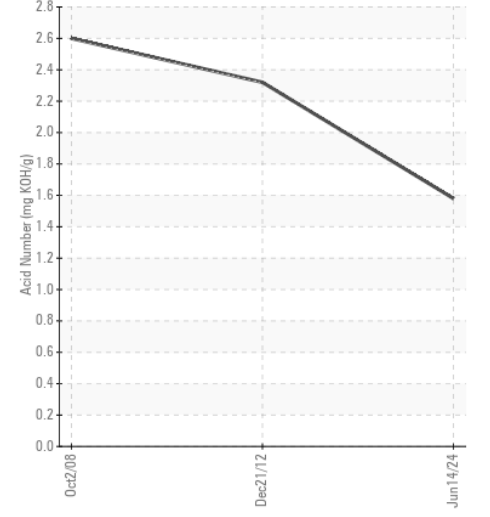
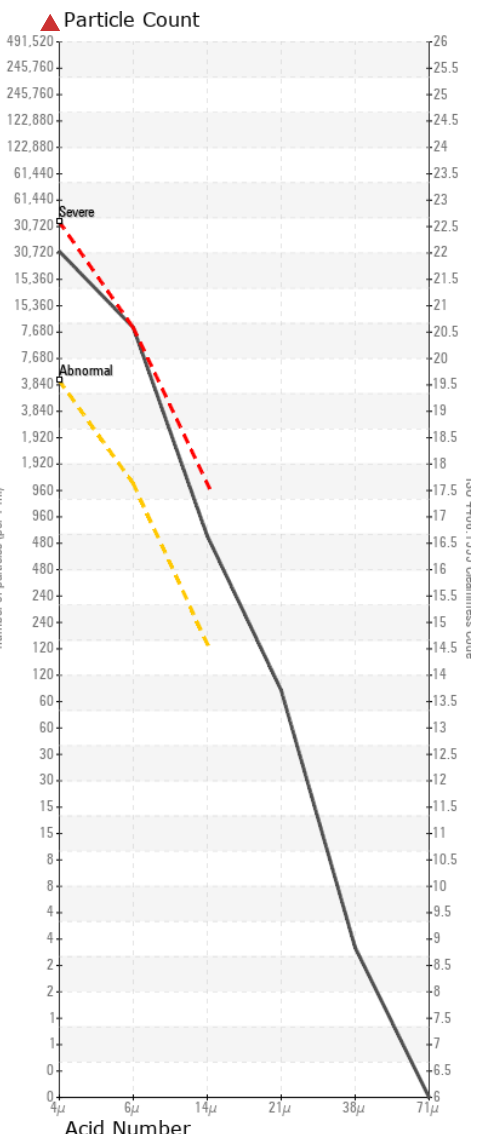
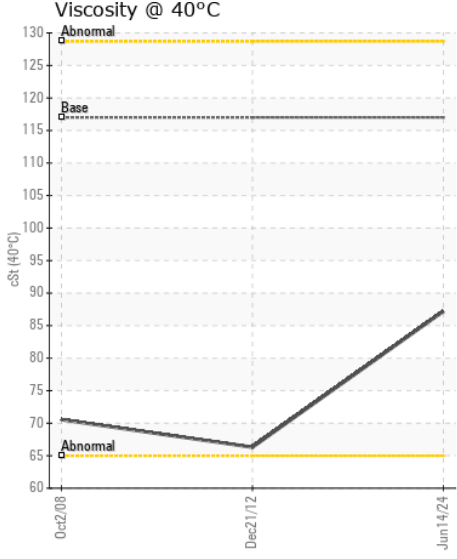
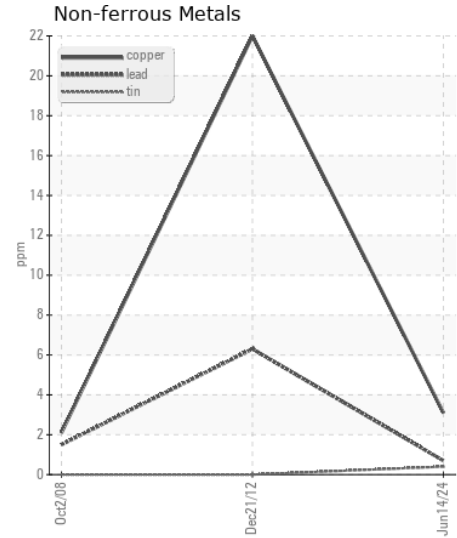
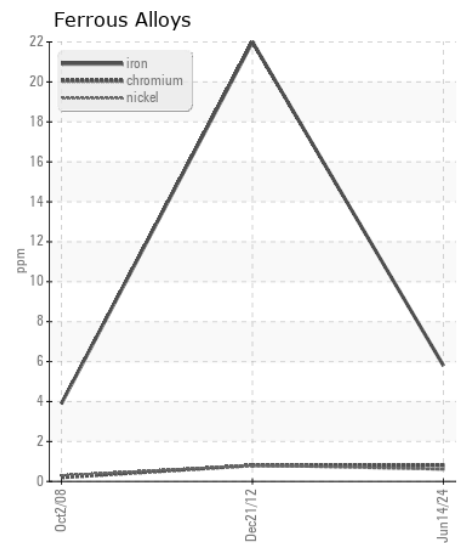
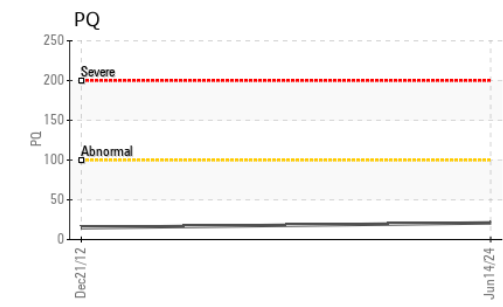
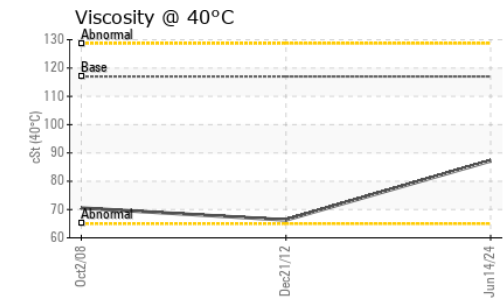
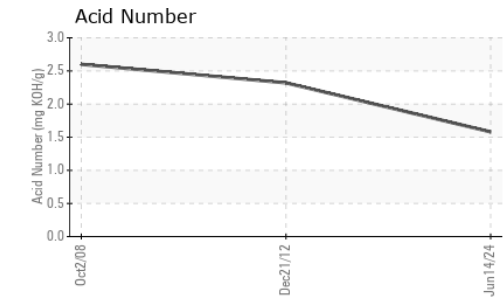
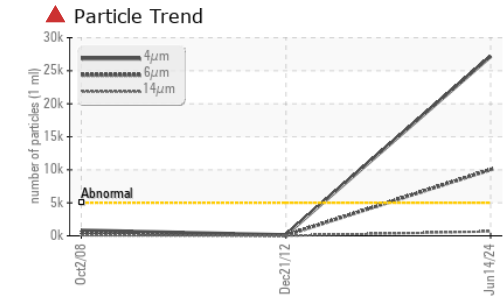
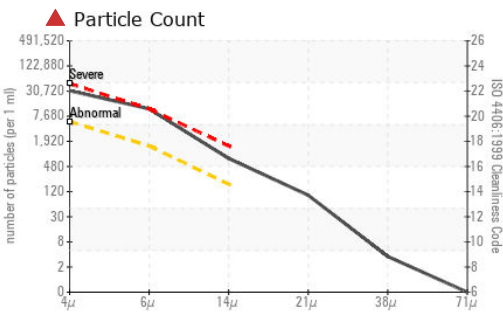
### CONTAMINATION

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

### FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0207340</b>	JRMC358010	JRMC16637
Sample Date		Client Info		<b>14 Jun 2024</b>	21 Dec 2012	02 Oct 2008
Machine Age	hrs	Client Info		<b>3435</b>	3435	282
Oil Age	hrs	Client Info		<b>3435</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>SEVERE</b>	NORMAL	NORMAL
PQ		ASTM D8184		<b>21</b>	15.0	---
Iron	ppm	ASTM D5185m	>20	<b>6</b>	22	4
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</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	>10	<b>4</b>	3	2
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	6	2
Copper	ppm	ASTM D5185m	>75	<b>3</b>	22	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	VLITE	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	<b>9</b>	10	7
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	0	4
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 27167</b>	147	856
Particles >6µm		ASTM D7647	>1300	<b>▲ 10022</b>	80	466
Particles >14µm		ASTM D7647	>160	<b>▲ 657</b>	13	79
Particles >21µm		ASTM D7647	>40	<b>▲ 87</b>	4	26
Particles >38µm		ASTM D7647	>10	<b>3</b>	0	4
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 22/21/17</b>	14/13/11	17/16/13
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</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	>0.1	<b>NEG</b>	NEG	NEG
Sodium	ppm	ASTM D5185m		<b>3</b>	15	14
Boron	ppm	ASTM D5185m		<b>212</b>	261	238
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>182</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>603</b>	23	25
Calcium	ppm	ASTM D5185m		<b>1510</b>	5066	4319
Phosphorus	ppm	ASTM D5185m		<b>881</b>	1103	1009
Zinc	ppm	ASTM D5185m		<b>1018</b>	1278	1171
Sulfur	ppm	ASTM D5185m		<b>3319</b>	2922	3383
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.58</b>	2.32	2.60
Visc @ 40°C	cSt	ASTM D445	117	<b>87.2</b>	66.3	70.54



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0207340 **Received** : 17 Jun 2024  
**Lab Number** : 06211505 **Tested** : 18 Jun 2024  
**Unique Number** : 11084369 **Diagnosed** : 18 Jun 2024 - Wes Davis  
**Test Package** : MOBCE ( Additional Tests: PQ )

**JRE - SALEM**  
 3902 W. MAIN STREET  
 SALEM, VA  
 US 24153  
 Contact: BUTCH GOAD  
 bgoad@jrenet.com  
 T:  
 F: (540)380-5547

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)