



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



Area

**[16W16627]**

Machine Id

**JOHN DEERE 2654GLC 1FF2654GHNF900001**

Component

**Hydraulic System**

Fluid

**JOHN DEERE ZINC-FREE HYDRAULIC OIL 46 (39 GAL)**

### RECOMMENDATION

Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil. ( Customer Sample Comment: 16W16627 )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0217335</b>	---	---
Sample Date		Client Info		<b>16 Jul 2024</b>	---	---
Machine Age	hrs	Client Info		<b>441</b>	---	---
Oil Age	hrs	Client Info		<b>441</b>	---	---
Filter Age	hrs	Client Info		<b>441</b>	---	---
Oil Changed		Client Info		<b>Not Chngd</b>	---	---
Filter Changed		Client Info		<b>Not Chngd</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>17</b>	---	---
Iron	ppm	ASTM D5185m	>32	<b>3</b>	---	---
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>9	<b>0</b>	---	---
Lead	ppm	ASTM D5185m	>28	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>50	<b>3</b>	---	---
Tin	ppm	ASTM D5185m	>5	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

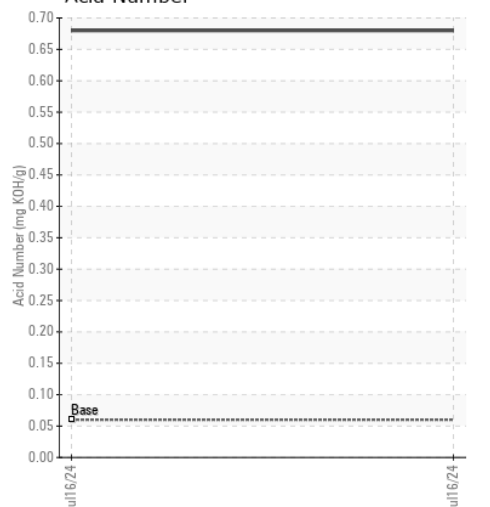
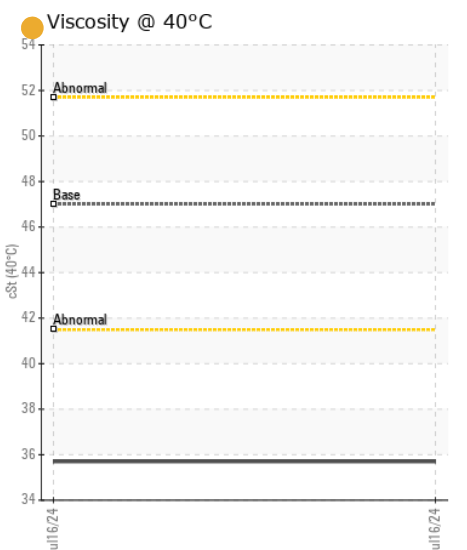
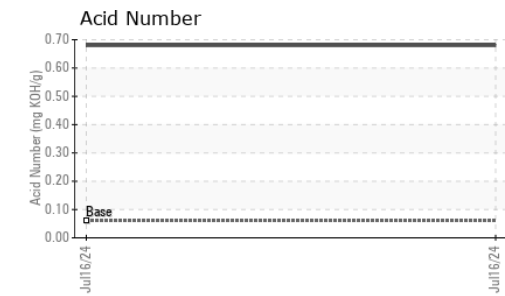
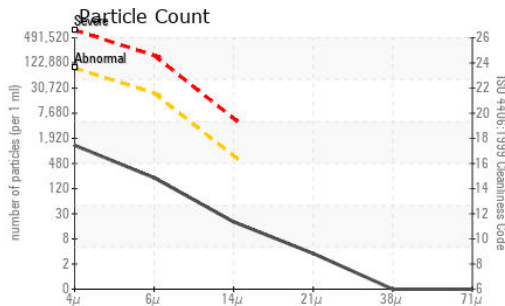
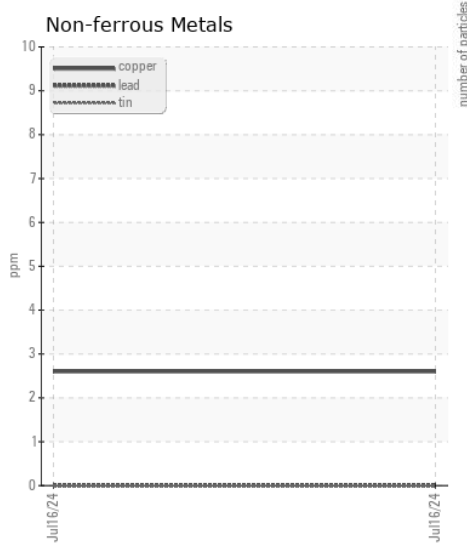
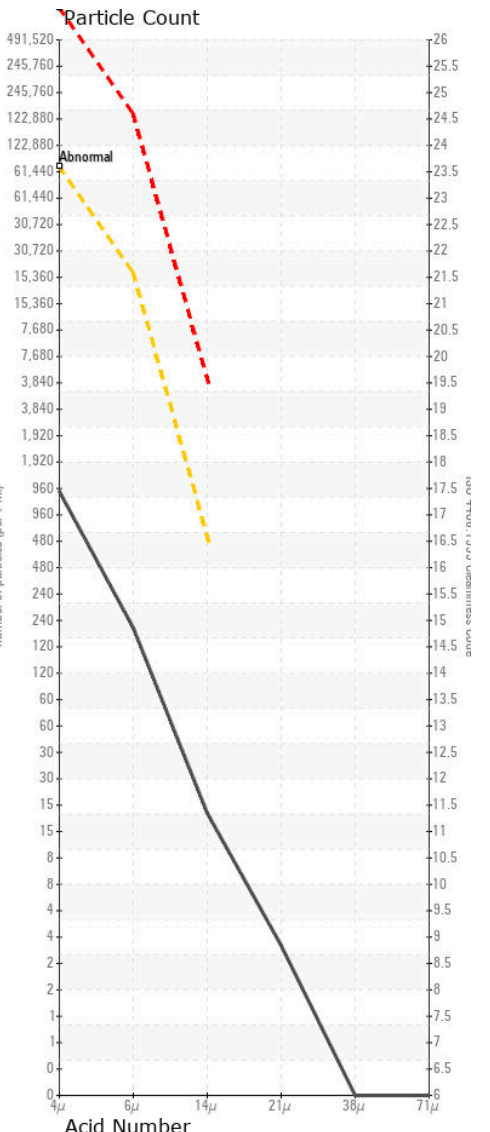
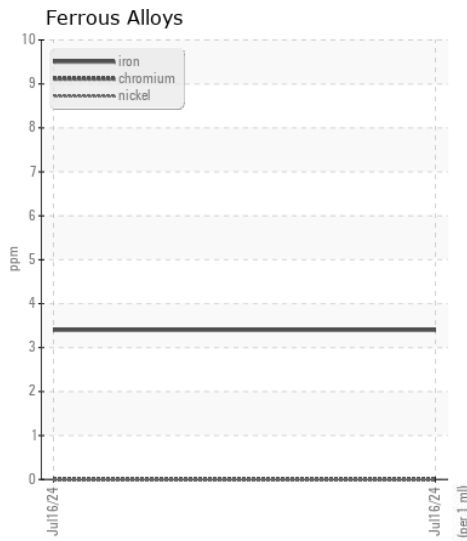
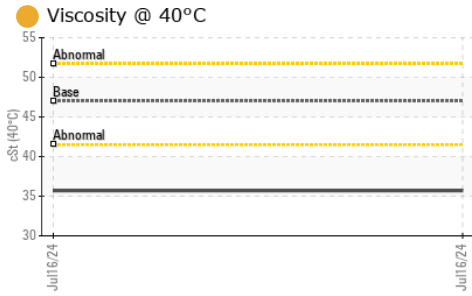
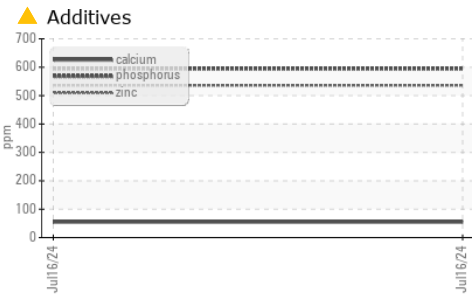
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>2</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Water		WC Method	>0.075	<b>NEG</b>	---	---
Particles >4µm		ASTM D7647	>80000	<b>1146</b>	---	---
Particles >6µm		ASTM D7647	>20000	<b>192</b>	---	---
Particles >14µm		ASTM D7647	>640	<b>17</b>	---	---
Particles >21µm		ASTM D7647	>160	<b>3</b>	---	---
Particles >38µm		ASTM D7647	>40	<b>0</b>	---	---
Particles >71µm		ASTM D7647	>10	<b>0</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>17/15/11</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.075	<b>NEG</b>	---	---

### FLUID CONDITION

The oil viscosity is lower than normal. Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m	>21	<b>&lt;1</b>	---	---
Boron	ppm	ASTM D5185m		<b>0</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	---	---
Manganese	ppm	ASTM D5185m		<b>0</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>2</b>	---	---
Calcium	ppm	ASTM D5185m		<b>55</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>595</b>	---	---
Zinc	ppm	ASTM D5185m		<b>▲ 536</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>1529</b>	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.68</b>	---	---
Visc @ 40°C	cSt	ASTM D445	47	<b>● 35.7</b>	---	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0217335 **Received** : 17 Jul 2024  
**Lab Number** : 06239074 **Tested** : 18 Jul 2024  
**Unique Number** : 11127908 **Diagnosed** : 19 Jul 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - CASTLE HAYNE**  
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 US 28429-5819  
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 T:  
 F:

Certificate L2367  
 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)