



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

Area  
**[W51667]**

Machine Id  
**JOHN DEERE 350G 1FF350GXTGF811168**

Component  
**Hydraulic System**

Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0212181</b>	JR0180779	JR0147151
Sample Date		Client Info		<b>08 May 2024</b>	05 Sep 2023	09 Jan 2023
Machine Age	hrs	Client Info		<b>5438</b>	4983	4451
Oil Age	hrs	Client Info		<b>0</b>	0	449
Filter Age	hrs	Client Info		<b>0</b>	0	449
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Not Chngd
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

The iron level is abnormal.

Test	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184	>50	<b>15</b>	12	7
Iron	ppm	ASTM D5185m	>32	<b>▲ 35</b>	17	8
Chromium	ppm	ASTM D5185m	>9	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>8</b>	5	2
Lead	ppm	ASTM D5185m	>28	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>1</b>	1	1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

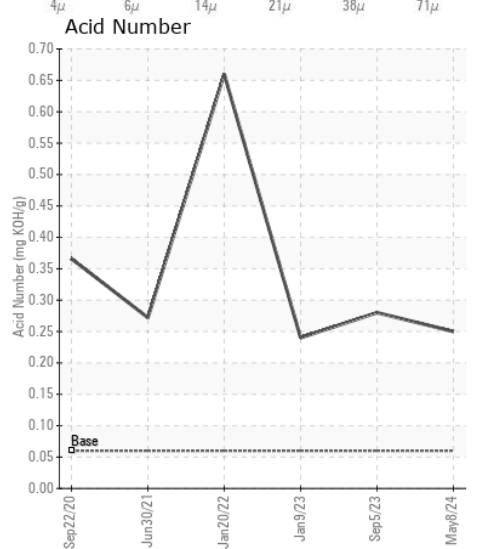
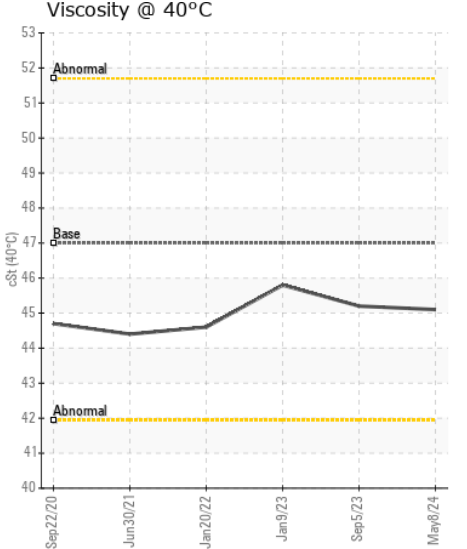
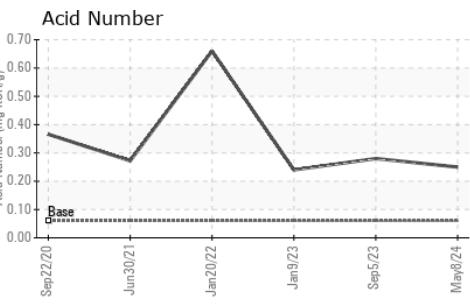
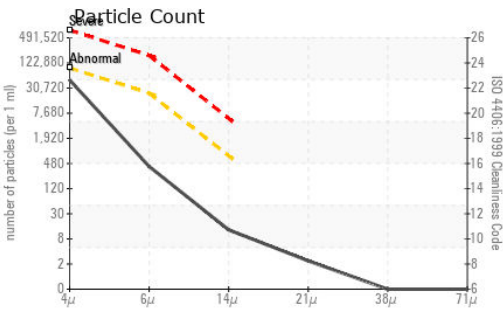
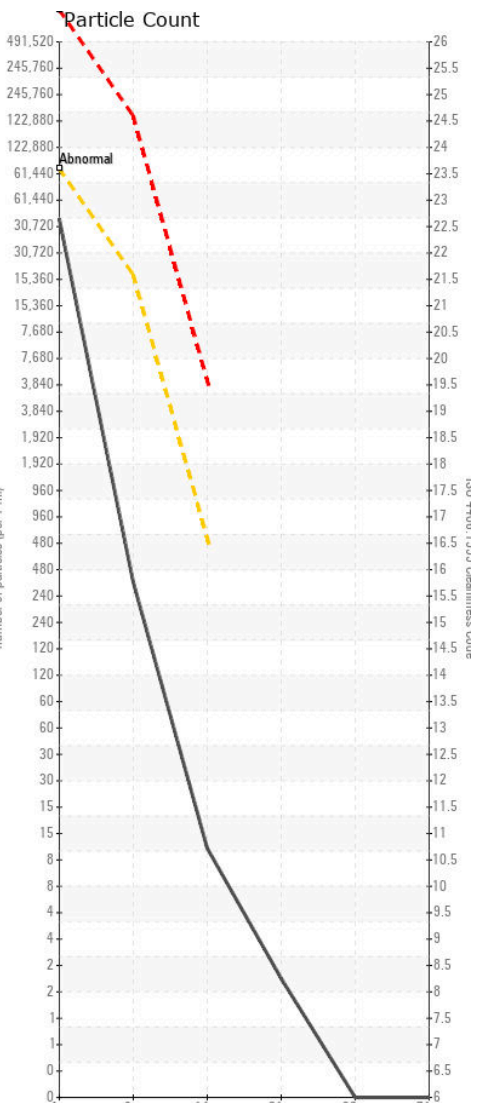
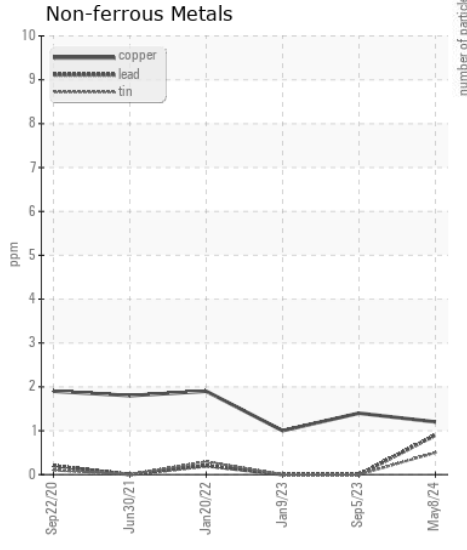
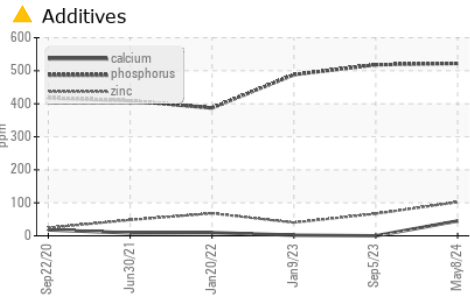
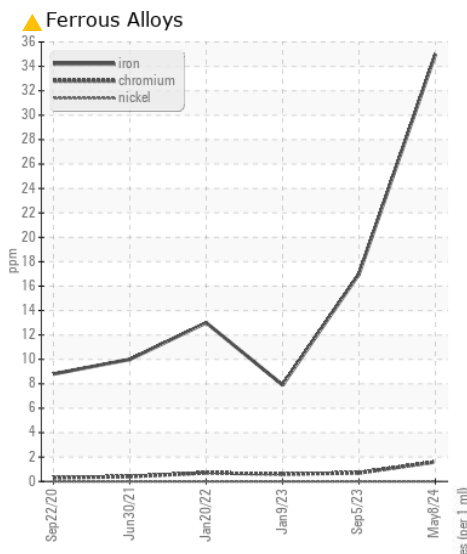
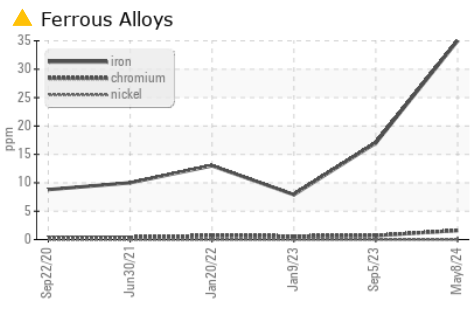
The amount and size of particulates present in the system are acceptable.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Silicon	ppm	ASTM D5185m	>11	<b>7</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	<1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>41448</b>	44173	10606
Particles >6µm		ASTM D7647	>20000	<b>358</b>	1525	353
Particles >14µm		ASTM D7647	>640	<b>11</b>	77	18
Particles >21µm		ASTM D7647	>160	<b>2</b>	21	5
Particles >38µm		ASTM D7647	>40	<b>0</b>	1	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>23/16/11</b>	23/18/13	21/16/11
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	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

Zinc level above manufacturer's recommendations. The AN level is acceptable for this fluid.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sodium	ppm	ASTM D5185m	>21	<b>2</b>	1	0
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>3</b>	2	2
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>6</b>	0	2
Calcium	ppm	ASTM D5185m		<b>45</b>	0	2
Phosphorus	ppm	ASTM D5185m	827	<b>522</b>	518	488
Zinc	ppm	ASTM D5185m	0	<b>▲ 102</b>	67	40
Sulfur	ppm	ASTM D5185m	13	<b>233</b>	128	136
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.25</b>	0.28	0.24
Visc @ 40°C	cSt	ASTM D445	47	<b>45.1</b>	45.2	45.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0212181 **Received** : 21 May 2024  
**Lab Number** : 06186026 **Tested** : 22 May 2024  
**Unique Number** : 11042778 **Diagnosed** : 23 May 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

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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)