



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

Machine Id  
**JOHN DEERE 250G 1FF250GXVFF609867**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- LTR)**

### 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>JR0194681</b>	JR0157213	JR0062559
Sample Date		Client Info		<b>13 Dec 2023</b>	20 Dec 2022	18 Sep 2020
Machine Age	hrs	Client Info		<b>4500</b>	4060	3429
Oil Age	hrs	Client Info		<b>0</b>	4060	0
Filter Age	hrs	Client Info		<b>0</b>	842	0
Oil Changed		Client Info		<b>N/A</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	Changed	Not Changd
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>18</b>	13	20
Iron	ppm	ASTM D5185m	>32	<b>22</b>	26	7
Chromium	ppm	ASTM D5185m	>9	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>2</b>	3	0
Lead	ppm	ASTM D5185m	>28	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>50	<b>9</b>	8	2
Tin	ppm	ASTM D5185m	>5	<b>0</b>	2	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

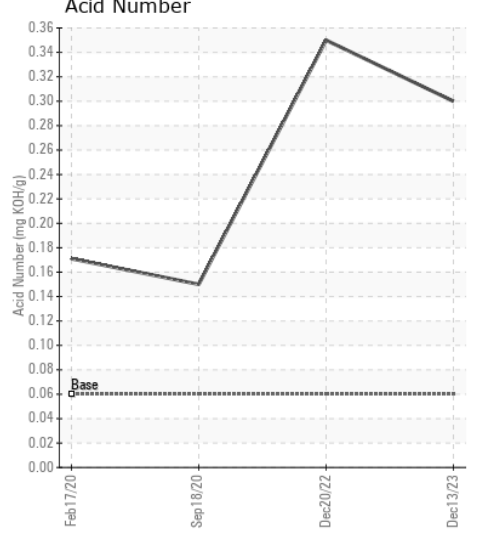
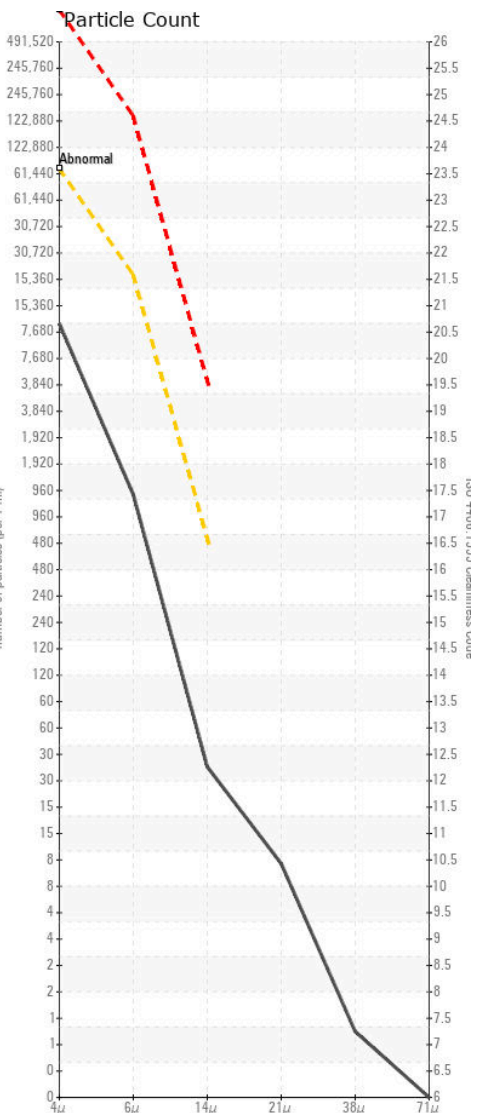
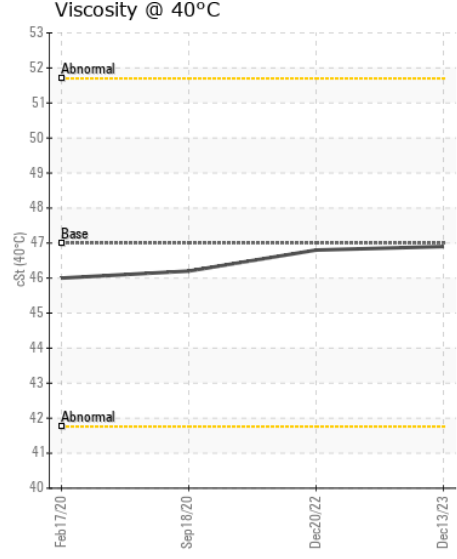
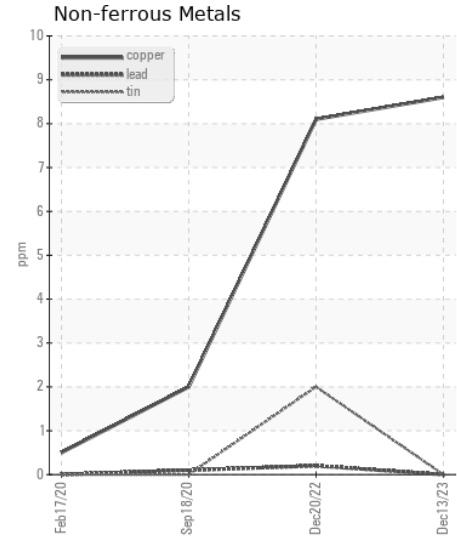
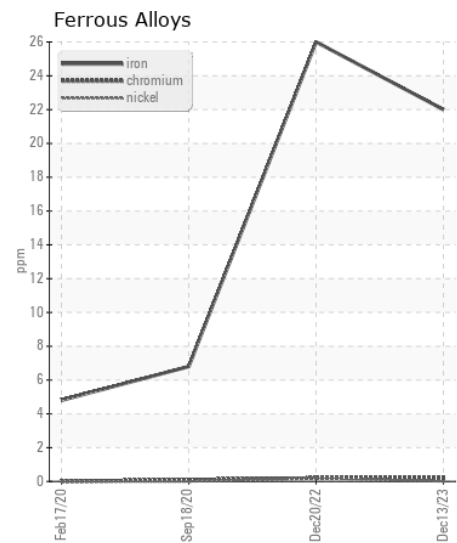
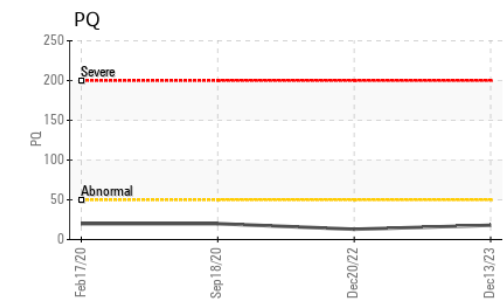
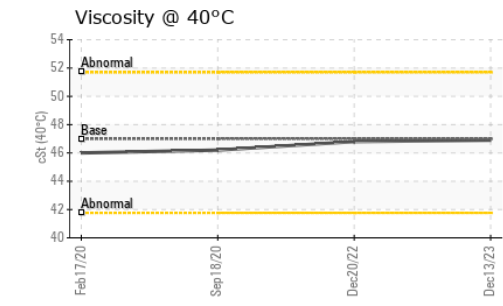
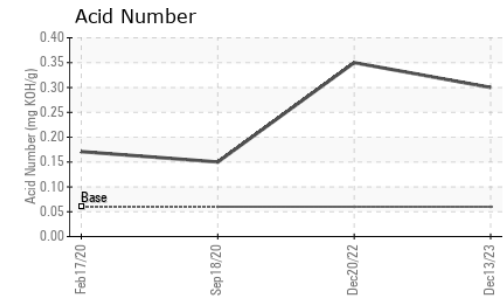
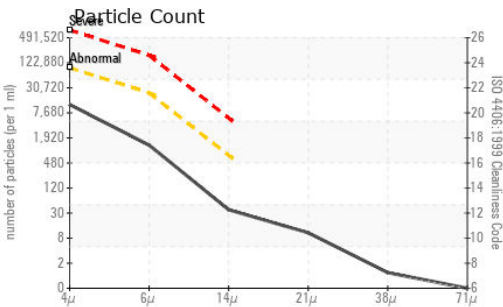
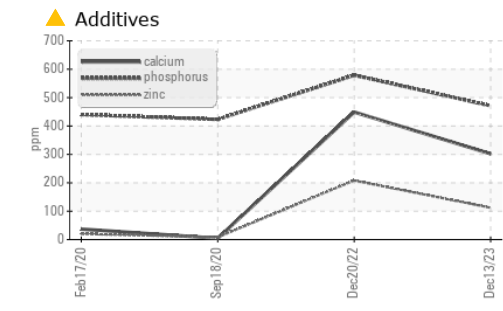
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>6</b>	9	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>10572</b>	42063	▲ 41778
Particles >6µm		ASTM D7647	>20000	<b>1127</b>	1476	▲ 3230
Particles >14µm		ASTM D7647	>640	<b>32</b>	41	109
Particles >21µm		ASTM D7647	>160	<b>9</b>	14	27
Particles >38µm		ASTM D7647	>40	<b>1</b>	1	2
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>21/17/12</b>	23/18/13	▲ 23/19/14
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

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

Sodium	ppm	ASTM D5185m	>21	<b>0</b>	2	0
Boron	ppm	ASTM D5185m		<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	17	<1
Calcium	ppm	ASTM D5185m		<b>302</b>	449	5
Phosphorus	ppm	ASTM D5185m	827	<b>471</b>	579	423
Zinc	ppm	ASTM D5185m	0	▲ <b>112</b>	▲ 208	8
Sulfur	ppm	ASTM D5185m	13	<b>0</b>	640	193
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.30</b>	0.35	0.150
Visc @ 40°C	cSt	ASTM D445	47	<b>46.9</b>	46.8	46.2



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0194681 **Received** : 14 Dec 2023  
**Lab Number** : 06034538 **Tested** : 15 Dec 2023  
**Unique Number** : 10789767 **Diagnosed** : 18 Dec 2023 - Angela Borella  
**Test Package** : CONST ( Additional Tests: PQ )  
 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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