



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

Machine Id  
**JOHN DEERE 350G 1FF350GXHMF815079**

Component  
**Hydraulic System**

Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- QTS)**

### 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>JR0157519</b>	JR0144077	JR0123304
Sample Date		Client Info		<b>04 Jan 2023</b>	20 Sep 2022	21 Jun 2022
Machine Age	hrs	Client Info		<b>2960</b>	2488	1956
Oil Age	hrs	Client Info		<b>2960</b>	2488	1956
Filter Age	hrs	Client Info		<b>2960</b>	2488	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>5</b>	5	21
Iron	ppm	ASTM D5185m	>32	<b>8</b>	6	7
Chromium	ppm	ASTM D5185m	>9	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<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	>9	<b>1</b>	<1	1
Lead	ppm	ASTM D5185m	>28	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>4</b>	5	5
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

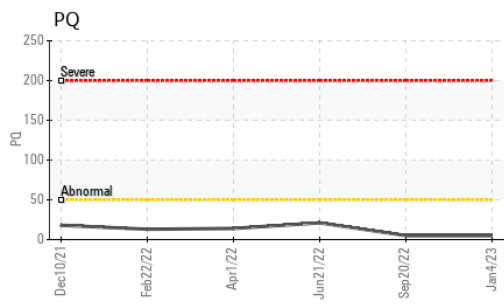
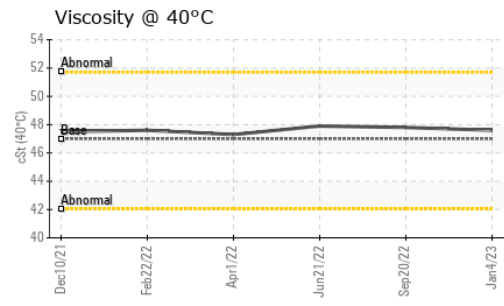
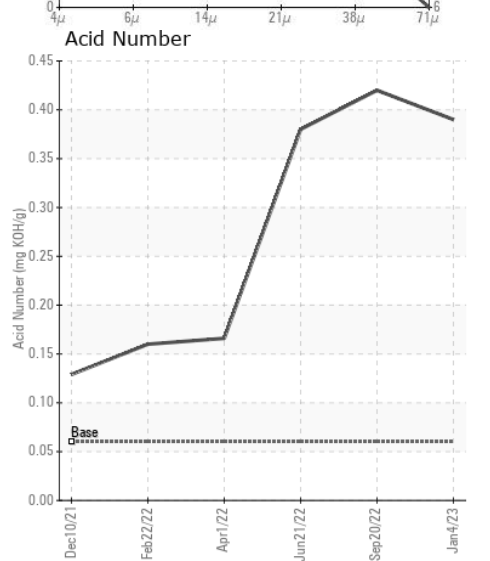
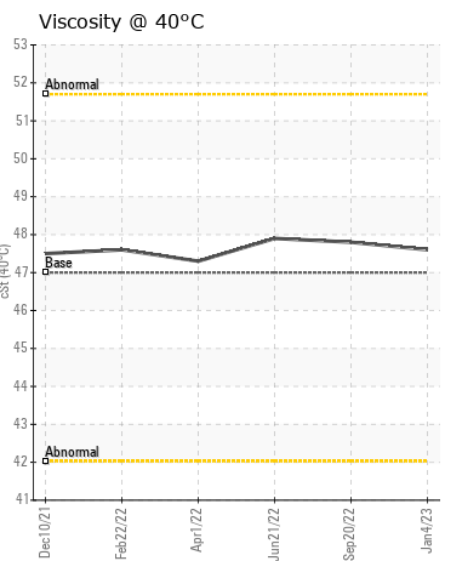
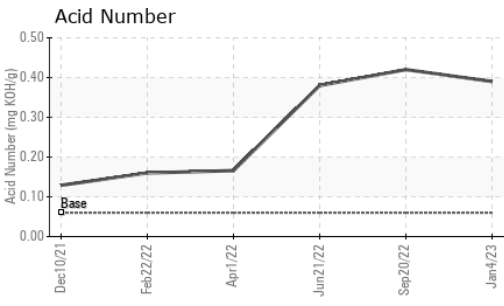
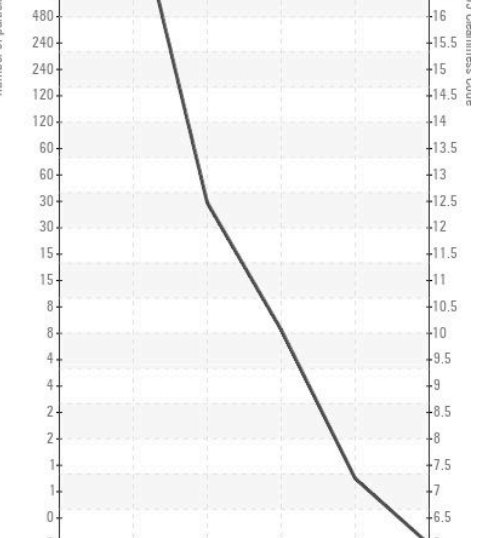
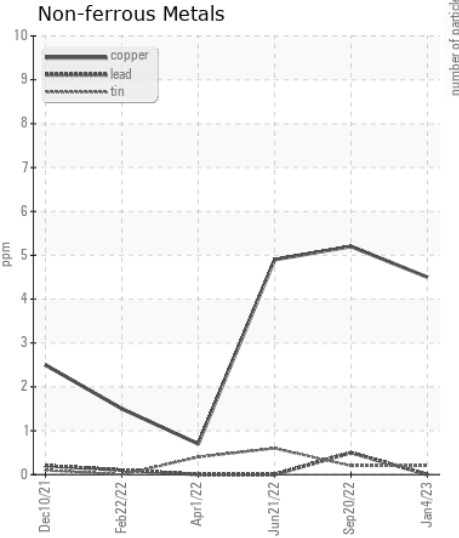
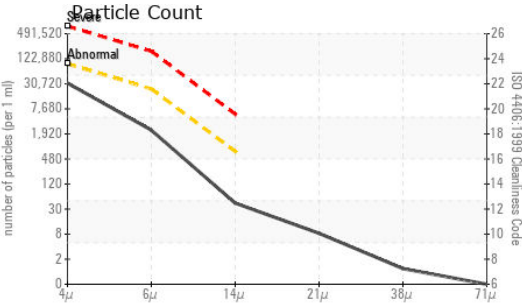
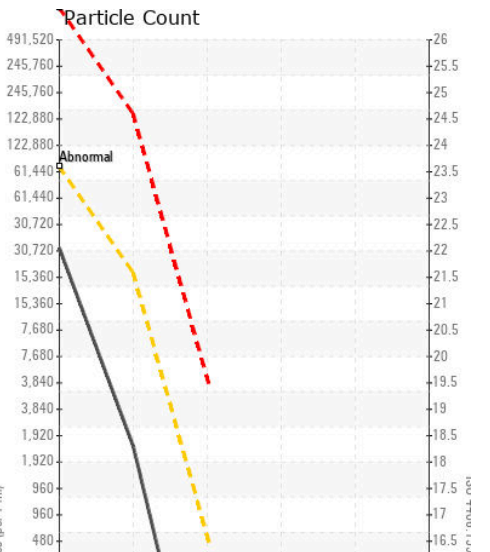
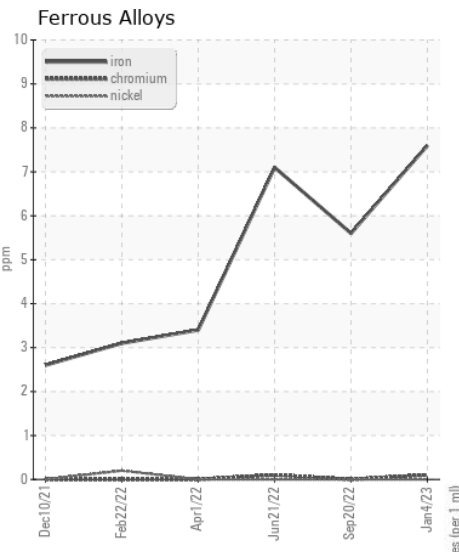
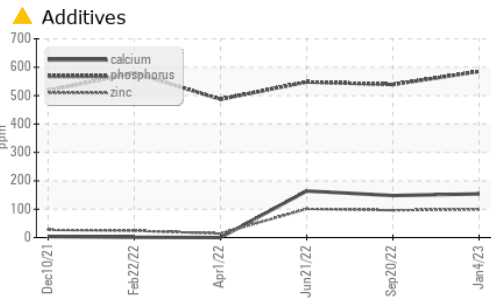
The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>27714</b>	---	59844
Particles >6µm		ASTM D7647	>20000	<b>2065</b>	---	4179
Particles >14µm		ASTM D7647	>640	<b>37</b>	---	42
Particles >21µm		ASTM D7647	>160	<b>7</b>	---	11
Particles >38µm		ASTM D7647	>40	<b>1</b>	---	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>22/18/12</b>	---	23/19/13
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	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>	<1	<1
Boron	ppm	ASTM D5185m		<b>0</b>	0	2
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>	<1	<1
Calcium	ppm	ASTM D5185m		<b>154</b>	148	164
Phosphorus	ppm	ASTM D5185m	827	<b>585</b>	539	548
Zinc	ppm	ASTM D5185m	0	<b>▲ 99</b>	▲ 96	▲ 101
Sulfur	ppm	ASTM D5185m	13	<b>353</b>	270	300
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.39</b>	0.42	0.38
Visc @ 40°C	cSt	ASTM D445	47	<b>47.6</b>	47.8	47.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0157519 **Received** : 05 Jan 2023  
**Lab Number** : 05731540 **Diagnosed** : 07 Jan 2023  
**Unique Number** : 10281138 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

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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)