



# OIL ANALYSIS REPORT

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



Area  
**[A31332]**  
 Machine Id  
**JOHN DEERE 210G 1FF210GXNF530524**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WE0002972</b>	---	---
Sample Date		Client Info		<b>28 Nov 2022</b>	---	---
Machine Age	hrs	Client Info		<b>559</b>	---	---
Oil Age	hrs	Client Info		<b>559</b>	---	---
Filter Age	hrs	Client Info		<b>559</b>	---	---
Oil Changed		Client Info		<b>Not Chngd</b>	---	---
Filter Changed		Client Info		<b>Not Chngd</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

## WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>7</b>	---	---
Iron	ppm	ASTM D5185m	>32	<b>2</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>&lt;1</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

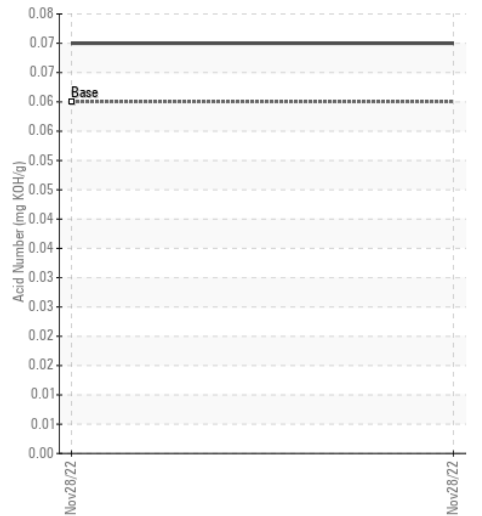
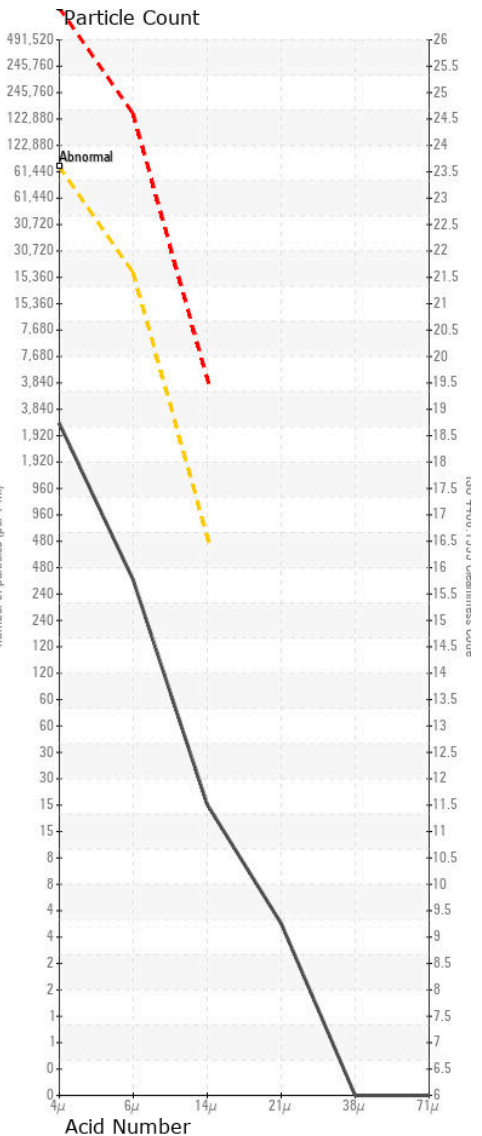
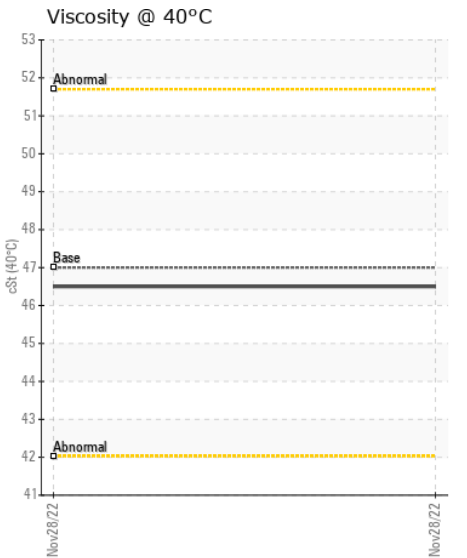
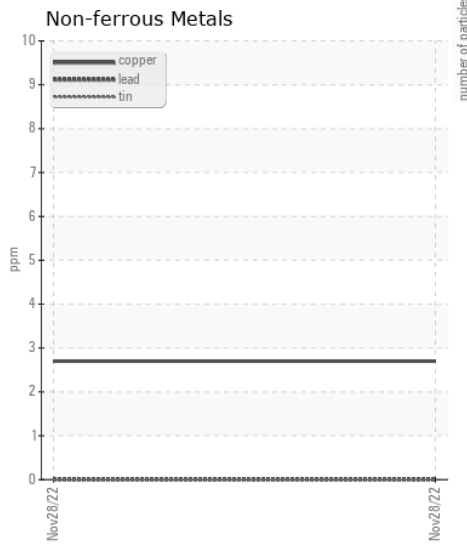
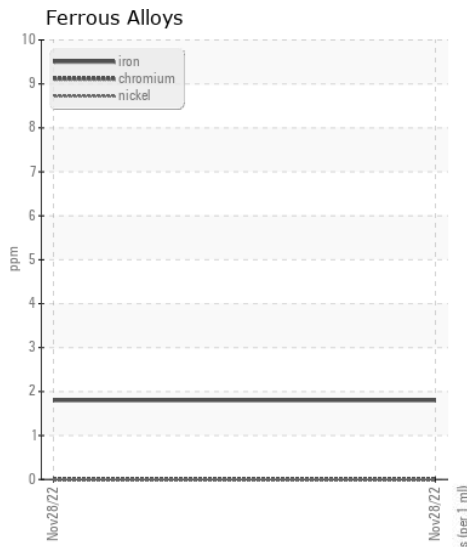
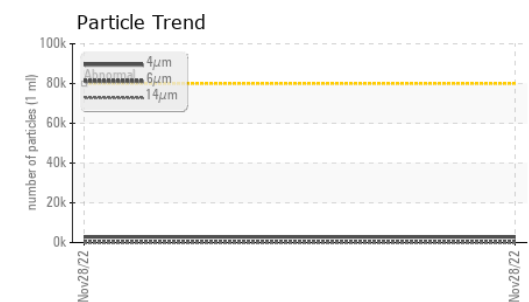
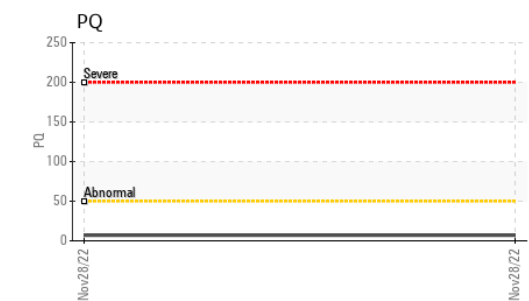
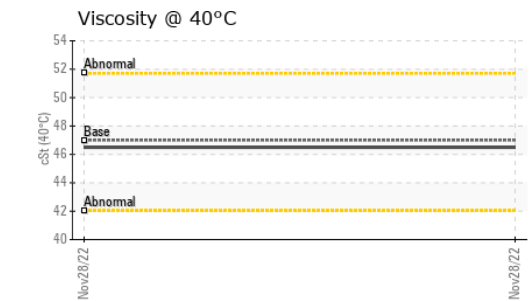
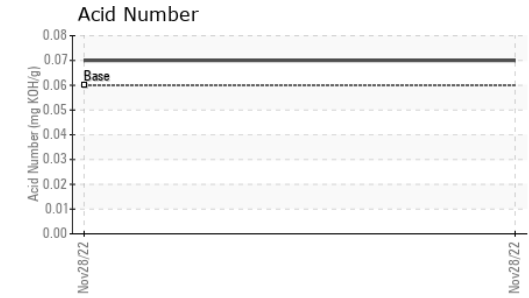
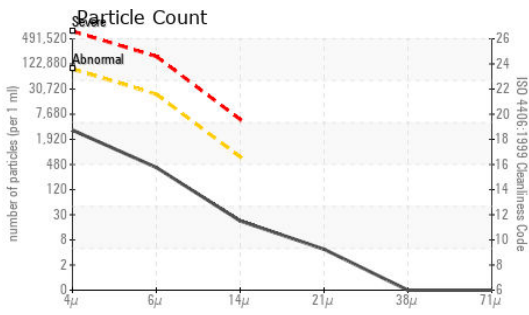
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>&lt;1</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	---	---
Water		WC Method	>0.075	<b>NEG</b>	---	---
Particles >4µm		ASTM D7647	>80000	<b>2788</b>	---	---
Particles >6µm		ASTM D7647	>20000	<b>358</b>	---	---
Particles >14µm		ASTM D7647	>640	<b>19</b>	---	---
Particles >21µm		ASTM D7647	>160	<b>4</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>19/16/11</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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

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>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Calcium	ppm	ASTM D5185m		<b>2</b>	---	---
Phosphorus	ppm	ASTM D5185m	827	<b>520</b>	---	---
Zinc	ppm	ASTM D5185m	0	<b>20</b>	---	---
Sulfur	ppm	ASTM D5185m	13	<b>0</b>	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.07</b>	---	---
Visc @ 40°C	cSt	ASTM D445	47	<b>46.5</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WE0002972 **Received** : 01 Dec 2022  
**Lab Number** : 05705956 **Diagnosed** : 02 Dec 2022  
**Unique Number** : 10240531 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**WARRIOR TRACTOR AND EQUIPMENT - HUNTSVILLE**  
 25135 ONE AVIATION WAY SW  
 MADISON, AL  
 US 35756  
 Contact: HERBERT STONE  
 WTE013@WARRIORTRACTOR.COM

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)

T:  
F: