



# OIL ANALYSIS REPORT

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



Area  
**[RO#145534]**  
 Machine Id  
**JOHN DEERE 210GLC 1FF210GXTNF529858**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (63 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0047033</b>	LEC0043772	LEC0037030
Sample Date		Client Info		<b>15 Jan 2024</b>	02 Aug 2023	09 Dec 2022
Machine Age	hrs	Client Info		<b>1445</b>	915	498
Oil Age	hrs	Client Info		<b>1445</b>	915	498
Filter Age	hrs	Client Info		<b>530</b>	915	498
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>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>11</b>	11	7
Iron	ppm	ASTM D5185m	>32	<b>2</b>	3	2
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	0	0
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>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m	>28	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>1</b>	2	2
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	VLITE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

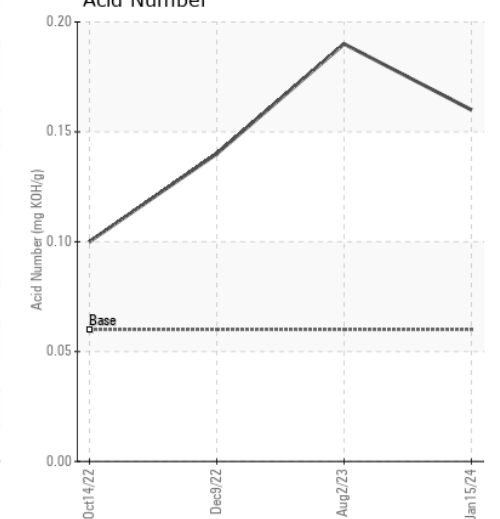
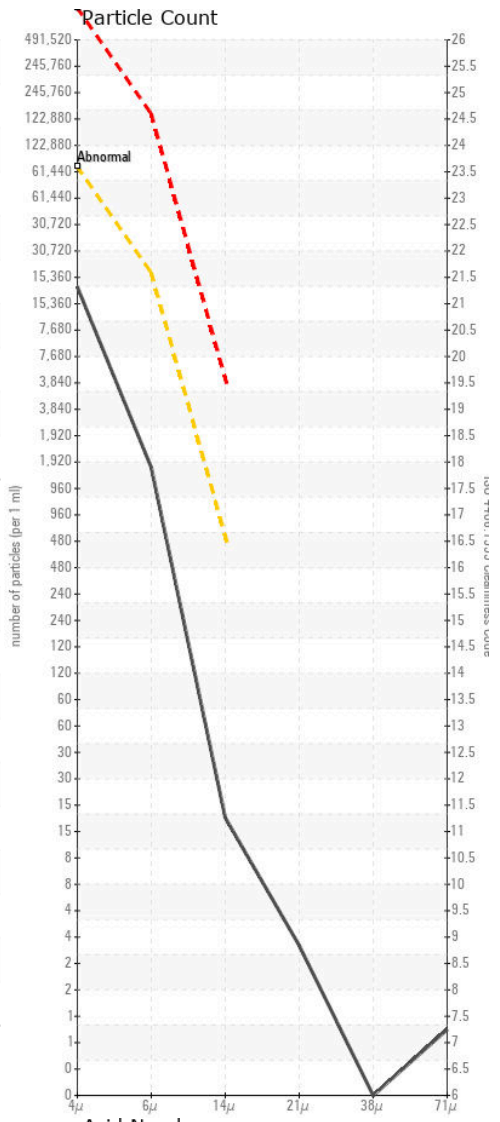
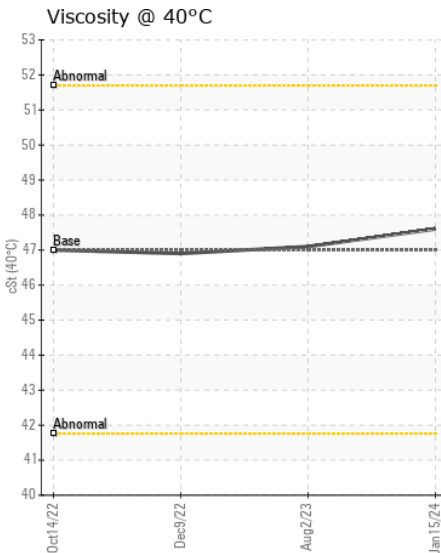
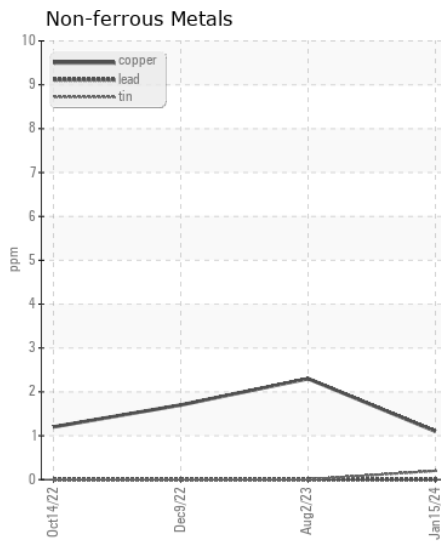
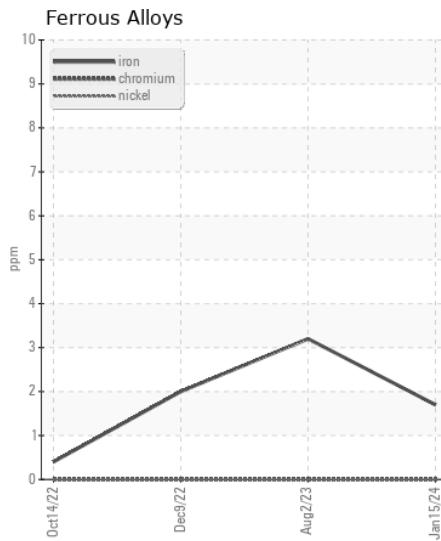
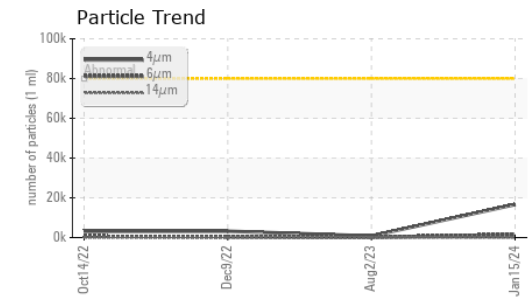
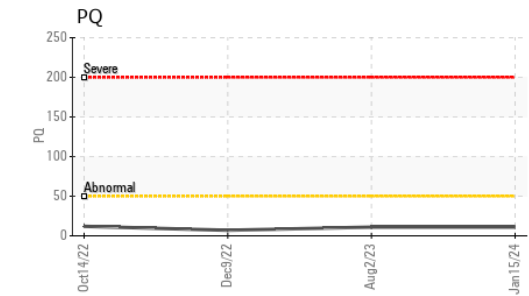
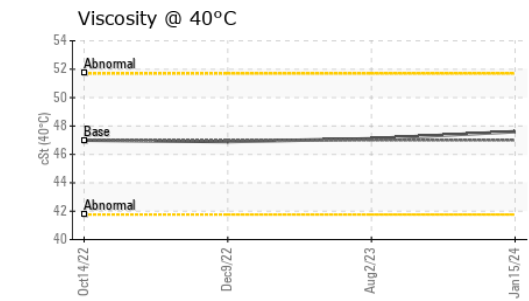
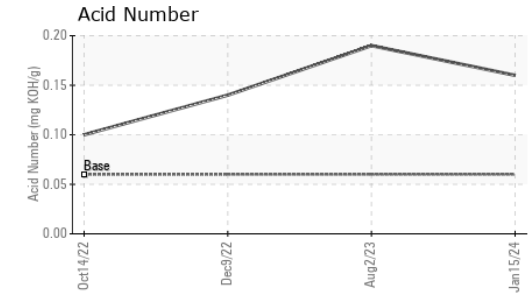
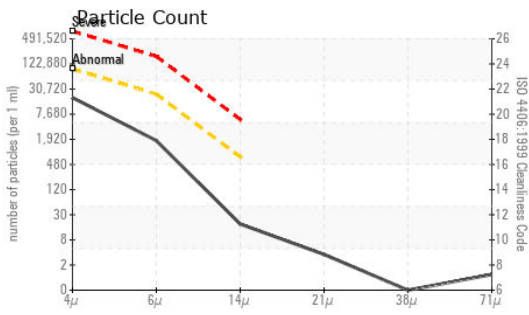
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>16623</b>	808	3221
Particles >6µm		ASTM D7647	>20000	<b>1564</b>	125	362
Particles >14µm		ASTM D7647	>640	<b>16</b>	12	11
Particles >21µm		ASTM D7647	>160	<b>3</b>	2	1
Particles >38µm		ASTM D7647	>40	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>10	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>21/18/11</b>	17/14/11	19/16/11
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	VLITE
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

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<b>0</b>	2	<1
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	2	0
Calcium	ppm	ASTM D5185m		<b>3</b>	5	1
Phosphorus	ppm	ASTM D5185m	827	<b>495</b>	515	532
Zinc	ppm	ASTM D5185m	0	<b>19</b>	35	30
Sulfur	ppm	ASTM D5185m	13	<b>107</b>	145	132
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.16</b>	0.19	0.14
Visc @ 40°C	cSt	ASTM D445	47	<b>47.6</b>	47.1	46.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0047033 **Received** : 18 Jan 2024  
**Lab Number** : 06064222 **Diagnosed** : 20 Jan 2024  
**Unique Number** : 10835604 **Diagnostician** : Don Baldrige  
**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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