



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



Machine Id  
**JOHN DEERE 210G 1FF210GXENF530621**  
 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>JR0198374</b>	JR0188777	JR0171997
Sample Date		Client Info		<b>05 Jan 2024</b>	21 Sep 2023	08 Jun 2023
Machine Age	hrs	Client Info		<b>1721</b>	1710	532
Oil Age	hrs	Client Info		<b>1721</b>	1710	532
Filter Age	hrs	Client Info		<b>0</b>	710	532
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>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>16</b>	11	11
Iron	ppm	ASTM D5185m	>32	<b>0</b>	2	<1
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	0	0
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>0</b>	0	0
Lead	ppm	ASTM D5185m	>28	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>0</b>	3	0
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

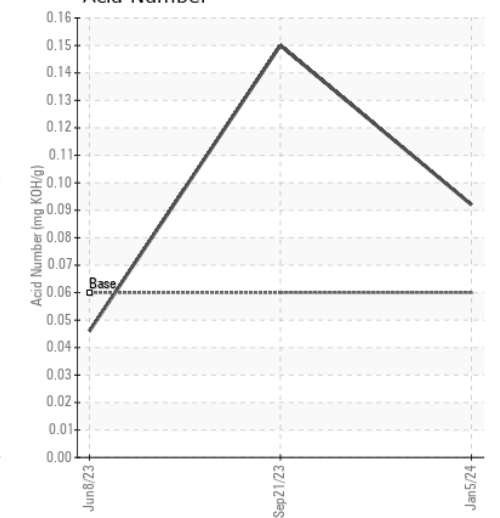
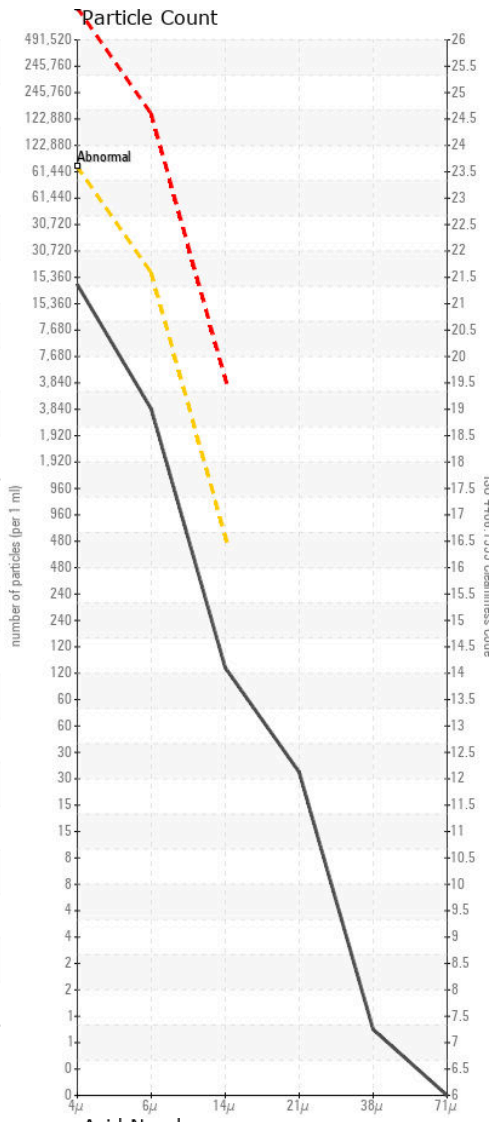
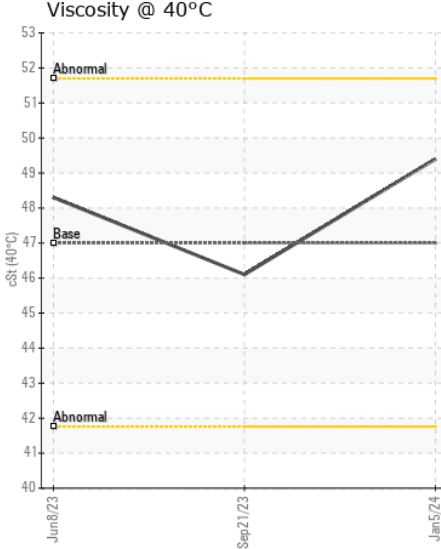
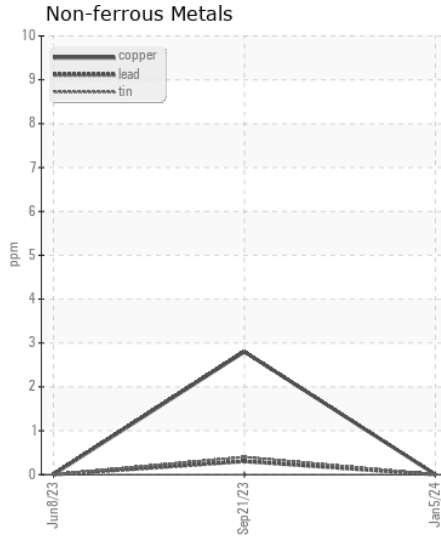
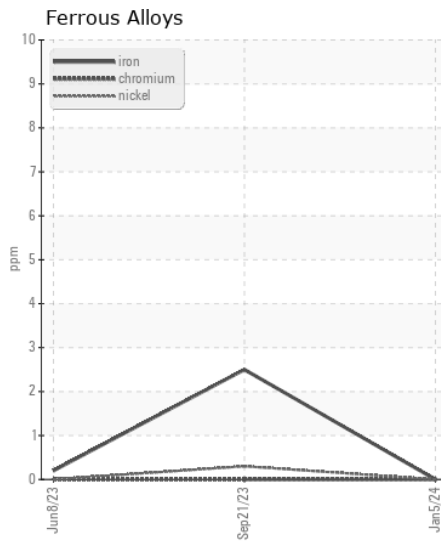
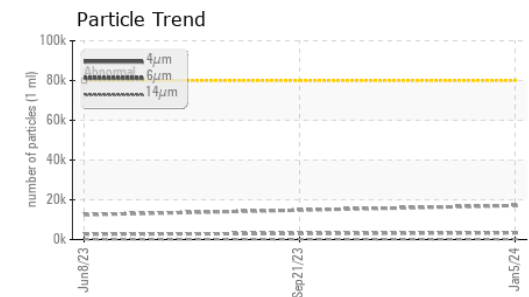
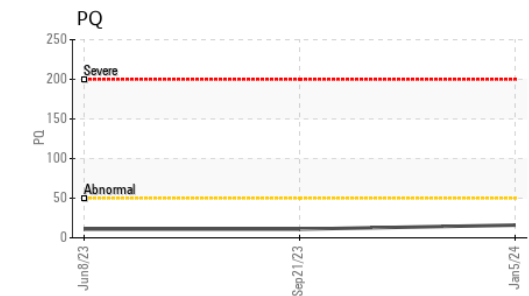
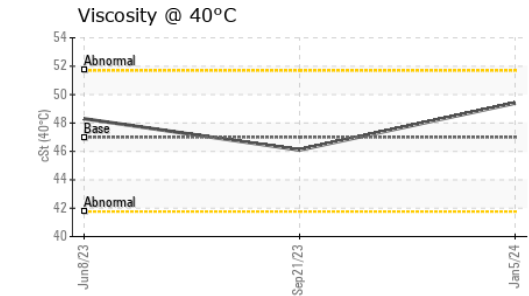
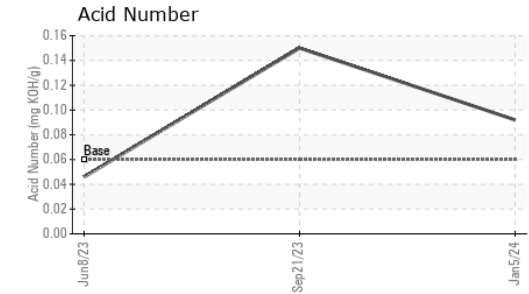
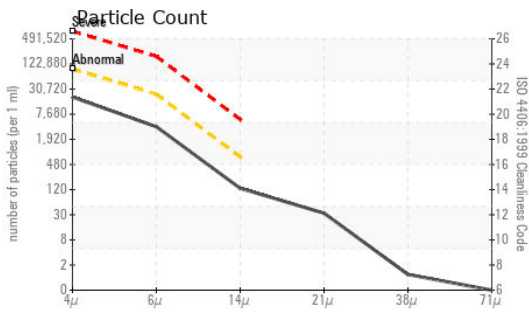
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>11	<b>2</b>	<1	2
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	<1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>17132</b>	---	12503
Particles >6µm		ASTM D7647	>20000	<b>3363</b>	---	2719
Particles >14µm		ASTM D7647	>640	<b>114</b>	---	96
Particles >21µm		ASTM D7647	>160	<b>29</b>	---	18
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>21/19/14</b>	---	21/19/14
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

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>	0	0
Boron	ppm	ASTM D5185m		<b>5</b>	0	5
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>4</b>	0	6
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>18</b>	0	20
Calcium	ppm	ASTM D5185m		<b>48</b>	0	40
Phosphorus	ppm	ASTM D5185m	827	<b>675</b>	538	707
Zinc	ppm	ASTM D5185m	0	<b>17</b>	31	24
Sulfur	ppm	ASTM D5185m	13	<b>88</b>	114	120
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.092</b>	0.15	0.046
Visc @ 40°C	cSt	ASTM D445	47	<b>49.4</b>	46.1	48.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0198374 **Received** : 10 Jan 2024  
**Lab Number** : 06056600 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822549 **Diagnostician** : Doug Bogart  
**Test Package** : CONST ( Additional Tests: PQ )

**CARLTON'S BACKHOE**  
 9550 STATESVILLE ROAD  
 CHARLOTTE, NC  
 US 28269  
 Contact: LEO

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)

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