



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



Machine Id  
**JOHN DEERE 210G 1FF210GXPKF527721**  
 Component  
**Hydraulic System**  
 Fluid  
**HITACHI HYDRAULIC SUPER EX 46HN (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0198664</b>	JR0172028	JR0156033
Sample Date		Client Info		<b>05 Jan 2024</b>	05 Jun 2023	08 Mar 2023
Machine Age	hrs	Client Info		<b>4358</b>	3474	3182
Oil Age	hrs	Client Info		<b>1956</b>	1072	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	N/A
Filter Changed		Client Info		<b>Changed</b>	Not Changd	N/A
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>18</b>	14	12
Iron	ppm	ASTM D5185m	>32	<b>2</b>	6	7
Chromium	ppm	ASTM D5185m	>9	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
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>	0	5
Lead	ppm	ASTM D5185m	>28	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>2</b>	3	2
Tin	ppm	ASTM D5185m	>5	<b>0</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

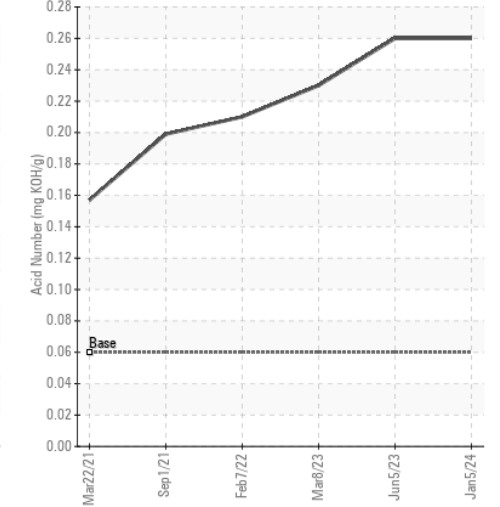
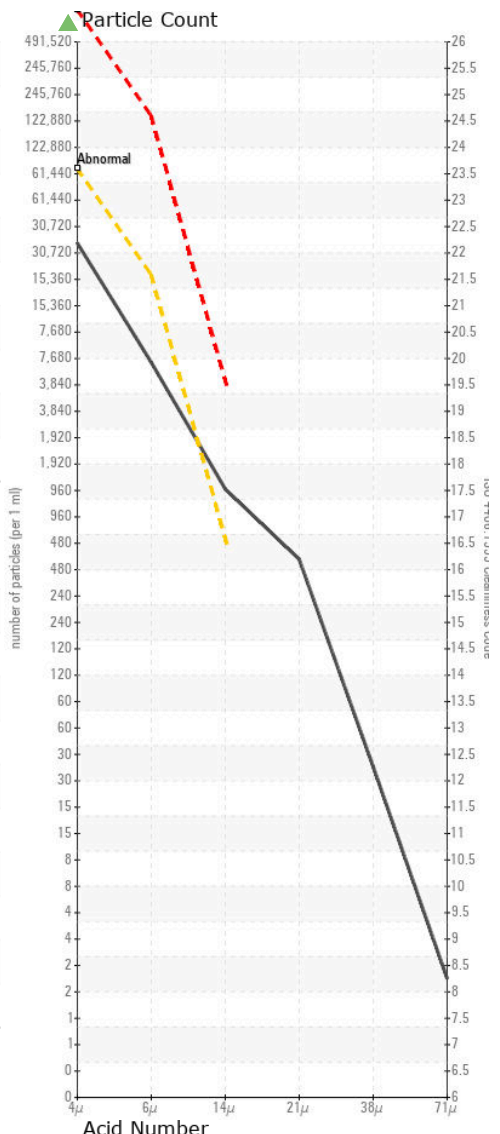
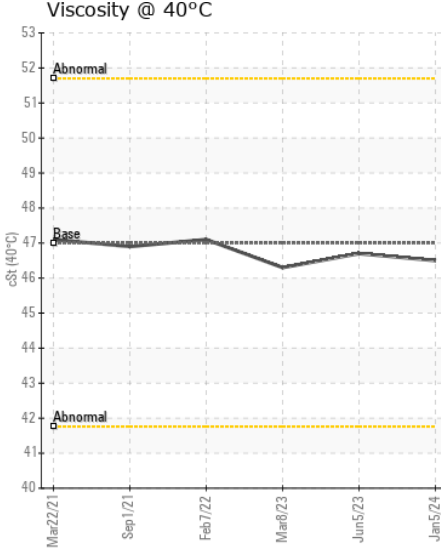
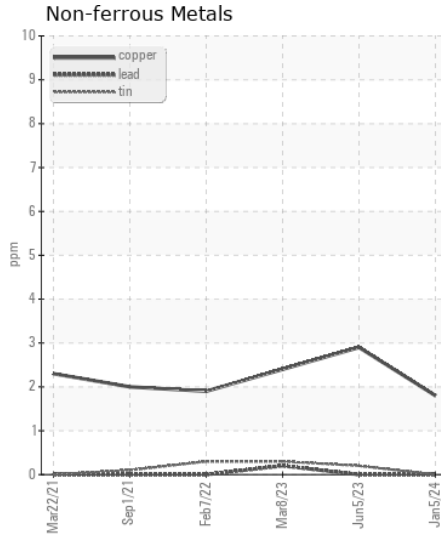
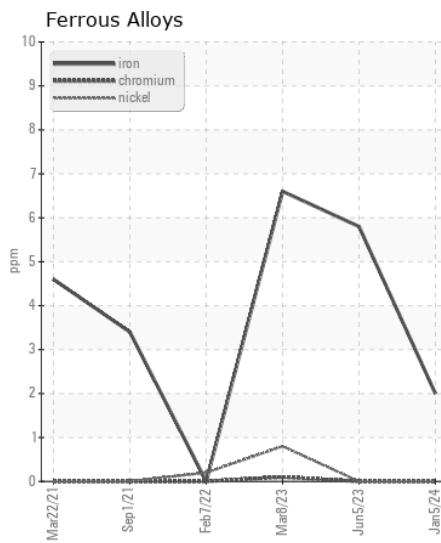
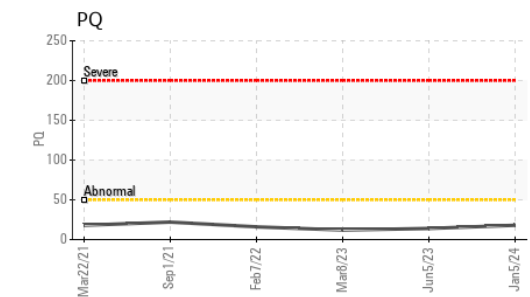
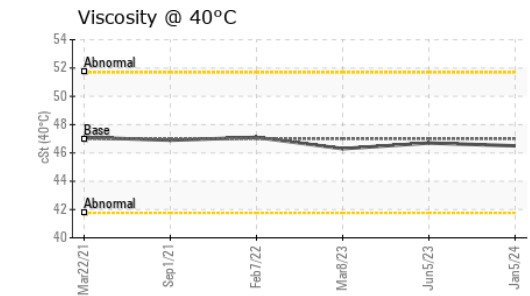
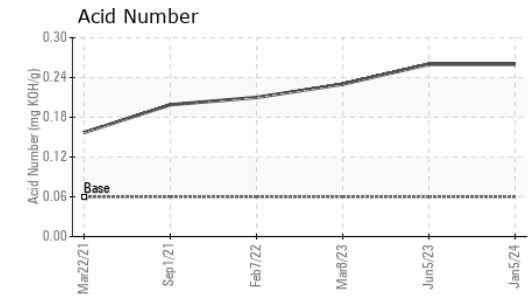
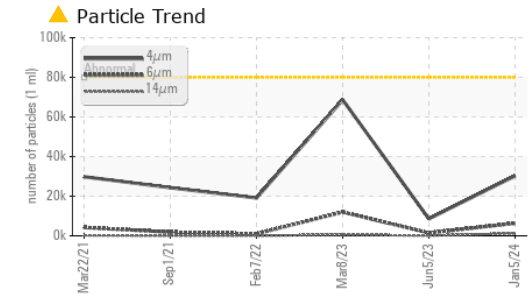
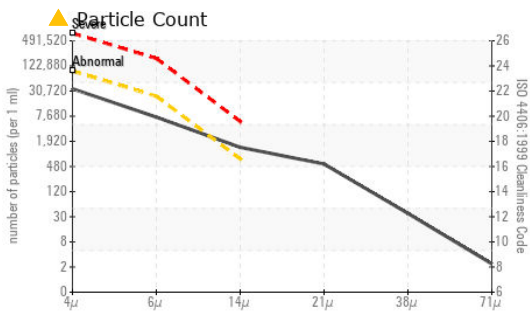
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>11	<b>1</b>	<1	2
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>30258</b>	8575	68656
Particles >6µm		ASTM D7647	>20000	<b>6355</b>	1449	11990
Particles >14µm		ASTM D7647	>640	<b>▲ 1211</b>	75	570
Particles >21µm		ASTM D7647	>160	<b>▲ 483</b>	16	166
Particles >38µm		ASTM D7647	>40	<b>32</b>	1	5
Particles >71µm		ASTM D7647	>10	<b>2</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>▲ 22/20/17</b>	20/18/13	23/21/16
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
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>	<1	0
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	<1
Magnesium	ppm	ASTM D5185m		<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m		<b>8</b>	<1	0
Phosphorus	ppm	ASTM D5185m	827	<b>472</b>	498	440
Zinc	ppm	ASTM D5185m	0	<b>0</b>	27	16
Sulfur	ppm	ASTM D5185m	13	<b>70</b>	148	77
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.26</b>	0.26	0.23
Visc @ 40°C	cSt	ASTM D445	47	<b>46.5</b>	46.7	46.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0198664 **Received** : 10 Jan 2024  
**Lab Number** : 06056596 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822545 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - CHARLOTTE**  
 9550 STATESVILLE ROAD  
 CHARLOTTE, NC  
 US 28269  
 Contact: CHARLOTTE SHOP  
 myoung@jamesriverequipment.com  
 T: (704)597-0211  
 F: (704)596-6198

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)