



# OIL ANALYSIS REPORT

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



Area  
**Store 9 - Marietta**  
Machine Id  
**JOHN DEERE 210G 1FF210GXTNF530413**  
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>LEC0048965</b>	LEC0043829	LEC0038882
Sample Date		Client Info		<b>21 May 2024</b>	15 Aug 2023	17 Mar 2023
Machine Age	hrs	Client Info		<b>1964</b>	1184	523
Oil Age	hrs	Client Info		<b>1964</b>	1184	523
Filter Age	hrs	Client Info		<b>500</b>	1184	523
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>15</b>	9	7
Iron	ppm	ASTM D5185m	>32	<b>2</b>	2	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>0</b>	<1	<1
Lead	ppm	ASTM D5185m	>28	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	2	3
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	<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

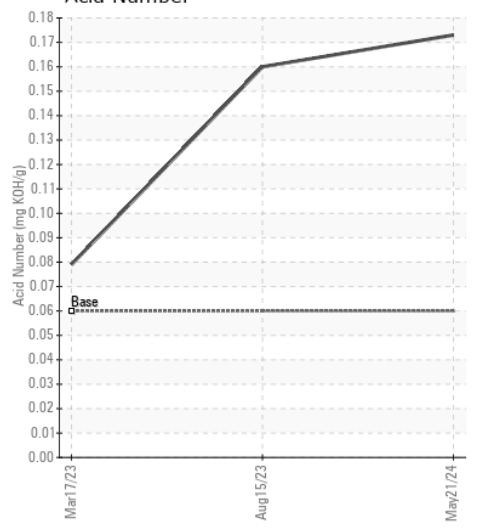
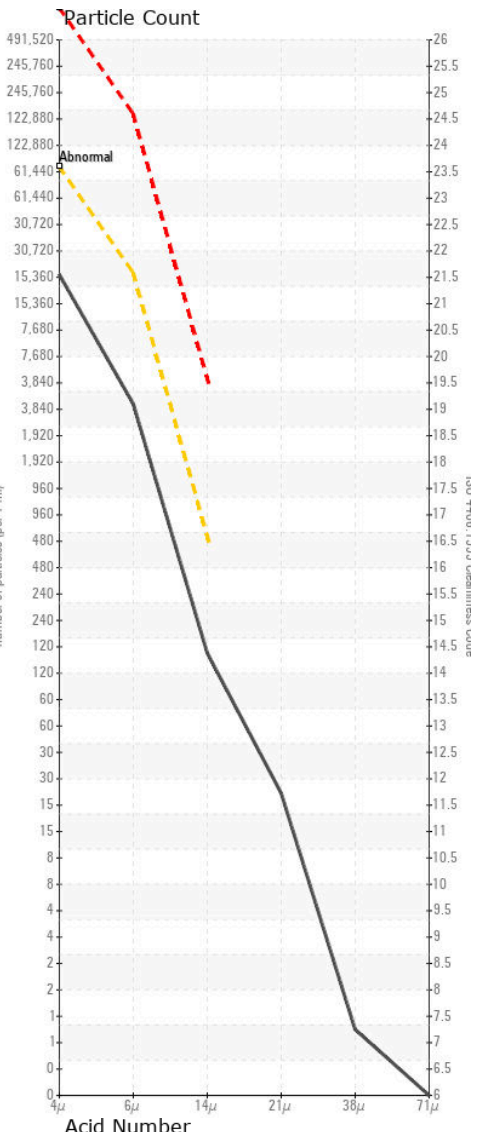
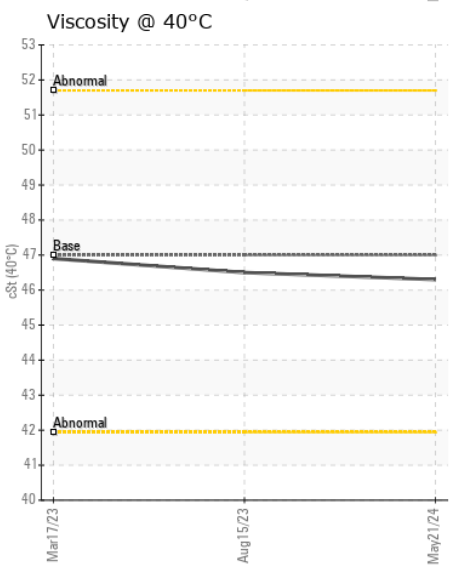
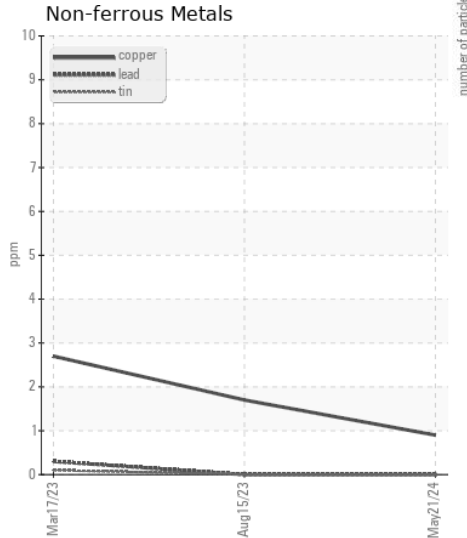
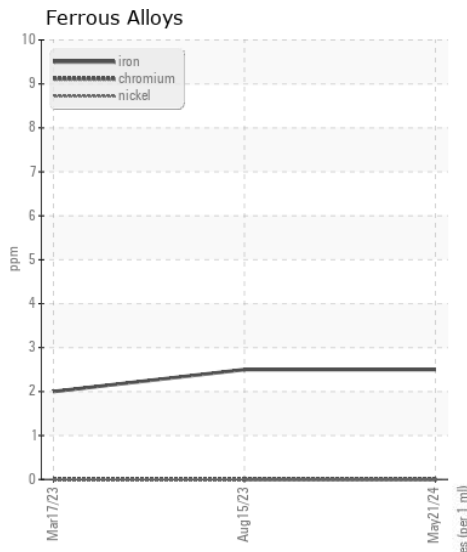
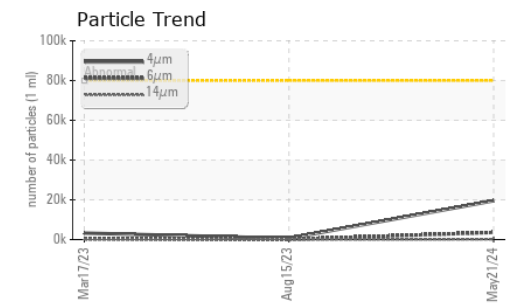
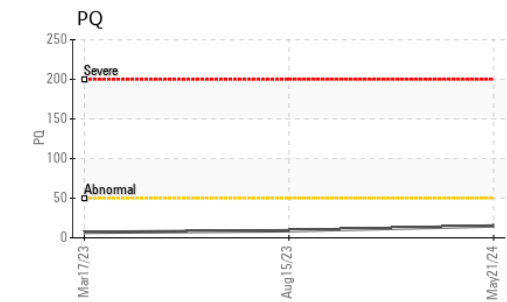
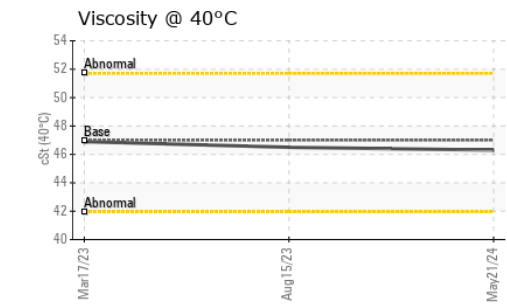
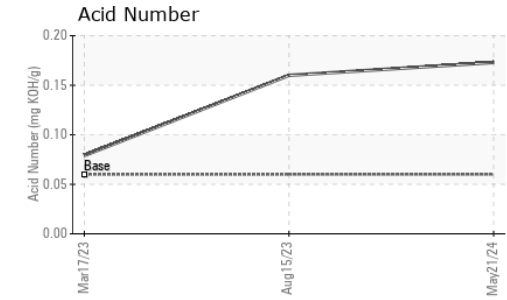
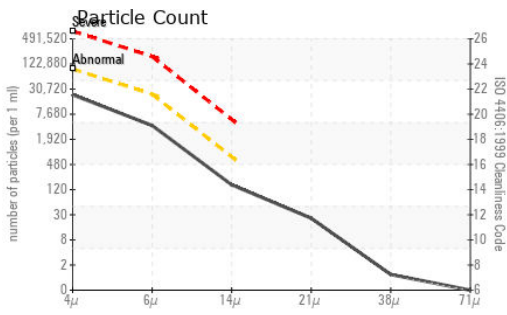
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>19533</b>	613	3277
Particles >6µm		ASTM D7647	>20000	<b>3591</b>	81	547
Particles >14µm		ASTM D7647	>640	<b>138</b>	6	27
Particles >21µm		ASTM D7647	>160	<b>22</b>	2	4
Particles >38µm		ASTM D7647	>40	<b>1</b>	0	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>21/19/14</b>	16/14/10	19/16/12
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>&lt;1</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>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185m		<b>&lt;1</b>	0	1
Phosphorus	ppm	ASTM D5185m	827	<b>468</b>	532	556
Zinc	ppm	ASTM D5185m	0	<b>18</b>	16	28
Sulfur	ppm	ASTM D5185m	13	<b>90</b>	82	94
Acid Number (AN)	mg KOH/g	ASTM D8045	0.06	<b>0.173</b>	0.16	0.079
Visc @ 40°C	cSt	ASTM D445	47	<b>46.3</b>	46.5	46.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0048965 **Received** : 31 May 2024  
**Lab Number** : 06196561 **Tested** : 03 Jun 2024  
**Unique Number** : 11058684 **Diagnosed** : 03 Jun 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**LANE PIPELINE**  
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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)