



# OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

<b>SEVERE</b>
<b>SEVERE</b>
<b>ATTENTION</b>



Area  
**Store 1 - Cowen**  
Machine Id  
**JOHN DEERE 210G 1FF210GXTKF527720**  
Component  
**Left Propel Gearbox**  
Fluid  
**JOHN DEERE GL-5 80W90 (2 GAL)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0045963</b>	LEC0036991	LEC0030176
Sample Date		Client Info		<b>01 Nov 2023</b>	07 Jan 2023	14 Sep 2022
Machine Age	hrs	Client Info		<b>3000</b>	2176	1691
Oil Age	hrs	Client Info		<b>824</b>	485	565
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>SEVERE</b>	ABNORMAL	ABNORMAL

## WEAR

Gear wear is indicated.

PQ		ASTM D8184		<b>1260</b>	287	485
Iron	ppm	ASTM D5185m	>1250	<b>▲ 2416</b>	421	615
Chromium	ppm	ASTM D5185m	>10	<b>▲ 20</b>	4	6
Nickel	ppm	ASTM D5185m	>10	<b>5</b>	2	1
Titanium	ppm	ASTM D5185m		<b>17</b>	4	4
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m		<b>● 227</b>	● 63	● 60
Lead	ppm	ASTM D5185m		<b>1</b>	<1	<1
Copper	ppm	ASTM D5185m		<b>5</b>	1	2
Tin	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

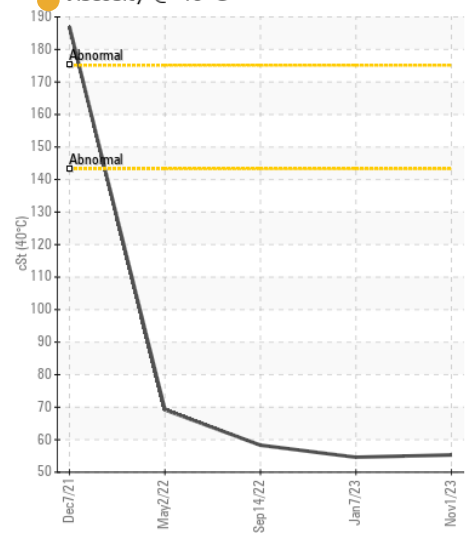
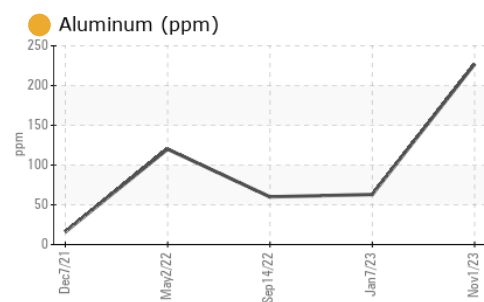
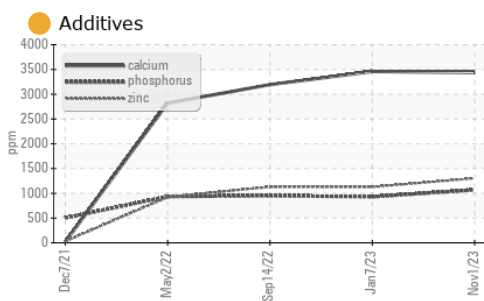
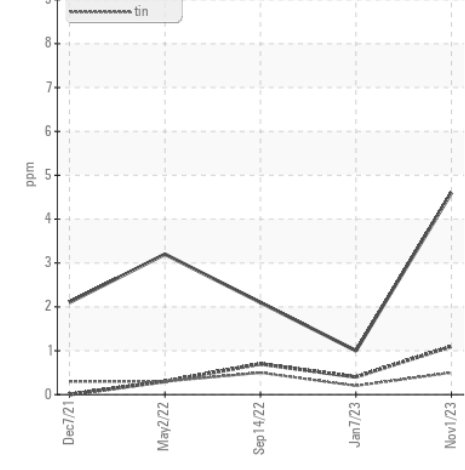
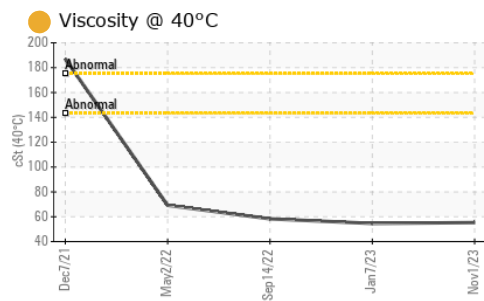
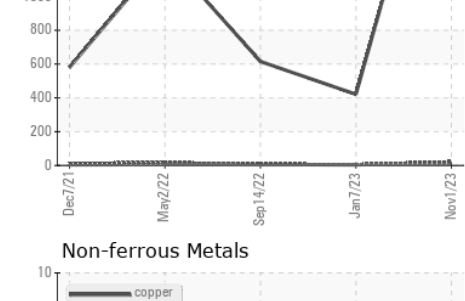
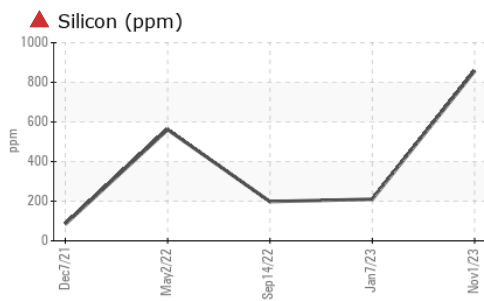
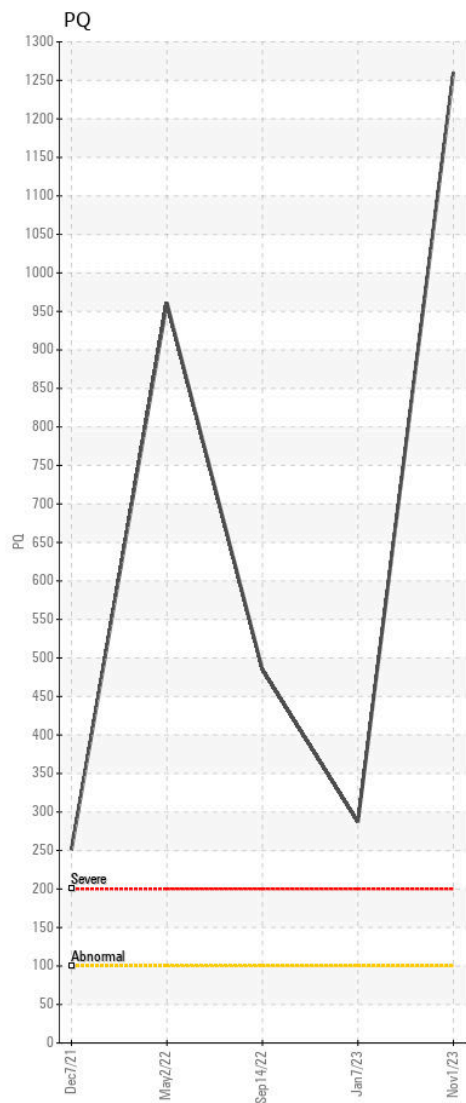
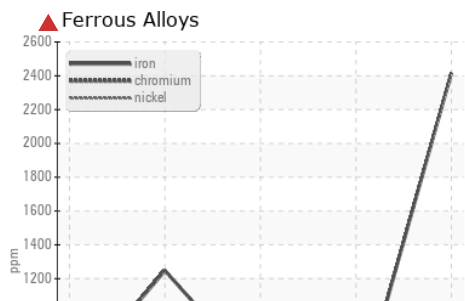
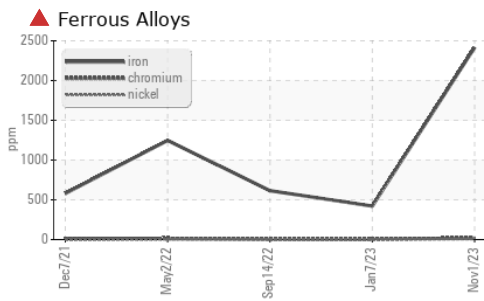
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m		<b>▲ 857</b>	▲ 210	▲ 198
Potassium	ppm	ASTM D5185m	>20	<b>68</b>	16	14
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
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	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<b>11</b>	2	<1
Boron	ppm	ASTM D5185m		<b>● 8</b>	<1	9
Barium	ppm	ASTM D5185m		<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>2</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>20</b>	4	6
Magnesium	ppm	ASTM D5185m		<b>● 117</b>	98	99
Calcium	ppm	ASTM D5185m		<b>● 3437</b>	3460	3194
Phosphorus	ppm	ASTM D5185m		<b>● 1069</b>	930	949
Zinc	ppm	ASTM D5185m		<b>● 1302</b>	1128	1131
Sulfur	ppm	ASTM D5185m		<b>● 4341</b>	3700	3906
Visc @ 40°C	cSt	ASTM D445		<b>● 55.3</b>	● 54.6	● 58.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0045963 **Received** : 15 Nov 2023  
**Lab Number** : 06008658 **Tested** : 16 Nov 2023  
**Unique Number** : 10742420 **Diagnosed** : 17 Nov 2023 - Sean Felton  
**Test Package** : CONST ( Additional Tests: PQ )

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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)