



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



Area  
**[CASTLE EQUIPMENT CO]**  
 Machine Id  
**JOHN DEERE 210G 1FF210GXJJF526375**  
 Component  
**Left Final Drive**  
 Fluid  
**JOHN DEERE GL-5 80W90 (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil 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		JR0224538	---	---
Sample Date		Client Info		17 Jul 2024	---	---
Machine Age	hrs	Client Info		3962	---	---
Oil Age	hrs	Client Info		2000	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---

### WEAR

The iron, chrome and nickel are levels are severe. Gear wear is indicated.

PQ		ASTM D8184	>1250	4673	---	---
Iron	ppm	ASTM D5185m	>750	▲ 12696	---	---
Chromium	ppm	ASTM D5185m	>9	▲ 121	---	---
Nickel	ppm	ASTM D5185m	>10	▲ 24	---	---
Titanium	ppm	ASTM D5185m		65	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>40	● 398	---	---
Lead	ppm	ASTM D5185m	>15	1	---	---
Copper	ppm	ASTM D5185m	>40	32	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		4	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

### CONTAMINATION

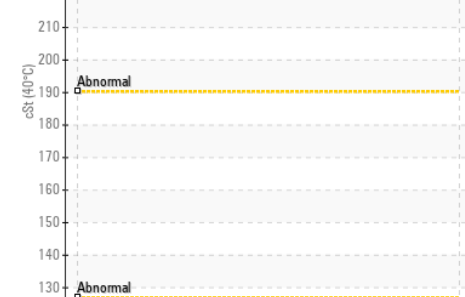
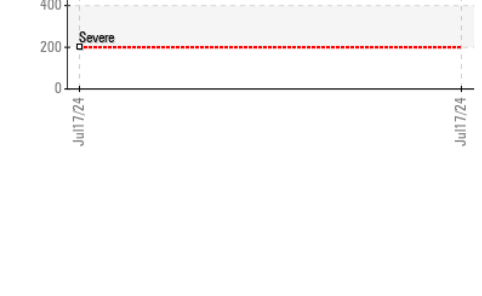
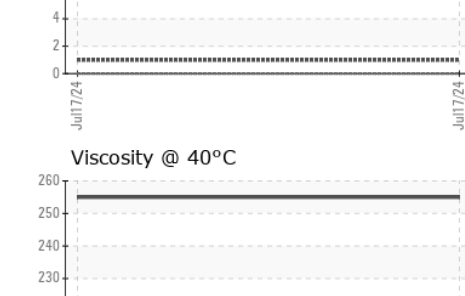
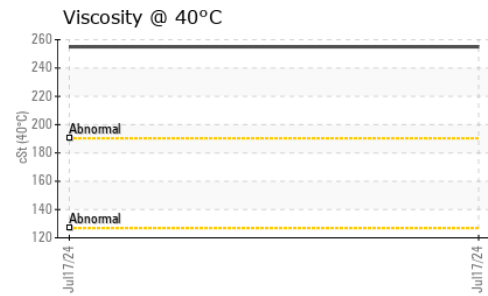
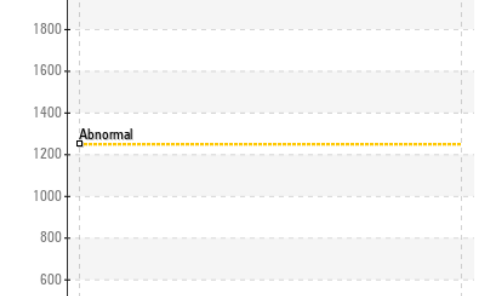
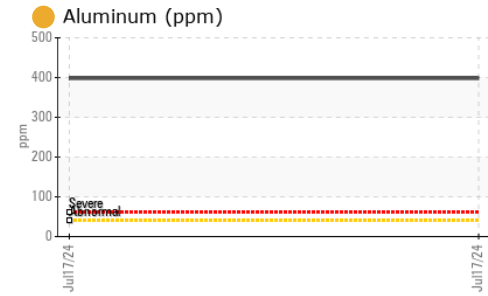
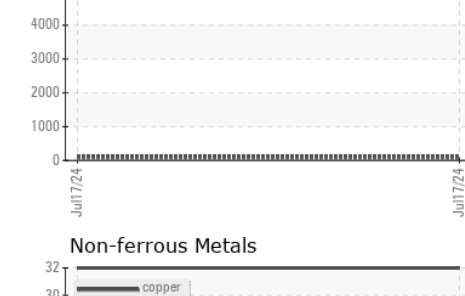
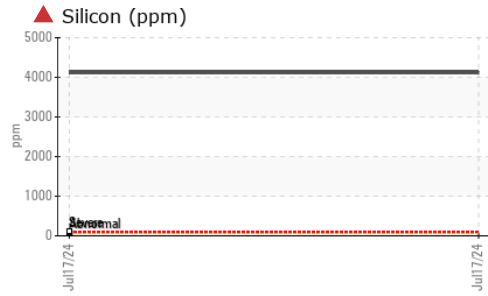
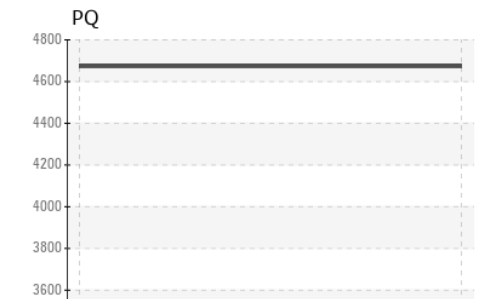
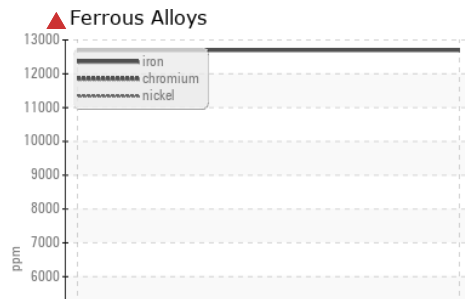
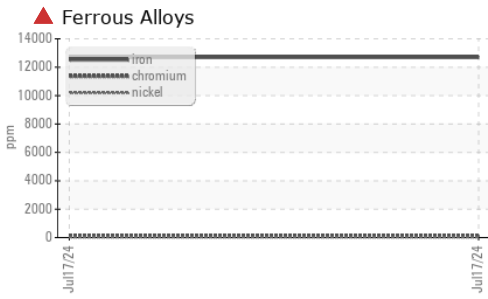
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	▲ 4119	---	---
Potassium	ppm	ASTM D5185m	>20	112	---	---
Water		WC Method	>0.075	NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.075	NEG	---	---

### FLUID CONDITION

The oil is no longer serviceable.

Sodium	ppm	ASTM D5185m	>51	16	---	---
Boron	ppm	ASTM D5185m		91	---	---
Barium	ppm	ASTM D5185m		3	---	---
Molybdenum	ppm	ASTM D5185m		11	---	---
Manganese	ppm	ASTM D5185m		105	---	---
Magnesium	ppm	ASTM D5185m		17	---	---
Calcium	ppm	ASTM D5185m		17	---	---
Phosphorus	ppm	ASTM D5185m		423	---	---
Zinc	ppm	ASTM D5185m		49	---	---
Sulfur	ppm	ASTM D5185m		56380	---	---
Visc @ 40°C	cSt	ASTM D445		255	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0224538  
**Lab Number** : 06240572  
**Unique Number** : 11129406  
**Test Package** : CONST ( Additional Tests: PQ )

**Received** : 18 Jul 2024  
**Tested** : 19 Jul 2024  
**Diagnosed** : 20 Jul 2024 - Don Baldrige

**JRE - ASHLAND**  
 11047 LEADBETTER RD  
 ASHLAND, VA  
 US 23005

Contact: DAVID ZIEG  
 dzieg@jamesriverequipment.com

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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