

## Machine Id JOHN DEERE 210G 1FF210GXHMF529661

Diesel Engine

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		JR0222564	JR0202736	JR0190865
Resample at the next service interval to monitor.	Sample Date		Client Info		25 Jun 2024	27 Feb 2024	29 Oct 2023
	Machine Age	hrs	Client Info		3002	2500	2058
	Oil Age	hrs	Client Info		502	442	1551
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>51	45	37	25
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>5	3	4	3
	Titanium	ppm	ASTM D5185m		<1	0	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>31	5	4	2
	Lead	ppm	ASTM D5185m	>26	0	<1	1
	Copper	ppm	ASTM D5185m	>26	8	15	28
	Tin	ppm	ASTM D5185m	>4	0	<1	<1
	Vanadium	ppm	ASTM D5185m		<1	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>22	8	7	4
	Potassium	ppm	ASTM D5185m	>20	1	2	2
There is no indication of any contamination in the oil.	Fuel		WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.21	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.4	0.3	0.3
	Nitration	Abs/cm	*ASTM D7624	>20	9.0	8.5	6.7
	Sulfation	Abs/.1mm	*ASTM D7415	>30	23.1	21.3	18.9
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>31	4	2	4
	Boron	ppm	ASTM D5185m		176	172	9
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		<1	0	0
	Molybdenum	ppm	ASTM D5185m		285	233	54
	Manganese	ppm	ASTM D5185m		1	<1	<1
	Magnesium	ppm	ASTM D5185m		954	973	833
	Calcium	ppm	ASTM D5185m		1720	1631	1071
	Phosphorus	ppm	ASTM D5185m		1021	934	982
	Zinc	ppm	ASTM D5185m		1253	1295	1126
	Sulfur	ppm	ASTM D5185m		3714	3327	2697
	Oxidation	Abs/.1mm	*ASTM D7414		17.3	16.1	14.7
	Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.1	7.9	8.5

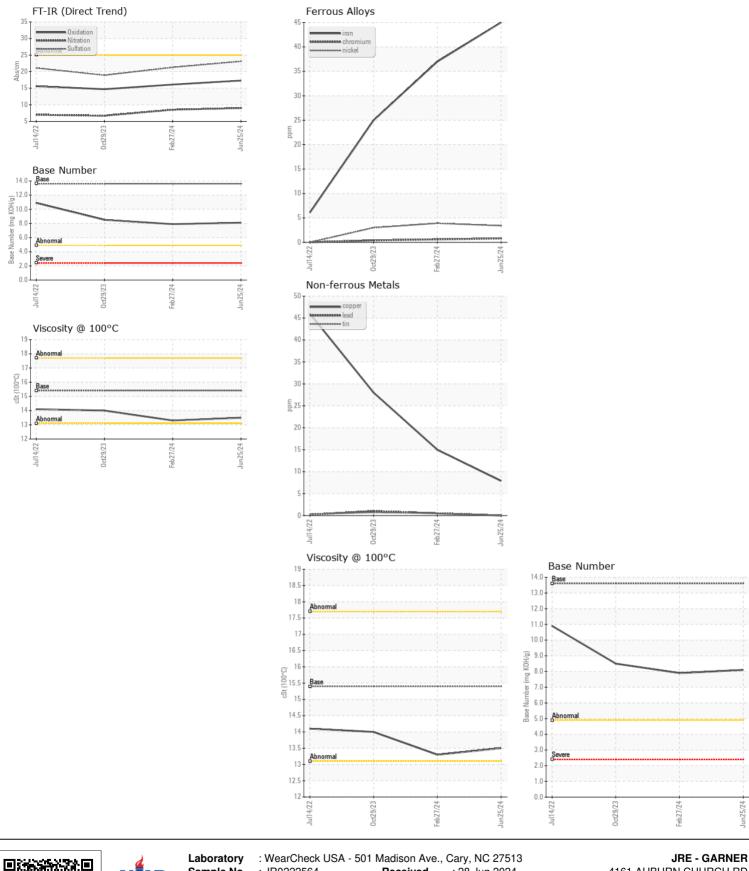
Visc @ 100°C cSt

ASTM D445 15.4

14.0

13.3

13.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 **JRE - GARNER** Sample No. : JR0222564 Received : 28 Jun 2024 4161 AUBURN CHURCH RD Lab Number : 06223258 Tested GARNER, NC : 28 Jun 2024 Unique Number : 11101455 Diagnosed : 30 Jun 2024 - Don Baldridge US 27529 Test Package : CONST (Additional Tests: TBN) Contact: RALEIGH SHOP Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. sean.betts@jamesriverequipment.com;catherine.anastasio@wearcheck.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (919)614-2260 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (919)779-5432

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