

# **OIL ANALYSIS REPORT**

Sodium

## **JOHN DEERE 350G 1FF350GXCJF813113** Component

**Diesel Engine** 

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

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



SAMPLE INFORM	1ATION	method				history2
Sample Number		Client Info		JR0195324	JR0199364	JR0184100
Sample Date		Client Info		12 Jan 2024	14 Dec 2023	17 Aug 2023
Machine Age	hrs	Client Info		2195	2160	1890
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	14	12	<b>▲</b> 77
Chromium	ppm	ASTM D5185m	>11	0	<1	1
Nickel	ppm	ASTM D5185m	>5	<1	<1	4
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	2
Aluminum	ppm	ASTM D5185m	>31	3	3	8
Lead	ppm	ASTM D5185m	>26	3	4	<1
Copper	ppm	ASTM D5185m	>26	3	2	24
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		197	219	253
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		196	200	273
Manganese	ppm	ASTM D5185m		<1	<1	2
Magnesium	ppm	ASTM D5185m		824	850	803
Calcium	ppm	ASTM D5185m		1242	1258	1385
Phosphorus	ppm	ASTM D5185m		960	894	870
Zinc	ppm	ASTM D5185m		1094	1133	1051
Sulfur	ppm	ASTM D5185m		3081	3136	3099
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	5	6	8

Potassium	ppm	ASTM D5185m	>20	1	1	3	
INFRA-RED		method				history2	
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.3	
Nitration	Abs/cm	*ASTM D7624	>20	5.7	5.5	7.6	
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	19.1	20.7	
FLUID DEGRADATION		method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	13.7	15.2	
Base Number (BN)	ma KOH/a	ASTM D2896	13.6	9.7	9.2	8.7	

<1

ASTM D5185m >31

ppm

0

0



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VISUAL



				*) // 1	NONE	NONE	NONE	NONE
		white Metal	scalar	"Visuai	NONE	NONE	NONE	NONE
		Yellow Metal	scalar	^Visual	NONE	NONE	NONE	NONE
		Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
	<u>_</u>	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
14/23	12/24	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Dec	Jan	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
c		Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	NEG
		Free Water	scalar	*Visual		NEG	NEG	NEG
				method	limit/base	ourrent	history1	history?
			0°t			12.9	14.0	12.1
			COL	ASTNI D445	15.4	13.0	14.0	13.1
		Eerrous Allovs						
		<sup>80</sup>						
4/23		70- iron						
Dec1		60 nickel						
		50						
		<u>ه</u> 40						
		30						
		20						
		10-						
		0						
		17/23	14/23		12/24			
		Bny	Dec		Jan			
		Non-ferrous Meta	ls					
		25						
		20						
		200 essesses tin						
		15						
		10						
		5						
			and a second					
		17/23	14/23		12/24			
		Aug	Dec		Jan			
		Viscosity @ 100°C	2			Base Number		
		<sup>19</sup> T			14.0	Base		
		18 - Abnormal			12.0			
		17-						
		© 16			d KO			
		Base			ц. 190			
		S 13			6.0 ·	Abnormal		
		14			& 4.0-	Severe		
		13 -			2.0	0		
		12			0.0	L <u>.</u>		
		17/23	14/23		12/24	17/2:	14/23	12/24
		Aug	Dec		Jan	Aug	Dec	Jan
	Laboratory	· WearChack LISA	501 Madi		n/ NC 07510		IDE	
4		. wearoneck USA - :	Becieve	son Ave., Ca 1 · 17	iy, NG 27513 Ian 2024		245 YARDM/	STEPRENSUN
ANAB	Lab Number	: 06063281	Diagnos	ed :18.	Jan 2024		STF	PHENSON, VA
TESTING LABORATORY	Unique Number	: 10834663	Diagnost	tician : We	s Davis		l	JS 22656-1761
Certificate L2367	Test Package	: CONST ( Additional	Tests: T	BN)			Contact: PHI	DAUGHERTY
To discuss this	sample report, o	contact Customer Serv	ice at 1-8	00-237-1369	Э.	pdaughe	rty@jamesrive	requipment.com
* - Denotes tes	t methods that a	are outside of the ISO 1	7025 scc	pe of accrea	litation.			T: x:
Statements of c	onformity to spec	ifications are based on t	he simple	acceptance of	decision rule (J	ICGM 106:2012)	F:	(540)693-2588

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Contact/Location: PHIL DAUGHERTY - JAMWIN