

OIL ANALYSIS REPORT

Sample Rating Trend



Area [W47062] Machine Id JOHN DEERE 750K 1T0750KXEJF332859 Component Diesel Engine

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

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		JR0179382	JR0165869	JR0106763
Sample Date		Client Info		10 Oct 2023	05 May 2023	08 Feb 2022
Machine Age	hrs	Client Info		4507	3992	3495
Oil Age	hrs	Client Info		0	0	500
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	18	19	18
Chromium	ppm	ASTM D5185m	>11	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	4	5	6
Lead	ppm	ASTM D5185m	>26	0	0	<1
Copper	ppm	ASTM D5185m	>26	11	7	2
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Antimony	ppm	ASTM D5185m				<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		186	163	184
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		255	244	257
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		835	869	874
Calcium	ppm	ASTM D5185m		1496	1528	1621
Phosphorus	ppm	ASTM D5185m		885	863	962
Zinc	ppm	ASTM D5185m		1126	1116	1163
Sulfur	ppm	ASTM D5185m		2933	3283	2750
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	7	8	10
Sodium	ppm	ASTM D5185m	>31	3	3	3
Potassium	ppm	ASTM D5185m	>20	<1	2	2
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.3	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.8	9.2	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.7	22.6	25.3
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.4	19.0	20.3

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Fluid

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.



Abn 12 10

Jun30/20

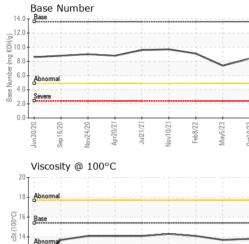
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Sep16/20

Nov24/20 Apr20/21

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VISUAL



		VIOUNE	/					
		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Jul21/21 Nov10/21	Feb 8/22 May5/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Jul	Fet	Ödor	scalar	*Visual	NORML	NORML	NORML	NORML
		Emulsified Water	scalar	*Visual	>0.21	NEG	NEG	NEG
		Free Water	scalar	*Visual		NEG	NEG	NEG
			_			NEG		
		FLUID PROPER		method	limit/base	current	history1	history2
		Visc @ 100°C	cSt	ASTM D445	15.4	13.8	13.7	14.1
		GRAPHS						
		Ferrous Alloys						
21-	22	40 iron						
Jul21/21 Nov10/21	Feb 8/22 May5/23	35 - nickel						
7 2	- 2	30						
		E ²⁵ 20						
		- TOTAL						
		15	-					
		10						
		5-						
		5 50 50	21	22	53			
		Jun30/20 Sep16/20 Nov24/20	Jul21/21	Nov10/21 Feb8/22 May5/23	0ct10/23			
				2 4 2	Ó			
		Non-ferrous Meta	ils					
		copper						
		300 - management lead						
		250						
		_ 200						
		E 150						
		100						
		50						
		0	3.1.1.1.1.1.1. 1.1.1.1.1.1.1.1.1.1.1.1.1					
		Jun30/20 Sep16/20 Nov24/20	Jul21/21	Nov10/21 Feb8/22 May5/23	0ct10/23			
		Jun3 Sep1 Nov2 Apri	Jul	Feb May	0ct1			
		Viscosity @ 100°	С			5 N I		
		¹⁹ T			14	Base Number		
		18 - Abnormal				T I I		
		17-			12			
		Base			(b) 10. H0 X but how	.0 -		
		0015 14 Abnom			B 8	.0		~
		514			uper 6	.0		
		13 Abnormal	1		e Nur	Abnormal		
		12						
		11-			2	.0 +		
		104				.04		3 5
		Jun30/20 Sep16/20 Nov24/20 Apr20/21	Jul21/21	Nov10/21 Feb8/22 May5/23	0ct10/23	Jun30/20 Sep16/20 Nov24/20	Apr20/21 Jul21/21 Nov10/21	Feb8/22 May5/23
		Jun Sep Novi	٦٢	No. Mar	0ct	Jun Sep Novi	Ap. Ju	Ma Ma
	I also waters.	: WearCheck USA -				3		RE - ASHLANI
d	Laboratory		Received	d :18	Oct 2023			ADBETTER R
	Sample No.	: JR0179382						
ANAB	Sample No. Lab Number	r : 05982258	Diagnos		Oct 2023			ASHLAND, VA
	Sample No. Lab Number Unique Numb	r : 05982258 er : 10699553	Diagnos Diagnos	tician : We	Oct 2023 s Davis			US 2300
Certificate L2367	Sample No. Lab Number Unique Numb Test Packag	r : 05982258 er : 10699553 je : CONST (Additiona	Diagnos Diagnost al Tests: T	t ician :We ƁN)	s Davis	. •	Contac	US 2300 ct: DAVID ZIEC
Certificate L2367 O discuss this	Sample No. Lab Number Unique Numb Test Packag sample report	r : 05982258 er : 10699553	Diagnos Diagnost al Tests: T vice at 1-8	tician : We BN) 800-237-1369	s Davis 9.	dzie	Contac eg@jamesriver	US 2300 ct: DAVID ZIE

Contact/Location: DAVID ZIEG - JAMASH