

OIL ANALYSIS REPORT

Area **ROB** BRADISH JOHN DEERE 3032E 1LV3032EVMM140911

Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

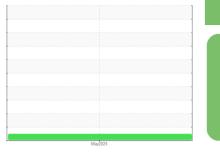
All component wear rates are normal.

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 Rating Trend



NORMAL

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC06182148		
Sample Date		Client Info		08 May 2024		
Machine Age	hrs	Client Info		142		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.21	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	6		
Chromium	ppm	ASTM D5185m	>11	0		
Nickel	ppm	ASTM D5185m	>5	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	<1		
Aluminum	ppm	ASTM D5185m	>31	5		
Lead	ppm	ASTM D5185m	>26	<1		
Copper	ppm	ASTM D5185m	>26	4		
Tin	ppm	ASTM D5185m	>4	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 296	history1	history2
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	296		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	296 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	296 0 246		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	296 0 246 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	296 0 246 <1 810		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	296 0 246 <1 810 1318	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	296 0 246 <1 810 1318 892	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	296 0 246 <1 810 1318 892 1012	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	296 0 246 <1 810 1318 892 1012 3197		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	296 0 246 <1 810 1318 892 1012 3197 current	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	296 0 246 <1 810 1318 892 1012 3197 current 23	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >22 >31	296 0 246 <1 810 1318 892 1012 3197 current 23 3	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >22 >31 >20	296 0 246 <1 810 1318 892 1012 3197 <u>current</u> 23 3 <1	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 >2.1	296 0 246 <1 810 1318 892 1012 3197 current 23 3 3 <1 <1.0	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 >2.1 limit/base	296 0 246 <1 810 1318 892 1012 3197 current 23 3 3 <1 <1.0 current	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 >2.1 limit/base >3	296 0 246 <1 810 1318 892 1012 3197 current 23 3 <1 <1.0 current 0.1	 history1 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 >2.1 limit/base >3 >20	296 0 246 <1 810 1318 892 1012 3197 current 23 3 <1 <1.0 current 0.1 7.1	 history1 history1 	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	Iimit/base >22 >31 >20 >2.1 Iimit/base >3 >20 >31 >3 >20 >30	296 0 246 <1 810 1318 892 1012 3197 <i>current</i> 23 3 <1 <1.0 <i>current</i> 0.1 7.1 19.7	 history1 history1 history1	 history2 history2 history2



35 30. 25 Abs/cm 20. 15 10.

14.0 Base

Abnormal Severe 2.0 0.0 May8/24

19 T 18-Abnormal 17cSt (100°C) Base

14

Abnormal 13. 12 May8/24

OIL ANALYSIS REPORT

۶ _۲	VISUAL		method	limit/base	current	history1	history2
Oxidation	White Metal	scalar	*Visual	NONE	NONE		
Abnorman Sulfation	Yellow Metal	scalar	*Visual	NONE	NONE		
20 -	Precipitate	scalar	*Visual	NONE	NONE		
5-	Silt	scalar	*Visual	NONE	NONE		
0	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt		*Visual	NONE	NONE		
8/24		scalar	*Visual	NORML	NORML		
May8/24	Appearance Odor		*Visual	NORML	NORML		
De es Nuestra	Emulsified Water	scalar	*Visual	>0.21	NEG		
Base Number	Free Water		*Visual		NEG		
0	FLUID PROPER		method	limit/base	current	history1	history2
	Visc @ 100°C		ASTM D445	15.4	13.0		
0 - Abnormal	GRAPHS						
0 Severe	Ferrous Alloys						
	10 T						
8/24	iron iron						
May8/24	8- nickel						
Viscosity @ 10000	6						
Viscosity @ 100°C	Ed						
Abnormal	4						
7-	2						
Base							
5 + 7	2 4 0	********	*******************	1/24			
4 Abnormal	May8/24			May8/24			
3	Non-ferrous Met	als					
May8/24	š 10 T						
May	copper lead						
	o -						
	6-						
	Ed.						
	2 -						
	8/24			ay8/24			
	May8,			Mayi			
	Viscosity @ 100°	°C			Base Number		
	¹⁹			14.0			
	18 Abnormal						
	18 + Abnormal			12.0			
	17						
	17-						
	17-						
	17 G 16 Base 3 15				Abnormal		
	17 5 16 8 3 15 14 Abnormal			(B)/H0.0 (Mu) 8.0 (Mu) see Munu et Mun	Abnormal B		
	17 60 16 8 15 14 13 Abnormal			(b)10.0 HOX Bul Jaquining eseg 2.0	Abnormal		
	17 6 16 8 8 8 15 14 14 13 4 Abnormal 12			(0)10.0 HOY Bu, 30 Jaquiny action 8.0 Jaquiny action 8.0 Jaquiny action 8.0 Jaquiny 2.0 0.0	Severe		24
	17 60 16 8 15 14 13 Abnormal			(b)10.0 HOX Bul Jaquining eseg 2.0	Abnormal Severe		May6/24
	17 6 16 8 8 8 15 14 14 13 4 Abnormal 12			(0)10.0 HOY Bu, 30 Jaquiny action 8.0 Jaquiny action 8.0 Jaquiny action 8.0 Jaquiny 2.0 0.0	Severe		May0.24
	177 300 16 301 15 14 4 4 4 4 4 4 4 4 4 4 4 4 4	i01 Madisor	n Ave., Cary	(0)10.0 8.0 8.0 8.0 8.0 8.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9	Severe	QUALITY EQ	
Sampl	atory : WearCheck USA - 5 le No. : WC06182148	Receiv	ved :16	, NC 27513 6 May 2024	Severe	2783 H	JIPMENT LLC IWY 70 BUS E
Sample Sample Sample Lab N	atory : WearCheck USA - 5 le No. : WC06182148 umber : 06182148	Receiv Testec	ved :16 d :17	, NC 27513 6 May 2024 7 May 2024	Severe Severe	2783 H	JIPMENT LLC IWY 70 BUS E ITHFIELD, NC
Sample Lab Nu Unique	atory : WearCheck USA - 5 le No. : WC06182148 umber : 06182148 Number : 11033474	Receiv Testec Diagno	ved : 16 d : 17 osed : 17	, NC 27513 6 May 2024 7 May 2024 May 2024 - Jonat	Severe Severe	2783 SM	JIPMENT LLC IWY 70 BUS E ITHFIELD, NC US 27577
Sample Control of the second	atory : WearCheck USA - 5 le No. : WC06182148 umber : 06182148 Number : 11033474 ackage : CONST (Additional	Receiv Testec Diagno Tests: Fuel	ved : 16 d : 17 osed : 17 IDilution, TB	, NC 27513 6 May 2024 May 2024 May 2024 - Jonat N)	Severe Severe	2783 F SM Contact: C	JIPMENT LLC IWY 70 BUS E ITHFIELD, NC US 27577 :OY STANLEY
Certificate L2367 To discuss this sample	atory : WearCheck USA - 5 le No. : WC06182148 umber : 06182148 Number : 11033474	Receiv Tested Diagno Tests: Fuel rvice at 1-80	ved : 16 1 : 17 osed : 17 IDilution, TB 00-237-1369	, NC 27513 6 May 2024 May 2024 May 2024 - Jonat N) 2.	Severe Severe	2783 H SM Contact: C cstanley@qu	JIPMENT LLC IWY 70 BUS E ITHFIELD, NC US 27577 OY STANLEY alityequip.com (919)934-2701

Report Id: QUASMI [WUSCAR] 06182148 (Generated: 05/17/2024 15:19:06) Rev: 1

Contact/Location: COY STANLEY - QUASMI