

WEAR ABNORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id JOHN Componen Front Fluid JOHN

JOHN DEERE 310E 1DW310EXJPF716428

Front Differential

JOHN DEERE HY-GARD HYD/TRANS (39 QTS)

RECOMMENDATION

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Bearing and/or bushing wear is indicated.

CONTAMINATION

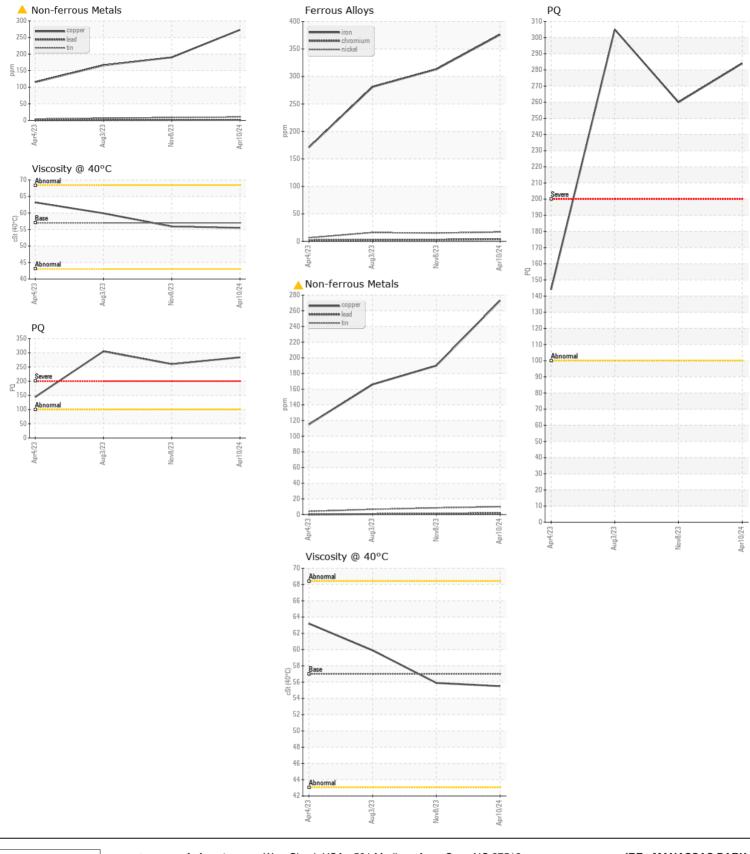
There is no indication of any contamination in the oil.

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0211183	JR0192250	JR0168704
Sample Date		Client Info		10 Apr 2024	08 Nov 2023	03 Aug 2023
Machine Age	hrs	Client Info		1950	1475	962
Oil Age	hrs	Client Info		917	955	520
Filter Age	hrs	Client Info		0	0	520
Oil Changed		Client Info		Changed	N/A	Not Changd
Filter Changed	l	Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
					000	0.05
PQ		ASTM D8184	500	284	260	305
Iron	ppm	ASTM D5185m	>500	376	313	281
Chromium	ppm	ASTM D5185m	>10	4	3	2
Nickel	ppm	ASTM D5185m	>10	17	15	16
Titanium	ppm	ASTM D5185m		1	1	<1
Silver	ppm	ASTM D5185m		<1	0	<1
Aluminum	ppm	ASTM D5185m	>25	4	9	4
Lead	ppm	ASTM D5185m	>25	2	1	<1
Copper	ppm	ASTM D5185m	>100	273	190	166
Tin	ppm	ASTM D5185m	>10	10	8	7
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	HEAVY
Vallau Matal	agalar	*\ /! 1				
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>75	NONE 25	NONE 32	20
Silicon	ppm	ASTM D5185m	>75	25	32	20
Silicon Potassium	ppm	ASTM D5185m ASTM D5185m	>75 >20	25 3	32 2	20 2
Silicon Potassium Water	ppm ppm	ASTM D5185m ASTM D5185m WC Method	>75 >20 >.2	25 3 NEG	32 2 NEG	20 2 NEG
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185m ASTM D5185m WC Method *Visual	>75 >20 >.2 NONE	25 3 NEG NONE	32 2 NEG NONE	20 2 NEG NONE
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>75 >20 >.2 NONE NONE	25 3 NEG NONE NONE	32 2 NEG NONE NONE	20 2 NEG NONE NONE
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>75 >20 >.2 NONE NONE NONE	25 3 NEG NONE NONE NONE	32 2 NEG NONE NONE NONE	20 2 NEG NONE NONE
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>75 >20 >.2 NONE NONE NONE NORML	25 3 NEG NONE NONE NONE NORML	32 2 NEG NONE NONE NONE NORML	20 2 NEG NONE NONE NONE NORML
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>75 >20 >.2 NONE NONE NONE NORML NORML	25 3 NEG NONE NONE NONE NORML NORML	32 2 NEG NONE NONE NONE NORML NORML	20 2 NEG NONE NONE NONE NORML NORML
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 >.2 NONE NONE NONE NORML NORML	25 3 NEG NONE NONE NONE NORML NORML NEG	32 2 NEG NONE NONE NONE NORML NEG	20 2 NEG NONE NONE NORM NORML NEG
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>75 >20 >.2 NONE NONE NORML >.2	25 3 NEG NONE NONE NORE NORML NEG 10	32 2 NEG NONE NONE NORML NORML NEG 10	20 2 NEG NONE NONE NORML NORML NEG 6
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>75 >20 >.2 NONE NONE NORML >.2	25 3 NEG NONE NONE NORML NORML NEG 10 57	32 2 NEG NONE NONE NORML NORML NEG 10 46	20 2 NEG NONE NONE NORML NORML NEG 6 51
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm scalar scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>75 >20 >.2 NONE NONE NORML NORML >.2	25 3 NEG NONE NONE NORML NORML NEG 10 57 1	32 2 NEG NONE NONE NORML NORML NEG 10 46 0	20 2 NEG NONE NONE NORML NORML NEG 6 51 0
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm scalar scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >.2 NONE NONE NORML NORML >.2	25 3 NEG NONE NONE NORML NORML NEG 10 57 1 57	32 2 NEG NONE NONE NORML NORML NEG 10 46 0 5	20 2 NEG NONE NONE NORML NORML NEG 6 51 0 7
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >.2 NONE NONE NORML NORML >.2 6 0	25 3 NEG NONE NONE NORML NORML NEG 10 57 1 57 1 7 40	32 2 NEG NONE NONE NORML NORML NEG 10 46 0 5 36	20 2 NEG NONE NONE NORML NORML NEG 6 51 0 7 42
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >.2 NONE NONE NORML NORML >.2 6 0 0	25 3 NEG NONE NONE NORML NORML NEG 10 57 1 57 1 7 40 84	32 2 NEG NONE NONE NORML NORML NEG 10 46 0 5 36 97	20 2 NEG NONE NONE NORML NORML NEG 6 51 0 7 42 92
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >.2 NONE NONE NORML NORML >.2 6 0 0 0 145 3570	25 3 NEG NONE NONE NORML NORML NEG 10 57 1 57 1 7 40 84 3498	32 2 NEG NONE NONE NORML NORML NEG 10 46 0 5 36 36 97 3477	20 2 NEG NONE NONE NORML NORML NEG 6 51 0 7 42 92 3736
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >.2 NONE NONE NORML >.2 6 0 0 0 145 3570 1290	25 3 NEG NONE NONE NORML NORML NEG 10 57 1 10 57 1 7 40 84 3498 1207	32 2 NEG NONE NONE NORML NORML NEG 10 46 0 5 36 97 3477 1135	20 2 NEG NONE NONE NORML NORML NEG 6 51 0 7 42 92 3736 1158
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >.2 NONE NONE NORML >.2 6 0 0 0 145 3570 1290	25 3 NEG NONE NONE NORML NORML NEG 10 57 1 7 40 84 3498 1207 1278	32 2 NEG NONE NONE NORM NORM NEG 10 46 0 5 36 97 3477 1135 1395	20 2 NEG NONE NONE NORML NORML NEG 6 51 0 7 42 92 3736 1158 1386

Submitted By: TECHNICIAN ACCOUNT



JRE - MANASSAS PARK Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : JR0211183 Received 9107 OWENS DRIVE : 11 Apr 2024 Lab Number : 06146116 MANASSAS PARK, VA Tested : 12 Apr 2024 : 15 Apr 2024 - Don Baldridge US 20111 Unique Number : 10976194 Diagnosed Test Package : CONST (Additional Tests: PQ) Contact: DON VEST Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. dvest@jamesriverequipment.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (703)631-8500 F: (703)631-4715 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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