WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Area

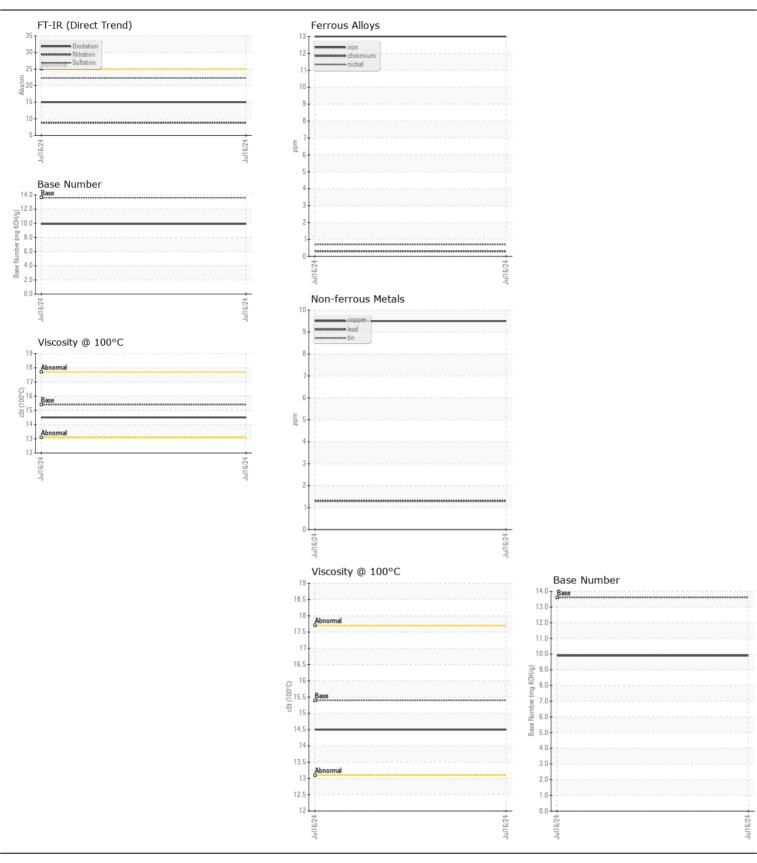
[W53000]

HYDREMA 912HM 15652

Diesel Engine

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

Sample Number Cilent Info JR0211757 Sample Date Cilent Info 16 Jul 2024 Sample Date Cilent Info Sou	JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (-	GAL)						
Resample at the next service interval to monitor.	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age hrs Client Info 994	Resample at the next service interval to monitor.	Sample Number		Client Info		JR0211757		
Oil Age		Sample Date		Client Info		16 Jul 2024		
Filter Age his Client Info Changed Client Info Changed Client Info Changed Changed Changed Client Info Changed		Machine Age	hrs	Client Info		994		
Oil Changed Client Info Client Info Changed Client Info Client Info Changed Client Info Client Inf		Oil Age	hrs	Client Info		500		
Filter Changed Sample Status		Filter Age	hrs	Client Info		500		
NORMAL N		Oil Changed		Client Info		Changed		
Iron		Filter Changed		Client Info		Changed		
Chromium Chromium		Sample Status				NORMAL		
Chromium Chromium	WEAR	lvon		ACTM DE10Em	. 100	40		
Nickel ppm ASTM D6165m >4 <1 .	WEAR							
Nicker	Metal levels are typical for a new component breaking in.							
Silver					>4			
Aluminum ppm ASTM D5185m >20 3					0			
Lead								
Copper								
Tin Ppm ASTM D5185m >15 0								
Vanadium Vanadium								
White Metal Scalar *Visual NONE NO					>15			
Vellow Metal Scalar Visual NONE NONE						-		
Silicon ppm ASTM D5185m >25 6								
Potassium ppm ASTM D5185m >20 3		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium ppm ASTM D5185m >20 3	CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	6		
Fuel WC Method >5 <1.0		Potassium						
Glycol	There is no indication of any contamination in the oil.	Fuel				<1.0		
Glycol		Water		WC Method	>0.2	NEG		
Soot %		Glycol				NEG		
Nitration Abs/cm *ASTM D7624 >20 8.8 Sulfation Abs/.tmm *ASTM D7415 >30 22.3 Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NORML NONE NONE NONE Sand/Dirt scalar *Visual NORML			%	*ASTM D7844	>3	1.2		
Silt Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NORML NO		Nitration						
Silt Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NORML		Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3		
Debris Scalar *Visual NONE NORML		Silt		*Visual	NONE	NONE		
Sand/Dirt scalar *Visual NONE NORML NORML		Debris		*Visual	NONE	NONE		
Codor Emulsified Water Scalar *Visual NORML NORML		Sand/Dirt						
Codor Emulsified Water Scalar *Visual NORML NORML		Appearance	scalar	*Visual	NORML	NORML		
Sodium ppm ASTM D5185m 1 Boron ppm ASTM D5185m 226 Barium ppm ASTM D5185m 223 Molybdenum ppm ASTM D5185m 223 Magnesium ppm ASTM D5185m 223 Magnesium ppm ASTM D5185m 733 Calcium ppm ASTM D5185m 1427 Phosphorus ppm ASTM D5185m 883 Zinc ppm ASTM D5185m 984 Sulfur ppm ASTM D5185m 3319 Oxidation Abs/.1mm *ASTM D7414 >25 15.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9		• •		*Visual				
Sodium ppm ASTM D5185m 1 Boron ppm ASTM D5185m 226 Barium ppm ASTM D5185m 223 Molybdenum ppm ASTM D5185m 223 Magnesium ppm ASTM D5185m 223 Magnesium ppm ASTM D5185m 733 Calcium ppm ASTM D5185m 1427 Phosphorus ppm ASTM D5185m 883 Zinc ppm ASTM D5185m 984 Sulfur ppm ASTM D5185m 3319 Oxidation Abs/.1mm *ASTM D7414 >25 15.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9		Emulsified Water	scalar	*Visual	>0.2	NEG		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. Boron ppm ASTM D5185m <1 Molybdenum ppm ASTM D5185m <23 Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m <1 Calcium ppm ASTM D5185m 1427 Phosphorus ppm ASTM D5185m 383 Sulfur ppm ASTM D5185m 984 Sulfur ppm ASTM D5185m 3319 Oxidation Abs/.1mm *ASTM D7414 >25 15.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9								
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oil. The condition of the oil is suitable for further service. Molybdenum ppm ASTM D5185m 223 Manganese ppm ASTM D5185m 733 Calcium ppm ASTM D5185m 1427 Phosphorus ppm ASTM D5185m 883 Zinc ppm ASTM D5185m 984 Sulfur ppm ASTM D5185m 3319 Oxidation Abs/.1mm *ASTM D7414 >25 15.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9			ppm					
Molybdenum ppm ASIM D5185m 223 Manganese ppm ASTM D5185m <1	oil. The condition of the oil is suitable for further service.							
Magnesium ppm ASTM D5185m 733 Calcium ppm ASTM D5185m 1427 Phosphorus ppm ASTM D5185m 883 Zinc ppm ASTM D5185m 984 Sulfur ppm ASTM D5185m 3319 Oxidation Abs/.1mm *ASTM D7414 >25 15.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9		•	ppm					
Calcium ppm ASTM D5185m 1427 Phosphorus ppm ASTM D5185m 883 Zinc ppm ASTM D5185m 984 Sulfur ppm ASTM D5185m 3319 Oxidation Abs/.1mm *ASTM D7414 >25 15.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9								
Phosphorus ppm ASTM D5185m 883 Zinc ppm ASTM D5185m 984 Sulfur ppm ASTM D5185m 3319 Oxidation Abs/.1mm *ASTM D7414 >25 15.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9		_	ppm					
Zinc ppm ASTM D5185m 984 Sulfur ppm ASTM D5185m 3319 Oxidation Abs/.1mm *ASTM D7414 >25 15.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9			ppm					
Sulfur ppm ASTM D5185m 3319 Oxidation Abs/.1mm *ASTM D7414 >25 15.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9			ppm					
Oxidation Abs/.1mm *ASTM D7414 >25 15.0 Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9								
Base Number (BN) mg KOH/g ASTM D2896 13.6 9.9			ppm			3319		
Visc @ 100°C cSt ASTM D445 15.4 14.5		, ,	mg KOH/g	ASTM D2896	13.6	9.9		
		Visc @ 100°C	cSt	ASTM D445	15.4	14.5		







Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : JR0211757

Lab Number : 06239929 Unique Number : 11128763

Test Package : CONST (Additional Tests: TBN)

Tested Diagnosed

: 18 Jul 2024 - Wes Davis

: 18 Jul 2024

: 18 Jul 2024

US 23005 Contact: DAVID ZIEG dzieg@jamesriverequipment.com

T: (804)798-6001 F: (804)798-0292

Contact/Location: DAVID ZIEG - JAMASH

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Received

JRE - ASHLAND

ASHLAND, VA

11047 LEADBETTER RD