#### LEAHY-WOLF Lubricating specialists since 1946

OIL ANALYSIS REPORT

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

# Area BEELMAN Machina Id

## John Deere 824K-11 (S/N 1DW824KXTFD)

#### Component Hydraulic System

### CITGO AW HYDRAULIC ISO 46 (--- GAL)

#### RECOMMENDATION

Resample at the next service interval to monitor.

#### **WEAR**

All component wear rates are normal.

#### CONTAMINATION

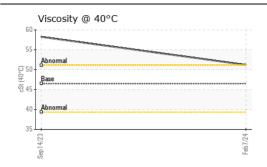
There is no indication of any contamination in the fluid.

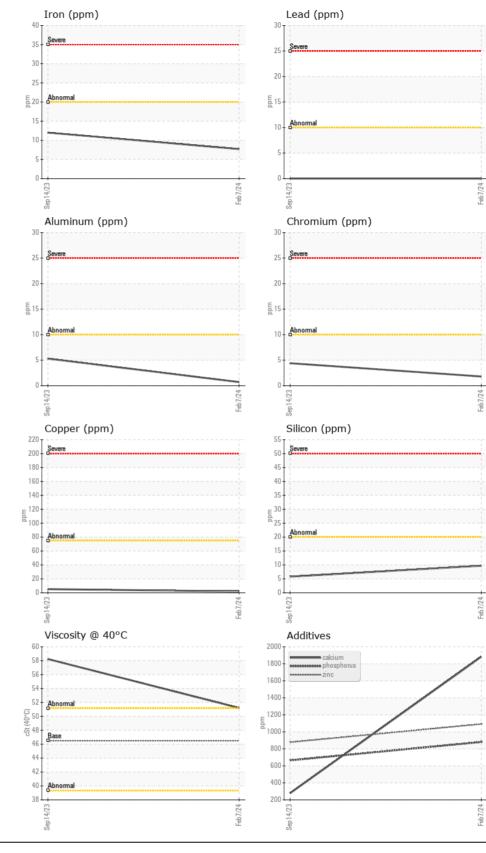
#### FLUID CONDITION

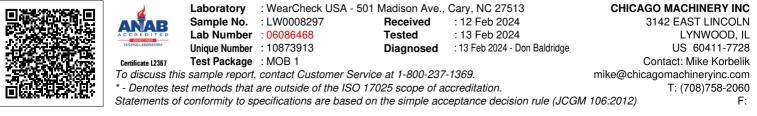
The condition of the fluid is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LW0008297	LW0007342	
Sample Date		Client Info		07 Feb 2024	14 Sep 2023	
Machine Age	hrs	Client Info		5526	5161	
Oil Age	hrs	Client Info		5526	5161	
Filter Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Not Changd	Not Changd	
Filter Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	ATTENTION	
Iran			. 00	0	10	
Iron	ppm	ASTM D5185m	>20	8	12 4	
Chromium	ppm	ASTM D5185m	>10	2	-	
Nickel	ppm	ASTM D5185m	>10	0	0	
Titanium Silver	ppm	ASTM D5185m ASTM D5185m		<1	<1	
	ppm		10	0	<1	
Aluminum	ppm	ASTM D5185m	>10 >10	<1	5	
Lead	ppm	ASTM D5185m		0	0	
Copper	ppm	ASTM D5185m	>75	2	5	
Tin	ppm	ASTM D5185m	>10	0	<1	
Vanadium	ppm	ASTM D5185m		0		
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
				····		
Silicon	ppm	ASTM D5185m	>20	10	6	
Silicon Potassium						
	ppm	ASTM D5185m	>20	10	6	
Potassium	ppm	ASTM D5185m ASTM D5185m	>20 >20	10 0	6 2	
Potassium Water	ppm ppm	ASTM D5185m ASTM D5185m WC Method	>20 >20 >20 >0.1	10 0 NEG	6 2 NEG	
Potassium Water Silt	ppm ppm scalar	ASTM D5185m ASTM D5185m WC Method *Visual	>20 >20 >0.1 NONE	10 0 NEG NONE	6 2 NEG NONE	  
Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>20 >20 >0.1 NONE NONE	10 0 NEG NONE NONE	6 2 NEG NONE NONE	 
Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual	>20 >20 >0.1 NONE NONE NONE	10 0 NEG NONE NONE NONE	6 2 NEG NONE NONE NONE	
Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 >20 >0.1 NONE NONE NONE NORML	10 0 NEG NONE NONE NONE NORML	6 2 NEG NONE NONE NONE NORML	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORE NORML NEG	6 2 NEG NONE NONE NONE NORML NORML NEG	
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	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORML NORML NEG 6	6 2 NEG NONE NONE NORML NORML NEG 3	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar gppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORML NORML NEG 6 6	6 2 NEG NONE NONE NORML NORML NEG 3 0	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORML NORML NEG 6 68 0	6 2 NEG NONE NONE NORML NORML NEG 3 0 0	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORML NORML NEG 6 68 0 <1	6 2 NEG NONE NONE NORML NORML NEG 3 0 0 0	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORML NORML NEG 6 6 68 0 <1 <1	6 2 NEG NONE NONE NORML NORML NEG 3 0 0 0 0 2	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORML NORML NEG 6 68 0 <1 <1 <1 40	6 2 NEG NONE NONE NORML NORML NORML NEG 3 0 0 0 0 0 2 1 2	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm ppm 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 ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORML NORML NEG 6 68 0 <1 <1 <1 40 1881	6 2 NEG NONE NONE NORML NORML NEG 3 0 0 0 0 2 1 2 278	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Malybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORML NORML NEG 6 6 68 0 <1 <1 <1 40 1881 880	6 2 NEG NONE NONE NORML NORML NEG 3 0 0 0 0 2 1 2 278 664	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORML NORML NEG 6 6 68 0 <1 <1 <1 40 1881 880 1091	6 2 NEG NONE NONE NORML NORML NEG 3 0 0 0 0 0 0 2 1 2 278 664 877	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Malybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >20 >0.1 NONE NONE NONE NORML NORML	10 0 NEG NONE NONE NORML NORML NEG 6 6 6 8 0 <1 <1 <1 40 1881 880	6 2 NEG NONE NONE NORML NORML NEG 3 0 0 0 0 2 1 2 278 664	

Submitted By: Mike Korbelik







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