**WEAR CONTAMINATION FLUID CONDITION** 

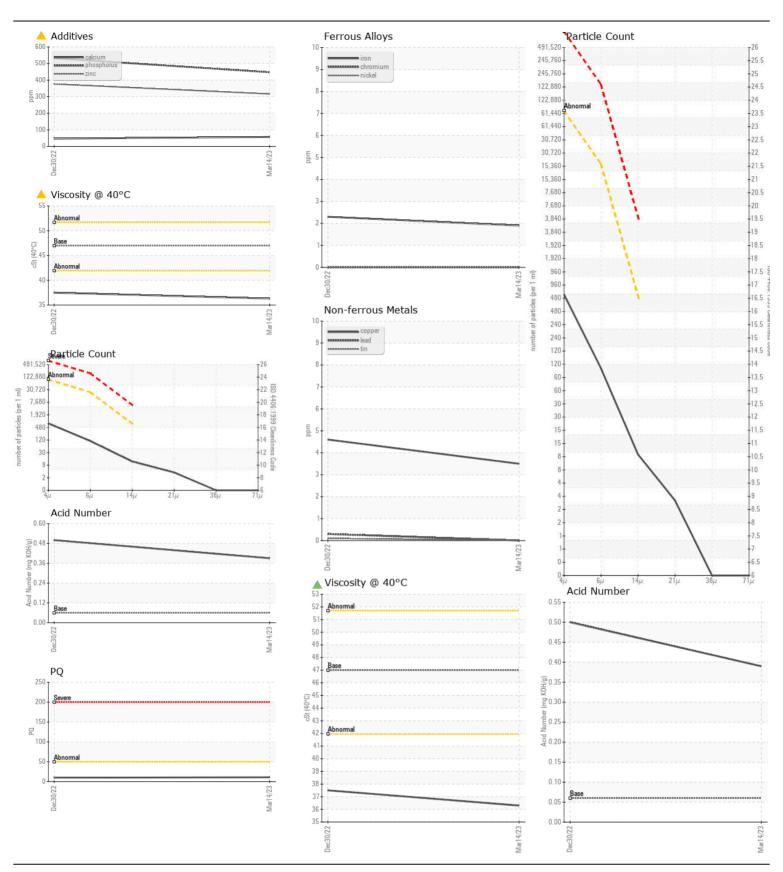
NORMAL **NORMAL ABNORMAL** 

## [MPG PIPELINE CONTRAC]

## **JOHN DEERE 300G 1FF300GXENF732026**

Hydraulic System

Sample Number   Client Info   JR0158613   JR0152629	HÏTACHI HYDRAULIC SUPER EX 46HN ( GA	AL)						
	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age   hrs   Client linio   0   0		Sample Number		Client Info		JR0159813	JR0152269	
Machine Age   hrs   Client Info   0   0	Recommend drain oil if not already done. Reduce drain interval to 2000 hours or drain and flush and use recommended zinc free oil.	Sample Date		Client Info		14 Mar 2023	30 Dec 2022	
Filter Age		Machine Age	hrs	Client Info		1018	419	
Col Changed   Client Info   Changed   Client Info   Changed   Changed   Client Info   Changed		Oil Age	hrs	Client Info		0	0	
Filter Changed   Sample Status   Changed   ARNORMAL		Filter Age	hrs	Client Info		0	0	
NEAR   PO		Oil Changed		Client Info		Not Changd	Not Changd	
PQ		Filter Changed		Client Info		Changed	Not Changd	
Iron		Sample Status				ABNORMAL	ABNORMAL	
Iron	WFAR	PQ		ASTM D8184	>50	11	10	
All component wear rates are normal.    Chromium   ppm   ASTM 05185m   >9   0   0       Nickel   ppm   ASTM 05185m   >5   0   0       Titanium   ppm   ASTM 05185m   >5   0   0       Aluminum   ppm   ASTM 05185m   >0   0       Aluminum   ppm   ASTM 05185m   >9   0   <1       Aluminum   ppm   ASTM 05185m   >9   0   <1       Aluminum   ppm   ASTM 05185m   >9   0   <1       ASTM 05185m   >0   0   <1       ASTM 05185m   >5   0   <1       ASTM 05185m   >5   0   <1       ASTM 05185m   >0   0   0       ASTM 05185m   >0   0   0       ASTM 05185m   >0   0   0   0   0       ASTM 05185			mag					
Nickel   ppm   ASTM D5185m   >5   0   0   0	All component wear rates are normal.							
Titanium   ppm   ASTM D5185m   0 0 0   Sliver   ppm   ASTM D5185m   20 0   0     Aluminum   ppm   ASTM D5185m   20 0   <1     Copper   ppm   ASTM D5185m   20 0   <1     Copper   ppm   ASTM D5185m   50 0   <1     Tin   ppm   ASTM D5185m   50 0   <1     NONE   NONE     NONE   NONE     NONE   NONE     NONE   NONE     NONE   NONE     NONE   NONE     NONE						-	-	
Silver   ppm   ASTM D5185m   0					70	-	-	
Aluminum   ppm   ASTM D5185m   >9   0   <1							-	
Lead   Copper   ppm   ASTM D5185m   >28   0					>9	-	_	
Copper   ppm   ASTM D5185m   >50   4   5								
Tin								
Vanadium   ppm   ASTM D5185m   O   O   O			• • • • • • • • • • • • • • • • • • • •				_	
White Metal   Scalar   Visual   NONE   NON					//			
Silicon   ppm   ASTM D5185m   >11   1   1   1   1   1   1   1   1					NONE	-	-	
Silicon   ppm   ASTM D5185m   >11   1   1   1   1   1   1   1   1								
Potassium   ppm   ASTM D5185m   ≥20   0   2								
Water   WC Method   >0.075   NEG   NEG	CONTAMINATION							
acceptable.    Particles >4µm   ASTM D7647   >80000   658   6039	The amount and size of particulates present in the system are		ppm					
Particles >9µm   ASTM D7647   >20000   95   764     Particles >14µm   ASTM D7647   >640   10   21     Particles >21µm   ASTM D7647   >640   10   21     Particles >21µm   ASTM D7647   >160   3   4     Particles >71µm   ASTM D7647   >10   0   0   0     Particles >71µm   ASTM D7647   >10   0   0   0   0   0   0   0   0   0	acceptable.							
Particles >14µm								
Particles >21 μm		· .						
Particles >38µm   ASTM D7647   >40   0   1		•						
Particles >71µm								
Oil Cleanliness   ISO 4406 (c)   223/21/16   17/14/10   20/17/12						-	'	
Silt   Scalar   *Visual   NONE   NO		· ·				-	-	
Debris   Scalar   *Visual   NONE				\ /				
Sand/Dirt   Scalar   *Visual   NONE   NONE   NONE   NORML								
Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Femulsified Water scalar *Visual NORML								
Codor   Scalar   *Visual   NORML								
Emulsified Water scalar *Visual >0.075 NEG NEG  FLUID CONDITION  The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Zinc level above manufacturer's recommendations. Confirm oil type. The AN level is acceptable for this fluid.  Sodium ppm ASTM D5185m >21 <1 0  Boron ppm ASTM D5185m 0 1  Molybdenum ppm ASTM D5185m < 1 <1  Manganese ppm ASTM D5185m < 1 <1  Magnesium ppm ASTM D5185m		• •						
FLUID CONDITION  The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Zinc level above manufacturer's recommendations. Confirm oil type. The AN level is acceptable for this fluid.  Sodium ppm ASTM D5185m >21 <1 0  Barium ppm ASTM D5185m 0 1  Molybdenum ppm ASTM D5185m <1 <1  Manganese ppm ASTM D5185m <1 <1  Manganese ppm ASTM D5185m 57 46  Calcium ppm ASTM D5185m 827 447 531  Zinc ppm ASTM D5185m 0 316 376  Sulfur ppm ASTM D5185m 13 1838 2359  Acid Number (AN) mg KOH/g ASTM D8045 0.06 0.39 0.50								
The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Zinc level above manufacturer's recommendations. Confirm oil type. The AN level is acceptable for this fluid.    Boron   ppm   ASTM D5185m   0   1		Emulsified Water	scalar	*Visual	>0.075	NEG	NEG	
The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Zinc level above manufacturer's recommendations. Confirm oil type. The AN level is acceptable for this fluid.    Barium   ppm   ASTM D5185m   <1   <1       Molybdenum   ppm   ASTM D5185m   <1   <1       Manganese   ppm   ASTM D5185m   <1   <1       Calcium   ppm   ASTM D5185m   <1   <1       Phosphorus   ppm   ASTM D5185m   827   447   531       Zinc   ppm   ASTM D5185m   0   <1   316   <1   <     Sulfur   ppm   ASTM D5185m   13   <1   1838   <1   <1   <     Sulfur   ppm   ASTM D5185m   13   <1   <1   <     Acid Number (AN)   mg KOH/g   ASTM D8045   0.06   0.39   0.50	FLUID CONDITION	Sodium	ppm	ASTM D5185m	>21	<1	0	
indicates the addition of a different brand, or type of oil. Zinc level above manufacturer's recommendations. Confirm oil type. The AN level is acceptable for this fluid.    Molybdenum   ppm   ASTM D5185m   <1 <1 <	The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Zinc level above manufacturer's recommendations. Confirm oil type. The AN level is acceptable for this fluid.	Boron	ppm	ASTM D5185m		0	0	
Indicates the addition of a different brand, or type of oil. Zinc level above manufacturer's recommendations. Confirm oil type. The AN level is acceptable for this fluid.    Molybdenum   ppm   ASTM D5185m   <1   <1       Manganese   ppm   ASTM D5185m   <1   <1       Manganese   ppm   ASTM D5185m   <1   <1       Manganese   ppm   ASTM D5185m   <1   <1       Calcium   ppm   ASTM D5185m   57   46       Phosphorus   ppm   ASTM D5185m   827   447   531       Zinc   ppm   ASTM D5185m   0   ASTM D5185m   0   ASTM D5185m   13   ASTM D5185m		Barium	ppm	ASTM D5185m		0	1	
above manufacturer's recommendations. Confirm oil type. The AN level is acceptable for this fluid.    Manganese   ppm   ASTM D5185m   <1   <1       Magnesium   ppm   ASTM D5185m   < 40   ▲ 57       Calcium   ppm   ASTM D5185m   57   46       Phosphorus   ppm   ASTM D5185m   827   447   531       Zinc   ppm   ASTM D5185m   0   ▲ 316   ▲ 376       Sulfur   ppm   ASTM D5185m   13   ▲ 1838   ▲ 2359       Acid Number (AN)   mg KOH/g   ASTM D8045   0.06   0.39   0.50		Molybdenum		ASTM D5185m		<1	<1	
Magnesium ppm ASTM D5185m		Manganese				<1		
Calcium       ppm       ASTM D5185m       57       46          Phosphorus       ppm       ASTM D5185m       827       447       531          Zinc       ppm       ASTM D5185m       0       316       376          Sulfur       ppm       ASTM D5185m       13       1838       2359          Acid Number (AN)       mg KOH/g       ASTM D8045       0.06       0.39       0.50		Magnesium		ASTM D5185m		<b>4</b> 0	<b>▲</b> 57	
Phosphorus         ppm         ASTM D5185m         827         447         531            Zinc         ppm         ASTM D5185m         0         ▲ 316         ▲ 376            Sulfur         ppm         ASTM D5185m         13         ▲ 1838         ▲ 2359            Acid Number (AN)         mg KOH/g         ASTM D8045         0.06         0.39         0.50		•						
Zinc       ppm       ASTM D5185m       0       ▲ 316       ▲ 376          Sulfur       ppm       ASTM D5185m       13       ▲ 1838       ▲ 2359          Acid Number (AN)       mg KOH/g       ASTM D8045       0.06       0.39       0.50					827			
Sulfur       ppm       ASTM D5185m       13       ▲ 1838       ▲ 2359          Acid Number (AN)       mg KOH/g       ASTM D8045       0.06       0.39       0.50								
Acid Number (AN) mg KOH/g ASTM D8045 0.06 0.39 0.50								
		Visc @ 40°C	cSt			▲ 36.3	<b>▲</b> 37.5	





Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** 

: JR0159813 : 05795768 : 10385452

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

: 20 Mar 2023 : 21 Mar 2023

Diagnostician : Don Baldridge Test Package : CONST ( Additional Tests: PQ )

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)

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