

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id A-322

Component Transmission

Fluid JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

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 fluid.

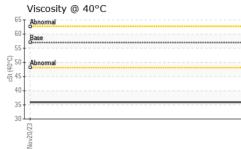
Fluid Condition

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

SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0828496		
Sample Date		Client Info		20 Nov 2023		
Machine Age	hrs	Client Info		6566		
Oil Age	hrs	Client Info		566		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	175		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m		0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>50	<1		
Lead	ppm	ASTM D5185m	>50	0		
Copper	ppm	ASTM D5185m		4		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m	210	<1		
Cadmium	ppm	ASTM D5185m		0		
	pp					
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6	118		
Barium	ppm		0	0		
Molybdenum	ppm	ASTM D5185m	0	0		
Molybdenum Manganese		ASTM D5185m ASTM D5185m	0	0 2		
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 145	0 2 0		
Molybdenum Manganese Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 145 3570	0 2 0 114		
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 145	0 2 0 114 262		
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 145 3570	0 2 0 114		
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 145 3570 1290	0 2 0 114 262		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 145 3570 1290	0 2 0 114 262 10	 	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 145 3570 1290 1640	0 2 0 114 262 10 447	 	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 145 3570 1290 1640 limit/base	0 2 0 114 262 10 447 current	 history1	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 145 3570 1290 1640 limit/base	0 2 0 114 262 10 447 current 5	 history1	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 145 3570 1290 1640 limit/base >50	0 2 0 114 262 10 447 <u>current</u> 5 4	 history1	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	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 ASTM D5185m	0 145 3570 1290 1640 limit/base >50	0 2 0 114 262 10 447 <u>current</u> 5 4 <1	 history1 	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 145 3570 1290 1640 limit/base >50 >20 limit/base	0 2 0 114 262 10 447 <u>current</u> 5 4 <1 < <u>current</u>	 history1 history1	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 145 3570 1290 1640 limit/base >50 >20 limit/base NONE	0 2 0 114 262 10 447 <u>current</u> 5 4 <1 < <u>current</u> NONE	 history1 history1 history1	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m XW isual	0 145 3570 1290 1640 imit/base >50 >20 imit/base NONE NONE	0 2 0 114 262 10 447 <u>current</u> 5 4 <1 < <u>current</u> NONE NONE	 history1 history1	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL White Metal Yellow Metal Precipitate	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 ASTM D5185m ASTM D5185m *Visual *Visual	0 145 3570 1290 1640 1640 1640 1640 1640 1640 1640 164	0 2 0 114 262 10 447 <u>current</u> 5 4 <1 5 4 <1 <u>current</u> NONE NONE NONE	 history1 history1	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL White Metal Yellow Metal Precipitate Silt	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 ASTM D5185m ASTM D5185m *Visual *Visual *Visual	0 145 3570 1290 1640 limit/base >50 s 20 limit/base NONE NONE NONE NONE	0 2 0 114 262 10 447 <u>current</u> 5 4 <1 <u>current</u> NONE NONE NONE NONE	 history1 history1 history1	 history2 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL Vhite Metal Precipitate Silt Debris	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 ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	0 145 3570 1290 1640 limit/base >50 limit/base NONE NONE NONE NONE NONE NONE	0 2 0 114 262 10 447 <u>current</u> 5 4 <1 <u>current</u> NONE NONE NONE NONE NONE NONE	 history1 history1 history1 	 history2 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL VHIE Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	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 ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual	0 145 3570 1290 1640 limit/base >50 limit/base NONE NONE NONE NONE NONE NONE NONE NONE	0 2 0 114 262 10 447 <u>current</u> 5 4 <1 <u>current</u> NONE NONE NONE NONE NONE NONE NONE	 history1 history1 history1 	history2 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	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 ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	0 145 3570 1290 1640 limit/base >50 limit/base NONE NONE NONE NONE NONE NONE NONE NONE	0 2 0 114 262 10 447 <u>current</u> 5 4 <1 <u>current</u> NONE NONE NONE NONE NONE NONE NONE NON	 history1 history1 	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	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 ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	0 145 3570 1290 1640 limit/base >50 limit/base >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	0 2 0 114 262 10 447 <u>current</u> 5 4 <1 <u>current</u> NONE NONE NONE NONE NONE NONE NONE NON	 history1 history1 -	 history2 history2



OIL ANALYSIS REPORT



2	FLUID PROPER	TIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt A	ASTM D445	57.0	35.9		
	SAMPLE IMAGE	ES	method	limit/base	current	history1	history2
23	Color				no image	no image	no image
20/2/voM	Bottom				no image	no image	no image
	GRAPHS						
цd	Ferrous Alloys			Nov20/23			
10-U2 140-U2	5 50 Abnormal 3 45 -						
	40						
	30			23			
	Nav20/23			Nov20/23			
Laboratory Sample No. Lab Number Unique Number Test Package To discuss this sample report, c * - Denotes test methods that ar	re outside of the ISO	Received Diagnosed Diagnostic vice at 1-800 17025 scope	: 22 N 1 : 27 N ian : Jona 0-237-1369 e of accredi	lov 2023 lov 2023 athan Hester <i>tation.</i>	, NICK	4201 FAYE Contac DIXON@DUKE T:	(919)760-7797
Statements of conformity to specia					JCGM 106:2012		F:

