

JOHN DEERE 3009767 (S/N 066037) Component Hydraulic System Fluid JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

WEAR

All component wear rates are normal.

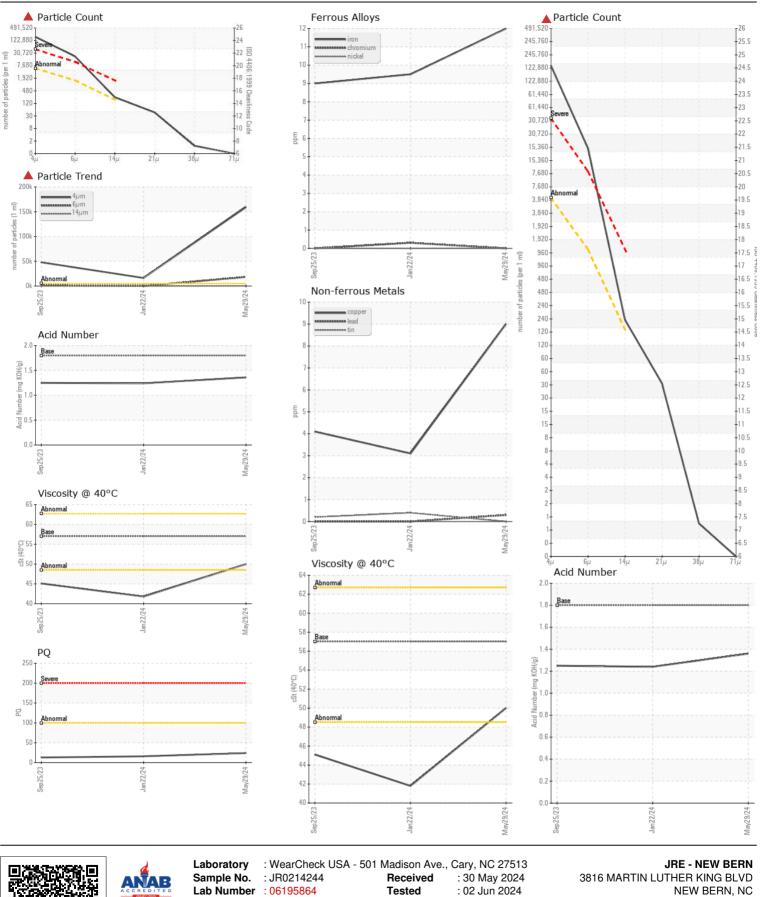
CONTAMINATION

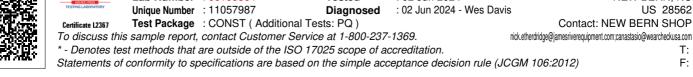
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Numbe	r	Client Info		JR0214244	JR0200942	JR0189498
Sample Date		Client Info		29 May 2024	22 Jan 2024	25 Sep 2023
Machine Age	hrs	Client Info		4477	4077	3595
Oil Age	hrs	Client Info		400	4077	3595
Filter Age	hrs	Client Info		0	4077	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changeo	ł	Client Info		N/A	Changed	N/A
Sample Status	3			SEVERE	ABNORMAL	ABNORMAL
PQ		ASTM D8184		24	16	13
Iron	ppm	ASTM D5185m	>20	12	10	9
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<u> </u>
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	<1	0
Lead	ppm	ASTM D5185m	>10	<1	0	0
Copper	ppm	ASTM D5185m	>75	9	3	4
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	4	2	3
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	1 59177	A 16272	A 47937
Particles >6µm		ASTM D7647	>1300	18293	67	▲ 1579
Particles >14µm		ASTM D7647	>160	206	3	31
Particles >21µm		ASTM D7647	>40	39	1	7
Particles >38µm		ASTM D7647	>10	1	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	4 24/21/15	▲ 21/13/9	▲ 23/18/12
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML NEG	NORML	NORML
Emulsified Wate	r scalar	*Visual	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		1	1	<1
Boron	ppm	ASTM D5185m	6	17	3	2
Barium	ppm	ASTM D5185m	0	<1	0	0
Molybdenum	ppm	ASTM D5185m	0	10	4	3
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	145	189	73	61
Calcium	ppm	ASTM D5185m	3570	2333	2024	1961
Phosphorus	ppm	ASTM D5185m	1290	835	762	685
Zinc	ppm	ASTM D5185m	1640	1014	754	805
Sulfur	ppm	ASTM D5185m		3194	2503	2748
Acid Number (AN) mg KOH/g	ASTM D8045	1.8	1.36	1.24	1.25
Visc @ 40°C	cSt	ASTM D445	57.0	50.0	41.8	45.1





Submitted By: Dylan Sanderson Page 2 of 2

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