



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 2 - Beaver [RO#130948]
Machine Id
JOHN DEERE 310G T0310GX949926
Component
Hydraulic System
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0032512	LEC0022536	---
Sample Date		Client Info		15 Aug 2022	02 Aug 2021	---
Machine Age	hrs	Client Info		2614	2371	---
Oil Age	hrs	Client Info		2614	2371	---
Filter Age	hrs	Client Info		243	600	---
Oil Changed		Client Info		Not Changed	Not Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

The chromium level is abnormal. All other component wear rates are normal.

PQ		ASTM D8184	>50	13	27	---
Iron	ppm	ASTM D5185m	>71	36	32	---
Chromium	ppm	ASTM D5185m	>11	▲ 17	▲ 15	---
Nickel	ppm	ASTM D5185m	>6	0	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		<1	<1	---
Aluminum	ppm	ASTM D5185m	>11	6	4	---
Lead	ppm	ASTM D5185m	>13	1	<1	---
Copper	ppm	ASTM D5185m	>21	21	21	---
Tin	ppm	ASTM D5185m	>5	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>24	16	16	---
Potassium	ppm	ASTM D5185m	>20	<1	3	---
Water		WC Method	>0.075	NEG	NEG	---
Particles >4µm		ASTM D7647	>80000	8546	5372	---
Particles >6µm		ASTM D7647	>5000	901	151	---
Particles >14µm		ASTM D7647	>640	75	11	---
Particles >21µm		ASTM D7647	>160	12	3	---
Particles >38µm		ASTM D7647	>40	1	0	---
Particles >71µm		ASTM D7647	>10	0	0	---
Oil Cleanliness		ISO 4406 (c)	>23/19/16	20/17/13	20/14/11	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	2	4	---
Boron	ppm	ASTM D5185m	6	65	63	---
Barium	ppm	ASTM D5185m	0	0	0	---
Molybdenum	ppm	ASTM D5185m	0	10	11	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	145	89	83	---
Calcium	ppm	ASTM D5185m	3570	2118	2124	---
Phosphorus	ppm	ASTM D5185m	1290	691	687	---
Zinc	ppm	ASTM D5185m	1640	871	828	---
Sulfur	ppm	ASTM D5185m		2627	2258	---
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	0.86	0.953	---
Visc @ 40°C	cSt	ASTM D445	57.0	47.4	47.0	---

