



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
1DW310EXCMF711937
Component
Rear Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (36 QTS)

RECOMMENDATION

The oil change at the time of sampling has been noted. 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		JR0210328	JR0160376	JR0157398
Sample Date		Client Info		06 Mar 2024	01 Feb 2023	26 Jan 2023
Machine Age	hrs	Client Info		4153	1955	1945
Oil Age	hrs	Client Info		4000	0	1945
Filter Age	hrs	Client Info		4000	0	0
Oil Changed		Client Info		Changed	Not Changd	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

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

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		133	52	127
Iron	ppm	ASTM D5185m	>500	221	65	191
Chromium	ppm	ASTM D5185m	>10	2	<1	2
Nickel	ppm	ASTM D5185m	>10	3	<1	2
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	4	1	3
Lead	ppm	ASTM D5185m	>25	14	6	15
Copper	ppm	ASTM D5185m	>100	▲ 285	58	▲ 177
Tin	ppm	ASTM D5185m	>10	9	2	6
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

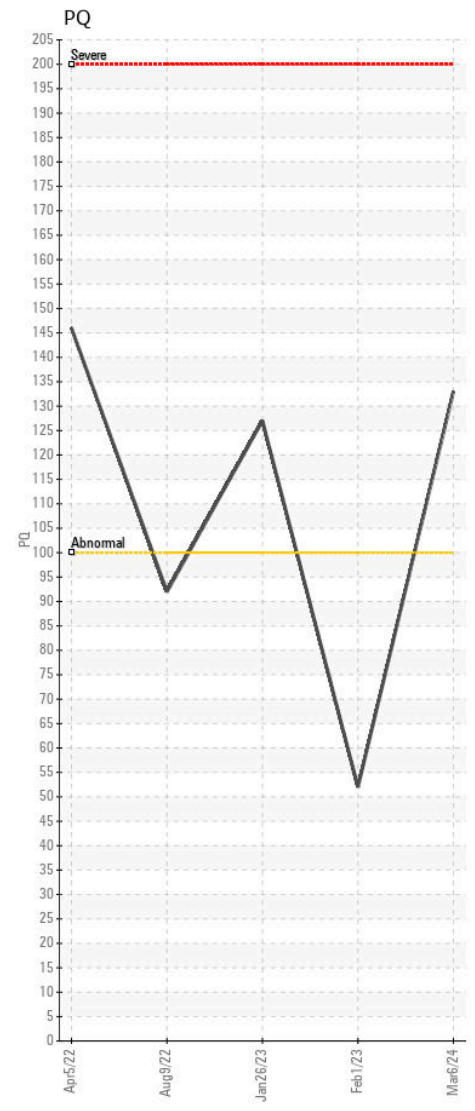
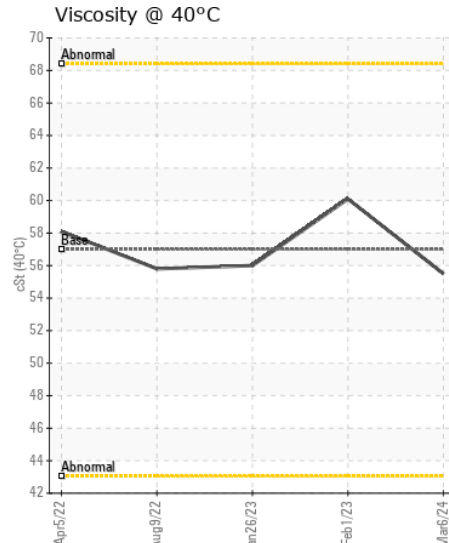
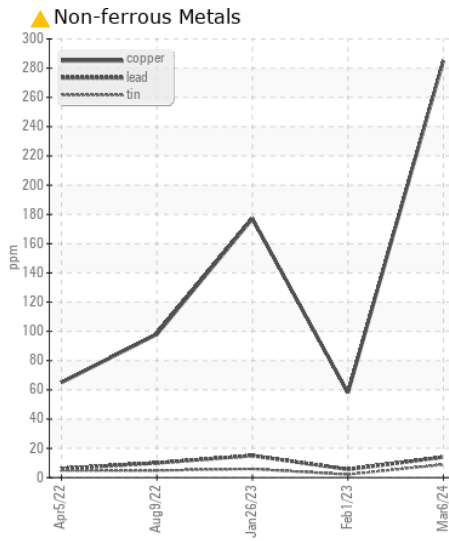
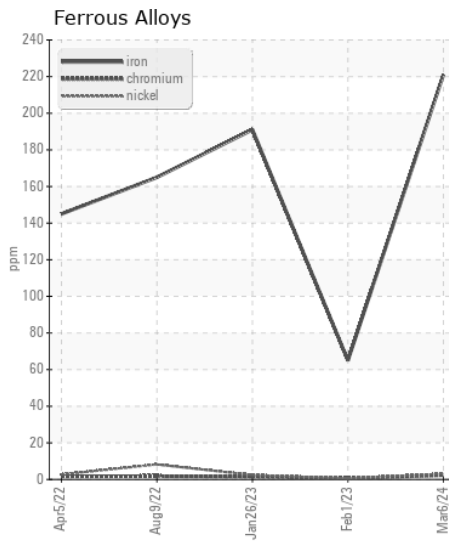
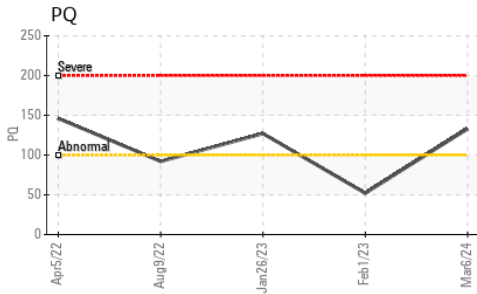
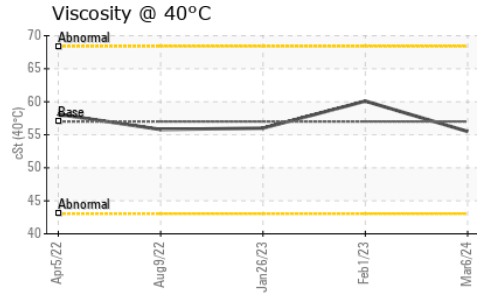
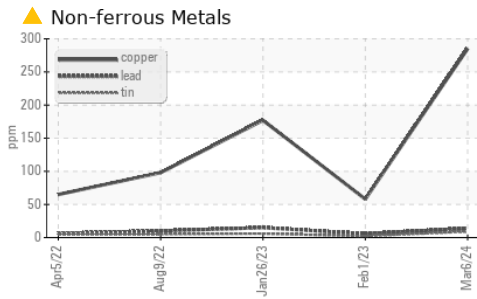
There is no indication of any contamination in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Silicon	ppm	ASTM D5185m	>75	16	7	12
Potassium	ppm	ASTM D5185m	>20	2	0	0
Water		WC Method	>.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	LIGHT	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	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	NEG	NEG	NEG

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sodium	ppm	ASTM D5185m		5	2	12
Boron	ppm	ASTM D5185m	6	18	15	39
Barium	ppm	ASTM D5185m	0	<1	0	<1
Molybdenum	ppm	ASTM D5185m	0	6	6	4
Manganese	ppm	ASTM D5185m		17	10	28
Magnesium	ppm	ASTM D5185m	145	104	103	81
Calcium	ppm	ASTM D5185m	3570	3367	3222	3249
Phosphorus	ppm	ASTM D5185m	1290	964	940	988
Zinc	ppm	ASTM D5185m	1640	1249	1117	1151
Sulfur	ppm	ASTM D5185m		3588	3909	3702
Visc @ 40°C	cSt	ASTM D445	57.0	55.5	60.1	56.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0210328 **Received** : 20 Mar 2024
Lab Number : 06123939 **Tested** : 21 Mar 2024
Unique Number : 10938090 **Diagnosed** : 22 Mar 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

PATRIOT DEVELOPMENT CORP
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 STERLING, VA
 US 20166
 Contact: ROBERT MOSS
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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)