



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 644P 1DW644PATPLZ18039
Component
Rear Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- QTS)

RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WE0006289	WE0005740	---
Sample Date		Client Info		23 Feb 2024	30 Nov 2023	---
Machine Age	hrs	Client Info		1559	1043	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				SEVERE	SEVERE	---

WEAR

Bearing and/or bushing wear is indicated.

PQ		ASTM D8184		16	21	---
Iron	ppm	ASTM D5185m	>500	150	139	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	1	1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		<1	0	---
Aluminum	ppm	ASTM D5185m	>25	<1	1	---
Lead	ppm	ASTM D5185m	>25	▲ 188	▲ 207	---
Copper	ppm	ASTM D5185m	>100	▲ 818	▲ 648	---
Tin	ppm	ASTM D5185m	>10	▲ 53	▲ 45	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

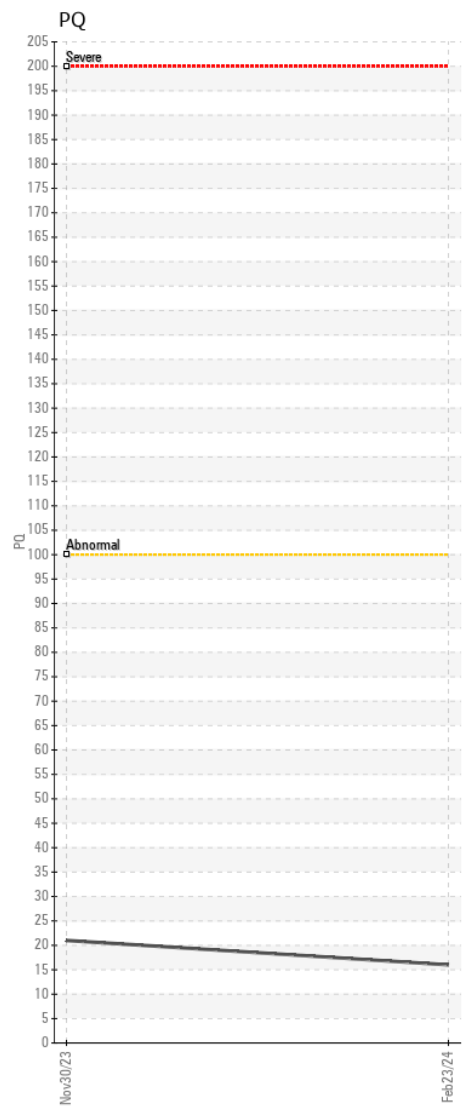
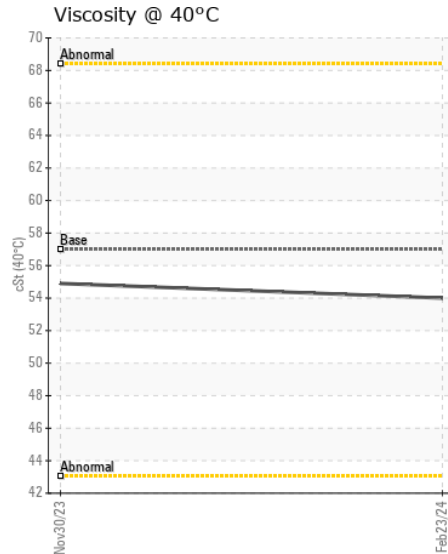
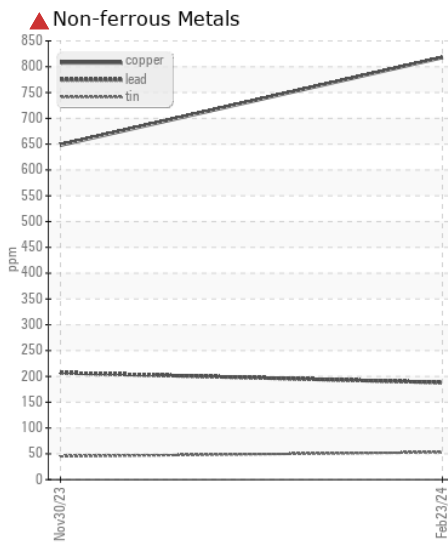
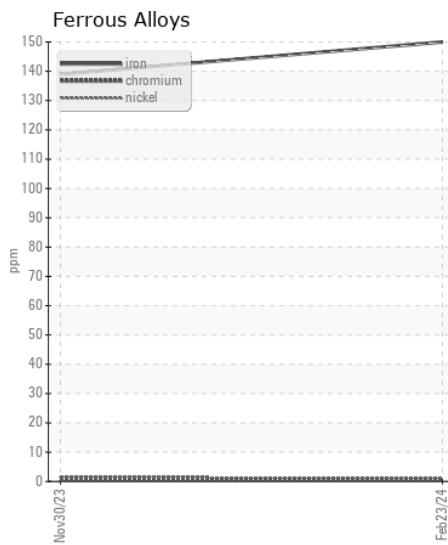
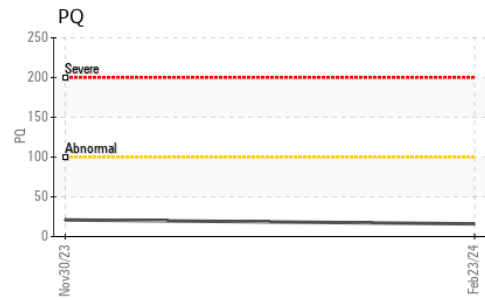
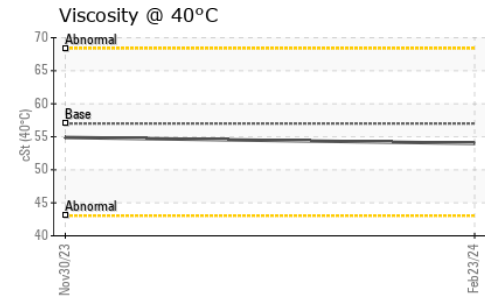
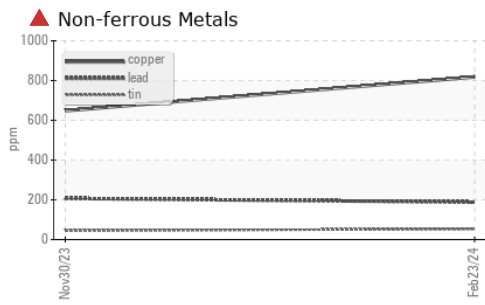
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	8	14	---
Potassium	ppm	ASTM D5185m	>20	<1	0	---
Water		WC Method	>.2	NEG	NEG	---
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	>.2	NEG	NEG	---

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185m		5	5	---
Boron	ppm	ASTM D5185m	6	1	4	---
Barium	ppm	ASTM D5185m	0	2	4	---
Molybdenum	ppm	ASTM D5185m	0	0	9	---
Manganese	ppm	ASTM D5185m		5	5	---
Magnesium	ppm	ASTM D5185m	145	89	108	---
Calcium	ppm	ASTM D5185m	3570	2927	3061	---
Phosphorus	ppm	ASTM D5185m	1290	1074	1110	---
Zinc	ppm	ASTM D5185m	1640	1031	1094	---
Sulfur	ppm	ASTM D5185m		3431	3443	---
Visc @ 40°C	cSt	ASTM D445	57.0	54.0	54.9	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WE0006289
Lab Number : 06101927
Unique Number : 10900157
Test Package : CONST (Additional Tests: PQ)

Received : 27 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 29 Feb 2024 - Sean Felton

WARRIOR TRACTOR AND EQUIPMENT - NORTHPORT
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 US 35476
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 T: (205)339-0300
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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)