



WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**2016**  
Component  
**Center Differential**  
Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

### 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		<b>JR0195384</b>	JR0169540	JR0159472
Sample Date		Client Info		<b>20 Feb 2024</b>	06 Jul 2023	19 Apr 2023
Machine Age	hrs	Client Info		<b>4163</b>	2987	2513
Oil Age	hrs	Client Info		<b>4000</b>	1000	520
Filter Age	hrs	Client Info		<b>4000</b>	1000	520
Oil Changed		Client Info		<b>Changed</b>	Not Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

### WEAR

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

PQ		ASTM D8184		<b>152</b>	103	91
Iron	ppm	ASTM D5185m	>500	<b>281</b>	193	167
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	1	<1
Nickel	ppm	ASTM D5185m	>10	<b>5</b>	3	2
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>25	<b>16</b>	10	4
Copper	ppm	ASTM D5185m	>100	<b>▲ 262</b>	<b>▲ 134</b>	110
Tin	ppm	ASTM D5185m	>10	<b>9</b>	5	4
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	MODER	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

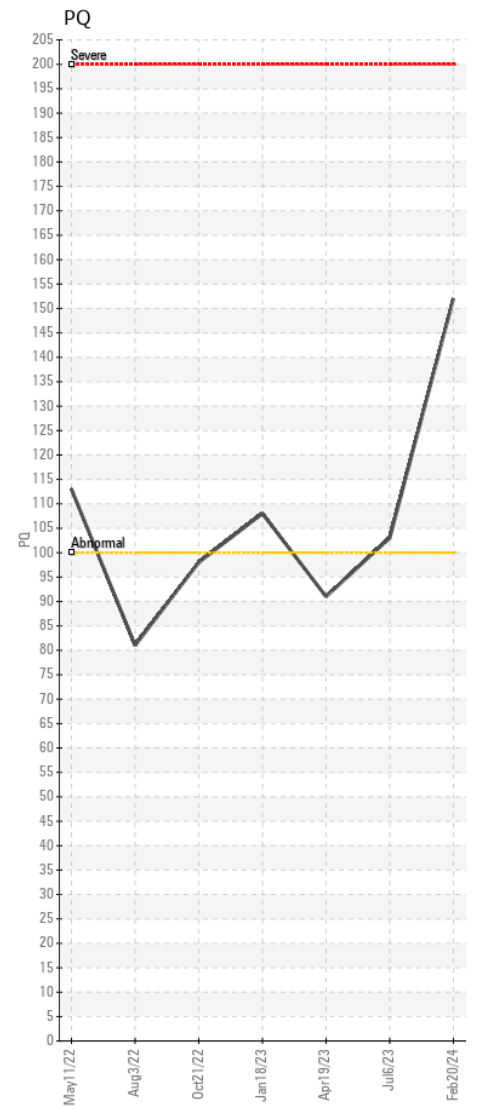
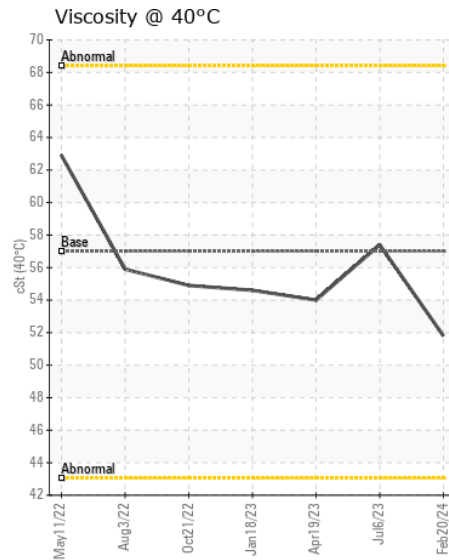
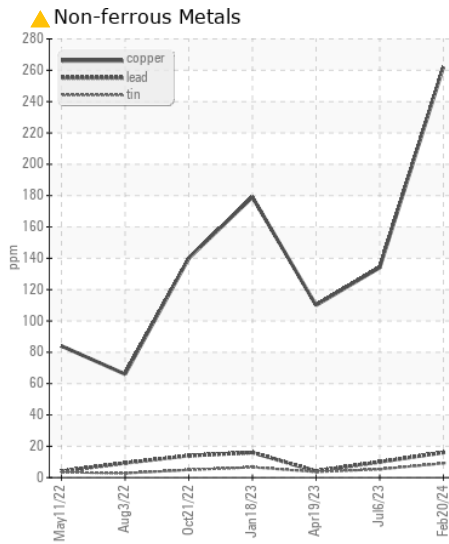
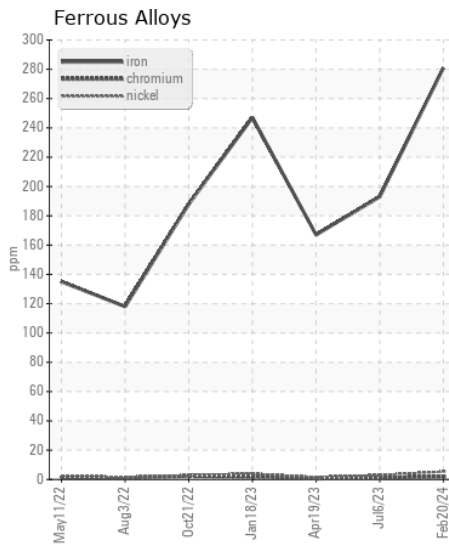
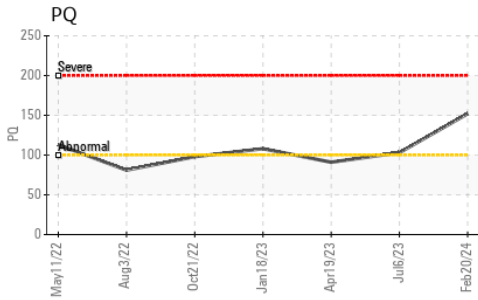
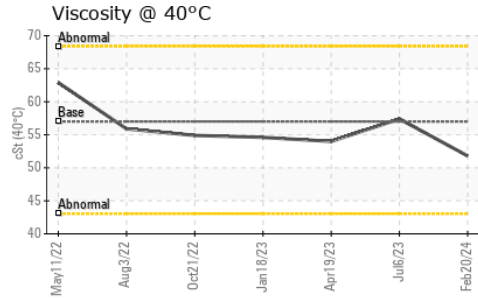
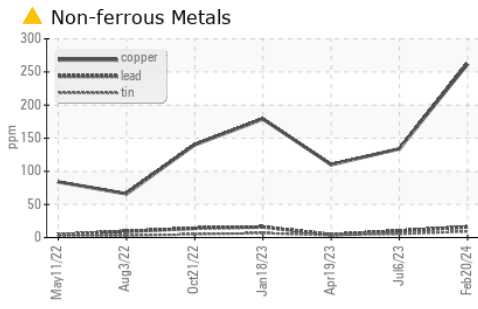
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>17</b>	12	11
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	0
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>4</b>	4	2
Boron	ppm	ASTM D5185m	6	<b>8</b>	11	7
Barium	ppm	ASTM D5185m	0	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>1</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>10</b>	8	8
Magnesium	ppm	ASTM D5185m	145	<b>93</b>	97	110
Calcium	ppm	ASTM D5185m	3570	<b>3415</b>	3456	3771
Phosphorus	ppm	ASTM D5185m	1290	<b>973</b>	1020	1123
Zinc	ppm	ASTM D5185m	1640	<b>1233</b>	1212	1414
Sulfur	ppm	ASTM D5185m		<b>3812</b>	4462	4147
Visc @ 40°C	cSt	ASTM D445	57.0	<b>51.8</b>	57.4	54.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0195384 **Received** : 20 Mar 2024  
**Lab Number** : 06123936 **Tested** : 21 Mar 2024  
**Unique Number** : 10938087 **Diagnosed** : 22 Mar 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**PATRIOT DEVELOPMENT CORP**  
 22721 LADBROOK DRIVE STE 120  
 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)

T:  
F: