



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



Machine Id  
**JOHN DEERE 450J 1T0450JXTDD255028**  
 Component  
**Hydraulic System**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0207770</b>	JR0191456	JR0157155
Sample Date		Client Info		<b>20 May 2024</b>	15 Nov 2023	08 Feb 2023
Machine Age	hrs	Client Info		<b>7148</b>	6934	6626
Oil Age	hrs	Client Info		<b>1248</b>	1034	726
Filter Age	hrs	Client Info		<b>1248</b>	1034	726
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	<b>15</b>	15	16
Iron	ppm	ASTM D5185m	>23	<b>9</b>	15	13
Chromium	ppm	ASTM D5185m	>9	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>9	<b>8</b>	11	9
Lead	ppm	ASTM D5185m	>28	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>51	<b>45</b>	▲ 72	▲ 67
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

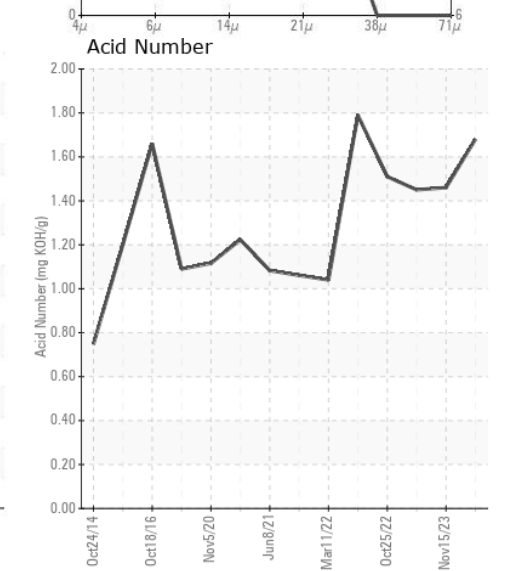
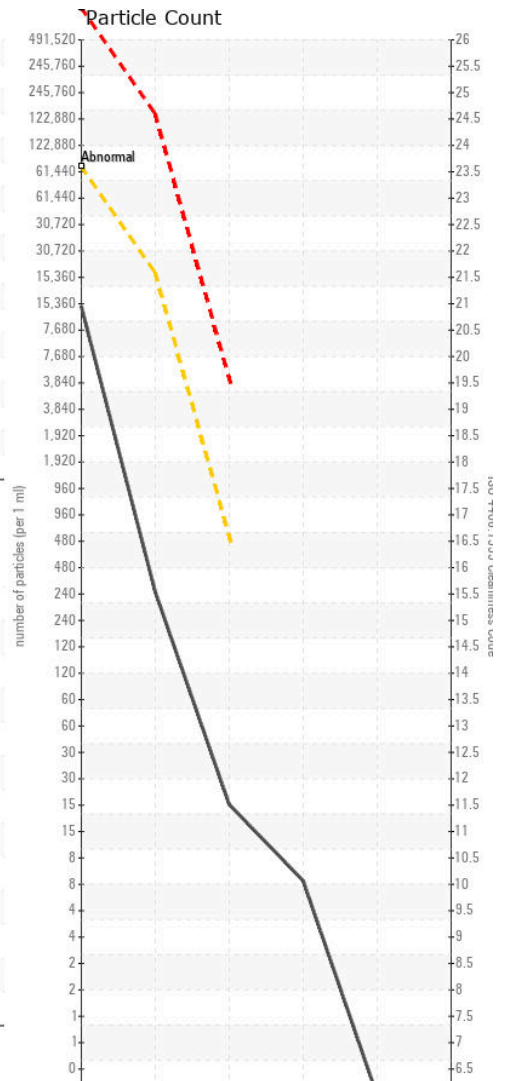
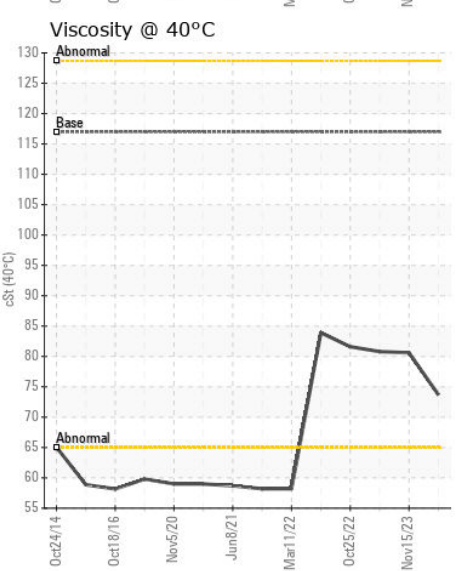
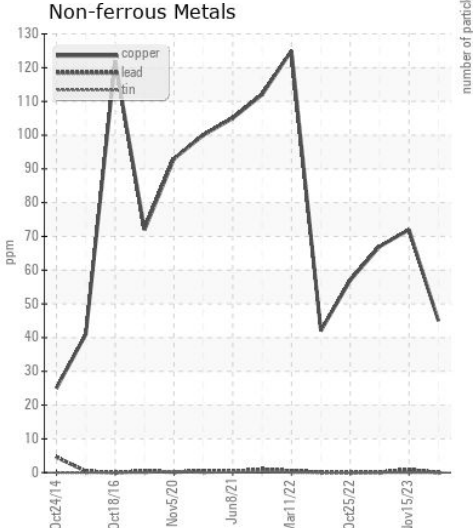
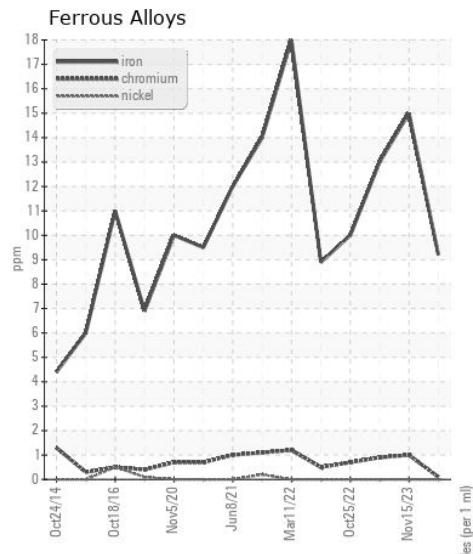
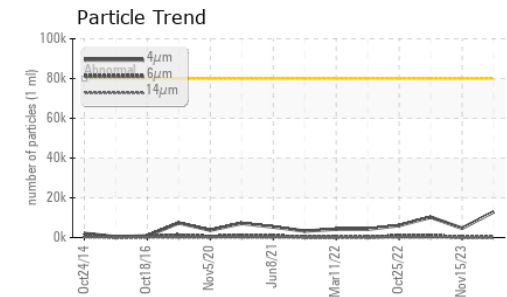
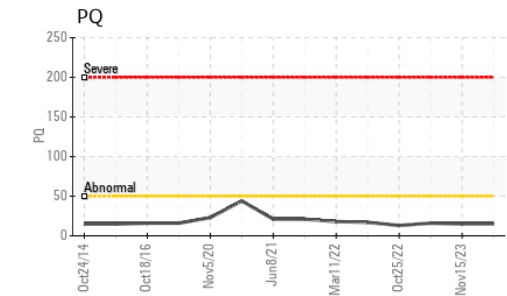
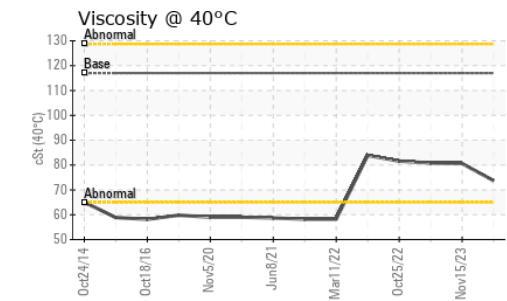
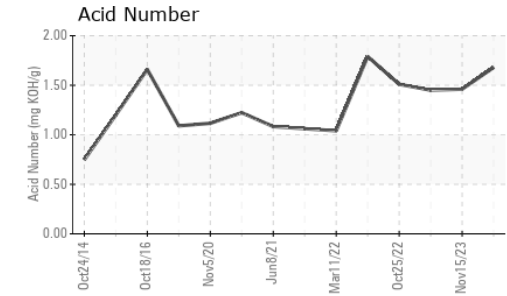
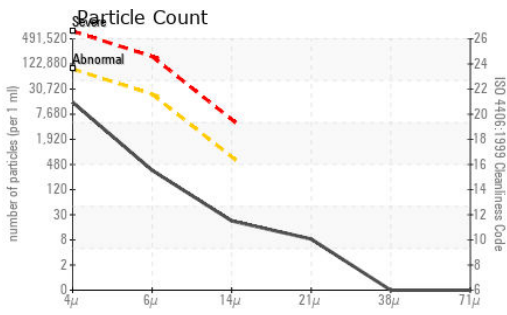
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>31	<b>13</b>	17	15
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	2
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>12922</b>	4690	10261
Particles >6µm		ASTM D7647	>20000	<b>307</b>	89	1051
Particles >14µm		ASTM D7647	>640	<b>19</b>	4	70
Particles >21µm		ASTM D7647	>160	<b>7</b>	1	14
Particles >38µm		ASTM D7647	>40	<b>0</b>	0	2
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	<b>21/15/11</b>	19/14/9	21/17/13
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	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	>0.075	<b>NEG</b>	▲ 0.2%	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<b>&lt;1</b>	2	<1
Boron	ppm	ASTM D5185m		<b>156</b>	232	239
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>101</b>	180	180
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>447</b>	612	533
Calcium	ppm	ASTM D5185m		<b>1684</b>	1335	1251
Phosphorus	ppm	ASTM D5185m		<b>995</b>	899	862
Zinc	ppm	ASTM D5185m		<b>1122</b>	1154	1020
Sulfur	ppm	ASTM D5185m		<b>3536</b>	3220	2903
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.68</b>	1.46	1.45
Visc @ 40°C	cSt	ASTM D445	117	<b>73.7</b>	80.6	80.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0207770 **Received** : 28 May 2024  
**Lab Number** : 06192106 **Tested** : 29 May 2024  
**Unique Number** : 11048858 **Diagnosed** : 30 May 2024 - Angela Borella  
**Test Package** : CONST ( Additional Tests: PQ )

**TENNOCA CONSTRUCTION**  
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 F:

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)