



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

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

Machine Id  
**JOHN DEERE 772G 72 - JOHN DEERE (S/N HF682978)**

Component  
**Differential**

Fluid  
**TRC UNIVERSAL TORQUE FLUID (38 QTS)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. 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		<b>TR06086699</b>	TR05605360	TR05392686
Sample Date		Client Info		<b>07 Feb 2024</b>	07 Jul 2022	28 Oct 2021
Machine Age	hrs	Client Info		<b>5981</b>	4509	4000
Oil Age	hrs	Client Info		<b>1981</b>	509	4000
Filter Age	hrs	Client Info		<b>1981</b>	509	1000
Oil Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>SEVERE</b>	SEVERE	ABNORMAL

**WEAR**

Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>500	<b>133</b>	144	141
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	1	3
Lead	ppm	ASTM D5185m	>25	<b>▲ 61</b>	<b>▲ 51</b>	<b>▲ 93</b>
Copper	ppm	ASTM D5185m	>100	<b>● 673</b>	<b>● 552</b>	<b>▲ 424</b>
Tin	ppm	ASTM D5185m	>10	<b>● 26</b>	<b>● 25</b>	<b>▲ 22</b>
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

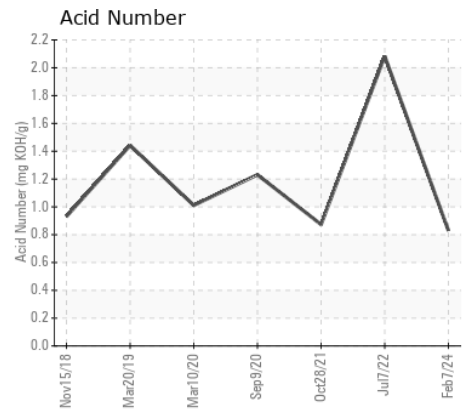
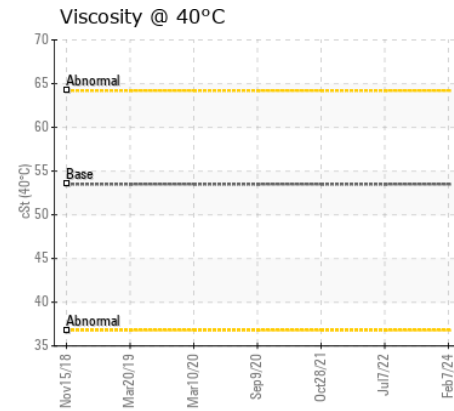
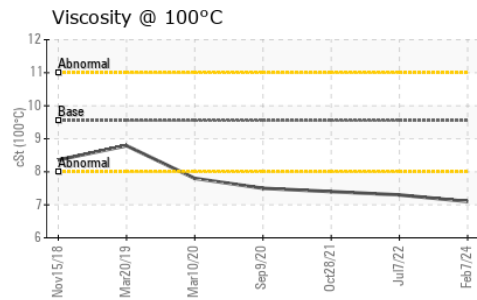
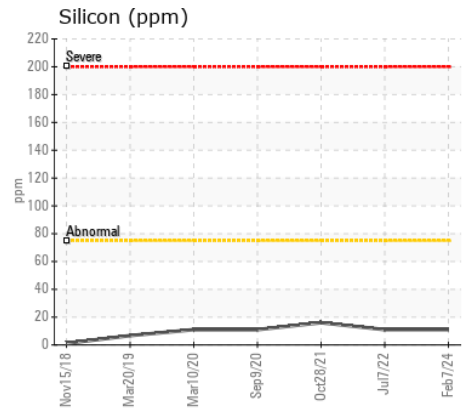
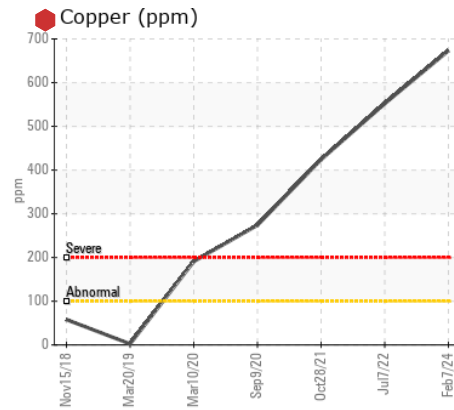
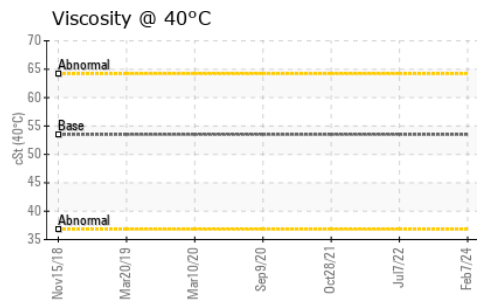
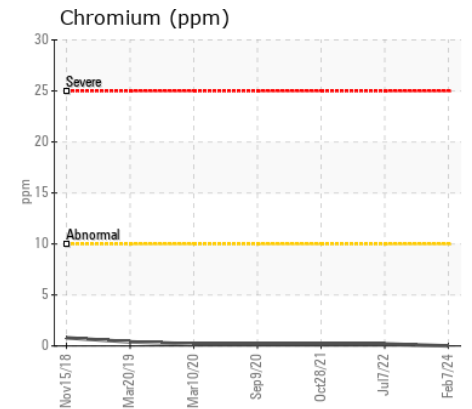
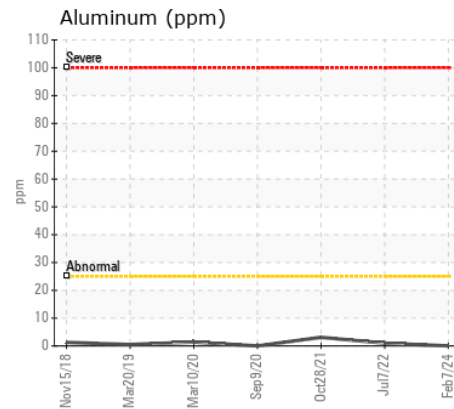
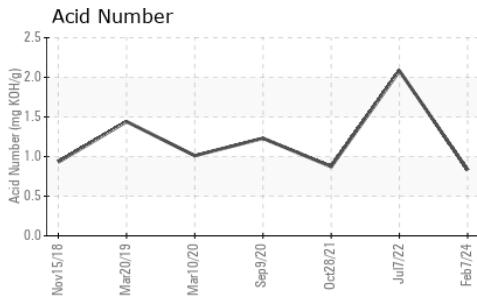
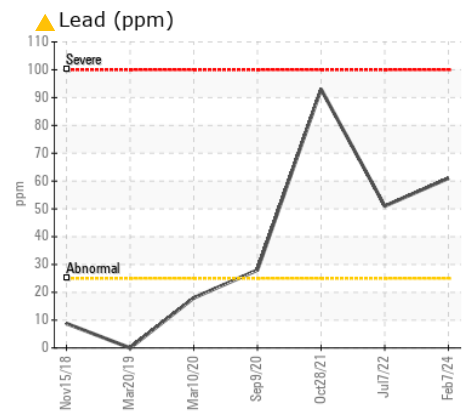
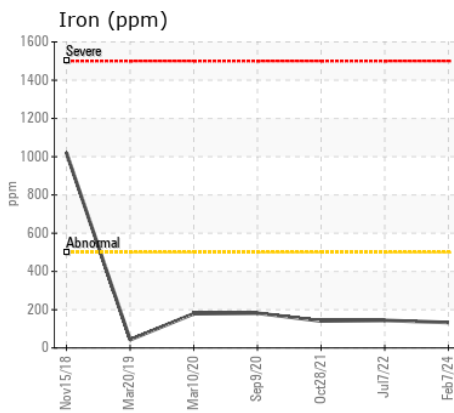
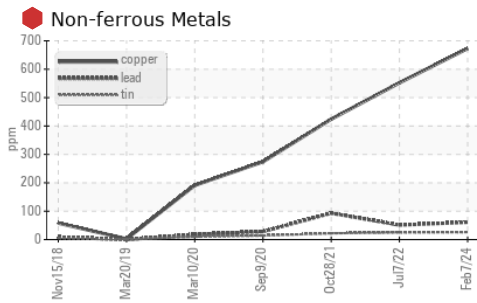
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>11</b>	11	16
Potassium	ppm	ASTM D5185m	>20	<b>0</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 AN level is acceptable for this fluid. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m		<b>2</b>	3	<1
Boron	ppm	ASTM D5185m		<b>136</b>	136	122
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	4
Manganese	ppm	ASTM D5185m		<b>2</b>	2	3
Magnesium	ppm	ASTM D5185m		<b>10</b>	15	3
Calcium	ppm	ASTM D5185m	4200	<b>3805</b>	4312	4139
Phosphorus	ppm	ASTM D5185m	1100	<b>1356</b>	1409	1604
Zinc	ppm	ASTM D5185m	2000	<b>1478</b>	1666	1595
Sulfur	ppm	ASTM D5185m		<b>6757</b>	8281	6194
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.83</b>	2.083	0.873
Visc @ 40°C	cSt	ASTM D445	53.5	<b>45.2</b>	---	---
Visc @ 100°C	cSt	ASTM D445	9.55	<b>7.1</b>	7.3	7.4
Viscosity Index (VI)	Scale	ASTM D2270	164	<b>116</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06086699 **Received** : 12 Feb 2024  
**Lab Number** : 06086699 **Tested** : 13 Feb 2024  
**Unique Number** : 10874144 **Diagnosed** : 13 Feb 2024 - Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: KV100, VI)

**COTTONWOOD COUNTY**  
 1355 9TH AVE  
 WINDOM, MN  
 US 56101  
 Contact: DARRYL BARGEN

To discuss this sample report, contact Customer Service at 1-800-827-0711.

\* - 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)

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