



OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

SEVERE
SEVERE
ATTENTION

Area
Store 3 - Norton

Machine Id
JOHN DEERE 331G 1T0331GMEHF316759

Component
Right Final Drive

Fluid
JOHN DEERE HY-GARD HYD/TRANS (1 QTS)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. 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		LEC0041578	LEC0039454	LEC0021502
Sample Date		Client Info		19 Jun 2024	24 Mar 2023	11 Aug 2021
Machine Age	hrs	Client Info		2641	2257	1766
Oil Age	hrs	Client Info		384	491	1766
Filter Age	hrs	Client Info		0	0	258
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	N/A	Not Changed
Sample Status				SEVERE	ABNORMAL	NORMAL

WEAR

The iron level is severe. Gear wear is indicated.

PQ		ASTM D8184	>1250	287	151	29
Iron	ppm	ASTM D5185m	>750	▲ 1192	847	99
Chromium	ppm	ASTM D5185m	>9	▲ 14	11	2
Nickel	ppm	ASTM D5185m	>10	▲ 14	9	2
Titanium	ppm	ASTM D5185m		5	2	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>40	● 64	● 25	4
Lead	ppm	ASTM D5185m	>15	<1	0	0
Copper	ppm	ASTM D5185m	>40	13	3	<1
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		2	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

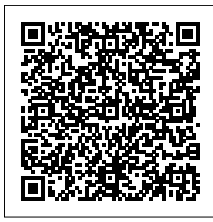
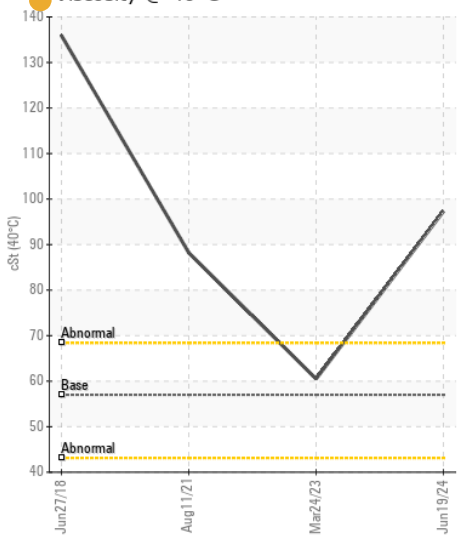
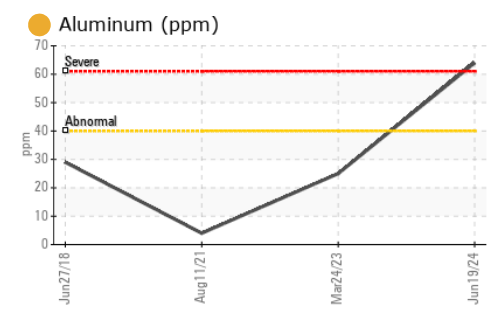
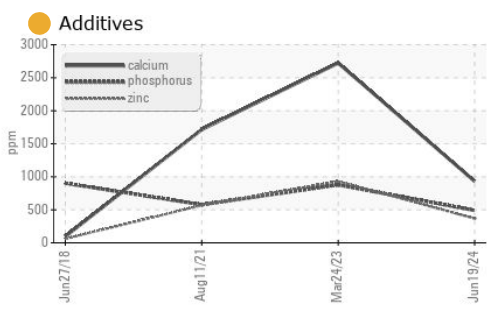
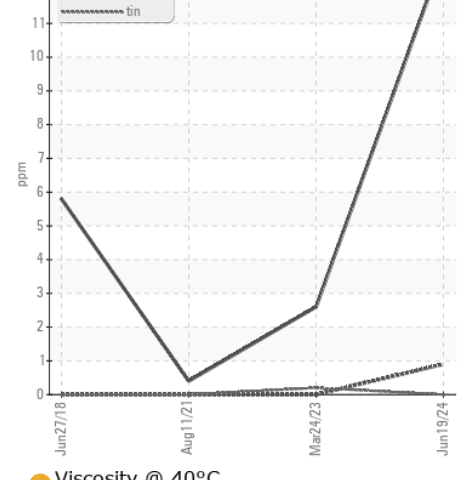
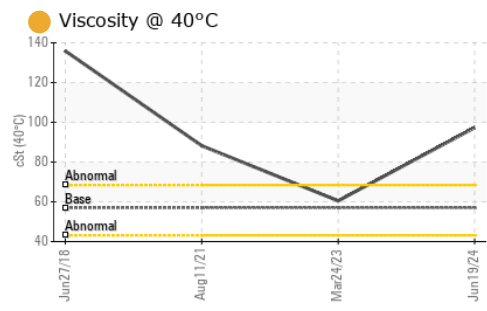
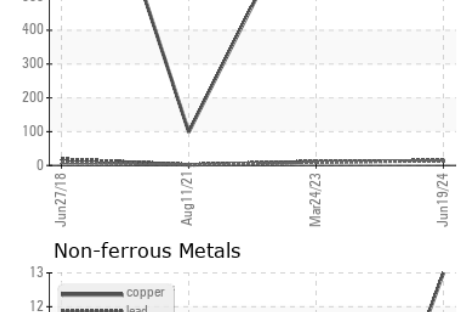
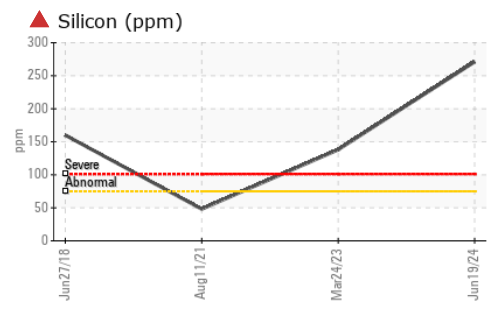
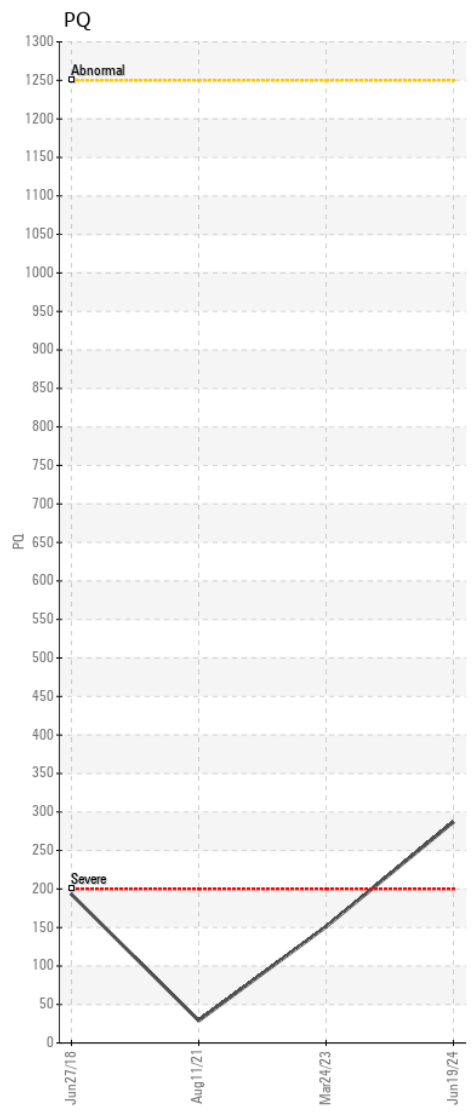
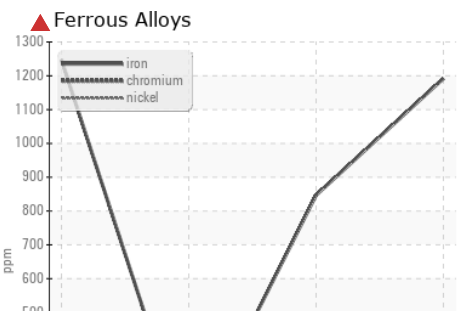
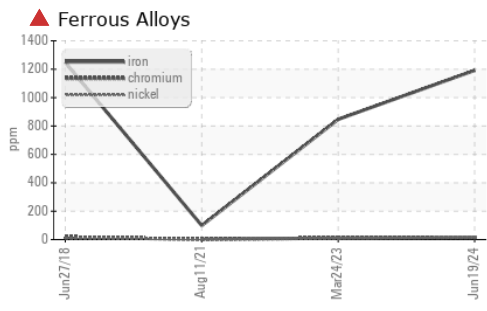
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>75	▲ 271	▲ 138	48
Potassium	ppm	ASTM D5185m	>20	22	6	12
Water		WC Method	>0.075	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	MODER	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
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	>0.075	NEG	NEG	NEG

FLUID CONDITION

The oil viscosity is higher than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>51	3	2	<1
Boron	ppm	ASTM D5185m	6	5	17	20
Barium	ppm	ASTM D5185m	0	1	0	0
Molybdenum	ppm	ASTM D5185m	0	5	9	3
Manganese	ppm	ASTM D5185m		10	7	<1
Magnesium	ppm	ASTM D5185m	145	45	112	70
Calcium	ppm	ASTM D5185m	3570	● 932	2722	1715
Phosphorus	ppm	ASTM D5185m	1290	● 491	878	577
Zinc	ppm	ASTM D5185m	1640	● 368	931	567
Sulfur	ppm	ASTM D5185m		● 13217	6701	10067
Visc @ 40°C	cSt	ASTM D445	57.0	● 97.3	60.5	88.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0041578 **Received** : 24 Jun 2024
Lab Number : 06218536 **Tested** : 25 Jun 2024
Unique Number : 11096733 **Diagnosed** : 26 Jun 2024 - Sean Felton
Test Package : CONST (Additional Tests: PQ)

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Certificate L2367
 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)