



WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
JOHN DEERE 850K 1T0850KXTEE256742
Component
Hydraulic System
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

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. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0224564	JR0061751	JR0039024
Sample Date		Client Info		16 Jul 2024	09 Sep 2020	05 Mar 2020
Machine Age	hrs	Client Info		11057	6619	6044
Oil Age	hrs	Client Info		0	500	0
Filter Age	hrs	Client Info		0	500	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

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

PQ		ASTM D8184	>50	19	24	28
Iron	ppm	ASTM D5185m	>23	▲ 55	10	▲ 46
Chromium	ppm	ASTM D5185m	>9	6	0	6
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		1	0	1
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>9	● 22	0	● 30
Lead	ppm	ASTM D5185m	>28	0	<1	<1
Copper	ppm	ASTM D5185m	>51	16	5	24
Tin	ppm	ASTM D5185m	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

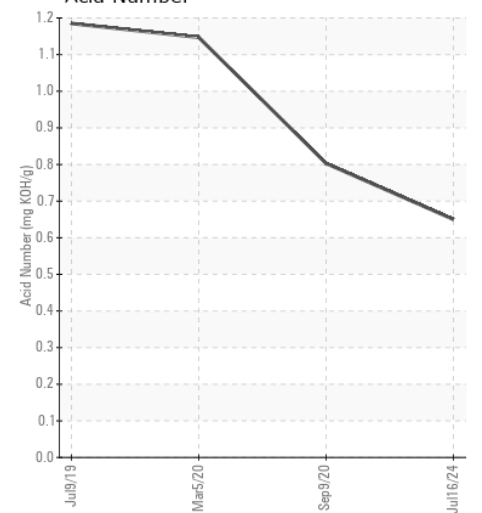
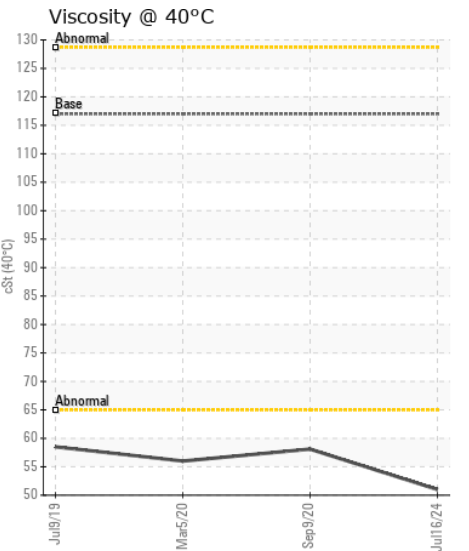
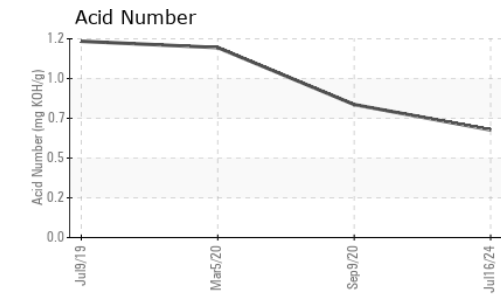
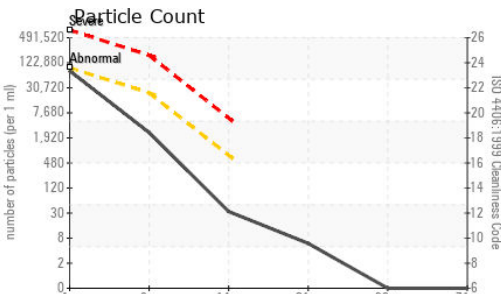
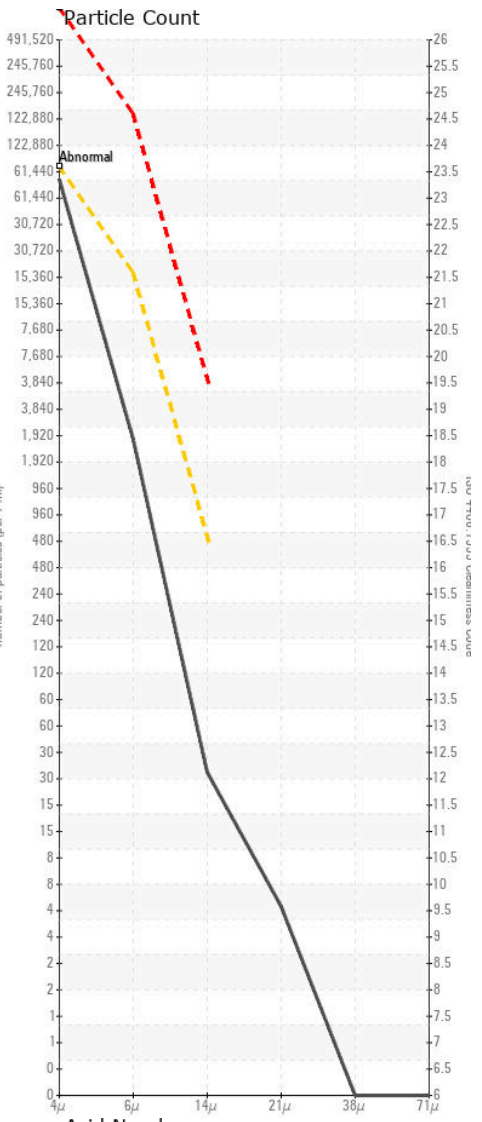
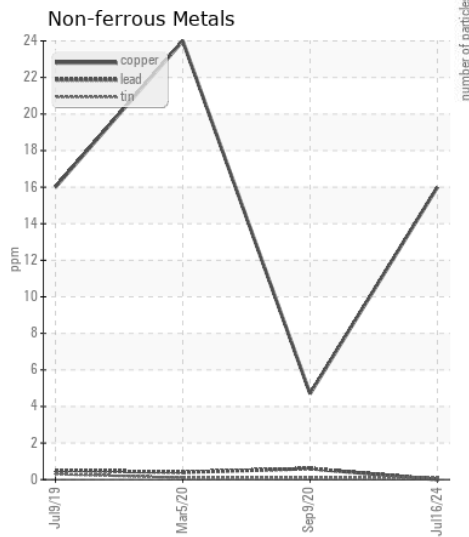
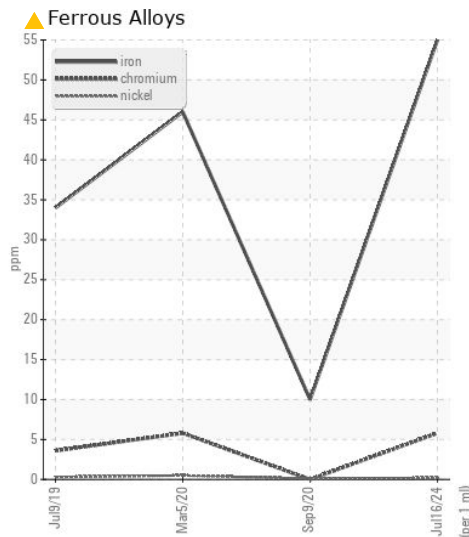
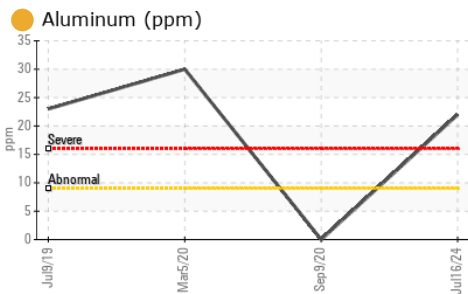
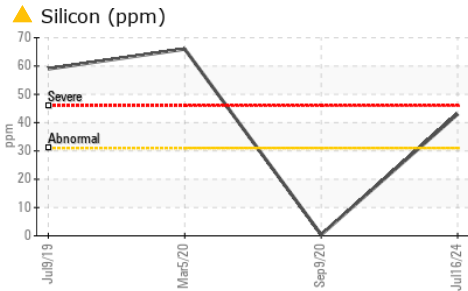
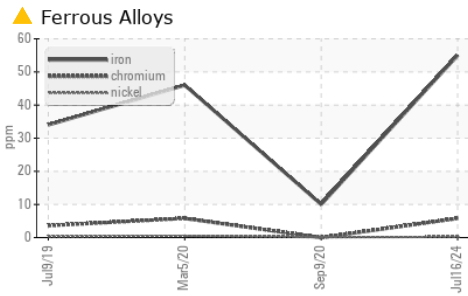
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>31	▲ 43	<1	▲ 66
Potassium	ppm	ASTM D5185m	>20	5	0	6
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	67961	8843	● 149613
Particles >6µm		ASTM D7647	>20000	2261	1626	18953
Particles >14µm		ASTM D7647	>640	29	71	12
Particles >21µm		ASTM D7647	>160	5	12	5
Particles >38µm		ASTM D7647	>40	0	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>23/21/16	23/18/12	20/18/13	● 24/21/11
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE	NONE
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 AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>21	2	0	2
Boron	ppm	ASTM D5185m		3	5	17
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		2	3	14
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		33	46	137
Calcium	ppm	ASTM D5185m		488	220	925
Phosphorus	ppm	ASTM D5185m		610	642	733
Zinc	ppm	ASTM D5185m		746	804	941
Sulfur	ppm	ASTM D5185m		1932	1456	1937
Acid Number (AN)	mg KOH/g	ASTM D8045		0.65	0.803	1.147
Visc @ 40°C	cSt	ASTM D445	117	51.0	58.1	56.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0224564 **Received** : 17 Jul 2024
Lab Number : 06239056 **Tested** : 18 Jul 2024
Unique Number : 11127890 **Diagnosed** : 18 Jul 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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)

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