



OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
SEVERE
NORMAL



Area
Store 3 - Norton
Machine Id
JOHN DEERE 748LII 1DW748LBEKF696892
Component
Rear Differential
Fluid
JOHN DEERE HY-GARD HYD/TRANS (8 GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: PUMP FAILURE)

WEAR

All component wear rates are normal for time on oil. The wear metal levels do not reflect the reported failure.

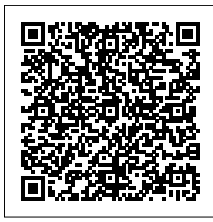
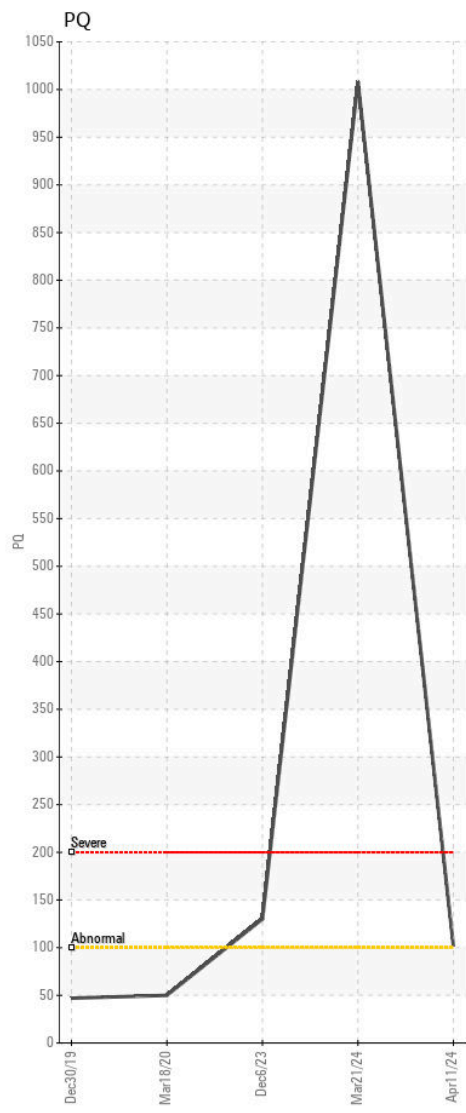
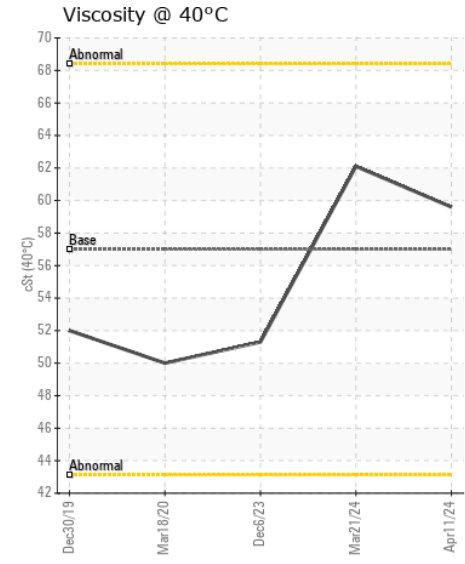
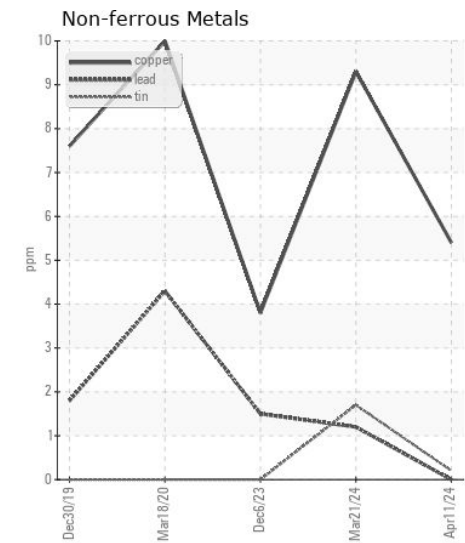
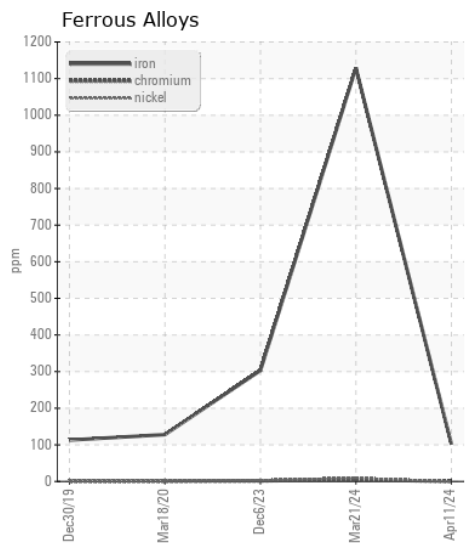
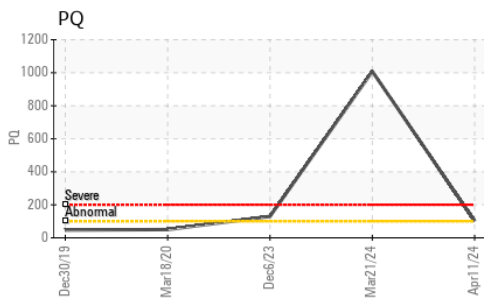
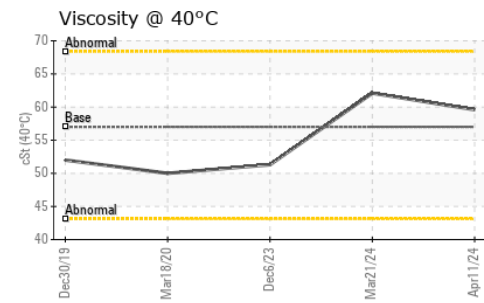
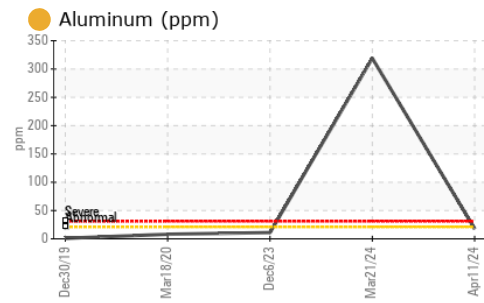
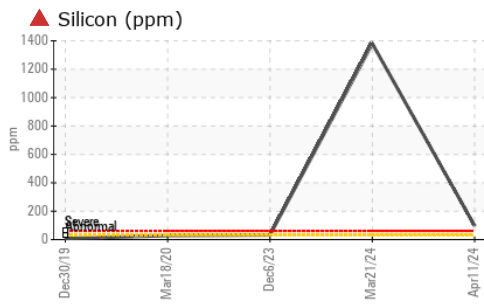
CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The water content is negligible.

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0045061	LEC0041101	LEC0044747
Sample Date		Client Info		11 Apr 2024	21 Mar 2024	06 Dec 2023
Machine Age	hrs	Client Info		5496	5483	5229
Oil Age	hrs	Client Info		13	24	1239
Filter Age	hrs	Client Info		13	24	229
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	ABNORMAL
PQ		ASTM D8184		102	1008	130
Iron	ppm	ASTM D5185m	>1501	102	▲ 1129	303
Chromium	ppm	ASTM D5185m	>11	<1	5	2
Nickel	ppm	ASTM D5185m	>10	0	9	3
Titanium	ppm	ASTM D5185m		2	23	1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>21	● 18	● 319	● 11
Lead	ppm	ASTM D5185m	>51	0	1	2
Copper	ppm	ASTM D5185m	>101	5	9	4
Tin	ppm	ASTM D5185m	>10	<1	2	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>31	▲ 97	▲ 1380	▲ 32
Potassium	ppm	ASTM D5185m	>20	2	63	3
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	MODER	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	● HAZY	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	▲ 0.2%	NEG
Sodium	ppm	ASTM D5185m	>51	2	8	0
Boron	ppm	ASTM D5185m	6	9	7	3
Barium	ppm	ASTM D5185m	0	0	2	0
Molybdenum	ppm	ASTM D5185m	0	8	6	4
Manganese	ppm	ASTM D5185m		3	14	3
Magnesium	ppm	ASTM D5185m	145	122	118	62
Calcium	ppm	ASTM D5185m	3570	3489	3240	2293
Phosphorus	ppm	ASTM D5185m	1290	1095	1003	728
Zinc	ppm	ASTM D5185m	1640	1276	1195	1035
Sulfur	ppm	ASTM D5185m		4311	3941	3107
Visc @ 40°C	cSt	ASTM D445	57.0	59.6	62.1	51.3



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0045061 **Received** : 12 Apr 2024
Lab Number : 06147642 **Tested** : 15 Apr 2024
Unique Number : 10977720 **Diagnosed** : 16 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

FOX LBR CO
 PO BOX 418
 MILL CREEK, WV
 US 26280
 Contact: STEVE FOX

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)

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 F: