



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
Store 5 - Cross Lanes
Machine Id
JOHN DEERE 648L2 1DW648LBJJF692956
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU (33 GAL)

RECOMMENDATION

No corrective action is recommended at this time. 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		LEC0040744	LEC0039402	---
Sample Date		Client Info		24 Apr 2024	14 Mar 2023	---
Machine Age	hrs	Client Info		6354	5123	---
Oil Age	hrs	Client Info		2354	5123	---
Filter Age	hrs	Client Info		2354	0	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR

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

PQ		ASTM D8184	>50	31	21	---
Iron	ppm	ASTM D5185m	>23	▲ 31	▲ 42	---
Chromium	ppm	ASTM D5185m	>9	6	6	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>9	1	2	---
Lead	ppm	ASTM D5185m	>28	0	0	---
Copper	ppm	ASTM D5185m	>51	<1	2	---
Tin	ppm	ASTM D5185m	>5	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	LIGHT	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

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

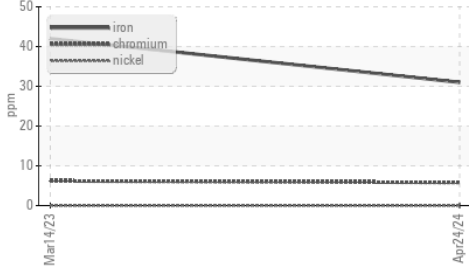
Silicon	ppm	ASTM D5185m	>31	8	11	---
Potassium	ppm	ASTM D5185m	>20	<1	0	---
Water		WC Method	>0.075	NEG	NEG	---
Particles >4µm		ASTM D7647	>80000	10295	26490	---
Particles >6µm		ASTM D7647	>20000	1011	2909	---
Particles >14µm		ASTM D7647	>640	60	137	---
Particles >21µm		ASTM D7647	>160	15	29	---
Particles >38µm		ASTM D7647	>40	1	0	---
Particles >71µm		ASTM D7647	>10	0	0	---
Oil Cleanliness		ISO 4406 (c)	>23/21/16	21/17/13	22/19/14	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	VLITE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG	---

FLUID CONDITION

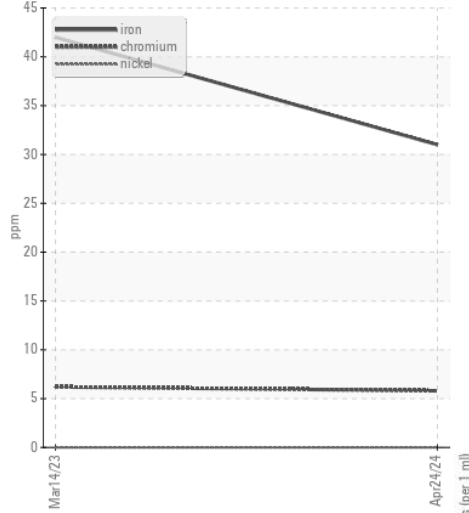
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<1	0	---
Boron	ppm	ASTM D5185m		1	3	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		<1	2	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		5	8	---
Calcium	ppm	ASTM D5185m	87	326	513	---
Phosphorus	ppm	ASTM D5185m	727	547	625	---
Zinc	ppm	ASTM D5185m	900	674	778	---
Sulfur	ppm	ASTM D5185m	1500	2011	2642	---
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.49	0.46	---
Visc @ 40°C	cSt	ASTM D445	65	51.6	42.5	---

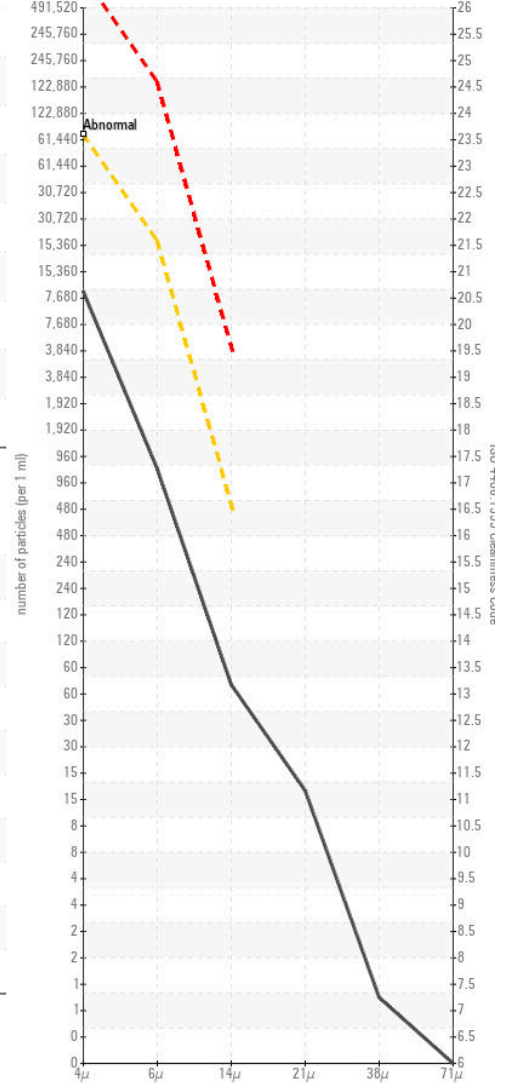
▲ Ferrous Alloys



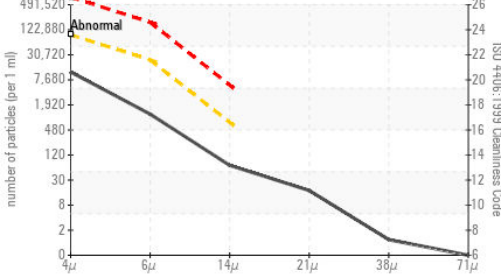
▲ Ferrous Alloys



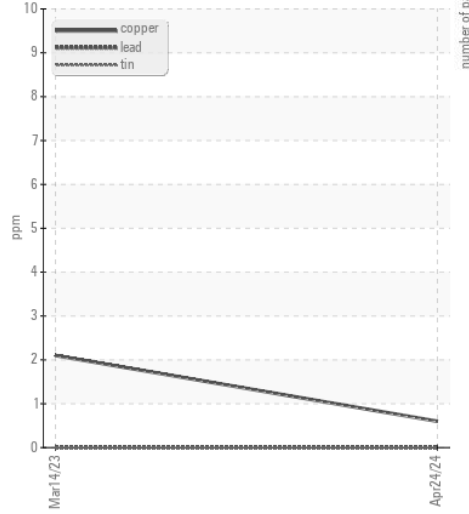
Particle Count



Particle Count



Non-ferrous Metals



Viscosity @ 40°C

