



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 5090E M404551
 Component
Hydraulic System
 Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0200856	---	---
Sample Date		Client Info		09 Feb 2024	---	---
Machine Age	hrs	Client Info		68	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				ABNORMAL	---	---

WEAR

The iron level is abnormal. All other metal levels are typical for a new component breaking in.

PQ		ASTM D8184		110	---	---
Iron	ppm	ASTM D5185m	>20	▲ 104	---	---
Chromium	ppm	ASTM D5185m	>10	1	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	2	---	---
Lead	ppm	ASTM D5185m	>10	2	---	---
Copper	ppm	ASTM D5185m	>75	73	---	---
Tin	ppm	ASTM D5185m	>10	1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

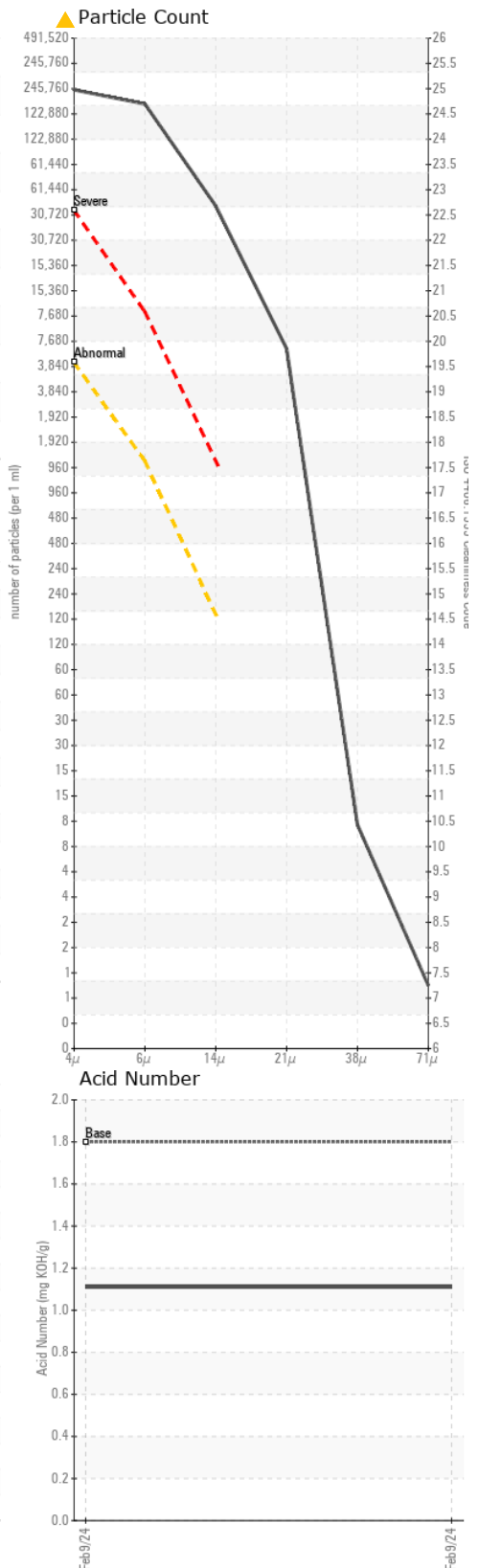
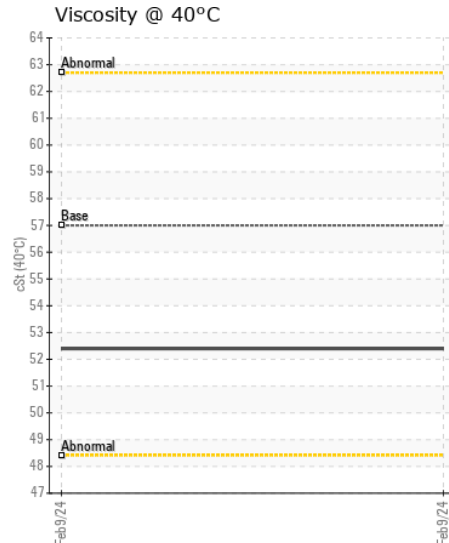
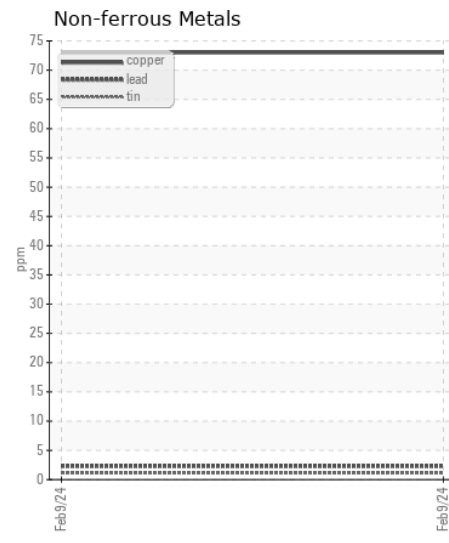
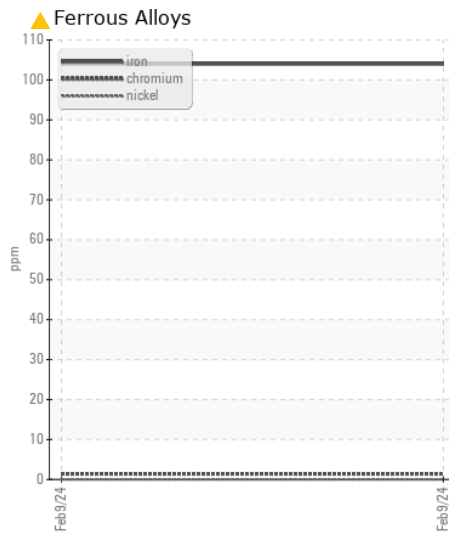
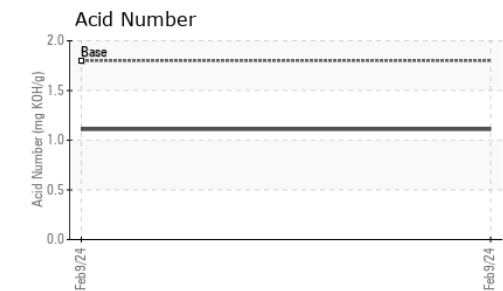
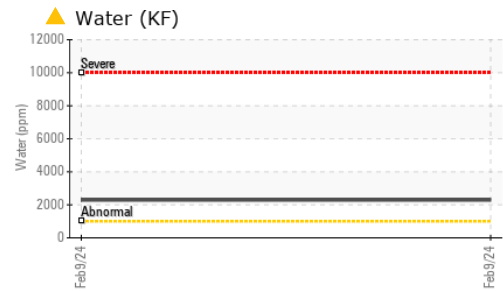
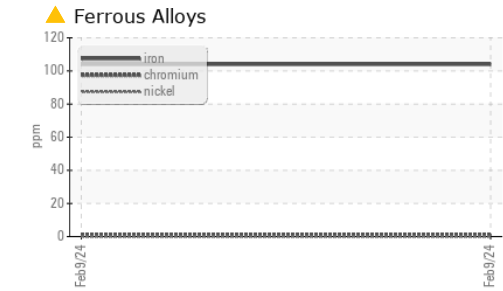
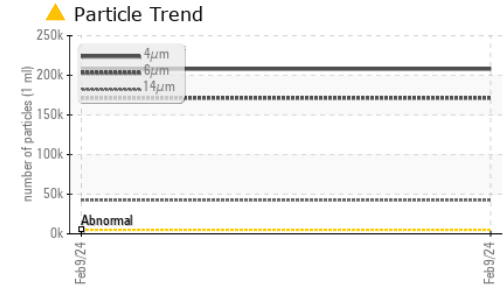
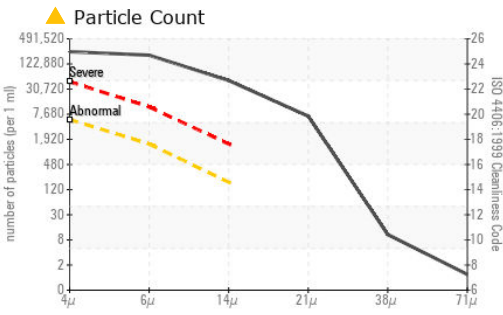
There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>20	9	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Water	%	ASTM D6304	>0.1	▲ 0.229	---	---
ppm Water	ppm	ASTM D6304	>1000	▲ 2290	---	---
Particles >4µm		ASTM D7647	>5000	▲ 207977	---	---
Particles >6µm		ASTM D7647	>1300	▲ 171424	---	---
Particles >14µm		ASTM D7647	>160	▲ 42522	---	---
Particles >21µm		ASTM D7647	>40	▲ 6029	---	---
Particles >38µm		ASTM D7647	>10	9	---	---
Particles >71µm		ASTM D7647	>3	1	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 25/25/23	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	LIGHT	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	0.2%	---	---

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		6	---	---
Boron	ppm	ASTM D5185m	6	8	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	0	0	---	---
Manganese	ppm	ASTM D5185m		6	---	---
Magnesium	ppm	ASTM D5185m	145	61	---	---
Calcium	ppm	ASTM D5185m	3570	3045	---	---
Phosphorus	ppm	ASTM D5185m	1290	939	---	---
Zinc	ppm	ASTM D5185m	1640	1144	---	---
Sulfur	ppm	ASTM D5185m		2972	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	1.8	1.11	---	---
Visc @ 40°C	cSt	ASTM D445	57.0	52.4	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0200856 **Received** : 13 Feb 2024
Lab Number : 06087153 **Tested** : 14 Feb 2024
Unique Number : 10874598 **Diagnosed** : 14 Feb 2024 - Don Baldrige
Test Package : MOBCE (Additional Tests: KF, PQ)

JRE - SHELBY
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 SHELBY, NC
 US 28150
 Contact: LEVI BOWMAN
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 T:
 F:

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)