



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 437E 1T0437EDVL430018

Component
Hydraulic System

Fluid
JOHN DEERE HYDRAU (--- QTS)

RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

WEAR

All component wear rates are normal.

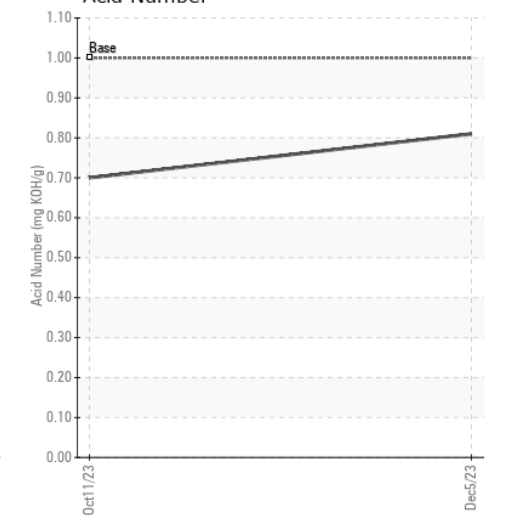
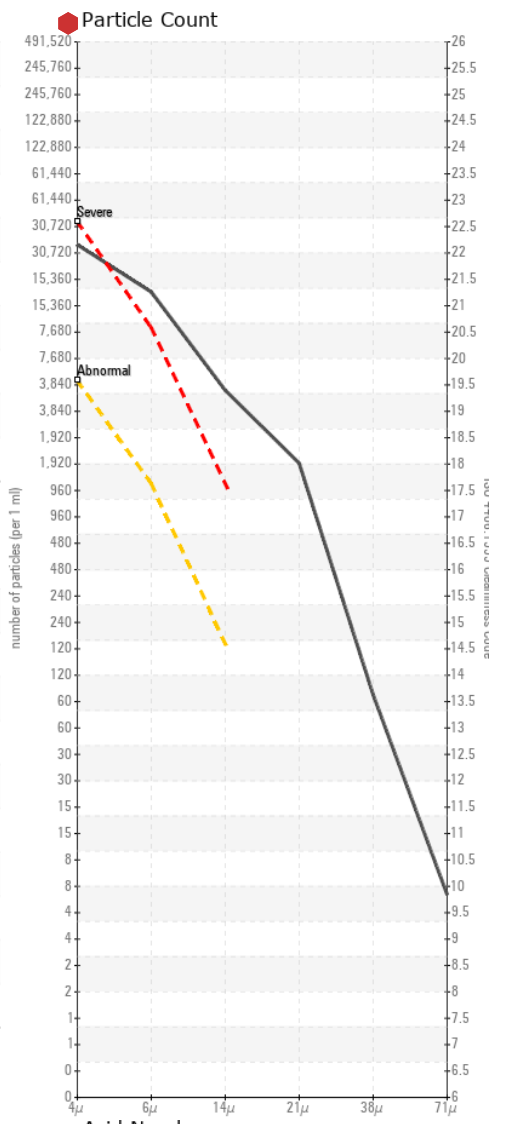
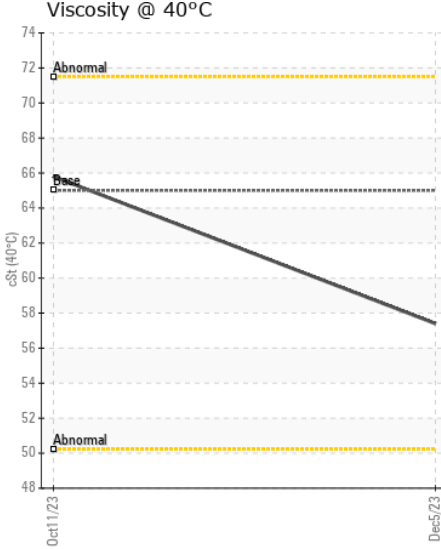
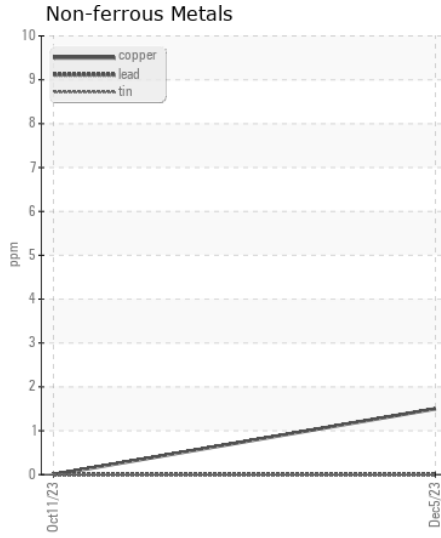
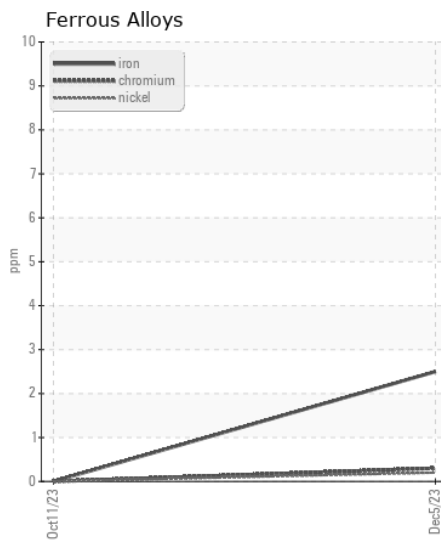
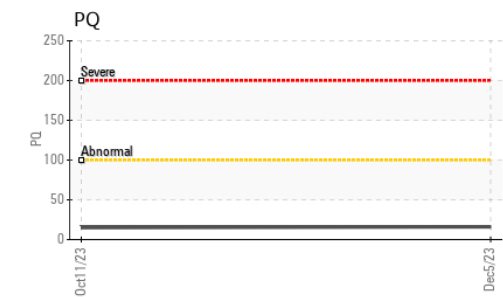
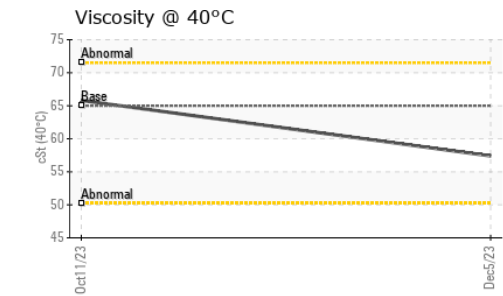
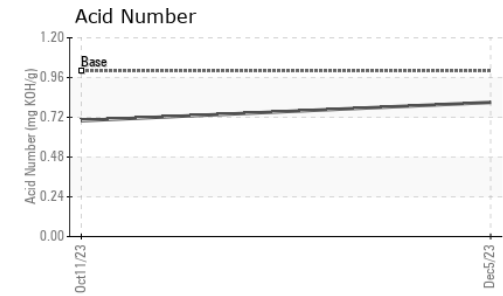
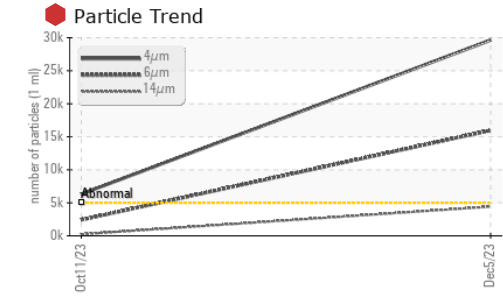
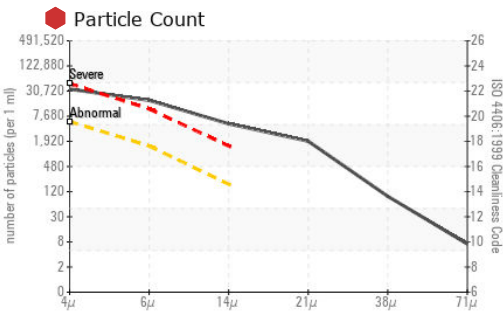
CONTAMINATION

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WE0002340	WE0005228	---
Sample Date		Client Info		05 Dec 2023	11 Oct 2023	---
Machine Age	hrs	Client Info		500	335	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				SEVERE	ATTENTION	---
PQ		ASTM D8184		16	15	---
Iron	ppm	ASTM D5185m	>20	2	0	---
Chromium	ppm	ASTM D5185m	>10	<1	0	---
Nickel	ppm	ASTM D5185m	>10	<1	0	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	<1	0	---
Lead	ppm	ASTM D5185m	>10	0	0	---
Copper	ppm	ASTM D5185m	>75	2	0	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>20	2	2	---
Potassium	ppm	ASTM D5185m	>20	2	0	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>5000	29641	6315	---
Particles >6µm		ASTM D7647	>1300	15971	2412	---
Particles >14µm		ASTM D7647	>160	4413	235	---
Particles >21µm		ASTM D7647	>40	1696	55	---
Particles >38µm		ASTM D7647	>10	82	2	---
Particles >71µm		ASTM D7647	>3	6	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	22/21/19	20/18/15	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---
Sodium	ppm	ASTM D5185m		0	2	---
Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		0	1	---
Molybdenum	ppm	ASTM D5185m		<1	0	---
Manganese	ppm	ASTM D5185m		0	0	---
Magnesium	ppm	ASTM D5185m		3	4	---
Calcium	ppm	ASTM D5185m	87	92	90	---
Phosphorus	ppm	ASTM D5185m	727	558	625	---
Zinc	ppm	ASTM D5185m	900	750	830	---
Sulfur	ppm	ASTM D5185m	1500	1618	1771	---
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.81	0.70	---
Visc @ 40°C	cSt	ASTM D445	65	57.4	65.8	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WE0002340 **Received** : 07 Dec 2023
Lab Number : 06027611 **Tested** : 08 Dec 2023
Unique Number : 10777402 **Diagnosed** : 08 Dec 2023 - Wes Davis
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)