



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[ro#146831]
 Machine Id
JOHN DEERE 310E 1DW310EXANF714535
 Component
Hydraulic System
 Fluid
JOHN DEERE HYDRAU (30 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0046784	LEC0037634	LEC0036879
Sample Date		Client Info		12 Jan 2024	05 Jun 2023	18 Jan 2023
Machine Age	hrs	Client Info		1661	1041	636
Oil Age	hrs	Client Info		1661	1041	636
Filter Age	hrs	Client Info		1661	1041	636
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>50	13	14	10
Iron	ppm	ASTM D5185m	>71	5	4	3
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>6	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>11	2	0	1
Lead	ppm	ASTM D5185m	>13	<1	<1	<1
Copper	ppm	ASTM D5185m	>21	2	2	2
Tin	ppm	ASTM D5185m	>5	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

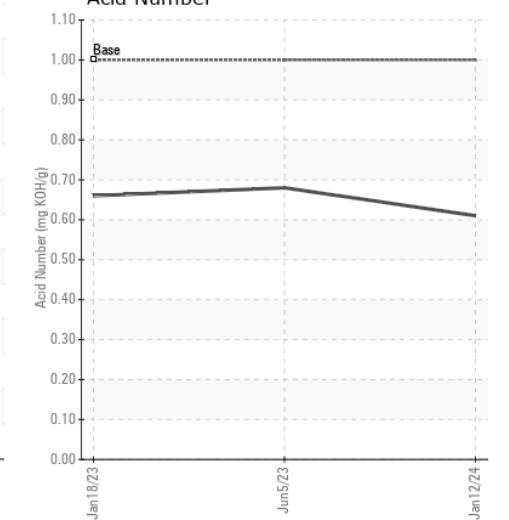
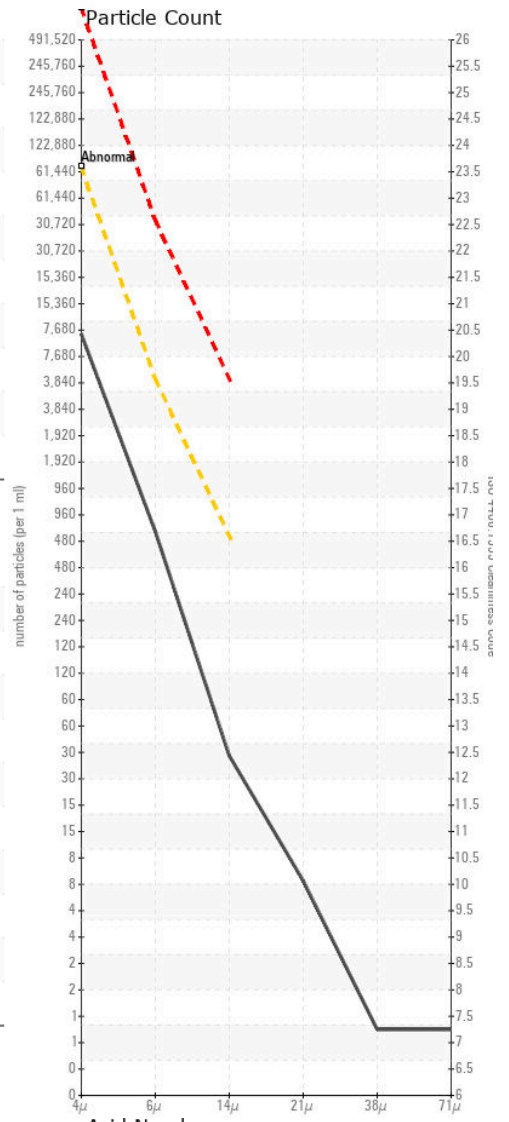
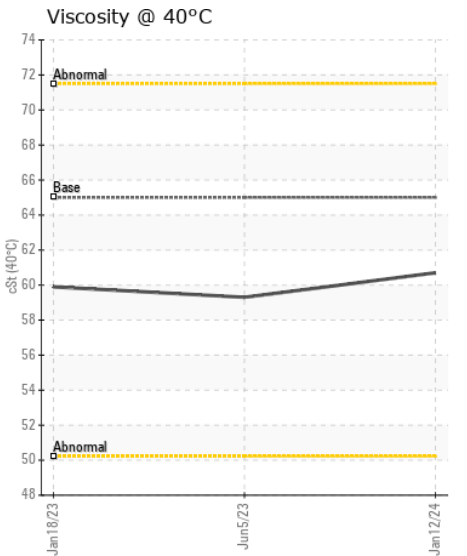
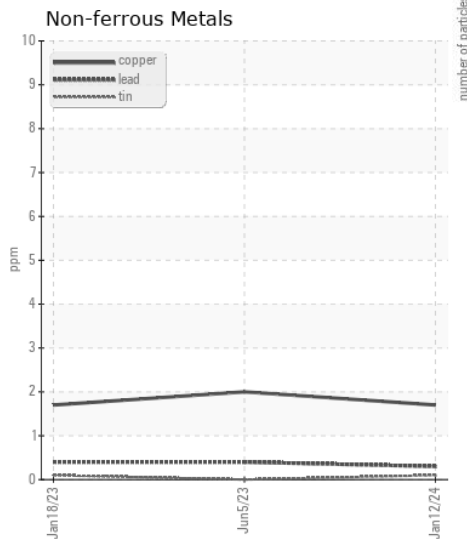
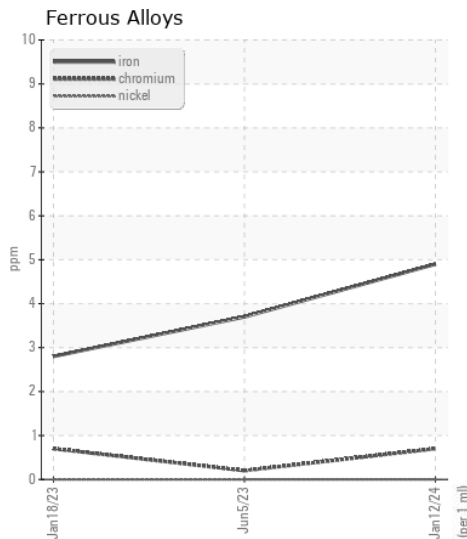
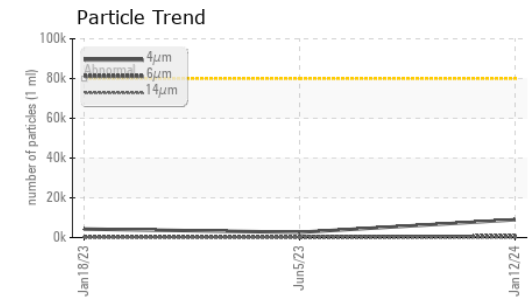
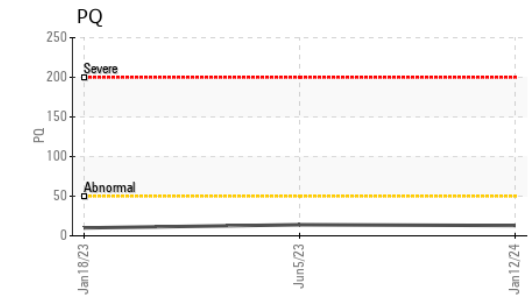
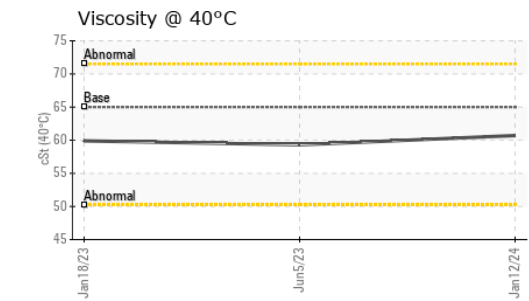
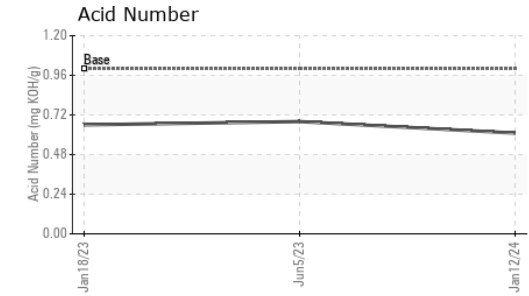
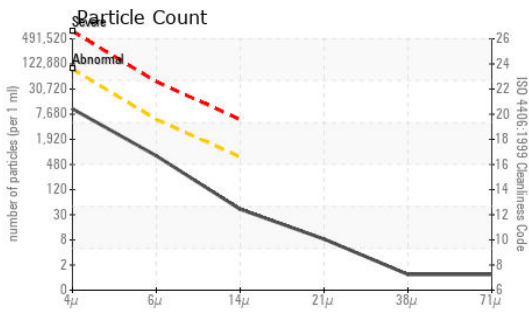
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>24	4	3	3
Potassium	ppm	ASTM D5185m	>20	2	3	2
Water		WC Method	>0.075	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>80000	8974	2636	4286
Particles >6µm		ASTM D7647	>5000	678	223	348
Particles >14µm		ASTM D7647	>640	36	26	9
Particles >21µm		ASTM D7647	>160	7	9	1
Particles >38µm		ASTM D7647	>40	1	0	0
Particles >71µm		ASTM D7647	>10	1	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	20/17/12	19/15/12	19/16/10
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	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 suitable for further service.

Sodium	ppm	ASTM D5185m	>21	2	0	1
Boron	ppm	ASTM D5185m		21	5	4
Barium	ppm	ASTM D5185m		0	0	1
Molybdenum	ppm	ASTM D5185m		14	<1	<1
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		55	4	3
Calcium	ppm	ASTM D5185m	87	321	263	266
Phosphorus	ppm	ASTM D5185m	727	709	646	676
Zinc	ppm	ASTM D5185m	900	908	888	916
Sulfur	ppm	ASTM D5185m	1500	1835	1987	1778
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.61	0.68	0.66
Visc @ 40°C	cSt	ASTM D445	65	60.7	59.3	59.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : LEC0046784 Recieved : 18 Jan 2024
 Lab Number : 06064220 Diagnosed : 19 Jan 2024
 Unique Number : 10835602 Diagnostician : Wes Davis
 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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