



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[W67297]
 Machine Id
JOHN DEERE 410E 1DW410EBHNF716068
 Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (13 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: W67297)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0215600	JR0192734	JR0170988
Sample Date		Client Info		28 May 2024	16 Nov 2023	12 Jul 2023
Machine Age	hrs	Client Info		4751682	4751682	1016
Oil Age	hrs	Client Info		4751682	4750666	475
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	24	15	25
Chromium	ppm	ASTM D5185m	>11	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	6	4	4
Lead	ppm	ASTM D5185m	>26	8	6	7
Copper	ppm	ASTM D5185m	>26	26	▲ 50	▲ 220
Tin	ppm	ASTM D5185m	>4	5	4	8
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

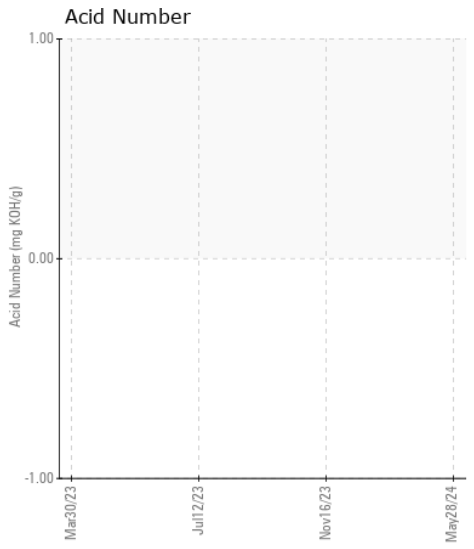
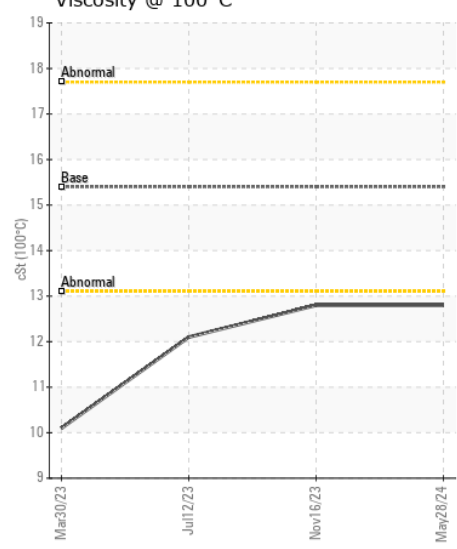
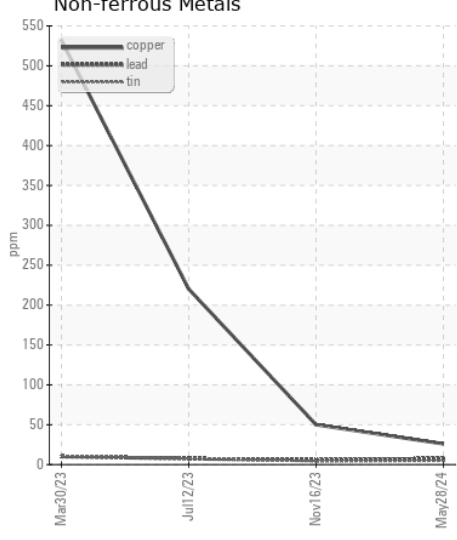
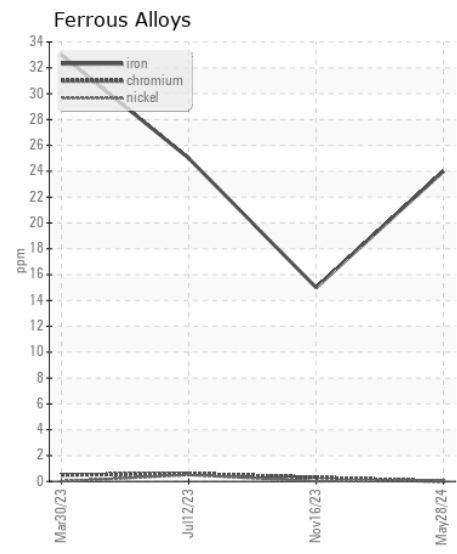
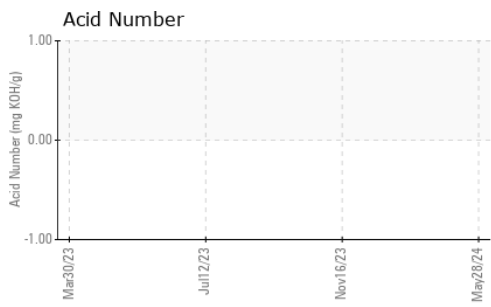
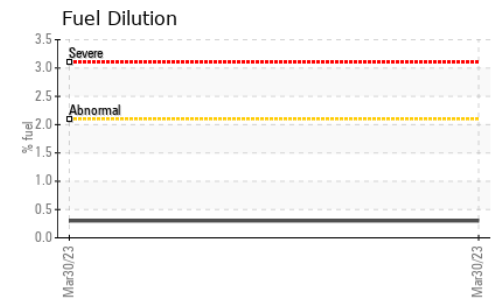
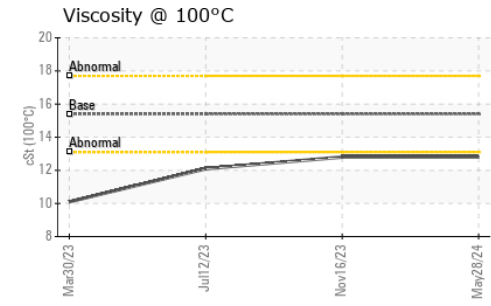
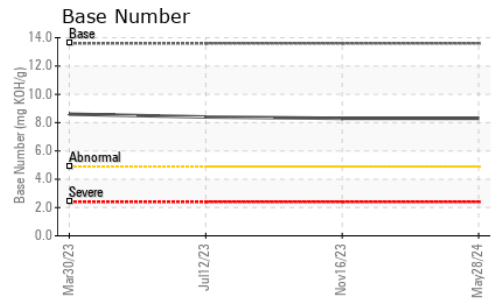
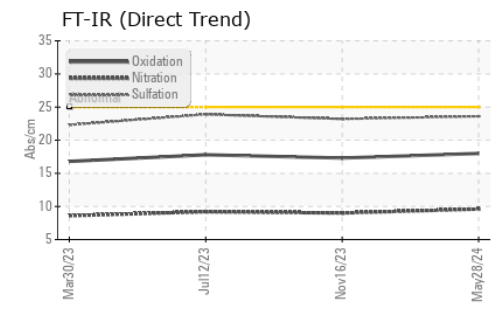
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	6	7	8
Potassium	ppm	ASTM D5185m	>20	7	0	3
Fuel	%	ASTM D3524	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.6	9.0	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.6	23.2	23.9
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	>0.21	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	10	5	8
Boron	ppm	ASTM D5185m		104	158	157
Barium	ppm	ASTM D5185m		<1	0	3
Molybdenum	ppm	ASTM D5185m		239	244	259
Manganese	ppm	ASTM D5185m		1	<1	3
Magnesium	ppm	ASTM D5185m		810	799	783
Calcium	ppm	ASTM D5185m		1363	1393	1433
Phosphorus	ppm	ASTM D5185m		880	854	845
Zinc	ppm	ASTM D5185m		1033	1040	1075
Sulfur	ppm	ASTM D5185m		3299	2818	3095
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.0	17.3	17.8
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.3	8.3	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	12.8	● 12.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0215600 **Received** : 30 May 2024
Lab Number : 06195289 **Tested** : 03 Jun 2024
Unique Number : 11057412 **Diagnosed** : 03 Jun 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FT-IR, FuelDilution, ICP, KV100, KV40, PQ, PrtCount, SCREEN, TDM, TIR, TIR, TIR)
 To discuss this sample report, contact Customer Service at 1-800-237-1369. myyoung@jamesriverequipment.com
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (704)597-0211
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (704)596-6198