



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>ATTENTION</b>



Machine Id  
**JOHN DEERE 410E 1DW410EBAMF709228**

Component  
**Diesel Engine**

Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

### RECOMMENDATION

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		<b>JR0179518</b>	JR0179214	JR0147940
Sample Date		Client Info		<b>18 Mar 2024</b>	26 Sep 2023	14 Feb 2023
Machine Age	hrs	Client Info		<b>5473</b>	4970	4465
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	ATTENTION	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>12</b>	15	23
Chromium	ppm	ASTM D5185m	>11	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	4	6
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	3	5
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	5	12
Copper	ppm	ASTM D5185m	>26	<b>4</b>	6	10
Tin	ppm	ASTM D5185m	>4	<b>0</b>	2	3
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

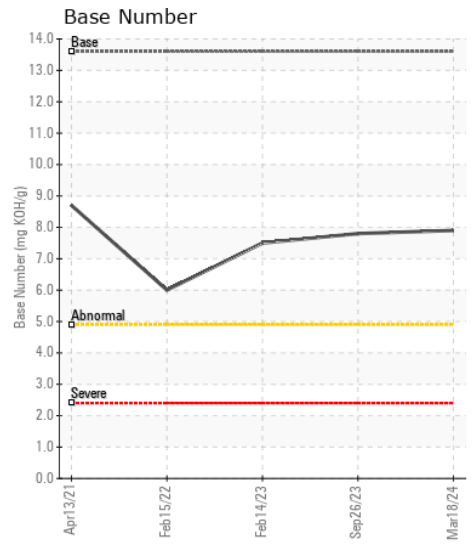
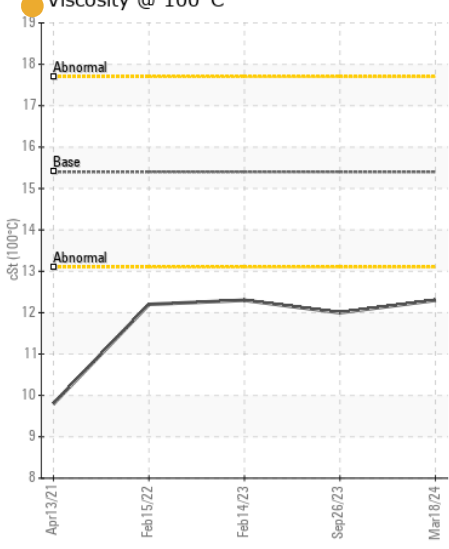
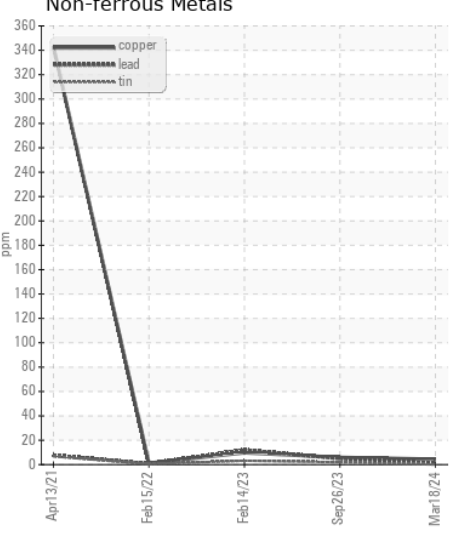
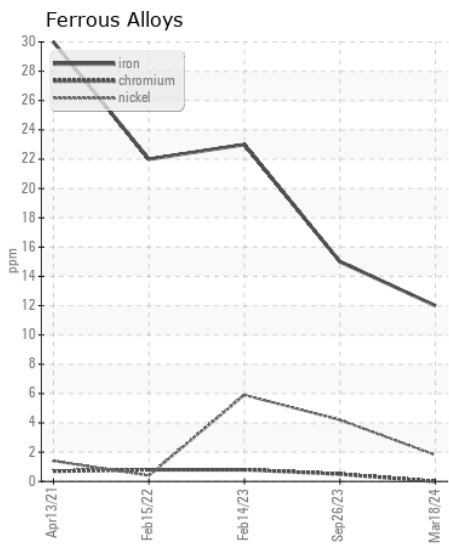
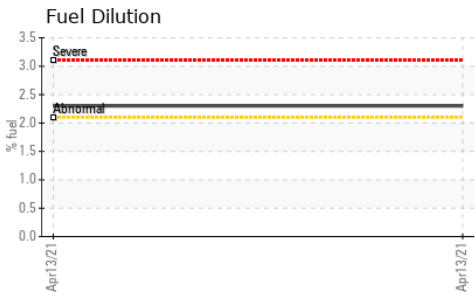
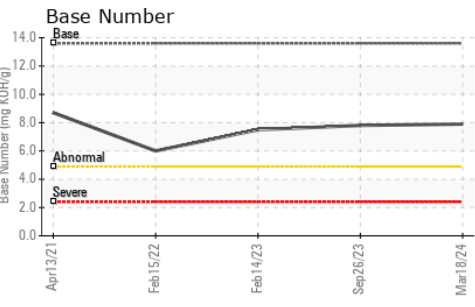
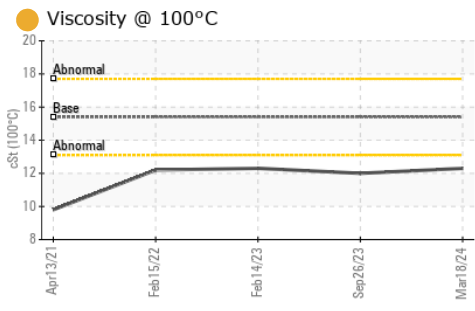
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>11</b>	8	6
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	1
Fuel	%	ASTM D3524	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.2</b>	9.6	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.8</b>	22.5	24.8
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	4	4
Boron	ppm	ASTM D5185m		<b>156</b>	146	101
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>237</b>	240	230
Manganese	ppm	ASTM D5185m		<b>0</b>	1	1
Magnesium	ppm	ASTM D5185m		<b>834</b>	804	777
Calcium	ppm	ASTM D5185m		<b>1420</b>	1408	1376
Phosphorus	ppm	ASTM D5185m		<b>887</b>	799	757
Zinc	ppm	ASTM D5185m		<b>1032</b>	1002	994
Sulfur	ppm	ASTM D5185m		<b>3488</b>	2992	3353
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.3</b>	17.6	20.2
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.9</b>	7.8	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.3</b>	12.0	12.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0179518 **Received** : 19 Mar 2024  
**Lab Number** : 06122084 **Tested** : 21 Mar 2024  
**Unique Number** : 10936235 **Diagnosed** : 21 Mar 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

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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)