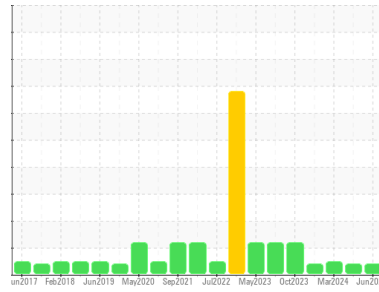


# OIL ANALYSIS REPORT



Area  
**[AMERICAN MATERIALS]**  
 Machine Id  
**JOHN DEERE 824K 1DW824KXPHF679619**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (11 GAL)**

Sample Rating Trend



## VISCOSITY



### DIAGNOSIS

#### ▲ Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### ▲ Fluid Condition

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

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>JR0197080</b>	JR0197209	JR0183263
Sample Date	Client Info		<b>19 Jun 2024</b>	16 Apr 2024	12 Mar 2024
Machine Age	hrs	Client Info	<b>14259</b>	13976	13777
Oil Age	hrs	Client Info	<b>250</b>	500	250
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	Not Chngd
Sample Status			<b>MARGINAL</b>	MARGINAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>51	<b>9</b>	8	5
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>5	<b>3</b>	2	2
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	4	5
Lead	ppm	ASTM D5185m	>26	<b>2</b>	2	0
Copper	ppm	ASTM D5185m	>26	<b>3</b>	5	4
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	2	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>261</b>	202	235
Barium	ppm	ASTM D5185m		<b>1</b>	<1	0
Molybdenum	ppm	ASTM D5185m		<b>252</b>	244	240
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>784</b>	796	769
Calcium	ppm	ASTM D5185m		<b>1371</b>	1419	1267
Phosphorus	ppm	ASTM D5185m		<b>916</b>	870	873
Zinc	ppm	ASTM D5185m		<b>1055</b>	993	986
Sulfur	ppm	ASTM D5185m		<b>3078</b>	3379	3170

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>22	<b>8</b>	6	6
Sodium	ppm	ASTM D5185m	>31	<b>1</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	0
Fuel	%	ASTM D3524	>2.1	<b>&lt;1.0</b>	2.5	<1.0

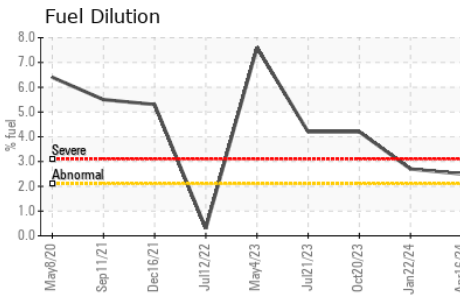
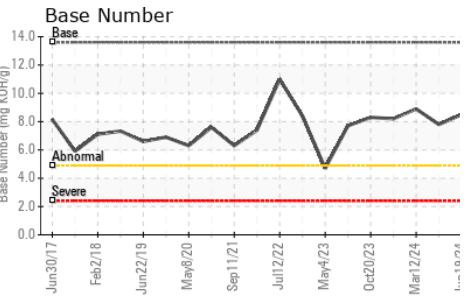
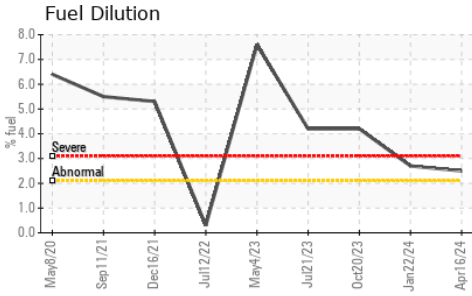
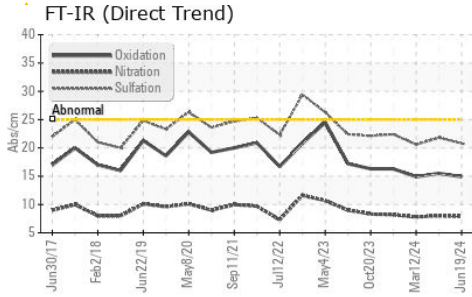
### INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.9</b>	8.0	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.8</b>	21.8	20.6

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.9</b>	15.5	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.5</b>	7.8	8.9

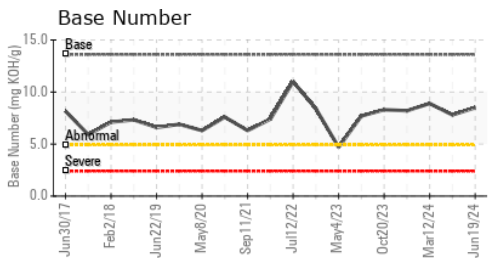
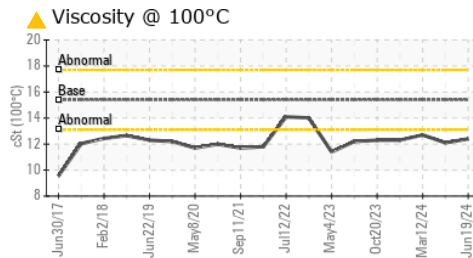
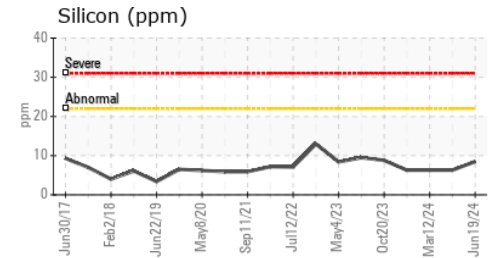
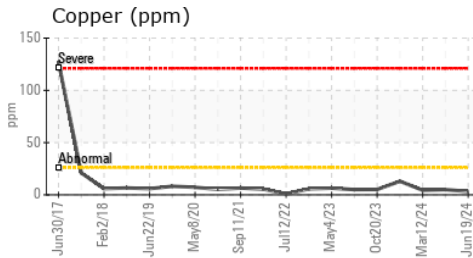
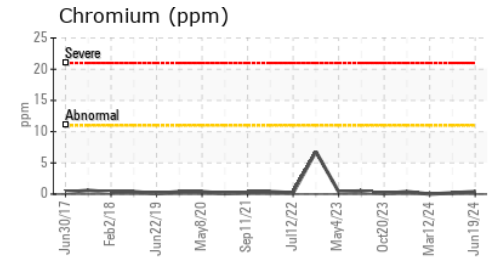
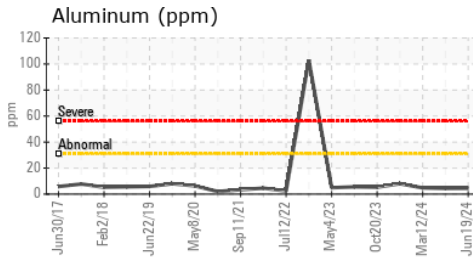
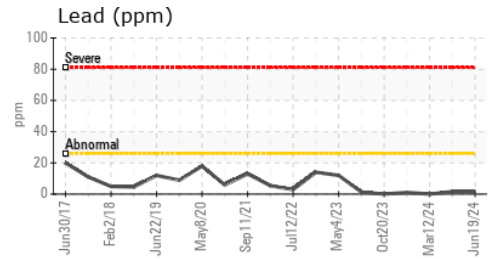
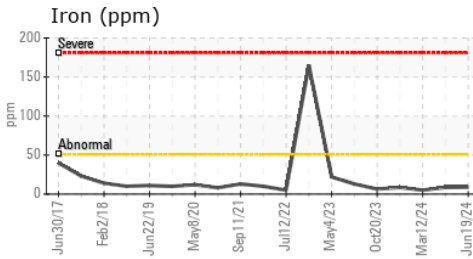
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.4	▲ 12.1	12.7

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0197080      **Received** : 20 Jun 2024  
**Lab Number** : 06215476      **Tested** : 21 Jun 2024  
**Unique Number** : 11088340      **Diagnosed** : 21 Jun 2024 - Don Baldrige  
**Test Package** : MOBCE ( Additional Tests: FuelDilution, TBN )

**JRE - HOPE MILLS/FAYETTEVILLE**  
 5039 HWY 301 SOUTH  
 HOPE MILLS, NC  
 US 28348  
 Contact: FAYETTEVILLE SHOP  
 stephen.mullis@jamesriverequipment.com; canastasio@wearcheck.com

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)