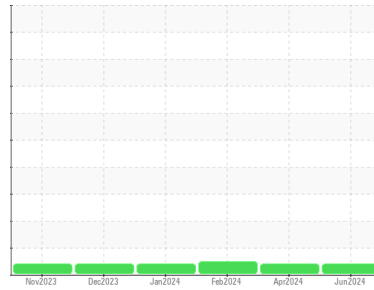


# OIL ANALYSIS REPORT



Area  
**[W52467 ADVANSIX]**  
 Machine Id  
**JOHN DEERE 824K 1DW824KXPKF694323**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)**

### Sample Rating Trend



### VISCOSITY



### DIAGNOSIS

#### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

#### ▲ Fluid Condition

Fuel is present in the oil and is lowering the viscosity. 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>JR0212059</b>	JR0199619	JR0200307
Sample Date	Client Info		<b>14 Jun 2024</b>	08 Apr 2024	21 Feb 2024
Machine Age	hrs	Client Info	<b>5975</b>	5487	5029
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	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>10</b>	8	8
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	4	4
Lead	ppm	ASTM D5185m	>26	<b>8</b>	4	2
Copper	ppm	ASTM D5185m	>26	<b>10</b>	9	5
Tin	ppm	ASTM D5185m	>4	<b>2</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>142</b>	186	252
Barium	ppm	ASTM D5185m		<b>1</b>	<1	2
Molybdenum	ppm	ASTM D5185m		<b>212</b>	222	243
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>596</b>	762	755
Calcium	ppm	ASTM D5185m		<b>1368</b>	1418	1270
Phosphorus	ppm	ASTM D5185m		<b>687</b>	850	866
Zinc	ppm	ASTM D5185m		<b>875</b>	1010	1022
Sulfur	ppm	ASTM D5185m		<b>2841</b>	3410	3312

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>22	<b>8</b>	6	9
Sodium	ppm	ASTM D5185m	>31	<b>3</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	3
Fuel	%	ASTM D3524	>8.0	<b>7.9</b>	5.0	<1.0

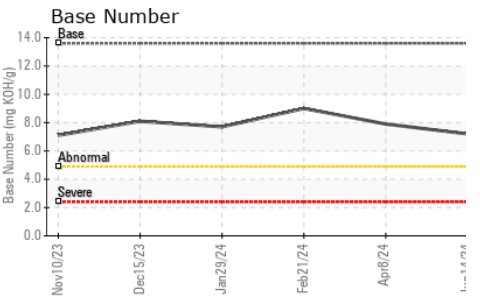
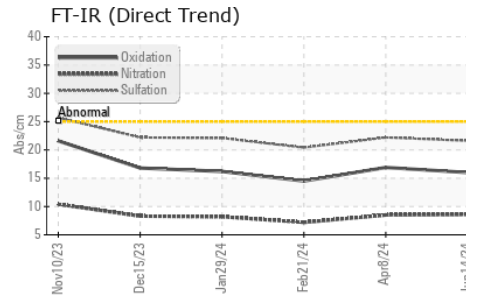
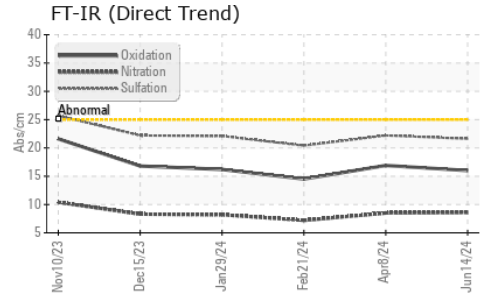
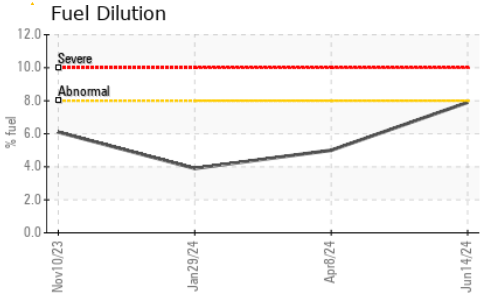
### INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	8.5	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.6</b>	22.2	20.4

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	16.9	14.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.2</b>	7.9	9.0

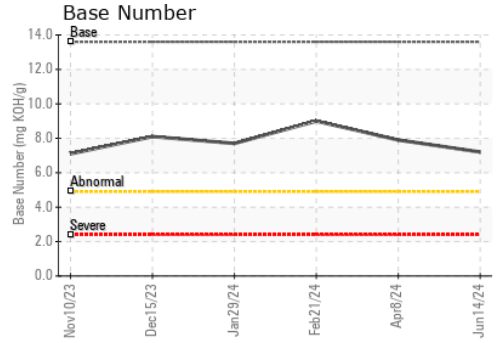
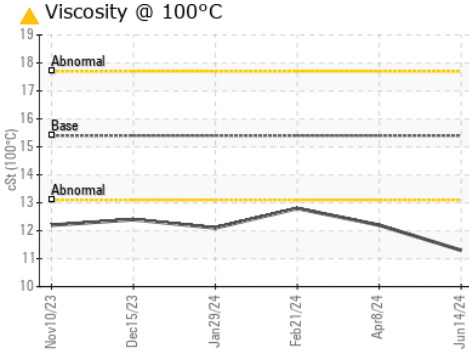
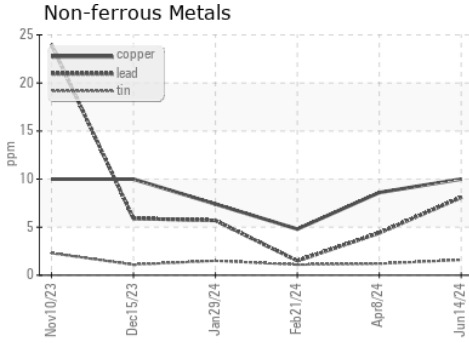
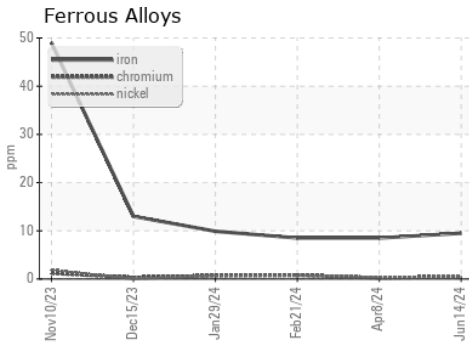
# OIL ANALYSIS REPORT



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	▲ 11.3	▲ 12.2	12.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0212059      **Received** : 18 Jun 2024  
**Lab Number** : 06213129      **Tested** : 20 Jun 2024  
**Unique Number** : 11085993      **Diagnosed** : 20 Jun 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**JRE - ASHLAND**  
 11047 LEADBETTER RD  
 ASHLAND, VA  
 US 23005  
 Contact: DAVID ZIEG  
 dzieg@jamesriverequipment.com  
 T: (804)798-6001  
 F: (804)798-0292

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)