



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



Machine Id  
**JOHN DEERE 624K 1DW624KZEEE657948**  
Component  
**Diesel Engine**  
Fluid  
**SHELL ROTELLA T 15W40 (5 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0160636</b>	JR0160562	JR0160564
Sample Date		Client Info		<b>28 Aug 2023</b>	03 Aug 2023	12 Jul 2023
Machine Age	hrs	Client Info		<b>12018</b>	11812	11610
Oil Age	hrs	Client Info		<b>206</b>	202	220
Filter Age	hrs	Client Info		<b>206</b>	202	220
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>15</b>	10	10
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	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	2	2
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
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.

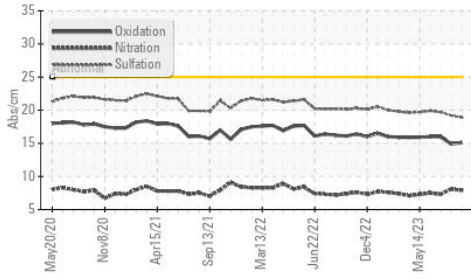
Silicon	ppm	ASTM D5185m	>22	<b>5</b>	4	2
Potassium	ppm	ASTM D5185m	>20	<b>19</b>	10	9
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.9</b>	8.1	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.9</b>	19.2	19.7
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

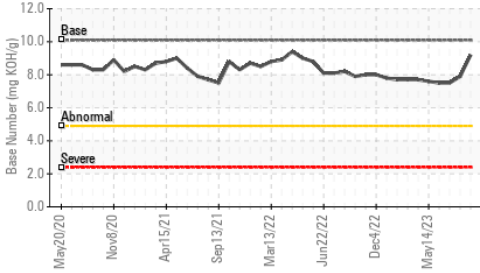
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>6</b>	2	3
Boron	ppm	ASTM D5185m	316	<b>285</b>	172	150
Barium	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>2</b>	3	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m	24	<b>24</b>	15	14
Calcium	ppm	ASTM D5185m	2292	<b>3647</b>	2285	2139
Phosphorus	ppm	ASTM D5185m	1064	<b>1736</b>	1105	947
Zinc	ppm	ASTM D5185m	1160	<b>1967</b>	1225	1164
Sulfur	ppm	ASTM D5185m	4996	<b>6371</b>	3981	3869
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	14.9	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>9.2</b>	7.9	7.5
Visc @ 100°C	cSt	ASTM D445	15.7	<b>14.9</b>	14.8	14.7

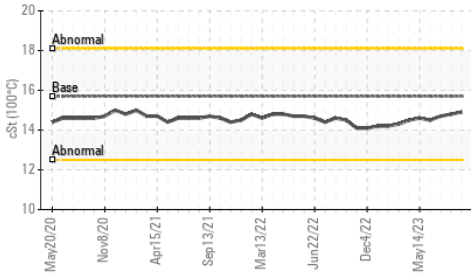
**FT-IR (Direct Trend)**



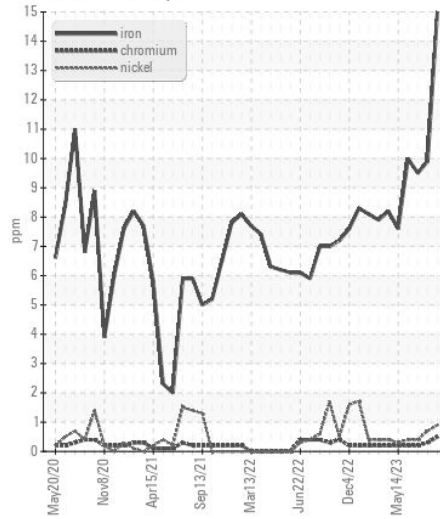
**Base Number**



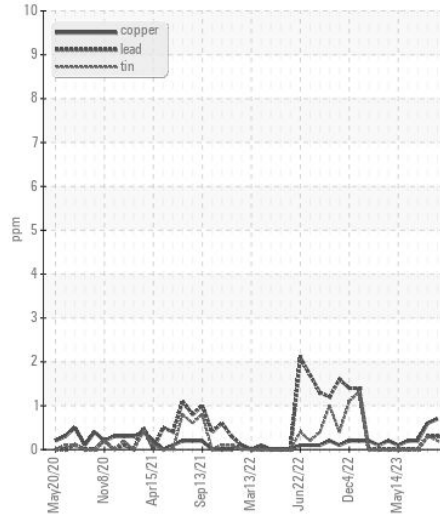
**Viscosity @ 100°C**



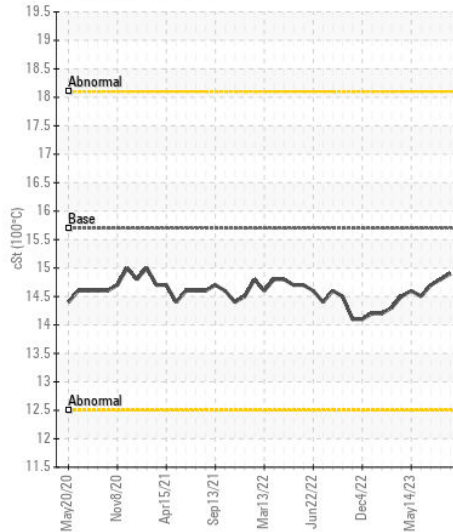
**Ferrous Alloys**



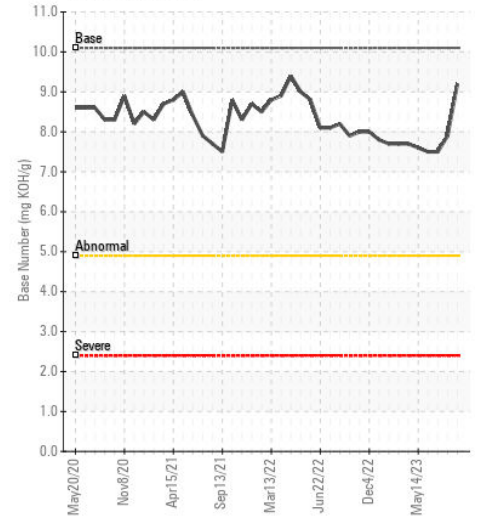
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0160636  
**Lab Number** : 06196362  
**Unique Number** : 11058485  
**Test Package** : CONST ( Additional Tests: TBN )

**Baxter Healthcare - Wood Boiler Biomass**  
 2859 OLD LINVILLE RD  
 MARION, NC  
 US 28752  
 Contact: RICKY STYLES  
 ricky\_styles@baxter.com  
 T: (828)756-4946  
 F:

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)