



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



Machine Id  
**JOHN DEERE 210G 1FF210GXCKF528128**  
 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>JR0199810</b>	JR0136422	JR0117530
Sample Date		Client Info		<b>29 Jan 2024</b>	26 Oct 2022	05 Jan 2022
Machine Age	hrs	Client Info		<b>2228</b>	1685	1287
Oil Age	hrs	Client Info		<b>0</b>	1685	790
Filter Age	hrs	Client Info		<b>0</b>	0	790
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	ATTENTION	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>18</b>	2	34
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	0	7
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	2	3
Lead	ppm	ASTM D5185m	>26	<b>1</b>	0	2
Copper	ppm	ASTM D5185m	>26	<b>6</b>	<1	▲ 73
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

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

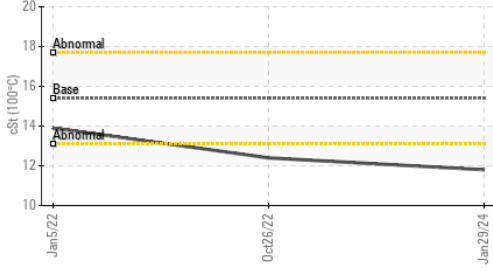
Silicon	ppm	ASTM D5185m	>22	<b>6</b>	6	8
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	4
Fuel	%	ASTM D3524	>2.1	<b>0.5</b>	0.3	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.1	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.0</b>	5.7	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.8</b>	20.7	26.5
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

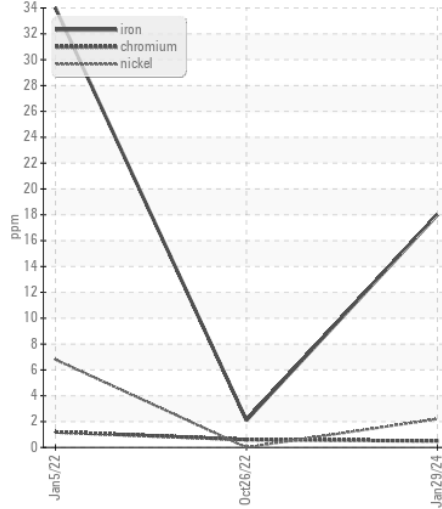
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>31	<b>3</b>	0	3
Boron	ppm	ASTM D5185m		<b>120</b>	160	95
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>161</b>	139	226
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m		<b>595</b>	541	705
Calcium	ppm	ASTM D5185m		<b>2060</b>	2004	1799
Phosphorus	ppm	ASTM D5185m		<b>924</b>	827	965
Zinc	ppm	ASTM D5185m		<b>1144</b>	1085	1121
Sulfur	ppm	ASTM D5185m		<b>2979</b>	3376	2527
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.6</b>	14.5	22.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.9</b>	10.5	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	▲ <b>11.8</b>	▲ 12.4	13.9

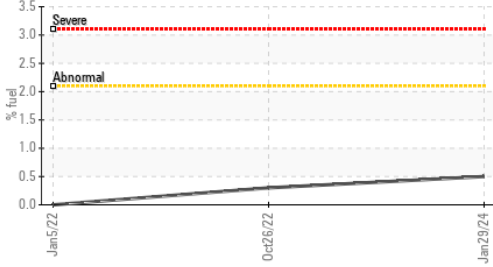
▲ Viscosity @ 100°C



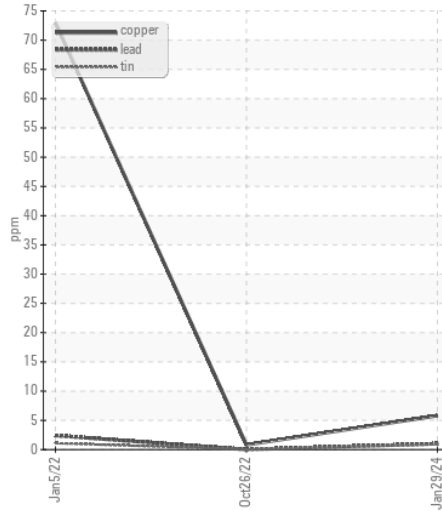
Ferrous Alloys



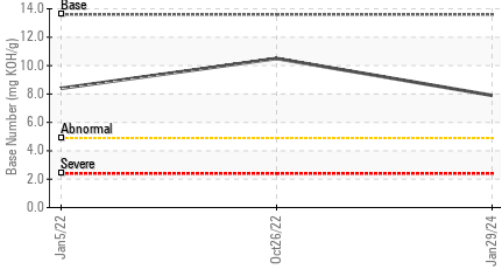
Fuel Dilution



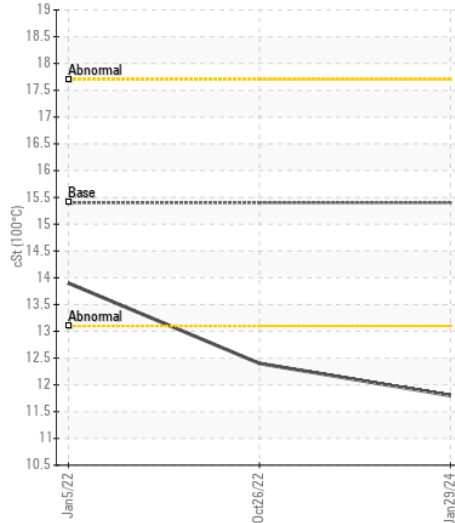
Non-ferrous Metals



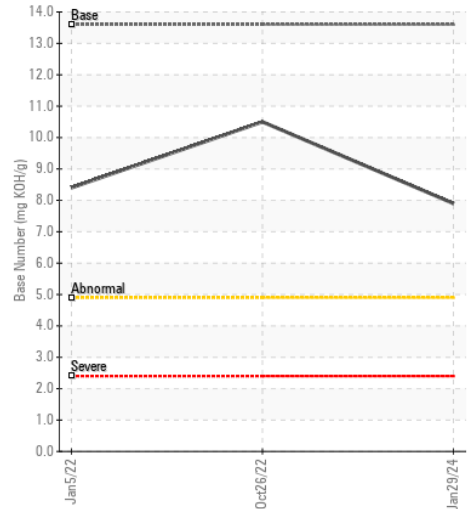
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0199810 **Received** : 30 Jan 2024  
**Lab Number** : 06074310 **Diagnosed** : 02 Feb 2024  
**Unique Number** : 10856401 **Diagnostician** : Jonathan Hester  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

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)

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