

#### Machine Id HITACHI 210-6 1ffdc571jmf341002 Component Right Final Drive Fluid JOHN DEERE GL-5 80W90 (--- GAL)

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

### **WEAR**

Gear wear is indicated.

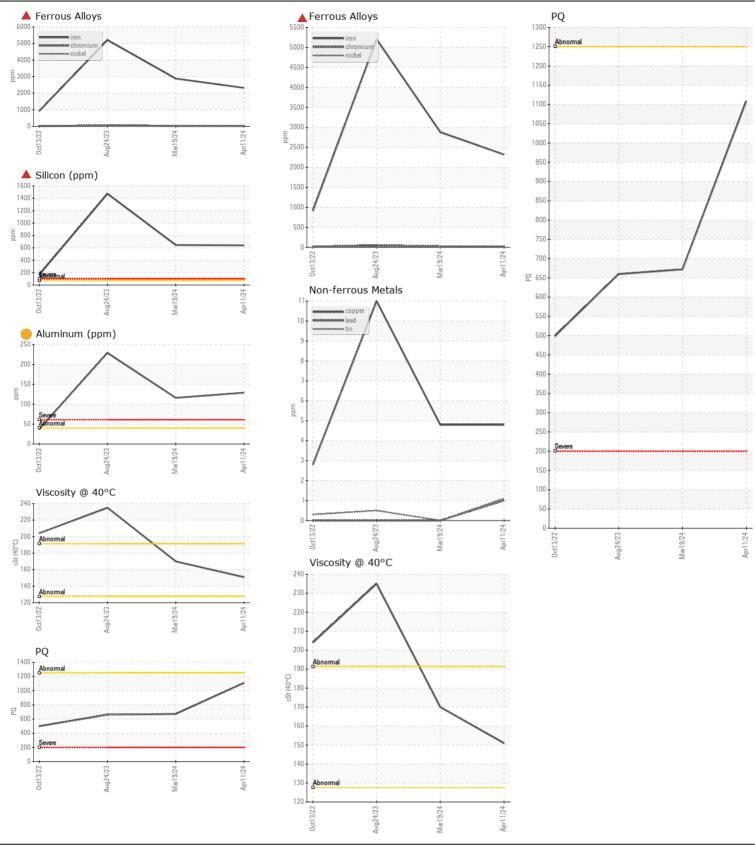
# CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress.

# FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Test		UOM	Method	Limit/Abn	Current	History1	History2
Sample N	Number		Client Info		JR0205127	JR0204982	JR0182607
Sample Date			Client Info		11 Apr 2024	19 Mar 2024	24 Aug 2023
Machine	e Age	hrs	Client Info		2925	2924	2007
Oil Age		hrs	Client Info		0	0	0
Filter Ag	je	hrs	Client Info		0	0	0
Oil Char	nged		Client Info		Not Changd	N/A	N/A
Filter Changed			Client Info		N/A	N/A	N/A
Sample Status					SEVERE	SEVERE	SEVERE
				4050		070	
PQ			ASTM D8184	>1250	1108	672	660
Iron		ppm	ASTM D5185m	>750	▲ 2321	▲ 2882	▲ 5205
Chromiu	ım	ppm	ASTM D5185m	>9	▲ 21	▲ 25 -	<b>▲</b> 53
Nickel		ppm	ASTM D5185m	>10	6	5	11
Titanium	ו	ppm	ASTM D5185m		15	11	21
Silver		ppm	ASTM D5185m	10	0	0	0
Aluminu	m	ppm	ASTM D5185m	>40	<b>129</b>	▲ 116	229
Lead		ppm	ASTM D5185m	>15	1	0	0
Copper		ppm	ASTM D5185m	>40	5	5	11
Tin		ppm	ASTM D5185m	>10	1	0	<1
Vanadiu	IM	ppm	ASTM D5185m		2	<1	2
White M	letal	scalar	*Visual	NONE	NONE	NONE	MODER
Yellow N	Metal	scalar	*Visual	NONE	NONE	NONE	NONE
						NONE	
Silicon		ppm	ASTM D5185m	>75	▲ 640	▲ 647	▲ 1473
Silicon		ppm	ASTM D5185m	>75	<b>▲</b> 640	<b>6</b> 47	<b>1</b> 473
Silicon Potassiu		ppm	ASTM D5185m ASTM D5185m	>75 >20	▲ 640 17	▲ 647 22	<ul><li>1473</li><li>68</li></ul>
Silicon Potassiu Water		ppm ppm	ASTM D5185m ASTM D5185m WC Method	>75 >20 >0.075	▲ 640 17 NEG	▲ 647 22 NEG	▲ 1473 68 NEG
Silicon Potassiu Water Silt	Jm	ppm ppm scalar	ASTM D5185m ASTM D5185m WC Method *Visual	>75 >20 >0.075 NONE	▲ 640 17 NEG NONE	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> </ul>
Silicon Potassiu Water Silt Debris	um	ppm ppm scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>75 >20 >0.075 NONE NONE	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di	um	ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>75 >20 >0.075 NONE NONE NONE	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NONE</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NONE</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NONE</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara	um rt ance	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>75 >20 >0.075 NONE NONE NONE NORML	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifier	um rt ance	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>75 >20 >0.075 NONE NONE NONE NORML	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORE</li> <li>NORML</li> <li>NEG</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NONE</li> <li>NORE</li> <li>NORML</li> <li>NORML</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifie Sodium	um rt ance	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 >0.075 NONE NONE NORML NORML >0.075	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>11</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>14</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>40</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifier	um rt ance	ppm ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORE</li> <li>NORML</li> <li>NEG</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifie Sodium Boron	um rt ance d Water	ppm ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>11</li> <li>34</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>14</li> <li>36</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>40</li> <li>90</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifie Sodium Boron Barium	um rt ance d Water	ppm ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>11</li> <li>34</li> <li>2</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>14</li> <li>36</li> <li>3</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>40</li> <li>90</li> <li>6</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifie Sodium Boron Barium Molybde	um rt ance d Water enum iese	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>11</li> <li>34</li> <li>2</li> <li>5</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>14</li> <li>36</li> <li>3</li> <li>1</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>40</li> <li>90</li> <li>6</li> <li>4</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifie Sodium Boron Barium Molybde Mangan	um rt ance d Water enum ese ium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075	<ul> <li>640         <ol> <li>17                 NEG                 NONE                 NONE</li></ol></li></ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>14</li> <li>36</li> <li>3</li> <li>1</li> <li>24</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>40</li> <li>90</li> <li>6</li> <li>4</li> <li>48</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifie Sodium Boron Barium Molybde Mangan Magnes	um rt ance d Water enum iese ium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>11</li> <li>34</li> <li>2</li> <li>5</li> <li>20</li> <li>17</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>14</li> <li>36</li> <li>3</li> <li>1</li> <li>24</li> <li>20</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>40</li> <li>90</li> <li>6</li> <li>4</li> <li>48</li> <li>19</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifie Sodium Boron Barium Molybde Mangan Magnes Calcium	um rt ance d Water enum iese ium	ppm pm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>11</li> <li>34</li> <li>2</li> <li>5</li> <li>20</li> <li>17</li> <li>100</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>14</li> <li>36</li> <li>3</li> <li>1</li> <li>24</li> <li>20</li> <li>21</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>40</li> <li>90</li> <li>6</li> <li>4</li> <li>48</li> <li>19</li> <li>60</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifie Sodium Boron Barium Molybde Mangan Magnes Calcium Phospho	um rt ance d Water enum iese ium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>11</li> <li>34</li> <li>2</li> <li>5</li> <li>20</li> <li>17</li> <li>100</li> <li>686</li> <li>48</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>14</li> <li>36</li> <li>3</li> <li>1</li> <li>24</li> <li>20</li> <li>21</li> <li>589</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>40</li> <li>90</li> <li>6</li> <li>4</li> <li>48</li> <li>19</li> <li>60</li> <li>538</li> </ul>
Silicon Potassiu Water Silt Debris Sand/Di Appeara Odor Emulsifie Sodium Boron Barium Molybde Mangan Magnes Calcium Phospho Zinc	um rt ance d Water d Water enum iese ium	ppm pm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.075 NONE NONE NORML NORML >0.075	<ul> <li>640</li> <li>17</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>11</li> <li>34</li> <li>2</li> <li>5</li> <li>20</li> <li>17</li> <li>100</li> <li>686</li> </ul>	<ul> <li>647</li> <li>22</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>14</li> <li>36</li> <li>3</li> <li>1</li> <li>24</li> <li>20</li> <li>21</li> <li>589</li> <li>19</li> </ul>	<ul> <li>1473</li> <li>68</li> <li>NEG</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>NEG</li> <li>40</li> <li>90</li> <li>6</li> <li>4</li> <li>48</li> <li>19</li> <li>60</li> <li>538</li> <li>49</li> </ul>



: WearCheck USA - 501 Madison Ave., Cary, NC 27513 **JRE - GREENSBORO** Laboratory : JR0205127 411 SOUTH REGIONAL ROAD Sample No. Received : 12 Apr 2024 Lab Number : 06147587 GREENSBORO, NC Tested : 15 Apr 2024 : 16 Apr 2024 - Angela Borella US 27409 Unique Number : 10977665 Diagnosed Test Package : CONST (Additional Tests: PQ) Contact: NICK GALLAHER Certificate L2367 NGALLAHER@JRENET.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. T: (336)668-2762 F: (336)665-9556 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)