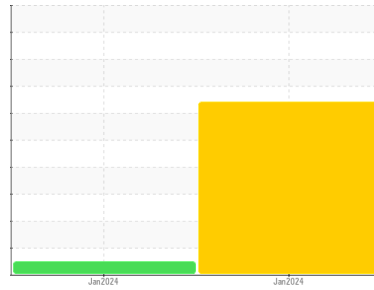




# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**JOHN DEERE S680 1H0S680SHD0755720**  
 Component  
**Diesel Engine**  
 Fluid  
**SCHAEFFER 700 Synshield 15w40 (12 GAL)**

## DIAGNOSIS

**Recommendation**  
 We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

**Wear**  
 Cylinder, crank, or cam shaft wear is indicated.

**Contamination**  
 Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

**Fluid Condition**  
 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>TR06218434</b>	TR06079283	---
Sample Date	Client Info		<b>12 Jan 2024</b>	12 Jan 2024	---
Machine Age	hrs	Client Info	<b>3165</b>	3165	---
Oil Age	hrs	Client Info	<b>100</b>	100	---
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	---
Sample Status			<b>SEVERE</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.1	<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.21	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >51	<b>▲ 58</b>	7	---
Chromium	ppm	ASTM D5185m >11	<b>1</b>	0	---
Nickel	ppm	ASTM D5185m >5	<b>2</b>	0	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >31	<b>● 18</b>	2	---
Lead	ppm	ASTM D5185m >26	<b>5</b>	2	---
Copper	ppm	ASTM D5185m >26	<b>12</b>	3	---
Tin	ppm	ASTM D5185m >4	<b>3</b>	1	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>87</b>	97	---
Barium	ppm	ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>23</b>	129	---
Manganese	ppm	ASTM D5185m	<b>2</b>	<1	---
Magnesium	ppm	ASTM D5185m	<b>667</b>	273	---
Calcium	ppm	ASTM D5185m	<b>1630</b>	1744	---
Phosphorus	ppm	ASTM D5185m	<b>818</b>	1011	---
Zinc	ppm	ASTM D5185m	<b>945</b>	1189	---
Sulfur	ppm	ASTM D5185m	<b>3488</b>	4164	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >22	<b>▲ 35</b>	5	---
Sodium	ppm	ASTM D5185m >31	<b>3</b>	2	---
Potassium	ppm	ASTM D5185m >20	<b>6</b>	2	---

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	0.3	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.2</b>	9.7	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.4</b>	20.7	---

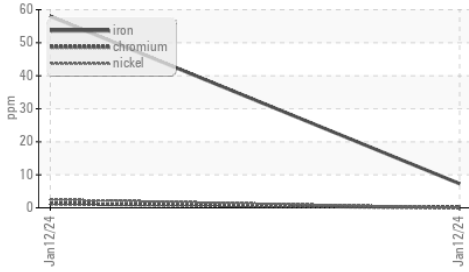
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.7</b>	17.0	---
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>9.75</b>	9.47	---

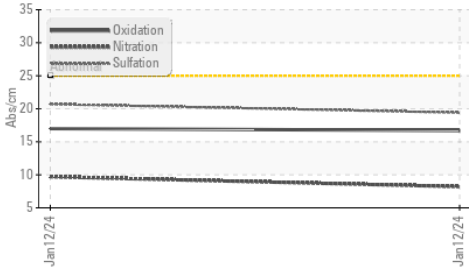


# OIL ANALYSIS REPORT

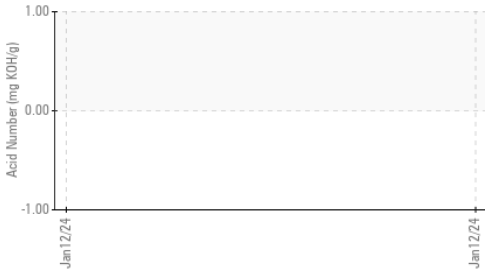
### ▲ Ferrous Alloys



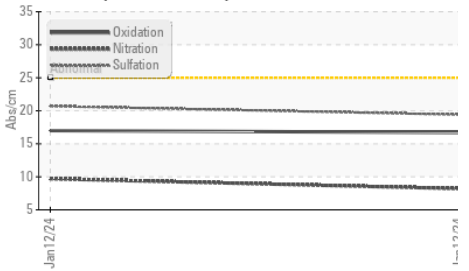
### ● FT-IR (Direct Trend)



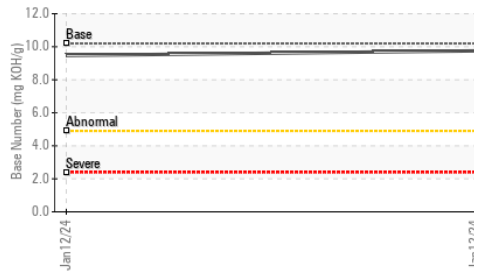
### ● Acid Number



### ● FT-IR (Direct Trend)



### ● Base Number

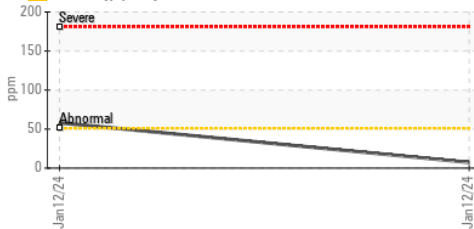


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

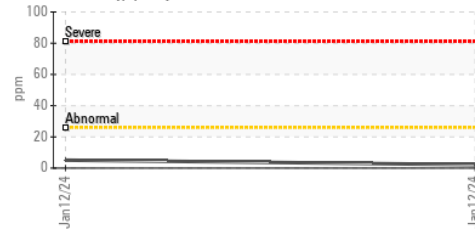
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.51	<b>13.4</b>	13.3

### GRAPHS

#### ▲ Iron (ppm)



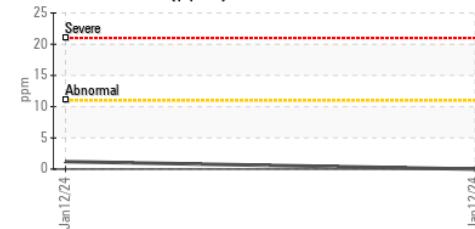
#### ▲ Lead (ppm)



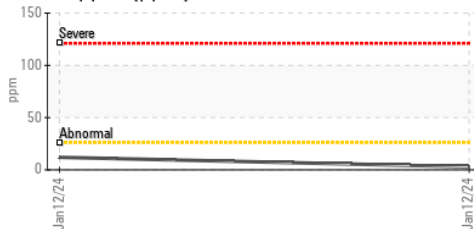
#### ● Aluminum (ppm)



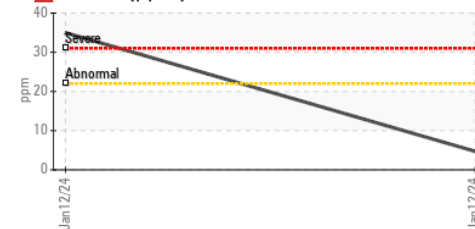
#### ● Chromium (ppm)



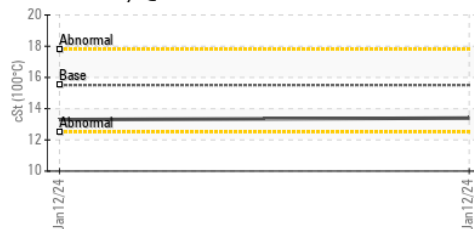
#### ● Copper (ppm)



#### ▲ Silicon (ppm)



#### ● Viscosity @ 100°C



#### ● Base Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06218434      **Received** : 24 Jun 2024  
**Lab Number** : **06218434**      **Tested** : 25 Jun 2024  
**Unique Number** : 11096631      **Diagnosed** : 25 Jun 2024 - Sean Felton  
**Test Package** : MOB 2 ( Additional Tests: PQ, TAN Man )

**RTH FARMS INC**  
 40211 S PRAIRIE VIEW RD  
 ROSALIA, WA  
 US 99170  
 Contact: RON GROGAN

To discuss this sample report, contact Customer Service at 1-800-827-0711.

\* - 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)