



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

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

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06218434	TR06079283	---
Sample Date		Client Info		12 Jan 2024	12 Jan 2024	---
Machine Age	hrs	Client Info		3165	3165	---
Oil Age	hrs	Client Info		100	100	---
Filter Age	hrs	Client Info		100	200	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		Not Changd	Not Changd	---
Sample Status				SEVERE	NORMAL	---

WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 58	7	---
Chromium	ppm	ASTM D5185m	>11	1	0	---
Nickel	ppm	ASTM D5185m	>5	2	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>31	● 18	2	---
Lead	ppm	ASTM D5185m	>26	5	2	---
Copper	ppm	ASTM D5185m	>26	12	3	---
Tin	ppm	ASTM D5185m	>4	3	1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

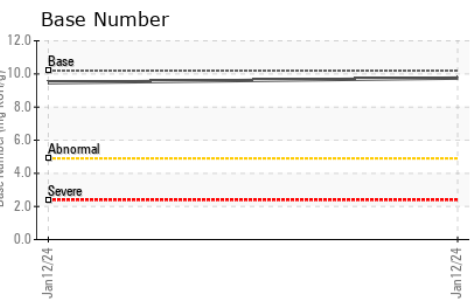
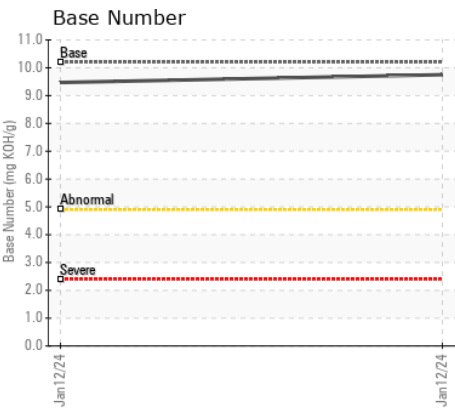
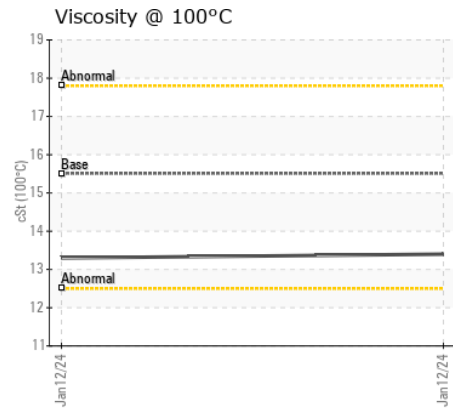
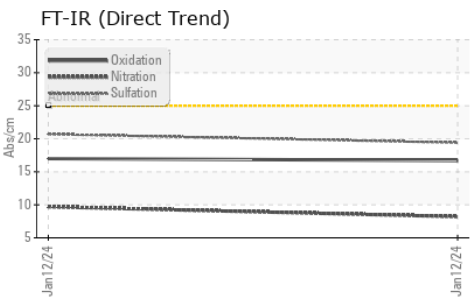
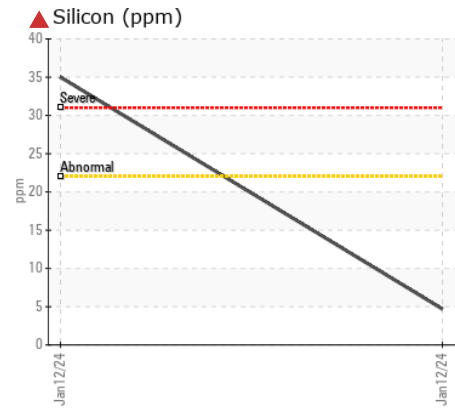
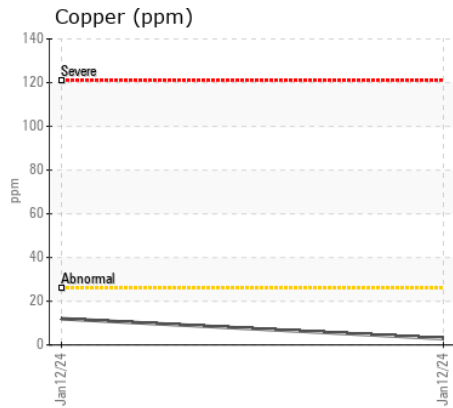
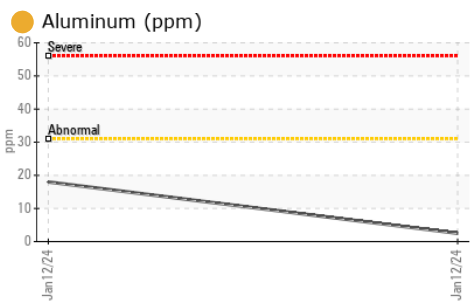
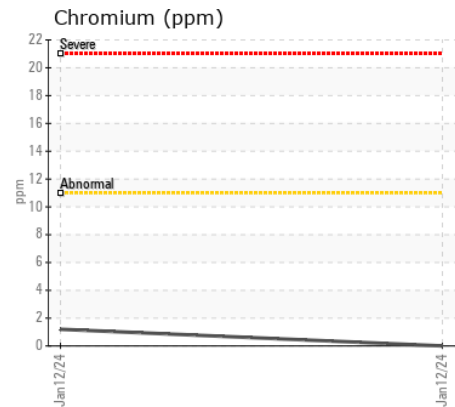
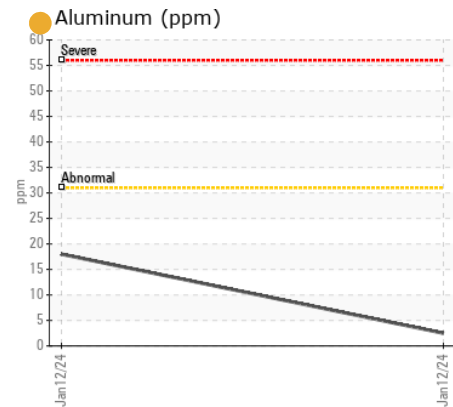
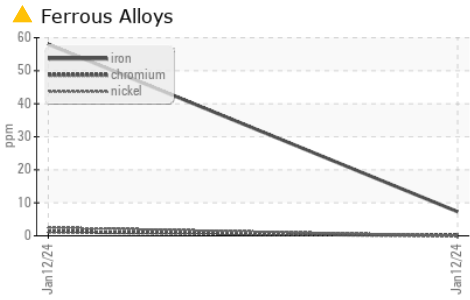
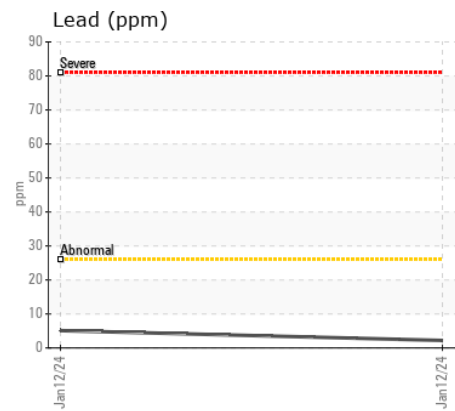
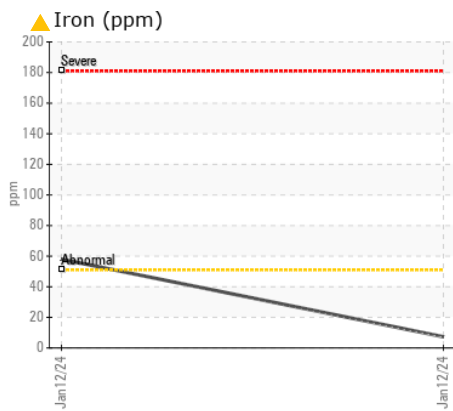
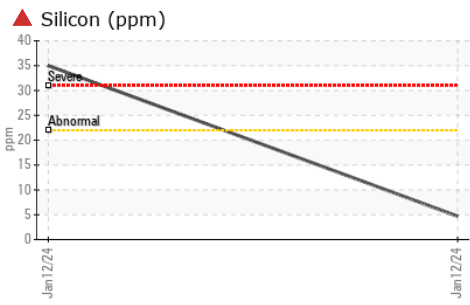
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>22	▲ 35	5	---
Potassium	ppm	ASTM D5185m	>20	6	2	---
Fuel		WC Method	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	8.2	9.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	20.7	---
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	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>31	3	2	---
Boron	ppm	ASTM D5185m		87	97	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		23	129	---
Manganese	ppm	ASTM D5185m		2	<1	---
Magnesium	ppm	ASTM D5185m		667	273	---
Calcium	ppm	ASTM D5185m		1630	1744	---
Phosphorus	ppm	ASTM D5185m		818	1011	---
Zinc	ppm	ASTM D5185m		945	1189	---
Sulfur	ppm	ASTM D5185m		3488	4164	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	17.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	9.75	9.47	---
Visc @ 100°C	cSt	ASTM D445	15.51	13.4	13.3	---



Certificate L2367

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)

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F: