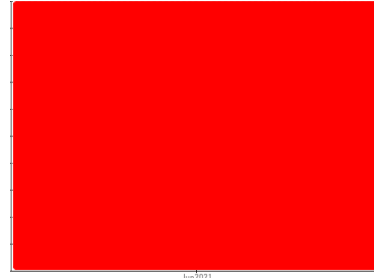
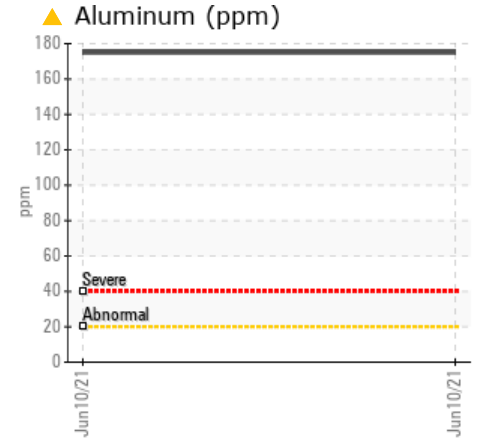
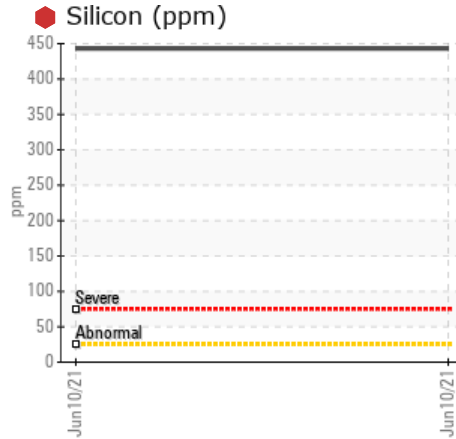
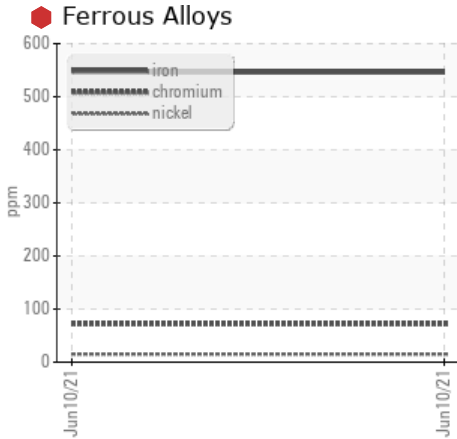


Machine Id
SAKAI 3SV53-10563

 Component
Diesel Engine

 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Iron	ppm	ASTM D5185m	>100	546	---	---
Chromium	ppm	ASTM D5185m	>20	72	---	---
Nickel	ppm	ASTM D5185m	>4	15	---	---
Aluminum	ppm	ASTM D5185m	>20	175	---	---
Silicon	ppm	ASTM D5185m	>25	443	---	---

Customer Id: JAMCHA
 Sample No.: JR0080098
 Lab Number: 05277377
 Test Package: MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

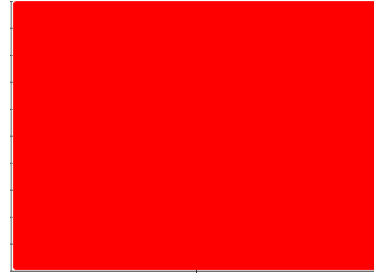
RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	MISSED	Oct 07 2021	?	We advise that you inspect for the source(s) of wear.
Change Fluid	MISSED	Oct 07 2021	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Change Filter	MISSED	Oct 07 2021	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Resample	MISSED	Oct 07 2021	?	We recommend an early resample to monitor this condition.
Check Dirt Access	MISSED	Oct 07 2021	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

HISTORICAL DIAGNOSIS

Machine Id
SAKAI 3SV53-10563

 Component
Diesel Engine

 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- 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 that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

Piston, ring and cylinder wear is indicated. Valve 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. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			JR0080098	---	---
Sample Date	Client Info			10 Jun 2021	---	---
Machine Age	hrs	Client Info		3171	---	---
Oil Age	hrs	Client Info		500	---	---
Oil Changed	Client Info			N/A	---	---
Sample Status				SEVERE	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Glycol	WC Method			NEG	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	546	---	---
Chromium	ppm	ASTM D5185m	>20	72	---	---
Nickel	ppm	ASTM D5185m	>4	15	---	---
Titanium	ppm	ASTM D5185m		8	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	175	---	---
Lead	ppm	ASTM D5185m	>40	<1	---	---
Copper	ppm	ASTM D5185m	>330	27	---	---
Tin	ppm	ASTM D5185m	>15	2	---	---
Antimony	ppm	ASTM D5185m		0	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
Cadmium	ppm	ASTM D5185m		0	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		253	---	---
Barium	ppm	ASTM D5185m		<1	---	---
Molybdenum	ppm	ASTM D5185m		162	---	---
Manganese	ppm	ASTM D5185m		8	---	---
Magnesium	ppm	ASTM D5185m		672	---	---
Calcium	ppm	ASTM D5185m		1528	---	---
Phosphorus	ppm	ASTM D5185m		789	---	---
Zinc	ppm	ASTM D5185m		944	---	---
Sulfur	ppm	ASTM D5185m		2128	---	---

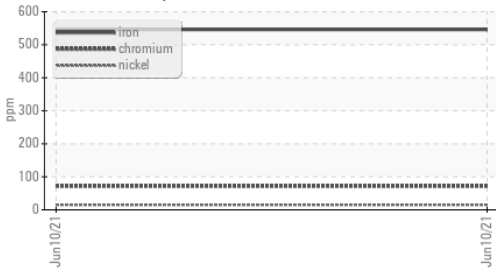
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	443	---	---
Sodium	ppm	ASTM D5185m		15	---	---
Potassium	ppm	ASTM D5185m	>20	16	---	---
Fuel	%	ASTM D3524	>5	<1.0	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	9.7	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.7	---	---

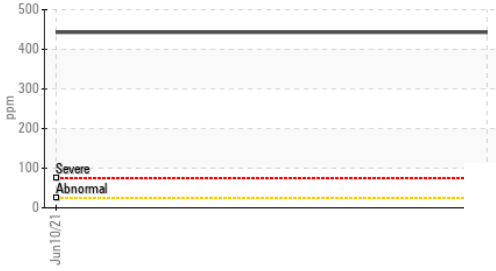
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.7	---	---

OIL ANALYSIS REPORT

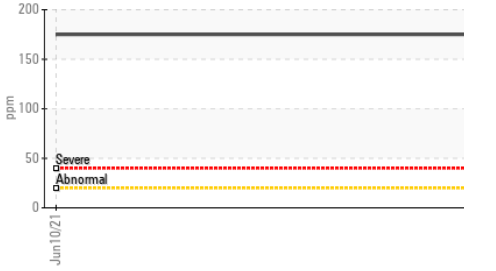
Ferrous Alloys



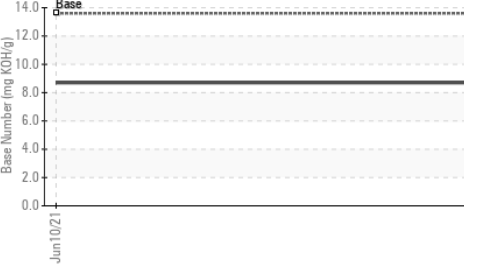
Silicon (ppm)



Aluminum (ppm)



Base Number



Viscosity @ 100°C

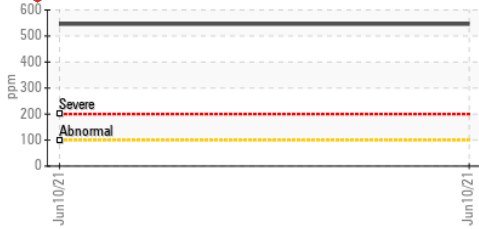


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

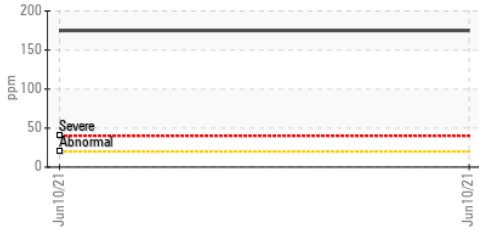
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	---

GRAPHS

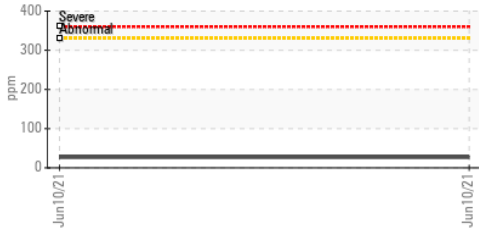
Iron (ppm)



Aluminum (ppm)



Copper (ppm)



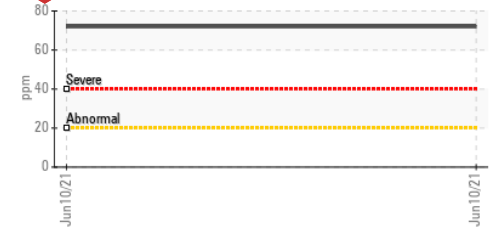
Viscosity @ 100°C



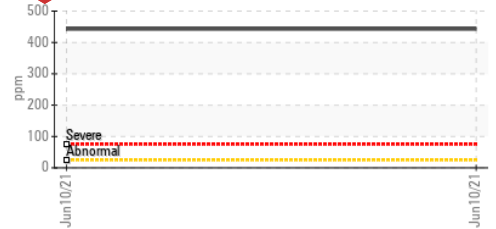
Lead (ppm)



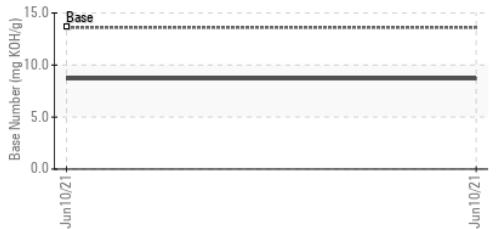
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0080098 **Received** : 11 Jun 2021
Lab Number : 05277377 **Diagnosed** : 16 Jun 2021
Unique Number : 9541310 **Diagnostician** : Jonathan Hester
Test Package : MOBCE (Additional Tests: FuelDilution, 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)

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