



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
[W51019]

Machine Id
SAKAI 1SW53-30147

Component
Diesel Engine

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

RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor. (Customer Sample Comment: W51019)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0222559	JR0197925	JR0181634
Sample Date		Client Info		28 Jun 2024	18 Dec 2023	08 Aug 2023
Machine Age	hrs	Client Info		5082	4714	4235
Oil Age	hrs	Client Info		368	479	229
Filter Age	hrs	Client Info		368	479	229
Oil Changed		Client Info		Not Changd	Changed	Changed
Filter Changed		Client Info		Not Changd	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	4	2	4
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	4	2
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	0	0	<1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

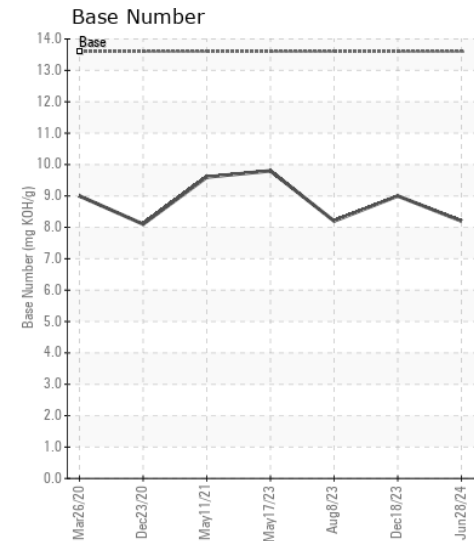
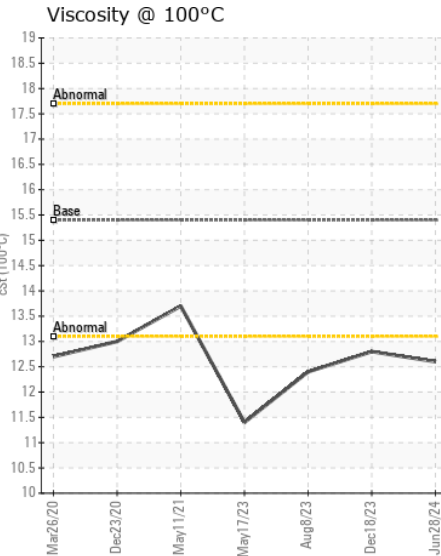
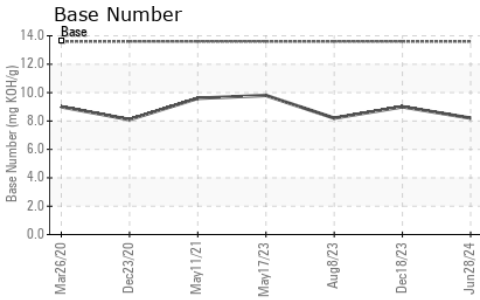
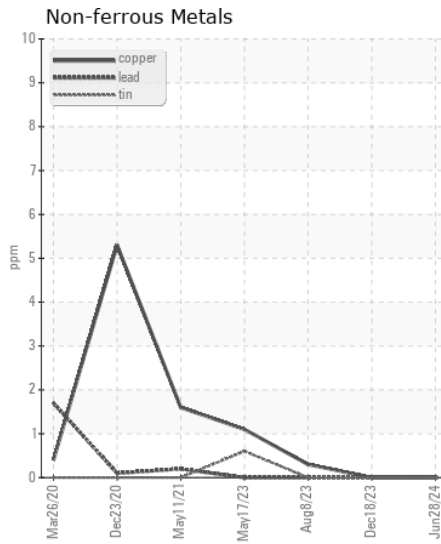
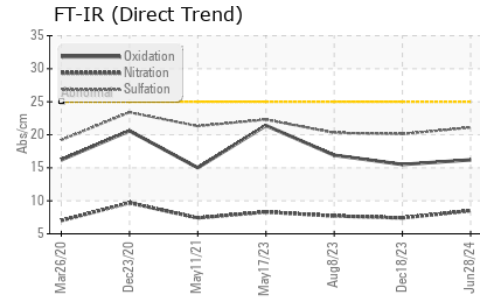
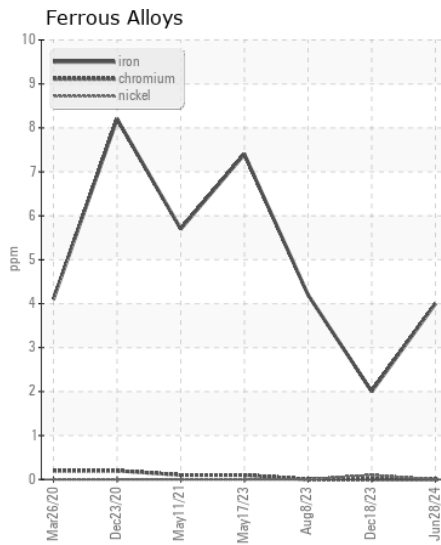
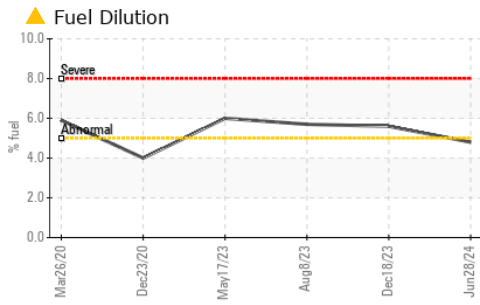
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	6	6	5
Potassium	ppm	ASTM D5185m	>20	<1	0	2
Fuel	%	ASTM D3524	>5	▲ 4.8	▲ 5.6	▲ 5.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.5	7.4	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	20.1	20.3
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	<1	5
Boron	ppm	ASTM D5185m		227	258	234
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		235	247	196
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		781	809	768
Calcium	ppm	ASTM D5185m		1310	1278	1496
Phosphorus	ppm	ASTM D5185m		866	914	849
Zinc	ppm	ASTM D5185m		1022	1036	1077
Sulfur	ppm	ASTM D5185m		3128	2967	3399
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.2	15.5	16.9
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.2	9.0	8.2
Visc @ 100°C	cSt	ASTM D445	15.4	12.6	12.8	▲ 12.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0222559 **Received** : 01 Jul 2024
Lab Number : 06225559 **Tested** : 03 Jul 2024
Unique Number : 11103756 **Diagnosed** : 03 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PercentFuel, TBN)

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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)