



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area
[05W44265]

Machine Id
000696

Component
Diesel Engine

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

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0199185	JR0187696	---
Sample Date		Client Info		12 Jan 2024	18 Sep 2023	---
Machine Age	hrs	Client Info		966	482	---
Oil Age	hrs	Client Info		484	0	---
Filter Age	hrs	Client Info		484	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ATTENTION	ATTENTION	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	28	36	---
Chromium	ppm	ASTM D5185m	>20	<1	1	---
Nickel	ppm	ASTM D5185m	>4	3	4	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m	>3	<1	1	---
Aluminum	ppm	ASTM D5185m	>20	4	5	---
Lead	ppm	ASTM D5185m	>40	1	2	---
Copper	ppm	ASTM D5185m	>330	104	38	---
Tin	ppm	ASTM D5185m	>15	2	2	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

There is no indication of any contamination in the oil.

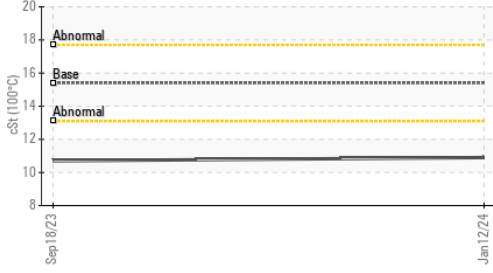
Silicon	ppm	ASTM D5185m	>25	7	12	---
Potassium	ppm	ASTM D5185m	>20	8	7	---
Fuel		WC Method	>5	<1.0	0.3	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0	---
Nitration	Abs/cm	*ASTM D7624	>20	7.5	9.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.2	26.6	---
Silt	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	>0.2	NEG	NEG	---

FLUID CONDITION

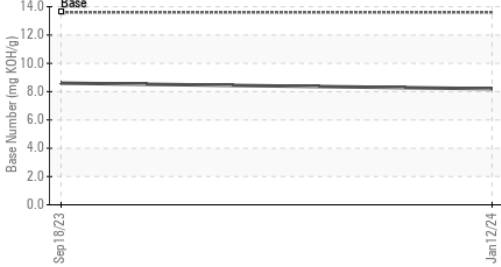
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		4	4	---
Boron	ppm	ASTM D5185m		111	227	---
Barium	ppm	ASTM D5185m		0	<1	---
Molybdenum	ppm	ASTM D5185m		135	237	---
Manganese	ppm	ASTM D5185m		<1	2	---
Magnesium	ppm	ASTM D5185m		492	757	---
Calcium	ppm	ASTM D5185m		2324	1458	---
Phosphorus	ppm	ASTM D5185m		1005	870	---
Zinc	ppm	ASTM D5185m		1165	1074	---
Sulfur	ppm	ASTM D5185m		3024	3311	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	20.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.2	8.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.9	▲ 10.7	---

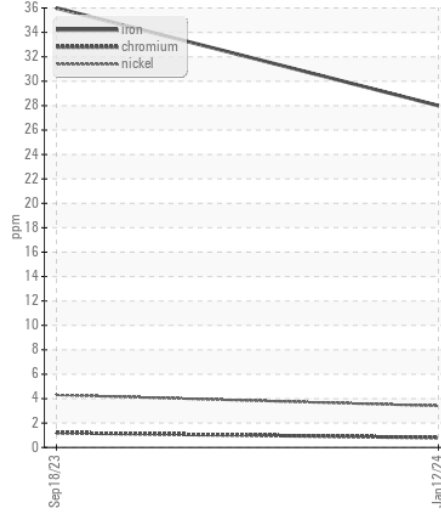
▲ Viscosity @ 100°C



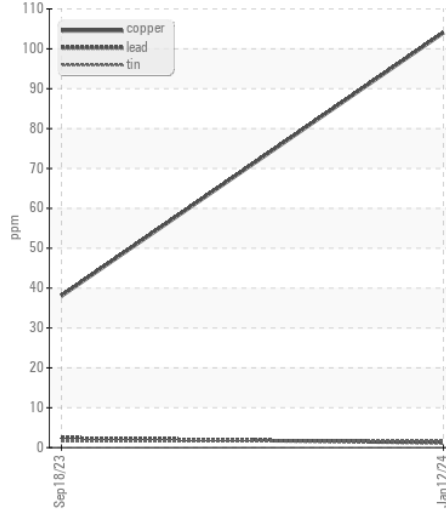
Base Number



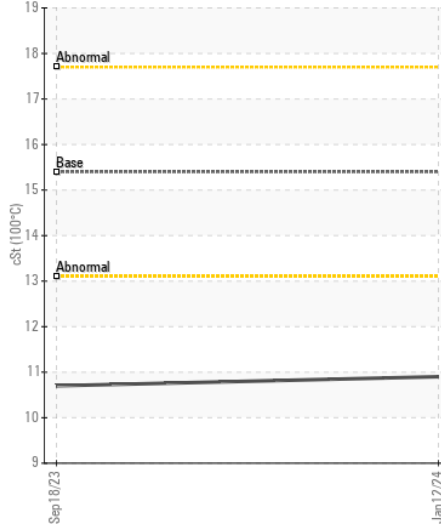
Ferrous Alloys



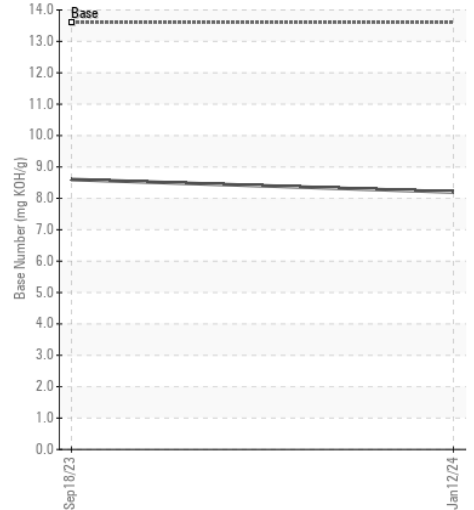
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0199185 **Received** : 16 Jan 2024
Lab Number : 06060853 **Diagnosed** : 17 Jan 2024
Unique Number : 10832235 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: 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)