CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	MARGINAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ATTENTION

Area
[W20829-SWIFT CREEK]
Machine Id
JOHN DEERE 524P 1DW524PAPMLT10519
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- LTR)

RECOMMENDATION

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

WEAR

The copper level has decreased, but is still abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

CONTAMINATION

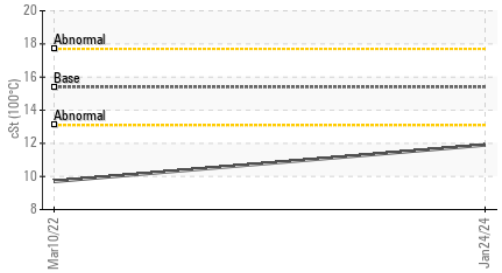
Light fuel dilution occurring.

FLUID CONDITION

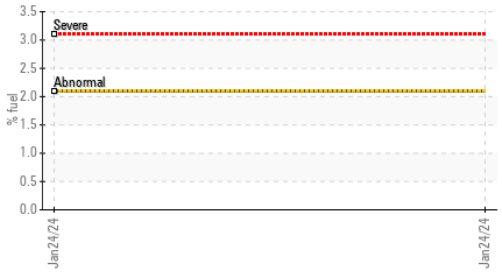
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0190481	JR0106522	---
Sample Date		Client Info		24 Jan 2024	10 Mar 2022	---
Machine Age	hrs	Client Info		1839	373	---
Oil Age	hrs	Client Info		1500	373	---
Filter Age	hrs	Client Info		1500	373	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ATTENTION	ABNORMAL	---
Iron	ppm	ASTM D5185m	>51	25	21	---
Chromium	ppm	ASTM D5185m	>11	<1	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>31	4	3	---
Lead	ppm	ASTM D5185m	>26	3	<1	---
Copper	ppm	ASTM D5185m	>26	▲ 301	▲ 466	---
Tin	ppm	ASTM D5185m	>4	<1	1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>22	6	11	---
Potassium	ppm	ASTM D5185m	>20	3	4	---
Fuel	%	ASTM D3524	>2.1	▲ 2.1	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol	%	*ASTM D2982		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.2	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	10.5	8.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.0	22.7	---
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	---
Sodium	ppm	ASTM D5185m	>31	<1	5	---
Boron	ppm	ASTM D5185m		94	241	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		241	247	---
Manganese	ppm	ASTM D5185m		1	4	---
Magnesium	ppm	ASTM D5185m		773	883	---
Calcium	ppm	ASTM D5185m		1304	1431	---
Phosphorus	ppm	ASTM D5185m		741	948	---
Zinc	ppm	ASTM D5185m		1029	1097	---
Sulfur	ppm	ASTM D5185m		2589	2697	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.6	17.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.3	9.9	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.9	9.7	---

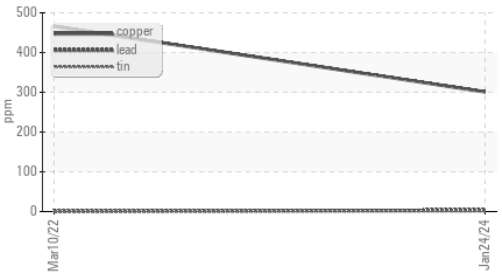
Viscosity @ 100°C



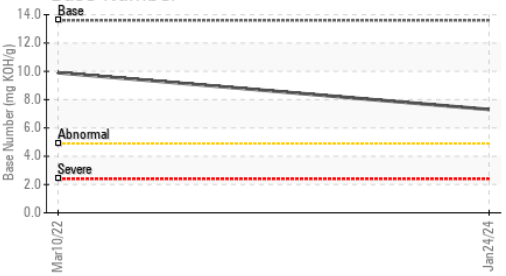
Fuel Dilution



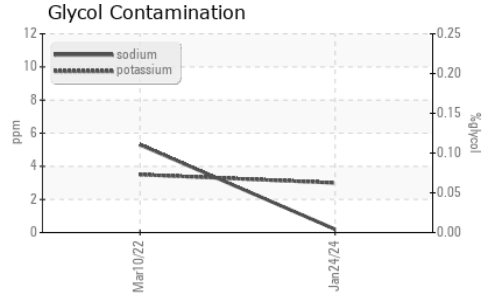
Non-ferrous Metals



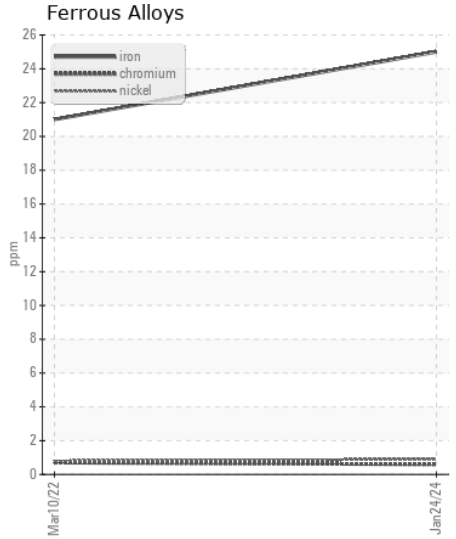
Base Number



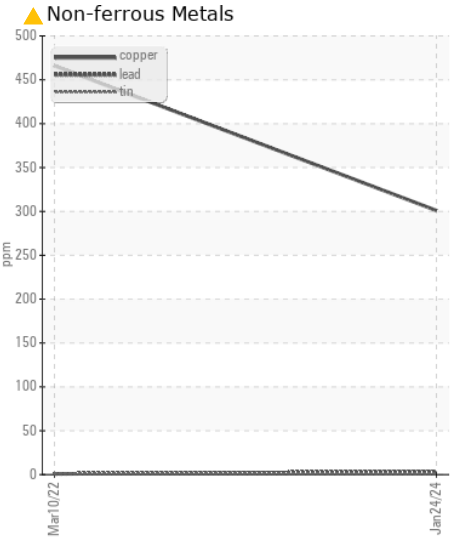
Glycol Contamination



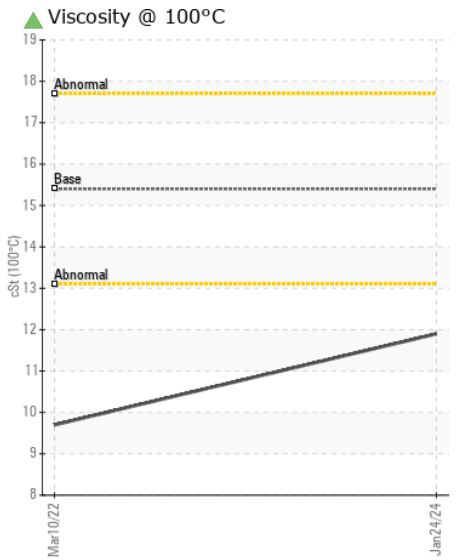
Ferrous Alloys



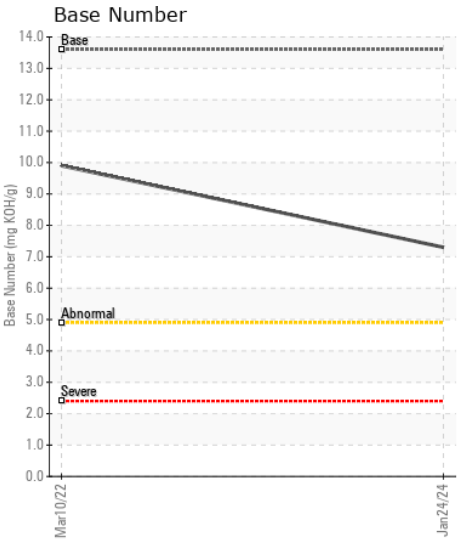
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0190481 **Recieved** : 30 Jan 2024
Lab Number : 06073692 **Diagnosed** : 31 Jan 2024
Unique Number : 10850369 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, Glycol, PercentFuel, 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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