James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 1T0325GKENJ421724
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 0W40 (--- GAL)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

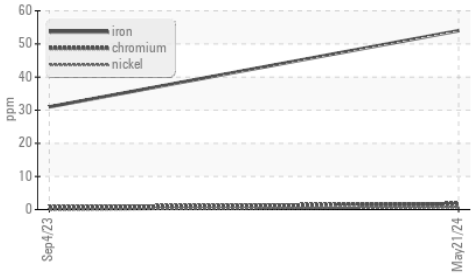
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

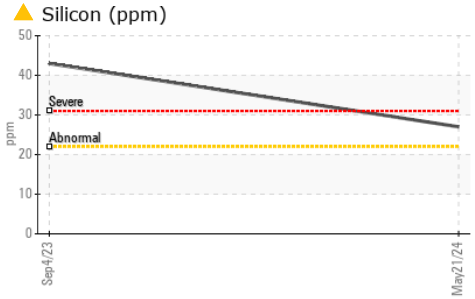
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0214444	JR0183695	---
Sample Date		Client Info		21 May 2024	04 Sep 2023	---
Machine Age	hrs	Client Info		1008	468	---
Oil Age	hrs	Client Info		540	0	---
Filter Age	hrs	Client Info		540	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	NORMAL	---
Iron	ppm	ASTM D5185m	>51	▲ 54	31	---
Chromium	ppm	ASTM D5185m	>11	2	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	0	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	1	<1	---
Aluminum	ppm	ASTM D5185m	>31	● 10	6	---
Lead	ppm	ASTM D5185m	>26	<1	0	---
Copper	ppm	ASTM D5185m	>26	27	47	---
Tin	ppm	ASTM D5185m	>4	2	<1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>22	▲ 27	43	---
Potassium	ppm	ASTM D5185m	>20	3	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	0.8	0.6	---
Nitration	Abs/cm	*ASTM D7624	>20	9.4	9.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.6	26.8	---
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	4	12	---
Boron	ppm	ASTM D5185m		208	215	---
Barium	ppm	ASTM D5185m		<1	2	---
Molybdenum	ppm	ASTM D5185m		293	261	---
Manganese	ppm	ASTM D5185m		1	1	---
Magnesium	ppm	ASTM D5185m		899	803	---
Calcium	ppm	ASTM D5185m		1637	1742	---
Phosphorus	ppm	ASTM D5185m		909	845	---
Zinc	ppm	ASTM D5185m		1195	1119	---
Sulfur	ppm	ASTM D5185m		3192	3517	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.1	24.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	7.5	7.4	---
Visc @ 100°C	cSt	ASTM D445	14	13.5	12.5	---

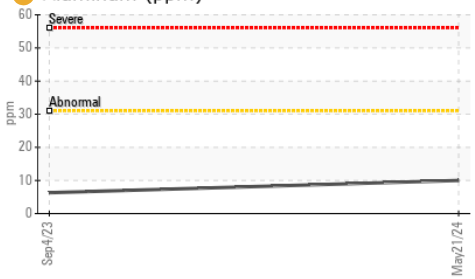
Ferrous Alloys



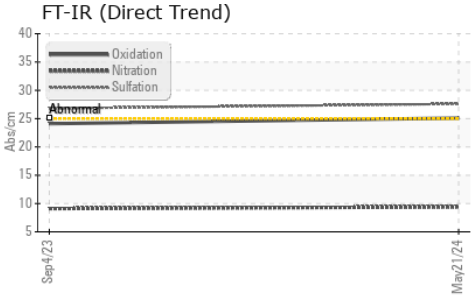
Silicon (ppm)



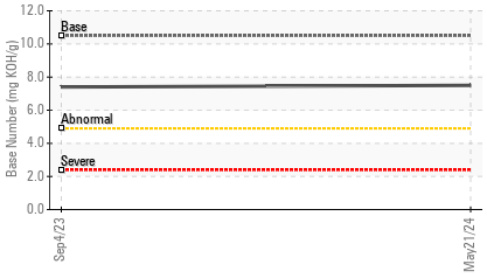
Aluminum (ppm)



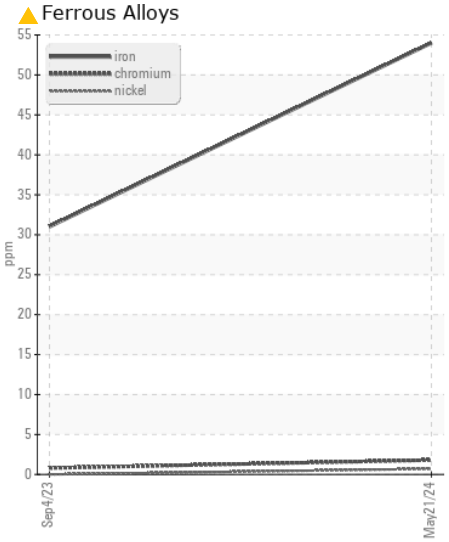
FT-IR (Direct Trend)



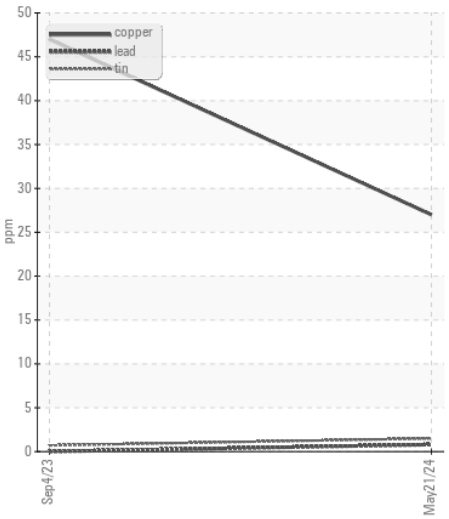
Base Number



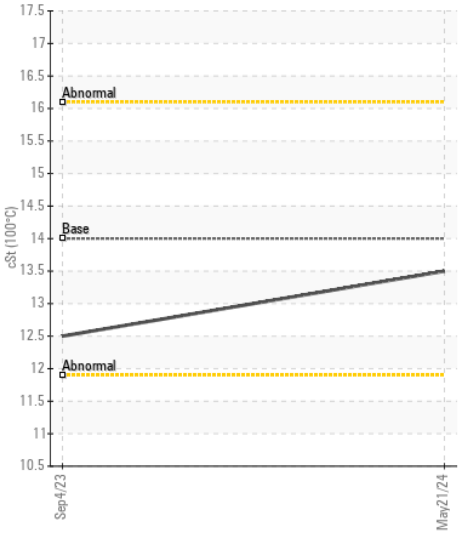
Ferrous Alloys



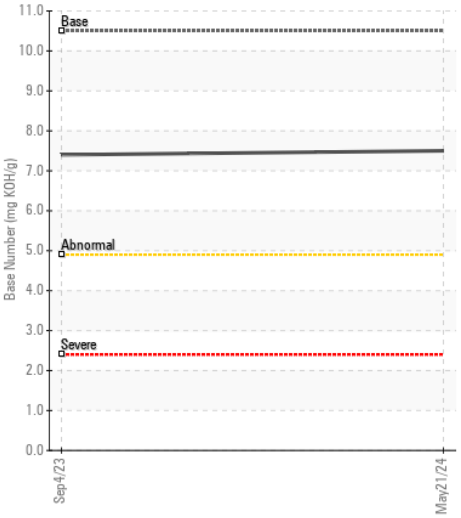
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0214444
Lab Number : 06189958
Unique Number : 11046710
Test Package : CONST (Additional Tests: TBN)

Received : 23 May 2024
Tested : 25 May 2024
Diagnosed : 29 May 2024 - Sean Felton

Certificate L2367

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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