James River Equipment

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 325G 1T0325GKVMJ408397
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 0W40 (12 QTS)

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

All component wear rates are normal.

CONTAMINATION

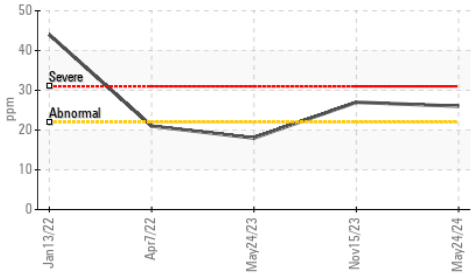
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

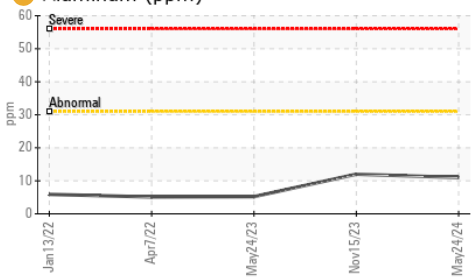
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0218090	JR0192188	JR0160122
Sample Date		Client Info		24 May 2024	15 Nov 2023	24 May 2023
Machine Age	hrs	Client Info		2958	2444	1932
Oil Age	hrs	Client Info		514	2444	967
Filter Age	hrs	Client Info		0	2444	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	32	39	29
Chromium	ppm	ASTM D5185m	>11	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>31	11	12	5
Lead	ppm	ASTM D5185m	>26	1	0	0
Copper	ppm	ASTM D5185m	>26	3	4	4
Tin	ppm	ASTM D5185m	>4	1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	26	27	18
Potassium	ppm	ASTM D5185m	>20	3	<1	<1
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	1	0.8
Nitration	Abs/cm	*ASTM D7624	>20	10.2	10.6	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.1	30.8	29.4
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	>0.21	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>31	2	0	2
Boron	ppm	ASTM D5185m		140	127	168
Barium	ppm	ASTM D5185m		<1	<1	0
Molybdenum	ppm	ASTM D5185m		240	269	282
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		730	835	869
Calcium	ppm	ASTM D5185m		1532	1378	1519
Phosphorus	ppm	ASTM D5185m		882	876	850
Zinc	ppm	ASTM D5185m		1044	1080	1084
Sulfur	ppm	ASTM D5185m		3081	2663	3199
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.4	29.4	28.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	6.9	6.6	6.8
Visc @ 100°C	cSt	ASTM D445	14	13.6	13.4	13.0

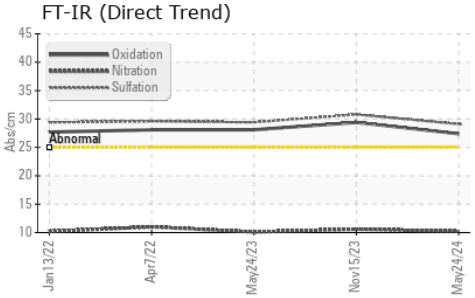
Silicon (ppm)



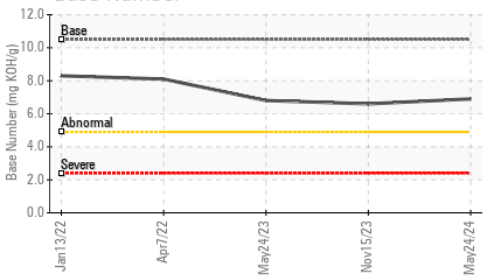
Aluminum (ppm)



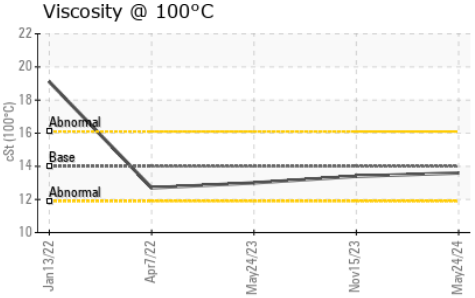
FT-IR (Direct Trend)



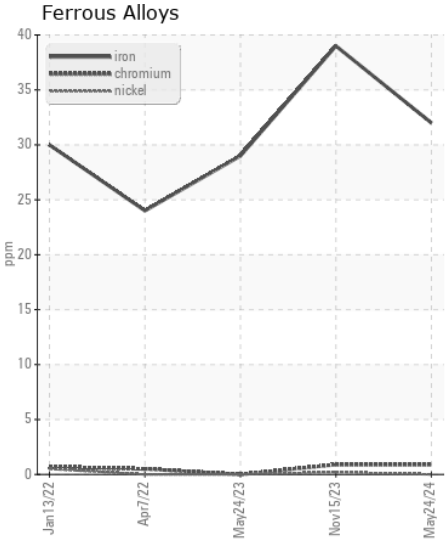
Base Number



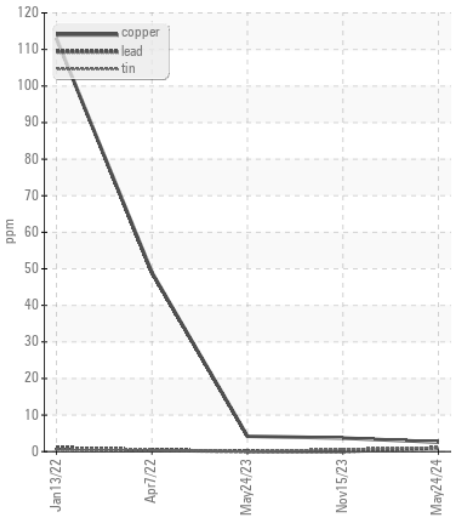
Viscosity @ 100°C



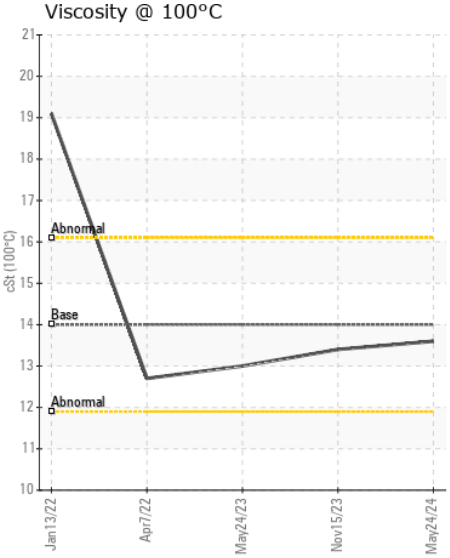
Ferrous Alloys



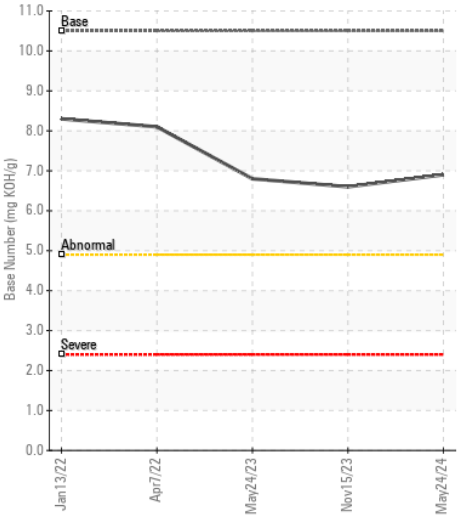
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0218090 **Received** : 29 May 2024
Lab Number : 06194771 **Tested** : 30 May 2024
Unique Number : 11056894 **Diagnosed** : 31 May 2024 - Sean Felton
Test Package : CONST (Additional Tests: 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)

B & S SITE DEVLEOPMENT
7800 PINEY BRANCH LANE
BRISTOW, VA
US 20136
Contact: DANNY HUFF
dhuff@bandssite.com
T: (540)270-3203
F: (703)753-0605