James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 329E 1T0329EJHFE287937
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

WEAR

Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

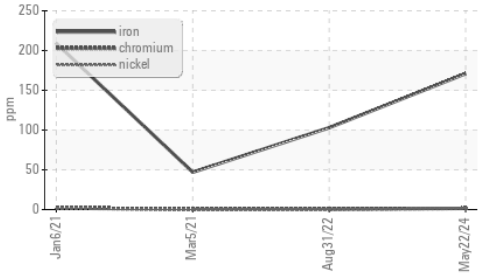
Elemental level of silicon (Si) above normal.

FLUID CONDITION

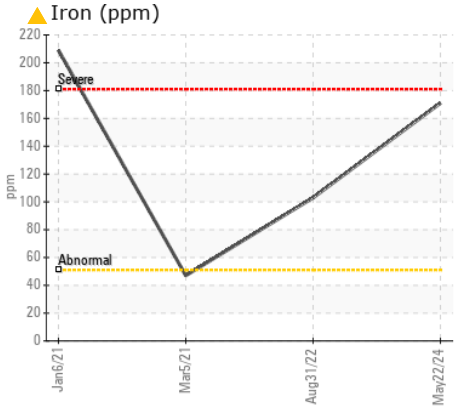
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0126037	JR0126216	JR0020747
Sample Date		Client Info		22 May 2024	31 Aug 2022	05 Mar 2021
Machine Age	hrs	Client Info		2493	2280	1658
Oil Age	hrs	Client Info		2493	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Not Changd
Filter Changed		Client Info		N/A	Changed	Not Changd
Sample Status				ABNORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	▲ 171	▲ 103	47
Chromium	ppm	ASTM D5185m	>11	2	<1	<1
Nickel	ppm	ASTM D5185m	>5	1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	1	0	<1
Aluminum	ppm	ASTM D5185m	>31	10	4	<1
Lead	ppm	ASTM D5185m	>26	<1	0	<1
Copper	ppm	ASTM D5185m	>26	7	6	7
Tin	ppm	ASTM D5185m	>4	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	▲ 22	13	14
Potassium	ppm	ASTM D5185m	>20	4	0	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	0.5	0.5	0.2
Nitration	Abs/cm	*ASTM D7624	>20	11.0	13.0	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	25.8	22.9
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	6	4	5
Boron	ppm	ASTM D5185m		158	72	216
Barium	ppm	ASTM D5185m		2	0	0
Molybdenum	ppm	ASTM D5185m		240	179	244
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m		730	478	802
Calcium	ppm	ASTM D5185m		1635	1717	1480
Phosphorus	ppm	ASTM D5185m		981	835	925
Zinc	ppm	ASTM D5185m		1166	1042	916
Sulfur	ppm	ASTM D5185m		3414	2838	2560
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.7	20.9	17.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.5	8.1	9.8
Visc @ 100°C	cSt	ASTM D445	15.4	14.3	14.3	14.4

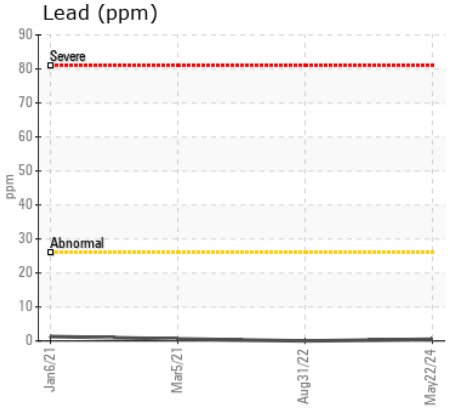
Ferrous Alloys



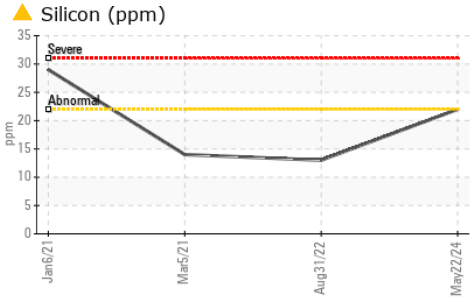
Iron (ppm)



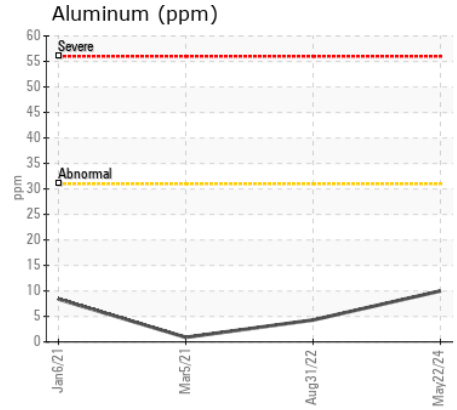
Lead (ppm)



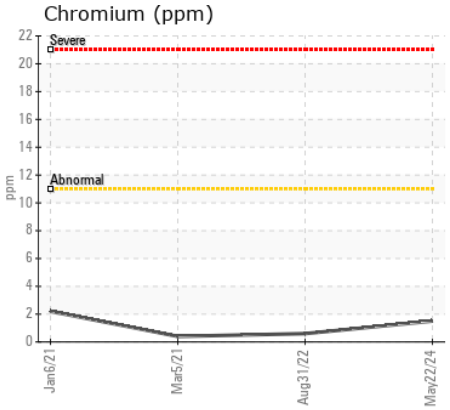
Silicon (ppm)



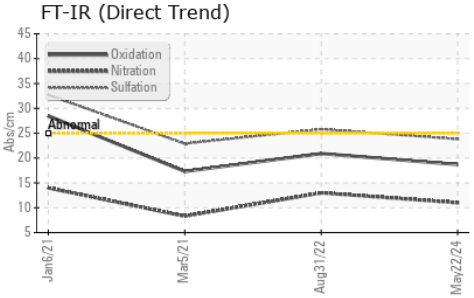
Aluminum (ppm)



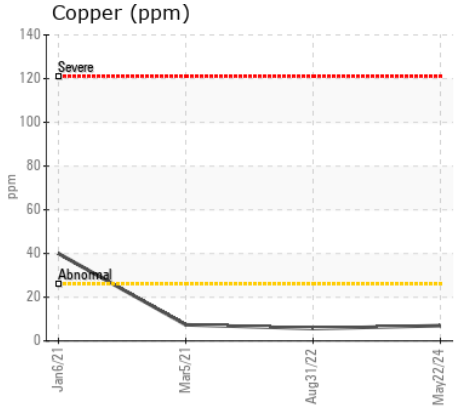
Chromium (ppm)



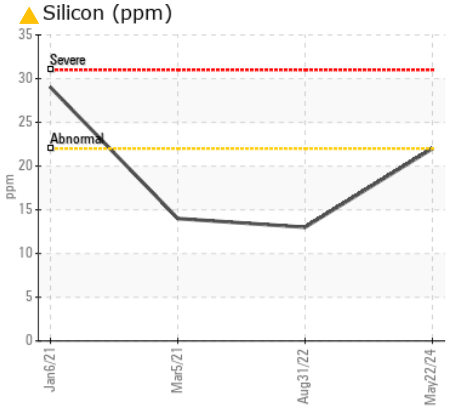
FT-IR (Direct Trend)



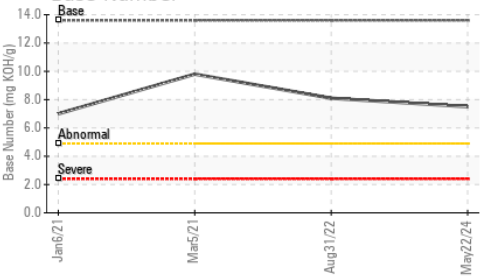
Copper (ppm)



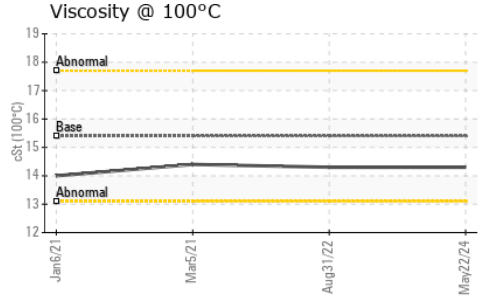
Silicon (ppm)



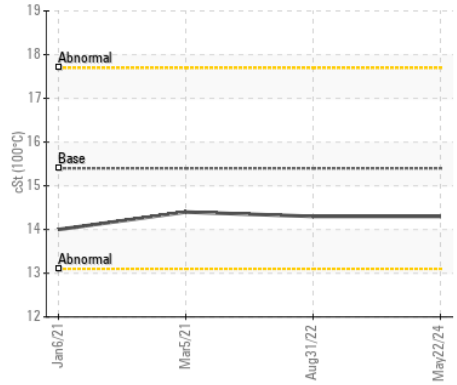
Base Number



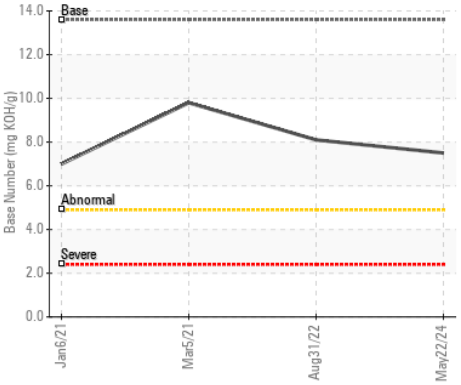
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0126037
Lab Number : 06191982
Unique Number : 11048734
Test Package : MOBCE (Additional Tests: TBN)

Received : 28 May 2024
Tested : 29 May 2024
Diagnosed : 30 May 2024 - Don Baldridge

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)

JRE - SALEM
3902 W. MAIN STREET
SALEM, VA
US 24153
Contact: ROBERT SMITH
ROBERT.SMITH@JAMESRIVEREQUIPMENT.COM
T:
F: (540)380-5547