



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**JOHN DEERE JOHN DEERE 8320**

Component  
**Diesel Engine**

Fluid  
**TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (28 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TR06151311</b>	TR04417091	TR03173769
Sample Date		Client Info		<b>16 Feb 2024</b>	13 Feb 2018	05 Nov 2012
Machine Age	hrs	Client Info		<b>5412</b>	4259	2858
Oil Age	hrs	Client Info		<b>257</b>	198	260
Filter Age	hrs	Client Info		<b>257</b>	198	260
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>20</b>	18	16
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	2	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>3</b>	3	2
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	2	2
Copper	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

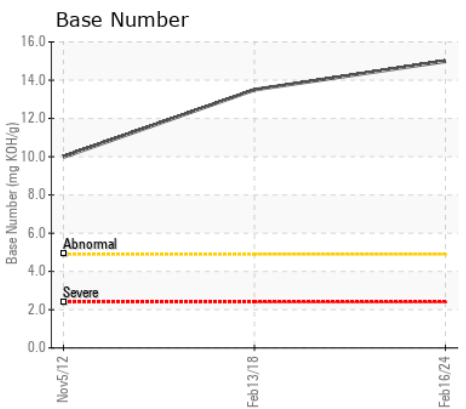
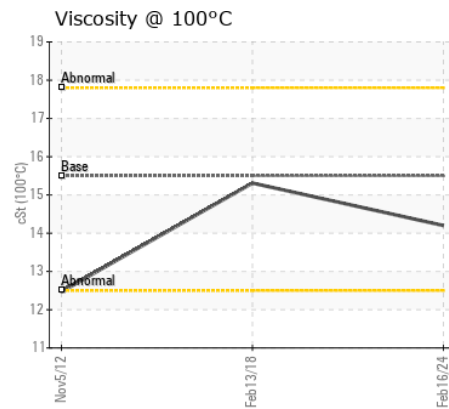
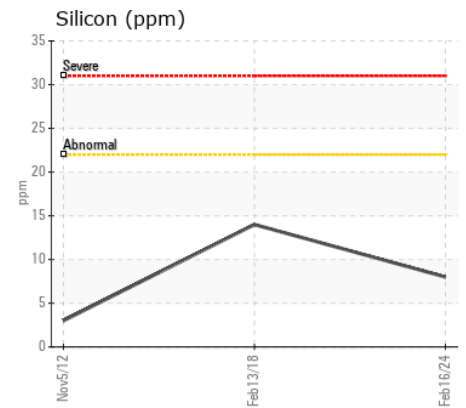
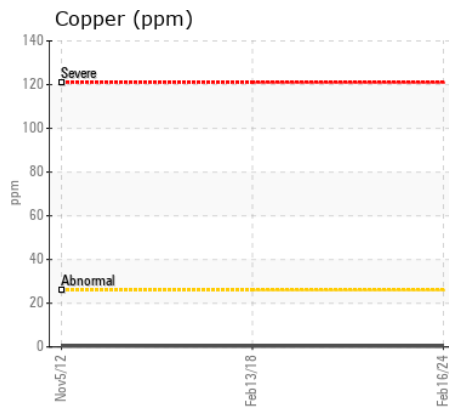
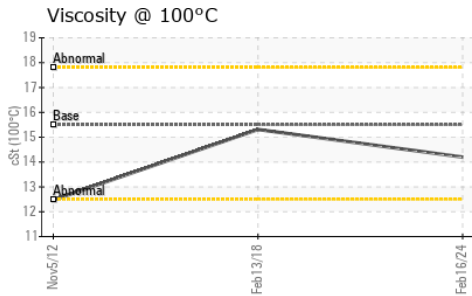
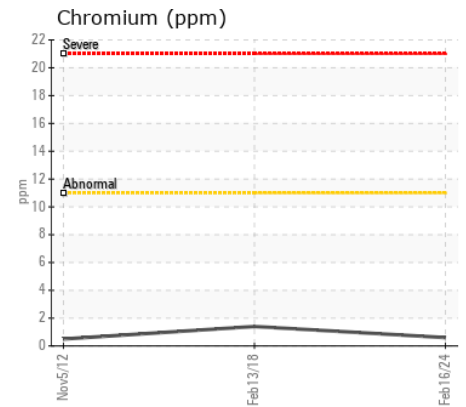
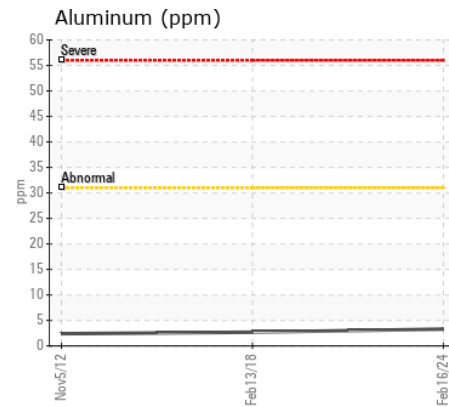
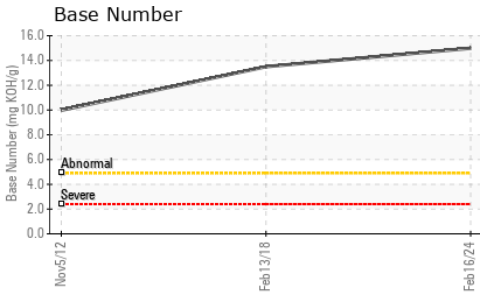
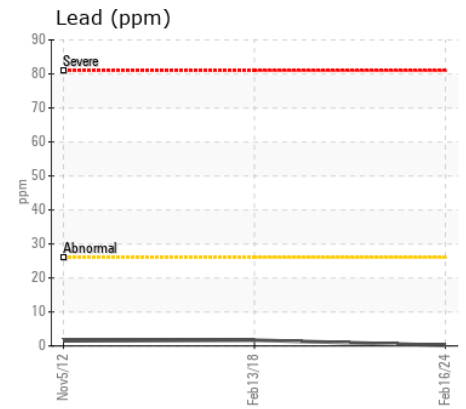
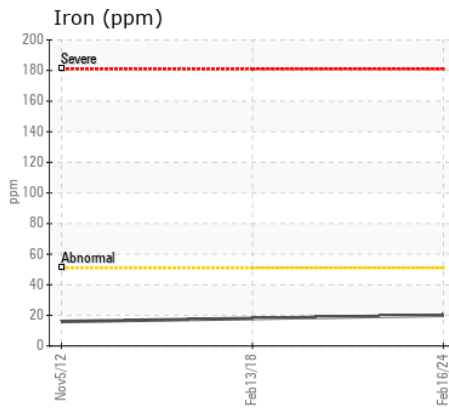
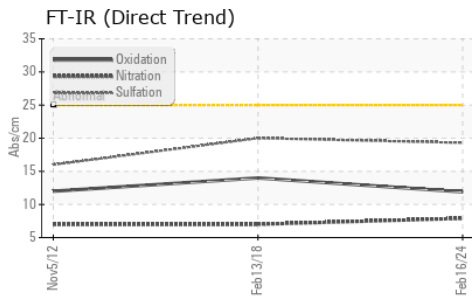
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>8</b>	14	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	1	0
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.9</b>	7.	7.
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.3</b>	20.	16.
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	NEG	NEG

**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.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	5	6
Boron	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>13</b>	8	47
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>21</b>	16	902
Calcium	ppm	ASTM D5185m		<b>5829</b>	4368	1300
Phosphorus	ppm	ASTM D5185m		<b>1198</b>	1114	1186
Zinc	ppm	ASTM D5185m		<b>1320</b>	1331	1286
Sulfur	ppm	ASTM D5185m		<b>4982</b>	4408	3565
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>11.9</b>	14.	12.
Base Number (BN)	mg KOH/g	ASTM D2896		<b>14.99</b>	13.5	9.98
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.2</b>	15.31	12.47



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06151311  
**Lab Number** : 06151311  
**Unique Number** : 10981389  
**Test Package** : MOB 2  
**Received** : 16 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 18 Apr 2024 - Wes Davis

**JON ROBBETT**  
 33990 AUDRAIN RD 424  
 LADDONIA, MO  
 US 63352  
 Contact: LARRY HARTMAN

To discuss this sample report, contact Customer Service at 1-800-827-0711.  
 \* - 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)