TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE RG6076A178122
Component
Diesel Engine
Fluid
TRC MOLY XL PROSPEC III 15W40 (22 QTS)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

CONTAMINATION

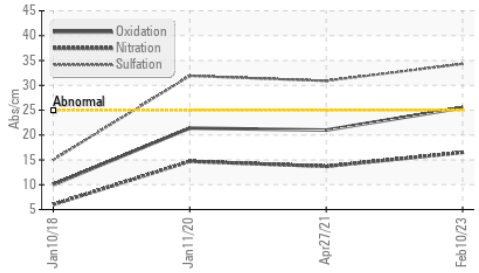
Elemental level of silicon (Si) above normal. There is an abnormal amount of solids and carbon present in the oil.

FLUID CONDITION

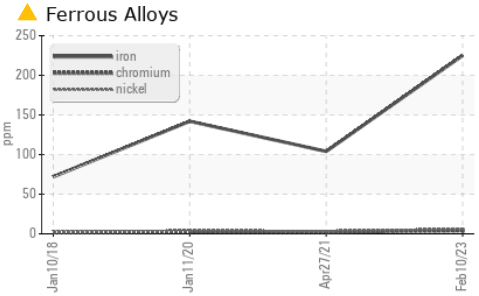
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05773043	TR05244587	TR04890128
Sample Date		Client Info		10 Feb 2023	27 Apr 2021	11 Jan 2020
Machine Age	hrs	Client Info		14628	14038	13714
Oil Age	hrs	Client Info		912	322	743
Filter Age	hrs	Client Info		912	322	743
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	▲ 225	▲ 104	▲ 142
Chromium	ppm	ASTM D5185m	>11	4	2	3
Nickel	ppm	ASTM D5185m	>5	6	4	4
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	5	3	8
Lead	ppm	ASTM D5185m	>26	20	8	10
Copper	ppm	ASTM D5185m	>26	3	2	4
Tin	ppm	ASTM D5185m	>4	2	1	1
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	▲ 22	7	10
Potassium	ppm	ASTM D5185m	>20	2	1	2
Fuel	%	ASTM D3524	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	▲ 3	2.5	3.3
Nitration	Abs/cm	*ASTM D7624	>20	16.5	13.7	14.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	34.3	30.9	31.9
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	3	2	13
Boron	ppm	ASTM D5185m		234	348	163
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		315	249	263
Manganese	ppm	ASTM D5185m		2	1	1
Magnesium	ppm	ASTM D5185m		521	516	470
Calcium	ppm	ASTM D5185m	4500	4985	4672	4412
Phosphorus	ppm	ASTM D5185m		1066	1002	964
Zinc	ppm	ASTM D5185m	1400	1251	1198	1057
Sulfur	ppm	ASTM D5185m		3978	3688	4259
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.5	21	21.4
Base Number (BN)	mg KOH/g	ASTM D2896	15	14.04	15.1	13.1
Visc @ 100°C	cSt	ASTM D445	15.5	17.0	15.7	16.2

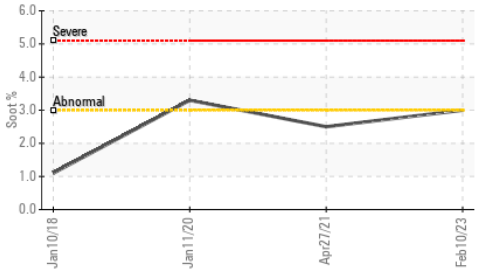
FT-IR (Direct Trend)



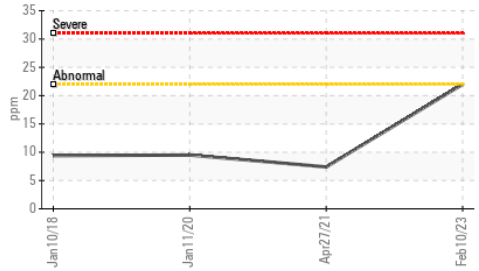
Ferrous Alloys



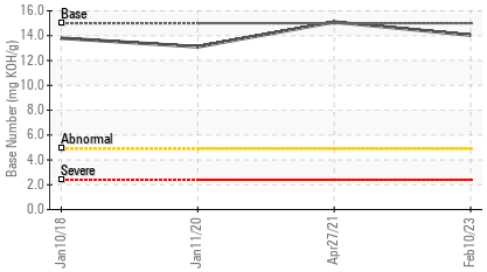
Soot %



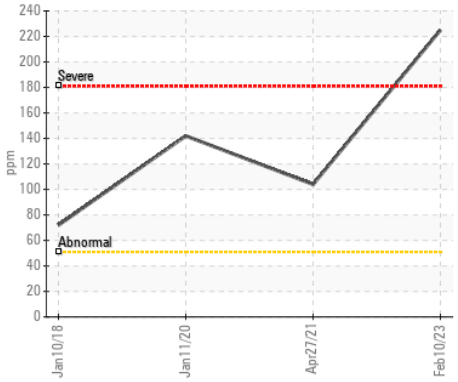
Silicon (ppm)



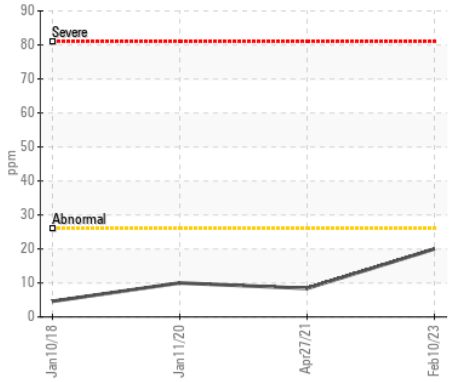
Base Number



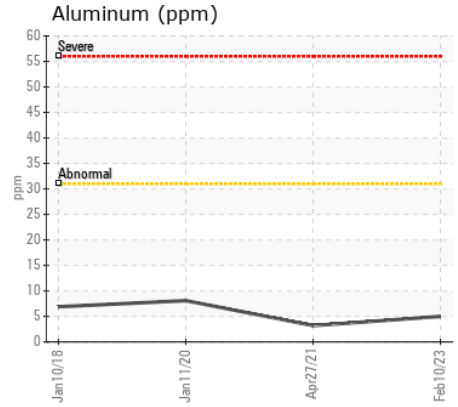
Iron (ppm)



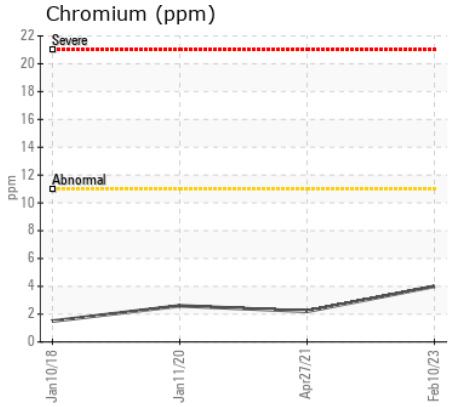
Lead (ppm)



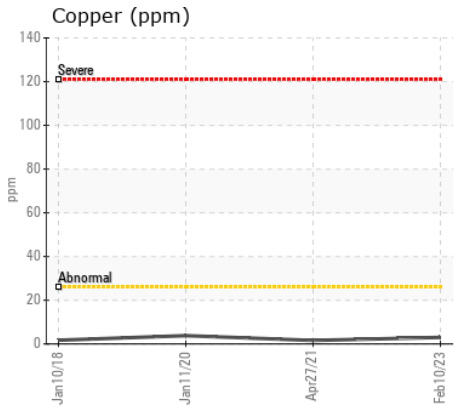
Aluminum (ppm)



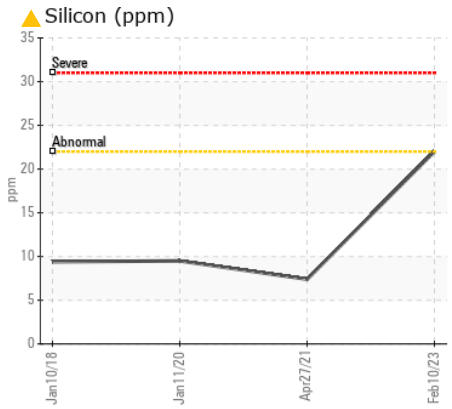
Chromium (ppm)



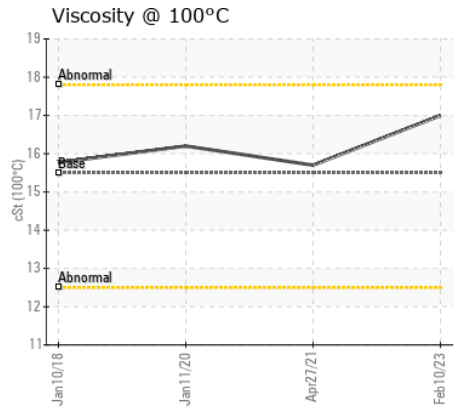
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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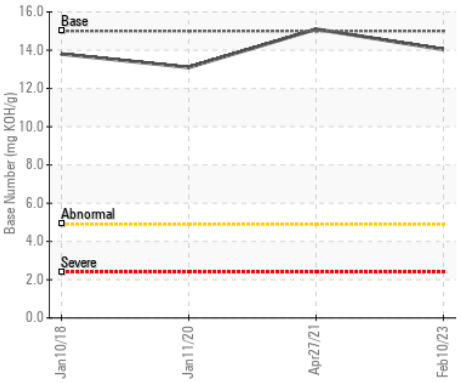

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05773043 **Received** : 21 Feb 2023
Lab Number : 05773043 **Tested** : 22 Feb 2023
Unique Number : 10347660 **Diagnosed** : 22 Feb 2023 - Don Baldridge
Test Package : MOB 2 (Additional Tests: FuelDilution)

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)

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