



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 6466AR-08 143021RG
 Component
Diesel Engine
 Fluid
TRC MOLY XL PROSPEC III 15W40 (23 QTS)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05773042	TR05244585	TR04389994
Sample Date		Client Info		10 Feb 2023	26 Apr 2021	11 Jan 2018
Machine Age	hrs	Client Info		0	853	0
Oil Age	hrs	Client Info		0	0	271
Filter Age	hrs	Client Info		0	0	271
Oil Changed		Client Info		N/A	Changed	Not Changd
Filter Changed		Client Info		N/A	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	SEVERE

WEAR

Cylinder, crank, or cam shaft wear is indicated. Bearing wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 77	41	65
Chromium	ppm	ASTM D5185m	>11	2	1	2
Nickel	ppm	ASTM D5185m	>5	1	1	3
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	3	3	6
Lead	ppm	ASTM D5185m	>26	4	4	11
Copper	ppm	ASTM D5185m	>26	▲ 32	22	▲ 41
Tin	ppm	ASTM D5185m	>4	3	3	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

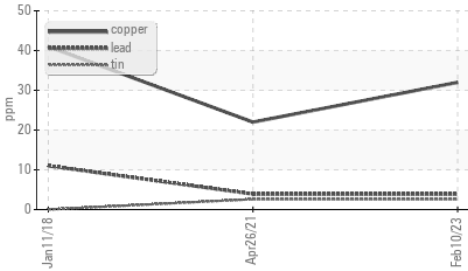
Silicon	ppm	ASTM D5185m	>22	12	8	▲ 22
Potassium	ppm	ASTM D5185m	>20	3	2	▲ 52
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	▲ 0.10
Soot %	%	*ASTM D7844	>3	0.8	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.8	10.1	9.
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	23.4	15.
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

FLUID CONDITION

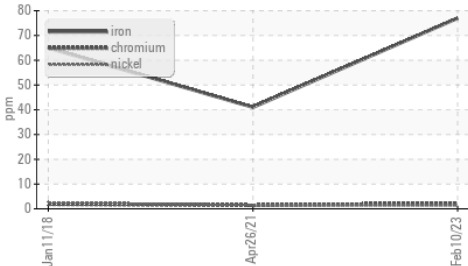
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	15	10	▲ 745
Boron	ppm	ASTM D5185m		234	343	166
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		236	225	198
Manganese	ppm	ASTM D5185m		1	<1	1
Magnesium	ppm	ASTM D5185m		470	507	469
Calcium	ppm	ASTM D5185m	4500	3904	3950	3344
Phosphorus	ppm	ASTM D5185m		876	908	830
Zinc	ppm	ASTM D5185m	1400	1050	1095	899
Sulfur	ppm	ASTM D5185m		3550	3532	3036
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.3	16.8	11.
Base Number (BN)	mg KOH/g	ASTM D2896	15	12.58	14.5	13.7
Visc @ 100°C	cSt	ASTM D445	15.5	14.4	14.4	14.99

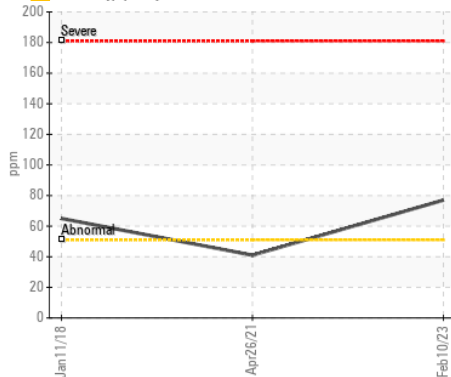
▲ Non-ferrous Metals



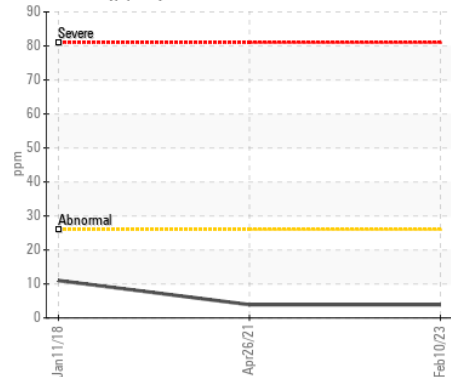
▲ Ferrous Alloys



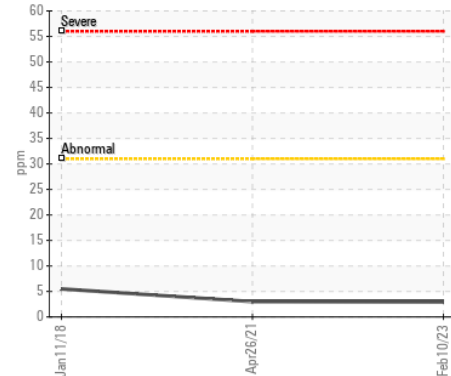
▲ Iron (ppm)



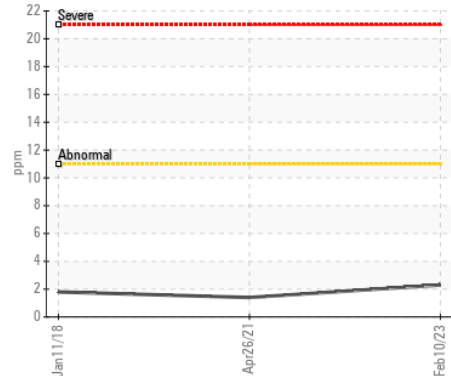
▲ Lead (ppm)



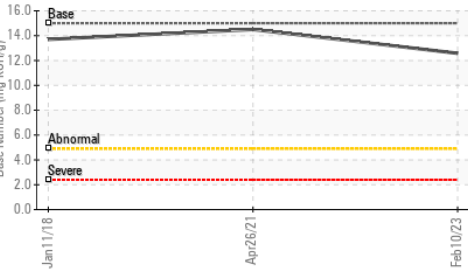
▲ Aluminum (ppm)



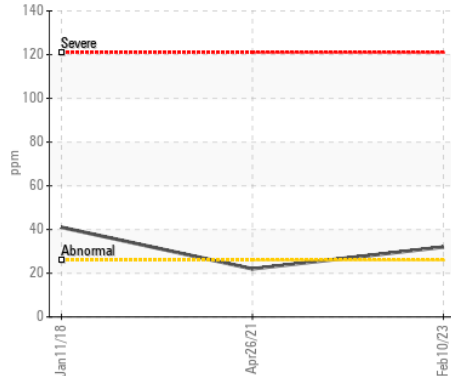
▲ Chromium (ppm)



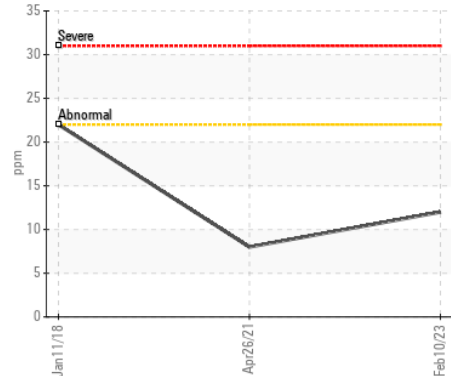
▲ Base Number



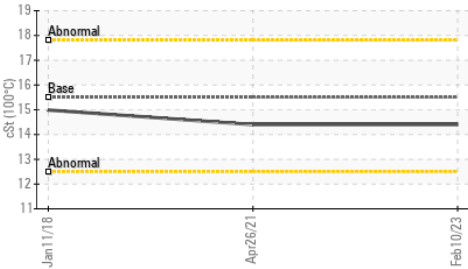
▲ Copper (ppm)



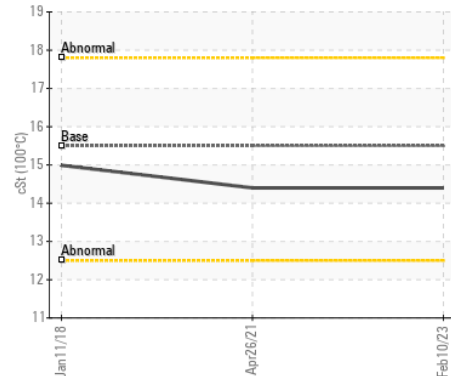
▲ Silicon (ppm)



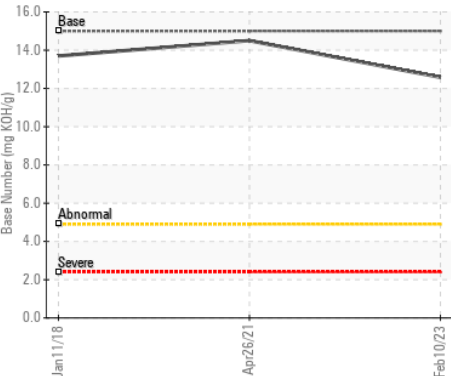
▲ Viscosity @ 100°C



▲ Viscosity @ 100°C



▲ Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TR05773042

Lab Number : 05773042

Unique Number : 10347659

Test Package : MOB 2

Received : 21 Feb 2023

Tested : 22 Feb 2023

Diagnosed : 22 Feb 2023 - Don Baldrige

STAN ISAAC

28624 JUNIPER RD

BRUNEAU, ID

US 83604

Contact: CALVIN KOEHN

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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F: