TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
JOHN DEERE 6400 CD4045T355261
Component
Diesel Engine
Fluid
TRC MOLY XL PROSPEC III 15W40 (12 LTR)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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

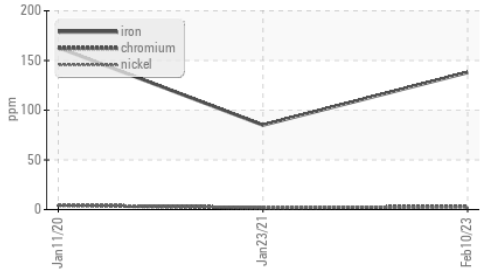
There is no indication of any contamination in the oil.

FLUID CONDITION

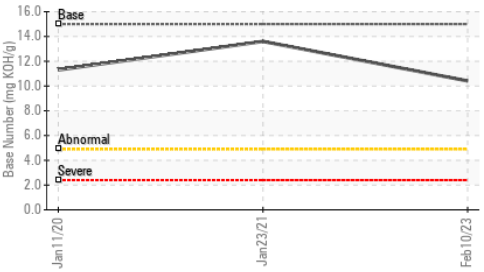
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05773045	TR05171454	TR04890130
Sample Date		Client Info		10 Feb 2023	23 Jan 2021	11 Jan 2020
Machine Age	hrs	Client Info		10356	10140	9872
Oil Age	hrs	Client Info		484	268	878
Filter Age	hrs	Client Info		484	268	878
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	▲ 138	▲ 85	▲ 163
Chromium	ppm	ASTM D5185m	>11	3	2	4
Nickel	ppm	ASTM D5185m	>5	3	2	5
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	5	0	11
Lead	ppm	ASTM D5185m	>26	4	3	7
Copper	ppm	ASTM D5185m	>26	4	3	5
Tin	ppm	ASTM D5185m	>4	1	1	2
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	14	12	21
Potassium	ppm	ASTM D5185m	>20	2	<1	2
Fuel		WC Method	>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	1	0.8	1
Nitration	Abs/cm	*ASTM D7624	>20	9.9	8.5	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9	22.2	24.4
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	<1	<1	4
Boron	ppm	ASTM D5185m		213	212	167
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		204	204	248
Manganese	ppm	ASTM D5185m		1	1	2
Magnesium	ppm	ASTM D5185m		393	410	401
Calcium	ppm	ASTM D5185m	4500	3775	3908	3916
Phosphorus	ppm	ASTM D5185m		786	829	831
Zinc	ppm	ASTM D5185m	1400	957	935	938
Sulfur	ppm	ASTM D5185m		3288	2990	3984
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	14.1	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	15	10.41	13.6	11.3
Visc @ 100°C	cSt	ASTM D445	15.5	13.0	15.1	14.1

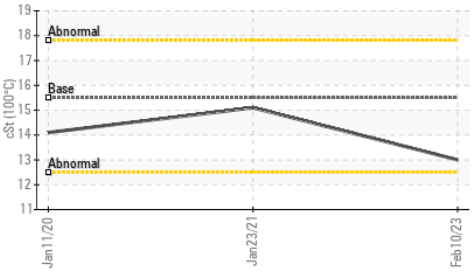
Ferrous Alloys



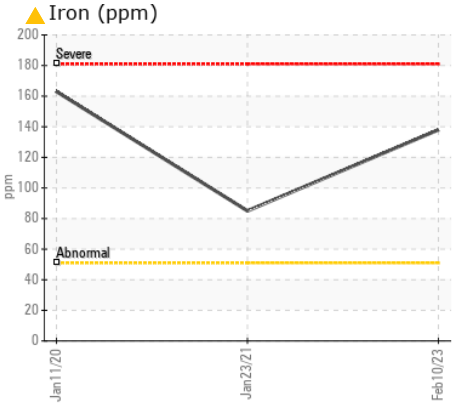
Base Number



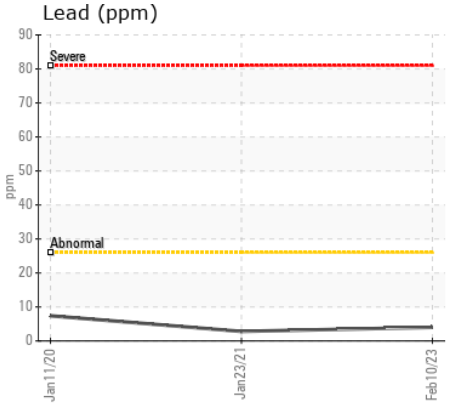
Viscosity @ 100°C



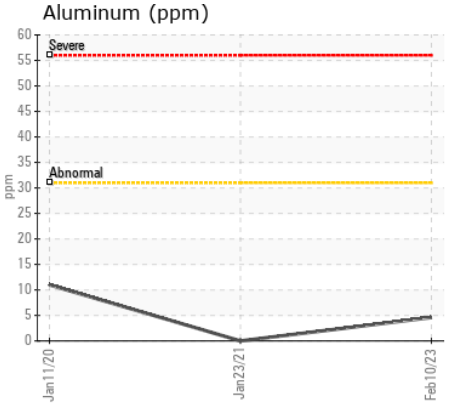
Iron (ppm)



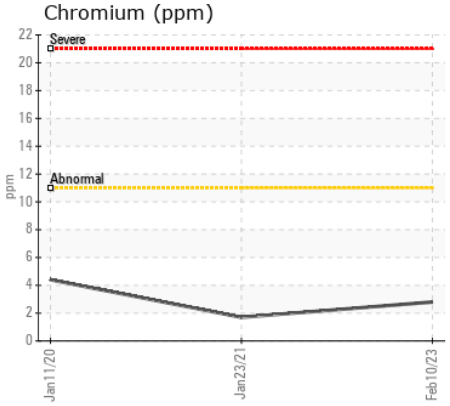
Lead (ppm)



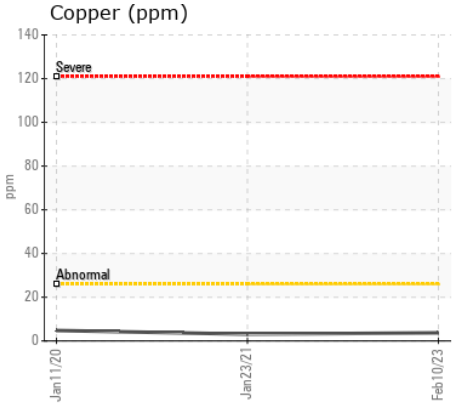
Aluminum (ppm)



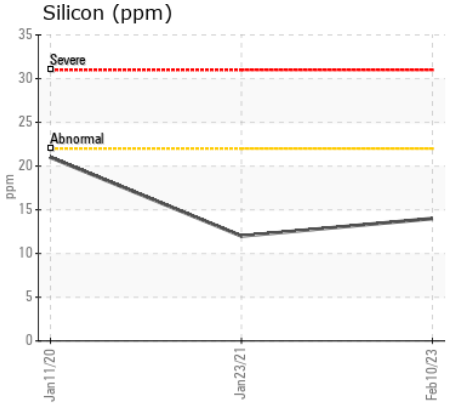
Chromium (ppm)



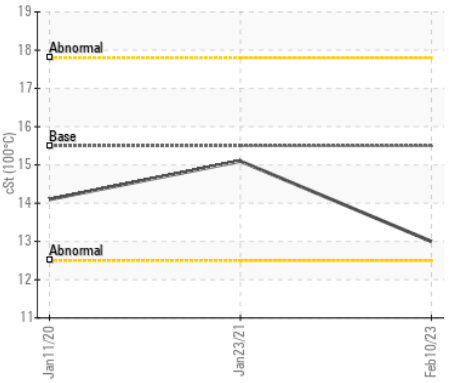
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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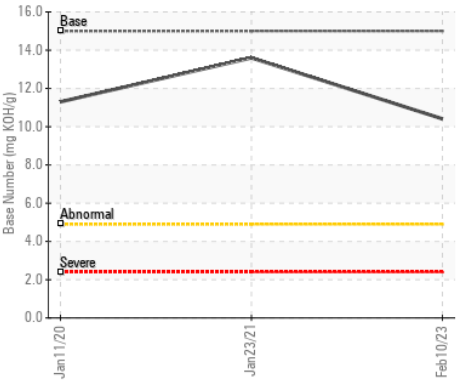

Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: TR05773045	**Received**	: 21 Feb 2023
Lab Number	: 05773045	**Tested**	: 22 Feb 2023
Unique Number	: 10347662	**Diagnosed**	: 22 Feb 2023 - Don Baldridge
Test Package	: MOB 2		

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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