CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
[W52737 ADVANSIX]
Machine Id
JOHN DEERE 844K 1DW844KAEJF688182
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

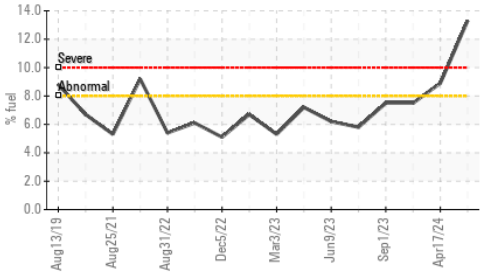
There is a high amount of fuel present in the oil.

FLUID CONDITION

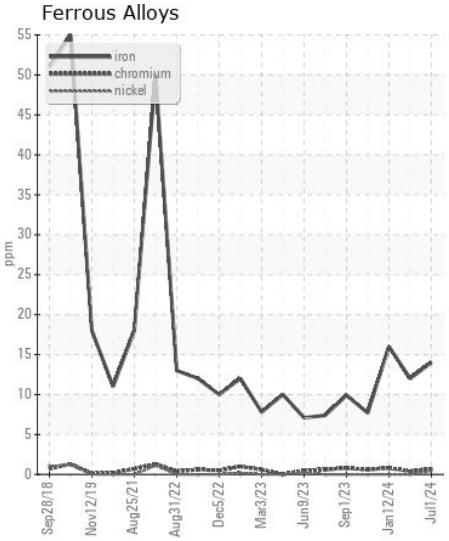
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0212029	JR0200059	JR0165980
Sample Date		Client Info		01 Jul 2024	17 Apr 2024	12 Jan 2024
Machine Age	hrs	Client Info		9593	8929	8426
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	14	12	16
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>31	7	5	7
Lead	ppm	ASTM D5185m	>26	13	5	3
Copper	ppm	ASTM D5185m	>26	12	9	10
Tin	ppm	ASTM D5185m	>4	2	2	1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	8	6	9
Potassium	ppm	ASTM D5185m	>20	6	1	4
Fuel	%	ASTM D3524	>8.0	▲ 13.3	▲ 8.9	7.5
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.7	8.1	8.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.8	22.0	22.4
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	4	3	3
Boron	ppm	ASTM D5185m		77	178	173
Barium	ppm	ASTM D5185m		1	<1	0
Molybdenum	ppm	ASTM D5185m		194	219	219
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		555	740	767
Calcium	ppm	ASTM D5185m		1345	1331	1309
Phosphorus	ppm	ASTM D5185m		716	787	773
Zinc	ppm	ASTM D5185m		888	894	984
Sulfur	ppm	ASTM D5185m		2401	3226	2785
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.5	15.8	15.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.5	7.1	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 10.3	▲ 10.6	11.1

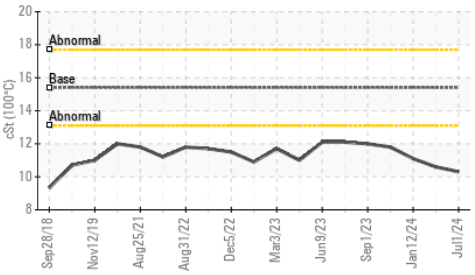
Fuel Dilution



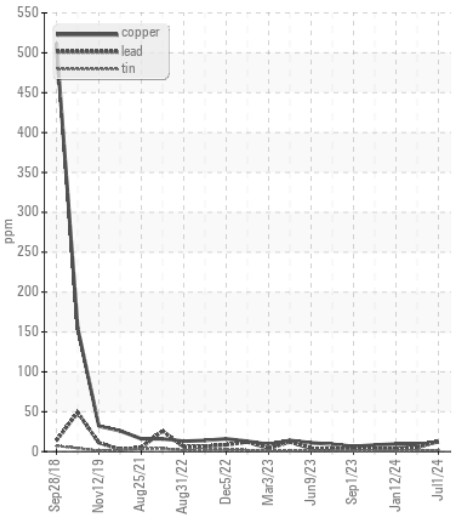
Ferrous Alloys



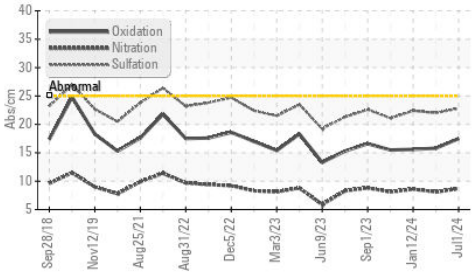
Viscosity @ 100°C



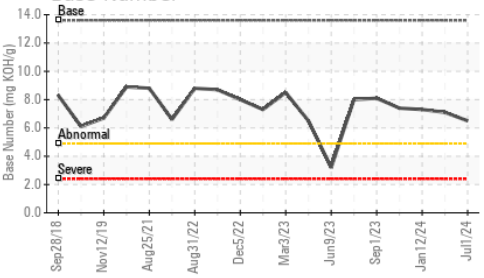
Non-ferrous Metals



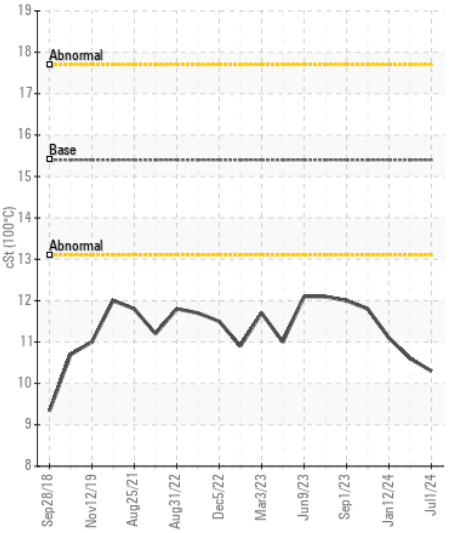
FT-IR (Direct Trend)



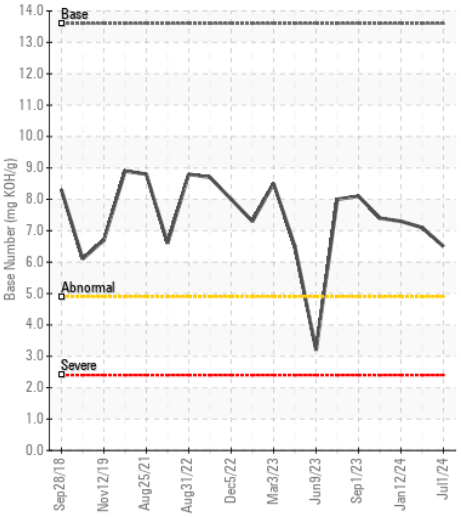
Base Number



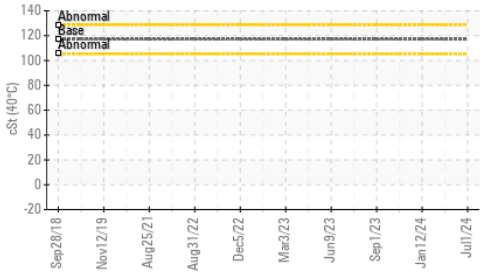
Viscosity @ 100°C



Base Number



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0212029
Lab Number : 06225837
Unique Number : 11109330
Test Package : CONST (Additional Tests: KV40, PercentFuel, TBN)

Received : 02 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 03 Jul 2024 - Jonathan Hester

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)

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