James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 944K 1DW944KXAML703645
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (12 GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

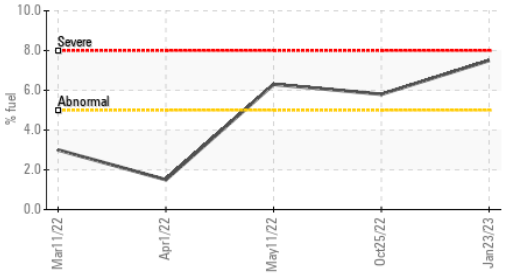
There is a moderate amount of fuel present in the oil.

FLUID CONDITION

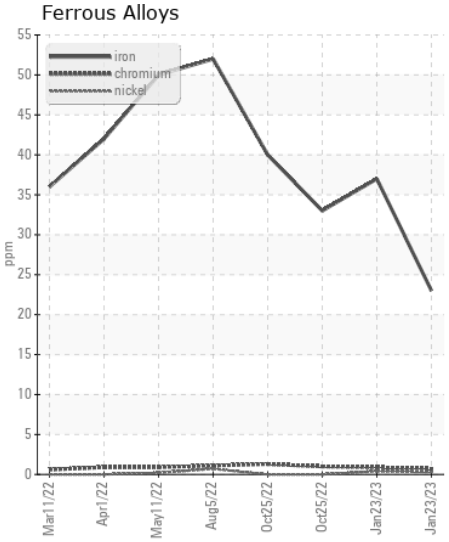
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0156439	JR0156673	JR0144945
Sample Date		Client Info		23 Jan 2023	23 Jan 2023	25 Oct 2022
Machine Age	hrs	Client Info		2110	2037	1587
Oil Age	hrs	Client Info		545	450	551
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	37	23	40
Chromium	ppm	ASTM D5185m	>11	<1	<1	1
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	8	5	10
Lead	ppm	ASTM D5185m	>26	43	20	▲ 43
Copper	ppm	ASTM D5185m	>26	15	13	▲ 28
Tin	ppm	ASTM D5185m	>4	5	3	▲ 5
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	12	9	11
Potassium	ppm	ASTM D5185m	>20	13	6	17
Fuel	%	ASTM D3524	>5	▲ 7.5	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.1	0.6	0.8
Nitration	Abs/cm	*ASTM D7624	>20	12.9	11.5	13.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.9	26.0	28.3
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	28	8	4
Boron	ppm	ASTM D5185m		20	31	<1
Barium	ppm	ASTM D5185m		12	11	0
Molybdenum	ppm	ASTM D5185m		245	193	160
Manganese	ppm	ASTM D5185m		2	1	2
Magnesium	ppm	ASTM D5185m		762	754	829
Calcium	ppm	ASTM D5185m		1445	1328	1482
Phosphorus	ppm	ASTM D5185m		782	765	833
Zinc	ppm	ASTM D5185m		984	985	1163
Sulfur	ppm	ASTM D5185m		3158	3118	3116
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.3	21.1	23.9
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	6.6	7.1	7.5
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.7	12.6	12.6

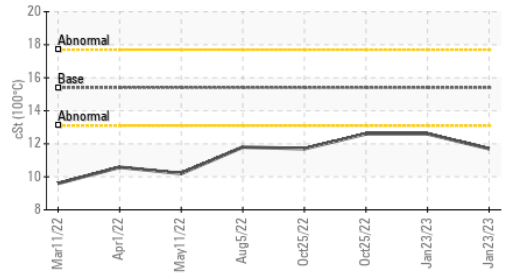
Fuel Dilution



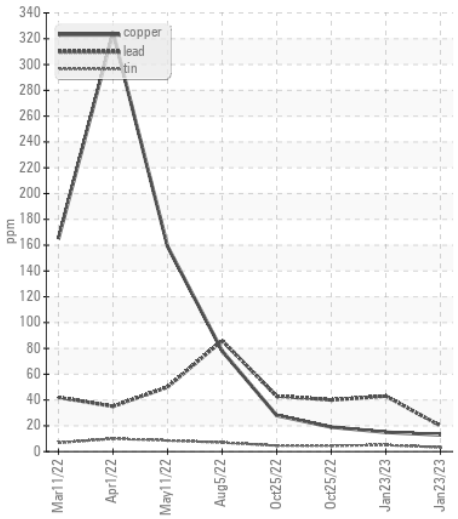
Ferrous Alloys



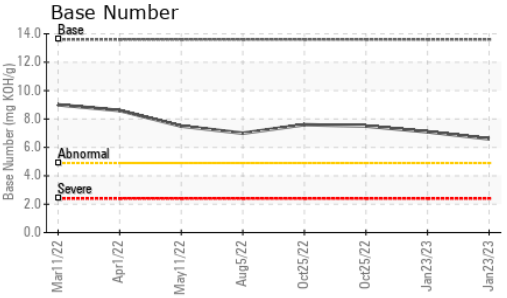
Viscosity @ 100°C



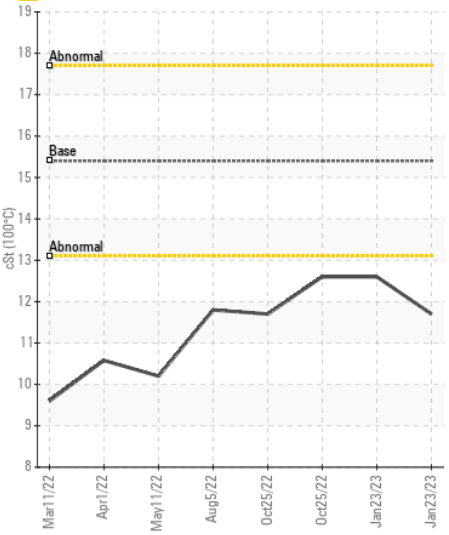
Non-ferrous Metals



Base Number



Viscosity @ 100°C



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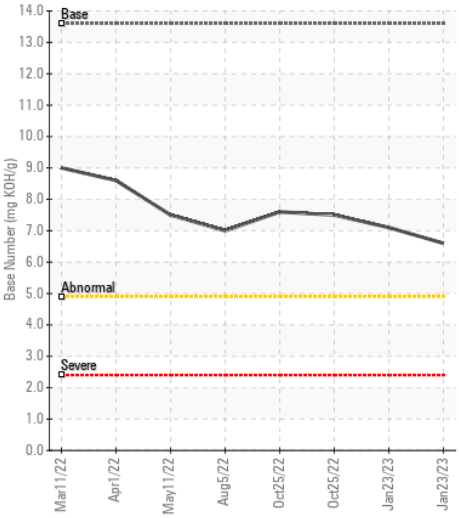

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0156439 **Recieved** : 24 Jan 2023
Lab Number : 05748836 **Diagnosed** : 26 Jan 2023
Unique Number : 10308440 **Diagnostician** : Don Baldridge
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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)

WAKE STONE CORP
6811 HWY 64 EAST
KNIGHTDALE, NC
US 27545
Contact: PAUL SPRUILL
paulspruill@wakestonecorp.com
T:
F: