James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
JOHN DEERE 3025E 1LV3025EKHH108461
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

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

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

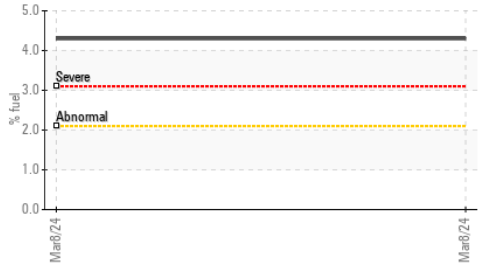
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

FLUID CONDITION

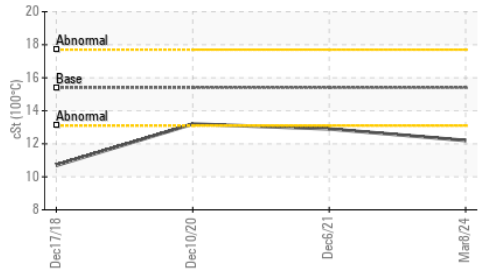
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**JR0189834**	JR0093451	JR0048458
Sample Date		Client Info		**08 Mar 2024**	06 Dec 2021	10 Dec 2020
Machine Age	hrs	Client Info		**259**	151	112
Oil Age	hrs	Client Info		**0**	0	112
Filter Age	hrs	Client Info		**0**	0	112
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**SEVERE**	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>51	**3**	4	5
Chromium	ppm	ASTM D5185m	>11	**0**	<1	<1
Nickel	ppm	ASTM D5185m	>5	**0**	1	<1
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>31	**2**	2	5
Lead	ppm	ASTM D5185m	>26	**0**	1	0
Copper	ppm	ASTM D5185m	>26	**<1**	3	2
Tin	ppm	ASTM D5185m	>4	**0**	<1	0
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	**17**	7	10
Potassium	ppm	ASTM D5185m	>20	**0**	2	2
Fuel	%	ASTM D3524	>2.1	▲ **4.3**	<1.0	<1.0
Water		WC Method	>0.21	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>3	**0.1**	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**6.7**	6.5	7
Sulfation	Abs/.1mm	*ASTM D7415	>30	**18.9**	19.7	20
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**	2	2
Boron	ppm	ASTM D5185m		**240**	228	258
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**234**	226	225
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**791**	818	812
Calcium	ppm	ASTM D5185m		**1392**	1396	1356
Phosphorus	ppm	ASTM D5185m		**881**	869	828
Zinc	ppm	ASTM D5185m		**997**	1067	955
Sulfur	ppm	ASTM D5185m		**3368**	2794	2323
Oxidation	Abs/.1mm	*ASTM D7414	>25	**14.4**	15	15
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	**9.7**	10.5	9.9
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **12.2**	12.9	13.2

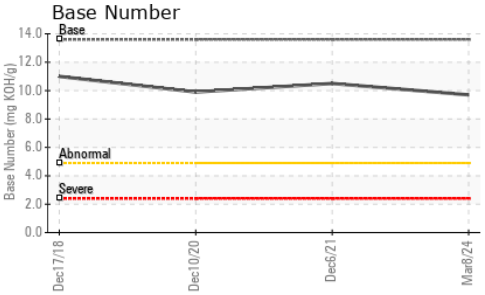
Fuel Dilution



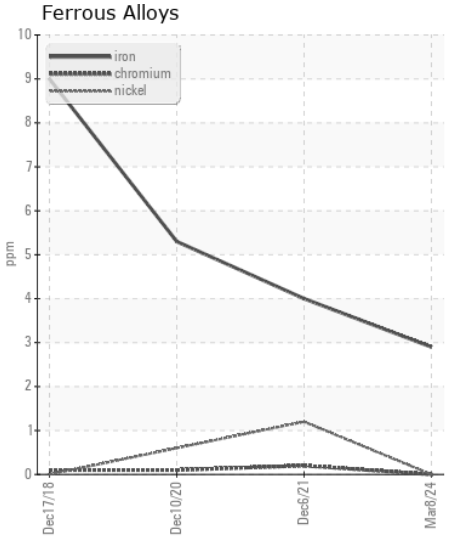
Viscosity @ 100°C



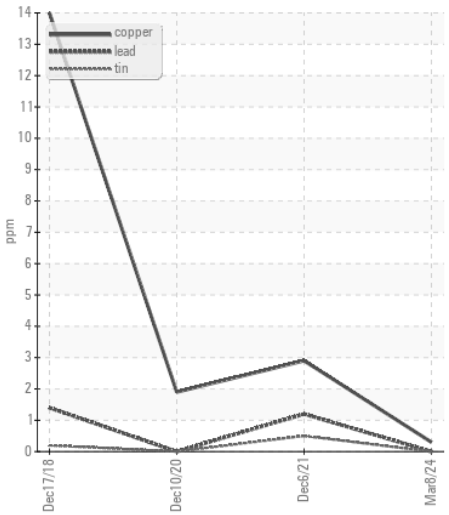
Base Number



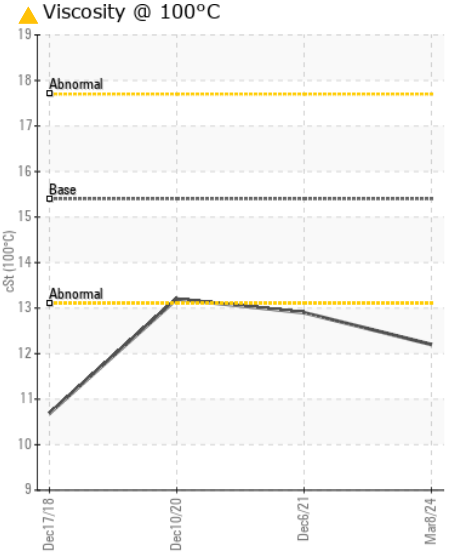
Ferrous Alloys



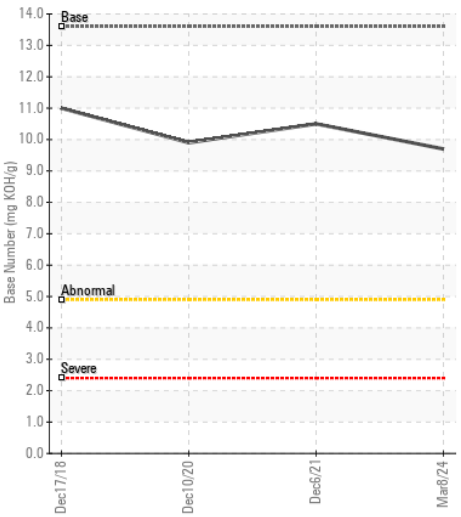
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0189834
Lab Number : 06122091
Unique Number : 10936242
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

Received : 19 Mar 2024
Tested : 21 Mar 2024
Diagnosed : 21 Mar 2024 - Wes Davis

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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