James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[W22660-JW THARPE]
Machine Id
JOHN DEERE 410E 1DW410ETAJF689762
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (11 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

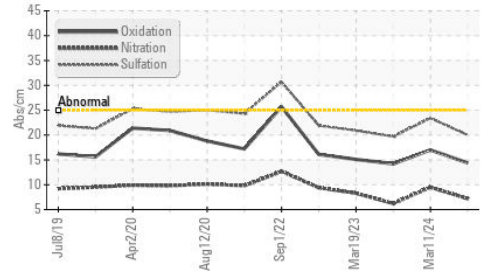
There is no indication of any contamination in the oil.

FLUID CONDITION

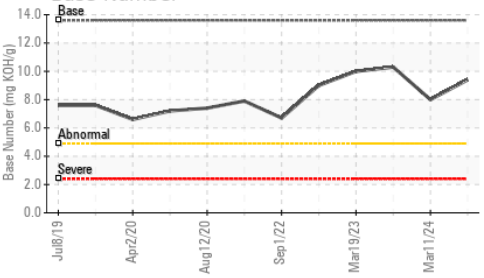
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0225882	JR0199639	JR0081144
Sample Date		Client Info		21 Jun 2024	11 Mar 2024	25 Mar 2023
Machine Age	hrs	Client Info		7425	7299	6811
Oil Age	hrs	Client Info		0	0	1
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	MARGINAL	NORMAL
Iron	ppm	ASTM D5185m	>51	12	31	5
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	5	14	4
Lead	ppm	ASTM D5185m	>26	<1	3	<1
Copper	ppm	ASTM D5185m	>26	3	14	1
Tin	ppm	ASTM D5185m	>4	0	2	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	8	16	9
Potassium	ppm	ASTM D5185m	>20	4	9	2
Fuel	%	ASTM D3524	>2.1	<1.0	▲ 3.3	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.3	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.2	9.5	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	23.4	19.7
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	30	60	4
Boron	ppm	ASTM D5185m		221	138	285
Barium	ppm	ASTM D5185m		<1	0	2
Molybdenum	ppm	ASTM D5185m		254	261	246
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		877	762	726
Calcium	ppm	ASTM D5185m		1813	1315	1305
Phosphorus	ppm	ASTM D5185m		1108	813	850
Zinc	ppm	ASTM D5185m		1366	1004	1045
Sulfur	ppm	ASTM D5185m		4609	2845	3054
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	17.0	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.4	8.0	10.3
Visc @ 100°C	cSt	ASTM D445	15.4	12.7	▲ 12.4	14.4

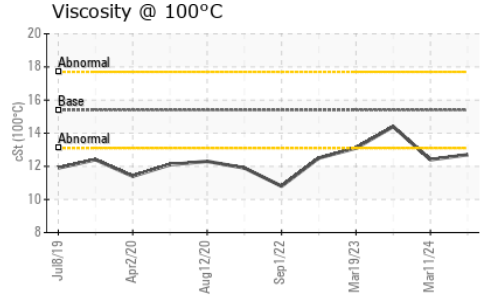
FT-IR (Direct Trend)



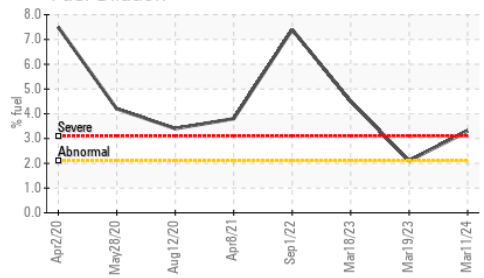
Base Number



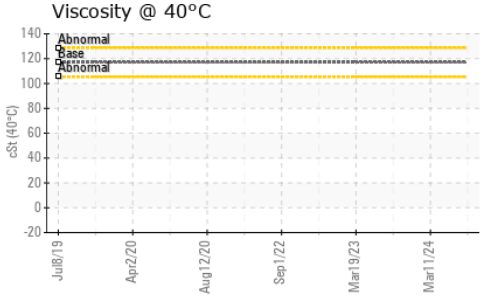
Viscosity @ 100°C



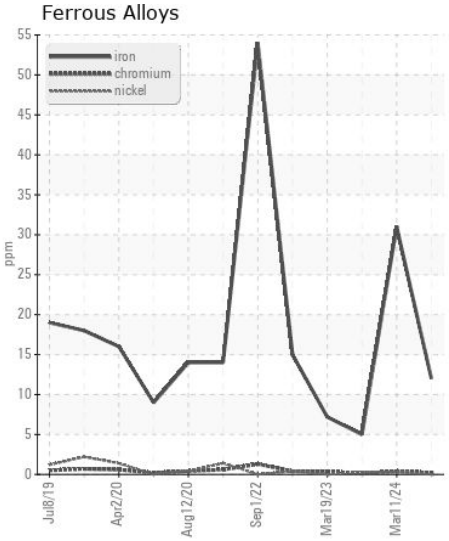
Fuel Dilution



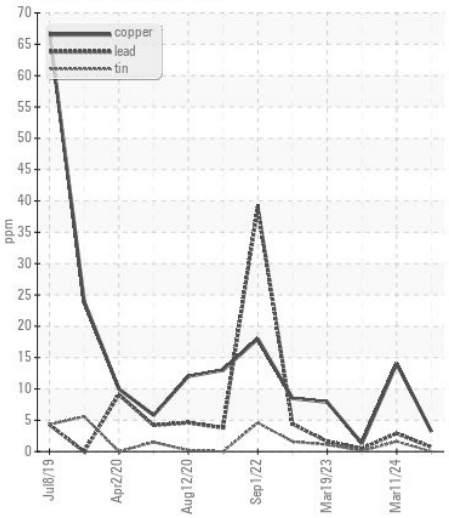
Viscosity @ 40°C



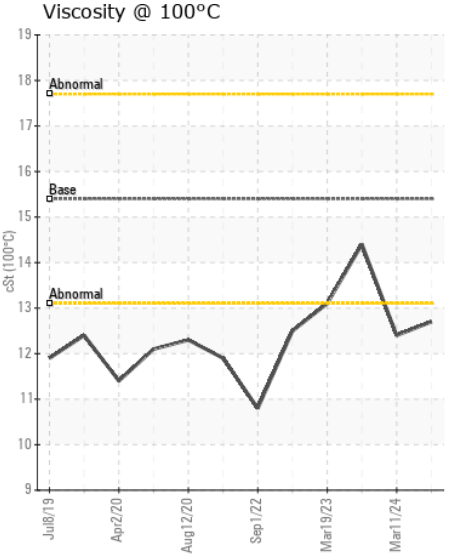
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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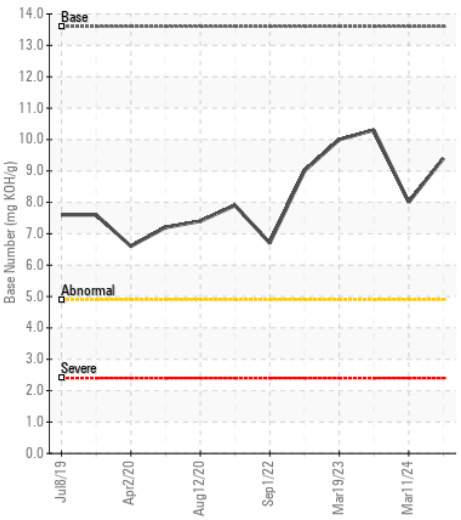

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0225882 **Received** : 28 Jun 2024
Lab Number : 06223274 **Tested** : 01 Jul 2024
Unique Number : 11101471 **Diagnosed** : 01 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, KV40, 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)

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