CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
[W67997]
Machine Id
JOHN DEERE 410E 1DW410ETKJF692851
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (12 GAL)

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. (Customer Sample Comment: W67997)

WEAR

All component wear rates are normal.

CONTAMINATION

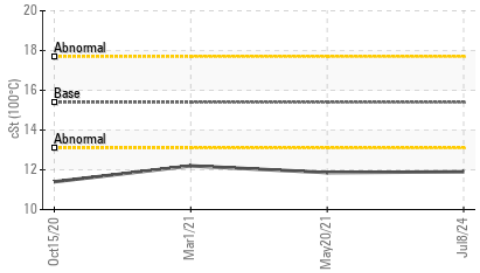
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

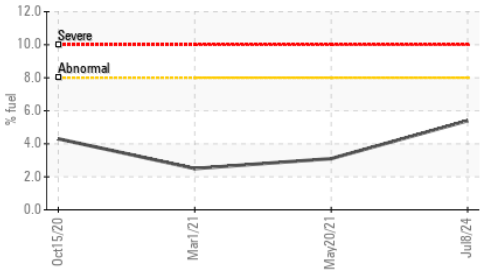
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**JR0216092**	JR0085948	JR0079820
Sample Date		Client Info		**08 Jul 2024**	20 May 2021	01 Mar 2021
Machine Age	hrs	Client Info		**5511**	5004	4568
Oil Age	hrs	Client Info		**507**	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				**ABNORMAL**	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	**12**	11	13
Chromium	ppm	ASTM D5185m	>11	**<1**	<1	1
Nickel	ppm	ASTM D5185m	>5	**1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>31	**7**	2	6
Lead	ppm	ASTM D5185m	>26	**6**	3	3
Copper	ppm	ASTM D5185m	>26	**4**	10	14
Tin	ppm	ASTM D5185m	>4	**1**	2	2
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**	4	6
Potassium	ppm	ASTM D5185m	>20	**3**	1	<1
Fuel	%	ASTM D3524	>8.0	**5.4**	▲ 3.1	▲ 2.5
Water		WC Method	>0.21	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>3	**0.3**	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**9.9**	9.1	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.8**	23.6	22.2
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	**5**	6	4
Boron	ppm	ASTM D5185m		**148**	184	222
Barium	ppm	ASTM D5185m		**0**	<1	0
Molybdenum	ppm	ASTM D5185m		**243**	236	243
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**761**	756	806
Calcium	ppm	ASTM D5185m		**1324**	1373	1476
Phosphorus	ppm	ASTM D5185m		**781**	827	895
Zinc	ppm	ASTM D5185m		**957**	919	1003
Sulfur	ppm	ASTM D5185m		**2819**	2403	2621
Oxidation	Abs/.1mm	*ASTM D7414	>25	**17.7**	17.6	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	**7.5**	8.7	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **11.9**	▲ 11.86	▲ 12.2

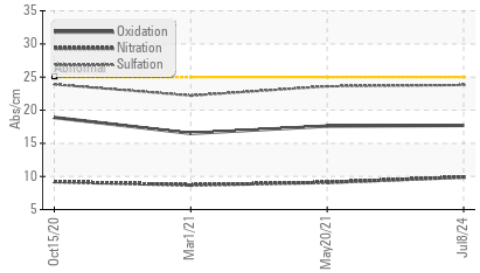
Viscosity @ 100°C



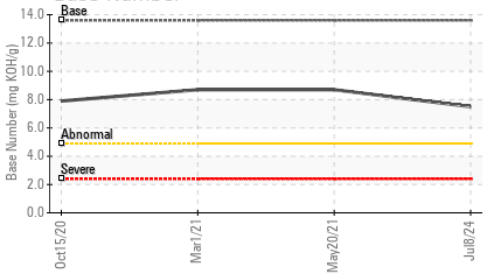
Fuel Dilution



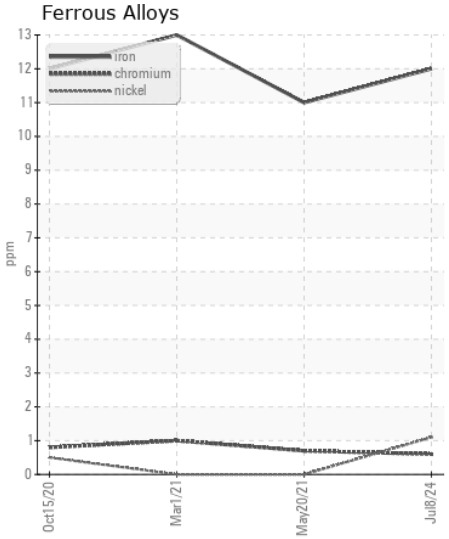
FT-IR (Direct Trend)



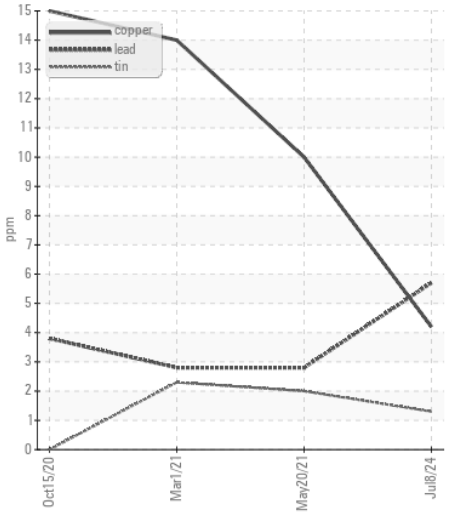
Base Number



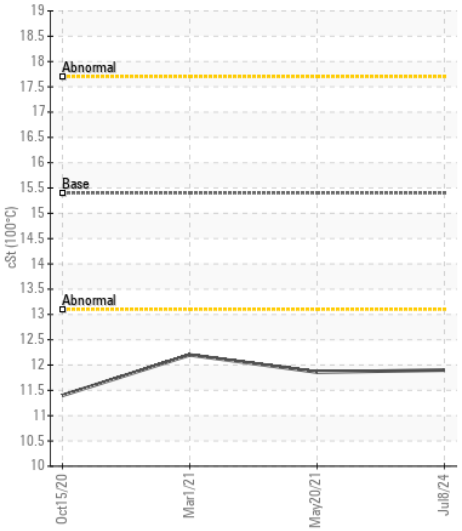
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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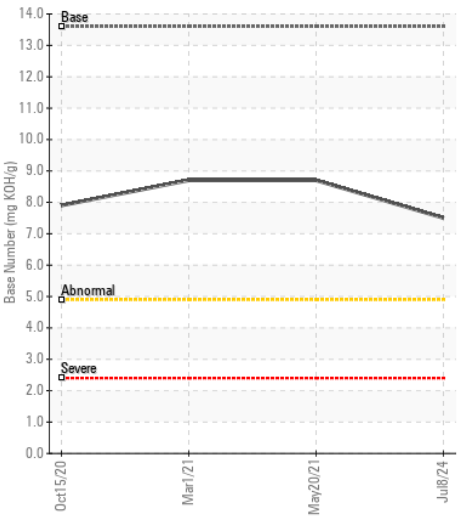

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0216092
Lab Number : 06232019
Unique Number : 11115512
Test Package : CONST (Additional Tests: PercentFuel, TBN)

Received : 10 Jul 2024
Tested : 12 Jul 2024
Diagnosed : 12 Jul 2024 - Sean Felton

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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