CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
JOHN DEERE 410E-II 5465 (S/N 1DW410EBEMF709413)
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

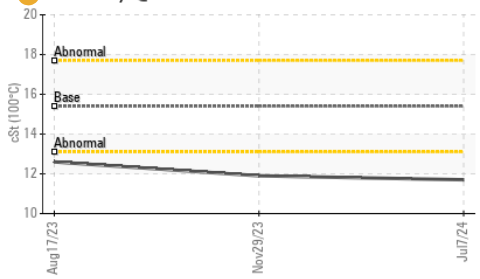
Fuel content negligible. No other contaminants were detected in the oil.

FLUID CONDITION

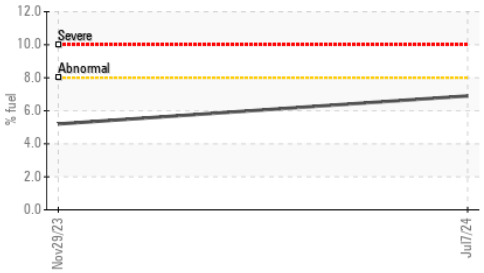
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0219820	JR0192719	JR0178626
Sample Date		Client Info		07 Jul 2024	29 Nov 2023	17 Aug 2023
Machine Age	hrs	Client Info		4853	4202	3625
Oil Age	hrs	Client Info		651	500	3625
Filter Age	hrs	Client Info		0	500	500
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				ATTENTION	ATTENTION	ABNORMAL
Iron	ppm	ASTM D5185m	>51	15	14	22
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	8	4
Lead	ppm	ASTM D5185m	>26	4	3	22
Copper	ppm	ASTM D5185m	>26	8	13	▲ 32
Tin	ppm	ASTM D5185m	>4	2	2	▲ 5
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	10	12	8
Potassium	ppm	ASTM D5185m	>20	2	<1	3
Fuel	%	ASTM D3524	>8.0	6.9	5.2	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.3	8.8	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	22.0	25.6
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		156	162	50
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		233	239	254
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		734	778	796
Calcium	ppm	ASTM D5185m		1302	1298	1493
Phosphorus	ppm	ASTM D5185m		813	837	788
Zinc	ppm	ASTM D5185m		988	993	983
Sulfur	ppm	ASTM D5185m		2864	2753	2865
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	16.1	20.2
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	7.6	8.1	6.7
Visc @ 100°C	cSt	ASTM D445	15.4	● 11.7	● 11.9	12.6

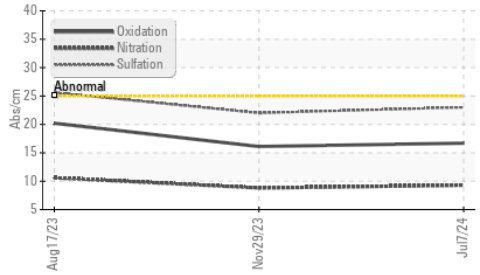
Viscosity @ 100°C



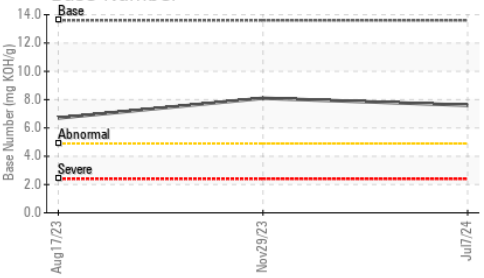
Fuel Dilution



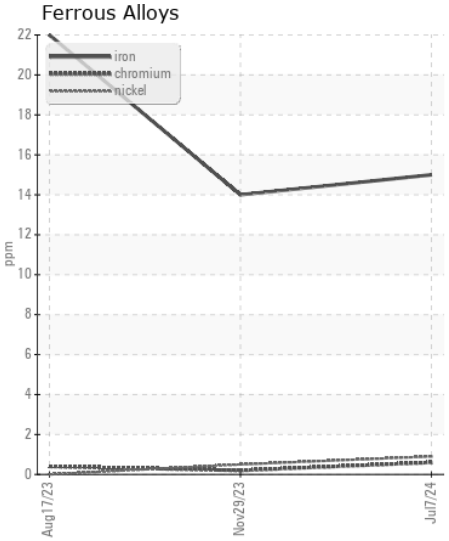
FT-IR (Direct Trend)



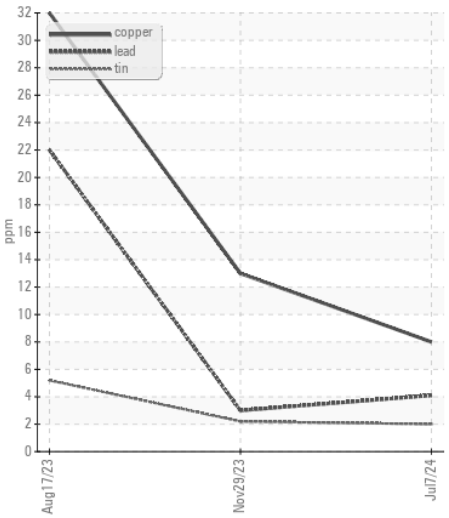
Base Number



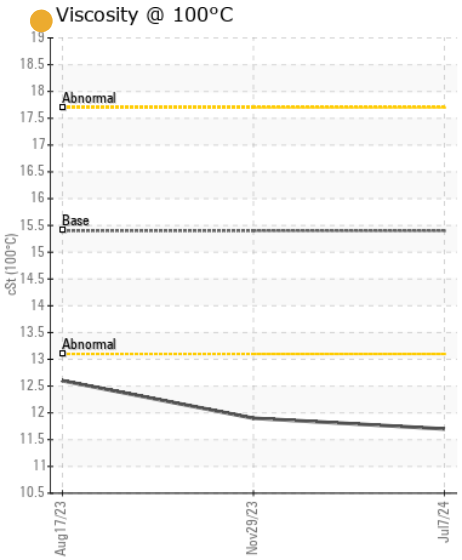
Ferrous Alloys



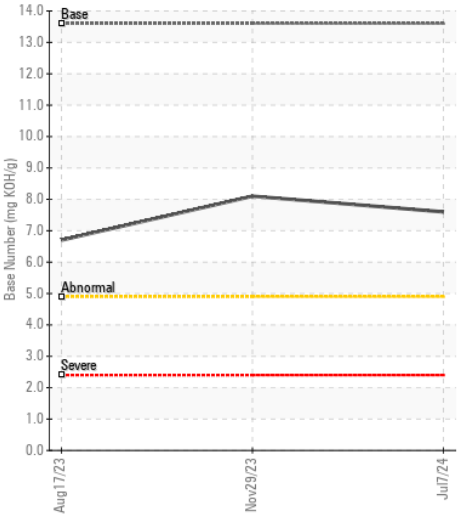
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0219820 **Received** : 10 Jul 2024
Lab Number : 06232061 **Tested** : 15 Jul 2024
Unique Number : 11115554 **Diagnosed** : 15 Jul 2024 - Jonathan Hester
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)

CK CONTRACTING
124-1 WOODING PL
KINGS MOUNTAIN, NC
US 28086
Contact: TAM WRIGHT
twright@ckcdllc.com
T: (704)730-9948
F: (704)730-9975