CONST

James River Equipment

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[W68912]
Machine Id
JOHN DEERE 310E 1DW310EXPJF691440
Component
Diesel Engine
Fluid
LO-ASH ENGINE OIL SAE 15W40 (8)

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: W68912)

WEAR

The nickel level has decreased, but is still abnormal. All other component wear rates are normal.

CONTAMINATION

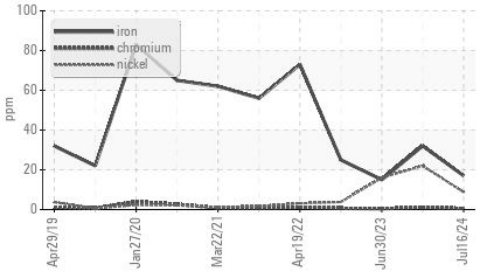
There is no indication of any contamination in the oil.

FLUID CONDITION

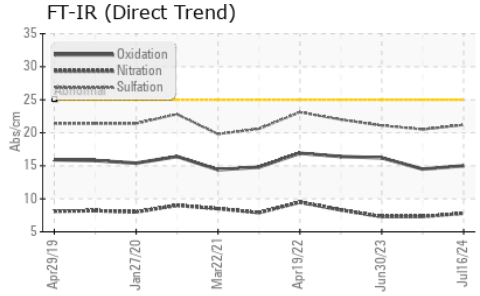
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0205904	JR0206331	JR0171246
Sample Date		Client Info		16 Jul 2024	20 Mar 2024	30 Jun 2023
Machine Age	hrs	Client Info		5478	4961	4478
Oil Age	hrs	Client Info		4995	2888	2874
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	17	32	15
Chromium	ppm	ASTM D5185m	>11	<1	1	<1
Nickel	ppm	ASTM D5185m	>5	▲ 9	▲ 22	▲ 16
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	4	7	2
Lead	ppm	ASTM D5185m	>26	1	<1	<1
Copper	ppm	ASTM D5185m	>26	2	1	2
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	6	9	6
Potassium	ppm	ASTM D5185m	>20	3	5	3
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	7.8	7.3	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	20.5	21.1
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	2	<1	3
Boron	ppm	ASTM D5185m	37	214	250	266
Barium	ppm	ASTM D5185m	12	<1	0	1
Molybdenum	ppm	ASTM D5185m	200	240	245	235
Manganese	ppm	ASTM D5185m		1	1	1
Magnesium	ppm	ASTM D5185m	5	783	770	782
Calcium	ppm	ASTM D5185m	1600	1441	1461	1503
Phosphorus	ppm	ASTM D5185m	300	877	864	879
Zinc	ppm	ASTM D5185m	400	998	1123	1075
Sulfur	ppm	ASTM D5185m	2600	3186	2913	3485
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.0	14.5	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	3.0	8.6	8.3	8.7
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	13.2	12.8

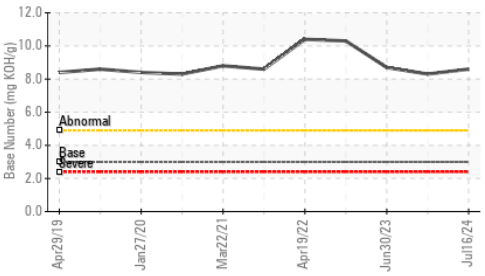
Ferrous Alloys



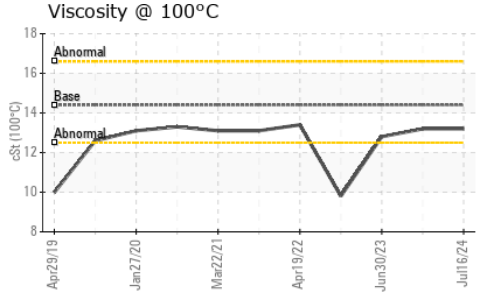
FT-IR (Direct Trend)



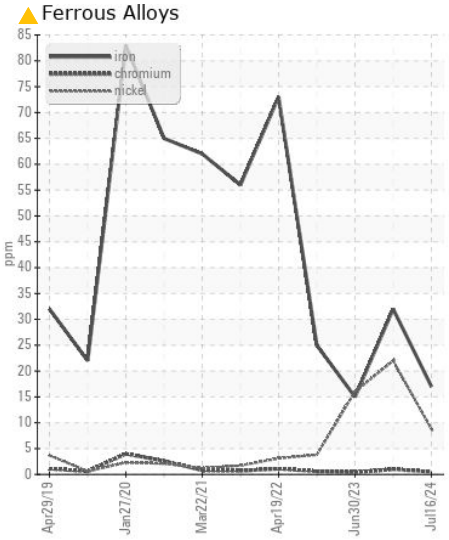
Base Number



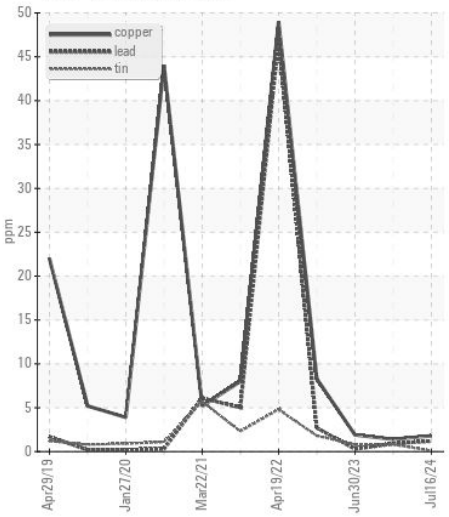
Viscosity @ 100°C



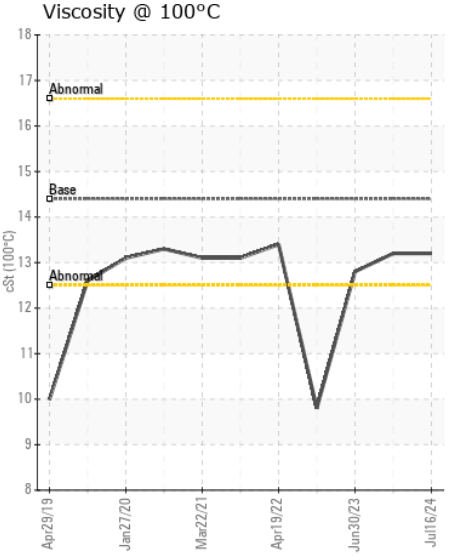
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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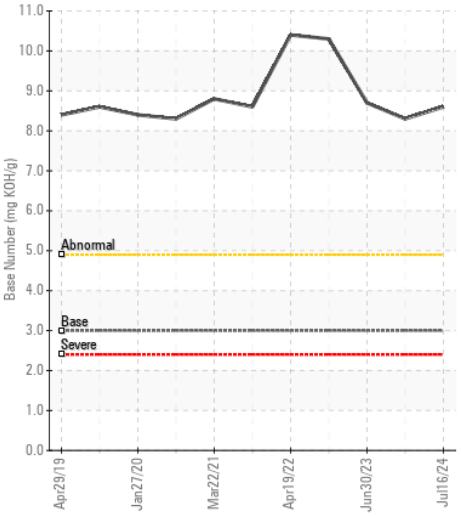

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0205904
Lab Number : 06239930
Unique Number : 11128764
Test Package : CONST (Additional Tests: TBN)

Received : 18 Jul 2024
Tested : 18 Jul 2024
Diagnosed : 19 Jul 2024 - Don Baldridge

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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