



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL



Area
Store 9 - Marietta
Machine Id
JOHN DEERE 850K D3 (S/N 1T0850KXCHF318508)
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LEC0047715	LEC0020859	LEC0014195
Sample Date		Client Info		21 Dec 2023	26 Apr 2021	09 Sep 2020
Machine Age	hrs	Client Info		6242	3627	3120
Oil Age	hrs	Client Info		500	500	600
Filter Age	hrs	Client Info		500	500	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	41	12	35
Chromium	ppm	ASTM D5185m	>11	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>31	8	0	3
Lead	ppm	ASTM D5185m	>26	6	0	<1
Copper	ppm	ASTM D5185m	>26	8	<1	3
Tin	ppm	ASTM D5185m	>4	3	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

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

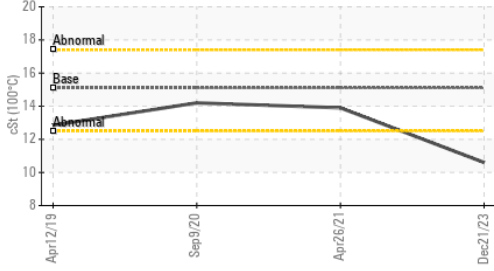
Silicon	ppm	ASTM D5185m	>120	13	3	8
Potassium	ppm	ASTM D5185m	>20	4	<1	2
Fuel	%	ASTM D3524	>2.1	0.2	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.3	1.2
Nitration	Abs/cm	*ASTM D7624	>20	9.5	7	10.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	25.2	27
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

FLUID CONDITION

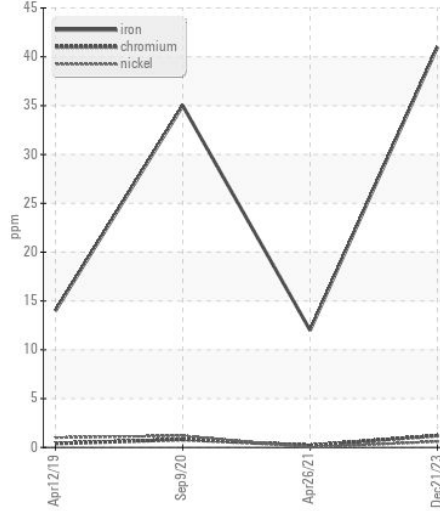
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>31	18	3	4
Boron	ppm	ASTM D5185m		243	370	222
Barium	ppm	ASTM D5185m		<1	0	<1
Molybdenum	ppm	ASTM D5185m		253	125	140
Manganese	ppm	ASTM D5185m		3	<1	<1
Magnesium	ppm	ASTM D5185m		809	655	692
Calcium	ppm	ASTM D5185m		1358	1518	1568
Phosphorus	ppm	ASTM D5185m	1360	955	702	714
Zinc	ppm	ASTM D5185m	1480	1077	789	846
Sulfur	ppm	ASTM D5185m		2969	2032	2064
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.3	17.8	20.3
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	9.6	9.6	9.4
Visc @ 100°C	cSt	ASTM D445	15.1	▲ 10.6	13.9	14.2

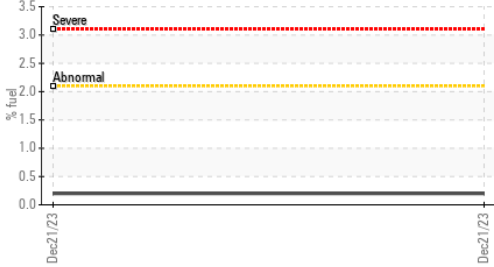
▲ Viscosity @ 100°C



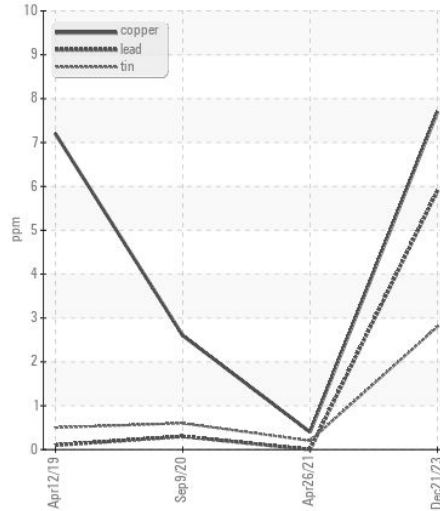
Ferrous Alloys



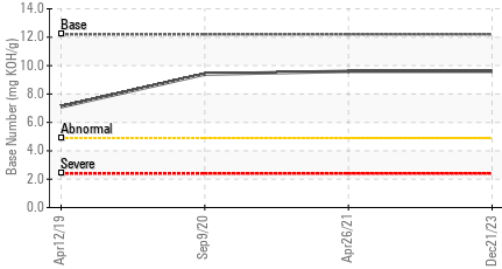
Fuel Dilution



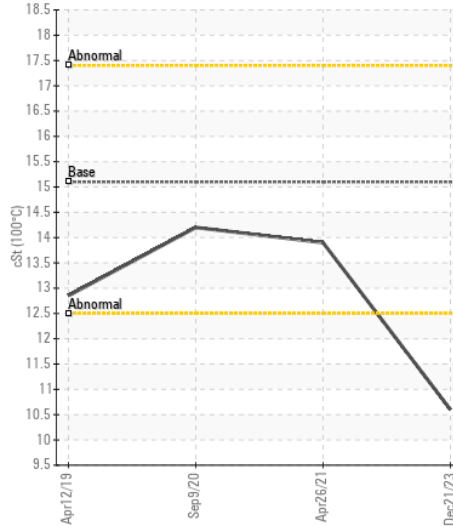
Non-ferrous Metals



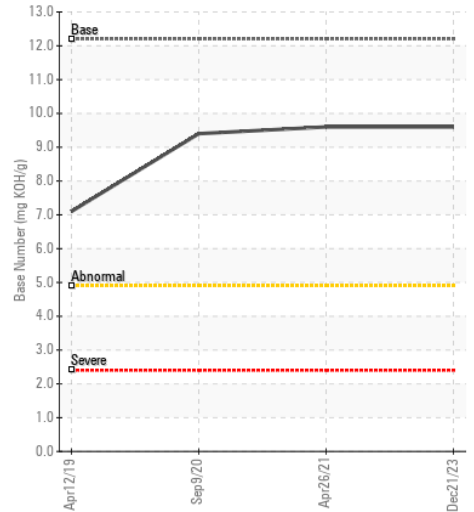
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0047715 **Received** : 17 Jan 2024
Lab Number : 06063305 **Diagnosed** : 24 Jan 2024
Unique Number : 10834687 **Diagnostician** : Angela Borella
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)

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