



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
Store 2 - Beaver [RO#134392]
Machine Id
JOHN DEERE 848L 1DW848LBEKF697223
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (8 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		LEC0035879	LEC0027401	LEC0019631
Sample Date		Client Info		20 Dec 2022	14 Apr 2022	03 Nov 2021
Machine Age	hrs	Client Info		3883	3270	2658
Oil Age	hrs	Client Info		613	612	582
Filter Age	hrs	Client Info		613	612	582
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	48	31	33
Chromium	ppm	ASTM D5185m	>11	<1	1	1
Nickel	ppm	ASTM D5185m	>5	2	3	3
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>31	8	6	14
Lead	ppm	ASTM D5185m	>26	<1	<1	3
Copper	ppm	ASTM D5185m	>26	6	3	5
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

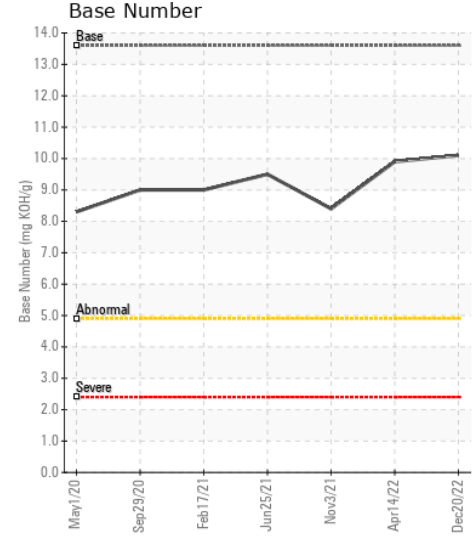
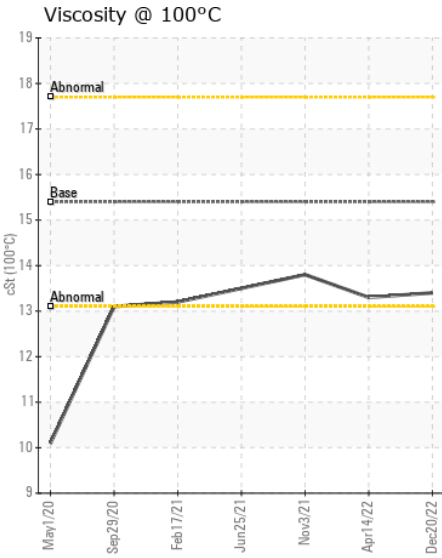
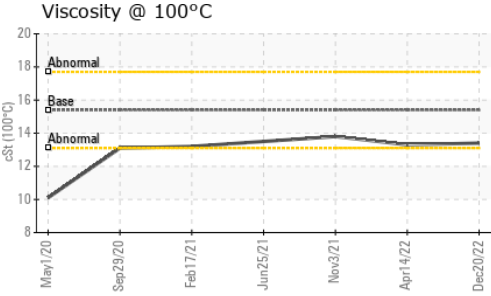
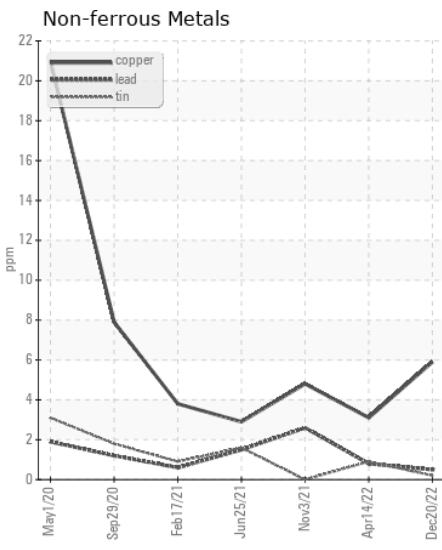
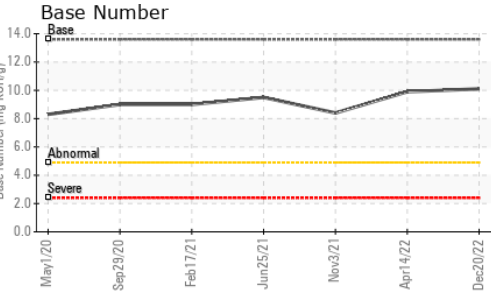
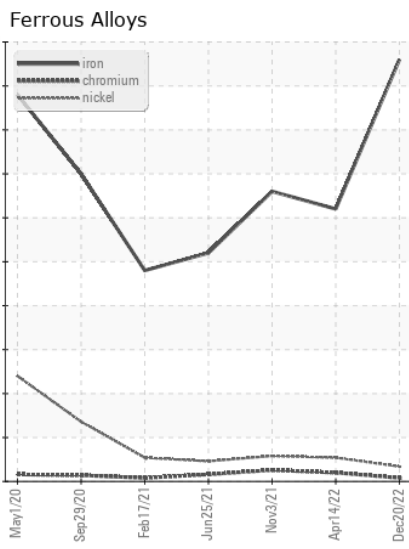
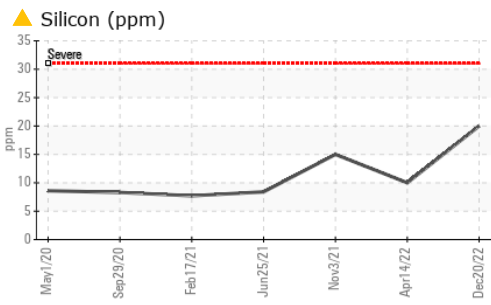
Elemental level of silicon (Si) above normal indicating ingress of seal material.

Silicon	ppm	ASTM D5185m	>120	▲ 20	10	15
Potassium	ppm	ASTM D5185m	>20	6	3	17
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	0	0.7
Nitration	Abs/cm	*ASTM D7624	>20	10.0	9.5	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.6	24.2	22.5
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<1	2	4
Boron	ppm	ASTM D5185m		138	188	132
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		277	266	253
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		820	972	906
Calcium	ppm	ASTM D5185m		1486	1681	1577
Phosphorus	ppm	ASTM D5185m		922	1032	885
Zinc	ppm	ASTM D5185m		1138	1156	1054
Sulfur	ppm	ASTM D5185m		3314	2999	4010
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1	17.3	15.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	10.1	9.9	8.4
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.3	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0035879 **Received** : 23 Dec 2022
Lab Number : 05724751 **Diagnosed** : 27 Dec 2022
Unique Number : 10269332 **Diagnostician** : Angela Borella
Test Package : CONST (Additional Tests: TBN)

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 US 24874
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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)