




VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
[14062]
Machine Id
JOHN DEERE 644K 659926
Component
Diesel Engine
Fluid
SHELL 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP414786	VCP405062	VCP363671
Sample Date		Client Info		04 Jan 2024	17 Apr 2023	04 Nov 2022
Machine Age	hrs	Client Info		14947	14098	13594
Oil Age	hrs	Client Info		500	550	500
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	11	14	13
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	2	<1	4
Lead	ppm	ASTM D5185m	>26	<1	0	2
Copper	ppm	ASTM D5185m	>26	2	7	5
Tin	ppm	ASTM D5185m	>4	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

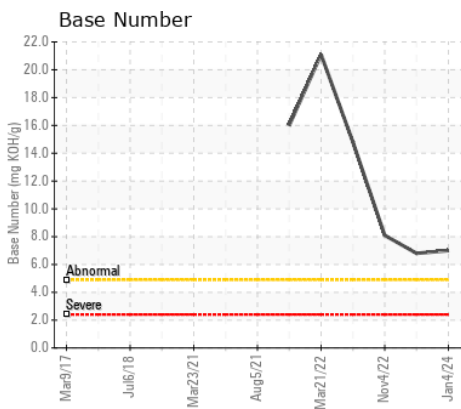
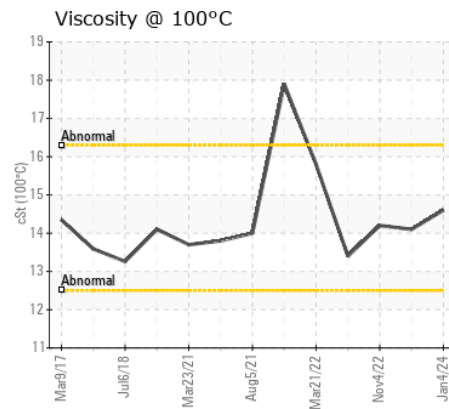
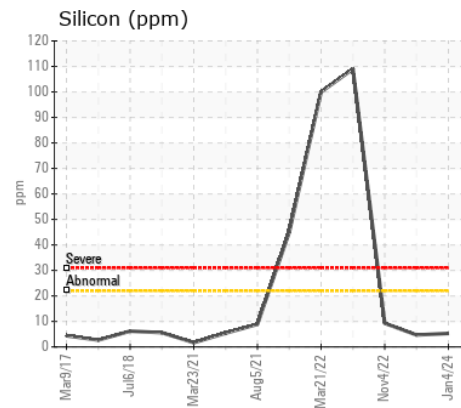
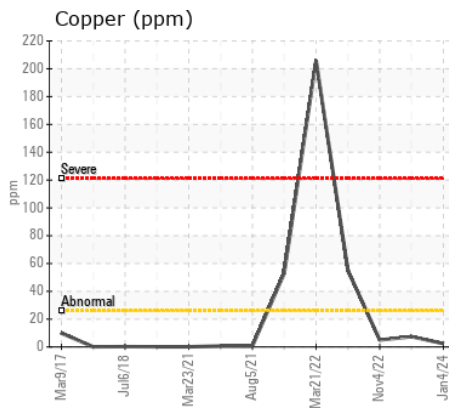
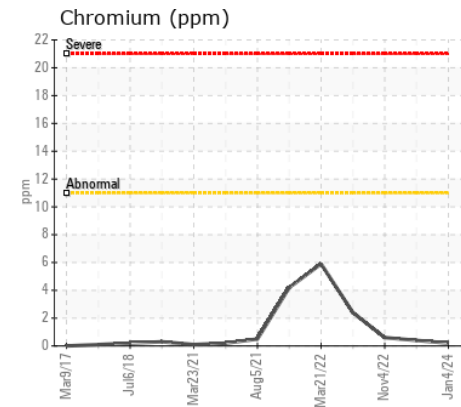
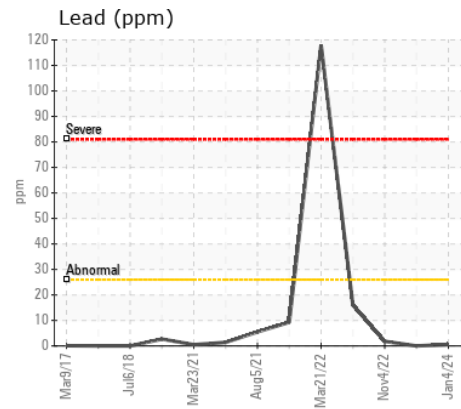
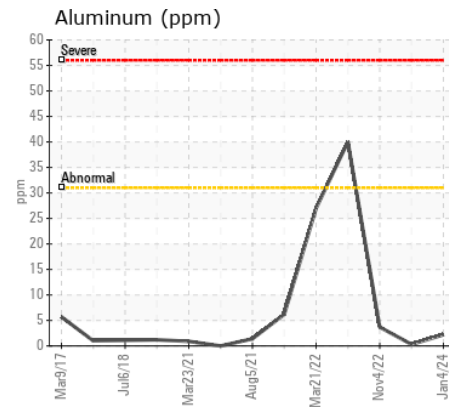
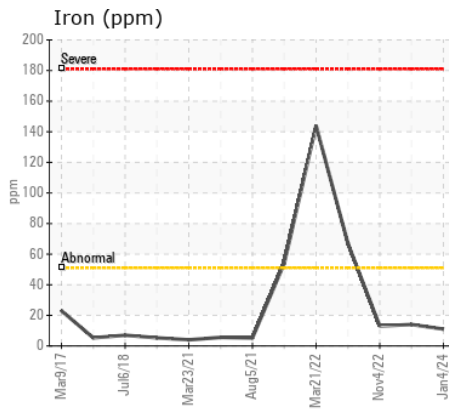
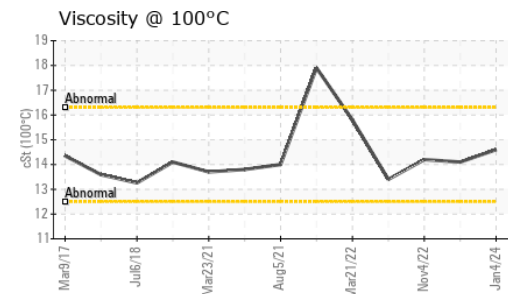
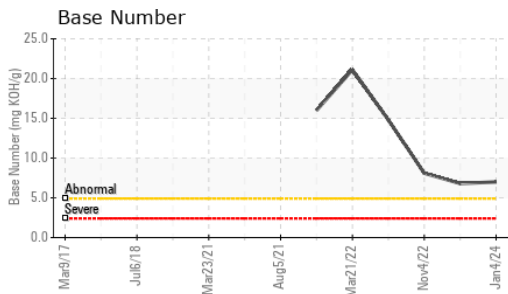
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	5	5	9
Potassium	ppm	ASTM D5185m	>20	3	6	7
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	0.6	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.7	8.1	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	20.2	18.9
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	>150	13	32	▲ 148
Boron	ppm	ASTM D5185m		70	92	8
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		54	34	12
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		199	42	130
Calcium	ppm	ASTM D5185m		1997	2397	2152
Phosphorus	ppm	ASTM D5185m		1023	1054	846
Zinc	ppm	ASTM D5185m		1201	1262	1074
Sulfur	ppm	ASTM D5185m		3493	3545	3852
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.1	14.7	11.4
Base Number (BN)	mg KOH/g	ASTM D2896		7.0	6.8	8.1
Visc @ 100°C	cSt	ASTM D445		14.6	14.1	14.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP414786 **Received** : 17 Jan 2024
Lab Number : 06062311 **Diagnosed** : 18 Jan 2024
Unique Number : 10833693 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

ALLIED CONCRETE
 3900 SHANNON ST
 CHESAPEAKE, VA
 US 23324
 Contact:

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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F: