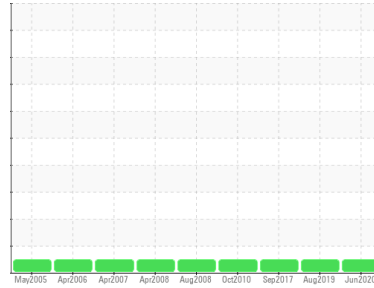




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
CARDIESEL (S/N T06359T21361T)

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (34)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All 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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0327967	WC0299351	WC963507
Sample Date	Client Info		18 Jun 2020	22 Aug 2019	13 Sep 2017
Machine Age	hrs	Client Info	0	0	32
Oil Age	hrs	Client Info	0	0	9
Oil Changed	Client Info		N/A	N/A	Not Changd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>51	3	3	2
Chromium	ppm	ASTM D5185(m)	>11	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>5	0	0	0
Titanium	ppm	ASTM D5185(m)		<1	<1	0
Silver	ppm	ASTM D5185(m)		<1	0	0
Aluminum	ppm	ASTM D5185(m)	>31	2	3	2
Lead	ppm	ASTM D5185(m)	>26	0	0	<1
Copper	ppm	ASTM D5185(m)	>26	1	<1	<1
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Antimony	ppm	ASTM D5185(m)		<1	<1	1
Vanadium	ppm	ASTM D5185(m)		<1	<1	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		176	180	19
Barium	ppm	ASTM D5185(m)		<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)		185	184	36
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		808	806	408
Calcium	ppm	ASTM D5185(m)		1331	1326	1749
Phosphorus	ppm	ASTM D5185(m)		925	919	984
Zinc	ppm	ASTM D5185(m)		1062	1055	1146
Sulfur	ppm	ASTM D5185(m)		2698	2707	3083
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

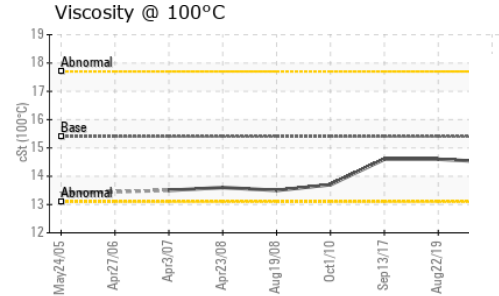
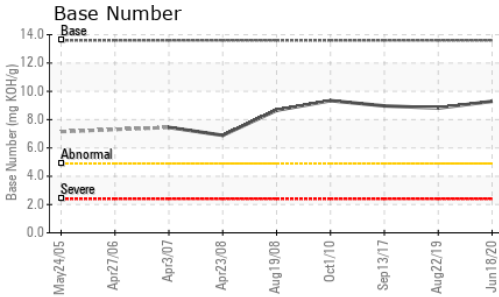
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>22	5	5	5
Sodium	ppm	ASTM D5185(m)	>31	1	2	2
Potassium	ppm	ASTM D5185(m)	>20	1	2	1

INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	6.4	6.0	5.5
Sulfation	Abs./1mm	ASTM D7415*	>30	23.8	21.4	22.3



OIL ANALYSIS REPORT

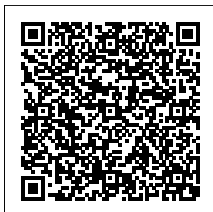
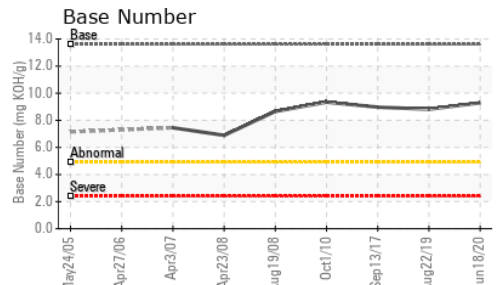
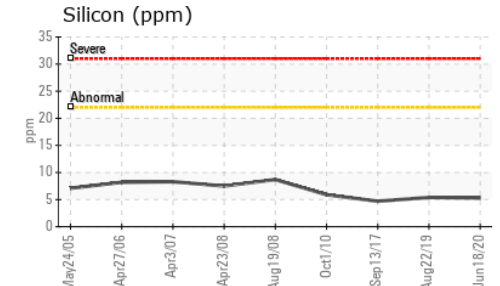
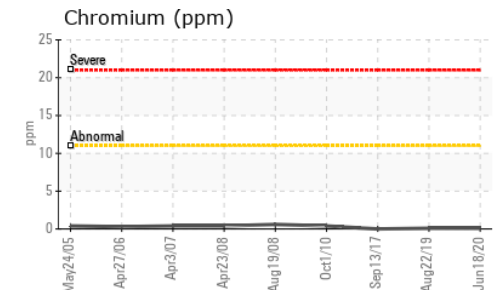
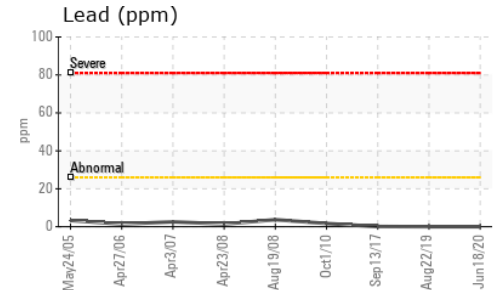
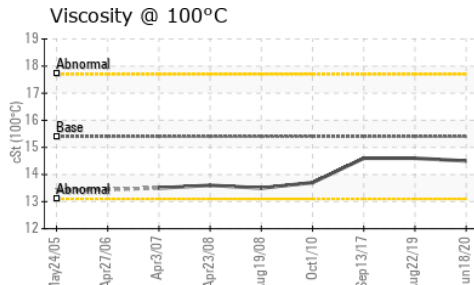
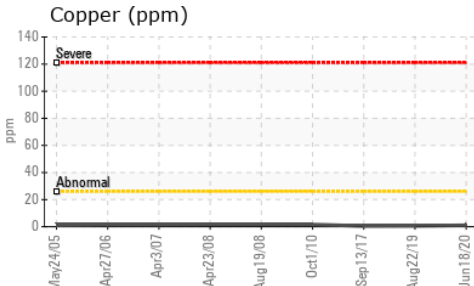
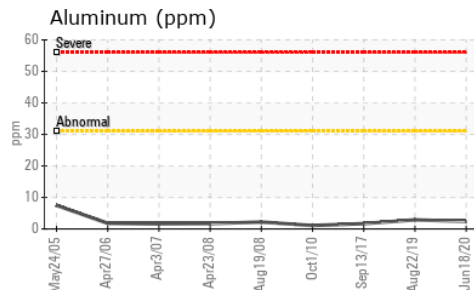
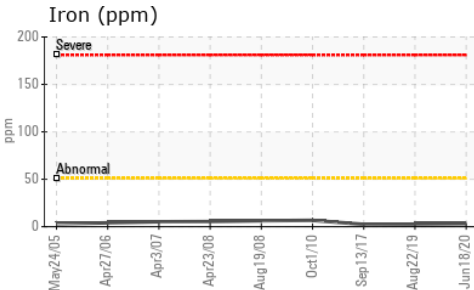


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	14.1	14.5	13.5
Base Number (BN)	mg KOH/g	ASTM D2896*	13.6	9.29	8.82	8.97

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.21	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	14.5	14.6	14.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0327967 **Received** : 26 Jun 2020
Lab Number : **02361766** **Diagnosed** : 26 Jun 2020
Unique Number : 5069210 **Diagnostician** : Wes Davis
Test Package : MOB 2

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.