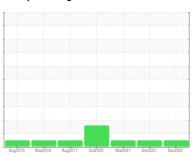


OIL ANALYSIS REPORT

Sample Rating Trend







JOHN DEERE 317 317

Component

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

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

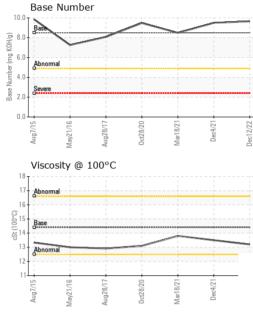
Fluid Condition

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

		Aug2015	May2016 Aug2017			
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0661452	WC0542346	WC0542253
Sample Date		Client Info		12 Dec 2022	04 Dec 2021	18 Mar 2021
Machine Age	hrs	Client Info		2872	4812	4812
Oil Age	hrs	Client Info		1	500	500
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	35	37	20
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>31	1	5	0
Lead	ppm	ASTM D5185m	>26	<1	1	<1
Copper	ppm	ASTM D5185m	>26	1	5	2
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Antimony	ppm	ASTM D5185m			0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	12	8	14
			10	40		
Barium	ppm	ASTM D5185m	10	12	0	0
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	100	58	0 66	0 61
Molybdenum	ppm	ASTM D5185m	100	58	66	61
Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m	100	58 <1	66 <1	61 <1
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150	58 <1 798 1026 905	66 <1 1068 1206 1053	61 <1 927 1073 1002
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350	58 <1 798 1026 905 1107	66 <1 1068 1206	61 <1 927 1073 1002 1138
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250	58 <1 798 1026 905	66 <1 1068 1206 1053 1300 2697	61 <1 927 1073 1002 1138 2596
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 limit/base	58 <1 798 1026 905 1107	66 <1 1068 1206 1053 1300 2697 history1	61 <1 927 1073 1002 1138 2596 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >22	58 <1 798 1026 905 1107 2985 current 6	66 <1 1068 1206 1053 1300 2697 history1 20	61 <1 927 1073 1002 1138 2596 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 limit/base	58 <1 798 1026 905 1107 2985	66 <1 1068 1206 1053 1300 2697 history1	61 <1 927 1073 1002 1138 2596 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >22	58 <1 798 1026 905 1107 2985 current 6	66 <1 1068 1206 1053 1300 2697 history1 20	61 <1 927 1073 1002 1138 2596 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >22 >158	58 <1 798 1026 905 1107 2985 current 6 2	66 <1 1068 1206 1053 1300 2697 history1 20 6	61 <1 927 1073 1002 1138 2596 history2 18 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >22 >158 >20	58 <1 798 1026 905 1107 2985 current 6 2 0	66 <1 1068 1206 1053 1300 2697 history1 20 6 4	61 <1 927 1073 1002 1138 2596 history2 18 2 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >22 >158 >20 limit/base >3	58 <1 798 1026 905 1107 2985 current 6 2 0 current	66 <1 1068 1206 1053 1300 2697 history1 20 6 4 history1	61 <1 927 1073 1002 1138 2596 history2 18 2 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >22 >158 >20 limit/base >3	58 <1 798 1026 905 1107 2985 current 6 2 0 current 0.2	66 <1 1068 1206 1053 1300 2697 history1 20 6 4 history1 0.2	61 <1 927 1073 1002 1138 2596 history2 18 2 <1 history2 0.1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >22 >158 >20 limit/base >3 >20	58 <1 798 1026 905 1107 2985 current 6 2 0 current 0.2 7.7	66 <1 1068 1206 1053 1300 2697 history1 20 6 4 history1 0.2 7.9	61 <1 927 1073 1002 1138 2596 history2 18 2 <1 history2 0.1 6.8
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m Method *ASTM D7844 *ASTM D7624 *ASTM D7415	100 450 3000 1150 1350 4250 limit/base >22 >158 >20 limit/base >3 >20 >30	58 <1 798 1026 905 1107 2985 current 6 2 0 current 0.2 7.7 17.9	66 <1 1068 1206 1053 1300 2697 history1 20 6 4 history1 0.2 7.9 20	61 <1 927 1073 1002 1138 2596 history2 18 2 <1 history2 0.1 6.8 19.9



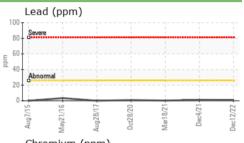
OIL ANALYSIS REPORT

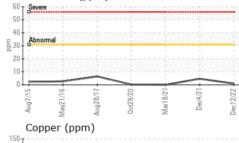


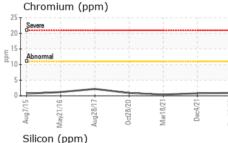
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IFS	method	limit/base	current	history1	historv2

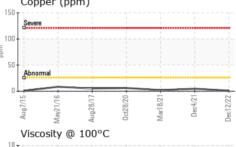
I LOID I NOI LI	THES	memou			HISTOLYT	HISTOLYZ	
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	13.5	13.8	

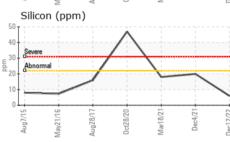
150						
100-	-					
50 - Abnormal						
0						
Aug7/15	May21/16	Aug28/17	Oct28/20	Mar18/21	c4/21	1979
Aug	May	Aug	Oct	Mar	De	-
Alumin	ium (p	pm)				
60 T Severe						

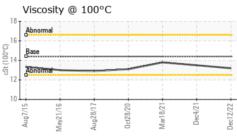


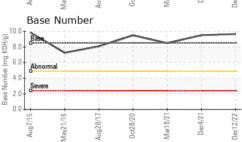














Certificate L2367

Laboratory Sample No. Lab Number

Unique Number

: WC0661452 : 05747286

: 10306890 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 23 Jan 2023 Diagnosed : 25 Jan 2023

Diagnostician : Sean Felton

TRESCA BROS SAND & GRAVEL INC 66 MAIN ST

MILLIS, MA US 02054 Contact: FRAN ROSSI

F: (508)376-4333

frossi@trescaconcrete.com T: (508)376-2957

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)