

# **OIL ANALYSIS REPORT**

# CONSTRUCTORS, INC **JOHN DEERE 12-1223**

Component **Diesel Engine** 

MOBIL DELVAC 1300 SUPER 10W30 (--- GAL)

Sample Rating Trend



### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

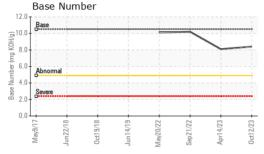
### **Fluid Condition**

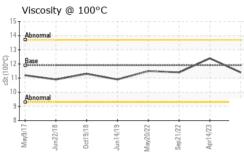
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	//ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0004860	SBP0003738	SBP0001410
Sample Date		Client Info		12 Oct 2023	14 Apr 2023	21 Sep 2022
Machine Age	hrs	Client Info		15306	14787	14630
Oil Age	hrs	Client Info		519	157	417
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Fuel		WC Method	>2.1	<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	10	6	13
Chromium	ppm	ASTM D5185m	>11	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	<1	0	<1
Lead	ppm	ASTM D5185m	>26	1	<1	<1
Copper	ppm	ASTM D5185m	>26	1	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
					•	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base			history2
	ppm		limit/base	current	history1	
Boron		ASTM D5185m	limit/base	current	history1	34
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	current 13 3	history1 5 0	34
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 13 3 54	history1  5  0  57  <1  896	34 0 39
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 13 3 54 <1	history1  5  0  57  <1  896  1078	34 0 39 <1 597 1430
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current  13  3  54  <1  782  1160  842	history1  5  0  57  <1  896  1078  992	34 0 39 <1 597 1430 782
Boron Barium 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	limit/base	current  13  3  54  <1  782  1160  842  1045	history1  5  0  57  <1  896  1078  992  1168	34 0 39 <1 597 1430 782 944
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		current  13  3  54  <1  782  1160  842	history1  5  0  57  <1  896  1078  992  1168  2947	34 0 39 <1 597 1430 782 944 3136
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	current  13 3 54 <1 782 1160 842 1045 2639 current	history1  5 0 57 <1 896 1078 992 1168 2947 history1	34 0 39 <1 597 1430 782 944 3136 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	current  13  3  54  <1  782  1160  842  1045  2639  current  4	history1  5 0 57 <1 896 1078 992 1168 2947 history1 4	34 0 39 <1 597 1430 782 944 3136 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >22 >31	current  13  3  54  <1  782  1160  842  1045  2639  current  4	history1  5 0 57 <1 896 1078 992 1168 2947 history1 4	34 0 39 <1 597 1430 782 944 3136 history2 5 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	current  13  3  54  <1  782  1160  842  1045  2639  current  4	history1  5 0 57 <1 896 1078 992 1168 2947 history1 4	34 0 39 <1 597 1430 782 944 3136 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >22 >31	current  13  3  54  <1  782  1160  842  1045  2639  current  4  <1  current	history1  5 0 57 <1 896 1078 992 1168 2947 history1 4	34 0 39 <1 597 1430 782 944 3136 history2 5 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3	current  13  3  54  <1  782  1160  842  1045  2639  current  4  <1  current  0.2	history1  5  0  57  <1  896  1078  992  1168  2947  history1  4  1  <1  history1  0.1	34 0 39 <1 597 1430 782 944 3136 history2 5 2 2 history2
Boron Barium 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	limit/base >22 >31 >20 limit/base >3	current  13  3  54  <1  782  1160  842  1045  2639  current  4  <1  current	history1  5  0  57  <1  896  1078  992  1168  2947  history1  4  1  <1	34 0 39 <1 597 1430 782 944 3136 history2 5 2 history2 0.4 7.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method  *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3	current  13  3  54  <1  782  1160  842  1045  2639  current  4  <1  current  0.2	history1  5  0  57  <1  896  1078  992  1168  2947  history1  4  1  <1  history1  0.1	34 0 39 <1 597 1430 782 944 3136 history2 5 2 2 history2
Boron Barium 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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >22 >31 >20 limit/base >3 >20	current  13  3  54  <1  782  1160  842  1045  2639  current  4  4  <1  current  0.2  5.9	history1  5 0 57 <1 896 1078 992 1168 2947 history1 4 1 <1 history1 0.1 5.0	34 0 39 <1 597 1430 782 944 3136 history2 5 2 history2 0.4 7.5
Boron Barium 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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844  *ASTM D7624  *ASTM D76145	limit/base >22 >31 >20 limit/base >3 >20 >30	current  13  3  54  <1  782  1160  842  1045  2639  current  4  <1  current  0.2  5.9  18.4	history1  5 0 57 <1 896 1078 992 1168 2947 history1 4 1 <1 history1 0.1 5.0 15.9	34 0 39 <1 597 1430 782 944 3136 history2 5 2 2 history2 0.4 7.5 21.5



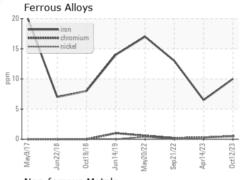
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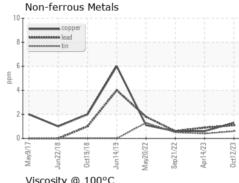


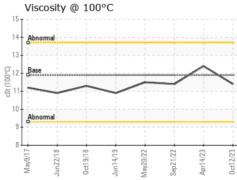


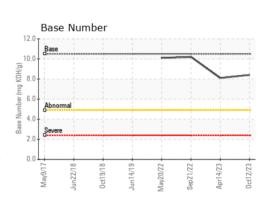
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.21	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES		method			history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	11.4	12.4	11.4













Laboratory Sample No. Lab Number Unique Number : 10697575

: SBP0004860 : 05980280 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

Diagnostician : Don Baldridge

: 16 Oct 2023 : 18 Oct 2023

1815 Y Street Lincoln, NE US 68508 Contact: Jack Linhart

jackl@constructorslincoln.com

Constructors Inc. - 603659

T: (402)434-2157

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)