

Machine Id  
**JOHN DEERE NELWELD 1**  
Component  
**Diesel Engine**  
Fluid  
**NOT GIVEN (--- GAL)**



**DIAGNOSIS**

**Recommendation**  
No corrective action is recommended at this time. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 10W30 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

**Wear**  
All component wear rates are normal.

**Contamination**  
Fuel content negligible. 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. Viscosity of sample indicates oil is within SAE 10W30 range, advise investigate. The condition of the oil is suitable for further service.

**SAMPLE INFORMATION** method limit/base current history1 history2

Sample Number	Client Info	<b>PC0078873</b>	---	---
Sample Date	Client Info	<b>17 Nov 2023</b>	---	---
Machine Age	hrs Client Info	<b>0</b>	---	---
Oil Age	hrs Client Info	<b>0</b>	---	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

**CONTAMINATION** method limit/base current history1 history2

Water	WC Method	>0.21	<b>NEG</b>	---	---
-------	-----------	-------	------------	-----	-----

**WEAR METALS** method limit/base current history1 history2

Iron	ppm	ASTM D5185(m)	>51	<b>23</b>	---	---
Chromium	ppm	ASTM D5185(m)	>11	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>31	<b>4</b>	---	---
Lead	ppm	ASTM D5185(m)	>26	<b>9</b>	---	---
Copper	ppm	ASTM D5185(m)	>26	<b>357</b>	---	---
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	---	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---	---

**ADDITIVES** method limit/base current history1 history2

Boron	ppm	ASTM D5185(m)		<b>105</b>	---	---
Barium	ppm	ASTM D5185(m)		<b>1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)		<b>187</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>4</b>	---	---
Magnesium	ppm	ASTM D5185(m)		<b>587</b>	---	---
Calcium	ppm	ASTM D5185(m)		<b>1795</b>	---	---
Phosphorus	ppm	ASTM D5185(m)		<b>867</b>	---	---
Zinc	ppm	ASTM D5185(m)		<b>1024</b>	---	---
Sulfur	ppm	ASTM D5185(m)		<b>2234</b>	---	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---	---

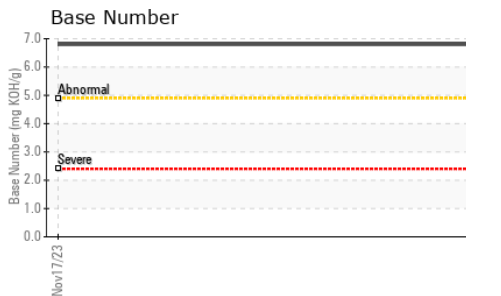
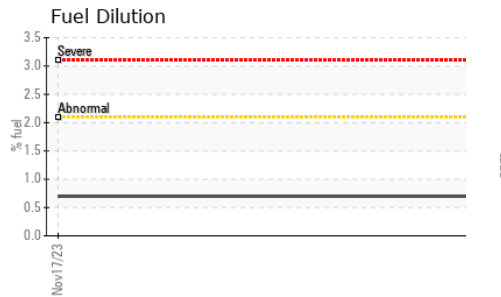
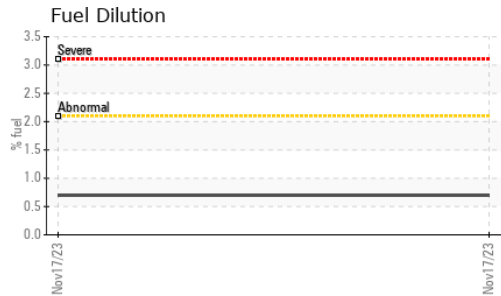
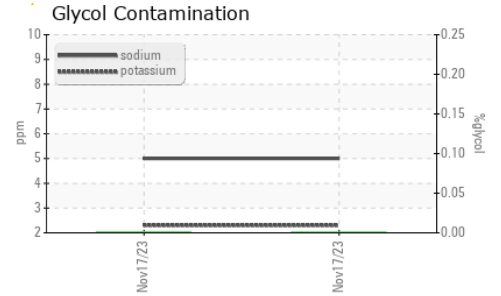
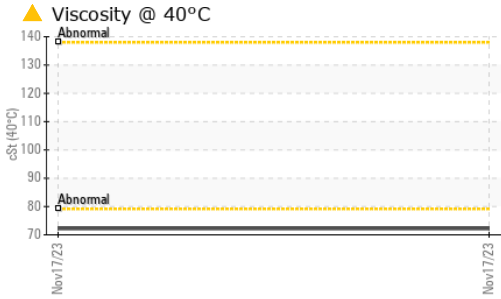
**CONTAMINANTS** method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m)	>22	<b>7</b>	---	---
Sodium	ppm	ASTM D5185(m)	>31	<b>5</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	---	---
Fuel	%	ASTM D7593*	>2.1	<b>0.7</b>	---	---
Glycol	%	ASTM D7922*		<b>0.0</b>	---	---

**INFRA-RED** method limit/base current history1 history2

Soot %	%	ASTM D7844*	>3	<b>0.1</b>	---	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.0</b>	---	---
Sulfation	Abs.1mm	ASTM D7415*	>30	<b>25.4</b>	---	---

# OIL ANALYSIS REPORT

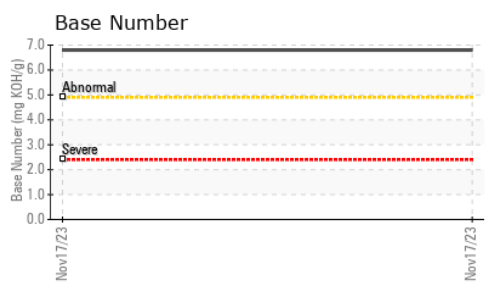
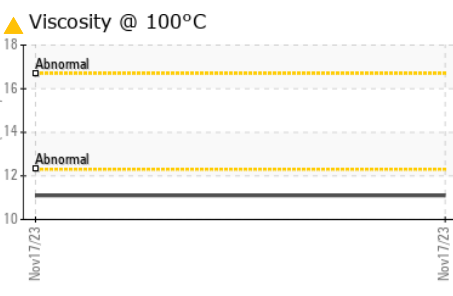
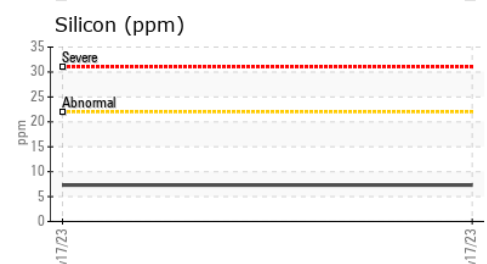
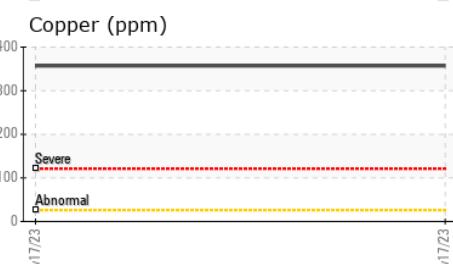
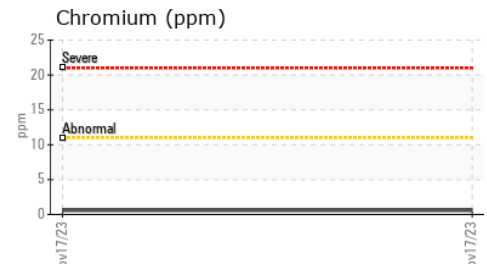
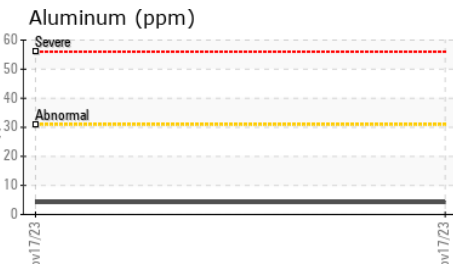
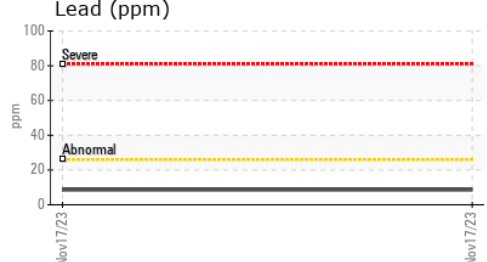
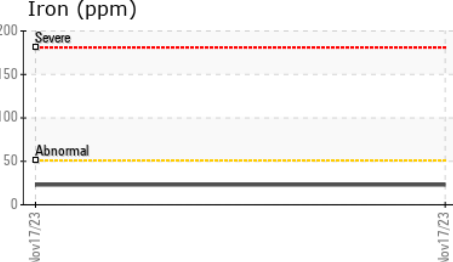


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>20.7</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*		<b>6.80</b>	---	---

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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		<b>▲ 72.2</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		<b>▲ 11.1</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270*		<b>144</b>	---	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0078873 **Received** : 24 Nov 2023  
**Lab Number** : 02598670 **Diagnosed** : 28 Nov 2023  
**Unique Number** : 5683750 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, Glycol, KV40, PercentFuel, VI )

**Martin Energy Group Canada**  
 1050 Boyde Lane RR#1  
 Linwood, ON  
 CA N0B 2A0  
 Contact: J Wagler  
 jwagler@martinenergygroup.com

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.