



# OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Area

[117311]

Machine Id

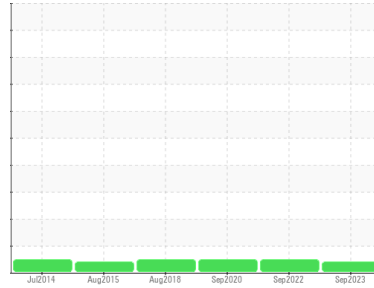
GENERAC 179771 - FRANKLIN CO 911 HOSLEY

Component

Natural Gas Engine

Fluid

RED STAR 10W30 (2 GAL)



## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0812677</b>	WC0682963	WC0385909
Sample Date	Client Info		<b>28 Sep 2023</b>	01 Sep 2022	02 Sep 2020
Machine Age	hrs	Client Info	<b>709</b>	659	517
Oil Age	hrs	Client Info	<b>0</b>	142	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ATTENTION</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>2</b>	3	2
Chromium	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >9	<b>4</b>	3	0
Lead	ppm	ASTM D5185m >30	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	2	<1
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>72</b>	21	14
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>71</b>	5	4
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>186</b>	599	656
Calcium	ppm	ASTM D5185m	<b>1932</b>	999	945
Phosphorus	ppm	ASTM D5185m	<b>984</b>	630	664
Zinc	ppm	ASTM D5185m	<b>1178</b>	756	722
Sulfur	ppm	ASTM D5185m	<b>3999</b>	2177	1970

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>4</b>	4	3
Sodium	ppm	ASTM D5185m	<b>2</b>	3	4
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	1

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.9</b>	7.5	6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.4</b>	17.5	15.4

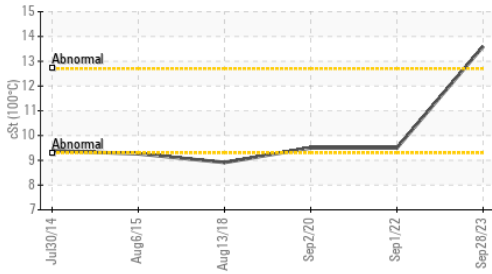
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.2</b>	10.5	7.8
Base Number (BN)	mg KOH/g	ASTM D2896	<b>6.8</b>	6.4	---

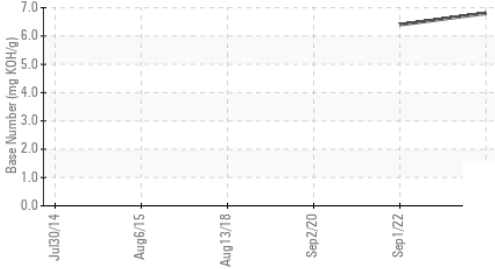


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▲ Viscosity @ 100°C



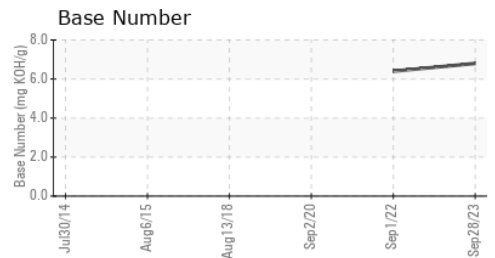
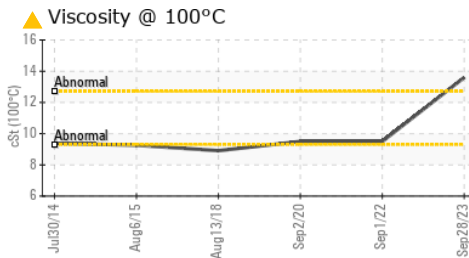
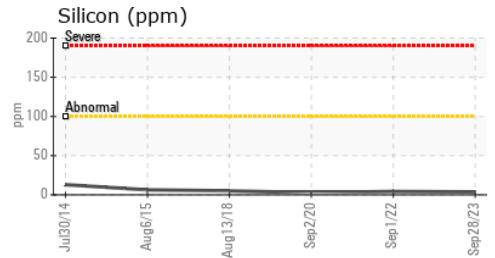
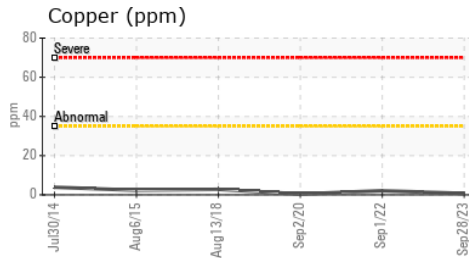
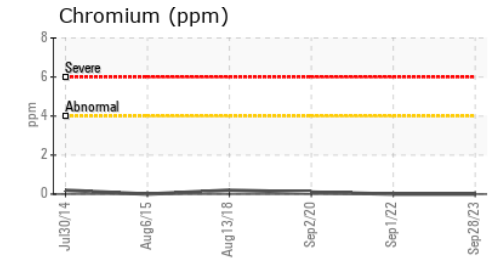
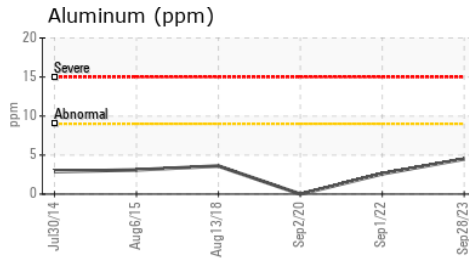
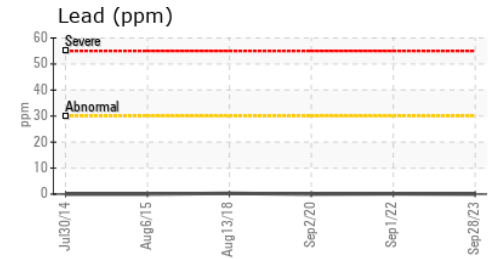
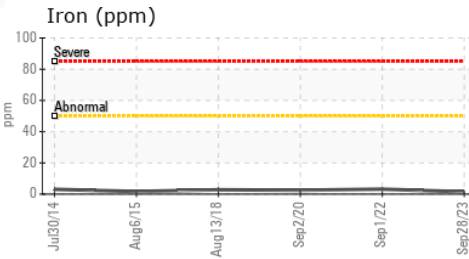
Base Number



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	▲ 13.6	9.5	9.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0812677 **Received** : 03 Oct 2023  
**Lab Number** : 05967354 **Diagnosed** : 05 Oct 2023  
**Unique Number** : 10673905 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**NATIONAL POWER CORP**  
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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)