

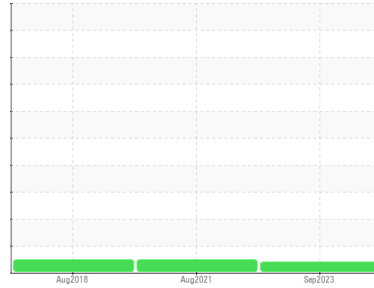


OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY

Area
[117478]
 Machine Id
179767 - FRANKLIN CO 911
 Component
Liquid Petroleum Gas
 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	WC0812670	WC0519237	WCM1395119	
Sample Date	Client Info	27 Sep 2023	31 Aug 2021	13 Aug 2018	
Machine Age	hrs	Client Info	208	159	31
Oil Age	hrs	Client Info	0	0	10
Oil Changed	Client Info	Changed	N/A	Changed	
Sample Status		ATTENTION	NORMAL	NORMAL	

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >120	3	2	2
Chromium	ppm	ASTM D5185m >10	0	<1	<1
Nickel	ppm	ASTM D5185m >5	0	<1	<1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >5	0	<1	0
Aluminum	ppm	ASTM D5185m >20	3	2	2
Lead	ppm	ASTM D5185m >40	0	<1	<1
Copper	ppm	ASTM D5185m >300	<1	2	1
Tin	ppm	ASTM D5185m >10	0	<1	0
Antimony	ppm	ASTM D5185m	---	0	0
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	<1	<1	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	94	33	122
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	13	3	10
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	604	565	88
Calcium	ppm	ASTM D5185m	1263	1197	2151
Phosphorus	ppm	ASTM D5185m	929	643	722
Zinc	ppm	ASTM D5185m	1089	754	835
Sulfur	ppm	ASTM D5185m	3632	2311	3043

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	4	3	4
Sodium	ppm	ASTM D5185m	3	1	2
Potassium	ppm	ASTM D5185m >20	4	2	7

INFRA-RED

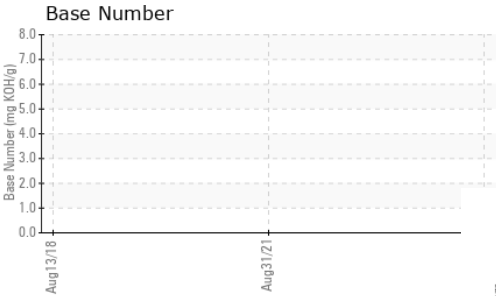
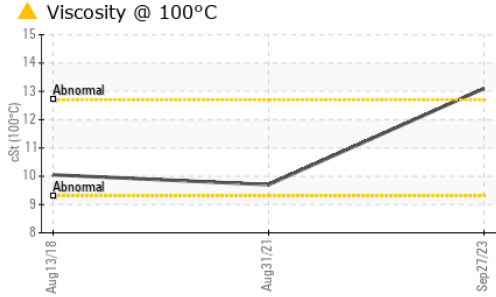
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	6.5	5.7	5.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.0	16	16.1

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	13.1	10.7	9.2
Base Number (BN)	mg KOH/g	ASTM D2896	7.7	---	---



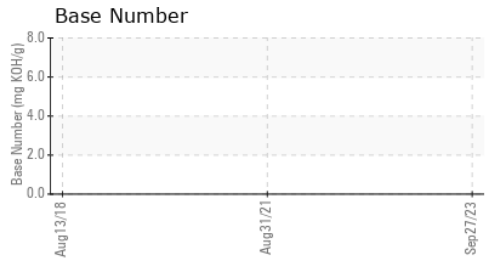
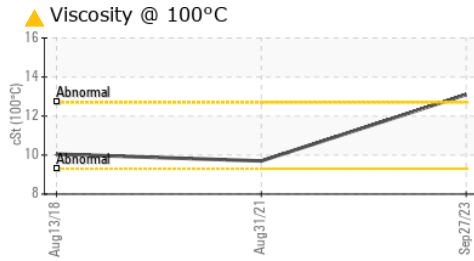
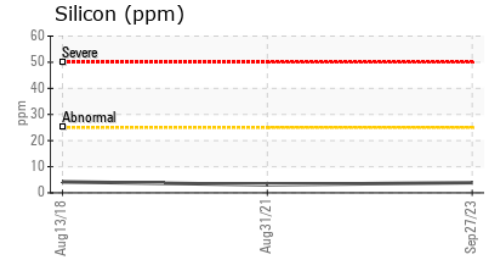
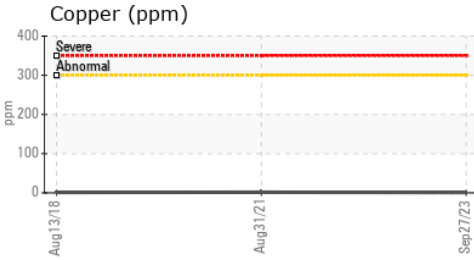
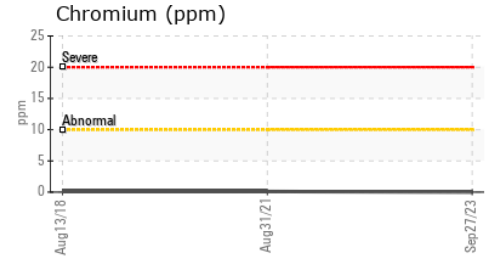
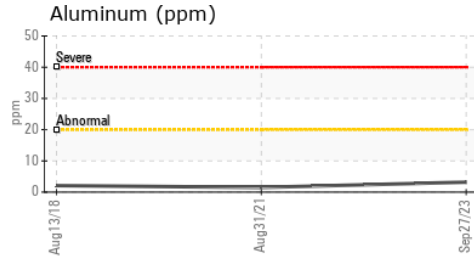
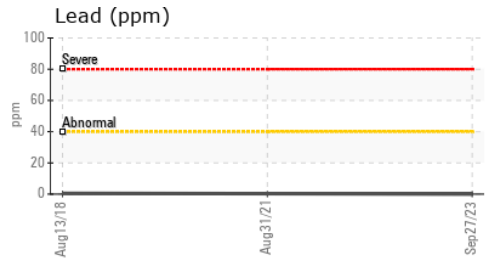
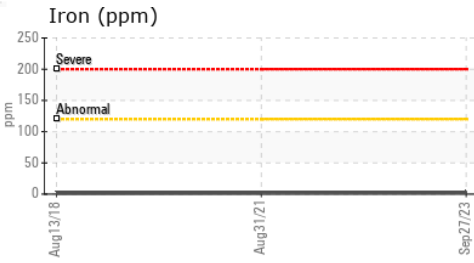
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	NONE
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	▲ 13.1	9.7	10.05

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0812670 **Received** : 03 Oct 2023
Lab Number : 05967353 **Diagnosed** : 05 Oct 2023
Unique Number : 10673904 **Diagnostician** : Jonathan Hester
Test Package : MOB 1 (Additional Tests: TBN)

NATIONAL POWER CORP
 4541 PRESLYN DR
 RALEIGH, NC
 US 27616
 Contact: BRANDON RICE
 brandon.rice@natpow.com
 T:
 F: (919)790-9714

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)