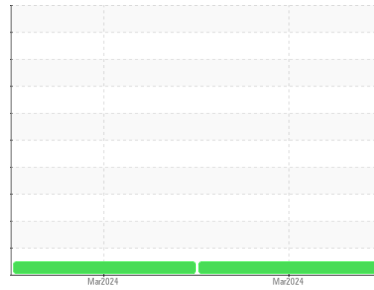




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

**1A**

Component

**Diesel Engine**

Fluid

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

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0637189</b>	WC0911366	---
Sample Date	Client Info			<b>27 Mar 2024</b>	26 Mar 2024	---
Machine Age	hrs	Client Info		<b>0</b>	561	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>N/A</b>	N/A	---
Sample Status				<b>NORMAL</b>	NORMAL	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2		<b>NEG</b>	NEG	---
Glycol	WC Method			<b>NEG</b>	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>0</b>	0	---
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	0	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>6</b>	10	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	100	<b>46</b>	59	---
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m	450	<b>862</b>	878	---
Calcium	ppm	ASTM D5185m	3000	<b>1139</b>	1057	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1024</b>	995	---
Zinc	ppm	ASTM D5185m	1350	<b>1124</b>	1159	---
Sulfur	ppm	ASTM D5185m	4250	<b>3403</b>	3377	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>2</b>	3	---
Sodium	ppm	ASTM D5185m	>158	<b>2</b>	0	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	---

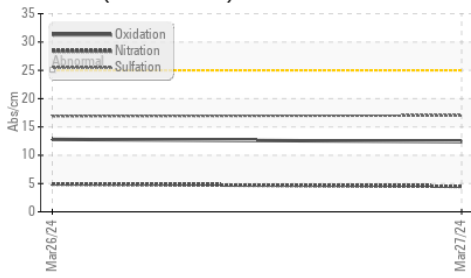
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0</b>	0	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>4.5</b>	4.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.0</b>	16.9	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.4</b>	12.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>9.5</b>	9.2	---

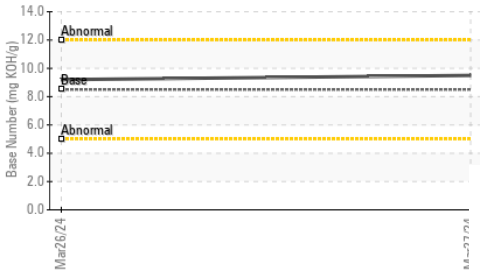


# OIL ANALYSIS REPORT

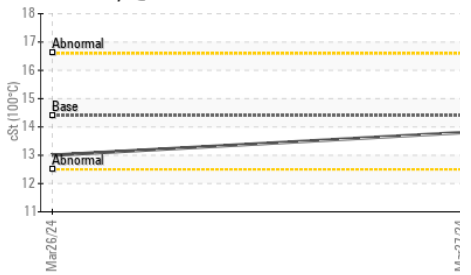
FT-IR (Direct Trend)



Base Number



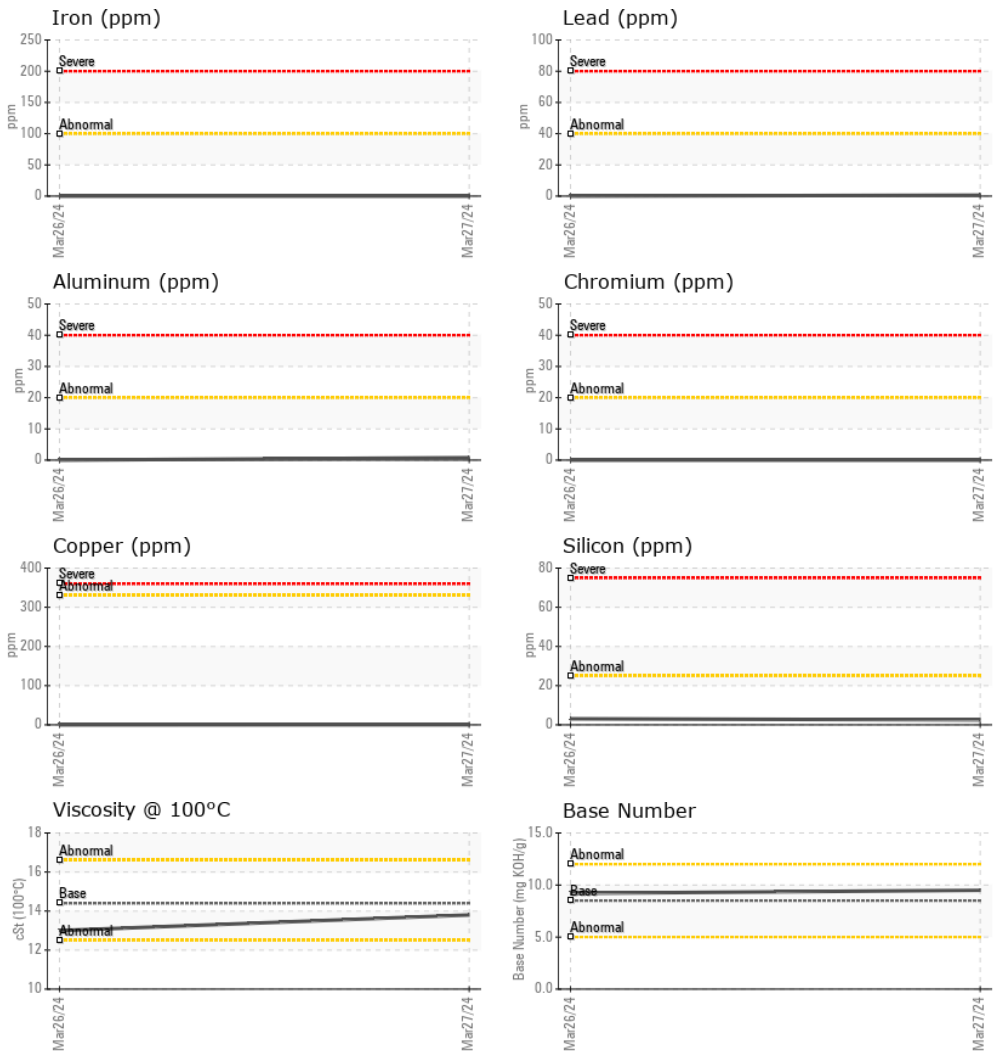
Viscosity @ 100°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	13.8	13.0

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0637189 **Received** : 10 Apr 2024  
**Lab Number** : 06143884 **Tested** : 11 Apr 2024  
**Unique Number** : 10968692 **Diagnosed** : 11 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**NATIONAL POWER CORP**  
 4541 PRESLYN DR  
 RALEIGH, NC  
 US 27616  
 Contact: BRANDON RICE  
 brandon.rice@natpow.com

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)

F: (919)790-9714