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## *Comparing Bull Frog Lubricant/Rust Blocker II to Gun Oils Used by Haverhill Police Department*

**Background:** Scott Ziminski of the Haverhill Police Department would like Cortec to compare the corrosion protection performance of Bull Frog Lubricant/Rust Blocker II to other gun oils currently used by the department.

**Purpose:** To compare and evaluate the corrosion protection of various gun oils to Bull Frog Lubricant/Rust Blocker II.

**Method:** ASTM D-1748 Humidity Cabinet (120°F, 95-100% relative humidity)

**Materials:** 1010 carbon steel panels  
 Bull Frog Lubricant/Rust Blocker II (Spray)  
 Bull Frog Lubricant/Rust Blocker II (Liquid)  
 Steel Shield Weapon Shield oil  
 Slip 2000 Gun Lubricant  
 Royal Lubricants Royco 634

**Procedure:** The following procedure was used:

- 1) Six 1010 carbon steel panels were cleaned with methanol prior to testing.
- 2) After cleaning, the panels were coated with the solutions as follows:
  - a. Bull Frog Lubricant/Rust Blocker II (spray)
  - b. Bull Frog Lubricant/Rust Blocker II (liquid)
  - c. Weapon Shield
  - d. Slip 2000 gun lubricant
  - e. Royco 634
  - f. Control (no coating)
- 3) After coating, all panels were hung to dry overnight.
- 4) All panels were then placed in ASTM D-1748 humidity cabinet.
- 5) Panels were visually inspected periodically.
- 6) After 1000 hours, all panels were removed from ASTM D-1748 humidity cabinet.
- 7) All panels were visually inspected and photographed.

**Results:** The following results were found:

Panel	Time to Failure (Hours)
A	DNF*
B	DNF*
C	336
D	432
E	DNF*
F	<24

DNF – Did not fail during 1000 hours of testing.



**Conclusion:** Of the submitted oil products, the Royco product performed equally as well as the Bull Frog products. Unfortunately, there was no MSDS included with the sample so the inhibitor chemistry, if any, can't be determined. The other two submitted oils did not provide adequate corrosion protection when compared to the Bull Frog products.

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