



U. S. Department of Justice

BUREAU OF ALCOHOL, TOBACCO, FIREARMS AND EXPLOSIVES
Forensic Science Laboratory – Atlanta
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Laboratory Report

ANAB ISO/IEC 17025:2017 Accredited
Forensic Testing Laboratory

Special Agent [REDACTED]
Bureau of Alcohol, Tobacco, Firearms and Explosives
550 N. Brand Boulevard
Suite 800
Glendale, CA 91203

Date of Report: 8/3/2021
Case Number: 2021-A-000158
Submission(s): 1,2
Reference: 784020-21-0014
Title: 716 E 27th Street Explosion
Type of Exam: Explosives

Exhibits 1 through 6 were received by the laboratory on July 7, 2021.
Exhibit 7 was received by the laboratory on July 9, 2021.

EXHIBITS

Lab # – Agency

- 1 - (S1) Powder
- 2 - (S2) Fuse
- 3 - (S3) Powder
- 4 - (S4) Fuse
- 5 - (5) Debris
- 6 - (6) Debris
- 7 - (13) Cardboard tube

EXAMINATION/ANALYSIS AND INTERPRETATION OF RESULTS

This report refers to exhibits by Lab Number. The following results only apply to the items tested.

Exhibits 1 and 3 contained gray powder that was identified as a perchlorate explosive mixture, commonly known as flash powder.

Exhibit 2 contained a functional brown (with white and red fibers) pyrotechnic fuse that measured approximately $\frac{1}{4}$ inch in diameter.

Exhibit 4 contained a functional green pyrotechnic fuse that measured approximately $\frac{1}{8}$ inches in diameter.

Exhibit 7 contained a cardboard tube that measured approximately 4 inches in length and $1\frac{1}{4}$ inches in diameter. A functional green pyrotechnic fuse, measuring approximately 3 inches in length and $\frac{1}{8}$ inch in diameter, protruded from a solid material plug in one end of the tube. The other end of the tube had a red plastic plug (that had been removed from the tube). The tube contained a sample of gray powder that was identified as a perchlorate explosive mixture, commonly known as flash powder.

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Exhibits 5 and 6 have not been analyzed. These analyses will occur at a later date, and a supplemental report will be generated.

DISPOSITION OF EVIDENCE

The excess powder in Exhibits 1, 3, and 7 will be destroyed in the laboratory. Exhibits 5 and 6 will remain in the laboratory pending testing. The remaining evidence and evidence packaging will be returned to Special Agent [REDACTED].

[REDACTED]

Forensic Chemist

REVIEWED BY

[REDACTED]

[REDACTED]

Section Chief

TESTS PERFORMED

Exhibit ID	Analysis
1	Ignition susceptibility test, Scanning electron microscopy-energy dispersive spectroscopy, Visual examination, X-ray diffraction
2	Ignition susceptibility test, Scanning electron microscopy-energy dispersive spectroscopy, Visual examination, X-ray diffraction
3	Ignition susceptibility test, Scanning electron microscopy-energy dispersive spectroscopy, Visual examination, X-ray diffraction
4	Ignition susceptibility test, Scanning electron microscopy-energy dispersive spectroscopy, Visual examination, X-ray diffraction
5	No analysis
6	No analysis
7	Ignition susceptibility test, Scanning electron microscopy-energy dispersive spectroscopy, Visual examination, X-ray diffraction