

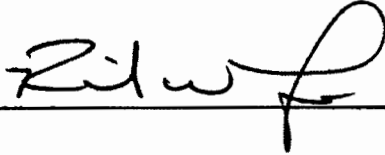
DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, PICATINNY
PICATINNY ARSENAL, NEW JERSEY 07806-5000

Record of Historic Property Consideration

PROJECT: PEMS 3959


DATE PREPARED: 12 December 2014

Proponent- Richard Lamoreaux, ARDEC Radiation Office Safety Manager



Date: 2/1/2016

CRM - Jason Huggan



Date: 12/19/2015

****send signed form to CRM and/or NEPA POC for filing and final project approval****

Record of Historic Property Consideration Cultural Resources Review

All undertakings are documented in the Picatinny Environmental Mgmt System (PEMS). This form should be completed if Historic Properties are identified to be potentially affected by an undertaking and it is not a categorical exclusion (SOP #2, PEMS Waiver).

SOP 1, Description of Undertaking/Project

1. Work Order #/ PEMS #/ IJO: PEMS 3959

2. Proponent: ARDEC Radiation Office and U.S. Nuclear Regulatory Commission

3. Project Description: Part of the 1222 Area (Gorge) is considered potentially contaminated with Depleted Uranium (DU) from research and development testing dating back ~ 45yrs ago. Project is to remediate, and perform radiological surveys and sampling in the open detonation (OD) pit, its exterior areas, the adjacent hillside, and surrounding test equipment structures (not included in Real Property Inventory)

4. Location: 1222 Range and Gorge Area

5. Area of Potential Effect (APE): OD Pit, its exterior areas, the adjacent hillside, and surrounding test equipment structures (not included in Real Property Inventory). Figures and scope of sampling efforts below surface, as well as historic Maps and aerials photographs are included below for a historic context of the project area

SOP 3, Historic Properties Affected and APE

6. Historic Properties Eligible for the National Register: None identified at this time- surrounding structures of age for historic assessment have been determined Not Eligible for the National Register of Historic Places (NRHP). Surrounding test equipment structures, including Bldg 1222C (Blast and Exhaust Deflector; Explosive Barrier) were placed in the APE around the mid-late 1980s. The majority of these surrounding test equipment structures are not typically included in Real Property Inventory and therefore not covered under NRHP assessments- considered as equipment that can be utilized in various test areas and likely moved throughout its life-cycle for particular uses These structures will be surveyed by gamma scan, with no plans anticipated to decontaminate these structures.

7. If *ground disturbance* is to occur, has the APE been surveyed or is it previously disturbed? If disturbed, by what? Previously disturbed by the existing range and development since the mid 1940s. Picatinny acquired this land in 1943; existing Gorge Rd- present since prior to the Arsenal and was constructed in the mid 1800s for a historic sawmill located north of the Gorge (not part of the APE).

In particular to the APE, prior to the OD Pit being constructed, the surrounding area would have been undisturbed virgin land.

The OD pit will be sampled by excavating 6 separate survey units measuring 1ft in diameter to a depth of 5' below the existing grade surface. There will be 6 separate survey units in the open detonation pit interior area. A different random starting point for each survey unit will be calculated. A summary of the survey units is as follows:

- Survey Unit #1: From existing grade surface to 1' below existing grade surface;
- Survey Unit #2: From 1' below existing grade surface to 2' below existing grade surface;
- Survey Unit #3: From 2' below existing grade surface to 3' below existing grade surface;

- Survey Unit #4: From 3' below existing grade surface to 4' below existing grade surface;
- Survey Unit #5: From 4' below existing grade surface to 5' below existing grade surface;
- Survey Unit #6: At the excavation bottom at 5' below existing grade surface.

Historically, UXO personnel would have typically dug 4ft below surface when burying explosives for detonation in the OD Pit; therefore a 5ft depth unit will cover these previous contexts.

The Pit's exterior areas will be surveyed by a walkover gamma scan with systematic surface soil samples as needed.

The hillside was covered with an impervious membrane and riprap in 2005 for stormwater and erosion control purposes. A walkover gamma scan survey will be conducted in this area, along with systematic sampling as needed.

APE and surrounding area have not been surveyed for archaeological materials, however previous historic assessments within the area have noted the potential for deposits related to the nearby iron forge and sawmill as the existing Gorge Rd has been present since prior to the Arsenal and was constructed in the mid 1800s for the L. Pruden sawmill located north of the Gorge (not part of the APE). Additionally, previous research has noted the potential for hunting and gathering camps and/or rockshelters along the upper elevations of the Gorge and Copperas Mountain due to the proximity of the Green Pond Brook. Immediate APE is considered previously disturbed; however, considering depth of excavations will go below previous disturbances of 4ft and below the actual OD Pit itself, there is a potential for below surface archaeological deposits. See SOP 5 for Inadvertent Discoveries Standard Operating Procedures.

Figures and scope of sampling efforts below surface, as well as historic Maps and aerials photographs are included below for a historic context of the project area

8. Prior SHPO concurrence received for similar project(s)? (List HPO/Log # for reference and attach as needed): Yes, CERCLA remediation projects- ie. Old Burning Grounds remediation- HPO-B2012-175, Log # 10-2085

SOP 4, Assessment/Identification of Historic Properties Affected

9. Will the Project affect character defining features of the identified Historic Property and/or Historic District? If so, how: No

10. Proposed Project Will:

- | | | |
|-----------|---------------------|--|
| a. | <u> </u> | Destroy, remove, alter (etc.) features/elements of the Historic Property |
| b. | <u> </u> | Replace features/elements in-kind |
| c. | <u> </u> | Alter or remove features/elements of a Historic District landscape/ character/ fabric/ environmental setting |
| d. | <u> </u> | Disturb, destroy, or make archaeological resources inaccessible or alter terrain |
| e. | <u> X </u> | <i>Potentially affects unidentified cultural resources (potentially eligible for the NRHP as archaeological properties)</i> |
| f. | <u> </u> | Contribute to deterioration of historic fabric, setting, landscape elements, or archaeological resources |

- g. _____ Real Property Transaction (Conversion, Lease, Exchange, etc.)
h. _____ Other (Specify) _____

SOP 5, Best Practices Used to Avoid/Reduce Adverse Effects (explain): *Standard Operating Procedures are to be implemented into the Work Plan for the project for the inadvertent discovery of cultural/archaeological resources below surface at the OD Pit and its exterior area. If resources are identified, project is to stop until the CRM can determine significance of resources as potential archaeological properties eligible for the NRHP*

SOP 6, Alternatives Reviewed to Assess Feasibility of Avoiding/Reducing Adverse Effects (explain): N/A

SOP 7, Mitigation Measures Implemented for Treatment of Adverse Effects (explain, and also list why adverse effects could not be avoided): N/A

SOP 8, Document Decision of Acceptable Loss *(Attach copy of Garrison Commander's (or DPW Director) letter to the NJ SHPO and/or the Advisory Council on Historic Preservation and any other appropriate correspondence with Consulting Parties/Tribes, and their comments, include emails if applicable):* N/A

Documents Attached: Figures and scope of sampling efforts below surface
Historic Maps and Aerials photographs- historic context of the project area

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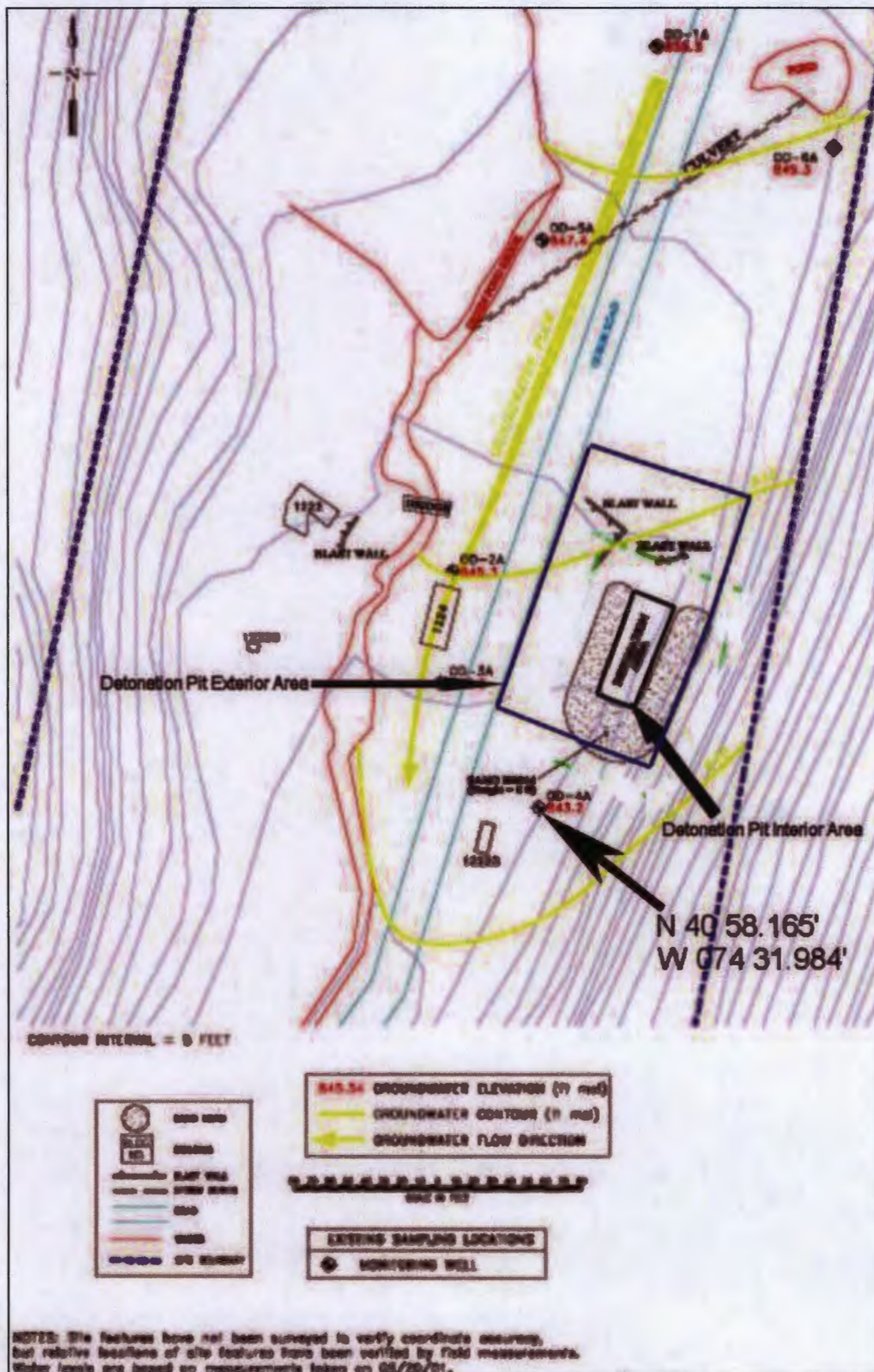
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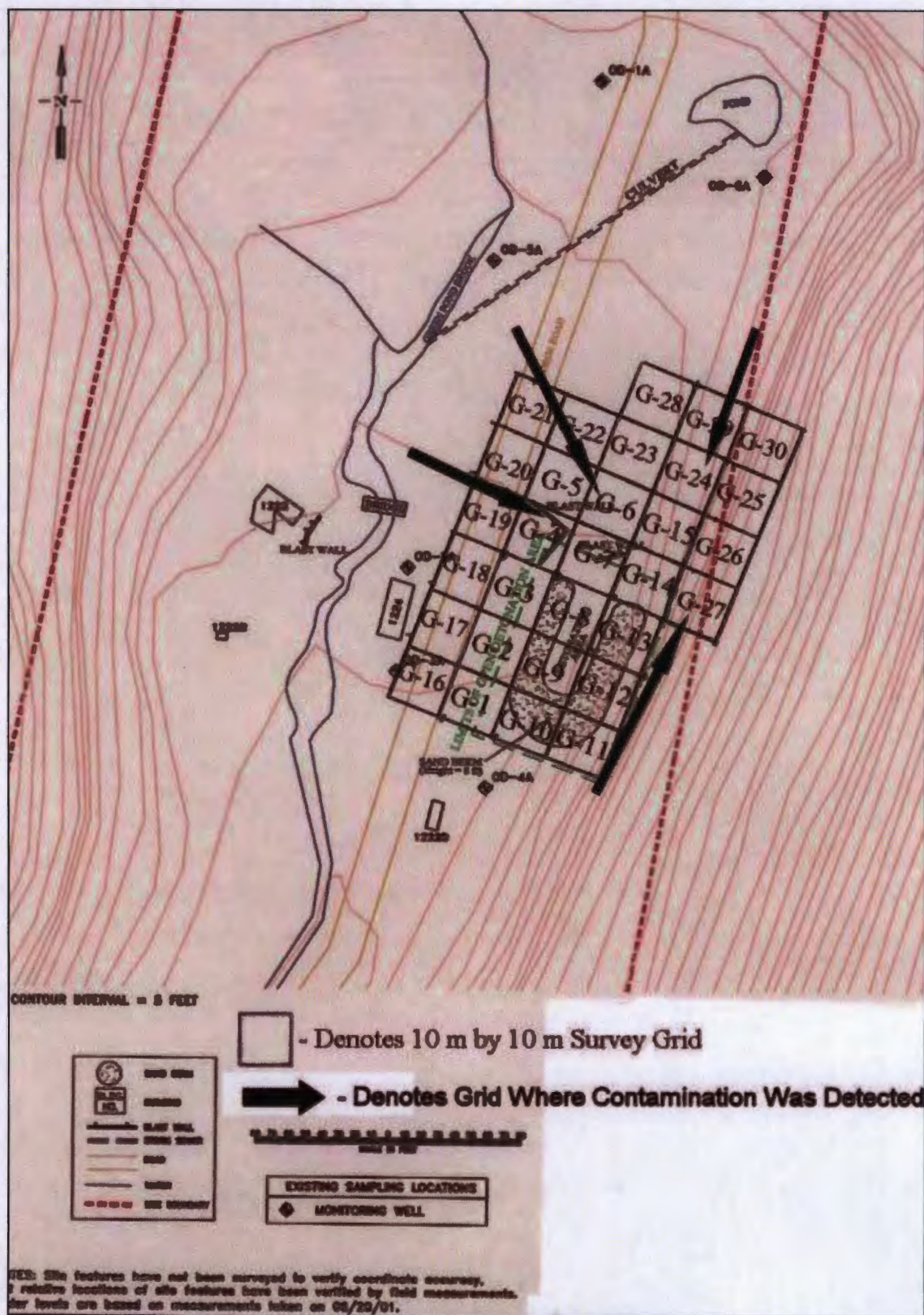
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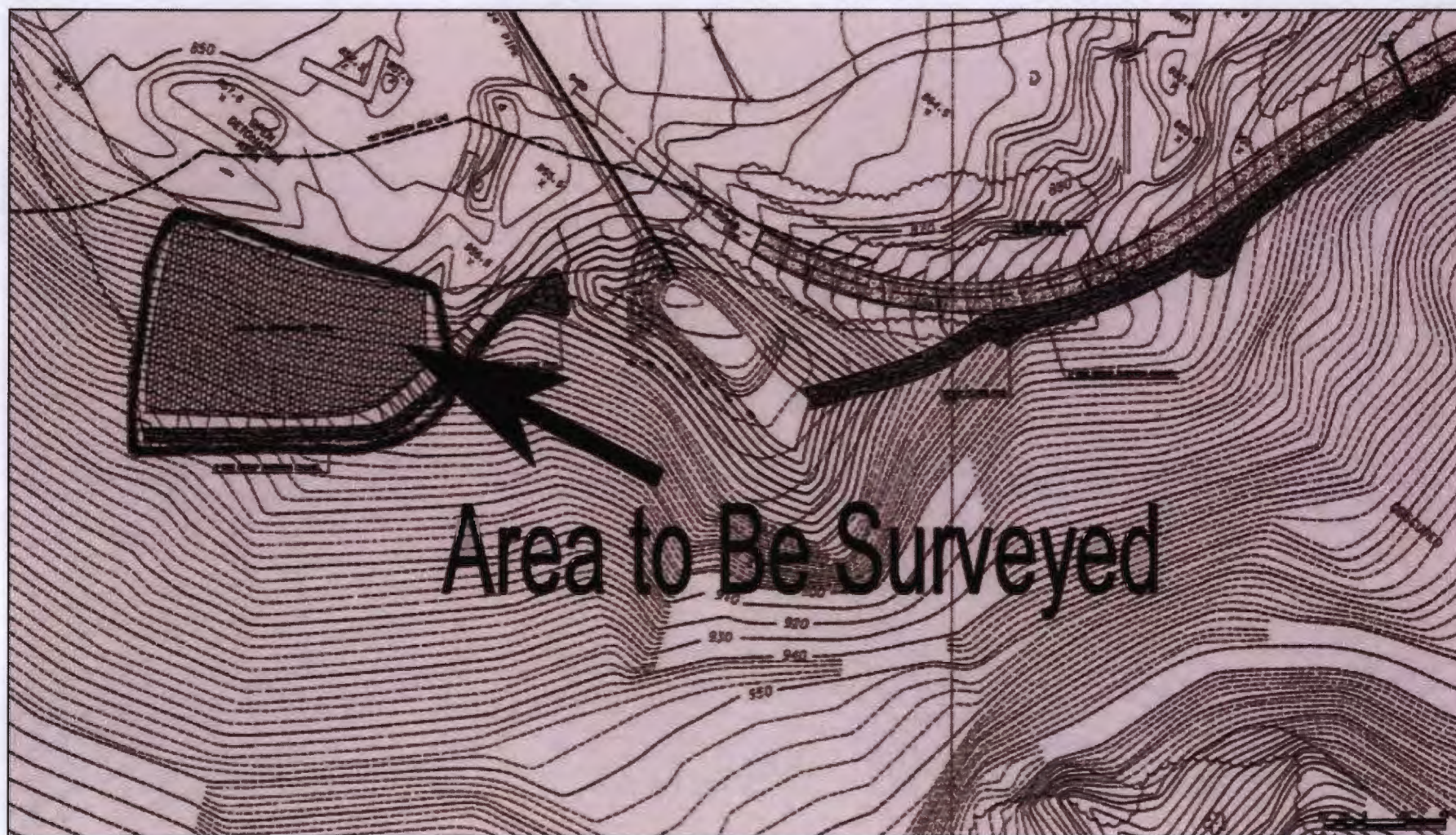
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Map of the Open Detonation Pit Area





Adjacent hillside to be surveyed

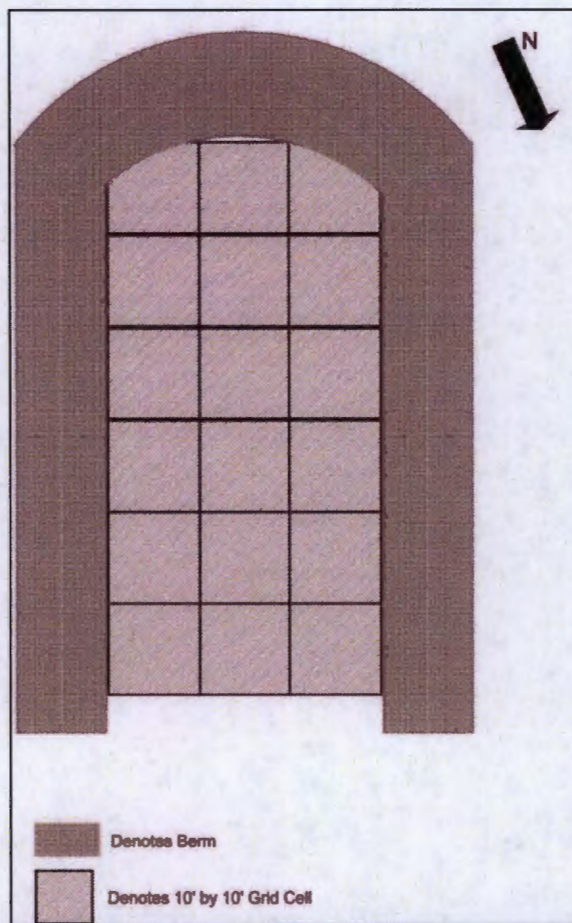
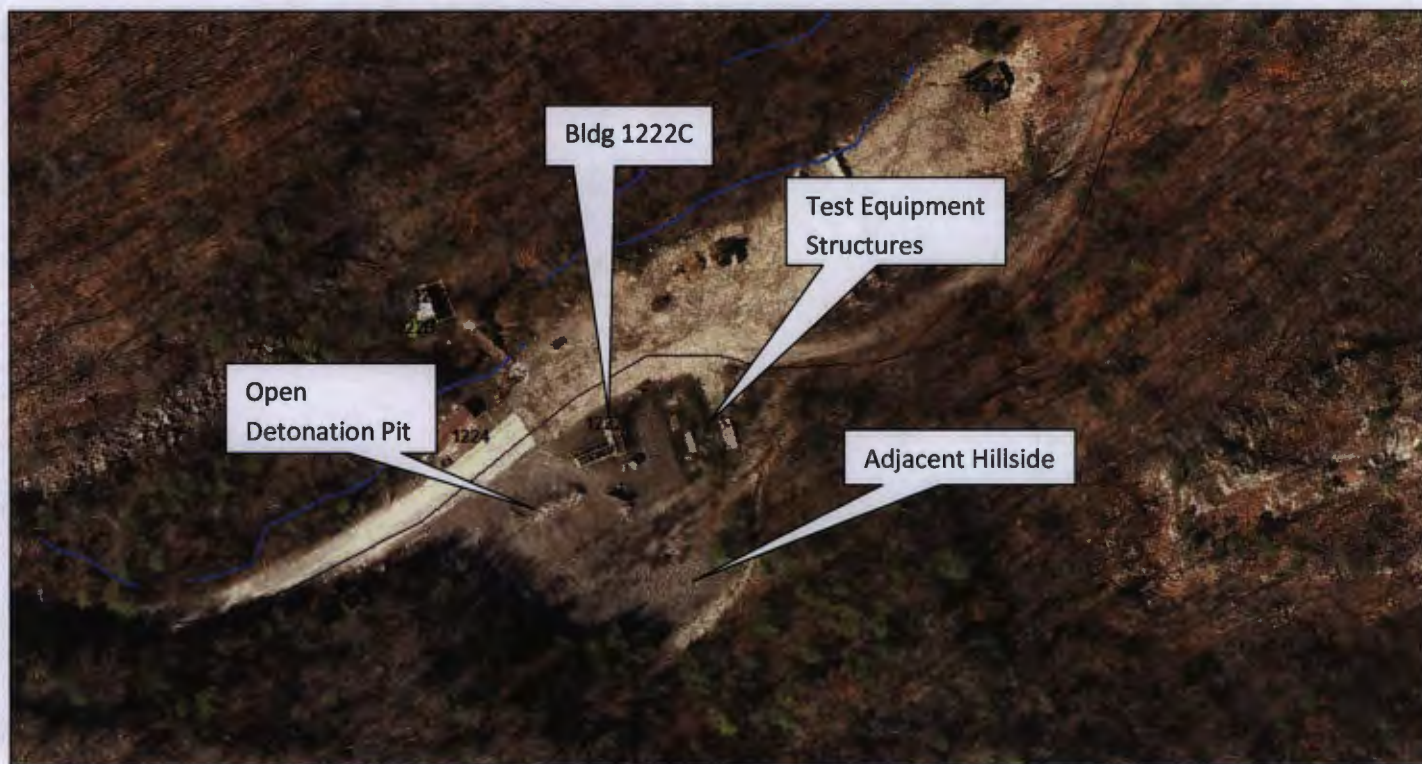


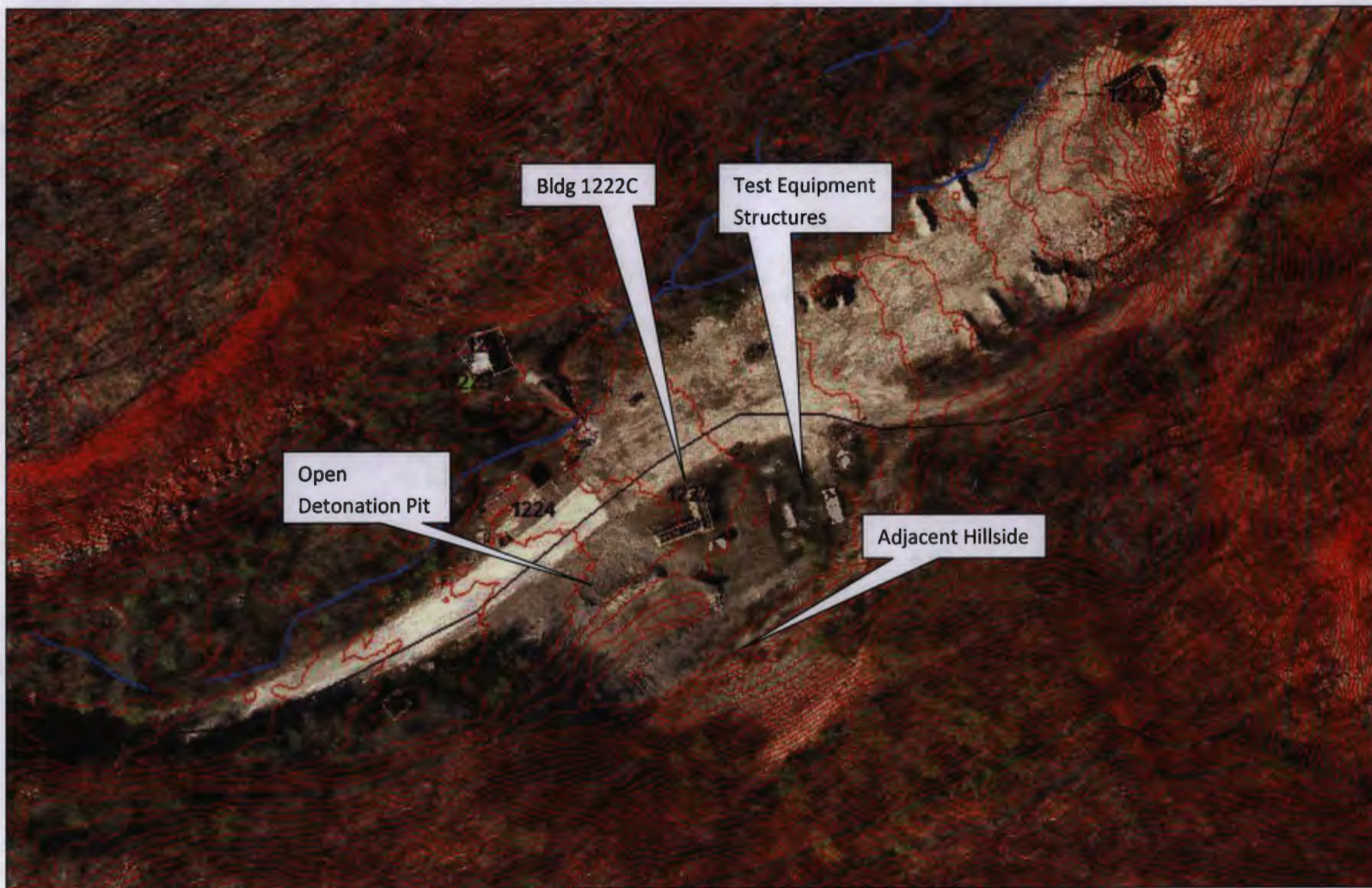
Diagram of the 10' by 10' cell layout of the open detonation pit interior area. The amount of cells and layout may be different than this diagram when actual field measurements are taken.



Surrounding Test Equipment Structures to be gamma scanned with no decontamination efforts planned



2012 aerial of Gorge Area



2ft contour map of Gorge Area



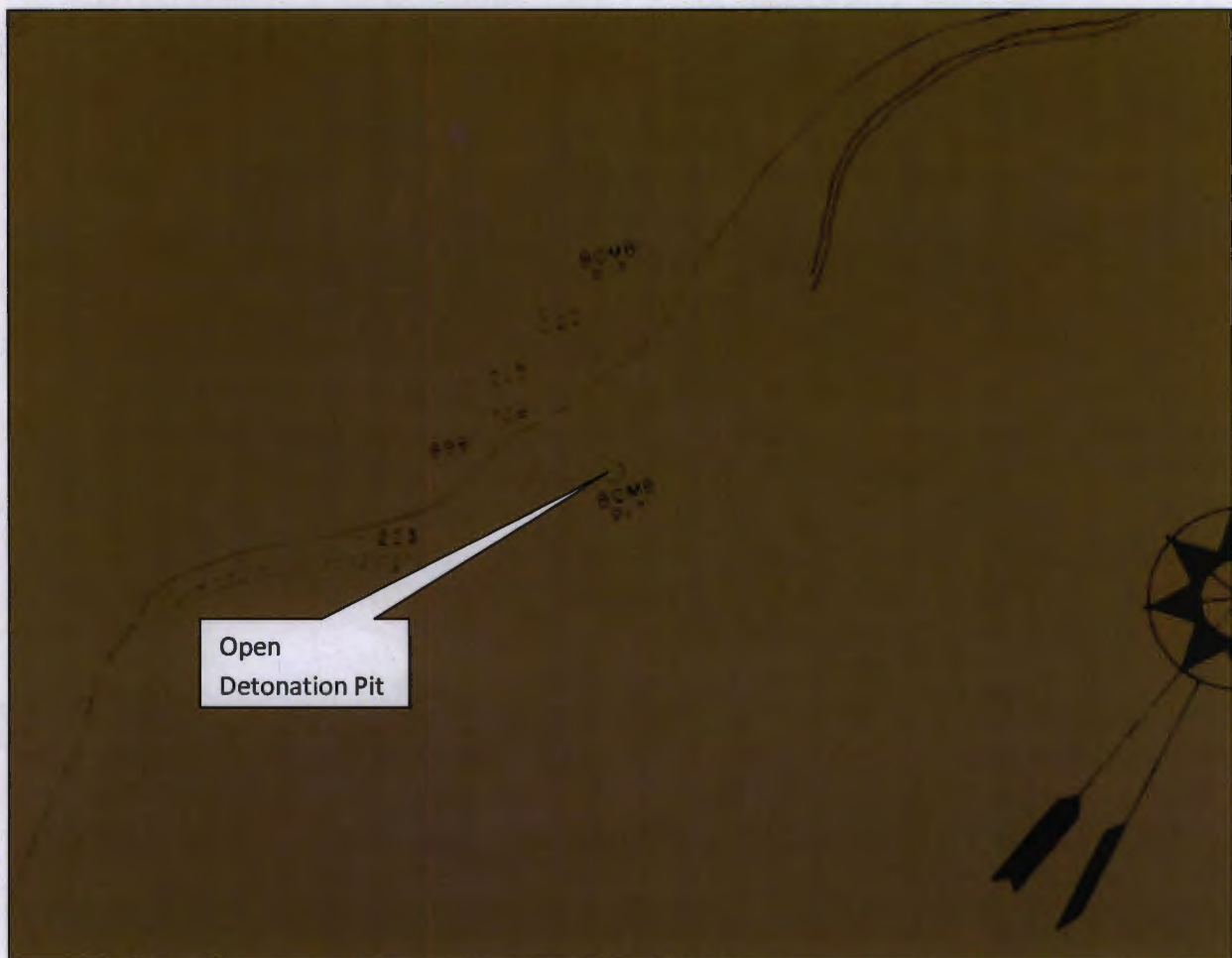
Bing Bird's eye view



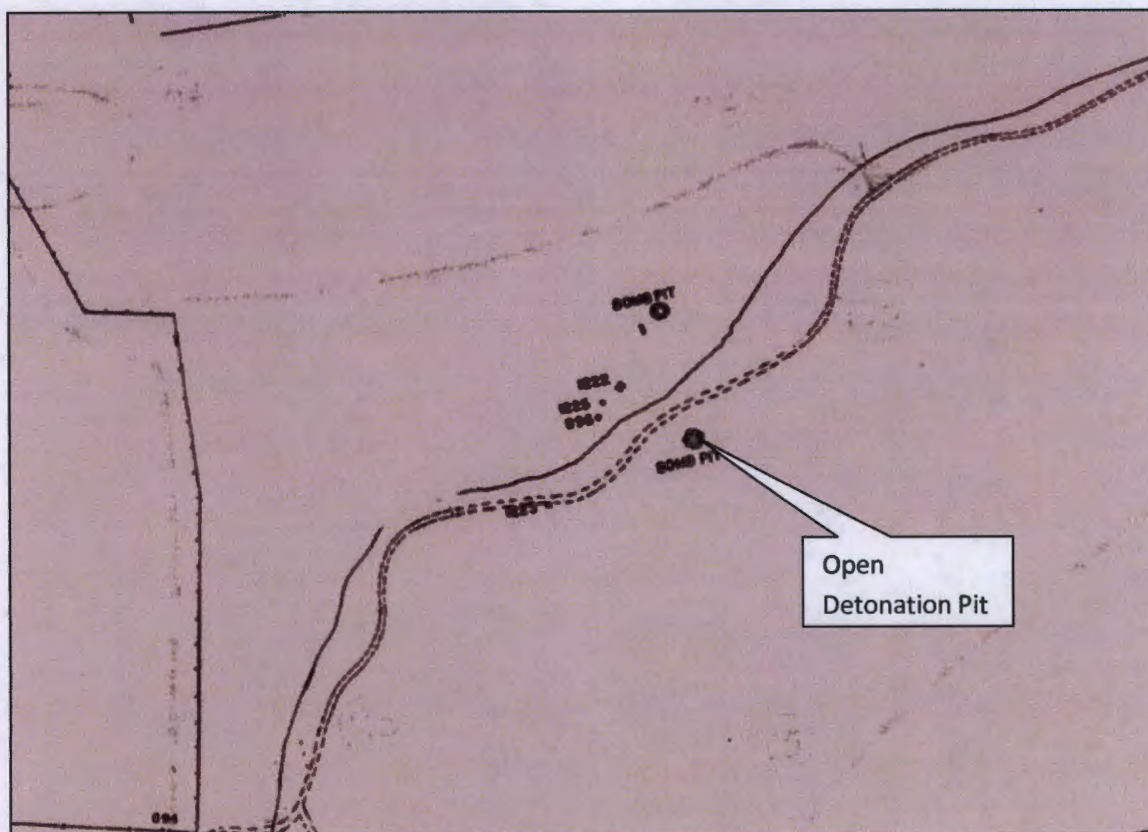
Bing Bird's eye view of DU Area and Hillside



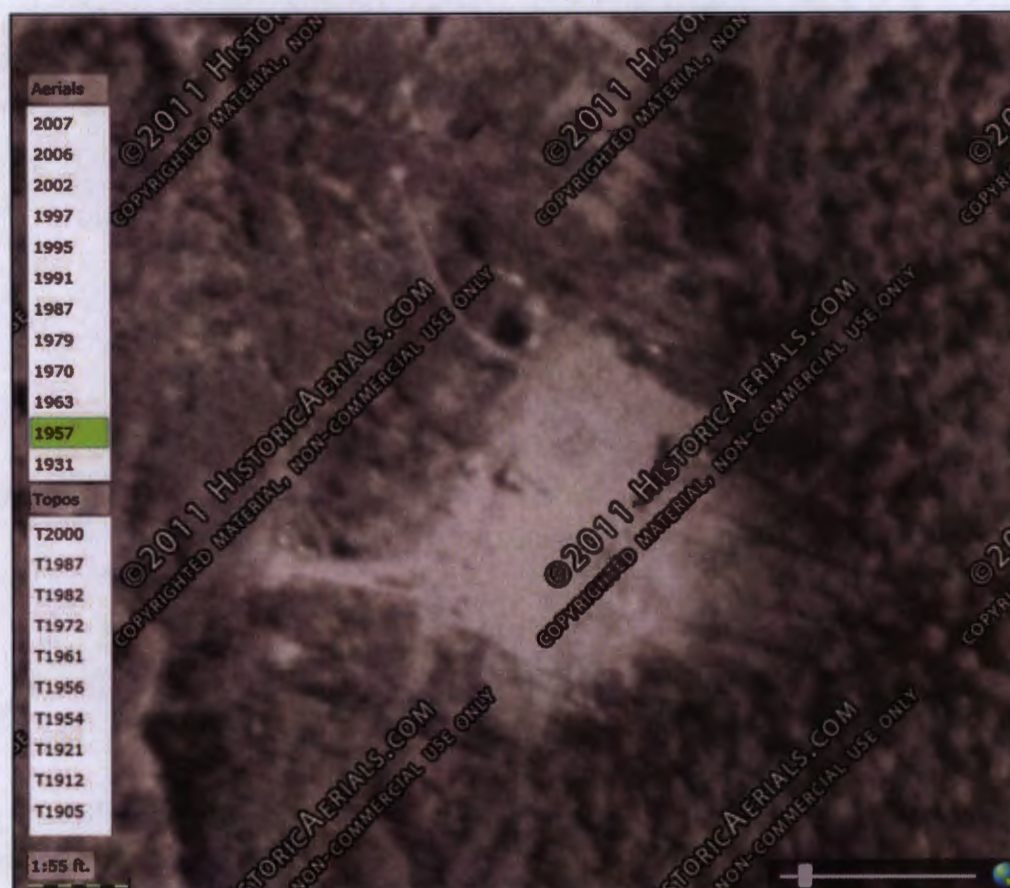
Circa 1929-1941 map of Picatinny, circled area is Project Area (including adjacent hillside)



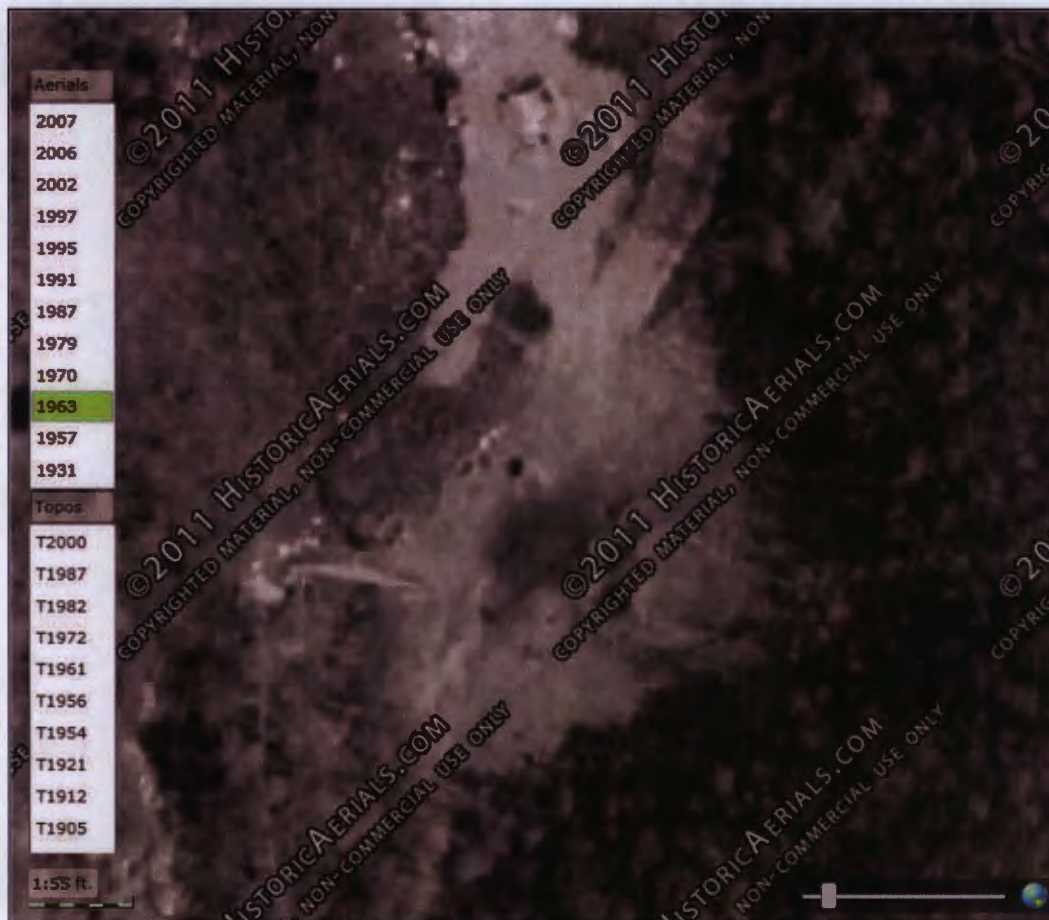
1946 map of Gorge Area



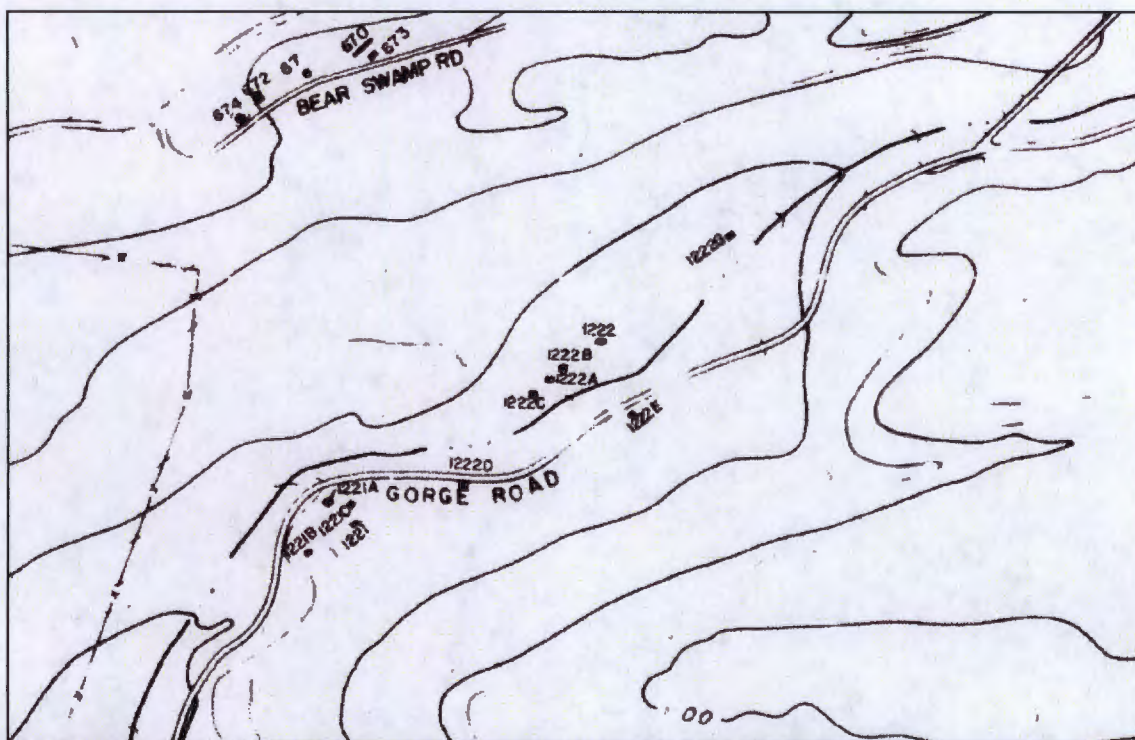
1949 map of Gorge Area



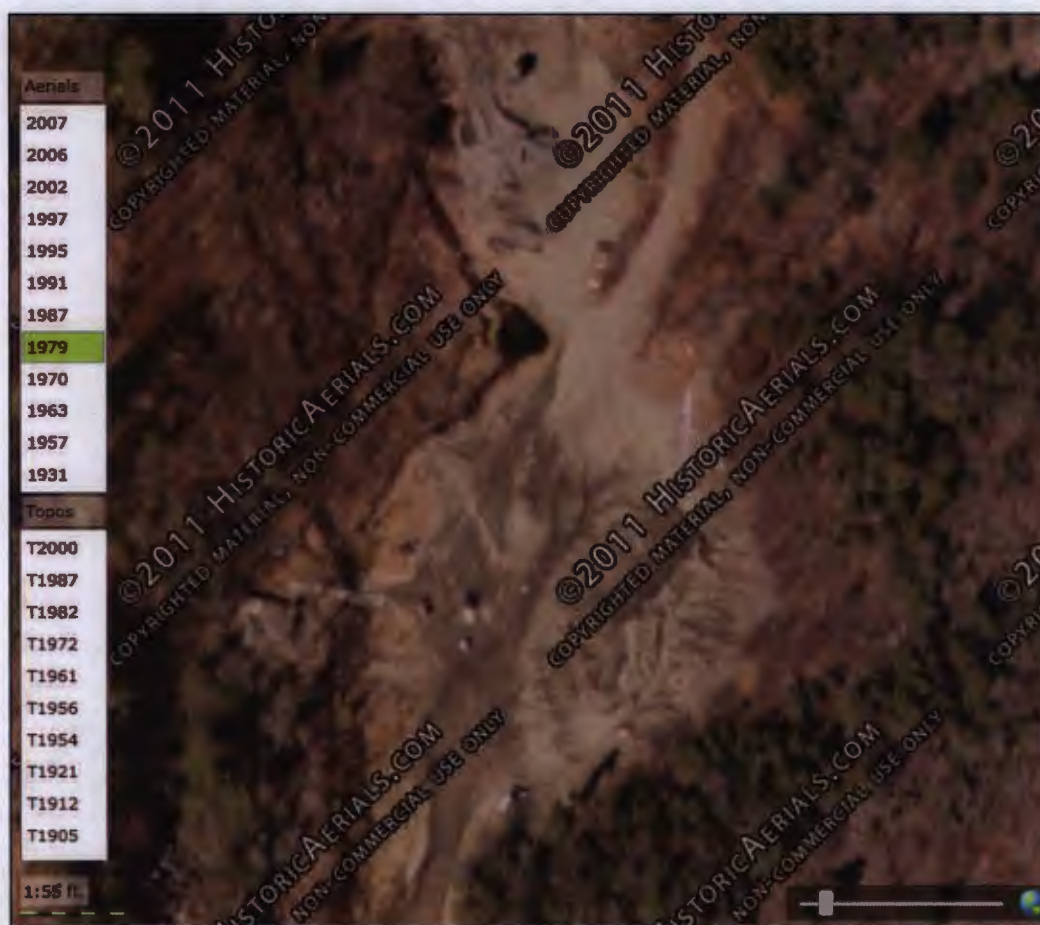
1957 aerial of Open Detonation Pit and adjacent hillside



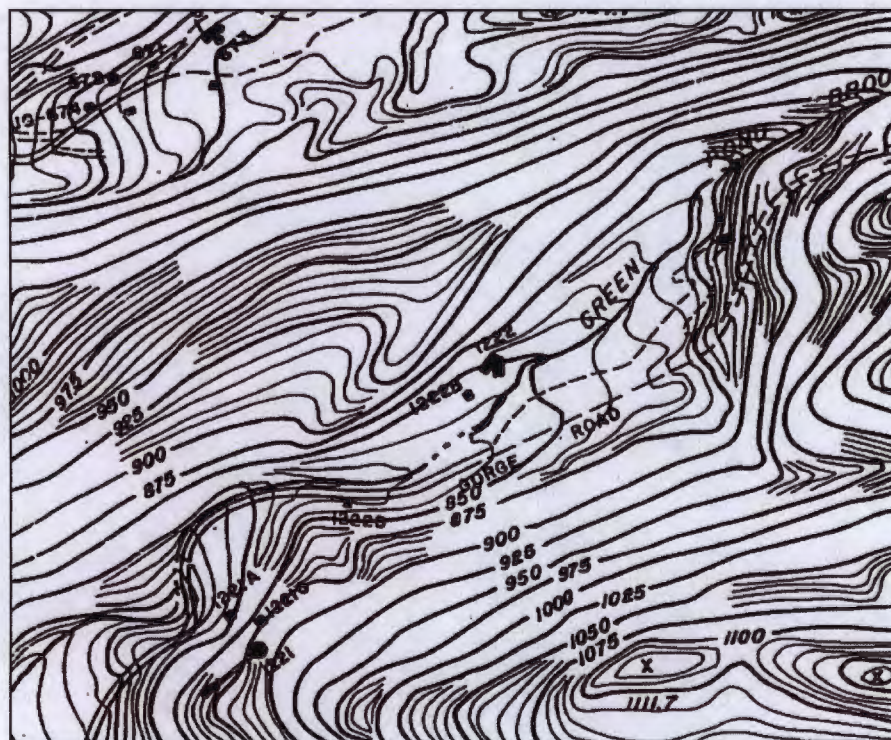
1963 aerial of Open Detonation Pit and adjacent hillside



1972 map of Gorge Area. Structures 1222 B, C, and D were assessed during 1982-83 HABS/HAER effort and Determined Not Eligible



1979 aerial of Gorge Area. Note surrounding test equipment structures and Bldg 1222C not present



1984 topographic map of Gorge Area. Note Structures 1222 C, D, and E are no longer present. To Real Property records, current Structure 1222C was placed onsite circa 1987