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NAS BRUNSWICK  
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FINAL RESOURCE CONSERVATION AND RECOVERY ACT PARTIAL CLOSURE REPORT  
FOR BUILDINGS 548 AND 549 WITH TRANSMITTAL LETTER NAS BRUNSWICK ME  
10/12/2010  
NAS BRUNSWICK

**ENVIRONMENTAL DEPARTMENT  
NAVAL AIR STATION  
437 HUEY DRIVE  
BRUNSWICK, ME 04011**

October 12, 2010

Mr. Edward Vigneault  
Maine Department of Environmental Protection  
Division of Oil and Hazardous Waste Facilities Registration  
17 State House Station  
Augusta, ME 04333-0017

Subj: Final RCRA Partial Closure Report for Buildings 548 and 549

Dear Mr. Vigneault:

A copy of the Final RCRA Partial Closure Report for Buildings 548 and 549 at Naval Air Station Brunswick is provided as Enclosure (1).

If you have any questions, please contact Mr. Mike Fagan at 921-1717 or via e-mail at [michael.fagan1@navy.mil](mailto:michael.fagan1@navy.mil).

Sincerely,



*Fol*

LISA M. JOY  
Environmental Director

Enclosure: (1) Final RCRA Partial Closure Report for Buildings 548 and 549

Copy to:

NAVFAC Mid-Atlantic (B. Abraham)  
NAS Brunswick (M. Fagan/D. Smith)  
EPA Region I (M. Daly)  
MRRR (V. Boundy)  
Curtis Memorial Library (L. Oliver)  
Lepage Environmental (C. Lepage)  
BRAC PMO NE (P. Burgio)

**RCRA PARTIAL CLOSURE REPORT**  
**for**  
**BUILDING 548 – HIGH EXPLOSIVE MAGAZINE**  
**BUILDING 549 – HIGH EXPLOSIVE MAGAZINE**  
**NAVAL AIR STATION BRUNSWICK, MAINE**  
**USEPA IDENTIFICATION NUMBER ME8170022018**  
**OCTOBER 2010**

## 1. INTRODUCTION

The purpose of this report is to present the findings and conclusions of the investigation conducted to determine if the Maine Department of Environmental Protection (MEDEP) RCRA or hazardous waste closure requirements have been completed for Weapons Buildings 548 and 549 at Naval Air Station Brunswick (NAS Brunswick).

## 2. PROPERTY DESCRIPTION

Weapons Buildings 548 and 549 are located at the Weapons Area, within the Weapons/Magazine Area parcel, in the southeastern portion of NAS Brunswick (Figure 1). The general location and physical description of the two buildings are summarized below. Photographs of the buildings are provided as an attachment to this report.

The investigation conducted under this report applies only to the building footprints of Buildings 548 and 549 (as shown on Figure 2). The Weapons/Magazine Area Parcel RCRA Partial Closure Report addresses the land surrounding and the groundwater underlying Buildings 548 and 549.

### Building 548 – High Explosive Magazine

Building 548 is located in the central portion of the Weapons Area (Figure 2), east of Ordnance Road 2, west of a wooded area, north of Building 62, and south of Building 549.

Building 548 was constructed in 1959 and consists of a single room measuring 192 square feet in area, and is an earth-covered, reinforced-concrete, box-type magazine structure on a concrete slab foundation. The front of the structure is constructed of a reinforced-concrete retaining wall fitted with a security/blast door. The building features a ventilation stack through the roof and two ventilation grates on either side of the blast door. A reinforced-concrete retaining wall access hallway with green, corrugated plastic roof is located on the northern exterior of the building. An external telephone box and a security system are mounted on the external wall, south of the blast door. The building is not heated.

### Building 549 – High Explosive Magazine

Building 549 is located in the central portion of the Weapons Area (Figure 2), east of Ordnance Road 2, west of a wooded area, north of Building 548, and south of Building 291.

Building 549 was constructed in 1959 and consists of a single room measuring 192 square feet in area, and is an earth-covered, reinforced-concrete, box-type magazine structure on a concrete slab foundation. The front of the structure is constructed of a reinforced-concrete retaining wall fitted with a security/blast door. The building features a ventilation stack through the roof and two ventilation grates on either side of the blast door. A reinforced-concrete retaining wall access hallway with green, corrugated plastic roof is located on the northern exterior of the building. An external telephone box and a security system are mounted on the external wall, south of the blast door. The building is not heated.

### 3. PROPERTY HISTORY AND RECORDS RESEARCH

The Tetra Tech NUS, Inc. (Tetra Tech) project team interviewed NAS Brunswick Environmental Department personnel and performed records research at both NAS Brunswick and the MEDEP office in Augusta, Maine to collect available information concerning Buildings 548 and 549, including past use and operations at that location.

Records reviewed include historical aerial photographs, the NAS Brunswick Other Environmental Liabilities (OEL) Database, area-specific reports, facility plans and drawings, and hazardous waste records. Aerial photographs dated 1958, 1978, 1981, 1984, 1989, 1993 and 1997 (Sewall, 1958, 1978, 1981, 1984, 1989, 1993 and 1997) were reviewed along with Public Works Department (PWD) site base maps dated 1946, 1952, 1956, 1957, 1975, 1989, and 2006 (PWD, 1946, 1952, 1956, 1957, 1975, 1989, and 2006) to provide historical information.

The Weapons Area is not shown on historical site plans until 1956, when the plan identifies the Weapons Area as the New Ordnance Area and shows Buildings 285 through 291. The 1958 aerial photographs show Buildings 548 and 549 under construction at their current location, and Building 291 to the north. The next available aerial photograph, dated 1978, also shows Buildings 548 and 549 in their current locations and more recent photographs/plans show no changes at these sites.

According to MEDEP and NAS Brunswick spill records, no spills were reported in the vicinity of Buildings 548 or 549.

In the 1983 Initial Assessment Survey (IAS), the use of Buildings 548 and 549 is listed as “fuse and detonator magazine”. Also according to the 1983 IAS, the Department of Defense (DOD) Explosives Safety Board in Alexandria, Virginia had conducted annual surveys at NAS Brunswick for the previous 5 years. The purpose of the surveys was to inspect conditions with respect to maintenance, disposal, handling, transportation, and storage of ammunition and explosives. No contaminated areas or improper disposal practices were noted at the base during these surveys (Weston, 1983).

#### Building 548

According to NAS Brunswick Environmental Department personnel, since its construction, Building 548 has been used exclusively as a high-explosives magazine; there is no record of hazardous waste generation at Building 548. As discussed above, Building 548 is visible in aerial photographs beginning in 1958.

The NAS Brunswick Transformer Database lists no transformers associated with Building 548.

The NAS Brunswick Aboveground Storage Tank (AST) and Underground Storage Tank (UST) inventory records for Building 548 indicate no tanks have been associated with the building (Environmental Department, 2009).

According to Mr. Brion Hall, NAS Brunswick Explosive Safety Officer, Hazard Class 1.1 explosives were stored in Building 548. Hazard Class 1.1 explosives are those with a mass explosion hazard such as composition 4 (C4), a plastic explosive. Due to weapons security issues, no additional information is available on quantities and types of explosives stored.

#### Building 549

According to NAS Brunswick Environmental Department personnel, since its construction, Building 549 has been used exclusively as a high-explosives magazine; there is no record of hazardous waste generation at Building 549. As discussed above, Building 549 is visible in aerial photographs beginning in 1958.

The NAS Brunswick Transformer Database lists no transformers associated with Building 549.

The NAS Brunswick AST and UST inventory records for Building 549 indicate no tanks have been associated with the building (Environmental Department, 2009).

According to Mr. Brion Hall, NAS Brunswick Explosive Safety Officer, Hazard Class 1.1 explosives were stored in Building 59. Hazard Class 1.1 explosives are those with a mass explosion hazard such as C4. Due to weapons security issues, no additional information is available on quantities and types of explosives stored.

#### **4. SITE VISIT AND INVESTIGATION**

A site visit was conducted for Buildings 548 and 549 on September 16, 2010 by Mr. Brandon Smith, P.E., and Mr. Mark Spear, P.E. of Tetra Tech. The purpose of the visit was to verify information gathered during the records search and to collect additional information as necessary to prepare this closure report. Tetra Tech personnel were accompanied by Mr. D. Bruce Smith, the NAS Brunswick Hazardous Waste Manager. The buildings were visually inspected for signs of hazardous waste generation or storage. Site visit observations, recorded on the attached Building Inspection Form<sup>(1)</sup>, are summarized below:

##### **Building 548**

- At the time of inspection, Building 548 was vacant and in fair condition.
- No evidence of current or past hazardous waste generation activities was observed.
- No signs of a past release (staining, unusual odors, stressed vegetation, etc.) were observed.
- No modifications to the structure, which may conceal signs of a past release, were observed.
- No peeling or flaking paint was observed on the exterior or interior of the steel door of the building.

##### **Building 549**

- At the time of inspection, Building 549 was vacant and in fair condition.
- No evidence of current or past hazardous waste generation activities was observed.
- No signs of a past release (staining, unusual odors, stressed vegetation, etc.) were observed.
- No modifications to the structure, which may conceal signs of a past release, were observed.
- No peeling or flaking paint was observed on the exterior or interior of the steel door of the building.

Based on the records research findings and site visit observations, it was determined that neither further inspection nor sampling of Buildings 548 or 549 are required to complete the MEDEP hazardous waste closure requirements.

#### **5. HAZARDOUS WASTE GENERATION AND STORAGE**

Based on the records research, site visit observations, and NAS Brunswick Environmental Department personnel interviews, with the exception of universal waste, no hazardous waste generation, hazardous waste accumulation, or hazardous waste storage was conducted at Buildings 548 or 549.

## 6. OTHER ENVIRONMENTAL CONSIDERATIONS

As discussed in Section 3, no transformers, USTs, or ASTs are known to be associated with Buildings 548 or 549. No other tanks were observed in the immediate vicinity of these two buildings.

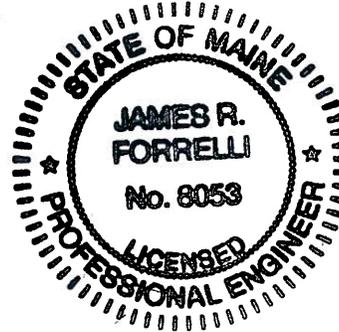
## 7. LIMITATIONS

This investigation of the hazardous waste closure requirement applies to the footprints of Buildings 548 and 549 (as shown on Figure 2), only. It does not apply to the land surrounding or the groundwater underlying Buildings 548 or 549.

## 8. CERTIFICATION

Based on the findings of this investigation, there have been no activities resulting in the generation, accumulation or storage of hazardous waste at Buildings 548 and 549, NAS Brunswick, Maine. Therefore, the hazardous waste closure of Buildings 548 and 549 was completed in accordance with the provisions of MEDEP Regulations Chapter 851, Standards for Generators of Hazardous Waste, Section 11.

*James R. Forrelli*  
 James Forrelli, P.E.  
 Senior Project Engineer  
 Tetra Tech NUS, Inc.



<sup>(1)</sup> The Building Inspection Form provides preliminary information collected during the building inspection, including information from visual observations, Navy personnel interviews, and from documents reviewed during file reviews. It does not reflect any additional information provided at a later date that further clarifies or corrects preliminary information collected during the building inspection and file reviews.

## REFERENCES

Environmental Department, 2009. Master/Historical Aboveground and Underground Storage Tank Inventory. NAS Brunswick, Maine. February.

Mid-Coast Regional Redevelopment Authority, 2006. BNAS Reuse Master Plan Property Condition Assessment.

PWD (Public Works Department), 1943. "Building Site Plan Showing Location of Underground Water Distribution Lines and Hydrants," US NAS Brunswick, Maine. September 4.

PWD, 1946. "Map of US Naval Air Station, Brunswick, Maine, Showing conditions on June 30, 1946," NAS Brunswick, Maine. June 30.

PWD, 1952. "Map of US Naval Air Station, Brunswick, Maine, Showing conditions on June 30, 1952," NAS Brunswick, Maine. June 30.

PWD, 1956. General Station Map, Enclosure 2. , NAS Brunswick, Maine.

PWD, 1957. "Map of US Naval Air Station, NAS Brunswick, Maine.

PWD, 1975. General Development, Existing and Planned, Operations Area, US Naval Air Station, Brunswick, Maine.

PWD, 1989. "Existing Conditions Map. Public Works Department Drawing No. 2157" NAS Brunswick, Maine. Revised April 2.

PWD, 2006. Brunswick Naval Air Station, NAS Brunswick, Maine.

PWD. 2010. Transformer Database. NAS Brunswick, Maine.

Sewall (James W. Sewall Company), 1958. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. October 9.

Sewall, 1978. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. November 22.

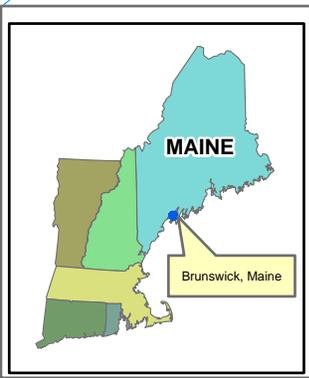
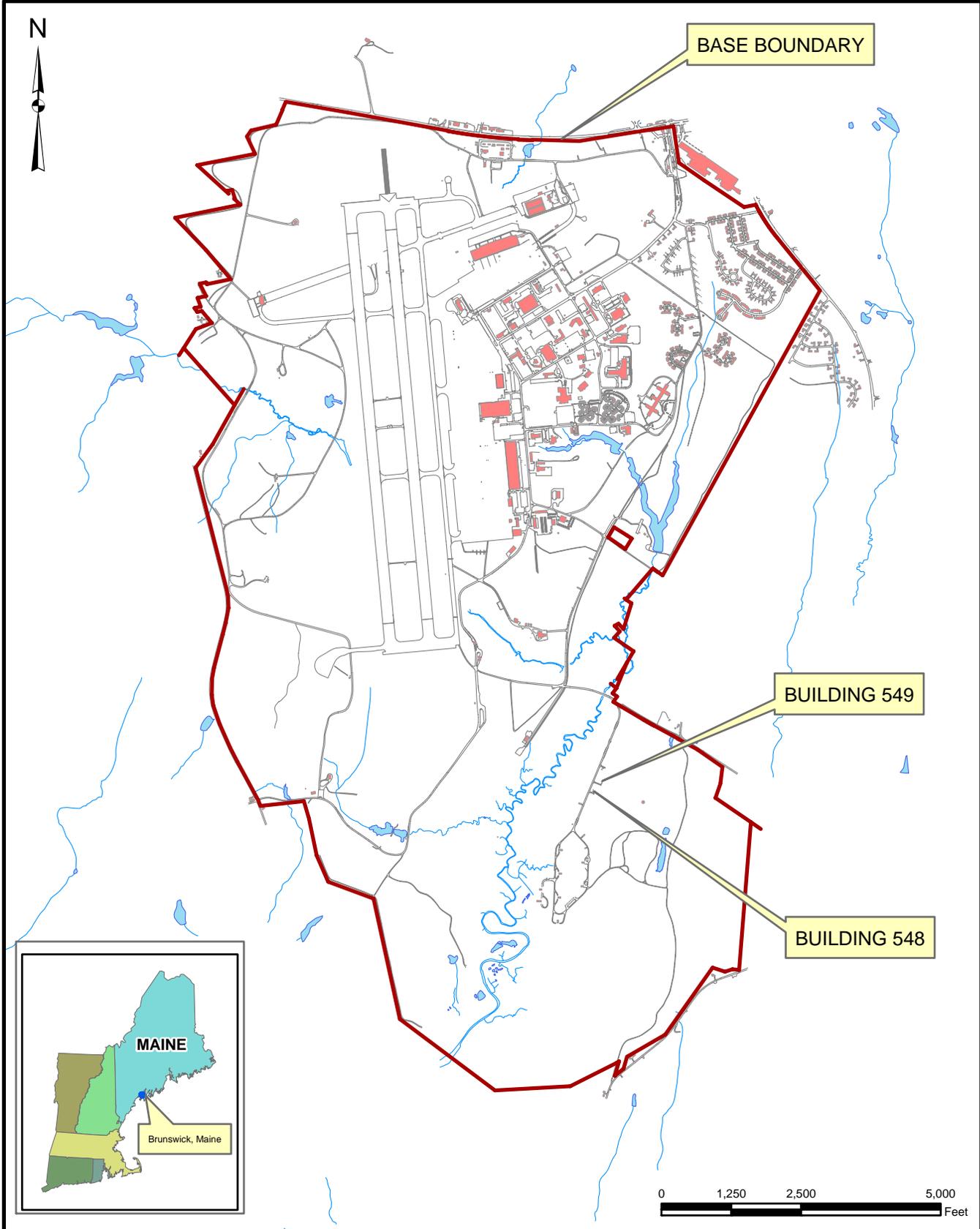
Sewall, 1984. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. April 23.

Sewall, 1989. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. April 2.

Sewall, 1993. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. November 8.

Sewall, 1997. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME.

Weston (Roy F. Weston, Inc.), 1983. Initial Assessment Survey. Naval Air Station, Brunswick, Maine. June.



Tetra Tech NUS, Inc.

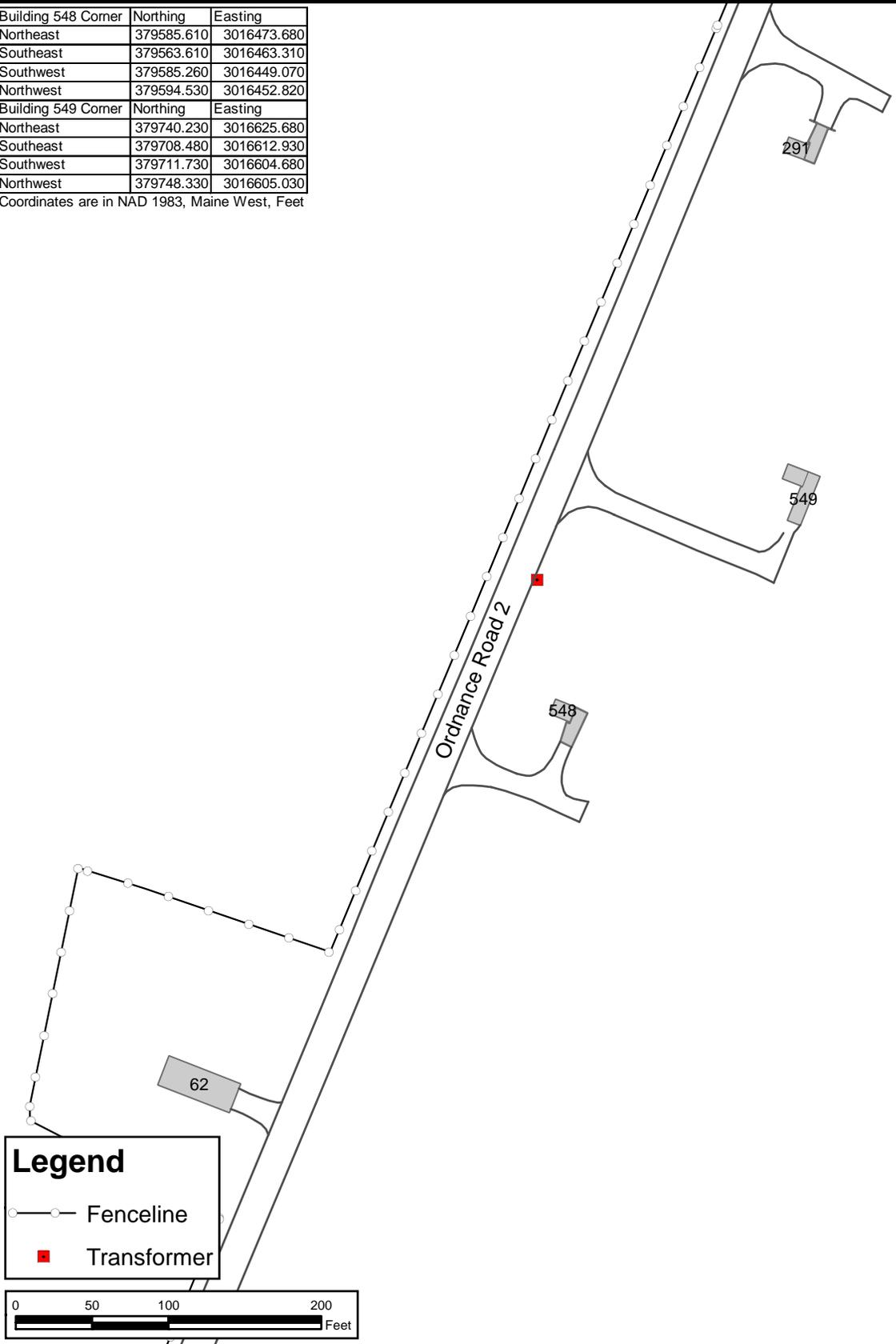
**SITE LOCATION MAP**  
**BUILDINGS 548 AND 549 - WEAPONS BUILDINGS**  
**RCRA PARTIAL CLOSURE REPORT**  
**NAVAL AIR STATION BRUNSWICK, MAINE**

SCALE AS NOTED	
FILE I:\_NASB_BLDG_548&549_LOCUS.MXD	
REV 0	DATE 10/01/10
FIGURE NUMBER 1	

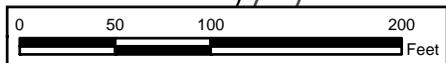
I:\02258\CP\DRNASB\_BLDG\_548&549\_SITE\_MAP.MXD DWM 10/01/10

Building 548 Corner		
Corner	Northing	Easting
Northeast	379585.610	3016473.680
Southeast	379563.610	3016463.310
Southwest	379585.260	3016449.070
Northwest	379594.530	3016452.820
Building 549 Corner		
Corner	Northing	Easting
Northeast	379740.230	3016625.680
Southeast	379708.480	3016612.930
Southwest	379711.730	3016604.680
Northwest	379748.330	3016605.030

Coordinates are in NAD 1983, Maine West, Feet



Legend	
	Fenceline
	Transformer



Tetra Tech NUS, Inc.

**SITE PLAN**  
**BUILDINGS 548 AND 549 - WEAPONS BUILDINGS**  
**RCRA PARTIAL CLOSURE REPORT**  
**NAVAL AIR STATION BRUNSWICK, MAINE**

SCALE AS NOTED	
FILE \\NASB_BLDG_548&549_SITE_MAP.MXD	
REV 0	DATE 10/01/10
FIGURE NUMBER 2	

**BUILDING INSPECTION FORM  
RCRA PARTIAL CLOSURE PROGRAM  
NAS BRUNSWICK  
BRUNSWICK, MAINE  
CTO WE22**

**Inspection Date:** 9/16/2010  
**Personnel:** Brandon Smith, P.E. / Mark Spear, P.E.  
**Weather:** Clear, 70s

**GENERAL BUILDING INFORMATION / USES**

Building Name: High Explosive Magazine  
 Function: High explosives magazine  
 Size: 192 SF  
 Year of Construction: 1959

Building 548 is located in the southern portion of NASB in the weapons area; east of Ordnance Road 2, west of wooded area, north of Building 62 and south of Building 549. It was constructed in 1959 and served as a weapons magazine for its entire history. Building 548 consists of a 192 square foot single-room reinforced concrete building on a concrete slab foundation and is covered with earth. A reinforced concrete retaining wall access hallway is located on the northern exterior of the building. An external telephone box and security system are mounted on the exterior wall to the south of the doorway.

Building 548 was used to store ammunition for NASB. The building interior consists of a single room with approximate dimensions of 10 feet by 14 feet. The building features a ventilation stack through the roof and two ventilation grates on either side of the blast door. The access hallway is covered with a green corrugated plastic roof.

No hazardous waste was generated during the operations in Building 548, according to NASB personnel.

Building 548 is not heated.

**BUILDING INSPECTION / CONDITION**

No record of hazardous waste stored at Building 548.

At the time of the site visit, the building appeared in poor condition. The building was empty. No evidence of current or past hazardous waste generation activities was observed. No evidence of hazardous waste residues was observed. No evidence of staining or additions, which may conceal signs of a past release, were observed. No hazardous waste storage areas or hazardous waste accumulation areas were observed.

**HAZARDOUS WASTE STORED / GENERATED**

No hazardous waste was stored or generated at Building 548, according to NASB personnel.

**POTENTIAL PCB-CONTAINING TRANSFORMERS**

No transformers are associated with Building 548 according to the transformer database.

**APPLICABLE REPORTS / DOCUMENTS**

Available historical plans and aerial photos were reviewed for past property uses:  
1943 plan - Area not shown.  
1946 plan - Area not shown.  
1952 plan - Same as 1946 plan.  
1956 plan - New Ordnance Area show with Buildings 285-291 shown in current location (Labeled HE).  
1957 plan - Buildings 291, 548, and 549 are shown in the Weapons Area at their current locations.  
1958 aerial - Building 291 is shown in its current location. Buildings 548 and 549 are under construction.  
1975 plan - Area not shown.  
1978 plan - Same as 1957 plan.  
1978 aerial - Buildings 291, 548, and 549 are shown in their current locations with mowed areas around them.  
1981 aerial - Same as 1978 aerial.  
1983 plan - Area not shown.  
1984 aerial - Same as 1981 aerial.  
1989 plan - Building 548 shown in it's current location in the Weapons area  
1989 aerial - same as 1984 aerial  
1993 aerial - same as 1989 aerial  
1997 aerial - Same as 1993 aerial.  
2006 plan - Building 548 shown in it's current location in the Weapons area

No OWS were present at Building 548 according to NASB records.

No USTs or ASTs were present at Building 548 according to NASB records.

**HAZARDOUS WASTE STORAGE RECORDS**

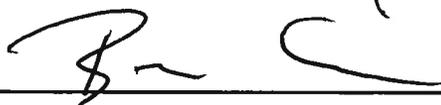
No hazardous waste was historically stored at Building 548, according to NAS Brunswick Hazardous Waste Manager, D. Bruce Smith.

**MISCELLANEOUS NOTES**

Tetra Tech personnel were accompanied on the inspection by D. Bruce Smith, NAS Brunswick Hazardous Waste Manager.

(SEE ATTACHED PHOTOGRAPHS)

INSPECTOR SIGNATURE: \_\_\_\_\_



Brandon Smith, P.E.

**BUILDING INSPECTION FORM  
RCRA PARTIAL CLOSURE PROGRAM  
NAS BRUNSWICK  
BRUNSWICK, MAINE  
CTO WE22**

**Inspection Date:** 9/16/2010  
**Personnel:** Brandon Smith, P.E. / Mark Spear, P.E.  
**Weather:** Clear, 70s

**GENERAL BUILDING INFORMATION / USES**

Building Name: High Explosive Magazine  
 Function: High explosives magazine  
 Size: 192 SF  
 Year of Construction: 1959

Building 549 is located in the southern portion of NASB in the weapons area; east of Ordnance Road 2, west of wooded area, north of Building 548 and south of Building 291. It was constructed in 1959 and served as a weapons magazine for it's entire history. Building 549 consists of a 192 square foot single-room reinforced concrete building on a concrete slab foundation and is covered with earth. A reinforced concrete retaining wall access hallway is located on the northern exterior of the building. An external telephone box and security system are mounted on the exterior wall to the south of the doorway.

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No hazardous waste was generated during the operations in Building 549, according to NASB personnel.

Building 549 is not heated.

**BUILDING INSPECTION / CONDITION**

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At the time of the site visit, the building appeared in poor condition. The building was empty. No evidence of current or past hazardous waste generation activities was observed. No evidence of hazardous waste residues was observed. No evidence of staining or additions, which may conceal signs of a past release, were observed. No hazardous waste storage areas or hazardous waste accumulation areas were observed.

**HAZARDOUS WASTE STORED / GENERATED**

No hazardous waste was stored or generated at Building 549, according to NASB personnel.

**POTENTIAL PCB-CONTAINING TRANSFORMERS**

No transformers are associated with Building 549 according to the transformer database.

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2006 plan - Building 549 shown in it's current location in the Weapons area

No OWS were present at Building 549 according to NASB records.

No USTs or ASTs were present at Building 549 according to NASB records.

**HAZARDOUS WASTE STORAGE RECORDS**

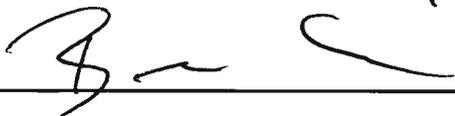
No hazardous waste was historically stored at Building 549, according to NAS Brunswick Hazardous Waste Manager, D. Bruce Smith.

**MISCELLANEOUS NOTES**

Tetra Tech personnel were accompanied on the inspection by D. Bruce Smith, NAS Brunswick Hazardous Waste Manager.

(SEE ATTACHED PHOTOGRAPHS)

INSPECTOR SIGNATURE: \_\_\_\_\_



Brandon Smith, P.E.

**PHOTOGRAPHS**



No. 1 Buildings 548 and 549 – NAS Brunswick September 16, 2010  
Building 548 – High Explosive Magazine south elevation



No. 2 Buildings 548 and 549 – NAS Brunswick September 16, 2010  
Building 548 – High Explosive Magazine entrance passageway



No. 3 Buildings 548 and 549 – NAS Brunswick September 16, 2010  
Building 548 – High Explosive Magazine interior



No. 4 Buildings 548 and 549 – NAS Brunswick September 16, 2010  
Building 549 – High Explosive Magazine southwest elevation



No. 5 Buildings 548 and 549 – NAS Brunswick September 16, 2010  
Building 549 – High Explosive Magazine entrance passageway



No. 6 Buildings 548 and 549 – NAS Brunswick September 16, 2010  
Building 549 – High Explosive Magazine interior