

N60087.AR.002244
NAS BRUNSWICK
5090.3a

FINAL RESOURCE CONSERVATION AND RECOVERY ACT PARTIAL CLOSURE REPORT
FOR BUILDING 537 WITH TRANSMITTAL LETTER NAS BRUNSWICK ME
9/8/2010
NAS BRUNSWICK

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

September 8, 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 Building 537

Dear Mr. Vigneault:

A copy of the Final RCRA Partial Closure Report for Building 537 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.

Sincerely,



For LISA M. JOY
Environmental Director

Enclosure: (1) Final RCRA Partial Closure Report for Building 537

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

RCRA PARTIAL CLOSURE REPORT
for
BUILDING 537 – SEWAGE PUMP HOUSE PARCEL
BUILDING 537 – SEWAGE PUMP HOUSE
BUILDING 537A – GENERATOR ROOM
NAVAL AIR STATION BRUNSWICK, MAINE
USEPA IDENTIFICATION NUMBER ME8170022018
SEPTEMBER 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 the Building 537 parcel at Naval Air Station Brunswick (NAS Brunswick).

2. PROPERTY DESCRIPTION

The Building 537 parcel is located in the central portion of NAS Brunswick (Figure 1). The approximate 1.5-acre parcel is bordered to the north by Neptune Drive and the Buildings 730 through 749 parcel (Orion Landing barracks), to the east by the Building 516 parcel (former Niteflite enlisted men's club), to the south by the Lower Impoundment Pond, and to the west by the Building 226 parcel and the Building 201 parcel. A dam is located at the western edge of the Lower Impoundment Pond, and to the southwest is the Upper Impoundment Pond. The Northern Tributary discharges to the Lower Impoundment Pond downstream of the dam.

The Sewage Pump House (Building 537)/Generator Room (Building 537A) structure, which is situated in the southwest corner of the parcel, was constructed in 1958 and has a 597-square-foot footprint-area. The western section of the building contains the pump station inlet screen and wet well and is accessed from ground level by a stairwell. The eastern section contains a dry well with three electric-motor, centrifugal pumps each with individual suction-pipe connection to the wet well. The force main exits the structure on the north side. The drywell pump room is accessed from the ground level by a stairwell. The emergency electrical power generator, driven by a diesel engine, is located at ground level in the eastern portion. Diesel fuel for the generator is provided by an aboveground storage tank (AST) located on the northeast side of the building. This facility is part of the NAS Brunswick sanitary waste water collection system which discharges to the Brunswick Sewer District. 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 the Building 537 parcel, including past use and operations at that location.

According to NAS Brunswick Environmental Department personnel, since its construction in 1958, Building 537 has been used exclusively as a sewage pump house; there is no record of hazardous waste generation at Building 537.

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, 2004, and 2006 (PWD, 1946, 1952, 1956, 1957, 1975, 1989, 2004, and 2006) to provide historical information.

In aerial photographs dated before 1958 and on historical site plans though 1952, a wooded area is visible where the Building 537 parcel is currently located. Beginning with the historic map dated 1957 (field-edited in 1958) and the aerial photograph dated 1958, Building 537 is shown in its current location. Buildings that are currently adjacent to the west of the Building 537 parcel (Buildings 221 and 226) were the previous location of a large building, the former NAS Brunswick theatre (Building 293), based on aerial photographs dated between 1978 and 1993 and historical plans dated between 1962 and 1978. The 2006 plan shows Buildings 537, 221, and 226 in their current locations.

The NAS Brunswick Transformer Database lists five electrical transformers associated with former Building 293 (former NAS theatre) and no transformers associated with Building 537. Below is a summary of the electrical transformers associated with former Building 293, as listed in the transformer database:

Transformer	Manufacturer	Serial No.	Removal Date	PCB Concentration (parts per million)
25-kVa PCB-containing	Unknown	2643-2-1	10-01-90	85
25-kVa PCB-containing	Unknown	2643-2-5	10-01-90	120
25-kVa PCB-containing	Unknown	2643-2-14	10-01-90	130
25-kVa PCB-containing	Unknown	2643-2-30	10-01-90	70
75-kVa non-PCB-containing, pad-mounted	Cooper	916002735 ⁽¹⁾	NA	<1

⁽¹⁾ The first two digits of the serial numbers denote the year of manufacture (EES, 1998)

One pad-mounted transformer is currently located north of Building 537 and east of Building 221 on the Building 537 parcel (Figure 2). This existing non-PCB-containing electrical transformer is listed in the database as being associated with Building 293 (former NAS Theatre). The first two digits of the serial number for the existing Cooper transformer indicate that it was likely manufactured in 1991, and is therefore unlikely to contain PCBs (as of July 1, 1979, the United States Environmental Protection Agency [EPA] prohibited all manufacturing of new PCB electrical equipment [transformers and capacitors]). The database indicates that PCB-containing transformers were located in the past at the current transformer pad.

According to NAS Brunswick records, one underground storage tank (UST) and one AST are associated with the Building 537 parcel (PWD, 2010 and Environmental Department, 2009). A 500-gallon diesel UST (registration #10045-437) was installed in 1957 and removed in October 1990. The AST is a FEDCO, double-walled steel, 500-gallon diesel tank associated with the generator and is listed as active. There are no additional USTs, ASTs, or oil-water separators (OWS) registered to Building 537.

Investigations have been conducted in the vicinity of the Building 537 parcel, at Site 9 (Neptune Drive Disposal Site) and at Building 201 (Galley/Neptune Hall), located to the northwest and west of the Building 537 parcel, respectively (Figure 2). Two test pits were excavated in 1988 to assess whether landfill materials or other evidence of dumping could be located adjacent to Building 293 (former NAS theatre). No evidence of landfill materials or other dumping was observed in the test pits, although a small quantity of refuse was reportedly identified in 1988 in the embankment south of Building 293 (EC Jordan, 1990).

Based upon available information, one monitoring well (MW-09-073, formerly MW-905) exists near the southwestern corner of Building 537 (H&S, 2010). Several monitoring wells, including MW-09-073, were monitored for water levels on a periodic basis through 2009, as part of the Long-Term Monitoring Plan (LTMP) for Site 9; however, groundwater samples were not collected from this well as part of the LTMP (H&S, 2010). From the southern portion of Site 9, the groundwater flow direction has been measured to be toward the south-southeast. From the

Building 537 parcel, groundwater flow turns southwest, toward the unnamed tributary to the Upper Impoundment Pond (ECC, 2009).

The Building 537 parcel is located within the likely shot-fall-area of the former NAS Brunswick Skeet Range, located south of the parcel (south of the Lower Impoundment Pond). The range is currently being investigated under the Military Munitions Response Program (MMRP). This investigation includes analysis of soil samples collected from the Building 537 parcel. The Skeet Range investigation results have not been published as of the date of this closure report. Any adverse impacts to the parcel resulting from past Skeet Range activities will be addressed by the MMRP.

4. SITE VISIT AND INVESTIGATION

A site visit was conducted on June 3, 2010 by Mr. James Forrelli, P.E., Mindi Messmer, and Chelsea Fellows 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 Building 537 parcel was visually inspected for signs of hazardous waste generation or storage. Site visit observations, recorded on the attached Building Inspection Form ⁽¹⁾, are summarized below:

- At the time of inspection, Building 537 was in operation and in fair condition. The interior consists of two sections. The generator room (Building 537A) is located at ground level in the eastern section. The sewage pump house (Building 537) consists of a pump room in the subsurface portion of the eastern section and the inlet screen and wet well located in the subsurface portion of western section.
- A diesel AST associated with the generator was observed at the northeast side of Building 537.
- No evidence of current or past hazardous waste generation was observed.
- No evidence of hazardous waste residues was observed.
- No signs of a past release (staining, unusual odors, stressed vegetation, etc.) were observed and no structural modifications, which could conceal signs of a past release, were observed.
- No hazardous waste storage areas or hazardous waste accumulation areas were observed.
- One transformer that could be a potential source of PCB contamination was observed in the northern portion of the parcel adjacent to Building 221. No evidence of a past leak from this transformer was observed.

Because Building 537 and Building 293 were constructed prior to 1979, the transformer pad located north of Building 537 and east of Building 221 could potentially be an area of PCB soil contamination, if there had been an historical transformer leak. A review of historical aerial photographs did not identify a potential former location of the PCB-containing transformers listed in the database that differed from the current location of the existing transformer pad.

On June 17, 2010, Tetra Tech collected surface soil samples from four locations surrounding the transformer pad, using a hand auger. A total of eight composite soil samples (plus one field duplicate) were collected for PCB analysis; the soil samples were collected from 0 to 6 inches and 6 to 24 inches below ground surface (bgs), adjacent to each of the four sides of the existing transformer pad (Figure 2). All samples were submitted for PCB analysis by Tetra Tech's subcontractor analytical laboratory (Analytix Environmental Laboratory, Portsmouth, New Hampshire). The resulting analytical data underwent limited data validation, consisting of field duplicate evaluation, blank contamination evaluation, and completeness evaluation. As indicated by Table 1 PCB was not detected in any of the soil samples.

Based on available information regarding the historical activities that occurred at the parcel, and the location of known NAS Brunswick groundwater contamination areas, there is no evidence that would suggest that groundwater underlying the Building 537 parcel has been adversely impacted by a release, either from within the parcel or from another (off-parcel) source area.

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 the Building 537 parcel.

6. OTHER ENVIRONMENTAL CONSIDERATIONS

The only transformers, USTs, and ASTs known to be associated with the Building 537 parcel are discussed in Sections 3 and 4. No other tanks were observed in the immediate vicinity of Building 537.

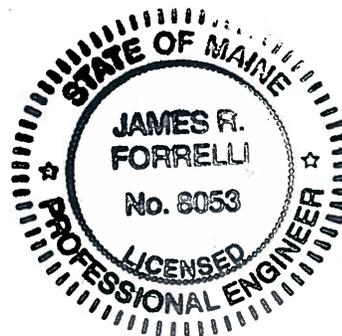
7. LIMITATIONS

This investigation of the hazardous waste closure requirement applies to the Building 537 parcel (as shown on Figure 2) only.

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 the Building 537 parcel, NAS Brunswick, Maine. Therefore, the hazardous waste closure of the Building 537 parcel 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.



⁽¹⁾ 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

EA, 1999. Record of Decision for Site 9, NAS Brunswick, Maine. September.

ECC, 2009. Final Summary Report, Site 9 Ash Delineation and Investigations at Building 201 AOC and Irrigated Playing Field, Naval Air Station, Brunswick, Maine. March.

EC Jordan, 1990. Draft Final RI Report, Naval Air Station, Brunswick, Maine. August.

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

H&S, 2010. Final Site Monitoring Event 35 Report, Neptune Drive Disposal Site, Naval Air Station, Brunswick, Maine. September.

Interim Record of Decision, 1994. Interim Record of Decision (ROD) for the Groundwater Operable Unit at Site 9, Naval Air Station Brunswick, Brunswick, Maine. September.

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

Naval Air Station (NAS) Brunswick, 2008. Naval Air Station Brunswick Instruction 5090.1C From: Commanding Officer, Subj: Restriction on Soil Excavation, Groundwater Use, and Remedial Component Disturbance. March 5.

Naval Energy and Environmental Support Activity (NEESA). 1983. Initial Assessment Study of Naval Air Station, Brunswick, Maine (NEESA 13-031). June.

Public Works Department (PWD),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, 2004. 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.

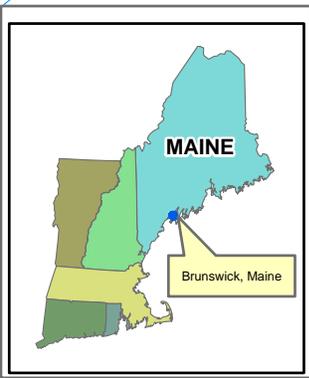
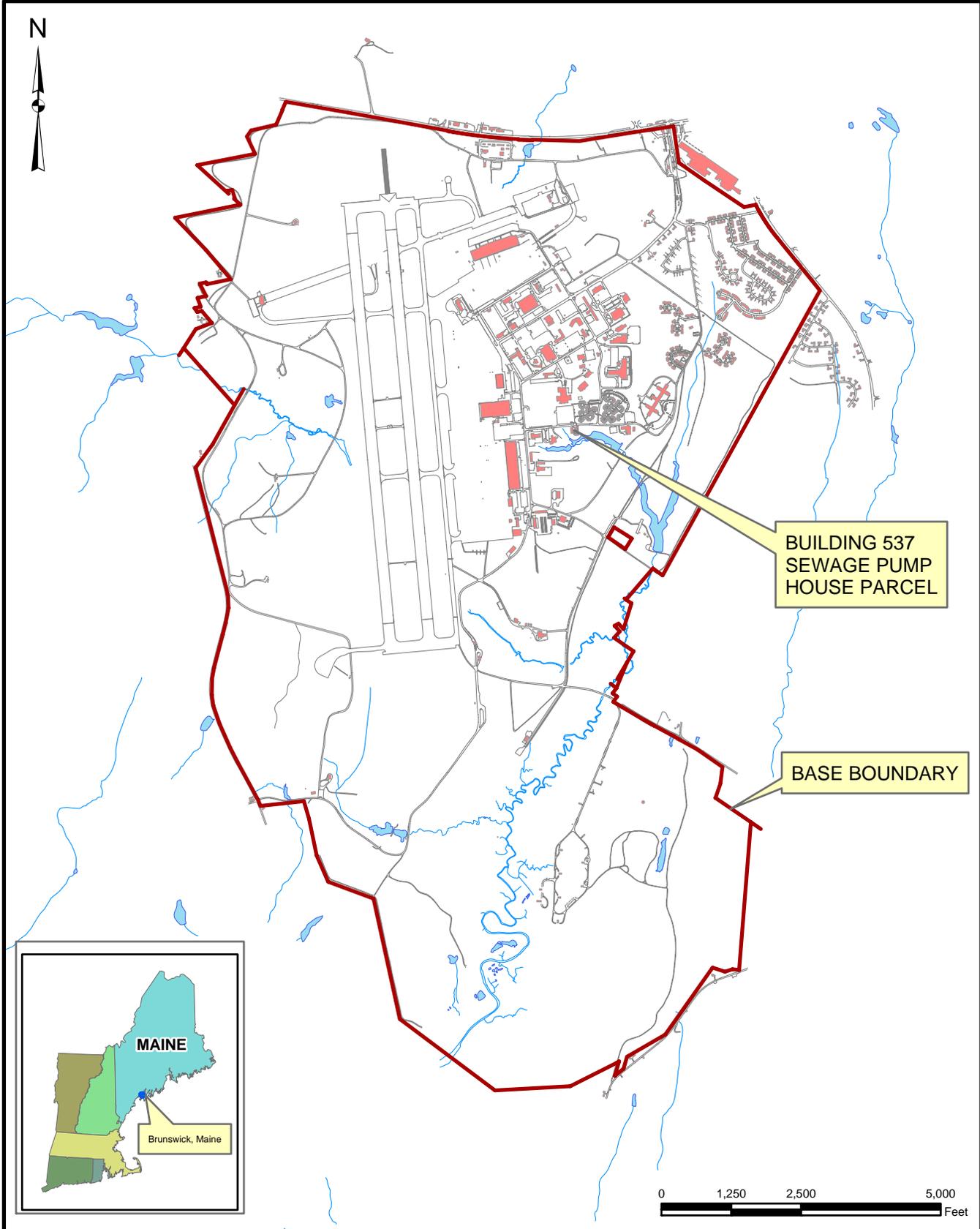
Sewall, 1989. NAS Brunswick Aerial Photographs. James W. Sewall Company, Old Town, ME. April 2.

TABLE 1
SOIL SAMPLE PCB RESULTS
RCRA PARTIAL CLOSURE REPORT
BUILDING 537 – SEWAGE PUMP HOUSE PARCEL
NAVAL AIR STATION BRUNSWICK, MAINE

SAMPLE ID ⁽¹⁾	EPA RSLs ⁽²⁾ (µg/kg)	B537-SB01-0006	B537-SB01-0006 (duplicate)	B537-SB01-0624	B537-SB02-0006	B537-SB02-0624	B537-SB03-0006	B537-SB03-0624	B537-SB04-0006	B537-SB04-0624
LOCATION		trans-former pad	trans-former pad	trans-former pad	trans-former pad	trans-former pad	trans-former pad	trans-former pad	trans-former pad	trans-former pad
MATRIX		soil	soil	soil	soil	soil	soil	soil	soil	soil
DEPTH (inches bgs)		0–6	0–6	6–24	0–6	6–24	0–6	6–24	0–6	6–24
SAMPLE DATE		06/17/10	06/17/10	06/17/10	06/17/10	06/17/10	06/17/10	06/17/10	06/17/10	06/17/10
PCB (µg/kg)										
Aroclor-1016	3,900	40 U	36 U	36 U	40 U	33 U	40 U	36 U	40 U	36 U
Aroclor-1221	140	40 U	36 U	36 U	40 U	33 U	40 U	36 U	40 U	36 U
Aroclor-1232	140	40 U	36 U	36 U	40 U	33 U	40 U	36 U	40 U	36 U
Aroclor -1242	220	40 U	36 U	36 U	40 U	33 U	40 U	36 U	40 U	36 U
Aroclor-1248	220	40 U	36 U	36 U	40 U	33 U	40 U	36 U	40 U	36 U
Aroclor-1254	220	40 U	36 U	36 U	40 U	33 U	40 U	36 U	40 U	36 U
Aroclor-1260	220	40 U	36 U	36 U	40 U	33 U	40 U	36 U	40 U	36 U
Total PCB ⁽³⁾	1,000	40 U	36 U	36 U	40 U	33 U	40 U	36 U	40 U	36 U

Notes:

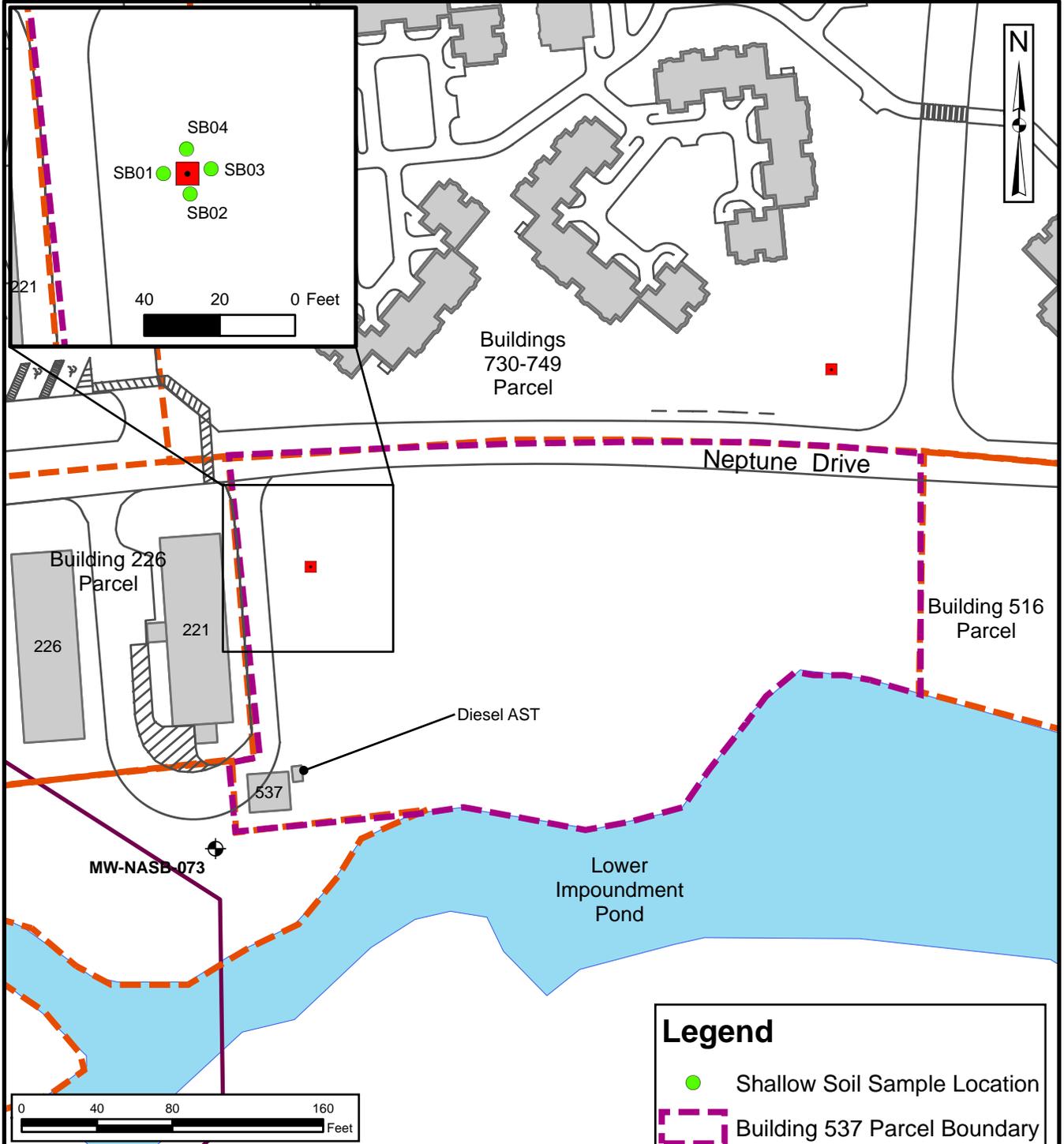
- (1) Sample prefix "NASB" is not shown.
(2) EPA Regional Screening Levels [RSLs] for residential soil, provided for informational purposes.
(3) MEDEP action limit for PCB spill (1 mg/kg)
bgs below ground surface
PCB polychlorinated biphenyl
µg/kg micrograms per kilogram
U not detected (with associated detection limit)



Tetra Tech NUS, Inc.

SITE LOCATION MAP
 BUILDING 537 - SEWAGE PUMP HOUSE PARCEL
 RCRA PARTIAL CLOSURE REPORT
 NAVAL AIR STATION BRUNSWICK, MAINE

SCALE AS NOTED	
FILE I:\NWSB_BLDG_537_LOCUS.MXD	
REV 0	DATE 07/29/10
FIGURE NUMBER 1	



Building Corner	Northing	Easting
Northeast	385950.270	3016196.830
Southeast	385930.270	3016198.200
Southwest	385928.640	3016176.450
Northwest	385648.770	3016175.080

Coordinates are in NAD 1983, Maine West, Feet

Legend

- Shallow Soil Sample Location
- Building 537 Parcel Boundary
- Parcel Boundary
- Site 9 Boundary
- + Monitoring Well Location
- Transformer

 Tetra Tech NUS, Inc.	SITE PLAN BUILDING 537 - SEWAGE PUMP HOUSE RCRA PARTIAL CLOSURE REPORT NAVAL AIR STATION BRUNSWICK, MAINE	SCALE AS NOTED
		FILE \\NASB_BLDG_537_SITE_MAP.MXD
		REV DATE 0 09/02/10
		FIGURE NUMBER 2

BUILDING 537 & 537A

HWSA INSPECTION FORM
HAZARDOUS WASTE STORAGE AREAS CLOSURE
NAS BRUNSWICK
BRUNSWICK, MAINE
CTO WE22

Inspection Date: 6/03/10

Personnel: Chelsea Fellows / James Forrelli, P.E. / Mindi Messmer

Weather: Cloudy, Showers, 60s

GENERAL BUILDING INFORMATION / USES

Building Name: Building 537 – Sewage Pump House and Building 537A – Generator Room

Function: Sewage Pump House

Size: 597 SF

Year of Construction: 1958

Building 537 is located at NASB Brunswick on Neptune Drive adjacent to the southeast of Buildings 226 (Sea Cadets) and 221 (Thrift Shop). It was constructed in 1958 and served as the sewage pump house for its entire history.

Building 537 consists of a 597 SF two-room (Buildings 537 and 537A), single level building on a sub-grade foundation with a basement.

Building 537 is not heated.

HWSA INSPECTION / CONDITION

No record of hazardous waste stored at Building 537.

At the time of inspection, Building 537 was still in use. The interior consisted of 2 main rooms; one contains the generator (Building 537) and one the sewer lift (Building 537A). The turbine pumps are located in the basement.

No evidence of current or past hazardous waste generation activities was observed.

No evidence of hazardous waste residues 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.

POTENTIAL PCB-CONTAINING TRANSFORMERS

The NAS Brunswick Transformer Database lists five electrical transformers associated with former Building 293 and no transformers associated with Building 537. One non-PCB containing pad-mounted transformer is located north of Building 537 and east of Building 221 on the Building 537 parcel. The following is a detailed listing of the electrical transformers associated with former Building 293:

Transformer	Manufacturer	Serial No.	Removal Date	PCB Concentration (parts per million)
25-kVa PCB-containing	Unknown	2643-2-1	10-01-90	85
25-kVa PCB-containing	Unknown	2643-2-5	10-01-90	120
25-kVa PCB-containing	Unknown	2643-2-14	10-01-90	130
25-kVa PCB-containing	Unknown	2643-2-30	10-01-90	70
75-kVa non-PCB-containing	Cooper	916002735 ⁽¹⁾	NA	<1

BUILDING 537 & 537A

APPLICABLE REPORTS / DOCUMENTS

Available historical aerial photos were reviewed for past uses:

1943 plan – Vacant.

1946 plan – Vacant.

1952 plan – Vacant.

1957 plan (from 1957 aerial photograph, field edited in 1958) – Building 537 is present, Building 293 is located to the west.

1958 aerial – Building 537 is present, Building 293 is located to the west.

1975 plan – Building 537 is present, Building 293 is located to the west. A parking lot and softball field are located across the street (Neptune Drive).

1978 plan – Building 537 is present, Building 293 is located to the west. A parking lot is located across the street (Neptune Drive).

1978 aerial – Building 537 is present, Building 293 is located to the west. A parking lot is located across the street (Neptune Drive).

1984 aerial – same as 1978 aerial.

1989 aerial – Building 537 is present, Building 293 is located to the west. Parking lot located across the street (Neptune Drive).

1993 aerial – same as 1989 aerial.

1997 aerial – same as 1989 aerial.

2006 plan – Building 537 is present with Buildings 221 and 226 located to the west.

According to the NASB underground storage tank (UST) database, one 500 gallon diesel UST (registration #10045-437) was installed in 1957 and removed October 1990. The AST database lists one FEDCO double walled steel diesel 550-gallon above ground storage tank (AST) associated with the generator. According to the database, the AST was installed in 1990 and is listed as active. There are no additional USTs, ASTs or oil-water separators (OWS) registered to Building 537.

HAZARDOUS WASTE STORAGE RECORDS

No hazardous waste was historically stored at Building 537 according to NAS Brunswick Hazardous Waste Manager, D. Bruce Smith.

MISCELLANEOUS NOTES

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

(SEE ATTACHED SITE SKETCH AND HWSA SKETCH)

(SEE ATTACHED PHOTOGRAPHS)

INSPECTOR SIGNATURE: Chelsea Fellows



PHOTOGRAPHS



No. 1 Building 537 Parcel – NAS Brunswick June 3, 2010
Sewage Pump House northwest elevation



No. 2 Building 537 Parcel – NAS Brunswick June 3, 2010
Sewage Pump House northeast elevation; diesel fuel AST in foreground



No. 2 Building 537 Parcel – NAS Brunswick June 3, 2010
Sewage Pump House western side (generator room)



No. 3 Building 537 Parcel – NAS Brunswick August 25, 2010
Sewage Pump House western side (inlet screen and wet well area)



No. 5 Building 537 Parcel – NAS Brunswick August 25, 2010
Sewage Pump House eastern side (pump room)



No. 6 Building 537 Parcel – NAS Brunswick June 3, 2010
Electrical transformer located north of Building 537 and east of Building 221