



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

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Office of Superfund
Robert Thomson, P.E.
Mail Code 3HW71

Direct Dial (215) 597-7858
FAX (215) 597-9890

Date: August 10, 1992

Ms. Jennifer Loftin
Yorktown Naval Weapons Station
Environmental Assurance Department
Building 31-B
Code: 17
Yorktown, Virginia 23691-5000

Re: Yorktown Naval Weapons Station, Va.
EPA Environmental Photographic Interpretation Center
Site Analysis Interim Report

Dear Ms. Loftin:

Enclosed please find a copy of the Interim Site Analysis for the Yorktown Naval Weapons Station, Va., which includes aerial photography for the facility and a narrative report. Tentatively, I have arranged for EPA's oversight contractor for the Yorktown Naval Weapons Station, B & V Waste Science and Technology Corporation (B & V), to participate in a site tour of the facility, from August 31 through September 2. I will be accompanying B & V on September 1 and 2 to view the sites identified in the Interim Site Analysis that I have not seen thus far.

If you have any questions or comments concerning the above, please feel free to contact me at the telephone number listed above,

Sincerely,

Robert Thomson, PE
Va./W.Va. Federal Facilities (3HW71)

cc: Brenda Norton, PE (LANTDIV, Norfolk)
Andy Rola (B & V, Phila.)

TS-PIC-92062
June 1992

Site Analysis
Yorktown Naval Weapons Station
Yorktown, Virginia

Interim Report

by
Barbara C. Guarino, Imagery Analyst
The Bionetics Corporation
Warrenton, Virginia 22186

Contract No. 68-03-3532

Project Officer
Terrence Slonecker
Environmental Photographic Interpretation Center
Environmental Monitoring Systems Laboratory
Warrenton, Virginia 22186, FTS 557-3110

ENVIRONMENTAL MONITORING SYSTEMS LABORATORY
OFFICE OF RESEARCH AND DEVELOPMENT
U.S. ENVIRONMENTAL PROTECTION AGENCY
LAS VEGAS, NEVADA 89193-3478

NOTICE

As an interim product, this document has not gone through the complete EPIC quality assurance cycle. Any errors that are discovered during preparation of the final report will be corrected therein.

ADDITIONAL LOCATIONS: Sites 22-55 consist of 34 locations, 21 of which were selected by EPA Region 3 and 13 which were photo identified as bearing photographic signatures typically associated with industrial and/or possible disposal activity.

22. Square Excavation #1 - A square excavation was filled between 1945 and 1951. Peak activity during the time period of the analysis was in 1945. (*Just inside the mouth of Felgates Creek*)

January 21, 1945 - A square excavation with dark-toned contents is located within a forested area. (FR 38624,38625)

March 22, 1951 - The square excavation has been filled, and vegetation has started growing over it. (FR 38608,38609)

October 20, 1959 - This area is now vegetated and will not be discussed further. (FR 38262,38263)

23. Rocket Plant Area - In 1945 a probable horizontal tank with a dark-toned stain and an access road or pathway with a linear ground scar were evident. This area was in existence throughout the years of analysis. After 1945 no further significant information was derived from the photography analyzed.

January 21, 1945 - Three buildings are in a clearing. A probable horizontal tank is south of the smallest building. A dark-toned stain surrounds the probable horizontal tank. A slight access road or pathway leads southwest from the main building down to Felgates Creek. A linear ground scar in the pathway indicates a possible pipeline into the creek. (FR 38624,38625)

March 22, 1951 - The probable horizontal tank, dark-toned stain and access road or pathway are no longer visible. The linear ground scar is slightly visible. There is no significant activity at this location throughout the remainder of the analysis. It will not be discussed further.

*Bldg 373/374 area
Rocket Plant on
Felgates just
south of site 22*

24. Storage Area #1 - This location was in active use as an open storage area throughout the entire period of analysis. An assortment of containers and objects were neatly stacked in rows. The number and type of containers and objects varied from year to year. Peak activity was in 1945 and consisted of numerous rows of neatly stacked dark-toned square and light-toned round containers and objects. Since no other significant activity was evident in association with this area, it will not be discussed further. *Shown as Storage Area off of Main Road on Map 2*

25. Square Excavation #2 - A square excavation was filled between 1945 and 1951. Peak activity during the time period of the analysis was in 1945.

January 21, 1945 - A square excavation with a medium-toned base is visible in a forested area. The excavation appears empty. (FR 38623,38624)

March 22, 1951 - The excavation has been filled, and the surface appears as a ground scar. (FR 38609,38610)

October 20, 1959 - This area is now vegetated and will not be further discussed. (FR 38262,38263)

26. Mine Filling Plant #2 - This ^{Bldg 561} building was under construction in 1945. (FR 38623) No significant information was derived from the photography analyzed.

27. Old Mark 8 Area - This area is densely forested with evergreens from January 21, 1945 through April 8, 1990. No significant information was derived from the photography analyzed.

28. Chambered Rectangular Excavation - A rectangular excavation was filled between 1945 and 1951. Peak activity during the time period of the analysis was in 1945.

January 21, 1945 - A rectangular excavation is darkened in its southwestern portion. The remainder of the excavation is sectioned into what appear to be variably shaped chambers. Three light-toned objects are visible within the excavation. (FR 38622,38623)

March 22, 1951 - The excavation has been filled, and the surface consists of a combination of vegetation and patches of disturbed ground. (FR 38609,38610)

October 20, 1959 - This area is now vegetated and will not be further discussed. (FR 38263,38264)

29. Excavation - An irregularly shaped excavation was filled between 1945 and 1951. Peak activity during the time period of the analysis was in 1945.

January 21, 1945 - An irregularly shaped excavation has been dug out in a forested area between two roads. Piles of light to medium-toned material are along an access road within the excavation. (FR 38622,38623)

March 22, 1951 - This area now appears lightly filled and vegetated with the exception of ground scars in the southern portion. (FR 38609,38610)

October 20, 1959 - This area is now vegetated and will not be further discussed. (FR 38263,38264)

30. Explosive Burning Facility - A large area along Felgates Creek was filled between 1951 and 1959. Activity was evident at this location throughout the entire period of analysis. Peak activity was during the 1960's.

January 21, 1945 - This area is vegetated. (FR 38622,38623)

March 22, 1951 - No significant change is evident since 1945. (FR 38610,38611)

October 20, 1959 - A large fill area is visible along the wetland edge of Felgates Creek. Twelve bermed pits form a circle within

the fill area and a small structure is in the center of the circle. (FR 38263,38264)

June 27, 1960 - The pits are not visible on this year of photography. Two dark linear ground scars or possible trenches are in the center of the fill area. (FR 05,06)

February 23, 1963 - Twelve bermed pits form a circle within the fill area, and a dark area is in the center of the circle. A light-toned linear feature extends southeast from the circle of pits to a structure. A series of circular ditches begins at the outer edge of the circle and continues to the edge of the site. The circular ditches are bisected by three linear ditches, one on the east side, one on the west side and the third in the middle. The ditches lead south to the wetlands at the edge of Felgates Creek. The ground surface at the wetland edge of the linear trenches is disturbed. (FR 37570 mono)

March 27, 1968 - There are now thirteen bermed pits in the circle and one in the center of the circle. The interior of some of the pits appears dark and/or contains liquid. The ground along the wetland edges of the fill area appears disturbed. A square excavation is seen in the wetland at the southeast edge of the fill area. An access road continues southwest past the fill area and ends at a clearing near the edge of Felgates Creek. (FR 38246,38247)

November 24, 1970 - No significant change is evident since 1968. (FR 38981,38984)

October 23, 1975 - The pits remain. The wetland edge of the fill area is revegetating. (FR 43,44)

April 17, 1980 - The pits remain. The southwest corner of the fill area has been excavated. (FR 38977,38978)

October 21, 1986 - The pits remain. The east and west sides of the fill area have been excavated and are vegetating. Rows of square containers are stacked north of the circular area. Several objects and a stain are noted in the center of the circle of pits. (FR 38280,38281)

March 17, 1989 and April 8, 1990 - The pits are barely visible, and the square containers are not visible. Pools of dark liquid are seen in the center of the circle. The west edge of the fill area slopes sharply to the wetland.

(FR 38315,38316)

31. Square Excavation # 3 - A square excavation was filled between 1945 and 1951. Peak activity during the time period of the analysis was in 1945.

January 21, 1945 - A square excavation has an earthen-toned interior surface. Four pits are on the east side of the square excavation. (FR 38621,38622)

March 22, 1951 - The excavation has been filled and some ground scars remain.

October 20, 1959 - This area is now vegetated and will not be further discussed. (FR 38263,38264)

32. Fire Training Pits - Activity was evident at this site beginning in 1963 and continued throughout the time period of analysis. The features that were noted appear to be related to routine operations.

January 21, 1945 - June 27, 1960 - This area is a clearing; no significant activity is evident during this time period. (FR 38622,38621,38610,38611,38264,38265,27,28)

February 23, 1963 - One T-shaped fire training pit, two smaller round or square fire training pits, and one possible fire training pit are visible. All of the fire training pits and the possible pit have dark-toned interiors. Several dark stains are seen in the center of the site. The northern portion of the site is fenced off, and a row of objects and containers is seen north of the fence. Numerous piles of medium-toned material are scattered randomly north of the row of objects and containers. Ground scars are associated with a few of the piles. (FR 37570)

March 27, 1968 - The T-shaped pit has a dark-toned interior. The two smaller pits have light-toned interiors, and the possible pit is not visible. The row of objects and containers and the piles of medium-toned material are no longer visible. Several unidentifiable objects are in the fenced area where the objects and containers were previously located. (FR 38246 mono)

November 24, 1970 - The T-shaped pit has medium-toned contents and ground scars all around it. The two smaller pits have dark-toned contents. Unidentifiable objects are in the fenced area north of the pits. (FR 38983,38984)

October 23, 1975 - The T-shaped pit has dark-toned contents. A large dark stain extends west from the T-shaped pit. The two smaller pits have dark-toned contents. A series of ground scars are visible in the central and northern portions of the site. No objects remain in the fenced area to the north. (FR 43,44)

April 17, 1980 - The ground is scarred west of the T-shaped pit in the same area where a dark stain was noted in 1975. The ground around the two smaller pits also scarred. Slight ground disturbance is noted in the northeastern portion of the site. (FR 38977,38978)

October 21, 1986 - Walls have been built around the three fire burning pits. The ground is scarred west and northwest of the T-shaped pit. Ground disturbance remains evident in northeast portion of the site. (FR 38271,38272)

March 17, 1989 and April 8, 1990 - The ground surface is scarred throughout most of the site. No further significant changes are evident since 1986. (FR 38309,38310)

33. Buildings 402, 400 and 401: Building 402 was active throughout the entire period of analysis. Assorted containers, objects and large piles of debris were associated with Building 402. Assorted containers, objects, material and debris were associated with Buildings 400 and 401 in 1945.

January 21, 1945 - Stacks of dark-toned linear objects are noted east of Building 402.

Piles of multi-toned debris are seen within a square area northeast of Building 402. Liquid, possibly runoff from a recent rainfall, has accumulated in a swale in the center of the square area.

Uniformly shaped dark-toned containers are neatly stacked west of Building 400. A group of light-toned round objects and several large dark-toned mounds or objects are south and southwest, respectively, of Building 400.

Coarse-textured, light-toned debris is visible north of Building 401 and also extends eastward from the east side of the building down along the railroad tracks. (FR 38620-38623)

March 22, 1951 - The ground west of Building 402 is scarred. The stacks of dark-toned objects are no longer present.

Piles of multi-toned debris are in the swale in the center of the square area. Liquid is present along the east edge of the square area. (FR 38610,38611)

The dark-toned containers and light-toned round objects are no longer present south of Building 400.

The light-toned material seen in south and east of Building 401 is no longer present.

There is no significant activity is associated with Buildings 400 and 401 throughout the remainder of the analysis. They will not be discussed further.

October 20, 1959 - Two large piles of debris are noted west of Building 402. Rows of dark-toned, neatly stacked square containers, a group of round containers or objects, light-toned containers and light-toned material are visible north of the debris. Additional stacks and rows of containers are south and east of Building 402.

The square area has been leveled and will not be discussed further. (FR 38264,38265)

June 27, 1960 - The volume of debris west of Building 402 has increased. An assortment of containers and objects are north of

the debris pile and south and east of Building 402. There has been an overall reduction in quantity of containers and objects. (FR 27,28)

February 23, 1963 - There has been a decrease in the volume of debris west of Building 402. A group of light-toned objects or containers, a row of linear light-toned objects, and an assortment of containers and objects are north and west of the debris pile. An assortment of containers and objects are south and east of Building 402. (FR 37570 mono)

March 27, 1968 - No site coverage is available.

November 24, 1970 - The volume of debris piled west of Building 402 has increased. The group of light-toned objects or containers and the row of linear light-toned objects are no longer present. A tightly packed group of light-toned objects or containers is north of the debris pile. Medium-toned square containers are east of Building 402. Objects and or containers are scattered along the edges of the trees south of Building 402. Grading is in progress northeast of Building 402. This is adjacent to the square area of debris last seen in 1959. (FR 38983,38984)

October 23, 1975 - The volume of debris piled west of Building 402 has decreased. The entire area north of Building 402, where a tightly packed group of light-toned objects or containers and the excavation were seen in 1975, is vegetated. A pile of debris is east of Building 402, and the area south of the building where objects and or containers were scattered in 1970 is obscured by tree shadows. The graded area has revegetated. (FR 43,44)

April 17, 1980 - Debris is no longer present immediately west of Building 402; however, a large debris pile extends westward beyond the area where the pile was seen in 1975. Ground scars are in the area where the pile was previously located. The pile of debris is no longer present east of Building 402. Ground scars are now seen in this location. Several rows of square containers are neatly stacked east of Building 402. No activity is evident south of Building 402. (FR 38976,38977)

October 21, 1986 - A very large pile of coarse-textured debris extends westward along the railroad tracks from the west side of Building 402. Some neatly stacked containers, along with a large volume of randomly piled containers and objects, are east of Building 402. A neatly organized group of round containers is southeast of Building 402. Miscellaneous objects and round containers are randomly situated south of Building 402. (FR 38271,38272)

March 17, 1989 and April 8, 1990 - A few large objects are east of Building 402. No additional significant activity is evident at this time. (FR 38314,38315)

34. Fill Area - A large fill area was established in a wetland in 1959 and remained active until the mid or late 1960's. Piles of dark-toned material and debris were evident in the fill area. Peak activity during the dates of photography analyzed was in 1960.

January 21, 1945 - The site is a vegetated wetland at this time. (FR 38615,38616)

March 22, 1951 - No significant activity is noted at this time. (FR 38610,38611)

October 20, 1959 - An access road leads to a large fill area at the wetland. Probable debris and piles of dark-toned material are on the surface of the fill area. (FR 38267,38268)

June 27, 1960 - The fill area has been expanded westward. Vegetated mounds of earthen material are evident throughout the central portion of the fill area. (FR 07,08)

February 23, 1963 - The surface of the fill area has been graded and the vegetated mounds are no longer visible. Numerous piles of material are visible in the fill area, primarily on the north side. (FR 37578 mono)

March 27, 1968 - No site coverage is available.

November 24, 1970 - Vegetation is growing on the surface of the fill area. Ground scars are noted along the east side. A

barrier/dam has been constructed between the fill area and the York River. (FR 38283,38984)

October 23, 1975 - No significant activity is noted at this time or throughout the remainder of the analysis. This site will not be discussed further. (FR 43,44)

35. Historical Buildings and Associated Features - In 1945 this area was active in the open storage of square and round containers and piles of dark and medium-toned material. The main building was removed during the 1950's. A dam, new roads and a dock were built nearby in the 1960's. Buildings and structures were added and removed during this time period. Activity from 1970 through 1990 appears insignificant. Peak activity of environmental significance was in 1945 and during the early 1960's.

January 21, 1945 - The site consists of a clearing with a main building, a smaller building and several structures. A deep channel leads southeast from the main building to Roosevelt Pond. Numerous rows of square containers are neatly stacked along the east side of the channel. A group of round containers and several piles of dark-toned material are also stored in this area. A structure is in a recessed area along the north bank of Roosevelt Pond. Piles of medium-toned material are stored along the west side of the channel. A row of round containers is northeast of the buildings. (FR 38614,38615)

March 22, 1951 - The main building, containers and material are no longer present; however, the main building foundation remains. (FR 38610,38611)

October 20, 1959 - The deep channel is no longer visible. The building foundation is being used for small scale open storage. Access roads lead northwest from the small building into five different areas of the forest. (FR 38267,38268)

June 27, 1960 - Objects and a stain seen are on the building foundation. Use of access roads into forested areas continues.

A clearing has been made in the forested area at the end of one of the access roads. (FR 08,09)

February 23, 1963 - The entire area has been cleared and regraded. Several new smaller buildings and structures are in the clearing, along with the original remaining building. Stacks and rows of square, rectangular and round objects and containers are stored throughout the clearing and along the edge of the woods. Roosevelt Pond has been impounded and new roads have been built. These activities could be related to the construction of the dam, new roads and dock. (FR 37578 mono)

March 27, 1968 - No site coverage is available.

November 24, 1970 - One building and the foundations of the original buildings remain. All other buildings, structures, objects and containers are no longer present. An access road leads into a forested area by Roosevelt Pond, where ground disturbance is evident. (FR 38983,38984)

October 23, 1975 - Access to and ground disturbance in the forested area continue. (FR 43,44)

April 17, 1980 - No significant change is apparent since 1975. (FR 38977,38978)

October 21, 1986 - The foundation of the previous main building is being used to store long cylindrical objects, possibly telephone poles. Increased site activity appears environmentally insignificant. (FR 38272,38273)

March 17, 1989 and April 8, 1990 - No significant activity is evident. (FR 38315,38316)

36. Mine Assembly Plant #1 - Excavation and fill activity were evident in 1945 and 1951. Ground disturbance and grading were evident during the early 1960's. No significant activity was apparent after 1970. Peak activity during the time period of the analysis was from 1945 through the 1950's.

January 21, 1945 - An excavation is west of Building 88. (FR 38614,38615)

March 22, 1951 - The excavation is vegetating. The area northwest of the excavation has been cleared and is being excavated. (FR 38611,38612)

October 20, 1959 - The excavations are no longer visible. The leveled, disturbed ground indicates fill and grading. An access road leads northwest into a forested area. (FR 38267,38268)

June 27, 1960 - Several patches of disturbed ground are evident along the access road. (FR 09,10)

February 23, 1963 - Grading/ground disturbance continues. (FR 37577)

March 27, 1968 - No site coverage is available.

November 24, 1970 - The cleared area is level and vegetating. (FR 38983,38984)

October 23, 1975 - No significant change is noted throughout the remainder of the analysis. This site will not be discussed further. (FR 43,44)

37. Building 428 - Ground scars, excavating, disturbed ground and piles of debris were evident in 1945. A row and a pile of elongated round objects were visible in 1959. Minimal significant activity was noted from 1960 through 1990. Peak activity for the dates of photography analyzed was during 1945.

January 21, 1945 - A large ground scar is west and southwest of Building 428. Excavation is in progress in the northeastern portion of the site. A tunnel-like opening is seen at the south end of the excavation. Piles of debris are in the northeastern portion of the site and just outside the same area. A probable fill area is east of the piles of debris. (FR 38614,38615)

March 22, 1951 - The excavation appears leveled and is vegetating. The piles of debris are no longer present, and the probable fill area is vegetating. Ground disturbance is evident southwest of Building 428. (FR 38611,38612)

October 20, 1959 - A row of elongated round objects is piled up along the northeast edge of the site at the curve in the

railroad. A pile of elongated round objects is in the north central portion of the site. Scattered ground disturbance is noted southwest of this area. The area southwest of Building 428 is now forested. (FR 38267,38268)

June 27, 1960 - No significant activity is apparent at this time or throughout the remainder of the analysis. It will not be discussed further. (FR 09,10)

38. Guided Missile Support Facility - This facility was under construction in 1963. The natural drainage leads northeast from the facility into Lee Pond. No other significant information was derived from the photography analyzed.

39. Storage Area #2 - Various quantities and types of containers and objects are neatly stacked in this open storage area throughout the entire period of analysis. Housekeeping practices were generally good, with the exception of the piles of material seen in 1945.

January 21, 1945 - A long structure, possibly a storage building, is on the east edge of the site. Dark-toned material is piled east of the long structure. Possible staining is visible west of the long structure. Rows of objects with the appearance of stacked lumber are stored neatly along the west edge of the site. Piles of coarse-textured, dark-toned material are also along the west edge of the site. (FR 38619,38620)

March 22, 1951 - The pile of dark-toned material is no longer present. The former contents have been cleared out, and now rows of light-toned rectangular containers or objects are neatly stacked west of the long structure. (FR 38611,38612)

October 20, 1959 - The storage area has been expanded and the elevation appears higher, indicating fill and grading activity. Fewer containers are in the open storage area. (FR 38265,38266)

June 27, 1960 - There is no significant change evident since 1959. (FR 28,29)

February 23, 1963 - Numerous rows of light-toned rectangular objects or containers and dark-toned cylindrical objects are stacked in this open storage area. (FR 37571 mono)

An assortment of containers and objects is neatly stacked in this open storage area throughout the remainder of the analysis. The number and type of containers and objects varies from year to year. Since no other significant activity is associated with this location, it will not be discussed further. (FR 70: 38983,38984, 75: 43,44, 80: 38976,38977, 86: 38277,38278 and 89/90: 38314,38315)

40. Storage Platform - Open storage was evident in this area from 1951 through 1990. Overall housekeeping practices were good.

January 21, 1945 - A building is noted in this location. (FR 38619,38620)

March 22, 1951 - The building is no longer present, and numerous rows of dark-toned square containers are neatly stacked on the north half of the remaining building foundation. Several bulky, dark-toned unidentifiable objects are stored on the south half of the remaining building foundation. (FR 38611,38612)

October 20, 1959 - The southern half of the building foundation is established as an open storage area. Rows of light-, medium- and dark-toned drums and several miscellaneous objects are neatly stored in this area. (FR 38265,38266)

June 27, 1960 - The quantity of light-, medium- and dark-toned drums neatly stored in the southern half of the building foundation has increased. (FR 29,30)

February 23, 1963 - A smaller building has been built on the northern half of the building foundation. The drums are no longer present in the open storage area. Stacks of light-toned rectangular containers or objects and piles of dark-toned material are now in the open storage area. (FR 37571 mono)

An assortment of containers and objects is neatly stacked in this open storage area throughout the remainder of the analysis. The number and type of containers and objects varies from year to year. Since no other significant activity is evident in association with this site, it will not be discussed further.

41. Open Storage Area - Building 427 - Various quantities and types of containers and objects were stored in this area from 1945 through 1990. Piles of debris, dark-toned material and dark-toned stains were evident in 1945 and 1951. Housekeeping practices were generally poor.

January 21, 1945 - (FR 38619,38620) A multitude of rows of square, rectangular and round containers are neatly stacked east of Building 427. Piles of debris, dark-toned material and dark-toned stains are also evident in this area.

March 22, 1951 - There has been an increase in containers in the open storage area, and a decrease in the material and debris. Stains are evident on the ground surface. (FR 38611,38612)

October 20, 1959 - There has been a decrease in containers. No staining is evident. (FR 38265,38266)

June 27, 1960 - Materials are haphazardly stored in this area. (FR 29,30)

February 23, 1963 - A multitude of rows of square, rectangular and round containers are in the open storage area. (FR 37577 mono) The contents and arrangement of this area vary from year to year throughout the remainder of the analysis and will not be discussed further.

42. Building 683 - Piles of light- and dark-toned material, assorted objects and debris were first evident beginning in 1959 and noted continually throughout the analysis. The overall housekeeping practices were poor.

January 21, 1945 - March 22, 1951 - This area is forested and Building 683 did not exist during this time. (FR 38619,38620)
October 20, 1959 - The site has been cleared, Building 683 has been constructed, and the area north of Building 683 is being used for open storage of piles of light-toned material, dark-toned material and assorted objects. Debris is seen along the edge of the trees

northeast of Building 683. (FR 38265,38266)

June 27, 1960 - There has been a decrease in light- and dark-toned material north of Building 683 and an increase in debris along the edge of the trees. A dark-toned linear stain leads southeast from the center of the site to a forested area. (FR 29,30)

February 23, 1963 - Materials are haphazardly stored in this area. (FR 37577 mono) This trend continues throughout the analysis and will not be discussed further.

43. Storage Area #3 - Open storage was first evident in this area in 1963 and continued throughout the years of analysis. Housekeeping practices were generally good.

January 21, 1945 - The site is forested. (FR 38619,38620)

March 22, 1951 - Minimal change is evident since 1945. (FR 38611,38612)

October 20, 1959 - The trees have been cleared and this site is in use as a parking lot. (FR 38265,38266)

June 27, 1960 - There is no significant change evident since 1959. (FR 29,30)

February 23, 1963 - The site is in use as an open storage area. Rows of dark-toned square containers and light-toned objects are stacked neatly in the area previously in use as a parking lot. (FR 37577 mono)

An assortment of containers and objects is neatly stacked in this open storage area throughout the remainder of the analysis. The number and type of containers and or objects varies from year

to year. Since no other significant activity is associated with this site, it will not be discussed further.

44. Storage Area #4 - Activity was first evident in 1945 and continued throughout the analysis. Objects were neatly stored, using good housekeeping practices.

January 21, 1945 - A small building is visible in a clearing. Numerous rows of light-toned objects with the appearance of lumber are neatly stacked along the edge of the woods in the southeastern portion of the clearing. (FR 38619,38620)

March 22, 1951 - The objects are no longer present in the clearing. (FR 38611,38612)

October 20, 1959 - The site is in use as a parking lot. An access roads leads southwest from the west side of the small building to a circular ground scar and continues northeastward into a forested area. (FR 38265,38266)

June 27, 1960 - There has been no significant change since 1959. (FR 29,30)

February 23, 1963 - The small building is no longer present. Rows of objects are neatly stacked on the remaining building foundation. The circular ground scar along the access road has been enlarged. (FR 37577 mono)

Various quantities of primarily light-toned rectangular objects are neatly stacked in this open storage area throughout the remainder of the analysis. The access road becomes extended in two directions and the circular ground scar is no longer visible. Since no additional significant activity is evident in association with this location, it will not be discussed further.

45. Sewage Disposal Plant #1

January 21, 1945 - The sewage plant consists of one clarifier, two impoundments, and one building. No significant information was derived from the photography analyzed. (FR 38619,38620)

46. Sewage Disposal Plant #2

January 21, 1945 - The sewage plant consists of one clarifier, two impoundments, and one building. No significant information was derived from the photography analyzed. (FR 38613)

47. Linear Ground Scars - Linear ground scars, piles of light-toned material, two clearings and five interconnected rectangular excavations were evident in 1986.

October 20, 1959 - April 17, 1980 - The site is forested.

October 21, 1986 - The trees have been cleared. Approximately seventeen uneven linear ground scars run at right angles to Turkey Road. Piles of light-toned material are lined up along the edges of the linear ground scars. One large clearing is in the center of the site, and a smaller clearing is southeast of the large clearing. Five interconnected rectangular excavations containing dark-toned liquid are seen in the smaller clearing.

(FR 38279,38280)

March 17, 1989 and April 8, 1990 - The ground scars and clearings remain. Vegetation is growing around them. The light-toned material and the interconnected rectangular excavations are not visible. (FR 38308,38309)

AREA B

48. Old Magazine #5 - No significant information was derived from the photography analyzed.

49. Old Magazine #4 - No significant information was derived from the photography analyzed.

50. Old Magazine #7 - The primary changes throughout the years of analysis are related to a stream which flows past Building 27. The stream was channelized in 1963, and a small pool of liquid was excavated and enlarged in 1968. Stains or wet areas were associated with Building 27 in 1968 and 1975. Peak activity was from 1968 to 1975.

January 21, 1945 and March 22, 1951 - No site coverage is available.

October 20, 1959 - Building 27 is in a clearing. A stream flows southeast through a forested area, under a culvert, through the clearing and into a forested area. (FR 38253,38254)

June 27, 1960 - No significant change is evident since 1959. (FR 44,45)

February 23, 1963 - The stream has been channelized in the area passing through the clearing. A small pool of liquid is evident in a previously forested area on the north side of the culvert. (FR 37595 mono)

March 27, 1968 - There has been further clearing of the forested area around the pool of liquid. The pooled area has been excavated and enlarged. Medium-toned stains or wet areas, possibly from liquid flow, extend westward from two areas on the west side of Building 27. (FR 38243,38244)

November 24, 1970 - Minimal change is evident since 1968. The stains are no longer visible. (FR 38979,38980)

October 23, 1975 - The pooled area is obscured by the tree canopy. Stains or wet areas extend westward from three areas on the west side of Building 27. Ground scars are seen south and east of Building 27. (FR 48,49)

April 17, 1980 - The pooled area is partially visible through the tree canopy. Two of the three stains or wet areas and the ground scars are no longer visible. (FR 38471,38472)

October 21, 1986 - Vegetation is growing in the pooled area. No stains are visible. (FR 38294,38295)

March 17, 1989 and April 8, 1990 - No significant change is evident since 1986. (FR 38308,38309)

51. Depth Charge Area - No significant information was derived from the photography analyzed.

52. Concrete Slabs - No significant information was derived from the photography analyzed.

53. Offsite Excavation - This area was within the installation boundary fence when Grove Road extended to Route 143 before Interstate 64 was built. Ground disturbance, a large ground scar and piles of material were evident between 1959 and 1963. By 1968 the interstate was built. Subsequent activity within this site is outlined below.

January 21, 1945 and March 22, 1951 - No site coverage is available.

October 20, 1959 - The forest was cleared from an area near the intersection of Grove Road and Route 143. Disturbed ground and piles of medium-toned material are visible in the northwestern portion of the site. A ground scar is east of the disturbed ground, an excavation is noted in the center of the site and a drainage channel leads to a culvert under Route 143. (FR 38253,38254)

June 27, 1960 - A large ground scar extends north and west from the previous location of disturbed ground. The ground scar and excavation noted in 1951 remain. The elevation in the excavation has been slightly raised. (FR 44,45)

February 23, 1963 - Numerous piles of medium-toned material appear throughout the area where the large ground scar was previously seen. The ground scar and excavation are no longer visible. (FR 37594 mono)

March 27, 1968 - Interstate 64 has been constructed, and this site no longer appears to be within the boundary of the military facility. The site has been further filled and leveled. Two tall vertical tanks are in the clearing.

November 24, 1970 - The vertical tanks, noted in 1968 remain in the clearing, which is now vegetated. Several piles of light-toned material are visible in the southwest corner of the site. (FR 38979,38980)

October 23, 1975 - The vertical tanks and piles of light-toned material noted in 1970 are no longer present. The ground surface is scarred. Unidentifiable objects are seen on a raised round area close to the center of the site. Two piles of light-toned material are evident north of the round area. A building is visible on the east edge of the site. Several unidentifiable objects are seen north and south of the new building. (FR 48,49)

April 17, 1980 - The ground surface remains scarred. No unidentifiable objects are on the raised round area. Several large piles of light-toned material are seen in approximately the same location where two piles of light-toned material were noted in 1975. The unidentifiable objects seen north and south of the building in 1975 are no longer present. A structure is north of the new building. (FR 471,472)

October 21, 1986 - The raised round area seen in previous years is no longer present. Four large piles of light-toned material are found in the north portion of the site. Light-toned objects are in a group and scattered along the north edge of the site. A square area with raised edges is noted west of the structure, and a dark-toned stain is visible south of the building. (FR 38303,38304)

March 17, 1989 and April 8, 1990 - There is less light-toned material in the piles noted in 1986. No further significant change is apparent. (FR 38307,38308)

AREA C

54. Ordnance Disposal Area - General clearing of trees was the primary onsite activity until 1963 when a pitted circular ground scar was found on the east side of Beaver Road. From the 1970's to the 1990's the ground was scarred and pitted, the pits often filled with liquid, appear on the east and west sides of Beaver Road. Large mounds with central craters were visible in the late 1980's and 1990, along with depressions and excavations. Peak activity was from the mid 1970's to the mid 1980's.

January 21, 1945 and March 22, 1951 - There is no site coverage available.

October 20, 1959 - Two partial clearings are noted along the west side of Beaver Road. (FR 28255,28256)

June 27, 1960 - No significant change is evident since 1959. (FR 22,23)

February 23, 1963 - Minimal change is evident in the two partial clearings along the west side of Beaver Road. A circular clearing is noted on the east side of Beaver Road. The ground surface of the clearing is pitted and scraped. (FR 37604 mono)

March 27, 1968 - The northern of the two partial clearings previously seen on the west side of Beaver Road has revegetated. A small structure is seen in the southern partial clearing. Seven pits are in the circular clearing on the east side of Beaver Road. (FR 38248,38249)

November 24, 1970 - A network of access roads and clearings is found along the west side of Beaver Road from the previously noted northern clearing to the southern clearing. The circular clearing on the east side of Beaver Road appears to have been partially filled and is inactive. (FR 38981)

October 23, 1975 - A large clearing is visible on the west side of Beaver Road. The ground surface of the clearing is extensively pitted. The circular clearing previously seen on the east side of Beaver Road is revegetating. (FR 49,50)

April 17, 1980 - The large clearing has been extended to the east side of Beaver Road, south of the previously noted circular clearing, which is now almost completely revegetated. Numerous pits are seen throughout the clearing; some of them contain liquid. (FR 38470,38471)

October 21, 1986 - The clearing has been extended southward on both sides of the road. The ground surface has been graded throughout the clearing. No pits are visible on the west side of Beaver Road. Two large mounds with central craters are found on the east side of Beaver Road. Two depressions, one round and filled with liquid and the other rectangular with dark-toned contents, are also noted on the east side of Beaver Road. (FR 38475,38284)

March 17, 1989 and April 8, 1990 - The two mounds on the east side of Beaver Road are smaller (or the grade around them has been raised). The central craters remain. An excavation containing liquid is seen east of the craters. One crater is now on the west side of the road. Additional ground activity is noted in several areas south of the crater. (FR 38309,38310)

55. Old Magazine #6 - No significant information was derived from the photography analyzed.