



Beltsville Agricultural Research Center: Potential Areas of Concern Subject to Screening



June 2005

The Beltsville Agricultural Research Center (BARC) has been listed as a "Superfund" site under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). BARC is a facility of the U.S. Department of Agriculture's Agricultural Research Service.

BACKGROUND

As part of the BARC CERCLA Program, USDA-ARS conducted a systematic review of the BARC property to determine the location, nature, and possible hazards posed by potential environmental Areas of Concern (AOCs) within the confines of the facility. Potential AOCs were evaluated through a detailed process that included an aerial photographic analysis, a field reconnaissance, a thorough records search and file review, and extensive employee interviews. The information compiled throughout this process provided the information needed for USDA-ARS and Environmental Protection Agency (EPA) Region III to determine which AOCs warrant further CERCLA investigation, such as site screening. Of the 167 potential AOCs identified, only 60 were recommended for further investigation. These AOCs are being further investigated as part of a site screening process (SSP) and/or a remedial investigation (RI).

SITE SCREENING PROCESS

The SSP is a mechanism to determine whether hazardous substances, pollutants, or contaminants have been released to the environment from the potential AOCs identified at BARC. The SSP enables ARS and EPA to determine whether an AOC should proceed to a Remedial Investigation (RI), whether some kind of cleanup is necessary, or whether the AOC can be removed from further study. The AOCs summarized in the tables below have been investigated under the SSP. Table 1 identifies 32 AOCs which have been designated "no further action". These AOCs have been closed out of the SSP for human health concerns; however, final close-out of these AOCs under CERCLA will depend on the results of the facility-wide ecological risk assessment. Table 2 summarizes the status of 24 AOCs that remain active under the SSP. Four (4) AOCs are at various stages of an RI, as shown in Table 3. Information pertaining to these AOCs and their investigative processes are available for review in the BARC Information Repository located in Building 003, Room 014.

Table 1. AOCs Designated "No Further Action"

AOC Number ¹ AOC Name	Summary	Location
BARC 2 South Farm Dump	Gravel pit used to dispose of municipal waste and small amounts of waste chemicals in the 1950s and 1960s. <i>Surface debris removal completed, Fall 1997. Field work completed, Fall 1997.</i>	South Farm. On a crest of a hill, adjacent to a PEPCO powerline right-of-way, 150 ft. west of Orchard Loop Road.
BARC 3 North Farm Dump	Pit used to dispose of debris and possibly small amounts of chemicals in the 1950s. <i>Field work completed, Winter 1999.</i>	North Farm. 400 ft. southwest of the intersection of Cherry Hill Road and Service Road.
BARC 5 Herbicide Washdown Area	Open field used for burning trash and disposing of herbicide contaminated rinse water. <i>Field work completed, Winter 1999.</i>	North Farm. 700 ft. south of B-041 in a fenced area east of West Drive.
BARC 10 B-301 Washdown Area	Washdown and storage area for farm equipment used on East Farm. <i>Field work completed, Winter 1997.</i>	Central Farm. 400 ft. northeast of the intersection of Beaver Dam and Research Roads.

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AOC Number ¹ AOC Name	Summary	Location
BARC 11 Dump East of B-409	Ravines used for disposal of general refuse and possible waste chemicals in the 1960s. <i>Surface debris removal completed, Fall 1997. Field work completed, Fall 1997.</i>	Central Farm. 700 ft. northeast of B-402.
BARC 17 B-064 Scrap Area	Wooded site used to store materials and farm equipment. <i>Surface debris removal completed, Fall 1997. Field work completed, Spring 1999.</i>	South Farm. Along a wooded service lane, approximately 900 ft. southwest of Paint Branch and 300 ft. southeast of B-060.
BARC 26 Dump Off Poultry Road	Former trench silo area containing surface debris including bottles. <i>Surface debris removal completed, Fall 1997. Field work completed, Summer 1999.</i>	Central Farm. On a hillside east of Poultry Farm, approximately 800 to 1,000 ft. east of B-255A.
BARC 44 Dump in Woods at Airport	Natural depression filled with miscellaneous debris. <i>Surface debris removal completed, Fall 1997. Field work completed, Summer 1998.</i>	East Farm. 600 ft. west of B-605, in a woodland area along the northern edge of the old BARC airfield.
EPIC 7 Open Storage	Storage/service area utilized from 1950s until present. Limited ground staining observed. <i>Field work completed, Winter 1999.</i>	North Farm. 100 ft. southwest of North Drive and 5th Street intersection.
EPIC 8 Open Storage	Storage area utilized from 1950s until present. Materials stored at various times include coal and construction debris. <i>Field work completed, Winter 1999.</i>	North Farm. 200 ft. west of B-014, at the southern terminus of 5th Street.
EPIC 9 Open Storage	Historically used for coal storage and a service area. Occasional ground scarring was observed. <i>Field work completed, Winter 1999.</i>	North Farm. Southwest of the intersection of North Drive and 5th Street, at the site of B-013 and B-013A.
EPIC 21 Open Storage	Manure composting area with adjacent decontamination trough active until 1970. <i>Field work completed, Spring 2000.</i>	Central Farm. 500 ft. northwest of B-1002 in the northwestern portion of the APU.
EPIC 23 Undetermined	Location of a pipe outfall, possibly for tile drainage system. <i>Field work completed, Spring 2000.</i>	Central Farm. 1,000 ft. west of B-1423, within the APU.
FDA 1 Overgrown Clearing on Edge of Woods and Animal Pen	Disposal area containing construction debris and laboratory bottles. <i>Surface debris removal completed, Fall 1997. Field work completed, Summer 1999.</i>	Central Farm. 700 ft. southeast of B-335D within the former FDA complex.
ENTECH M6 B-029 Service Yard	Miscellaneous ground scarring and surficial discoloration at an area utilized for maintenance activities and storage. <i>Field work completed, Winter 1999.</i>	North Farm. In the northwestern portion of North Farm, at the intersection of Peach Orchard and Shop Drives.
ENTECH M12 Woodland Scarring/Clearing	Ground scarring and clearing was identified in 1937. Laboratory bottles and miscellaneous debris located onsite. <i>Surface debris removal completed, Fall 1997. Field work completed, Winter 1998.</i>	Central Farm. 700 ft. west of B-191 (a residential unit) and east of Edmonston Road.
ENTECH M16 Possible Excavation Site	Excavation area in late 1930s that was later fenced off. <i>Field work completed, Spring 2000.</i>	Central Farm. 200 ft. north of Beaver Dam Road and south of the Dairy Research Facility.
ENTECH M22 Possible Fill Area	A scar was identified in late 1930s. This area was later used for disposal of miscellaneous debris. <i>Surface debris removal completed, Fall 1997. Field work completed, Spring 2000.</i>	Central Farm. 200 ft. south of B-425, along a utility corridor.
ENTECH M23 Fill Area	Fill area utilized in the 1940s. Additionally, a discharge pipe is located in this area from an undetermined source. <i>Field work completed, Winter 1997.</i>	Central Farm. 375 ft. northeast of the intersection of Research and Beaver Dam Roads and adjacent to the Farm Services Complex.

Table 1. AOCs Designated “No Further Action”

AOC Number ¹ AOC Name	Summary	Location
BARC 30 Chemical Storage Shed Behind Water Tower	Former location of 2 small sheds containing a small amount of chemicals inside and broken glass outside. <i>Surface debris removal completed, Fall 1997. Field work completed, Summer 2000.</i>	Central Farm. East of the intersection of Zoology and Entomology Roads, 500 ft. north of the B-453 water tower.
BARC 34 Drum Disposal Area	Surface disposal of empty drums, rubble and pipe. <i>Surface debris removal completed, Fall 1997. Initial field work completed, Summer 2000; follow-on work completed Summer 2002.</i>	East Farm. 1,000 ft. east of Soil Conservation Service Road, adjacent to an unnamed service lane.
BARC 34A Fill Area Behind B-537	Surface disposal of 10 empty 55-gallon drums. <i>Surface debris removal completed, Fall 1997. Field work completed, Summer 2000; follow-on work completed Summer 2002.</i>	East Farm. 800 ft. east of B-537 and B-538, at the end of an unnamed service lane.
BARC 35 Chicken Hill	Burial and surface disposal of poultry manure and small amounts of debris from the 1950s until 1980. <i>Surface debris removal completed, Fall 1997. Field work completed, Summer 2000.</i>	East Farm. On the west side of Springfield Road, 800 ft. southeast of the BARC airfield access gate.
EPIC 39 Disposal/Fill Area	Area potentially used for agricultural research in the 1970s and later used to store greenhouse materials. <i>Surface debris removal completed Fall 1998; follow-on work completed Winter 2001.</i>	Central Farm. 1,000 ft. southeast of B-459 in a wooded area north of Powder Mill Road.
ENTECH 3 Public Fueling Station	Site of former public fueling station, possibly containing underground storage tanks. <i>Field work completed, Spring 1999.</i>	North Farm. Southwestern corner of the intersection of Baltimore Avenue (Route 1) and Circle Drive.
ENTECH 20 Runway Destruction Activity	Remnants of excavated runway, composting mounds, and miscellaneous rubble. <i>Field work completed, Summer 1998. Follow-on sampling completed Spring 2001.</i>	East Farm. Encompasses the north/south- and east/west- oriented runways of the old BARC airfield.
ENTECH R2 NASA Laser Test Mast	Location of former NASA radio/laser test station. Surficial debris and potential groundwater monitoring well present. <i>Field work completed, Summer 2000.</i>	Central Farm. 900 ft. southeast of an elevated water tank (B-453), and north of Powder Mill Road.
ENTECH R3 Possible Disposal Area	Area that formerly housed chicken coops and now contains their dilapidated remnants along with other miscellaneous surface debris. <i>Surface debris removal completed, Fall 1997. Field work completed, Summer 1999.</i>	Central Farm. 100 ft. south of B-240 and west of the former FDA facility.
ENTECH R15 Surface Dumping Area	Disposal site containing several mounds of debris. <i>Surface debris removal completed, Fall 1997. Field work completed, Summer 2000.</i>	East Farm. 1,100 ft. west of the ARS shooting range, in woods west of a remote tree farm and mulch storage area.
ENTECH R5 Building Remains and Debris	Building remains and debris located in area, may have been be used for research prior to 1960s. Potential chemical dumping in area. <i>Field work completed, Spring 1999.</i>	Linkage Farm. 600 ft. southeast of the National Agricultural Library and 200 ft. north of the Sunnyside Neighborhood Park.
BARC 9 Dump Off Odell Road	Gravel pit and surrounding area used for general refuse disposal in the late 1950s. <i>Surface debris removal completed, Fall 1997. Initial field work completed, Summer 1999.</i>	Central Farm. South of Odell Road and east of the Poultry Area.
ENTECH R13 Surface Disposal	Area used to store potting soil. Potential pesticide dumping in area. <i>Field work completed, Winter 1998.</i>	Central Farm. 25 ft. north of B-412A, east of Biocontrol Road.

Notes:

¹ "BARC" – identified during the initial 1991 PA/SI.

"EPIC" -- identified during the 1993 EPA/EPIC aerial photographic analysis.

"ENTECH M#" -- miscellaneous features identified during the 1997 ENTECH aerial photographic analysis.

"ENTECH R#" -- identified during the 1997 ENTECH field reconnaissance and desktop data collection study.

"FDA" – identified during the 1993 EPA/EPIC aerial photographic analysis.

Table 2. AOCs Under Review and/or Requiring Further Action

AOC Number ¹ AOC Name	Summary	Location
BARC 1 Experimental Wood Treatment Area	Area used for application of wood treatment chemicals in the 1940s and 1950s. <i>Surface debris removal completed, Fall 1997. Initial field work completed, Spring 1999. Follow-on sampling completed Spring 2001. Limited soil removal planned.</i>	South Farm. 200 ft. southeast of B-060.
BARC 4 B-033 Washdown Area	Rinse and wash area for West BARC farm equipment where mixing and loading of pesticides also occurred prior to 1993. <i>Initial field work completed, Winter 1999. Follow-on sampling completed Winter 2000. Further sampling planned.</i>	North Farm. South of B-033, 50 feet northwest of the intersection of Shop and West Drives.
BARC 8 Animal Parasitology Unit (APU) Waste Dump	Disposal site for waste from the APU. Utilized in the late 1960s through the 1980s. <i>Initial field work completed, Spring 2000. Follow-on sampling completed Spring 2004. Results under review.</i>	Central Farm. Along the southern bank of the Beaver Dam Creek floodplain, 1,200 ft. north of the intersection of Edmonston Road and the APU western entry gate.
BARC 14 Airport Mixing Pad	Concrete pad used for mixing and loading pesticides. <i>Initial field work completed, Summer 1998. Follow-on sampling completed Spring 2003. Results under review.</i>	East Farm. In the aircraft hangar area of the BARC airfield, approximately 50 ft. south of B-606.
BARC 15 Test Droplet Area	Area adjacent to old airport used to test aircraft-borne pesticide application equipment. <i>Initial field work completed, Summer 1998. Follow-on sampling completed Spring 2003. Results under review.</i>	East Farm. Northern end of the old north/south-oriented runway at the old BARC airfield.
BARC 18 Low-Level Radiation Burial Site	Area licensed by the Nuclear Regulatory Commission for the disposal of low-level radiation materials prior to 1987. <i>Investigation of disposal pits planned, and further evaluation of groundwater issues.</i>	North Farm. South of B-041, approximately 1,200 ft. south of the intersection of Service Road and West Drive.
BARC 19 Trenches Behind B-029	Erosional gully into which junk automobiles and refuse were placed in the 1940s. <i>Initial field work completed, Winter 1999. Follow-on sampling completed Winter 2002. Further sampling planned.</i>	North Farm. 250 ft. northeast of the intersection of Peach Orchard Drive and Service Road.
BARC 31 B-442 Scrap Area	Storage area for scrap metal and surplus equipment utilized since the 1960s. <i>Surface debris removal completed, Fall 1997. Initial field work completed, Summer 2000. Follow-on sampling completed Spring 2003. Cleanup planned for late 2004/ early 2005.</i>	Central Farm. 500 ft. north of Powder Mill Road and south of the Chemical Disposal Pits (BARC 12).
BARC 32 PCB Storage Area	Area used to store and service transformers containing PCBs prior to the early 1960s. <i>Initial field work completed, Summer 2000. Follow-on sampling completed Spring 2003. Initial soil cleanup completed in 2004.</i>	Central Farm. 250 ft. northwest of the intersection of Powder Mill Road and the B/W Parkway.
BARC 36 Airport Scrap Yard	Area used for scrap metal and machinery storage when airport was operational. <i>Surface debris removal completed, Fall 1997. Initial field work completed, Summer 1998. Follow-on sampling completed Spring 2003. Results under review.</i>	East Farm. 350 ft. southwest of B-604 and 175 ft. north of the former east/west-oriented runway.
BARC 37 Waste Oil Pit	Natural ravine used for dumping of waste oil in the 1960s and 1970s. <i>Initial field work completed, Summer 1998. Follow-on sampling completed Spring 2003. Results under review.</i>	East Farm. 50 ft. west of B-606, down slope from the hangar apron.
BARC 41 Underground Storage Tank at B-312	Area where a former underground storage tank was located. Tank was excavated in 1990. Adjacent building used for chemical storage. <i>Initial field work completed, Winter 1998. Follow-on sampling completed Winter 2002. Presence of manganese in groundwater requires further study.</i>	Central Farm. North of Powder Mill Road at B-312.
EPIC 11 Open Storage	Utilized as a storage area from the 1960s until 1970s. Currently a service yard. <i>Initial field work completed, Winter 1999. Follow-on sampling completed Winter 2002. Presence of manganese in groundwater requires further study.</i>	North Farm. Near the intersection of South Drive and 2nd Street, on the west side of B-008.

Table 2. AOCs Under Review and/or Requiring Further Action

AOC Number ¹ AOC Name	Summary	Location
EPIC 16 Disposal/Fill Area	Surface disposal of general refuse in 1950s. Limited debris present in 1996. <i>Surface debris removal completed, Fall 1997. Initial field work completed, Spring 1999. Offsite desktop data evaluation needed. Site decision deferred until a remedy for BARC 6 groundwater is selected.</i>	Linkage Farm. Northwest corner of the intersection of Sunnyside Avenue and the CSX Railroad.
EPIC 31 Disposal/Fill Area	Area used as a landfill for rubble and other miscellaneous debris in the 1930s. <i>Surface debris removal completed, Fall 1997. Initial field work completed, Winter 1998. Follow-on sampling completed Spring 2002. Limited soil removal planned.</i>	Central Farm. 250 ft. east of B-301F and south of the BARC Visitors Center.
EPIC 34 Disposal/Fill Area	Disposal area utilized in the 1950s. Various debris located in small pits. <i>Surface debris removal completed, Fall 1997. Initial field work completed, Summer 1999. Presence of manganese in groundwater requires further study.</i>	Central Farm. 600 ft. east of the intersection of Zoology and Center Roads, adjacent to B-314.
EPIC 47 Undetermined	Area with vehicular staining due to training exercises in the 1970s; later used to store compost. <i>Initial field work completed, Summer 1998. Follow-on sampling completed Spring 2003. Results under review.</i>	East Farm. Northern end of the old north/south-oriented runway at the old BARC airfield.
FDA 2 Wooded Area	Disposal area containing organic wastes and miscellaneous refuse. <i>Surface debris removal completed, Fall 1997. Field work completed, Summer 1999. Follow-on sampling completed Spring 2001. Limited soil cleanup planned..</i>	Central Farm. In a wooded ravine near the former FDA complex, 600 ft. southeast of B-344.
ENTECH 7 Open Storage Yard	Former off-loading area for bulk commodities in the 1940s. Miscellaneous debris and materials stored at this site. <i>Surface debris removal completed, Fall 1997. Initial field work completed, Spring 1999. Follow-on sampling completed Spring 2004. Further investigation and waste removal planned.</i>	Linkage Farm. 150 ft. south of B-085A and just east of the CSX Railroad right-of-way.
ENTECH 15 UST Removal	Site of underground storage tank removal in 1977 and small mounded piles of debris. <i>Initial field work completed, December 1998. Follow-on sampling completed Spring 2004. Results under review.</i>	Central Farm. At B-309, encompassing areas north, east, and south of the building.
ENTECH M26 Shooting Range	Shooting range operational from 1987 until present. <i>Initial field work completed, Summer 2000. Results reviewed. Plan for further action to be developed.</i>	East Farm. Southwest of the intersection of Beaver Dam and Soil Conservation Roads, about 800 ft. southwest of B-506.
ENTECH R1 Structural Ruin	Building foundation with surficial dumping in and around its remains. <i>Surface debris removal completed, Fall 1997. Initial field work completed, Winter 1998. Follow-on sampling completed Spring 2001. Limited soil removal planned..</i>	Central Farm. 100 ft. northeast of BARC 30, north of Powder Mill Road.
ENTECH R23 Rose Garden Site	Dilapidated building remains with miscellaneous debris and containers in and around the remains. <i>Surface debris removal completed, Fall 1998. Field work completed, Summer 2000. Soil removal planned.</i>	Central Farm: 210 ft. northwest of B-483 in a wooded area.
NEW 01 Disposal/Fill area behind B-307	Disposal area containing miscellaneous debris identified during unrelated excavation in Winter 2001. <i>Presence of manganese requires further study.</i>	Central Farm: Open area directly behind B-307.

Notes:

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"ENTECH #" -- identified during the 1997 ENTECH aerial photographic analysis.

"ENTECH M#" -- miscellaneous features identified during the 1997 ENTECH aerial photographic analysis.

"ENTECH R#" -- identified during the 1997 ENTECH field reconnaissance and desktop data collection study.

"FDA" – identified during the 1993 EPA/EPIC aerial photographic analysis.

"NEW" – identified since 1997.

Table 3. AOCs Undergoing a Remedial Investigation

AOC Number ¹ AOC Name	Summary	Location
BARC 6 Biodegradable Site	Landfill used for disposal of refuse and possibly some chemicals. In operation from the 1940s until the 1970s. <i>Large scale removal completed in 1994. Currently undergoing a Remedial Investigation to determine the condition of groundwater, surface water, and surrounding wetlands.</i>	Linkage Farm. 1,400 ft. southeast of the intersection of the WMATA access road and Sunnyside Avenue.
BARC 12 Chemical Disposal Pits	Excavation pits used for disposal of chemicals in the 1960s; subsequently backfilled. <i>Surface debris removal completed, Fall 1997. Initial SSP field work completed, Winter 1997. AOC currently undergoing Remedial Investigation to determine the extent of groundwater contamination, and evaluate remedial options.</i>	Central Farm. North of B-442 Scrap Area (BARC 31), 1,100 ft. northwest of the intersection of Powder Mill Road and the B/W Parkway.
BARC 22 College Park Landfill	Landfill utilized by both BARC and College Park from 1950s until 1970s. Mainly residential wastes disposed. Initial SSP field work completed, Winter 1997. Surface debris removal completed, Spring 1998. <i>AOC currently completing a Remedial Investigation to evaluate groundwater and surface water quality. Investigation includes demonstration pilot study to evaluate the use of plants and compost as a possible alternative to conventional capping methods.</i>	Central Farm. 800 ft. east of Edmonston Road, near the intersection of Sunnyside Avenue and Edmonston Road.
BARC 27 Beaver Dam Road Landfill	Capped rubble landfill operational from 1940s until 1980s. <i>Field work completed, January, 1999. Currently completing a Remedial Investigation to evaluate groundwater quality, and surface water and wetlands.</i>	Central Farm. 1,700 ft. east of the intersection of Research and Beaver Dam Roads, on the north bank of the Beaver Dam Creek stream valley.

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For More Information...

Contact Kim Kaplan, ARS Information Staff, at 301/504-1637, or visit the ARS information repository located in Room 014, Building 003, 10300 Baltimore Avenue, Beltsville, MD. The information repository is open to the public Monday through Friday, 8:30am to 4:30pm. The information repository is also available at the Prince George's County Memorial Library at 4319 Sellman Road. The library's hours of operation are Monday through Wednesday, 10 am to 9 pm; Thursday and Friday, 10 am to 6 pm; and Saturday, 10 am to 5 pm.