
SECTION 3

OTHER CERCLA OUS

3. OTHER CERCLA OUS

3.1 OU2 AOC A9-POL BURN AREA

3.1.1 Site Location and Description

AOC A9 includes the P12 Abandoned UST site (E&E 1994). These sites are located in the northern part of the Sudbury Training Annex, on the northern side of Patrol Road and about 400-ft west of the intersection of Patrol Road with White Pond Road.

3.1.2 History of Contamination

AOC A9 was in use between the late 1950s and the early 1980s (OHM 1994). The area was initially used for product testing, and was made available to local jurisdictions and the MFFA for fire prevention training. Natick Labs used the area for flame-retardant clothing tests and it was also used by the Massachusetts State Police for the destruction of confiscated fireworks.

Fire fighting training was performed in two unlined trenches in the area. During fire fighting training, the pits were filled with approximately 6 inches of water topped off with virgin fuel oil and ignited. The usual practice was for the flammable fluid provider to deliver material 1 to 2 days ahead of the training exercise. Fuel was placed in a tank and into the water-filled pits.

3.1.3 Remedial Actions

POL-contaminated soils were excavated and removed from the area of the former fire training pits between September 1987 and July 1988. Approximately 1,100 yd³ of soil were transported to an off-site hazardous waste disposal facility. The depth of the excavation in one location was 26-ft bgs. The excavations were backfilled with soils from an unknown location from the Sudbury Training Annex.

An excavation for metals was conducted in 1996 as part of the AOC A7 landfill construction. The material was staged in the POL area until it was used as backfill for AOC A7. In accordance with the NCP, and as stated in the ROD for AOC A4 and Management of Migration OUs at

AOCs A7 and A9 dated September 1997 a five-year site review will not be conducted because the site is suitable for unrestricted use.

3.2 OU3 AOC A4- WASTE DUMP

3.2.1 Site Location and Description

AOC A4 is situated along the northwestern side of Craven Lane and extends southwest from the intersection of Patrol Road and Craven Lane to the wetland on the site's southwestern border (E&E 1994).

3.2.2 History of Contamination

AOC A4 was reportedly used for 3 to 4 years during the late 1960s and early 1970s for the burial of unidentified chemical wastes (OHM 1994). No additional information is available regarding the types or quantities of wastes buried.

3.2.3 Remedy Selection

A No Further Action ROD was signed in September 1997 based on residential risk-based analysis (ROD Sept 1997). As stated in the ROD for AOC A4 and Management of Migration OUs at AOCs A7 and A9, a five-year site review will not be conducted because the site is suitable for unrestricted use.

3.3 OU4 AOC P11-BUILDING T405 DUMP AREA AND AOC P13-MFFA

3.3.1 Site Location and Description

Building T405 is located within AOC P11 on the Stow boundary of the Sudbury Annex, at the approximate center of the property (E&E 1994). Buildings T406 through T409 and the Firehouse are located in the vicinity of Building T405. Building T104 is located across Hudson Road, approximately 2 miles southeast of the main property.

3.3.2 History of Contamination

Site P11 was identified by a Fort Devens memorandum. Interviews with Natick Labs employees indicated that chemical dumping and burial may have occurred behind and along the fence, southwest of Building T405 (OHM 1994).

AOC P13 was identified by a Fort Devens memorandum. Potential contamination was a concern in this area from USTs, above-ground storage tanks (ASTs), and past fire training activities (OHM 1994). Records indicate that 1,000-gallon fuel oil USTs are present at Buildings T407, T408, and T409, and a 5,000-gallon UST for fuel oil is present at Building T406. Annual consumption was estimated at 55,000-gallons.

The site was listed on the NPL by USEPA as a Superfund site on 21 February 1990. A FFA was signed between the ARMY and the USEPA in April 1991.

3.3.3 Remedy Selection

A No Further Action ROD was signed in September 1996 due to the finding of no risk for the future use of the area as a national wildlife refuge. As stated in the ROD for OU4, a five-year site review will not be conducted. The site was listed as a BRAC site under BRAC 95. Further remedial actions at AOC P11 were done as BRAC.

3.4 OU5 AOC A12-PCB SPILL REMEDIATION AREA, AOC P36-FORMER RAYTHEON BUILDING T104 AND AOC P37-BUILDING T106 UST

3.4.1 Site Location and Description

AOC A12 is located in the southern part of the Annex and on the southern side of Moore Road between Firehouse Road and Diagonal Road (E&E 1994). This site is located between AOCs P36 and P37.

AOC P36 (Former Raytheon Building) is located on the southern side of Moore Road in the southern part of the Sudbury Training Annex about 1,000-ft from the installation boundary (E&E 1994).

AOC P37 is located near the intersection of Moore Road and Diagonal Road in the southern part of the Annex (E&E 1994), northeast of Building T104 (Site P36) and the PCB remediation area (Site A12)

3.4.2 History of Contamination

AOC A12 soil was contaminated with PCB containing fluids following acts of vandalism on temporarily stored transformers (OHM 1994).

AOC P36 was used by Raytheon Company during the 1960s through 1971 for research and development of missile guidance systems, radar systems, and the manufacturing of electronic equipment (OHM 1994). Raytheon served as a prime contractor and a subcontractor on defense-related projects.

AOC P37 was part of the Raytheon Company site and is now abandoned (OHM 1994).

3.4.3 Remedial Actions

AOC A12 was remediated by Inland Pollution Control during 1985 and the cleanup criteria were approved by the MADEP (OHM 1994).

A No Further Action ROD was signed in September 1996 due to the finding of no risk for the future use of the area as a national wildlife refuge. As stated in the ROD for OU5, a five-year site review will not be conducted because the site is suitable for unrestricted use.

SECTION 4

**NON CERCLA SITES WITH NO FURTHER ACTION
DECISION DOCUMENTS**

4. SITES WITH NO FURTHER ACTION DECISION DOCUMENTS

4.1 AOC A3- GENERAL DUMP

4.1.1 Site Location and Description

On the northeastern portion of the Sudbury Training Annex, AOC A3 and P5 are located approximately 1,000-ft northeast of Puffer Pond (E&E 1994). AOC A3 consists of a large cleared area sloping north to south. AOC A3 is bordered on its northern side by Patrol Road and on its western and southern sides by a wetland. Two dirt roads lead south and uphill from Patrol Road to a large sandy pit surrounded by earthen berms. The tree line borders the dirt road as well as the clear pit area. In the southern corner of the large pit, a trail leads south and then southwest for about 200-ft towards AOC P5 and the wetland.

4.1.2 History of Contamination

AOC A3 was used between 1957 and 1979 for dumping of trash and refuse (OHM 1994). The area also contains a gravel pit that was used as a borrow source through 1986 and a small swampy area to the west that was reported to have been actively used for general refuse dumping during the 1970s.

4.1.3 Remedial Actions

Four drums located on the western perimeter of the site AOC A3 were removed in 1992 and staged at the temporary storage area assembled at AOC P13. Soil beneath the drums was not stained and PID readings revealed no readings above background levels.

Remedial actions were conducted at this site to ensure that hazardous substances, pollutants, contaminants, or oil did not remain at levels that would not be protective of human health and the environment. A NFADD was signed in November 1998 for AOC A3. The no further action was recommended based on surface soil contamination that exceeded the residential soil risk-based calculations (RBC) and MCP S-1 soil standard for Aroclor-1254, but which had a low frequency of detection and relatively low magnitude of screening value exceedance (ABB 1996). In surface

water aluminum, iron, and lead exceeded Ambient Water Quality Criteria (AWQC). The surface water is not used as a source of drinking water, and does not support aquatic habitats since it is seasonal. Beryllium and aluminum were detected in sediments at concentrations that were only slightly higher than Sudbury Training Annex background levels and screening concentrations. Heptachlor epoxide was detected in groundwater, but not in exceedance of MCLs or MCP GW-1 standards.

4.2 AOC A5- SOLVENT/WASTE DUMP

4.2.1 Site Location and Description

AOC A5 is located about 800 ft north of the southern intersection of Patrol Road and White Pond Road (E&E 1994). A dirt road diverges east from White Pond Road and then splits into two roads. Most of the site area, including the terrain between the two roads, is forested.

4.2.2 History of Contamination

AOC A5 was reportedly used for disposal of laboratory solvents (OHM 1994). This disposal reportedly occurred in a trench-like excavation from approximately 1973 until mid-1979. Unconfirmed reports indicate that pits were excavated and dumping occurred. During the late 1970s, small amounts of canned food were also reportedly buried at this location.

4.2.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in November 1998 for AOC A5. A five-year review is not required because detected contaminant concentrations found during the SI were below the USEPA Region III risk-based concentrations calculated for residential soil (OHM, 1994).

4.3 AOC A6-DEMOLITION GROUND II

4.3.1 Site Location and Description

AOC A6 lies in a forested area on the northwestern corner of the Annex approximately 400-ft south of the USAF Weather Science Radar Laboratory (E&E 1994).

4.3.2 History of Contamination

AOC A6 was used from 1942 through 1950 for the testing of ammunition and explosives (OHM 1994). Records in an AEHA file concerning health and safety issues indicate that the area was used by the Watertown Arsenal as late as 1977 for testing of up to 3 pounds of Class 1.1 explosives. Class 1.1 explosives are defined as bulk explosives that are not encased in a shell or projectile. Records also indicate that destruction of reject munitions may have occurred at this location.

4.3.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in October 1994 for AOC A6. As stated in the NFADD, only a small area of low residual levels of PAHs was detected at the center of the site. The PAHs detected were at relatively low level, compared to MCP GW-1/S-1 and SWDA MCL, and are not migrating, therefore, there is no threat posed to human health and the environment for AOC A6. Only trace amounts of pesticides and heavy metals were detected. A five-year review is not warranted for the site based on the NFADD.

4.4 AOC A8- FOOD BURIAL AREA

4.4.1 Site Location and Description

AOC A8 is located in the northern part of the Annex between Patrol Road and White Pond Road (OHM 1994). Approximately 400-ft southwest of the intersection of these two roads, lies a cleared area enclosed within a barbed wire fence. A dense pine forest surrounds the clearing.

4.4.2 History of Contamination

AOC A8 was used for the burial of large amounts of foodstuffs following preservation experimentation between 1968 and 1975 (OHM 1994). This location was not initially considered for investigation due to the assumed harmless nature of the buried food. However, questions arose during the early phase of the Dames & Moore RI regarding the nature of the testing and the reason for on-site burial. These questions prompted additional investigation.

4.4.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. Groundwater screening values were based on the assumption that groundwater will be used in the future and that the Annex will be used for residential purposes and is compared MCP GW-1 standards and the USEPA and MADEP MCLs for drinking water, no evidence of adverse groundwater contamination was detected. Surface soil sample results were below MCP GW-1/S-1 standards. Sediment sample results were below Ontario Ministry of the Environment Lowest Effect Level (OMEE LEL) and/or the National Oceanic and Atmospheric Administration (NOAA) Effects-Range Low (ERL) levels as stated in the NFADD. Sampling did not indicate significant impact from the burial of foodstuffs. A NFADD was signed for AOC A8/P10 in November 1994 and a five-year review is not warranted.

4.5 AOC A10-RAILROAD PIT/UST AREA

4.5.1 Site Location and Description

AOC A10 is located southeast of Bruen Road, about 200-ft from the southwestern boundary of the Sudbury Training Annex (E&E 1994). The site is accessible by means of the paved Firehouse Road. Approximately 800-ft southeast of the intersection of Bruen Road with Firehouse Road, an unpaved road diverges southeast into a cleared area, which constitutes the site. This road continues southeast before splitting; one branch leads east and another continues south.

4.5.2 History of Contamination

AOC A10, was used during the early stages of installation operation for locomotive and equipment maintenance (OHM 1994). During a field inspection, USAEC personnel identified a concrete pit under a section of railroad track and various valve boxes and pipes which appeared to be associated with a UST. Interviews with site personnel performed during the Dames & Moore RI indicated that the USTs had been pumped out, then filled with water. It was also identified that the area was used for automobile oil changes by the general public. Individuals reportedly would drain and discard engine oil into the pit.

4.5.3 Remedial Selection

Remedial actions and/or O&M were not conducted at this site. Sampling efforts at the site found evidence of DDT, DDD, DDE, alpha-chlordane, gamma-chlordane, trichlorofluoromethane, and toluene in soils, however the detected concentrations were below USEPA Region III risk-based concentrations for residential soil (OHM 1994). All groundwater results were also below federal and Massachusetts MCLs. Arsenic was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7.). A NFADD was signed in December 1999 for AOC A10 and a five-year review is not required

4.6 AOC A11-LEACHING FIELD

4.6.1 Site Location and Description

AOC A11 is located in the southern part of the Sudbury Training Annex, east of the intersection of Marlboro Brook and Diagonal Road (E&E 1994). The site is bound by Marlboro Brook and Diagonal Road on its western edge and by a forest on all other sides. This site is a sanitary sewer leaching field and serviced as the pump house and water purification systems for CFHA.

4.6.2 History of Contamination

AOC A11 was identified by USAEC personnel during a site reconnaissance (OHM 1994). Installation record searches had not identified the area as a former waste disposal area. Due to

the lack of information about the leaching field the area was included in the areas investigated by Dames & Moore.

4.6.3 Remedial Actions

In 1992, OHM removed the drum which was previously located on the northern edge of the site and staged it with other debris at the AOC P13.

Maximum concentrations of several inorganics in surface water exceeded drinking water standards, and the maximum concentration of arsenic in sediment exceeded soil-screening values. The magnitude of potential exposures to each of these media would be substantially lower than those on which the risk-screening values are based (LABB, 1996). Cadmium was detected in several surface soil samples at concentrations above the vertebrate PCL value and plant screening value. It is unlikely, however, that vertebrate receptors would be exposed to surface soils at the magnitude assumed in the screening values.

Remedial actions were conducted at this site to ensure that hazardous substances, pollutants, contaminants, or oil did not remain at levels that would not be protective of human health and the environment. Human health PRE was evaluated assuming the trespassers may be exposed to surface soil and recreational users and USFWS workers potentially could be exposed to surface soil, surface water, and sediment. Future construction workers could also be exposed to subsurface soil during construction or utility work, and the groundwater could be a source of potable water in the future (ABB 1996).

4.7 AOC P1-UST ACROSS FROM BUILDING T223

4.7.1 Site Location and Description

AOC P1 is situated on the southeastern side of Patrol Road, approximately 1,800-ft northeast of the main gate of the Sudbury Training Annex (E&E 1994). The site consists of a former UST location, across the road and southeast of Building T223.

4.7.2 History of Contamination

AOC P1 was identified as an abandoned UST by Fort Devens in a memorandum (OHM 1994). The building was numbered incorrectly in the memorandum and should have been identified as Building T223 rather than Building T225. Arsenic is a soil contaminant that was detected above MCP S-1 Standards that is a facility wide issue.

4.7.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A risk-based analysis was conducted for recreational users and USFWS workers for surface soil, future construction workers exposed to subsurface soil and ecological for surface soil (HLA Feb 1999). No adverse risk effects were determined. Arsenic was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7). A NFADD was signed in December 1999 for AOC P1. A five-year review is not required based on future land use as a wildlife refuge.

4.8 AOC P3-BUILDING T209 UST

4.8.1 Site Location and Description

Building T209 is located about 2,000-ft northeast of the main gate of the Sudbury Training Annex and approximately 400-ft north and uphill from Patrol Road. A paved access road diverges northwest from Patrol Road and leads to the front of Building T209 (E&E 1994).

4.8.2 History of Contamination

AOC P3 was identified in a Fort Devens memorandum. The UST was used for heating oil and is believed to have been abandoned for over 10 years (OHM 1994).

4.8.3 Remedy Selection

A UST was removed by ATEC in May 1992 (NFADD). Approximately 190 tons of contaminated soil was removed until Confirmatory soil analyses reached levels less than 100 ppm of TPHs.

A NFADD was signed for AOC P3 in November 1994. As stated in the NFADD, "Given that neither TPHs nor the constituents of heating oil were found in wells at or down gradient from the former UST location at AOC P3, and that suspended solids are the cause of the metals detected in unfiltered groundwater samples, there are no concerns raised by sampling results at this time".

4.9 AOC P4-BUNKER DRUM AREA

4.9.1 Site Location and Description

AOC P4 is situated in a wooded area in the central area of the Sudbury Training Annex, south of Honey Brook between Bunkers 347 and 349 (E&E 1994).

4.9.2 History of Contamination

AOC P4 was identified by a Fort Devens memorandum as four upright 55-gallon drums, lashed together on a pallet, located between Bunker 347 and 349 (OHM 1994). One of the drums was marked "poison".

4.9.3 Remedial Actions

Four drums were removed along White Pond Road between Bunkers 347 and 349 and an additional drum found west of Bunker 349 were removed in 1992 and staged at AOC P17.

Remedial actions were conducted at this site to ensure that hazardous substances, pollutants, contaminants, or oil did not remain at levels that would not be protective of human health and the environment. A NFADD was signed for AOC P4 in December 1999. A five-year review is not required since no adverse risk was determined based on land use as a wildlife refuge, recreational users, construction workers, and an ecological PRE for surface soil risk-based analysis (HLA 1999). Arsenic was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7).

4.10 AOC P5-DRUM STORAGE AREA

4.10.1 Site Location and Description

On the northeastern portion of the Sudbury Training Annex, AOCs A3 and P5 are located approximately 1,000-ft northeast of Puffer Pond (E&E 1994).

4.10.2 History of Contamination

AOC P5 was identified by a Fort Devens memorandum, as being a storage area for several drums (OHM 1994). For purposes of this document and future actions, AOC P5 was included as part of the SI activities in AOC A3.

4.10.3 Remedial Actions

Empty drums located at AOC P5 were also removed and staged at AOC P13. Soil beneath the drums was not visibly stained. Soil samples detected metals contamination in the soil beneath the drums; however, the concentrations were only slightly higher than the Sudbury Training Annex background levels.

Remedial actions were conducted at this site to ensure that hazardous substances, pollutants, contaminants, or oil did not remain at levels that would not be protective of human health and the environment. Human health PRE was evaluated assuming that trespassers may be exposed to surface soil and that recreational users and USFWS workers potentially could be exposed to surface soil, surface water, and sediment. Future construction workers could also be exposed to subsurface soil during construction or utility work, and the groundwater could be a source of potable water in the future (ABB 1996). Concentrations of arsenic and beryllium slightly exceeded public health screening values, and concentrations of DDD, arsenic, chromium, and lead slightly exceeded ecological screening values, however, these were detected at concentrations above risk-screening values in only one or two samples. A NFADD was signed for AOC P5 in November 1998.

4.11 AOC P6-PUFFER POND POSSIBLE DUMP AREA

4.11.1 Site Location and Description

AOC P6 is located in the forest between the northern shore of Puffer Pond and Puffer Pond Road (E&E 1994). The dirt access road into the site splits and ends in an oval loop by an old landing stage on the shore of Puffer Pond.

4.11.2 History of Contamination

AOC P6 is described in a Fort Devens memorandum as being possible chemical dumping and burial area (OHM 1994). Former Natick Labs employees stated that chemical disposal was conducted near a body of water, possibly Puffer Pond. Buried metal debris was observed in the southern portion of the area.

4.11.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed for AOC P6 in November 1998. Human health PRE was evaluated assuming that trespassers may be exposed to surface soil and that recreational users and USFWS workers potentially could be exposed to surface soil, surface water, and sediment. Future construction workers could also be exposed to subsurface soil during construction or utility work, and the groundwater could be a source of potable water in the future (ABB 1996). Concentrations of lead, copper, mercury, and zinc exceeded ecological screening values; however, the frequency of screening value exceedances were generally limited to a single sample. Therefore, it is unlikely that potential exposures to these analytes in the subsurface soils were to occur at the same magnitude assumed in the risk screening values. Inorganic analytes were detected in surface water at concentrations above human health and ecological risk screening values, and DDD and DDE were detected in sediment at concentrations above minimum sediment screening values; however, the screening values used were very conservative. The magnitude of human exposures to surface water would be substantially lower than those assumed in the drinking water standards, and several ecological screening values were below background concentrations. No groundwater analytes were detected at concentrations in excess of MCP groundwater standards.

4.12 AOC P7-PATROL ROAD DUMP AREA

4.12.1 Site Location and Description

AOC P7 is located in the central part of the Annex on the southern side of Patrol Road (E&E 1994). It is located along both sides of the facility barbed wire fence between power pole 50 and power pole 54. The site consists of two sandy cleared areas connected by a dirt road, which runs parallel to Patrol Road.

4.12.2 History of Contamination

AOC P7 was identified by a Fort Devens memorandum (OHM 1994). Based on interviews with employees of Natick Labs, this area was identified as a possible miscellaneous waste chemical disposal area.

4.12.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in April 1995 for AOC P7. The NFADD stated, "Soil gas survey and test pitting did not detect any evidence of a disposal area." No contamination was found in soil samples. The groundwater sample results were compared to MCLs and secondary maximum contaminant levels (SMCLs) for the human health PRE. No ecological risk analysis could be conducted because soil samples were taken two feet or greater below ground surface and no potential exposure pathway for any ecological receptor exists as stated in the NFADD.

4.13 AOC P8-POSSIBLE TRANSFORMER DISPOSAL

4.13.1 Site Location and Description

AOC P8 is located on the eastern edge of AOC A7 behind and partially on top of a large soil mound overgrown by trees (E&E 1994).

4.13.2 History of Contamination

AOC P8 was identified by a Fort Devens memorandum (OHM 1994). The surface dump at the southeast end of AOC A7 was described as a possible transformer disposal area. For purposes of this document and future actions, AOC P8 was included as part of the RI activities in AOC A7.

4.13.3 Remedy Selection

This site is included in the AOC A7, see section 2.1.

4.14 AOC P9-STREAM DUMP SITES A7 AND A9

4.14.1 Site Location and Description

AOC P9 is located near the northern border of the installation boundary between AOC A7 and AOC A9 along Patrol Road (E&E 1994). The dump area is on the north side of the intersection of Patrol Road and a southeast-to-northwest- flowing brook. The brook flows underneath a bridge on Patrol Road and continues northwest to the Assabet River about 800-ft to the north.

4.14.2 History of Contamination

AOC P9 was identified by a Fort Devens memorandum (OHM 1994). Former employees of Natick Labs have stated that this area is a possible chemical dump and burial area.

4.14.3 Remedy Selection

Remedial actions and or O&M were not conducted at this site. A NFADD was signed for AOC P9 in December 1999. Human health PRE was evaluated assuming trespassers may be exposed to surface soil and that recreational users and USFWS workers potentially could be exposed to surface soil, surface water, and sediment. Future construction workers could also be exposed to subsurface soil during construction or utility work, and the groundwater could be a source of potable water in the future (ABB 1996). Two pesticides (alpha- and gamma-chlordane) exceeded maximum sediment ecological screening values however, the magnitude of the screening value exceedances do not indicate substantial risks to populations of receptors native

to the site. Arsenic at this site was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7).

4.15 AOC P10-CONFIDENCE COURSE DUMP AREA

4.15.1 Site Location and Description

AOC P10, the confidence course dump area, is located in the northeast of AOC A8 (E&E 1994). It is characterized by cleared areas and various wooden structures such as climbing walls, climbing ropes, and logged paths used in obstacle courses. Northeast of the site, there are several building foundations. On the western edge of the site, near the fence for the food burial area, there is a large depression.

4.15.2 History of Contamination

AOC P10 is described in the Fort Devens memorandum (OHM 1994). Interviews with a former Natick employee indicated the possibility of chemical disposal at this location. For purposes of this document and future actions, AOC P10 was included as part of the SI activities in AOC A8.

4.15.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in November 1994 for AOCs A8/P10. Groundwater screening values were based on the assumption that groundwater would be used in the future and that the Sudbury Training Annex would be used for residential purposes. Groundwater results were compared to MCP GW-1 standards and the USEPA and Massachusetts MCLs for drinking water. Surface soil sample results were below MCP GW-1/S-1 standards. Sediment sample results were below Ontario Ministry of the Environment Lowest Effect Level (OMEE LEL) and/or the National Oceanic and Atmospheric Administration (NOAA) Effects-Range Low (ERL) levels. Sampling did not indicate significant impact from the alleged chemical disposal (ABB 1996).

4.16 AOC P12-ABANDONED UST AT SITE A9

4.16.1 Site Location and Description

AOC P12 is in the northeastern corner of AOC A9 (E&E 1994).

4.16.2 History of Contamination

AOC P12 was identified by a Fort Devens memorandum (OHM 1994). A fenced-in metal shed stands to the west of the cloth test pit and protects a pump apparatus for an UST. For purposes of this document and future actions, AOC P12 was included as part of the RI activities in Site A9.

4.16.3 Remedial Actions

In 1992, ATEC removed the concrete slab that then existed at AOC P12 and removed the 1,000-gallon UST. Prior to removal, 27 gallons of JP-4 and water residual from the tank were containerized. The soil underneath the tank was visibly contaminated. ATEC collected soil samples from the bottom of the excavation, and from the walls of the excavation, and from the stockpile of soil removed. Analytical results of these samples indicated residual TPH contamination in the excavation area. Additional excavation was conducted to reach background levels (less than 1 ppm) utilizing a PID to screen soil samples. A total of 30.75 yd³ of contaminated soil was removed for recycling at Bardon Trimount Bituminous Products. Laboratory analysis of post-remedial soil samples from the excavation indicated residual TPH concentrations from 14 to 35 mg/kg. TCLP metals analysis indicated a maximum concentration of 0.27 ppm of zinc and 0.5 ppm of lead. This site is included in the AOC A9 ROD.

4.17 AOC P14-EAST GATE BURIAL DUMP

4.17.1 Site Location and Description

AOC P14 is located near the East Gate to the Sudbury Training Annex, west of Patrol Road and past the intersection of Patrol Road with Craven Lane (E&E 1994).

4.17.2 History of Contamination

AOC P14 was identified by a Fort Devens memorandum (OHM 1994). According to Natick Labs employees, the East Gate area may have been used for the disposal of drummed decontamination water and chemicals associated with the polyurethane foam and fiberglass structure research at Building T405 (AOC P11).

4.17.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in May 1994 for AOC 14. The NFADD stated, "no evidence of a burial ground or dump area was found." A five-year review is not required due to no use restrictions at AOC P14.

4.18 AOC P15-NAVY BURNING GROUND

4.18.1 Site Location and Description

AOC P15 is located in the southern part of the Sudbury Training Annex near the installation boundary (E&E 1994). It is located on the eastern side of Bruen Road about 500-ft south of the gate. A swamp borders the area to the east and the northeast.

4.18.2 History of Contamination

AOC P15 was identified by a Fort Devens memorandum (OHM 1994). According to current Natick Laboratories employee, this area was used by the Navy as a burning ground.

4.18.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in March 1994 for AOC P15. The NFADD states that "no evidence of a burning ground was found after the area reconnaissance, soil gas survey, and geophysical study" were conducted. A five-year review is not required due to no use restrictions at AOC P15.

4.19 AOC P17-BUILDING T206

4.19.1 Site Location and Description

AOC P17 is located approximately 2,000-ft northeast from the main entrance to the Sudbury Training Annex and 200-ft south of Patrol Road (E&E 1994).

4.19.2 History of Contamination

AOC P17 was identified as a cloth burial area during 1960 (OHM 1994). Interviews with Natick Labs employees indicate that clothes and other personnel combat gear were buried in the vicinity of Buildings T206 and T207. The materials originated from both Natick Labs research of new products and battle damage assessments on equipment used by troops in Vietnam.

4.19.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in December 1999. A five-year review is not required based on land use as a wildlife refuge. Risk-based analyses were conducted for recreational users and USFWS workers for surface soil, future construction workers exposed to subsurface soil and ecological for surface soil (HLA Feb 1999) and no adverse risk effects were determined relative to future use. Arsenic at this site was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7).

4.20 AOC P18-CLOTH BURIAL AREA

4.20.1 Site Location and Description

AOC P18 is located on forested terrain on the northwestern side of Patrol Road and north from Building T267 (E&E 1994). To the southwest, the site is bordered by Puffer Pond Road, to the north and to the east, by an overgrown dirt road.

4.20.2 History of Contamination

AOC P18 was identified by the USPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). Interviews with Natick Labs employees indicate that cloth burial may have occurred in this area during the early 1970s.

4.20.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in May 1994 for AOC P18. The NFADD stated "analytical results of collected samples did not identify any signs of environmental contamination and showed metals concentrations similar to background levels. A five-year review is not required due to no use restrictions at AOC P18.

4.21 AOC P19-CLEARING AND TRACKED AREA

4.21.1 Site Location and Description

AOC P19 is located near the northern boundary of the Sudbury Training Annex immediately south of Patrol Road (E&E 1994). An unpaved road diverges from Patrol Road and leads into an elevated area clear of trees.

4.21.2 History of Contamination

AOC P19 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described as a small burned area with blackened ground and some apparently stressed trees.

4.21.3 Remedial Action

A single drum was removed from this site. One soil sample was collected and compared to MCP S-1/GW-1 for human health PRE and ecological-risk screening values for the ecological risk evaluation. Analytical results did not identify any signs of environmental contamination and showed metals concentrations similar to background levels. A NFADD was signed in April 1995 for AOC P19. A five-year review is not required due to no use restrictions at AOC P19.

4.22 AOC P20-BURNED AREA AND DRUM

4.22.1 Site Location and Description

AOC P20 is a clearing located in the north-central part of the Sudbury Training Annex (E&E 1994). The area is separated from Puffer Pond Road on the southwestern side by a soil and stone berm.

4.22.2 History of Contamination

AOC P20 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described as a small burned area with blackened ground and some apparently stressed trees.

4.22.3 Contaminants

The original excavation limits for the soil exceeding the lead clean up goal of 300 mg/kg were delineated by Harding Lawson Associates (HLA) (formerly ABB Environmental Services) during a Supplemental Site Investigation performed in 1997 (WESTON 1999).

4.22.4 Remedial Actions

The lead-contaminated soil at AOC P20 was excavated, sampled, and disposed of as required by the scope of work and in accordance with local, state, and federal regulations (WESTON 1999). X-ray fluorescence (XRF) field screening was used to delineate the extent of excavation before confirmation laboratory analyses were completed. Although XRF was a useful field-screening tool, it did not accurately identify the elevated lead concentrations at Confirm Sample location 10. Additional excavation to 2 ft bgs (which appeared to be a clay layer) was required at this location to achieve the clean up goal of 300 mg/kg. Based on confirmation sample results, no further action is required at AOC P20.

Remedial actions were conducted at this site to ensure that hazardous substances, pollutants, contaminants, or oil did not remain at levels that would not be protective of human health and the

environment. A NFADD was signed in January 2000. A five-year review is not required because the confirmatory sampling results met the MCP S-1 standards for lead.

4.23 AOC P21-POSSIBLE DUMP AREA

4.23.1 Site Location and Description

AOC P21 is located on the western side of Sudbury Training Annex property and on the southeastern side of Patrol Road (E&E 1994). There are two roads that lead into the site from Patrol Road. One road is located between the power pole marked 87 and the power pole marked 88. The second road diverges from Patrol Road further northeast, just past power pole marked 89. Both roads rejoin and head to the east out of the site towards AOC P25.

4.23.2 History of Contamination

AOC P21 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described as a possible dump. The area was further described as containing ground stains and/or standing liquid.

4.23.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in May 1994 for AOC P21. The NFADD stated that during an enhanced area reconnaissance, "no evidence of dumping, stressed vegetation, surface debris or contamination in the form of standing liquid and staining was observed." No samples were collected at this site for laboratory analysis. A five-year review is not required due to no use restrictions at AOC P21.

4.24 AOC P22-OLD GRAVEL PIT

4.24.1 Site Location and Description

AOC P22 is situated on the western part of the Sudbury Training Annex (E&E 1994). An unpaved road with large mounds and holes, most likely built by motorcyclists, leads west through a locked gate from Patrol Road. About 2,000-ft west on this road, there is a large sandy

depression surrounded by forest. Throughout the area there are motorcycle tracks. To the north of the pit, along the access road, there is also a large soil mound.

4.24.2 History of Contamination

AOC P22 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994).

4.24.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in April 1999 for AOC P22. The NFADD was “on the basis of document review: Final Supplemental Site Investigation Report for Study Areas P1, P4, P17, P20, P22, P31, P35, P58, P59, and P60 in February 1999 by Harding Lawson Associates ES, Inc., site inspections and interviews with Army personnel, as described in the report, there is no evidence or reason to conclude that SA P22 has residual contamination or pose a threat to human health of the environment.” A five-year review is not required due to no use restrictions at AOC P22.

4.25 AOC P24-CLEARED AREA

4.25.1 Site Location and Description

AOC P24 is located in the central part of the Sudbury Training Annex midway between Patrol Road and White Pond Road, and about 3,000-ft south of the Assabet River (E&E 1994). A dirt road diverges southeast from Patrol Road and leads to the site through the forest. The site itself consists of a large cleared area. On its southern end, there are two roads, overgrown with vegetation, leading into the forest.

4.25.2 History of Contamination

AOC P24 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described as cleared area showing apparent activity and vehicle tracks.

4.25.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in May 1994 for AOC P24. The NFADD stated, "Although metal debris in the form of welded steel drums and metal rods were discovered, no evidence of contamination or stressed vegetation was observed." No samples were collected at this site for laboratory analysis. A five-year review is not required due to no use restrictions at AOC P24.

4.26 AOC P25-TEST CHAMBER BUILDING T463

4.26.1 Site Location and Description

AOC P25 is located in the west-central part of the Sudbury Training Annex, about 3,000-ft south of the Assebet River and midway between Patrol Road and White Pond Road along an unpaved road connecting the two (E&E 1994). Building T463 stands against a hill and is surrounded by forest. Building T463 is a reinforced-concrete bunker-like structure, currently empty April 2001.

4.26.2 History of Contamination

AOC P25 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area was described as cleared area showing apparent activity and vehicle tracks.

4.26.3 Remedial Action

An empty above-ground storage tank was removed. Remedial actions were conducted at this site to ensure that hazardous substances, pollutants, contaminants, or oil did not remain at this site at levels that would not be protective of the human health and the environment. For human health preliminary risk evaluation (PRE), soil samples were compared to MCP S-1/GW-1 soil standards and ecological risk evaluations were compared to ecological-risk screening values. A NFADD was signed in April 1995 for AOC P25. A five-year review is not required due to no use restrictions at AOC P25.

4.27 AOC P26-AIR DROP ZONE CLEARING

4.27.1 Site Location and Description

AOC P26 is a large cleared area located in the central part of the Sudbury Training Annex, by White Pond Road to the west (E&E 1994). The site is bounded by wetland terrain to the north and Honey Brook to the east-southeast. Access to the site is made from the western end of the cleared zone. The clearing is divided into three sections: a central grassy area with a flag in the middle (the actual drop zone), a cleared area on the north side, and an area covered with short brush in the south. A tributary to Honey Brook flows along the northern and eastern edge of the site. An unpaved road leads over a small bridge and through a gate from the eastern part of the clearing to Puffer Pond Road.

4.27.2 History of Contamination

AOC P26 was described as being used to subject clothing to flame retardant tests (OHM 1994).

4.27.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in October 1994 for AOC P26. The NFADD stated, "Sampling of soil, surface water, and groundwater did not identify any source of contamination at the site." Human health screening values were based on the assumption that groundwater will be used in the future and that the Sudbury Training Annex will be used for residential purposes as stated in the NFADD. A five-year review is not required due to no use restrictions at AOC P21.

4.28 AOC P27-PYROTECHNICS TEST AREA

4.28.1 Site Location and Description

AOC P27 is located in the north-central part of the Sudbury Training Annex on the north side of Patrol Road and mostly north of the perimeter fence (E&E 1994). Two comparatively clear areas are adjacent to a wetland on the north.

4.28.2 History of Contamination

AOC P27 was described as being used for testing pyrotechnics. During the 1980s environmental studies began at the Annex (OHM 1994). The USEPA determined that the site should be included on the NPL and on 16 February 1990, this location was added to the NPL.

4.28.3 Contaminants

In 1994, E&E collected 5 surface soil samples. Arsenic was detected at levels [550 micrograms per gram ($\mu\text{g/g}$)] consistently above background soil concentrations ($17 \mu\text{g/g}$). ABB completed a supplemental site investigation in 1995 (WESTON 2000). Thirty surface soil samples were collected and all revealed above background levels for arsenic, with most above $100 \mu\text{g/g}$, many above $500 \mu\text{g/g}$, and one with a level of $1200 \mu\text{g/g}$. These levels of arsenic in the soil present potential human health risks.

4.28.4 Remedial Actions

All soil with concentrations at or greater than 250 mg/kg of arsenic, as determined via off-site, fixed laboratory analysis, or greater than $200 \mu\text{g/g}$ of arsenic, as determined via on-site XRF analysis, were removed from AOC P27 (WESTON 2000). The $250 \mu\text{g/g}$ cleanup goal for arsenic in soils at the annex is based on a risk evaluation performed by ABB included as an attachment to the Action Memorandum issued by the ARMY in September 1999.

Excavation activities commenced on 21 March 2000 (WESTON 2000). Excavation began in the eastern portion of the site and proceeded westward. The soil was initially excavated to a depth of 1.5-ft bgs using a Kobelco Sk2200LC excavator. The excavator was utilized for loading the excavated material into triaxle trucks, which in turn transported the contaminated material to the established stockpile area located on an access road south of the excavation area. The triaxle trucks followed a designated haul road to and from the excavation area.

Remedial actions were conducted at this site to ensure that hazardous substances, pollutants, contaminants, or oil did not remain at this site at levels that would not be protective of human health and the environment. A NFADD was signed for AOC P27 in August 2000. O&M is being conducted in the May 2001 groundwater sampling round for total and dissolved arsenic to

ensure that the remedial actions that were conducted is protective of human health and the environment. Arsenic was not detected in the May 2001 for total or dissolved arsenic sample results for P27.

4.29 AOC P29-STATIC ROCKET FIRING

4.29.1 Site Location and Description

AOC P29 is located in the northern part of the Sudbury Training Annex on top of a steep 300-ft hill. The entire area is forested (E&E 1994).

4.29.2 History of Contamination

AOC P29 was described as being used as a static rocket firing test area (OHM 1994).

4.29.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. No samples were collected for laboratory analysis for this site. A NFADD was signed in March 1994 for AOC P29. The NFADD stated, "no evidence of a rocket firing area was found, no debris was noted, and no clearings were located." A five-year review is not required due to no use restrictions at AOC P29.

4.30 AOC P30-PROPOSED TEST AREA

4.30.1 Site Location and Description

AOC P30 is located southeast of areas A6 and P21 on the west-central side of the Sudbury Training Annex, approximately 800-ft west of Patrol Road (E&E 1994). The site coincides with the location of a large wetland covered with thick brush.

4.30.2 History of Contamination

AOC P30 was described as being a proposed test area (OHM 1994).

4.30.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. No samples were collected for laboratory analysis for this site. A NFADD was signed in March 1994 for AOC P30. The NFADD stated, "no evidence of a test area was found and no evidence of contamination was observed." A five-year review is not required due to no use restrictions at AOC P30.

4.31 AOC P31-OLD DUMP

4.31.1 Site Location and Description

AOC P31 is located approximately 800-ft northwest of Lake Boon, between Sudbury Road and White Pond Road but also includes some area east of White Pond Road (E&E 1994). There are two ways to access the site: either by means of White Pond Road that diverges north from Sudbury Road at power pole 120-½, or through a parking lot located on the western part of the site adjacent to Sudbury Road. White Pond Road leads into the northern part of the AOC P31.

4.31.2 History of Contamination

AOC P31 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described as a possible old dump showing vegetation stress and a dark stain.

4.31.3 Remedial Actions

Two empty, crushed drums were removed from AOC P31 in 1992. Risk analysis was conducted under the current and future land use, recreational users and workers for the State and the town could be exposed to AOC 31 surface soil. Current and future construction workers could also be exposed to subsurface soil during construction or utility work. No detected analytes were present at concentrations above risk screening values. A NFADD was signed in April 1999 for AOC P31. The NFADD was "on the basis of document review: Final Supplemental Site Investigation Report for Study Areas P1, P4, P17, P20, P22, P31, P35, P58, P59, and P60 in February 1999 by Harding Lawson Associates ES, Inc., site inspections and interviews with Army personnel, as described in the report, there is no evidence or reason to

conclude that SA P31 has residual contamination or pose a threat to human health of the environment.” A five-year review is not required due to no use restrictions at AOC P31.

4.32 AOC P32-ROAD AND RAILROAD INTERSECTION

4.32.1 Site Location and Description

AOC P32 is located on the southern boundary of the Sudbury Training Annex near the town lines of Sudbury, Marlborough, and Hudson, Massachusetts (E&E 1994). This site includes the intersection of the abandoned northwest to southeast running Boston & Maine Railroad and Old Concord Road. At the intersection, the railroad tracks are buried but they emerge beyond the intersection. A town boundary monument is in the middle of the site.

4.32.2 History of Contamination

AOC P32 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described as a road and railroad intersection. Burned areas with dead trees and visible debris were also noted.

4.32.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. As stated in the NFADD, “Field investigation of Area P32 began with a site reconnaissance in 1985. The reconnaissance determined that the debris near the area originated off-site and was not derived from installation activities. An enhanced area reconnaissance was conducted in 1992 in conjunction with the SI/RI of sixty-eight study areas on the Annex. A small trash pile on the installation side of the railroad tracks has since been removed. No evidence of contamination related to military activities was noted.” No samples were collected for laboratory analysis for this site. A NFADD was signed in May 1994 for AOC P32. A five-year review is not required due to no use restrictions at AOC P32.

4.33 AOC P33- GROUND SCAR

4.33.1 Site Location and Description

AOC P33 is located about 1,000-ft south of Hudson Road and approximately 800-ft east of the former railroad classification yard (E&E 1994). The site is most easily accessed by heading east along the installation boundary to a north to south trail in the forest. The trail is lined by utility lines and cut poles. The trail curves west and heads into the site, which lies on an east to west orientation. AOC P33 consists of a series of clearings on both sides of the trail.

4.33.2 History of Contamination

AOC P33 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area was described as a ground scar on the USEPA site location map.

4.33.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in April 1995 for P33. The NFADD stated, "No evidence of contamination was observed." A five-year review is not required due to no use restrictions at AOC P33.

4.34 AOC P34-VEGETATION STRESS AT MAIN GATE

4.34.1 Site Location and Description

AOC P34 is located in the central part of the Annex, about 400-ft southeast of the main gate on Hudson Road (E&E 1994). A pipeline easement cleared of trees runs northeast to southwest and continues across Hudson Road. The easement is overgrown by grasses and young trees. A sign marked "Marlboro Sudbury State Forest" stands in a clearing adjacent to the easement. Plastic pipeline markers protruding from the ground along the easement indicate the exact underground path of the gas conduit. Southeast of the easement and within the tree line there is a stone line pit about 15-ft by 10-ft by 5-ft deep.

4.34.2 History of Contamination

AOC P34 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area was described as vegetation stress and possible drums adjacent to trees.

4.34.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in May 1994 for AOC P34. The NFADD stated, "no evidence of stressed vegetation, surface debris, or indication of contamination were found." A five-year review is not required due to no use restrictions at AOC P34.

4.35 AOC P35-MAIN GATE GUARD SHACK

4.35.1 Site Location and Description

The Guard Shack (Building T200) is located near the main gate to the Sudbury Training Annex. A paved road leads northeast through a gate and into the Annex (E&E 1994). The guardhouse stands between Hudson Road and Patrol Road. The entrance into the building is on the southeastern side of the house. A fuel tank and a cistern exist on the southwestern side. There is also a parking lot on the corner of Hudson Road and the road entering the facility.

4.35.2 History of Contamination

AOC P35 was identified by OHM (OHM 1994). Several transformers, which may contain PCBs, are located inside an electrical utility room attached to the Guard Shack.

4.35.3 Remedial Actions

The former Guard Shack at the Sudbury Gate contained transite siding, transite roofing, and 308-ft² of vinyl asbestos tile (VAT). Non-asbestos floor tile (12" x 12") was covering the VAT and was removed from the Guard Shack and disposed of with asbestos-containing materials (ACM) as well. Asbestos abatement activities began on 15 March 2000 (WESTON 2000).

A 275-gallon AST, all appurtenances, and piping previously located adjacent to the Guard Shack were removed on 17 March 2000 by Charter Environmental with oversight by WESTON (WESTON 2000). After the AST was properly cleaned, the tank was cut with a sawzall for transportation and disposal purposes. Charter Environmental, Inc. transported and disposed of the AST at the Prospect Iron & Steel Corp. in Somerville, MA in accordance with federal and State Regulations.

Remedial actions were conducted at this site to ensure that hazardous substances, pollutants, contaminants, or oil did not remain at levels that would not be protective of human health and the environment. The risk was based on future land-use as a wildlife refuge, recreational users and USFWS workers could be exposed to surface soil. A NFADD was signed in April 1999 for AOC P35. The NFADD was "on the basis of document review: Final Supplemental Site Investigation Report for Study Areas P1, P4, P17, P20, P22, P31, P35, P58, P59, and P60 in February 1999 by Harding Lawson Associates ES, Inc., site inspections and interviews with Army personnel, as described in the report, there is no evidence or reason to conclude that SA P35 has residual contamination or pose a threat to human health of the environment." A five-year review is not required due to no use restrictions at AOC P35.

4.36 AOC P38-FORMER RAILROAD INSPECTION PIT

4.36.1 Site Location and Description

AOC P38 encompasses a small area at the southern end of the railroad classification yard on the southern part of the Sudbury Training Annex (E&E 1994). A pit has been excavated on the eastern side of the railroad bed north of the site. About 150-ft south of the pit on the western side of the track, there is a half buried concrete block in the shape of a "T". This concrete structure was believed to have been part of the former railroad inspection pit.

4.36.2 History of Contamination

AOC P38 was identified by OHM as a possible source of contamination (OHM 1994).

4.36.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in December 1999. Risk was based on recreational users and USFWS workers potentially could be exposed to surface soil and sediment. Future construction workers could also be exposed to subsurface soil during construction or utility work. The PRE assumed that groundwater could be a source of potable water in the future. Maximum concentrations of arsenic and manganese in sediment exceed the USEPA Region III residential soils RBC, they do not exceed the MCP S-1 soil standard. Potential exposures to sediment would occur at magnitudes assumed in the industrial soil RBC. Arsenic at this site was detected in surface soils and was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7).

4.37 AOC P40- BUILDING T452 AREA

4.37.1 Site Location and Description

Building T452 is located in the central part of the Sudbury Training Annex on the northeast corner of the intersection of Patrol Road and White Pond Road (E&E 1994). The building faces Patrol Road. On the eastern side of the building, there are cellar doors and a fuel oil fill spout. About 60-ft east of Building T452 is an underground septic tank.

4.37.2 History of Contamination

AOC P40 was identified based on results of ground water samples collected from a monitoring well within the area, and reported past uses of Building T452 (OHM 1994).

4.37.3 Remedial Action

A heating fuel oil spill occurred at this site in 1992 at the fillport immediately adjacent to Building T452. The contaminated soil was excavated to below 65 µg/g TPH by Laidlaw Environmental Services as stated in the NFADD.

Human health screening values were based on the assumption that groundwater will be used in the future and that the Sudbury Training Annex will be sue for residential purposes, and the

groundwater screening values used are those related to drinking water supplies, such as the MCP GW-1 groundwater category standard and the USEPA and the MADEP MCLs for drinking water as stated in the NFADD. Groundwater sampling did not support solvent contamination at AOC P40. Elevated metals concentrations from the cesspool were determined to be from the plumbing at Building T452. A NFADD was signed in October 1994 for AOC P40. As stated in the NFADD, "no contamination of concern related to this site was identified during numerous investigations." A five-year review is not required due to no use restrictions at AOC P40.

4.38 AOC P42- OFF-SITE DUMP

4.38.1 Site Location and Description

AOC P42 is located just outside the northern installation boundary, along the Sudbury Training Annex property line at the intersection of Taylor Brook and an old access road or footpath that proceeds west from Taylor Road (E&E 1994). There is a cleared area along the path on an east-west axis on the west side of Taylor Brook.

4.38.2 History of Contamination

AOC P42 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described as a small dump and debris at the end of an access road.

4.38.3 Remedial Action

A NFADD was signed in October 1994 for AOC P42. As stated in the NFADD, "The results of extensive environmental investigations, including historic documentation reviews, and sampling efforts at AOC P42 do not indicate any significant contamination or discernable impact from the site on the surface soil, or surface water and sediments in the vicinity." The human health screening that the NFADD was based was on the assumption that groundwater will be used in the future and that the Annex will be used for residential purposes. The groundwater screening values used are those related to drinking water supplies, such as the MCP GW-1 groundwater category standard and the USEPA and MADEP MCLs for drinking water. Analysis of surface

soil samples taken at this site did not indicate any evidence of contamination of soils. A five-year review is not required due to no use restrictions at AOC P42.

4.39 AOC P43 A/B-DISTURBED AREA/ STAINING SOILS AND STRESSED VEGETATION

4.39.1 Site Location and Description

Both areas are located near the Maynard Town Well No. 3 and Test Well 14, which was installed in 1980 to test the aquifer supporting Maynard Well No. 3 (E&E 1994).

AOC P43A is approximately 800-ft north of the Maynard Town Well No. 3 and consists of a clearing surrounded by forests. It was originally identified as an area of stressed vegetation. The vegetation is composed of various kinds of dry grasses. The boundaries between the different kinds of grasses are very sharp and in some parts of the clearing they give the appearance of stains on the ground.

AOC P43B was identified as an area of stressed vegetation between Maynard Town Well No. 3 and the parking lot south of Digital Corporation. This area coincides with an extensive wetland.

4.39.2 History of Contamination

AOCs P43A and P43B were identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The areas are described as disturbed areas, and had some apparent vegetation stress and a dark stain on the ground surface.

4.39.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in October 1994 for AOC P43 A/B. As stated in the NFADD, "The results of extensive environmental investigations, including historic documentation reviews, and sampling efforts at AOC P43 A/B do not indicate any significant contamination or discernable impact from the site on the surface soil, or surface water and sediments in the vicinity. The SI undertaken by E&E confirmed that no evidence of contamination could be identified and that a threat to human

health or the environment at the site appears highly unlikely.” A five-year review is not required due to no use restrictions at AOC P43 A/B.

4.40 AOC P44 A/B-CLEARING WITH STAINS AND WHITE OBJECTS

4.40.1 Site Location and Description

AOC P44 A/B are located on FEMA property in the northern part of the Annex (E&E 1994). AOC P44A is defined as the circular clearing approximately 800-ft northwest of the FEMA operations building. A cleared road leads northwest from the building to the site.

AOC P44B is a second clearing situated 400-ft northeast of the FEMA building at the end of the access road. The area surrounding both AOC P44A and P44B is densely vegetated.

4.40.2 History of Contamination

AOCs P44A and P44B were identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). Ground stains and white objects at the center of each clearing were noted. These white objects are actually retractable antennae used by FEMA.

4.40.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. No samples were collected for laboratory analysis for this site. A NFADD was signed in March 1994 for AOC P44A and B. The NFADD states “no evidence of contamination was observed.” A five-year review is not required due to no use restrictions at AOC P44 A/B.

4.41 AOC P45-BURNED AREA OUTSIDE FENCE

4.41.1 Site Location and Description

AOC P45 is located on the northern end of the Sudbury Training Annex and on the eastern side of Patrol Road (E&E 1994). Some of the site is outside the security fence, and one area is outside

the current installation boundary. The site lies between Patrol Road to the west and a tributary to Taylor Brook, which bounds the site's eastern and southern end. An old road exiting from Patrol Road to the site has been clocked by an earthen berm in front of a former gate. Approximately 100 ft east of the gate, and into the forest, there is a large depression with a series of smaller depressions within it. Further east, past the large area with depressions, is a path, which if followed south, leads over a log bridge crossing the tributary to Taylor Brook.

4.41.2 History of Contamination

AOC P45 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described as a possible burn area with some dead trees.

4.41.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in December 1999 for AOC P45. The risk was done with the assumption that future land use, recreational users and USFWS workers potentially could be exposed to surface soil, surface water, and sediment. Future construction workers could also be exposed to subsurface soil during construction or utility work. In the PRE groundwater was associated as a potential source of potable water. Arsenic at this site was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7).

4.42 AOC P46-CLEARED/BURNED AREA/ DEAD TREES

4.42.1 Site Location and Description

AOC P46 is about 1,600-ft west of Puffer Pond and on the edge of the southeast to northwest trending wetland (E&E 1994). The terrain in that area is currently overgrown with tall trees and the wetland is densely covered with shrub.

4.42.2 History of Contamination

AOC P46 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described as a clearing with burned and dead trees.

4.42.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in March 1994 for AOC P46. The NFADD stated, "no evidence of contamination was observed." A five-year review is not required due to no use restrictions at AOC P46.

4.43 AOC P47-DAMAGED VEGETATION

4.43.1 Site Location and Description

AOC P47 is located in the central part of the Sudbury Training Annex about 2,000-ft northwest of Puffer Pond and 200-ft northeast of Bunker 332 (E&E 1994). There is a clearing, which is a wetland.

4.43.2 History of Contamination

AOC P47 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described damaged vegetation with leafless trees. No vegetation stress was apparent.

4.43.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in March 1994 for AOC P47. The NFADD stated, "no evidence of contamination was observed." A five-year review is not required due to no use restrictions at AOC P47.

4.44 AOC P48-FUEL BLADDER AREA

4.44.1 Site Location and Description

AOC P48 is located on the southwestern corner of the Annex, immediately east of the intersection between Firehouse Road and Bruen Road (E&E 1994). Across from an old building (T101), a paved road diverges from Firehouse Road and leads northwest into a cleared area. About 300-ft southeast of the weather station and along Firehouse Road, there is a small clearing with a 45-ft by 30-ft asphalt pad. A wooden tower with a sign marked “diesel” stands on the side of the pad closest to Firehouse Road.

4.44.2 History of Contamination

AOC P48 was reportedly used for testing POL bladders from 1959 to 1965 (OHM 1994). The bladders ranged up to 500 gallons in size and were partially buried in the ground on occasion. Reportedly, the bladders contained gasoline and aviation fuel and some spillage occurred during handling. The amount of spillage that occurred is not known nor what measures, if any, were taken to clean up the spills.

4.44.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in October 1994 for AOC P48. As stated in the NFADD, “Although historical evidence identified that POL bladders and clothing treated with fungicides were tested at AOC P48, and spills from the POL bladders were reported to have occurred, sampling results to date do not indicate any residual contamination in subsurface soils or groundwater at the site that would pose potential risks to human health or the environment.” The human health screenings values in the NFADD was based on the assumption that groundwater will be used in the future and that the Annex will be used for residential purposes. The groundwater screening values used are those related to drinking water supplies, such as the MADEP MCP GW-1 groundwater category standard and the USEPA MCLs for drinking water. A five-year review is not required due to no use restrictions at AOC 48.

4.45 AOC P49-TWO DRUMS NEAR ROAD/ BUNKER 323

4.45.1 Site Location and Description

AOC P49 is located in the vicinity of Bunker 323 in the central area of the Annex (E&E 1994). The bunker is located on the side of an east-to-west-trending stretch of road.

4.45.2 History of Contamination

AOC P49 was identified by OHM during a site reconnaissance in March 1991 (OHM 1994). Two drums were discovered near the road accessing Bunker 323.

4.45.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in April 1995 for AOC P49. The NFADD stated Phase II confirmation samples results had no positive detections for VOCs and all pesticide concentrations were below MADEP MCP soil standards. A five-year review is not required due to no use restrictions at AOC 49.

4.46 AOC P50-ONE DRUM NEAR ROAD/ BUNKER 325

4.46.1 Site Location and Description

Bunker 325 is located about 1,000-ft west of Puffer Road (E&E 1994). The site includes a depression some 400-ft north of the bunker and an old drum location across the road from this depression on the edge of a wetland.

4.46.2 History of Contamination

AOC P50 was identified by OHM during a site reconnaissance in March 1991 (OHM 1994). One drum was discovered near the road accessing Bunker 325.

4.46.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in May 1994 for AOC P50. The NFADD stated that a sample was collected and no contamination was found in the sample. A five-year review is not required due to no use restrictions at AOC P50.

4.47 AOC P51-ONE DRUM NEAR WHITE POND ROAD

4.47.1 Site Location and Description

AOC P51 is located on the west-central part of the Sudbury Training Annex along White Pond Road, approximately 1,600-ft north of the intersection with Patrol Road (E&E 1994). West across White Pond Road from this point, there is an extensive wetland.

4.47.2 History of Contamination

AOC P51 was identified by OHM during a site reconnaissance in March 1991 (OHM 1994). One drum was discovered along the edge of White Pond Road.

4.47.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. For human health preliminary risk evaluation soil samples were compared to MCP S-1/GW-1 soil standards. For ecological risk evaluation soil samples were compared to ecological-risk screening values. A NFADD was signed in April 1995 for AOC P51. As stated in the NFADD, "Sampling following the drum removal has shown pesticide and metals concentrations below and within human health and ecological screening values." The NFADD also stated "the activities involved in the OHM investigation qualified for a categorical exclusion (CX) in accordance with National Environmental Policy Act (NEPA), as amended, and did not require prior preparation of an environmental assessment or an environmental impact statement." A five-year review is not required due to no use restrictions at AOC P51.

4.48 AOC P52-POSSIBLE DRUM AREA NEAR FEMA PROPERTY

4.48.1 Site Location and Description

AOC P52 is located about 1,000-ft northwest of the East Gate of the Annex and is accessed from Patrol Road (E&E 1994). An earthen mound partially blocks the entrance. North of the fence line there is an old road with old growth trees. About 20-ft northeast on this old road and on its western side, there is a large depression.

4.48.2 History of Contamination

AOC P52 was identified by the USEPA in the Installation Assessment conducted on Natick Labs and the Sudbury Training Annex (OHM 1994). The area is described as an old gravel pit and chemical burial dump/fill area. A scarred shallow depression was noted as was some visible debris.

4.48.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in November 1994 for AOC P52. As stated in the NFADD, "no physical or chemical evidence of contamination above screening values has been found at this site." A five-year review is not required due to no use restrictions at AOC P52.

4.49 AOC P53-BUILDING T210 UST

4.49.1 Site Location and Description

Building T210 is located 2,000-ft northeast of the guardhouse and the main gate to the Sudbury Training Annex and approximately 200-ft northwest of Patrol Road (E&E 1994). The building is reached by means of a paved road which diverges uphill northwest from Patrol Road. The front of T210 faces southwest. A large partially collapsed wooden porch exists in the front of the building. There are driveways on both sides of the building. Underneath the building on its northwestern corner there is a sign reading "Fuel Oil No. 2."

4.49.2 History of Contamination

AOC P53 was identified by OHM during a site reconnaissance in March 1991 (OHM 1994). The heating oil tank was later found to be located in the basement of Building T210 rather than underground.

4.49.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in March 1994 for AOC P53. The NFADD stated, "no evidence of contamination was observed." A five-year review is not required due to no use restrictions at AOC P53.

4.50 AOC P54-BUNKERS 305,307, AND 314

4.50.1 Site Location and Description

Bunkers 305, 307, and 314 are located in the central part of the Sudbury Training Annex and west of Puffer Pond (E&E 1994). Each bunker's entrance faces a dirt road and each one is surrounded by a forest on the other three sides.

4.50.2 History of Contamination

AOC P54 was identified as general chemical storage areas (OHM 1994). P54 is comprised of three locations. From 1954 to 1973 or 1974, Bunker 305 was used for chemical storage. Bunker 307 was used for chemical stock storage and Bunker 314 contained volatile fuels. A Natick Labs employee indicated that chemical stocks and chemical wastes were stored in Bunker 305 and may have been dumped around Bunker 303, 307, and 314.

4.50.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in December 1999 for AOC P54. The PRE was based on land use for a wildlife refuge, recreational users and USFWS workers potentially could be exposed to surface soil, future construction workers could also be exposed to subsurface soil during construction or utility work, and the

groundwater associated could be a source of potable water. Arsenic at this site was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7).

4.51 AOC P55-CLEARED AREA SOUTH OF BUNKER 301

4.51.1 Site Location and Description

AOC P55 is located approximately 600 ft north of Patrol Road along one of the old railroad beds (E&E 1994). AOC P55 consists of an old road overgrown with vegetation and a large east to west trending logging area. Many stumps and logs are still visible scattered in the clearing.

4.51.2 History of Contamination

AOC P55 was identified by OHM during a review of aerial photographs (OHM 1994).

4.51.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. No samples were collected at this site. A NFADD was signed in March 1994 for AOC P55. The NFADD stated, "no evidence of contamination was observed." A five-year review is not required due to no use restrictions at AOC P55.

4.52 AOC P56-CLEARED AREA SOUTH OF BUNKER 313

4.52.1 Site Location and Description

AOC P56 is located approximately 500 ft northwest of Puffer Pond and southeast of Bunker 313 (E&E 1994). Bunker 313 is surrounded by forest except on its southern side, which faces a larger clearing and an access road. The site is characterized by a series of clearings east of the bunker. Directly south of the bunker there is a network of larger clearings all connected by a dirt road that leads to Puffer Pond Road. In the large clearing southeast of the bunker, a 1-inch-wide insulated cable can be seen emerging from the ground.

4.52.2 History of Contamination

AOC P56 was identified by OHM during a review of aerial photographs (OHM 1994).

4.52.3 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in October 1994 for AOC P56. As stated in the NFADD, "no physical or chemical evidence of contamination above screening values has been found at this site." A five-year review is not required due to no use restrictions at AOC P56.

4.53 AOC P57-FORMER BUILDING S449

4.53.1 Site Location and Description

AOC P57 is located on the northwestern side of White Pond Road in the northern part of the Sudbury Training Annex, and is situated about 2,000 ft southwest of the north intersection of White Pond Road with Patrol Road (E&E 1994). Immediately south of a pink fire hydrant, and just north of an old stonewall on White Pond Road, there is an old paved road, which diverges northwest into the site area. While the paved road curves to the west and ends in a small partially overgrown clearing, an unpaved road continues straight into another old clearing.

4.53.2 Remedy Selection

Remedial actions and/or O&M were not conducted at this site. A NFADD was signed in October 1994 for AOC P57. As stated in the NFADD, "Sampling results did not identify any site-related contamination other than low-level PAH concentrations in the immediate area around the metal and concrete debris in the center of the site. It is highly unlikely that the residual PAH levels pose any threat to human health or the environment. Given that no impacts were detected in groundwater, sediment, or soils outside of this one area." A five-year review is not required due to no use restrictions at AOC P57.

4.54 AOC P58-SUDBURY ROAD DUMP

4.54.1 Site Location and Description

AOC P58 is located immediately north of AOC P31 and consists of an exposed dump in a northeast-southwest oriented wetland area, which is surrounded by forest (E&E 1994). The wetland is approximately 150 yards long by 70-ft wide. A culvert on the western end of the wetland carries water under Sudbury Road and drains into Lake Boon.

4.54.2 History of Contamination

In the OHM Final SI/RI Report, the history of contamination for AOC P58 is included with AOC P31. Arsenic at this site was determined to be a concern within the facility-wide arsenic issue.

4.54.3 System Operations/Operation and Maintenance (O&M)

An addendum to the 1998 LTMMP at AOC A7 was signed in February 2000 requiring four monitoring wells located at AOC P58 be included in the semi-annual groundwater monitoring for arsenic through fall 2001. Four wells are used for groundwater sampling to monitor the amount of arsenic leaching into the groundwater for AOC P58.

4.54.4 Five-Year Review Findings

4.54.4.1 Data Review

Semi-annual operation and maintenance groundwater sampling has been conducted on wells E3-P31-M01, JO-P58-M24, E3-P58-M02 and E3-P58-M01. All of the arsenic sample results were found below the USEPA maximum contaminant level (MCL) of 50 µg/L. Because there is no apparent trend in the sampling data to suggest that the arsenic groundwater concentrations are increasing, continued semi-annual groundwater monitoring is not warranted. These wells should be abandoned.

4.54.4.2 Assessment

With all of the semi-annual groundwater monitoring not detected above the MCL of 50 ppb, there does not appear to be any further need for further groundwater monitoring. No further action is recommended for AOC P58.

4.54.4.3 Deficiencies

None.

4.54.4.4 Recommendations and Follow-up Actions

The recommended remedy is for a no further action and is supported by the data.

4.54.4.5 Protectiveness Statement

The current status of the site is protective for current land and groundwater use.

4.54.5 Site Location and Description

AOC P59 is located in the north-central part of this installation, just north of Bunker 319, along the southern margin of the Taylor Brook floodplain. It straddles the boundary of a vegetated wetland. The access road is constructed on fill at a level approximately 8 to 10-ft above the average grade of the study area. Steel pipes and other demolition debris protrude visibly from the slope between the road (former railroad) and the floodplain.

4.55 AOC P59-CANS/ METAL DEBRIS NORTH OF BUNKER 319

4.55.1 History of Contamination

During the initial SI, OHM (1995) observed 5-gallon cans (empty and rusted) and other metal debris "scattered over the site," some of it partially buried. There was no surface water found at the site during the initial investigation.

Table 4-1
AOC P58 Operation and Maintenance Monitoring for Arsenic
Sudbury Training Annex Five Year Review
Sudbury, Massachusetts

| Date | PARAMETERS TAL METALS (6010) | MCP RCGW-1 ug/L | Well No. | | | | |
|--------------|---------------------------------|-----------------------|-----------------------|-----------------------|--------------------|--------------------|--------------------|
| | | | JO-P58-M24 ug/L | JO-P58-M24Dup ug/L | E3-P58-M02 ug/L | E3-P58-M01 ug/L | E3-P31-M01 ug/L |
| Fall 1993 | Arsenic | 50 | Installed Spring 1999 | Installed Spring 1999 | 16 | 41 | 91 |
| Sp. 1996 | Arsenic | 50 | " | " | 17 | 3 | 37 |
| Fall 1996 | Arsenic | 50 | " | " | 18 | 3 | 71 |
| Fall 1997 | Arsenic | 50 | " | " | Not Sampled | Not Sampled | Not Sampled |
| Sp. 1998 | Arsenic | 50 | " | " | Not Sampled | Not Sampled | Not Sampled |
| Spring 1999 | Arsenic | 50 | 21 | NA | Not Sampled | Not Sampled | Not Sampled |
| | Arsenic (Dissolved) | 50 | 21 | NA | Not Sampled | Not Sampled | Not Sampled |
| October 1999 | Arsenic | 50 | 32 | 32 | 29 | 4.6 J | 63 |
| | Arsenic (Dissolved) | 50 | 31 | 29 | 22 | <50 | 87 |
| April 1999 | Arsenic | 50 | 31 | 30 | 26 | 4.6 J | 25 |
| | Arsenic (Dissolved) | 50 | 30 | 29 | 12 | <50 | 19 |
| October 2000 | Arsenic | 50 | 28 | 25 | 17 | <10 | 78 |
| | Arsenic (Dissolved) | 50 | 28 | 28 | 18 | <10 | |
| May 2001 | Arsenic | 50 | 27 | NA | 18 | <10 | 5.4 B |
| | Arsenic (Dissolved) | 50 | 27 | NA | 15 | <10 | 4.3 B |

4.55.2 Remedial Actions

Debris was removed from this area.

Remedial actions were conducted at this site to ensure that hazardous substances, pollutants, contaminants, or oil did not remain at levels that would not be protective of human health and the environment. A NFADD was signed for AOC P59 in December 1999. No further action is recommended at AOC P59 for two reasons (HLA September 1998). First, the comparatively low risk indicated for the study area in the PRE appears to be associated with a small area (less than one-quarter acre) of elevated pesticide concentrations. There is evidence that the pesticide DDT is being degraded, and concentrations should continue to decrease with time. Second, a removal action would result in habitat destruction that may exceed the perceived benefit from the removal. There currently is no evidence of effect of contaminants on ecological receptors at a community level. Arsenic at this site was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7).

4.56 AOC P60-THREE DRUMS WEST OF PATROL ROAD

4.56.1 Site Location and Description

This site is located between Patrol Road and the perimeter fence, approximately 1.25 miles west of the Main Gate.

4.56.2 History of Contamination

Three empty drums were found at this site.

4.56.3 Remedial Actions

The empty drums were removed from this site.

Remedial actions were conducted at this site to ensure that hazardous substances, pollutants, contaminants, or oil did not remain at levels that would not be protective of human health and the environment. A NFADD was signed for AOC P59 in December 1999. Only arsenic was found

above MCP S-1 soil standards and USEPA residential RBC. Arsenic at this site was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7).

4.57 AOC P61-HONEY BROOK OLD DUMP

4.57.1 Site Location and Description

AOC P61 is located south of Honey Brook.

4.57.2 Remedial Actions

Remedial action at AOC P61 consisted of the removal of a drum located in Honey Brook and collection of sedimentation samples down gradient of the drum (WESTON 1999). No site clean-up goals were established for the Honey Brook sedimentation sampling and drum removal. Following the completion of sediment sampling activities, WESTON removed the drum by hand. The drum was then crushed for off-site transport and disposal.

Sediment sampling was conducted downstream of the drum in Honey Brook, near Area P61, and samples were analyzed for PAHs, total organic compounds (TOCs), and grain size distribution (WESTON 1999). The drum was removed by hand, crushed, and disposed of off-site as scrap metal. It was observed that the drum was sufficiently deteriorated and free of any foreign materials. The sediment sample results were submitted to CENAE on 26 January 1999 for review by the USEPA.

Remedial actions were conducted at this site to ensure that Hazardous Substances, pollutants, contaminants, or oil did not remain at levels that would not be protective of human health and the environment. A NFADD was signed in December 1999 for P61. Arsenic at this site was determined to be a concern within the facility-wide arsenic issue (see AOC P28 in Section 2.7).

SECTION 5

REFERENCES

5. REFERENCES

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