

DSCR – DSERTS SITE 002 TRANSITORY SHELTER 202: OU 11

SITE DESCRIPTION

Former Building 202, referred to as a Transitory Shelter (TS), was an open-front storage shed located along the western installation boundary (Figure 5). Formerly, the northern end of the shelter was used to store approximately 800 drums of DDT. In 1981, seepage from the drums was discovered. Soil from the floor was removed and backfilled with clean soil. The area was paved over, and a containment berm was constructed along the floor to contain future potential leakage. The drums were subsequently removed for off-site disposal in the early 1980s.

In 1986, soil samples were collected as part of a pesticide monitoring study. Analytical results indicated that the soil contained residues of DDT and its primary metabolites (dichlorodiphenyldichloroethane [DDD] and dichlorodiphenyldichloroethylene [DDE]). In 1992, an ESI revealed toluene, semivolatile organic compounds (SVOCs), metals, and pesticides in surface soil and sub-floor samples. As a result, the soil impacts were designated as OU 11.

Additional soil and storm drain sediment samples were collected in 1995. Soils were found to contain seven metals, DDT and its metabolites, and PCB-1254 above the USEPA Region 3 risk-based concentrations (RBCs) for residential exposure. Maximum concentrations were found in surface samples. Lead, DDD, and DDT concentrations exceeded residential soil RBCs in sediment samples, but there was not a complete receptor exposure pathway for impacted storm drain sediments. Groundwater collected in 2000 contained two metals and two volatile organic compounds (VOCs) at concentrations above the USEPA Region 3 tap water RBCs but below VDEQ groundwater quality standards. However, downgradient results were below upgradient groundwater concentrations.

An RI was submitted in 1997 and an FS in 2000. An FS Addendum was submitted in 2005 evaluating potential remedial alternatives for future industrial reuse of the site. The HHBRA was updated in 2006 for current and future on-site industrial workers and future construction workers. There was no unacceptable risk for any exposure scenario. The shed was demolished in October 2004, and the area was paved with asphaltic

concrete in October 2005. The area is currently used for materials storage. A ROD for OU 11 was signed in 2007. Based on existing OU-specific data, the preferred remedial alternative includes Land Use Controls (LUCs), maintenance of the existing cover system, and proper soil disposal and erosion control in case of future excavation. A vegetative cover was also recommended at OU 10.

PATH FORWARD

The RD and RA-C were completed in 2008, and the site has achieved RC. LUCs and LTM are ongoing.

IRP STATUS

RRSE Rating:	Low Risk
Constituents:	Metals, SVOCs, pesticides
Affected Media:	Soil, Storm Sewer Sediment
Completed IRP Phases:	Preliminary Assessment (PA), Site Investigation (SI), RI, FS, RD, RA-C, RC
Current IRP Phase:	LUCs and LTM
Future Phases:	LUCs and LTM



DSCR – DSERTS SITE 006 BUILDING 68: OU 10

SITE DESCRIPTION

OU 10 is the former site of Building 68, a small (30-foot x 30-foot) brick building surrounded by an asphalt and gravel lot. OU 10 is located in Zone 1 in the northern part of the installation (Figure 3). From 1954 to 1972, the area served as a pesticide storage and operations facility. Additionally, in 1972 the surrounding gravel lot was used to store electrical transformers. A spill of transformer oil containing PCBs occurred during 1980. Affected soil was excavated and removed from the site. The lot surrounding the former building is currently used for vehicle parking. Storm drains in the area discharge into the Falling Creek Tributary, just west of the installation.

Soil and storm drain sediment samples were collected during a pesticide monitoring study in 1986. A human health risk assessment was performed using a residential exposure scenario. Dieldrin was detected in surface soils above the USEPA Region 3 RBC for residential exposure and above background concentrations. No evidence of pesticide migration to groundwater was found.

An ESI was performed in 1992, which included collecting surface and subsurface soil samples. Toluene, 16 SVOCs, 6 pesticides, and 20 metals were detected. Arsenic, benzo(a)pyrene, and manganese concentrations resulted in unacceptable human health risk under residential exposures, and the soil impacts were designated OU 10.

An RI report was submitted in 1998. Groundwater, subsurface soil, and storm sewer sediment samples were collected during 1995. Metals, 7 PAHs, and 3 pesticides were detected; however, the risk associated with on-site occupational exposures (non-intrusive and construction workers) was within the acceptable range.

An FS evaluating a no-action alternative with institutional controls was conducted in 1999, and a draft ROD was prepared in 2001.

Upon conclusion of a three-year study on the creeks near the site, an FS addendum was submitted in 2006. The revised HHBRA found no unacceptable risk for

current or future on-site industrial workers, and recommended additional requirements for ensuring the effectiveness of the institutional controls described in the ROD. A vegetative cover was also recommended at OU 10. A ROD for OU 11 was signed in 2007. Based on existing OU-specific data, the preferred remedial alternative includes Land Use Controls (LUCs), maintenance of the existing cover system, and proper soil disposal and erosion control in case of future excavation.

PATH FORWARD

The RD and RA-C were completed in 2008, and the site has achieved RC. LUCs and LTM are ongoing.

IRP STATUS

RRSE Rating:	Low Risk
Constituents:	Arsenic, dieldrin, PAHs
Affected Media:	Soil
Completed IRP Phases:	PA, SI, RI, FS, RD, RA-C, RC.
Current IRP Phase:	LUCs and LTM
Future Phases:	LUCs and LTM



DSCR – DSERTS SITE 009 AREA 50 LANDFILL: OU 2

SITE DESCRIPTION

The Area 50 Landfill (OU 2) is a 13-acre former natural ravine in the central part of the installation (Figure 4). The landfill was used as a disposal area for a variety of bulk liquid chemicals, construction debris, and scrap metal from the mid-1960s until the early 1970s. By 1975, the area had been filled, graded to street level, and seeded with grass.

The initial Installation Assessment in 1981 identified Area 50 as a potential source of impacts, and it contributed to the installation being listed on the NPL. Soil samples collected in 1984 showed SVOCs, CVOCs, pesticides, total petroleum hydrocarbons, phenols, PCBs, and various metals at concentrations higher than background levels. The area was designated as OU 2. The associated groundwater is considered separately as OU 6.

An initial RI was completed in 1989. Three “hot spots” containing PAHs, VOCs, SVOCs, and metals were confirmed by soil sampling. Wastes disposed of in the landfill extend into the saturated zone, and VOCs were found to an approximate depth of 30 feet.

Geophysical anomalies discovered during the RI were investigated in 1995 by exploratory trenching. Three crushed 55-gallon drums were found, along with numerous small plastic bottles and pails. A large amount of construction debris was encountered. Steel reinforcing bar (rebar), scrap metal, and artillery shell casings were determined to be the cause of the anomalies. Petroleum hydrocarbon stained soils and free-phase fuel oil were also encountered in the shallow trenches.

An FS was completed in 1999, and the HHBRA was revised in 2006. Unacceptable risk driven primarily by benzo(a)pyrene in surface soils was determined for current and future industrial workers. A revised remedy selection was finalized in July 2006. A remedial alternative of a soil cover system designed and constructed to promote surface runoff and serve as a physical barrier were proposed. The ROD was signed in 2008.

PATH FORWARD

The RD and RA are expected in 2009. RC is expected in 2011, with LUCs and LTM expected to continue after RC.

IRP STATUS

RRSE Rating:	High Risk (potential source to groundwater impacts)
Constituents:	TCE, PCE, petroleum hydrocarbons, PAHs, metals
Affected Media:	Soil, Disposed Waste Material
Completed IRP Phases:	PA, SI, RI, FS,
Current IRP Phase:	RD
Future Phases:	RA-C, RC, LUCs and LTM



DSCR – DSERTS SITE 014 BUILDING 112: OU 12

SITE DESCRIPTION

OU 12 consists of the vadose-zone soils associated with former Building 112, a pesticide storage and mixing facility in the southwest portion of the installation (Figure 5). Pesticide equipment was also filled and cleaned after use on a covered concrete pad on the south side of the building. A barbed-wire-topped chain-link fence surrounds the former building site and adjoining gravel lot. Building 112 was demolished in July 2004.

The initial investigation of surface soils occurred in 1986 during the installationwide pesticide monitoring study. Chlordane and DDT were detected in each composite sample.

An ESI was performed in 1992 that included the collection of surface soil and groundwater samples. Chlordane was detected in soil samples, but it was not detected in groundwater.

An RI consisting of groundwater, soil, and storm sewer sediment sampling was completed in 1998. Surface soils contained arsenic, DDT, chlordane, and heptachlor above background and above the USEPA Region 3 RBC for residential exposure. Arsenic was also detected in subsurface soil. Groundwater results indicated that there was negligible migration from soils. Chlordane was detected in storm sewer sediment samples downgradient of Building 112 as a result of overland runoff.

Based on risk assessment results for residential receptors, an FS was completed in 1999. The risk assessment and the FS were updated in January 2005 to reflect the planned industrial reuse of the site. Risk due to arsenic in soil was determined to be unacceptable for future on-site industrial workers and on-site construction workers. A low-permeability cover system and LUCs comprise the preferred alternative.

The ROD was signed in 2005 described an asphalt cover system, LUCs, groundwater monitoring for arsenic, and following construction of the cover, removal of sediment from storm sewers near OU 12. The RD was completed in 2006, while RA-C was completed in 2007. The site achieved RC in 2007.

PATH FORWARD

LUCs and LTM are ongoing at OU 12.

IRP STATUS

RRSE Rating:	Low Risk
Constituents:	Arsenic
Affected Media:	Soil, Storm Sewer Sediment
Completed IRP Phases:	PA, SI, RI/FS, RD, RA-C, RC
Current IRP Phase:	LUCs and LTM
Future Phases:	LUCs and LTM



DSCR – DSERTS SITE 017 FORMER FIRE TRAINING AREA SOILS: OU 4

SITE DESCRIPTION

The former FTA (OU 4) is located in the southern portion of the installation (Figure 5). Three shallow, unlined pits were used for the disposal of various waste chemicals (petroleum and lubricating oils, VOCs, herbicides, and pesticides) by burning, providing an opportunity for fire-fighting training exercises. The area is currently used for equipment/vehicle parking and open construction material storage.

During the initial investigation in 1981, constituents found in FTA soils matched those found in groundwater. The soils, considered as the source of the groundwater impacts, were designated as OU 4. The groundwater was separately designated as OU 7. Shallow soil and groundwater impacts were confirmed by additional sampling in 1985 and 1986.

An RI was completed in 1989, and the constituents identified included CVOCs (PCE, TCE, and TCA); petroleum products (xylenes and PAHs), SVOCs (phenol and bis[2-ethylhexyl]phthalate); and pesticides (DDT, DDD, DDE, and chlordane). The supplemental RI in 1996 and the FS in 1997 assessed the nature and extent of constituents in overland runoff pathways. The FTA was found to have no significant impact on Kingsland Creek via the overland run-off pathway. The human health risk assessment indicated that there was no significant health risk from exposure (dermal contact and incidental ingestion) to vadose-zone soils for on-site workers, recreational users, and future residents.

The OU 4 ROD, signed in 1999, specified no further action as the final remedy for the FTA soils, deferring determination of a groundwater threat from constituents in OU 4 soils to investigations associated with OU 7. Recent CVOC data from groundwater at OU 7 suggests the presence of dense nonaqueous phase liquid. Because OU 4 is the source for groundwater impacts at OU 7, a time critical soil removal action was completed in December 2004 to remove the principal threat source material.

The HHBRA was revised in 2006, and there was no unacceptable risk for future construction workers or

future indoor industrial workers via the vapor migration pathway.

PATH FORWARD

Because OU 4 overlies OU 7, the ROD for OU 7 is expected to include LUCs applicable to both OU 7 and OU 4.

IRP STATUS

RRSE Rating:	Not Evaluated (Remedy in Place)
Constituents:	PCE, TCE, 1,1,1-TCA, xylenes, PAHs, phenol, DDT, DDD, DDE, chlordane, and bis(2-ethylhexyl)phthalate
Affected Media:	Soil
Completed IRP Phases:	PA, SI, RI/ FS, RC
Current IRP Phase:	LUCs and LTM
Future Phases:	LUCs and LTM



DSCR – DSERTS SITE 027 ACID NEUTRALIZATION PIT SOILS: OU 5

SITE DESCRIPTION

The ANPs (OU 5) are two former concrete settling tanks located near the northern end of Warehouse 65 (Figure 3). The pits were used as settling basins and for neutralization of acidic wastewater from metal cleaning and painting operations. The larger primary pit was built in 1958. Treated water flowed directly to the storm sewer until the secondary tank was constructed in the 1970s. The smaller secondary tank received treated water from the primary tank and discharged to the sanitary sewer. Sludge collected from the tanks was periodically disposed of off-site.

The tanks were decommissioned in 1985 and filled with clean sand. The sides and bottoms of the tanks were observed to be cracked and broken, indicating a possible migration pathway for constituents to affect soils.

An RI was completed in 1990. Possible unauthorized dumping of solvents was suspected due to low concentrations of TCE, PCE, 1,2-dichloroethene, and SVOCs in the soil. The soil near the ANPs was assumed to be the source area and was designated as OU 5, while the groundwater was considered separately as OU 8.

An FS was completed in 1991. The ROD was signed in 1992 and identified an SVE system to reduce remaining CVOC concentrations to below the soil remediation objective. A pilot test was performed in December 1992, and subsequent soil confirmation sampling indicated that CVOCs were below soil remediation objectives. An ESD signed in 1995 indicated a full-scale SVE system at OU 5 was not necessary, and no further action was required. LUCs were implemented to limit future land use in the ANP area. The former pits were subsequently covered with

concrete to prevent reuse. LTM is being conducted for the groundwater as part of OU 8.

PATH FORWARD

No further action is required for the ANP soils. The site is currently in LTM phase

IRP STATUS

RRSE Rating:	Not Evaluated (Remedy in Place)
Constituents:	TCE, PCE, and degradation products
Affected Media:	Soil
Completed IRP Phases:	PA, SI, RI/FS, RD, RA-C, RC
Current IRP Phase:	LTM
Future Phase:	LTM



DSCR – DSERTS SITE 028 OPEN STORAGE AREA: OU 1

SITE DESCRIPTION

The OSA (OU 1) is a 45-acre site in the central portion of the installation (Figure 4). The OSA was formerly used to store bulk, drummed chemicals; recover liquids from leaking drums (recoupment); repair and replace damaged containers; and to store empty compressed gas cylinders and vessels, electrical transformers, fire extinguishers, and other miscellaneous items. The area is currently used to store large shipping containers. The soils in the vicinity of the recoupment area are stained from past spills, as are soils in other locations around OU 1. Three known spills of the pesticide Malathion occurred between 1977 and 1980. Groundwater beneath and downgradient from OU 1 is treated separately as OU 6.

The RI was submitted in 1990 and the FS in 1991. The constituents of concern were determined to be PAHs, VOCs, pesticides, and metals in soil. The human health risk assessment determined acceptable risk to on-site industrial workers, contingent upon continued industrial land use.

An interim ROD addressing the OSA soils was signed in 1992. The recommended final response action was LUCs, including access restrictions to mitigate risk and assessments prior to activities disturbing soil deeper than 6 inches. Five-year reviews in 1997 and 2003 recommended continued enforcement of LUCs and determined the interim remedy to be protective of direct exposure to OU 1 soils. In 2004, soil vapor samples were collected as part of the supplemental FS at OU 6 to evaluate the protectiveness of the interim remedy at OU 1 via the vapor intrusion pathway. No CVOCs were detected in the analyses.

The HHBRA was revised for industrial worker exposure scenarios, updated risk assessment guidance, and vapor intrusion.

Based in the results of the revised HHBRA, an ESD was signed for OU 1 in 2007. The ESD finalized the interim ROD remedy of LUCs

PATH FORWARD

LUCs and LTM are being implemented at OU 1.

IRP STATUS

RRSE Rating:	Not Evaluated (Remedy in Place)
Constituents:	PAHs, VOCs, pesticides, metals
Affected Media:	Soil
Completed IRP Phases:	PA, SI, RI/FS
Current IRP Phase:	LUCs and LTM
Future Phase:	LUCs and LTM



DSCR – DSERTS SITE 031 NATIONAL GUARD AREA SOILS: OU 3

SITE DESCRIPTION

The NGA (OU 3) is a 15-acre site in the east-central portion of the installation (Figure 4). Since the 1950s, the Virginia Army National Guard has leased the parcel from DSCR. The area is mostly covered with concrete, asphalt, and gravel. Past activities included a former solvent degreasing area, several underground and aboveground storage tanks, and a wastewater treatment sludge disposal area. The NGA is currently used for vehicle maintenance and storage.

During the Installation Assessment performed in 1981, low-level soil impacts (VOCs, SVOCs, petroleum hydrocarbons, and metals) were detected. This area was subsequently designated as OU 3.

An RI completed in 1994 confirmed the presence of VOCs, SVOCs, and metals in soil.

An FS was completed in 1995. An ecological risk assessment indicated that there was negligible impact to No Name Creek biota from NGA soils.

The ROD for OU 3 (signed in 1995) included LUCs, pre-construction environmental assessments, maintenance of the existing pavement, monitoring of No Name Creek, and excavation of soil in the former wastewater sludge disposal area. The impacted soil was removed in 1997.

The first 5-year ROD review was completed in 2003 as part of the Consolidated 5-Year ROD Review, and the remedy was determined to be protective of human health via direct soil exposure routes. Soil vapor samples were collected in 2004 as part of the supplemental FS for OU 6. The ROD was confirmed to be protective of the indoor vapor intrusion pathway.

The HHBRA was updated using only industrial worker exposure scenarios and updated risk assessment

guidance. There was no unacceptable risk for the exposure scenarios.

PATH FORWARD

LTM will continue to ensure LUCs remain effective.

IRP STATUS

RRSE Rating:	Not Evaluated (Remedy in Place)
Constituents:	VOCs, SVOCs, petroleum hydrocarbons, metals
Affected Media:	Soil
Completed IRP Phases:	PA, SI, RI/FS, RD, RA-C, Remedial Action – Operation (RA-O)
Current IRP Phase:	LUCs and LTM
Future Phases:	LUCs and LTM



DSCR – DSERTS SITE 032 FORMER FIRE TRAINING AREA GROUNDWATER: OU 7

SITE DESCRIPTION

The former FTA (OU 7) is located in the southern portion of the installation (Figure 5). A correlation between constituents in the FTA soils and underlying groundwater was confirmed during the OU 4 RI in 1989. Groundwater constituents were determined to be CVOCs (i.e., PCE, TCE, and breakdown products) in both the upper and lower WBUs.

A supplemental OU 7 RI in 1996 summarized the extent of impacts in the FTA groundwater. Three separate plumes (one associated with each of three former pits) were identified, and two of the plumes were shown to have merged and were migrating southeast toward and beneath Kingsland Creek. The risk assessment showed unacceptable risk for off-site residential exposure to groundwater. An FS was also completed in 1996 that evaluated dual-phase extraction (DPE) as part of the overall remedial plan for OU 7. The FS was updated in 1999 to include evaluation of an *in situ*, density-driven convection technology for off-installation remediation. Monitored Natural Attenuation (MNA) was also investigated between 2001 and 2003 as a possible component of the final remedy. A Supplemental FS investigation was initiated in 2003 to address data needs for alternatives evaluation and remedy selection.

The HHBRA was updated in 2006. Unacceptable risk was determined for future construction workers, primarily due to TCE. Treatability studies, evaluating the effectiveness of in-situ biodegradation were implemented in 2007 at OU 7.

PATH FORWARD

A revised FS scheduled for completion in 2009 will include the results of the treatability testing. Based on

existing OU-specific data, a remedial alternative, including LUCs, MNA, and other regulatory acceptable remedial alternatives may be considered. A ROD and RD are projected for 2010, with RA-C consisting of source area treatment in 2011 and 2012. RA-O consisting of MNA is expected from 2012 until 2032.

IRP STATUS

RRSE Rating:	High Risk (off-site groundwater impacts)
Constituents:	PCE, TCE, degradation products
Affected Media:	Groundwater
Completed IRP Phases:	PA, SI, RI
Current IRP Phase:	FS
Future Phases:	RD, RA-C, RA-O, RC, LTM



DSCR – DSERTS SITE 033 POST EXCHANGE GAS STATION

SITE DESCRIPTION

The Post Exchange Gas Station (PX Station) is located in the southeastern portion of the installation (Figure 5) and still dispenses gasoline. In May 1987, a leak of about 4000 gallons of unleaded gasoline was discovered from a UST through inventory tracking. The leaking UST was excavated and removed from service in July 1987.

Monitoring wells were installed by the United States Geological Survey in 1988 and 1989 to determine the extent of impacts. The site characterization report was submitted in 1990. Free product was discovered in two wells in 1993 and was removed weekly while a CAP was prepared (submitted in 1995). An air sparging system with groundwater and free product recovery was unsuccessfully pilot-tested in 1995, and the results were submitted in 1996. The revised CAP submitted in 1997 outlined a program using MNA to remediate the plume.

A treatability study was performed in 1997 consisting of a free product recovery system (System A) and a pumping well (System B) to limit plume migration by influencing the local groundwater gradient. System A operated until 2000, and System B operated until 2001. The systems have not operated on a regular basis since 2001. Free product was last encountered in 2003.

Between 2001 and 2003, quarterly groundwater monitoring was performed to evaluate the progress of MNA at the PX Station. In February 2003, free product was detected in two wells and was subsequently removed as specified by the CAP. Periodic groundwater monitoring has been conducted since 2004. In accordance with a VDEQ letter dated 2006, no further remedial action is required for the PX Gas Station.

PATH FORWARD

LUCs and LTM are planned for the PX Gas Station. Due to the presence of groundwater contaminants (above the regulatory limits) DSCR may elect to perform groundwater monitoring every 2 to 3 years.

IRP STATUS

RRSE Rating:	Not Evaluated (Remedy in Place)
Constituents:	Petroleum hydrocarbons, benzene, ethylbenzene, toluene, xylenes
Affected Media:	Groundwater
Completed IRP Phases:	PA, RI, FS, RD, RA-C, RA-O, RC
Current IRP Phase:	LUCs and LTM
Future Phases:	LUCs and LTM



DSCR – DSERTS SITE 034 OPEN STORAGE AREA, AREA 50, AND NATIONAL GUARD AREA GROUNDWATER: OU 6 & 9

SITE DESCRIPTION

Impacted groundwater in the upper and lower WBUs beneath and downgradient of the OSA, the Area 50 landfill, and the NGA was designated as OU 6 (Figure 4). The Area 50 landfill (OU 2) is believed to be the primary source of impacts at OU 6. The RI was conducted in 1989 and updated in 1994 to include a risk assessment due to off-site plume migration to the east. Use of the upper WBU off-site as a future residential potable water source exhibited unacceptable risk to human health.

A ROD for an IRA at OU 6 (designated OU 9) was signed in 1993. The IRA consisted of a groundwater extraction and air-stripping system to reduce mass and limit further transport of impacted groundwater off-site. An ESD to the ROD was approved in 1995 to replace reinjection of treated groundwater with discharge to Falling Creek Tributary. Construction was completed in 1996, and the OU 9 system has operated periodically since. DSCR was issued a NOV in 2001 due to an accidental release of untreated groundwater to No Name Creek during a failure of the treatment system. A CAP was submitted in 2002 to resolve the NOV.

An FS in 1995 was followed by a pilot test to evaluate DPE as a treatment technology. The results of the pilot test, submitted in 2000, were unfavorable for full-scale implementation. MNA was investigated between 2000 and 2003 as a possible component of the final remedy. Subsurface conditions are favorable for MNA in both the upper and lower WBUs, and there is evidence of abiotic degradation of CVOCs. A Supplemental FS was initiated in 2003 to address remaining data needs. The HHBRA was updated in 2006, and unacceptable risk was determined for future construction workers and future residential users (as drinking water) due to TCE.

A rebound test of the treatment system was performed and based on the results of this test, it was decided that operation of the OU9 treatment system was not necessary. An amendment to the interim ROD, authorizing decommissioning of the treatment system, was signed in 2008. The treatment system was decommissioned in 2008.

Treatability studies, evaluating the effectiveness of in-situ biodegradation were implemented in 2007 at OU 6.

PATH FORWARD

Results of the supplemental FS and treatability testing will be reported in 2009. Based on OU-specific data, a remedial alternative, including LUCs, MNA, and other regulatory acceptable remedial alternatives may be considered. The ROD and RD for OU 6 is expected in 2010, and RA-C consisting of source area treatment in 2011 and 2012. RA-O is expected from 2012 until 2032. OU 9 will be incorporated into the final remedy for OU 6.

IRP STATUS – OU 6

RRSE Rating:	High Risk (off-site groundwater impacts)
Constituents:	PCE, TCE, degradation products
Affected Media:	Groundwater
Completed IRP Phases:	PA, SI, RI
Current IRP Phases:	FS
Future Phases:	RD, RA-C, RA-O, RC, LUCs and LTM

IRA STATUS – OU 9

Completed IRP Phases:	RD, RA-C, RA-O
Current IRP Phase:	RC
Future Phase:	None.



DSCR – DSERTS SITE 036 ACID NEUTRALIZATION PIT GROUNDWATER: OU 8

SITE DESCRIPTION

The ANPs are two former concrete settling tanks near the northern end of Warehouse 65 (Figure 3). As a result of the 1990 RI for the ANP soils (OU 5), groundwater beneath and downgradient from the ANP site was designated OU 8 and considered separately from the soil.

A treatability study to determine the effectiveness of a DPE system to remove CVOCs from groundwater began in 1997. During the first year of system operation, constituent concentrations decreased significantly in all but two wells. Increasing CVOC concentrations and the unexpected presence of trihalomethanes in wells were considered due to migration under the influence of the extraction system. Otherwise, the results of the study were favorable, and operation of the system and performance monitoring continued. MNA was also confirmed as a possible component of the final remedy.

A rebound test was performed in 2004, when CVOC concentrations reached asymptotic levels in the treatment system influent. The results, submitted with the revised FS, indicated that significant rebound is not occurring and that CVOC concentrations at the property boundary will not exceed the MCLs when the plume reaches the site boundary. It was also recommended that the DPE system not be re-started at this time.

The updated HHBRA, also submitted with the revised FS, determined the risk was acceptable for both off-site residential and on-site current and future industrial worker scenarios. The revised FS and Proposed Plan were submitted in 2006. The ROD was signed in 2007. The final remedy includes LUCs and MNA, with *in situ* bioremediation a possible contingency. The RD was finalized in 2008. The DPE system was also decommissioned in 2008.

PATH FORWARD

RA-C and RA-O (MNA monitoring) are ongoing and are expected to continue until 2028.

IRP STATUS

RRSE Rating:	High Risk (groundwater impacts, potential to migrate off-site)
Constituents:	PCE, TCE, degradation products, trihalomethanes
Affected Media:	Groundwater
Completed IRP Phases:	PA, SI, RI, FS, RD
Current IRP Phase:	RA-C, RA-O
Future Phases:	RC, LUCs and LTM



DSCR – DSERTS SITE 37 POLYCYCLIC AROMATIC HYDROCARBON AREA: OU 13

SITE DESCRIPTION

The PAH area (OU 13) is located in the south-central portion of the installation along the southern boundary adjacent to Kingsland Creek (Figure 5). The PAH area is near the former location of an aboveground fuel oil storage tank. Soil impacts are believed to be the result of a tank spill in 1978, releasing an estimated 10,600 gallons of fuel oil. Oil and water collected in the PAH area, and it was subsequently covered with between 4 and 10 feet of clean fill. The area continues to serve as storage for construction debris.

The PAH area was characterized in 1992 during an investigation at the FTA (OU 4). Soil contained PAHs, PCBs, and pesticides, while groundwater contained PAHs, PCBs, and metals. The area was subsequently designated OU 13.

Additional sampling was performed in 1993 to further characterize the extent of PAH impacts. Soils were inspected for staining, odor, and elevated PID readings. An oily black-stained layer between 3 and 12 inches thick was confirmed in the unsaturated zone, 4 to 6 feet below ground surface. An investigation of drainage pathways for the PAH area was conducted in 1995, and PAHs were detected in storm sewer system outfalls.

An RI was completed in 1997 and submitted in 1999. During sampling as part of a revised FS, arsenic was detected in surface soils in a low-lying wooded area of OU 13. The HHBRA was updated in 2006 for industrial workers only, and unacceptable cancer risk was determined for the future industrial worker scenario. A screening level ecological risk assessment (SLERA) determined no unacceptable risk from surface soils to small and medium-sized mammals, birds, and earthworms.

A qualitative assessment of the risk to amphibians from surface soils at OU13 and the results of the SLERA and HHBRA were reported in 2008.

PATH FORWARD

Based on existing OU-specific data, a remedial alternative including LUCs and other regulatory acceptable remedial alternatives may be considered in the FS, which is due in 2009. A ROD for OU 13 is scheduled for 2010, with an RD to follow in 2011. RC is expected in 2013. LUCs and LTM is expected to continue after RC.

IRP STATUS

RRSE Rating:	Low Risk
Constituents:	PAHs, petroleum hydrocarbons, metals, PCBs, pesticides
Affected Media:	Soil
Completed IRP Phases:	PA, SI, RI
Current IRP Phase:	FS
Future Phases:	RD, RA-C, RC, LUCs and LTM

