

# THE REMEDIATION REPORT



OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY  
LAND PROTECTION DIVISION

Volume 1, Number 1



October 2002



# **THE REMEDICATION REPORT**

**OCTOBER 2002  
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This status report (formerly the Superfund Site Status Report) provides current information on the major NPL and voluntary remediation sites addressed by the DEQ and is updated three times a year.

## Blackwell Zinc

### Voluntary Cleanup Blackwell, Kay County

Status:  
Ecological Unit:  
Completed 1996

Soil Unit: Completed 2001

Groundwater Unit:  
Proposed Plan

The former Blackwell Zinc was a horizontal-retort smelter that operated from 1916 to 1972. A site investigation in 1991 showed lead, cadmium, and arsenic soil contamination while cadmium is the primary groundwater contaminant. The DEQ, Phelps Dodge Corp., and the Blackwell Industrial Authority are parties to a Consent Order to clean up metals contamination associated with the old smelter.

The Groundwater remedy has not been selected. Phelps Dodge is conducting pilot studies and will submit a Proposed Plan to the DEQ outlining all remedial alternatives. The DEQ will select the preferred alternative.

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**George Thomas**  
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## Clinton-Sherman Industrial Airpark

### DoD-Formerly Used Defense Site Burns Flat, Washita County

Status:  
Soils: Remedial Action

Groundwater: Remedial  
Action

The Clinton-Sherman Industrial Airpark is the location of the former Clinton-Sherman Air Base. The site is now an industrial park, vo-tech school, and residential area. Investigations in the 1990s showed organic compounds in the groundwater and metals in the soils.

**Contaminated soils**  
The 1999 investigation found elevated levels of metals in the soils. The 2000 Final Decision Document established remedial action levels for these metals and required removal of the contaminated soil during 2002.

### Contaminated groundwater

The 1999 RI/FS found evaluated levels of VOC in the groundwater. The 2000 Final Decision Document determined that monitored natural attenuation (MNA) be utilized until the remedial action objectives are met. MNA should begin in 2002.

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**Dennis Datin**  
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## Collinsville Smelter

### Brownfield Collinsville, Tulsa County

Status: Proposed Plan

This 220-acre site was used for strip mining and smelting activities. The Bartlesville Zinc Company operated a primary zinc smelter from 1910 to 1918 on forty acres of the site.

The PRP, Phelps Dodge, is developing institutional controls to ensure that the disposal cell is not disturbed after the remedial action is complete. Once controls are in place, they will begin the remedial design and cleanup.

DEQ Contact Person:  
**Amy Johnson**  
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# Coltec

## Voluntary Cleanup

Sallisaw, Sequoyah County

Status: Site Assessment

The Borg Warner Automotive Plant (formerly Coltec) produces automotive parts. PCE was historically used in degreasing operations but was discontinued in 1995. During construction of a new production line, PCE contaminated soil was discovered near the old degreaser locations. The contaminated soil was excavated and disposed of. Groundwater in several wells was impacted by PCE but appears to be confined to the plant property.

Monitoring wells are sampled each quarter to evaluate if Monitored Natural Attenuation is a workable solution for the contaminated groundwater.

**DEQ Contact Person:**  
**Ray Roberts**  
**(405) 702-5137**



# Compass Industries Landfill

## NPL

Berryhill,  
Tulsa County

Status:  
Operation & Maintenance

The landfill, in an abandoned limestone quarry near the Arkansas River in west Tulsa County, was used as a municipal solid waste landfill from 1964 until the late 1970s. It also received industrial and hazardous wastes such as waste jet fuel, solvents, caustics, bleaches, benzene, PCBs and pesticides. Site studies conducted in the mid-1980s concluded that a threat to human health and the environment did exist from the fires that were burning at the time. The 1987 remedy was to cap 46 acres of the landfill.

The PRPs complied with an EPA Administrative Order to construct a composite cap over the landfill, completing it in August 1991. The work to monitor the cap and groundwater began in 1991 and is on-going.

The site has been deleted from the NPL. Remedy reviews will be conducted every five years to confirm the remedy is effective.

**DEQ Contact Person:**  
**Hal Cantwell**  
**(405) 702-5139**



# Double Eagle Refinery

## NPL

Oklahoma City,  
Oklahoma County

Status:  
Source Control  
Remedial Action Complete

Groundwater  
Remedial Action ongoing

This 12-acre facility collected, stored, and re-refined used oils, to be sold as recycled oil from 1929 through 1980. The facility is located adjacent to the Fourth Street Refinery NPL Site. Waste materials left on site consisted of the abandoned refinery infrastructure and acidic tar high in lead, mixed with clay.

Chlorinated solvents, hydrocarbons, and metals such as lead and arsenic from the refining operations contaminated the underlying alluvial and shallow Garber-Wellington aquifers. Clean up efforts focused on the separate Source Control and the Groundwater Operable Units.

### Source Control Operable Unit

The remedy consisted of neutralization and stabilization of acidic sludge, digging and hauling it to an off site landfill, filling in the excavated areas with clean soil, and vegetating the site, all which was completed by 1999. Since the surface area was cleaned up, no operation and maintenance will be required.

### Groundwater Operable Unit

This operable unit incorporates both the Double Eagle and Fourth Street Superfund sites since they are adjacent and share similar groundwater problems. Thirteen Garber-Wellington Aquifer monitoring wells were tested on a quarterly basis from December 1996 through April 2000 to establish the contamination background. These wells are now monitored on a semiannual basis to confirm that the chosen remedy, natural attenuation, is working and the contaminant levels are decreasing. The semiannual monitoring will continue for another year. A report summarizing the Five Year Review recently completed for the two sites should be issued shortly.

#### DEQ Contact Persons:

**Kathy Buckley**  
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**Dennis Datin**  
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## Duncan Refinery

**Voluntary Cleanup**  
Meridian, Stephens County

Status: Interim Action  
Remedial Investigation

This 400-acre inactive refinery, five miles south of Duncan, operated from the 1920s to 1983. Proper closure of the refinery was never accomplished leaving many serious problems at the site including oil and chemicals seeping into the creek, deteriorating vessels containing a range of waste materials, open unlined waste pits, oily wastewater ponds and significant amounts of badly deteriorated asbestos.

Tosco Corporation (purchased by Phillips Petroleum Company in September 2001) signed a Consent Order with the DEQ in September 1995 and investigated the perimeter of the site in 1997.

The DEQ conducted an Expanded Site Inspection in the summer of 2001 to determine the potential to rank the site on the National Priorities List. The DEQ is currently working with Phillips Petroleum to minimize the oil and chemical seeps to the Creek. Additional interim actions and a more complete investigation of the interior of the site are needed.



Duncan Refinery

**DEQ Contact Person:**  
**Ray Roberts**  
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## Federated Metals

**Brownfield**  
Sand Springs,  
Tulsa County

Status: Remedial Action

The Federated Metals Site is a former 30-acre zinc smelter that operated from 1930 until 1989, after which the site lay idle. Slag and smelter debris containing heavy metals littered the site.

Lead concentrations in soil exceeded cleanup levels in more than 90 nearby residential properties and the smelter sat near a kindergarten. Despite its drawbacks, the site was ideally located at the intersection of Highways 97 and 64. This potential for commercial reuse at this location helped bring about the development of Oklahoma's Brownfield legislation. Federated Metals, Kucharski Properties, the City of Sand Springs, the DEQ, elected officials and others worked in partnership to facilitate the investigation and remediation of the site. Contaminated soils at the residential properties were excavated and dealt with first. Once the residential work was completed work began on smelter site.

The site received a USEPA Region 6 Administrator's Environmental Excellence award in 1998. Remediation is all but complete. The site pad is ready for development. Successful redevelopment of the property will be a milestone for Oklahoma's Brownfield program.

**DEQ Contact Person:**  
**Ray Roberts**  
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## Fourth Street Refinery

### **NPL**

Oklahoma City,  
Oklahoma County

### **Status:**

Source Control  
Remedial Action Complete

Groundwater  
Remedial Action ongoing

During the early 1940s until early 1970s, the facility collected, stored, and recycled used oils much like the operations at the adjacent Double Eagle Refinery NPL site. Tank bottoms and sludge were disposed of on site. Chlorinated solvents, hydrocarbons, and metals such as lead and arsenic from the refining operations contaminated the underlying alluvial and shallow Garber-Wellington aquifers. Cleanup focused on two major operable units: Source Control Operable Unit and the Groundwater Operable Unit.

### **Source Control Operable Unit**

The source remedy included neutralization and stabilization of acidic sludge and then removal of the waste and hauling it to an off site landfill, filling in the excavated areas with clean soil, and vegetating the site, all of which was completed in 1996.

Since the surface problems were cleaned up, no operation and maintenance will be required.

### **Groundwater Operable Unit**

This operable unit incorporates both the Double Eagle and Fourth Street Superfund sites since the sites are adjacent and share similar groundwater issues. Thirteen Garber-Wellington Aquifer monitoring wells were sampled on a quarterly basis from December 1996 through April 2000 to establish the contamination background. These wells are now monitored on a semiannual basis to confirm that the chosen remedy, natural attenuation, is working and the contaminant levels are decreasing. The semiannual monitoring will continue for another year. A report summarizing the Five Year Review recently completed for the two sites should be issued shortly.

**DEQ Contact Persons:**  
**Kathy Buckley**  
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# Hardage Criner

## NPL Site

McClain County

### Status:

Operation & Maintenance

Located near Criner in McClain County, this site operated as a commercial disposal facility for industrial wastes from 1972 to 1980. It covers about 80 acres and consists of several surface impoundments and a drum burial area. It was proposed to the NPL in 1981. Compounds detected on the site include pesticides, solvents, alcohols, acids, caustics, and heavy metals. Due to technical disagreements between EPA, the State, and the PRPs, in August 1990, the federal District Court in Oklahoma City selected the remedy.

The remedy included waste source control via extraction and off site incineration of known pools of liquid followed by installation of a cap over the remaining wastes, containment of contaminated groundwater flowing towards North Criner Creek by intercepting, extracting and treating it on site, and natural attenuation of contaminants already present in sandy, water-bearing soil beneath North Criner Creek. Full operation of the remedy is on-going.

**DEQ Contact Person:**  
**Hal Cantwell**  
**(405) 702-5139**



# Hudson Refining

## NPL Site

Cushing, Payne County

### Status:

Emergency Removal & RI/  
FS Planning

The 200-acre Hudson Oil Refining Company was active from 1922 to 1982.

Hudson produced liquid propane gas, gasoline, diesel fuel, fuel oils, and coke. At shutdown, the refinery was not properly purged and various chemicals were left on site.



Hudson Refinery structures

The south refinery buildings and structures have been demolished and removed. The remaining structures on the north half of the refinery will be demolished using robotic technologies starting in late 2002.

The DEQ will conduct the RI/FS beginning in early 2003. The focus will be to determine area and extent of contamination of the soil, surface water, and groundwater and propose actions for remediation.

**DEQ Contact Person:**  
**Amy Johnson**  
**(405) 702-5133**



# Imperial Refining Company

## NPL Site

Ardmore, Carter County

### Status:

RI/FS Planning

The Imperial Refining Company (IRC) is an 80-acre abandoned former crude oil refinery located on both sides of State Highway 142 in east Ardmore. IRC operated from 1917 until the refinery ceased operations in 1934 and dismantled all tanks and





Creek at Imperial Refining

storage equipment by 1948 but left numerous pits, waste piles, and water impoundments that are contaminated with metals and refining wastes. The site was listed on the National Priorities List in July 2000.

The EPA, Agency for Toxic Substances and Disease Registry and DEQ are working together towards the Remedial Investigation and Feasibility Study (RI/FS). DEQ is the lead on the project and will continue RI/FS planning activities.

**DEQ Contact Person:  
Angela Brunsman  
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## **Kerr McGee Cleveland**

**Voluntary Cleanup**  
Cleveland, Pawnee County

Status:  
Feasibility Study

The site of the old Cleveland Refinery is located on 480 acres immediately southwest of the town of Cleveland. The refinery operated from the early 1920s until it was closed in 1972. The site had typical problems for a refinery from that era. Many of the refinery wastes contained heavy metals such as lead and most had been disposed of in unlined pits. There were oil seeps and waste in the creeks. A portion of the site falls within the high water line of Lake Keystone and during periods of high lake levels water rises up over some wastes.

Kerr-McGee and DEQ developed a “worst first” approach to the remediation. Rather than wait years while the entire site was thoroughly investigated, the worst environmental problems were dealt with as interim actions. The overall site investigation has now been completed and Kerr-McGee is finalizing the feasibility study to determine how best to address the remaining environmental problems.

**DEQ Contact Person:  
Ray Roberts  
(405) 702-5137**



## **Kerr McGee Cushing**

**Voluntary Cleanup**  
Cushing, Payne County

Status:  
Remedial Action

This 440-acre former oil refinery operated from the early 1900s until 1972. Refinery waste and, low-level radioactive material is found at the site. The NRC is overseeing the decommissioning of the site.

In 1990, the DEQ and Kerr-McGee entered into a Consent Order for Kerr-McGee to conduct the site remediation. Using the “worst first” strategy, five acid sludge pits were neutralized and disposed of in on site landfills. All work was completed by October, 2001. Waste characterization of the soils and ground water across the entire site will begin after NRC decommissioning is complete.

Kerr-McGee is preparing Interim Remedial Measures to address groundwater discharges to surface water.

**DEQ Contact Person:**  
**George Thomas**  
**(405) 702-5126**



## **Kerr Glass**

**Voluntary Cleanup**  
Tulsa County

**Status:**  
Operation and  
Maintenance

This is one of four former disposal areas for the Kerr Glass Plant. Use of the southeast area of the landfill began sometime between 1933 and 1945; use of the southwest area of the landfill probably began in 1971. The waste is non-hazardous waste-batch crushed glass, refractory brick and construction debris, jar rings and jar lids. No disposal activity has occurred since the mid-1980s.

The remedy was excavation of waste from two of the disposal areas, placement in the two other on site landfills and placement of a soil cap over the site – all completed in 1995. The PRP maintains the site by monitoring the landfill cap and groundwater. The post-closure period is eight years.

**DEQ Contact Person:**  
**Dennis Datin**  
**(405) 702-5125**



## **Kusa Smelter**

**Voluntary Cleanup**  
Dewar, Okmulgee County

**Status:**  
Site Characterization

The 80-acre horizontal retort smelter processed zinc ore from approximately 1915 to 1928. US Zinc Company, a former subsidiary of ASARCO, Inc., leased and operated zinc-smelting facilities in Kusa during the early 1920s.

Investigations revealed high concentrations of lead, zinc, and arsenic in the soils. Site remediation will be done by ASARCO under a voluntary Consent Order with the DEQ providing oversight. DEQ is reviewing an ASARCO Remediation Plan and once the plan is approved ASARCO will sign an agreement for the remediation.

**DEQ Contact Person:**  
**Scott Stegmann**  
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## **Mosley Road Landfill**

**NPL**  
Oklahoma County

**Status:**  
Remedial Action

The 72-acre closed municipal landfill is near Midwest City. In 1976 the state authorized the landfill to accept hazardous waste. This waste included both organic and inorganic waste. Waste Management, owner of the site and an adjacent landfill, is working under an EPA action for site cleanup.

The 1992 remedy included improving the landfill cover, installing a gas collection system and extensive groundwater monitoring. The landfill cap will be completed once the placement of construction and demolition waste reaches final elevation. Groundwater monitoring and gas collection will continue 30 years after the site is closed. Waste Management plans to extend its active municipal landfill eastward to this old landfill. Regular groundwater monitoring will continue.

**DEQ Contact Person:**  
**Dennis Datin**  
**(405) 702-5125**



# National Zinc

## Voluntary Cleanup

Bartlesville,  
Washington County

Status:  
Residential Property  
Remedial Action

Ecological Unit:  
Remedial Action Complete

The Zinc Corporation of America (ZCA) facility (AKA National Zinc) has a history of metal processing operations. Historical air emissions and placement of slag material, contaminated soils in the surrounding area with lead, cadmium, and other heavy metals. Areas within an approximately 3-mile radius of the ZCA facility, excluding the facility itself, were investigated.

## Residential Property Operable Unit 1

Following the 1994 remedy, contaminated soils at residential and commercial/industrial properties were removed. Institutional controls were put in place to insure the cleanup remains protective.

## Ecological Operable Unit 2

Aquatic ecology was impacted by elevated concentrations of lead, cadmium, zinc, arsenic, and selenium in stream sediments.

Removal of contaminated sediments from the unnamed tributary was completed in 1998.

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Dennis Datin  
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# Oklahoma Refining Company (ORC)

## NPL Site

Cyril, Caddo County

Status: Remedial Action

ORC is a 160 acre abandoned oil refinery that operated from 1908 to 1984. Petroleum related contamination of soil, sediment, and shallow groundwater occurred from leaking tanks, product lines, pits and impoundments.

Initial investigations were conducted from 1982-1986. The site was placed on the National Priorities List on February 21, 1990.

The remedy, completed in 2002, included bio-remediation, in-situ stabilization, neutralization, and disposal in on site landfills.

The groundwater remedy was postponed until after the source remedial action was complete.

DEQ and EPA are evaluating the next steps for groundwater monitoring and remediation.

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Angela Brunsmann  
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ORC landfill and monitor well



# Okmulgee Refinery

## Voluntary Cleanup

Okmulgee,  
Okmulgee County

Status: Site Assessment

This 240-acre inactive refinery, operated from as early as 1909 up to 1983. The refinery, located near a school and ballparks, was never properly closed by a former owner.

Numerous environmental problems remained at the site including significant quantities of hydrofluoric acid, a waste pit with high concentrations of PCBs, acidic sludges in the creek, and deteriorating tanks and vessels containing wastes caustics and acids. There were also open unlined waste pits, and significant amounts of badly deteriorated asbestos. Children often trespassed on site. These issues prompted actions and a Site Inspection was conducted to determine the potential to place the site on the NPL.

The Okmulgee Area Development Corporation purchased the defunct refinery in 1997 and it, along with DEQ and Phillips Petroleum Company (a former owner of the refinery) entered into a unique cooperative agreement to address the site's problems.

The site was secured and all on-site structures, tanks and vessels were demolished. The hydrofluoric acid was neutralized. Thousands of gallons of waste caustic liquids were recycled to neutralize acid sludge. Underground piping and structures were removed. A site assessment to evaluate the remaining wastes and to determine the extent of environmental impact is nearing completion.

**DEQ Contact Person:**  
**Ray Roberts**  
**(405) 702-5137**



**Omni Services**

**Brownfield**  
 Oklahoma City,  
 Oklahoma County  
  
 Status: Remediation

The 2-acre site is a commercial laundry with five structures on two parcels of land separated by a city street. The oldest building was constructed in 1910. The facility has been in constant use as a commercial laundry since approximately 1940. It was previously used as a machine shop, brass and iron works, and warehouse. Contaminants in soil and groundwater from past on site and off site commercial activities include diesel range petroleum hydrocarbons, elevated arsenic and lead, and chlorinated solvents.

The site is working under a DEQ-approved Interim Remedial Measures for excavation and capping. Groundwater monitoring continues.

**DEQ Contact Person:**  
**Dale Johnson**  
**(405) 702-5122**



**Rab Valley Lumber**

**EPA Removal/AOC**  
 Panama, Le Flore County  
  
 Status: Feasibility Study

The 30-acre site was operated as a wood treatment plant by at least five different operators from 1938, until 1976. The facility used creosote and pentachlorophenol (PCP) oils. During wood-preserving operations, wastewater and unused chemicals were discharged into surface impoundments. An investigation conducted by EPA in 1993, identified numerous polyaromatic hydrocarbon (PAH) contaminants in the soil, sludge, surface water, and groundwater. A wetland 400 feet east of the site had also been contaminated.

In 1996, EPA and Joslyn Manufacturing Company, operator from 1939 to 1955, entered into a consent order for investigation and interim clean up. Sludges from the impoundments were excavated, stabilized, and transported for off site disposal. Joslyn completed excavation of additional process area soils and consolidated and stockpiled it with remaining waste material in 1998. Residual piping and tank materials were consolidated as well.

The final remedy of the site will be discussed in the Feasibility Study. DEQ continues to inspect the site on a quarterly basis.

**DEQ Contact Person:**  
**Karen Khalafian**  
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## **Sand Springs Petro- chemical Complex**

**NPL**  
Sand Springs,  
Tulsa County

Status:  
Operation & Maintenance

The 225-acre former petroleum refinery and solvent recycling facility operated between 1900 and the early 1970s. The waste attributed to the refinery includes several buried pits of petroleum wastes and three large pits of acid sludge wastes. The waste solvent and used oil recycling operation contaminated several acres with chlorinated solvents.

The remedy, completed by the PRPs in 1995, included excavation, treatment and on site disposal in a constructed landfill.

The PRPs will continue to monitor the landfill and groundwater. The site was deleted from the NPL in 2000. Because waste was disposed of on site, remedy reviews will be conducted every five years to confirm the remedy remains protective.

**DEQ Contact Person:**  
**Dennis Datin**  
**(405) 702-5135**



## **Tar Creek**

**NPL**  
Ottawa County

Status:  
Groundwater and Tar  
Creek Surface Water  
Operable Unit 1:  
Operation and Maintenance

Residential Property  
Operable Unit 2:  
Remedial Action

Drum Removal in Cardin  
Operable Unit 3:  
Complete

Nonresidential (chat piles,  
millponds, ecological, etc.)  
Operable Unit 4: RI/FS



Old foundations on the banks of Tar Creek

The Tar Creek site encompasses 40 square miles in far northeastern Oklahoma and affects the towns of Quapaw, Commerce, Picher, Miami, North Miami, and Cardin. Extensive lead and zinc mining during the early 1900s through the 1960s resulted in the formation of acid mine water that has contaminated the shallow groundwater and surface water with iron, sulfate, zinc, lead, and cadmium throughout the Tar Creek site. Mining wastes on the land surface (chat) and the former flotation ponds contain elevated levels of lead, cadmium, and zinc and have resulted in elevated levels of blood-lead in children.

### **Groundwater and Tar Creek Surface Water Operable Unit 1**

Remedial action began in 1986 with diversion diking for Tar Creek and plugging wells for the groundwater. Well plugging and monitoring of the Roubidoux aquifer is on-going.

**Residential Property**

**Operable Unit 2**

Beginning in 1997 and continuing today, contaminated soil and residential properties that chat is on or that are above the 499 mg/kg of lead concentration are removed. 1647 properties have been cleaned so far.

**Drum Removal in Cardin**

**Operable Unit 3:**

Complete

**Nonresidential (chat piles, millponds, ecological, etc.)**

**Operable Unit 4:**

The EPA is working with the PRPs to develop a RI/FS proposal for mining waste outside the residential areas. If this does not work, then DEQ will perform the investigations.

**DEQ Contact Persons:**

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Sampling unknown waste

**Tenth Street**

**NPL**

Oklahoma City,  
Oklahoma County

**Status:**

Operation & Maintenance

This 3.5-acre former automobile salvage yard and landfill located in east Oklahoma City has soils contaminated with polychlorinated biphenyls (PCBs).

Consolidation of contaminated soils followed by placement of a composite cap over the site, was completed in 1995.

The DEQ continues to monitor the landfill cap and groundwater. The site was deleted from the NPL in 2000. Because waste was capped on site remedy reviews will be conducted every five years to confirm the remedy remains protective.

**DEQ Contact Person:**

**Dennis Datin**  
**(405) 702-5125**



**Tinker Air Force Base**

**NPL Site**

Oklahoma City, Del City,  
Midwest City

**Status: Building 3001**

Operable Unit  
Remedial Action

Soldier Creek Surface  
Water & Sediments

Operable Unit  
Remedial Action

Soldier Creek IWTP  
Groundwater Operable Unit  
RI/FS

This aircraft maintenance and rebuilding facility has a long history of industrial use and groundwater contamination. Organic solvents and chromium have contaminated portions of the Garber-Wellington aquifer. Cleanup is focusing on three major operable units: Building 3001, Soldier Creek Surface Water and Sediments, and Soldier Creek/Industrial Waste Treatment Plant Groundwater.

**Building 3001 Operable Unit**

The ongoing Building 3001 remediation – started in 1990 – continues pumping and treatment of contaminated groundwater. TAFB is proposing an amendment to the remedy to evaluate its effectiveness.

**Soldier Creek Surface Water & Sediments Operable Unit**

The 1993 RI/FS and Risk Assessment for the Soldier Creek established that the water and sediments contamination levels were below concern for human health risks. The remedy requires periodic monitoring of water in the creek and its sediments. The monitoring of the creek is ongoing and will continue for a number of years.

**Soldier Creek/IWTP Groundwater Operable Unit**

The DEQ, TAFB and the EPA are working closely to select the remedy for this operable unit to address the metals and organic chemicals contamination in groundwater beneath the northeast quadrant of the Base. The proposed remedy should be chosen by this fall.

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**Hal Cantwell**  
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**Tulsa Fuels & Manufacturing**

**NPL**  
Collinsville, Tulsa County

Status:  
RI/FS

The 50-acre horizontal retort zinc smelter site operated from 1914

until 1925. In September 1994, the DEQ conducted a Site Inspection, and in May 1999, the EPA completed a Removal Assessment Report. These investigations determined arsenic, cadmium, lead, and zinc as contaminants of concern at the site. The DEQ will hire a contractor to do the RI/FS as soon as access agreements are secured.

**DEQ Contact Person:**  
**George Thomas**  
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**Union Pacific Railroad Kingfisher Site**

**Voluntary Cleanup**  
Kingfisher,  
Kingfisher County

Status:  
Groundwater Monitoring

Approximately 3,000 gallons of carbon tetrachloride were spilled as a result of a derailment that occurred in April 1995. An emergency response took care of most of the spill but a groundwater plume formed quickly. Remediation of the groundwater included an air sparging/vapor extraction system to remove the contaminants.

A risk assessment was performed and the contaminant plume continues to be monitored. Additional study of the plume is planned for the near future better determine the environmental risks.

**DEQ Contact Person:**  
**David Cates**  
**(405) 702-5124**



**US Zinc Smelter**

**Voluntary Cleanup**  
Henryetta,  
Okmulgee County

Status:  
Groundwater Monitoring

In 1918, US Zinc Company, a former subsidiary of ASARCO Inc., purchased an 18-acre parcel and operated a horizontal retort smelter in Henryetta beginning in the early 1920s. Investigations reveal high concentrations of lead and arsenic in the soils. Site remediation will be done by ASARCO under a voluntary Consent Order with the DEQ providing oversight. DEQ is reviewing an ASARCO Remediation Plan and once it is approved ASARCO will sign an agreement for the remediation.

**DEQ Contact Person:**  
**Scott Stegmann**  
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## Voluntary Cleanup & Brownfields Redevelopment

The DEQ operates two voluntary cleanup programs: the Voluntary Cleanup Program (VCP) and the Brownfields Program. The decision regarding which program to enter depends on what type of certification the participant needs at the end of the process. The site characterization and risk assessment requirements are the same for both programs.

### The Voluntary Cleanup Program

Oklahoma has operated a Voluntary Cleanup Program since the mid-1980s. When a participant completes this program, DEQ issues a letter to the participant stating that the planned work is complete. A notice is placed in the county land records to inform interested parties that a cleanup has occurred on the property. This option is often selected when the owner intends to maintain ownership of the property or when the cleanup is minor.

### The Brownfields Program

The Brownfields Program provides legal certification that the property has been cleaned up to a level that is appropriate for the planned reuse. The certification clears the participant and any future owners, lenders, lessees, etc.,

of the environmental liability associated with the historical contamination. It also provides DEQ's covenant not to sue for the environmental problems addressed during the cleanup, and it provides protection from the federal Superfund program. Low interest loans are available for the cleanup of brownfield sites, and new federal legislation provides grants to communities and non-profit organizations for the assessment and cleanup of brownfields. This option is often chosen when the owner wishes to sell the property or when a lender is concerned about its liability.

**DEQ Contact Person:**  
**Amil Lyon,**  
**(405) 702-5140**



For additional remediation site specific details please contact the listed project manager or:

Kelly Dixon  
Environmental  
Program Manager  
Site Remediation Section  
Land Protection Division  
405/702-5156

The Remediation Report was formerly published as the Superfund Site Status Report. It provides current information on the major NPL and voluntary remediation sites addressed by the DEQ and is updated three times a year in January, April and October.

The Land Report, that includes all Land Protection Division cleanup sites, will be published each August.

The Remediation Report is available on our webpage at

<http://www.deq.state.ok.us/LPDnew/lpfactsheets.htm>

If you would like to receive a printed copy of the report please contact Hal Cantwell at [hal.cantwell@deq.state.ok.us](mailto:hal.cantwell@deq.state.ok.us) or 405/702-7139 to request one.

