

# Brine Service Company Superfund Site Corpus Christi, Nueces County, Texas



## SITE STATUS SUMMARY

EPA Region 6  
EPA ID#: TX0000605264  
Site ID: 0605264  
State Congressional District: 27

Contact: Rafael Casanova, P.G. (214) 665-7437

Summary Updated: February 2012

## Background

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The Brine Service Company Superfund Site (hereinafter “the Site”) is located approximately 6.5 miles west from downtown Corpus Christi, Texas, along the north side of IH-37, east-northeast of the intersection at Goldston Road, and south of Up River Road (see the “Site Map” section of this summary) near Tule Lake and the Corpus Christi Ship Channel. Corpus Christi is situated along the southern Gulf Coast of Texas. The Site is comprised of former waste disposal pits (*i.e.*, north and south pits) or areas located on property formerly owned and operated by Brine Service Company. A portion of the pit area reportedly received oil field wastes, such as drilling fluids, and/or refinery wastes from as early as 1946 through the 1960’s.

### Brine Site (Photo Taken Looking East From Goldston Road) (2007)



## **Current Status**

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The U. S. Environmental Protection Agency (EPA, Region 6) and the potentially responsible parties (PRPs) signed an Administrative Order on Consent for a Remedial Investigation/Feasibility Study (RI/FS), on October 21, 2009, and an amendment on November 17, 2009. This enforcement document is an agreement between the EPA and the PRPs for the performance and financing of the RI/FS by the PRPs. The purpose of the RI/FS is to determine the nature and extent of contamination and to gather sufficient information about the Site to support an informed risk management decision regarding which remedy is the most appropriate for the Site.

The Draft RI/FS Work Plan was submitted to the EPA in December 2009 and has since been approved. Final reports were submitted on August 18, 2010, and accepted as final by the EPA on September 1, 2010. The Phase 1 RI field sampling activities began on September 28, 2010, and completed December 2010. Field activities included sampling of the soil, sediment, surface water, and ground water. In addition, a geophysical survey of the area was completed. Data collected during Phase 1 were used to refine additional field activities for the Phase 2 RI. The revised Phase 2 Technical Memorandum was accepted as final on November 17, 2011, and Phase 2 field work began in December 2011 and is currently ongoing.

## **Benefits**

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The investigation and cleanup of the Site will ensure the protection of human health and the environment. Specific cleanup benefits will be identified during the RI/FS currently being conducted at the Site.

## **National Priorities List History**

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The National Priorities List (NPL) is a list of national priorities among the known or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation to assess the nature and extent of public health and environmental risks associated with a release of hazardous substances.

Final Listing Date: September 5, 2002

## **Site Description**

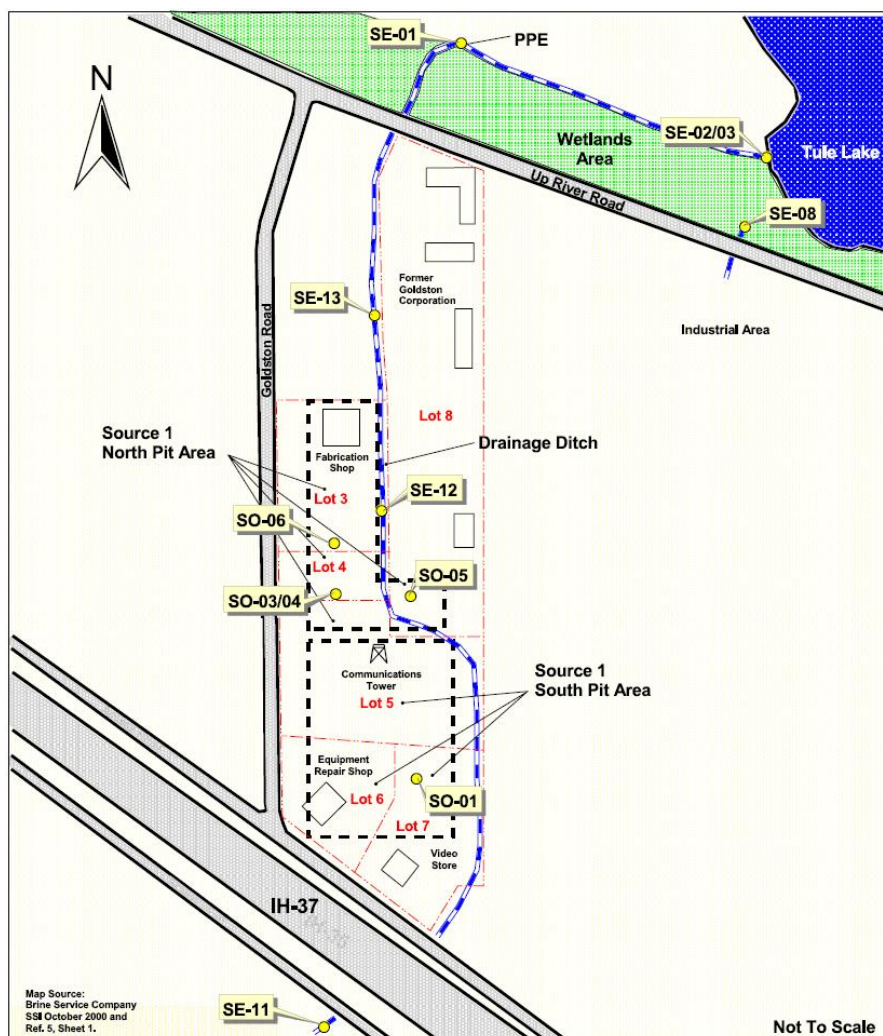
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**Population:** The population of the City of Corpus Christi is approximately 277,454.

**Setting:** The Site was discovered in November 1997 when a pipeline company was advancing an excavation trench through a portion of the former Brine Service Company property to install interconnecting pipelines between two nearby refineries. Subsequent sampling of the pit area revealed the presence of metals, including barium, cadmium, chromium, lead, and mercury, as well as several organic compounds.

**Hydrology:** Surface water drainage from the Site enters a drainage ditch located along the eastern side of the property. The ditch travels north approximately ½ mile and empties into wetlands bordering Tule Lake. Tule Lake is a brackish shallow water wetland area and is a Texas Parks and Wildlife sanctuary containing gulls, pelicans, and other aquatic birds. Tule Lake is also a habitat for several State-Listed Threatened Species. Tule Lake flows into Corpus Christi Inner Harbor, which in turn flows into Corpus Christi Bay. Corpus Christi Bay is an estuarine subtidal area. The bay is used for recreational and commercial fishing. Land use surrounding the Site is commercial/industrial. Several petroleum refineries are located nearby.

## Site Map



## Wastes and Volumes

The following hazardous substances were encountered during the 1997 pipeline trench excavations at the Site: barium, cadmium, chromium, lead, mercury, fluorene, 2-methylnaphthalene, naphthalene, phenanthrene, benzene, ethylbenzene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, xylenes, 2,4-dimethylphenol, acenaphthene, 2-methylphenol (o-cresol), 3&4 methylphenol (m&p cresol), and phenol. Total benzene levels were documented as high as 79,000 micrograms/kilogram. Toxicity Characteristic Leaching Procedure benzene levels ranged from 250 micrograms/liter ( $\mu\text{g/L}$ ) to 1,700  $\mu\text{g/L}$ . Total petroleum hydrocarbon levels were detected as high as 52,000 milligrams/kilogram.

Subsequent sampling in February 2000, conducted by the Texas Natural Resource Conservation Commission (now the Texas Commission on Environmental Quality), confirmed the presence of metals and organic compounds in the north and south pit areas.

Other types and volumes of wastes currently present at the Site have not been determined. This information will be obtained during the RI/FS currently being conducted at the Site.

## Health Considerations

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Human Health and Ecological Risk Assessments will be performed during the RI/FS currently being conducted at the Site. These risk assessments are an integral part of the RI/FS.

A Human Health Risk Assessment estimates the current and possible future risks if no action were taken to clean up a site. The EPA's Superfund risk assessors determine how threatening a hazardous waste site is to human health and the environment. They seek to determine a safe level for each potentially dangerous contaminant present (e.g., a level at which ill health effects are unlikely and the probability of cancer is very small). Living near a Superfund site does not automatically place a person at risk, that depends on the chemicals present and the ways people are exposed to them.

An Ecological Risk Assessment is defined as a process that evaluates the likelihood that adverse ecological effects are occurring or may occur as a result of exposure to one or more stressors. A stressor is any physical, chemical, or biological entity that can induce an adverse ecological response. Adverse responses can range from sublethal chronic effects in individual organisms to a loss of ecosystem function.

## Record of Decision

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The final remedy (cleanup alternative) for a site is published in a Record of Decision (ROD). The ROD is the official documentation of how the EPA considered the remedial alternatives and why the EPA selected the final remedy. Before a ROD can be finalized, the EPA must provide a Proposed Plan for public review and comment. This plan summarizes the remedial alternatives presented in the analysis of the RI/FS and identifies the preferred alternative, the rationale for that preferred alternative, and the documents that support the EPA's decision.

A ROD has not been signed for the Site. A Proposed Plan will be presented to the public during the latter part of the RI/FS currently being conducted for the Site. The RI/FS is expected to be completed in March 2014 and ROD finalized in November 2014.

## Community Involvement

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Community Involvement Plan:

The Community Involvement Plan (CIP) specifies the community involvement activities that the EPA expects to undertake during the remedial activities planned for the Site. A CIP, based on community interviews and other relevant information about the Site, has been prepared and is available at the Site's repository. The purpose of the repository is to provide the public a location near their community to review and copy background and current information about the Site. The repository is located at:

Corpus Christi Public Library  
805 Comanche St.  
Corpus Christi, TX 78401

Anyone who wishes to be placed on the mailing list to receive current information about the Site is encouraged to call 1-800-533-3508.

#### Open Houses:

Open houses will be scheduled near the latter part of the RI/FS to inform the public of the status of the RI/FS. Fact sheets will be prepared as necessary during the implementation of the RI/FS. These fact sheets will be filed at the Site's repository and distributed to people on the mailing list.

#### Proposed Plan:

A Proposed Plan has not been issued for the Site. Before a ROD can be finalized, the EPA must provide a Proposed Plan for public review and comment. A Proposed Plan is expected to be issued in the latter part of 2013 or early 2014.

#### Public Meeting:

A formal public meeting will be scheduled after issuance of the Proposed Plan for the Site so that the public can provide input into the EPA's proposed final decision for the Site.

#### Technical Assistance Grant:

A Technical Assistance Grant (TAG) is for a local citizens' group to secure the services of a technical advisor to increase citizen understanding of information that will be developed about the Site during the Superfund process. To be eligible for a grant, a group must incorporate. In addition, the applicant must meet a 20 percent matching requirement, which may be in cash or donated services. If you are interested in applying for a TAG, please call Janetta Coats (TAG Coordinator) at (214) 665-7308 or toll-free at 1-800-533-3508.

An "Availability Notice" was published in the Corpus Christi Caller Times on September 24, 2001, and September 18, 2002. A Letter of Intent (LOI) was received on October 2, 2002, from the Coastal Bend Bays Foundation (CBBF).

The EPA published a notice in the Corpus Christi Caller Times on October 16, 2002, that the CBBF submitted a LOI to apply for the TAG. A final application was received on February 3, 2003, from the CBBF. A TAG was awarded to the CBBF in April 2003 and expired on April 15, 2006.

## Site Contacts

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