

# Fact Sheet

## Former Montrose Chemical Facility Henderson, Nevada

UPDATED OCTOBER, 2007

Montrose Chemical Company of California formerly operated a chemical manufacturing plant located within what is now the Pioneer Americas LLC facility at the western end of the BMI facility near the City of Henderson, Clark County, NV. The Montrose plant ceased operations in 1983 and the main plant was demolished except for a hydrochloric acid manufacturing unit that eventually was sold to Pioneer. Various closure activities, including the closure of former evaporation ponds, continued until 1989.

### Administrative History

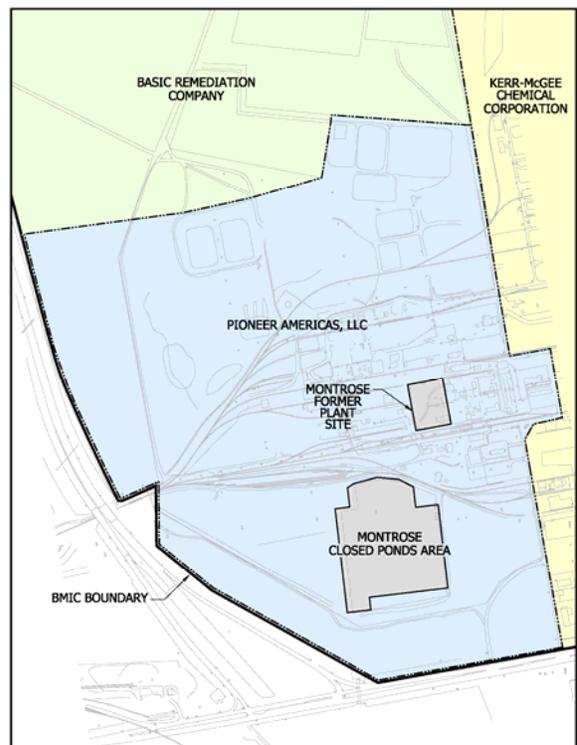
In 1991, Montrose entered into a Consent Agreement with the Nevada Division of Environmental Protection (NDEP) requiring Montrose to conduct a Phase I Environmental Conditions Assessment (ECA) of the former Montrose plant site to identify areas of potential environmental concern. Montrose submitted its ECA report to NDEP in 1993.

In 1994, NDEP issued a Phase II Letter of Understanding (LOU) that outlined specific environmental issues to be investigated by Montrose. Subsequently, Montrose entered into another Consent Agreement with the NDEP in 1996 to conduct a Phase II Environmental Conditions Investigation (ECI) of areas of potential environmental concern at the former Montrose plant site as identified in the LOU.

As of late August 2007, Montrose and NDEP are in the process of negotiating a Phase 3 Consent Agreement to carry the program through remedial operations.

### Preliminary Site Investigations

Upon completion of the 1996 Consent Agreement, Montrose completed a series of soil and groundwater investigations resulting in the submittal of a series of reports and other correspondence to NDEP that preliminarily evaluated potential chemical impacts to soil and groundwater from the former plant operations. Of principal importance among these documents were the following reports:



Montrose Former Plant Site Location

- Draft Phase II Environmental Conditions Investigation Report - August 1997  
Evaluated chemical presence in soils at areas of the former plant specified by the LOU
- Additional Groundwater Investigation Report - February 2000  
Evaluated the presence of chemical migration in groundwater from the Montrose closed pond area
- Conceptual Site Model - Closed Montrose Ponds - February 2000  
Integrated soil and groundwater chemical concentration data to form a partial picture of source area contribution and chemical migration in groundwater from the Montrose closed ponds
- Investigation of Deeper Water-Bearing Zones at the Closed Ponds and Former Plant Site March 2001  
Began an evaluation of hydraulic characteristics and the presence of site-related chemicals in the second water-bearing zone beneath the former Montrose plant areas

For all reports, NDEP provided comments and Montrose responded with further information and discussion to clarify the findings of the investigation and to agree on further required work.

### **Recent Site Investigation**

Subsequent to the completion of the preliminary field investigations outlined above, Montrose, in coordination with NDEP, developed workplans and implemented further soil and groundwater investigation tasks believed necessary to complete a thorough investigation of the site. The following tasks have been completed or are in the process as of mid-year 2007.



Monitor Well Drilling

- An evaluation of chemical analysis methods has been conducted to assure that chemicals used in Montrose processes can be detected adequately to identify their presence in soil or groundwater.
- An evaluation has been completed to identify all possible chemicals that may be related to plant operations. Future investigation work has used this expanded list of analytes.
- Extensive additional soil sampling has been completed at all former Montrose operations areas and, in co-operation with representatives of the nearby former Stauffer site, have conducted an extensive evaluation of groundwater quality throughout the combined site area. Additionally, groundwater sampling has been completed in off-site area between the Groundwater Treatment System (GWTS) and the Las Vegas Wash.

The data from these investigations are being used to develop a comprehensive Conceptual Site Model (CSM) due for initial completion in late 2007. This document combines information generated by both the Montrose and the Stauffer site investigation work to provide a site-wide evaluation of source area contribution and groundwater contaminant transport to support future risk assessment and an evaluation of the need for remedial action.

## **Remedial Operations**

While these additional investigations and evaluations are ongoing, Montrose is accelerating remediation of its former plant site by conducting an interim remedial measure at a portion of the former plant site.

Soil vapor extraction is being applied to remove volatile organic chemicals from soils identified by the preliminary investigation programs. The program began in September 2004 and is expected to continue for several more years..



Soil Vapor Extraction System

Finally, over the last three years, Montrose, Pioneer, and SMC have been upgrading and renovating the GWTS, first installed downgradient of the Stauffer and Montrose facilities in 1983. The purpose of the system is to prevent the migration of contaminated groundwater off-site and the original system used air-stripping to remove volatile chemicals from groundwater downgradient of the former plant sites.



Upgraded Groundwater Treatment System

The upgrade program, still underway, consists of a series of changes to improve capture and treatment of migrating groundwater. Pumping rates have been increased through extraction well renovation and improved control, the air-stripping system has been replaced, and carbon adsorption treatment has been added to the treatment process. Further evaluations are ongoing as of mid-year 2007 that will lead to further improvements in groundwater capture and treatment.

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## **INFORMATION AND COMMUNITY INVOLVEMENT**

*NDEP oversees all aspects of the environmental work at the former Montrose site. Additional information can be obtained from Brian Rakvica (702-486-2850 ext. 247) at NDEP. Montrose welcomes community input to this project and recognizes the need to respond to community concerns. Previous reports related to the environmental work at the site can be found at the City of Henderson Public Library and correspondence can be obtained from NDEP's offices in Las Vegas or Carson City.*