GW - 73

REPORTS

YEAR(S):

10-11-10

Deuell Environmental, LLC

October 11, 2010

Mr. Edward Hansen
Environmental Bureau
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Closure Request for the Schlumberger Technology Corporation (Dowell) Facility in Hobbs, New Mexico

Dear Mr. Hansen:

On behalf of Schlumberger Technology Corporation (Dowell), this letter requests closure of the ground water portion of the OCD Discharge Permit GW-73 for the facility in Hobbs, New Mexico. All monitoring wells were non-detect for the last sampling event and have been below the New Mexico Water Quality Control Commission standards and EPA MCL's for more than eight quarters. Following is a history of activities for the site and rational for site closure.

Site Investigation and Remediation History

- Site Description the facility is located at the intersection of Lovington Highway and Bender Boulevard in Hobbs, New Mexico. The site is in an industrial and commercial area. Topographically the area is flat with undefined drainage patterns and is in the arid Southern High Plains Region. The Tertiary Ogallala Formation underlies the site, which consists of unconsolidated sands with clay, silt, and gravel capped by caliche. Locally the Ogallala is about 100 feet thick and underlain by red siltstones and claystones of Mesozoic age. The Ogallala aquifer is the major aquifer in the region and is pumped extensively for municipal, industrial, and agricultural purposes. Depth to water in the region is steadily declining, due to pumping, and is now 75-80 below ground surface at the facility.
  - August 1989 *Underground Storage Tank Removal:* Removal of seven underground storage tanks with some excavation of contaminated soils. TPH found in the soil of two excavations and chlorinated compounds in one excavation.
  - June 1990 *Site Investigation:* A soil vapor survey was performed to locate soil borings with soil sampling. Source areas were identified at the acid plant separator, the former pit, and the underground fuel storage tanks. Ground water sampling from borings indicate impacts to ground water.
  - February 1991 New Mexico Oil Conservation Division (OCD) sends notification that a discharge plan is required.

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- July 1993 *Preliminary Investigation of the Former Wastewater Pond:* Extensive soil vapor survey and borehole construction with soil sampling of the former wastewater pond area. This investigation concluded that the previous excavation of the area several years ago had removed all contaminated soils above the caliche, but that there may have been lateral migration and contamination of the caliche.
- August 1993 *Closure Plan for an Oil/Water Separator and Collection Sump:* This is a closure plan for removal of two oil/water separator tanks and a collection sump, formerly operated as part of an acid neutralization system.
- February 1994 *Closure Report for an Acid Collection System:* Documents removal of separator tanks associated with acid neutralization system and excavation of adjacent contaminated soils.
- May 1994 *Site Investigation, Soil Vapor Extraction Pilot Test Work Plan:* A work plan for soil vapor extraction pilot test at the three source areas.
- September 1994 OCD requires delineation of contamination and a closure plan.
- January 1995 *Work Plan for Extent of Soil Contamination Delineation and Installation of Soil Vapor Extraction System:* Plan to install three soil vapor extraction systems using AcuVac internal combustion engines. Soil contamination delineation is to be part of SVE extraction well installation.
- September 1995 *Determination of Extent of Soil Contamination and Installation of Soil Vapor Extraction Systems:* This documents installation of three SVE systems at the source areas and soil sampling to delineate extent of soil contamination.
- January 1996 OCD requires additional vertical and horizontal extent of contamination determination. .
- October 1996 OCD requires installation of a minimum of three monitoring wells.
- December 1996 *Final Report Ground-Water Investigation:* Documents installation of four ground water monitoring wells, ground water sampling, addition of SVE extraction wells at each of the three source areas and replacement of the AcuVac unit with an electric blower at the UST area. BTEX found in ground water at the former pond area and chlorinated compounds found at the UST and acid dock areas.
- December 1996 OCD requires additional delineation of ground water contamination. Five additional monitoring wells are approved.
- March 1997 *Results of Ground Water Monitoring and Additional Investigation:* Documents installation of five ground water monitoring wells. Sampling indicates extent of contamination has not been defined and five additional monitoring wells are proposed. The additional monitoring wells will include off-site wells and deeper wells to determine vertical extent of contamination.
- July 1997 *Results of Second Quarter Ground Water Monitoring, Additional Investigation, and Remedial Activities:* This report documents drilling of three off-site monitoring wells, one up gradient monitoring well, and two deep monitoring wells with subsequent sampling. It also documents the installation of air-sparge wells at the UST area and the installation of deep SVE extraction wells. Results indicate that there is no deep contamination and that the lateral extents have been defined.
- August 1997 *Report Presenting Modifications Made to the Existing Soil Vapor Extraction Systems:* Documents modifications to the UST SVE system to incorporate additional SVE wells.

- February 1998 *Quarterly and Annual:* Report Summarizes all activities for 1997, including installation of six monitoring wells, soil vapor extraction wells, air-sparging wells, and installation of air-sparge system, along with quarterly sampling and operation details.
- June 1998 *Air Sparging Pilot Test Report:* Details air-sparging system installation in October 1997 and six months of operation. It is determined that the system has been effective in removing contaminants and continued operation is recommended.
- November 1998 AcuVac internal combustion units are replaced with electric blowers at the acid plant and former wastewater pond areas.
- January 2007 *2006 Annual Report:* The air-sparge system was shut down in October due to declining water levels reducing the submergence level of the sparge points.
- January 2010 *2009 Annual Report:* A continuing decline in water levels made it impossible to sample several monitoring wells. With NMOCD approval eight monitoring wells were abandoned in October 2009.

Current Status

As of the July 2010 sampling all remaining monitoring wells and the output from the SVE systems was non-detect. This is a continuing trend as demonstrated below:

WELL	LAST DETECTION ABOVE EPA MCL	SAMPLING DIFFICULTY (LOW WATER)	COMMENT
MW-2	July 2000		Abandoned, Upgradient
MW-3	October 2001		Abandoned
MW-4	January 2009	DRY	
MW-5	October 2005		Abandoned
MW-6	April 2007		Abandoned
MW-7	July 2006		
MW-8	October 2005		
MW-9	July 2004		Abandoned
MW-10	January 1998		Abandoned
MW-11	Never		Abandoned
MW-12	Never		Upgradient
MW-13	July 2006		Abandoned
MW-14	Never	DRY	
MW-15	Never		

All wells are now clean. Decreasing water levels had made it impracticable to sample most wells. It is requested that the site be closed with abandonment of the monitoring wells and removal of the SVE systems.

If you have any questions concerning the results, please feel free to contact me at (307) 760-3277.

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Sincerely,

Rick Deuell

Rick Deuell, P.E.

Enclosures:

cc: Paul Scheeley, NMOCD
Joe Ferguson, Schlumberger
Janice Barber, Dow

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