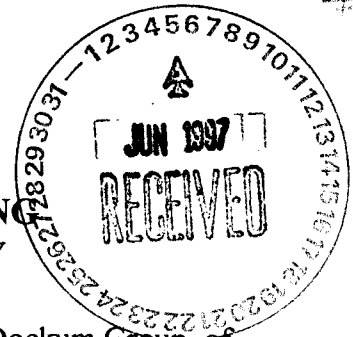


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**OVERVIEW
GEOLOGIC AND HYDROLOGIC SETTING
TRIASSIC PARK DISPOSAL FACILITY**



The geologic setting, represented by the Triassic-age sediments of the Dockum Group, of the Gandy-Marley site in Chavez County, New Mexico is ideal for the location of a hazardous waste disposal facility. These sediments are predominantly low permeability mudstones and there is no near-surface groundwater underlying the 480-acre site.

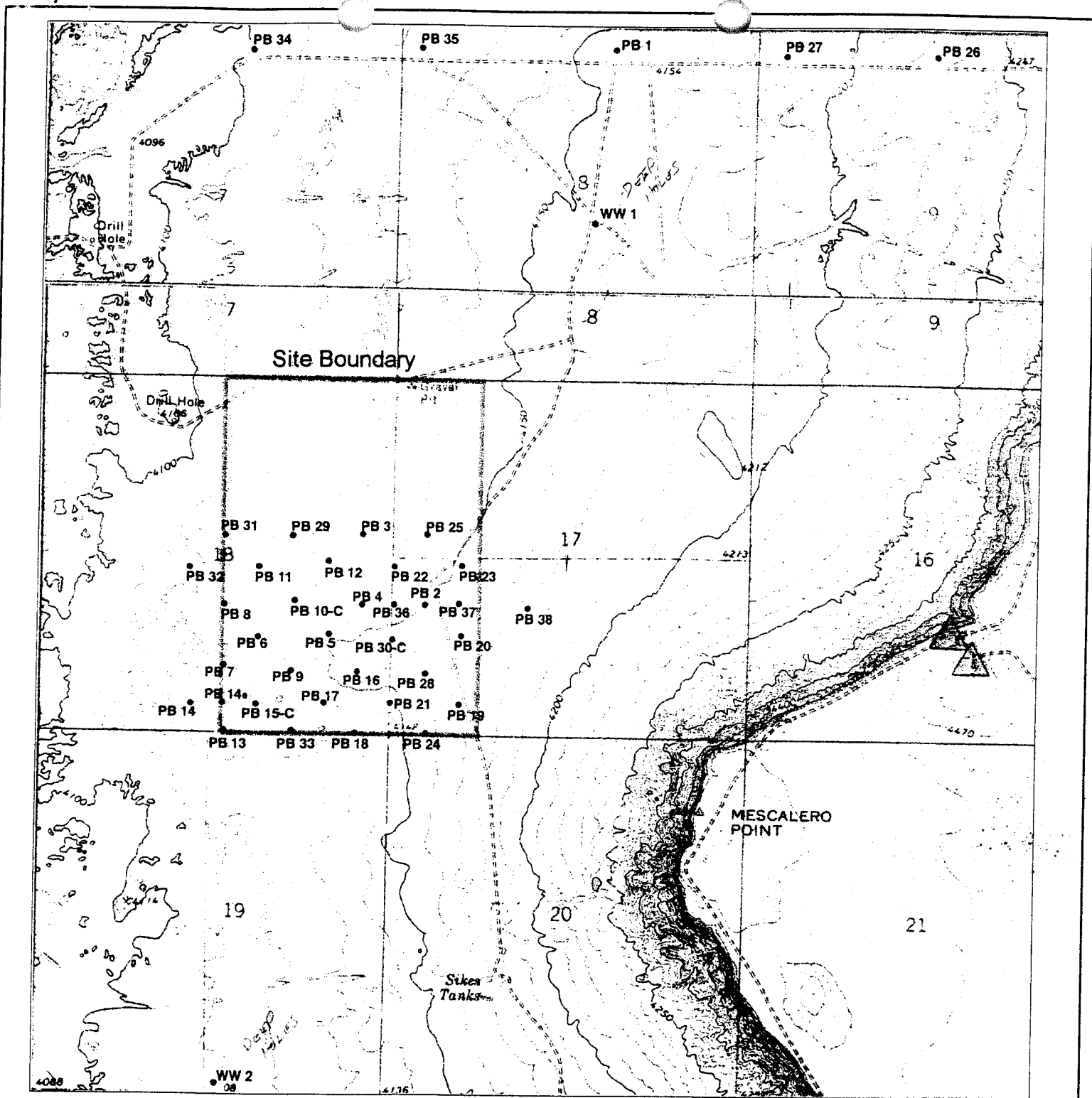
A total of 41 drill holes were completed during the geologic and hydrologic characterization of the site. Locations and depths of all holes were reviewed and approved by NMED prior to field operations. 31 of these drill holes were completed within the Gandy-Marley site boundary.

This drilling delineated two distinct geologic units within the Triassic Dockum Group. The Upper Dockum is an interbedded sequence of sandy siltstones and mudstones. Underlying this unit, the Lower Dockum consists of a 600-650-foot thick interval of low permeability mudstones and a 50-foot thick basal sandstone. The Gandy-Marley landfill is designed to be developed within unsaturated Upper Dockum sediments with the base of the landfill resting on the top of the thick sequence of Lower Dockum mudstones.

The Upper Dockum sediments, within the site boundary are all unsaturated. One drill hole west of the boundary encountered a small quantity of "perched" water at a depth of 30 feet. Approximately one mile northeast of the site boundary and near the unconformable contact of the Upper Dockum and the Ogallala Formation, three holes encountered saturation within the Upper Dockum at depth of 130-180 feet. This water has infiltrated downward from the overlying Ogallala Formation and does not extend to the site boundary.

Two deep holes, north and south of the site, were completed to evaluate the Lower Dockum sediments. These holes encountered 600-650 feet of mudstones overlying a basal sandstone. This basal unit is saturated with groundwater which exceeds 10,000 ppm TDS. The NMED approved a decision not to penetrate the Lower Dockum unit underlying the site. This would have violated the integrity of this thick mudstone sequence in an area of a planned hazardous waste disposal facility and not provided any significant additional geologic information.

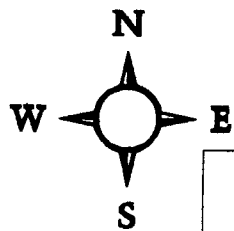
In summary, the natural geologic barriers present at the site of the Gandy-Marley landfill are ideal for the long-term isolation of hazardous waste from the environment. 1) The landfill is located within unsaturated sediments. Transport modeling shows that lateral migration of contaminants, under unsaturated conditions, would take millions of years to reach off-site saturation in the Upper Dockum. 2) The 600-650 foot thick sequence of unsaturated Lower Dockum mudstones at the base of the landfill provides another secure barrier to the downward migration of contaminants. 3) As additional protection, the double liner design of the Gandy-Marley landfill takes no credit for these natural barriers.



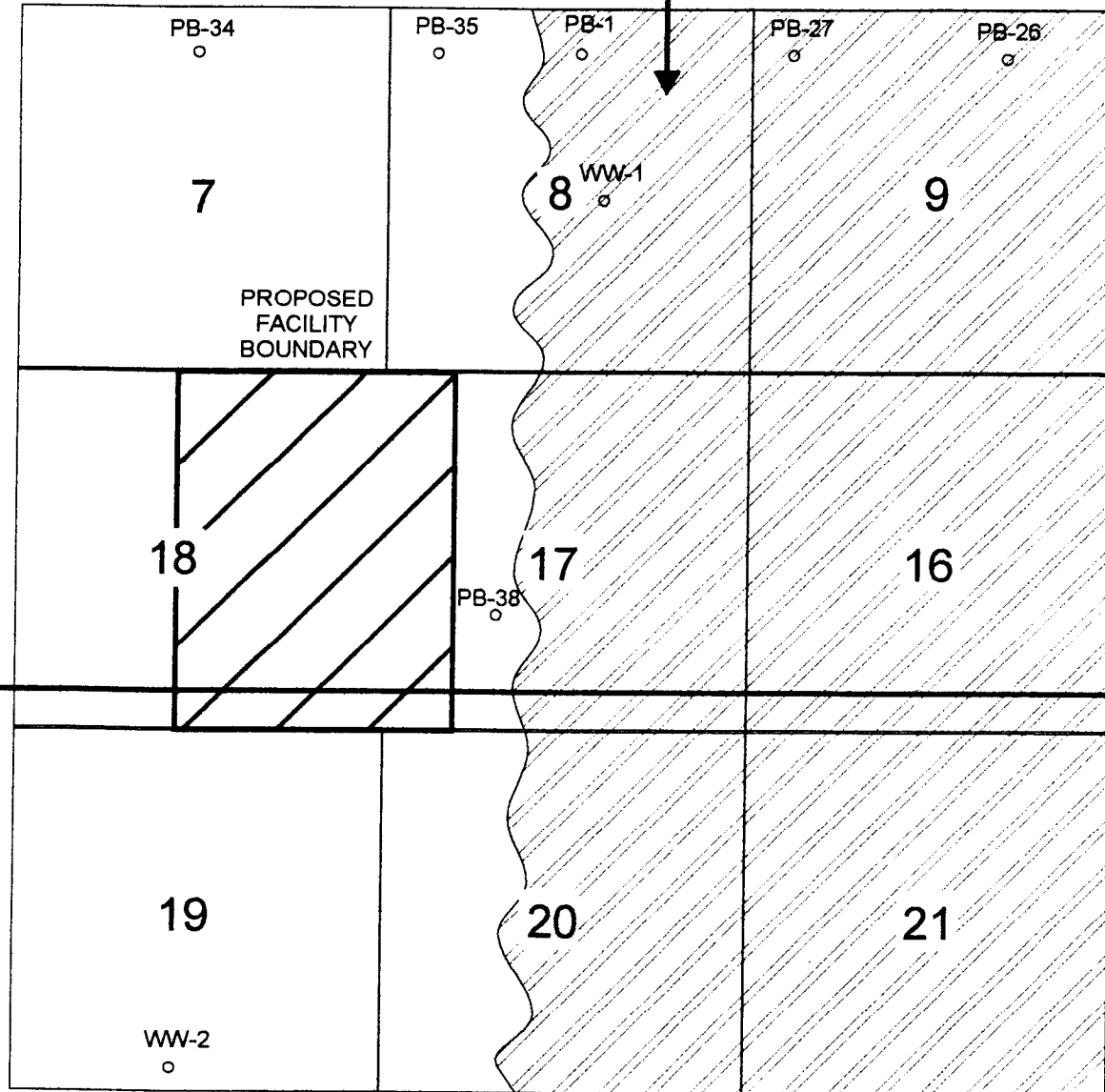
Scale: 1" = 2000'

TOTAL DRILL HOLES
SOUTH EAST NEW MEXICO
GANDY MARLEY PROJECT

Figure 3-14



Area Underlain By
Saturated Upper Dockum
Sediments



Stratigraphically
Trapped
Groundwater

PROPOSED
FACILITY
BOUNDARY

WESTWARD
EDGE OF
SATURATED
SEDIMENTS

OGALLALA

Water Level

UPPER DOCKUM

LOWER DOCKUM

UPPER DOCKUM GROUNDWATER

SOUTH EAST NEW MEXICO

GANDY MARLEY PROJECT

Figure 3-13

ONE INCH = 2680'