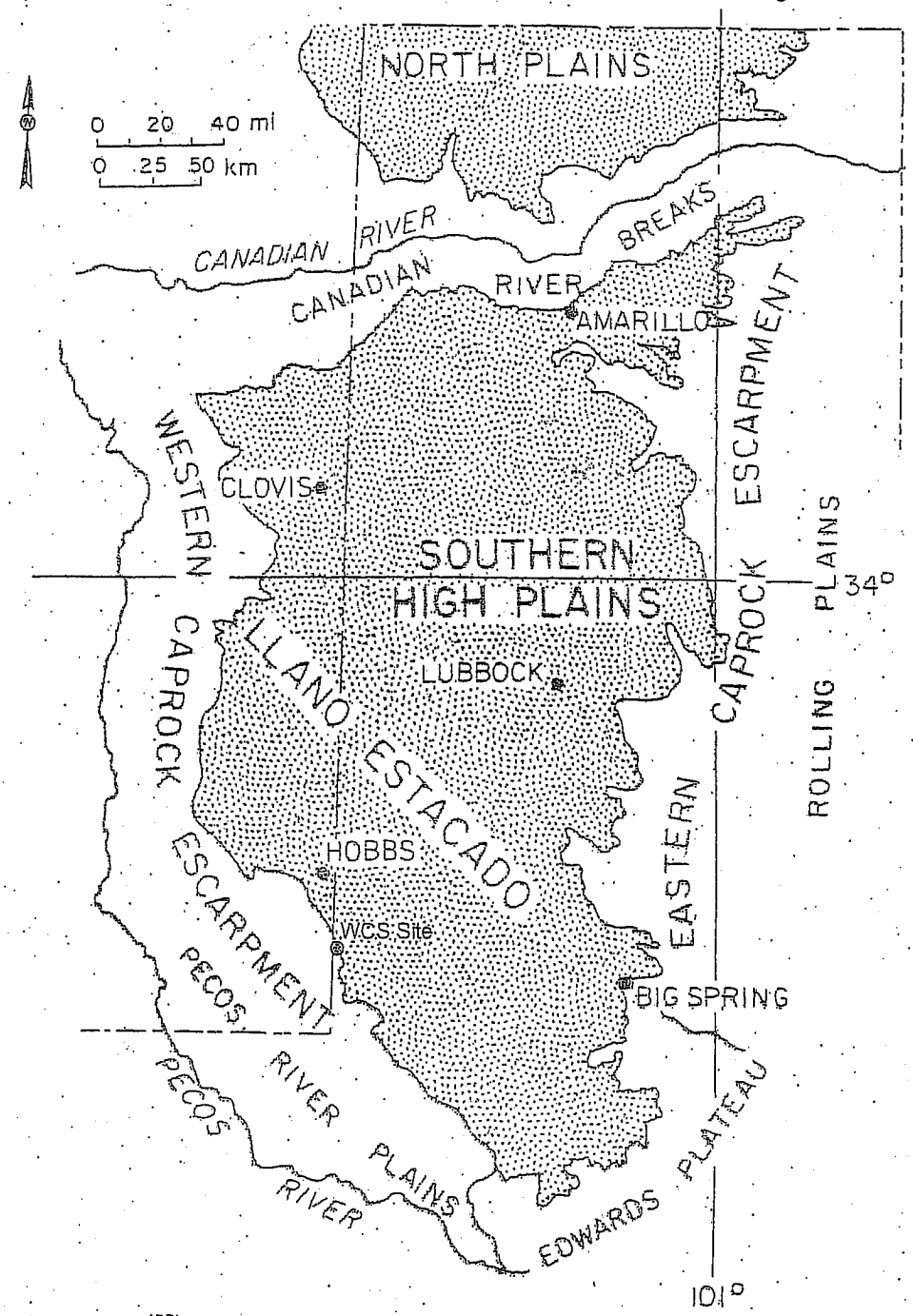
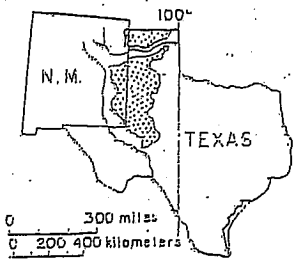
Figure 1 Site Location




Source: Finley and Gustavson, 1981

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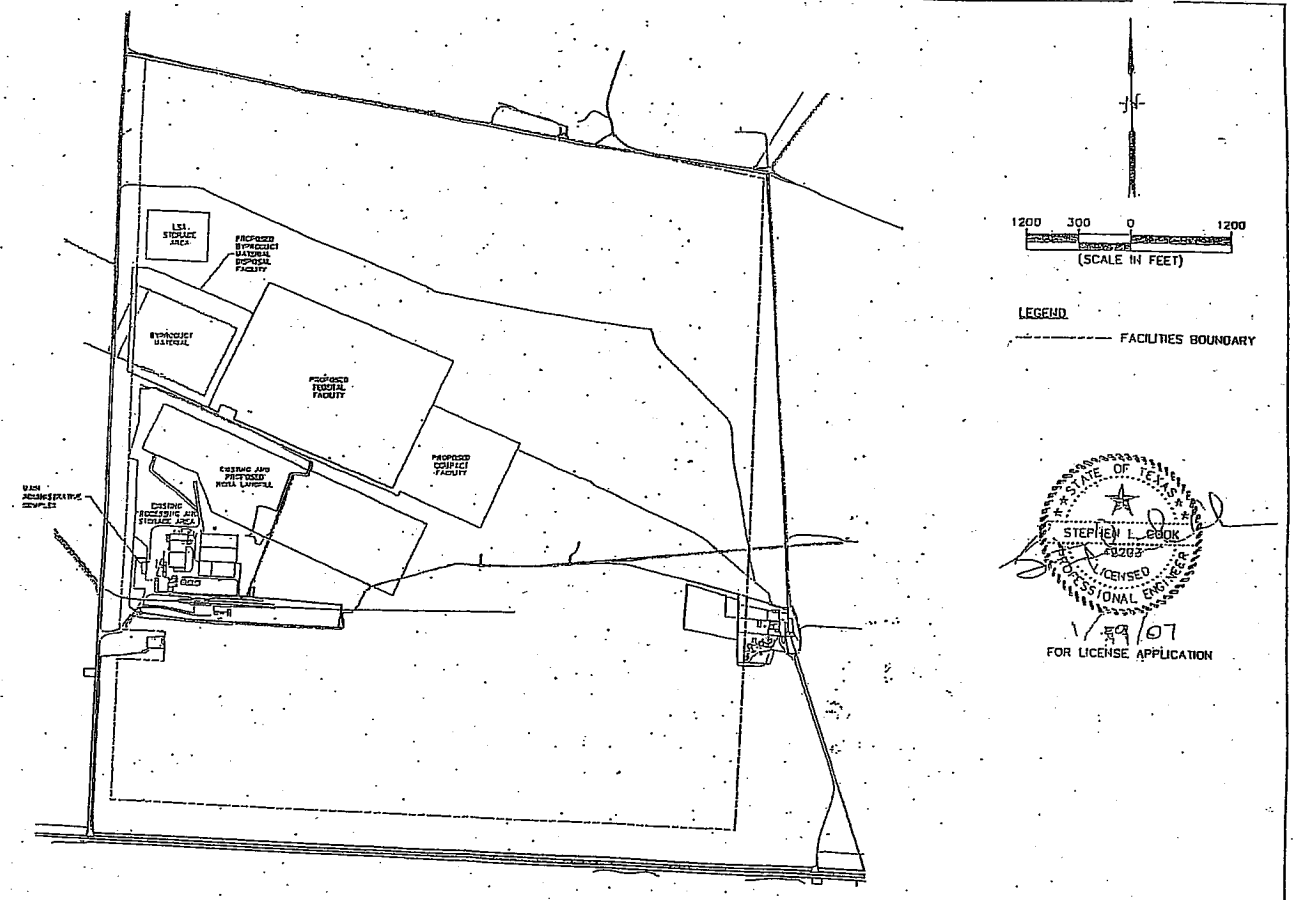
WCS Site Location on the Southwestern Edge of the Southern High Plains




| REV. | DATE | DESCRIPTION | DR BY | APP BY |
|---|---|---|---|---|
| 2 | 1/07 | REVISED BYPRODUCT BNDY | | |
| 1 | 3/05 | UPDATED FACILITIES' FOOTPRINTS | | |

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PROJECT: WASTE CONTROL SPECIALISTS LLC ANDREWS COUNTY, TEXAS

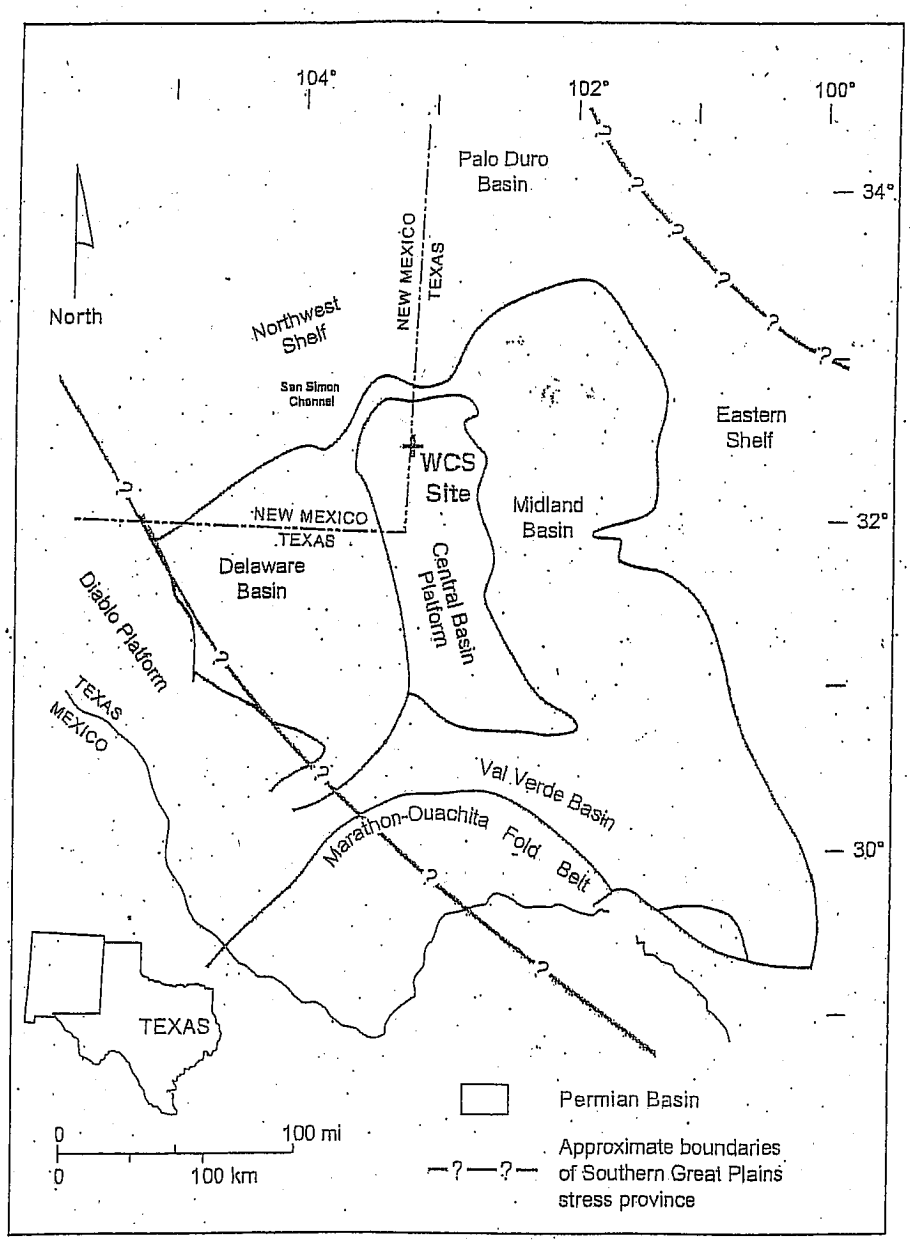
SHEET TITLE: LAYOUT OF WCS OPERATIONAL AREAS

| | | |
|---|---|---|
| DES BY | | |
| DR BY | SDS | |
| CHK BY | MLU | |
| APP BY | SLC | |
| DATE ISSUED: 06-21-2004 | | |
| PURPOSE: LICENSE APP. | | |

SCALE: SEE BAR SCALE
PROJECT NO. 0308LM
C3 NO. 03030014M3
SHEET 1 OF 1 SHEETS

Figure 2 WCS Site Map

Figure 3 Permian Basin Features




Modified from Hills, 1984; Frezel et al., 1988; Dutton et al., 2003; URS (Wong et al.), 2004 Attachment 4-2b

| | |
|---|---|
| Date: 1/12/07<br>File: WCS_Fig2.20.fh11 | Geologic and Seismotectonic Setting of the WCS Site |
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Figure 4 Stratigraphy

| Years BP | SYSTEM/SERIES | | GROUP | FORMATION | |
|---|---|---|---|---|---|
| 0.01 | QUATERNARY | RECENT/HOLOCENE | | Windblown Sand | Playa Deposits |
| | | PLEISTOCENE | | Blackwater Draw or Tahoka | |
| 1.6 | TERTIARY | | | Ogallala (3-13 my) | Gatuna (0.5) |
| 66 | CRETACEOUS | COMMANCHEAN | Washita | Duck Creek | |
| (millions) | | | Fredericksburg | Kiamichi | |
| | | | | Edwards | |
| | | | | Comanche Peak | |
| | | | | Walnut | |
| | | | Trinity | Antlers | |
| 144 | JURASSIC | | | | |
| 208 | TRIASSIC | | DOCKUM | Redonda | |
| | | | | Cooper Canyon | |
| | | | | Trujillo | |
| | | | | Tecovas | |
| | | | | Santa Rosa | |
| 245 | PERMIAN | OCHOA | | Dewey Lake | |
| | | | | Rustler | |
| | | | | Salado | |
| | | GUADALUPE | WHITEHORSE | Tansill | |
| | | | | Yates | |
| | | | | Seven Rivers | |
| | | | | Queen | |
| | | | | Grayburg | |
| | | | SAN ANDRES | Glorieta | |
| | | LEONARD | CLEAR FORK | U. Clear Fork | |
| | | | | Tubb Sd. | |
| | | | | L. Clear Fork | |
| | | | WICHITA | Wichita-Abo | |
| | | WOLFCAMP | WOLFCAMP | | |
| 286 | PENNSYLVANIAN | CISCO | CISCO | | |
| | | CANYON | CANYON | | |
| | | STRAWN | STRAWN | | |
| | | ATOKA | ATOKA | | |
| 320 | MISSISSIPPIAN | MERAMEC | | Mississippian Lime | |
| | | KINDERHOOK | KINDERHOOK | | |
| 360 | DEVONIAN | UPPER | WOODFORD | Woodford Shale | |
| | | LOWER | DEVONIAN | | |
| 408 | SILURIAN | U. NIAGARAN | | Upper Silurian Shale | |
| | | L. NIAGARAN | FUSSELMAN | | |
| | | ALEXANDRIAN | | | |
| 438 | ORDOVICIAN | UPPER | MONTOYA | | |
| | | MIDDLE | SIMPSON | | |
| | | LOWER | ELLENBURGER | | |
| 505 | CAMBRIAN | | | | |
| 570 | PRECAMBRIAN | | | Igneous and Metamorphic Rocks | |

------ Denotes Unconformity

Source: Modified from WTGS, 1976; Bebout & Meador, 1985; Nativ and Gutierrez, 1988

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5/16/07
GERALD E. GRISAK
GEOLOGY
No. 617
LICENSED
PROFESSIONAL GEOSCIENTIST

Date: 5/18/07
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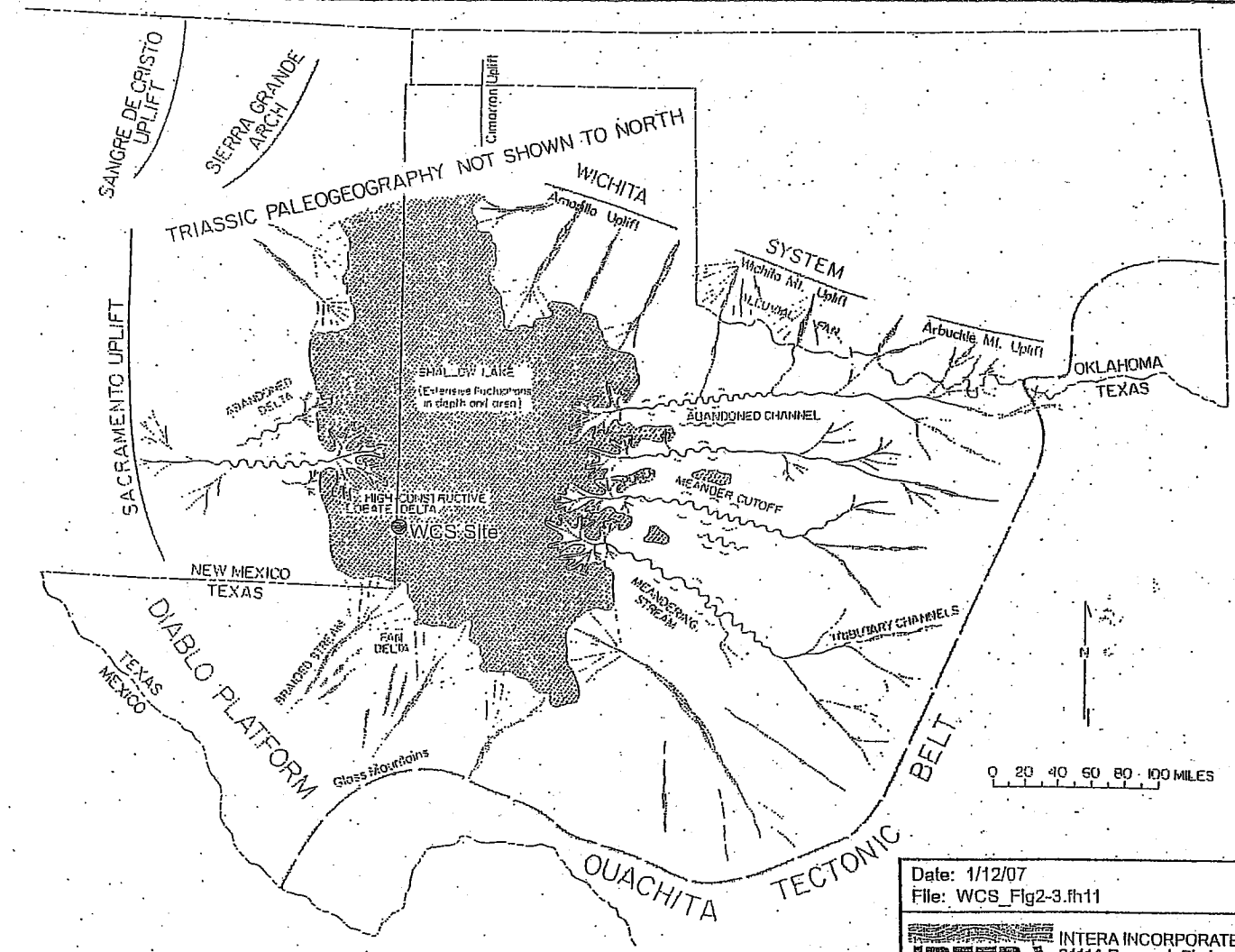
Regional Stratigraphic Chart of the Central Basin Platform




Source: McGowen et al., 1979

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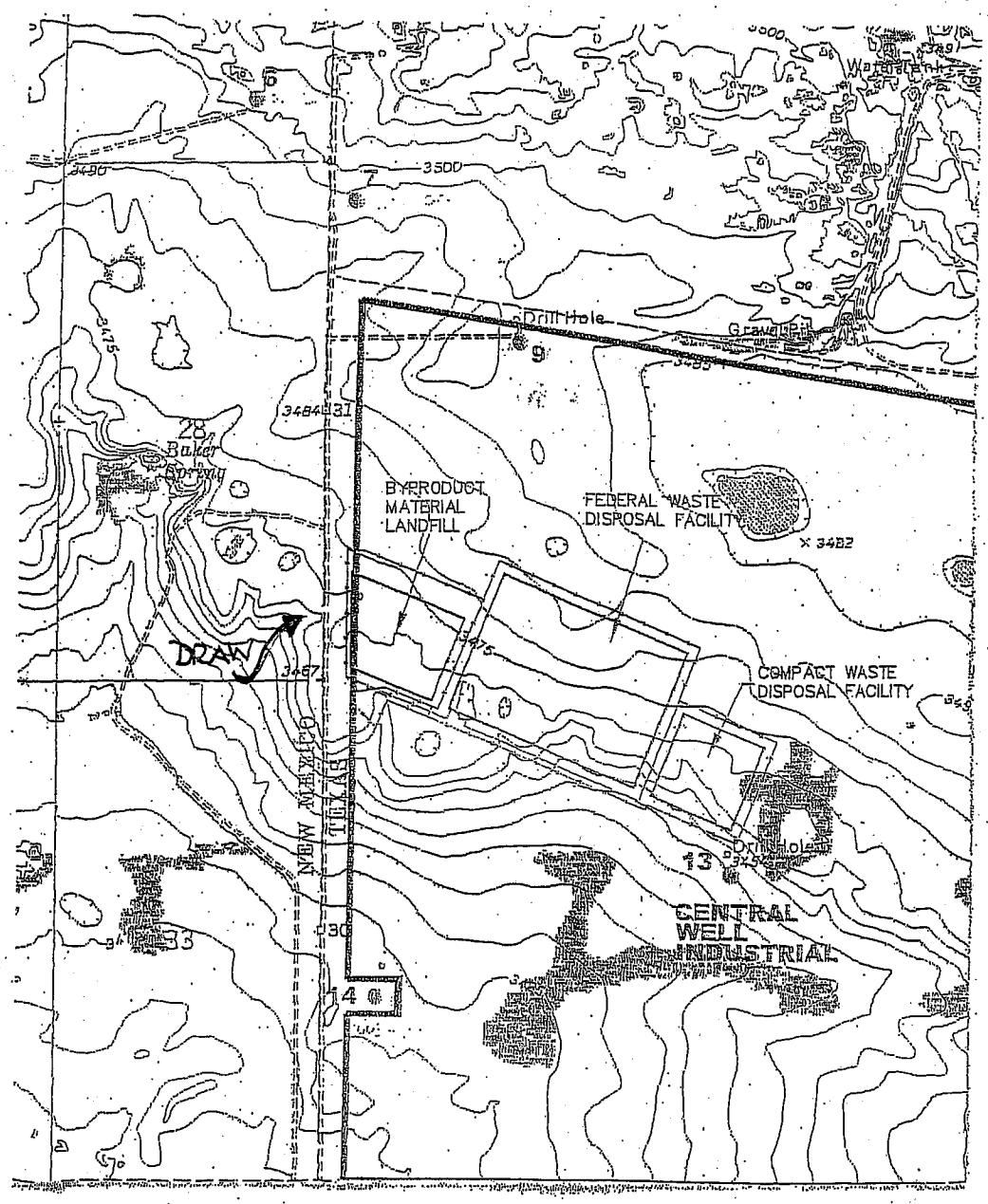
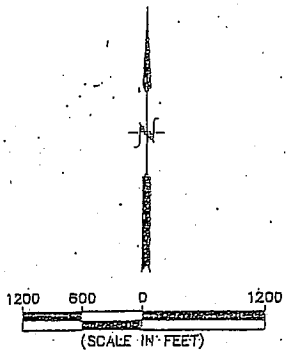
Inferred Paleogeography of Dockum Sedimentation

Figure 5 Early Dockum Basin Paleogeography

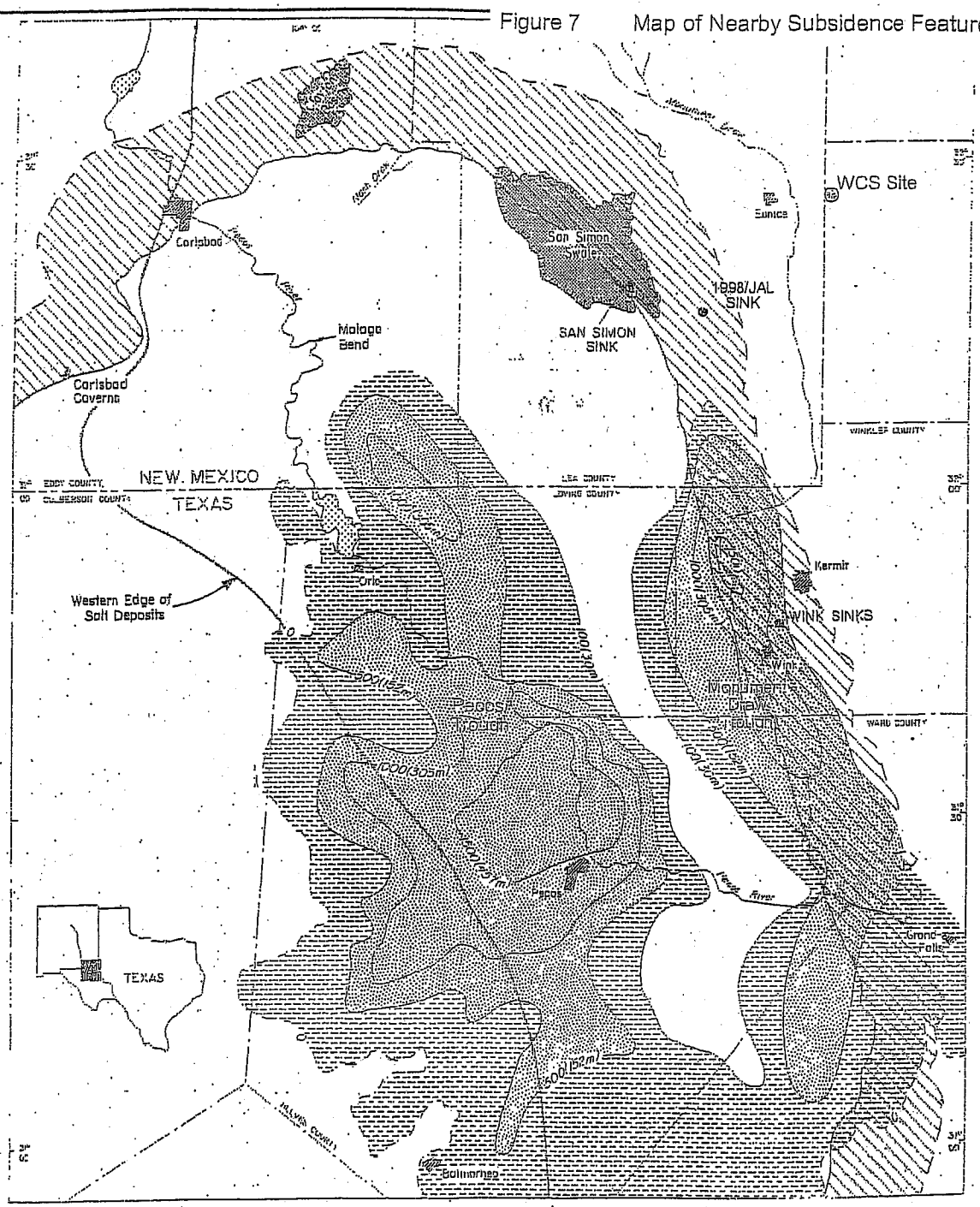
Figure 6 Draw with Potential Erosion Concerns and Baker Spring




BASE MAP SOURCE:
U.S.G.S. 7.5 MIN. TOPOGRAPHIC
EUNICE NE QUADRANGLE; 1969
PHOTOREVISED 1979

Figure 7 Map of Nearby Subsidence Features




Source: Baumgardner et al., 1982

0 10 20mi
0 10 20 30km
Contour interval 500ft

Cenozoic fill. Limit dashed where inferred.

Cenozoic fill over 500feet thick

Caption Reef. Margin dashed where inferred

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Map of Nearest Subsidence Features

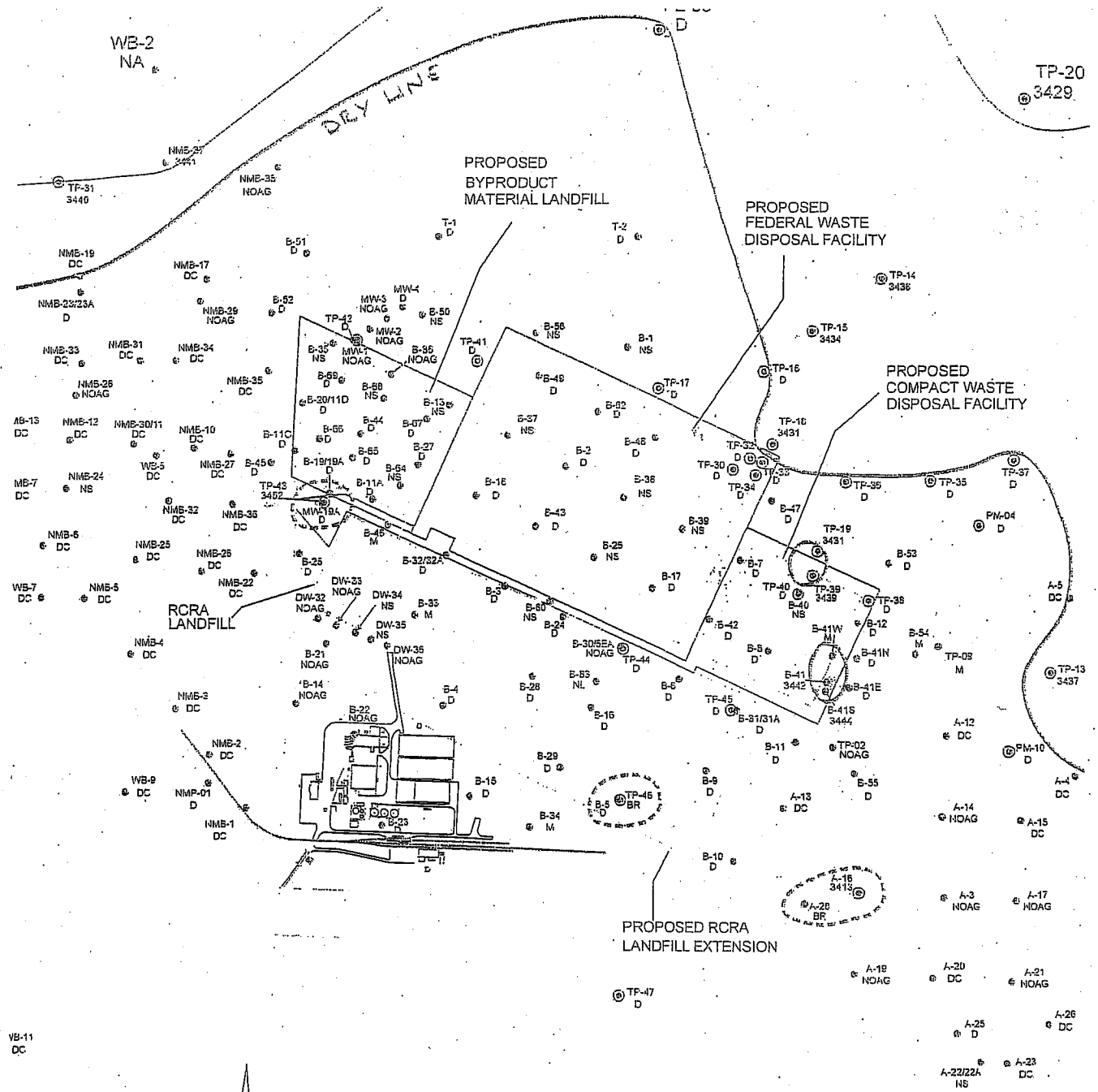


Figure 8 Location of the OAG Dry Line

taken from application Figure 6-2

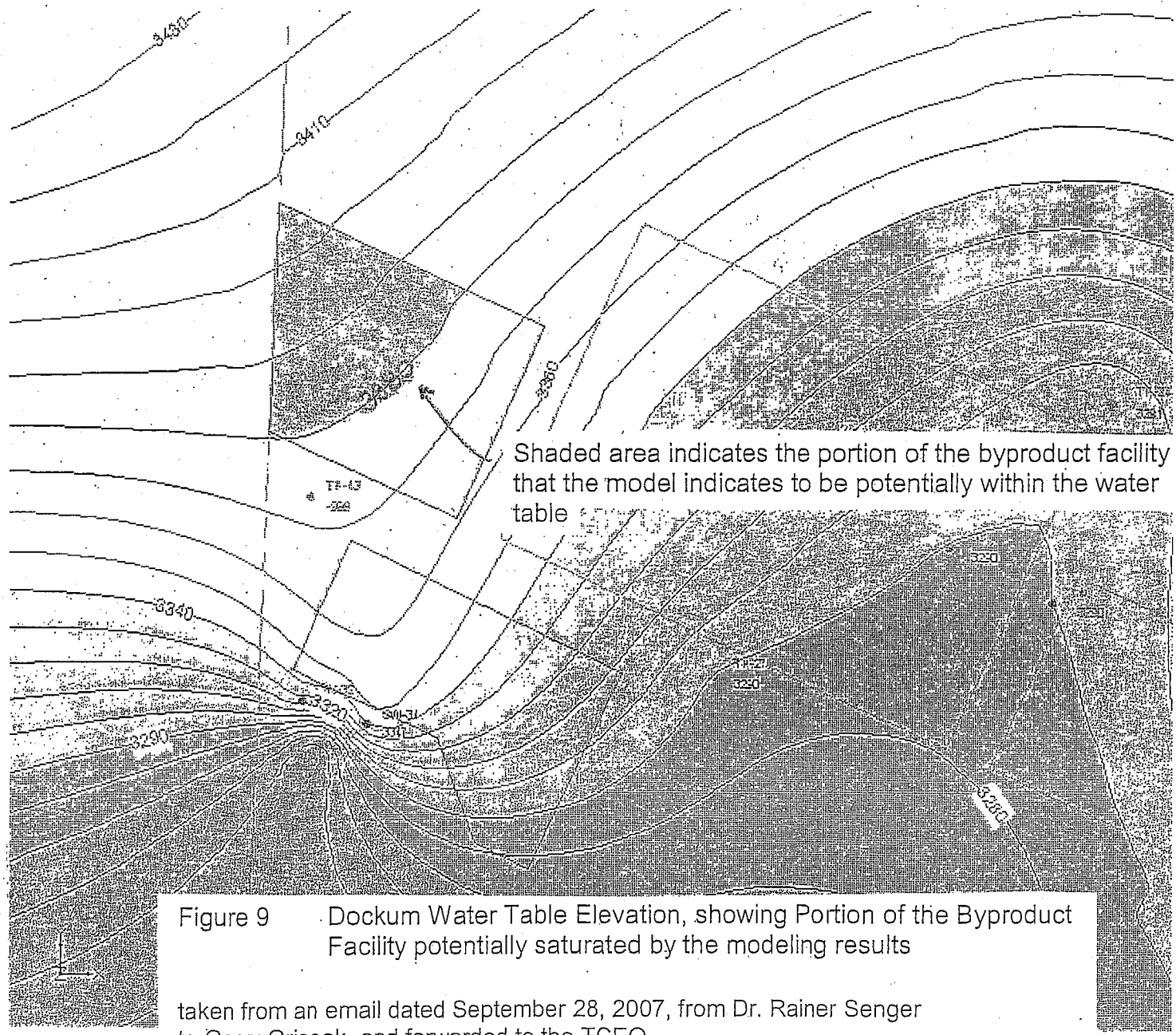


Figure 9 Dockum Water Table Elevation, showing Portion of the Byproduct Facility potentially saturated by the modeling results

taken from an email dated September 28, 2007, from Dr. Rainer Senger to Gerry Griseak, and forwarded to the TCEQ