

**THE UNIVERSITY OF TEXAS AT AUSTIN
BUREAU OF ECONOMIC GEOLOGY**

**TO ACCOMPANY MAP—HOBBS SHEET
GEOLOGIC ATLAS OF TEXAS**

GEOLOGIC ATLAS OF TEXAS

HOBBS SHEET

WILLIAM BATTLE PHILLIPS MEMORIAL EDITION



**VIRGIL E. BARNES, Project Director
1976**

**Figure 2-14
Geologic Atlas of Texas, Hobbs Sheet
(7 Pages)**

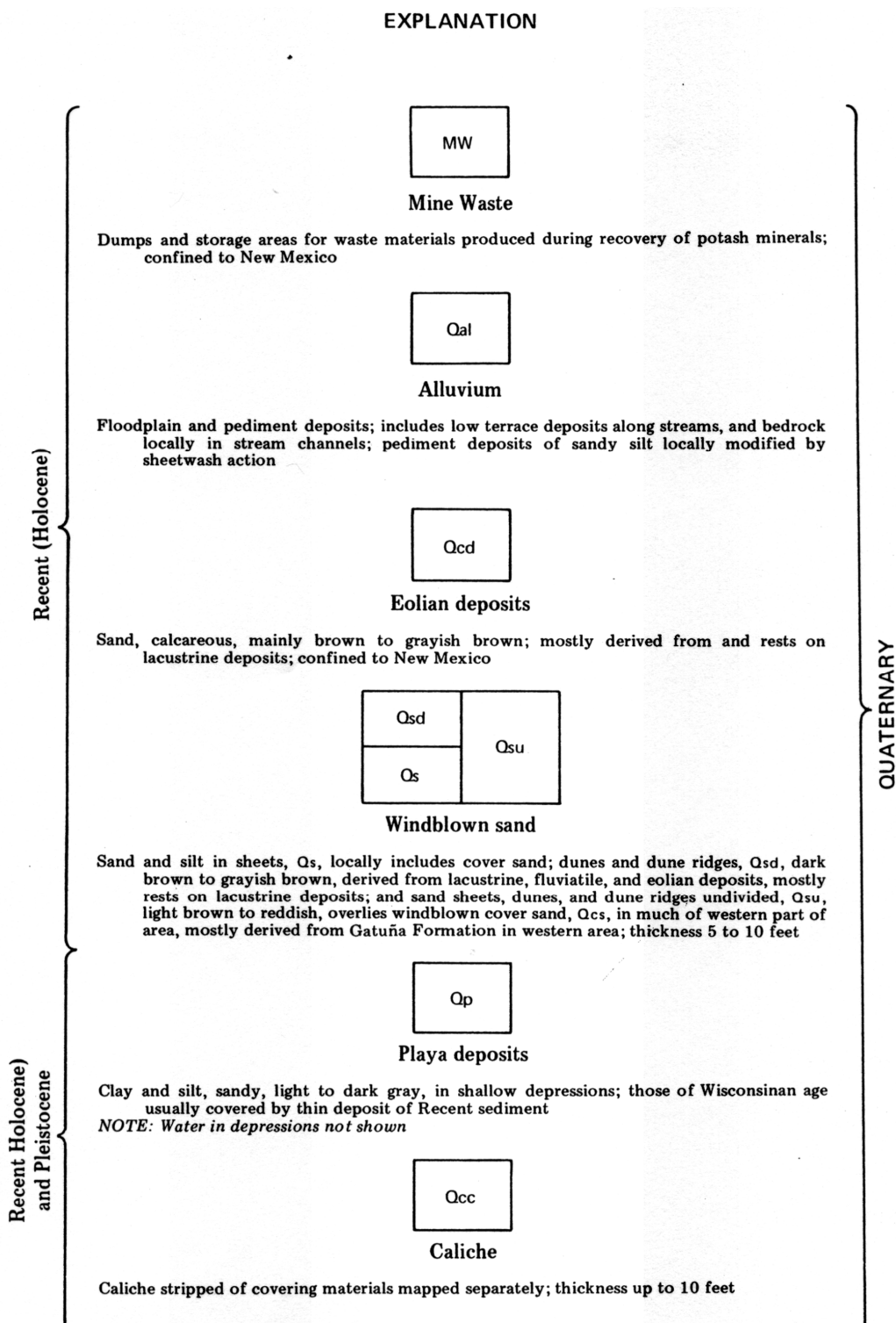


Figure 2-14
Geologic Atlas of Texas, Hobbs Sheet
 (7 Pages)

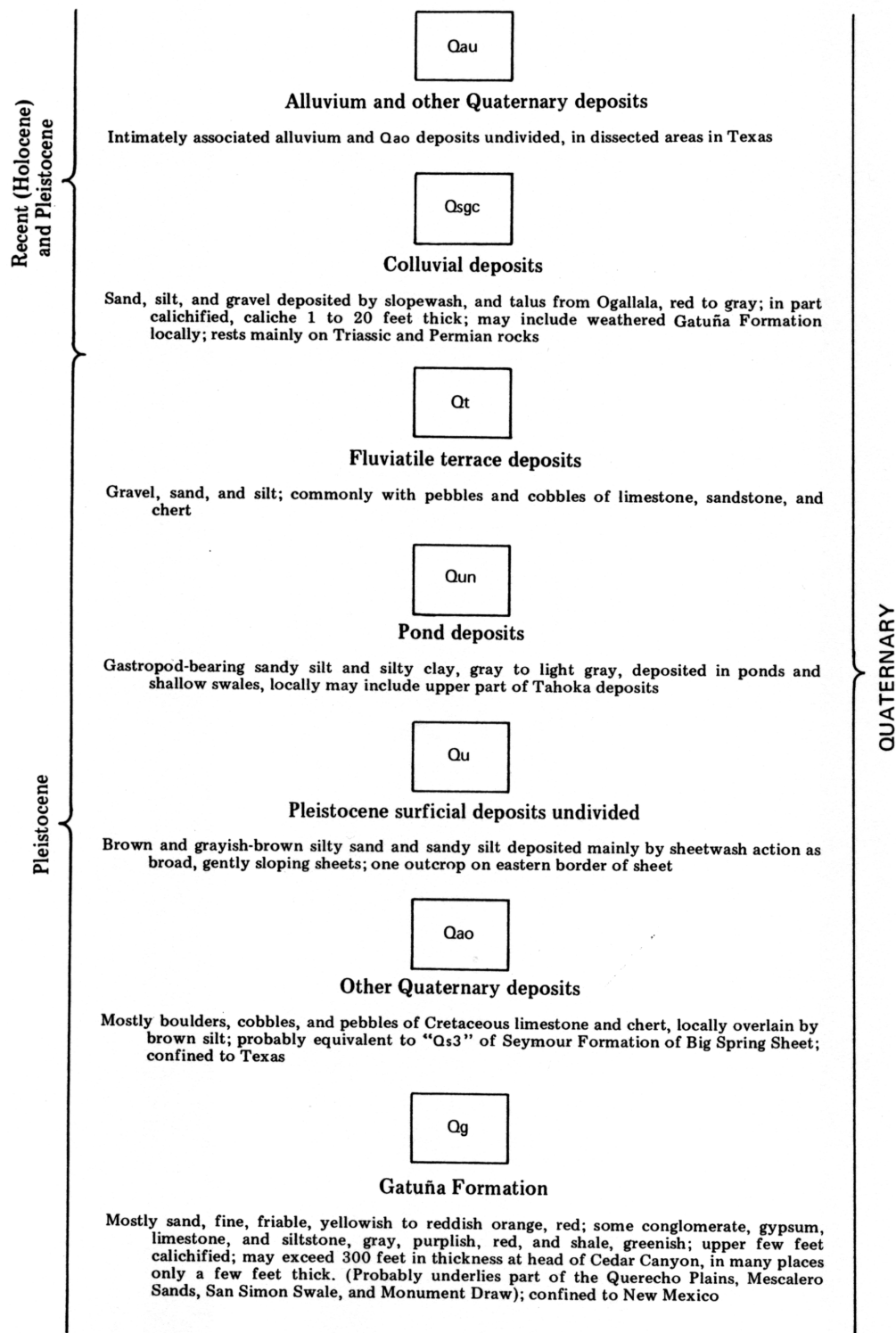


Figure 2-14
Geologic Atlas of Texas, Hobbs Sheet
 (7 Pages)

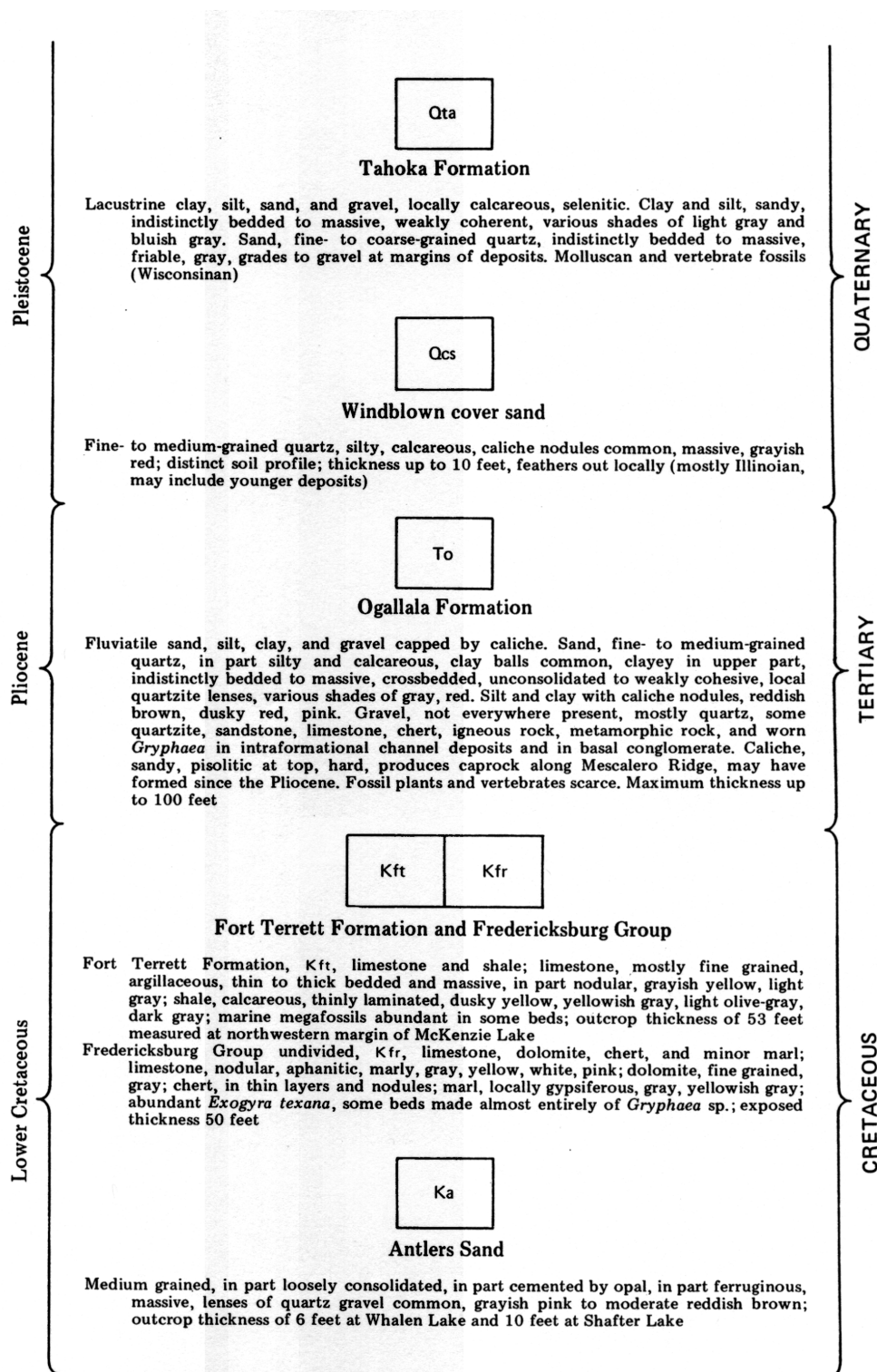
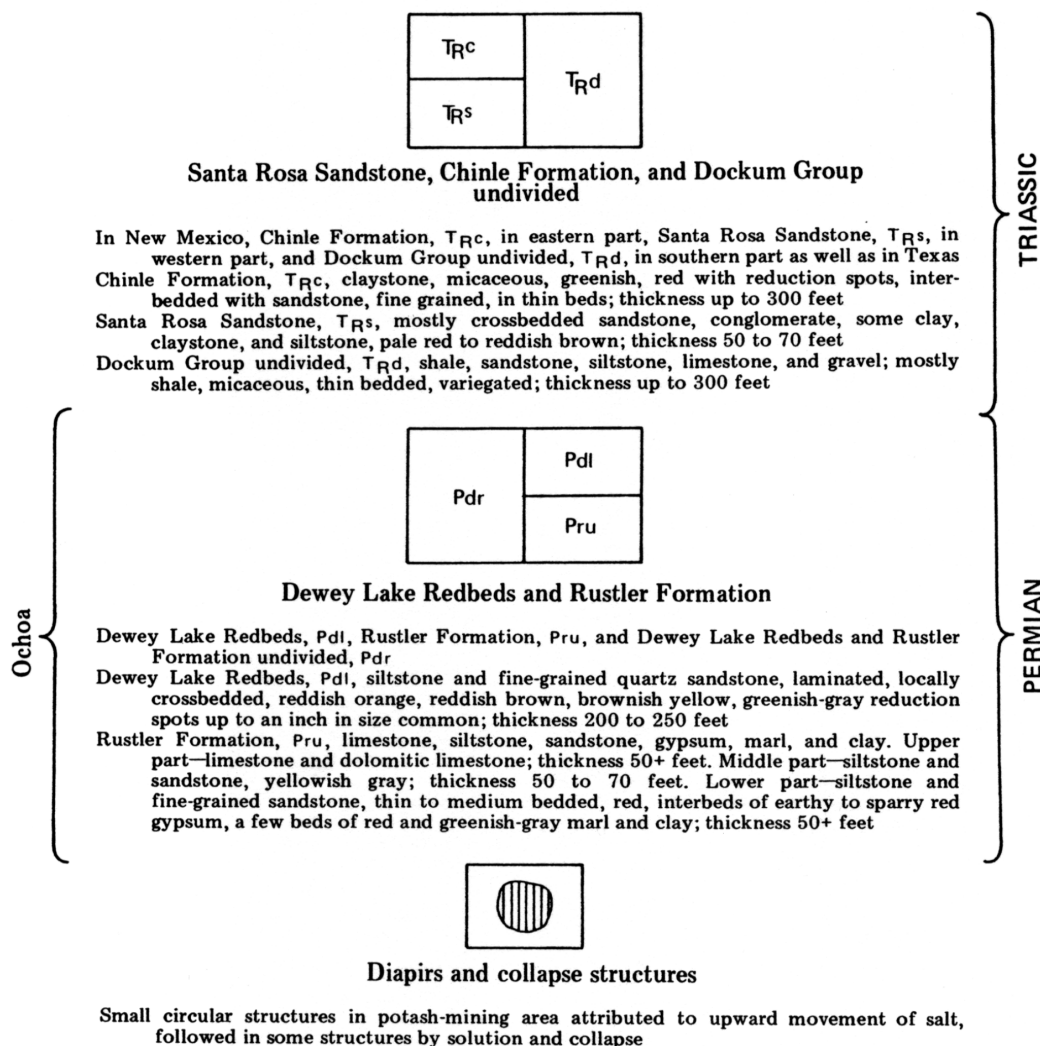


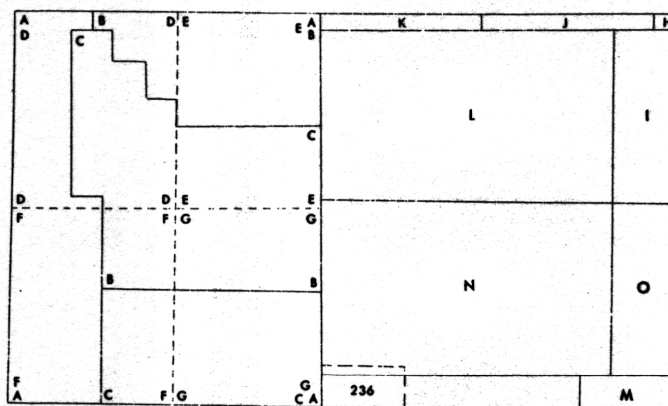
Figure 2-14
Geologic Atlas of Texas, Hobbs Sheet
 (7 Pages)



VIRGIL E. BARNES, PROJECT DIRECTOR

Geologic mapping in part from sources shown on index map. Geologic mapping field checked and compiled on high-altitude aerial photographs by G. K. Eifler, Jr., and C. C. Reeves, Jr., for Texas and New Mexico, respectively. Geologic mapping in New Mexico in cooperation with New Mexico Bureau of Mines and Mineral Resources, Frank E. Kottlowski, Director. Map scribed by R. L. Dillon. Mapping reviewed by West Texas Geological Society, Geologic Atlas Committee, D. M. Norman (Markay Oil & Gas Company), Chairman, Clifford H. Sherrod, Jr. (Consulting Geologist), and Thomas J. Hansen (Marshall & Winston Inc.)

Figure 2-14
Geologic Atlas of Texas, Hobbs Sheet
 (7 Pages)

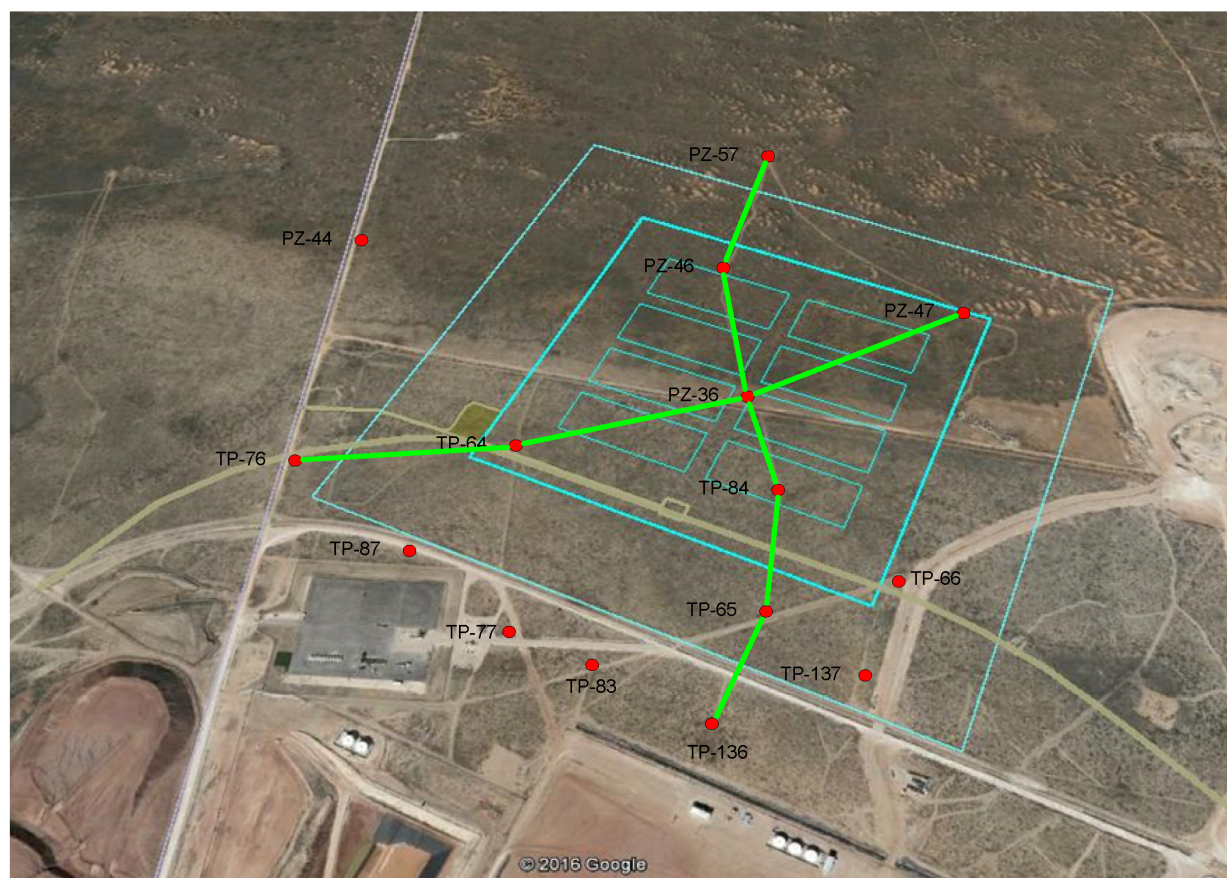


INDEX OF GEOLOGIC MAPPING

For New Mexico, area A, see C. H. Dane and G. O. Bachman (1958) Preliminary geologic map of the southeastern part of New Mexico (scale 1:380,160): U. S. Geol. Survey Misc. Geol. Investigations Map I-256; for area B, see S. R. Ash and A. Clebsch, Jr. (1961) Cretaceous rocks in Lea County, New Mexico: U. S. Geol. Survey Prof. Paper 424, pp. D139-142; for area C, see A. Nicholson, Jr., and A. Clebsch, Jr. (1961) Geology and ground-water conditions in southern Lea County, New Mexico: New Mex. Bur. Mines and Mineral Resources Ground-Water Rept. 6, 123 p.; for areas D, E, F, and G, see A. D. Lovelace (1971-72) Maljamar quadrangle no. 107, Hobbs quadrangle no. 108, Potash quadrangle no. 119, and Eunice quadrangle no. 120, respectively. *In* Geology and Aggregate Resources District II, New Mexico State Highway Department. For Texas, the numbers in outlined areas refer to items in bibliography in "Index to Areal Geologic Maps in Texas, 1891-1961," by T. E. Brown (1963) Bureau of Economic Geology, The University of Texas at Austin.

Soil surveys consulted and others available since field checking was completed: (Area H) Mowery, I. C., McKee, G. S., and Templin, E. H. (1959) Soil survey of Lynn County, Texas: U. S. Dept. Agriculture, Soil Conserv. Service, in coop. with Texas Agr. Expt. Sta., Series 1953, No. 3. (Area I) Sanders, D., Templeton, K. M., Mitchell, H. E., Miller, W. M., Novosad, C. J., Wagner, B. J., and Oakes, H. (1960) Soil survey of Dawson County, Texas: U. S. Dept. Agriculture, Soil Conserv. Service, in coop. with Texas Agr. Expt. Sta., Series 1957, No. 6. (Area J) Miller, W. M., Sanders, D., Whitmire, M. J., Boden, P. M., McAndrews, J. D., and Hyde, H. W. (1962) Soil survey of Terry County, Texas: U. S. Dept. Agriculture, Soil Conserv. Service, in coop. with Texas Agr. Expt. Sta., Series 1959, No. 6. (Area K) Dittmore, W. H., Jr., and Hyde, H. W. (1964) Soil survey of Yoakum County, Texas: U. S. Dept. Agriculture, Soil Conserv. Service, in coop. with Texas Agr. Expt. Sta., Series 1960, No. 15. (Area L) Dittmore, W. H., Jr., DeLozier, W. L., McClennon, D. L., and Hyde, H. W. (1965) Soil survey of Gaines County, Texas: U. S. Dept. Agriculture, Soil Conserv. Service, in coop. with Texas Agr. Expt. Sta., Series 1961, No. 34. (Area M) Hyde, H. W., Conner, N. R., and Stoner, H. R. (1973) Soil survey of Midland County, Texas: U. S. Dept. Agriculture, Soil Conserv. Service, in coop. with Texas Agr. Expt. Sta. (Area N) Conner, N. R., Hyde, H. W., and Stoner, H. R. (1974) Soil survey of Andrews County, Texas: U. S. Dept. Agriculture, Soil Conserv. Service, in coop. with Texas Agr. Expt. Sta. (Area O) Stoner, H. R., and Dixon, M. L. (1974) Soil survey of Martin County, Texas: U. S. Dept. Agriculture, Soil Conserv. Service, in coop. with Texas Agr. Expt. Sta.

Figure 2-14
Geologic Atlas of Texas, Hobbs Sheet
 (7 Pages)



Monitoring Well/ Piezometer Name	Date Drilled/ Completed	Total Depth Well (ft btoc)	Bottom of Well Elevation (ft msl)	Ground Elevation (ft msl)	Top of Casing Elevation (ft msl)	Depth to Top of Red Beds (ft bgs)	Top of Red Bed Elevation (ft msl)
PZ-36	7/20/05	78.98	3419.51	3494.79	3498.49	75.0	3419.79
PZ-44	1/22/08	82.98	3416.90	3496.59	3499.88	77.1	3419.49
PZ-46	1/23/08	93.83	3412.04	3502.38	3505.87	87.4	3414.98
PZ-47	1/24/08	92.22	3411.56	3500.60	3503.78	87.0	3413.60
PZ-57	1/23/08	99.56	3415.44	3511.79	3515.00	93.5	3418.29
TP-64	1/11/08	70.81	3433.99	3502.08	3504.80	65.3	3436.78
TP-65	1/11/08	57.68	3436.07	3490.40	3493.75	52.5	3437.90
TP-66	1/10/08	57.78	3430.88	3485.45	3488.66	51.0	3434.45
TP-76	2/7/08	53.42	3436.78	3487.06	3490.20	47.1	3439.96
TP-77	2/7/08	51.30	3436.09	3484.19	3487.39	45.4	3438.79
TP-83	2/11/08	55.55	3435.60	3487.77	3491.15	49.8	3437.97
TP-84	2/12/08	65.24	3429.59	3491.56	3494.83	58.7	3432.86
TP-87	3/15/08	49.02	3438.47	3484.17	3487.49	43.3	3440.87
TP-136	3/20/09	55.21	3438.01	3490.17	3493.22	50.5	3439.67
TP-137	3/20/09	56.46	3434.68	3488.00	3491.14	51.5	3436.50

Figure 2-15
Boring Locations in the Vicinity of the WCS CISF

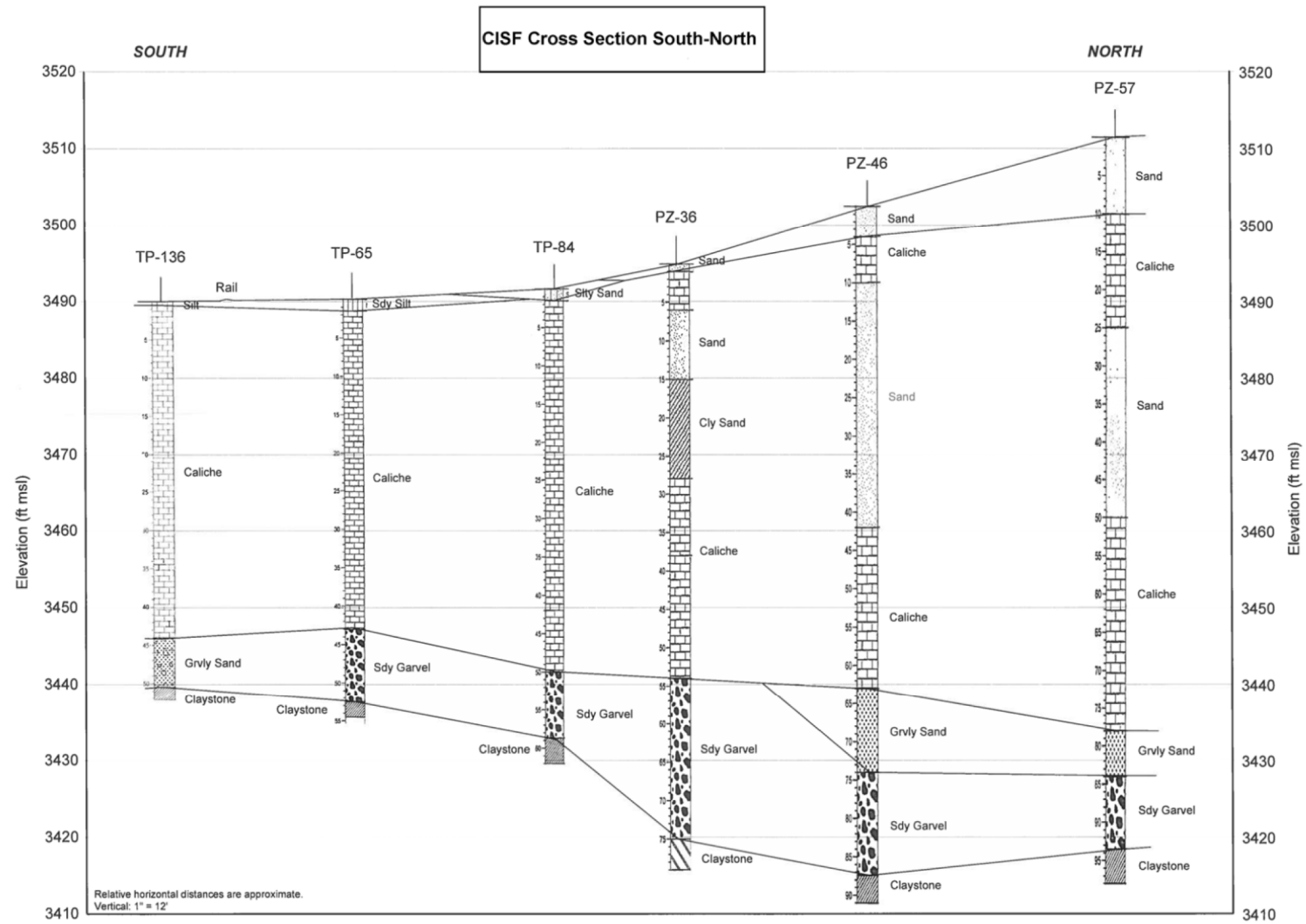


Figure 2-16
WCS CISF Cross Section West-East



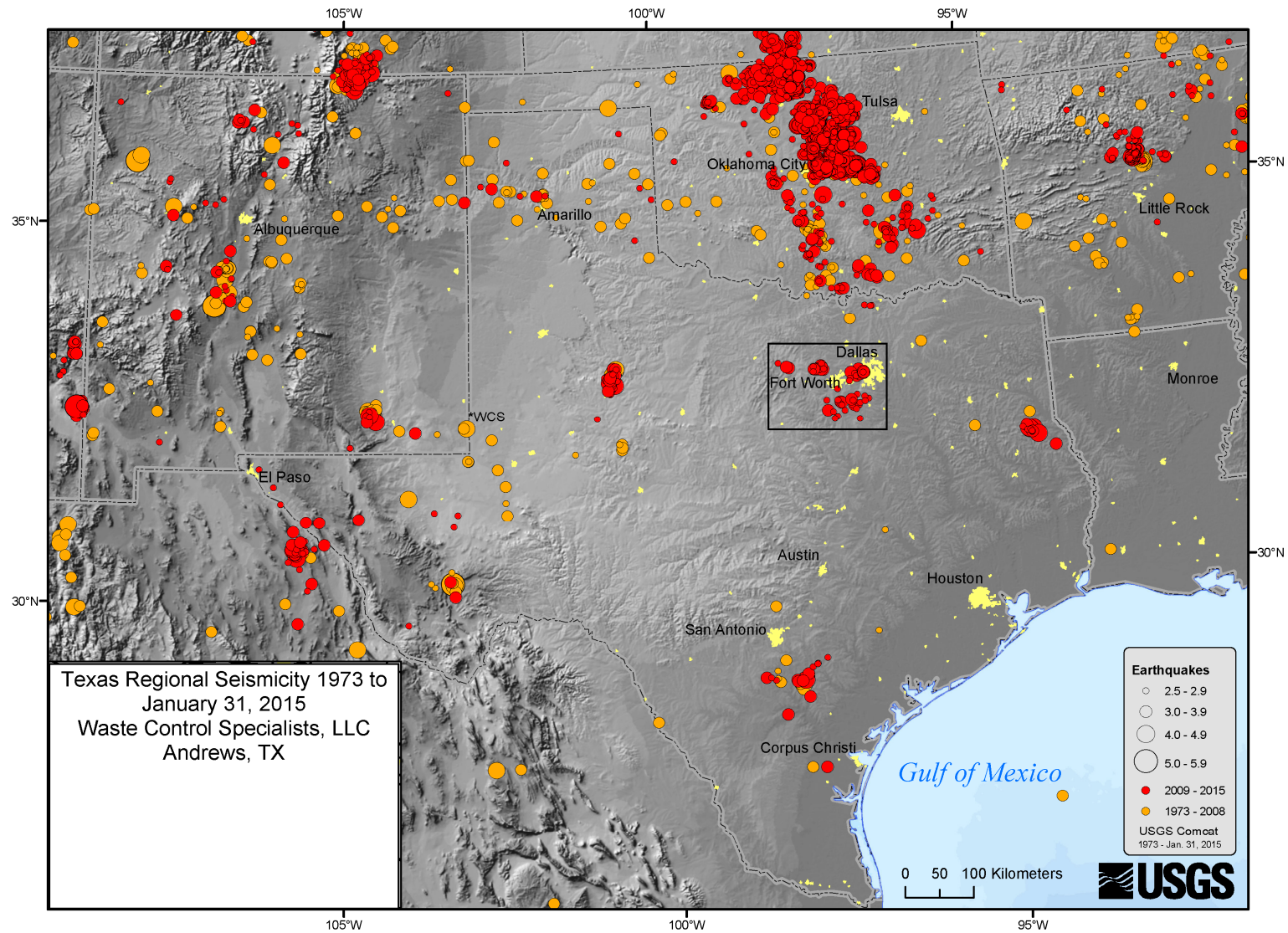


Figure 2-18
Texas Regional Seismicity 1973 to January 31, 2015

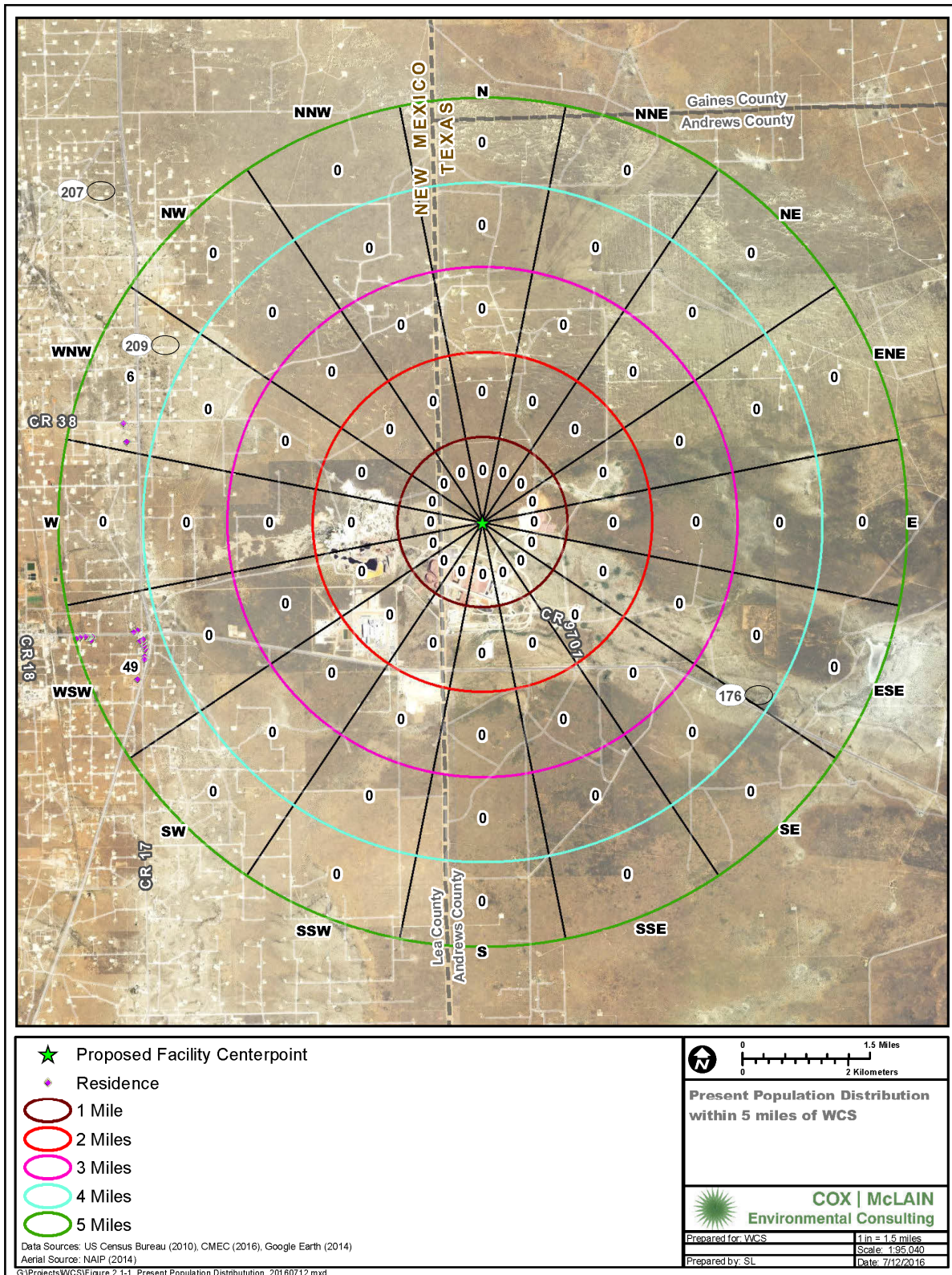


Figure 2-19
Present Population Distribution within 5 Miles of WCS