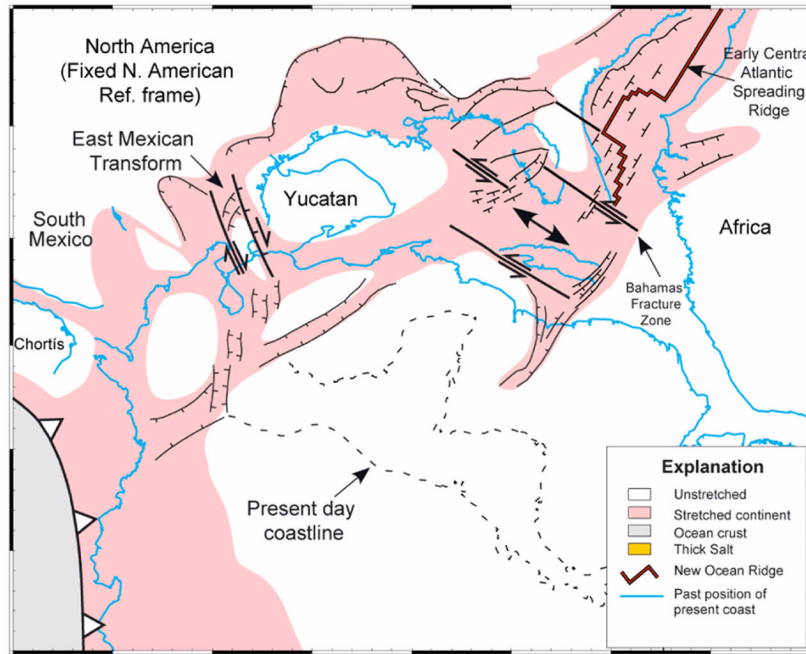
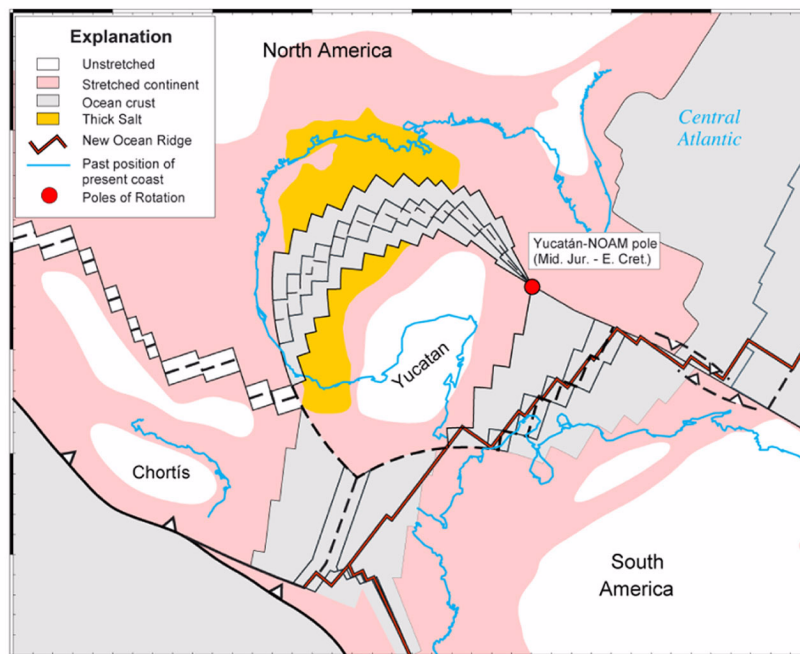




A) Early Jurassic



B) Early Cretaceous

Figure 2.5.1-21 Opening of the Gulf of Mexico

Note: Modified from [Reference 2.5.1-79](#)

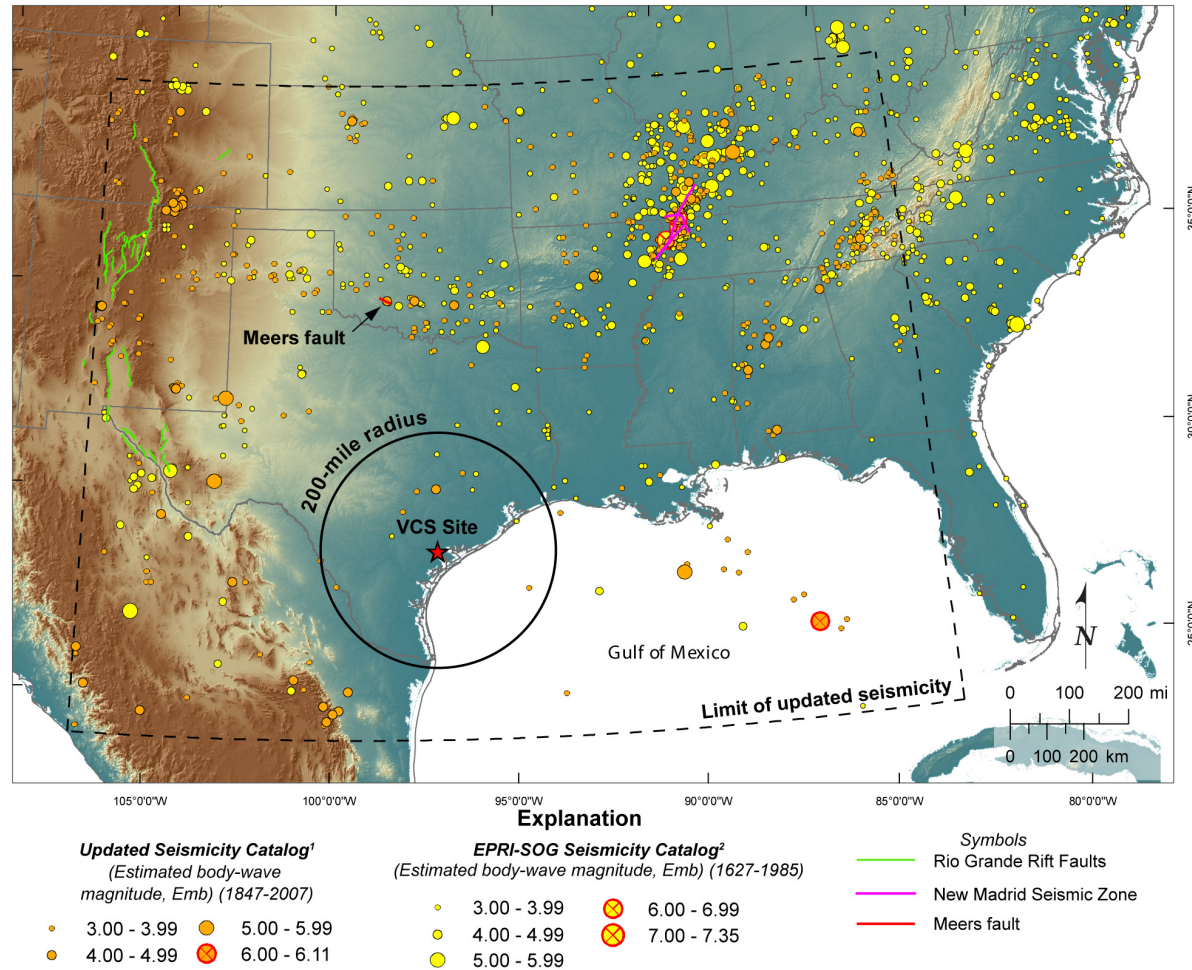


Figure 2.5.1-22 Significant Capable Faults and Associated Seismicity Near the Site Region

Notes:

1. See Subsection 2.5.2.1
2. [Reference 2.5.1-257](#)

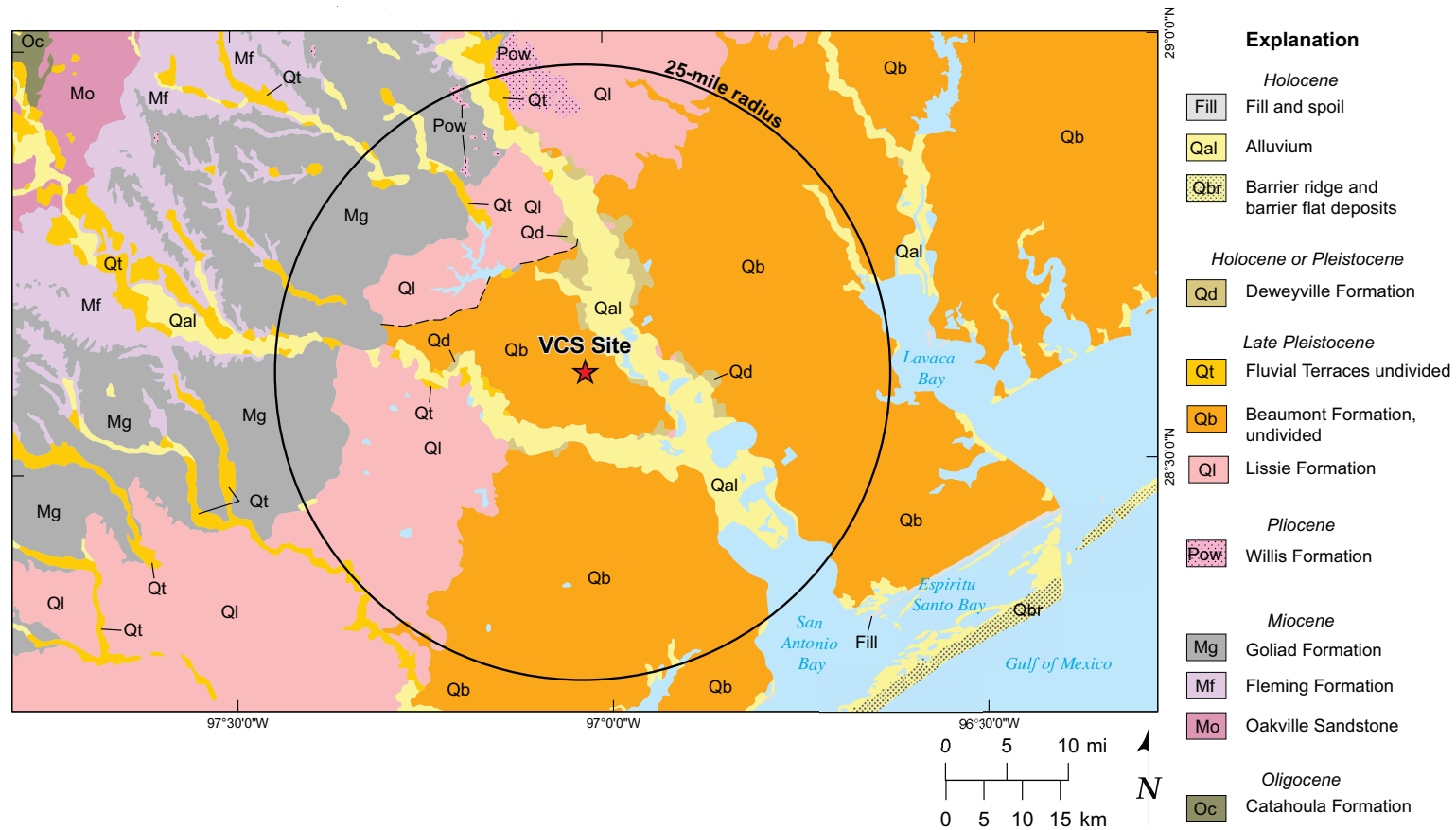
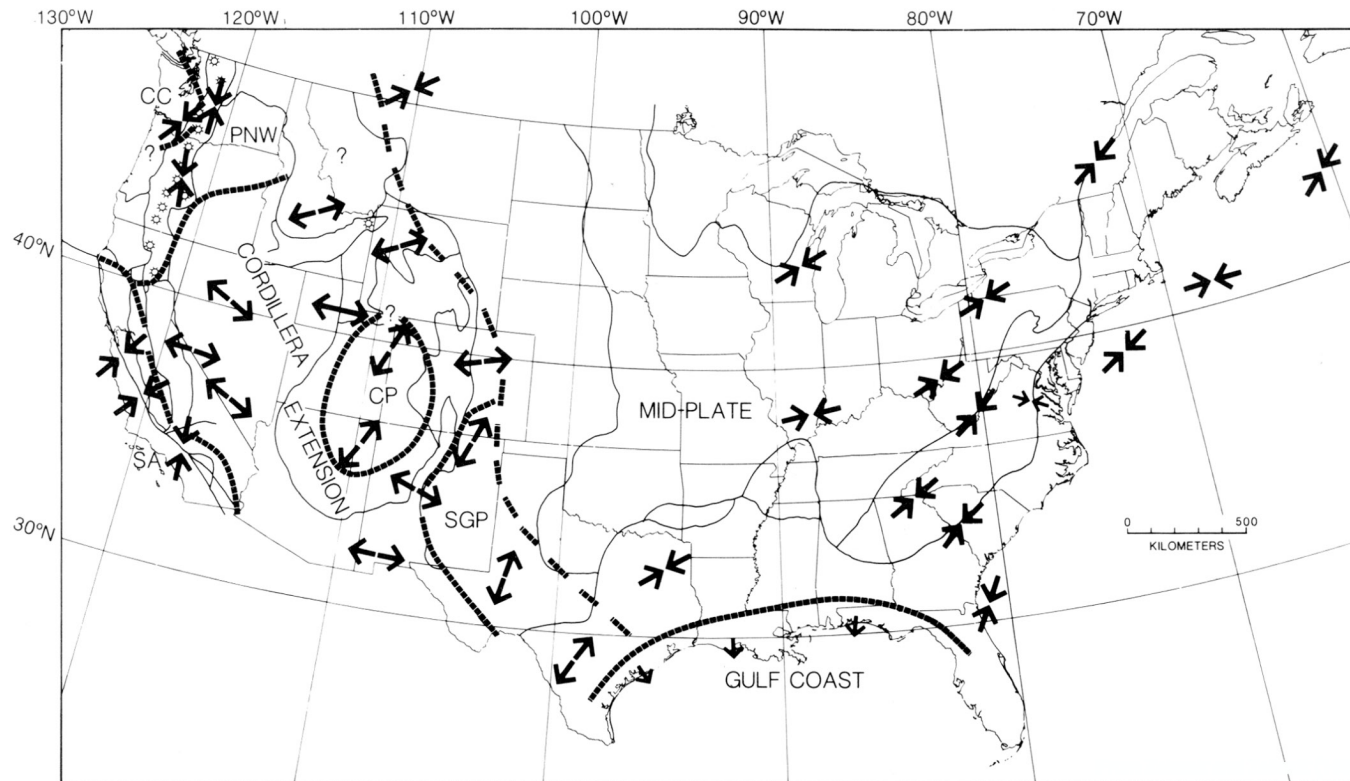


Figure 2.5.1-23 Site Vicinity Geologic Map (25-Mile Radius)

Notes:

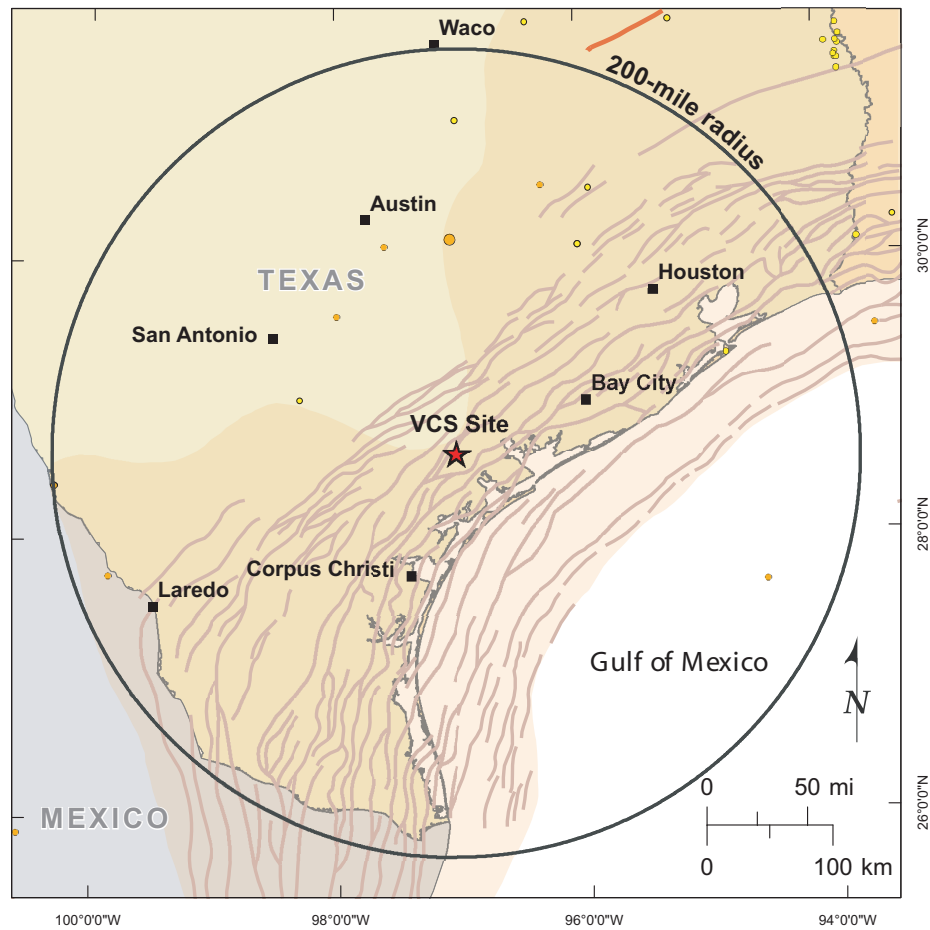
1. Geology modified from the Geologic Atlas of Texas, [Reference 2.5.1-218](#). (digital version from [Reference 2.5.1-258](#)).
2. Dashed lines show revised extent of the Beaumont Formation based on mapping by [Reference 2.5.1-259](#).



Generalized stress map for the continental United States. Outward-pointing arrows are given for areas characterized by extensional deformation. Inward-pointing areas are shown for regions dominated by compressional tectonism (thrust and strike-slip faulting). Stress provinces are delineated by the thick dashed lines: CC = Cascade convergent province; PNW = Pacific Northwest; SA = San Andreas province; CP = Colorado Plateau interior; SGP = Southern Great Plains.

Figure 2.5.1-24 Generalized Stress Map

Note: From [Reference 2.5.1-99](#)



Explanation

Earthquake Epicenters
(by estimated body-wave magnitude, Emb)

Updated Seismicity Catalog (1847-2007)¹

• 3.00 - 3.99

• 4.00 - 4.99

*EPRI-SOG Seismicity
Catalog (1627-1985)²*

• 3.00-3.99

— Mt. Enterprise - Elkhart
graben (MEEG) fault³

— Growth faults⁴

□ Zone of growth faults as
defined in USGS
Quaternary Fault and Fold
Database⁵

Figure 2.5.1-25 Potential Quaternary Features in Site Region (200-Mile Radius)

Notes:

1. See Subsection 2.5.2.1

2. [Reference 2.5.1-257](#)

3. [Reference 2.5.1-147](#)

4. [Reference 2.5.1-6](#)

5. [Reference 2.5.1-95](#)

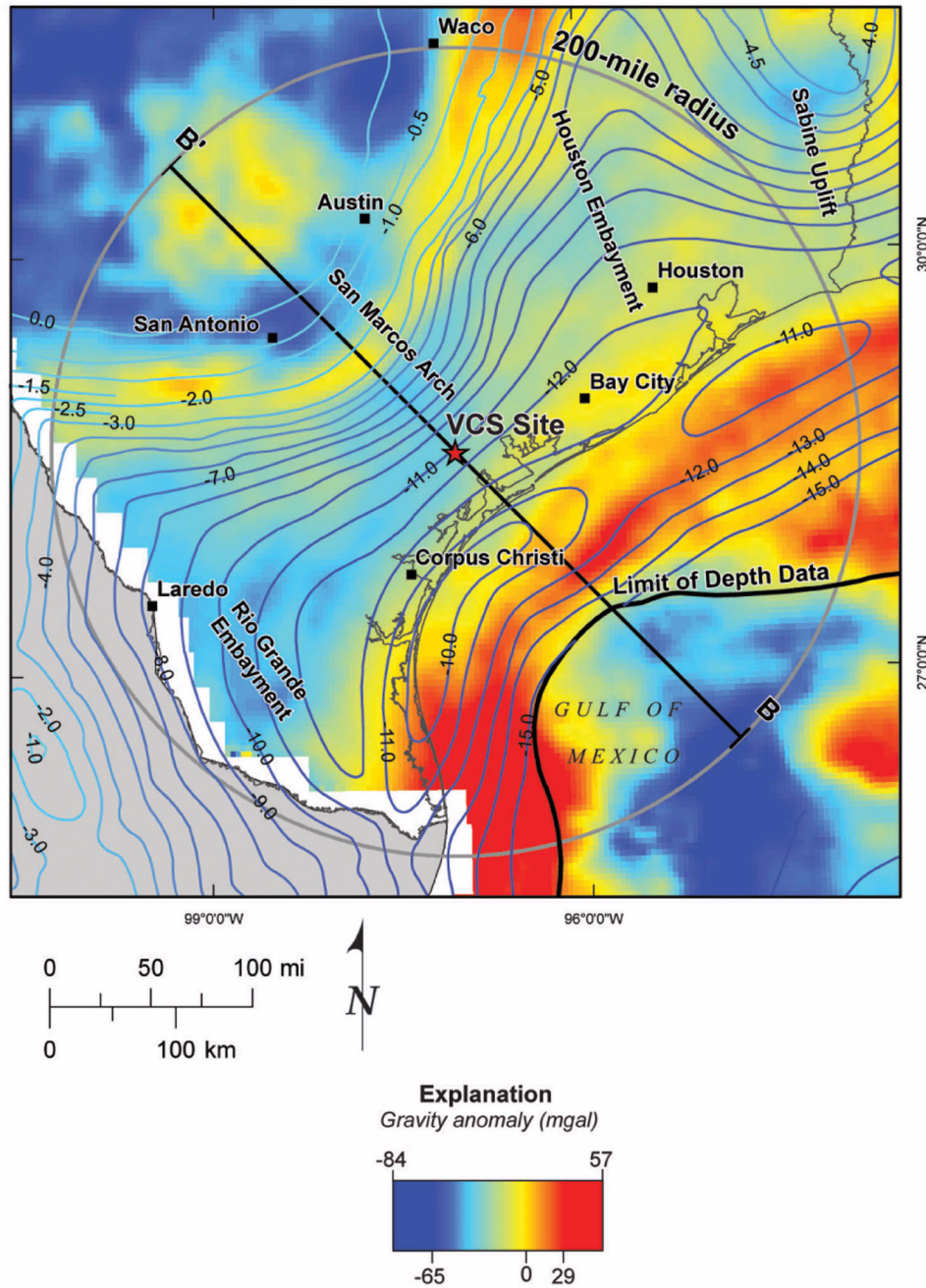


Figure 2.5.1-26 Gravity Anomaly Map and Depth to Base of Mesozoic Sediments

Gravity data from [Reference 2.5.1-203](#) as available in [Reference 2.5.1-204](#). Bouguer anomaly onshore; free-air anomaly offshore. Basement depth contours from [Reference 2.5.1-24](#). Contour interval is 1 km.

Note: Geophysical profile B' - B shown in [Figure 2.5.1-29](#)

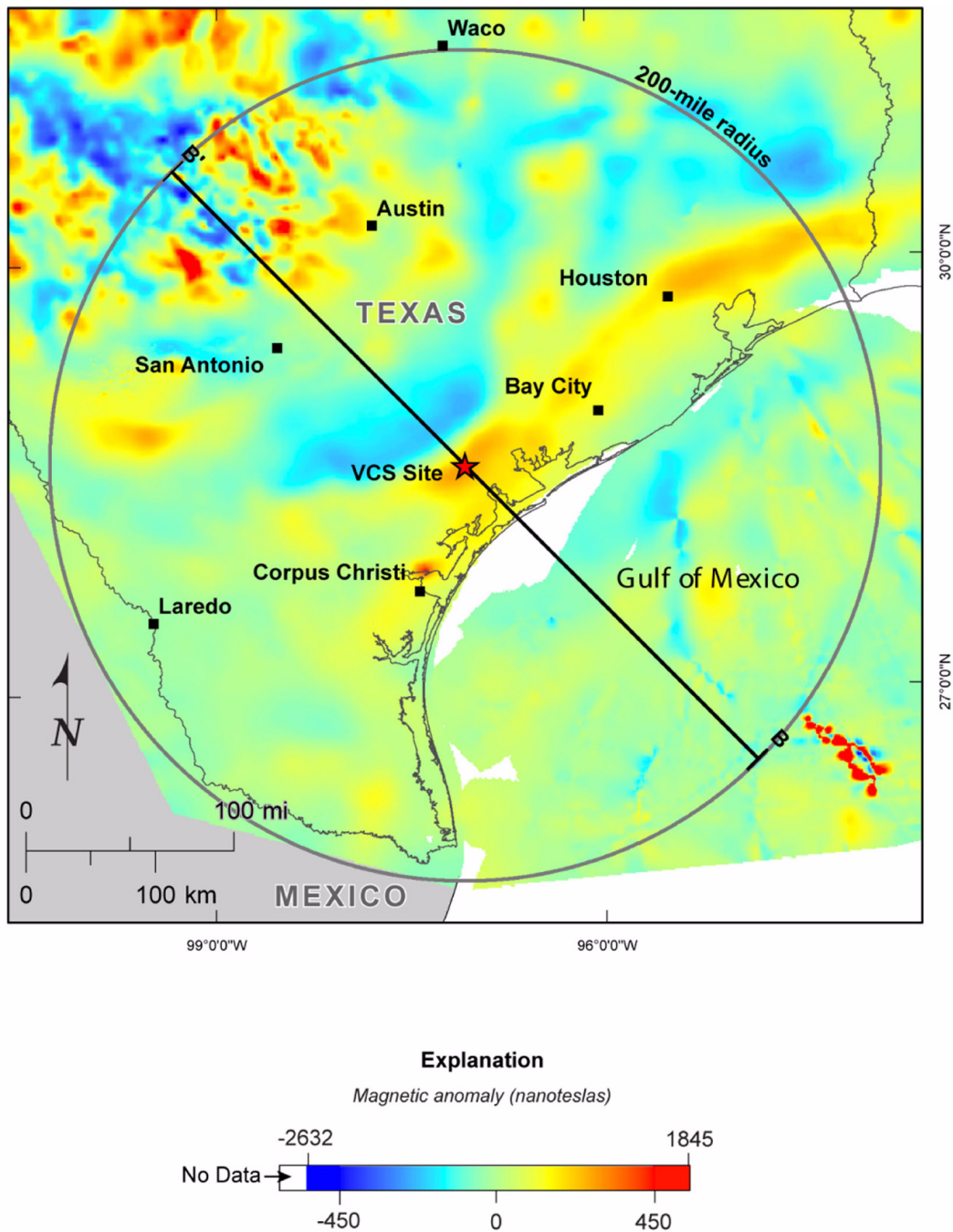


Figure 2.5.1-27 Regional Magnetic Anomaly Map

Notes:

1. Magnetic data from [References 2.5.1-200](#) and [2.5.1-201](#)
2. Geophysical profile B' - B shown in [Figure 2.5.1-29](#)

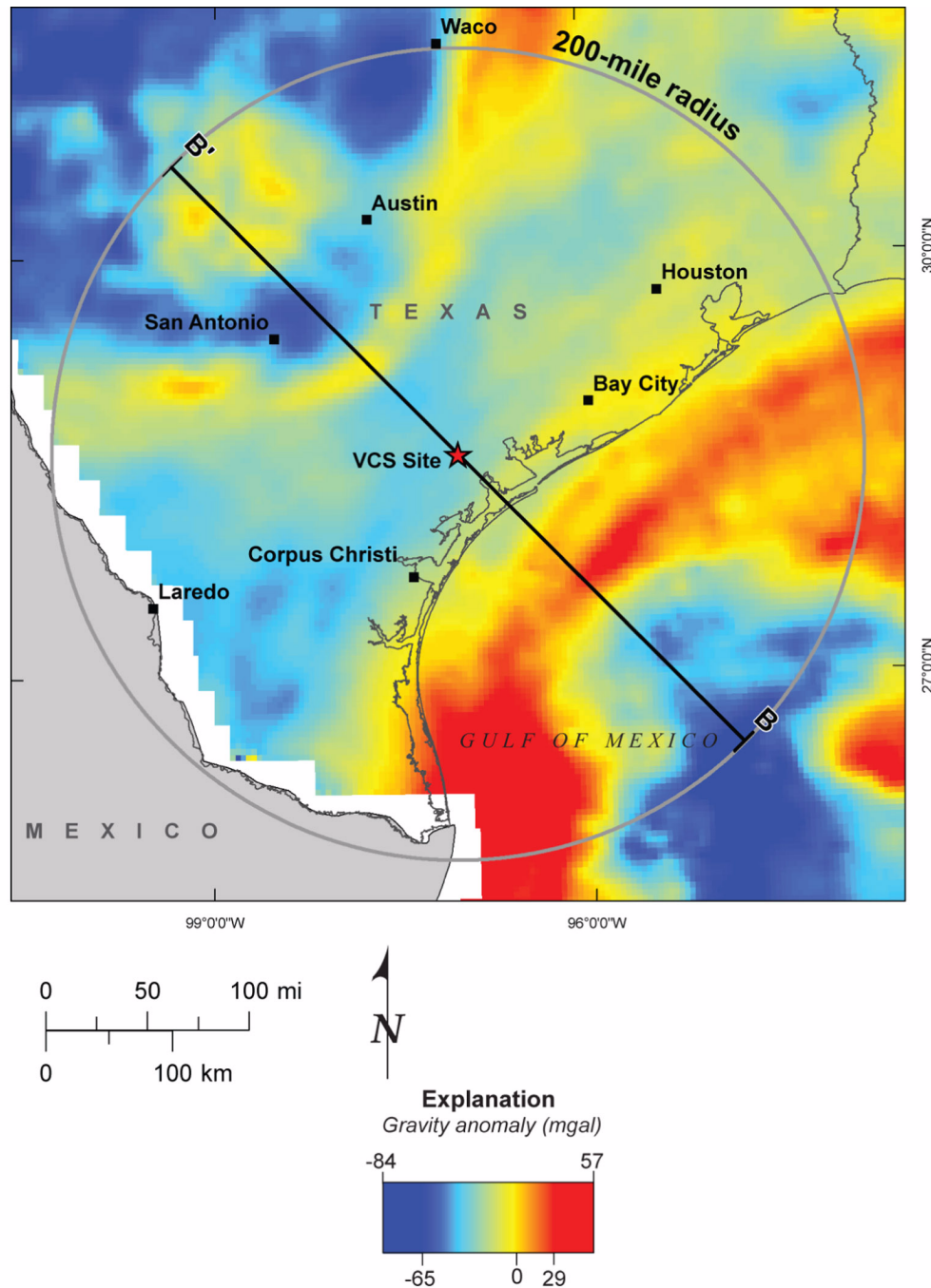


Figure 2.5.1-28 Regional Gravity Anomaly Map

Gravity data from [Reference 2.5.1-203](#) as available in [Reference 2.5.1-204](#). Bouguer anomaly onshore; free-air anomaly offshore.

Note: Geophysical profile B' - B shown in [Figure 2.5.1-29](#)

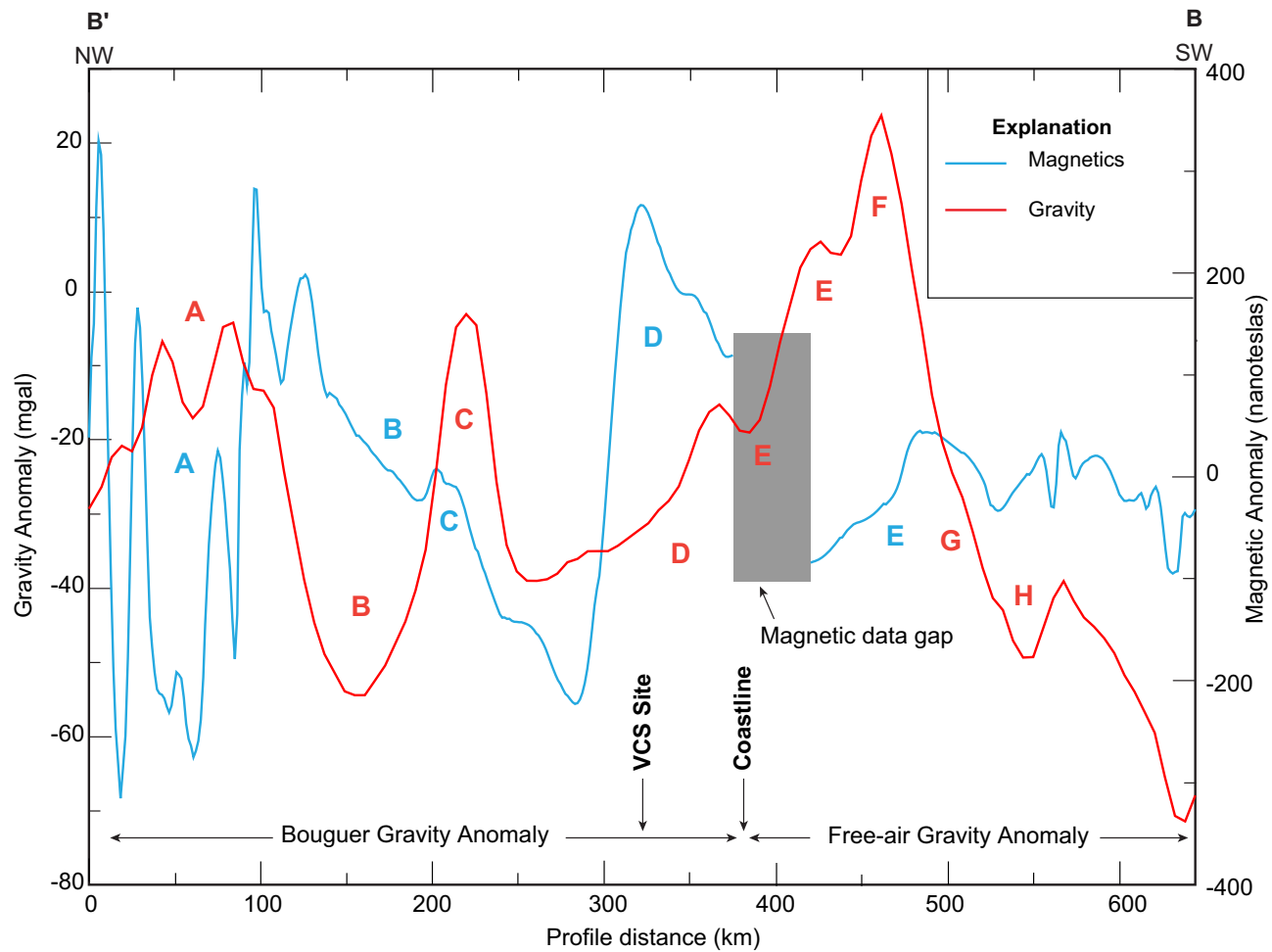


Figure 2.5.1-29 Gravity and Magnetic Profile B'-B

Notes:

1. Profile locations shown on [Figures 2.5.1-27, 2.5.1-28, and 2.5.1-30](#)
2. Letters refer to features described in [Subsection 2.5.1.1.5](#)

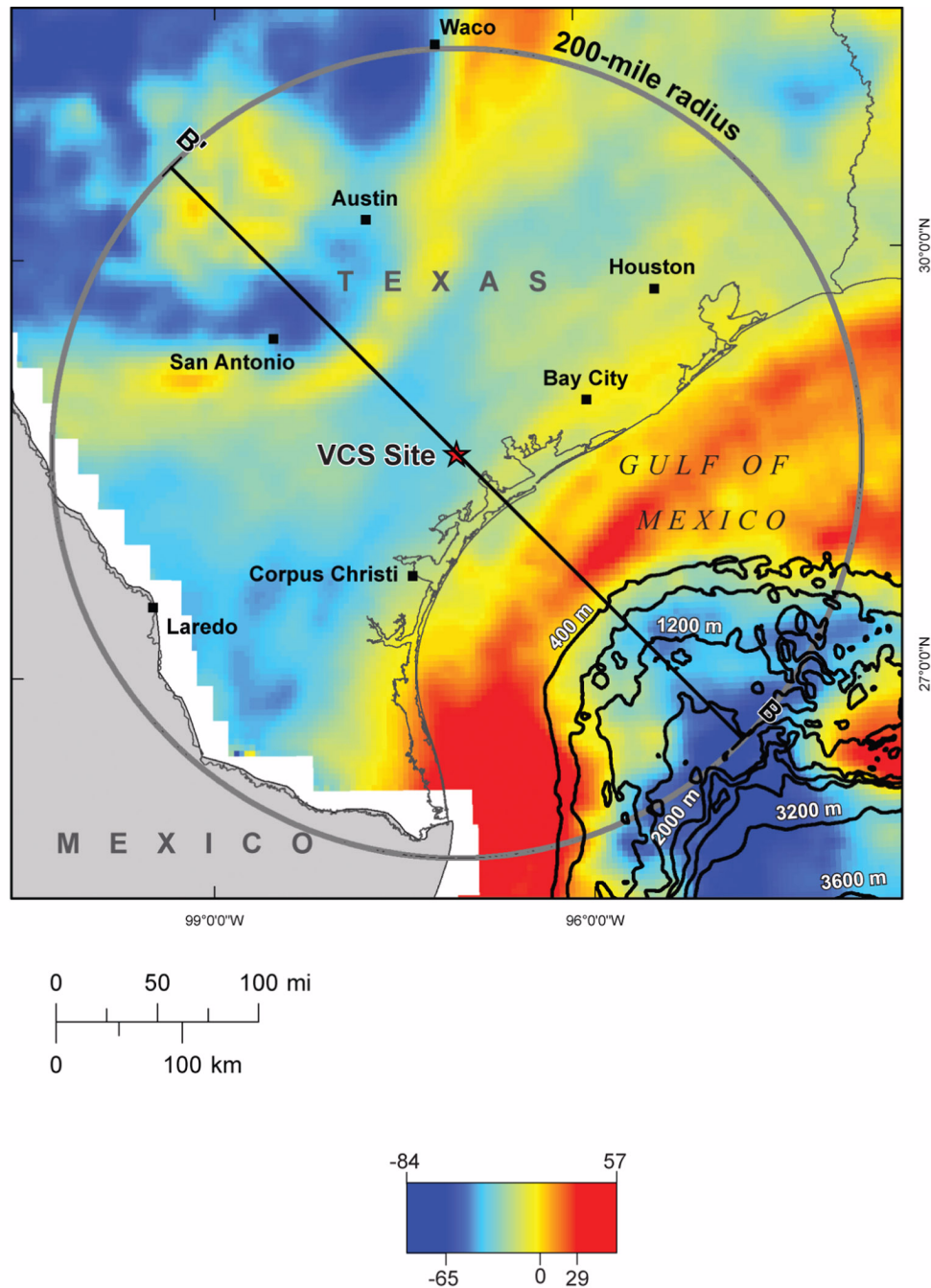
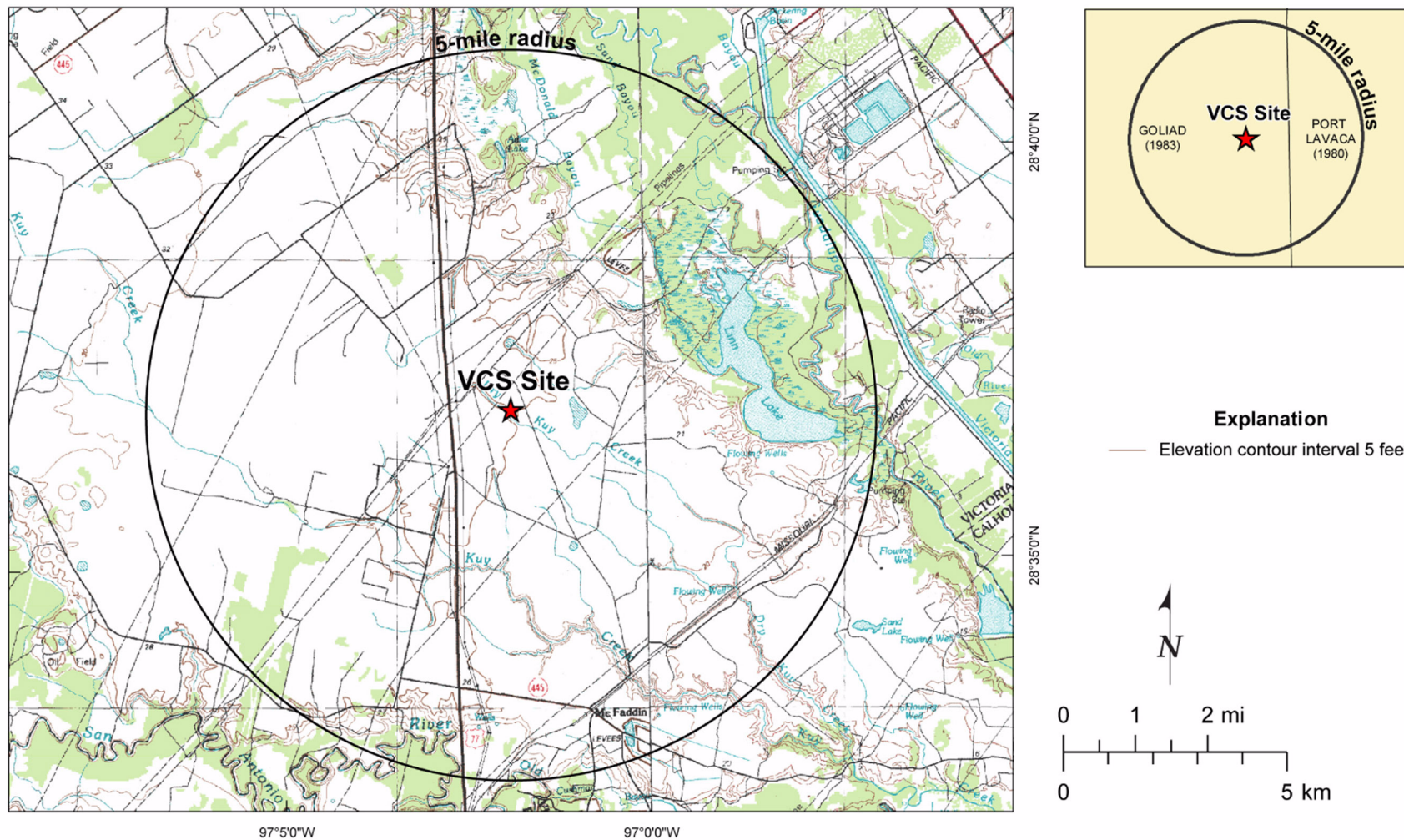


Figure 2.5.1-30 Regional Gravity Anomaly Map and Bathymetry

Gravity data from [Reference 2.5.1-203](#) as available in [Reference 2.5.1-204](#). Bathymetry from [Reference 2.5.1-256](#), 400m contour.

Note: Geophysical profile B' - B shown in [Figure 2.5.1-29](#)



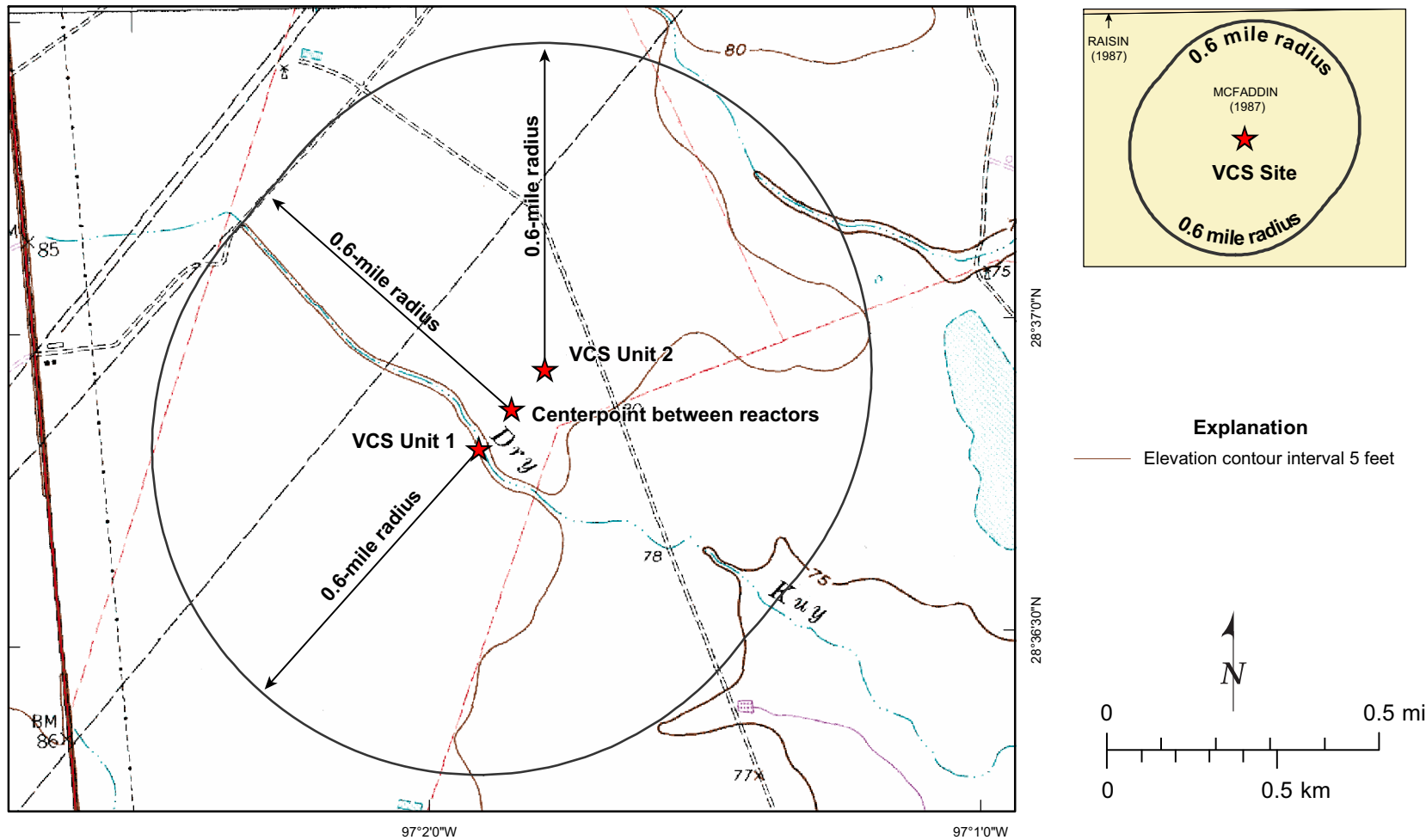


Figure 2.5.1-32 Site Topographic Map (0.6-Mile Radius)

Note: Index of USGS quadrangle topographic maps, [References 2.5.1-264](#) and [2.5.1-265](#), used as base.

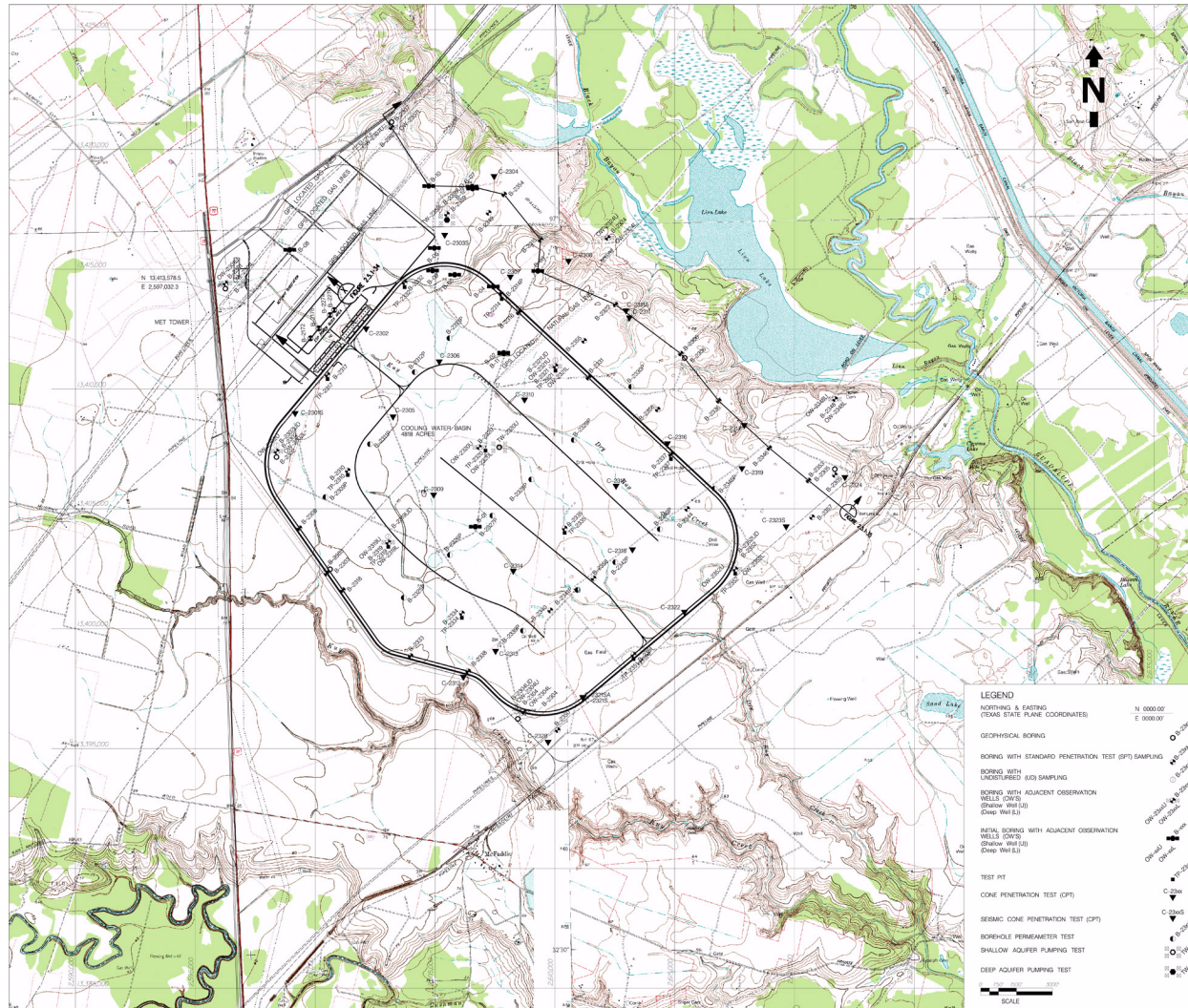


Figure 2.5.1-33 Location and Orientation of Cross Sections of Geophysical Boring Logs

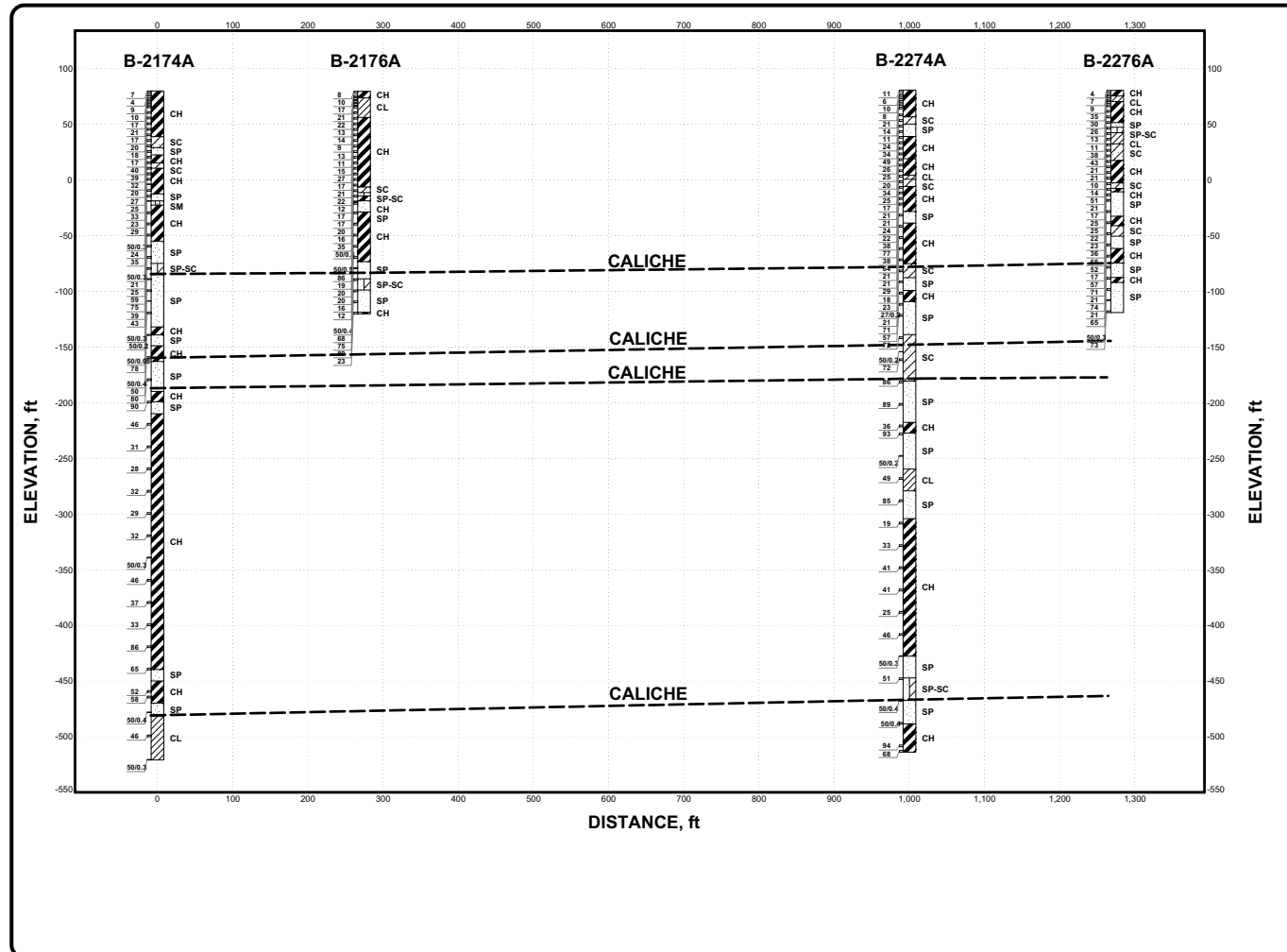


Figure 2.5.1-34 Cross Section X-X'

Note: See [Figure 2.5.1-33](#) for location of cross section

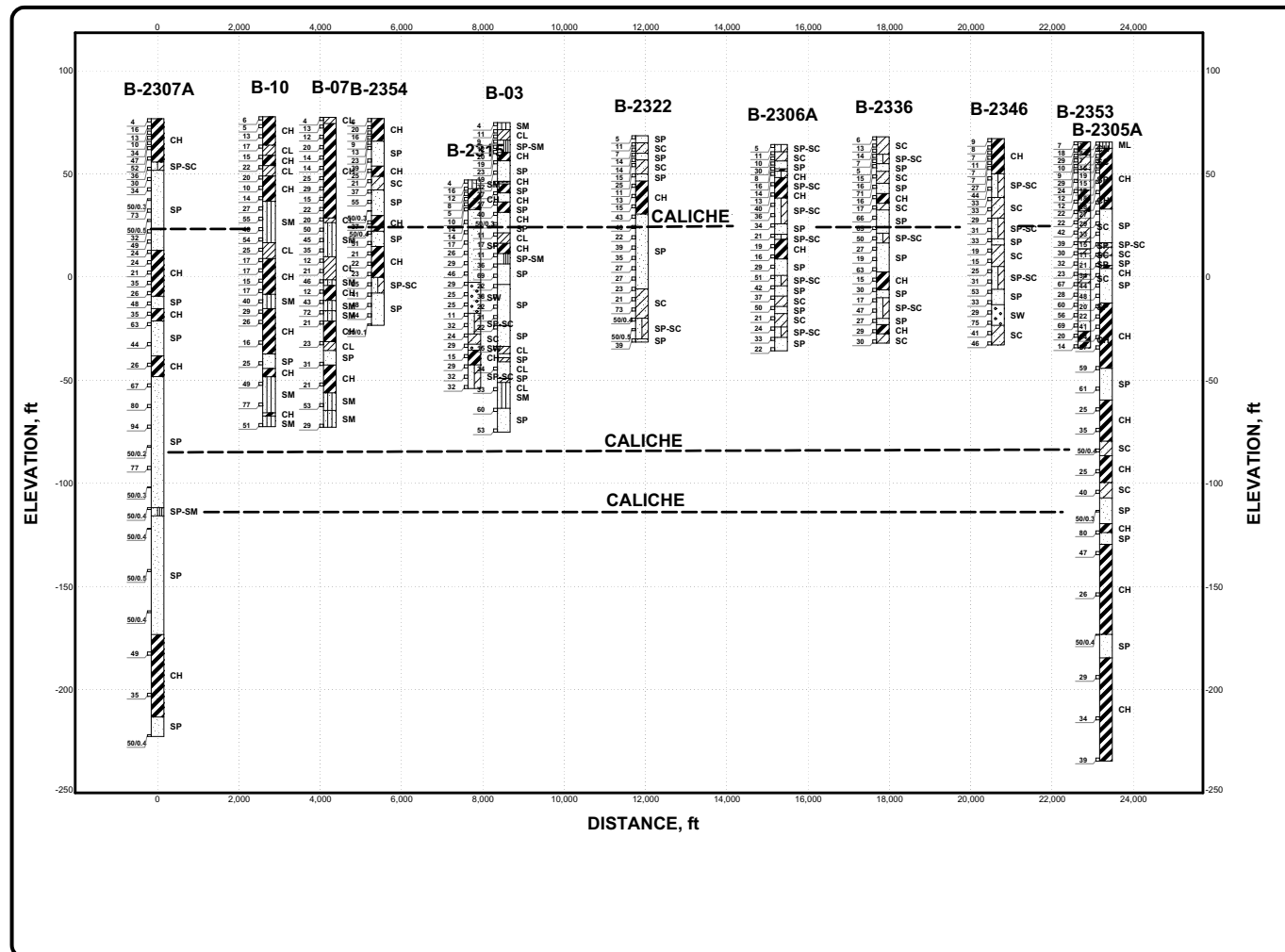
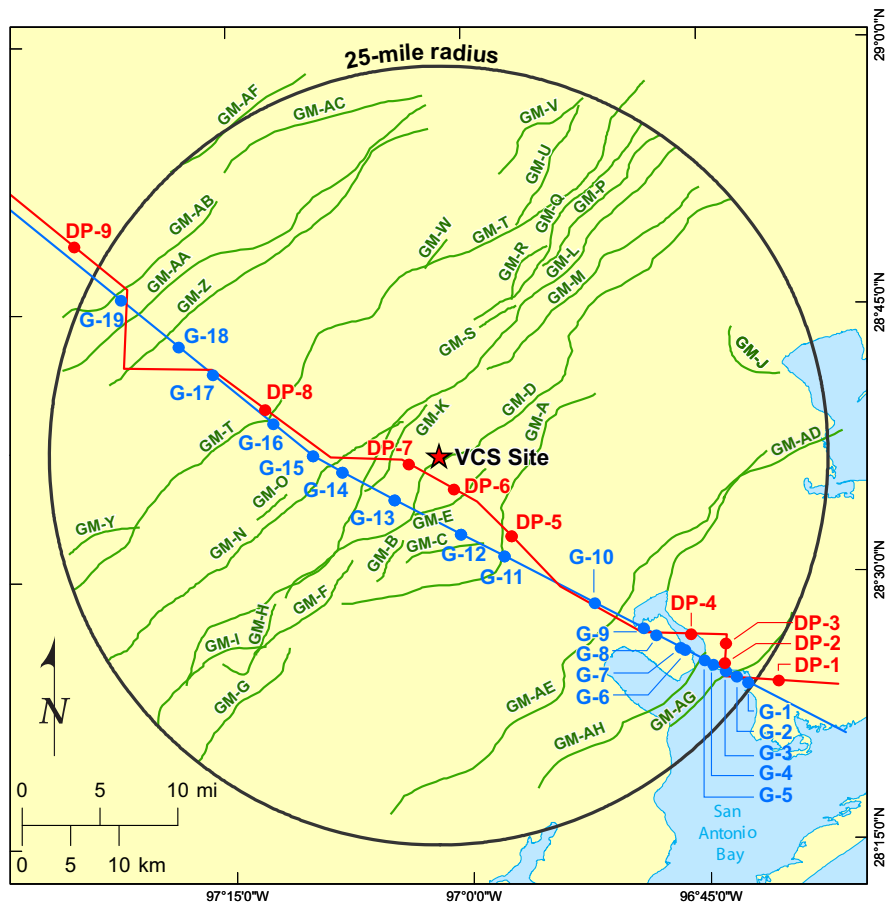


Figure 2.5.1-35 Cross Section Y-Y'

Note: See Figure 2.5.1-33 for location of cross section



Explanation

Approximate surface projections of growth faults. Dot indicates single projection from a cross section. Line indicates projection of an extensive growth fault observed in subsurface.

G-1 ● Galloway et al.²

DP-1 ● Dodge and Posey³

GM-AH — Geomap (2008)(GM)

Location of original cross section used in growth fault projections

— Section B-B' of Galloway et al.⁴

— Section 14-14' of Dodge and Posey⁵

Figure 2.5.1-36 Site Vicinity (25-Mile radius) Growth Fault Surface Projections

Notes:

1. Labels refer to fault names given in [Table 2.5.1-1](#)
2. [Reference 2.5.1-239](#)
3. [Reference 2.5.1-238](#)

4. [Reference 2.5.1-239](#)
5. [Reference 2.5.1-238](#)

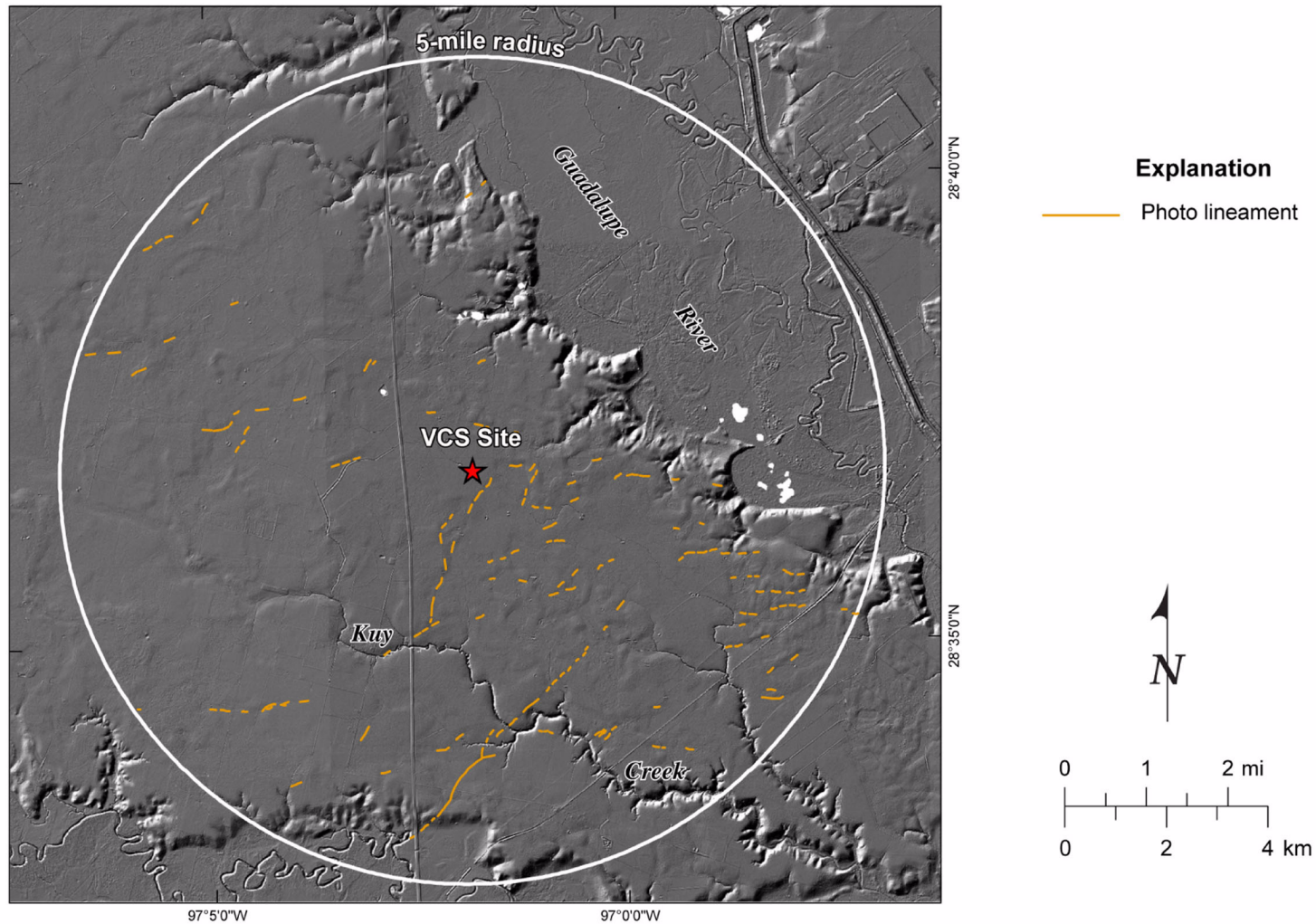


Figure 2.5.1-37 Site Area (5-Mile radius) Lineaments from Aerial Photographs

Note: Shaded relief base from [References 2.5.1-249](#) and [2.5.1-250](#)