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Maps and Documentation of Seismic CPT Soundings in the Central, Eastern, and Western United States

By Thomas L. Holzer, Thomas E. Noce, and Michael J. Bennett





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Conversion Factors

SI to Inch/Pound

Multiply	By	To obtain
	Length	
centimeter (cm)	0.3937	inch (in.)
millimeter (mm)	0.03937	inch (in.)
meter (m)	3.281	foot (ft)
kilometer (km)	0.6214	mile (mi)
kilometer (km)	0.5400	mile, nautical (nmi)
meter (m)	1.094	yard (yd)

Maps and Documentation of Seismic CPT Soundings in the Central, Eastern, and Western United States

By Thomas L. Holzer, Thomas E. Noce, Michael J. Bennett

Introduction

Nine hundred twenty seven seismic cone penetration tests (CPT) in a variety of geologic deposits and geographic locations were conducted by the U.S. Geological Survey (USGS) primarily between 1998 and 2008 for the purpose of collecting penetration test data to evaluate the liquefaction potential of different types of surficial geologic deposits (table 1). The evaluation is described in Holzer and others (in press). This open-file report summarizes the seismic CPT and geotechnical data that were collected for the evaluation, outlines the general conditions under which the data were acquired, and briefly describes the geographic location of each study area and local geologic conditions. This report also describes the field methods used to obtain the seismic CPT data and summarizes the results of shear-wave velocities measurements at 2-m intervals in each sounding. Although the average depth of the 927 soundings was 18.5 m, we estimated a time-averaged shear-wave velocity to depths of 20 m and 30 m, V_{S20} and V_{S30}, respectively, for soundings deeper than 10 m and 20 m. Soil sampling also was selectively conducted in many of the study areas at representative seismic CPT soundings. These data are described and laboratory analyses of geotechnical properties of these samples are summarized in table 2.

Methodology

Penetration data and shear-wave arrival times for the seismic CPT soundings described here are available online as tab-delimited text files at *http://earthquake.usgs.gov/regional/nca/cpt/data/*. The web site also includes a description of the organization of the files.

Field Methods

Seismic Cone Penetration Test (CPT)

Data was obtained with a 10-ton subtraction cone pushed by a 20-ton cone rig. Prior to October 15, 2004, data was collected with an analog cone, and the signal was digitized at the surface by computer. After October 15, 2004, data was collected with a digital cone. The cone type can be recognized in table 3 by the cone ID; all digital cone ID numbers are preceded by the letters "DD".

The 10-ton digital subtraction cone has a single-element strain gauge that eliminates mechanical coupling effects. The cone has internal electronic power amplification and regulation

mounted directly behind the transducer, eliminating the effect of cable resistance on the measurements. In addition, the cone is temperature compensated to reduce errors due to temperature shift. A strain gauge is located in a 3.6-cm-diameter housing, the tip of which is a 60° 10-cm^2 cone. Cone resistance is measured at the tip (q_c), and side friction resistance (f_s) is measured along a 150-cm^2 sleeve located behind the cone. The cone was advanced into the soil at a rate of 2 cm/s. Recording channels include: (1) tip resistance, (2) side friction resistance, (3) two channels of inclination, and (4) two channels to measure shear-wave velocity. The penetration resistance, which is digitized at depth intervals of 5 cm, permits detailed inferences about stratigraphy and lithology in addition to geotechnical properties. The field procedures and equipment meet the requirements of American Society for Testing and Materials (ASTM) D3441-79 (American Society for Testing and Materials, 1983). Additional information about the USGS seismic CPT truck can be obtained online at *http://pubs.usgs.gov/fs/2003/fs028-03/*.

Shear-wave velocities in the seismic cone penetration tests were measured with a downhole technique. In the USGS system, the seismic source is at the surface and the seismometer is 0.25 m above the leading point of the cone tip. In this study, an approximately vertically propagating shear wave was generated at the surface either by horizontally striking a steel plate with a 20-pound sledge hammer or by using a pneumatically driven hammer (shear-wave generator). The horizontal offset of either of the two energy sources (the distance between energy source and the point where the seismic CPT rods enter the ground) causes a slight deflection from vertical of the propagation direction of the recorded shear wave. The strike plate used with the hammer is offset 0.96 m from the cone rods, and the shear-wave generator is offset 0.70 m from the cone rods. The horizontal offset of the energy source that was used for each sounding is both compiled in table 3 and indicated in the individual seismic CPT data files that are available online. The near-vertical propagation path minimizes the effect of seismic refraction on the travel times for the shear wave, particularly at depths greater than approximately 5 m. The resulting seismic-wave time series was recorded and transmitted to a computer. First arrival times for the shear waves were manually picked from these seismograms. The seismic cone had one uniaxial seismometer at the beginning of the project. After December 2004, two uniaxial seismometers with opposite polarities were incorporated in the cone. The use of two seismometers improved the picking of first arrivals because seismic traces diverged on the arrival of the first shear wave. When picking first arrival times was difficult, adjacent seismic tests at overlying and underlying depths were used to develop more confidence in the arrival time picks. The difference in depth between the seismic test and the shallower seismic test was divided by the difference in the arrival times to determine the average shear-wave velocity for the depth interval. Depth intervals were typically 2 m.

Soil Sampling Geotechnical Data

Soil samples were collected prior to August 2008 with a Hogentogler piston sampler that was capable of extracting 1-in-diameter by 8-in-long core samples. Sampling after August 2008 was conducted using a Vertek 18-in core sampler. Sampling intervals were determined after careful inspection of all seismic CPT sounding logs in a study area. Intervals were chosen to provide representative samples of particular geologic units.

Index tests conducted in the laboratory include: grain size (D422-63, ASTM, 1983), liquid limit (D423-66, ASTM, 1983), plastic limit (D424-59, ASTM, 1983), and water content (D2216, ASTM, 1983). Samples were classified using the Unified Soil Classification (D2488-69, ASTM, 1983) as modified by Howard (1984). In the laboratory, the length of each sample was measured

and the tube and sample weighed. A pocket penetrometer was used to measure compressive strength of the sample. After the strength measurements were made, a water content sample was taken. The sample was then extruded and described. Results of the laboratory tests are summarized in table 2.

Study Areas

Study areas are shown in fig. 1 by number, which corresponds to their description in table 1. Some study areas cannot be distinguished at the scale of the map in figure 1. This occurs where they are immediately adjacent to each other. For these adjacent study areas, the large scale maps, which show the CPT soundings, should be consulted. For example, this is illustrated for Areas 1 and 15 in the greater Oakland area. Although, the two separate study areas are shown as a single dot in figure 1, the areas can be distinguished in the large scale geologic maps shown in figures 2-4, Area 1 is the area underlain by Holocene alluvial fan deposits and Area 15 is an area underlain by sandy artificial fill. Another example consists of Areas 8 and 16. Area 8, as shown in figures 18-21, is in the Mississippi River floodplain extending from Missouri to Mississippi. It is the area underlain by interfingering floodbasin, natural levee, and point bar deposits. Area 16, which is also shown in figures 18-21, is the area underlain by Pleistocene valley train or glacial outwash deposits.

Area 1 – Greater Oakland Area, California

Area 1 in the greater Oakland area, California, (fig. 1) is underlain by Holocene alluvial fan deposits. The area includes parts of the cities of Oakland, Alameda, Emeryville, and Berkeley. The area is underlain by coalescing alluvial fans that emanate from local drainages. These fan complexes were active until modern urban development covered the land surface and channelized the modern streams (Sowers, 1993). Eighty-five seismic CPT (figs. 2-4, table 3) were conducted in fan deposits. The original purpose of the subsurface exploration in Area 1 was to characterize the liquefaction potential of geologic units for liquefaction hazard mapping (Holzer and others, 2002; Holzer and others, 2006a). The surficial geology for each sounding was determined from the surficial geologic map published by Witter and others (2006).

Area 2 – Santa Clara Valley, California

Area 2 in the Santa Clara Valley, Calif., (fig.1), is underlain by Holocene alluvial fan deposits. The study area, which is in northern Santa Clara County, includes the cities of San Jose, Campbell, Cupertino, Los Altos, Los Gatos, Milpitas, Mountain View, Palo Alto, Santa Clara, Saratoga, and Sunnyvale. Ninety-eight seismic CPT soundings were conducted in Holocene alluvial fans deposits, and 25 soundings were conducted in young levee deposits (Qhly) along major creeks (figs. 5-8, table 3). The surficial geology for each sounding was determined from the surficial geologic map published by Witter and others (2006). The original purpose of the subsurface exploration was to characterize the liquefaction potential of geologic units for liquefaction hazard mapping (Holzer and others, 2008; Holzer and others, 2009).

Area 3 – Greater Charleston Area, South Carolina

Beach ridges were the focus of the field investigation in Area 3, which is in the greater Charleston area, South Carolina (fig. 1). The study area includes the city of Charleston and the

outlying areas of Seabrook Island, Kiawah Island, Folly Beach, Sullivan's Island, Isle of Palms, John's Island, Mt. Pleasant, Daniel Island, North Charleston, and Wando. Soundings were conducted in modern and Pleistocene barrier beach ridge complexes as mapped by Weems and others (unpub. data) (figs. 9-11). For our field investigation and classification of soundings in table 3, we used an early unpublished version of the map provided by Weems. Thirty seismic CPT soundings were conducted in the modern beach ridge complex (Qhs), and 70 soundings were conducted in Pleistocene beach ridges. Three Pleistocene beach ridges of different ages as described by Weems and Lemon (1993) were explored: unit Qts in the Ten Mile-Hill beds (200,000-240,000 yr), unit Qws in the Wando Formation (70,000-130,000 yr), and unit Qhes (Qsbs) beneath the Silver Bluff Terrace (33,000-85,000 yr).

Area 4 – Upper Peninsula Area, Michigan

Area 4 includes three beach ridge complexes in the Upper Peninsula of Michigan near the communities of Au Train, Traverse Bay, and Manistique, Michigan, in Houghton, Schoolcraft, and Alger Counties (fig. 1). Although large-scale geologic maps were not available for the three areas, the beach ridge complexes are readily recognized in color orthophotographs (figs. 12-14) that are available online from the Michigan Department of Environmental Quality (*http://www.mcgi.state.mi.us/mgdl*). The orthophotographs were used to select 32 locations for seismic CPT soundings along the shores of Lakes Michigan and Superior. The complexes, which are known as strand plains, are associated with pre-historical fluctuations of lake level (Johnston and others, 2007). According to Thompson and Baedke (1997), each ridge in a strand plain developed in response to approximately 30-year-long cycles of 0.5- to 0.6-m lake-level fluctuations that were superimposed on a late Holocene secular lake-level decline caused by differential post-glacial isostatic adjustments.

Areas 5 and 13 – Richland County, North Dakota

Areas 5 and 13 are in Richland County, N. Dak. (figure 1). They are at the southern margin of the plain created by former proglacial Lake Agassiz. Soundings were conducted in both coarse-grained deltaic sediments (Area 5), which were deposited by the Sheyenne River where it discharged into the lake, and fine-grained deep-water lake sediments (Area 13). The lake geology and history are described by Baker (1966) and Arndt (1977). The lake occupied part of the modern Red River Valley between about 13,800 and 9,000 years ago when the continental Laurentide ice sheet created a large ice dam in the valley (Arndt, 1977). Surface water runoff, which naturally flowed northward in the valley, was impounded by this giant ice sheet. The lake survived until the ice dam disappeared. Thirty-two soundings were conducted in delta topset beds, and 19 soundings were conducted in delta foreset beds (fig. 15, table 3). The topset beds were deposited where the river discharged into the lake, and silty foreset beds were deposited along the advancing front of the delta in Lake Agassiz. Twenty-five soundings were conducted in the deep-water lake deposits (fig. 15, table 3). The soundings and the three geologic environments are shown on the geologic map from Baker (1966) (fig. 15).

Area 6 – Indiana Dunes National Lakeshore, Indiana

Area 6 is in Indiana Dunes National Lakeshore, Ind., along the southern shore of Lake Michigan (fig. 1). Twenty-five seismic CPT soundings were conducted in windblown dunes along

the lake shore in Porter County, Ind. (fig. 16, table 3). Although surficial exposures of the dunes indicate deposition by wind, subsurface investigations indicate that the dunes are a dune and beach complex that is interbedded with swamp, lake, and shoreline deposits associated with Holocene water-level fluctuations of Lake Michigan. Subsurface exploration was guided by detailed mapping of the dune and beach complex by Thompson (1990). The geologic map shown in figure 16 is an unpublished digital version of the Thompson (1990) map that was provided by the Indiana Geological Survey.

Area 7 – Evansville Area, Indiana

Area 7 is partially underlain by natural levee and floodbasin deposits along the northern banks of the Ohio River in and around Evansville, Ind. (fig. 1). Our initial field investigation was guided by mapping by Fraser and Fishbaugh (1986), who inferred that the deposits underlying the flat plain in and to the north of Evansville were lacustrine. The seismic CPT exploration revealed that these deposits consist of a sandy silt levee deposit and a silty clay floodbasin deposit. The deposits interfinger and their transition is gradational. We concluded that the two facies were the result of overbank deposition during extreme flooding of the Ohio River (Holzer and others, in press). Moore and others (2009) adopted a similar interpretation in their recent surficial geologic mapping. Twenty-five seismic CPT soundings were made in the floodbasin deposits and 13 seismic CPT soundings were made in the natural levee deposits (fig. 17 and table 3). Soundings are plotted on the map published by Moore and others (2009).

Area 8 – Mississippi River, Arkansas, Missouri, and Mississippi

Area 8 consists of point bars, abandoned channels and floodbasin deposits in the floodplain of the Mississippi River in Arkansas, Missouri, and Mississippi (fig. 1). The study area extends from just south of Sikeston, Missouri, along the floodplain of the Mississippi River, to Tunica, Miss. Seismic CPT exploration was based on mapping by Saucier (1994b). Ninety seismic CPT soundings were made in point bar deposits, 40 seismic CPT soundings were made in abandoned channel deposits, and 20 seismic CPT soundings were made in floodbasin deposits (figs. 18-21, table 3.

Area 9 – Ouachita River, Arkansas

Area 9 includes young Holocene point bar deposits formed by the Ouachita River in southern Arkansas (fig. 22). The area is between the towns of Camden on the north and Felsenthal on the south. The geologic mapping (fig. 23, Camden area; fig. 24, Felsenthal area; fig. 25, Moro Bay area; and fig. 26, Smackover area) used to guide field exploration was by Saucier and Smith (1986). Thirty seismic CPT soundings (table 3) were conducted in the point bar deposits.

Area 10 – Red River, Arkansas

Area 10 includes young Holocene point bar deposits formed by the Red River, southeast of Texarkana, Ark. (fig. 27). The geologic mapping used to guide field exploration was by Schultz and Krinitzsky, 1950. Thirty seismic CPT soundings (table 3) were conducted in the point bar deposits shown in figure 28, Ashdown quadrangle; figure 29, Doddridge quadrangle; figure 30, Fouke quadrangle; figure 31, Fulton quadrangle; and figure 32, Lewisville quadrangle.

Area 11– Rio Grande, Texas

Area 11 includes young Holocene floodplain deposits formed by the Rio Grande River in southeastern Texas, upstream from Brownsville, Tex. (fig. 1). The geologic mapping used to guide field exploration was by Brown and others (1980). Thirty-two seismic CPT soundings (fig. 33, table 3) were conducted in the Rio Grande River floodplain.

Area 12 – Wolf River, Tennessee

Area 12 includes point bar deposits formed by the Wolf River in southwestern Tennessee (fig. 1). The study area lies between Memphis and Collierville, Tenn. The geologic mapping that was used to classify soundings during the field study was from Broughton (1999), Cox (2004), and Van Arsdale (2004a,b). Twenty-three seismic CPT soundings (fig. 34, table 3) were conducted in the point bar deposits.

Area 13 – Richland County, North Dakota

(See Area 5)

Area 14 –Brazoria and Matagorda Counties, Texas

Exploration in Area 14 was conducted in the lagoons and marshes along an 80-km-long reach of the Texas coast in Brazoria and Matagorda Counties (fig. 1). The lagoonal deposits lie inland along the Gulf Coast of Texas, approximately between the towns of Matagorda and Chocolate Bayou. The area is inland of the barrier island that forms the modern shoreline. The lagoonal and marsh deposits described here are basically a coastal facies coeval with the barrier island or beach ridge facies (McGowen and others, 1976). Depositional processes in the backbarrier environment range from quiet shallow water deposition to organic soil accumulation to sandy storm-driven washover and storm-breach channel sedimentation. As a consequence of the multitude of active processes, stratigraphy in the backbarrier environment often is complex. Exploration was guided by the mapping of Fisher and others (1972) and McGowen and others (1976). Thirty seismic CPT soundings (fig. 35, table 3) were conducted in Area 14.

Area 15 – Greater Oakland Area, California

Area 15 is underlain by sandy artificial fill deposits placed into San Francisco Bay along the shoreline of Oakland, Alameda, Emeryville, and Berkeley, Calif. (fig. 1). The fills cover an area of 57 km2, which represents 22 percent of marshland and tidal and submerged land that has been reclaimed from San Francisco Bay since 1847 (USDC, 1959). Fill thickness ranges from zero, where the fill pinches out along the original shoreline, to about 11 m; average thickness is about 3 m (Holzer and others, 2006b). Although initial exploration was guided by geologic mapping by Helley and Graymer (1997), the geologic category assigned to the soundings is based on geologic mapping by Witter and others (2006). The original purpose of the subsurface exploration was to characterize the liquefaction potential of geologic units for liquefaction hazard mapping (Holzer and others, 2002; Holzer and others, 2006a,b). The 81 seismic CPT soundings in the artificial fill are shown in figures 2-4 and listed in table 3.

Area 16 – Mississippi Valley, Arkansas and Missouri

Area 16 consists of valley train deposits in the Mississippi Valley in Arkansas and Missouri (fig. 1). The area extends from south of Sikeston, Mo., to north of West Memphis, Ark. Valley train deposits are laid down by sediment-laden runoff from melting glaciers. In the Mississippi Valley, these deposits were laid down by braided streams fed by the ablation of the continental Laurentide ice sheet in the Late Wisconsin and early Holocene (Saucier, 1994a). Exploration focused on the two geologically youngest valley train units mapped by Saucier (1994b), Pvl1 and Pvl2 (figs. 18, 19, and 20). Unit Pvl1 is approximately 10,000 years old. It records the youngest discharge of sediment-laden glacial melt water down the Mississippi Valley. Unit Pvl2 records an earlier discharge pulse and may be older than 12,000 years on the basis of artifacts from Paleo-Indian cultures (Saucier, 1994a). Comparison of liquefaction effects maps by Obermeier (1989) with the geologic maps by Saucier (1994b) indicates extensive liquefaction of units Pvl1 and Pvl2 during the 1811-1812 New Madrid earthquake sequence. Thirty-seven seismic CPT soundings were made in the Pvl1 deposits and 35 seismic CPT soundings were made in the Pvl2 deposits (figs. 18, 19, and 20). Geologic assignments of the soundings in table 3 are based on mapping by Saucier (1994b).

Discussion

Stratigraphy

Geologic stratigraphy penetrated by the seismic CPT soundings in each study area was correlated with mapped surficial geology. An example geotechnical log from Evansville, Ind., (Area 7) is shown in figure 36. The log shows geologic unit, tip resistance, friction ratio, and grain size characteristics such as median grain size, fines content, soil classification, unit velocity, liquefaction potential, and a brief soil description. Stratigraphy often is difficult to correlate in detail between individual soundings because of the distance separating the soundings. Figure 37 is an example where correlation is possible. It is a cross section along the northern profile of Areas 5 and 13 in North Dakota (fig. 15). Topset, foreset, and deeper water fine-grained lacustrine deposits, which were identified in the surficial geologic map by Baker (1966), could be correlated between soundings despite their kilometer spacing.

Geotechnical Properties

Samples collected in the field by direct push samplers were tested for grain size, water content, density, and Atterberg limits, and classified using the Unified Soil Classification. Results are shown in table 2. The range of grain-size characteristics of sediments sampled in this investigation are graphically illustrated in two ways. First, fine-grained sediments are classified with the Unified Soil Classification chart shown in figure 38, and second, the range of the ternary grain size fractions are shown in figure 39.

Estimated 30-m Shear-wave Velocity (V_{S30})

Table 3 includes a compilation of estimated V_{S20} and V_{S30} for soundings in which velocity measurements were made. These two velocities are time averaged shear-wave velocities that are computed by dividing the indicated depth, 20 m and 30 m, by the one-way travel time of a vertically propagating shear wave. Shear-wave velocity was measured at 2-m intervals by the

downhole method in most of the seismic CPT soundings. Although the average sounding depth was 18.5 m, soundings often terminated in stiff soils that in most cases extended to depths of more than 30 m. For soundings that met a depth criterion to be discussed, we extrapolated travel times to 20 m and 30 m depths, and used the projected time to estimate V_{S20} and V_{S30}. Because of the horizontal offset of the seismic source from the seismic CPT rod string, we used a travel time that was corrected to an equivalent travel time for a vertically propagating shear wave using a simple geometric correction. The correction is described in Holzer and others (2005). Only soundings with completion depths greater than 10 m and 20 m, respectively, were used to estimate V_{S20} and V_{S30}. Using these criteria, table 3 contains 885 estimates of V_{S20} and 804 estimates of V_{S30}.

Although we have associated each V_{S20} and V_{S30} estimate with a surficial geologic unit (table 3), the thickness of the surficial unit typically varies from sounding to sounding. Where the thickness is less than 20 m or 30 m, the values of V_{S20} and V_{S30} will partially reflect the velocity of the underlying deposit. Thus, values of V_{S20} and V_{S30} can vary depending primarily on these two factors, thickness of the surficial unit and velocity of underlying sediment. This variability is illustrated in figures 40 to 55 for the 16 study areas. Average (and one standard deviation) V_{S30} values are shown in each figure. Average velocity values are sorted from slowest to fastest for each area in figure 56, and compiled in table 1.

Acknowledgments

This research was made possible by support from several institutions and the generous assistance of many colleagues. This research was supported in part by the Nuclear Regulatory Commission-Office of Research under USGS/NRC Job Code N6501. Other supporters include the USGS Earthquake Hazards Program and the Central United States Earthquake Consortium (CUSEC). Purchase of the CPT truck was enabled by the PG&E-USGS CRADA. We are especially grateful to the following individuals for discussions and help: John C. Tinsley, III, Glenn J. Rix, David W. Moore, Scott C. Lundstrom, Todd A. Thompson, Norman C. Hester, Eugene S. Schweig, Kathleen B. Tucker, Rob E. Weems, Selcuk Toprak, Amy C. Padovani, Carl M. Wentworth, and James Wilkerson. Coyn Criley performed laboratory testing. We thank Suzanne Hecker and John C. Tinsley, III for their reviews of the open-file report.

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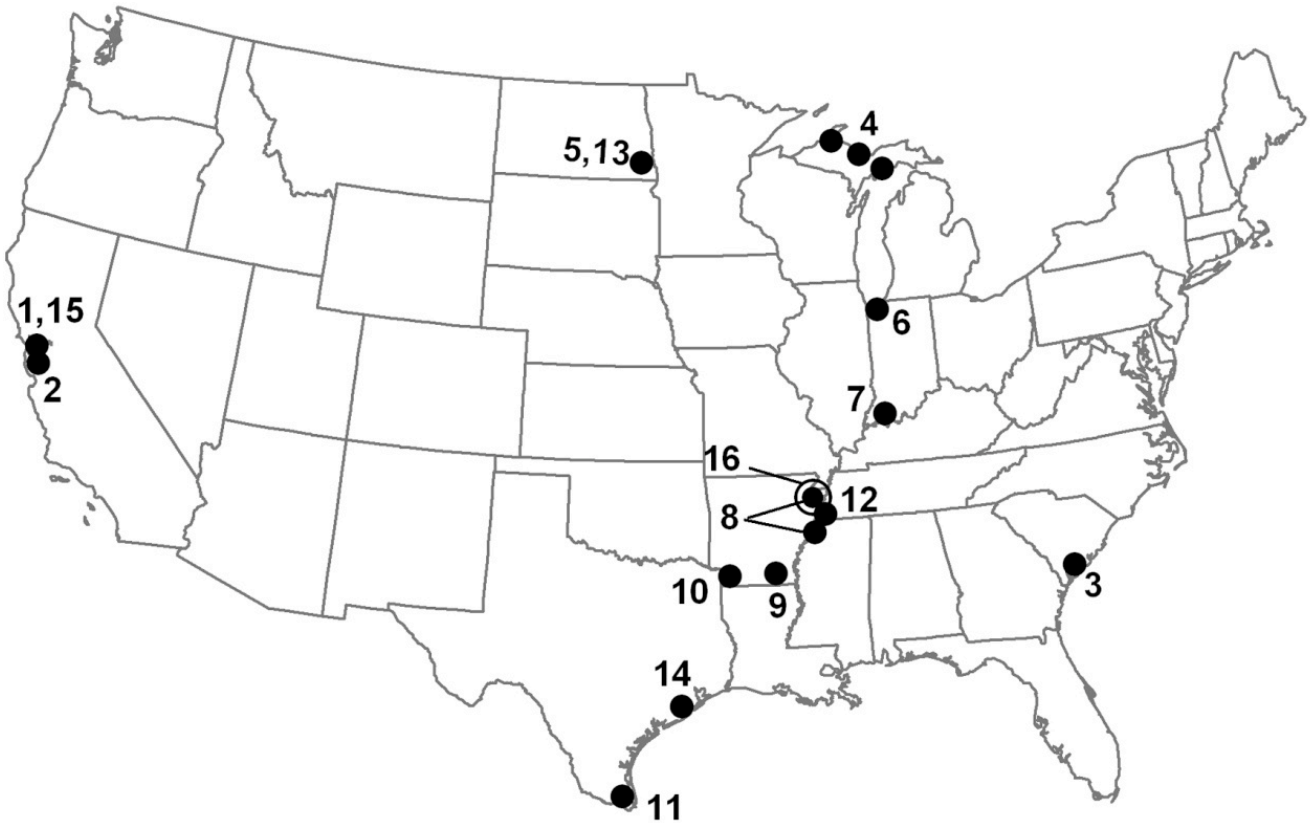


Figure 1. Locations of study areas. Area 16 is coincident with Area 8.

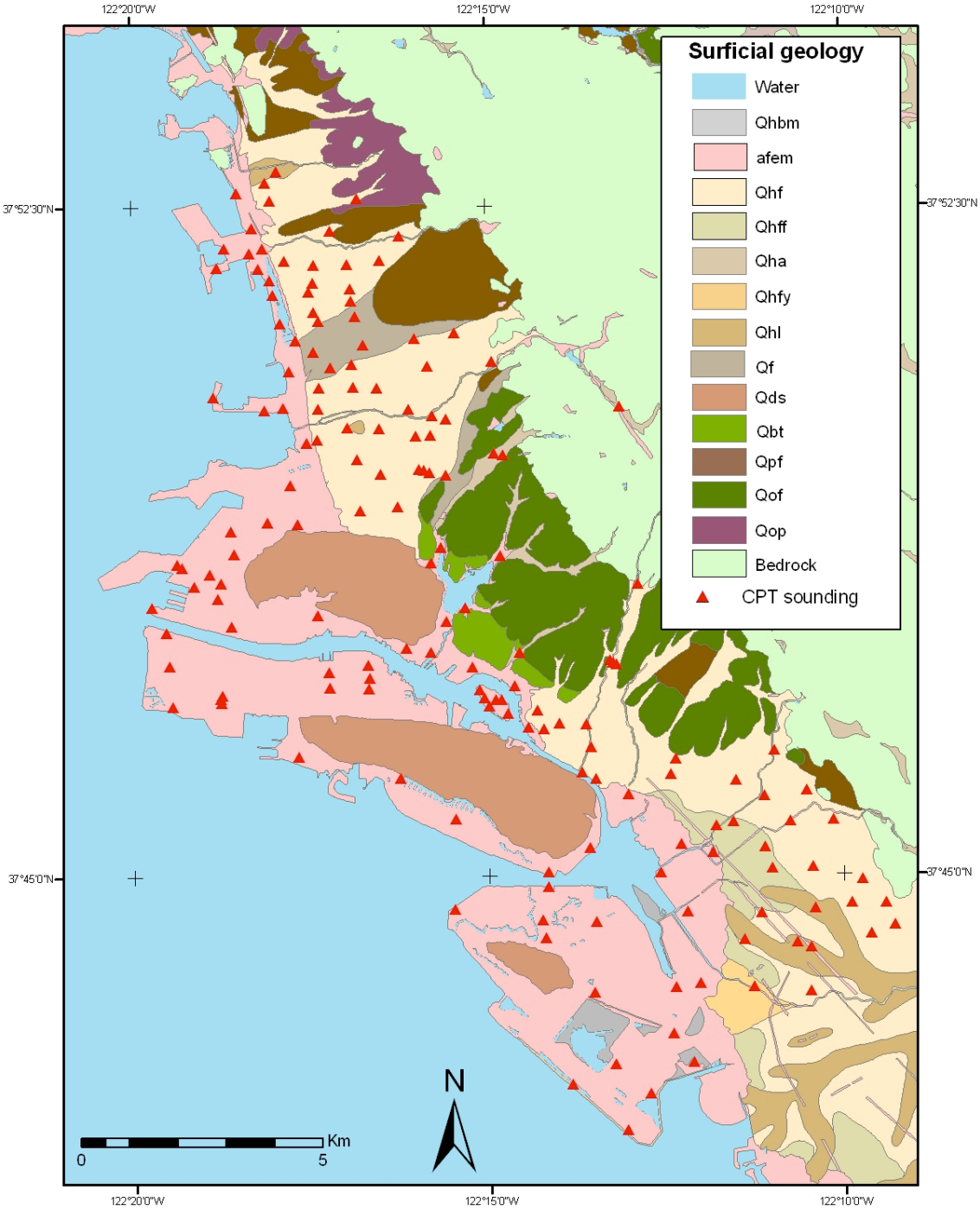


Figure 2. Areas 1 and 15. Locations of seismic CPT soundings shown on geologic map (Witter and others, 2006) of the greater Oakland area, California, showing alluvial fan deposits (Qhf, Qhff, Qhl, Qf), Area 1, and artificial fill (afem), Area 15, deposits. Sounding identification numbers are shown in figures 3 and 4. Table 3 lists the soundings by name.

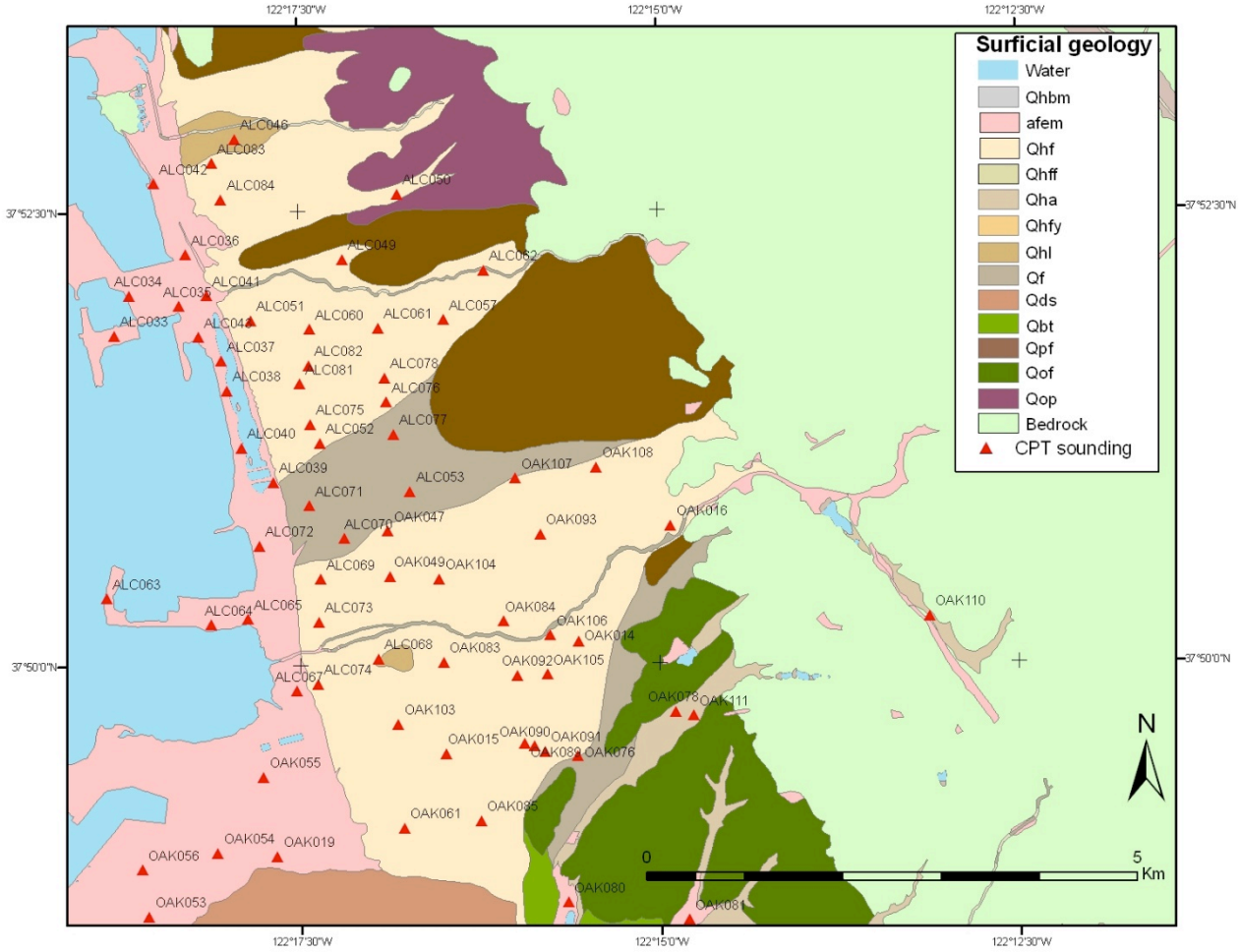


Figure 3. Areas 1 and 15. Locations of seismic CPT soundings shown on geologic map (Witter and others, 2006) of the northern part of greater Oakland area, California.

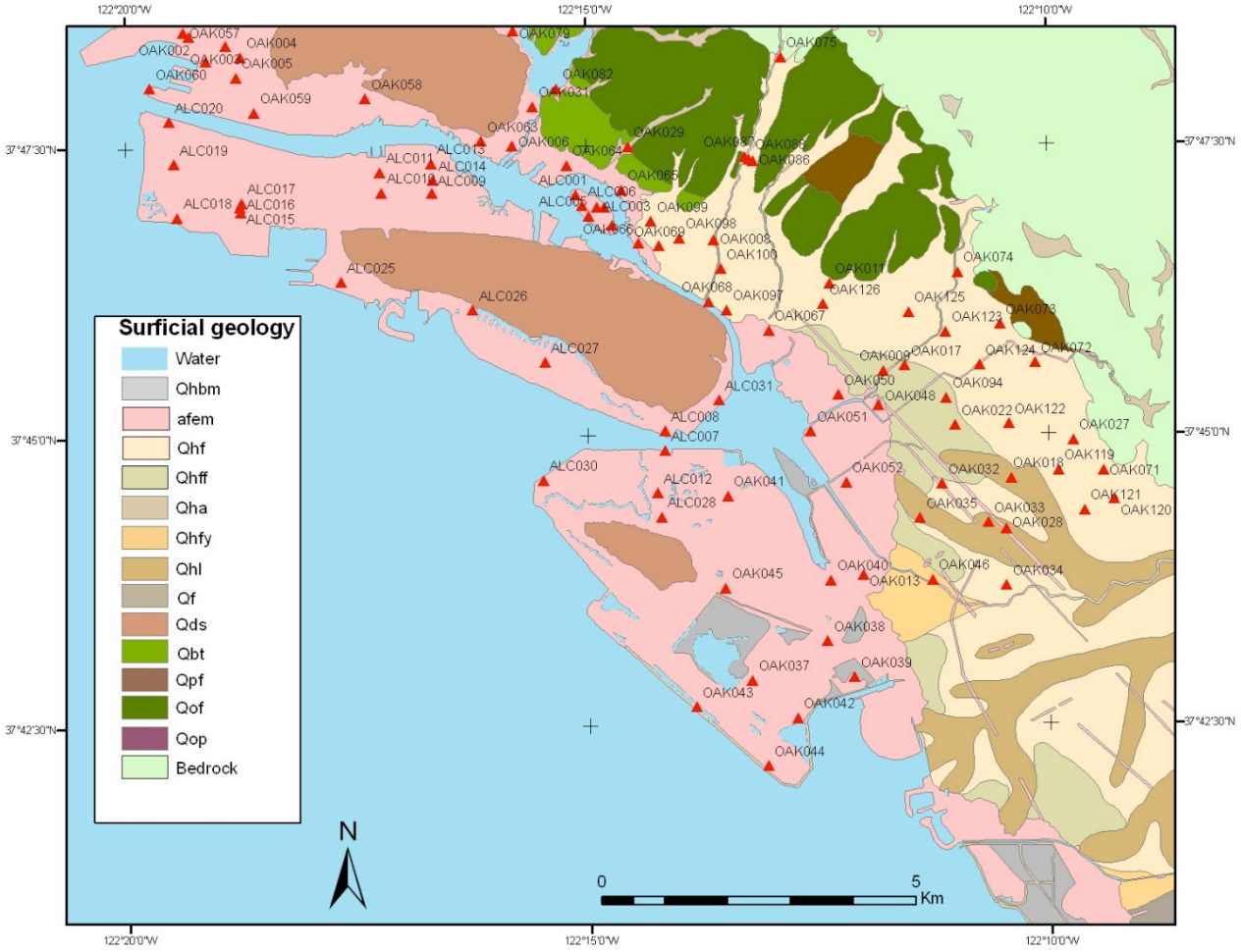


Figure 4. Areas 1 and 15. Locations of seismic CPT soundings shown on geologic map (Witter and others, 2006) of the southern part of greater Oakland area, California.

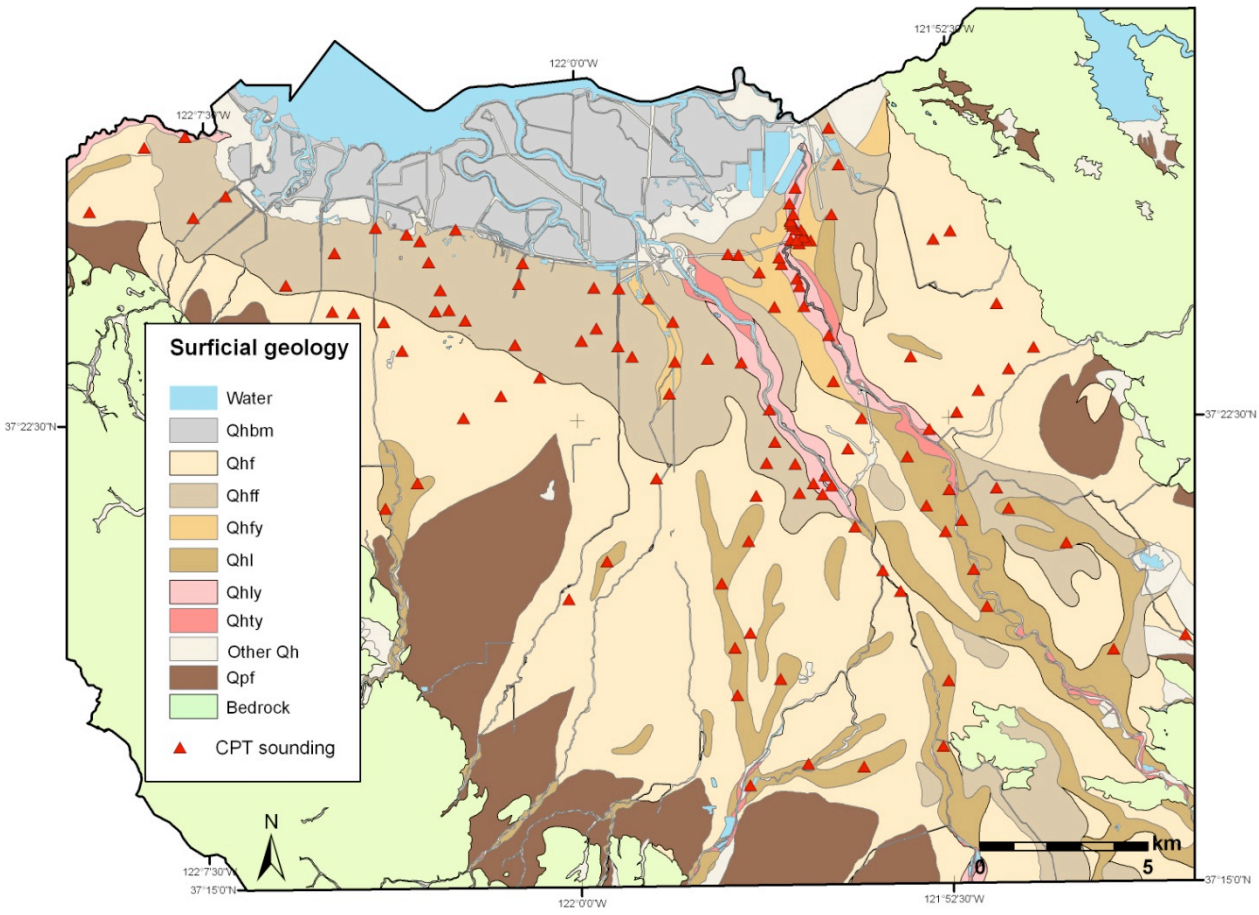


Figure 5. Area 2. Location of seismic CPT soundings, shown on geologic map (Witter and others, 2006) of part of the Santa Clara Valley, Calif., showing alluvial fan deposits (Qhf, Qhff, Qhfy, Qhl) and young levee deposits (Qhly). Sounding identification numbers are shown in figures 6, 7, and 8.

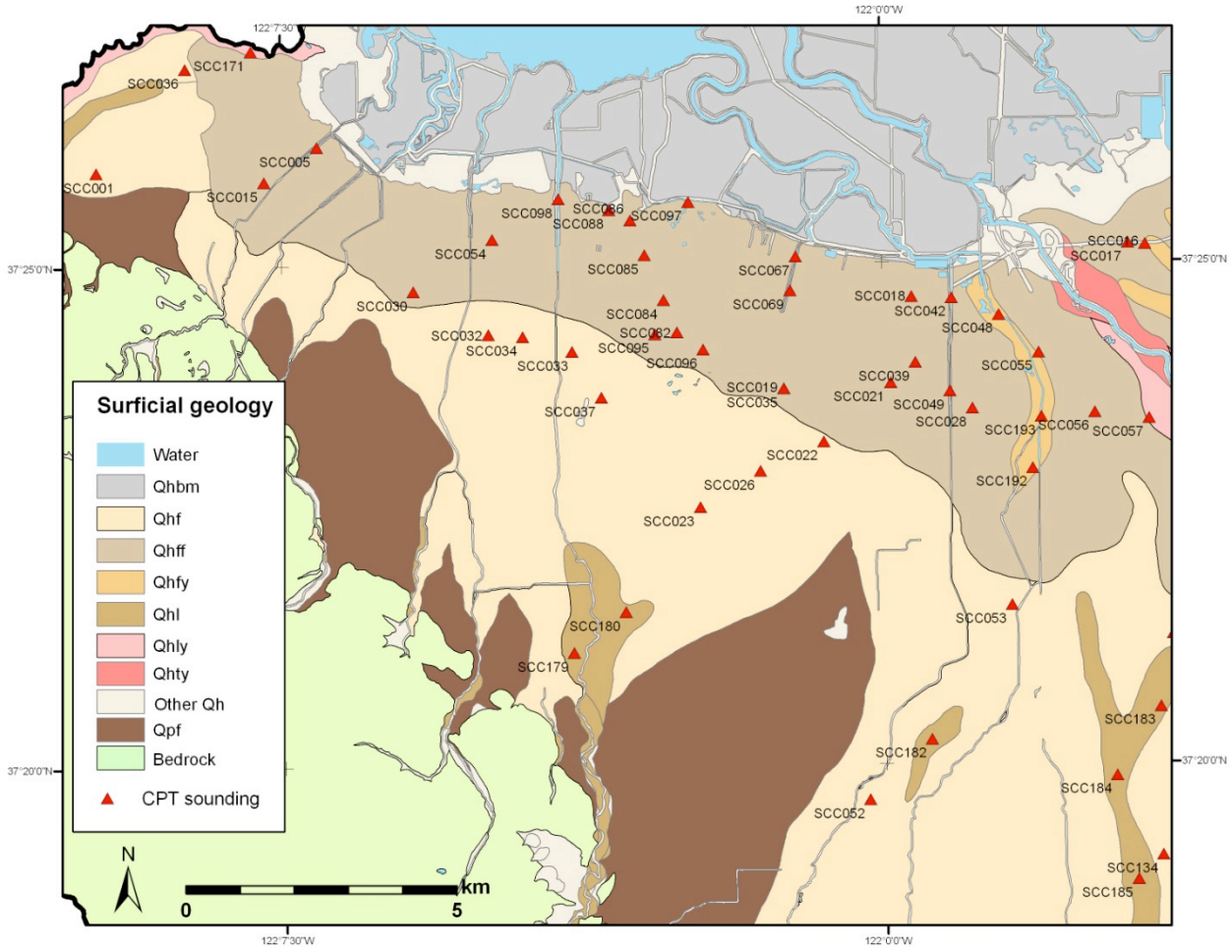


Figure 6. Area 2**.** Location of seismic CPT soundings shown on geologic map (Witter and others, 2006) of the western part of the study area, Santa Clara Valley, Calif**.**

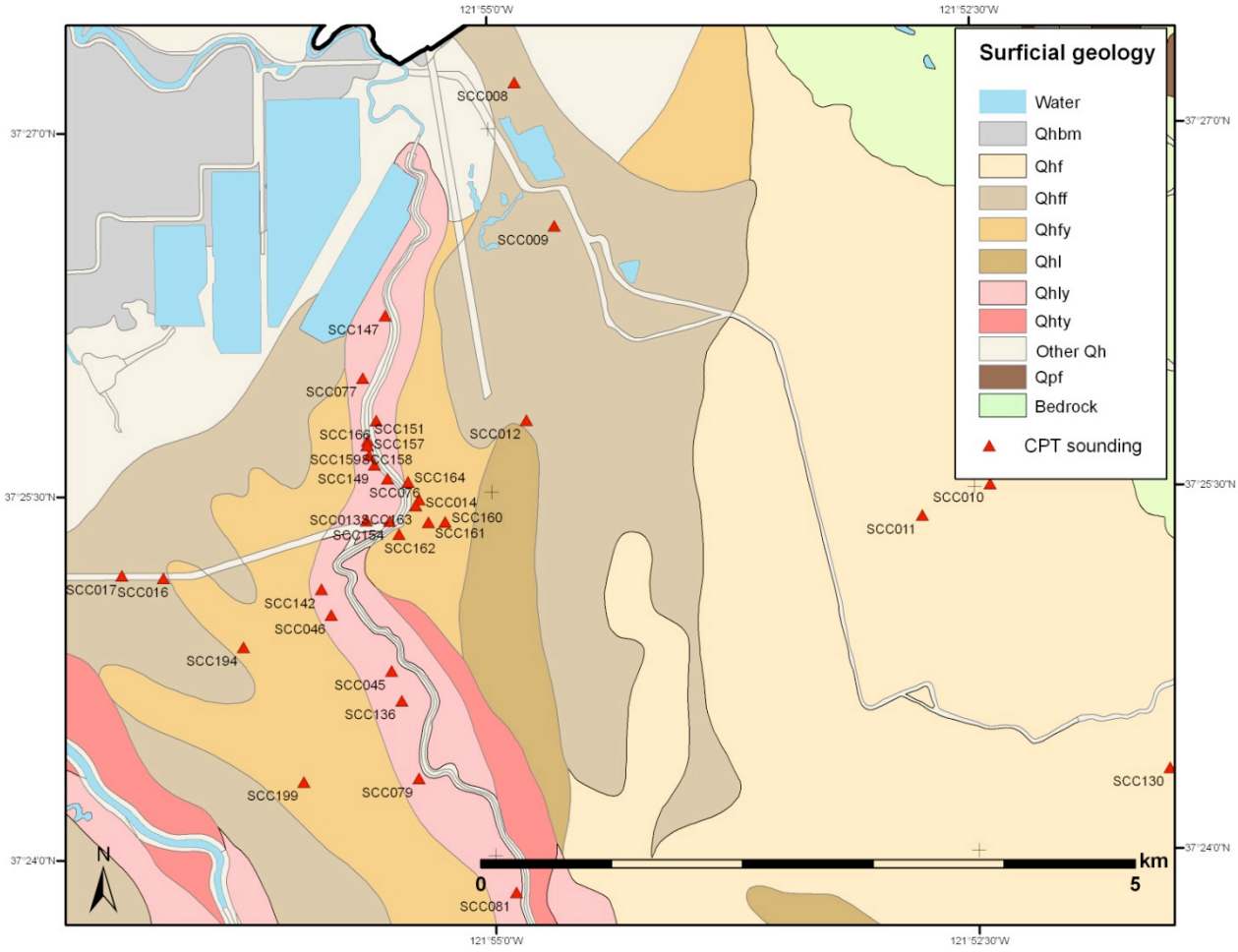


Figure 7. Area 2. Location of seismic CPT soundings shown on geologic map (Witter and others, 2006) of eastern part of the study area, Santa Clara Valley, Calif.

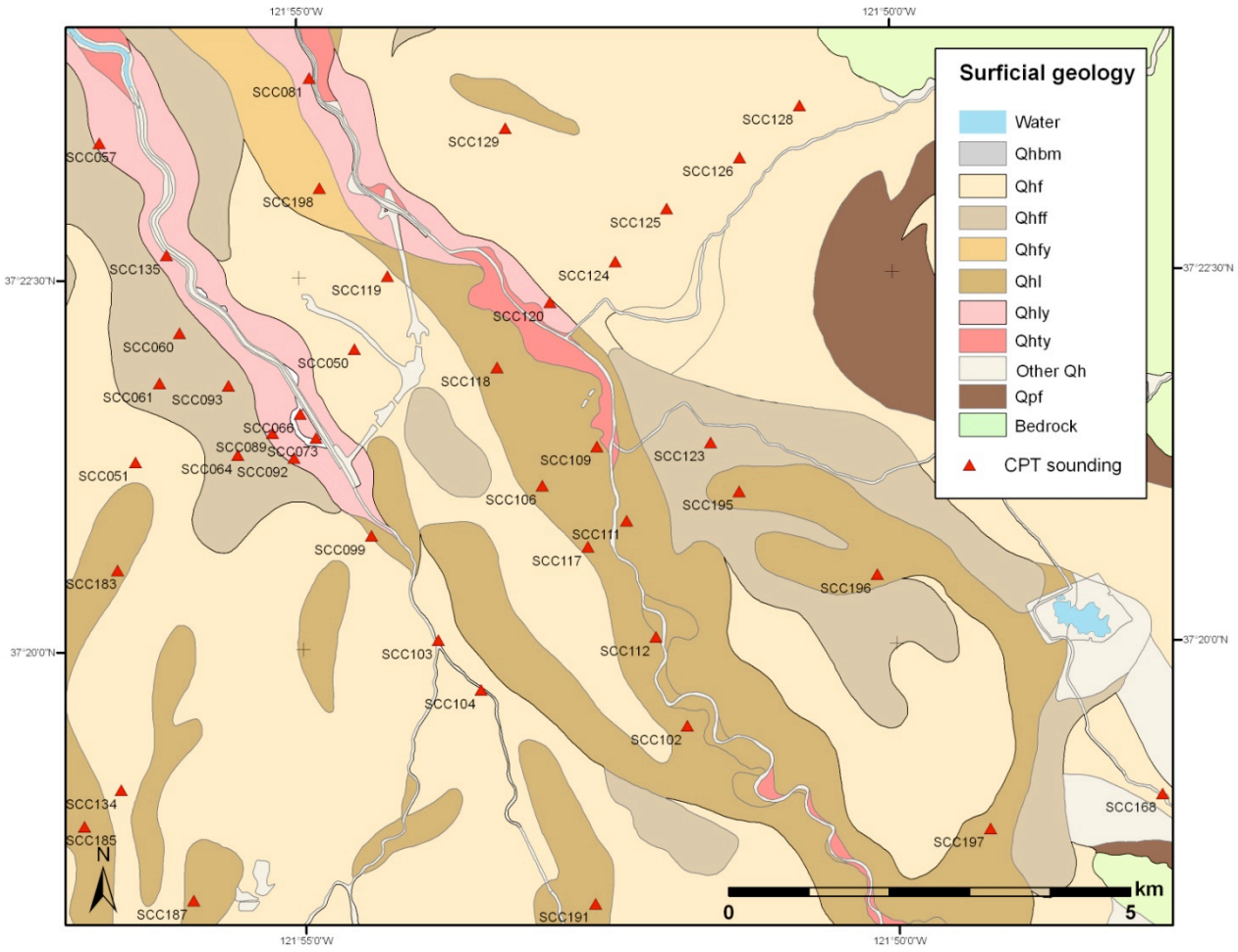


Figure 8. Area 2. Location of seismic CPT soundings shown on geologic map (Witter and others, 2006) of southern part of the study area, Santa Clara Valley, Calif.

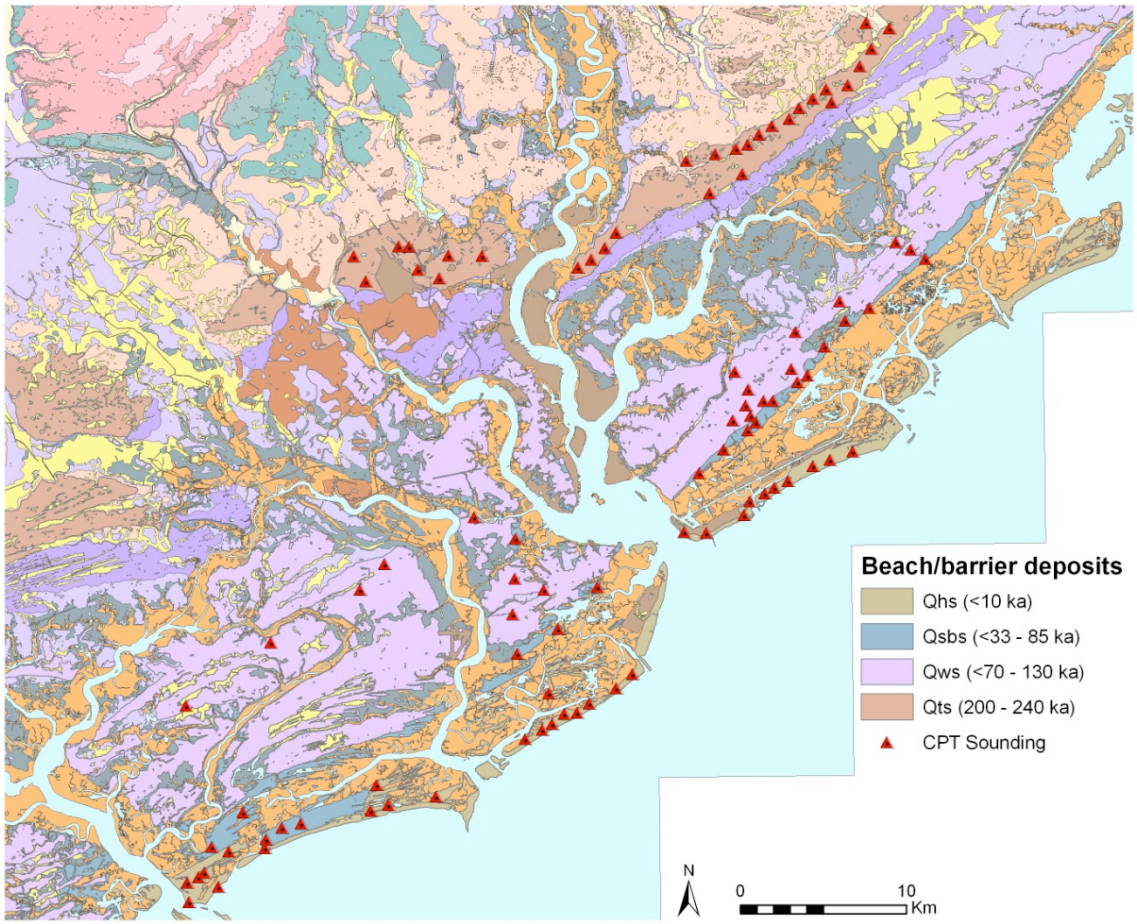


Figure 9. Area 3. Location of seismic CPT soundings shown on geologic map (Weems and others, unpub. data) of the greater Charleston area, South Carolina, showing the four beach ridge deposits. Sounding identification numbers are shown in figures 10 and 11. Only the beach ridge units that were explored are labeled in the legend.

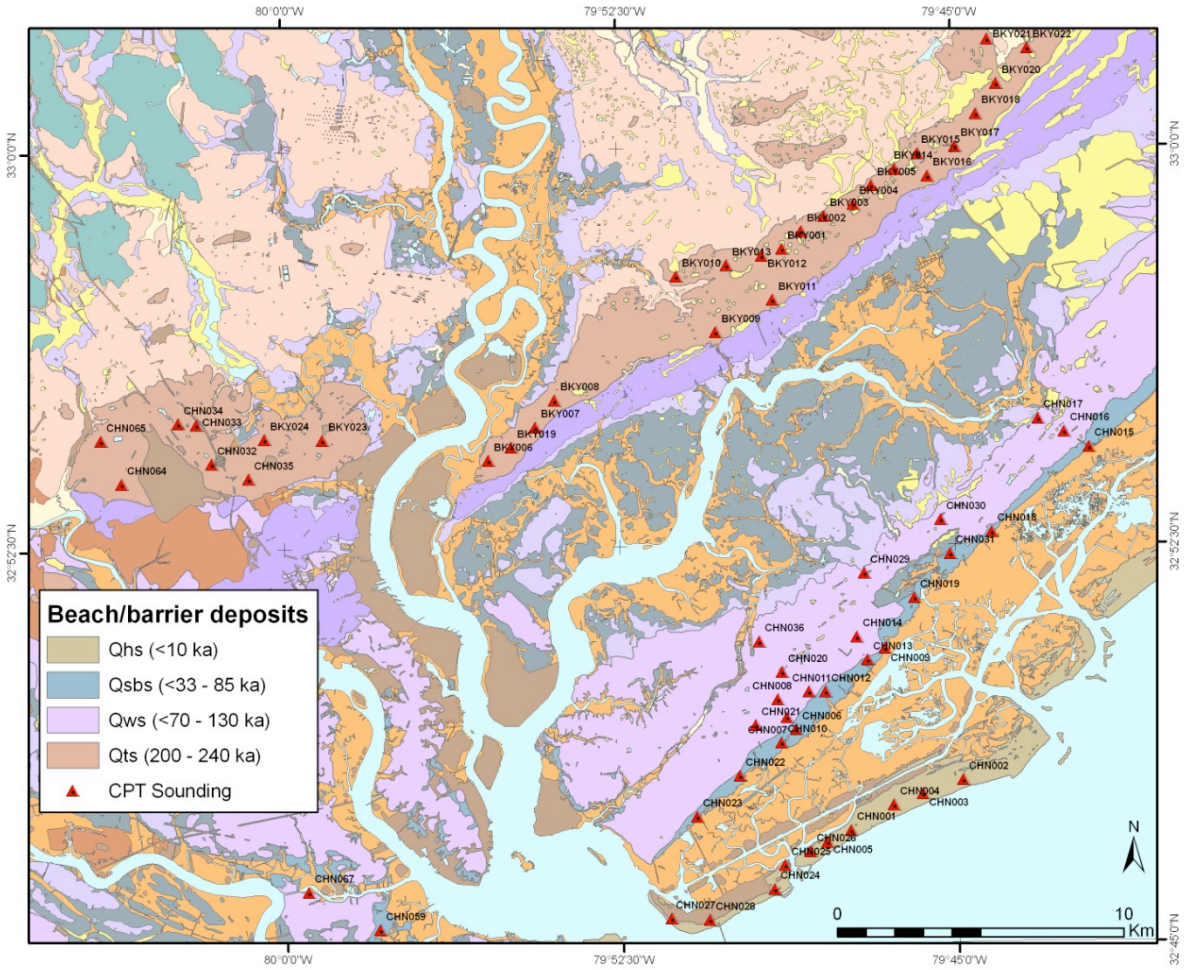


Figure 10. Area 3. Location of soundings shown on geologic map (Weems and others, unpub. data) showing the beach ridge deposits of northeastern part of the greater Charleston area, South Carolina. Only the beach ridge units that were explored are labeled in the legend.

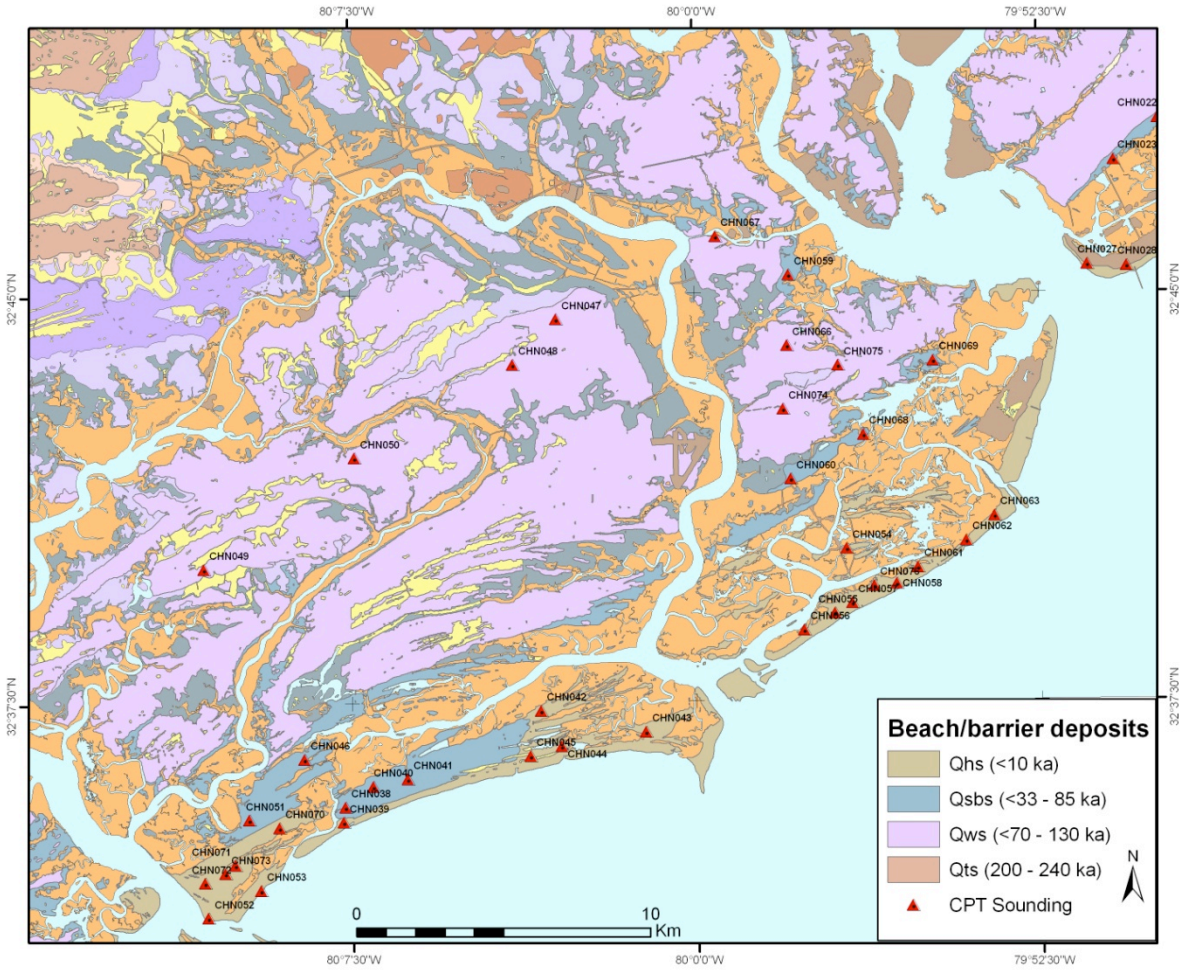


Figure 11. Area 3. Location of seismic CPT soundings shown on geologic map (Weems and others, unpub. data) showing beach ridge deposits of southwestern part of greater Charleston area, South Carolina. Only the beach ridge units that were explored are labeled in the legend.

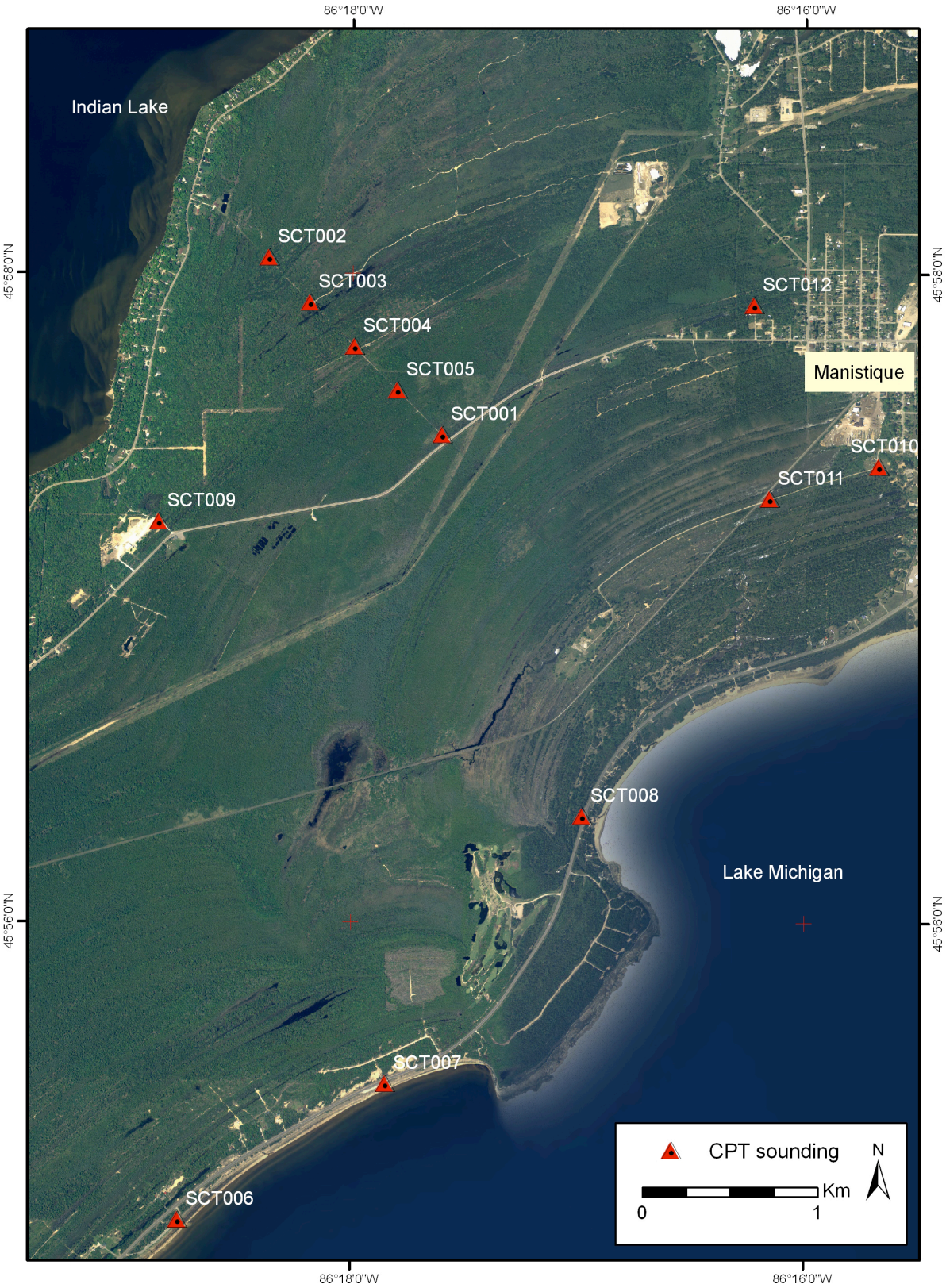


Figure 12. Area 4. Location of seismic CPT soundings shown on orthophotograph base (http://www.mcgi.state.mi.us/mgdl) showing beach ridges studied on the strand plain near Manistique, Mich.



Figure 13. Area 4. Location of seismic CPT soundings on orthophotograph base (http://www.mcgi.state.mi.us/mgdl) showing beach ridges studied on the strand plain near Grand Traverse Bay, Mich.



Figure 14. Area 4. Location of seismic CPT soundings shown on orthophotograph base (http://www.mcgi.state.mi.us/mgdl) showing beach ridges studied on the strand plain near Au Train Lake, Mich.

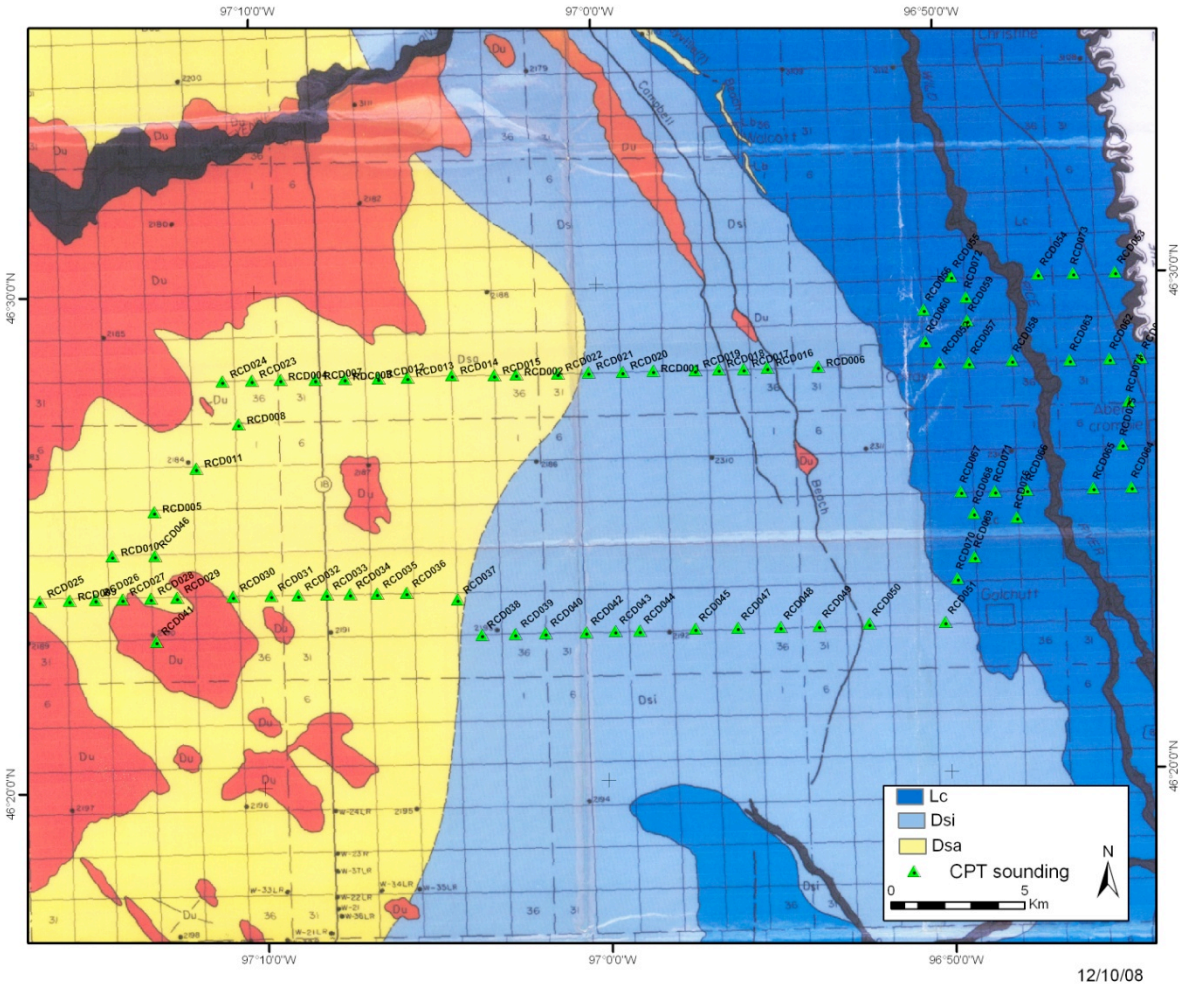


Figure 15. Areas 5 and 13. Location of seismic CPT soundings shown on geologic map (Baker, 1966) showing topset (DSA), foreset (DSI), and lacustrine (LC) deposits in the Sheyenne River area, Richland County, N. Dak. The DSA and DSI units are in Area 5, whereas the LC unit is in Area 13.

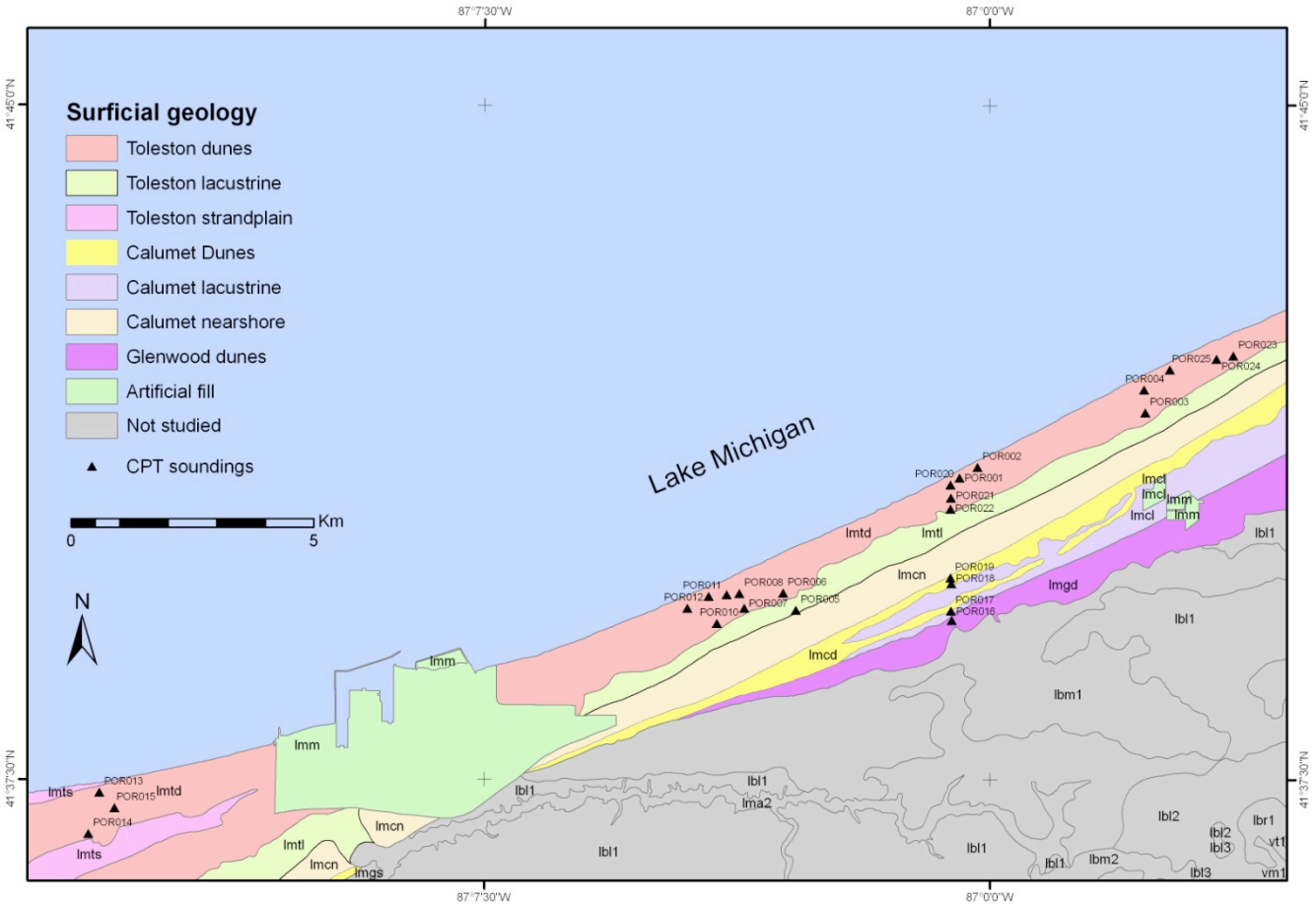


Figure 16. Area 6, locations of seismic CPT soundings shown on geologic map (Thompson, 1990) showing eolian dune complex deposits in the Indiana Dunes National Lakeshore, Ind.

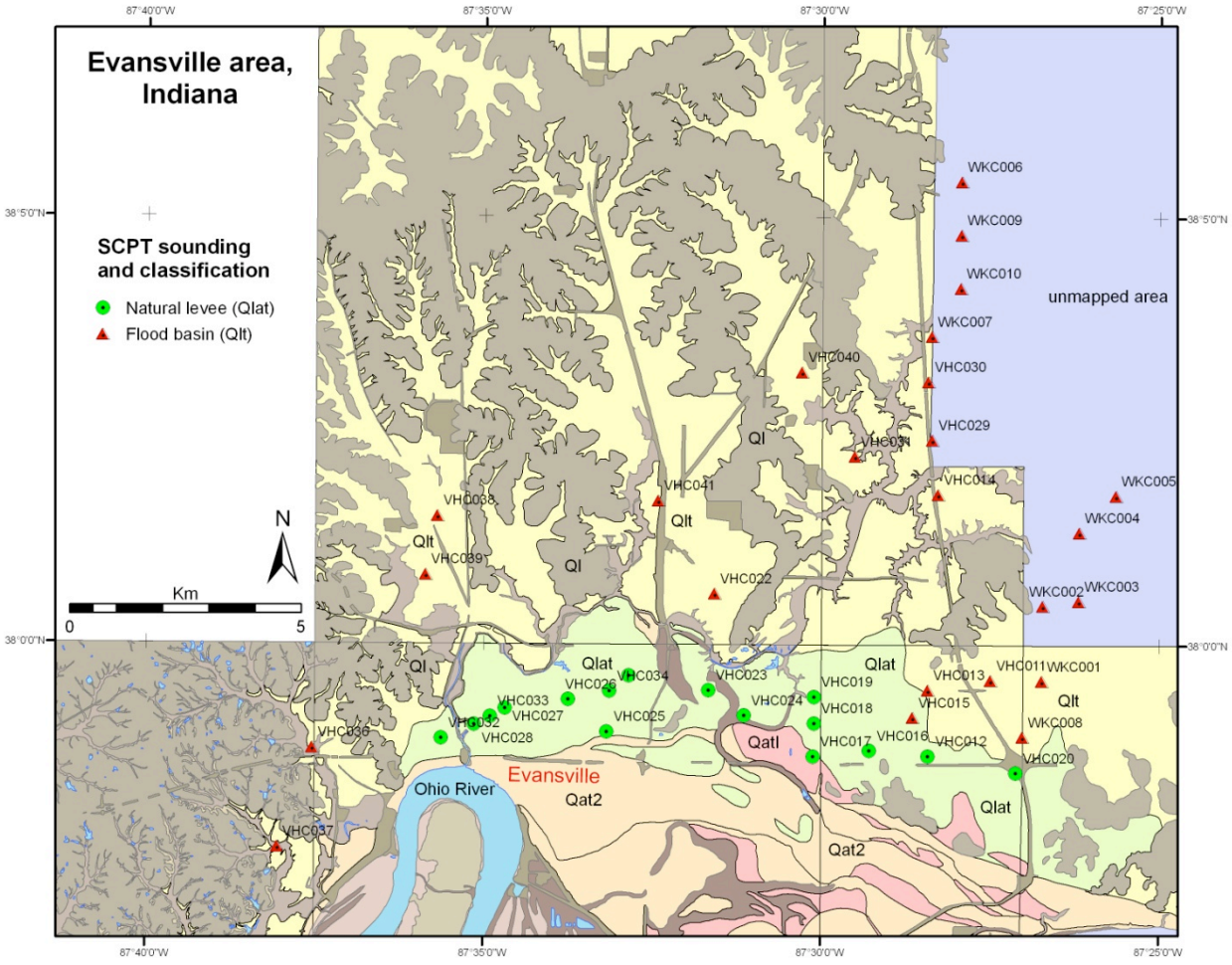


Figure 17. Area 7, seismic CPT soundings shown on geologic map (Moore and others, 2009) showing the natural levee and floodbasin deposits in Evansville area, Indiana.

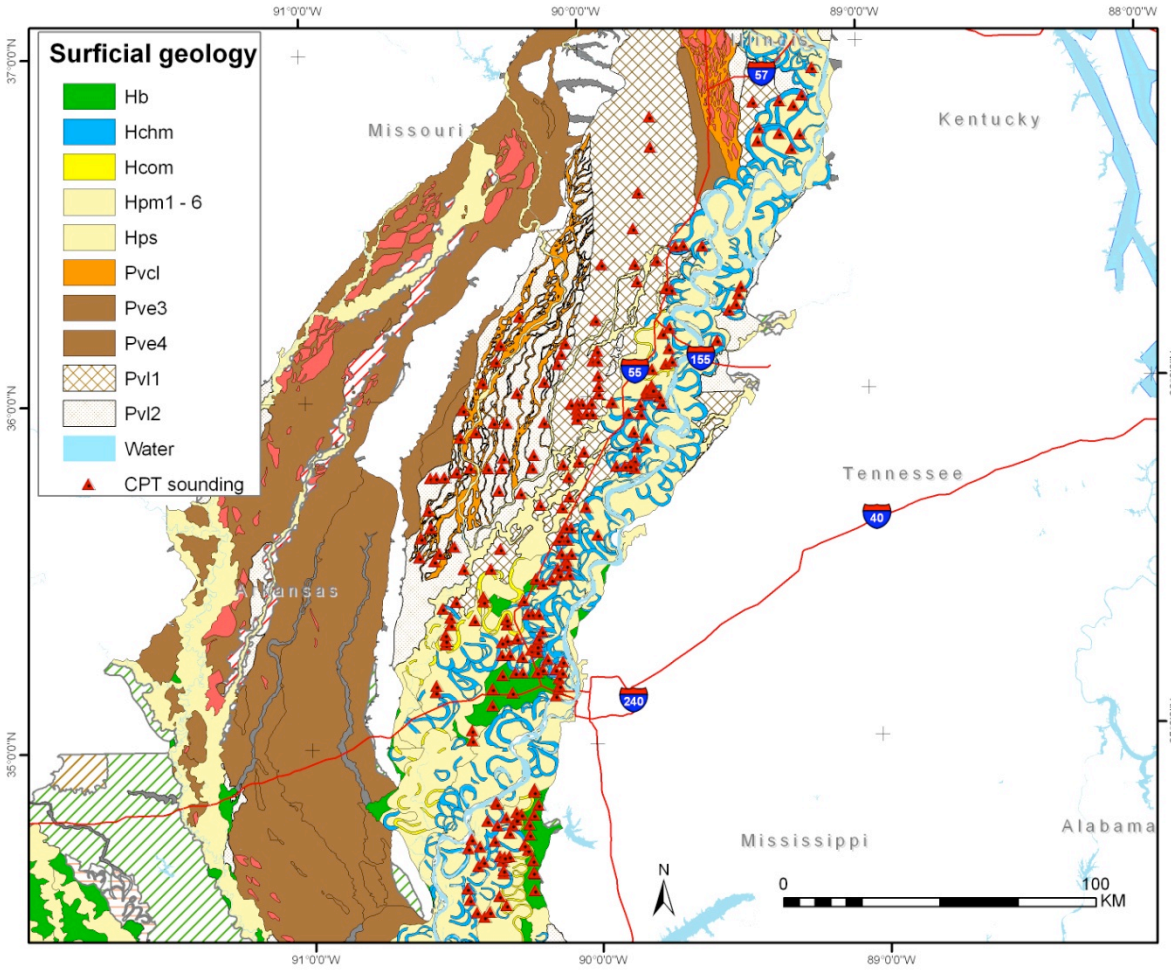


Figure 18. Areas 8 and 16, locations of seismic CPT soundings shown on geologic map (Saucier, 1994b) in the Mississippi embayment showing point bar (Hpm1-6), abandoned channels (Hchm), floodbasin (Hb), and valley train deposits (Pvl1-Pvl2). Sounding identification numbers are shown in figures 19, 20, and 21. Area outside of Mississippi River Valley was not mapped.

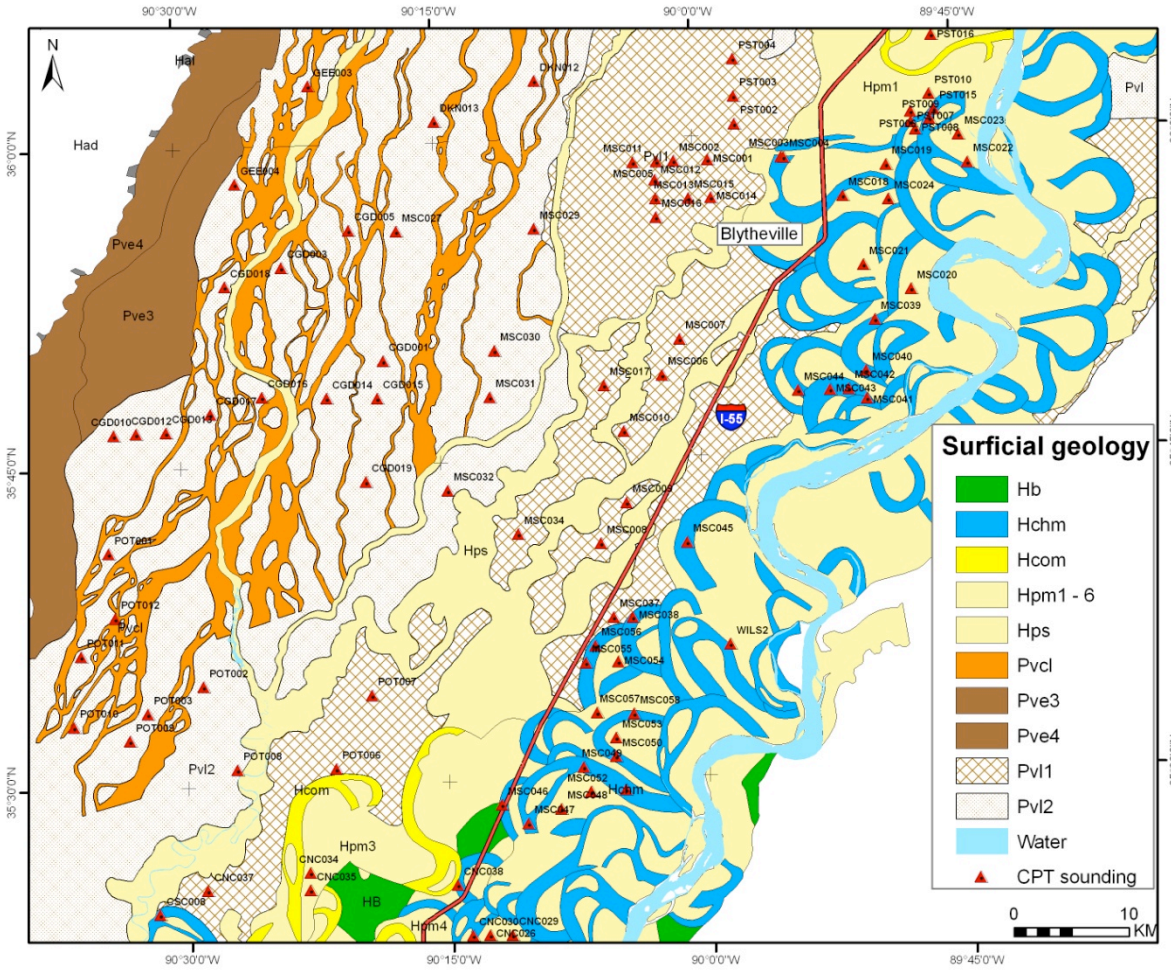


Figure 19. Areas 8 and 16, locations of seismic CPT soundings shown on geologic map (Saucier, 1994b) showing point bar (Hpm1-6), abandoned channel (Hchm), floodbasin (Hb), and valley train (Pvl1-Pvl2) deposits in the Mississippi embayment, central Arkansas. Area outside of Mississippi River Valley was not mapped.

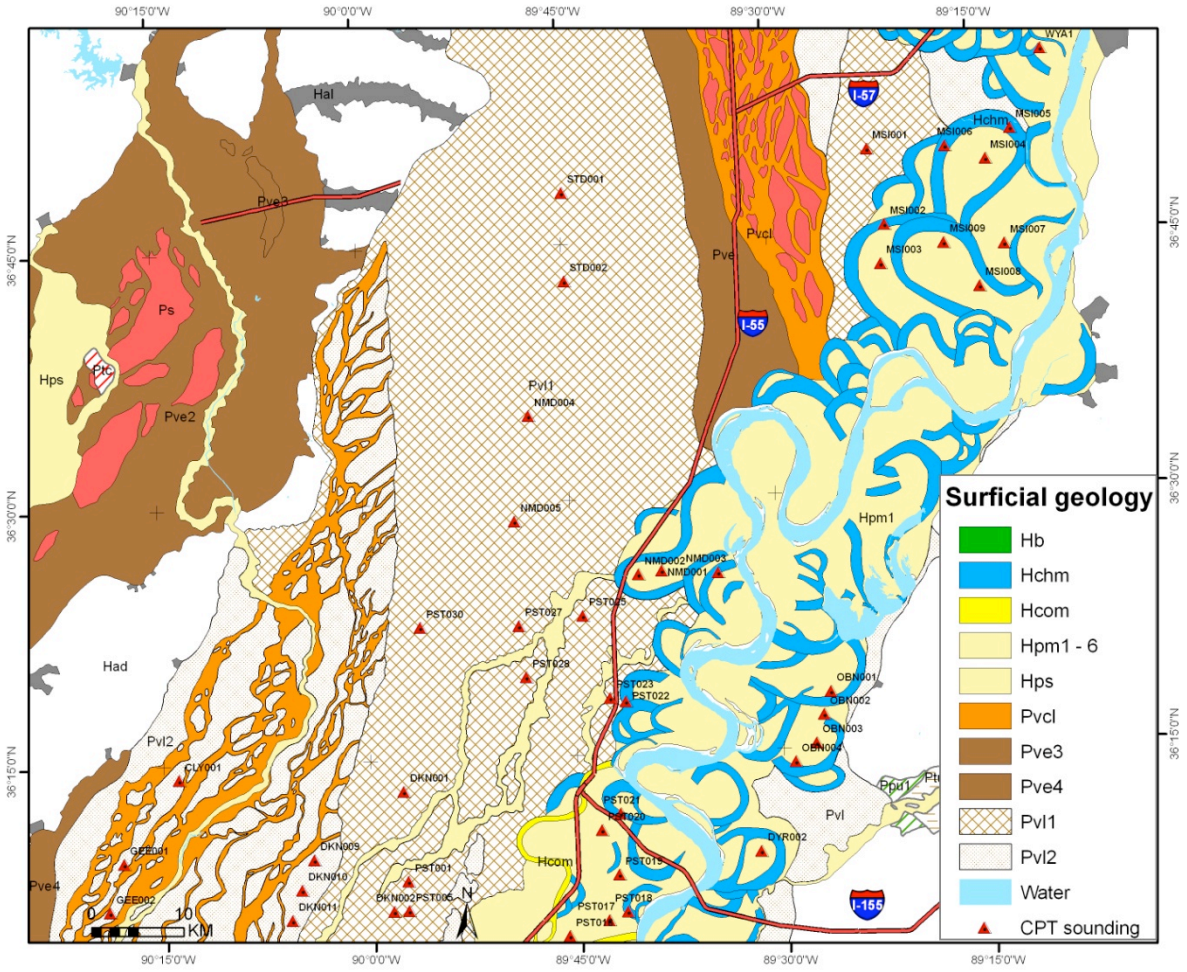


Figure 20. Areas 8 and 16, locations of seismic CPT soundings shown on geologic map (Saucier, 1994b) showing point bar (Hpm1-6), abandoned channel (Hchm), floodbasin (Hb), and valley train (Pvl1-Pvl2) deposits in the Mississippi embayment, northern Arkansas. Area outside of Mississippi River Valley was not mapped**.**

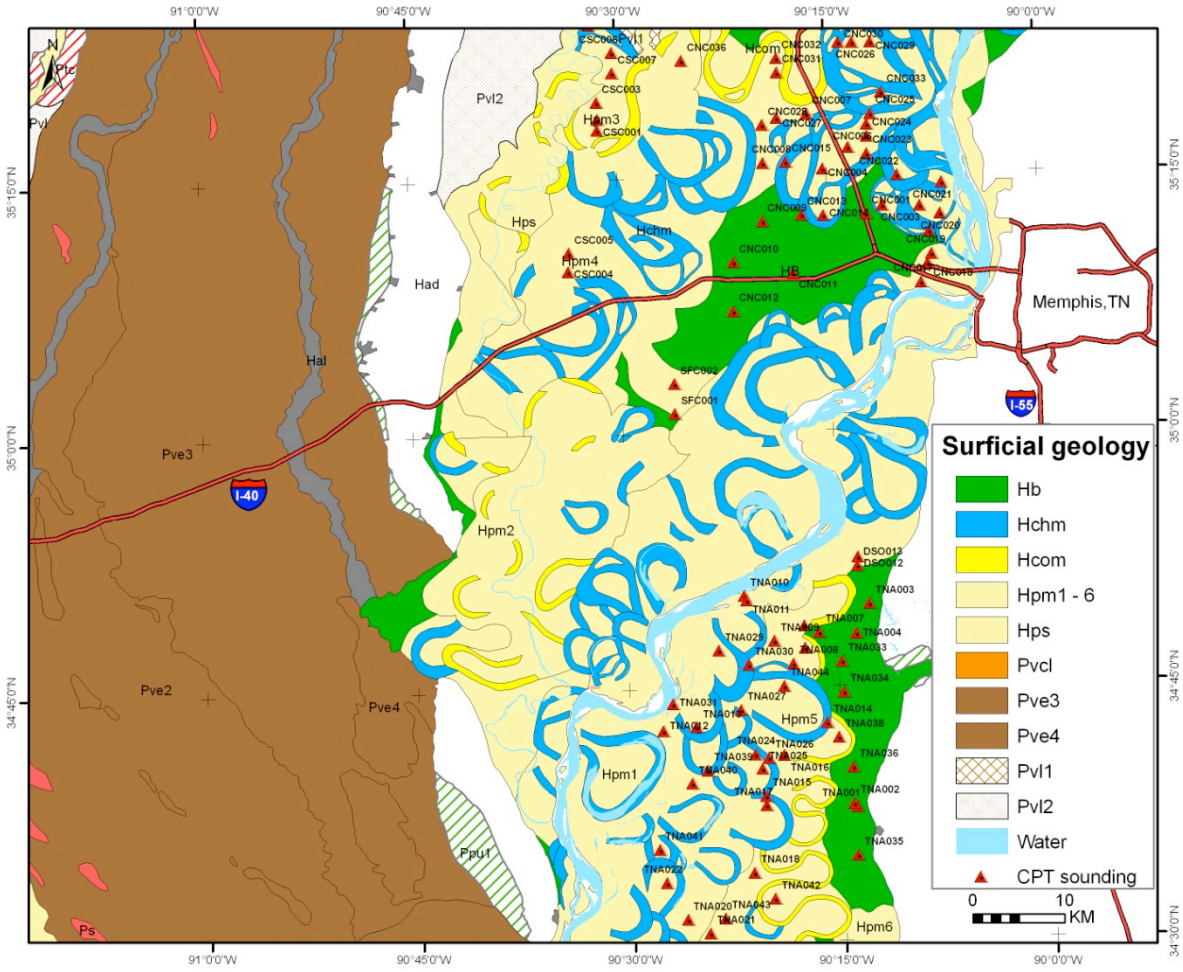


Figure 21. Area 8, locations of seismic CPT soundings shown on geologic map (Saucier, 1994b) showing point bar (Hpm1-6), abandoned channel (Hchm), floodbasin (Hb), and valley train (Pvl2) deposits in the Mississippi embayment, southern Arkansas. Area outside of Mississippi River Valley was not mapped.

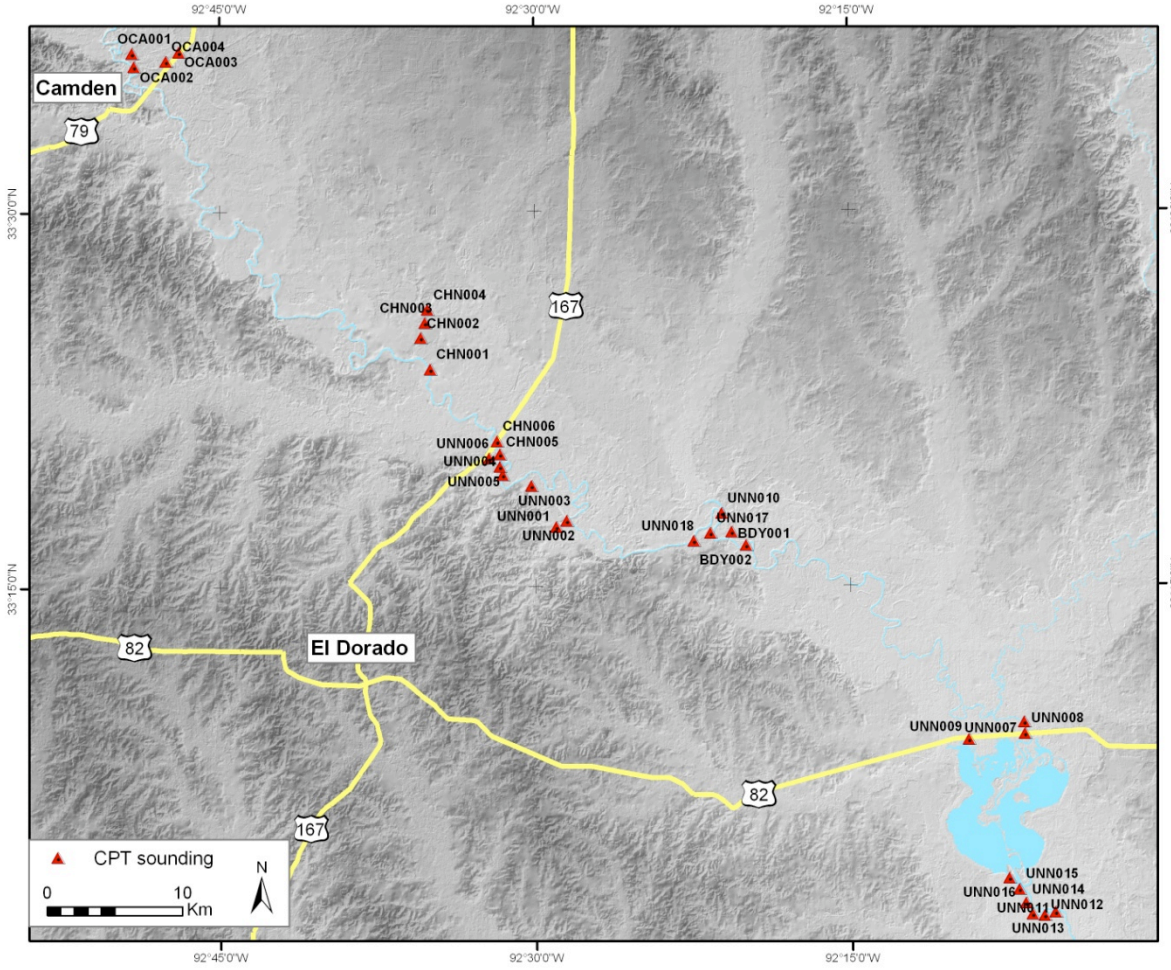


Figure 22. Area 9, location map of seismic CPT soundings along the Ouachita River, Ark. Geologic maps with sounding locations are shown in figures 23-26.

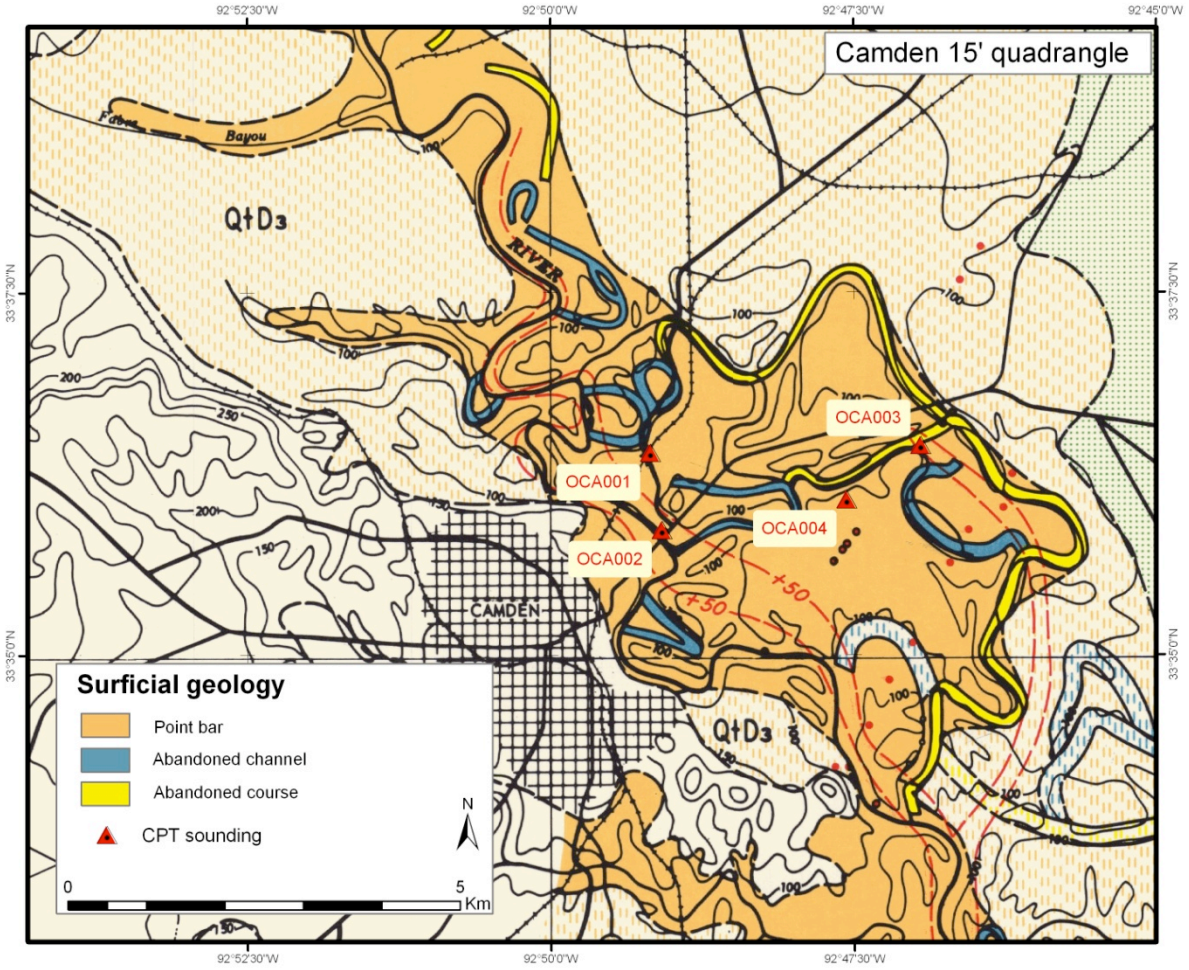


Figure 23. Area 9, locations of seismic CPT soundings shown on geologic map (Saucier and Smith, 1986) with point bar deposits near Camden, Ouachita River, Ark.

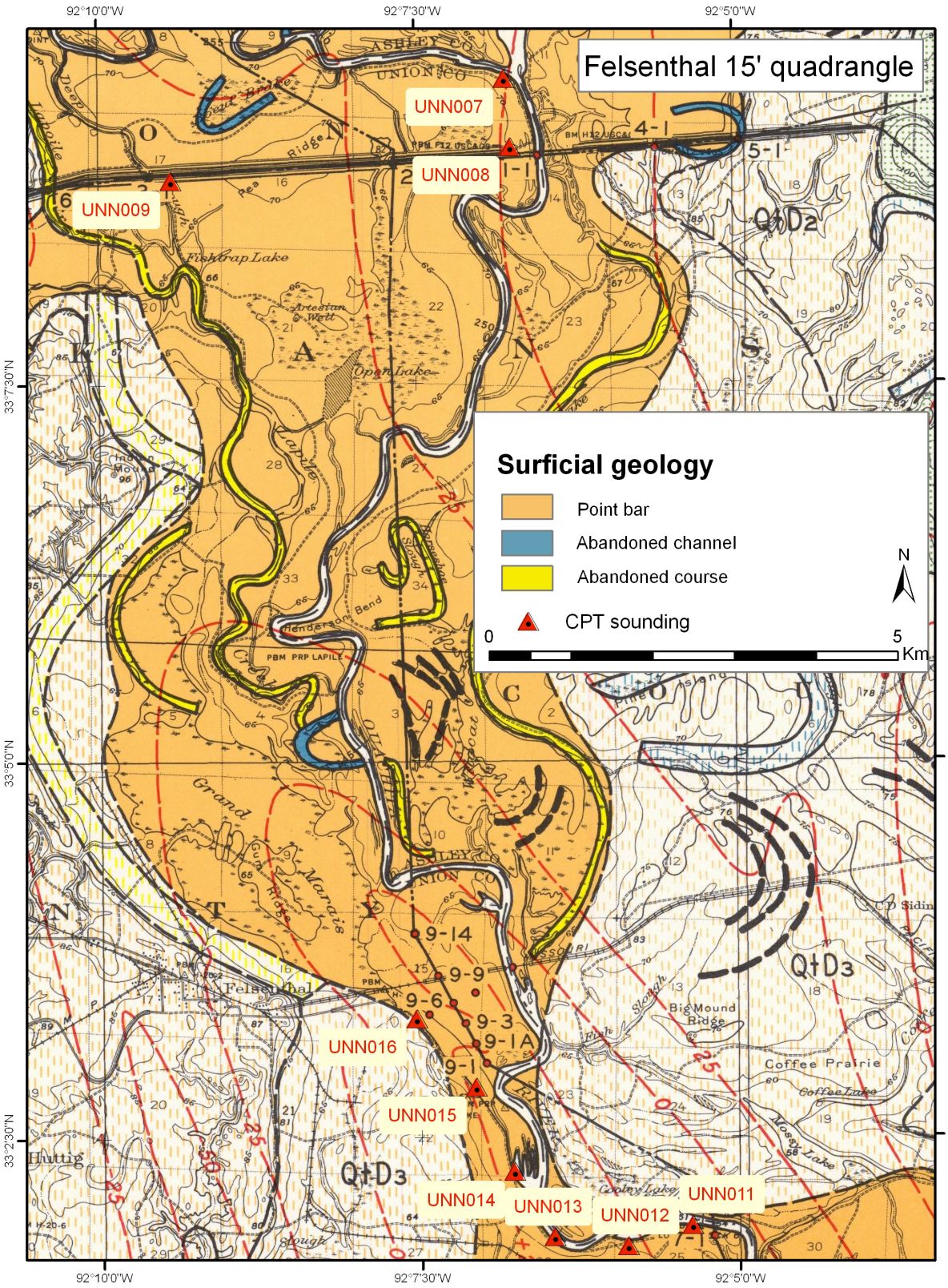


Figure 24. Area 9, locations of seismic CPT soundings shown on geologic map (Saucier and Smith, 1986) with point bar deposits near Felsenthal, Ouachita River, Ark.

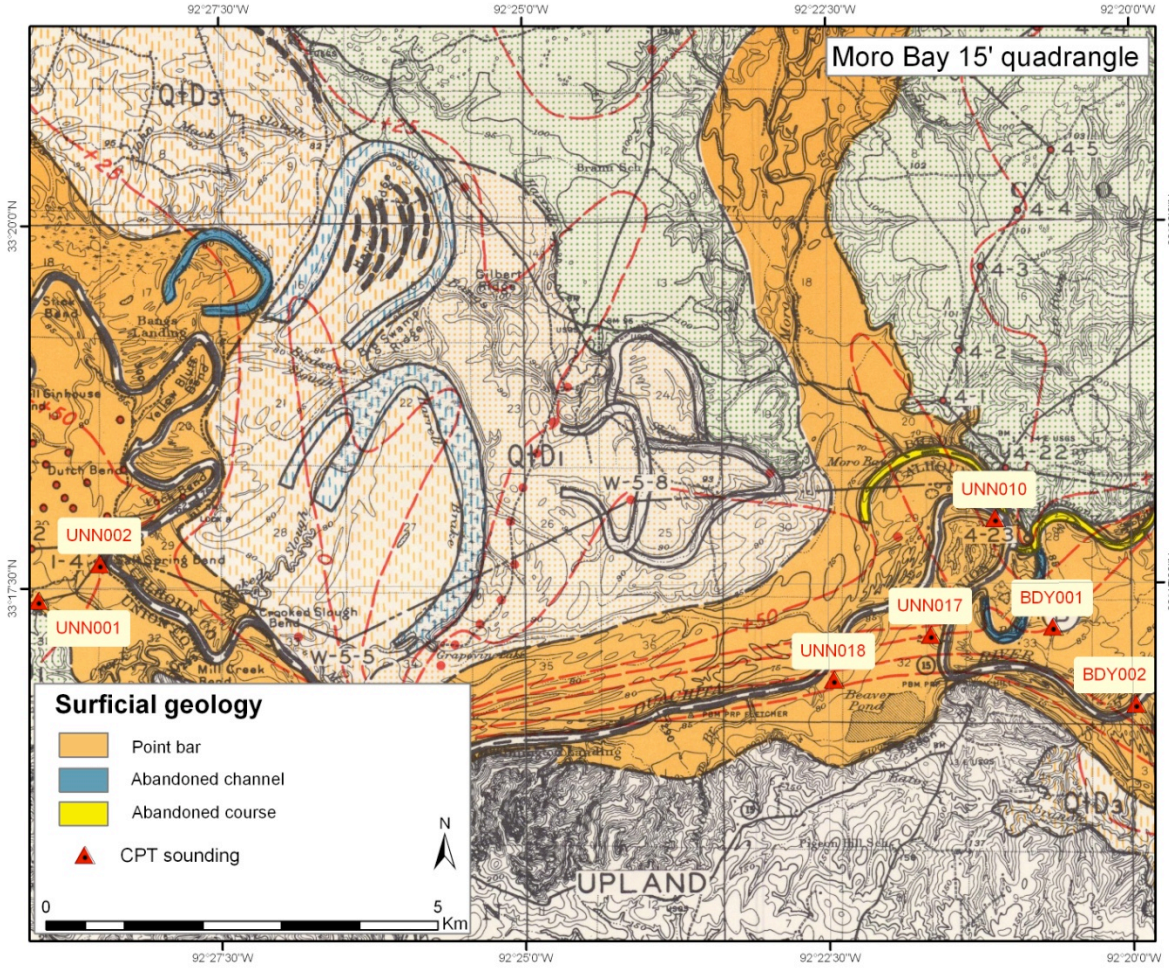


Figure 25. Area 9, locations of seismic CPT soundings shown on geologic map (Saucier and Smith, 1986) with point bar deposits near Moro Bay, Ouachita River, Ark.

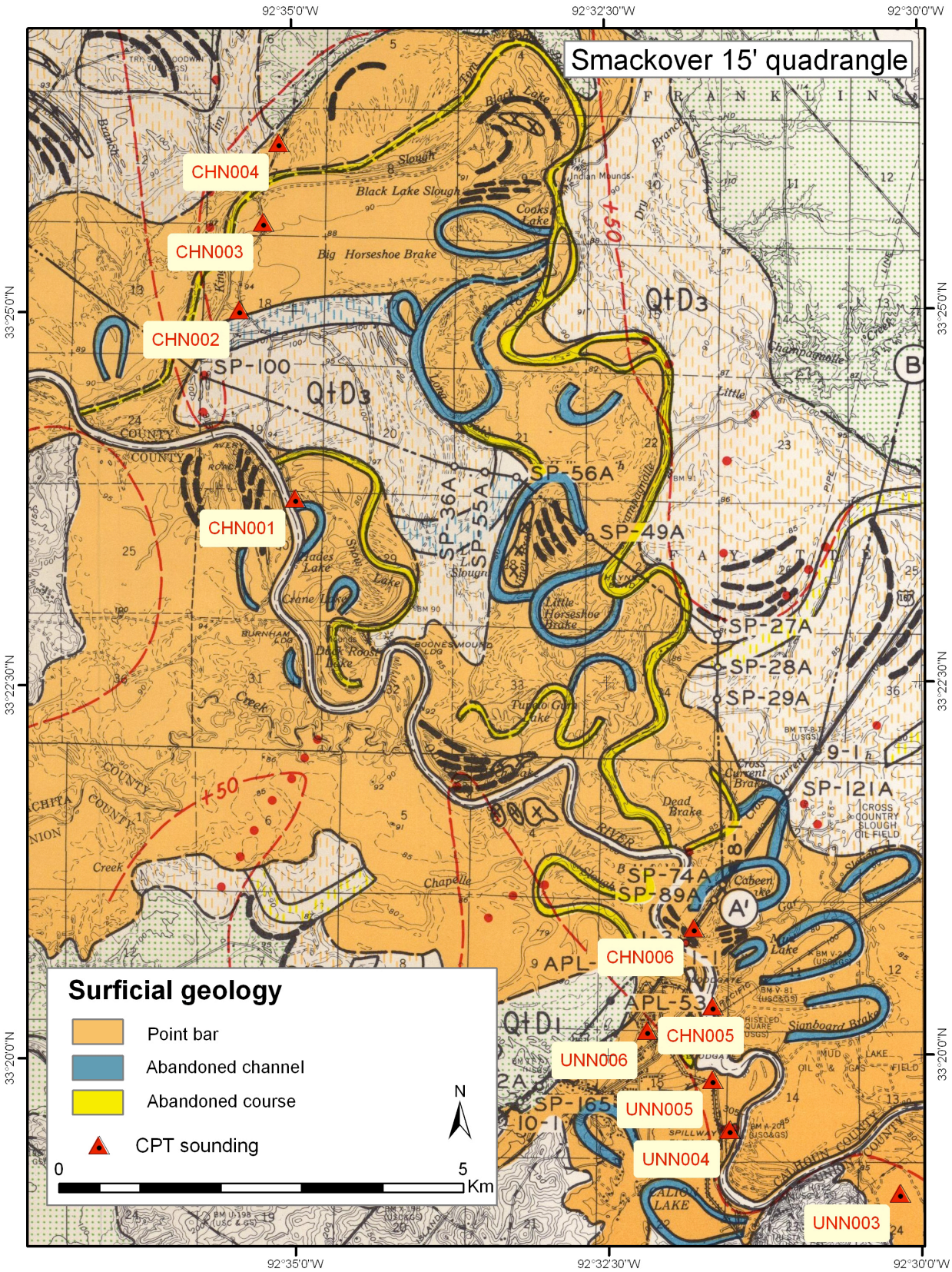


Figure 26. Area 9, locations of seismic CPT soundings shown on geologic map (Saucier and Smith, 1986) with point bar deposits near Smackover, Ouachita River, Ark. Red dots and red contour lines are not part of our study.

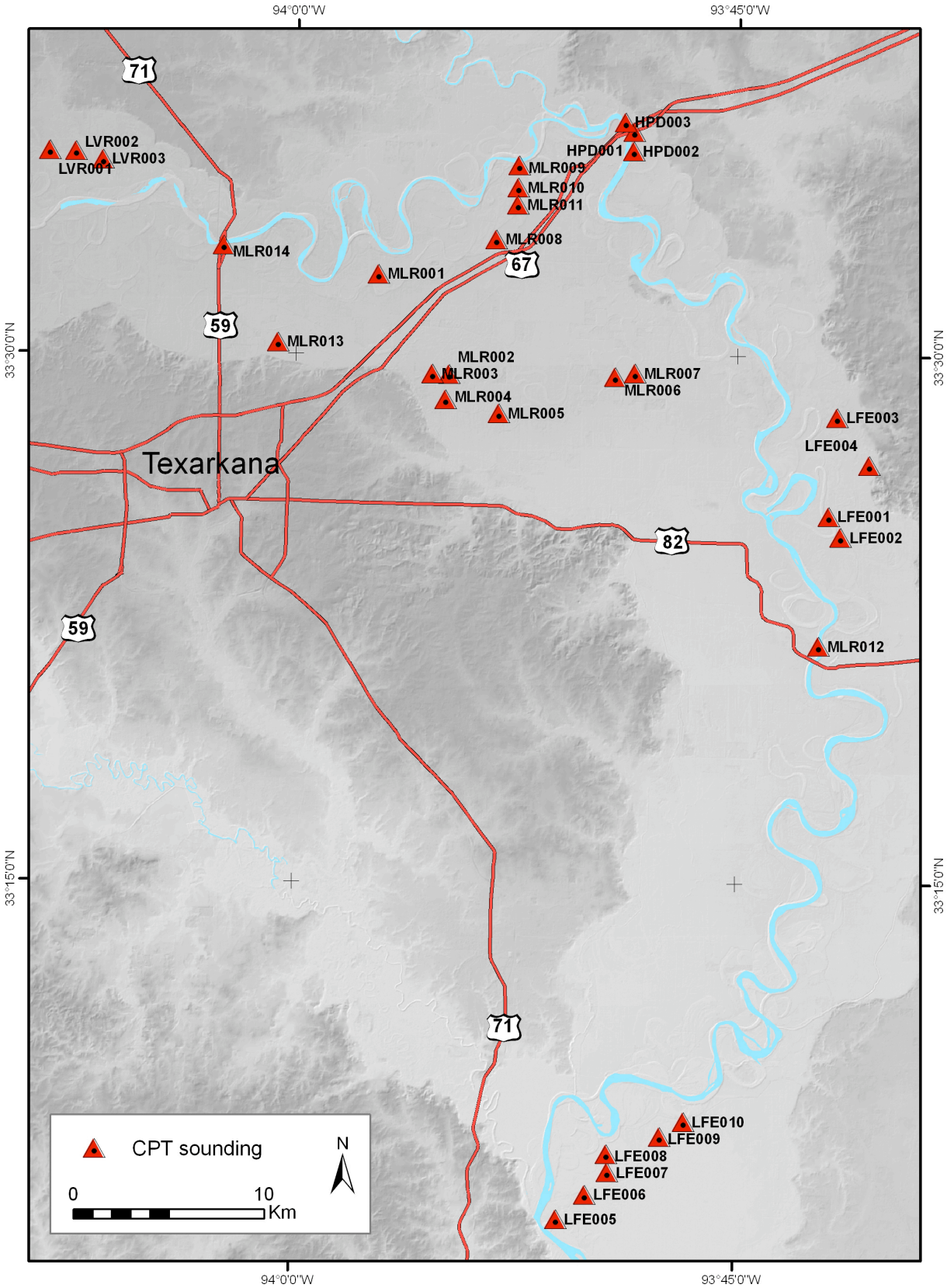


Figure 27. Area 10, location map of seismic CPT soundings along the Red River, Ark. Geologic maps with sounding locations are shown in figures 28 to 32.

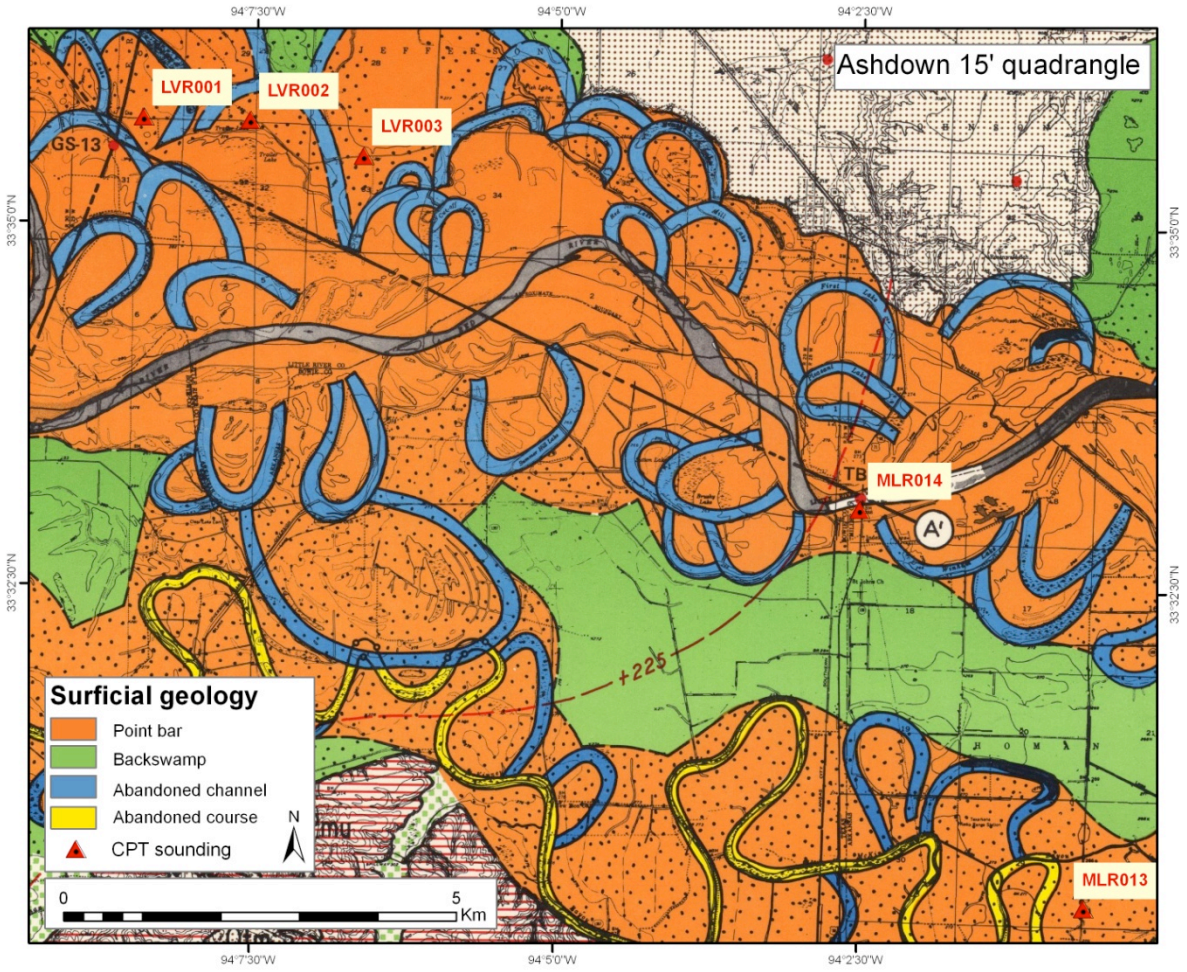


Figure 28. Area 10, seismic CPT sounding locations shown on geologic map (Schultz and Krinitzsky, 1950) with point bar deposits near Ashdown, Red River, Ark.

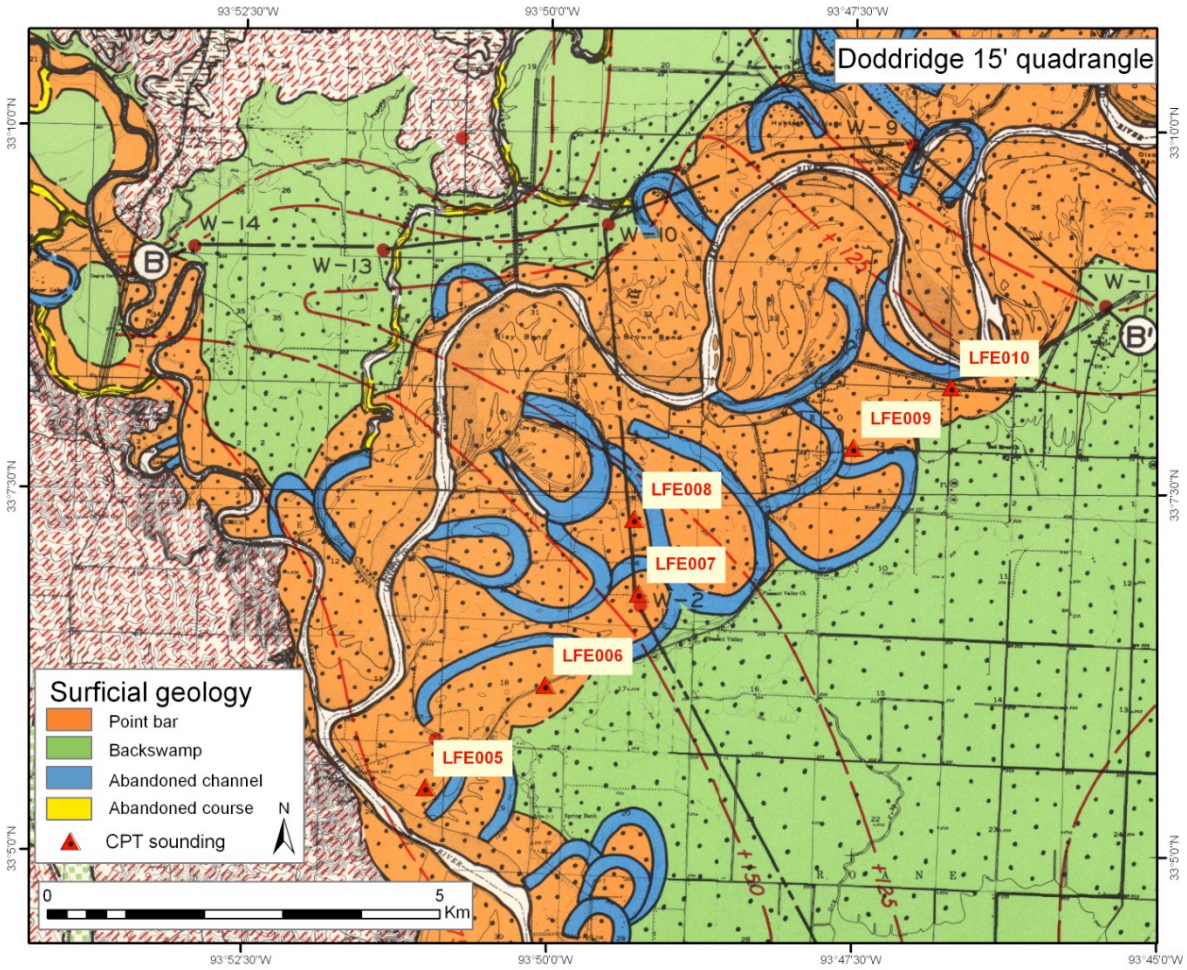


Figure 29. Area 10, seismic CPT sounding locations shown on geologic map (Schultz and Krinitzsky, 1950) showing point bar deposits near Doddridge, Red River, Ark.

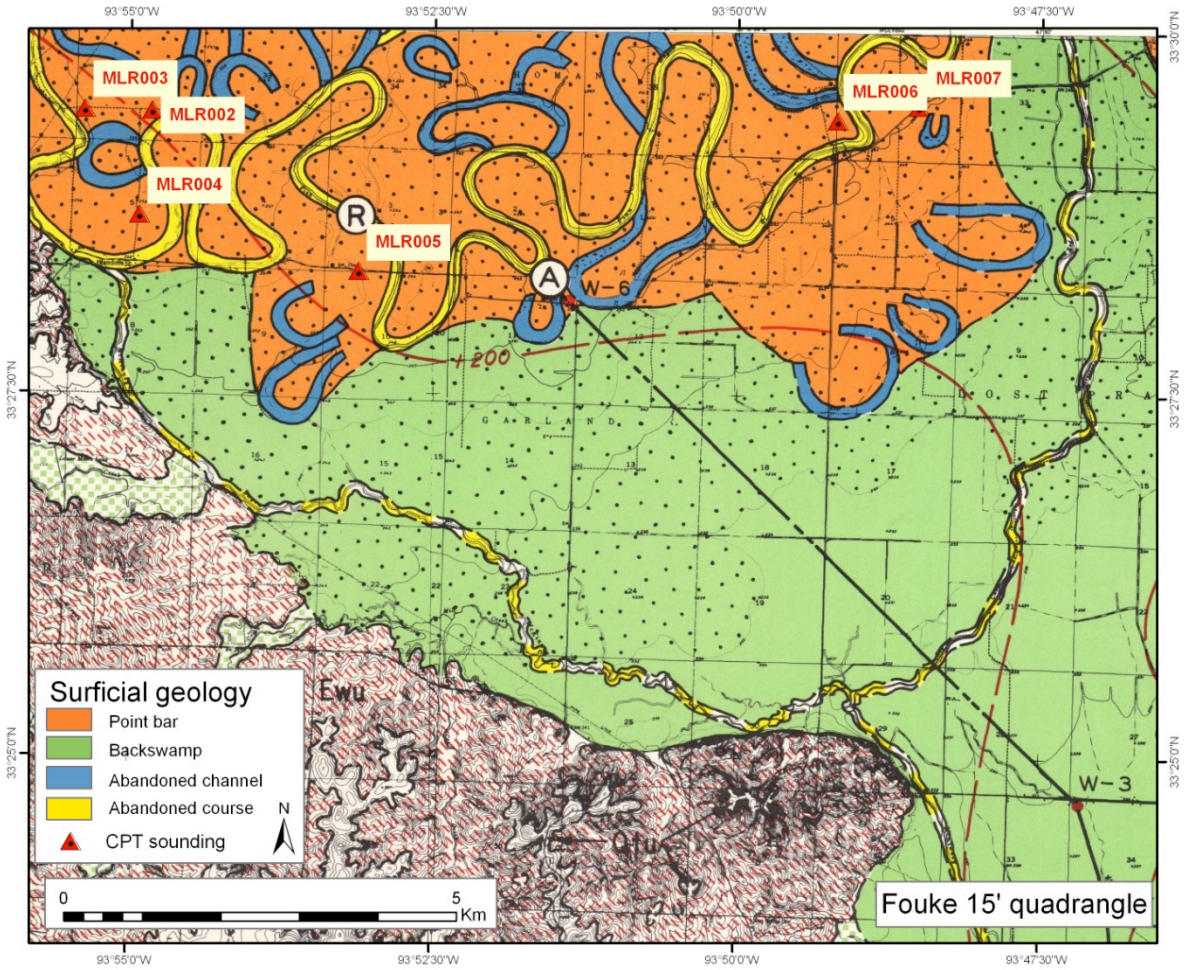


Figure 30. Area 10, locations of seismic CPT soundings shown on geologic map (Schultz and Krinitzsky, 1950) showing point bar deposits near Fouke, Red River, Ark.

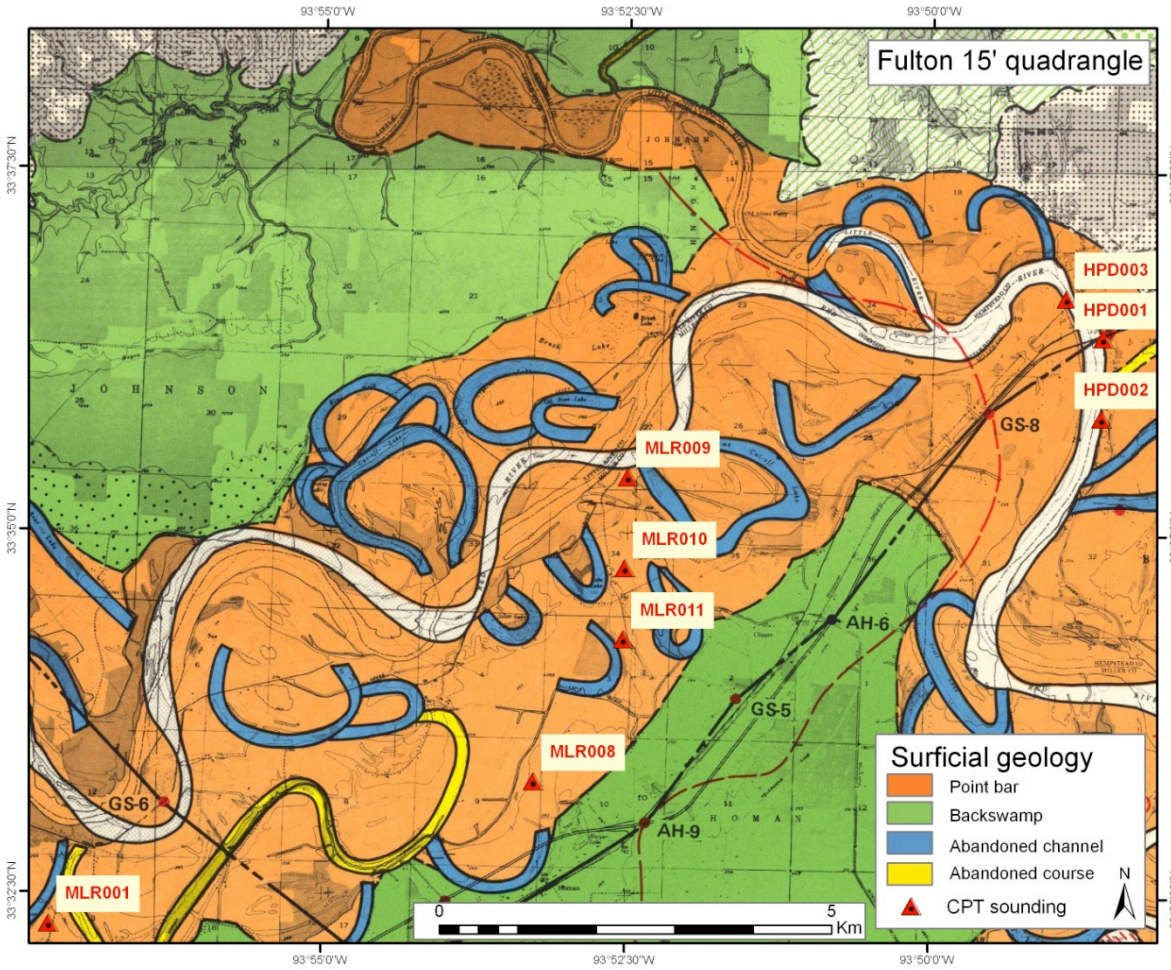


Figure 31. Area 10, locations of seismic CPT soundings shown on geologic map (Schultz and Krinitzsky, 1950) showing point bar deposits near Fulton, Red River, Ark.

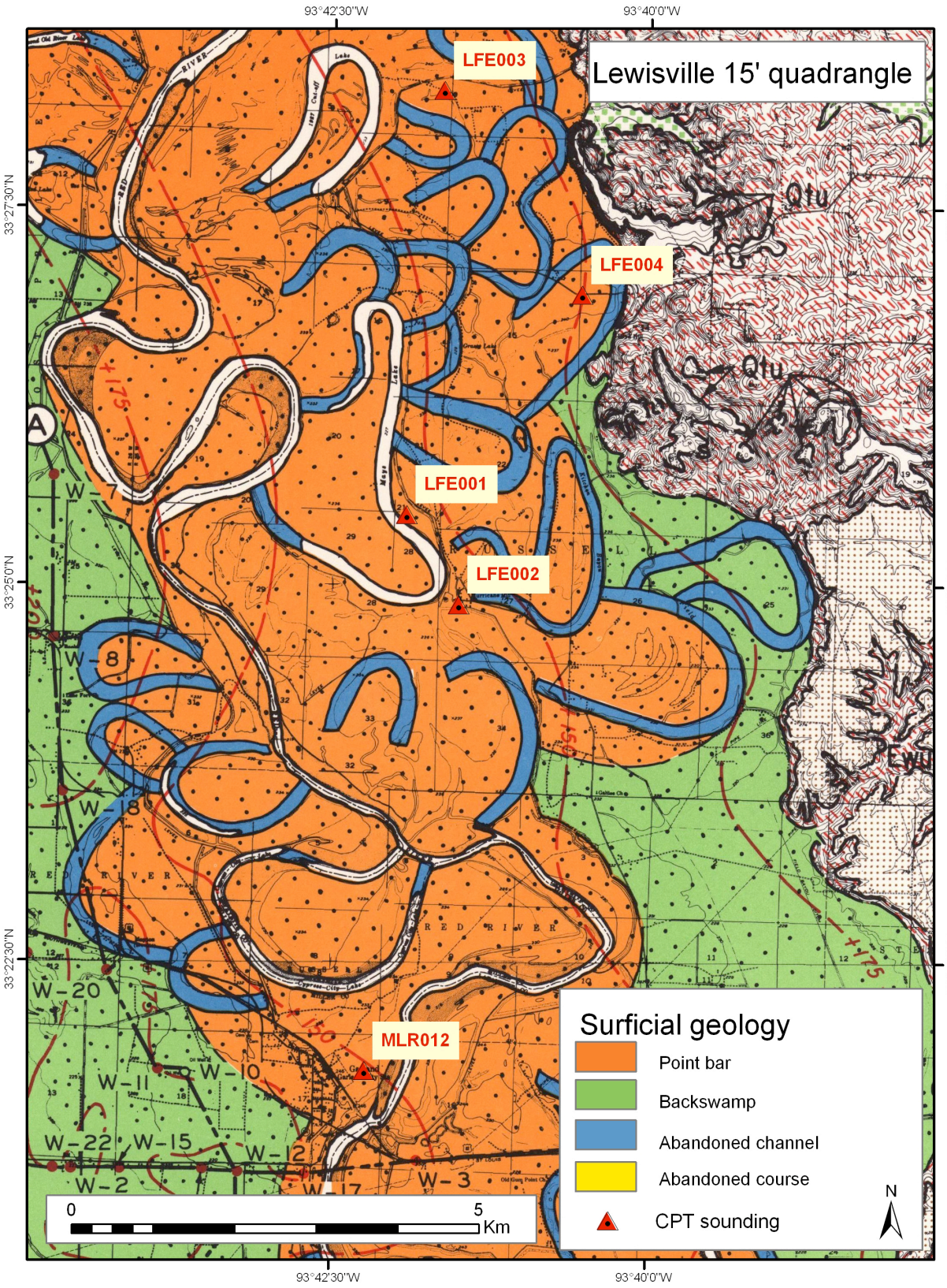


Figure 32. Area 10, locations of seismic CPT soundings shown on geologic map (Schultz and Krinitzsky, 1950) showing point bar deposits near Lewisville, Red River, Ark.

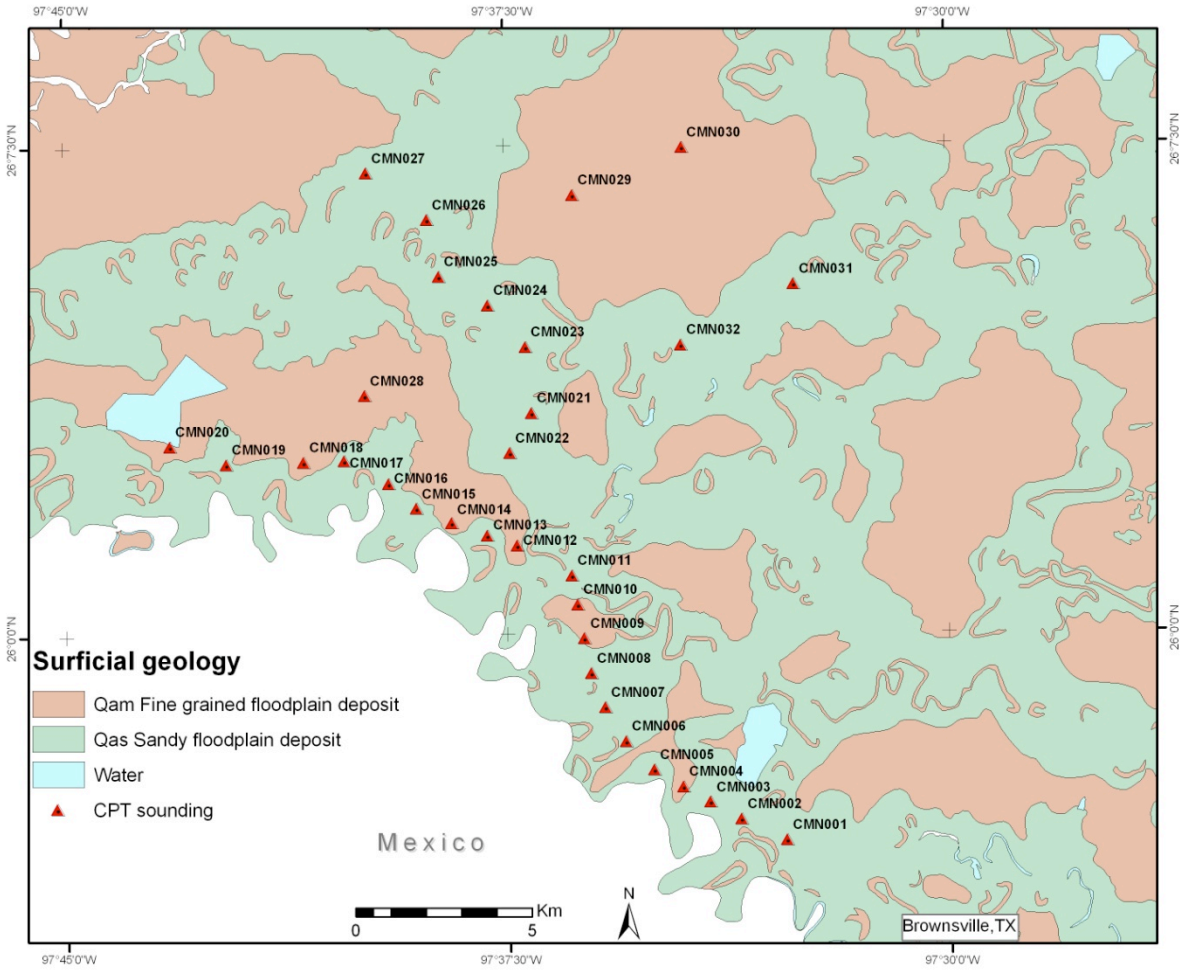


Figure 33. Area 11, locations of seismic CPT soundings shown on geologic map (Brown and others, 1980) along the Rio Grande River, Tex.

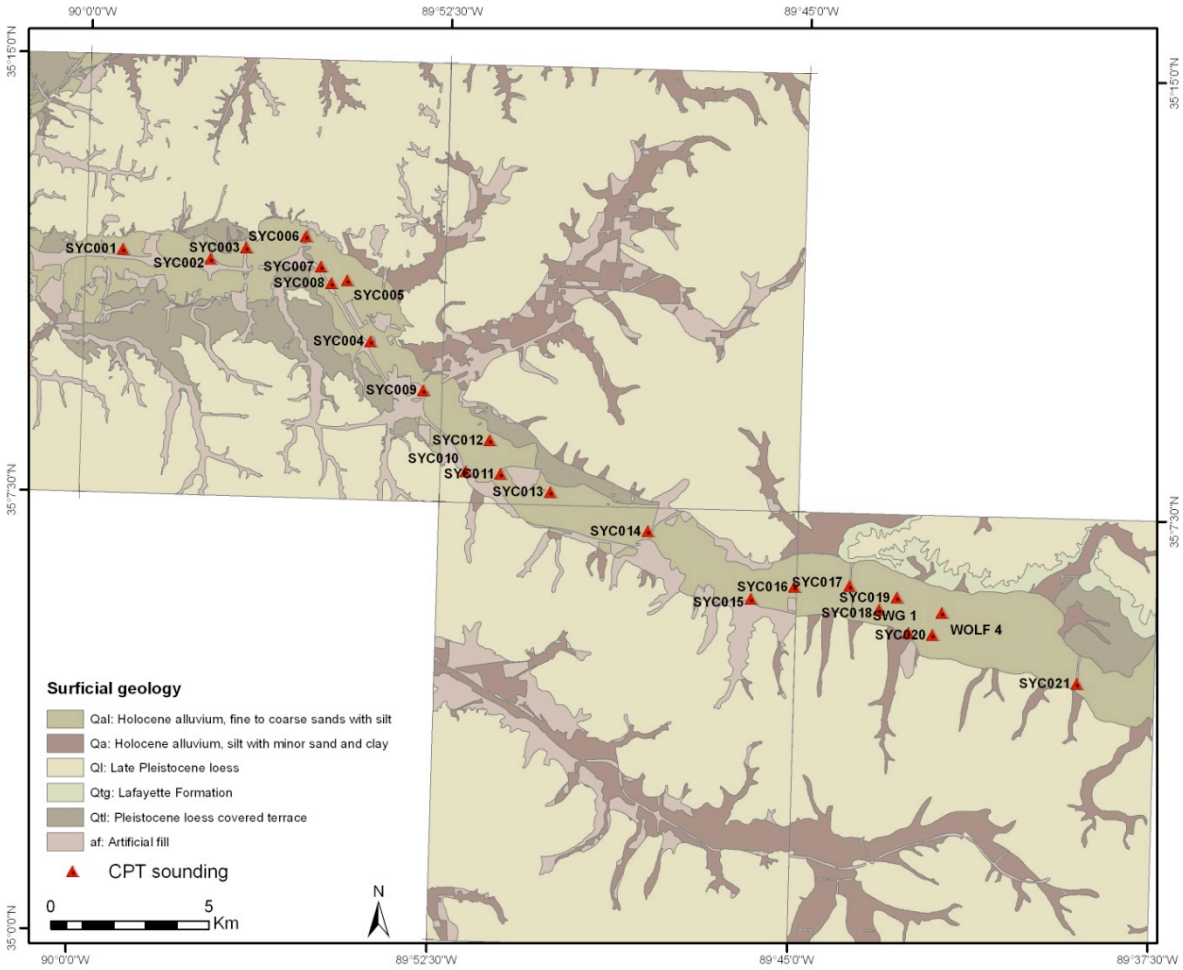


Figure 34. Area 12, Locations of seismic CPT soundings shown on geologic map (Broughton, 1999; Cox, 2004; Van Arsdale 2004a,b) showing the point bar deposits along the Wolf River, Tenn.

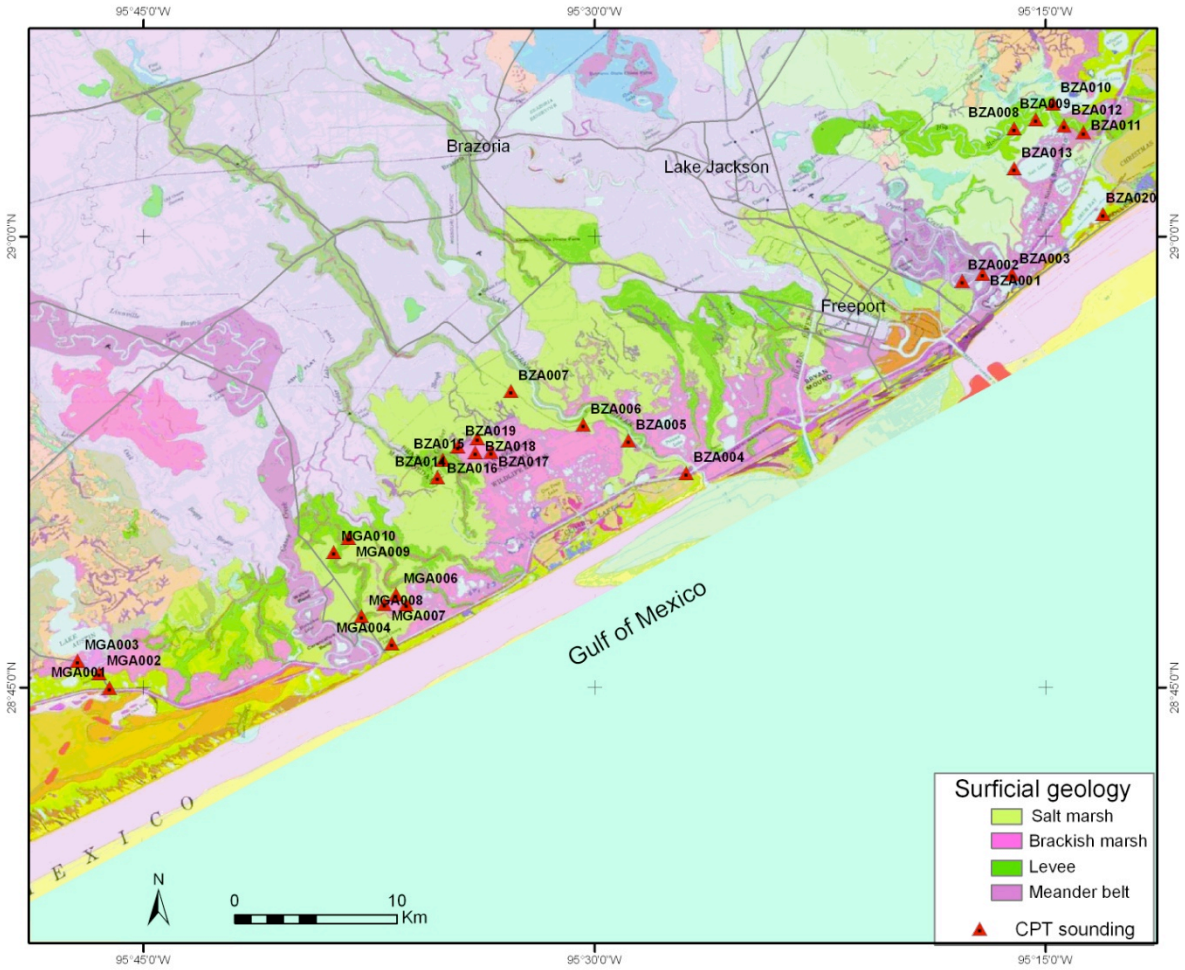


Figure 35. Area 14, Locations of seismic CPT soundings shown on geologic map (Fisher and others, 1972; McGowen and others, 1976) showing lagoonal deposits in Brazoria and Matagorda Counties, Tex.

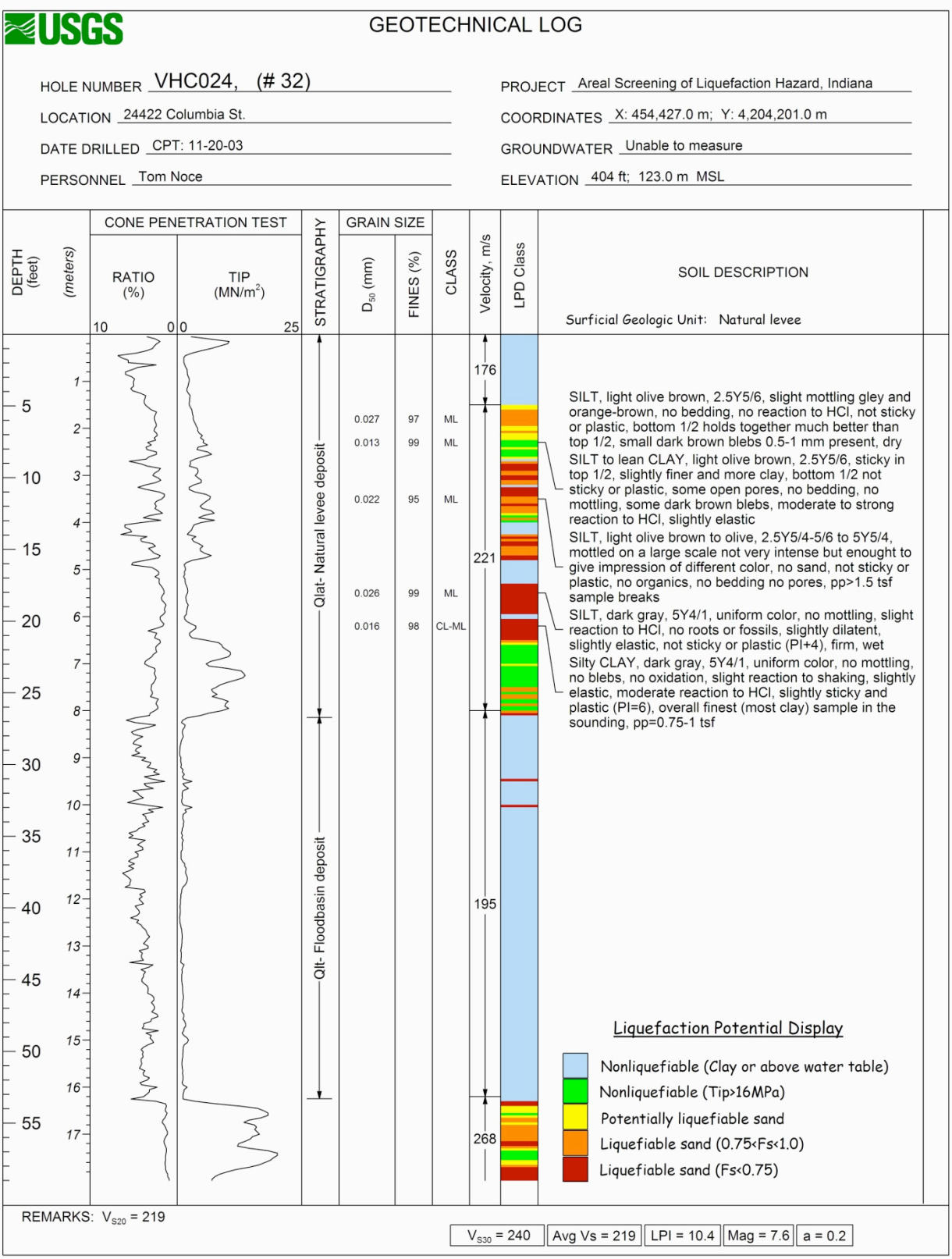


Figure 36. Example geotechnical log (VHC024) from Evansville area, Indiana, with geologic stratigraphy. Liquefaction potential display (LPD class) shows the liquefaction factor of safety for a moment magnitude 7.6 earthquake with a peak ground acceleration of 0.2 g.

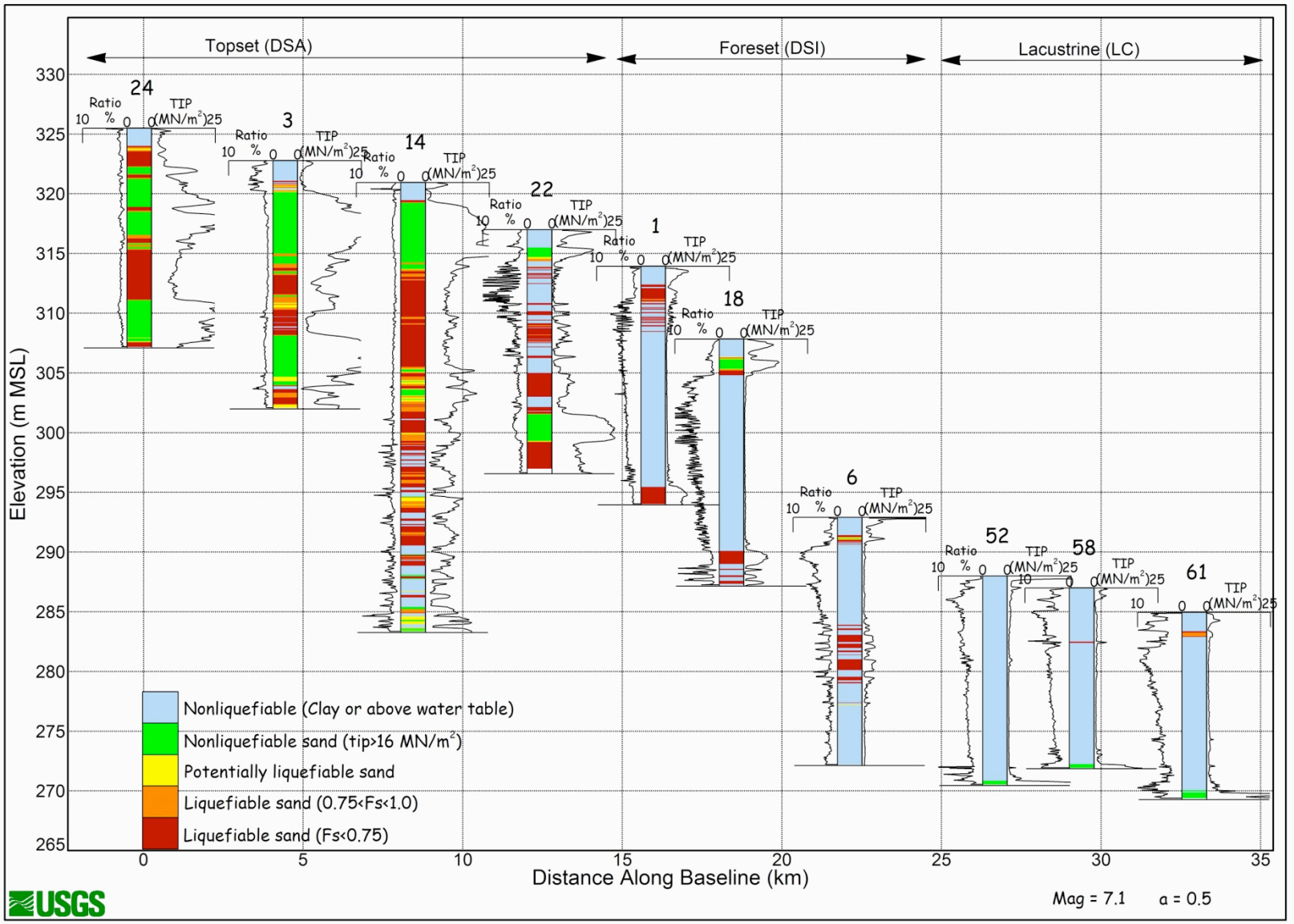


Figure 37. Cross section of the Sheyenne River Delta, N. Dak., showing topset (Area 5), foreset (Area 5), and deep-quiet-water lacustrine (Area 13) deposits. Friction ratio and tip resistance for each sounding are shown along with liquefaction factor of safety for a moment magnitude 7.1 earthquake and peak ground acceleration of 0.5 g.

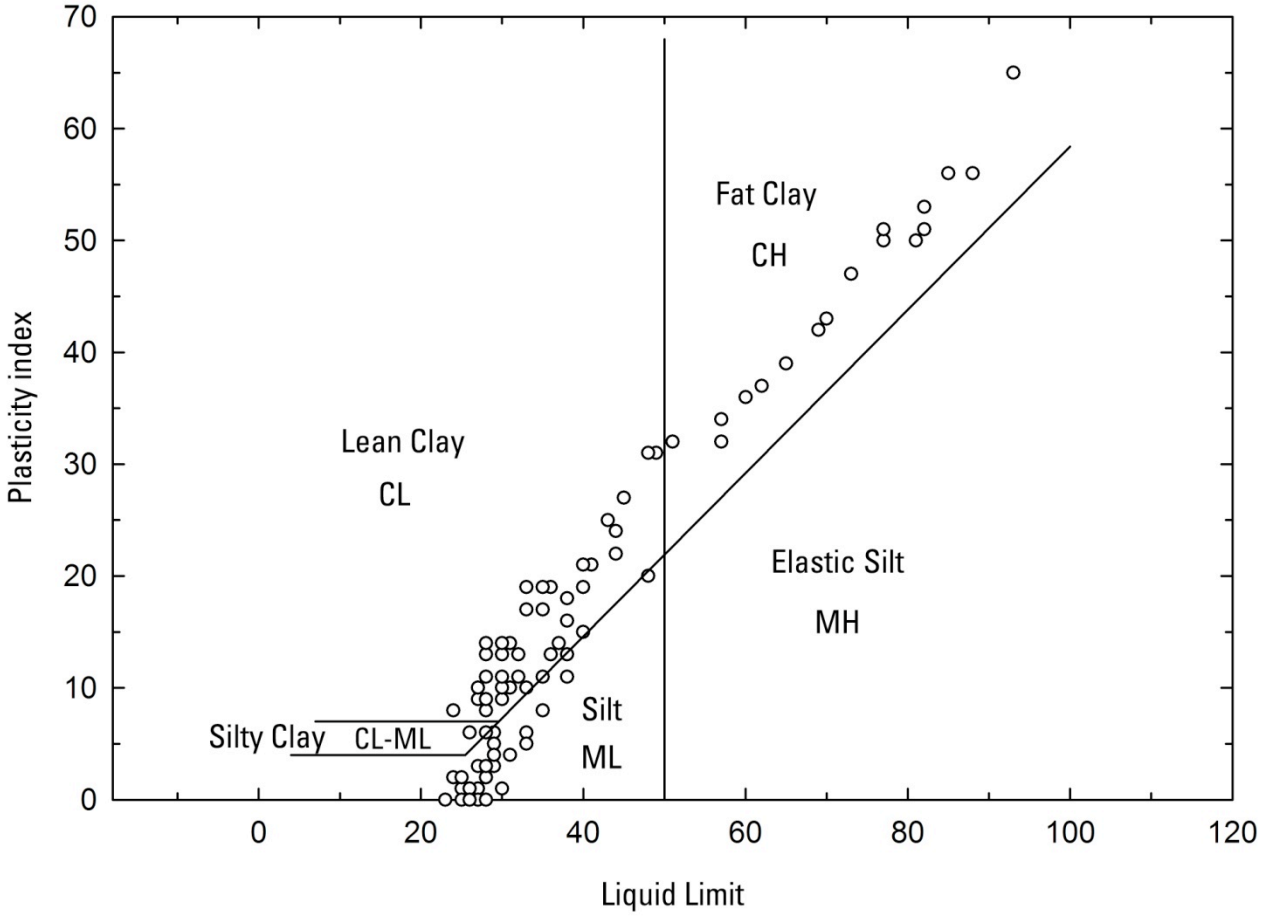


Figure 38. Plasticity chart showing liquid limit and plasticity index of all fine-grained soils that were sampled during the investigation.

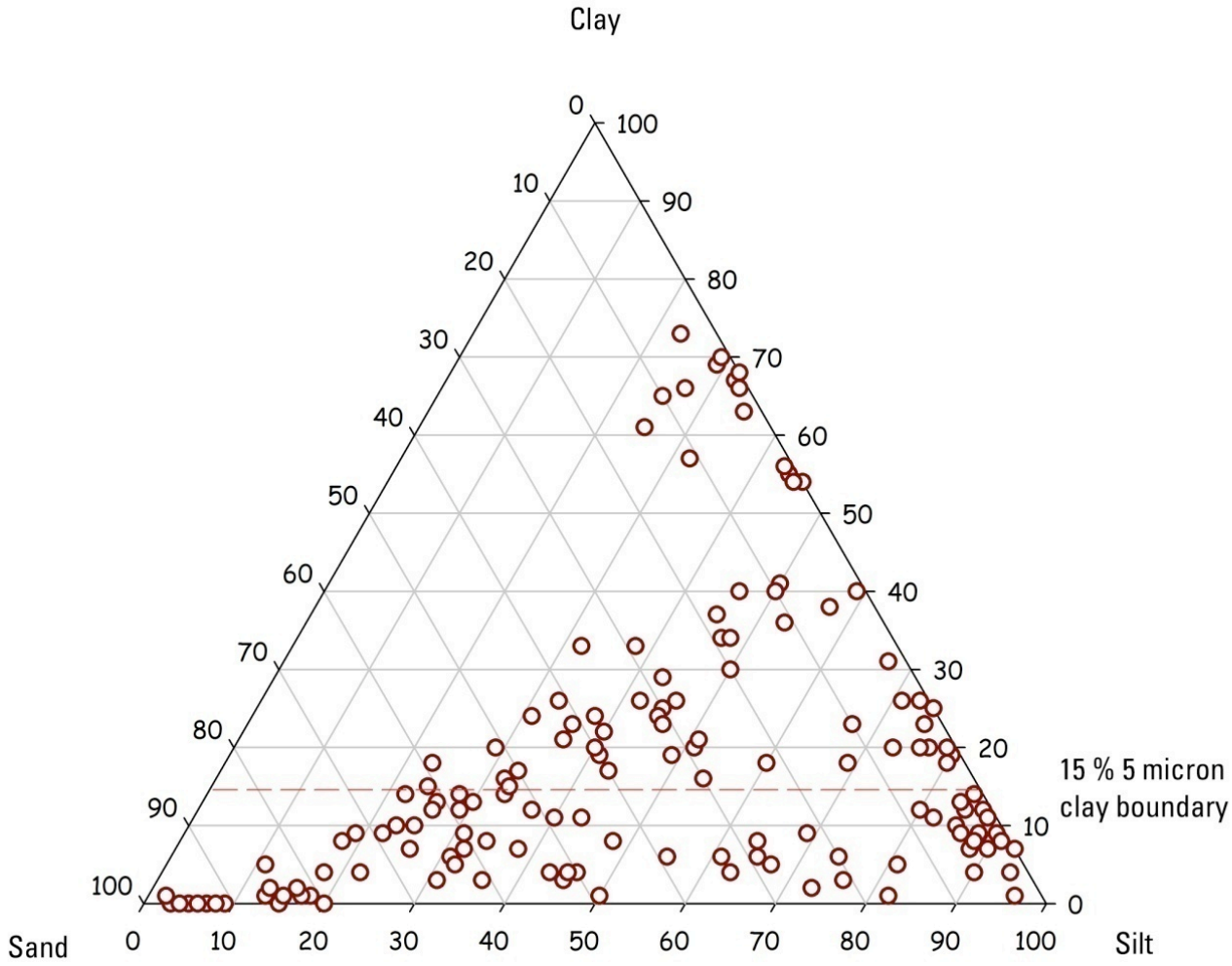


Figure 39. Ternary diagram showing grain-size fractions of all soils that were sampled during the investigation. Soil types ranged from clean sand to silt to clay. Particles less than 5 microns are considered to be clay in the diagram.

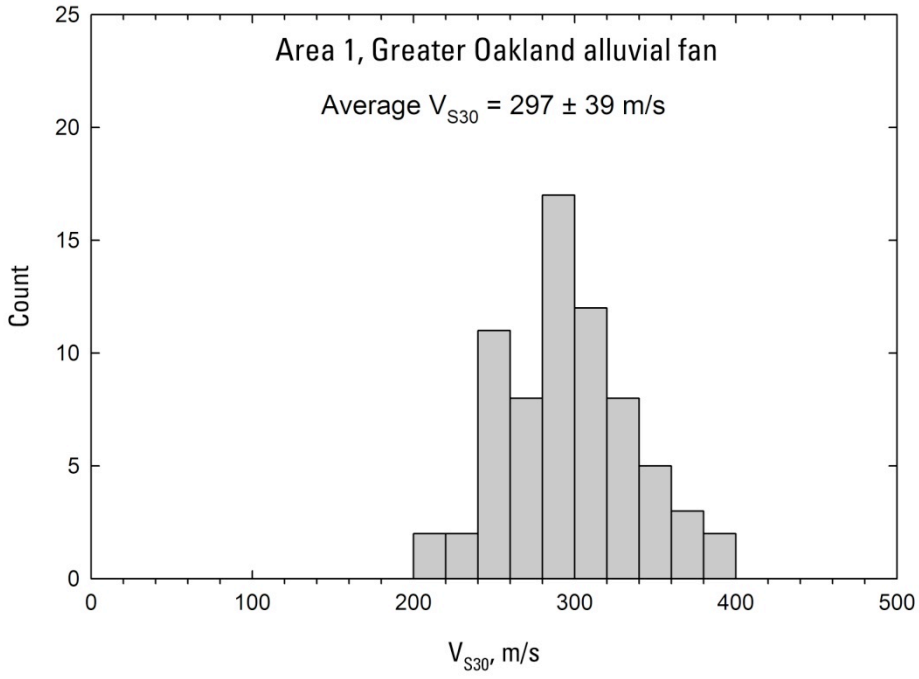


Figure 40. Histogram of V_{S30} for the Holocene alluvial fans in Area 1, Greater Oakland area, California.

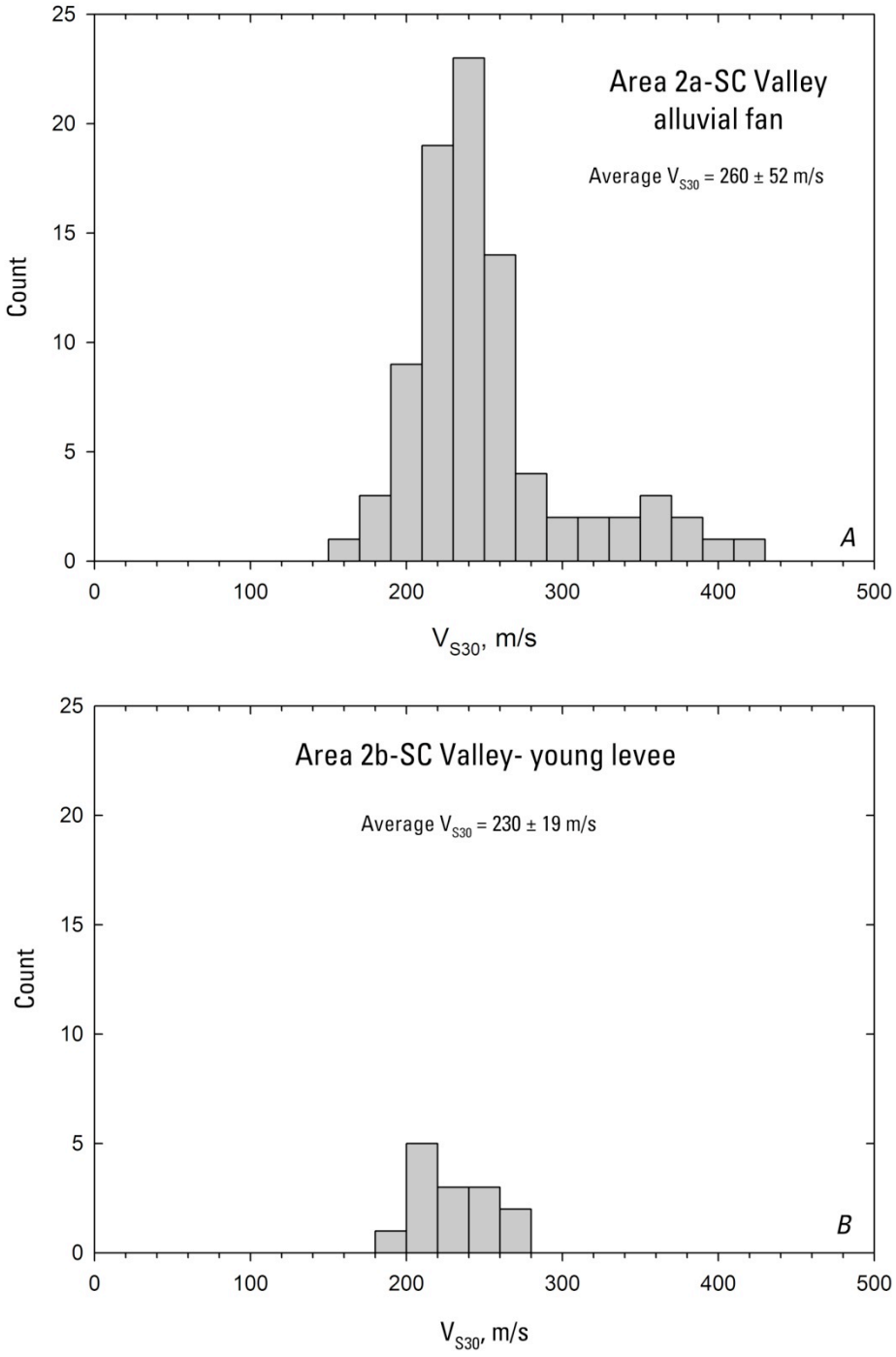


Figure 41. Histograms of V_{S30} in Area 2, Santa Clara Valley, for (*A*) Holocene alluvial fans, and (*B*) young levee deposits.

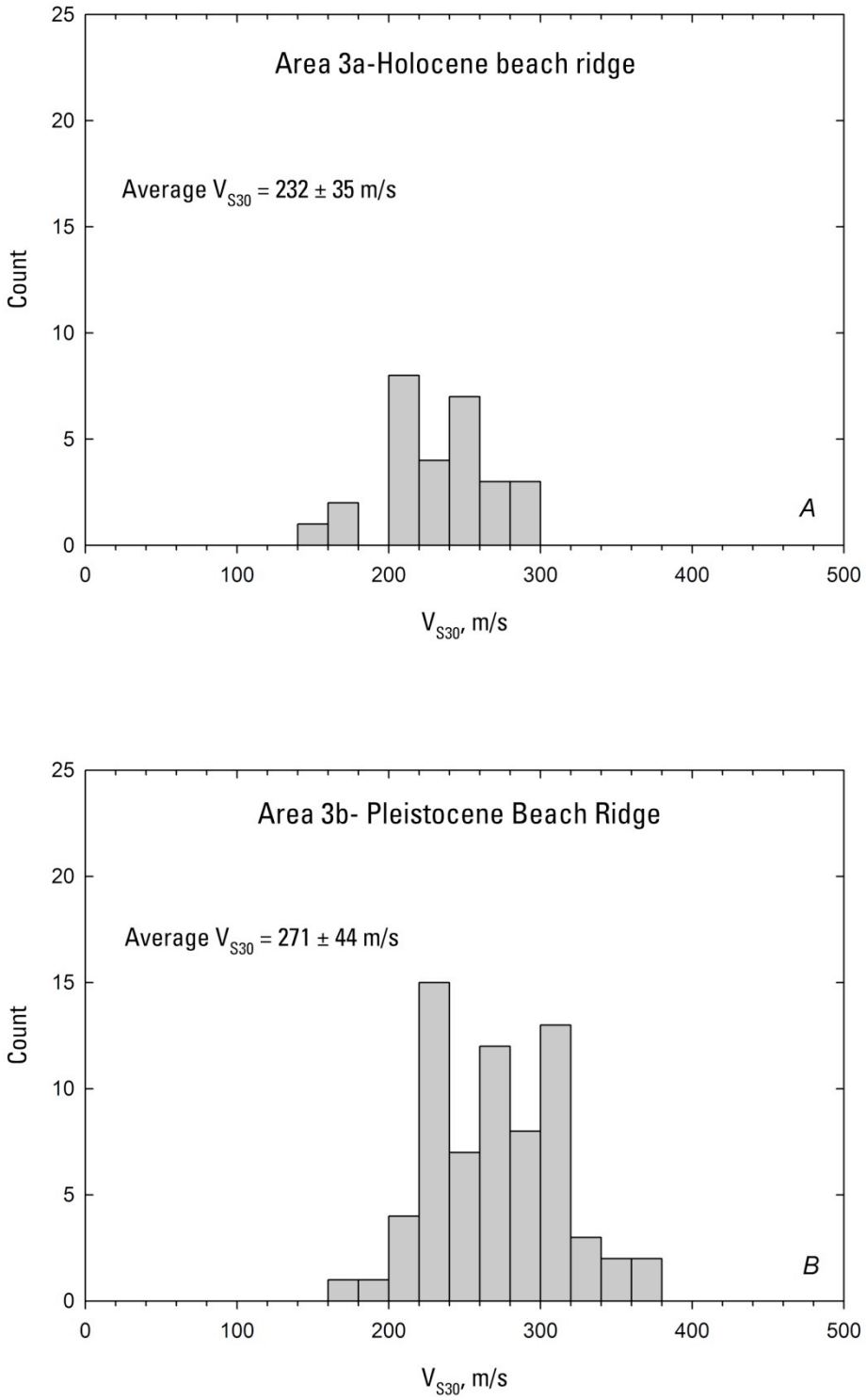


Figure 42. Histograms of V_{S30} in Area 3, greater Charleston area, South Carolina, of (*A*) Holocene beach ridges and (*B*) Pleistocene beach ridges.

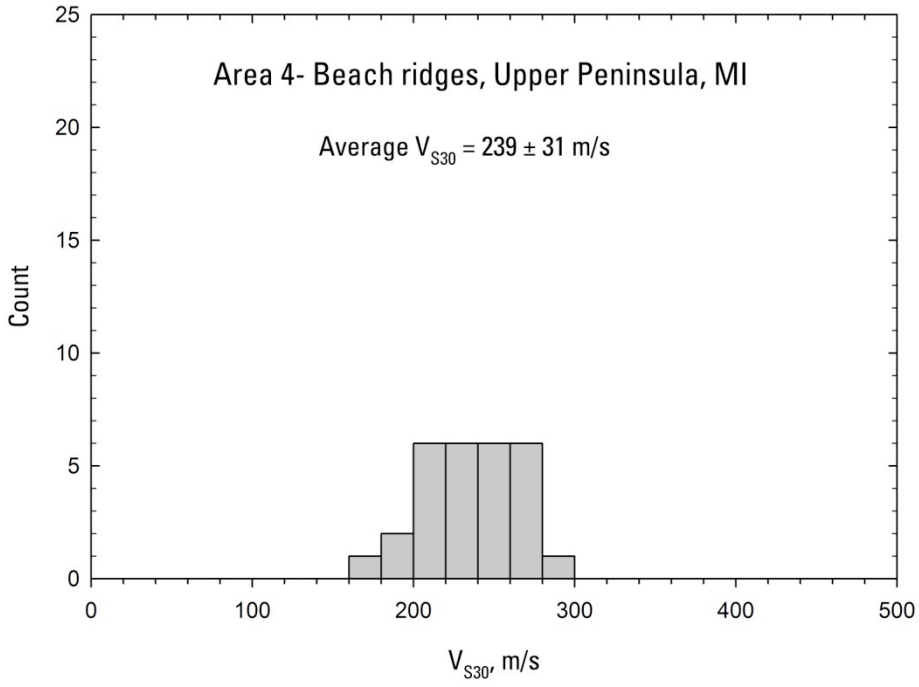


Figure 43. Histogram of V_{S30} of beach ridge deposits in Area 4, Upper Peninsula, Mich**.**

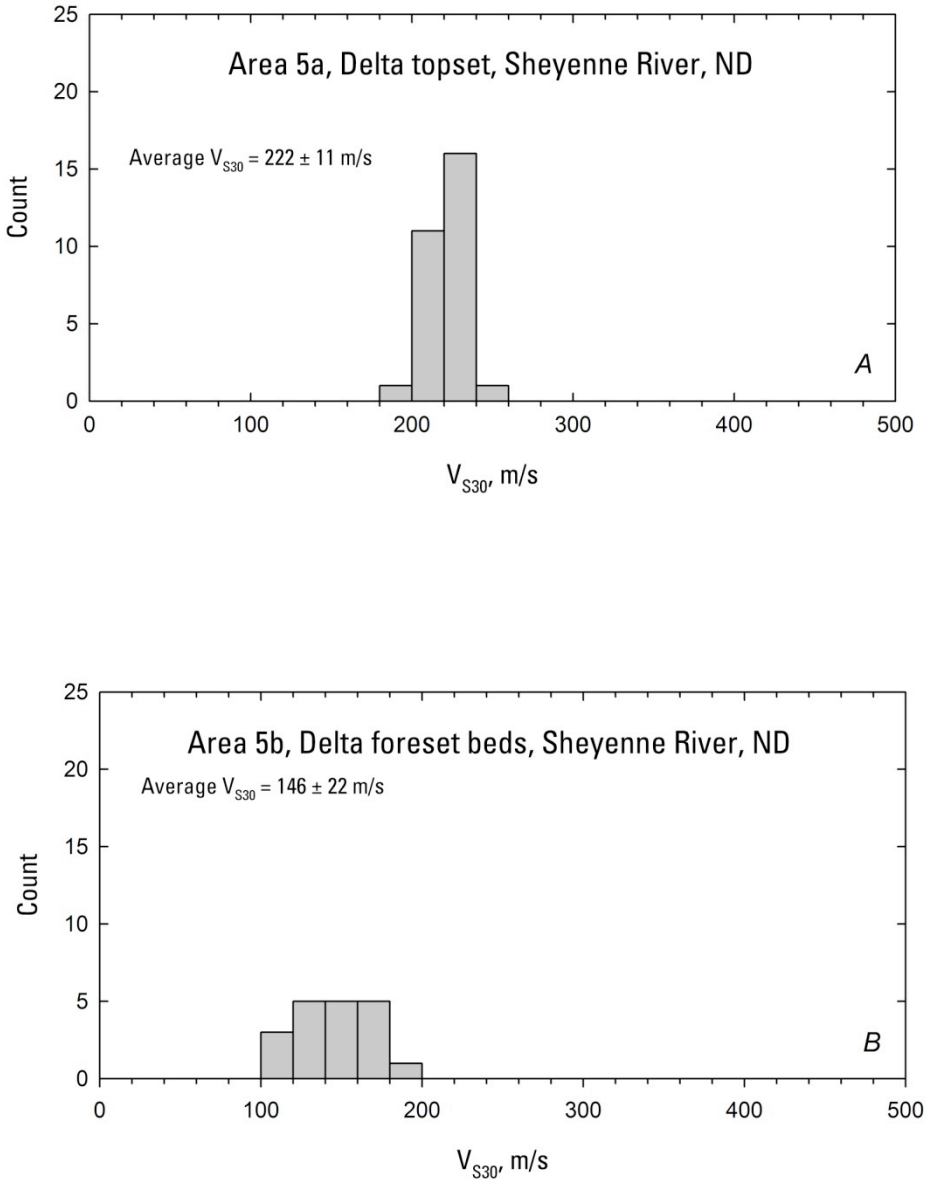


Figure 44. Histograms of V_{S30} of (*A*) delta topset and (*B*) delta foreset beds in Area 5, Richland County, N. Dak.

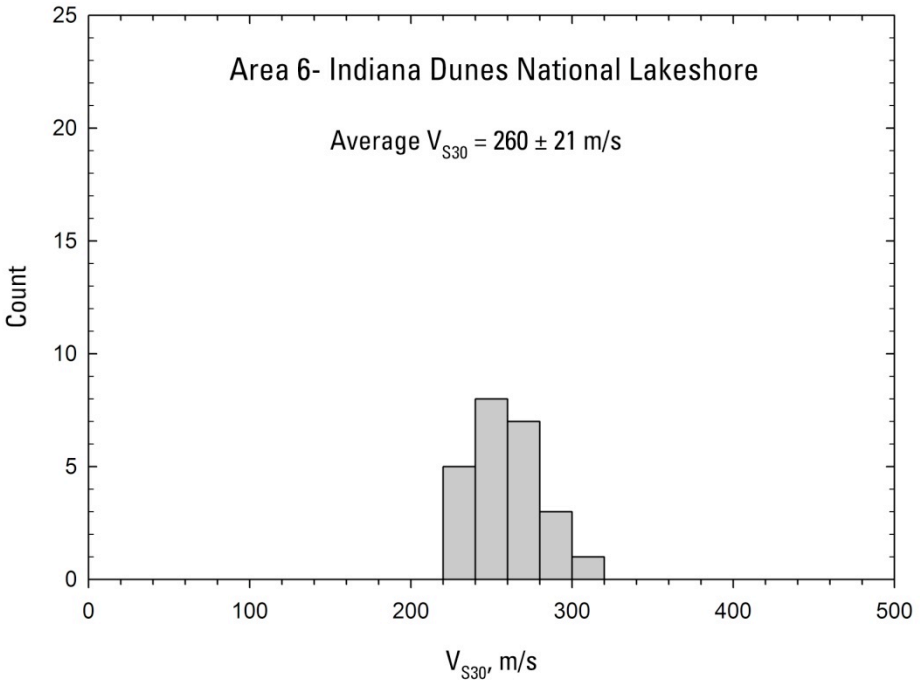


Figure 45. Histogram of V_{S30} of eolian dunes in Area 6, Indiana Dunes National Lakeshore, Ind.

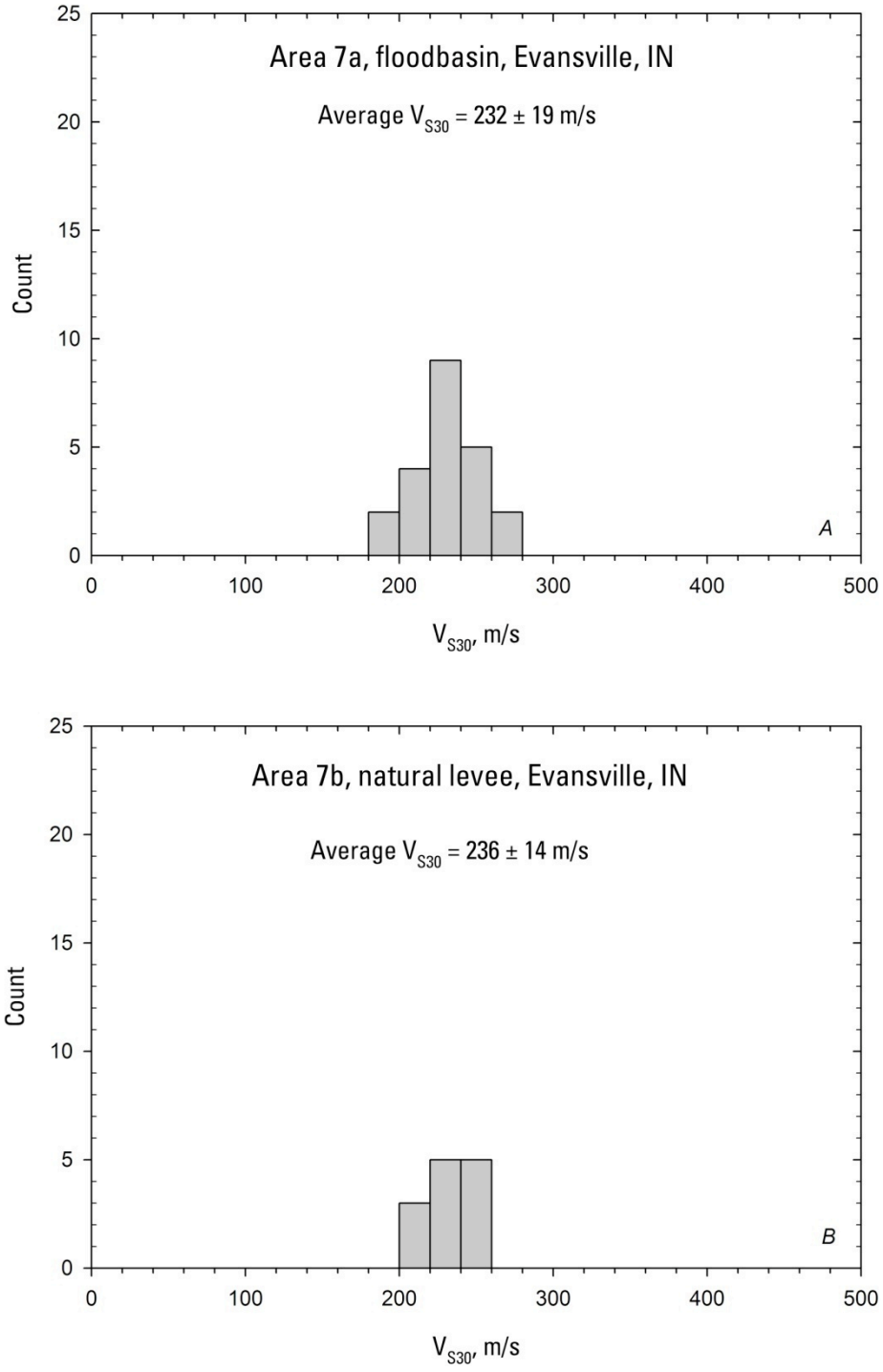


Figure 46. Histograms of V_{S30} in Area 7, greater Evansville, Ind., of (*A*) floodbasin and (*B*) natural levee deposits.

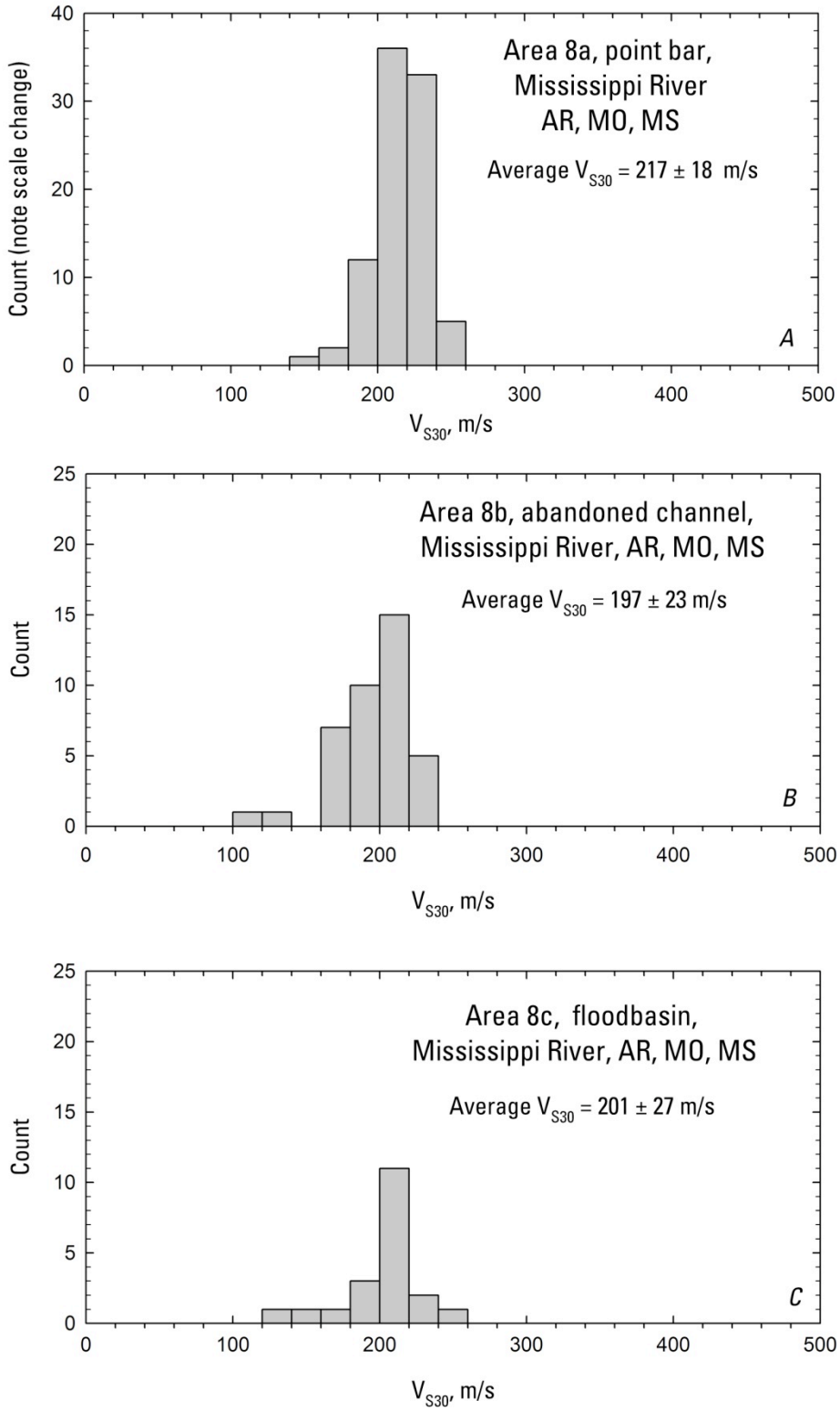


Figure 47. Histograms of V_{S30} in Area 8, Mississippi River floodplain, Arkansas, Missouri, and Mississippi of (*A*) point bar, (*B*) abandoned channel, and (C) floodbasin deposits.

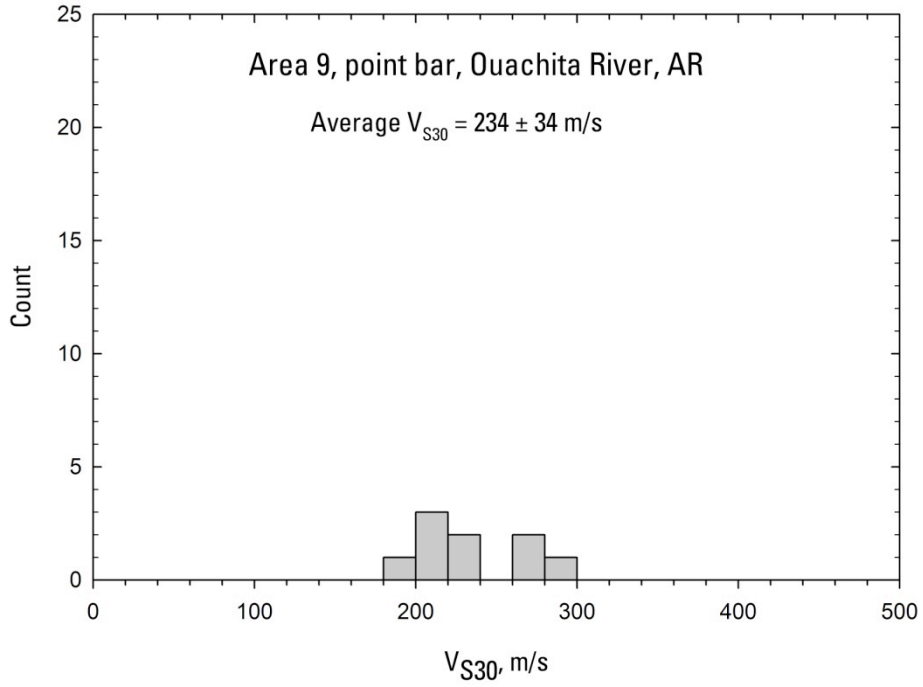


Figure 48. Histogram of V_{S30} of point bar deposit deposits in Area 9, Ouachita River, Ark.

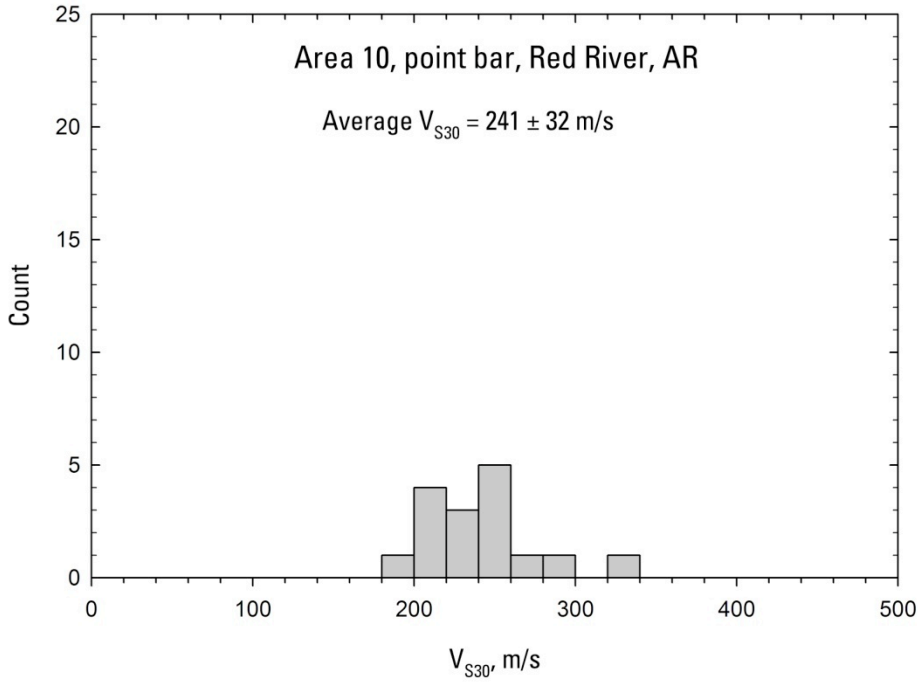


Figure 49. Histogram of V_{S30} of point bar deposits in Area 10, Red River, Ark.

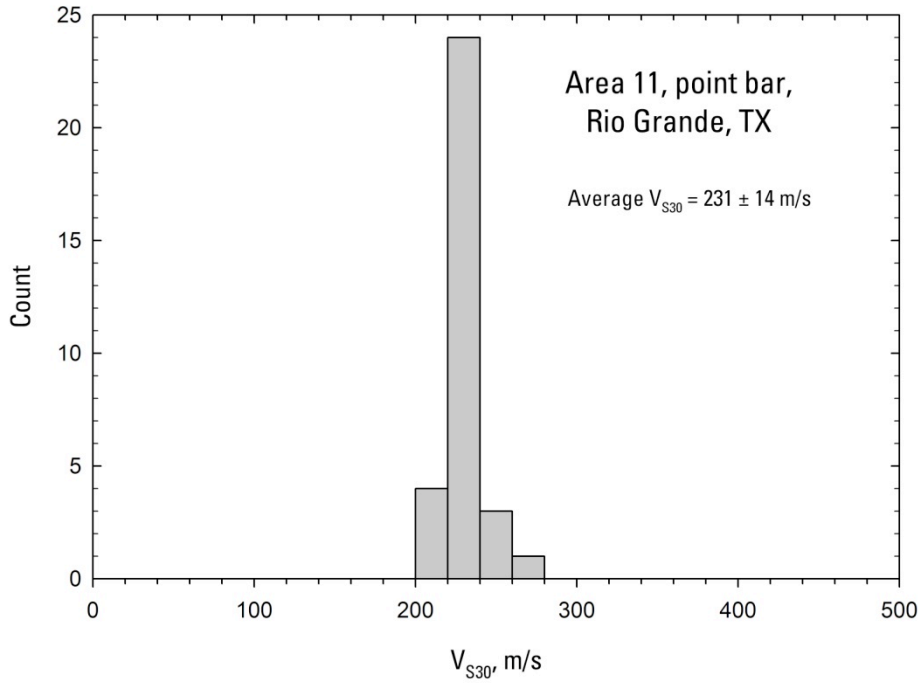


Figure 50. Histogram of V_{S30} of point bar deposits in Area 11, Rio Grande, Tex.

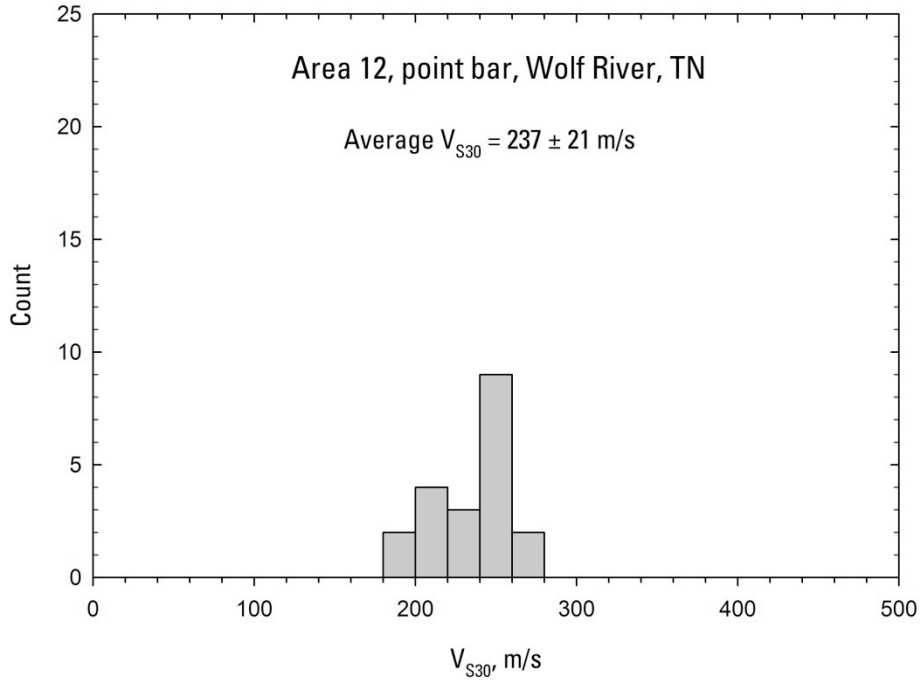


Figure 51. Histogram of V_{S30} of point bar deposits in Area 12, Wolf River, Tenn.

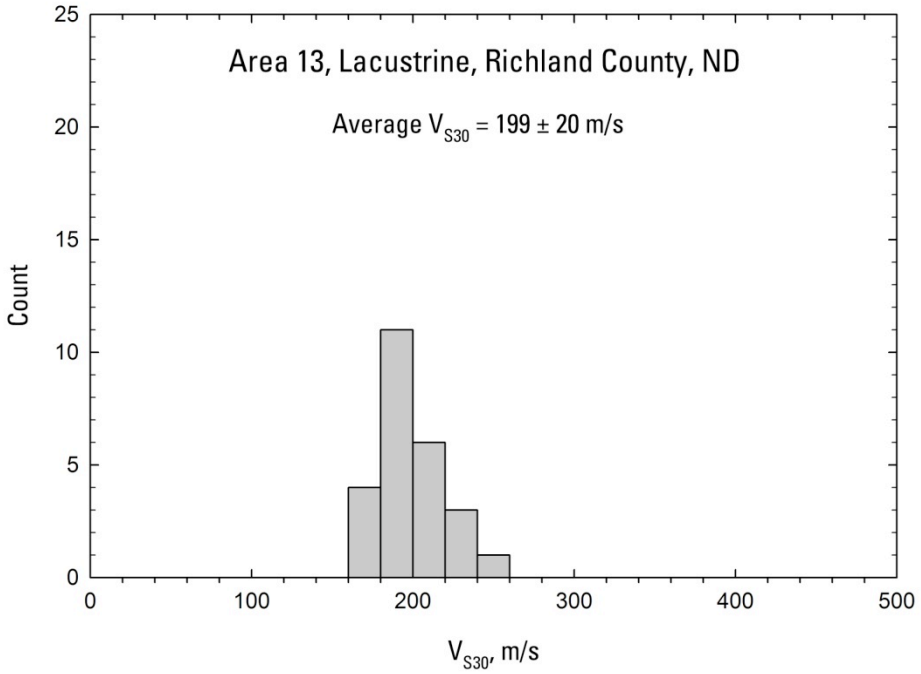


Figure 52. Histogram of V_{S30} of lacustrine deposits in Area 13, Sheyenne River Delta, N. Dak.

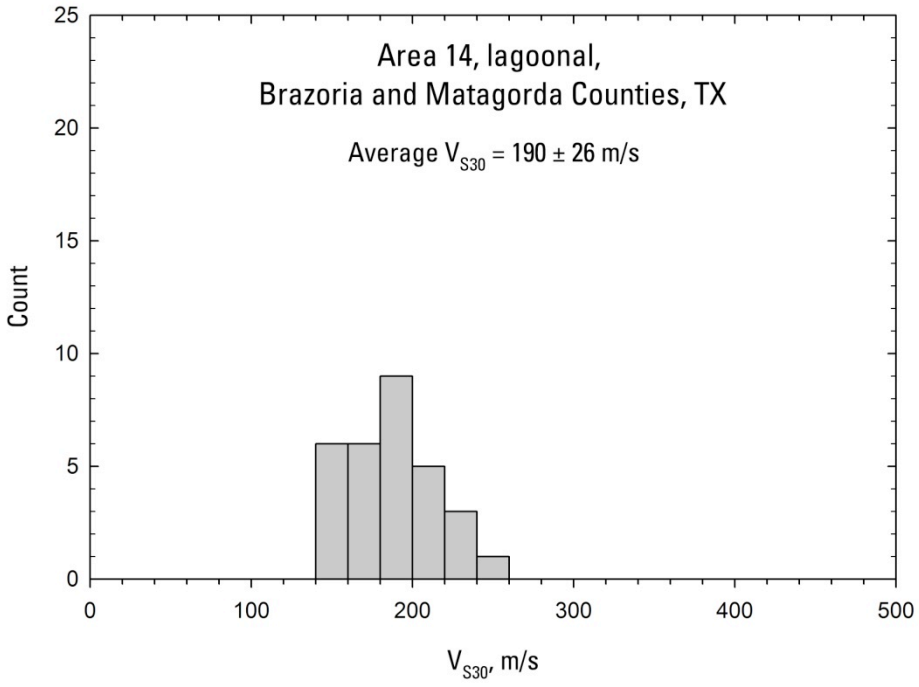


Figure 53. Histogram of V_{S30} of lagoonal deposits in Area 14, Brazoria and Matagorda Counties, Tex.

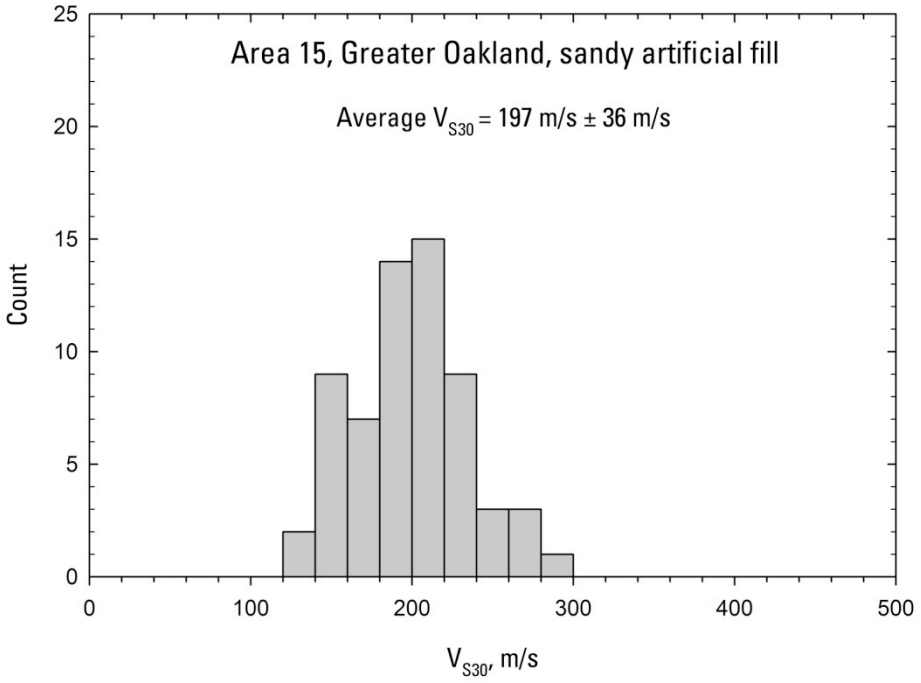


Figure 54. Histogram of V_{S30} of sandy artificial fills in Area 15, Greater Oakland, area, California.

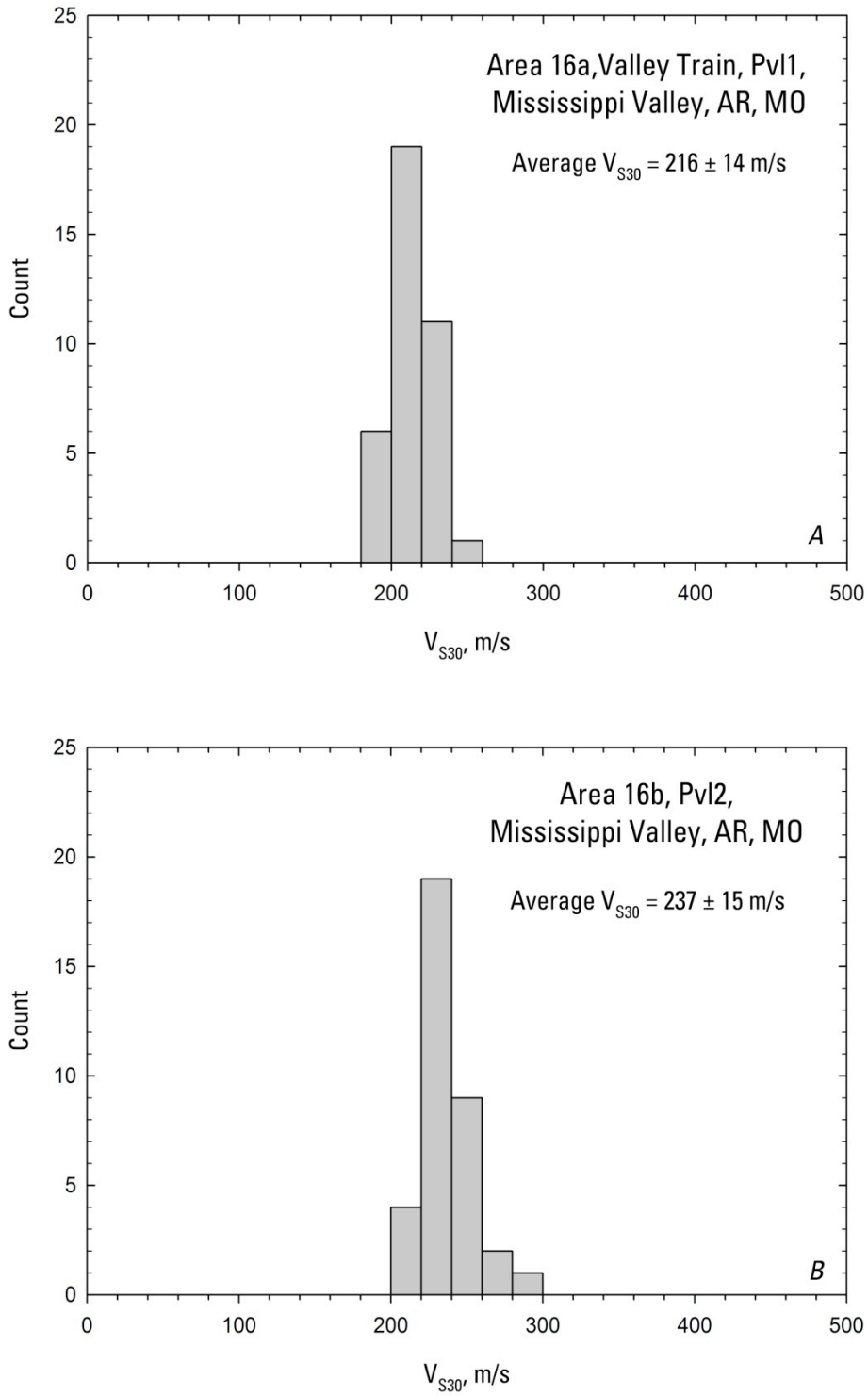


Figure 55. Histogram of V_{S30} of valley train deposits, (*A*) unit Pvl1 and (*B*) unit Pvl2, Area 16, Mississippi embayment, Arkansas and Missouri.

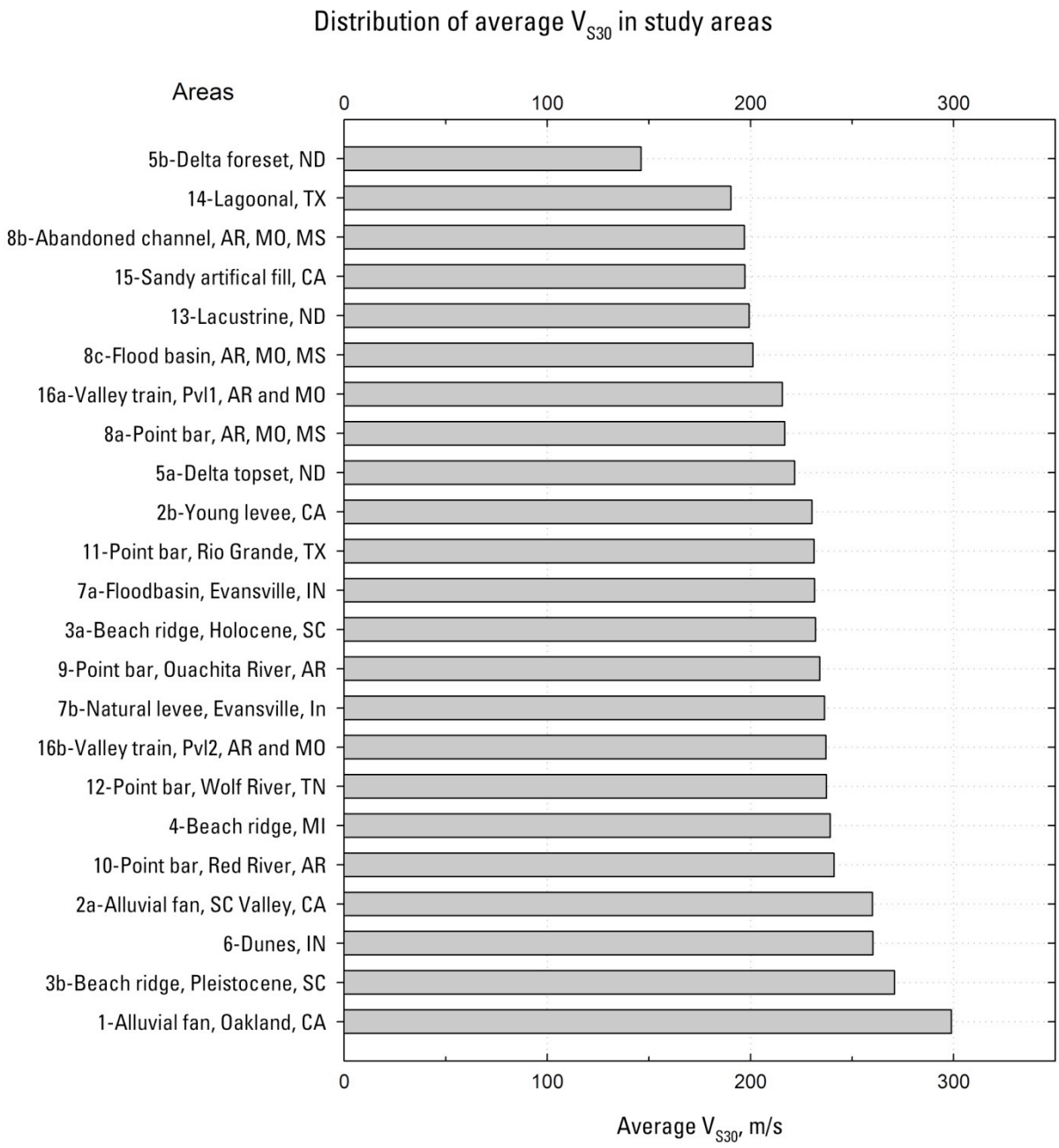


Figure 56. Histogram of average V_{S30} sorted by increasing velocity. See table 1.

Table 1. Study areas and geologic settings.
Histograms of V_{S30} are shown in figures 40-56.

Study Area		*Type of Geologic Deposit*	*Average V_{S30} (m/s)*	*Location*	*Geologic Map Reference*	*No. of CPT*
1		Alluvial fan	297	Greater Oakland, CA	Witter and others (2006)	85
2	a	Alluvial fan	260	Santa Clara Valley, CA	Witter and others (2006)	98
	b	Alluvial fan, young levee	230			25
3	a	Beach ridge (Holocene)	232	Greater Charleston, SC	Weems and others (2011)	30
	b	Beach ridge (Pleistocene)	271			70
4		Beach ridge	239	Upper Peninsula, MI	(aerial photographs)	32
5	a	Delta, topset beds	222	Sheyenne River, Richland County, ND	Baker (1966)	32
	b	Delta, foreset beds	146			19
6		Dunes, eolian	260	Indiana Dunes National Lakeshore, IN	Thompson (1990)	25
7	a	Floodplain (floodbasin)	232	Evansville, IN	Fraser and Fishbaugh (1986); Moore and others (2009)	25
	b	Floodplain (natural levee)	236			13
8	a	Floodplain (point bar)	217	Mississippi River, AR, MO, and MS	Saucier (1994b)	90
	b	Floodplain (abandoned channel)	197			40
	c	Floodplain (floodbasin)	201			20
9		Floodplain (point bar)	234	Ouachita River, AR	Saucier and Smith (1986)	30
10		Floodplain (point bar)	241	Red River, AR	Schultz and Krinitzsky (1950)	30
11		Floodplain (point bar)	231	Rio Grande, TX	Brown and others (1980)	32
12		Floodplain (point bar)	237	Wolf River, TN	Broughton (1999); Cox (2004); Van Arsdale (2004a, b)	23
13		Lacustrine	199	Richland County, ND	Baker (1966)	25
14		Lagoonal	190	Brazoria and Matagorda Counties, TX	Fisher and others (1972); McGowen and others (1976)	30
15		Sandy artificial fill	197	Greater Oakland, CA	Witter and others (2006)	81
16		Valley train, Pvl1	216	Mississippi Valley, AR and MO	Saucier (1994b)	37
		Valley train, Pvl2	237			35

Table 2. Geotechnical characteristics of soil samples

Study Area	***Sample number***	Depth, m	Depth, ft	Gravel (%) >4.75 mm	Sand (%) 4.75-0.075 mm	Silt (%) 0.075-0.005 mm	Clay (%) <0.005 mm	D_{50} mm	Cu D_{60}/D_{10}	Fines, <0.075 mm	Liquid limit (%)	Plastic limit (%)	Plasticity Index	Liquidity Index	Water content (%)	USC	Soil description	Density, (g/cm^3)	State
1	ALC046-0210	2.10	0.64	0	11	53	36	0.014	-	89	43	18	25	0.24	23.94	CL	Lean CLAY	-	California
1	ALC046-0280	2.80	0.85	0	38	38	24	0.034	-	62	28	15	13	0.78	25.13	CL	Sandy lean CLAY	-	California
1	ALC046-0510	5.10	1.55	0	41	36	23	0.041	-	59	40	25	15	-0.32	20.215	CL	Sandy lean CLAY	2.07	California
1	ALC046-0565	5.65	1.72	0	51	37	12	0.077	36	49	27	18	9	0.46	22.14	SC	Clayey SAND	2.08	California
1	ALC050-0410	4.10	1.25	0	10	67	23	0.018	-	90	30	17	13	0.48	23.3	CL	Lean CLAY	2.01	California
1	ALC050-0495	4.95	1.51	1	58	29	12	0.107	37	41	28	20	8	0.49	23.9	SC	Clayey SAND	2.04	California
1	ALC050-0620	6.20	1.89	0	41	33	26	0.042	-	59	28	17	11	0.17	18.85	CL	Sandy lean CLAY	2.09	California
1	ALC050-0830	8.30	2.53	0	43	36	21	0.054	-	57	37	23	14	0.05	23.75	CL	Sandy lean CLAY	2.04	California
1	ALC052-0100	1.00	0.30	1	44	31	24	0.052	-	55	28	14	14	0.21	17	CL	Sandy lean CLAY	1.53	California
1	ALC052-0150	1.50	0.46	5	47	33	15	0.084	-	48	-	-	-	-	13	SM	Silty SAND	1.68	California
1	ALC052-a0200	2.03	0.62	4	54	28	14	0.130	-	42	-	-	-	-	-	SM	Silty SAND	-	California
1	ALC052-b0200	2.06	0.63	3	57	31	9	0.150	46	40	-	-	-	-	15	SM	Silty SAND	1.9	California
1	ALC052-0260	2.60	0.79	5	62	26	7	0.220	54	33	-	-	-	-	12.7	SM	Silty SAND	1.81	California
1	ALC052-0450	4.50	1.37	1	30	45	24	0.025	-	69	24	16	8	0.66	21.3	CL	Sandy lean CLAY	2.05	California
1	ALC052-0500	5.00	1.52	0	18	45	37	0.013	-	82	-	-	-	-	24.9	CL	Lean CLAY with sand	1.96	California
1	ALC071-0100	1.00	0.30	0	28	51	21	0.036	-	72	30	19	11	0.39	23.3	CL	Lean CLAY with sand	1.89	California
1	ALC071-0150	1.50	0.46	6	53	23	18	0.153	-	41	-	-	-	-	17.1	SM	Silty SAND	1.83	California
1	ALC071-0250	2.50	0.76	0	18	48	34	0.013	-	82	-	-	-	-	21.9	CL	Lean CLAY with sand	1.95	California
1	ALC075-0200	2.00	0.61	1	24	49	26	0.024	-	75	33	16	17	0.13	18.2	CL	Lean CLAY with sand	-	California
1	ALC075-0310	3.10	0.94	0	61	26	13	0.140	-	39	28	19	9	0.41	22.7	SC	Clayey SAND	-	California
1	ALC075-0600	6.00	1.83	0	10	50	40	0.009	-	90	41	20	21	0.22	24.7	CL	Lean CLAY	-	California
1	ALC075-0950	9.50	2.90	6	51	30	13	0.118	-	43	-	-	-	-	15.2	SM	Silty SAND	-	California
1	ALC076-0330	3.30	1.01	1	26	46	26	0.023	-	72	38	22	16	0.26	26.2	CL	Lean CLAY with sand	-	California
1	ALC076-0680	6.80	2.07	8	64	19	9	0.326	130	28	-	-	-	-	16.3	SM	Silty SAND	-	California
1	ALC077-0140A	1.40	0.43	6	59	22	14	0.190	124	36	-	-	-	-	-	SM	Silty SAND	-	California
1	ALC077-0140B	1.30	0.40	3	49	29	20	0.078	-	49	-	-	-	-	21.8	SM	Silty SAND	-	California
1	ALC077-0450	4.50	1.37	0	18	45	37	0.012	-	82	45	18	27	0.13	21.4	CL	Lean CLAY with sand	-	California
1	ALC077-0800	8.00	2.44	5	28	33	34	0.027	-	67	35	16	19	0.02	16.4	CL	Sandy lean CLAY	-	California
1	ALC077-0870	8.70	2.65	2	48	33	17	0.074	-	50	-	-	-	-	18	CL	Sandy lean CLAY	-	California
3a	CHN003-0210	2.10	6.89	0	61	24	15	0.099	-	39	-	-	-	-	16.6	SM	Silty SAND	1.99	Arkansas
3a	CHN003-0350	3.50	11.48	0	84	11	5	0.142	3.6	16	-	-	-	-	22.9	SM	Silty SAND	-	Arkansas
3a	CHN005-0220	2.20	7.22	0	46	43	11	0.070	-	54	-	-	-	-	25	ML	Sandy SILT	1.8	Arkansas
3a	CHN005-0350	3.50	11.48	0	63	31	6	0.099	8.3	37	-	-	-	-	20.5	SM	Silty SAND	-	Arkansas
5b	RCD006-1000-A	10.09	3.08	0	2	94	4	0.042	3.2	98	28	28	0	-	28.8	ML	SILT	2.11	North Dakota
5b	RCD006-1000-B	10.27	3.13	0	3	96	1	0.038	2.7	97	26	-	0	-	26.3	ML	SILT	2.11	North Dakota
5b	RCD006-1000-C	10.38	3.16	0	55	38	7	0.081	9.5	45	-	-	-	-	-	SM	Silty SAND	2.11	North Dakota
5b	RCD040-0475-A	4.86	1.48	0	1	87	12	0.026	7.8	99	28	25	3	0.80	27.4	ML	SILT	1.97	North Dakota
5b	RCD040-0475-B	5.07	1.54	0	1	88	11	0.025	6.6	99	29	25	4	0.08	25.3	ML	SILT	1.97	North Dakota
7a	VHC012	2.30	0.70	0	97	2	1	0.380	2.1	3	-	-	-	-	-	SP	SAND	-	Indiana
7a	VHC012	6.80	2.07	3	90	-	-	0.374	3.1	7	-	-	-	-	-	SP-SM	SAND with silt	-	Indiana
7a	VHC012	7.00	2.13	0	3	84	13	0.019	-	97	29	23	6	-0.17	22	ML	SILT	-	Indiana
7a	VHC012	7.70	2.35	0	3	77	20	0.017	-	97	31	21	10	0.23	23.3	CL	Lean CLAY	-	Indiana
7a	VHC016	2.70	0.82	0	1	87	12	0.021	-	99	-	-	-	-	26.4	ML	SILT	-	Indiana
7a	VHC016	3.30	1.01	0	2	75	23	0.017	-	98	26	20	6	0.12	20.7	CL-ML	Silty CLAY	-	Indiana
7a	VHC016	5.20	1.58	0	1	90	9	0.022	4.5	99	29	25	4	0.00	25	ML	SILT	-	Indiana
7a	VHC016	6.30	1.92	0	2	80	18	0.018	-	98	30	21	9	0.30	23.7	CL	Lean CLAY	-	Indiana
7a	VHC016	7.00	2.13	0	4	76	20	0.021	-	96	-	-	-	-	-	CL	Lean CLAY	-	Indiana
7a	VHC017	2.50	0.76	0	1	90	9	0.025	5.2	99	27	24	3	-0.33	23	ML	SILT	-	Indiana
7a	VHC017	4.20	1.28	0	0	93	7	0.025	4.1	100	28	26	2	-0.55	24.9	ML	SILT	-	Indiana
7a	VHC017	5.00	1.52	0	1	85	14	0.019	-	99	29	24	5	-0.50	21.5	ML	SILT	-	Indiana
7a	VHC017	7.25	2.21	0	13	69	18	0.024	-	87	32	21	11	0.45	25.9	CL	Lean CLAY	-	Indiana
7a	VHC024	1.80	0.55	0	3	90	7	0.027	4.4	97	26	25	1	-4.20	20.8	ML	SILT	-	Indiana
7a	VHC024	2.30	0.70	0	1	79	20	0.013	-	99	25	23	2	-	46	ML	SILT	-	Indiana
7a	VHC024	3.50	1.07	0	5	86	9	0.022	2.8	95	26	25	1	-1.90	23.1	ML	SILT	-	Indiana
7a	VHC024	5.50	1.68	0	1	91	8	0.026	4.8	99	31	27	4	-0.40	25.4	ML	SILT	-	Indiana
7a	VHC024	6.20	1.89	0	2	80	18	0.016	6.2	98	28	22	6	-	4.7	CL-ML	Silty CLAY	-	Indiana

Study Area	***Sample number***	Depth, m	Depth, ft	Gravel (%) >4.75 mm	Sand (%) 4.75-0.075 mm	Silt (%) 0.075-0.005 mm	Clay (%) <0.005 mm	D_{50} mm	Cu D_{60}/D_{10}	Fines, <0.075 mm	Liquid limit (%)	Plastic limit (%)	Plasticity Index	Liquidity Index	Water content (%)	USC	Soil description	Density, (g/cm^3)	State
8a	CNC034-0400A	4.11	1.25	0	1	44	55	0.004	-	99	73	26	47	1.55	43.3	CH	Fat CLAY	-	Arkansas
8a	CNC034-0400B	4.35	1.33	0	1	80	19	0.021	-	99	35	24	11	6.82	28.5	CL	Lean CLAY	1.83	Arkansas
8a	CNC034-0250A	2.63	0.80	0	3	71	26	0.028	-	97	40	21	19	4.00	28.4	CL	Lean CLAY	-	Arkansas
8a	CNC034-0250B	2.89	0.88	0	2	35	63	0.003	-	98	48	28	20	3.50	36.8	CL	Lean CLAY	1.89	Arkansas
8a	MSC052-0300A1	3.06	0.93	0	84	15	1	0.239	5.4	16	-	-	-	-	-	SM	Silty SAND	-	Arkansas
8a	MSC052-0300B1	3.17	0.96	0	86	13	1	0.128	2.2	14	-	-	-	-	-	SP-SM	SAND with silt	-	Arkansas
8a	MSC052-0300C1	3.25	0.99	0	50	46	4	0.073	3.0	50	-	-	-	-	-	MLS	Sandy SILT	1.66	Arkansas
8a	MSC052-0300A2	3.08	0.94	0	93	7	0	0.245	2.5	7	-	-	-	-	-	SP-SM	SAND with silt	-	Arkansas
8a	MSC052-0300B2	3.24	0.99	0	82	17	1	0.135	2.8	18	-	-	-	-	-	SM	Silty SAND	-	Arkansas
8a	MSC052-0300C2	3.34	1.02	0	53	43	4	0.079	3.4	47	-	-	-	-	-	SM	Silty SAND	-	Arkansas
8a	MSC052-0300D2	3.38	1.03	0	94	6	0	0.269	-	6	-	-	-	-	-	SP-SM	SAND with silt	1.6	Arkansas
8a	PST016-0300A1	3.03	0.92	0	63	32	5	0.088	4.9	37	-	-	-	-	-	SM	Silty SAND	-	Missouri
8a	PST016-0300B1	3.11	0.95	0	39	55	6	0.062	7.3	61	-	-	-	-	-	MLS	Sandy SILT	-	Missouri
8a	PST016-0300C1	3.21	0.98	0	85	13	2	0.129	2.4	15	-	-	-	-	-	SM	Silty SAND	1.76	Missouri
8a	PST016-0300B2	3.08	0.94	0	52	45	3	0.077	2.8	48	-	-	-	-	-	SM	Silty SAND	-	Missouri
8a	PST016-0300C2	3.20	0.98	0	89	-	-	0.125	1.8	11	-	-	-	-	-	SP-SM	SAND with silt	1.72	Missouri
8b	CNC033-0400A	4.09	1.25	0	33	63	4	0.058	4.8	67	25	25	0	-	31.1	ML	Sandy SILT	-	Arkansas
8b	CNC033-0400B	4.34	1.32	0	8	80	12	0.039	11.0	92	33	23	10	6.90	32.0	CLS	Lean CLAY	2.00	Arkansas
8b	MSC004	2.55	0.78	0	28	64	8	0.053	6.7	72	-	-	-	-	32.9	ML	SILT with sand	-	Mississippi
8b	MSC004	5.80	1.77	0	66	31	3	0.107	3.4	34	-	-	-	-	28.1	SM	Silty SAND	-	Mississippi
8b	MSC004	5.90	1.80	0	44	48	8	0.048	7.6	56	-	-	-	-	-	ML	SILT with sand	-	Mississippi
8b	MSC004	7.45	2.27	0	51	45	4	0.077	4.6	49	-	-	-	-	-	SM	Silty SAND	-	Mississippi
8b	MSC004	7.55	2.30	0	86	-	-	0.166	-	14	-	-	-	-	-	SM	Silty SAND	-	Mississippi
8c	CNC010-0700A	7.10	2.16	0	33	61	6	0.056	6.1	67	27	26	1	41.00	25.0	ML	Sandy SILT	-	Arkansas
8c	CNC010-0700B	7.32	2.23	0	28	67	5	0.057	6.2	72	27	27	0	-	22.4	ML	SILT with sand	1.69	Arkansas
9	UNN007-0300	3.00	9.84	0	22	60	18	0.048	-	78	-	-	-	-	27.3	CL	Lean CLAY with sand	2.07	Arkansas
9	UNN007-0400	4.00	13.12	0	29	51	20	0.041	-	71	-	-	-	-	25.1	CL	Lean CLAY with sand	2.05	Arkansas
9	UNN010-0160	1.60	5.25	0	58	34	8	0.083	-	42	-	-	-	-	7.9	SM	Silty SAND	1.43	Arkansas
9	UNN010-0230	2.30	7.55	0	49	40	11	0.074	-	51	-	-	-	-	17.2	ML	Sandy SILT	1.55	Arkansas
9	UNN010-0340	3.40	11.16	0	78	18	4	0.118	3.6	22	-	-	-	-	5.8	SM	Silty SAND	1.47	Arkansas
10	HPD001-0280	2.80	9.19	0	14	81	5	0.056	3.5	86	-	-	-	-	7	ML	SILT	1.46	Arkansas
10	HPD001-0410	4.10	13.45	0	3	85	12	0.035	-	97	-	-	-	-	22.7	ML	SILT	1.78	Arkansas
10	LFE002-0260	2.60	8.53	0	2	90	8	0.035	5.4	98	26	25	1	-10.1	14.9	ML	SILT	1.7	Arkansas
10	LFE002-0350	3.50	11.48	0	5	85	10	0.035	7.3	95	25	23	2	-0.2	22.6	ML	SILT	1.82	Arkansas
10	MLR005-0235	2.35	7.71	0	29	65	6	0.055	3.3	71	23	23	0	-	16.8	ML	SILT with sand	1.72	Arkansas
10	MLR005-0365	3.65	11.98	0	21	76	3	0.058	2.9	79	23	23	0	-	23.4	ML	SILT with sand	1.9	Arkansas
10	MLR010-0220	2.20	7.22	0	17	82	1	0.055	2.5	83	23	23	0	-	17.9	ML	SILT with sand	1.69	Arkansas
10	MLR010-0300	3.00	9.84	0	6	90	4	0.042	3.6	94	25	24	1	4.5	28.5	ML	SILT	1.97	Arkansas
13	RCD053-0600-A	6.13	1.87	0	2	29	69	0.002	-	98	85	29	56	0.38	50.3	CH	Fat CLAY	1.78	North Dakota
13	RCD053-0600-B	6.38	1.95	0	1	32	67	0.002	-	99	82	31	51	0.31	46.8	CH	Fat CLAY	1.78	North Dakota
13	RCD059-0350-A	3.64	1.11	0	1	59	40	0.009	-	99	70	27	43	0.20	35.6	CH	Fat CLAY	1.84	North Dakota
13	RCD059-0350-B	3.90	1.19	0	1	43	56	0.004	-	99	62	25	37	0.31	36.6	CH	Fat CLAY	1.84	North Dakota
13	RCD059-0600-A	6.14	1.87	0	0	46	54	0.005	-	100	60	24	36	0.63	46.8	CH	Fat CLAY	1.9	North Dakota
13	RCD059-0600-B	6.38	1.95	0	1	45	54	0.004	-	99	57	25	32	0.38	37.0	CH	Fat CLAY	1.9	North Dakota
13	RCD072-0400-A	4.13	1.26	0	1	29	70	0.002	-	99	82	29	53	0.28	44.0	CH	Fat CLAY	1.9	North Dakota
13	RCD072-0400-B	4.38	1.34	0	1	33	66	0.003	-	99	70	27	43	0.19	35.1	CH	Fat CLAY	1.9	North Dakota
13	RCD072-0600-A	6.13	1.87	0	1	73	26	0.008	-	99	38	25	13	0.66	33.6	ML	SILT	1.96	North Dakota
13	RCD072-0600-B	6.38	1.94	0	0	75	25	0.010	-	100	38	27	11	0.55	33.1	ML	SILT	1.96	North Dakota
13	RCD073-0600-A	6.16	1.88	0	0	32	68	0.003	-	100	69	27	42	0.23	36.6	CH	Fat CLAY	1.89	North Dakota
13	RCD073-0600-B	6.41	1.95	0	0	46	64	0.004	-	100	65	26	39	0.28	37.0	CH	Fat CLAY	1.89	North Dakota
14	BZA009-A0205	2.05	6.73	0	5	86	9	0.043	8.0	95	-	-	-	-	22.3	ML	SILT	2.02	Texas
14	BZA010-0195	1.95	6.40	0	22	69	9	0.052	9.5	78	24	22	2	-0.15	21.7	Ml	SILT with sand	2	Texas
15	ALC037-0400	4.00	1.22	0	20	50	30	0.025	-	80	36	17	19	0.25	21.7	CL	Lean CLAY with sand	-	California
15	ALC037-0600	6.00	1.83	1	29	45	25	0.025	-	70	38	20	18	0.37	26.7	CL	Sandy lean CLAY	-	California
15	ALC037-1100	11.00	3.35	1	39	41	19	0.046	-	60	35	18	17	-0.08	16.6	CL	Sandy lean CLAY	-	California
15	ALC039-0100	1.00	0.30	10	22	42	26	0.040	-	68	-	-	-	-	26.2	CL	Sandy lean CLAY	1.34	California
15	ALC039-0200	2.00	0.61	0	82	16	2	0.176	5.8	18	-	-	-	-	5	SM	Silty SAND	1.58	California
15	ALC039-0300	3.00	0.91	0	85	13	2	0.218	60.3	15	-	-	-	-	23.1	SM	Silty SAND	1.99	California

Study Area	***Sample number***	Depth, m	Depth, ft	Gravel (%) >4.75 mm	Sand (%) 4.75-0.075 mm	Silt (%) 0.075-0.005 mm	Clay (%) <0.005 mm	D_{50} mm	Cu D_{60}/D_{10}	Fines, <0.075 mm	Liquid limit (%)	Plastic limit (%)	Plasticity Index	Liquidity Index	Water content (%)	USC	Soil description	Density, (g/cm^3)	State
15	ALC039-0500	5.00	1.52	0	9	50	41	0.008	-	91	48	17	31	0.26	25.2	CL	Lean CLAY	1.97	California
16a	MSC034-0400A	4.11	1.25	0	10	25	65	0.002	-	90	88	32	56	1.04	46.7	CH	Fat CLAY	-	Arkansas
16a	MSC034-0400B	4.30	1.31	0	14	25	61	0.002	-	86	81	31	50	1.10	47.3	CH	Fat CLAY	-	Arkansas
16a	MSC034-0400C	4.46	1.36	0	4	23	73	0.001	-	96	93	28	65	1.05	42.6	CH	Fat CLAY	1.78	Arkansas
16a	MSC034-0800A	8.08	2.46	0	90	-	-	0.435	8.1	10	-	-	-	-	15.0	SP-SM	SAND with silt	-	Arkansas
16a	MSC034-0800B	8.23	2.51	0	35	32	33	0.033	-	65	49	18	31	1.52	32.1	CLS	Sandy lean CLAY	-	Arkansas
16a	MSC034-0800C	8.42	2.57	0	29	38	33	0.030	-	71	51	19	32	1.63	35.2	CH	Fat CLAY with sand	2.04	Arkansas
16a	PST004-0350A	3.62	1.10	0	7	27	66	0.002	-	93	77	27	50	1.32	38.2	CH	Fat CLAY	-	Missouri
16a	PST004-0350B	3.84	1.17	0	11	32	57	0.003	-	89	77	26	51	1.24	39.7	CH	Fat CLAY	-	Missouri
16a	PST004-0350C	3.96	1.21	0	67	-	-	0.109	-	33	-	-	-	-	-	SM	Silty SAND	-	Missouri
16a	PST004-0650A	6.57	2.00	0	94	6	0	0.350	3.6	6	-	-	-	-	-	SP-SM	SAND with silt	-	Missouri
16a	PST004-0650B	6.67	2.03	0	25	73	2	0.054	-	75	-	-	-	-	-	ML	SILT with sand	-	Missouri
16a	PST004-0650C	6.77	2.06	0	5	57	38	0.012	-	95	57	23	34	2.12	54.5	CH	Fat CLAY	-	Missouri
16a	PST004-0650D	6.93	2.11	0	91	9	0	0.263	45.7	9	-	-	-	-	-	SP-SM	SAND with silt	-	Missouri
16a	PST004-0950A	9.56	2.91	0	92	8	0	0.390	4.5	8	-	-	-	-	-	SP-SM	SAND with silt	-	Missouri
16a	PST004-0950B	9.67	2.95	0	97	3	0	0.470	2.7	3	-	-	-	-	-	SP	SAND	-	Missouri
16a	PST004-0950C	9.80	2.99	3	93	4	0	0.460	3.2	4	-	-	-	-	-	SP	SAND	2.09	Missouri
16b	CGD001-0190	1.90	6.23	0	93	-	-	0.213	2.7	7	-	-	-	-	15.1	SP-SM	SAND with silt	1.84	Arkansas
16b	CGD001-0250	2.50	8.20	0	81	18	1	0.169	3.2	19	-	-	-	-	27.2	SM	Silty SAND	1.76	Arkansas
16b	CGD001-0290	2.90	9.51	0	97	-	-	0.270	1.9	3	-	-	-	-	4.4	SP	SAND	1.6	Arkansas
16b	CGD001-0365	3.65	11.98	2	89	-	-	0.230	3.3	9	-	-	-	-	17.9	SP-SM	SAND with silt	1.88	Arkansas
16b	CGD003-0190	1.90	6.23	0	74	18	8	0.109	17.1	26	-	-	-	-	22.4	SM	Silty SAND	1.99	Arkansas
16b	CGD003-0220	2.20	7.22	0	69	22	9	0.097	18.0	31	-	-	-	-	22.2	SM	Silty SAND	1.96	Arkansas
16b	CGD003-A0305	3.05	10.01	0	96	-	-	0.309	2.3	4	-	-	-	-	19.1	SP	SAND	1.84	Arkansas
16b	CGD003-B0305	3.05	10.01	0	84	15	1	0.196	-	16	-	-	-	-	-	SM	Silty SAND	-	Arkansas
16b	CGD003-A0360	3.60	11.81	0	95	-	-	0.216	1.7	5	-	-	-	-	24.1	SP	SAND	2.22	Arkansas
16b	CGD003-B0360	3.60	11.81	0	97	-	-	0.235	1.8	3	-	-	-	-	-	SP	SAND	-	Arkansas
16b	CGD006-A0160	1.60	5.25	0	4	76	20	0.014	-	96	36	23	13	0.32	27.1	CL	Lean CLAY	1.9	Arkansas
16b	CGD006-0245	2.45	8.04	0	5	88	7	0.033	3.5	95	29	25	4	0.10	25.4	ML	SILT	1.88	Arkansas
16b	CGD011-0210	2.10	6.89	0	7	73	20	0.017	-	93	44	22	22	0.21	26.7	CL	Lean CLAY	2.01	Arkansas
16b	CGD011-0260	2.60	8.53	0	3	88	9	0.032	6.3	97	29	26	3	-0.20	25.4	ML	SILT	2.01	Arkansas
16b	DKN013-0350A	3.62	1.10	0	90	-	-	0.140	2.1	10	-	-		-	23.4	SP-SM	SAND with silt	-	Missouri
16b	DKN013-0350B	3.82	1.17	0	93	7	0	0.156	2.2	7	-	-	-	-	25.6	SP-SM	SAND with silt	2.04	Missouri
16b	DKN013-0600A1	6.01	1.83	0	75	-	-	0.108	-	25	-	-	-	-	-	SM	Silty SAND	-	Missouri
16b	DKN013-0600A2	6.07	1.85	0	74	22	4	0.142	8.3	26	-	-	-	-	-	SM	Silty SAND	-	Missouri
16b	DKN013-0600B	6.16	1.88	0	92	8	0	0.330	3.7	8	-	-	-	-	-	SP-SM	SAND with silt	-	Missouri
16b	DKN013-0600C	6.25	1.90	0	96	4	0	0.340	3.0	4	-	-	-	-	-	SP	SAND	1.95	Missouri

Table 3. Descriptions of soundings and shear-wave velocity estimates

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
1	ALC046	6/26/2001	10S	561653	4192721	NAD27	37.88168	-122.30000	NAD83	9.1	18.6	2.1	California	Alameda	Qhf	294	300	770TC	0.96	1	-
1	ALC049	6/27/2001	10S	562758	4191495	NAD27	37.87055	-122.28754	NAD83	23.8	18.45	3.1	California	Alameda	Qhb	313	326	770TC	0.96	1	-
1	ALC050	6/27/2001	10S	563316	4192163	NAD27	37.87653	-122.28115	NAD83	36.0	16	2.8	California	Alameda	Qhf	323	349	770TC	0.96	1	-
1	ALC051	6/28/2001	10S	561823	4190869	NAD27	37.86497	-122.29823	NAD83	7.9	18.8	3.4	California	Alameda	Qhf	276	300	770TC	0.96	1	-
1	ALC052	7/5/2001	10S	562531	4189619	NAD27	37.85366	-122.29029	NAD83	10.7	21.1	2	California	Alameda	Qhf	323	341	770TC	0.96	1	-
1	ALC053	7/5/2001	10S	563450	4189128	NAD27	37.84917	-122.27990	NAD83	18.9	13.7	3.3	California	Alameda	Qhl	351	-	770TC	0.96	1	-
1	ALC057	7/9/2001	10S	563787	4190883	NAD27	37.86496	-122.27591	NAD83	38.7	10.6	4	California	Alameda	Qhf	299	-	770TC	0.96	1	-
1	ALC060	7/23/2001	10S	562424	4190782	NAD27	37.86415	-122.29141	NAD83	16.5	15.7	2.2	California	Alameda	Qhf	299	300	770TC	0.96	1	-
1	ALC061	7/24/2001	10S	563123	4190796	NAD27	37.86423	-122.28346	NAD83	26.5	21.8	3.8	California	Alameda	Qhf	317	323	770TC	0.96	1	-
1	ALC062	8/3/2001	10S	564193	4191385	NAD27	37.86946	-122.27125	NAD83	50.0	8.7	-	California	Alameda	Qhf	216	-	770TC	0.96	1	-
1	ALC068	9/21/2001	10S	563133	4187420	NAD27	37.83380	-122.28364	NAD83	9.1	21.8	2.3	California	Alameda	Qhb	255	280	770TC	0.96	1	-
1	ALC069	9/21/2001	10S	562538	4188234	NAD27	37.84118	-122.29034	NAD83	5.2	16.15	2.3	California	Alameda	Qhb	223	217	770TC	0.96	1	-
1	ALC070	9/25/2001	10S	562778	4188650	NAD27	37.84491	-122.28757	NAD83	10.0	17.8	1.6	California	Alameda	Qhl	282	291	770TC	0.96	1	-
1	ALC071	9/25/2001	10S	562418	4188981	NAD27	37.84792	-122.29163	NAD83	6.4	20	2.7	California	Alameda	Qhaf	284	283	770TC	0.96	1	-
1	ALC073	9/26/2001	10S	562519	4187794	NAD27	37.83721	-122.29060	NAD83	4.6	23.5	-	California	Alameda	Qhl	260	273	770TC	0.96	1	-
1	ALC074	9/26/2001	10S	562513	4187163	NAD27	37.83152	-122.29072	NAD83	3.0	18.8	-	California	Alameda	Qhb	222	240	770TC	0.96	1	-
1	ALC075	11/14/2001	10S	562429	4189810	NAD27	37.85539	-122.29144	NAD83	11.2	18	2.6	California	Alameda	Qhf	301	300	766TC	0.96	1	-
1	ALC076	11/14/2001	10S	563206	4190042	NAD27	37.85742	-122.28259	NAD83	21.6	16	1.1	California	Alameda	Qhf	256	254	766TC	0.7	1	-
1	ALC077	11/14/2001	10S	563277	4189713	NAD27	37.85445	-122.28181	NAD83	20.1	14.5	1.9	California	Alameda	Qhf	284	294	766TC	0.7	1	-
1	ALC078	11/14/2001	10S	563191	4190285	NAD27	37.85961	-122.28274	NAD83	23.5	16.4	2	California	Alameda	Qhf	250	262	766TC	0.96	1	-
1	ALC081	3/28/2002	10S	562322	4190225	NAD27	37.85913	-122.29262	NAD83	11.9	15.5	1.1	California	Alameda	Qhf	354	361	766TC	0.96	1	-
1	ALC082	3/28/2002	10S	562415	4190412	NAD27	37.86081	-122.29155	NAD83	14.3	14.8	-	California	Alameda	Qhf	333	357	766TC	0.96	1	-
1	ALC083	3/28/2002	10S	561422	4192473	NAD27	37.87946	-122.30266	NAD83	7.3	15.5	2.2	California	Alameda	Qhf	303	316	766TC	0.96	1	-
1	ALC084	3/28/2002	10S	561517	4192103	NAD27	37.87612	-122.30161	NAD83	7.3	16.5	1.8	California	Alameda	Qhf	356	375	766TC	0.96	1	-
1	OAK008	11/18/1998	10S	568081	4181275	NAD27	37.77806	-122.22800	NAD83	13.0	20.40	-	California	Alameda	Qhaf	292	313	661tc	0.96	1	-
1	OAK009	11/20/1998	10S	570786	4179189	NAD27	37.75905	-122.19748	NAD83	3.0	26.70	2.3	California	Alameda	Qhb	268	286	661tc	0.96	1	-
1	OAK011	11/24/1998	10S	569932	4180584	NAD27	37.77169	-122.20704	NAD83	11.0	22.95	>1.2	California	Alameda	Qhaf	331	385	660	0.96	1	-
1	OAK014	12/7/1998	10S	565171	4187604	NAD27	37.83531	-122.26048	NAD83	34.8	9.05	4.4	California	Alameda	Qhaf	288	-	660	0.96	1	-
1	OAK015	12/8/1998	10S	563823	4186452	NAD27	37.82502	-122.27589	NAD83	11.5	22.10	>2.7	California	Alameda	Qhaf	248	252	660	0.96	1	-
1	OAK016	12/9/1998	10S	566107	4188786	NAD27	37.84590	-122.24973	NAD83	58.4	19.70	6.1	California	Alameda	Qhaf	280	321	660	0.96	1	-
1	OAK017	12/11/1998	10S	571128	4179279	NAD27	37.75984	-122.19358	NAD83	4.7	25.75	3.0	California	Alameda	Qhb	274	300	661tc	0.96	1	-
1	OAK018	12/14/1998	10S	572826	4177487	NAD27	37.74355	-122.17450	NAD83	9.0	23.90	4.0	California	Alameda	Qhl	241	259	661tc	0.96	1	-
1	OAK022	12/22/1998	10S	571935	4178327	NAD27	37.75119	-122.18452	NAD83	4.3	29.70	2.9	California	Alameda	Qhb	238	255	661tc	0.96	1	-
1	OAK027	1/5/1999	10S	573814	4178100	NAD27	37.74900	-122.16322	NAD83	11.0	13.00	>0.2	California	Alameda	Qhaf	294	-	660	0.96	1	-
1	OAK028	1/5/1999	10S	572750	4176681	NAD27	37.73629	-122.17545	NAD83	10.0	7.90	4.2	California	Alameda	Qhl	-	-	660	0.96	1	-
1	OAK029	1/6/1999	10S	566709	4182760	NAD27	37.79155	-122.24344	NAD83	10.0	13	10	California	Alameda	Qha	225	-	660	0.96	1	-
1	OAK032	1/15/1999	10S	571725	4177387	NAD27	37.74274	-122.18700	NAD83	4.4	28.30	>5.6	California	Alameda	Qhb	235	246	660	0.96	1	-
1	OAK033	1/19/1999	10S	572459	4176780	NAD27	37.73721	-122.17873	NAD83	8.8	23.85	>9.0	California	Alameda	Qhl	245	316	660	0.96	1	-
1	OAK034	1/19/1999	10S	572755	4175776	NAD27	37.72814	-122.17547	NAD83	8.0	15.80	>4.4	California	Alameda	Qhaf	213	217	660	0.96	1	-
1	OAK035	1/20/1999	10S	571375	4176845	NAD27	37.73788	-122.19103	NAD83	2.0	17.25	1.4	California	Alameda	Qhl	278	305	660	0.96	1	-
1	OAK036	1/20/1999	10S	571573	4175859	NAD27	37.72898	-122.18887	NAD83	5.0	11.95	-	California	Alameda	Qhb	-	-	660	0.96	1	-
1	OAK046	2/19/1999	10S	571573	4175859	NAD27	37.72898	-122.18887	NAD83	5.0	29.60	1.6	California	Alameda	Qhb	211	236	660tc	0.96	1	-
1	OAK047	2/22/1999	10S	563225	4188722	NAD27	37.84553	-122.28248	NAD83	13.0	17.55	1.5	California	Alameda	Qhl	357	380	660tc	0.96	1	-
1	OAK049	3/2/1999	10S	563246	4188261	NAD27	37.84137	-122.28229	NAD83	14.0	19.45	2.9	California	Alameda	Qhl	-	-	660tc	0.96	1	-
1	OAK061	3/30/1999	10S	563397	4185694	NAD27	37.81822	-122.28080	NAD83	5.0	19.50	2.8	California	Alameda	Qhaf	226	254	660	0.96	1	-
1	OAK068	4/15/1999	10S	568002	4180285	NAD27	37.76914	-122.22898	NAD83	4.0	15.95	3.7	California	Alameda	Qhaf1	238	251	660	0.96	1	-
1	OAK069	4/19/1999	10S	567210	4181179	NAD27	37.77726	-122.23788	NAD83	6.5	16.25	>1.8	California	Alameda	Qhaf1	244	246	660	0.96	1	-
1	OAK071	3/22/2000	10S	574294	4177609	NAD27	37.74454	-122.15782	NAD83	14.0	20.55	-	California	Alameda	Qhaf	331	306	660	0.96	1	-
1	OAK072	3/22/2000	10S	573203	4179332	NAD27	37.76015	-122.17004	NAD83	17.7	8.85	-	California	Alameda	Qhaf	323	-	660	0.96	1	-
1	OAK073	3/22/2000	10S	572641	4179942	NAD27	37.76570	-122.17635	NAD83	16.2	15.25	5.2	California	Alameda	Qhaf	339	349	660	0.96	1	-
1	OAK074	4/4/2000	10S	571969	4180769	NAD27	37.77320	-122.18390	NAD83	24.9	8.00	>8.1	California	Alameda	Qhaf	-	-	660	0.96	1	-
1	OAK075	4/4/2000	10S	569141	4184194	NAD27	37.80429	-122.21568	NAD83	61.0	14.80	>4.0	California	Alameda	Qhaf	248	-	660	0.96	1	-
1	OAK076	4/4/2000	10S	565164	4186432	NAD27	37.82475	-122.26065	NAD83	22.9	15.50	3.7	California	Alameda	Qhaf	268	288	660	0.96	1	-
1	OAK078	4/18/2000	10S	566166	4186888	NAD27	37.82879	-122.24923	NAD83	38.1	8.55	>0.6	California	Alameda	Qhaf	408	-	660	0.96	1	-
1	OAK083	8/28/2000	10S	563793	4187387	NAD27	37.83346	-122.27615	NAD83	18.3	24.00	4.6	California	Alameda	Qhf	248	293	660	0.96	1	-
1	OAK084	8/28/2000	10S	564402	4187808	NAD27	37.83720	-122.26919	NAD83	24.7	15.95	5.0	California	Alameda	Qhf	274	294	660	0.96	1	-
1	OAK085	8/28/2000	10S	564179	4185771	NAD27	37.81886	-122.27190	NAD83	10.7	20.50	>0.9	California	Alameda	Qhf	237	262	660	0.96	1	-
1	OAK086	9/14/2000	10S	568704	4182537	NAD27	37.78939	-122.22079	NAD83	30.4	17.05	4.1	California	Alameda	Qhf	276	284	660	0.96	1	-
1	OAK087	9/14/2000	10S	568573	4182605	NAD27	37.79001	-122.22228	NAD83	29.5	17.00	3.1	California	Alameda	Qhf	303	308	660	0.96	1	-
1	OAK088	9/14/2000	10S	568638	4182566	NAD27	37.78965	-122.22155	NAD83	30.0	19.30	3.8	California	Alameda	Qhf	286	306	660	0.96	1	-
1	OAK089	9/15/2000	10S	564618	4186561	NAD27	37.82595	-122.26685	NAD83	20.1	18.00	3.8	California	Alameda	Qhf	280	300	660	0.96	1	-
1	OAK090	9/15/2000	10S	564723	4186531	NAD27	37.82568	-122.26566	NAD83	20.1	16.00	3.8	California	Alameda	Qhf	265	275	660	0.96	1	-
1	OAK091	9/15/2000	10S	564828	4186479	NAD27	37.82520	-122.26447	NAD83	20.1	20.00	4.0	California	Alameda	Qhf	286	290	660	0.96	1	-
1	OAK092	9/21/2000	10S	564550	4187252	NAD27	37.83218	-122.26756	NAD83	25.6	17.75	4.6	California	Alameda	Qhf	308	323	660	0.96	1	-
1	OAK093	9/21/2000	10S	564777	4188694	NAD27	37.84517	-122.26485	NAD83	36.6	22.00	2.5	California	Alameda	Qhf	288	314	660	0.96	1	-
1	OAK094	10/11/2000	10S	571790	4178764	NAD27	37.75514	-122.18613	NAD83	4.9	13.00	2.6	California	Alameda	Qhb	310	333	660	0.96	1	-
1	OAK097	7/24/2001	10S	568291	4180158	NAD27	37.76798	-122.22572	NAD83	3.7	19.70	1.9	California	Alameda	Qhf	250	254	770TC	0.96	1	-
1	OAK098	7/24/2001	10S	567537	4181303	NAD27	37.77835	-122.23417	NAD83	7.3	20.80	3.3	California	Alameda	Qhf	230	279	770TC	0.96	1	-
1	OAK099	7/24/2001	10S	567080	4181568	NAD27	37.78077	-122.23933	NAD83	4.3	24.80	2.7	California	Alameda	Qhf	253	276	770TC	0.96	1	-
1	OAK100	7/25/2001	10S	568190	4180816	NAD27	37.77391	-122.22679	NAD83	8.5	21.20	3.3	California	Alameda	Qhf	242	254	770TC	0.96	1	-
1	OAK103	11/13/2001	10S	563334	4186754	NAD27	37.82778	-122.26141	NAD83	8.5	18.00	-	California	Alameda	Qhf	234	242	776TC	0.96	1	-
1	OAK104	11/13/2001	10S	563747	4188237	NAD27	37.84111	-122.27659	NAD83	17.7	15.80	-	California	Alameda	Qhf	331	345	776TC	0.96	1	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
1	OAK105	11/13/2001	10S	564855	4187267	NAD27	37.83230	-122.26409	NAD83	29.0	19.80	4.3	California	Alameda	Qhf	317	319	776TC	0.96	1	-
1	OAK106	11/15/2001	10S	564881	4187665	NAD27	37.83588	-122.26376	NAD83	31.1	15.20	>1.2	California	Alameda	Qhf	284	291	776TC	0.96	1	-
1	OAK107	3/27/2002	10S	564522	4189265	NAD27	37.85033	-122.26770	NAD83	36.3	12.00	>3	California	Alameda	Qhf	354	-	776TC	0.96	1	-
1	OAK108	3/27/2002	10S	565347	4189379	NAD27	37.85130	-122.25832	NAD83	53.3	13.30	>3.5	California	Alameda	Qhf	313	303	776TC	0.96	1	-
1	OAK110	4/10/2002	10S	568752	4187870	NAD27	37.83745	-122.21974	NAD83	155.0	14.20	8.1	California	Alameda	Qhf	296	324	776TC	0.96	1	-
1	OAK111	4/10/2002	10S	566344	4186849	NAD27	37.82843	-122.24721	NAD83	37.0	8.80	4.5	California	Alameda	Qhf	336	-	776TC	0.96	1	-
1	OAK120	5/21/2002	10S	574475	4177155	NAD27	37.74043	-122.15582	NAD83	15.8	12.35	5.9	California	Alameda	Qhf	310	316	776TC	0.96	1	-
1	OAK121	5/21/2002	10S	573996	4176980	NAD27	37.73889	-122.16126	NAD83	14.0	15.20	5.1	California	Alameda	Qhf	263	275	776TC	0.96	1	-
1	OAK122	5/21/2002	10S	572790	4178351	NAD27	37.75134	-122.17481	NAD83	10.1	16.00	3.3	California	Alameda	Qhf	308	323	776TC	0.96	1	-
1	OAK123	5/21/2002	10S	571777	4179814	NAD27	37.76461	-122.18616	NAD83	14.0	16.45	>1	California	Alameda	Qhf	317	321	776TC	0.96	1	-
1	OAK124	5/22/2002	10S	572317	4179288	NAD27	37.75983	-122.18008	NAD83	11.0	19.90	2.8	California	Alameda	Qhl	294	300	776TC	0.96	1	-
1	OAK125	5/22/2002	10S	571185	4180130	NAD27	37.76750	-122.19286	NAD83	14.0	18.60	5.5	California	Alameda	Qhf	317	319	776TC	0.96	1	-
1	OAK126	5/22/2002	10S	569828	4180253	NAD27	37.76871	-122.20825	NAD83	7.9	15.00	4.9	California	Alameda	Qhf	370	382	776TC	0.96	1	-
2a	SCC001	4/14/1999	10S	574004	4142976	NAD27	37.43243	-122.16461	NAD83	20.0	8.7	-	California	Santa Clara	Qhf2	385	405	660	0.96	1	-
2a	SCC005	9/9/1999	10S	578070	4143454	NAD27	37.43641	-122.11861	NAD83	1.5	20.2	-	California	Santa Clara	Qhff	205	224	660	0.96	1	-
2a	SCC008	9/20/1999	10S	596028	4145497	NAD27	37.45313	-121.91538	NAD83	3.0	19.1	-	California	Santa Clara	Qhff	217	226	660	0.96	1	-
2a	SCC009	9/21/1999	10S	596334	4144400	NAD27	37.44321	-121.91206	NAD83	3.0	18.2	-	California	Santa Clara	Qhff	200	211	660	0.96	1	-
2a	SCC010	9/22/1999	10S	599662	4142435	NAD27	37.42515	-121.87472	NAD83	30.0	17.8	-	California	Santa Clara	Qhf	278	283	660	0.96	1	-
2a	SCC011	9/22/1999	10S	599146	4142194	NAD27	37.42303	-121.88058	NAD83	25.0	15.8	-	California	Santa Clara	Qhf	258	268	660	0.96	1	-
2a	SCC012	9/23/1999	10S	596123	4142919	NAD27	37.42989	-121.91464	NAD83	4.0	13.95	-	California	Santa Clara	Qhff	206	214	660	0.96	1	-
2a	SCC014	9/28/1999	10S	595303	4142314	NAD27	37.42452	-121.92399	NAD83	6.0	25.65	-	California	Santa Clara	Qhfy	248	263	660	0.96	1	-
2a	SCC015	9/28/1999	10S	577098	4142805	NAD27	37.43064	-122.12967	NAD83	5.5	23.25	-	California	Santa Clara	Qhff	213	227	660	0.96	1	-
2a	SCC016	10/4/1999	10S	593349	4141710	NAD27	37.41928	-121.94614	NAD83	4.0	19.9	-	California	Santa Clara	Qhff	227	234	660	0.96	1	-
2a	SCC017	10/4/1999	10S	593033	4141729	NAD27	37.41948	-121.94971	NAD83	4.0	15.2	-	California	Santa Clara	Qhff	222	233	660	0.96	1	-
2a	SCC018	10/5/1999	10S	589044	4140730	NAD27	37.41087	-121.99490	NAD83	1.0	15.1	-	California	Santa Clara	Qhff	244	247	660	0.96	1	-
2a	SCC019	10/5/1999	10S	586692	4139028	NAD27	37.39575	-122.02168	NAD83	10.0	15.05	-	California	Santa Clara	Qhff	220	223	660	0.96	1	-
2a	SCC021	10/6/1999	10S	588664	4139140	NAD27	37.39657	-121.99938	NAD83	5.0	15.3	-	California	Santa Clara	Qhff	225	229	660	0.96	1	-
2a	SCC022	10/6/1999	10S	587430	4138052	NAD27	37.38688	-122.01345	NAD83	14.0	16.7	-	California	Santa Clara	Qhf	247	273	660	0.96	1	-
2a	SCC023	10/13/1999	10S	585156	4136839	NAD27	37.37616	-122.03928	NAD83	33.0	13.9	-	California	Santa Clara	Qhf	286	294	660	0.96	1	-
2a	SCC026	10/13/1999	10S	586266	4137506	NAD27	37.38207	-122.02666	NAD83	23.0	9.9	-	California	Santa Clara	Qhf	323	-	660	0.96	1	-
2a	SCC028	10/15/1999	10S	590175	4138675	NAD27	37.39223	-121.98238	NAD83	4.5	23.9	-	California	Santa Clara	Qhff	247	263	660	0.96	1	-
2a	SCC030	10/19/1999	10S	579858	4140795	NAD27	37.41229	-122.09869	NAD83	7.0	14.9	-	California	Santa Clara	Qhff	241	254	660	0.96	1	-
2a	SCC032	10/19/1999	10S	581241	4140006	NAD27	37.40506	-122.08315	NAD83	13.0	16.4	-	California	Santa Clara	Qhf	219	227	660	0.96	1	-
2a	SCC033	10/20/1999	10S	582785	4139698	NAD27	37.40215	-122.06573	NAD83	17.0	14.65	-	California	Santa Clara	Qhf	305	333	660	0.96	1	-
2a	SCC034	10/20/1999	10S	581877	4139972	NAD27	37.40469	-122.07597	NAD83	14.0	8.8	-	California	Santa Clara	Qhf	258	278	660	0.96	1	-
2a	SCC035	10/26/1999	10S	586690	4139026	NAD27	37.39573	-122.02170	NAD83	10.0	15.05	-	California	Santa Clara	Qhff	238	246	660	0.96	1	-
2a	SCC036	10/28/1999	10S	575638	4144898	NAD27	37.44962	-122.14595	NAD83	7.9	13.15	-	California	Santa Clara	Qhf1	215	233	660	0.96	1	-
2a	SCC037	11/10/1999	10S	583331	4138852	NAD27	37.39447	-122.05967	NAD83	22.0	14.65	-	California	Santa Clara	Qhf	242	248	660	0.96	1	-
2a	SCC039	11/19/1999	10S	589121	4139516	NAD27	37.39992	-121.99418	NAD83	4.6	16	-	California	Santa Clara	Qhff	241	242	660	0.96	1	-
2a	SCC042	12/29/1999	10S	589784	4140710	NAD27	37.41061	-121.98654	NAD83	1.5	25.2	-	California	Santa Clara	Qhff	225	233	660	0.96	1	-
2a	SCC048	1/7/2000	10S	590657	4140402	NAD27	37.40775	-121.97672	NAD83	4.5	18.8	-	California	Santa Clara	Qhfy	204	213	660	0.96	1	-
2a	SCC049	1/7/2000	10S	589761	4138987	NAD27	37.39509	-121.98701	NAD83	3.0	18.9	-	California	Santa Clara	Qhff	244	251	660	0.96	1	-
2a	SCC050	2/2/2000	10S	596611	4135939	NAD27	37.36693	-121.91004	NAD83	14.3	19.95	3.2	California	Santa Clara	Qhf	179	188	660	0.96	1	-
2a	SCC051	2/2/2000	10S	593884	4134532	NAD27	37.35453	-121.94101	NAD83	19.8	9.9	dry	California	Santa Clara	Qhf	166	166	660	0.96	1	-
2a	SCC052	2/3/2000	10S	588300	4131449	NAD27	37.32729	-122.00442	NAD83	50.9	10.8	dry	California	Santa Clara	Qhf	351	-	660	0.96	1	-
2a	SCC053	2/3/2000	10S	590913	4135051	NAD27	37.35950	-121.97449	NAD83	18.9	14.9	2.3	California	Santa Clara	Qhf	241	254	660	0.96	1	-
2a	SCC054	4/19/2000	10S	581309	4141760	NAD27	37.42086	-122.08218	NAD83	3.0	13.9	4.0	California	Santa Clara	Qhff	237	240	660	0.96	1	-
2a	SCC055	4/20//00	10S	591389	4139710	NAD27	37.40144	-121.96854	NAD83	3.0	18	3.0	California	Santa Clara	Qhff	212	224	660	0.96	1	-
2a	SCC056	4/20/2000	10S	592433	4138610	NAD27	37.39142	-121.95688	NAD83	6.4	17.8	Dry to 0.6	California	Santa Clara	Qhff	236	244	660	0.96	1	-
2a	SCC060	5/25/2000	10S	594434	4136137	NAD27	37.36894	-121.93459	NAD83	11.6	15.25	-	California	Santa Clara	Qhff	200	201	660	0.96	1	-
2a	SCC061	5/25/2000	10S	594187	4135514	NAD27	37.36335	-121.93745	NAD83	14.6	19.5	-	California	Santa Clara	Qhff	204	217	660	0.96	1	-
2a	SCC064	5/25/2000	10S	595160	4134621	NAD27	37.35520	-121.92658	NAD83	16.5	7.1	-	California	Santa Clara	Qhff	-	-	660	0.96	1	-
2a	SCC067	6/6/2000	10S	586907	4141457	NAD27	37.41762	-122.01895	NAD83	1.0	16.35	-	California	Santa Clara	Qhff	238	254	660	0.96	1	-
2a	SCC069	6/6/2000	10S	586806	4140837	NAD27	37.41204	-122.02017	NAD83	2.0	18.35	-	California	Santa Clara	Qhff	241	248	660	0.96	1	-
2a	SCC082	6/20/2000	10S	584718	4140060	NAD27	37.40524	-122.04386	NAD83	11.0	13.1	-	California	Santa Clara	Qhff	256	275	660	0.96	1	-
2a	SCC084	6/20/2000	10S	584469	4140655	NAD27	37.41062	-122.04660	NAD83	7.3	17.1	-	California	Santa Clara	Qhff	230	242	660	0.96	1	-
2a	SCC085	6/20/2000	10S	584121	4141484	NAD27	37.41812	-122.05045	NAD83	4.0	18.15	-	California	Santa Clara	Qhff	245	254	660	0.96	1	-
2a	SCC086	6/20/2000	10S	583853	4142120	NAD27	37.42388	-122.05340	NAD83	1.2	16	-	California	Santa Clara	Qhff	248	252	660	0.96	1	-
2a	SCC088	6/20/2000	10S	583464	4142314	NAD27	37.42566	-122.05777	NAD83	1.2	15.1	-	California	Santa Clara	Qhff	250	250	660	0.96	1	-
2a	SCC093	6/21/2000	10S	595044	4135482	NAD27	37.36297	-121.92779	NAD83	14.6	18.2	-	California	Santa Clara	Qhff	199	203	660	0.96	1	-
2a	SCC095	6/26/2000	10S	584316	4140023	NAD27	37.40494	-122.04842	NAD83	10.7	22.45	-	California	Santa Clara	Qhff	244	250	660	0.96	1	-
2a	SCC096	6/26/2000	10S	585205	4139747	NAD27	37.40237	-122.03839	NAD83	10.7	15.85	-	California	Santa Clara	Qhff	221	231	660	0.96	1	-
2a	SCC097	6/26/2000	10S	584921	4142464	NAD27	37.42688	-122.04129	NAD83	0.1	18.2	-	California	Santa Clara	Qhff	256	256	660	0.96	1	-
2a	SCC098	6/26/2000	10S	582532	4142514	NAD27	37.42754	-122.06829	NAD83	1.5	15.35	-	California	Santa Clara	Qhff	244	251	660	0.96	1	-
2a	SCC099	6/29/2000	10S	596823	4133617	NAD27	37.34598	-121.90795	NAD83	20.7	12.15	-	California	Santa Clara	Qhl	189	205	660	0.96	1	-
2a	SCC102	6/30/2000	10S	600754	4131253	NAD27	37.32426	-121.86390	NAD83	33.5	22.15	-	California	Santa Clara	Qhl	220	229	660	0.96	1	-
2a	SCC103	7/12/2000	10S	597656	4132319	NAD27	37.33419	-121.89872	NAD83	25.3	13.7	-	California	Santa Clara	Qhf	215	240	660	0.96	1	-
2a	SCC104	7/12/2000	10S	598188	4131699	NAD27	37.32855	-121.89279	NAD83	27.4	13.7	-	California	Santa Clara	Qhf	192	201	660	0.96	1	-
2a	SCC106	7/18/2000	10S	598950	4134241	NAD27	37.35138	-121.88386	NAD83	22.8	19.2	-	California	Santa Clara	Qhl	225	255	660	0.96	1	-
2a	SCC109	7/18/2000	10S	599628	4134729	NAD27	37.35571	-121.87614	NAD83	25.9	12.4	-	California	Santa Clara	Qhl	247	256	660	0.96	1	-
2a	SCC111	7/18/2000	10S	600000	4133807	NAD27	37.34735	-121.87206	NAD83	28.9	18.1	-	California	Santa Clara	Qhl	221	221	660	0.96	1	-
2a	SCC112	7/19/2000	10S	600363	4132357	NAD27	37.33425	-121.86816	NAD83	30.1	21.4	-	California	Santa Clara	Qhl	225	222	660	0.96	1	-
2a	SCC117	7/31/2000	10S	599515	4133479	NAD27	37.34445	-121.87759	NAD83	24.6	20.35	-	California	Santa Clara	Qhl	200	195	660	0.96	1	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
2a	SCC118	8/3/2000	10S	598383	4135711	NAD27	37.36469	-121.89005	NAD83	21.0	16.65	-	California	Santa Clara	Qhl	178	181	660	0.96	1	-
2a	SCC119	8/3/2000	10S	597023	4136847	NAD27	37.37507	-121.90526	NAD83	14.6	14.5	-	California	Santa Clara	Qhf	227	252	660	0.96	1	-
2a	SCC123	8/11/2000	10S	601044	4134780	NAD27	37.35601	-121.86014	NAD83	26.8	14	-	California	Santa Clara	Qhff	194	210	660	0.96	1	-
2a	SCC124	8/11/2000	10S	599854	4137029	NAD27	37.37641	-121.87327	NAD83	25.3	15.25	-	California	Santa Clara	Qhf	260	279	660	0.96	1	-
2a	SCC125	8/16/2000	10S	600497	4137689	NAD27	37.38229	-121.86592	NAD83	36.3	8.25	-	California	Santa Clara	Qhf	333	345	660	0.96	1	-
2a	SCC126	8/16/2000	10S	601402	4138327	NAD27	37.38794	-121.85562	NAD83	50.2	3.4	-	California	Santa Clara	Qhf	-	-	660	0.96	1	-
2a	SCC128	8/17/2000	10S	602147	4138973	NAD27	37.39368	-121.84711	NAD83	59.4	3.5	-	California	Santa Clara	Qhf	-	-	660	0.96	1	-
2a	SCC129	8/18/2000	10S	598486	4138691	NAD27	37.39153	-121.88850	NAD83	18.6	24.8	-	California	Santa Clara	Qhf	222	234	660	0.96	1	-
2a	SCC130	8/18/2000	10S	601036	4140269	NAD27	37.40548	-121.85948	NAD83	39.6	3.15	-	California	Santa Clara	Qhf	-	-	660	0.96	1	-
2a	SCC132	7/18/2001	10S	593703	4125904	NAD27	37.27679	-121.94414	NAD83	65.2	5.15	-	California	Santa Clara	Qhl	-	-	660	0.96	1	-
2a	SCC134	2/14/2002	10S	593706	4130453	NAD27	37.31778	-121.94353	NAD83	43.3	19	-	California	Santa Clara	Qhf	274	299	766TC	0.96	1	-
2a	SCC160	7/21/1988	10S	595502	4142141	NAD27	37.42294	-121.92176	NAD83	5.5	11.80	-	California	Santa Clara	Qhfy	-	-	329	0.96	None	-
2a	SCC161	7/21/1988	10S	595374	4142139	NAD27	37.42294	-121.92321	NAD83	5.5	6.19	3.5	California	Santa Clara	Qhfy	-	-	329	0.96	None	-
2a	SCC162	7/21/1988	10S	595149	4142048	NAD27	37.42214	-121.92577	NAD83	5.8	6.71	-	California	Santa Clara	Qhfy	-	-	329	0.96	None	-
2a	SCC163	7/21/1988	10S	595276	4142264	NAD27	37.42407	-121.92430	NAD83	5.5	7.01	-	California	Santa Clara	Qhfy	-	-	329	0.96	None	-
2a	SCC164	7/25/1988	10S	595216	4142446	NAD27	37.42572	-121.92494	NAD83	5.2	7.50	5.1	California	Santa Clara	Qhfy	-	-	329	0.96	None	-
2a	SCC168	3/27/2003	10S	606666	4130414	NAD27	37.31603	-121.79729	NAD83	55.2	27	6.6	California	Santa Clara	Qhf	385	380	766tc	0.96	1	-
2a	SCC171	8/21/2003	10S	576853	4145221	NAD27	37.45243	-122.13218	NAD83	5.0	26.5	3.5	California	Santa Clara	Qhl1	255	271	766tc	0.96	1	-
2a	SCC179	8/1/2006	10S	4134147	582833	NAD27	4.51050	-91.86909	NAD83	64.0	6.10	-	California	Santa Clara	Qhl	313	331	DDG0766	0.96	2	-
2a	SCC180	8/8/2006	10S	4134899	583787	NAD27	4.51759	-91.86292	NAD83	56.0	11.3	-	California	Santa Clara	Qhl	367	370	DDG0766	0.96	2	-
2a	SCC182	8/8/2006	10S	4132570	589437	NAD27	4.56216	-91.87881	NAD83	40.0	10.9	-	California	Santa Clara	Qhl	408	435	DDG0766	0.96	2	-
2a	SCC183	8/8/2006	10S	4133188	593661	NAD27	4.59459	-91.87245	NAD83	27.0	21	-	California	Santa Clara	Qhl	225	271	DDG0766	0.96	2	-
2a	SCC184	8/9/2006	10S	4131914	592855	NAD27	4.58884	-91.88261	NAD83	36.0	11.15	-	California	Santa Clara	Qhl	227	271	DDG0766	0.96	2	-
2a	SCC185	8/9/2006	10S	4129998	593250	NAD27	4.59262	-91.89729	NAD83	47.0	12.75	-	California	Santa Clara	Qhl	328	357	DDG0766	0.96	2	-
2a	SCC186	8/9/2006	10S	4128588	593326	NAD27	4.59374	-91.90816	NAD83	54.0	8.35	-	California	Santa Clara	Qhl	364	377	DDG0766	0.96	2	-
2a	SCC187	8/15/2006	10S	4129078	594611	NAD27	4.60350	-91.90388	NAD83	51.0	12	-	California	Santa Clara	Qhl	299	308	DDG0766	0.96	2	-
2a	SCC188	8/15/2006	10S	4126549	595440	NAD27	4.61087	-91.92314	NAD83	57.0	8	-	California	Santa Clara	Qhl	339	361	DDG0766	0.96	2	-
2a	SCC189	8/15/2006	10S	4126468	597101	NAD27	4.62375	-91.92314	NAD83	51.0	9.1	-	California	Santa Clara	Qhl	357	392	DDG0766	0.96	2	-
2a	SCC190	8/15/2006	10S	4127082	599457	NAD27	4.64175	-91.91750	NAD83	43.0	18.5	-	California	Santa Clara	Qhl	282	305	DDG0766	0.96	2	-
2a	SCC191	8/15/2006	10S	4129035	599615	NAD27	4.64222	-91.90233	NAD83	40.0	10	-	California	Santa Clara	Qhl	268	291	DDG0766	0.96	2	-
2a	SCC192	8/22/2006	10S	591290	4137577	NAD27	37.38223	-121.96992	NAD83	11.0	30.5	-	California	Santa Clara	Qhfy	240	263	DDG0766	0.96	2	-
2a	SCC193	8/22/2006	10S	591448	4138522	NAD27	37.39073	-121.96802	NAD83	6.0	26.7	-	California	Santa Clara	Qhfy	256	275	DDG0766	0.96	2	-
2a	SCC194	8/22/2006	10S	593961	4141185	NAD27	37.41448	-121.93929	NAD83	5.0	20.5	-	California	Santa Clara	Qhfy	238	255	DDG0766	0.96	2	-
2a	SCC195	8/23/2006	10S	4134172	601399	NAD27	4.65405	-91.86190	NAD83	29.0	24.7	-	California	Santa Clara	Qhl	208	230	DDG0766	0.96	2	-
2a	SCC196	8/23/2006	10S	4133139	603116	NAD27	4.66772	-91.86922	NAD83	33.0	24.7	-	California	Santa Clara	Qhl	202	226	DDG0766	0.96	2	-
2a	SCC197	8/23/2006	10S	4129978	604527	NAD27	4.67985	-91.89315	NAD83	45.0	20.5	-	California	Santa Clara	Qhl	233	239	DDG0766	0.96	2	-
2a	SCC198	8/24/2006	10S	596176	4137943	NAD27	37.38503	-121.91469	NAD83	13.0	20.5	-	California	Santa Clara	Qhfy	248	273	DDG0766	0.96	2	-
2a	SCC199	8/24/2006	10S	594424	4140157	NAD27	37.40517	-121.93419	NAD83	6.0	19.5	-	California	Santa Clara	Qhfy	256	278	DDG0766	0.96	2	-
2b	SCC013	9/23/1999	10S	594900	4142150	NAD27	37.42308	-121.92857	NAD83	4.0	17.8	-	California	Santa Clara	Qhly	206	214	660	0.96	1	-
2b	SCC045	12/30/1999	10S	595092	4141002	NAD27	37.41272	-121.92654	NAD83	7.3	31.65	-	California	Santa Clara	Qhly	238	252	660	0.96	1	-
2b	SCC046	1/4/2000	10S	594632	4141430	NAD27	37.41662	-121.93168	NAD83	6.0	15.2	-	California	Santa Clara	Qhly	222	231	660	0.96	1	-
2b	SCC057	4/21/2000	10S	593436	4138500	NAD27	37.39033	-121.94556	NAD83	7.3	13.85	2.7	California	Santa Clara	Qhly	211	219	660	0.96	1	-
2b	SCC066	5/25/2000	10S	595934	4135132	NAD27	37.35973	-121.91779	NAD83	16.7	15.8	-	California	Santa Clara	Qhly	192	200	660	0.96	1	-
2b	SCC073	6/12/2000	10S	596134	4134836	NAD27	37.35703	-121.91557	NAD83	13.7	12.95	-	California	Santa Clara	Qhly	200	210	660	0.96	1	-
2b	SCC076	6/13/2000	10S	595061	4142471	NAD27	37.42596	-121.92670	NAD83	4.5	13.85	-	California	Santa Clara	Qhly	227	246	660	0.96	1	-
2b	SCC077	6/13/2000	10S	594873	4143240	NAD27	37.43291	-121.92873	NAD83	3.0	18.65	-	California	Santa Clara	Qhly	217	231	660	0.96	1	-
2b	SCC079	6/13/2000	10S	595302	4140184	NAD27	37.40532	-121.92428	NAD83	8.5	14.25	-	California	Santa Clara	Qhly	225	242	660	0.96	1	-
2b	SCC081	6/13/2000	10S	596048	4139313	NAD27	37.39740	-121.91595	NAD83	11.5	12.15	-	California	Santa Clara	Qhly	253	261	660	0.96	1	-
2b	SCC089	6/21/2000	10S	595591	4134896	NAD27	37.35763	-121.92169	NAD83	16.4	18.8	-	California	Santa Clara	Qhly	203	222	660	0.96	1	-
2b	SCC092	6/21/2000	10S	595858	4134586	NAD27	37.35481	-121.91872	NAD83	17.3	16.1	-	California	Santa Clara	Qhly	205	216	660	0.96	1	-
2b	SCC120	8/3/2000	10S	599043	4136523	NAD27	37.37193	-121.88250	NAD83	23.4	18.5	-	California	Santa Clara	Qhly	223	219	660	0.96	1	-
2b	SCC135	8/20/2002	10S	594271	4137105	NAD27	37.37768	-121.93631	NAD83	9.8	19	13.0	California	Santa Clara	Qhly	227	261	766TC	0.96	1	-
2b	SCC136	1974	10S	595169	4140777	NAD27	37.41068	-121.92570	NAD83	7.3	28.05	5.5	California	Santa Clara	Qhly	-	-	mechanical	None	None	-
2b	SCC142	10/10/1979	10S	594555	4141626	NAD27	37.41839	-121.93253	NAD83	5.5	17.40	3.6	California	Santa Clara	Qhly	-	-	mechanical	None	None	-
2b	SCC147	7/26/1988	10S	595042	4143715	NAD27	37.43717	-121.92675	NAD83	3.4	6.71	-	California	Santa Clara	Qhly	-	-	329	None	None	-
2b	SCC149	7/13/1988	10S	594963	4142576	NAD27	37.42692	-121.92779	NAD83	5.2	9.70	-	California	Santa Clara	Qhly	-	-	329	None	None	-
2b	SCC151	7/14/88	10S	594909	4142762	NAD27	37.42860	-121.92838	NAD83	4.9	7.71	2.8	California	Santa Clara	Qhly	-	-	329	None	None	-
2b	SCC152	7/14/88	10S	594921	4142648	NAD27	37.42757	-121.92826	NAD83	4.9	9.91	3.5	California	Santa Clara	Qhly	-	-	329	None	None	-
2b	SCC154	7/21/1988	10S	595078	4142146	NAD27	37.42303	-121.92654	NAD83	5.8	8.90	5.0	California	Santa Clara	Qhly	-	-	329	None	None	-
2b	SCC157	7/16/79	10S	594907	4142727	NAD27	37.42828	-121.92840	NAD83	4.9	15.79	2.4	California	Santa Clara	Qhly	-	-	mechanical	None	None	-
2b	SCC158	7/16/79	10S	594909	4142724	NAD27	37.42826	-121.92839	NAD83	4.9	15.79	2.4	California	Santa Clara	Qhly	-	-	mechanical	None	None	-
2b	SCC159	7/16/79	10S	594906	4142724	NAD27	37.42826	-121.92841	NAD83	4.9	12.00	2.4	California	Santa Clara	Qhly	-	-	mechanical	None	None	-
2b	SCC166	7/25/1988	10S	594975	4142915	NAD27	37.42997	-121.92760	NAD83	4.9	7.50	-	California	Santa Clara	Qhly	-	-	329	None	None	-
3a	CHN001	10/23/2004	17S	613294	3628156	NAD83	32.78740	-79.78997	NAD83	3.6	20.50	-	South Carolina	Charleston	Qhs	237	263	DDE0766	0.96	2	-
3a	CHN002	10/23/2004	17S	617205	3629931	NAD83	32.80299	-79.74799	NAD83	3.0	20.50	-	South Carolina	Charleston	Qhs	237	259	DDE0766	0.96	2	-
3a	CHN003	10/23/2004	17S	615811	3629440	NAD83	32.79872	-79.76293	NAD83	2.1	20.50	-	South Carolina	Charleston	Qhs	208	234	DDE0766	0.96	2	-
3a	CHN004	10/23/2004	17S	614792	3629052	NAD83	32.79533	-79.77386	NAD83	0.3	20.50	-	South Carolina	Charleston	Qhs	167	169	DDE0766	0.96	2	-
3a	CHN005	10/23/2004	17S	612471	3627744	NAD83	32.78377	-79.79881	NAD83	2.1	20.50	-	South Carolina	Charleston	Qhs	168	155	DDE0766	0.96	2	-
3a	CHN024	10/30/2004	17S	610634	3626108	NAD83	32.76920	-79.81861	NAD83	2.1	20.20	-	South Carolina	Charleston	Qhs	190	211	DDE0766	0.96	2	-
3a	CHN025	10/30/2004	17S	611006	3626933	NAD83	32.77660	-79.81454	NAD83	0.9	20.30	-	South Carolina	Charleston	Qhs	164	163	DDE0766	0.96	2	-
3a	CHN026	11/1/2004	17S	611886	3627412	NAD83	32.78083	-79.80509	NAD83	4.3	20.50	-	South Carolina	Charleston	Qhs	250	-	DDE0766	0.96	2	-
3a	CHN027	11/1/2004	17S	607048	3625071	NAD83	32.76020	-79.85702	NAD83	3.0	20.30	-	South Carolina	Charleston	Qhs	229	224	DDE0766	0.96	2	-
3a	CHN028	11/1/2004	17S	608379	3625029	NAD83	32.75969	-79.84280	NAD83	2.1	20.40	-	South Carolina	Charleston	Qhs	231	242	DDE0766	0.96	2	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
3a	CHN039	11/10/2004	17S	581793	3606040	NAD83	32.59072	-80.12827	NAD83	3.0	17.60	-	South Carolina	Charleston	Qhs	-	-	DDE0766	0.96	2	-
3a	CHN042	11/10/2004	17S	588500	3609846	NAD83	32.62453	-80.05645	NAD83	3.6	20.00	-	South Carolina	Charleston	Qhs	197	219	DDE0766	0.96	2	-
3a	CHN043	11/12/2004	17S	592076	3609137	NAD83	32.61784	-80.01840	NAD83	0.9	20.00	-	South Carolina	Charleston	Qhs	238	286	DDE0766	0.96	2	-
3a	CHN044	11/12/2004	17S	589206	3608639	NAD83	32.61359	-80.04904	NAD83	4.3	20.00	-	South Carolina	Charleston	Qhs	240	273	DDE0766	0.96	2	-
3a	CHN045	11/12/2004	17S	588149	3608303	NAD83	32.61064	-80.06033	NAD83	6.1	20.10	-	South Carolina	Charleston	Qhs	189	213	DDE0766	0.96	2	-
3a	CHN052	11/15/2004	17S	577205	3602784	NAD83	32.56168	-80.17743	NAD83	2.1	20.00	-	South Carolina	Charleston	Qhs	195	208	DDE0766	0.96	2	-
3a	CHN053	11/15/2004	17S	578990	3603723	NAD83	32.57002	-80.15833	NAD83	0.0	20.10	-	South Carolina	Charleston	Qhs	211	253	DDE0766	0.96	2	-
3a	CHN054	11/16/2004	17S	598880	3615381	NAD83	32.67357	-79.94524	NAD83	1.8	20.10	-	South Carolina	Charleston	Qhs	185	203	DDE0766	0.96	2	-
3a	CHN055	11/16/2004	17S	598495	3613181	NAD83	32.65376	-79.94957	NAD83	3.0	20.20	-	South Carolina	Charleston	Qhs	216	246	DDE0766	0.96	2	-
3a	CHN056	11/16/2004	17S	597452	3612609	NAD83	32.64870	-79.96075	NAD83	0.9	20.10	-	South Carolina	Charleston	Qhs	213	261	DDE0766	0.96	2	-
3a	CHN057	11/17/2004	17S	599083	3613533	NAD83	32.65689	-79.94326	NAD83	4.9	20.20	-	South Carolina	Charleston	Qhs	221	259	DDE0766	0.96	2	-
3a	CHN058	11/17/2004	17S	600594	3614194	NAD83	32.66271	-79.92708	NAD83	4.3	17.00	-	South Carolina	Charleston	Qhs	203	214	DDE0770	0.96	2	-
3a	CHN061	11/18/2004	17S	601318	3614757	NAD83	32.66772	-79.91930	NAD83	1.8	20.10	-	South Carolina	Charleston	Qhs	202	226	DDE0770	0.96	2	-
3a	CHN062	11/18/2004	17S	602952	3615669	NAD83	32.67579	-79.90177	NAD83	2.1	20.10	-	South Carolina	Charleston	Qhs	191	219	DDE0770	0.96	2	-
3a	CHN063	11/18/2004	17S	603906	3616516	NAD83	32.68335	-79.89150	NAD83	0.9	20.00	-	South Carolina	Charleston	Qhs	187	210	DDE0770	0.96	2	-
3a	CHN070	11/22/2004	17S	579611	3605853	NAD83	32.58919	-80.15154	NAD83	4.9	20.00	-	South Carolina	Charleston	Qhs	222	246	DDE0770	0.96	2	-
3a	CHN071	11/22/2004	17S	578120	3604573	NAD83	32.57775	-80.16753	NAD83	4.9	20.20	-	South Carolina	Charleston	Qhs	200	244	DDE0770	0.96	2	-
3a	CHN072	11/22/2004	17S	577092	3603964	NAD83	32.57233	-80.17854	NAD83	2.1	17.60	-	South Carolina	Charleston	Qhs	250	288	DDE0770	0.96	2	-
3a	CHN073	11/22/2004	17S	577777	3604294	NAD83	32.57526	-80.17120	NAD83	4.9	19.50	-	South Carolina	Charleston	Qhs	248	286	DDE0770	0.96	2	-
3a	CHN076	11/23/2004	17S	599826	3614119	NAD83	32.66211	-79.93528	NAD83	4.0	20.00	-	South Carolina	Charleston	Qhs	219	226	DDE0770	0.96	2	-
3b	BKY001	10/22/2004	17S	610865	3648412	NAD83	32.97033	-79.81347	NAD83	14.9	19.65	-	South Carolina	Berkeley	Qts	250	306	DDE0766	0.96	2	-
3b	BKY002	10/22/2004	17S	611534	3649019	NAD83	32.97574	-79.80624	NAD83	14.3	20.50	-	South Carolina	Berkeley	Qts	260	313	DDE0766	0.96	2	-
3b	BKY003	11/5/2004	17S	612333	3649549	NAD83	32.98043	-79.79762	NAD83	13.1	20.20	-	South Carolina	Berkeley	Qts	245	309	DDE0766	0.96	2	-
3b	BKY004	11/5/2004	17S	613361	3649972	NAD83	32.98414	-79.78658	NAD83	15.2	20.50	-	South Carolina	Berkeley	Qts	263	309	DDE0766	0.96	2	-
3b	BKY005	11/5/2004	17S	613982	3650622	NAD83	32.98994	-79.77985	NAD83	11.9	20.30	-	South Carolina	Berkeley	Qts	194	179	DDE0766	0.96	2	-
3b	BKY006	11/6/2004	17S	600635	3641014	NAD83	32.90460	-79.92374	NAD83	12.2	20.00	-	South Carolina	Berkeley	Qts	265	294	DDE0766	0.96	2	-
3b	BKY007	11/6/2004	17S	602268	3642182	NAD83	32.91498	-79.90614	NAD83	14.6	20.20	-	South Carolina	Berkeley	Qts	225	227	DDE0766	0.96	2	-
3b	BKY008	11/6/2004	17S	602943	3643119	NAD83	32.92337	-79.89882	NAD83	11.9	20.20	-	South Carolina	Berkeley	Qts	267	302	DDE0766	0.96	2	-
3b	BKY009	11/6/2004	17S	608558	3645498	NAD83	32.94428	-79.83850	NAD83	14.0	20.00	-	South Carolina	Berkeley	Qts	206	226	DDE0766	0.96	2	-
3b	BKY010	11/6/2004	17S	607180	3647443	NAD83	32.96196	-79.85300	NAD83	11.3	20.20	-	South Carolina	Berkeley	Qts	226	263	DDE0766	0.96	2	-
3b	BKY011	11/8/2004	17S	610544	3646629	NAD83	32.95428	-79.81712	NAD83	13.1	20.20	-	South Carolina	Berkeley	Qts	270	299	DDE0766	0.96	2	-
3b	BKY012	11/8/2004	17S	610162	3648171	NAD83	32.96822	-79.82102	NAD83	15.8	20.00	-	South Carolina	Berkeley	Qts	284	351	DDE0766	0.96	2	-
3b	BKY013	11/8/2004	17S	608928	3647829	NAD83	32.96526	-79.83426	NAD83	13.1	20.40	-	South Carolina	Berkeley	Qts	238	253	DDE0766	0.96	2	-
3b	BKY014	11/8/2004	17S	614791	3651196	NAD83	32.99503	-79.77112	NAD83	11.9	20.20	-	South Carolina	Berkeley	Qts	208	208	DDE0766	0.96	2	-
3b	BKY015	11/8/2004	17S	615589	3651747	NAD83	32.99992	-79.76251	NAD83	9.1	20.20	-	South Carolina	Berkeley	Qts	208	216	DDE0766	0.96	2	-
3b	BKY016	11/9/2004	17S	615930	3650963	NAD83	32.99281	-79.75896	NAD83	11.3	20.00	-	South Carolina	Berkeley	Qts	270	317	DDE0766	0.96	2	-
3b	BKY017	11/9/2004	17S	616890	3651994	NAD83	33.00201	-79.74855	NAD83	11.9	20.10	-	South Carolina	Berkeley	Qts	222	224	DDE0766	0.96	2	-
3b	BKY018	11/9/2004	17S	617613	3653136	NAD83	33.01223	-79.74066	NAD83	12.2	20.20	-	South Carolina	Berkeley	Qts	240	280	DDE0766	0.96	2	-
3b	BKY019	11/9/2004	17S	601441	3641480	NAD83	32.90873	-79.91507	NAD83	14.3	33.00	-	South Carolina	Berkeley	Qts	215	236	DDE0766	0.96	2	-
3b	BKY020	11/14/2004	17S	618318	3654180	NAD83	33.02156	-79.73299	NAD83	14.0	20.00	-	South Carolina	Berkeley	Qts	280	349	DDE0766	0.96	2	-
3b	BKY021	11/14/2004	17S	618001	3655740	NAD83	33.03567	-79.73618	NAD83	13.1	20.00	-	South Carolina	Berkeley	Qts	272	319	DDE0766	0.96	2	-
3b	BKY022	11/14/2004	17S	619402	3655425	NAD83	33.03267	-79.72121	NAD83	14.9	18.00	-	South Carolina	Berkeley	Qts	261	313	DDE0766	0.96	2	-
3b	BKY023	11/19/2004	17S	594854	3641720	NAD83	32.91148	-79.98547	NAD83	14.0	20.20	-	South Carolina	Berkeley	Qts	280	317	DDE0770	0.96	2	-
3b	BKY024	11/19/2004	17S	592834	3641739	NAD83	32.91182	-80.00706	NAD83	14.9	15.40	-	South Carolina	Berkeley	Qts	280	308	DDE0770	0.96	2	-
3b	CHN006	10/24/2004	17S	611378	3631670	NAD83	32.81928	-79.81001	NAD83	2.1	20.50	-	South Carolina	Charleston	Qsbs	225	244	DDE0766	0.96	2	-
3b	CHN007	10/24/2004	17S	611056	3632086	NAD83	32.82307	-79.81339	NAD83	3.0	32.00	-	South Carolina	Charleston	Qws	225	262	DDE0766	0.96	2	-
3b	CHN008	10/24/2004	17S	610743	3632709	NAD83	32.82872	-79.81666	NAD83	6.4	20.50	-	South Carolina	Charleston	Qws	245	280	DDE0766	0.96	2	-
3b	CHN009	10/24/2004	17S	614471	3634505	NAD83	32.84454	-79.77662	NAD83	2.7	20.50	-	South Carolina	Charleston	Qsbs	256	-	DDE0766	0.96	2	-
3b	CHN010	10/25/2004	17S	610875	3631209	NAD83	32.81518	-79.81543	NAD83	3.0	20.50	-	South Carolina	Charleston	Qsbs	206	227	DDE0766	0.96	2	-
3b	CHN011	10/25/2004	17S	611821	3632988	NAD83	32.83112	-79.80511	NAD83	5.5	20.50	-	South Carolina	Charleston	Qws	204	195	DDE0766	0.96	2	-
3b	CHN012	10/25/2004	17S	612404	3632984	NAD83	32.83103	-79.79888	NAD83	3.0	20.50	-	South Carolina	Charleston	Qsbs	214	242	DDE0766	0.96	2	-
3b	CHN013	10/25/2004	17S	613863	3634097	NAD83	32.84092	-79.78316	NAD83	0.0	20.50	-	South Carolina	Charleston	Qsbs	221	236	DDE0766	0.96	2	-
3b	CHN014	10/25/2004	17S	613490	3634905	NAD83	32.84824	-79.78705	NAD83	6.1	20.50	-	South Carolina	Charleston	Qws	222	226	DDE0766	0.96	2	-
3b	CHN015	10/26/2004	17S	621573	3641546	NAD83	32.90727	-79.69981	NAD83	3.3	20.50	-	South Carolina	Charleston	Qsbs	250	270	DDE0766	0.96	2	-
3b	CHN016	10/26/2004	17S	620712	3642076	NAD83	32.91214	-79.70895	NAD83	3.6	20.10	-	South Carolina	Charleston	Qws	252	269	DDE0766	0.96	2	-
3b	CHN017	10/26/2004	17S	619794	3642528	NAD83	32.91632	-79.71870	NAD83	7.9	20.50	-	South Carolina	Charleston	Qws	245	274	DDE0766	0.96	2	-
3b	CHN018	10/26/2004	17S	618187	3638574	NAD83	32.88084	-79.73639	NAD83	0.9	20.10	-	South Carolina	Charleston	Qsbs	197	222	DDE0766	0.96	2	-
3b	CHN019	10/27/2004	17S	615494	3636269	NAD83	32.86034	-79.76547	NAD83	2.1	20.50	-	South Carolina	Charleston	Qsbs	226	229	DDE0766	0.96	2	-
3b	CHN020	10/27/2004	17S	610886	3633665	NAD83	32.83733	-79.81502	NAD83	7.0	20.50	-	South Carolina	Charleston	Qws	225	234	DDE0766	0.96	2	-
3b	CHN021	10/27/2004	17S	609973	3631811	NAD83	32.82070	-79.82500	NAD83	6.7	20.50	-	South Carolina	Charleston	Qws	240	249	DDE0766	0.96	2	-
3b	CHN022	10/30/2004	17S	609422	3630050	NAD83	32.80487	-79.83109	NAD83	2.1	20.50	-	South Carolina	Charleston	Qsbs	202	221	DDE0766	0.96	2	-
3b	CHN023	10/30/2004	17S	607933	3628625	NAD83	32.79217	-79.84715	NAD83	0.9	20.50	-	South Carolina	Charleston	Qsbs	193	211	DDE0766	0.96	2	-
3b	CHN029	11/2/2004	17S	613751	3637125	NAD83	32.86824	-79.78399	NAD83	6.1	20.20	-	South Carolina	Charleston	Qws	241	263	DDE0766	0.96	2	-
3b	CHN030	11/2/2004	17S	616408	3638991	NAD83	32.88479	-79.75536	NAD83	4.9	20.00	-	South Carolina	Charleston	Qws	234	273	DDE0766	0.96	2	-
3b	CHN031	11/2/2004	17S	616740	3637808	NAD83	32.87408	-79.75195	NAD83	0.9	20.10	-	South Carolina	Charleston	Qsbs	320	361	DDE0766	0.96	2	-
3b	CHN032	11/3/2004	17S	591001	3640885	NAD83	32.90428	-80.02675	NAD83	17.0	20.50	-	South Carolina	Charleston	Qts	278	314	DDE0766	0.96	2	-
3b	CHN033	11/3/2004	17S	590473	3642251	NAD83	32.91664	-80.03226	NAD83	15.8	20.50	-	South Carolina	Charleston	Qts	280	314	DDE0766	0.96	2	-
3b	CHN034	11/3/2004	17S	589829	3642291	NAD83	32.91705	-80.03914	NAD83	17.9	19.80	-	South Carolina	Charleston	Qts	241	288	DDE0766	0.96	2	-
3b	CHN035	11/3/2004	17S	592289	3640361	NAD83	32.89945	-80.01303	NAD83	17.3	20.50	-	South Carolina	Charleston	Qts	278	323	DDE0766	0.96	2	-
3b	CHN036	11/3/2004	17S	610089	3634725	NAD83	32.84697	-79.82340	NAD83	6.4	20.00	-	South Carolina	Charleston	Qws	233	262	DDE0766	0.96	2	-
3b	CHN037	11/5/2004	17S	642977	3663111	NAD83	33.09913	-79.46763	NAD83	3.3	15.40	-	South Carolina	Charleston	Qws	255	294	DDE0766	0.96	2	-
3b	CHN038	11/10/2004	17S	581855	3606559	NAD83	32.59539	-80.12756	NAD83	3.0	20.20	-	South Carolina	Charleston	Qsbs	222	234	DDE0766	0.96	2	-
3b	CHN040	11/10/2004	17S	582797	3607259	NAD83	32.60164	-80.11746	NAD83	3.0	19.10	-	South Carolina	Charleston	Qsbs	223	223	DDE0766	0.96	2	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
3b	CHN041	11/10/2004	17S	583968	3607517	NAD83	32.60388	-80.10496	NAD83	4.9	20.20	-	South Carolina	Charleston	Qsbs	203	268	DDE0766	0.96	2	-
3b	CHN046	11/12/2004	17S	580462	3608182	NAD83	32.61013	-80.14227	NAD83	4.9	20.20	-	South Carolina	Charleston	Qsbs	205	233	DDE0766	0.96	2	-
3b	CHN047	11/13/2004	17S	588984	3623145	NAD83	32.74444	-80.05003	NAD83	7.0	20.00	-	South Carolina	Charleston	Qws	250	-	DDE0766	0.96	2	-
3b	CHN048	11/13/2004	17S	587516	3621598	NAD83	32.73061	-80.06583	NAD83	11.9	20.00	-	South Carolina	Charleston	Qws	196	201	DDE0766	0.96	2	-
3b	CHN049	11/13/2004	17S	577024	3614626	NAD83	32.66851	-80.17838	NAD83	13.1	19.20	-	South Carolina	Charleston	Qws	190	222	DDE0766	0.96	2	-
3b	CHN050	11/13/2004	17S	582140	3618414	NAD83	32.70230	-80.12348	NAD83	7.9	20.00	-	South Carolina	Charleston	Qws	206	244	DDE0766	0.96	2	-
3b	CHN051	11/15/2004	17S	578585	3606114	NAD83	32.59162	-80.16245	NAD83	4.9	20.20	-	South Carolina	Charleston	Qsbs	226	259	DDE0766	0.96	2	-
3b	CHN059	11/17/2004	17S	596887	3624668	NAD83	32.75751	-79.96552	NAD83	3.0	20.00	-	South Carolina	Charleston	Qsbs	234	283	DDE0770	0.96	2	-
3b	CHN060	11/18/2004	17S	596981	3617742	NAD83	32.69504	-79.96524	NAD83	3.0	20.00	-	South Carolina	Charleston	Qsbs	231	248	DDE0770	0.96	2	-
3b	CHN064	11/19/2004	17S	587863	3640184	NAD83	32.89822	-80.06037	NAD83	17.0	20.10	-	South Carolina	Charleston	Qts	272	319	DDE0770	0.96	2	-
3b	CHN065	11/19/2004	17S	587133	3641682	NAD83	32.91178	-80.06802	NAD83	14.0	20.00	-	South Carolina	Charleston	Qts	280	333	DDE0770	0.96	2	-
3b	CHN066	11/20/2004	17S	596835	3622269	NAD83	32.73587	-79.96632	NAD83	3.0	20.00	-	South Carolina	Charleston	Qws	213	263	DDE0770	0.96	2	-
3b	CHN067	11/20/2004	17S	594397	3625974	NAD83	32.76950	-79.99197	NAD83	3.0	20.20	-	South Carolina	Charleston	Qws	252	297	DDE0770	0.96	2	-
3b	CHN068	11/20/2004	17S	599451	3619257	NAD83	32.70848	-79.93873	NAD83	3.0	20.20	-	South Carolina	Charleston	Qsbs	258	297	DDE0770	0.96	2	-
3b	CHN069	11/20/2004	17S	601809	3621779	NAD83	32.73101	-79.91330	NAD83	0.3	18.40	-	South Carolina	Charleston	Qsbs	274	321	DDE0770	0.96	2	-
3b	CHN074	11/23/2004	17S	596710	3620112	NAD83	32.71643	-79.96788	NAD83	1.8	20.00	-	South Carolina	Charleston	Qws	256	297	DDE0770	0.96	2	-
3b	CHN075	11/23/2004	17S	598582	3621607	NAD83	32.72975	-79.94775	NAD83	4.3	20.00	-	South Carolina	Charleston	Qws	294	377	DDE0770	0.96	2	-
4	AGR001	9/8/2004	16T	510762	5142111	NAD27	46.43439	-86.86005	NAD83	186.7	9.80	-	Michigan	Alger	Beach Ridge	-	-	766TC	0.96	1	-
4	AGR002	9/8/2004	16T	511896	5141625	NAD27	46.43000	-86.84531	NAD83	185.5	9.80	-	Michigan	Alger	Beach Ridge	241	-	766TC	0.96	1	-
4	AGR003	9/8/2004	16T	511892	5141061	NAD27	46.42492	-86.84537	NAD83	185.5	13.50	-	Michigan	Alger	Beach Ridge	263	240	766TC	0.96	1	-
4	AGR004	9/8/2004	16T	512707	5140400	NAD27	46.41897	-86.83479	NAD83	186.7	16.90	-	Michigan	Alger	Beach Ridge	248	254	766TC	0.96	1	-
4	AGR005	9/8/2004	16T	513367	5139887	NAD27	46.41434	-86.82621	NAD83	193.4	19.80	-	Michigan	Alger	Beach Ridge	241	240	766TC	0.96	1	-
4	AGR006	9/8/2004	16T	513036	5140161	NAD27	46.41681	-86.83051	NAD83	189.5	6.65	-	Michigan	Alger	Beach Ridge	-	-	766TC	0.96	1	-
4	AGR007	9/9/2004	16T	509834	5141562	NAD27	46.42947	-86.87215	NAD83	184.6	16.00	-	Michigan	Alger	Beach Ridge	225	221	766TC	0.96	1	-
4	AGR008	9/9/2004	16T	510507	5141488	NAD27	46.42879	-86.86339	NAD83	185.5	8.00	-	Michigan	Alger	Beach Ridge	-	-	766TC	0.96	1	-
4	AGR009	9/9/2004	16T	511298	5141574	NAD27	46.42955	-86.85309	NAD83	185.5	12.90	-	Michigan	Alger	Beach Ridge	227	-	766TC	0.96	1	-
4	AGR010	9/9/2004	16T	512332	5141315	NAD27	46.42721	-86.83964	NAD83	185.5	12.60	-	Michigan	Alger	Beach Ridge	280	-	766TC	0.96	1	-
4	AGR011	9/9/2004	16T	512772	5141321	NAD27	46.42726	-86.83391	NAD83	185.2	12.45	-	Michigan	Alger	Beach Ridge	227	-	766TC	0.96	1	-
4	AGR012	9/9/2004	16T	512949	5141716	NAD27	46.43081	-86.83160	NAD83	185.5	9.80	-	Michigan	Alger	Beach Ridge	247	-	766TC	0.96	1	-
4	HTN001	9/15/2004	16T	404271	5225479	NAD27	47.17772	-88.26344	NAD83	188.0	13.40	-	Michigan	Houghton	Beach Ridge	204	205	766TC	0.96	1	-
4	HTN002	9/15/2004	16T	405735	5225650	NAD27	47.17947	-88.24417	NAD83	189.0	9.15	-	Michigan	Houghton	Beach Ridge	268	-	766TC	0.96	1	-
4	HTN003	9/15/2004	16T	405643	5223355	NAD27	47.15881	-88.24490	NAD83	189.0	17.00	-	Michigan	Houghton	Beach Ridge	253	268	766TC	0.96	1	-
4	HTN004	9/15/2004	16T	404059	5223275	NAD27	47.15786	-88.26578	NAD83	189.0	16.50	-	Michigan	Houghton	Beach Ridge	278	319	766TC	0.96	1	-
4	HTN005	9/15/2004	16T	403850	5224402	NAD27	47.16797	-88.26878	NAD83	188.0	16.20	-	Michigan	Houghton	Beach Ridge	270	283	766TC	0.96	1	-
4	HTN006	9/16/2004	16T	404650	5225503	NAD27	47.17799	-88.25845	NAD83	189.0	9.45	-	Michigan	Houghton	Beach Ridge	278	-	766TC	0.96	1	-
4	HTN007	9/16/2004	16T	405659	5224199	NAD27	47.16641	-88.24487	NAD83	189.0	15.50	-	Michigan	Houghton	Beach Ridge	237	242	766TC	0.96	1	-
4	HTN008	9/16/2004	16T	404017	5223702	NAD27	47.16170	-88.26642	NAD83	189.0	17.50	-	Michigan	Houghton	Beach Ridge	253	252	766TC	0.96	1	-
4	SCT001	9/11/2004	16T	554766	5089451	NAD27	45.95838	-86.29340	NAD83	185.5	18.50	-	Michigan	Schoolcraft	Beach Ridge	217	220	766TC	0.96	1	-
4	SCT002	9/11/2004	16T	553767	5090454	NAD27	45.96748	-86.30618	NAD83	188.5	16.00	-	Michigan	Schoolcraft	Beach Ridge	206	-	766TC	0.96	1	-
4	SCT003	9/11/2004	16T	554004	5090199	NAD27	45.96517	-86.30314	NAD83	189.8	19.65	-	Michigan	Schoolcraft	Beach Ridge	229	221	766TC	0.96	1	-
4	SCT004	9/11/2004	16T	554260	5089950	NAD27	45.96291	-86.29987	NAD83	190.4	29.95	-	Michigan	Schoolcraft	Beach Ridge	240	238	766TC	0.96	1	-
4	SCT005	9/11/2004	16T	554507	5089702	NAD27	45.96066	-86.29671	NAD83	186.7	20.00	-	Michigan	Schoolcraft	Beach Ridge	204	206	766TC	0.96	1	-
4	SCT006	9/12/2004	16T	553309	5084957	NAD27	45.91806	-86.31270	NAD83	178.2	13.50	-	Michigan	Schoolcraft	Beach Ridge	177	-	766TC	0.96	1	-
4	SCT007	9/12/2004	16T	554484	5085745	NAD27	45.92505	-86.29745	NAD83	177.6	8.80	-	Michigan	Schoolcraft	Beach Ridge	299	-	766TC	0.96	1	-
4	SCT008	9/12/2004	16T	555589	5087285	NAD27	45.93882	-86.28303	NAD83	178.5	6.75	-	Michigan	Schoolcraft	Beach Ridge	-	-	766TC	0.96	1	-
4	SCT009	9/12/2004	16T	553157	5088940	NAD27	45.95391	-86.31422	NAD83	188.5	16.50	-	Michigan	Schoolcraft	Beach Ridge	220	214	766TC	0.96	1	-
4	SCT010	9/13/2004	16T	557256	5089297	NAD27	45.95679	-86.26128	NAD83	181.5	12.60	-	Michigan	Schoolcraft	Beach Ridge	191	-	766TC	0.96	1	-
4	SCT011	9/13/2004	16T	556637	5089107	NAD27	45.95514	-86.26929	NAD83	181.5	14.20	-	Michigan	Schoolcraft	Beach Ridge	198	-	766TC	0.96	1	-
4	SCT012	9/13/2004	16T	556537	5090211	NAD27	45.96508	-86.27045	NAD83	185.5	17.10	-	Michigan	Schoolcraft	Beach Ridge	204	205	766TC	0.96	1	-
5a	RCD002	8/25/2004	14T	650465	5148007	NAD27	46.47077	-97.04053	NAD83	319.1	14.85	-	North Dakota	Richland	DSA	208	201	766TC	0.96	1	-
5a	RCD003	8/25/2004	14T	644056	5147835	NAD27	46.47062	-97.12402	NAD83	322.8	20.80	-	North Dakota	Richland	DSA	217	234	766TC	0.96	1	-
5a	RCD004	8/25/2004	14T	641645	5147801	NAD27	46.47083	-97.15542	NAD83	326.7	20.00	-	North Dakota	Richland	DSA	227	217	766TC	0.96	1	-
5a	RCD005	8/25/2004	14T	636926	5142851	NAD27	46.42728	-97.21831	NAD83	327.1	20.80	-	North Dakota	Richland	DSA	208	227	766TC	0.96	1	-
5a	RCD007	8/26/2004	14T	642953	5147809	NAD27	46.47062	-97.13839	NAD83	324.0	20.50	-	North Dakota	Richland	DSA	235	239	766TC	0.96	1	-
5a	RCD008	8/26/2004	14T	640081	5146147	NAD27	46.45628	-97.17628	NAD83	326.1	17.50	-	North Dakota	Richland	DSA	208	214	766TC	0.96	1	-
5a	RCD009	8/26/2004	14T	633764	5139545	NAD27	46.39817	-97.26039	NAD83	330.1	18.00	-	North Dakota	Richland	DSA	213	217	766TC	0.96	1	-
5a	RCD010	8/26/2004	14T	635370	5141204	NAD27	46.41277	-97.23902	NAD83	324.0	14.80	-	North Dakota	Richland	DSA	217	227	766TC	0.96	1	-
5a	RCD011	8/27/2004	14T	638500	5144491	NAD27	46.44171	-97.19735	NAD83	324.0	20.00	-	North Dakota	Richland	DSA	217	224	766TC	0.96	1	-
5a	RCD012	8/27/2004	14T	645302	5147853	NAD27	46.47052	-97.10779	NAD83	321.0	15.95	-	North Dakota	Richland	DSA	211	211	766TC	0.96	1	-
5a	RCD013	8/27/2004	14T	646397	5147881	NAD27	46.47054	-97.09353	NAD83	320.0	17.50	-	North Dakota	Richland	DSA	213	213	766TC	0.96	1	-
5a	RCD014	8/27/2004	14T	648057	5147971	NAD27	46.47098	-97.07189	NAD83	321.0	37.70	-	North Dakota	Richland	DSA	227	234	766TC	0.96	1	-
5a	RCD015	8/27/2004	14T	649638	5147974	NAD27	46.47066	-97.05130	NAD83	319.1	18.70	-	North Dakota	Richland	DSA	220	221	766TC	0.96	1	-
5a	RCD022	8/30/2004	14T	652020	5148034	NAD27	46.47066	-97.02028	NAD83	317.0	20.45	-	North Dakota	Richland	DSA	194	219	766TC	0.96	1	-
5a	RCD023	8/30/2004	14T	640582	5147767	NAD27	46.47075	-97.16927	NAD83	324.0	17.70	-	North Dakota	Richland	DSA	222	226	766TC	0.96	1	-
5a	RCD024	8/30/2004	14T	639480	5147740	NAD27	46.47073	-97.18362	NAD83	325.5	18.40	-	North Dakota	Richland	DSA	233	250	766TC	0.96	1	-
5a	RCD025	8/30/2004	14T	632651	5139522	NAD27	46.39818	-97.27486	NAD83	331.0	14.40	-	North Dakota	Richland	DSA	217	221	766TC	0.96	1	-
5a	RCD026	8/31/2004	14T	634745	5139579	NAD27	46.39828	-97.24762	NAD83	327.1	19.50	-	North Dakota	Richland	DSA	221	229	766TC	0.96	1	-
5a	RCD027	8/31/2004	14T	635747	5139603	NAD27	46.39830	-97.23458	NAD83	327.1	11.00	-	North Dakota	Richland	DSA	234	-	766TC	0.96	1	-
5a	RCD028	8/31/2004	14T	636813	5139631	NAD27	46.39833	-97.22072	NAD83	331.0	14.90	-	North Dakota	Richland	DSA	225	224	766TC	0.96	1	-
5a	RCD029	8/31/2004	14T	637786	5139662	NAD27	46.39841	-97.20806	NAD83	330.4	15.00	-	North Dakota	Richland	DSA	233	231	766TC	0.96	1	-
5a	RCD030	8/31/2004	14T	639880	5139712	NAD27	46.39843	-97.18082	NAD83	328.0	15.50	-	North Dakota	Richland	DSA	220	221	766TC	0.96	1	-
5a	RCD031	9/1/2004	14T	641304	5139730	NAD27	46.39830	-97.16230	NAD83	327.1	11.70	-	North Dakota	Richland	DSA	206	-	766TC	0.96	1	-
5a	RCD032	9/1/2004	14T	642321	5139756	NAD27	46.39832	-97.14907	NAD83	327.1	13.60	-	North Dakota	Richland	DSA	206	-	766TC	0.96	1	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
5a	RCD033	9/1/2004	14T	643379	5139777	NAD27	46.39828	-97.13531	NAD83	324.9	20.90	-	North Dakota	Richland	DSA	204	229	766TC	0.96	1	-
5a	RCD034	9/1/2004	14T	644247	5139797	NAD27	46.39828	-97.12402	NAD83	323.1	18.70	-	North Dakota	Richland	DSA	204	207	766TC	0.96	1	-
5a	RCD035	9/1/2004	14T	645259	5139820	NAD27	46.39827	-97.11085	NAD83	321.9	19.80	-	North Dakota	Richland	DSA	206	222	766TC	0.96	1	-
5a	RCD036	9/2/2004	14T	646361	5139843	NAD27	46.39824	-97.09651	NAD83	321.0	13.50	-	North Dakota	Richland	DSA	196	194	766TC	0.96	1	-
5a	RCD037	9/2/2004	14T	648275	5139593	NAD27	46.39557	-97.07171	NAD83	321.0	14.40	-	North Dakota	Richland	DSA	196	214	766TC	0.96	1	-
5a	RCD038	9/2/2004	14T	649189	5138282	NAD27	46.38358	-97.06024	NAD83	321.0	16.60	-	North Dakota	Richland	DSA	215	218	766TC	0.96	1	-
5a	RCD041	9/2/2004	14T	637020	5138020	NAD27	46.38380	-97.21850	NAD83	328.9	13.80	-	North Dakota	Richland	DU	213	219	766TC	0.96	1	-
5a	RCD046	9/3/2004	14T	636961	5141232	NAD27	46.41270	-97.21833	NAD83	328.9	18.40	-	North Dakota	Richland	DSA	221	227	766TC	0.96	1	-
5b	RCD001	8/25/2004	14T	655581	5148140	NAD27	46.47080	-96.97389	NAD83	313.9	20.00	-	North Dakota	Richland	DSI	139	148	766TC	0.96	1	-
5b	RCD006	8/26/2004	14T	661736	5148308	NAD27	46.47086	-96.89371	NAD83	292.9	20.80	-	North Dakota	Richland	DSI	156	164	766TC	0.96	1	-
5b	RCD016	8/28/2004	14T	659846	5148254	NAD27	46.47083	-96.91833	NAD83	299.3	22.50	-	North Dakota	Richland	DSI	120	135	766TC	0.96	1	-
5b	RCD017	8/28/2004	14T	658965	5148213	NAD27	46.47067	-96.92982	NAD83	299.9	20.70	-	North Dakota	Richland	DSI	134	146	766TC	0.96	1	-
5b	RCD018	8/28/2004	14T	658034	5148190	NAD27	46.47068	-96.94194	NAD83	307.8	20.70	-	North Dakota	Richland	DSI	120	134	766TC	0.96	1	-
5b	RCD019	8/28/2004	14T	657147	5148167	NAD27	46.47068	-96.95349	NAD83	310.0	20.60	-	North Dakota	Richland	DSI	154	170	766TC	0.96	1	-
5b	RCD020	8/28/2004	14T	654431	5148096	NAD27	46.47067	-96.98888	NAD83	316.1	20.80	-	North Dakota	Richland	DSI	149	171	766TC	0.96	1	-
5b	RCD021	8/30/2004	14T	653162	5148081	NAD27	46.47083	-97.00539	NAD83	317.0	18.9	-	North Dakota	Richland	DSI	166	181	766TC	0.96	1	-
5b	RCD039	9/2/2004	14T	650429	5138311	NAD27	46.38356	-97.04412	NAD83	320.0	16.55	-	North Dakota	Richland	DSI	175	177	766TC	0.96	1	-
5b	RCD040	9/2/2004	14T	651562	5138340	NAD27	46.38357	-97.02938	NAD83	319.1	19.50	-	North Dakota	Richland	DSI	156	157	766TC	0.96	1	-
5b	RCD042	9/3/2004	14T	653086	5138371	NAD27	46.38351	-97.00957	NAD83	317.0	20.80	-	North Dakota	Richland	DSI	145	144	766TC	0.96	1	-
5b	RCD043	9/3/2004	14T	654165	5138420	NAD27	46.38370	-96.99554	NAD83	313.9	20.80	-	North Dakota	Richland	DSI	154	155	766TC	0.96	1	-
5b	RCD044	9/3/2004	14T	655078	5138431	NAD27	46.38359	-96.98367	NAD83	313.0	19.50	-	North Dakota	Richland	DSI	142	139	766TC	0.96	1	-
5b	RCD045	9/3/2004	14T	657157	5138511	NAD27	46.38383	-96.95661	NAD83	310.0	19.50	-	North Dakota	Richland	DSI	125	123	766TC	0.96	1	-
5b	RCD047	9/4/2004	14T	658751	5138537	NAD27	46.38369	-96.93589	NAD83	306.9	20.60	-	North Dakota	Richland	DSI	116	120	766TC	0.96	1	-
5b	RCD048	9/4/2004	14T	660339	5138579	NAD27	46.38369	-96.91524	NAD83	303.9	18.50	-	North Dakota	Richland	DSI	117	115	766TC	0.96	1	-
5b	RCD049	9/4/2004	14T	661795	5138619	NAD27	46.38371	-96.89630	NAD83	302.4	20.00	-	North Dakota	Richland	DSI	123	122	766TC	0.96	1	-
5b	RCD050	9/4/2004	14T	663659	5138691	NAD27	46.38391	-96.87206	NAD83	298.1	19.80	-	North Dakota	Richland	DSI	110	112	766TC	0.96	1	-
5b	RCD051	9/4/2004	14T	666505	5138765	NAD27	46.38388	-96.83504	NAD83	291.1	19.70	-	North Dakota	Richland	DSI	149	162	766TC	0.96	1	-
6	POR001	9/23/2004	16T	499385	4614156	NAD27	41.68112	-87.00742	NAD83	193.1	18.45	-	Indiana	Porter	Eolian	260	278	766TC	0.96	1	-
6	POR002	9/23/2004	16T	499754	4614372	NAD27	41.68307	-87.00299	NAD83	189.2	20.00	-	Indiana	Porter	Eolian	237	247	766TC	0.96	1	-
6	POR003	9/23/2004	16T	503206	4615490	NAD27	41.69313	-86.96150	NAD83	185.2	13.90	-	Indiana	Porter	Eolian	213	-	766TC	0.96	1	-
6	POR004	9/23/2004	16T	503183	4615967	NAD27	41.69743	-86.96178	NAD83	187.3	18.30	-	Indiana	Porter	Eolian	253	271	766TC	0.96	1	-
6	POR005	9/24/2004	16T	496014	4611429	NAD27	41.65655	-87.04791	NAD83	180.6	14.85	-	Indiana	Porter	Eolian	217	228	766TC	0.96	1	-
6	POR006	9/24/2004	16T	495747	4611786	NAD27	41.65977	-87.05112	NAD83	186.7	15.00	-	Indiana	Porter	Eolian	234	241	766TC	0.96	1	-
6	POR007	9/24/2004	16T	494948	4611473	NAD27	41.65694	-87.06071	NAD83	184.6	14.80	-	Indiana	Porter	Eolian	237	244	766TC	0.96	1	-
6	POR008	9/24/2004	16T	494849	4611777	NAD27	41.65968	-87.06190	NAD83	186.1	15.20	-	Indiana	Porter	Eolian	247	250	766TC	0.96	1	-
6	POR009	9/24/2004	16T	494583	4611748	NAD27	41.65942	-87.06510	NAD83	198.6	20.60	-	Indiana	Porter	Eolian	263	279	766TC	0.96	1	-
6	POR010	9/25/2004	16T	494387	4611159	NAD27	41.65411	-87.06744	NAD83	187.0	23.50	-	Indiana	Porter	Eolian	211	234	766TC	0.96	1	-
6	POR011	9/25/2004	16T	494217	4611714	NAD27	41.65911	-87.06950	NAD83	185.2	20.50	-	Indiana	Porter	Eolian	244	239	766TC	0.96	1	-
6	POR012	9/25/2004	16T	493777	4611472	NAD27	41.65693	-87.07478	NAD83	211.0	20.85	-	Indiana	Porter	Eolian	244	287	766TC	0.96	1	-
6	POR013	9/25/2004	16T	481669	4607692	NAD27	41.62269	-87.22008	NAD83	181.2	14.90	-	Indiana	Porter	Eolian	244	252	766TC	0.96	1	-
6	POR014	9/26/2004	16T	481440	4606834	NAD27	41.61496	-87.22279	NAD83	191.0	15.00	-	Indiana	Porter	Eolian	250	259	766TC	0.96	1	-
6	POR015	9/26/2004	16T	481979	4607369	NAD27	41.61978	-87.21635	NAD83	201.3	20.50	-	Indiana	Porter	Eolian	235	250	766TC	0.96	1	-
6	POR016	9/26/2004	16T	499221	4611219	NAD27	41.65467	-87.00938	NAD83	197.1	14.80	-	Indiana	Porter	Eolian	270	283	766TC	0.96	1	-
6	POR017	9/26/2004	16T	499202	4611413	NAD27	41.65642	-87.00961	NAD83	193.4	15.60	-	Indiana	Porter	Eolian	272	297	766TC	0.96	1	-
6	POR018	9/26/2004	16T	499210	4611977	NAD27	41.66150	-87.00951	NAD83	193.7	12.00	-	Indiana	Porter	Eolian	253	264	766TC	0.96	1	-
6	POR019	9/27/2004	16T	499194	4612093	NAD27	41.66254	-87.00970	NAD83	189.5	15.10	-	Indiana	Porter	Eolian	248	271	766TC	0.96	1	-
6	POR020	9/27/2004	16T	499195	4614007	NAD27	41.67978	-87.00970	NAD83	193.1	17.50	-	Indiana	Porter	Eolian	240	238	766TC	0.96	1	-
6	POR021	9/27/2004	16T	499206	4613744	NAD27	41.67741	-87.00957	NAD83	187.6	14.50	-	Indiana	Porter	Eolian	233	233	766TC	0.96	1	-
6	POR022	9/27/2004	16T	499196	4613516	NAD27	41.67535	-87.00969	NAD83	184.3	15.85	-	Indiana	Porter	Eolian	255	280	766TC	0.96	1	-
6	POR023	9/28/2004	16T	505025	4616666	NAD27	41.70372	-86.93964	NAD83	187.3	16.00	-	Indiana	Porter	Eolian	233	265	766TC	0.96	1	-
6	POR024	9/28/2004	16T	504676	4616600	NAD27	41.70313	-86.94383	NAD83	190.7	16.00	-	Indiana	Porter	Eolian	244	253	766TC	0.96	1	-
6	POR025	9/28/2004	16T	503715	4616375	NAD27	41.70110	-86.95538	NAD83	191.6	15.65	-	Indiana	Porter	Eolian	278	303	766TC	0.96	1	-
7a	VHC011	11/12/2003	16S	459763	4204946	NAD27	37.99318	-87.45825	NAD83	119.0	19.75	-	Indiana	Vanderburgh	Qlt	211	242	766TC	0.96	1	-
7a	VHC012	11/13/2003	16S	458412	4203309	NAD27	37.97836	-87.47354	NAD83	123.0	20.55	-	Indiana	Vanderburgh	Qlt	227	248	766TC	0.96	1	-
7a	VHC013	11/13/2003	16S	458396	4204740	NAD27	37.99126	-87.47381	NAD83	119.0	22.05	-	Indiana	Vanderburgh	Qlt	216	229	766TC	0.96	1	-
7a	VHC014	11/17/2003	16S	458628	4208972	NAD27	38.02942	-87.47141	NAD83	119.0	20	-	Indiana	Vanderburgh	Qlt	218	230	766TC	0.96	1	-
7a	VHC015	11/19/2003	16S	458073	4204147	NAD27	37.98590	-87.47745	NAD83	120.0	20.9	-	Indiana	Vanderburgh	Qlt	190	200	766TC	0.96	1	-
7a	VHC020	11/19/2003	16S	460313	4202937	NAD27	37.97510	-87.45188	NAD83	120.0	12	-	Indiana	Vanderburgh	Qlt	234	-	766TC	0.96	1	-
7a	VHC022	11/20/2003	16S	453785	4206839	NAD27	38.00996	-87.52645	NAD83	117.0	20	-	Indiana	Vanderburgh	Qlt	204	218	766TC	0.96	1	-
7a	VHC029	12/3/2003	16S	458510	4210151	NAD27	38.04004	-87.47282	NAD83	119.0	17.9	-	Indiana	Vanderburgh	Qlt	226	262	766TC	0.96	1	-
7a	VHC030	12/3/2003	16S	458430	4211411	NAD27	38.05138	-87.47381	NAD83	120.0	18.7	-	Indiana	Vanderburgh	Qlt	204	223	766TC	0.96	1	-
7a	VHC031	12/3/2003	16S	456833	4209797	NAD27	38.03676	-87.49191	NAD83	125.0	20.4	-	Indiana	Vanderburgh	Qlt	230	237	766TC	0.96	1	-
7a	VHC036	10/4/2004	16S	445059	4203530	NAD27	37.97964	-87.62560	NAD83	114.9	18.50	-	Indiana	Vanderburgh	Qlt	183	199	766TC	0.96	1	-
7a	VHC038	10/4/2004	16S	447787	4208540	NAD27	38.02496	-87.59489	NAD83	115.9	19.00	-	Indiana	Vanderburgh	Qlt	196	204	766TC	0.96	1	-
7a	VHC039	10/4/2004	16S	447521	4207270	NAD27	38.01350	-87.59783	NAD83	115.9	19.20	-	Indiana	Vanderburgh	Qlt	220	253	766TC	0.96	1	-
7a	VHC040	10/5/2004	16S	455691	4211627	NAD27	38.05320	-87.50504	NAD83	115.9	17.85	-	Indiana	Vanderburgh	Qlt	215	233	766TC	0.96	1	-
7a	VHC041	10/5/2004	16S	452566	4208856	NAD27	38.02807	-87.54047	NAD83	115.9	17.85	-	Indiana	Vanderburgh	Qlt	212	236	766TC	0.96	1	-
7a	WKC001	11/13/2003	16S	460869	4204926	NAD27	37.99305	-87.44566	NAD83	121.0	29.85	-	Indiana	Warrick	Qlt	200	218	766TC	0.96	1	-
7a	WKC002	11/17/2003	16S	460899	4206552	NAD27	38.00771	-87.44540	NAD83	117.0	20	-	Indiana	Warrick	Qlt	211	233	766TC	0.96	1	-
7a	WKC003	11/17/2003	16S	461676	4206653	NAD27	38.00865	-87.43656	NAD83	116.0	20	-	Indiana	Warrick	Qlt	198	222	766TC	0.96	1	-
7a	WKC004	11/17/2003	16S	461690	4208140	NAD27	38.02205	-87.43648	NAD83	120.0	18.1	-	Indiana	Warrick	Qlt	241	269	766TC	0.96	1	-
7a	WKC005	11/17/2003	16S	462489	4208937	NAD27	38.02927	-87.42742	NAD83	116.0	13.85	-	Indiana	Warrick	Qlt	215	-	766TC	0.96	1	-
7a	WKC006	11/18/2003	16S	459156	4215740	NAD27	38.09044	-87.46578	NAD83	127.0	18	-	Indiana	Warrick	Qlt	204	233	766TC	0.96	1	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
7a	WKC007	11/18/2003	16S	458510	4212392	NAD27	38.06023	-87.47295	NAD83	119.0	20.85	-	Indiana	Warrick	Qlt	209	241	766TC	0.96	1	-
7a	WKC008	11/18/2003	16S	460451	4203719	NAD27	37.98215	-87.45035	NAD83	122.0	16.9	-	Indiana	Warrick	Qlt	220	250	766TC	0.96	1	-
7a	WKC009	12/3/2003	16S	459148	4214588	NAD27	38.08005	-87.46581	NAD83	122.0	17.25	-	Indiana	Warrick	Qlt	200	213	766TC	0.96	1	-
7a	WKC010	12/3/2003	16S	459130	4213432	NAD27	38.06963	-87.46594	NAD83	119.0	12.7	-	Indiana	Warrick	Qlt	217	-	766TC	0.96	1	-
7b	VHC016	11/19/2003	16S	457142	4203429	NAD27	37.97939	-87.48801	NAD83	119.0	20	-	Indiana	Vanderburgh	Qlat	203	220	766TC	0.96	1	-
7b	VHC017	11/19/2003	16S	455920	4203309	NAD27	37.97824	-87.50191	NAD83	125.0	20.9	-	Indiana	Vanderburgh	Qlat	215	232	766TC	0.96	1	-
7b	VHC018	11/19/2003	16S	455946	4204027	NAD27	37.98472	-87.50166	NAD83	122.0	20.2	-	Indiana	Vanderburgh	Qlat	223	245	766TC	0.96	1	-
7b	VHC019	11/19/2003	16S	455947	4204599	NAD27	37.98987	-87.50169	NAD83	121.0	20	-	Indiana	Vanderburgh	Qlat	240	250	766TC	0.96	1	-
7b	VHC023	11/20/2003	16S	453660	4204751	NAD27	37.99113	-87.52774	NAD83	124.0	20.1	-	Indiana	Vanderburgh	Qlat	213	233	766TC	0.96	1	-
7b	VHC024	11/20/2003	16S	454427	4204201	NAD27	37.98621	-87.51897	NAD83	123.0	20	-	Indiana	Vanderburgh	Qlat	219	240	766TC	0.96	1	-
7b	VHC025	11/21/2003	16S	451449	4203854	NAD27	37.98293	-87.55286	NAD83	124.0	19.05	-	Indiana	Vanderburgh	Qlat	225	237	766TC	0.96	1	-
7b	VHC026	11/21/2003	16S	450620	4204557	NAD27	37.98922	-87.56235	NAD83	124.0	22.98	-	Indiana	Vanderburgh	Qlat	213	219	766TC	0.96	1	-
7b	VHC027	11/21/2003	16S	449248	4204376	NAD27	37.98751	-87.57796	NAD83	127.0	20.6	-	Indiana	Vanderburgh	Qlat	237	247	766TC	0.96	1	-
7b	VHC028	11/21/2003	16S	448582	4204026	NAD27	37.98432	-87.58552	NAD83	124.0	20.05	-	Indiana	Vanderburgh	Qlat	256	256	766TC	0.96	1	-
7b	VHC032	12/4/2003	16S	447863	4203728	NAD27	37.98159	-87.59368	NAD83	125.0	20.1	-	Indiana	Vanderburgh	Qlat	244	252	766TC	0.96	1	-
7b	VHC033	12/4/2003	16S	448925	4204197	NAD27	37.98588	-87.58163	NAD83	126.0	20.1	-	Indiana	Vanderburgh	Qlat	234	230	766TC	0.96	1	-
7b	VHC034	12/4/2003	16S	451516	4204739	NAD27	37.99091	-87.55215	NAD83	126.0	19.95	-	Indiana	Vanderburgh	Qlat	204	213	766TC	0.96	1	-
8a	CNC002	9/29/2003	15S	756304	3900780	NAD27	35.21922	-90.18426	NAD83	67.0	13.9	5.3	Arkansas	Crittenden	Hpm1	219	224	766TC	0.96	1	-
8a	CNC003	9/29/2003	15S	760350	3900773	NAD27	35.21811	-90.13985	NAD83	66.0	16.3	4.6	Arkansas	Crittenden	Hpm1	220	217	766TC	0.96	1	-
8a	CNC004	9/29/2003	15S	749799	3904699	NAD27	35.25615	-90.25446	NAD83	68.0	16	>6.6	Arkansas	Crittenden	Hpm1	211	216	766TC	0.96	1	-
8a	CNC005	9/30/2003	15S	752568	3907054	NAD27	35.27667	-90.22334	NAD83	69.0	18.9	>5.3	Arkansas	Crittenden	Hpm1	220	238	766TC	0.96	1	-
8a	CNC006	9/30/2003	15S	754568	3909579	NAD27	35.29890	-90.20058	NAD83	69.0	17	>6	Arkansas	Crittenden	Hpm1	213	227	766TC	0.96	1	-
8a	CNC007	9/30/2003	15S	748049	3910642	NAD27	35.31012	-90.27188	NAD83	68.0	20.00	>1.5	Arkansas	Crittenden	Hpm4	211	223	766TC	0.96	1	-
8a	CNC008	9/30/2003	15S	743309	3905286	NAD27	35.26304	-90.32555	NAD83	68.0	20.05	10.1	Arkansas	Crittenden	Hpm4	217	222	766TC	0.96	1	-
8a	CNC014	10/6/2003	15S	749918	3899658	NAD27	35.21072	-90.25468	NAD83	69.0	21.1	>.3	Arkansas	Crittenden	Hpm1	226	234	766TC	0.96	1	-
8a	CNC016	10/7/2003	15S	761407	3897995	NAD27	35.19282	-90.12913	NAD83	66.0	20.1	>4.8	Arkansas	Crittenden	Hpm1	213	226	766TC	0.96	1	-
8a	CNC017	10/7/2003	15S	760532	3892441	NAD27	35.14303	-90.14048	NAD83	66.0	29.6	>1.1	Arkansas	Crittenden	Hpm1	222	234	766TC	0.96	1	-
8a	CNC020	10/8/2003	15S	762570	3899901	NAD27	35.20968	-90.11576	NAD83	65.0	20.1	>3.7	Arkansas	Crittenden	Hpm1	197	207	766TC	0.96	1	-
8a	CNC021	10/8/2003	15S	762733	3903287	NAD27	35.24013	-90.11289	NAD83	67.0	20.2	>4.4	Arkansas	Crittenden	Hpm1	207	226	766TC	0.96	1	-
8a	CNC023	10/9/2003	15S	754605	3906378	NAD27	35.27007	-90.20117	NAD83	67.0	20	>2.4	Arkansas	Crittenden	Hpm1	208	217	766TC	0.96	1	-
8a	CNC024	10/9/2003	15S	754574	3908270	NAD27	35.28711	-90.20092	NAD83	67.0	20.1	>3.1	Arkansas	Crittenden	Hpm1	196	184	766TC	0.96	1	-
8a	CNC026	10/10/2003	15S	752980	3918470	NAD27	35.37938	-90.21528	NAD83	69.0	20.5	>0	Arkansas	Crittenden	Hpm1	187	205	766TC	0.96	1	-
8a	CNC027	10/10/2003	15S	744806	3910209	NAD27	35.30701	-90.30765	NAD83	66.0	20.05	>4.1	Arkansas	Crittenden	Hpm4	185	194	766TC	0.96	1	-
8a	CNC028	10/10/2003	15S	743226	3909427	NAD27	35.30036	-90.32523	NAD83	67.0	17.90	>2.1	Arkansas	Crittenden	Hpm4	215	230	766TC	0.96	1	-
8a	CNC029	10/13/2003	15S	754947	3918490	NAD27	35.37906	-90.19364	NAD83	67.0	20.7	>1.4	Arkansas	Crittenden	Hpm1	190	201	766TC	0.96	1	-
8a	CNC031	10/13/2003	15S	744791	3915131	NAD27	35.35135	-90.30634	NAD83	67.0	20.20	>3	Arkansas	Crittenden	Hpm4	201	213	766TC	0.96	1	-
8a	CNC032	10/13/2003	15S	744751	3916699	NAD27	35.36549	-90.30630	NAD83	66.0	19.15	>2.2	Arkansas	Crittenden	Hpm4	238	240	766TC	0.96	1	-
8a	CNC034	10/14/2003	15S	737342	3923886	NAD27	35.43201	-90.38569	NAD83	66.0	16.00	>1.8	Arkansas	Crittenden	Hpm3	230	244	766TC	0.96	1	-
8a	CNC035	10/14/2003	15S	737366	3922374	NAD27	35.41838	-90.38586	NAD83	67.0	18.45	>.4	Arkansas	Crittenden	Hpm3	211	218	766TC	0.96	1	-
8a	CNC036	10/14/2003	15S	734437	3916382	NAD27	35.36511	-90.41981	NAD83	66.0	19.05	>1.7	Arkansas	Crittenden	Hpm3	233	238	766TC	0.96	1	-
8a	CSC001	10/2/2003	15S	725327	3908790	NAD27	35.29882	-90.52209	NAD83	66.0	18.00	>.5	Arkansas	Cross	Hpm3	223	230	766TC	0.96	1	-
8a	CSC002	10/2/2003	15S	725323	3909998	NAD27	35.30970	-90.52180	NAD83	66.0	20.10	>1.1	Arkansas	Cross	Hpm3	201	210	766TC	0.96	1	-
8a	CSC003	10/2/2003	15S	725198	3911808	NAD27	35.32603	-90.52268	NAD83	65.0	24.15	>9.3	Arkansas	Cross	Hpm3	219	247	766TC	0.96	1	-
8a	CSC004	10/6/2003	15S	722174	3893428	NAD27	35.16112	-90.56088	NAD83	63.0	17.70	>7.7	Arkansas	Cross	Hpm4	211	216	766TC	0.96	1	-
8a	CSC005	10/6/2003	15S	722220	3895447	NAD27	35.17930	-90.55984	NAD83	64.0	21.05	>.8	Arkansas	Cross	Hpm4	238	246	766TC	0.96	1	-
8a	CSC006	10/15/2003	15S	726846	3917230	NAD27	35.37450	-90.50306	NAD83	64.0	21.65	>2.3	Arkansas	Cross	Hpm3	227	236	766TC	0.96	1	-
8a	CSC007	10/15/2003	15S	726895	3915016	NAD27	35.35455	-90.50314	NAD83	64.0	19.55	>.4	Arkansas	Cross	Hpm3	234	240	766TC	0.96	1	-
8a	DSO012	12/13/2004	15S	753672	3862579	NAD27	34.87582	-90.22482	NAD83	60.8	20.00	-	Mississippi	Desoto	Hpm1	182	197	DDE0770	0.96	2	-
8a	DYR002	10/15/2008	16S	272255	4003466	NAD27	36.15108	-89.53152	NAD83	81.0	20.5	-	Tennessee	Dyer	Hpm1	201	214	DDG0766	0.7	2	-
8a	MSC018	10/22/2003	16S	242393	3981992	NAD27	35.95024	-89.85609	NAD83	77.0	20.8	>2.8	Arkansas	Mississippi	Hpm1	188	199	766TC	0.96	1	-
8a	MSC019	10/22/2003	16S	246294	3984471	NAD27	35.97359	-89.81368	NAD83	78.0	30.3	>4.1	Arkansas	Mississippi	Hpm1	199	218	766TC	0.96	1	-
8a	MSC020	10/22/2003	16S	247842	3973564	NAD27	35.87576	-89.79308	NAD83	77.0	20.15	>.4	Arkansas	Mississippi	Hpm1	200	210	766TC	0.96	1	-
8a	MSC021	10/22/2003	16S	243834	3975893	NAD27	35.89569	-89.83817	NAD83	77.0	20.6	>3	Arkansas	Mississippi	Hpm1	206	214	766TC	0.96	1	-
8a	MSC022	10/23/2003	16S	253368	3984266	NAD27	35.97356	-89.73525	NAD83	79.0	20.3	>3.1	Arkansas	Mississippi	Hpm1	212	227	766TC	0.96	1	-
8a	MSC023	10/23/2003	16S	252749	3986699	NAD27	35.99530	-89.74287	NAD83	79.0	20.1	>4.7	Arkansas	Mississippi	Hpm1	230	234	766TC	0.96	1	-
8a	MSC024	10/23/2003	16S	246335	3981463	NAD27	35.94651	-89.81227	NAD83	78.0	19.2	>4.1	Arkansas	Mississippi	Hpm1	186	210	766TC	0.96	1	-
8a	MSC048	10/18/2008	15S	759148	3929461	NAD27	35.47678	-90.14395	NAD83	68.0	20.5	-	Arkansas	Mississippi	Hpm1	199	210	DDG1107	0.7	2	-
8a	MSC052	10/19/2008	15S	761745	3930964	NAD27	35.48964	-90.11488	NAD83	71.0	20.7	-	Arkansas	Mississippi	Hpm1	227	235	DDG0766	0.7	2	-
8a	MSC053	10/19/2008	15S	763910	3935646	NAD27	35.53122	-90.08952	NAD83	69.0	20.7	-	Arkansas	Mississippi	Hpm1	192	211	DDG0766	0.7	2	-
8a	MSC054	10/20/2008	15S	764110	3942249	NAD27	35.59063	-90.08517	NAD83	70.0	20.6	-	Arkansas	Mississippi	Hpm1	220	231	DDG0766	0.7	2	-
8a	MSC057	10/20/2008	15S	762258	3937837	NAD27	35.55139	-90.10702	NAD83	72.0	20.5	-	Arkansas	Mississippi	Hpm1	175	197	DDG0766	0.7	2	-
8a	MSI003	10/12/2008	16S	289069	4066344	NAD27	36.72127	-89.36188	NAD83	91.0	20.5	-	Missouri	Mississippi	Hpm1	202	217	DDG0766	0.7	2	-
8a	MSI004	10/12/2008	16S	301126	4077021	NAD27	36.82005	-89.22976	NAD83	92.0	20.5	-	Missouri	Mississippi	Hpm1	205	217	DDG0766	0.7	2	-
8a	MSI007	10/13/2008	16S	302601	4067720	NAD27	36.73657	-89.21082	NAD83	92.0	20.7	-	Missouri	Mississippi	Hpm1	170	192	DDG0766	0.7	2	-
8a	MSI008	10/13/2008	16S	299656	4063287	NAD27	36.69602	-89.24261	NAD83	92.0	20.6	-	Missouri	Mississippi	Hpm1	198	210	DDG0766	0.7	2	-
8a	MSI009	10/13/2008	16S	296073	4068211	NAD27	36.73961	-89.28401	NAD83	92.0	20.6	-	Missouri	Mississippi	Hpm1	202	215	DDG0766	0.7	2	-
8a	NMD001	10/4/2008	16S	263253	4034502	NAD27	36.42843	-89.64089	NAD83	87.0	20.6	-	Missouri	New Madrid	Hpm1	217	226	DDG0766	0.7	2	-
8a	NMD002	10/4/2008	16S	260718	4034256	NAD27	36.42558	-89.66907	NAD83	87.0	20.7	-	Missouri	New Madrid	Hpm1	220	227	DDG0766	0.7	2	-
8a	OBN001	10/14/2008	16S	280806	4020319	NAD27	36.30485	-89.44127	NAD83	88.0	20.6	-	Tennessee	Obion	Hpm1	207	226	DDG0766	0.7	2	-
8a	OBN002	10/14/2008	16S	279933	4017879	NAD27	36.28268	-89.45029	NAD83	88.0	20.5	-	Tennessee	Obion	Hpm1	200	208	DDG0766	0.7	2	-
8a	OBN003	10/14/2008	16S	278941	4014826	NAD27	36.25495	-89.46046	NAD83	85.0	20.5	-	Tennessee	Obion	Hpm1	160	179	DDG0766	0.7	2	-
8a	OBN004	10/14/2008	16S	276576	4012931	NAD27	36.23734	-89.48622	NAD83	85.0	20.5	-	Tennessee	Obion	Hpm1	212	223	DDG0766	0.7	2	-
8a	PST006	9/24/2008	16S	248727	3988942	NAD27	36.01447	-89.78815	NAD83	79.0	20.7	-	Missouri	Pemiscot	Hpm1	192	203	DDG0766	0.7	2	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
8a	PST008	9/24/2008	16S	249055	3987384	NAD27	36.00053	-89.78402	NAD83	78.0	20.7	-	Missouri	Pemiscot	Hpm1	204	223	DDG0766	0.7	2	-
8a	PST010	9/24/2008	16S	250379	3990386	NAD27	36.02790	-89.77029	NAD83	78.0	20.65	-	Missouri	Pemiscot	Hpm1	189	208	DDG0766	0.7	2	-
8a	PST016	10/1/2008	16S	250898	3995485	NAD27	36.07395	-89.76614	NAD83	78.0	20.5	-	Missouri	Pemiscot	Hpm1	185	-	DDG0766	0.7	2	-
8a	PST017	10/1/2008	16S	255312	3996954	NAD27	36.08830	-89.71764	NAD83	78.0	20.7	-	Missouri	Pemiscot	Hpm1	196	211	DDG0766	0.7	2	-
8a	PST019	10/1/2008	16S	256661	4001826	NAD27	36.13252	-89.70418	NAD83	81.0	20.6	-	Missouri	Pemiscot	Hpm1	175	197	DDG0766	0.7	2	-
8a	PST020	10/2/2008	16S	255071	4006758	NAD27	36.17653	-89.72337	NAD83	81.0	20.4	-	Missouri	Pemiscot	Hpm1	198	216	DDG0766	0.7	2	-
8a	SFC001	10/3/2003	15S	733808	3878030	NAD27	35.01977	-90.43761	NAD83	63.0	33.20	>6.4	Arkansas	Saint Francis	Hpm4	199	219	766TC	0.96	1	-
8a	SFC002	10/3/2003	15S	733726	3881275	NAD27	35.04902	-90.43760	NAD83	62.0	22.10	>.8	Arkansas	Saint Francis	Hpm4	200	211	766TC	0.96	1	-
8a	TNA005	12/14/2004	15S	747954	3852626	NAD27	34.78758	-90.29025	NAD83	59.0	15.05	-	Mississippi	Tunica	Hpm5	201	217	DDE0770	0.96	2	-
8a	TNA006	12/14/2004	15S	747882	3855089	NAD27	34.80978	-90.29031	NAD83	59.0	20.50	-	Mississippi	Tunica	Hpm5	196	207	DDE0770	0.96	2	-
8a	TNA008	12/15/2004	15S	746687	3850940	NAD27	34.77270	-90.30458	NAD83	58.1	20.40	-	Mississippi	Tunica	Hpm5	211	225	DDE0770	0.96	2	-
8a	TNA009	12/15/2004	15S	744597	3853388	NAD27	34.79525	-90.32668	NAD83	59.9	20.20	-	Mississippi	Tunica	Hpm5	186	201	DDE0770	0.96	2	-
8a	TNA010	12/15/2004	15S	741344	3858257	NAD27	34.83989	-90.36080	NAD83	59.0	20.20	-	Mississippi	Tunica	Hpm1	192	205	DDE0770	0.96	2	-
8a	TNA011	12/15/2004	15S	741602	3857758	NAD27	34.83533	-90.35812	NAD83	60.8	20.40	-	Mississippi	Tunica	Hpm1	183	195	DDE0770	0.96	2	-
8a	TNA012	12/16/2004	15S	732555	3843580	NAD27	34.70971	-90.46088	NAD83	58.4	20.20	-	Mississippi	Tunica	Hpm1	227	231	DDE0770	0.96	2	-
8a	TNA013	12/16/2004	15S	736188	3844035	NAD27	34.71297	-90.42113	NAD83	57.8	20.40	-	Mississippi	Tunica	Hpm1	222	236	DDE0770	0.96	2	-
8a	TNA016	12/17/2004	15S	745710	3840985	NAD27	34.68326	-90.31815	NAD83	56.0	17.50	-	Mississippi	Tunica	Hpm5	204	217	DDE0770	0.96	2	-
8a	TNA017	12/18/2004	15S	743805	3835522	NAD27	34.63450	-90.34049	NAD83	54.1	20.20	-	Mississippi	Tunica	Hpm1	168	186	DSG0766	0.96	2	-
8a	TNA018	12/18/2004	15S	742500	3828197	NAD27	34.56882	-90.35681	NAD83	54.7	20.00	-	Mississippi	Tunica	Hpm5	211	221	DSG0766	0.96	2	-
8a	TNA020	12/19/2004	15S	735298	3823072	NAD27	34.52433	-90.43665	NAD83	54.7	20.60	-	Mississippi	Tunica	Hpm1	198	215	DSG0766	0.96	2	-
8a	TNA021	12/19/2004	15S	737728	3821610	NAD27	34.51060	-90.41061	NAD83	52.9	20.30	-	Mississippi	Tunica	Hpm5	208	219	DSG0766	0.96	2	-
8a	TNA022	12/19/2004	15S	732977	3827067	NAD27	34.56085	-90.46082	NAD83	55.7	20.40	-	Mississippi	Tunica	Hpm1	231	238	DSG0766	0.96	2	-
8a	TNA024	12/20/2004	15S	742612	3841052	NAD27	34.68460	-90.35191	NAD83	57.8	30.30	-	Mississippi	Tunica	Hpm1	211	230	DSG0766	0.96	2	-
8a	TNA025	12/20/2004	15S	743338	3839503	NAD27	34.67048	-90.34443	NAD83	56.0	20.40	-	Mississippi	Tunica	Hpm1	213	232	DSG0766	0.96	2	-
8a	TNA029	1/5/2005	15S	738581	3852315	NAD27	34.78701	-90.39268	NAD83	58.7	20.50	-	Mississippi	Tunica	Hpm1	167	183	DSG0766	0.96	2	-
8a	TNA031	1/5/2005	15S	733590	3846482	NAD27	34.73562	-90.44880	NAD83	58.4	20.50	-	Mississippi	Tunica	Hpm1	138	147	DSG0766	0.96	2	-
8a	TNA038	1/7/2005	15S	751660	3842975	NAD27	34.69973	-90.25267	NAD83	56.9	20.30	-	Mississippi	Tunica	Hpm5	171	198	DSG0766	0.96	2	-
8a	TNA040	1/8/2005	15S	735710	3837864	NAD27	34.65749	-90.42807	NAD83	57.8	20.50	-	Mississippi	Tunica	Hpm1	167	193	DSG0766	0.96	2	-
8a	TNA041	1/8/2005	15S	732230	3830678	NAD27	34.59355	-90.46798	NAD83	56.9	20.20	-	Mississippi	Tunica	Hpm1	235	244	DSG0766	0.96	2	-
8a	TNA042	1/8/2005	15S	744738	3825374	NAD27	34.54287	-90.33324	NAD83	54.7	20.00	-	Mississippi	Tunica	Hpm5	245	253	DSG0766	0.96	2	-
8a	TNA043	1/8/2005	15S	739344	3823228	NAD27	34.52480	-90.39257	NAD83	52.9	16.85	-	Mississippi	Tunica	Hpm5	208	227	DSG0766	0.96	2	-
8a	TNA044	1/9/2005	15S	745690	3848491	NAD27	34.75088	-90.31618	NAD83	59.0	20.10	-	Mississippi	Tunica	Hpm5	238	240	DSG0766	0.96	2	-
8a	Wils2	3/6/2001	16S	230293	3943681	NAD27	35.60201	-89.97720	NAD83	72.0	21.43	6	Arkansas	Mississippi	Hpm1	153	171	-	NA	NA	-
8a	Wya1	3/8/2001	16S	307773	4088640	NAD27	36.92609	-89.15823	NAD83	95.0	25.3	2.7	Missouri	Mississippi	Hpm1	181	201	-	NA	NA	-
8b	CNC015	10/7/2003	15S	745809	3905443	NAD27	35.26384	-90.29805	NAD83	67.0	20.35	>8.7	Arkansas	Crittenden	Hchm	227	229	766TC	0.96	1	-
8b	CNC025	10/9/2003	15S	754947	3910705	NAD27	35.30895	-90.19608	NAD83	68.0	20.2	>.3	Arkansas	Crittenden	Hchm	205	213	766TC	0.96	1	-
8b	CNC030	10/13/2003	15S	751485	3918449	NAD27	35.37958	-90.23173	NAD83	66.0	21.7	>2	Arkansas	Crittenden	Hchm	118	139	766TC	0.96	1	-
8b	CNC033	10/14/2003	15S	756136	3913041	NAD27	35.32969	-90.18227	NAD83	66.0	20.05	>4.7	Arkansas	Crittenden	Hchm	183	200	766TC	0.96	1	-
8b	CNC038	10/18/2008	15S	750165	3922837	NAD27	35.41943	-90.24490	NAD83	69.0	20.5	-	Arkansas	Crittenden	Hchm	193	205	DDG0766	0.7	2	-
8b	CSC008	10/11/2008	15S	724305	3920211	NAD27	35.40193	-90.53019	NAD83	64.0	20.45	-	Arkansas	Cross	Hchm	182	202	DDG0766	0.7	2	-
8b	MSC003	10/16/2003	16S	237241	3985694	NAD27	35.98220	-89.91438	NAD83	77.0	18.9	>0	Arkansas	Mississippi	Hchm	194	202	766TC	0.96	1	-
8b	MSC004	10/16/2003	16S	237445	3985639	NAD27	35.98176	-89.91210	NAD83	77.0	18	2.1	Arkansas	Mississippi	Hchm	191	203	766TC	0.96	1	-
8b	MSC038	9/29/2008	15S	765365	3946135	NAD27	35.62529	-90.07005	NAD83	70.0	20.7	-	Arkansas	Mississippi	Hchm	165	190	DDG0766	0.7	2	-
8b	MSC039	9/30/2008	16S	244536	3971079	NAD27	35.85253	-89.82886	NAD83	76.0	20.6	-	Arkansas	Mississippi	Hchm	156	180	DDG0766	0.7	2	-
8b	MSC040	9/30/2008	16S	243522	3966704	NAD27	35.81286	-89.83867	NAD83	75.0	20.6	-	Arkansas	Mississippi	Hchm	184	203	DDG0766	0.7	2	-
8b	MSC041	9/30/2008	16S	243453	3964297	NAD27	35.79117	-89.83866	NAD83	75.0	20.7	-	Arkansas	Mississippi	Hchm	192	199	DDG0766	0.7	2	-
8b	MSC042	9/30/2008	16S	241889	3965221	NAD27	35.79908	-89.85625	NAD83	75.0	20.5	-	Arkansas	Mississippi	Hchm	220	230	DDG0766	0.7	2	-
8b	MSC043	9/30/2008	16S	240283	3965234	NAD27	35.79877	-89.87400	NAD83	74.0	20.6	-	Arkansas	Mississippi	Hchm	197	214	DDG0766	0.7	2	-
8b	MSC044	9/30/2008	16S	237493	3965341	NAD27	35.79899	-89.90488	NAD83	72.0	20.4	-	Arkansas	Mississippi	Hchm	182	199	DDG0766	0.7	2	-
8b	MSC045	10/17/2008	15S	770082	3952677	NAD27	35.68292	-90.01584	NAD83	69.0	20.4	-	Arkansas	Mississippi	Hchm	153	168	DDG0766	0.7	2	-
8b	MSC046	10/18/2008	15S	753998	3929796	NAD27	35.48113	-90.20055	NAD83	69.0	20.6	-	Arkansas	Mississippi	Hchm	183	201	DDG0766	0.7	2	-
8b	MSC047	10/18/2008	15S	756295	3928193	NAD27	35.46610	-90.17577	NAD83	69.0	20.2	-	Arkansas	Mississippi	Hchm	206	216	DDG1107	0.7	2	-
8b	MSC049	10/19/2008	15S	761100	3933113	NAD27	35.50916	-90.12129	NAD83	70.0	20.5	-	Arkansas	Mississippi	Hchm	220	226	DDG0766	0.7	2	-
8b	MSC050	10/19/2008	15S	763931	3934018	NAD27	35.51656	-90.08982	NAD83	70.0	20.6	-	Arkansas	Mississippi	Hchm	196	207	DDG0766	0.7	2	-
8b	MSC051	10/19/2008	15S	764779	3931158	NAD27	35.49058	-90.08141	NAD83	69.0	20.5	-	Arkansas	Mississippi	Hchm	154	176	DDG0766	0.7	2	-
8b	MSC055	10/20/2008	15S	761287	3942167	NAD27	35.59064	-90.11631	NAD83	69.0	20.4	-	Arkansas	Mississippi	Hchm	124	119	DDG0766	0.7	2	-
8b	MSC056	10/20/2008	15S	762122	3943651	NAD27	35.60378	-90.10662	NAD83	70.0	20.6	-	Arkansas	Mississippi	Hchm	153	181	DDG0766	0.7	2	-
8b	MSC058	10/20/2008	15S	765466	3937738	NAD27	35.54965	-90.07169	NAD83	70.0	20	-	Arkansas	Mississippi	Hchm	-	-	DDG0766	0.7	2	-
8b	MSI002	10/12/2008	16S	289727	4070567	NAD27	36.75945	-89.35567	NAD83	91.0	18.7	-	Missouri	Mississippi	Hchm	165	200	DDG0766	0.7	2	-
8b	MSI005	10/13/2008	16S	303973	4080180	NAD27	36.84910	-89.19867	NAD83	92.0	20.5	-	Missouri	Mississippi	Hchm	172	190	DDG0766	0.7	2	-
8b	MSI006	10/13/2008	16S	296818	4078685	NAD27	36.83412	-89.27847	NAD83	93.0	20.5	-	Missouri	Mississippi	Hchm	150	171	DDG0766	0.7	2	-
8b	NMD003	10/4/2008	16S	269374	4033954	NAD27	36.42498	-89.57252	NAD83	85.0	20.6	-	Missouri	New Madrid	Hchm	163	176	DDG0766	0.7	2	-
8b	PST007	9/23/2008	16S	248694	3988050	NAD27	36.00644	-89.78823	NAD83	79.0	20.7	-	Missouri	Pemiscot	Hchm	213	219	DDG0766	0.7	2	-
8b	PST009	9/23/2008	16S	250327	3988250	NAD27	36.00866	-89.77020	NAD83	78.0	20.55	-	Missouri	Pemiscot	Hchm	191	204	DDG0766	0.7	2	-
8b	PST015	10/1/2008	16S	250738	3989037	NAD27	36.01585	-89.76589	NAD83	78.0	20.6	-	Missouri	Pemiscot	Hchm	167	185	DDG0766	0.7	2	-
8b	PST018	10/1/2008	16S	257377	3997768	NAD27	36.09615	-89.69498	NAD83	80.0	18.95	-	Missouri	Pemiscot	Hchm	206	214	DDG0766	0.7	2	-
8b	PST021	10/2/2008	16S	257219	4008434	NAD27	36.19217	-89.70002	NAD83	81.0	20.6	-	Missouri	Pemiscot	Hchm	187	202	DDG0766	0.7	2	-
8b	PST022	10/2/2008	16S	258534	4020577	NAD27	36.30185	-89.68916	NAD83	86.0	20.5	-	Missouri	Pemiscot	Hchm	151	171	DDG0766	0.7	2	-
8b	TNA014	12/16/2004	15S	750374	3844541	NAD27	34.71416	-90.26624	NAD83	56.0	18.00	-	Mississippi	Tunica	Hchm	182	199	DDE0770	0.96	2	-
8b	TNA015	12/17/2004	15S	743773	3836527	NAD27	34.64356	-90.34055	NAD83	53.8	20.40	-	Mississippi	Tunica	Hchm	188	205	DDE0770	0.96	2	-
8b	TNA026	12/20/2004	15S	744031	3840685	NAD27	34.68095	-90.33653	NAD83	57.8	20.20	-	Mississippi	Tunica	Hchm	217	227	DSG0766	0.96	2	-
8b	TNA027	12/21/2004	15S	740991	3845882	NAD27	34.72849	-90.36821	NAD83	59.0	20.20	-	Mississippi	Tunica	Hchm	217	226	DSG0766	0.96	2	-
8b	TNA030	1/5/2005	15S	741803	3850782	NAD27	34.77245	-90.35794	NAD83	56.9	20.50	-	Mississippi	Tunica	Hchm	157	176	DSG0766	0.96	2	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
8b	TNA039	1/8/2005	15S	737398	3839290	NAD27	34.66995	-90.40926	NAD83	54.7	22.00	-	Mississippi	Tunica	Hchm	174	197	DSG0766	0.96	2	-
8c	CCT001	11/30/2004	15S	648436	3698554	NAD27	33.41793	-91.40368	NAD83	38.0	20.6	-	Arkansas	Chicot	Hb	245	251	DDG0766	0.96	2	-
8c	CNC001	9/29/2003	15S	754533	3899815	NAD27	35.21098	-90.20399	NAD83	66.0	20.25	1.4	Arkansas	Crittenden	Hb	192	210	766TC	0.96	1	-
8c	CNC009	10/1/2003	15S	743329	3898961	NAD27	35.20606	-90.32720	NAD83	66.0	26.7	2.1	Arkansas	Crittenden	Hb	141	167	766TC	0.96	1	-
8c	CNC010	10/1/2003	15S	740142	3894489	NAD27	35.16655	-90.36348	NAD83	64.0	25.95	>1.3	Arkansas	Crittenden	Hb	196	217	766TC	0.96	1	-
8c	CNC011	10/1/2003	15S	746636	3893340	NAD27	35.15463	-90.29259	NAD83	64.0	27.25	>2.2	Arkansas	Crittenden	Hb	185	208	766TC	0.96	1	-
8c	CNC012	10/3/2003	15S	740142	3889192	NAD27	35.11884	-90.36502	NAD83	62.0	21.9	7.3	Arkansas	Crittenden	Hb	189	205	766TC	0.96	1	-
8c	CNC013	10/6/2003	15S	747545	3899668	NAD27	35.21140	-90.28072	NAD83	64.0	30.4	>.4	Arkansas	Crittenden	Hb	100	125	766TC	0.96	1	-
8c	CNC018	10/8/2003	15S	761262	3894500	NAD27	35.16138	-90.13183	NAD83	64.0	20.1	>1.3	Arkansas	Crittenden	Hb	182	203	766TC	0.96	1	-
8c	CNC019	10/8/2003	15S	761657	3895555	NAD27	35.17078	-90.12716	NAD83	65.0	20.5	>.9	Arkansas	Crittenden	Hb	182	201	766TC	0.96	1	-
8c	CNC022	10/9/2003	15S	757876	3904045	NAD27	35.24822	-90.16598	NAD83	65.0	20.2	>1.1	Arkansas	Crittenden	Hb	133	154	766TC	0.96	1	-
8c	DSO013	12/13/2004	15S	753637	3861629	NAD27	34.86727	-90.22549	NAD83	60.8	18.9	-	Mississippi	Desoto	Hb	167	184	DDE0770	0.96	2	-
8c	TNA001	12/13/2004	15S	753700	3835440	NAD27	34.63136	-90.23268	NAD83	57.2	20.4	-	Mississippi	Tunica	Hb	208	214	DDE0770	0.96	2	-
8c	TNA002	12/13/2004	15S	753344	3835763	NAD27	34.63436	-90.23647	NAD83	57.5	20.3	-	Mississippi	Tunica	Hb	214	227	DDE0770	0.96	2	-
8c	TNA003	12/14/2004	15S	754967	3857502	NAD27	34.82977	-90.21220	NAD83	59.0	20	-	Mississippi	Tunica	Hb	180	198	DDE0770	0.96	2	-
8c	TNA004	12/14/2004	15S	753531	3854278	NAD27	34.80108	-90.22887	NAD83	59.0	20.1	-	Mississippi	Tunica	Hb	175	194	DDE0770	0.96	2	-
8c	TNA007	12/15/2004	15S	749495	3854354	NAD27	34.80276	-90.27291	NAD83	59.0	20.4	-	Mississippi	Tunica	Hb	204	216	DDE0770	0.96	2	-
8c	TNA033	1/6/2005	15S	751978	3851234	NAD27	34.77405	-90.24673	NAD83	59.0	20.1	-	Mississippi	Tunica	Hb	183	201	DSG0766	0.96	2	-
8c	TNA034	1/6/2005	15S	752187	3847882	NAD27	34.74381	-90.24545	NAD83	57.8	20.1	-	Mississippi	Tunica	Hb	191	211	DSG0766	0.96	2	-
8c	TNA035	1/6/2005	15S	753784	3830143	NAD27	34.58363	-90.23335	NAD83	56.9	20.2	-	Mississippi	Tunica	Hb	219	224	DSG0766	0.96	2	-
8c	TNA036	1/6/2005	15S	753240	3839712	NAD27	34.66996	-90.23642	NAD83	57.2	19.5	-	Mississippi	Tunica	Hb	196	214	DSG0766	0.96	2	-
9	BDY001	12/14/2005	15S	561056	3683065	NAD27	33.28677	-92.34444	NAD83	24.0	14.55	-	Arkansas	Bradley	Hpb	208	216	DDG0766	0.7	2	-
9	BDY002	12/14/2005	15S	562120	3682083	NAD27	33.27785	-92.33308	NAD83	22.8	12	-	Arkansas	Bradley	Hpb	-	-	DDG0766	0.7	2	-
9	CLN001	12/13/2005	15S	538774	3695044	NAD27	33.39585	-92.58322	NAD83	26.8	10.75	-	Arkansas	Calhoun	Hpb	317	-	DDG0766	0.7	2	-
9	CLN002	12/13/2005	15S	538078	3697378	NAD27	33.41692	-92.59061	NAD83	27.4	14	-	Arkansas	Calhoun	Hpb	261	271	DDG0766	0.7	2	-
9	CLN003	12/13/2005	15S	538375	3698463	NAD27	33.42670	-92.58737	NAD83	28.0	10.65	-	Arkansas	Calhoun	Hpb	192	-	DDG0766	0.7	2	-
9	CLN004	12/13/2005	15S	538567	3699450	NAD27	33.43560	-92.58526	NAD83	25.8	10.9	-	Arkansas	Calhoun	Hpb	234	-	DDG0766	0.7	2	-
9	CLN005	12/13/2005	15S	543941	3688760	NAD27	33.33897	-92.52797	NAD83	24.0	20.5	-	Arkansas	Calhoun	Hpb	189	187	DDG0766	0.7	2	-
9	CLN006	12/13/2005	15S	543707	3689729	NAD27	33.34772	-92.53044	NAD83	24.3	17.25	-	Arkansas	Calhoun	Hpb	212	238	DDG0766	0.7	2	-
9	OCA001	12/17/2005	15S	516721	3718353	NAD27	33.60666	-92.81992	NAD83	31.9	9.05	-	Arkansas	Ouachita	Hpb	260	-	DDG0766	0.7	2	-
9	OCA002	12/17/2005	15S	516868	3717372	NAD27	33.59781	-92.81836	NAD83	29.8	12.4	-	Arkansas	Ouachita	Hpb	226	-	DDG0766	0.7	2	-
9	OCA003	12/17/2005	15S	520163	3718456	NAD27	33.60753	-92.78282	NAD83	29.5	14.5	-	Arkansas	Ouachita	Hpb	252	286	DDG0766	0.7	2	-
9	OCA004	12/17/2005	15S	519223	3717763	NAD27	33.60129	-92.79297	NAD83	31.0	9.5	-	Arkansas	Ouachita	Hpb	221	-	DDG0766	0.7	2	-
9	UNN001	12/12/2005	15S	548097	3683395	NAD27	33.29041	-92.48359	NAD83	24.6	11.85	-	Arkansas	Union	Hpb	219	-	DDG0766	0.7	2	-
9	UNN002	12/12/2005	15S	548881	3683857	NAD27	33.29454	-92.47515	NAD83	24.0	16	-	Arkansas	Union	Hpb	253	267	DDG0766	0.7	2	-
9	UNN003	12/12/2005	15S	546263	3686439	NAD27	33.31794	-92.50313	NAD83	25.5	12.6	-	Arkansas	Union	Hpb	234	-	DDG0766	0.7	2	-
9	UNN004	12/12/2005	15S	544152	3687231	NAD27	33.32518	-92.52577	NAD83	24.0	20.5	-	Arkansas	Union	Hpb	219	221	DDG0766	0.7	2	-
9	UNN005	12/12/2005	15S	543944	3687848	NAD27	33.33075	-92.52798	NAD83	24.9	16	-	Arkansas	Union	Hpb	202	203	DDG0766	0.7	2	-
9	UNN006	12/13/2005	15S	543133	3688455	NAD27	33.33625	-92.53667	NAD83	27.1	13	-	Arkansas	Union	Hpb	207	-	DDG0766	0.7	2	-
9	UNN007	12/14/2005	15S	582681	3669030	NAD27	33.15874	-92.11349	NAD83	22.2	15.5	-	Arkansas	Union	Hpb	209	219	DDG0766	0.7	2	-
9	UNN008	12/14/2005	15S	582763	3668193	NAD27	33.15119	-92.11269	NAD83	21.0	14.15	-	Arkansas	Union	Hpb	247	-	DDG0766	0.7	2	-
9	UNN009	12/14/2005	15S	578606	3667764	NAD27	33.14763	-92.15730	NAD83	21.0	11.25	-	Arkansas	Union	Hpb	220	-	DDG0766	0.7	2	-
9	UNN010	12/14/2005	15S	560318	3684446	NAD27	33.29926	-92.35227	NAD83	23.7	12.8	-	Arkansas	Union	Hpb	198	-	DDG0766	0.7	2	-
9	UNN011	12/15/2005	15S	585011	3654996	NAD27	33.03199	-92.08981	NAD83	22.5	12	-	Arkansas	Union	Hpb	227	-	DDG0766	0.7	2	-
9	UNN012	12/15/2005	15S	584225	3654736	NAD27	33.02971	-92.09825	NAD83	19.8	10.8	-	Arkansas	Union	Hpb	247	-	DDG0766	0.7	2	-
9	UNN013	12/15/2005	15S	583324	3654844	NAD27	33.03075	-92.10789	NAD83	17.9	11.6	-	Arkansas	Union	Hpb	221	-	DDG0766	0.7	2	-
9	UNN014	12/15/2005	15S	582831	3655645	NAD27	33.03801	-92.11310	NAD83	17.9	9.6	-	Arkansas	Union	Hpb	-	-	DDG0766	0.7	2	-
9	UNN015	12/15/2005	15S	582359	3656678	NAD27	33.04736	-92.11806	NAD83	17.9	11.6	-	Arkansas	Union	Hpb	222	-	DDG0766	0.7	2	-
9	UNN016	12/15/2005	15S	581627	3657515	NAD27	33.05497	-92.12582	NAD83	19.2	7.4	-	Arkansas	Union	Hpb	-	-	DDG0766	0.7	2	-
9	UNN017	12/17/2005	15S	559498	3682962	NAD27	33.28593	-92.36118	NAD83	24.6	10.5	-	Arkansas	Union	Hpb	272	-	DDG0766	0.7	2	-
9	UNN018	12/17/2005	15S	558259	3682386	NAD27	33.28080	-92.37452	NAD83	25.5	12.8	-	Arkansas	Union	Hpb	244	-	DDG0766	0.7	2	-
10	HPD001	12/21/2005	15S	424864	3718575	NAD27	33.60615	-93.81005	NAD83	78.5	14	-	Arkansas	Hempstead	Hpb	229	226	DDG0766	0.7	2	-
10	HPD002	12/21/2005	15S	424837	3717557	NAD27	33.59696	-93.81026	NAD83	76.9	14.5	-	Arkansas	Hempstead	Hpb	238	245	DDG0766	0.7	2	-
10	HPD003	12/21/2005	15S	424397	3719087	NAD27	33.61073	-93.81513	NAD83	76.3	15.4	-	Arkansas	Hempstead	Hpb	225	241	DDG0766	0.7	2	-
10	LFE001	12/19/2005	15S	435039	3698364	NAD27	33.42453	-93.69891	NAD83	69.9	15.6	-	Arkansas	Lafayette	Hpb	204	213	DDG0766	0.7	2	-
10	LFE002	12/19/2005	15S	435673	3697258	NAD27	33.41459	-93.69201	NAD83	71.8	15.3	-	Arkansas	Lafayette	Hpb	200	208	DDG0766	0.7	2	-
10	LFE003	12/19/2005	15S	435511	3703558	NAD27	33.47140	-93.69421	NAD83	73.0	14.5	-	Arkansas	Lafayette	Hpb	231	261	DDG0766	0.7	2	-
10	LFE004	12/19/2005	15S	437191	3701050	NAD27	33.44888	-93.67596	NAD83	73.0	13	-	Arkansas	Lafayette	Hpb	220	-	DDG0766	0.7	2	-
10	LFE005	12/22/2005	15S	420674	3661482	NAD27	33.09092	-93.85018	NAD83	62.3	15.3	-	Arkansas	Lafayette	Hpb	209	214	DDG0766	0.7	2	-
10	LFE006	12/22/2005	15S	422205	3662783	NAD27	33.10276	-93.83389	NAD83	62.3	15.4	-	Arkansas	Lafayette	Hpb	253	259	DDG0766	0.7	2	-
10	LFE007	12/22/2005	15S	423392	3663949	NAD27	33.11337	-93.82127	NAD83	62.9	15.5	-	Arkansas	Lafayette	Hpb	237	256	DDG0766	0.7	2	-
10	LFE008	12/22/2005	15S	423336	3664900	NAD27	33.12194	-93.82195	NAD83	63.9	13.5	-	Arkansas	Lafayette	Hpb	189	-	DDG0766	0.7	2	-
10	LFE009	12/22/2005	15S	426129	3665803	NAD27	33.13028	-93.79208	NAD83	63.9	14	-	Arkansas	Lafayette	Hpb	222	-	DDG0766	0.7	2	-
10	LFE010	12/22/2005	15S	427387	3666579	NAD27	33.13737	-93.77866	NAD83	63.9	14	-	Arkansas	Lafayette	Hpb	200	-	DDG0766	0.7	2	-
10	LVR001	12/23/2005	15S	394158	3717690	NAD27	33.59555	-94.14088	NAD83	87.3	12.45	-	Arkansas	Little River	Hpb	222	-	DDG0766	0.7	2	-
10	LVR002	12/23/2005	15S	395518	3717645	NAD27	33.59528	-94.12622	NAD83	84.8	13	-	Arkansas	Little River	Hpb	208	-	DDG0766	0.7	2	-
10	LVR003	12/23/2005	15S	396961	3717189	NAD27	33.59131	-94.11061	NAD83	84.8	13.5	-	Arkansas	Little River	Hpb	222	-	DDG0766	0.7	2	-
10	MLR001	12/20/2005	15S	411407	3711149	NAD27	33.53813	-93.95435	NAD83	78.8	12.4	-	Arkansas	Miller	Hpb	179	-	DDG0766	0.7	2	-
10	MLR002	12/20/2005	15S	415101	3705872	NAD27	33.49084	-93.91407	NAD83	77.8	13.5	-	Arkansas	Miller	Hpb	220	-	DDG0766	0.7	2	-
10	MLR003	12/20/2005	15S	414243	3705893	NAD27	33.49097	-93.92330	NAD83	78.8	14.6	-	Arkansas	Miller	Hpb	201	199	DDG0766	0.7	2	-
10	MLR004	12/20/2005	15S	414929	3704539	NAD27	33.47881	-93.91579	NAD83	77.8	14.4	-	Arkansas	Miller	Hpb	233	236	DDG0766	0.7	2	-
10	MLR005	12/20/2005	15S	417725	3703809	NAD27	33.47245	-93.88564	NAD83	76.6	15.5	-	Arkansas	Miller	Hpb	238	248	DDG0766	0.7	2	-
10	MLR006	12/20/2005	15S	423835	3705718	NAD27	33.49012	-93.82005	NAD83	77.8	15.9	-	Arkansas	Miller	Hpb	270	286	DDG0766	0.7	2	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
10	MLR007	12/20/2005	15S	424870	3705890	NAD27	33.49174	-93.80892	NAD83	75.7	13.6	-	Arkansas	Miller	Hpb	-	-	DDG0766	0.7	2	-
10	MLR008	12/21/2005	15S	417591	3712948	NAD27	33.55486	-93.88792	NAD83	79.4	12.5	-	Arkansas	Miller	Hpb	216	-	DDG0766	0.7	2	-
10	MLR009	12/21/2005	15S	418802	3716818	NAD27	33.58985	-93.87523	NAD83	78.8	13.3	-	Arkansas	Miller	Hpb	220	-	DDG0766	0.7	2	-
10	MLR010	12/21/2005	15S	418758	3715659	NAD27	33.57940	-93.87560	NAD83	77.8	12	-	Arkansas	Miller	Hpb	179	-	DDG0766	0.7	2	-
10	MLR011	12/21/2005	15S	418738	3714756	NAD27	33.57125	-93.87573	NAD83	78.8	16	-	Arkansas	Miller	Hpb	274	323	DDG0766	0.7	2	-
10	MLR012	12/22/2005	15S	434509	3691549	NAD27	33.36303	-93.70412	NAD83	78.5	15.45	-	Arkansas	Miller	Hpb	222	231	DDG0766	0.7	2	-
10	MLR013	12/23/2005	15S	406126	3707585	NAD27	33.50555	-94.01085	NAD83	79.7	14.5	-	Arkansas	Miller	Hpb	202	211	DDG0766	0.7	2	-
10	MLR014	12/23/2005	15S	403278	3712677	NAD27	33.55121	-94.04205	NAD83	80.3	10.4	-	Arkansas	Miller	Hpb	252	-	DDG0766	0.7	2	-
11	CMN001	1/14/2005	14R	645529	2870451	NAD27	25.94728	-97.54688	NAD83	10.9	20.50	-	Texas	Cameron	Qas	208	217	DSG0766	0.96	2	-
11	CMN002	1/14/2005	14R	644242	2871038	NAD27	25.95271	-97.55966	NAD83	10.9	20.50	-	Texas	Cameron	Qas	208	214	DSG0766	0.96	2	-
11	CMN003	1/14/2005	14R	643359	2871524	NAD27	25.95718	-97.56843	NAD83	10.9	20.20	-	Texas	Cameron	Qas	193	201	DSG0766	0.96	2	-
11	CMN004	1/14/2005	14R	642589	2871947	NAD27	25.96108	-97.57607	NAD83	11.9	20.20	-	Texas	Cameron	Qam	216	233	DSG0766	0.96	2	-
11	CMN005	1/15/2005	14R	641768	2872426	NAD27	25.96548	-97.58421	NAD83	11.9	20.50	-	Texas	Cameron	Qas	213	233	DSG0766	0.96	2	-
11	CMN006	1/15/2005	14R	640968	2873233	NAD27	25.97285	-97.59211	NAD83	11.9	20.50	-	Texas	Cameron	Qas	233	233	DSG0766	0.96	2	-
11	CMN007	1/15/2005	14R	640378	2874194	NAD27	25.98158	-97.59792	NAD83	13.4	20.50	-	Texas	Cameron	Qas	220	236	DSG0766	0.96	2	-
11	CMN008	1/15/2005	14R	639978	2875157	NAD27	25.99031	-97.60181	NAD83	14.0	20.50	-	Texas	Cameron	Qas	206	236	DSG0766	0.96	2	-
11	CMN009	1/15/2005	14R	639783	2876146	NAD27	25.99926	-97.60365	NAD83	13.1	20.50	-	Texas	Cameron	Qam	226	236	DSG0766	0.96	2	-
11	CMN010	1/16/2005	14R	639589	2877105	NAD27	26.00793	-97.60548	NAD83	13.1	20.50	-	Texas	Cameron	Qam	212	234	DSG0766	0.96	2	-
11	CMN011	1/16/2005	14R	639427	2877925	NAD27	26.01535	-97.60701	NAD83	13.1	20.50	-	Texas	Cameron	Qas	245	259	DSG0766	0.96	2	-
11	CMN012	1/16/2005	14R	637878	2878774	NAD27	26.02316	-97.62240	NAD83	13.1	20.80	-	Texas	Cameron	Qam	200	221	DSG0766	0.96	2	-
11	CMN013	1/16/2005	14R	637030	2879053	NAD27	26.02576	-97.63084	NAD83	14.0	18.00	-	Texas	Cameron	Qas	229	232	DSG0766	0.96	2	-
11	CMN014	1/16/2005	14R	636014	2879406	NAD27	26.02904	-97.64095	NAD83	14.0	20.50	-	Texas	Cameron	Qam	216	227	DSG0766	0.96	2	-
11	CMN015	1/17/2005	14R	635008	2879818	NAD27	26.03286	-97.65096	NAD83	14.9	20.50	-	Texas	Cameron	Qas	217	225	DSG0766	0.96	2	-
11	CMN016	1/17/2005	14R	634227	2880511	NAD27	26.03919	-97.65869	NAD83	14.9	20.50	-	Texas	Cameron	Qas	214	221	DSG0766	0.96	2	-
11	CMN017	1/17/2005	14R	632962	2881166	NAD27	26.04522	-97.67127	NAD83	14.9	20.20	-	Texas	Cameron	Qas	196	201	DSG0766	0.96	2	-
11	CMN018	1/17/2005	14R	631818	2881119	NAD27	26.04490	-97.68271	NAD83	15.8	20.20	-	Texas	Cameron	Qam	213	231	DSG0766	0.96	2	-
11	CMN019	1/17/2005	14R	629618	2881043	NAD27	26.04441	-97.70470	NAD83	14.9	19.20	-	Texas	Cameron	Qas	217	236	DSG0766	0.96	2	-
11	CMN020	1/18/2005	14R	628023	2881552	NAD27	26.04915	-97.72059	NAD83	14.9	20.20	-	Texas	Cameron	Qam	219	232	DSG0766	0.96	2	-
11	CMN021	1/18/2005	14R	638270	2882528	NAD27	26.05701	-97.61808	NAD83	14.0	19.60	-	Texas	Cameron	Qas	227	232	DSG0766	0.96	2	-
11	CMN022	1/19/2005	14R	637657	2881393	NAD27	26.04683	-97.62433	NAD83	11.9	20.00	-	Texas	Cameron	Qas	220	228	DSG0766	0.96	2	-
11	CMN023	1/19/2005	14R	638090	2884402	NAD27	26.07395	-97.61969	NAD83	14.0	20.00	-	Texas	Cameron	Qas	227	240	DSG0766	0.96	2	-
11	CMN024	1/19/2005	14R	637030	2885576	NAD27	26.08465	-97.63016	NAD83	14.9	19.80	-	Texas	Cameron	Qas	247	275	DSG0766	0.96	2	-
11	CMN025	1/20/2005	14R	635639	2886385	NAD27	26.09208	-97.64397	NAD83	14.9	20.00	-	Texas	Cameron	Qas	222	241	DSG0766	0.96	2	-
11	CMN026	1/20/2005	14R	635296	2887992	NAD27	26.10662	-97.64724	NAD83	14.0	20.20	-	Texas	Cameron	Qas	225	234	DSG0766	0.96	2	-
11	CMN027	1/20/2005	14R	633570	2889310	NAD27	26.11868	-97.66436	NAD83	13.1	19.80	-	Texas	Cameron	Qas	219	224	DSG0766	0.96	2	-
11	CMN028	1/20/2005	14R	633542	2883003	NAD27	26.06175	-97.66528	NAD83	14.0	20.00	-	Texas	Cameron	Qam	231	240	DSG0766	0.96	2	-
11	CMN029	1/21/2005	14R	639418	2888706	NAD27	26.11267	-97.60595	NAD83	7.9	18.30	-	Texas	Cameron	Qam	209	221	DSG0766	0.96	2	-
11	CMN030	1/21/2005	14R	642508	2890062	NAD27	26.12461	-97.57491	NAD83	7.0	19.30	-	Texas	Cameron	Qam	213	228	DSG0766	0.96	2	-
11	CMN031	1/21/2005	14R	645690	2886207	NAD27	26.08949	-97.54351	NAD83	11.9	18.00	-	Texas	Cameron	Qas	233	247	DSG0766	0.96	2	-
11	CMN032	1/21/2005	14R	642502	2884467	NAD27	26.07411	-97.57558	NAD83	11.9	15.00	-	Texas	Cameron	Qas	226	236	DSG0766	0.96	2	-
12	SWG1	5/6/2001	16S	252874	3886550	NAD27	35.09335	-89.71094	NAD83	NA	28.4	7	Tennessee	Shelby	Qal	219	246	-	NA	NA	-
12	SYC001	10/29/2003	16S	228012	3898510	NAD27	35.19464	-89.98729	NAD83	69.0	20.15	3.1	Tennessee	Shelby	Qal	236	254	776TC	0.96	1	-
12	SYC002	10/29/2003	16S	230795	3898192	NAD27	35.19254	-89.95666	NAD83	76.0	20.00	4.4	Tennessee	Shelby	Qal	218	219	766TC	0.96	1	-
12	SYC003	10/29/2003	16S	231926	3898545	NAD27	35.19601	-89.94437	NAD83	74.0	14.10	>.4	Tennessee	Shelby	Qal	201	214	766TC	0.96	1	-
12	SYC004	10/30/2003	16S	235854	3895579	NAD27	35.17035	-89.90031	NAD83	78.0	12.90	3.1	Tennessee	Shelby	Qal	202	214	766TC	0.96	1	-
12	SYC005	10/31/2003	16S	235116	3897510	NAD27	35.18755	-89.90903	NAD83	73.0	10.15	3.4	Tennessee	Shelby	Qal	229	-	766TC	0.96	1	-
12	SYC006	10/31/2003	16S	233811	3898901	NAD27	35.19972	-89.92380	NAD83	74.0	21.90	>.4	Tennessee	Shelby	Qal	222	238	766TC	0.96	1	-
12	SYC007	10/31/2003	16S	234281	3897939	NAD27	35.19118	-89.91833	NAD83	72.0	18.00	>3.5	Tennessee	Shelby	Qal	222	241	766TC	0.96	1	-
12	SYC008	10/31/2003	16S	234610	3897421	NAD27	35.18661	-89.91455	NAD83	73.0	16.50	>2	Tennessee	Shelby	Qal	182	200	766TC	0.96	1	-
12	SYC009	10/31/2003	16S	237523	3894029	NAD27	35.15683	-89.88152	NAD83	72.0	17.50	>2.4	Tennessee	Shelby	Qal	231	242	766TC	0.96	1	-
12	SYC010	11/2/2003	16S	238857	3891466	NAD27	35.13409	-89.86608	NAD83	76.0	20.20	16.9	Tennessee	Shelby	Qal	256	254	766TC	0.96	1	-
12	SYC011	11/2/2003	16S	239972	3891379	NAD27	35.13360	-89.85383	NAD83	78.0	23.00	5.4	Tennessee	Shelby	Qal	231	259	766TC	0.96	1	-
12	SYC012	11/2/2003	16S	239628	3892445	NAD27	35.14311	-89.85793	NAD83	77.0	20.15	6.8	Tennessee	Shelby	Qal	230	234	766TC	0.96	1	-
12	SYC013	11/3/2003	16S	241542	3890810	NAD27	35.12888	-89.83644	NAD83	76.0	17.25	9.4	Tennessee	Shelby	Qal	245	256	766TC	0.96	1	-
12	SYC014	11/3/2003	16S	244634	3889562	NAD27	35.11842	-89.80216	NAD83	79.0	20.50	5.2	Tennessee	Shelby	Qal	196	200	766TC	0.96	1	-
12	SYC015	11/3/2003	16S	247891	3887427	NAD27	35.10001	-89.76580	NAD83	81.0	16.60	8.0	Tennessee	Shelby	Qal	213	214	766TC	0.96	1	-
12	SYC016	11/3/2003	16S	249278	3887800	NAD27	35.10372	-89.75072	NAD83	82.0	12.35	>7.5	Tennessee	Shelby	Qal	276	-	766TC	0.96	1	-
12	SYC017	11/3/2003	16S	251020	3887833	NAD27	35.10445	-89.73164	NAD83	84.0	21.05	8.1	Tennessee	Shelby	Qal	233	242	766TC	0.96	1	-
12	SYC018	11/4/2003	16S	251954	3887088	NAD27	35.09797	-89.72118	NAD83	84.0	24.40	>1.3	Tennessee	Shelby	Qal	229	236	766TC	0.96	1	-
12	SYC019	11/4/2003	16S	252516	3887461	NAD27	35.10147	-89.71513	NAD83	83.0	15.50	>5.2	Tennessee	Shelby	Qal	229	263	766TC	0.96	1	-
12	SYC020	11/4/2003	16S	253643	3886282	NAD27	35.09113	-89.70242	NAD83	85.0	16.00	>2.8	Tennessee	Shelby	Qal	238	243	766TC	0.96	1	-
12	SYC021	11/4/2003	16S	258214	3884735	NAD27	35.07829	-89.65188	NAD83	88.0	20.20	>.7	Tennessee	Shelby	Qal	245	278	766TC	0.96	1	-
12	Wolf4	7/9/2000	16S	253935	3887182	NAD27	35.09930	-89.69949	NAD83	93.0	20.1	-	Tennessee	Shelby	Qal	-	-	-	None	None	-
13	RCD052	9/8/2008	14T	666283	5148442	NAD27	46.47096	-96.83449	NAD83	288.0	17.55	-	North Dakota	Richland	Lc	170	191	DDG0766	0.7	2	-
13	RCD053	9/8/2008	14T	672847	5151840	NAD27	46.49987	-96.74778	NAD83	285.0	16.25	-	North Dakota	Richland	Lc	185	217	DDG0766	0.7	2	-
13	RCD054	9/8/2008	14T	669969	5151764	NAD27	46.49992	-96.78529	NAD83	285.0	16.00	-	North Dakota	Richland	Lc	180	208	DDG0766	0.7	2	-
13	RCD055	9/8/2008	14T	666719	5151674	NAD27	46.49992	-96.82765	NAD83	286.0	17.30	-	North Dakota	Richland	Lc	193	195	DDG0766	0.7	2	-
13	RCD056	9/8/2008	14T	665696	5150424	NAD27	46.48893	-96.84142	NAD83	288.0	17.70	-	North Dakota	Richland	Lc	181	222	DDG0766	0.7	2	-
13	RCD057	9/11/2008	14T	667394	5148435	NAD27	46.47063	-96.82001	NAD83	288.0	15.70	-	North Dakota	Richland	Lc	155	180	DDG0766	0.7	2	-
13	RCD058	9/11/2008	14T	669000	5148530	NAD27	46.47108	-96.79908	NAD83	287.0	15.15	-	North Dakota	Richland	Lc	174	200	DDG0766	0.7	2	-
13	RCD059	9/11/2008	14T	667329	5150031	NAD27	46.48500	-96.82029	NAD83	286.0	16.40	-	North Dakota	Richland	Lc	160	177	DDG0766	0.7	2	-
13	RCD060	9/11/2008	14T	665756	5149227	NAD27	46.47816	-96.84106	NAD83	288.0	17.35	-	North Dakota	Richland	Lc	163	194	DDG0766	0.7	2	-
13	RCD061	9/12/2008	14T	673836	5148635	NAD27	46.47079	-96.73610	NAD83	285.0	15.70	-	North Dakota	Richland	Lc	194	234	DDG0770	0.7	2	Sleeve friction values are suspect

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
13	RCD062	9/12/2008	14T	672650	5148601	NAD27	46.47079	-96.75155	NAD83	285.0	16.00	-	North Dakota	Richland	Lc	182	221	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD063	9/12/2008	14T	671167	5148557	NAD27	46.47077	-96.77087	NAD83	285.0	16.60	-	North Dakota	Richland	Lc	189	243	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD064	9/12/2008	14T	673474	5143809	NAD27	46.42749	-96.74261	NAD83	285.0	14.60	-	North Dakota	Richland	Lc	183	219	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD065	9/12/2008	14T	672050	5143765	NAD27	46.42746	-96.76114	NAD83	285.0	13.75	-	North Dakota	Richland	Lc	183	219	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD066	9/12/2008	14T	669559	5143698	NAD27	46.42748	-96.79356	NAD83	287.0	14.20	-	North Dakota	Richland	Lc	167	183	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD067	9/13/2008	14T	667091	5143628	NAD27	46.42747	-96.82568	NAD83	289.0	17.40	-	North Dakota	Richland	Lc	161	161	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD068	9/13/2008	14T	667575	5142821	NAD27	46.42009	-96.81968	NAD83	290.0	19.60	-	North Dakota	Richland	Lc	149	175	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD069	9/13/2008	14T	667613	5141201	NAD27	46.40552	-96.81976	NAD83	290.0	20.75	-	North Dakota	Richland	Lc	169	201	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD070	9/13/2008	14T	666975	5140396	NAD27	46.39843	-96.82836	NAD83	291.0	18.30	-	North Dakota	Richland	Lc	168	197	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD071	9/13/2008	14T	668373	5143654	NAD27	46.42739	-96.80900	NAD83	287.0	17.70	-	North Dakota	Richland	Lc	163	188	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD072	9/14/2008	14T	667286	5150891	NAD27	46.49274	-96.82054	NAD83	286.0	16.30	-	North Dakota	Richland	Lc	167	188	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD073	9/14/2008	14T	671279	5151795	NAD27	46.49987	-96.76822	NAD83	285.0	16.00	-	North Dakota	Richland	Lc	163	182	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD074	9/14/2008	14T	673365	5147018	NAD27	46.45637	-96.74284	NAD83	285.0	15.40	-	North Dakota	Richland	Lc	168	189	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD075	9/14/2008	14T	673130	5145395	NAD27	46.44184	-96.74649	NAD83	286.0	14.00	-	North Dakota	Richland	Lc	179	208	DDG0770	0.7	2	Sleeve friction values are suspect
13	RCD076	9/14/2008	14T	669197	5142664	NAD27	46.41828	-96.79865	NAD83	287.0	18.00	-	North Dakota	Richland	Lc	167	191	DDG0770	0.7	2	Sleeve friction values are suspect
14	BZA001	1/3/2006	15R	277372	3207654	NAD27	28.97942	-95.28510	NAD83	0.0	32.5	-	Texas	Brazoria	Lagoonal	148	155	DDG0766	0.7	2	-
14	BZA002	1/3/2006	15R	276271	3207254	NAD27	28.97562	-95.29631	NAD83	0.9	30	-	Texas	Brazoria	Lagoonal	152	159	DDG0766	0.7	2	-
14	BZA003	1/3/2006	15R	278965	3207604	NAD27	28.97925	-95.26875	NAD83	0.0	30	-	Texas	Brazoria	Lagoonal	175	181	DDG0766	0.7	2	-
14	BZA004	1/4/2006	15R	261121	3195749	NAD27	28.86913	-95.44925	NAD83	0.9	23.75	-	Texas	Brazoria	Lagoonal	167	188	DDG0766	0.7	2	-
14	BZA005	1/4/2006	15R	258043	3197811	NAD27	28.88715	-95.48122	NAD83	0.9	15.05	-	Texas	Brazoria	Lagoonal	204	222	DDG0766	0.7	2	-
14	BZA006	1/4/2006	15R	255614	3198834	NAD27	28.89591	-95.50632	NAD83	0.9	21.3	-	Texas	Brazoria	Lagoonal	190	179	DDG0770	0.7	2	-
14	BZA007	1/4/2006	15R	251745	3200982	NAD27	28.91454	-95.54645	NAD83	0.9	24.5	-	Texas	Brazoria	Lagoonal	190	211	DDG0770	0.7	2	-
14	BZA008	1/6/2006	15R	279250	3216568	NAD27	29.06014	-95.26759	NAD83	1.2	14.85	-	Texas	Brazoria	Lagoonal	161	154	DDG0770	0.7	2	-
14	BZA009	1/6/2006	15R	280441	3217086	NAD27	29.06502	-95.25546	NAD83	2.1	16	-	Texas	Brazoria	Lagoonal	201	210	DDG0770	0.7	2	-
14	BZA010	1/6/2006	15R	281385	3218056	NAD27	29.07393	-95.24596	NAD83	0.3	14.5	-	Texas	Brazoria	Lagoonal	191	199	DDG0770	0.7	2	-
14	BZA011	1/6/2006	15R	282991	3216265	NAD27	29.05805	-95.22912	NAD83	0.9	20.5	-	Texas	Brazoria	Lagoonal	195	192	DDG0770	0.7	2	-
14	BZA012	1/6/2006	15R	281951	3216678	NAD27	29.06160	-95.23988	NAD83	0.9	15.8	-	Texas	Brazoria	Lagoonal	183	195	DDG0770	0.7	2	-
14	BZA013	1/6/2006	15R	279212	3214101	NAD27	29.03789	-95.26749	NAD83	0.9	16.7	-	Texas	Brazoria	Lagoonal	190	200	DDG0770	0.7	2	-
14	BZA014	1/7/2006	15R	247652	3195773	NAD27	28.86677	-95.58722	NAD83	0.9	20	-	Texas	Brazoria	Lagoonal	233	248	DDG0770	0.7	2	-
14	BZA015	1/7/2006	15R	247977	3196849	NAD27	28.87654	-95.58414	NAD83	1.2	16.5	-	Texas	Brazoria	Lagoonal	213	229	DDG0770	0.7	2	-
14	BZA016	1/7/2006	15R	249735	3197249	NAD27	28.88049	-95.56622	NAD83	0.9	20.5	-	Texas	Brazoria	Lagoonal	190	214	DDG0770	0.7	2	-
14	BZA017	1/7/2006	15R	250580	3197266	NAD27	28.88081	-95.55756	NAD83	0.9	20.5	-	Texas	Brazoria	Lagoonal	181	195	DDG0770	0.7	2	-
14	BZA018	1/7/2006	15R	249877	3198130	NAD27	28.88846	-95.56496	NAD83	0.9	20.3	-	Texas	Brazoria	Lagoonal	191	219	DDG0770	0.7	2	-
14	BZA019	1/7/2006	15R	248791	3197633	NAD27	28.88376	-95.57597	NAD83	0.9	20.4	-	Texas	Brazoria	Lagoonal	200	226	DDG0770	0.7	2	-
14	BZA020	1/9/2006	15R	283952	3211219	NAD27	29.01270	-95.21829	NAD83	0.3	13.5	-	Texas	Brazoria	Lagoonal	149	175	DDG0770	0.7	2	-
14	MGA001	1/5/2006	15R	229616	3183234	NAD27	28.75005	-95.76897	NAD83	0.0	21.55	-	Texas	Matagorda	Lagoonal	196	197	DDG0766	0.7	2	-
14	MGA002	1/5/2006	15R	229074	3184145	NAD27	28.75815	-95.77473	NAD83	0.9	22.55	-	Texas	Matagorda	Lagoonal	199	199	DDG0770	0.7	2	-
14	MGA003	1/5/2006	15R	227922	3184943	NAD27	28.76511	-95.78671	NAD83	0.9	18.15	-	Texas	Matagorda	Lagoonal	195	211	DDG0770	0.7	2	-
14	MGA004	1/5/2006	15R	244974	3185621	NAD27	28.77471	-95.61237	NAD83	0.0	24	-	Texas	Matagorda	Lagoonal	127	155	DDG0770	0.7	2	-
14	MGA005	1/8/2006	15R	245804	3188013	NAD27	28.79644	-95.60441	NAD83	0.9	22	-	Texas	Matagorda	Lagoonal	150	174	DDG0770	0.7	2	-
14	MGA006	1/8/2006	15R	245253	3188639	NAD27	28.80198	-95.61019	NAD83	0.9	20.5	-	Texas	Matagorda	Lagoonal	158	175	DDG0770	0.7	2	-
14	MGA007	1/8/2006	15R	244605	3188054	NAD27	28.79657	-95.61669	NAD83	0.9	20.5	-	Texas	Matagorda	Lagoonal	129	158	DDG0770	0.7	2	-
14	MGA008	1/8/2006	15R	243356	3187341	NAD27	28.78989	-95.62933	NAD83	0.9	20.5	-	Texas	Matagorda	Lagoonal	144	158	DDG0770	0.7	2	-
14	MGA009	1/8/2006	15R	242762	3192151	NAD27	28.83314	-95.63650	NAD83	0.9	20.5	-	Texas	Matagorda	Lagoonal	149	167	DDG0770	0.7	2	-
14	MGA010	1/8/2006	15R	241950	3191307	NAD27	28.82537	-95.64462	NAD83	1.2	20.5	-	Texas	Matagorda	Lagoonal	153	168	DDG0770	0.7	2	-
15	ALC001	11/7/2000	10S	565874	4181993	NAD27	37.78469	-122.25298	NAD83	2.0	23.2	-	California	Alameda	afem	124	143	660	0.96	1	-
15	ALC002	11/7/2000	10S	566469	4181502	NAD27	37.78022	-122.24628	NAD83	2.0	21.05	3.3	California	Alameda	afem	179	203	660	0.96	1	-
15	ALC003	11/7/2000	10S	566215	4181789	NAD27	37.78283	-122.24914	NAD83	2.0	28	-	California	Alameda	afem	144	167	660	0.96	1	-
15	ALC004	11/21/2000	10S	566334	4181794	NAD27	37.78287	-122.24778	NAD83	2.0	22	-	California	Alameda	afem	157	189	660	0.96	1	-
15	ALC005	11/15/2000	10S	566086	4181651	NAD27	37.78159	-122.25061	NAD83	2.0	29.2	-	California	Alameda	afem	132	153	660	0.96	1	-
15	ALC006	11/21/2000	10S	565982	4181817	NAD27	37.78310	-122.25179	NAD83	2.0	19.5	-	California	Alameda	afem	148	167	660	0.96	1	-
15	ALC007	12/7/2000	10S	567309	4177908	NAD27	37.74777	-122.23707	NAD83	0.5	20.85	0.5	California	Alameda	afem	131	153	660	0.96	1	-
15	ALC008	12/7/2000	10S	567306	4178221	NAD27	37.75059	-122.23708	NAD83	1.0	30.45	1	California	Alameda	afem	199	224	660	0.96	1	-
15	ALC009	12/8/2000	10S	563586	4182014	NAD27	37.78504	-122.27897	NAD83	1.5	36.5	-	California	Alameda	afem	140	168	660	0.96	1	-
15	ALC010	12/8/2000	10S	562774	4182016	NAD27	37.78511	-122.28819	NAD83	1.5	34	-	California	Alameda	afem	124	149	660	0.96	1	-
15	ALC011	12/8/2000	10S	562755	4182343	NAD27	37.78807	-122.28838	NAD83	1.5	32	-	California	Alameda	afem	125	142	660	0.96	1	-
15	ALC012	1/12/2001	10S	567186	4177231	NAD27	37.74168	-122.23853	NAD83	1.0	30	-	California	Alameda	afem	134	183	660	0.96	1	-
15	ALC013	1/12/2001	10S	563567	4182488	NAD27	37.78932	-122.27914	NAD83	1.5	24	1.7	California	Alameda	afem	143	169	660	0.96	1	-
15	ALC014	1/12/2001	10S	563601	4182221	NAD27	37.78691	-122.27878	NAD83	1.5	42.75	1.2	California	Alameda	afem	112	124	660	0.96	1	-
15	ALC015	1/24/2001	10S	560531	4181786	NAD27	37.78320	-122.31368	NAD83	1.5	23.25	0.1	California	Alameda	afem	118	150	660	0.96	1	-
15	ALC016	1/24/2001	10S	560540	4181697	NAD27	37.78239	-122.31358	NAD83	1.5	16.5	1.1	California	Alameda	afem	154	181	660	0.96	1	-
15	ALC017	1/24/2001	10S	560552	4181849	NAD27	37.78376	-122.31343	NAD83	1.5	50.75	0.6	California	Alameda	afem	135	141	660	0.96	1	-
15	ALC018	1/25/2001	10S	559529	4181617	NAD27	37.78174	-122.32507	NAD83	1.5	18	1.4	California	Alameda	afem	211	250	660	0.96	1	-
15	ALC019	1/25/2001	10S	559470	4182468	NAD27	37.78941	-122.32568	NAD83	1.5	24.15	1.4	California	Alameda	afem	152	163	660	0.96	1	-
15	ALC020	1/25/2001	10S	559390	4183146	NAD27	37.79553	-122.32653	NAD83	1.5	13.15	1.1	California	Alameda	afem	222	-	660	0.96	1	-
15	ALC025	2/1/2001	10S	562139	4180589	NAD27	37.77230	-122.29552	NAD83	1.5	16	1.8	California	Alameda	afem	245	-	660	0.96	1	-
15	ALC026	2/1/2001	10S	564242	4180148	NAD27	37.76818	-122.27169	NAD83	3.0	24	0.7	California	Alameda	afem	241	250	660	0.96	1	-
15	ALC027	2/1/2001	10S	565388	4179317	NAD27	37.76061	-122.25875	NAD83	3.0	30	0.7	California	Alameda	afem	160	181	660	0.96	1	-
15	ALC028	2/5/2001	10S	567259	4176848	NAD27	37.73822	-122.23773	NAD83	1.0	16	1.1	California	Alameda	afem	187	189	660	0.96	1	-
15	ALC030	2/5/2001	10S	565370	4177436	NAD27	37.74366	-122.25912	NAD83	1.0	16.5	0.9	California	Alameda	afem	194	227	660	0.96	1	-
15	ALC031	2/6/2001	10S	568170	4178718	NAD27	37.75501	-122.22722	NAD83	1.5	22	1.7	California	Alameda	afem	187	203	660	0.96	1	-
15	ALC033	6/14/2001	10S	560430	4190709	NAD27	37.86362	-122.31409	NAD83	1.5	26.5	2.1	California	Alameda	afem	194	210	770TC	0.96	1	-
15	ALC034	6/14/2001	10S	560581	4191119	NAD27	37.86731	-122.31232	NAD83	1.5	27.5	2	California	Alameda	afem	179	197	770TC	0.96	1	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
15	ALC035	6/15/2001	10S	561091	4191016	NAD27	37.86634	-122.30655	NAD83	1.5	30.55	1.5	California	Alameda	afem	187	203	770TC	0.96	1	-
15	ALC036	6/15/2001	10S	561153	4191542	NAD27	37.87109	-122.30579	NAD83	1.5	25.8	1.5	California	Alameda	afem	192	233	770TC	0.96	1	-
15	ALC037	6/19/2001	10S	561522	4190456	NAD27	37.86127	-122.30169	NAD83	1.5	26.7	1	California	Alameda	afem	192	211	770TC	0.96	1	-
15	ALC038	6/19/2001	10S	561578	4190154	NAD27	37.85855	-122.30109	NAD83	1.5	26.5	1	California	Alameda	afem	180	201	770TC	0.96	1	-
15	ALC039	6/20/2001	10S	562055	4189220	NAD27	37.85009	-122.29575	NAD83	1.5	24.8	2.1	California	Alameda	afem	241	273	770TC	0.96	1	-
15	ALC040	6/20/2001	10S	561730	4189571	NAD27	37.85328	-122.29941	NAD83	1.5	27	1	California	Alameda	afem	196	226	770TC	0.96	1	-
15	ALC041	6/20/2001	10S	561372	4191122	NAD27	37.86728	-122.30334	NAD83	1.7	15.05	2.1	California	Alameda	afem	175	192	770TC	0.96	1	-
15	ALC042	6/21/2001	10S	560829	4192263	NAD27	37.87760	-122.30942	NAD83	1.2	25.8	1.4	California	Alameda	afem	190	216	770TC	0.96	1	-
15	ALC043	6/21/2001	10S	561288	4190698	NAD27	37.86347	-122.30434	NAD83	1.2	26	1.7	California	Alameda	afem	217	228	770TC	0.96	1	-
15	ALC063	9/19/2001	10S	560358	4188034	NAD27	37.83952	-122.31512	NAD83	2.0	12	1.9	California	Alameda	afem	128	-	770TC	0.96	1	-
15	ALC064	9/19/2001	10S	561419	4187765	NAD27	37.83702	-122.30309	NAD83	2.0	6.65	1.9	California	Alameda	afem	-	-	770TC	0.96	1	-
15	ALC065	9/19/2001	10S	561795	4187823	NAD27	37.83752	-122.29882	NAD83	2.0	15.9	2.1	California	Alameda	afem	217	240	770TC	0.96	1	-
15	ALC067	9/19/2001	10S	562297	4187090	NAD27	37.83088	-122.29317	NAD83	2.0	13.5	2.5	California	Alameda	afem	182	182	770TC	0.96	1	-
15	ALC072	9/25/2001	10S	561915	4188571	NAD27	37.84425	-122.29739	NAD83	3.7	11.2	2.3	California	Alameda	afem	325	-	770TC	0.96	1	-
15	OAK001	11/10/1998	10S	559972	4184106	NAD27	37.80414	-122.31984	NAD83	2.0	10.90	2.0	California	Alameda	afem	-	-	661tc	0.96	1	-
15	OAK002	11/10/1998	10S	559708	4184504	NAD27	37.80775	-122.32281	NAD83	2.0	11.15	1.5	California	Alameda	afem	198	-	661tc	0.96	1	-
15	OAK003	11/12/1998	10S	560287	4184361	NAD27	37.80642	-122.31623	NAD83	2.0	16.10	>1.7	California	Alameda	afem	245	283	661tc	0.96	1	-
15	OAK004	11/12/1998	10S	560530	4184181	NAD27	37.80478	-122.31349	NAD83	2.0	11.75	>.2	California	Alameda	afem	-	-	661tc	0.96	1	-
15	OAK005	11/13/1998	10S	560454	4183852	NAD27	37.80183	-122.31439	NAD83	2.0	15.65	>0.8	California	Alameda	afem	241	268	661tc	0.96	1	-
15	OAK006	11/16/1998	10S	564867	4182767	NAD27	37.79174	-122.26435	NAD83	1.0	43.40	-	California	Alameda	afem	121	131	661tc	0.96	1	-
15	OAK013	12/7/1998	10S	570466	4175931	NAD27	37.72971	-122.20142	NAD83	2.0	24.55	2.7	California	Alameda	afem	183	207	660	0.96	1	-
15	OAK019	12/14/1998	10S	562099	4185403	NAD27	37.81569	-122.29556	NAD83	2.0	19.85	>0.9	California	Alameda	afem	140	170	661tc	0.96	1	-
15	OAK031	1/7/1999	10S	565191	4183400	NAD27	37.79742	-122.26062	NAD83	4.1	29.75	>2.6	California	Alameda	afem	140	160	660	0.96	1	-
15	OAK037	2/1/1999	10S	568707	4174246	NAD27	37.71466	-122.22155	NAD83	1.5	21.50	-	California	Alameda	afem	166	189	660	0.96	1	-
15	OAK038	2/1/1999	10S	569905	4174877	NAD27	37.72026	-122.20790	NAD83	1.5	19.05	-	California	Alameda	afem	175	188	660tc	0.96	1	-
15	OAK039	2/2/1999	10S	570331	4174300	NAD27	37.71503	-122.20312	NAD83	1.5	35.25	>0.2	California	Alameda	afem	213	231	660tc	0.96	1	-
15	OAK040	2/3/1999	10S	569953	4175844	NAD27	37.72897	-122.20726	NAD83	1.5	14.30	>1.6	California	Alameda	afem	168	-	660tc	0.96	1	-
15	OAK041	2/5/1999	10S	568305	4177187	NAD27	37.74120	-122.22584	NAD83	1.5	26.80	Artesian flow	California	Alameda	afem	155	194	660tc	0.96	1	-
15	OAK042	2/5/1999	10S	569429	4173643	NAD27	37.70918	-122.21342	NAD83	1.5	18.20	>0.2	California	Alameda	afem	167	179	660tc	0.96	1	-
15	OAK043	2/8/1999	10S	567814	4173820	NAD27	37.71089	-122.23172	NAD83	1.0	30.65	>0.3	California	Alameda	afem	191	205	660tc	0.96	1	-
15	OAK044	2/8/1999	10S	568960	4172884	NAD27	37.70237	-122.21880	NAD83	0.5	11.90	>0.2	California	Alameda	afem	163	-	660tc	0.96	1	-
15	OAK045	2/10/1999	10S	568276	4175718	NAD27	37.72796	-122.22630	NAD83	1.0	11.90	1.4	California	Alameda	afem	206	-	660tc	0.96	1	-
15	OAK048	2/25/1999	10S	570711	4178636	NAD27	37.75407	-122.19839	NAD83	3.0	19.80	2.6	California	Alameda	afem	-	-	660tc	0.96	1	-
15	OAK050	3/3/1999	10S	570063	4178806	NAD27	37.75566	-122.20573	NAD83	3.0	13.85	1.4	California	Alameda	afem	226	233	660	0.96	1	-
15	OAK051	3/5/1999	10S	569627	4178221	NAD27	37.75042	-122.21072	NAD83	1.5	13.50	0.8	California	Alameda	afem	135	144	660	0.96	1	-
15	OAK052	3/5/1999	10S	570193	4177406	NAD27	37.74303	-122.20439	NAD83	2.0	17.30	1.7	California	Alameda	afem	182	210	660	0.96	1	-
15	OAK053	3/11/1999	10S	560790	4184788	NAD27	37.81024	-122.31049	NAD83	2.5	13.15	2.1	California	Alameda	afem	220	250	660	0.96	1	-
15	OAK054	3/11/1999	10S	561489	4185438	NAD27	37.81604	-122.30249	NAD83	2.5	10.00	1.7	California	Alameda	afem	227	-	660	0.96	1	-
15	OAK055	3/11/1999	10S	561956	4186212	NAD27	37.82299	-122.29713	NAD83	2.0	17.45	1.2	California	Alameda	afem	180	199	660	0.96	1	-
15	OAK056	3/16/1999	10S	560718	4185265	NAD27	37.81454	-122.31126	NAD83	2.0	12.65	>2.0	California	Alameda	afem	207	-	660	0.96	1	-
15	OAK057	3/22/1999	10S	559619	4184569	NAD27	37.80834	-122.32381	NAD83	2.0	11.75	2.4	California	Alameda	afem	222	-	660	0.96	1	-
15	OAK058	3/25/1999	10S	562521	4183519	NAD27	37.79868	-122.29093	NAD83	2.0	9.90	>0.6	California	Alameda	afem	-	-	660	0.96	1	-
15	OAK059	3/25/1999	10S	560749	4183293	NAD27	37.79676	-122.31108	NAD83	2.0	10.65	0.8	California	Alameda	afem	-	-	660	0.96	1	-
15	OAK060	3/25/1999	10S	559085	4183676	NAD27	37.80033	-122.32995	NAD83	2.0	11.80	>2.6	California	Alameda	afem	201	-	660	0.96	1	-
15	OAK063	4/7/1999	10S	564371	4182846	NAD27	37.79249	-122.26998	NAD83	2.0	17.80	>0.9	California	Alameda	afem	183	204	660	0.96	1	-
15	OAK064	4/7/1999	10S	565731	4182460	NAD27	37.78891	-122.25457	NAD83	2.0	20.00	2.0	California	Alameda	afem	202	210	660	0.96	1	-
15	OAK065	4/7/1999	10S	566607	4182067	NAD27	37.78531	-122.24467	NAD83	2.0	20.00	2.0	California	Alameda	afem	172	205	660	0.96	1	-
15	OAK066	4/8/1999	10S	566884	4181217	NAD27	37.77763	-122.24159	NAD83	2.0	18.85	1.1	California	Alameda	afem	168	185	660	0.96	1	-
15	OAK067	4/15/1999	10S	568960	4179830	NAD27	37.76497	-122.21815	NAD83	2.0	16.00	1.8	California	Alameda	afem	223	231	660	0.96	1	-
15	OAK079	5/18/2000	10S	564875	4184611	NAD27	37.80836	-122.26411	NAD83	1.5	16.90	3.0	California	Alameda	afem	215	217	660	0.96	1	-
15	OAK080	5/18/2000	10S	565068	4184942	NAD27	37.81133	-122.26188	NAD83	1.5	17.30	1.5	California	Alameda	afem	156	181	660	0.96	1	-
15	OAK081	5/18/2000	10S	566305	4184766	NAD27	37.80965	-122.24785	NAD83	1.5	17.15	2.1	California	Alameda	afem	175	208	660	0.96	1	-
15	OAK082	5/18/2000	10S	565569	4183686	NAD27	37.79997	-122.25631	NAD83	1.5	16.65	1.5	California	Alameda	afem	237	267	660	0.96	1	-
16a	CNC037	10/11/2008	15S	728442	3922295	NAD27	35.41976	-90.48409	NAD83	65.0	20.5	-	Arkansas	Crittenden	Pvl1	244	254	DDG0766	0.7	2	-
16a	DKN001	9/22/2008	16S	233835	4012258	NAD27	36.22045	-89.96108	NAD83	77.0	15.5	-	Missouri	Dunklin	Pvl1	230	233	DDG0766	0.7	2	-
16a	DKN002	9/23/2008	16S	232010	3999308	NAD27	36.10335	-89.97694	NAD83	75.0	20.8	-	Missouri	Dunklin	Pvl1	211	234	DDG0766	0.7	2	-
16a	MSC001	10/16/2003	16S	230830	3985828	NAD27	35.98166	-89.98545	NAD83	75.0	21.3	2.8	Arkansas	Mississippi	Pvl1	208	217	766TC	0.96	1	-
16a	MSC002	10/16/2003	15S	768870	3985793	NAD27	35.98142	-90.01807	NAD83	73.0	21	2	Arkansas	Mississippi	Pvl1	197	208	766TC	0.96	1	-
16a	MSC005	10/17/2003	15S	767396	3985736	NAD27	35.98132	-90.03442	NAD83	73.0	20.15	2.6	Arkansas	Mississippi	Pvl1	198	206	766TC	0.96	1	-
16a	MSC006	10/17/2003	15S	767895	3967179	NAD27	35.81409	-90.03513	NAD83	70.0	20	>0	Arkansas	Mississippi	Pvl1	199	210	766TC	0.96	1	-
16a	MSC007	10/17/2003	15S	769399	3970324	NAD27	35.84200	-90.01745	NAD83	72.0	24.6	>0	Arkansas	Mississippi	Pvl1	188	203	766TC	0.96	1	-
16a	MSC008	10/19/2003	15S	762580	3952548	NAD27	35.68378	-90.09867	NAD83	70.0	17.15	3.3	Arkansas	Mississippi	Pvl1	183	208	766TC	0.96	1	-
16a	MSC009	10/19/2003	15S	764806	3956097	NAD27	35.71514	-90.07294	NAD83	70.0	18	3.2	Arkansas	Mississippi	Pvl1	175	195	766TC	0.96	1	-
16a	MSC010	10/19/2003	15S	764553	3962290	NAD27	35.77098	-90.07370	NAD83	70.0	16.5	>1	Arkansas	Mississippi	Pvl1	189	204	766TC	0.96	1	-
16a	MSC011	10/20/2003	15S	765343	3985660	NAD27	35.98120	-90.05719	NAD83	71.0	16.8	4.3	Arkansas	Mississippi	Pvl1	176	193	766TC	0.96	1	-
16a	MSC012	10/20/2003	15S	767231	3984125	NAD27	35.96686	-90.03679	NAD83	72.0	20.1	>.5	Arkansas	Mississippi	Pvl1	180	196	766TC	0.96	1	-
16a	MSC013	10/20/2003	15S	767294	3982492	NAD27	35.95214	-90.03664	NAD83	73.0	15.15	2.3	Arkansas	Mississippi	Pvl1	188	195	766TC	0.96	1	-
16a	MSC014	10/20/2003	16S	230940	3982516	NAD27	35.95187	-89.98311	NAD83	74.0	24	2.7	Arkansas	Mississippi	Pvl1	202	211	766TC	0.96	1	-
16a	MSC015	10/21/2003	15S	770154	3982560	NAD27	35.95197	-90.00494	NAD83	73.0	20.1	4	Arkansas	Mississippi	Pvl1	202	207	766TC	0.96	1	-
16a	MSC016	10/21/2003	15S	767357	3980892	NAD27	35.93771	-90.03648	NAD83	72.0	20.15	>.5	Arkansas	Mississippi	Pvl1	185	195	766TC	0.96	1	-
16a	MSC017	10/21/2003	15S	762820	3966274	NAD27	35.80732	-90.09153	NAD83	72.0	19.2	>.6	Arkansas	Mississippi	Pvl1	180	194	766TC	0.96	1	-
16a	MSC034	9/28/2008	15S	755413	3953341	NAD27	35.69280	-90.17754	NAD83	70.0	20.5	-	Arkansas	Mississippi	Pvl1	194	212	DDG0766	0.7	2	-
16a	MSC037	9/29/2008	15S	763705	3946143	NAD27	35.62580	-90.08836	NAD83	70.0	20.7	-	Arkansas	Mississippi	Pvl1	200	221	DDG0766	0.7	2	-

Study Area	Sounding	Date	UTM Zone	UTM_X	UTM_Y	UTM Datum	Latitude	Longitude	Lat-Long Datum	Elevation, m	Total depth, m	Depth to water table, m	State	County	Geology	V_{S20}, m/s	V_{S30}, m/s	Cone ID	Horizontal offset energy source, m	No. of Seismic traces	Notes
16a	MSI001	10/12/2008	16S	288300	4078856	NAD27	36.83379	-89.37395	NAD83	94.0	20.4	-	Missouri	Mississippi	Pvl1	233	237	DDG0766	0.7	2	-
16a	NMD004	10/5/2008	16S	249838	4052148	NAD27	36.58392	-89.79609	NAD83	83.0	20.6	-	Missouri	New Madrid	Pvl1	206	214	DDG0766	0.7	2	-
16a	NMD005	10/8/2008	16S	247617	4040793	NAD27	36.48109	-89.81718	NAD83	82.0	20.5	-	Missouri	New Madrid	Pvl1	208	217	DDG0766	0.7	2	-
16a	POT006	10/11/2008	15S	739602	3932933	NAD27	35.51296	-90.35815	NAD83	66.0	20.5	-	Arkansas	Poinsett	Pvl1	217	227	DDG0766	0.7	2	-
16a	POT007	10/11/2008	15S	742707	3939314	NAD27	35.56968	-90.32203	NAD83	67.0	20.4	-	Arkansas	Poinsett	Pvl1	220	227	DDG0766	0.7	2	-
16a	PST001	9/22/2008	16S	233776	4002471	NAD27	36.13232	-89.95842	NAD83	76.0	20	-	Missouri	Pemiscot	Pvl1	212	228	DDG0766	0.7	2	-
16a	PST002	9/23/2008	16S	233335	3988781	NAD27	36.00893	-89.95869	NAD83	75.0	23.7	-	Missouri	Pemiscot	Pvl1	197	217	DDG0766	0.7	2	-
16a	PST003	9/23/2008	16S	233422	3991199	NAD27	36.03073	-89.95854	NAD83	75.0	20.3	-	Missouri	Pemiscot	Pvl1	204	217	DDG0766	0.7	2	-
16a	PST004	9/23/2008	16S	233550	3994429	NAD27	36.05985	-89.95821	NAD83	76.0	20.6	-	Missouri	Pemiscot	Pvl1	204	226	DDG0766	0.7	2	-
16a	PST005	9/23/2008	16S	233668	3999263	NAD27	36.10340	-89.95853	NAD83	76.0	20.2	-	Missouri	Pemiscot	Pvl1	198	217	DDG0766	0.7	2	-
16a	PST023	10/2/2008	16S	256848	4021039	NAD27	36.30559	-89.70806	NAD83	83.0	20.6	-	Missouri	Pemiscot	Pvl1	213	226	DDG0766	0.7	2	-
16a	PST025	10/5/2008	16S	254426	4030144	NAD27	36.38697	-89.73788	NAD83	84.0	20.7	-	Missouri	Pemiscot	Pvl1	213	217	DDG0766	0.7	2	-
16a	PST027	10/5/2008	16S	247434	4029442	NAD27	36.37883	-89.81552	NAD83	81.0	20.6	-	Missouri	Pemiscot	Pvl1	205	217	DDG0766	0.7	2	-
16a	PST028	10/5/2008	16S	247884	4023839	NAD27	36.32850	-89.80869	NAD83	82.0	20.6	-	Missouri	Pemiscot	Pvl1	214	230	DDG0766	0.7	2	-
16a	PST030	10/8/2008	16S	236701	4029919	NAD27	36.38025	-89.93520	NAD83	81.0	20.2	-	Missouri	Pemiscot	Pvl1	200	218	DDG0766	0.7	2	-
16a	STD001	10/8/2008	16S	254902	4076109	NAD27	36.80099	-89.74722	NAD83	89.0	20.5	-	Missouri	Stoddard	Pvl1	230	240	DDG0766	0.7	2	-
16a	STD002	10/8/2008	16S	254608	4066499	NAD27	36.71438	-89.74742	NAD83	87.0	20.7	-	Missouri	Stoddard	Pvl1	198	210	DDG0766	0.7	2	-
16b	CGD001	11/21/2005	15S	743635	3968370	NAD27	35.83113	-90.30300	NAD83	69.9	20.5	-	Arkansas	Craighead	Pvl2	258	288	DDG0766	0.7	2	-
16b	CGD003	11/29/2005	15S	734771	3976453	NAD27	35.90611	-90.39865	NAD83	70.9	20.5	-	Arkansas	Craighead	Pvl2	230	242	DDG0766	0.7	2	-
16b	CGD005	11/29/2005	15S	740618	3979707	NAD27	35.93399	-90.33294	NAD83	71.8	20.5	-	Arkansas	Craighead	Pvl2	223	239	DDG0766	0.7	2	-
16b	CGD010	12/3/2005	15S	720214	3961841	NAD27	35.77786	-90.56386	NAD83	68.7	19.1	-	Arkansas	Craighead	Pvl2	238	261	DDG0766	0.7	2	-
16b	CGD012	12/4/2005	15S	722155	3961957	NAD27	35.77848	-90.54237	NAD83	68.7	20.5	-	Arkansas	Craighead	Pvl2	233	227	DDG0766	0.7	2	-
16b	CGD013	12/4/2005	15S	724772	3962090	NAD27	35.77908	-90.51340	NAD83	68.7	20.5	-	Arkansas	Craighead	Pvl2	220	232	DDG0766	0.7	2	-
16b	CGD014	12/4/2005	15S	738730	3965105	NAD27	35.80294	-90.35822	NAD83	69.9	20.5	-	Arkansas	Craighead	Pvl2	230	240	DDG0766	0.7	2	-
16b	CGD015	12/4/2005	15S	743117	3965119	NAD27	35.80199	-90.30972	NAD83	69.9	20	-	Arkansas	Craighead	Pvl2	248	261	DDG0766	0.7	2	-
16b	CGD016	12/5/2005	15S	733084	3965187	NAD27	35.80503	-90.42062	NAD83	67.5	20.5	-	Arkansas	Craighead	Pvl2	231	250	DDG0766	0.7	2	-
16b	CGD017	12/5/2005	15S	728634	3963705	NAD27	35.79272	-90.47025	NAD83	68.7	20.5	-	Arkansas	Craighead	Pvl2	229	234	DDG0766	0.7	2	-
16b	CGD018	12/6/2005	15S	729843	3974781	NAD27	35.89222	-90.45370	NAD83	70.9	20.5	-	Arkansas	Craighead	Pvl2	245	251	DDG0766	0.7	2	-
16b	CGD019	9/28/2008	15S	742148	3957862	NAD27	35.73687	-90.32262	NAD83	69.0	20.7	-	Arkansas	Craighead	Pvl2	227	250	DDG0766	0.7	2	-
16b	CLY001	10/9/2008	15S	748750	4013617	NAD27	36.23733	-90.23220	NAD83	80.0	18.3	-	Arkansas	Clay	Pvl2	227	244	DDG0766	0.7	2	-
16b	DKN009	9/27/2008	15S	763469	4005038	NAD27	36.15619	-90.07148	NAD83	79.0	20.6	-	Missouri	Dunklin	Pvl2	233	246	DDG0766	0.7	2	-
16b	DKN010	9/27/2008	15S	762160	4001731	NAD27	36.12676	-90.08712	NAD83	79.0	20.6	-	Missouri	Dunklin	Pvl2	225	234	DDG0766	0.7	2	-
16b	DKN011	9/27/2008	15S	761106	3998449	NAD27	36.09749	-90.09990	NAD83	77.0	20.6	-	Missouri	Dunklin	Pvl2	223	238	DDG0766	0.7	2	-
16b	DKN012	9/27/2008	15S	756736	3992709	NAD27	36.04697	-90.15025	NAD83	75.0	20.6	-	Missouri	Dunklin	Pvl2	217	218	DDG0766	0.7	2	-
16b	DKN013	9/27/2008	15S	748039	3989159	NAD27	36.01725	-90.24781	NAD83	74.0	20.4	-	Missouri	Dunklin	Pvl2	219	223	DDG0766	0.7	2	-
16b	GEE001	10/9/2008	15S	742786	4004541	NAD27	36.15711	-90.30131	NAD83	77.0	20.6	-	Arkansas	Greene	Pvl2	226	238	DDG0766	0.7	2	-
16b	GEE002	10/9/2008	15S	741271	3999234	NAD27	36.10969	-90.31976	NAD83	76.0	16.8	-	Arkansas	Greene	Pvl2	233	234	DDG0766	0.7	2	-
16b	GEE003	10/9/2008	15S	737053	3992242	NAD27	36.04776	-90.36868	NAD83	75.0	20.6	-	Arkansas	Greene	Pvl2	233	240	DDG0766	0.7	2	-
16b	GEE004	10/9/2008	15S	730713	3983688	NAD27	35.97224	-90.44148	NAD83	74.0	20.3	-	Arkansas	Greene	Pvl2	225	232	DDG0766	0.7	2	-
16b	MSC027	11/29/2005	15S	744758	3979616	NAD27	35.93214	-90.28712	NAD83	71.8	19.5	-	Arkansas	Mississippi	Pvl2	209	217	DDG0766	0.7	2	-
16b	MSC029	12/5/2005	15S	756722	3979870	NAD27	35.93136	-90.15456	NAD83	70.6	20.5	-	Arkansas	Mississippi	Pvl2	209	214	DDG0766	0.7	2	-
16b	MSC030	12/5/2005	15S	753307	3969278	NAD27	35.83686	-90.19576	NAD83	69.9	20.5	-	Arkansas	Mississippi	Pvl2	226	244	DDG0766	0.7	2	-
16b	MSC031	12/5/2005	15S	752907	3965229	NAD27	35.80051	-90.20145	NAD83	69.9	20.5	-	Arkansas	Mississippi	Pvl2	212	231	DDG0766	0.7	2	-
16b	MSC032	9/28/2008	15S	749270	3957109	NAD27	35.72831	-90.24419	NAD83	69.0	20.6	-	Arkansas	Mississippi	Pvl2	199	223	DDG0766	0.7	2	-
16b	POT001	10/10/2008	15S	719789	3951561	NAD27	35.68536	-90.57137	NAD83	67.0	20.5	-	Arkansas	Poinsett	Pvl2	226	231	DDG0766	0.7	2	-
16b	POT002	10/10/2008	15S	728043	3940011	NAD27	35.57945	-90.48351	NAD83	66.0	20.6	-	Arkansas	Poinsett	Pvl2	220	226	DDG0766	0.7	2	-
16b	POT003	10/10/2008	15S	723201	3937650	NAD27	35.55927	-90.53754	NAD83	66.0	20.7	-	Arkansas	Poinsett	Pvl2	226	232	DDG0766	0.7	2	-
16b	POT008	10/16/2008	15S	730990	3932814	NAD27	35.51393	-90.45306	NAD83	65.0	20.6	-	Arkansas	Poinsett	Pvl2	248	249	DDG0766	0.7	2	-
16b	POT009	10/16/2008	15S	721654	3935299	NAD27	35.53844	-90.55524	NAD83	64.0	20.6	-	Arkansas	Poinsett	Pvl2	219	227	DDG0766	0.7	2	-
16b	POT010	10/16/2008	15S	716786	3936500	NAD27	35.55034	-90.60857	NAD83	65.0	20.5	-	Arkansas	Poinsett	Pvl2	212	217	DDG0766	0.7	2	-
16b	POT011	10/16/2008	15S	717375	3942635	NAD27	35.60548	-90.60043	NAD83	65.0	20.6	-	Arkansas	Poinsett	Pvl2	235	244	DDG0766	0.7	2	-
16b	POT012	10/17/2008	15S	720350	3945952	NAD27	35.63470	-90.56671	NAD83	66.0	20.4	-	Arkansas	Poinsett	Pvl2	221	226	DDG0766	0.7	2	-