TEXAS SPELEOLOGICAL SURVEY

THE CAVES OF THE STOCKTON PLATEAU TEXAS

VOLUME III NUMBER 2

1971

TEXAS SPELEOLOGICAL SURVEY

Vol. 3, No. 2

THE CAVES OF THE STOCKTON PLATEAU

Edited by Carl E. Kunath and A. Richard Smith

A Publication of the
Texas Speleological Association

April 1968

TEXAS SPELEOLOGICAL SURVEY

Editor: A. Richard Smith

Staff: John Fish, Tom Meador, Terry Raines, James R. Reddell, William H. Russell

THE CAVES OF THE STOCKTON PLATEAU

INTRODUCTION

Trans-Pecos Texas is an area of very complex geology and physiography. Counties are exceptionally large and commonly cross two or three physiographic and geologic provinces. For these reasons we have chosen to consider this part of the state from the standpoint of physiographic provinces, such as the Stockton Plateau, for listing and describing the caves. Later issues of the Texas Speleological Survey will cover other provinces or groups of provinces in West Texas, such as the Gypsum Plain or the Reef Mountains. Caves within one physiographic province are likely to have similar geologic and biologic traits and are thus much easier to compare. The Stockton Plateau was chosen as a natural extension to already published issues of the TSS covering Edwards, Kinney, and Val Verde Counties.

Because of its great distance from populated centers or centers of organized spelunkers, the Stockton Plateau has been little investigated. Deep caves in the Langtry area in western Val Verde County have been known for two decades and have been visited by a great many cavers. However, there are other parts of the Stockton Plateau that are geologically similar to the Langtry area and as likely to yield long and deep caves. Concentrated work in southern portions of Terrell County and in Val Verde County between Pandale and Langtry should turn up many important speleologic discoveries. A major difficulty in cave exploration in the plateau is that ranches are usually large and ranchers frequently are not to be found after daybreak or on weekends. Some ranchers do not live at the ranch but rather in the nearest town of some size--Ozona, Del Rio, and San Angelo--making it even more difficult to secure permission for exploration.

Portions of this issue have already appeared in earlier issues of the Texas Speleological Survey. The Caves of Langtry, vol. 1, No. 2, and the Caves of Val Verde County, vol. 1, no. 7, included most of the caves known in trans-Pecos Val Verde County. New work, especially biologic, and some new mapping have made it worthwhile to include these earlier but revised reports in this issue. All the maps of the Langtry caves which appeared earlier have been redrafted, one cave, Langtry Quarry Cave, has been almost completely remapped, and several other caves have had some additions since publication.

Maps bearing the initials O.K. were drawn by Orion Know; those with the initials D.E. were drawn by Don Erickson. Both are members of the University of Texas Grotto of the National Speleological Society. All other maps were drawn by A. Richard Smith. James Reddell has prepared the biological and bibliographical material, as well as typed the final copy of the manuscript. Tom Meador contributed information on early history of some of doubtful caves in Pecos and Terrell Counties. Many of the reports of caves in Pecos and Terrell Counties came from now-defunct or inactive groups such as the Permian Basin Grotto and the Sul Ross Speleological Society. The excellent quality

offset printing of this issue is by Terry Haines. The editors of this issue extend their thanks to the above for their assistance.

In addition, James Reddell gratefully acknowledges the following biologists for their identification of material included in this report: Thomas C. Barr, Jr., University of Kentucky, carabid beetles; Nell B. Causey, Louisiana State University, millipeds; Kenneth Christiansen, Grinnell College, collembola; Willis J. Gertsch, American Museum of Natural History, spiders; Roberto H. Gonzalez R., Universidad de Chile, Santiago, Chile, japygid diplurans; Ashley B. Gurney, U. S. National Museum, roaches; Lee Herman, American Museum of Natural History, staphylinid beetles; Theodore Hubbell, University of Michigan, crickets; Leslie Hubricht, Meridian, Mississippi, snails; Tony Mollhagen, Texas Technological College, bats; T. J. Spilman, U. S. National Museum, alleculid, elaterid, ptilodactylid, and tenebrionid beetles; A. Vandel, Toulouse, France, isopods; Pedro Wygodzinsky, American Museum of Natural History, thysanurans.

PHYSIOGRAPHY AND GEOLOGY OF THE STOCKTON PLATEAU

A. Richard Smith

The Stockton Plateau is the trans-Pecos extension of the Edwards Plateau, a broad gently rolling upland cut along its margins by deep, precipitous canyons. Along the east boundary the Pecos River runs in an increasingly deeper canyon downstream to its junction with the Rio Grande in western Val Verde County. The Stockton Plateau includes this western portion of Val Verde County, all of Terrell County, the southeastern half of Pecos County, and easternmost Brewster County (see map, p. 7). The northern and northwestern boundaries of the Stockton Plateau are not well-defined, but lie in the area where Cretaceous rocks dip under the alluvium of the Pecos River valley in the Toyah Basin. The western side is bounded by anticlinal mountains composed of Paleozoic rocks. A very small part of the Stockton Plateau lies in eastern Brewster County, but no caves are known from this area.

Except for very minor exposures of Paleozoic rocks and Pleistocene alluvium, the rocks of the Stockton Plateau are of Cretaceous age. With the exception of a small area southwest of Langtry from oldest to youngest is: "Glen Rose Limestone", "Trinity Sands", Edwards Formation consisting of lower Fort Terrett Member*and upper Fort Lancaster Member*, Del Rio Formation, Buda Formation, and rocks of the Gulf Series. Except in the Langtry area where caves are known from the Buda, only the Edwards Formation is cavernous. The geology of the Langtry area is considered in a separate section.

The Fort Terrett Member of the Edwards Formation, ranging from less than 200 feet to as much as 500 feet thick, is a gray, thin- to thick-bedded fossiliferous limestone. In the northern and western part of the Stockton Plateau the Fort Terrett is characterized by marly mudstone and by a prominent collapse breccia, caused by solution of gypsum, near the top. Toward the southeast the Fort Terrett loses the marly mudstones and gains an increasing number of rudistid beds until it grades into the Devils River Formation near Langtry.

The Fort Lancaster Member of the Edwards Formation, from 250 feet thick near Fort Stockton to more than 450 feet along the Rio Grande, is very similar to the Fort Terrett, but has more marly and nodular beds to the north. The Fort Lancaster usually contains more chert than the Fort Terrett. The Fort Lancaster grades southeast into the Devils River Formation near Langtry. Hard beds within the Fort Lancaster are referred to locally as the "first, second, and third caprocks"; the third, or uppermost, caprock may be up to 100 feet thick where it caps large areas of the Stockton Plateau in eastern Pecos County and northern Terrell County. The lower caprocks (first and second) cap prominent mesas and outliers of the Stockton Plateau along its northwestern edge.

The Cretaceous strata of the plateau dip very gently southeast except in the northern part where they dip northeast. A few faults of small throw and some broad gentle flexures interrupt this general homocline. Jointing is prominent along the Rio Grande and in the northern part of the area, but no regional studies of joint direction are available.

*Fort Terrett and Fort Lancaster are informal formation names now being used by field geologists in the area. These names will shortly be formally proposed by F.E. Lozo and C.I. Smith, Shell Development Co.

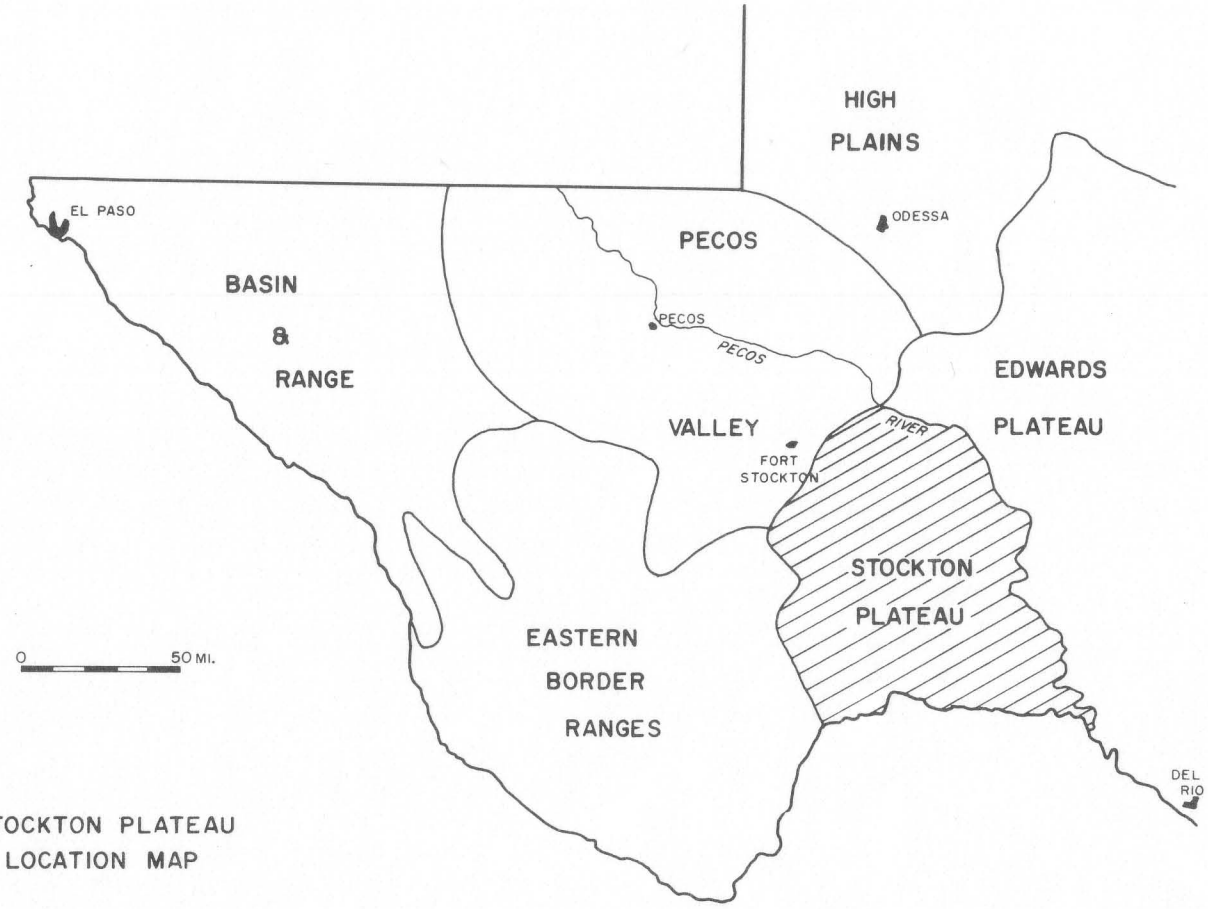
REFERENCES:

Armstrong, C.A., and L.G. McMillion. 1961. Geology and ground-water resources of Pecos County, Texas. Texas Board of Water Engineers Bull., 6106, vol. 1, p. 3-42.

Lozo, F.E., and C.I. Smith. 1964. Revision of Comanche Cretaceous stratigraphic nomenclature, southern Edwards Plateau, Southwest Texas. Gulf Coast Assoc. of Geological Societies Trans., 14:285-307.

Rose, Peter. 1967-68. Personal communication. Ph.D. Candidate in Geology, Dept. of Geological Sciences, The University of Texas at Austin.

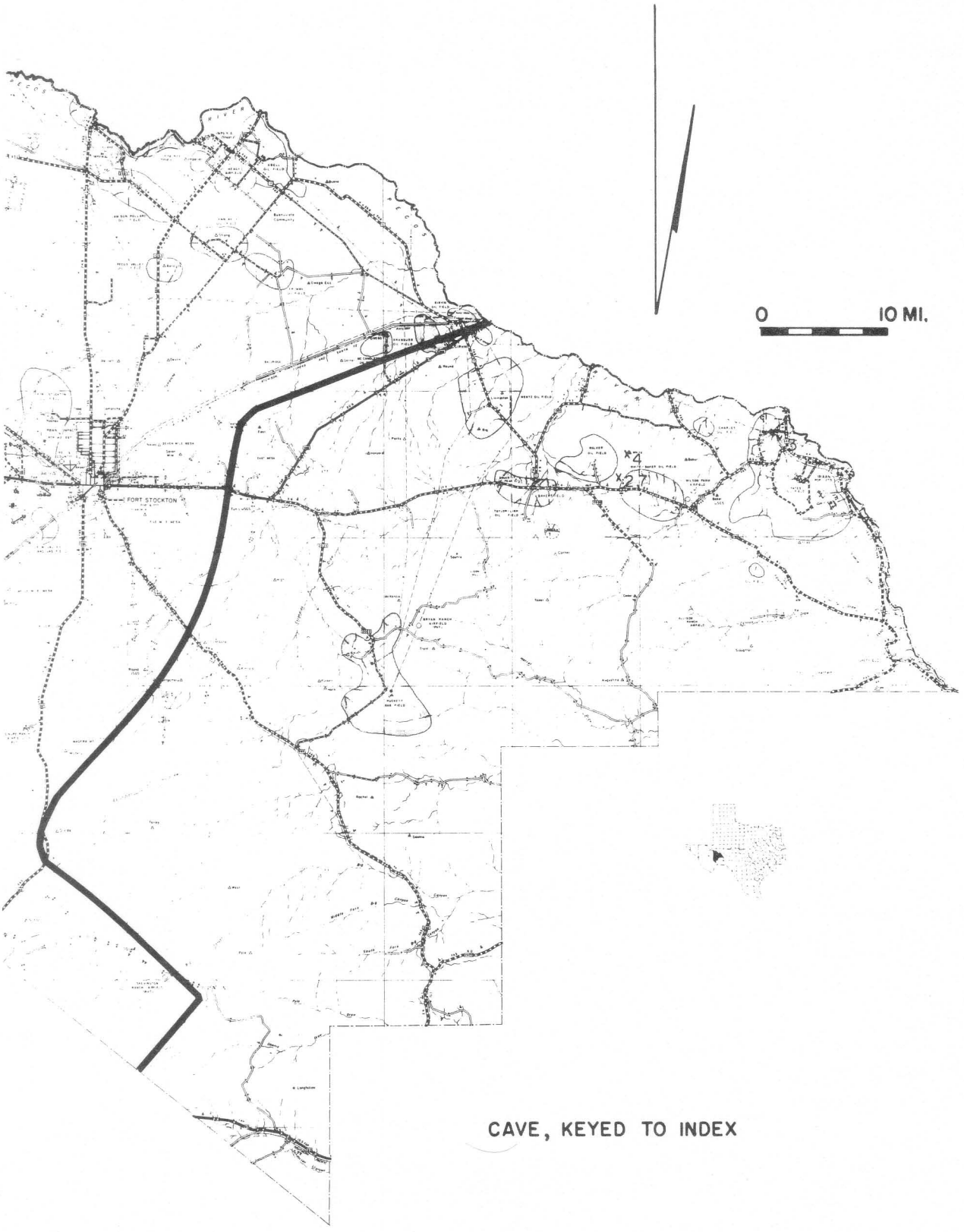
Sharps, J. A. 1964. Geologic map of the Dryden Crossing Quadrangle, Terrell County, Texas. U. S. Geological Survey, Misc. Geologic Investigations I-386.



STOCKTON PLATEAU
LOCATION MAP

INDEX TO THE CAVES OF THE STOCKTON PLATEAU

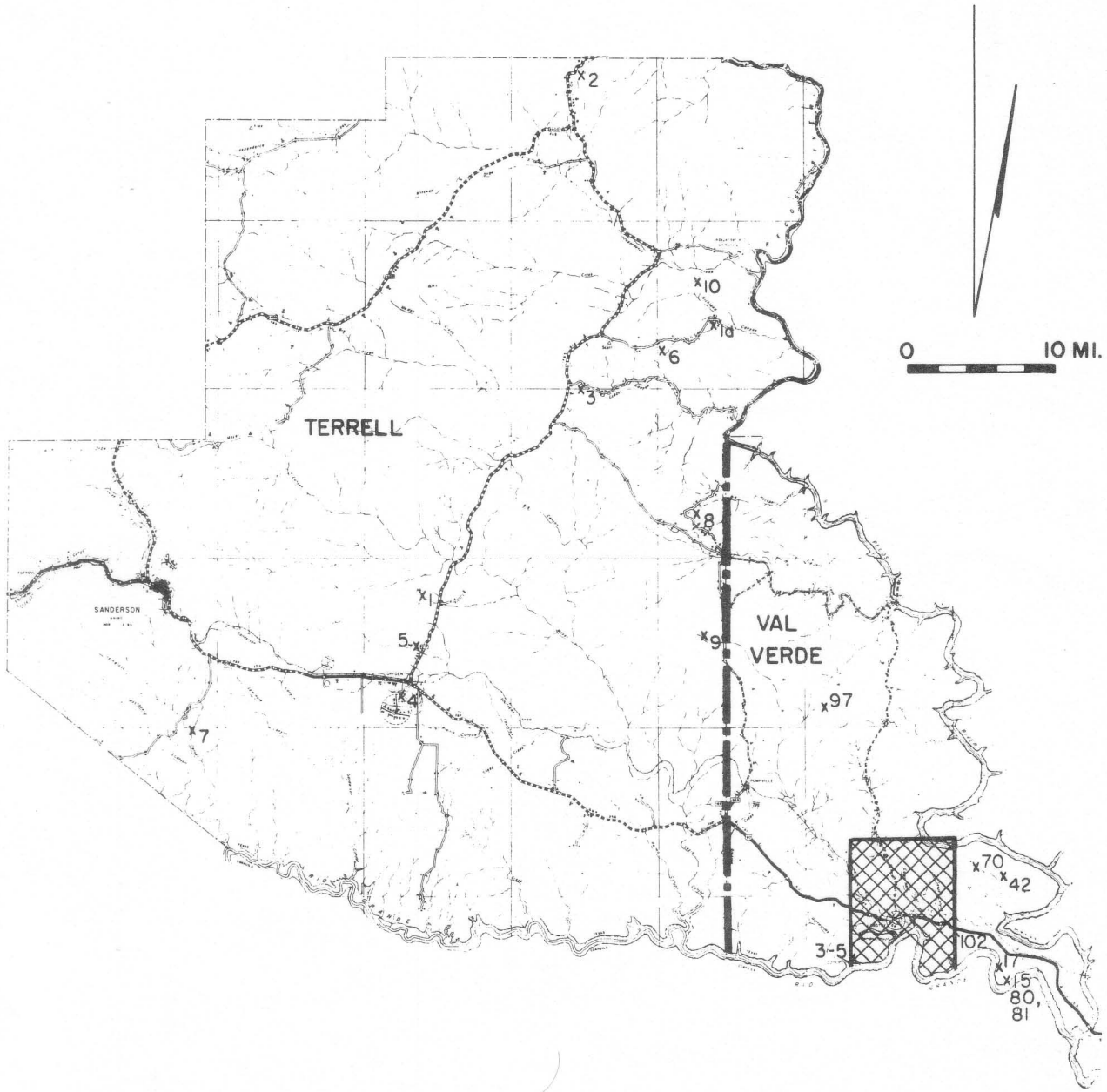
15.	Centipede Cave	Shumla	38'	0'	56
17.	Damp Cave	Shumla	36	0	62
42.	Frustration Pit	Langtry	50	30	65
48.	Javalina Cave 41-VV-109	Shumla	90+	0	65
70.	Putrid Pit	Langtry	20	20	66
80.	Shumla Cliff Cave	Shumla	60	0	66
81.	Shumla Trash Cave	Shumla	20	50	66
92.	Whistling Wind Cave	Shumla	102	0	67
97.	Yellow Hole	Langtry	30	77	67
	Doubtful Caves				
1a.	Unnamed sink	Langtry	6	10	67
1c.	Unnamed cave	Pandale			68
	LANGTRY AREA - VAL VERDE COUNTY (VV)				
30.	Emerald Sink Emerald Cave	Langtry	1650+	300	79
37.	Fisher's Fissure Fisher's Cave Fisher's Sink Langtry Sinkhole	Langtry	650	250	85
43.	Gardner's Fall Langtry Sink	Langtry	230	113	89
50.	Langtry East Gypsum Cave Langtry Caverns Road Cut Cave	Langtry	850	65	90
51.	Langtry Gypsum Cave Langtry Cave Langtry Caverns Crystal Cave Gypsum Cave	Langtry	600	65	93
52.	Langtry Lead Cave Lead Cave Big Tree Cave	Langtry	2200	371	94
53.	Langtry Quarry Cave Quarry Cave	Langtry	1275	272	98
101.	Miles Canyon Icebox Cave The Icebox	Langtry	50	0	104
103.	Miles Canyon Rock Pile Cave	Langtry	30	5	104
59.	Miles Canyon Talus Cave	Langtry	65	5	109
66.	Osman Canyon Cave	Langtry	75+	15+	111
82.	Skiles Fissure Cave Langtry Cave No. 4	Langtry	30	30	109
83.	Skiles Quarry Cave	Langtry	30	25	109
84.	Skiles Railroad Cave	Langtry	40	20	110
96.	World's Deepest Pothole	Langtry	0	40?	110
	Doubtful Cave				
1b.	Unnamed cave	Langtry			110



CAVE, KEYED TO INDEX

HEAVY LINE MARKS APPROX.
WEST EDGE OF STOCKTON PLATEAU

EASTERN PECOS COUNTY



CAVE, KEYED TO INDEX

TERRELL COUNTY & VAL VERDE COUNTY

LANGTRY AREA ON SEPARATE MAP (CROSS-HATCHED)

PECOS

COUNTY

BAIRD'S CRACK — Pecos County (PE 8)

No quadrangle

Owner: Tippett Ranch

Description: Nothing more is known of this small cave than that it is a 20' pit and that air blows out of it.

Geology: This pit is probably in the same strata, more or less, as Lion's Den Cave--the upper Fort Terrett Member of the Edwards Formation.

History: The pit was reported and presumably explored by Grainger Hunt in September 1962.

Ref: TSS files

CEDAR BUSH CAVE — Pecos County (PE 2)

No quadrangle

Owner: Roy N. McKenzie or Gregg McKenzie

Description: A small entrance near the hilltop opens into a 15 foot drop to a small room. There is a small natural bridge near the top of the drop. Smith Cave nearby and Cedar Bush Cave appear to be genetically related and may be connected at depth by small, possibly filled channels.

Ref: TSS files

INDIAN MESA CAVE (HACKBERRY CAVE) — Pecos County (PE 4)

No Quadrangle

Owner: Roy N. McKenzie

Description: The entrance to Indian Mesa Cave is a small collapse sink, only about 3 feet deep and well hidden in brush at the base of a low hill. The first few feet of passage are very low and cross small breakdown from the sink; the main passage leads approximately due west as a one foot high, four foot wide crawl with small slab breakdown forming a ridge down the middle. About 75 feet from the entrance a lower level is encountered. The upper level becomes a ledge along the right wall 10 feet above the floor of the lower level and finally ends. The lower level extends back toward the entrance about 10 feet to a small dome. In the other direction (west) the lower level is a 12 foot high, 4 foot wide straight passage 70 feet to a dome on the left, with the passage becoming a fissure too small for further exploration. (See map, p. 19)

Biology: The owner reports that the entrance to the cave abounds in rattlesnakes. No collections have been made in the cave.

Geology: The cave has formed along a strong east-west joint in the upper part of the Fort Terrett Member.

History: The cave certainly has been known to the owners for a long time, but nothing is known of its early history. The cave was visited and mapped by A. Richard Smith, Royce Ballinger, and Freddie Grobe, members of the Permian Basin Speleological Society, on August 23, 1959. The cave is rarely visited because of its isolated position and the difficulty in finding it.

Ref: TSS files
Robert Carver

LION'S DEN CAVE — Pecos County (PE 5)

No quadrangle

Owner: Tippett Ranch

Description: From the small entrance near the top of the hill a 30 foot crawl leads to an estimated 30 to 40 foot drop into an unexplored fissure less than a foot wide. A very slight amount of air blows from the entrance. Much of the cave has very loose breakdown.

Biology: A Trans-Pecos rat snake (Elaphe subocularis Brown) was reported from the cave on September 22, 1962 (?).

Geology: "The cave is developed in very unsafe breakdown type limestone-sandstone cap rock of hill," according to Grainger Hunt. The lower part of the cave, at least, is probably in the uppermost Fort Terrett Member.

History: The cave was first reported by Opal Hail in the summer of 1962, although it was probably known before that time to the rancher. It was partially explored by Grainger Hunt, Barbara Hunt, Hubert Zinsmeister, Opal Hail, and Carl Kunath on September 22, 1962.

Bibliography: Reddell, J.R. 1967. "A checklist of the cave fauna of Texas. III. Vertebrata." Tex. J. Sci., 19(2):184-226.

Ref: TSS files

OPAL'S CAVE — Pecos County (PE 6)

No quadrangle

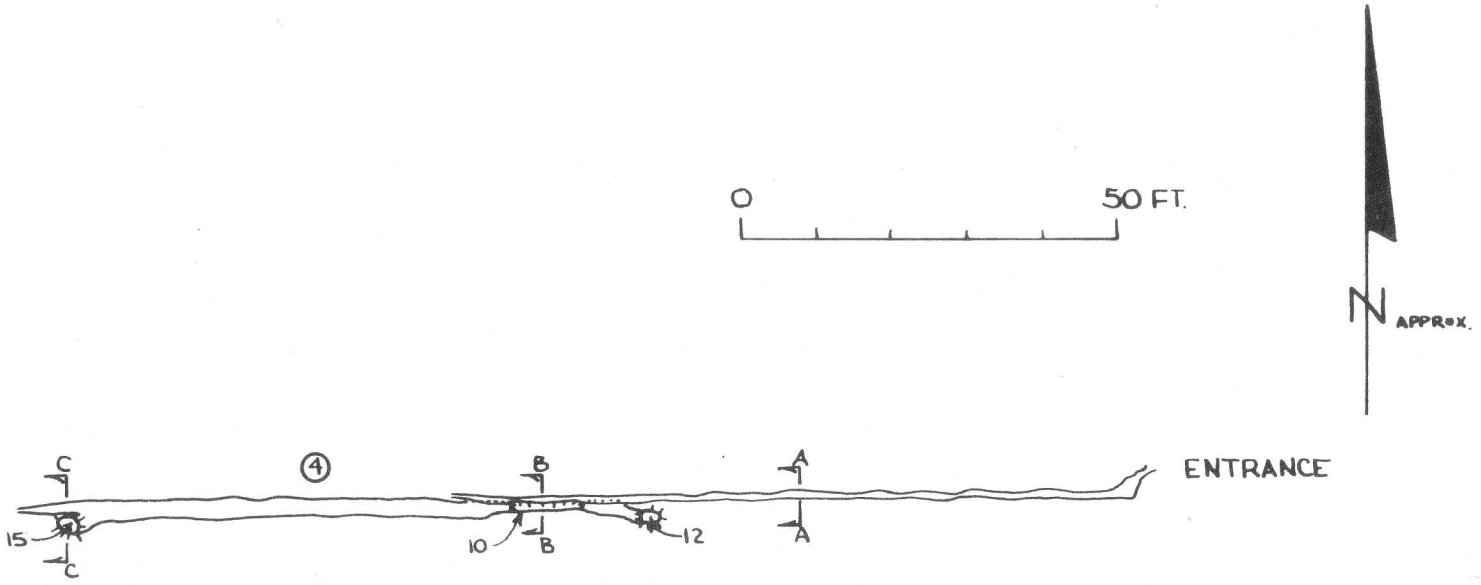
Owner: Opal Hail

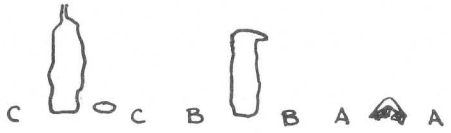
Description: Originally a small crack Opal Hail began excavating this cave. When last seen it was a sink about three feet in diameter and 15 to 20 feet deep. A small crack continued below this point, however, and she was reported continuing excavation in 1963.

Biology: Camel crickets, Ceuthophilus (Ceuthophilus) sp., were collected in this cave by Opal Hail.

Bibliography: Reddell, J.R. 1966. "A checklist of the cave fauna of Texas. II. Insecta." Tex. J. Sci., 18(1):35-56.

Ref: TSS files





DOUBLE SCALE ON SECTION A-A ONLY

INDIAN MESA CAVE

PECOS CO., TEXAS

SKETCH MAP BY D. SMITH, R. BALLINGER, & F. GROBE, 8-23-59
DRAWN BY D. SMITH, 10-15-62
PBSS

"S" CAVE (ESS CAVE) (IRAAN CAVE) Pecos County (PE 3)

No quadrangle

Owner: Tippett Oil Lease (?)

Description: A five-foot diameter entrance on the side of a hill drops a few feet into a 10 foot high passage leading approximately southeast. Just inside is a 28 foot deep pit, easily climbable, that leads to the main part of the cave. Continuing across the pit, the passage leads to a second pit--about 35 feet deep, also dropping into the main cave. A third and smaller pit is less than 60 feet from the entrance in the same upper level passage and is presumed to drop into the lower levels. Beyond this pit the passage turns to the left and appears to become much smaller and perhaps dead-end. At the bottom of the first pit the cave goes both to the southeast and northwest. The passage to the northwest slopes down about 25 degrees for 27 feet, then levels off for the last 60 feet, where it deadends very close to the hillside. To the southeast extends a walking passage, initially quite narrow but widening to about 6 feet wide. This passage slopes down about 10 degrees to a point about 100 feet from the pit, where wooden planks bridge small drops leading to passages to the right (southwest). The main passage continues past the bridges an additional 50 feet to the Big Room, the walls of which are coated with cave coral. A small crawl continues to the southeast but becomes too small after about 40 feet. A low passage leads to the right (southwest) from the Big Room into a maze of small stooping and crawling passages, none of which are very long. From the northwestern-most of these low passages lead the Aggieland passage and a parallel unnamed passage, both rising steeply with nearly unclimbably slick mud floors after rains. Each of these passages leads about 60 to 70 feet, to almost emerge from the hill. Between Aggieland and the main passage are the two small interconnecting passages that connect the main passage at the bridges. At the end of the southwest-trending passage is the Drip Room, a small room from which several alcoves and short passages extend to deadends. A passage 20 feet above the floor at the northwest end of the Drip Room area is rumored to extend some distance to an oil-well casing; the crawl ends, however, in silt fill after a few feet. A small, muddy crawl extends about 35 feet from the Drip Room. (See map, p. 21)

The cave contains very few formations and has obviously been heavily vandalized. Widely known in the area, the cave has also sustained many defacing names and other graffiti.

Air temperature was 67° in 1957. About noon, June 15, 1963, air temperature at the bottom of the entrance pit was 68.9° and in the Drip Room, 66.5°F.

Biology: Collections have been made in the cave on June 15, 1963, by James Reddell and Bill Russell; in October, 1963, by James Arnold; on November 24, 1963, by Robert C. Schroeder; in June 1964 by Robert C. Schroeder; and on November 26, 1964, by Diane Young. The carabid beetle, Rhadine babcocki Barr, was collected in the cave in September 1958 by Royce Ballinger. A troglophilic isopod, Metoponorthus pruinosus (Brandt), was found in the Drip Room along with unidentifiable immature porcellionid isopods. A spider, Achaearanea porteri (Banks), is troglophilic in the cave, where it may be found in some abundance hanging from webs along the cave walls and in domes. A troglobitic thysanuran, Nicoletia texensis Ulrich, is to be occasionally seen running along moist walls or on clay

banks in the Drip Room. One species of camel cricket, Ceuthophilus (Ceuthophilus) sp., has been taken in the cave. In addition to the troglophilic Rhadine babcocki Barr, there has been taken a trogloxenic tenebrionid beetle, Eleodes sp. Other, as yet unidentified, invertebrates collected in the cave include centipedes and beetles. The cliff frog, Syrrhophus marnocki Cope, has also been collected in the cave. This is the most frequently occurring of cave frogs, but records for West Texas are rare. Bats inhabit the cave but have not been identified.

Bibliography: Barr, T.C., Jr. 1960. "The cavernicolous beetles of the subgenus Rhadine, genus Agonum (Coleoptera: Carabidae)." Amer. Midl. Nat., 64(1):52-54.
Reddell, J.R. 1965. "A checklist of the cave fauna of Texas. I. The Invertebrates (exclusive of Insecta)." Tex. J. Sci., 17(2):143-187.
Reddell, J.R. 1966. "A checklist of the cave fauna of Texas. II. Insecta." Ibid, 18(1):25-56.
Reddell, J.R. 1967. "A checklist of the cave fauna of Texas. III. Vertebrata." Ibid, 19(2):184-226.
Schultz, G.A. 1965. "Terrestrial isopods from caves and mines in Texas and northern Mexico with a description of Venezillo tanneri (Mulaik and Mulaik) allotype." Ibid, 17(1):101-109.

Ref: TSS files

SMITH CAVE (SPIDER CAVE) — Pecos County (PE 7)

No quadrangle

Owner: Roy N. McKenzie or Gregg McKenzie

Description: A small hole in a flat bed of limestone and half-hidden by a small prickly-pear drops six feet into a small room which is one end of a short upper level passage. A few feet inside there are 7 foot and 11 foot deep pits dropping fissure-like to a lower level blocked enough by breakdown to prevent its exploration. Substantial amounts of air move out of the cave. (See map, p. 23)

Geology: Smith Cave probably lies in the upper Fort Terrett Member and is developed along a strong east-west joint.

History: The cave was explored and mapped by A. Richard Smith, Royce Ballinger, and Freddie Grobe, members of the Permian Basin Speleological Society, on August 23, 1959. The rancher will not permit further exploration.

Ref: TSS files
Bob Carver

DOUBTFUL CAVES

PANTHER BLUFF CAVE — Pecos County (PE a)

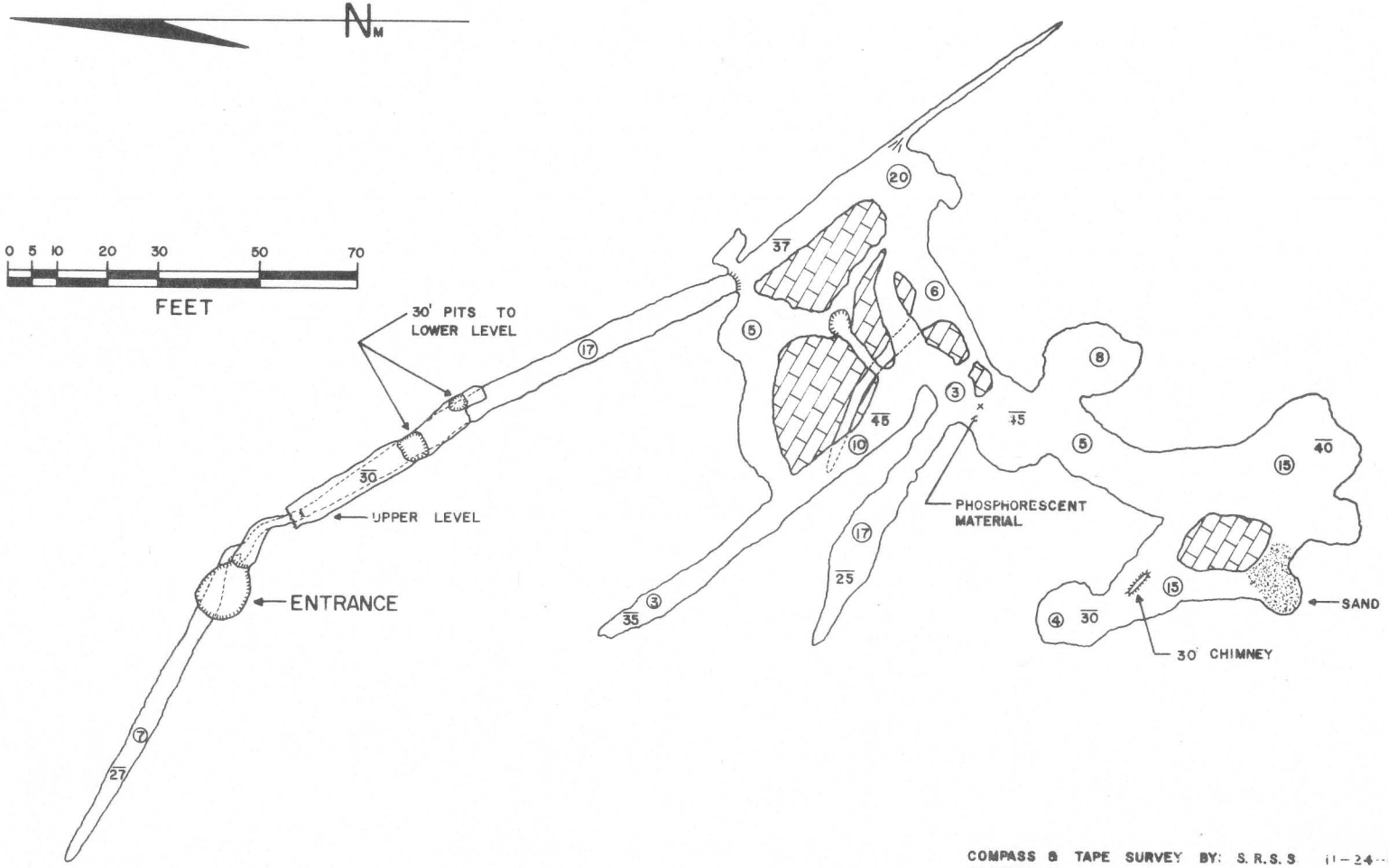
No quadrangle

Owner: unknown

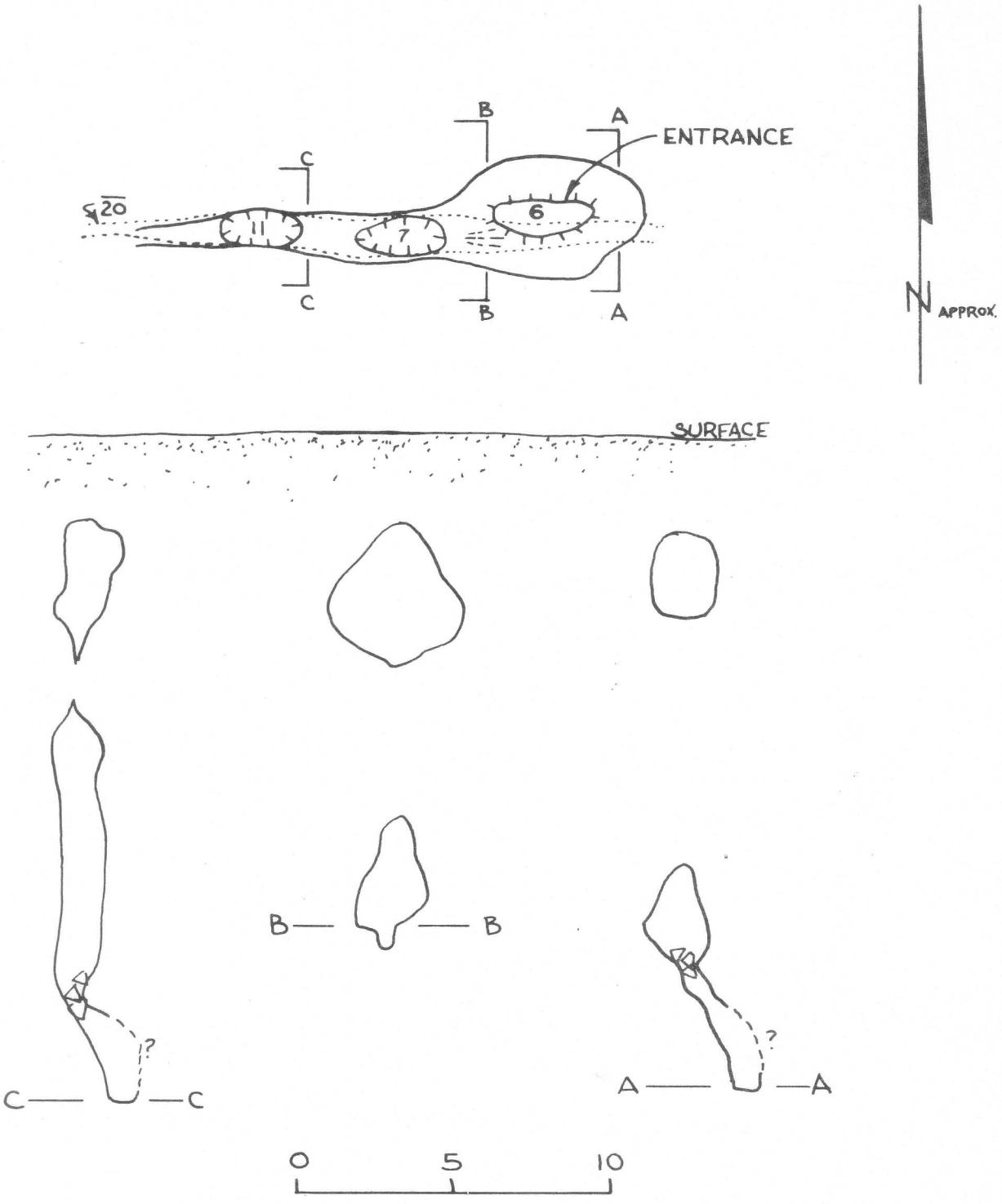
Description: "The cave, whose entrance measured 7' 8" wide and 5' 3" high, was filled with debris to a depth of 3 feet." (Holden, 1941)

"S" CAVE

PECOS COUNTY, TEXAS



COMPASS & TAPE SURVEY BY: S. R. S. S. 11-24-63
PLOTTED BY: J. WHITE
DRAFTED BY: C. KUNATH
REVISED 2-68



SMITH CAVE
PECOS CO., TEXAS

SKETCH MAP BY D. SMITH, 1959
PBSS

Bibliography: Holden, W.C. 1941. "McKenzie Cave and adjacent sites in Pecos County, Texas." Texas Archeol. and Paleontol. Soc. Bull., 13:46-57.
Jackson, A.T. 1948. "West Texas caves and shelters." Natl. Speleol. Soc. Bull., 10:72.

Ref: TSS files

TUNIS SPRING CAVE (WEST ESCONDIDO SPRING) Pecos County (PE b)

No quadrangle

Owner: E. W. McKenzie estate

Description: "A current of clear water some eight feet wide and a foot deep flows from beneath a stratum of limestone." (Holden, 1941) The flow was reported on January 12, 1943, as 100 gpm and on May 13, 1943, as 75 gpm. (Armstrong and McMillion, 1961).

Bibliography: Armstrong, C.A., and L.G. McMillion. 1961. "Geology and groundwater resources of Pecos County, Texas." Texas Board of Water Engineers Bull., 6106, vol. 1, p. 187.
Holden, W.C. 1941. "McKenzie Cave and adjacent sites in Pecos County, Texas." Texas Archeol. and Paleontol. Soc. Bull., 13:46-57.
Jackson, A.T. 1948. "West Texas caves and shelters." Natl. Speleol. Soc. Bull., 10:72.

Ref: TSS files

CAVE AT SOLOMON'S FORD Pecos County (?) (PE c)

History: This cave is known only from a description written by William Henry Chase Whiting in his Journal of a Reconnaissance From San Antonio de Bexar to El Paso del Norte. On Thursday March 8, 1849, Whiting's party crossed the Pecos at Solomon's Ford and pitched camp. Whiting wrote, "Dick Howard and I ascended a hill hard by. The climb was difficult... Near the top and in the face of the limestone cliff is a small cave, in which we found small stalactites. The floor is perfectly dry and covered with fine exfoliated limestone." An observation for latitude for this camp was 30° 32' 37".

Bibliography: Bieber, Ralph P., and Averam B. Bender, eds. 1938. Exploring Southwestern Trails, 1846-1854. Vol. VII of The Southwestern Historical Series. Glendale: The Arthur H. Clark Company.
Meador, Tom. 1966. "Some Speleohistory of Texas, A Preliminary Manuscript, July 15-19, 1966," p. 3.

Ref: Tom Meador

TERRELL

COUNTY

ADAMS' CAVE Terrell County (TE 1)

No quadrangle

Owner: Leo Adams

Description: The entrance is in the side of a draw about 20' above the bed. The cave begins as a walking passage for 25 feet before falling away abruptly to a 65-foot pit. At the bottom, there is a circular room about 25 feet in diameter with a walking passage on the left edge. This passage extends about 30 feet to a fork. The passage ahead ends in a breakdown plug within a few feet, but the right branch bypasses this plug and has a branch of its own. One may continue a few feet and drop off to the right about 20 feet into a large dome-pit with a soft dirt floor. The branching passage continues a few feet from its intersection with the first passage, drops 15 feet into a small room, and continues by way of a narrow but high fissure intersecting the room at a right angle from the left. This fissure is about 10 feet long and ends abruptly by emerging from the side of a room. The walls of this room are about 20 feet away in all directions but the floor is 100 feet below and the ceiling is out of sight. At the bottom of this drop on the left side of the room is a walking passage 20 feet long which then makes a direct right turn and goes through a squeezeway about 30 feet long and ends in a vertical hole 12 feet deep. At the bottom of this hole an eight-foot long crawlway leads to a 25-foot pit. A walkway from the bottom of this pit goes about 90 feet before ending in a pit 125 feet deep and 30 feet in diameter. On the left at the bottom of the pit is a walking passage with 3 to 4 feet of very clear but stagnant water in the bottom. The passage continues for about 40 feet and makes a right turn. The cave is unexplored beyond this point, although it continues the same size as far as could be seen. Further exploration and surveying may prove this cave to be Texas' deepest.

The cave has dripstone formations on the walls as long as 40 feet, and a few black helictites occur on the walls of the 125 foot pit. The cave shows evidences of violent flooding. There is much guano in the lower portion of the cave. The floor of the first pit is covered with goat bones.

Geology: The entrance to Adams' Cave is very near the contact of the Del Rio Formation and the underlying Fort Terrett Member of the Edwards Formation, and is probably entirely within the latter.

History: Adams' Cave was discovered by Leo Adams after he missed a large number of goats and sheep, which had fallen into the entrance. The cave was explored to the top of the second pit by Carl Kunath, Perry Clifton, and Jim Rector, of the Sul Ross Speleological Society in the spring of 1962. A second trip a few weeks later included Nick Lucas, Ron Griffeth, Grainger Hunt, Jim Rector, and others, although only Griffeth, Hunt, and Lucas went past the first drop. In the lowest passage the three explorers suddenly became ill, and suffered headaches, nausea, and difficulty in breathing. All three were admitted to the hospital where they were found to have lung congestion and unusual blood counts, indicating an infection. Although noxious gasses cannot be positively ruled out, it is thought by Carl Kunath that these symptoms resulted from prolonged breathing of finely powdered dry silt and guano in the upper levels.

Ref: TSS files

BLACKSTONE CAVE (BAT CAVE) (CEDAR CAVE) (DEAD CEDAR CAVE)
(KARKEY'S CAVE) (KARKEY'S BAT CAVE) Terrell County (TE 2)

No quadrangle

Owner: unknown

Description: A 5-foot by 5-foot entrance on the side of a large, brushy feeder canyon leads down a slope to a flat-floored room 30 feet below the entrance. This room, First Room, is about 200 feet long and averages 40 feet wide. The ceiling is high over the entrance breakdown slope with some small unexplored holes leading up but lowers to a fairly uniform 10 feet. Almost to the end of the First Room there are some very large flat breakdown slabs on the left; beyond these lies the large second room with maximum dimensions of 309 feet long, 90 feet wide, and 15 feet high. In cross-section this room has the appearance of a flat-sided, elongate ellipse. The floor is covered by at least two feet of fill, as indicated by some test pits, and may be much deeper. Much of this fill appears to be very old guano with admixed clay. About halfway along the right wall a low passage leads a few feet to a 30-foot dome, from the top of which lead two short dead-end crawls. Beyond this small passage the floor of the second room is covered with moderate-size breakdown. The second room narrows abruptly, and rises to a tight crawl nearly at ceiling level leading 10 feet to the final room, called Dome Room or Clay Room. This nearly circular room is about 56 feet wide and 80 feet long. A part of the clay floor in this room has subsided about 2 feet to form an unusual sink. In cross section the last room is a complete elongate ellipse. A strong breeze flows out through the crawlway between the second and last rooms.

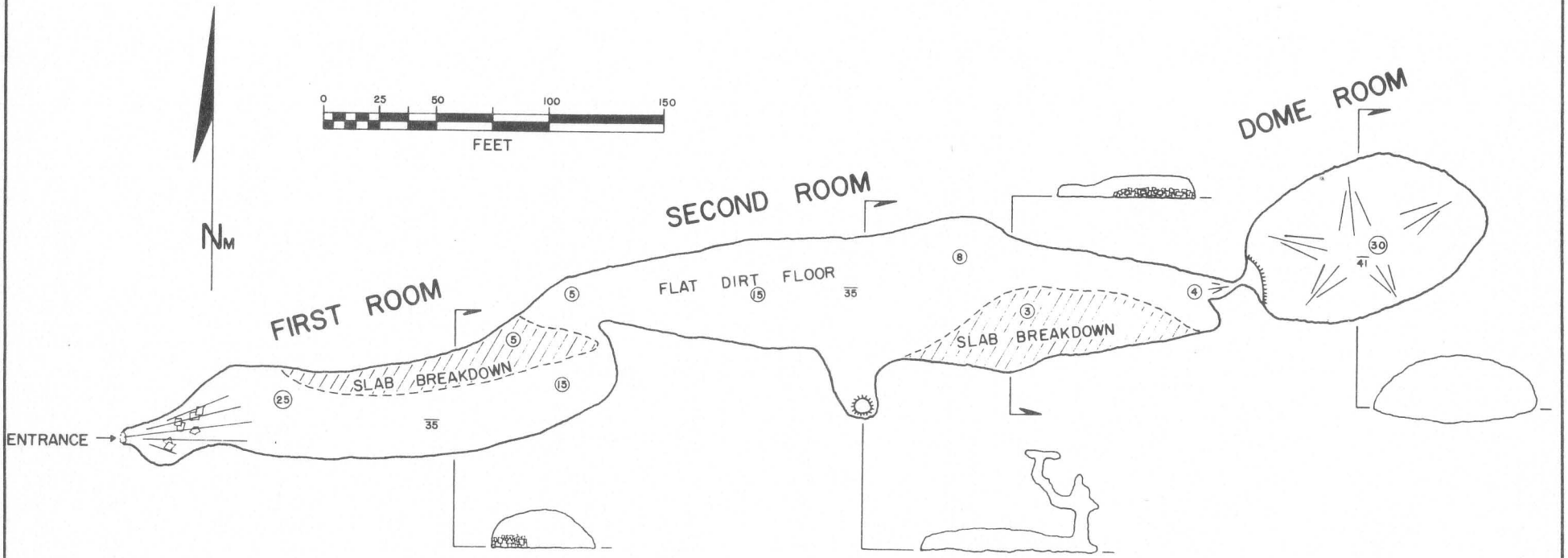
The cave has been badly vandalized as evidenced by some large stalagmite stumps in the second room. Some nice flowstone remains in the top of the dome. The last room has thick sheets of gypsum crystals on the walls and floor. These sheets are up to 3" thick and made up of several layers of individual crystals. (See map, p. 31)

Biology: A general collection was made in the cave on June 14, 1963, by James Reddell and Bill Russell; camel crickets were collected by James Arnold in October 1963 and by Robert C. Schroeder on April 5, 1964. A troglobitic isopod, Protrichoniscus cavernarum (Ulrich), was found in the Bat Room and at the top of the Dome. A pseudoscorpion of the family Chernetidae was taken in guano in the Bat Room. A troglophilic spider, Achaearanea porteri (Banks), was taken from the area at the bottom of the Dome. A troglobitic thysanuran, Nicoletia texensis Ulrich, was taken from clay banks in the Bat Room. The troglophilic collembolan, Pseudosinella violenta, was abundant in the Bat Room. Two species of camel crickets, Ceuthophilus (Ceuthophilus) sp. and C. (C.) secretus Scudder, were collected. The carabid beetle, Rhadine babcocki Barr, is a common troglophile in the Bat Room. The black-tailed rattlesnake, Crotalus molossus molossus Baird and Girard, has been observed just inside the entrance. The collared peccary, Tayassu tajacu (Linnaeus), has been seen in the entrance room. Other fauna collected but not yet identified include centipedes and flies. Bats inhabit the last room but have not been identified.

Geology: The cave is probably formed in the Fort Terrett Member of the Edwards Formation in unusually soluble limestone beds. Although the cave trends nearly due north for its entire 600-foot length, it does not appear to be joint-aligned.

BLACKSTONE CAVE

TERRELL COUNTY, TEXAS



COMPASS & TAPE SURVEY 4-12-64 (S.R.S.S.)
E. BASSHAM, R. SCHROEDER, J. WOOD, L. WHISTLER
DRAFTED BY C. KUNATH
REVISED 2-68

However, in other parts of the Stockton Plateau there is a strong joint set trending north-south.

Blackstone Cave has the appearance in cross-section plan of a large "water-table" stream, if such exist. If the cave was formed by such a stream, how can the southern terminus of the cave be explained? Does the cave extend under the mesa on the opposite side of the canyon but with a filled entrance? These questions deserve further work. The answers may be uncovered by digging, both in the fill in the last room and in the talus on the opposite side of the canyon.

The type of "cave end" illustrated by the last room in Blackstone is also seen in several passages in Fawcett Cave in northern Val Verde County and in similar large caves in the local area. No explanation is known for the curious slumped floor or for the morphology of the room. (Reddell, 1961)

Meteorology: On several trips to Blackstone Cave, air has been noted moving out of the crawlway leading to the last room (Clay Room). However, on one trip in August 1959, when about 50 bats were present in the last room, there was no noticeable movement of air.

On the evening of June 14, 1963, Bill Russell and James Reddell made several temperature measurements in various parts of Blackstone Cave. These are presented below in tabular form and in the form of a temperature profile corresponding to a profile of the cave. Bats were present in the last room at the time even though the temperatures were measured at about 11:00 p.m. There was a light wind from the SSE on the surface. Especially to be noted is the amount of apparent heating by bats in the last room and the effects of the movement of this warmer air out into the second room. From the temperature profile it appears that very little outside air was moving into the cave at the time, also. The profile strongly suggests that air was moving out of the cave. Additional temperature profiles at other times of the year would perhaps shed more light on air movements in the cave.

Sta.	Temp.(F.)	
1	80.8°	Outside air temperature, 10:30 p.m., June 14, 1963. Light wind from SSE.
2	65.5	In center of second room, 1' above floor on a rock.
3	69.3	On left wall of last room (Clay Room), 3' above floor on a rock. About 40 bats present in a small cluster.
4	69.3	On floor of south end of crawlway leading into the last room, about 12' above sta. 3.
5	67.9	On floor of north end of crawlway leading into the last room, 10' from sta. 4.
6	66.8	On floor 20' toward entrance from sta. 5 and 5' lower.
7	65.5	Fill, 2" below surface, same point as sta. 2.
8	64.8	At innermost end of entrance room, 6' above floor on a piece of wood.
9	64.0	Bottom of entrance on small rock.
10	65.0	Top of entrance, 40' horizontally and 15' higher than sta. 9. Thermometer is half in and half out of the cave entrance.

The temperature profile for stations 4 through 9 shows a very good fit with the curve given by the equation

$$T = -2.06 \log D + 69.8,$$

where T is the temperature and D is the distance from station 4.

History: The cave has been known locally for many years and has been visited by many spelunkers as well. Nearness to Sheffield in Pecos County has led to its use for parties by local teen-agers; beer cans and other party debris are strewn throughout the cave. First reports of the cave were by the Ozona Grotto. The cave was later visited by members of the Permian Basin Speleological Society and mapped by A. Richard Smith on April 7, 1958. The cave was also frequently visited by the Sul Ross Speleological Society, who mapped it April 4, 1964. Records of the many visits by independents and other grottoes are not available.

Bibliography: Reddell, J.R. 1961. "Fawcett's Cave." Texas Caver, 6(7):87-89.
Reddell, J.R. 1965. "A checklist of the cave fauna of Texas. I. The Invertebrata (exclusive of Insecta)." Tex. J. Sci., 17(2):143-187.
Reddell, J.R. 1966. "A checklist of the cave fauna of Texas. II. Insecta." Ibid, 18(1):25-56.
Reddell, J.R. 1967. "A checklist of the cave fauna of Texas. III. Vertebrata." Ibid, 19(2):184-226.
Vandel, A. 1965. "Les Trichoniscidae cavernicoles (Isopoda Terrestria; Crustacea) de l'Amerique du Nord." Annal. Speleol., 20(3):347-389.

Ref: TSS files

BROWN PIT — Terrell County (TE 3)

No quadrangle

Owner: Herbert Brown

Description: Nothing is known of this cave except that it is a 20-foot deep dead-end pit. It was visited by James Arnold.

Ref: TSS files

DEATON'S CAVE — Terrell County (TE 4)

Dryden Crossing 15' Quadrangle

Owner: Jack Deaton

Description: The entrance is a small sink in level ground which drops 20 feet to a small room 40 feet long. About midway down this room another hole drops 35 feet to a mud-floored room 40 feet long. Deaton's Cave was explored by members of the Sul Ross Speleological Society about April, 1962. It was sketch-mapped by Grainger Hunt in April of 1964. (see map, p. 35)

Biology: A ringtail, Bassariscus astutus (Lichtenstein), has been observed in this cave.

Ref: TSS files

DRYDEN CAVE — Terrell County (TE 5)

No quadrangle

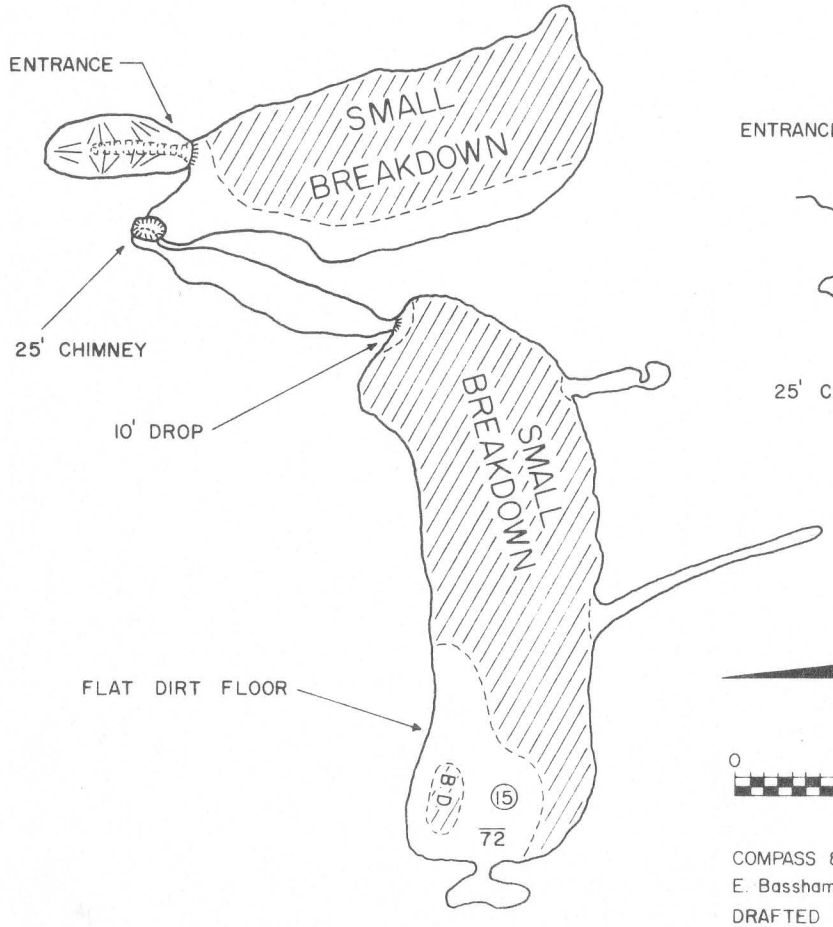
Owner: unknown

Description: The cave is entered through a 10-foot diameter sinkhole in flat ground. To the south the passage leads a few feet over a 4-foot drop to a

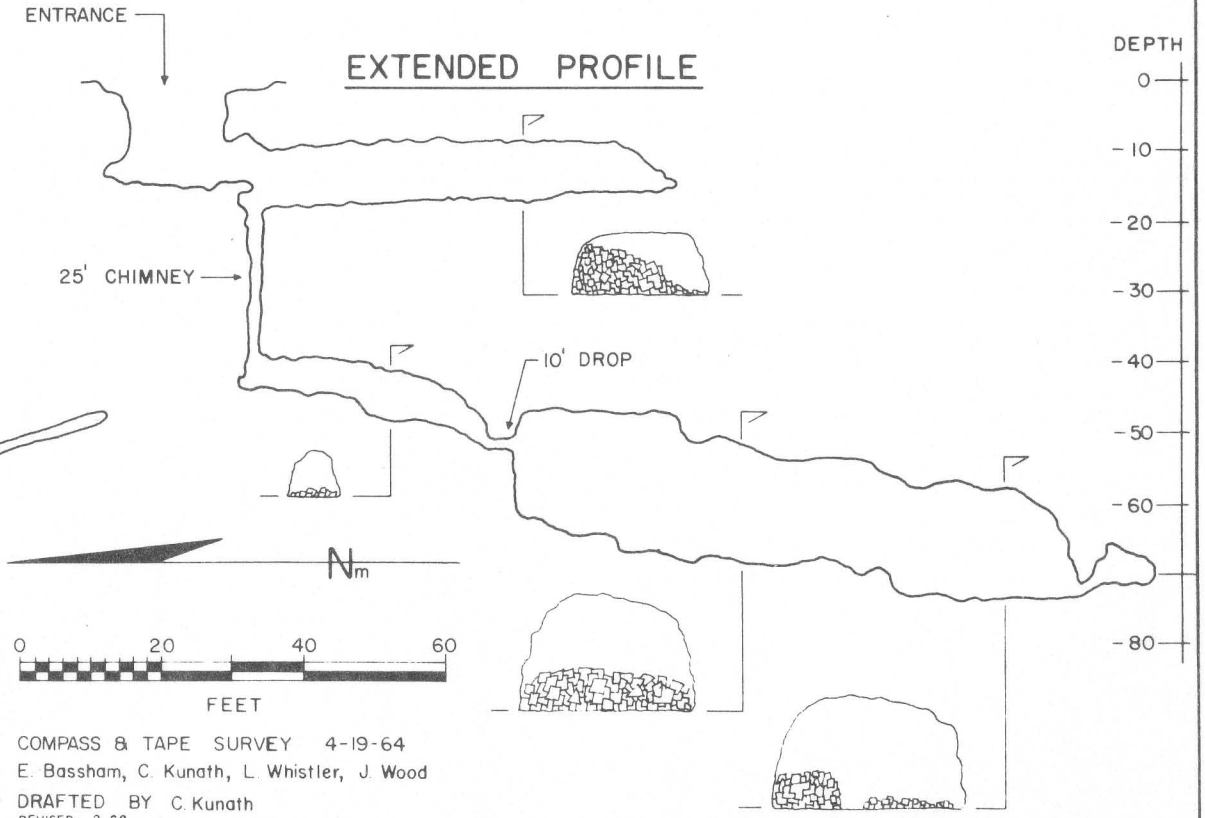
DRYDEN CAVE

TERRELL COUNTY, TEXAS

PLAN



EXTENDED PROFILE



COMPASS & TAPE SURVEY 4-19-64

E. Bassham, C. Kunath, L. Whistler, J. Wood

DRAFTED BY C. Kunath

REVISED 2-68

large room 60 feet long, 25 feet wide, and 7 feet high. The left side of the room is covered with breakdown which in places reaches the ceiling. Just to the right of the entrance to the room is a small hole, which may be chimneyed, that drops 25 feet to a stoopway which leads 30 feet to a 10-foot drop into the largest room in the cave. This room is 80 feet long, 25 feet wide, and 15 feet high; the floor is of large breakdown and dirt. Three small passages lead from this room, but all end after only a few feet. (See map, p. 39)

History: The cave was first entered by Louis Whistler in 1963. It was explored and mapped by Carl Kunath, Elbert Bassham, and James Wood, members of the Sul Ross Speleological Society, and Louis Whistler of Sanderson, Texas, on April 19, 1964.

Ref: TSS files

GOODE PIT (GOODE CAVE) Terrell County (TE 6)

No quadrangle

Owner: Mott H. Goode

Description: The entrance to the cave is a circular hole in solid limestone about 2 feet in diameter and belling out into a "room" about 15 feet in diameter. The drop is about 12 feet and requires equipment. There is no tie-off but the car can be driven to the entrance. At the bottom of the drop a slope over breakdown and rotting sotol plants leads down an additional 5 to 10 feet and horizontally about 10 feet on one side to an end. No leads extend from the other side of the entrance "room". It was explored by James Reddell and William Russell in June, 1963.

Biology: A collection of animals was made in this cave on June 28, 1963, by James Reddell and Bill Russell. Two troglobitic species were taken in the cave. The record of the blind milliped, Cambala speobia (Chamberlin), is notable as being the most western record for the species. An undescribed blind species of the spider genus, Nesticus, is also notable for being the most western record for this troglobitic group. Two troglophilic spiders, Cicurina varians Gertsch and Mulaik and Meioneta sp., have been collected in the cave, as well as an accidental spider, Lycosa carolinensis Walckenaer. This large wolf spider was taken from rotting sotol plants at the bottom of the entrance drop. Centipedes taken in the cave are still unidentified. A canyon toad, Bufo punctatus Baird and Girard, was found at the bottom of the entrance.

Bibliography: Reddell, J.R. 1965. "A checklist of the cave fauna of Texas. I. The Invertebrata (exclusive of Insecta)." Tex. J. Sci., 17(2):143-187.
Reddell, J.R. 1967. "A checklist of the cave fauna of Texas. III. Vertebrata." Ibid, 19(2):184-226.

Ref: TSS files

ISINGLASS SINK (EISENGLASS SINK) Terrell County (TE 7)

No quadrangle

Owner: unknown

Description: A 10-foot diameter sink drops 55 feet with no rooms or passages at the bottom. Fossils are abundant in the walls of the pit. The cave was probably first explored by Elbert Bassham, James Wood, and Louis Whistler in April of 1964. (See map, p. 41)

Ref: TSS files

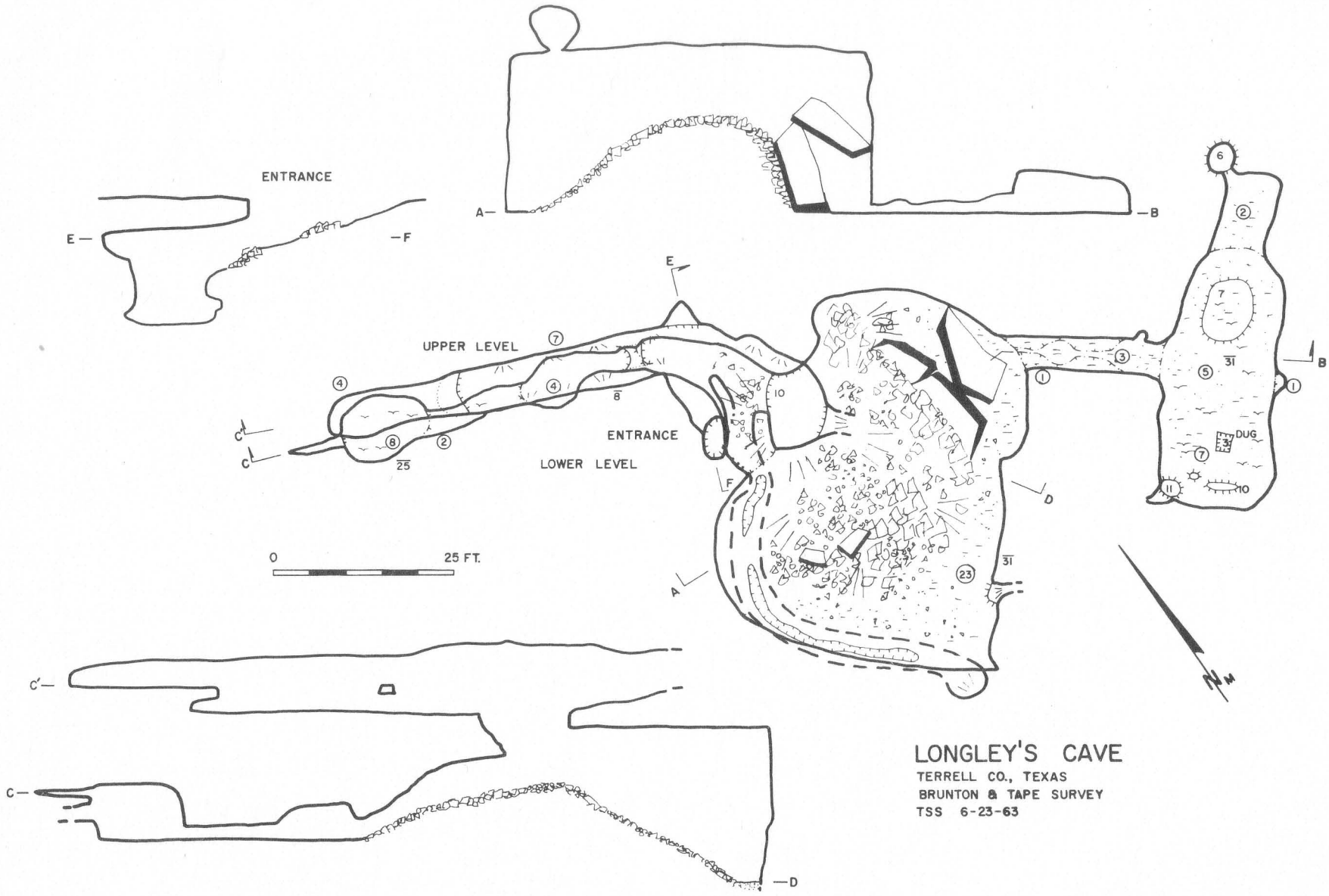
LONGLEY'S CAVE Terrell County (TE 8)

No quadrangle

Owner: Cam Longley

Description: The entrance to Longley's Cave is a sink located on fairly level ground. A slope leads down to a drop of about 6 feet. This leads, in turn, into an upper level extending in two directions. To the west a walking passage extends for about 50 feet, running almost directly over a lower-level passage. To the east the upper level extends for a few feet to a fork. One way leads almost immediately to a drop into the main room of the cave; the other way leads to a passage extending over the ceiling of the room and connected to it for most of the length of the passage. A drop of 10 feet leads onto a breakdown mound at one edge of the main room of the cave. This room is about 40 feet wide, 50 feet long, and up to 23 feet in height. It is floored with small breakdown except along the edges of the room where silt occurs. The breakdown mound is also littered with trash thrown into the entrance. Several large breakdown blocks occur on the northeast edge of the room. Two passages extend from the room. One is a 4 to 8 foot high irregular passage extending to the west for about 50 feet before ending in a small crawl which pinches out. The second passage extends to the southeast as a 1 to 3 foot high crawlway for 20 feet before opening into a second room. This room is about 15 feet wide, 50 feet long, and up to 7 feet high. A hole has been dug in the floor of the room, apparently in search of barite, large crystals of which were found here. (See map, p. 45)

Biology: A collection of invertebrates was made in the cave by James Reddell and Bill Russell on June 27, 1963. This is, biologically, the most interesting of any of the caves in the West Texas area. Further collections will probably reveal additional species of interest. Three troglobitic species have been taken from the cave. These are the milliped, Cambala speobia (Chamberlin), the isopod, Protrichoniscus cavernarum (Ulrich), and the thysanuran, Nicoletia texensis Ulrich. A trogloxenic or accidental milliped of the genus Eurymerodesmus has been taken from under rocks in the entrance room. An unidentifiable immature scorpion was found under a rock in the crawlway leading to the Barite Room. A troglophilic spider, Cicurina varians Gertsch and Mulaik, is abundant beneath rocks in the entrance room and in darkness. A large trogloxenic spider, Ctenus sp., may be found on the walls of the cave near the entrance. Collembola, Pseudosinella violenta, are extremely abundant on organic debris in the entrance room and throughout the cave. The roach, Arenivaga tonkawa Heb., is a troglo-xene in the entrance room, where it may be found among rocks and organic debris.

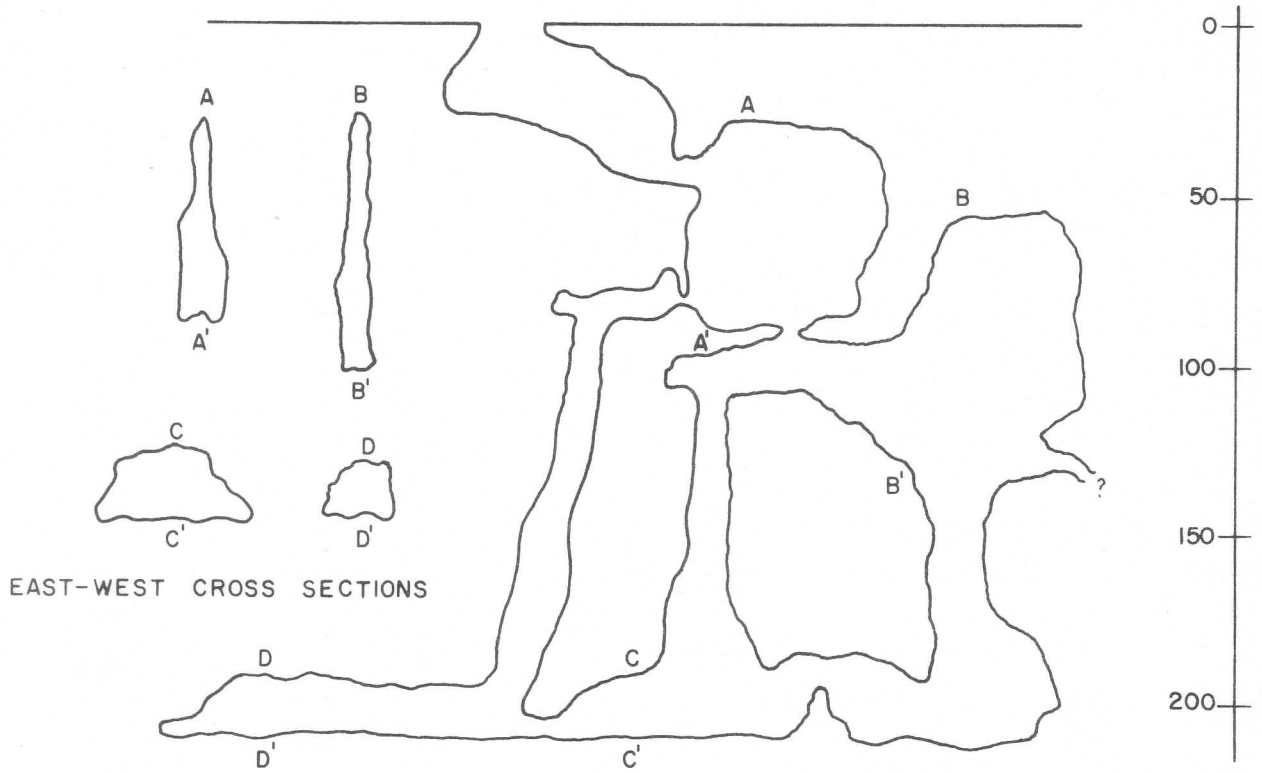


LONGLEY'S CAVE

TERRELL CO., TEXAS
BRUNTON & TAPE SURVEY
TSS 6-23-63

MONTGOMERY'S CAVE

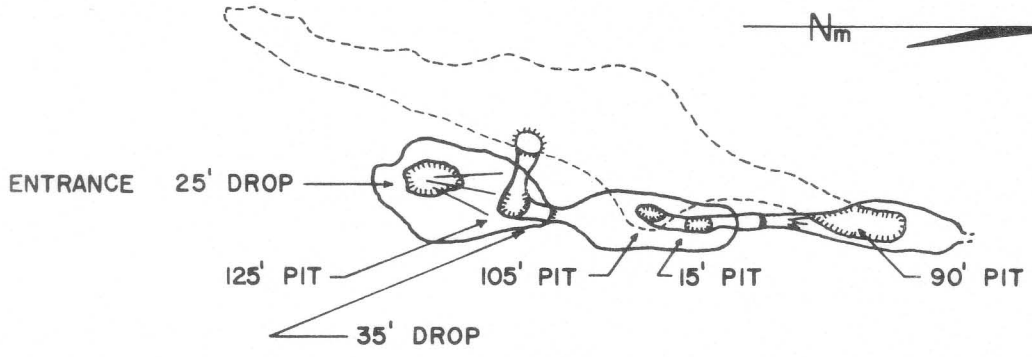
TERRELL COUNTY, TEXAS



NORTH-SOUTH EXTENDED PROFILE

PLAN

LOWEST LEVEL DOTTED



SURVEY BY: S.R.S.S. 3-63

REVISED & REDRAWN BY: C.E. Kunath 4-64, 1-68

Three species of camel cricket have been taken in the cave; these are identified as Ceuthophilus (Ceuthophilus) sp., C. (C.) secretus Scudder, and C. (Geotettix) cunicularis Hubbell. Two species of beetle have been taken in the cave. One, Rhadine babcocki Barr, is a troglophile and is fairly abundant in the cave; the other is an accidental elaterid beetle, Esthesopus sp., found near the entrance. Centipedes taken from the cave remain unidentified. The cave is also inhabited by a small colony of bats, but these have not been identified.

Geology: Barite was found in the lowest passage of the cave where it had accumulated in small piles along the center of the passage. The barite occurs in translucent to grey-blue crystals up to 3/4 inch long. These crystals filled an open space about 4-5" wide, up to 2' high, and aligned along joints (Russell, 1964).

Bibliography: Reddell, J.R. 1965. "A checklist of the cave fauna of Texas. I. The Invertebrata (exclusive of Insecta)." Tex. J. Sci., 17(2):143-187.
Reddell, J.R. 1966. "A checklist of the cave fauna of Texas. II. Insecta." Ibid, 18(1):25-56.
Russell, W.H. 1964. "Barite in Longley's Cave." Tex. Caver, 9(3):43.
Vandel, A. 1965. "Les Trichoniscidae cavernicoles (Isopoda Terrestria; Crustacea) de l'Amerique du Nord." Annal. Speleol., 20(3):347-389.
Ref: TSS files

MONTGOMERY GYPSUM CAVE (GYPSUM CAVE) (MONTGOMERY'S CAVE) Terrell County (TE 9)

No quadrangle

Owner: Mrs. Clay Adams

Description: The entrance is a 10-foot by 15-foot sinkhole dropping 25 feet to the floor of a room about 50 feet long and 20 feet wide. The floor of this room is littered with goat bones and slopes steeply to the north. At the far end of the room, a low passage leads a few feet to a 45-foot drop into a room 15 feet wide at the bottom and 50 feet long. The passage narrows toward the top, and is about 60 feet high. From the south end of this room a low passage leads 20 feet to an irregular 125-foot pit which drops to the lowest level in the cave. About 15 feet from the north end of this room, there is a small chimney dropping 20 feet through breakdown to a 2- to 4-foot wide fissure. This passage goes two ways: south 20 feet to a 105-foot pit dropping to the lowest level, and north 35 feet over a steep slope to a large 90-foot pit which also drops to the lowest level. The fissure passage appears to continue past the 90-foot pit, but a traverse would require bolting across a distance of at least 40 feet with over 100 feet of exposure. At the bottom of the 90-foot pit a passage to the south gets much larger averaging 20 feet in width and 10 feet in height for 200 feet before becoming smaller and then ending abruptly. The floor consists of silt, gravel, and gypsum formations which have spalled off of the walls and ceiling. (see map, p. 47)

The lowest level is well-decorated with gypsum flowers, some of which are quite large and spectacular. The walls sparkle with gypsum crystals and the floor is covered with formations which have fallen from the ceiling. The most spectacular flower is about 2 feet long with a cross-sectional area of about 2 square inches.

Although the cave rarely floods, there appears to be a drain near the 90-foot pit where there is a 1-foot by 15-foot area of clean gravel where the wall and floor meet. This area might be investigated by digging, although prospects for new finds are not at all good.

Biology: Well-preserved and, for the most part,intact remains of six bobcats suggest that there is another opening through which small animals may reach the lowest level. A rattlesnake was killed in the entrance room in March, 1963. Many goat and sheep bones may be found on the first two levels of the cave.

Geology: The first few feet of the entrance is supposed to be in "sandstone" with the remainder of the cave in limestone. The "sandstone" may be the lowest Del Rio Formation and the limestone beneath it the Fort Terrett Member. Development of the cave was strongly controlled by a major joint or joint set trending approximately north-south, parallel to the trend of many other caves in the area.

History: Although known by the owner since 1951, the first record of exploration of the cave comes from the Ozona Grotto, which explored the cave almost completely prior to the report date of October 14, 1958. Carl Kunath, John Altis, Tom Watson, and Walter Russell of the Sul Ross Speleological Society visited the cave and mapped it in March 1963. The cave was again visited by Sul Ross Speleological Society members Jack White, James Wood, and Carl Kunath in April 1964 and the map revised and redrawn by Carl Kunath. Because of difficulty in obtaining permission to enter the cave is rarely visited.

Bibliography: Fowler, Suzanne. 1964. "News: Sul Ross College." Tex. Caver, 9(3):50-51.
Kunath, Carl. 1965. Ye Olde History. 60 pp.
Kunath, Carl. 1963. "Montgomery's Cave." Tex. Caver, 8(4):37-39.

Ref: TSS files

PASOTEX PIT (EL PASO NATURAL GAS CAVE) Terrell County (TE 10)

No quadrangle

Owner: Herbert Brown

Description: Two sketch maps of this cave do not agree on all points. Where differences are great, those parts underlined are from the sketch by Bill Russell and those not underlined are from a sketch by Elbert Bassham.

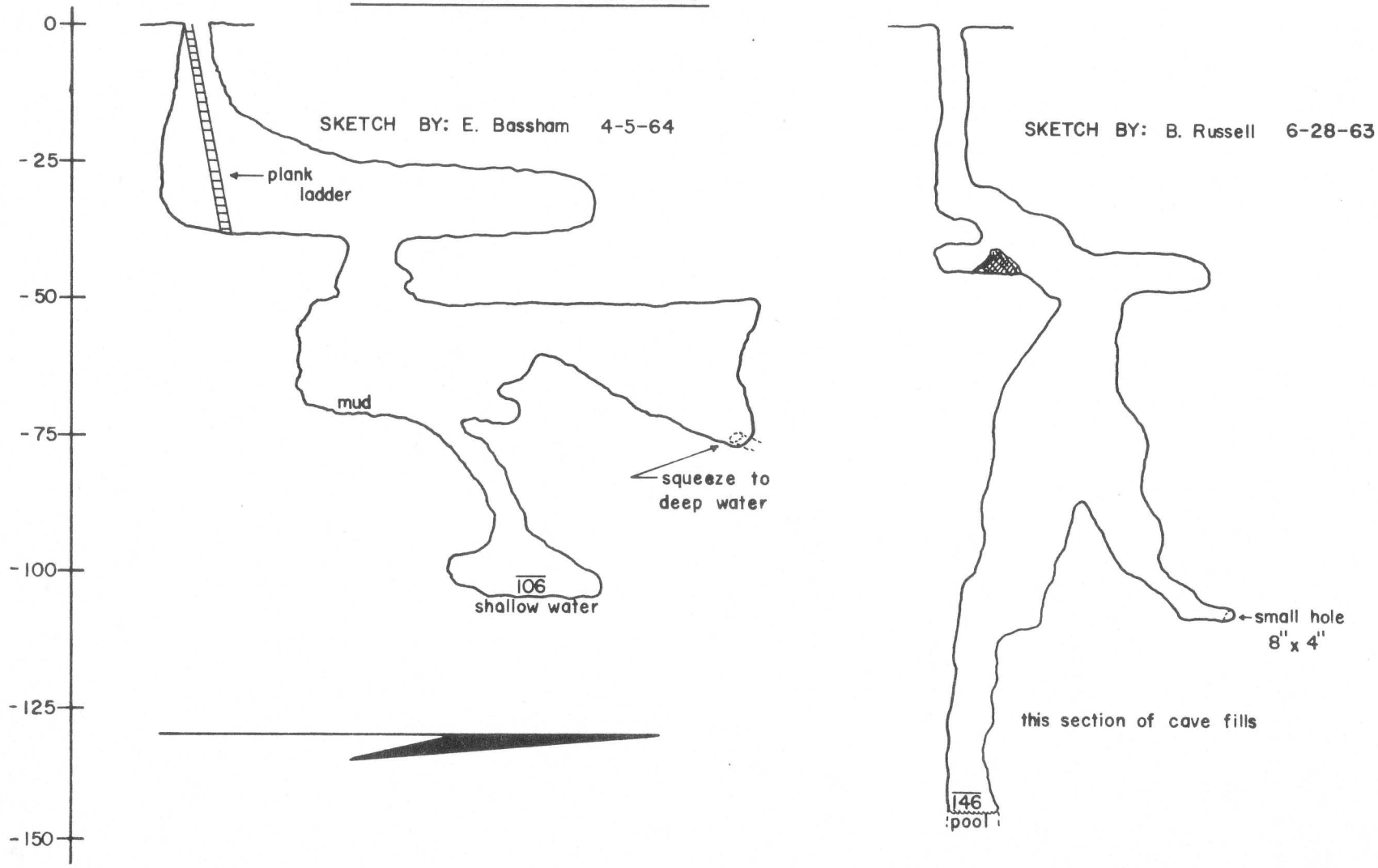
A 35-foot entrance drop leads to a room about 60 feet long. From about the middle of this room a hole drops 30 feet (65 feet) to a mud-floored room. To the north a squeeze leads down to a deep pool; in the other direction a squeeze leads vertically down about 35 feet to the floor of a small room. A few feet of water covered the floor in April 1964. The total depth of the cave is 106 feet (146 feet). The cave is developed along a north-south trending fissure. (See profile, p. 49)

Biology: Collections have been made in the cave on June 28, 1963, by James Reddell and Bill Russell; on April 2, 1965, by Kenneth Christiansen and James Reddell; and on April 5, 1964, by Robert C. Schroeder. All species were taken from the silt area at the bottom of the old wooden ladder or in the vicinity of the ladder. Two troglophilic spiders inhabit the cave: Cicurina varians

PASOTEX PIT

TERRELL COUNTY, TEXAS

EXTENDED PROFILES



pages 47–50 do not exist

Gertsch and Mulaik has been taken from webs along the base of the walls and beneath rocks, while Meioneta sp. has been found hanging from webs along the cave walls. The troglobitic thysanuran, Nicoletia texensis Ulrich, has been taken from the cave. Collembola, Pseudosinella violenta, were present in the thousands. Two species of camel cricket were collected: Ceuthophilus (Ceuthophilus) sp. and C. (C.) secretus Scudder. The troglophilic carabid beetle, Rhadine babcocki Barr, has been taken off of silt in the cave. Mites parasitic on the crickets and a fly remain unidentified. Fauna observed but not collected include a lizard and frogs at the 50-foot level.

Bibliography: Reddell, J.R. 1965. "A checklist of the cave fauna of Texas. I. The Invertebrata (exclusive of Insecta)." Tex. J. Sci., 17(2):143-187.
Reddell, J.R. 1966. "A checklist of the cave fauna of Texas. II. Insecta." Ibid, 18(1):25-56.

Ref: TSS files

DOUBTFUL CAVES

BENDELE'S UNCAVE — Terrell County (TE a)

No quadrangle

Owner: Be

Description: A small sink located on a low hill overlooking Meyers Springs drops about 5 feet into a crawlway about 15 feet long. The cave was partially excavated by the owner.

Biology: A single specimen of a spider, Loxosceles unicolor Keyserling, was taken in this "cave" on June 27, 1963, by James Reddell and William Russell. It is probably a trogloxene or accidental.

Bibliography: Reddell, J.R. 1965. "A checklist of the cave fauna of Texas. I. The Invertebrata (exclusive of Insecta)." Tex. J. Sci., 17(2):143-187.

Ref: TSS files

GOODE CAVE — Terrell County (TE b)

No quadrangle

Owner:

Description: This possible cave was visited and named by Frank M. Setzler who visited it in April 1938. It has a shelter-type entrance about 8 feet high, 20 feet wide, and facing N15°W. No description is available but it looks like it might be a true cave. Many artifacts were found in the cave, which contained as much as nine feet of deposits. A large mound of cracked stone lies outside the entrance, which is near the top of a hill.

Bibliography: Setzler, Frank M. 1939. "Exploring a cave in southwestern Texas." Explorations and Field-work of the Smithsonian Institution in 1938, p. 75-78.

Ref: TSS files

UNNAMED CAVE — Terrell County (TE c)

No quadrangle

Owner: Andy White

Description: This is a small barite deposit near Hackberry Creek about one mile west of the Terrell-Val Verde County line. "The deposit is assumed to be a cave or sinkhole filling. There are several small debris-filled caverns or sinks adjacent to the outcrop." (Maxwell, 1962)

Bibliography: Maxwell, Ross A. 1962. "Mineral resources of South Texas." Bur. of Econ. Geol., Rept. of Inv. No. 43, p. 12-13, pl. 2, fig. 6.
Ref: TSS files

VAL VERDE

COUNTY

BABB CAVE NO. 1 — Val Verde County (VV 3)

Langtry 15' Quadrangle

Owner: Walter Babb

Description: This cave is formed along the same joint as is Fisher's Fissure, or at least one paralleling it. It is nothing more than a 50-foot pit with about 50 feet of passage at the bottom.

Ref: Mills Tandy

BABB CAVE NO. 2 — Val Verde County (VV 4)

Langtry 15' Quadrangle

Owner: Walter Babb

Description: This cave consists of a 50-foot pit with no passage leading off from the bottom.

Ref: Mills Tandy

BABB'S RIVER CAVE — Val Verde County (VV 5)

Langtry 15' Quadrangle

Owner: Walter Babb

Description: This is a 25 to 30-foot long crawlway located on a cliff overlooking the Rio Grande.

Ref: TSS files

CP HOLE — Val Verde County (VV 102)

Langtry 15' Quadrangle

Owner: State of Texas

Description: Entrance was gained to CP Hole through a 4-foot by 14-foot collapse sink about 19 feet deep. The entrance is located just at the edge of new US 90, under construction at this printing. The collapse forming the entrance occurred during or after heavy local rains. Two passages lead from the bottom of the entrance; one ends in ten feet, the other opens immediately into a 15-foot square room with an 8-foot ceiling. A low passage to the northwest from the room becomes too small after 35 feet. A passage to the southeast is up to 10 feet wide and 8 feet high with a large dome that reaches almost up to the level of the highway excavation. This southeastern passage jogs left, rises slightly, and becomes smaller. At 145 feet from the entrance room it splits, each branch becoming too small after 15 feet or so. The passages are floored with dirt and thin, slabby breakdown. Thick crusts of gypsum crystals cover the walls of part of the crawl to the northwest. At the time of exploration the cave was very warm and had no air circulation. (See map, p. 57)

The entrance to the cave has probably been completely filled, although heavy rains may open it again. The high dome may also someday collapse, providing another entrance.

Geology: All the upper part of CP Hole is in the Boquillas Formation, including the entrance sink, the high dome, and the upper parts of all passages. Only the lower parts of the horizontal passages are in the underlying Buda Limestone. The cave is developed along a northwest trend, contrary to most of the caves in the area, which are along northeast trends. However, faults near CP Hole and perpendicular to its trend may have caused strong jointing along which the cave formed.

History: The cave was explored and mapped soon after it became open by Tom Tracy, Mike Murphy, Guy Owen, and Mark Callis, members of the University of Texas Grotto of the National Speleological Society, October 1967. No biological collections were made.

Ref: Tom Tracy

CENTIPEDE CAVE (41VV191) Val Verde County (VV 15)

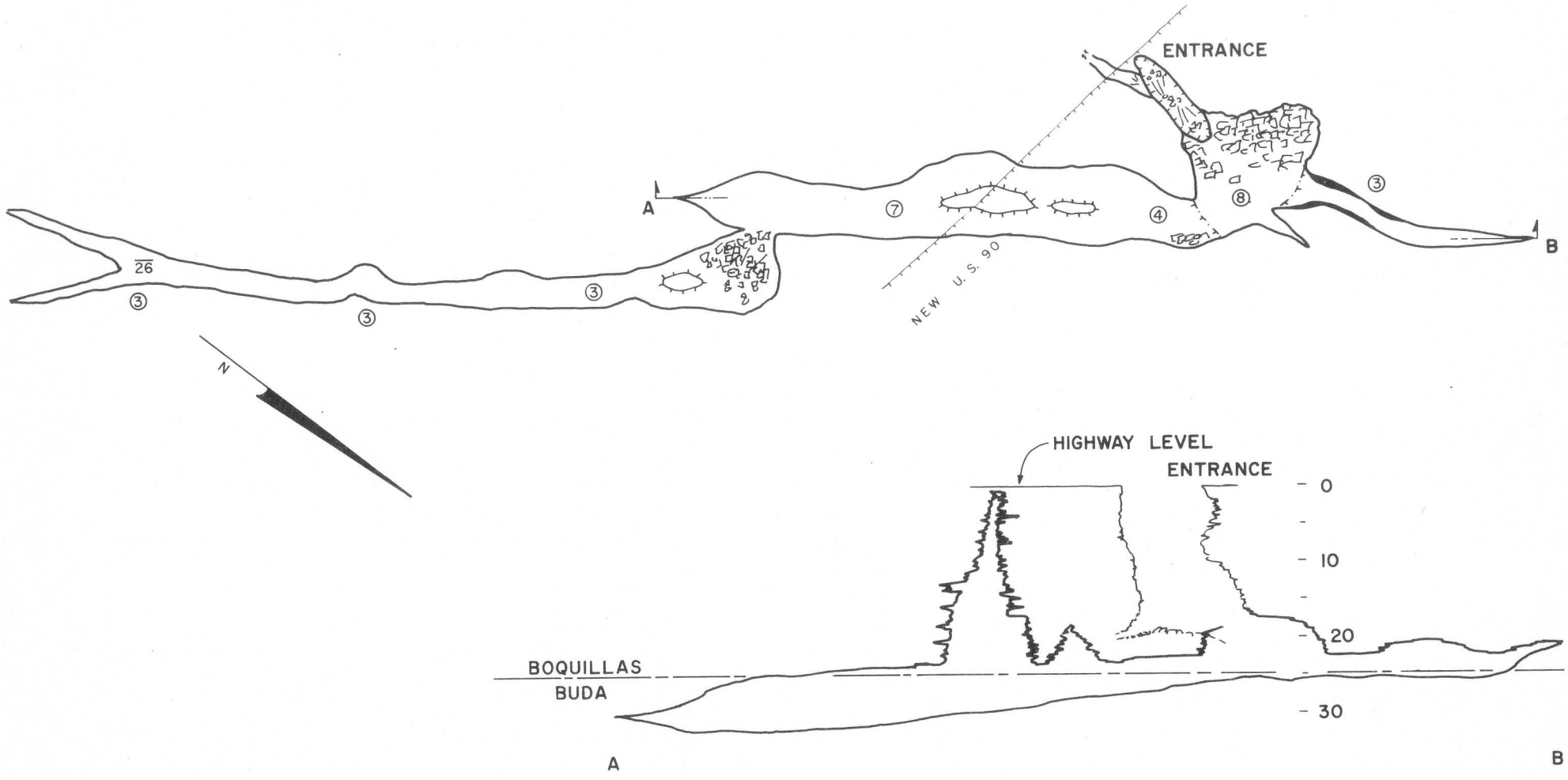
Shumla 15' Quadrangle

Owner: Rufus (Bob) Williams

Description: "Centipede Cave is an intermediate-sized rock shelter having a width at its mouth of 44 feet, and a front-to-back depth of 37.5 feet. The shelter faces southeast. The roof is extensively fire-blackened and arches strongly near the rear of the shelter. It varies from 6 to 11 feet in height over the deposit. Pictographs were found on both walls near the mouth of the shelter. The rear wall is decorated with the names of local Boy Scouts. The surface of the deposit sloped upwards five feet from front to back and was dry. A relatively light accumulation of sheep dung overlay fiber and dust which was mixed, in places, with small quantities of burned rock. Fragments of wood, cordage, sandals, and quids were visible on the surface. Outside the shelter, a light deposit of burned rock trailed down the steep slope in front of the cave mouth." (Epstein, 1960, p. 10) (See map, p. 59)

Archaeology: Like Damp Cave, this cave was the subject of intensive treatment by the Texas Archeological Salvage Project and is completely described in the report by Epstein (1960); therefore, no attempt will be made to do more than briefly summarize their findings. The discovery of very clear and definite stratigraphic units in the cave make it of unusual interest in a cultural study of the area. A total of 516 chipped stone tools were removed from the cave. Langtry, Ensor, and Abasolo were the most common points found. The following types of artifacts and perishable materials were found in the cave: ground stone, shell and bone artifacts, painted pebbles, cordage, netting, basketry, matting, sandals, knotted fiber, pointed sticks, stakes, wedges, a split and tied stick, fire hearths, a drill, a miniature cradle (?), a cactus spine bundle, tied bundles, prickly pear internodes, and skin and leather pieces. It appears to have been inhabited from 7000 B.C. to the 16th century. The skeletal remains of two or more individuals were found, but did not appear to be burials.

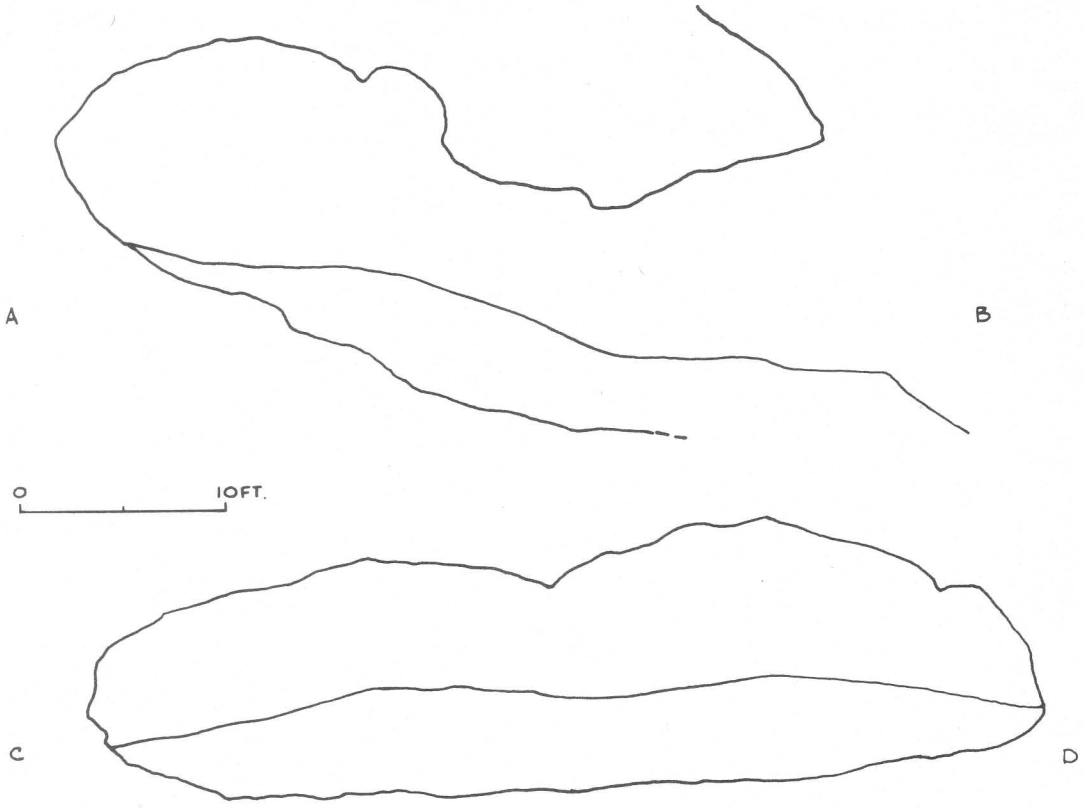
Paleontology: The following skeletal material was removed from the cave:
Class Osteichthyes
Lepisesteus sp. (gar)
Carpoides carpio (carp)

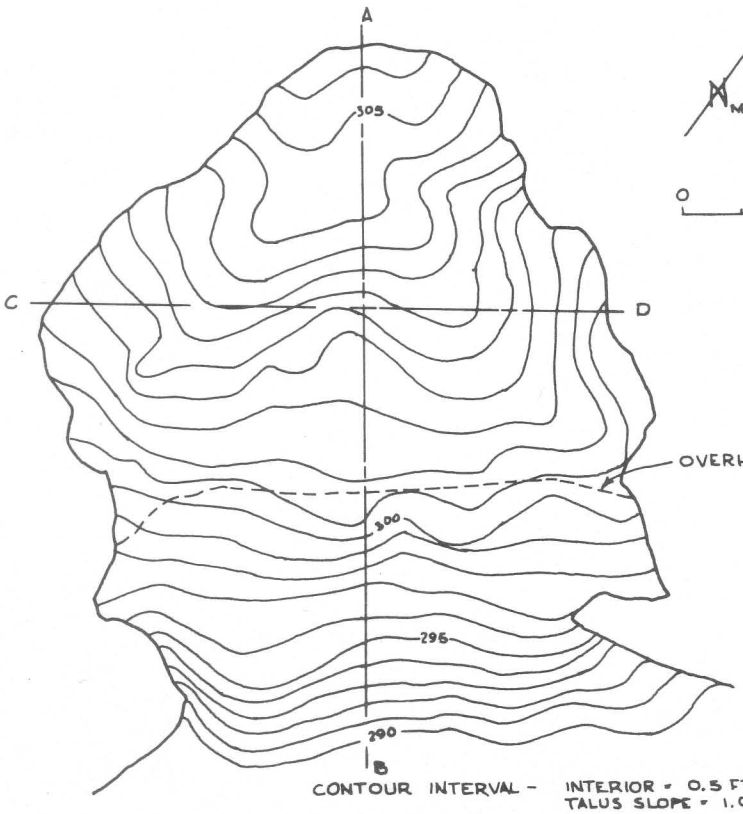


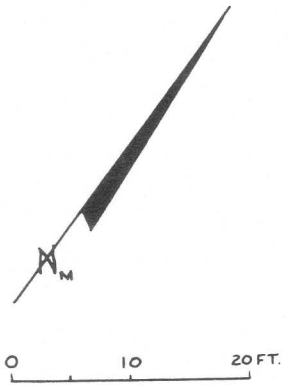
0 10 20 30 40 50 FT.

CP HOLE

BRUNTON & TAPE SURVEY BY
TRACY, OWEN, MURPHY, CALLIS
OCT. 1967 UTSS







CENTIPEDE CAVE

VAL VERDE CO., TEXAS

ALIDADE & TAPE SURVEY BY
WM. A DAVIS, ET. AL., FALL, 1958

CONTOUR INTERVAL - INTERIOR = 0.5 FT.
TALUS SLOPE = 1.0 FT.

Ictalurus furcatus (blue catfish)
Pilodictus olivaris (flathead cat)
Micropterus salmoides (large mouth bass)
Class Reptilia
Order Serpentes
Order Lacertilia
Gehrronotus sp. (alligator lizard)
Phrynosoma sp. (horned lizard)
Order Chelonia
Trionyx sp. (soft shell turtle)
Class Aves
Class Mammalia
Order Chiroptera
Eumops perotis (bat)
Order Carnivora
Conepatus mesoleucus (hog-nosed skunk)
Spilogale putorius (spotted skunk)
Procyon lotor (raccoon)
Bassariscus astutus (ringtail)
Urocyon cinereoargenteus (gray fox)
Order Rodentia
Citellus variegatus (black squirrel)
Citellus mexicanus (ground squirrel)
Citellus leucurus (ground squirrel)
Citellus spilosoma (ground squirrel)
Castor canadensis (beaver)
Neotoma albigula (packrat)
Neotoma mexicanus (packrat)
Sigmodon ochrognathus (cotton rat)
Sigmodon hispidus (cotton rat)
Geomys sp. (gopher)
Erithizon dorsatum (porcupine)
Order Artiodactyla
Odocoileus virginianus (whitetail deer)
Bison or Bos (bison or cow)
Order Lagomorpha
Lepus californicus (jack rabbit)
Sylvilagus floridana (Florida cottontail)
Sylvilagus audoboni (desert cottontail)
Order Primates
Homo sapiens (man)

Bibliography: Anonymous. 1962. "News: University of Texas." Tex. Caver, 7(9):115.
Epstein, J. F. 1960. Centipede and Damp Caves: Excavations in Val Verde County, Texas, 1958. Austin.
Epstein, J. F. 1962. "The Amistad Dam Archeological Salvage Project." Engineering-Science News, 8(1). Reprinted under the title "Cave Living -- 7000 B.C.", in Tex. Caver, 7(4):57.
Epstein, J. F. 1962. "Centipede and Damp Caves: Excavations in Val Verde County, Texas, 1958," with appendices by T.W. McKern and Ernest Lundelius, Jr. Bull. Tex. Archeol. Soc., 33:1-129.
Frank, R.M. 1961. "Cave paleontology: Part II." Tex. Caver, 6(8):95.
Ref: TSS files

DAMP CAVE (41VV189) Val Verde County (VV 17)

Shumla 15' Quadrangle

Owner: Rufus (Bob) Williams

Description: "The mouth of the shelter faces due west and is 25.5 feet across. The long axis of this site runs north and south and is 36 feet. The roof is unblackened, deeply creviced, and has large concavities where fragments of the roof have fallen. Its average height over the deposit was between 5 and 6 feet. In several places near the mouth of the shelter water dripped from the crevices on to the deposit. The fill surface sloped downwards 4.5 feet from front to back. Outside at the cave mouth was a thick burned rock midden that clung to the steep slope outside the shelter until it reached the edge of the bluff, where it dropped 100 feet to the 'vega' of the Rio Grande. With the exception of one small area underneath a large boulder all of Damp Cave was excavated." (Epstein, 1960) (See map, p. 63)

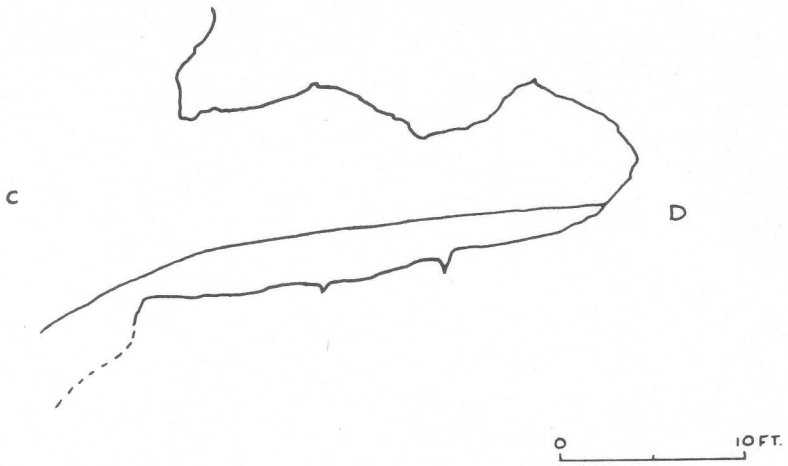
Archaeology: Since this cave is thoroughly treated in the report by Epstein (1960) nothing more than a brief summary of the findings made during its excavation by the Texas Archeological Salvage Project are given. A total of 548 chipped stone tools were removed from the cave, including points, bifacials, and scrapers. The largest number of points were Langtry, Ensor, and Frio. Other artifacts found included: ground stone, bone and shell artifacts, painted pebbles, cordage, matting, knotted fiber, sandals, pointed sticks, a wooden knife (?), a pounded stalk, cut sticks, prickly pear internodes, and possibly a leather fragment. There was good stratigraphic evidence in the cave indicating possible habitation from 7000 B.C. to the 16th century. The cave also countains pictographs. The skeletal remains of 3 or more individuals were found.

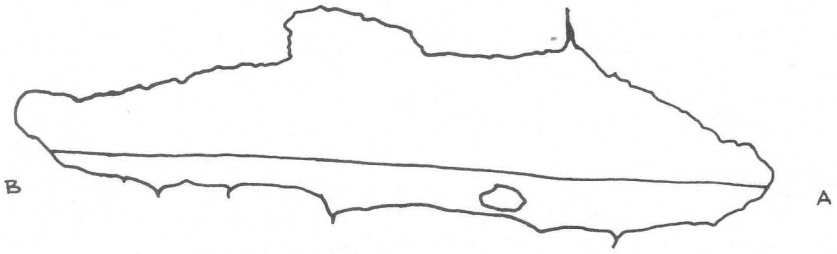
Paleontology: A faunal list of vertebrate remains from the cave follows:

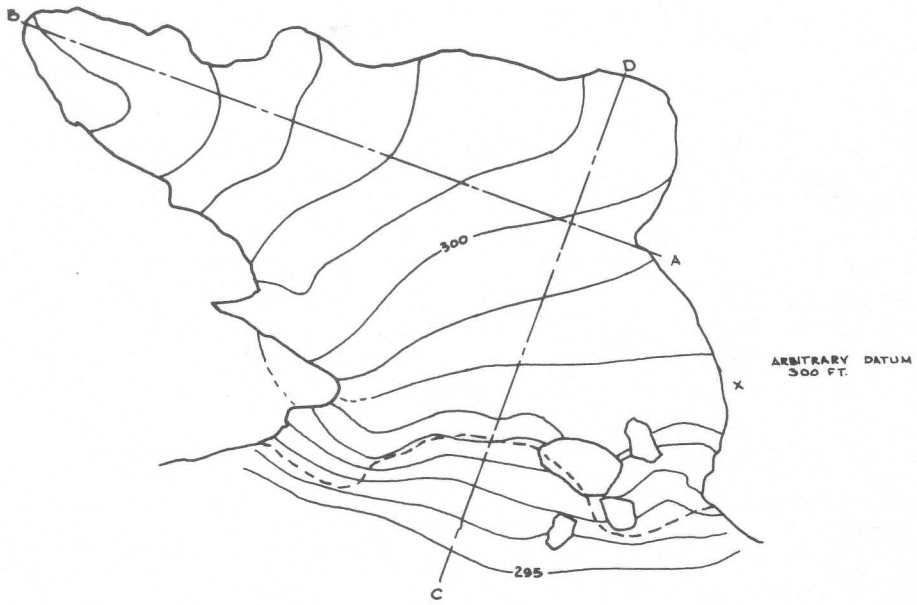
Class Osteichthyes
- *Lepisosteus* sp. (gar)
- *Carpoides carpio* (carp)
- *Ictalurus furcatus* (blue catfish)

Class Reptilia
- *Trionyx* sp. (soft shell turtle)

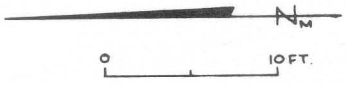
Class Mammalia
- Order Carnivora
  - *Urocyon cinereoargenteus* (gray fox)
  - *Procyon lotor* (raccoon)
  - *Spilogale putorius* (spotted skunk)
  - *Mephitis mephitis* (skunk)
  - *Bassariscus astutus* (ringtail)
  - *Canis latrans* (coyote)
- Order Perissodactyla
  - *Equus* sp. (horse)
- Order Artiodactyla
  - *Ovis* sp. (sheep, domestic)
  - *Odocoileus virginianus* (whitetail deer)
- Order Rodentia
  - *Sigmodon hispidus* (cotton rat)
  - *Castor canadensis* (beaver)







CONTOUR INTERVAL – INTERIOR = 0.5 FT.
TALUS SLOPE = 1.0 FT.



DAMP CAVE

VAL VERDE CO., TEXAS

ALIDADE & TAPE SURVEY BY
CURTIS D. TUNNELL, ET. AL.
FALL, 1958

Citellus mexicanus (ground squirrel)
Citellus spilosoma (ground squirrel)
Citellus variegatus (ground squirrel)
Neotoma sp. (pack rat)
Ondatra zibethica (muskrat)
Order Lagomorpha
Lepus californicus (jack rabbit)
Sylvilagus sp. (cottontail)
Order Primates
Homo sapiens (man)

Bibliography: Epstein, J. F. 1960. Centipede and Damp Caves: Excavations in Val Verde County, Texas, 1958. Austin.
Epstein, J. F. 1962. "The Amistad Dam Archeological Salvage Project." Engineering-Science News, 8(1). Reprinted under the title, "Cave Living -- 7000 B.C.", in: Tex. Caver, 7(4):57.
Epstein, J. F. 1962. "Centipede and Damp Caves: Excavations in Val Verde County, Texas, 1958," with appendices by T.W. McKern and Ernest Lundelius, Jr. Bull. Tex. Archeol. Soc., 33:1-129.
Frank, R. M. 1961. "Cave paleontology: Part II." Tex. Caver, 6(8):95.

Ref: TSS files

FRUSTRATION PIT — Val Verde County (VV 42)

Shumla 15' Quadrangle

Owner: Arnem Humphries

Description: The entrance to the cave is a round hole in the bed of a small dry creek. It drops a total of about 30 feet as a climbable sink. A passage about 50 feet long at the bottom ends in mud fill. It was explored by T.R. Evans and Jim Tennison on November 7, 1960.

Ref: TSS files

JAVALINA CAVE (41VV109) — Val Verde County (VV 48)

Shumla 15' Quadrangle

Owner: Rufus (Bob) Williams

Description:"This shelter is located in a high bluff of the Rio Grande canyon several miles above the mouth of the Pecos. It measures about 60 feet across and has a depth of 30 feet. A high ceiling adds considerably to the size of the shelter. There is a very extensive burned rock talus in front of the shelter, suggesting long and intensive habitation of the site. The deposits within the shelter are dry and may be expected to be very productive. The midden soil probably attains a depth of 5 feet or more." (Graham and Davis, 1958) A crawlway at one end was not fully explored because of the presence of javalina (Tayassu tajacu) in it at the time; it was estimated to be at least 40 to 60 feet long. The entrance to the crawl is 6 feet wide and 3.5 to 4.0 feet high.

Archaeology: The cave was of particular interest as it represented one of the relatively few outstanding shelters with a minimum of looting. It was

excavated by the Val Verde County Archaeological Society in 1959-1960. Of interest is a zigzag petroglyph carved in the rear wall of the shelter. There is no evidence of pictographs.

Bibliography: Graham, J.A., and W.A. Davis. 1958. Appraisal of the Archeological Resources of Diablo Reservoir, Val Verde County, Texas. A Project of the Inter-Agency Archeological Salvage Program. p. 57.
Reddell, J.R. 1967. "A checklist of the cave fauna of Texas. III. Vertebrata." Tex. J. Sci., 19(2):184-226.

Ref: TSS files

PUTRID PIT — Val Verde County (VV 70)

Shumla 15' Quadrangle

Owner: Arnem Humphries

Description: The cave entrance is a round 3-foot in diameter hole dropping vertically for 10 feet into the center of a 20-foot in diameter circular room. A large pile of trash covers the floor of the cave. No passages lead out of the room. The total depth of the cave is about 20 feet. It was explored by James Reddell and T.R. Evans on November 5, 1960.

Ref: TSS files

SHUMLA CLIFF CAVE — Val Verde County (VV 80)

Shumla 15' Quadrangle

Owner: Rufus (Bob) Williams

Description: The cave entrance is about 15 feet wide and 10 feet high and opens onto a cliff overlooking the Rio Grande. A large breakdown slab has fallen and extends from the entrance for a considerable distance back into the cave. The floor is very dry and dusty, with many small pieces of rock lying in the dust. Light extends back for 60 feet where exploration was stopped. The passage is six to 10 feet high and 5 to 10 feet wide with flowstone formed along part of the right wall. It was explored by James Reddell on September 29, 1962.

Ref: TSS files

SHUMLA TALUS CAVE — Val Verde County (VV 81)

Shumla 15' Quadrangle

Owner: Rufus (Bob) Williams

Description: A large block has split away from a cliff overlooking the Rio Grande and small rocks filled the upper part of the crack to form a ceiling. About 15 feet below the top of the crack, solution has widened it to form a 3-foot high, 3-foot wide crawlway which runs along the side of the crack for about 20 feet to a second entrance. The crack itself drops as a one- to two-foot wide chimney for 50 feet to a third entrance. From this entrance the cliff drops vertically for 30 to 50 feet. It is impossible to approach the cave from any

but the easternmost entrance. Popcorn and flowstone have been deposited along the walls. It was explored on September 29, 1962, by James Reddell.

Ref: TSS files

WHISTLING WIND CAVE — Val Verde County (VV 92)

Shumla 15' Quadrangle

Owner:

Description: The cave is located 15 feet above the railroad tracks on the old Shumla spur. It is 3 feet wide and 8 feet high and extends about 40 feet to a junction. The passage to the left extends an additional 40 feet to a dead-end. The passage to the right extends as a two-foot high, two-foot wide passage for 15 feet to a cemented rock. The passage continues beyond this point and a strong wind current issues from it. It was explored by Johnny Greer, Terry Raines, and T.R. Evans in December, 1962.

Ref: Johnny Greer
Terry Raines

YELLOW HOLE — Val Verde County (VV 97)

Langtry 15' Quadrangle

Owner: C. R. Schnaubert

Description: The entrance to the cave is about 20 feet in diameter and drops vertically for 77 feet. The total length of the cave does not exceed 30 feet. Located on the side of a hill in the Boquillas flags the walls of the cave are made up of very loose rocks, some of considerable size. It is, therefore, quite dangerous. The cave is located near a large yellow mineralized zone, hence its name. It was explored several years ago by geologists who also dug a core hole near the cave. The cave is unclimbable and since there is no tie-off nearby an expansion bolt is needed to supply one. It was visited on November 5, 1960, by Bud Frank, James Reddell, Jim Tennison, and Graham Bell.

Ref: TSS files

DOUBTFUL CAVES

UNNAMED SINK — Val Verde County (VV 1a)

Langtry 15' Quadrangle

Owner: Guy Skiles

Description: The cave is located on a hill overlooking Mile Canyon. It is about 4 feet wide, 6 feet long, and 10 feet deep, but is blocked with trash and rocks. What appears to be a passage along one side might be opened by excavation. Two rattlesnakes were seen in the sink when it was investigated by members of the University of Texas Grotto in 1960.

Ref: TSS files

UNNAMED CAVE Val Verde County (VV 1c)

No quadrangle

Owner: Andy White

Description: "Celestite crops out on the Andy White ranch, just east of the Val Verde-Terrell co. line about 11 miles west southwest of Pandale and can be traced for a quarter of a mile... The origin of the mass is not clear but it probably was deposited in a cave or collapsed structure." (Maxwell, 1962)

Bibliography: Maxwell, R.A. 1962. "Mineral resources of South Texas." Bur. of Econ. Geol., Rept. of Inv. No. 43, p. 37, pl. 2, fig. 6.

Ref: TSS files

VAL VERDE

COUNTY

LANGTRY AREA

LANGTRY AREA

GEOLOGY

A. Richard Smith

The Langtry area is physically poorly defined but is nonetheless well-known to Texas spelunkers. The area is noted for several deep although not extensive caves, including Langtry Lead Cave, deepest in the state. A simplified geologic map on p. 75 shows the approximate boundaries of the Langtry area.

For all practical purposes there is only one cavernous rock unit in the Langtry area, the Devils River Formation.

The Langtry area has a stratigraphy slightly different from that of most of the rest of the Stockton Plateau and will be discussed in somewhat more detail. The lowest exposed rocks in the area belong to the Devils River Formation which is laterally transitional to other rock units to the east and west. A maximum of 450 feet is exposed along the Rio Grande east of Langtry, consisting of rudistid and miliolid bearing, dominantly fragmental limestone, locally dolomitized, brecciated, and chert-bearing. In the upper part mounds and layers of rudistids are very common. Nodular limestone at the base is not exposed in the Langtry area.

Overlying the Devils River Formation is the Buda Limestone, 45 to 60 feet of yellowish-gray limestone. The upper and lower parts are hard; the middle is somewhat clayey and has a nodular aspect. Very little vegetation grows on the Buda. The Del Rio, which is usually between the Devils River and the Buda is absent, by either erosion or non-deposition.

Above the Buda Limestone is the Boquillas Formation (or Boquillas Flags). Near Langtry the Boquillas is about 190 feet thick, thinning to the north. The Boquillas is characterized by thin-bedded, fossiliferous, yellow to gray limestone, easily recognized by its flaggy nature.

All of the caves within the area except Yellow Hole are formed almost entirely within the Buda and Devils River Formations; all have their entrances within 30 feet of the top of the Buda. Langtry Lead Cave, Langtry Quarry Cave, and Langtry Gypsum and East Gypsum Caves have entrances at the Buda-Boquillas contact or slightly above it in the Boquillas. This is probably not a result of solution in the Boquillas but of collapse of the very thin-bedded Boquillas into a solution cavity in the Buda.

The strata in the Langtry area dip fairly uniformly to the south at about 35 feet per mile, increasing locally to 65 feet per mile. No major folds and only a few short faults with small displacements have been mapped by the U. S. Geological Survey (Freeman, 1964). The geologic map also shows lineaments, or linear features which show up on aerial photos; they are almost certainly joints or small faults. Their orientations were measured and plotted on a rose diagram. Two major trends appear at N 15-20 E and N 45-50 E. For comparison, passage directions in Emerald Sink and Langtry Lead Cave were also plotted. Emerald has peaks at N 15-25 E and N 45-50 E; Langtry Lead has peaks at N 15-35 E and N 40-45 E. Both caves have anomalous small peaks in the NW quadrant, although the N 80 W trend in Emerald appears to represent some cross joints at a particular level in the Devils River Formation. The dominant joint and passage directions are approximately coincident and are more or less parallel to the dip of the strata. Some jointing is probably related to collapse areas in the Boquillas Formation. Tectonic explanations of the fracturing are not obvious, although there may be a relation between jointing and the underlying Paleozoic sedimentary rock-Ouchita metamorphic rock contact.

The rose diagram of the linears was prepared by measuring the bearing of all mapped linears on the geologic map and summing the total percentages for six degree intervals. Passage roses were prepared by measuring the length and direction along the centerlines of approximately straight passage segments and plotting the percentage of total passage length in each six degree interval. Only half of each diagram is shown, since the other half is identical.

The Langtry area drains into the Rio Grande, and to a lesser extent the Pecos, by short feeder canyons. The area receives an average of 15 inches of rain per year. Most storm water moves rapidly into the major rivers, but a large amount goes underground through solution-widened joints and through cave entrances. Langtry Lead Cave receives drainage directly from about 2 acres. The entrance of Emerald Sink lies only about 4 feet above the bed of Eagle Creek, and the entrance to Fisher's Fissure is not high on the bank of Langtry Creek.

The water that goes underground eventually reaches what is frequently and incorrectly called the "water table". The water does not occur in a particular permeable bed, however, but in solution-widened joints and caves. Since the water in one area is not necessarily connected directly to that of another very near area, the water may not all stand at the same level. The surface made by connecting all these discrete water levels is called the potentiometric, or piezometric, surface.

Too little is known about the ground-water hydrology of the Langtry area to say more than that the ground-water probably flows toward the Rio Grande. This is borne out in part by the elevations of water in the caves and by the number of springs along the Rio Grande. Because of the difference in elevation between the Pecos River and the Rio Grande near Langtry, some water may move from the Pecos to the Rio Grande. This is suggested by the relations between the lowest levels of Langtry Lead and Emerald with the levels of the rivers (see cross-section, p. 77)

Cross-section A-B shows the relationships between principal or obvious cave levels of the major caves, stratigraphy and topography. The cross-section parallels the dip of the strata. All the caves except Fisher's Fissure have a principal level at the Buda-Devils River contact. Peter Rose (pers. comm., 1968) has suggested that reworked Del Rio clay, now absent from the section, is contained in the basal Buda beds and inhibited solution, or retarded downward movement of the water, acting to perch ground-water levels.

Lower levels within the Devils River Formation in Emerald Sink and Langtry Lead Cave at elevations of about 1330 feet probably represent grading of cave passages to the top of the earlier potentiometric ground-water surface between the Pecos River and the Rio Grande. Langtry Lead, Emerald, and Fisher's Fissure now reach or extend just below the present potentiometric surface.

The suppositions expressed in the above paragraphs, the geohydrologic situation, and the unusual concentration of deep caves in the Langtry area warrant considerable study.

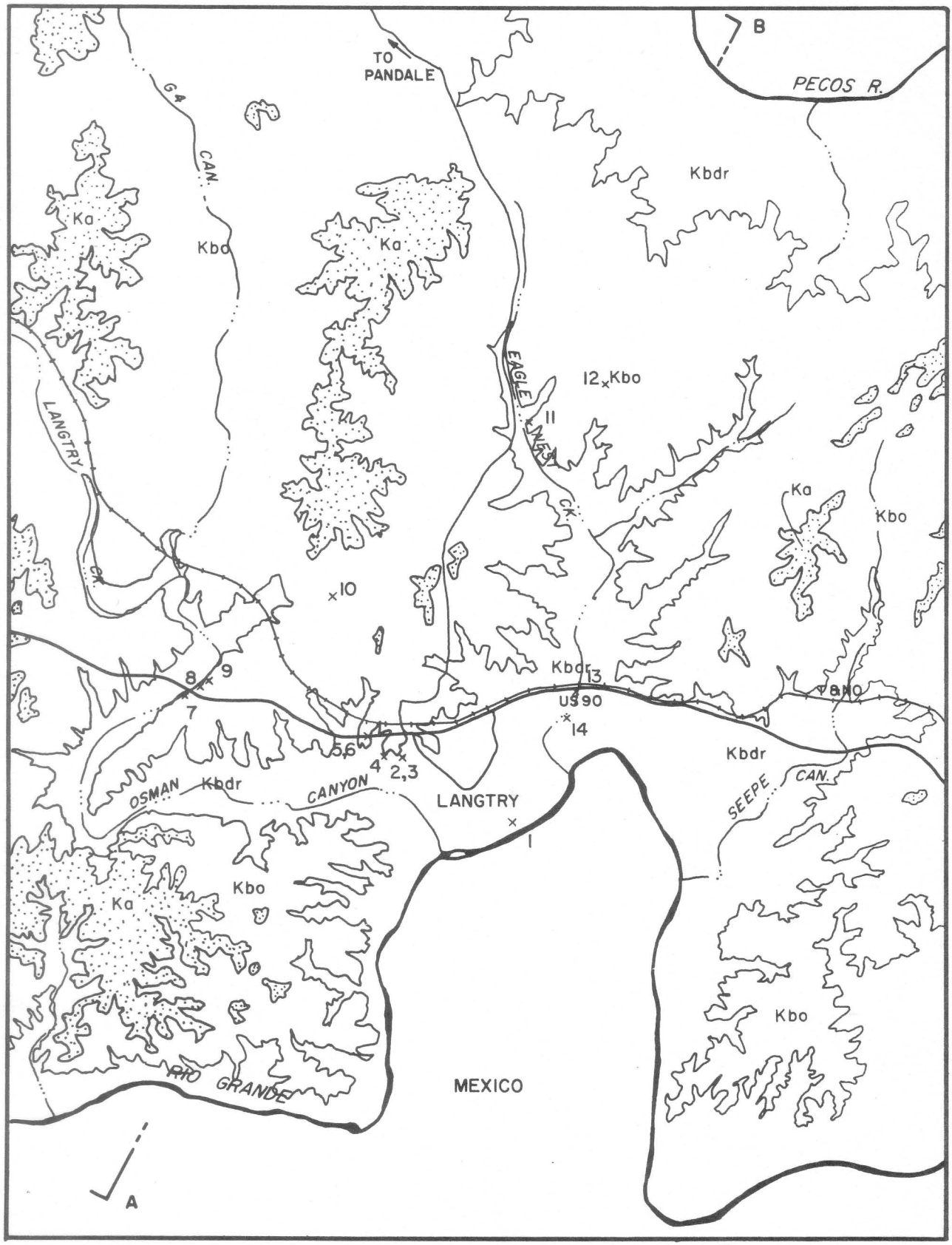
References:

Freeman, Val L. 1964. "Geologic map of the Langtry Quadrangle, Val Verde County, Texas." U. S. Geological Survey, Misc. Geologic Investigations I-422.

Lozo, F. E., and C. I. Smith. 1964. "Revision of Comanche Cretaceous stratigraphic nomenclature, southern Edwards Plateau, Southwest Texas." Gulf Coast Assoc. of Geological Societies, Transactions, 14:285-307.

Reddell, James R., and William H. Russell, eds. 1961. "The caves of Langtry." Texas Speleological Survey, 1(2):3-11, 15, 19, 21, 27.

INDEX TO CAVES OF LANGTRY AREA

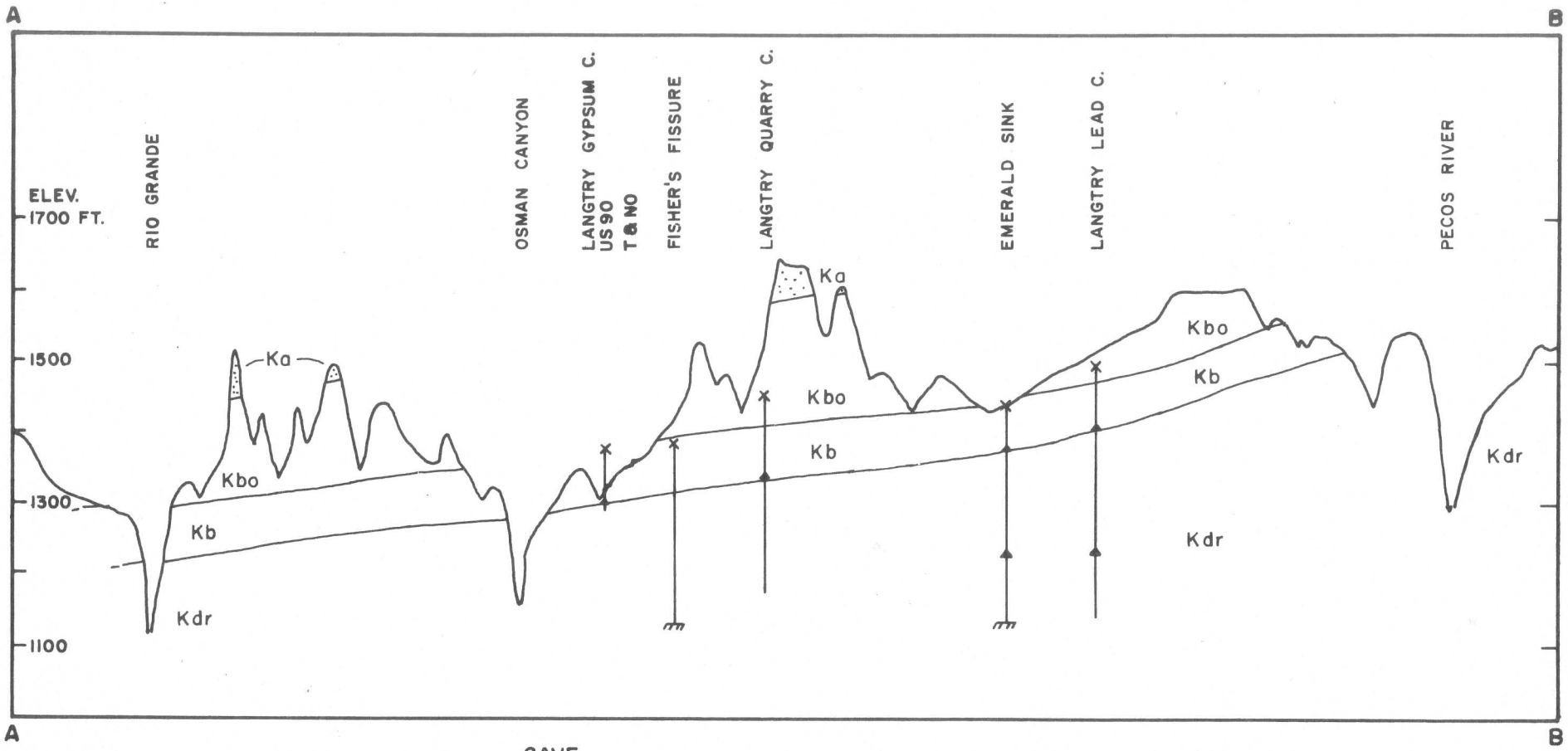


0 1 2 3 4 MI.

N_T

N_M

GEOLOGIC MAP OF THE
LANGTRY AREA



Ka AUSTIN CHALK

Kbo BOQUILLAS FLAGS

Kb BUDA LIMESTONE

Kdr DEVILS RIVER FORMATION

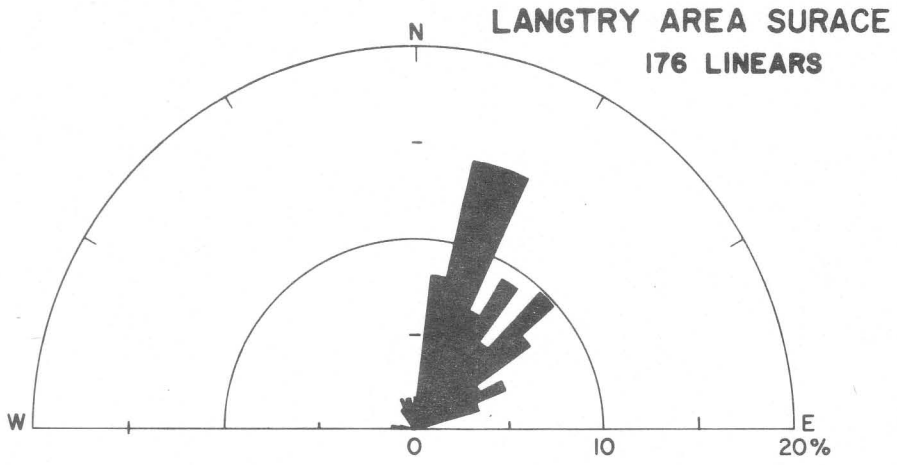
CAVE ENTRANCE

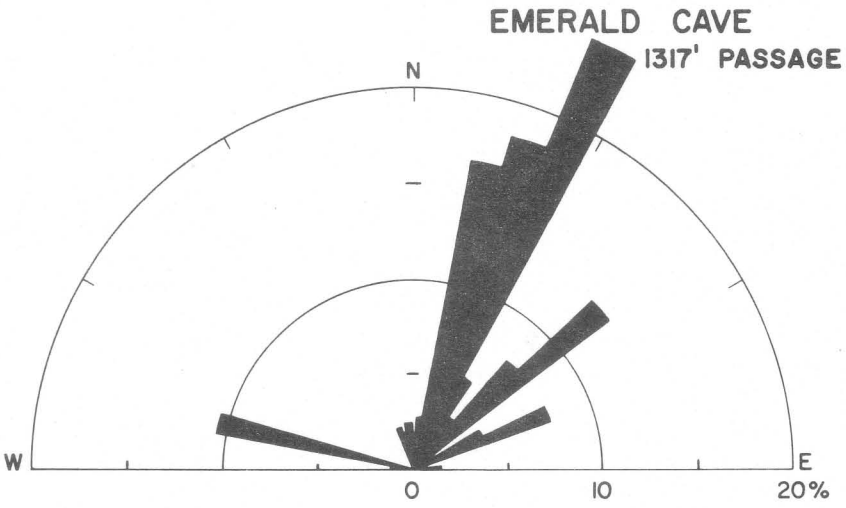
PRINCIPAL CAVE LEVELS

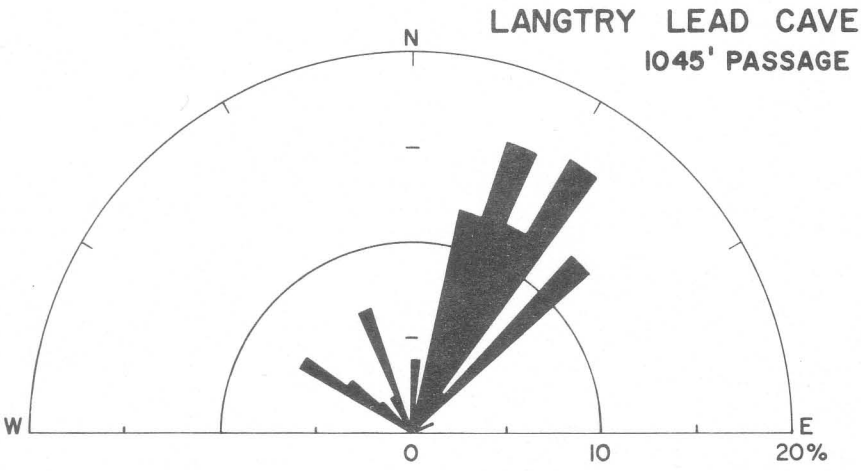
PERMANENT WATER

0 1 2 3 4 MI.

GEOLOGIC SECTION A-B
LANGTRY AREA, TEXAS


LANGTRY AREA SURACE
176 LINEARS
N
W
E
0
10
20%


EMERALD CAVE
1317' PASSAGE
N
W
E
0
10
20%


LANGTRY LEAD CAVE
1045' PASSAGE
N
W
E
0
10
20%

EMERALD SINK (EMERALD CAVE) Val Verde County (VV 30)

Langtry 15' Quadrangle

Owner: Arnem Humphries

Description: The entrance to Emerald Sink lies about 20 feet above the bed of Eagle's Nest Creek on a flat shelf of limestone. A 5 to 10-foot deep, 4-foot wide slot has been dissolved in the limestone for about 20 feet before the circular pit-type entrance to the cave. This "pit" is about 10 feet in diameter but numerous small ledges make the 20-foot climb into the cave fairly easy. This pit is covered with an emerald green moss, hence the name of the cave. At the bottom of the entrance a passage extends in both directions, bearing northeast-southwest. The passage to the southwest is formed sporadically on two levels with most of the connecting divisions between the levels gone. The passage is about 5 feet wide for 30 feet where it widens to about 10 feet and the ceiling rises to 10 to 20 feet. The floor of the passage is partly bedrock, but in places gravel and sand can be found. The largest formation in the cave is to be found about 50 feet down the passage, it being a great mass of flowstone 10 feet high and 15 feet in diameter. Several smaller formations may also be seen in the passage but none are alive and all are colored dirty brown. After about 200 feet the normally high passage becomes quite low and widens to 15 feet. A passage to the left connects to one to the right after about 20 feet, where a small 3-foot high room is formed, housing a few bats.

Going northeast from the entrance a high fissure striking almost due north-south is encountered. Here, one can either drop 15 feet down into the fissure and continue into the main part of the cave, or one may continue along the fissure into a 350-foot long passage, mostly stooping or crawling, to the top of a pit. This pit, 120 feet deep, drops to an 8-foot by 15-foot room with very poor air. The floor is covered with guano, sloping off the wall on the pit side. No leads extend from the bottom of the pit. The level of the bottom of the pit is the same as that of the larger, better known 142-foot pit.

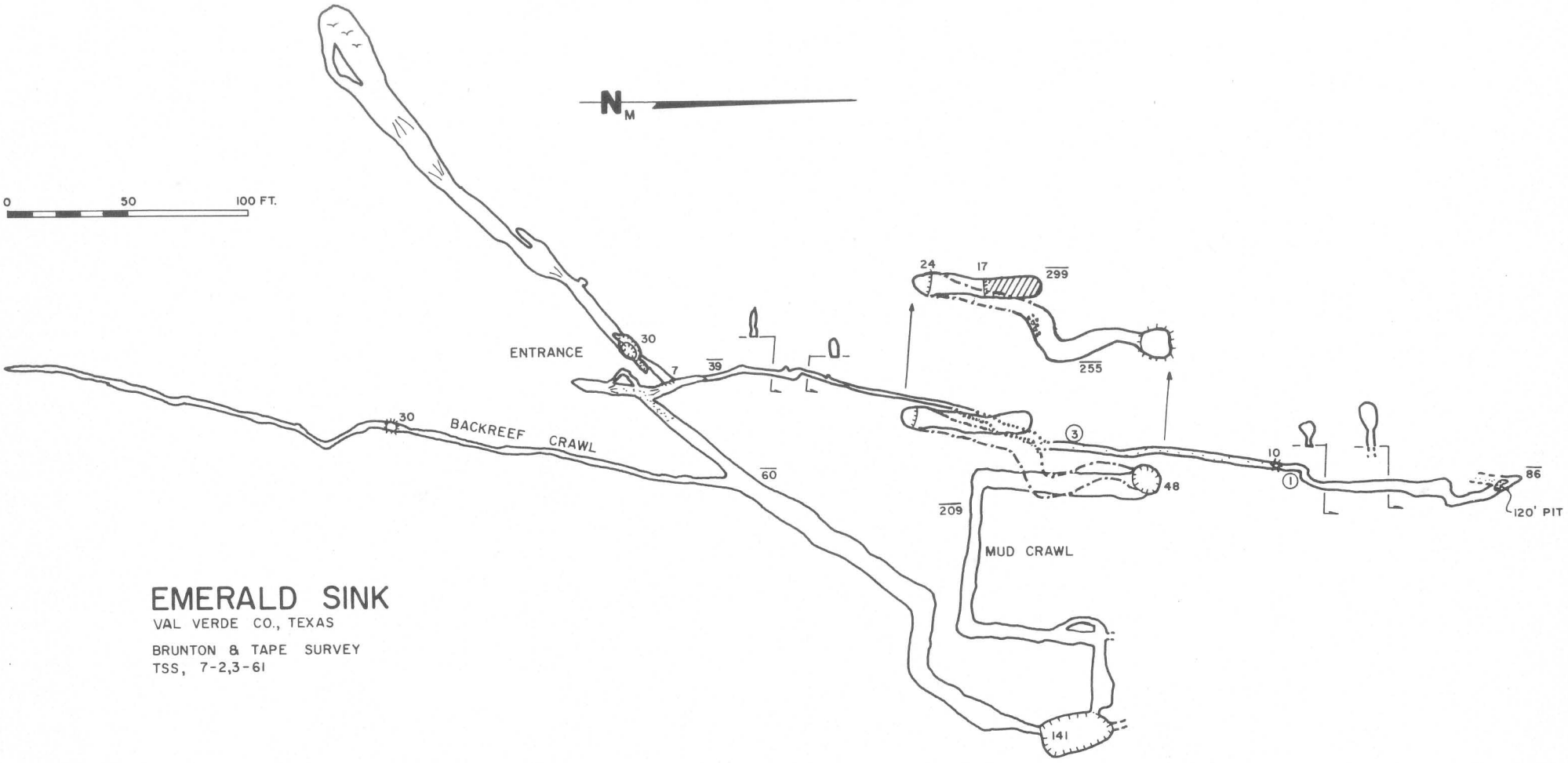
A second fissure paralleling the entrance fissure intersects this passage, going northeast. The floor of this passage from herr to the pit is covered with large surface gravel and small breakdown. The ceiling height varies from 6 feet at first and at two short duck-unders to 30 to 40 feet to just short of the pit where it is only about 15 feet high. Although only about 10 feet wide at first the passage widens to 20 feet and then narrows to 5 feet about 30 feet from the pit. About 75 feet down the passage another north-south fissure is encountered; this one, bearing the misnomer of Backreef Crawl, is a narrow, high fissure which extends 250 feet before it lowers to a 1-foot crawl for 20 feet, and then becomes a 20-foot high fissure once again. Two 30-foot domes, one before and one after the crawl, connect to form a short upper level. After the crawl it extends an additional 175 feet before it becomes very narrow and tortuous, finally becoming virtually too small to continue. The fissure ranges in width from 2 to 5 feet, the walls being covered with a strange reddish calcite (?) deposit, as well as numerous small fossils indicative of a backreef. The main passage continues striking northeast for about 150 feet from its junction with Backreef Crawl where it encounters a joint striking almost due east-west. After about 30 feet it again strikes northeast and after 30 feet ends in the pit. The pit seen from the top is a 5 to 7-foot wide, 20-foot long hole in the passage, which itself appears to continue beyond the pit. Bats roost either above the pit or in the passage

beyond the pit. The pit drops vertically, but against a wall, for about 90 feet, at which point it opens into the ceiling of a 50-foot high, 40-foot long, 25-foot wide room. A hole to the west leads from this room into a 20-foot wide, 1-foot high crawl over gravel for about 30 feet where it turns at a right angle to the south. Here the floor is of bedrock covered with several inches of mud and silt, the ceiling height averaging 3 feet. A second crawl is reported to lead from this crawl for a considerable distance but details are not available. The main crawl continues for about 50 feet, turns due west for 75 or 80 feet, and then turns due south for about 100 feet where it ends in the Guano Pit. The walls of this 50-foot deep pit for 25 feet are covered with guano and silt, but a keyhole at this point opens into the top of a room. Equipment is necessary at both of the main pits in the cave and at the latter pit there is no tie-off so an expansion bolt is essential. At the bottom of the pit a steep slope and short climbable drops let up climb down an additional 40 to 50 feet to a drop into a 3 to 6-foot deep lake. The total depth of the cave is about 300 feet. (See map, p. 81 and 83)

Biology: Biological collections were made in the cave on January 25, 1964, by James Reddell, John Porter, and David McKenzie; and on April 2, 1965, by James Reddell and Kenneth Christiansen. Bats were collected by Rick Remington and identified as Plecotus townsendii pallescens. The cave possesses an extremely interesting fauna and further collections will probably yield additional species. Two unquestioned troglobites have been taken from the cave, one of which represents an undescribed form. These are an isopod, Protrichoniscus cavernarum, and a spider, Cicurina sp. A complete faunal list follows:

Snails -- Hawaiia minuscula(Binney) -- troglophile or trogloxene
Isopods -- Metoponorthus pruinosus (Brandt) -- troglophile or trogloxene
Protrichoniscus cavernarum (Ulrich) -- troglobite
Spiders -- Cicurina sp. -- troglobite
Cicurina varians Gertsch and Mulaik -- troglophile
Nesticus pallidus Emerton -- troglophile
Diplura -- Japygidae -- Evalljapyx sp. -- troglophile (?)
Collembola -- Pseudosinella violenta -- troglophile
Crickets -- Ceuthophilus (Ceuthophilus) sp. -- trogloxene
C. (Geotettix) cunicularis Hubbell -- trogloxene
Beetles -- Carabidae -- Rhadine howdeni Barr and Lawrence -- troglophile
Ptilodactylidae -- Ptilodactyla sp. -- trogloxene (?)
Staphylinidae -- Stilicolina condei Jarrige -- troglophile
Rattlesnakes -- Crotalus atrox Baird and Girard -- trogloxene
Bats -- Plecotus townsendii pallescens (Miller) -- trogloxene
Myotis velifer incautus (Allen) -- trogloxene

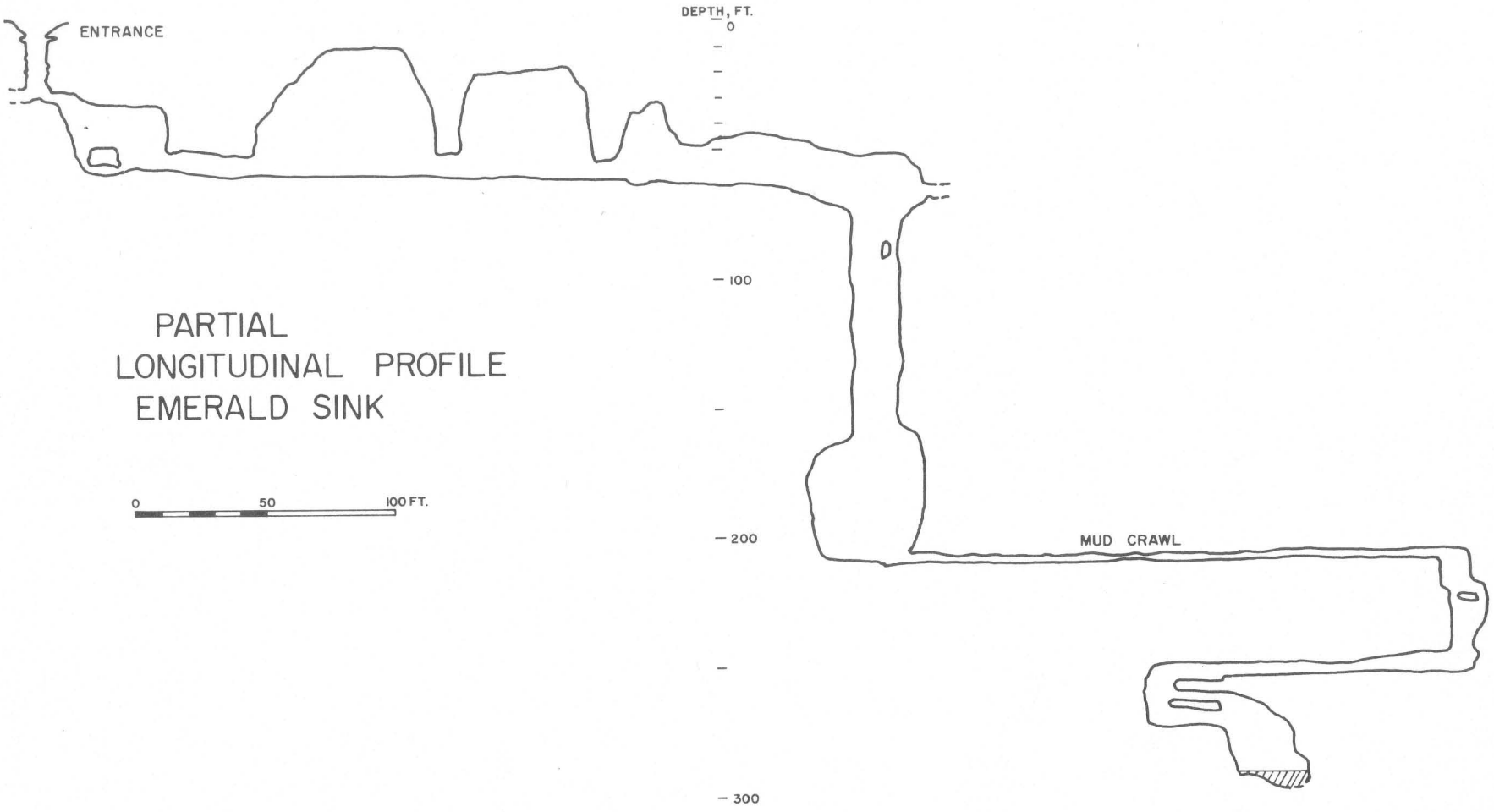
History: The cave was not known to spelunkers until 1958 when it was found while looking for Langtry Lead Cave. At that time it was explored to the pit by University of Texas Grotto members. A trip in March 1958 by Charles Curtis, Jay Maxwell, and Bill Russell explored the cave to the bottom. Several other trips have been made to the cave since that time. The 120-foot pit and the passage leading to it were discovered on April 2, 1965, by James Reddell. The cave was mapped to the top of the Guano Pit by Dick Smith, Bud Frank, Philip Russell, and James Reddell on July 2-3, 1961. A later surveying trip was made from the Guano Pit to the bottom. The passage to the 120-foot pit was surveyed by Joe Cepeda and other members of the University of Texas Grotto in 1967, but the pit has not been mapped.



EMERALD SINK

VAL VERDE CO., TEXAS

BRUNTON & TAPE SURVEY
TSS, 7-2,3-61



PARTIAL LONGITUDINAL PROFILE EMERALD SINK

Bibliography: Anonymous. 1961. "News of the Grottos." Tex. Caver, 6(7):84.
Anonymous. 1967. "News: San Antonio Grotto." Ibid, 12(6):88.
Kunath, Carl. 1965. Ye Olde History. 60 pp.
Reddell, J.R., ed. 1964. "A guide to the caves of Texas." 1964 National Speleological Society Convention Guide-Book, New Braunfels, Texas. 63 pp.
Reddell, J.R. 1965. "A checklist of the cave fauna of Texas. I. The Invertebrata (exclusive of Insecta)." Tex. J. Sci., 17(2):143-187.
Reddell, J.R. 1966. "A checklist of the cave fauna of Texas. II. Insecta." Ibid, 18(1):25-56.
Reddell, J.R. 1967. "A checklist of the cave fauna of Texas. III. Vertebrata." Ibid, 19(2):184-226.
Russell, W.H. 1960. "Distribution of caves in Texas." Natl. Speleol. Soc. News, 18(7):82.
Schultz, G.A. 1965. "Terrestrial isopods from caves and mines in Texas and northern Mexico with a description of Venezillo tanneri(Mulaik and Mulaik) allotype." Tex. J. Sci., 17(1):101-109.
Smith, A.R. 1968. "Distribution of caves in Texas." Tex. Caver, 13(1):4.
Vandel, A. 1965. "Les Trichoniscidae cavernicoles (Isopoda Terrestria; Crustacea) de l'Amerique du nord." Annal. Speleol., 20(3):347-389.

Ref: TSS files

FISHER'S FISSURE (FISHER SINK) (LANGTRY SINKHOLE) Val Verde County (VV 37)

Langtry 15' Quadrangle

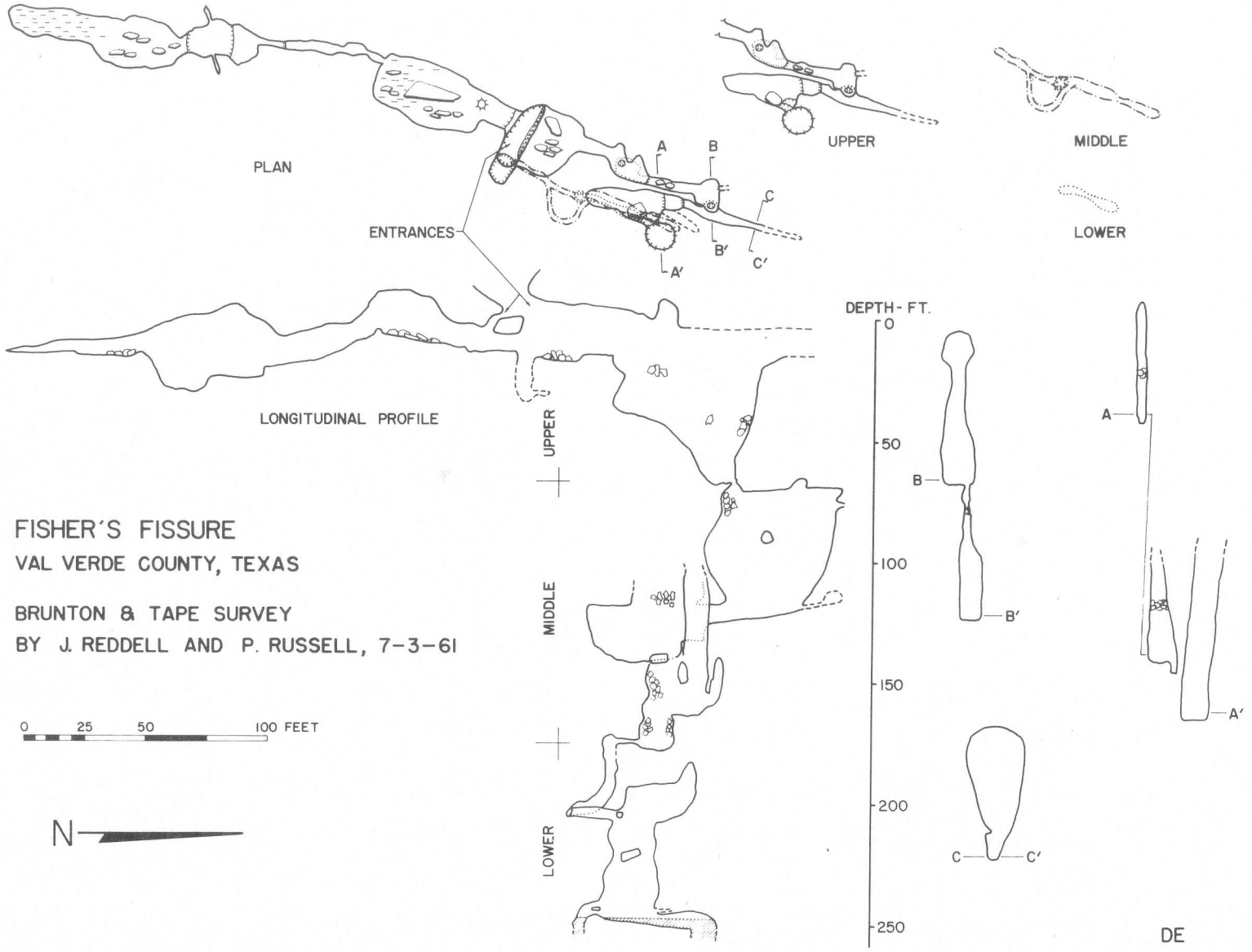
Owner: J.E. (?) Fisher

Description: The entrance to Fisher's Fissure lies at the mouth of a small feeder canyon emptying into Osman Canyon and about 20 feet above the bed of Osman Canyon. The entrance is essentially one large solution sink with two holes leading off. The main entrance is about 10 feet wide and 20 feet long, while the the second is a small hole about 3 feet in diameter and located to one side of the main entrance. The main entrance drops about 20 feet into the entrance room while the smaller entrance drops about 15 feet into a passage extending to the south. The two entrances are connected by a short passage. The passage extending from the small entrance is 15 feet high, 20 feet wide and floored with large breakdown and clay fill. After about 150 feet the passage drops a few feet into a 2-foot wide, 20-foot high fissure floored with bedrock. After a short distance a 10-foot drop lets you into a 15-foot wide, 15-foot high, 30-foot long room floored with clay and breakdown. Holes in this breakdown lead down to lower blocked crawls and small domes. In this area a running stream was encountered in April 1968. At the south end of the room a steep slope of clay leads through a narrow fissure only 3 feet wide until a 20-foot wide, 3-foot high, 25-foot long room is reached. This room is blocked by clay fill on all other sides. At times the clay in this room is dry and infested with fleas.

The room at the bottom of the main entrance is circular and about 20 feet in diameter. It is floored with breakdown and has a 5-foot deep slump pit in its center. A 15-foot deep pit along the southeast side of the room leads to a small dead-end crawl. A 2- to 3-foot wide fissure leads north out of the room for 15 feet before opening into a small "room" 10 feet wide and 15 feet long. At the end of the room the fissure narrows again and the floor drops away, ledges allowing you to traverse the top of the deep fissure for 30 feet where it is possible to climb onto a breakdown pile and reach a 25-foot high dome in a short dead-end passage. A hole in the room about 4 feet in diameter lets you onto the steeply sloping floor of the fissure 20 feet down. The bottom of

the fissure drops steeply down, in places being vertical for a few feet, until the bottom of the fissure is reached. At the bottom a 10-foot in diameter room has formed with a small hole, partly covered by a large boulder, letting you climb 10 feet down onto a plug of rocks wedged in a 30-foot long, 3-foot wide fissure paralleling the fissure at the entrance. Although part of the chimney can be climbed it widens to 10 feet after a short distance and equipment is necessary to reach the floor 45 feet below. At the bottom a passage leads north for a short distance as a crawl before opening into a small dead-end room. To the south a 6-foot drop may be climbed to a point where three fissures intersect to form a room about 20 feet in diameter. It is necessary to chimney one of the fissures about 10 feet down into the room. From here a hole on the left drops 8 feet to a ledge and then drops vertically for 30 feet, only part of which can be climbed. At the bottom of the drop a passage leads back to the bottom of a 50 to 70-foot high dome. From this point an 8-foot drop lets you into a small room from which a 15-foot long crawl leads to a circular pit, 30 feet deep and 4 feet in diameter. Although it can be chimneyed it is desirable to have equipment for the drop. At the bottom of the pit, which is covered with mud, a muddy passage leads immediately to a 10-foot drop. A passage to the right leads to a 10-foot drop into a low muddy crawl ending in breakdown. A passage to the left extends back under the main part of the cave for about 75 feet where it ends as a 45-foot pit, which is the same fissure along which the high dome is formed. The pit is about 3 feet wide at the top and 20 feet long, with no passage on the opposite side. At the bottom, the pit widens to 5 feet and has water at the bottom at times. The passage at the bottom ends quickly to the south, while to the north it extends for 5 feet as a 4-foot high passage, then as a high passage for a short distance further before it ends in an extremely deep pool, the ceiling meeting the water level. A crawl to the left past the duck-under has not been explored because of a tight place at its beginning. It quickly opens up to a 2-foot high, 3-foot wide passage, however, and can be seen to extend for at least 20 feet. Further exploration at the water level will require use of aqua lungs. The total depth of the cave is 250 feet. (See map, p. 87)

Biology: Robert C. Schroeder collected crickets in the cave on January 12, 1964; while Terry Raines made a small biological collection on January 8, 1965. The crickets have been identified as Ceuthophilus (Ceuthophilus) sp. and C. (Geotettix) cunicularis Hubbell. A troglophilic carabid beetle, Rhadine howdeni Barr and Lawrence, is also reported from the cave. A small collection of invertebrates was made in the entrance room on April 13, 1968, by James Reddell. This included tenebrionid and other beetles, spiders, and crickets. A colony of Townsend's Big-eared Bat, Plecotus townsendii pallescens (Miller), was present in the south passage. About 100 individuals were seen, but the colony was certainly larger. Mist nets placed at the entrance on the night of April 13, 1968, by Tony Mollhagen and James Reddell captured six species. The presence of so many species in a single cave indicates the value of netting caves and points to the need for additional nettings of caves in this area. In addition to Plecotus, which were captured leaving the cave about dark, a large series of the Pallid Bat, Antrozous pallidus (LeConte), were captured entering the cave about 8:30 p.m. This indicates that the cave may be used as a night roost. A few individuals of the following species were also captured entering the cave from 8:30 p.m. to 11:00 p.m.: Myotis velifer incautus (Allen), Myotis yumanensis yumanensis (H. Allen), Pipistrellus subflavus (Cuvier), and Tadarida brasiliensis mexicana (Saussure). The record of the Eastern Pipistrelle, Pipistrellus subflavus, is of special interest since this represents the first record of this species west of the Pecos River. Many of the bats were found to be parasitized heavily by mites and flies of the family Streblidae. Antrozous pallidus was heavily parasitized by wingless flies of the rare family Nycteribiidae. Ground temperature near the end of the south passage on April 13, 1968, was 21°C.



FISHER'S FISSURE

VAL VERDE COUNTY, TEXAS

BRUNTON & TAPE SURVEY

BY J. REDDELL AND P. RUSSELL, 7-3-61

DE

History: The first reported exploration of the cave by a group of spelunkers was in 1958 when a group from the University of Texas Grotto in conjunction with members of other caving groups explored the cave to its end. This group included Tom Woods, Bob Riddle, Charles Curtis, Jay Maxwell, and Bill Russell. Many additional trips to the cave have failed to yield any new passage. The cave was mapped on July 3, 1961, by James Reddell and Philip Russell to the top of the circular pit. The map was completed in August, 1961, by James Reddell, Philip Russell, and T.R. Evans. This cave is one of the most frequented in the area because of its ease of access. No records of trips other than the above are available, however.

Bibliography: Anonymous. 1961. "News of the Grottos." Tex. Caver, 6(1):84.
Reddell, J.R. 1964. A guide to the caves of Texas. Abilene, Texas: R. & R. Reproduction Co. 63 pp.
Reddell, J.R. 1966. "A checklist of the cave fauna of Texas. II. Insecta." Tex. J. Sci., 18(1):25-56.

Ref: TSS files

GARDNER'S FALL PIT — Val Verde County (VV 43)

Langtry 15' Quadrangle

Owner: J.E. Fisher

Description: The entrance to Gardner's Fall Pit is an elongate slot about 20 feet long and 3 feet wide located at the edge of the bluff overlooking Osman Canyon and fairly close to Fisher's Fissure. The entrance wall on the bluff side is of solid limestone, but on the other side it is loose "grode". The fissure drops about 50 feet, with a second steeply sloping drop leading out at the southwest end of the fissure. This hole slopes down about 10 feet before dropping vertically for an additional 10 feet. This opens into one end of a sloping passage 10 feet wide and 6 feet high. This passage extends about 15 feet where it intersects a steeply sloping fissure up to the left. This slopes up for about 10 feet before again sloping steeply down for a vertical distance of 30 feet, finally dropping vertically an additional 10 feet, intersecting the main passage.

The main passage extends beyond the junction as a steeply sloping, breakdown-floored passage for about 25 feet before dropping vertically 20 feet into a junction room with the side passage. From here the passage continues for about 10 feet and then turns abruptly to the northwest. This extends about 15 feet, at which point a 3-foot high crawl to the left extends about 10 feet to a 10-foot high dome and ends. Beyond this crawl the passage, after 10 feet, intersects at right angles a fissure running both directions from the junction. This fissure extends at least 25 feet both ways, but it is not known if it ends here or not. (See map, p. 91)

History: The cave was discovered by Gardner and others, but details of this trip are unavailable. It was mapped by John Fish, Eugene Blum, and Robert Burnett on November 14, 1965.

Ref: TSS files

LANGTRY EAST GYPSUM CAVE (ROAD CUT CAVE) (LANGTRY CAVE) Val Verde County (VV 50)

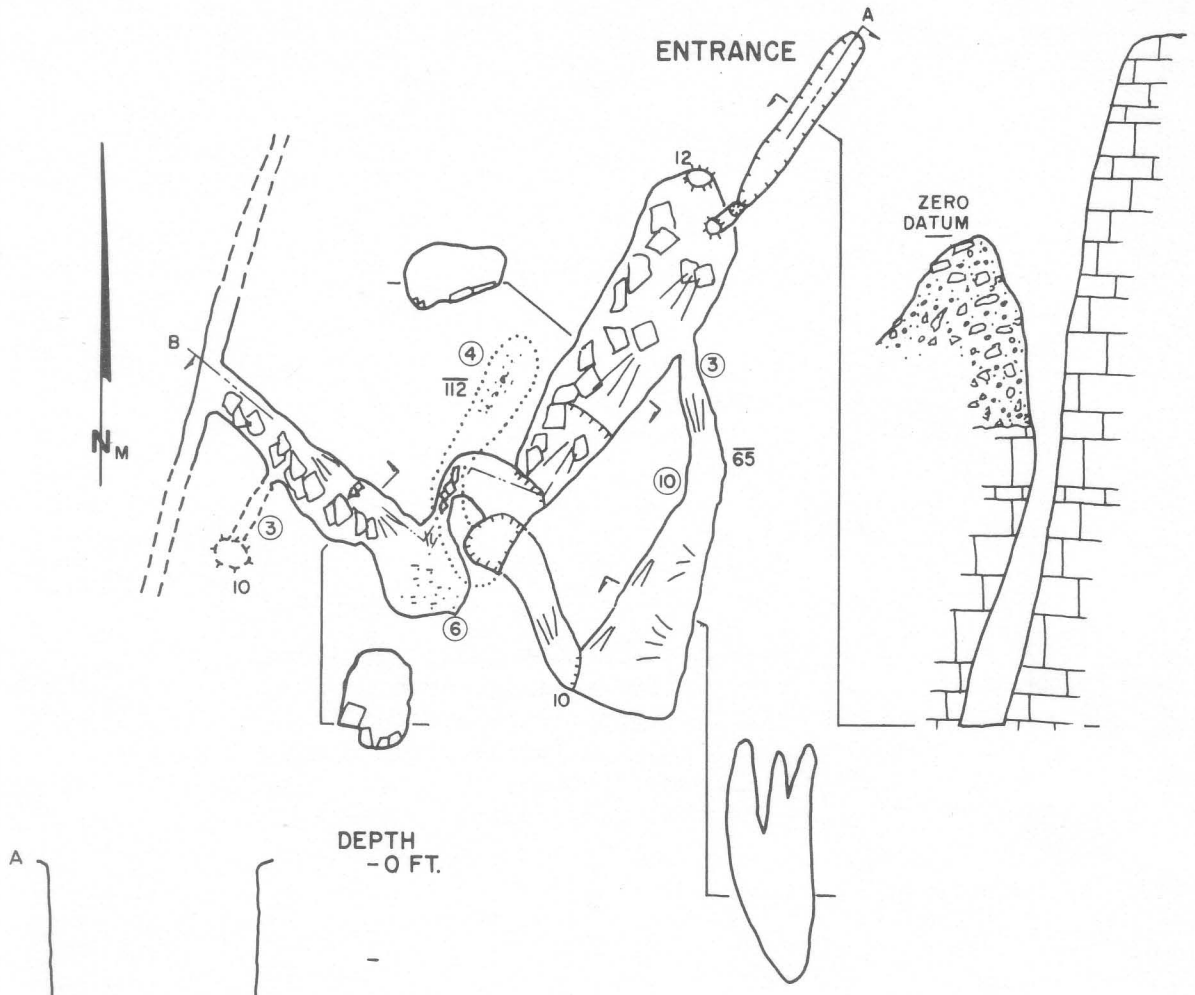
Langtry 15' Quadrangle

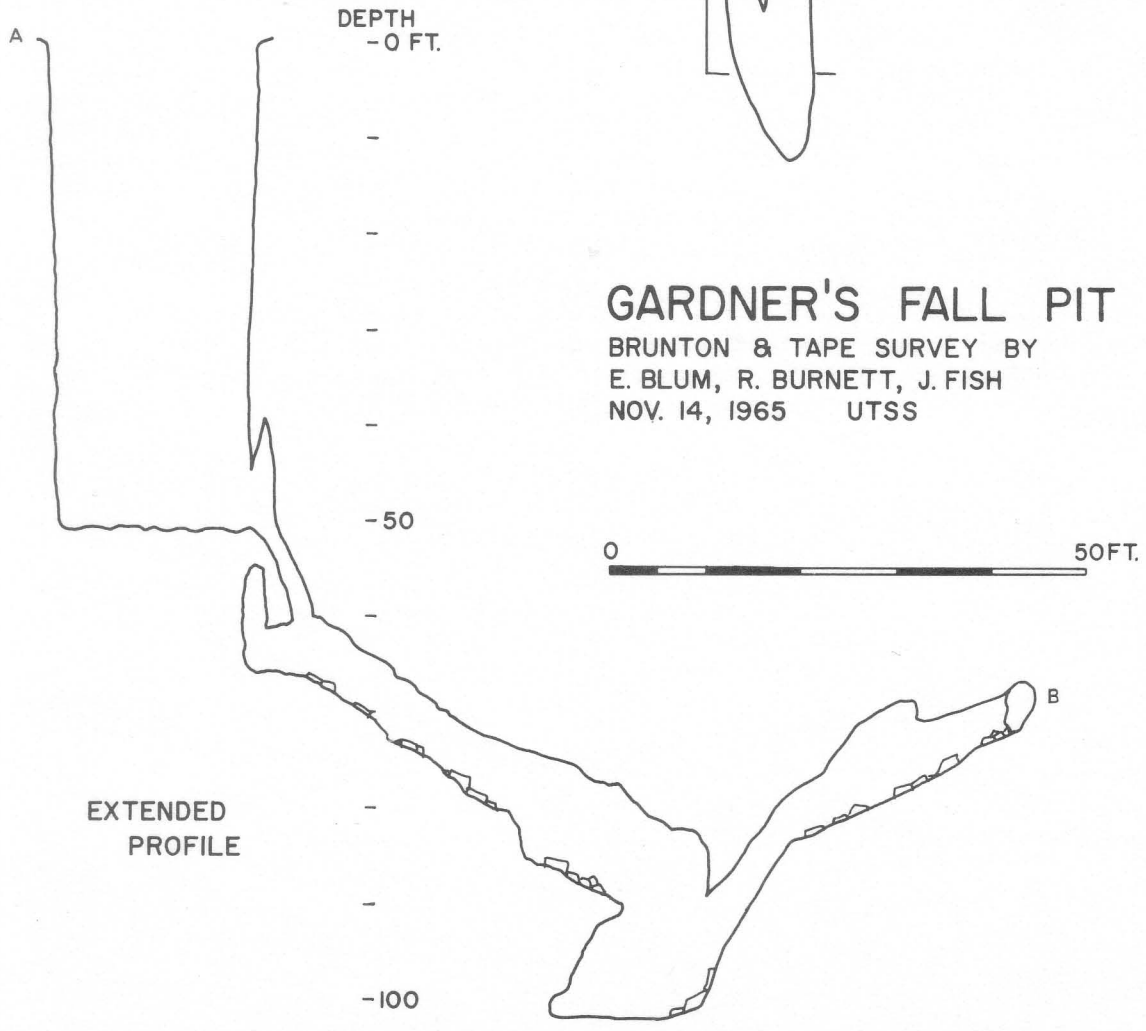
Owner: State of Texas

Description: The entrance to Langtry East Gypsum Cave is on the north side of US 90 in the same highway cut that Langtry Gypsum Cave is located. The cave is located about 100 feet east of the western cave. A hole opposite the cave entrance in the road cut extends only about 10 feet before ending, it apparently having been filled by the highway crew. An 18-inch in diameter hole drops almost vertically from the side of the cut for about 10 feet where it hits a breakdown plug in the main fissure along which the cave is formed. From this point the cave drops 46 feet to the floor of the cave, here covered with small breakdown. The drop is unclimbable, rapidly opening to 15 feet wide after being narrow enough to chimney for about 15 feet. At the bottom the cave extends south under the highway for about 75 feet where a slope goes down and then back up. The cave here becomes a narrow fissure with much breakdown wedged in the passage. The walls are covered with a shimmering orange- and bronze-colored gypsum encrustation. After about 100 feet a small duck-under leads into a small passage which soon becomes too small to negotiate. Going north from the entrance the passage extends as a narrow 20-foot high passage for about 30 feet where a slope leads up for a few feet, just after a gentle turn to the right and a change in the passage to a higher, narrower fissure. The walls in this part and in the remainder of this fissure and that paralleling it are completely covered with pure white gypsum in the form of delicate gypsum flowers, flakes, hair-like clumps of gypsum whiskers, and long selenite needles. After about 300 feet of this passage and a narrow parallel fissure the passage ends. It also dead-ends to the south from its junction with the entrance fissure after about 30 feet. Just before the northern end of the passage a low wide crawl extends for about 30 feet to a small room with breakdown along the left wall. From here the passage extends for about 125 feet as a low, three- to four-foot wide passage floored with small breakdown and sand formed primarily of gypsum. The passage finally pinches out. In general this cave has suffered much less than has Langtry Gypsum Cave. The difficulty of entrance, as well as the smallness of the entrance, has discouraged most people from entering the cave. Also the formations are not suitable for sale and are not spectacular for collections as are those in the larger and better-known cave.

Biology: Several large spiders of the genus Ctenus, representing a new species, were collected from the walls of the cave on January 25, 1964, by James Reddell, David McKenzie, and John Porter. In general the cave is dry and sterile.

History: The cave, like Langtry Gypsum Cave, was opened by a road-crew digging through a small hill near Langtry. It is not known if the entrance was uncovered at that time or if it opened later. The latter is more likely since it is not mentioned by White (1948) when he described Langtry Gypsum Cave. The first reported exploration was in the early 1950's when a group from the University of Texas Grotto made a trip to the area. At that time they lacked the equipment necessary to descend to the bottom, but further trips were made to the cave and it is now fully explored. It was mapped in August 1961 by James Reddell, Philip Russell, and T.R. Evans. (See map, p. 95)





GARDNER'S FALL PIT

BRUNTON & TAPE SURVEY BY
E. BLUM, R. BURNETT, J. FISH
NOV. 14, 1965 UTSS

0 50FT.

Bibliography: Reddell, J.R., ed. 1964. A guide to the caves of Texas. R. & R. Reproduction Co., Abilene, Texas. 63 pp.
Reddell, J.R. 1965. "A checklist of the cave fauna of Texas. I. The Invertebrata (exclusive of Insecta)." Tex. J. Sci., 17(2):143-187.
Ref: TSS files

LANGTRY GYPSUM CAVE (LANGTRY CAVE) (CRYSTAL CAVE) Val Verde County (VV 51)

Langtry 15' Quadrangle

Owner: State of Texas

Description: The cave is entered by a 3-foot wide, 6-foot high hole in a road cut on the south side of US 90 west of Langtry. The passage extends about 15 feet into the hill, the last 10 feet being the top of a 52-foot high fissure. The fissure may be chimneyed, but a rope is desirable. Near the bottom of the fissure the passage widens to 15 feet, the floor being covered with small breakdown. A breakdown slope to the south extends for about 60 feet where it dead-ends. A small hole in the floor near the end leads to a room about 10 feet down but nown, but no passages lead from the small room. Going north from the entrance, under the highway, the passages goes down a breakdown slope, reaching the deepest part of the cave at about 65 feet. From here to the end the passage is essentially a high fissure, 10 to 20 feet wide at the bottom of the fissure, narrowing to only a few inches near the top, some 30 to 50 feet up. After about 200 feet the passage rises slightly up a breakdown slope. The walls here are lined with numerous gypsum crystals ranging from a fraction of an inch to several inches in length and in color from clear to orange. A small side passage to the left dead-ends after only a few feet. Here the passage, which has been about 20 feet wide, narrows to only 5 to 10 feet and the ceiling rises. After about 250 feet further the passage makes a slight bend to the left, continues for an additional 150 feet, and ends in a hole too small to enter. The floor throughout the cave is of small breakdown and gypsum sand. The walls of the cave are almost entirely covered with slabs of gypsum, both as powdery flakes and as large crystals. Local mineral collectors have done great damage to the cave. The crystals have been taken both for private collections and to sell to tourists. There are still enough crystals remaining, however, to make the cave a very attractive one. Temperatures were taken in the cave on April 13, 1968, at about 3:00 p.m. Air temperature at the end of the short dead-end passage south of the entrance was 22°C. Both air and ground temperature at the end of the north passage were 24°C. (See map, p. 95)

History: The entrance to both this cave and Langtry East Gypsum Cave were uncovered by workers laying US 90, when they cut into a small hill prior to 1948. The cave was visited by Bob Hudson and Gordon Danz, pioneering Texas cavers, in March 1955. Since that time it has been visited by almost every group of cavers to visit the Langtry area. The cave was mapped on July 3, 1961, by Bud Frank, James Reddell, Philip Russell, and Dick Smith.

Bibliography: Estes, J.H. 1962. "Noteworthy caves of Texas." Tex. Almanac: 1961-1962, p. 63.
Hudson, Bob. 1955. "Caves of Big Bend, Texas." Natl. Speleol. Soc. News, 13(7): 5, 8.
Newell, W.J. 1967. "Highway 90. Del Rio to Sanderson." Newell-Gulf Road Log 1w.

Reddell, J.R., ed. 1964. A guide to the caves of Texas. R. & R. Reproduction Co., Abilene, Texas. 63 pp.
Walker, Jimmy. 1957. "Wild caves of Texas: an underground wonderland." Texas Parade, April, 1957, pp. 16-18.
West Texas Geological Society. 1959. Geology of the Val Verde Basin and Field Trip Notebook: Nov 5, 6, 7, 8, 1959.

Ref: TSS files

LANGTRY LEAD CAVE (LEAD CAVE) (BIG TREE CAVE) Val Verde County (VV 52)

Langtry 15' Quadrangle

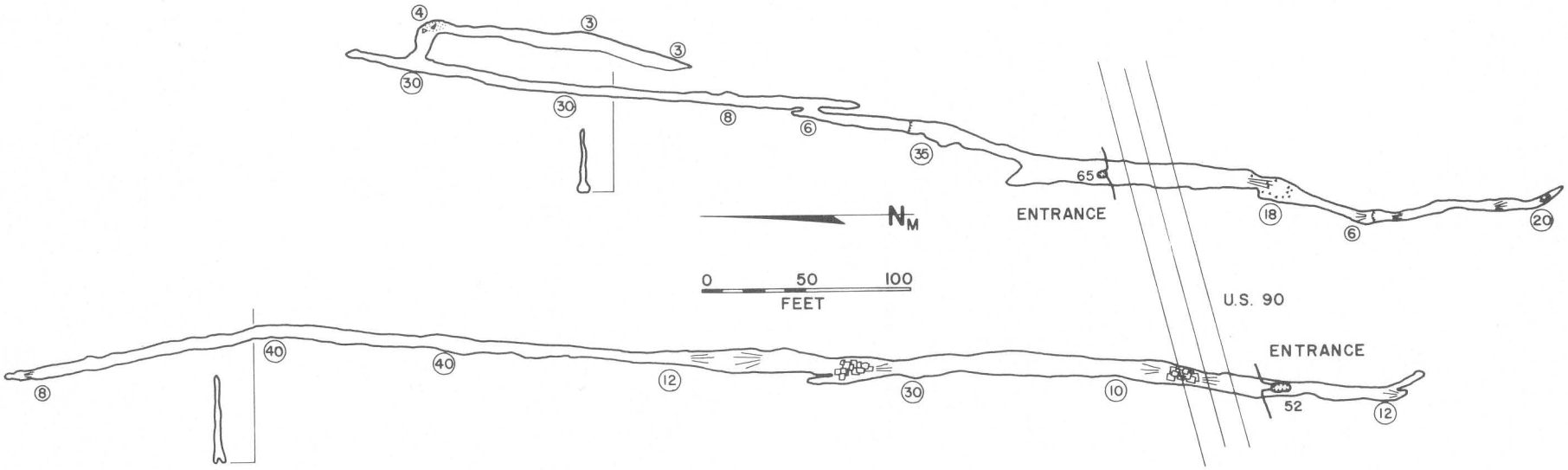
Owner: Arnem Humphries

Description: The entrance to Langtry Lead Cave is a 45-foot long, 25-foot wide sink, the vertical walls dropping about 40 feet to a floor of shaly limestone which has fallen from the sides and been washed in. A draw empties into the sink. Until the summer of 1961 a large, dead oak tree grew from the sink; a heavy rain brought down the rotten tree, which now lies at the bottom of the sink. To the south a small crawl opens into the top of a small room about 15 feet high. Although the entrance sink is in the shaly Boquillas Flags the crawl and remainder of the cave are in a very fine white limestone. The floor of the small room near the entrance is of small rocks and silt, but after about 30 feet the floor is of bedrock. A duck-under immediately after the small entrance room opens into a 20-foot high room about 15 feet in diameter. Both of these rooms are infested with harvestmen and cave crickets. At the end of the room a walking passage leads for a few feet to a 10-foot drop, about 20 feet more and then a 20-foot drop. Here several high domes extend upward to the Boquillas some 30 to 40 feet above the floor of the cave. The passage at this point is essentially a narrow fissure and the drops may be chimneyed with little difficulty. A reddish-brown gypsum encrustation covers the walls of this part of the cave, the size of the crystals ranging up to several inches in length. This passage ends, but is connected to an identical high fissure by a 6-foot high passage only a few feet long and by a crawl only a few feet in length. The fissure extends in both directions, ending to the north after about 30 feet and to the south after about 20 feet. A short duck-under to the right lets one into the same fissure which had ended before. After about 100 feet the passage leads over breakdown and into the only room of any size in the cave. This breakdown-floored room is 100 feet long, 60 feet wide, and 20 to 40 feet high. Along the right side of the room there is a high fissure-like dome 30 to 40 feet high and 20 feet long. At the same end of the room as the entrance into it a parallel fissure to the right leads out, passing over two 15-foot deep pits which go nowhere, and into a third pit. This leads to a room about 20 feet in diameter and 20 feet high, connected to the entrance fissure by a window 15 feet above the floor. Several fine gypsum flowers may be seen on the walls and ceiling of the room and the entire walls are covered with large crystals. A small hole leads from the room and spirals down for a few feet. At the end of the spiralling crawl a 6-foot deep pit drops into a 3-foot high crawl which extends for about 150 feet before ending in an 18-foot pit. Although this crawl is usually very dry a few trips have found it almost blocked by water. In July 1961, following a recent flood, the crawl contained up to one foot of water, leaving only four inches of air-space over that part of the crawl near the entrance. With the exception of a few small pools this was the only water found in the cave. At the bottom of the pit two passages

BRUNTON & TAPE SURVEY
UTSS

LANGTRY EAST GYPSUM CAVE

VAL VERDE CO., TEXAS



LANGTRY GYPSUM CAVE

VAL VERDE CO., TEXAS

O.K.

take off, that to the south leading to a room about 40 feet long, 15 feet wide, and 10 feet high. A small pit in turn leads to two smaller rooms, from which a too small drainage channel is cut in the red clay almost filling the rooms. Much silt is also encountered in these rooms. Two chimneys from the larger of the rooms lead to a maze of small crawls about 20 feet above the floor; selenite needles were found on the clay floor of the crawlway maze. In the other direction from the bottom of the 18-foot pit a 50-foot long stoopway leads to the Hall of the Unicorns, a very straight passage 200 feet long. Along the right side of the passage clay fill remains despite the violent floods to which the cave is subject. A climb of some 8 feet at the end of the Hall leads to a crawl over clay fill to a small room about 10 feet in diameter and height. Much digging would be required to extend the cave further in this direction. Selenite needles up to four inches long were found in this passage. All along the ceiling of the Hall of the Unicorns there are numerous rudistids. These fossils frequently protrude several inches from the wall or ceiling to resemble a unicorn horn. To the left of the Hall a steep slide leads for 15 feet to the main drops in the cave. The main pit, which is at the end of this slide, consists of a steep slope dropping 50 feet to a ledge and then vertically for an additional 50 feet to a round gravel-bottomed pit. From this pit a walking passage extends for about 20 feet to a short drop and then a few more feet to a tight crawl. The crawl required excavation to enter, but after about 20 feet of loose dirt and gravel it opened to a 1-foot high, 3-foot wide crawl. This continues about 300 feet at which point a gravel bar rises to within a few inches of the ceiling. An air current strong enough to blow out a carbide light is present. This passage also takes most of the flood water entering the cave, as evidenced by great quantities of silt in the bottom room. The cave apparently fills to this point and then overflows down this crawl. The water left in the bottom then drains through a small drainage channel at the end of the last room in the cave. To the south of the gravel-bottomed pit a very steep slope drops about 20 feet to the top of a double-bottomed pit, 30 feet deep. This pit has been cut in half by a large saddle 5 feet from the top. At the bottom of this pit a steep slope leads down for about 20 feet to a 50-foot long, 5-foot wide passage ending in a 30-foot deep circular pit dropping vertically. At the bottom of the pit a steep slope extends down an additional 25 feet to the bottom of the cave, 371 feet below the entrance. A small drain leads downward at a steep angle but is too small to enter. A steep slope leads back from the bottom of the pit for about 50 feet, rising a total of 30 feet to the top of a 30-foot pit. A passage extends from the bottom of this pit for about 100 feet to the bottom of a very high dome which can be climbed about 50 feet before it becomes unclimbable. It can be seen, however, to rise much higher. (See map, p. 99, 101)

Biology: A collection of invertebrates was made in the cave on January 25, 1964, by James Reddell, David McKenzie, and John Porter. Only one species of troglobite is known, an isopod (Protrichoniscus cavernarum). A ringtail, Bassariscus astutus, has been seen in thee ntrance area. Rattlesnakes, Crotalus atrox, are frequently found at the bottom of the entrance sink or in the crawl. A complete faunal list follows:

Isopods -- Protrichoniscus cavernarum (Ulrich) -- troglobite
Spiders -- Cicurina sp. (imm, eyed) -- troglophile
Nesticus pallidus Emerton -- troglophile
Termites -- unidentified -- accidental
Crickets -- Ceuthophilus (Ceuthophilus) sp. -- trogloxene
C. (Geotettix)cunicularis Hubbell -- trogloxene

Beetles - Alleculidae, gen. et sp. (larva) -- troglophile
Staphylinidae - Stilicolina condei Jarrige -- troglophile
Tenebrionidae - Eleodes carbonaria (Say) -- trogloxene
Rattlesnakes -- Crotalus atrox Baird and Girard -- trogloxene
Ringtail -- Bassariscus astutus (Lichtenstein) -- trogloxene

History: The cave has been visited many times by local people, who know it by the name, Big Tree Cave. The cave was believed to end in the big room, however. Early trips by the University of Texas Grotto reported that the cave ended in lower gravel-filled crawls. In 1958 the cave was first entered by Bill Russell and other members of the University of Texas Grotto who reached the pit at the Hall of Unicorns. A trip was made in 1959 by Bill Russell, Roger Sorrells, and Jim Tennison and the bottom of the cave was reached, but the pit at the top of the slope up from the terminal room was unchecked. This pit was explored in the fall of 1959 by Bill Russell, James Reddell, Bud Frank, Jim Tennison, and Bill Irving. The cave was mapped from the entrance to the beginning of the Hall of Unicorns in April 1961 by James Reddell, Dudley Roberts, and Bud Frank. In July 1961 the map of the cave was completed by Bud Frank, Dick Smith, Philip Russell, and James Reddell. The cave has been visited many times by cavers throughout Texas. The only trips available at this time were ones made by members of the San Antonio Grotto in 1967.

Bibliography: Anonymous. 1967. "News: San Antonio Grotto." Tex. Caver, 12(6):88.
Anonymous. 1967a. "News: San Antonio Grotto." Ibid, 12(10):140.
Estes, J.H. 1962. "Noteworthy caves of Texas." Texas Almanac: 1961-1962, p. 6.
Kunath, Carl. 1965. Ye Olde History. 60 pp.
Reddell, J.R. 1964. A guide to the caves of Texas. R. & R. Reproduction Co., Abilene, Texas. 63 pp.
Reddell, J.R. 1965. "A checklist of the cave fauna of Texas. I. The Invertebrata (exclusive of Insecta)." Tex. J. Sci., 17(2):143-187.
Reddell, J.R. 1966. "A checklist of the cave fauna of Texas. II. Insecta." Ibid, 18(1):25-56.
Reddell, J.R. 1967. "A checklist of the cave fauna of Texas. III. Vertebrata." Ibid, 19(2):184-226.
Smith, A.R. 1968. "Distribution of caves in Texas." Tex. Caver, 13(1):4.
Sorrells, Roger. 1959. "Lead Cave." Ibid, 4(2):10-11, 17.
Vandel, A. 1965. "Les Trichoniscidae cavernicoles (Isopoda Terrestria; Crustacea) de l'Amerique du Nord." Annal Speleol., 20(3):347-389.
Widener, D.L., ed. n.d. Texas Cave Survey, 1(2):17.

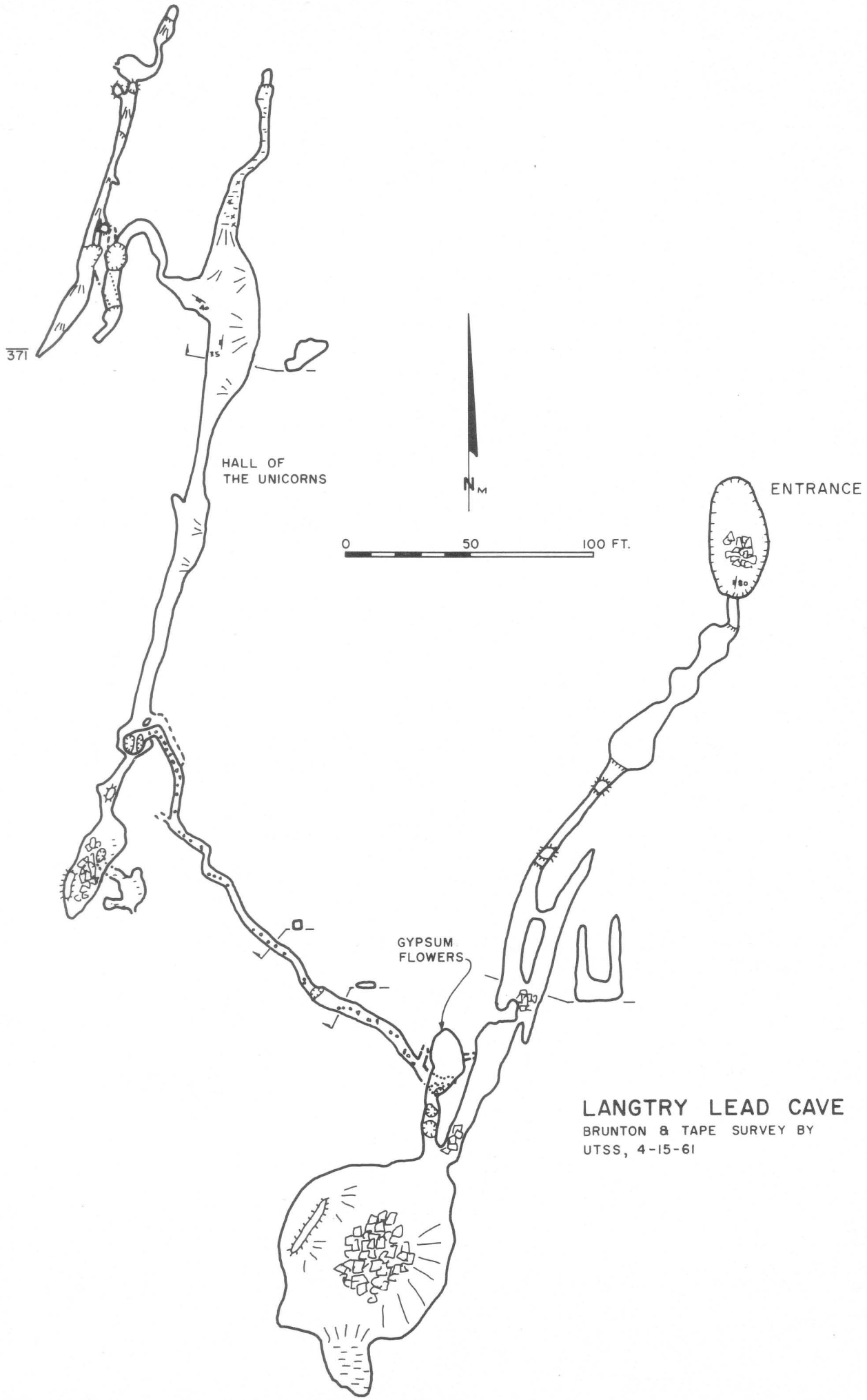
Ref: TSS files

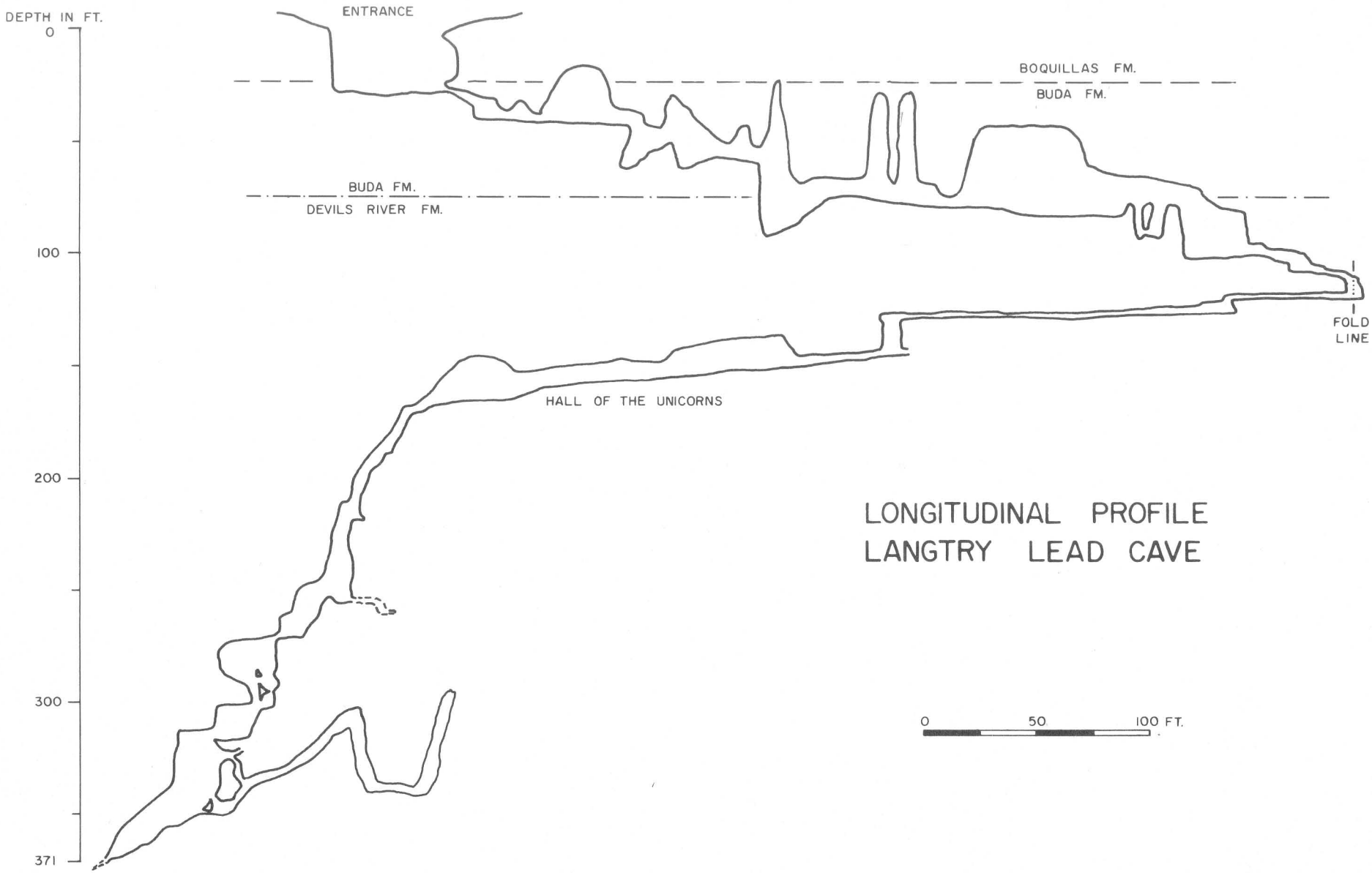
LANGTRY QUARRY CAVE (QUARRY CAVE) Val Verde County (VV 53)

Langtry 15' Quadrangle

Owner: Arnem Humphries

Description: The actual entrance to the cave is a 6-foot high, 12-foot wide slope leading down from the bottom of a 40-foot deep sink formed in the Boquillas Flags. The sink is about 30 feet across and 20 feet wide, climbable on the south side, while the other three sides drop vertically to the floor of the sink. Severe slumping over the entrance gives the impression that it will collapse at any moment. A small quarry has been dug about 30 feet from the cave entrance, but has not been operated for many years. The slope at the bottom of the sink extends about 50 feet where a junction is reached. The


371
HALL OF
THE UNICORNS
N M
0
50
100 FT.
ENTRANCE
GYPSUM
FLOWERS
LANGTRY LEAD CAVE
BRUNTON & TAPE SURVEY BY
UTSS, 4-15-61


DEPTH IN FT.
0
100
200
300
371
ENTRANCE
BOQUILLAS FM.
BUDA FM.
BUDA FM.
DEVILS RIVER FM.
FOLD LINE
HALL OF THE UNICORNS
LONGITUDINAL PROFILE
LANGTRY LEAD CAVE
0
50
100 FT.

passage straight ahead becomes too small to enter while that to the right drops down a 10-foot breakdown slope and into a 20-foot high, 4-foot wide fissure. This extends for about 50 feet to a dome-pit which drops about 15 feet to a ledge and then an additional 15 feet to the floor. A hole from the ledge leads to a 25-foot deep pit with no passages leading out. From the bottom of the pit, which is 107 feet below the surface, a duck-under leads to a room about 20 feet wide, 40 to 50 feet long, 15 feet high, and floored with a very dry clay fill and breakdown. At the end of the room clay fill rises either to the ceiling or to within a few inches of the ceiling, except for about 3 feet along the right wall. Here a 3 to 5-foot high, 4-foot wide passage leads to a low wide area, where the clay has filled the entire passage to within 10 inches of the ceiling. After about 50 feet the ceiling rises and the passage extendsfor 700 to 800 feet as a stoopway-crawlway ranging in width from 20 feet to a narrow passage along the side of the ever-present clay fill. Where the clay has contracted and separated from the walls it can be seen that the fill in places is at least 15 feet thick. After 600 feet a deposit of old powdery guano is found, and the cave begins to follow two parallel fissures connected at the bottom, but frequently broken into two separate upper levels connected to the lower by a series of 10-foot domes. After about 1000 feet the passage ends in breakdown and fill. By following the room at the bottom of the pit to its end along the left wall a 3-foot in diameter hole is found dropping vertically. Some gypsum has been deposited in this area as encrustations on the ceiling, as well as in the sand. The hole leads to a narrow fissure which may be chimneyed for a total of 181 horizontal feet and 150 feet of vertical distance. The last 60 feet of the chimney, which averages 3 feet in width and 10 feet in length, becomes a circular funnel 5 feet in diameter and dropping almost vertically. Although it can be climbed it is slick and very dangerous and a ladder or at least a hand-line is highly recommended. At the bottom of the pit a crawl extends for about 200 feet where it encounters a 16-foot drop at the bottom of which a short low crawl extends to a 5-foot drop into an enlarged joint too small to follow. Several prominent joints, 10 to 20 feet high and 10 feet long, have been formed along the passage and perpindicular to it, but all are too small to enter for any great distance. Known as Reef Pit, the pit is distinguished by having a great accumulation of rudistids along its walls. These protrude as much as 6 inches in places and make excellent hand foot holds for part of the chimney. Although two small pools of water were found on ledges in the pit on one trip they are usually dry. In November of 1961 air was observed to be blowing out of the cave. (See map, p. 105, 107)

Biology: A small collection of invertebrates was made in the cave on January 8, 1965, by Terry Raines. This included spiders, Cicurina varians Gertsch and Mulaik, and crickets, Ceuthophilus (Ceuthophilus) sp. Other fauna reported includes millipeds and surface-type beetles. The skeleton of a large bobcat was found in the cave many years ago.

History: The cave was first reported by White (1948), but at that time was apparently only explored to the 120-foot level. The reported length of the cave in that report is greatly exagerrated. The first full exploration of the cave was by Charles Curtis, Jay Maxwell, Bill Russell, and Tom Woods of the University of Texas Grotto in March 1958. A rough map of the cave was made at that time, but in November 1960 Bud Frank, Graham Bell, Jim Tennison, and James Reddell made a brunton and tape survey of the cave, excepting the pit. The pit was mapped in April 1961 by Dudley Roberts, James Reddell, and Bud Frank. Much of the upper level passage has been remapped by Tom Tracy and other University of Texas Grotto members in 1967.

Bibliography: Anonymous. 1967. "News: San Antonio Grotto." Tex. Caver, 12(6):88.
Estes, J.H. 1962. "Noteworthy caves of Texas." Texas Almanac: 1961-1962, p. 63.
Reddell, J.R. 1964. A guide to the caves of Texas. R. & R. Reproduction Co., Abilene, Texas. 63 pp.
Reddell, J.R. 1965. "A checklist of the cave fauna of Texas. I. The Invertebrata (exclusive of Insecta)." Tex. J. Sci., 17(2):143-187.
Reddell, J.R. 1966. "A checklist of the cave fauna of Texas. II. Insecta." Ibid, 18(1):25-56.
Reddell, J.R. 1967. "A checklist of the cave fauna of Texas. III. Vertebrata." Ibid, 19(2):184-226.
Widener, D.L., ed. n.d. Texas Cave Survey, 1(2):10.
White, P.J. 48. "West Texas caves and shelters more notes on Val Verde County." Natl. Speleol. Soc. Bull., 10:77.

Ref: TSS files

MILE CANYON ICEBOX CAVE (THE ICEBOX) Val Verde County (VV 101)

Langtry 15' Quadrangle

Owner: Guy Skiles

Description: This talus cave is located 50 feet downstream from Mile Canyon Talus Cave and on the same side of the canyon. It is formed beneath a single slab of rock 50 feet long, about 10 feet wide, and about 40 feet high. The cave is triangular in cross-section, 50 feet long, and from 15 to 25 feet high. It is about 20 feet wide throughout. About midway through the tunnel a passage under the rock on the right side extends 25 feet to emerge again in the canyon. This passage is 10 feet wide and 2 to 5 feet high. Another passage under the block leads into an irregular room about 6 feet high and 20 feet in diameter. When visited in April 1968 the floor of the tunnel was covered with water to an unknown depth.

Biology: Bats could be heard in holes or upper passages in the ceiling of the tunnel. A single bat, Myotis velifer incau us, was taken from a small hole in the ceiling of the lower room.

Ref: TSS files

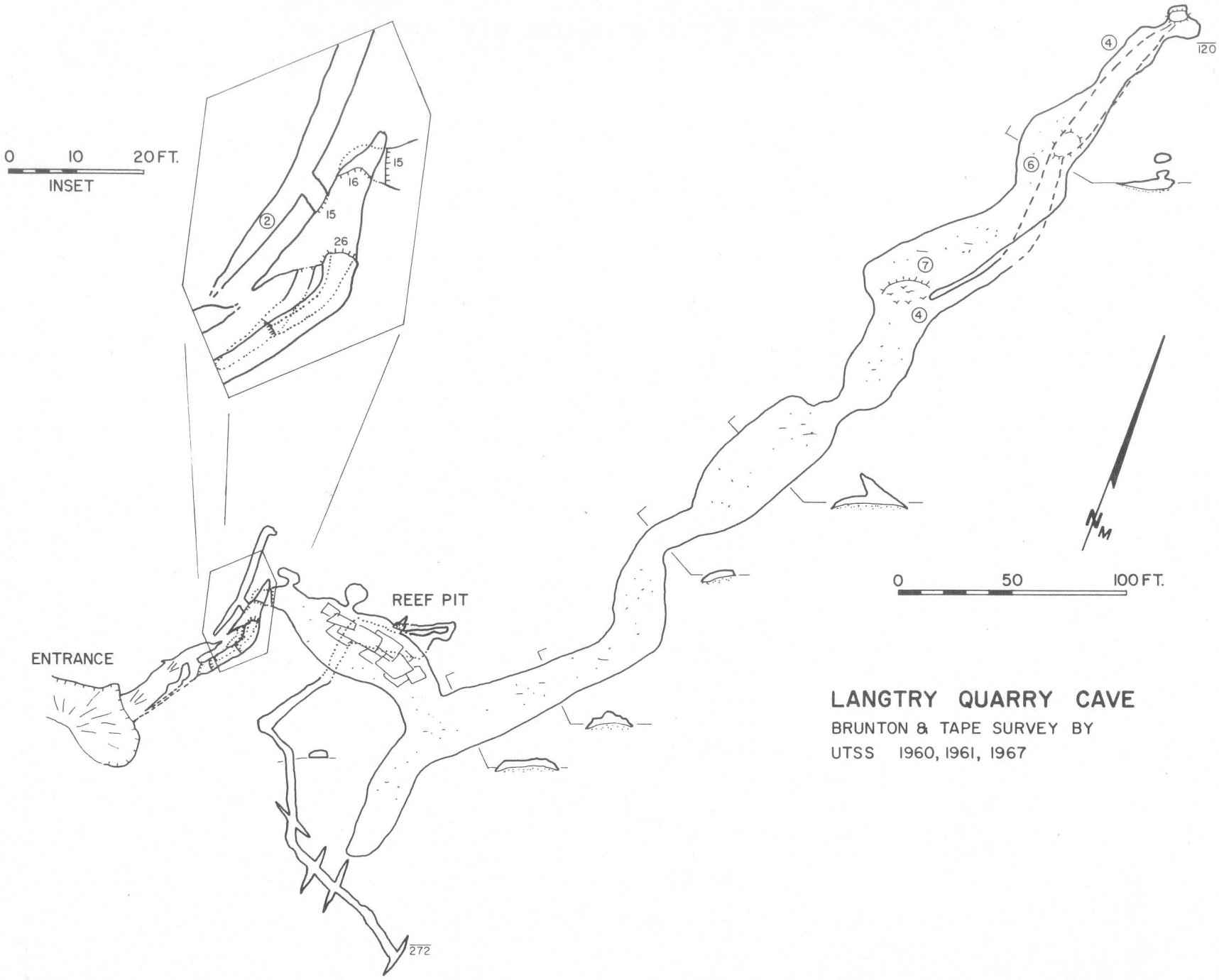
MILE CANYON ROCK PILE CAVE Val Verde County (VV 103)

Langtry 15' Quadrangle

Owner: Guy Skiles

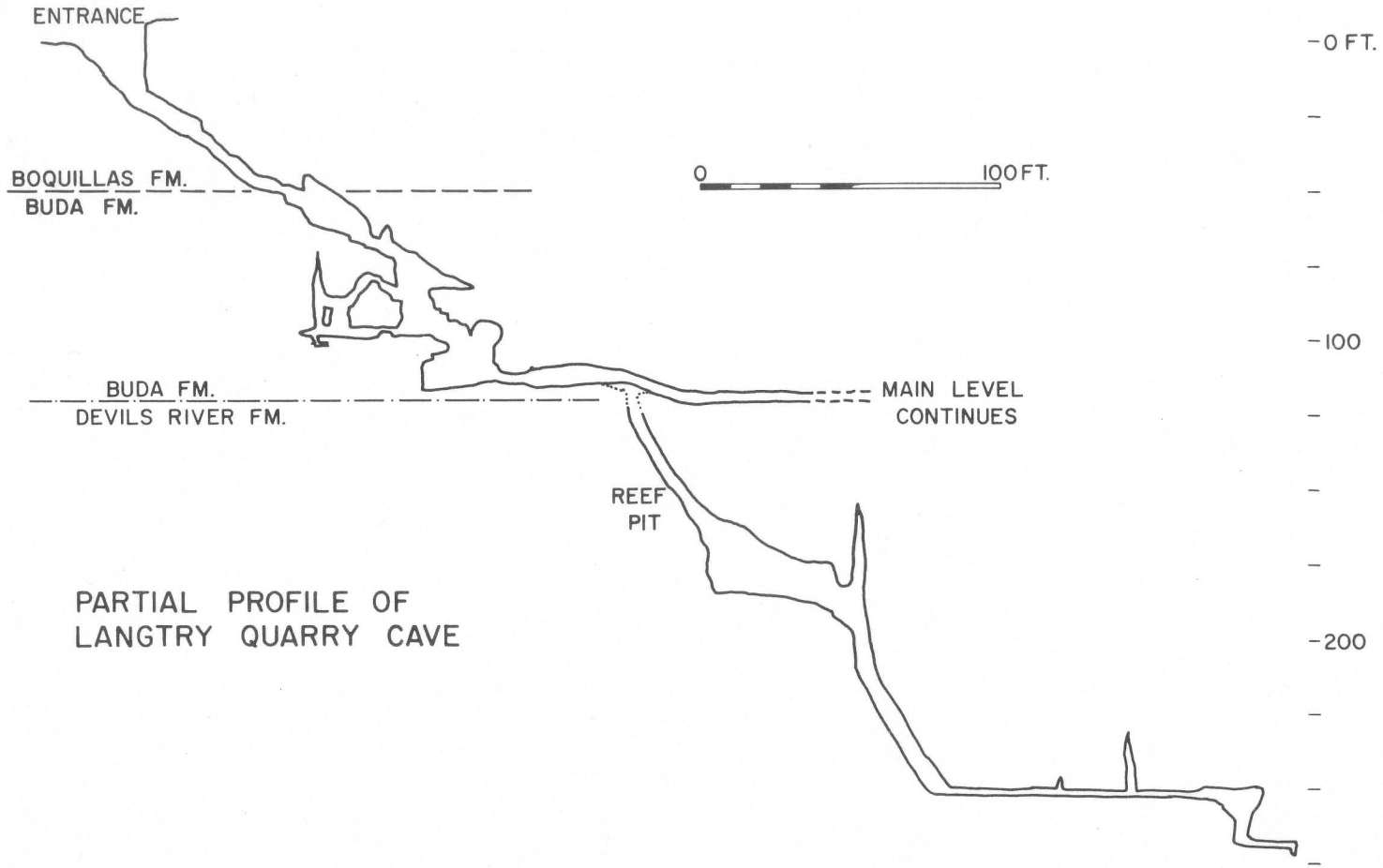
Description: This small talus cave is formed beneath a great pile of rocks which fell between Mile Canyon Icebox Cave and Mile Canyon Talus Cave. A sloping passage leads down about 5 feet into a small room about 20 feet in diameter and 5 feet high except in the middle where water covered the floor. The total length of the cave is about 30 feet.

Ref: TSS files



LANGTRY QUARRY CAVE

BRUNTON & TAPE SURVEY BY
UTSS 1960, 1961, 1967



PARTIAL PROFILE OF
LANGTRY QUARRY CAVE

MILE CANYON TALUS CAVE — Val Verde County (VV 59)

Langtry 15' Quadrangle

Owner: Guy Skiles

Description: Mile Canyon Talus Cave is located on the east side of Mile Canyon just upstream and across from Eagle Cave, a well-known shelter. The cave was formed by the falling of a huge slab of rock which now lies against the canyon wall. The cave is triangular in cross-section and forms a tunnel under the slab. It is 65 feet long, 20 to 25 feet wide and ranges in height from 40 feet at the upstream end to only 20 feet at the downstream end. A few feet inside an opening on the right about 3 feet high and 5 feet wide leads under the rock to the outside. About 15 feet inside an opening 20 feet wide and 2 to 4 feet high leads over rubble to open on the outside of the rock. A fifth entrance is a hole in the ceiling about midway through the tunnel and is about 60 feet above the floor. When visited in April 1968 the floor of the tunnel was covered with water of an unknown depth. What appear to be upper level crawls can be reached through the upper entrance by rapelling down to them.

Biology: A large colony of bats apparently inhabits these upper levels and could be heard in April 1968. A mist net set at the entrance, but not tended, was found to be practically shredded by the flight of bats from the tunnel. A single freetail, Tadarida brasiliensis mexicana, was found still in the net.

Ref: TSS files

SKILES FISSURE CAVE (LANGTRY CAVE NO. 4) — Val Verde County (VV 82)

Langtry 15' Quadrangle

Owner: Guy Skiles

Description: The entrance to the cave was opened by a limestone quarry and has only been open a few years. It consists of a 2-foot wide fissure, dropping 14 feet to a point where the fissure has been plugged by fallen rock. The fissure at the top is 10 feet long but at the plug it is about 20 feet long, striking 345°. By going north at the bottom you can reach a point where the plug is gone and the fissure can be seen to extend down for at least 25 feet. It is, however, only a foot or less in width and would be very difficult to explore.

Ref: TSS files

SKILES QUARRY CAVE — Val Verde County (VV 83)

Langtry 15' Quadrangle

Owner: Guy Skiles

Description: The entrance to the cave opened only within the last ten years; before that it was a small shallow depression in which water stood. The entrance is formed in the Buda Limestone but the entrance itself is in a 6" layer of gravel which covers the surface at this point. The entrance is an oval-shaped fissure about 2 feet wide and 4 feet long; it drops 10 feet to a floor of rocks blocking the fissure. The fissure strikes 350°. Going

south along the fissure it is possible to crawl over breakdown in a 3-foot wide, 4-foot fissure for about 15 feet where a 15-foot drop leads to another breakdown plug. The fissure at this point is about 20 feet long and 12 inches wide. A ladder or rope would be required to descend. At the bottom the fissure may be seen to extend beneath the fill below the entrance. It was explored in July 1961 by T.R. Evans, Philip Russell, and James Reddell.

Ref: TSS files

SKILES RAILROAD CAVE — Val Verde County (VV 84)

Langtry 15' Quadrangle

Owner: Guy Skiles

Description: The cave is formed in the Buda Limestone and was hit by a railroad cut along a now abandoned spur. The entrance is a small hole about 18 inches in diameter dropping almost vertically for 4 feet before levelling off and entering a fissure striking N5°E. The fissure may be followed south for about 10 feet before a plug blocking it ends and you can chimney down a 10-inch wide fissure. The fissure ends after about 10 feet to the south and 15 feet to the east. The total depth of the cave is about 20 feet. It fills with rock and silt.

Ref: TSS files

WORLD'S DEEPEST POTHOLE — Val Verde County (VV 96)

Langtry 15' Quadrangle

Owner: Guy Skiles

Description: Known locally as the "World's Deepest Pothole" this large pothole may have formed as a plunge pool at the base of a 60-foot high waterfall in the dry bed of Mile Canyon just south of US 90. About 30 feet in diameter at the top the pothole narrows to about 20 feet about 15 feet down. It extends at least 30 feet below this but its true depth is not known. The presence of water in this hole all year indicates connection with a perched water table. It is not known if the hole connects with horizontal passage. A similar hole, supplying water to the owner, is located about one-half mile downstream.

Ref: TSS files

DOUBTFUL CAVE

UNNAMED CAVE — Val Verde County (VV 1b)

Langtry 15' Quadrangle

Owner: Walter Babb (?)

Description: The entrance to the cave is located on the side of a cliff overlooking a small draw. It measures 3 feet by 6 feet and is elliptical in cross-section. It was visited by Bill Bourbon, but was not explored. Originally reported as a true cave, it has never actually been entered so it is not known if it is more than 25 feet long.

Ref: TSS files

ADDENDUM

OSMAN CANYON CAVE — Val Verde County (VV 66)

Langtry 15' Quadrangle

Owner: Walter Babb (?)

Description: This cave is located about 30 feet up on the wall of the cliff overlooking Osman Canyon. The entrance is about 15 feet high and 20 feet wide. A passage extends back about 75 feet, the floor gradually sloping up towards the back. Much guano is found in the back of the cave. A pit about 15 feet deep is to be found a short distance inside the entrance but it has not been explored. An old rope once hung from the entrance but this is reportedly gone now, so entrance would probably have to be from above by rapelling.

Ref: TSS files