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PRINTED: 09/12/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: WRIGHT CAVE MINE

ALTERNATE NAMES:

GRAND CANYON CAVERNS  
DINOSAUR CAVERNS

COCONINO COUNTY MILS NUMBER: 506

LOCATION: TOWNSHIP 25 N RANGE 9 W SECTION 26 QUARTER --  
LATITUDE: N 35DEG 31MIN 04SEC LONGITUDE: W 113DEG 13MIN 05SEC  
TOPO MAP NAME: GRAND CANYON CAVERNS - 7.5 MIN

CURRENT STATUS: UNKNOWN

COMMODITY:

SPECIMENS ARAGONITE  
CALCIUM ARAGONITE

BIBLIOGRAPHY:

ADMMR WRIGHT CAVE MINE FILE  
GRAND CANYON CAVERN - HAS GUIDED TOURS

WRIGHT CAVE MINE

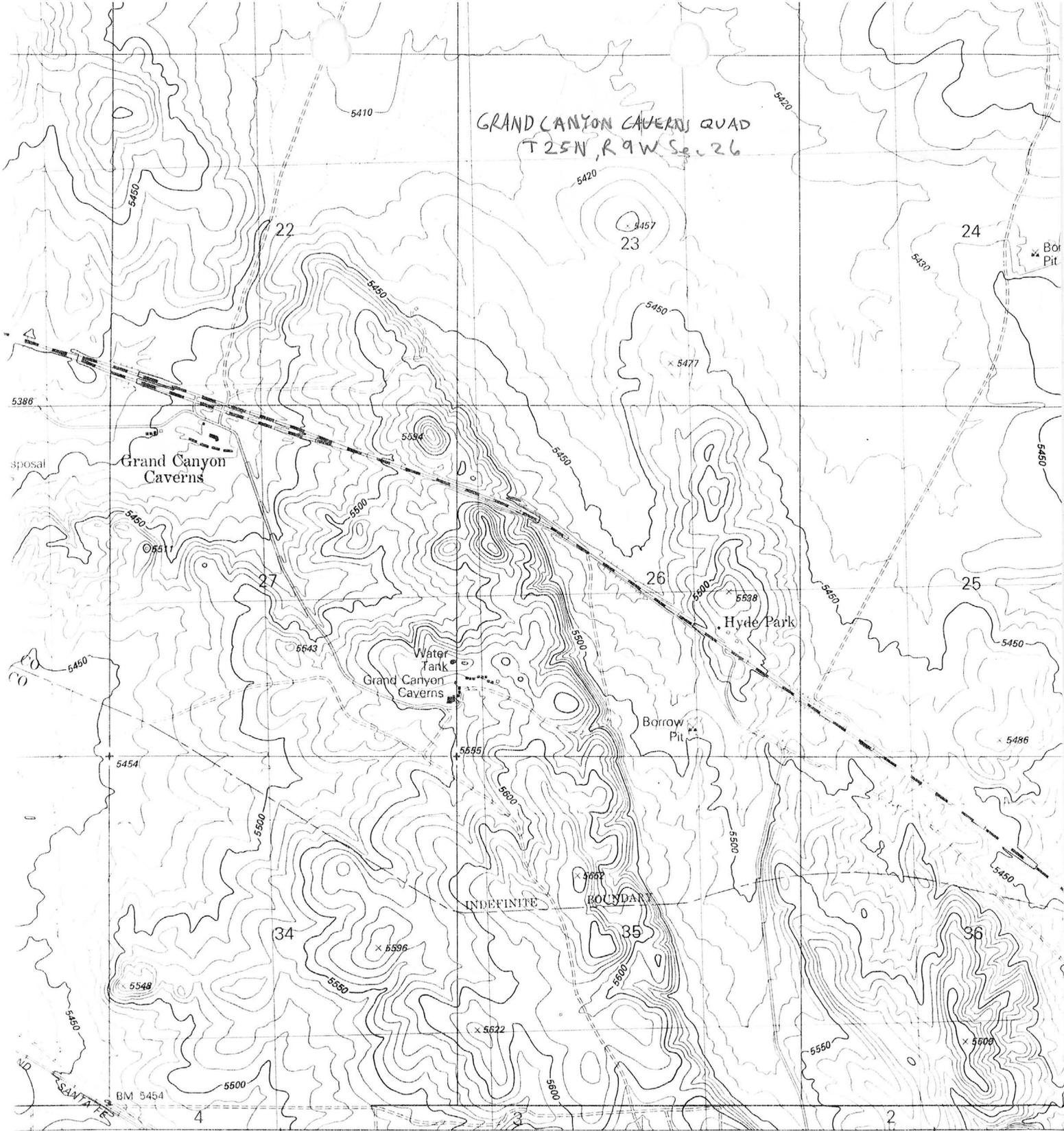
REFERENCE

COCONINO COUNTY  
T25N R9W Sec 26 SE $\frac{1}{4}$

MILS # 506

AKA: Grand Canyon Caverns, Dinosaur Caverns

GRAND CANYON CAVERNS QUAD  
T 25N, R 9W Sec. 26



Published by the Geological Survey

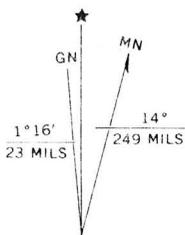
IOAA

metric methods from aerial  
field checked 1975

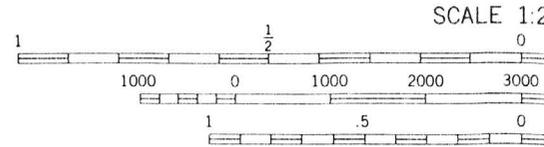
grid ticks: Arizona coordinate  
(verse Mercator)  
(verse Mercator grid, zone 12)

North American Datum 1983  
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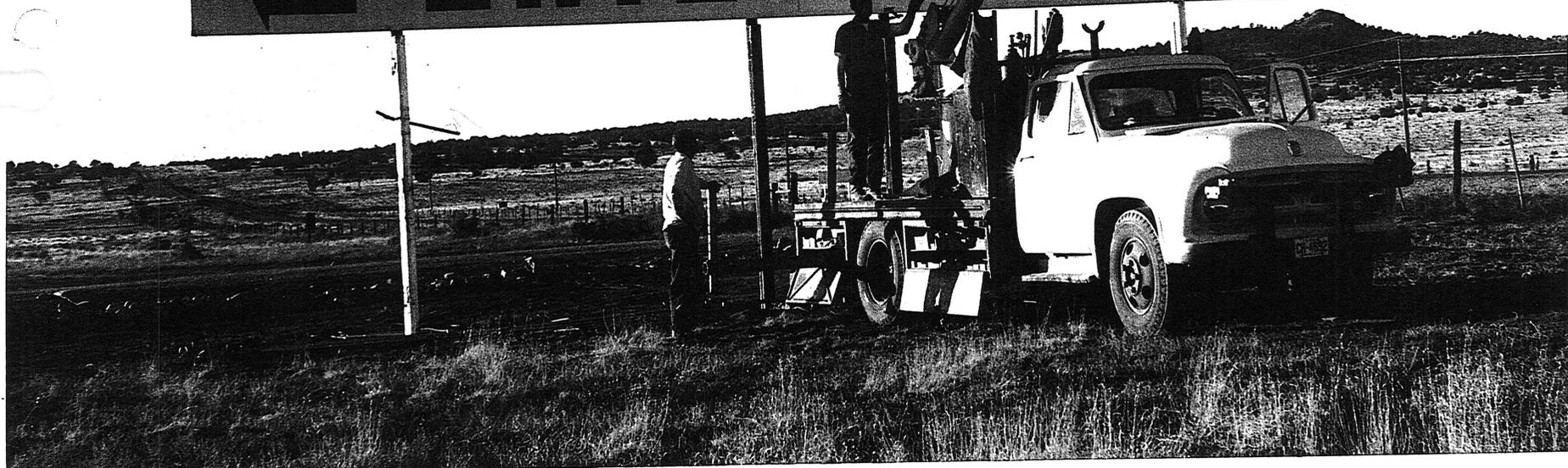
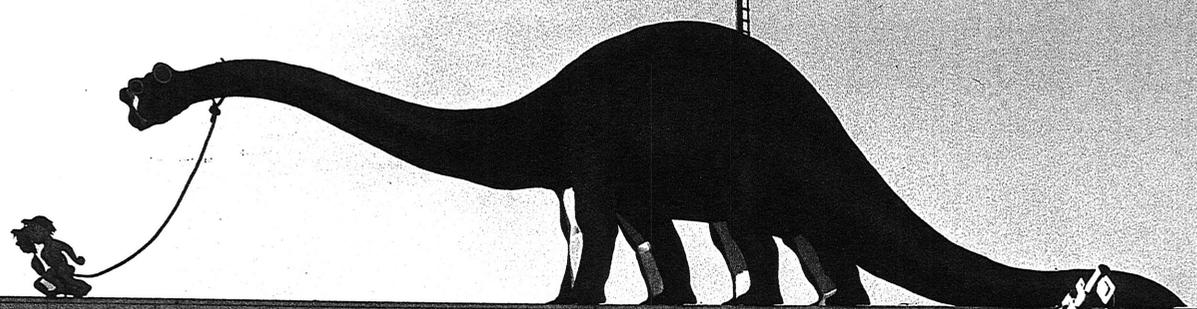
UTM GRID AND 1981 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET



CONTOUR INTERVAL  
NATIONAL GEODETIC VERT

THIS MAP COMPLIES WITH NATIONAL  
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, CO  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND

DINOSAUR CAVERNS  
ENTER HERE



DINOSAUR CAVERNS ENTRANCE SIGN was erected on December 29th. Here, late in the afternoon, the crew from Electrical Advertising Inc. of Phoenix prepares to leave the site. The 10-foot by 40-foot, double-faced metal sign brought visitors in from Highway 66 the minute it went up. Two other signs have been installed along the Highway, one 5 miles East and one one-and-a-half miles West of the Caverns. Dinosaur Caverns are one mile South of the Highway and the sign. U. S. Highway 66 is being widened and resurfaced into a Class A highway and work has progressed up to 2 miles West of the Caverns already. Widening and resurfacing of the Highway from this point to a point 3 miles East of the Caverns is scheduled for the fiscal year June 30, 1962 to June 30, 1963.



Republic

5/11/62





WRIGHT CAVE MINE

COCONINO COUNTY

*COCONINO*

NJN WR 12/2/83: The following should be added to the Wright Cave Mine, Mohave County and the mine added to MILS (Location is T25N, R9W, Sec. 26 SE $\frac{1}{4}$ ) This property is now and has for sometime been known as Grand Canyon Caverns - a commercially operated cave. Its operator is Grand Canyon Caverns Inn, P.O. Box 108, Peach Springs, AZ-86434, Ph: 422-3223. Tours are given at  $\frac{1}{2}$  hour intervals 9-5 every day. Current admission is \$5.75 for adults. In the past this property has produced aragonite and onyx. A map showing location and access has been added to the file.

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File: Coconino

MEMO from Bruce Prather

DATE May 14, 1962

TO: Travis P. Lane

SUBJECT:

Dear Mr. Lane:

My deepest thanks for your reply to my inquiry re Coconino Caverns. The clipping from the Arizona Republic is appreciated.

Cordially,

*B. Prather*

Bruce Prather  
115 Linden St.  
Santa Cruz, Calif.

RECEIVED  
MAY 17 1962  
DEPT. MINERAL RESOURCES  
PHOENIX, ARIZONA

The attached is to add to previous material forwarded on the Dinosaur Caverns.  
Genevieve Moore

-Y 1962

BRIA-VANDYKE & BISHOP WHITE, INC  
4530 North Central Avenue  
Phoenix, Arizona

June 22, 1962

Phone: 264-3555

PRESS RELEASE

FOR IMMEDIATE RELEASE

WELL DRILLING RECORDS PROVE DINOSAUR CAVERNS AREA  
RIDDLED WITH LARGE CAVES DOWN TO DEPTH OF 1444 FEET

Water and oil well drilling records have been discovered which show the Dinosaur Caverns area to be riddled with unexplored caves down to levels as low as 1,444 feet. The announcement was made today by Mr. Bob Long of Phoenix, Assistant to the President of Arizona-New Mexico Development Corporation, developers of the Caverns.

According to Long, drilling to break through to the deeper Caverns will be started this Winter. To do this, a 30-inch hole will be sunk in the floor of the Chapel of The Ages, the first underground gallery reached from the elevator. When new cavities are reached, a man will be lowered through the hole to investigate.

The search of the well records was made by Co-T-Co Development Corp., a Phoenix company, to check out the water supply for Dinosaur Village and Dinosaur Estates being developed one and one-half miles East of the Caverns. Dinosaur Caverns are located 22 miles West of Seligman, Arizona on Highway 66. Dinosaur Village and Dinosaur Estates, also on Highway 66, are being built to furnish homes and service industries to support the Caverns operation. Within two years the Caverns will boast, in addition to the Caverns, themselves, and the existing Tourist Reception Center building with its elevator, restaurant, gift and curio shop, a large, luxury-type motel-hotel, a Dinosaur Park filled with concrete and fiberglass replicas of Dinosaurs, a trailer park, year-'round

(MORE)

swimming pool and tennis courts and other recreation facilities.

The records of two wells - one water, one oil - are of particular interest. The water well, known as Pica Well No. 5 and drilled for the Santa Fe Railway by the Roscoe Moss Company of Los Angeles, was completed in 1939. The company first hit water at 950 feet. It raised in the shaft and then exhausted itself. Water was encountered again at 1147 feet. This water raised continuously to a height of 824 feet and would not raise higher, although the volume of flow was great. The water, it was discovered, was flowing into a huge cavity. Drilling continued to 1750 feet and additional cavities were encountered down 1444 feet. Pica Well No. 5 is six miles southeast of the present Caverns' entrance. Four other wells exist in the Pica area, the oldest dating back to the early 1900s. Although they have been pumped continuously, the water level has never dropped below the 824-foot mark.

The same approximate conditions were encountered in the drilling of an unsuccessful oil well in 1957 about the same distance from the present Caverns, but nearly due East. Here the Ray Terry Oil Company of Las Vegas hit a major cavity with a ceiling at approximately 400 feet and a floor at approximately 824 feet. So much water was hit at 1760 feet that it blew tools up the hole and water and drilling mud in large quantities were lost into a cavity around the 800-foot level just as occurred at Pica No. 5. No oil was discovered and the well was plugged.

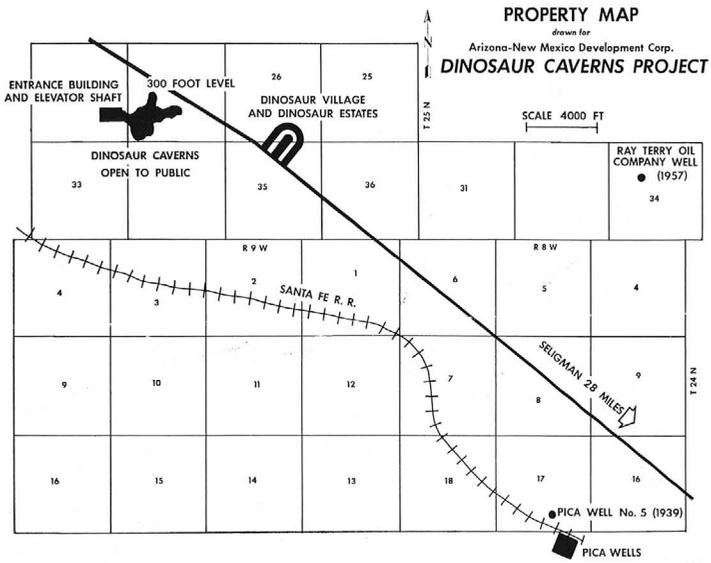
Geologists consulted by Co-T-Co theorize that the tremendous reserves of water and its high pressure mean that the water is coming underground from the Colorado River 89 miles to the North and entering the deeper Cavities. The pressure generated from the underground flow causes the

(MORE)

water to rise when wells are drilled. Because well casings must be sealed to the walls of the shafts with concrete below the 824-foot level to keep the water from dissipating into cavities, it appears that there are large, dry caves at this level and large wet caves several hundred feet below.

How spectacular these lower caverns will be cannot at present be determined. The limestone reef in which Dinosaur Caverns exist is, however, similar to that in which Carlsbad Caverns are found, although deeper and older. The bottom of the Dinosaur Caverns limestone reef is found at 1700 feet...500 feet lower than the bottom of the reef at Carlsbad. It is also thought to be 150,000,000 years older.

Dinosaur Caverns were officially opened and dedicated on May 12 of this year. Since that time visitor traffic has increased steadily, the record being set on Sunday, May 17 when 604 people took the one-mile-long underground tour.



RECEIVED  
AUG - 11 1962  
BUREAU OF LAND MANAGEMENT  
PHOENIX, ARIZONA

BRIA-VANDYKE & BISHOP WHITE, INC  
4530 N. Central Ave.  
Phoenix, Arizona

June 22, 1962

Phone: 264-3555

FOR IMMEDIATE RELEASE

WELL RECORDS SHOW DEEPER LEVELS AT DINOSAUR CAVERNS. Drilling records of 1957 oil well (top right) and 1939 water well (bottom right) reveal large caverns at 824-foot level and 1444-foot level. New caverns at 824 feet probably are dry except for water which has escaped up into them from the wells. Deeper caverns are filled with water. Four old Santa Fe Railway wells at Pica have been pumped continuously for more than 20 years with no drop in level. No oil was found in the exploratory oil well and it is now plugged. Geologists consulted by the Caverns' developers believe that the immense water supply may come underground from the Colorado River 89 miles away. This Winter an exploration hole will be drilled in the bottom of the present Caverns in an attempt to reach the deeper halls and galleries, which are thought to contain spectacular stalactites and stalagmites such as found in the lower levels at Carlsbad Caverns, New Mexico. Dinosaur Caverns are located 22 miles West of Seligman, Arizona on Highway 66.

The following is from Peplow's HISTORY OF ARIZONA, Vol. III

*Peplow*

DINOSAUR CAVERNS



These caverns are now open to the public. The elevator is operating and the tourist center is nearing completion. Admission 1.00 adults, .75 children.

March 5, 1961

Report to: Mr. W. M. Liddon and Mr. Bishop White

Subject: Coconino Caverns

From: Southwest Publishing Company, Inc.; Charles H. Dunning  
and Edward H. Feplow

Gentlemen:

Apropos to our recent conversation, the writers visited Coconino Caverns on February 23, 1961. We were accompanied by Mr. William Breed, staff geologist with the Northern Arizona Society for Arts and Science.

Neither Mr. Kusisto nor Mr. Butts was at the cavern when we arrived; but the miners engaged in sinking the shaft were very cooperative and gave us carte blanche to inspect the caverns, and they answered our questions and guided us to the best of their ability.

Mr. Dunning and Mr. Breed could find no evidence to substantiate clearly the claim made in the signs advertising the caverns as "geyserformed." Unfortunately the original opening has been obliterated, and the floors of the chambers were buried under debris in a number of instances, thus obviating a completely definitive analysis.

However, in the expert opinion of both men, evidence of geyser formation is lacking, both on the spot and in the well known geology of the general area. Geysers are formed by the boiling of water by volcanic heat, the collection of steam under pressure in an enclosed chamber and the eventual eruption of that steam through cracks or crevices. Thus a geyser requires three conditions not likely ever to have existed contemporaneously at Coconino Cavern: volcanic heat, a constant supply of water, and tight chambers.

Nor is there any evidence Mr. Dunning and Mr. Breed could find of the sort of surface (on the floors of the chambers) expression and formations old, extinct geysers almost always leave.

They feel the caverns have a somewhat less dynamic geological history. They occur in the Redwall limestone formation. This formation was deposited during Missippian times, roughly

200,000,000 years ago. This was one of the periods during which that area of Arizona was under the sea -- one of three such times. The limestone averages some 500 feet in thickness and is the accumulation of the desiccated remains of billions of tiny sea animals, highly compressed by the pressure of subsequent masses of matter later deposited on top of them.

After the deposition of the limestone, the area was elevated from below sea level to many thousands of feet above the sea. It became the home of many of the giant prehistoric reptiles, the best known of which was the dinosaur. During this age the land was wet tropical in climate, with swamp vegetation. Subsequent upheavals of the earth alternatively raised and lowered the area, so that twice again it was under the sea, finally to be raised again to approximately its present elevation.

Then the inexorable process of erosion set in, and in the area of Coconino Caverns the strata overlying the Redwall were stripped away, finally leaving the Redwall as the surface. There plant life grew in the soil on top of the hard limestone. The occasional rains collected in tiny depressions and cracks, and thirsty plant roots forced themselves into the crack or depression and prospered so long as there was water.

In the prolonged periods of drought, however, the plants died. Later, when new rains came, the water and the decayed vegetable matter produced a mild organic acid. This acid dissolved away some of the limestone, enlarging the crack, and allowing more water to seep deeper into the earth. Over thousands of years and from uncounted intermittent rains the enlarged crack became a watercourse beneath the surface.

Along this course, some masses of limestone proved more soluble, and large volumes were eaten away to become the chambers of the present caverns. It is impossible to pinpoint exactly the date at which the process began or that by which the present caverns had reached approximately their present form and size.

Indeed, one of the most fascinating aspects of Coconino Caverns today is that their full extent and size are not known. It will take a great deal of time and expensive investment in exploration to determine these extents accurately.

It should be pointed out here that the Coconino Cavern and Carlsbad Cavern (New Mexico) occur in the same Mississippian formation. Carlsbad showed nothing of spectacular interest until exploration had extended at least 400 feet. Only further exploration can determine how spectacular and extensive Coconino Caverns actually are.

The absence of stalagmites and stalactites in the chambers so far explored is to be regretted. It is only by a slow, prolonged, downward percolation of lime carrying waters that stalagmite and stalactite formations are made. Each drop of lime carrying water must partially evaporate to deposit its lime; whether the deposit takes place before or after the drop of water falls determines whether a stalactite or a stalagmite is formed. Such formations should, however, be found in some lower level in Coconino Caverns.

This possibility, plus that of finding more and larger chambers, suggests a continuing planned exploration. The immediate step would seem to be further lateral exploration at present levels to determine first the extent of the formation at these levels and, second, to uncover and pinpoint any evidence of downward extension. As such evidences are found then a diamond drilling program could be indicated.

Underlying the Mississippian and Redwall in many areas are a Tonto formation, the lowest sedimentation from the Cambrian age; in other areas the Tonto is absent and the Mississippian lies directly on the base igneous rock. Whether or not Tonto sedimentation exists below the Coconino Caverns, it is quite possible there is something of interest either between the Redwall and the Tonto, between the Tonto and the base granite, or between the Redwall and the base granite. The potential here can be determined economically only on the basis of pinpointing evidences on the present open levels to warrant the diamond drilling program mentioned above.

However, it is the considered opinion of the writers, that, with properly adroit handling, these very facts can be dramatized in the presentation of Coconino Cavern to the public. The guides can explain the formation of the caverns and what has gone into their development to this stage, then build up to the question of what lies beyond that rock face, what lies straight down 10 or 100 feet below where we are standing now?

There is no question, either, as to the possibility of dramatizing in a booklet the story of the geology of the cavern and the surrounding area. It is tied in closely, of course, with the Grand Canyon, and the rest of Northern Arizona, where geology becomes as obvious and exciting as anywhere in the world.

There is every justification for present plans to build an outdoor museum, or "zoo," of the prehistoric animals that roamed that part of the world several million years ago. They actually did live there, and the only reason paleontological evidences are lacking in the immediate area is the fact that the inexorable processes of erosion have removed the strata in which such evidences existed.

This in turn points up two interesting facts in re Coconino Cavern: one, there may be many other similar caverns in other areas; but Coconino was discovered and can be explored only because Nature generously cleared off the overburden and made the Redwall the surface here. Two, it dramatizes the fact that geology is not a static thing; rather geological change is constantly happening all around us; it is a continual thing. And this in turn gives a sound base for making the booklet an interpretive story of the geological drama of all of Northern Arizona, relating Coconino Caverns to the San Francisco Peaks, the Grand Canyon, Meteor Crater and so on.

The purpose in doing so is more practical than simply making a fuller sales story on the cavern itself. It also broadens tremendously the potential sale of the booklet. If sufficient attention is given these other wonders, it can be sold wherever tourists stop in Northern Arizona.

And it also accomplishes a neat transition from geology to anthropology. The writers agree the name Coconino Cavern is inadequate and not very saleable. The origin and meaning of the word Coconino is obscure, although it is generally accepted as being of Hopi origin, applied by the Hopis to the people living vaguely to the west of them. It was first heard by the early Spanish explorers and was subsequently mispronounced and misapplied by the early Americans in the area. It has little applicability and even less sales appeal specifically for the caverns in question.

Our suggestion is that the cavern be renamed:

SIPAPU CAVERN and DINASAUR PARK.

Since there was an awareness of the land and people to the west of them on the part of the Hopis, and since the geology of the entire region can be treated in the proposed booklet, we feel use of the word "Sipapu" in connection with the cavern can be justified sufficiently to satisfy the public and escape too severe criticism on the part of the authorities.

In the Hopi tradition, the earth was populated by the emergence from the lower world of their gods and forefathers. The place of emergence from the earth was the sipapu, a great hole or cave. There are also various traditions of a labyrinthian underworld through which the people wandered on their way through the sipapu to the earth.

What better name to imbue the trip through the cavern with romance and fascination? The claims, of course, should be kept strictly within the bounds of fact, for many visitors will be

well enough informed of Indian lore to spot misstatements. However, there is every likelihood that the Hopis, when first they immigrated to what is now Arizona, explored the area of the cavern, and it is not too imaginative to suppose some of them saw the original opening of the cavern and likened it to the sacred sipapu.

The booklet then can explain how the Hopis, because of their essentially peaceful nature, finally took refuge on their mesas to the east, leaving this area to the more warlike tribes. (Incidentally, the 'Yampai' Indians are not recognized by present scholarship as having existed except as erroneous reports by early travelers and explorers. They probably were a branch of the Hualapai who inhabited this area, and the name probably was a distortion of the word 'Yavapai'. Arizona history is full of such early errors.)

An interesting and still widely disputed phase of Arizona anthropology is the story of how the Supai Indians originally took up their residence in Havasu Canyon. The Supai reservation is one of the most beautiful sights in Arizona, and access to it is gained by a road which turns off US 66 very close to Coconino Caverns. When, why and how the Supais found their way to this delightful Shangri La has been the subject of a number of interesting theories which will bear retelling in the proposed booklet, especially because of the close jaxta position of the caverns and the canyon.

During our field trip we visited with Dr. Robert Euler, professor of Anthropology at ASC, Flagstaff, and the ranking authority on the Hualapai and Havasupai Indians. He says there is no evidence of Coconino Cavern's ever having been used by the Indians. Undoubtedly they were aware of the existence of the cavern; but no evidence of the cavern's being occupied by they has been found.

He also is our authority for the derivation of the word "Coconino." In the Hopi it was originally "Kohonin" and, as stated above, referred generally to the Hualapai and Havasupai. The word "Cosnino" is a distortion of the original, as is also "Coconino."

The Cosnino Caves referred to in the current edition of Arizona Place Names and in the scholarship and early chronicles referred to there are located some 40 miles to the east of Flagstaff -- obviously an entirely distinct phenomenon from the cavern in question here. We checked this carefully with Mr. Breed, Dr. Euler and with Dr. Edward Danson, director of the Museum of Northern Arizona, and with Miss Katherine Bartlett, library director of the Museum and a recognized expert of Northern Arizona history.

For this reason, and because already some confusion of the two caves or caverns has occurred, we suggest even more strongly than ever that the name be changed from Coconino Cavern.

So far as actual history of Coconino Cavern is concerned, we checked with the above mentioned authorities and also with Miss Ragsdale, reference librarian at Gammage Library, ASC, Flagstaff, and with Platt Cline, publisher and editor of The Arizona Daily Sun, Flagstaff. All agree there is nothing definitive available. So far as they know, the story of the finding of the cavern by sheep herders in the early 1930s is as accurate as anything. There is virtually nothing in the two libraries mentioned.

However, Dr. Euler suggested that we plan to interview Mr. John Nelson, of Peach Springs, an oldtimer in the area, and Mr. Billy Grounds, another old timer nearby. They have been in that section a good many years and would know any folk lore connected with the cavern. We suggest also that the Indian agency at Valentine could introduce us to Indians who might have interesting comments and lore about the cavern.

As a final check on the geology of the cavern and for any possible leads to authentic or saleable apocryphal history we are contacting Dr. Edwin McKee, formerly head of the Geology Department at the University of Arizona, formerly assistant director and head geologist for the Museum of Northern Arizona, formerly stationed at the Grand Canyon with the U. S. National Park Service, and currently with the U. S. Geological Survey, Paleotectonic Unit in Denver. Dr. McKee is probably the recognized expert on the geology of Northern Arizona, and he would be the final authority in our estimation as to whether or not our conclusions concerning the cavern are correct.

So far as a booklet is concerned, we will be happy to undertake to write one. We believe that on the basis discussed above it could be made sufficiently informational and interesting to warrant its sale not only at the cavern itself but also throughout the tourist area of Northern Arizona.

We would propose to cover four main areas in the text: the drama of the geology of Northern Arizona; the story of the prehistoric monsters that lived there; the myths and legends of the Indians of Northern Arizona; and the history of the area, both proven and apocryphal (appropriately labeled).

Before we can quote prices it will be necessary for us to have a further conference to determine a number of details. We will be happy to set such a meeting as soon as possible, immediately after which we will offer you a firm quotation for the conception, research, writing and publishing of such a booklet.

We will await your reaction to this report with interest and will look forward to working with you in the production of a booklet which can become the basic piece in the promotion of Coconino (Sipapu) Cavern (and Dinasaaur Park) and a major attraction for tourists traveling Route 66.

Sincerely,

SOUTHWEST PUBLISHING COMPANY  
Charles H. Dunning,  
President

Edward H. Peplow,  
Vice President

# Minasaur Caverns

or  
Coconino Caverns,

## Geological Thoughts.

Nowhere on our earth has nature provided the geologist with a crosssection <sup>picture</sup> ~~history~~ of her history as clear and complete as is shown by her own excavation of the Grand Canyon in Arizona - and its environs.

As soon as the earth cooled, and rains came, and the crust started to wear away, the particles thus eroded were redeposited in beds called sedimentary rocks. Other types of sedimentary rocks were formed by the skeletal remains of sea animals and plants.

The first of such deposits, called pre-Cambrian by geologists, were supposedly formed a full billion years ago. The latest are still being formed.

Geologists divide all time into periods, and the relative position of any strata can be determined by the <sup>type of</sup> fossils it contains.

Thus, as disclosed by nature's picture, we have evolved from the earliest and very minute forms of life in the Cambrian Period ( or the no-life pre-Cambrian Period) to the relatively split-second in time since man appeared.

During the earlier periods of time, Arizona, and in fact most of our United States, was below sea level. Tremendous thicknesses of sedimentary rocks were laid down.

One such bed of limestone, averaging over 500 feet thick was so laid down some 200,000,000 years ago. It bears the general geological name of Mississippian, or the more local name of REDWALL. It contained simple forms of fossil life, but, of more importance to us at the moment, it contains most of our wonderful cave formations, including Carlsbad Caverns at Carlsbad New Mexico, and the Coconino Caverns.

Sometime after the laying down of the Redwall formation this general area in Arizona was elevated from below sea level to many thousands of feet above the sea. Then, of course, the wearing away processes were repeated.

In some ~~xxxx~~ areas, especially north of the Grand Canyon, and to the east of Flagstaff, many of the strata which had been deposited above the Redwall are still intact. In other areas, notably to the southwest, such as in the vicinity of the Coconino Caverns, erosion stripped off all of the upper strata, and the old Redwall became the surface.

There, plant life grew in the soil on top of the hard limestone. Perhaps there was a little depression or crack which filled with water when it rained. Thirsty plant roots sought the water, and after they drank it all, and there was no more, the roots died.

Their decay created a mild organic acid and when rain came again the acid solution dissolved some of the limestone, enlarging the depression or crack.

Coconino Caverns --- 3

The crack became a water course. Some spots or areas in the limestone were more soluble than others. They became the rooms of the caverns.

Thus were the Coconino Caverns formed. It is quite impossible to pinpoint the date, but compared with the age of the Redwall formation, the date of the forming of the caves is quite recent. Let us say it was a mere 150,000 years ago - call it B.C if you wish.

To be more exact we should probably add or subtract a half year. This report is being written in February, and if Arizona's climate were similar then as to now, the warm rains of August were probably the starter.

Mention has been made that the Coconino Caverns were at one time a geyser. It is unfortunate that the original opening has been obliterated as it could definitely answer that question. From evidence available it seems unlikely that there was ever any geyser action.

Geysers require volcanic heat and there is no evidence of any such. They also require a steady intake of water - to keep the pot boiling. There is no evidence that Arizona's climate supplied such water after the elevation of the area and the stripping of the overlying formations.

There is a lack of stalactite/ stalagmite formations. This is due to the fact that the caverns are an old water channel.

Neither the existing climate nor the depth so far explored have permitted a downward percolation of water through the lime.

It is only through a slow downward percolation of lime-carrying waters that stalactite-stalagmites are formed. Each drop of lime-carrying water must partially evaporate before depositing its lime. Whether the deposit takes place before or after the drop determines whether it becomes a stalactite or stalagmite.

Such formations could however be found at some lower level in Coconino Caverns - where the action was more of the slow, seep, type.

One most interest<sup>ing</sup> feature about Coconino Caverns is its virgin state of exploration, and there are rumors about extensive unexplored channels.

It is possible that they could lead to rooms or ~~channels~~ levels having far greater attraction than the presently available spots.

There was nothing of spectacular interest at Carlsbad until exploration reached a depth of at least 500 feet.





BRIA-VANDYKE & BISHOP WHITE, INC.  
4530 NORTH CENTRAL AVE  
PHOENIX, ARIZONA

JANUARY 8, 1961

PRESS RELEASE

FOR IMMEDIATE RELEASE

DINOSAUR CAVERNS TO MAKE MARCH DEBUT  
AS MAJOR SOUTHWEST TOURIST ATTRACTION

Dinosaur Caverns, known for years as Coconino Caverns or Yampai Caverns, will open officially this March as one of Arizona's major tourist attractions. Strictly a private enterprise project, Dinosaur Caverns, located 22 miles West of Seligman on U. S. Highway 66, have already absorbed more than \$340,000 in development costs. A 16-passenger elevator drops 21 stories (206 feet) below the ground level into the Caverns and a 8,350 square-foot entrance building housing restaurant, offices, entry to elevator, lobby, souvenir shop and rest rooms is nearing completion at a cost of \$90,000.

Dinosaur Caverns are being developed by Arizona-New Mexico Development Corporation of Phoenix. Concerning the development, President Thomas L. Moran says: "In the top level of the Caverns we have 1/4 of a mile of trails laid out and fenced. Another 3/8 of a mile of trails will be opened in a few weeks. Our signs on Route 66 are up and, though we're not officially open, we can't turn down people who drive in. Our first paid visitors came in on December 29th, the day the signs went up. Our exploration downward to new and more spectacular halls is continuing. Additional construction including a \$200,000 Dinosaur Park patterned on the famous one at Calgary, Alberta, Canada, and a \$4,000,000 luxury motor hotel are scheduled for 1962 starts. We also plan to start this year a \$250,000 efficiency apartment unit for our 60 employees, a \$50,000 trailer park, \$20,000 worth of stables and a service station. We are also exploring for the best point at which to sink an additional shaft for a second elevator."

General Superintendent for the development and exhibition of Dinosaur Caverns is Thomas C. (Cal) Miller, recently retired from the U. S. National Park Service as Assistant Superintendent of Carlsbad Caverns

in New Mexico. Miller, who also served at Mammoth Cave Kentucky says: "We've only scratched the surface. Dinosaur Caverns are in the same type of limestone reef formation in which the Carlsbad Caverns exist. Dinosaur Caverns were formed by water flowing down through fissures in the earth's surface. This water forced and dissolved its way through the rock depositing out unusual crystalline formations on its way. We've only explored the top caverns, but the mineral formations there are unique and more dramatic than those found in the topmost rooms in Carlsbad."

Concerning exploration Mr. Miller says: "We're centralizing our new exploration around ancient waterways inside the main hall, the Chapel of The Ages, and at a 7-inch hole drilled in the ground 1,000 feet southwest of the present Caverns entrance. This hole penetrated the top of a new cave 78 feet below the surface and we have passed 200 feet of weighted line down through the hole without touching bottom. We are now enlarging the hole and will let a man down on a rope in the near future. I've been down more than 20 feet in an old waterway in the Chapel of The Ages. It gets wider on down, but access is currently blocked by boulders. These will be removed in the next few weeks and I think we'll get through to the lower level. Of course, you never completely explore a limestone cave, but I believe we'll soon find stalactites and stalagmites, crystalline formations of even greater beauty and, possibly, underground lakes or rivers."

In his 31 years at Carlsbad Caverns Miller explored more of the Caverns than any other man and discovered the Lake of The Clouds, a clear water lake 1,320 feet underground...the lowest point of Carlsbad Caverns yet explored.

According to Miller, Dinosaur Caverns are between 150,000,000 and 200,000,000 years old. They were formed in the Mesozoic Period which is also known as The Age of Reptiles. At the time, Northern Arizona was a swamp and far lower in altitude than Southern Arizona. Dinosaurs roamed the land such as the 100-foot-long, herbivorous Brontosaurus and the

ferocious, flesh-eating, 20-foot-high Tyrannosaurus. After the Earth's crust shifted raising Northern Arizona and sinking Southern Arizona, dinosaur bones were for the most part eroded away. Evidence of Dinosaur existence still remains in the form of fossilized footprints in rock, some of which are on display at Dinosaur Caverns.

Open to viewing now and filled with unusual and beautiful rock and crystalline formations are areas known as The Chapel of The Ages, which is the 18,000 square foot main chamber, The Crystal Room, the Entrance Tunnel, The Funnel, Rainbow Dome and Cathedral Dome. Scheduled for opening within a month are The Devil's Pinnacle, The Devel's Den and The Halls of Gold, where yellow lights will reveal the drama of rocks folded over each other and solidified together looking for all the world like bread dough thrown in some crazy oven to bake in complete culinary disorganization.

According to Mr. Moran the upper reaches of Dinosaur Caverns have been known in Northern Arizona for years and have gathered many legends. Indian skeletons have been found in the Caverns and it is thought that they may have served as burial grounds during Winters when frozen earth prevented more conventional interment. There's even an old story in the North Country that two train robbers escaping from an early raid on a Santa Fe payroll train at Yampai fell into the Caverns, horses, saddles and all, to meet sudden justice. An actual fact is the finding of the skeleton of a giant Ground Sloth extinct for 20,000 years. This ancient mammal's remains were found in such a position as to indicate that he died with his nose in a small hole from which surface air was emanating. He was probably trying to get out. His skeleton is currently the property of the University of Arizona in Tucson. Marine fossils such as Bryozoans, minute, prehistoric water animals and Brachiopods, prehistoric clams, are quite common in the limestone.

Arizona-New Mexico President Tom Moran says: "We look forward to constantly unfolding examples of the underground wonders of nature and to developing for Arizona one of the most spectacular natural attractions in the United States. All it will take is time, knowledge and money. Fortunately we have an adequate supply of all three."

A THE CHAPEL OF THE AGES at Dinosaur Caverns 22 miles West of Seligman, Arizona on U. S. Highway 66, is an 18,000 square foot chamber containing many beautiful rock and crystal formations. Fenced-in trails lead visitors past points of interest. Lighting in the Caverns is being engineered by Hinkley's New State Lighting Company of Phoenix. To reach the Caverns visitors ride an electric elevator 21 stories (206 feet) into the earth.

B FLOWSTONE FORMATIONS in Dinosaur Caverns are dramatically lighted. These rocks formed as limestone deposited out of water draining to lower levels in the Caverns. Exploration to open up lower levels is proceeding and it is anticipated that stalactites and stalagmites similar to those in Carlsbad Caverns in New Mexico will be discovered. Dinosaur Caverns are in the same type of limestone reef in which the Carlsbad Caverns exist. Here Laine Lowrance, granddaughter of General Superintendent Cal Miller, adds warmth to the cold beauty of the formations.

C ENTRANCE BUILDING at Dinosaur Caverns will soon be completed. The 8,350-square-foot structure will cost \$90,000 and will house a restaurant, lobby, restrooms, souvenir shop and foyer to the elevator which serves the caverns. Left to right are Thomas L. Moran, President of Arizona-New Mexico Development Corp. of Phoenix, which owns the Caverns, General Superintendent Thomas C. (Cal) Miller and Project Architect Charles D. Hoyt, A.I.A., of Peach Springs. Architect Hoyt left a thriving practice in Portland, Oregon, to join the Dinosaur Caverns staff and plans to make the project his career. The building is low-profile, rustic-modern in design featuring laminated beams, 4"-inch, tongue and groove cedar roof decking, glass and stone accents and an exterior of rough Douglas fir slab siding. The elevator tower appears in the background. Contractor for the building is Larry Clark Construction Company of Phoenix.

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FIRST PAYING VISITORS to Dinosaur Caverns were Mr. and Mrs. Omar Byrd and daughter, Deborrah. The Byrds live at 2505 Brian Road, San Pablo, California. They saw the entrance billboard being erected on December 29th and turned in. Showing them through the Caverns is General Superintendent Thomas C. (Cal) Miller. Although the Caverns will not be officially opened to the public until sometime in March, visitors who drop in are welcomed and given a tour.

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AIR SUCKS PAPER DOWN exploration hole drilled into unexplored Cave 78 feet below surface. Here General Superintendent Thomas C. (Cal) Miller shows visitors the phenomenon. Under some conditions of temperature, a blast of air blows up out of the hole. Within a short time the hole will be enlarged to permit letting a man down on a rope to explore the chamber below. Hole is 1,000 feet southwest of the entrance building and elevator and it may be possible to join it to the explored portions of the Caverns by a tunnel. Mr. Miller has dropped a weighted line 200 feet down into the hole without touching bottom. At Dinosaur Caverns an accelerated exploration program is expected to open new halls and caverns, not only at the same level as the portions now open but also below them.

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ENTRANCE BUILDING AND ELEVATOR TOWER at Dinosaur Caverns near Seligman, Arizona on U. S. Highway 66 will be completed next month. The elevator is already in operation. The entrance building will contain 8,350 square feet and will cost \$90,000. (See caption information attached to picture showing three men and construction close up for further data.)

DINOSAUR CAVERNS ENTRANCE SIGN was erected on December 29th. Here, late in the afternoon, the crew from Electrical Advertising Inc. of Phoenix prepares to leave the site. The 10-foot by 40-foot, double-faced metal sign brought visitors in from Highway 66 the minute it went up. Two other signs have been installed along the Highway, one 5 miles East and one one-and-a-half miles West of the Caverns. Dinosaur Caverns are one mile South of the Highway and the sign. U. S. Highway 66 is being widened and resurfaced into a Class A highway and work has progressed up to 2 miles West of the Caverns already. Widening and resurfacing of the Highway from this point to a point 3 miles East of the Caverns is scheduled for the fiscal year June 30, 1962 to June 30, 1963.