OIL & GAS CONSERVATION COMMISSION
Meeting: January 26, 1979

Mr.John

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Gil and Gas Conservation Commission

STATE OF ARIZONA

1645 WEST JEFFERSON, SUITE 420 PHOENIX, ARIZONA 85007

AGENDA

Meeting January 26, 1979 1645 West Jefferson, Room 420 Phoenix, Arizona

10:00 A.M.

Call to order

1 Approval of minutes of meeting of September 15, 1978

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- 2 Report of Executive Secretary
- 3 Report of Enforcement Section
- 4 Report of Geology Section
- 5 Old Business
- 6. New Business
- 7. Adjourn

IF YOU ARE UNABLE TO ATTEND THIS MEETING, PLEASE NOTIFY THIS OFFICE AS SOON AS POSSIBLE.

ASS.

OIL AND GAS CONSERVATION COMMISSION 1645 West Jefferson Street Suite 420 Phoenix, Arizona 85007

Minutes of Meeting September 15, 1978 Department of Transportation Building Prescott, Arizona

Present:

Absent:

Mr. Hal Butler, Vice Chairman

Mr. Robert A. Gallaher, Member

Dr. J. Dale Nations, Member

Mr. Johnny Gregovich, Member

Mr. Ralph W. Bilby, Chairman

The regular Commission meeting of September 15, 1978 was called to order by Vice Chairman Hal Butler in the Conference Room of the Department of Transportation, Prescott, Arizona.

Vice Chairman Butler introduced Mr. Johnny Gregovich of the Inspiration Consolidated Copper Company. Mr. Gregovich is the new member of the Commission and is serving the remainder of the term of Mr. Norman Levitt, who has resigned.

Minutes of the June 29, 1978 regular meeting of the Commission were approved.

After discussion, it was ordered that the progress reports submitted to the Commission by the staff on a monthly basis now be submitted only prior to the regular meeting of the Commission.

The probability of the Thirty-fourth Legislature considering again the problem of a combined energy agency was discussed.

The Commission's budget for the 1979-80 fiscal year, as prepared by the Executive Secretary, was examined. The following changes were ordered by the Commission:

- 1. An additional \$500 be requested in Out-of-State Travel to allow Commissioner J. Dale Nations to attend one regular meeting of the Interstate Oil Compact Commission.
- 2. The request for one new geological position be dropped.
- 3. The request of the Geology Section for funds to conduct two investigations be dropped and alternative Plan A, i.e., request of the Geology Section for an additional \$4000 in State Travel funds with which to conduct on-site field investigations with four wheel drive vehicles, be adopted.

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Minutes of Meeting September 15, 1978 Page 2

It was moved, seconded and passed that the budget as herein-above amended be approved.

The meeting was adjourned at 11:45 a.m. and immediately went into Executive Session.

Executive Session

The Executive Session of the Oil and Gas Conservation Commission was called to order at 11:45 a.m. on September 15, 1978 by Vice Chairman Hal Butler for the purpose of discussing the salary of the Executive Secretary for the fiscal year 1979-80.

It was moved, seconded and passed that the Executive Secretary be granted a merit increase of 7%, in addition to any cost of living increase which might be granted by the Thirty-fourth Legislature.

The meeting of the Executive Session adjourned at 12 Noon.

APPROVED



Gil and Gan Conservation Commission

STATE OF ARIZONA 1645 WEST JEFFERSON, SUITE 420 PHOENIX, ARIZONA 85007

ACTIVITY REPORT

January 18, 1979

John Bannister Executive Secretary

The next meeting of Oil and Gas Conservation Commission will be Friday, January 26, 1979 at 10:00 a.m. If you will meet in my office, we will go to the conference room next door where the actual meeting will be held.

Mr. LeRoy A. Palmer of Taylor has been appointed to the Commission to succeed Mr. Robert Gallaher. This appointment is subject to confirmation by the Senate and as soon as this office is advised of this action we will contact Mr. Palmer. Mr. Gallaher will continue to serve in his present capacity until such time as the Senate confirms Mr. Palmer.

As you have been advised, the Natural Gas Policy Act of 1978 makes this Commission responsible for enforcing the regulations adopted by the Federal Energy Regulatory Commission under the act. Many problems are involved, the most pressing being the authority of the Federal Government to designate some state agency to enforce federal regulations. Prior to the passage of this act, the Department of Energy contacted Governor Babbitt for his appointing partment of Energy contacted Governor Babbitt for his appointing a state agency to enforce the regulations in question. Governor Babbitt advised that this Commission would be the responsible agency, consequently, when the Natural Gas Policy Act was passed, this agency was designated therein to act as the determining agency for the State of Arizona.

Under the provisions of the act, criteria were established which, when met, would automatically command a specified price for natural gas. The designated state agency is to make a factual determination and submit this to the FERC, at which time the stipulated price will go into effect. The FERC has no authority to overrule the state's determination unless it decides that there were not sufficient supporting facts available to the Commission upon which to make the determination.

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Executive Secretary January 18, 1979 Page 2

Pursuant to the Natural Gas Policy Act, this Commission filed with the FERC a document titled "Determination" wherein was spelled out the manner in which we would act. I have received a call from FERC indicating that our determination was most acceptable and well prepared.

It should be noted that in the determination the Commission agreed that it would act only on state and privately owned lands within Arizona and that inasmuch as this authority had not been spelled out by the State Legislature, it would file an alternate determination, if necessary, following granting of such authority. At the same time, letters were written to the United States Geological Survey in Albuquerque, New Mexico and Los Angeles, California (the agencies having federal regulatory authority within the state) spelling out that we would exercise our granted jurisdiction only on state and private land.

The Natural Gas Policy Act did not specify exactly what are federal lands, leaving such questions open as to authority on Indian reservations, national forests, monuments, etc.

The determination filed by this Commission and the letters to the USGS were discussed with and approved by the Attorney General.

In order to clarify the authority for this Commission to act in this capacity, House Bill 2079 has been introduced by the Committee on Natural Resources and Energy of the House. This bill specifically grants authority to this Commission to accomplish the purposes assigned to it under the Natural Gas Policy Act and spells out a simplified procedure. The bill carries the emergency clause. It is my feeling that the bill will pass both the Senate and House very quickly.

I would like to say that the actions of the Commission taken in respect to the Natural Gas Policy Act have been discussed not only with the Attorney General but with the Governor's Office and leaders of the Senate and House. Everyone is in agreement as to the steps this Commission has taken.

You will recall that the Interstate Oil Compact Commission had a meeting in Oklahoma City to familarize the states with the requirements they would be expected to meet under the Natural Gas Policy Act. This was an extremely valuable experience and many common problems were noted. On December 13, 1978 an additional meeting was held with the Federal Energy Regulatory Commission, again in Oklahoma City. The purpose of this meeting was to discuss the legal ramifications of the Natural Gas Policy Act and, at the request of the Attorney General, I attended this meeting.

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Executive Secretary January 18, 1979 Page 3

It is anticipated that the IOCC will hold one additional "schooling" on the actual handling of a natural gas application. This, too, will be in conjunction with the FERC. The purpose of this will be, in effect, to actually walk an application through the entire process, beginning with the filing of the request for determination, through the state process, and follow it on up to and through the FERC's procedure. Should this school become a reality, I feel it is incumbent that Bill Allen and I attend.

You are probably aware that Governor Babbitt has relieved Mr. Andrew Bettwy of his duties as State Land Commissioner. It is my understanding that, in order to conform to state law, Governor Babbitt has nominated John Long as Land Commissioner, but has advised the Senate that he will substitute his choice for Mr. Long at such time as his decision is made and before the Senate will act upon this confirmation. I have heard no rumors as to whom Governor Babbitt may appoint.

From all indications, we should experience a tremendous increase in drilling applications through 1979. As you are aware, Mr. Murel Goodell has taken two applications for wells in the extreme northwest corner of Arizona. Mr. Goodell has ranching interests in southwestern Utah and has been successful in drilling several oil wells on his own. He is playing the Overthrust Belt Theory and feels he has an excellent chance of developing significant oil or gas reserves in this area.

Mr. Grant Sheretta, a reporter for the Arizona Republic, contacted me yesterday and said he had been in contact with a representative of San Jacinto Exploration, Inc., a Canadian corporation. He was advised that this company has secured in excess of 150,000 acres in the juncture of Pinal, Graham, Pima and Cochise Counties and that a 15-well drilling program will get under way shortly. A Canadian Company, Transcontinental, has a large lease block in this area and it is our understanding it has transferred this holding to San Jacinto. At this time there is no confirmation of this report.

As a result of the newspaper story published in the Arizona Republic on Sunday, January 14th, this office has had numerous requests for information.

On Monday, January 15th, I was called before a subcommittee of the Senate Appropriations Committee to discuss the Commission's proposed budget for 1979-80. This subcommittee was chaired by Boyd Tenney. Both the Governor's Budget Committee and the Joint Legislative Budget Committee had recommended substantial reductions in the budget as submitted by this Commission. As you know, Governor Babbitt requested that no full time state employees be hired, consequently, both committees recommended that the secretary requested by this Commission not be funded.

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> Executive Secretary January 18, 1979 Page 4

In addition, the geological program requested was denied, inasmuch as both the Governor and the Legislature have decided that no new programs will be funded at this time.

In my appearances before the Senate Subcommittee it was pointed out that we could live with these restrictions of no new employees and programs, however, in view of the proposed state potential drilling development within the state, the reduced travel allowed by both was too restrictive. I feel that the Senate Subcommittee did approve my request for increased travel funds, as well as my request for capital expenditure for a geological stereoscope.

On Wednesday, January 17th, I appeared before the Subcommittee of the House Appropriations Committee, chaired by Mr. John Wettaw. My request to them was the same as to the Senate subcommittee, i.e., more travel funds and money for the stereoscope. Again, I feel that our request was heeded.

I would like to report that this Commission is respected for its budget request as being both realistic and not ballooned. We will not know the outcome of our budget request until adjournment.

As above mentioned, House Bill 2079 will grant the Commission authority to act under the Natural Gas Policy Act. This bill has been introduced and I will make the necessary appearances before the assigned committees.

In addition to this, House Bill 2080 will involve this Commission. This bill calls for the creation of the Arizona Energy Agency. I have not seen the provisions of this bill as yet but we will be called upon to appear as this bill progresses through committees.

I understand, but have not been able to confirm, that Governor Babbitt will also introduce a bill to create an Arizona energy agency combining several existing agencies. The Oil and Gas Conservation Commission, of course, will be one of these. If and when such bill is introduced, we will be involved in its progress through the various committees and I will advise you as soon as possible.

As soon as House Bills 2079 and 2080 are available, I will furnish copies to you.

Another bill will be introduced which will involve the Commission. This bill will seek funds for the purpose of updating the State Geological Map. This bill will call for an initial funding to the Oil and Gas Conservation Commission of \$258,000. With this money, we will contract with the Bureau of Geology and Mineral Technology (University of Arizona) to accomplish this purpose. Dr. Dresher,

Executive Secretary January 18, 1979 Page 5

Dean of the College of Mines and Director of the Bureau, and I have contacted leaders in the Senate and House and the Governor's Office to explain the need of this bill. I feel that we have a stronger chance of securing passage this year than we did last. The Governor's Office was not "encouraging" but did indicate that if the bill passes the Governor will sign it. This bill will be introduced by the Natural Resources and Energy Committee of the House. As soon as this has been accomplished and a copy is available, I will furnish same to you.

As previously reported, in-state travel for the remainder of the fiscal year 1978-79 is most critical. State travel by the staff has been curtailed below necessary limits in order to conserve funds. It is my suggestion that we seek a supplemental appropriation to this Commission for the remainder of the fiscal year 1978-79 in the amount of \$2,500. As an example of our situation, in order to reach the two wells previously mentioned in northwestern Arizona, it is necessary to go into Las Vegas. This roundabout way of getting there will greatly increase travel expenses but this surveillance must be accomplished.

Bill Allen underwent surgery on January 16th to remove some spurs from his left kneecap. Apparently the surgery has been successful, although extremely painful. I have just been advised that Bill will return home today and, hopefully, he may be able to attend the forthcoming meeting.



Oil and Gas Conservation Commission

STATE OF ARIZONA 1645 WEST JEFFERSON, SUITE 420 PHOENIX, ARIZONA 85007 PHONE: (602) 271-5161

ACTIVITY REPORT

January 17, 1979

W. E. Allen Enforcement Section

You are probably aware that a subsidiary of Peoples Gas Company of Chicago has acquired a 50% interest in Asnchutz Corporation lease holdings in Arizona. In speaking of their previous successful venture with Anschutz in the Overthrust Belt, O. C. Davies, Chairman of Peoples Gas, said "Perhaps the most important of these, in the long run, will be a second agreement with Anschutz in which we acquired a 50 percent interest in oil and gas leases covering about 7,000,000 acres along the Overthrust Belt, running from Utah and Idaho down to Arizona and the Mexican Border. Some preliminary exploration efforts are already underway, but we expect our major effort to begin next year."

We understand that Anschutz, together with other interests, has three geophysical crews working in Arizona. The original target date for starting the first well was December 1, 1978. That date apparently got sidetracked somewhere along the way. Anschutz has submitted its blanket drilling bond.

Kerr-McGee Corporation has completed seven development wells in the Dineh-bi-Keyah field. The production from these wells varies from an indicated low of 400 barrels of oil a month to an apparent high of 5000 barrels per month. Their plans are to evaluate these wells until early summer and, if conditions warrant, they will drill an additional 13 more wells.

So far this month we have issued three permits to drill; one permit was issued to Exxcel Corporation of Denver for a 5200' Mississippian test located in the NW/SE/4 of Section 29, T38N, R24E, Apache County. This test is approximately two miles southwest of a well drilled by Tesora Petroleum in 1972. Two permits were issued to Murel Goodell, an independent operator from Utah. One of these wells will be a 1085' test located in the center

Enforcement Section January 17, 1979 Page 2

of the N/2 of Sec. 16, T41N, R16W, Mohave County. The other is a scheduled 12,400' test located in the SW/SW/4 of Sec. 12, T41N, R16W, Mohave County. These tests are approximately 12 miles northwest of Littlefield, Arizona.

Energy Reserves Group is planning to take up its drilling program where it left off back in the winter of 1977-78. These wells will be stepouts in the Teec Nos Pos field of northeastern Arizona. This company will begin drilling as quickly as it satisfies the Navajos who hold the surface grazing lease.

Attached to this report are copies of two news items you may find interesting.

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Tues., Nov. 14, '78 A-5 The Arizona Republic.'

Mexican oil find put at 100 billion barrels

CANCUN, Mexico (UPI) — A new petroleum field believed to contain more than 100 billion barrels of crude oil has been located near Tampico Pemex director Jorge Diaz Serrano reported during the weekend.

If this and other potential reserves are proven, they would make Mexico the leading oil nation in the world with reserves in excess of 300 billion barrels of crude. About 10 percent of this total has been proven.

The new field, also believed to contain more than 40,000 billion cubic feet of gas, is 80 miles long and 17.5 miles wide and is in the eastern states of Tamaulipas and Veracruz.

In the past, only small amounts of petroleum have been found in the Tampico area. This would be the first major oil discovery outside the oil-rich southeast.

east.

Mexico currently produces more than 1.3 million barrels of crude daily and hopes to double this by 1982.

The official revealed the find during the inaugural of the second Latin American Congress on Petrochemicals, that was inaugurated here Sunday by President Jose Lopez Portillo.

During the meeting, National Properties, and Industrial Development Secretary Jose Andres de Oteyza announced that the government will invest nearly \$1 billion in the petrochemical industry.

DRILLERS THREATENED AT NAVAJO DRILL SITE Tom Dugan of Dugan Production Co. of Farmington, N.M., and Baumgardner Oil Co. of Denver, Colo., were recently reported as being threatenedat gun point at drilling sites on the Navajo Reservation.

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pugan was quoted as telling of being threatened by a woman accompanied by two men, he said, "She was violent, very angry, she wanted us to stop drilling, and so finally, she threatened to kill me...It wasn't worth having that kind of trouble, so we decided to leave. They (the woman and two men) blocked the road and wouldn't let us leave until we paid \$300.00, and then we left." The incident was reported to have taken place on Oct. 29th following reports by the Dugan driller that workers had been approached Sunday by opponents to the drilling.

Dugan also reported that all the necessary paper-work had been completed on the drilling project. The special officer for the Bureau of Indian Affairs Agency scheduled a meeting involving members of the Navajo Tribe that involved a second Dugan drill site. Evidently the whole incident was over a complaint some Navajos had in the area of the Baumgardner lease. The Indians had complained of damage allegedly done to some grazing land by road construction. And the Navajos felt "... they should be compensated because the well is on their grazing land." It was reported that four or five families reside in the area - having a portion of the area assigned to them for grazing.

them for grazing.

The Indian Affairs special officer said Navajo police were assigned to the Baumbardner lease—where Loffland Brothers Co. was doing the drilling and no Navajo police were reported at the Dugan site "because Dugan had pulled out." Drilling at the Baumgardner well was resumed by Nov. 1.

The various Indian tribes in the southwest hold oil and gas lease bid sales from time to time and the leases go to the highest bidder - plus substantial bonus money. But drilling has been stopped quite often in recent years - until settlement of tribal complaints are settled. It was reported that this last bruhaha was settled before the end of the first week.



Gil and Gas Conservation Commission

STATE OF ARIZONA 1645 WEST JEFFERSON, SUITE 420 PHOENIX, ARIZONA 85007 PHONE: (602) 271-5161

January 16, 1979

J. N. Conley ACTIVITY REPORT Director, Geology Section

PUBLICATIONS

Publication sales since November 7, 1978, amount to \$313.25. ENERGY RESOURCE LEASING & EXPLORATION

Oil and Gas. This past month Farrelly & Pendleton, Denver, assigned to Reading & Bates 35,000 acres of oil and gas leases on State lands in Cochise County. Also, this past month Anschutz Corp. had two seismograph crews and a magnetoteluric crew working in unreported areas in Cochise County. Anschutz Corp. is assigning an undivided 50% interest in its oil and gas leases on State lands to Narmco Corp.

According to an unconfirmed report, approximately 4-million acres of oil and gas According to an unconfirmed report, approximately 4-million acres of oil and gas leases on Federal lands have been leased or application to lease filed with the Kingman office of the Bureau of Land Management. The area involved extends northward from the vicinity of Kingman in Mohave County to the boundary of the state

The Rocky Mountain district geologist for Home Oil Co., U.S.A., was in the office last month to examine the drill-bit cuttings of the two wells drilled by Pyramid Oil Co. southwest of Colorado City. A consulting geologist in Denver is evaluating

Geothermal. W. Richard Hahman, Sr., Geothermal Group, Arizona Bureau of Geology & Mineral Technology, reports in the December 1978 issue of FIELDNOTES that the U.S. Energy Division of Geothermal Energy as a participant in the geothermal energy, evaluation, and development program in Arizona. A portion of Hahman's report is

Magma Power will bring on stream this year the nation's first power generation plant using geothermal energy which originates as hot water in an underground reservoir. The site of this plant is in the East Mesa geothermal field near El Centro, Calif. The location of this field and other large geothermal areas in the west, excluding

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According to an unconfirmed report, approximately 4-million acres of oil and gas leases on Federal lands have been leased or application to lease filed with the Kingman office of the Bureau of Land Management. The area involved extends northward from the vicinity of Kingman in Mohave County to the boundary of the state with Nevada and Utah.

The Rocky Mountain district geologist for Home Oil Co., U.S.A., was in the office last month to examine the drill-bit cuttings of the two wells drilled by Pyramid Oil Co. southwest of Colorado City. A consulting geologist in Denver is evaluating a block of leases west of Home's lease block.

Geothermal. W. Richard Hahman, Sr., Geothermal Group, Arizona Bureau of Geology & Mineral Technology, reports in the December 1978 issue of FIELDNOTES that the U.S. Department of the Interior Bureau of Reclamation has joined the U.S. Department of Energy Division of Geothermal Energy as a participant in the geothermal energy, evaluation, and development program in Arizona. A portion of Hahman's report is attached.

Magma Power will bring on stream this year the nation's first power generation plant using geothermal energy which originates as hot water in an underground reservoir. The site of this plant is in the East Mesa geothermal field near El Centro, Calif. The location of this field and other large geothermal areas in the west, excluding two fields in New Mexico, are shown on the attached map.

SARAGE SALES

Activity Report January 16, 1979 Page 2 The Administration has presented to the governors of Arizona, Colorado, New Mexico, Nevada, and Utah a plan for the reorganization of federal natural resources functions and programs. The new Department of Natural Resources would be divided into five functional areas: public land resources, ocean and atmospheric resources, water resources, natural resources sciences, and outdoor recreation resources. If submitted to and approved by Congress, the reorganization would involve many of the functions presently under the jurisdiction of such federal agencies as the Department of the Interior, the Department of Commerce, the Department of Agriculture, the Corps of Engineers, the Marine Mammal Commission, and the Water Resources Council.

The Administration claims that the reorganization would save approximately \$151 million and cause a reduction of 3,700 positions. If efficiently operated, it definitely would expedite exploratory efforts by industry and state agencies.

INVESTIGATIVE PROJECTS

Northeast Arizona. Most of the maps and illustrations for the report being prepared have been drafted in final form for printing. The report pertains to potentially favorable areas for future exploration for petroleum and geothermal energy resources in the northeast part of the state.

GENERAL

The publicity given the big lease play in the Basin and Range province of the state has created an increase in the sales of some of our publications, phone and mail requests for information about our publications and availability of geophysical and geological maps published by other agencies (federal and state), and more visitors interested in purchasing publications or inspecting our well records. Our stock of State of Arizona Well Location Map Four is about depleted. This publication is being reprinted.

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CEOTHERWAL PIPELINE

Geothermal Group Grows and Moves

by Mr. W. Richard Hahman Sr.

We've moved again! Currently, we are located at 2405 N. Forbes Blvd., Suite 106, Tucson, Arizona 85705. We now have comfortable quarters with adequate room to expand should it become necessary. We are sorry that the Bureau family cannot stay together at the University but adequate space cannot be found there.

Mr. Michael Ciarochi has joined our staff as a geological technician. Mr. Ciarochi's prior experience with exploration and mining companies will be of benefit to our geological mapping, sampling, and drilling programs.

The U.S. Department of the Interior, Bureau of Reclamation, Region 3, Boulder City, Nevada has joined the U.S. Department of Energy, Division of Geothermal Energy as a participant in the geothermal energy exploration, evaluation and development program in Arizona. This program is designed to determine the possibility of water supply augmentation and water quality enhancement through the development of high temperature geothermal resources on Federal lands in Arizona. Such lands include Hyder Valley, Kingman, Palo Verde, Safford, Verde Valley, Willcox, Yuma, and other lesser known regions. Another Bureau of Reclamation supported program in progress involves assessing the high temperature geothermal energy potential in the Springerville-St. Johns and Clifton-Morenci areas in an attempt to augment water supply and improve water quality. These Bureau of Reclamation programs have been dovetailed with the low to moderate temperature geothermal energy studies supported by the U.S. Department of Energy, Division of Geothermal Energy, to negate duplication of funding and effort.

The Hyder area, to include the Palomas and Sentinel plains, is characterized by numerous shallow hot wells and a former hot spring, Agua Caliente. The area is situated over a deep sediment filled basin, several major gravity and magnetic anomalies, and the trace of the northeast trending Gila lineament, a probable major structural boundary or fracture zone. The Sentinel basalt field, active during the past 3 million years, is close by. Geothermometry of hot wells suggests Na-K-Ca and SiO₂ reservoir temperature estimates of around 100°C. These estimates are, however, likely to be low if deeper hot waters are mixing with colder near-surface waters.

Not as much preliminary information is available for the Kingman region. Existing geochemical geothermometer data indicate potential minimum reservoir temperatures in excess of 100° – 150°C and groundwater that may contain total dissolved solids in excess of 3000 parts per million. However, there are not enough data available to speculate on the mixing of cool water with thermal brines.

The Palo Verde area in this study encompasses the Hassayampa and Rainbow valleys. Some of the highest heat flow measurements in Arizona have come from here. The

geothermometry from hot water wells in Rainbow Valley suggests Na-K-Ca temperatures of 120°C and SiO₂ temperatures of 180°C as minimum reservoir temperatures. Again, we are not able at this time to comment on various mixing possibilities.

The Safford area includes the Gila River Valley at Safford and the San Simon Valley. The region of interest is situated over a deep alluvial-filled graben which trends northwest. Several hot springs discharge near Fort Thomas and there are many hot saline artesian wells less than 1500 feet deep. Geochemical analyses of the hot water from these wells suggest minimum estimated reservoir temperatures of 60°C and 120°C using Na-K-Ca and SiO₂, respectively. A deep convective system with temperatures greater than 150°C may exist and could provide the mechanism which heats the shallow artesian aquifers.

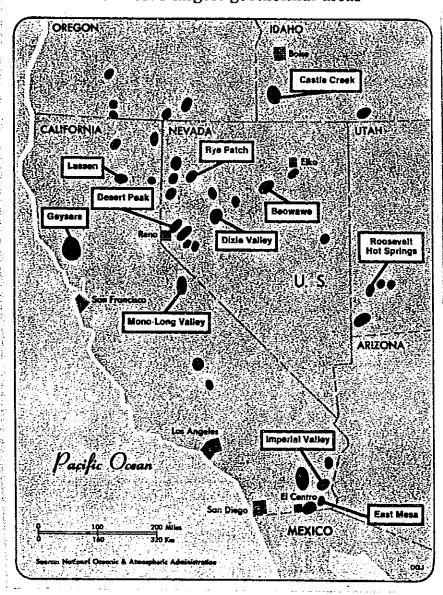
A geothermal resource in the Verde Valley is indicated at the northern part by Verde Hot Springs near Childs that has a surface temperature ranging from 38 to 41°C, and, in the southern part by Chalk Hot Springs, just north of Horseshoe Dam, that has surface temperatures of 36°C. The indicated minimum reservoir geochemical temperatures for Verde Hot Springs are 118°C (SiO₂) and 146°C (Na-K-Ca). It has been reported to our group that additional hot springs and seeps exist both along the river and in the flanking countryside.

High temperature gradient wells occur north of the town of Willcox and could indicate a high temperature geothermal resource. The area lies astride a possible northeast trending lineament that apparently controls the occurrence of some geothermal systems in both Arizona and New Mexico. The Sulphur Springs Valley contains a large quantity of saline ground water in storage that might be suitable for both domestic and agricultural use after desalination.

An oil test well drilled in the Yuma area to a depth of 3217 meters encountered temperatures up to 138°C. This is not an exceptionally high temperature for this depth but does indicate some potential that should be evaluated. Should a geothermal resource be developed in this region it might be possible to augment existing water supplies through the desalination of saline brines.

Added note: for the record I should like to comment that bill H.R. 12536 (Wild and Scenic Rivers) of the 95th Congress would remove several high priority geothermal resource areas from evaluation and development. These include portions of the valleys of: (1) the San Francisco River, (2) the Gila River, & (3) the Verde River. This is another example of the clash between single vs. multiple uses of land. Geothermal potential remains obscure and generally remote from the minds of most citizens and Congressmen. Hopefully, these lands will not be removed from geothermal study prior to adequate evaluation of their potential.

Some of the West's largest geothermal areas



(THE OIL & GAS JOURNAL, December 18, 1978)

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AGENCY Oil & Gas Conservation Commission
DIVISION

DIVISION	2	IDENTIFICATION CODE NO			
<u>.</u>	2.	3		·4	
CLAIMS PAID YEAR TO DATE	OBJECT	DISTRIBUTION OF EXPENDITURES		CLAIMS PAID	
	CODE NO.	CLASSIFICATION		MONTH OF	
12,460 56	71130	1 Salary: Appointed Official		DEC 1978	8
30000	71140	2 Per Diem: Commission Members	1	2,076	7/
41,411 52	71150	3 Salaries: Staff	2		
48258	71510	4 Emp. Related: Workmens Comp	3	6,901	9.
323 40	71520	Unemployment Insurance	5	78	
2,139 97	71530	F.I.C.A.		53	2
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36000	7155 <u>1</u> 71552	8 Health Insurance	8	628	
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1,473 51	72199	car tographic Symbols	11		-
286 80	72511	12 Cartographer 13 Travel-State: Mileage - Private Vehicles	12	<u>636</u>	ore
1,478 95	72512	14 Mileage - State Vehicles	13		
739 90	72520	15 Subsistence	14		
	72531	16 Air Fare	15		_
200	72543	17 Parking	16 17	-	
37 85	72549 72560	18 Misc.	18		_
53600	72571	19 Travel-Out of State: Subsistence 20 Air Fare	19		<u> </u>
71 15	72574		20	58	
40 00	72581		21		
50	72589	22 Registration Fees 23 Other-Telephone, etc.	22		
2,50000	72711	24 Occupancy: Office Rent	23		
	72713	25 Warehouse Rent	24		
	<u>72821</u>	120 Mtn. & Repairs: Furniture	25		
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53 50	72824	Typormitors	28		
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		of Office Suppries: Printed Stationery & Fryglones	31		
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	73259	34 Misc. & Blue Prints 35 Field Supplies: Logs, etc.	34	201	8
	<u>73514</u>	36 Printing - Large Maps, etc.	35		
	73519	Misc.	36		
	73524	38 Legal Advertising	37 38		
	73531	39 Subscriptions: Newspaper	39		
218 00	73533 73541	Technical Tournals	40		
12830	73551	41 Postage Stamps 42 Telephone Serv: Central System	41		_
-/2825	73552	Central System	42		
12028	73553	Equipment Rental	43	85	
135 97	73554	44 Long Distance 45 ATS Service Charge	44	428	
1,530 00	73720	46 Organization Dues	45	26	
75 80	73730	47 Technical or Reference Books	46		<u>-</u>
	73741	48 Insurance	47	75 6	80
25000	79220	49 Revolving Fund	48		_
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Gil and Cas Conservation Commission

STATE OF ARIZONA

1645 WEST JEFFERSON, SUITE 420 PHOENIX, ARIZONA 85007 PHONE: (602) 271-5161

January 3, 1979

Memo: Commissioners

From: John Bannister, Executive Secretary

Pursuant to our recent telephone conversations, this is to advise that the official January 1979 meeting will be held on January 26th at 10:00 a.m. at the Commission offices.

The regular Commission mailing will be made prior to that date.

Should you have any questions, please advise.



Oil and Cas Conservation Commission

STATE OF ARIZONA

1645 WEST JEFFERSON, SUITE 420 PHOENIX, ARIZONA 85007 PHONE: (602) 271-5161

ACTIVITY REPORT

November 8, 1978

John Bannister Executive Secretary

Please note that the next Commission meeting will be held in Phoenix on November 17, 1978 at 10:00 a.m. It is hoped that a conference room now being prepared next door to the Commission office will be available for our future meetings. Should it be necessary to change the location of the meeting, you will be advised. Consequently, please plan to meet in the Commission office.

You have been furnished with the revised budget, submitted by this Commission subsequent to our September meeting in Prescett. In coordinating this budget with the Budget Committee, a few minor changes were made. However, in general the budget as presented to you stands firm. It should be added that the budget analyist feels that only a part-time secretary for Mr. Allen should be recommended. Both Mr. Allen and I feel that bringing a secretary in for half time would be more disruptive than productive. Consequently, it is my intention, should this meet with your approval, to request that the position be filled on a full-time basis or not at all.

You will note in the material furnished to you that Arizona Public Service has received approval from the Corporation Commission to pass the cost of a portion of its exploration for natural gas on to its customers. Earlier this year, I was requested by the Corporation Commission to comment upon the APS proposal. A copy of my response to the Corporation Commission is attached. It is my understanding that the original APS proposal was accepted by the Corporation Commission and that the cost of any unsuccessful well drilling by them in this program will be passed on to its customers. APS has indicated that it plans to spend in excess of \$40 million in this effort.

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As approved by you, I attended the Executive Session of the IOCC on September 27th in Wichita, Kansas. The highlight of this meeting was a presentation by the Federal Energy Regulatory Commission (FERC) concerning the then potential passage of a federal natural gas bill. As you are aware, this bill has now been passed by both houses, but not signed by the President. Chairman Charles Curtis and Vice Chairman Don Smith of FERC spoke to this group. Under the bill the state regulatory commission will have the job of certifying at what price new natural gas may be sold. There is a potential of 27 different price levels ranging from approximately \$0.67 per mcf to approximately \$2.09 per mcf. From the facts they gave us, if a well is concerned with only intrastate sales it will be controlled under the new bill.

FERC advised that it will develop an operating manual and guideline for the Commission in establishing the price which will be commanded for new natural gas and that contact will be made with the individual state commissions for this purpose. Chairman Curtis indicated that FERC would not try to establish uniforn procedural methods. It is its intention to look at each commission, how records are kept, the information required, and if these appear to be satisfactory there should be little trouble in FERC approval. However, Chairman Curtis made it strongly clear that FERC could overturn the findings of any state agency.

Chairman Curtis indicated that FERC was aware that some of the states have limited resources with which to accomplish this duty and that some of the states would be unable to finance this effort. Apparently it will enact some method to help these states to cover the costs involved. Any gas well drilled after February 19, 1977 will come under this new regulation. However, stripper gas wells and wells apparently committed to interstate commerce are exempt from the provision of the act. It was pointed out to Chairman Curtis that many of the states feel that there is a federal interference in something that is purely a state matter and will perhaps lead to the ultimate takeover of state conservation efforts by the federal government.

As of this date, this requirement proposes little trouble or expense to this Commission. It is too early to say what problems might arise in Arizona should some of the new contemplated exploration result in production of natural gas. It is my feeling that the records and procedures now in effect in the Commission will more than satisfy the federal requirements and that for the foreseeable future we will be able to handle the requirements of FERC on an in-house basis. It is not known at this time whether these rates for a new producing gas well will have to be set at a formal hearing or whether an informal and less costly procedure will suffice.

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It is interesting to note that some of the major gas producing companies have supported the new natural gas regulations. They point out that new regulations will put more gas into interstate pipelines because they will then be able to compete pricewise with intrastate gas by having the advantage of offering producers a twelve-month market rather than seasonal.

Our state travel funds are quite low. It has been necessary that Mr. Allen make more frequent trips than planned to the Dineh-bi-Keyah area due to the continued activity of Kerr-McGee. Consequently, I have severely restricted staff state travel in order to remain within our budget. As of this time, it appears that we will go into our next quarter, which beging January 1st, \$700 to \$800 in arrears. It is my feeling that by severely restricting travel, we will be able to stay in this budget. As you are aware, state travel has been a continuing problem to this Commission. I feel that the budget being considered by the legislature will be fare more equitable travelwise in-state.

MOST CONFIDENTIAL. As you have been advised, Dr. Dresher, Director of the Bureau of Geology and Mineral Technology, has been looking for a person to fill the position of State Geologist and to head the State Geological Survey of the Bureau. Dr. Larry Fellows of Rolla, Missouri, has at last been selected. Dr. Fellows received a Bachelor of Science degree from the Iowa State University, a Master's degree from the University of Michigan, and a Doctorate from the University of Wesconsin. He currently is working for the Missouri Geological Survey. Dr. Fellows has been interviewed by the Selection Committee and was their unanimous choice. It is anticipated that he will assume his duties in Tucson soon after January 1, 1979. No official announcement has been made as to his appointment at this time.

November 9, 1978

As I explained to you, the regulatory states are meeting in Oklahoma City on November 16 and 17 with staff members of the Federal Energy Regulatory Commission to consider the responsibilities placed upon them by the Natural Gas Policy Act. Consequently, there will not be a Commission meeting in November.

Chairman Charles Curtis of FERC is calling a meeting of the regulatory states in Washington, D.C., on November 28, and has specifically invited me (Bill Allen will also attend) to this meeting. I have informed the Governor's Office of this meeting in Washington and his office has indicated they will seek money for this trip. As you are aware, there are no funds in our out-of-state travel to cover this expense.

Apparently the responsibility of the various states to set the price to be received by the operator for new natural gas will begin as of December 1. I will keep you informed of developments in this area. It is my feeling that after the Oklahoma City meeting the practices I will suggest for use by this Commission will be fairly solidified. I do not anticipate a large problem for our state in complying with the new law. As previously indicated, FERC feels that there will be some federal money available to the states to handle the unexpected expenses associated with the requirements of the new law.

Dr. William Dresher apparently has made a public announcement concerning the appointment of Dr. Larry Fellows as state geologist. Consequently, please disregard the request for confidentiality.

Beginning December 11 the telephone prefix for our office will be changed from 271 to 255. This will apply to all state offices on the capitol switchboard. Consequently, our number as of that date will be 255-5161.

The next meeting of the Commission will be on January 19, 1979, at the office. You will be reminded prior to the meeting.



Oil and Cas Conservation Commission

STATE OF ARIZONA 1645 WEST JEFFERSON, SUITE 420

PHOENIX, ARIZONA 85007 PHONE: (602) 271-5161

ACTIVITY REPORT

November 8, 1978

W. E. Allen Enforcement Section

With the passage of the Natural Gas Policy Act of 1978, it appears likely that the Commission staff will have some additional duties in the very near future. We are awaiting the Federal Energy Regulatory Commission's (FERC) rules which will govern the administration of this act. The act states that the state agency having control over drilling and production of natural gas will be the certifying agency for each well drilled or produced in its state.

Among other things, there are some 27 different ceiling prices for natural gas and these prices have varying escalation factors depending on age of gas, depth of wells, rate of production, etc. All in all, it's just a simple little piece of legislation which not even the FERC understands.

Why, after the success the airlines are reporting following almost complete government deregulation, the bureaucrats can't get the idea that the free market works if given the chance, is beyond me.

Anschutz Corporation have indicated that they plan to start their first well in Arizona about the first of December. The exact location of this well hasn't been announced but I'm predicting that it will be in Section 25, T3S, R11W, Yuma County. This is the same section where Exxon drilled the No. 1 State 14 to a total depth of 2653 feet. The well was plugged and abandoned at that depth.

I have had several meetings with representatives of Cal-Gas and Williams Energy concerning the design and installation of a flare system to be located on the brine discharge lines. We have approved Cal-Gas'design. Williams Energy hasn't decided on a system at the present time. I expect Williams to adopt

the same system which Cal-Gas is going to install.

You are aware that following the hearing of April 21, 1978 Kerr-McGee was issued permits to drill seven additional wells in the Dineh-bi-Keyah field. They are now drilling on their fifth well. I was informed this week that they plan on drilling 13 more wells in the field - a decision hasn't been made as to whether drilling will continue through the winter or be suspended until the spring of 1979.

Pyramid Oil, the company which drilled two holes north of the Grand Canyon in Mohave County last year, is getting ready to plug the last hole drilled. There were several shows reported at depths ranging from 2200 to 2500 feet. Pyramid says it may come back next year and offset this well. The reason for plugging this hole instead of testing it is because Pyramid has been unable to recover a string of drill pipe stuck in the upper section of the hole.



Gil and Gas Conservation Commission

STATE OF ARIZONA 1645 WEST JEFFERSON, SUITE 420 PHOENIX, ARIZONA 85007 PHONE: (602) 271-5161

ACTIVITY REPORT

November 7, 1978

J. N. Conley Director, Geology Section

PUBLICATIONS

Publication sales since September 5 amount to \$170.15.

ENERGY RESOURCE LEASING & EXPLORATION

Oil & Gas. No recent leasing activity has been reported. Most of the federal and state owned lands in nonmountainous areas in the Basin and Range province have been leased or applications to lease filed. Based on inquiries from owners of the mineral rights of privately owned lands, a considerable volume of such lands has taken place the past four months.

We have not had a confirmed report that the proposed seismograph exploration program across the Basin and Range province is underway. It was scheduled to start this past month.

Geothermal. No leasing or exploration activity by industry has been reported. However, studies and physical exploration by governmental agencies are being conducted. Most of the current physical exploration is being directed to the Springerville-St. Johns area in Apache County.

<u>Uranium</u>. Exploration for uranium continues to be active. St. Joe Minerals is planning to drill a series of shallow holes east and southeast of the Petrified Forest National Monument in Apache County. Mr. Wm. Allen has suggested to this company that the bottom-hole temperature of these holes be measured to further evaluate the geothermal energy potential of the area.

INVESTIGATIVE PROJECTS

Northeast Arizona. Salvatore Giardina has completed a study of thermal water wells and springs in northeastern Arizona. A report on the results of the study will be prepared later this fiscal year.

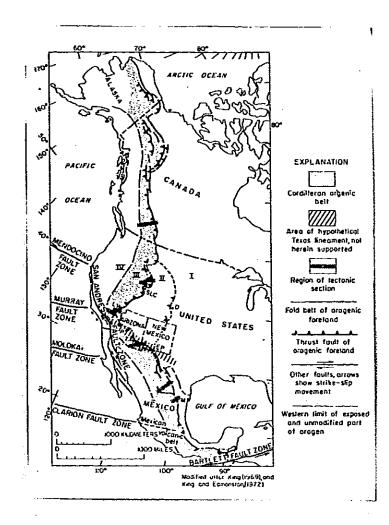
Most of the maps and tabulations of data pertaining to my investigation of the energy potential of northeastern Arizona have been completed in preliminary form.

Southeast Arizona. Salvatore Giardina has completed a structure map of Cochise and portions of adjacent counties. Copy for printing the map is being drafted currently.

Activity Report November 7, 1978 Page 2

GENERAL

Hingeline-Overthrust Play. I have mentioned in previous reports that Anschutz Corp. was basing its large lease play in the Basin and Range province of Arizona, New Mexico, Utah, and Nevada on the possibility of finding oil and gas accumulations comparable to those found along a belt extending from Mexico northward to Alaska. The small map on this page shows the location of the Cordilleran orogenic belt. Prolific oil and gas fields have been found along this belt.



Definition of Geology. Numerous definitions of geology have been made in past years. The Association of Professional Geological Scientists (APGS) is proposing the following definition for acceptance or rejection to its membership:

The Science of the earth and its constituent rocks, minerals, fluids and gases, processes and history by which scientists can predict, locate and evaluate the occurrence of minerals, sources of energy and naturally occurring phenomena and apply that knowledge to the benefit of mankind.

ALEMBER .

Activity Report November 7, 1978 Page 3

Until recently most people have had no concept as to what a geologist does. The common belief seemed to be that he "pounded on rocks." Actually, there are numerous fields of practice. The APGS lists 300-plus fields. Attached to this report is a list of the various fields of practice.

Fifth Anniversary of Oil Embargo. The week of October 20 marked the fifth anniversary of the Arab oil embargo. Since 1973 crude oil imports have grown from 26% of total crude used in the U.S. to over 40% thus far this year. Domestic production is 3% below 1973 levels.

New Federal Energy Bill. Congress has finally passed some legislation designed to reduce our dependence upon imported oil and gas. Relative to the Natural Gas Policy Act of 1975 there are diverse opinions concerning it. Industry doesn't like it because it doesn't do enough and consumer groups don't like it because they think it will cost too much.

Its principal weaknesses according to most industry spokesmen and some governmental authorities are:

- 1. Establish no less than 17 separate prices for 17 categories of gas and vastly complicate the entire regulatory procedure. The bill may be unenforceable.
- 2. Put unregulated intrastate gas under federal controls for the first time, when the unregulated intrastate market has contributed significantly to profits, increased drilling and the finding of new reserves.
- 3. Only decontrol a few categories of "new" natural gas ... and no earlier than 1985.
 - 4. Significantly increase controls on all gas.
- 5. Impose incredible regulatory costs and procedures on both industry and government.

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ASSOCIATION OF PROFESSIONAL GEOLOGICAL SCIENTISTS LIST OF FIELDS OF PRACTICE

This list was compiled from information submitted by members of the Association over a period of years. You will note that there are gaps in the numerical sequence that will allow us to make additions to the list. If your Field of Practice is not listed here, please type or print it plainly on the part of the dues statement to be returned to this office.

100	Acid mine drainage	259	Earth dams	426	Government relations
103	Active faults	262	Earth sciences	429	Gravity
106	Administration	265	Earthquakes	431	Ground vibration
109	Aggregate sources	266	Ecology	432	Ground water
	Airborne geophysics	268	Economic geology	435	Ground water contamination
113	Air pollution control	271	Editing	436	Ground water geochemistry
	Alluvial deposits		Education		Ground water geology
118	Applied geochemistry	277	Electromagnetics	441	Ground water hydrology
	Applied geology	280	Energy resources		, , , , , , , , , , , , , , , , , , , ,
	Applied geophysics	283		444	Hard metal exploration
127	Applied micropaleontology	286	Engineering geology	447	
	Applied mineralogy	289	Engineering geophysics		Hard rock geology
	Applied mineralogy Applied stratigraphy	292		453	
	Appraisals	295	Environmental conservation	456	
	Aqueous geochemistry	298		459	
1/2	Aquifers	301	Environmental geology	460	Hydrography
	Areal geology	304	Environ. Impact statements	462	Hydrology
147		307		402	Hydrorogy
147	Automotive emissions		Evaluation	465	Tanagua natwalagu
140	Date with a section of a	313		468	Igneous petrology
148	Base metal geophysics		•		Image interpretation
	Base metals	316	•	471	Industrial geology
151	Basement geology	319	.	474	Industrial minerals
	Basin studies	322	. 0 0,	477	Industrial seismology
157	Bauxite	325	Exploration geophysics	480	
	Bio-lithostratigraphy			483	Industry affairs
	Biostratigraphy	328		486	1 - 1
166	Blasting seismology	331		489	Investments
	Blast vibrations		Field mapping	490	
	Borehole testing	336		492	Iron ores
175	Business management	339			
		342	Fluvial processes	495	Kerogen analysis
178		345	Forensic geology		
181	Carbonate exploration		Formation evaluation	498	
184	Carbonate petrography		Fossil fuels		Land reclamation
187	Carbonate sedimentology	354		504	
188	Carbonate stratigraphy	357	Fuels	507	
	Cartography				Leasable minerals
193	Civil engineering	357	Gas deliverability	513	
196	Clastic sedimentation	360	Gas exploration	516	C
	Clay mineralogy		Gas prodeution	519	Limestone economics
	Coal development	366		522	
	Coal economics		Gas storage		
205	Coal exploration	372		525	Magnetics
208	Coal gasification	375		527	Management
	Coal geology	378		528	Marine geology
214		381	Geohydrology	531	Marine geophysics
217	Coastal geology	384		534	Marine geotechnics
220		387	Geological engineering	537	Marine mining
223		390		540	
226	Computer geology	393		543	
229	Concrete petrology	396	Geomechanics	546	
232	Construction materials	399	Geomorphology	549	
235		402	Geophysical data	552	
			processing	555	
238	Dam construction	405	Geophysical diagnostics	558	
241		408	Geophysical	561	-0
244			interpretation	564	
247	· · • · · · · · · · · · · · · · · · · ·	411	Geophysics	567	·
250		414		570	[[
253		417		573	
254		420			
256	Drilling supervision	423		576	Mine engineering
		74.5	"-actar Benings	579	Mine management

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922 Waste disposal
582 Mineral appraisals
                                       Radioactive wastes
                                                                       Water
                                                                  925
                                       Reclamation
                                  747
    Mineral development
                                                                   928
                                                                       Water chemistry
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                                        Soil science
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                                        Tar sands
    Pleistocene geology
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                                        Tunnels
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                                        Underground construction
                                        Underground storage
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                                        Unitization
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                                        Uranium exploration
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                                   910
                                        Urban geology
741
     Public relations
                                        Volcanic stratigraphy
                                   916
                                        Volcaniclastics
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Volcanology

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1	C MONTHLY	FINANCIAL RE	PORT 3	4	5
RECEIPTS MONTH OF SEPT 1978	RECEIPTS CLASSIFICATION	APPROPRIATED RECEIPTS	UNAPPROPRIATED RECEIPTS	TOTAL ALL RECEIPTS YEAR TO DATE	
-0-	Permits to Drill				75 00
	2				
	3				
1 .	4				
	5				
	6				
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	9				
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	17				
-0-	TOTAL CURRENT MONTH RECEIPTS			-0-	XXXXX
-	TRANSFERS IN				
XXXXXX	BALANCES BROUGHT FORWARD			75 00	XXXXX
	TOTALS - MONTH AND YEAR T	O DATE		75 00	
δ	7	8	9	10	11
CLAIMS PAID MONTH OF	EXPENDITURES FUND TITLES	TOTAL AMOUNT AVAILABLE VEAR TO DATE	CLAIMS PAID YEAR TO DATE	OUTSTANDING	UNENCUMBERED BALANCE

MONTH OF SEPT 1978	FUND TITLES	AVAILABLE YEAR TO DATE		CLAIMS PAID YEAR TO DATE		OUTSTANDING ENCUMBRANCES		BALANCE		
13,768 02	1 Personal Services	27,462	00	27,234	04			225	26	
2,301 84	2 Fmp. Related Exp.	5,202		4,857	81			350		
181 38		393	00	370				522	87	
56306	4 Travel - State	1,875	00	811	84	941	4L.	121	75	
	5 Travel - Out of State	2,000	00			333	00	1,667	00	
280 89	6 Other Operating Exp.	6,511	86	5,382	90	373	43	753	<u>53</u>	
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			-		ļ					
	30	 	 	 	 	 	ļ	-		
17,095 19	TOTALS	43,943	186	38,65	フス	1,673		3,643	30	
								······································	·	

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IDENTIFICATION ODE NO. DIVISION_ 1 2. CLAIMS PAID CLAIMS PAID OBJECT DISTRIBUTION OF EXPENDITURES YEAR TO DATE CODE NO. MONTH OF CLASSIFICATION SEPT 1978 Appointed Official 71130 1 Salary: 6,230 28 71140 Per Diem: Commission Members 300 00 300 00 Salaries: Staff 20.705 76 71150 10,352 88 <u>71510</u> 4 Emp. Related: Workmens Comp 242 58 121,77 Unemployment Insurance 71520 161.70 30 85 505 57 71530 F.I.C.A. 6 6 690 74 71542 7 Retirement 885 62 7 94281 71551 Health Insurance 64000 8 8 256,00 71552 14400 9 D & L Insurance 9 72 00 Personnel Comm. Pro Rata Charges 71570 10 <u> 972 34</u> 137 67 72169 11 Professional Serv: Cartographic Symbols 35 25 11 72199 297 38 Cartographer 12 12 18135 Mileage - Private Vehicles Mileage - State Vehicles 72511 13 Travel-State: 20430 13 204 30 72512 3645 14 14 72520 Subsistence 568 24 15 15 357 76 72531 Air Fare 16 16 72543 Parking 17 17 72549 Misc. 18 18 State: Subsistence Air Fare 72560 19 Travel-Out of 19 72571 20 20 72574 Taxis 21 21 72581 Registration Fees 22 22 72589 Other-Telephone, etc. 23 23 24 Occupancy: 72711 24 Office Rent 2 500 00 25 72713 Warehouse Rent 72821 26 Mtn. & Repairs: Furniture 26 72823 27 27 Adders & Calculators 53 50 28 28 72824 Typewriters 72826 29 Copy Machine, Other 29 30 30 72827 Mimeo, Reader-Printer, etc. 31 Office Supplies: Printed Stationery & Envelopes 73111 31 73113 32 Carbon & Ribbons 32 73117 Reproduction Supplies 33 33 32283 73119 34 34 Misc. & Blue Prints 119 50 35 Field Supplies: Logs, etc. 35 <u>73259</u> 36 Printing - Large Maps, etc. 73514 36 73519 37 37 73524 38 Legal Advertising 38 Subscriptions: Newspaper 39 Technical Journals 40 73533 40 73541 Postage Stamps 115 00 41 73551 28,77 Telephone Serv: Central System 5-287 42 Equipment Rental 73552 43 43 17/30 8565 73553 44 Long Distance 44 4928 2004 73554 45 45 ATS Service Charge 26 93 53/2 73720 500,00 Organization Dues 46 46 Technical or Reference Books 73730 47 47 73741 Insurance 48 79220 Revolving Fund 49

AGENCY Oil & Gas Conservation Commission

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Court Reporter

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Gil and Gas Conservation Commission

STATE OF ARIZONA 1645 WEST JEFFERSON, SUITE 420 PHOENIX, ARIZONA 85007 PHONE: (602) 271-5161

October 3, 1978

Commissioners Memo:

From:

John Bannister Executive Secretary

I apologize for all the confusion concerning the date of our next meeting. November 10th is a State holiday and all facilities will be closed, consequently we have repolled the Commissioners and November 17th will now be the firm date for the next Commission meeting in Phoenix.