

OIL & GAS CONSERVATION COMMISSION  
Meeting: January 16, 1976  
Mr. John Bannister, Exec. Sec.



OFFICE OF  
**Oil and Gas Conservation Commission**  
STATE OF ARIZONA

PHOENIX, ARIZONA 850  
PHONE: (602) 271-5161

A G E N D A

Meeting  
January 16, 1976  
8686 North Central Avenue, Suite 106

10:00 a.m.

Call to order

1. ✓ Approval of minutes of meeting of November 21, 1975
2. ✓ Report of Executive Secretary
3. ✓ Report of Enforcement Section
4. ✓ Report of Geology Section
5. ✓ Old Business
6. New Business - IDCC AUSTIN FEB-MAR.
7. Adjourn

BUDGET

*In minutes show discussion as to Comm. Rights to info. from well determined we have another*

3-19-75

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



OFFICE OF

**Oil and Gas Conservation Commission**

STATE OF ARIZONA  
8686 N. Central Ave. Ste. 106  
PHOENIX, ARIZONA 85020  
PHONE: (602) 271-5161

January 7, 1976

Memo: Commissioners  
From: John Bannister

We hope you have enjoyed a most pleasant holiday season.

Since our last meeting, not much activity has been going on, primarily due to the holidays. However, indications are that we can expect much more activity in 1976 than we had in 1975.

As Mr. Allen will report to you, Webb Resources have spudded their first well in the NW/4 SE/4 of Section 30, Township 15N, Range 25E and Morton Brothers have started a well in the NE/4 SE/4 of Section 8, Township 13N, Range 18E. As previously reported, Webb Resources, together with Southern Union, plan to drill some seven wells.

As indicated to you earlier, the tax bill earlier proposed by the Commission, i.e., 5% of the gross production of oil, natural gas, helium and geothermal energies, with a waiver of the collection of this tax until the operator has collected 200% of the cost of drilling and completing the discovery well, will again be introduced in this session of the legislature. The Governor's Office indicated that the Governor would request this bill, however the bill will now be sponsored by the Joint Committee on Energy composed of the Natural Resources Committees of both houses.

Your meeting folders at the office will contain copies of the geological proposals submitted by this Commission to Governor Castro in response to his direction. We have no indications at this time as to how much money the Governor may recommend in his budget message. Should any or all of this be funded, I anticipate setting up a committee as soon as possible to handle the funds. The formation of this committee is suggested in the Governor's letter, copy of which is in your packet.

Memo: Commissioners  
1-7-76  
Page 2

As yet, we have not received any additional information on our proposal to the Four Corners Regional Commission for the continuation of the study by Dr. Davis.

Dr. Dale Nations, whom I understand is currently the Mayor of Flagstaff and who is a member of the Geology Department of Northern Arizona University, has been invited by the Governor to become a member of the Commission. No action has been taken by the Senate.

Indications are that the forthcoming legislative session will again be faced with an extremely tight money situation, however as of this time it appears that the Commission's suggested budget has received favorable treatment from the Budget Office of the Finance Department, as well as the Joint Budget Committee. The shortcomings of the budget we are currently operating under have been forcefully pointed out to these committees and these mistakes have been corrected. At this time we have no positive indication as to what salary treatment may be expected for Commission personnel.

The forthcoming Executive Committee session of the Interstate Oil Compact Commission will be some time the latter part of February or the first of March. No specific date has been set as yet. Indications are that this meeting will be called in Austin, Texas, inasmuch as Governor Briscoe is now Chairman of the IOCC. This is one of the trips for which we have budgeted and consequently permission is hereby requested to attend this meeting whenever it is called.



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STATE OF ARIZONA  
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~~PHOENIX, ARIZONA 85020~~  
PHOENIX, ARIZONA 85020  
PHONE: (602) 271-5161

January 9, 1976

Memo from W. E. Allen  
Enforcement Section

Happy New Year -

Well, things look a little brighter for Arizona as this January rolls around. We have one well drilling off the Reservation and have issued a permit for another.

Morton Bros. spudded their Federal #8-1 December 29, 1975. This hole is located in the NE/SE/4 Sec. 8, T13N, R18E, Navajo County. The projected T.D. is 4000'. This should be basement in this area. This location is 12 miles NE of Heber.

Webb Resources test is located in the NW/SE/4 Sec. 30, T15N, R25E, Apache County. This location is 31 miles SE of Holbrook and is a 4500' test. This should also reach a basement at that depth.

Morton Bros. have set both conductor and surface casing on their hole. These operators have been very unfortunate money-wise on this location. First, they moved the rig in while the ground was wet, resulting in the building of approximately a mile of road at an estimated cost of \$50,000, and then they have been plagued by lost circulation problems. It is most unfortunate that a new operator to our State experience these expensive operations on their very first effort.

On January 6 and 7 Webb Resources were moving in and rigging up on their location. They moved their own rig down from Montana, so it would appear that they intend to be around for a while - maybe to complete their 7 well program.

Tuesday and Wednesday were spent on these two locations, checking equipment and operations. That is the reason for this delayed report.

OIL & GAS CONSERVATION COMMISSION  
Meeting: January 16, 1976  
Mr. John Bannister, Exec. Sec.



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PHOENIX, ARIZONA ~~85011~~ 85020  
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As mentioned in a previous report, Hunt Energy Corporation of Dallas, Texas, an H. L. Hunt affiliate, has requested information on our rules and regulations and also various forms necessary to file an application. Now it is learned that Hunt and Associates have applied for approximately 130,000 acres of federal land for geothermal exploration. This acreage is in Coconino County, 80,000 acres; Pima County, 7,500 acres; Maricopa County, 20,000 acres; Graham County, 15,000 acres; and 7,500 acres in Yuma County. I am told that they are making every effort to get these leases issued.

In November, 1975, Clinton Oil Company started selling gas from their Navajo "0" lease in Apache County. This is the first sale of Arizona gas since September, 1974.

Deep drilling is on the decline in the United States. Several reasons are given for this: Scarcity of money - development drilling is getting first crack at the available money supply - few successful discoveries below 22,000 feet. The price ceiling on natural gas and of course the political uncertainties are blamed most for the fall-off of deep drilling. Most contractors with ultra-deep drilling capabilities expect this situation to turn around when the supply of natural gas becomes more critical and price controls are dropped.

Occidental Petroleum Corporation has developed a revolutionary process of producing oil from shale. They have started their oil-shale burn in their pilot operation of the Piceance Basin of Colorado. The operators expect to be producing some 500 barrels of shale oil per day within the next few weeks.

Little is known of the Occidental process except that it uses only a small amount of water and leaves the spent shale in place. This process, if economically successful, should eliminate many environmental objections to the extraction of oil from shale.



OFFICE OF

### Oil and Gas Conservation Commission

STATE OF ARIZONA  
8686 N. Central Ave., Suite 106  
4315 NORTH CENTRAL AVE.

PHOENIX, ARIZONA 85013- 85020

PHONE: (602) 271-5161

ACTIVITY REPORT

January 6, 1976

J. N. Conley  
Director, Geology Section

#### PUBLICATIONS

Sales for the past month amounted to \$123.50. Purchasers were:

Dixel Resources, Inc., Denver	Sun Oil Co., Dallas
Questa Petroleum Inc., Albuquerque	Bio-Gas of Colorado, Loveland
TransOcean Oil, Inc., Denver	Craig C. Ramsey, Denver
Superior Oil Co., Casper	Edward Michel, Farmington
U.S. Steel Corp., Provo	Chevron Oil Co., Denver
TransOcean Oil, Inc., Houston	Willets & Paul Corp, Pittsburgh, Pa.
Robert L. Bayless, Farmington	Wichita Industries, Inc., Denver
Hunt Oil Co., Dallas	Robert E. Eckels, Golden
Sohio Petroleum Co., Oklahoma City	James M. Whitaker, Farmington
Williams Bros. Engineering Co., Tulsa	Thomas D. Chace, Chicago
Cities Service Oil Co., Tulsa	Suzanne Takken, Oklahoma City
Equity Oil Co., Denver	John A. Nydegger, Denver
Gulf Energy & Minerals Co.-U.S., Midland	Donald R. Hembre, Denver
L. A. Murphy, Estes Park	Petroleum Investment, Salt Lake City
John Fisher, Fisher Enterprises	Crown Central Petroleum Corp., Midland
Ashland Exploration Co., Houston	W. J. Budd, Magnolia, Arkansas
Frank C. Peterson, Phoenix	Coastal States Gas Producing Co., Houston
Kerr-McGee Corp, Oklahoma City	Morrison-Maierle, Inc., Farmington
Jim Pickett, Phoenix	

Orders for 37 copies of our most recent publication, SP-2, STRUCTURE MAP OF FOLDS IN PHANEROZOIC ROCKS, COLORADO PLATEAU PROVINCE OF ARIZONA, by George H. Davis and Charles W. Kiven were received this past month. Most of the orders were received prior to December 29. These out-of-state orders probably resulted from an announcement of the availability of the publication in the November 26, 1975, issue of PETROLEUM INFORMATION and December 1975 issue of WESTERN OIL REPORTER. We expect to receive more requests for SP-2 in the near future, as a result of an announcement of its availability in the December 29, 1975, issue of THE OIL & GAS JOURNAL.

#### INVESTIGATIVE PROJECTS

Possible Future Investigations of State's Energy Resources. As reported in the last Activity Report, 19 investigative proposals pertaining directly or indirectly to an evaluation of the State's energy resources were submitted by state agencies and academic institutions in response to a request from the Governor's staff for possible financing from the General Fund. These proposals, after being reviewed and graded by the staff of this Commission, were submitted to Raymond S. Long, Director,

Activity Report  
January 6, 1976  
Page 2

Department of Administration, by John Bannister, with a request for inclusion in the Governor's 1976-77 budget.

Also submitted to the Governor's office was a proposal for funding of an investigative project by the Four Corners Regional Commission.

Geothermal Project. Investigations to date by governmental agencies and academia indicate that the occurrence of geothermal energy deposits within some areas of Arizona, principally within the Basin and Range province and in the Flagstaff region, should be considered as a realistic probability. A large portion of the investigative proposals submitted to the Governor's office for funding by the State pertain to an evaluation of the geothermal and hydrocarbon potentialities of the numerous basins in the Basin and Range province. The basic well data needed for an evaluation of the hydrocarbon potentialities have been assembled and published by this Commission and the Arizona Bureau of Mines. With a few minor exceptions, very little basic data pertaining to the occurrence of geothermal waters in hundreds of wells drilled for irrigation and other purposes have been assembled and published. To a lesser degree, this is also the case for numerous hot springs. Much of the basic data, however, is available in the files of several governmental agencies, such as the Minerals Division of the State Land Department, the Water Resources Division of the U.S. Geological Survey, and this Commission.

As mentioned in the last Activity Report, we have noted that there are numerous significant discrepancies as to temperature and location data of both water wells and hot springs in the limited published literature. For our own use in future planned geothermal studies, and for the use of other workers, we are continuing to assemble such data from original sources. In some instances we can add better location information as to section, township, and range in areas where good U.S. Geological Survey topographic maps are now available.

#### LEASING - OIL, GAS, AND URANIUM

During the month of November, 1975, Cleary Petroleum Corp., Oklahoma City, took assignments on approximately 400,000 acres of State of Arizona oil and gas leases east of St. Johns in Apache County. The area involved extends from T. 8 N. to T. 15 N. and R. 29 E. to the New Mexico state line.

In Navajo County, Morton Bros., prior to commencement of their wildcat test in sec. 8 - T. 13 N. - R. 18 E., acquired by assignment oil and gas leases on 10 sections of land in an adjacent township.

In Yavapai County, north of Lake Pleasant, numerous State prospecting permits have been issued within the past two months to Kerr-McGee Corp. and individuals. This is a uranium play.

#### ENERGY EXPLORATION BY INDUSTRY

Hydrocarbons and Geophysical. No geophysical exploration programs for oil and gas have been reported.

Drilling. Morton Bros., Inc., 1-8 Federal, 8-13N-18E, Navajo County, spudded December 29, 1975, is an active drilling operation. Proposed depth is 4,000 feet, which should be adequate to reach Precambrian rocks. The closest Precambrian test is about 9½ miles to the north-northeast. The limited water well subsurface structural control in the area suggests that the Morton test is situated on a north-

Activity Report  
January 6, 1976  
Page 3

plunging anticlinal nose. Sparse Bouguer gravity control indicates that it is on a broad, north-plunging maximum anomaly.

Permitted Location. Webb Resources 1 New Mexico & Arizona Land Co., 30-15N-25E, Apache County, is waiting on a rig. Proposed depth is 4,500 feet, which should be adequate to reach Precambrian rocks. The closest Precambrian hole is about 11 miles to the north-southeast. The Webb location is near the north end of a surface anticline. The limited subsurface control, based largely on shallow core holes drilled for potash and water wells, indicates that it is situated near the north end of a north-northwest-trending anticline mappable on top of the Permian Coconino/Glorieta Sandstone.

Webb Resources reportedly is drilling this wildcat as the first hole of an exploratory program being financed by Southern Union Gas Co. This latter company obtained permission from the Arizona Corporation Commission to finance exploration by a monthly surcharge on customers' gas bills.

A similar approach by a group of utilities to finance exploration for gas in five Gulf Coast states was not approved by the New York Public Service Commission.

Uranium Drilling. We have an unconfirmed report that Union Oil Co. has several core drill rigs drilling for uranium deposits in northwestern Arizona. Early this past year the regional exploration manager of Minerals Exploration Co., a subsidiary of Union, was in our office inquiring about the availability of electric and radioactivity logs in Mohave County. Subsequently, he borrowed our set of samples of the drill-bit cuttings of the El Paso Natural Gas 1 Red Lake stratigraphic test in 22-26N-16W. There is a possibility that the reported core drill uranium exploratory program is in the general vicinity of Red Lake, which is about midway between Kingman and Pierce Ferry.

#### VISITORS

Visitors interested in obtaining information and/or publications:

Bob Rhoad, Deer Creek Exploration Co.  
C. Yost, Jr., Dames & Moore  
M. Fritzler, Executive Oil Leasing Service  
C. N. Upchurch, Cities Service Minerals Corp.  
John Fisher, Fisher Enterprises, independent oil operator

#### GENERAL

The number of rigs operating in the United States as of November 24, 1975, was 1771, up 143 from the same date in 1974. However, since removal of the oil depletion allowance this past January, wildcat drilling has decreased appreciably. Seismic activity continues to decline. The October 1975 total of active seismic crews was down 16% from a year ago and down 19% from the recent high point of 334 in July 1974.

This continued decline is of special significance in view of the role of seismic-crew activity as the leading indicator of all petroleum-exploration activity.

Activity Report  
January 6, 1976  
Page 4

Trade journal articles reporting on the oil industry's reaction to the United States energy policy bill recently signed by President Ford indicate that further declines in both exploratory drilling and seismic activity can be expected. This is apt to be particularly the case in high-cost and high-risk frontier areas, such as the Outer Continental Shelf and in the unexplored on-shore basins in Arizona, Nevada, and Utah.

Atomic Power. Electric utility companies report that costs of fossil fuels--coal, oil, and natural gas--are climbing much more sharply than costs for enriched uranium. Opposition to nuclear power stations remains strong. Environmentalists have blocked the Bonneville Power Administration from building power plants in the Northwest. Californians will vote in June on a referendum that would require the state legislature to pass on the safety of any plant before it can be built.

Petitions for a similar law are circulating in Arizona. Plans for a nuclear generating station about 50 miles west of Phoenix are threatened.

JNC:os



J.N.C.

MONTHLY FINANCIAL REPORT

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RECEIPTS MONTH OF <i>Dec 1975</i>	RECEIPTS CLASSIFICATION	APPROPRIATED RECEIPTS	UNAPPROPRIATED RECEIPTS	TOTAL ALL RECEIPTS YEAR TO DATE
<i>25 00</i>	1 Permits to Drill		<i>25 00</i>	<i>100 00</i>
	2			
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	16			
	17			
<i>25 00</i>	TOTAL CURRENT MONTH RECEIPTS		<i>25 00</i>	XXXXXXXX
	TRANSFERS IN			
XXXXXXXX	BALANCES BROUGHT FORWARD		<i>75 00</i>	XXXXXXXX
<i>25 00</i>	TOTALS - MONTH AND YEAR TO DATE		<i>100 00</i>	<i>100 00</i>

CLAIMS PAID MONTH OF <i>Dec 1975</i>	EXPENDITURES FUND TITLES	TOTAL AMOUNT AVAILABLE YEAR TO DATE	CLAIMS PAID YEAR TO DATE	OUTSTANDING ENCUMBRANCES	UNENCUMBERED BALANCE
<i>9,064 46</i>	1 Personal Services	<i>61,400 00</i>	<i>52,844 25</i>		<i>5,555 75</i>
<i>972 44</i>	2 Emp. Related Exp.	<i>8,650 00</i>	<i>7,042 85</i>		<i>1,607 15</i>
<i>1,924 23</i>	3 Other Operating Exp.	<i>22,954 69</i>	<i>13,927 89</i>	<i>8,601 14</i>	<i>425 66</i>
-	4 Prof. & Outside Serv	<i>1,500 00</i>	<i>416 25</i>		<i>1,083 75</i>
<i>51 90</i>	5 Travel - State	<i>3,850 00</i>	<i>2,810 63</i>	<i>609 64</i>	<i>429 73</i>
<i>499 97</i>	6 Travel - Out of St.	<i>2,200 00</i>	<i>920 40</i>		<i>1,279 60</i>
-	7 Cap. Outlay - Equip.	<i>400 00</i>	<i>390 91</i>		<i>9 09</i>
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<i>12,513 00</i>	TOTALS	<i>100,954 69</i>	<i>81,353 18</i>	<i>9,210 78</i>	<i>81,353 18</i>

AGENCY Oil & Gas Conservation Comm.

-DIVISION \_\_\_\_\_ IDENTIFICATION CODE NO. \_\_\_\_\_

1	2	3	4
CLAIMS PAID YEAR TO DATE	OBJECT CODE NO.	DISTRIBUTION OF EXPENDITURES CLASSIFICATION	CLAIMS PAID MONTH OF Dec 1975
450.00	7111	1 Per Diem: Commission Members	
55,394.25	7112	2 Salaries: Employees	9,064.46
		3	
		4	
140.09	7151	4 Industrial Insurance	
73.42	7152	5 Unemployment Insurance	117.94
2,131.81	7153	6 F.I.C.A.	634.50
3,877.53	7155	7 Retirement	115.00
610.00	7156	8 Health Insurance	105.00
210.00	7159	9 Personnel Comm.	
		10	
	7215	11 Professional Services: Engineer	
416.25	7219	12 Professional Services: Other	
		13	
418.73	7221	14 Travel-State: Mileage	9.90
947.30	7222	15 Subsistence	42.00
	7223	16 Public Transportation	
1,416.00	7224	17 Vehicle Expense	
28.60	7225	18 Reg. Fees; Parking; etc.	
		19	
291.00	7232	20 Travel-Out of State: Subsistence	304.00
604.40	7233	21 Public Transportation	270.97
	7234	22 Airport Parking	
95.00	7235	23 Reg. Fees; Telephone; etc.	25.00
		24	
11,262.16	7251	25 Occupancy: Office Rent	1,608.82
	7261	26 Warehouse Rent	
	7263	27 Maintenance & Repairs	
170.00	7272	28 Mtn. & Repairs: Furniture & Equipment	156.25
646.65	7280	29 Office Supplies	
	7280.1	30 Orthophoto Quads.	
	7300	31 Field Supplies: Film; Am.Strat; P.I.; etc.	
	7331	32 Printing: Reports; Large Maps; etc.	
184.75	7332	33 Legal Advertisement	
106.60	7333	34 Court Reporter	
100.00	7334	35 Postage	
1,177.73	7335	36 Telephone	159.10
	7337	37 Drayage; Express; etc.	
	7339	38 Rental, Misc.	
30.00	7360	39 Dues & Subscriptions	
		40	
390.91	7431	41 Capital Outlay: Office Equip.	
	7434	42 Spec. Equip. (Geol.)	
	7436	43 Automobile	
		44	
250.00	7913	45 Revolving Fund	
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		55	
81,353.18		TOTAL	12,513.00

OFFICE

DO NOT WRITE BELOW THIS LINE

FIELD



OFFICE OF

**Oil and Gas Conservation Commission**

STATE OF ARIZONA  
8686 N. Central, Suite 106  
~~4515 NORTH CENTRAL AVENUE~~  
PHOENIX, ARIZONA 85028 85020  
PHONE: (602) 271-5161

THE NEXT SCHEDULED COMMISSION MEETING WILL BE  
JANUARY 16, 1975 AT 10:00 A.M. AT THE COMMISSION  
OFFICES AT 8686 NORTH CENTRAL AVENUE, PHOENIX,  
ARIZONA, SUITE 106.

WE ARE HAVING A PROBLEM WITH OUR COPY MACHINE  
WHICH CANNOT BE CORRECTED UNTIL NEXT WEEK AND  
WE REGRET THE FAINT COPIES.

OIL AND GAS CONSERVATION COMMISSION  
8686 North Central Avenue  
Suite 106  
Phoenix, Arizona 85020

Minutes of Meeting  
November 21, 1975

Present:

Mr. Ralph W. Bilby, Chairman  
Mr. W. Roger Hafford,  
Vice Chairman  
Dr. G. E. H. Ballard, Member  
Mr. Hal Butler, Member

Absent:

Mr. F. Keith Benton, Member

The regular Commission meeting for the month of November, 1975 was called to order by Chairman Ralph Bilby at 10:00 a.m.

Minutes of the meeting of September 19, 1975 were approved as written.

Reports of Executive Secretary, Enforcement Section and Geology Section were accepted.

Executive Secretary reported that the Governor's office will submit an application to the Four Corners Regional Commission for funding of a three-phase geological and geophysical study of portions of Arizona as proposed by the University of Arizona and the Commission.

Executive Secretary advised that the Governor's office instructed him to assemble a state-wide geological program to involve the three Universities, the funding to be part of the Governor's budget. Based on these instructions, Executive Secretary called a meeting of the three Universities, the Bureau of Mines, State Land Department, Atomic Energy Commission, Water Commission, Senate and House representatives and others, to discuss suggested proposals. It is anticipated the Governor will request a lump sum amount in his budget and the proposals will be financed by the Governor's Office.

Executive Secretary advised that he was requested to speak on the "climate" of Arizona to the Oil and Gas Exploration Committee of the Western Oil and Gas Association at a meeting held recently.

Executive Secretary advised that the Governor's office is preparing a bill to be introduced at the next meeting of the Legislature similar to a bill recently sought by the Commission

Minutes of Meeting  
November 21, 1975  
Page 2

to set a severance tax on production of oil, gas, helium and geothermal resources.

Executive Secretary made a report of the Chinle School District problem as to production taxation.

Mr. A. K. Doss, State Land Department, said competitive geothermal leasing on State lands was not yet on-going.

It was moved and passed that Executive Secretary attend the annual meeting of the Interstate Oil Compact Commission to be held in Birmingham, Alabama December 7 through 10, 1975.

Next meeting will be January 16, 1976.

Chairman Bilby ordered the record to show that Mr. Benton's absence was due to illness in the family.

Meeting adjourned at 11:30 a.m.

APPROVED

---

Ralph W. Bilby, Chairman

Also present:

Dr. Ron Blakey and  
Dr. Richard R. Rawson  
Northern Arizona University  
Flagstaff, Arizona

Dr. Alan Cree  
Petroleum Consultant

Mr. A. K. Doss  
State Land Department  
Phoenix, Arizona

Dr. Joseph F. Schreiber, Jr.  
Department of Geosciences  
University of Arizona  
Tucson, Arizona



OFFICE OF

**Oil and Gas Conservation Commission**

STATE OF ARIZONA  
8686 N. Central, Ste. 106  
PHOENIX, ARIZONA 85020  
PHONE: (602) 271-5161

December 11, 1975

Memo: Commissioners  
From: John Bannister

As authorized by you, I went to the Interstate Oil Compact Commission meeting in Birmingham, Alabama. The meeting was attended by Governor Wallace of Alabama, Governor Dolph Briscoe of Texas and Governor Edwin Edwards of Louisiana. My particular concern was with the Environmental Protection Committee of the Compact, of which I am Chairman. We met Tuesday morning at 9:00 a.m. The program consisted of a discussion of underground water injection rules and regulations currently being considered by the Federal EPA. Many potential problems are seen in this proposed program and this committee, as well as other committees of the IOCC, are addressing this problem.

Mr. Peter Cashman, the Director of the Office of Regional and Intergovernmental Affairs of the EPA in Washington, addressed us. Mr. Cashman indicated that he was interested in seeing that proposed EPA programs result in a practical application and that other federal agencies, as well as agencies of state and local governments, could live within adopted EPA regulations. Mr. Cashman explained some of the in-house problems of his organization and what attempt is being made to correct them. If the programs he suggested are successful, much good will come out of his efforts.

Mr. Cashman suggested that since the EPA must act by order of Congress in many environmental fields, industry should concern itself with the efforts being made by the EPA. He felt it is inevitable that EPA rules and regulations would be adopted. He further felt that it was critical that the oil and gas industry, as well as other affected industries, concern themselves, on an active basis, with EPA's activities so that, when court cases arise, industry can help defend the EPA against other forces seeking to make EPA a more dictatorial agency.

Underground injection rules and regulations being considered by EPA were presented to the Regulatory Practices Committee. We went into great detail on each of the various provisions and made such suggestions we felt the oil industry could live with. One of the many problems is that the EPA has failed to

Memo: Commissioners  
December 11, 1975  
Page 2

build any flexibility into the rules and regulations and it must be pointed out that no one rule can apply to the problems of Louisiana and New Mexico at the same time. Consequently, a method has been suggested whereby exceptions to any of the rules set forth by EPA in this field can be secured.

An exhibition of a petroleum data system was given to the general membership. This is a data system currently being set up in Norman, Oklahoma whereby all the oil and natural gas fields of the United States are being fed into a computer so that specified information is readily attainable in many different areas of knowledge. I feel this system will be a very worthy effort and I am making its existence known to various members of the state government.

An interesting program concerning Japan's long range national energy program was discussed by Mr. Koyoshi Takahashi, who represented Japan Petroleum Development Corporation. Unfortunately, his delivery was extremely hard to understand, however his remarks have been written up and are available should you desire to see them. Japan aims to achieve the reduction of dependency upon oil by diversifying into other energy resources, reduction of the cut-off risk inherent in specific foreign supply sources, reduction of the demand for energy, promotion of large scale development programs and stabilization of supply.

Other programs were presented, however these were the highlights of the convention.

Governor Briscoe of Texas was elected as the Chairman of the IOCC for 1976.

Also at this meeting, the Pennsylvania study group, of which I am a member, met and completed the draft for Pennsylvania as to its oil and gas regulatory efforts. This study will be submitted to Pennsylvania before the end of December.

We have completed the proposed geological program asked for by Governor Castro and have submitted it for inclusion in the Governor's budget. The proposals upon which this budget request was based will be available to you gentlemen at the time of our next meeting. They consist of some 19 proposals and the total cost is in the neighborhood of \$1,000,000+. This office combined many of the activities suggested into some regional studies and the money actually requested is in the neighborhood of \$725,000. We have no way of knowing how much of this may be considered. As the program was submitted to the Governor, we suggested that should this money be funded, a committee

Memo: Commissioners  
December 11, 1975  
Page 3

be established consisting of members of the geological departments of the three universities, a member from the Bureau of Mines, the State Land Department and this Commission, which would review and approve all proposals.

Indications are that the Legislature is going to make a concerted effort concerning Arizona's energy problems.

The proposal jointly made to the Four Corners Regional Commission by the University of Arizona and the Commission has been finalized and submitted to Mr. Phalan of the Governor's office for presentation to the Four Corners Regional Commission. It is our understanding that this presentation would be made on December 10th, although we have not heard from them we have been assured that the support of Governor Castro is tantamount to approval. We will keep you advised on the development of this effort.

It was encouraging to me during the IOCC meeting that such companies as Phillips Petroleum, Atlantic Richfield, Mobil, El Paso Natural Gas, etc., felt that meaningful exploratory programs would soon begin in Arizona. I was kept unusually busy at this meeting talking to representatives of the many companies as to where information could be secured, etc.

The staff joins me in wishing each of you and your families a very Merry Christmas and Happy New Year.



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PHOENIX, ARIZONA 85020

December 11, 1975

ACTIVITY REPORT

From W. E. Allen, Enforcement Section

If inquiries can be taken as an indication of interest; interest is picking up for the state. I have had more requests for information pertaining to the drilling of wells in the state during the past several weeks than for all the rest of the year put together. The three predominant areas of interest seem to be the Strip Country, the area generally referred to as the Holbrook Basin and Cochise County.

We have no indication from either Webb Resources or Southern Union Gas Company of their future plans for exploration in the Holbrook Basin. I understand that Arizona Public Service has cancelled their commitment of support to Webb Resources in their exploratory efforts within the state.

You will recall that several months ago, Morton Brothers, out of Casper, Wyoming, submitted an application to drill a well in the NE/SE 1/4 Sec 8, T13N, R18E, Navajo County. This location is 12 miles north of Heber. At the time their application was submitted, no well bond was submitted. They have now furnished us with the bond and the permit has been issued. The operators plan to spud this 4000' test before the end of the year. In this particular area the projected 4000' hole should be a basement test.

There is still no word on what the ultimate decision will be on the excessive tax rate that has been levied against the operators in the Chinle School District #24, Apache County. There is a preliminary hearing today on this matter in Federal Court. Chinle School District #24 which embraces practically all the northern half of Apache County has only 12 taxpayers. All, except two of these tax payers are oil companies.

Some of you may have read an article called "The Buffalo Crisis" that has recently had wide circulation in the various petroleum publications.

Page 2  
December 11, 1975

The current issue of the Rocky Mountain Oil Report carries an editorial concerning "The Buffalo Crises" together with comments of this crises made by Senator Hart (D-Michigan). The good senator's remarks were so completely ridiculous and so far off base, that to me, they were hilarious. I thought that you might also enjoy the senator's complete lack of understanding regarding "The Buffalo Crises" so I am attaching both the "Crises" and the editorial to this report.

M E R R Y   C H R I S T M A S !

# the buffalo crisis



buffalo hunters got mad at the town and would not deliver any more buffalo meat to them. Panic hit the town as there was very little meat in storage and everyone would have to be rationed. The local tribe was at a loss as they had no way to meet this sudden demand. The Indians also were rationed and had to wait in long lines and sometimes, after hours of waiting, they found out they had run out of meat.

Most town people were not informed on what went on in this busy town and blamed the local Indian tribe for the shortage. (Some were so stupid they said the local tribe had purposely made unsuccessful hunts and had stampeded the buffalo over cliffs to create the shortage.)

The Agency then came to the Indians and said, "We must have more Buffalo Per Day." (Now known as BPD.) "We must make our town independent so we will not have to rely on far-away buffalo hunters anymore."

The Indians agreed. (As this is what they had tried to do all along.) But they had many problems. The bows and arrows were old and had been stacked in a teepee for years. They would have to be repaired, if arrowheads and twine could be obtained. New ones were ordered.



Many years ago there was a western type town called Wildcat, Wyoming. This was a very prosperous town and everyone had all they needed. A tribe of Indians lived on the outskirts of town. They were buffalo hunters and kept the town supplied with meat.

The town's people always had plenty of meat to eat although they did not have much in storage. The town also got meat from other buffalo hunters who brought in buffalo from far away lands.

This made it very hard on the local tribe, as they only received \$2 per buffalo and with the imported meat there was not much demand for local hunts. The town's people did not care too much for the Indians anyway and didn't want them coming into their town.

The town also had a Government agency that was supposed to help the townspeople and the Indians. But it seemed the agency was always against the Indians. Although some leaders in the agency were good to the Indians, like "Trader Hansen". Others like "Trader Jackson" sought to destroy the local tribe.

Then it happened! The far-away



but the bow and arrow makers were running two years in back orders. Inexperienced braves would have to be recruited as many of the old braves had left when the buffalo hunts were slow and wages were so low — never plentiful as before and the hunters would have to travel longer distances, into deeper canyons, at more expense. The bows and arrows would cost more money and they would have to pay higher wages to the braves. The buffalo would have to be raised to \$10 each to cover the expense of the hunt. Some of the town's people cried, "Excessive Profits." Others said let's use canned food — but cans were not to be invented for another 25 years. The buffalo hunts were carried on at a fast pace. The Indians worked very hard.

Many moons before the crisis, the Agency had set it up so that the tribe had to give them part of their buffalo earnings each year. But the tribe returned from many, many hunts without even the smell of a buffalo. The agency would then return a small amount of their earnings so they could invest it in other buffalo hunts. This was called a "Depletion Allowance." Most of this had already been taken away from the tribe. This was another reason the tribe had

Although the hunts became more and more expensive, it looked as if the tribe might find enough buffalo for everyone to eat and maybe they could store some for the long cold winters. Then an evil spirit came upon the tribe. It was a leader from the Agency, good old "Trader Jackson." He said the depletion allowance should be taken away from the tribe and the price should be rolled back to \$2 per buffalo. The Agency and the townspeople agreed and it was done.

(Continued on page 52)

## the buffalo crisis

(Continued from page 19)

slowed investments in the hunts. Although the Indians worked hard, the townspeople still complained. They said the hunter's horses messed up their land and smelled up the air, even though most of them had never been to the hunting grounds. They complained that the wagons that hauled the buffalo meat and the hunting gear should not be allowed on the main road, even though the tribe paid the town for road permits and road use tax.

Some of the Indians started hunting from the water in canoes. This was a great expense to the tribe but they felt this might increase the supply of buffalo. The town people cried that the Indians would ruin the rivers. Although the tribe took every precaution, one buffalo did fall into the water. The Indian who had shot the buffalo cleaned up the mess by himself and paid all the expenses while the townspeople stood on the

bank and complained. The Indian was required to take his canoe and leave town. All the buffalo that were taken from water hunting were forgotten, but the "Buffalo Splash Story" is still talked about today.

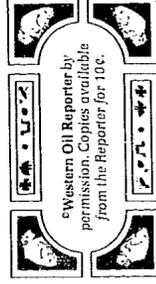
The Agency formed a committee which went to the Indian village. They told the tribe that this group would make their hunting safer. They would put saddles on the horses, tied the braves to them, put safety tips over arrow heads, and invented hard-toed moccasins. (All at the expense of the Indian tribe.)

The Indians protested that this would greatly hamper the buffalo hunt and the tribe had always had safety regulations. Why they even had their own safety council and safety braves that checked every hunting party. But the Indian's argument fell on deaf ears and the new group stayed in command. The group was formed by townspeople consisting of storekeepers, bartenders, blacksmiths, etc., none of whom had ever been near a buffalo hunt. The new group was called "Safety & Health for Indian Tribes." (Acronym: deleted - ed.)

Although the hunts became more and more expensive, it looked as if the tribe might find enough buffalo for everyone to eat and maybe they could store some for the long cold winters. Then an evil spirit came upon the tribe. It was a leader from the Agency, good old "Trader Jackson." He said the depletion allowance should be taken away from the tribe and the price should be rolled back to \$2 per buffalo. The Agency and the townspeople agreed and it was done.

The beaten Indian tribe put away their bows and arrows and returned to the reservation, never to hunt buffalo again. The winter was bad and all the townspeople starved to death. The town of Wildcat perished.

— Don McElreath,  
Signal Oilfield Service, Inc.,  
Casper, Wyoming



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## ROUNTREE REMARKS

### Congressional suspicions confirmed

by Russ Rountree

The petroleum industry has tried, in many ways, to tell its story to the public and to lawmakers.

"The Buffalo Crisis," first published in the Western Oil Reporter's Readers Reply section, in December, 1974, seemed to accomplish that task admirably.

The yarn, written by Don McElreath, district superintendent for Signal Oilfield Services, Inc., in Casper, Wyo., put the whole industry in mocassins and tepees to illustrate the problems, frustrations and lack of understanding that attend the energy crisis—and the efforts of the industry to solve it.

The industry read the story with grim satisfaction. Company presidents, secretaries, toolpushers, engineers, geologists and service companies began asking for copies and for permission to reprint.

A letter from Compadre Oil Corp., in Oklahoma, is typical. The president of Compadre, Robert C. Lang, said, "The Buffalo Crisis" is the best, truest and most devastating piece on the oil and gas business I have seen." The letter went on to request copies and permission to send one to the local paper for publication.

The story was reprinted more than 100 times, in a wide variety of publications. More than 100 editors, in the U.S. and Canada, believed that here was a story that was easy to read and understand, with no explanations.

Wrong.

The story was far too complex for at least one illustrious senator.

Others had no problem. The article was written in plain English, with no technical references and no four-dollar words.

The Landman printed it, in New Orleans. Minger Oilgram printed it in California. The Association of Oilwell Servicing Contractors printed it in their official journal.

Chevron Oil Co. said, "We're very impressed." And they printed the piece in Calco News, Chevron News and Chevron Dealer. Amoco Production Co., Phillips Petroleum, Tesoro,

Diamond Shamrock, Exxon and a number of other companies either sent out copies or reprinted the allegory in company publications.

Copies and reprints were verbatim, as publications such as the IPAA Petroleum Monthly saw little reason to explain further. The Montana Oil Journal sought only to compliment the author when it said, "In burlesque, it is a striking parallel to the things that are happening to the mounting difficulties of oil men endeavoring to put an end to the energy crisis."

A vice president of the Houston Citizens Bank asked permission to use "The Buffalo Crisis" in public speaking engagements. John B. Tenney of Salt Lake City asked to use the article in a book he's writing, called "Sorry We're Out Of Gas."

No fewer than five Desk and Derrick Clubs wrote for reprint rights. The Oklahoma City chapter wanted to read the article at its industry appreciation night, with background music—or to have it performed in ballad form.

All those people and thousands more understood what McElreath was saying. Then someone sent a copy of "The Buffalo Crisis" to Senator Phillip A. Hart (D-Mich.).

Senator Hart dutifully responded and his reply was unique to say the least. It was sent to Communicator's Digest. The Digest, a publication of Standard Oil Co. (Indiana) quoted Hart's reply as follows:

"Thank you for your communication concerning the plight of our native Americans.

"Not only have these people been subject to harsh treatment in the past, they are also among those most hard hit by our economic problems.

"During this session of Congress, I am sponsoring legislation to distribute foods to these people and to increase their health benefits. Other legislation that will provide them beneficial treatment will receive my support."

Senator Hart, Sir, we find it inadvisable for any Indian, real or fabled, to rely on your efforts at sincere understanding.

(To fully appreciate Senator Hart's reaction to "The Buffalo Crisis," you may want to read that story again. It isn't hard to find.)



ROUNTREE



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ACTIVITY REPORT

December 8, 1975

J. N. Conley  
Director, Geology Section

PUBLICATIONS

Sales for the past month amounted to \$173.00. Purchasers were:

Trio Petro Inc., Denver	Republic Properties, Scottsdale
Exxon Co., USA, Albuquerque	Ben Donegan, Albuquerque
TransOcean Oil, Inc., Denver	P. J. Farrelly Oil Products, Denver
Executive Oil Leasing Service, Scottsdale	Webb Resources, Denver
Tucson Gas and Electric, Tucson	Kennecott Exploration, Salt Lake City
Petroleum Investment, Salt Lake City	Peppard-Souders, Denver
Robert Kunkel, Salt Lake City	Deer Creek Exploration, Inc., Phoenix
Williams Bros. Engineering Co., Tulsa	Dames & Moore, Phoenix
Geothermal Resources, Marine del Ray	General American Oil Co. of Texas, Dallas
David A. Moore, Denver	Kirby Petroleum Co., Denver
A. W. Cullen, Denver	Paul A. Handverger, Clarkdale
Chorney Oil Co., Denver	Continental Oil Co., Houston
Cities Service Oil Co., Denver	Phillips Petroleum Co., Bartlesville

As mentioned in the November report, only 100 copies of OALS Bulletin 9, Tectonic Analysis of Folds in the Colorado Plateau of Arizona, were printed by the Office of Arid Lands Studies, University of Arizona. This supply was exhausted rapidly. Another 100 copies have been printed.

INVESTIGATIVE AND OTHER PROJECTS

Index of Samples. Our Catalog 1, Index of Samples of Drill-Bit Cuttings and/or Cores of Wells Drilled in Arizona, was published in June 1971. An updated insertion was prepared in February 1973. A supplement to the catalog, listing all samples of drill-bit cuttings of wells in the 1973 insertion and of wells drilled since that date to September 1975 has been compiled. This supplement will be available as an open-file item; i.e., a purchaser pays for the cost of reproduction.

Paleozoic "Folio". Data sheets for all wells in the Colorado Plateau province of Arizona penetrating Paleozoic rocks have been completed. These sheets list such data as:

- 1) Stratigraphic and geographic occurrence of igneous sills
- 2) Thickness of igneous sills
- 3) Net thickness of sedimentary rocks of each of the geologic systems present
- 4) Adjustments of ground level elevations above sea level, when necessary, to conform with elevations indicated on new 7'-minute U.S. Geological Survey quadrangle topographic maps
- 5) Sea level datum of the top and bottom of each of the geologic systems

Activity Report  
December 4, 1975  
Page 2

- 6) Locally, the thickness and sea level datum of the top and bottom of some stratigraphic units, such as the Fort Apache Member of the Permian Supai Formation
- 7) Predominant lithology of each geologic system
- 8) Lithology and age of basement rock
- 9) Notation of significant shows of oil or gas
- 10) Remarks concerning any abnormal stratigraphic or structural conditions noted
- 11) Location corrections

We now have a complete copy of a Mississippian facies study of the Colorado Plateau province of Arizona, prepared by an N.A.U. graduate student. Integration of the information developed by this study into structural and isopachous maps that are being prepared from our assembled geologic data will be very useful in semi-isolating prospective areas possibly containing timely reservoirs and traps well-positioned with relation to source rocks.

Possible Future Investigations of State's Energy Reserves.

1. Four Corners Regional Commission. A proposal for the funding by this federal agency of three investigative projects by University of Arizona faculty members and graduate students has been submitted to Governor Castro's staff.

Proposal 1. Refinement of the basement-block tectonic model for the Colorado Plateau and application of the model to structural analysis of the Mogollon slope of Arizona. The principal investigator will be Dr. George H. Davis.

Proposal 2. Interpretation of the gravity map of Arizona for potentially oil-productive anomalous subsurface structures and evaluation of the amount of ground water (including geothermal water) present in valley sediments. The principal investigator will be Dr. John S. Sumner.

Proposal 3. Revision of the Bouguer gravity map of Arizona; principal investigator, Dr. John S. Sumner. The present map is distorted by the uncorrected effect of mountains and valleys and lacks adequate station density in remote areas.

Funding of these proposals would develop both surface and subsurface data that would be of value in guiding more efficiently the exploration for and exploitation of energy, groundwater, metallic, and industrial minerals resources.

2. State of Arizona. Nineteen investigative proposals pertaining directly or indirectly to an evaluation of the State's energy resources have been received from the Arizona Bureau of Mines, State Land Department, and the three universities. These proposals were solicited in compliance with a request by the Governor's staff for possible financing from the General Fund.

Subsurface Temperature Map of Arizona. As previously reported (September 10, 1975), we have completed assembly of bottom-hole temperature data for all test holes drilled for oil, natural gas, helium, and geothermal resources, and deep stratigraphic test holes. We had planned to add to the map some of the published temperature data of hot springs and abnormally hot water wells. Unfortunately, we soon

Activity Report  
December 4, 1975  
Page 3

learned that there are numerous significant discrepancies as to temperatures and locations of both hot springs and water wells in the published literature. Apparently some workers have taken at face value some data tabulations prepared from various sources without checking the original source and in some instances typographically compounding an error. Some of the early tentative locations of hot springs and water wells in unsurveyed areas are now shown accurately on recent U.S. Geological Survey topographic maps.

We are currently preparing our own data sheets of hot springs and selected water wells with reported temperatures of 30°C (86°F) and higher. To date we have prepared 170 data sheets.

In connection with this overall project, we found that no State or Federal agency had published a mean annual temperature map of Arizona. At our request, such a map was compiled for us under the direction of the State Climatologist, Laboratory of Climatology, Arizona State University.

#### LEASING - OIL, GAS, GEOTHERMAL, AND URANIUM

There is no large-scale leasing activity for energy resources in the State at this time to our knowledge.

#### EXPLORATION BY INDUSTRY

No geophysical exploration programs are in progress, to our knowledge, in the State at this time directed to oil and gas exploration. Kerr-McGee Corp. is reported to be actively searching in portions of the State for uranium resources.

#### VISITORS AND INQUIRIES

Visitors interested in obtaining information and/or publications this past month were:

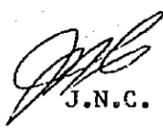
Drs. Richard Rawson and Ron Blakey, N.A.U.  
Walter Randall, Geothermal Resources Int.  
John Leeper, Devonian Oil Co.

We have had several mail and phone inquiries about the oil and gas potentialities of Arizona and the political climate for exploration.

#### GENERAL

Some of the inquiries for information stemmed from an article in the October 20, 1975, edition of the OIL & GAS JOURNAL, the most widely read oil industry trade journal, entitled Northern Arizona Looks to the Drill. This article is a condensation of our publication, Review of the Development of Oil and Gas Resources of Northern Arizona, 1974.

JNC:os

  
J.N.C.

**MONTHLY FINANCIAL REPORT**

2

4

5

RECEIPTS MONTH OF <i>Nov 1975</i>	CLASSIFICATION	RECEIPTS	APPROPRIATED RECEIPTS	UNAPPROPRIATED RECEIPTS	TOTAL ALL RECEIPTS YEAR TO DATE
-0-	1 Permits to Drill			-0-	75 00
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
-0-	TOTAL CURRENT MONTH RECEIPTS			-0-	XXXXXX
XXXXXX	TRANSFERS IN BALANCES BROUGHT FORWARD				XXXXXX
-0-	TOTALS - MONTH AND YEAR TO DATE			4,026 83	75 00

CLAIMS PAID MONTH OF <i>Nov 1975</i>	FUND TITLES	TOTAL AMOUNT AVAILABLE YEAR TO DATE	CLAIMS PAID YEAR TO DATE	OUTSTANDING ENCUMBRANCES	UNENCUMBERED BALANCE
9,274 46	1 Personal Services	61,400 00	46,779 79		14,620 21
974 67	2 Emp. Related Exp.	8,650 00	6,070 41		2,579 59
2,331 46	3 Other Operating Exp.	22,740 54	12,003 66	10,130 76	606 12
196 50	4 Prof. & Outside Serv.	1,500 00	416 25		1,083 75
845 83	5 Travel - State	3,850 00	2,758 73	661 54	429 73
-	6 Travel - Out of St.	2,200 00	420 43	513 47	1,266 10
-	7 Cap. Outlay - Equip.	400 00	390 91		9 09
	8				
	9				
	10				
	11				
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	25				
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	28				
	29				
	30				
13,622 92	TOTALS	100,740 54	68,840 18	11,305 77	20,594 59

Gas Conservation Comm.

DIVISION

IDENTIFICATION CODE NO.

1		2		3		4	
CLAIMS PAID YEAR TO DATE	OBJECT CODE NO.	DISTRIBUTION OF EXPENDITURES CLASSIFICATION		CLAIMS PAID MONTH OF	MONTH OF		
					Nov. 1975		
450 00	7111	1	Per Diem: Commission Members	1	210	00	
46,329 79	7112	2	Salaries: Employees	2	9,064	46	
		3		3			
140 09	7151	4	Industrial Insurance	4			
73 42	7152	5	Unemployment Insurance	5	73	42	
2,013 87	7153	6	F.I.C.A.	6	151	75	
3,243 03	7155	7	Retirement	7	634	50	
495 00	7156	8	Health Insurance	8	115	00	
105 00	7159	9	Personnel Comm.	9			
		10		10			
	7215	11	Professional Services: Engineer	11			
416 25	7219	12	Professional Services: Other	12	196	50	
		13		13			
408 83	7221	14	Travel-State: Mileage	14	164	99	
905 30	7222	15	Subsistence	15	299	50	
	7223	16	Public Transportation	16			
1,416 00	7224	17	Vehicle Expense	17	357	24	
28 60	7225	18	Reg. Fees; Parking; etc.	18	24	10	
		19		19			
87 00	7232	20	Travel-Out of State: Subsistence	20			
333 43	7233	21	Public Transportation	21			
	7234	22	Airport Parking	22			
	7235	23	Reg. Fees; Telephone; etc.	23			
		24		24			
9,653 28	7251	25	Occupancy: Office Rent	25	1,608	88	
	7261	26	Warehouse Rent	26			
	7263	27	Maintenance & Repairs	27			
170 00	7272	28	Mtn. & Repairs: Furniture & Equipment	28			
490 40	7280	29	Office Supplies	29	292	06	
	7280.1	30	Orthophoto Quads.	30			
	7300	31	Field Supplies: Film; Am.Strat; P.I.; etc.	31			
	7331	32	Printing: Reports; Large Maps; etc.	32			
184 75	7332	33	Legal Advertisement	33			
106 60	7333	34	Court Reporter	34			
100 00	7334	35	Postage	35	100	00	
1,018 63	7335	36	Telephone	36	300	52	
	7337	37	Drayage; Express; etc.	37			
	7339	38	Rental, Misc.	38			
30 00	7360	39	Dues & Subscriptions	39	30	00	
		40		40			
390 91	7431	41	Capital Outlay: Office Equip.	41			
	7434	42	Spec. Equip. (Geol.)	42			
	7436	43	Automobile	43			
		44		44			
250 00	7913	45	Revolving Fund	45			
		46		46			
		47		47			
		48		48			
		49		49			
		50		50			
		51		51			
		52		52			
		53		53			
		54		54			
		55		55			
68,440 18		TOTAL			13,622	92	

OFFICE

(DO NOT WRITE BELOW THIS LINE)

FIELD

1. WESTERN OIL & GAS ASSN'      DEL WEBB  
JAN 28 - GEOTHERMAL

LTR FROM WRIGHT RE NOV. TALK

2. COMMENTS of JIM PICKETT - JACK -  
RE OUR GEO. EFFORT      MEMO

3. CARA PHALAN - 4 CORNERS MONEY -  
NO MEETINGS UNTIL FEB  
(NONE NOV. - DEC)

~~4. Display in VNB mall~~

~~5. CONTRACT FOR PROFF. SVCS.~~

6. KERR + OTHERS VS. CHINLEE

Proposed } Sel. Dist 45.39 to 23.7  
Settlement } OTHER      6.02  
(TAX BILL)      29.72%

7. DR. NATIONS

8. GOV. NO MONEY ON GEO. PLANS  
SUBMITTED - MAYBE SUPPLEMENTAL  
REQUEST AFTER LEGIS. ACTS —