

OIL & GAS CONSERVATION COMMISSION  
Meeting: January 21, 1972  
Mr. John Bannister, Exec. Sec.



OFFICE OF  
**Oil and Gas Conservation Commission**  
STATE OF ARIZONA  
4515 NORTH 7TH AVE.  
PHOENIX, ARIZONA 85013  
PHONE: (602) 271-5161

## A G E N D A

Meeting  
January 21, 1972  
4515 N. 7th Avenue, Phoenix, Arizona

10:00 a.m.

Call to order

- 1 ✓ Approval of minutes of meeting of December 17, 1971
- 2 ✓ Executive Secretary report
- 3 ✓ Enforcement Section activity report
- 4 ✓ Geology Section activity report
- 5 ✓ Old business
- 6 ✓ New business
- 7 ✓ Adjourn

*Contact Appre. Committee*

*Send class.*

*Do they want us to appear?*

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

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PHOENIX, ARIZONA 85013

PHONE: (602) 271-5161

January 17, 1972

Memo: Commissioners  
From: John Bannister

With the appointment of a new Director of the Geology Section, I feel it is a good time to begin a consolidated monthly report from that section in order to prevent an overabundance of activity reports being made to you. You will now receive a report from the Director of the Enforcement Section, Director of the Geological Section, and from me as Executive Secretary. In discussing this with Mr. Conley, he will make his report a summary of the action of all of the geologists.

I would like to mention that in a report to Mr. Conley, Mr. Scurlock made the following comments: "I want to say that although I am disappointed to step down as Director of the Geology Section, I must say that I could not ask to work for a better man than Jack Conley. Jack will do us a good job and I will be proud and happy to work for him... Our staff is bearing fruit, which is reflected in our increasing activity and our value to the industry. And in the future we should be even more fruitful and successful under Jack's direction." I believe this statement shows a commendable attitude on the part of Jim Scurlock.

El Paso Natural Gas Company has announced a contract with the Denver based Stearns-Rogers, Inc., to engineer the first coal gasification plant in the Rocky Mountain area. The plant will be designed for a 250 mcf per day capacity at a cost of approximately \$250 million dollars. The basic gasification process was designed in West Germany. Initial delivery into El Paso pipeline is expected in 1976. The plant is located in northwestern New Mexico.



OFFICE OF

**Oil and Gas Conservation Commission**

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January 12, 1972

Memo: Commissioners  
From: John Bannister

Re: Report of Activity

I have accomplished some reorganization of the Geology Section of the Commission. As of January 17, 1972, Mr. Jack Conley will assume the duties of the Director of this section and Jim Scurlock will assume the duties of staff geologist. I feel this change will result in a stronger and more coordinated Commission staff.

The Governor's Office recently contacted the Commission concerning a program now being undertaken for the land use classification of our entire State. Involved in this program will be a series of air photographs covering the State. As now planned, these photographs will be taken both by governmental high flying aircraft and space vehicles. Currently, eight agencies have been designated as key agencies in this project; this Commission is included.

The program is currently being administered by the Department of Economic Planning and Development. It is questionable at this time whether the program will remain under that department. (As you may know, DEPAD is one of the Governor's departments and is directly responsible to him.) It is contemplated that the executive heads of the eight departments will form a steering committee to set forth policy, etc., for the land classification effort. Technical committees will be set up to accomplish the actual work. We undoubtedly will be called upon from time to time to furnish technical advice in this phase. All the information generated and recorded will be placed on computers and eventually be available to all State agencies.

The United States Geological Survey, as well as other interested divisions of the Department of the Interior, are interested in this project. It is our understanding that Arizona's land classification efforts is the pilot project; similar programs will eventually be carried out in all remaining states. Currently, it

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Executive Secretary Report  
1-12-72

is proposed that one state per year be photographed by NASA for similar purposes. However, additional work in this field will depend largely on the success of Arizona's experiment.

As you are aware, the Second Session of the 30th Legislature began on January 10th. This year and in the ensuing years attempts will be made by the Legislature to reorganize the State Government. The Governor's Office informed me that initially, this year, preference will be given to (1) consolidating the human resources agencies such as State Welfare, Workmen's Compensation, State Employment, etc., and (2) reorganization of service agencies such as Purchasing, Personnel, Finance, etc., into one department under the Governor. If time permits, it is possible that a reorganization of the natural resources agencies may occur, however it is felt that this, more than likely, will be postponed. The political consideration of the ecology movement will be considered as to how much the public wants to go into natural resources organization. However, inasmuch as this is election year, it is anticipated the Legislature will conduct its business and adjourn as soon as possible.

Undoubtedly, spelling out of the State's right to lease geothermal on State land, some guidelines as to the leasing provisions, and certainly the question of regulating geothermal exploration and production, will be forthcoming. As you are aware, we are deeply involved in this. It is my feeling that even though this Commission is not actively seeking any specific legislation, we will be kept quite busy working with the Legislature. I will attend a geothermal conference to be held in central California in the middle of February, inasmuch as I feel certain this Commission will be designated as the one to regulate the production of this energy.



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ACTIVITY REPORT

January 11, 1972

Memo from W. E. Allen, Director  
Enforcement Section

The "Mineral Leasing Act of 1971" (Senate Bill 2726) has been introduced by Senator Jackson, Chairman of the Committee on Interior and Insular Affairs (for himself and Mr. Allott) (by request)\*\*\*to reform the mineral leasing laws on all federal leases. The Companion bill in the house - HR 115.26 was introduced by Mr. Kyl of Iowa. S. 2726 provides for the repeal or amendment of many pre-existing statutes including the Mineral Leasing Act of 1920.

The bill in its present form includes provisions that:

1. Requires every person or company engaged in prospecting for minerals on federal lands to purchase a "prospecting license" every two years with a separate license being required for every state;
2. Gives the Secretary of Interior the authority to withdraw or withhold any federal minerals from being subject to lease and requires that he withdraw minerals that the head of any other federal agency might wish to withdraw;
3. Will have a 5-year term with \$5.00 annual rental;
4. Requires that all leases be issued through "competitive bidding", apparently on both bonus and royalty;
5. Requires that "Operation and reclamation plans" be submitted in advance and many completely impossible guarantees be made to satisfy environmental requirements;
6. Requires two more bonds of unspecified amounts;
7. Specifies \$10,000.00 fines and a one-year prison term for violations;
8. Prohibits an assignment of less than 640 acres unless the lease contains less than 640 acres;

Page 2  
Activity Report - January 11, 1972  
Mr. W. E. Allen

9. Provides that all production on a producing lease may be suspended or the lease may be cancelled in order to protect the environment;
10. Provides that annual rental and royalty rates may be arbitrarily increased to unspecified amounts after 20 years and then raised again after each succeeding 10-year period.

The above listed provisions indicate the restrictive attitudes that our esteemed lawmakers have regarding the Oil & Gas industry. If this trend is permitted to continue, nationalization of the industry is eminent.

It appears that the 70's will be known as the environmental decade.

The V. R. Smith No. 1 State, NE/SW Section 23-T9S-R19W, has been plugged and abandoned. There were no-shows reported. Electric logs were not run on this well because of severe hole caving.

P & H Development has spudded their well located in the NW/SW Section 30-T2S-R9W. They are drilling below 300'.

Cecil Cope #1 Bradshaw Fee/ NW/NE Section 34-T18N-R4E, was drilling below 2535'. Mr. Cope brought some samples in for our geologist to look at. Mr. Cope and his partners still have hopes for their hole.

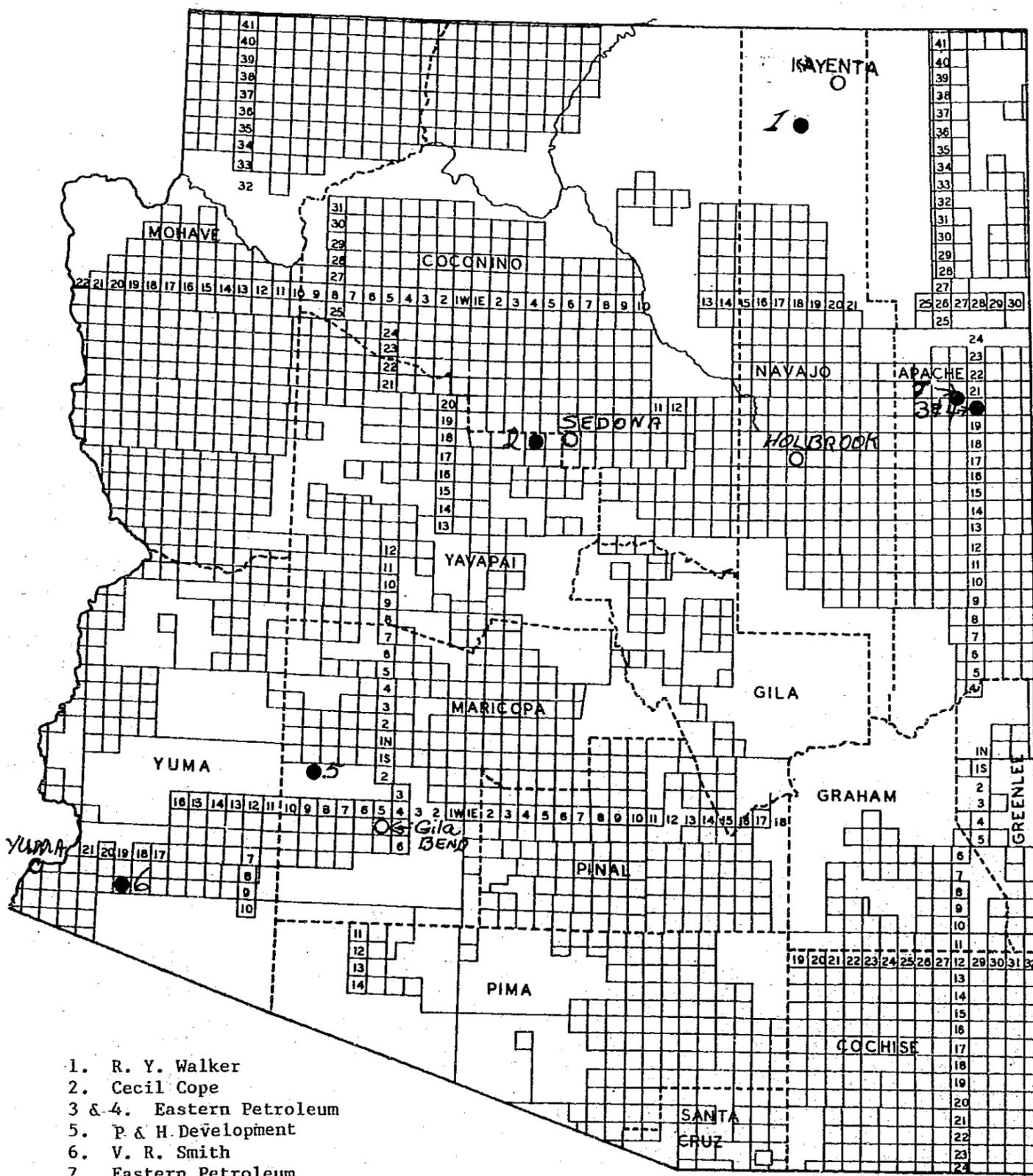
The R. J. Walker-Petrofunds #1 Navajo, SE/SW Section 20-T36N-R18E has reached total depth of 1260'. Enough oil shows were reported to cause the operator to set pipe. The operator ran a string of 2 7/8" EUE tubing for production casing. As of now, two zones have been perforated and tested water. A third zone is being tested.

Eastern Petroleum Company has been issued a permit to drill the #1-25 Santa Fe Fee, located in the SW/NE Section 25-T20N-R27E, Apache County. This is a 1200' Coconino test. The Section presently has a Shinarump well capable of producing and 4 other Coconino test that have been plugged and abandoned.

Eastern Petroleum has temporarily abandoned their #6X-1 Santa Fe Fee in the SE/NW Section 25-T20N-R28E and also their #1 Kiva Santa Fe in the NE/SW Section 13-T20N-R28E. Both wells in Apache County.

Mr. Henry Fullop, President of Eastern Petroleum, has advised this office that he has assumed the active management of the Western Helium Extraction Plant. This Plant was formerly under the management of Dick Thoreen. Mr. Fullop is majority stockhold in Western Helium. The plant is still inoperative.

Attached is a plat indicating the Townships and Ranges in which Humble has leasehold interests.



1. R. Y. Walker
2. Cecil Cope
- 3 & 4. Eastern Petroleum
5. P & H Development
6. V. R. Smith
7. Eastern Petroleum



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ACTIVITY REPORT

*GEOLOGY SECTION*

*January 12, 1972*

**OUT-OF-STATE SAMPLE CATALOG**

This catalog, listing all wells in southwestern Colorado, northwestern New Mexico, and southeastern Utah for which The Commission has drill-bit cuttings and/or core chips, has been completed. Approximately 140 copies have been distributed to governmental agencies, academic institutions, and oil industry well sample libraries.

**SOURCES OF INFORMATION, OIL & GAS, ARIZONA**

The initial supply of 50 copies of this pamphlet was exhausted rapidly. An additional supply of 50 copies, with some minor additions, has been mimeographed. Mr. Allen is currently assembling some information pertaining to drilling contractors and companies offering services to the petroleum industry in Arizona and adjacent states. This information will be incorporated in the next supply of copies to be mimeographed later this year.

**SALT DOMES, ARIZONA**

The original supply of 250 copies of this paper has been exhausted. Mr. Koester, author, reports that correspondence received since distribution of the paper indicates that few of the recipients were aware of the presence of salt domes in Arizona.

Mr. Koester is scheduled to present this paper at the annual meeting of The American Association of Petroleum Geologists in Denver, April 17-19. In addition to the salt dome phase, and its importance in searching for oil, his paper will discuss the Paleozoic rocks and the marine Pliocene Bouse Formation in

January 12, 1972

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SALT DOMES, ARIZONA (continued)

southwestern Arizona, which will be of interest to oil exploration and research geologists.

STATE WELL LOCATION MAP

Additional information received recently has resolved location problems for some of the old wells drilled in the State. The new map will have the same format as the original, but will be four times larger, and therefore much more legible.

ARIZONA RESIDUAL AEROMAGNETIC MAP

A preliminary evaluation of this map, used in conjunction with available geologic and gravimetric information, indicates that it will be very useful to the oil geologist in searching for areas in the State warranting exploration efforts. Positioning photos, flight maps, magnetic data on IBM cards, and maps at several scales, are available from Dr. Sumner's office in Tucson at nominal cost. The availability of this material will permit the geophysical departments of oil companies and private geophysical firms to make a variety of derivative interpretations that will be of great help to the exploration geologist.

INDEX PLAT BOOKS

The Geology Section is assisting Mr. Allen in revising and updating these important indexes.

LEASING

GILA COUNTY -- Edmonds & Peters (Oil & Gas Properties), Downey, California, have leased about 15,000 acres along the west side of the Globe-Show Low Highway (U.S. 60) just south of the Salt River Crossing. This area is unfavorable for oil exploration, as it is covered mostly by Precambrian rocks. Mr. Scurlock reports that Edmonds & Peters are "doodle-buggers."

SOUTHWEST & SOUTH AREAS -- Attached to Mr. Allen's report is a plat showing the townships in which Humble Oil & Refining Company have leased about 1,300,000 acres.

January 12, 1972

LEASING

SOUTHWEST & SOUTH AREAS (continued)

Mr. Koester points out that the 215± townships involved represents 5,000,000 acres. This means that there is plenty of land in these areas available for leasing by others wishing representation in the "play."

EXPLORATION

BASIN & RANGE PROVINCE -- Humble has two seismograph crews operating in this province. Currently these crews are reported to be working in the following two areas: vicinity of Sundad, west of Gila Bend; and vicinity of Stanfield, west of Casa Grande.

Relative Humble's "play," Mr. Koester reports that: 1) leases in Maricopa, Pinal and eastern Yuma counties cover all of the gravity minimum anomalies shown on the U.S. Geological Survey Map GP-615; 2) leases in area between Yuma and Phoenix in the Gila River Valley cover a possible embayment of the marine Pliocene Bouse Formation, which would be an ancestral portion of the Gulf of California; and 3) leases in eastern Pima County along the Altar Valley cover a possible embayment of the Sonoran geosyncline northward from Mexico, where poorly described sections of Paleozoic rocks are known. Apparently Humble shares this Commission's belief that these areas possibly offer oil-bearing reservoirs in Pliocene and older sediments.

GENERAL

Shell Oil Company is displaying some interest in the Basin and Range province. Their scout reports that two representatives of their Geological Department in Denver may be visiting this office soon.

Two Phillips Petroleum Company geologists are currently in Tucson gathering Arizona geological information.



OFFICE OF

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January 10, 1972

Memo: Staff

From: John Bannister

Effective January 17, 1972, Mr. Jack Conley will assume the position of Director of the Geology Section. All geological personnel will be directly responsible to Mr. Conley as of that date.

Mr. James Scurlock will assume the functions of staff Geologist.



OFFICE OF

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PHONE: (602) 271-5161

January 12, 1972

TO: John Bannister

FROM: Jack Conley

SUBJECT: Activity Report

Attached are the individual reports to me from Koester and Scurlock, and a composite report of the Geology Section for the report to be transmitted to the Commissioners. If it is not what you want, please let me know.

I made no effort to include Scurlock's paragraph (page 2) concerning the change in directorship. You may wish to attach it as a separate item to the activity report.

J.N.C.



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January 12, 1972

ACTIVITY REPORT

BY: James R. Scurlock  
TO: Jack N. Conley  
cc: John Bannister

STATE WELL LOCATION MAP

Still at work on the revision of our State Well Location Map which should be ready for the printer shortly. Mr. Jim Knauf (U.S.G.S.), Artesia, New Mexico, spent two days with us recently exchanging well location information. His data has been most helpful in resolving questions as to the locations of some of our old wells. Our new map will be on the same format as the old location map but will be four times as large, making it more readable.

SCOUT DATA COMPILATION

The publication of our well scout data which has been compiled by this office and is presently being edited and prepared for publication by Dr. Wes Peirce has suffered several delays. Two weeks ago Wes reported that he planned to have the book ready for the printer sometime in March. But now, another delay may be in the making, in as much as Wes has just been informed that he is to teach a graduate class in Arizona geology for the Department next semester. Now he is busily gathering material for lectures. This may cause a delay of the compilation until summer.

SCUTTLEBUTT

The grapevine has it that two Shell geologists from Denver will be visiting our office soon to gather

ACTIVITY REPORT  
James R. Scurlock  
Page - 2

January 12, 1972

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SCUTTLEBUTT (Continued)

geologic information and determine the feasibility of a play in southern Arizona

We understand from Dr. Wes Peirce that two Phillips geologists from Denver have visited his office gathering Arizona geological data and are expected to visit our office as well. So, business is picking up.

Truett Henderson, a Phoenix operator, has visited our office indicating an interest in gathering geologic data in southern Arizona which he might use in leasing and promotional operations. He is just fishing for an idea which I hope we can supply.

Edmondo & Peters (Oil & Gas Properties), Downey, California have leased about 15,000 acres in Gila County along the west side of the Globe- Show Low Highway, just south of the Salt River Crossing. These are "doodle-buggers". This area is covered mainly by Precambrian rocks, which means that they are looking at a very unfavorable area. Yet, we must work with these people too.

NEW DIRECTOR

As a personal comment, I want to say that although I am disappointed to step down as director of the Geology Section, I must say that I could not ask to work for a better man than Jack Conley. Jack will do us a good job and I will be proud and happy to work for him. In advertising for the new positions on our Geology staff, two years ago, I mentioned a need for a <sup>men</sup> who knew the ropes in the oil business and I congratulate myself that the two men I hired turned out to be <sup>eminently</sup> ~~immanently~~ well qualified as geologists and as gentlemen. Our staff is bearing fruit, which is reflected in our increasing activity and our value to the industry. And in the future we should be even more fruitful and successful under Jack's direction.

January 2, 1972

ACTIVITY REPORT

BY: EDWARD A. KOESTER

Preparation of copy for slides for the paper I will give at the annual meeting of the American Association of Petroleum Geologists at Denver in April occupied much of my time during the past month. This paper will point out the importance to petroleum exploration of a realization that salt domes exist in Arizona as well as better knowledge of Paleozoic rocks and the occurrence of the marine Bouse formation in the southwestern part of the State.

Correspondence received since the mailing of copies of the salt dome report demonstrates how few geologists and other oil company personnel knew of the presence of salt domes here. These letters, along with requests for additional copies, also indicate the interest aroused by this knowledge. Many persons have requested additional information and we can expect visits to our offices within the next few weeks. At this time about 250 copies of the report have been distributed and the supply has been exhausted.

Mr. Allen's report shows the townships in which Humble Oil & Refining Company have taken oil and gas leases totaling about 1,000,000 acres. The area of these 210± townships represents over 5,000,000 acres. It is important to point out to other interested companies and individuals that there is plenty of unleased land in these areas if they wish to get representation in the "play".

The location of the Humble leases give a clue to their thinking in this exploratory venture. Their leases in Maricopa, Pinal, and eastern Yuma County cover all ~~but some~~ of the gravity lows shown on the U.S.G.S. Map GP-615, the map which led to the drilling of the Southwest Salt Co. No. 1 well which confirmed the Luke Salt Dome. Their leases in Yuma County, extending from Yuma toward Phoenix in the Gila River Valley cover the suggested embayment of the marine Bouse formation, the ancestral extension of the Gulf of California. Their leases in eastern Pima County along the Altar Valley cover what may be an embayment north of the Sonora geosyncline in Mexico in which relatively thick sections of Paleozoic rocks are known, but poorly described. Humble conducted a seismic survey in this valley last year before the leases were assigned to them.

In other words, Humble appears to think that marine sediments, which may be source rocks and reservoir rocks of petroleum, and possibly salt domes underlie their holdings. It is likewise significant that their exploration program in Arizona is now being supervised by a geologist with many years experience in the salt dome region of the Gulf Coast states.

X salt

OIL AND GAS CONSERVATION COMMISSION

1-21-72

ROSTER

Commission	Appointment Expires	Staff
Ralph W. Bilby, Chairman P.O. Box 569 Tucson 85701 Tel: 792-4800 4440 N. Camino Del Santo Tel: 299-6177	12-31-72	John Bannister Executive Secretary 6711 N. 12th Street Phoenix 85014 Tel: 274-0427
Frank E. Moore P.O. Drawer 1200 Douglas 85607 Tel: 364-3232 2300 9th Street Tel: 364-2560	12-31-73	William E. Allen Director, Enforcement Sec. 11251 N. 37th Street Phoenix 85028 Tel: 996-1649
Robert A. Bledsoe 1 E. Aspen Avenue Flagstaff 86001 Tel: 774-6082 416 David Drive Tel: 774-4409	12-31-74	Jack N. Conley Director, Geology Sec. 1266 Avenida Hermosa Phoenix 85014 Tel: 266-1706
W. Roger Hafford 50 Colonia Miramonte Scottsdale 85253 Tel: 945-8104 Pinetop: 336-2357	12-31-76	Edward A. Koester, Geologist 5023 N. 18th St., Apt. 41 Phoenix 85016 Tel: 265-1906
Lucien B. Owens 1151 E. 8th Place Mesa 85203 Tel: 833-0459	12-31-70 Serve until replacement is named	James R. Scurlock, Geologist 7505 E. Princeton Scottsdale 85257 Tel: 945-9493
		Ann vonBlume (Mrs.) Secretary-Bookkeeper 7235 N. Mockingbird Lane Paradise Va. 85253 Tel: 948-3847
		Linda Bayless (Mrs.) Stenographer 1440 E. Almeria Phoenix 85006 Tel: 258-0561
		Rhema Brandt (Mrs.) Stenographer 635 W. Mission Ln., Apt. 15 Phoenix 85021 Tel: 997-2903

AGENCY Oil & Gas Conserv. Comm.

DIVISION

IDENTIFICATION CODE NO.

CLAIMS PAID YEAR TO DATE	OBJECT CODE NO.	DISTRIBUTION OF EXPENDITURES		CLAIMS PAID MONTH OF
		CLASSIFICATION		Dec. 19 71
720 00	7111	1 Per Diem: Board Members	1	120 00
42,577.76	7112	2 Salaries: Employees	2	7,086 00
212 16	7113	3 Wages: Summer Aides	3	
82 64	7151	4 Industrial Insurance	4	
936 83	7153	5 F.I.C.A.	5	85 35
2,129 05	7155	6 Retirement	6	354 32
75 25	7159	7 Personnel Commission	7	
	7215	8 Professional Services: Engineer	8	
	7219	9 " " Other	9	
354 40	7221	10 Travel - State: Mileage	10	48 20
1,039 00	7222	11 Subsistence	11	233 00
38 18	7223	12 Public Transp.	12	
828 87	7224	13 Vehicle Exp.	13	81 30
21 40	7225	14 Reg. Fees, Parking, etc.	14	1 00
313 00	7233	15 Travel-Out of State: Subsistence	15	63 00
737 76	7232	16 Public Transp., Taxi	16	226 40
	7234	17 Airport Parking	17	
91 00	7235	18 Reg. Fees, Tel., etc.	18	67 00
12,946 22	7251	19 Occupancy: Office Rent	19	
	7261	20 Warehouse Rent	20	
	7263	21 Warehouse Mtn. & Repair	21	
169 00	7272	22 Mtn. & Repairs: Furn. & Equip.	22	
578 10	7280	23 Office Supplies	23	180 98
195 39	7300	24 Field Supplies, Film, Am.Strat, P.I., etc.	24	12 00
917 28	7331	25 Printing: Reports, Large Maps, etc.	25	
93 35	7332	26 Legal Advertisement	26	
63 00	7333	27 Court Reporter	27	
396 21	7334	28 Postage	28	120 00
1,158 30	7335	29 Telephone	29	326 43
8 75	7337	30 Drayage, Express, etc.	30	
67 27	7349	31 Rental, Misc.	31	
59 00	7360	32 Dues and Subscriptions	32	
	7431	33 Capital Outlay: Office Equip., Tpr., etc.	33	
907 92	7433	34 Reproduction Equip.	34	
434 64	7434	35 Spec. Equip.	35	
250 00	7913	36 Revolving Fund	36	
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68,401 73		TOTAL		9,004 98

OFFICE DO NOT WRITE BELOW THIS LINE! FIELD

**MONTHLY FINANCIAL REPORT**

RECEIPTS MONTH OF	CLASSIFICATION	APPROPRIATED RECEIPTS	UNAPPROPRIATED RECEIPTS	TOTAL ALL RECEIPTS YEAR TO DATE
Dec. 1971	1 Permits to Drill			400.00
50.00	2			
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50.00	TOTAL CURRENT MONTH RECEIPTS		50.00	XXXXXX
	TRANSFERS IN		-0-	
XXXXXX	BALANCES BROUGHT FORWARD		2,051.83	XXXXXX
50.00	TOTALS - MONTH AND YEAR TO DATE		2,101.83	400.00

CLAIMS PAID MONTH OF	FUND TITLES	TOTAL AMOUNT AVAILABLE YEAR TO DATE	CLAIMS PAID YEAR TO DATE	OUTSTANDING ENCUMBRANCES	UNENCUMBERED BALANCE
Dec. 1971	1 Personal Services	45,185.00	43,509.92	-	1,675.08
7,206.00	2 Emp. Related Exp.	4,380.00	3,223.77	-	1,156.23
439.67	3 Other Operating Exp.	17,450.00	16,901.87	300.79	247.34
639.41	4 Prof. & Outside Serv.	850.00			850.00
363.50	5 Travel - State	4,200.00	2,281.85	953.15	965.00
356.40	6 Travel - Out of State	3,500.00	1,141.76		2,358.24
	7 Cap. Outlay - Equip.	2,100.00	1,342.56		757.44
	8 Salt Monitoring	2,000.00			2,000.00
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9,004.98	TOTALS	79,665.00	68,401.73	1,253.94	10,009.33

RECEIVED

JAN 19 1973

A.R.S. 27-501

OIL AND GAS COMMISSION - General Fund

O & G CO.

John Bannister, Executive Secretary

Tel. 271-5161

Requested 1972-73	\$166,946
Estimated 1971-72	146,828
Actual 1970-71	128,222
Requested Increase \$20,118 (13.7%)	
Total recommended legislative staff reduction from request	16,736
We recommend a total increase of (2.3%) over 1971-72 base.	3,382

<u>Expenditure Detail</u>	<u>1971-72 Estimated</u>	<u>1972-73 Request</u>	<u>1972-73 Executive Recom.</u>	<u>1972-73 Leg. Staff Recom.</u>
Salaries & Wages	\$ 90,369	\$ 93,932	\$ 93,000	\$ 91,744
Emp. Rel. Exp.	8,759	9,723	9,500	9,356
Prof. Services	1,700	2,500	2,200	2,200
Travel-State	8,400	10,700	9,200	8,550
Travel-Out State	3,500	5,250	3,500	3,500
Other Opr. Exp.	30,000	34,196	31,800	32,500
Cap. Outlay-Equip.	2,100	8,645	700	360
Other	2,000	2,000	2,000	2,000
Total	\$146,828	\$166,946	\$151,900	\$150,210

LEGISLATIVE WORK SPACE

Salaries & Wages	_____
Emp. Rel. Exp.	_____
Prof. Services	_____
Travel-State	_____
Travel-Out State	_____
Other Opr. Exp.	_____
Cap. Outlay-Equip.	_____
Other	_____
Total	_____

Oil and Gas Conservation Fund - The agency estimates monies available in the Oil and Gas Conservation Fund at the end of the 1971-72 fiscal year will be \$2,102. Monies available at the end of 1972-73 are estimated at \$2,702.

OIL AND GAS COMMISSION (Cont'd)

SUMMARY OF BUDGET RECOMMENDATIONS

1. We recommend funding the requested full time positions within the Personnel Commission's salary guidelines.
2. We do not recommend two replacement vehicles requested for \$7,900 or the two filing cabinets and cabinet shelf for \$385.

ANALYSIS AND REASONS FOR RECOMMENDATIONS

Position Changes

There are currently 8 authorized positions.

1. New positions authorized for 1971-72 and continued in 1972-73 budget	0.00
2. Reductions of current year positions	0.00
3. Requested new positions for 1972-73	.15
4. Additional positions recommended	0.00
5. Total number of positions recommended	8.00

Personal Services - The relatively low, 1.5 per cent, increase in this category is due to the fact that the Executive Secretary, a Secretary and the Oil and Gas Specialist, with current salaries totaling \$39,480, are at the 5th Step of the Personnel Commission's suggested range and do not, therefore, require increases for the 1972-73 fiscal year. The remaining full time employees are eligible for salary increases which have been included within the recommended amount.

We recommend continuing Commission members at the \$3,600 estimated for 1971-72, \$200 less than requested. We do not recommend \$500 for Summer Clerical Aides since the agency's personnel complement should be sufficient for summer operations without these positions.

At our request, the agency recalculated its requirement for present authorized positions resulting in an additional salary savings of \$1,488.

Travel-State - The 1971-72 level of funding for State Travel is \$2,194 or 35 per cent above actual expenditures for 1970-71. We believe the \$8,400 funded for 1971-72, with a five per cent vehicle operating cost increase, should be adequate for the 1972-73 fiscal year. Our \$8,550 recommendation is made on this basis.

Other Operating Expenditures - We recommend the agency's request for all items except advertising, reporting and recording, postage, telephone and field supplies. For these items, we recommend a five per cent increase which should sustain cost increases and program growth.

OIL AND GAS COMMISSION (Cont'd)

Accounting for 6.2 per cent of the 8.3 per cent recommended increase in this category was a \$1,850 increase in printing for reprinting rules and regulations and for printing studies conducted by the Commission's three research geologists.

Capital Outlay-Equipment - We concur with the Executive recommendation in not funding the two requested cars. In addition, we do not recommend a cabinet filing shelf for \$181 as current shelves appear to have sufficient capacity for the 1972-73 fiscal year. Two filing cabinets do not appear essential and are not recommended.

Other - A salt monitoring project to prevent contamination of the water supply by salt from a brine well is currently funded through this agency. It has been suggested that responsibility for this project could be transferred to the State Health Department and that reimbursement by the brine well operator might be made. Since actual responsibility for this function has not yet been transferred to the Health Department, the Commission has requested continued funding for the 1972-73 fiscal year.

## OIL AND GAS CONSERVATION COMMISSION

A.R.S. 27-501

PROGRAM INFORMATION

The prime function is enforcing the statutes pertaining to oil and gas. The commission has adopted rules and regulations to supplement and enforce the statutes. These rules and regulations pertain to the full life of a well from commencement through its productive life. Much of the time of the executive secretary and the geologist is spent in the field actually surveying the drilling, production, and/or plugging and abandoning of each well.

The commission is constantly gathering all available geological, technical and statistical data pertaining to Arizona's oil and gas industry and developing it into a useful form to supply the demands of major and independent oil and gas operators as well as mining and mineral and hydrology interests. Individual well files are maintained for public use; production and other activity reports are also disseminated. In response to requests the staff makes presentations of Arizona's oil and gas industry and potential to civic and fraternal groups and to industry orientated associations, both Arizona-based and out-of-state, who come to Arizona specifically for the purpose of learning about Arizona. Good information is a prime source of encouragement for further exploration.

The commission seeks to encourage the development of all natural resources, oil, gas and helium, by developing, printing, and distributing original geology on various areas of this state which, in its opinion, are potential producing areas for oil and/or gas. The information distributed seeks to give oil companies and individuals interested in the development of our resources new ideas and new thoughts in areas which may or may not heretofore have been considered by them. The commission is constantly engaged in correlation of the geological information contained in both its files and in its sample collections. The information to be published is quite technical in nature, however, it is also of great value to the layman. The information so published is of value to all people concerned with our state and its natural resources potential. The information is distributed not only to oil and gas companies but to people interested in mining operations, water users, and agriculturists.

Short-Range Objective

Investigate new geological studies of the state and evaluate and catalogue information currently in existence.

Long-Range Objective

Increase geological interest in the oil and gas potentials of the state and to encourage the development of a healthy and thriving oil and gas industry.

OIL AND GAS CONSERVATION COMMISSION

BUDGETARY ANALYSIS

PERSONAL SERVICES

The recommendation for Personal Services is based on the State Personnel Plan.

OPERATING EXPENDITURES

The request for Professional Services includes \$1,500 for a draftsman to prepare maps and \$1,000 for a petroleum engineer. The recommendation provides the requested amount for drafting and a continuation of the present estimated level of expenditures for a petroleum engineer.

The recommendation for Travel - State includes an increased amount as a need for additional travel is expected. The recommendation for Travel - Out-of-State is for a continuation of the present expenditure level.

The recommendation for Other Operating Expenditures provides for the requested amounts for virtually all items except for printing, postage and telephone expenses which appear excessive.

**CAPITAL OUTLAY** The request for equipment items includes 2 replacement sedans and new office equipment consisting of 1 cabinet and 3 map racks. All of the requested office equipment is recommended. The two replacement vehicles are not recommended as one has insufficient average annual mileage to justify it being replaced. The total mileage on the other vehicle indicates that this item should be deferred and it is recommended to continue in service through the 1972-1973 fiscal year.

**OTHER** The Commission requests \$2,000, which is recommended, to pay for a salt monitoring project in Martinoma County to prevent the contamination of water used by a local Air Force base.

Note:

It should be noted that the Commission administers the Oil and Gas Conservation Fund which derives its receipts from the issuance of drilling permits. The agency is not requesting an appropriation from this fund for the 1972-1973 fiscal year as the fund balance was only \$1,702 on June 30, 1971, with an additional \$400 estimated for the current year and \$600 more during 1972-1973.

OIL AND GAS CONSERVATION COMMISSION

GENERAL FUND	Actual 1970-1971	Estimated 1971-1972	Requested 1972-1973	Recommended 1972-1973	Legislative Notes
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PERSONAL SERVICES

Number of Positions	7	8	8	8	
Personal Services	72,610	90,369	93,932	93,000	
Employee Related Expenditures	6,952	8,759	9,723	9,500	

OPERATING EXPENDITURES

Professional and Outside Services	1,150	1,700	2,500	2,200	
Travel - State	6,206	8,400	10,700	9,200	
Travel - Out-Of-State	3,500	3,500	5,250	3,500	
Other Operating Expenditures	29,106	30,000	34,196	31,800	

CAPITAL OUTLAY

Equipment	8,698	2,100	8,645	700	
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OTHER

	128,222	146,828	166,946	151,900	
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SOURCE OF FUNDS

Appropriation	143,835	146,828			
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DISPOSITION OF FUNDS

Expenditures	128,222	146,828			
Amount Reverted	15,613	146,828			
	143,835	146,828			



OFFICE OF THE GOVERNOR  
STATE HOUSE  
PHOENIX, ARIZONA 85007

JACK WILLIAMS  
GOVERNOR

IN REPLY  
REFER TO:

January 12, 1972

*For FJES*

Mr. W. Roger Hafford  
50 Colonia Miramonte  
Scottsdale, Arizona 85253

Dear Mr. Hafford:

I am pleased to invite you to accept reappointment as a member of the Oil and Gas Conservation Commission.

We would appreciate your signing, before a notary, the enclosed Loyalty Oaths and returning all copies to us in order that we may proceed to make the appointment official.

Thank you for your cooperation and for your past efforts on behalf of this commission.

Sincerely,

Jack Williams

JW:lvick  
cc: Oil and Gas Conservation Comm.

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## Arizona salt domes command oil, gas study

THICK halite deposits have been discovered in Arizona's Basin and Range province, findings that should pique the interest of not only those interested in natural resources but also the oil hunter as well.

These salt findings have already given Arizona a new industry, salt mining, but their influence on the development of oil and gas may be quite significant, Edward A. Koester of the Oil and Gas Conservation Commission in Phoenix says. In a special report just out, Koester notes that the presence of salt in six areas near the northern margin of the Basin and Range province is definitely established. These occurrences are in a band extending about 400 miles northwest-southeast.

**Similarity to Gulf Coast.** Salt domes similar to those found in the Gulf Coast states and elsewhere throughout the world occur at the Luke and Red Lake areas. They also appear to be in the Overton Beach area, according to the Arizona geologist.

He notes that geophysical and geological data certainly suggest that domal conditions are present at Pima. There are not enough data available now to prove salt dome conditions in Detrital Valley and Picacho Reservoir, he adds.

Koester sets up these characteristics in the Arizona salt deposits:

1. Thousands of feet of relatively pure salt covered by caprock—like the Gulf Coast.
2. Geophysical evidence of a gravity minimum.
3. Topographic expression of a low mound, at Luke Air Force Base only.
4. Evidence of continuous upward movement of the salt to the present time by the creation of surface fissures, an unusual concentration of wells with collapsed casing in the Luke area, and relatively recent faulting in the Pima area.

**Is a psychological boost.** The presence of salt domes in Arizona behooves the oil hunter to re-evaluate the petroleum potential of the southern part of the state for sure.

The only deep tests in Mohave County are three salt wells at Red Lake. In the northern ranges of Yuma County none has reached the pre-Tertiary except possibly two. Several wells have gone below 4,000 ft in Maricopa County. The only deep hole in Pinal County may have gone to basement in 17-1s-8e. Four or five may have gone to Cretaceous in Pima County. The result: the intermontane valleys of the Basin and Range province are virtually

Salt domes in Arizona



unscratched.

Koester points out that Edwin McKee said 25 years ago that Paleozoic seaways covered most of southern Arizona and that petroliferous rocks may be present in the intermontane valleys. The USGS has noted that information indicates a marine embayment of Pliocene age extends into southeastern California and southwestern Arizona on both sides of the Colorado River.

The relationship of this embayment to the Pliocene salt near Picacho, the salt in Pima dome, and the salt in Overton Beach, remains obscure. Koester says. Possibly all these areas were connected in Pliocene time. If the evidence of Mesozoic caprock in the Red Lake dome area stands up, a marine embayment of that age may be indicated, and may be preserved in some of the valleys in southern and northwestern Arizona.

At any rate, these salt domes demand a re-appraisal of the paleogeology and oil potential of the region.

OGJ 1-17-72

## Seismic crews evaluating big Humble spread in S. Arizona

HUMBLE Oil & Refining Co. has acquired some 1.2 million acres of leases in southern Arizona and has put two seismic crews to work evaluating the rank wildcat territory.

Humble's large-scale entry into Arizona—a state notorious in the past for big prospects but few results—has touched off widespread interest among citizens and raised hopes once again that the state someday may join others of the Southwest as a substantial producer.

Humble itself is cautious about the prospects and contents itself with saying simply that it wants to take a new look at an old area—and that little is known of this region's oil prospects at this time.

The leased area lies within a broad band extending east from Yuma, on the California-Mexico border, through Phoenix, and then south through Tucson to the Mexican border.

**Lease acquisitions.** Humble acquired more than 800,000 acres, or more than two-thirds of its leased area, from Santa Cruz Minerals Inc. last fall. It took another 180,000 acres from Mesa Southwest. And it rounded up the rest on its own through filings for federal permits.

The acquisitions, which cost about \$1 million, are part of a broader lease play covering some 3 million acres in southern Arizona extending east to the New Mexico border (OGJ, Oct. 4, 1971, p. 135).

Since taking over the leases, Humble has contracted with Teledyne for two crews to do extensive seismic work before deciding when and where to spud its first well. A spokesman said the first well, which could be drilled in 1972, probably would be a stratigraphic test to a depth of 8,000-10,000 ft.

Humble's interest in the area stems from the presence of salt on the edge of the leased area.

Pliocene salt has been found in several areas on the edge of the Basin and Range province, which extends through southern Arizona and northward up the western side. One deposit near Luke Air Force Base, near Phoenix, has 3,600 ft of salt and appears to be a dome.

A special report by Arizona's Oil and Gas Conservation Commission says that three, perhaps four, of the deposits appear similar to salt domes found along the Gulf Coast (see story on p. 125).