

OIL AND GAS CONSERVATION COMMISSION  
MEETING: April 22, 1964, 9:30 a.m.  
OFFICE COPY

**A G E N D A**

**OIL AND GAS CONSERVATION COMMISSION**  
1624 West Adams, Room 202  
Phoenix, Arizona  
April 22, 1964  
9:30 a.m.

1. Approval of the minutes of the previous meeting.
2. Consideration of the written report of the Executive Secretary.
3. Consideration of the written report of the Petroleum Geologist.
4. Any other matters the Commissioners may desire to discuss.
5. Set date for hearing of Eastern's request for Navajo Springs Unit.

APR 22

For Handling by CHAIRMAN LYNN LOCKHART

4/22/64

Administrative Authority to be Granted to Executive Secretary

The Commissioners have exercised their judgment in prescribing the forms currently used by the Oil and Gas Conservation Commission as set forth in our Rules and Regulations. The approval of information and authority granted by these forms is purely administrative in scope; therefore the Commissioners, a quorum being present, do authorize John Bannister as Executive Secretary to approve and execute all forms on behalf of the Commission.

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NOTE: \* Quarterly Allotments  
Through Third Quarter

STATEMENT OF LEDGER TRANSACTIONS  
MARCH, 1964

EXPENDITURES OUTSTANDING EXPENDITURES APPROPRIATION UNENCUMBERED  
TO DATE ENCUMBERANCES MAR. 1964 FOR YEAR BALANCE

Office Staff		\$2,100.00		
Commissioners		150.00		
TOTAL PERSONAL SERVICES	\$15,038.00	\$2,250.00	\$20,850.00*	\$5,812.00

Telephone (Feb. & Mar. Billings)		\$275.30		
Office & Geological Supplies		\$262.40		
Postage		12.46		
TOTAL CURRENT EXPENDITURES - OTHER	\$2,812.57	\$550.16	\$4,837.50*	\$1,889.84
TOTAL SUBSCRIPTIONS & ORGANIZATION DUES	\$30.35	\$35.00	\$10.00	\$150.00
				\$84.65

Car Expenses		\$134.34		
John Bannister		16.90		
John K. Petty		18.70		
TOTAL TRAVEL - STATE	\$2,180.72	\$169.94	\$4,500.00	\$2,154.28

TOTAL TRAVEL - OUT OF STATE	\$369.17		.00	\$2,500.00	\$2,130.83
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TOTAL CAPITAL OUTLAY - EQUIPMENT	\$72.29	.00	\$225.00	\$152.71
TOTAL FIXED CHARGES	\$183.22	.00	\$250.00	\$66.78

TOTAL PROFESSIONAL SERVICES	\$455.80	.00	\$4,000.00	\$3,544.20
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TOTAL MUSEUM OF NORTHERN ARIZONA	\$1,875.00	.00	\$1,875.00*	.00
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TOTAL BUREAU OF MINES - U of A	\$1,875.00	.00	\$1,875.00*	.00	
TOTALS	\$24,892.12	\$335.09	\$2,980.10	\$41,062.50	\$15,835.29

CASH BOND					.00
LUMP SUM (Storage Cabinet Shelves)	\$100.36	\$10.35	\$367.65	\$267.29	

RECEIPTS	\$950.00	\$150.00		\$6,770.25
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APR 22 1964

April 22, 1964

TO: The Commissioners of the Oil and Gas Conservation Commission  
State of Arizona

FROM: John K. Petty, Petroleum Geologist

SUBJECT: Continuation of April 15th Report of Geological Field Trips  
Taken During the March 25 - April 22, 1964, Period.

FIELD TRIP #2, April 14, 1964

Purpose of trip being to pick up and deliver a load of sample cuttings to Farmington; to visit acquaintances to possibly stimulate more interest in petroleum and potash exploration in Arizona; to visit drilling wells, especially in the northern part of the state both northeastern and northwestern; to visit sites of old wells and drilling wells in Utah pertinent to Arizona.

April 14, 1964

I did not go by the Harless wells area near Sedona because he called me late Monday about some plans he was formulating so I believed I knew the status of those wells had not changed since my last report.

I turned south off Highway 66 and went to the Adamana area, but could see no rigs drilling for potash.

I took a set of Peak Petroleum well cuttings (Navajo County) to the cut for library purposes.

At Pinta Dome I loaded most of the Kerr-McGee Oil Industries Inc. #1 Barfoot State, but had to leave some cores until the Kerr-McGee man marks them properly. Duval furnished their #24, #15 and #14 from surface to total depth, all in Apache County.

Texaco is drilling a test in western San Juan County, New Mexico, just across the state line a few miles at the Tocito Structure. I could see the lights as I went along the Gallup-Shiprock road Tuesday night. They're tite on this well, but it is getting near the Pennsylvanian limes. The Devonian will be their objective.

April 15, 1964

I took the sample cuttings mentioned to the Four Corners Sample Cut Association at Farmington. While there the samples from the Occidental Petroleum #1 Texaco Navajo, Section 6-T40N-R27E, 1000 feet to 6790 feet, Apache County, were picked up for this Commission repository as well as that of the Museum of Northern Arizona. The Arizona Bureau of Mines has theirs sent direct to them from the cut at Farmington.

In a discussion with Texaco's district geologist, he indicated they wanted to explore for potash as well as petroleum on their huge leases in the southern Holbrook Salt Basin. He said others were exploring for potash on state leases in some of their blocks. He seemed to believe our procedure for obtaining information on the potash tests was what he would do if he had that problem. I believe they will begin exploration for potash by late fall of this year.

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Continuation of April 1964 Report of Geological Field Trips Taken During the March 25- April 22, 1964, Period.

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The Navajo Oil and Gas Supervisor said there were several seismic parties in their Reservations, and in all I think there are eleven working in the state. He and the Navajo Nation are very jubilant about recent and future lease sales. The Navajo Supervisor said several companies were doing surface geology with Brunton Compass for dip and strike determination to be followed up with magnetometer and gravity meter surveys. This is being done now in the Winslow - Holbrook - Keams Canyon area of the Navajo Reservation.

There are several potash rigs operating south of Navajo.

In Farmington Gardner Brothers Drilling Company (at one time had 19 rigs in operation), Aspen Drilling Company, Haynes V.T. Drilling Company are auctioning all their rigs off this week. Reports say they took bankruptcy. This is all a terrible story as it will necessitate many discoveries of new pools to ever stimulate the oil business to stage a comeback in the Southwest.

The Marathon Oil Company #1 Navajo Indian Reservation 1500 f S and 400 f E Lines Section 18 - T40N - R29E, 58 miles northeast of Kayenta in Apache County, 6135 foot Cambrian Test, on Toh-Atin Mesa, was visited and is certainly in a spectacular location near Black Rock Point on the northwest side of the Carrizos on the Toh-Atin structure. They are not tight on this well. This well was at a total depth of 2975 circulating, cleaning and preparing the hole for a drill stem test to test from 2965-75 the upper DeChelly sand formation of Permian age. It is 10 feet low structurally to the Atlantic Refining well drilled just north as a dry hole. The Marathon geologist did not have much hope of producing from the DeChelly but there is a possibility always in this area as there is oil production from the DeChelly or Coconino as we called it 25 miles north and helium production 120 miles south at Pinta Dome. Naturally, a test is certainly worth attempting.

The Socony Mobil Oil Company Inc. #1 Socony Mobil-Navajo Tribe-Tract, 2310 f W and 2310 f N Lines Section 28 - T39N - R25E, Apache County, Wildcat, 60 miles west of Shiprock, Pre-Cambrian Test, was visited just a very short distance northwest of Rock Point. Signs tell you to keep out and the site is fenced. This is a Pre-Cambrian Test to approximately 5650 feet. Indications were that they were about 5100 feet in depth. Mobil is very interested in drilling their leases in the Indian Reservation and I am trying to get them interested in other parts of Arizona.

This wildcat is being drilled on seismic shooting and as I was going back to the Navajo Trail northward, I met the Schlumberger logging truck going to the well. This may mean a test or a show.

The Texaco Inc. #1AG Navajo Tribe SE Section 16 - T41N - R25E, a 1963 Devonian discovery of the Walker Creek Field in Apache County, was pumping oil and their #2AG had some fittings on a head on it. This well will be checked again soon and if they are making a disposal well for salt water in the Chinle out of it, they will be shown the Commission forms and procedure.

The Texaco Inc. #1AK Navajo Tribe, 890 f N and 730 f E Lines, Section 6 - T40N - R25E, 8 miles southwest of Mexican Water, a proposed 6750 Cambrian Test in Apache County, was visited and the sign stating name and location was in order. This well has a sign a short distance away telling unauthorized

Continuation of April 16th Report of Geological Field Trips Taken During the March 25 - April 22, 1964 Period.

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persons to stay away. This well is drilling or coring below 6450 feet and is of course a tight hole; so this drilling depth information should not go farther than the Commission. Texaco did not release it to me. This test is being drilled by Pico Drilling Company and has a 125 foot rig on it. I think they were coring because as I ate supper at a trading post with four Texaco men, some rig man came and said their pump pressure was up. Some other things led me to believe they were coring while I was at the drilling site.

The site of the Superior Oil Company #33-12 Navajo V, Section 12 - T39N - R23E, a 6530 foot Pre-Cambrian Test in Apache County, was visited after dark and the rig was laying down and the casing had a steel plate welded over it with some pipes laid over it. The blowout preventer was not there. This condition has existed for a while and no one can be sure if it's a dry hole or a shut in producer, as yet. We have a while longer to allow them to be tight with their completion without an extension. I think it's drilled to below 6000 feet.

The Texaco Inc. #1Am Navajo Tribe, 660 f N & 1980 f W Lines Section 36 - T39N - R21E, Navajo County, just east of Dinnehotso, a 7500 foot Basement Test, was visited about 10 p.m. and I believe it's drilling at below 6800. This depth should not go beyond the Commission. It did not come from Texaco. This well has a sign on the road saying unauthorized personnel on site will be prosecuted. I stayed here an hour or so as I knew the geologist and needed to visit in a geologic way. This well is the rankest wildcat I visited and Arapahoe Drilling Company has a large rig on it with a 125 foot derrick.

The geologist said the main reason Texaco were being as tight as they were on the two wells in this area and the one at Tocito, just across the New Mexico line was that the other majors nearby were withholding the information from their wells; however this is a regular action in this type of situation.

Pohlman with the Navajos said the companies are withholding the well data from him and that he never did anything about getting it until the Navajos had to have it for evaluation of the adjacent acreage for a sale.

This Texaco well is just east of Kayenta in Navajo County. I believe they are very hopeful for it. Bud Gibson and Associates of Kayenta and Farmington are on the verge of beginning a \$600,000.00 motel-restaurant on the east side of the Navajo Trail at the junction of its eastern route to Farmington and northern route to Mexican Hat in Utah. This is just across the pavement and east of Kayenta.

A paved route has been built from the Navajo Trail highway between Mexican Water and Red Mesa which goes southward to intersect the Window Rock - Tuba City highway. I went on this to Rock Point and could have gone on south, and by making one right and one left turn on highways, gone to Holbrook without getting off pavement. This is the first paved route running north-south on the east side of Navajoland.

April 16, 1964, Thursday

The Rip Underwood #1-32 Jacob Lake Unit Federal located in NE Section 32 - T29N - R2E, a Tapeats Test of 5000 feet and 1 1/2 miles northeast of Jacob Lake,

Continuation of April ( ) ch Report of Geological Field Trips Taken During  
the March 25 - April 22, 1964, Period.

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and that far off the paved highway in Coconino County, was visited. A small rig used to drill a 10 inch hole in a clearing large enough for a rotary and pits and motors, etc. to be located in. A cat was on site and nothing more.

The ground condition, while wet with melting snow and runoff, was nothing to impede any rig movement. The 1½ miles of dirt road were wet but not impassable. A forest Service individual later told me it was 38 feet deep and the little rig they had could drill no deeper. They called this a water well to the forest people.

I told the Forest Service personnel the Commission's purpose and they seemed glad we would be there for some regulation. They seem anxious to cooperate with operators as well as we of the Commission, and all of them are hopeful the project will become an oil well. They do not always have this attitude in all the Forest Districts in this state, and in two other states I know of. Thus the conservationists, both forest and petroleum, are looking at this Jacob Lake project very hopefully.

I visited the site of the Roger Fields #1-X Federal, 330 f S and 320 f W Lines Section 17 - T38N - R7W, a wildcat drilled in 1958 to approximately 1800 feet (reported 1159 feet in Commission files) and was abandoned as a dry hole in Mohave County. It was dark when I arrived on the site but the marker was still up. I heard via the grapevine two or three months ago it was down. This well was plugged with U.S.G.S. supervision last year as Roger Fields was deceased with no organization left behind.

April 17, 1964, Friday

The Tenneco Oil #2 Upper Valley 730 f N and 760 f W Lines, NW NW Section 13 - T36S - R1E, Garfield County, Utah, around 50 miles north of the Arizona-Utah state line and only a few degrees west of due north from Page, Arizona, where the Glen Canyon Dam is situated. This well has an initial potential of 300 barrels of 27 degree gravity oil per day with only 4% water and 2% basic sediment. They plan to produce 250 barrels of oil per day. This well was spudded 8/30/63 with a Loffland Brothers rig. Production is from perforations in the Kaibab lime at 6630-6733. They reported a good show of oil in the Toroweap but came up hole in the Kaibab for completion. The mud expense was terrific on this project as many lost circulation zones were encountered. Formation tops are Straight Cliffs Sandstone of Upper Cretaceous Age on surface (per geologic map as Tenneco doesn't call it), Navajo 3140, Chinle 5220, Timpoweap 6555, Kaibab 6670, Toroweap 6954, Coconino 7315, Organ Rock 7345, Queantoweap 7600, Callville 8550, Molas 9205, Mississippian 9278. T.D. 9424; P.B. 6775; Casing 20" @ 54' w/75 sx, 9-5/8" @ 6565 w/200 sx, 7" @ 7503 w/85 sx. Elevation 7716 g.l.

This Tenneco area of exploration is located around 17 miles west of Escalante and 12½ miles south of Highway 57. Most of the latter is Tenneco made road, but it is a good one.

The Tenneco Oil #3 Upper Valley, 732 f S and 2124 f W Lines (SE SW) Section 13 - T36S - R1E, elevation 7656 G.L., was visited and Loffland Brothers Drilling Company is rigging up their rotary which has a 125 foot derrick to drill Tenneco a 9450 Mississippian test. They are going to aerate their drilling mud with air and are building their plumbing accordingly making fittings to



Continuation of April 1<sup>st</sup> Report of Geological Field Trips Taken during the March 25 - April 22, 1964, Period.

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use. They are studying the situation to overcome the expensive lost circulation problems encountered in their #2, the field opener. Aerating the drilling mud will produce a foamier mud when they need it to build a wall against lost circulation zones.

These people were very cordial and said they hoped to begin drilling this #3 well very soon. This well is just south of the Tenneco #2 in same section. The structure has a more or less north-south axis.

This Tenneco area is in the Kaparowits Basin which has been popular for oil and gas leasing for over ten years. Many companies have leases in the area and Tenneco's discovery will cause wells to be drilled for perhaps 50 miles south of the Arizona line.

The Kaibab lime, producing formation for the Tenneco Kaparowits Basin discovery is 6600 feet deep there and is found on the surface at the Arizona line and all through the Kaibab Forest to Flagstaff area. We hope it will produce near the surface in Arizona. Also that some of its oil will be entrapped in other formations.

#### Washington County, Utah

The McCulloch Oil #1 Gov't. Wolf, 90 f N & 3515 f W Lines (NW NE) Section 23 - T40S - R13W, a 5000 foot Cambrian Test which drilled to 7315, was spudded in 12/30/63 and completed as D & A February 29th of this year. Pease was the drilling contractor and this project was just east of Highway 15, a half mile north of Anderson Junction about 21 miles northeast of St. George near Toquerville.

This well location is 30 miles north of the Arizona line at Antelope Spring in the northwestern Arizona Strip Country. I will obtain more information on further McCulloch activity which will take place closer to the Arizona line.

This well was tight and the following information was not obtained from the operator: 10-3/4" casing set @ 373 w/165 sx, 9-5/8" @ 2996 w/75 sx. Elevation 3810 D.F. Formation tops: Mauv 3308, Bright Angel 4200, Tapeats 4400. There were three cores cut: Core #1, 3082-90 recovered 8 feet dolomite. Core #2, 7058-89 recovered 31 feet: 8 ft. shale, 23 ft. lime and dolomite-crinoidal lime, no porosity or oil stain, bottom 3 feet quartz sand. Core #3, 7256-7316, recovered 60 ft: 41 1/2 ft. limestone, micro crystalline, styolitic, dark gray with brownish cast. Strong H2S odor on break throughout.

The following water flows were noted. At 410 feet the flow was 70 to 80 GPH with some dead oil stain, 1442 ft - 100 BWPH, 1671 ft - 300 BWPH, 1551 ft - 400 to 500 BWPH, 2222 ft - 400-450 BWPH, and at 2360 feet there were 400-450 barrels of water per hour flowing.

This area of Utah will be watched for significant developments as there are many possibilities existing there which will be of interest to Arizona.

JKP:mkc

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April 22, 1964

TO: The Commissioners of the Oil and Gas Conservation Commission  
State of Arizona

FROM: John K. Petty, Petroleum Geologist

SUBJECT: Well Reports and Additional Information Since March Meeting

APACHE COUNTY - Four Corners Area

1. Marathon Oil Co. #1 Marathon Oil Company Navajo Indian Reservation, Section 18 - T40N - R29E, drilling at below 3400 feet.
2. Socony-Mobil Oil Co., Inc. #1 Socony Mobil-Navajo, <sup>Tribe Tract #133</sup> Section 28 - T39N - R25E, drilling at below 5300 feet.
3. Texaco Inc. #2AG Navajo Tribe, Section 21 - T41N - R25E, completed as salt water disposal for #1AG, the Walker Creek Field opener.
4. Texaco Inc. #1AK Navajo Tribe, Section 6 - T40N - R25E, drilling and coring below 6550.
5. Superior Oil Co. #33-12 Navajo "V", Section 12 - T39N - R23E, shut in at around 6000 feet.

NAVAJO COUNTY - Four Corners Area

6. Texaco Inc. #1AM Navajo Tribe, Section 36 - T39N - R21E, drilling and coring below 6900.

APACHE COUNTY - Central Part

Potash exploration around Adamana area (west central part just south of Highway 66). Duval Corporation coring. Duval exploration southeast of Pinta Dome.

7. Eastern Petroleum #28 Santa Fe Fee, NW Section 3 - T20N - R27E, Pinta Dome drilling 1100 feet. Helium test drilling below 500 feet.

COCONINO COUNTY

8. Rip C. Underwood #1-32 Rip C. Underwood-Jacob Lake Unit, NE NE Section 32 - T39N - R2E, surface hole drilled to 38 feet. Waiting on rotary.

YAVAPAI COUNTY

9. Harless #27 Harless Federal, 600 f N and 900 f W Lines, Section 4 - T17N - R4E, fishing at 1320.

GRAHAM COUNTY

10. Ram Oil Company #1 Ram-Sierra Bonita Fee C SE SE Section 16 - T41N - R24E, drilling at 1796 feet.

MARICOPA COUNTY

11. Montezuma Oil and Gas Co. #1-A Federal, Section 30 - T2S - R9W, shut in at 452 feet.

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Well Reports and Additional Information Since March Meeting

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April 8, 9, and 10 were spent in visiting the New Mexico Oil Conservation Commission to learn more about their manner of handling the potash and mineral exploration.

In southeastern New Mexico where their potash drilling and coring is taking place, the potash zone is above the oil and gas bearing horizons and the potash people are perturbed about the petroleum drilling on their leases and contaminating their potash zone. Just the reverse of the Arizona - Holbrook - Salt Basin situation.

I copied the well records of several wells drilled through the salt zone and found that they cased usually 1400-1450 feet of salt above the Yates oil pay.

Since I do know that many wells have been cored to below 1500 feet in the Grants uranium area of west central New Mexico and their well records have not been reported to state and federal agencies, I believe that this Commission by present methods will be more successful in ultimately obtaining needed information. I have additional assurance now from a mineral owner to obtain log copies of many of the tests.

In conclusion, I am glad to say that there is no indication that Duval, Kern County Land, Arkansas Louisiana, etc. will not deliver all the information on the potash tests.

I obtained  $\frac{1}{2}$ " equals a mile scale sectionized maps of an area several miles into New Mexico contiguous to Arizona's eastern boundary from the New Mexico Highway Department. They make quadrangle maps in lieu of county maps. These maps fit together better than county maps.

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**SANTA FE**—New Mexico's oil conservation commission Wednesday took under advisement an effort by Potash Co. of America to prevent Pan American Petroleum Corp. from drilling a 12,600-foot Mississippi test in a so-called "potash-oil" area on which each holds mineral rights.

Regulators may have to decide whether Pan American's chance of finding petroleum in the test in section 17-26-30e of Eddy County is worth as much as the potash ore the mining firm would have to leave untouched, in a pillar which would protect the well from subsidence.

The question whether the well might experience high pressure leakage which would damage potash operations also was raised.

The commission some years ago designated the "potash-oil" area and established an oil well casing program there designed to minimize contamination of the potash.

## N. Mexico to Cut Oil Flow for May

**SANTA FE**—New completions which boosted oil production faster than demand Wednesday caused the state oil conservation commission to reduce top unit oil allowables in southeast New Mexico to 38 barrels daily in May from 39 b/d in April, despite a slight increase in purchasers' nominations.

The 39 b/d limit had been in effect since last Oct. 1.

Northwest New Mexico's May maximum will be 70 b/d, unchanged since July 1960.

May nominations came to 270,629 b/d in the southeast, up 663 b/d, and to 31,417 b/d in the northwest, up 1,323 b/d.

Estimated May allowables were 335,937 b/d in the southeast and 28,061 b/d in the northwest, and actual production was expected to average 282,187 b/d in the southeast, up 4,977 b/d from April, and 20,485 b/d in the northwest, down 1,116 b/d.

Gerald McGrew, Cities Service Oil Co., urged regulators seriously to consider a reduction in New Mexico's May flow rates.

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April 19, 1964

## Kaibab Oil Development Firm Formed

Formation of the Kaibab Oil and Gas Co. was announced yesterday by James R. Pickett, Phoenix.

Pickett, an oil and gas consultant to major oil companies and independent oil operators in their leasing and drilling activities in Arizona for the past six years, is president and executive director of the new company.

Willard D. Pye, Ph.D., Tucson, is vice president, director, and manager of exploration.

Dave M. Thomas Jr., a geological consultant from Farmington, N.M., is Kaibab Oil and Gas Co.'s secretary-treasurer, chief geologist, and director. He previously was associated with El Paso Natural Gas Co.

Other members of the board of directors include Daniel E. Sullivan, engineer, and Robert E. Jackson, drilling superintendent, both of Scottsdale.

The firm has oil and gas leaseholdings in the North Kaibab uplift area of Coconino County. Pickett said the company has been authorized by the securities division of the Arizona Corporation Commission to sell common stock to residents of Arizona.

Headquarters have been established at 29 E. Camelback Drive, Phoenix.

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THE OIL DAILY, WEDNESDAY, APRIL 15, 1964

## 1st Oil Drilling In Kaibab Area Of Arizona

WASHINGTON—The first oil drilling exploration on the north division of the Kaibab national forest in Arizona is being permitted under an agreement just announced by Interior Secretary Udall.

The North Kaibab was opened to oil exploration by a joint decision made last summer between the Departments of Agriculture and Interior.

A special use permit conditioned on the agreement for the first drilling was approved by Agriculture's Forest Service March 27 at a meeting with Arizona Game & Fish Commission representatives in Phoenix. Earlier, the two agencies met on the site of the proposed drilling.

The decision to open the area was made after 35 stipulations were adopted assuring protection of the wildlife resources and the natural beauty of the area. Drill sites will not be permitted within view of main highways or within one-half mile of present or proposed recreation areas and other developments.

Drilling will be done by one operator representing the interests of a number of lessees. The Forest Service special use permit for the exploration requires "that no drilling operation will be permitted at more than one site at one time."

Udall praised the cooperation shown by the oil companies and interested agencies. The companies hope to find the first source of oil and gas in Arizona within the North Kaibab area, which lies north of the Colorado River in an isolated region. The initial drilling site is north of Jacob Lake and east of U. S. 89A, at a site agreed upon by representatives of the Forest Service, Interior's Bureau of Land Management and Geological Survey, and the Arizona Game & Fish Commission.

Udall expressed the belief that the stipulations will protect the game, their habitat, and other recreation values while permitting the orderly exploration and development of oil and gas potentials.

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D R A F T  
MINUTES

State of Arizona  
Oil and Gas Conservation Commission  
1624 West Adams, Room 202  
Phoenix, Arizona  
March 25, 1964

COMMISSIONERS PRESENT:

Lynn Lockhart, Chairman  
R. Keith Walden, Vice Chairman  
Charles Kalil, M.D., Member  
Orme Lewis, Member

COMMISSIONER ABSENT:

Robert B. Howard, Member

OTHERS PRESENT:

John Bannister, Executive Secretary  
John K. Petty, Petroleum Geologist  
Mike O'Donnell  
Loy Turbeville  
J. H. Waterhouse  
Charles Martin

Chairman Lynn Lockhart called the meeting to order at 9:30 a.m. in the Hearing Room of the Commission.

Commissioner R. Keith Walden's motion that the minutes of the preceeding meeting be accepted as prepared was seconded by Commissioner Charles Kalil, unanimously approved, and so ordered.

House Bill 343, providing for the payment of a reward, was discussed. Commissioner Charles Kalil reported that he is attempting to arrange a meeting with Representative Elmer T. Burson in an effort to further the progress of this bill. The statement was made that the bill probably could be improved upon; and should be actively promoted with the legislators immediately following the general election if not acted upon favorably during this session of the legislature.

The Chairman called upon Mr. John Bannister, Executive Secretary for his report. Mr. Bannister had previously submitted a written report to the Commissioners; however at this time he reported that a very good working relationship has been established with the other employees of the Commission office, Mrs. Mary Cooper and Mr. John Petty, since his employment on March 1st, and that the Commissioners could expect to receive his full cooperation.

There followed a discussion of the potash exploration situation in the state, the major issue being the extent of the Commission's authority and power to obtain information from the companies engaged in such exploration and drilling. It was reported that an opinion on the subject had been requested from Mr. Edward I. Kennedy, Assistant Attorney General; but that opinion had not yet been received. During discussion of the New Mexico Oil Conservation Commission's regulations in this regard, it was reported that New Mexico requires that a permit to drill for oil or gas be obtained from any type of operator, regardless of the purpose of the drilling, if the drilling penetrates oil and gas bearing areas. Thus, in accordance with the rules applying to the permits, the operator is then required to submit all information required for the drilling of oil and gas wells; however they have not been entirely successful in receiving all the information desired even

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though their power in this regard has been tested and findings were that they definitely do have the right to demand information. It was reported that the various potash and mineral exploration companies' reluctance to furnish information regarding their drilling is an attempt to keep information from their competitors. Mr. John K. Petty, Petroleum Geologist, reported that he already has quite a number of samples from these potash holes, but that the information is being withheld, but that probably within a few months information would be available; and that quite a number of the exploration companies had committed themselves to furnishing whatever information will be requested by the Commission. The fact was pointed out that if any of these potash and mineral companies discover oil or gas, the Commission could then demand an application for a permit to drill; and that at present the Commission can demand cooperation from these exploration companies on its authority to protect the water bearing formations from contamination. Mr. Bannister and Mr. Petty were directed to present to the Commissioners at the next meeting their suggestions as to procedures to be followed in connection with the potash drilling, whether under the law or by arrangement with the various companies, so as to obtain as much information as possible with no discrimination.

The proposed drilling in the Kaibab Forest area was discussed.

Mr. Petty reported the latest information on the Ram well, 29 miles north of Willcox in the Sulphur Spring Valley which was that they plan to drill down to 1725-50 and hire a consultant to perform tests.

Mr. Mike O'Donnell stressed the importance of logs in revealing to drillers what formations they could expect to encounter in their operations based upon previous drilling in the area; thus enabling them to judge their costs. Also that as more logs are available, more information would be available for geologists to interpret for future drilling sites. The fact was brought out that our laws do not require that logs be run on all drilling operations, only that such logs as are run be submitted to the Commission, and that legislation would be required to force operators to run logs.

Mr. Petty and Mr. Bannister reported on their trip to the Montezuma area, Desert Drilling site near Dateland, and to the reclamation project which is being conducted south of Yuma near San Luis.

The situation in Morrow County, Ohio, was discussed briefly.

Upon motion duly made, seconded and unanimously approved, meeting was adjourned at 11:30, with the next meeting scheduled for the fourth Wednesday of April, the 22nd.

JB/mkc

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**A G E N D A**

**OIL AND GAS CONSERVATION COMMISSION**

**1624 West Adams, Room 202**

**Phoenix, Arizona**

**April 22, 1964**

**9:30 a.m.**

1. Approval of the minutes of the previous meeting.
2. Consideration of the written report of the Executive Secretary.
3. Consideration of the written report of the Petroleum Geologist.
4. Any other matters the Commissioners may desire to discuss.

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April 15, 1964

TO: The Commissioners of the Oil and Gas Conservation Commission  
State of Arizona

FROM: John Bannister, Executive Secretary

SUBJECT: Items of Interest Since the March 25th Meeting

SALES OF INDIAN ACREAGE

We have been advised of two sales of Indian acreage, the first of which will be held on April 23, 1964, at Window Rock, Arizona. At that time 98 tracts of land in San Juan County, New Mexico, totaling 112,351 acres and 142 tracts of land in Apache and Navajo Counties, Arizona, totaling 222,799 acres will be offered. The terms of this offer are the usual \$1.25 rental and the royalty has been set at 16-2/3 per cent.

On May 7, 1964, 9 tracts of acreage in Navajo County totaling 22,849 acres and 137 tracts in Apache County totaling 299,228 acres will be offered. The rental and royalty are the same as above.

The lands offered in both sales range from roughly T41N-R29E east and south encompassing T37N-R19E. The large amount of acreage being offered is an indication of the interest of major companies as well as independent operators in the state of Arizona as well as in the northeastern section. The trend of the Indian sales has been consistently extending westward.

NEW DRILLING PERMITS

The following permits have been issued since our last meeting:

Permit No. 273: Footage location changed. Eastern Petroleum Co., Eastern-Santa Fe Fee #34, 1897' S of NL; 1709' E of WL, Section 1-T19N-R27E, Apache County.

Permit No. 275: Rip C. Underwood, Rip C. Underwood-Jacob Lake Unit 1-32, Approximate C NE NE NE Section 32-T39N-R2E, Coconino County.

APPOINTMENT OF COMMISSIONER L. B. OWENS

The appointment of Mr. L. B. Owens as a Member of the Commission was made effective as of April 1, 1964, and was confirmed by the Senate on April 9th.

HOUSE BILL 343: Providing for the Payment of a Reward

This bill is out of the Tourist and Industry Development Committee, but is still in the Judiciary and Appropriations Committees.

HOUSE BILL 345: Abolishing the Oil and Gas Commission

This bill is still in all three of the committees to which it was originally assigned: the Judiciary, Appropriations, and Boards and Commissions.

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EMERGENCY ORDERS REQUESTED BY EASTERN PETROLEUM COMPANY

The Commission has denied the issuance of two emergency orders, EO 1-64 and EO 2-64, requested by Eastern Petroleum to shut in production in the Navajo Springs area. Eastern was advised by letter dated April 14, 1964, that the Commission would not entertain further motions of this nature until such time as the hearing on the Navajo Springs Field was held and evidence, if any, warranting such action was presented.

EL PASO NATURAL GAS COMPANY

El Paso Natural Gas Company was ordered by the Supreme Court of the United States to divest itself of the Pacific Northwest Pipeline Company which it acquired through purchase in about 1957. You may recall that approval was first obtained by El Paso from the F.P.C. and upon their approval, the merger was accomplished. Antitrust proceedings were brought in about January, 1959, and have now culminated in the order to divest themselves of this holding. The property to be divested is valued at \$200 million and involves some 1400 miles of transmission lines.

El Paso Natural Gas Company has been ordered to refund a total of \$155 million on overcharges collected during the past 12 years and to reduce the income from existing contracts by approximately \$30 million per year. The majority of the \$155 million has now been returned to El Paso's customers. El Paso likewise is receiving refunds from suppliers from whom it has purchased. To date some \$4 million has been returned to them.

HUMBLE OIL COMPANY

The Department of Justice has filed suit under antitrust measures against Humble Oil Company to block Humble's plan to acquire Tidewater Oil Company's western operations. There is \$329 million involved in the deal.

HELIUM LIQUIFIER

A helium liquifier capable of producing some 26 gallons per hour of liquid helium at a temperature of minus 425 degrees has been put into operation at the Kerr-McGee Pinta Dome Plant. Apparently the first shipment of liquid helium was made late in March.

STATE OF NEW MEXICO'S HANDLING OF POTASH EXPLORATION AND DRILLING

Pursuant to instructions from the Commission, Mr. John Petty and I went to Santa Fe, New Mexico, and visited with the Oil and Gas Commission to seek information concerning their handling of the potash problem. The results as to this study were very disappointing in that the situation in New Mexico is the exact reverse of ours. There the potash lies above all producing oil and gas strata in the area in which it is located and the potash lessees are seeking ways to deter the oil and gas operators from drilling through their formations. However the trip was most beneficial to both Mr. Petty and myself in further establishing friendly relations between the two commissions and in the ideas and suggestions furnished to us by our more experienced sister state.

Items of Interest Since the March 25th Meeting

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ORDERS AND EMERGENCY ORDERS

I am attaching a copy of the proposed forms for the issuance of any order or emergency order made by the Commission. I will briefly discuss this matter during our meeting.

COMMISSION REQUIREMENTS

Further, please find enclosed a copy of my study concerning the questions:

1. If a well is drilled for oil, gas or helium, what can the Commission require be filed with it?
2. If an operator runs logs or secures other types of information not specifically required by the Commission, do we have the authority to see that such information is filed with the Commission?
3. If a hole is drilled for other than oil and gas purposes, what requirements and authority does the Commission have?

JB:mkc

TO: The Commissioners

April 15, 1964

FROM: John Bannister, Executive Secretary

RE: Pursuant to Instructions to me at the Regular Meeting on  
March 25, 1964.

Gentlemen:

I was instructed at our last meeting to prepare a report on what action I felt that the Commission could take concerning the securing of information from the potash drilling. I have broken this report down into three sections as follows:

What can the Commission require for wells specifically drilled for oil, gas or helium.

Pursuant to Section 27-515, the Commission has been given authority over all persons and property necessary to enforce the rules and regulations contained in the statutes. Section 27-516.A. charges the Commission to make the necessary rules and regulations on such specific items as drilling, casing and plugging wells, preventing the escape of hydrocarbon from one formation to another, preventing the intrusion of water into the hydrocarbon formation, preventing the pollution of water, preventing the waste. Pursuant to these broad instructions, the Commission has established forms which show compliance with its rules and regulations. Accordingly for an announced oil, gas or helium well, we may and do require the following:

- (a) Organization Report (No form number).
- (b) Bond (No form number).
- (c) Application to Drill, Deepen or Plug Back (Form P-1).
- (d) Plat of well location (No fixed form).

Upon completion, the Commission requires:

(a) Well Completion Report (Form P-7) Note: This form calls for the reporting of all formation tops, and is our only specific required geological information.

(b) Copies of all logs run. Note: Operator is not required to run any logs; but if he does, a copy must be filed with the Commission.

If the well is a dry hole, we require:

- (a) Application to Plug and Abandon (Form 15-A).
- (b) Plugging Record (Form Pl5).

If the well is a producer, the following forms are required:

(a) Request for Allowable. (For oil, Form P-6). (For gas, Form G-3).

To The Commissioners

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- (b) If a gas well, our Flow Test form (Form G-1).
- (c) Production Report (Forms G-7, G-8).
- (d) Certificate of Compliance (Form P-17).

Requirements in the event that an operator runs logs or secures other geological information which has not been specifically required by the Commission.

This information must be filed with the Commission. For authority I call your attention to A.R.S. Sec. 27-516.A.2. which requires reports showing the location of oil and gas wells and requires the filing of all logs and records within ninety days of completion of wells drilled for gas, helium and oil; Rule 119.A., Completion Report; and Rule 119.C. requiring copies of all electrical surveys, or logs, or radioactive surveys or logs except those obtained on purely stratigraphic tests to be filed with the Commission within thirty days. If requested by the person so filing the logs, Commission will keep the information confidential not to exceed six months from the date of filing. Should an electric or radioactive log not be run, then a driller's log must be run.

What may the Commission require if the well or hole is drilled for other than oil or gas purposes (POTASH).

Pursuant to A.R.S. Sec. 27-515. and A.R.S. Sec. 27-516., the Commission has been given full power and authority to enforce the direct charges made upon it and to make such necessary rules and regulations to insure this enforcement.

Pursuant to A.R.S. Sec. 27-516., the Commission is specifically charged to make rules to prevent (Sec.516.1.b.) intrusion of water into oil and gas formations; (Sec.516.1.c.) pollution of oil and gas by salt water; (Sec.516.4.) prevent water drowning a formation; (Sec.516.6.) prevent blow outs, cave in and seepage; (Sec.516.7.) prevent creation of fire hazards.

A.R.S. 27-501.20. defines a well as any hole drilled or spudded for the purpose and with the intention of penetrating an oil and gas bearing strata and producing oil and gas therefrom whether or not oil and gas is actually found.

A.R.S. 27.503.B. grants to the Commission under the direction to prevent waste the authority to make such inquiries as it deems necessary to see if waste does exist or is imminent including the power to collect data, make investigations, examine property, leases, books, records and logs, etc.

A.R.S. Sec. 27-515.A. specifically grants the Commission the jurisdiction and authority over all persons and property deemed necessary to enforce the provisions of these laws.

A.R.S. Sec. 27-516. has been above quoted.

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Pursuant to the statutes, the Commission has also passed as its own rule and regulation, Rule No. 203.A. which provides that any hole drilled for seismic core or other exploratory purposes that penetrates below a fresh water formation shall not be abandoned until the well is plugged in such a manner as to seal off all water bearing formations.

It is my thought that the only feasible way in which the Commission could approach the filing of information from the potash exploration holes would be under a loose definition of "well" as contained in A.R.S. Sec. 27-501.2. in that besides penetrating a formation to completely comply with the meaning of the word "well" there must be an intent to produce oil and gas. However I feel that argument could be presented that the mere penetration of an oil and gas strata would qualify under the meaning. If this is so, then each of the holes drilled for potash exploration would qualify as a well and would have to secure a permit and be fully subject to our rules and regulations. This is based upon the fact that the potash exploration wells do penetrate through the Coconino Sands formation which is a known oil and gas producing formation.

Our strongest approach to the problem would be under the charge of the Commission as to the protection of water encroaching into a water and gas formation (Coconino Sands) and the prevention of pollution to fresh water sources. The Commission has been given broad general powers and authority to enforce the matters with which it is charged and in order to properly insure protection of fresh water, it is my belief that we could require logs to be filed so that we may know where the fresh water is so that we may insure that fresh water and/or the Coconino Sands is properly protected.

TO: The Commissioners

April 15, 1964

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(b) Copies of all logs run. Note: Operator is not required to run any logs; but if he does, a copy must be filed with the Commission.

If the well is a dry hole, we require:

- (a) Application to Plug and Abandon (Form 15-A).
- (b) Plugging Record (Form P15).

If the well is a producer, the following forms are required:

(a) Request for Allowable. (For oil, Form P-6). (For gas, Form G-3).

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To The Commissioners

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- (b) If a gas well, our Flow Test form (Form G-1).
- (c) Production Report (Forms G-7, G-8).
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Pursuant to A.R.S. Sec. 27-515. and A.R.S. Sec. 27-516., the Commission has been given full power and authority to enforce the direct charges made upon it and to make such necessary rules and regulations to insure this enforcement.

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A.R.S. 27.503.B. grants to the Commission under the direction to prevent waste the authority to make such inquiries as it deems necessary to see if waste does exist or is imminent including the power to collect data, make investigations, examine property, leases, books, records and logs, etc.

A.R.S. Sec. 27-515.A. specifically grants the Commission the jurisdiction and authority over all persons and property deemed necessary to enforce the provisions of these laws.

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To The Commissioners

April 15, 1964  
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Our strongest approach to the problem would be under the charge of the Commission as to the protection of water encroaching into a water and gas formation (Coconino Sands) and the prevention of pollution to fresh water sources. The Commission has been given broad general powers and authority to enforce the matters with which it is charged and in order to properly insure protection of fresh water, it is my belief that we could require logs to be filed so that we may know where the fresh water is so that we may insure that fresh water and/or the Coconino Sands is properly protected.

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32 x 11

BEFORE THE OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF ARIZONA

IN THE MATTER OF THE HEARING CALLED  
BY THE OIL AND GAS CONSERVATION  
COMMISSION OF THE STATE OF ARIZONA  
FOR THE PURPOSE OF CONSIDERING:

CASE NO. \_\_\_\_\_

ORDER NO. \_\_\_\_\_

THE APPLICATION OF XX COMPANY FOR  
AN ORDER TO CREATE A UNIT TO BE  
KNOWN AS THE NAVAJO SPRINGS UNIT  
IN APACHE COUNTY, ARIZONA.

ORDER OF THE COMMISSION

BY THE COMMISSION

This cause having come regularly on for hearing at 9:30  
a.m. on April 22, 1964, at Phoenix, Arizona, before the OIL AND  
GAS CONSERVATION COMMISSION of the STATE OF ARIZONA, hereinafter  
referred to as the "COMMISSION".

Now, on this \_\_\_\_\_ day of April, 1964, the COMMISSION, a  
quorum being present, having considered the testimony presented  
and the exhibits received at said hearing, and being fully advised  
in the premises, finds as follows,

FINDINGS:

(1) THAT due public notice having been given as required  
by law, the COMMISSION has jurisdiction of the cause and the sub-  
ject matter thereof.

(2)

(3)

IT IS THEREFORE ORDERED:

(a)

(b)

IT IS FURTHER ORDERED: (Date order to be effective).

DONE at Phoenix, Arizona, on the day and year hereinabove  
designated.

OIL AND GAS CONSERVATION COMMISSION  
STATE OF ARIZONA

( S E A L )

By \_\_\_\_\_  
LYNN LOCKHART, CHAIRMAN

APR 15 1964

1                   BEFORE THE OIL AND GAS CONSERVATION COMMISSION  
2                   OF THE STATE OF ARIZONA

3 THE APPLICATION OF XX COMPANY )  
4 FOR AN EMERGENCY ORDER TO )

CASE NO. \_\_\_\_\_

EMERGENCY ORDER NO. \_\_\_\_\_

6                   ORDER OF THE COMMISSION

7                   BY THE COMMISSION

8                   This cause was considered at 9:30 a.m. on April 22, 1964,  
9 at Phoenix, Arizona, by the OIL AND GAS CONSERVATION COMMISSION of  
10 the STATE OF ARIZONA, hereinafter referred to as the "COMMISSION".

11                  The COMMISSION, a quorum being present or polled, having  
12 considered the facts presented and being fully advised in the  
13 premise, finds as follows,

14                  FINDINGS:

15                  (1) THAT COMMISSION has jurisdiction of the subject  
16 matter thereof.

17                  (2) THAT an emergency does exist and that due to the  
18 nature of the emergency, no public notice is required by law.

19                  (3)

20                  IT IS THEREFORE ORDERED:

21                  (a)

22                  (b)

23                  DONE at Phoenix, Arizona, on the day and year hereinabove  
24 designated.

25                                   OIL AND GAS CONSERVATION COMMISSION  
26                                   STATE OF ARIZONA

27                   By \_\_\_\_\_

28                                   LYNN LOCKHART, CHAIRMAN

29                   ( S E A L )

30  
31  
32                                   APR 15 1964

April 15, 1964

TO: The Commissioners of the Oil and Gas Conservation Commission  
State of Arizona

FROM: John K. Petty, Petroleum Geologist

SUBJECT: Geological Field Trips Taken During the March 25-April 22, 1964,  
Period.

FIELD TRIP #1, April 2, 1964

Purpose of trip was to visit the Pinta Dome Helium area to verify that a pipeline had been laid, and to visit some well sites, and to partially prepare a load of well cuttings to be taken to the Four Corners Sample Cut later.

The Kerr-McGee Oil Industries' pipeline connecting their #1 Barfoot, a gas well in Section 32-T20N-R27E, has been installed and the valve on the Barfoot head is chained with a lock on it. The pipeline takes off as a four inch one in size and was run to a point 10 feet south of the north-west corner of the section (32). At this point the line graduates into a six inch line and continues due west 10 feet south of the north line of Section 31-T20N-R27E. Then at the point of junction with Section 36-T20N-R26E, this 6 inch line turns northwest for 6837.52 feet extending diagonally across Section 25 and into the northeast quarter of Section 26-T20N-R26E where it joins the Pinta Dome Helium pipeline to the plant which is a mile and a quarter north.

Thus, 16,040.54 feet of pipeline was run being just less than 3 miles. This line is ready to take helium from the Kerr-McGee Oil Industries #1 Barfoot State to the company's Navajo Plant for processing.

April 3, 1964

A potash test is being drilled by Duval Corporation in NE NE of Section 9-T19N-R27E. Duval's representatives were contacted and negotiations with them in regard to samples, logs, plugging and completion forms were furthered in regard to their drilling operations for potash. They seem as cooperative as before and soon I will collect the samples on more of their tests.

On many potash tests it seems they are just running logs (Gamma Ray-Neutron) on the salt section. This feature has prompted many to mention to this Commission about obtaining legislation to require anyone drilling through oil, gas and helium producing zones to run logs from surface to total depth. It is hoped the operators will do this.

Presently, I believe if we can obtain the samples as planned, it will be a step forward because interested companies and operators can employ geologists to describe the samples, interpret the formation tops, and indicate whether the sands are possibly water or gas producing on sample descriptions.

I visited the Navajo Helium Plant and have arranged for a load of well cuttings to be taken to the Four Corners Sample Cut at Farmington when I can.

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Geological Field Trips Taken During the March 25-April 22, 1964 Period

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I tried to visit most of the Kerr-McGee personnel in the area and Mr. Bert Fielder, Superintendent for Kerr-McGee, is most accommodating and cordial about everything I ask about and all of them are very friendly at all times.

No Eastern people were in the area at the time of my visit. They also are very friendly and accommodating to me at all times.

JKP:mkc

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32x1

April 10, 1964

## New Helium Liquifier Operating Near Navajo

DELAHONIA CITY—A helium liquifier has gone on stream at the helium processing facility operated by Kerr-McGee Oil Industries, Inc., near Navajo, Ariz., east of Holbrook.

First shipment of liquid he-

lium was made late in March from the plant, which has been supplying a predominantly west coast market with gaseous helium since it went into operation in December 1961. This is the nation's only privately financed helium processing plant built to supply the commercial market.

The recently completed liquifier was built by Arthur D. Little, Inc. It is capable of producing in excess of 150,000 liters (about 26 gallons) of liquid helium an hour. The liquifier has storage facilities for 4,500 liters.

Gaseous helium liquifies at -450 degrees F. Liquid helium requires optimum insulation to minimize heat leakage, a minute amount of which causes liquid helium to boil away and be lost. The storage vessel on the liquifier is vacuum-jacketed and uses thermal insulation and liquid nitrogen to keep the loss at a minimum.

The liquefied helium is shipped from the Kerr-McGee plant in vacuum-jacketed, superinsulated containers specially designed for the purpose. Containers now in use have a 100-liter capacity and weigh about 240 pounds when full. Larger shipping containers are being built and will be put into service in the near future.

Installation of the helium liquifier was prompted by the increasing demand for use of the liquid in cryogenic research. Cryogenics is the science that deals with the reaction and behavior of materials when they are subjected to extremely low temperatures.

The Kerr-McGee helium facility will continue to market gaseous as well as liquid helium. Through its subsidiary, Helium Corporation, which is a wholly owned subsidiary of Kerr-McGee,

Kerr-McGee owns a 90 percent interest in 12,400 acres, which cover about 95 percent of the helium-bearing structure in the field.

The plant is owned 99 percent by the company. The other ten percent of the plant and acreage is owned by Martin T. Bennett of Washington, D. C.

The plant is capable of producing 25 million cubic feet of natural gas a day. Since the natural gas produced from the Dome field contains eight percent helium, the plant has a daily production capacity of 2,000 cubic feet of gaseous helium, 99.995 (or better) percent pure.

April 10, 1964

Holbrook News — Vol. 59 No. 17

## L. B. Owens Of Holbrook Named To State Oil & Gas Commission

Holbrook was honored this week by having L. B. Owens, long-time resident and businessman, appointed to membership on the Arizona Oil and Gas Conservation Commission by Gov. Paul J. Fannin. Mr. Owens, for years in local, county and state affairs, fills the vacancy left by the expired term of Robert Heward, another Holbrook man.

The term of the new commissioner is for five years. The commission supervises the state oil and gas code which has control of drilling permits sealing of dry holes, spacing of prospect wells, and the many other technical details connected with prospecting for petroleum and other gas products in Arizona.

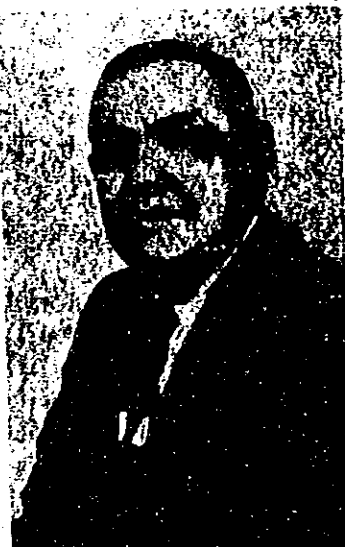
Mr. Owens served on the Arizona State Highway Commission by appointment from Gov. Robert T. Jones, beginning his term about 1938.

A native of Navajo County, Mr. Owens was born at Woodruff Feb. 27, 1898, and moved shortly thereafter to Snowflake. It was there he married Ida May Standiford on July 3, 1918. They moved to Holbrook in 1923 when Mr. Owens worked for the county. Later he helped to found the White Mountain Passenger Lines about 1927.

Becoming Holbrook agent for the Richfield Oil Company in 1928, he has devoted all the years since that time to this business.

He has been a life-long Democrat, although his father Clarence E. Owens was of the opposite party. He has been active in local municipal affairs in Holbrook, having served on the town council and served at least two terms as mayor in the late 1940's.

He is a past president of the Holbrook Rotary Club, and has a wide acquaintance with



NEW OIL AND GAS commissioner, appointed by Gov. Paul Fannin, is L. B. Owens, Holbrook, pioneer businessman and petroleum dealer.

political figures and public servants throughout the state.

Appointment of Mr. Owens to the Oil and Gas Conservation Commission is the second gubernatorial appointment to come to Holbrook in recent months. A short time ago R. L. Gibbons was named Navajo County member of the Arizona Junior College Board.

APR 15 1964





PAUL FANNIN  
GOVERNOR

LYNN LOCKHART  
CHAIRMAN

R. KEITH WALDEN  
VICE CHAIRMAN

CHARLES KALIL, M.D.  
MEMBER

CAME LEWIS  
MEMBER

OFFICE OF

### Oil and Gas Conservation Commission

STATE OF ARIZONA

ROOM 202

1224 WEST ADAMS

Phoenix, Arizona 85007

PHONE: 271-8161

JOHN BANNISTER  
EXECUTIVE SECRETARY

JOHN K. PETTY  
PETROLEUM GEOLOGIST

April 13, 1964

#### TO THE COMMISSIONERS:

Gentlemen:

Under date of April 8, 1964, this office forwarded to you copies of request by Eastern Petroleum Company to temporarily suspend production from the Barfoot-State No. 1 Well located in Section 32-T20N-R27E, Apache County, Arizona. This well is owned by Kerr-McGee and is in the Navajo Springs area. As you will recall, on April 7, 1964, we denied a similar application by Eastern on the grounds that they failed to show that an emergency existed; and pursuant to that order, Kerr-McGee has tied in the Barfoot-State No. 1 Well and has filed its nominations for producing at the rate of 3,167 MCF per month.

Eastern in its request for an emergency order points out

- A. That it has done the drilling required to properly delineate the Navajo Springs Field.
- B. That it has concurrently filed with this request an application for the Navajo Springs Unit.
- C. That the Unit if approved will protect correlative rights.
- D. That said Unit is in the public interest.
- E. That the Unit has wells capable of production in paying quantities.
- F. That the Barfoot-State No. 1 Well will impair correlative rights through drainage of the surrounding acreage including acreage owned by the State of Arizona in Section 36-T20N-R20E, and
- G. Requested that this be declared an emergency and production suspended.

TO THE COMMISSIONERS

April 13, 1964  
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Concurrently with the filing of this application, Eastern has asked for a hearing to approve the Navajo Springs Unit and the acreage to be embraced thereby and to force pool, if necessary, any interest not voluntarily committed thereto. This application also contains a request to suspend production from the Navajo Springs Pool until such time as the Unit is prepared to go into production.

It is my recommendation as to the requested emergency order that we again deny the remedies sought. The request in my opinion fails to show that an emergency does exist. Kerr-McGee has made an allocation of one tenth of its nomination for the months of April and May to the Barfoot-State No. 1 Well. Shutting in the well at this time would cause unreasonable expense to Kerr-McGee in that they would be obligated to pay compensatory royalty in lieu of production to Dr. Barfoot, and would also involve compensatory royalties in lieu of production to the State. Inasmuch as we will hear at your convenience complete evidence on the situation existing in Navajo Springs, evidence which will include the drainage which might be caused by the Barfoot well; and in view of the fact that in its request for a hearing as to the Navajo Springs Unit, Eastern has also prayed for suspension of any production; I feel that their request is again premature. The Barfoot well's production of 5,167 MCF per month is not so large a drainage as to cause an emergency and we have no evidence as to the area which can be drained by one well.

May I please hear from you at your earliest convenience as to your decision to deny or to approve Eastern's request, and I will prepare an order accordingly.

As to the hearing on the Navajo Springs Unit, according to our Rules and Regulations; we must serve notice to all interested parties ten days prior to hearing. As you are aware, our Rules and Regulations specifically provide that notice to all interested parties may be given by publication in official newspaper, Arizona Weekly Gazette. The deadline for such publication is five p.m., Monday, which deadline if met would allow publication on the following Tuesday. Consequently, allowing ten days, it would be impossible to hold a hearing until after our regularly scheduled meeting of April 22nd. If you so desire, our regular meeting could be rescheduled to a later date.

TO THE COMMISSIONERS

April 13, 1964  
Page Three

Should you have any questions, will you please advise.

Very truly yours,

John Bannister  
Executive Secretary

NOTE: Mr. Orme Lewis has disqualified himself as to any matter concerning this hearing and consequently copy of this letter and Eastern's Filings are not being forwarded to Mr. Lewis.

JB:mke

Mr. Lynn Lockhart, Chairman  
Mr. R. Keith Walden, Vice Chairman  
Charles Kalil, H.D., Member  
Mr. L. B. Owens, Member  
Mr. Edward T. Kennedy, Assistant Attorney General

**April 8, 1964**

**TO THE COMMISSIONERS**

**Gentlemen:**

Enclosed is Eastern Petroleum Company's new application for an emergency order to temporarily suspend production from the Navajo Springs area, together with new formal application for unitization of Navajo Springs.

Mr. Bannister is out of town; however I spoke with him this afternoon and he advised that upon his return to the office on Monday, he will review the applications and notify you of his findings at that time. In the meantime, you will no doubt wish to review the applications also.

Very truly yours,

(Mrs.) Mary E. Cooper

Enc.  
Encl.

Mr. Lynn Lockhart, Chairman  
Mr. R. Keith Walden, Vice Chairman  
Charles Hall, M.D., Member  
Mr. Gene Lewis, Member  
Mr. L. B. Quinn, Member *MLL 4/9/64*  
Mr. Edward I. Kennedy, Assistant Attorney General

Re: Mr. Lewis: We realize you have disqualified yourself from this matter; however applications are being mailed to you also for your information.

NOTE: Mr. Lewis called 4/9/64 to advise he did not wish to receive any documents in connection with this matter since he has disqualified himself from participation. The applications have been returned to this office. mkc

April 7, 1964

TO THE COMMISSIONERS

Re: NO 1-64, Application of Eastern Petroleum Company  
for Emergency Order Suspending Production  
from the Navajo Springs Area, Apache  
County, Arizona.

Gentlemen:

Pursuant to instructions from you and from Senator Lockhart,  
the emergency order requested by Eastern Petroleum has been  
denied.

Enclosed for your files please find one copy of said order.

Yours very truly,

John Hannister  
Executive Secretary

JH:ms  
Encl.

Mr. Lynn Lockhart  
Mr. R. Keith Walden  
Charles Kalil, M.D.  
Mr. Orin Lewis  
Mr. L. B. Owen  
Mr. Edward I. Kennedy

BEFORE THE OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF ARIZONA

IN THE MATTER OF THE APPLICATION OF )  
EASTERN PETROLEUM FOR AN EMERGENCY )  
ORDER TEMPORARILY SUSPENDING ALL )  
PRODUCTION FROM THE NAVAJO SPRINGS )  
AREA, APACHE COUNTY, ARIZONA. )

EO 1-84

PURSUANT to ARIZONA REVISED STATUTES 27-516.C., the  
OIL AND GAS CONSERVATION COMMISSION as to the captioned matter  
finds that an emergency does not exist such as to warrant the  
issuance of the requested order.

THEREFORE the emergency order requested by EASTERN  
PETROLEUM COMPANY on April 1, 1964, is hereby DENIED.

DONE this 7th Day of April, 1964, Phoenix, Arizona.

STATE OF ARIZONA  
OIL AND GAS CONSERVATION COMMISSION

By \_\_\_\_\_ Original signed

LYNN LOCKHART, CHAIRMAN

COPY



PAUL FANNIN  
GOVERNOR

LYNN LOCKHART  
CHAIRMAN

R. KEITH WALDEN  
VICE CHAIRMAN

CHARLES KALIL, M.D.  
MEMBER

ORME LEWIS  
MEMBER

OFFICE OF

**Oil and Gas Conservation Commission**

STATE OF ARIZONA

ROOM 302  
1624 WEST ADAMS

Phoenix, Arizona 85007

PHONE: 271-5161

April 3, 1964

JOHN BANNISTER  
EXECUTIVE SECRETARY

JOHN K. PETTY  
PETROLEUM GEOLOGIST

**TO THE COMMISSIONERS:**

Gentlemen:

This is to advise that Governor Paul Fannin, effective as of April 1, 1964, has appointed Mr. L. B. Owens, 225 West Erie, Holbrook, as a member of the Oil and Gas Conservation Commission.

Mr. Owens is to succeed Mr. Robert B. Heward, and Mr. Owens' term of office will expire December 31, 1968.

Yours very truly,

John Bannister  
Executive Secretary

JB:mko

Mr. Lynn Lockhart, Chairman  
525 West Orchid Lane, Phoenix, Arizona

Mr. R. Keith Walden, Vice Chairman  
P. O. Box 1271, Tucson, Arizona

Charles Kalil, M.D., Member  
200 East Monterey Way, Suite 6, Phoenix, Arizona

Mr. Orme Lewis, Member  
Lewis Boca Scoville Beauchamp & Linton  
Ninth Floor, Title & Trust Building, Phoenix, Arizona

Mr. L. B. Owens, Member  
225 West Erie, Holbrook, Arizona

Mr. Edward I. Kennedy, Assistant Attorney General  
Office of the Attorney General  
150 Capitol Building, Phoenix, Arizona

Mr. Robert B. Heward  
P. O. Box 427, Holbrook, Arizona

Mr. Obed M. Lassen, State Land Commissioner  
1624 West Adams, Fourth Floor, Phoenix, Arizona



PAUL FANNIN  
GOVERNOR

LYNN LOCKHART  
CHAIRMAN

R. KEITH WALDEN  
VICE CHAIRMAN

CHARLES KALIL, M.D.  
MEMBER

ORME LEWIS  
MEMBER

OFFICE OF

**Oil and Gas Conservation Commission**

STATE OF ARIZONA

ROOM 228

1624 WEST ADAMS

Phoenix, Arizona 85007

PHONE: 271-5161

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1624 West Adams, Fourth Floor, Phoenix, Arizona





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VICE CHAIRMAN

CHARLES KALIL, M.D.  
MEMBER

ORME LEWIS  
MEMBER

OFFICE OF

**Oil and Gas Conservation Commission**

STATE OF ARIZONA

ROOM 202

1624 WEST ADAMS

Phoenix, Arizona 85007

PHONE: 271-8161

JOHN BANNISTER  
EXECUTIVE SECRETARY

JOHN K. PETTY  
PETROLEUM GEOLOGIST

April 3, 1964

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Executive Secretary

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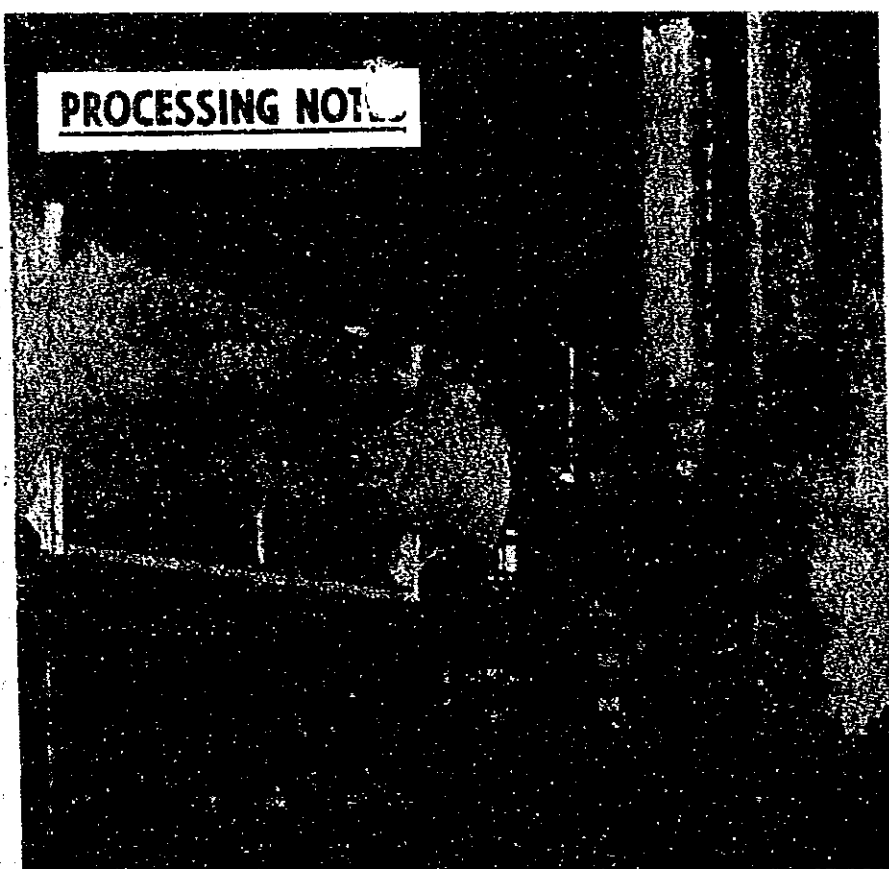
Mr. Orme Lewis, Member  
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Office of the Attorney General  
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P. O. Box 427, Holbrook, Arizona

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1624 West Adams, Fourth Floor, Phoenix, Arizona



HELIUM IS EXTRACTED in cold box (right) which operates at  $-340^{\circ}\text{F}$ . Cylinder at upper left stores up to 1.3 million cu ft of liquid nitrogen and lower cylinders can store 27,000 cu ft of helium under pressure for sale.

## Canada's first helium plant operating at partial capacity

CANADA'S first helium plant—the only one in the western world outside the U.S.—has been brought on stream near Swift Current, Sask., by Canadian Helium Ltd.

The plant, with a design capacity of 12 million cu ft/year, isn't operating at full capacity yet but will be in the near future.

Canadian Helium Ltd. was formed a year ago by British American Oil, l'Air Liquide of France, and British Oxygen to extract and market helium from a gas deposit discovered by British American. The gas contains 1.9% helium in a noncombustible mixture that is largely nitrogen with some carbon dioxide and a few trace gases. The two wells already drilled can produce helium for more than 20 years of operation at the plant's initial rate of production.

The new plant recovers helium

by a low-temperature separation process which progressively liquefies the other gases, leaving only pure helium. A portion of the liquefied nitrogen is recovered for sale while the remainder is recycled as a refrigerant.

Although the nitrogen sells for less than one-thirtieth as much as a like volume of helium, the volume of nitrogen available for sale is roughly seven times that of helium so that overall nitrogen sales will add significantly to the company's profit picture.

Since the U.S. regards helium as a strategic material, only small quantities have been released for sale to friendly nations for use in research and medicine. However, now that an unrestricted supply is available from Canada, demand growth is expected to exceed the U.S. helium consumption growth

rate of around 25% annually in recent years.

Already an initial shipment of 43,000 cu ft has been made to Australia. England, France, Canada, Belgium, and Algeria have also placed orders, and Japan and Italy are ready to ship cylinders to the Swift Current plant for filling. Argentina and Germany are both interested in purchasing Canadian helium.

At present helium is being shipped at pressures up to 2,500 psi in cylinders which vary in capacity from 218 to 285 cu ft. But since 50 lb of cylinder metal must be transported to carry 1 lb of helium, the company is interested in development of superinsulated cylinders for shipping helium overseas in liquid form.

## Studies shed light on catalyst deactivation

NITROGEN has more deactivating effect on cobalt molybdate hydrodesulfurization catalyst than other feedstock variables, said J. R. Klovsky, of Continental Oil Co., and Lloyd Berg, of Montana State College, at the recent AIChE meeting in Memphis.

Sulfur ranks second in deactivation effect. Boiling point, API gravity, and K factor, and interactions among the several variables, also must be taken into account.

The authors base their conclusions on results from bench-scale tests on 35 crude-oil fractions from Oregon Basin, Wyo.; Elk Basin, Wyo.; Central Kansas; Four Corners, N.M.; Gach Saran, Venezuela; South Louisiana; West Texas; and Egypt.

The range of variables studied is shown in Table 1. Boiling point is

Boiling, wt %	0.62 - 2.545
Nitrogen, wt %	0.000 - 0.2585
K factor	11.01 - 12.46
API Gravity	22.29 - 76.68
Boiling point, °F	156 - 745
Molecular weight	66 - 340

the volumetric-average found by ASTM D158 or D86, corrected to 760 mm Hg.

Klovsky and Berg made the runs with a presulfided catalyst in the form  $\text{MoS}_2\text{-Co}_2\text{S}_3$  at  $600^{\circ}\text{F}$ , 400 psig, and a space velocity of 6. Tem-

# Drillers hit good pay in these areas

## 1. Louisiana: high-pressure well completed

GENERAL American Oil Co. of Texas has completed an apparent mammoth gas-condensate discovery in Terrebonne Parish, South Louisiana.

The strike, the 1 A. T. Giroir in 14-17s-16w, is 5 miles west of Houma and the prolific Hollywood gas field which generally underlies that community. It produces from the same Southdown sand series.

The 1 Giroir completed flowing wet gas at high pressure through perforations from 12,468-98 ft. General American has not estimated open-flow potential. But results of a series of 24-hour flow tests through small-size chokes indicate open-flow volume would be tremendous.

Flow rate was 2.9 MMcf/d through 8/64-in. top and 16/64-in. bottom-hole chokes with 10,556-psi bottom-hole pressure and 8,200-psi tubing pressure.

Flow through 10/64 and 16/64-in. top and bottom chokes increased to 3.6 MMcf/d. Tubing pressure was gauged at 7,650 psi, and bottom-hole pressure held steady at 10,556 psi.

Through 12/64-in. top choke and 16/64-in. bottom choke, the well tested 4.9 MMcf/d, with tubing and bottom-hole pressures of 7,000 and 10,556 psi.

Condensate yield averaged 33 bbl/MMcf during these tests.

Initial bottom-hole pressure gauged 10,596 psi and shut-in surface tubing pressure was 8,600 psi.

The 1 Giroir topped the South-

down sand series at 12,456 ft and had penetrated roughly 100 ft of the sand section at total depth.

Earlier it also penetrated a promising 40-ft section of Krambhaar sand at an undisclosed depth. The company is not considering a dual completion, however, because of the extreme pressure in the Southdown.

The discovery is on a 3,000-acre block held jointly by General American and P. R. Rutherford & Sons, Houston. General American also owns a major interest in an adjoining 5,000-acre block.

Operator plans now to move 3,000 ft to the northwest of the discovery for a 15,500-ft confirmation test aimed at penetrating the entire Southdown series.

## 2. Nevada: oil flows in Eagle Springs

NEVADA may have its best producer yet in its only oil field.

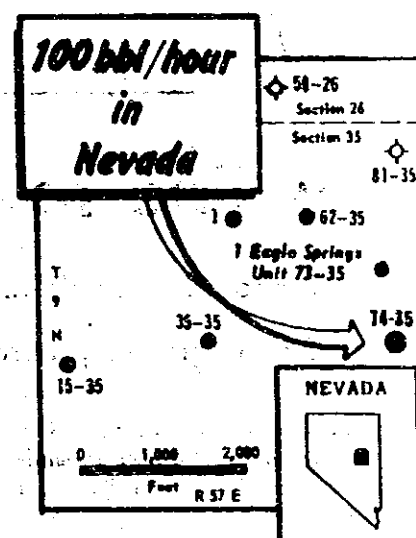
Texota Oil Co. says its 74-35 Eagle Springs Unit in Nye County flowed 100 bbl of 32° gravity crude per hour on drill-stem test at 6,725-6,800 ft. Tool was open 1 hour. Total depth is 7,045 ft.

Texota Pres. George H. Rainey says the flow is the greatest of any well the company has brought in, and the crude is the heaviest of any well in the area.

Rainey says the well is in a new pay zone for the state and the field, and the first well in the state to flow.

The tight hole is intended to be another Texota extension to the 10-year-old Eagle Springs field.

This is Texota's second producer in Nevada and in Eagle Springs. The first was completed last fall pumping 608 bo/d from Tertiary volcanics and limestone. The new well is in SE NE 35-9a-576. Last year's well is in NW SE NE 35 (OGJ, Sept. 30, 1963, p. 40).



Eagle Springs, opened in 1954 by Shell Oil Co. at 1 Unit, now is producing 550 bo/d. The new Texota producer is the sixth well in the field, but one of the producers has been temporarily abandoned.

Production in Eagle Springs is from Tertiary tuffs, Tertiary limestone, and Permian limestone.

## 3. Utah: Tenneco opens remote Kaiparowits basin

ONE OF the most remote wildcats in the country is now an important basin-opening producer. It is Tenneco Oil Co.'s 2 Upper Valley discovery in southern Utah's Garfield County.

Tenneco completed the well for 146 bbl of 27° gravity crude in 14 hours from the Kaibab Permian. There also were oil signs in deeper pays, the Toroweap and Coconino.

The 2 Upper Valley, 10 miles southwest of Escalante, Utah, opens the Kaiparowits basin's first producing area. Nearest big production is 125 miles east in the giant Aneth field (OGJ, Mar. 2, p. 175).

Tests indicated 165 ft of net oil pay in the Kaibab between 6,572-83 ft and 6,723-33 ft. There was 75 ft of net pay in the Toroweap, at 7,060-7,135 ft, and 53 ft of net

pay in the Coconino at 7,504-96 ft. Neither of these pays has been put on production tests. Total depth was 9,424 ft in Mississippian.

This gives Utah its first production from the Permian, and ends a long list of dry holes in southern Utah. Geology of this basin and Arizona's Black Mesa are so similar that geologists believe the two are contiguous. End

April 1, 1964

TO THE COMMISSIONERS

Gentlemen:

I hand you herewith a copy of letter to the Commission from Robert P. Davidson together with application on behalf of Eastern Petroleum Company whereby the Commission is requested to issue an emergency order forbidding Kerr-McGee Oil Industries, Inc. to produce its No. 1 Barfoot well located in Section 32-T20N-R27E, Apache County, Arizona. This well is in the Navajo Springs area.

As you will recall, Eastern Petroleum Company requested the Commission to establish the Navajo Springs Unit. This request was denied primarily upon the grounds that the northern limits of the Navajo Springs Pool had not been defined by drilling as required by our regulations. Eastern's request for the emergency order is based upon the allegation that if Kerr-McGee is allowed to produce this well, the correlative rights of the owners of the surrounding wells in the Navajo Springs area would be impaired and that acreage owned by the State of Arizona in Section 36-T20N-R26E, might be subject to drainage.

According to the statutes under which the Commission operates, it is necessary for the Commission to decide whether or not an emergency exists such as would justify the issuing of this order. Our rules provide that, if in the judgment of the Commission, an emergency does exist, an emergency order may be issued without hearing and said order will be effective for a period of thirty days from the date of its issuance, at the end of which period it will automatically terminate. If the order is to be continued in force beyond said thirty day period, this must be as a result of a hearing and of course would not then be of an emergency nature.

Action on this order requires the determination of the Commissioners as to whether or not an emergency does exist and as to whether or not such an order should be issued. It is my feeling that we should deny Eastern Petroleum's request for this emergency order for the following reasons:

1. Kerr-McGee Oil Industries, Inc. has drilled and completed the No. 1 Barfoot well and is constructing a gathering line to tie this well into its plant. Mr. John Petty talked to Mr. Ted Sparlock by

The Commissioners  
Page Two

April 1, 1964

phone and was advised that the line is some three or four days from completion. It should be remembered that Kerr-McGee is the holder of a valid lease covering Section 32 and as such has a right to drill, produce, and gather the gas thereunder. The mere fact that so doing may result in possible drainage to its neighbors is not a legal or an ethical reason such as might justify issuing of the order. As you are well aware, a correlary right to owning a lease is a right to produce and to enjoy production therefrom.

Wells have been completed in all of the sections surrounding Section 32, and I feel it would be wrong to jeopardize Kerr-McGee for its diligent operation.

2. Eastern Petroleum further alleges that production of the Kerr-McGee well would result in drainage of Section 36-T20N-R26E. This section is in the Pinta Dome Gas Field and lies some two miles to the east of the Kerr-McGee well and contains a dry hole. At the time Eastern Petroleum first requested a unit in the Navajo Springs area, they went to great lengths to explain that the Pinta Dome Pool and the Navajo Springs Pool were completely separate; and now they are reversing their point of view and are claiming there is such a connection as would result in drainage of acreage approximately two miles from this well. They, of course, failed to mention that if they produced their well in Section 31, drainage of State acreage would also result.

3. Eastern Petroleum indicates that some time in April they hope to have a hearing on a new application for a unit in the Navajo Springs area; however this application was not filed concurrently with their request for the emergency order and at this time should have no bearing upon the merits of the request here presented to you.

In summary, I feel that there is absolutely no justification for our granting Eastern's request; however action by the Commissioners is required. This office, of course, will follow the Commissioners' directions.

The Commissioners  
Page Three

April 1, 1964

Should you need any further information, will you please contact me at your convenience.

Very truly yours,

John Hannister  
Executive Secretary

JB:mke  
Encl.

To: Five Commissioners  
and Mr. Edward I. Kennedy

ROBERT P. DAVIDSON  
ROBERT F. BYRNES  
R. GORDON MILLER

MILLER BYRNES & DAVIDSON  
ATTORNEYS AT LAW  
77 THIRD AVENUE WEST  
SCOTTSDALE, ARIZONA 85251

TELEPHONE  
945-0774

March 26, 1964

Oil and Gas Conservation Commission  
1624 W. Adams  
Phoenix, Arizona

Gentlemen:

I am enclosing herewith an original and five copies of Application of Eastern Petroleum Company for an Emergency Order Temporarily Suspending All Production from the Navajo Springs Area, Apache County, Arizona.

In view of the considerable time and expense which Eastern Petroleum Company have incurred in an effort to comply with this Commission's decision of November 14, 1963, we strongly urge granting of this request inasmuch as to do so cannot possibly create any serious problem, but to deny the same can seriously affect the equities of the various parties involved in the unit area.

It is anticipated that re-application for unitization of the area will be in your hands next week and can be set for hearing by you within a reasonable time.

Very truly yours,

MILLER BYRNES & DAVIDSON

*Robert P. Davidson*  
Robert P. Davidson

RPD/jm

Enclosures

MILLER BYRNES & DAVIDSON  
ATTORNEYS AT LAW  
77 THIRD AVENUE WEST  
SCOTTSDALE, ARIZONA 85251  
TELEPHONE 945-0774

BEFORE THE OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF ARIZONA

In the Matter of the Application )  
of EASTERN PETROLEUM for an )  
Emergency Order Temporarily ) No. EO 1-64  
Suspending All Production from the )  
Navajo Springs Area, Apache County, )  
Arizona )

COMES NOW, EASTERN PETROLEUM COMPANY, and respect-  
fully shows this Conservation Commission, and states and alleges:

1. That pursuant to the opinion rendered by this Commission under date of November 14, 1963 in Cause Number 12, EASTERN PETROLEUM COMPANY has duly performed and completed the drilling requirements at Navajo Springs which this Commission deemed necessary as a condition precedent to Unitization of Navajo Springs;
2. That EASTERN PETROLEUM COMPANY is in the final stages of preparation of a new formal application to this Commission for Unitization of Navajo Springs and anticipates that a hearing thereon may be held by this Commission during the month of April, 1964;
3. That the proposed Unitization of Navajo Springs will permit persons otherwise entitled to share in or benefit by the production of helium from separately owned tracts in the Navajo Springs field to receive their fair, equitable and reasonable share of unit production measured by the value of each tract in the unit area and each tract contributing value to the unit.
4. That unitization of the Navajo Springs pool is in the public interest and in the best interest of the State of Arizona;
5. That wells capable of producing helium have heretofore been drilled and completed within the proposed Navajo Springs Unit Area, as described in Cause 12 before this Commission.



MILLER BYRNES & DAVIDSON  
ATTORNEYS AT LAW  
77 THIRD AVENUE WEST  
SCOTTSDALE, ARIZONA 85251  
TELEPHONE 943-0774

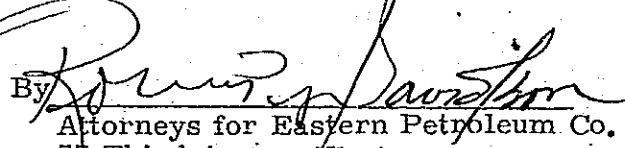
1           6. That Kerr-McGee Oil Industries, Inc., operator of the  
2 No. 1 Barfoot well located in Section 32, Township 20 North, Range 27  
3 East, Apache County, Arizona has commenced the construction of a pipe  
4 line from said well for the purpose of producing the same from the Navajo  
5 Springs Pool, which if allowed to occur prior to completion of a hearing  
6 on unitization of the pool will seriously impair the correlative rights of  
7 persons owning interests in other tracts of lands in said pool, including  
8 but not limited to Section 36, Township 20 North, Range 26 East, owned by  
9 the State of Arizona which is an edge tract and the value of which will be  
10 most seriously affected by the drainage which will occur, prior to unitiza-  
11 tion, if said No. 1 Barfoot well is produced;

12           7. That upon the foregoing facts and circumstances and in view  
13 of large expenditures made by EASTERN PETROLEUM COMPANY in ful-  
14 filling the requirements of this Commission pursuant to its opinion and  
15 decision of November 14, 1963; an emergency exists.

16           WHEREFORE, EASTERN PETROLEUM COMPANY, requests  
17 that this Commission, pursuant to Section 27-516-C, Arizona Revised  
18 Statutes issue its Order, without first having a hearing, suspending  
19 forthwith production of gas (including helium) from all wells located within  
20 the proposed area of unit operations described in Cause 12 before this  
21 Commission.

22           Respectfully submitted.

23           MILLER BYRNES & DAVIDSON

24           By   
25           Attorneys for Eastern Petroleum Co.  
26           77 Third Avenue West  
27           Scottsdale, Arizona  
28