CASE 6092: OCC TO CONSIDER THE RECLASS-IFICATION OF PRESSURE MAINTENANCE PROJECTS AS SECONDARY RECOVERY PROJECTS IN CHAVES, ROOSEVELT AND LEA COUNTIES

# \_ase Number

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Application

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# STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

CASE NO. 6092 Order No. R-6171

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION ON ITS OWN MOTION TO CONSIDER THE RECLASSIFICATION OF CERTAIN PRESSURE MAINTENANCE PROJECTS IN CHAVES, ROOSEVELT, AND LEA COUNTIES, NEW MEXICO, AS SECONDARY RECOVERY PROJECTS.

# ORDER OF THE DIVISION

# BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 30, 1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 2nd day of November, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

# FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the Oil Conservation Division heretofore authorized the following Sotheast New Mexico pressure maintenance projects in the named pools by the designated order:

PROJECT	POOL	ORDER NO.
Amoco Cato Baskett	Cato-San Andres	R-3867-B
Amoco Cato Wasley	Cato-San Andres	R-3867-B
Union Texas Baskett	Cato-San Andres	R-4362
Amoco Milnesand Horton	Milnesand-San Andres	R-3456
Amoco Midwest Nonombre	Nonombre-Penn	R-3071
Coastal States Flying	Flying "M"-San Andres	R-3229
Mobil Vacuum Mid Penn	Vacuum-Middle Penn	R-4688

(3) That each of the above-named pressure maintenance projects has declined to the point where it can no longer be correctly classified as a "pressure maintenance" project but can be correctly classified as a "secondary recovery" project.

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- (4) That due to certain recent changes in the rules governing reports, the reporting of injection and production is less complicated and time-consuming to operators of secondary recovery projects than is the similar reporting for pressure maintenance projects.
- (5) That the processing of data relating to secondary recovery projects by the Oil Conservation Division of the New Mexico Energy and Minerals Department for the perpose of maintaining production records is less time-consuming than is the processing of similar data for pressure maintenance projects.
- (6) That the reclassification of the pressure maintenance projects named in Finding No. (2) above as secondary recovery projects will result in a saving of time and effort by both the operators of the projects and by the Division in reporting and processing data relating to the projects, thereby preventing waste, and that said reclassification will not impair correlative rights.
- (7) That even though some of the subject projects may not at this time be active projects, or even though some of the originally authorized injection wells may no longer be on active injection, the reclassification of said projects can most easily be carried out by rescinding the orders authorizing said projects as pressure maintenance projects and reauthorizing said projects as secondary recovery projects, subject to any particular rules previously promulgated for said projects which would still be applicable.
- (8) That Order No. R-3867-B which authorized the Amoco Cato Baskett and Amoco Cato Wasley Pressure Maintenance Projects should be rescinded and approval given for the Amoco Cato Baskett and Amoco Cato Wasley Waterflood Projects.
- (9) That Order No. R-3456 which authorized the Pan American Milnesand Horton Pressure Maintenance Project should be rescinded and approval given for the Amoco Milnesand Horton Waterflood Project.
- (10) That Order No. R-3071 which authorized the Midwest Nonombre Pressure Maintenance Project should be rescinded and approval given for the Amoco Nonombre Waterflood Project.
- (11) That Order No. R-3229 which authorized the Coastal States Flying "M" San Andres Pressure Maintenance Project should be rescinded and approval given for the Coastal States Flying "M" San Andres Waterflood Project.

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- (12) That Order No. R-4588 which authorized the Mobil Vacuum-Middle Penn Pressure Maintenance Project should be rescinded and approval given for the Mobil Vacuum Middle Penn Waterflood Project.
- (13) That Order No. R-4362 which authorized the Union Texas Cato Baskett Pressure Maintenance Project should be rescinded and approval given for the Union Texas Cato Baskett Waterflood Project.

# IT IS THEREFORE ORDERED:

- (1) That Orders Nos. R-3867-B, R-3456, R-3071, R-3229, R-4688, and R-4362 are hereby rescinded.
- (2) That Amoco Production Company is hereby authorized to operate the Amoco Cato Baskett Waterflood Project and the Amoco Cato Wasley Waterflood Project, both in the Cato-San Andres Pool, Chaves County, New Mexico, in accordance with the following:
  - A. Injection into the Cato Baskett Project shall be through the following-described wells in Section 11, Township 8 South, Range 30 East, NMPM:

Baskett "D" Well No. 1, Unit G Baskett "D" Well No. 2, Unit A Baskett "D" Well No. 3, Unit O Baskett "D" Well No. 4, Unit I Baskett "B" Well No. 2, Unit C

B. Injection into the Cato Wasley Project shall be through the following-described wells in Section 14, Township 8 South, Range 30 East, NMPM:

Wasley Well No. 1, Unit C Wasley Well No. 3, Unit A

C. Each of the aforesaid water injection wells shall be equipped with 2 3/8-inch plastic-lined tubing set in a packer. Further that the casing-tubing annulus of each of the aforesaid wells shall be filled with an inert fluid and the annulus equipped with a pressure gauge to facilitate detection of leakage in the tubing or packer.

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- D. The Oil Conservation Division Director is hereby authorized to approve additional Amoco Production Company Waterflood Projects without notice and hearing on lands which are contiguous to existing waterflood projects operated by Amoco Production Company or Union Texas Petroleum Company in the Cato-San Andres Pool. To obtain such approval, the applicant shall file proper application with the Division, which application shall include the following:
  - A plat showing the proposed project area, all wells within the project area, offset operators, and wells which offset the proposed project area.
  - 2. A schematic drawing of the proposed injection wells which fully describes the casing, tubing, perforated interval, and depth showing that the injection of gas or water will be confined to the San Andres formation.
  - 3. A letter stating that all offset operators to the proposed project have been furnished a complete copy of the application and the date of notification.

The Division Director may approve the proposed project and promulgate special rules therefor if, within 20 days after receiving the application, no objection to the proposal is received. The Division Director may grant immediate approval, provided waivers of objection are received from all offset operators.

- (3) That Amoco Production Company is hereby authorized to operate the Amoco Milnesand Horton Waterflood Project in the Milnesand-San Andres Pool, Chaves County, New Mexico, in accordance with the following:
  - A. Injection shall be through the following-described wells in Section 29, Township 8 South, Range 35 East, NMPM:

R. E. Horton Federal Well No. 30, Unit K R. E. Horton Federal Well No. 31, Unit M

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- B. Each of the aforesaid water injection wells shall be equipped with tubing set in a packer, said packer being located within 100 feet of the uppermost perforation. Further, that the casing-tubing annulus shall be filled with an inert fluid and the annulus equipped with a pressure gauge or left open to facilitate detection of leakage in the tubing or packer.
- (4) That Amoco Production Company is hereby authorised to operate the Amoco Nonombre Waterflood Project in the Nonombre-Pennsylvanian Pool, Lee County, New Mexico, in accordance with the following:
  - A. Injection shall be through the following-described well in Section 29, Township 13 South, Range 34 East, NMPM:

Harris State Well No. 1, Unit N

- B. The aforesaid well shall be equipped with internally plastic-coated tubing and a packer, which shall be set at approximately 10,340 feet. Further, the casing-tubing annulus of said well shall be kept filled with a corrosion-inhibited fluid at all times.
- (5) That Coastal States Gas Producing Company is hereby authorized to operate the Coastal States Flying "M" San Andres Waterflood Project in the Flying "M"-San Andres Pool, Lea County, New Mexico, in accordance with the following:
  - A. Injection shall be through the following-described Flying "M" San Andres Unit wells in Township 9 South, Range 33 East, NMPM:

Tract 11 Well No. 1, Unit L, Section 15
Tract 5 Well No. 2, Unit D, Section 16
Tract 3 Well No. 3, Unit F, Section 17
Tract 12 Well No. 5, Unit F, Section 20
Tract 17 Well No. 2, Unit L, Section 22
Tract 1A Well No. 1, Unit B, Section 29
Tract 1B Well No. 4, Unit D, Section 33

(6) That Mobil Cil Corporation is hereby authorized to operate the Mobil Vacuum Middle Penn Waterflood Project in the Vacuum-Middle Pennsylvanian Pool, Lea County, New Mexico, in accordance with the following:

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> A. Injection shall be through the followingdescribed well in Section 13, Township 17 South, Range 34 East, NMPM:

> > Bridges State Well No. 147, Unit F

- B. Injection into said well shall be through 2 3/8-inch tubing, set in a packer which shall be located at approximately 10,390 feet; that the casing-tubing annulus shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device and a pressure relief valve.
- C. The operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the casing, tubing, or packer in said injection well, the leakage of gas, water or oil from or around any producing well, or the leakage of gas, water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.
- (7) That Union Texas Petroleum, a Division of Allied Chemical Corporation, is hereby authorized to operate the Union Texas Cato Baskett Waterflood Project in the Cato-San Andres Pool, Chaves County, New Mexico, in accordance with the following:
  - A. Injection shall be through the followingdescribed well in Section 11, Township 8 South, Range 30 East, NMPM:

Baskett Well No. 1, Unit K

B. The aforesaid water injection well shall be equipped with 2 3/8-inch plastic-lined tubing set in a packer, said packer being set at approximately 3335 feet. Further, that the casing-tubing annulus shall be filled with an inert fluid and the annulus equipped with a pressure gauge to facilitate detection of leakage in the tubing or packer.

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- C. The Oil Conservation Division is hereby authorized to approve additional Union Texas Petroleum Waterflood Projects and promulgate special rules therefor without notice and hearing on lands which are contiguous to existing Union Texas Petroleum or Amoco Production Company waterflood projects in the Cato-San Andres Pool. To obtain such approval, the applicant shall file proper application with the Division which application shall include the following:
  - A plat showing the proposed project area, all wells within the project area, offset operators, and wells which offset the proposed project area.
  - 2. A schematic drawing of the proposed injection wells which fully describes the casing, tubing, perforated interval, and depth showing that the injection of gas or water will be confined to the San Andres formation.
  - 3. A letter stating that all offset operators to the proposed project have been furnished a complete copy of the application and the date of notification.

The Division Director may approve the proposed project and promulgate special rules therefor if, within 20 days after receiving the application, no objection to the proposal is received. The Director may grant immediate approval, provided waivers of objection are received from all offset operators.

- (8) That each of the above-described waterflood projects shall be operated in accordance with Rules 701, 702, and 703 of the Division Rules and Regulations.
- (9) That monthly reports concerning said waterflood projects shall be filed in accordance with Rule 1115 of the Division Rules and Regulations.
- (10) That the injection wells herein authorized for each of the subject projects as well as such additional wells which have been previously authorized for pressure maintenance

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injection are hereby approved for injection purposes until furhter order of the Division.

(11) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

> STATE OF NEW MEXICO OLL CONSERVATION DIVISION

JOE D. RAMEY Director

# Southeast New Mexico

R3867-A supersided by R-3867B-

Operator 3	٠.	<u>Pool</u>	Pressure Maintenance Project Name	Order	County	Special Rules	Proposed Order
*Amoco Prod. Co.  " " "  " " "  "*Coastal St. Gas Nobil Oil Corp. Union Tox. Pet.		Cato-San Andres  Milnesand-San Andres  Nonombre-Pennsylvanian  Flying "M"-San Amires  Vacuum-Middle Pennsylvanian  Cato-San Andres  Kang I **	Cato Baskett PM Cato Wasley PM Milnesand Horton PM Midwest Noncabre PM Flying "M"-San Andres PM Vacuum Middle Pennsylvanian Baskett PM	#X R-3867 #X R-38678 # R-3456125 # R-3071 # R-3229 # R-4688 # R-4362 \(\psi z\)	Chaves Chaves Roosevelt Lee Lee Lee Chaves	Yes (1-10) Yes (1-10-0xder(5)) Yes (1-11) None Yes (1-11) None Yes (1-10)	R-3267-C A; R-3867-C R-3456-A R-3071-A R-3229-A R-4688-A B-4362-A

\*R-3867 B restated special project rules and regulations
\*\*Original project approved by Order R-3033. R-3229 re-established the project with special rules are regulations.

L superscaed L, R 3229 \* repeal weigt Onle #5

Morthwest	New	Mexico.

Operator	<u>Pool</u>	Pressure Maintenance Project	Order	County	Special Rules	Proposed Order
*Atlantic Richfield	- Horseshoe-Gallup	Horseshoe Gallup Unit PM	R-2210	San Juan	Yes (1-11)	R-2210-B
**Dugam Prod. Corp.	Cha Cha-Gallup	Central Cha Cha Unit PM	R-2305	San Juan	Yes (1-11)	R-2305-A
Energy Reserves Group	Borseshoe-Gallup	Horseshoe Gallup PM No. 3	R-1876	Sen Juan	Yes (1-11)	R-1876-A
3	H	NE Hogback PM	R-2026	San Juan	Yes (1-11)	R-2026-A
Erg. & Prod. Serv. Line.	N N	Horseshoe Gallup PM No. 2	R-1745	San Juan	Yes (1-11)	2-1745-A
4 4 B	Many Rocks-Gallup	Many Rocks Gallup PM No. 1	R-2541	Sen Juan	Yes (1-11)	R-2541-A
Getty Oil Co.	ti ii w	Many Rocks Gallup PM No. 3	R-2664	San Juan	Yes (1-11)	R-2664-A
Shell Oil Co.	Bisti-Gallup	Carson Bisti-Lower Callum PM	R-2065	San Juan	Yes (1-10)	R-2065-A
METSUSURVEN Properte Cas Co.	Cha Cha-Gallup	Northwest Cha Cha Unit	R-2154	San Juan	Yes (1-11)	R-2154-A
- TELEBOOK	South Respektions - Cand	Lower Heapen DM	D-1200		<u></u>	
	Lone Pine-Dakota "D"	Lone Pine Dakota "D" PK	R-4263	McKinley	Yes (1-10)	R-4362-A
James P. Woosley	Many Rocks-Gallup	Many Rocks-Gallup PM No. 4	B-2700	San Juan	Yes (1-11)	B-2700-A

\*Bule 11 provides for approval of injection and producing wells at orthodox and unorthodox locations, \*\*Established as Cha Cha-Gallup PM Project. R-2512 established Central Cha Cha Unit, \*\*Established as Cha Cha-Gallup PM Project. All indian land Unit subsequently established,

R-2210, R2210-A, R2719 Order To. 2

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# BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico November 30, 1977

### **EXAMINER HEARING**

# IN THE MATTER OF:

The hearing called by the Oil )
Conservation Commission on its own )
motion to consider the reclassification )
of pressure maintenance projects as )
secondary recovery projects. )

and 

BEFORE: Braiel S. Nutter, Examiner.

# TRANSCRIPT OF HEARING

# APPEARANCES

For the New Mexico Oil
Conservation Commission:

Lynn Teschendorf, Esq.
Legal Counsel for the Commission
State Land Office Building
Santa Fe, New Mexico

sid morrish reporting service

General Court Reporting Service
825 Calle Mejis, No. 122, Suris Fe, New Mexico 87.

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sid morrish reporting service

General Court Reporting Service
825 Calle Mejis, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

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MR. NUTTER: Call the next case, Case 6092, which is in the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the reclassification of certain pressure maintenance projects in southeast New Mexico as secondary recovery projects.

We will also call at this time Case Number 6093, which is in the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the reclassification of certain maintenance projects in northwest New Mexico as secondary recovery projects.

For the purpose of testimony we will consolidate Case Number 6092 and Case Number 6093 and I'll call for appearances.

MS. TESCHENDORF: Lynn Teschendorf, appearing on behalf of the Commission and I have one witness, Mr. Stamets, and I would like the record to reflect that he has previously been sworn.

MR. NUTTER: Mr. Stamets is still under oath. Are there other appearances in these two cases?

Would you please proceed?

# RICHARD L. STAMETS

was called as a witness by the Commission, and having been first duly sworn, testified upon his oath as follows, to-wit:

# DIRECT EXAMINATION

# BY MS. TESCHENDORF:

Q Mr. Stamets, what is the history behind these two cases?

A Beginning with the January 1978, secondary recovery project reports, we are eliminating Form C-120, which is the old water flood report form and requiring that the injection information be shown on Form C-115. This is for simplicity and convenience and let us use the computer to keep track of projects for us and the Enviornmental Protection Agency.

Pressure maintenance projects, historically, have required a different report form from Form C-120 and most required calculations of voidage and projections of needed project allowable.

Now, many of the old pressure maintenance projects have long since passed their peak and are producing little or no primary oil and are, in fact, at this stage simply secondary recovery projects.

Filing of the special pressure maintenance project report in these cases is really a waste of time. I have asked our District Supervisors to identify such projects for me and contact the operator of those projects to make sure they had no objection to the reclassification of the same to water floods and they submitted the same to me and these

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were advertised for hearing today.

- Q Do you have any exhibits showing these projects?
- A Yes. I have already handed the Examiner Exhibit

  Number One in both of these cases.
  - Q What does that exhibit show?
- A The exhibit, the top half of the exhibit is for southeast New Mexico and the bottom half is for northwest New Mexico and reading left to right it shows the project operator, the pool in which the project is located, and the pressure maintenance project name, the order number which authorized the project, the county in which it is located, and it indicates whether there are special rules applicable to the project, and what those rule numbers are.

And then, a proposed order number is in there simply for the convenience of the Examiner. I would assume that we would probably want to issue an order in these cases which would redesignate the project and rescind the special rules.

Now, for southeast New Mexico I have a couple of projects with asterisks -- the first one an Amoco project in Cato. It just simply points out that order R-3867 be restated -- the special project rules and regulations.

There was an earlier, I think R-3867, established the project but a later order established two projects and gave us special rules for that particular project.

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The second one, Costal States gas project, the original project was approved by one order and a later order established the project with special rules and regulations.

Moving on down into northwest New Mexico, the first one listed is Atlantic Richfield and this is the only one that has a rule that I really believe needs to be retained.

Rule 11, and it provides for approval of injection and producing wells at orthodox and unorthodox locations.

The rest of these are general rules and regulations and would grant them in all of the special rules that had been provided for by the order.

The second one is the Dugan Production Corporation
Cha Cha project and that was established under one name
but subsequently a unit agreement was established and
changed the project name.

The last one is the Suburban Propane project and, again, this was established with one name and a unit has been established which is all Indian land in the unit and resulted in the project being called by a different name.

- Q Were there any errors in the exhibit as advertised?
- A The exhibit is correct. There was one error in advertising in Case 6093. We did advertise the Tenneco South Upper Hospah Project to be reclassified but on closer

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examination this was already classified as a water flood and no change was needed.

- Q I think you have already covered this but will you repeat as to what you would recommend as to the order?
- A Yes, I feel that we should issue probably a series of orders reclassifying each of these projects as secondary recover and rescind any special rules and regulations with the exception of Rule 11 in the one case previously mentioned, the Arco project in the Horseshoe Gallup, and causing such projects to be subject to Rules 701, 2, 3 and 704, and this should be effective 1/1/78.
  - Q Do you have anything further?
  - A. No, I don't.
- Q Was Exhibit One in Cases 6092 and 6093 prepared by you or under your supervision?
  - A. It was.

MS. TESCHENDORF: We offer Exhibit One in both cases.

MR. NUTTER: Exhibit Number One in Cases 6092 and 6093 will be admitted in evidence.

# CROSS EXAMINATION

23 BY MR. NUTTER:

Q. Mr. Stamets, as I understand it you are not proposing to change any of the methods of operation of these

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projects, it is simply to reclassify them as secondary recovery projects because they more appropriately fit that term than a pressure maintenance at this time?

- That's correct.
- And it would be easier to report secondary production and injection rather than secondary recovery as a pressure maintenance?
  - That's right.

MR. NUTTER: Are there any questions of Mr. Stamets on these cases?

Mr. Tully?

MR. TULLY: This is kind of a clarification thing. If these are reclassified as secondary recovery projects and then assuming that these 701, 702 -- 700 Series that were previously before the Commission earlier in the day, then, are we going to have to retroactively go back and file these reports that you were talking about previously?

THE WITNESS: Mr. Tully, that would apply no matter what they are classified as -- whether they continued to be classified as pressure maintenance or if they are changed over to secondary recovery. There would be no difference in the application of the rules. The only difference would be in the monthly reporting.

MR. NUTTER: Are there any other questions? The witness may be excused. Does anyone have anything they

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wish to offer in Case 6092 or 6093?

We will take the cases under advisement. (THEREUPON, the witness was excused and the case was concluded.)

# REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.

Sidney F. Morrish, C.S.R.

sid morrish reporting service

General Court Reporting Service
825 Calle Mejis, No. 122, Santa Fe, New Mexico 87501
Phone (505) 982-9212

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Case no. \_\_\_

In the matter of the hearing called by the Oil Conservation Commission on its sure motion to consider the reclassification of the following pressure maintenance grajecte as secondary keavery projects: the amos Backett and warley Projects the Saw Antrey Port Charles County and the Union Texas Backets Project, Cato. San Andres Pool, Chaves County, The amos Hoston Prinches milnerand-San Andres Pool, Reserved landy, mo motes. The Midwest Project, nonombre Pourseylvanian Pool, the Coastal States Flying "M" Project, Hying M-Son Andres Pool, The Mobil Vacuum middle Bone Project, Yasseum Middle Pennsylvanian Pool, hea County with also to be considered will be the amendment of The order on thanging said projects to reflect the aforesaid pularafication

scratch and lines describing projects not in the launty for each paper except the New Mexico

· w 6012 se are Application of the circonservation for reclossification of certain pressure Maintenance project in Chaves, Lea, and Roosevelt Counties, New Maries. To be considered will be the reclossition to Boske Hand Wasty And projects in the following named & pools from pressure maintanance to secondary recovery: "Propoco Production Grapany Baskett and Washy projects " Cato - San Fridays Pools the Horton project in the Milassand - San Andres Midwest project in the The Nonon bre Ransylvanian Pool; Flying "w" project in M-San Production Vacuum Middle Penns Project in the Vacuum - Middle Pensylvania Pool; and the Union Vexas, Fetroleus Corporation Boskett project in Cato - San Andres Pool. Further to be considered will be the angendment of Commission Orders authorizing soid projects.

Dockets Nos. 39-77 and 1-78 are tentatively set for hearing on December 14, 1977 and January 4, 1978. Applications for hearing must be filed at least 22 days in wivence of hearing date.

### DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 30, 1977

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Eanlel S. Mutter, Examiner, or Richard L. Stamets, Alternate Examiner:

CASE 6089: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 701, 702, 703, 704, and 705 of the Commission Rules governing applications for approval of injection wells and projects, well construction and operations standards, reports and records requirements, and automatic termination of authorization for abandoned wells or projects.

Please see proposed rules enclosed.

CASE 6090: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rule 107 of the Commission Rules to provide a requirement for the determination of cement tops outside all casing strings by means of temperature or mechanical BUTYEYS.

Please see proposed rule enclosed.

GASE 6091: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rule 405 of the Commission Rules, the adoption of a new Rule 1131, and a new Form C-131, all for the purpose of reporting gas injections and withdrawals in underground natural gas storage projects.

Please see proposed rule and amended form enclosed,

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the reclassification of the following pressure maintenance projects as secondary recovery projects: The Amoco Baskett and Wasley Projects, and the Union Texas Baskett Project, all in Cato-San Andres Pool, Chaves County, New Mexico. The Amoco Horton Project, Milnesand-San Andres Pool, Roosevelt County, New Mexico, The Midwest Project, Nonombre-Pennsylvanian Pool, the Coastal States Flying "M" Project, Flying M-San Andres Pool, and the Mobil Vacuum Middle Penn Project, Vacuum-Middle Pennsylvanian Pool, all in Lea County, New Mexico, Also to be considered will be the amendment of the orders authorizing said projects to reflect the aforesaid reclassification,

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the reclassification of the following pressure maintenance projects as secondary recovery The Atlantic Richfield Horseshoe Gallup Unit Project, the Energy Reserves Group Horseshoe Gallup Project No. 3 and Northeast Hogback Unit Project, and the Engineering and Production Services Horseshoe Gallup Project No. 2, all in Horseshoe Gallup Oil Pool, the Engineering and Production Services Many Rocks Gallup Project No. 1, Getty Many Rocks Gallup Project No. 3, and the J. P. Woosley Many Rocks Gallup Project No. 4, all in the Many Rocks-Callup Oil Pool; the Dugan Central Cha Cha Project and the Suburban Propane Northwest Cha Cha Unit Project, both in Cha Cha-Gallup Oil Pool; and the Shell Carson Unit Project, Bisti-Gallup Oil Pool; all in San Juan County, New Mexico. The Tenneco Lower Hospah Project, South Hospah-Lower Sand Oil Pool; South Upper Hospah Project, South Hospah-Upper Sand Oil Pool; and Lone Pine Dakota D Unit Project, Lone Pine Dakota D Oil Pool, all in McKinley County, New Mexico.

Also to be considered will be the amendment of the orders authorizing said projects to reflect the aforesaid reclassification.

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the repeal of Commission Order No. 67 and the amendment of Hule 406 of the Commission Rules, both of which relate to carbon dioxide gas. The repeal of said Order 67 and the amendment of Rule 406 would be for the purpose of abolishing the existing special rules for carbon dioxide exploration, development, and processing, and placing such activities under the general rules of the Commission.

Dockets Nos. 39-77 and 1-78 are tentatively set for hearing on December 14, 1977 and January 4, 1978. Applications for hearing must be filed at least 22 days in advance of hearing date.

### DOCKET: EXAMINER HEARING - WEDNESDAY - NOVEMBER 30, 1977

9 A.M. - OIL CONSERVATION COLMISSION CONFERENCE ROCM, STATE LAND OFFICE BUILDING - SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Nutter, Examiner, or Richard L. Stamets, Alternate Examiner:

<u>CASE 6089:</u> In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rules 701, 702, 703, 704, and 705 of the Commission Rules governing applications for approval of injection wells and projects, well construction and operations standards, reports and records requirements, and automatic termination of authorization for abandoned wells or projects.

Please see proposed rules enclosed.

CASE 6090: In the matter of the hearing called by the Cil Conservation Commission on its own motion to consider the amendment of Rule 107 of the Commission Rules to provide a requirement for the determination of cement tops outside all casing strings by means of temperature or mechanical

Please see proposed rule enclosed.

CASE 6091: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rule 405 of the Commission Rules, the adoption of a new Rule 1131, and a new Form C-131, all for the purpose of reporting gas injections and withdrawals in underground natural gas storage projects.

Please see proposed rule and amended form enclosed.

CASE 6092:

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the reclassification of the following pressure maintenance projects as secondary recovery projects: The Amoco Baskett and Wasley Projects, and the Union Texas Baskett Project, all in Cato-San Andres Pool, Chaves County, New Mexico. The Amoco Horton Project, Milnesand-San Andres Pool, Roosevelt County, New Mexico. The Midwest Project, Nonombre-Pennsylvanian Pool, the Coastal States Flying "M" Project, Flying M-San Andres Pool, and the Mobil Vacuum Middle Penn Project, Vacuum-Middle Pennsylvanian Pool, all in Lea County, New Mexico, Also to be considered will be the amendment of the orders authorizing said projects to reflect the aforesaid reclassification.

In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the reclassification of the following pressure maintenance projects as secondary recovery projects: The Atlantic Richfield Horseshoe Gallup Unit Project, the Energy Reserves Group Horseshoe Gallup Project No. 3 and Northeast Hogback Unit Project, and the Engineering and Production Services Horseshoe Gallup Project No. 2, all in Horseshoe Gallup Oil Pool, the Engineering and Production Services Many Rocks Gallup Project No. 1, Getty Many Rocks Gallup Project No. 3, and the J. P. Woosley Many Rocks Gallup Project No. 4, all in the Many Rocks-Gallup Oil Pool; the Dugan Central Cha Cha Project and the Suburban Propane Northwest Cha Cha Unit Project, both in Cha Cha-Gallup Oil Pool; and the Shell Carson Unit Project, Bisti-Gallup Oil Pool, all in San Juan County, New Mexico. The Tenneco Lower Hospah Project, South Hospah-Lower Sand Oil Pool; South Upper Hospah Project, South Hospah-Upper Sand Oil Pool; and Lone Pine Dakota D Unit Project, Lone Pine Dakota D Oil Pool, all in McKinley County, New Mexico. Also to be considered will be the amendment of the orders authorizing said projects to reflect the aforesaid reclassification.

<u>CASE 6094:</u> In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the repeal of Commission Order No. 67 and the amendment of Rule 406 of the Commission Rules, both of which relate to carbon dioxide gas. The repeal of said Order 67 and the amendment of Rule 406 would be for the purpose of abolishing the existing special rules for carbon dioxide exploration, development, and processing, and placing such activities under the general rules of the Commission.

CASE NO.

NSP: SF Roswell Hobbs Portales

En the matter of the hearing cases by Application of the Oil Conservation Commission on its own the follown tain pressure maintenance er secon To beponsidered will be the reclassification of the following named projects in the following named pools from pressure maintenance to secondary recovery: the Amoco Production Company Baskett and Wasley projects, in the Cato-San Andres Pool the Horton project in the Milnesand-San Andres Pool and the Midwest project in the Nonombre-Pennsylvanian Pool; the Coastal States Gas Producing Company Flying MM project in the Flying M-S -Pool; the Mobil Oil Corporation Vacuum Middle Pennsylvanian Project in the Vacuum-Middle Pennsylvanian Pool; and the Union Texas Petrcleum Corporation Baskett project in the Cato-San-Andres-Pool, Further to be considered will be the amendment of Commission Orders authorizing said projects.

Cato Chaves Milorerand Rossevelt dr/

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

XX

CASE NO. <u>6092</u> Order No. R-<u>6/7/</u>

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION CONSIDER THE ON ITS OWN MOTION TO CONSIDER THE RECLASSIFICATION OF CERTAIN PRESSURE MAINTENANCE PROJECTS IN CHAVES,

ROOSEVELT, AND LEA COUNTIES, NEW MEXICO, AS SECONDARY RECOVERY PROJECTS.

ORDER OF THE CONSTITUTION

# BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 30, 1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this day of April, 1978, the Commission, a querum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

# FINDS: Division

- (1) That due public notice having been given as required by law, the **commission** has jurisdiction of this cause and the subject matter thereof.
- (2) That the Oil Conservation Commission heretofore authorized the following Southeast New Mexico pressure maintenance projects in the named pools by the designated order:

PROJECT	POOL	ORDER NO.
Amoco Cato Baskett	Cato-San Andres	R-3867-B
Amoco Cato Wasley	Cato-San Andres	R-3867-B
Union Texas Baskett	Cato-San Andres	R-4362
all in Chaves Coun		
Amoco Milnesand Hort	on Milnesand-San Andres	R-3456
Amoco Midwest Nonomb	re Nonombre-Penn	R-3071
	g "M" Flying "M" San Andres	R-3229
Mobil Vacuum Mid Pen	n Vacuum-Middle Penn	R-4688
all in Lea County,	-New Newise	

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- (3) That each of the above-named pressure maintenance projects has declined to the point where it can no longer be correctly classified as a "pressure maintenance" project but can be correctly classified as a "secondary recovery" project.
- (4) That due to certain recent changes in the rules governing reports, the reporting of injection and production is less complicated and time-consuming to operators of secondary recovery projects than is the similar reporting for pressure maintenance projects.
- (5) That the processing of data relating to secondary recovery projects by the Oil Conservation Division of the New Mexico Energy and Minerals Department for the purpose of maintaining production records is less time-consuming than is the processing of similar data for pressure maintenance projects.
- (6) That the reclassification of the pressure maintenance projects named in Finding No. (2) above as secondary recovery projects will result in a saving of time and effort by both the operators of the projects and by the Division in reporting and processing data relating to the projects, thereby preventing waste, and that said reclassification will not impair correlative rights.
- (7) That the reclassification of said projects can most easily be carried out by rescinding the orders authorizing said projects as pressure maintenance projects and reauthorizing said projects as secondary recovery projects, subject to any particular rules previously promulgated for said projects which would still be applicable.
- (8) That Order No. R-3867-B which authorized the Amoco Cato Baskett and Amoco Cato Wasley Pressure Maintenance Projects should be rescinded and approval given for the Amoco Cato Baskett and Amoco Cato Wasley Waterflood Projects.

even though some of the outject projects may not at this time be active projects, or even though some of the originally an thorized injection weeks may no longer be an active injection,

- (9) That Order No. R-3456 which authorized the Pan American Milnesand Horton Pressure Maintenance Project should be rescinded and approval given for the Amoco Milnesand Horton Waterflood Project.
- (10) That Order No. R-3071 which authorized the Midwest Nonombre Pressure Maintenance Project should be rescinded and approval given for the Amoco Nonombre Waterflood Project.
- (11) That Order No. R-3229 which authorized the Coastal States Flying "M" San Andres Pressure Maintenance Project should be rescinded and approval given for the Coastal States Flying "M" San Andres Waterflood Project.
- (12) That Order No. R-4688 which authorized the Mobil
  Vacuum-Middle Penn Pressure Maintenance Project should be rescinded
  and approval given for the Mobil Vacuum Middle Penn Waterflood
  Project.
- (13) That Order No. R-4362 which authorized the Union Texas
  Cato Baskett Pressure Maintenance Project should be rescinded and
  approval given for the Union Texas Cato Baskett Waterflood Project.

# IT IS THEREFORE ORDERED:

- (1) That Orders Nos. R-3867-B, R-3456, R-3071, R-3229, R-4688, and R-4362 are hereby rescinded.
- (2) That Amoco Production Company is hereby authorized to operate the Amoco Cato Baskett Waterflood Project and the Amoco Cato Wasley Waterflood Project, both in the Cato San Andres Pool, Chaves County, New Mexico, in accordance with the following:
  - A. Injection into the Cato Baskett Project shall be through the following described wells in Section 11, Township 8 South, Range 30 East, NMPM:

Baskett "D" Well No. 1, Unit G Baskett "D" Well No. 2, Unit A Baskett "D" Well No. 3, Unit O Baskett "D" Well No. 4, Unit I Baskett "B" Well No. 2, Unit C B. Injection into the Cato Wasley Project shall be through the following-described wells in Section 14, Township 8 South, Range 30 East, NMPM:

Wasley Well No. 1, Unit C Wasley Well No. 3, Unit A

- c. Each of the aforesaid water injection wells shall be equipped with 2 3/8-inch plastic-lined tubing set in a packer. Further that the casing-tubing annulus of each of the aforesaid wells shall be filled with an inert fluid and the annulus equipped with a pressure gauge to facilitate detection of leakage in the tubing or packer.
- D. The Oil Conservation Division Director is hereby authorized to approve additional Amoco Production Company Waterflood Projects without notice and hearing on lands which are contiguous to existing waterflood projects operated by Amoco Production Company or Union Texas Petroleum Company in the Cato-San Andres Pool.
  - To obtain such approval, the applicant shall file proper application with the Division, which application shall include the following:
    - A plat showing the proposed project area, all wells within the project area, offset operators, and wells which offset the proposed project area.
    - 2. A schematic drawing of the proposed injection wells which fully describes the casing, tubing, perforated interval, and depth showing that the injection of gas or water will be confined to the San Andres formation.

3. A letter stating that all offset operators to the proposed project have been furnished a complete copy of the application and the date of notification.

The Division Director may approve the proposed project and promulgate special rules therefor if, within 20 days after receiving the application, no objection to the proposal is received. The Division-Director may grant immediate approval, provided waivers of objection are received from all offset operators.

- (3) That Amoco Production Company is hereby authorized to operate the Amoco Milnesand Horton Waterflood Project in the Milnesand-San Andres Pool, Chaves County, New Mexico, in accordance with the following:
  - A. Injection shall be through the following-described wells in Section 29, Township 8 South, Range 35
    East, NMPM:
    - R. E. Horton Federal Well No. 30, Unit K R. E. Horton Federal Well No. 31, Unit M
  - B. Each of the aforesaid water injection wells shall be equipped with tubing set in a packer, said packer being located within 100 feet of the uppermost perforation. Further, that the casing-tubing annulus shall be filled with an inert fluid and the annulus equipped with a pressure gauge or left open to facilitate detection of leakage in the tubing or packer.

- (4) That Amoco Production Company is hereby authorized to operate the Amoco Nonombre Waterflood Project in the Nonombre-Pennsylvanian Pool, Lea County, New Mexico, in accordance with the following:
  - A. Injection shall be through the following described well in Section 29, Township 13 South, Range 34
    East, NMPH:

Harris State Well No. 1, Unit N

- B. The aforesaid well shall be equipped with internally plastic-coated tubing and a packer, which shall be set at approximately 10,340 feet. Further, the casing-tubing annulus of said well shall be kept filled with a corrosion-inhibited fluid at all times.
- (5) That Coastal States Gas Producing Company is hereby authorized to operate the Coastal States Flying "M" San Andres Waterflood Project in the Flying "M" San Andres Pool, Lea County, New Mexico, in accordance with the following:
- A. Injection shall be through the following described Flying "M San Andres Unit wells in Township 9 South,
  Range 33 East, NMPM:

Tract 11 Well No. 1, Unit L, Section 15
Tract 5 Well No. 2, Unit D, Section 16
Tract 3 Well No. 3, Unit F, Section 17
Tract 12 Well No. 5, Unit F, Section 20
Tract 17 Well No. 2, Unit L, Section 22
Tract 1A Well No. 1, Unit B, Section 29
Tract 1B Well No. 4, Unit D, Section 33

(6) That Mobil Oil Corporation is hereby authorized to operate the Mobil Vacuum Middle Penn Waterflood Project in the Vacuum Middle Pennsylvanian Pool, Lea County, New Mexico, in accordance with the following:

A. Injection shall be through the following-described well in Section 13, Township 17
South, Range 34 East, NMPM:
Bridges State Well No. 147, Unit F

- B. Injection into said well shall be through 2 3/8-inch tubing, set in a packer which shall be located at approximately 10,390 feet; that the casing-tubing annulus shall be loaded with an inert fluid and equipped with an approved pressure gauge or attentionattracting leak detection device and a pressure relief valve.
- C. The operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the casing, tubing, or packer in said injection well, the leakage of gas, water or oil from around any producing well, or the leakage of gas, water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.
- (7) That Union Texas Petroleum, a Division of Allied
  Chemical Corporation, is hereby authorized to operate the
  Union Texas Cato Baskett Waterflood Project in the Cato-San Andres
  Pool, Chaves County, New Mexico, in accordance with the following:
  - A. Injection shall be through the following-described well in Section 11, Township 8 South, Range 30 East, NMPM:

Baskett Well No. 1, Unit K

- equipped with 2 3/8-inch plastic lined tubing set in a packer, said packer being set at approximately 3335 feet. Further, that the casing tubing annulus shall be filled with an inert fluid and the annulus equipped with a pressure gauge to facilitate detection of leakage in the tubing or packer.
- authorized to approve additional Union Texas

  Petroleum pressure maintenance projects and

  promulgate special rules therefor without

  notice and hearing on lands which are

  contiguous to existing Union Texas Petroleum

  or Amoco Production Company pressure

  maintenance projects in the Cato-San Andres

  Pool. To obtain such approval, the applicant

  shall file proper application with the Division

  which application shall include the following:
  - A plat showing the proposed project area, all wells within the project area, offset operators, and wells which offset the proposed project area.
  - 2. A schematic drawing of the proposed injection wells which fully describes the casing, tubing, perforated interval, and depth showing that the injection of gas or water will be confined to the San Andres formation.

3. A letter stating that all offset operators to the proposed project have been furnished a complete copy of the application and the date of notification.

The Division Director may approve the proposed project and promulgate special rules therefor if, within 20 days after receiving the application, no objection to the proposal is received. The Director may grant immediate approval, provided waivers of objection are received from all offset operators.

- (8) That each of the above-described waterflood projects shall be operated in accordance with Rules 701, 702, and 703 of the Division Rules and Regulations.
- (9) That monthly reports concerning said waterflood projects shall be filed in accordance with Rule 1115 of the Division Rules and Regulations.
- (10) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION DIVISION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member and Division Director

for lack of the subjection wills test herein authorized for lack of the subject projects as will as puch additional wills which have be in authorized for presonne with approved for injection purposes with further order of the Division