CASE 5849: KING RESCURCES COMPANY FOR APPROVAL OF THE LONG CANYON UNIT, CHAVES COUNTY, NEW MEXICO

# CASE NO.

5849

APPlication, Transcripts, Small Exhibits,

ETC.

Unit Name LONG CANYON UNIT-EXPLORATORY
Operator U. V. INDUSTRIES
County CHAVES

2-28-77	Commissioner	APPROVED	DATE
	OCC: 2-8-77	OCC ORDER NO. K-5366	OCC CASE NO. COSTS
	3-9-77	DATE	EEEECTIVE
***	18,880.01	ACREAGE	TOTAL
•	4,428.15	STATE	
	14,451.86	FEDERAL	
	-0-	INDIAN-FEE	
	Yes	CLAUSE	SEGREGATION
	5 yrs.	TERM	

UNIT AREA

TOWNSHIP 19 SOUTH, RANGE 19 EAST, NMPM Sections 10 through 15: All Sections 22 through 27: All Sections 34 through 36: All

Sections 7 and 8: All Sections 17 through 20: All Sections 29 through 32: All

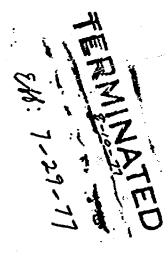
TOWNSHIP 19 SOUTH, RANGE 20 EAST, NMPM

Unit Name LONG CANYON UNIT-EXPLORATORY
Operator U.V. INDUSTRIES
County CHAVES

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V 1G-2475-1√	V IG-2419-1 V	V 1G-1791-1V	€ 1G-1790-1√	V 1.G-1789-1 V	VIG-0686	V L-4323-3 V	F 1-3055 V	V L-2917-3	L-2757 V	V 1-2755 V	V 1-2754-3 V	V L-1021-4 V	LEASE NO. NO.
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200.00	80.00	727.88	280.00	240.00	80.00	160.00	200.00	640.00	400.00	398.41	160.00	640.00	ACRES
Kobert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Aminoil USA.Inc.	King Resources Co.	Globe Minerals, Inc. U.V. Industries, Inc.	King Resources Co.	Michael P. Grace	King Resources Co.	King Resources Co.	King Resources Co.	ACREAGE NOT RATIFIED LESSEE

Unit Name LONG CANYON UNIT-EXPLORATORY
Operator U. V. Industries
COUNTY CHAVES

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## UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

FEDERAL CENTER, DENVER, COLORADO 80225

JAN 12 1977

South Fe

JAN 1 4 1977

No. 5849

King Resources Company Attention: Mr. Greg Paith P. O. Box 9698, South Denver Station Denver, Colorado 80209

#### Gentlemen:

Your application of November 30, 1976, filed with the Assistant Area Oil and Gas Supervisor, Roswell, Now Mexico, requests the designation of the Long Ganyon unit area embracing 18,477.01 acres, more or less, in Chaves County, New Mexico, as logically subject to exploration and development under unitisation provisions of the Mineral Lessing Act, as amended. Our records show the unit area embraces 18,880.01 acres. Please recheck your acreage computations, and if appropriate, correct these figures prior to submitting the unit agreement for final approval.

Pursuant to unit plan regulations 30 CFR 226, the land requested as outlined on your plat marked "Exhibit A Long Canyon unit, Chaves County, New Mexico" is hereby designated as a logical unit area.

The unit agreement submitted for the area designated should provide for a well to test all formations of Pennsylvanian Age or to a depth of 6,000 feet. Your proposed use of the Form of Agreement for Unproved Areas, modified for State lands as shown in your application, will be accepted, provided it is further modified as follows:

Add the words "as amended" after (30 F.R. 12319) in Section 26, Nondiscrimination.

If conditions are such that further modification of said standard form is deamed necessary, two copies of the proposed modifications with appropriate justification must be submitted to this office through the Oil and Gas Supervisor for preliminary approval.

In the absence of any other type of land requiring special provisions or of any objections not now apparent, a duly executed agreement identical with said form, modified as outlined above, will be approved if submitted in approvable status within a reasonable period of time. However, notice is hereby given that the right is reserved to deny approval of any executed agreement submitted which, in our opinion, does not have the full commitment of sufficient lands to afford effective control of operations in the unit area.

When the executed agreement is transmitted to Roswell, New Mexico for approval, include the latest status of all acreage. In preparation of Exhibits "A" and "B", follow closely the format of the sample exhibits attached to the 1968 reprint of the aforementioned form.

Inasmuch as this agreement involves State land, we are sending a copy of the letter to the Commissioner of Public Lands. Please contact the State of New Mexico before soliciting joinders regardless of prior contacts or clearance from the State.

Sincerely yours,

George W. Horn

Ragional Conservation Manager for the Director

#### Enclosure

N.M.O.C.C., Santa Fe 

Will This Copy for Comm. Pub. Lands, Santa Fe



PHIL R. LUCERO

COMMISSIONER







Commissioner of Public Lands

August 10, 1977

P. O. BOX 1148
SANTA FE, NEW MEXICO 87501

IV Industries 19th Floor University Club Building 136 South Temple Salt Lake City, Utah 84111

Un. 5847

Re: Long Canyon Unit Chaves County, Now Mexico TERMINATION

#### Gentlement

By your letter of July 26, 1977, to the United States Geological Survey, you request termination of the Long Canyon unit agreement. The United States Geological Survey approved the termination on August 9, 1977.

This is to officially notify you that the Commissioner of Public Lands has this approved the termination of the Long Canyon Unit, effective as of July 29, 1977.

Please notify all interested parties of this matter.

Very truly yours,

PHIL R. LUCBRO COMMISSIONER OF PUBLIC LANDS

BY: RAY D. GRAHAM, Director Oil and Gas Division

PRL/RDG/s

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USGS-Roswell, New Maxico
USGS-Albuquarque, New Hexico
OCC- Santa Fa, New Hexico

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5	IN THE MATTER OF:		• )	
6	Application of King Reso		_	CASE
7	for a unit agreement, Ch	naves County	( , <u>,</u> )	5849
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3	APPEA	ARANCE	S	
٦	For the New Mexico Oil	Lynn Tesci		
4	Conservation Commission:	Legal Cour		he Commissi wilding
5	•	Santa Fe,		_
6	For the Applicant:	Jason W. H		Esq.
7		KELLAHIN & Attorneys		
1		500 Don Ga	aspar	
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6	CHARLES E. WILLIAMS	
7	Direct Examination by Mr. Kellahin	8
8	Cross Examination by Mr. Nutter	15
9		

#### EXHIBIT INDEX

	€.	Offered	Admitted
Applicant's Exhibit One, Plat		4	7
Applicant's Exhibit Two, Unit Agreement		6	7
Applicant's Exhibit Three, Schedules		7	7
Applicant's Exhibit Four, Structure Map		12	15
Applicant's Exhibit Five, Structure Map		12	15

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MR. NUTTER: We will call next Case Number 5849.

MS. TESCHENDORF: Case 5849, application of King Resources Company for a unit agreement, Chaves County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin appearing for the applicant and we have two witnesses to be sworn.

(THEREUPON, the witnesses were duly sworn.)

#### GREG FAITH

called as a witness, having been first duly sworn, was examined and testified as follows:

#### DIRECT EXAMINATION

BY MR. KELLAHIN:

- Would you state your name, please?
- My name is Greg Faith.
- Mr. Faith, by whom are you employed and in what position?
  - King Resources as Senior Landman.
- In connection with your work as Senior Landman for King Resources do you have anything to do with assembling the acreage and negotiating the unit agreement which is before the Commission at this time?
  - Yes, I handled the matter completely.

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Are you an attorney?

Yes.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

- (Mr. Kellahin continuing.) Mr. Faith, what is proposed by King Resources in this application?
- This is an application which is pending before the USGS and before the State of New Mexico to perform an exploratory unit covering some eighteen thousand, eight hundred and eighty acres in Townships 19 and 20 East, Ranges 19 South and 20 South, Chaves County, New Mexico.
- Now, referring to what has been marked as the Applicant's Exhibit Number One, which is a plat of the unit area, do you have before you a plat showing the acreage that has already been committed?
- Yes, the plat that the Examiner has is not colored but the plat I have is colored and I'll show it to you right now.

The pink coloring indicates acreage which is presently committed to the unit agreement. We have circulated the ratification and joinders and that represents approximately eighty percent. We also have verbal assurances from another ten percent.

MR. NUTTER: You are talking about working interest

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owners?

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A. Working interest owners.

MR. NUTTER: You have eighty percent committed?

- A. Eighty percent committed and verbal assurances from another ten percent, approximately, that the participation in the unit agreement has been recommended to the company's management.
- A. At least ninety percent, we expect more but we're not certain at this time.
- And has the proposed unit agreement been submitted to the United States Geological Survey and the State Land Office?
- A. The unit agreement and related materials have been submitted to the USGS. They received area and depth designation January 14th and they have been submitted to the State Land Office and have received preliminary approval from the State Land Office.
- Q So you have prelimitary approval from both the Department of the Interior and the State?
  - A. That is correct.
  - Q. Is there any fee land in this unit?
  - A. No fee land.
  - What is the unit composed of then?
  - A. It's composed of -- he's got my figures right now.

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It's on the bottom of the exhibit. I forget the exact figures, something like -- twenty-three percent State land and seventy-six percent is Federal land -- seventy-seven percent is Federal land.

- Q. What is the name of the unit?
- A. The name of the unit is the Long Canyon Unit. It's an approved name.
  - Q. Now, this is an exploratory unit, is it not?
- A. Yes, it is. The location of the initial test well will be on a State lease in Section 26 of 19 South, 19 East. It will be the northeast of the southwest quarter.
- Q And that initial test will be drilled to what depth?
- A. It will be drilled to a depth adequate to test the top of the Mississippian formation, we only estimate the depth.
- Q And you do have a geological witness who will testify as to the unit?
  - A. Yes, we do.
- Q Now, referring to what has been marked as Exhibit Number Two, a copy of the unit agreement, is that a form of unit agreement which has heretofore been approved by this Commission and the State and Federal agencies?
- A. Yes, it has not been approved by this Commission yet but it has been approved by the State Land Office and the

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Department of the Interior.

0 It is of a type that heretofore has been approved in other cases?

A. Oh, yes.

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- Q. Similar to?
- A. Word-for-word.
- Q No major changes in it?
- A. No major changes.
- Q. Referring then to what has been marked as Exhibit

  Number Three which is a schedule of the leases, does that

  reflect all of the leases that are shown on your Exhibit

  Number One?
- A. Yes, it reflects all of the leases as well as whether a lease is a State lease or a Federal lease; it reflects all overrides and all working interest owners.
- Now, were Exhibits One, Two and Three prepared by you or under your supervision?
  - A. Yes.

MR. KELLAHIN: At this time I offer into evidence Exhibits One, Two and Three.

MR. NUTTER: King Resources Exhibits One through Three will be admitted into evidence.

(THEREUPON, King Resources Exhibits One through Three were admitted into evidence.)

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#### CROSS EXAMINATION

BY MR. NUTTER:

Mr. Faith, what section is it of the unit agreement Q. that has the description of drilling to discovery, the required well, where would that be?

It would be on page, I believe seven. We have a depth of six thousand feet in the unit agreement that is an estimate but I believe the approval of the USGS was framed that the test would test the top of the Mississippian.

So when you go through the Pennsylvanian you will Q. be down to the Mississippian and fulfill the obligation?

Fulfill the obligation, that's correct.

MR. KELLAHIN: May I ask a question?

MR. NUTTER: Yes, sir.

MR. KELLAHIN: What formations does this agreement cover?

Well, we expect it to be unitized as to all formations. It is an exploratory unit and we would like to have the option to go deeper also.

MR. NUTTER: Are there any further questions of this witness? He may be excused.

(THEREUPON, the witness was excused.)

MR. KELLAHIN: Call Mr. Williams.

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#### CHARLES E. WILLIAMS

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called as a witness, having been first duly sworn, was examined and testified as follows:

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#### DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q Would you state your name, please?
- A. Charles E. Williams.
- What business are you engaged in, Mr. Williams?
- A. Geological.
- Q. Are you a consulting geologist or are you employed by King Resources?
  - A. I'm employed by King Resources.
  - Q What is your position with King Resources?
  - A. I'm District Geologist.
- Q In connection with your work have you ever testified before the Oil Conservation Commission?
  - A. No, sir, I haven't.
- Q For the benefit of the Examiner would you briefly outline your education and experience as a geologist?
- A. I have a Bachelor of Science degree in geology. I have worked three years in geophysics; I have worked eight years as a geologist in Canada and the last seven years with King Resources in Denver.
  - Q. Now, in connection with your work did you examine

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the area involved in the Long Canyon Unit, the subject matter of this case?

- A. Yes, sir, I did.
- Q And you performed this personally or under your supervision, all of the work?
  - A. Partly.
  - Q. Partly?
  - A. We used a consultant, both of us.
- Q And you worked together with a consultant, is that correct?
  - A. Right, that is correct.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (Mr. Kellahin continuing.) Now, Mr. Williams, how did you arrive at the proposed unit boundaries in this particular area? What was your preliminary work, what was the nature of it?

A. Well, we started out as a comprehensive study of the area which covered approximately six hundred square miles and in this area we looked at approximately sixty-five wells and we evaluated all of the data available from these wells and the structure maps that you have in front of you in this area is also based on gravity, photo geology and magnetics, so it is interpretive.

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	Ũ.	Now,	when	you	talk	about	the	structure	map	are	you
tal	king	about I	Exhib	its		e.					
	A.	Exhil	oits (	One	and T	wo.			•		

- A. Exhibits One and Two.
- Q They are now designated, I believe, as Four and Five or is it Five and Six?

MR. NUTTER: We've got Four and Five.

- 0 (Mr. Kellahin continuing.) Four and Five. Those are the exhibits you are referring to?
  - A. Yes, sir, that's right.
- Q. Now, just what information do you show on Exhibits Four and Five?
- A. Exhibit Four is a structure map on the Cisco Canyon overlain with net porosity of the Strawn formation which we feel is one of the productive zones of this area.

Exhibit Five is a structure map on the Atoka. Also it is overlain with the net porosity within the Strawn formation.

- Q Now, there is no control data available to you except one well, is that correct?
  - A. That's correct.
- Q. And what is the situation in regard to that one, is it producing?
  - A. No, it was drilled in 1966 by Texas Oil & Gas.
- MR. NUTTER: Mr. Williams, is that the well that's in Section 17 identified as the No. 1 Federal A on your

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Exhibits Four and Five?

A. That's correct.

MR. NUTTER: Okay. Drilled when, please?

A. In 1966.

Q (Mr. Kellahin continuing.) And what was the results of that well, what happened?

A. They drilled down to approximately sixty-two hundred feet and tested gas out of the Strawn formation, they continued on to seventy-one, eighty-six in the Siluro-Devonian. They plugged back and attempted completion in the Strawn for approximately nine months and in evaluating the zone they got approximately three million cubic feet of gas out of the zone but they eventually plugged the well.

Q. Now, on the contour interval shown on your Exhibits

Four and Five, the contour is interpretative based on the

matter you discussed, photo controls and magnetic and what else?

A. Gravity.

Q. Gravity survey. Now, when you show porosity development in there, on what do you base that?

A. Well, like I said to begin with, this was a comprehensive study of the area and those two exhibits are just a portion of the area studied and the porosity is based upon a ten percent cutoff within the Strawn formation and as you can see on the exhibit, we feel that the porosity is better developed to the west of the Texas Oil & Gas well.

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Q And that's the reason for the location of your initial well on this unit, is that correct?

A. That's correct.

Now, you heard the previous witness, Mr. Faith, testify that you propose to drill to test the Mississippian, what zones would you expect to encounter in this well?

A. Well, the main objective in the area is the Strawn but we feel that you can see on the structure map on the Cisco Canyon that we do have quite a large structure. There again it is interpretive so we feel that the Cisco Canyon zone could be developed and then you have the Strawn and then you have the Atoka and we feel that there is no Morrow in the area, just from the data available. And then your TD would be in the top of the Mississippian.

Q Now, this unit is composed of eighteen thousand, eight hundred and eighty acres. How was the unit boundary established?

A. Well, the northern unit was established by the net porosity, the twenty-five foot contour on the net porosity. The eastern boundary was established by a fault and that would be on Exhibit Five and also the proximity to the Texas Oil & Gas well in Section 17. The south boundary and the west boundary includes on the Cisco Canyon the plus two hundred foot contour value and to the west I can say that you are getting farther away from our control and also we feel that the better

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porosity is developed on the east flank of the structure that we have drawn.

- Now, in your opinion as a geologist will approval of the unit in the size and shape proposed by King Resources give the operator effective control of any producing formation that might be encountered in this area?
  - A. Yes, sir, I do.
- Q Were Exhibits Four and Five prepared by you or under your supervision?
  - A. Partially.

MR. KELLAHIN: At this time we would like to offer Exhibits Four and Five.

MR. NUTTER: Applicant's Exhibits Four and Five will be admitted into evidence.

(THEREUPON, Applicant's Exhibits Four and Five were admitted into evidence.)

#### CROSS EXAMINATION

BY MR. NUTTER:

- Q. Mr. Williams, how many wells on these two exhibits have peretrated the Morrow formation?
- A. None. We do not feel that the Morrow is developed in this area.
- Q. I see. But with your obligation to go to the Mississippian you will pass through the Morrow?

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A.	Ιf	it's	present,	yes.
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Q. So you would have a chance to look at it if it's there?

A. That's correct.

MR. NUTTER: Are there any further questions of this witness? He may be excused.

(THEREUPON, the witness was excused.)

MR. NUTTER: Do you have anything further, Mr.

Kellahin?

MR. KELLAHIN: No, that's all we have, Mr. Nutter, thank you.

MR. NUTTER: Does anyone have anything to offer in Case Number 5849? We will take the case under advisement.

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#### 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 325 Calle Mejia, No. 122, Santa Fe, New Mexico 87, Phone (505) 982-9212 do hereby certify that the foregoing is complete record of the proceedings in the Examiner hearing of Case No. 19.2.

New Mexico Oil Conservation Commission

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#### BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico February 2, 1977

#### EXAMINER HEARING

IN THE MATTER OF:

Application of King Resources Company for a unit agreement, Chaves County, New Mexico.

CASE 5849

BEFORE: Daniel 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

For the Applicant:

Jason W. Kellahin, Esq. KELLAHIN & FOX Attorneys at Law 500 Don Gaspar Santa Fe, New Mexico.

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3 GREG FAI

GREG FAITH

Cross Examination by Mr. Nutter

CHARLES E. WILLIAMS

Direct Examination by Mr. Kellahin

Direct Examination by Mr. Kellahin

Cross Examination by Mr. Nutter

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MS. TESCHENDORF: Case 5849, application of King Resources Company for a unit agreement, Chaves County, New Mexico.

MR. KELLAHIN: If the Examiner please, Jason Kellahin appearing for the applicant and we have two witnesses to be sworn.

(THEREUPON, the witnesses were duly sworn.)

#### GREG FAITH

called as a witness, having been first duly sworn, was examined and testified as follows:

#### DIRECT EXAMINATION

BY MR. KELLAHIN:

- Would you state your name, please?
- My name is Greg Faith.
- Q Mr. Faith, by whom are you employed and in what position?
  - King Resources as Senior Landman.
- In connection with your work as Senior Landman for King Resources do you have anything to do with assembling the acreage and negotiating the unit agreement which is before the Commission at this time?
  - Yes, I handled the matter completely.

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Q Are you an attorney?

A. Yes.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (Mr. Kellahin continuing.) Mr. Faith, what is proposed by King Resources in this application?

A. This is an application which is pending before the USGS and before the State of New Mexico to perform an exploratory unit covering some eighteen thousand, eight hundred and eighty acres in Townships 19 and 20 East, Ranges 19 South and 20 South, Chaves County, New Mexico.

Q. Now, referring to what has been marked as the Applicant's Exhibit Number One, which is a plat of the unit area, do you have before you a plat showing the acreage that has already been committed?

A. Yes, the plat that the Examiner has is not colored but the plat I have is colored and I'll show it to you right now.

The pink coloring indicates acreage which is presently committed to the unit agreement. We have circulated the ratification and joinders and that represents approximately eighty percent. We also have verbal assurances from another ten percent.

MR. NUTTER: You are talking about working interest

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owners?

Working interest owners.

MR. NUTTER: You have eighty percent committed?

Eighty percent committed and verbal assurances from another ten percent, approximately, that the participation in the unit agreement has been recommended to the company's management.

(Mr. Kellahin continuing:) Do you anticipate then that you will have at least ninety percent?

At least ninety percent, we expect more but we're not certain at this time.

And has the proposed unit agreement been submitted to the United States Geological Survey and the State Land Office?

The unit agreement and related materials have been submitted to the USGS. They received area and depth designation January 14th and they have been submitted to the State Land Office and have received preliminary approval from the State Land Office.

So you have preliminary approval from both the Department of the Interior and the State?

That is correct.

Is there any fee land in this unit?

No fee land.

What is the unit composed of then?

It's composed of -- he's got my figures right now.

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It's on the bottom of the exhibit. I forget the exact figures, something like -- twenty-three percent State land and seventy-six percent is Federal land -- seventy-seven percent is Federal land.

- Q What is the name of the unit?
- A. The name of the unit is the Long Canyon Unit. It's an approved name.
  - Q. Now, this is an exploratory unit, is it not?
- Yes, it is. The location of the initial test well will be on a State lease in Section 26 of 19 South, 19 East. It will be the northeast of the southwest quarter.
- And that initial test will be drilled to what depth?
- A. It will be drilled to a depth adequate to test the top of the Mississippian formation, we only estimate the depth.
- Q And you do have a geological witness who will testify as to the unit?
  - A. Yes, we do.
- Number Two, a copy of the unit agreement, is that a form of unit agreement which has heretofore been approved by this Commission and the State and Federal agencies?
- A. Yes, it has not been approved by this Commission yet but it has been approved by the State Land Office and the

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Department of the Interior.

Q It is of a type that heretofore has been approved in other cases?

- A Oh, yes.
- Q Similar to?
- A. Word-for-word.
- Q. No major changes in it?
- A. No major changes.
- Q. Referring then to what has been marked as Exhibit

  Number Three which is a schedule of the leases, does that

  reflect all of the leases that are shown on your Exhibit

  Number One?
- A. Yes, it reflects all of the leases as well as whether a lease is a State lease or a Federal lease; it reflects all overrides and all working interest owners.
- Q Now, were Exhibits One, Two and Three prepared by you or under your supervision?

A. Yes.

MR. KELLAHIN: At this time I offer into evidence Exhibits One, Two and Three.

MR. NUTTER: King Resources Exhibits One through Three will be admitted into evidence.

(THEREUPON, King Resources Exhibits One through Three were admitted into evidence.)

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#### CROSS EXAMINATION

BY MR. NUTTER:

Mr. Faith, what section is it of the unit agreement that has the description of drilling to discovery, the required well, where would that be?

It would be on page, I believe seven. We have a depth of six thousand feet in the unit agreement that is an estimate but I believe the approval of the USGS was framed that the test would test the top of the Mississippian.

So when you go through the Pennsylvanian you will be down to the Mississippian and fulfill the obligation?

Fulfill the obligation, that's correct. MR. KELLAHIN: May I ask a question?

MR. NUTTER: Yes, sir.

MR. KELLAHIN: What formations does this agreement cover?

A. Well, we expect it to be unitized as to all formations. It is an exploratory unit and we would like to have the option to go deeper also.

MR. NUTTER: Are there any further questions of this witness? He may be excused.

> (THEREUPON, the witness was excused.) MR. KELLAHIN: Call Mr. Williams.

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#### CHARLES E. WILLIAMS

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

#### BY MR. KELLAHIN:

- Q Would you state your name, please?
- A. Charles E. Williams.
- What business are you engaged in, Mr. Williams?
- A. Geological.
- Q Are you a consulting geologist or are you employed by King Resources?
  - A. I'm employed by King Resources.
  - Q What is your position with King Resources?
  - A. I'm District Geologist.
- Q. In connection with your work have you ever testified before the Oil Conservation Commission?
  - A. No, sir, I haven't.
- Q For the benefit of the Examiner would you briefly outline your education and experience as a geologist?
- A. I have a Bachelor of Science degree in geology. I have worked three years in geophysics; I have worked eight years as a geologist in Canada and the last seven years with King Resources in Denver.
  - Q Now, in connection with your work did you examine

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the area involved in the Long Canyon Unit, the subject matter of this case?

- A. Yes, sir, I did.
- Q And you performed this personally or under your supervision, all of the work?
  - A Partly.
  - Q Partly?
  - A. We used a consultant, both of us.
- Q And you worked together with a consultant, is that correct?
  - A Right, that is correct.

MR. KELLAHIN: Are the witness' qualifications acceptable?

MR. NUTTER: Yes, they are.

Q (Mr. Kellahin continuing.) Now, Mr. Williams, how did you arrive at the proposed unit boundaries in this particular area? What was your preliminary work, what was the nature of it?

A. Well, we started out as a comprehensive study of the area which covered approximately six hundred square miles and in this area we looked at approximately sixty-five wells and we evaluated all of the data available from these wells and the structure maps that you have in front of you in this area is also based on gravity, photo geology and magnetics, so it is interpretive.

Those are

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he Cisco Canyon overlain with net porosity of the Strawn formation which we feel is one of the productive zones of this area.

Exhibit Five is a structure map on the Atoka. Also it is overlain with the net porosity within the Strawn formation.

- Now, there is no control data available to you except one well, is that correct?
  - " A. That's correct.
- And what is the situation in regard to that one, is it producing?
  - No, it was drilled in 1966 by Texas Oil & Gas.
- MR. NUTTER: Mr. Williams, is that the well that's in Section 17 identified as the No. 1 Federal A on your

Exhibits Four and Five?

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A That's correct.

MR. NUTTER: Okay. Drilled when, please?

- A. In 1966.
- Q (Mr. Kellahin continuing.) And what was the results of that well, what happened?
- A They drilled down to approximately sixty-two hundred feet and tested gas out of the Strawn formation, they continued on to seventy-one, eighty-six in the Siluro-Devonian. They plugged back and attempted completion in the Strawn for approximately nine months and in evaluating the zone they got approximately three million cubic feet of gas out of the zone but they eventually plugged the well.
- Now, on the contour interval shown on your Exhibits

  Four and Five, the contour is interpretative based on the

  matter you discussed, photo controls and magnetic and what else?
  - A. Gravity.
- Q Gravity survey. Now, when you show porosity development in there, on what do you base that?
- A. Well, like I said to begin with, this was a comprehensive study of the area and those two exhibits are just a portion of the area studied and the porosity is based upon a ten percent cutoff within the Strawn formation and as you can see on the exhibit, we feel that the porosity is better developed to the west of the Texas Oil & Gas well.

And that's the reason for the location of your initial well on this unit, is that correct?

- A. That's correct.
- Now, you heard the previous witness, Mr. Faith, testify that you propose to drill to test the Mississippian, what zones would you expect to encounter in this well?
- A. Well, the main objective in the area is the Strawn but we feel that you can see on the structure map on the Cisco Canyon that we do have guite a large structure. There again it is interpretive so we feel that the Cisco Canyon zone could be developed and then you have the Strawn and then you have the Atoka and we feel that there is no Morrow in the area, just from the data available. And then your TD would be in the top of the Mississippian.
- Now, this unit is composed of eighteen thousand, eight hundred and eighty acres. How was the unit boundary established?
- A. Well, the northern unit was established by the net porosity, the twenty-five foot contour on the net porosity. The eastern boundary was established by a fault and that would be on Exhibit Five and also the proximity to the Texas Oil & Gas well in Section 17. The south boundary and the west boundary includes on the Cisco Canyon the plus two hundred foot contour value and to the west I can say that you are getting farther away from our control and also we feel that the better

porosity is developed on the east flank of the structure that we have drawn.

- Q. Now, in your opinion as a geologist will approval of the unit in the size and shape proposed by King Resources give the operator effective control of any producing formation that might be encountered in this area?
  - A Yes, sir, I do.
- Q Were Exhibits Four and Five prepared by you or under your supervision?
  - A Partially.

MR. KELLAHIN: At this time we would like to offer Exhibits Four and Five.

MR. NUTTER: Applicant's Exhibits Four and Five will be admitted into evidence.

(THEREUPON, Applicant's Exhibits Four and Five were admitted into evidence.)

### CROSS EXAMINATION

BY MR. NUTTER:

- Q. Mr. Williams, how many wells on these two exhibits have penetrated the Morrow formation?
- A. None. We do not feel that the Morrow is developed in this area.
- Q. I see. But with your obligation to go to the Mississippian you will pass through the Morrow?

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Q So you would have a chance to look at it if it's there?

A. That's correct.

MR. NUTTER: Are there any further questions of this witness? He may be excused.

(THEREUPON, the witness was excused.)

MR. NUTTER: Do you have anything further, Mr.

Kellahin?

MR. KELLAMIN: No, that's all we have, Mr. Nutter, thank you.

MR. NUTTER: Does anyone have anything to offer in Case Number 5849? We will take the case under advisement.

### 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

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DIRECTOR

JOE D. RAMEY

## **OIL CONSERVATION COMMISSION**

STATE OF NEW MEXICO P. O. BOX 2088 - SANTA FE 87501

LAND COMMISSIONER PHIL R. LUCERO



STATE GEÓLOGIST EMERY C. ARNOLD

February 10, 1977

dr. Jason Kellahin Kellahin & Fox	Re:	CASE NO. 5849 ORDER NO. R-5366							
Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico		Appli	cant:						
		Kir	ng Resour	ces Compa	my				
Dear Sir:									
Enclosed herewith are t Commission order recent									
Yours very truly,  JOE D. RAMEY  Director		e e e e e e e e e e e e e e e e e e e	<b>4</b>						
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# BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 5849 Order No. R-5366

APPLICATION OF KING RESOURCES COMPANY FOR APPROVAL OF THE LONG CANYON UNIT AGREEMENT, CHAVES COUNTY, NEW MEXICO.

### ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 2, 1977, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 8th day of February, 1977, the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, King Resources Company, seeks approval of the Long Canyon Unit Agreement covering 18,880.01 acres, more or less, of State and Federal lands described as follows:

CHAVES COUNTY, NEW MEXICO
TOWNSHIP 19 SOUTH, RANGE 19 EAST, NMPM
Sections 10 through 15: All
Sections 22 through 27: All
Sections 34 through 36: All

TOWNSHIP 19 SOUTH, RANGE 20 EAST, NMPM Sections 7 and 8: All Sections 17 through 20: All Sections 29 through 32: All

-2-Case No. 5849 Order No. R-5366

TOWNSHIP 20 SOUTH, RANGE 19 EAST, NMPM Sections 1 through 3: All

TOWNSHIP 20 SOUTH, RANGE 20 EAST, NMPM Section 6: All

(3) That approval of the proposed unit agreement should promote the prevention of waste and the protection of correlative rights within the unit area.

### IT IS THEREFORE ORDERED:

- (1) That the Long Canyon Unit Agreement is hereby approved.
- (2) That the plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Commission to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.
- (3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; that in the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.
- (4) That this order shall become effective upon the approval of said unit agreement by the Commissioner of Public Lands for the State of New Mexico and the Director of the United States Geological Survey; that this order shall terminate ipso facto upon the termination of said unit agreement; and that the last unit operator shall notify the Commission immediately in writing of such termination.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

-3-Case No. 5849 Order No. R-5366

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

SEAL

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# EXHIBIT "B" SCHEDULE SHOWING THE PERCENTAGE AND KIND OF OWNERSHIP OF OIL AND GAS INTERESTS

# CHAVES COUNTY, NEW MEXICO

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Kerr-McGee Corp. 100%	4.00% Kerr-M	Scope Industries	Kerr-McGee Corporation 100%	U.S.A. ~ All	NM-2564 U.S.A 6/30/77	480.00 NM.	1195-R20E, HMPM Sec. 29: N <sup>1</sup> 2, H <sup>1</sup> 2S <sup>1</sup> 2	ţ.
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BEFORE EXAMINES NUTTER
CLE CONSERVATION MISSION
CASE NO. 5849

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,	Kinn Resources Co. 100%	5.00%	Robert S. Froehlich Northern Natural Gas Company	100%	King Resources Co.		- A11	U.S.A.	NM-11452 3/31/80	726.16	T20S-R19E, NMPM Sec. 3: Lots 1,2,3,4, 5,6,7,8,9,10, 11,12,5½	14
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e ti su t	Cities Service Oil Company 100%	3.00%	Rita & William Short Lee & Bobbi Gray	100%	Cities Service Oil Company		- A11	U.S.A.	NM-7792 9/30/78	155.43	T19S-R20E, NMPM Sec. 7: Lots 1,2,3 Sec.18: NELNWY	12
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New Mexico	00	State of New Mexico	State of New Mexico	State of New Mexico	State of New Mexico	State of New Mexico	LG-1785-1 State of 4/29/84 New Mexico	State of New Mexico -
- All	- A11	- A11	- A]]	- A11	- A]]	- A11	^A11	- A]]
Unleased	Unleased	Great Western Drilling Company 100%	Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Aminoil USA, Inc.
		ing 100%	40% 40%	60% 40%	40% %	40%	60% 40%	100%
None	None		Griffin & Burnett,Inc. 3.125%	Griffin & Burnett,Inc. 3.125%	Griffin & Burnett, Inc. 3:1	Griffin & Burnett.Inc. 3.	Griffin & Burnett,Inc. 3.125%	*
Unleased	Unleased	Great Western Drilling Company 100%	Robert K. Hillin Kinn Resources Co.	125% Robert K. Hillin 60% King Resources Co. 40%	3:125% Robert K. Hillin 60% King Resources Co. 40%	3.125% Robert K. Millin 60% King Resources Co. 40%	125% Robert K. Hillin 60% Kind Resources Co. 40%	Aminoil USA, Inc. 100%

TOTAL ACREAGE: 18,880.01 acres or 100.00% of unit area.

- CASE 5845: Application of Texaco Inc. for an unorthodox location, San Juan County, New Mexico. Ap Applicant, in be "BS" Well No. 5 to be drilled 1340 feet from the South line and 1300 feet from the West line of Section 23, Township 26 North, Range 18 West, Tocito Dome Penn "D" Pool, San Juan County, New Mexico.
- CASE 5846: Application of Harvey E. Yates Company for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its South Empire Deep Unit Well No. 13 to be drilled 660 feet from the South line and 1597 feet from the West line of Section 30, Township 17 South, Range 29 East, South Empire Field, Eddy County, New Mexico, the S/2 of said Section 30 to be dedicated to the well.
- (Continued from the January 19, 1977, Examiner Hearing) CASE 5810:

Application of Yates Petroleum Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Stonewall "EP" Com Well No. 1, located in Unit F of Section 30, Township 20 South, Range 28 East, Eddy County, New Mexico, to produce gas from the North Burton Flat-Wolfcamp Gas Pool and an undesignated Morrow gas pool.

- Application of Yates Petroleum Corporation for a dual completion, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (conventional) of its Gossett "EU" Well No. 1, located in Unit K of Section 26, Township 17 South, Range 25 East, Eddy County, New Mexico, in such a manner as to produce gas from the Lower Wolfcamp or Upper Pennsylvanian and the Lower Pennsylvanian formations through the casing-tubing annulus and tubing, respectively.
- CASE 5848: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Pipkin HE Well No. 1 to be drilled 660 feet from the South and West lines of Section 4, Township 18 South, Range 25 East, Eddy County, New Mexico, the S/2 of said Section 4 to be dedicated to the well.
- Application of King Resources Company for a unit agreement, Chaves County, New Mexico. Applicant, in CASE 5849: the above-styled cause, seeks approval of the Long Canyon Unit Area comprising 18,880 acres, more or less, of State and Federal lands in Townships 19 and 20 South, Ranges 19 and 20 East, Chaves County, New Mexico.
- Application of Pennzoil Company for adoption of pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the adoption of pool rules for the North Mescalero-Cisco Pool, CASE 5850: Lea County, New Mexico, including provision for a special gas-oil ratio limit of 4,500 to one.
- CASE 5117: (Reopened)

In the matter of Case 5117 being reopened pursuant to the provisions of Order No. R-4691-A, which order extended the temporary special pool rules for the North Dagger Draw-Upper Pennsylvanian Pool, Eddy County, New Mexico. All interested parties may appear and show cause why said North Dagger Draw-Upper Pennsylvanian Pool should not be developed on less than 160-acre proration units and why the special depth bracket allowable should be retained.

- Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-atyled cause, seeks authority to commingle Tapacito-Pictured Cliffs, Blanco Mesaverde, CASE 5851: and Basin-Dakota production in the wellbore of his Tribal Wells Nos. 1 and 2 located in Unit D of Section 16 and Unit L of Section 9, respectively, Township 26 North, Range 3 West, Rio Arriba County, New Mexico.
- CASE 5852: Application of Jerome P. McHugh for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle Wildhorse-Gallup and Basin-Dakota production in the wellbore of his Apache Wells Nos. 3 and 4, located in Units D and L, respectively, of Section 19, Township 26 North, Range 3 West, Rio Arriba County, New Mexico.
- Application of Carl Engwall for an exception to casing and cementing requirements of Order No. R-111-A, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an exception to the casing and cementing requirements of Order No. R-111-A to eliminate the salt protection casing string in a well CASE 5853: he proposes to drill in Unit L of Section 27, Township 20 South, Range 34 East, Lynch-Yates-Seven Rivers Pool, Lea County, New Mexico.
- Application of Palmer Oil and Gas Company for an unorthodox location, Rio Arriba County, New Mexico. CASE 5854: Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Stevenson Well No. 2 to be drilled 1850 feet from the North line and 1150 feet from the West line of Section 8, Township 26 North, Range 2 West, Blanco-Mesaverde Pool, Rio Arriba County, New Mexico, the N/2 of said Section 8 to be dedicated to the well.

### **UNIT AGREEMENT**

### FOR THE DEVELOPMENT AND OPERATION

OF THE	3.449999944
LONG CANYON UNIT ARE	BEFORE EXAMINER NUTTER
COUNTY OF CHAVES	-OIL CONSERVATION GOMMICSION  King Rungerally NO. 1
STATE OF NEW MEXICO	
NO	_

THIS AGREEMENT, entered into as of the \_\_\_\_\_ day of \_\_\_\_\_\_, 1977, by and between the parties subscribing, ratifying or consenting hereto, and herein referred to as the "parties hereto."

### $\underline{\underline{W}} \ \underline{\underline{I}} \ \underline{\underline{T}} \ \underline{\underline{N}} \ \underline{\underline{E}} \ \underline{\underline{S}} \ \underline{\underline{S}} \ \underline{\underline{E}} \ \underline{\underline{T}} \ \underline{\underline{H}} :$

WHEREAS, the parties hereto are the owners of working, royalty, or other oil and gas interests in the Unit Area subject to this Agreement; and

WHEREAS, the Mineral Leasing Act of February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. Secs. 181 et seq., authorizes Federal lessees and their representatives to unite with each other, or jointly or separately with others, in collectively adopting and operating a cooperative or unit plan of development or operations of any oil or gas pool, field, or like area, or any part thereof for the purpose of more properly conserving the natural resources thereof whenever determined and certified by the Secretary of the Interior to be necessary or advisable in the public interest; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Sec. 7-11-39 N.M. Statues 1953 Annotated) to consent to or approve this Agreement on behalf of the State of New Mexico, insofar as it covers and includes lands and mineral interests of the State of New Mexico; and

WHEREAS, the Oil Conservation Commission of the State of New Mexico is authorized by an Act of the Legislature (Chapter 166, Laws of 1941, and Chapter 168, Laws of 1949) to approve this Agreement and the conservation provisions hereof.

WHEREAS, the parties hereto hold sufficient interests in the Long Canyon Unit Area covering the land hereinafter described to give reasonably effective control of operations therein; and

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent waste, and secure other benefits obtainable through development and operation of the area subject to this Agreement under the terms, conditions and limitations herein set forth.

NOW, THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this Agreement their respective interests in the below-defined Unit Area, and agree severally among themselves as follows:

- 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of February 25, 1920, as amended, supra, and all valid pertinent regulations, including operating and unit plan regulations, heretofore issued thereunder or valid, pertinent, and reasonable regulations hereafter issued thereunder are accepted and made a part of this Agreement as to Federal lands, provided such regulations are not inconsistent with the terms of this Agreement; and as to State of New Mexico lands, the oil and gas operating regulations in effect as of the effective date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the State of New Mexico are hereby accepted and made a part of this Agreement.
- 2. UNIT AREA. The area specified on the map attached hereto marked Exhibit "A" is hereby designated and recognized as constituting the Unit Area, containing 18,880.01 acres, more or less.

Exhibit "A" shows, in addition to the boundary of the Unit Area, the boundaries and identity of tracts and leases in said area to the extent known to the Unit Operator. Exhibit "B" attached hereto is a schedule showing to the extent known to the Unit Operator the acreage, percentage, and kind of ownership of oil and gas interests in all land in the Unit Area. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. Exhibits "A" and "B" shall be revised by the Unit Operator whenever changes in the unit area render such revision necessary, or when requested by the Oil and Gas Supervisor, hereinafter referred to as "Supervisor," or when requested by the Commissioner of Public Lands of the State of New Mexico, hereinafter referred to as "Land Commissioner," and not less than five (5) copies of the revised exhibits shall be filed with the Supervisor, and two (2) copies thereof shall be filed with the Land Commissioner and one (1) copy with the New Mexico Oil Conservation Commission, hereinafter referred to as "Conservation Commission."

The above-described Unit Area shall when practicable be expanded to include therein any such additional lands or shall be contracted to exclude lands whenever such expansion or contraction is deemed to be necessary or advisable to conform with the purposes of this Agreement. Such expansion or contraction shall be effected in the following manner:

- (a) Unit Operator, on its own motion or on demand of the Director of the Geological Survey, hereinafter referred to as "Director," or on demand of the Land Commissioner, but only after preliminary concurrence by the Director and the Land Commissioner, shall prepare a notice of the proposed expansion or contraction describing the contemplated changes in the boundaries of the Unit Area, the reason therefor, and the proposed effective date thereof, preferably the first day of a month subsequent to the date of notice.
- (b) Said notice shall be delivered to the Supervisor, the Land Commissioner and the Conservation Commission and copies thereof mailed to the last known address of each working interest owner, lessee, and lessor whose interests are affected, advising that thirty (30) days will be allowed for submission to the Unit Operator of any objections.
- (c) Upon expiration of the thirty- (30-) day period provided in the preceding item (b) hereof, Unit Operator shall file with the Supervisor, Land Commissioner and Conservation Commission evidence of mailing of the notice of expansion or contraction and a copy of any objections thereto which have been filed with the Unit Operator, together with an application in sufficient number, for approval of such expansion or contraction and with appropriate joinders.
- (d) After due consideration of all pertinent information, the expansion or contraction shall, upon approval by the Supervisor, the Land Commissioner and the Conservation Commission, become effective as of the date prescribed in the notice thereof.
- (e) All legal subdivisions of lands (i.e., 40 acres by Government survey or its nearest lot or tract equivalent; in instances of irregular surveys, unusually large lots or tracts shall be considered in multiples of 40 acres or the nearest aliquot equivalent thereof), no parts of which are entitled to be in a participating area on or before the fifth anniversary of the effective date of the first initial participating area established under this Unit Agreement, shall be eliminated automatically from this Agreement, effective as of said fifth (5th) anniversary, and such lands shall no longer be a part of the Unit Area and shall no longer be subject to this Agreement, unless diligent drilling operations are in progress on Unitized Lands not entitled to participation on said fifth (5th) anniversary, in which event all such lands shall remain subject hereto so long as such drilling operations are continued diligently with not more than ninety (90) days time elapsing between the completion of one well and the commencement of the next well. All legal subdivisions of lands not entitled to be in a participating area within ten (10) years after the effective date of the first initial participating area approved under this Agreement shall be automatically eliminated from this Agreement as of said tenth (10th) anniversary. All

lands proved productive by diligent drilling operations after the aforesaid five-year period shall become participating in the same manner as during said five-year period. However, when such diligent drilling operations cease, all nonparticipating lands shall be automatically eliminated effective as of the ninety-first (91st) day thereafter. The Unit Operator shall within ninety (90) days after the effective date of any elimination hereunder, describe the area so eliminated to the satisfaction of the Supervisor and the Land Commissioner and promptly notify all parties in interest.

If conditions warrant extension of the ten- (10-) year period specified in this subsection 2(e), a single extension of not to exceed two (2) years may be accomplished by consent of the owners of ninety percent (90%) of the working interests in the current nonparticipating Unitized Lands and the owners of sixty percent (60%) of the basic royalty interests (exclusive of the basic royalty interests of the United States) in nonparticipating Unitized Lands with approval of the Director and the Land Commissioner, provided such extension application is submitted to the Director and the Land Commissioner not later than sixty (60) days prior to the expiration of said ten- (10-) year period.

Any expansion of the Unit Area pursuant to this section which embraces lands theretofore eliminated pursuant to this subsection 2(e) shall not be considered automatic commitment or recommitment of such lands.

- 3. UNITIZED LAND AND UNITIZED SUBSTANCES. All land committed to this Agreement shall constitute land referred to herein as "Unitized Land" or "land subject to this Agreement." All oil and gas in any and all formations of the Unitized Land are unitized under the terms of this Agreement and herein are called "Unitized Substances."
- 4. UNIT OPERATOR. U. V. INDUSTRIES, INC. is hereby designated as Unit Operator, and by signature hereto as Unit Operator agrees and consents to accept the duties and obligations of Unit Operator for the discovery, development, and production of Unitized Substances as herein provided. Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator, acting in that capacity and not as an owner of interest in Unitized Substances, and the term "working interest owner" when used herein shall include or refer to Unit Operator as the owner of a working interest when such an interest is owned by it.
- 5. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time prior to the establishment of a participating area or areas hereunder, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after notice of intention to resign has been

served by Unit Operator on all working interest owners, the Supervisor, the Land Commissioner and Conservation Commission, and until all wells then drilled hereunder are placed in a satisfactory condition for suspension or abandonment, whichever is required by the Supervisor as to Federal lands and by the Conservation Commission as to State lands unless a new Unit Operator shall have been selected and approved and shall have taken over and assumed the duties and obligations of Unit Operator prior to the expiration of said period.

Unit Operator shall have the right to resign in like manner and subject to like limitations as above provided at any time a participating area established hereunder is in existence; but, in all instances of resignation or removal, until a successor Unit Operator is selected and approved as hereinafter provided, the working interest owners shall be jointly responsible for performance of the duties of Unit Operator, and shall, not later than thirty (30) days before such resignation or removal becomes effective, appoint a common agent to represent them in any action to be taken hereunder.

The resignation of Unit Operator shall not release Unit Operator from any liability for any default by it hereunder occurring prior to the effective date of its resignation.

The Unit Operator may, upon default or failure in the performance of its duties or obligations hereunder, be subject to removal by the same percentage vote of the owners of working interests as herein provided for the selection of a new Unit Operator. Such removal shall be effective upon notice thereof to the Supervisor and the Land Commissioner.

The resignation or removal of Unit Operator under this Agreement shall not terminate its right, title or interest as the owner of a working interest or other interest in unitized substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all wells, equipment, materials and appurtenances used in conducting the Unit operations to the new duly qualified successor Unit Operator or to the common agent, if no such new Unit Operator is elected, to be used for the purpose of conducting Unit operations hereunder. Nothing herein shall be construed as authorizing removal of any material, equipment and appurtenances needed for the preservation of any wells.

6. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender his or its resignation as Unit Operator or shall be removed as hereinabove provided, or a change of Unit Operator is negotiated by working interest owners, the owners of the working interests in the participating area or areas according to their respective acreage interests in such participating area or areas, or, until a participating area shall have been

established, the owners of the working interests according to their respective acreage interests in all Unitized Land, shall by majority vote select a successor Unit Operator; provided, that, if a majority but less than seventy-five percent (75%) of the working interests qualified to vote are owned by one party to this Agreement, a concurring vote of one or more additional working interest owners shall be required to select a new Operator. Such selection shall not become effective until

- (a) a Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator, and
- (b) the selection shall have been approved by the Supervisor and the Commissioner.

If no successor Unit Operator is selected and qualified as herein provided, the Director and the Land Commissioner at their election may declare this Unit Agreement terminated.

7. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. If the Unit Operator is not the sole owner of working interest, costs and expenses incurred by Unit Operator in conducting Unit operations hereunder shall be paid and apportioned among and borne by the owners of working interests, all in accordance with the Agreement or Agreements entered into by and between the Unit Operator and the owners of working interests, whether one or more, separately or collectively. Any agreement or agreements entered into between the working interest owners and the Unit Operator as provided in this section, whether one or more, are herein referred to as the "Unit Operating Agreement." Such Unit Operating Agreement shall also provide the manner in which the working interest owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereto in conformity with their underlying operating agreements, leases or other independent contracts, and such other rights and obligations as between Unit Operator and the working interest owners as may be agreed upon by Unit Operator and the working interest owners; however, no such Unit Operating Agreement shall be deemed either to modify any of the terms and conditions of this Unit Agreement or to relieve the Unit Operator of any right or obligation established under this Unit Agreement, and in case of any inconsistency or conflict between this Unit Agreement and the Unit Operating Agreement, this Unit Agreement shall govern. Three (3) true copies of any unit operating agreement executed pursuant to this section should be filed with the Supervisor and one (1) true copy with the Land Commissioner, prior to approval of this Unit Agreement.

- 8. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege, and duty of exercising any and all rights of the parties hereto which are necessary or convenient for prospecting for, producing, storing, allocating and distributing the Unitized Substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Acceptable evidence of title to said rights shall be deposited with said Unit Operator and, together with this Agreement, shall constitute and define the rights, privileges and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this Agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.
- 9. DRILLING TO DISCOVERY. Within six (6) months after the effective date hereof, the Unit Operator shall begin to drill an adequate test well at a location approved by the Supervisor if on Federal land, or by the Land Commissioner if on State Land, or by the Conservation Commission if on privately owned land, unless on such effective date a well is being drilled conformably with the terms hereof and thereafter continue such drilling diligently until the Pennsylvanian formation has been tested or until at a lesser depth Unitized Substances shall be discovered which can be produced in paying quantities (to-wit: quantities sufficient to repay the costs of drilling, completing and producing operations, with a reasonable profit) or the Unit Operator shall at any time establish to the satisfaction of the Supervisor if on Federal land, of the Land Commissioner if on State land, or of the Conservation Commission if on privately owned land, that further drilling of a particular well would be unwarranted or impractical, provided, however, that Unit Operator shall not in any event be required to drill said well to a depth in excess of 6,000 feet. Until the discovery of a deposit of Unitized Substances capable of being produced in paying quantities, Unit Operator shall continue drilling diligently one (1) well at a time, allowing not more than six (6) months between the completion of one well and the beginning of the next well, until a well capable of producing Unitized Substances in paying quantities and is completed to the satisfaction of said Supervisor if on Federal land, the Land'Commissioner if on State land, or of the Conservation Commission if on privately owned land, or until it is reasonably proved that the Unitized Land is incapable of producing Unitized Substances in paying quantities in the formation drilled hereunder.

Nothing in this section shall be deemed to limit the right of the Unit Operator to resign as provided in Section 5 hereof, or as requiring Unit Operator to commence or continue any drilling during the period pending such resignation becoming effective in

order to comply with the requirements of this section. The Supervisor may modify the drilling requirements of this section by granting reasonable extensions of time when, in his opinion, such action is warranted. Upon failure to commence any well provided for in this section within the time allowed, including any extension of time granted by the Supervisor, this Agreement will automatically terminate; upon failure to continue drilling diligently any well commenced hereunder, the Supervisor and Land Commissioner may, after fifteen (15) days notice to the Unit Operator, declare this Unit Agreement terminated.

10. PLAN OF FURTHER DEVELOPMENT AND OPERATION. Within six (6) months after completion of a well capable of producing Unitized Substances in paying quantities, the Unit Operator shall submit for approval of the Supervisor and the Land Commissioner an acceptable plan of development and operation for the Unitized Land which, when approved by the Supervisor and Land Commissioner, shall constitute the further drilling and operating obligations of the Unit Operator under this Agreement for the period specified therein. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit for the approval of the Supervisor and Land Commissioner a plan for an additional specified period for the development and operation of the Unitized Land.

Any plan submitted pursuant to this section shall provide for the exploration of the Unitized Area and for the diligent drilling necessary for determination of the area or areas thereof capable of producing Unitized Substances in paying quantities in each and every productive formation and shall be as complete and adequate as the Supervisor and the Land Commissioner may determine to be necessary for timely development and proper conservation of the oil and gas resources of the Unitized Area, and shall:

- (a) specify the number and locations of any wells to be drilled and the proposed order and time for such drilling; and
- (b) to the extent practicable, specify the operating practices regarded as nece sary and advisable for proper conservation of natural resources.

Separate plans may be submitted for separate productive zones, subject to the approval of the Supervisor and the Land Commissioner.

Plans shall be modified or supplemented when necessary to meet changed conditions or to protect the interests of all parties to this Agreement. Reasonable diligence shall be exercised in complying with the obligations of the approved plan of development. The Supervisor and Land Commissioner are authorized to grant a reasonable

extension of the six- (6-) month period herein prescribed for submission of an initial plan of development where such action is justified because of unusual conditions or circumstances. After completion hereunder of a well capable of producing any Unitized Substances in paying quantities, no further wells, except such as may be necessary to afford protection against operations not under this Agreement and such as may be specifically approved by the Supervisor and Land Commissioner, shall be drilled except in accordance with a plan of development approved as herein provided.

11. PARTICIPATION AFTER DISCOVERY. Upon completion of a well capable of producing Unitized Substances in paying quantities or as soon thereafter as required by the Supervisor and Land Commissioner, the Unit Operator shall submit for approval by the Supervisor and the Land Commissioner, a schedule based on subdivisions of the public-land survey or aliquot parts thereof, of all land then regarded as reasonably proved to be productive in paying quantities; all lands in said schedule on approval of the Supervisor and the Land Commissioner to constitute a participating area, effective as of the date of completion of such well or the effective date of this Unit Agreement, whichever is later. The acreages of both Federal and non-Federal lands shall be based upon appropriate computations from the courses and distances shown on the last approved public land survey as of the effective date of each initial participating area. Said schedule shall also set forth the percentage of Unitized Substances to be allocated, as herein provided, to each tract in the participating area so established and shall govern the allocation of production commencing with the effective date of the participating area. A separate participating area shall be established for each separate pool or deposit of Unitized Substances or for any group thereof which is produced as a single pool or zone, and any two or more participating areas so established may be combined into one, on approval of the Supervisor and the Land Commissioner. When production from two or more participating areas so established is subsequently found to be from a common pool or deposit, said participating areas shall be combined into one effective as of such appropriate date as may be approved or prescribed by the Supervisor and the Land Commissioner. The participating area or areas so established shall be revised from time to time, subject to like approval, to include additional land then regarded as reasonably proved to be productive in paying quantities or necessary for Unit operations, or to exclude land then regarded as reasonably proved not to be productive in paying quantities, and the schedule of allocated percentages shall be revised accordingly. The effective date of any revision shall be the first of the month in which is obtained the knowledge or information on which such revision is predicated; provided, however, that a more appropriate effective date may be used if justified by the Unit Operator and approved by the Supervisor and the Land Commissioner.

No land shall be excluded from a participating area on account of depletion of the Unitized Substances, except that any participating area established under the provisions of this Unit Agreement shall terminate automatically whenever all completions in the formation on which the participating area is based are abandoned.

It is the intent of this section that a participating area shall represent the area known or reasonably estimated to be productive in paying quantities, but, regardless of any revision of the participating area, nothing herein contained shall be construed as requiring any retroactive adjustment for production obtained prior to the effective date of the revision of the participating area. In the absence of agreement at any time between the Unit Operator and the Supervisor and the Land Commissioner as to the proper definition or redefinition of a participating area, or until a participating area has, or areas have been established, the portion of all payments affected thereby shall be impounded in a manner mutually acceptable to the owners of working interests and the Supervisor and the Land Commissioner. Royalties due the United States and the State of New Mexico shall be determined by the Supervisor and the Land Commissioner, respectively, and the amounts thereof shall be deposited as directed by the Supervisor and the Land Commissioner to be held as unearned monies until a participating area is finally approved and then applied as earned or returned in accordance with a determination of the sums due as Federal royalty and State of New Mexico royalty, respectively, on the basis of such approved participating area. No land shall be excluded from a participating area on account of depletion of the Unitized Substances, except that any participating area established under the provisions of this Unit Agreement shall terminate automatically whenever all completions in the formation on which the participating area is based are abandoned.

Whenever it is determined, subject to the approval of the Supervisor, as to wells drilled on Federal land, the Land Commissioner as to wells drilled on State land and of the Conservation Commission as to wells drilled on privately owned land that a well drilled under this Agreement is not capable of production in paying quantities and inclusion of the land on which it is situated in a participating area is unwarranted, production from such well shall, for the purpose of settlement among all parties other than working interest owners, be allocated to the land on which the well is located unless such land is already within the participating area established for the pool or deposit from

which such production is obtained. Settlement for working interest benefits from such a well shall be made as provided in the Unit Operating Agreement.

- 12. ALLOCATION OF PRODUCTION. All Unitized Substances produced from each participating area established under this Agreement, except any part thereof used in conformity with good operating practices within the Unitized Area for drilling, operating, camp and other production or development purposes, for repressuring or recycling in accordance with a plan of development approved by the Supervisor, the Land Commissioner and the Conservation Commission, or unavoidably lost, shall be deemed to be produced equally on an acreage basis from the several tracts of Unitized Land of the participating area established for such production and, for the purpose of determining any benefits accruing under this Agreement, each such tract of Unitized Land shall have allocated to it such percentage of said production as the number of acres of such tract included in said participating area bears to the total acres of Unitized Land in said participating area, except that allocation of production hereunder for purposes other than for settlement of the royalty, overriding royalty, or payment out of production obligations of the respective working interest owners, shall be on the basis prescribed in the Unit Operating Agreement where in conformity with the basis of allocation herein set forth or It is hereby agreed that production of Unitized Substances from a otherwise. participating area shall be allocated as provided herein regardless of whether any wells are drilled on any particular part or tract of said participating area. If any gas produced from one participating area is used for repressuring or recycling purposes in another participating area, the first gas withdrawn from such last mentioned participating area for sale during the life of this Agreement shall be considered to be the gas so transferred until an amount equal to that transferred shall be so produced for sale, and such gas shall be allocated to the participating area from which initially produced as such area was last defined at the time of such final production.
- 13. DEVELOPMENT OR OPERATION OF NON-PARTICIPATING LAND OR FORMATIONS. Any party hereto owning or controlling the working interest in any Unitized Land having thereon a regular well location may with the approval of the Supervisor as to Federal land, the Land Commissioner as to State land and the Conservation Commission as to privately owned land, at such party's sole risk, costs, and expense, drill a well to test any formation for which a participating area has not been established or to test any formation for which a participating area has been established if such location is not within said participating area, unless within ninety (90) days of receipt

of notice from said party of his intention to drill the well the Unit Operator elects and commences to drill such a well in like manner as other wells are drilled by the Unit Operator under this Agreement.

If any well as aforesaid by a working interest owner results in production such that the land upon which it is situated may properly be included in a participating area, such participating area shall be established or enlarged as provided in this Agreement, and the well shall thereafter be operated by the Unit Operator in accordance with the terms of this Agreement and the Unit Operating Agreement.

If any well drilled as aforesaid by a working interest owner obtains production in quantities insufficient to justify the inclusion of the land upon which such well is situated in a participating area, such well may be operated and produced by the party drilling the same subject to the conservation requirements of this Agreement. The royalties in amount or value of production from any such well shall be paid as specified in the underlying lease and agreements affected.

14. ROYALTY SETTLEMENT. The United States, the State of New Mexico, and any royalty owner who is entitled to take in kind a share of the substances now unitized hereunder shall hereafter be entitled to the right to take in kind its share of the Unitized Substances, and Unit Operator, or the working interest owner in case of the operation of a well by a working interest owner as herein provided for in special cases, shall make deliveries of such royalty shares taken in kind in conformity with the applicable contracts, laws, and regulations. Settlement for royalty interest not taken in kind shall be made by working interest owners responsible therefor under existing contracts, laws and regulations, or by the Unit Operator, on or before the last day of each month for Unitized Substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations (a), the payment of any royalties due under their leases.

If gas obtained from lands not subject to this Agreement is introduced into any participating area hereunder, for use in repressuring, stimulation of production, or increasing ultimate recovery, in conformity with a plan of operations approved by the Supervisor, the Land Commissioner and the Conservation Commission, a like amount of gas, after settlement as herein provided for any gas transferred from any other participating area and with appropriate deduction for loss from any cause, may be withdrawn from the formation into which the gas is introduced, royalty free as to dry gas, but not as to any products which may be extracted therefrom; provided that such withdrawal shall be at such time as may be provided in the approved plan of operations or

as may otherwise be consented to by the Supervisor, the Land Commissioner and the Conservation Commission, as conforming to good petroleum engineering practice; and provided further, that such right of withdrawal shall terminate on the termination date of this Unit Agreement.

Royalty due the United States shall be computed as provided in the operating regulations and paid in value or delivered in kind as to all Unitized Substances on the basis of the amounts thereof allocated to unitized Federal Land as provided herein at the rate specified in the respective Federal leases, or at such lower rate or rates as may be authorized by law or regulation; provided, that for leases on which the royalty rate depends on the daily average production per well, said average production shall be determined in accordance with the operating regulations as though each participating area were a single consolidated lease.

Royalty due the State of New Mexico shall be computed and paid on the basis of the amounts allocated to unitized State land as provided herein at the rate specified in the State oil and gas lease.

Royalty due on account of privately owned lands shall be computed and paid on the basis of all Unitized Substances allocated to such lands.

15. RENTAL SETTLEMENT. Rental or minimum royalties due on leases committed hereto shall be paid by working interest owners responsible therefor under existing contracts, laws and regulations, provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum royalty due under their leases. Rental or minimum royalty for lands of the United States subject to this Agreement shall be paid at the rate specified in the respective leases from the United States unless such rental or minimum royalty is waived, suspended or reduced by law or by approval of the Secretary or his duly authorized representative. Rentals on State of New Mexico lands subject to this Agreement shall be paid at the rates specified in the respective leases.

With respect to any lease on non-Federal land containing provisions which would terminate such lease unless drilling operations are commenced upon the land covered thereby within the time therein specified or rentals are paid for the privilege of deferring such drilling operations, the rentals required thereby shall, notwithstanding any other provisions of this Agreement, be deemed to accrue and become payable during the term thereof as extended by this Agreement and until the required drilling operations are commenced upon the land covered thereby or until some portion of such land is included within a participating area.

- 16. CONSERVATION. Operations hereunder and production of Unitized Substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to State or Federal law or regulation.
- 17. DRAINAGE. The Unit Operator shall take such measures as the Supervisor and Land Commissioner deem appropriate and adequate to prevent drainage of Unitized Substances from Unitized Land by wells on land not subject to this Agreement.
- 18. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operations for oil or gas on lands committed to this Agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect, the parties hereto hereby consent that the Secretary as to Federal leases, and the Land Commissioner as to State leases, shall and each by his approval hereof, or by the approval hereof by his duly authorized representative, does hereby establish, alter, change or revoke the drilling, producing, rental, minimum royalty, and royalty requirements of Federal and State leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement, and, without limiting the generality of the foregoing, all leases, subleases and contracts are modified in accordance with the following:
- (a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each and every separately owned tract subject to this Agreement, regardless of whether there is any development of any particular tract of the Unit Area.
- (b) Drilling and producing operations performed hereunder upon any tract of Unitized Lands will be accepted and deemed to be performed upon and for the benefit of each and every tract of Unitized Land, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on the land therein embraced.
- (c) Suspension of drilling or producing operations on all Unitized Lands pursuant to direction or consent of the Secretary and the Land Commissioner or their duly authorized representatives shall be deemed to constitute such suspension pursuant to such direction or consent as to each and every tract of Unitized Land. A suspension of drilling or producing operations limited to specified lands shall be applicable only to such lands.

- (d) Each lease, sublease or contract relating to the exploration, drilling, development or operation for oil or gas of lands other than those of the United States committed to this Agreement, which, by its terms might expire prior to the termination of the Agreement, is hereby extended beyond any such terms so provided therein so that it shall be continued in full force and effect for and during the term of this Agreement.
- (e) Any Federal lease for a fixed term of twenty (20) years or any renewal thereof or any part of such lease which is made subject to this Agreement shall continue in force beyond the term provided therein until the termination thereof. Any other Federal lease committed hereto shall continue in force beyond the term so provided therein or by law as to the land committed so long as such lease remains subject hereto, provided that production is had in paying quantities under this Unit Agreement prior to the expiration date of the term of such lease, or in the event actual drilling operations are commenced on Unitized Land, in accordance with the provisions of this Agreement, prior to the end of the primary term of such lease and are being diligently prosecuted at that time, such lease shall be extended for two years and so long thereafter as oil or gas is produced in paying quantities in accordance with the provisions of the Mineral Leasing Act Revision of 1960.
- (f) Each sublease or contract relating to the operation and development of Unitized Substances from lands of the United States committed to this Agreement, which by its terms would expire prior to the time at which the underlying lease, as extended by the immediately preceding paragraph, will expire, is hereby extended beyond any such term so provided therein so that it shall be continued in full force and effect for and during the term of the underlying lease as such term is herein extended.
- (g) Any lease embracing lands of the State of New Mexico which is made subject to this Agreement shall continue in force beyond the term provided therein as to lands committed hereto with the termination hereof.
- (h) The segregation of any Federal lease committed to this Agreement is governed by the following provisions in the fourth paragraph of Sec. 17(j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 781-784): "Any (Federal) lease heretofore or hereafter committed to any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization; Provided, however, That any such lease as to the nonunitized portion shall continue in force and effect for the term thereof but for not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in paying quantities."

- Any lease embracing lands of the State of New Mexico having only a (i) portion of its land committed hereto, shall be segregated as to the portion committed and the portion not committed, and the provisions of such lease shall apply separately to such segregated portions commencing as of the effective date hereof; provided, however, notwithstanding any of the provisions of this Agreement to the contrary, any lease embracing lands of the State of New Mexico having only a portion of its lands committed hereto shall continue in full force and effect beyond the term provided therein as to all lands embraced in such lease, if oil or gas is discovered and is capable of being produced in paying quantities from some part of the lands embraced in such lease at the expiration of the secondary term of such lease; or if, at the expiration of the secondary term, the lessee or the Unit Operator is then engaged in bona fide drilling or reworking operations on some part of the lands embraced in such lease, the same, as to all lands embraced therein, shall remain in full force and effect so long as such operations are being diligently prosecuted, and if they result in the production of oil or gas, said lease shall continue in full force and effect as to all of the lands embraced therein, so long thereafter as oil or gas in paying quantities is being produced from any portion of said lands.
- (j) Any lease, other than a Federal lease, having only a portion of its lands committed hereto shall be segregated as to the portion committed and the portion not committed, and the provisions of such lease shall apply separately to such segregated portions commencing as of the effective date hereof. In the event any such lease provides for a lump-sum rental payment, such payment shall be prorated between the portions so segregated in proportion to the acreage of the respective tracts.
- 19. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this Agreement terminates, and any grant, transfer, or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee, or other successor in interest. No assignment or transfer of any working interest, royalty, or other interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, photostatic or certified copy of the instrument of transfer.
- 20. EFFECTIVE DATE AND TERM. This Agreement shall become effective upon approval by the Secretary and the Land Commissioner or their duly authorized representative and shall terminate five (5) years from said effective date unless:

- (a) Such date of expiration is extended by the Director and the Land Commissioner, or
- (b) It is reasonably determined prior to the expiration of the fixed term or any extension thereof that the Unitized Land is incapable of production of Unitized Substances in paying quantities in the formations tested hereunder and after notice of intention to terminate the Agreement on such ground is given by the Unit Operator to all parties in interest at their last known addresses, the Agreement is terminated with the approval of the Supervisor and Land Commissioner, or
- (c) A valuable discovery of Unitized Substances has been made or accepted on Unitized Land during said initial term or any extension thereof, in which event the Agreement shall remain in effect for such term and so long as Unitized Substances can be produced in quantities sufficient to pay for the cost of producing same from wells on Unitized Land within any participating area established hereunder and, should production cease, so long thereafter as diligent operations are in progress for the restoration of production or discovery of new production and so long thereafter as Unitized Substances so discovered can be produced as aforesaid, or
- (d) It is terminated as heretofore provided in this Agreement. This Agreement may be terminated at any time by not less than seventy-five percent (75%), on an acreage basis, of the working interest owners signatory hereto, with the approval of the Supervisor and Land Commissioner; notice of any such approval to be given by the Unit Operator to all parties hereto.
- 21. RATE OF PROSPECTING, DEVELOPMENT AND PRODUCTION. The Director is hereby vested with authority to alter or modify from time to time in his discretion the quantity and rate of production under this Agreement when such quantity and rate is not fixed pursuant to Federal or State law or does not conform to any statewide voluntary conservation or allocation program which is established, recognized and generally adhered to by the majority of operators in such State, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification. Without regard to the foregoing, the Director is also hereby vested with authority to alter or modify from time to time in his discretion the rate of prospecting and development and the quantity and rate of production under this Agreement when such alteration or modification is in the interest of attaining the conservation objectives stated in this

Agreement and is not in violation of any applicable Federal or State law; provided, further, that no such alteration or modification shall be effective as to any land of the State of New Mexico, as to the rate of prospecting and developing in the absence of the specific written approval thereof by the Commissioner and as to any lands of the State of New Mexico or privately owned lands subject to this Agreement as to the quantity and rate of production in the absence of specific written approval thereof by the Commission.

Powers in this section vested in the Director shall only be exercised after notice to Unit Operator and opportunity for hearing to be held not less than fifteen (15) days from notice.

- 22. CONFLICT OF SUPERVISION. Neither the Unit Operator nor the working interest owners nor any of them shall be subject to any forfeiture, termination or expiration of any rights hereunder or under any leases or contracts subject hereto, or to any penalty or liability on account of delay or failure in whole or in part to comply with any applicable provision thereof to the extent that the Unit Operator, working interest owners or any of them are hindered, delayed or prevented from complying therewith by reason of failure of the Unit Operator to obtain in the exercise of due diligence, the concurrence of proper representatives of the United States and proper representatives of the State of New Mexico in and about any matters or thing concerning which it is required herein that such concurrence be obtained. The parties hereto, including the Conservation Commission in and by any provisions of this by it pursuant to the provisions of the laws of the State of New Mexico and subject in any case to appeal or judicial review as may now or hereafter be provided by the laws of the State of New Mexico.
- 23. APPEARANCES. Unit Operator shall, after notice to other parties affected, have the right to appear for and on behalf of any and all interests affected hereby before the Department of the Interior, the Commissioner of Public Lands of the State of New Mexico and the New Mexico Oil Conservation Commission and to appeal from orders issued under the regulations of said Department, the Conservation Commission or Land Comissioner or to apply for relief from any of said regulations or in any proceedings relative to operations before the Department of the Interior, the Land Commissioner, or Conservation Commission or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his own expense to be heard in any such proceeding.

- 24. NOTICES. All notices, demands or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if given in writing and personally delivered to the party or sent by postpaid registered or certified mail, addressed to such party or parties at their respective addresses set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party may have furnished in writing to party sending the notice, demand or statement.
- 25. NO WAIVER OF CERTAIN RIGHTS. Nothing in this Agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right or defense as to the validity or invalidity of any law of the State wherein said Unitized Lands are located, or of the United States, or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive.
- 26. UNAVOIDABLE DELAY. All obligations under this Agreement requiring the Unit Operator to commence or continue drilling or to operate on or produce Unitized Substances from any of the lands covered by this Agreement shall be suspended while the Unit Operator, despite the exercise of due care and diligence, is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State or municipal law or agencies, unavoidable accidents, uncontrollable delays in transportation, inability to obtain necessary materials in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not. No Unit obligation which is suspended under this section shall become due less than thirty (30) days after it has been determined that the suspension is no longer applicable. Determination of creditable "unavoidable delay" time shall be made by the Unit Operator subject to approval of the Supervisor and the Land Commissioner.
- 27. NONDISCRIMINATION. In connection with the performance of work under this Agreement, the Unit Operator agrees to comply with all the provisions of section 202 (1) to (7) inclusive of Executive Order 11246 (30 F.R. 12319), which are hereby incorporated by reference in this Agreement.
- 28. LOSS OF TITLE. In the event title to any tract of Unitized Land shall fail and the true owner cannot be induced to join in this Unit Agreement, such tract shall be automatically regarded as not committed hereto and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title as to any royalty, working interest, or other interests subject

thereto, payment or delivery on account thereof may be withheld without liability for interest until the dispute is finally settled; provided, that, as to Federal and State land or leases, no payments of funds due the United States or the State of New Mexico should be withheld, but such funds of the United States shall be deposited as directed by the Supervisor and such funds of the State of New Mexico shall be deposited as directed by the Land Commissioner to be held as unearned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

Unit Operator as such is relieved from any responsibility for any defect or failure of any title hereunder.

29. NON-JOINDER AND SUBSEQUENT JOINDER. If the owner of any substantial interest in a tract within the Unit Area fails or refuses to subscribe or consent to this Agreement, the owner of the working interest in that tract may withdraw said tract from this Agreement by written notice delivered to the Supervisor, the Land Commissioner and the Unit Operator prior to the approval of this Agreement by the Supervisor. Any oil or gas interests in lands within the Unit Area not committed hereto prior to submission of this Agreement for final approval may thereafter be committed hereto by the owner or owners thereof subscribing or consenting to this Agreement, and, if the interest is a working interest, by the owner of such interest also subscribing to the Unit Operating Agreement. After operations are commenced hereunder, the right of subsequent joinder, as provided in this section, by a working interest owner is subject to such requirements or approvals, if any, pertaining to such joinder, as may be provided for in the Unit Operating Agreement. After final approval hereof, joinder by a non-working interest owner must be consented to in writing by the working interest owner committed hereto and responsible for the payment of any benefits that may accrue hereunder in behalf of such non-working interest. A non-working interest may not be committed to this Unit Agreement unless the corresponding working interest is committed hereto. Joinder to the Unit Agreement by a working interest owner, at any time, must be accompanied by appropriate joinder to the Unit Operating Agreement if more than one committed working interest owner is involved, in order for the interest to be regarded as committed to this Unit Agreement. Except as may otherwise herein be provided, subsequent joinders to this Agreement shall be effective as of the first day of the month following the filing with the Supervisor, the Land Commissioner and the Conservation Commission of duly executed counterparts of all or any papers necessary to establish effective commitment of any tract to this Agreement, unless objection to such joinder is duly made within sixty (60) days by the Supervisor or Land Commissioner, provided, that, as to State lands, all subsequent joinders must be approved by the Land Commissioner.

- 30. COUNTERPARTS. This Agreement may be executed in any number of counterparts no one of which needs to be executed by all parties or may be ratified or consented to by separate instrument in writing specifically referring hereto and shall be binding upon all those parties who have executed such a counterpart, ratification, or consent hereto with the same force and effect as if all such parties had signed the same document and regardless of whether or not it is executed by all other parties owning or claiming an interest in the lands within the above-described Unit Area.
- 31. SURRENDER. Nothing in this Agreement shall prohibit the exercise by any working interest owner of the right to surrender vested in such party by any lease, sublease, or operating agreement as to all or any part of the lands covered thereby, provided that each party who will or might acquire such working interest by such surrender or by forfeiture as hereafter set forth, is bound by the terms of this Agreement.

If as a result of any such surrender the working interest rights as to such lands become vested in any party other than the fee owner of the Unitized Substances, said party may forfeit such rights and further benefits from operation hereunder as to said land to the party next in the chain of title who shall be and become the owner of such working interest.

If as the result of any such surrender or forfeiture, working interest rights become vested in the fee owner of the Unitized Substances, such owner may:

- (1) Accept those working interest rights subject to this Agreement and the Unit Operating Agreement; or
- (2) Lease the portion of such land as is included in a participating area established hereunder subject to this Agreement and the Unit Operating Agreement; or
- (3) Provide for the independent operation of any part of such land that is not then included within a participating area established hereunder.

If the fee owner of the Unitized Substances does not accept the working interest rights subject to this Agreement and the Unit Operating Agreement or lease such lands as above provided within six (6) months after the surrendered or forfeited working interest rights become vested in the fee owner, the benefits and obligations of operations accruing to such lands under this Agreement and the Unit Operating Agreement shall be shared by the remaining owners of unitized working interests in accordance with their respective working interest ownerships, and such owners of working interests shall compensate the fee owner of Unitized Substances in such lands by paying sums equal to the rentals, minimum royalties, and royalties applicable to such lands under the lease in effect when the lands were unitized.

An appropriate accounting and settlement shall be made for all benefits accruing to or payments and expenditures made or incurred on behalf of such surrendered or forfeited working interest subsequent to the date of surrender or forfeiture, and payment of any monies found to be owing by such an accounting shall be made as between the parties within thirty (30) days. In the event no Unit Operating Agreement is in existence and a mutually acceptable agreement between the proper parties thereto cannot be consummated, the Supervisor may prescribe such reasonable and equitable agreement as he deems warranted under the circumstances.

The exercise of any right vested in a working interest owner to reassign such working interest to the party from whom obtained shall be subject to the same conditions as set forth in this section in regard to the exercise of a right to surrender.

- 32. TAXES. The working interest owners shall render and pay for their account and the account of the royalty owners all valid taxes on or measured by the Unitized Substances in and under or that may be produced, gathered and sold from the land subject to this contract after the effective date of this Agreement, or upon the proceeds or net proceeds derived therefrom. The working interest owners on each tract shall and may charge the proper proportion of said taxes to the royalty owners having interests in said tract, and may currently retain and deduct sufficient of the Unitized Substances of derivative products, or net proceeds thereof from the allocated share of each royalty owner to secure reimbursement for the taxes so paid. No such taxes shall be charged to the United States or the State of New Mexico or to any lessor who has a contract with his lessee which requires the lessee to pay such taxes.
- 33. NO PARTNERSHIP. It is expressly agreed that the relation of the parties hereto is that of independent contractors and nothing in this Agreement contained, expressed or implied, nor any operations conducted hereunder, shall create or be deemed to have created a partnership or association between the parties hereto or any of them.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed and have set opposite their respective names the date of execution.

### UNIT OPERATOR AND WORKING INTEREST OWNERS

ATTEST:		Ву		
	•	Address: _		
	<del></del>		·····	
Date of Execution:				
				•

STATE OF	}
COUNTY OF	) ss. )
On this day of	, 19 , before me appeared , to me personally known, who, being by
me duly sworn, did say that he is the	President of , and that the seal affixed to
	aid corporation, and that said instrument was ation by authority of its board of directors, and acknowledged said instrument to be the
free act and deed of said corporation.	
	Notary Public
My Commission expires:	

Case 5849

#### APPLICATION FOR HEARING

CONSERVATION COMMISSION STATE OF NEW MEXICO

COMES NOW, KING RESOURCES COMPANY, by its duly appointed attorney, as Unit Proponent herein, in support of its application for a hearing on February 2nd before the New Mexico State Conservation Commission to determine the matter of KING RESOURCES COMPANY's application for the Commission's approval to form the Long Canyon Unit, and recites the following:

That KING RESOURCES COMPANY, a Maine corporation, desires and proposes to form an exploratory drilling unit named "Long Canyon Unit," composed of 14,451.86 acres, more or less, of Federally-owned land and 4,428.15 acres of State of New Mexico lands, for a total Unit Area of 18,880.01 acres, more or less, all in Chaves County, 4428.15 Staw 4451.86 Fed 4451.86 Fed New Mexico, which proposed Unit Area is described as follows:

All of Secs. 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, 36 120S-R19E

All of Secs. 1, 2, 3

All of Secs. 7, 8, 17, 18, 19, 20, 29, 30, 31, 32

T20S-R20E

- 2. That KING RESOURCES COMPANY desires and proposes that all geological formations under the proposed Unit outline be unitized.
- That it is expected that by the time of the February 2nd hearing all of the working interest owners within the proposed Unit outline will have been given an opportunity to commit their respective interests to the Unit plan; that it is expected that by the above date a sufficient number of working interest owners will have committed their interest to the Unit plan to give the Unit Proponent adequate control over the proposed Unit Area.
- That it is expected that by the time of the February 2nd hearing all owners of overriding royalty interests pertaining to leases within the proposed Unit outline will have been given notice of the proposed Unit and will have been given an opportunity to commit their respective overriding royalty interests to the Unit plan.
- 5. That the State of New Mexico Land Office has given its preliminary approval to the proposed Unit Area, the proposed Unit Agreement and to the general plan to unitize the above described area (see Exhibit "A").

6. That it is expected that by the time of the February 2nd hearing the United States Geological Survey will have designated the proposed Unit Area as an area logically subject to co-operative exploration and unitization in conformity with the pertinent Federal regulations.

THEREFORE, in the interest of conservation, prevention of waste and protection of correlative rights, the Unit Proponent herein, KING RESOURCES COMPANY, respectfully requests that the matter of the unitization of its proposed Long Canyon Unit be set for hearing on February 2, 1977 before the New Mexico State Conservation Commission.

JASON KELLAHIN Attorney for Applicant

KELLAHIN & FOX P. O. Box 1769 Santa Fe, New Mexico 87501

Case 5849

#### APPLICATION FOR HEARING

CONSERVATION COMMISSION )
STATE OF NEW MEXICO )

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T19S-R19E
All of Secs. 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, 36

T20S-R19E
All of Secs. 1, 2, 3

T19S-R20E
All of Secs. 7, 8, 17, 18, 19, 20, 29, 30, 31, 32

T20S-R20E
All of Sec. 6

- 2. That KING RESOURCES COMPANY desires and proposes that all geological formations under the proposed Unit outline be unitized.
- 3. That it is expected that by the time of the February 2nd hearing all of the working interest owners within the proposed Unit outline will have been given an opportunity to commit their respective interests to the Unit plan; that it is expected that by the above date a sufficient number of working interest owners will have committed their interest to the Unit plan to give the Unit Proponent adequate control over the proposed Unit Area.
- 4. That it is expected that by the time of the February 2nd hearing all owners of overriding royalty interests pertaining to leases within the proposed Unit outline will have been given notice of the proposed Unit and will have been given an opportunity to commit their respective overriding royalty interests to the Unit plan.
- 5. That the State of New Mexico Land Office has given its preliminary approval to the proposed Unit Area, the proposed Unit Agreement and to the general plan to unitize the above described area (see Exhibit "A").

6. That it is expected that by the time of the February 2nd hearing the United States Geological Survey will have designated the proposed Unit Area as an area logically subject to co-operative exploration and unitization in conformity with the pertinent Federal regulations.

THEREFORE, in the interest of conservation, prevention of waste and protection of correlative rights, the Unit Proponent herein, KING RESOURCES COMPANY, respectfully requests that the matter of the unitization of its proposed Long Canyon Unit be set for hearing on February 2, 1977 before the New Mexico State Conservation Commission.

SASON KELLAHIN
Attorney for Applicant

KELLAHIN & FOX
P. O. Box 1769
Santa Fe, New Mexico 87501

# APPLICATION FOR HEARING

CONSERVATION COMMISSION
)
STATE OF NEW MEXICO
)

COMES NOW, KING RESOURCES COMPANY, by its duly appointed attorney, as Unit Proponent herein, in support of its application for a hearing on February 2nd before the New Mexico State Conservation Commission to determine the matter of KING RESOURCES COMPANY's application for the Commission's approval to form the Long Canyon Unit, and recites the following:

1. That KING RESOURCES COMPANY, a Maine corporation, desires and proposes to form an exploratory drilling unit named "Long Canyon Unit," composed of 14,451.86 acres, more or less, of Federally-owned land and 4,428.15 acres of State of New Mexico lands, for a total Unit Area of 18,880.01 acres, more or less, all in Chaves County, New Mexico, which proposed Unit Area is described as follows:

T19S-R19E
All of Secs. 10, 11, 12, 13, 14, 15, 22, 23, 24, 25, 26, 27, 34, 35, 36

T20S-R19E
All of Secs. 1, 2, 3

T19S-R20E
All of Secs. 7, 8, 17, 18, 19, 20, 29, 30, 31, 32

T20S-R20E
All of Sec. 6

- 2. That KING RESOURCES COMPANY desires and proposes that all geological formations under the proposed Unit outline be unitized.
- 3. That it is expected that by the time of the February 2nd hearing all of the working interest owners within the proposed Unit outline will have been given an opportunity to commit their respective interests to the Unit plan; that it is expected that by the above date a sufficient number of working interest owners will have committed their interest to the Unit plan to give the Unit Proponent adequate control over the proposed Unit Area.
- 4. That it is expected that by the time of the February 2nd hearing all owners of overriding royalty interests pertaining to leases within the proposed Unit outline will have been given notice of the proposed Unit and will have been given an opportunity to commit their respective overriding royalty interests to the Unit plan.
- 5. That the State of New Mexico Land Office has given its preliminary approval to the proposed Unit Area, the proposed Unit Agreement and to the general plan to unitize the above described area (see Exhibit "A").

6. That it is expected that by the time of the February 2nd hearing the United States Geological Survey will have designated the proposed Unit Area as an area logically subject to co-operative exploration and unitization in conformity with the pertinent Federal regulations.

THEREFORE, in the interest of conservation, prevention of waste and protection of correlative rights, the Unit Proponent herein, KING RESOURCES COMPANY, respectfully requests that the matter of the unitization of its proposed Long Canyon Unit be set for hearing on February 2, 1977 before the New Mexico State Conservation Commission.

JASON KELLAHIN Attorney for Applicant

KELLAHIN & FOX P. O. Box 1769 Santa Fe, New Mexico 87501

## BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE No. \_

Order No. R- 5366

KING RESOURCES COMPANY APPLICATION OF FOR APPROVAL OF THE LONG CANYON UNIT AGREEMENT, CHAVES COUNTY, NEW MEXICO.

### ORDER OF THE COMMISSION

## BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on February 2 , 1967 , at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this\_\_\_ \_\_day of February , 1967 , the Commission, a quorum being present, 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 Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, King Resources Company seeks approval of the Long Canyon Unit Agreement State and covering 18,880.01 acres, more or less, of Federal lands **SOT** XBHSK described as follows:

CHAVES COUNTY, NEW MEXICO TOWNSHIP 19 South, RANGE 19 East, NMPM

Sections 10 through 15: All -Sections 22 through 27: All -

Sections 34 through 36: All V

TOWNSHIP 19 South, RANGE 20 EAST, NMPM

Sections 7 and 8: All Sections 17 through 20: All -Sections 29 through 32: All -

Jeetions 1 through 3: All &

TOWNSHIP 20 SOUTH, RANGE 20 EAST, NMPM

Jection 6: All

(3) That approval of the proposed unit agreement should promote the prevention of waste and the protection of correlative rights within the unit area.

#### IT IS THEREFORE ORDERED:

	(1)	That	the	Long Canyon	Unit	Agreement
is	hereby	approv	ed.	्राप्त करिया है। इस स्वरंग के प्राप्त करिया है। The state of the stat		

- (2) That the plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, that notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Commission to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.
- (3) That the unit operator shall file with the Commission an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; that in the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Commission within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.
- of said unit agreement by the Commissioner of Public Lands for the State of New Mexico and the Director of the United States Geological Survey; that this order shall terminate <u>ipso facto</u> upon the termination of said unit agreement; and that the last unit operator shall notify the Commission immediately in writing of such termination.
- (5) 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 Menico, on the day and year hereinabove designated.

County	Operator	Unit Name
CHAVES	U. V. INDUSTRIES	LONG CANYON UNIT-EXPLORATORY

Commissioner 2-28-77	APPROVED	DATE
0CC: 2-8-77	OCC ORDER NO R	OCC CASE NO. 5849
	R-5366	849
3-9-77	DATE	EFFECTIVE
18,880.01	ACREAGE	TATOT
4,428.15	STATE	
14,451,86	<b>ドヤリドRAT</b>	
-0-	TNDT AN EFE	
Yes	SEGREGATION	
TERM 5 yrs.		

UNIT AREA

TOWNSHIP 19 SOUTH, RANGE 19 EAST, NMPS Sections 10 through 15: All Sections 22 through 27: All Sections 34 through 36: All

TOWNSHIP 19 SOUTH, RANGE 20 EAST, NMPM

Sections 7 and 8: AII Sections 17 through 20: AII Sections 29 through 32: AII

Unit Name LONG CANYON UNIT-EXPLORATORY
Operator U.V. INDUSTRIES
COUNTY CHAVES

38.	37.	36•	35•	34.	33.	32	31	30	29	28	27	26	STATE TRACT NO.
LG-2475-1	LG-2419-1	IG-1791-1	IG-1790-1	LG-1789-1	LG-0686	L-4323-3	I-3055	L-2917-3	L-2757	L-2755	L-2754-3	L-1021-4	LEASE NO.
Port.	Port.	c.s.	Port. Normal	C.S.	C.S.	C.S.	c.s.	C.S.	C.S.	Port. Normal	C.S.	C.S.	INSTI-
12	35	<b>10</b>	23 24 26	23 26	ш	34	12 13 14	36	<b>20</b>	7 8 17	18	32	SEC.
198	198	208	198 198 198	19S 19S	208	198	198 198 198	198	198	198 198 198	198	198	IWP.
19E	19E	19E	19E	19E	19E	19E	19E 19E	19E	20E	20E 20E 20E	20E	20E	RGE.
SW/4NW/4, W/2SW/4	S/2SE/4	Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 8/2	SE/4NE/4, E/2SE/4 NW/4NW/4 E/2NE/4, SE/4SE/4	NE/4NE/4 N/2SW/4, N/2SE/4, SW/4SE/4	Ē/2SE/4	S/2S/2	S/2SW/4 N/2NM/4 SE/4SE/4	All	N/2N/2, SW/4NW/4, NW/4SW/4, S/2S/2	Lot 4, SE/4SW/4,S/2SE/4 S/2SW/4 NW/4	SE/4	<b>A11</b>	SUBSECTION
1-27-77 1-14-77	1-27-77 1-14-77	1-27-77 1-14-77	1-27-77 1-14-77	1-27-77 1-14-77		1-14-77	1-19-77	1-14-77		1-14-77	1-14-77	1-14-77	RATIFIED DATE
200.00	80.00	727.88	280.00	240.00	80.00	160.00	200.00	640.00	400.00	398.41	160.00	640.00	ACRES
*: 	•	• •											ACREAGE NOT RATIFIED
Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Robert K. Hillin King Resources Co.	Aminoil USA.Inc.	King Resources Co.	Globe Minerals, Inc. U.V. Industries, Inc.	King Resources Co.	Michael P. Grace	King Resources Co.	King Resources Co.	King Resources Co.	LESSEE

Unit Name Operator County LONG CANYON UNIT-EXPLORATORY
U. V. Industries
CHAVES

		101.86		Lots 1, 8 & 9	19E	208	<b>نىر</b>	C.S.	Unleased	41
		80.00		s/2sw/4	19E	198	35	C.B.	Unleased	40
Great Western Drilling		40.00	NOT COMMITTED	NE/4NE/4	20E	198	31	C.S.	LG-2476	39
LESSEE	ACREAGE NOT RATIFIED	ACRES	RATIFIED DATE	SUBSECTION	RGE.	TWP.	SEC.	INSTI-	LEASE NO.	STATE TRACT NO.

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