

Case No.

6564

Large

Exhibits

Memo

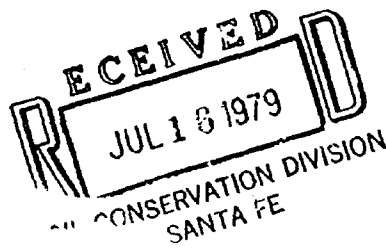
From

MELBA CARPENTER

7/11/79

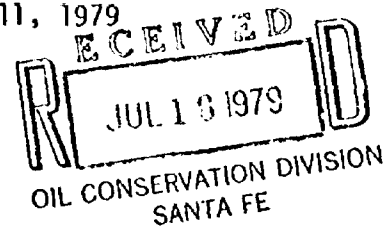
To Dan

Here it is, such as it is! He brought it in today.



OIL CONSERVATION COMMISSION-HOBBS

July 11, 1979



Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240

Attention Mr. Jerry Sexton

Gentlemen:

I have checked the location of the O. A. Woody Well No. 1 located 2310 feet from the north line and 330 feet from the west line of Section 35, T-16-S, R-38-E, Lea County, New Mexico, and find that it does not interfere with my pivot irrigation system.

Yours very truly,

A handwritten signature in cursive script that reads "Dwain Woody". The signature is written in dark ink and is positioned above the printed name.

Dwain Woody

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico
13 June 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Herndon Oil & Gas Co.
for an unorthodox oil well location,
Lea County, New Mexico.

CASE
6564

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87503

For the Applicant:

SOMNER S. KOCH, Esq.
WHITE, KOCH, KELLY & MCCARTHY
220 Otero Street
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (945) 471-2452
Santa Fe, New Mexico 87501

I N D E X

1		
2		
3	MICHAEL DeMARCO	
4	Direct Examination by Mr. Koch	3
5	Cross Examination by Mr. Nutter	10
6		
7	CLEO EUGENE BUCK	
8	Direct Examination by Mr. Koch	12
9		
10	STATEMENT BY MR. WOODY	18
11		
12	DISCUSSION	
13		34
14		
15		
16	Applicant Exhibit One, Plat	4
17	Applicant Exhibit Two, Structure Map	5
18	Applicant Exhibit Three, Plat	5
19	Applicant Exhibit Four, Isocum Map	6
20	Applicant Exhibit Five, Cross Section	7
21		
22	Woody Exhibit A, Photograph	19
23	Woody Exhibit B, B-1, B-2, Information	22
24		
25		

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (888) 411-2465
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2026 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 MR. NUTTER: We'll continue at this time
2 and call now Case Number 6564.

3 MR. PADILLA: Application of Herndon Oil
4 and Gas Company for an unorthodox well location in Lea
5 County, New Mexico.

6 MR. KOCH: My name is Sumner S. Koch, with
7 the firm of White, Koch, Kelly & McCarthy, Santa Fe, New
8 Mexico, appearing on behalf of the applicant.

9 MR. NUTTER: Call for other appearances
10 in this case.

11 MR. WOODY: I'm Dwain Woody and I pre-
12 sently farm the area that the application is on.

13 MR. NUTTER: And how do you spell your
14 name, Mr. Woody? Dwain Woody?

15 MR. WOODY: D-W-A-I-N W-O-O-D-Y.

16 MR. NUTTER: Thank you.

17 MR. NUTTER: Go ahead, Mr. Koch.

18 MR. KOCH: I'd like to present two wit-
19 nesses. Mr. DeMarco, Mr. Buck.

20
21 (Witnesses sworn.)

22
23 MICHAEL DeMARCO
24 being called as a witness and having been duly sworn upon
25 his oath, testified as follows, to-wit:

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

DIRECT EXAMINATION

BY MR. KOCH:

Q Mr. DeMarco, will you please state your full name, address, and occupation?

A Michael J. DeMarco, D-E-M-A-R-C-O. I'm a consulting engineer in Midland, Texas.

Q And how long have you been a consulting engineer?

A Been on my own for the last two months. I've been -- I've worked in the State of New Mexico, New Mexico and Texas, for the past eighteen years.

I have appeared before the Conservation Commission several times in the past.

Q And when you previously appeared, did you qualify as an expert witness?

A Yes, sir, I did.

MR. KOCH: Does the Examiner wish any more identification of Mr. --

MR. NUTTER: No. The witness is qualified.

Q (Mr. Koch continuing.) Mr. DeMarco, I hand you what has been marked as Exhibit One. Would you identify that, please?

A Exhibit One is the location plat that was sent to the Commission requesting application for this

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

1 hearing for unorthodox location for Herndon Oil and Gas No.
2 1 Woody Well. The location is 1930 from the north line and
3 660 from the west line, Section 35, Township 16 South, Range
4 38 East.

5 The location plat shows the existence of
6 wells previously drilled and completed in the Knowles-
7 Devonian Pool. There are six wells that are abandoned now,
8 one producing well, the Amerada Hamilton A No. 2, and one
9 salt water disposal well, the Amerada Axvig No. 1. A-X-V-I-G.

10 Q Now, continuing with the exhibits, I'll
11 show you what is marked as Exhibit Two.

12 A Exhibit Two is a structure map contoured on
13 top of the Devonian. It shows the proposed location and it
14 also shows the original oil-water contact for the Knowles-
15 Devonian Pool.

16 This well will be approximately 200 feet
17 above the original oil-water contact.

18 Q I show you what is marked Exhibit Three.
19 Would you please identify that for the Examiner?

20 A Exhibit Three is a plat showing the deter-
21 mination of the oil-water contact based on drill stem test
22 data in the -- in all the wells that were drilled the --
23 the wells that were drill stem tested.

24 The discovery well was the Hamilton No. 1
25 in Section 35 and they -- that well tested water-free to a

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2010 Plaza Blanca (505) 471-2482
Santa Fe, New Mexico 87501

1 -8921, and they picked up water on drill stem test from a
2 -8921 to a -8949, and this ascertained the original oil-
3 water contact. The rest of the wells, just to note, were
4 drill stem test data indicate water-free down to that point.

5 Q And would you please identify what is
6 marked Exhibit Four?

7 A Exhibit Four is an Isocum map that's been
8 prepared for the Knowles-Devonian Field, showing that the
9 recoveries from existing wells, the wells are now plugged
10 out, were from 264,000 barrels to over 1,200,000 barrels in
11 the existing salt water disposal well.

12 This shows that the location could have a
13 possible 700,000 barrels of recoverable reserves. By
14 volumetric calculations and utilizing data where I feel
15 the existing oil-water contact may be, based on the perfor-
16 mance of the Amerada 2-A, which still can show approximately
17 430,000 barrels of recoverable oil from this location.

18 The average for all seven wells that pro-
19 duced is 642,000 barrels.

20 Q Were these exhibits prepared by you or
21 under your supervision, or have they been reviewed by you?

22 A They -- I prepared Exhibit Number One and
23 or I supervised the preparation of Exhibit Number One, and
24 the rest of the exhibits were prepared by a consulting
25 geologist in Midland, Texas, and I have reviewed the data

1 to ascertain that -- that the tops as picked by him were
2 correct; also the scout data was correct, and that's a matter
3 of public record; and also the next exhibit we're going to
4 show you, we checked the logs and it was obtained from scout
5 services.

6 Q All right, referring to the next exhibit,
7 Exhibit Number Five, would you identify that exhibit?

8 A Exhibit Number Five is a west/east cross
9 section going from the Amerada Rose 1-A, which was a dry
10 hole, it was outside the limits of the field, through the
11 Hamilton 2-A, which is the existing producing well, through
12 the location, to the Amerada Hamilton No. 1, the discovery
13 well, and up to the Amerada Rose No. 1.

14 And this shows the relative position of the
15 top of the Devonian section in the wells. We also have in-
16 cluded in there the drill stem test data, where available,
17 and this confirms the data that was shown on Exhibit Three.

18 Also, you'll note on this exhibit that the
19 well, the top of the Devonian projected for this particular
20 well will be approximately 200 feet above the original oil-
21 water contact. It will be between 75 and 100 feet above
22 the existing oil-water contact in the Hamilton No. 1-A.

23 Excuse me, 2-A.

24 Q Did you have occasion, Mr. DeMarco, to get
25 in touch with the Amerada Hess Corporation concerning your

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (995) 471-3462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (601) 471-2452
Santa Fe, New Mexico 87501

1 application?

2 A. Yes, sir. I contacted -- I sent them a
3 copy of our application and I visited with them over the
4 phone about this location, and concerning the unorthodox
5 location and where it would be, and I wrote them a letter
6 and requested they, a waiver letter from them, and they have
7 written to the Conservation Commission and sent it to me,
8 and I would like to introduce that now.

9 MR. KOCH: We'd like to tender that letter,
10 Mr. Examiner.

11 MR. NUTTER: Is this an exhibit or just a
12 part of the record?

13 MR. KOCH: It's addressed to the Commission.

14 MR. NUTTER: Okay.

15 MR. KOCH: And I didn't think it would be
16 best to mark it as an exhibit.

17 MR. NUTTER: I'll mark it received at the
18 hearing.

19 MR. KOCH: We move the admission of Exhibits
20 One through Five, Mr. Examiner.

21 MR. NUTTER: Applicant's Exhibits One
22 through Five will be admitted in evidence.

23 Q. Mr. DeMarco, based upon the exhibits and
24 your review and study of them, what factors, further factors
25 were considered and what was your conclusion as to the de-

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (666) 411-2462
Santa Fe, New Mexico 87501

1 sireability of a nonstandard location?

2 A Well, we believe that a nonstandard location
3 is required to recover existing reserves that have not been
4 drained by the existing 80-acre wells, 80-acre location
5 wells, and that if this application were not denied, then
6 these reserves would be lost and of course the revenues to
7 the State, as well as to the individuals, would -- would be
8 lost.

9 Q And what is the purpose, then, of the non-
10 standard location, then? Why is it located where it is as
11 opposed to some other nonstandard location?

12 A Well, the reason for the nonstandard loca-
13 tion, obviously, is to -- to get a commercial well inside
14 of the existing oil-water contact.

15 Q And --

16 A At a standard location we would not -- we
17 would be on top of a well that's already -- the Amerada --
18 the Amerada Rose Well, which produced 264,000 barrels and
19 it watered out, definitely, and we need -- we need at least
20 100 feet above the existing oil-water contact to make a com-
21 mercial well.

22 Q And your review would indicate that you
23 would probably fall within the 100-foot limitation you just
24 mentioned?

25 A Yes, sir, 75 to 100 feet, yes, sir.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2030 Plaza Blanca (995) 471-2492
Santa Fe, New Mexico 87501

1 MR. KOCH: I have no further questions of
2 this witness.

4 CROSS EXAMINATION

5 BY MR. NUTTER:

6 Q Mr. Woody, first of all, I notice on Exhibit
7 Number --

8 MR. KOCH: Excuse me, Mr. Examiner, this
9 is Mr. DeMarco.

10 Q Oh, Mr. DeMarco, I'm sorry.

11 MR. KOCH: Yes, sir.

12 Q Mr. DeMarco, I notice on Exhibit Number
13 Two and Four, that immediately south of the location there's
14 a little black blurb there. What does that represent or
15 is that just a --

16 A That was just an error in the Xeroxing.

17 Q Oh, I see, okay.

18 A I think the original -- Herndon originally
19 had had a location staked at something like 330 off the
20 line.

21 Q And then he just blotted it out --

22 A Blotted it out, yes, sir.

23 Q -- so that little mark means nothing?

24 A Yes, sir, it's nothing. It's just --

25 Q Okay. Now, the original well that was on

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3026 Plaza Blanca (608) 471-2462
Santa Fe, New Mexico 87501

1 the tract was the Amerada Rose No. 1, apparently, is that
2 right?

3 A Yes, sir.

4 Q And I notice on Exhibits Number Two and
5 Four that the lease is shown as being as an Amerada Rose
6 Lease, with the name Herndon Oil and Gas penned in there,
7 but on Exhibit Number One, this is apparently a different
8 space plat, and it shows that Herndon Oil and Gas Company
9 is the lessee and A. L. Woody is the lessor.

10 A Yes, sir, that's the way that the current --
11 the current ownership is shown on the county maps, and the
12 old base maps that were used had the Amerada -- Herndon
13 definitely has the leases.

14 Q Well, who did Amerada have a lease from?

15 A Rose people, I guess.

16 Q And does Herndon have an oil and gas lease
17 from A. L. Woody?

18 A I'll have to defer to Mr. Buck on that.
19 Yes, I believe so.

20 Q And is A. L. Woody the minerals owner here?

21 MR. KOCH: Your Honor -- Mr. Examiner, I
22 think probably at this point Mr. Buck would be best qualified
23 to answer the Examiner's questions.

24 MR. NUTTER: Okay, why don't we keep Mr.
25 DeMarco on the stand and proceed with your examination of

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
209 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

1 Mr. Buck if you'll put on some direct, did you?
2
3 MR. KOCH: Just some identification.
4 MR. NUTTER: Okay, I think I'm a little
5 concerned here with ownership and so forth.
6 MR. KOCH: I see. Does the Examiner have
7 any more questions of Mr. DeMarco?
8 MR. NUTTER: Yes. I want to keep him there.
9 I might have some more questions.
10
11 CLEO EUGENE BUCK, JR.
12 being called as a witness and having been duly sworn upon
13 his oath, testified as follows, to-wit:
14
15 DIRECT EXAMINATION
16 BY MR. KOCH:
17 Q Mr. Buck, would you please state your name,
18 address, and occupation?
19 A Cleo, C-L-E-O, Eugene Buck, Junior. I'm in
20 Tulsa, Oklahoma with Herndon Oil and Gas.
21 I'm the Manager of the Southwest Region for
22 them.
23 The name of our company was Herndon Drilling
24 Company about a year ago, and then we recently changed it
25 over to Herndon Oil and Gas.
I'd better give you a little more of my

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (605) 471-2462
Santa Fe, New Mexico 87501

1 background. I was with Exxon for ten years down here and
2 drilled probably a thousand wells in the New Mexico and West
3 Texas area, and I was also with Tenneco for about eight and
4 a half years and then I moved to Tulsa with Apache Corpor-
5 ation and then changed over the Herndon Oil and Gas.

6 MR. NUTTER: What were the major positions
7 you held with Tenneco, Humble, and Apache?

8 A Okay, when I was with Tenneco I was Senior
9 Geological Engineer for the Anadarko Basin and the Permian
10 Basin, and with Exxon I was both in exploration and pro-
11 duction and drilling wells all over New Mexico and West
12 Texas.

13 MR. NUTTER: Are you a geologist or an
14 engineer?

15 A That's right, I'm a geologist.

16 MR. NUTTER: I see, okay.

17 A And I've been both an exploration geologist
18 and a production geologist.

19 MR. NUTTER: Would you proceed then, Mr.
20 Koch?

21 Q Would you please describe what you know
22 about the ownership of the property in question.

23 A Okay. Mr. Whitten bought the leases when
24 they became available and Amerada had had them previously,
25 and when their Amerada Rose Well depleted, went to water,

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 they dropped the lease and Mr. Whitten went in there and
2 bought the leases.

3 And then we bought the leases from Mr.
4 Whitten.

5 MR. NUTTER: And who is the lessor?
6

7 A I haven't looked at that portion of it.
8 I've got the leases back in Tulsa but I was under the impres-
9 sion that it was Rose.

10 MR. KOCH: Well, the ownership map will
11 show us, wouldn't it?

12 A But it may be Mr. Woody. I'm not certain,
13 but we do have a lease.

14 MR. NUTTER: You've got the lease second-
15 hand, though, from Whitten.

16 A That's right.

17 MR. NUTTER: Okay.

18 Now, Mr. DeMarco.

19 MR. DeMARCO: Yes, sir.

20 MR. NUTTER: Is there any other location
21 on this Herndon lease here which you could drill which would
22 be likely to encounter a position on the structure that
23 would be above the water-oil contact?

24 MR. DeMARCO: Yeah, 330 off the line. That
25 would be much more preferable; 330 by 330.

MR. NUTTER: That would be closer down into

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (Soc.) 471-2452
Santa Fe, New Mexico 87501

1 the corner but ---

2 MR. DeMARCO: Yes, sir.

3 MR. NUTTER: -- it would still be on this
4 same 40-acre tract.

5 MR. DeMARCO: Yes, sir. That would be much
6 more preferable but it wouldn't be a --- wouldn't have the
7 semblance of an orthodox location at an unorthodox location.

8 MR. NUTTER: Now, the reason that this is
9 unorthodox is because the old Knowles Pool rules required
10 that locations be in the northwest quarter or the southeast
11 quarter of the 160.

12 MR. DeMARCO: Yes, sir. But a point I
13 would like to make, if I might here, the discovery well was
14 drilled at an unorthodox location.

15 MR. NUTTER: Well, it was drilled prior to
16 any pool rules being established.

17 MR. DeMARCO: And there also has been --
18 Amerada has drilled the Hamilton 2-A Well at an unorthodox
19 location, but it was all done by hearing, there was no
20 administrative. So the precedent has been set.

21 MR. NUTTER: Uh-huh. Well, apparently the
22 1-A was drilled first on the Hamilton lease.

23 MR. DeMARCO: Yes, sir, and it was dry.

24 MR. NUTTER: And was a dry hole.

25 MR. DeMARCO: It was dry.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

1 MR. NUTTER: So they moved over to the east
2 and drilled the 2-A.
3 MR. DeMARCO: Yes, sir.
4 MR. NUTTER: Now, is there any productive
5 well in the pool at the present time?
6 MR. DeMARCO: The Hamilton 2-A. It's still
7 producing approximately 50 barrels of oil a day and 325
8 barrels of water a day.
9 MR. NUTTER: Let's see, I want to write
10 that down. 250 barrels of oil per day?
11 MR. DeMARCO: No, 50 barrels of oil per
12 day.
13 MR. NUTTER: 50 barrels of oil per day.
14 MR. DeMARCO: And about 325 barrels of
15 water per day. That data is about four months out of hand,
16 you know, but that was the last data that I had.
17 MR. NUTTER: And everything else has been
18 plugged down.
19 MR. DeMARCO: Yes, sir, everything else has
20 been plugged. Well, the disposal wells, that Axvig, just
21 to the south of the Hamilton 2-A, that Axvig No. 1.
22 MR. NUTTER: Now, on one of your exhibits,
23 I think it was on your cumulative production, showed the
24 salt water disposal well with a figure of 1,240,000 barrels.
25 MR. DeMARCO: Yes, sir.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2028 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 MR. NUTTER: Is that production or is that
2 salt water that's been disposed?

3 MR. DeMARCO: No, sir, that's production;
4 that's oil produced.

5 MR. NUTTER: That's the best producer in
6 the field, then?

7 MR. DeMARCO: Yes, sir. Of course, if
8 you'll refer back to the -- if you'll refer back to the
9 structure map, it also was the highest well, highest pro-
10 ducer.

11 MR. NUTTER: Well, actually it appears that
12 some of the best locations in the pool would be in the west
13 half of the southwest quarter of Section 35, and there's
14 never been a well drilled in there.

15 MR. DeMARCO: Well, we've attempted --
16 that's Amerada's and we've attempted to farm that in, sir,
17 yes, but --

18 MR. NUTTER: Are there any other questions
19 of the witnesses? Mr. Woody, did you have any questions?

20 MR. WOODY: I do not have, not at this
21 point, no.

22 MR. NUTTER: The witnesses may be excused.
23 Mr. Woody?
24
25

1 STATEMENT BY MR. WOODY:

2 MR. WOODY: I have some material here that
3 I want to pass out.

4 MR. NUTTER: We'd like to have your state-
5 ment under oath, Mr. Woody, if you'll stand and be sworn,
6 please.

7
8 (Mr. Woody sworn.)
9

10 MR. WOODY: Mr. Examiner, my name is
11 Dwain Woody. I reside and operate the farm that Herndon
12 Oil and Gas Company proposes to drill on.

13 I have prepared an opening statement here.
14 I, Dwain Woody, General Manager of A. O. Woody's agriculture
15 land holdings in Lea County, New Mexico, commonly known and
16 henceforth referred to as Woody Acres, have prepared the
17 following information for the New Mexico Oil Conservation
18 Commission to consider before granting Herndon Oil and Gas
19 Company authority to drill and develop their O. A. Woody
20 Well No. 1.

21 A brief history, Woody Acres is composed
22 of 1500 acres. It is located approximately twelve miles
23 north of Hobbs, New Mexico, on State Highway Number 132.

24 Its principal crops are alfalfa, cotton,
25 small grains, and cattle. It has been a family-owned farm

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 since 1949.

2 Presently I derive all of my income from
3 this farm. I receive a small salary plus a percentage of
4 the crops, so you might say that I'm a sharecropper here
5 today.

6 MR. NUTTER: Well, we always feel sorry for
7 sharecroppers.

8 MR. WOODY: If you'll turn the first page
9 over, Exhibit A. Exhibit A is an aerial photograph of the
10 east half of Woody Acres. The circles at the bottom of
11 this map, if you're following me, is the top half of Section
12 35, Township 16 South, Range 30 East. The dotted lines that
13 you see is the outside circumference of a circular water
14 irrigation system that I presently have in this area.

15 If you will look at the brochure I have
16 given you here, Mr. Examiner, and thumb through the first
17 few pages, it gives you an idea of the type of machine that
18 I presently have there.

19 I draw your attention to page 18. You'll
20 see in red under Model 4271, I have circled the length of
21 this system as 1296 feet. I have crossed out 7, where it
22 has for drive units for quarter section, and pencilled in
23 8, which is the machine that I have.

24 Coming on down, I have put a check by 8.67
25 feet, which is the cropclearance of this machine. Now,

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Elmore (505) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 presently, Mr. Examiner, that is the clearance. I have some
2 special irrigation nozzles on top of this machine and these
3 nozzles were developed in California by a spraying company,
4 where they sprayed citrus groves next to vegetable fields
5 where they had to have absolute zero drip. These are experi-
6 mental and if they do not pattern correctly, in other words,
7 if it streaks across, well then I'll have to go to another
8 type of nozzle.

9 MR. NUTTER: Now, what does crop clearance
10 mean, Mr. Woody?

11 MR. WOODY: That would be from ground level
12 to the -- to the lowest point of that machine.

13 MR. NUTTER: That's the amount of clearance
14 it's got to have to make its circular path around the field.

15 MR. WOODY: That's correct.

16 MR. NUTTER: Except where the wheels are.

17 MR. WOODY: That's correct, sir.

18 MR. NUTTER: Okay.

19 MR. WOODY: If these nozzles do not work
20 out, then I will have to put drops on, and what drops is,
21 is they come off of the main line, come down and spray out.
22 My clearance at that time would be five feet.

23 I hope that these nozzles work because I do
24 grow corn for ensilage. I feed cattle. And in five foot
25 clearance I could not grow any corn, so -- okay.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 Now, can I draw your attention to page 14 of
2 this. This is a picture of a base on this pivot. It is
3 the area from which you tow it.

4 Now presently one system services 160 acres,
5 or both quarter sections there. This machine is towable
6 only by this base. They do have some machines that you can
7 tow forward or reverse. This particular machine only tows
8 in reverse.

9 Now, getting back to the aerial photograph,
10 you'll notice in the east circle I have penciled in 130
11 acres. This is the amount of land that is available to
12 water in that particular circle.

13 In the west circle I have penciled in 96.08
14 acres, which is the available land for irrigation in this.
15 If you'll note up in the top lefthand corner there is an
16 obstruction there, which is my feed lots. I believe the
17 photograph detects the shades and the different lots that
18 I have. I have five lots there, which has a feed lot capa-
19 city of about 10,000 head at one time. We presently don't
20 have enough money to put that many in there but --

21 MR. NUTTER: Nobody has enough money to buy
22 5000 or 10,000 head these days.

23 MR. WOODY: If you'll note in this brochure
24 again, on the front of it, you'll see that this machine is
25 flexible, but it is only flexible in the up and down position.

1 It will not flex sideways, in other words.

2 If we can imagine these circles as a clock
3 and the top being 12:00 o'clock; ninety degrees to the right,
4 or to the east, would be 3:00 o'clock; 180, or due south,
5 would be 6:00; 270, or 9:00 o'clock, would be due west; in
6 order to get this system from the east circle to the west
7 circle, I have got to position it into a 3:00 o'clock posi-
8 tion on the east circle, tow it straight across. In order
9 to get the machine back I've got to position it into the
10 9:00 o'clock position in the west circle and tow it straight
11 across.

12 Now as you see, I already have an obstruc-
13 tion to the north and the dot with proposed well written
14 inside of it is the approximate location of Herndon's, so
15 you can see, I cannot -- I have -- I'm obstructed right
16 there, both places.

17 All right, let's see. We'll go to Exhibit
18 B. Exhibit B, B-1, and B-2 consist of soil maps, good crop
19 management practices, and establishing crop production for
20 various soils.

21 We'll turn the page to Exhibit B-1 and I
22 have penciled in yellow there outlining in yellow estimated
23 yields.

24 Estimated average yields per acre of prin-
25 cipal crops on irrigated and non-irrigated soils are shown

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3028 Plaza Blanca (605) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
1010 Plaza Blanca (666) 471-2402
Santa Fe, New Mexico 87501

1 in Table Two and Table Three. These are estimates of yields
2 that can be expected over a number of years. These estimates
3 are based on information from research and interviews with
4 farmers who keep annual records and from others who have
5 knowledge of the soil, crops, and yields in Lea County.

6 The following are factors in moderately
7 high level management. Listed are several there; some of
8 them have to do with correct amounts of fertilizer, correct
9 seeds, control of insects, plant diseases, and things of
10 this nature.

11 I draw your attention to number six. Appli-
12 cation of irrigation water by means of a planned irrigation
13 system in amounts and in the times that are in accord with
14 the needs of the crop.

15 At the bottom of this you will see yields
16 higher than those given and not uncommon and can be obtained
17 in favorable seasons under high level management. Yields
18 may change in the future as new crop varieties are developed
19 to tolerate the diseases, insects, and dry conditions common
20 to this area.

21 MR. NUTTER: What is this a reprint from,
22 Mr. Woody?

23 MR. WOODY: It is a reprint from the soil
24 survey of Lea County, New Mexico, issued in January, 1974,
25 a copy of which I have in this hearing today.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3026 Plaza Blanca (606) 471-2462
Santa Fe, New Mexico 87501

1 MR. NUTTER: And who was that put out by?
2 MR. WOODY: United States Department of
3 Agriculture, Soil Conservation Service.

4 MR. NUTTER: Okay. Is there a reference
5 number in that, just for the record? A Library of Congress
6 number or anything?

7 MR. WOODY: I don't know right now. There
8 probably is.

9 MR. NUTTER: Okay, there's no Library of
10 Congress number, but it has been identified, I think, issued
11 January, 1974.

12 MR. WOODY: If you will turn your map over,
13 Exhibit B is the soils map of the area that we are concerned
14 with. If you'll note I have drawn in the circles in the
15 same section. If I identify the section you can still see
16 the photograph of my feed lots in the top lefthand corner.

17 Looking at this soils map, Mr. Examiner,
18 you'll see the symbols pH, LA, MA, and I direct your atten-
19 tion to the symbols in the west circle.

20 The predominant type of soil has the symbol
21 pH, if you will note there. Coming over to Exhibit B-2,
22 which is on your left over there, sir, you will see a note
23 at the top it's Table Two, Estimated Average Acre Yields of
24 principal crops grown on irrigated soil on a moderately high
25 level of management. Only soils that are suitable for general

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (695) 471-2462
Santa Fe, New Mexico 87501

1 used for growing crops on irrigation are listed. If you will
2 come down to the symbol PH, you will see there is Portales
3 loam, zero to one percent slope, coming across it's estimated
4 lint pounds of cotton production is 1000 pounds per acre.
5 Its estimated production of alfalfa is seven tons. Its
6 estimated production of grain sorghum is 5000 pounds; feed
7 sorghum is listed in tons, which would be ensilage in this
8 case, 30 tons; barley 75.

9 Now, I do not have a Xeroxed copy of Table
10 Three, but Table Three depicts the same type of soil if grown
11 under non-irrigated circumstances. You will note that crops
12 estimated average yield per acre of principal crops grown
13 on non-irrigated soil under moderately high level of manage-
14 ment.

15 You will note the same symbols only has an
16 estimated yield of 180 acres -- 180 pounds of cotton per acre
17 and only 1300 pounds of grain sorghum.

18 MR. NUTTER: 1300 pounds?

19 MR. WOODY: Yes. You'll also note --

20 MR. NUTTER: Now how much cotton again?

21 MR. WOODY: 180 pounds. This is the same
22 soil under dry land conditions.

23 You will also note that alfalfa is not even
24 listed, alfalfa being a crop that's not suitable for dry
25 land conditions.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (996) 471-2442
Santa Fe, New Mexico 87501

1 Okay, now then, we'll go back to my samples
2 that I have put in in Exhibit B. I think I have already
3 explained the first one to you.

4 The second one will be the economic example.
5 It would be the seven tons of alfalfa that we have pointed
6 out that this particular type soil has an estimated yield of.
7 Now at \$75.00 per ton, and \$75.00, I get this figure -- I
8 subscribe to this alfalfa market news put out by the New
9 Mexico State University.

10 If you will note, Mr. Examiner, as of Friday,
11 June 1st, 1979, in Lea County top quality hay is selling for
12 \$72.50 to \$75.00.

13 MR. NUTTER: \$72.50 to \$75.00?

14 MR. WOODY: Yes, sir.

15 Now this is summer delivery of this alfalfa
16 hay. If we go to the barn with it, in the wintertime we can
17 expect considerably more than that. This last winter we got
18 \$100.00 a ton.

19 But for the sake of simplicity I have used
20 the figure \$75.00 per ton times seven tons equals \$525.00
21 per acre. I have multiplied the \$525.00 per acre by the 96.06
22 acres and I have a gross of \$50,442.00 a year.

23 Now I have not put any figures on the 130
24 acres to the east. If for some reason I had this machine
25 down, or over in the west circle and I got it tied up to where

1 I couldn't get it back to the east circle, if I had crops
2 growing in that area, then they would suffer. I have no
3 economic figure on that, but that would be a case that I hope
4 that would never happen, but certainly there --- if it did
5 happen, you can see I would have the same situation in both
6 circles, maybe not to this extent.

7 Okay. Coming to my conclusion, Mr. Examiner,
8 it is not the intent of Woody Acres to ask the Oil Conserva-
9 tion Division to deny Herndon Oil and Gas Company authority
10 to develop their lease; however, due to the potential econ-
11 omical losses Woody Acres would incur, we ask that the Divi-
12 sion place limitations and stipulations in this authority,
13 if granted.

14 Some suggestions are as follows:

15 Number one, locate drilling unit outside
16 the center pivot irrigation system circle and directionally
17 drill it. If well is drilled in center of Unit E, drill and
18 complete during non-cropping season, which is September 31st
19 to March 1st. In the event the well is a producer, all de-
20 vices used to pump and process oil or gas should be sub-
21 terranean with holding tanks placed outside irrigation system
22 circle.

23 B, well to be located at such a point as
24 to allow free passage of irrigation sprinkler system. In
25 other words, between the towers. The towers on this system

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (505) 471-2482
Santa Fe, New Mexico 87501

1 the first five are 147 feet apart. The second two are 185
2 feet apart.

3 MR. NUTTER: Now just a minute here.

4 MR. WOODY: Okay.

5 MR. NUTTER: The first five are 147 feet
6 apart. Now that's starting from the center pivot.

7 MR. WOODY: Yes, sir.

8 MR. NUTTER: So every 147 feet you have
9 another tower.

10 MR. WOODY: Yes, sir.

11 MR. NUTTER: And that's where the wheels
12 are.

13 MR. WOODY: Yes, sir.

14 MR. NUTTER: Okay. So the first five are
15 147 feet apart, then the next two?

16 MR. WOODY: Are 185 feet.

17 MR. NUTTER: Okay.

18 MR. WOODY: The last tower is 170 feet.

19 MR. NUTTER: And then you're out to the
20 end of the whole thing.

21 MR. WOODY: I have a 16-foot overhang. All
22 that should add up to 1296.

23 MR. NUTTER: That 16-foot overhand, is at
24 the end of the contraption.

25 MR. WOODY: Yes, sir. It has a gun on the

1 end that extends on out another, oh, 40 or 50 feet, depending
2 on the wind velocity and direction.

3 MR. NUTTER: Go ahead.

4 MR. WOODY: Woody Acres favors this number
5 one suggestion that we have put up here.

6 Some of the arguments that we would have,
7 if it was outside the circle, then both parties would have
8 free access. In other words, if my machine happened to be
9 across that access road, why they probably -- at the time
10 they came out there to service that well, they'd probably
11 have to walk in there because I'm putting out 3-1/2 inches
12 of water per acre.

13 Another argument would be if the workover
14 unit happened to be present during the growing season and
15 they were over the well two or three weeks, and I happened
16 to have my irrigation system in this west circle, then you
17 can see I would have it tied up down there. I wouldn't be
18 able to walk it around into the 9:00 o'clock position and
19 get it back.

20 Going back to the aerial photograph, I
21 have in the lower lefthand corner, I presently have a tenant
22 residence in that area. The ideal situation, I believe,
23 would be to locate the well outside the -- the lower right
24 part, part of the circle.

25 MR. NUTTER: Where is the residence?

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SSE) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (995) 471-2482
Santa Fe, New Mexico 87501

1 MR. WOODY: Well, it doesn't show up very
2 good in this, it's right in the corner there. I believe you
3 can see -- well, it's not very plain.

4 MR. NUTTER: In the extreme southeast cor-
5 ner of that 40-acre tract?

6 MR. WOODY: That's correct.

7 MR. NUTTER: Little white dot there with
8 a shadow on it, is that the house?

9 MR. WOODY: Let's see.

10 MR. NUTTER: There's another house just
11 northeast of it; just northwest of it inside the circle,
12 it looks like.

13 MR. WOODY: No, that's Amerada Hess' old --
14 old location. There's alafalfa hay growing all in that area
15 except right in that pit, you know. That was put in during
16 the open pit days and --

17 MR. NUTTER: What's this right here?

18 MR. WOODY: It's -- it's a picture of an
19 old -- of a tank that they had.

20 MR. NUTTER: And where's the house?

21 MR. WOODY: The house is in this area right
22 here.

23 MR. NUTTER: Oh, it's down here.

24 MR. WOODY: Yes, sir. As I stated, this
25 would be the ideal area.

1 MR. NUTTER: And what are these little
2 curlicue lines coming north and south?

3 MR. WOODY: The curlicue lines coming north
4 and south are a present willow system that I have in there.
5 I use it to supplement the -- the big machine. I can water
6 the corners with it, and I do, I sometimes overlap watering
7 in order to get some more of the corner.

8 If you will note the circles, and the east
9 circle here is a full circle, it's 130 acres, and there's
10 160 acres of land in that area. In other words, when you
11 have one of these machines you lose 30 acres, so I have gone
12 in and -- with these other systems. These other systems I
13 have there, their clearance is about, oh, 2-1/2 feet.

14 MR. NUTTER: Do they move or do you just
15 lay them down?

16 MR. WOODY: No, sir, they move. You have
17 to disconnect your pipe, or your hose at the end, let the
18 system drain, and go out there and move it. They move ap-
19 proximately, oh, 120 feet. It has a motor in the center of
20 it, a drive unit, that runs hydraulics in the whole thing.

21 MR. NUTTER: And it just moves laterally?

22 MR. WOODY: Yes, sir.

23 MR. NUTTER: Back and forth?

24 MR. WOODY: Uh-huh, yes, sir, sometimes in
25 a high wind they move when you don't want them to move.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (995) 471-2482
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 MR. NUTTER: Okay, now these rotary sprinklers,
2 Mr. Woody, do they reverse? In other words, do the hands on
3 the clock run forward and backward also?

4 MR. WOODY: Yes, sir, I can run it with
5 water in it, without water in it. I can run it in reverse;
6 I can run it forward.

7 MR. NUTTER: So when you move it to the --
8 when you move it over here to the west 40, or the west 160,
9 its center is at the center of the circle but it's pointing
10 off to the east.

11 MR. WOODY: That's correct.

12 MR. NUTTER: And then I presume you rotate
13 it counterclockwise up to the feed lot there.

14 MR. WOODY: That's correct.

15 MR. NUTTER: And then it would reverse and
16 come back and make the 3/4 of a circle.

17 MR. WOODY: That's correct.

18 MR. NUTTER: Okay. Now, during normal
19 irrigation season, discounting frequent rains, what is the
20 frequency that you have to move the system back and forth?
21 How long does it stay in place when it's in a 160-acre tract?

22 MR. WOODY: The present system, I'm putting
23 out 1600 gallons a minute through it. It's designed to give
24 me 3-1/2 inches, acre inches of water every six days.

25 MR. NUTTER: Every six days.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3028 Plaza Blanca (665) 471-2452
Santa Fe, New Mexico 87501

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MR. WOODY: Yes, sir.

MR. NUTTER: Now, how many days is it on the tract to get that 3-1/2 inches of water?

MR. WOODY: That depends on what crop I have there, sir. If it's alfalfa hay I use the full 3-1/2; if it's cotton I don't use that much.

I want to -- I want to state that the system probably will be in one area, say, ten days, and then it's moved to the other, which would catch it.

MR. NUTTER: For ten days and then back?

MR. WOODY: Yes, sir.

MR. NUTTER: So it's --

MR. WOODY: Depends if it's in August --

MR. NUTTER: It's on and off in ten days, then.

MR. WOODY: Yes, sir, in August it would be -- the frequency would be considerably more because my plants are using -- utilizing quite a bit more water. This time of year it wouldn't be as frequent.

MR. NUTTER: Now where you've got this proposed well marked on your Exhibit A is the 660/660 location --

MR. WOODY: Yes, sir.

MR. NUTTER: -- that the applicants have requested here today. You heard Mr. DeMarco state that the ideal location, as far as he's concerned, would be a 330/330

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 411-2462
Santa Fe, New Mexico 87501

1 location. That would be outside the circle or right on the
2 edge of the circle, wouldn't it?

3 MR. WOODY: It would be awfully close. I
4 don't know for sure.

5 MR. NUTTER: It would be down near the
6 little curclique line irrigation system but it would be down
7 towards the house there.

8 MR. WOODY: Yes.

9 MR. NUTTER: Still it wouldn't be on top of
10 the house.

11 MR. WOODY: I don't know how far away it
12 would be from it.

13 MR. NUTTER: Mr. Buck, has the company
14 given any consideration to the possibility of a 330 location?

15 MR. BUCK: We would like to go something
16 like a 330/330 or 330/660, so that wouldn't bother us.

17 MR. NUTTER: You haven't discussed it as
18 far as getting a waiver from Amerada is concerned to move
19 that close.

20 MR. BUCK: No.

21 MR. NUTTER: They gave you a waiver
22 as far as a 660/660 is concerned.

23 MR. BUCK: Uh-huh.

24 MR. NUTTER: What do you think, Mr. Buck,
25 of the proposals that Mr. Woody had on his exhibit Number --

1 his conclusions there?

2 Number one would be to locate the drilling
3 unit outside the center pivot irrigation system and
4 directionally drill.

5 What --- how does that grab you?

6 MR. BUCK: Well, that sounds fair to me.

7 MR. NUTTER: To directionally drill the
8 well?

9 MR. BUCK: Well, I'd better -- Mr. DeMarco
10 is our engineer who would be supervising and I don't know
11 whether we would run into a problem in directionally drilling
12 it or not, you know, sometime you get into problems at
13 that depth.

14 So I'd have to ask Mr. DeMarco.

15 MR. DeMARCO: Well, we know this is crooked
16 hole country and if we're not careful we're going to be
17 directionally drilled and have a lot of trouble.

18 It could be done. It will add -- it will
19 add considerably more to the cost.

20 MR. NUTTER: Well, you're running into a
21 problem here, anyway, when you're talking about a \$50,000
22 alfalfa crop.

23 MR. DeMARCO: Right.

24 MR. NUTTER: On this land.

25 MR. DeMARCO: If we can get outside the

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
 8020 Plaza Blanca (645) 471-2462
 Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (666) 471-2462
Santa Fe, New Mexico 87501

1 circle and --- and get a waiver from Amerinda on 330 by 330,
2 I believe we can work with Mr. Woody on this, and we want to
3 work with him every way we can, because I understand these
4 systems, and ---

5 MR. NUTTER: Okay, then alternative two
6 would be if the well is drilled in the center of the Unit E,
7 to drill and complete during a non-cropping season, which
8 would be during the winter months.

9 MR. DeMARCO: We're faced with a lease
10 problem there.

11 MR. NUTTER: Are you?

12 MR. DeMARCO: Yes, sir.

13 MR. NUTTER: When do you have to have your
14 well started?

15 MR. BUCK: About July the 8th, somewhere in
16 there. I'm not sure what the lease calls for.

17 MR. NUTTER: I see. Okay.

18 MR. BUCK: Excuse me, you mentioned that
19 say we did drill during his cropping season, what -- what
20 type of bill did you indicate that we were looking at?

21 MR. NUTTER: No, that's during the non-
22 cropping season.

23 MR. BUCK: Yeah, but if we drilled during
24 the cropping season, you know, to meet our deadline, what
25 kind of money are we talking about?

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2018 Plaza Blanca (S-98) 471-2462
Santa Fe, New Mexico 87501

1 MR. DEMARCO: What you would lose?

2 MR. WOODY: \$50,442.

3 MR. NUTTER: Well now, Mr. Woody, you
4 wouldn't lose the entire 96 acres because you said your ---
5 your machine works clockwise and counterclockwise, so actually
6 it would come down to a point, you'd draw a line from the
7 center in the southwesterly direction down there, and you
8 would still have from this point up here near the feed lots
9 down to this line. It could rotate around better than half
10 of the circle.

11 MR. WOODY: Yes, sir, that's very correct,
12 but I also stated that I had to have it at that 9:00 o'clock
13 position on that west circle in order to get it back to the
14 east circle.

15 MR. NUTTER: You'd have to -- in order to
16 pull it back you'd have to move it on up there --

17 MR. WOODY: Yes, sir.

18 MR. NUTTER: -- to straight east -- to
19 straight west position.

20 MR. WOODY: Yes, sir, and I already have
21 the obstruction to the north and this would be an obstruction
22 to the south.

23 MR. NUTTER: I see.

24 It won't trailer at an angle.

25 MR. WOODY: No, sir.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (S.B.) 471-2462
Santa Fe, New Mexico 87501

1 MR. BUCK: Excuse me, may I ask a question?

2 MR. NUTTER: Yes, sir, Mr. Buck.

3 MR. BUCK: If you were to start it, say, at
4 a due south position and just take up to the north, although
5 you'd lose that west portion, is that where you came up with
6 the \$50,000?

7 MR. WOODY: Where I came up with \$50,000
8 is I'm stating that if I have an obstruction that I cannot
9 get the system in the 9:00 o'clock position on the west
10 circle, I cannot get it back to the east. In other words,
11 if you drill, I've got to keep it in the east circle.

12 MR. BUCK: If you start it in the south and
13 go to the north and back to the south, you would make half
14 the --

15 MR. NUTTER: Mr. Buck, I think you're
16 missing the point. In order for him to move the machine from
17 the west 160 over to the east 160, he's got to position it
18 so that it's pointing due west.

19 MR. DeMARCO: It only moves in one direction
20 here.

21 MR. NUTTER: He has to trailer it with the
22 tailend of it sticking due west, so he can't get it due
23 west if there's an obstruction to the southwest where your
24 well would be and he can't get it to the west because of the
25 feed lots in the north.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (S.O.) 471-2482
Santa Fe, New Mexico 87501

1 MR. WOODY: In other words, I just wouldn't
2 go down there. I'd just keep it in the --

3 MR. HUPPER: You'd lose the whole 96 acres
4 then.

5 MR. WOODY: Not the whole 96 acres, Mr.
6 Commissioner, I can still use the supplement irrigation
7 system that I have, but I'd lose quite a bit of it.

8 MR. BUCK: But it won't work on just half
9 the acreage; just a half arc?

10 MR. WOODY: Yes, it would work, but in or-
11 der -- if I kept it there all the time.

12 MR. BUCK: Right.

13 MR. WOODY: It would work fine, but I have
14 another circle there that I water with it also.

15 MR. BUCK: What was running through my mind
16 is that you work it over this portion and then we pay you
17 for the lose over on that portion.

18 MR. WOODY: Yes, sir, but I've got to have
19 the system like this in order to tow it straight back.

20 MR. BUCK: I see, okay.

21 MR. WOODY: Follow?

22 MR. BUCK: Yeah, otherwise all you can get
23 is a quarter up here.

24 MR. WOODY: That would be all I'd be able
25 to get. I wouldn't be -- I wouldn't be able to get the

1 circle back -- the system back over here.

2 MR. DEMARCO: Without the system you'd have
3 to use the older system.

4 MR. WOODY: Uh-huh. Outside the circle it
5 would be no problem.

6 MR. NUTTER: Well, now, Mr. Buck, to go on
7 to these alternatives, choices here in his conclusions, if
8 the well were drilled during the non-cropping season, and
9 you got it down, how about the conditions under A? Could
10 you survive under the conditions under Roman numeral II-A
11 there, in the event the well is a producer all the devices
12 used to pump and process the well would be subterranean with
13 holding tanks placed outside the system circle.

14 MR. DEMARCO: We could certainly place the
15 tanks outside.

16 MR. NUTTER: Outside of the system. Okay,
17 now what do you have in mind insofar as pumping equipment?
18 Undoubtedly you're going to be making water there.

19 MR. DEMARCO: That's correct, and we pos-
20 sibly will have to start off with subsurface hydraulics,
21 which we could live with eventually, but we don't want to be
22 we don't want to be limited to subsurface hydraulics when
23 the volumes start falling off. We'd like to be able to have
24 a beam unit in there that will handle decline.

25 MR. NUTTER: Right, and those beam units for

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 Devonian water wells are usually pretty tall.

2 MR. DEMARCO: They're taller than 9 feet 6,
3 that's for sure. Or 9.6.

4 MR. NUTTER: Have you had experience using
5 Reda pumps for handling high volume watered wells?

6 MR. DEMARCO: Yes, sir, I have.

7 MR. NUTTER: They don't have a big clearance
8 as far as the surface of the ground is concerned.

9 MR. DEMARCO: No, sir, they don't, and
10 neither do subsurface hydraulics, except for your Waukasha
11 engines, but even at that, that would clear; there'd be no
12 problem.

13 MR. NUTTER: Beam pumping units, though,
14 would be just about out of the question.

15 MR. DEMARCO: Out of the question, but we
16 wouldn't want to be limited to what we could operate with.

17 I think the best solution, if we can obtain
18 a waiver from Amerada would be 330 out of the corner. We'd
19 be outside the circle, and like he says, then the roads
20 would be open to us at any time for a pulling unit, and
21 we're going to have to service these wells on --

22 MR. NUTTER: I think it might be well to
23 take a look at the alternative location. Is this house oc-
24 cupied, this house down here in the extreme southwest quarter
25 of the --

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SUS) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (906) 471-2463
Santa Fe, New Mexico 87501

1 MR. WOODY: At the present it is.

2 MR. NUTTER: Would drilling a well at the
3 edge of the dotted line -- it would be approximately by eye-
4 balling it, it would be approximately 200 feet from the
5 house. Is that going to impose any kind of a hazard or is
6 it possible these occupants could be out of the house while
7 the well was being drilled, or anything like that, Mr.
8 Woody?

9 MR. WOODY: Well, it's a tenant house that
10 I have, people who work for me. I'm sure that I could sooth
11 them over all right.

12 MR. NUTTER: You could make arrangements
13 for them to live somewhere else?

14 MR. WOODY: Or live there and live with it,
15 I guess.

16 MR. NUTTER: I think we'll just take the
17 case under advisement and we'll have some discussions with
18 both of you parties after the hearing.

19 MR. DeMARCO: May I ask one question?

20 MR. NUTTER: Yes, Mr. DeMarco.

21 MR. DeMARCO: Would it require another
22 hearing.

23 MR. NUTTER: Yes, sir, it's going to require
24 another hearing for that 330 location.

25 We might be able to -- we might be able to

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3026 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 take the case under advisement with the record that we've
2 got here today, readvertise the case as an alternative loca-
3 tion, and not have to have the hearing. The record here
4 could be incorporated in that hearing later.

5 MR. DeMARCO: We're getting to the point to
6 where ---

7 MR. NUTTER: You're getting close to a
8 deadline as far as drilling is concerned.

9 MR. DeMARCO: Yes, sir, and we have a rig
10 located and everything.

11 We'll contact Amerada in the meantime and
12 see if we can't get something from them.

13 MR. NUTTER: Well, I think if you could get
14 a waiver from Amerada, and if it was a location that was
15 agreeable with Mr. Woody and you had made proper arrangements
16 with him, we may be able to just permit you to drill the
17 well pending the hearing.

18 MR. DeMARCO: Yes, sir.

19 (There followed a discussion
20 off the record.)

21 MR. NUTTER: We'll just take the case under
22 advisement while you contact Amerada and if you want to re-
23 advertise the case for an alternative location, and I think
24 we've got sufficient record here today that we won't have
25 to have an actual hearing on it; just call it later and do

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (695) 471-2462
Santa Fe, New Mexico 87301

1 the order on it.

2 MR. DELL'AMICO: Good, that will be fine, sir,
3 thank you.

4 MR. WOODY: MR. Commissioner, I formally
5 request that Exhibits A, B, with supplement B-1 and B-2, be
6 entered into the record.

7 MR. NUTTER: Woody Exhibits -- Woody Farm
8 Exhibits A, B, and B-1 and B-2 will be entered in the record.

9 With that we'll take the case under advise-
10 ment, Case 6564 under advisement, and call a fifteen minute
11 recess.


12
13 (Hearing concluded.)
14
15
16
17
18
19
20
21
22
23
24
25

INFORMATION ON THE CASE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6566 heard by me on 6/13/1979.

Examiner
Oil Conservation Division

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
State Land Office Building
Santa Fe, New Mexico
25 July 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Herndon Oil & Gas Co. for) CASE
an unorthodox oil well location, Lea) 6564
County, New Mexico.)

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation	Ernest L. Padilla, Esq.
Division:	Legal Counsel for the Division
	State Land Office Bldg.
	Santa Fe, New Mexico 87503

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (105) 471-2462
Santa Fe, New Mexico 87501

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MR. NUTTER: We'll next call Case Number 6564.

MR. PADILLA: Application of Herndon Oil and Gas Company for an unorthodox oil well location, Lea County, New Mexico.

MR. NUTTER: Case Number 6564 has been previously heard; however, the location of the well was amended and re-advertised. We're going on the record that was established previously.

Are there any appearances now in Case Number 6564 with the amended location?

If not, we'll take the case under advisement.

(Hearing concluded.)

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd C.S.R.
Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6564 heard by me on 7/25 1979.

[Signature] Examiner
Oil Conservation Division

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

OFFICE OF THE ATTORNEY GENERAL
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 STATE OF NEW MEXICO
 SANTA FE, NEW MEXICO
 25 July 1979

LAND AND NATURAL RESOURCES

IN THE MATTER OF:

Application of Herndon Oil & Gas Co. for) CASE
 an unorthodox oil well location, Lea) 6564
 County, New Mexico.)

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
 Division:

Ernest L. Padilla, Esq.
 Legal Counsel for the Division
 State Land Office Bldg.
 Santa Fe, New Mexico 87503

SALLY WALTON BOYD
 CERTIFIED SHORTHAND REPORTER
 3020 Plaza Blanca (S.O.S.) 471-2462
 Santa Fe, New Mexico 87501

MR. NUTTER: We'll next call Case Number

6564.

MR. PADILLA: Application of Herndon Oil and Gas Company for an unorthodox oil well location, Lea County, New Mexico.

MR. NUTTER: Case Number 6564 has been previously heard; however, the location of the well was amended and re-advertised. We're going on the record that was established previously.

Are there any appearances now in Case Number 6564 with the amended location?

If not, we'll take the case under advisement.

(Hearing concluded.)

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

Sally W. Boyd, C.S.R.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 6564 heard by me on 1/25 1979.
[Signature], Examiner
Oil Conservation Division

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501



BRUCE KING
GOVERNOR
LARRY KEHOE
SECRETARY

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

August 17, 1979

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Mr. Sumner Koch
White, Koch, Kelly
& McCarthy
Attorneys at Law
Post Office Box 787
Santa Fe, New Mexico

Re: CASE NO. 6564
ORDER NO. R-6075

Applicant:

Herndon Oil & Gas Co.

Dear Sir:

Enclosed herewith are two copies of the above-referenced
Division order recently entered in the subject case.

Yours very truly,


JOE D. RAMEY
Director

JDR/fd

Copy of order also sent to:

Hobbs OCD x
Artesia OCD x
Aztec OCD

Other Dwain Woody

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6564
Order No. R-6075

APPLICATION OF HERNDON OIL & GAS CO.
FOR AN UNORTHODOX OIL WELL LOCATION,
LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 13 and July 25, 1979, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 16th day of August, 1979, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Herndon Oil & Gas Co., seeks approval for the unorthodox oil well location of its O. A. Woody Well No. 1 to be drilled at a point 2310 feet from the North line and 330 feet from the West line of Section 35, Township 16 South, Range 38 East, NMPM, to test the Devonian formation, Knowles-Devonian Pool, Lea County, New Mexico.

(3) That the W/2 NW/4 of said Section 35 is to be dedicated to the well.

(4) That said unorthodox location will enable the applicant to drill the subject well outside the perimeter of a circular sprinkler system with which the landowner irrigates the NW/4 of Section 35, and the landowner has waived objection to said location.

-2-

Case No. 6564
Order No. R-6075

(5) That the offset operator has waived objection to the proposed unorthodox location provided certain conditions are met and certain limitations placed on production from the proposed well.

(6) That approval of the subject application will protect the interests of the landowner, will afford the applicant the opportunity to produce its just and equitable share of the oil and gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an unorthodox oil well location for the Devonian formation is hereby approved for the Herndon Oil & Gas Co. O. A. Woody Well No. 1 to be drilled at a point 2310 feet from the North line and 330 feet from the West line of Section 35, Township 16 South, Range 38 East, NMPM, Knowles-Devonian Pool, Lea County, New Mexico.

(2) That the W/2 NW/4 of said Section 35 shall be dedicated to the above-described well.

(3) That if said well is to be completed as a producer, the operator shall conduct a directional survey of said well after reaching total depth and shall cause a copy of said survey to be filed with Amerada Hess Corporation, Seminole, Texas, and with the Santa Fe office of the Oil Conservation Division.

(4) That should said well be completed as a producer, it shall be subject to top unit allowable for the Knowles-Devonian Pool, or to a production limitation of 100 barrels of oil per day plus 50 percent of its initial potential greater than 100 barrels of oil per day, whichever is less.

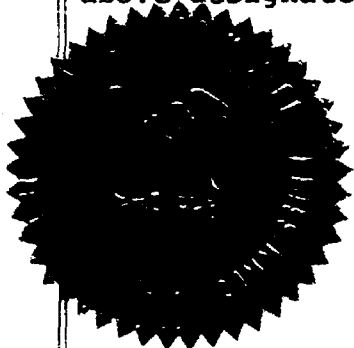
(5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

-3-

Case No. 6564

Order No. R-6075

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



S E A L

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

Joe D. Ramey
JOE D. RAMEY
Director

fd/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico
13 June 1979

EXAMINER HEARING

IN THE MATTER OF:

Application of Herndon Oil & Gas Co.
for an unorthodox oil well location,
Lea County, New Mexico.

CASE
6564

BEFORE: Daniel S. Nutter

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation
Division:

Ernest L. Padilla, Esq.
Legal Counsel for the Division
State Land Office Bldg.
Santa Fe, New Mexico 87503

For the Applicant:

SOMNER S. KOCH, Esq.
WHITE, KOCH, KELLY & MCCARTHY
220 Otero Street
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (S.O.) 471-2462
Santa Fe, New Mexico 87501

I N D E X

MICHAEL DeMARCO

Direct Examination by Mr. Koch 3

Cross Examination by Mr. Nutter 10

CLEO EUGENE BUCK

Direct Examination by Mr. Koch 12

STATEMENT BY MR. WOODY 18

DISCUSSION 34

E X H I B I T S

Applicant Exhibit One, Plat 4

Applicant Exhibit Two, Structure Map 5

Applicant Exhibit Three, Plat 5

Applicant Exhibit Four, Isocum Map 6

Applicant Exhibit Five, Cross Section 7

Woody Exhibit A, Photograph 19

Woody Exhibit B, B-1, B-2, Information 22

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (605) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SSE) 471-2463
Santa Fe, New Mexico 87501

1 MR. NUTTER: We'll continue at this time
2 and call now Case Number 6564.

3 MR. PADILLA: Application of Herndon Oil
4 and Gas Company for an unorthodox well location in Lea
5 County, New Mexico.

6 MR. KOCH: My name is Sumner S. Koch, with
7 the firm of White, Koch, Kelly & McCarthy, Santa Fe, New
8 Mexico, appearing on behalf of the applicant.

9 MR. NUTTER: Call for other appearances
10 in this case.

11 MR. WOODY: I'm Dwain Woody and I pre-
12 sently farm the area that the application is on.

13 MR. NUTTER: And how do you spell your
14 name, Mr. Woody? Dwain Woody?

15 MR. WOODY: D-W-A-I-N W-O-O-D-Y.

16 MR. NUTTER: Thank you.

17 MR. NUTTER: Go ahead, Mr. Koch.

18 MR. KOCH: I'd like to present two wit-
19 nesses. Mr. DeMarco, Mr. Buck.

21 (Witnesses sworn.)

23 MICHAEL DeMARCO

24 being called as a witness and having been duly sworn upon
25 his oath, testified as follows, to-wit:

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

DIRECT EXAMINATION

BY MR. KOCH:

Q Mr. DeMarco, will you please state your full name, address, and occupation?

A Michael J. DeMarco, D-E-M-A-R-C-O. I'm a consulting engineer in Midland, Texas.

Q And how long have you been a consulting engineer?

A Been on my own for the last two months. I've been -- I've worked in the State of New Mexico, New Mexico and Texas, for the past eighteen years.

I have appeared before the Conservation Commission several times in the past.

Q And when you previously appeared, did you qualify as an expert witness?

A Yes, sir, I did.

MR. KOCH: Does the Examiner wish any more identification of Mr. --

MR. NUTTER: No. The witness is qualified.

Q (Mr. Koch continuing.) Mr. DeMarco, I hand you what has been marked as Exhibit One. Would you identify that, please?

A Exhibit One is the location plat that was sent to the Commission requesting application for this

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (S95) 471-2462
Santa Fe, New Mexico 87501

1 hearing for unorthodox location for Herndon Oil and Gas No.
2 1 Woody Well. The location is 1980 from the north line and
3 660 from the west line, Section 35, Township 16 South, Range
4 38 East.

5 The location plat shows the existence of
6 wells previously drilled and completed in the Knowles-
7 Devonian Pool. There are six wells that are abandoned now,
8 one producing well, the Amerada Hamilton A No. 2, and one
9 salt water disposal well, the Amerada Axvig No. 1. A-X-V-I-G.

10 Q Now, continuing with the exhibits, I'll
11 show you what is marked as Exhibit Two.

12 A Exhibit Two is a structure map contoured on
13 top of the Devonian. It shows the proposed location and it
14 also shows the original oil-water contact for the Knowles-
15 Devonian Pool.

16 This well will be approximately 200 feet
17 above the original oil-water contact.

18 Q I show you what is marked Exhibit Three.
19 Would you please identify that for the Examiner?

20 A Exhibit Three is a plat showing the deter-
21 mination of the oil-water contact based on drill stem test
22 data in the -- in all the wells that were drilled the --
23 the wells that were drill stem tested.

24 The discovery well was the Hamilton No. 1
25 in Section 35 and they -- that well tested water-free to a

1 -8921, and they picked up water on drill stem test from a
2 -8921 to a -8949, and this ascertained the original oil-
3 water contact. The rest of the wells, just to note, were
4 drill stem test data indicate water-free down to that point .

5 Q And would you please identify what is
6 marked Exhibit Four?

7 A Exhibit Four is an Isocum map that's been
8 prepared for the Knowles-Devonian Field, showing that the
9 recoveries from existing wells, the wells are now plugged
10 out, were from 264,000 barrels to over 1,200,000 barrels in
11 the existing salt water disposal well.

12 This shows that the location could have a
13 possible 700,000 barrels of recoverable reserves. By
14 volumetric calculations and utilizing data where I feel
15 the existing oil-water contact may be, based on the perfor-
16 mance of the Amerada 2-A, which still can show approximately
17 430,000 barrels of recoverable oil from this location.

18 The average for all seven wells that pro-
19 duced is 642,000 barrels.

20 Q Were these exhibits prepared by you or
21 under your supervision, or have they been reviewed by you?

22 A They -- I prepared Exhibit Number One and
23 or I supervised the preparation of Exhibit Number One, and
24 the rest of the exhibits were prepared by a consulting
25 geologist in Midland, Texas, and I have reviewed the data

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2018 Plaza Blanca (606) 471-2462
Santa Fe, New Mexico 87501

1 to ascertain that -- that the tops as picked by him were
2 correct; also the scout data was correct, and that's a matter
3 of public record; and also the next exhibit we're going to
4 show you, we checked the logs and it was obtained from scout
5 services.

6 Q All right, referring to the next exhibit,
7 Exhibit Number Five, would you identify that exhibit?

8 A Exhibit Number Five is a west/east cross
9 section going from the Amerada Rose 1-A, which was a dry
10 hole, it was outside the limits of the field, through the
11 Hamilton 2-A, which is the existing producing well, through
12 the location, to the Amerada Hamilton No. 1, the discovery
13 well, and up to the Amerada Rose No. 1.

14 And this shows the relative position of the
15 top of the Devonian section in the wells. We also have in-
16 cluded in there the drill stem test data, where available,
17 and this confirms the data that was shown on Exhibit Three.

18 Also, you'll note on this exhibit that the
19 well, the top of the Devonian projected for this particular
20 well will be approximately 200 feet above the original oil-
21 water contact. It will be between 75 and 100 feet above
22 the existing oil-water contact in the Hamilton No. 1-A.

23 Excuse me, 2-A.

24 Q Did you have occasion, Mr. DeMarco, to get
25 in touch with the Amerada Hess Corporation concerning your

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (602) 471-2462
Santa Fe, New Mexico 87501

1 application?

2 A. Yes, sir. I contacted -- I sent them a
3 copy of our application and I visited with them over the
4 phone about this location, and concerning the unorthodox
5 location and where it would be, and I wrote them a letter
6 and requested they, a waiver letter from them, and they have
7 written to the Conservation Commission and sent it to me,
8 and I would like to introduce that now.

9 MR. KOCH: We'd like to tender that letter,
10 Mr. Examiner.

11 MR. NUTTER: Is this an exhibit or just a
12 part of the record?

13 MR. KOCH: It's addressed to the Commission.

14 MR. NUTTER: Okay.

15 MR. KOCH: And I didn't think it would be
16 best to mark it as an exhibit.

17 MR. NUTTER: I'll mark it received at the
18 hearing.

19 MR. KOCH: We move the admission of Exhibits
20 One through Five, Mr. Examiner.

21 MR. NUTTER: Applicant's Exhibits One
22 through Five will be admitted in evidence.

23 Q. Mr. DeMarco, based upon the exhibits and
24 your review and study of them, what factors, further factors
25 were considered and what was your conclusion as to the de-

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (605) 471-2463
Santa Fe, New Mexico 87501

1 sireability of a nonstandard location?

2 A Well, we believe that a nonstandard location
3 is required to recover existing reserves that have not been
4 drained by the existing 80-acre wells, 80-acre location
5 wells, and that if this application were not denied, then
6 these reserves would be lost and of course the revenues to
7 the State, as well as to the individuals, would -- would be
8 lost.

9 Q And what is the purpose, then, of the non-
10 standard location, then? Why is it located where it is as
11 opposed to some other nonstandard location?

12 A Well, the reason for the nonstandard loca-
13 tion, obviously, is to -- to get a commercial well inside
14 of the existing oil-water contact.

15 Q And --

16 A At a standard location we would not -- we
17 would be on top of a well that's already -- the Amerada --
18 the Amerada Rose Well, which produced 264,000 barrels and
19 it watered out, definitely, and we need -- we need at least
20 100 feet above the existing oil-water contact to make a com-
21 mercial well.

22 Q And your review would indicate that you
23 would probably fall within the 100-foot limitation you just
24 mentioned?

25 A Yes, sir, 75 to 100 feet, yes, sir.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3026 Plaza Blanca (695) 471-2482
Santa Fe, New Mexico 87501

1 MR. KOCH: I have no further questions of
2 this witness.

3

4

CROSS EXAMINATION

5

BY MR. NUTTER:

6

Q Mr. Woody, first of all, I notice on Exhibit

7

Number --

8

MR. KOCH: Excuse me, Mr. Examiner, this

9

is Mr. DeMarco.

10

Q Oh, Mr. DeMarco, I'm sorry.

11

MR. KOCH: Yes, sir.

12

Q Mr. DeMarco, I notice on Exhibit Number

13

Two and Four, that immediately south of the location there's

14

a little black blurb there. What does that represent or

15

is that just a --

16

A. That was just an error in the Xeroxing.

17

Q Oh, I see, okay.

18

A. I think the original -- Herndon originally

19

had had a location staked at something like 330 off the

20

line.

21

Q And then he just blotted it out --

22

A. Blotted it out, yes, sir.

23

Q -- so that little mark means nothing?

24

A. Yes, sir, it's nothing. It's just --

25

Q Okay. Now, the original well that was on

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2030 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

1 the tract was the Amerada Rose No. 1, apparently, is that
2 right?

3 A. Yes, sir.

4 Q. And I notice on Exhibits Number Two and
5 Four that the lease is shown as being as an Amerada Rose
6 Lease, with the name Herndon Oil and Gas penned in there,
7 but on Exhibit Number One, this is apparently a different
8 space plat, and it shows that Herndon Oil and Gas Company
9 is the lessee and A. L. Woody is the lessor.

10 A. Yes, sir, that's the way that the current --
11 the current ownership is shown on the county maps, and the
12 old base maps that were used had the Amerada -- Herndon
13 definitely has the leases.

14 Q. Well, who did Amerada have a lease from?

15 A. Rose people, I guess.

16 Q. And does Herndon have an oil and gas lease
17 from A. L. Woody?

18 A. I'll have to defer to Mr. Buck on that.
19 Yes, I believe so.

20 Q. And is A. L. Woody the minerals owner here?

21 MR. KOCH: Your Honor -- Mr. Examiner, I
22 think probably at this point Mr. Buck would be best qualified
23 to answer the Examiner's questions.

24 MR. NUTTER: Okay, why don't we keep Mr.
25 DeMarco on the stand and proceed with your examination of

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (608) 471-2462
Santa Fe, New Mexico 87501

1 Mr. Buck if you'll put on some direct, did you?

2 MR. KOCH: Just some identification.

3 MR. NUTTER: Okay, I think I'm a little
4 concerned here with ownership and so forth.

5 MR. KOCH: I see. Does the Examiner have
6 any more questions of Mr. DeMarco?

7 MR. NUTTER: Yes. I want to keep him there.
8 I might have some more questions.

9
10 CLEO EUGENE BUCK, JR.
11 being called as a witness and having been duly sworn upon
12 his oath, testified as follows, to-wit:

13
14 DIRECT EXAMINATION

15 BY MR. KOCH:

16 Q Mr. Buck, would you please state your name,
17 address, and occupation?

18 A Cleo, C-L-E-O, Eugene Buck, Junior. I'm in
19 Tulsa, Oklahoma with Herndon Oil and Gas.

20 I'm the Manager of the Southwest Region for
21 them.

22 The name of our company was Herndon Drilling
23 Company about a year ago, and then we recently changed it
24 over to Herndon Oil and Gas.

25 I'd better give you a little more of my

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (806) 471-2462
Santa Fe, New Mexico 87501

1 background. I was with Exxon for ten years down here and
2 drilled probably a thousand wells in the New Mexico and West
3 Texas area, and I was also with Tenneco for about eight and
4 a half years and then I moved to Tulsa with Apache Corpor-
5 ation and then changed over the Herndon Oil and Gas.

6 MR. NUTTER: What were the major positions
7 you held with Tenneco, Humble, and Apache?

8 A Okay, when I was with Tenneco I was Senior
9 Geological Engineer for the Anadarko Basin and the Permian
10 Basin, and with Exxon I was both in exploration and pro-
11 duction and drilling wells all over New Mexico and West
12 Texas.

13 MR. NUTTER: Are you a geologist or an
14 engineer?

15 A That's right, I'm a geologist.

16 MR. NUTTER: I see, okay.

17 A And I've been both an exploration geologist
18 and a production geologist.

19 MR. NUTTER: Would you proceed then, Mr.
20 Koch?

21 Q Would you please describe what you know
22 about the ownership of the property in question.

23 A Okay. Mr. Whitten bought the leases when
24 they became available and Amerada had had them previously,
25 and when their Amerada Rose Well depleted, went to water,

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

1 they dropped the lease and Mr. Whitten went in there and
2 bought the leases.

3 And then we bought the leases from Mr.
4 Whitten.

5 MR. NUTTER: And who is the lessor?

6 A. I haven't looked at that portion of it.
7 I've got the leases back in Tulsa but I was under the impres-
8 sion that it was Rose.

9 MR. KOCH: Well, the ownership map will
10 show us, wouldn't it?

11 A. But it may be Mr. Woody. I'm not certain,
12 but we do have a lease.

13 MR. NUTTER: You've got the lease second-
14 hand, though, from Whitten.

15 A. That's right.

16 MR. NUTTER: Okay.

17 Now, Mr. DeMarco.

18 MR. DeMARCO: Yes, sir.

19 MR. NUTTER: Is there any other location
20 on this Herndon lease here which you could drill which would
21 be likely to encounter a position on the structure that
22 would be above the water-oil contact?

23 MR. DeMARCO: Yeah, 330 off the line. That
24 would be much more preferable; 330 by 330.

25 MR. NUTTER: That would be closer down into

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (004) 471-2482
San Juan, P.R. 00901

1 the corner but --

2 MR. DeMARCO: Yes, sir.

3 MR. NUTTER: -- it would still be on this
4 same 40-acre tract.

5 MR. DeMARCO: Yes, sir. That would be much
6 more preferable but it wouldn't be a -- wouldn't have the
7 semblance of an orthodox location at an unorthodox location.

8 MR. NUTTER: Now, the reason that this is
9 unorthodox is because the old Knowles Pool rules required
10 that locations be in the northwest quarter or the southeast
11 quarter of the 160.

12 MR. DeMARCO: Yes, sir. But a point I
13 would like to make, if I might here, the discovery well was
14 drilled at an unorthodox location.

15 MR. NUTTER: Well, it was drilled prior to
16 any pool rules being established.

17 MR. DeMARCO: And there also has been --
18 Amerada has drilled the Hamilton 2-A Well at an unorthodox
19 location, but it was all done by hearing, there was no
20 administrative. So the precedent has been set.

21 MR. NUTTER: Uh-huh. Well, apparently the
22 1-A was drilled first on the Hamilton lease.

23 MR. DeMARCO: Yes, sir, and it was dry.

24 MR. NUTTER: And was a dry hole.

25 MR. DeMARCO: It was dry.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2010 Plaza Blanca (606) 471-2462
Santa Fe, New Mexico 87501

1 MR. NUTTER: So they moved over to the east
2 and drilled the 2-A.

3 MR. DeMARCO: Yes, sir.

4 MR. NUTTER: Now, is there any productive
5 well in the pool at the present time?

6 MR. DeMARCO: The Hamilton 2-A. It's still
7 producing approximately 50 barrels of oil a day and 325
8 barrels of water a day.

9 MR. NUTTER: Let's see, I want to write
10 that down. 250 barrels of oil per day?

11 MR. DeMARCO: No, 50 barrels of oil per
12 day.

13 MR. NUTTER: 50 barrels of oil per day.

14 MR. DeMARCO: And about 325 barrels of
15 water per day. That data is about four months out of hand,
16 you know, but that was the last data that I had.

17 MR. NUTTER: And everything else has been
18 plugged down.

19 MR. DeMARCO: Yes, sir, everything else has
20 been plugged. Well, the disposal wells, that Axvig, just
21 to the south of the Hamilton 2-A, that Axvig No. 1.

22 MR. NUTTER: Now, on one of your exhibits,
23 I think it was on your cumulative production, showed the
24 salt water disposal well with a figure of 1,240,000 barrels.

25 MR. DeMARCO: Yes, sir.

1 MR. NUTTER: Is that production or is that
2 salt water that's been disposed?

3 MR. DeMARCO: No, sir, that's production;
4 that's oil produced.

5 MR. NUTTER: That's the best producer in
6 the field, then?

7 MR. DeMARCO: Yes, sir. Of course, if
8 you'll refer back to the -- if you'll refer back to the
9 structure map, it also was the highest well, highest pro-
10 ducer.

11 MR. NUTTER: Well, actually it appears that
12 some of the best locations in the pool would be in the west
13 half of the southwest quarter of Section 35, and there's
14 never been a well drilled in there.

15 MR. DeMARCO: Well, we've attempted --
16 that's Amerada's and we've attempted to farm that in, sir,
17 yes, but --

18 MR. NUTTER: Are there any other questions
19 of the witnesses? Mr. Woody, did you have any questions?

20 MR. WOODY: I do not have, not at this
21 point, no.

22 MR. NUTTER: The witnesses may be excused.
23 Mr. Woody?

24

25

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2026 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

STATEMENT BY MR. WOODY:

MR. WOODY: I have some material here that I want to pass out.

MR. NUTTER: We'd like to have your statement under oath, Mr. Woody, if you'll stand and be sworn, please.

(Mr. Woody sworn.)

MR. WOODY: Mr. Examiner, my name is Dwain Woody. I reside and operate the farm that Herndon Oil and Gas Company proposes to drill on.

I have prepared an opening statement here. I, Dwain Woody, General Manager of A. O. Woody's agriculture land holdings in Lea County, New Mexico, commonly known and henceforth referred to as Woody Acres, have prepared the following information for the New Mexico Oil Conservation Commission to consider before granting Herndon Oil and Gas Company authority to drill and develop their O. A. Woody Well No. 1.

A brief history, Woody Acres is composed of 1500 acres. It is located approximately twelve miles north of Hobbs, New Mexico, on State Highway Number 132.

Its principal crops are alfalfa, cotton, small grains, and cattle. It has been a family-owned farm

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

1 since 1949.

2 Presently I derive all of my income from
3 this farm. I receive a small salary plus a percentage of
4 the crops, so you might say that I'm a sharecropper here
5 today.

6 MR. NUTTER: Well, we always feel sorry for
7 sharecroppers.

8 MR. WOODY: If you'll turn the first page
9 over, Exhibit A. Exhibit A is an aerial photograph of the
10 east half of Woody Acres. The circles at the bottom of
11 this map, if you're following me, is the top half of Section
12 35, Township 16 South, Range 38 East. The dotted lines that
13 you see is the outside circumference of a circular water
14 irrigation system that I presently have in this area.

15 If you will look at the brochure I have
16 given you here, Mr. Examiner, and thumb through the first
17 few pages, it gives you an idea of the type of machine that
18 I presently have there.

19 I draw your attention to page 18. You'll
20 see in red under Model 4271, I have circled the length of
21 this system as 1296 feet. I have crossed out 7, where it
22 has for drive units for quarter section, and pencilled in
23 8, which is the machine that I have.

24 Coming on down, I have put a check by 8.67
25 feet, which is the cropclearance of this machine. Now,

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 471-2462
Sanza P.O., New Mexico 87501

1 presently, Mr. Examiner, that is the clearance. I have some
2 special irrigation nozzles on top of this machine and these
3 nozzles were developed in California by a spraying company,
4 where they sprayed citrus groves next to vegetable fields
5 where they had to have absolute zero drip. These are experi-
6 mental and if they do not pattern correctly, in other words,
7 if it streaks across, well then I'll have to go to another
8 type of nozzle.

9 MR. NUTTER: Now, what does crop clearance
10 mean, Mr. Woody?

11 MR. WOODY: That would be from ground level
12 to the -- to the lowest point of that machine.

13 MR. NUTTER: That's the amount of clearance
14 it's got to have to make its circular path around the field.

15 MR. WOODY: That's correct.

16 MR. NUTTER: Except where the wheels are.

17 MR. WOODY: That's correct, sir.

18 MR. NUTTER: Okay.

19 MR. WOODY: If these nozzles do not work
20 out, then I will have to put drops on, and what drops is,
21 is they come off of the main line, come down and spray out.
22 My clearance at that time would be five feet.

23 I hope that these nozzles work because I do
24 grow corn for ensilage. I feed cattle. And in five foot
25 clearance I could not grow any corn, so -- okay.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 Now, can I draw your attention to page 14 of
2 this. This is a picture of a base on this pivot. It is
3 the area from which you tow it.

4 Now presently one system services 160 acres,
5 or both quarter sections there. This machine is towable
6 only by this base. They do have some machines that you can
7 tow forward or reverse. This particular machine only tows
8 in reverse.

9 Now, getting back to the aerial photograph,
10 you'll notice in the east circle I have penciled in 130
11 acres. This is the amount of land that is available to
12 water in that particular circle.

13 In the west circle I have penciled in 96.08
14 acres, which is the available land for irrigation in this.
15 If you'll note up in the top lefthand corner there is an
16 obstruction there, which is my feed lots. I believe the
17 photograph detects the shades and the different lots that
18 I have. I have five lots there, which has a feed lot capa-
19 city of about 10,000 head at one time. We presently don't
20 have enough money to put that many in there but --

21 MR. NUTTER: Nobody has enough money to buy
22 5000 or 10,000 head these days.

23 MR. WOODY: If you'll note in this brochure
24 again, on the front of it, you'll see that this machine is
25 flexible, but it is only flexible in the up and down position.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3010 Plaza Blanca (G05) 471-2462
Santa Fe, New Mexico 87501

1 It will not flex sideways, in other words.

2 If we can imagine these circles as a clock
3 and the top being 12:00 o'clock; ninety degrees to the right,
4 or to the east, would be 3:00 o'clock; 180, or due south,
5 would be 6:00; 270, or 9:00 o'clock, would be due west; in
6 order to get this system from the east circle to the west
7 circle, I have got to position it into a 3:00 o'clock posi-
8 tion on the east circle, tow it straight across. In order
9 to get the machine back I've got to position it into the
10 9:00 o'clock position in the west circle and tow it straight
11 across.

12 Now as you see, I already have an obstruc-
13 tion to the north and the dot with proposed well written
14 inside of it is the approximate location of Herndon's, so
15 you can see, I cannot -- I have -- I'm obstructed right
16 there, both places.

17 All right, let's see. We'll go to Exhibit
18 B. Exhibit B, B-1, and B-2 consist of soil maps, good crop
19 management practices, and establishing crop production for
20 various soils.

21 We'll turn the page to Exhibit B-1 and I
22 have penciled in yellow there outlining in yellow estimated
23 yields.

24 Estimated average yields per acre of prin-
25 cipal crops on irrigated and non-irrigated soils are shown

1 in Table Two and Table Three. These are estimates of yields
2 that can be expected over a number of years. These estimates
3 are based on information from research and interviews with
4 farmers who keep annual records and from others who have
5 knowledge of the soil, crops, and yields in Lea County.

6 The following are factors in moderately
7 high level management. Listed are several there; some of
8 them have to do with correct amounts of fertilizer, correct
9 seeds, control of insects, plant diseases, and things of
10 this nature.

11 I draw your attention to number six. Appli-
12 cation of irrigation water by means of a planned irrigation
13 system in amounts and in the times that are in accord with
14 the needs of the crop.

15 At the bottom of this you will see yields
16 higher than those given are not uncommon and can be obtained
17 in favorable seasons under high level management. Yields
18 may change in the future as new crop varieties are developed
19 to tolerate the diseases, insects, and dry conditions common
20 to this area.

21 MR. NUTTER: What is this a reprint from,
22 Mr. Woody?

23 MR. WOODY: It is a reprint from the soil
24 survey of Lea County, New Mexico, issued in January, 1974,
25 a copy of which I have in this hearing today.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (605) 471-2482
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3016 Plaza Blanca (606) 471-2462
Santa Fe, New Mexico 87501

1 MR. NUTTER: And who was that put out by?

2 MR. WOODY: United States Department of
3 Agriculture, Soil Conservation Service.

4 MR. NUTTER: Okay. Is there a reference
5 number in that, just for the record? A Library of Congress
6 number or anything?

7 MR. WOODY: I don't know right now. There
8 probably is.

9 MR. NUTTER: Okay, there's no Library of
10 Congress number, but it has been identified, I think, issued
11 January, 1974.

12 MR. WOODY: If you will turn your map over,
13 Exhibit B is the soils map of the area that we are concerned
14 with. If you'll note I have drawn in the circles in the
15 same section. If I identify the section you can still see
16 the photograph of my feed lots in the top lefthand corner.

17 Looking at this soils map, Mr. Examiner,
18 you'll see the symbols pH, LA, MA, and I direct your atten-
19 tion to the symbols in the west circle.

20 The predominant type of soil has the symbol
21 pH, if you will note there. Coming over to Exhibit B-2,
22 which is on your left over there, sir, you will see a note
23 at the top it's Table Two, Estimated Average Acre Yields of
24 principal crops grown on irrigated soil on a moderately high
25 level of management. Only soils that are suitable for general

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (S95) 471-2442
Santa Fe, New Mexico 87501

1 used for growing crops on irrigation are listed. If you will
2 come down to the symbol pH, you will see there is Portales
3 loam, zero to one percent slope, coming across it's estimated
4 lint pounds of cotton production is 1000 pounds per acre.
5 Its estimated production of alfalfa is seven tons. Its
6 estimated production of grain sorghum is 5000 pounds; feed
7 sorghum is listed in tons, which would be ensilage in this
8 case, 30 tons; barley 75.

9 Now, I do not have a Xeroxed copy of Table
10 Three, but Table Three depicts the same type of soil if grown
11 under non-irrigated circumstances. You will note that crops
12 estimated average yield per acre of principal crops grown
13 on non-irrigated soil under moderately high level of manage-
14 ment.

15 You will note the same symbols only has an
16 estimated yield of 180 acres -- 180 pounds of cotton per acre
17 and only 1300 pounds of grain sorghum.

18 MR. NUTTER: 1300 pounds?

19 MR. WOODY: Yes. You'll also note --

20 MR. NUTTER: Now how much cotton again?

21 MR. WOODY: 180 pounds. This is the same
22 soil under dry land conditions.

23 You will also note that alfalfa is not even
24 listed, alfalfa being a crop that's not suitable for dry
25 land conditions.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3026 Plaza Blanca (955) 421-2463
Santa Fe, New Mexico 87501

1 Okay, now then, we'll go back to my samples
2 that I have put in in Exhibit B. I think I have already
3 explained the first one to you.

4 The second one will be the economic example.
5 It would be the seven tons of alfalfa that we have pointed
6 out that this particular type soil has an estimated yield of.
7 Now at \$75.00 per ton, and \$75.00, I get this figure -- I
8 subscribe to this alfalfa market news put out by the New
9 Mexico State University.

10 If you will note, Mr. Examiner, as of Friday,
11 June 1st, 1979, in Lea County top quality hay is selling for
12 \$72.50 to \$75.00.

13 MR. NUTTER: \$72.50 to \$75.00?

14 MR. WOODY: Yes, sir.

15 Now this is summer delivery of this alfalfa
16 hay. If we go to the barn with it, in the wintertime we can
17 expect considerably more than that. This last winter we got
18 \$100.00 a ton.

19 But for the sake of simplicity I have used
20 the figure \$75.00 per ton times seven tons equals \$525.00
21 per acre. I have multiplied the \$525.00 per acre by the 96.08
22 acres and I have a gross of \$50,442.00 a year.

23 Now I have not put any figures on the 130
24 acres to the east. If for some reason I had this machine
25 down, or over in the west circle and I got it tied up to where

1 I couldn't get it back to the east circle, if I had crops
2 growing in that area, then they would suffer. I have no
3 economic figure on that, but that would be a case that I hope
4 that would never happen, but certainly there -- if it did
5 happen, you can see I would have the same situation in both
6 circles, maybe not to this extent.

7 Okay. Coming to my conclusion, Mr. Examiner,
8 it is not the intent of Woody Acres to ask the Oil Conserva-
9 tion Division to deny Herndon Oil and Gas Company authority
10 to develop their lease; however, due to the potential econ-
11 omical losses Woody Acres would incur, we ask that the Divi-
12 sion place limitations and stipulations in this authority,
13 if granted.

14 Some suggestions are as follows:

15 Number one, locate drilling unit outside
16 the center pivot irrigation system circle and directionally
17 drill it. If well is drilled in center of Unit E, drill and
18 complete during non-cropping season, which is September 31st
19 to March 1st. In the event the well is a producer, all de-
20 vices used to pump and process oil or gas should be sub-
21 terranean with holding tanks placed outside irrigation system
22 circle.

23 B, well to be located at such a point as
24 to allow free passage of irrigation sprinkler system. In
25 other words, between the towers. The towers on this system

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 the first five are 147 feet apart. The second two are 185
2 feet apart.

3 MR. NUTTER: Now just a minute here.

4 MR. WOODY: Okay.

5 MR. NUTTER: The first five are 147 feet
6 apart. Now that's starting from the center pivot.

7 MR. WOODY: Yes, sir.

8 MR. NUTTER: So every 147 feet you have
9 another tower.

10 MR. WOODY: Yes, sir.

11 MR. NUTTER: And that's where the wheels
12 are.

13 MR. WOODY: Yes, sir.

14 MR. NUTTER: Okay. So the first five are
15 147 feet apart, then the next two?

16 MR. WOODY: Are 185 feet.

17 MR. NUTTER: Okay.

18 MR. WOODY: The last tower is 170 feet.

19 MR. NUTTER: And then you're out to the
20 end of the whole thing.

21 MR. WOODY: I have a 16-foot overhang. All
22 that should add up to 1296.

23 MR. NUTTER: That 16-foot overhand, is at
24 the end of the contraption.

25 MR. WOODY: Yes, sir. It has a gun on the

1 end that extends on out another, oh, 40 or 50 feet, depending
2 on the wind velocity and direction.

3 MR. NUTTER: Go ahead.

4 MR. WOODY: Woody Acres favors this number
5 one suggestion that we have put up here.

6 Some of the arguments that we would have,
7 if it was outside the circle, then both parties would have
8 free access. In other words, if my machine happened to be
9 across that access road, why they probably -- at the time
10 they came out there to service that well, they'd probably
11 have to walk in there because I'm putting out 3-1/2 inches
12 of water per acre.

13 Another argument would be if the workover
14 unit happened to be present during the growing season and
15 they were over the well two or three weeks, and I happened
16 to have my irrigation system in this west circle, then you
17 can see I would have it tied up down there. I wouldn't be
18 able to walk it around into the 9:00 o'clock position and
19 get it back.

20 Going back to the aerial photograph, I
21 have in the lower lefthand corner, I presently have a tenant
22 residence in that area. The ideal situation, I believe,
23 would be to locate the well outside the -- the lower right
24 part, part of the circle.

25 MR. NUTTER: Where is the residence?

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (885) 471-2482
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (S.E.) 471-2482
Santa Fe, New Mexico 87501

1 MR. WOODY: Well, it doesn't show up very
2 good in this, it's right in the corner there. I believe you
3 can see -- well, it's not very plain.

4 MR. NUTTER: In the extreme southeast cor-
5 ner of that 40-acre tract?

6 MR. WOODY: That's correct.

7 MR. NUTTER: Little white dot there with
8 a shadow on it, is that the house?

9 MR. WOODY: Let's see.

10 MR. NUTTER: There's another house just
11 northeast of it; just northwest of it inside the circle,
12 it looks like.

13 MR. WOODY: No, that's Amerada Hess' old --
14 old location. There's alafalfa hay growing all in that area
15 except right in that pit, you know. That was put in during
16 the open pit days and --

17 MR. NUTTER: What's this right here?

18 MR. WOODY: It's -- it's a picture of an
19 old -- of a tank that they had.

20 MR. NUTTER: And where's the house?

21 MR. WOODY: The house is in this area right
22 here.

23 MR. NUTTER: Oh, it's down here.

24 MR. WOODY: Yes, sir. As I stated, this
25 would be the ideal area.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3016 Plaza Blanca (SOS) 471-2482
Santa Fe, New Mexico 87501

1 MR. NUTTER: And what are these little
2 curlicue lines coming north and south?

3 MR. WOODY: The curlicue lines coming north
4 and south are a present willrow system that I have in there.
5 I use it to supplement the -- the big machine. I can water
6 the corners with it, and I do, I sometimes overlap watering
7 in order to get some more of the corner.

8 If you will note the circles, and the east
9 circle here is a full circle, it's 130 acres, and there's
10 160 acres of land in that area. In other words, when you
11 have one of these machines you lose 30 acres, so I have gone
12 in and -- with these other systems. These other systems I
13 have there, their clearance is about, oh, 2-1/2 feet.

14 MR. NUTTER: Do they move or do you just
15 lay them down?

16 MR. WOODY: No, sir, they move. You have
17 to disconnect your pipe, or your hose at the end, let the
18 system drain, and go out there and move it. They move ap-
19 proximately, oh, 120 feet. It has a motor in the center of
20 it, a drive unit, that runs hydraulics in the whole thing.

21 MR. NUTTER: And it just moves laterally?

22 MR. WOODY: Yes, sir.

23 MR. NUTTER: Back and forth?

24 MR. WOODY: Uh-huh, yes, sir, sometimes in
25 a high wind they move when you don't want them to move.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2462
San Jose, New Mexico 87901

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MR. NUTTER: Okay, now these rotary sprinklers, Mr. Woody, do they reverse? In other words, do the hands on the clock run forward and backward also?

MR. WOODY: Yes, sir, I can run it with water in it, without water in it. I can run it in reverse; I can run it forward.

MR. NUTTER: So when you move it to the -- when you move it over here to the west 40, or the west 160, its center is at the center of the circle but it's pointing off to the east.

MR. WOODY: That's correct.

MR. NUTTER: And then I presume you rotate it counterclockwise up to the feed lot there.

MR. WOODY: That's correct.

MR. NUTTER: And then it would reverse and come back and make the 3/4 of a circle.

MR. WOODY: That's correct.

MR. NUTTER: Okay. Now, during normal irrigation season, discounting frequent rains, what is the frequency that you have to move the system back and forth? How long does it stay in place when it's in a 160-acre tract?

MR. WOODY: The present system, I'm putting out 1600 gallons a minute through it. It's designed to give me 3-1/2 inches, acre inches of water every six days.

MR. NUTTER: Every six days.

MR. WOODY: Yes, sir.

MR. NUTTER: Now, how many days is it on the tract to get that 3-1/2 inches of water?

MR. WOODY: That depends on what crop I have there, sir. If it's alfalfa hay I use the full 3-1/2; if it's cotton I don't use that much.

I want to -- I want to state that the system probably will be in one area, say, ten days, and then it's moved to the other, which would catch it.

MR. NUTTER: For ten days and then back?

MR. WOODY: Yes, sir.

MR. NUTTER: So it's --

MR. WOODY: Depends if it's in August --

MR. NUTTER: It's on and off in ten days, then.

MR. WOODY: Yes, sir, in August it would be --

the frequency would be considerably more because my plants are using -- utilizing quite a bit more water. This time of year it wouldn't be as frequent.

MR. NUTTER: Now where you've got this proposed well marked on your Exhibit A is the 660/660 location --

MR. WOODY: Yes, sir.

MR. NUTTER: -- that the applicants have requested here today. You heard Mr. DeMarco state that the ideal location, as far as he's concerned, would be a 330/330

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
2020 Plaza Blanca (666) 471-2462
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (606) 471-2462
San Antonio, New Mexico 87501

1 location. That would be outside the circle or right on the
2 edge of the circle, wouldn't it?

3 MR. WOODY: It would be awfully close. I
4 don't know for sure.

5 MR. NUTTER: It would be down near the
6 little curclique line irrigation system but it would be down
7 towards the house there.

8 MR. WOODY: Yes.

9 MR. NUTTER: Still it wouldn't be on top of
10 the house.

11 MR. WOODY: I don't know how far away it
12 would be from it.

13 MR. NUTTER: Mr. Buck, has the company
14 given any consideration to the possibility of a 330 location?

15 MR. BUCK: We would like to go something
16 like a 330/330 or 330/660, so that wouldn't bother us.

17 MR. NUTTER: You haven't discussed it as
18 far as getting a waiver from Amerada is concerned to move
19 that close.

20 MR. BUCK: No.

21 MR. NUTTER: They gave you a waiver
22 as far as a 660/660 is concerned.

23 MR. BUCK: Uh-huh.

24 MR. NUTTER: What do you think, Mr. Buck,
25 of the proposals that Mr. Woody had on his exhibit Number --

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-9462
Santa Fe, New Mexico 87501

1 his conclusions there?

2 Number one would be to locate the drilling
3 unit outside the center pivot irrigation system and
4 directionally drill.

5 What -- how does that grab you?

6 MR. BUCK: Well, that sounds fair to me.

7 MR. NUTTER: To directionally drill the
8 well?

9 MR. BUCK: Well, I'd better -- Mr. DeMarco
10 is our engineer who would be supervising and I don't know
11 whether we would run into a problem in directionally drilling
12 it or not, you know, sometime you get into problems at
13 that depth.

14 So I'd have to ask Mr. DeMarco.

15 MR. DeMARCO: Well, we know this is crooked
16 hole country and if we're not careful we're going to be
17 directionally drilled and have a lot of trouble.

18 It could be done. It will add -- it will
19 add considerably more to the cost.

20 MR. NUTTER: Well, you're running into a
21 problem here, anyway, when you're talking about a \$50,000
22 alfalfa crop.

23 MR. DeMARCO: Right.

24 MR. NUTTER: On this land.

25 MR. DeMARCO: If we can get outside the

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (955) 471-2482
Santa Fe, New Mexico 87501

1 circle and -- and get a waiver from Amerada on 330 by 330,
2 I believe we can work with Mr. Woody on this, and we want to
3 work with him every way we can, because I understand these
4 systems, and --

5 MR. NUTTER: Okay, then alternative two
6 would be if the well is drilled in the center of the Unit E,
7 to drill and complete during a non-cropping season, which
8 would be during the winter months.

9 MR. DeMARCO: We're faced with a lease
10 problem there.

11 MR. NUTTER: Are you?

12 MR. DeMARCO: Yes, sir.

13 MR. NUTTER: When do you have to have your
14 well started?

15 MR. BUCK: About July the 8th, somewhere in
16 there. I'm not sure what the lease calls for.

17 MR. NUTTER: I see. Okay.

18 MR. BUCK: Excuse me, you mentioned that
19 say we did drill during his cropping season, what -- what
20 type of bill did you indicate that we were looking at?

21 MR. NUTTER: No, that's during the non-
22 cropping season.

23 MR. BUCK: Yeah, but if we drilled during
24 the cropping season, you know, to meet our deadline, what
25 kind of money are we talking about?

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

1 MR. DeMARCO: That you would lose?

2 MR. WOODY: \$50,442.

3 MR. NUTTER: Well now, Mr. Woody, you

4 wouldn't lose the entire 96 acres because you said your --

5 your machine works clockwise and counterclockwise, so actually

6 it would come down to a point, you'd draw a line from the

7 center in the southwesterly direction down there, and you

8 would still have from this point up here near the feed lots

9 down to this line. It could rotate around better than half

10 of the circle.

11 MR. WOODY: Yes, sir, that's very correct,

12 but I also stated that I had to have it at that 9:00 o'clock

13 position on that west circle in order to get it back to the

14 east circle.

15 MR. NUTTER: You'd have to -- in order to

16 pull it back you'd have to move it on up there --

17 MR. WOODY: Yes, sir.

18 MR. NUTTER: -- to straight east -- to

19 straight west position.

20 MR. WOODY: Yes, sir, and I already have

21 the obstruction to the north and this would be an obstruction

22 to the south.

23 MR. NUTTER: I see.

24 It won't trailer at an angle.

25 MR. WOODY: No, sir.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (305) 471-2462
Santa Fe, New Mexico 87501

1 MR. BUCK: Excuse me, may I ask a question?

2 MR. NUTTER: Yes, sir, Mr. Buck.

3 MR. BUCK: If you were to start it, say, at
4 a due south position and just take up to the north, although
5 you'd lose that west portion, is that where you came up with
6 the \$50,000?

7 MR. WOODY: Where I came up with \$50,000
8 is I'm stating that if I have an obstruction that I cannot
9 get the system in the 9:00 o'clock position on the west
10 circle, I cannot get it back to the east. In other words,
11 if you drill, I've got to keep it in the east circle.

12 MR. BUCK: If you start it in the south and
13 go to the north and back to the south, you would make half
14 the --

15 MR. NUTTER: Mr. Buck, I think you're
16 missing the point. In order for him to move the machine from
17 the west 160 over to the east 160, he's got to position it
18 so that it's pointing due west.

19 MR. DeMARCO: It only moves in one direction
20 here.

21 MR. NUTTER: He has to trailer it with the
22 tailend of it sticking due west, so he can't get it due
23 west if there's an obstruction to the southwest where your
24 well would be and he can't get it to the west because of the
25 feed lots in the north.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 MR. WOODY: In other words, I just wouldn't
2 go down there. I'd just keep it in the --

3 MR. NUTTER: You'd lose the whole 96 acres
4 then.

5 MR. WOODY: Not the whole 96 acres, Mr.
6 Commissioner, I can still use the supplement irrigation
7 system that I have, but I'd lose quite a bit of it.

8 MR. BUCK: But it won't work on just half
9 the acreage; just a half arc?

10 MR. WOODY: Yes, it would work, but in or-
11 der -- if I kept it there all the time.

12 MR. BUCK: Right.

13 MR. WOODY: It would work fine, but I have
14 another circle there that I water with it also.

15 MR. BUCK: What was running through my mind
16 is that you work it over this portion and then we pay you
17 for the lose over on that portion.

18 MR. WOODY: Yes, sir, but I've got to have
19 the system like this in order to tow it straight back.

20 MR. BUCK: I see, okay.

21 MR. WOODY: Follow?

22 MR. BUCK: Yeah, otherwise all you can get
23 is a quarter up here.

24 MR. WOODY: That would be all I'd be able
25 to get. I wouldn't be -- I wouldn't be able to get the

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2462
Santa Fe, New Mexico 87501

1 circle back -- the system back over here.

2 MR. DeMARCO: Without the system you'd have
3 to use the older system.

4 MR. WOODY: Uh-huh. Outside the circle it
5 would be no problem.

6 MR. NUTTER: Well, now, Mr. Buck, to go on
7 to these alternatives, choices here in his conclusions, if
8 the well were drilled during the non-cropping season, and
9 you got it down, how about the conditions under A? Could
10 you survive under the conditions under Roman numeral II-A
11 there, in the event the well is a producer all the devices
12 used to pump and process the well would be subterranean with
13 holding tanks placed outside the system circle.

14 MR. DeMARCO: We could certainly place the
15 tanks outside.

16 MR. NUTTER: Outside of the system. Okay,
17 now what do you have in mind insofar as pumping equipment?
18 Undoubtedly you're going to be making water there.

19 MR. DeMARCO: That's correct, and we pos-
20 sibly will have to start off with subsurface hydraulics,
21 which we could live with eventually, but we don't want to be --
22 we don't want to be limited to subsurface hydraulics when
23 the volumes start falling off. We'd like to be able to have
24 a beam unit in there that will handle decline.

25 MR. NUTTER: Right, and those beam units for

1 Devonian water wells are usually pretty tall.

2 MR. DeMARCO: They're taller than 9 feet 6,
3 that's for sure. Or 8.6.

4 MR. NUTTER: Have you had experience using
5 Reda pumps for handling high volume watered wells?

6 MR. DeMARCO: Yes, sir, I have.

7 MR. NUTTER: They don't have a big clearance
8 as far as the surface of the ground is concerned.

9 MR. DeMARCO: No, sir, they don't, and
10 neither do subsurface hydraulics, except for your Waukasha
11 engines, but even at that, that would clear; there'd be no
12 problem.

13 MR. NUTTER: Beam pumping units, though,
14 would be just about out of the question.

15 MR. DeMARCO: Out of the question, but we
16 wouldn't want to be limited to what we could operate with.

17 I think the best solution, if we can obtain
18 a waiver from Amerada would be 330 out of the corner. We'd
19 be outside the circle, and like he says, then the roads
20 would be open to us at any time for a pulling unit, and
21 we're going to have to service these wells on --

22 MR. NUTTER: I think it might be well to
23 take a look at the alternative location. Is this house oc-
24 cupied, this house down here in the extreme southwest quarter
25 of the --

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (995) 471-2492
Santa Fe, New Mexico 87501

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3030 Plaza Blanca (SOS) 471-2482
Santa Fe, New Mexico 87501

1 MR. WOODY: At the present it is.

2 MR. NUTTER: Would drilling a well at the
3 edge of the dotted line -- it would be approximately by eye-
4 balling it, it would be approximately 200 feet from the
5 house. Is that going to impose any kind of a hazard or is
6 it possible these occupants could be out of the house while
7 the well was being drilled, or anything like that, Mr.
8 Woody?

9 MR. WOODY: Well, it's a tenant house that
10 I have, people who work for me. I'm sure that I could sooth
11 them over all right.

12 MR. NUTTER: You could make arrangements
13 for them to live somewhere else?

14 MR. WOODY: Or live there and live with it,
15 I guess.

16 MR. NUTTER: I think we'll just take the
17 case under advisement and we'll have some discussions with
18 both of you parties after the hearing.

19 MR. DeMARCO: May I ask one question?

20 MR. NUTTER: Yes, Mr. DeMarco.

21 MR. DeMARCO: Would it require another
22 hearing.

23 MR. NUTTER: Yes, sir, it's going to require
24 another hearing for that 330 location.

25 We might be able to -- we might be able to

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
1020 Plaza Blanca (505) 471-2462
Santa Fe, New Mexico 87501

1 take the case under advisement with the record that we've
2 got here today, readvertise the case as an alternative loca-
3 tion, and not have to have the hearing. The record here
4 could be incorporated in that hearing later.

5 MR. DeMARCO: We're getting to the point to
6 where --

7 MR. NUTTER: You're getting close to a
8 deadline as far as drilling is concerned.

9 MR. DeMARCO: Yes, sir, and we have a rig
10 located and everything.

11 We'll contact Amerada in the meantime and
12 see if we can't get something from them.

13 MR. NUTTER: Well, I think if you could get
14 a waiver from Amerada, and if it was a location that was
15 agreeable with Mr. Woody and you had made proper arrangements
16 with him, we may be able to just permit you to drill the
17 well pending the hearing.

18 MR. DeMARCO: Yes, sir.

19 (There followed a discussion
20 off the record.)

21 MR. NUTTER: We'll just take the case under
22 advisement while you contact Amerada and if you want to re-
23 advertise the case for an alternative location, and I think
24 we've got sufficient record here today that we won't have
25 to have an actual hearing on it; just call it later and do

1 the order on it.

2 MR. DeMARCO: Good, that will be fine, sir,
3 thank you.

4 MR. WOODY: MR. Commissioner, I formally
5 request that Exhibits A, B, with supplement B-1 and B-2, be
6 entered into the record.

7 MR. NUTTER: Woody Exhibits -- Woody Farm
8 Exhibits A, B, and B-1 and B-2 will be entered in the record.

9 With that we'll take the case under advise-
10 ment, Case 6564 under advisement, and call a fifteen minute
11 recess.

12
13 (Hearing concluded.)
14
15
16
17
18
19
20
21
22
23
24
25

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (606) 471-2462
Santa Fe, New Mexico 87501

REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

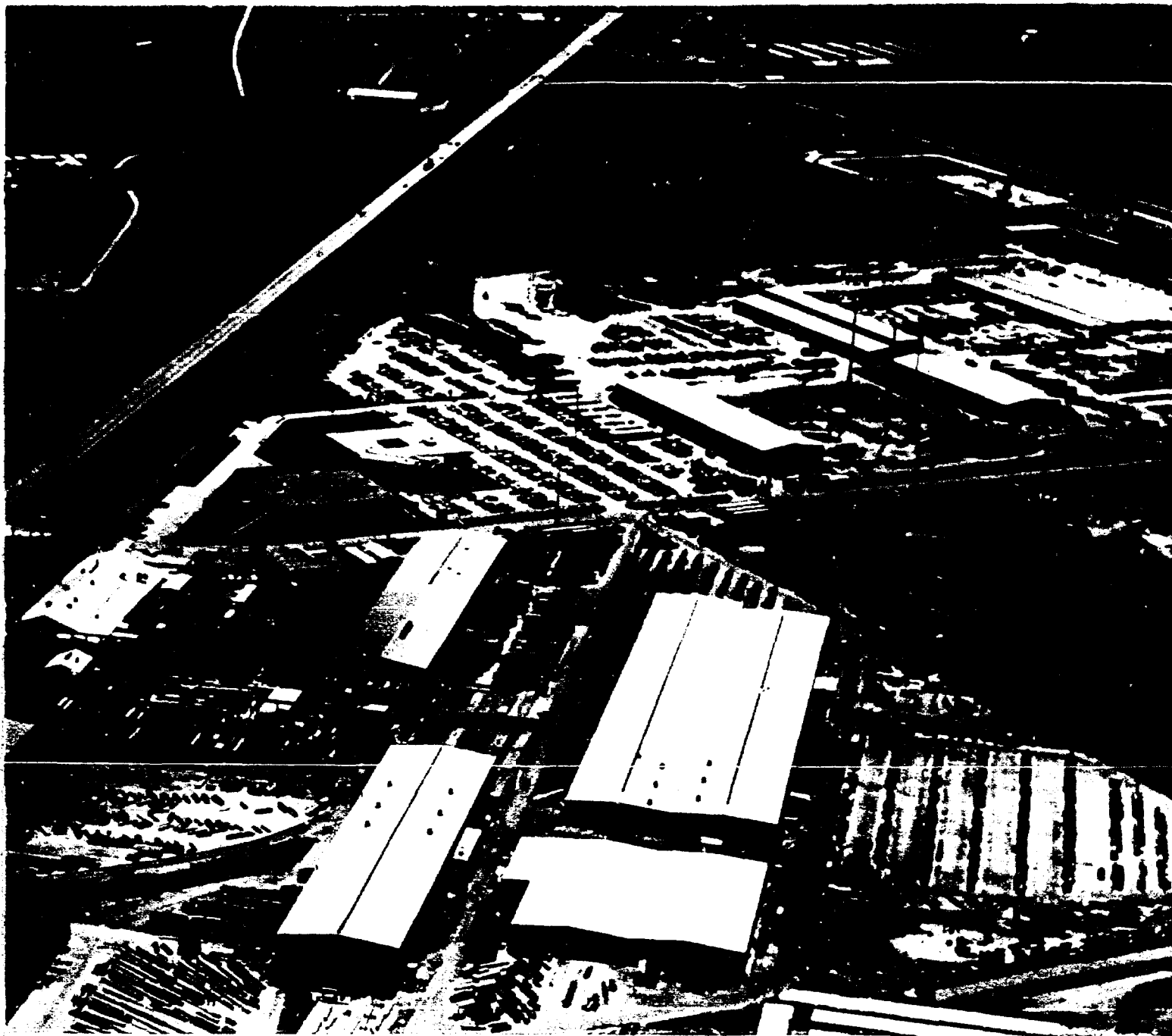
Sally W. Boyd CSR
Sally W. Boyd, C.S.R.

SALLY WALTON BOYD
CERTIFIED SHORTHAND REPORTER
3020 Plaza Blanca (SOS) 471-2442
Santa Fe, New Mexico 87501

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 6564
heard by me on 6/13 1979
[Signature] Examiner
Oil Conservation Division

VALLEY ELECTRICS®





Valmont has been the world's largest manufacturer of center pivot irrigation systems since 1953. Today, it is both the largest manufacturer of electric driven and water driven center pivots.



Valmont Industries, Inc.

Valley, Nebraska 68064
(402) 359-2201

© 1977 Valmont Industries, Inc.

Printed in U S A

ADC0173



Value

Why more people buy Valley than any other brand.

Value is a simple measurement that farmers know all about. It is the initial cost of a farming investment divided by its years of constant useful life. It is the real measure of any purchase. That is why value is another name for Valley Electrics. Consider the many factors that add up to value.

Value is long life. Many Valley Systems have been operating 15 to 20 years — longer than any other center pivot. Value is steady performance, leading to extra income season after season. Value is increased yields. This means the Valley System pays its own way, over and over.

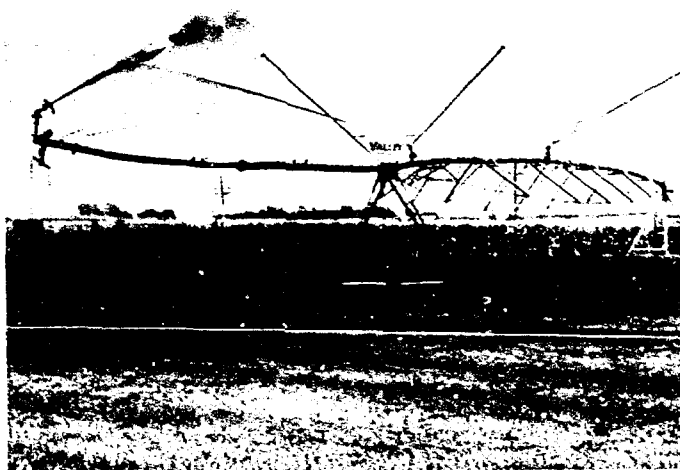
Value is the professional dealer and the strong company standing behind your center pivot—Valmont Industries—its trained people, modern plant and large inventories of parts and assemblies. They are another assurance that your Valley Center Pivot will continue to perform year after year.



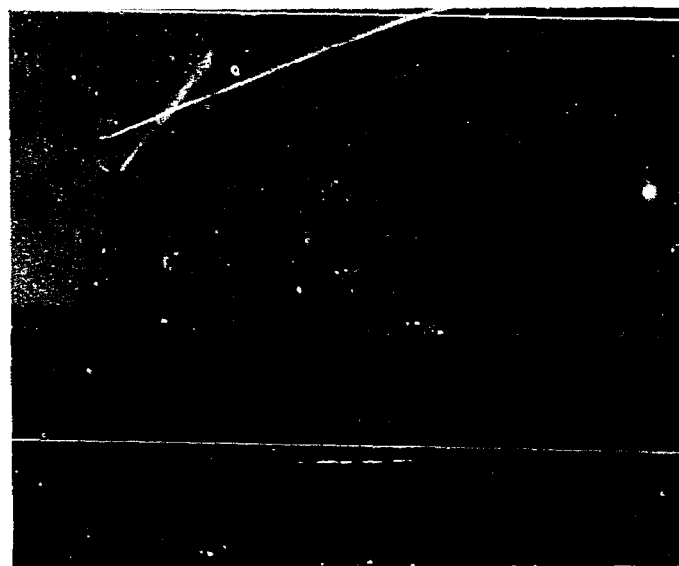
Computer Control. Valmont is one of the leading manufacturers using computers for efficient operations. On-line systems give service and technical personnel instant access to shipments, parts and technical data to help dealers and customers.



Galvanized Protection. Valmont operates one of the largest hot dip galvanizing plants in the nation for the sole purpose of providing the finest, high-quality protection for its steel products.



Recent Product Development. A system for disposing all types of liquid manure is one of the latest developments in center pivot technology. Systems are highly portable and more efficient than older methods in both cost of equipment and even distribution of waste material.



Recent Product Development. The Valley "Little Fielder" is a highly portable system designed for sets of about 10 acres. In comparison with high pressure volume guns, it has all the advantages of precise center pivot water distribution.



Value is engineering heavy-duty, practical components—rugged drive units, sturdy gear cases, multidirectional flex joints, highly reliable electrical systems and a host of others. Value is based on a design and engineering concept of building for long life. This means there can be no compromise

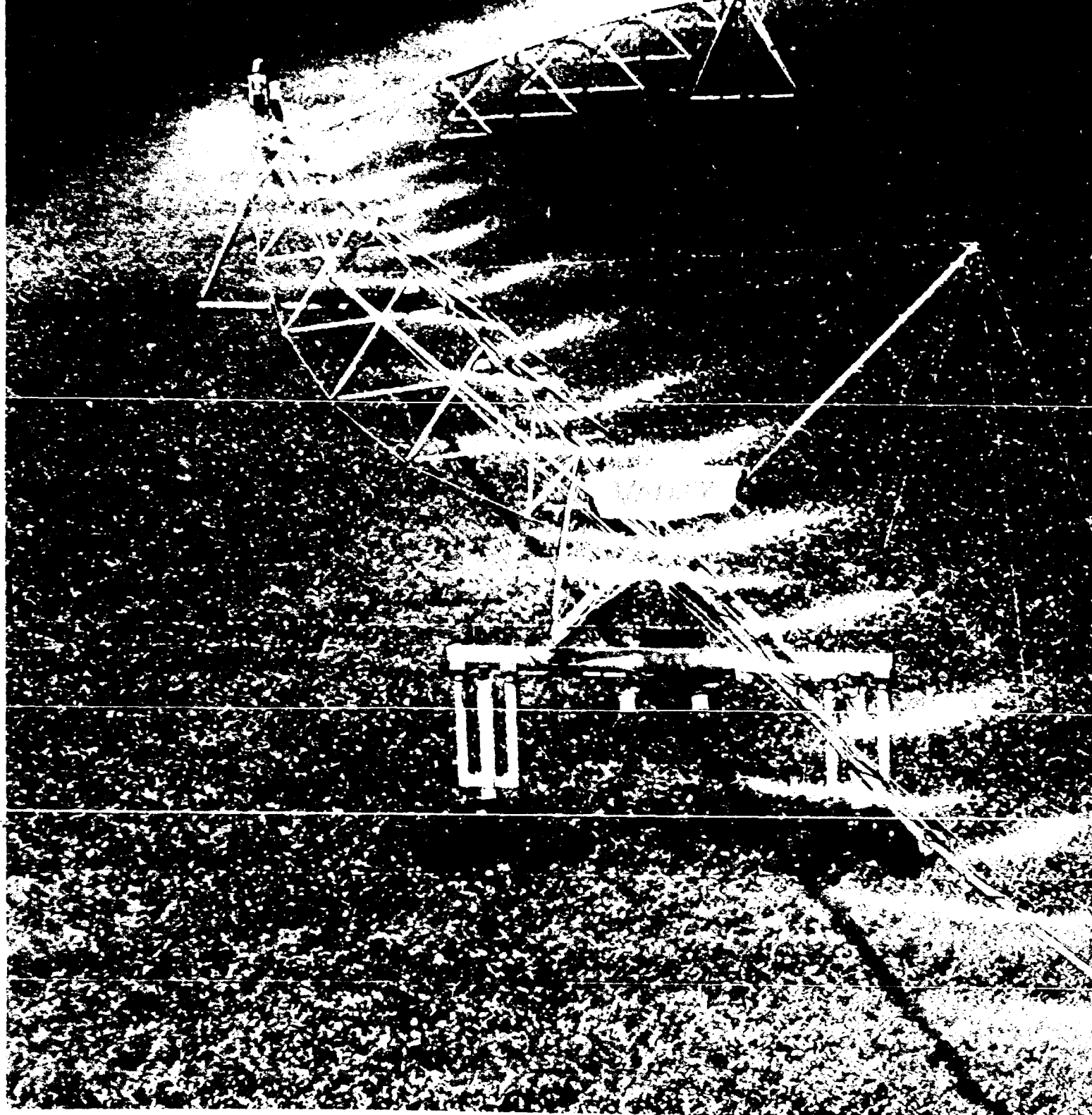
with quality, merely to achieve the appeal of a lower price. Value is also a system that has the highest resale price of any center pivot. Value is why more people buy Valley Electrics than any other electric center pivot.

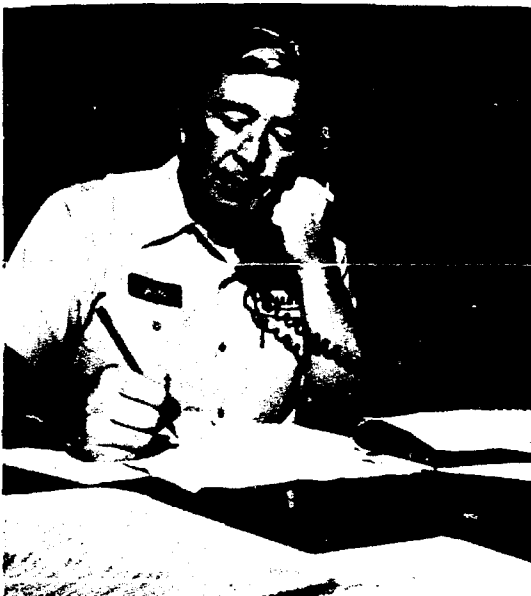
This dedication to quality has resulted in the sale of more than 29,000 Valley Center Pivots throughout the world. The Valley you purchase today, is engineered and built tougher than ever before. It represents 25 years of experience in the field and reflects all the needs of a reliable, efficient system.

Valley Corner Systems

Tomorrow's technology, today.

The Valley Corner System brings an entirely new dimension to center pivot irrigation. It solves the one important limitation of center pivot irrigation—making it possible to irrigate corners, rectangles and other shapes. For the first time you can farm and irrigate properly the whole farm.





pioneers of the industry. They know the need for an effective service organization.

- How to install
- How to finance or lease
- How to get the best results
- How to maintain systems
- How to have an adequately trained staff
- What parts to stock and how many
- How to act fast when you need them

They are businessmen who have big investments in buildings, parts inventories, trucks, radios, personnel and hundreds of things that make top service not just so many words.

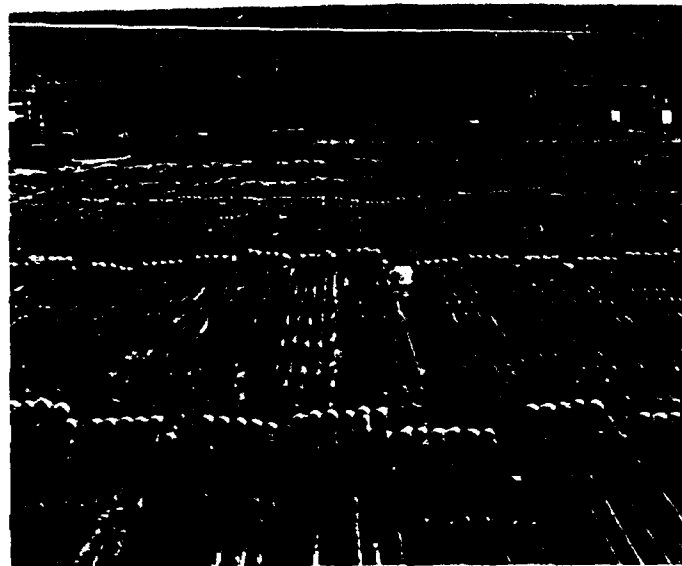
Comprehensive training programs and millions of dollars in parts and accessories under computer control, back up your dealer. Each year, hundreds of dealer personnel at-

tend schools throughout the country receiving technical training and developing the knowledge and skills needed to repair, erect and design center pivot system installations. Special courses in electrical repair and trouble shooting are a vital part of the training.

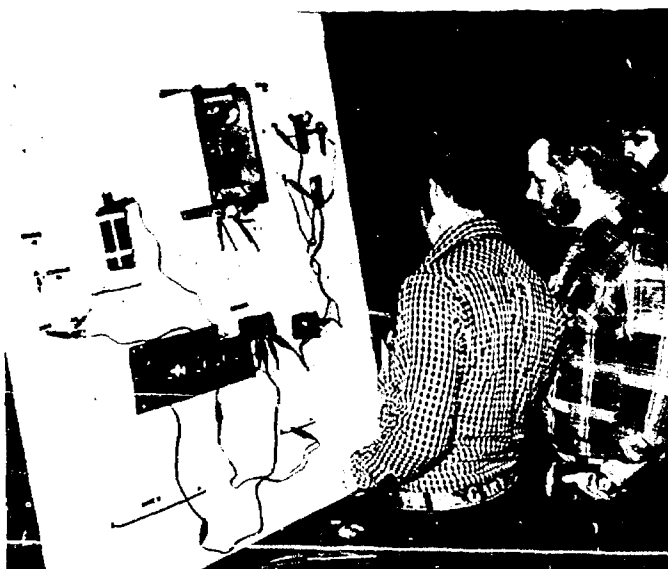
The Company behind you



Engineering. A large professional staff is assigned to center pivot irrigation projects. They are skilled in the technical disciplines of agricultural, mechanical, electrical and electronic engineering. They are by far the largest such group in irrigation.



Inventory and Parts. Behind every dealer are thousands of parts and components ready for shipment, carefully inventoried under computer control. This means that orders are handled on a timely basis, and service problems are solved.



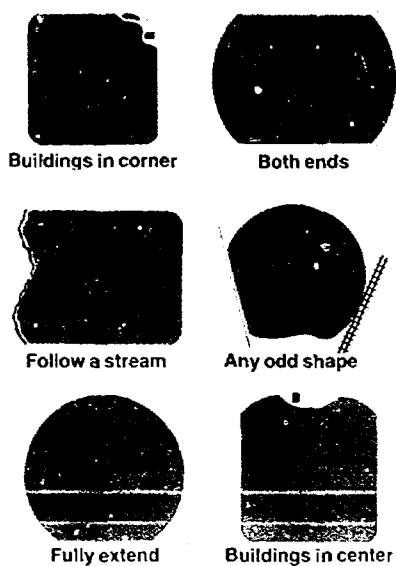
Training. Hundreds of service personnel are trained in the technical skills necessary to provide reliable service for customers. Schools are held several times a year, both at Valmont and at regional locations.



Emergency Parts Service. Service, particularly during the growing season, is a critical area of concern. The use of air freight, as well as rapid shifts of parts from a nearby dealer source to the dealer and customer who needs them, is common.

19 to 45 extra acres. A Valley Corner System can irrigate 150 to 154 acres in a quarter section. Depending on field shape and end gun selection, this same quarter mile system can irrigate over 190 acres. This flexibility means that farmers can irrigate an additional 19 to 45 acres of almost any field shape with automatic ease. For example, it is common to irrigate 165 to 171 acres in a long half mile wide field. Larger size Corner Systems can irrigate over 300 acres.

Valley corner system fits your field shape



Manufactured under one or more of U.S. Patents 3802627, 3797517, 3902668, 3468391 & 3979062.

LAND COST		CENTER PIVOT COSTS			CORNER SYSTEM COSTS			CORNER SYSTEM SAVINGS	
Quarter Section Per Acre	160 Acres	Center Pivot* Irrigation	Center Pivot + Land	Per Irrigated Acre (131 Acres)	Corner System* Irrigation	Corner System + Land	Per Irrigated Acre (150 Acres)	Per Acre	Total
\$ 300=	\$ 48,000	\$52,000	\$100,000	\$ 763	\$65,000	\$113,000	\$ 753	\$ 10	\$ 1,500
\$ 600=	\$ 96,000	\$52,000	\$148,000	\$1130	\$65,000	\$161,000	\$1073	\$ 57	\$ 8,550
\$ 800=	\$128,000	\$52,000	\$180,000	\$1374	\$65,000	\$193,000	\$1287	\$ 87	\$13,050
\$1000=	\$160,000	\$52,000	\$212,000	\$1618	\$65,000	\$225,000	\$1500	\$118	\$17,700
\$2000=	\$320,000	\$52,000	\$372,000	\$2840	\$65,000	\$385,000	\$2567	\$272	\$40,800

*Includes irrigation system, well, pump, power unit, lead-in, freight, installation, insurance. Center Pivot or Corner System may be lower or higher depending on water system cost.
If your land is worth more than \$280 per acre you should have a Corner System.

Investment per developed acre is less. Whether you are using a conventional system or a Valley Corner System, you have about the same costs for land, pumps, wells, power units and other equipment. But with the Corner System these costs are spread over more acres and you realize additional production. In the chart above you can see what happens. As land values go up, the Corner System investment becomes proportionately less and the difference in cost between it and a regular center pivot constantly widens in favor of the Corner System—a difference of thousands of dollars.

10-40% energy savings. Low Pressure Valley Corner Systems are engineered for both energy savings and precise water distribution. There are two types: One uses low pressure impact sprinklers operating at 40-45 psi. The second

has spray nozzles, fore and aft, operating at about 20 psi. (See page 10 for details.) Fore and aft spray nozzles give an even pattern and better soil penetration for maximum yields. A low pressure Corner System, irrigating 150 acres, with spray nozzles uses about the same horsepower as a conventional high pressure system irrigating only 131 acres.

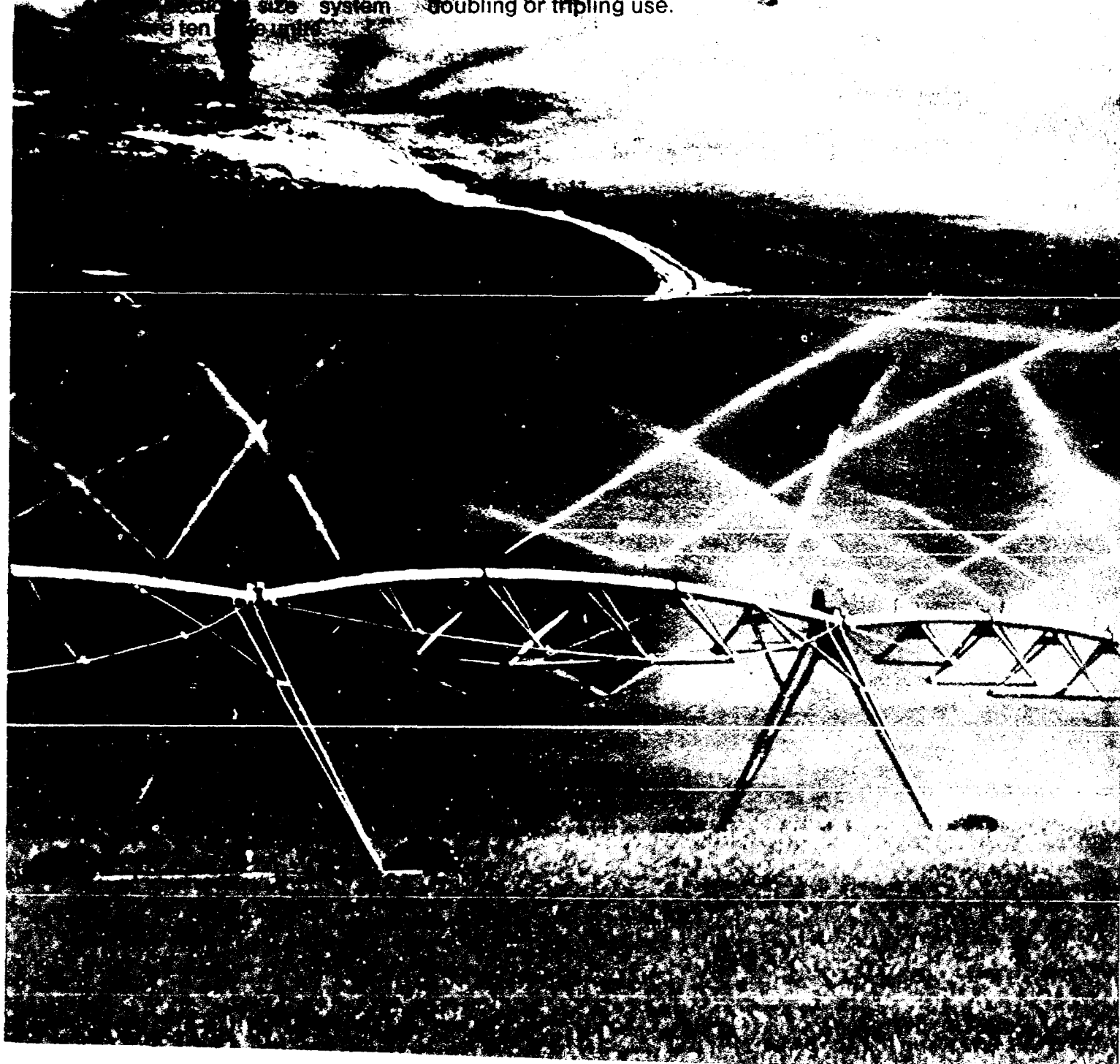
Precise irrigation end to end. The Valley Corner System is a true center pivot with a remarkably precise corner arm that irrigates evenly, constantly moving, turning sprinklers on and off, as they are needed. When compared with high pressure volume guns, there is far less wind distortion, greatly reducing the wasteful practice of over and under watering. By irrigating in a square, you will find that it is easier to plant and harvest, end to end and field to field.

Standard Span Systems

Sturdy spans and drive units spread the weight and provide the extra muscle and flexibility to irrigate almost any tillable land. Heavy-duty drive units and multidirectional couplings are designed to take the stresses of slopes up to 30%. Land leveling can often be avoided or minimized, preserving soil tilth and fertility and saving time and money. In a standard size system, one ten foot unit

There is a choice of components available so that you can practically custom-make the system to your requirements. Systems are available with five types of sprinkler packages (see page 10) and a variety of end guns. Some systems can be towed, if moving to adjacent fields is desirable. The portability feature may add greatly to the value of your system, by doubling or tripling use.

The system is engineered for precise, uniform water distribution whether operated at high pressure or low pressure. Your choice of sprinkler packages should depend on terrain, soil-type and crops grown.



square inches. Optional—11.2 x 24 (10" rim) 4-ply rated tire with R-1 tractor-type tread. Contact area, 118 square inches.

Corner System Optional—18.4 x 26 (16" rim)

FIVE SPRINKLER PACKAGES (See Page 10)

Operating above 60 psi: Agricultural impact sprinklers spaced along pipeline. Three different configurations available.

Operating above 40 psi: Agricultural impact sprinklers, spacing decreasing towards outer end of pipeline.

Low Pressure—above 20 psi: Spray nozzles closely spaced, spraying fore and aft along pipeline.

END GUNS

Standard: Rainbird #65 or #85, depending on required gallonage.

Optional: Nelson #100 or Rainbird #95, 2 H.P. booster pump for end guns on low pressure systems.

Valley Corner System

Water Application Rate: Equivalent to the application rate under a basic center pivot system having 1½ to 2 additional spans on the system.

Water Application Depth: Same as regular center pivot system.

Water Distribution: Total of 18 sprinklers on arm; 2 are constantly operating; 16 are valve-controlled automatically activated as arm extends.

Spray Nozzle Distribution (Optional): Spray nozzle water pattern and end gun with booster pump. Nozzles are valve-controlled and automatically activated as arm extends.

GUIDANCE SYSTEM

Buried Guidance Wire: 14 gauge stranded copper with plastic cover. Burial depth 30 in.

Guidance Control Precision: Steerable Drive Unit can track precisely either forward or reverse.

Safety Circuitry (Directional): Automatic shut off if Steerable Drive Unit off intended path.

Signal Strength: Shallow, ponded water does not affect operation.

Safety Circuitry (Speed): Automatic shut off protection on attachment to Last Regular Drive Unit.

CORNER SYSTEM ARM (for Models 5071 Standard Span and 5171 Long Span Corner Systems)

243 ft. corner arm reach plus 70-120 ft. effective end gun radius

1 (steerable)

21 hrs.
12 hrs.

12%
6%
30%

6 in. (corner arm)

86.0 ft.
12.0 ft.
8.67 ft.
8.5 ft.

6,500 lbs.

CHANGE WITHOUT NOTICE.

Optional Equipment and Accessories

VALLEY ELECTRICS

Retrofit Corner Span

Fits all Valley Electrics.

Rainbird 95 or Nelson 100 End Gun

Extends effective end gun radius from 70 ft. to up to 120 ft.

Booster Pump

Provides adequate end gun pressure on low pressure systems.

High Speed Motors

Reduces maximum rotation rate to 9.3 hours.

High Flotation Tires

14.9x24 tires

4-Ply Rated Tires

11.2x24 size

Stop-in-Slot

Automatic End Gun Shut Off

Ball or Diaphragm End Gun Valves

Automatic Reverse

Pivot Flex Joint

Running Light

Forward and Reverse Tow Packages

63-Ft. Overhang

Five Sprinkler Packages

See page 10 for details

VALLEY CORNER SYSTEM

Rainbird 95 or Nelson 100 End Gun

Extends effective end gun radius from 70 ft. to up to 120 ft.

Booster Pump

Provides adequate end gun pressure on low pressure systems.

High Speed Motors

Reduces maximum rotation rate to 12 hours.

High Flotation Tires

14.9x24 tires

Super Flotation Tires

18.4x26 tires

4-Ply Rated Tires

11.2x24 tires

Five Sprinkler Packages

See page 10 for details

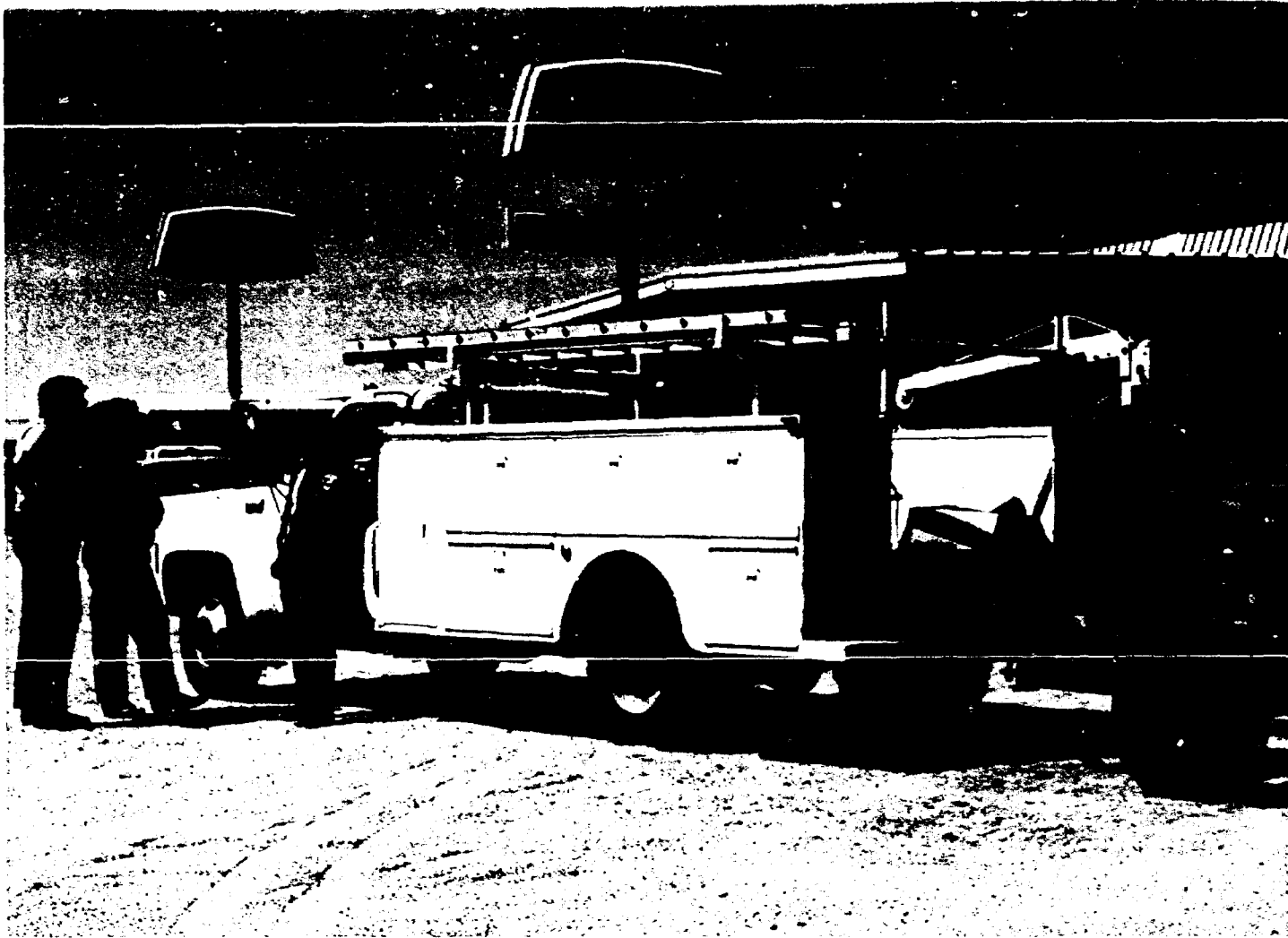
Stop-in-Slot

Automatic Reverse

Pivot Flex Joint

Running Light

A Professional Dealer



Farmers and ranchers who have made big investments in equipment know that once the equipment has been purchased the need for a good dealer and the support of the company behind him can't be underestimated. This support is probably of greater importance with center pivot than with almost any agricultural purchase. The reason is that a problem with the system during the growing season may

seriously affect yields unless there is reasonably prompt service. This is another way of saying your profits go down if the dealer and company don't support you.

The Valley dealer organization is the best in the industry. That's not necessarily because there are more of them, but because they are the professionals. Many have been the

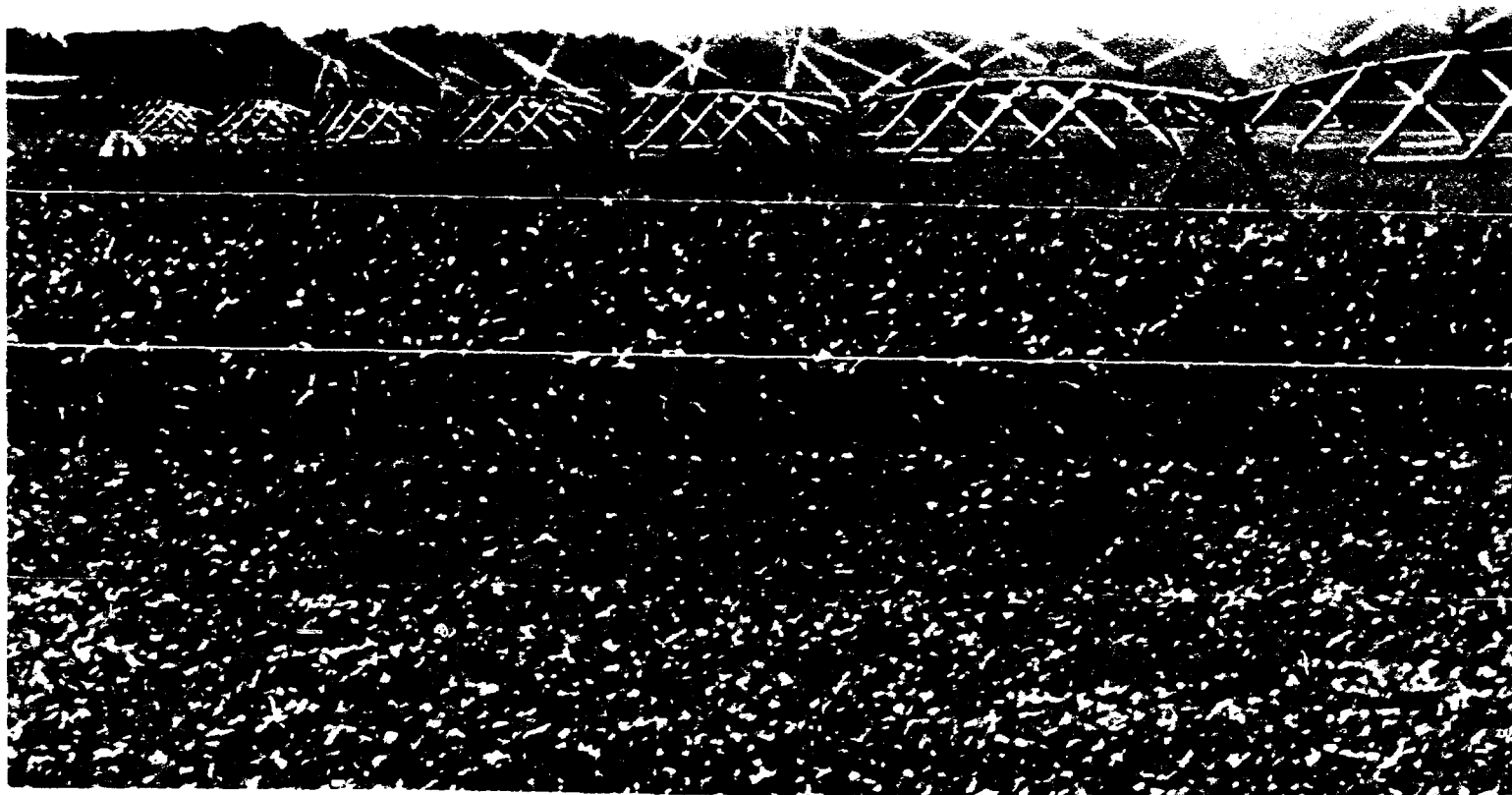


Long Span Systems

Long Span systems effectively irrigate slopes up to 15%, yet can save thousands of dollars in initial costs and maintenance. A quarter-section size system reduces the number of drive train components and controls by 30%, since there are seven drive units as compared with the usual ten on standard span systems. They have all the strength and toughness of the standard models.

With many competitive Long Spans, the overall weight per drive unit has been increased by 25% over standard 10-drive unit models, a factor which often affects operating ability, particularly in heavy soils by cutting deep wheel tracks and increasing overall stresses. The Valley Electric is engineered with 6-inch mainline pipe. This feature sharply reduces the total drive unit weight increase by up to 50% when compared with pipelines of larger diameter.

The Long Span is engineered for maximum stability on slopes and in high winds common to many areas. Extra broad, double trussing is used. Main drive unit members are structurally tough and reinforced.



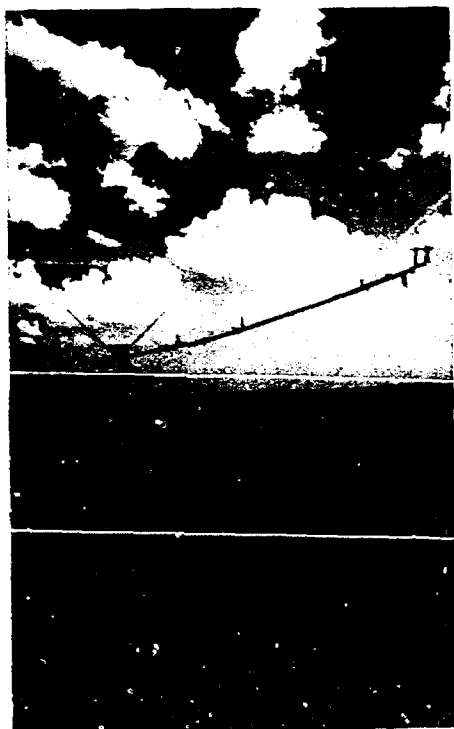
Flexible Leasing/Financing

Valmont pioneered leasing in the center pivot industry. A few years ago it was almost impossible to lease for the long term. Today, it is common to lease for a period of ten years at rates that are both attractive and competitive.

With a lease, you gain numerous advantages:

- **Conservation of capital**
You can use your funds for current needs and other projects.
- **Tax benefits**
You have 100% deductibility of the cost and current use of tax shields to gain lower rates.
- **Insurance options**
We provide low group rates on casualty insurance, guaranteed for the life of the lease, as well as original cost coverage right up to the final payment.
- **For low initial investment**
You make a single minimum initial payment—for example, as little as 10% in a ten-year lease.
- **Unique termination options**
It's designed to make trading and upgrading easy.

What makes a Valmont lease different?



It's a lease designed specifically for irrigation and based on years of helping farmers get the benefits of irrigation. It is IRS approved. You can pass or retain the Investment Tax Credit, at your option. You can include insurance payments, generators, power units, pumps, gear heads, buried lead-in line, freight and installation.

In addition, you can make seasonally adjusted payments. The lease is transferable and in almost all cases your only security is the leased equipment.

When the lease expires, you are in the best position to make an offer and buy the equipment. If not, Valmont's lease includes the cost of equipment removal.

Everything is in one convenient package. You choose the plan of your choice, tailor-made for your particular financing needs.

Specifications

Valley Electrics

ELECTRICAL SYSTEM

Motor: 3 phase, 460 volts. **Safety circuits:** single phase, 120 volts. **Control circuit:** single phase, 120 volts. Speed control, manual reversing and 3-second auto-restart standard equipment located at pivot. Optional end gun shut-off control, optional auto reverse and stop-in-slot.

Wiring: Main power leads—10 gauge, Copper; Safety Control—14 gauge, Copper; End Gun Circuit—14 gauge, Copper.

Wiring Protection: Sheathed in factory-fabricated power cable. All entrance fittings are water tight.

Reversing: Single forward, reverse and off control at pivot. Optional auto reverse.

Speed Control: The speed of the system is controlled by the percent of time

the end tower is allowed to run per minute. This is controlled by a percentage timer located at the pivot panel.

Electrical Switches: Micro switches for each drive unit provide two independent run circuits (forward or reverse). Another switch provides for alignment safety.

Overwatering Safety: Timer located in first tower control box to shut system down, if system fails to move after a pre-selected time. Particularly important when applying fertilizer to avoid chemical burning.

DRIVE

Gear Drive:

Outer End of System: 1 H.P., 37 RPM motor output, plus 52:1 reduction at wheel with 0.71 RPM of the wheel. Optional 1½ H.P., 68 RPM/motor output.

Inner Towers of System: 1 H.P., 30 RPM motor output, plus 52:1 reduction at wheel with 0.57 RPM of the wheel.

Drive Shaft: Shielded ¾" square, connecting gear motor (primary reduction) and gear case at wheels (secondary reduction).

CONSTRUCTION

Undertruss: "Bow String" design with up to seven truss members between drive units. Truss rods: ¾" diameter, (threaded rod ½" diameter, on long span models) with integral hot-formed heads.

Tower Construction: Vertical members 4" x 3" x ⅝" angle. Base beam 6" O.D. x 10 gauge wall.

Protective Coating: Galvanized zinc coating on all structural members.

Wheel Base: 160"

Tire Size: 11 x 24.5 agricultural retread 10-ply tire with R-1 tractor-type tread. 8.25 x 24.5 rim. Contact area 95 square inches. Optional—14.9 x 24 agricultural tires (12" rim), contact area, 175

DESCRIPTION	LONG SPAN SYSTEMS		STANDARD SPAN SYSTEMS
	Model 4171 (non-towable) Model 2171 (towable)	Model 4271*	Model 4071 (non-towable) Model 2071 (towable)
Length (Quarter Section)	1288 ft.	1296 ft. ✓	1298 ft.
Drive Units per quarter section	7	* 8	10
Maximum Rotation Rate:			
Standard	16.9 hrs.	16.9 hrs.	16.9 hrs.
Optional	9.3 hrs.	9.3 hrs.	9.3 hrs.
Maximum Slope Limitations:			
Climbing: 0-6 in. ridges	15%	12%	30%
6-12 in. ridges	8%	6%	30%
Max. Absorption at Drive Unit	30%	30%	30%
Pipe—12 gauge wall:			
Outside Diameter	6 in.	6 in.	6.625 in.
Drive Unit Spacing:			
1st Tower Span	187.0 ft.	187.0 ft.	128.1 ft.
Optional 1st Tower Span	171.4 ft.	171.4 ft.	106.6 ft.
Standard Span	169.5 ft.	169.5 ft.	126.6 ft.
Optional Standard Span	185.1 ft.	185.1 ft.	105.5 ft.
Standard Overhang	0 ft., 42.5 ft. or 85.0 ft.	30.0 ft.	20.0 ft. or 30.0 ft.
Pipe Height (at Drive Unit)	12.0 ft.	12.0 ft.	12.0 ft.
Crop Clearance	8.67 ft.	8.67 ft. ✓	9.0 ft.
Coupler Spacing on Pipe	8.5 ft.	8.5 ft.	10.5 ft.
Weight on Drive Unit with Water:			
170 ft. Span	6,500 lbs.	6,500 lbs.	—
185 ft. Span	6,900 lbs.	6,900 lbs.	—
126 ft. Span	—	—	5,400 lbs.
105 ft. Span	—	—	5,000 lbs.

*Model 4271 is the long span system to purchase if a corner arm is to be added at a later date.

SPECIFICATIONS SUBJECT TO



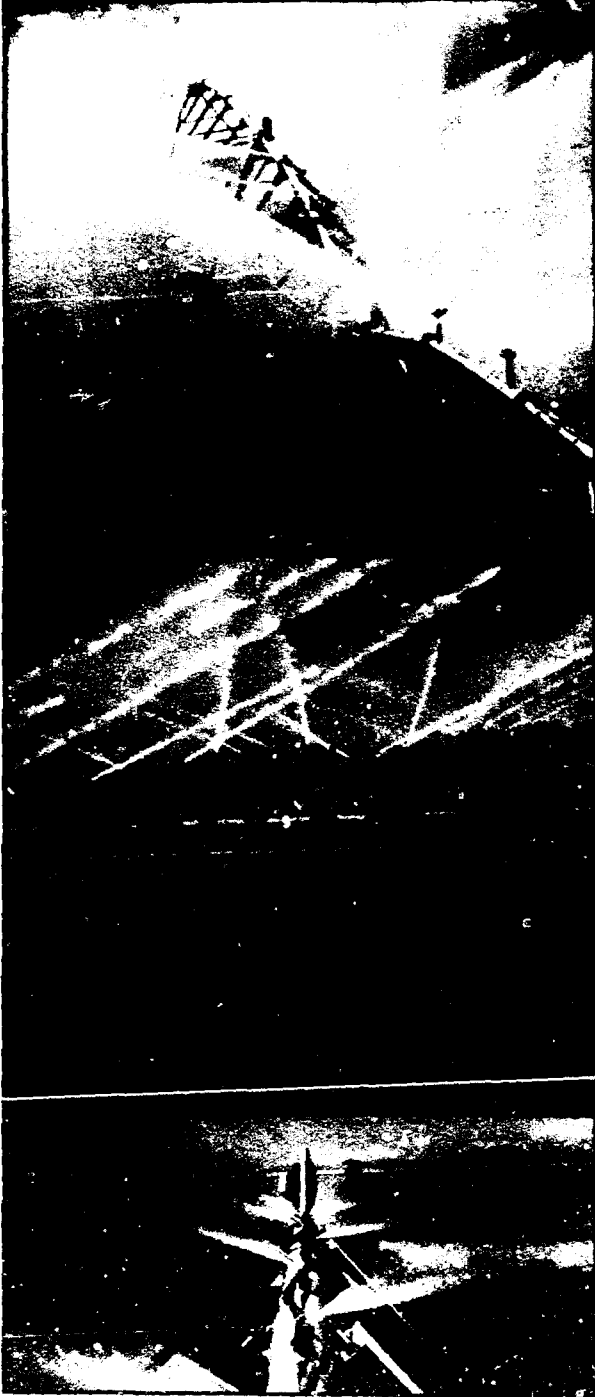
Precise Water Distribution

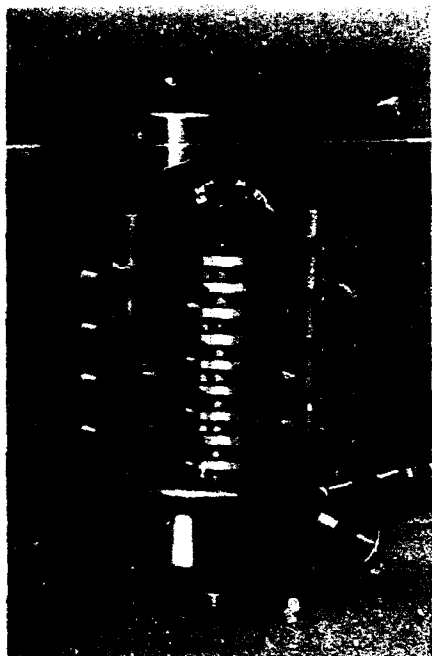
Accurate water distribution throughout the entire system is essential for maximum yields. It is the key to the uniform application of chemicals and fertilizers. Tested Valley water patterns consistently achieve a coefficient of uniformity in excess of 90%, su-

perior to many other irrigation techniques which perform in the 60% to 80% range.

A computer is used to calculate the most efficient sprinkler configurations, considering the numerous variables of each installation such as water supply,

pressure, system length and type of distribution. Valley offers five types of water distribution. Each one has features designed to take advantage of the needs of specific crops, soil type, land contour and energy costs.

	<p>Configuration E</p> <p>Pressure: 60 psi outer end</p> <p>Spacing: 32' Std. Span 25½' Long Span</p>	<p><i>Impact sprinklers are evenly spaced along the pipeline, gradually increasing in size toward the outer end, providing the broadest area of water coverage, minimizing ponding and run-off, as well as excellent uniformity where there are significant changes in elevation.</i></p>
	<p>Configuration I</p> <p>Pressure: 60 psi outer end</p> <p>Spacing: 32', 21' Std. Span 25½', 17' Long Span</p>	<p><i>Configuration I has impact sprinklers with two different spacings from pivot to outer end. On standard systems the inner-spacing is 32 ft. and the outer-spacing is 21 ft. Spacing for long-spans is as specified. This configuration combines the features of increased sprinkler pattern overlap and low application rates while retaining the broadest area of coverage.</i></p>
	<p>Configuration V</p> <p>Pressure: 60 psi outer end</p> <p>Spacing: 32', 21', 10½' Std. Span 25½', 17', 8½' Long Span</p>	<p><i>Smaller sprinklers of nearly equal size are spaced progressively closer from pivot to outer end. Designed to operate at 60 psi at outer end. Area of distribution is less broad, but greater water pattern overlap maximizes uniformity and minimizes the effect of any sprinkler malfunction.</i></p>
	<p>Configuration VL</p> <p>Pressure: 40 psi outer end</p> <p>Spacing: 32', 21', 10½' Std. Span 25½', 17', 8½' Long Span</p>	<p><i>Designed for low pressure operation—40 psi at the outer end. Generally larger impact sprinklers are spaced progressively closer from pivot to outer end. Area of distribution is less broad because of the lower pressure. Has same overlap advantages as configuration above, as well as energy savings. Relative droplet size is larger, and least affected by wind.</i></p>
	<p>Configuration S</p> <p>Pressure: 20 psi outer end</p> <p>Spacing: 10½' Std. Span 8½' Long Span</p>	<p><i>Spray nozzles are uniformly spaced on top of the pipeline, and alternately spray either fore or aft. Operating pressure is 20 psi at the outer end. Advantages are substantial savings in initial investment for pumps, engines, etc., as well as sizeable energy savings. Pumping costs are reduced 10%-40%.</i></p>



Automatic collector ring. Standard on all electrics—the main power cable is fed through a sealed stainless steel conduit from the main control box to the top of the pivot. At this point, power is transferred to the drive units, using nine sliding contactors rated at 600 volts, 35 amps. To assure more positive contact of the brushes to the contact point, leaf springs are used instead of conventional coil springs.



Modern, heavy-duty motors. Electric motors used on all Valley Electrics are tailor-made to solve the unique problems encountered in center pivot environments. These include: Constant starting and stopping. Long periods of shut-down between seasons. Wide temperature variations (-30° F to 120° F). Fluctuations in voltages. In addition, these motors are designed for high starting torques at the lowest current draw to give muscle in handling deep furrows or steep inclines. A thermal sensitive device, which protects the motor against excessive current or heat, is standard on all Valley motors. When excessive heat or current draw occurs, the motor is shut off until it cools, and then automatically resets.



Factory pretested electrical assemblies. Quality describes the color-coded wiring, and only top quality electrical components are used. All components are carefully pre-checked, wired into assemblies and pretested at Valmont.

Structural Integrity

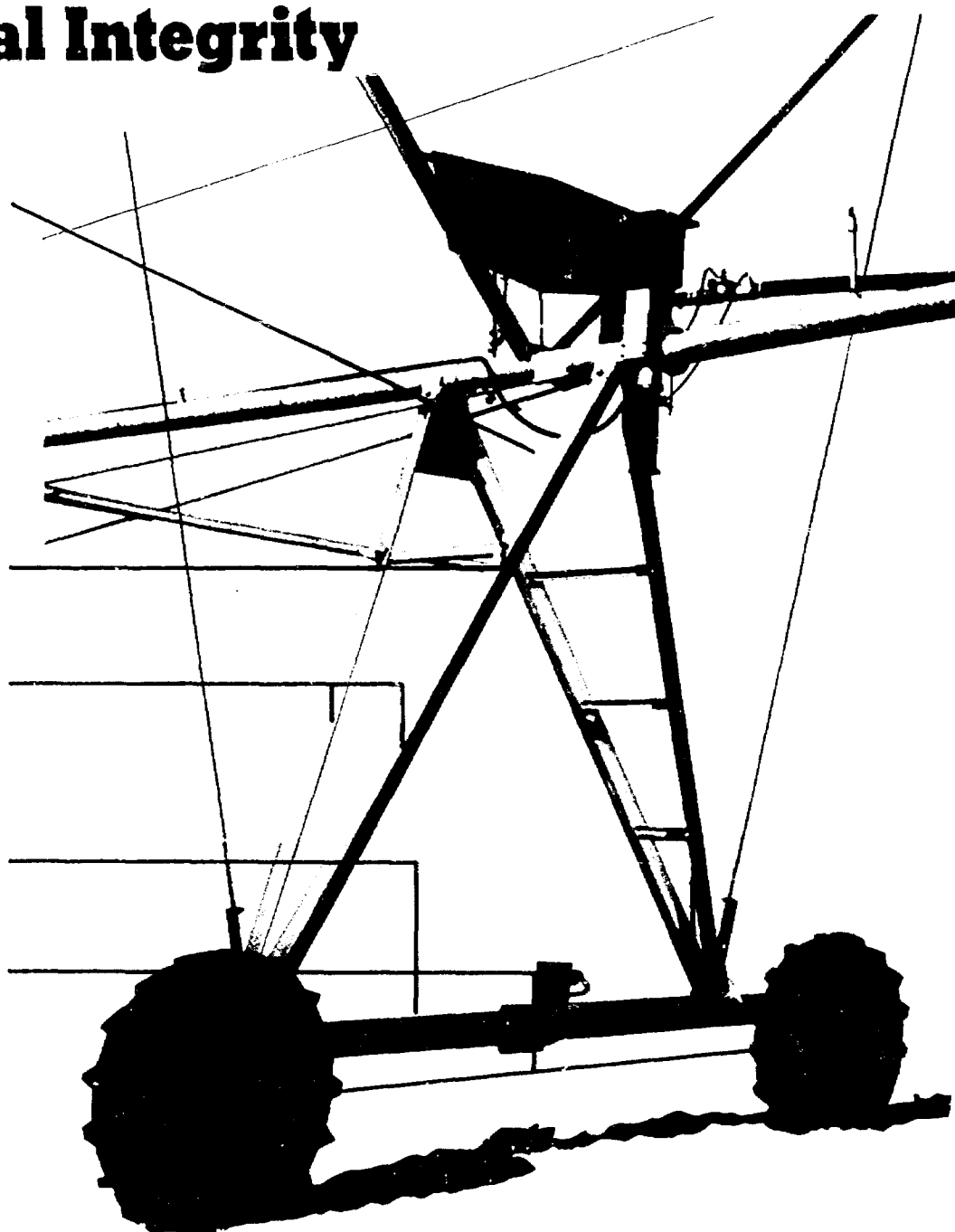
Each drive unit can support over 3.5 tons.

All structural connections have lock nuts.

Vertical structural members are 4" x 3" x 5/16" angle compared to 3" x 3" x 3/8" on most other systems.

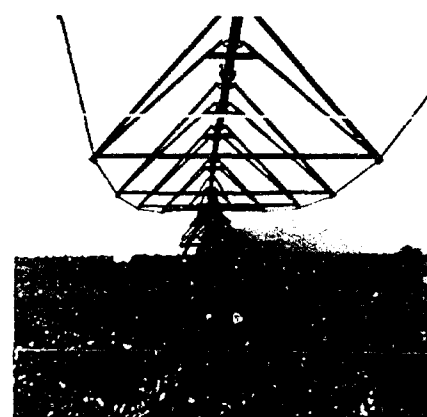
Base beam is heavy, 6 5/8" tubular steel.

160-inch wheelbase prevents tipping and gives increased stability.

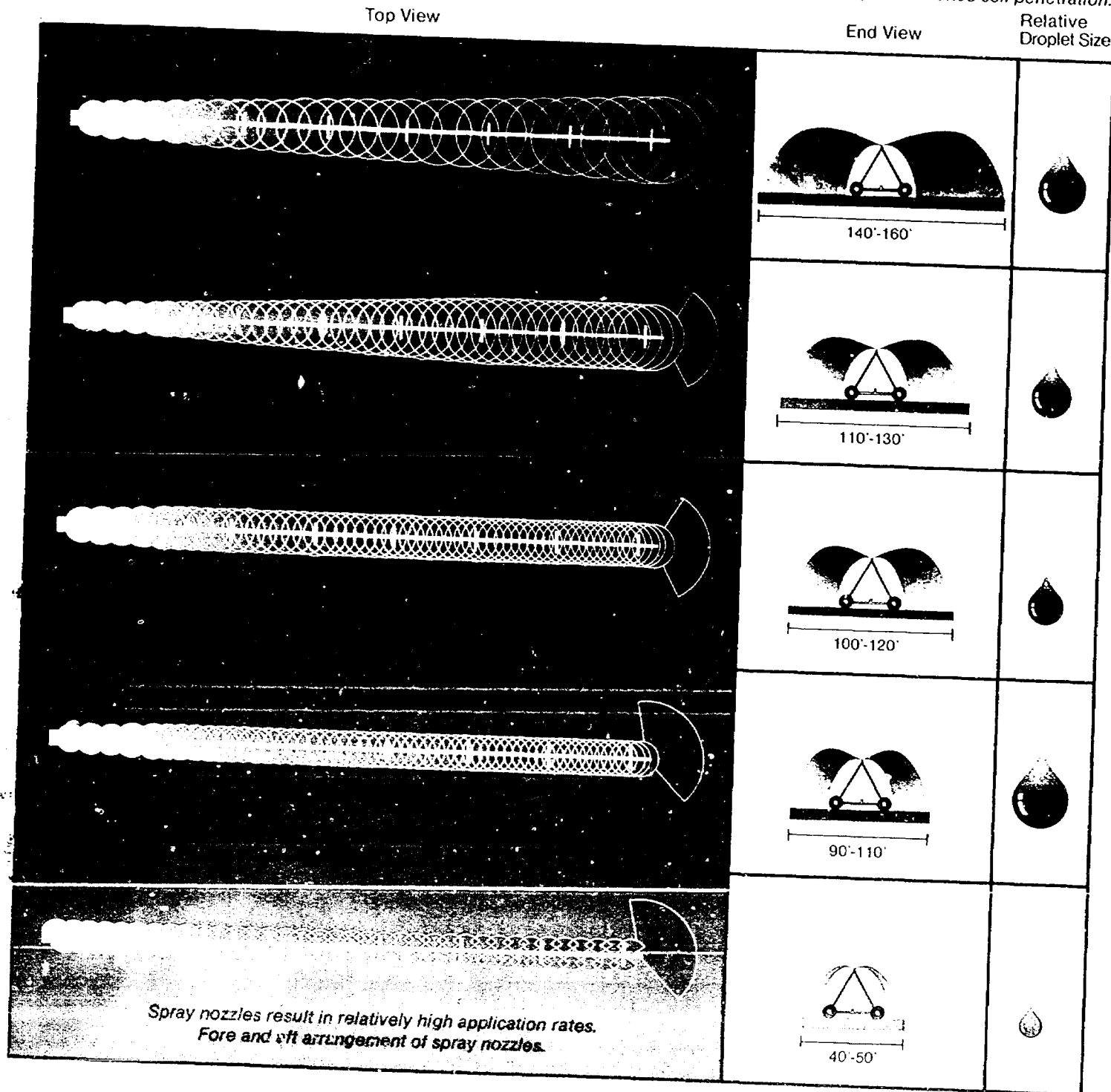


Stronger, tougher drive unit. Valley Electrics are built to take unusual punishment over many years. The basic structure is galvanized and represents several million hours of successful field use under almost every conceivable condition. The Valley Electric is designed to handle varying slopes with ease—up and down, sideways and torsion stresses.

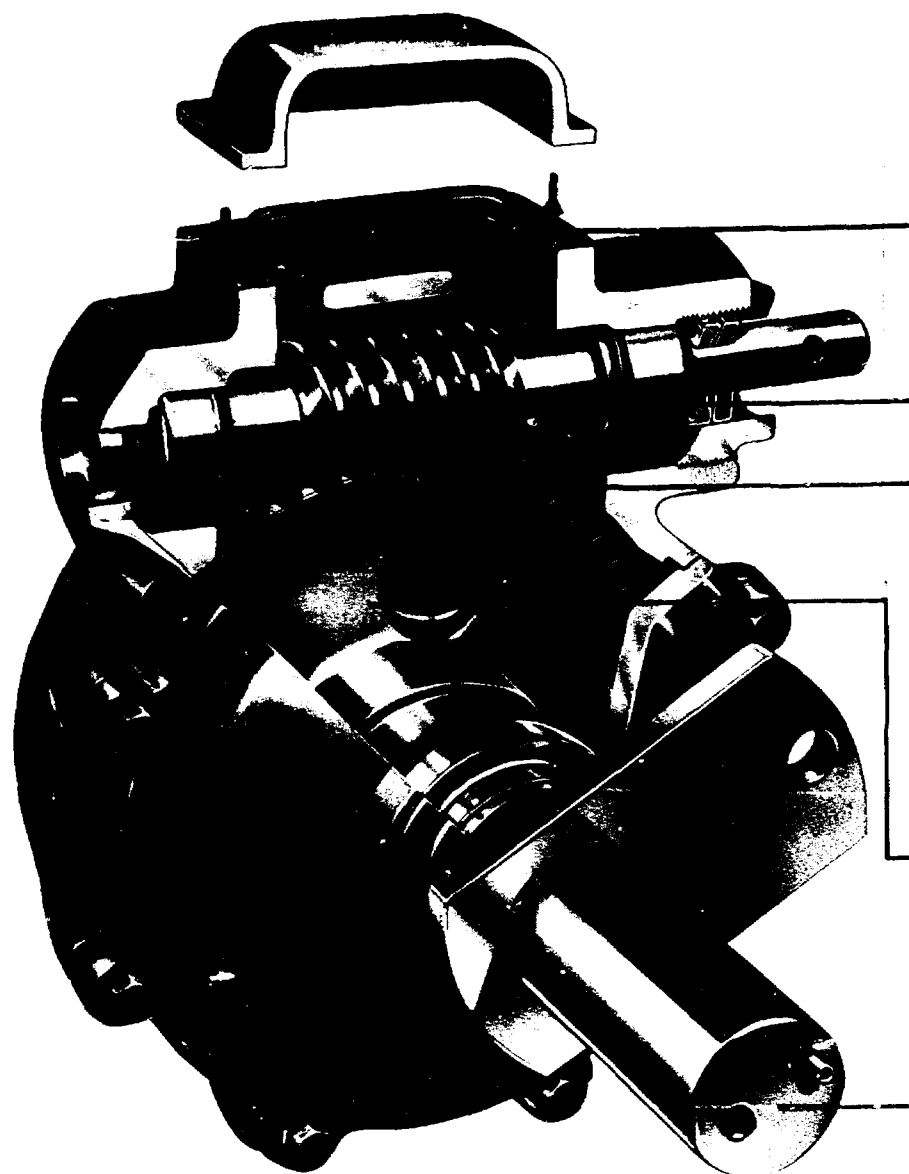
One-piece headed truss rods. Truss rods of 3/4" or 7/8" steel absorb tension and support the pipeline. Rod heads are hot-formed from the rod itself in a single weld-free piece, and fit securely into sockets—no bolts or nuts.



Larger droplets resist wind distortion.
There is more chance of soil compaction.
Smaller droplets enhance soil penetration.



Superior Gear Case



Precision fit of all parts in a gear case is a must. Rigid construction keeps gears in proper mesh with each other to withstand high loads and provide long life.

Rubber diaphragm acts as an expansion chamber.

One-piece worms, not two or more pieces.

Load is spread over several gear teeth versus only one gear tooth in some boxes.



By reducing friction between the worm and gear teeth (with a special tooth design) and applying the work load to an integral worm, less maintenance is required.

Worm gear wheel is tough meehanite material — making the gear stronger and longer wearing.

The output shaft is 2 1/4" in diameter, 40% stronger than a 2" shaft of the same material (90,000 psi yield).

The Valmont gearbox is manufactured and engineered by Valmont to rigid specifications for long, trouble-free performance. It will safely absorb over 60,000 in.-lbs. of torque.

Reduced gear ratio. The gear ratio has been reduced to increase efficiency. Gear reduction and a unique precision tooth design allows a lower input torque from the motor for the same or greater output torque on the gearbox at the wheel. As a result, the motor is not as heavily loaded and

moves the system with less strain, increasing motor life and life of all drive train parts.

Engineered to end water build-up due to heat. In normal gearbox operation, friction causes heat build-up in the case. With frequent heating and cooling, condensation often occurs inside the case of the conventional gearbox, causing rust, leading to short bearing life.

This problem is eliminated in the Valley gear case by an integral rubber diaphragm ex-

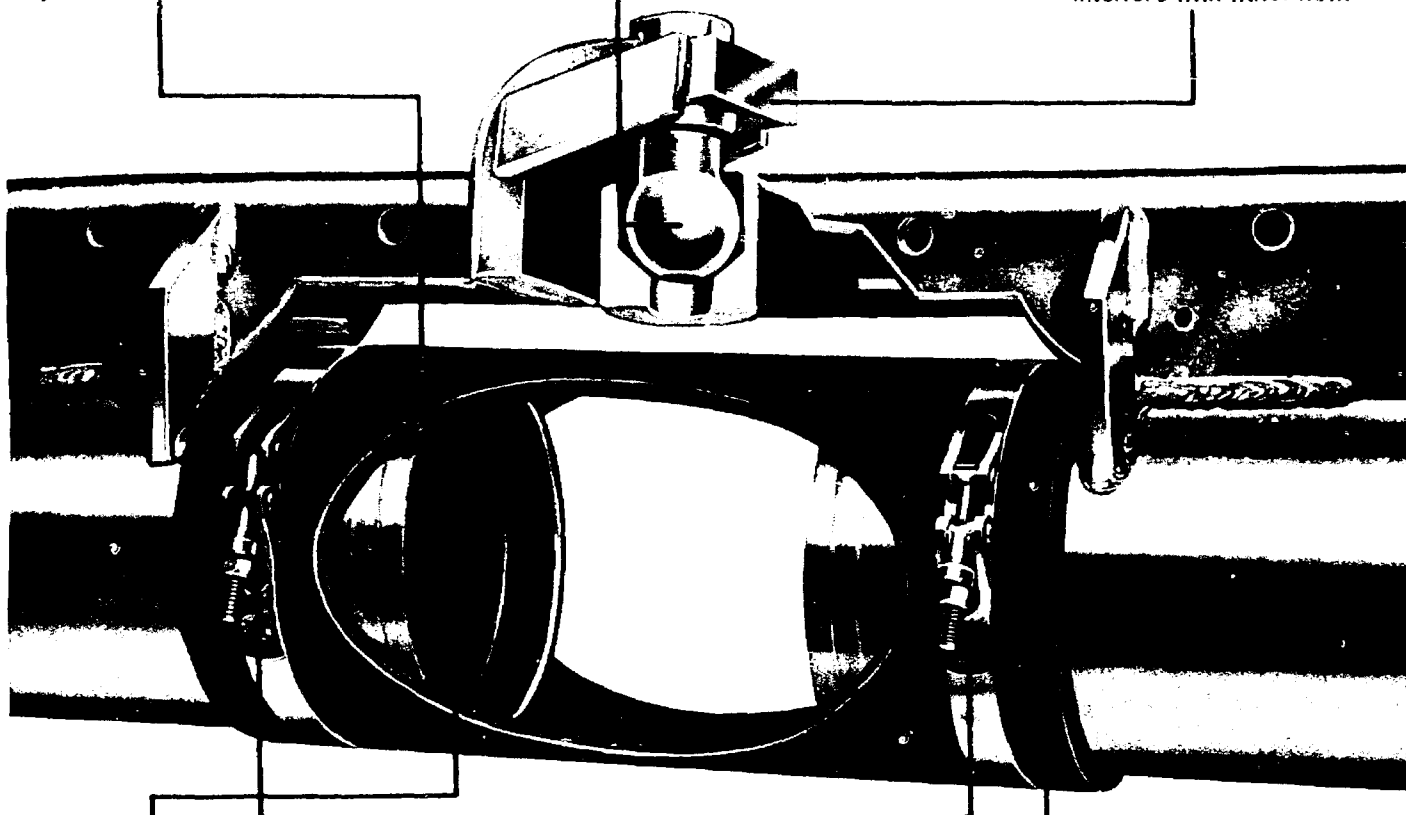
pansion chamber that seals the gear case. The case is filled with oil to the level of the diaphragm. During breathing (when heating and cooling takes place) the oil expands into the expansion chamber, and the bearings continue to operate beneath the oil surface. Rusting is eliminated and bearings last longer. Periodic maintenance to drain water from gear case is eliminated.

Multi-directional Flex Joint

Standard equipment on all Valleys, the flex joint is always visible.

Coupling is a heavy 2" ball and socket.

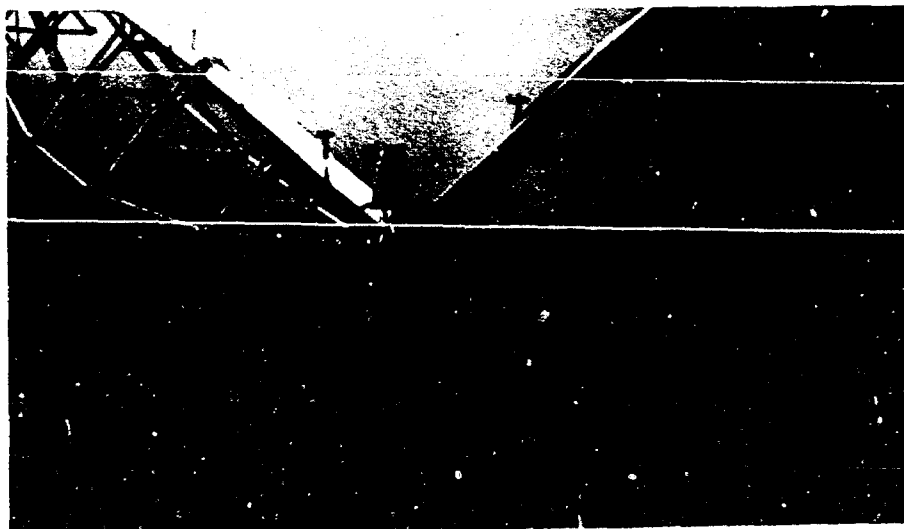
Ball joint connection is outside of pipe and does not interfere with water flow.



Neoprene boot with a fiber reinforcement resists weather cracking and checking, heat and water.

Loosen two clamps to remove old boot and insert new. No extra support needed while making the change.

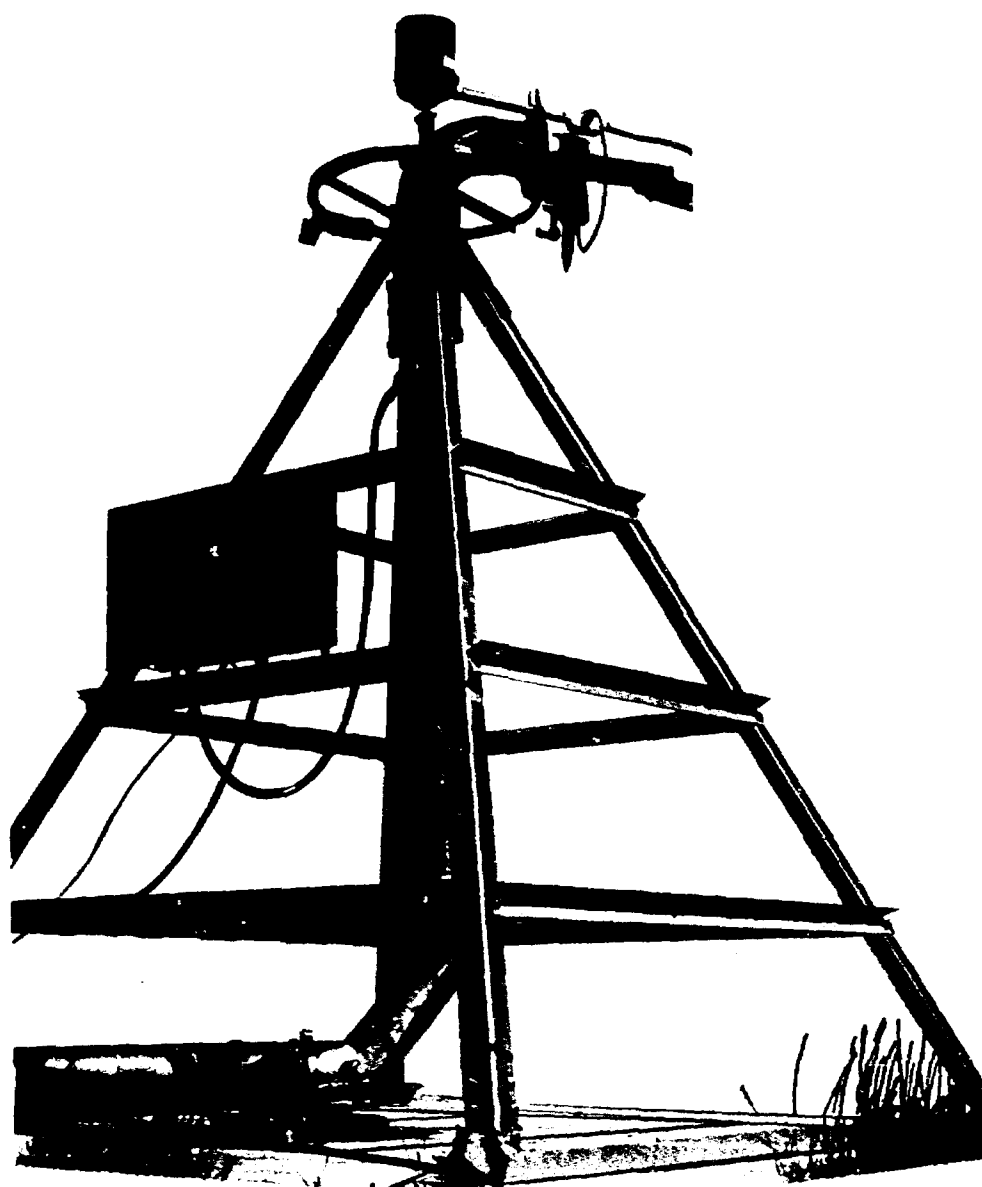
Boot is rated at over 450 psi—3½ times the highest operating pressure.



Multi-directional joint not only flexes up and down and back and forth, it can twist to accommodate torsion stresses common on rough ground. This flexibility is a principal reason why Valleys will operate on slopes up to 30%.

The Valley flex joint is designed to eliminate costly replacement and maintenance. It is not subject to wear, common with expensive metal-to-metal couplings. If a boot must be replaced, it is a simple, low cost operation.

Dependable Electrical Circuitry



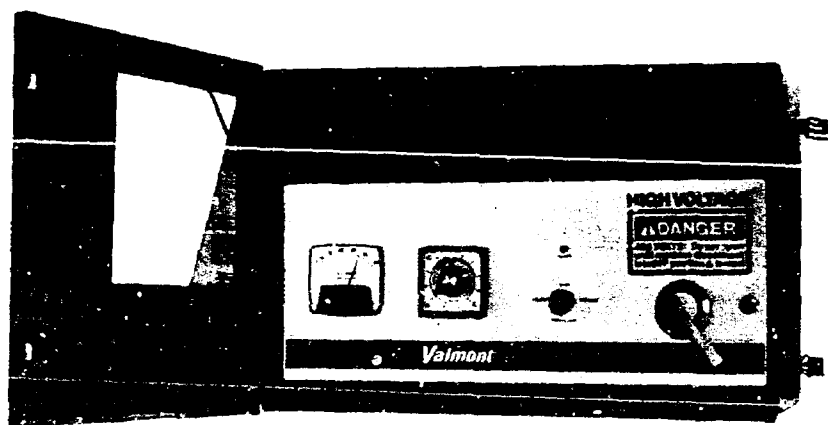
Valley offers several unique technical features that add to convenience, reliability and long life.

Auto-restart reduces shutdowns. A three-second auto-restart is standard equipment. In the event of a momentary power loss or voltage drop, common in some rural areas, the system will automatically restart, if power is returned within three seconds.

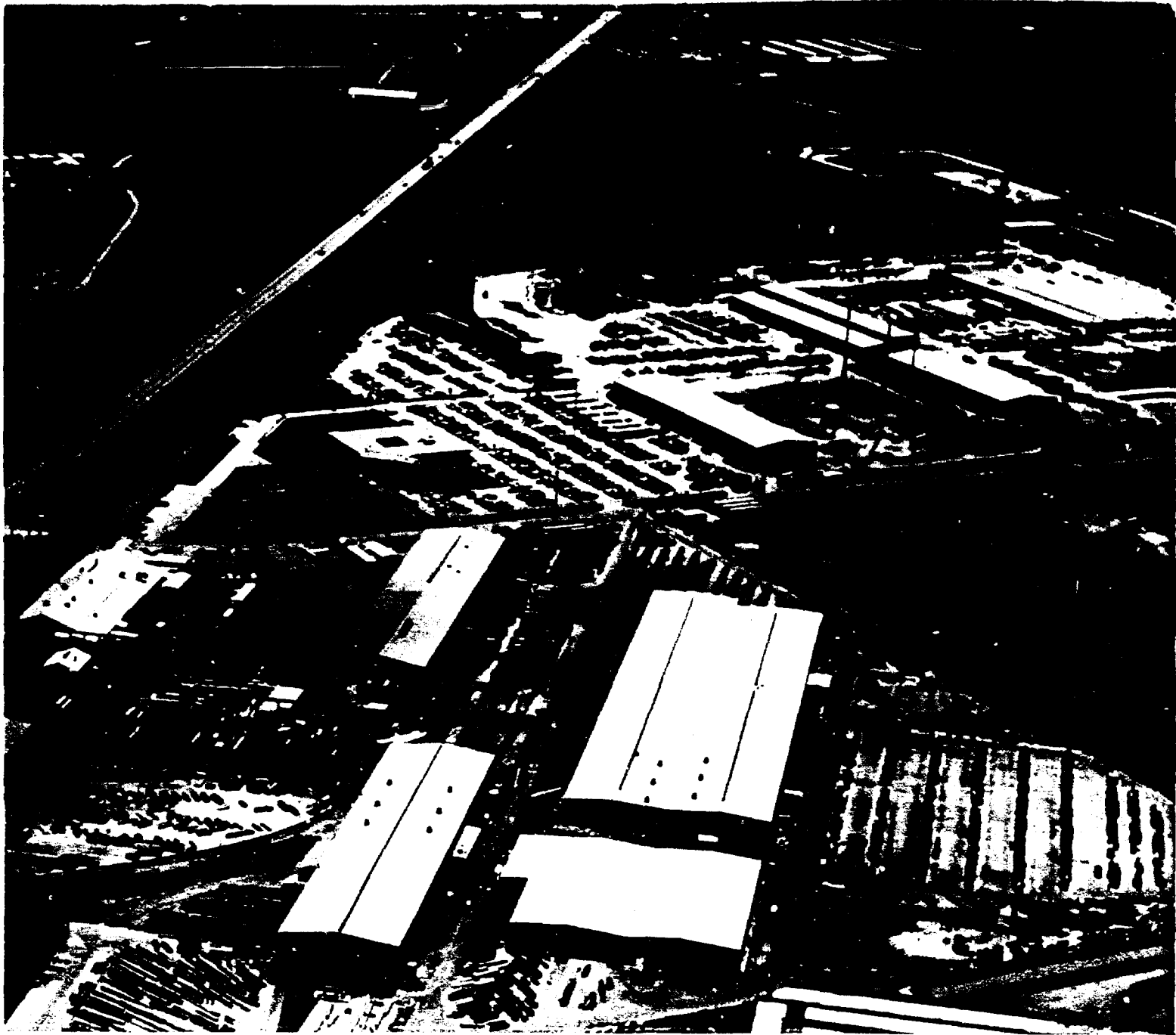
The auto-restart eliminates many nuisance shutdowns which can result from momentary power interruptions due to lightning, or a fault in the power source.

Suppressor circuits extend switch life. Special suppressor circuits and wide gap switches on the tower boxes provide exclusive double protection and lengthens switch life by reducing arcing at contacts.

Long run-cycle improves motor life. On-and-off operation of tower drive motors keeps the system in alignment. On/off action is also the principal factor in shortening motor life. Because of the stability of the Valley structure, greater alignment tolerances are possible. Special micro-switches combined with the alignment control linkage permit motors to run for longer intervals, resulting in longer motor life.



The pivot control box is weatherproof. A panel separates controls from electrical circuitry for safety. When the door is opened, only those controls for operating the machine are readily accessible. The pivot box can be locked.



Valmont has been the world's largest manufacturer of center pivot irrigation systems since 1953. Today, it is both the largest manufacturer of electric driven and water driven center pivots.



Valmont Industries, Inc.

Valley, Nebraska 68064
(402) 359-2201

© 1977 Valmont Industries, Inc.

Printed in U S A

ADC0173

June 5, 1979

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Attn: Mr. Joe Ramey

Gentlemen:

Amerada Hess Corporation has been notified that Herndon Oil & Gas Co. plans to drill its O. A. Woody No. 1 well in a non-standard location in the Knowles Devonian Pool. It is understood that the well will be located 1980' FNL and 660' FWL, Section 35, T-16-S, & R-38-E, Lea County, New Mexico.

Amerada Hess has no objections to drilling the O. A. Woody No. 1 well at the described location, so long as all other field rules are in compliance.

Very truly yours,

R. L. Lakson

Amerada Hess Corporation

R. L. Lakson

GEOLOGIST

Regional Office

Box 840

SEMINOLE, TX 79360

TEL: (915) 758-5805

cc: C&D Engineers
P. O. Box 10010
Midland, Texas 79702

Recd at the

hearing

6/13

OK

Dockets Nos. 24-79 and 25-79 are tentatively set for hearing on June 27 and July 11, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - WEDNESDAY - JUNE 6, 1979

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6495: (DE NOVO)

Application of Amax Chemical Corporation for the amendment of Order No. R-111-A, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-111-A to extend the boundaries of the Potash-Oil Area by the inclusion of certain lands in Sections 23 and 24, Township 19 South, Range 29 East, Sections 1, 4, 5, 6, 7, 11, 12, 13, 14, 19, 20, 23, 24, and 29, Township 19 South, Range 30 East, and Sections 7, 8, 17, 18, and 19, Township 19 South, Range 31 East, all in Eddy County, New Mexico.

Upon application of Amax Chemical Corporation this case will be heard De Novo pursuant to the provisions of Rule 1220.

DOCKET: EXAMINER HEARING - WEDNESDAY - JUNE 13, 1979

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

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

ALLOWABLE: (1) Consideration of the allowable production of gas for July, 1979, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.

(2) Consideration of the allowable production of gas for July, 1979, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.

CASE 6560: Application of Exxon Corporation for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion (combination) of its "AB" State Well No. 4 located in Unit A of Section 16, Township 24 South, Range 37 East, to produce gas from the Langlie Mattix Pool and oil from the Fowler-Upper Yeso Pool, through parallel strings of casing cemented in a common well bore.

CASE 6561: Application of Amoco Production Company for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, proposes to directionally drill its State "HC" Well No. 1 located 1980 feet from the South and West lines of Section 21, Township 16 South, Range 35 East, Townsend Field, to a bottom hole location within 100 feet of a point 990 feet from the South line and 2310 feet from the East line of said Section 21, the S/2 of said Section 21 to be dedicated to the well.

CASE 6562: Application of Orla Petco, Inc. for salt water disposal, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Ramsey Sand of the Bell Canyon formation through the open hole interval from 2498 feet to 2508 feet in its Courley-Federal Well No. 4 located in Unit J of Section 31, Township 22 South, Range 28 East, Herradura Bend-Delaware Pool.

CASE 6563: Application of Roy L. McKay for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for his North Woolworth Ranch Unit Area, comprising 1,280 acres, more or less, of State lands in Township 23 South, Range 35 East.

CASE 6564: Application of Herndon Oil & Gas Co. for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its O. A. Woody Well No. 1 in the center of Unit E, Section 35, Township 16 South, Range 38 East, Knowles-Devonian Pool.

CASE 6565: Application of Lewis B. Burleson, Inc. for compulsory pooling, a non-standard gas proration unit, and an unorthodox well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Jalnat Gas Pool underlying the W/2 SE/4 of Section 20, Township 25 South, Range 37 East, to form an 80-acre non-standard gas proration unit to be dedicated to a well to be drilled at an unorthodox location 1650 feet from the South and East lines of said Section 20. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

- CASE 6566: Application of Lewis B. Burleson, Inc. for an unorthodox well location and a non-standard proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 160-acre non-standard gas proration unit comprising the SW/4 of Section 10, Township 24 South, Range 36 East, Jalmat Gas Pool, to be dedicated to a well to be drilled 2310 feet from the South and West lines of said Section 10.
- CASE 6567: Application of Newbourne Oil Company for an unorthodox well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its State 25 Com Well No. 1 660 feet from the South line and 1650 feet from the West line of Section 25, Township 14 South, Range 27 East, Buffalo Valley-Pennsylvanian Gas Pool, the S/2 of said Section 25 to be dedicated to the well.
- CASE 6568: Application of Dallas McCasland for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well spacing requirements and a finding that the drilling of his Woolworth Well No. 5 located in Unit P of Section 28, Township 24 South, Range 37 East, Jalmat Gas Pool, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.
- CASE 6569: Application of Continental Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Lockhart A-17 Well No. 2 located in Unit I of Section 17, Township 21 South, Range 37 East, to produce gas from the Eumont Gas Pool through the casing-tubing annulus and oil from the Blinbry Oil and Gas Pool through tubing.
- CASE 6570: Application of Continental Oil Company for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 228-acre non-standard gas proration unit comprising the SW/4 and S/2 SE/4 of Section 18, Township 21 South, Range 36 East, Eumont Gas Pool, to be simultaneously dedicated to applicant's Lockhart A-18 Wells Nos. 2, 3, and 4, located in Units O, K, and M, respectively, of said Section 18.
- CASE 6571: Application of Continental Oil Company for vertical pool limit redefinition, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order extending the vertical limits of the Langlie Mattix Pool to include the lowermost 165 feet of the Seven Rivers formation and the concomitant contraction of the vertical limits of the Jalmat Gas Pool underlying the following described lands: SW/4 W/2 SE/4 and SE/4 SE/4 of Section 35, Township 23 South, Range 36 East; and NW/4, W/2 NE/4, and SE/4 NE/4 of Section 1, Township 24 South, Range 36 East.
- CASE 6537: (Continued from May 9, 1979, Examiner Hearing)
- Application of Harper Oil Company for a unit agreement, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for its West Ranger Lake Unit Area, comprising 1,120 acres, more or less, of State lands in Township 12 South, Range 34 East, Lea County, New Mexico.
- CASE 6553: (Continued from May 23, 1979, Examiner Hearing)
- Application of The Atlantic Richfield Company for approval of infill drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a finding that the Division waived existing well-spacing requirements and found that the drilling of additional wells was necessary to effectively and efficiently drain those portions of the proration units in the Empire Abo Unit located in Townships 17 and 18 South, Ranges 27, 28 and 29 East, which could not be so drained by the existing wells.
- CASE 6572: Application of ARCO Oil and Gas Company to drill a horizontal drainhole, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval to drill and complete its Empire Abo Unit Well No. K-142, located in Unit K of Section 2, Township 18 South, Range 27 East, Empire-Abo Pool, with a single horizontal drainhole of about 200 feet in length in the Abo formation.
- CASE 6573: Application of Mesa Petroleum Company for directional drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the directional drilling of its Well No. 7 in the Nash Unit, the surface location of which would be 685 feet from the North line and 1295 feet from the West line of Section 18, to be vertically drilled to approximately 7,000 feet, and then directionally drilled to a bottom hole location in the Morrow formation within 400 feet of a point 1315 feet from the South line and 1320 feet from the West line of Section 7, all in Township 23 South, Range 30 East.
- CASE 6574: Application of Texas Oil & Gas Corp. for an unorthodox gas well location and compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp through Morrow formations underlying the E/2 of Section 6, Township 17 South, Range 35 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the South and East lines of said Section 6. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6535: (Continued from May 23, 1979, Examiner Hearing)

Application of Torreon Oil Company for a waterflood project, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the San Luis-Mesaverde Pool by the injection of water into the Menefee formation through two wells located in Section 21, Township 18 North, Range 3 West, Sandoval County, New Mexico.

CASE 6575: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating, contracting the vertical limits, and extending the horizontal limits of certain pools in Eddy, Lea, and Roosevelt Counties, New Mexico:

(a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Wolfcamp production and designated as the Cass Draw-Wolfcamp Gas Pool. The discovery well is Black River Corporation Miller Com Well No. 1 located in Unit C of Section 10, Township 23 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM
Section 10: N/2

(b) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Abo production and designated as the Runyan Ranch-Abo Gas Pool. The discovery well is Mesa Petroleum Company Runyan Federal Com Well No. 1 located in Unit E of Section 17, Township 19 South, Range 23 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 23 EAST, NMPM
Section 17: NW/4

(c) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Morrow production and designated as the Runyan Ranch-Morrow Gas Pool. The discovery well is Mesa Petroleum Company Gardner State Well No. 1 located in Unit K of Section 8, Township 19 South, Range 23 East, NMPM. Said pool would comprise:

TOWNSHIP 19 SOUTH, RANGE 23 EAST, NMPM
Section 8: W/2

(d) EXTEND the Austin-Mississippian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 14 SOUTH, RANGE 36 EAST, NMPM
Section 16: SE/4
Section 17: NE/4

(e) EXTEND the Avalon-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 26 EAST, NMPM
Section 28: N/2

(f) EXTEND the Avalon-Wolfcamp Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 26 EAST, NMPM
Section 21: SW/4
Section 28: N/2

(g) EXTEND the Buffalo-Pennsylvanian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM
Section 6: N/2

(h) EXTEND the Burton Flat-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM
Section 12: S/2
Section 13: N/2

(i) EXTEND the Chaveroo-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 34: SW/4

(j) EXTEND the South Culebra Bluff-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 22: N/2
Section 35: N/2

- (k) EXTEND the Diamond Mound-Atoka Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 27 EAST, NMPM
Section 12: N/2

- (l) EXTEND the Dublin Ranch-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM
Section 21: E/2

- (m) EXTEND the East Eagle Creek Atoka-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 25 EAST, NMPM
Section 13: S/2

- (n) EXTEND the South Empire-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 29 EAST, NMPM
Section 19: S/2

- (o) EXTEND the Eumont Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 20 SOUTH, RANGE 36 EAST, NMPM
Section 32: W/2

- (p) EXTEND the Hardy-Blinbry Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 36 EAST, NMPM
Section 2: E/2 SE/4 and SW/4 SE/4

- (q) EXTEND the Herradura Bend-Delaware Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 5: E/2 NW/4

- (r) EXTEND the Indian Flats-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 28 EAST, NMPM
Section 25: S/2
Section 36: W/2

- (s) EXTEND the Kennedy Farms-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 26 EAST, NMPM
Section 10: S/2
Section 11: S/2
Section 16: E/2

- (t) EXTEND the East Lake-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 27 EAST, NMPM
Section 32: W/2

- (u) EXTEND the Logan Draw-Cisco Canyon Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM
Section 28: W/2

- (v) EXTEND the West Malaga-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 24 SOUTH, RANGE 28 EAST, NMPM
Section 16: N/2

- (w) EXTEND the Penasco Draw-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 16 SOUTH, RANGE 24 EAST, NMPM
Section 25: N/2

- (x) EXTEND the South Peterson-Fusselman Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 5 SOUTH, RANGE 33 EAST, NMPM
Section 31: NW/4

(y) CONTRACT the vertical limits of the Shoe Bar-Pennsylvanian Gas Pool in Lea County, New Mexico, to the Atoka formation only and redesignate said pool as the Shoe Bar-Atoka Gas Pool, and extend the horizontal limits of said pool to include therein:

TOWNSHIP 16 SOUTH, RANGE 35 EAST, NMPM
Section 34: SW/4

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM
Section 3: N/2

(z) EXTEND the Teague-Abo Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 37 EAST, NMPM
Section 22: S/2
Section 27: NE/4

(aa) EXTEND the Todd-Wolfcamp Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 35 EAST, NMPM
Section 22: NE/4

(bb) EXTEND the Tomahawk-San Andres Pool in Roosevelt County, New Mexico, to include therein:

TOWNSHIP 7 SOUTH, RANGE 32 EAST, NMPM
Section 30: W/2

(cc) EXTEND the West Tonto-Pennsylvanian Gas Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 33 EAST, NMPM
Section 7: NW/4

(dd) EXTEND the Turkey Track-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM
Section 14: W/2
Section 15: E/2
Section 23: All
Section 24: W/2

(ee) EXTEND the Wantz-Granite Wash Pool in Lea County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 37 EAST, NMPM
Section 3: SE/4
Section 10: NE/4

If the above meets with Amerada's approval, please sign the following waiver statement and forward a copy to the New Mexico Oil Conservation Commission. Self addressed envelopes have been provided.

Very truly yours,

Michael J. DeMarco

Michael J. DeMarco
C & D Engineers
Agent for Herndon Oil & Gas Co.

WAIVER

Amerada Hess Corp., has reviewed the proposal that Herndon Oil & Gas Co., will drill its O.A. Woody No. 1 well at an unorthodox location, 2310' ENL & 330' FWL, Section 35, T-16-S, R-38-E, Lea County, New Mexico. Amerada has no objection to this location, so long as the above qualifying provisions are met: All allowable production greater than 100 BOPD will be penalized 50%; and, a directional survey will be run at T.D.

Amerada Hess Corp.

By:

Gilbert E. Miller

Title:

Conservation Supervisor

Date:

6-22-79

Amerada Hess Corp.

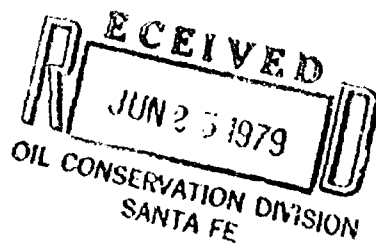
Page 3

cc: New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501
Attention: Mr. Joe Ramey

Herndon Oil & Gas Co.
P. O. Box 489
Tulsa, Oklahoma 74101

Mr. Dwain Woody
P. O. Box 97
East Star Route
Lovington, New Mexico 88260

MJD: 1b



C & D Engineers
P. O. Box 19010
Midland, Texas 79702
(915) 683-9243

June 15, 1979

Amerada Hess Corp.
P. O. Box 840
Seminole, Texas 79360

RE: Herndon Oil & Gas Co.
Unorthodox Location
O. A. Woody No. 1 Well
Knowles Devonian Field
Lea County, New Mexico

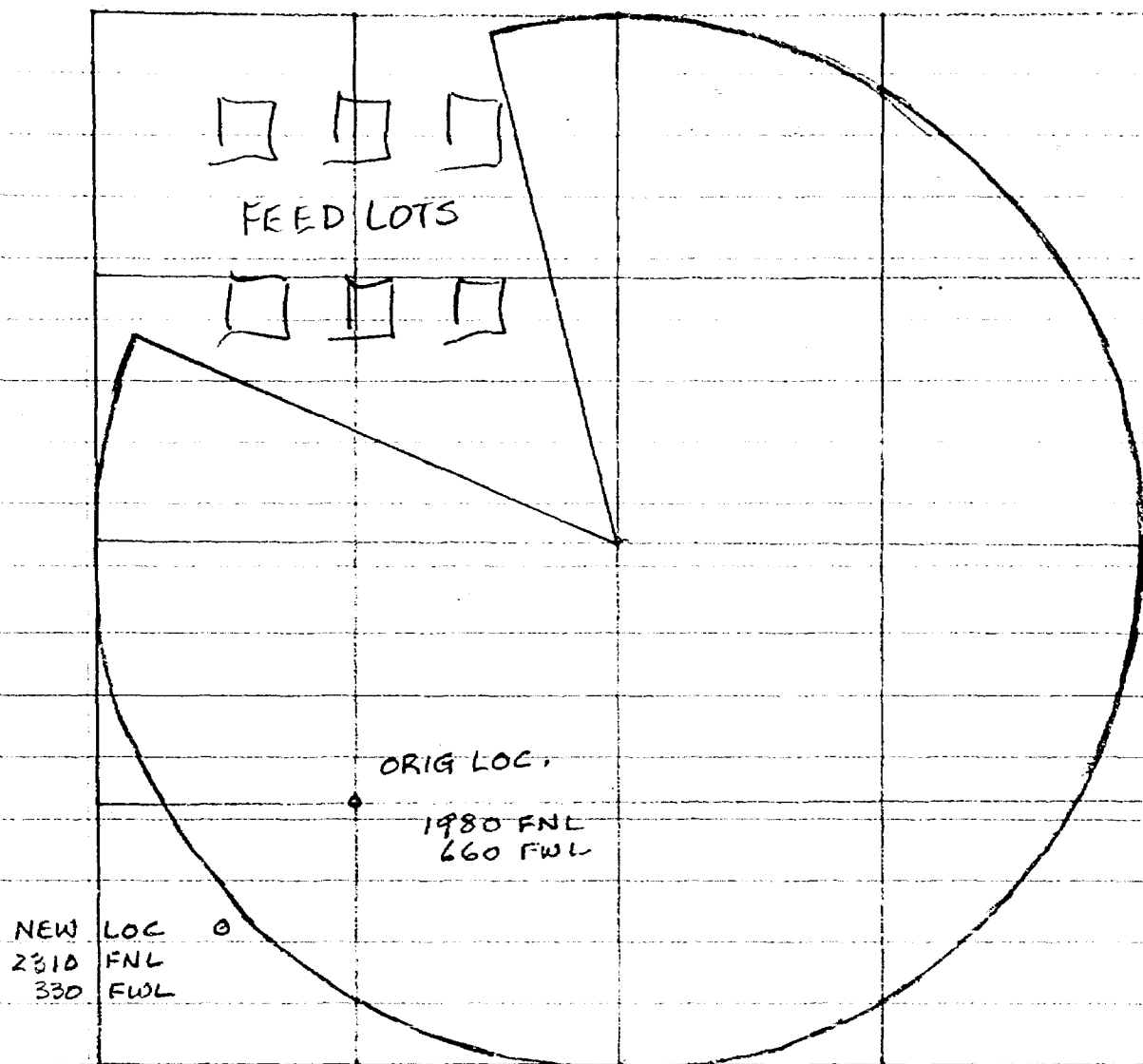
The proposed location, 1980' FNL and 660' FWL, Section 35, T-16-S, R-38-E, for the O. A. Woody No. 1 Well was opposed by the surface owner, Mr. Dwain Woody, at the recent hearing. Mr. Woody has a complex irrigation system in operation in Section 35, and a well at the proposed location would prevent him from farming .96 acres in the north-west quarter section. Mr. Woody's testimony indicated as much as \$56,000.00 per year loss of revenue could occur if the original location were approved.

As a solution to this problem, Mr. Nutter, the NMOCC examiner, suggested a location 2310' FNL and 330' FWL of Section 35. This would place the well outside the circumference of the irrigation system. It would also allow access to the well during drilling and future production operations without impeding Mr. Woody's farming operations.

We have discussed the revised location of the O. A. Woody No. 1 Well with Mr. Ron Lakson of the Seminole office. Mr. Lakson has advised that Amerada will grant a waiver for the revised location (2310' FNL and 330' FWL) with the following provisions:

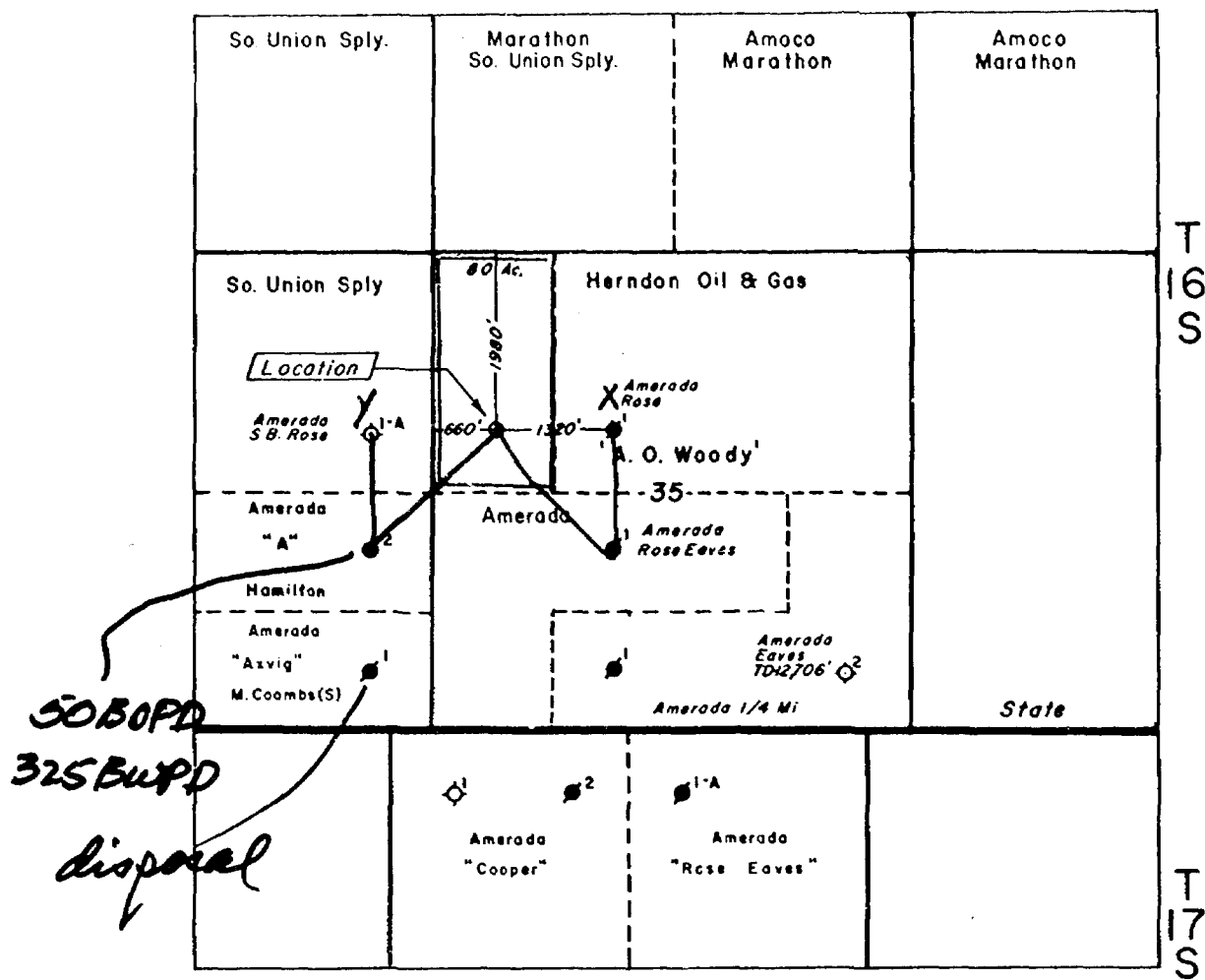
- 1) All allowable production greater than 100 BOPD will be penalized 50%. ie, A 500 BOPD potential will have an allowable of $100 + \frac{1}{2} \times 400 = 300$ BOPD.
- 2) Herndon Oil & Gas Co., will run a directional survey at T. D. If it appears that the hole is deviating severely prior to T.D., we will run a survey and take proper measures to correct the deviation.

*Back w/ Herndon
in Tulsa called today 6/26
Told him we will advertise the
amended location for July 25
and that additional testimony will
not be necessary - rely on record of June 13.
Also that with this waiver from Amerada
and a letter of consent from
Mr Woody, we will let him
start the well drilling
hearing. He will
contact Woody
again
OK*



Jan 4/26

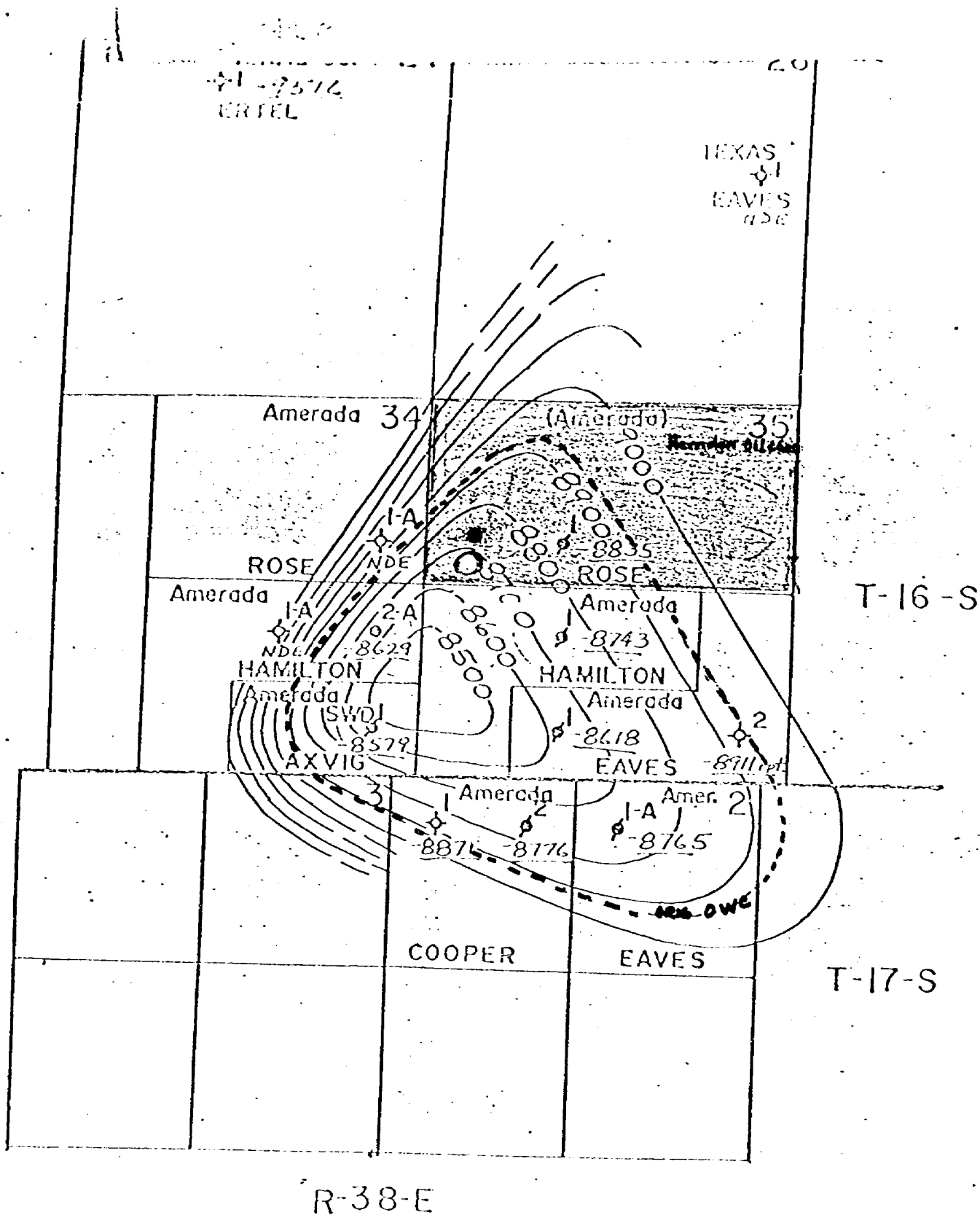
R-38-E



Herndon Oil & Gas No. 1 Woody
 Location: 1980' FNL and 660' FWL
 Sec. 35 T. 16-S - R-38-E
 LEA Co., NEW MEXICO

HERNDON OIL & GAS		
<u>Knowles</u>	<u>Pool</u>	<u>Prospect</u>
<u>LOCATION PLAT</u>		
Scale: 1" = 2,000'		
Date: May - 79		

Exhibit 1



Orig. O/W contact = -8920'

KNOWLES POOL PROSPECT
LEA CO. N.M.

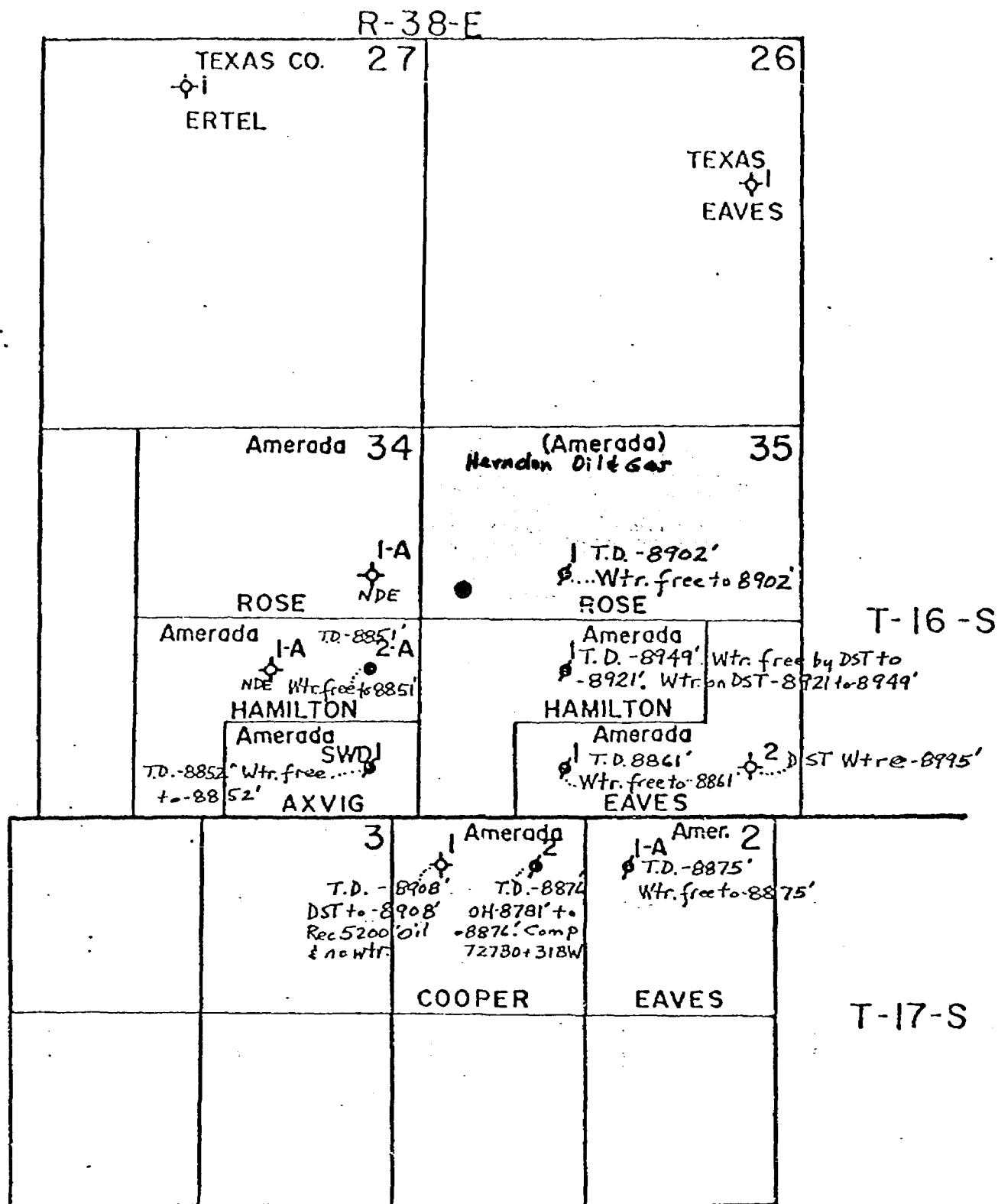
DATUM: Top of Devonian

SCALE: 1" = 2000'

C.I. : 100 FEET

1/10/1970

Page 2



Conclusion: Devonian o/w @ -8920'
or below.

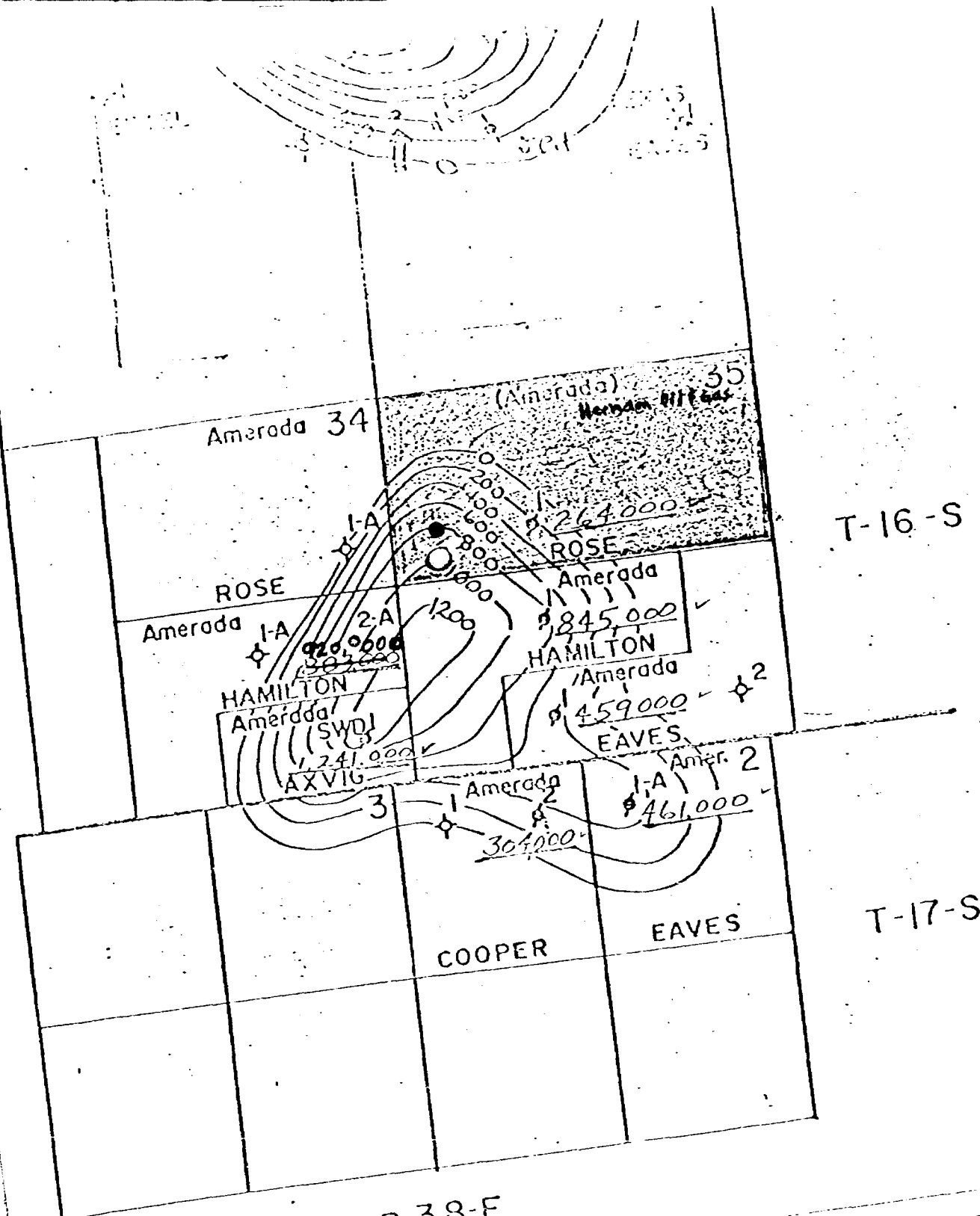
KNOWLES POOL PROSPECT
LEA CO. N.M.

DATUM: Devonian Water

SCALE: 1" = 2000'

C. I. :

Blk 10 3

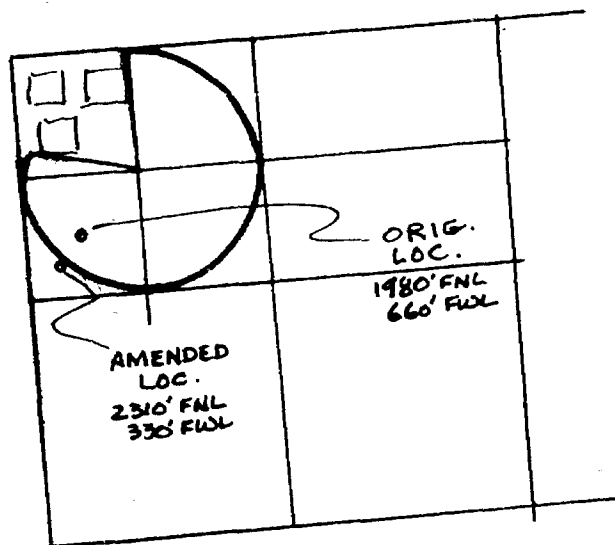


Seven Devonian wells have produced
 4,494,656 Bbls. to 1-1-79. This is
 an average of 642,000 Bbls per well.

KNOWLES POOL PROSPECT
 LEA CO. N.M.
 DATUM: Devonian Oil
 SCALE: 1" = 2000'
 C.I. :
 J. WRITTEN

Exhibit 4

DAN NUTTER



Dockets Nos. 29-79 and 31-79 are tentatively set for hearing on August 8 and 22, 1979. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: COMMISSION HEARING - TUESDAY - JULY 24, 1979

OIL CONSERVATION COMMISSION - 9 A.M. - ROOM 205
STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

CASE 6596: Application of Harvey E. Yates Company for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Upper Pennsylvanian gas pool to be designated as the Southeast Indian Basin-Upper Pennsylvanian Gas Pool for its Southeast Indian Basin Well No. 1 located in Unit A of Section 23, Township 22 South, Range 23 East, and special pool rules therefor including 320-acre gas well spacing.

CASE 6597: 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 Southeast Indian Basin Well No. 2, an Upper Pennsylvanian well to be drilled 660 feet from the North and West lines of Section 24, Township 22 South, Range 23 East, with the N/2 or all of said Section 24 to be dedicated to the well, depending on the outcome of Case No. 6596.

DOCKET: EXAMINER HEARING - WEDNESDAY - JULY 25, 1979

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

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

CASE 6545: (Continued from June 27, 1979, Examiner Hearing)

In the matter of the hearing called by the Oil Conservation Division on its own motion to permit Corinne Grace, Travelers Indemnity Company, and all other interested parties to appear and show cause why the Kuklah Baby Well No. 1 located in Unit G of Section 24, Township 22 South, Range 26 East, Eddy County, New Mexico, should not be plugged and abandoned in accordance with a Division-approved plugging program.

CASE 6598: Application of Gulf Oil Corporation for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Otero-Gallup and Basin-Dakota production in the wellbores of its Apache Federal Wells No. 8 located in Unit C of Section 8 and No. 9 located in Unit D of Section 17, both in Township 24 North, Range 5 West.

CASE 6599: Application of Gulf Oil Corporation for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Fusselman and Montoya production, North Justis Field, in the wellbore of its W. A. Ramsay Well No. 4 located in Unit M of Section 36, Township 24 South, Range 37 East.

CASE 6600: Application of Mesa Petroleum Company for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the E/2 of Section 10, Township 16 South, Range 27 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6601: Application of Harvey E. Yates Company for compulsory pooling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Wolfcamp through Mississippian formations underlying the E/2 of Section 8, Township 14 South, Range 36 East, to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6602: Application of Tenneco Oil Company for an unorthodox well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal 33 C No. 2 Well 1010 feet from the North line and 1710 feet from the West line of Section 33, Township 17 South, Range 29 East, South Empire-Wolfcamp Pool, the E/2 NW/4 of said Section 33 to be dedicated to the well.

CASE 6603: (This case will be continued to the August 8 hearing.)

Application of Conoco Inc. for downhole commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of Penrose Skelly and Eumont production in the wellbore of its Hawk B-1 Well No. 12 located in Unit O of Section 8, Township 21 South, Range 37 East.

CASE 6604: Application of Cities Service Company for rescission of Division Order No. R-5921, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the rescission of Order No. R-5921 which order provided for the compulsory pooling of all of the mineral interests in the Pennsylvanian formation underlying the S/2 of Section 8, Township 23 South, Range 28 East.

CASE 6605: Application of Estoril Producing Corporation for compulsory pooling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying the W/2 of Section 15, Township 20 South, Range 34 East, to be dedicated to a well to be drilled at an unorthodox location 660 feet from the North and West lines of said Section 15. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 6564: (Continued and Readvertised)

Application of Herndon Oil & Gas Co. for an unorthodox oil well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its O. A. Woody Well No. 1 to be drilled 2310 feet from the North line and 330 feet from the West line of Section 35, Township 16 South, Range 38 East, Knowles-Devonian Pool.

CASE 6606: Application of Getty Oil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Yates formation in the open-hole interval from 3810 feet to 4169 feet in its State "AA" Well No. 1 located in Unit I of Section 35, Township 21 South, Range 34 East.

CASE 6607: Application of Getty Oil Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the dual completion of its Getty 36 State Well No. 1 located in Unit F of Section 36, Township 21 South, Range 34 East, to produce oil from the Wolfcamp formation and gas from the Morrow formation through parallel strings of tubing.

CASE 6608: Application of Getty Oil Company for pool creation and special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Wolfcamp oil pool for its Getty 36 State Well No. 1 located in Unit F of Section 36, Township 21 South, Range 34 East. and special rules therefor, including 160-acre oil well spacing.

CASE 6609: Application of Napeco Inc. for pool creation and special pool rules, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new Strawn oil pool for its Benson Deep Unit Well No. 1 located in Unit O of Section 33, Township 18 South, Range 30 East, and special rules therefor, including 160-acre spacing and standard well locations.

CASE 6610: Application of Koch Industries, Inc. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water in the Rustler formation through the perforated interval from 1190 feet to 1210 feet in its Wills "A" Well No. 7 located in Unit E of Section 35, Township 26 South, Range 37 East, Rhodes Field.

CASE 6611: Application of Cabot Corp. for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the disposal of produced salt water in the Devonian formation through the perforated interval from 12,156 feet to 12,574 feet in its Reed Well No. 1 located in Unit H of Section 35, Township 13 South, Range 37 East, King Field.

CASE 6487: (Continued from May 23, 1979, Examiner Hearing)

Application of El Paso Natural Gas Company for approval of infill drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Shell E State Com Well No. 2 located in Unit N of Section 6, Township 21 South, Range 36 East, Eumont Gas Pool, Lea County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6471: (Continued from May 23, 1979, Examiner Hearing)

Application of Consolidated Oil & Gas, Inc. for approval of infill drilling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Freeman Well No. 1-A to be located in Unit C of Section 11, Township 31 North, Range 13 West, Basin-Dakota Pool, San Juan County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6472: (Continued from May 23, 1979, Examiner Hearing)

Application of Consolidated Oil & Gas, Inc. for approval of infill drilling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Jenny Well No. 1-A to be located in Unit P of Section 13, Township 26 North, Range 4 West, Basin-Dakota Pool, Rio Arriba County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6473: (Continued from May 23, 1979, Examiner Hearing)

Application of Consolidated Oil & Gas, Inc. for approval of infill drilling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its McIntyre Well No. 1-A to be located in Unit K of Section 11, Township 26 North, Range 4 West, Basin-Dakota Pool, Rio Arriba County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6474: (Continued from May 23, 1979, Examiner Hearing)

Application of Consolidated Oil & Gas, Inc. for approval of infill drilling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Williams Well No. 1-A to be located in Unit C of Section 24, Township 31 North, Range 13 West, Basin-Dakota Pool, San Juan County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6475: (Continued from May 23, 1979, Examiner Hearing)

Application of Consolidated Oil & Gas, Inc. for approval of infill drilling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well-spacing requirements and a finding that the drilling of its Montoya Well No. 1-A to be located in Unit I of Section 35, Township 32 North, Range 13 West, Basin-Dakota Pool, San Juan County, New Mexico, is necessary to effectively and efficiently drain that portion of the proration unit which cannot be so drained by the existing well.

CASE 6535: (Continued from June 13, 1979, Examiner Hearing)

Application of Torreon Oil Company for a waterflood project, Sandoval County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the San Luis-Mesaverde Pool by the injection of water into the Menefee formation through two wells located in Section 21, Township 18 North, Range 3 West, Sandoval County, New Mexico.

CASE 6579: (Continued from June 27, 1979, Examiner Hearing)

Application of R. N. Hillin for an unorthodox well location and approval of infill drilling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks a waiver of existing well spacing requirements and a finding that the drilling of a Morrow gas well at an unorthodox location 800 feet from the South line and 2000 feet from the East line of Section 34, Township 19 South, Range 28 East, is necessary to effectively and efficiently drain that portion of the E/2 of said Section 34 which cannot be so drained by the existing well.

CASE 6580: (Continued from June 27, 1979, Examiner Hearing) (This case will be continued to the August 22 hearing.)

Application of Continental Oil Company for a carbon dioxide injection project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to initiate a pilot carbon dioxide injection project in the Grayburg-San Andres formation in Units H and I of Section 20, Township 17 South, Range 32 East, Maljamar Pool, for tertiary recovery purposes.

CASE 6270: (Continued from July 11, 1979, Examiner Hearing)

In the matter of Case 6270 being reopened pursuant to the provisions of Order No. R-5771 which order created the South Peterson-Fusselman Pool, Roosevelt County, New Mexico, and provided for 80-acre spacing. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing units.

CASE 6590: (Continued from July 11, 1979, Examiner Hearing)

Application of Grace Petroleum Corporation for compulsory pooling and an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Morrow formation underlying Lots 9, 10, 15, and 16 and the SE/4 of Section 6, Township 21 South, Range 32 East, to be dedicated to a well to be drilled at an unorthodox location 4650 feet from the South line and 660 feet from the East line of said Section 6. Also to be considered will be the cost of drilling and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

Heard June 19

Revised June 26

Case 6564 Cont & Readvertised

Application of Herndon Oil & Gas Co. for an unorthodox oil well location, Lea County, New Mexico.

Applicant, in the above styled cause, seeks approval for the unorthodox location of its O. A. Woody well No. 1 to be drilled 2310 feet from the North line and 330 feet from the West line of Section 35, Township 16 South, Range 38 East, Knowles-Devonian Pool. ~~See~~

INTRODUCTION

I, Dwain Woody, general manager of O. A. Woody's agriculture land holdings in Lea County, New Mexico, commonly known and henceforth referred to as Woody Acres, have prepared the following information for the New Mexico Oil Conservation Division to consider before granting Herndon Oil and Gas Company authority to drill and develop their O. A. Woody No. 1 Well.

BRIEF HISTORY

Woody Acres, comprised of 1500 acres, is located approximately 12 miles North of Hobbs, New Mexico on St. Hwy. 132. Its principal crops are alfalfa, cotton, small grains and cattle. It has been a family-owned farm since 1949.

EXHIBIT A

Exhibit A is an aerial photograph of the East half of Woody Acres.

- I. The dotted line is the outside circumference of the pivot sprinkler irrigation system.
- II. The dot with the proposed well written beside it is the approximate location of the O. A. Woody No. 1 Well.

EXHIBIT B

B₁ and B₂
Exhibit B consists of a soils map, good crop management practices and estimated crop production from various soils.

I. Example:

Symbol Ph in soils map when referred to Table II is Portales loam with an estimated cotton yield of 1000 lbs. per acre, 7 tons of alfalfa, etc.

II. Economic example:

A. 7 tons alfalfa at \$75.00 per ton = \$525.00 per acre.

B. \$525.00 x 96.08 acres = \$50,442.00 gross per year.

*Friday
June 1, 1979
72.50 to 75.00/ton
current price
good hay*

The average annual precipitation is 12 to 16 inches, and the frost-free season is 190 to 205 days. The soil is moderately permeable. Runoff is slow. The erosion hazard is moderate unless adequate cover is maintained. The available water holding capacity is 2 to 4 inches. Roots penetrate to a depth of 10 to 22 inches.

This soil is used for range, wildlife, and recreation. Short and mid grasses, forbs, and shrubs are the principal vegetation. Information on the use and management of this soil for range is given in the section "Range Management."

Reeves loam is poorly suited to growing field and farm windbreaks. If it is to be used for this purpose, Russian-olive should be selected for planting. Irrigation is essential in establishing and maintaining windbreaks. Young trees need protection from grazing and burning.

DRYLAND CAPABILITY UNIT VIII-5

This capability unit consists of well-drained sandy loams that overlie soft caliche. These soils are in the Jalisco series. They formed in strongly calcareous, alluvial sediments on uplands in the southern part of Lea County. Slopes are 0 to 3 percent.

The average annual precipitation is 10 to 13 inches, and the frost-free season is 190 to 205 days. Permeability is moderate. Runoff is slow, and the available water holding capacity is 2 to 4 inches. Roots penetrate to a depth of 20 to 30 inches. Soil blowing is a severe hazard.

These soils are used as range and wildlife habitat. Their use and management for range is described in the section "Range Management."

The soils of this unit are poorly suited to growing field and farm windbreaks because of the rooting depth to soft caliche. Russian-olive and Siberian elm are best suited to these soils. Irrigation is essential in establishing and maintaining windbreaks. Young trees need protection from grazing and burning.

DRYLAND CAPABILITY UNIT VIII-1

Only Active dune land is in this capability unit. It consists of coarse-textured, loose sands that have accumulated into large sand dunes. It is in the northern, eastern, and southern parts of Lea County. Slopes are 5 to 12 percent or more.

The average annual precipitation is 10 to 16 inches, and the frost-free season is 190 to 205 days. Permeability is very rapid, and runoff is very slow. Soil blowing is active and is a severe hazard.

Active dune land is suitable only for nonagricultural uses, such as recreational areas. It is unsuitable for growing windbreaks because the hazard of soil blowing is very severe.

Further information is given in the section "Descriptions of the Soils."

DRYLAND CAPABILITY UNIT VIII-2

Only Badland, barren eroded areas, is in this capability unit. It consists of soft, wind-deposited and water-deposited materials exposed by accelerated and geologic erosion. It is in the southern part of Lea County, near the Simon Sink and several of the salt lakes bordering Lea County. Slopes are 15 to 30 percent.

The average annual precipitation is 10 to 12 inches, and the frost-free season is 190 to 205 days. Runoff is very rapid, and the erosion hazard is very severe.

Badland is suitable only as recreational areas. Some Indian artifacts can be found.

Additional information is given in the section "Descriptions of the Soils."

DRYLAND CAPABILITY UNIT VIII-1

Only Playas is in this capability unit. It consists of silty and clayey, water laid sediments in undrained basins. Slopes are 0 to 1 percent.

The average annual precipitation is 10 to 16 inches, and the frost-free season is 190 to 205 days. Permeability is very slow.

Playas is unsuitable for growing windbreaks because of the overflow hazard. To some extent it is a source of water for livestock and wildlife. It is also used as recreational areas.

Exhibit B₁

Estimated Yields

Estimated average yields per acre of principal crops on irrigated and nonirrigated soils are shown in table 2 and table 3. These are estimates of yields that can be expected over a number of years. The estimates are based on information from research; from interviews with farmers who keep annual records; and from others who have knowledge of the soils, crops, and yields in Lea County.

The following are factors in moderately high level management:

1. A cropping system that provides adequate high-residue and soil-improving crops.
2. Adapted crop varieties or strains, planted at the proper time and at the correct planting rate.
3. Suitable amounts and kinds of fertilizer applied at the proper time.
4. Careful tillage, at the right time, with the right kinds of implements, in such a way as to utilize crop residues, control weeds, and prevent excessive compaction.
5. Proper management or use of chemicals, or both, for control of insects and plant diseases.
6. Application of irrigation water by means of a planned irrigation system in amounts and at times that are in accord with the needs of crops.
7. Harvesting at the proper time with equipment which is correctly operated.

Yields higher than those given are not uncommon and can be obtained in favorable seasons under high level management. Yields may change in the future as new crop varieties are developed to tolerate the diseases, insects, and droughty conditions common to this area.

Range Management

Approximately 90 percent of Lea County is in native grass. More than half of the agricultural income is derived from the livestock industry.

W. W. HAMMOND, district conservationist, Soil Conservation Service, helped write this section.

TABLE 2.—Estimated acreage acre yields of principal crops grown on irrigated soils under a moderately high level of management

[Only soils that are suitable for and generally used for growing crops under irrigation are listed]

Symbol	Soil	Cotton	Alfalfa	Grain sorghum	Feed sorghum	Barley
		<i>lb. of lint</i>	<i>Tons</i>	<i>lb.</i>	<i>Tons</i>	<i>Bu.</i>
Ad	Amarillo loamy fine sand, 0 to 3 percent slopes	900	5.5	4,500	20	47
Af	Amarillo fine sandy loam, 0 to 1 percent slopes	1,250	7	5,500	30	82
Ag	Amarillo fine sandy loam, 1 to 3 percent slopes	1,100	6.5	5,000	24	73
Ah	Amarillo loam, 0 to 1 percent slopes	1,100	7.5	5,500	25	92
Am	Arch loam	600	4	2,000	15	36
An	Arvana loamy fine sand, 0 to 3 percent slopes	700	5	4,000	20	45
Ap	Arvana fine sandy loam, 0 to 1 percent slopes	1,250	6.5	5,000	24	70
Ar	Arvana fine sandy loam, 1 to 3 percent slopes	1,100	6	4,500	22	60
At	Arvana loam, 0 to 1 percent slopes	1,300	6.5	5,500	24	90
Br	Brownfield and Patricia fine sands, eroded	600	4	3,000	15	50
Go	Gomez loamy fine sand	600	4	2,000	14	—
Gs	Gomez fine sandy loam	700	5	5,000	18	40
Kb	Kimbrough loam, 0 to 1 percent slopes	800	—	4,000	15	—
La	Lea fine sandy loam	1,100	7	5,000	25	70
Le	Lea loam	1,150	7	5,500	30	75
Ma	Mansker loam, 0 to 1 percent slopes	750	5	2,500	18	—
Me	Mansker loam, 1 to 3 percent slopes	600	5	3,000	15	50
Pe	Portales fine sandy loam, 0 to 1 percent slopes	1,000	7	4,200	20	70
Pi	Portales fine sandy loam, 1 to 3 percent slopes	800	6	4,000	18	63
Ph	Portales loam, 0 to 1 percent slopes	1,000	7	5,000	30	75
Po	Portales loam, 1 to 3 percent slopes	900	6	4,000	18	70
Sf	Sharvata loamy fine sand	500	—	3,000	13	40
Sh	Sharvata fine sandy loam	800	—	4,000	18	53
Sm	Simona fine sandy loam, 0 to 1 percent slopes	800	—	3,500	15	50
So	Slaughter loam	700	—	4,000	18	55
St	Stegall loam	1,100	6.5	5,500	25	80
Su	Stegall silty clay loam	1,000	6	4,500	20	70
Zi	Zita fine sandy loam	1,200	7	4,500	20	70
Zt	Zita loam	1,100	7	6,000	30	75

Table 3: 180# 1300 lbs under dry land conditions

The county is about equally divided into two land resource areas: the Southern High Plains and the Southern Desertic Basins, Plains, and Mountains.

The northern part of Lea County is in the Southern High Plains. About 500,000 acres is in native grasses. The soil-air-moisture relationship in this area is favorable for the production of short, mid, and tall grasses. Much of the acreage is short grass range. The soils are gravelly loams that are very shallow over indurated caliche. In some areas in the northern part of the county, the soils are sandy and are underlain by sandy clay loam or sand. Some of these sandy soils support tall and mid grasses.

The southern part of Lea County is in the Southern Desertic Basins, Plains, and Mountains. About 1,100,000 acres of this area is grassland. Most of the acreage is made up of sandy soils that are deep over caliche or sandy clay loam. Soil blowing is severe to very severe, and there are large areas of hummocks and dunes. A few, small, rough areas of exposed red beds and sandy soils, underlain by Triassic red beds, support short and mid grasses. In the central part of this acreage are large areas of gravelly, limy soils, on low ridges, that are shallow over indurated caliche. These soils support a cover of short grass.

The rangeland in Lea County is used mostly for cattle production. Cow-calf-steer operations are mostly in the northern part of the county, and cow-calf-steer-yearling

operations are dominant in the southern part. Ranches average about 10,000 acres in size and support about 225 animal units.

On many ranches grazing crop stubble and small grain supplements the forage produced on the rangeland. In winter the native forage is often supplemented with protein concentrates. Creep feeding of calves and yearlings to increase market weight is practiced on some ranches.

The native vegetation in many parts of the county has been greatly depleted by continued, excessive use.

Much of the acreage that was once open grassland is now covered with weeds, brush, and cactus. The amount of forage is less than half of that originally produced. By controlling brush, managing the grazing, and using other good range management, based on soil potentials, the original productivity of the native grassland can be restored.

Range sites and condition classes

A range site is an area of rangeland that produces a distinctive kind and amount of vegetation. Each site differs from the others in ways that significantly affect productivity and management requirements.

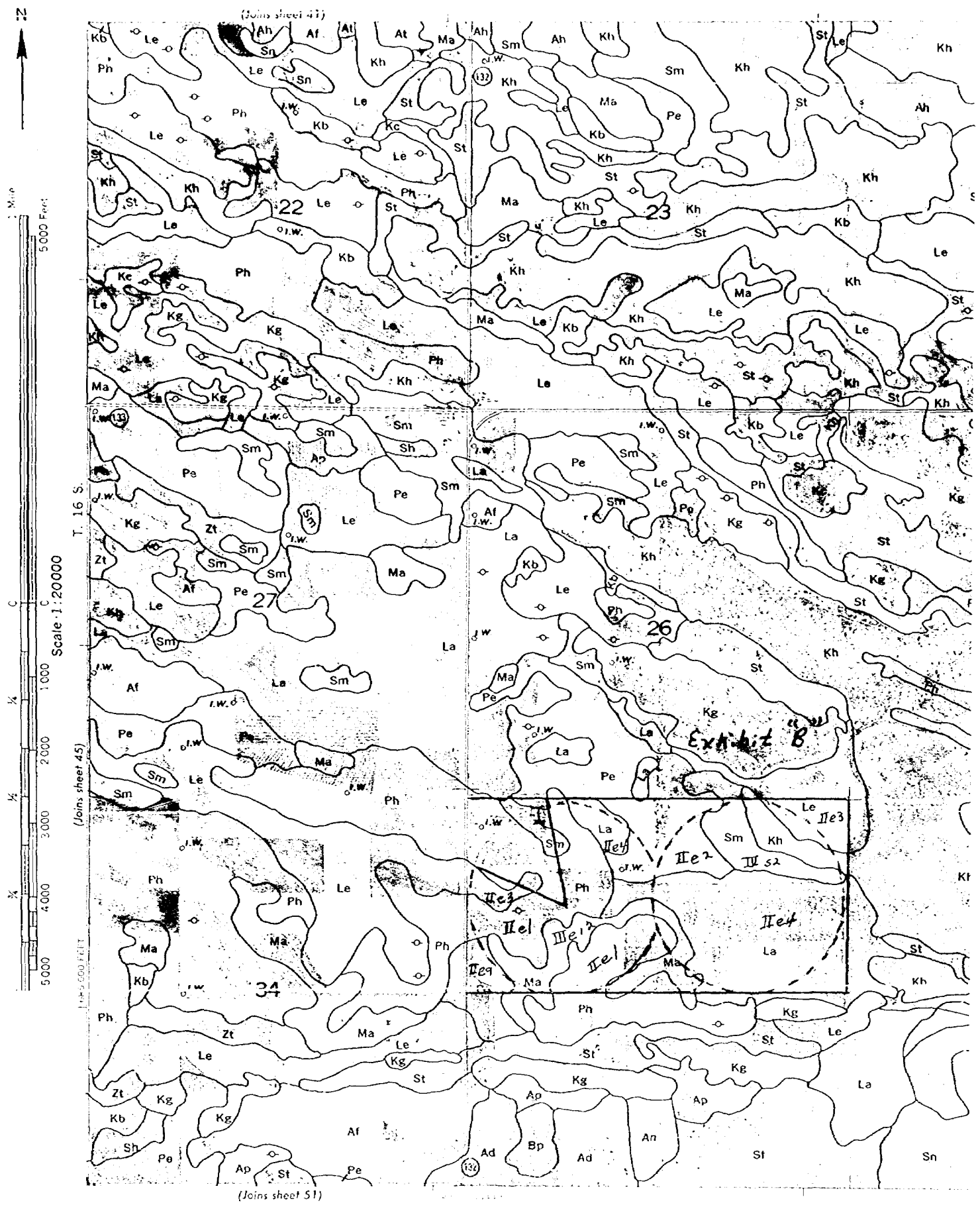
Range condition is determined by comparing the present vegetation on a site with the potential vegetation which is the most productive combination of forage plants that will grow on the soils of that site. The purpose of determining range condition is to provide an approximate

CONCLUSION

It is not the intent of Woody Acres to ask the Oil Conservation Division to deny Herndon Oil and Gas Company authority to develop their lease. However, due to the potential economical losses Woody Acres would incur, we ask that the Division place limitations and stipulations in this authority, if granted. Some suggestions are as follows:

- I. Locate drilling unit outside the Center Pivot Irrigation System circle and directional drill.
- II. If well is drilled in the center of Unit E, drill and complete during non-cropping season. (September 31 to March 1.)
 - A. In the event the well is a producer, all devices used to pump and process oil or gas should be sub-terrainiam with holding tanks placed outside Irrigation System Circle.
 - B. Well to be located at such a point as to allow free passage of Irrigation Sprinkler System. (Between towers.)

*1st 5' towers on sprinkler:
147' apart
next 2:
185' apart
last one
170'
w/ 16' overhang
at the end
of
sprinkler*



DWAIN WOODY

MEXICO

Date 1-10-77

Scale 8" = 1 MILE

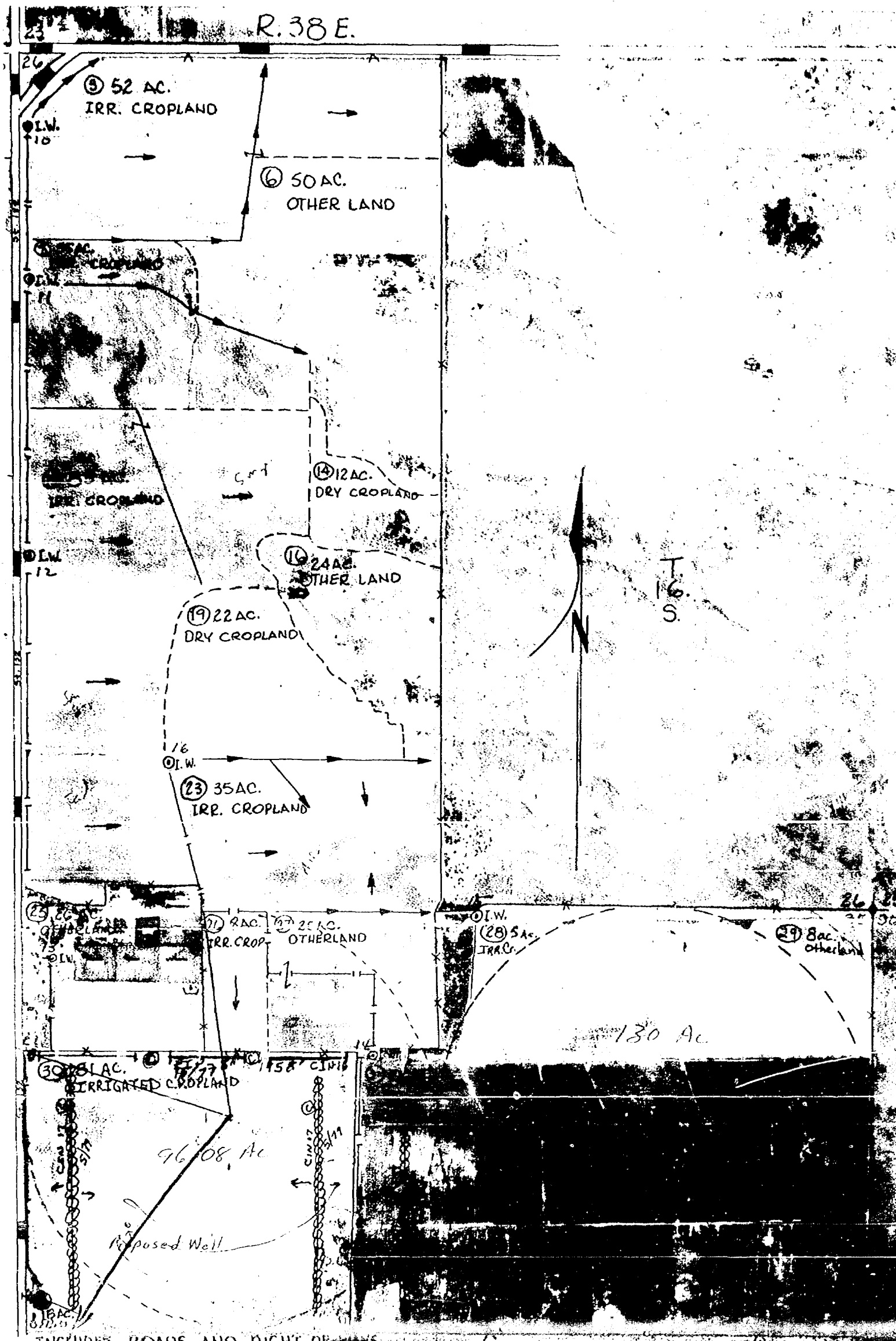
ES

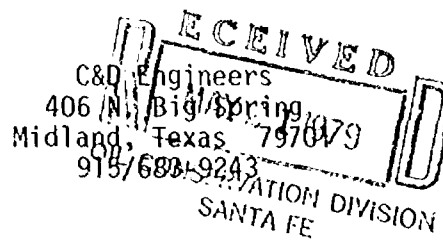
Conservation District

Photo number DHO-4CC-137

USDA Soil Conservation Service

Exhibit A





May 18, 1979

Case 6564

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

Herndon Oil & Gas Co. requests a hearing for a non-standard location for its O.A. Woody No. 1 well in the Knowles Devonian Pool. This well will be located 1980' FNL and 660' FWL, Section 35, T-16-S & R-38-E, Lea County, New Mexico.

It is anticipated that the well will be spudded in early June. Therefore, Herndon would like to schedule the hearing on the June docket.

Very truly yours,

Michael J. DeMarco

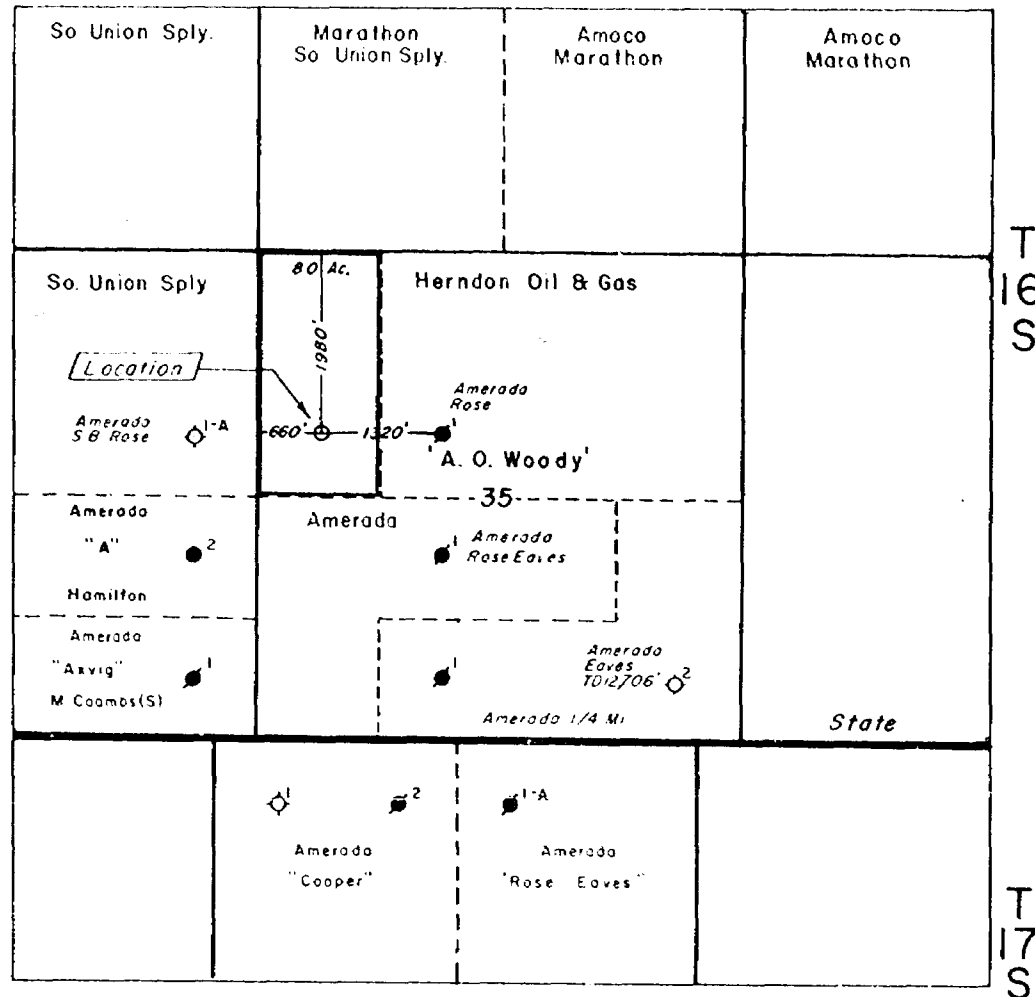
Michael J. DeMarco
C&D Engineers
Agent for Herndon Oil & Gas Co.

MJD/ms

cc: Amerada Hess Corp.
P. O. Box 1655
Lovington, New Mexico 88260

Herndon Oil & Gas Co.
P. O. Box 489
Tulsa, Oklahoma 74101

R-38-E



Herndon Oil & Gas No. 1 Woody
 Location: 1980' FNL and 660' FWL
 Sec. 35 T-16-S - R-38-E
 LEA Co., NEW MEXICO

HERNDON OIL & GAS

Knowles Pool Prospect

LOCATION PLAT

Scale: 1" = 2,000'
 Date: May-79

DRAFT

dr/

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6564

ORDER NO. R- 6075

APPLICATION OF HERNDON OIL & GAS CO.

FOR AN UNORTHODOX ^{OIL} ~~GAS~~ WELL LOCATION,

LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on June 13 and July 25,
19 79, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter

NOW, on this day of June, 19 79, the Division
Director, having considered the testimony, the record, and the
recommendations of the Examiner, and being fully advised in the
premises,

FINDS:

(1) That due public notice having been given as required by
law, the Division has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicant, Herndon Oil & Gas Co.,
O. A. Woody Well No. 1 to be drilled at a point 2310
seeks approval ~~for the~~ unorthodox ~~xxx~~ well location of its/

feet from the North ~~line~~ and 330 ~~feet from the~~

West ~~line~~ of Section 35, Township 16 South

Range 38 East, NMPM, to test the Devonian

formation, Knowles-Devonian Pool, Lea

County, New Mexico.

(3) That the W/2NW/4 of said Section 35 is to be
dedicated to the well.

(4) That ~~a well at said unorthodox location will enable the applicant to drill~~
~~the subject well outside the perimeter of a circular sprinkler system which~~
~~enable applicant to produce the oil underlying the proration unit.~~
~~the landowner irrigates the NW/4 of Section 35, and the landowner has waived objection~~

(5) That ~~the~~ offset operator ^{has waived} objection to the proposed unorthodox
location provided certain conditions are met and certain limitations
placed on production from the proposed well.

to said location.

Case No. _____
Order No. R- _____

will protect the interests of the landowner,

(6) That approval of the subject application will afford the applicant the opportunity to produce its just and equitable share of the ^{oil and} gas in the subject pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and will otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That an unorthodox ~~xxx~~ ^{oil} well location for the Devonian the Herndon Oil & Gas Co. O. A. Woody Well No. 1 formation is hereby approved for ~~xxxx~~ to be drilled at a point 2310

sk feet from the North line and 330 feet from the West line of Section 35, Township 16 South, Range 38 East NMPM, Knowles-Devonian Pool, Lea County, New Mexico.

(2) That the W 1/2 NW 1/4 of said Section 35 shall be dedicated to the above-described well.

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

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

if said well is to be completed as a producer,

(3) That the operator shall conduct a directional survey of said well after reaching total depth and shall cause a copy of said survey to be filed with Amerada Hess Corporation, Seminole, Texas, and with the Santa Fe Office of the Oil Conservation Division.

(4) That should said well be completed as a producer, it shall be subject to top unit allowance for the Knowles-Devonian Pool, or ~~subject to a production~~ limitation of 100 barrels of oil per day plus 50 percent of its initial potential greater than 100 barrels of oil per day, whichever is less.