

## APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose:  Secondary Recovery  Pressure Maintenance  Disposal  Storage  
Application qualifies for administrative approval?  yes  no

II. Operator: Sage Energy Company  
Address: P. O. Drawer 3068, Midland, Texas 79702

Contact party: Jay Hardy/Jerry Littlefield Phone: 915 683 5271

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project?  yes  no  
If yes, give the Division order number authorizing the project \_\_\_\_\_.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. Attached.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Jay H. Hardy Title Vice President - Engineering

Signature:  Date: Feb. 26, 1985

XV. If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

### III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
  - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
  - (3) A description of the tubing to be used including its size, lining material, and setting depth.
  - (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
- (1) The name of the injection formation and, if applicable, the field or pool name.
  - (2) The injection interval and whether it is perforated or open-hole.
  - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
  - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
  - (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

BEFORE EXAMINER STOGNER	
OIL CONSERVATION DIVISION	
Sage	EXHIBIT NO. 1
CASE NO.	8603

Attached to and made a part of the Form C-108 dated February 26, 1985 signed by Jay H. Hardy, Vice President - Engineering, for Sage Energy Company, P. O. Drawer 3068, Midland, Texas 79702

DATA ON THE PROPOSED OPERATIONS

- VII. 1. The average and maximum daily rate and volume of fluids to be injected will be at the rate of 500 BWPD.
2. The system is open
  3. Water to be disposed of on vacuum.
  4. Water analysis attached.
  5. Not applicable
- VIII. The injection zone is:
- 9777'- 9795' Top of the Bough "C", thickness of 18', cretaceous at 375±.
- IX. No stimulation program needed.
- X. Logs and test data on file with the division.
- XI. Not applicable.
- XII. I have no knowledge of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

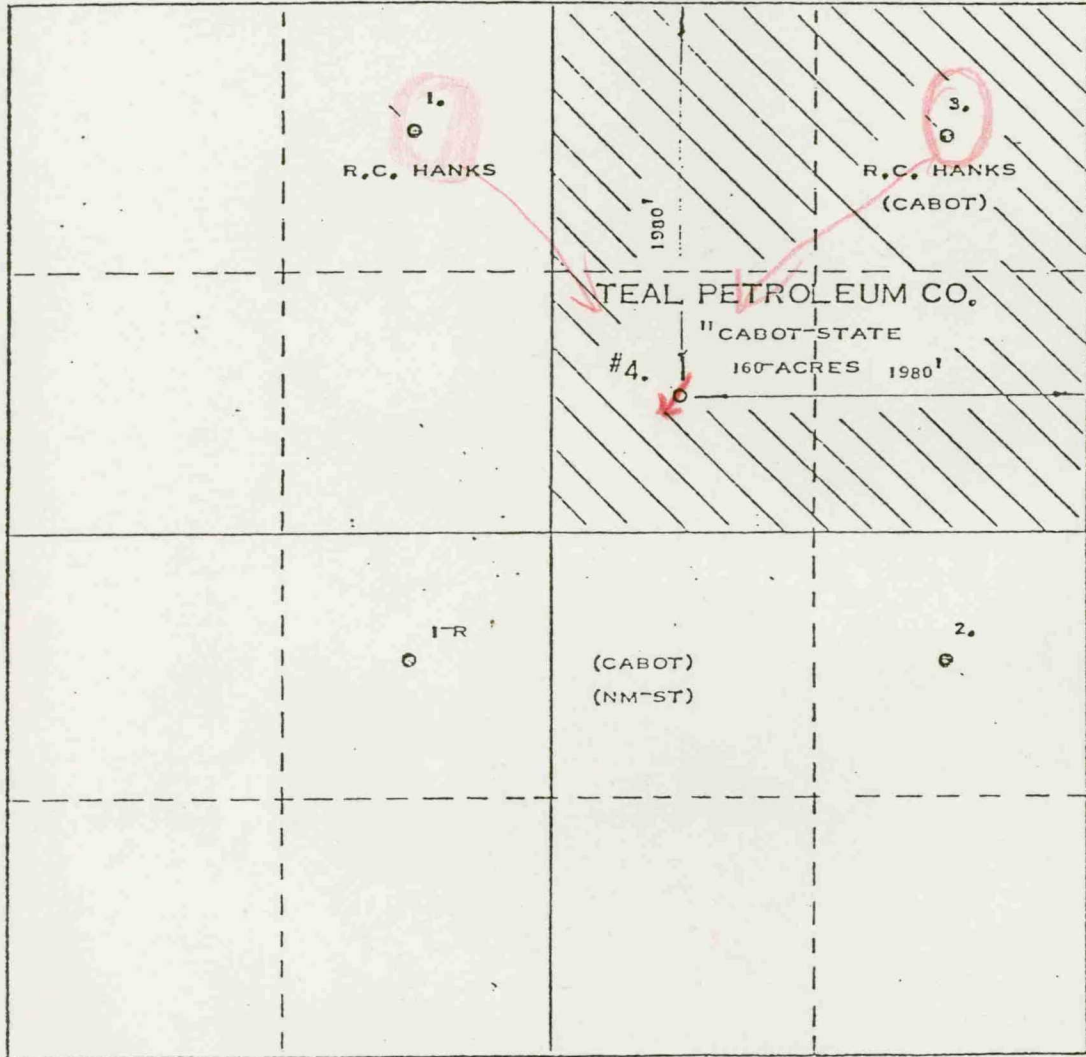
Operator <b>TEAL PETROLEUM CO.</b>			Lease <b>CABOT-STATE</b>		Well No. <b>4</b>
Unit Letter <b>"G"</b>	Section <b>32</b>	Township <b>8-S</b>	Range <b>36-E</b>	County <b>ROOSEVELT</b>	
Actual Footage Location of Well: <b>1980</b> feet from the <b>NORTH</b> line and			<b>1980</b> feet from the <b>EAST</b> line		
Ground Level Elev. <b>4102</b>	Producing Formation <b>PENNSYLVANIAN</b>	Pool <b>VADA-PENN.</b>	Dedicated Acreage: <b>160</b> Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes  No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



**CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name  
*Kevin Stephenson*  
Position

Agent

Company  
Teal Petroleum Company

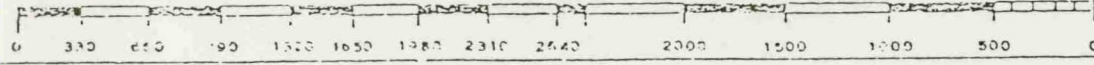
Date  
October 28, 1974

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed  
OCTOBER 26, 1974

Registered Professional Engineer and/or Land Surveyor  
*Max A. Schumann Jr.*  
MAX A SCHUMANN JR

Certificate No. 1510



U.S. Amoco 6-11-86 H.L. Harrel James Pet, Tr Jones Robinson Co	Amoco 6-11-86 Rep: Jark Bnk, Dallas, TX H.L. Harrel, et al A.L. Crawford, et al	37-37 CE Boyd III 5-13-85 Joy Press 11-1-82 54793	BellNorth, et al 11-8-85 L. Lucas M.E. Barnes, et al	Yates, et al Dallas, TX Amoco 5-5-86 6-11-86	CE Boyd III 6-1-83 8518 C.E. Boyd III 6-17-82 52628 Aton 6-17-82 38655 Mlyn Prod. 19375 KGS Huber Corp. 19375 KGS Coastal (Fed)	6 A.R. Co HBP E-8875 J.O. Neill, Jr. 10-20-70 DIA 4-27-66	Liberty Pet. 8-1-82 53251 S.P. Yates HBP 0-0-83 Roswell-LaSalle	U.S. 36 Coastal States 10-19-82 DIA 10-29-82 (Mar Pray) F4001	Amoco 5-5-86 4-30-86 H.F. Beebe, et al
Paulette Williamson 5-1-87 29834 U.S.	Paulette Williamson 5-1-87 29834 U.S.	J.D. Cigaus 11-3-82 McFriel 53245 Altroge 4-1-84 27387 U.S. Mins Boalst Fdn (S)	37-37 Celeste Grun- berg 12-1-85 26391	Amoco 1-7-86 M.P. Quarters	Marathon HBP 10-1-81 Carroll Neely 10-1-81 Read S. Stevens H.S. Hatch	A. Neill Prop. O'Neill St. 10-1-81 J.O. Neill Prop. 10-1-81 Amor Pet. 10-1-81	C.E. Boyd III 7-1-87 53386 KGS Bates Fed 109734 S.N.B. Ooper 10-1-81 13638 Lone Star 10-1-81 10-1-81 10-1-81 10-1-81	8 Gas Prod Ent E 8875 Coastal States 10-19-82 DIA 10-29-82 (Mar Pray) F4001	Breck Oper (B&I Ltd. 1/2) AS8677 U.S.
Inexio 10-1-90 40260 U.S.	Paulette Williamson 5-1-87 29834 U.S.	A.J. Antweil 11-1-87 31376 W.B. Preston 4-25-89	37-37 Celeste Grun- berg 12-1-85 26391	Amoco 1-7-86 M.P. Quarters	Marathon HBP 10-1-81 Carroll Neely 10-1-81 Read S. Stevens H.S. Hatch	A. Neill Prop. O'Neill St. 10-1-81 J.O. Neill Prop. 10-1-81 Amor Pet. 10-1-81	C.E. Boyd III 7-1-87 53386 KGS Bates Fed 109734 S.N.B. Ooper 10-1-81 13638 Lone Star 10-1-81 10-1-81 10-1-81 10-1-81	8 Gas Prod Ent E 8875 Coastal States 10-19-82 DIA 10-29-82 (Mar Pray) F4001	Breck Oper (B&I Ltd. 1/2) AS8677 U.S.
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INJECTION WELL DATA SHEET

SIDE 1

SAGE ENERGY COMPANY  
OPERATOR

Cabot State  
LEASE

NO. 4  
WELL NO. 1980' FEET, and 1980' FNL  
FOOTAGE LOCATION

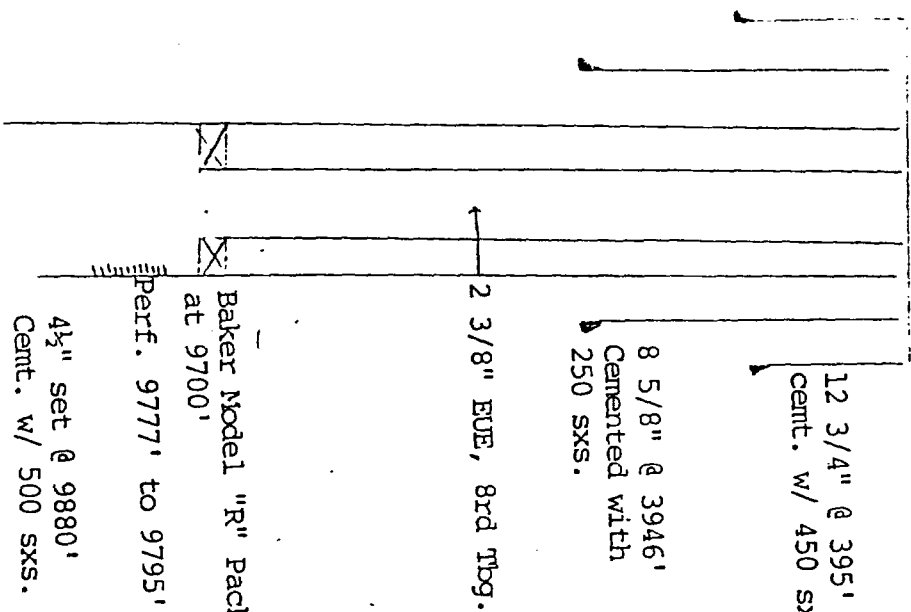
SECTION 32

T8S  
TOWNSHIP

R36E  
RANGE

Roosevelt County, New Mexico

Schematic



Tabular Data

<u>Surface Casing</u>	Size <u>12 3/4"</u>	"	Cemented with <u>450 sxs.</u>
	TOC <u>Ground Level</u>	<u>                    </u>	feet determined by <u>circulation</u>
	Hole size <u>17"</u>	<u>                    </u>	<u>                    </u>
<u>Intermediate Casing</u>	Size <u>8 5/8"</u>	"	Cemented with <u>250 sxs.</u>
	TOC <u>3244</u>	<u>                    </u>	feet determined by <u>Calculations</u>
	Hole size <u>11"</u>	<u>                    </u>	<u>                    </u>
<u>Long string</u>	Size <u>4 1/2"</u>	"	Cemented with <u>500 sxs.</u>
	TOC <u>8310</u>	<u>                    </u>	feet determined by <u>Cement Band Log</u>
	Hole size <u>7 7/8"</u>	<u>                    </u>	<u>                    </u>
	Total depth <u>9880'</u>	<u>                    </u>	<u>                    </u>
<u>Injection interval</u>	<u>9777'</u>	<u>                    </u>	feet to <u>9795'</u>
	(perforated or open-hole, indicate which)		
	<u>9777'</u>	<u>                    </u>	feet

4 1/2" set @ 9880'  
Cemt. w/ 500 sxs.

Baker Model "R" Packer  
at 9700'  
Perf. 9777' to 9795'

2 3/8" EUE, 8rd Tbg.  
8 5/8" @ 3946'  
Cemented with  
250 sxs.

Tubing size 2 3/8" lined with Internel Plastic Coating set in a  
(Material)

Baker Model "R" packer at 9700' feet  
(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Bough "c"

2. Name of Field or Pool (if applicable) Vada Penn Field

3. Is this a new well drilled for injection?  Yes  No

If no, for what purpose was the well originally drilled? Exploration for oil and gas.

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

NO

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

None





SAGE ENERGY COMPANY  
OPERATOR

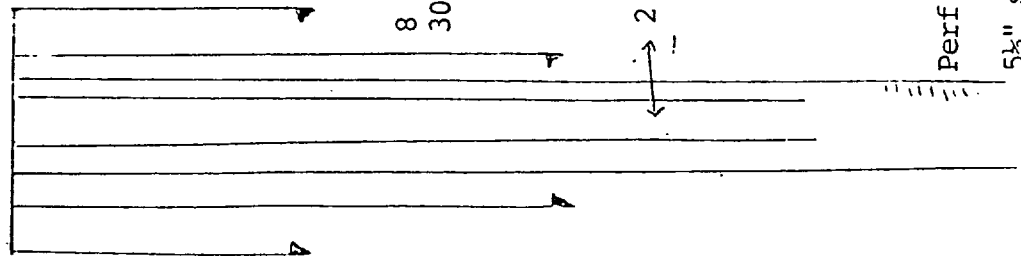
CABOT STATE  
LEASE

3 660' FNL and 660' FEL  
WELL NO. FOOTAGE LOCATION

T-8-S TOWNSHIP  
R-36-0 RANGE

32 SECTION

Schematic



Tubular Data

Surface Casing

Size 13 3/8" Cemented with 425 sxs.

13 3/8" cemented with 425 sxs at 397'. Calc. feet determined by Calc.

Hole size 17"

Intermediate Casing

Size 8 5/8" Cemented with 300 sxs.

8 5/8" cemented with 300 sxs at 4050'. Calc. feet determined by Calc.

Hole size 11"

Long string

Size 2 3/8" Cemented with 400 sxs.

2 3/8" EUE 8rd Tbg

2 3/8" cemented with 400 sxs at 9949'. Calc. feet determined by Calc.

Hole size 7 7/8"

Total depth 9961

Injection Interval

Perf. 9709 - 9734 feet  
9709 feet to 9734 feet  
(perforated or open-hole, indicate which)

5 1/2" set at 9949' with 400 sxs cement



*Producing* WELL DATA SHEET

SIDE 1

SAGE ENERGY COMPANY  
OPERATOR

Midwest State  
LEASE

1 660' FNL and 1980' FWL  
WELL NO. FOOTAGE LOCATION

32  
SECTION

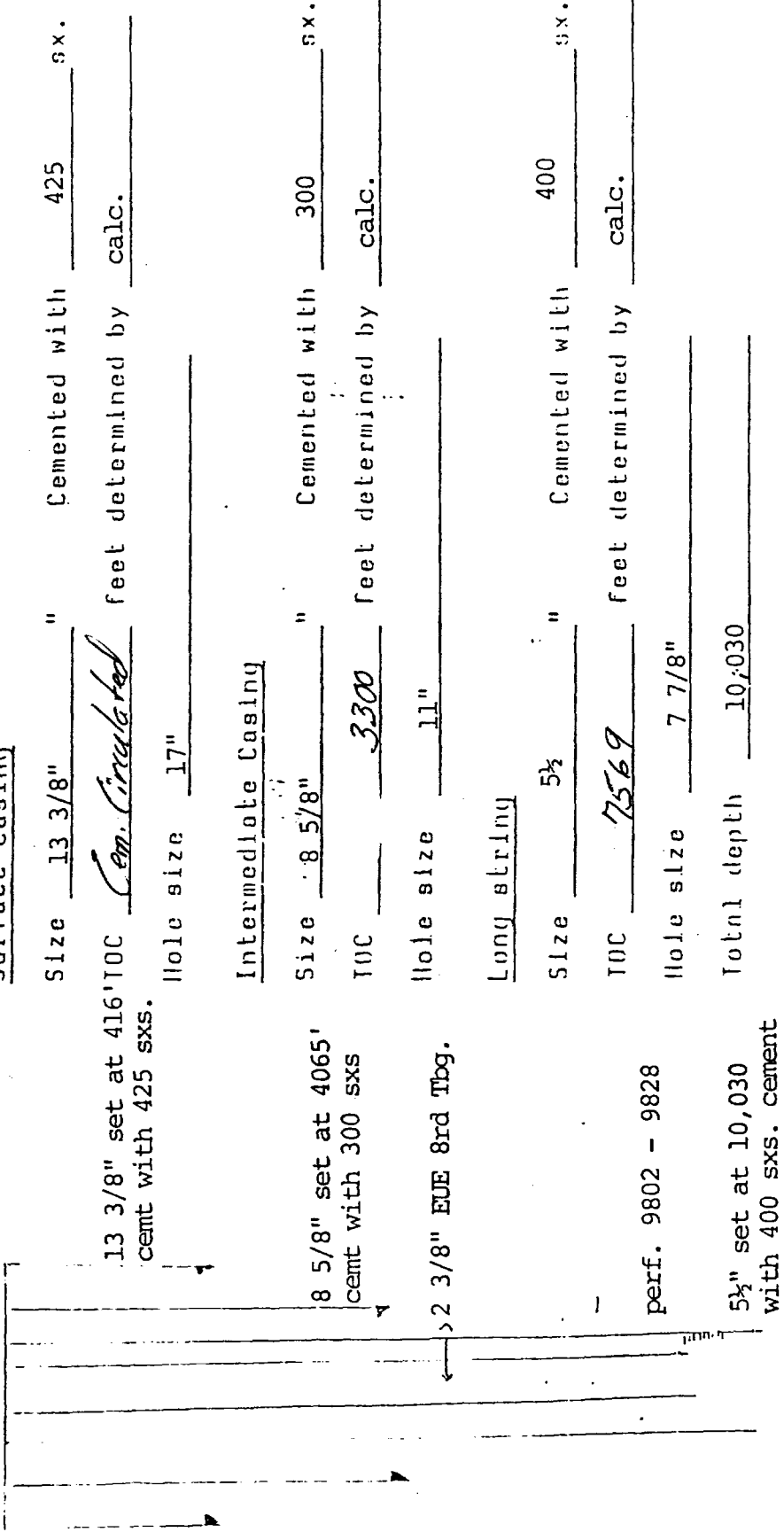
T-8-S

TOWNSHIP

R-36-E

RANGE

Schematic



Tabular Data

Surface Casing

Size 13 3/8" " Cemented with 425 sxs.

TOC 3300 feet determined by calc.

Hole size 17"

Intermediate Casing

Size 8 5/8" " Cemented with 300 sxs.

TOC 3300 feet determined by calc.

Hole size 11"

Long string

Size 5 1/2" " Cemented with 400 sxs.

TOC 7569 feet determined by calc.

Hole size 7 7/8"

Total depth 10,030

Injection Interval

9802 feet to 9828 feet  
(perforated or open-hole, indicate which)

perf. 9802 - 9828  
5 1/2" set at 10,030 with 400 sxs. cement

COUNTY ROOSEVELT, N.M. FIELD MIDDLE ALLISON (PENN)

OPR ROGER C. HANKS

SE MIDWEST STATE WELL NO. 1

LOC Sec 32, T-8-S, R-36-E (C)

660 FNL & 1980 FWL of Sec

UNIQUE NO. 30-041-20208

MAPS \_\_\_\_\_ CO-ORD \_\_\_\_\_

F. R. 5-22-69 OBJ 10,000' RT SPUD 6-7-69

CTR Ard Drlg. LAHEE CLASS \_\_\_\_\_ ELEV D. F. 4124' L/S

LOGS \_\_\_\_\_ SPLS \_\_\_\_\_ GL \_\_\_\_\_

TD 10,030' PBD \_\_\_\_\_ ABD LOC. \_\_\_\_\_ P & A \_\_\_\_\_

PAY ZONE	PROD INTERVAL	IP	BO	W	HRS	CHK	TEST BASIS
Penn	9802-28	P	304	1032	24		

GOR	GTY	CP	TP	BHP	POT DATE	TREATMENT
	47				8-4-69	Ac/1000

CSG	13 3/8" @ 416 w/425
	8 5/8" @ 4065 w/300
	5 1/2" @ 10030 w/400

COUNTY ROOSEVELT, N.M. FIELD MIDDLE ALLISON (PENN)

WELL: ROGER C. HANKS #1 MIDWEST STATE ELEV 4124' DF L/S

DATE | WELL RECORD | REACHED T. D. | SPL (LOG) MARKERS

TD	10,030'		Anty (2280)
c	9775-9823, R/48' lmy shale & lm, vugy frac.		Yates (2814)
			SA (4075)
	Perf. 104/9802-28. Ac/1000		Glor (5520)
	P/137 BO, 120 W, 24 hrs.		Tubb (6970)
			Abo (7800)
			Wlfc (9200)
	(8-14-69)		Bo C (9800)
			Cyn (9882)

The Subsurface Library  
P. O. Box 942  
Midland, Texas

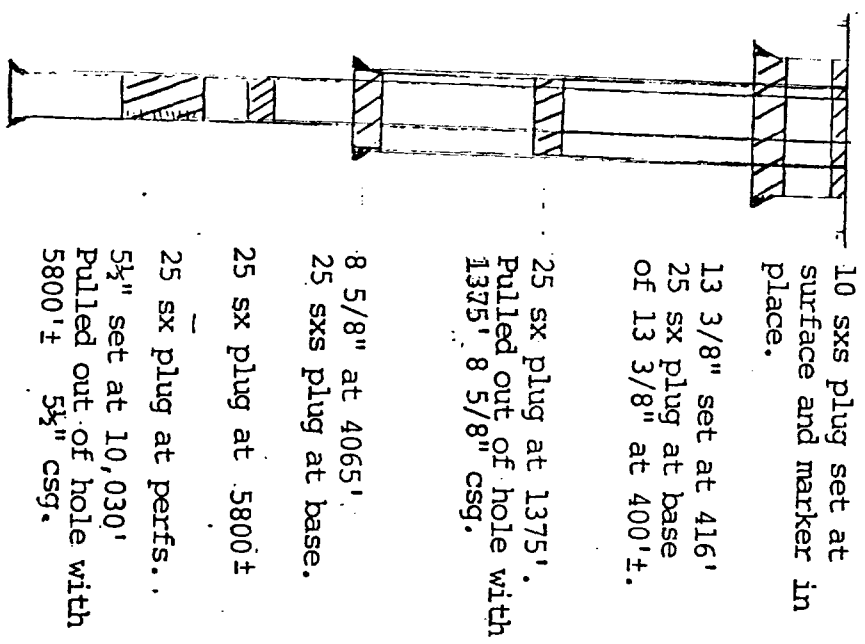
P & A WELL DATA SHEET

Operator Roger Hanks

State Cabot State

OPERATOR 1 LEASE 1980' FSL and 1980' FWL  
 WELL NO. 1 FOOTAGE LOCATION 1980' FSL and 1980' FWL SECTION 32 TOWNSHIP 8S RANGE 36E

Schematic



Tabular Data

<u>Surface Casing</u>	
Size <u>13 3/8"</u>	" Cemented with <u>450</u> sxs.
TOC <u>circulated</u>	feet determined by <u>calculation</u>
Hole size <u>17"</u>	
<u>Intermediate Casing</u>	
Size <u>8 5/8"</u>	" Cemented with <u>380</u> sxs.
TOC <u>3008</u>	feet determined by <u>calculation</u>
Hole size <u>11"</u>	
<u>Long string</u>	
Size <u>5 1/2"</u>	" Cemented with <u>400</u> sxs.
TDC <u>7389</u>	feet determined by <u>calculation</u>
Hole size <u>7 7/8"</u>	
Total depth <u>9850'</u>	

9802' feet to 9828' feet  
 (perforated or open-hole, indicate which)

COUNTY ROOSEVELT, NM FIELD WILDCAT (BOUGH "C") DISCOVERY  
 OPER ROGER C. HANKS, LTD.  
 SE CABOT STATE WELL NO. 1  
 LOC Sec 32, T-8-S, R-36-E (K)  
1980 FSL & FWL of Sec  
OWWO-Orig. Cabot #1 N.M. "R" State, OTD 9840'

MAPS \_\_\_\_\_ CO. ORD \_\_\_\_\_  
 F. R. 2-29-68 OBJ 9840' METHOD RT RESPU D. 2-24-68  
 CTR Ard Drlg. C. R. \_\_\_\_\_ ELEV D. F. 4113'  
 LOGS \_\_\_\_\_ SPLS \_\_\_\_\_ GL \_\_\_\_\_  
 TD 9850' PBD \_\_\_\_\_ ABD LOC \_\_\_\_\_ P & A \_\_\_\_\_

PAY ZONE	TOP PAY	PRODUCING INTERVAL	IP	BO	W	BS&W	HRS	TEST BASIS
Bo "C"	9800	9800-14	P	20	900		24	

CHOKE	GOR	GTY	CP	TP	POT DATE	TREATMENT
	TSTM	46			7-15-68	A/500

CSG-TBG-PKR RECORD REACHED T. D.  
13 3/8 - 452 - 450 5 1/2 - 9840 - 400  
8 5/8 - 4075 - 380

COUNTY ROOSEVELT, NM FIELD WILDCAT (BOUGH "C") DISCOVERY  
 WELL: ROGER C. HANKS, LTD. #1 CABOT STATE ELEV 4113' DF \_\_\_\_\_

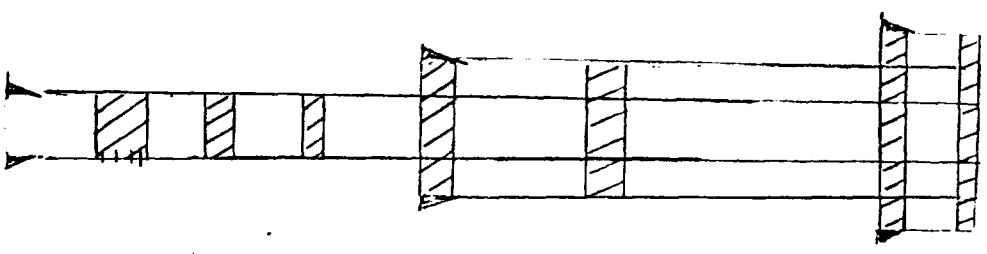
DATE	WELL RECORD	SPL (LOG) MARKERS
	TD 9850'	Anhy (2250)
	Perf 2/9800-01; 12/9804-10; 4/9812-14.	Yates (2805)
	A/500	Queen (3510)
	Swbd 16 BFPH 10 hrs. (3-10% oil 90-97% XW)	S.A. (4040)
		Glor (5516)
	Pmpd 60 BO 900 BW 24 hrs. (9800-14)	Tubb (6960)
	Pmpd 16 BO 900 BXW 24 hrs. (9800-14)	Abo (7760)
	Pmpd 22 BO 900 BXW 24 hrs. (9800-14)	Bo C (9797)
	Pmpd 14 BO 1000 BW 24 hrs. (9800-14)	
	Pmpd 22 BO 960 BW 24 hrs. (9800-14)	
	Pmpd 25 BO 1000 BW 24 hrs.	
	Pmpd 22 BO 1000 BXW 24 hrs.	
	Pmpd 14 BO 1000 BXW 24 hrs.	
	Pmpd 11 BO 1000 BXW 24 hrs.	
	Pmpd 10-15 BO 1000 BWPD	
	Pmpd 60 BO 1000 BXW 24 hrs. (9800-14)	
	(8-1-68)	
	The Subsurface Library	
	P. O. Box 942	
	Midland, Texas	

P&A WELL DATA SHEET

ROGER C. HANKS OPERATOR  
 Cabot State LEASE

2 1980' FSL and 660' FEL Section 32 T-8-S R-36-E  
 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE  
 Roosevelt County, New Mexico

Schematic



Tabular Data

Surface Casing  
 Size 13 3/8" Cemented with 450 sx.  
 TOC circulated feet determined by calculated  
 Hole size 17"

Intermediate Casing  
 Size 8 5/8" Cemented with 370 sx.  
 TOC 3051 feet determined by calculated  
 Hole size 11"

Long string  
 Size 5 1/2" Cemented with 500 sx.  
 TOC 6104' feet determined by calculated  
 Hole size 7 7/8"  
 Total depth 9856, PBTD 9855'

20 sx plug across perforations.

9760 feet to 9784 feet  
 (perforated or open-hole, indicate which)



COUNTY ROOSEVELT, N.M. FIELD MIDDLE ALLISON (PENN)  
 OPR ROGER C. HANKS  
 SE CABOT STATE WELL NO. 2  
 LOC Sec 32, T-8-S, R-36-E (I)  
1980 FSL & 660 FEL of Sec

UNIQUE NO. 30-041-20181  
 MAPS \_\_\_\_\_ CO. ORD \_\_\_\_\_  
 F. R. 1-30-69 OBJ 10,000' RT SPUD 1-30-69  
 CTR \_\_\_\_\_ LAHEE CLASS \_\_\_\_\_ ELEV D. F. \_\_\_\_\_  
 LOGS \_\_\_\_\_ SPLS \_\_\_\_\_ GL 4103 DF Op  
 TD 9856' PBD 9855' ABD LOC. \_\_\_\_\_ P & A \_\_\_\_\_

PAY ZONE	PROD INTERVAL	IP	BO	W	HRS	CHK	TEST BASIS
Penn	9760-9784	P	288	664	24		

GOR	GTY	CP	TP	BHP	POT DATE	TREATMENT
1040	46				3-21-69	Ac/1000

CSG 13 3/8-400-w/450  
8 5/8-4090-w/370  
5 1/2-9855-w/500

COUNTY ROOSEVELT, N.M. FIELD MIDDLE ALLISON (PENN)  
 WELL: ROGER C. HANKS #2 CABOT STATE ELEV \_\_\_\_\_

DATE	WELL RECORD	REACHED T. D.	SPL (LOG) MARKERS
TD 9856'		PBD 9855'	Anhy (2235)
	DST 9763-9829, Op. 1', GTS 14", @ 750,		Salt (2618)
	000 CFGPD, R/90' HCCM, 225' oil, 2100		B/Salt (2780)
	XW, 30" ISIP/2113, FP 345-971, 60" FSIP/		Yates (2798)
	2113		SA (3988)
	Perf. 22/9760-84. Ac/1000		Glor (5503)
			Tubb (6942)
			Abo (7770)
		(5-15-69)	Wlfc (8900)
			Bo G (9760)

The Subsurface Library  
 P. O. Box 942  
 Midland, Texas



LABORATORY WATER ANALYSIS

No. W75-331

To Teal Petroleum Company  
405 Wall Towers East  
Midland, Texas 79701

Date 5-1-75

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by \_\_\_\_\_ Date Rec. 5-1-75

Well No. Cabob State #4 Depth 9777-9795' Formation \_\_\_\_\_

County Roosevelt Field \_\_\_\_\_ Source \_\_\_\_\_  
1480' FN and BL, Sec. 32, T-8-S, R-36-E

Resistivity	0.108 @ 70° F.	
Specific Gravity	1.070	
pH	6.0	
Calcium (Ca)	14,350	*MPL
Magnesium (Mg)	3,900	
Chlorides (Cl)	56,000	
Sulfates (SO <sub>4</sub> )	600	
Bicarbonates (HCO <sub>3</sub> )	205	
Soluble Iron (Fe)	400	
API Gr. @ 60° F. - 57.6		

Remarks: This sample appears to contain spent acid water. \*Milligrams per liter

Respectfully submitted,

Analyst: Ereuer  
 cc: \_\_\_\_\_

HALLIBURTON COMPANY

By [Signature]  
 CHEMIST

**NOTICE**

This report is limited to the described sample tested. Any user of this report agrees that Halliburton shall not be liable for any loss or damage, whether it be to act or omission, resulting from such report or its use.

Cabinet #3 Water Analysis 5-17-85

660' FN and EL, Sec. 37, T-8-S, R-36-E

Roosevelt Co., New Mexico

Ru = .08 @ 75°

S.G. = 1.073 @ 60°

HOWCO - Hobbs, N.M.

Ph = 5.8

Ca : 7030 Mg/Liter

Mg : 1200 " "

Cl : 63,000 " "

Sulfates 430 " "

HCO<sub>3</sub> 120 " "

Fe (soluble) Moderate

LABORATORY WATER ANALYSIS

No. W85-285

To Sage

Date 4-18-85

P.O. Drawer 3068

Midland TX. 79702

Attn: Jay Hardy

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by \_\_\_\_\_ Date Rec. \_\_\_\_\_

Well No. Cabot Windmill Depth \_\_\_\_\_ Formation \_\_\_\_\_

SW/4 County SE/4 of Sec. 32 T-8-5, R-36-E, Roosevelt Co. Field \_\_\_\_\_ Source \_\_\_\_\_

Resistivity ..... 3.4 @ 75°F

Specific Gravity ..... 1.003 @ 60°F

pH ..... 7.0

Calcium (Ca) ..... 200 \*MPL

Magnesium (Mg) ..... Nil.

Chlorides (Cl) ..... 1,000

Sulfates (SO<sub>4</sub>) ..... Nil.

Bicarbonates (HCO<sub>3</sub>) ..... 280

Soluble Iron (Fe) ..... Nil.

Remarks: \_\_\_\_\_ \*Milligrams per liter

Respectfully submitted,

Analyst: Lee Hisey

cc:

HALLIBURTON COMPANY

By Lee Hisey  
CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

*Cities Serv*

PS Form 3811, Dec. 1980

**SENDER:** Complete items 1, 2, 3, and 4.  
Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).  
 Show to whom and date delivered ..... —c  
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2.  RESTRICTED DELIVERY ..... —c  
(The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$1.45

3. ARTICLE ADDRESSED TO:  
Cities Service O&Gas Corp.  
P. O. Box 1919  
Midland, Texas 79702

4. TYPE OF SERVICE:      ARTICLE NUMBER  
 REGISTERED     INSURED  
 CERTIFIED     COD  
 EXPRESS MAIL

(Always obtain signature of addressee or agent)

I have received the article described above.  
SIGNATURE     Addressee     Authorized agent

DATE OF DELIVERY  
APR 26 1985

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE:

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

MIDLAND TEXAS  
APR 26 1985  
CITIES SERVICE

W

, TEXAS  
tion"

Form 3811, Dec. 1960

● **SENDER:** Complete items 1, 2, 3, and 4.  
Add your address in the "RETURN TO" space on reverse.

**(CONSULT POSTMASTER FOR FEES)**

1. The following service is requested (check one).

- Show to whom and date delivered ..... — 6
- Show to whom, date, and address of delivery .. — 8

2.  **RESTRICTED DELIVERY** ..... — 6  
*(The restricted delivery fee is charged in addition to the return receipt fee.)*

TOTAL \$1.95

3. **ARTICLE ADDRESSED TO:**  
Claude C. Kennedy  
6115 Del Campo N.E.  
Albuquerque NM 87109

4. <b>TYPE OF SERVICE:</b> <input type="checkbox"/> REGISTERED <input type="checkbox"/> INSURED <input type="checkbox"/> CERTIFIED <input type="checkbox"/> COD <input type="checkbox"/> EXPRESS MAIL	ARTICLE NUMBER  P 397 521 560
--	-------------------------------------

*(Always obtain signature of addressee or agent)*

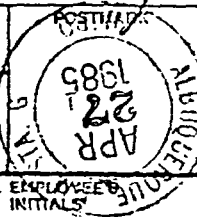
I have received the article described above.  
**SIGNATURE**     Addressee     Authorized agent  
*Claude C. Kennedy*

5. **DATE OF DELIVERY**  
APR 22 1961

6. **ADDRESSEE'S ADDRESS** *(Only if requested)*

7. <b>UNABLE TO DELIVER BECAUSE:</b>	7a. <b>EMPLOYEE'S INITIALS</b>
--------------------------------------	--------------------------------

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL



EXAS  
7"

M. W. J.

PS Form 3811, Oct. 1980

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

SENDER: Complete items 1, 2, 3, and 4.  
Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).  
 Show to whom and date delivered ..... —  
 Show to whom, date, and address of delivery.. —  
2.  RESTRICTED DELIVERY ..... —  
(The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$1.72

3. ARTICLE ADDRESSED TO:  
MWJ Producing Properties  
1804 First National Bank Building  
Midland, Texas 79702

4. TYPE OF SERVICE: REGISTERED  INSURED   
CERTIFIED  COD   
EXPRESS MAIL

ARTICLE NUMBER  
P397 521 561

(Always obtain signature of addressee or agent)  
I have received the article described above.  
SIGNATURE  Addressee  Authorized agent

5. DATE OF DELIVERY: 4-26-85

POSTMARK: APR 26

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE:

7a. ADDRESSEE'S INITIALS

TEXAS  
on"

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

1. \_\_\_\_\_

Robert L. Summers

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not in a supplement thereof for a period

of \_\_\_\_\_

Two

weeks.

Beginning with the issue dated

February 18, 19 85

and ending with the issue dated

February 25, 19 85

Robert L. Summers  
Publisher.

Sworn and subscribed to before

me this 26 day of

February, 19 85

Vera Murphy  
Notary Public.

My Commission expires \_\_\_\_\_

Nov. 14, 19 88

(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

**LEGAL NOTICE**  
February 18, 25, 1985  
Sage Energy Company, P.O. Drawer 3068, Midland, Texas 79702 has applied to convert its Cabot State No. 4 well, located 1980' FEL and 1980' FNL of Section 32, T-8-S, R-36-E, Roosevelt County, New Mexico to a water disposal facility. The operator intends to inject formation water into the Bough "C" at a depth of 9777' to 9795' at the approximate rate of 500 BWPD on vacuum. Interested parties must file objections or request for hearing with the Oil Conservation Commission, P.O. Box 2088, Santa Fe, New Mexico, 87501 within 15 days to today's date."

P 397 521 563

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to <b>Oil Conservation Commission</b>	
Street and No. <b>P. O. Box 2088</b>	
P.O., State and ZIP Code <b>Santa Fe, New Mexico 87501</b>	
Postage	\$
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.70
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date <b>May 1, 1985</b>	

PS Form 3800, Feb. 1982

P 397 521 562

RECEIPT FOR CERTIFIED MAIL

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(See Reverse)

Sent to <b>State Land Office</b>	
Street and No. <b>P. O. Box 1148</b>	
P.O., State and ZIP Code <b>Santa Fe, New Mexico 87501</b>	
Postage	\$
Certified Fee	.75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	.70
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date <b>May 1, 1985</b>	

PS Form 3800, Feb. 1982

PS Form 3811, Oct. 1980

RETURN RECEIPT, REGISTERED, INSURED AND CERTIFIED MAIL

**SENDER: Complete items 1, 2, 3, and 4.**  
Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).  
 Show to whom and date delivered ..... —¢  
 Show to whom, date, and address of delivery.. —¢  
 **RESTRICTED DELIVERY** —¢  
*(The restricted delivery fee is charged in addition to the return receipt fee.)*

TOTAL \$ \_\_\_\_\_

3. ARTICLE ADDRESSED TO:  
**Oil Conservation Commission**  
**P. O. Box 2088**  
**Santa Fe, New Mexico 87501**

4. TYPE OF SERVICE:      ARTICLE NUMBER  
 REGISTERED     INSURED  
 CERTIFIED       COD  
 EXPRESS MAIL      **P 397 521 563**

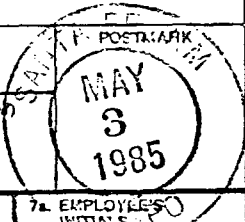
(Always obtain signature of addressee or agent)

I have received the article described above.  
SIGNATURE     Addressee     Authorized agent

5. DATE OF DELIVERY

6. ADDRESSEE'S ADDRESS (Only if requested)

7. UNABLE TO DELIVER BECAUSE:      7a. EMPLOYEE'S INITIALS





SAGE ENERGY COMPANY

P. O. DRAWER 8068

MIDLAND, TEXAS 79702

915/683-5271

April 18, 1985

W. H. Lovejoy  
Milnesand, New Mexico 88125

Dear Mr. Lovejoy;

Enclosed for your information and use is a copy of Sage's application to use the Cabot State No. 4 well for disposal purposes. Please contact Jay H. Hardy of this office if you should have any questions.

Very truly yours,

P 397 521 591

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Frances Holzgraf  
Production Clerk

Enc]

Sent to W. H. Lovejoy	
Street and No.	
P.O., State and ZIP Code Milnesand, NM 88125	
Postage	\$ 73
Certified Fee	75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	70
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$ 2.18
Postmark or Date April 19, 1985	

PS Form 3800, Feb. 1982

PS Form 3811, Dec. 1980	SENDER: Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.	
	(CONSULT POSTMASTER FOR FEES)	
1. The following service is requested (check one).		
<input type="checkbox"/> Show to whom and date delivered .....		—c
<input type="checkbox"/> Show to whom, date, and address of delivery...		—c
2. <input checked="" type="checkbox"/> RESTRICTED DELIVERY (The restricted delivery fee is charged in addition to the return receipt fee.)		—c
TOTAL		\$
3. ARTICLE ADDRESSED TO:		
W. H. Lovejoy Milnesand, NM 88125		
4. TYPE OF SERVICE:		ARTICLE NUMBER
<input type="checkbox"/> REGISTERED <input type="checkbox"/> INSURED <input checked="" type="checkbox"/> CERTIFIED <input type="checkbox"/> COD <input type="checkbox"/> EXPRESS MAIL		P397 521 591
(Always obtain signature of addressee or agent)		
I have received the article described above.		
SIGNATURE <input type="checkbox"/> Addressee <input type="checkbox"/> Authorized agent		
DATE OF DELIVERY:		POSTMARK APR 23 1985 AM MILNESAND, NM
6. ADDRESSEE'S ADDRESS (Only if insured)		
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