

WTA 6/24/97
716
VERBAC 7-11-97
ON
P. O. Box 840
Seminole, Texas 79360
915 758-6700

AMERADA HESS CORPORATION

JUN - 9 1997

June 5, 1997

Attn: Mr. William J. LeMay
State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505-5472

Re: Application for Injection Permits
North Monument Grayburg San Andres Unit
Order No. R-9596

Dear Mr. LeMay,

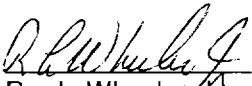
Amerada Hess Corporation respectfully request administrative amendment to Exhibit "A" of Division Order No. R-9596 on North Monument Grayburg San Andres Unit adding eight proposed injection wells to order.

Enclosed is Form C-108 and supporting documents for your review.

If additional information is needed, please contact Mr. Randy Howell at the above address or phone number at your earliest convenience.

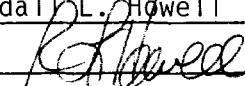
Your consideration in this matter is appreciated.

Sincerely,


Roy L. Wheeler, Jr.

xc: Mr. Chris Williams, NMOCD - Hobbs

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Amerada Hess Corporation
Address: P. O. Box 840, Seminole, Texas 79360
Contact party: Randy Howell Phone: 915 758-6700 (6772)
- 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 R-9596.
- 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.
- * 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: Randall L. Howell Title Prof. Petroleum Engineer
Signature:  Date: June 5, 1997
- * 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. August 2, 1991, original C-108 submitted by Amerada Hess

Corporation on North Monument Grayburg San Andres Unit.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

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.

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.

INDEX

C-108 ATTACHMENTS

	PAGE NO.
A. List of Proposed Injection Wells Identified	1
B. North Monument Grayburg San Andres Unit Area Map Identifying Proposed Injection Wells	2
C. C-108 - Sections III, V, & IX	
1. North Monument Grayburg San Andres Unit Blk. 4 Well No. 9	
a. Well Data	3
b. Map w/1/2 mile well radius circled	3-A
2. North Monument Grayburg San Andres Unit Blk. 5 Well No. 7	
a. Well Data	4
b. Map w/1/2 mile well radius circled	4-A
3. North Monument Grayburg San Andres Unit Blk. 10 Well No. 3	
a. Well Data	5
b. Map w/1/2 mile well radius circled	5-A
4. North Monument Grayburg San Andres Unit Blk. 10 Well No. 7	
a. Well Data	6
b. Map w/1/2 mile well radius circled	6-A
5. North Monument Grayburg San Andres Unit Blk. 15 Well No. 3	
a. Well Data	7
b. Map w/1/2 mile well radius circled	7-A
6. North Monument Grayburg San Andres Unit Blk. 15 Well No. 8	
a. Well Data	8
b. Map w/1/2 mile well radius circled	8-A
7. North Monument Grayburg San Andres Unit Blk. 16 Well No. 4	
a. Well Data	9
b. Map w/1/2 mile well radius circled	9-A
8. North Monument Grayburg San Andres Unit Blk. 16 Well No. 6	
a. Well Data	10
b. Map w/1/2 mile well radius circled	10-A

INDEX CONTINUED

C. C-108 - Section VII - Data on Proposed Operation	11
E. C-108 - Section VIII (XIV) - Proof Of Notice	12
1. Surface Owner Listing	
2. Leasehold Operator Listing	
3. Publication	

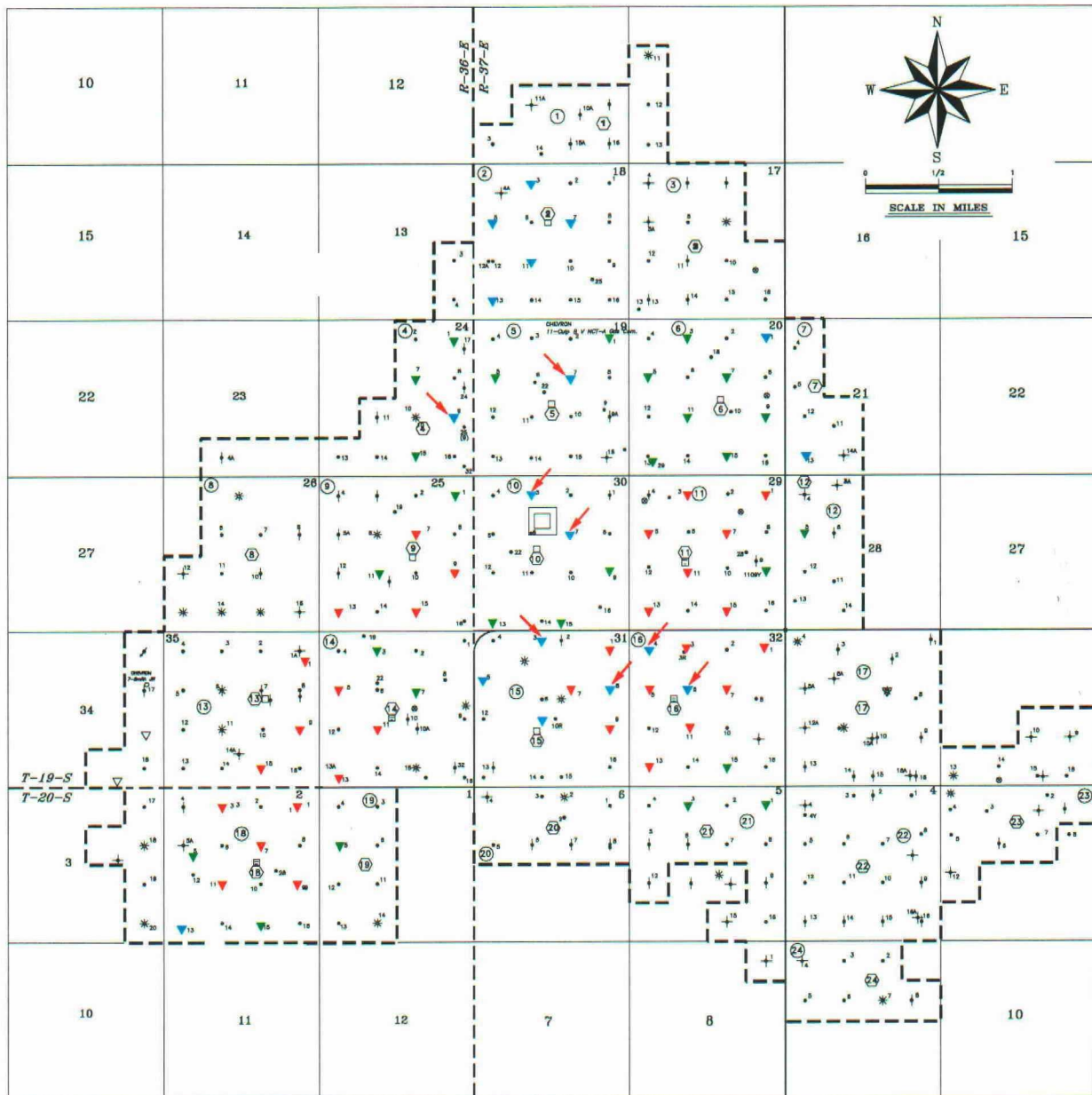
Note: C-108 - Item No's VI, VIII, & XI were submitted with original C-108 filed August 2, 1991.

Item No. X - Logs & test data have previously been submitted.

C-108 - ATTACHMENT

A. List of Proposed Injection Wells

1. North Monument Grayburg San Andres Unit Blk. 4 Well No. 9
Unit I, Sec. 24, T19S, R36E, Lea County, N.M.
2. North Monument Grayburg San Andres Unit Blk. 5 Well No. 7
Unit G, Sec. 19, T19S, R37E, Lea County, N.M.
3. North Monument Grayburg San Andres Unit Blk. 10 Well No. 3
Unit C, Sec. 30, T19S, R37E, Lea County, N.M.
4. North Monument Grayburg San Andres Unit Blk. 10 Well No. 7
Unit G, Sec. 30, T19S, R37E, Lea County, N.M.
5. North Monument Grayburg San Andres Unit Blk. 15 Well No. 3
Unit C, Sec. 31, T19S, R37E, Lea County, N.M.
6. North Monument Grayburg San Andres Unit Blk. 15 Well No. 8
Unit H, Sec. 31, T19S, R37E, Lea County, N.M.
7. North Monument Grayburg San Andres Unit Blk. 16 Well No. 4
Unit D, Sec. 32, T19S, R37E, Lea County, N.M.
8. North Monument Grayburg San Andres Unit Blk. 16 Well No. 6
Unit F, Sec. 32, T19S, R37E, Lea County, N.M.



LEGEND

- PROPOSED INJECTION WELL
- PRODUCING WELL
- GAS WELL
- TEMPORARILY ABANDONED
- PLUGGED & ABANDONED
- WATER SUPPLY WELL
- TRACT NUMBER
- SATELLITE NUMBER
- STAGE I / II INJECTION WELL
- 1996 WATER INJECTION WELL
- 1997 WATER INJECTION WELL
- 1997 WATER INJECTION WELL CONVERSION
- UNIT BOUNDARY

No.	Revision	By	Date	Drawn By: S. Stanfield
				Date: 5-15-1997
				Scale: NOTED
				Engineer/Originator: R. WHEELER
				AFE No.
				Approved By:
				Drawing File: NMOSAU_A.DWG
				File Location: D:\MONUMENT\SYSTEMS
				NMOSAU_A

AMERADA HESS CORPORATION

SEMINOLE DISTRICT

NORTH MONUMENT

GRAYBURG SAN ANDRES UNIT

PROPOSED 1997 WATER INJECTION

WELL CONVERSIONS

LEA COUNTY, NEW MEXICO

C-108 ATTACHMENT

Item III. Well Data - NMGSAU Well No. 409

A. (1) Lease Name/Well Number/Legal

North Monument Grayburg San Andres Unit Blk. 4 Well No. 9
Unit I, (1654' FSL & 330' FEL), Sec. 24, T19S, R36E.

(2) Casing in Well

CASING	DEPTH	SKS./CEMENT	HOLE	TOC	CEMENT
8-5/8" 24#	405'	400	12-1/4"	Surface	Circ.
5-1/2" 15.5#	3945'	1100	7-7/8"	Surface	Circ.

(3) Injection Tubing

2-3/8" Polyethylene Lined Tubing set at 3788'.

(4) Packer

Arrow Oil Tools: 5-1/2" x 2-3/8" Arrowset 1-XS Packer set at 3788'.

B. (1) Injection Formation

Field Name: Eunice Monument Grayburg San Andres
Formation Name: Grayburg San Andres

(2) Injection Interval

5-1/2" csg. perfs. fr. 3824' - 3934' & Open Hole interval fr. 3945' - 3955'

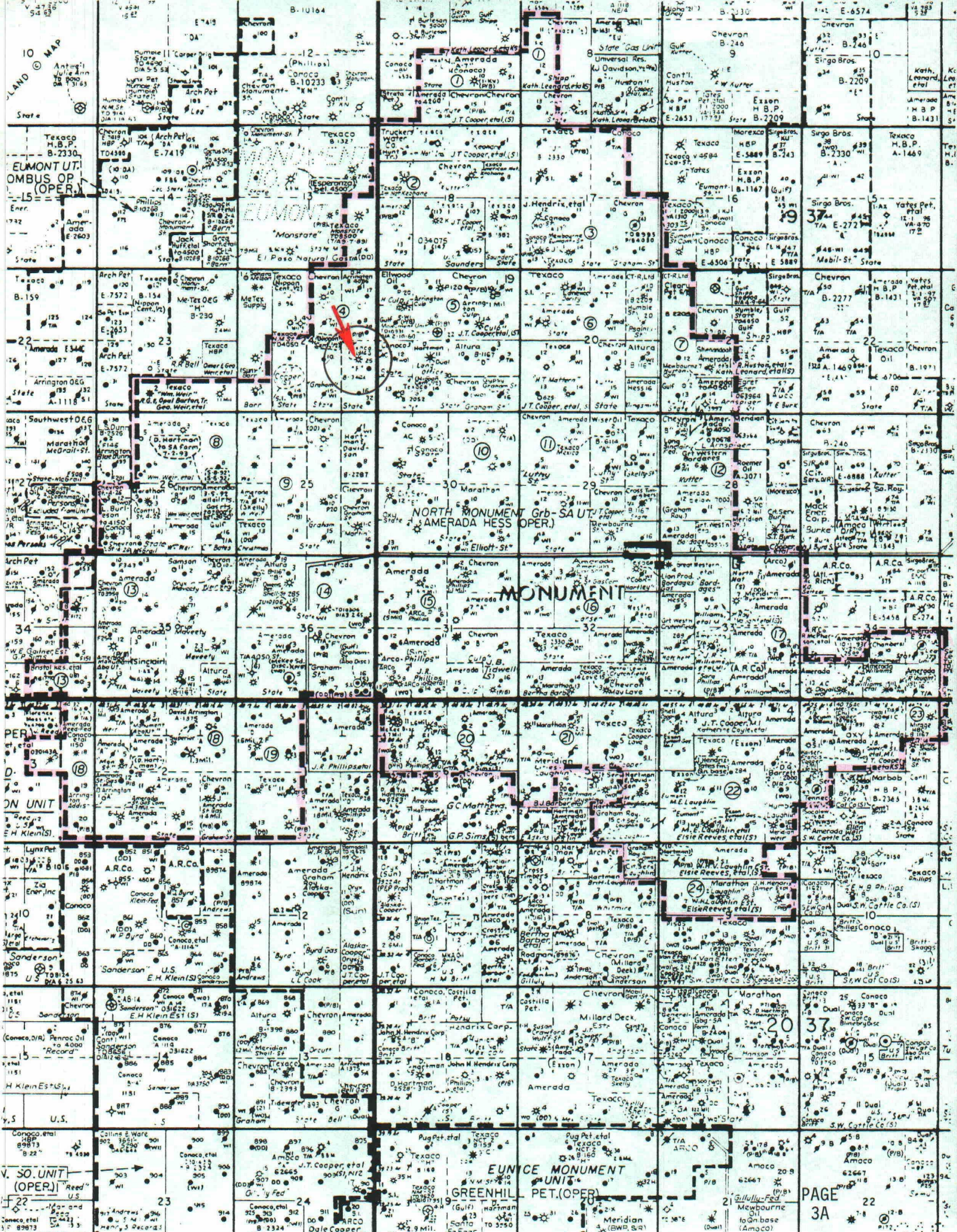
(3) Well was originally drilled as an oil producer.

(4) No other perforated or cemented intervals in wellbore.

(5) Oil & Gas Zones: Lower Oil Zone - Paddock at 4900'
Higher Gas Zone - Eumont at 3500'

Item IV. Stimulation

Acidize Perforations & Open Hole w/4000 gal. 15% NEFE DI HCL.



C-108 ATTACHMENT

Item III. Well Data - NMGSAU Well No. 507

A. (1) Lease Name/Well Number/Legal

North Monument Grayburg San Andres Unit Blk. 5 Well No. 7
Unit G, (1980' FNL & 1980' FEL), Sec. 19, T19S, R37E.

(2) Casing in Well

CASING	DEPTH	SKS./CEMENT	HOLE	TOC	METHOD
10-3/4" 32.75#	237'	250	13-3/4"	Surface	Circ.
7-5/8" 26#	1322'	300	9-7/8"	Surface	Circ.
5-1/2" 17#	3762'	300	6-3/4"	1112'	Calc.

Note: Perforated 5-1/2" csg. at 1325' & 1650' & cemented csg. leak
w/412 sks. cement total.

(3) Injection Tubing:

2-3/8" Polyethylene Lined Tubing set at +/- 3712'.

(4) Packer:

Arrow Oil Tools, 5-1/2" x 2-3/8" Arrowset I set at +/- 3712'.

B. (1) Injection Formation:

Field Name: Eunice Monument Grayburg San Andres
Formation Name: Grayburg San Andres

(2) Injection Interval:

Open Hole interval fr. 3762' - 3907'

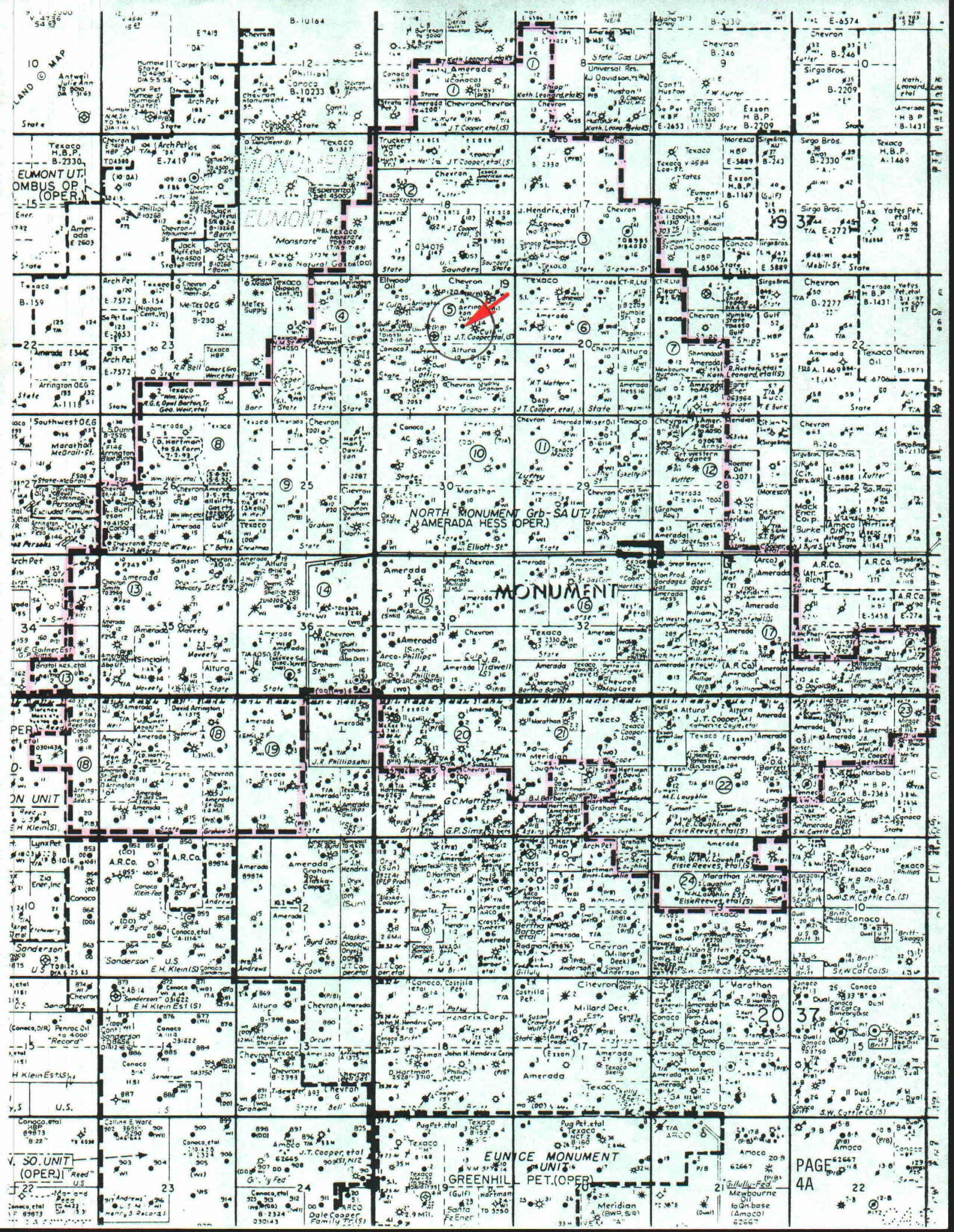
(3) Original Well Status: Well was originally drilled as a producer

(4) Other Perforated Intervals: Squeezed leaks in 5-1/2" csg. fr. 531' - 1579' w/1237
sks. cement. Pumped 50 sks. gelled cement down 10-3/4" for Bradenhead squeeze.
Perf. 5-1/2" csg. w/2 JSPF fr. 1325' - 1650' & squeezed perfs. w/412 sks. gelled
cement total.

(5) Oil & Gas Zones: Lower Oil Zone - Paddock at 4900'
Higher Gas Zone - Eumont at 3500'

Item IV. Stimulation

Plan to treat Open Hole w/8000 gal. 15% NEFE DI HCL acid.



C-108 ATTACHMENT

Item III. Well Data - NMGSAU Well No. 1003

A. (1) Lease Name/Well Number/Legal

North Monument Grayburg San Andres Unit Blk. 10 Well No. 3
Unit C, (660' FNL, 1980' FWL), Sec. 30, T19S, R37E.

(2) Casing in Well

CASING	DEPTH	SKS./CEMENT	HOLE	TOC	METHOD
10-3/4" 40.5#	264'	200	15"	Surface	Circ.
7-5/8" 26.4#	2586'	900	9-5/8"	Surface	Circ.
5-1/2" 17.0#	3894'	150	6-3/4"	2304'	Calc.

*4" liner

*Note: October, 1994, ran 4" 11.60# liner fr. surface to 3969' & cemented w/200 sks. cement. Shot circ. holes in 4" liner at 900' & squeezed total of 125 sks. cement.

(3) Injection Tubing:

2-3/8" Polyethylene Lined Tubing set at +/- 3754'.

(4) Packer:

Arrow Oil Tools, 4" x 2-3/8" Arrowset I set at +/- 3754'.

B. (1) Injection Formation:

Field Name: Eunice Monument Grayburg San Andres
Formation Name: Grayburg San Andres

(2) Injection Interval:

4" Liner Perfs. fr. 3804' - 3896'

(3) Original Well Status: Well was originally drilled as a producer.

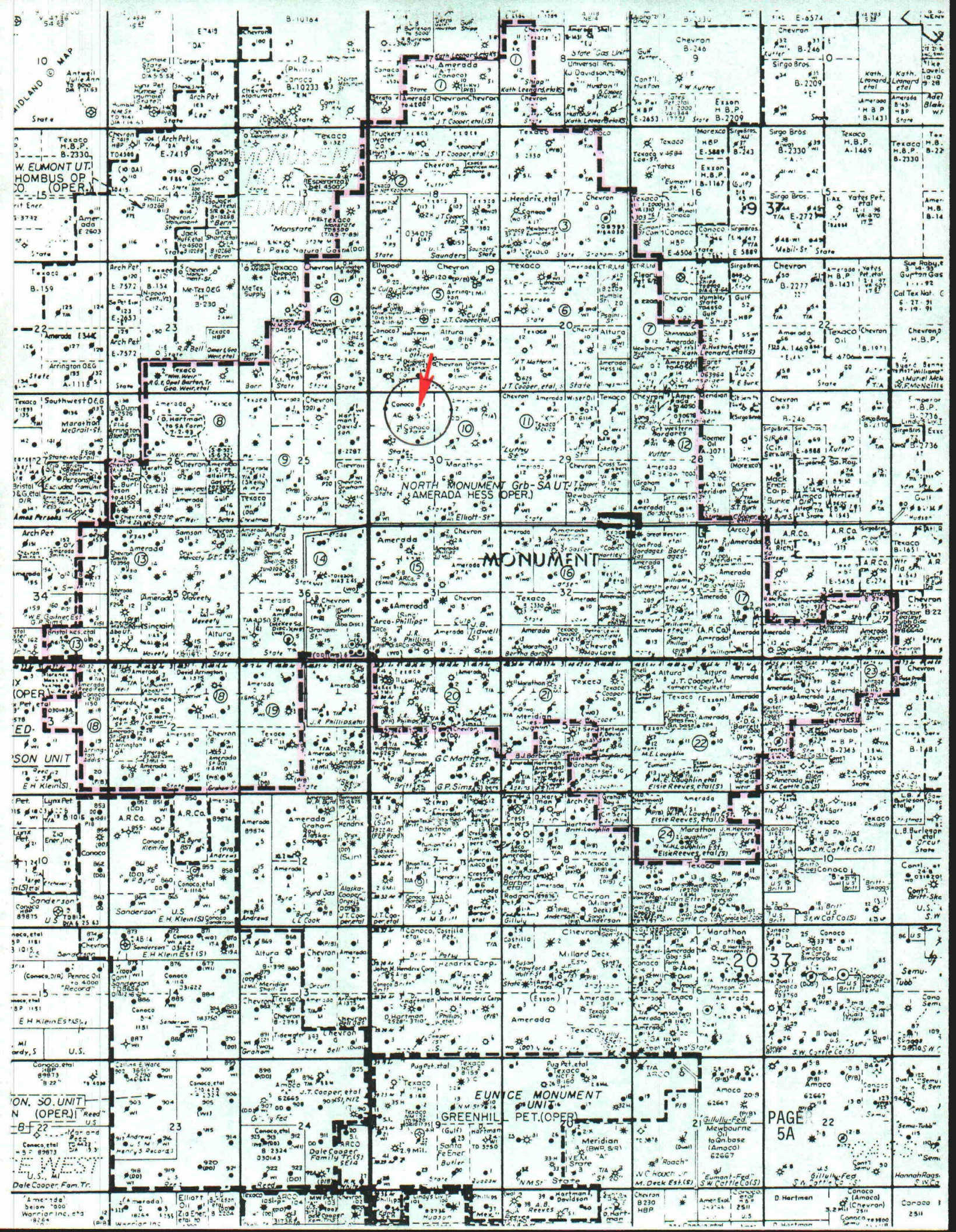
(4) Other Perforated Intervals: Prior perfs. & csg. leaks

5-1/2" csg.: 3800' - 3882' - squeezed w/100 sks. cement
5-1/2" csg.: 3850' - 3872' - squeezed w/100 sks. cement
5-1/2" csg.: 3272' - 3609' - squeezed w/45 sks. cement
5-1/2" csg.: 260' - 1088' - squeezed w/500 sks. cement
5-1/2" csg.: 627' - 2060' - squeezed w/295 sks. cement

Note: Ran 4" Liner during October, 1994 to condition wellbore for NMGSAU operations.

(5) Oil & Gas Zones: Lower Oil Zone - Paddock at 4900' Higher Gas Zone - Eumont at 3500'

Item IV. Stimulation - Plan to treat perfs. w/4600 gal. 15% NEFE DI HCL acid.



C-108 ATTACHMENT

Item III. Well Data - NMGSAU Well No. 1007

A. (1) Lease Name/Well Number/legal

North Monument Grayburg San Andres Unit Blk. 10 Well No. 7
Unit G, (1980' FNL & 1980' FEL), Sec. 30, T19S, R37E

(2) Casing in Well

CASING	DEPTH	SKS./CEMENT	HOLE	TOC	METHOL
12-1/2" 40#	184'	150	17-1/2"	Surface	Circ.
8-5/8" 28#	2500'	500	11"	542'	TS
6-5/8" 20#	3842'	100	7-7/8"	2952'	Calc.

*Note: Cement squeezed 6-5/8" csg. leak fr. 1012' - 1043' w/150 sks. Class "C" cement.

(3) Injection Tubing:

2-3/8" Polyethylene Lined Tubing set at +/- 3675'.

(4) Packer:

Arrow Oil Tools - 6-5/8" x 2-3/8" Arrowset I set at +/- 3675'

B. (1) Injection Formation:

Field Name: Eunice Monument Grayburg San Andres
Formation Name: Grayburg San Andres

(2) Injection Interval:

6-5/8" Csg. Perfs. fr. 3721' - 3826'; Open Hole fr. 3842' - 3964'

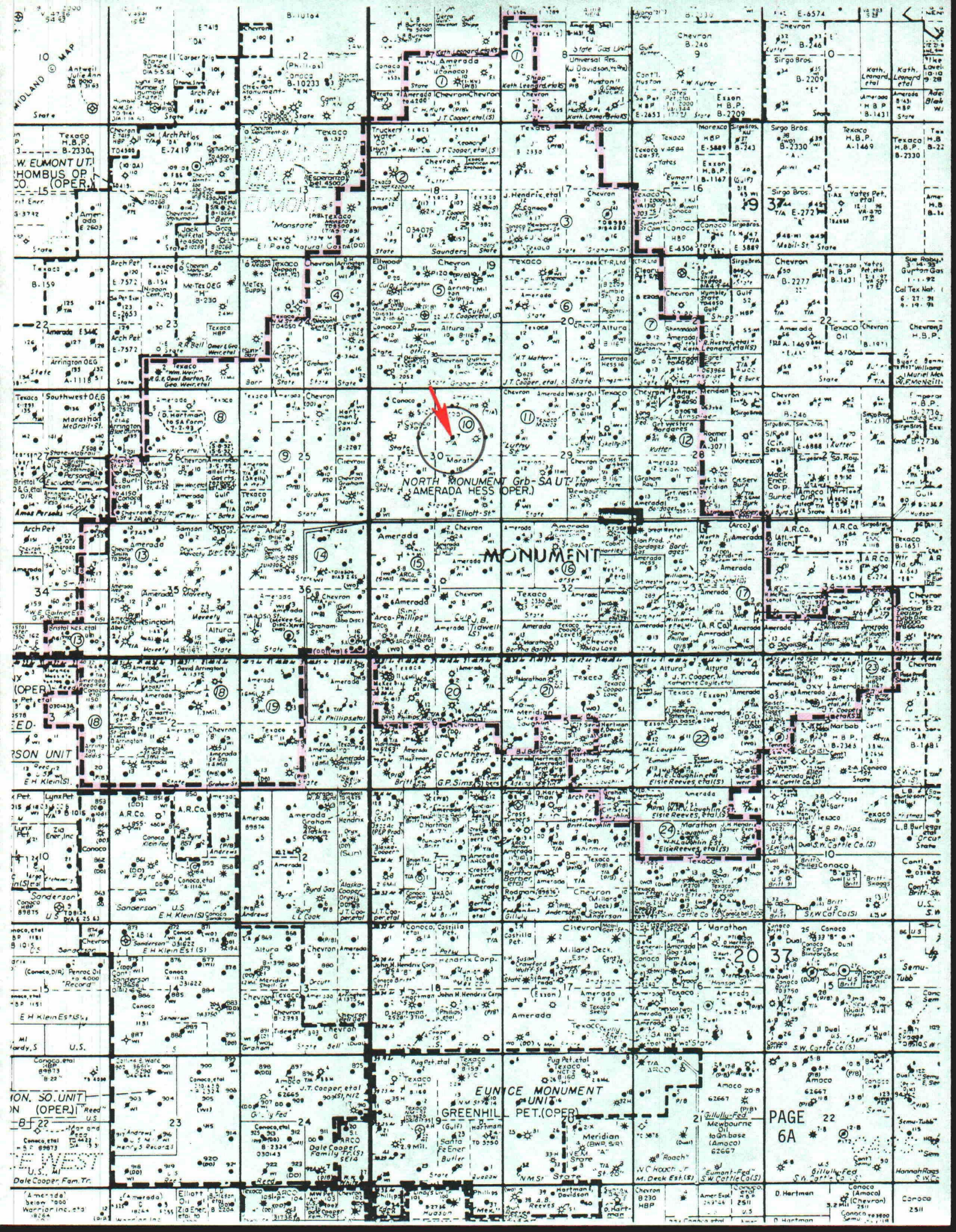
(3) Original Well Status: Well was originally drilled as a producer.

(4) No other perforated or cemented intervals in wellbore.

(5) Oil & Gas Zones: Lower Oil Zone - Paddock at 4900' Higher Gas Zone - Eumont at 3500'

Item IV. Stimulation

Plan to treat Perforations & Open Hole w/12,200 gal. 15% NEFE DI HCL acid.



C-108 ATTACHMENT

Item III. Well Data - NMGSAU Well No 1503

A. (1) Lease Name/Well Number/Legal

North Monument Grayburg San Andres Unit Blk. 15 Well No. 3
Unit C, (330' FNL & 2310' FWL), Sec. 31, T19S, R37E.

(2) Casing in Well

CASING	DEPTH	SKS./CEMENT	HOLE	TOC	METHOD
12-1/2" 50#	222'	250	15"	Surface	Circ.
9-5/8" 36#	2466'	400	10-3/4"	Surface	Circ.
7" 24#	3823'	200	8-1/4"	1870'	Calc.

*Note: Squeezed 150 sks. cement fr. 3803' - 3845' in March, 1969.

(3) Injection Tubing:

2-3/8" Polyethylene Lined Tubing set at +/- 3725'.

(4) Packer:

Arrow Oil Tools, 7" x 2-3/8" Arrowset I set at +/- 3725'.

B. (1) Injection Formation:

Field Name: Eunice Monument Grayburg San Andres
Formation Name: Grayburg San Andres

(2) Injection Interval:

Current: 7" Csg. Perfs. fr. 3763' - 3798'

Proposed: 7" Csg. Perfs. fr. 3763' - 3813' & Open Hole fr. 3823' - 3845'.

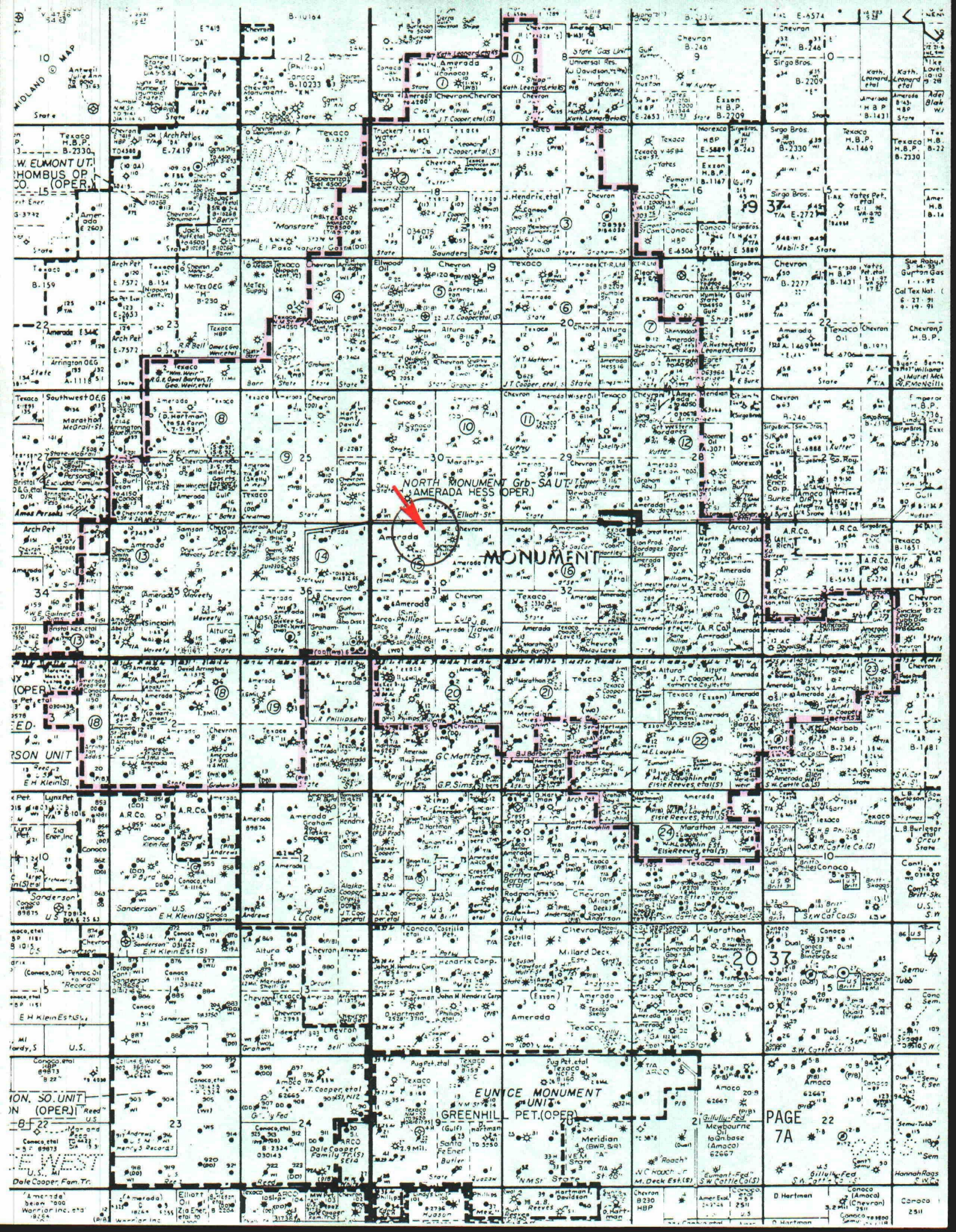
(3) Original Well Status: Well was originally drilled as a producer.

(4) Other Perforated Intervals: None

(5) Oil & Gas Zones: Lower Oil Zone - Paddock at 4900' Higher Gas Zone - Eumont at 3500'

Item IV. Stimulation

Plan to acidize Perforations & Open Hole w/4600 gal. 15% NEFE DI HCL acid.



C-108 ATTACHMENT

Item III. Well Data - NMGSAU Well No. 1508

A. (1) North Monument Grayburg San Andres Unit Blk. 15 Well No. 8
Unit H, (1980' FNL & 660' FEL), Sec. 31, T19S, R37E.

(2) Casing in Well

CASING	DEPTH	SKS./CEMENT	HOLE	TOC	METHOL
12-1/2"	200'	200	13-3/8"	0'	CIRC.
8-5/8"	2485'	500	9-5/8"	535'	CALC.
6-5/8"	3779'	100	7-7/8"	2889'	*CALC.

*Note: Cement squeeze fr. 2307' to surface w/300 sks. cement.

(3) Injection Tubing:

2-3/8" Polyethylene Lined Tubing set at +/- 3715'.

(4) Packer:

Arrow Oil Tools, 6-5/8" x 2-3/8" Arrowset I set at +/- 3715'.

B. (1) Injection Formation:

Field Name: Eunice Monument Grayburg-San Andres Pool
Formation Name: Grayburg San Andres

(2) Injection Interval:

6-5/8" Csg. Perfs. (Proposed) 3765' - 3778'; Open Hole (Current) 3779' - 3905'

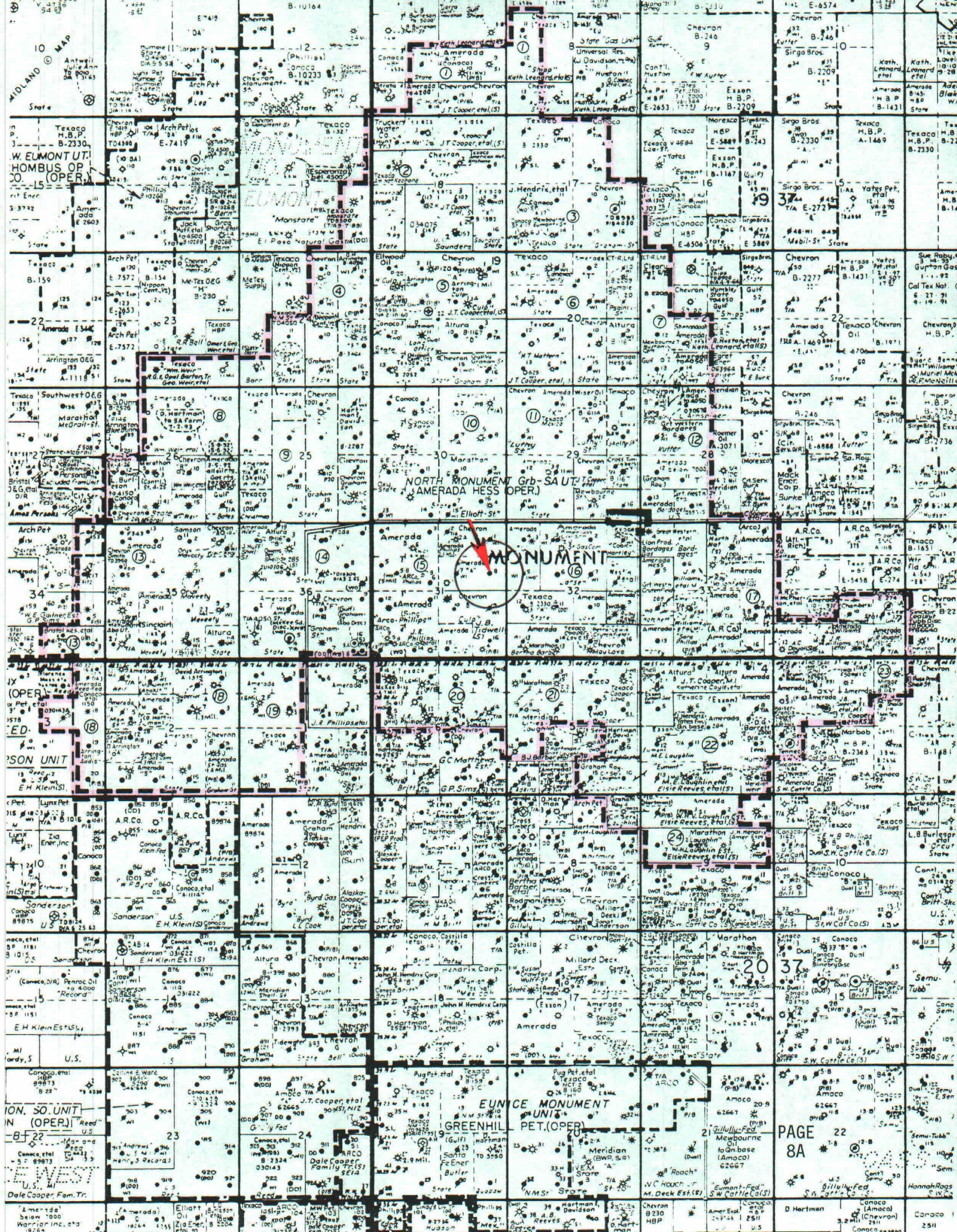
(3) Original Well Status: Well was originally drilled as a producer.

(4) Other Perforated Intervals: Squeezed holes at 2307' w/300 sks. cement circ. to surface.

(5) Oil & Gas Zones: Lower Oil Zone - Paddock at 4900 Higher Gas Zone - Eumont at 3500'

Item IV. Stimulation

Plan to treat Perforations & Open Hole w/4000 gal. 15% NEFE DI HCL acid.



C-108 ATTACHMENT

Item III. Well Data - NMGSAU Well No. 1604

A. (1) Lease Name/Well Number/Legal

North Monument Grayburg San Andres Unit Blk. 16 Well No. 4
Unit D, (660' FNL & 660' FWL), Sec. 32, T19S, R37E.

(2) Casing in Well

CASING	DEPTH	SKS./CEMENT	HOLE	TOC	METHOD
12-1/2" 40#	202'	200	13-3/8"	0'	Circ..
8-5/8" 32#	2490'	500	9-5/8"	540'	Calc.
6-5/8" 20#	3794'	100	7-7/8"	2004'	Calc.

(3) Injection Tubing:

2-3/8" Polyethylene Lined Tubing set at +/- 3700'.

(4) Packer:

Arrow Oil Tools, 6-5/8" x 2-3/8" Arrowset I set at +/- 3700'.

B. (1) Injection Formation:

Field Name: Eunice Monument Grayburg-San Andres
Formation Name: Grayburg San Andres

(2) Injection Interval:

Proposed: 6-5/8" Csg. Perfs. fr. 3753'-3788', Current: Open Hole fr. 3794'-3920'.

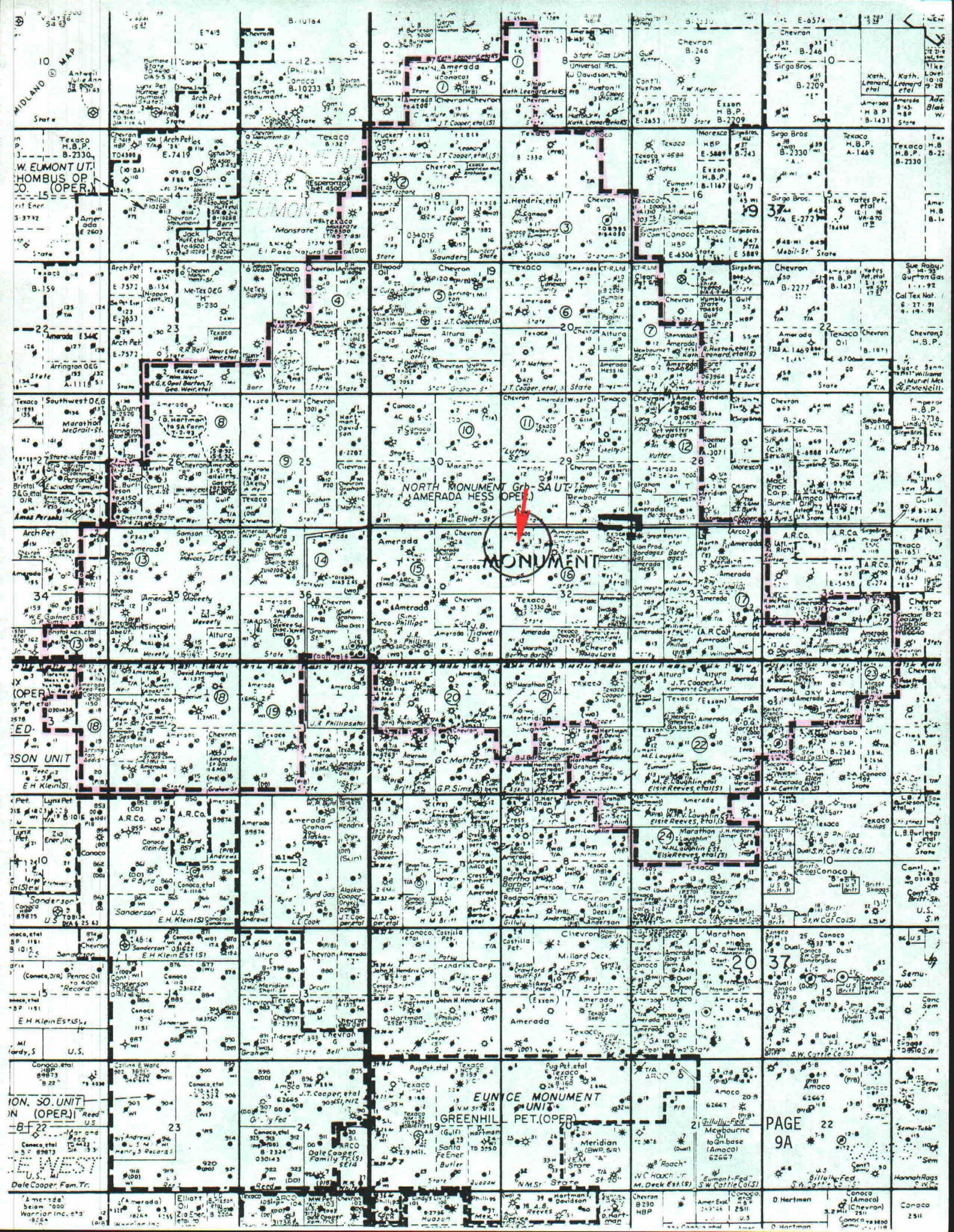
(3) Original Well Status: Well was originally drilled as a producer.

(4) Other Perforated Intervals: None

(5) Oil & Gas Zones: Lower Oil Zone - Paddock at 4900' Higher Gas Zone - Eumont at 3500'

Item IV. Stimulation

Plan to treat Perforations & Open Hole w/4375 gal. 15% NEFE DI HCL acid.



C-108 ATTACHMENT

Item III. Well Data - NMGSAU Well No. 1606

A. (1) Lease Name/Well Number/Legal

North Monument Grayburg San Andres Unit Blk. 16 Well No. 6
Unit F, (1980' FNL & 1980' FWL), Sec. 32, T19S, R37E.

(2) Casing in Well

CASING	DEPTH	SKS./CEMENT	HOLE	TOC	METHOD
12-1/2"	200'	200	13-3/8"	Surface	Circ.
8-5/8"	2488'	500	9-5/8"	538'	Calc.
6-5/8"	3790'	150	7-7/8"	2455'	Calc.

(3) Injection Tubing:

2-3/8" Polyethylene Lined Tubing set at +/- 3620'.

(4) Packer:

Arrow Oil Tools, 6-5/8" x 2-3/8" Arrowset I set at +/- 3620'.

B. (1) Injection Formation:

Field Name: Eunice Monument Grayburg San Andres
Formation Name: Grayburg San Andres

(2) Injection Interval:

Current: 6-5/8" Csg. Perfs. fr. 3676'-3770' & Open Hole fr. 3790'-3915'
Proposed: 6-5/8" Csg. Perfs. fr. 3676'-3784' & Open Hole fr. 3790'-3915'

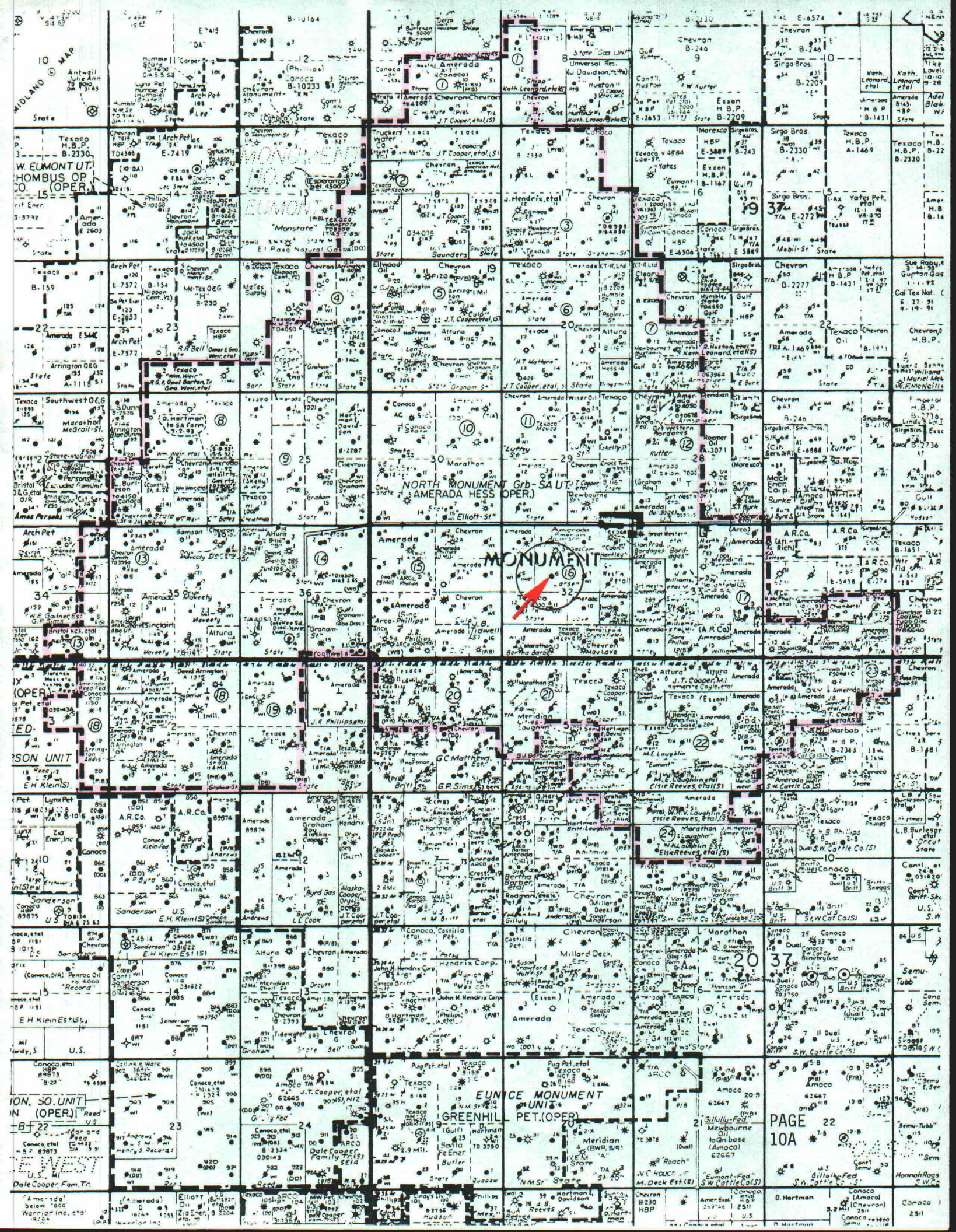
(3) Original Well Status: Well was originally drilled as a producer.

(4) Other Perforated Intervals: None

(5) Oil & Gas Zones: Lower Oil Zone - Paddock at 4900'
Higher Gas Zone - Eumont at 3500'

Item IV. Stimulation

Plan to treat Perforations & Open Hole w/4415 gal. 15% NEFE DI HCL acid.



C-108 ATTACHMENT

A. Section VII - Data on Proposed Operation

1. Proposed Average & Maximum Daily Rate of Volume of Fluids to be Injected;

Average Daily Rate: 750 B.W./D.

Maximum Daily Rate: 1000 B.W./D.

The injection volume is expected to reach 196,000,000 barrels of water at 100% fillup. This volume may reach 620,000,000 barrels of water by abandonment.

2. Open or Closed System;

Injection system is a closed system.

3. Proposed Average & Maximum* Injection Pressures;

Average injection pressure: 350 PSI

Maximum injection pressure: 710 PSI

*Until a fracture gradient is determined, maximum injection pressure will be based on a .2 PSI/foot gradient.

4. Sources and an appropriate analysis of injection fluid;

The source of injection water will be from San Andres water supply wells and produced water from existing North Monument Grayburg San Andres Unit producers. The San Andres formation is compatible with the produced water from the Unit wells.

D. C-108 - SECTION VIII, (XIV) - PROOF OF NOTICE:

1. Surface Owners - Application mailed by Certified Mail to following:

- Ray B. Powell, Jr., Land Commissioner
State of New Mexico
State Land Office Bldg.
P. O. Box 1148
Santa Fe, New Mexico 87501

- Jimmie T. Cooper
P. O. Box 55
Monument, New Mexico 88265

- Byrd Ranches
P. O. Box 32
Monument, New Mexico 88265

- Robert L. Rogers
Star Route A
P. O. Box 51
Monument, New Mexico 88265

- Edwin Johnston
P. O. Box 152
Monument, New Mexico 88265

2. Leasehold Operators within 1/2 mile of proposed injection wells - Application mailed by Certified Mail to following:

- ARCO Permian
P. O. Box 1610
Midland, Texas 79702

- Arrington, David H., Oil & Gas, Inc.
P. O. Box 2071
Midland, Texas 79702

- Chevron U.S.A., Inc.
Claydesta Plaza, 15 Smith Road
Midland, Texas 79705

- Conoco, Inc.
10 Desta Drive, Ste. 100W
Midland, Texas 79705

- Great Western Drilling Company
P. O. Box 1659
Midland, Texas 79702

Leasehold Operators Continued

- Lion Production, Inc.
P. O. Box 2086
500 W. Texas, Ste. 895
Midland, Texas 79702
- Marathon Oil Company
P. O. Box 552
Midland, Texas 79702
- OXY USA, Inc.
P. O. Box 50250
Midland, Texas 79710
- Phillips Petroleum Company
Phillips Building
Bartlesville, Oklahoma 74004
- Shell Western E & P, Inc.
P. O. Box 1950
Hobbs, New Mexico 88240-1950
- Sun Company, Inc.
110 W. Louisiana, Ste. 400
Midland, Texas 79701
- Texaco Exploration and Production, Inc.
205 E. Bender
Hobbs, New Mexico 88240

3. Publication - (Attached)

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

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 a
supplement thereof for a period.

of 1
_____ weeks.

beginning with the issue dated

May 25 1997

and ending with the issue dated

May 25 1997

Kathi Bearden
Publisher

Sworn and subscribed to before

me this 27th day of

May 1997

Jodi Benson
Notary Public.

My Commission expires
October 18, 2000
(Seal)

LEGAL NOTICE
May 25, 1997

Amerada Hess Corporation, operator of record for the North Monument Grayburg/San Andres Unit, (NMGSAU), hereby notifies of their desire to inject water into the following eight NMGSAU wells: NMGSAU Well No. 409, located in Unit I, Sec. 24, T19S, R36E; NMGSAU Well No. 507, located in Unit G, sec. 19, T19S, R37E; NMGSAU Well No. 1003 located in Unit C, Sec. 30, T19S, R37E; NMGSAU Well No. 1007, located in Unit G, Sec. 30, T19S R37E; NMGSAU Well No. 1503, located in Unit C, Sec. 31, T19S, R37E; NMGSAU Well NO. 1508, located in Unit H, Sec. 31, T19S, R37E; NMGSAU Well No. 1604, located in Unit D, Sec. 32, T19S, R37E; & NMGSAU Well No. 1606, located in Unit F, Sec. 32, T19S, R37E; Lea County, N.M. The NMGSAU "Authorization to Inject" is covered under State of New Mexico, Energy, Minerals and Natural Resources Department, Oil Conservation Division Case No. 10252, Division Order No. R-9596. Amerada Hess Corporation hereby gives notice that application has been made for administrative regulatory amendment of Exhibit "A" of said division order to include the aforementioned wells to inject water into Grayburg San Andres formation, Eunice Monument Grayburg-San Andres pool through the gross perforated and/or open hole interval from approximately 3720 feet to 3965 feet with a maximum injection pressure of 710 PSI.

Contact Mr. Randy Howell, Amerada Hess Corporation, P.O. Box 840, Seminole, Texas 79360, Phone 915-758-6700 concerning questions regarding application.

Objections or requests for hearing concerning this application should be filed with the State of New Mexico, Energy, Minerals and Natural Resources Department, Oil Conservation Division, 2040 South Pacheco Street, Santa Fe, New Mexico 87502-5472 within 15 days of this publication.

#15222

01100986000 02506890

Amerada Hess Corporation
Drawer D
a/c# 434005
Monument, NM 88265

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

AMERADA HESS CORPORATION

P. O. Box 840
Seminole, Texas 79360
915 758-6700

June 5, 1997

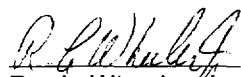
Re: Application for Injection Permits
North Monument Grayburg San Andres Unit
Lea County, N.M.

Dear Sir,

Enclosed, for your information, is a copy of Form C-108 and supporting documents filed with the State of New Mexico Oil Conservation Division requesting administrative approval to add eight proposed injection wells to the North Monument Grayburg San Andres Unit located in Lea County, New Mexico.

If additional information is needed, please let us know at your earliest convenience.

Sincerely,



Roy L. Wheeler, Jr.

P 421 645 902

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	Burd Rancher	
Street & Number	P.O. Box 32	
Post Office, State, & ZIP Code	Monument, N.M. 88265	
Postage	\$	1.47
Certified Fee		1.10
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	2.57
Postmark or Date		

P 421 645 903

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	Jimmie To Cooper	
Street & Number	P.O. Box 55	
Post Office, State, & ZIP Code	Monument, N.M. 88265	
Postage	\$	1.47
Certified Fee		1.10
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	2.57
Postmark or Date		

P 421 645 904

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	Ray B. Powell Jr., Land Commissioner	
Street & Number	STATE OF N.M.	
Post Office, State, & ZIP Code	Santa Fe, N.M. 87501	
Postage	\$	1.47
Certified Fee		1.10
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	2.57
Postmark or Date		

P 421 645 900

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	ARCO Permian	
Street & Number	P.O. Box 1610	
Post Office, State, & ZIP Code	Midland, TX 79702	
Postage	\$	1.47
Certified Fee		1.10
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	2.57
Postmark or Date		

P 421 645 899

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	Edwin Johnston	
Street & Number	P.O. Box 152	
Post Office, State, & ZIP Code	Monument, N.M. 88265	
Postage	\$	1.47
Certified Fee		1.10
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	2.57
Postmark or Date		

P 421 645 901

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	Robert L. Rogers	
Street & Number	P.O. Box 51	
Post Office, State, & ZIP Code	Monument, N.M. 88265	
Postage	\$	1.47
Certified Fee		1.10
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees	\$	2.57
Postmark or Date		

P 421 645 896

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
CONOCO, Inc.	
Street & Number	
10 Delta Dr., STE 100 W	
Post Office, State, & ZIP Code	
Midland, TX - 79705	
Postage	\$ 1.47
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees \$ 2.57	
Postmark or Date	

PS Form 3800, April 1995

P 421 645 897

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Chevron U.S.A., Inc.	
Street & Number	
Claydesta Plaza, 15 South Blvd	
Post Office, State, & ZIP Code	
Midland, TX - 79705	
Postage	\$ 1.47
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees \$ 2.57	
Postmark or Date	

PS Form 3800, April 1995

P 421 645 898

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Arrington, David H. Oil & Gas	
Street & Number	
P.O. Box 2071	
Post Office, State, & ZIP Code	
Midland, TX - 79702	
Postage	\$ 1.47
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees \$ 2.57	
Postmark or Date	

PS Form 3800, April 1995

P 421 645 893

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Mara-Thon Oil Company	
Street & Number	
P.O. Box 552	
Post Office, State, & ZIP Code	
Midland, TX - 79702	
Postage	\$ 1.47
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees \$ 2.57	
Postmark or Date	

PS Form 3800, April 1995

P 421 645 894

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Lion Production, Inc.	
Street & Number	
P.O. Box 2086	
500 W. Texas, STE. 895	
Post Office, State, & ZIP Code	
Midland, TX - 79702	
Postage	\$ 1.47
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees \$ 2.57	
Postmark or Date	

PS Form 3800, April 1995

P 421 645 895

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Great Western Milling Co.	
Street & Number	
P.O. Box 1659	
Post Office, State, & ZIP Code	
Midland, TX - 79702	
Postage	\$ 1.47
Certified Fee	1.10
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees \$ 2.57	
Postmark or Date	

PS Form 3800, April 1995

P 421 645 890

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to <i>Shell Western E & P, Inc.</i>	
Street & Number <i>P.O. Box 1950</i>	
Post Office, State, & ZIP Code <i>Hobbs, N.M. 88240-1950</i>	
Postage	\$ <i>1.47</i>
Certified Fee	<i>1.10</i>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ <i>2.57</i>
Postmark or Date	

PS Form 3800, April 1995

P 421 645 891

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to <i>Phillips Petroleum Co.</i>	
Street & Number <i>Phillips Building</i>	
Post Office, State, & ZIP Code <i>Cartersville, OK 74004</i>	
Postage	\$ <i>1.47</i>
Certified Fee	<i>1.10</i>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ <i>2.57</i>
Postmark or Date	

PS Form 3800, April 1995

P 421 645 892

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to <i>OXY USA, Inc.</i>	
Street & Number <i>P.O. Box 50250</i>	
Post Office, State, & ZIP Code <i>Midland, TX 79710</i>	
Postage	\$ <i>1.47</i>
Certified Fee	<i>1.10</i>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ <i>2.57</i>
Postmark or Date	

PS Form 3800, April 1995

P 421 645 888

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to <i>Texas Exp. & Prod., Inc.</i>	
Street & Number <i>205 E. Bender</i>	
Post Office, State, & ZIP Code <i>Hobbs, N.M. 88240</i>	
Postage	\$ <i>1.47</i>
Certified Fee	<i>1.10</i>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ <i>2.57</i>
Postmark or Date	

PS Form 3800, April 1995

P 421 645 889

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to <i>San Company, Inc.</i>	
Street & Number <i>110 W. Louisiana, Ste. 400</i>	
Post Office, State, & ZIP Code <i>Midland, TX 79701</i>	
Postage	\$ <i>1.47</i>
Certified Fee	<i>1.10</i>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$ <i>2.57</i>
Postmark or Date	

PS Form 3800, April 1995