



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

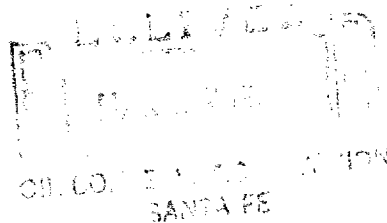
NATURAL RESOURCES GROUP
Exploration and Production

March 24, 1980

Conversion to Water Injection Service--
East Vacuum Grayburg-San Andres Unit
Tract No. 1910, Well No. 003
Vacuum Grayburg-San Andres Pool
Lea County, New Mexico

New Mexico Department of Energy and Minerals (3)
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey
Division Director



Gentlemen:

We respectfully request administrative approval as provided by Order No. R5897, Rule No. 9, for the East Vacuum Unit pressure maintenance project, to convert the East Vacuum Grayburg-San Andres Unit, Tract 1910, Well No. 003, to water injection service. The following data is submitted in support of this request:

1. Unit plat reflecting the proposed injection well and injection well project area. (Well: Unit J, 19, 17-S, 35-E.)
2. Compensated sonic log of the injection well.
3. Diagramatic sketch of the proposed well, injection tubing, packer, and pressure control elements identifying the San Andres perforated injection interval.
4. The name of the injection formation is San Andres with injection to be into the interval 4608 to 4730 feet. Injection will be by gravity with an anticipated maximum of 500 barrels of produced Grayburg-San Andres water per day.

Your consideration and early advice will be appreciated.

Very truly yours,

T. Harold McLemore
Area Regulation and Proration Analyst

THM/jj
Attachments

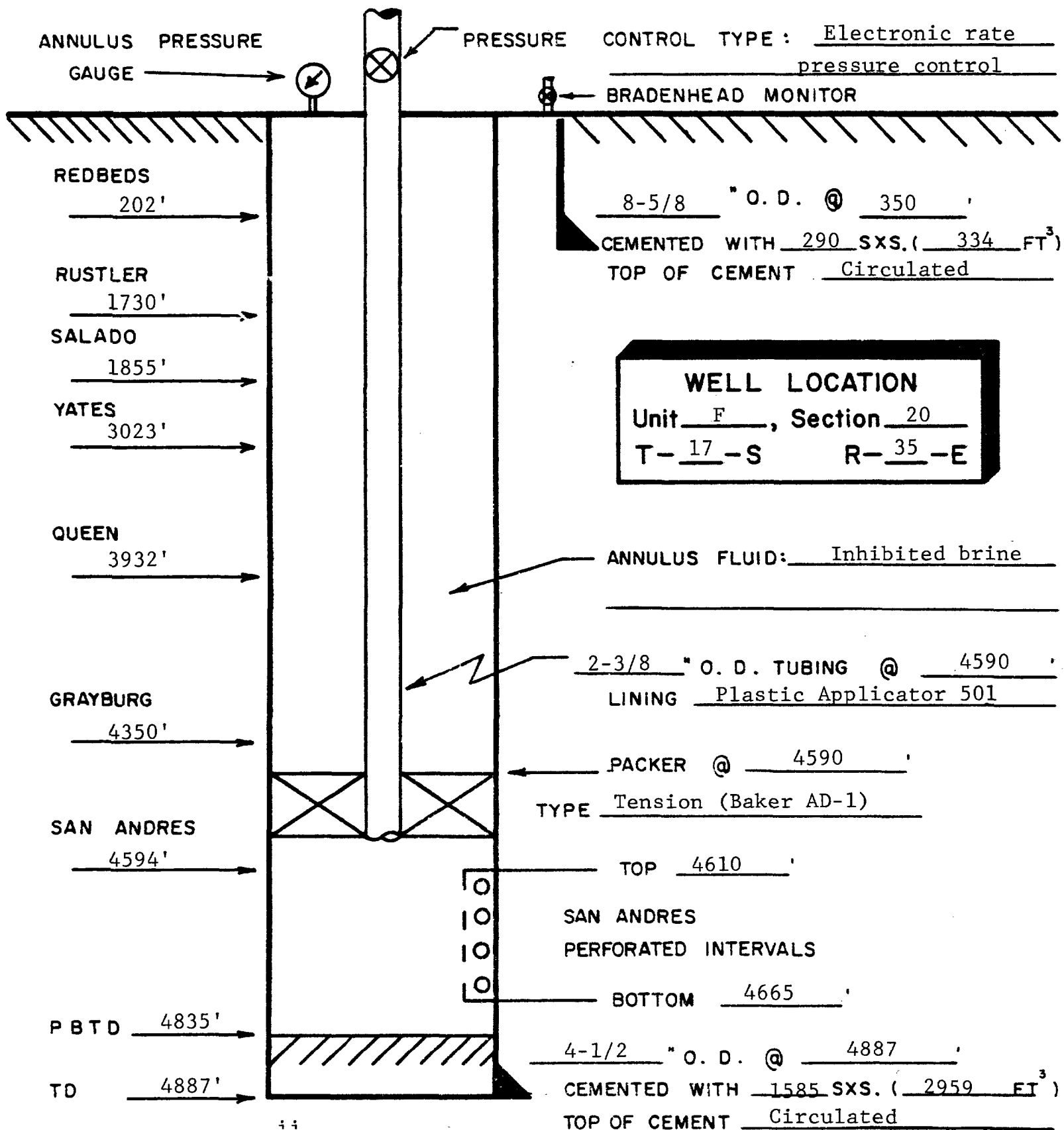
cc: Oil Conservation Division
Hobbs, New Mexico (Attachments w/o CNFD log)

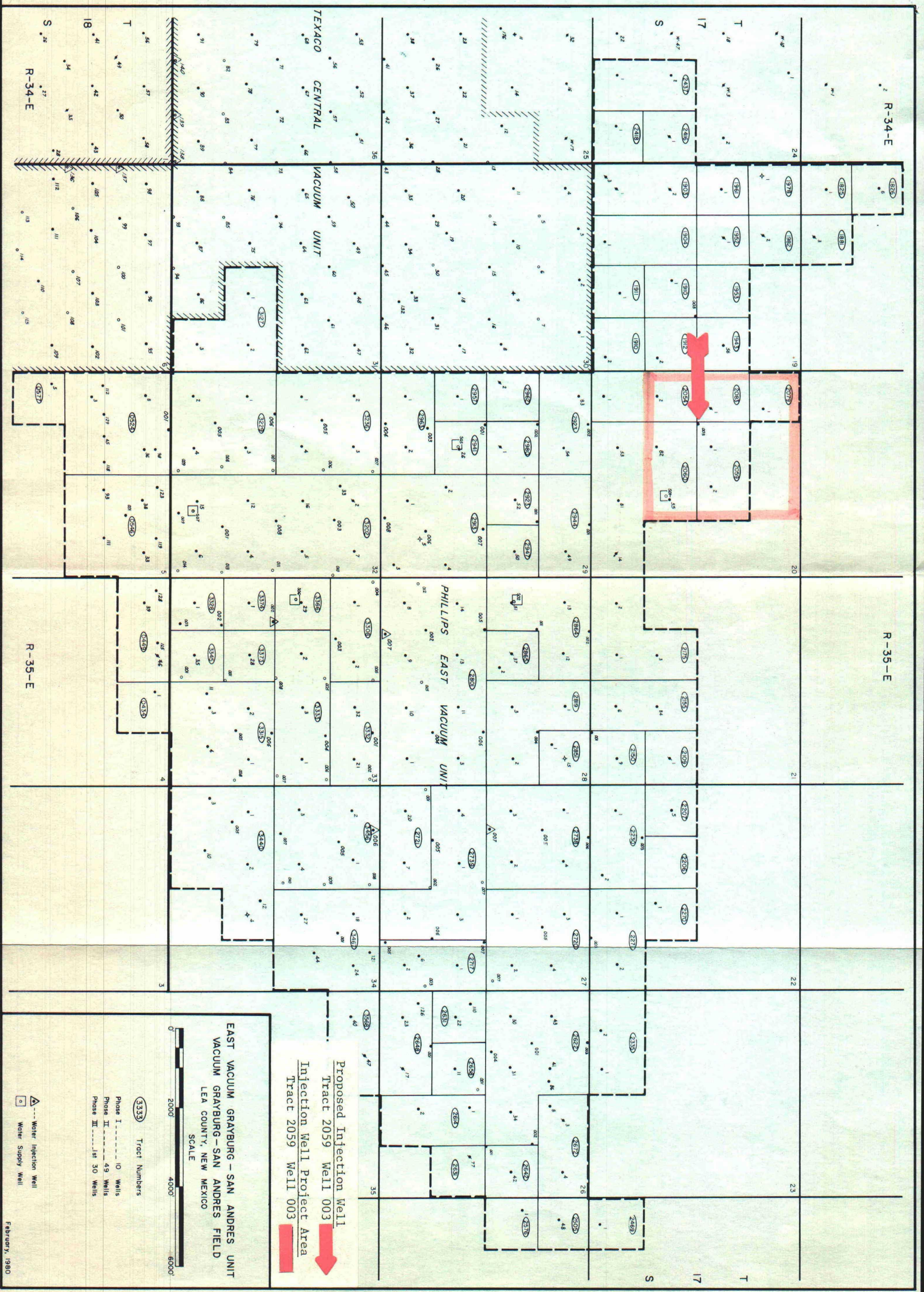
PHILLIPS PETROLEUM COMPANY

EAST VACUUM UNIT PRESSURE MAINTENANCE PROJECT N. M. O. C. D. R-5897

VACUUM GRAYBURG - SAN ANDRES POOL, LEA COUNTY, NEW MEXICO
TRACT 2059 WELL 003

CONVERSION TO WATER INJECTION STATUS





R-34-E

R-35-E

R-34-E

R-35-E

TEXACO CENTRAL

VACUUM UNIT

PHILLIPS EAST VACUUM UNIT

EAST VACUUM GRAYBURG-SAN ANDRES UNIT
VACUUM GRAYBURG-SAN ANDRES FIELD
LEA COUNTY, NEW MEXICO

Proposed Injection Well
Tract 2059 Well 003
Injection Well Project Area
Tract 2059 Well 003

3333 Tract Numbers
Phase I ----- 10 Wells
Phase II ----- 49 Wells
Phase III ----- 30 Wells

Water Injection Well
Water Supply Well

0 2000 4000 6000
SCALE

February, 1980



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

NATURAL RESOURCES GROUP
Exploration and Production

March 24, 1980

Conversion to Water Injection Service--
East Vacuum Grayburg-San Andres Unit
Tract No. 2944, Well No. 001
Vacuum Grayburg-San Andres Pool
Lea County, New Mexico

New Mexico Department of Energy and Minerals (3)
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey
Division Director

Gentlemen:

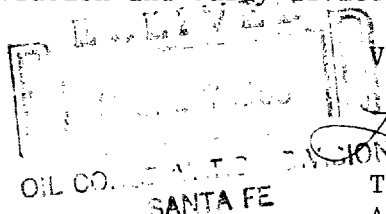
We respectfully request administrative approval as provided by Order No. R5897, Rule No. 9, for the East Vacuum Unit pressure maintenance project, to convert the East Vacuum Grayburg-San Andres Unit, Tract No. 2944, Well No. 001 to water injection service. The following data is submitted in support of this request:

1. Unit plat reflecting the proposed injection well and injection well project area. (Well: Unit B, 29, 17-S, 35-E.)
2. Compensated sonic log of the injection well.
3. Diagramatic sketch of the proposed well, injection tubing, packer, and pressure control elements identifying the San Andres perforated injection interval.
4. The name of the injection formation is San Andres with injection to be into the interval 4545 to 4680 feet. Injection will be by gravity with an anticipated maximum of 500 barrels of produced Grayburg-San Andres water per day.

Your consideration and early advice will be appreciated.

Very truly yours,

Louella Howell for



T. Harold McLemore
Area Regulation and Proration Analyst

THM/jj
Attachments

cc: Oil Conservation Division
Hobbs, New Mexico (Attachments w/o CNFD log)

PHILLIPS PETROLEUM COMPANY

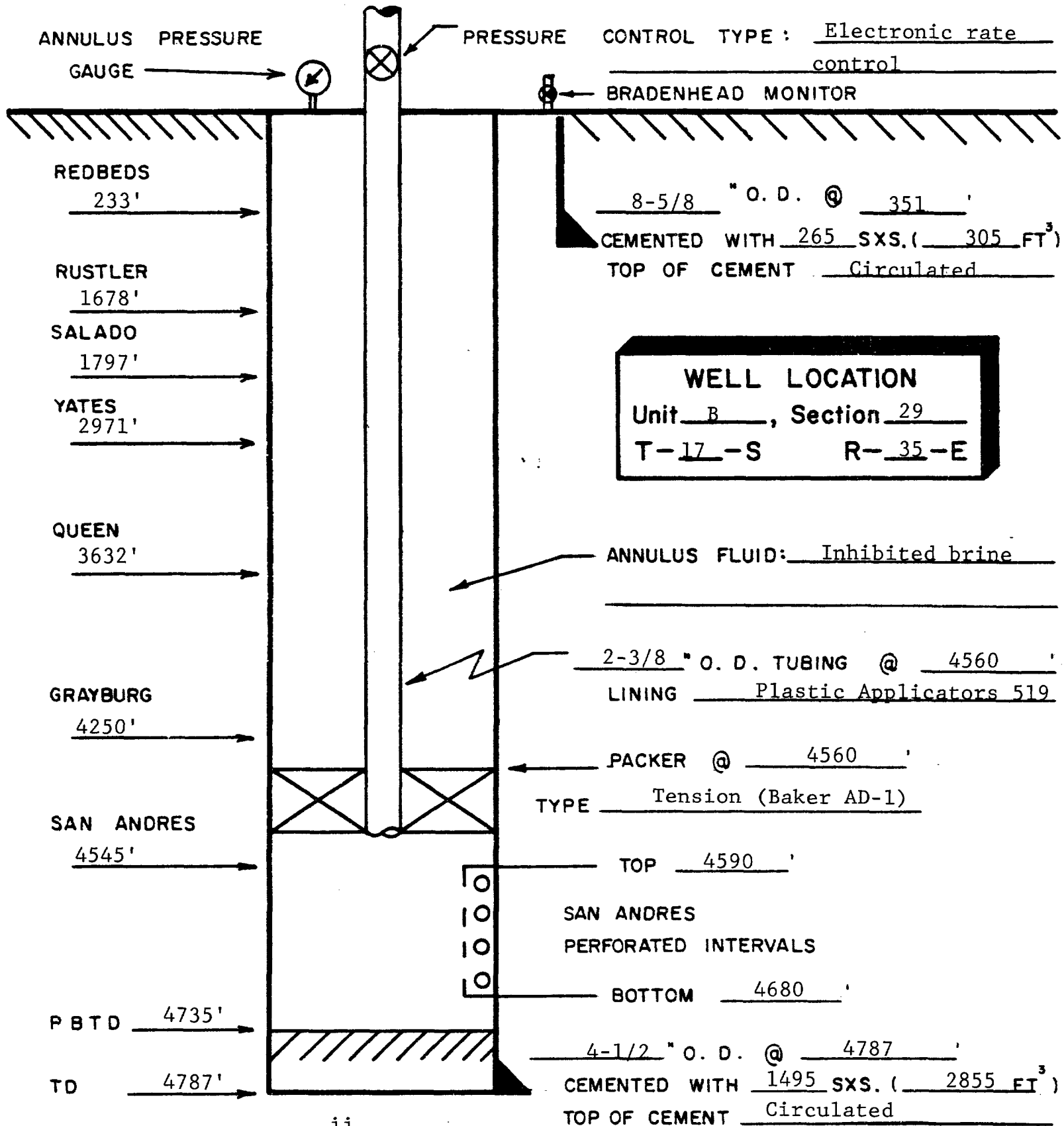
EAST VACUUM UNIT PRESSURE MAINTENANCE PROJECT

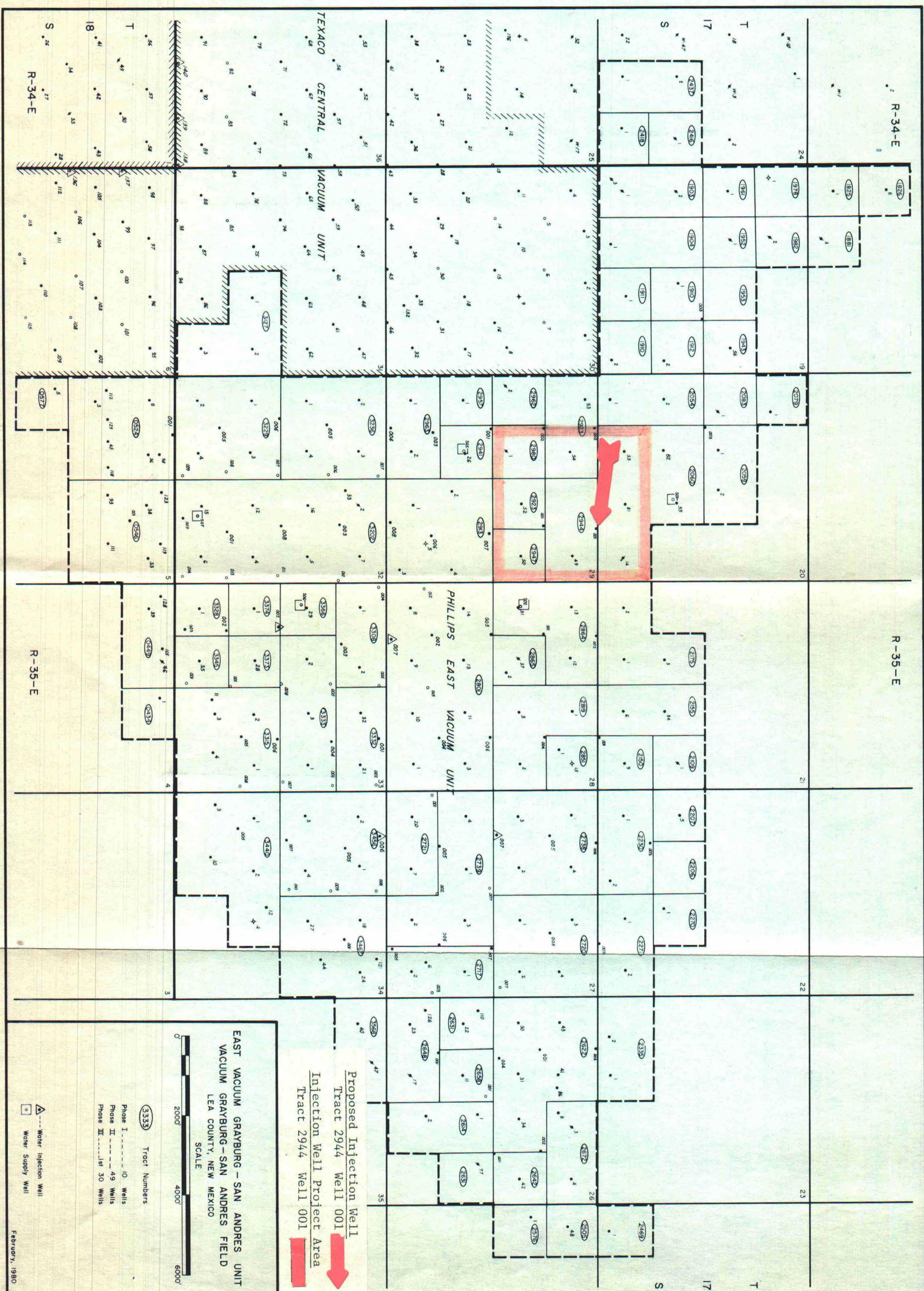
N.M.O.C.D. R-5897

VACUUM GRAYBURG - SAN ANDRES POOL, LEA COUNTY, NEW MEXICO

TRACT 2944 WELL 001

CONVERSION TO WATER INJECTION STATUS





Proposed Injection Well
Tract 2944 Well 001
Injection Well Project Area
Tract 2944 Well 001

(3333) Tract Numbers
Phase I - 10 Wells
Phase II - 49 Wells
Phase III - 30 Wells

Water Injection Well
Water Supply Well

EAST VACUUM GRAYBURG - SAN ANDRES UNIT
VACUUM GRAYBURG - SAN ANDRES FIELD
LEA COUNTY, NEW MEXICO
SCALE
0 2000' 4000' 6000'



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

NATURAL RESOURCES GROUP
Exploration and Production

March 24, 1980

Conversion to Water Injection Service--
East Vacuum Grayburg-San Andres Unit
Tract No. 2230, Well No. 003
Vacuum Grayburg-San Andres Pool
Lea County, New Mexico

New Mexico Department of Energy and Minerals (3)
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey
Division Director

Gentlemen:

We respectfully request administrative approval as provided by Order No. R5897, Rule No. 9, for the East Vacuum Unit pressure maintenance project, to convert the East Vacuum Grayburg-San Andres Unit, Tract 2230, Well No. 003, to water injection service. The following data is submitted in support of this request:

1. Unit plat reflecting the proposed injection well and injection well project area. (Well: Unit N, 22, 17-S, 35-E.)
2. Compensated sonic log of the injection well.
3. Diagramatic sketch of the proposed well, injection tubing, packer, and pressure control elements identifying the San Andres perforated injection interval.
4. The name of the injection formation is San Andres with injection to be into the interval 4465 to 4610 feet. Injection will be by gravity with an anticipated maximum of 500 barrels of produced Grayburg-San Andres water per day.

Your consideration and early advice will be appreciated.

Very truly yours,

Louella Howell for

T. Harold McLemore
Area Regulation and Proration Analyst

THM/jj
Attachments

cc: Oil Conservation Division
Hobbs, New Mexico (Attachments w/o CNFD log)

PHILLIPS PETROLEUM COMPANY

EAST VACUUM UNIT PRESSURE MAINTENANCE PROJECT

N. M. O. C. D. R- 5897

VACUUM GRAYBURG - SAN ANDRES POOL, LEA COUNTY, NEW MEXICO

TRACT 2230 WELL 003

CONVERSION TO WATER INJECTION STATUS

ANNULUS PRESSURE
GAUGE

PRESSURE CONTROL TYPE: Electronic rate
pressure control

BRADENHEAD MONITOR

REDBEDS

244'

RUSTLER

1693'

SALADO

1812'

YATES

2960'

QUEEN

3806'

GRAYBURG

4180'

SAN ANDRES

4465'

P B T D

4691'

T D

4801

8-5/8" O. D. @ 348'

CEMENTED WITH 290 SXS. (334 FT³)

TOP OF CEMENT Circulated

WELL LOCATION

Unit N, Section 22

T- 17 - S R- 35 - E

ANNULUS FLUID: Inhibited brine

2-3/8" O. D. TUBING @ 4500'

LINING Plastic Applicator 519

PACKER @ 4500'

TYPE Tension (Baker AD-1)

TOP 4570'

SAN ANDRES

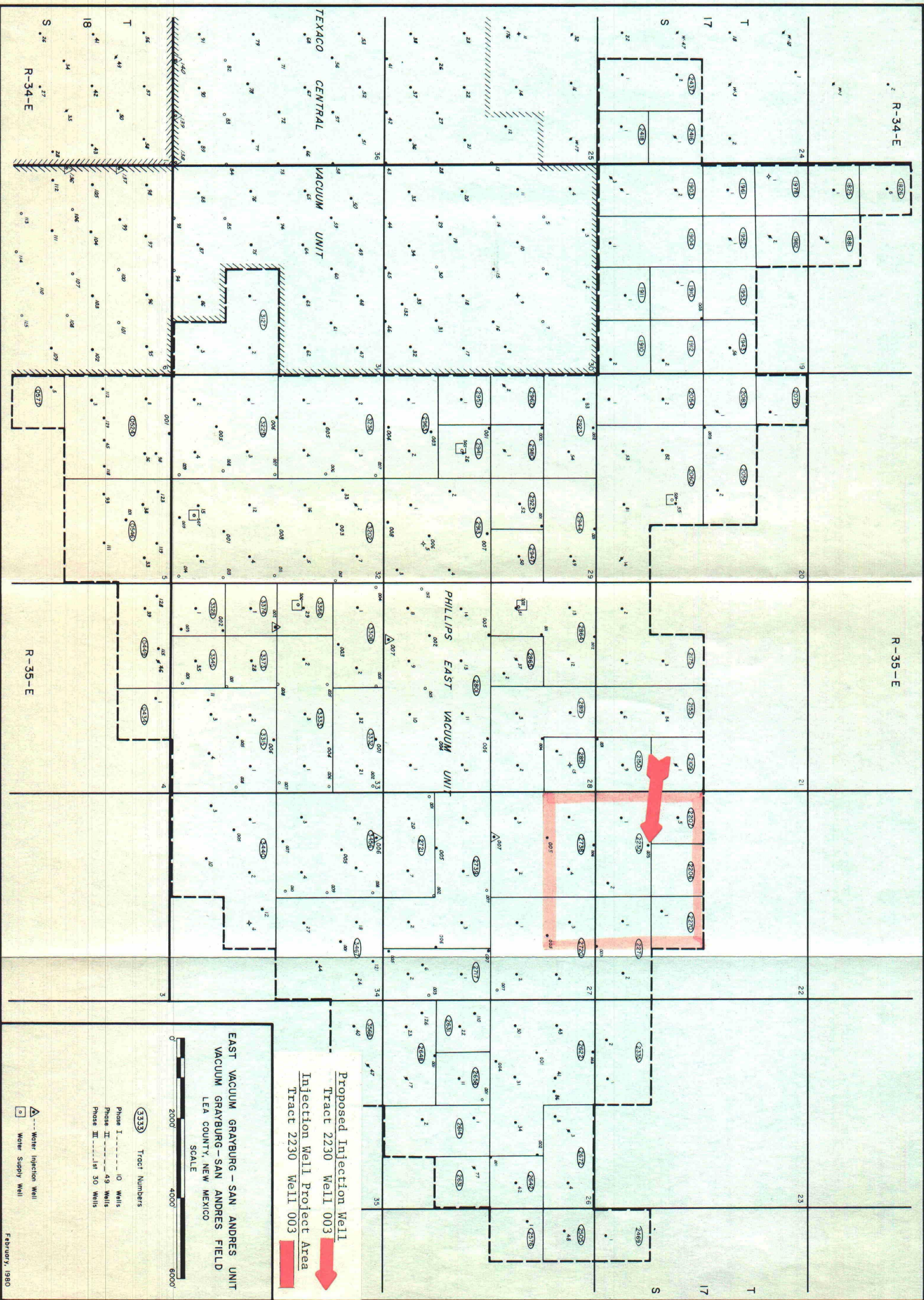
PERFORATED INTERVALS

BOTTOM 4610'

4-1/2" O. D. @ 4801'

CEMENTED WITH 1420 SXS. (2781 FT³)

TOP OF CEMENT Circulated



Proposed Injection Well
Tract 2230 Well 003
Injection Well Project Area
Tract 2230 Well 003

3333 Tract Numbers
Phase I - 10 Wells
Phase II - 49 Wells
Phase III - 30 Wells

EAST VACUUM GRAYBURG-SAN ANDRES UNIT
VACUUM GRAYBURG-SAN ANDRES FIELD
LEA COUNTY, NEW MEXICO
SCALE
0 2000' 4000' 6000'

Water Injection Well
Water Supply Well

February, 1980



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

NATURAL RESOURCES GROUP
Exploration and Production

March 24, 1980

Conversion to Water Injection Service--
East Vacuum Grayburg-San Andres Unit
Tract No. 2864, Well No. 002
Vacuum Grayburg-San Andres Pool
Lea County, New Mexico

New Mexico Department of Energy and Minerals (3)
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey
Division Director

Gentlemen:

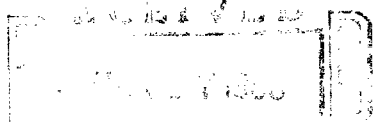
We respectfully request administrative approval as provided by Order No. R5897, Rule No. 9, for the East Vacuum Unit pressure maintenance project, to convert the East Vacuum Grayburg-San Andres Unit, Tract 2864, Well No. 002, to water injection service. The following data is submitted in support of this request:

1. Unit plat reflecting the proposed injection well and injection well project area. (Well: Unit C, 28, 17-S, 35-E.)
2. Compensated sonic log of the injection well.
3. Diagramatic sketch of the proposed well, injection tubing, packer, and pressure control elements identifying the San Andres perforated injection interval.
4. The name of the injection formation is San Andres with injection to be into the interval 4492 to 4630 feet. Injection will be by gravity with an anticipated maximum of 500 barrels of produced Grayburg-San Andres water per day.

Your consideration and early advice will be appreciated.

Very truly yours,

T. Harold McLemore
Area Regulation and Proration Analyst



THM/jj OIL CONSERVATION DIVISION
Attachments SANTA FE

cc: Oil Conservation Division
Hobbs, New Mexico (Attachments w/o CNFD log)

PHILLIPS PETROLEUM COMPANY

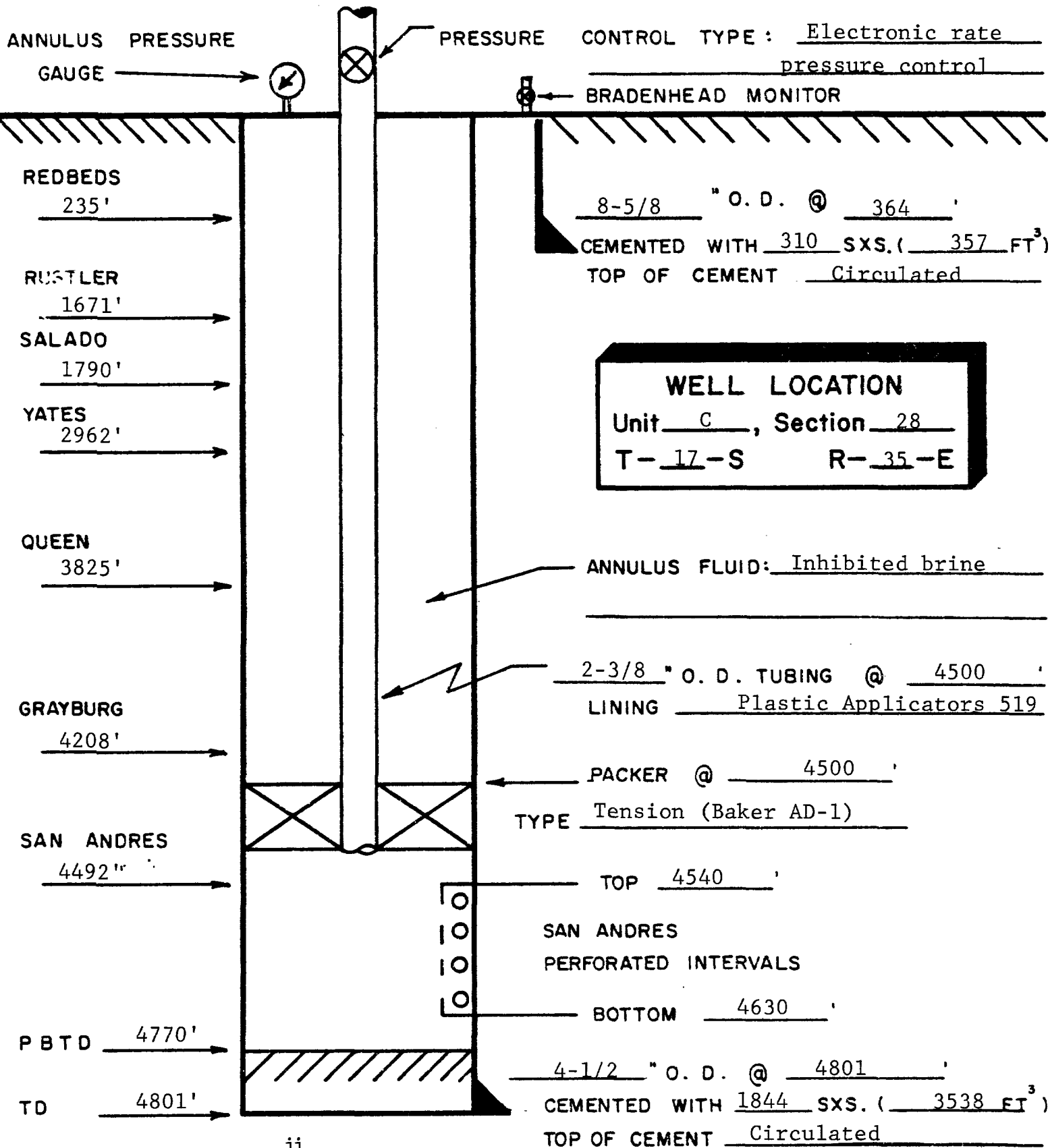
EAST VACUUM UNIT PRESSURE MAINTENANCE PROJECT

N. M. O. C. D. R- 5897

VACUUM GRAYBURG - SAN ANDRES POOL, LEA COUNTY, NEW MEXICO

TRACT 2864 WELL 002

CONVERSION TO WATER INJECTION STATUS





PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

NATURAL RESOURCES GROUP
Exploration and Production

March 24, 1980

Conversion to Water Injection Service--
East Vacuum Grayburg-San Andres Unit
Tract No. 2059, Well No. 003
Vacuum Grayburg-San Andres Pool
Lea County, New Mexico

New Mexico Department of Energy and Minerals (3)
Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey
Division Director

Gentlemen:

We respectfully request administrative approval as provided by Order No. R5897, Rule No. 9, for the East Vacuum Unit pressure maintenance project, to convert the East Vacuum Grayburg-San Andres Unit, Tract 2059, Well No. 003, to water injection service. The following data is submitted in support of this request:

1. Unit plat reflecting the proposes injection well and injection well project area. (Well: Unit F, 20, 17-S, 35-E.)
2. Compensated sonic log of the injection well.
3. Diagramatic sketch of the proposed well, injection tubing, packer, and pressure control elements identifying the San Andres perforated injection interval.
4. The name of the injection formation is San Andres with injection to be into the interval 4594 to 4665 feet. Injection will be by gravity with an anticipated maximum of 500 barrels of produced Grayburg-San Andres water per day.

Your consideration and early advice will be appreciated.

Yours very truly,

T. Harold McLemore
Area Regulation and Proration Analyst

THM/jj
OIL CONSERVATION DIVISION
SANTA FE

cc: Oil Conservation Division
Hobbs, New Mexico (Attachments w/o CNFD log)

PHILLIPS PETROLEUM COMPANY

EAST VACUUM UNIT PRESSURE MAINTENANCE PROJECT

N. M. O. C. D. R-5897

VACUUM GRAYBURG - SAN ANDRES POOL, LEA COUNTY, NEW MEXICO

TRACT 1910 WELL 003

CONVERSION TO WATER INJECTION STATUS

ANNULUS PRESSURE
GAUGE

PRESSURE CONTROL TYPE: Electronic rate pressure
control

BRADENHEAD MONITOR

REDBEDS
203'

8-5/8" O. D. @ 357'

CEMENTED WITH 262 SXS. (301 FT³)
TOP OF CEMENT Circulated

RUSTLER
1712'

SALADO
1835'

YATES
3020'

WELL LOCATION

Unit J, Section 19
T- 17 - S R- 35 - E

QUEEN
3934'

ANNULUS FLUID: Inhibited brine

GRAYBURG
4372'

2-3/8" O. D. TUBING @ 4590'
LINING Plastic Applicators 501

SAN ANDRES
4608'

PACKER @ 4590'
TYPE Tension (Baker AD-1)

P B T D 4850'

TOP 4610'

SAN ANDRES
PERFORATED INTERVALS

TD 4900'

BOTTOM 4730'

4-1/2" O. D. @ 4900'

CEMENTED WITH 1346 SXS. (2569 FT³)
TOP OF CEMENT Circulated

