



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

December 1, 1994

Phillips Petroleum Company
4001 Penbrook
Odessa, Texas 79762

Attention: L. M. Sanders

Administrative Order DD-102 (NSBHL)

Dear Mr. Sanders:

Under the provisions of General Rules 111 (C), (D) and (E) and 104 (F), Phillips Petroleum Company made application to the New Mexico Oil Conservation Division on November 15, 1994, for authorization to directional drill its proposed East Vacuum Grayburg/San Andres Unit Well No. 389, Lea County, New Mexico.

The Division Director Finds That:

- (1) The application has been duly filed under the directional drilling provisions of Rules 111 (D) and (E) of the Division General Rules and Regulations;
- (2) Under the provisions of Division General Rule 104.F(1) the applicant further requests that the bottom-hole location be unorthodox for the purpose of completing an efficient injection/production pattern within the East Vacuum Grayburg/San Andres Unit Pressure Maintenance Project Area;
- (3) The proposed well and its dedicated acreage is within the applicant's East Vacuum Grayburg/San Andres Unit Area;
- (4) No notification was required in this instance; and,
- (5) The applicant has presented satisfactory evidence that all requirements prescribed in General Rule 111 have either been or will be met.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Phillips Petroleum Company, is hereby authorized to directionally drill its proposed East Vacuum Grayburg/San Andres Unit Well No. 389, the surface which shall be 1339 feet from the North line and 988 feet from the East line (Unit H) of Section 33, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico, by kicking-off from vertical in a northerly direction and drilling in such a manner as to bottom in the Vacuum Grayburg-San Andres Pool within 50 feet of a target point located 1020 feet from the North line and 970 feet from the East line (Unit A) of said Section 33, being an unorthodox bottom-hole oil well location for said formation.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations into said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED HOWEVER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the Hobbs district office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(3) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(4) Said well shall be dedicated to an existing standard 40-acre oil spacing and proration unit comprising the NE/4 NE/4 of said Section 33.

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

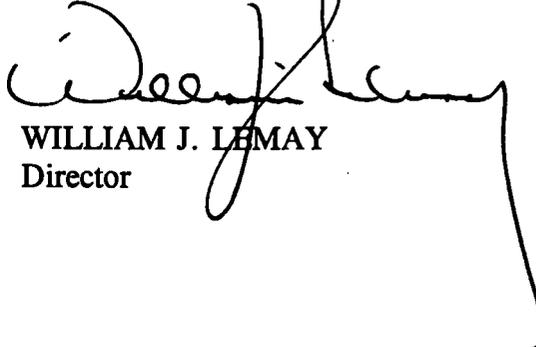
Administrative Order DD-102

December 1, 1994

Page No. 3

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY
Director

S E A L

WJL/MES/kv

cc: Oil Conservation Division - Hobbs
New Mexico State Land Office - Santa Fe

E-mailed
as DDPhil -

November 21, 1994

Phillips Petroleum Company
4001 Penbrook
Odessa, Texas 79762

Attention: L. M. Sanders

102
*Administrative Order DD-****(NSBHL)*

Dear Mr. Sanders:

Under the provisions of General Rules 111 (C), (D) and (E) and 104 (F), Phillips Petroleum Company made application to the New Mexico Oil Conservation Division on November 15, 1994, for authorization to directional drill its proposed East Vacuum Grayburg/San Andres Unit Well No. 389, Lea County, New Mexico.

The Division Director Finds That:

- (1) The application has been duly filed under the directional drilling provisions of Rules 111 (D) and (E) of the Division General Rules and Regulations;
- (2) Under the provisions of Division General Rule 104.F(1) the applicant further requests that the bottom-hole location be unorthodox for the purpose of completing an efficient injection/production pattern within the East Vacuum Grayburg/San Andres Unit Pressure Maintenance Project Area;
- (3) The proposed well and its dedicated acreage is within the applicant's East Vacuum Grayburg/San Andres Unit Area;
- (4) No notification was required in this instance; and,
- (5) The applicant has presented satisfactory evidence that all requirements prescribed in General Rule 111 have either been or will be met.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Phillips Petroleum Company, is hereby authorized to directionally drill its proposed East Vacuum Grayburg/San Andres Unit Well No. 389, the surface which shall be 1339 feet from the North line and 988 feet from the East line (Unit H) of Section 33, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico, by kicking-off from vertical in a northerly direction and drilling in such a manner as to bottom in the Vacuum Grayburg-San Andres Pool within 50 feet of a target point located 1020 feet from the North line and 970 feet from the East line (Unit A) of said Section 33, being an unorthodox bottom-hole oil well location for said formation.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations into said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED HOWEVER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the ~~Artesia~~ ^{Hobbs} district office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(3) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(4) Said well shall be dedicated to an existing standard 40-[✓] acre oil spacing and proration unit comprising the NE/4 NE/4 of said Section ~~34~~
33

(5) 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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

*Administrative Order DD-**

November 21, 1994

Page No. 3

S E A L

WJL/MES

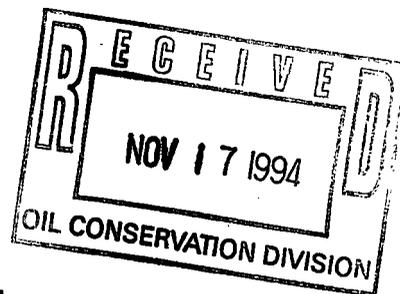
cc: Oil Conservation Division - Hobbs
New Mexico State Land Office - Santa Fe



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP
Permian Basin Region



November 11, 1994

RE: Application for Directional
Drilling
East Vacuum GB/SA Unit
Well No. 389
Section 33, T-17-S, R-35-E
Lea County, New Mexico

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87504

Attention: Mr. William J. LeMay, Director

Gentlemen:

We respectfully request approval to intentionally deviate our East Vacuum GB/SA Unit No. 389, as provided in Statewide Rule 111. The surface location of this well is 1339' FNL and 988' FEL, with an intended bottom hole location of 1020' FNL and 970' FEL at depth of 4700'. The top of the San Andres should be cut at 4373' TVD. This unorthodox surface location was selected because of the CO2 plant. The intended bottom hole location is an orthodox location.

Attached is a plat showing surface location and targeted bottom hole location.

This directional well shall be tested at least once every 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104.

This well is located within the central portion of the East Vacuum GB/SA Unit, therefore Phillips is its own offset operator. Your consideration and approval will be appreciated. Please direct any questions to me at (915) 368-1488.

Sincerely,

L. M. Sanders, Supervisor
Regulatory Affairs

District I
PO Box 1988, Hobbs, NM 88241-1988
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address Phillips Petroleum Company 4001 Penbrook Street Odessa, TX 79762		² OGRID Number 017643
		³ API Number 30-0
⁴ Property Code 009166	⁵ Property Name EAST VACUUM GB/SA UNIT	⁶ Well Number 389

⁷ Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
H	33	17 S	35 E		1339	NORTH	988	EAST	LEA

⁸ Proposed Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
A	33	17 S	35 E		1020	NORTH	970	EAST	LEA

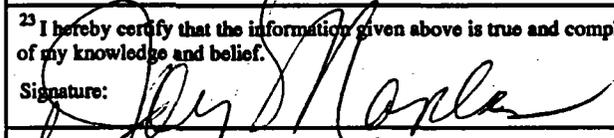
⁹ Proposed Pool 1 VACUUM GRAYBURG/SAN ANDRES					¹⁰ Proposed Pool 2 VACUUM GRAYBURG/SAN ANDRES				
---	--	--	--	--	--	--	--	--	--

¹¹ Work Type Code N	¹² Well Type Code 0	¹³ Cable/Rotary ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3939' GR UNPREPARED
¹⁶ Multiple NO	¹⁷ Proposed Depth 4700'	¹⁸ Formations SAN ANDRES	¹⁹ Contractor NA	²⁰ Spud Date UPON APPROVAL

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	8-5/8"	24#	1625'	750 SXS C	SURFACE
7-7/8"	5-1/2"	15.5#	4700'	850 SXS C	4000'

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SEE ATTACHED BLOW OUT PREVENTER SCHEMATIC.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: 		Approved by:	
Printed name: L. M. SANDERS		Title:	
Title: SUPERVISOR, REG. AFFAIRS		Approval Date:	Expiration Date:
Date: 11/11/94	Phone: 915/368-1488	Conditions of Approval: Attached <input type="checkbox"/>	

DISTRICT I
P.O. Box 1880, Hobbs, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT III
1000 Rio Brazos Rd., Asteo, NM 87410

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name
		62180	Vacuum Grayburg/San Andres
Property Code	Property Name		Well Number
009166	East Vacuum Gb/SA Unit		389
OGRID No.	Operator Name		Elevation
017643	PHILLIPS PETROLEUM COMPANY		3939'

Surface Location

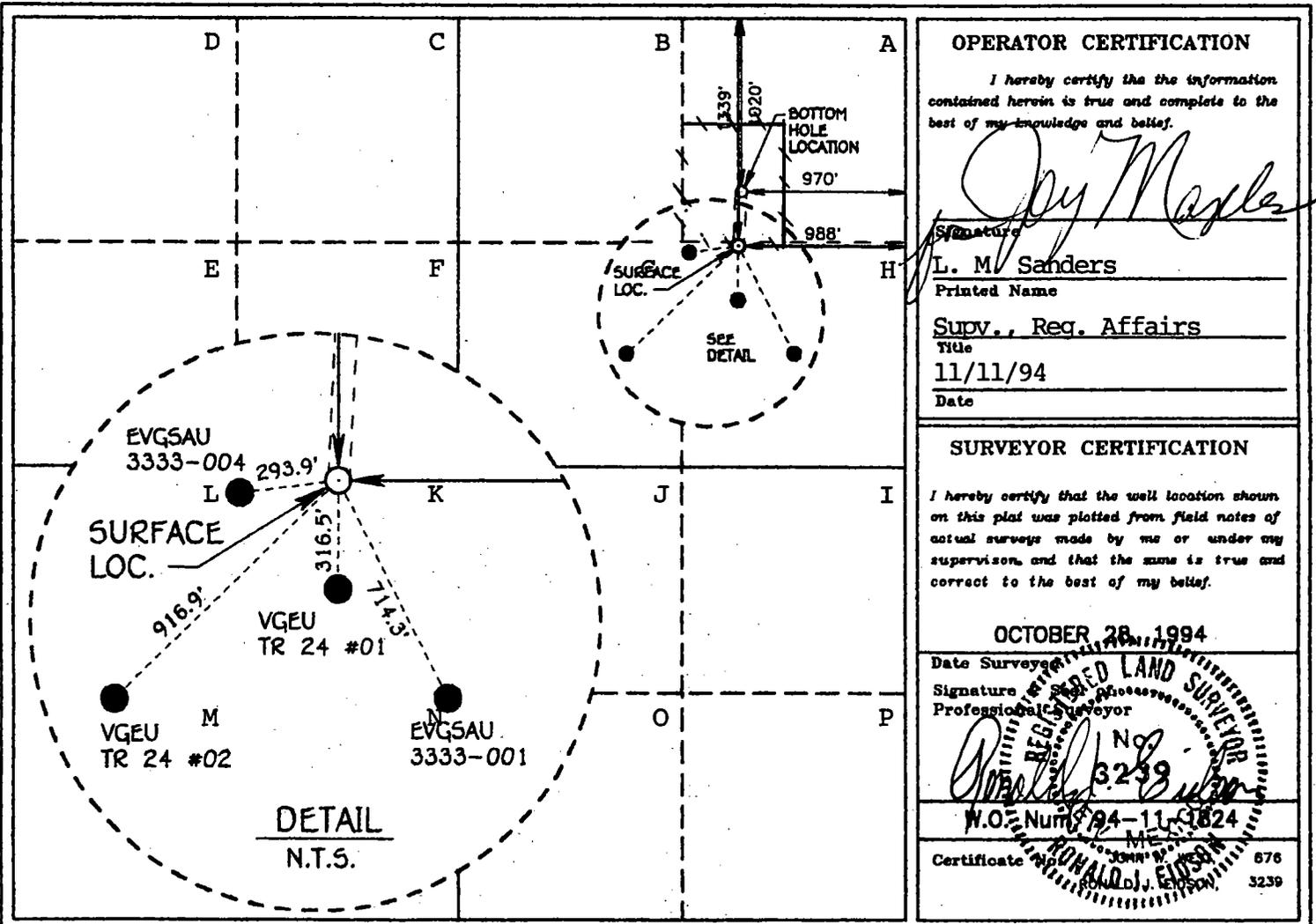
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	33	17S	35E		1339'	NORTH	988'	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	33	17S	35E		1020	NORTH	970	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
10			R-5897

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

L. M. Sanders
Signature

L. M. Sanders
Printed Name

Supv., Reg. Affairs
Title

11/11/94
Date

SURVEYOR CERTIFICATION

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 belief.

OCTOBER 26, 1994

Date Surveyed
Signature
Professional Surveyor

Ronald J. Eason
No. 3239
W.O. Num. 94-11-3824

Certificate No. 876
3239

CASING & CEMENTING PROGRAM

EVGSAU-389

Well 389 kickoff point is approx. 2600' build to 12-3/4 deg. and hold

8 5/8" 24 lb/ft k-55 Surface Casing Set at 1625' - 12 1/4" Hole:

Lead to surface with 600 sx 75/25 Class "C" Pozmix + 4% gel + 2% CaCl₂

Slurry Weight:	13.5 ppg
Slurry Yield:	1.58 ft ³ /sx
Water Requirement:	7.99 gals/sx

Tail with 150 sx of Class "C" + 2% CaCl₂.

Slurry Weight:	14.8 ppg
Slurry Yield:	1.32 ft ³ /sx
Water Requirement:	6.3 gals/sx

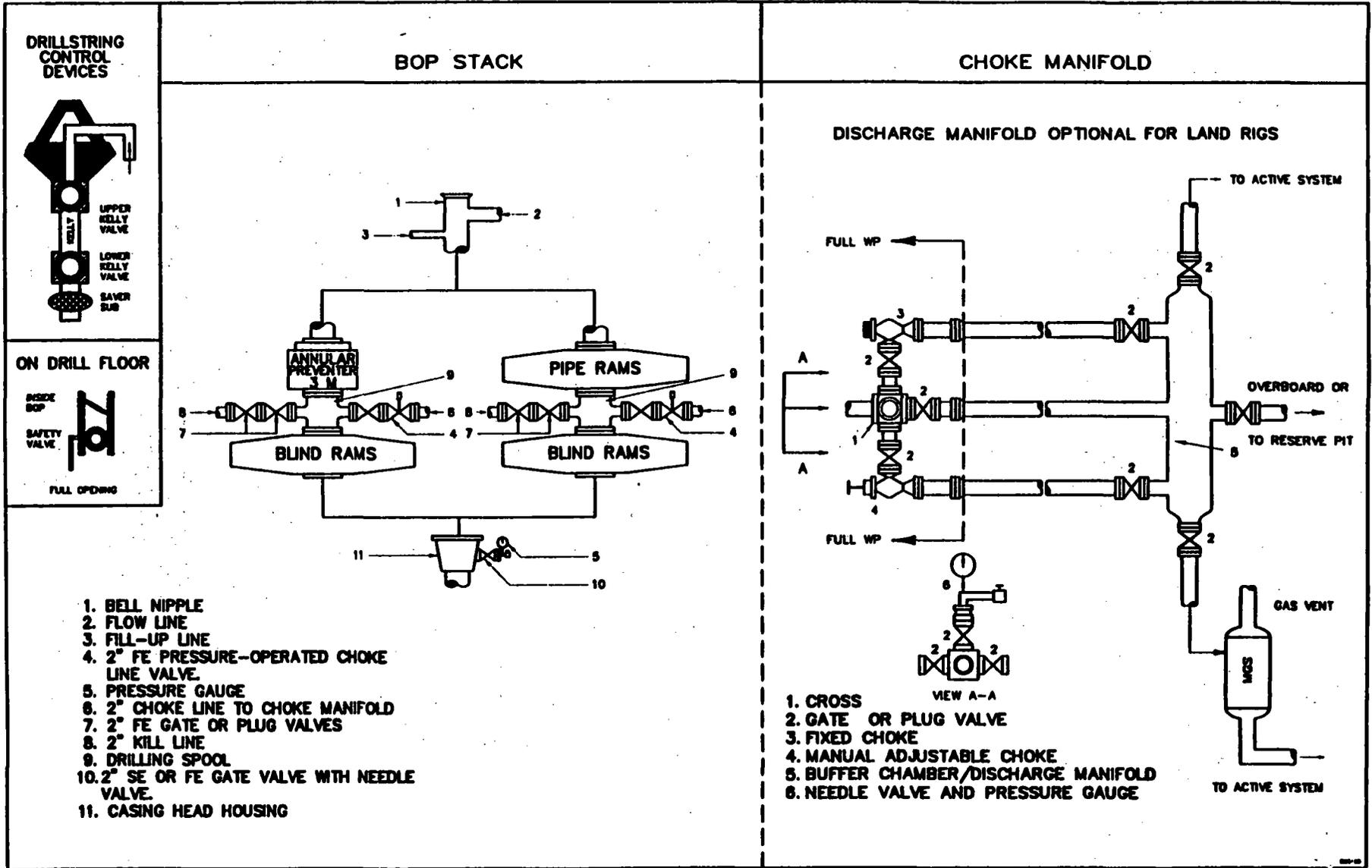
5 1/2" 15.5 lb/ft J-55 Production Casing Set at 4700' - 7 7/8" Hole:

Lead: 500 sx Class "C" 65/35 Poz + 6% Gel + 3% Salt. Desired TOC = Surface.

Slurry Weight:	12.8 ppg
Slurry Yield:	1.85 ft ³ /sx
Water Requirement:	9.9 gals/sx

Tail: 350 sx Class "C" 50/50 Poz + 0.5% Halad-9 + 1.5% CaCl₂.
Desired TOC = 4000'.

Slurry Weight:	14.6 ppg
Slurry Yield:	1.15 ft ³ /sx
Water Requirement:	5.0 gals/sx



2-20

Fig. 2.4. Class 2 BOP and Choke Manifold.

MUD PROGRAM

EVGSAU -389

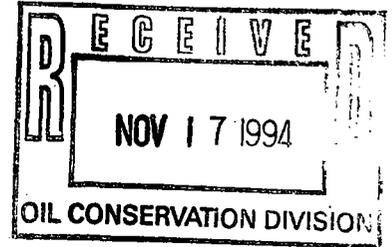
DEPTH	MUD WEIGHT	VISCOSITY	FLUID LOSS	CL PPM	SOLIDS	ADDITIVES
Surf - 1625'	8.3 - 9.0 ppg	28 - 36 sec/1000cc	-	Fresh Water	-	FW Gel + Lime for spud mud.
1625' - 4700'	10.0 ppg	28 - 32 sec/1000cc	-	Saturated	-	Native Solids + Paper Sweeps before reaching pay zone. Circulate hole at TD prior to logging.



PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP
Permian Basin Region



November 11, 1994

**RE: Application for Directional
Drilling
East Vacuum GB/SA Unit
Well No. 389
Section 33, T-17-S, R-35-E
Lea County, New Mexico**

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87504

Attention: Mr. William J. LeMay, Director

Gentlemen:

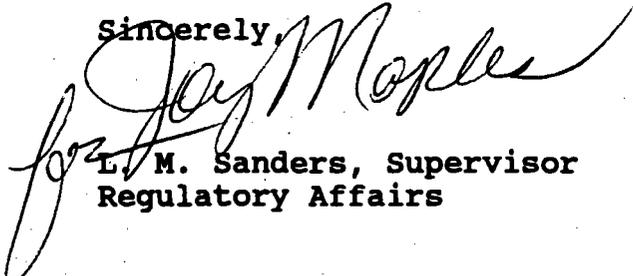
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Attached is a plat showing surface location and targeted bottom hole location.

This directional well shall be tested at least once every 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104.

This well is located with in the central portion of the East Vacuum GB/SA Unit, therefore Phillips is its own offset operator. Your consideration and approval will be appreciated. Please direct any questions to me at (915) 368-1488.

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L. M. Sanders, Supervisor
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P.O. Box 2088
Santa Fe, NM 87504-2088

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AMENDED REPORT

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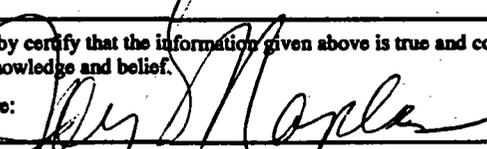
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Printed name: L. M. SANDERS		Title:	
Title: SUPERVISOR, REG. AFFAIRS		Approval Date:	Expiration Date:
Date: 11/11/94	Phone: 915/368-1488	Conditions of Approval: Attached <input type="checkbox"/>	

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Energy, Minerals and Natural Resources Department

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OIL CONSERVATION DIVISION

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1000 Rio Brazos Rd., Aztec, NM 87410

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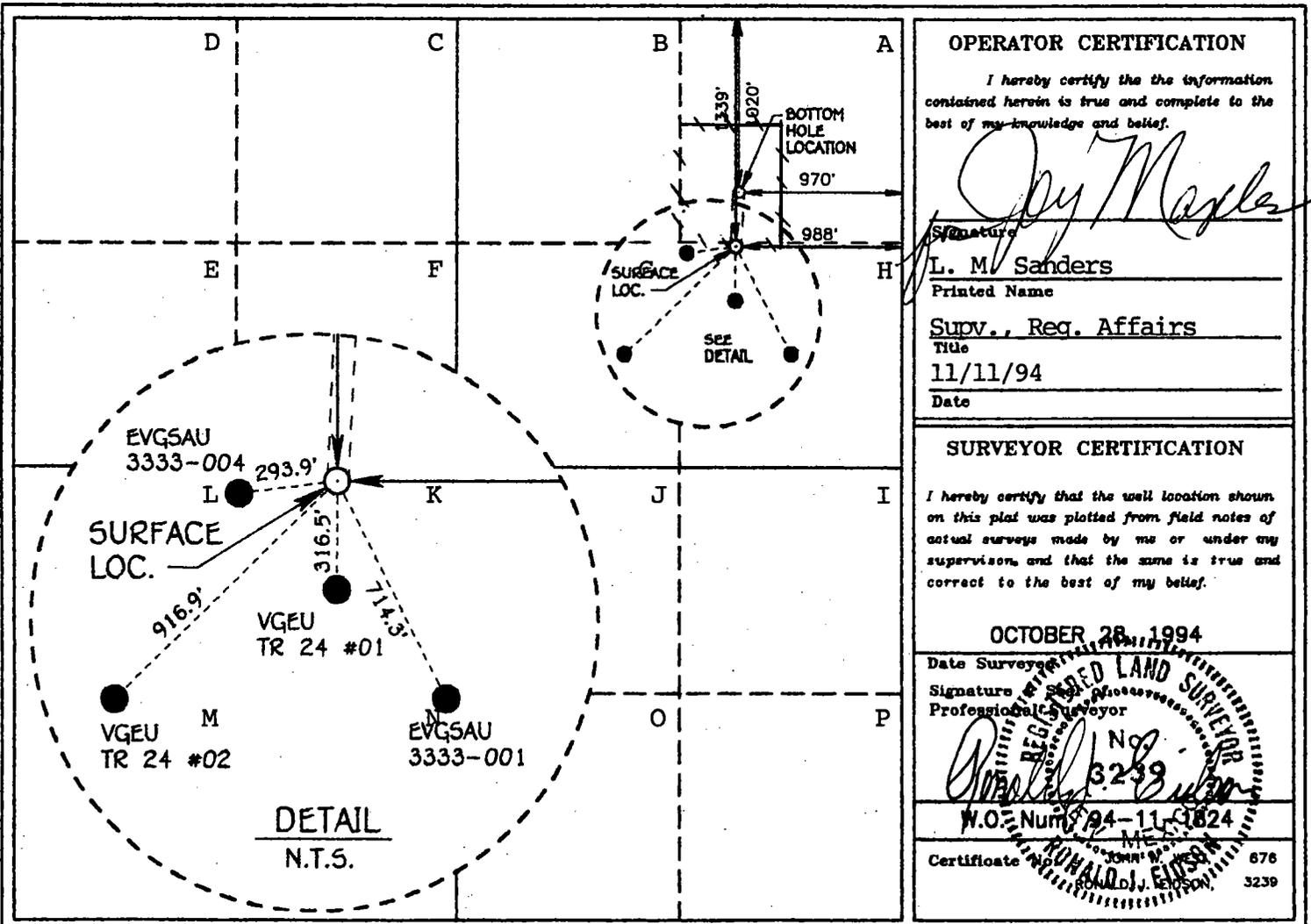
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SURVEYOR CERTIFICATION

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 belief.

OCTOBER 28, 1994

Date Surveyed
Signature
Professional Surveyor

Ronald J. Eidsen
Signature
No. 3239

W.O. Num. 94-11-3824

Certificate
RONALD J. EIDSEN
876
3239

CASING & CEMENTING PROGRAM

EVGSAU-389

Well 389 kickoff point is approx. 2600' build to 12-3/4 deg. and hold

8 5/8" 24 lb/ft k-55 Surface Casing Set at 1625' - 12 1/4" Hole:

Lead to surface with 600 sx 75/25 Class "C" Pozmix + 4% gel + 2% CaCl₂

Slurry Weight:	13.5 ppg
Slurry Yield:	1.58 ft ³ /sx
Water Requirement:	7.99 gals/sx

Tail with 150 sx of Class "C" + 2% CaCl₂.

Slurry Weight:	14.8 ppg
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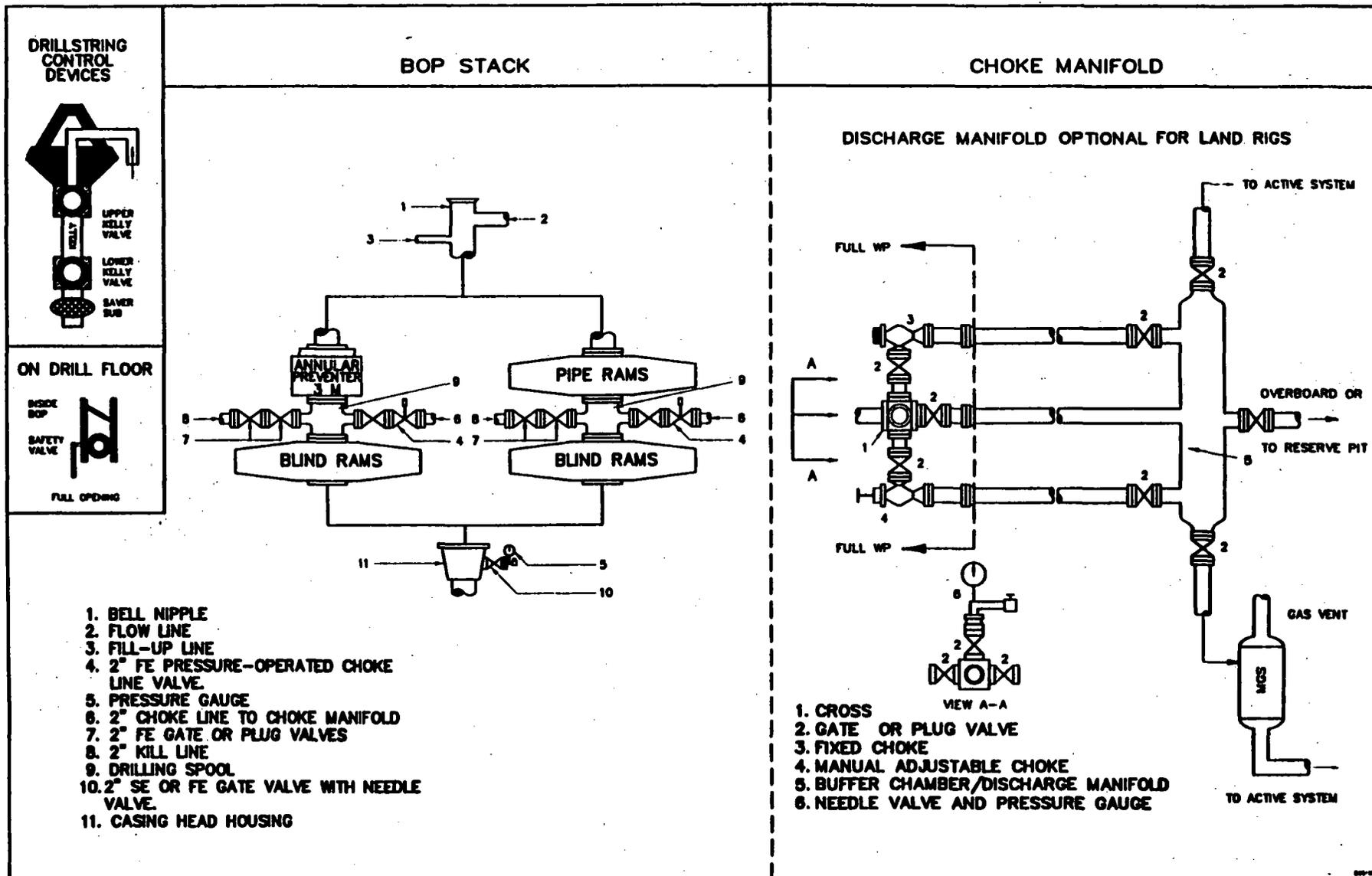
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Tail: 350 sx Class "C" 50/50 Poz + 0.5% Halad-9 + 1.5% CaCl₂. Desired TOC = 4000'.

Slurry Weight:	14.6 ppg
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2-20

Fig. 2.4. Class 2 BOP and Choke Manifold.

MUD PROGRAM

EVGSAU -389

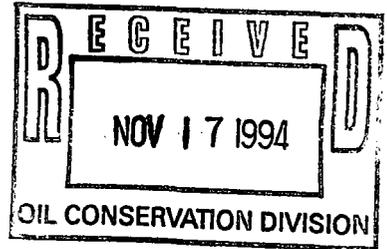
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PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762
4001 PENBROOK

EXPLORATION AND PRODUCTION GROUP
Permian Basin Region



November 11, 1994

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This well is located with in the central portion of the East Vacuum GB/SA Unit, therefore Phillips is its own offset operator. Your consideration and approval will be appreciated. Please direct any questions to me at (915) 368-1488.

Sincerely,

L. M. Sanders, Supervisor
Regulatory Affairs

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

Instructions on back
Submit to Appropriate District Office
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AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address Phillips Petroleum Company 4001 Penbrook Street Odessa, TX 797962		² OGRID Number 017643
		³ API Number 30-0
⁴ Property Code 009166	⁵ Property Name EAST VACUUM GB/SA UNIT	⁶ Well Number 389

⁷ Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
H	33	17 S	35 E		1339	NORTH	988	EAST	LEA

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
A	33	17 S	35 E		1020	NORTH	970	EAST	LEA

⁹ Proposed Pool 1 VACUUM GRAYBURG/SAN ANDRES	¹⁰ Proposed Pool 2 VACUUM GRAYBURG/SAN ANDRES
--	---

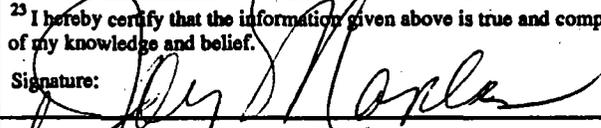
¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3939' GR UNPREPARED
¹⁶ Multiple NO	¹⁷ Proposed Depth 4700'	¹⁸ Formations SAN ANDRES	¹⁹ Contractor NA	²⁰ Spud Date UPON APPROVAL

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	8-5/8"	24#	1625'	750 SXS C	SURFACE
7-7/8"	5-1/2"	15.5#	4700'	850 SXS C	4000'

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

SEE ATTACHED BLOW OUT PREVENTER SCHEMATIC.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: 		Approved by:	
Printed name: L. M. SANDERS		Title:	
Title: SUPERVISOR, REG. AFFAIRS		Approval Date:	Expiration Date:
Date: 11/11/94	Phone: 915/368-1488	Conditions of Approval: Attached <input type="checkbox"/>	

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
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DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

OIL CONSERVATION DIVISION

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name
		62180	Vacuum Grayburg/San Andres
Property Code	Property Name		Well Number
009166	East Vacuum Gb/SA Unit		389
OGRID No.	Operator Name		Elevation
017643	PHILLIPS PETROLEUM COMPANY		3939'

Surface Location

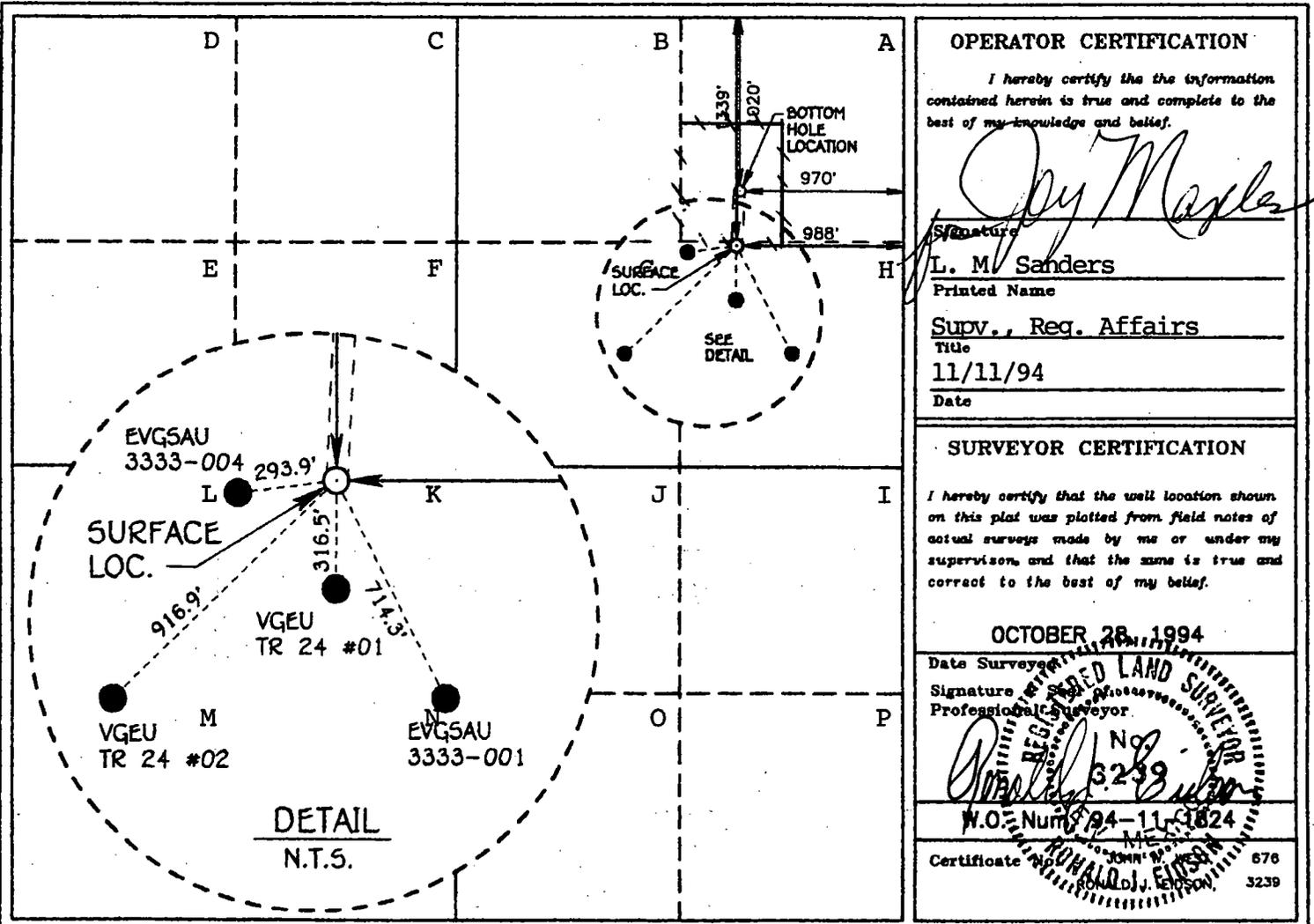
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	33	17S	35E		1339'	NORTH	988'	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	33	17S	35E		1020	NORTH	970	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
10			R-5897

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



CASING & CEMENTING PROGRAM

EVGSAU-389

Well 389 kickoff point is approx. 2600' build to 12-3/4 deg. and hold

8 5/8" 24 lb/ft k-55 Surface Casing Set at 1625' - 12 1/4" Hole:

Lead to surface with 600 sx 75/25 Class "C" Pozmix + 4% gel + 2% CaCl₂

Slurry Weight:	13.5 ppg
Slurry Yield:	1.58 ft ³ /sx
Water Requirement:	7.99 gals/sx

Tail with 150 sx of Class "C" + 2% CaCl₂.

Slurry Weight:	14.8 ppg
Slurry Yield:	1.32 ft ³ /sx
Water Requirement:	6.3 gals/sx

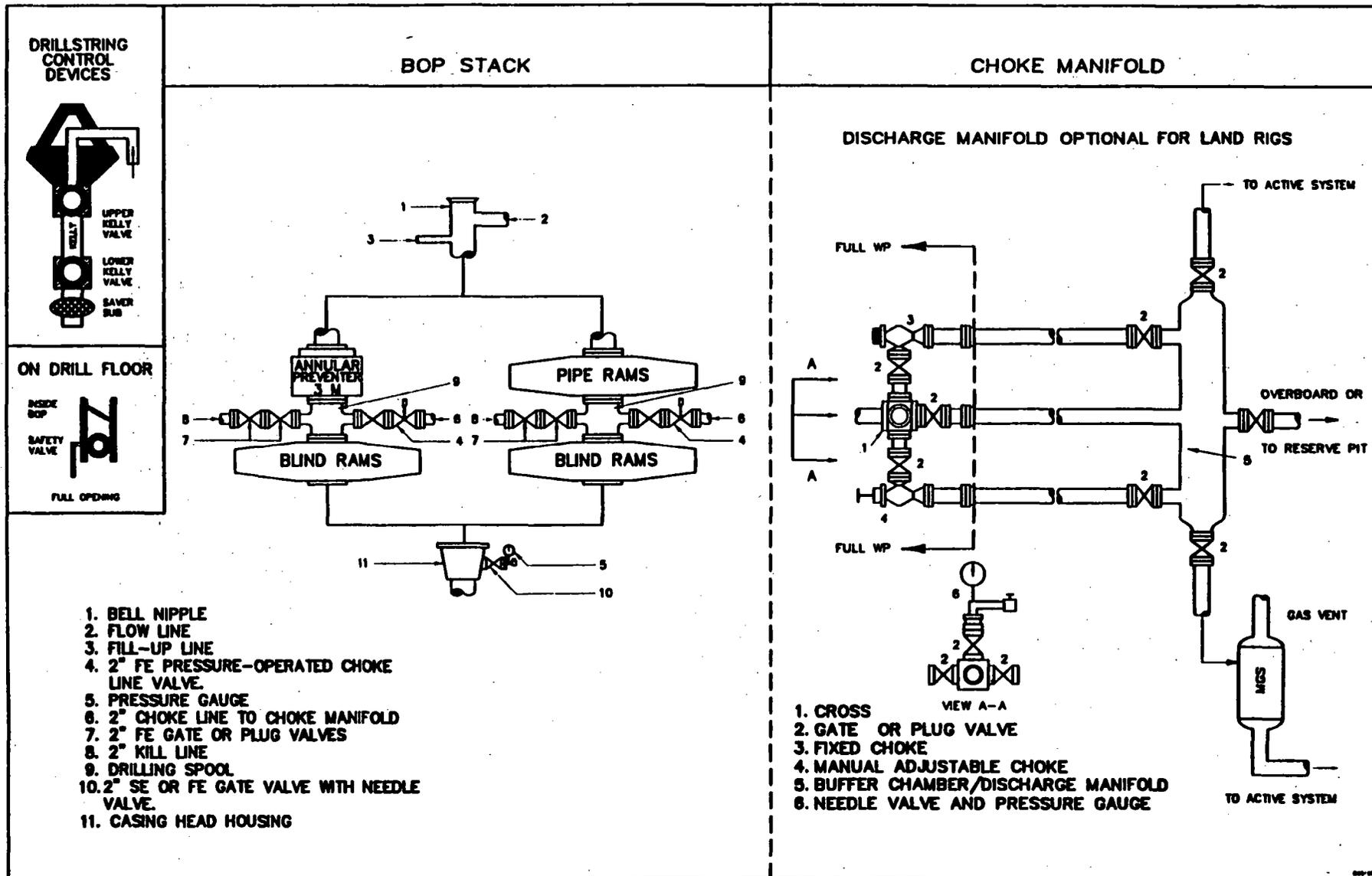
5 1/2" 15.5 lb/ft J-55 Production Casing Set at 4700' - 7 7/8" Hole:

Lead: 500 sx Class "C" 65/35 Poz + 6% Gel + 3% Salt. Desired TOC = Surface.

Slurry Weight:	12.8 ppg
Slurry Yield:	1.85 ft ³ /sx
Water Requirement:	9.9 gals/sx

Tail: 350 sx Class "C" 50/50 Poz + 0.5% Halad-9 + 1.5% CaCl₂.
Desired TOC = 4000'.

Slurry Weight:	14.6 ppg
Slurry Yield:	1.15 ft ³ /sx
Water Requirement:	5.0 gals/sx



2-20

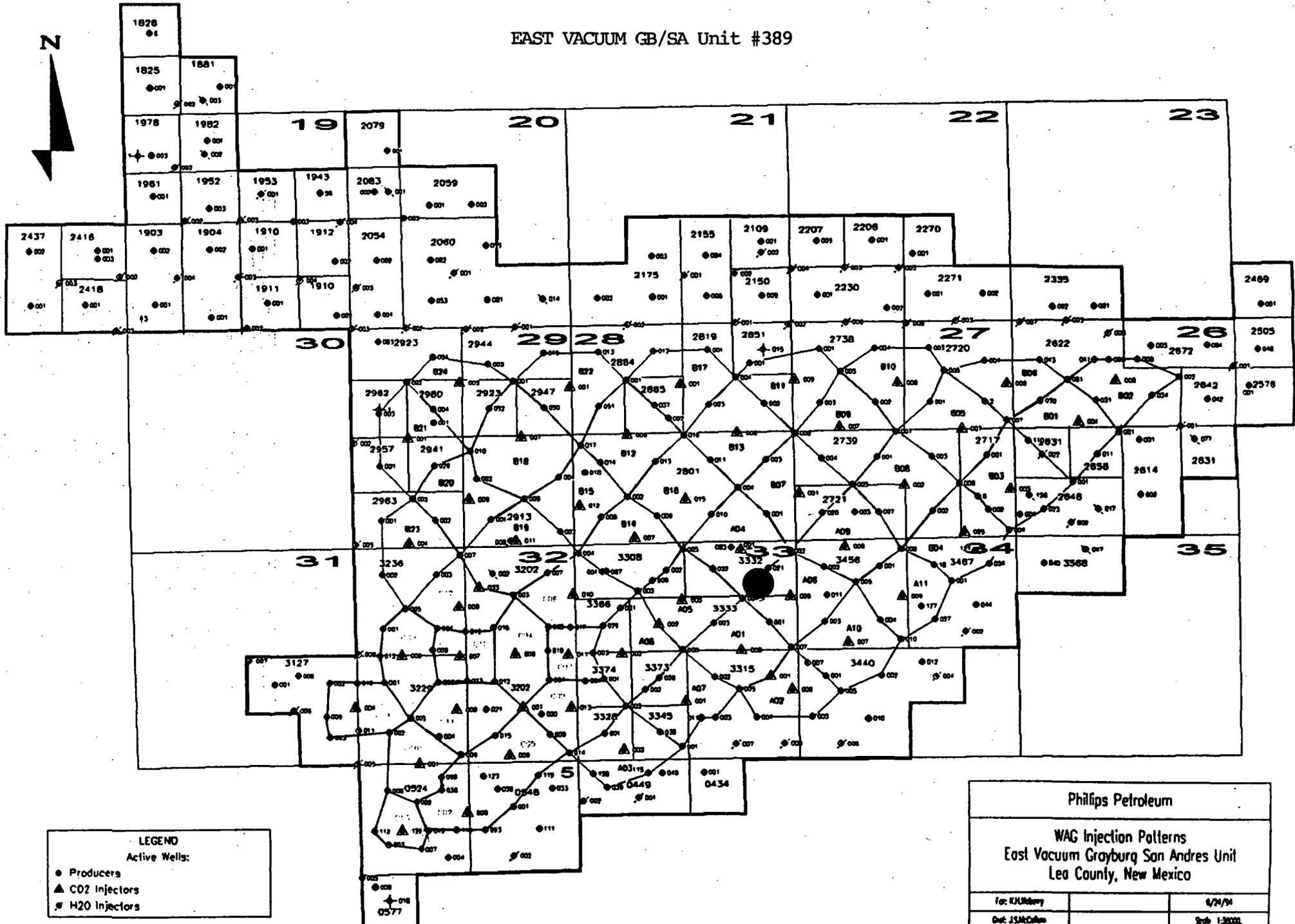
Fig. 2.4. Class 2 BOP and Choke Manifold.

MUD PROGRAM

EVGSAU -389

DEPTH	MUD WEIGHT	VISCOSITY	FLUID LOSS	CL PPM	SOLIDS	ADDITIVES
Surf - 1625'	8.3 - 9.0 ppg	28 - 36 sec/1000cc	-	Fresh Water	-	FW Gel + Lime for spud mud.
1625' - 4700'	10.0 ppg	28 - 32 sec/1000cc	-	Saturated	-	Native Solids + Paper Sweeps before reaching pay zone. Circulate hole at TD prior to logging.

EAST VACUUM GB/SA Unit #389



LEGEND
Active Wells:

- Producers
- ▲ CO2 Injectors
- H2O Injectors

Phillips Petroleum

WAG Injection Patterns
East Vacuum Grayburg San Andres Unit
Lea County, New Mexico

For: KJMBerry	4/24/94
Drawn: JSMCullen	Scale: 1:30000



PHILLIPS PETROLEUM COMPANY

4001 PENBROOK

ODESSA, TEXAS 79762

FACSIMILE COVER SHEET

DATE: 11/15/94

TO: David Catanach

LOCATION: Santa Fe, NM

FROM: Alva Franco

LOCATION: _____

TOTAL PAGES TRANSMITTED (INCLUDING THIS COVER SHEET)

15

PLEASE CALL (915) 368-1665, IF TRANSMISSION PROBLEM

COMMENTS: _____

**PHILLIPS PETROLEUM COMPANY**ODESSA, TEXAS 79762
4001 PENBROOKEXPLORATION AND PRODUCTION GROUP
Permian Basin Region

November 11, 1994

RE: Application for Directional
Drilling
East Vacuum GB/SA Unit
Well No. 389
Section 33, T-17-S, R-35-E
Lea County, New Mexico

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87504

Attention: Mr. William J. LeMay, Director

Gentlemen:

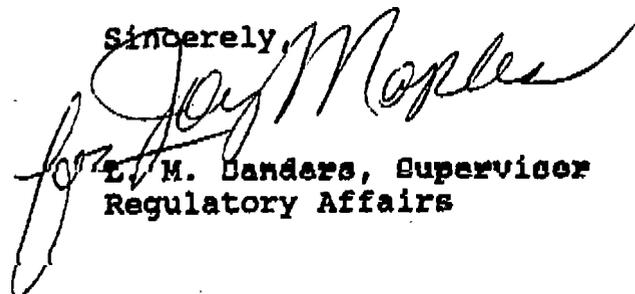
We respectfully request approval to intentionally deviate our East Vacuum GB/SA Unit No. 389, as provided in Statewide Rule 111. The surface location of this well is 1339' FNL and 988' FEL, with an intended bottom hole location of 1020' FNL and 970' FEL at depth of 4700'. The top of the San Andres should be cut at 4373' TVD. This ~~unorthodox surface location was selected because of the CO2 plant.~~ The intended bottom hole location is an orthodox location.

Attached is a plat showing surface location and targeted bottom hole location.

This directional well shall be tested at least once every 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104.

This well is located within the central portion of the East Vacuum GB/SA Unit, therefore Phillips is its own offset operator. Your consideration and approval will be appreciated. Please direct any questions to me at (515) 368-1488.

Sincerely,



E. M. Danders, Supervisor
Regulatory Affairs

STATE OF NEW MEXICO
Energy, Minerals & Natural Resources Department

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Revised February 10, 1994
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PO Drawer 100, Aramis, NM 88211-0719
District III
1000 Rio Brumas Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1 Operator name and Address Phillips Petroleum Company 4001 Penbrook Street Odessa, TX 797962		2 OGRID Number 017643
		3 API Number 30-0
4 Property Code 009166	5 Property Name EAST VACUUM GR/SA UNIT	6 Well Number 389

7 Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
H	33	17 S	35 E		1339	NORTH	988	EAST	LEA

8 Proposed Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
A	33	17 S	35 E		1020	NORTH	970	EAST	LEA
9 Proposed Field 1 VACUUM GRAYBURG/SAN ANDRES					10 Proposed Field 2 VACUUM GRAYBURG/SAN ANDRES				

11 Work Type Code N	12 Well Type Code 0	13 Casing/Drilltype ROTARY	14 Area Type Code S	15 Current Total Depth 3939' GR UNPREPARED
16 Multiple NO	17 Proposed Depth 4700'	18 Formations SAN ANDRES	19 Contractor NA	20 Spud Date UPON APPROVAL

21 Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
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7-7/8"	5-1/2"	15.5#	4700'	850 SXS C	4000'

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SEE ATTACHED BLOW OUT PREVENTER SCHEMATIC.

23 I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: <i>L. M. Sanders</i>	Approved by:		
Printed name: L. M. SANDERS	Title:	Approval Date:	Expiration Date:
Title: SUPERVISOR, REG. AFFAIRS	Phone: 915/368-1488	Conditions of Approval: Attached <input type="checkbox"/>	
Date: 11/11/94			

DISTRICT I
P.O. Box 1880, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

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OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

AMENDED REPORT

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	10		R-5897

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OPERATOR CERTIFICATION

I hereby certify that the well location shown on this plat is true and complete to the best of my knowledge and belief.

[Signature]
L. M. Sanders
Printed Name
SINU, Bon Affairs
Title
11/11/94
Date

SURVEYOR CERTIFICATION

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 belief.

OCTOBER 28, 1994
Date Surveyed
Signature
Professional Surveyor
No. 3259
W.O. Num 94-11-31624
Certificate No. 679
3259

CASING & CEMENTING PROGRAM

EVGSAU-389

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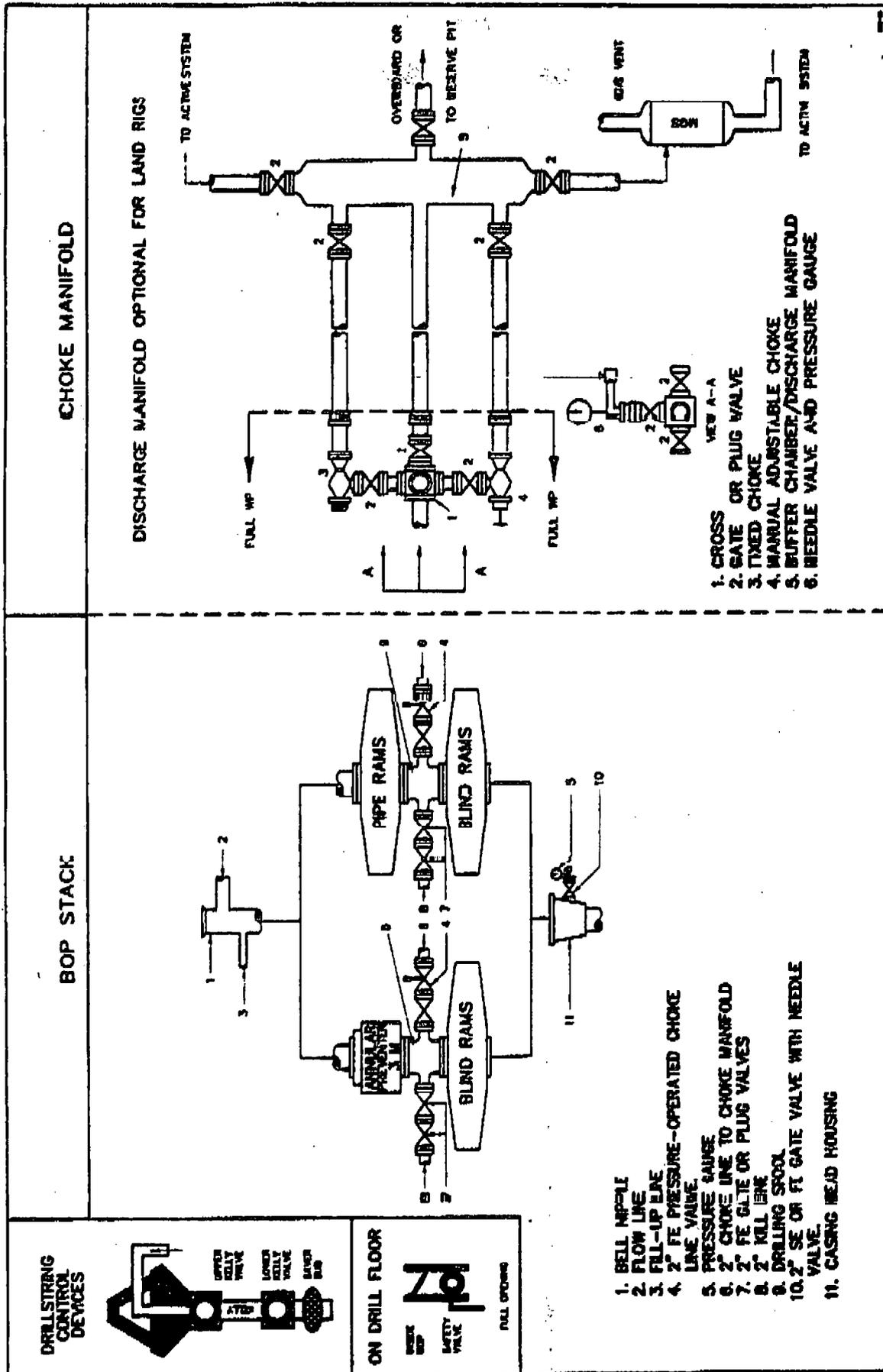


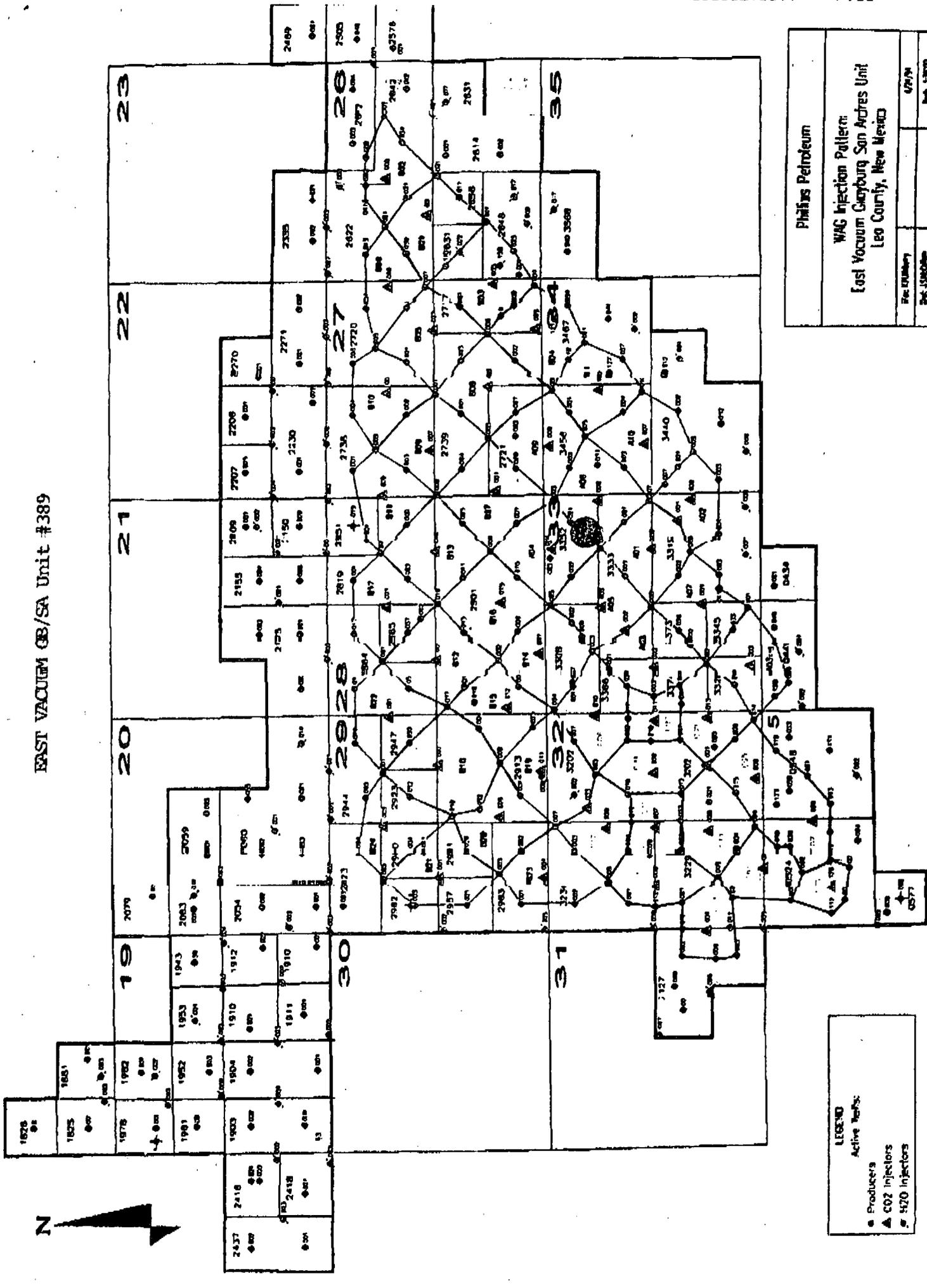
Fig. 2.4. Class 2 BOP and Choke Manifold.

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EVGSAU -389

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EAST VACUUM CB/SA Unit #389



Phillips Petroleum
 WAG Injection Pattern
 East Vacuum Gayburg San Andres Unit
 Leo County, New Mexico

File Number	4/2/74
Well Location	Well 13002

LEGEND
 Active Wells:
 ● Producer's
 ▲ CO2 Injectors
 ○ W20 Injectors