

ARCO Oil and Gas Company  
Rocky Mountain District  
717-17th Street  
Mailing address: P.O. Box 5540  
Denver, Colorado 80217  
Telephone 303 575 7031  
W. A. Walther, Jr.  
Operations Manager



March 28, 1980

Mr. Joe D. Ramey, Secretary-Director  
Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico 87501

Re: Schlosser WN Federal #4E  
1970' FSL & 1790' FEL  
Section 34-28-N-11W  
San Juan County, New Mexico

*NSL - 1179*  
*Basin-Dakota Pool*  
*E/2 dedicated*  
*Rule 3 R-1670*  
*4-27-80*

Dear Mr. Ramey:

Application is hereby made to the Oil Conservation Commission of the State of New Mexico requesting a waiver of Rule 104.

The referenced well was restaked because of the terrain in the area.

Enclosed is a copy of the certified letter sent to the off set operators requesting their approval to this unorthodox location. A fully executed copy will be forwarded to your office when received.

Also enclosed is an explanation along with a sketch showing the topography necessitating the non-standard location.

Your earliest approval of this application will be greatly appreciated.

Very truly yours,

  
W. A. Walther, Jr.  
Operations Manager

RECEIVED  
APR 9 1980  
OIL CONSERVATION DIVISION  
SANTA FE

Encl.

cc: Oil Conservation Commission - Aztec, New Mexico  
United States Geological Survey - Farmington, New Mexico

SCHLOSSER WN FEDERAL #4E

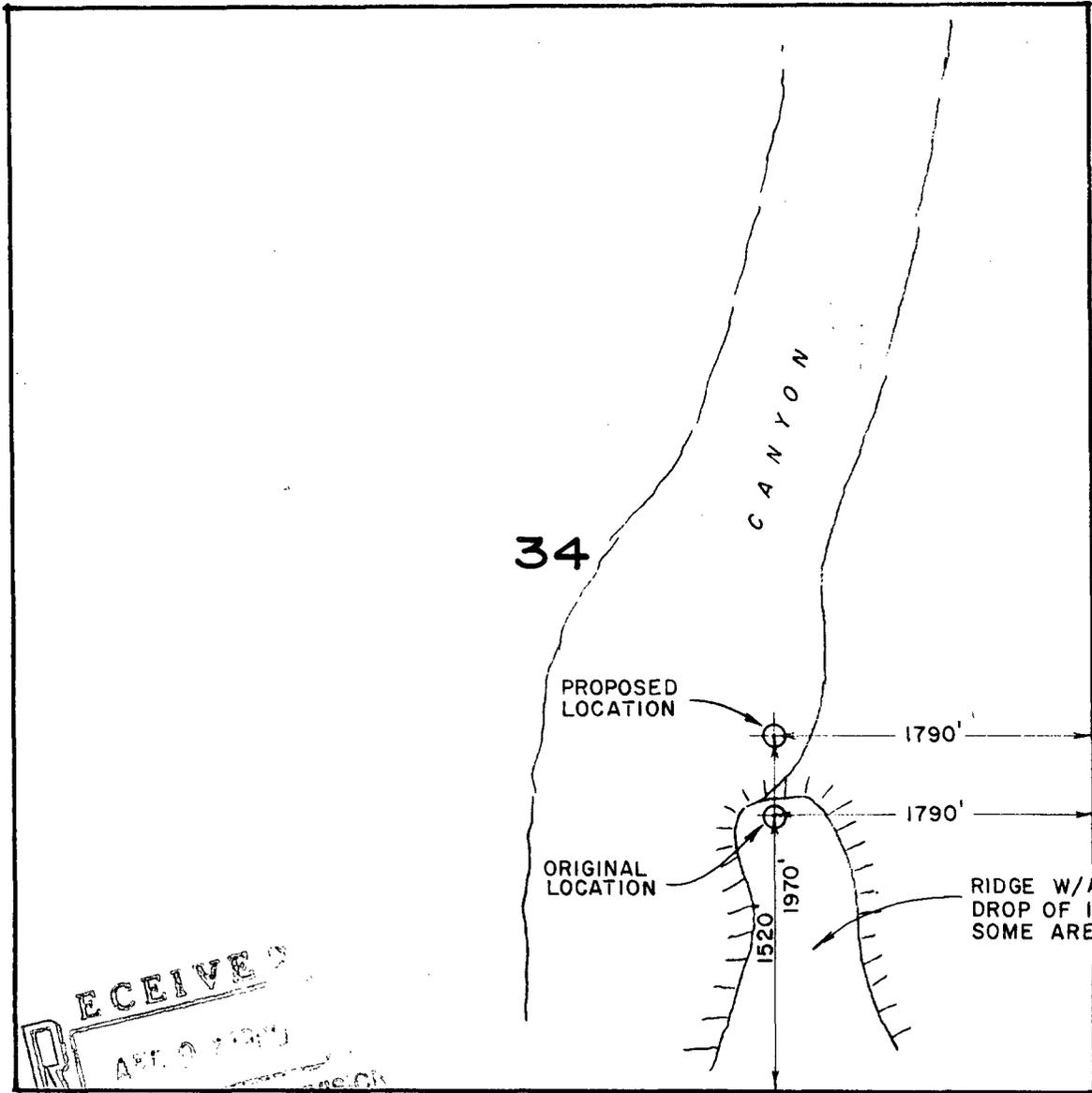
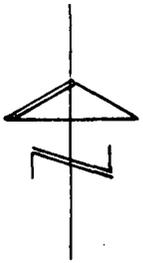
1970' FSL & 1790' FEL  
Section 34-28N-11W  
San Juan County, New Mexico

This location was moved from the original stake because it was not feasible to build a road up to the top of a sand stone ridge where it was located. The only approach would be from the south which would be a route along the side of the Navajo Indian irrigation ditch for approximately 1-1/2 miles. This ditch is probably 20' deep without fence or retaining wall along the roadway. If permission for its use could be obtained, it would be very hazardous.

The new location is down into the side of canyon. The new road can be built in canyon from the existing road to our Schlosser WN Federal #4 in the northeast quarter of the same section. No steep grades will be necessary to create erosion and the general terrain will be less disturbed.

RECEIVED  
APR 0 7 1980  
OIL CONSERVATION DIVISION  
SANTA FE

# SCHLOSSER WN FEDERAL WELL No. 4-E



SCALE: 6" = 1 MILE

PRESENT LOCATION: 1970' FSL , 1790' FEL  
 Sec. 34 - T 28 N - R 11 W  
 SANJUAN Co., N.M.

OLD LOCATION : 1520' FSL , 1790' FEL  
 ELEVATION OF ORIGINAL LOCATION : 5880'  
 ELEVATION OF UNORTHODOX LOCATION : 5772'

All distances must be from the outer boundaries of the Section.

ARCO OIL & GAS COMPANY			SCHLOSSER WN FEDERAL			Well No. 4-E		
Letter J	Section 34	Township 28 NORTH	Range 11 WEST	N.M.P.M.		SAN JUAN		
of Footage Location of Well:								
1970 feet from the SOUTH line and			1790 feet from the EAST line					
and Level Elev. 5772	Producing Formation			Pool		Dedicated Acres		
Acres								

Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.

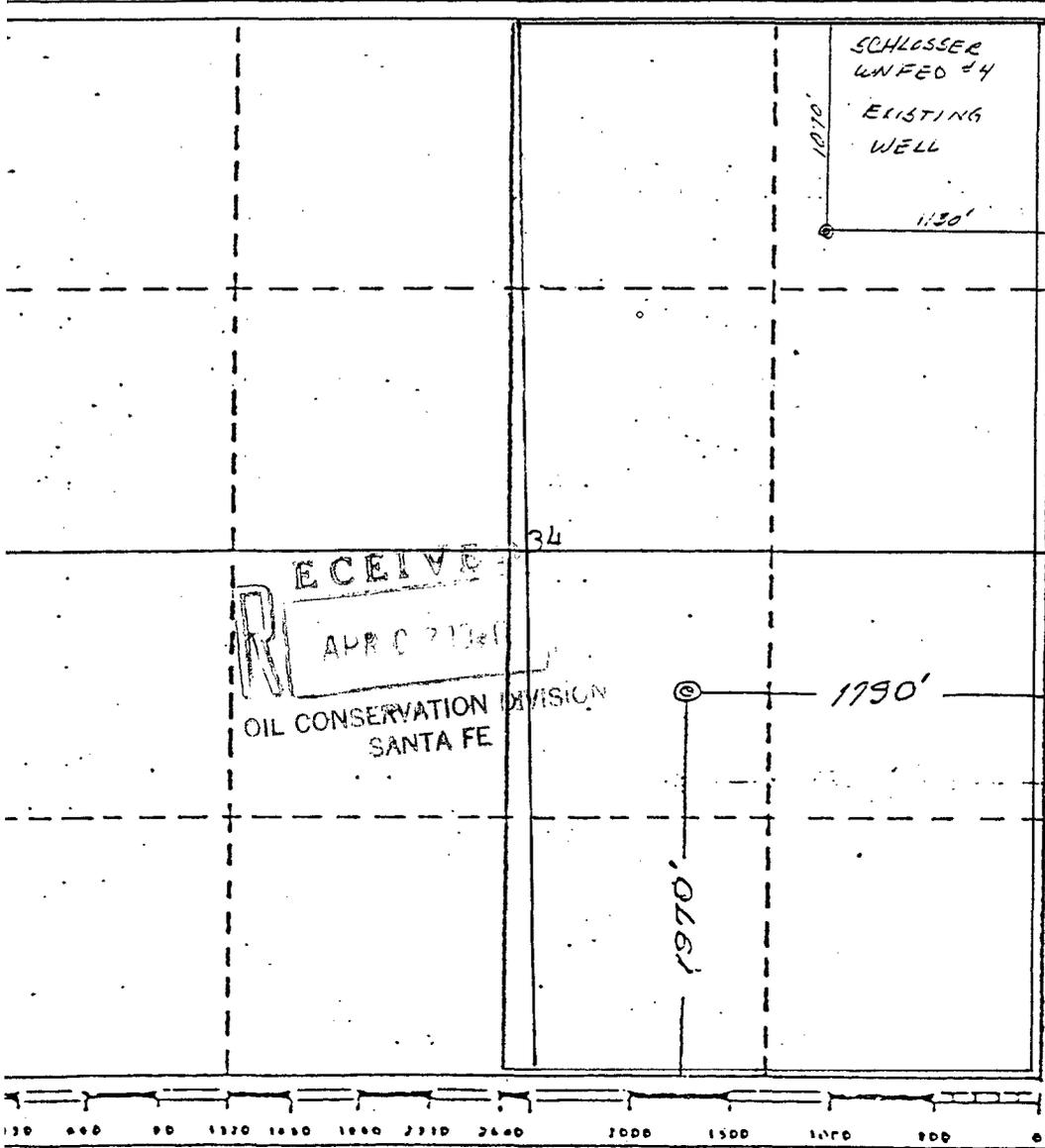
If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 Division.



**CERTIFICATION**

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

*W. A. Walther, Jr.*

Name: W. A. Walther, Jr.  
 Position: Operations Manager  
 Company: ARCO Oil and Gas Company  
 Division: Division of Atlantic Richfield Co.  
 Date: \_\_\_\_\_

I hereby certify that the 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: MARCH 10, 1980  
 Registered Professional Engineer  
 James P. Leese  
 Certificate No. 1463

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

b. TYPE OF WELL  
 OIL WELL       GAS WELL       OTHER       SINGLE ZONE       MULTIPLE ZONE

2. NAME OF OPERATOR      ARCO Oil and Gas Company  
 Division of Atlantic Richfield Company

3. ADDRESS OF OPERATOR  
 P. O. Box 5540, Denver, Colorado 80217

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface      1970' FSL & 1790' FEL  
 At proposed prod. zone      Approx the same

5. LEASE DESIGNATION AND SERIAL NO.  
SF 078673

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
None

7. UNIT AGREEMENT NAME  
None

8. FARM OR LEASE NAME  
Schlosser WN Federal

9. WELL NO.  
4E

10. FIELD AND POOL, OR WILDCAT  
Basin Dakota

11. SEC., T., R., M., OR BLEK. AND SURVEY OR AREA  
34-28N-11W

12. COUNTY OR PARISH      13. STATE  
San Juan      New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
4-1/2 miles north of Bloomfield, New Mexico

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)      1790'

16. NO. OF ACRES IN LEASE      2562.96

17. NO. OF ACRES ASSIGNED TO THIS WELL      320

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.      2360'

19. PROPOSED DEPTH      6600'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5772' GL (Ungraded)

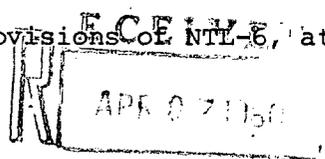
22. APPROX. DATE WORK WILL START\*  
When app'd appl rec'd

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	700'	Cement to surface
7-7/8"	4-1/2"	10.5#	T.D.	Cement to cover producing zones

Propose to drill well to a depth sufficient to test the Dakota formation, setting surface casing and if productive setting production casing. If the Dakota formation is productive will perforate, test and treat if necessary.

Pursuant to the provisions of NTL-6, attached are: Certified Location Plat  
 Drilling Plan with attachment  
 Surface Use and Operations Plan with attachments



\*\*NOTE: Due to the non-standard location of this proposed well, the Oil Conservation Commission of the State of New Mexico, according to Rule Number 104, requires the consent of all off set operators. Attached are copies of the application to the State of New Mexico and the letters to Tenneco Oil Company and Energy Reserves Group.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

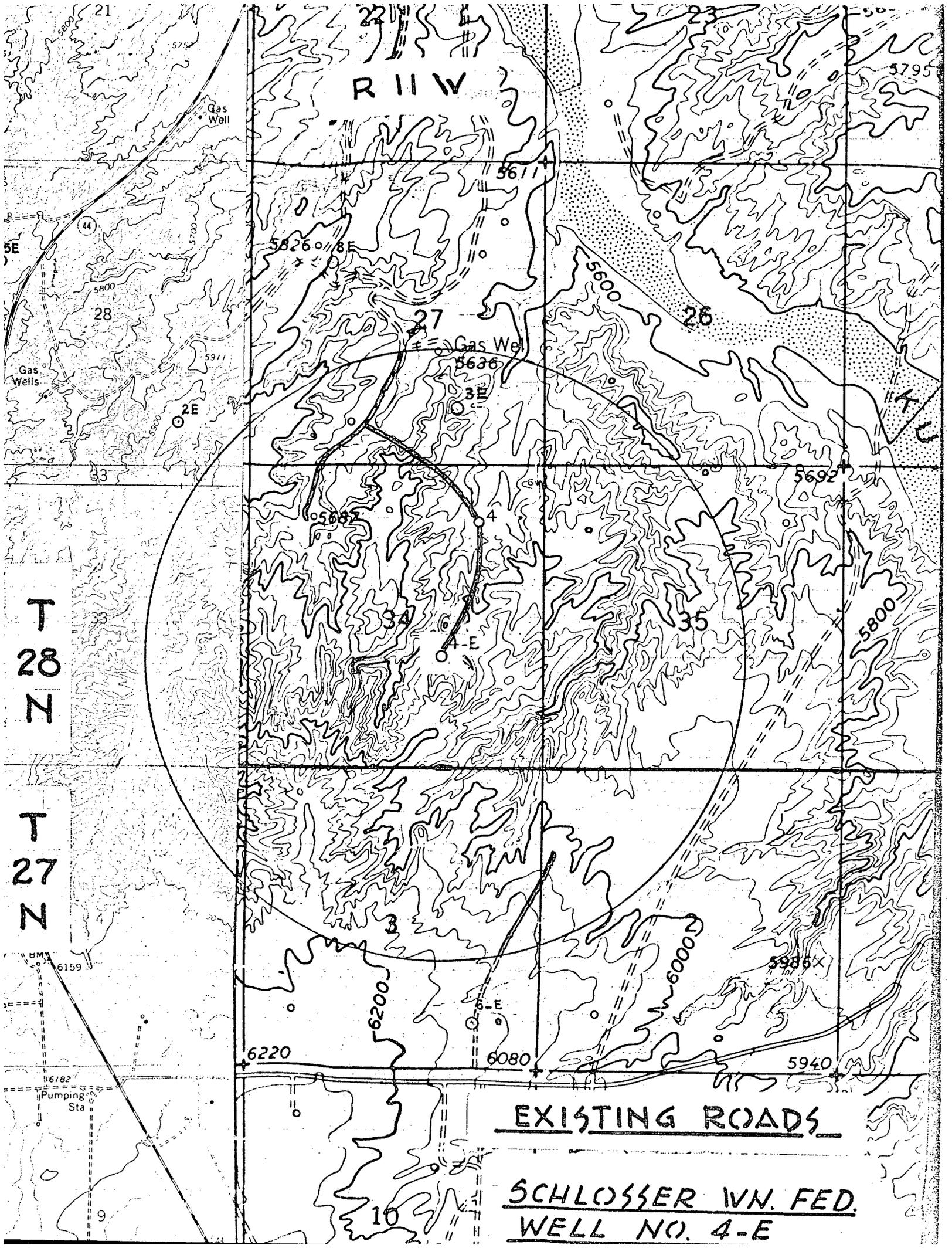
24. SIGNED W. A. Walther, Jr. TITLE Operations Manager DATE 9/28/60

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:



RIW

Gas Well

Gas Well

Gas Wells

T  
28  
N

T  
27  
N

Pumping Sta

EXISTING ROADS

SCHLOSSER WN. FED.  
WELL NO. 4-E

KRAUSE WN. FED.  
Below bs. Pict. Cliff Fin.  
ARCo. (Opr.) 43%

R I I W

Lucerne

Ohio Gov't

ARCo  
NM-S-5011

REG Drig.  
66  
Fa

S-NM-5010  
5.25% ORR to base PC  
50% WI below

ARCo  
REG Drig.

Marathon

Ohio-B. McGard

28

27

26

REG Drig.  
11-A  
Fa

1-B-E

26  
Fr

1-C  
Fr

5  
Fr-PC

Krause WN Fed

Schlusser WN Fed

Ohio Gov't

ARCo  
NM-S-5011

ARCo B  
63  
D Fr

24  
PC

25  
Fr-PC

3-E

6  
PC

4  
PC

3  
D

Etinton Oil  
Energy Reserves

T  
28  
N

33

34

35

4-E

1 MILE

7  
D

Krause W'N-Fed

Schlusser WN-Fed

Ohio Gov't

Aztec

S-NM-5010  
5.25% ORR to base PC  
50% WI below

REG Drig.  
10  
2014(PC)

2-E

Tenneco  
"A"

Ga(oil)  
D(gas)

T  
27  
N

4

3

Bolack  
2

EPNG

EPNG  
Bolack

4-B  
PC

White Knowles  
1-E  
20:B(PC)

2  
Ga(oil)  
D(gas)

6-E

1  
D

Schlusser WN

Angel Peak

EXISTING  
WELLS

Gulf

Frontier  
2-B  
Ga, D.

EPNG

Aztec Frontier  
5-B  
Ga

1  
Ga(oil)  
D(gas)

5  
5.25%  
50%

SCHLOSSER WN. FED.  
WELL NO. 4-E

9

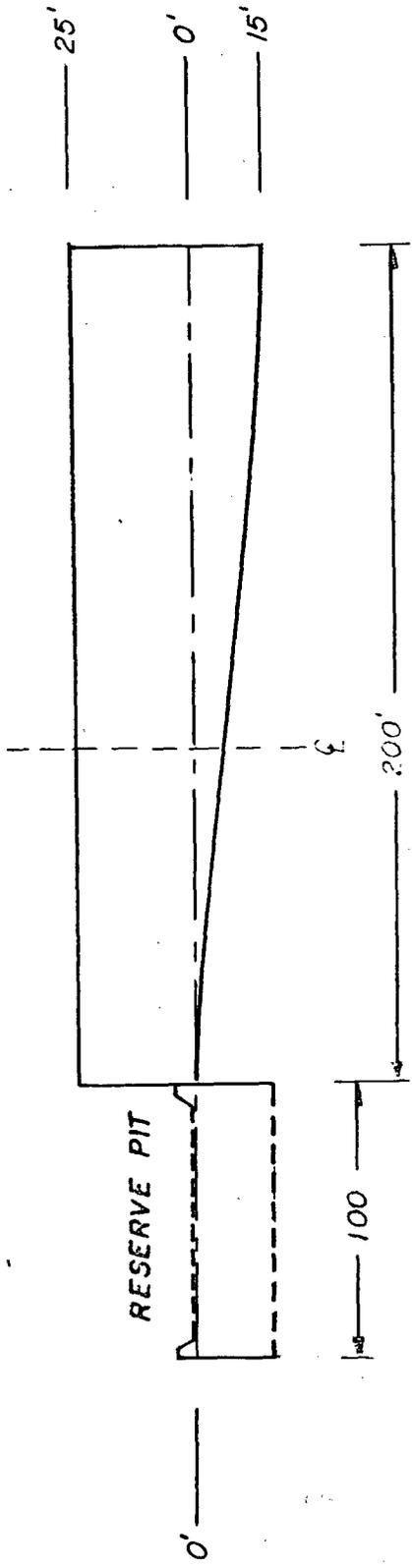
10  
25% WI to base PC  
50% WI below

10-E

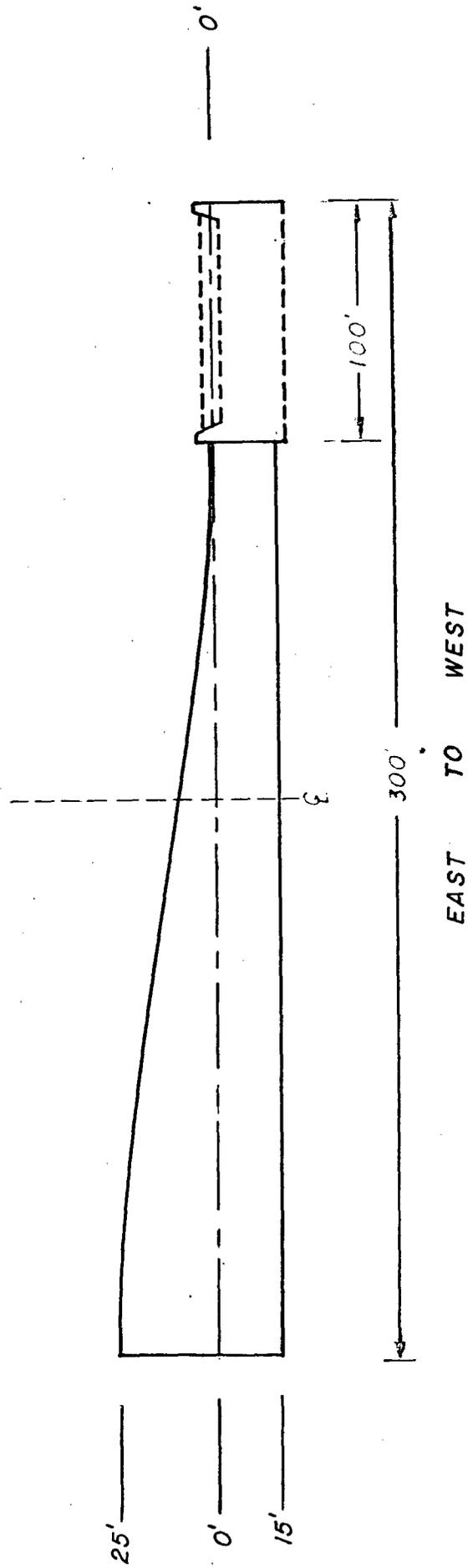
REG Drig

7

Ener



NORTH TO SOUTH



EAST TO WEST

SCHLOSSER WN FEDERAL  
WELL No. 4-E

DRILLING PLAN

SCHLOSSER WN FEDERAL #4E  
1970' FSL & 1790' FEL  
Section 34-28N-11W  
San Juan County, New Mexico

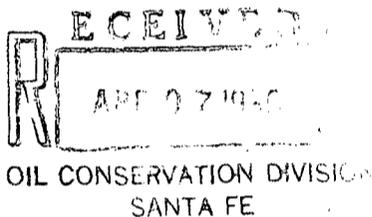
1. SURFACE FORMATION: Nacimiento
2. GEOLOGICAL MARKERS:

Ojo Alamo	526'	Upper Mancos	4330'
Kirtland	1077'	Gallup	5223'
Fruitland	1425'	Lower Mancos	5765'
Pictured Cliffs	1635'	Greenhorn	6017'
Lewis	1722'	Graneros	6075'
Chacra	2575'	Dakota	6197'
Cliff House	3187'	Morrison	6427'
Point Lookout	4045'		
3. ANTICIPATED MINERAL BEARING FORMATIONS:

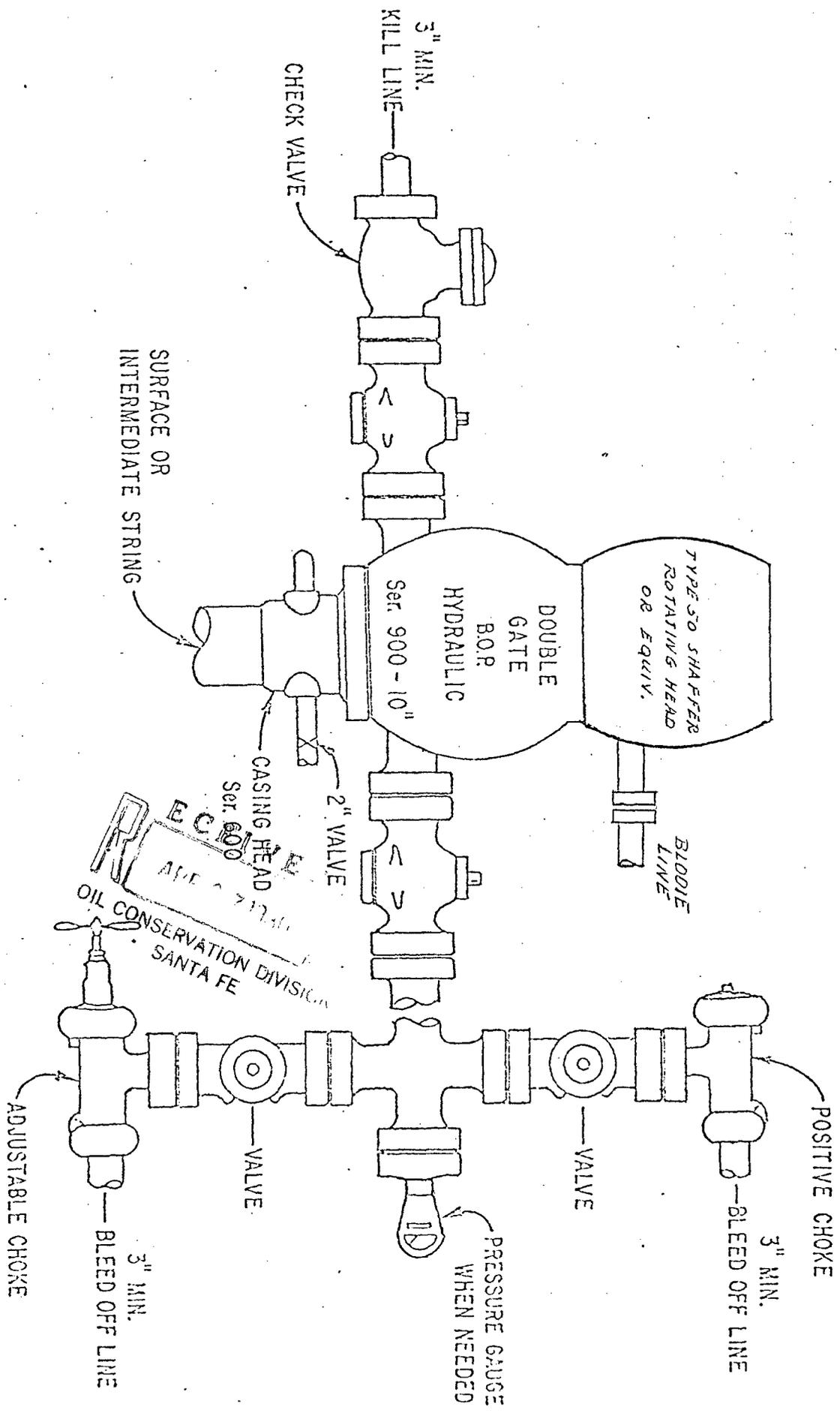
Fruitland	(Possible Gas)
Pictured Cliffs	(Possible Gas)
Cliff House	(Possible Gas)
Gallup	(Possible Gas)
Dakota	(Possible Oil/Gas)
4. CASING PROGRAM:

Surface	to	700'	8-5/8", 24#, K-55, ST&C
Production	to	T.D.	4-1/2", 10.5#, K-55, ST&C
5. CONTROL EQUIPMENT: Blowout Preventor - Ram Type, hydraulic operated  
Rams - Two: One blind and one pipe ram  
Series - 900 (3000#WP, 6000#T)  
Manufacturer - Cameron or Shaffer  
Pressure test at 1000 psi prior to drilling out of casing strings  
Operational checks to be made daily and on trips  
Sketch attached
6. DRILLING FLUIDS:

0	to	700'	Gel and lime to drill surface hole and set casing
700'	to	2400'	Treated wtr to maintain hole
2400'	to	T.D.	Low solids non-dispersed 8.8-9.2#/gal 38-45 vis., WL 8 cc or less
7. AUXILIARY EQUIPMENT: Kelly cock  
Sub on floor with full opening valve for use in drill pipe when Kelly is not in the string
8. TESTING, LOGGING AND CORING: At this time no drill stem tests or cores are planned. However, hole conditions and information obtained while drilling may alter these plans.
9. ABNORMAL PRESSURES, TEMPERATURES, POTENTIAL HAZARDS: There are no abnormal pressures, temperatures or potential hazards in the area. The maximum anticipated pressure is 3600 psi. Weight material will be maintained on location at all times.
10. STARTING DATE - COMPLETION: Dirtwork and road work for this location will require 2 or 3 days. Moving in and rigging up 2 to 3 days. Drilling and completion will require approximately 30 days, for a total of 36 days. In the event of bad weather or other delays this time could be considerably extended.



NTL-6 indicates a minimum of 30 days are required to obtain District Engineer's approval, in which case operations on this well could not be commenced until approximately May, 1980. Depending upon rig availability, equipment, weather, etc., this starting date could be extended.



SURFACE USE AND OPERATIONS PLAN

SCHLOSSER WN FEDERAL #4E  
1970' FSL & 1790' FEL  
Section 34-28N-11W  
San Juan County, New Mexico

1. EXISTING ROADS: A portion of topographic map is attached showing the existing roads within a one (1) mile radius of the location (colored green). Main access will be from Bloomfield, New Mexico approximately 4-1/2 miles north. None of the existing roads will require any improvement. However, due to road conditions, weather, etc., these roads will be maintained to whatever extent is required.
2. PLANNED ACCESS ROAD: The planned access road will come on to the location at the southwest corner of the pad from our Schlosser WN Federal Well #4. There will be 2400' of new road to build with a 1 to 6' cut on 800' of the roadway. This road will have to cross the wash three times. There will be no steep grades to create erosion. The road will be approximately 18' wide (sufficient to handle drill equipment). The grade will not exceed 8%. There will be no cattle-guards, culverts, fence cuts, etc.
3. LOCATION OF EXISTING WELLS: Existing wells within one (1) mile radius of this location are shown on the attached map.
4. EXISTING AND/OR PROPOSED FACILITIES: ARCO Oil and Gas Company, Division of Atlantic Richfield Company has 4 existing wells within the one (1) mile radius of this location, they are:

Schlosser WN Federal Wells #4, #5, #6 and #8

The above wells each have a 1-300 bbl storage tank and production unit which is located approximately 150' from the well and is connected to the well with a buried gas line.

There are numerous other Schlosser WN Federal wells proposed for this area, but due to the drilling rig availability it is not possible at this time to anticipate which wells will be drilled prior to the drilling of this well. The production facilities for this well will be similar to the above wells.

5. WATER SUPPLY: It is anticipated that water will be obtained from the San Juan Rover approximately six (6) miles north of this location. The water will be trucked over New Mexico Highway 44, existing roads and the planned access road in Item number 2 above.
6. CONSTRUCTION MATERIALS: None anticipated.
7. WASTE DISPOSAL: Cuttings and drilling fluids will be disposed of in the reserve pit. A trash or burn pit will be used to dispose of trash, garbage, etc. If the reserve pit is sufficiently dry when the well is completed, both the reserve and trash pit will be filled. If the reserve pit is not sufficiently dry when the well is completed it will be fenced for the protection of livestock and wildlife to be filled at such time it is sufficiently dry.  
  
Produced fluids will be disposed of in the reserve pit. Any oil accumulation on the reserve pit during drilling and completion operations will be skimmed off and held in a temporary storage tank for later disposition. Trash and debris cleanup will be commenced as soon as the completion rig moves out.
8. ANCILLARY FACILITIES: None are proposed.
9. WELL SITE LAYOUT: Per the attached sketches. The reserve pit will be approximately 100' by 100' and will be unlined.

SURFACE USE AND OPERATIONS PLAN

SCHLOSSER WN FEDERAL #4E

10. RESTORATION OF SURFACE: Other than the area needed for operation and production facilities the site will be contoured as near as possible to its original state. Reseeding or any other restoration will be as specified by the Bureau of Indian Affairs and the United States Geological Survey. Any stockpiled topsoil will be distributed over the disturbed area for final grading and reseedling.

11. OTHER INFORMATION: Vegetation on this location consists of salt sage and various small bushes and a few cedar and Pinon on the westside. Vegetation on the roadway consists of Pinon and Cedar, sage brush and native grasses.

Drainage is to the north into Kutz Canyon and on to the San Juan River.

This location will require a 25' cut on the south side and a 15' fill on the west side.

The rig laydown and V door will be to the south with the pit on the east side.

The nearest dwellings are at the Thriftway Refinery and south of Bloomfield, New Mexico, about 4-1/2 miles north.

To the best of our knowledge there are no domestic water wells in the area.

To our knowledge there are no archaeological, cultural, or historical sites in the area which will be involved. However, an archaeological survey will be made and the report submitted as soon as it is received.

With the short period of operation and the restoration of the surface, any disturbance to vegetation and wildlife will be temporary and minimal. It is not anticipated that there will be any substantial impact on the environment.

12. LESSEE'S OR OPERATOR'S REPRESENTATIVE:

W. A. Walther, Jr. (303) 575-7031 575-7153	C.E. Latchem (303) 575-7127 575-7152	B.J. Sartain (303) 575-7035 770-7849
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ARCO Oil and Gas Company  
Division of Atlantic Richfield Company  
P. O. Box 5540  
Denver, Colorado 80217

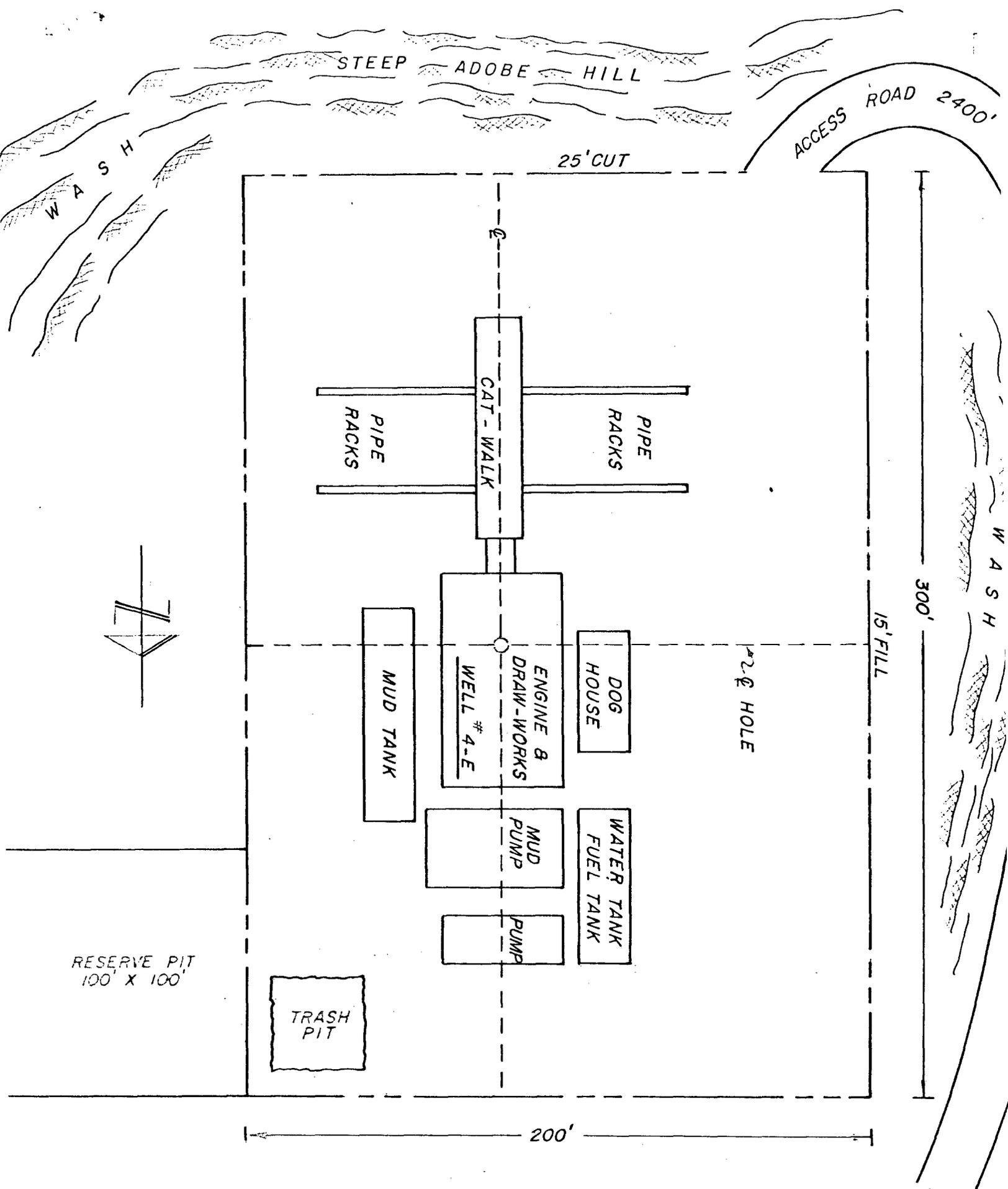
LOCAL REPRESENTATIVE:

J.E. Taylor  
ARCO Oil and Gas Company  
Division of Atlantic Richfield Company  
P. O. Box 2197  
Farmington, New Mexico 87401  
(505) 325-7527  
325-7968

13. CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist, that the statements made in this plan are to the best of my knowledge true and correct; and that the work associated with the operations proposed herein will be performed by ARCO Oil and Gas Company, Division of Atlantic Richfield Company and its contractors and sub contractors in conformity with this plan and the terms and conditions under which it is approved.

3/23/80  
Date

W. A. Walther, Jr.  
Operations Manager



SCHLOSSER WN FEDERAL No. 4-E  
 1970' FSL, 1790' FEL, Sec. 34-28 N-11 W

ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

April 7, 1980

BRUCE KING  
GOVERNOR  
LARRY KEHOE  
SECRETARY

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

ARCO Oil and Gas Company  
717 - 17th Street  
P. O. Box 5540  
Denver, Colorado 80217

Re: Application for Non-Standard  
Location: Schlosser WN Federal  
No. 4E, 1970' FSL & 1790' FEL of  
Sec. 34, T-28-N, R-11-W, San Juan  
County

We may not process the subject application for non-standard location until the required information or plats checked below (is)(are) submitted.

- A plat must be submitted clearly showing the ownership of the offsetting leases. The plat and copies of notices to offset operators do not match.
- A statement must be submitted that offset owners have been notified of the application by certified mail.
- A plat must be submitted fully identifying the topography necessitating the non-standard location.
- Other:

Very truly yours,



R. L. STAMETS  
Technical Support Chief

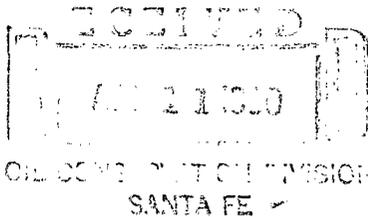
RLS/dr

OIL CONSERVATION COMMISSION  
Ayles DISTRICT

OIL CONSERVATION COMMISSION  
BOX 2088  
SANTA FE, NEW MEXICO

DATE April 8, 1980

RE: Proposed MC \_\_\_\_\_  
Proposed DHC   X    
Proposed NSL   /    
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_



Gentlemen:

I have examined the application dated March 28, 1980  
for the Chico Oil & Gas Co. Schlosser W.M. Sect #4E J-34-28N-11W  
Operator Lease and Well No. Unit, S-T-R

and my recommendations are as follows:

Approve  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,

Frank S. Clary

ARCO Oil and Gas Company  
Rocky Mountain District  
717-17th Street  
Mailing address: P.O. Box 5540  
Denver, Colorado 80217  
Telephone 303 575 7031  
W. A. Walther, Jr.  
Operations Manager

*File HSL - 1179*



April 23, 1980



Mr. Joe D. Ramey, Secretary-Director  
Oil Conservation Commission  
Box 2088  
Santa Fe, New Mexico 87501

RE: Schlosser WN Federal 4E  
1970' FSL & 1790' FEL  
Section 34-28N-11W  
San Juan County, New Mexico

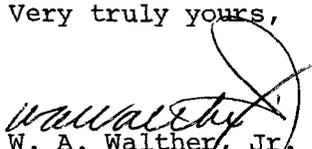
Dear Mr. Ramey:

Application was made March 28, 1980 to the Oil Conservation Commission of the State of New Mexico requesting a waiver of Rule 104.

At that time, a copy of the certified letter sent to the off-set operators of the referenced well was forwarded to your office. Enclosed is the fully executed letter for your files.

Your consideration of this application is greatly appreciated.

Very truly yours,

  
W. A. Walther, Jr.  
Operations Manager

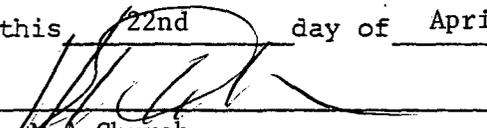
Encl.

cc: Oil Conservation Commission, Aztec, New Mexico  
United States Geological Survey, Farmington, New Mexico

CONSENT AND APPROVAL

Energy Reserves Group by its authorized signatory below, hereby consents to and approves of the drilling of the foregoing-described proposed well at the location indicated.

Dated this 22nd day of April, 1980.

By: 

M.A. Church

Title: Attorney In Fact

*DEB*

CONSENT AND APPROVAL

Tenneco Oil Company by its authorized signatory below,  
hereby consents to and approves of the drilling of the  
foregoing-described proposed well at the location  
indicated.

Dated this 10<sup>th</sup> day of APRIL, 1980.

By: 

Title: DIVISION PRODUCTION MANAGER