Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

RECEIVED
SEP 8 1998
OIL CON. DIV.
DIST. 3

5. Lease Designation and Serial No.
N00-C-14-20-3614

6. If Indian, Allottee or Tribe Name
Allottee

7. If Unit or CA, Agreement Designation

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
Cross Timbers Operating Company

3. Address and Telephone No.
6001 Highway 64, Farmington, New Mexico 87401 (505) 632-5200

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1540' FSL & 1840' FEL, Section 13-25N-11W, Unit J

8. Well Name and No.
Canyon 20E

9. API Well No.
30-045-29684

10. Field and Pool, or Exploratory Area
Basin Dakota

11. County or Parish, State
San Juan, NM

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Change of Operator	☐ Dispose Water
		(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The following change of operator is effective January 1, 1998 for the well listed above.

Old Operator: Amoco Production Company

New Operator: Cross Timbers Operating Company
6001 Highway 64
Farmington, New Mexico 87401

Cross Timbers Operating Company, the operating subsidiary of Cross Timbers Oil Company, assumes operations of the above listed well operating under Nationwide Bond No. 58-15-00.

ACCEPTED FOR RECORD
SEP 1 1998
FARMINGTON INDIAN MINERALS OFFICE
BY M. L. [signature]

14. I hereby certify that the foregoing is true and correct

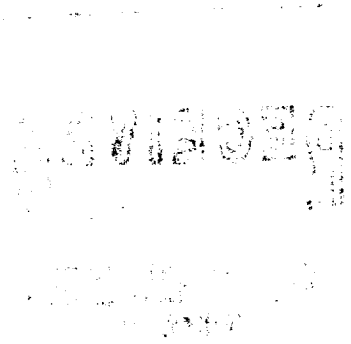
Signed Edwin S. Ryan, Jr. Title Land Manager - Western US Date August 31, 1998

(This space for Federal or State office use)

Approved by ______ Title ______ Date ______
Conditions of approval, if any:

*See Instruction on Reverse Side

BLM COPY



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Expires: March 31, 1993

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5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name
NOO-C-14-20-3614

7. If Unit or CA, Agreement Designation

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Canyon #20E

2. Name of Operator
Amoco Production Company

Attention:
Diane Banning

9. API Well No.

3. Address and Telephone No.
P.O. Box 800, Denver, Colorado 80201

10. Field and Pool, or Exploratory Area
Basin Dakota

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1540' FSL 1840' FEL Sec. 13 T 25N R 11W

11. County or Parish, State
San Juan County New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Surface Disturbance	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Amoco Production Company requests approval for surface disturbance on existing lease for the purpose of laying a natural gas pipeline from the specified wellhead to the Gas Company of New Mexico gathering system tie-in. See attached for location specifics.

Please contact Diane Banning at (303) 830-4546 for questions on this notice.

An environmental assessment and archaeological report for this project area has previously been submitted for consideration.

A land survey and 7.5 quadrangle topo map is located in the enclosed.

14. I hereby certify that the foregoing is true and correct

Signed Diane B. Banning Title Well Tie Coordinator Date 02-03-1995

(This space for Federal or State office use)

Approved by /S/ Duane W. Spencer Title _____ Date SEP 03 1998

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, ficticious, or fraudulent statements or representations as to any matter within its jurisdiction.

* See Instructions On Reverse Side

NMOCD

SURFACE DISTURBANCE REQUIREMENTS ATTACHMENT
Canyon #20E
NW/4 SE/4 Sec. 13, T25N, R11W
San Juan County, New Mexico

1) Type of Pipe to be used: 4 1/2" X-42 OD .156

2) Size of Pipe: 4 1/2" OD

3) Length of Line: 632' (wellhead to pipeline)

4) Direction Line Will Run From Well and Where it Will End:

   From the wellpad in a Southerly direction 632' to Gas Company of New Mexico tie-in, both points which are located in the SE/4 of Section 13, T25N, R11W. Line will parallel existing road.

5) The Gas Company of New Mexico tie-in point is noted on the enclosed topo map.

6) Method or Trenching: Backhoe

7) Trench Width and Depth: Width = 30"
   Depth = 60"

8) The Trench will be backfilled immediately.

9) The disturbed area will be compacted, re contoured, maintained to control settling and erosion.

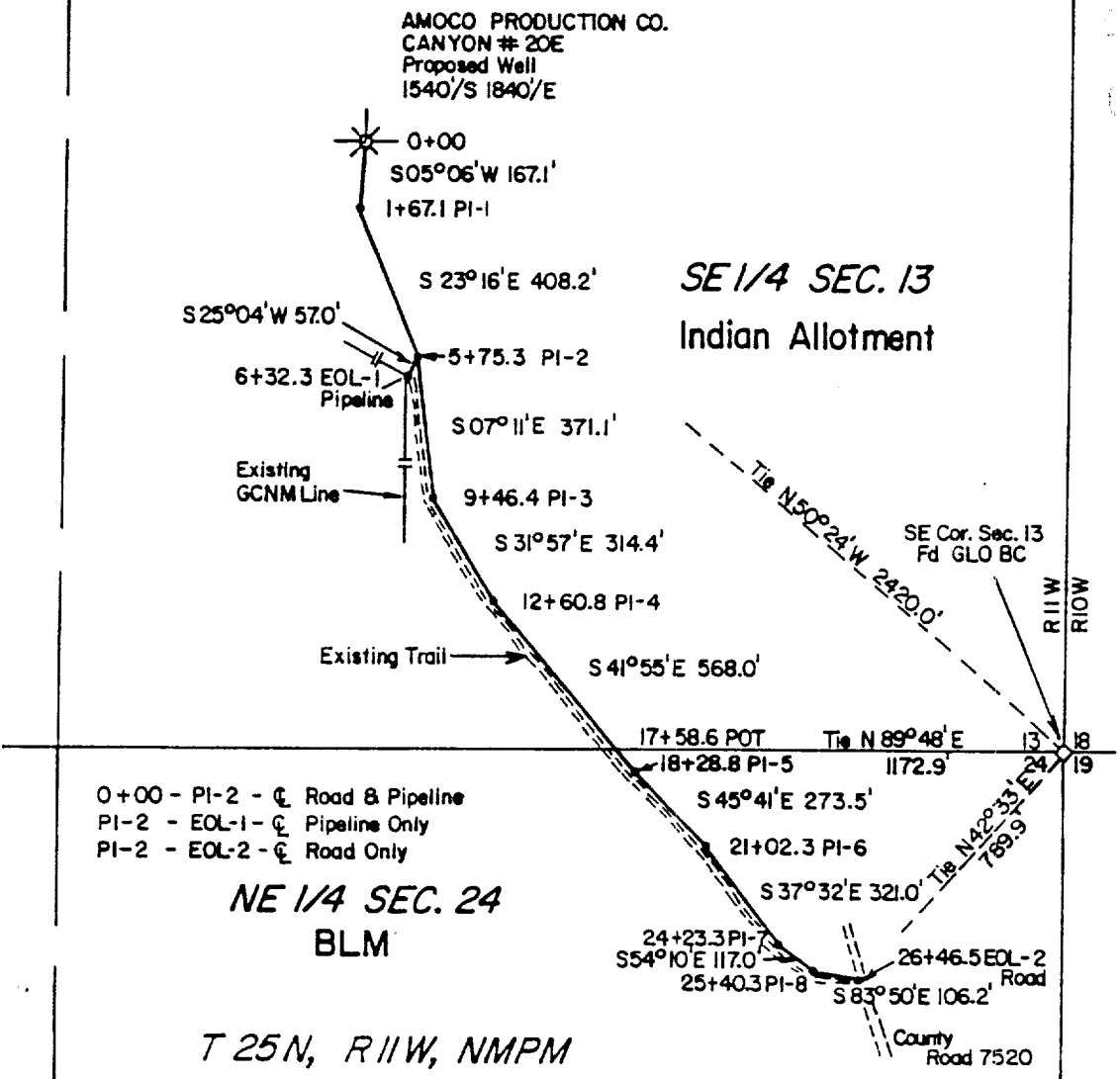
10) The surface area disturbed will be reseeded where applicable with a seed mix approved by the BLM. The reclamation will be completed by 11/1/95 if connected by 6/1/95.

11) Individual who can be contacted for any necessary field inspections is Diane Banning (303) 830-4546.

12) Attached is a 7 1/2 minute quadrangle topo map showing the proposed line.

13) An Archaeological Survey and Environmental survey covering the proposed surface disturbance is attached. These were also previously submitted to the BLM.

CENTERLINE SURVEY OF PROPOSED ACCESS ROAD AND PIPELINE TO CANYON # 20E WITHIN THE SE¼ OF SEC. 13 AND THE NE¼ OF SEC. 24, T25N, R11W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO FOR AMOCO PRODUCTION COMPANY



I, Gary D. Vann, hereby certify that this plat was prepared from field surveys made by me or under my supervision and complies with the minimum standards for land surveying in New Mexico.

Gary D. Vann
Registered L. S. # 7016
State of New Mexico

GARY D. VANN
NEW MEXICO
7016
REGISTERED PROFESSIONAL LAND SURVEYOR

VANN SURVEYS
304 N. Locke
Farmington, NM 87401

Length of Pipeline thru IA lands - 632.3' (38.32 rods)
Length of Road thru IA lands - 1758.6' (106.58 rods)
Length of Road thru BLM lands - 887.9' (53.81 rods)

NOTE: All distances shown are horizontal. Only apparent and visible line crossings are shown. Contractor should call 1-800-321-2537 for location of any marked or unmarked buried pipelines or cables prior to construction.

DATE SURVEYED: January 4, 1995
Basis of Bearing: SOLAR OBSERVATION
Well Name: CANYON # 20E

Form 3160-3
(December 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NOO-C-14-20-3614

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL ☒ DEEPEN ☐

b. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ OTHER — SINGLE ZONE ☒ MULTIPLE ZONE ☐

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME, WELL NO.: Canyon #20E

2. NAME OF OPERATOR: Amoco Production Company — Attention: Julie L. Acevedo

9. API WELL NO.:

3. ADDRESS AND TELEPHONE NO.: P.O. Box 800, Denver, Colorado 80201 (303) 830-6003

10. FIELD AND POOL, OR WILDCAT: Basin Dakota

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1540FSL 1840FEL
At proposed prod. zone:

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 13 Township 25N Range 11W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 35 Miles from Aztec, N.M.

12. COUNTY OR PARISH: SAN JUAN

13. STATE: NEW MEXICO

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
	160	320 S/2
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	19. PROPOSED DEPTH	20. ROTARY OR CABLE TOOLS
	6245' TD	Rotary

21. ELEVATIONS (Show whether DF, RT, GR., etc.): 6484' GR

22. APPROX. DATE WORK WILL START*: 03-15-95

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12.25"	9.625" H-40	23#	250'	100sx Cl B Cmt to Surface
6.25"	2.875" N-80	6.5#	6245'	1198 Cu. Ft. Cl B Cmt to Surface

This action is subject to technical and procedural review pursuant to 43 CFR 3166.2 and appeal pursuant to 43 CFR 3165.4.

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

Notice of Staking submitted as the Canyon #20E on 12/19/95

Lease Description T25N-R11W: Section 13: SE/4 containing 160 acres, more or less.

RECEIVED
BLM
96 OCT 22 PM 1:18
070 FARMINGTON, NM

070 FARMINGTON NM
94 DEC 22 PM 1:18
RECEIVED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Julie L Acevedo TITLE Sr. Staff Assistant DATE 12-21-1994

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE SEP 03 1998

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _____ TITLE _____ DATE _____

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

070 FARMINGTON, NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	71599	Basin Dakota

[4] Property Code	[5] Property Name	[6] Well Number
	Canyon	#20E

[7] OGRID No.	[8] Operator Name	[9] Elevation
00778	AMOCO PRODUCTION COMPANY	6484

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	13	25 N	11 W		1540	SOUTH	1840	EAST	SAN JUAN

[11] 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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

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

RECEIVED
BLM
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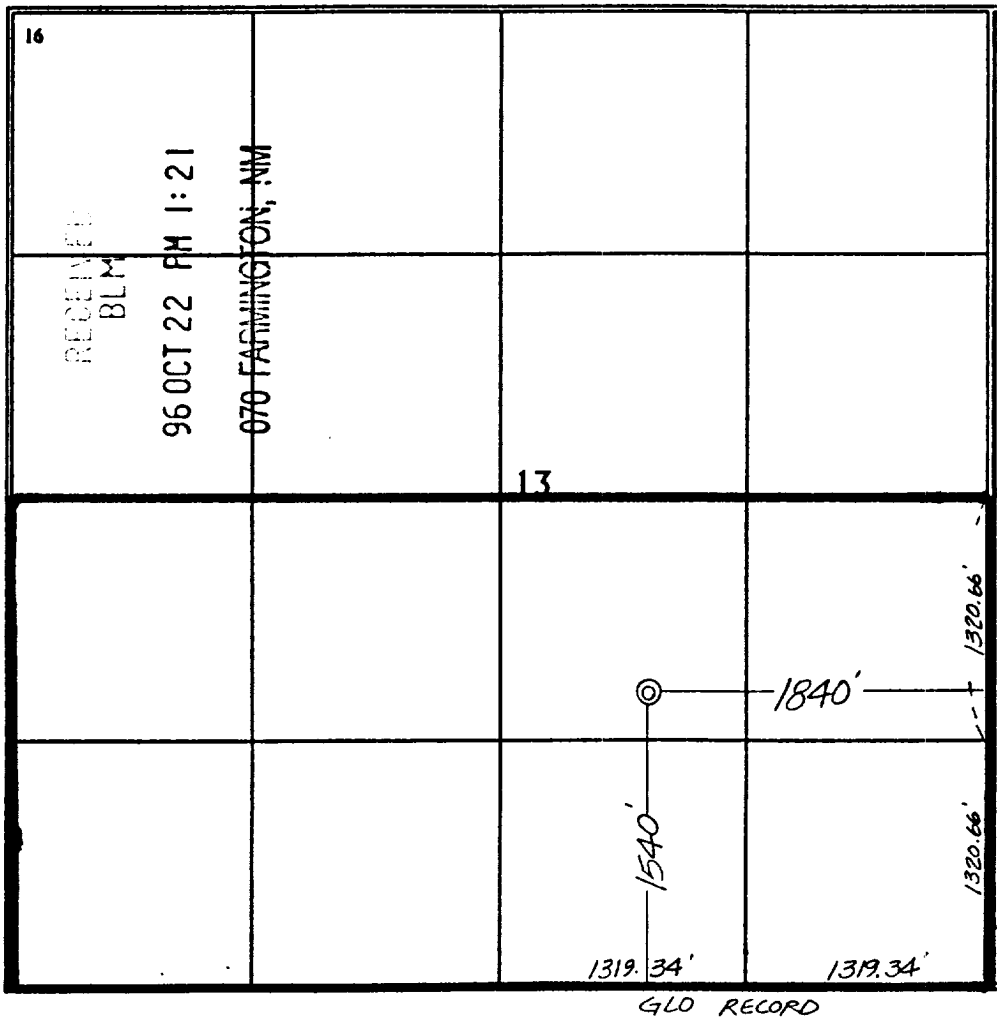
070 FARMINGTON, NM



GLO RECORD

[17] OPERATOR CERTIFICATION

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

Julie L. Acevedo
Signature

Julie L. Acevedo
Printed Name

Sr. Staff Assistant
Title

12/19/94
Date

[18] 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.

November 30, 1994
Date of Survey

Signature and Seal of Professional Surveyor:

GARY D. VANN
NEW MEXICO
7016
REGISTERED PROFESSIONAL LAND SURVEYOR

7016
Certificate Number

JCO PRODUCTION COMPANY
DRILLING PROGRAM

File No.: Cany20e.xlw
Date: 12/19/94

Lease: Canyon | Well No. #20E
County: San Juan County, New Mexico | Surface Location: 1540' FSL & 1840' FEL of Section 13, T25N, R11W
Former name: | Field: Basin Dakota

OBJECTIVE: Develop Dakota Gas formation.

METHOD OF DRILLING

TYPE OF TOOLS	DEPTH OF DRILLING
Rotary	Ground Level - TD

LOGGING PROGRAM

TYPE	DEPTH
SP-GR-Cal-HRI-SDL-DSN (Triple Combo)	Minimum run required

REMARKS:

SPECIAL TESTS

TYPE	DEPTH INTERVAL, ETC
None	

Remarks:

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

Actual GL---------Estimated KB 6484 6497

Marker	Depth (ft.)	SS Elev. (ft.)
Ojo Alamo	507	5,990
PC	1437	5,060
Lewis Shale	1637	4,860
Cliff House	2,912	3,585
Menefee Shale	2,977	3,520
Point Lookout	3,925	2,572
Mancos	4,187	2,310
Gallup	4,772	1,725
Greenhorn	5,850	647
Dakota **	5,945	552
TOTAL DEPTH	6,245	252

* Possible pay
**Probable completion
Ojo Alamo is possible usable water

DRILL CUTTING SAMPLES

FREQUENCY	DEPTH

DRILLING TIME

FREQUENCY	DEPTH
Geolograph	Int - TD

Remarks:
Mud Logging Program: None
Coring Program: None

MUD PROGRAM:

Approx. Interval	Type Mud	Weight, #/g	Vis, sec/qt	W/L, cc's/30 min.
0 - 250'	Spud			
250' - Mancos (1)	Water	8.6 - 8.8	Sufficient to clean hole	N/C
Mancos - TD (2) (3	LSND	8.8 - 9.2	Sufficient to clean hole and run logs	As required

REMARKS:
1 - The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate sweep frequency.
2 - Mud up at the top of the Mancos Shale.
3 - Sweep the hole as necessary.

CASING PROGRAM:

Casing String	Estimated Depth	Casing Size	Hole Size	Landing Point, Cement, Etc
Conductor				
Surface	250'	7"	8.75"	1
Production	6,245	2-7/8"	6.25"	1, 2

Remarks:
1 - Circulate cement to surface.
2 - Production cement to be designed by Denver drilling staff.

GENERAL REMARKS:

Business Unit Engineering staff to design completion program.

Form 46 Reviewed by: | Logging program reviewed by:

PREPARED BY:	APPROVED:	APPROVED:
P. Edwards/Logan/Ovitz		
Form 46 7-84bw 12/20/94 9:52	For Production Dept	For Exploration Dept.

Version No. 1
12/20/94
652A1.XLS

CEMENTING PROGRAM
Canyon #20E

blp

Well Name:	Canyon #20E	Field:	Basin Dakota
Location:	1540' FSL X 1840' FEL, Sec 13, T25N, R11W	API No.	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	Dakota
		KB Elev. (est.)	6497 ft.
		GL Elev. (est.)	6484 ft.

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Casing Weight (lb/ft.)	Casing Grade	Thread	TOC (ft.)
Surface	250	8.75	7.000	23	J-55	8R, LT&C	Surface
Production	6,245	6.25	2.875	6.5	N-80	8R, EUE	Surface

Casing Properties: (No Safety Factor Included)

Casing String	Casing Weight (lb/ft.)	Burst (psi.)	Collapse (psi.)	Joint St. (1000 lbs.)	Capacity (bbl/ft.)	Torque(ft. lbs.) Opt/Min/Max	Drift (in.)
Surface	23	4360	3270	313	0.0393		6.241
Production	6.4	10570	11160	144	0.00579		2.347

Mud Program:

Apx. Interval (ft.)	Mud Type	Mud Weight (lb/gal)
0 - SCP	Spud	8.6-8.8
SCP - TD	LSND	8.8-9.2

Recommended Mud Properties Prior Cementing:

PV	<20
YP	<10
Fluid Loss	<15

Cementing Program:

	Surface	Production(foam)
Excess %, Bit	75	60
Excess %, Caliper	NA	15
BHST (est. deg. F)	60	160
Pipe Movement	NA	Rotate 10-20 rpm
Rate, Max. (bpm)	1 truck	6
Rate, Recommended (bpm)	8	4
Pressure, Max. (psi)	200	2000
Shoe Joint	40'	30
Batch Mix	NA	NA
Circulating prior cmtng (hr.)	0.5	2
Time Between Stages,(hr.)	NA	NA
Special Instructions	1,6,7	2,4,6,8

1 Do not wash pumps and lines
2 Wash pumps and lines.
3 Do not reverse out
4 Run Blend Test on Cement
5 Record Rate , Pressure, and Density on 3.5" disk
6 Confirm densometer with pressurized mud scales
7 1" cement to surface if cement is not circulated.
8 If cement is not circulated to the surface, run temp. survey 10-12 hr. after landing plug.

Notes:

*** Displace top plug on the production casing job with 0.2% Clay Fix II or 2% KCl water.
*** Do not wash up on top of plug. Wash pumps and lines. We want to do rig less completions.

CEMENTING PROGRAM
Canyon #20E

Surface:

Preflush	20 bbl.	Fresh Water + dye marker	
Slurry 1 TOC@Surface	100 sk	Standard Cement + 2% CaCl2 + 1/4 lb/sk flocele	95 cu. ft.

Slurry Properties:	density (lb/gal)	yield (ft3/sk)	water (gal/sk)
slurry 1	15.60	1.18	5.20

Casing Equipment: (Halliburton) 7", 8R, ST&C

1 Type M Guide Shoe
1 Insert Float w Auto Fill
1 Weld A
3 S-4 Centralizer
1 Top Wooden Plug

CEMENTING PROGRAM
Canyon #20E

Production: (Foam Cement)

Preflush	20 bbl.	Mud Flush + dye marker + 150 scf/bbl nitrogen	
	40 bbl.	Fresh Water + 150 scf/bbl nitrogen	
Lead Cement Slurry 1		50/50 Std. Cmt/Poz A + Nitrogen + 2% gel (total) + 5 lb/sk gilsonite + 0.4% Halad-344 + 1/4 lb/sk flocele	966 cu. ft.
Tail Cement Slurry 2 TOC@5500		50/50 Std. Cmt/Poz A + 2% gel (total) + 5 lb/sk gilsonite + 0.4% Halad-344 + 1/4 lb/sk flocele	132 cu. ft.
Top Out Cement Slurry 3	85 sk	Standard Cement + 2% Calcium Chloride	100 cu. ft.

Slurry Properties:

	surf. density (lb/gal)	foam density (lb/gal)	surf. yield (ft3/sk)	foam yield (ft3/sk)	water (gal/sk)	nitrogen rate (scf/bbl)	depth of fill (ft)
slurry 1	13.50	10.00	1.32	1.82	5.59	150	500 - 2500
slurry 1	13.50	10.00	1.32	1.78	5.59	300	2500 - 4000
slurry 1	13.50	10.00	1.32	1.77	5.59	430	4000 - 5500
slurry 2	13.50	NA	1.32	NA	5.59	NA	5500 - TD
slurry 3	15.60	NA	1.18	NA	5.20	NA	0 - 500

Note: The job should be pumped at 6 bpm max FOAM rate. Do not exceed 6 bpm on displacement. Slow to 2 bpm for the last 25 bbl of displacement. Displace with 2% KCl or 0.2% Clay Fix II water. This is to be a rigless completion.

Casing Equipment: Halliburton 2 7/8", 8R, EUE, (no need to cut long pin)

1 Super Seal II Float Shoe
25 S-4 Fluidmaster Centralizer 1st 10 centralizers. everyother joint, then one every 10 joints, 1 above and below the Ojo Alamo
1 Lock Clamp
1 Weld A
1 Omega Latch Down Plug and Baffle

FEDERAL CEMENTING REQUIREMENTS

1. All permeable zones containing fresh water and other usable water containing 10,000 ppm or less total dissolved solids will be isolated and protected from contamination by cement circulated in place for the protection of permeable zones per the NTL-FRA 90-1 Section III A.

2. The hole size will be no smaller than 1-1/2" larger diameter than the casing O.D. across all water zones.

3. An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement.

4. An adequate number of casing centralizers will be run through usable water zones to ensure that the casing is centralized through these zones. The adequate number of centralizers to use will be determined by API Spec 10D.

5. Centralizers will impart a swirling action around the casing and will be used just below and into the base of the lowest usable water zone.

6. A chronological log will be kept recording the pump and slurry information and will be sent to the BLM with the subsequent sundry.

SAN JUAN BASIN
DAKOTA FORMATION
PRESSURE CONTROL EQUIPMENT

Background

The objective Dakota formation maximum surface pressure is anticipated to be 1400 PSI, based on completion testing. Pressure control equipment working pressure minimum requirements are therefore 2000 PSI. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 PSI system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 PSI rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rigs to be utilized have substructure height limitations which exclude use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below surface to total depth. No abnormal temperature, pressure or H_2S anticipated.

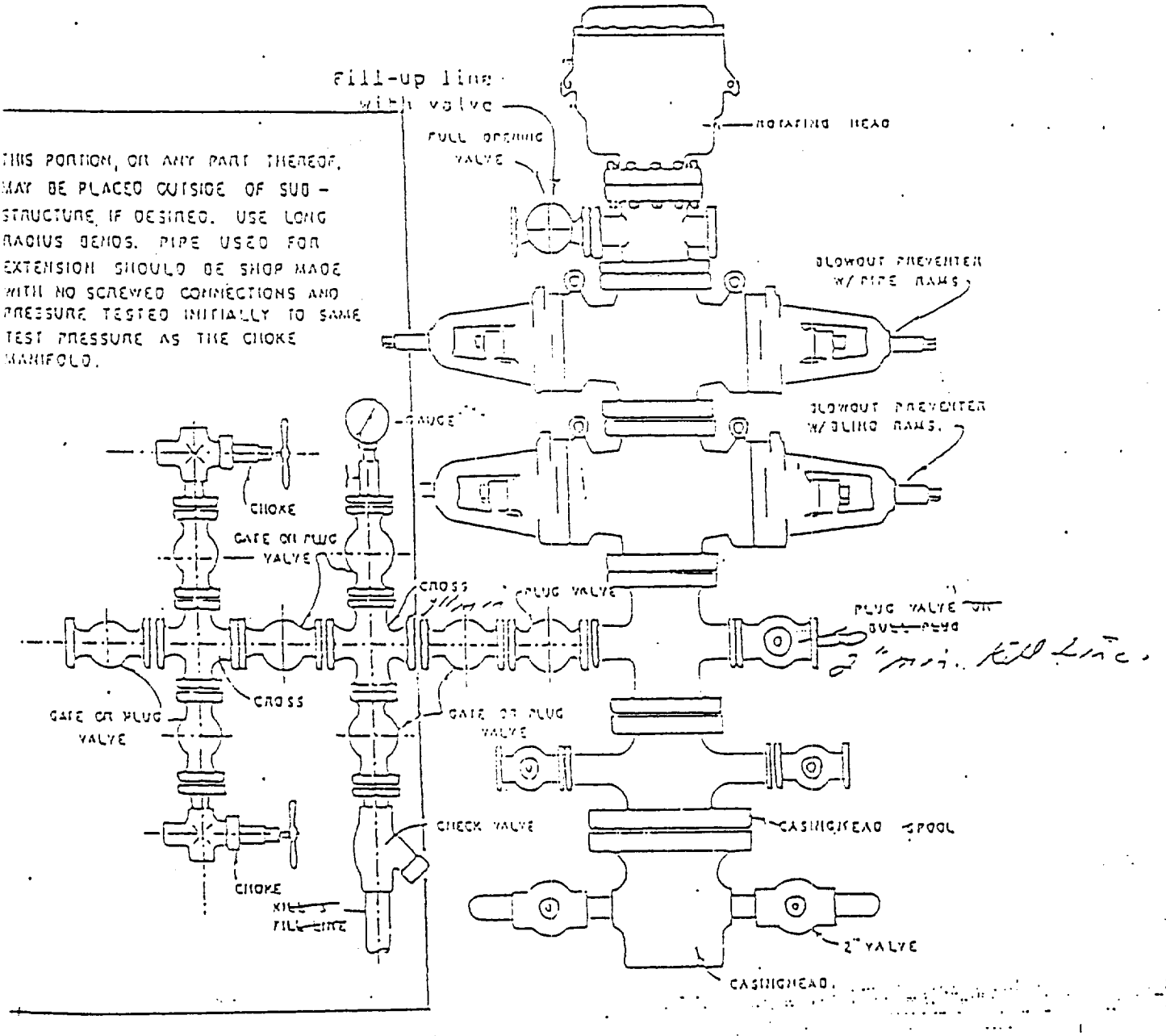
Prior to drilling below intermediate casing, a modified two (2) double ram pressure control equipment system will be installed. This system is designed for Dakota formation interval drilling with air and water. A service unit will typically be used to drill this interval, and the wellbore will be completed as an uncased open hole if commercial productivity is established. If not, the wellbore will be cased and cemented with a 4 1/2" contingency liner. Based upon maximum surface pressure criteria, 2000 PSI equipment is required. However, as stated above, 3000 PSI working pressure equipment will typically be utilized. The No. 3 pipe ram in Exhibit 2 will be 4 3/4" if 4 3/4" drill collars are run in the bottom hole assembly. Per Julie Acevedo 1/9/95

Equipment Specification

Interval	BOP Equipment
Below Surface Casing to Total Depth	12" nominal, 3000 PSI double ram preventer with with rotating head

All ram type preventers and related control equipment will be hydraulically tested to 250 PSI (low pressure) and 2000 PSI (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, floor safety valved and choke manifold which will also be tested to equivalent pressure.

1. Upper kelly cock valve, with handle will be utilized.
2. There will be safety valves and subs to fit all drill strings in use.



BLOWOUT PREVENTER HOOKUP

NEW MEXICO MULTIPOINT REQUIREMENTS

1. Existing Roads

A. The proposed location is staked as shown on the Certified Plat.

B. Route and distance from nearest town is identified on the form 3160-3, item #14 (also, see Exhibit A).

C. Access road(s) to location are identified on Exhibits A and B.

D. Not applicable unless exploratory well.

E. All existing roads within one-mile radius of the well site are shown on Exhibit B.

F. Improvement and/or maintenance of existing roads may be done as deemed necessary for Amoco's operations, or as required by the surface management agency.

2. Access Roads

A. Width: 18' .

B. Maximum Grades: 8% .

C. Turnouts: None .

D. Drainage will be used as required.

E. Size and location of culverts, if needed, will be determined at the onsite inspection or during construction.

F. Surfacing materials may be applied to the proposed road and/or location if the conditions merit it.

G. Gates and/or cattle guards will be installed at fence crossings if deemed necessary by the land owner or the surface management agency.

H. The proposed new access road is center-line flagged if applicable

3. Location of Existing Wells

A-H. All existing wells, to the best of our knowledge, are identified on Exhibit C (9 section plat).

4. Location of Existing and/or Proposed Facilities

A. All existing facilities owned or controlled by Amoco are shown on Exhibits D and E.

B. If this proposed well is productive, Amoco will own or have control of these facilities on location: storage tanks, wellhead, production unit, and if applicable, a pump jack and/or compressor. Also there will be buried production lines from the wellhead to the production unit and/or storage tanks. Amoco will submit a Sundry Notice when off-pad plans are finalized.

C. Rehabilitation, whether the well is productive or not, will be made on all unused areas in accordance with surface owner or manager approval.

5. Location and Type of Water Supply

A. Water will be obtained from a privately permitted water source secured through a contract water hauling company. It will be hauled in vacuum trucks via the access road (Exhibit A). The appropriate permits for this activity have been obtained by the water transporter.

6. Source of Construction Materials

A. - D. No off-site materials will be needed to build the proposed location or access road.

7. Methods of Handling Waste Disposal

A. A closed loop mud system will be used during drilling operations. All drill cuttings will be trenched, and buried on location. Drilling fluids will be stored for reuse or disposed of at an approved disposal facility. A reserve pit for produced water containment will be constructed during completion operations. The reserve pit will be fenced on three sides and the 4th side will be fenced upon removal of the rig. The pit will be allowed to sit for 90 days and then pulled as required by NTL-2B. Produced water will be disposed of at an approved injection well or an evaporation site. Sanitary facilities and a steel mesh portable trash container will remain on location throughout drilling operations and will then be removed to a designated disposal area. The well site will be properly cleaned upon removal of the rig.

8. Ancillary Facilities.

A. To the best of our knowledge, no ancillary facilities will be needed at this time.

9. Well Site Layout

A-C. Cross-sections, etc. - See Exhibit D. Exact location of rig related equipment will be determined when Amoco contracts a drilling rig; however, all this equipment will be contained on location. The location diagram reflects actual area of well pad. Total disturbed area will vary due to cut and fill slopes.

D. Reserve pit(s):
Unlined ✓
Lined _____ (8-10 mil reinforced plastic, size sufficient to cover pit area and fit underneath a rig tank.)

10. Plans for Restoration of Surfaces

A. Restoration of the surface will be conducted after the reserve pit has dried. The pit will then be cleaned up and back filled and the entire disturbed area will be re-contoured. The topsoil stockpile will then be uniformly placed over this area and reseeding of the site will be carried out as instructed by the appropriate management agency. Methods to protect against erosion will be employed. After final abandonment, additional restoration efforts will be applied.

11. Surface Ownership

A. The surface owner is BLM.

12. Other Information

A. General Description

1. Archeological clearance, topography, soil character, and flora and fauna are detailed in the archeologist's report forwarded by an approved contract archaeologist to the appropriate management agency.

2. Land uses include recreation, grazing and oil and gas development.

13. Operator's Representative and Certification

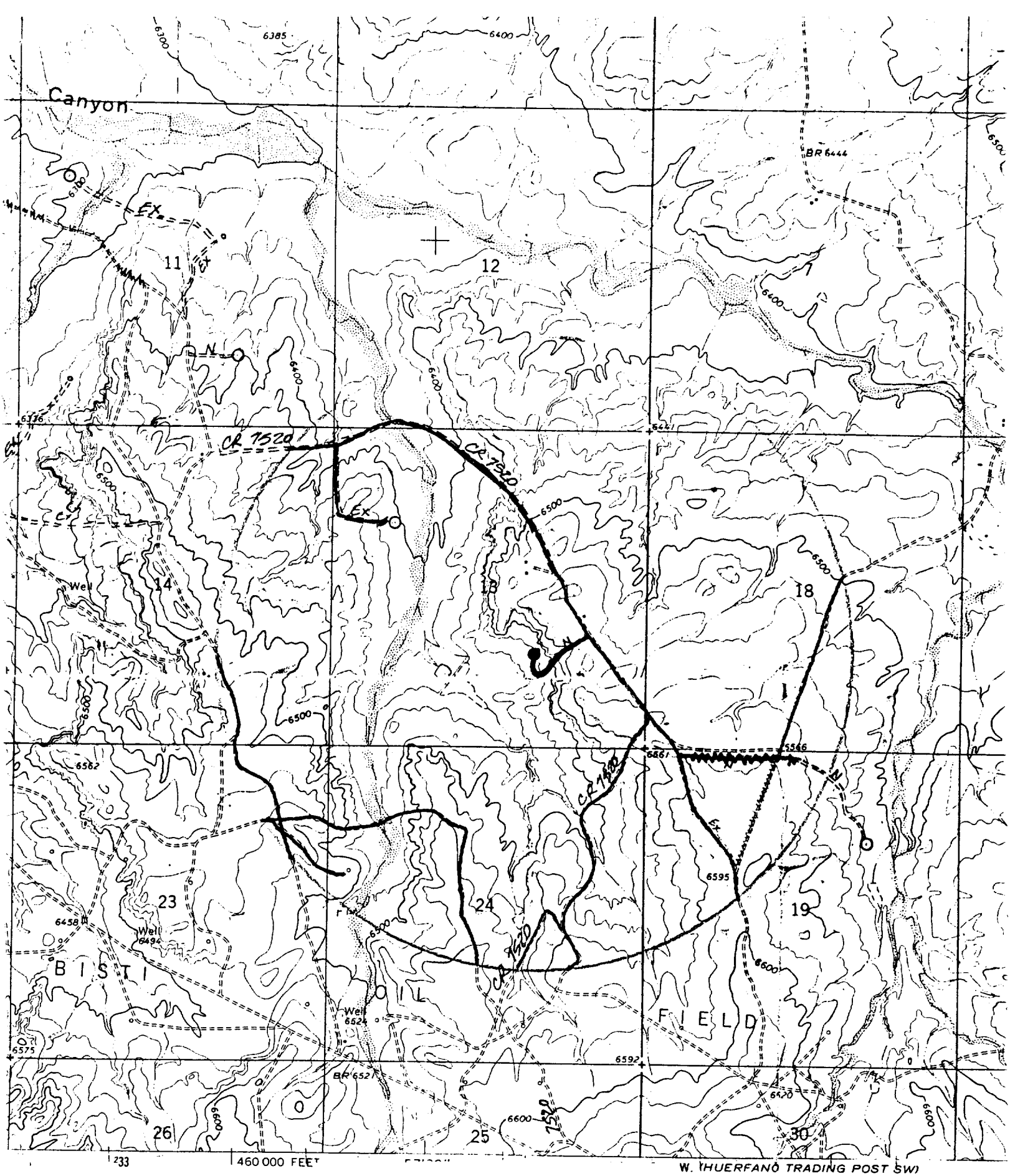
Amoco Production Company
Kurt W. Unger
Drilling Superintendent
P.O. Box 800
Denver, Colorado 80201-0800

(303) 830-6036

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 AMOCO PRODUCTION COMPANY and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date: 15 Dec '94

Kurt W. Unger, Drilling Superintendent



ical Survey

NEW ROAD

al EXISTING ROADS

ystem,

GN MN 13½° 240 MIL 1°45' 31 MILS

AMOCO PRODUCTION COMPANY

SE 13 - 25 - 11 DK

1540' F/SL 1840' F/EL

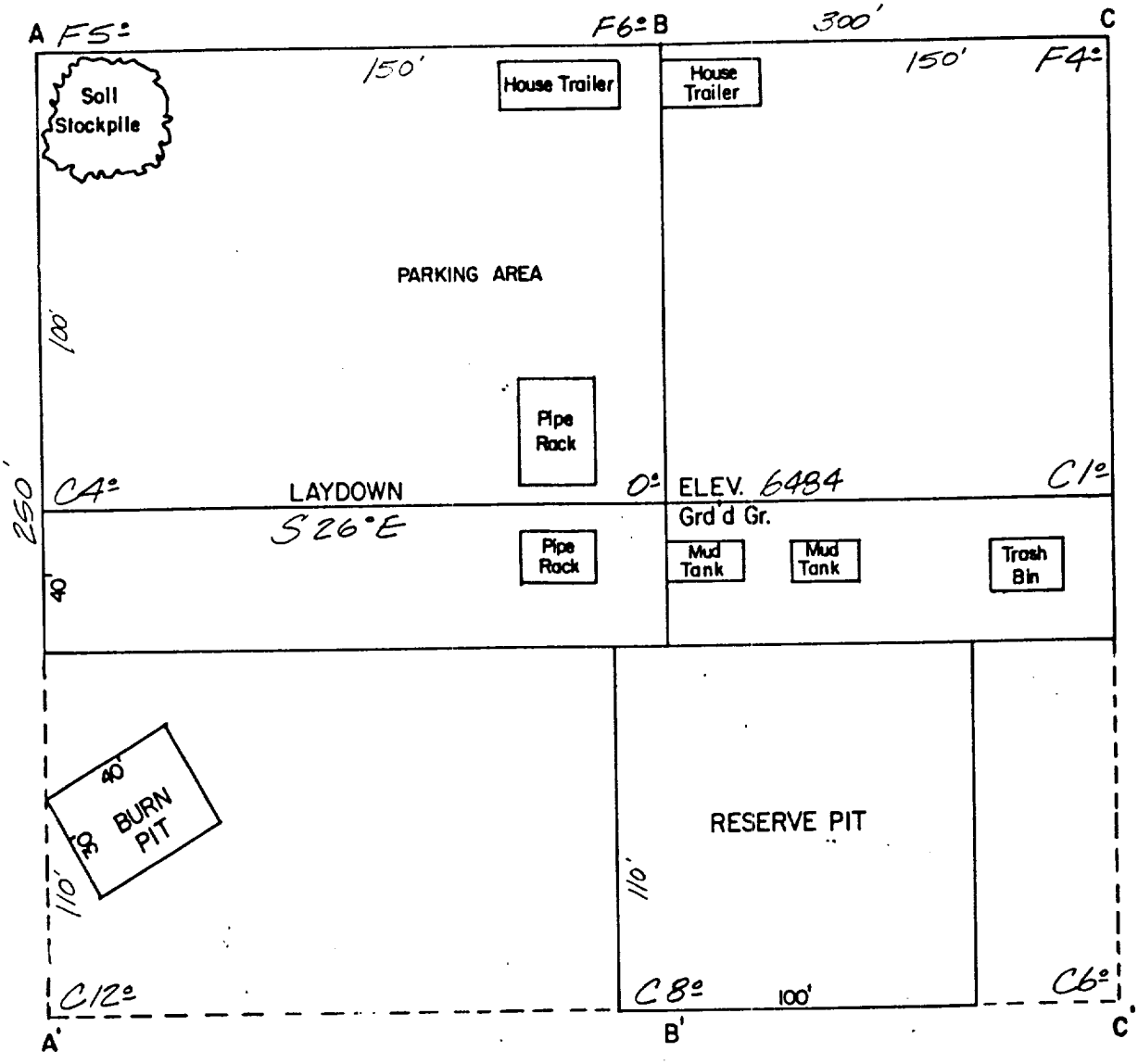
SECTION 13, T25N, R11W, N.M.P.M.

SAN JUAN COUNTY, NEW MEXICO

PROFILE FOR

EXHIBIT "D"

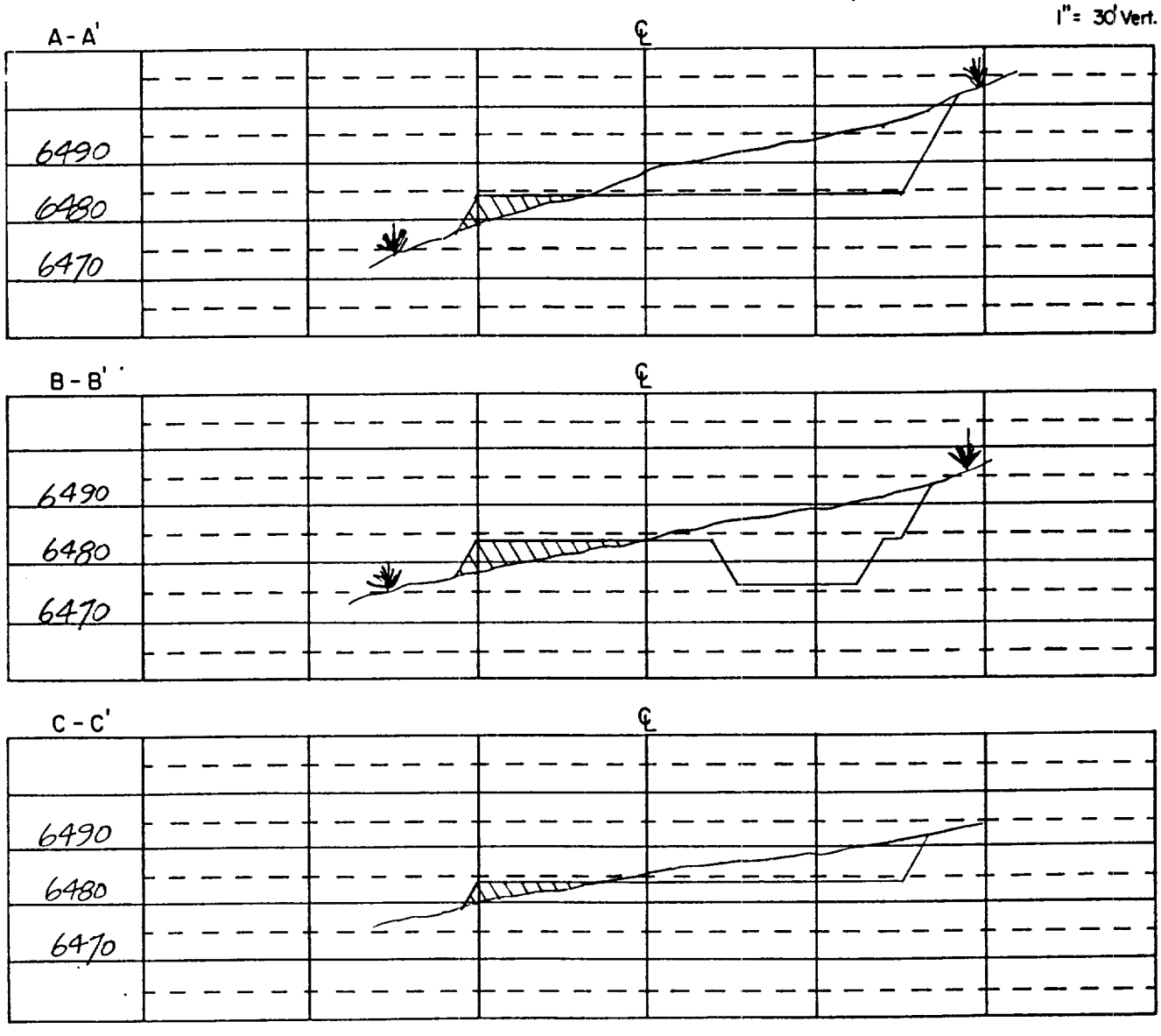
AMOCO PRODUCTION COMPANY
SE 13 - 25 - 11 DK
1540' F/SL 1840' F/EL
SECTION 13, T25N, R11W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

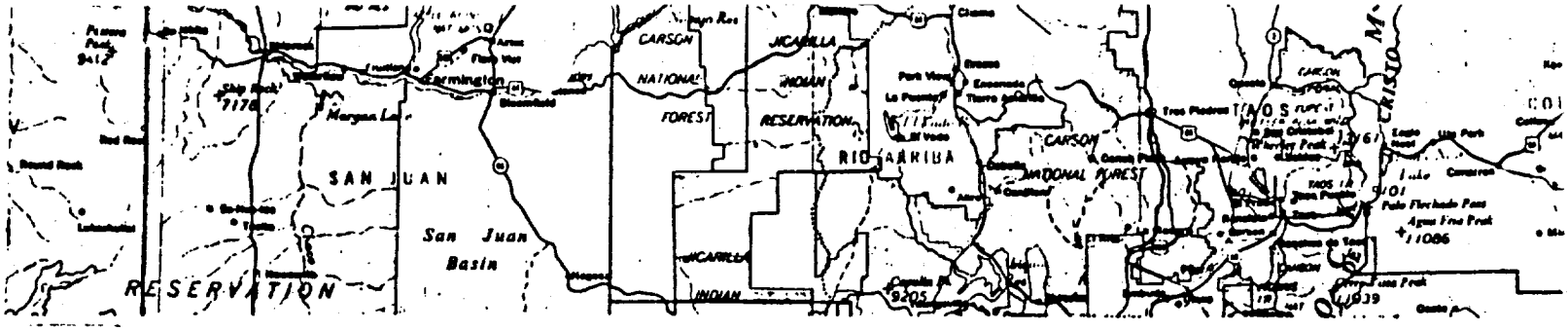


NOTE: Contractor should call 1-800-321-2537 for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least 2 days prior to construction.

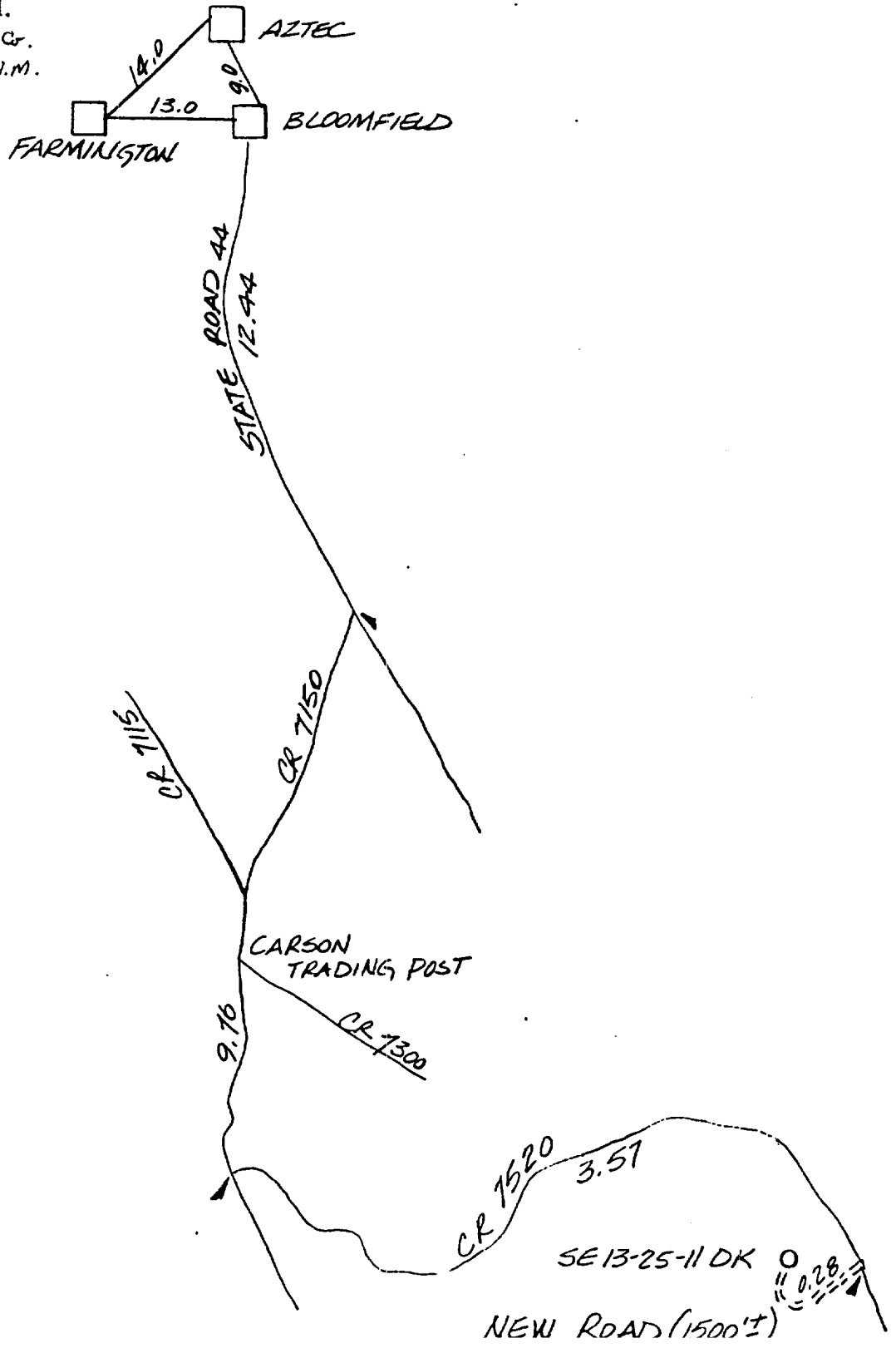
AMOCO PRODUCTION COMPANY
SE 13 - 25 - 11 DK
1540' F/SL 1840' F/EL
SECTION 13, T25N, R11W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

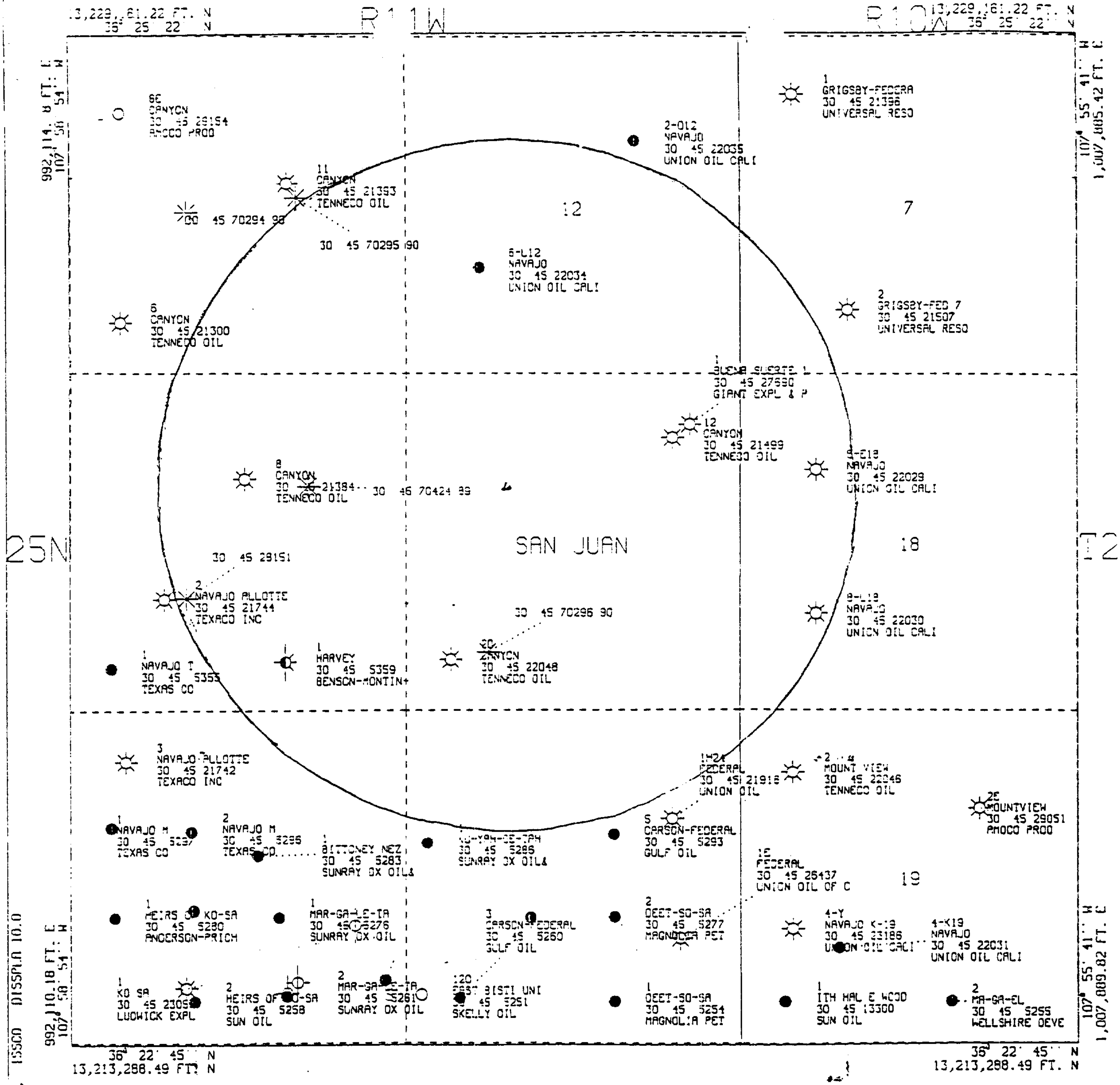
SCALE: 1" = 100' Horiz.
1" = 30' Vert.





SE 13 - 25 - 11 DK
1540' F/SL 1840' F/EL
SECTION 13, T25N, R11W, N.M.P.M.
RAIL POINT: 178 miles from Montrose, Co.
MUD POINT: 35 miles from Aztec, N.M.
CEMENT POINT: 39 miles from



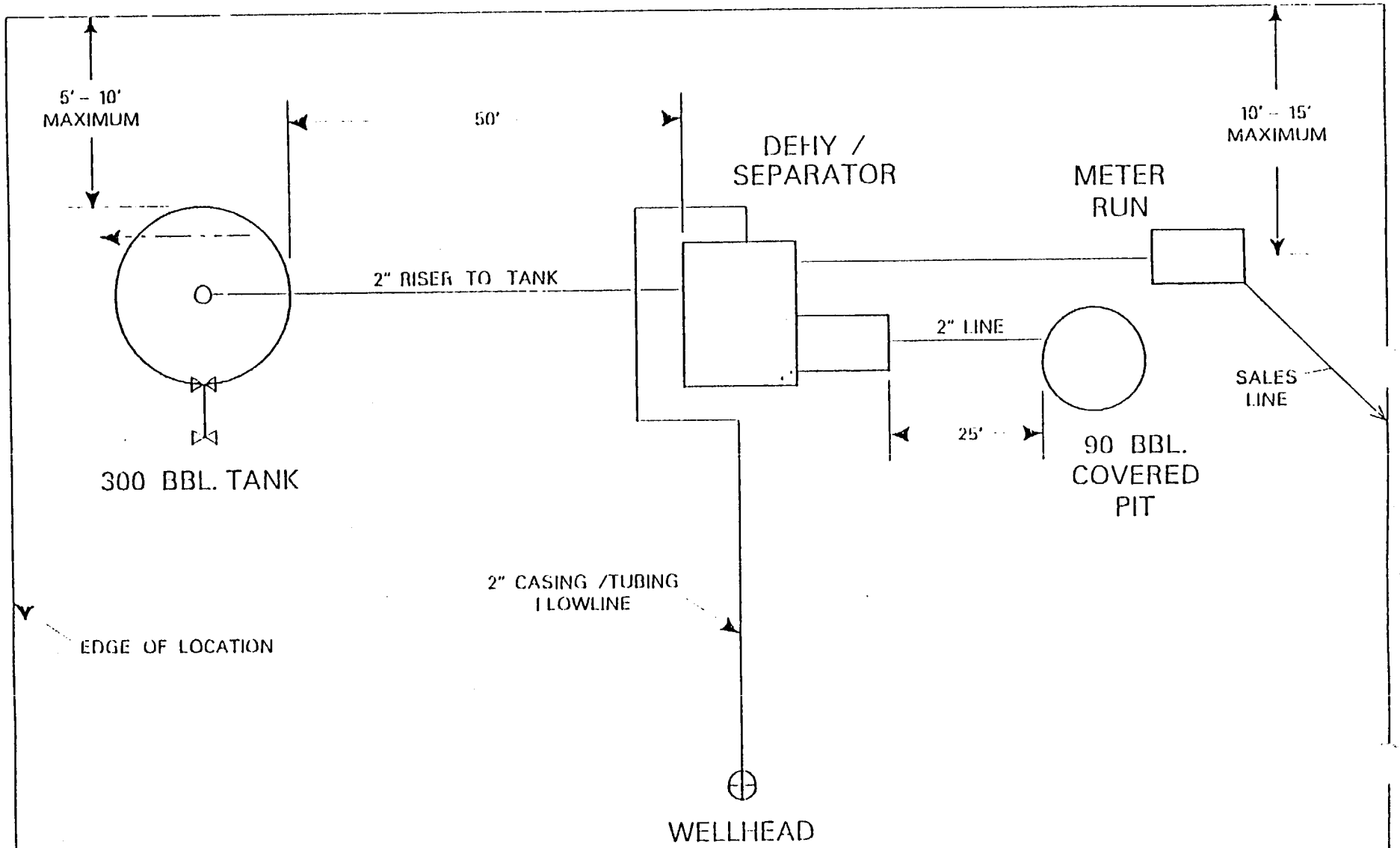


All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Amoco Production Company. The publication or reproduction thereof without the written permission of said Company is strictly prohibited.

POLYCONIC CENTRAL MERIDIAN - 107° 57' 18'' W LON
SPHEROID - 6

AMOCO PRODUCTION COMPANY
CANYON 12E & 20E
SEC 13-T25N-R11W
SAN JUAN NM

SCALE 1 IN. = 2,000 FT. DEC 16, 1994



NOTE: Compression and Dehydration facilities will be added as required for wellsite production constraints.

SITE SCHEMATIC
SAN JUAN OPERATIONS CENTER
SAN JUAN, NEW MEXICO

12 /20 /94

Well No. & Name 20E Canyon
Location: T. 25 N , R. 11 W , Sec. 13, NW ¼,SE¼
Footages: 1540 ' F S L / 1840 ' F E L

EA Log No. BIA-EA-95-012
Lease No. NOO-C-14-20-3614
Date APD Rec

FINDING OF NO SIGNIFICANT IMPACT AND DECISION RECORD

Project: Basin Dakota Gas Well
Applicant: Amoco Production Company

BLM Office: Farmington District Office, Farmington, New Mexico

Finding of No Significant Impact

Impact identification and analysis of approving the project proposal and/or alternative(s) has been completed. A complete and comprehensive environmental analysis has been conducted. Completion of the environmental assessment and the implementation of required stipulations and/or mitigating measures, will result in (projected) impacts to resource values being restored to pre-project conditions and/or acceptable post-project standards. Further analysis in an environmental impact statement is not needed.

Decision Record

Decision: To approve the APD subject to the attached stipulations/mitigating measures.

Rational: Approval of this APD will allow the lessee to further develop the mineral resources. This is the best well location for the drilling of this well which will result in the least environmental damage. Implementation of the stipulations/mitigating measures are to avoid, reduce, and/or mitigate the impacts of drilling this well.

Stipulations

Stipulations and/or mitigating measures were considered and analyzed in the environmental assessment. Based on impact analysis, specific stipulations and/or mitigating measures have been selected and are attached to the approved APD/Sundry Notice. The applicant is responsible for implementing these stipulations to prevent and/or reduce impacts projected to occur during and after project completion.

Prepared by: _____ _____
Date

Approved by: _____ _____
Senior Technical Specialist, Environmental Compliance
Date