

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 INFILL ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR

AMOCO PRODUCTION COMPANY

3. ADDRESS OF OPERATOR

501 Airport Drive, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface

790' FSL and 1840' FEL, Section 21, T29N, R12W

At proposed prod. zone

Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

6 miles East of Farmington, New Mexico

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

790'

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

2500'

16. NO. OF ACRES IN LEASE

2561.19

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320

19. PROPOSED DEPTH

6500'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DE, RT, GR, etc.)

5431' GL

22. APPROX. DATE WORK WILL START*

As soon as permitted

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" (New)	24# K-55	300'	315 sx Class "B" w/2% CaCl2-circ.
7-7/8"	4-1/2" (New)	10.5# K-55	6500'	Stage 1-360 sx Class "B" 50:50
This action is subject to administrative appeal pursuant to 30 CFR 290.				POZ 6% gel, 2# med tuf plug/sx, and 0.8% FLA. Tail in w/ 100 sx Class "B" Neat-circ.
Stage 2-640 sx Class "B" 65:35				POZ, 6% gel, 2# med tuf plug/sx, and 0.8% FLA. Tail in w/ 100 sx Class "B" Neat-circ.
DV Tool set at 4050'				

DRILLING OPERATIONS AUTHORIZED BY ORDER OF THE DISTRICT ENGINEER
SUBJECT TO COMPLETION OF THE FOLLOWING CONDITIONS:
"GENERAL REQUIREMENTS"
This application to drill an Infill Basin Dakota well is pursuant to Order No. R-1670-V approved by the NMOCC on May 22, 1979. This well will qualify under Section 103 of the Natural Gas Policy Act under Order No. R-1670-V. The gas from this well is dedicated to El Paso Natural Gas Co.

RECEIVED

AUG 22 1980

U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.APPROVED
AS AMENDED

SEP 12 1980

JAMES F. SIMS
DISTRICT ENGINEER

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.

SIGNED

R. A. Mounsey

TITLE

District Engineer

DATE

August 21, 1980

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

NMOCC

OIL CONSERVATION DIVISION

P. O. BOX 7088

Form C-102
Revised 10-1-78

STATE OF NEW MEXICO

SANTA FE, NEW MEXICO 87501

ENERGY AND MINERALS DEPARTMENT

All distances must be from the outer boundaries of the Section

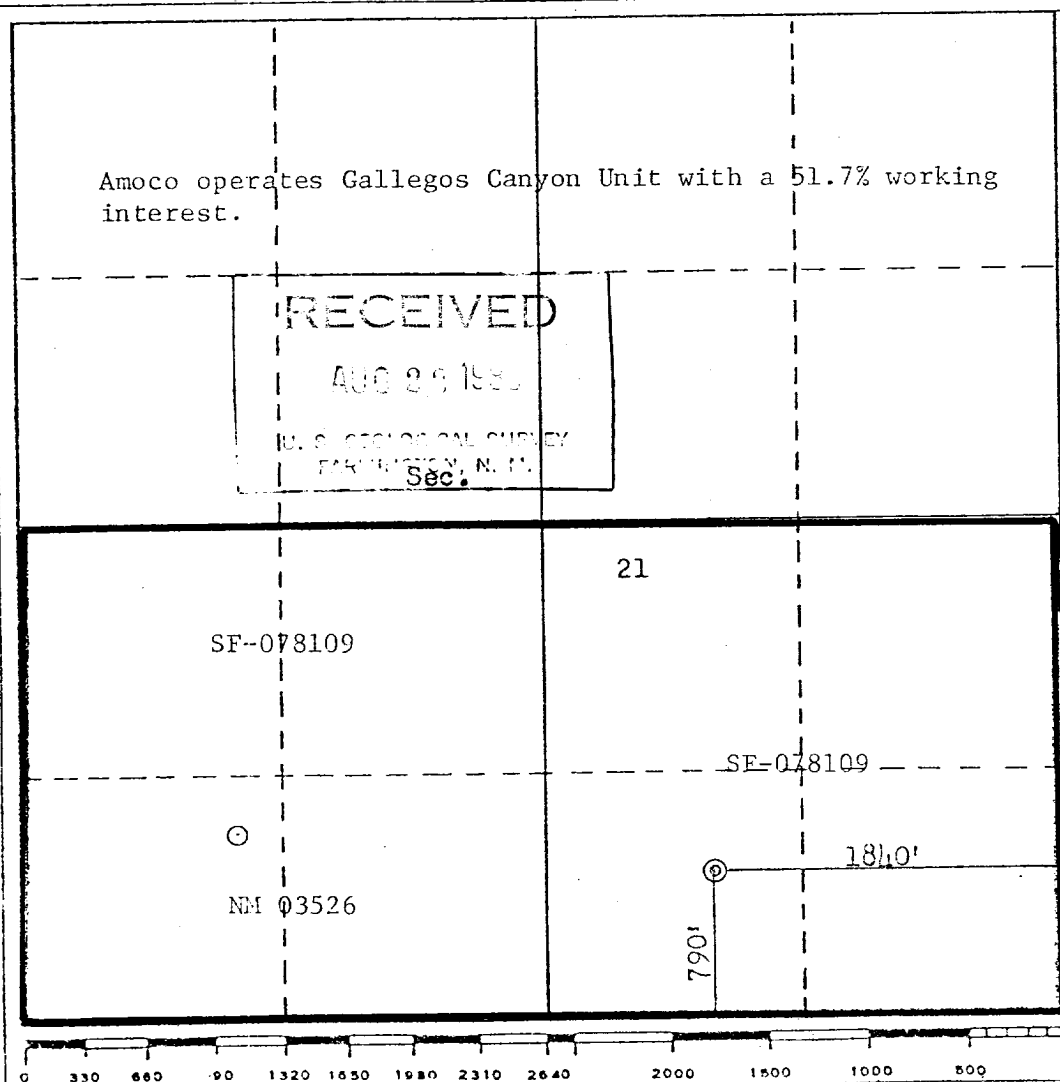
Operator AMOCO PRODUCTION COMPANY			Lease GALLEGOS CANYON UNIT		Well No. 152-E
Unit Letter 0	Section 21	Township 29N	Range 12W	County San Juan	
Actual Footage Location of Well: 790 feet from the South line and 1840 feet from the East line					
Ground Level Elev. 5431	Producing Formation Dakota		Pool Basin Dakota		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. 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 Unitization (Gallegos Canyon Unit)

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 Commission.



CERTIFICATION

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

B. E. Fackrell

Name

B. E. FACKRELL

Position

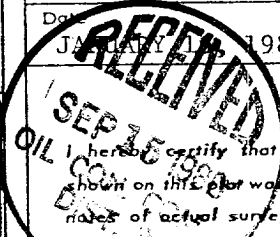
DISTRICT ENGINEER

Company

AMOCO PRODUCTION COMPANY

Date

JANUARY 1980



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 knowledge and belief.

Date Surveyed

January 1980

Registered Professional Engineer
and/or Land Surveyor*Fred B. Kerr, Jr.*
Fred B. Kerr, Jr.
Certification No. 3950

3950

SUPPLEMENTAL INFORMATION TO FORM 9-331C

GALLEGOS CANYON UNIT NO. 152E
790' FSL & 1840' FEL, SECTION 21, T29N, R12W
SAN JUAN COUNTY, NEW MEXICO

The geologic name of the surface formation is the Tertiary Nacimiento.

Estimated tops of important geologic markers and potential water, oil, or gas bearing formations:

<u>FORMATION</u>	<u>DEPTH</u>	<u>ELEVATION</u>
Ojo Alamo	450 '	4994 '
Kirtland	510 '	4934 '
Fruitland	1120 '	4324 '
Pictured Cliffs	1370 '	4074 '
Chacra (if present)		
Mesaverde	Cliff House 2930 '	2514 '
	Point Lookout 3750 '	1694 '
Gallup	5025 '	419 '
Dakota	5890 '	- 446 '
TD	6500 '	-1056 '

Estimated KB elevation: 5444 '

Drilling fluid to TD will be a fresh water, low solids non-dispersed mud system. Open hole logging program will include logs from TD to below surface casing:

SP-GR-Induction
FDC-CNL-GR

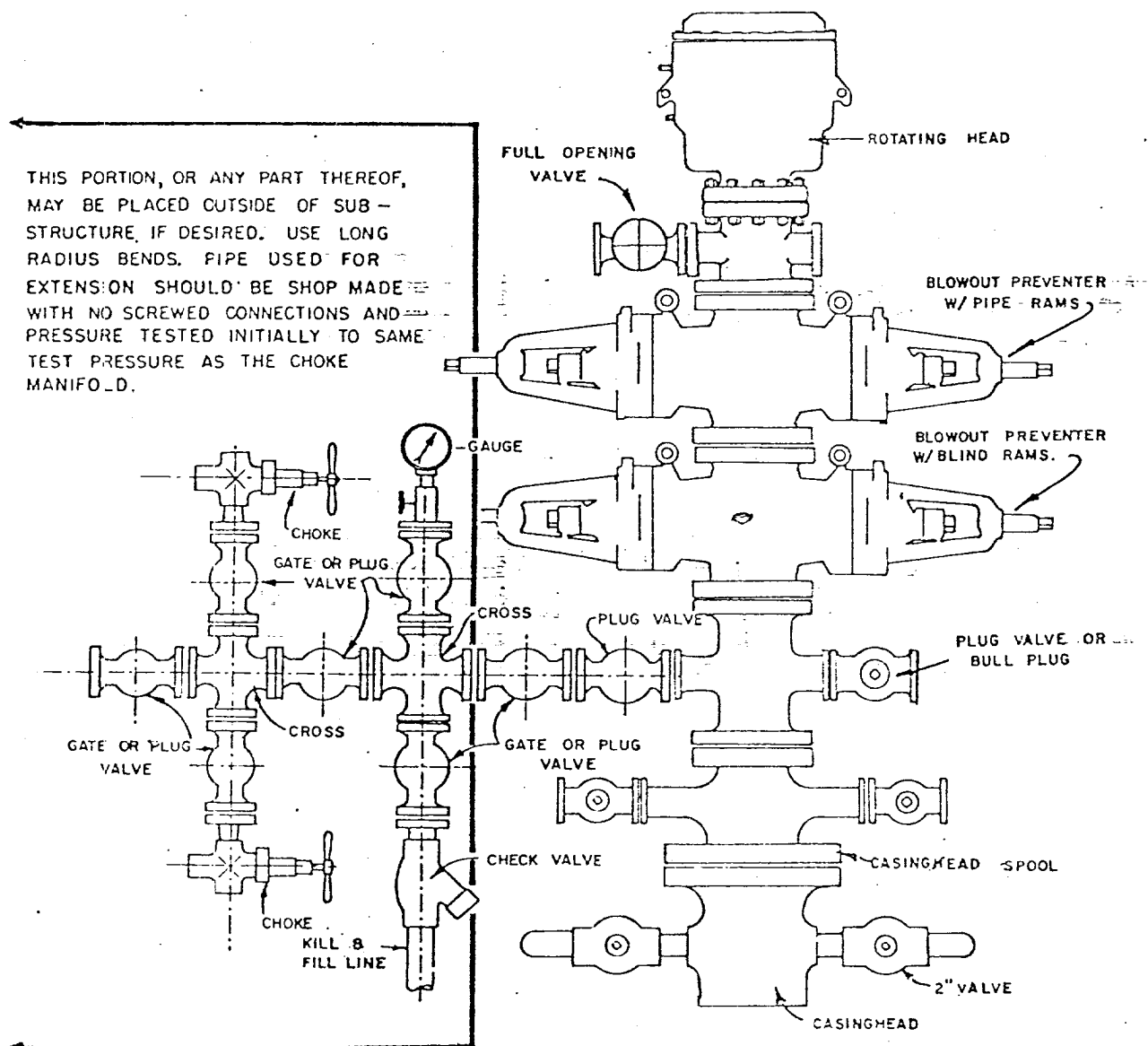
Completion design will be based on these logs. No cores or drill stem tests will be taken.

Operations will commence when permitted and last approximately 3 weeks.

Amoco's standard blowout prevention will be employed (see attached drawing).

In the past, drilling in this area has shown that no abnormal pressures, temperatures, nor hydrogen sulfide gas will be encountered.

1. Blowout Preventers and Master Valve to be fluid operated, and all fittings must be in good condition.
2. Equipment through which bit must pass shall be as large as the inside diameter of the casing that is being drilled through.
3. Nipple above Blowout Preventer shall be same size or larger than BOP being drilled through.
4. All fittings to be flanged.
5. Omsco or comparable safety valve must be available on rig floor at all times with proper connection or sub. The I.D. of safety valve should be as great as I.D. of tool joints of drill pipe, or at least as great as I.D. of drill collars.



BLOWOUT PREVENTER HOOKUP

API Series # 900

EXHIBIT D-4

OCTOBER 16, 1969

Operation of BOP by closing both pipe and blind rams will be tested each trip or, on long bit runs, pipe rams will be closed once each 24 hours.

MULTI-POINT SURFACE USE PLAN

GALLEGOS CANYON UNIT NO. 152E
790' FSL & 1840' FEL, SECTION 21, T29N, R12W
SAN JUAN COUNTY, NEW MEXICO

1. The attached topographic map shows the proposed route to the location.
2. It will be necessary to build an access road approximately 1000 feet in length and 20 feet wide. Road to be bar ditched on two sides.
3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the lease road map.
4. There is a 380-barrel tank and facilities located at Gallegos Canyon Unit Well No. 152, one-half mile west.
5. Water will be hauled from the San Juan River.
6. No construction materials will be hauled in for this location.
7. A 125' by 125' pit will be built on location to hold all drilling waste. Upon completion of the well, pit will be fenced and waste and liquids left to dry, then pit will be filled and leveled. If any liquids remain, they will be hauled away prior to back filling.
8. There are neither airstrips nor camps in the vicinity.
9. The well site layout, reserve, burn and trash pits are shown on the attached Drill Site Specification Sheet. A 6-foot cut will be made on west side.
10. Restoration of the surface will be accomplished by cleaning up and leveling upon completion of the well. Reseeding of the site will be carried out as detailed on Rehabilitation Plan with surface owner.
11. The general topography is a canyon bottom with southerly drainage and gravel outcrops. Soil is a sandy, clayey loam with vegetation consisting of juniper, shadscale, snakeweed, sagebrush, rabbitbrush, and native grasses.

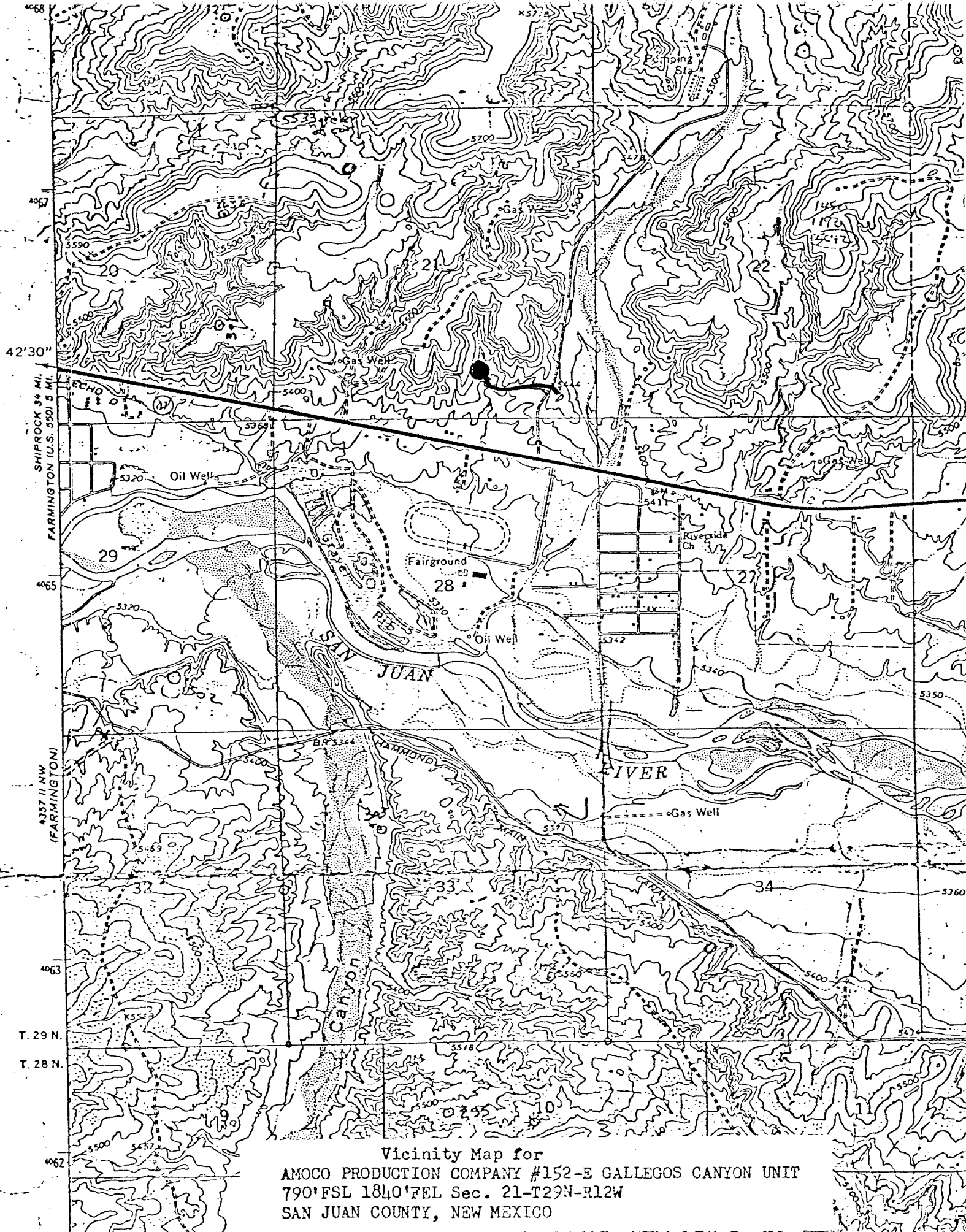
Amoco personnel met with the surface owner and worked out rehabilitation plans for surface disturbance. Representatives of the U. S. Geological Survey's Farmington Office and the Bureau of Land Management inspected the site with Amoco personnel. Cultural resources inspection was conducted by an archaeologist from San Juan College.

12. Operator's Representative: R. W. Schroeder
Phone: Office: 505-325-8841; Home: 505-325-6164
Address: 501 Airport Drive, Farmington, NM 87401

Certification: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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 August 19, 1980


R. W. Schroeder, District Superintendent



Vicinity Map for
AMOCO PRODUCTION COMPANY #152-E GALLEGOS CANYON UNIT
790' FSL 1840' FEL Sec. 21-T29N-R12W
SAN JUAN COUNTY, NEW MEXICO

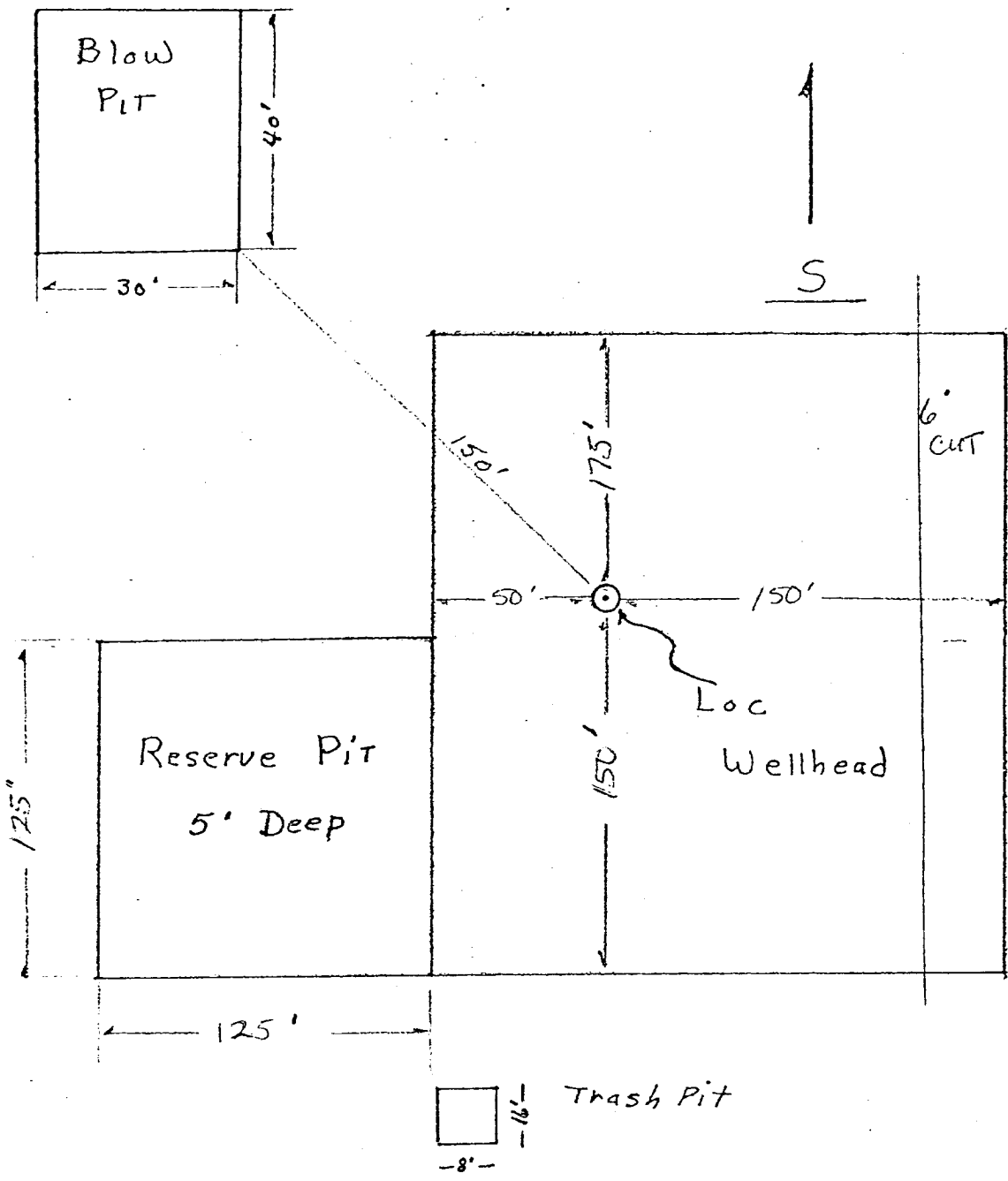
T
29
N

GCU
152E

T
28
N

Fulcher Kutz
Simpson Gallup
Pinon Gallup
Pinon Fruitland
Basin Dakota

△ F.K. Abandoned
□ S.G. Abandoned
○ Road
× River
☆



Approximately 1.2 Acres

Amoco Production Company		SCALE: <i>NONE</i>
Drilling Location Specs		
GALLEGOS CANYON UNIT No. 152E		DRG. NO.

Lease No.: Gallegos Canyon Unit; Well Name and No.: Gallegos Canyon Unit No. 152E
Location: 790' FSL, 1840 FEL, Sec. 21, T. 29 N., R. 12 W.

AMOCO PRODUCTION COMPANY intends to drill a well on surface
owned by Farmington Municipal Schools. The lessee/operator
agrees to complete the following rehabilitation work if the well is a producer:

☒ Yes ☐ No Maintain access road and provide adequate drainage to road.

☒ Yes ☐ No Reshape and reseed any area not needed for maintenance of the
pump and support facilities.

Other requirements: Access road is for drilling & completion only, permanent access will
be down E.P.N.G. pipeline R.O.W.

The following work will be completed when the well is abandoned:

☒ Yes ☐ No Pit will be fenced until dry, then filled to conform to
surrounding topography.

☒ Yes ☐ No Water bars will be constructed as deemed necessary.

☒ Yes ☐ No Site will require reshaping to conform to surrounding topography.

☒ Yes ☐ No Entire disturbed area will be reseeded. If yes, the following
seed mixture will be used.

Seed mixture #2

☒ Yes ☐ No Access road will be closed, rehabilitated and reseeded using
the same seed mixture as above.

☐ Yes ☒ No Access road will remain for surface owner's use.

☒ Yes ☐ No Water bars will be constructed on the access road as deemed
necessary.

Other requirements: If school is built on property, well site will be fenced & locked.


Surface Owner:

Name: Farmington Municipal School Dist. #5
Address: 208 N. Wall - P.O. Box 660
City: Farmington
State: New Mexico 87401
Telephone: 325-3531
Date: May 5, 1980

Operator/Lessee:

Name: Amoco Production Company
Address: 501 Airport Drive
City: Farmington
State: New Mexico 87401
Telephone: (505) 325-8841
Date: January 18, 1980

I CERTIFY that above rehabilitation plan is acceptable to me. I also waive an intensive
Cultural Resource Field Inventory.


(Surface owner's signature)

This plan does not affect any other agreements between the lessee/operator and
surface owner.