

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. Jicarilla Contract 148
2. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		6. IS INDIAN, ALIEN, OR TRIBE NAME Jicarilla Apache
3. NAME OF OPERATOR AMOCO PRODUCTION COMPANY		7. UNIT AGREEMENT NAME
4. ADDRESS OF OPERATOR 501 Airport Drive, Farmington, New Mexico 87401		8. FARM OR LEASE NAME Jicarilla Contract 148
9. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1120' FNL & 1760' FWL Section 13 T25N R5W		9. WELL NO. 23
10. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 14 miles NNE of Counselor, New Mexico		10. FIELD AND POOL, OR WILDCAT Otero Chacra <i>Set</i>
11. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest dty. unit line, if any) 1120		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NE/4 NW/4 Section 13 T25N R5W
12. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 541'		12. COUNTY OR PARISH Rio Arriba
13. ELEVATIONS (Show whether DN, RT, GR, etc.) 7354' GL		13. STATE New Mexico
14. NO. OF ACRES IN LEASE 2560		14. NO. OF ACRES ASSIGNED TO THIS WELL 160
15. PROPOSED DEPTH 4624'		15. ROTARY OR CABLE TOOLS Rotary
16. APPROX. DATE WORK WILL START* As soon as permitted		

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)	10.6# K-55	4624'	920 sx class "B" 50:50 POZ, 6% gel. 2# med tuf plug/sx and .8% FLA. Tail in w/75 sx class "B" Neat-circ.

Amoco proposes to drill the above well to further develop the Otero Chacra reserves. The well will be drilled to the surface casing point using native mud. The well will then be drilled to TD with a low solids nondispersed mud system. Completion design will be based on open hole logs. A copy of all logs will be filled upon completion. Additional information required by NTL-6 for the application to drill and a multi-point surface use plan are attached.

The gas from this well is not dedicated to a gas sales contract.

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

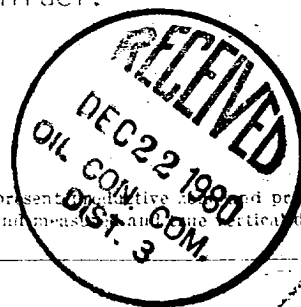
SIGNED W. L. Peterson TITLE District Engineer DATE October 29, 1980

(This space for Federal or State office use)

PERMIT NO. 1120 APPROVAL DATE 11/15/80

APPROVED BY Bruce Wambsler TITLE for F. SIMS DATE 11/30/80

CONDITIONS OF APPROVAL, IF ANY:



OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

P. O. BOX 2088

Form C-107

Revised 10-1-78

ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

All distances must be from the outer boundaries of the Section

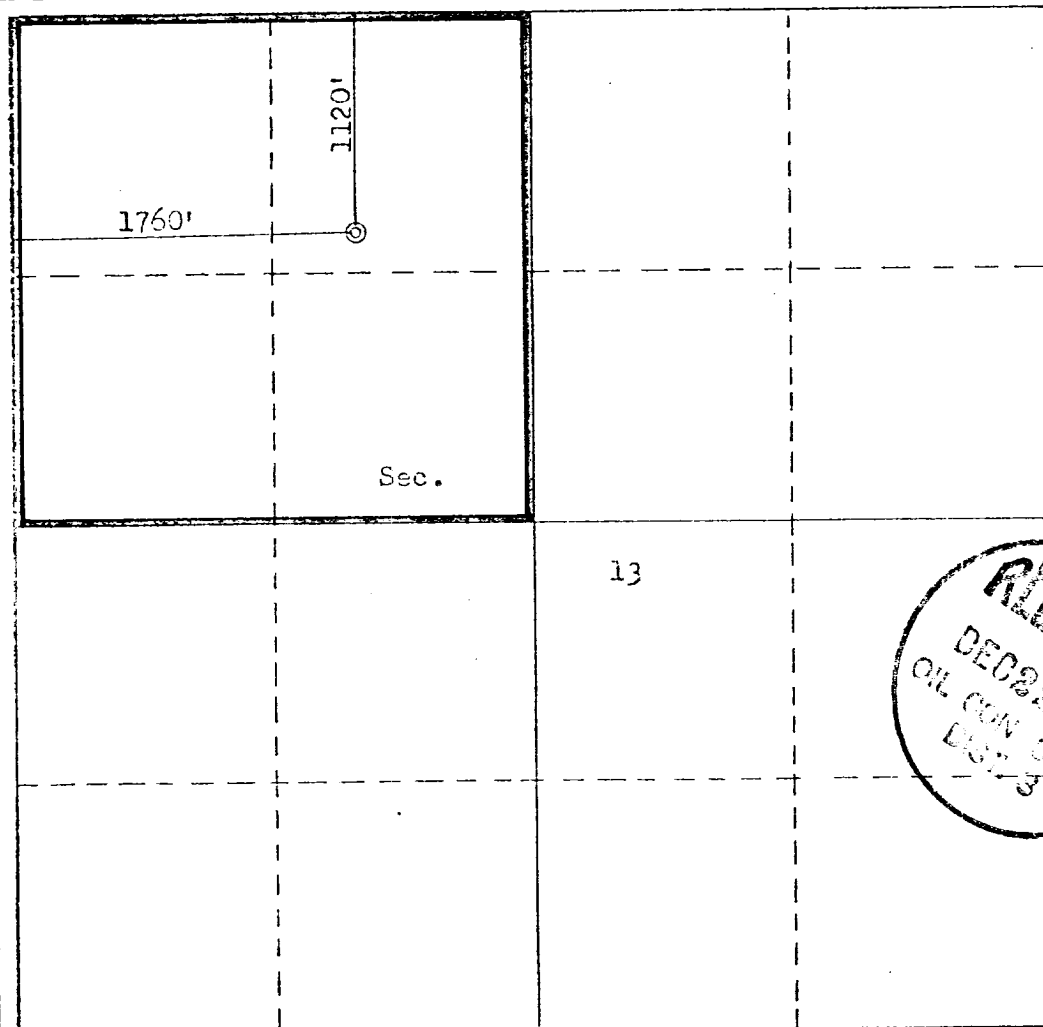
Operator AMOCO PRODUCTION COMPANY			Lease JICARILLA CONTRACT 148		Well No. 23
Unit Letter C	Section 13	Township 25N	Range 5W	County Rio Arriba	
Actual Footage Location of Well: 1120 feet from the North line and 1760 feet from the West line					
Ground Level Elev. 7364	Producing Formation Chacra		Pool Otera Chacra		Dedicated Acreage: 160 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 _____

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.

R. A. Downey
Name

R.A. DOWNEY

Position
DISTRICT ENGINEER

Company
AMOCO PRODUCTION COMPANY

Date
JUNE 3, 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
May 27, 1980

Registered Professional Engineer
and/or Land Surveyor

Fred B. Kerr Jr.
Fred B. Kerr Jr.

Certificate No.
3950

0 330 660 990 1320 1650 1980 2310 2640 2970 3300 3630 3960 4290 4620 4950 5280 5610 5940 6270 6600

SUPPLEMENTAL INFORMATION TO FORM 9-331C
 JICARILLA CONTRACT 148 No. 23
 1120' ENL & 1760' FWL, SECTION 13, T25N, R5W
 RIO ARriba COUNTY, NEW MEXICO

The geologic name of the surface formation is the Tertiary San Jose.

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	3109 '	4268 '
Kirtland	3269 '	4108 '
Fruitland	3479 '	3898 '
Pictured Cliffs	3649 '	3728 '
Chacra (if present)	4534 '	2843 '
Mesaverde [Cliff House	'	'
Point Lookout	'	'
Gallup	'	'
Dakota	'	'
TD	4624 '	2753 '

Estimated KB elevation: 7377 '

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:

ENL-SP-CR
 FWL-CNL-CR

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

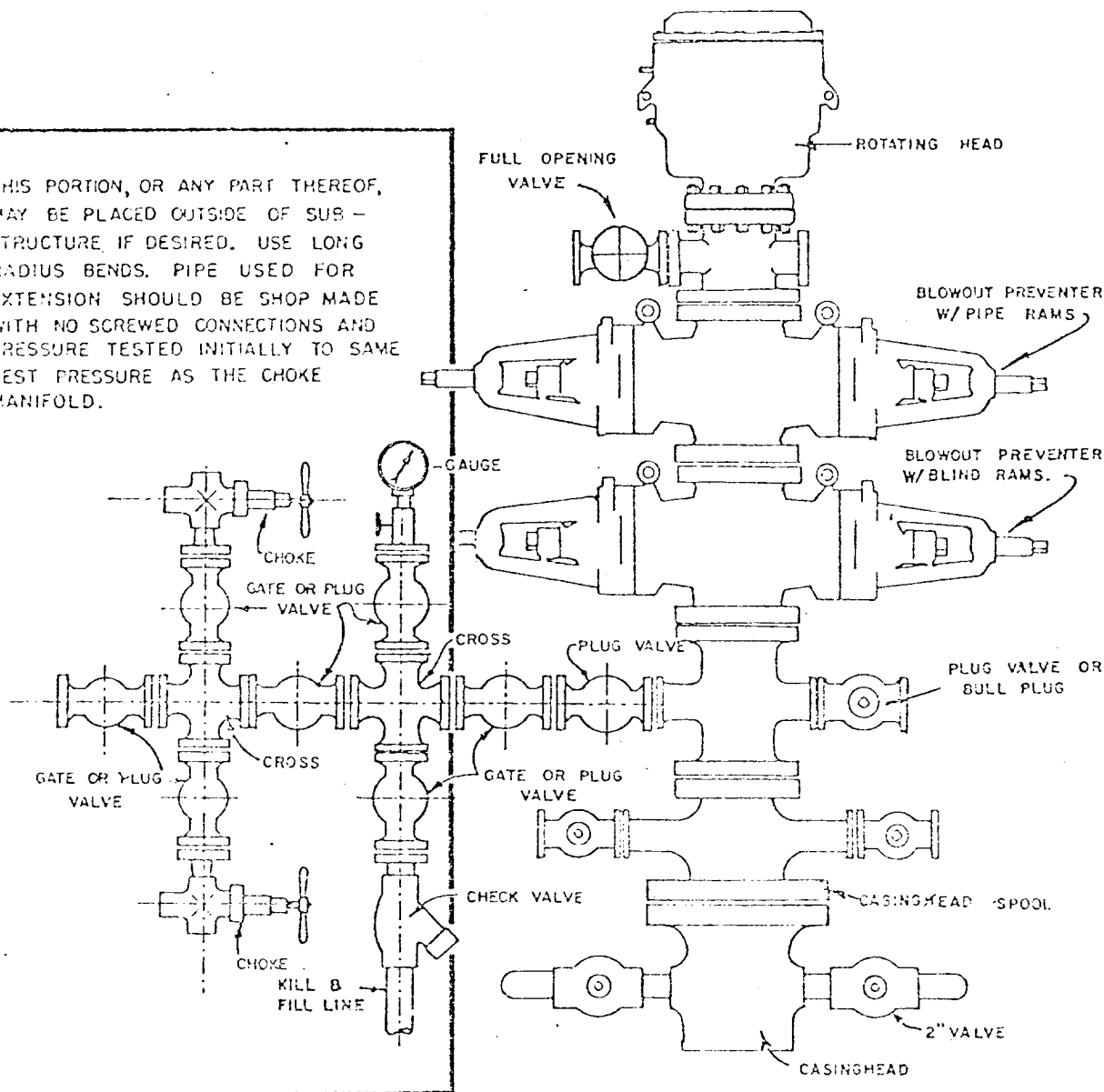
Operations will commence when permitted and last approximately 3 weeks.

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.

THIS PORTION, OR ANY PART THEREOF, MAY BE PLACED OUTSIDE OF SUB-STRUCTURE, IF DESIRED. USE LONG RADIUS BENDS. PIPE USED FOR EXTENSION SHOULD BE SHOP MADE WITH NO SCREWED CONNECTIONS AND PRESSURE TESTED INITIALLY TO SAME TEST PRESSURE AS THE CHOKE MANIFOLD.



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

JICARILLA CONTRACT 148 NO. 23
1120' FNL & 1760' FWL, SECTION 13, T25N, R5W
RIO ARriba COUNTY, NEW MEXICO

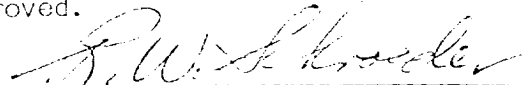
1. The attached topographic map shows the proposed route to the location.
2. It will not be necessary to build any access road.
3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the lease road map.
4. There are tanks and facilities located at Jicarilla Contract 148 No. 4, approximately 500 feet south.
5. Water will be hauled from Tapacito Water Hole.
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. An 8-foot cut will be made on north 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 instructed by the Bureau of Indian Affairs.
11. The general topography is a mesa top with southerly drainage with a sandy clayey loam soil; vegetation consists of pinon, juniper, prickly pear, sagebrush, and native grasses.

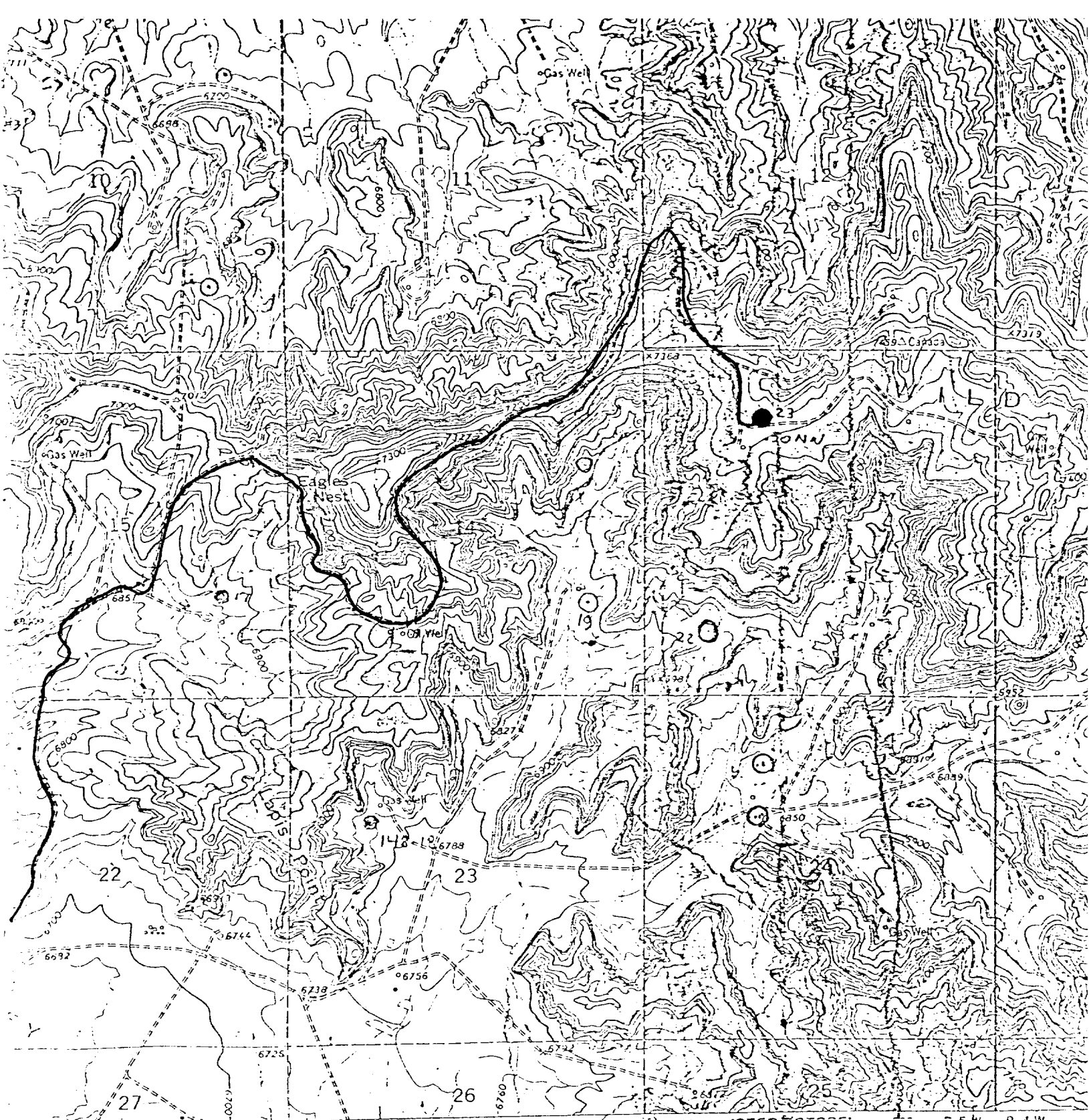
Representatives of the U. S. Geological Survey's Farmington Office and the Jicarilla Tribe's Dulce Office inspected the site with Amoco personnel. Cultural resources inspection was conducted by an archaeologist from San Juan College.

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

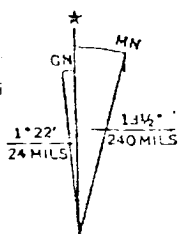
Certification: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the 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 October 27, 1980


R. W. Schroeder, District Superintendent



Vicinity Map for
 AMOCO PRODUCTION COMPANY #23 JICARILLA CONTRACT 148
 1120'FNL 1760'FWL Sec. 13-T25N-R5W
 RIO ARriba COUNTY, NEW MEXICO



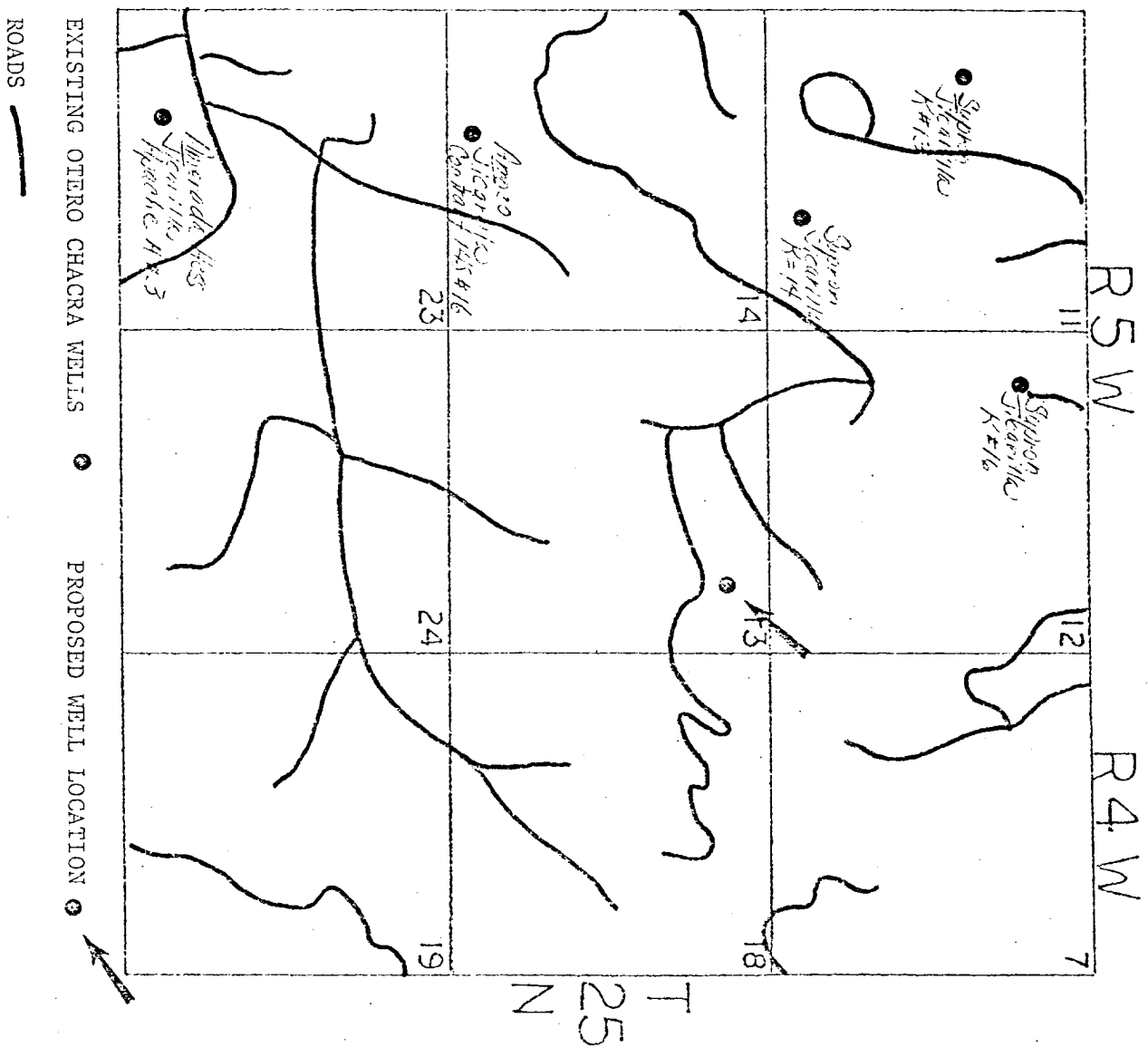
UTM GRID AND 1953 MAGNETIC NORTH
 DECLINATION AT CENTER OF SHEET

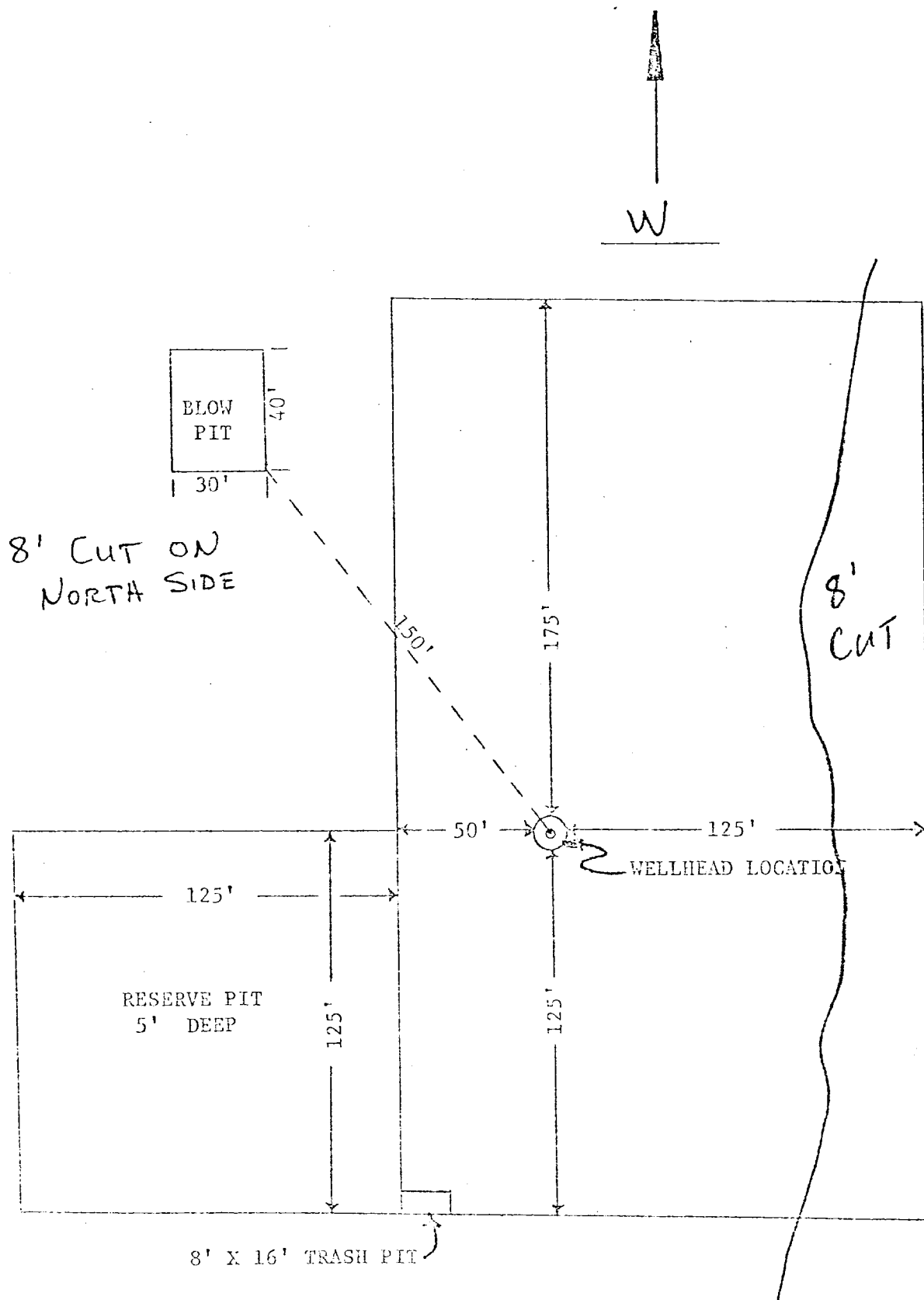
790 FE

CONTOUR INTERVAL 20 FEET
 DATUM IS MEAN SEA LEVEL

1:2500 7000 FEET
 1 KILOMETER

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
 FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D.C. 20508





APPROXIMATELY 1.2 ACRES

Amoco Production Company		SCALE: 1"=50'
DRILLING LOCATION SPECIFICATIONS		
JICARILLA CONTRACT 148 #23		DRG. NO.