

chf

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK
 DRILL DEEPEN

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

2. NAME OF OPERATOR
 General Atlantic Resources, Inc. ✓

3. ADDRESS AND TELEPHONE NO.
 (303) 573-5100
 410 17th Street, Suite 1400, Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements*)
 At surface
 860' FSL 1,980' FEL (SW/4 SE/4) Sec. 34 T20S R28E
 At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 7 miles north of Carlsbad, NM

10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
 (Also to nearest drlg. unit line, if any) 860

16. NO. OF ACRES IN LEASE ± 320

17. NO. OF ACRES ASSIGNED TO THIS WELL 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1,500'

19. PROPOSED DEPTH 5,555'

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3,194' GR

22. APPROX. DATE WORK WILL START* Upon Approval

5. LEASE DESIGNATION AND SERIAL NO.
 NM-0311499

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
 Burton Flat Deep Unit

8. FARM OR LEASE NAME, WELL NO.
 Burton Flat Deep Unit #30

9. API WELL NO.
 30-015-27799

10. FIELD AND POOL, OR WILDCAT
 E. Avalon - Bone Springs

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
 34-20S-28E

12. COUNTY OR PARISH Eddy

13. STATE NM

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20# H-40	94# ST&C	285'-Sfc.	530 sx Class "C" CIRCULATE
17 1/2"	13 3/8" H-40	48# ST&C	650'-Sfc.	400 sx 35/65 Poz/ Class "C" CIRCULATE
12 1/4"	8 5/8" K-55	32# 24# ST&C	2745'-Sfc.	+ 200 sx Class "C" 890 sx 35/65 Poz/ Class "C"
7 7/8"	5 1/2" K-55	15.5# ST&C	5555'-2405'	+ 200 sx Class "C" (see stips) w/ 305 sx 35/65 Poz/Class "C" + 195 sx Class "C" (see stips)

*modifications are as per sundry notice rec'd. 11/18/93. SJS

See attached Drilling and Surface Use Plans.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by General Atlantic Resources, Inc. under Nationwide bond, BLM Bond #CO-1023. General Atlantic Resources, Inc. will be responsible for compliance with all of the lease terms and conditions for that portion of the lease associated with this application.

IA-1
1-7-94
JL-4AT

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.

SIGNED David E. Banko, P.E. TITLE Agent/Petroleum Engineer DATE Nov. 11, 1993

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____ APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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 RICHARD L. MANUS TITLE AREA MANAGER DATE DEC 29 1993

*See Instructions On Reverse Side

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

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

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

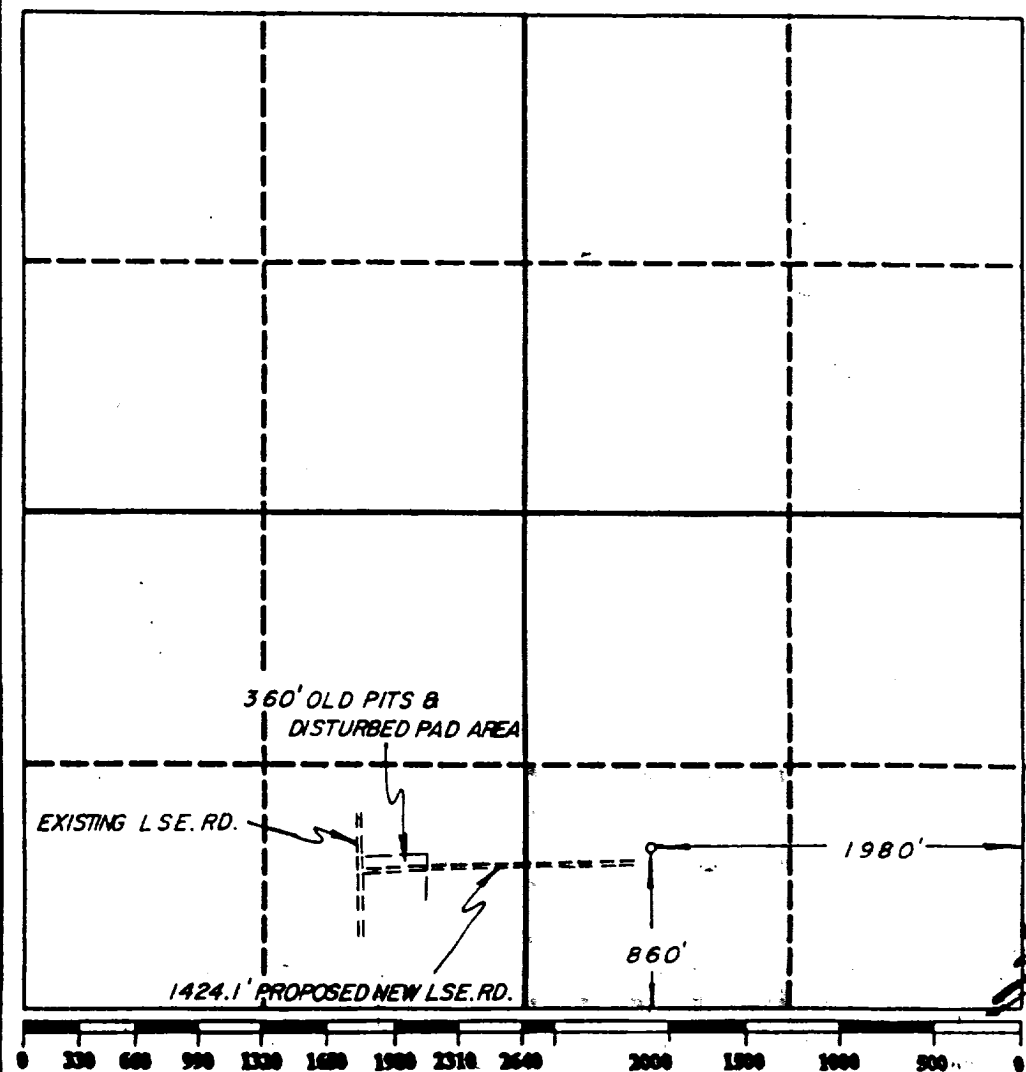
Operator GENERAL ATLANTIC RESOURCES INC.			Lease BURTON FLAT			Well No. # 30		
Unit Letter 0	Section 34	Township 20 SOUTH	Range 28 EAST	County EDDY		NMPM		
Actual Footage Location of Well: 860 feet from the SOUTH line and 1980 feet from the EAST line								
Ground level Elev. 3194'		Producing Formation BONE SPRINGS			Foot East Avalon		Dedicated Acreage: 40 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatch 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 interest 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 allowance 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 interest, 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.

Signature: *David F. Banko*

Printed Name: **David F. Banko, P.E.**

Position: **Agent/Petroleum Engineer**

Company: **Gen. Atlantic Resources, Inc.**

Date: **November 11, 1993**

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 knowledge and belief.

Date Surveyed: **OCTOBER 13, 1993**

Signature & Seal of Professional Surveyor: *Richard B. Durbin*

Certificate No. **4882**

GENERAL ATLANTIC RESOURCES, INC.

Burton Flat Deep Unit #30
 1,980' FEL 860' FSL (SW/4 SE/4)
 Sec. 34 T20S R28E
 Eddy County, New Mexico
 Federal Lease #NM-0311499

DRILLING PROGRAM

<u>SURFACE FORMATION</u>		Fresh water possible
<u>ESTIMATED FORMATION TOPS</u>		(Water, oil, gas and/or other mineral-bearing formations)
Rustler	285'	Evaporites
Yates	650'	Sandstones and shale, some oil, water, or gas-bearing
Capitan reef	1005'	Carbonates, likely water-bearing
Delaware	2745'	Sandstone & siltstones, some water, oil, or gas-bearing
Bone Spring	5295'	Carbonates, some water, oil, or gas bearing
Bone Spring Pay	5435'	Expected gas pay
TOTAL DEPTH	5555'	

CASING PROGRAM

<u>Depth</u>	<u>Hole Dia.</u>	<u>Cas. Dia.</u>	<u>Casing Wt. & Grd.</u>	<u>Cement</u>
O-285	26"	20"	H-40 94# STC New	To surface w/ 530 sx Class "C" + 2% CaCl + .25 #/sk Cellophane
0 - 650'	17 1/2"	13-3/8"	H-40 48# STC New	To surface w/ 400 sx 35/65 Poz/Class "C" + 6% gel + .25#/sk Cellophane + 200 sx Class "C" neat + 2% CaCl
0 - 2,745'	12 1/4"	8-5/8"	K-55 24# STC New 432	To surface w/ 890 sx 35/65 Poz/Class "C" + 6% gel + .25#/sk Cellophane + 200 sx Class "C" neat + 2% CaCl
0 - 5,555'	7-7/8"	5 1/2"	15.5 K-55 14# STC New	TD to 2405' w/ 305 sx 35:65 Poz/Class "C" & 6% gel + 5#/sk cellophane + 195 sx Class "C" + 5#/sk salt

Operator will eliminate this string with Oil Conservation Division approval if no salt stringers are penetrated.

BURTON FLAT DEEP UNIT #30

CASING DESIGN

	CASING (in)	HOLE (in)	INTERVAL (ft)	LENGTH (ft)	WEIGHT (lbs)	GRADE	COUPLING	COLLAPSE (psi)	TENSION (kips)	BURST (psi)
SURFACE Load 8.6 ppg Safety Factor	20	26	0-285	285	94	H-40	ST&C	528 179 2.910	581 37 15.45	1530 179 2.910
INTERMEDIATE Load 8.6 ppg Safety Factor	13-3/8	17-1/2	0-650	650	48	H-40	ST&C	740 290 2.548	322 31 10.32	1730 290 5.96
INTERMEDIATE Load 8.6 ppg Safety Factor	8-5/8	12-1/4	0-2700	2700	24	K-55	ST&C	1368 1206 1.134	263 58 4.54	2950 1242 2.38
INTERMEDIATE Load 8.6 ppg Safety Factor	8-5/8	12-1/4	2700-2745	45	24	S-60	ST&C	1780 1242 1.433	326 2 109	2950 1242 2.38
PRODUCTION Load 8.6 ppg Safety Factor	5-1/2	7-7/8	0-5555	5555	14	K-55	ST&C	3120 2457 1.270	189 77 2.45	4270 2457 1.74
TUBING	2-3/8		0-5465	5465	4.7	J-55	EUE brd	8190	72	7700

See sundry
Notice Received
11/18/93.

CEMENT PROGRAM

		Ft. of Fill	CEMENT TYPE	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	Lead	285	CL 'C' + 2% CaCl + .25#/SK CELLOPHANE	530	100%	14.82	1.34
INTERMEDIATE (1st)	Lead	500	CL 'C' 35/65 POZ/CNT + 6% GEL + .25#/SK CELLOPHANE + 1% CaCl	400	150%	12.65	1.87
	Tail	150	CL 'C' NEAT + 2% CaCl	200	150%	14.82	1.34
INTERMEDIATE (2nd)	Lead	2420	35:65:6 POZ/CL C/GEL + 58/SK SALT + 58/SK CELLOPHANE	890	100%	12.54	2.01
	Tail	325	CL 'C' + .25#/SK CELLOPHANE + 2% CaCl	200	100%	14.82	1.34
PRODUCTION (Shoe)	Lead	2150	35:65:6 POZ/CL C/GEL + 58/SK SALT + 58/SK CELLOPHANE	305	75%	12.54	2.01
	Tail	1000	CL 'C' + 58/SK SALT	195	96%	15.01	1.35
PRODUCTION (DV Tool)	Lead						
	Tail						

SSS

PRESSURE CONTROL (See attached schematic diagram)

B.O.P.'s and choke manifold will be installed and pressure tested before drilling out under surface casing and then will be checked daily as to mechanical operating condition. Ram type preventors and related pressure control equipment will be pressure tested to rated working pressure of the stack assembly if a test plug is used. If a plug is not used, the stack assembly will be tested to the rated working pressure of the stack assembly or to 70% of the minimum internal yield of the casing, whichever is less. Annular type preventors, if used, will be pressure tested to 50% of their rated working pressure. B.O.P.'s will be pressure tested at least once every 30 days. All casing strings will be pressure tested to 0.22 psi/ft. or 1500 psi, whichever is greater, not to exceed 70% of internal yield.

MUD PROGRAM

0' - 285'	Fresh water w/ gel\lime spud slurry		
285' - 650'	Fresh water		
650' - 2745'	Fresh water		
2745' - 3190' 5555'	Cut brine:	M.W.: 9.2-9.4 ppg	Vis.: 29-30 sec
	(SJS) W.L. - no control		

Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kick" will be available at wellsite.

AUXILIARY EQUIPMENT

- A) Upper kelly cock
- B) Inside B.O.P. or stab-in valve (available on rig floor)
- C) Mud monitoring will be visually observed.

LOGGING, CORING, TESTING PROGRAM

- A) Logging: DIL/Microlog/CNL: TD - 2,745'
Lithodensity/GR: TD - Surface
GR/CCL: TD - 2745'
- B) Coring: None
- C) Testing: Possible DSTs of Delaware or Bone Spring pay's, none planned.

ABNORMAL CONDITIONS

- A) Pressures: Lost circulation is anticipated in the surface interval of the hole. No other abnormal conditions are anticipated.
Bone Springs pressure gradient - 0.46 psi/ft.
- B) Temperatures: No abnormal conditions are anticipated.
- C) H₂S: None anticipated.
- D) Estimated bottomhole pressure: 2,555 psi

ANTICIPATED START DATE

Upon approval.

COMPLETION

The location pad will be of sufficient size to accommodate all completion activities and equipment. A string of 2-3/8" 4.7# J-55 tubing will be run for a flowing/pumping string. A Sundry Notice will be submitted with a revised completion program if warranted.

GENERAL ATLANTIC RESOURCES, INC.

Burton Flat Deep Unit #30
1,980' FEL 860' FSL (SW/4 SE/4)
Sec. 34 T20S R28E
Eddy County, New Mexico
Federal Lease #NM-0311499

REQUEST FOR VARIANCE FROM ONSHORE ORDER NO. 2

B.O.P. System

Please allow the use of 3,000 psi B.O.P. system with double gate rams, without an annular preventor, as shown on the attached schematic diagram.

Prior to the implementation of Onshore Order No. 2, B.L.M. criteria for B.O.P. equipment requirements often allowed for the use of double gate rams without an annular preventor. Onshore Order No. 2's B.O.P. requirement is used for "worst case considerations" for high pressure remote, unknown condition wells. The proposed action has close well control and known conditions. In the past, the system proposed was considered adequate.

JUSTIFICATION

Based on the calculations presented in the Application for Permit to Drill and several other factors, B.O.P. system is adequate as follows:

1. Many hundred comparable wells have been drilled on Federal, State and Fee Lands in and around the Carlsbad Resource Area with comparable pressure gradients and conditions utilizing double gate preventors without an annular preventor.
2. The size drilling rig which is considered economically feasible for this well cannot safely rig up an annular preventor under the rig floor.

VARIANCE REQUEST APPROVED PER

Authorized Officer
Bureau of Land Management

NO VARIANCE REQUIRED.

SJS

GENERAL ATLANTIC RESOURCES, INC.
Burton Flat Deep Unit #30
1,650' FEL 860' FSL (SW/4 SE/4)
Sec. 34 T20S R28E
Eddy County, New Mexico
Federal Lease #NM-0311499

SURFACE USE PLAN

WELL LOCATION AND INTRODUCTION:

The originally proposed location was 1,980' FEL 330' FSL of Sec. 34. The wellsite was surveyed and staked on September 30, 1993 by Duniven & Associates, Surveyor, on a site that was geologically and legally acceptable. An on-site meeting was held on October 7, 1993. Present were Adrian Garcia, James Goodbar, and Barry Hunt-BLM, John Hilley - Human Systems Research, and Danny Stidham, Les Johns, and Ronald L. Lloyd - General Atlantic Resources, Inc. At that time the BLM denied the previously staked location because of proximity to possible sinkhole (karst) topography. A location at least 860' FSL was suggested and reviewed, and that location was surveyed and staked on October 13, 1993 by Duniven. No additional onsite meeting was required. An archaeological survey was subsequently performed on the drill site and access road after the restaking.

DIRECTIONS TO LOCATION:

From the county courthouse in Carlsbad, New Mexico travel north 4 miles on County Road 206, then east on County Road 600 \pm 2.0 miles to gas plant, then northeast on lease road 2.4 miles, and then north 0.3 mile, then east 0.2 mile to location.

1) EXISTING ROADS

- A) The well is a development well.
- B) Existing roads within 1 mile - wellsite access road within 1500 feet.
- C) Plans for improvement and maintenance of existing roads are to maintain in as good or better conditions than at present.

2) PLANNED ACCESS ROADS - 1424 feet

- A) Road improvements to be minimum necessary for rig access. Access roads will be crowned and ditched. Running surface width will be approximately 14'; total disturbed width to be approximately 26'-30'.
- B) Borrow ditches to be backsloped 3:1 or shallower.
- C) Maximum grades 3% for 500'.
- D) Drainage to consist of "wing ditches" and borrow ditches on high side if necessary. Low water crossings will be used during drilling operations. If conditions dictate, crossings will be upgraded w/corrugated metal pipes and/or caliche (or gravel) bottomed low water crossings.
- E) If required, surfacing material to consist of 4" caliche.
- F) No turnouts or major road cuts are necessary.
- G) Fence cuts, gates and cattleguards will not be required.
- H) Two pipelines will be crossed. A minimum 3 feet of cover will be placed over pipelines.

3) LOCATION OF EXISTING WELLS

Within a 1-mile radius

Proposed	None	
Drilling	None	
Abandoned	T20S R28E	Sec. 35 SW/4
	T21S R27E	Sec. 3 NE/4 (Irregular)
Disposal/injection	None	
Shut-In	None	
Producing	T20S R28E	Sec. 33 (2 wells) Sec. 34 (2 wells) Sec. 35 (3 wells)
	T21S R27E	Sec. 1 (4 wells) Sec. 2 (7 wells) Sec. 3 NE/4 (Irregular)

4) LOCATION OF EXISTING PRODUCING FACILITIES OPERATED BY GENERAL ATLANTIC RESOURCES, INC.

Within one mile:	T20S R28E	Sec. 33 (2 wells) Sec. 34 (2 wells) Sec. 35 (3 wells)
	T21S R27E	Sec. 1 (4 wells) Sec. 2 (7 wells) Sec. 3 NE/4 (Irregular)

NEW PRODUCTION FACILITIES PROPOSED

- A) Facilities to be constructed on location will be proposed by Sundry Notice upon well completion.
- B) Dimension of Proposed Facility is 200' x 250'.
- C) Site preparation for production will be done with standard excavation equipment using native materials. Additional surface material will be obtained from commercial sources or an approved borrow area.
- D) Production equipment will be painted light reflective colors to limit evaporation and waste of liquid hydrocarbons. The color will be as stipulated by BLM.
- E) Production facilities may vary according to actual reservoir discovered and will be engineered upon completion of well tests.
- F) All pits will be fenced "stock tight" on all sides.
- G) No facilities will be constructed off location.
- H) Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the reserve pit area, back sloping and contouring all cut and fill slopes. These areas will be re-seeded. Refer to plans for restoration of surface for additional details.
- I) Pits which contain oil will be overhead flagged.

5) LOCATION OF WATER SUPPLY

Water will be purchased from a commercial source. Water will be trucked over existing roads or pumped through plastic pipe laid on top of the ground.

6) SOURCE OF CONSTRUCTION MATERIALS

- A) Construction materials will consist of native materials from borrow ditches and location areas.
- B) Surfacing materials will be obtained from available permitted sources, if needed, and consist of caliche or pit gravel.

7) WASTE DISPOSAL

- A) Drill cuttings will be buried in reserve pit.
- B) Drilling fluid will be evaporated then buried in the reserve pit when dry.
- C) Produced fluid will be contained in reserve pit during completion and testing per NTL-2B.
- D) Sewage from trailer houses will be contained in sewage holes at least 10 feet deep on location. Portable toilet will be provided for crew.
- E) Garbage and waste will be kept in totally enclosed cages and hauled out upon completion of operations.
- F) Trash will be picked up if scattered and contained in trash cage as soon as practical after rig is moved off.
- G) Reserve pit will be fenced "stock tight" on three sides during drilling operations, and on fourth side at time of rig release. Pit will remain fenced until backfilled.
- H) Upon release of the drilling rig, rathole, mousehole and sewage holes will be filled. Debris and excess equipment will be removed.

8) ANCILLARY FACILITIES

No ancillary facilities will be necessary.

9) WELLSITE LAYOUT

- A) Drillsite plat and cut/fill diagram will be sent separately if required.
- B) Reserve pit will be lined with at least 6-mil plastic.

10) SURFACE PREPARATION

- A) Topsoil, if required, will be removed prior to location construction from all disturbed areas. Topsoil depth to be removed as stipulated by B.L.M.
- B) Backfilling, leveling and contouring are planned as soon as all pits have dried. Waste and spoils materials will be buried immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.
- C) The soil-banked material will be spread over the area. Revegetation will be accomplished by planting mixed grasses according to list provided by BLM. Revegetation is recommended for road area as well as around drill pad.

- D) The rehabilitation will begin after the drilling rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation is considered best in Fall, unless requested otherwise.
- E) A proposed seed mixture for this location will be specified by the BLM.

11) GENERAL INFORMATION

- A) Project area is situated near Palmilla Draw, an intermittent drainage.
- B) Topographic and geologic features - generally low-relief rolling terrain, with some karst features.
- C) Soil characteristics - poorly developed on gypsum lands.
- D) Flora consists of mesquite, fluff grass, black grama, *Yucca elata*, tobosa grass, broom snakeweed, and four-wing saltbush.
- E) Fauna - none observed, assume deer, coyotes, rabbits, raptors, rodents, snakes and other small reptiles.
- F) Concurrent surface use - limited grazing (current grazing rights: Hart Greenwood, P.O. Box 104, Carlsbad, NM 88220) and oilfield access.
- G) Mineral Lessor - Bureau of Land Management.
- H) Surface Owner
 - Drillsite - BLM
 - Access - BLM, State of New Mexico
- I) Proximity of water, occupied dwellings or other features - none within one mile.
- J) Archaeological, cultural and historical information will be submitted in a report sent under separate cover by Human Systems Research of Las Cruces, NM.

12) LESSEE'S OR OPERATOR'S REPRESENTATIVE:

Operator

General Atlantic Resources, Inc.
410 17th Street
Suite 1400
Denver, CO 80202
(303) 573-5100
Bob Mowry - Dist. Sup.

Field Office
General Atlantic Resources, Inc.
4305 N. Garfield
Suite 201
Midland, TX 79705
Danny Stidham - Area Supt.
(915) 694-3123


Permit Agent

Banko Petroleum Management, Inc.
1515 Arapahoe St., Twr. 1, Suite 1435
Denver, CO 80202
(303) 820-4480
*David Banko - Consulting Petroleum
Engineer
*Keith Dana - Range Mgmt. Consultant
(307) 362-5822
*Ronald L. Lloyd - Consulting Geologist
(303) 770-6064
*Contact to arrange on-site meeting and for
any questions or comments regarding this
permit.

13) CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road; 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 General Atlantic Resources, Inc. and its contractors and sub-contractors in conformity with this plan and conditions under which it is approved.

November 11, 1993



David F. Banko, P.E.
Agent for General Atlantic Resources

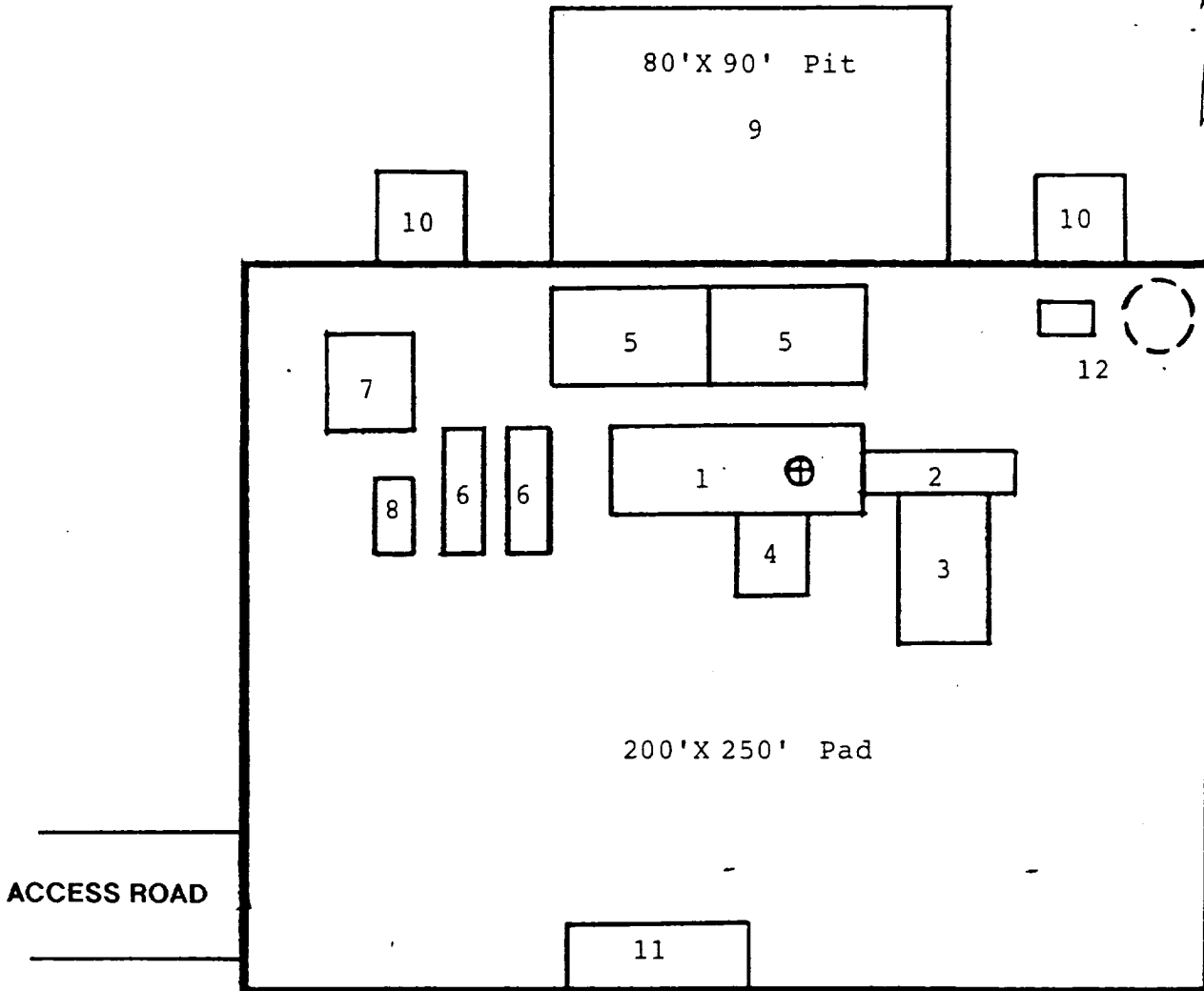
GENERAL ATLANTIC RESOURCES, INC.

BURTON FLAT DEEP UNIT #30

SW/4 SE/4 SEC. 2 T20S R28E

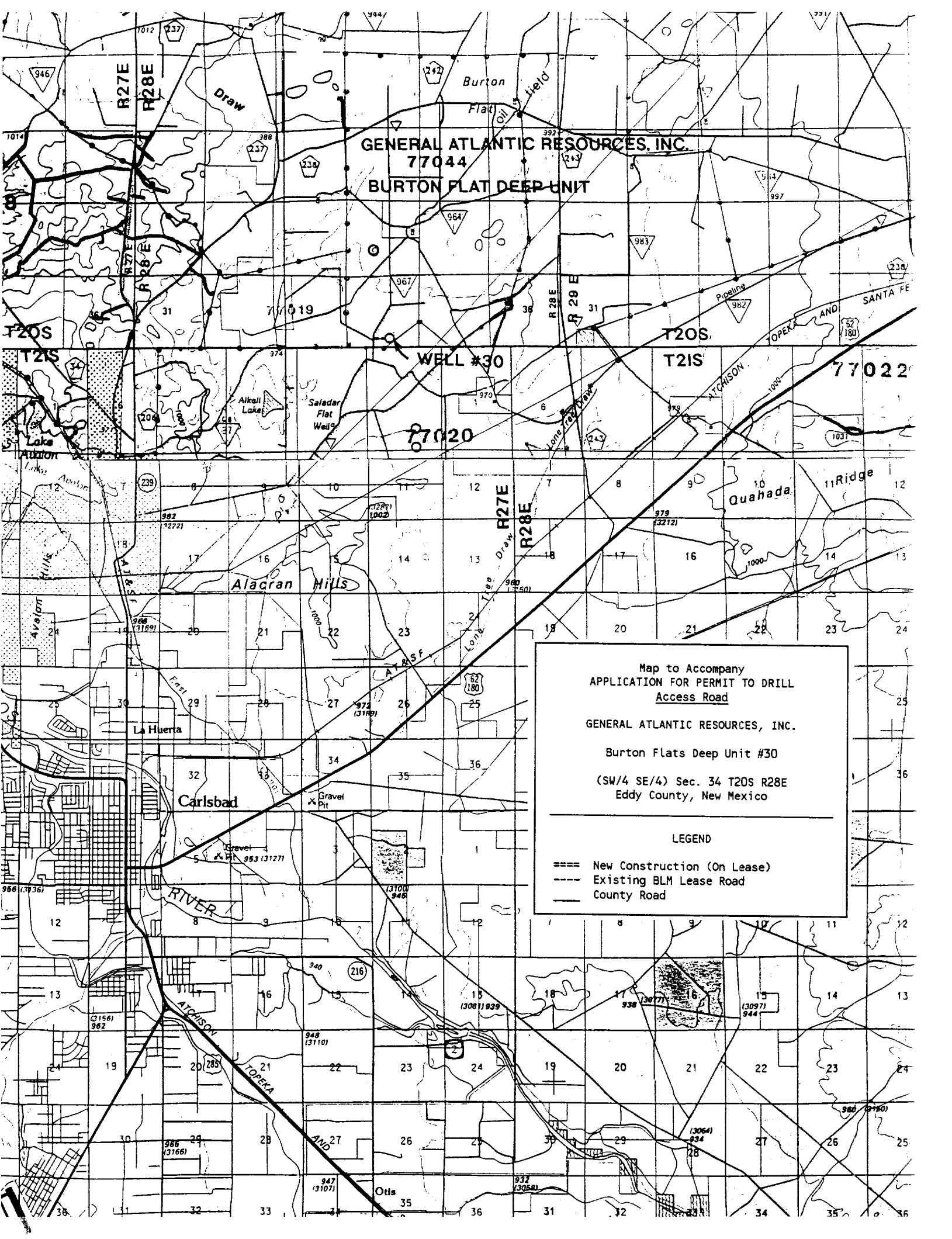
EDDY COUNTY, NEW MEXICO

N



RIG LAYOUT

- | | |
|-----------------|---------------------------|
| 1. Substructure | 7. Water Tank |
| 2. Catwalk | 8. Light Plant |
| 3. Pipe Rack | 9. Reserve Pit |
| 4. Doghouse | 10. Trash Pit |
| 5. Mud Pits | 11. Trailer House |
| 6. Mud Pumps | 12. Production Facilities |



GENERAL ATLANTIC RESOURCES, INC.
77044
BURTON FLAT DEEP UNIT

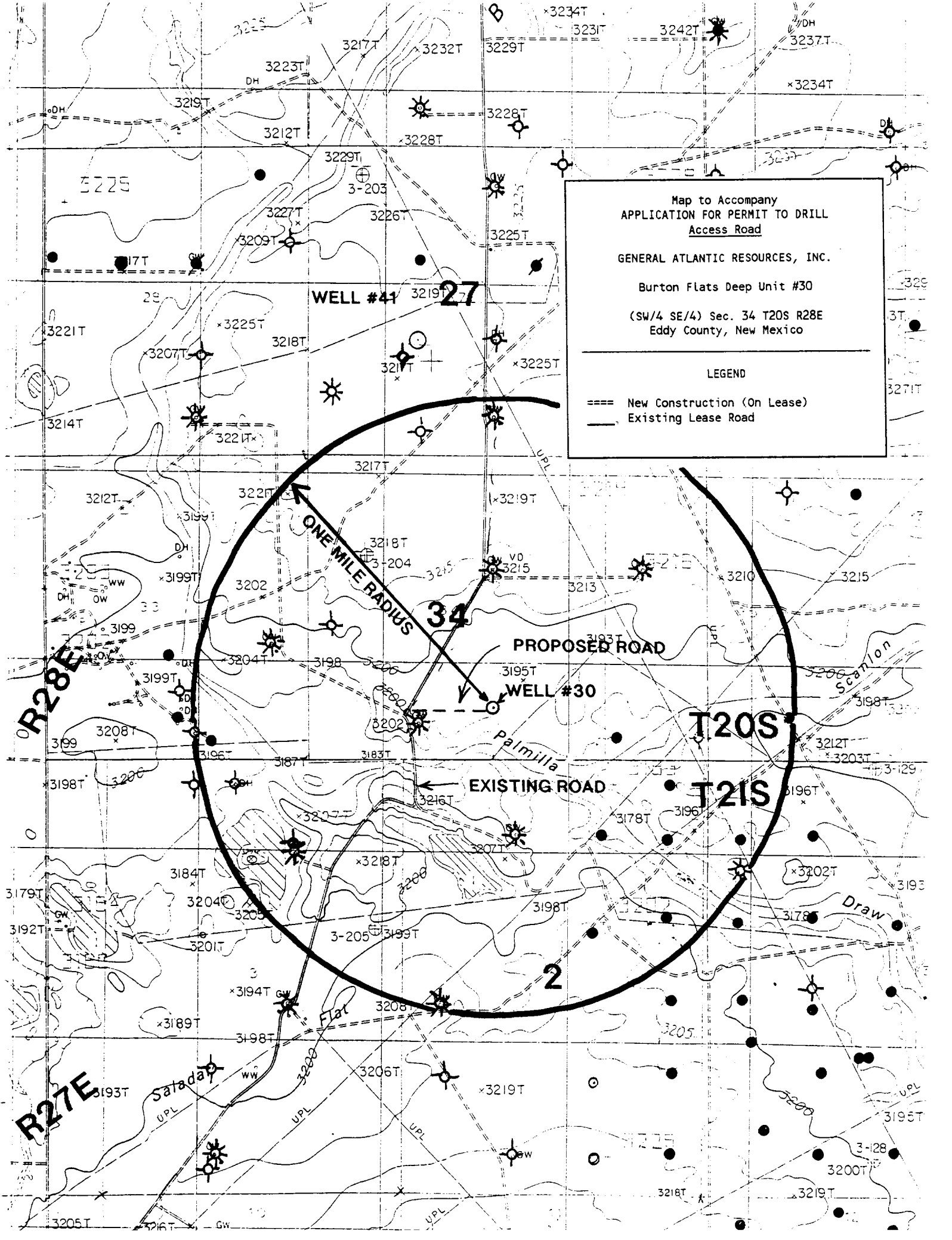
WELL #30
77020

77022

Map to Accompany
APPLICATION FOR PERMIT TO DRILL
Access Road
GENERAL ATLANTIC RESOURCES, INC.
Burton Flats Deep Unit #30
(SW/4 SE/4) Sec. 34 T20S R28E
Eddy County, New Mexico

LEGEND

- ==== New Construction (On Lease)
- Existing BLM Lease Road
- _____ County Road



Map to Accompany
APPLICATION FOR PERMIT TO DRILL
Access Road

GENERAL ATLANTIC RESOURCES, INC.

Burton Flats Deep Unit #30
(SW/4 SE/4) Sec. 34 T20S R28E
Eddy County, New Mexico

LEGEND

- ==== New Construction (On Lease)
- Existing Lease Road

WELL #41 27

ONE MILE RADIUS

PROPOSED ROAD

WELL #30

EXISTING ROAD

T20S

T21S

R28E

R27E

2

Satada

Flat

Palmilla

Draw

Scanlon

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

SJS

SUBMIT IN TRIPLICATE

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	7. If Unit or CA, Agreement Designation Burton Flat Deep Unit
2. Name of Operator General Atlantic Resources, Inc.	8. Well Name and No. 30
3. Address and Telephone No. (303) 573-5100 410 17th Street, Suite 1400, Denver, CO 80202	9. API Well No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 860' FSL 1,980' FEL (SW/4 SE/4) Sec. 34 T20S R28E	10. Field and Pool, or Exploratory Area E. Avalon-Bone Springs
	11. County or Parish, State Eddy, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input checked="" type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> 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.)*

Please see attached for changes in proposed casing.

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 NOV 18 1 57 PM '93

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

Signed Ronald L. Lloyd Title Agent Date NOV. 17, 1993

(This space for Federal or State office use)

Approved by David R. Glass Title Regional Engineer Date DEC 08 1993

Conditions of approval, if any:

DRILLING PROGRAM - BFDU #30

CASING and TUBING DESIGN

DESIGN FACTORS

	CASING (in)	HOLE (in)	INTERVAL (ft)	LENGTH (ft)	WEIGHT (lbs)	GRADE	COUPLING	COLLAPSE (psi)	TENSION (kips)	BURST (psi)
SURFACE Load 8.6 ppg Safety Factor	20	26	0-285	285	94	H-40	ST&C	527 179 2,910	581 37 15.45	2530 179 2,910
INTERMEDIATE Load 8.6 ppg Safety Factor	13-3/8	17-1/2	0-650	650	48	H-40	ST&C	740 290 2,548	322 31 10.32	1730 290 5.96
INTERMEDIATE Load 8.6 ppg Safety Factor	8-5/8	12-1/4	0-2500	2500	24	K-55	ST&C	1362 1195 1,140	263 68 3.88	2950 1369 2.15
INTERMEDIATE Load 8.6 ppg Safety Factor	8-5/8	12-1/4	2500-2745	245	32	K-55	ST&C	2350 1312 1,929	402 8 51.28	3930 1369 2.87
PRODUCTION Load 8.6 ppg Safety Factor	5-1/2	7-7/8	0-5465 5305	5465 5305	15.5	K-55	L7&C	4040 2655 1,523	217 86 2.52	4810 2655 1.81
TUBING	2-7/8		0-5465	5465	6.5	J-55	EUE Brd	7680	99.7	7260

CEMENT PROGRAM

		Ft. of Fill	CEMENT TYPE	SACKS	EXCESS	WEIGHT	YIELD
<u>SURFACE</u>	Lead	285	CL 'C' + 2% CaCl + .25#/SK CELLOPHANE	530	100%	14.82	1.34
<u>INTERMEDIATE (1st)</u>	Lead	600	CL 'C' 35/65 POZ/CMT + 6% GEL + .25#/SK CELLOPHANE + 1% CaCl	400	150%	12.65	1.87
	Tail	150	CL 'C' NEAT + 2% CaCl	200	150%	14.82	1.34
<u>INTERMEDIATE (2nd)</u>	Lead	2420	35:65:6 POZ/CL C/GEL + 5#/SK SALT + 5#/SK CELLOPHANE	890	100%	12.54	2.01
	Tail	325	CL 'C' + .25#/SK CELLOPHANE + 2% CaCl	200	100%	14.82	1.34
<u>PRODUCTION (Shoe)</u>	Lead	2150	35:65:6 POZ/CL C/GEL + 5#/SK SALT + 5#/SK CELLOPHANE	305	75%	12.54	2.01
	Tail	1000	CL 'C' + 5#/SK SALT	195	50%	15.01	1.35
<u>PRODUCTION (DV Tool)</u>	Lead						
	Tail						