

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>			1b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>					
2. NAME OF OPERATOR General Atlantic Resources, Inc. ✓											
3. ADDRESS AND TELEPHONE NO. (303) 573-5100 410 17th Street, Ste. 1400, Denver, CO 80202											
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1,980' FSL 1,980' FWL (NE/4 SW/4) Sec. 27 T20S R28E At proposed prod. zone same											
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* Approximately 8 miles north of Carlsbad, NM											
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)			660'			16. NO. OF ACRES IN LEASE 40			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.			None			19. PROPOSED DEPTH 11,350'			20. ROTARY OR CABLE TOOLS Rotary		
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3,219' GR						22. APPROX. DATE WORK WILL START* Upon Approval					

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# STC	335'	625 sx Class "C" CIRCULATE
17 1/2"	13 3/8" H-40	48# STC	650	400 sx 35/65 poz/Class "C" + 200 sx Class "C" neat CIRCULATE
12 1/4"	8 5/8" K-55 4 5/8" S-80	24# STC 432	2,745'	890 sx 35/65 poz/Class "C" + 200 sxs Class "C" neat (SEE STIP)
7 7/8"	5 1/2" N-80 & S-95	17# STC	T.D.	205 sx 35/65 poz/Class "C" + 195 sx Class "C" neat (SEE STIP)

*Modifications are as per sundry received 11/18/93.

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.

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 David F. Banko, P.E. TITLE Agent/Petroleum Engineer DATE November 11, 1993

(This space for Federal or State office use)

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

(ORIG. SGD.) RICHARD L. MANUS AREA MANAGER
APPROVED BY _____ TITLE _____ 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

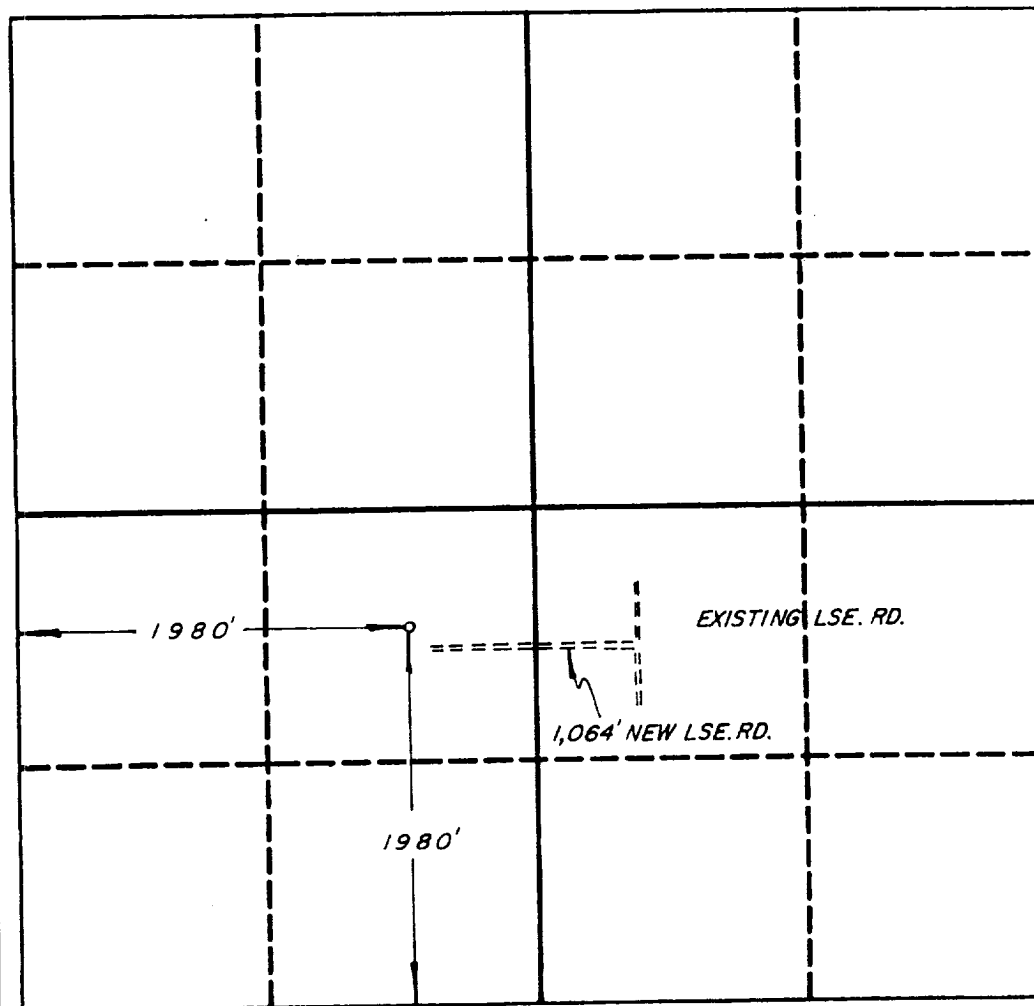
DISTRICT III
1000 Rio Arriba Rd., Aztec, NM 87410

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. # 41
Unit Letter K	Section 27	Township 20 SOUTH	Range 28 EAST	County EDDY	NMPM
Actual Footage Location of Well: 1980 feet from the SOUTH line and 1980 feet from the WEST line					
Ground level Elev. 3219'	Producing Formation MORROW		Pool East Avalon	Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below. **BURTON FLAT**
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 interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
☒ Yes ☐ No If answer is "yes" type of consolidation **Federal 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 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

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

SEPTEMBER 30, 1993

Signature & Seal of
Professional Surveyor

[Signature]

Certificate No.

4882

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

GENERAL ATLANTIC RESOURCES, INC.

Burton Flat Deep Unit 41
1,980' FSL 1,980' FWL (NE/4 SW/4)
Sec. 34 T20S R28E
Eddy County, New Mexico
Federal Lease #NM-18219

DRILLING PROGRAM

SURFACE FORMATION

Fresh water possible

ESTIMATED FORMATION TOPS

(Water, oil, gas and/or other mineral-bearing formations)

Rustler	335'	Evaporites (possible salt)
Yates	635'	Limestone & shale, some water, oil, and gas-bearing
Capitan Reef	1015'	Carbonates, expected water-bearing
Delaware	2745'	Sandstone & shale, some water, oil, and gas-bearing
possible pay	2785'	Carbonate, possible oil, gas
Bone Springs	5284'	Limestone, sandstone, some water, oil, or gas bearing
#23 Sand	5415'	Sandstone, possibly oil and gas bearing
Wolfcamp	8915'	Limestone and shale
Wolfcamp porosity	9215'	Limestone, possibly water, oil, or gas-bearing
Strawn	10,065'	Limestone, possible water, oil, or gas-bearing
Atoka	10,565'	Limestone, possible water, oil, or gas-bearing
Morrow	10,955'	Sandstone & shale, expected gas-bearing
Barnett Shale	11,340'	Shale, tight
TOTAL DEPTH	11,350'	

CASING PROGRAM

<u>Depth</u>	<u>Hole Dia.</u>	<u>Cas. Dia.</u>	<u>Casing Wt. & Grd.</u>	<u>Cement</u>
O-335	26"	20"	H-40 94# STC New	To surface w/ 625 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# (45' S-80) STC New 32	To surface w/ 890 sx 35/65 Poz/Class "C" + 6% gel + .25#/sk Cellophane + 200 sx Class "C" neat + 2% CaCl
0 - 11,350'	7-7/8"	5 1/2"	N-80 17# (835' S-95) STC New 535	TD to 2405' w/ 205 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.

DRILLING PROGRAM

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 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. Casing shoe will be tested by drilling out 5' - 20' under shoe and pressure testing to maximum expected mud weight equivalent as shown in Mud Program below.

MUD PROGRAM

0' - 335'	Fresh water w/ gel\lime spud slurry
335' - 650'	Fresh water
650' - 2745'	Fresh water 10.0+ — 535 as per telecon w/ D. Banko, 12/21/93
2745' - 11,350'	Cut brine M.W.: 9.2-9.4 ppg Vis. - 29-30 sec
	W.L. - no control. Sweep at TD.

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

BURTON FLAT DEEP UNIT #41

CASING DESIGN

DESIGN FACTORS

	CASING (in)	HOLE (in)	INTERVAL (ft)	LENGTH (ft)	WEIGHT (lbs)	GRADE	COUPLING	COLLAPSE (psi)	TENSION (lbs)	BURST (psi)
SURFACE	20	26	0-334	334	94	H-40	ST&C	520 179 2.910	581 37 15.45	1530 179 2.910
Load 8.6 ppg Safety Factor										
INTERMEDIATE	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
Load 8.6 ppg Safety Factor										
INTERMEDIATE	8-5/8	12-1/4	0-2700	2700	24	K-55	ST&C	1368 1206 1.134	283 58 4.54	2950 1242 2.38
Load 8.6 ppg Safety Factor										
INTERMEDIATE	8-5/8	12-1/4	2700-2744	44	24	S-60	ST&C	1780 1242 1.433	328 2 100	2950 1242 2.38
Load 8.6 ppg Safety Factor										
PRODUCTION	5-1/2	7-7/8	0-10900	10900	17	H-80	LT&C	6251 5549 1.127	348 192 1.81	7740 5753 1.35
Load 9.8 ppg Safety Factor										
PRODUCTION	5-1/2	7-7/8	10900-11334	434	17	S-95	LT&C	8580 5753 1.491	382 7 57.65	9190 5753 1.60
Load 8.8 ppg Safety Factor										
TUBING	2-3/8		0-11300	11300	4.7	H-40	EUE 6rd	11780	104	11200

See Sundry
rec'd. 11/18/93.

SSS

CEMENT PROGRAM

		Ft. of Fill	CEMENT TYPE	SACKS	EXCESS	WEIGHT	YIELD
<u>SURFACE</u>	Lead	334	CL 'C' + 2% CaCl + .25#/SK CELLOPHANE	620	100%	14.82	1.34
<u>INTERMEDIATE (1st)</u>	Lead	500	CL 'C' 35/65 POZ/CL G/GEL + 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 G/GEL + 5#/SK SALT + 5#/SK CELLOPHANE	890	100%	12.54	2.01
	Tail	324	CL 'C' + .25#/SK CELLOPHANE + 2% CaCl	200	100%	14.82	1.34
<u>PRODUCTION (Shoe)</u>	Lead	1450	35:65:6 POZ/CL G/GEL + 5#/SK SALT + 5#/SK CELLOPHANE	205	75%	12.54	2.01
	Tail	1000	CL 'C' + 5#/SK SALT	195	50%	15.01	1.35

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 - 2,740'
Lithodensity/GR: TD - Surface
GR/CCL: TD - 2745'
- B) Coring: None
- C) Testing: Possible DST of Delaware, Bone Springs, Wolfcamp, Morrow pays.

ABNORMAL CONDITIONS

A) Pressures: Lost circulation is anticipated in the surface interval of the hole. No other abnormal conditions are anticipated.

Morrow pressure gradient - 0.54 psi/ft

B) Temperatures: No abnormal conditions are anticipated

C) H₂S: None anticipated

D) Estimated bottomhole pressure: 6,129 psi

ANTICIPATED START DATE

Upon approval.

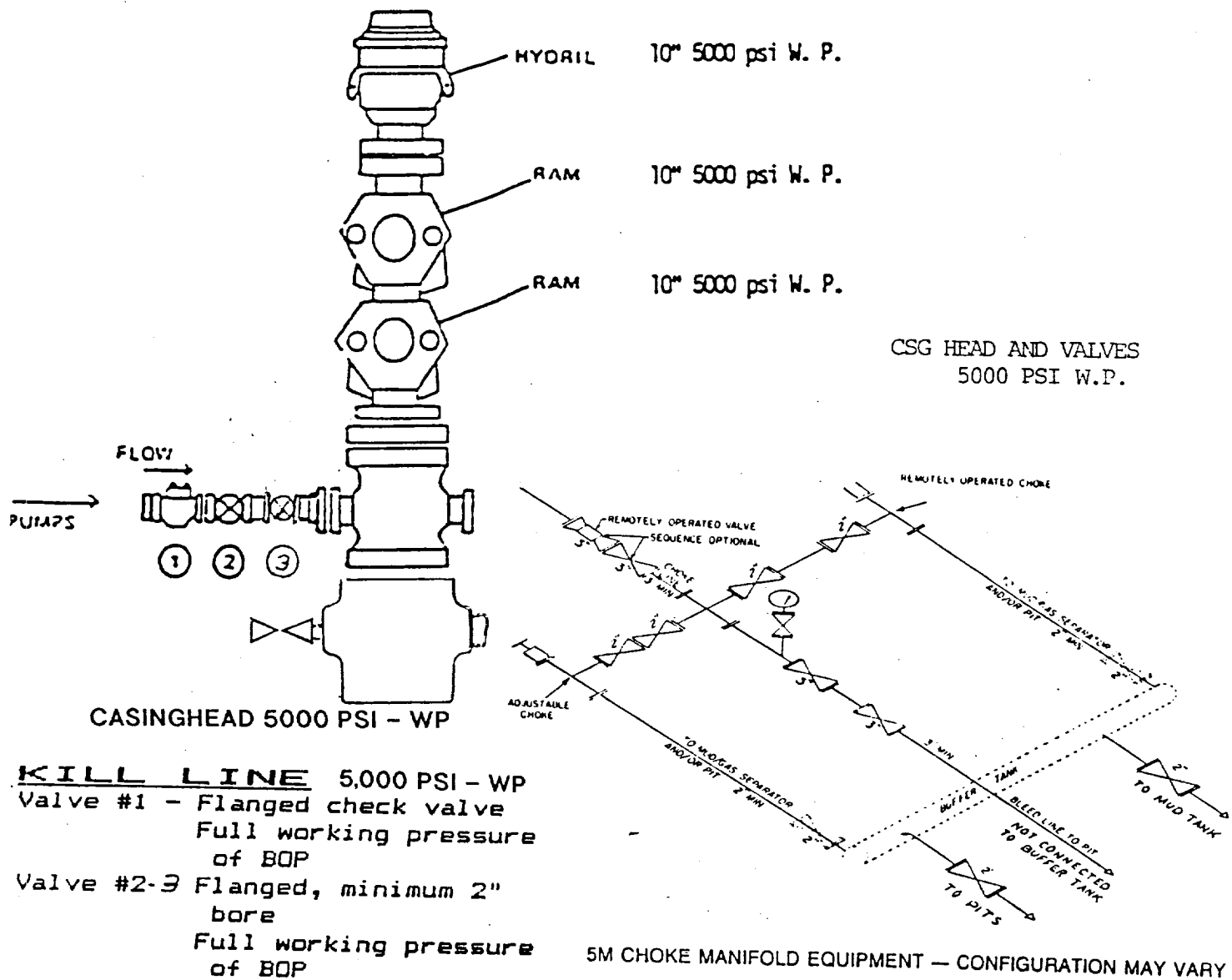
COMPLETION

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.

MINIMUM BOP Requirements

5000 PSI

FILL LINE ABOVE THE UPPERMOST PREVENTER



GENERAL RULES AND RECOMMENDATIONS

All lines to manifold are to be at right angles (90 deg.). No 45 deg. angles are to be used.
Blind flanges are to be used for blanking.
ALL studs and nuts are to be installed on all flanges.
Choke manifold may be screwed connections behind choke.

GENERAL ATLANTIC RESOURCES, INC.

Burton Flat Deep Unit #41

1,980' FSL 1,980' FWL (NE/4 SW/4)

Sec. 27 T20S R28E

Eddy County, New Mexico

Federal Lease #NM-18219

SURFACE USE PLAN

WELL LOCATION AND INTRODUCTION:

The proposed location is 1,980' FSL, 1,980' FNL of Sec. 27. The wellsite was surveyed and staked on September 30, 1993 by Duniven & Associates, Surveyor, on a site that was geologically, topographically and legally acceptable. An on-site meeting was held on October 7, 1993. Present were Barry Hunt and Adrian Garcia-BLM, and Danny Stidham, Les Johns, and Ronald L. Lloyd - General Atlantic Resources, Inc. An archaeological study was conducted by Human Systems Research on October 7, 1993.

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 1.8 miles, then north 1.5 miles, then west 0.2 mile to location.

1) EXISTING ROADS

- A) The well is a development well.
- B) Existing roads within 1 mile - wellsite access road approximately 1200' from location.
- C) Plans for improvement and/or maintenance of existing roads are to maintain in as good or better conditions than at present.

2) PLANNED ACCESS ROADS (1064 feet)

- A) Road improvements to be minimum necessary for rig access. Roads will be ditched and crowned as required. Running surface width to be approximately 14', with a maximum right-of-way of 30'.
- B) Borrow ditches will be backsloped 3:1 or shallower.
- C) Maximum grades: < 2% for entire length of new access road.
- 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) Surfacing material as required will consist of caliche.
- F) No major road cuts are necessary.
- G) Fence cuts, gates and cattleguards will not be required.
- H) One pipeline will be crossed. A minimum 3' of cover will be placed over pipeline.

3) LOCATION OF EXISTING WELLS

Within a 1-mile radius

Proposed	None	
Drilling	None	
Abandoned	T20S R28E	Sec. 22 SE/4; Sec. 26 SW/4; Sec. 27 (7); Sec. 28 SE/4, NE/4;
Disposal/injection	None	
Shut-In	None	
Producing	T20S R28E	Sec. 22 SW/4; Sec. 27 (3 wells); Sec. 28 NE/4, SE/4; Sec. 34 NE/4

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

Within one mile:	T20S R28E	Sec. 22 SW/4; Sec. 27 (3 wells); Sec. 28 NE/4, SE/4; Sec. 34 NE/4
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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 325' 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. Color to 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 with mixture to be determined by the BLM. 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 and 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 on location, and a portable toilet will be provided for the drilling crew.
- E) Garbage and waste will be kept in totally enclosed cages and hauled to an approved landfill 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 will be removed prior to location construction from all disturbed areas, if required, to a depth stipulated by B.L.M.
- B) Backfilling, leveling and recontouring 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 as per formula 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 seed mixture for this location will be specified by the BLM.

11) GENERAL INFORMATION

- A) Project area is situated approximately 1.75 miles north of Palmilla Draw, an intermittent drainage.
- B) Topographic and geologic features - essentially flat.
- C) Soil characteristics - poorly developed on gypsum lands.
- D) Flora consists of mesquite, fluff grass, black grama, *Yucca elata*, broom snakeweed, four-wing saltbush.
- E) Fauna - none observed, assume deer, coyotes, rabbits, raptors, rodents, snakes and other small reptiles.
- F) Concurrent surface use - grazing (current grazing rights: Harley Ballard, P.O. Box 1777, Carlsbad, NM 88220), oilfield access, and hunting.
- G) Mineral Lessor - Bureau of Land Management.
- H) Surface Owner:
 - Drillsite - BLM
 - Access - BLM
- I) Proximity of water, occupied dwellings or other features: intermittent drainage - 0.8 west, no dwellings 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.

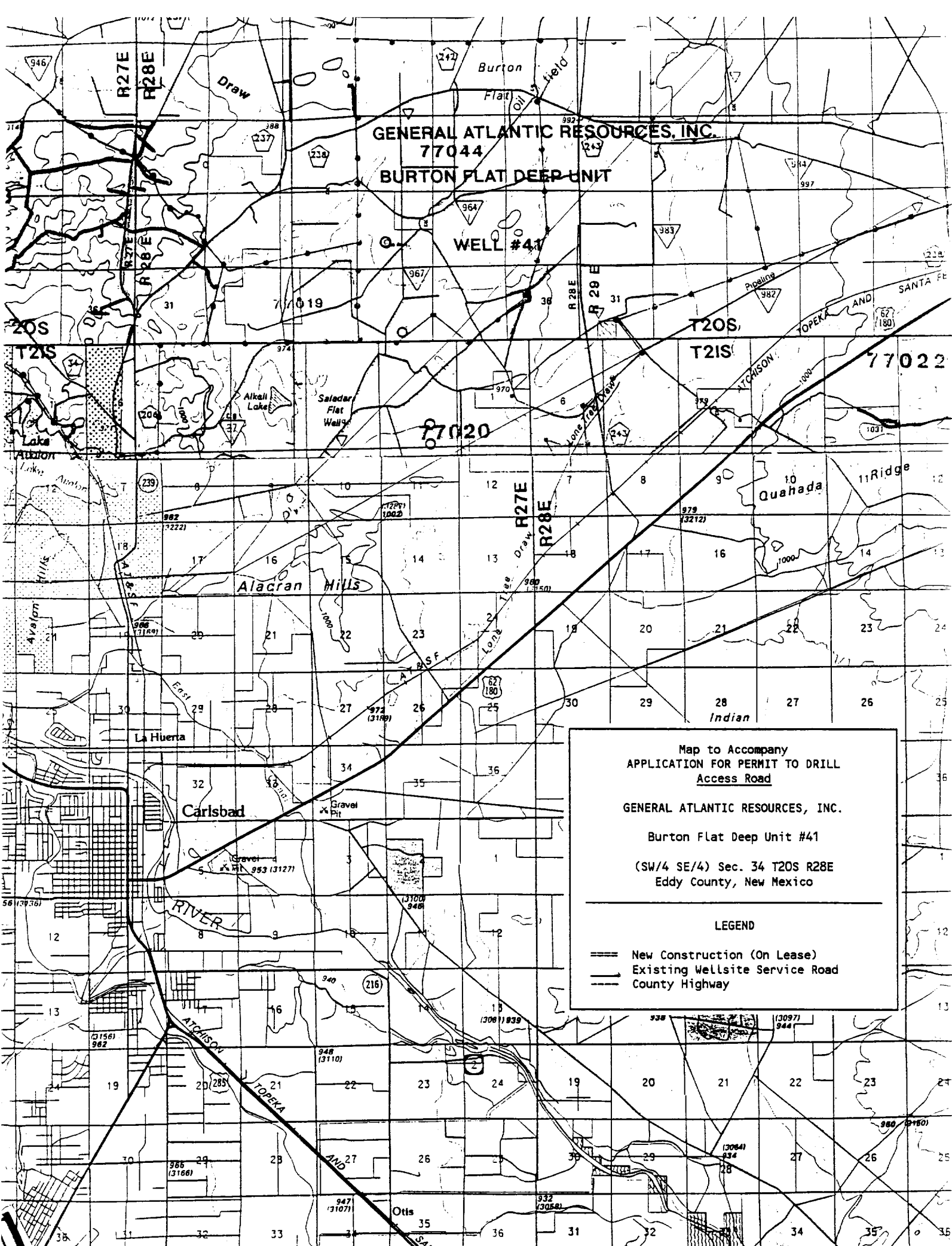
13) CERTIFICATION:

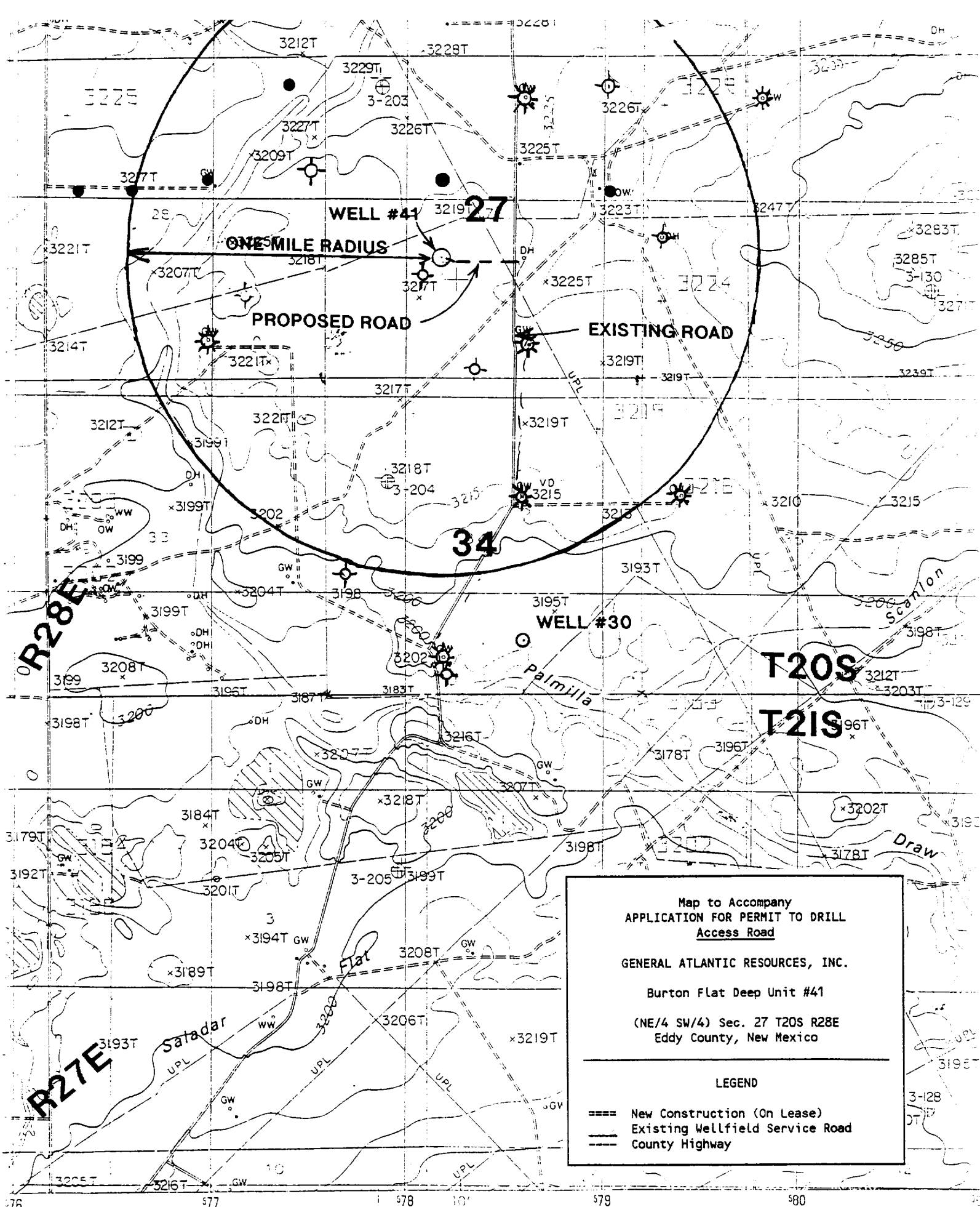
I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the 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
Agent for
General Atlantic Resources, Inc.





Map to Accompany
APPLICATION FOR PERMIT TO DRILL
Access Road

GENERAL ATLANTIC RESOURCES, INC.

Burton Flat Deep Unit #41

(NE/4 SW/4) Sec. 27 T20S R28E
Eddy County, New Mexico

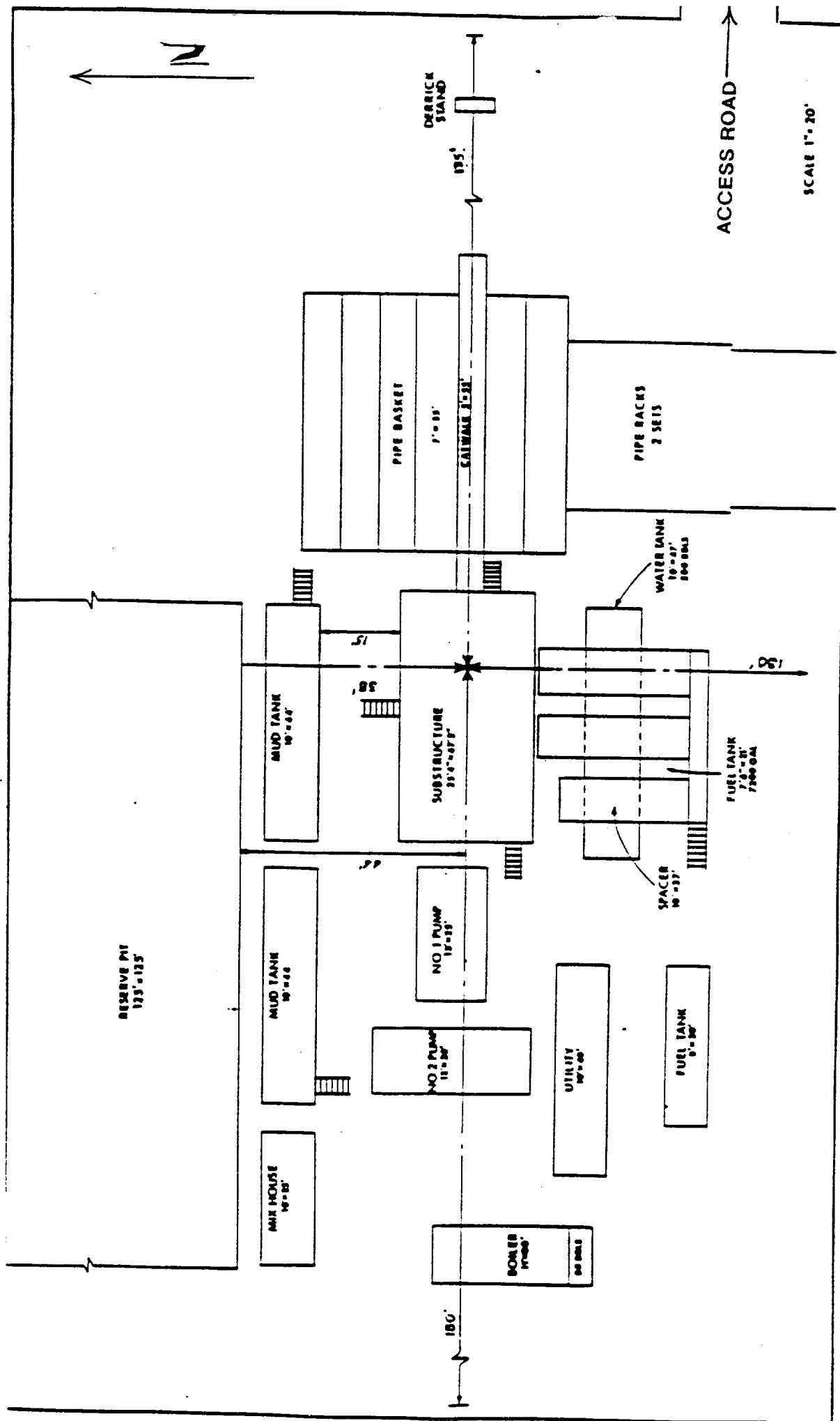
LEGEND

- ==== New Construction (On Lease)
- Existing Wellfield Service Road
- - - County Highway

SCALE 1:24 000

NEW MEXICO

DRILLING RIG LAYOUT



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

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. NM-18219
2. Name of Operator General Atlantic Resources, Inc.	6. If Indian, Allottee or Tribe Name -----
3. Address and Telephone No. (303) 573-5100 410 17th Street, Suite 1400, Denver, CO 80202	7. If Unit or CA, Agreement Designation Burton Flat Deep Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1,980' FSL 1,980' FWL (NE/4 SW/4) Sec. 27 T20S R28E	8. Well Name and No. 41
	9. API Well No.
	10. Field and Pool, or Exploratory Area E. Avalon Morrow
	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.

NOV 13 1 35 PM '93
RECEIVED
O&G AREA

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

Signed <u>Ronald L. Lloyd</u>	Title <u>Agent</u>	Date <u>Nov. 17, 1993</u>
(This space for Federal or State office use)		
Approved by <u>Orig. Signed by Shannon J. Shaw</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>12/21/93</u>
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, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

CASING and TUBING DESIGN

DRILLING PROGRAM - BFDU #41

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 INTERMEDIATE Load 8.6 ppg Safety Factor INTERMEDIATE Load 8.6 ppg Safety Factor INTERMEDIATE Load 8.6 ppg Safety Factor PRODUCTION Load 10.1 ppg Safety Factor PRODUCTION Load 10.1 ppg Safety Factor	20	26	0-334	334	94	H-40	ST&C	520 179 2,910	581 37 15.45	1530 179 2,910
	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
	8-5/8	12-1/4	0-2500	2500	24	K-55	ST&C	1362 1195 1,140	283 68 3.88	2950 1369 2.15
	8-5/8	12-1/4	2500-2744	244	32	K-55	ST&C	2350 1312 1,929	402 8 51.28	3930 1369 2.87
	5-1/2	7-7/8	0-10500	10500	17	N-80	LT&C	6218 5509 1,129	348 193 1.81	7740 5947 1.30
	5-1/2	7-7/8	10500-11334	834	17	S-95	LT&C	8580 5947 1,443	392 14 27.65	9190 5947 1.55
	TUBING	2-7/8	0-11300	11300	6.5	N-80	EUE 8rd	11160	144.9	10570

CEMENT PROGRAM

		Ft. of Fill	CEMENT TYPE	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	Lead	334	CL 'C' + 2% CaCl + .25#/SK CELLOPHANE	620	100%	14.82	1.34
INTERMEDIATE (1st)	Lead	500	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
INTERMEDIATE (2nd)	Lead	2420	35:65:6 POZ/CL C/GEL + 5#/SK SALT + 5#/SK CELLOPHANE	890	100%	12.54	2.01
	Tail	324	CL 'C' + .25#/SK CELLOPHANE + 2% CaCl	200	100%	14.82	1.34
PRODUCTION (Shoe)	Lead	1450	35:65:6 POZ/CL C/GEL + 5#/SK SALT + 5#/SK CELLOPHANE	205	75%	12.54	2.01
	Tail	1000	CL 'C' + 5#/SK SALT	195	50%	15.01	1.35