NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

September 24, 1997

Burlington Resources Oil & Gas Company
P. O. Box 4289
Farmington, New Mexico 87499-4289

Attention: Peggy Bradfield

Re: *Application dated August 22, 1997 for administrative approval to drill the San Juan "28-6" Unit Well No. 142-M at an unorthodox gas well location for both the Blanco-Mesaverde and Basin-Dakota Pools 1830 feet from the North line and 2575 feet from the West line (Unit F) of Section 21, Township 28 North, Range 6 West, NMPM, Rio Arriba County, New Mexico.*

Dear Ms. Bradfield:

I am returning the subject application as incomplete. Should an alternate standard location or one that is less unorthodox within the W/2 of said Section 21 not be found, please provide the following information in resubmitting the attached application:

(a) please identify all existing or past producing Blanco-Mesaverde or Basin-Dakota gas wells within the W/2 of said Section 21 (well names, well numbers, API numbers, complete location descriptions, and in particular reference to all previous orders related to a particular well);

(b) your plat on page 10 indicates "fee lands" within said Section 21: are these fee lands within the San Juan "28-6" Unit and are they participating parties to the Unit, have there interest been ratified, how are their correlative rights being protected, please explain in detail;

(c) How is draining in both reservoirs affected with a well that is as unorthodox and off-pattern as this well; and,

(d) Since a directional drilling permit is somewhat easier to obtain for an orthodox bottomhole location why can't this well be directionally drilled.

Sincerely,

Michael E. Stogner
Chief Hearing Officer/Engineer

cc: New Mexico Oil Conservation Division - Aztec
W. Thomas Kellahin - Santa Fe
William J. LeMay, Director - NMOCD, Santa Fe
W. Perry Pearce - Burlington Resources Oil & Gas Company, Santa Fe

NSL 9/11/97

BURLINGTON RESOURCES

SAN JUAN DIVISION

AUG 22 1997

August 22, 1997

Sent Federal Express

Mr. William LeMay
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: San Juan 28-6 Unit #142M
1830'FNL, 2525'FWL Section 21, T-28-N, R-6-W, Rio Arriba County, New Mexico
API # 30-039-(not yet assigned)

Dear Mr. LeMay:

Burlington Resources is applying for administrative approval of a non-standard location for the above location in both the Mesa Verde and Dakota formations. This application for the referenced location is at the request of the Bureau of Land Management to minimize surface disturbance, the terrain, and the presence of archaeology.

The following attachments are for your review:

1. Application for Permit to Drill.
2. Completed C-102 at referenced location.
3. Offset operators/owners plat - Burlington is the offset operator
4. 7.5 minute topographic map showing the orthodox windows, and enlargement of the map to define topographic features.

We appreciate your earliest consideration of this application.

Sincerely,

Peggy Bradfield
Regulatory/Compliance Administrator

xc: Bureau of Land Management
NMOCD - Aztec District Office

- current / past MV/DK producing wells in the W/2 ?
- fee lands notification ?
- drainage ?
- infill well in both zones ?
- directional drill (since its easy to pursue now).
- old P&A well ; pad available
- drawdown it offset well.

3535 East 30th St., 87402-8801, P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700, Fax 505-326-9833

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. **Type of Work**
DRILL

5. **Lease Number**
SF-079193
Unit Reporting Number
891001051B-Dk
8910010510-MV

1b. **Type of Well**
GAS

6. **If Indian, All. or Tribe**

2. **Operator**
BURLINGTON RESOURCES Oil & Gas Company

7. **Unit Agreement Name**
San Juan 28-6 Unit

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499

(505) 326-9700

8. **Farm or Lease Name**
San Juan 28-6 Unit

9. **Well Number**
142M

4. **Location of Well**
1830'FNL, 2525'FWL

Latitude 36° 38.9, Longitude 107° 28.3

10. **Field, Pool, Wildcat**
Blanco MV/Basin Dk

11. **Sec., Twn, Rge, Mer. (NMPM)**
Sec 21,T-28-N,R-6-W

API # 30-039-

14. **Distance in Miles from Nearest Town**
4 miles to Gobernador

12. **County** Rio Arriba

13. **State** NM

15. **Distance from Proposed Location to Nearest Property or Lease Line**
1830'

16. **Acres in Lease**

17. **Acres Assigned to Well**
320 W/2

18. **Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease**
1600'

19. **Proposed Depth**
7788

20. **Rotary or Cable Tools**
Rotary

21. **Elevations (DF, FT, GR, Etc.)**
6461'GR

22. **Approx. Date Work will Start**

23. **Proposed Casing and Cementing Program**
See Operations Plan attached

24. **Authorized by:** Peggy Bradfield
Regulatory/Compliance Administrator

8-8-97
Date

PERMIT NO. _____ **APPROVAL DATE** _____

APPROVED BY _____ **TITLE** _____ **DATE** _____

Archaeological Report to be submitted by Arboles
Threatened and Endangered Species Report to be submitted by Ecosphere
NOTE: an APD was approved 2-10-81 for this well in this 1/4 Section.

2

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
Revised February 21,
Instructions on
Submit to Appropriate District O
State Lease - 4 C
Fee Lease - 3 C.

☐ AMENDED REP

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-039-	72319/71599	Blanco Mesaverde/Basin Dakota

4 Property Code	5 Property Name	6 Well Number
7462	SAN JUAN 28-6 UNIT	142M

7 OGRID No.	8 Operator Name	9 Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6461'

10 Surface Location

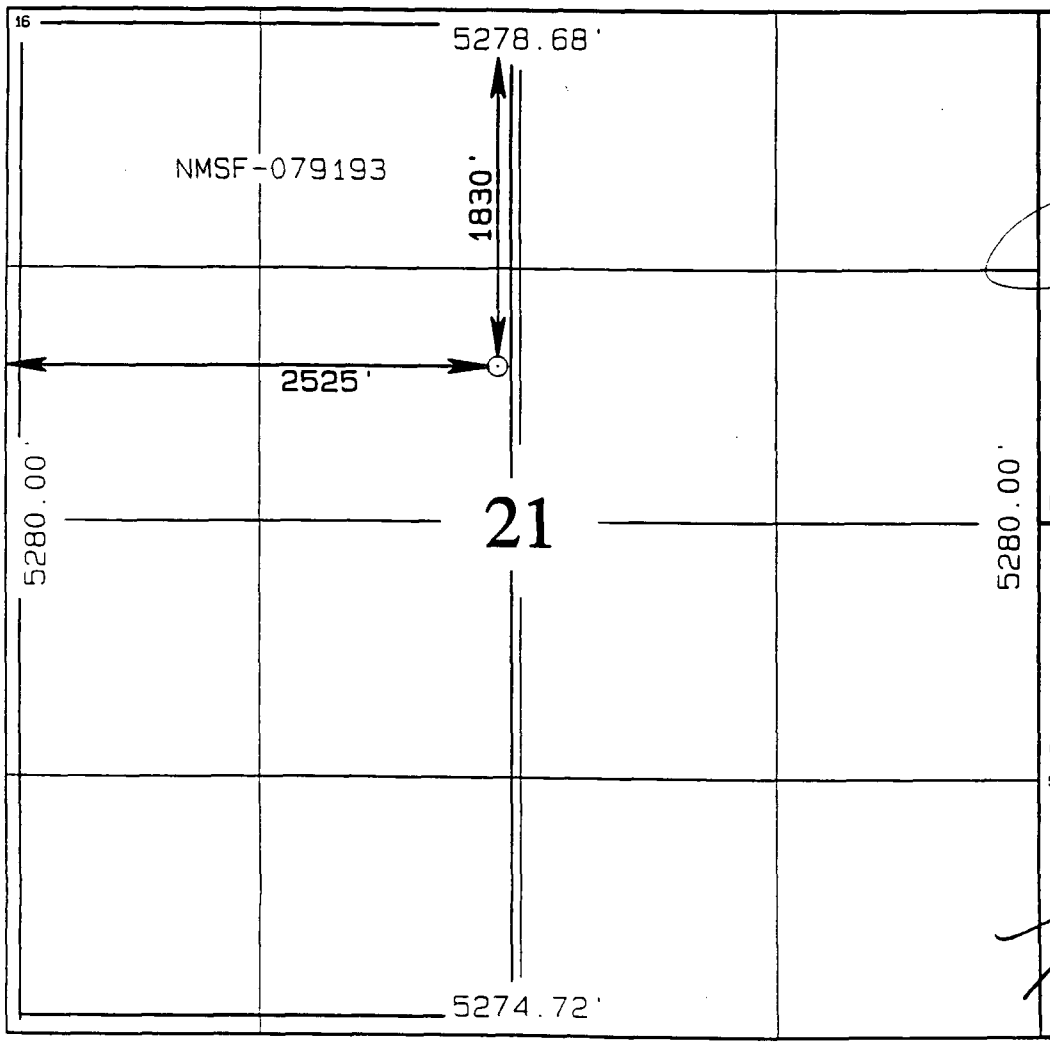
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	21	28	6		1830	North	2525	WEST	RIO ARRI

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.
MV-W/320 DK-W/320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDAT
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



17 OPERATOR CERTIFICATI

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

Signature

Peggy Bradfield
Printed Name

Regulatory Administra
Title

8-8-97
Date

18 SURVEYOR CERTIFICATI

I hereby certify that the well location shown on this was plotted from field notes of actual surveys made or under my supervision, and that the same is true correct to the best of my belief.

JUL 8, 1997
Date Of Survey

Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

6857
Certificate Number

3

OPERATIONS PLAN

Well Name: San Juan 28-6 Unit #142M
Location: 1830'FNL, 2525'FWL Sec 21, T-28-N, R-6-W
Rio Arriba County, NM
Latitude 36° 38.9, Longitude 107° 28.3
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6461'GL

Formation Tops:	***Top***	***Bottom***	***Contents***
Surface	San Jose	2508'	
Ojo Alamo	2508'	2923'	aquifer
Fruitland	2923'	3283'	gas
Pictured Cliffs	3283'	3473'	gas
Lewis	3473'	3828'	gas
Intermediate TD	**3573'**		
Mesa Verde	3828'	4243'	gas
Chacra	4243'	4958'	
Massive Cliff House	4958'	5118'	gas
Menefee	5118'	5473'	gas
Massive Point Lookout	5473'	6698'	gas
Gallup	6693'	7433'	gas
Greenhorn	7433'	7538'	gas
Graneros	7538'	7650'	gas
Dakota	7650'		gas
TD (4 1/2"liner)	**7788'**		

Logging Program:
Cased hole - CBL - TD to 200' above TOC, GR/CNL across MV/Dk

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-9.0	40-50	no control
200-3573'	LSND	8.4-9.0	30-60	no control
3573-7788'	Gas	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program (as listed, the equivalent, or better):

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0' - 200'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 3573'	7"	20.0#	J-55
6 1/4"	3473' - 6855'	4 1/2"	10.5#	J-55
6 1/4"	6855' - 7788'	4 1/2"	11.6#	J-55

Tubing Program:

0' - 7788'	2 3/8"	4.70#	EUE

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -

9 5/8" x 7" x 2 3/8" x 3000 psi tree assembly.

General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drilling crew.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

9 5/8" surface casing - cement with 163 sx Class "B" cement with 1/4# flocele/sx and 2% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -

Lead w/288 sx Class "B" w/3% medisilicate, 10# gilsonite/sx and 1/2# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% calcium chloride, 2% gel, 1/2# flocele/sx, 10# gilsonite/sx (940 cu.ft. of slurry, 75% excess to circulate to surface.) WOC minimum of 12 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 2923'. Two turbolating centralizers at the base of the Ojo Alamo at 2923'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 104 sx 65/35 Class "B" poz with 6% gel, 5# gilsonite/sx and 1/4# flocele/sx. Tail with 305 sx 50/50 Class "B" Poz with 2% gel, 1/4# flocele/sx, 5# gilsonite/sx, and 0.4% fluid loss additive (598 cu.ft., 35% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Cement float shoe on bottom with float collar spaced on top of shoe joint.

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 4 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 4 1/2" x 7" casing strings. After completion of the well, a 4 1/2" retrievable bridge plug will be set below the top of cement in the 4 1/2" x 7" overlap. The 4 1/2" casing will then be backed off above the top of cement in the 4 1/2" x 7" overlap and laid down. The liner top can then be pressure tested to ensure a seal between the liner top and the 7" casing has been achieved. The test pressure shall be the maximum anticipated pressure to which the seal will be exposed (700 psi for the Mesa Verde and 2500 psi for the Dakota). The 4 1/2" bridge plug will then be retrieved and the production tubing will be run to produce the well.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

Special Drilling Operations (Gas/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Dakota and Mesa Verde formations will be completed and commingled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	800 psi
Pictured Cliffs	800 psi
Mesa Verde	700 psi
Dakota	2500 psi

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The west half is dedicated to the Mesa Verde and Dakota in this well.
- This gas is dedicated.

Drilling Engineer

8/11/97
Date

BURLINGTON RESOURCES

San Juan 28-6 Unit #142M
Multi-Point Surface Use Plan

1. Existing Roads - Refer to Map No. 1.. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.

2. Planned Access Road - Refer to Map No. 1. The required new access road is shown on Map No. 1. The gradient, shoulder, crowning and other design elements will meet or exceed those specified by the responsible government agency. The new access road surface will not exceed twenty feet (20') in width. No additional turnarounds or turnouts will be required. Upon completion of the project, the access road will be adequately drained to control soil erosion. Approximately 1150' of access road will be constructed. Pipelines are indicated on Map No. 1A.

3. Location of Existing Wells - Refer to Map No. 1A.

4. Location of Existing and/or Proposed Facilities if Well is Productive -

   a. On the Well Pad - Refer to Plat No. 1, anticipated production facilities plat.

   b. Off the Well Pad - Anticipated pipeline facilities as shown on the attached plat from Williams Field Service.

5. Location and Type of Water Supply - Water will be hauled by truck for the proposed project and will be obtained from San Juan 28-6 Water Well located SW/4 Section 23, T-28-N, R-6-W, New Mexico

6. Source of Construction Materials - If construction materials are required for the proposed project, such materials will be obtained from a commercial quarry.

7. Methods of Handling Waste Materials - All garbage and trash materials will be removed from the site for proper disposal. A portable toilet will be provided for human waste and serviced in a proper manner. If liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying waste materials into the watershed. Reserve pits will be lined as needed with either 12 mil bio-degradable plastic liner or a bentonite liner. All earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if so generated.

8. Ancillary Facilities - None anticipated.

9. Wellsite Layout - Refer to the location diagram and to the wellsite cut and fill diagram (Figure No. 4). The blow pit will be constructed with a 2'/160' grade to allow positive drainage to the reserve pit and prevent standing liquids in the blow pit.

10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operations will be performed during the time period set forth by the responsible government agency. The permanent location facilities will be painted as designated by the responsible government agency.

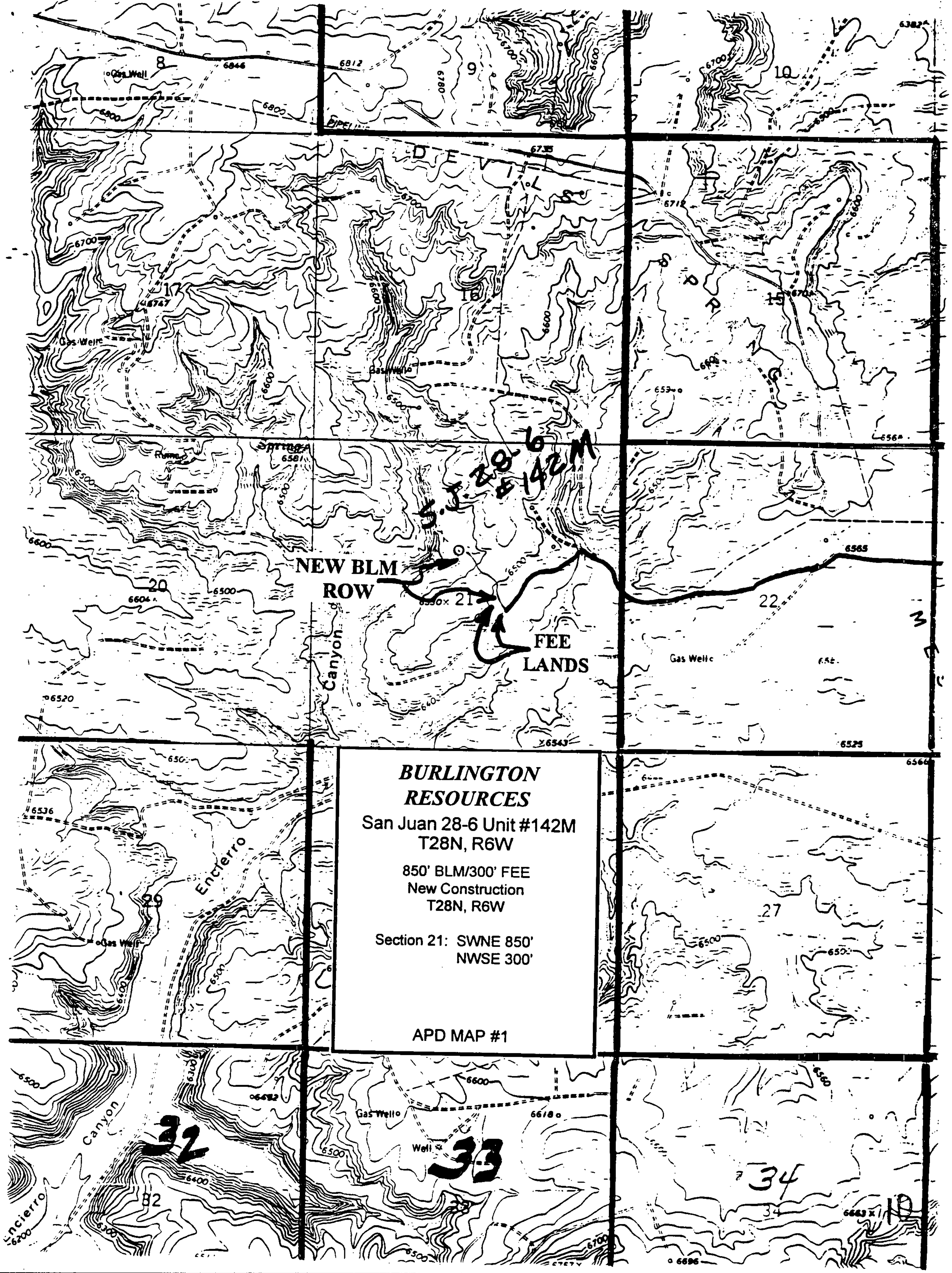
11. Surface Ownership - Bureau of Land Management

12. Other Information - Environmental stipulations as outlined by the responsible government agency will be adhered to. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.

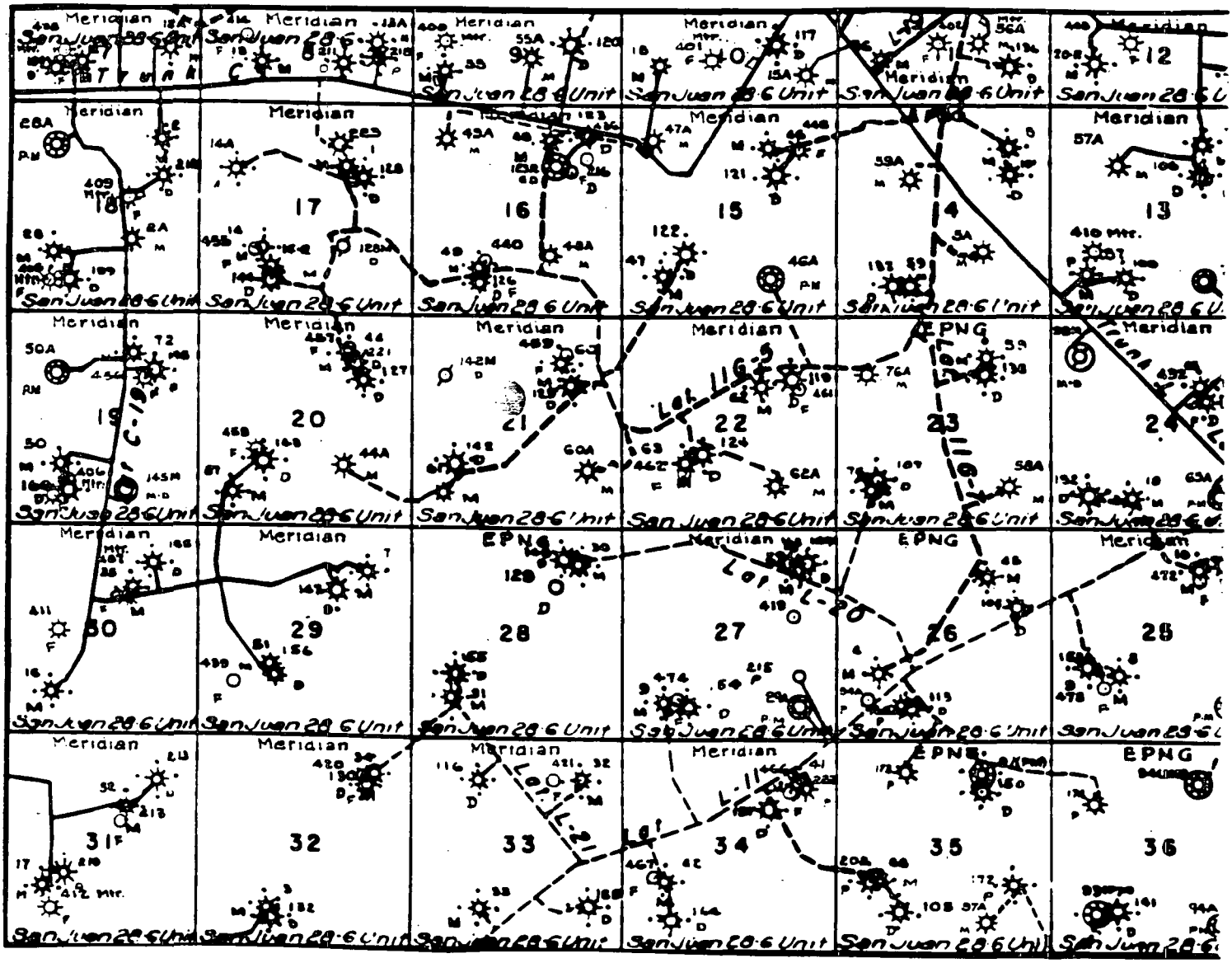
13. Operator's Representative and Certification - Burlington Resources Oil & Gas Company Regional Drilling Manager, Post Office Box 4289, Farmington, NM 87499, telephone (505) 326-9700. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access 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 Burlington Resources Oil and Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Peggy Bradfield 8-8-97
Regulatory/Compliance Administrator Date

pb



BURLINGTON RESOURCES
San Juan 28-6 Unit #142M
T28N, R6W
850' BLM/300' FEE
New Construction
T28N, R6W
Section 21: SWNE 850'
NWSE 300'
APD MAP #1
NEW BLM ROW
FEE LANDS
S.J. 28-6 #142M
DEVILS SPRING
Canyon
Encierro
Encierro Canyon
Gas Well
Spring

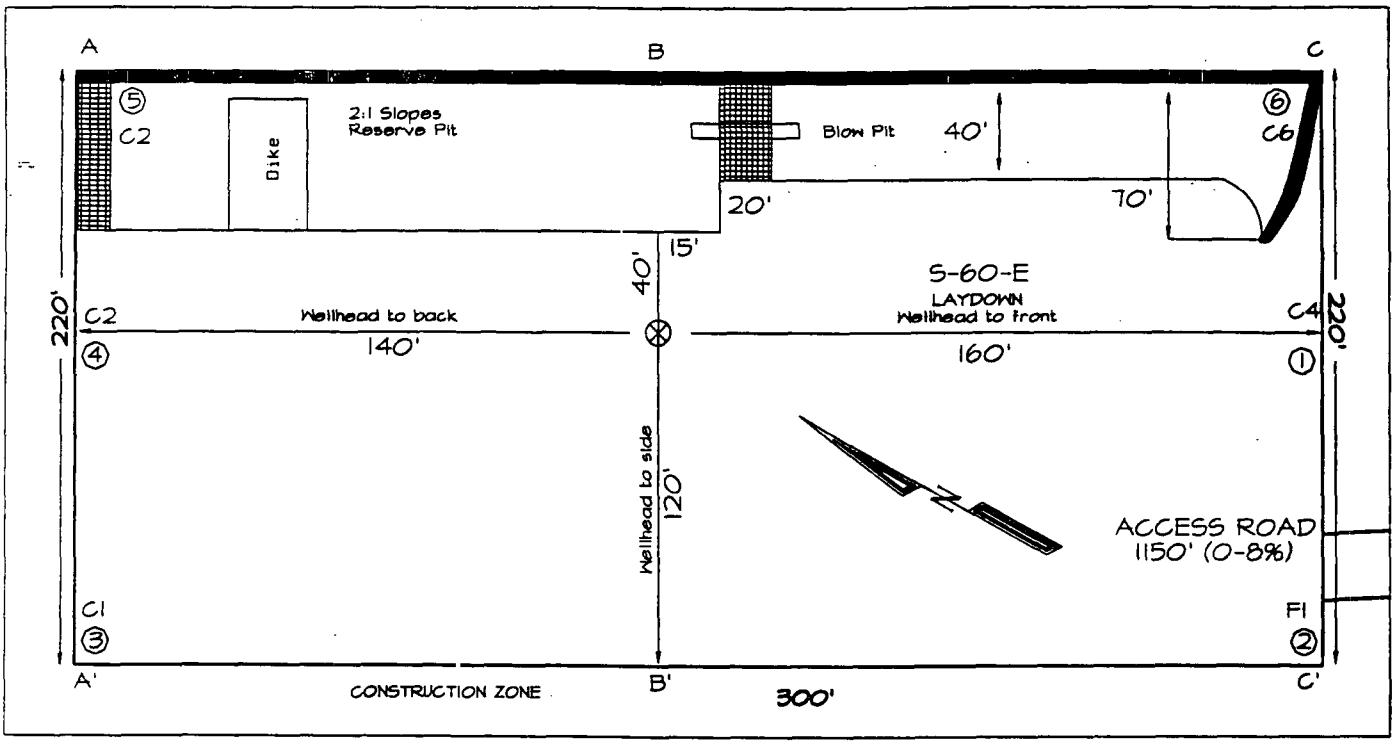


MERIDIAN OIL INC.
Pipeline Map
T-28-N, R-06-W
San Juan County, New Mexico
San Juan 28-6 Unit #142M
Map 1A

3/91 adw/mjb

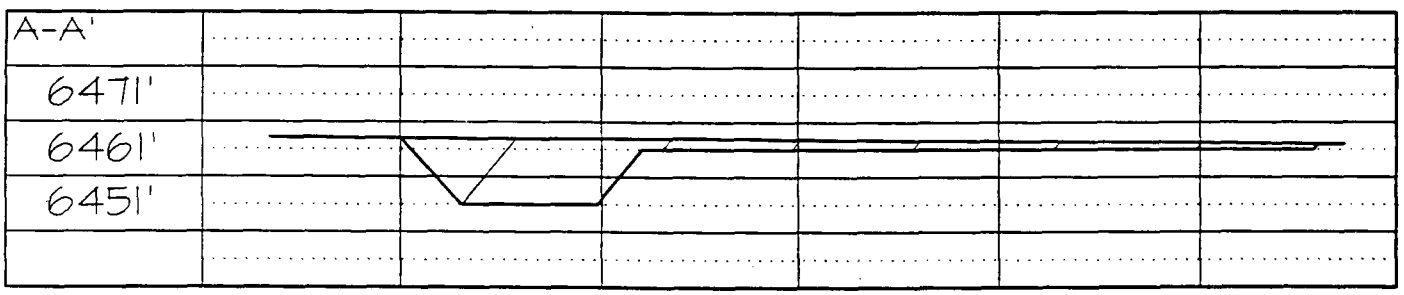
PLAT #1

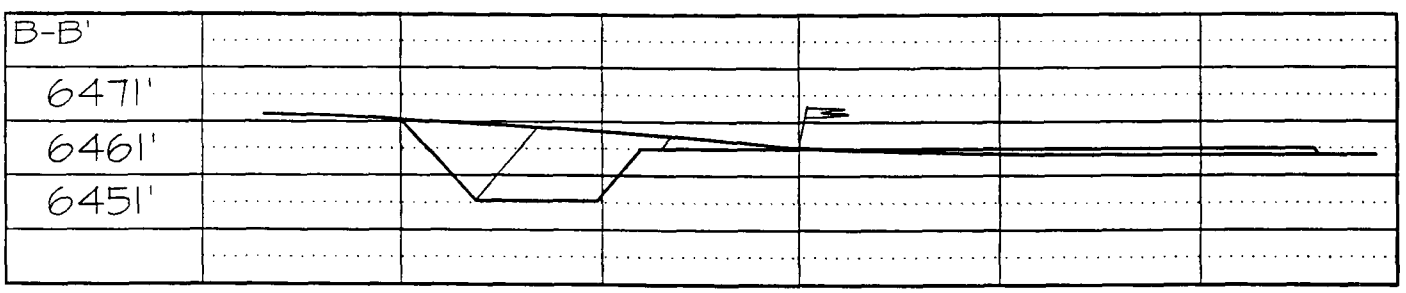
BURLINGTON RESOURCES OIL & GAS COMPANY
SAN JUAN 28-6 UNIT #142M, 1830' FNL & 2525' FWL
SECTION 21, T28N, R6W, NMPM, RIO ARRIBA COUNTY, NEW MEXICO
GROUND ELEVATION: 6461' DATE: JULY 08, 1997

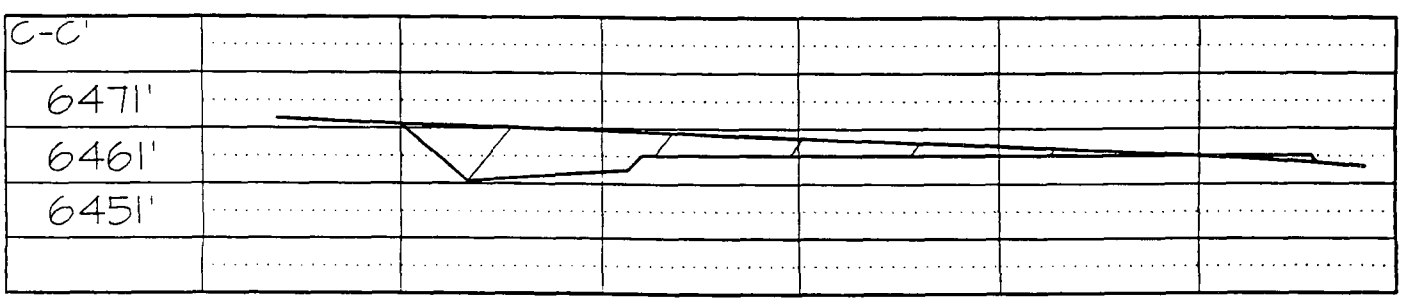


220' x 300' (320' x 400') = 2.94 ACRES

Reserve Pit Dike: to be 8' above Deep side (overflow - 3' wide and 1' above shallow side).
Blow Pit: overflow pipe halfway between top and bottom and to extend over plastic liner and into blow pi





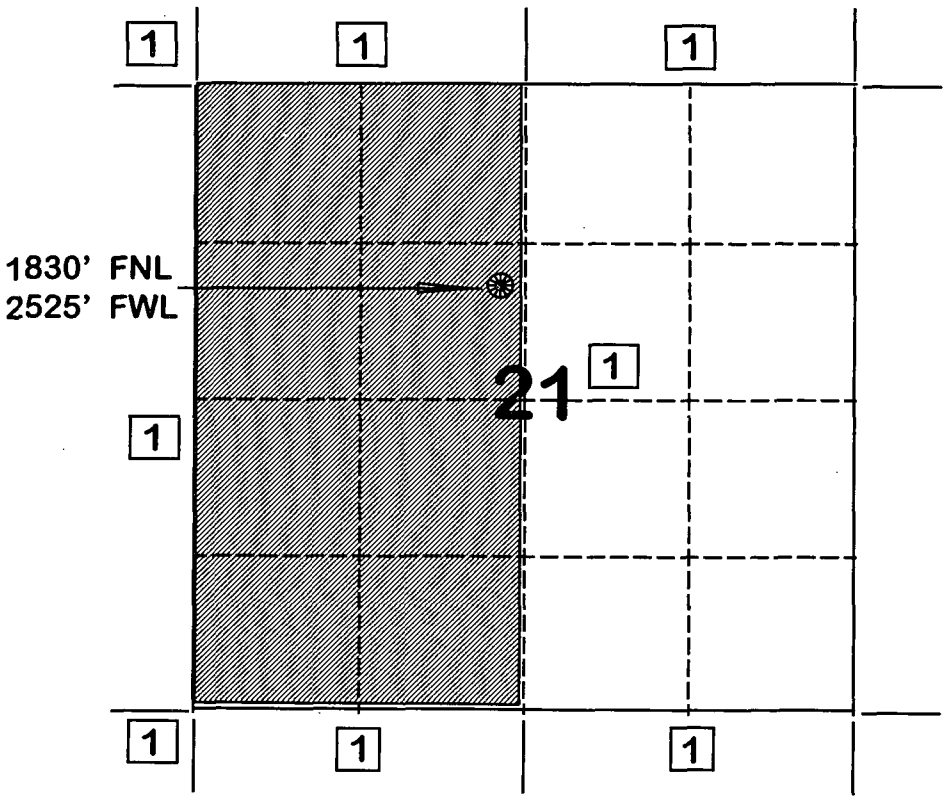


Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cabl on well pad and/or access road at least two (2) working days prior to construction

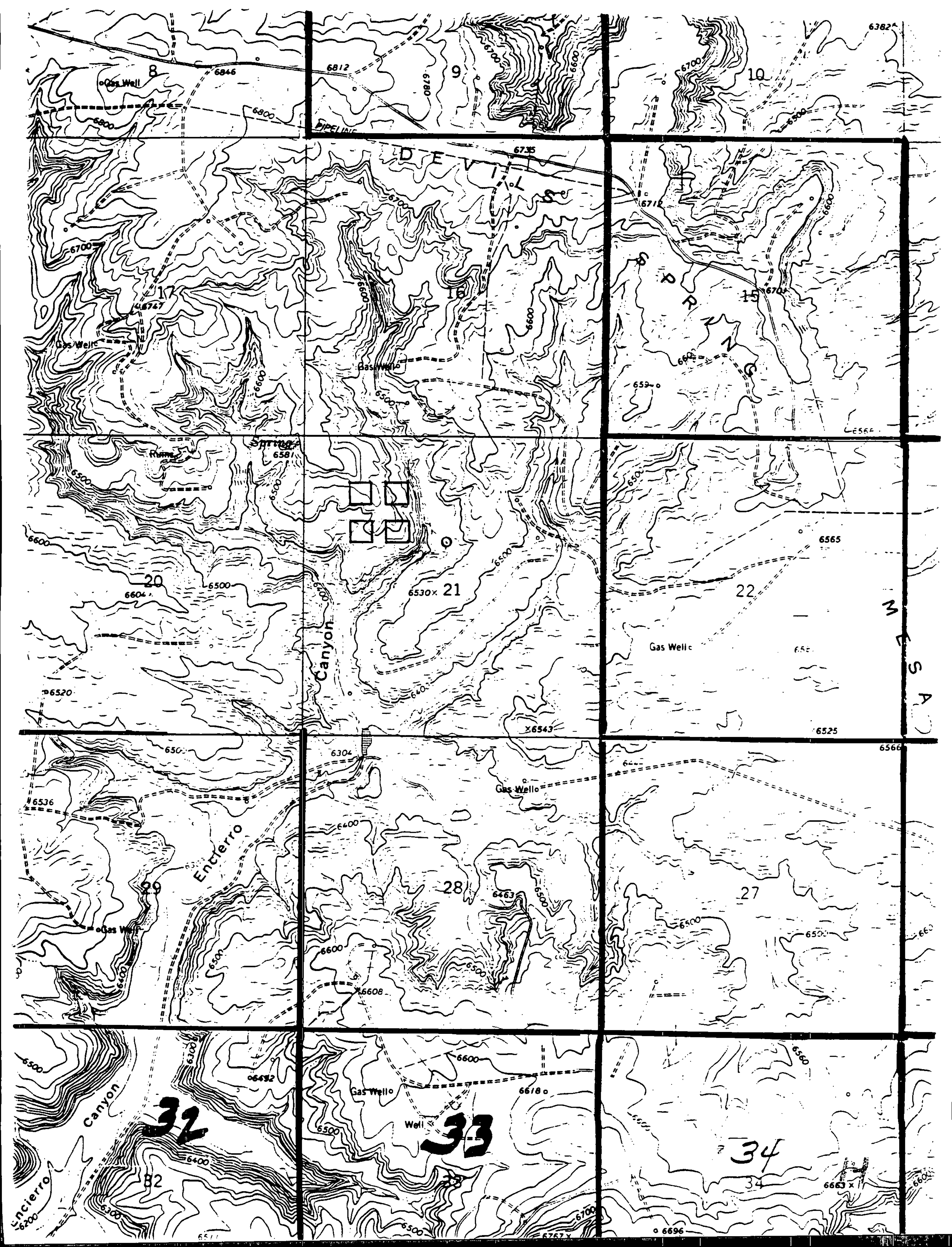
BURLINGTON RESOURCES OIL AND GAS COMPANY

San Juan 28-6 Unit #142M
OFFSET OPERATOR \ OWNER PLAT
Nonstandard Location
Mesaverde/Dakota Formations Well

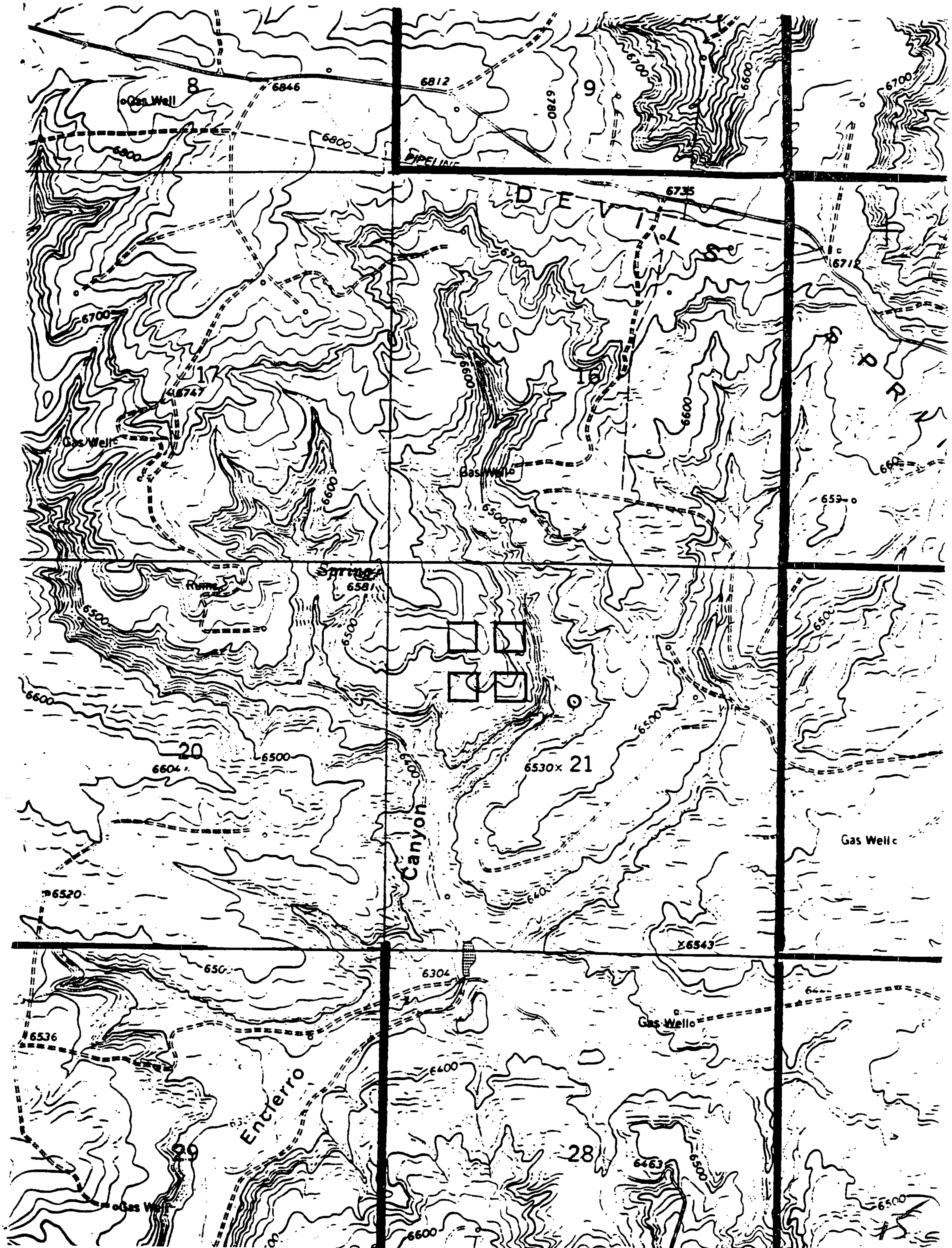
Township 28 North, Range 6 West



1) Burlington Resources Oil and Gas Company



8
Gas Well
6846
6812
9
10
6382
6700
6600
6800
PIPELINE
6735
DEVILS
SPRING
6712
17
6767
Gas Well
16
15
Gas Well
6600
6500
Spring
Ruins
6581
6500
6565
20
6500
6604
6530×
21
22
Gas Well
MESA
Canyon
6520
6543
6525
6566
6304
6536
Gas Well
Encierro
6400
29
28
6463
27
Gas Well
6600
6608
6500
6492
Gas Well
6618
Canyon
32
Well
33
34
6400
Encierro
6200
6300
6700
6663
6696
6560



8
Gas Well
6846
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9
6780
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6800
PIPELINE
6735
DEVILS
6712
SPR
6700
17
6747
16
Gas Well
Gas Well
6600
6500
652
Spring
Ruins
6581
6500
6600
20
6604
6500
6530× 21
Canyon
6400
Gas Well
6520
×6543
6304
6400
6536
Gas Well
Encierro
29
28
6463
6500
Gas Well
6600
6500

Sec : 21 Twp : 28N Rng : 06W Section Type : **NORMAL**

L **40.00** **Federal owned** **U** **A**	**K** **40.00** **Federal owned** **U**	**J** **40.00** **Federal owned** **U**	**I** **40.00** **Federal owned** **U** **A**
M **40.00** **Federal owned** **U** **A**	**N** **40.00** **Federal owned** **U** **A**	**O** **40.00** **Federal owned** **U**	**P** **40.00** **Federal owned** **U**

CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

09/24/97 16:10:16
OGOMES -EMDY
PAGE NO: 1

Sec : 21 Twp : 28N Rng : 06W Section Type : **NORMAL**

D **40.00** **Federal owned** **U**	**C** **40.00** **Federal owned** **U**	**B** **40.00** **Federal owned** **U** **A**	**A** **40.00** **Federal owned** **U** **A**
E **40.00** **Federal owned** **U**	**F** **40.00** **Federal owned** **U**	**G** **40.00** **Federal owned** **U**	**H** **40.00** **Federal owned** **U** **A**

M0002: This is the first page

PF01 **HELP** PF02 PF03 **EXIT** PF04 **GoTo** PF05 PF06
PF07 **BKWD** PF08 **FWD** PF09 **PRINT** PF10 **SDIV** PF11 PF12

NSL 11/24/97

BURLINGTON RESOURCES MV+DK

SAN JUAN DIVISION

October 31, 1997

RECEIVED
NOV - 3 1997
OIL CONSERVATION DIVISION

Mr. William LeMay
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: San Juan 28-6 Unit #142M
1830'FSL, 2575'FWL Section 21, T-28-N, R-6-W, Rio Arriba County, New Mexico
API # 30-039-not assigned

Dear Mr. LeMay:

Burlington is applying for administrative approval of an unorthodox "infill" gas well location for both the Mesa Verde and Dakota pools. This application for the referenced location is at the request of the Bureau of Land Management, and due to presence of archaeology.

Production from the Blanco Mesa Verde pool is to be included in an existing standard 320 gas spacing and proration unit comprising the W/2 of said Section 21 which is currently dedicated to Burlington Resources' San Juan 28-6 Unit #61 (API 30-039-07348), located at a standard gas well location of 830'FSL, 800'FWL (Unit M) of said Section 21. Production from the Basin Dakota pool is to be included in an existing standard 320 gas spacing and proration unit comprising the W/2 of said Section 21 which is currently dedicated to Burlington Resources' San Juan 28-6 Unit #142 (API 30-039-20146), located at a standard gas well location of 1485'FSL, 1180'FWL of said Section 21 (Unit L).

We had previously submitted this application, and so are re-applying to include the following information. The right-of-way on fee surface land shown on the one topographic map is surface right-of-way only. The minerals for the entire Section 21 are under Federal Lease SF-079193. This well will not materially interfere with the drainage pattern for wells in this area. Costs for directionally drilling this well are prohibitive in view that all lands are in the unit participating area; therefore, correlative rights and drainage issues should not be an issue. Attached is a nine-section plat showing the wells in and surrounding Section 21; also attached is a map for the San Juan 28-6 Unit, showing the placement of this well relative to the unit boundaries and participating areas.

The following attachments are for your review:

1. Application for Permit to Drill.
2. Completed C-102 at referenced location.
3. Offset operators/owners plat – Burlington is the operator of the unit.
4. 7.5 minute topographic map showing the orthodox windows, and enlargement of the map to define topographic features.
5. Map from archaeological report showing sites.

We appreciate your earliest reconsideration of this application.

Sincerely,

Peggy Bradfield

Peggy Bradfield
Regulatory/Compliance Administrator
xc: NMOCD - Aztec District Office and Bureau of Land Management – Farmington

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. **Type of Work**
DRILL

5. **Lease Number**
SF-079193
Unit Reporting Number
891001051B-Dk
8910010510-MV

1b. **Type of Well**
GAS

6. **If Indian, All. or Tribe**

2. **Operator**
BURLINGTON RESOURCES Oil & Gas Company

7. **Unit Agreement Name**
San Juan 28-6 Unit

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499

(505) 326-9700

8. **Farm or Lease Name**
San Juan 28-6 Unit

9. **Well Number**
142M

4. **Location of Well**
1830'FNL, 2525'FWL

Latitude 36° 38.9, Longitude 107° 28.3

10. **Field, Pool, Wildcat**
Blanco MV/Basin Dk

11. **Sec., Twn, Rge, Mer. (NMPM)**
Sec 21,T-28-N,R-6-W

API # 30-039-

14. **Distance in Miles from Nearest Town**
4 miles to Gobernador

12. **County** 13. **State**
Rio Arriba NM

15. **Distance from Proposed Location to Nearest Property or Lease Line**
1830'

16. **Acres in Lease**

17. **Acres Assigned to Well**
320 W/2

18. **Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease**
1600'

19. **Proposed Depth**
7788

20. **Rotary or Cable Tools**
Rotary

21. **Elevations (DF, FT, GR, Etc.)**
6461'GR

22. **Approx. Date Work will Start**

23. **Proposed Casing and Cementing Program**
See Operations Plan attached

24. **Authorized by:** Peggy Bradfield
Regulatory/Compliance Administrator

8-8-97
Date

PERMIT NO. _____ **APPROVAL DATE** _____

APPROVED BY _____ **TITLE** _____ **DATE** _____

Archaeological Report to be submitted by Arboles
Threatened and Endangered Species Report to be submitted by Ecosphere
NOTE: an APD was approved 2-10-81 for this well in this 1/4 Section.

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
Revised February 2
Instructions
Submit to Appropriate District
State Lease - 4
Fee Lease - 3

☐ AMENDED RE

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-	72319/71599	Blanco Mesaverde/Basin Dakota

[4] Property Code	[5] Property Name	[6] Well Numb
7462	SAN JUAN 28-6 UNIT	142M

[7] OGRID No.	[8] Operator Name	[9] Elevatior
14538	BURLINGTON RESOURCES OIL & GAS COMPANY	6461

[10] Surface Location

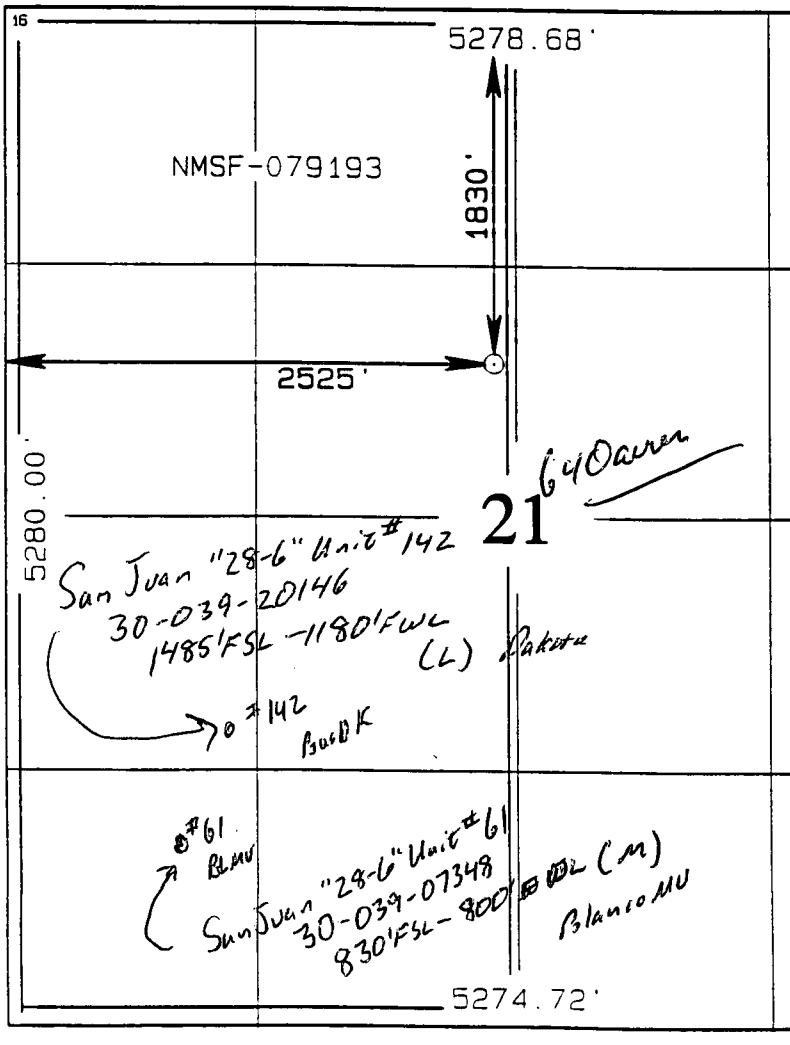
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Co
F	21	28	6		1830	North	2525	WEST	R ARF

[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	Co

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
MV-W/320 DK-W/320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLID
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



[17] OPERATOR CERTIFICA

I hereby certify that the information contained true and complete to the best of my knowledge a

Signature

Peggy Bradfield
Printed Name

Regulatory Administ
Title

8-8-97
Date

[18] SURVEYOR CERTIFICA

I hereby certify that the well location shown or was plotted from field notes of actual surveys m or under my supervision, and that the same is tr correct to the best of my belief.

JUL 8, 199
Date Of Survey

Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

6857
Certificate Number

OPERATIONS PLAN

Well Name: San Juan 28-6 Unit #142M
Location: 1830'FNL, 2525'FWL Sec 21, T-28-N, R-6-W
Rio Arriba County, NM
Latitude 36° 38.9, Longitude 107° 28.3
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 6461'GL

Formation Tops:	***Top***	***Bottom***	***Contents***
Surface	San Jose	2508'	
Ojo Alamo	2508'	2923'	aquifer
Fruitland	2923'	3283'	gas
Pictured Cliffs	3283'	3473'	gas
Lewis	3473'	3828'	gas
Intermediate TD	**3573'**		
Mesa Verde	3828'	4243'	gas
Chacra	4243'	4958'	
Massive Cliff House	4958'	5118'	gas
Menefee	5118'	5473'	gas
Massive Point Lookout	5473'	6698'	gas
Gallup	6693'	7433'	gas
Greenhorn	7433'	7538'	gas
Graneros	7538'	7650'	gas
Dakota	7650'		gas
TD (4 1/2"liner)	**7788'**		

Logging Program:
Cased hole - CBL - TD to 200' above TOC, GR/CNL across MV/Dk

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-9.0	40-50	no control
200-3573'	LSND	8.4-9.0	30-60	no control
3573-7788'	Gas	n/a	n/a	n/a

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program (as listed, the equivalent, or better):

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0' - 200'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 3573'	7"	20.0#	J-55
6 1/4"	3473' - 6855'	4 1/2"	10.5#	J-55
6 1/4"	6855' - 7788'	4 1/2"	11.6#	J-55

Tubing Program:

0' - 7788'	2 3/8"	4.70#	EUE

BOP Specifications, Wellhead and Tests:

Surface to Intermediate TD -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

Intermediate TD to Total Depth -

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

Surface to Total Depth -

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

Completion Operations -

7 1/16" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

Wellhead -

9 5/8" x 7" x 2 3/8" x 3000 psi tree assembly.

General -

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drilling crew.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

Cementing:

9 5/8" surface casing - cement with 163 sx Class "B" cement with 1/4# flocele/sx and 2% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -

Lead w/288 sx Class "B" w/3% medisilicate, 10# gilsonite/sx and 1/2# flocele/sx. Tail w/90 sx 50/50 Class "B" Poz w/2% calcium chloride, 2% gel, 1/2# flocele/sx, 10# gilsonite/sx (940 cu.ft. of slurry, 75% excess to circulate to surface.) WOC minimum of 12 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 2923'. Two turbolating centralizers at the base of the Ojo Alamo at 2923'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Liner -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 104 sx 65/35 Class "B" poz with 6% gel, 5# gilsonite/sx and 1/4# flocele/sx. Tail with 305 sx 50/50 Class "B" Poz with 2% gel, 1/4# flocele/sx, 5# gilsonite/sx, and 0.4% fluid loss additive (598 cu.ft., 35% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Cement float shoe on bottom with float collar spaced on top of shoe joint.

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 4 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 4 1/2" x 7" casing strings. After completion of the well, a 4 1/2" retrievable bridge plug will be set below the top of cement in the 4 1/2" x 7" overlap. The 4 1/2" casing will then be backed off above the top of cement in the 4 1/2" x 7" overlap and laid down. The liner top can then be pressure tested to ensure a seal between the liner top and the 7" casing has been achieved. The test pressure shall be the maximum anticipated pressure to which the seal will be exposed (700 psi for the Mesa Verde and 2500 psi for the Dakota). The 4 1/2" bridge plug will then be retrieved and the production tubing will be run to produce the well.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

Special Drilling Operations (Gas/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

Additional Information:

- The Dakota and Mesa Verde formations will be completed and commingled.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	800 psi
Pictured Cliffs	800 psi
Mesa Verde	700 psi
Dakota	2500 psi

- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered.
- The west half is dedicated to the Mesa Verde and Dakota in this well.
- This gas is dedicated.

Drilling Engineer

9/11/97
Date

BURLINGTON RESOURCES

San Juan 28-6 Unit #142M
Multi-Point Surface Use Plan

1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.

2. Planned Access Road - Refer to Map No. 1. The required new access road is shown on Map No. 1. The gradient, shoulder, crowning and other design elements will meet or exceed those specified by the responsible government agency. The new access road surface will not exceed twenty feet (20') in width. No additional turnarounds or turnouts will be required. Upon completion of the project, the access road will be adequately drained to control soil erosion. Approximately 1150' of access road will be constructed. Pipelines are indicated on Map No. 1A.

3. Location of Existing Wells - Refer to Map No. 1A.

4. Location of Existing and/or Proposed Facilities if Well is Productive -

   a. On the Well Pad - Refer to Plat No. 1, anticipated production facilities plat.

   b. Off the Well Pad - Anticipated pipeline facilities as shown on the attached plat from Williams Field Service.

5. Location and Type of Water Supply - Water will be hauled by truck for the proposed project and will be obtained from San Juan 28-6 Water Well located SW/4 Section 23, T-28-N, R-6-W, New Mexico

6. Source of Construction Materials - If construction materials are required for the proposed project, such materials will be obtained from a commercial quarry.

7. Methods of Handling Waste Materials - All garbage and trash materials will be removed from the site for proper disposal. A portable toilet will be provided for human waste and serviced in a proper manner. If liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying waste materials into the watershed. Reserve pits will be lined as needed with either 12 mil bio-degradable plastic liner or a bentonite liner. All earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if so generated.

8. Ancillary Facilities - None anticipated.

9. Wellsite Layout - Refer to the location diagram and to the wellsite cut and fill diagram (Figure No. 4). The blow pit will be constructed with a 2'/160' grade to allow positive drainage to the reserve pit and prevent standing liquids in the blow pit.

10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operations will be performed during the time period set forth by the responsible government agency. The permanent location facilities will be painted as designated by the responsible government agency.

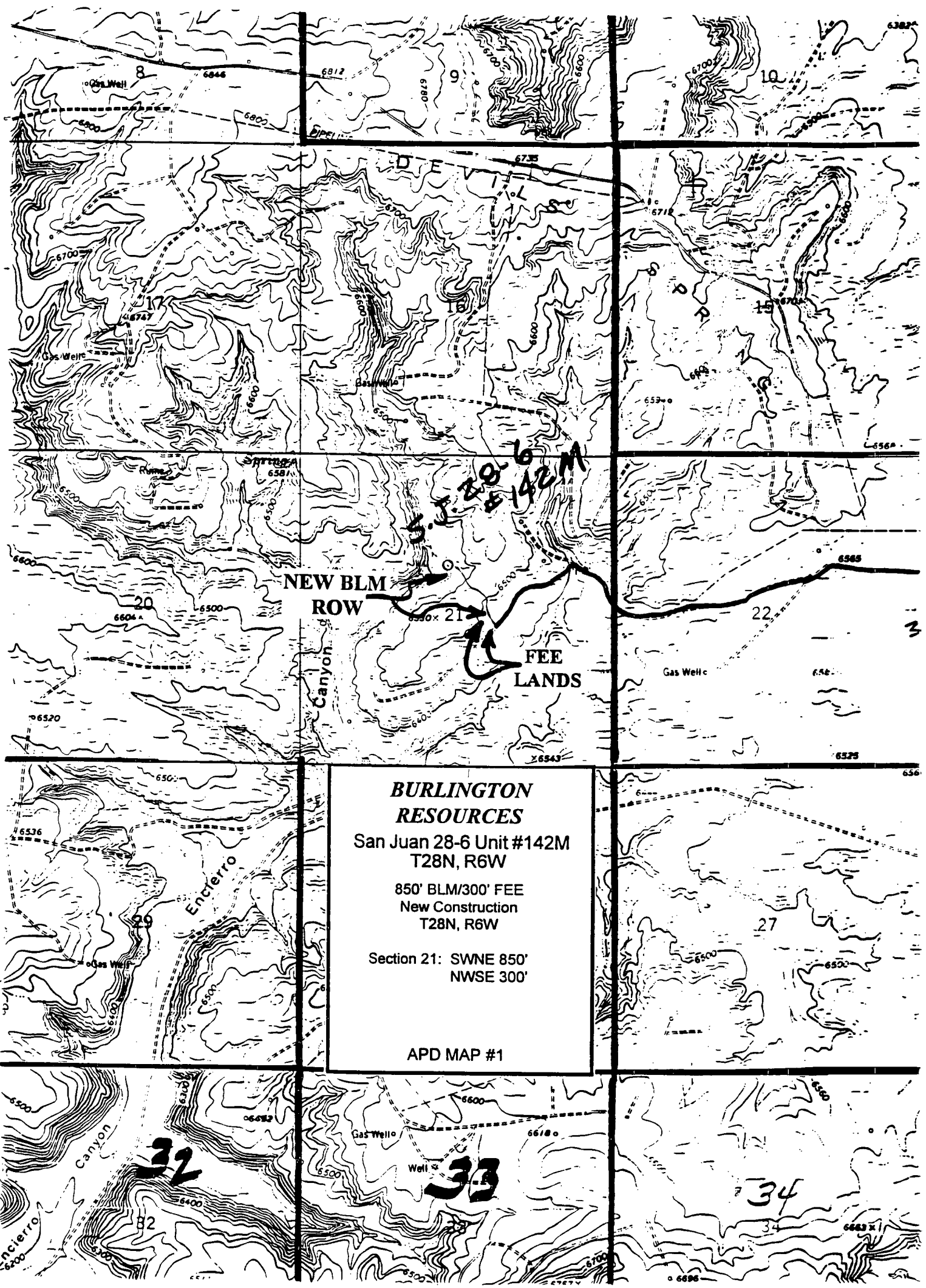
11. Surface Ownership - Bureau of Land Management

12. Other Information - Environmental stipulations as outlined by the responsible government agency will be adhered to. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.

13. Operator's Representative and Certification - Burlington Resources Oil & Gas Company Regional Drilling Manager, Post Office Box 4289, Farmington, NM 87499, telephone (505) 326-9700. 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 Burlington Resources Oil and Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Peggy Bradfield 8-8-97
Regulatory/Compliance Administrator Date

pb



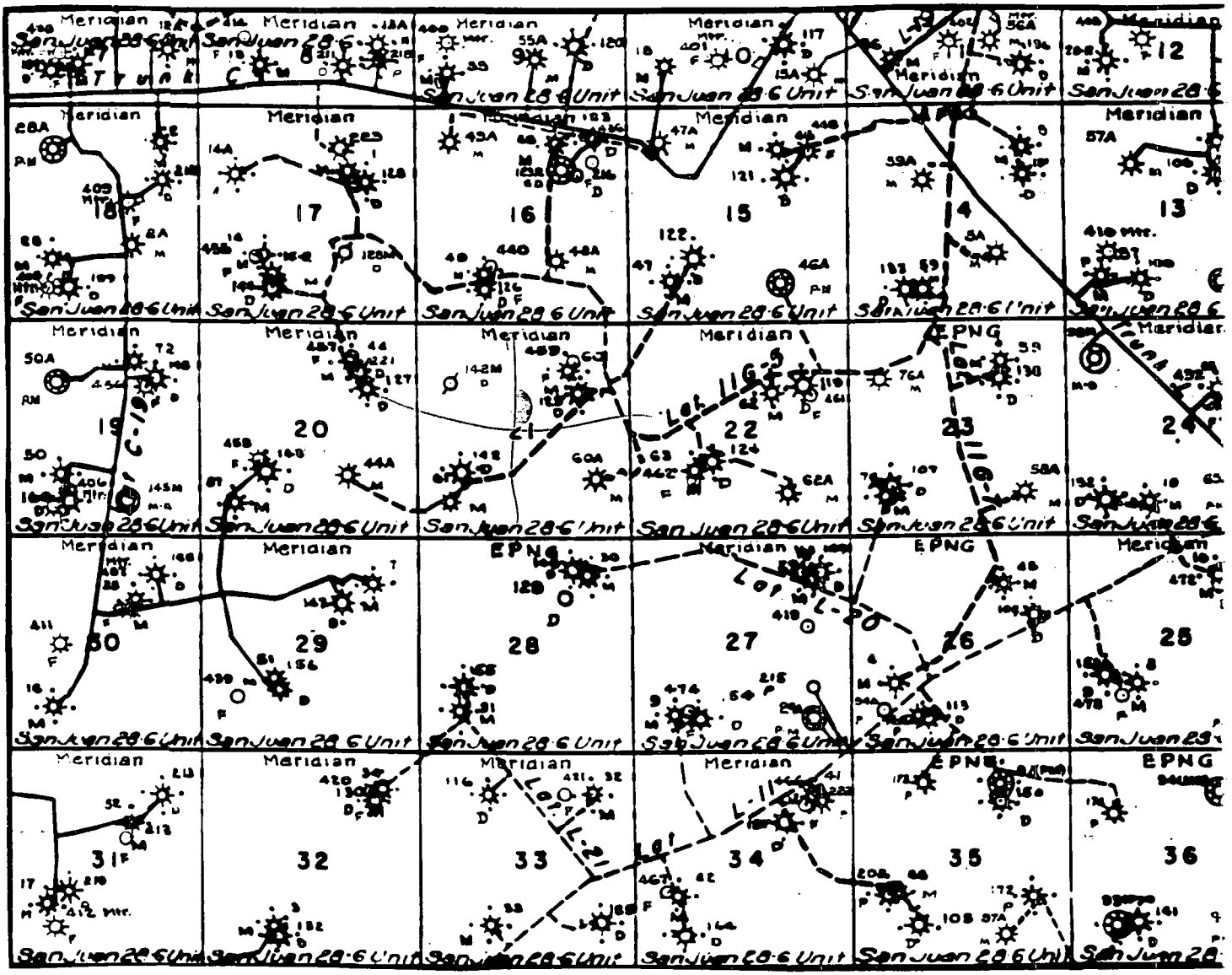
BURLINGTON RESOURCES

San Juan 28-6 Unit #142M
T28N, R6W

850' BLM/300' FEE
New Construction
T28N, R6W

Section 21: SWNE 850'
NWSE 300'

APD MAP #1

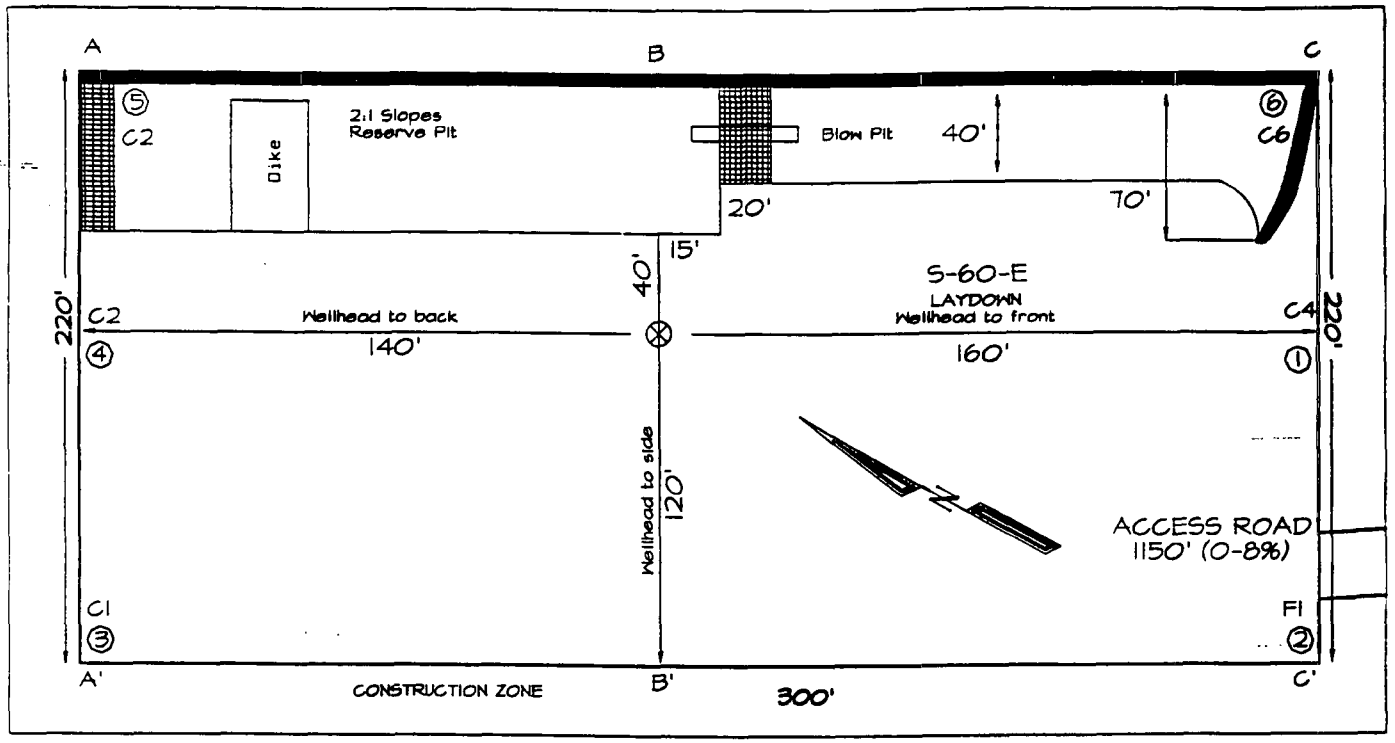


MERIDIAN OIL INC.
Pipeline Map
T-28-N, R-06-W
San Juan County, New Mexico
San Juan 28-6 Unit #142M
Map 1A

3/91 adw/mjb

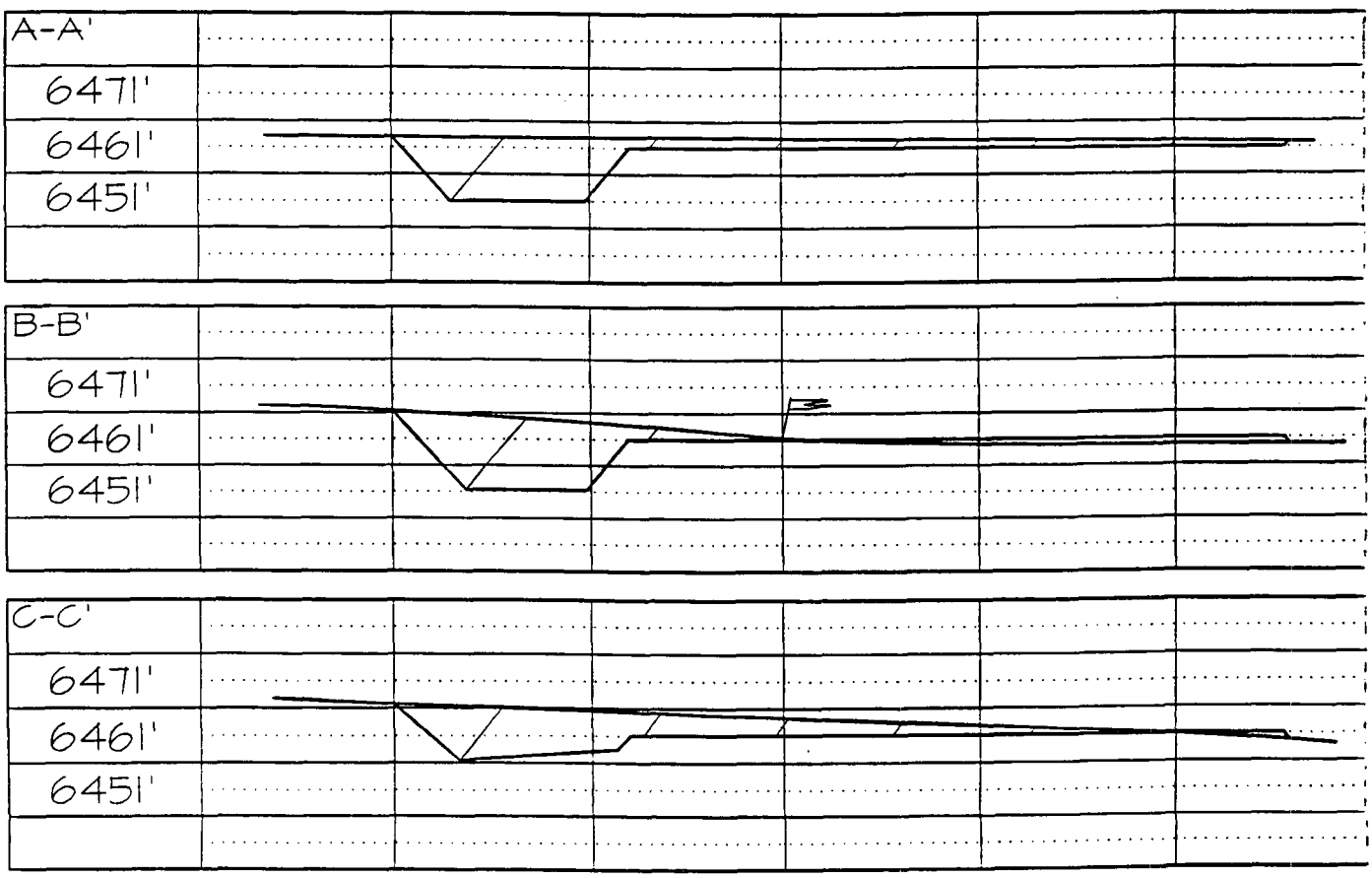
PLAT #1

BURLINGTON RESOURCES OIL & GAS COMPANY
SAN JUAN 28–6 UNIT #142M, 1830' FNL & 2525' FWL
SECTION 21, T28N, R6W, NMPM, RIO ARRIBA COUNTY, NEW MEXICO
GROUND ELEVATION: 6461' DATE: JULY 08, 1997



220' x 300' (320' x 400') = 2.94 ACRES

Reserve Pit Dike: to be 8' above Deep side (overflow - 3' wide and 1' above shallow side).
Blow Pit: overflow pipe halfway between top and bottom and to extend over plastic liner and into blow

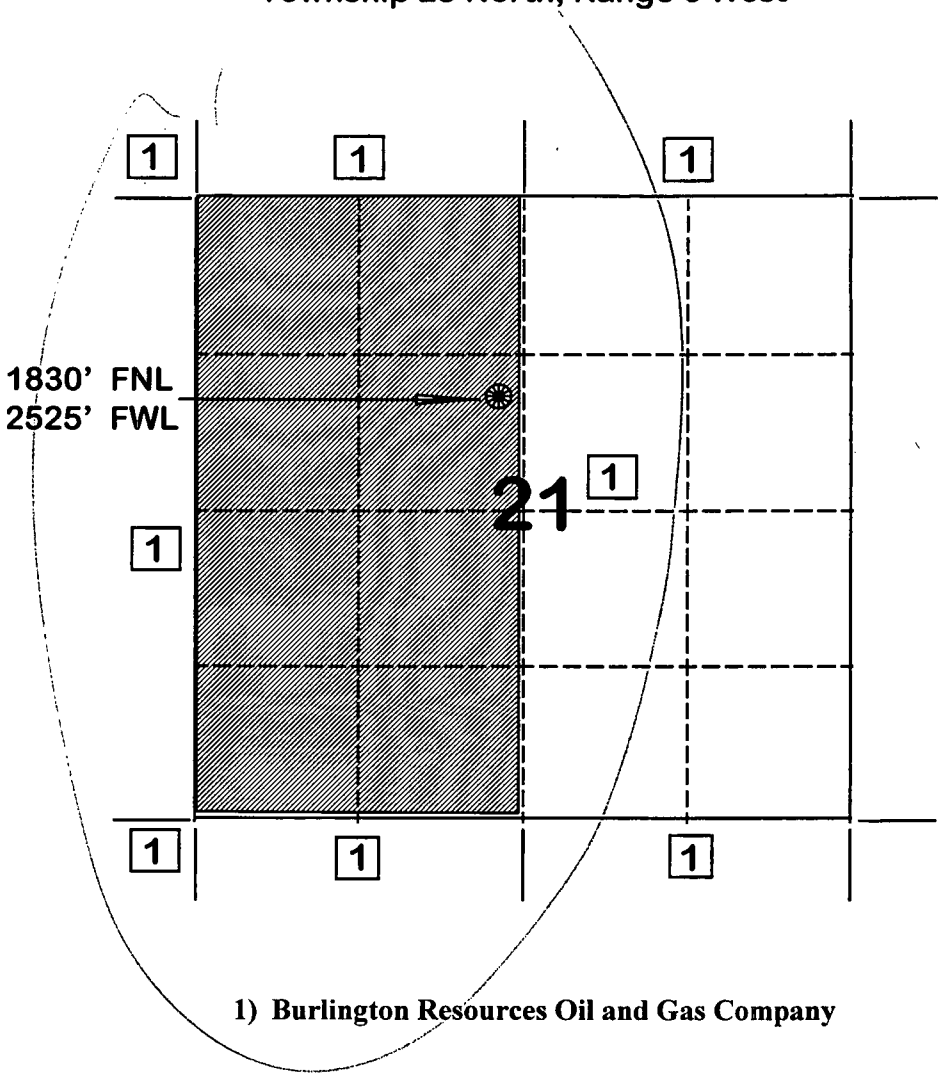


Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or ca on well pad and/or access road at least two (2) working days prior to construction

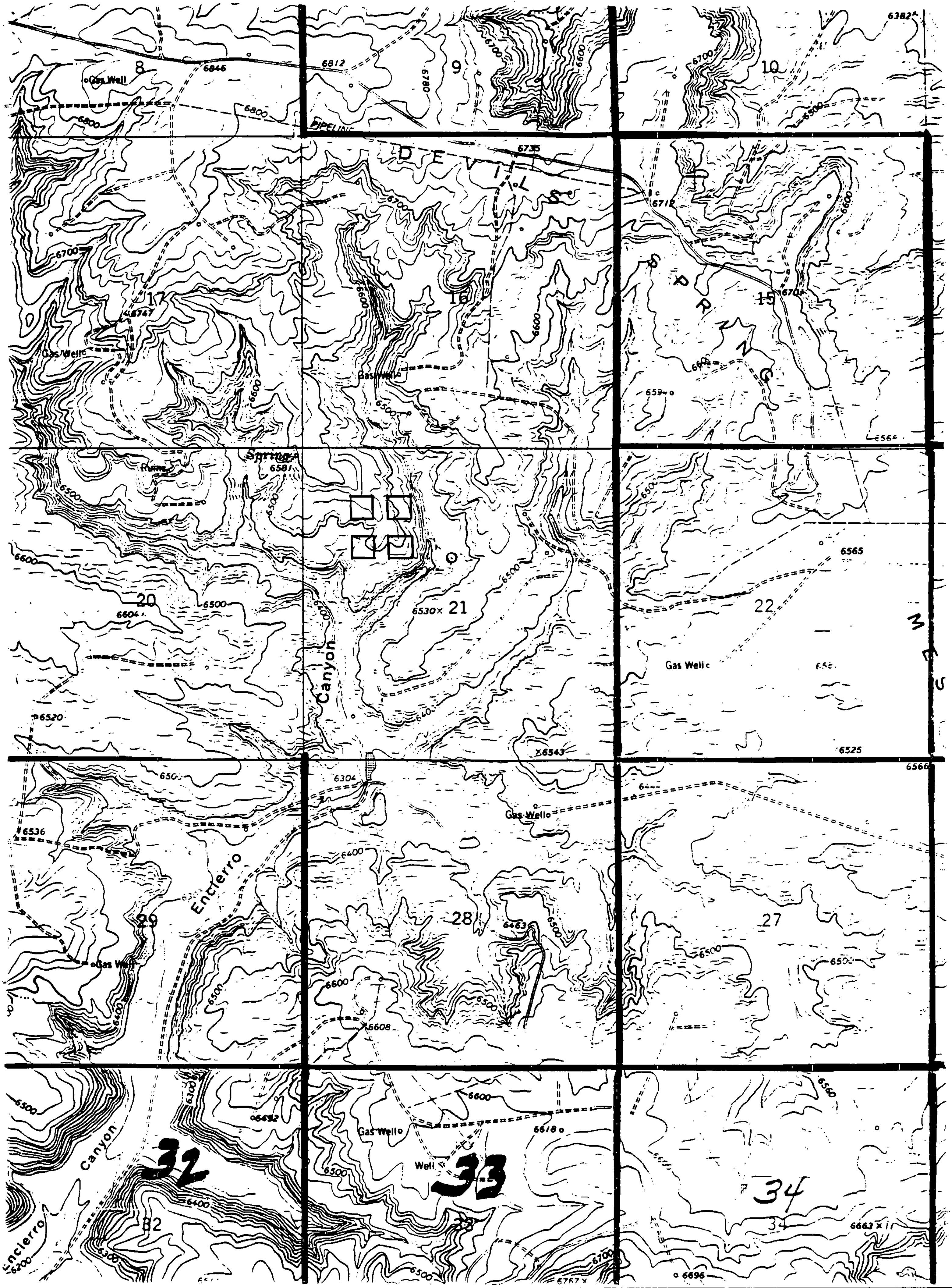
BURLINGTON RESOURCES OIL AND GAS COMPANY

San Juan 28-6 Unit #142M
OFFSET OPERATOR \ OWNER PLAT
Nonstandard Location
Mesaverde/Dakota Formations Well

Township 28 North, Range 6 West



1) Burlington Resources Oil and Gas Company



8
9
10
6846
6812
6735
6712
Gas Well
PIPELINE
D E V I L S
S P R I N G
17
16
15
6747
Gas Well
Gas Well
Ruins
Spring
6581
6565
20
21
22
6604
6500
6530
Canyon
Gas Well
6520
6543
6525
6566
6304
6536
Gas Well
Encierro
29
28
27
6463
6608
Gas Well
6482
Gas Well
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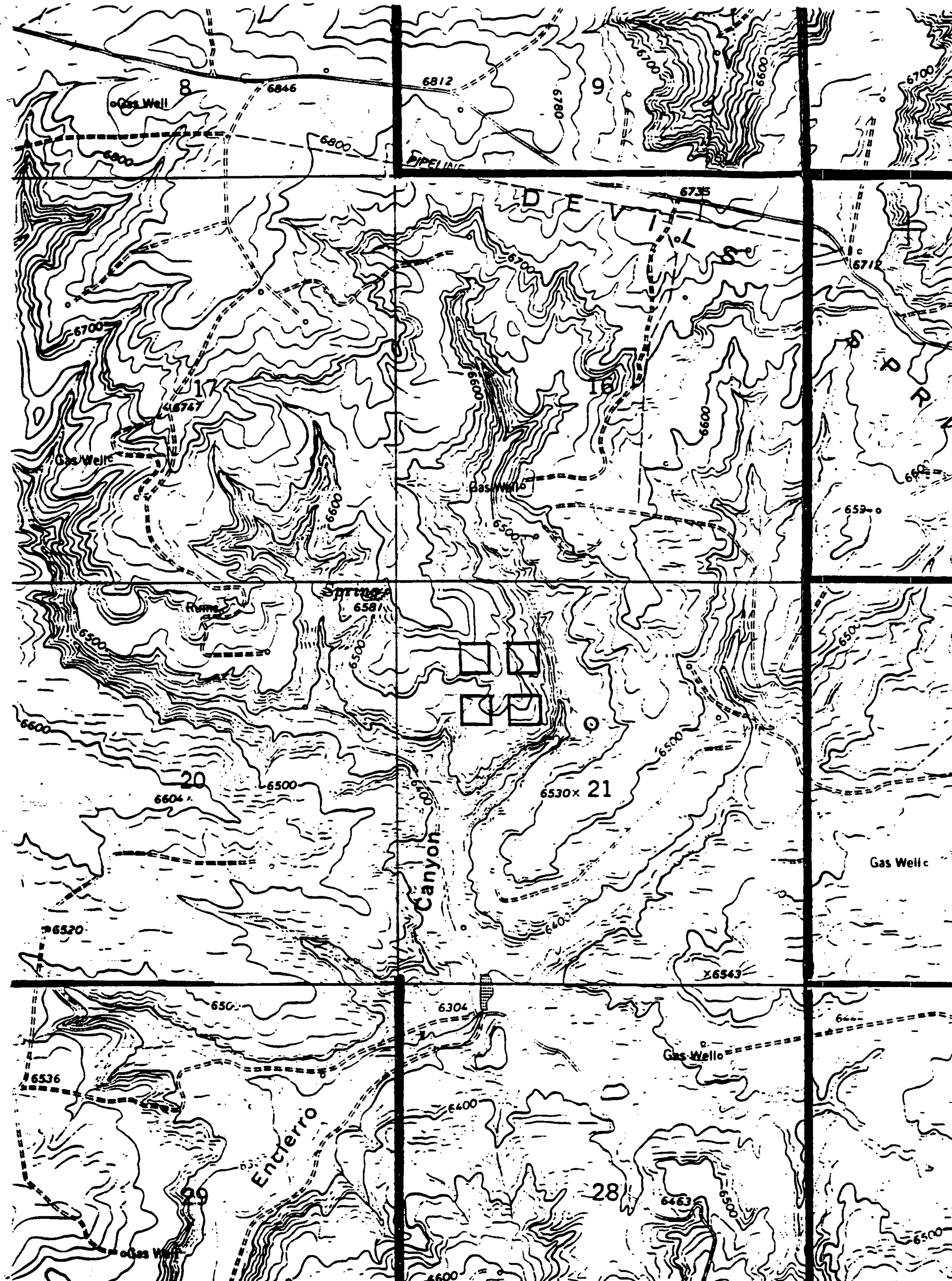
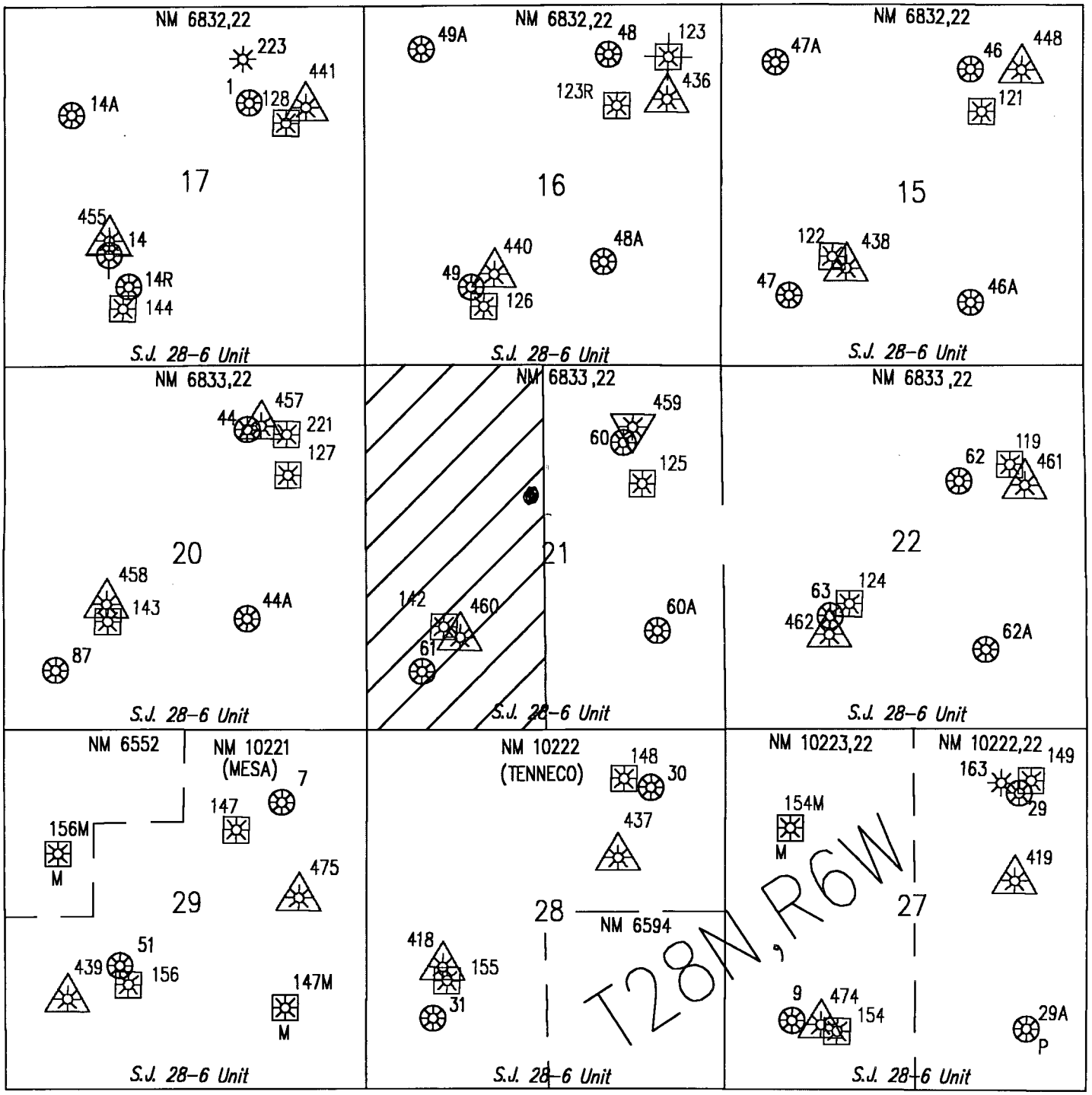
Well
32
33
34
Canyon
Encierro
6663
6696
6767

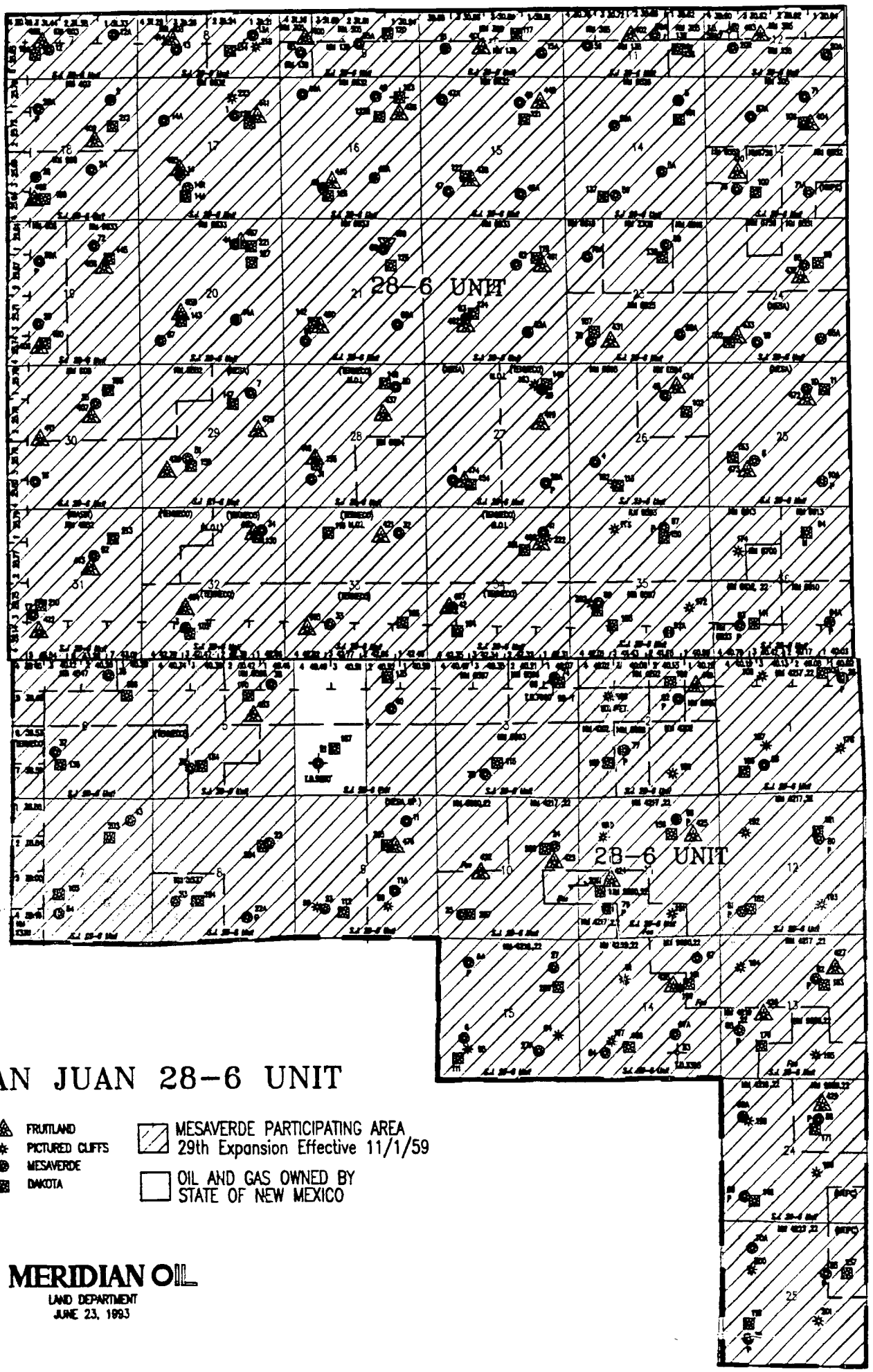

8
Gas Well
6846
6812
9
6780
6700
6600
6800
PIPELINE
6735
D E V I L S
6712
17
6747
16
Gas Well
Gas Well
6500
6581
Ruins
20
6604
6530× 21
Canyon
6520
×6543
6304
6536
Gas Well
6400
Encierro
28
6463
Gas Well
Gas Well

28-6 UNIT
NINE SECTION AREA



FRUITLAND SAND
FRUITLAND COAL
PICTURED CLIFFS
MESAVERDE
DAKOTA
GALLUP

R6W



T 28 N

T 27 N

SAN JUAN 28-6 UNIT

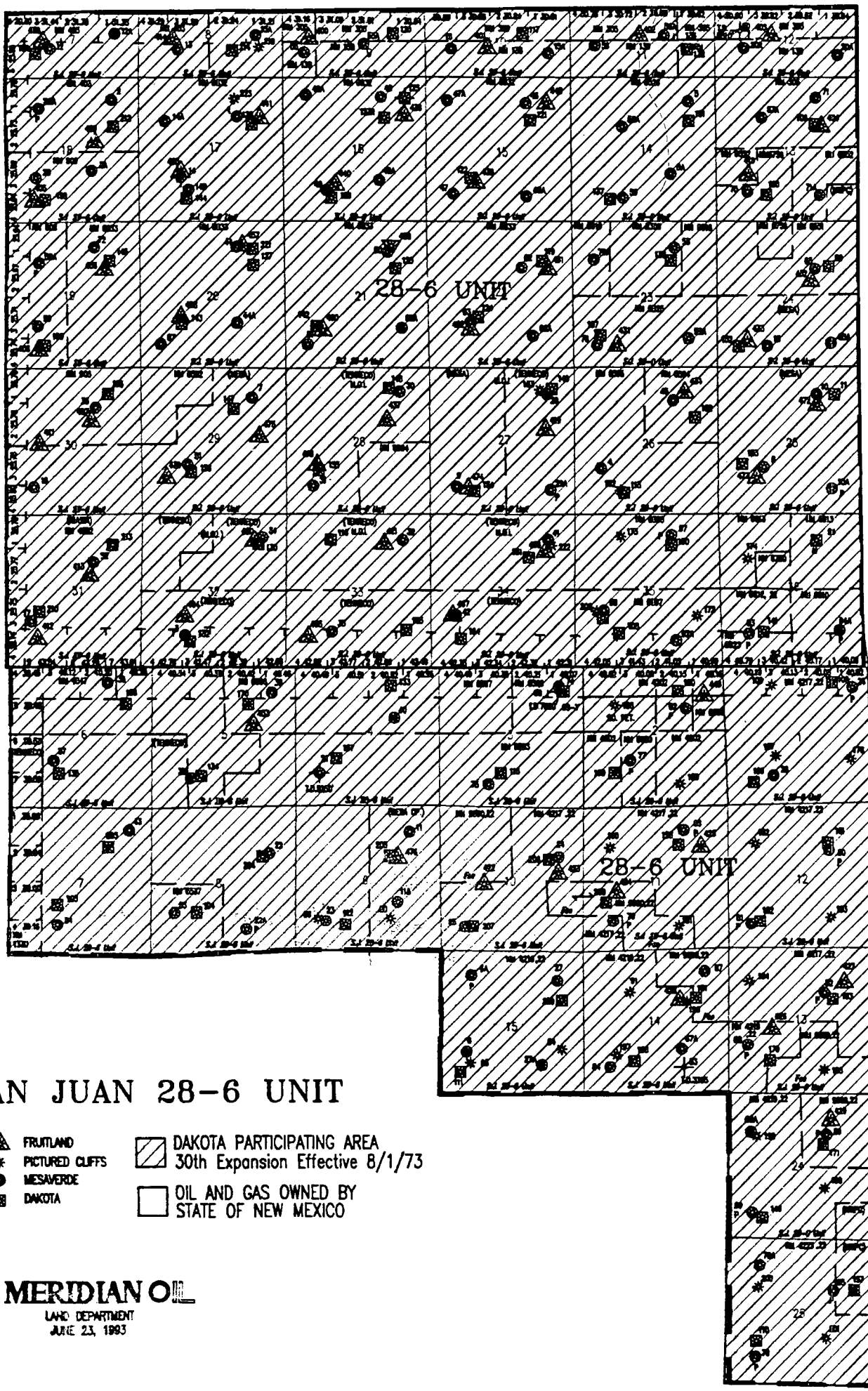
- FRUITLAND
- PICTURED CLIFFS
- MESAVERDE
- DAKOTA

MESAVERDE PARTICIPATING AREA
29th Expansion Effective 11/1/59

OIL AND GAS OWNED BY STATE OF NEW MEXICO

MERIDIAN OIL
LAND DEPARTMENT
JUNE 23, 1993

R6W



T 28 N

T 27 N

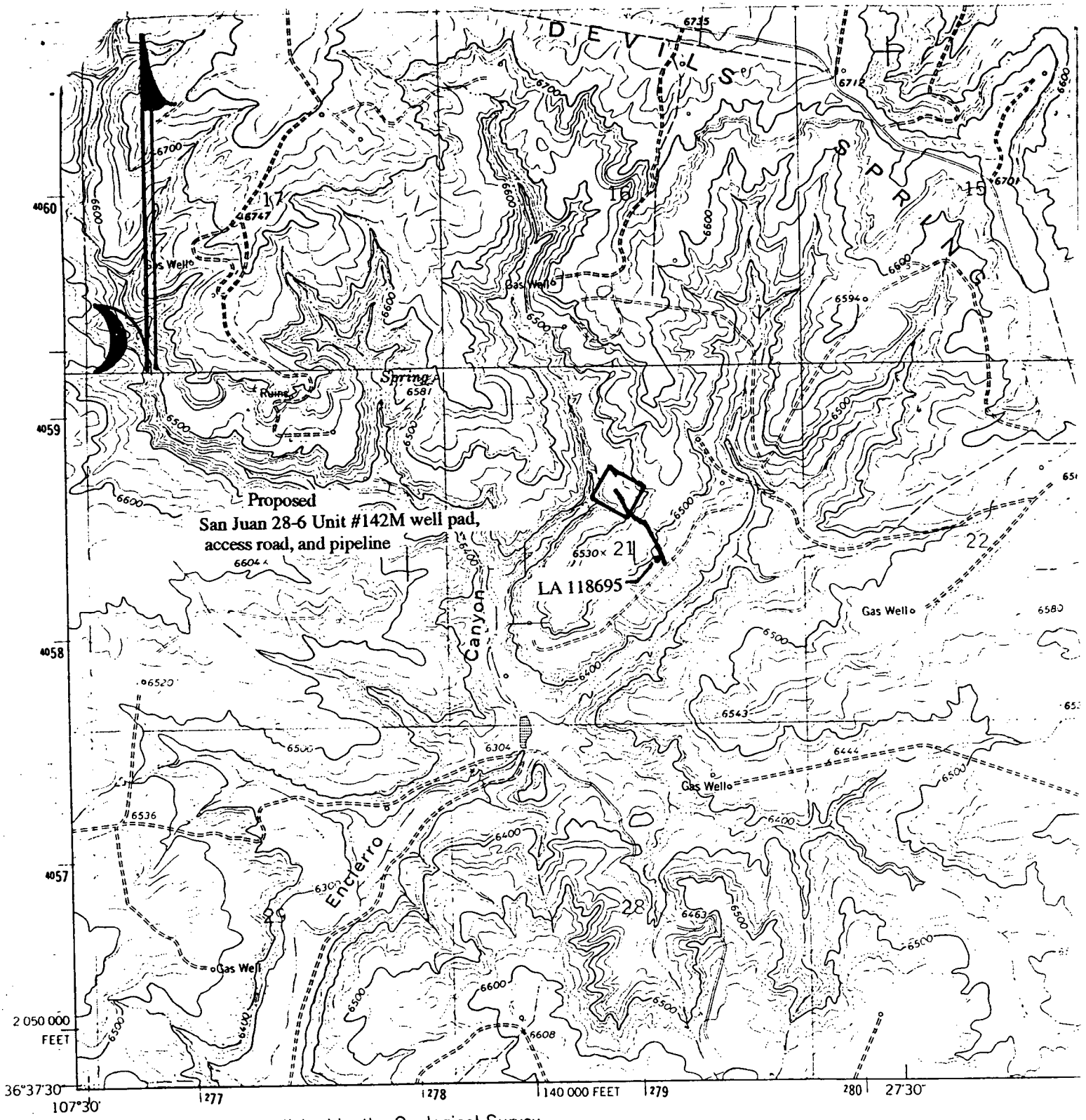
SAN JUAN 28-6 UNIT

- FRUITLAND
- PICTURED CLIFFS
- MESAVERDE
- DAKOTA

DAKOTA PARTICIPATING AREA
30th Expansion Effective 8/1/73

OIL AND GAS OWNED BY STATE OF NEW MEXICO

MERIDIAN OIL
LAND DEPARTMENT
JUNE 23, 1993



Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1958 and 1962. Field checked 1963

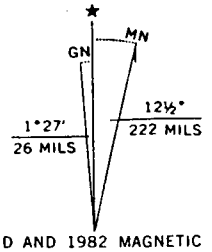
Polyconic projection. 1927 North American datum
10,000-foot grid based on New Mexico coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks,
zone 13, shown in blue

Fine red dashed lines indicate selected fence lines

Entire area is within the San Juan Gas Field

To place on the predicted North American Datum 1983
move the projection lines 2 meters north and
54 meters east as shown by dashed corner ticks

(GOULD PASS)
4457 II SE



UTM GRID AND 1982 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

1
1000

Figure 2: Project
U.S.G.S. 7.5' Fourmile Canyon
T28N, R6W, Section 21
Rio Arriba County, NM