

# NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

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

June 25, 1998

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

Farmington, New Mexico 87499-4289 Attention: Peggy Bradfield DECEIVED 1 1998

Administrative Order NSL-4068

Dear Ms. Bradfield:

Reference is made to your application submitted to the New Mexico Oil Conservation Division ("Division") on June 25, 1998 for an exception to the well location requirements provided within the "Special Rules and Regulations for the Blanco-Mesaverde Pool/Special Rules and Regulations for the Basin-Dakota Pool," as promulgated by Division Order No. R-10987, for Burlington Resources Oil & Gas Company's ("Burlington") proposed San Juan "27-5" Unit Well No. 114-M to be drilled at an unorthodox "infill" gas well location in both the Blanco-Mesaverde and Basin-Dakota Pools 1335 feet from the North line and 1130 feet from the West line (Unit E) of Section 17, Township 27 North, Range 5 West, NMPM, Rio Arriba County, New Mexico.

Gas production from the Blanco-Mesaverde Pool is to be included in an existing standard 320.41-acre stand-up gas spacing and proration unit comprising Lots 2, 3, and 4, N/2 NW/4, SW/4 NW/4, and S/2 SW/4 (W/2 equivalent) of Section 17 which is currently dedicated to Burlington's San Juan "27-5" Unit Well No. 3 (API No. 30-039-07038), located at a standard gas well location 990 feet from the South and West lines (Unit M) of Section 17. Gas production from the Basin-Dakota Pool is to be included in an existing standard 311.82-acre lay-down gas spacing and proration unit comprising Lots 1 and 2, N/2 NE/4, SE/4 NE/4, N/2 NW/4, and SW/4 NW/4 (N/2 equivalent) of Section 17, which is currently dedicated to Burlington's San Juan "27-5" Unit Well No. 114 (API No. 30-039-20238), located at a standard gas well location 990 feet from the North line and 800 feet from the East line (Unit A) of Section 17.

The application has been duly filed under the provisions of Division Rules 104.F and 605.B of the Rules and Regulations of the New Mexico Oil Conservation Division ("Division").

By the authority granted me under the provisions of Division Rule 104.F(2), the above-described unorthodox Basin-Dakota/Blanco-Mesaverde "infill" gas well location for the San Juan "27-5" Unit Well No. 114-M is hereby approved. All of the aforementioned wells and both spacing units will be subject to all existing rules, regulations, policies, and procedures applicable to prorated gas pools in Northwest, New Mexico.

Sincerely.

Director

LW/MES/kv

cc:

New Mexico Oil Conservation Division - Aztec U. S. Bureau of Land Management - Farmington

# BURLINGTON RESOURCES

SAN JUAN DIVISION

Sent Federal Express

Ms. Lori Wrotenbery, Director New Mexico Oil Conservation Division 2040 South Pacheco Santa Fe, New Mexico 87505



Re:

San Juan 27-5 Unit #114M

1335'FNL, 1130'FWL Section 17, T-27-N, R-5-W, Rio Arriba County, NM

30-039-not assigned

Dear Ms. Wrotenbery:

Burlington Resources is applying for administrative approval of an unorthodox gas well location for the Blanco Mesa Verde and Basin Dakota pools. This application for the referenced location is for topographic and archaeological reasons, and especially at the request of the landowner.

Production from the Blanco Mesa Verde pool is to be included in a 320.41 acre gas spacing and proration unit comprising of the west half (W/2) of Section 17 which is currently dedicated to the San Juan 27-5 Unit #3 (30-039-07038) located at 990'FSL, 990'FWL of Section 17. Production from the Basin Dakota is to be included in a standard 311.82 acre gas spacing and proration unit comprising of the north half (N/2) of Section 17 which is currently dedicated to the San Juan 27-5 Unit #114 (30-039-20238) located at 990'FNL, 800'FEL of Section 17.

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.
- 4. 7.5 minute topographic map, and enlargement of the map to define topographic features.

We appreciate your earliest consideration of this application.

Smakued

Sincerely.

Peggy Bradfield

Regulatory/Compliance Administrator

XC:

NMOCD - Aztec District Office

Bureau of Land Management - Farmington District Office

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

	APPLICAT	TION FOR PERMIT TO DRILL, DEEPEN	, OR PLUG BACK	
1a. 1b.	Type of Work DRILL  Type of Well	DECEIVED NUN 2 5 1998	5. Lease Number	mber )- Dk A-MV
	GAS	OIL CON. DIV	o. Il maian, All. of 1	
2.	Operator BURLINGTON	्रियाल्यार क	7. Unit Agreement N	lame
	RESOURCES	Oil & Gas Company	San Juan	27-5 Unit
3.	Address & Phone No. of C PO Box 4289, Far	Operator mington, NM 87499		me 27-5 Unit
	(505) 326-9700		9. Well Number 114M	
4.	Location of Well 1335'FNL, 1130'FWL		10. Field, Pool, Wild Blanco MV	cat //Basin Dk
	Latitude 36 <sup>O</sup> 34.7,	Longitude 107 <sup>O</sup> 23.3	11. Sec., Twn, Rge, Sec 17, T- API # 30-039-	Mer. (NMPM) 27-N, R-5-W
14.	Distance in Miles from Ne 7 miles to Goberna		12. County RA	13. State NM
15.	Distance from Proposed L	ocation to Nearest Property or Lease Line		
16.	Acres in Lease		17. Acres Assigned 320.41 3	to Well 11.82
18.	Distance from Proposed L	ocation to Nearest Well, Drlg, Compl, or A	Applied for on this Leas	se
19.	Proposed Depth 7815		20. Rotary or Cable Tools Rotary	
21.	Elevations (DF, FT, GR, Et 6590'GR	c.)	22. Approx. Date W	ork will Start
23.	Proposed Casing and Cem See Operations P	enting Program lan attached		
24.	Authorized by: Regula	bad huld tory/Compliance Administrator	6-/6-98 Date	
PERM	ERMIT NO APPROVAL D		TE	
	OVED BY	TITLE	DATE	

Archaeological Report to be submitted

Threatened and Endangered Species Report to be submitted

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

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 presentations as to any matter within its jurisdiction.

Dustrict I PI Box 1980, Hopps, NM 88241-1980

State of New Mexico Energy, Minerals & Natural Resources Decartment

Revised February Instruction Submit to Appropriate Distri

District II PO Drawer III. Antesia, NM 88211-07:3

CIL CONSERVATION CIVISION PO Box 2088 Santa Fe. NM 87504-2088

State Lease -Fee Lease -

District III 1000 Rio Brazos Adu Aztec, NM 87410

**AMENDED** 

District I/ FD Box 2008, Santa Fe, NM 87504-2008 WELL LOCATION AND ACREAGE DEDICATION PLAT API Number 'Dool Case 'Essl Name 30-039-72319/71599 Blanco Mesaverde/Basin Dakota Property Code Property Name Well No SAN JUAN 27-5 UNIT 7454 114 OGRID No. Elevat \*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY 659 14538 <sup>10</sup> Surface Location A or ict to. eet from the Feet from the East/West line Ε 17 27N ∃W 1335 NORTH 1130 WEST A <sup>11</sup>Bottom Hole Location If Different From Surface Julian latine. Section ot Ion North/South line Feet from the MV-W/320.41 13 Joint or Infill : " Corsolidation Code Somer No. DK-N/311.82 NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOL

OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION 2691.48. 2673.00 OPERATOR CERTIFIC I hereby centify that the information contain thus and complete to the best of my knowled 335 NMSF-079392 1130 Peggy Bradfield 2 1 Regulatory Adminst Cate 5372 SURVEYOR CERTIFIC I nemery centify that the well location show was publiced from field notes of actual surve-or under my supervision, and that the same is correct to the best of my delief. Ξ Δ Ξ NMSF-079392 -PRI 2556.50 Cantificate Number

2785.55

#### OPERATIONS PLAN

Well Name: San Juan 27-5 Unit #114M

Location: 1335'FNL, 1130'FWL Sec 17, T-27-N, R-5-W

Rio Arriba County, NM

Latitude 36° 34.7, Longitude 107° 23.3

Formation: Blanco Mesa Verde/Basin Dakota

Elevation: 6590'GL

Formation Tops:	Top	Bottom	Contents
Surface	San Jose	2794'	
Ojo Alamo	2794'	2879′	aquifer
Kirtland	2879'	3074'	
Fruitland	3074'	3385'	gas
Pictured Cliffs	3385'	3535'	gas
Lewis	3535'	3911'	gas
Intermediate TD	3635'		
Huerfanito Bentonite	3911′	3948'	gas
Chacra	3948′	5034′	
Massive Cliff House	5034'	5160'	gas
Menefee	5160'	5550′	gas
Massive Point Lookout	5 <b>550′</b>	5664'	gas
Lower Point Lookout	5664′	5764`	
Mancos Shale	5764'	6526′	
Gallup	6526′	7465′	gas
Greenhorn	7465'	7550'	gas
Dakota	7550′		gas
TD (4 1/2"liner)	7815′		

#### 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
200-3635'	LSND	8.4-9.0	30-60	no control
3635-7815'	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):

<u> Hole Size</u>	Depth Interval	Csq.Size	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	9 5/8"	32.3#	WC-50
8 3/4"	0' - 3635'	7"	20.0#	J-55
6 1/4"	3535' - 7815'	4 1/2"	10.5#	J-55

### Tubing Program:

0' - 7815' 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 8 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/294 sx Class "B" w/3% metasilicate, 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 (956 cu.ft. of slurry, 75% excess to circulate to surface.) WOC minimum of 8 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 2879'. Two turbolating centralizers at the base of the Ojo Alamo at 2879'. 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. Cement with 462 sx 50/50 Class "B" Poz with 2% gel, 1/4# flocele/sx, 5# gilsonite/sx, and 0.4% fluid loss additive (615 cu.ft., 40% 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. Instead, 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" CIBP will be set above the last fracturing job to cut and pull the 4 1/2" casing above the 7" casing shoe. The 4 1/2" bridge plug will then be milled and tubing will be run for completion.

#### 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 the north half is dedicated to the Dakota in this well.
- This gas is dedicated.

Drilling Engineer

6-18-98 Date



#### San Juan 27-5 Unit #114M Multi-Point Surface Use Plan

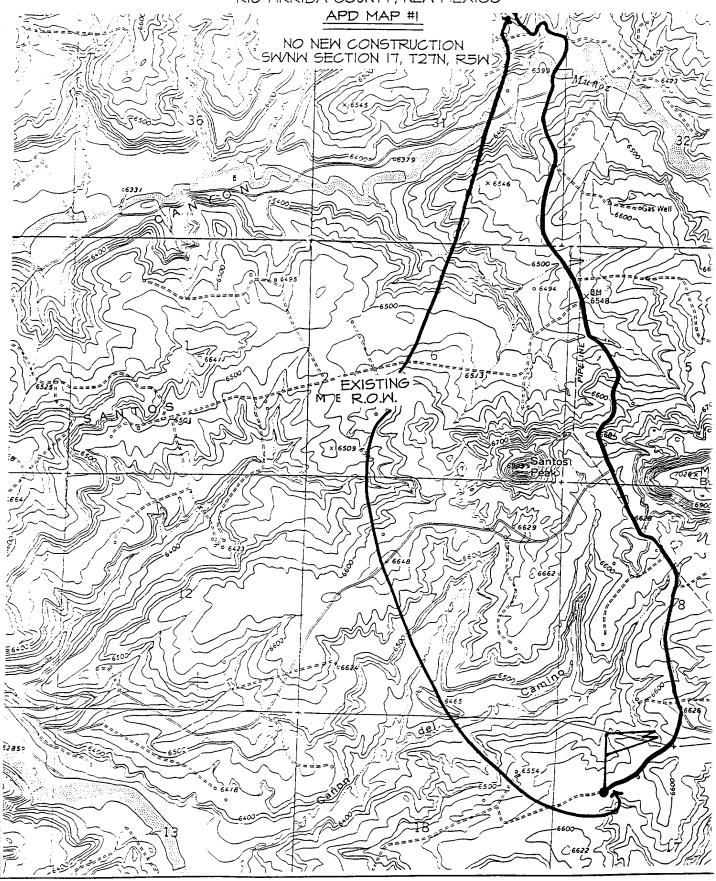
- 1. Existing Roads Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
- 2. Planned Access Road Refer to Map No. 1. None required.
- 3. 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.
- Location and Type of Water Supply Water will be hauled by truck for the proposed project and will be obtained from 44 Crossing Water Hole located NE Section 18, T-27-N, R-4-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.

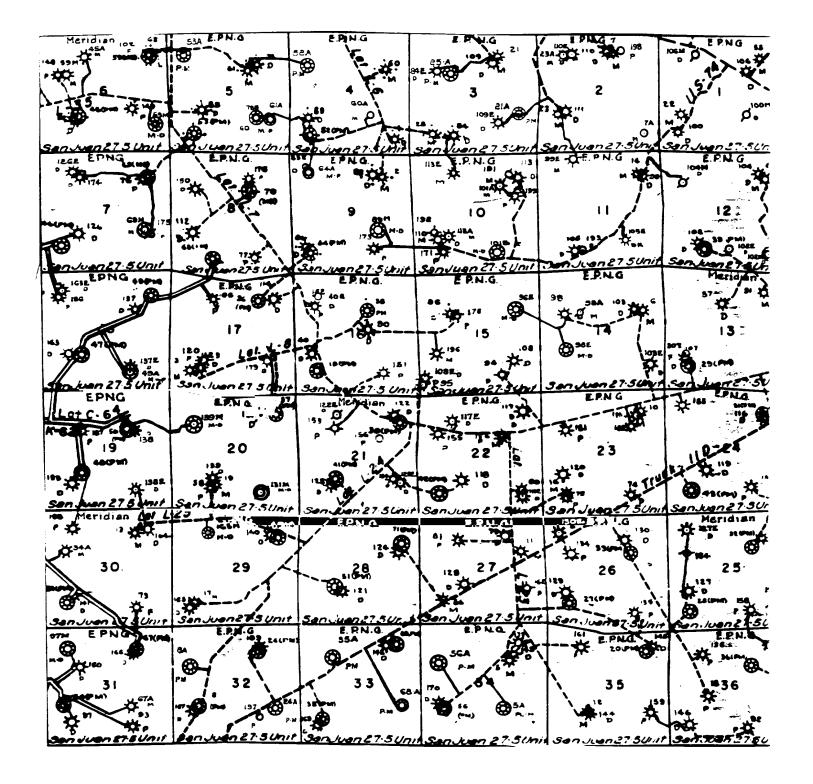
- 10. Plans for Restoration of the Surface After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be 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 Nick Candelaria
- 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.

Pregulatory/Compliance Administrator Date

BURLINGTON RESOURCES OIL # GAS COMPANY SAN JUAN 27-5 UNIT #114M

1335' FNL & 1130' FWL, SECTION 17, T27N, R5W, N.M.P.M. RIO ARRIBA COUNTY, NEW MEXICO





MERIDIAN OIL INC.
Pipeline Map
T-27-N, R-05-W
Rio Arriba County, New Mexico
San Juan 27-5 Unit #114M
Map 1A

3/91 adw/mjb

PLAT #1

BURLINGTON RESOURCES OIL & GAS COMPANY

SAN JUAN 27-5 UNIT #114M, 1335' FNL & 1130' FWL

SECTION 17, T27N, R5W, NMPM, SAN JUAN COUNTY, NEW MEXICO

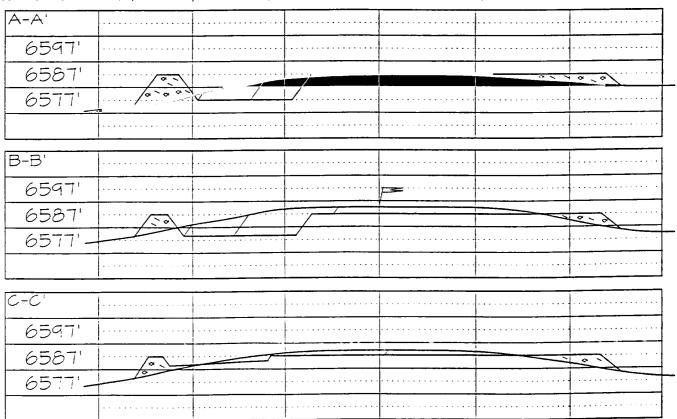
GROUND ELEVATION: 6590' DATE: AFRIL 21, 1998

3 3 6 F12 F7 INSTALL DRAIN PIPE ON FRUITLAND FORMATIONS ONLY 2:1 Slopes Reserve Pit Blow Pit Dike 2 60 6' DEEP 8' DEEP 3' DEEP O' DEEP 20' 15' -70 35, 5-75-W LAYDOWN Neithead to front 260 0 0 0 0 4 Melihead to back -8 -0-160 СЗ 180 ACCESS (NO NEW) side 2 30, \*STAKES IN FIELD REPRESENT Melhead OUTER LIMITS OF CONSTRUCTION FINISHED WELLPAD WILL BE SMALLER THAN REPRESENTED ON THIS PLAT\* F5 F7. 2 3 В, 340'

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

260' x 340'

(260' x 340') = 2.03 ACRES



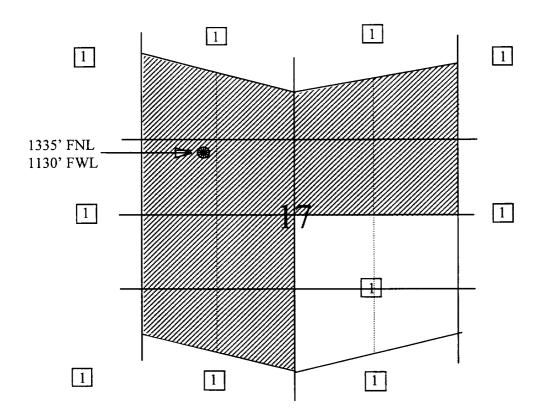
Note: Contractor should call One—Call for location of any marked or unmarked buried pipelines or cable on well pad and/or access road at least two (2) working days prior to construction

## BURLINGTON RESOURCES OIL AND GAS COMPANY

## San Juan 27-5 Unit #114M OFFSET OPERATOR \ OWNER PLAT Non Standard Location

# Mesaverde (W/2) / Dakota (N/2) Formations Well

## Township 27 North, Range 5 West



1) Burlington Resources

