

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SF-080673 Unit Reporting Number Farmington, NM	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator BURLINGTON RESOURCES Oil & Gas Company	7. Unit Agreement Name San Juan 27-4 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87401 (505) 326-9700	8. Farm or Lease Name San Juan 27-4 Unit 9. Well Number #38N	
4. Location of Well 40' FSL, 2350' FWL Latitude 36° 35.6960'N, Longitude 107° 17.5300'W	10. Field, Pool, Wildcat Blanco Mesaverde/Basin Dakota 11. Sec., Twn, Rge, Mer. (NMPM) A Sec. 6, T27N, R04W API # 30-039- 27633	
14. Distance in Miles from Nearest Town 20 miles to Gobernador	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 40'		
16. Acres in Lease	17. Acres Assigned to Well 320.84 W/2 DK 320.84 W/2 MV	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 1400'		
19. Proposed Depth 8312'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 7026' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Joni Clark</u> Regulatory Specialist	<u>2-6-04</u> Date	

PERMIT NO.

APPROVAL DATE

APPROVED BY [Signature]

TITLE

DATE 6-28-04

Archaeological Report attached

Threatened and Endangered Species Report attached

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.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

NMOC

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

District II
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

PO Box 2088

Santa Fe, NM 87504-2088

Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 CopiesDistrict III
1000 Rio Brazos Rd., Aztec, NM 87410District IV
PO Box 2088, Santa Fe, NM 87504-2088☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039- 27633		*Pool Code 72319/71599	*Pool Name Blanco Mesaverde/Basin Dakota
*Property Code 7254 7452	*Property Name SAN JUAN 27-4 UNIT		*Well Number 38N
*GRID No. 14538	*Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY, LP		*Elevation 7026'

¹⁰ Surface Location

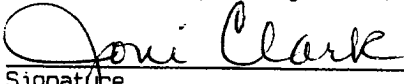

UL or lot no.	Section	Township	Range	Lot 10	Feet from the	North/South line	Feet from the	East/West line	County
N	6	27N	4W		40	SOUTH	2350	WEST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 10	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres MV-W/320.84 DK-W/320.84	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

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

¹⁶ 1317.36' 1320.00' LOT 4 1320.00' LOT 5 1320.00' USA SF-080673 LOT 6 2640.00' LOT 7 2350' 1338.48'	1320.00' LOT 3 1320.00' 6 2640.00' LAT: 36°35.6960' N LONG: 107°17.5300' W DATUM: NAD27 40'	2640.00' LOT 2 2640.00' LOT 1 1315.38' 2640.00' 2640.00' 2640.00'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature Joni Clark Printed Name Regulatory Specialist Title 2-6-04 Date ¹⁸ 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 belief. Survey Date: SEPTEMBER 23, 2003 Signature and Seal of Professional Surveyor  JASON C. EDWARDS Certificate Number 15269
--	---	--	--

RECEIVED JUN 24 PM 2:21 2004

070 Farmington, NM

OPERATIONS PLAN

Well Name: San Juan 27-4 Unit #38N

Location: 40' FSL, 2350' FWL, Sec 6, T-27-N, R-4-W

Rio Arriba County, NM

Latitude 36° 35.70' N Longitude 107° 17.53' W

Formation: Blanco Mesaverde/Basin Dakota

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	3268'	
Ojo Alamo	3268'	3448'	aquifer
Kirtland	3448'	3723'	gas
Fruitland	3723'	3888'	
Pictured Cliffs	3888'	4128'	gas
Lewis	4128'	4488'	gas
Intermediate TD	4228'		
Huerfano Bentonite	4488'	4848'	gas
Chacra	4848'	5458'	gas
Upper Cliff House	5458'	5578'	
Massive Cliff House	5578'	5723'	
Menefee	5723'	6040'	gas
Point Lookout	6040'	6220'	gas
Mancos	6220'	7213'	gas
Gallup	7213'	7982'	gas
Greenhorn	7982'	8048'	gas
Graneros	8048'	8086'	gas
Dakota	8086'	8197'	gas
Upper Cubero	8197'	8246'	gas
Lower Cubero	8246'	8297'	gas
Oak Canyon	8297'		
TD	8312'		

Logging Program:

Mud Logs/Coring/DST -

Mud logs - none

Coring - none

DST - none

Open hole - none

Cased hole - Gamma Ray, CCL, CBL - surface to TD

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 120'	Spud MUD/Air/Air Mist	8.4-9.0	40-50	no control
120- 4228'	LSND	8.4-9.0	30-60	no control
4228- 8312'	Air/Air Mist/Nitrogen	n/a	n/a	n/a

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

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg. Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 120'	9 5/8"	32.3#	H-40
8 3/4"	0' - 4000'	7"	20.0#	J-55
8 3/4"	4000' - 4228'	7"	23.0#	N-80
6 1/4"	0' - 7800'	4 1/2"	10.5#	J-55
6 1/4"	7800' - 8312'	4 1/2"	11.6#	N-80

Tubing Program: 0' - 8312' 2 3/8" 4.7# J-55

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 4 1/2" x 2 3/8" x 2000 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 drill crew.
- All BOP tests & 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 -

Pre-Set Drilled Cement with 23 sx Type I, II cement with 20% flyash mixed at 14.5 ppg, 1.61 cu ft per sack yield. (37 cu ft of slurry, bring cement to surface) Wait on cement for 24 hours for pre-set holes before pressure testing or drilling out from under surface.

9 5/8" surface casing *Type III, per Sean Corrigan 3/3/04* conventionally drilled -

Cement with 88 sacks ~~Premium Lite~~ cement with 0.25 pps Celloflake, 3% calcium chloride. (113 cu.ft.-200% excess, bring cement to surface). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60 degrees F. prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

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

7" intermediate casing -

Lead with 386 sacks Premium Lite cement with 3% calcium chloride, 0.25 pps Celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate. Tail w/90 sacks Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss (947 cu ft- 50% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC. Test casing to 1500 psi for 30 minutes.

7" intermediate casing alternative two stage: Stage collar set 300' above the top of the Fruitland. First stage: Lead with 27 sacks Premium Lite cmt w/3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% sodium metasilicate 0.4% fluid loss. Tail w/90 Type III cmt w/1% calcium chloride, 0.25 pps Celloflake, 0.2% fluid loss. Second stage: Lead with 359 sacks with Premium Lite cement with 3% calcium chloride, .25 pps celloflake, 5 pps LCM-1, 0.4% fluid loss, 0.4% sodium metasilicate (947 cu ft-50% excess to circulate to surface).

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 @ 3448'. Two turbolating centralizers at the base of the Ojo Alamo 3448'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Casing -

Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Cement with 281 sacks Premium Lite HS w/ 0.25 pps Celloflake, 0.3% CD-32, 6.25 pps LCM-1 and 1% FL-52. (556 cu.ft.-30% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

Cement float collar stacked on top of float shoe.

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff.

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

Special Drilling Operations (Air/Mist Drilling):

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

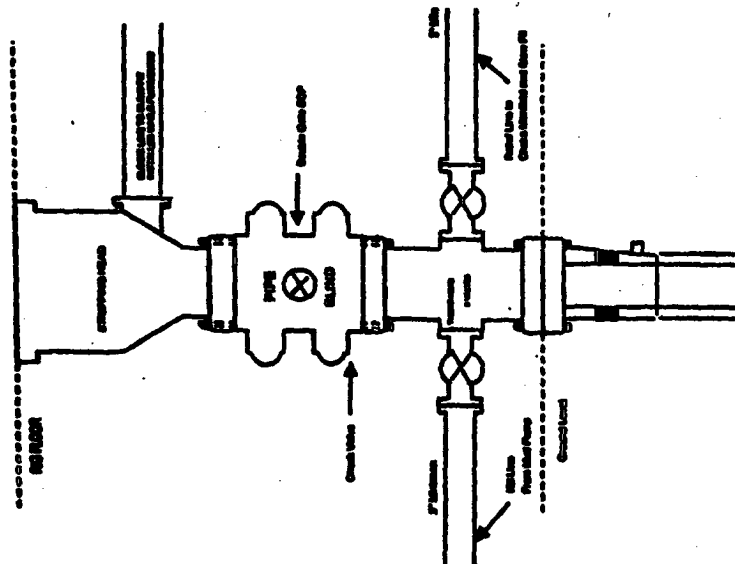
Fruitland Coal	300 psi
Pictured Cliffs	600 psi
Mesa Verde	700 psi
Dakota	2500 psi
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The west 320.84 acres of Section 6 is dedicated to the Mesa Verde and Dakota.
- This gas is dedicated.

Sean Corrigan
Drilling Engineer

February 24, 2004
Date

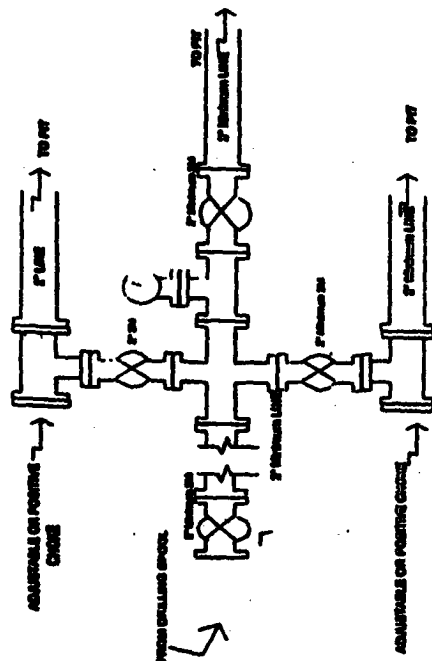
BURLINGTON RESOURCES

**Completion/Workover Rig
BOP Configuration
2,000 psi System**



Minimum BOP installation for all CompleteWorkover Operations. 7-11/8" bore, 2000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A shearing head to be installed on the top of the BOP. All BOP equipment to 2000 psi working pressure or greater excluding 200 psi shearing head.

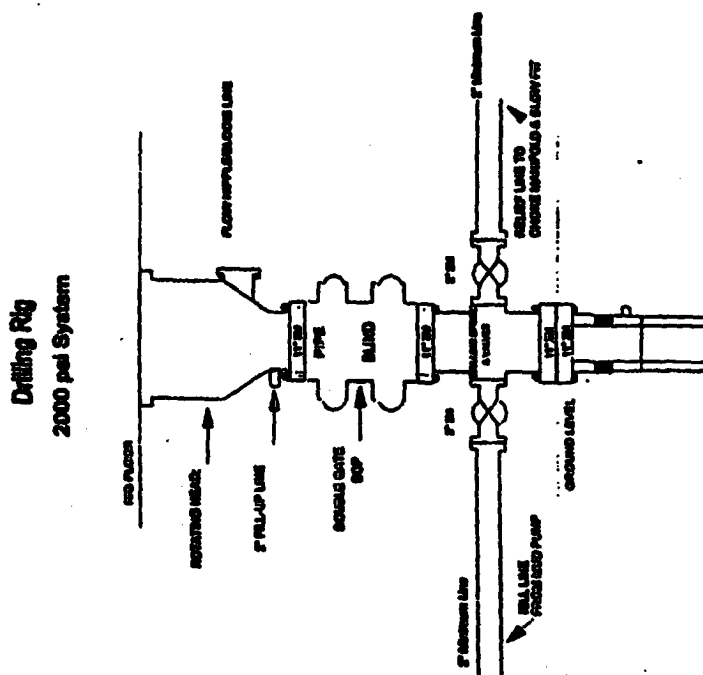
Figure 02



Choice manifold installation from Surface Coating
Point to Total Depth. 2,000psi working pressure
equipment with two choices.

Figure 23

4-20-01



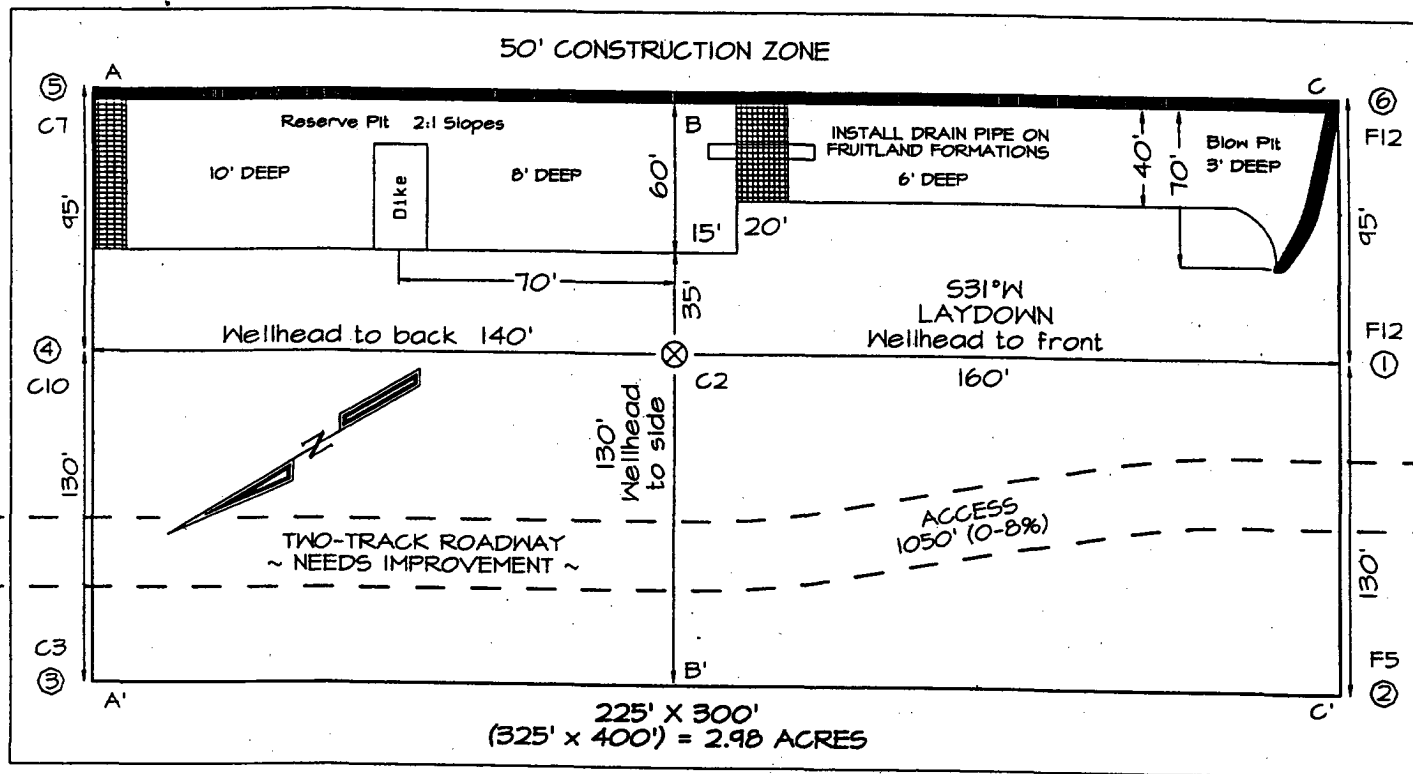
BOCP Installation from Surface Casing Point to Total Depth. 11" Bore 10" Nominal, 2000 psi working pressure double gate BOP to be equipped with blind rams and pipe rams. A 500 psi recording head on top of ram preventers. All BOP equipment is 2,000 psi working pressure.

1.0 INTRODUCTION

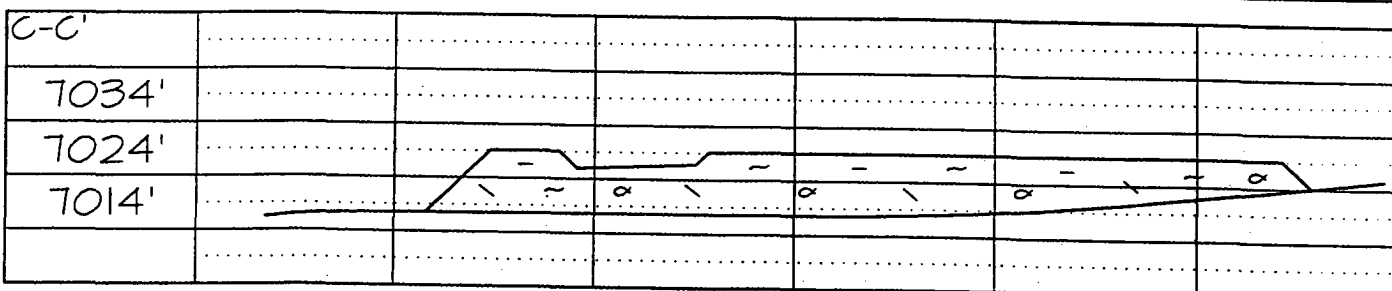
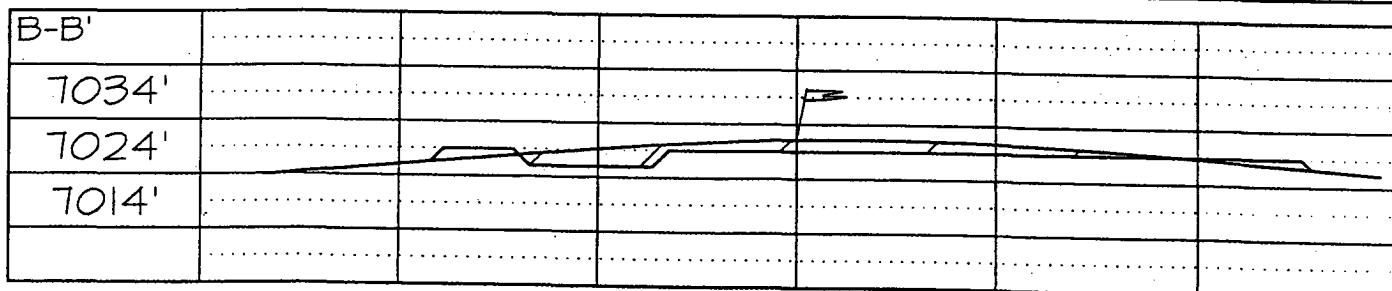
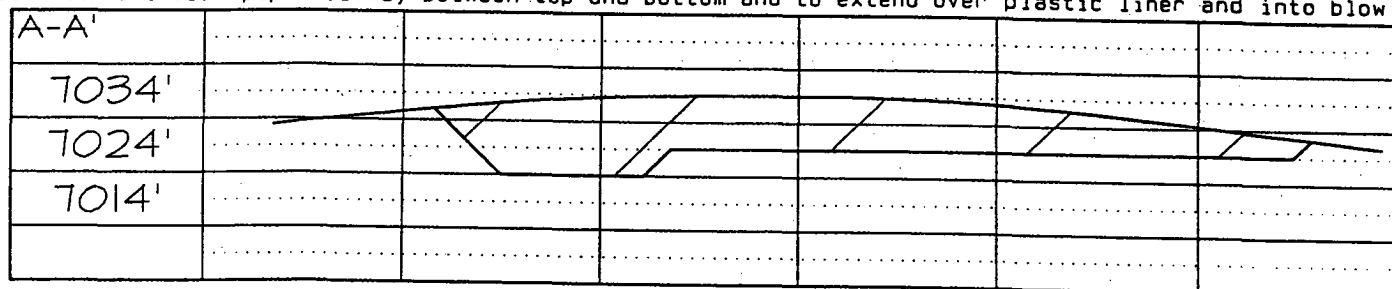
4-20-01

SAN JUAN 27-4 UNIT #38N, 40' FSL & 2350' FWL
SECTION 6, T27N, R4W, NMPM, RIO ARriba COUNTY, NM
GROUND ELEVATION: 7026' DATE: SEPTEMBER 23, 2003

LATITUDE: 36°35'42"
LONGITUDE: 107°17'32"
DATUM: NAD1927



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 pit.



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