



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

June 20, 1997

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

*Administrative Order DD-176*

Dear Ms. Bradfield:

Under the provisions of Rules 111.D and E of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995, Burlington Resources Oil & Gas Company ("Burlington") made application to the New Mexico Oil Conservation Division on May 9, 1997 for authorization to directional drill the proposed San Juan "30-6" Unit Well No. 96-A, Rio Arriba County, New Mexico.

**The Division Director Finds That:**

- (1) It is our understanding that Burlington proposes to locate said well at an unorthodox surface location 2175 feet from the South line and 5 feet from the East line (Unit I) of Section 26, Township 30 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, kickoff in a west-southwesterly direction and directionally drill to an estimated true vertical depth of 5,800 feet within the Blanco-Mesaverde Pool to a standard subsurface infill gas well location within the NE/4 SE/4 (Unit I) of said Section 26;
- (2) An existing 320-acre standard spacing and proration unit ("GPU") comprising the E/2 of said Section 26 is to be dedicated to said well;
- (3) By Order No. R-8170, as amended, the Division promulgated the "*General Rules For The Prorated Gas Pools of New Mexico/Special Rules and Regulations For The Blanco-Mesaverde Pool*", which includes provisions for 320-acre gas spacing and proration units and well location requirements whereby the initial well drilled on a GPU shall be located be no closer than 790 feet to the outer boundary of the quarter section on which the well is located and not closer than 130 feet to any quarter-quarter section line or subdivision inner boundary and the infill well drilled on an existing GPU shall be in the quarter section not containing a Mesaverde gas well and shall be located with respect to the restrictions as previously described;
- (4) Within this GPU Burlington is also producing Blanco-Mesaverde gas from its San Juan "30-6" Unit Well No. 96 (API No. 30-039-07772), located at a standard gas well location 990 feet from the North line and 1850 feet from the East line (Unit B) of said Section 26;

- (5) According to the subject application it is necessary for the operator to directionally drill the San Juan "30-6" Unit Well No. 96-A in the above-described manner in order to avoid extensive archeology and terrain in the SE/4 of said Section 26;
- (6) The applicable drilling window or "producing area" for said wellbore should include that area within the NE/4 SE/4 (Unit I) of said Section 26 that is no closer than 790 feet to the quarter section lines to the east and north, nor closer than 130 feet to either internal quarter-quarter section lines to the south and west; and,
- (7) It appearing the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Burlington Resources Oil & Gas Company ("Burlington"), is hereby authorized to drill its San Juan "30-6" Unit Well No. 96-A at an unorthodox surface location 2175 feet from the South line and 5 feet from the East line (Unit I) of Section 26, Township 30 North, Range 7 West, NMPM, Rio Arriba County, New Mexico, kickoff in a west-southwesterly direction and directionally drill to an estimated true vertical depth of 5,800 feet within the Blanco-Mesaverde Pool to a standard subsurface infill gas well location within the NE/4 SE/4 (Unit I) of said Section 26;

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**PROVIDED HOWEVER THAT** prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

**PROVIDED FURTHER THAT** during or upon completion of directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(3) The applicant shall notify the supervisor of the Aztec district office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Aztec offices of the Division upon completion.

(4) Blanco-Mesaverde gas production from both the existing San Juan "30-6" Unit Well No. 96 (API No. 30-039-07772), located at a standard gas well location 990 feet from the North line and 1850 feet from the East line (Unit B) of said Section 26, and the proposed San Juan "30-6" Unit Well No. 96-A, as described above, shall be attributed to the existing 320-acre standard gas spacing and proration unit

("GPU") comprising the E/2 of said Section 26.

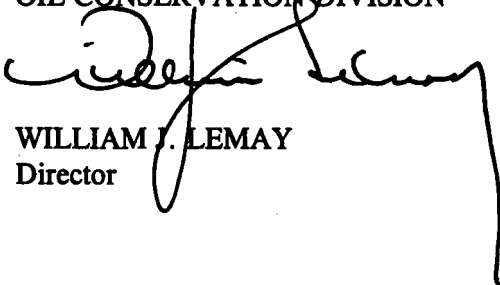
(5) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F and Order No. R-8170, as amended.

(6) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.

(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
WILLIAM J. LEMAY  
Director

S E A L

WJL/MES/kv

cc: Oil Conservation Division - Aztec  
U. S. Bureau of Land Management - Farmington

DD-B/MV

Rec: 5-9-97

Suz: 5-29-97

Revised: 6-20-97

June 20, 1997

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

**Attention: Peggy Bradfield**

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**Administrative Order DD-\*\*\***

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DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY  
Director

S E A L

WJL/MES/kv

cc: Oil Conservation Division - Aztec  
U. S. Bureau of Land Management - Farmington

DATE IN <b>5/9/97</b>	SUSPENSE <b>5/29/97</b>	ENGINEER <b>MS</b>	LOGGED <b>M</b>	TYPE <b>DD</b>
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

### ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

#### Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
 [DD-Directional Drilling] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

#### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☐ NSL ☐ NSP ☒ DD ☐ SD

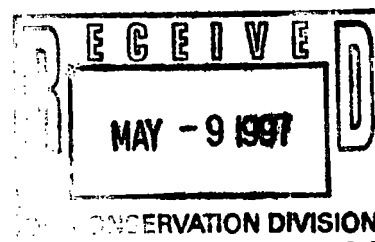
Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



#### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

*Burlington Resources*

#### [3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Peggy Bradfield

Print or Type Name

Signature

Regulatory/Compliance Administrator

Title

Date

*5-7-97*

# **BURLINGTON RESOURCES**

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SAN JUAN DIVISION

May 7, 1997

Sent Federal Express

New Mexico Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505

Att: Mr. Michael Stogner

Re: San Juan 30-6 Unit #96A  
2175' FSL, 5' FEL Section 26, T-30-N, R-7-W, Rio Arriba County, New Mexico  
1650' FSL, 990' FEL Section 26, T-30-N, R-7-W, Rio Arriba County, New Mexico  
API # 30-039-(not yet assigned)

Dear Mr. Stogner:

Burlington Resources is applying for administrative approval to directional drill the referenced well. This application is due to the presence of extensive archaeology in this quarter section and terrain.

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 and enlargement of the map to define topographic features.
5. Plan views of the proposed well, well profile data, and proposed data as drilling progresses through the various formations.

We appreciate your earliest consideration of this application.

Sincerely,





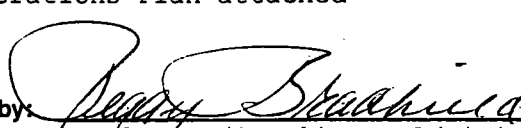

Peggy Bradfield  
Regulatory/Compliance Representative

xc: Bureau of Land Management  
NMOCD - Aztec District Office



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-079383 Unit Reporting Number 8910005380	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>BURLINGTON RESOURCES</b> Oil & Gas Company	7. Unit Agreement Name San Juan 30-6 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 30-6 Unit 9. Well Number 96A	
4. Location of Well 2175' FSL, 5' FEL - surface location 1650' FSL, 990' FEL - bottomhole location  Latitude 36° 46' 57", Longitude 107° 31' 52"	10. Field, Pool, Wildcat Blanco Mesa Verde  11. Sec., Twn, Rge, Mer. (NMPM) Sec 26, T-30-N, R-7-W API # 30-039-	
14. Distance in Miles from Nearest Town 6 miles to Gobernador	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 5'		
16. Acres in Lease		
17. Acres Assigned to Well 320 E/2		
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 800'		
19. Proposed Depth 5761'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6249' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by:  Regulatory/Compliance Administrator	 Date 1-20-97	

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED 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  
NOTE: an APD was approved in January 1986 for this well in this 1/4 Section

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer 00, Artesa, 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, 1991  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Co.  
Fee Lease - 3 Co.

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-	Pool Code 72319	Pool Name Blanco Mesaverde
Property Code 7469	Property Name San Juan 30-6 Unit	Well Number 96A
GRID No. 14538	Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	Elevation 6249'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Ids	Feet from the	North/South line	Feet from the	East/West line	County
I	26	30-N	7-W		2175	South	5	East	R.A.

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ids	Feet from the	North/South line	Feet from the	East/West line	County
I	26	30-N	7-W		1650	South	990	East	R.A.

12 Dedicated Acres 3/320	13 Joints or Infill	14 Consolidation Code	15 Order No.
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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	5281.32'	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature: <u>Peggy Bradfield</u> Printed Name: <u>Peggy Bradfield</u> Title: <u>Regulatory Administrator</u> Date: <u>1-20-97</u>
	SF-079383	
5280.00	26	5280.00
	B.H. 990'	
	1650'	
	2175'	
	5278.68'	

## OPERATIONS PLAN

Well Name: San Juan 30-6 Unit #96A  
Surface Location: 2175' FSL, 5' FEL Section 26, T-30-N, R-7-W  
Bottomhole Location: 1650' FSL, 990' FEL Section 26, T-30-N, R-7-W  
Rio Arriba County, New Mexico  
Latitude 36° 46' 57", Longitude 107° 31' 52"  
Formation: Blanco Mesa Verde  
Elevation: 6249' GL

<u>Formation Tops:</u>	<u>Top (TVD)</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	2161'	aquifer
Ojo Alamo	2161'	2701'	aquifer
Fruitland	2701'	3161'	gas
Pictured Cliffs	3161'	3241'	gas
Lewis	3241'	3856'	gas
Intermediate TD	3341'		
Mesa Verde	3856'	4176'	gas
Chacra	4176'	4961'	
Massive Cliff House	4961'	5031'	gas
Menefee	5031'	5361'	gas
Point Lookout	5361'		gas
Total Depth	5761' TVD		

### Logging Program:

Cased hole logging - Gamma Ray Neutron from 2800' to TD  
Mud Logs/Coring/DST - none

### Mud Program:

<u>Interval - MD</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0 - 200'	Spud	8.4-9.0	40-50	no control
200-3669'	LSND	8.4-9.0	30-60	no control
3669-6163'	Air/Mist	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>	<u>Measured Depth</u>	<u>TVD</u>	<u>Csg Size</u>	<u>Weight</u>	<u>Grade</u>
12 1/4"	0' - 200'	0 - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3669'	0 - 3341'	7"	20.0#	J-55
6 1/4"	3569' - 6163'	3241 - 5761'	4 1/2"	10.5#	J-55

Tubing Program: 0' - 6163' 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.

BOP Specifications, Wellhead and Tests (cont'd):

**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 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 - cement with 163 sx Class "B" cement with 1/4# flocele/sx and 3% 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/418 sx Class "B" w/3% sodium metasilicate, 5# gilsonite/sx and 0.375# flocele/sx. Tail w/100 sx 50/50 Class "B" Poz w/2% calcium chloride, 5# gilsonite/sx and 0.25# flocele/sx (1105 cu.ft. of slurry, 100% 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 to determine TOC. Test casing to 1500 psi for 30 minutes.

Cement float shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom in the hold section, 2073' MD to 3669' MD. Bowspring centralizers on every joint in the build section, 1000' MD to 2073' MD. Bowspring centralizers spaced every 4th joint from 1000' MD to surface. Two cement baskets placed at the base of the Ojo Alamo at 2701' TVD.

## 4 1/2" Production Liner -

Cement to circulate liner top. Lead with 165 sx 65/35 Class "B" poz w/6% gel, 3# gilsonite/sx and 1/4# flocele/sx. Tail with 122 sx 50/50 Class "B" Poz w/1/4# flocele/sx, 5# gilsonite/sx and 0.3% fluid loss additive (468 cu.ft., 75% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff. Bowspring centralizers run every other joint off bottom to 7" casing shoe at 3669'.

- 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 (Air/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.
- 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 formation will be completed.
- 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
- 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 east half is dedicated to the Mesa Verde.
- This gas is dedicated.

  
Drilling Engineer

3/25/97  
Date

# **BURLINGTON RESOURCES**

San Juan 30-6 Unit #96A  
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 300' 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 Navajo Dam at Francis Creek located in SE/4 Section 14, T-30-N, R-7-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.

  
Regulatory/Compliance Administrator

1-20-97  
Date

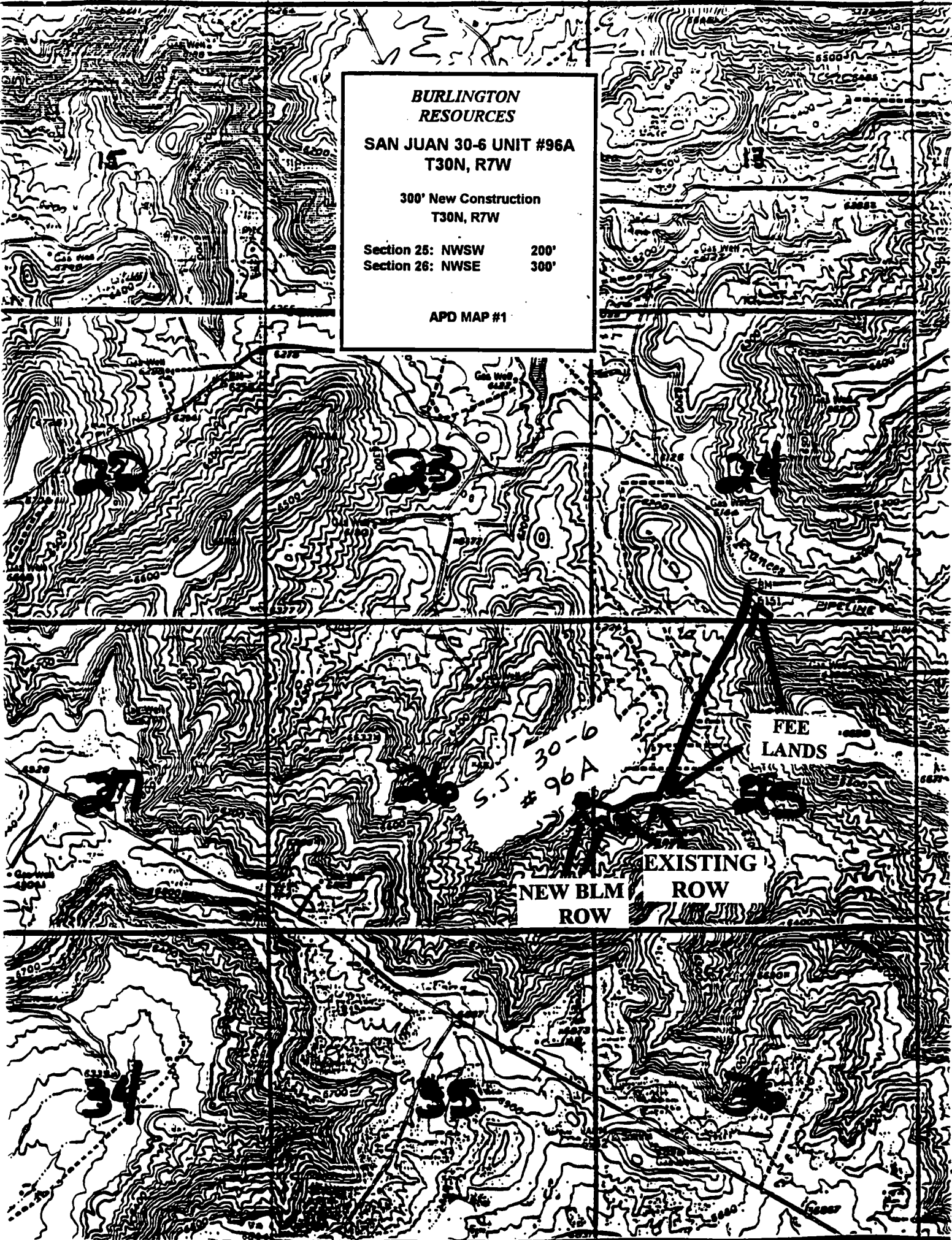
**BURLINGTON  
RESOURCES**

**SAN JUAN 30-6 UNIT #96A**  
**T30N, R7W**

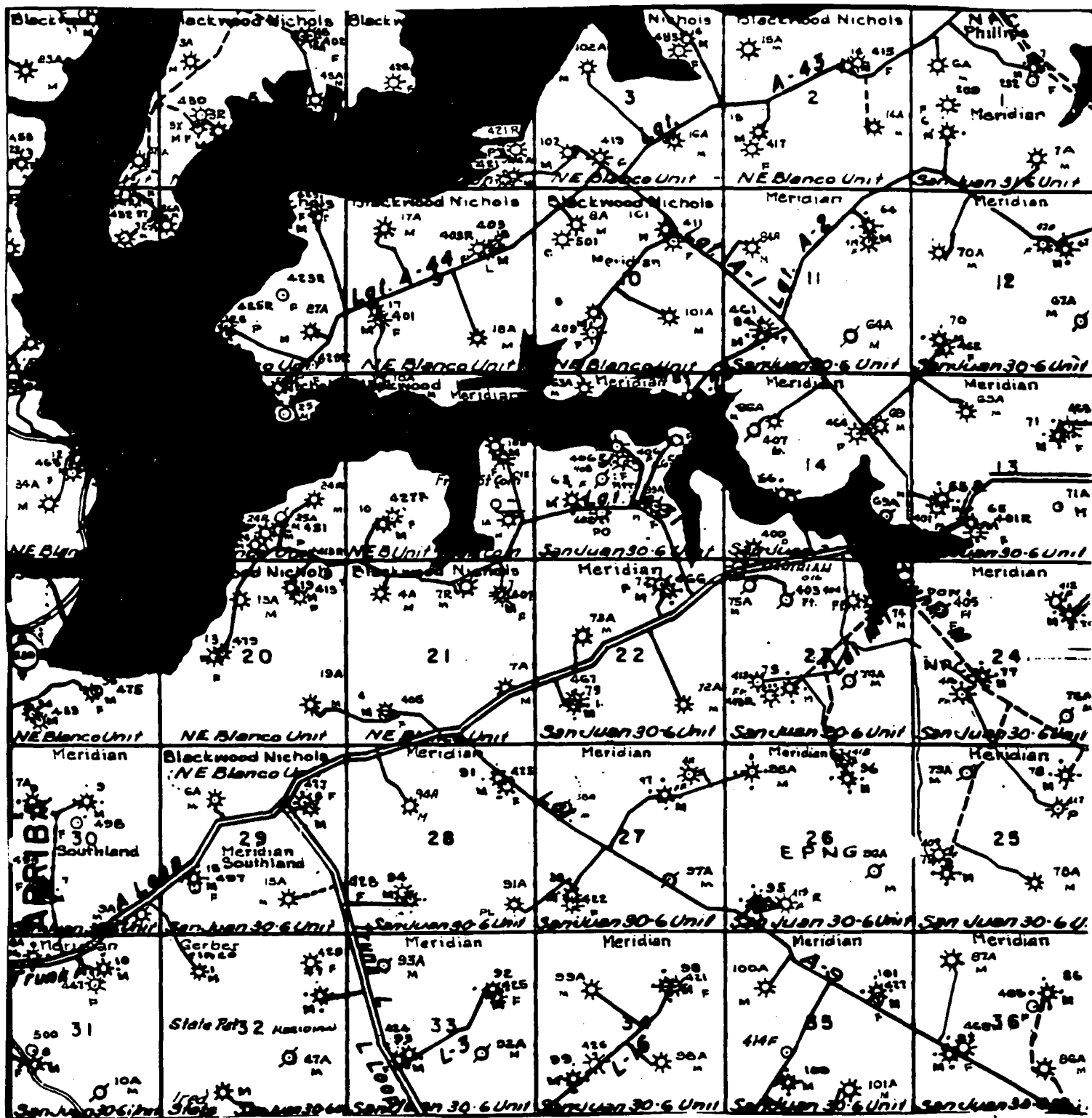
**300' New Construction**  
**T30N, R7W**

Section 25: NWSW	200'
Section 26: NWSE	300'

**APD MAP #1**





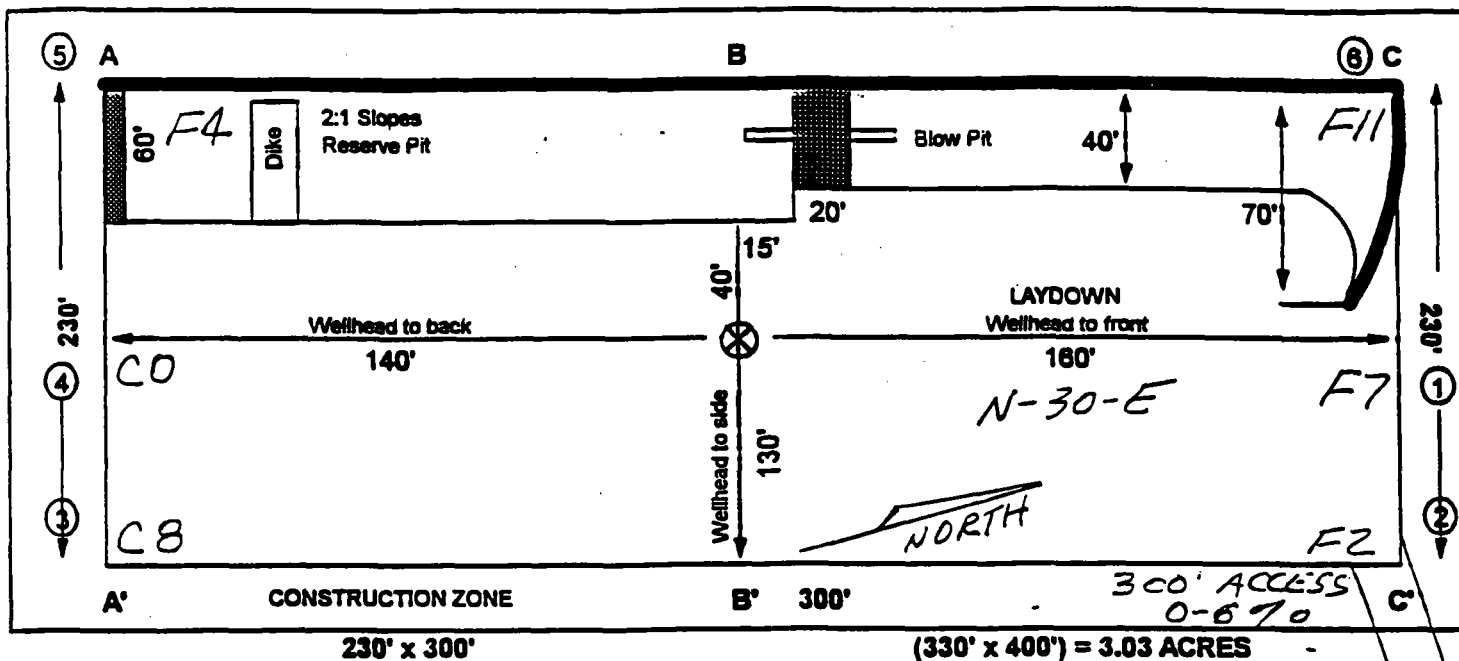


MERIDIAN OIL INC.  
 Pipeline Map  
 T-30-N, R-07-W  
 San Juan County, New Mexico  
 San Juan 30-6 Unit #96A  
 Map 1A

# BURLINGTON RESOURCES

## PLAT #1

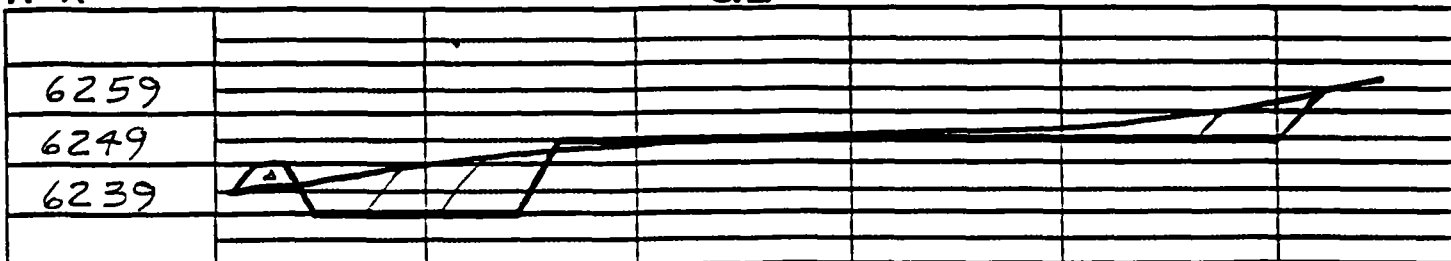
NAME: SAN JUAN 30-6 UNIT #96A  
 FOOTAGE: 2175' FSL 5' FEL  
 SEC 26 TWN 30 N.R. 7 W NMPM  
 CO: RIO ARriba ST: NEW MEXICO  
 ELEVATION: 6249' DATE: 11/15/96



Reserve Pit Dike: to be 6" above Deep side (overflow - 3' wide and 1' above shallow side).  
 Blow Pit: overflow pipe pathway between top and bottom and to extend over plastic liner and into blow pit.

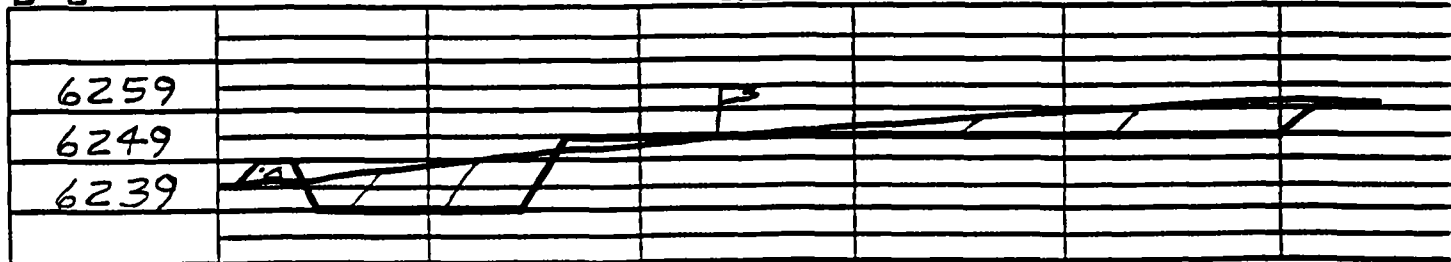
A - A'

C/L



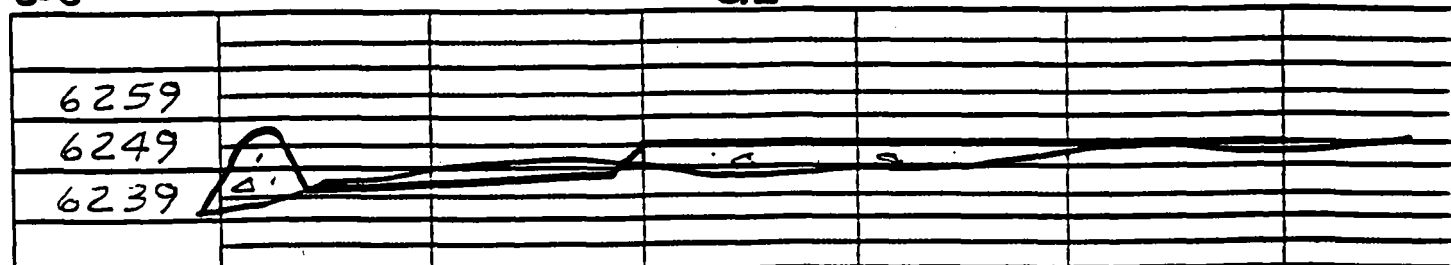
B - B'

C/L



C - C'

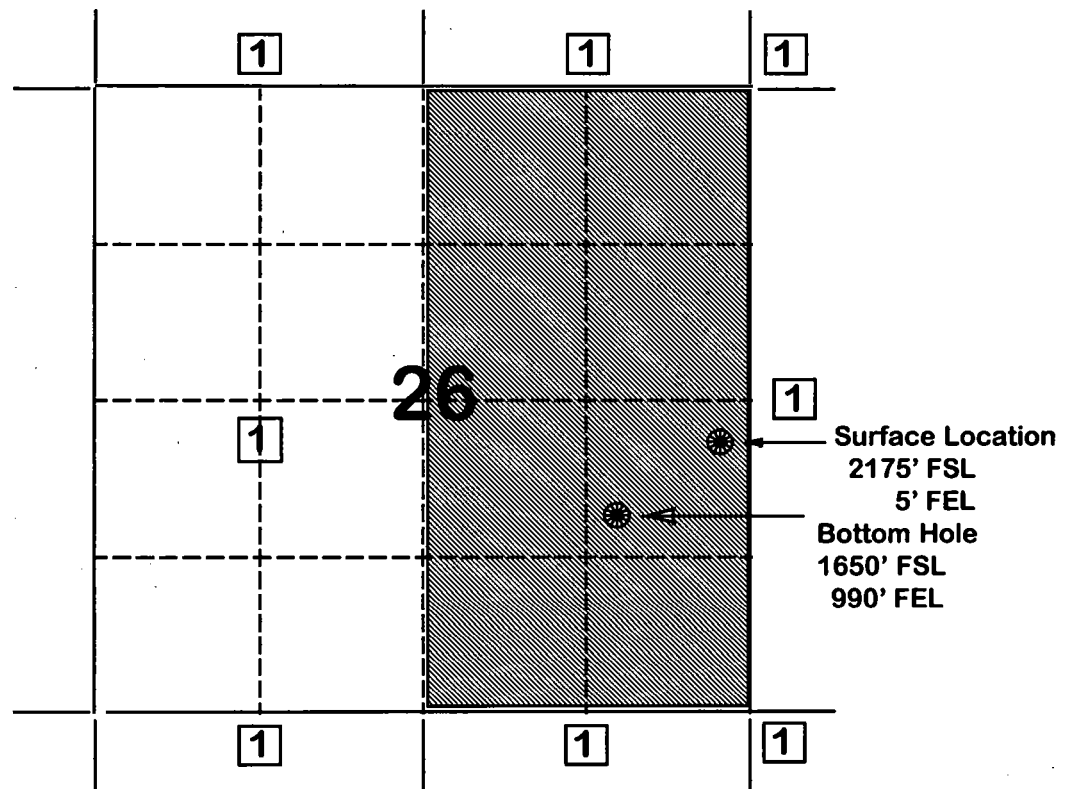
C/L



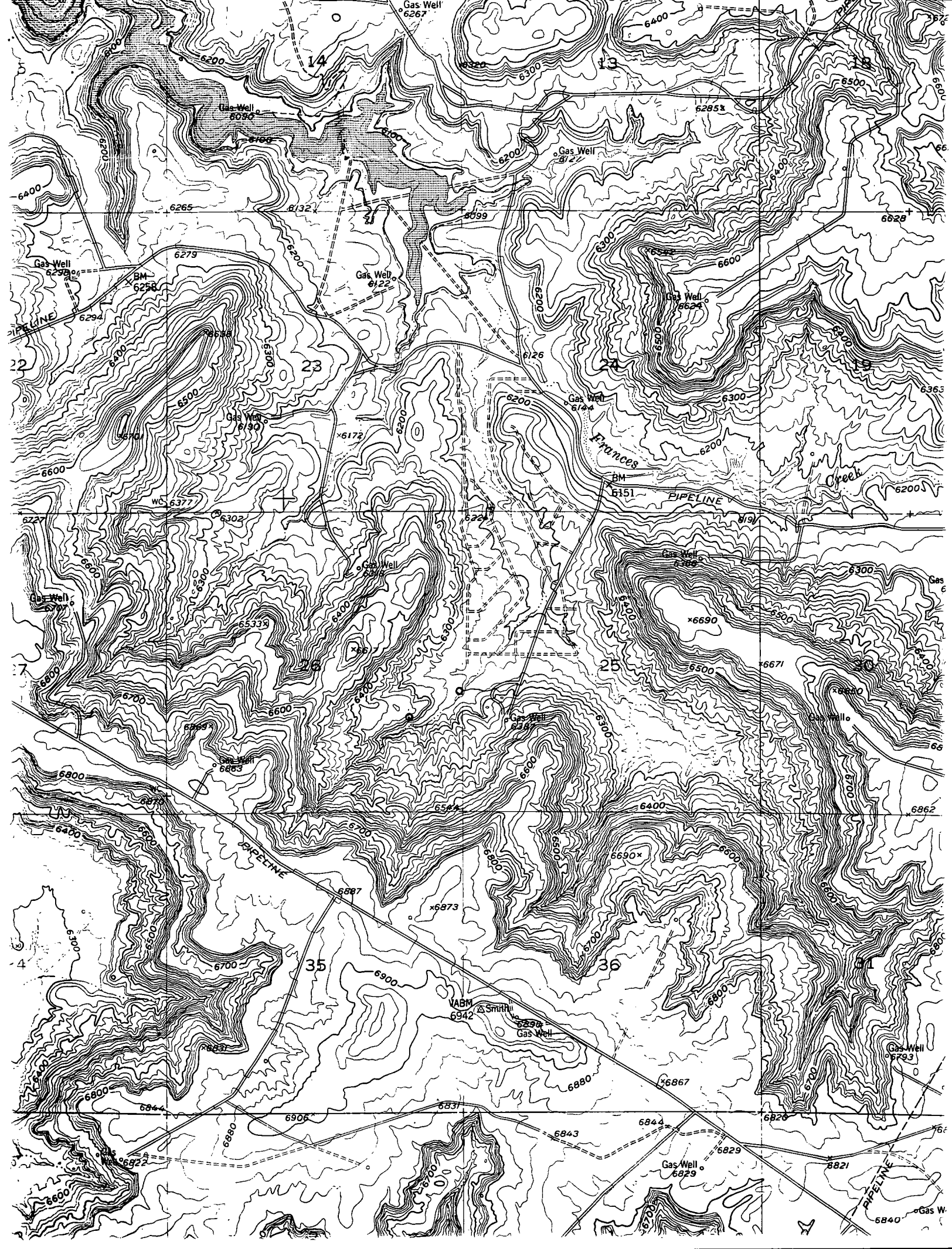
Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cat on well pad and/or access road at least two (2) working days prior to construction.

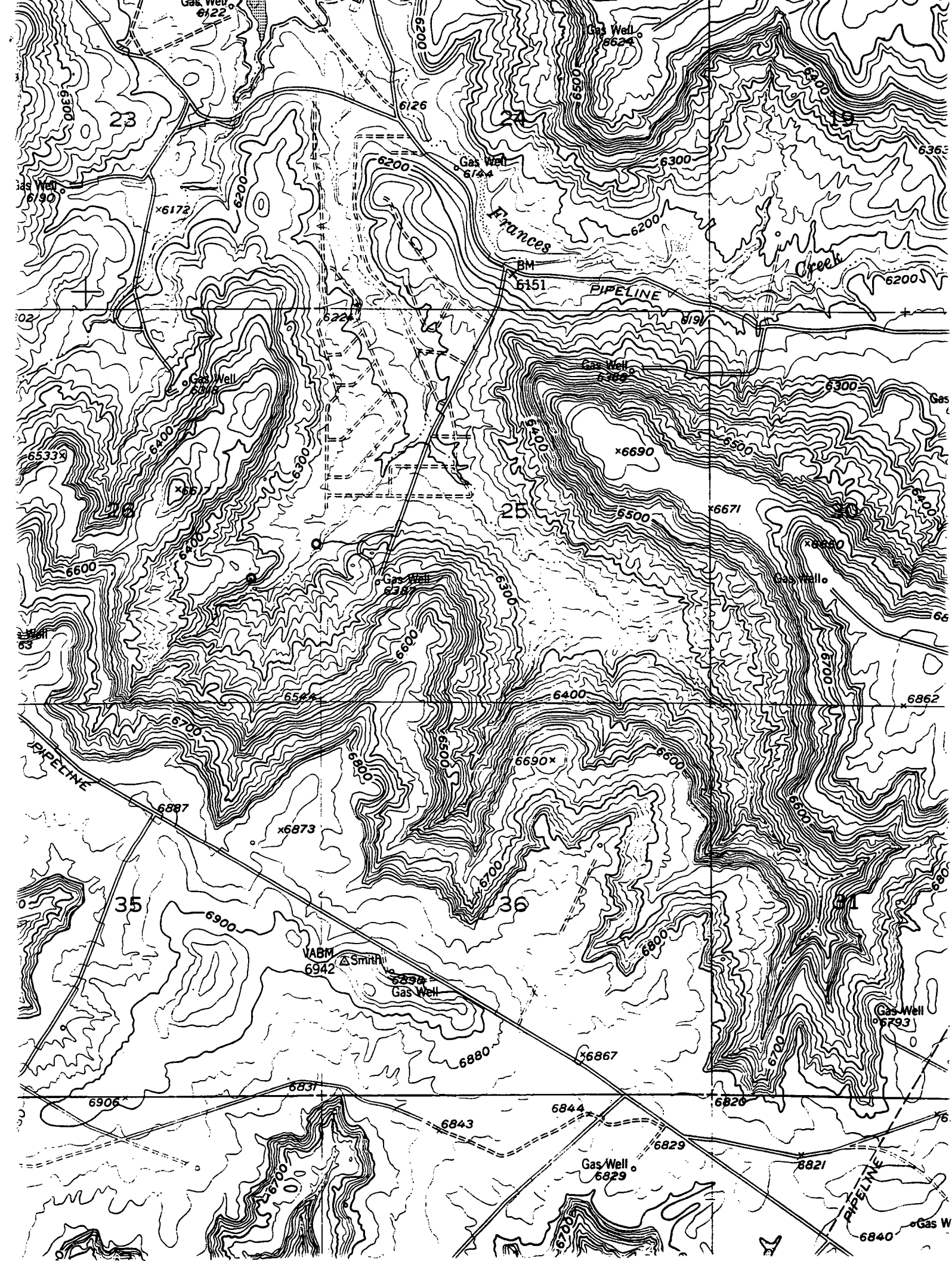
***BURLINGTON RESOURCES OIL AND GAS COMPANY***

**San Juan 30-6 Unit #96A  
OFFSET OPERATOR \ OWNER PLAT  
Directional Drilling  
Mesaverde Formation Well  
Township 30 North, Range 7 West**



**1) Burlington Resources Oil and Gas Company**







**BAKER**  
**HUGHES**  
**INTEC**

BURLINGTON RESOURCES  
SEC.26-T30N-R7W

SAN JUAN 30-6 #96A  
SLOT #1  
RIO ARriba COUNTY  
NEW MEXICO

P R O P O S A L L I S T I N G

by  
Baker Hughes INTEQ

Your ref : INITIAL PLAN REV. 1  
Our ref : prop2670  
License :

Date printed : 25-Apr-97  
Date created : 4-Dec-96  
Last revised : 24-Apr-97

Field is centred on n36 33 0.000,w107 40 0  
Structure is centred on n36 46 21.000,w107 37 16.304

Slot location is n36 46 42.507,w107 37 16.366  
Slot Grid coordinates are N 2102691.235, E 562121.744  
Slot local coordinates are 2175.00 N 5.00 W

Projection type: mercator - New Mexico West (3003), Spheroid: Clarke - 1866

Reference North is True North

BURLINGTON RESOURCES  
SEC.26-T30N-R7W,SAN JUAN 30-6 #96A  
RIO ARriba COUNTY,NEW MEXICO

PROPOSAL LISTING Page 1  
Your ref : INITIAL PLAN REV. 1  
Last revised : 24-Apr-97

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect	
0.00	0.00	241.94	0.00	0.00 N	0.00 E	0.00	0.00	
500.00	0.00	241.94	500.00	0.00 N	0.00 E	0.00	0.00	
869.48	0.00	241.94	869.48	0.00 N	0.00 E	0.00	0.00	
969.48	5.00	241.94	969.35	2.05 S	3.85 W	5.00	4.36	
1069.48	10.00	241.94	1068.46	8.19 S	15.36 W	5.00	17.41	
1169.48	15.00	241.94	1166.06	18.37 S	34.46 W	5.00	39.05	
1269.48	20.00	241.94	1261.40	32.50 S	60.99 W	5.00	69.11	
1369.48	25.00	241.94	1353.76	50.50 S	94.75 W	5.00	107.36	
1469.48	30.00	241.94	1442.44	72.21 S	135.48 W	5.00	153.52	
1569.48	35.00	241.94	1526.75	97.47 S	182.88 W	5.00	207.24	
2000.00	35.00	241.94	1879.41	213.62 S	400.80 W	0.00	454.17	
2343.76	35.00	241.94	2161.00	306.36 S	574.80 W	0.00	651.34	OJO ALAMO
2500.00	35.00	241.94	2288.99	348.52 S	653.88 W	0.00	740.96	
2638.02	35.00	241.94	2402.04	385.75 S	723.74 W	0.00	820.12	
2738.02	31.50	241.94	2485.66	411.54 S	772.12 W	3.50	874.95	
2838.02	28.00	241.94	2572.46	434.87 S	815.90 W	3.50	924.56	
2938.02	24.50	241.94	2662.14	455.67 S	854.93 W	3.50	968.78	
2980.48	23.01	241.94	2701.00	463.72 S	870.02 W	3.50	985.89	FRUITLAND
3038.02	21.00	241.94	2754.34	473.86 S	889.05 W	3.50	1007.45	
3138.02	17.50	241.94	2848.74	489.36 S	918.14 W	3.50	1040.41	
3238.02	14.00	241.94	2944.97	502.13 S	942.09 W	3.50	1067.55	
3338.02	10.50	241.94	3042.68	512.11 S	960.81 W	3.50	1088.76	
3438.02	7.00	241.94	3141.50	519.26 S	974.23 W	3.50	1103.97	
3457.65	6.31	241.94	3161.00	520.33 S	976.24 W	3.50	1106.25	PICTURED CLIFFS
3537.95	3.50	241.94	3241.00	523.56 S	982.30 W	3.50	1113.12	LEWIS

All data is in feet unless otherwise stated.  
Coordinates from SLOT #1 and TVD from RKB (6249.00 Ft above mean seal level).  
Bottom hole distance is 1116.18 on azimuth 241.94 degrees from wellhead.  
Vertical section is from wellhead on azimuth 241.94 degrees.  
Calculation uses the minimum curvature method.  
Presented by Baker Hughes INTEQ



BURLINGTON RESOURCES  
 SEC.26-T30N-R7W,SAN JUAN 30-6 #96A  
 RIO ARriba COUNTY,NEW MEXICO

PROPOSAL LISTING Page 2  
 Your ref : INITIAL PLAN REV. 1  
 Last revised : 24-Apr-97

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect	
3538.02	3.50	241.94	3241.06	523.56 S	982.31 W	3.50	1113.12	
3638.02	0.00	241.94	3341.00	525.00 S	985.00 W	3.50	1116.18	
4000.00	0.00	241.94	3702.98	525.00 S	985.00 W	0.00	1116.18	
4153.02	0.00	241.94	3856.00	525.00 S	985.00 W	0.00	1116.18	MESA VERDE
4473.02	0.00	241.94	4176.00	525.00 S	985.00 W	0.00	1116.18	CHACRA
4500.00	0.00	241.94	4202.98	525.00 S	985.00 W	0.00	1116.18	
5000.00	0.00	241.94	4702.98	525.00 S	985.00 W	0.00	1116.18	
5258.02	0.00	241.94	4961.00	525.00 S	985.00 W	0.00	1116.18	MASSIVE CLIFF HOUSE
5328.02	0.00	241.94	5031.00	525.00 S	985.00 W	0.00	1116.18	MENEFEE
5500.00	0.00	241.94	5202.98	525.00 S	985.00 W	0.00	1116.18	
5658.02	0.00	241.94	5361.00	525.00 S	985.00 W	0.00	1116.18	MASSIVE POINT LOOKOUT
6000.00	0.00	241.94	5702.98	525.00 S	985.00 W	0.00	1116.18	
6058.02	0.00	241.94	5761.00	525.00 S	985.00 W	0.00	1116.18	TOTAL DEPTH

All data is in feet unless otherwise stated.  
 Coordinates from SLOT #1 and TVD from RKB (6249.00 Ft above mean seal level).  
 Bottom hole distance is 1116.18 on azimuth 241.94 degrees from wellhead.  
 Vertical section is from wellhead on azimuth 241.94 degrees.  
 Calculation uses the minimum curvature method.  
 Presented by Baker Hughes INTEQ

BURLINGTON RESOURCES  
 SEC.26-T30N-R7W,SAN JUAN 30-6 #96A  
 RIO ARriba COUNTY,NEW MEXICO

PROPOSAL LISTING Page 3  
 Your ref : INITIAL PLAN REV. 1  
 Last revised : 24-Apr-97

				Comments in wellpath
				=====
MD	TVD	Rectangular Coords.		Comment
-----				
2343.76	2161.00	306.36 S	574.80 W	OJO ALAMO
2980.48	2701.00	463.72 S	870.02 W	FRUITLAND
3457.65	3161.00	520.33 S	976.24 W	PICTURED CLIFFS
3537.95	3241.00	523.56 S	982.30 W	LEWIS
4153.02	3856.00	525.00 S	985.00 W	MESA VERDE
4473.02	4176.00	525.00 S	985.00 W	CHACRA
5258.02	4961.00	525.00 S	985.00 W	MASSIVE CLIFF HOUSE
5328.02	5031.00	525.00 S	985.00 W	MENEFEE
5658.02	5361.00	525.00 S	985.00 W	MASSIVE POINT LOOKOUT
6058.02	5761.00	525.00 S	985.00 W	TOTAL DEPTH

Casing positions in string 'A'								
=====								
Top MD	Top TVD	Rectangular Coords.		Bot MD	Bot TVD	Rectangular Coords.		Casing
-----								
0.00	0.00	0.00N	0.00E	3638.02	3341.00	525.00S	985.00W	INTERMEDIAT

Targets associated with this wellpath				
=====				
Target name	Geographic Location	T.V.D.	Rectangular Coordinates	Revised
-----				
S J 30-6 96A		4961.00	525.00S 985.00W	14-Mar-97

CMD :  
OG5SECT.

ONGARD  
INQUIRE LAND BY SECTION

06/19/97 14:58:02  
OGOMES -EMDR  
PAGE NO: 2

Sec : 26 Twp : 30N Rng : 07W Section Type : NORMAL

L 40.00  Federal owned U	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 A	O 40.00  Federal owned U	P 40.00  Federal owned U

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

CMD :  
OG5SECT

ONGARD  
INQUIRE LAND BY SECTION

06/19/97 14:57:56  
OGOMES -EMDR  
PAGE NO: 1

Sec : 26 Twp : 30N Rng : 07W Section Type : NORMAL

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

PF01 HELP  
PF07 BKWD

PF02  
PF08 FWD

PF03 EXIT  
PF09 PRINT

PF04 GoTo  
PF10 SDIV

PF05  
PF11

PF06  
PF12

DATE	SUSPENSE	ENGINEER	LOGGED	TYPE
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

### ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

#### Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
 [DD-Directional Drilling] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

#### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling  
☐ NSL ☐ NSP ☒ DD ☐ SD

Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

#### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners  
 [B] ☐ Offset Operators, Leaseholders or Surface Owner  
 [C] ☐ Application is One Which Requires Published Legal Notice  
 [D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office  
 [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,  
 [F] ☐ Waivers are Attached

#### [3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Peggy Bradfield

Print or Type Name

Signature

Regulatory/Compliance Administrator

Title

Date

5-7-97

# **BURLINGTON RESOURCES**

---

SAN JUAN DIVISION

May 7, 1997

Sent Federal Express

New Mexico Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505

Att: Mr. Michael Stogner

Re: San Juan 30-6 Unit #96A  
2175'FSL, 5'FEL Section 26, T-30-N, R-7-W, Rio Arriba County, New Mexico  
1650'FSL, 990'FEL Section 26, T-30-N, R-7-W, Rio Arriba County, New Mexico  
API # 30-039-(not yet assigned)

Dear Mr. Stogner:

Burlington Resources is applying for administrative approval to directional drill the referenced well. This application is due to the presence of extensive archaeology in this quarter section and terrain.

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 and enlargement of the map to define topographic features.
5. Plan views of the proposed well, well profile data, and proposed data as drilling progresses through the various formations.

We appreciate your earliest consideration of this application.

Sincerely,

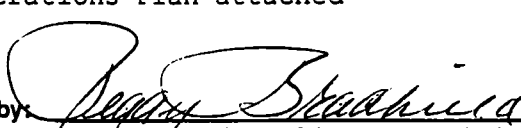


Peggy Bradfield  
Regulatory/Compliance Representative

xc: Bureau of Land Management  
NMOCD - Aztec District Office

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-079383 Unit Reporting Number 8910005380	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>BURLINGTON RESOURCES</b> Oil & Gas Company	7. Unit Agreement Name San Juan 30-6 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 30-6 Unit 9. Well Number 96A	
4. Location of Well 2175' FSL, 5' FEL - surface location 1650' FSL, 990' FEL - bottomhole location Latitude 36° 46' 57", Longitude 107° 31' 52"	10. Field, Pool, Wildcat Blanco Mesa Verde 11. Sec., Twn, Rge, Mer. (NMPM) Sec 26, T-30-N, R-7-W API # 30-039-	
14. Distance in Miles from Nearest Town 6 miles to Gobernador	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 5'		
16. Acres in Lease	17. Acres Assigned to Well 320 E/2	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 800'		
19. Proposed Depth 5761'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6249' GR	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by  Regulatory/Compliance Administrator	1-20-97 Date	

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED 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  
NOTE: an APD was approved in January 1986 for this well in this 1/4 Section

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer 00, Artesa, 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 C  
State Lease - 4 C  
Fee Lease - 3 C

☐ AMENDED REF

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-039-	Pool Code 72319	Pool Name Blanco Mesaverde
Property Code 7469	Property Name San Juan 30-6 Unit	Well Number 96A
OGRID No. 14538	Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY	Elevation 6249'

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
I	26	30-N	7-W		2175	South	5	East	R.A.

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
I	26	30-N	7-W		1650	South	990	East	R.A.

12 Dedication Acres E/320	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	5281.32'		17 OPERATOR CERTIFICATE I hereby certify that the information contained here is true and complete to the best of my knowledge and belief.  Signature: <u>Peggy Bradfield</u> Printed Name: <u>Peggy Bradfield</u> Regulatory Administrator Title: <u>1-20-97</u> Date: <u>1-20-97</u>
	SF-079383		
5280.00	26		18 SURVEYOR CERTIFICATE I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made or under my supervision, and that the same is true and correct to the best of my belief. 11/15/96 Date of Survey: <u>11/15/96</u> Signature and Seal of Professional Surveyor: <u>NEALE C. EDWARDS</u> Certificate Number: <u>6857</u>
	5278.68'		
	1650'	990'	



## OPERATIONS PLAN

Well Name: San Juan 30-6 Unit #96A  
Surface Location: 2175' FSL, 5' FEL Section 26, T-30-N, R-7-W  
Bottomhole Location: 1650' FSL, 990' FEL Section 26, T-30-N, R-7-W  
Rio Arriba County, New Mexico  
Latitude 36° 46' 57", Longitude 107° 31' 52"  
Formation: Blanco Mesa Verde  
Elevation: 6249' GL

<u>Formation Tops:</u>	<u>Top (TVD)</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	2161'	aquifer
Ojo Alamo	2161'	2701'	aquifer
Fruitland	2701'	3161'	gas
Pictured Cliffs	3161'	3241'	gas
Lewis	3241'	3856'	gas
Intermediate TD	3341'		
Mesa Verde	3856'	4176'	gas
Chacra	4176'	4961'	
Massive Cliff House	4961'	5031'	gas
Menefee	5031'	5361'	gas
Point Lookout	5361'		gas
Total Depth	5761' TVD		

### Logging Program:

Cased hole logging - Gamma Ray Neutron from 2800' to TD  
Mud Logs/Coring/DST - none

### Mud Program:

<u>Interval - MD</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-9.0	40-50	no control
200-3669'	LSND	8.4-9.0	30-60	no control
3669-6163'	Air/Mist	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>	<u>Measured Depth</u>	<u>TVD</u>	<u>Csq Size</u>	<u>Weight</u>	<u>Grade</u>
12 1/4"	0' - 200'	0 - 200'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3669'	0 - 3341'	7"	20.0#	J-55
6 1/4"	3569' - 6163'	3241 - 5761'	4 1/2"	10.5#	J-55

<u>Tubing Program:</u>	0' - 6163'	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.

**BOP Specifications, Wellhead and Tests (cont'd):****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 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 - cement with 163 sx Class "B" cement with 1/4# flocele/sx and 3% 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/418 sx Class "B" w/3% sodium metasilicate, 5# gilsonite/sx and 0.375# flocele/sx. Tail w/100 sx 50/50 Class "B" Poz w/2% calcium chloride, 5# gilsonite/sx and 0.25# flocele/sx (1105 cu.ft. of slurry, 100% 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 to determine TOC. Test casing to 1500 psi for 30 minutes.

Cement float shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom in the hold section, 2073'MD to 3669'MD. Bowspring centralizers on every joint in the build section, 1000' MD to 2073'MD. Bowspring centralizers spaced every 4th joint from 1000' MD to surface. Two cement baskets placed at the base of the Ojo Alamo at 2701' TVD.

**4 1/2" Production Liner -**

Cement to circulate liner top. Lead with 165 sx 65/35 Class "B" poz w/6% gel, 3# gilsonite/sx and 1/4# flocele/sx. Tail with 122 sx 50/50 Class "B" Poz w/1/4# flocele/sx, 5# gilsonite/sx and 0.3% fluid loss additive (468 cu.ft., 75% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. The liner hanger will have a rubber packoff. Bowspring centralizers run every other joint off bottom to 7" casing shoe at 3669'.

- 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 (Air/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.
- 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 formation will be completed.
- 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
- 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 east half is dedicated to the Mesa Verde.
- This gas is dedicated.

  
Drilling Engineer

3/25/97  
Date

# **BURLINGTON RESOURCES**

San Juan 30-6 Unit #96A  
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 300' 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 Navajo Dam at Francis Creek located in SE/4 Section 14, T-30-N, R-7-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.

  
Regulatory/Compliance Administrator

1-20-97  
Date

pb

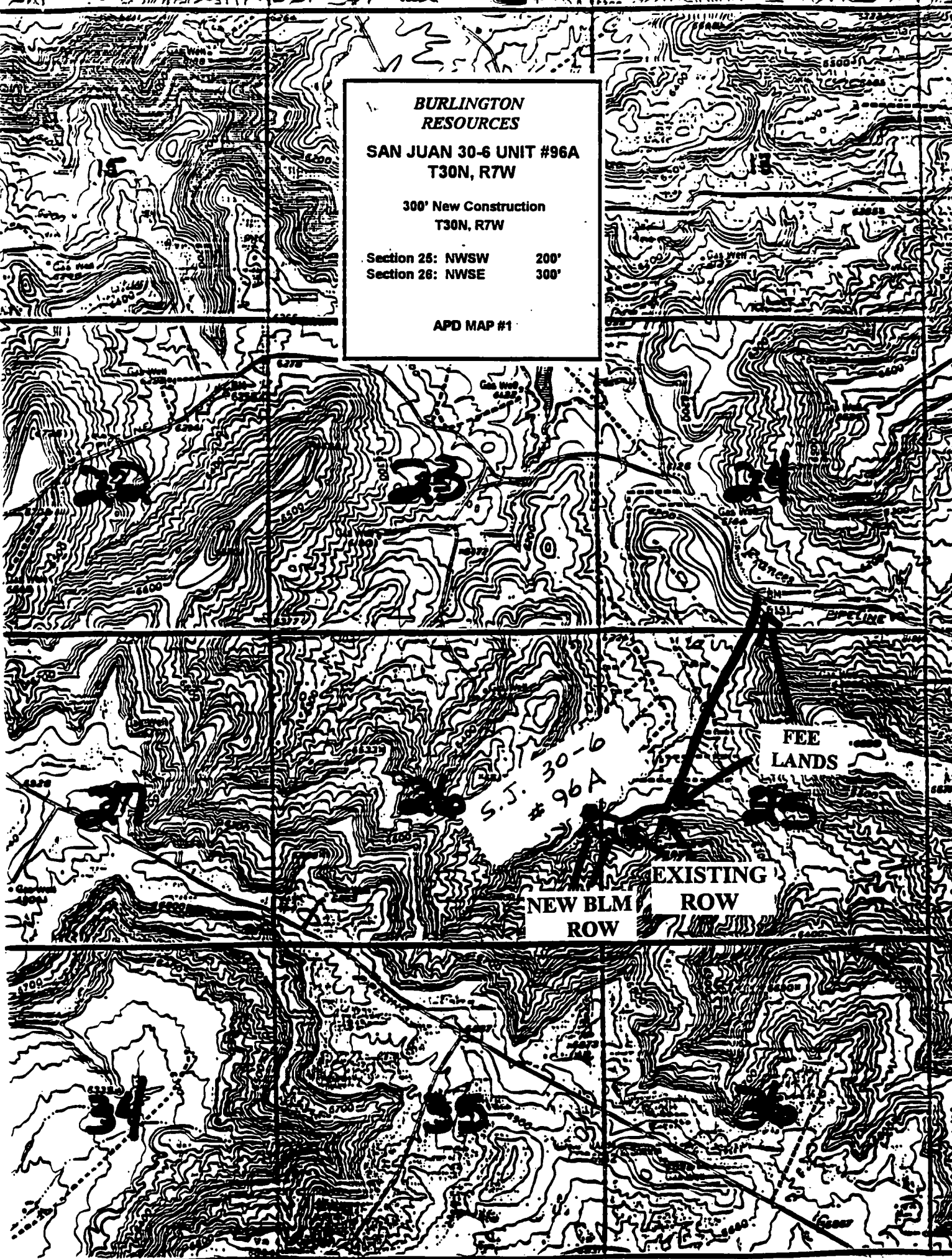
**BURLINGTON  
RESOURCES**

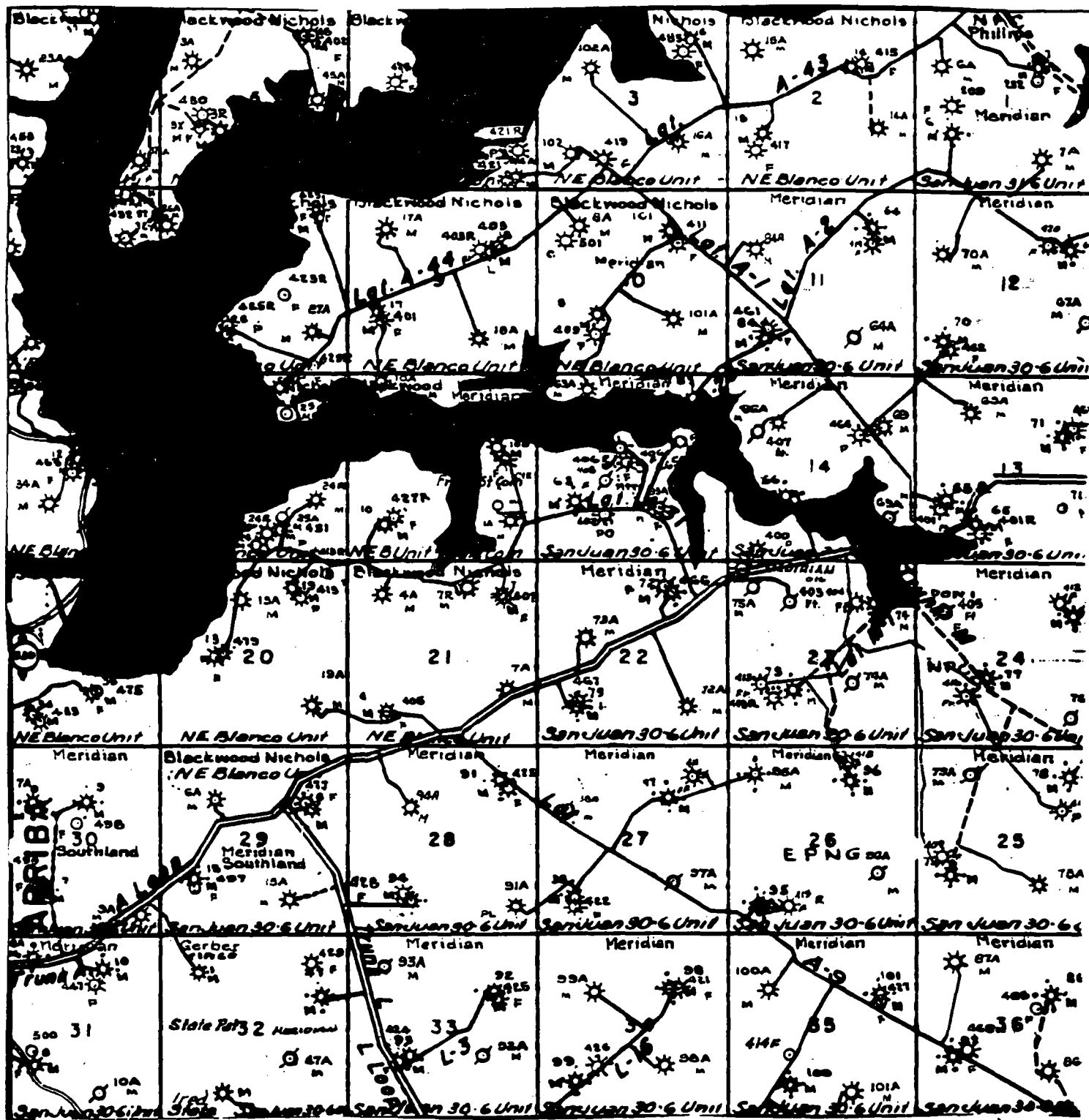
**SAN JUAN 30-6 UNIT #96A  
T30N, R7W**

**300' New Construction  
T30N, R7W**

Section 25: NWSW	200'
Section 26: NWSE	300'

**APD MAP #1**

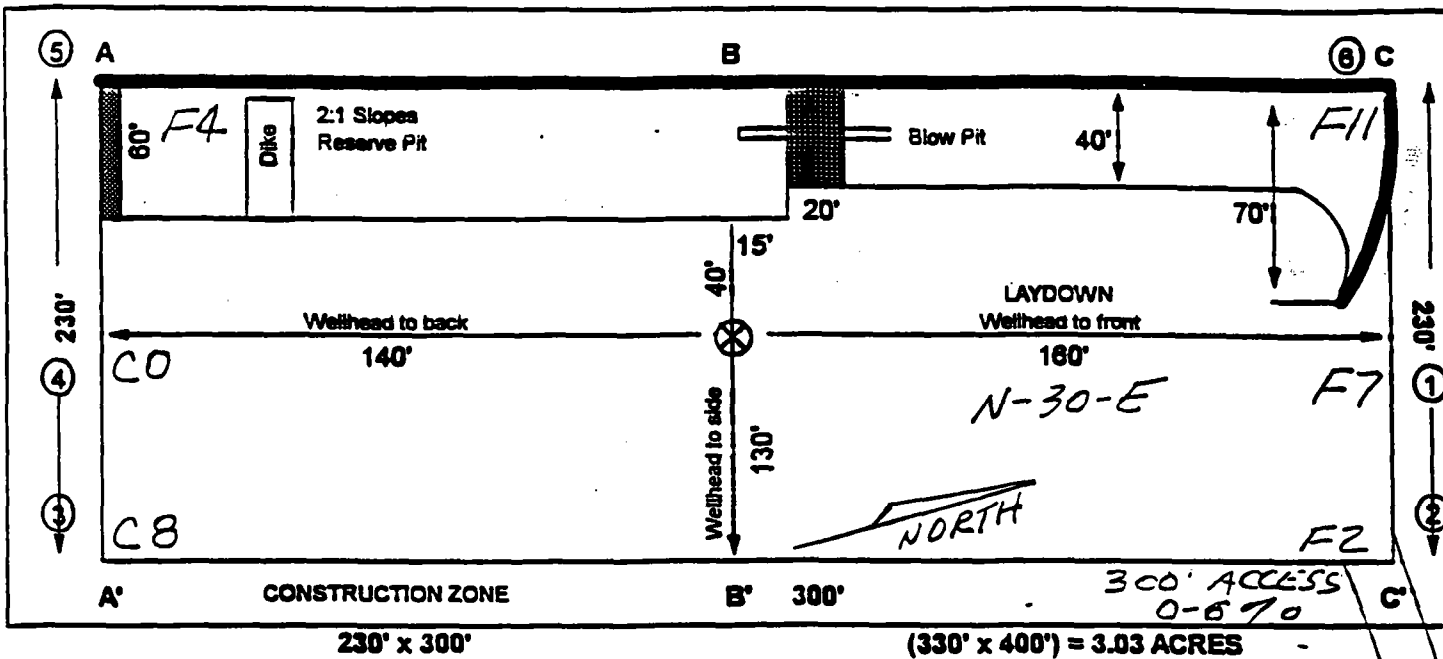




MERIDIAN OIL INC.  
 Pipeline Map  
 T-30-N, R-07-W  
 San Juan County, New Mexico  
 San Juan 30-6 Unit #96A  
 Map 1A

**BURLINGTON RESOURCES**  
**PLAT #1**

NAME: SAN JUAN 30-6 UNIT #96A  
FOOTAGE: 2175' FSL 5' FEL  
SEC 26 TWN 30 N.R. 7 W NMPM  
CO: RIO ARriba ST: NEW MEXICO  
ELEVATION: 6249' DATE: 11/15/96



**Reserve Pit Dike:** to be 6" above Deep side (overflow - 3" wide and 1' above shallow side).  
**Blow Pit:** overflow pipe pathway between top and bottom and to extend over plastic liner and into blow pit.

A-A'	C/L					
6259						
6249						
6239						

B - 8'	C/L					
6259						
6249						
6239						

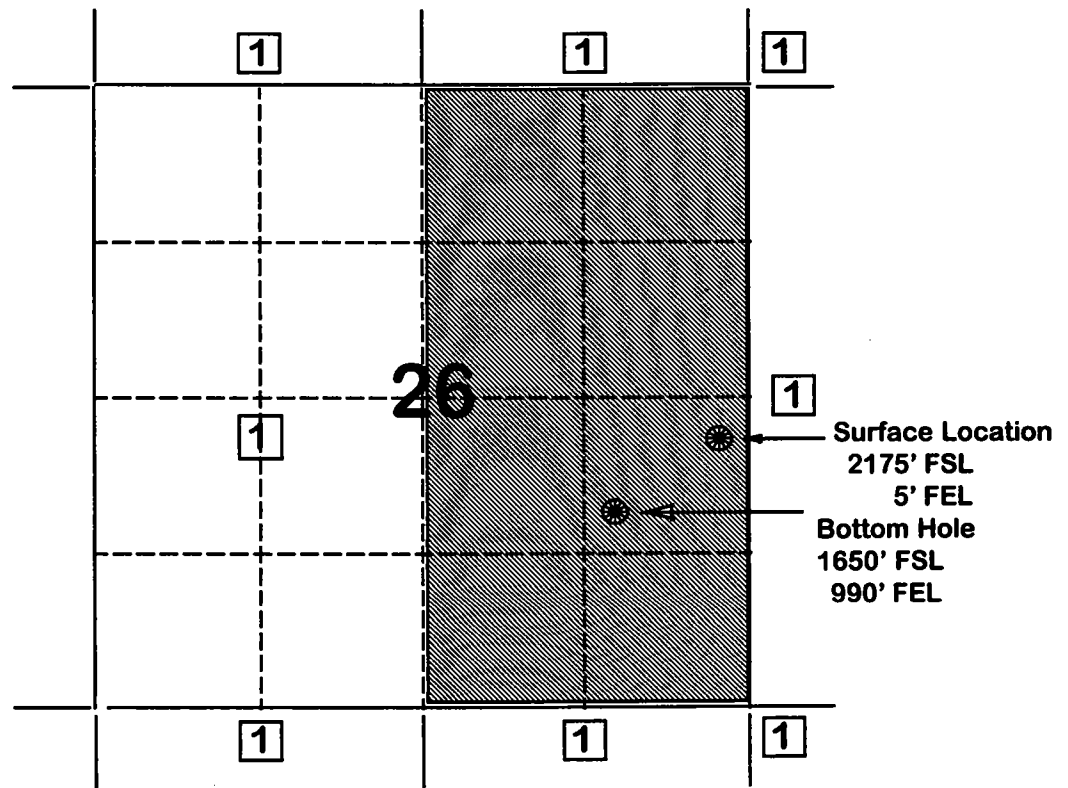
C- C'	C/L
6259	
6249	
6239	

**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.**

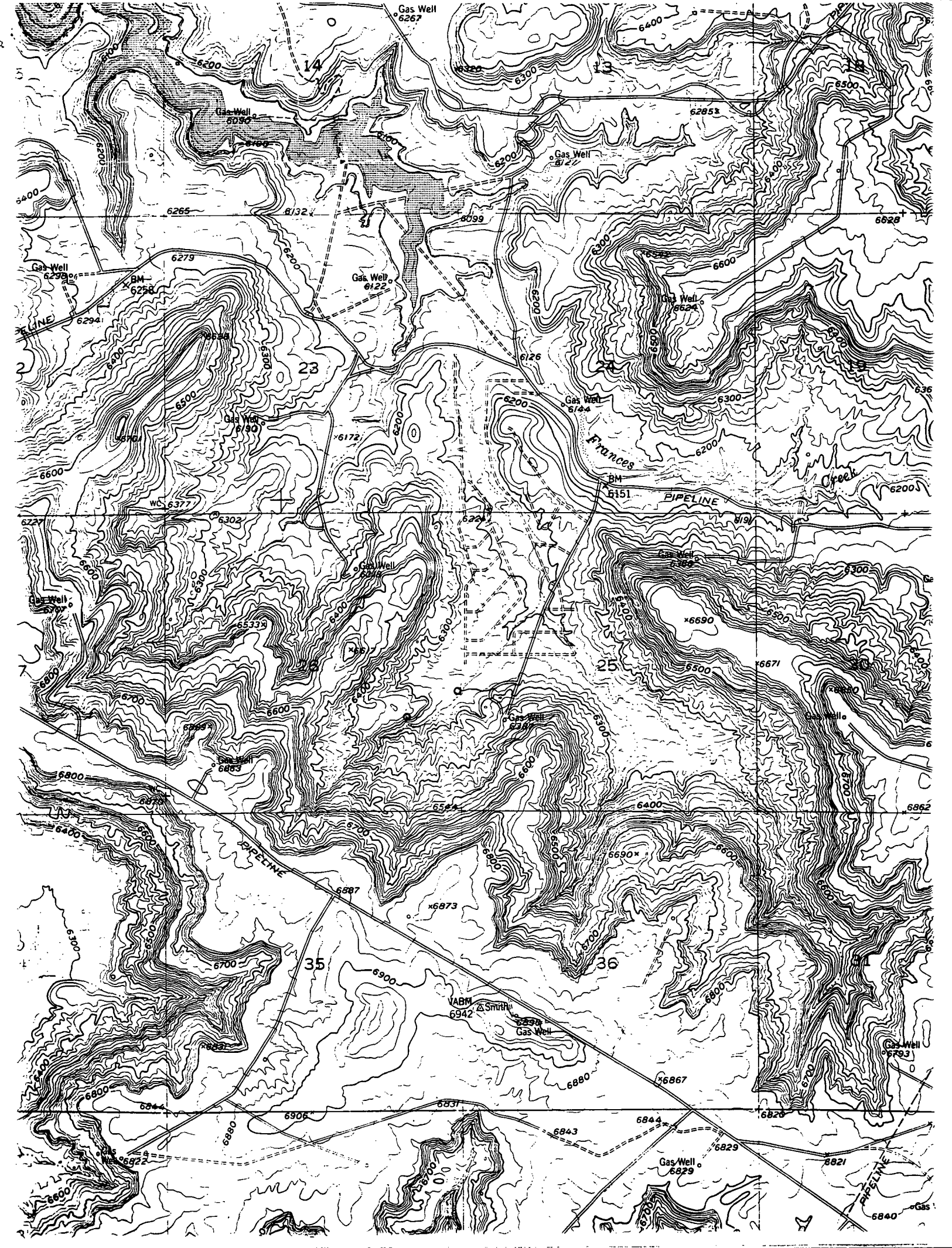


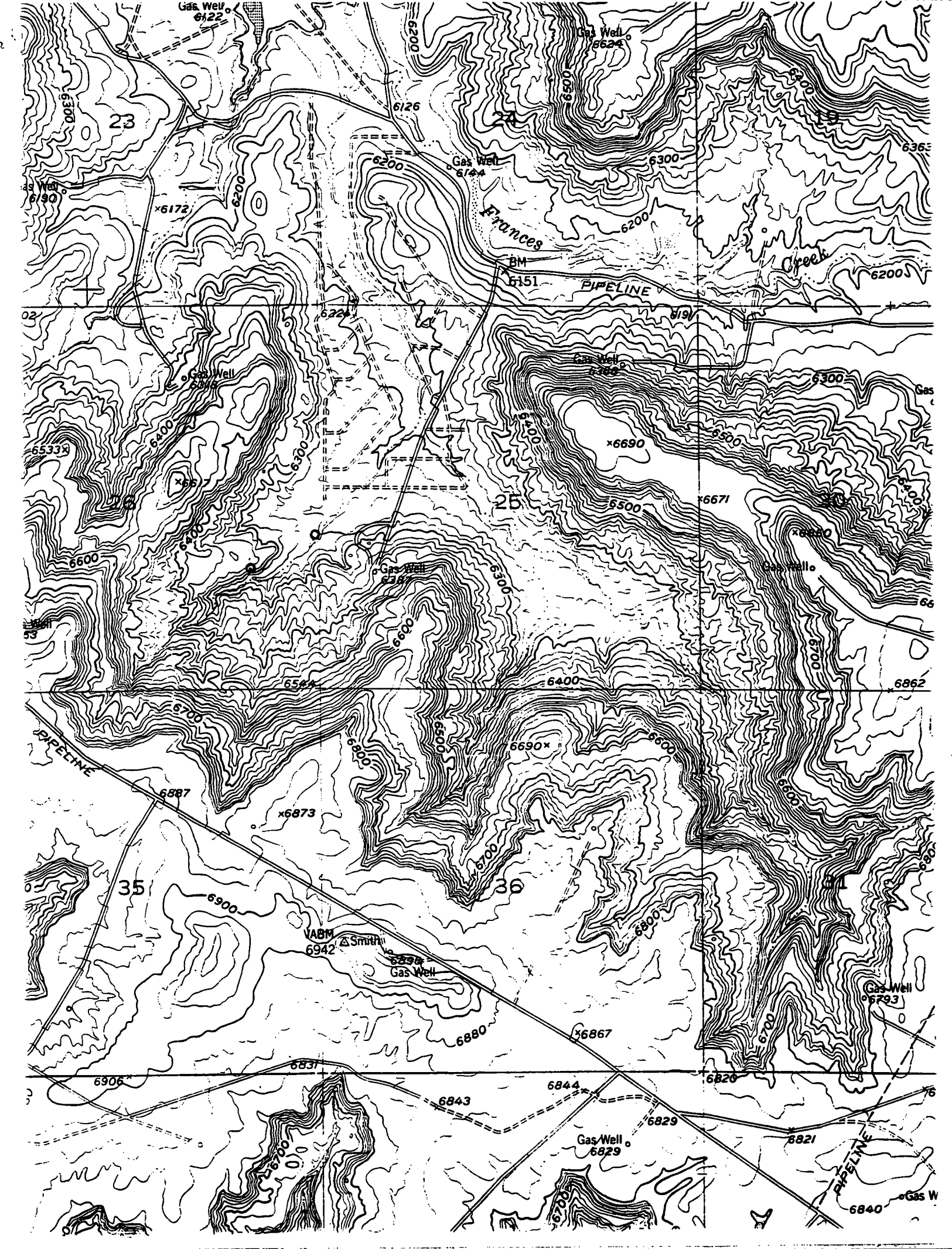
***BURLINGTON RESOURCES OIL AND GAS COMPANY***

**San Juan 30-6 Unit #96A  
OFFSET OPERATOR \ OWNER PLAT  
Directional Drilling  
Mesaverde Formation Well  
Township 30 North, Range 7 West**



**1) Burlington Resources Oil and Gas Company**

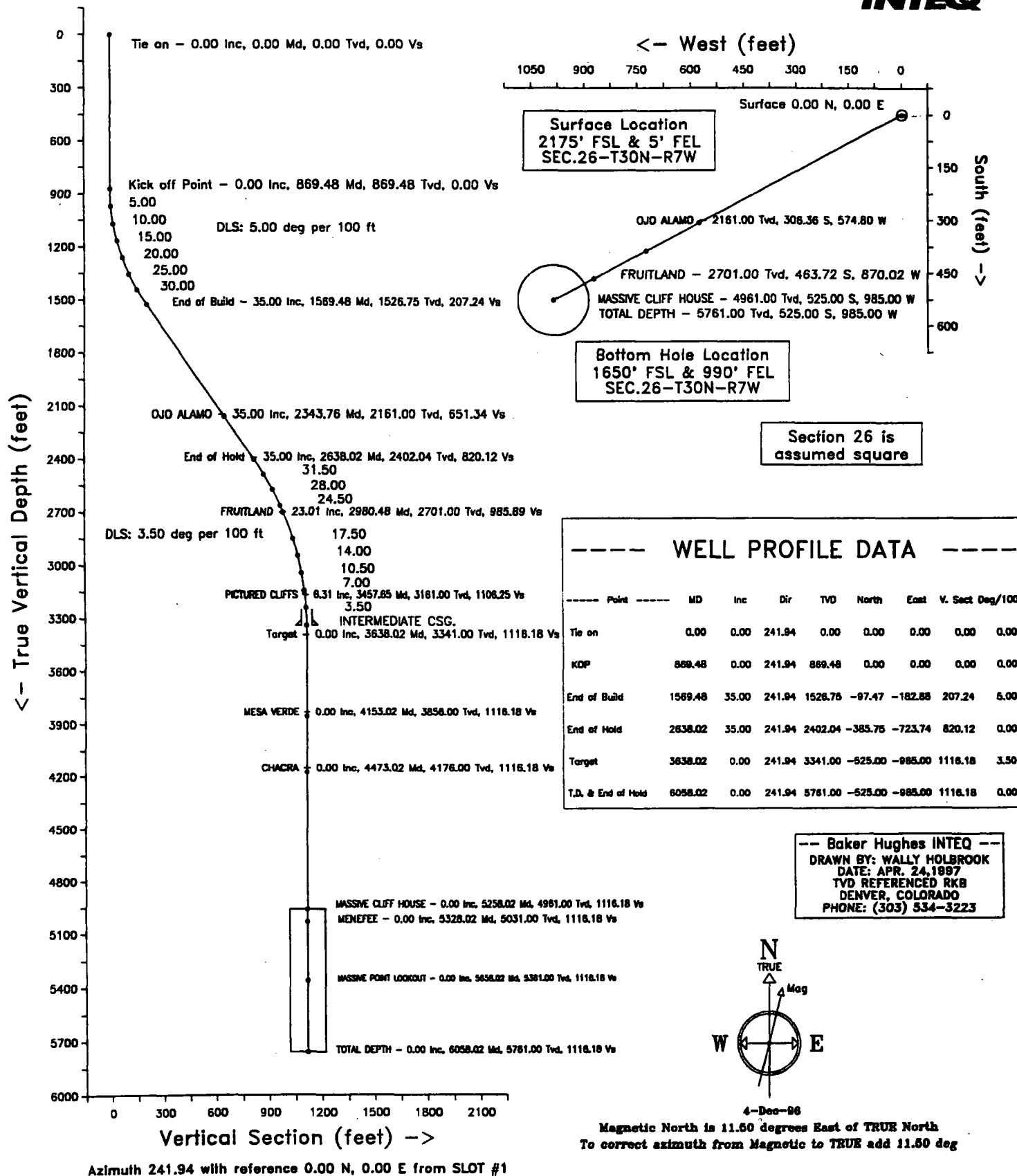




# BURLINGTON RESOURCES

Structure : SEC.26-T30N-R7W Well : SAN JUAN 30-6 #96A

Field : RIO ARRIBA COUNTY Location : NEW MEXICO



Azimuth 241.94 with reference 0.00 N, 0.00 E from SLOT #1

BURLINGTON RESOURCES  
SEC.26-T30N-R7W

SAN JUAN 30-6 #96A  
SLOT #1  
RIO ARriba COUNTY  
NEW MEXICO

P R O P O S A L L I S T I N G

by  
Baker Hughes INTEQ

Your ref : INITIAL PLAN REV. 1  
Our ref : prop2670  
License :

Date printed : 25-Apr-97  
Date created : 4-Dec-96  
Last revised : 24-Apr-97

Field is centred on n36 33 0.000,w107 40 0  
Structure is centred on n36 46 21.000,w107 37 16.304

Slot location is n36 46 42.507,w107 37 16.366  
Slot Grid coordinates are N 2102691.235, E 562121.744  
Slot local coordinates are 2175.00 N 5.00 W

Projection type: mercator - New Mexico West (3003), Spheroid: Clarke - 1866

Reference North is True North

BURLINGTON RESOURCES  
SEC.26-T30N-R7W,SAN JUAN 30-6 #96A  
RIO ARriba COUNTY,NEW MEXICO

PROPOSAL LISTING Page 1  
Your ref : INITIAL PLAN REV. 1  
Last revised : 24-Apr-97

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect	
0.00	0.00	241.94	0.00	0.00 N	0.00 E	0.00	0.00	
500.00	0.00	241.94	500.00	0.00 N	0.00 E	0.00	0.00	
869.48	0.00	241.94	869.48	0.00 N	0.00 E	0.00	0.00	
969.48	5.00	241.94	969.35	2.05 S	3.85 W	5.00	4.36	
1069.48	10.00	241.94	1068.46	8.19 S	15.36 W	5.00	17.41	
1169.48	15.00	241.94	1166.06	18.37 S	34.46 W	5.00	39.05	
1269.48	20.00	241.94	1261.40	32.50 S	60.99 W	5.00	69.11	
1369.48	25.00	241.94	1353.76	50.50 S	94.75 W	5.00	107.36	
1469.48	30.00	241.94	1442.44	72.21 S	135.48 W	5.00	153.52	
1569.48	35.00	241.94	1526.75	97.47 S	182.88 W	5.00	207.24	
2000.00	35.00	241.94	1879.41	213.62 S	400.80 W	0.00	454.17	
2343.76	35.00	241.94	2161.00	306.36 S	574.80 W	0.00	651.34	OJO ALAMO
2500.00	35.00	241.94	2288.99	348.52 S	653.88 W	0.00	740.96	
2638.02	35.00	241.94	2402.04	385.75 S	723.74 W	0.00	820.12	
2738.02	31.50	241.94	2485.66	411.54 S	772.12 W	3.50	874.95	
2838.02	28.00	241.94	2572.46	434.87 S	815.90 W	3.50	924.56	
2938.02	24.50	241.94	2662.14	455.67 S	854.93 W	3.50	968.78	
2980.48	23.01	241.94	2701.00	463.72 S	870.02 W	3.50	985.89	FRUITLAND
3038.02	21.00	241.94	2754.34	473.86 S	889.05 W	3.50	1007.45	
3138.02	17.50	241.94	2848.74	489.36 S	918.14 W	3.50	1040.41	
3238.02	14.00	241.94	2944.97	502.13 S	942.09 W	3.50	1067.55	
3338.02	10.50	241.94	3042.68	512.11 S	960.81 W	3.50	1088.76	
3438.02	7.00	241.94	3141.50	519.26 S	974.23 W	3.50	1103.97	
3457.65	6.31	241.94	3161.00	520.33 S	976.24 W	3.50	1106.25	PICTURED CLIFFS
3537.95	3.50	241.94	3241.00	523.56 S	982.30 W	3.50	1113.12	LEWIS

All data is in feet unless otherwise stated.  
Coordinates from SLOT #1 and TVD from RKB (6249.00 Ft above mean seal level).  
Bottom hole distance is 1116.18 on azimuth 241.94 degrees from wellhead.  
Vertical section is from wellhead on azimuth 241.94 degrees.  
Calculation uses the minimum curvature method.  
Presented by Baker Hughes INTEQ

BURLINGTON RESOURCES  
SEC.26-T30N-R7W,SAN JUAN 30-6 #96A  
RIO ARriba COUNTY,NEW MEXICO

PROPOSAL LISTING Page 2  
Your ref : INITIAL PLAN REV. 1  
Last revised : 24-Apr-97

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect	
3538.02	3.50	241.94	3241.06	523.56 S	982.31 W	3.50	1113.12	
3638.02	0.00	241.94	3341.00	525.00 S	985.00 W	3.50	1116.18	
4000.00	0.00	241.94	3702.98	525.00 S	985.00 W	0.00	1116.18	
4153.02	0.00	241.94	3856.00	525.00 S	985.00 W	0.00	1116.18	MESA VERDE
4473.02	0.00	241.94	4176.00	525.00 S	985.00 W	0.00	1116.18	CHACRA
4500.00	0.00	241.94	4202.98	525.00 S	985.00 W	0.00	1116.18	
5000.00	0.00	241.94	4702.98	525.00 S	985.00 W	0.00	1116.18	
5258.02	0.00	241.94	4961.00	525.00 S	985.00 W	0.00	1116.18	MASSIVE CLIFF HOUSE
5328.02	0.00	241.94	5031.00	525.00 S	985.00 W	0.00	1116.18	MENEFEE
5500.00	0.00	241.94	5202.98	525.00 S	985.00 W	0.00	1116.18	
5658.02	0.00	241.94	5361.00	525.00 S	985.00 W	0.00	1116.18	MASSIVE POINT LOOKOUT
6000.00	0.00	241.94	5702.98	525.00 S	985.00 W	0.00	1116.18	
6058.02	0.00	241.94	5761.00	525.00 S	985.00 W	0.00	1116.18	TOTAL DEPTH

All data is in feet unless otherwise stated.  
Coordinates from SLOT #1 and TVD from RKB (6249.00 Ft above mean seal level).  
Bottom hole distance is 1116.18 on azimuth 241.94 degrees from wellhead.  
Vertical section is from wellhead on azimuth 241.94 degrees.  
Calculation uses the minimum curvature method.  
Presented by Baker Hughes INTEQ

BURLINGTON RESOURCES  
 SEC.26-T30N-R7W,SAN JUAN 30-6 #96A  
 RIO ARriba COUNTY,NEW MEXICO

PROPOSAL LISTING Page 3  
 Your ref : INITIAL PLAN REV. 1  
 Last revised : 24-Apr-97

				Comments in wellpath
				=====
MD	TVD	Rectangular Coords.		Comment
-----				
2343.76	2161.00	306.36 S	574.80 W	OJO ALAMO
2980.48	2701.00	463.72 S	870.02 W	FRUITLAND
3457.65	3161.00	520.33 S	976.24 W	PICTURED CLIFFS
3537.95	3241.00	523.56 S	982.30 W	LEWIS
4153.02	3856.00	525.00 S	985.00 W	MESA VERDE
4473.02	4176.00	525.00 S	985.00 W	CHACRA
5258.02	4961.00	525.00 S	985.00 W	MASSIVE CLIFF HOUSE
5328.02	5031.00	525.00 S	985.00 W	MENEFEE
5658.02	5361.00	525.00 S	985.00 W	MASSIVE POINT LOOKOUT
6058.02	5761.00	525.00 S	985.00 W	TOTAL DEPTH

Casing positions in string 'A'								
=====								
Top MD	Top TVD	Rectangular Coords.		Bot MD	Bot TVD	Rectangular Coords.		Casing
-----								
0.00	0.00	0.00N	0.00E	3638.02	3341.00	525.00S	985.00W	INTERMEDIAT

Targets associated with this wellpath				
=====				
Target name	Geographic Location	T.V.D.	Rectangular Coordinates	Revised
-----				
S J 30-6 96A		4961.00	525.00S 985.00W	14-Mar-97