NSL 9/10/96

BURLINGTON RESOURCES

SAN JUAN DIVISION

RECEIVED

AUG 20 1996

Oil Conservation Division

August 19, 1996

Sent Federal Express

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

Re: San Juan 27-5 Unit #100M
2380'FSL, 905'FEL Section 1, T-27-N, R-5-W, Rio Arriba County, New Mexico
API # 30-039-(not yet assigned)

Dear Mr. LeMay:

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

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 Resources is the operator of the surrounding proration unit
4. 7.5 minute topographic map showing the orthodox windows, and enlargement of the map to define topographic features.

We appreciate your earliest consideration of this application.

Sincerely,

Peggy Bradfield

Peggy Bradfield
Regulatory/Compliance Administrator

encs.

3535 East 30th St., 87402-8891, P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700, Fax 505-326-9833

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. **Type of Work**
DRILL

5. **Lease Number**
SF-079491
Unit Reporting Number

1b. **Type of Well**
GAS

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

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

7. **Unit Agreement Name**
San Juan 27-5 Unit

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

(505) 326-9700

8. **Farm or Lease Name**
San Juan 27-5 Unit

9. **Well Number**
100M

4. **Location of Well**
2380'FSL, 905'FEL

Latitude 36° 36.1, Longitude 107° 18.2

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

11. **Sec., Twn, Rge, Mer. (NMPM)**
Sec 1,T-27-N,R-5-W

API # 30-039-

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

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

15. **Distance from Proposed Location to Nearest Property or Lease Line**
905'

16. **Acres in Lease**

17. **Acres Assigned to Well**
S/2(Dk) E/2 (MV)

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

19. **Proposed Depth**
8569'

20. **Rotary or Cable Tools**
Rotary

21. **Elevations (DF, FT, GR, Etc.)**
7286'GR

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

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

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

8-12-96
Date

PERMIT NO. _____ **APPROVAL DATE** _____

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

Archaeological Report to be submitted by Arboles Contract Archaeology
Threatened and Endangered Species Report to be submitted
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-1
Revised February 21, 19
Instructions on b
Submit to Appropriate District Off
State Lease - 4 Cop
Fee Lease - 3 Cop

☐ AMENDED REPO

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

[4] Property Code	[5] Property Name	[6] Well Number
7454	San Juan 27-5 Unit	100M

[7] OGRID No.	[8] Operator Name	[9] Elevation
14538	MERIDIAN OIL INC.	7286'

[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	1	27 N	5 W		2380	South	905	East	R.A.

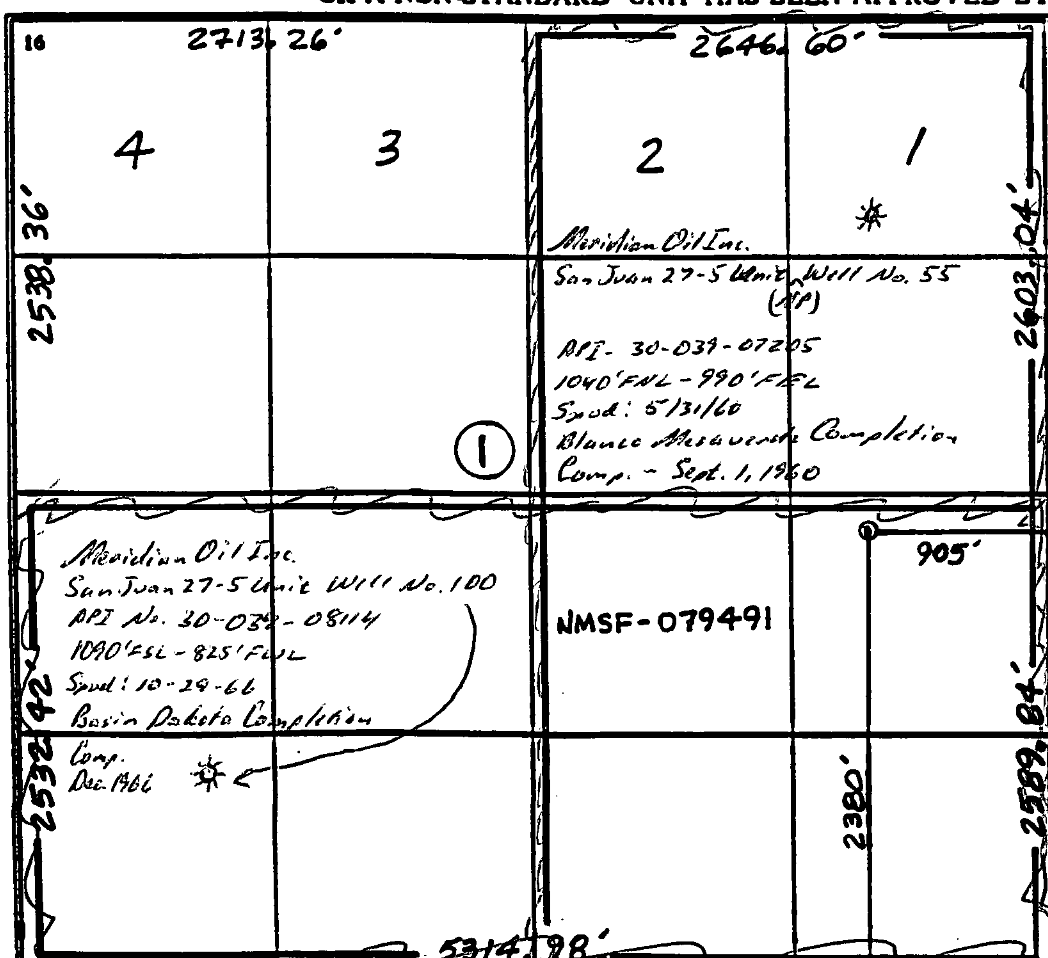
[11] Bottom Hole Location If Different From Surface

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

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

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

16



[17] OPERATOR CERTIFICATION

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

Signature: Peggy Bradfield

Printed Name: Peggy Bradfield

Title: Regulatory Administrator

Date: 8-12-96

[18] SURVEYOR CERTIFICATION

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

7-02-96

Date of Survey

Signature and Seal of Professional Surveyor:

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED LAND SURVEYOR

6857

Certificate Number

 August 7, 1996

OPERATIONS PLAN

Well Name: San Juan 27-5 Unit #100M
Location: 2380'FSL, 905'FEL, Sec 1, T-27-N, R-5-W
Rio Arriba County, NM
Latitude 36° 36.1, Longitude 107° 18.2
Formation: Blanco Mesa Verde/Basin Dakota
Elevation: 7286'GL

Formation Tops:	***Top***	***Bottom***	***Contents***
Surface	San Jose	3569'	
Ojo Alamo	3569'	3707'	aquifer
Kirtland	3707'	3990'	
Fruitland	3990'	4165'	gas
Pictured Cliffs	4165'	4292'	gas
Lewis	4292'	4739'	gas
Chacra	4297'	5822'	gas
Intermediate TD	**5772'**		
Upper Cliff House	5822'	5897'	gas
Massive Cliff House	5897'	5982'	gas
Menefee	5982'	6322'	gas
Massive Point Lookout	6322'	6453'	gas
Lower Point Lookout	6453'	6681'	gas
Mancos	6681'	7426'	gas
Gallup	7426'	8242'	gas
Greenhorn	8242'	8306'	gas
Graneros	8306'	8454'	gas
Dakota	8454'	8572'	gas
Encinal	8572'	8580'	
Burro Canyon	8580'		
TD (5 1/2"liner)	**8569'**		

Logging Program:

Mud Program:

Interval	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-8.9	40-50	no control
200-5772'	LSND	8.4-9.0	30-60	no control
5772-8569'	Gas	n/a	n/a	n/a

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

Casing Program:

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0' - 200'	9 5/8"	36.0#	K-55
8 3/4"	0' - 5772'	7"	20.0#	K-55
6 1/4"	5622' - 8569'	4 1/2"	11.6#	N-80

Tubing Program:

0' - 5672' 2 3/8", 4.70# EUE
0' - 8569' 1 1/2", 2.90# 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 -

6" 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 1 1/2" 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 159 sx Class "B" cement with 1/4# flocele/sx and 2% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi for 30 minutes.

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

7" intermediate casing -
first stage - Lead w/362 sx of 50/50 Blended Silicalite (50% Class "B", 25% Silicate, 25% Pozmix) w/0.25 pps cellophane, 5 pps gilsonite. Tail w/100 sx Class "B" w/2% calcium chloride and 0.25 pps cellophane (596 cu.ft. of slurry, 100% excess to circulate to stage tool @ 3790'.)

Second stage - Lead w/577 sx 65/35 Class "B" poz w/6% gel, 2% calcium chloride, and 1/4# flocele/sx. Tail w/100 sx Class "B" w/2% calcium chloride (1139 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 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. Seven bowspring centralizers spaced every other joint off bottom, with three spaced every fourth joint to the base of the Ojo Alamo at 3707'. Two turbolating centralizers at the base of the Ojo Alamo at 3707'. 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 circulate liner top. Lead with 466 sx 50/50 Class "B" poz w/0.3% dispersant, 6% gel, 3 pps gilsonite and 1/4 pps flocele (615 cu.ft., 100% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement float 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.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

Special Drilling Operations (Gas/Mist Drilling):

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

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

Additional Information:

- The Dakota and Mesa Verde formations will be dually 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
Dakota	2600 psi

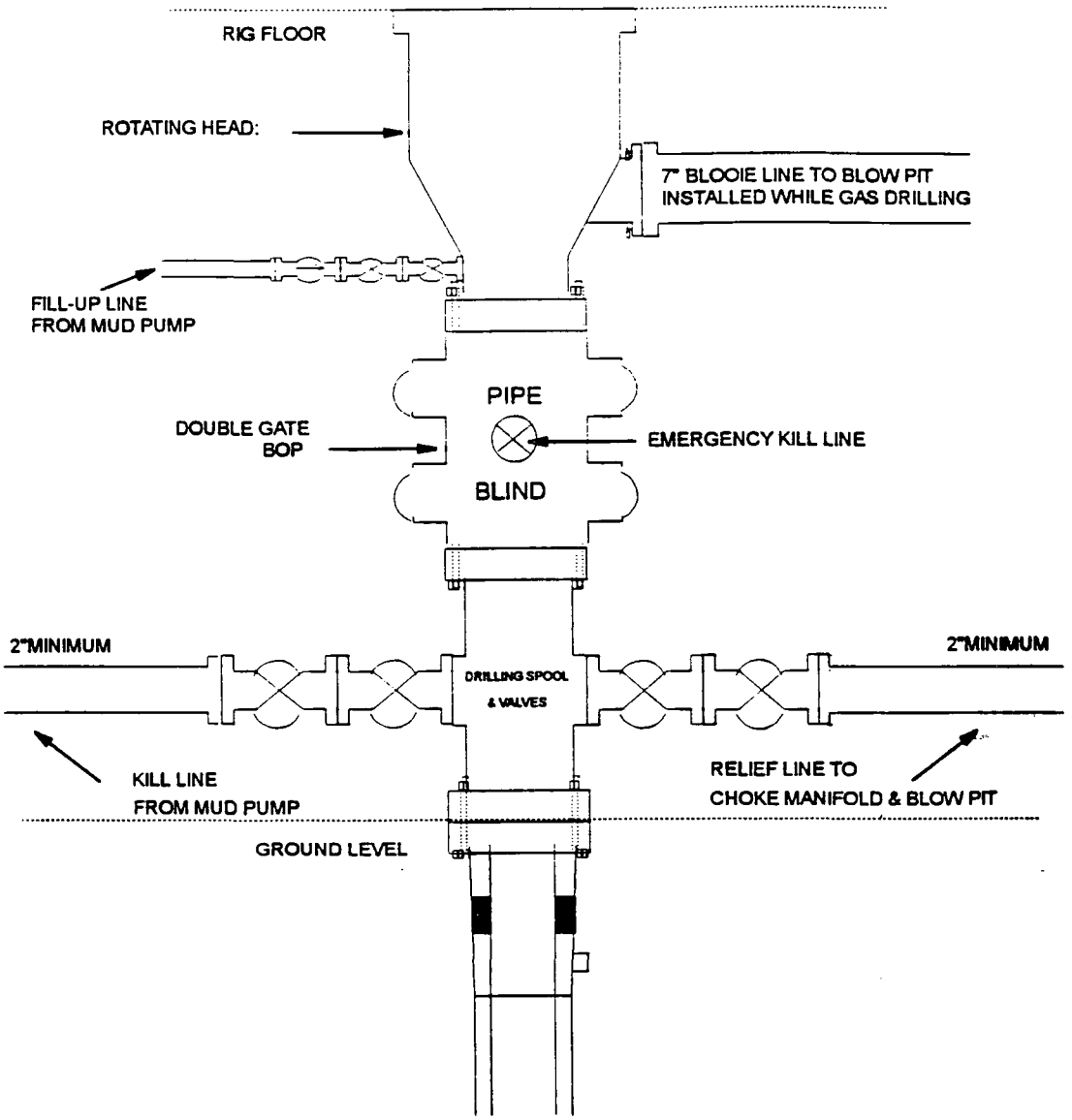
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The south half of Section 1 is dedicated to both the Mesa Verde and Dakota in this well.
- This gas is dedicated.

Drilling Engineer

8-15-96
Date

MERIDIAN OIL INC

BOP Configuration
2M psi System

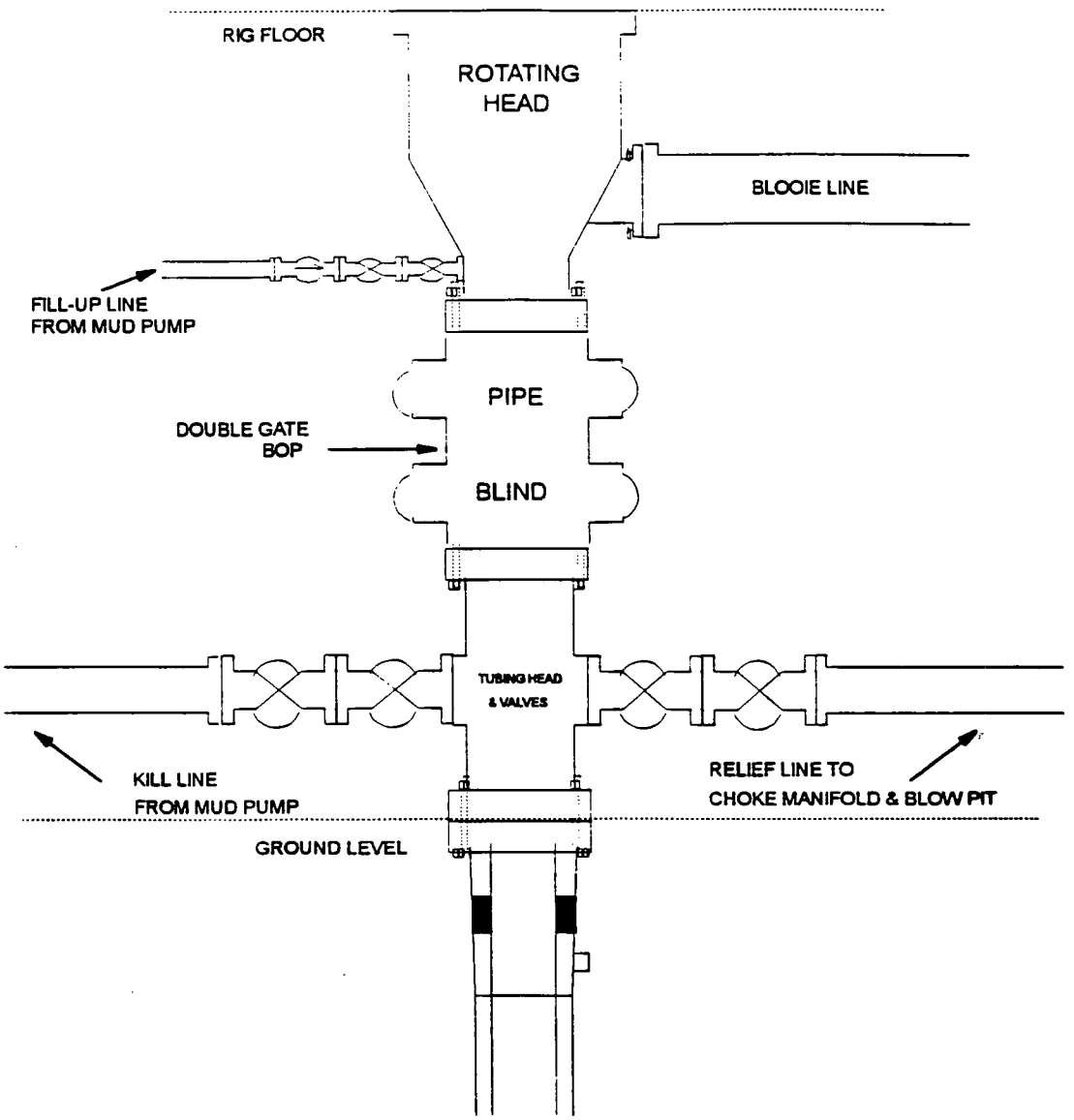


13 5/8" and 11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/ or greater.

FIGURE #1

MERIDIAN OIL INC

BOP Configuration
2M psi System

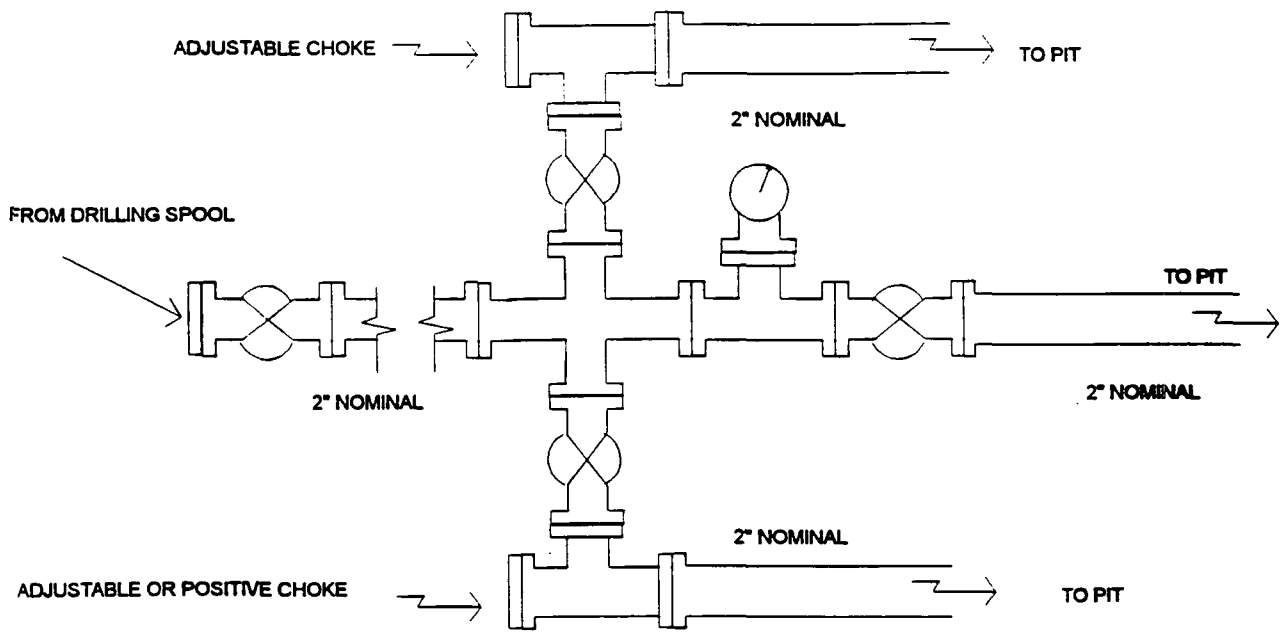


Minimum BOP installation for Completion operations. 7 1/16" Bore (6" Nominal), 3000 psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

FIGURE #2

MERIDIAN OIL INC.

Choke Manifold Configuration
2M System



Minimum choke manifold installation from surface to Total Depth.
2" minimum, 2000psi working pressure equipment with two chokes.

Figure #3

AMM/06-01-94

BURLINGTON RESOURCES

San Juan 27-5 Unit #100M
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 400' 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 facilities off the well pad will be applied for as required.

5. 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 - Bureau of Land Management

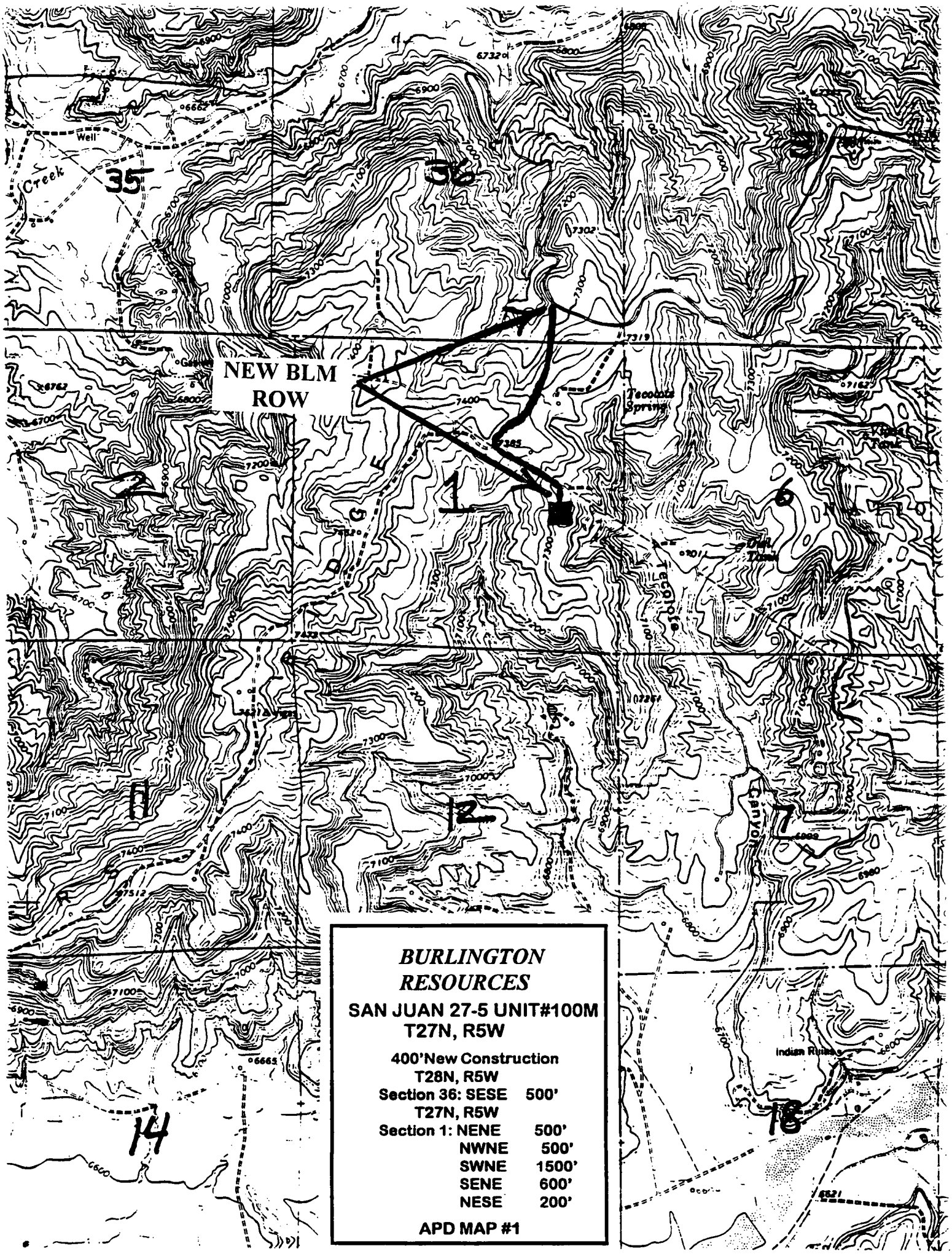
12. Other Information - Environmental stipulations as outlined by the responsible government agency will be adhered to. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.

13. Operator's Representative and Certification - Burlington Resources Oil & Gas Company Regional Drilling Manager, Post Office Box 4289, Farmington, NM 87499, telephone (505) 326-9700. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan, are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Burlington Resources Oil and Gas Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Peggy Bradfield 8-7-96

Regulatory/Compliance Administrator Date

pb

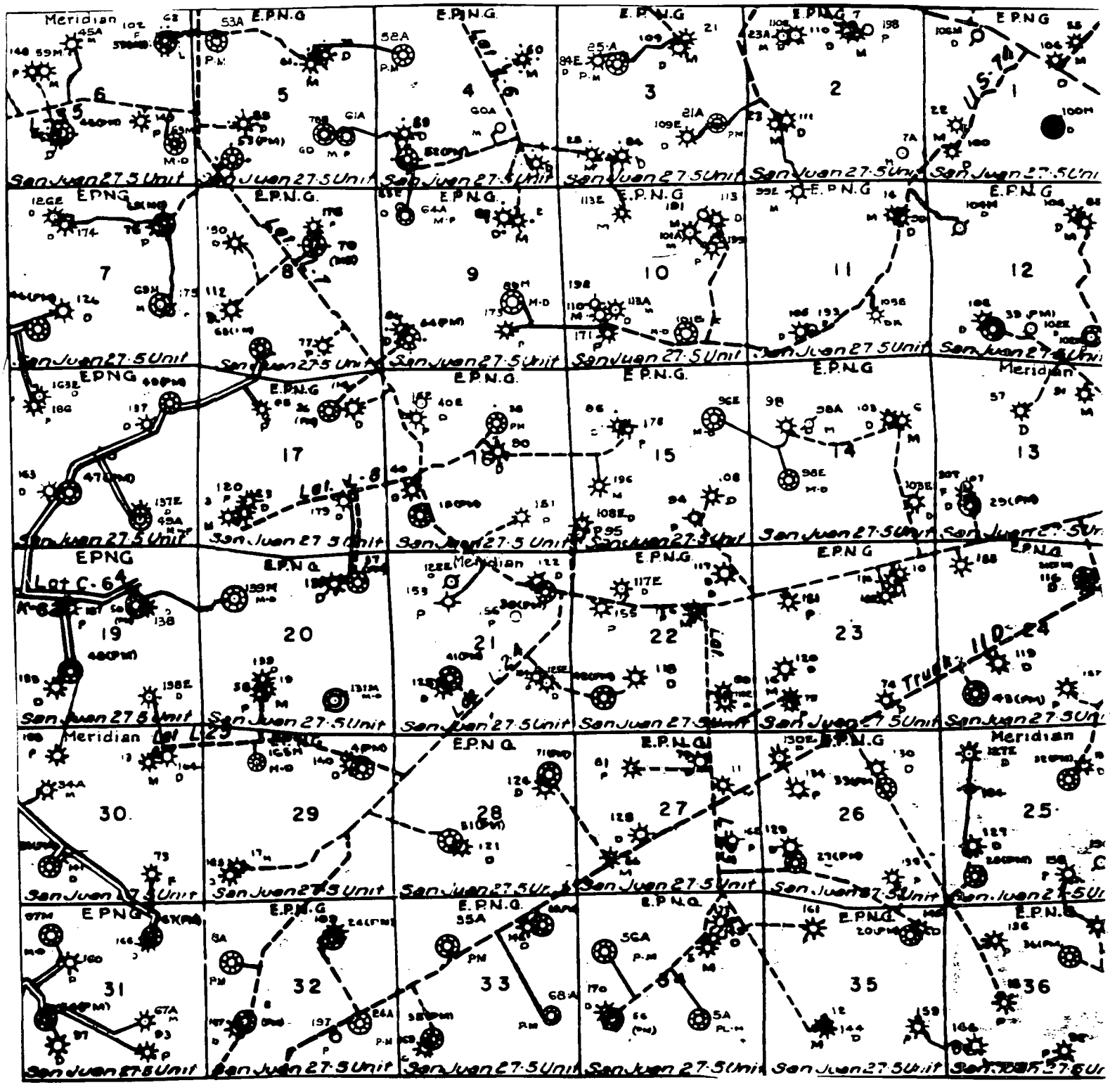


BURLINGTON RESOURCES

SAN JUAN 27-5 UNIT#100M
T27N, R5W

400'New Construction
T28N, R5W
Section 36: SESE 500'
T27N, R5W
Section 1: NENE 500'
NWNE 500'
SWNE 1500'
SENE 600'
NESE 200'

APD MAP #1



MERIDIAN OIL INC.
Pipeline Map
T-27-N, R-05-W
Rio Arriba County, New Mexico

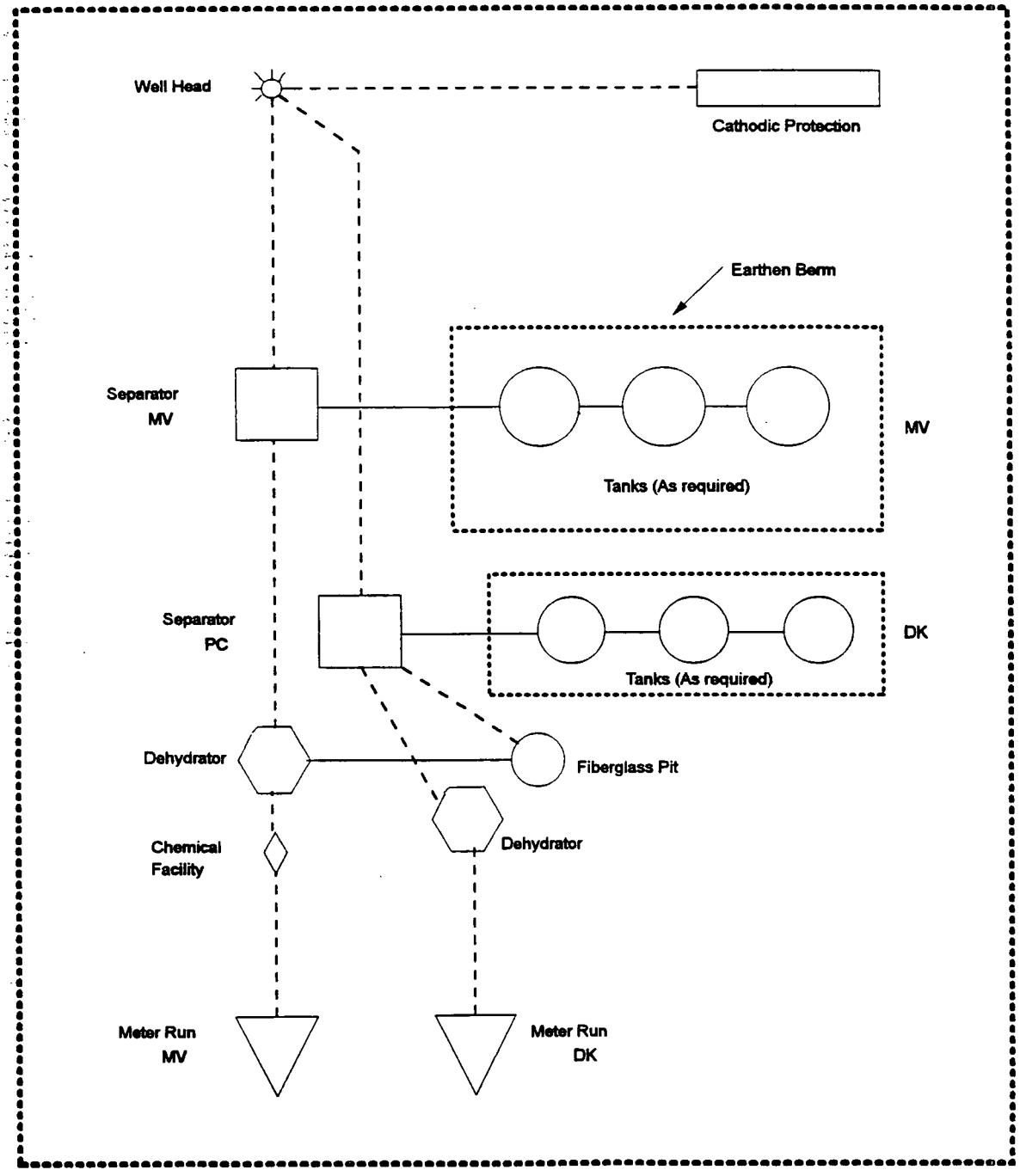
SAN JUAN 27-5 UNIT #100M

MAP #1A

3/91 adw/mjb

MERIDIAN OIL INC.

Well Pad Boundary



ANTICIPATED PRODUCTION FACILITIES
FOR A MESA VERDE/DAKOTA
DUAL WELL

PLAT #1

AMM 08/16/94

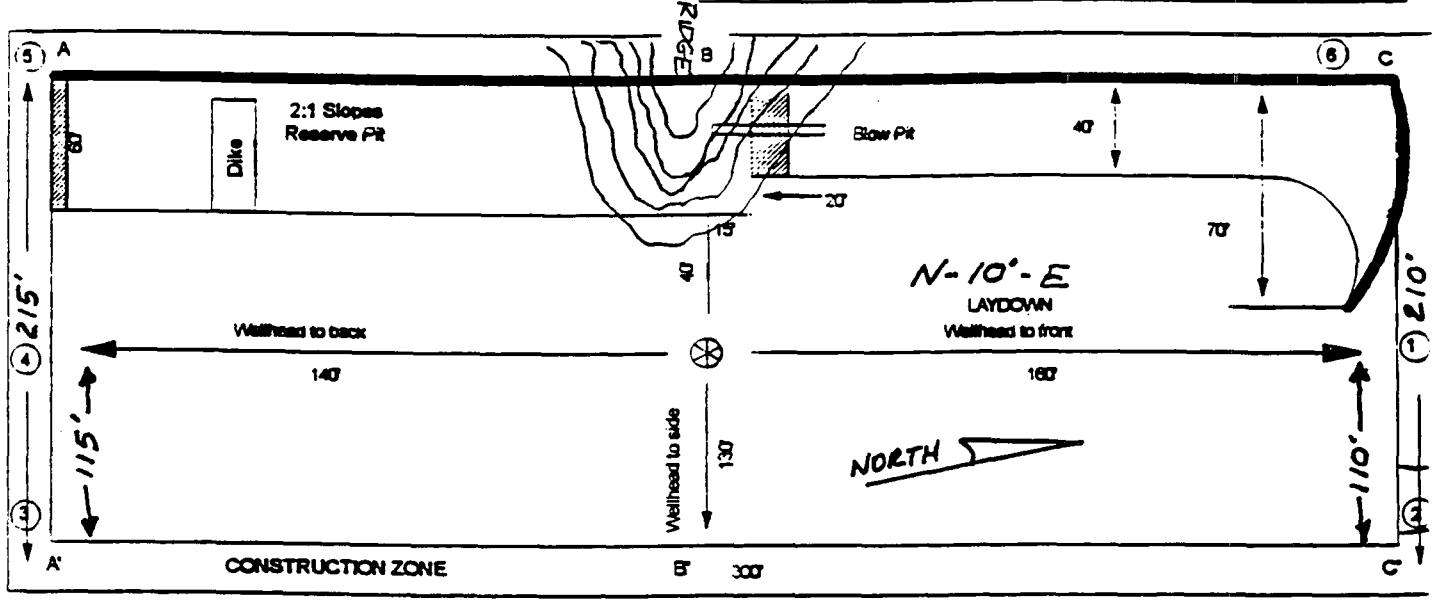
MERIDIAN OIL

PLAT #1

PC/FC LOW POTENTIAL

NAME: SAN JUAN 27-5 UNIT # 100M
FOOTAGE: 2380' FSL 905' FEL
SEC 1 TWN 27 N,R 5 W NMPM
CO: RIO ARRIBA ST: NEW MEXICO
ELEVATION: 7286' DATE: 7/2/96

F1



F6

F12

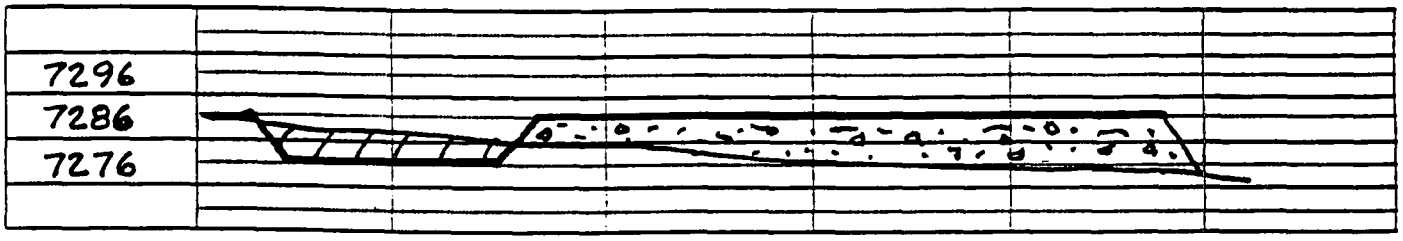
230'X300'

(330'X 400') = 3.03 ACRES

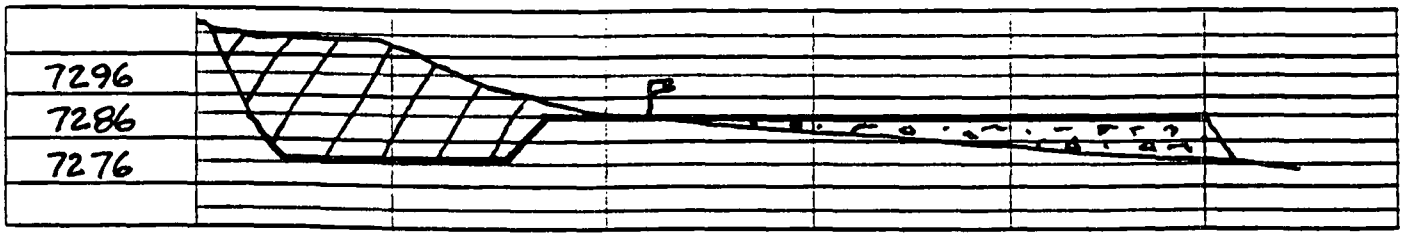
Reserve Pit Dike : to be 8' above Deep side; (overflow - 3' wide and 1' above shallow side.)

Blow Pit : overflow pipe halfway between top and bottom and extend over plastic liner and into blow pit.

A-A'



B-B'



C-C'

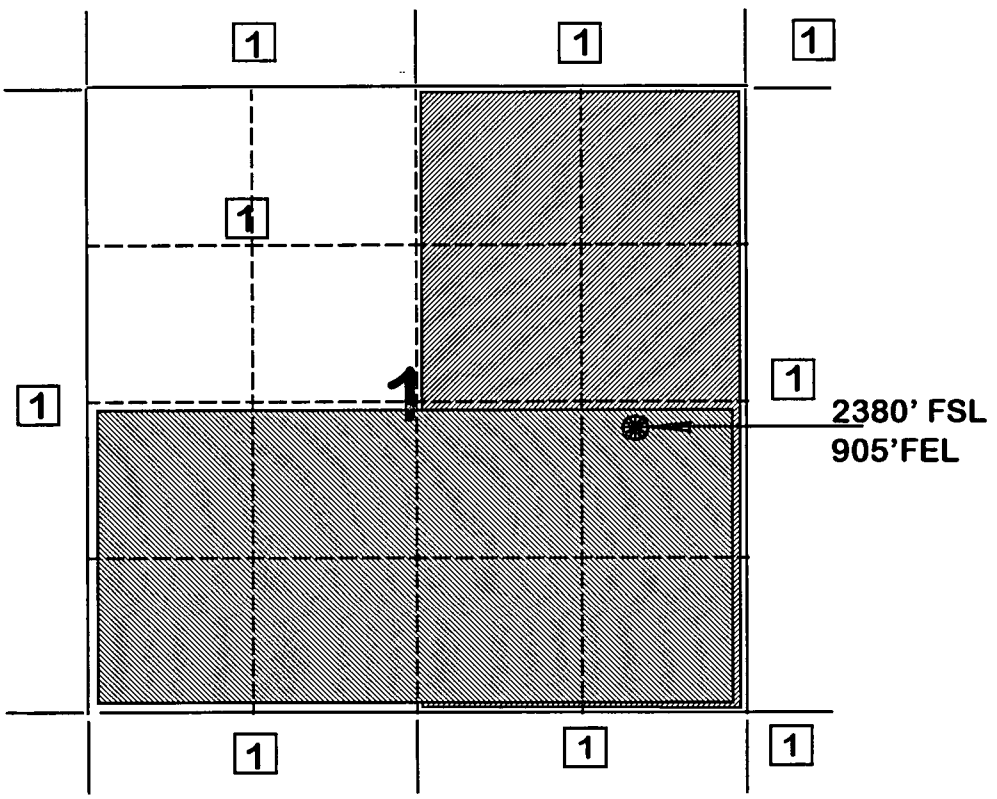
Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least 2 working days prior to construction.

BURLINGTON RESOURCES OIL AND GAS COMPANY

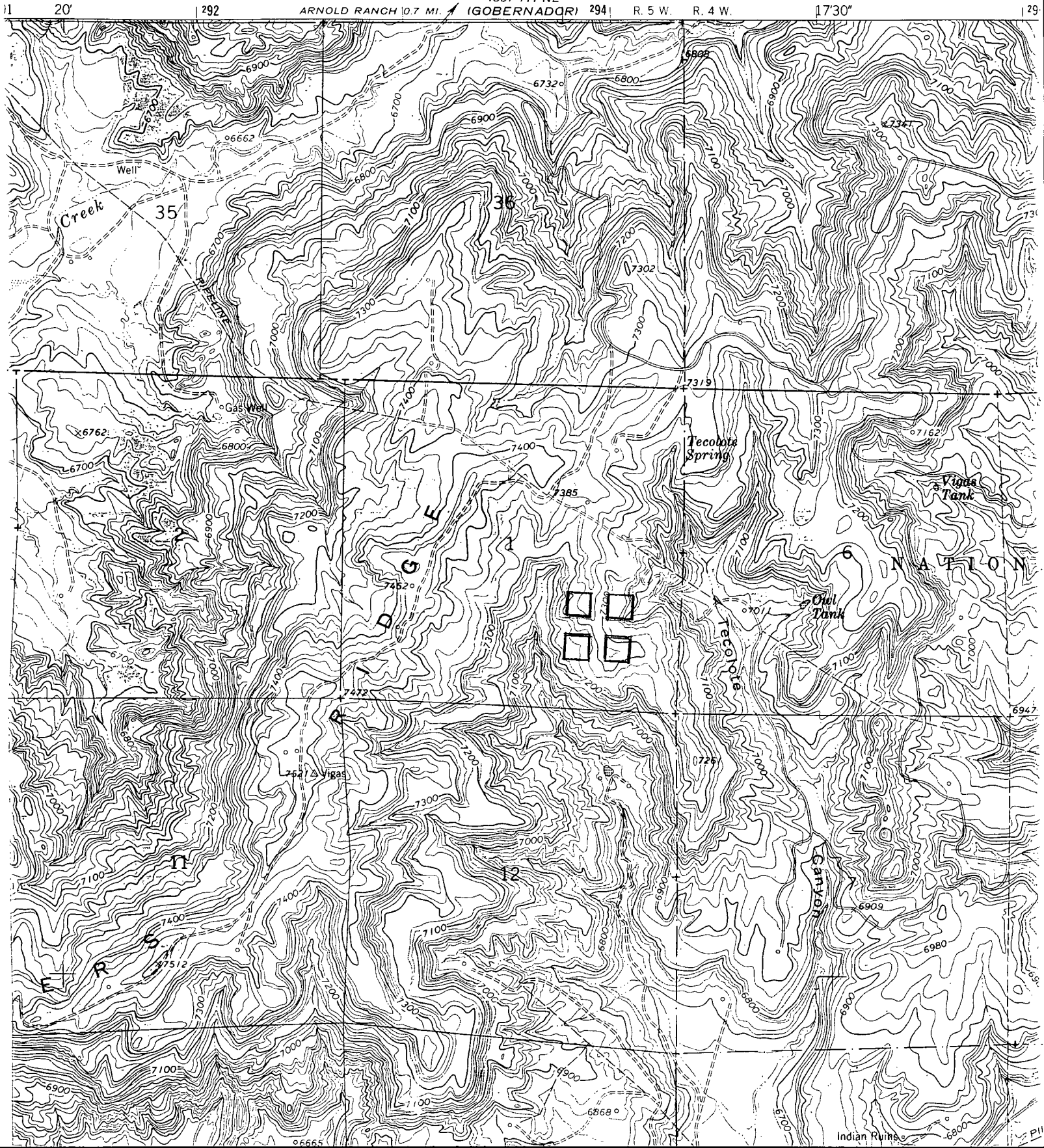
San Juan 27-5 Unit #100M
OFFSET OPERATOR \ OWNER PLAT

Mesaverde (E/2) / Dakota (S/2) Well

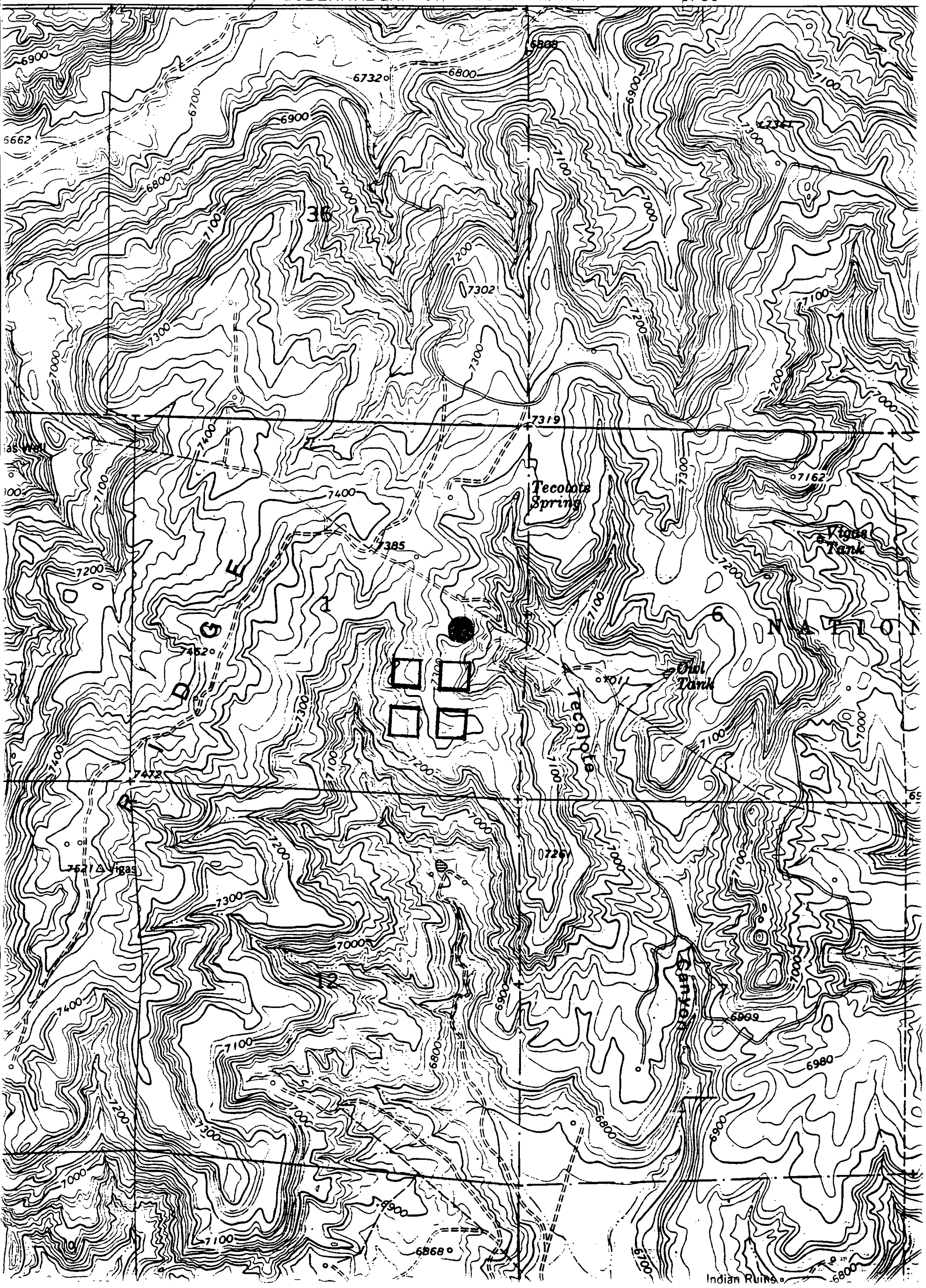
Township 27 North, Range 5 West



1) Burlington Resources Oil and Gas Company Successor to Meridian Oil Inc.


4557 III NE
20'
292
ARNOLD RANCH 0.7 MI.
(GOBERNADOR)
294
R. 5 W.
R. 4 W.
17'30"
Well
Creek
35
36
1
6
12
RIDGE
Gas Well
Tecolote Spring
Vigas Tank
Owl Tank
Tecolote
Canyon
Vigas
Indian Ruins
NATION
6805
6732
6662
7341
7319
6762
7162
7385
7452
7472
7527
7261
7302
7512
6665
6868
6909
6980
6947

4557 III NE
ARNOLD RANCH 0.7 MI. (GOBERNADOR) 294 R. 5 W. R. 4 W. 17'30"



CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

09/06/96 09:35:23
OGOMES -EMEH
PAGE NO: 1

Sec : 01 Twp : 27N Rng : 05W Section Type : NORMAL

4 40.16 Federal owned U	3 40.12 Federal owned U	2 40.06 Federal owned U	1 40.02 Federal owned U A
E 40.00 Federal owned U	F 40.00 Federal owned U	G 40.00 Federal owned U A	H 40.00 Federal owned U

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

Sec : 01 Twp : 27N Rng : 05W Section Type : NORMAL

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