

N.M. Oil Cons. DIV-Dist. 2  
1301 W. Grand Avenue  
Artesia, NM 88210

Form 3160-3  
(April 2004)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

SEP 24 2004

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER ARTESIA

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. 0542015	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator RB Operating Company		7. If Unit or CA Agreement, Name and No.	
3a. Address FT Worth TX 76102 777 Main St. Suite 800		8. Lease Name and Well No. SCB Federal 13#7	
3b. Phone No. (include area code) (817) 870-2601 Under		9. API Well No. 30-015-33643	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 2030' FSL & 1190' FWL At proposed prod. zone 1800' FSL & 660' FWL		10. Field and Pool, or Exploratory East Loving Delaware North	
14. Distance in miles and direction from nearest town or post office* 3 Miles Northeast of Loving, NM		11. Sec., T. R. M. or Blk. and Survey or Area Sec 13, T23S, R28E	
15. Distance from proposed* SL: 1190' FWL location to nearest property or lease line, ft. BHL: 660' FWL (Also to nearest drig. unit line, if any)		12. County or Parish Eddy	
16. No. of acres in lease 640		13. State NM	
17. Spacing Unit dedicated to this well 40			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 56'		19. Proposed Depth 6500'	
20. BLM/BIA Bond No. on file			
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2980' GL		22. Approximate date work will start* 10-15-04	
23. Estimated duration 15 Days			
24. Attachments CARLSBAD CONTROLLED WATER BASIN			

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Michael K. McGinnis</i>	Name (Printed/Typed) Michael K. McGinnis	Date 8-30-04
Title District Engineer		
Approved by (Signature) <i>/s/ Joe G. Lara</i>	Name (Printed/Typed) /s/ Joe G. Lara	Date 22 SEP 2004
Title FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

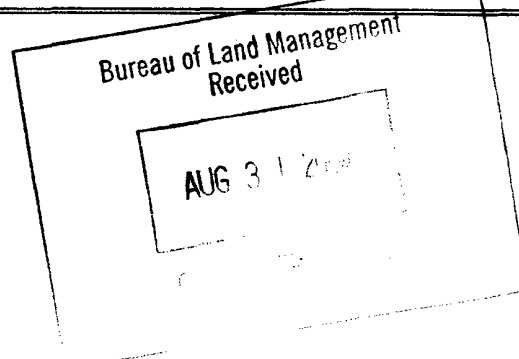
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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 representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED



## DISTRICT I

1625 N. FRENCH DR., HOBBBS, NM 88240

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

## State of New Mexico

Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number		Pool Code	Pool Name
Property Code	Property Name SCB FEDERAL 13		Well Number 7
OGRID No.	Operator Name R.B. OPERATING		Elevation 2980'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	13	23-S	28-E		2030	SOUTH	1190	WEST	EDDY

## 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
L	13	23-S	28-E		1800	SOUTH	660	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	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

	<p>GEODETC COORDINATES NAD 27 NME SURF. Y=474328.0 N X=589012.2 E</p> <p>LAT.=32°18'13.37" N LONG.=104°02'42.86" W</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>M.K. McGinnis</i> Signature M.K. McGINNIS Printed Name District ENGINEER Title 9-10-04 Date</p>
	<p>GEODETC COORDINATES NAD 27 NME B.H. Y=474099.5 N X=588481.6 E</p> <p>LAT.=32°18'11.13" N LONG.=104°02'49.05" W</p>	<p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>AUGUST 3, 2004</p> <p>Date Surveyed Signature &amp; Seal Professional Surveyor RONALD J. EIDSON 3239 04.11.0986 Certificate No. RONALD J. EIDSON 3239</p>

## DRILLING PROGRAM

WELL: RB Production Company, SCB Federal "13" #7  
FIELD: East Loving Delaware  
CATEGORY: Development  
STATE: New Mexico  
COUNTY: Eddy  
LOCATION: SL: 2030' FSL & 1190' FWL, Sec. 13, T-23-S, R-28-E  
BHL: 1800' FSL & 660' FWL, Sec. 13, T-23-S, R-28-E  
ELEVATION (G.L.): 2980'

### 1. ESTIMATED FORMATION TOPS: (See Plat #1)

Salt	570'
Delaware	2636'
Cherry Canyon	3496'
Brushy Canyon	4693'
Bone Springs	6245'
Total Depth	6500'

There are no potential drilling problems.

Estimate Time to Drill and Evaluate: 10 days

#### Hole Size:

0' - 570' ----- 12-1/4"  
570' - 6500' ----- 7-7/8"

### 2. ESTIMATED DEPTH AT WHICH WATER, OIL OR GAS ARE EXPECTED TO BE ENCOUNTERED:

Water:	160' to 180'	
Oil, Gas:	Delaware	2640'
	Cherry Canyon	3700'
	Lower Brushy Canyon	5965'

3. BOP & ACCESSORY EQUIPMENT: (See Plat #2)

0 - 570': None  
570' - 6500'

1 set-10" double ram 3000# W.P. BOP's  
3000# W.P. choke manifold

Wellhead Equipment:

8-5/8" sow X 11" 2000 psi casing head Larkin Model 92 or equivalent  
5-1/2" sow X 2-7/8" 2000 psi tubing head Larkin Model R or equivalent  
5000# single master valve

4. CASING PROGRAM: (See Plat #1)

Conductor Casing:

No conductor pipe will be used

Surface Casing:

0' - 570' ----- 8-5/8", 24#, J-55, ST&C

Production Casing:

0' - 6500' ----- 5-1/2", 15.5# & 17#, J-55, LT&C

ACCESSORY EQUIPMENT:

Surface Casing:

1-8-5/8" Texas Pattern Shoe  
1-8-5/8" Insert Float Collar  
1-8-5/8" x 12-1/4" Centralizer 3-5' above slips  
1-8-5/8" x 12-1/4" Centralizer next two joints  
1-8-5/8" Stop Ring

Note: Run shoe and insert collar 1 joint apart

Production Casing:

1-5-1/2" Float Shoe  
1-5-1/2" Float Collar

2-5-1/2" Stop Rings

1-5-1/2" x 7-7/8" Centralizer 3 - 5' above shoe

1-5-1/2" x 7-7/8" Centralizer around next collar

1-5-1/2" x 7-7/8" Centralizer immediately below float collar

1-5-1/2" x 7-7/8" Centralizer around next 2 collars

1-5-1/2" x 7-7/8" Centralizer alternating collars for next 10 joints (5 centralizers)

Note: Run float shoe and float collar 2 joints apart

1-5-1/2" x 7-7/8" DV Tool @ 3350'

1-5-1/2" x 7-7/8" Centralizer 1 joint above and below DV Tool

5. CEMENTING PROGRAM:

WITNESS

Surfing Casing: (based on 100% excess) (circulated to surface)

Spacer: 10 bbls water

Lead Slurry:

350 sx. Class "C" + .25 pps Cello-Seal

Slurry Weight -----14.81 ppg

Slurry Yield ----- 1.33 cu. ft. /sx.

Water Ratio ----- 6.32 gal/sx.

Production Casing:

1st Stage

Lead Slurry:

600 sx 50:50 POZ (Base "C") + 2% Gel + 0.40% TF-4 +

57% water + 0.3% CF-2 + 10 pps Gilsonite

Slurry Weight ----- 13.62 ppg

Slurry Yield ----- 1.33 cu. ft. /sx.

Water Ratio ----- 5.75 gal/sx.

Tail Slurry:

150 sx. Class "C" + 0.2% TF-4 + .3% CF-14 + 56% water

Slurry Weight ----- 14.78 ppg

Slurry Yield ----- 1.33 cu. ft. /sx

Water Ratio ----- 6.32 gal/sx.

2nd Stage (DV Tool @ 3350') (based on 100% excess)

Lead Slurry:

820 sx. 35:65 Poz "C" + 6 % Gel + 10 % salt + 105% water

Slurry Weight ----- 12.67 ppg

Slurry Yield ----- 2.03 cu. ft. /sx.

Water Ratio ----- 10.97 gal/sx.

Tail Slurry:

100 sx. Class "C" + 0.2% CaCl<sub>2</sub> + 56% water

Slurry Weight ----- 14.78 ppg

Slurry Yield ----- 1.33 cu.ft./sx

Water Ratio ----- 6.32 gal/sx.

6. MUD PROGRAM: (See Plat #1)

<u>Specifications</u>	<u>0 - 570'</u>	<u>570' - 6000'</u>	<u>6000' - 6350'</u>
Mud wt (ppg)	8.6 - 9.0	9.0 - 10.0	10.0
Vis (sec)	36 - 45	28 - 31	34 - 38
WL (ml)	N/C	N/C	15 or less
Type System	Gel-Fresh	Gel-Brine	Gel-Brine

Close Mud System: (See Plat #3)

A closed mud system will be used and cuttings and drill fluids will be disposed of as per Section 7 of the Multi-Point Surface Use Plot.

Casing Test:

Before drilling out test surface casing to 1500 psi.

Casing Seat Test:

After drilling out surface casing test to leak off or 11 ppg equivalent, whichever is less.

Deviation Specifications:

Maximum Deviation 5 deg.....1

Maximum Rate of Charge 1.5deg/100'.....1

7. LOGGING & TESTING PROGRAM:

Open Hole: 570' to 6500'

First Run:

Dual Laterolog

Micro Laterolog

Gamma Ray Neutron

Second Run:

Densilog

Compensated Neutron

Gamma Ray Neutron

DST's: None planned

Mud Logging:

2000' to Total Depth

8. No abnormal pressures or temperatures are anticipated. H<sub>2</sub>S should not be encountered.
9. The well will be drilled as a directional well due to the proximity of the Pecos River. The optimum location for penetrating prospective pay is located at the edge of the Pecos River. A total displacement of 578' is anticipated with an azimuth of 246 deg 42 min.
10. Anticipated Starting Date: October 15, 2004

Multi-Point Surface Use Operating Plan  
RB Production Company  
SCB Federal "13" #6

This plan is submitted with form 3160-3, Applications for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, and the proposed construction. And the procedures to be followed in rehabilitation of the surface after completion of the operations, so that a complete appraisal can be made of the environmental affects associated with the operation.

1. Existing Roads:

A. Plat #4 is a portion of the Eddy County, N.M. Road Atlas . The proposed location is situated approximately 3 miles Northeast of Loving, New Mexico. Plat #5 is a portion of the USGS Loving, New Mexico map showing existing roads, and new roads to be constructed.

B. Directions:

--From Carlsbad go south 12 miles on US 285  
--Turn East of Highway 31 for 5 miles  
--Turn South on Eddy County Rd #741 (Fisherman's Lake RD) go south on 741 approx. 0.8 miles to a caliche road on the right. Turn right (west) and go approx. 0.3 miles to a road on the left. Turn left (SW) and go approx. 0.25 miles to an existing well pad. No new road will be constructed.

2. Planned Access Road (Plat #6)

A. The proposed well site is located on an existing pad. That pad will be expanded to accommodate the drilling rig. No new road will be constructed.

3. Location of Existing Wells:

A. The well locations in the vicinity are shown on plat #7

4. Location of Existing and/or Proposed Facilities (Plat #8 & #9)

A. The layout of the drilling rig and closed mud system are shown in plat #8.



- B. In the event that this well is productive, the tank battery and production facilities will be constructed on site as shown on plat #9.
- C. The production facility will consist of two 500 bbl steel oil storage tanks, one 300 bbl closed top fiberglass tank, one separator and one heater treater.

5. Location and Type of Water Supply:

- A. The well is to be drilled with both fresh and brine water to be hauled to the location by truck and will be bought from commercial sources.

6. Source of Construction Material:

- A. Any caliche required for construction of the well pad will be obtained from the existing pit located on Fee land in the SW-NW ¼ of Section 23, T23S, R28E.

7. Methods of Handling Waste Disposal:

The well will be drilled using a closed mud system and no reserve pit will be used (Plat #3 & #8)

- A. Drill cuttings will be continued on site in steel tanks. They will be trucked to a commercial disposal facility for proper disposal.
- B. Water and drilling fluids will be hauled to a commercial disposal facility.
- C. Oil produced during operations will be stored in tanks and hauled off site.
- D. Human sewage will be contained in a portable chemical toilet, transported from the site and disposed of at an approved site.
- E. Trash will be deposited in a metal container and hauled to an approved disposal site.
- F. Within 30 days following drilling and/or completion operations, trash and debris will be hauled to an approved disposal site.

8. Ancillary Facilities

None

9. Well site Layout:

- A. Plat #8 shows the dimensions of the well pad. As mentioned in Section 7, no reserve pits will be used. Location of the major rig components, and well pad orientation are shown.
- B. Topography of the area is relatively level across the entire location. Fills should be no more than 3' deep.  
The location will be capped with 4" to 6" of caliche.
- C. No reserve pit will be used.
- D. No diversion ditches are planned.
- E. The pad has been stacked and flagged for the archeological study.

10. Plans for Restoration of the Surface:

- A. Upon completion of drilling, completion and production operations, the area disturbed by the project will be restored to BLM specifications or to as near their former natural condition as possible.
- B. All of the caliche material will be removed and the area will be leveled to pre-project grade.
- C. No drainage systems will be needed on the site.
- D. No segregation of spoils is planned at this time as it is a blow sand area.
- E. Waste disposal was outlined in section 7.
- F. Re-vegetation and fertilization will be as per BLM stipulations.
- G. All areas not used for production will be stored after completion of the well. The roads are already existing and will not be restored.

11. Surface Restored

- A. This is private surface and a damage agreement is being negotiated with Intrepid Mining NM, LLC., P.O. Box 101, Carlsbad, New Mexico 88220, the surface owner.

12. Other Information

- A. The general location of this site is a rocky desert and mesquite brush area. The soil has a very small amount of vegetation and stockpiling of material is not planned.
- B. The vegetation is desert scrub characterized by various species of cacti, acacia, and mesquite.
- C. Wildlife species that occur in the area include: rabbits, mule deer, coyote, snakes and various rodents.
- D. The Pecos River is 600' southwest of the well site.
- E. An archaeological survey of the site and proposed access road has been conducted and the report is attached.


13. Operator's Representative and Certification

- A. The field representatives responsible for assuring compliance with approved surface use plan are:

	Office	Home
District Engineer		
Mike McGinnis	817/810-1909	817/236-1836
Field Foreman		
David Mitchell	505/745-2329	505/397-6002

- B. 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 currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by RB Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of the 18 U.S.C. 1001 for the filing of a false statement.

Date: 08/26/04

  
\_\_\_\_\_  
Mike McGinnis  
District Engineer



# RB Operating Company

**Well:** SCB Federal "13" #7

**Field:** East Loving Delaware

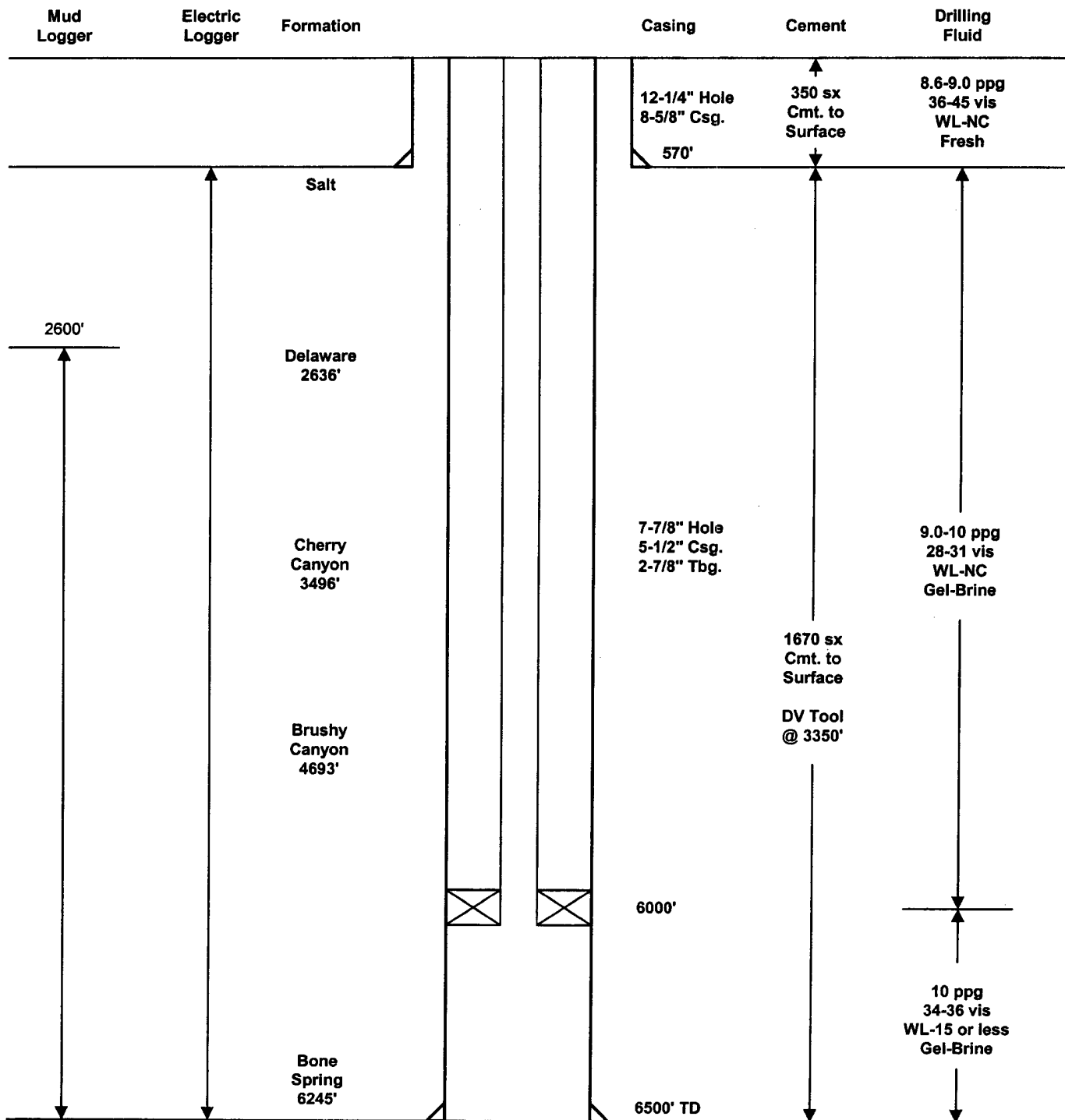
**Catagory:** Development

**County:** Eddy

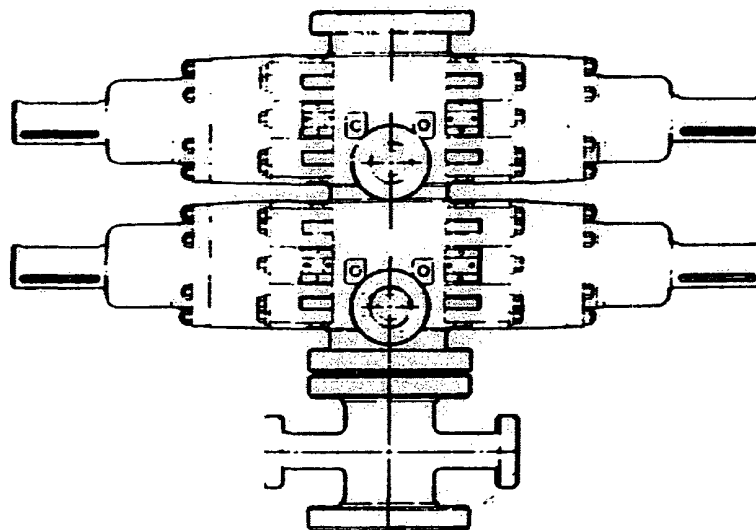
**State:** New Mexico

**Location:** 2030' FSL & 1190' FWL, Section 13, T23S, R28E

**Elevation:** 2980'



# BLOW OUT PREVENTION EQUIPMENT



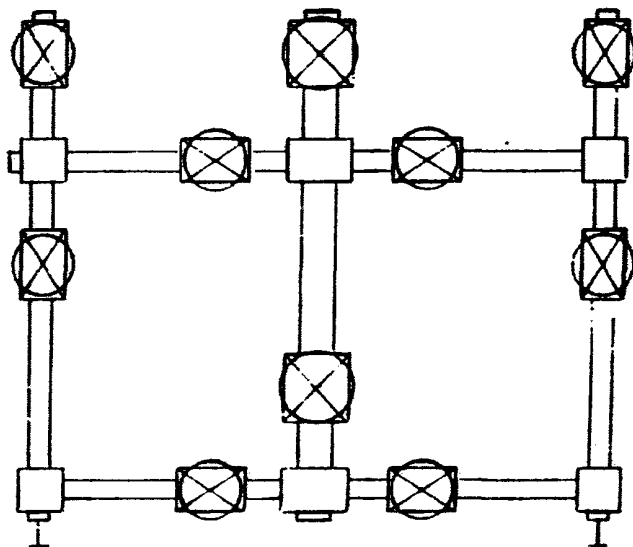
## BOP Stack

- 1 Rucker Shaffer "B" double ram  
10" - 3000 psi WP

## Closing Unit

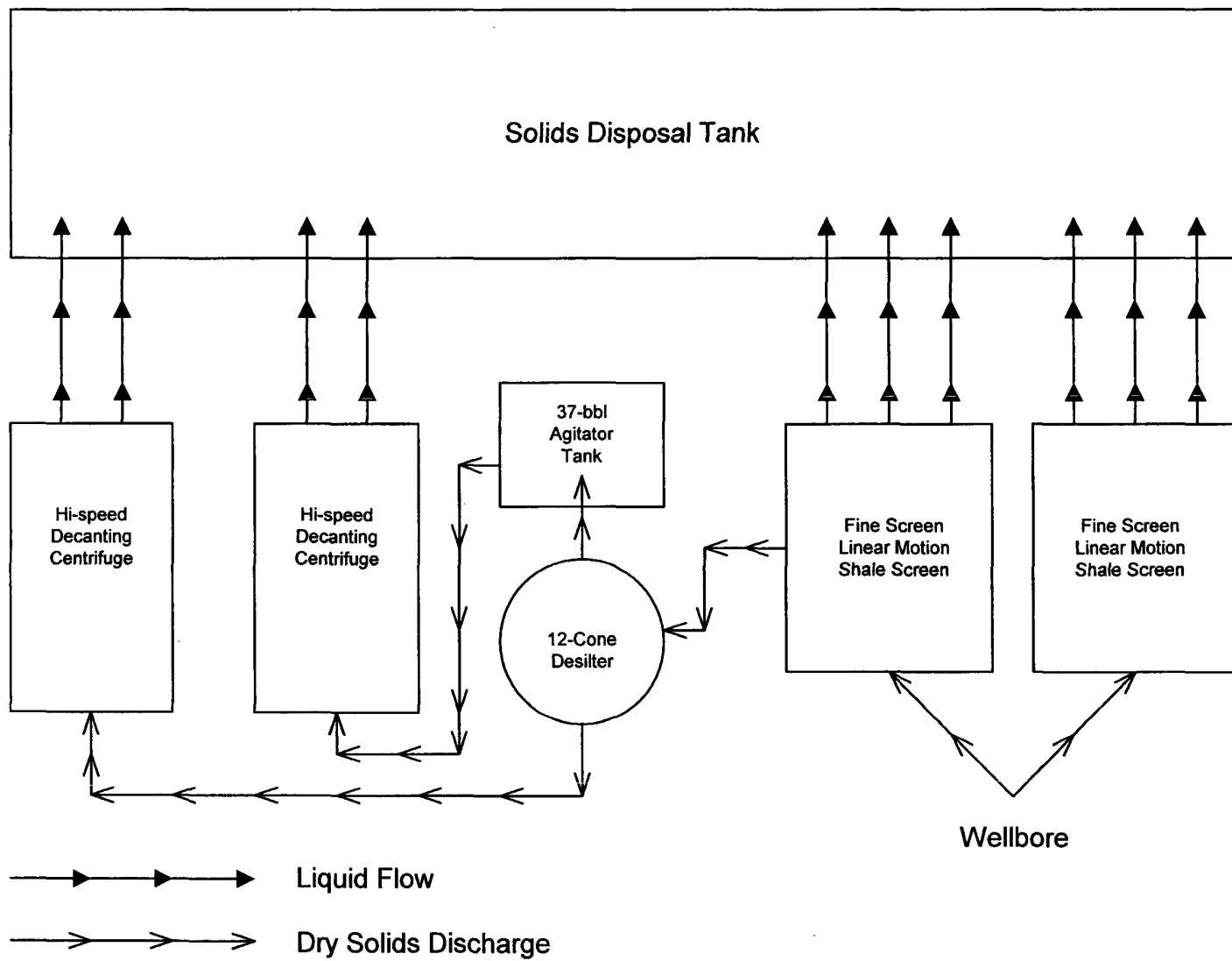
- Hydril model 80 three station accumulator
- Controls located in accumulator house and on rig floor

## CHOKE MANIFOLD



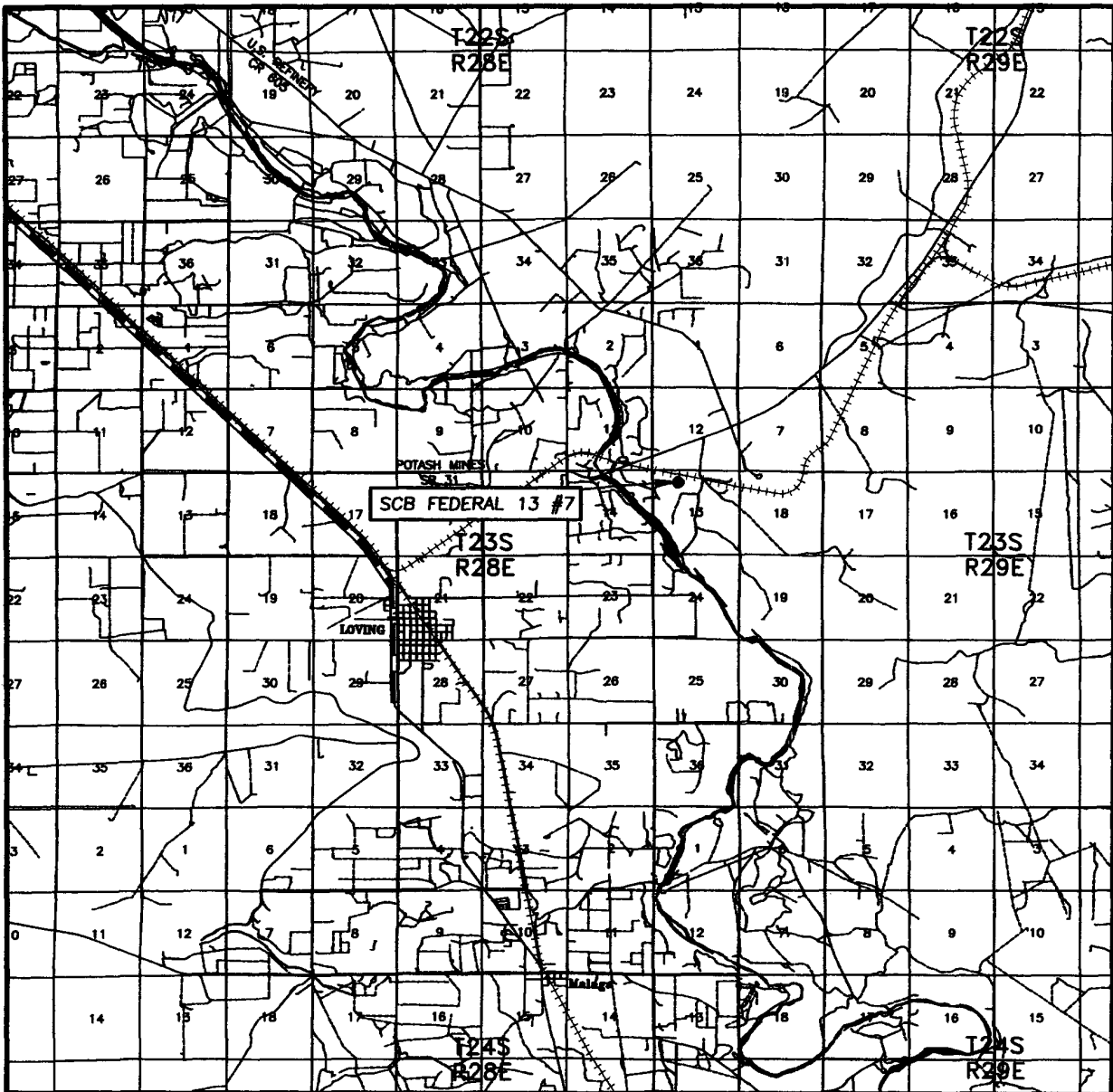
900 Series. 3000 psi WP

PLAT #2



Flow Diagram  
Dry Discharge / Closed Loop Mud System

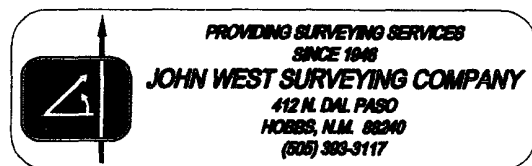
# VICINITY MAP



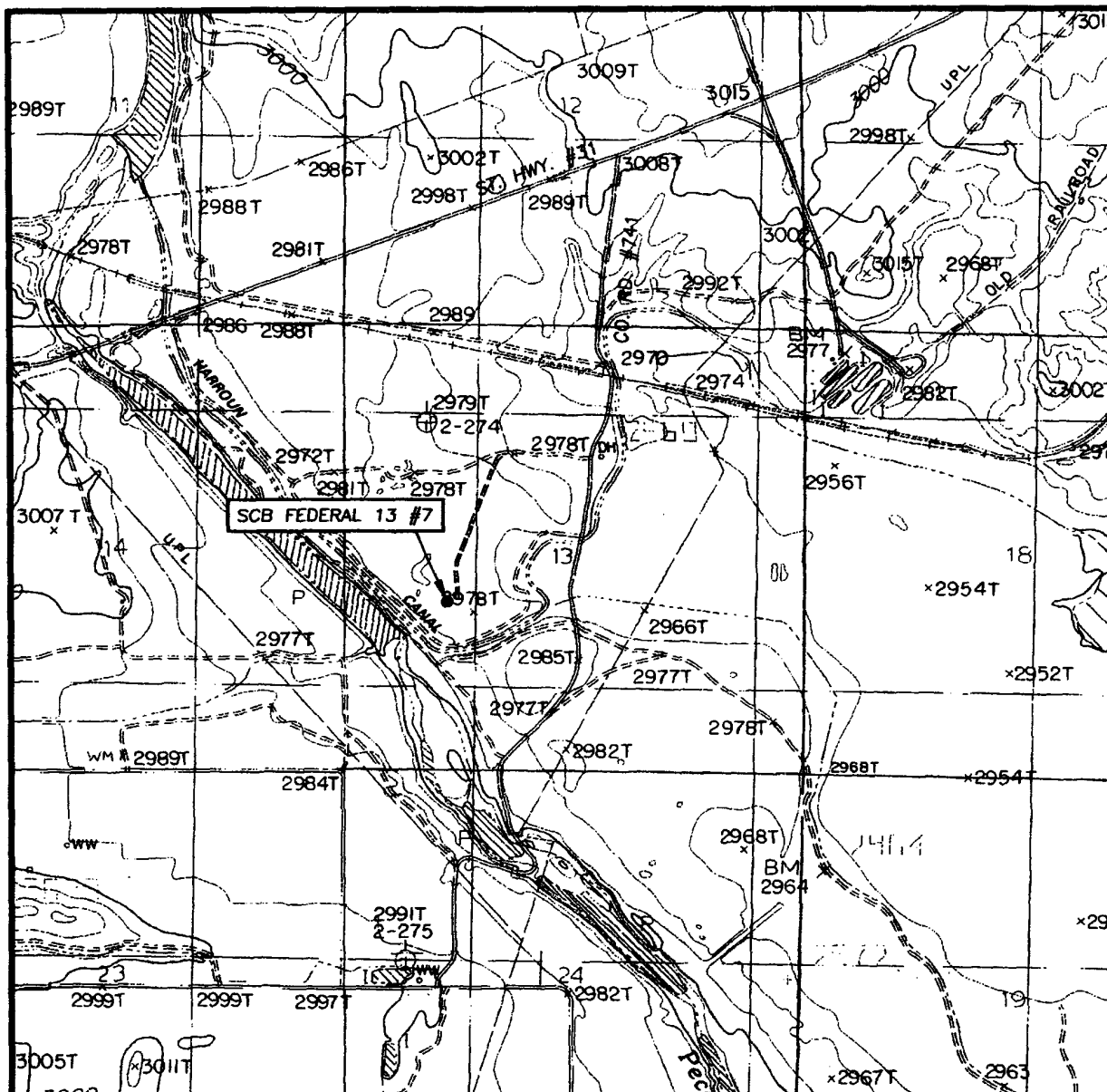
SCALE: 1" = 2 MILES

SEC. 13 TWP. 23-S RGE. 28-E  
 SURVEY N.M.P.M.  
 COUNTY EDDY  
 DESCRIPTION 2030' FSL & 1190' FWL  
 ELEVATION 2980'  
 OPERATOR R.B. OPERATING  
 LEASE SCB FEDERAL 13

PLAT 4



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
LOVING, N.M. - 10'

SEC. 13 TWP. 23-S RGE. 28-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2030' FSL & 1190' FWL

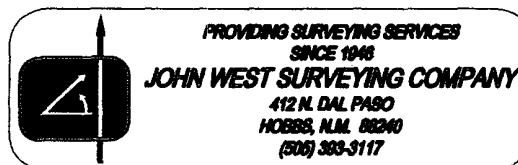
ELEVATION 2980'

OPERATOR R.B. OPERATING

LEASE SCB FEDERAL 13

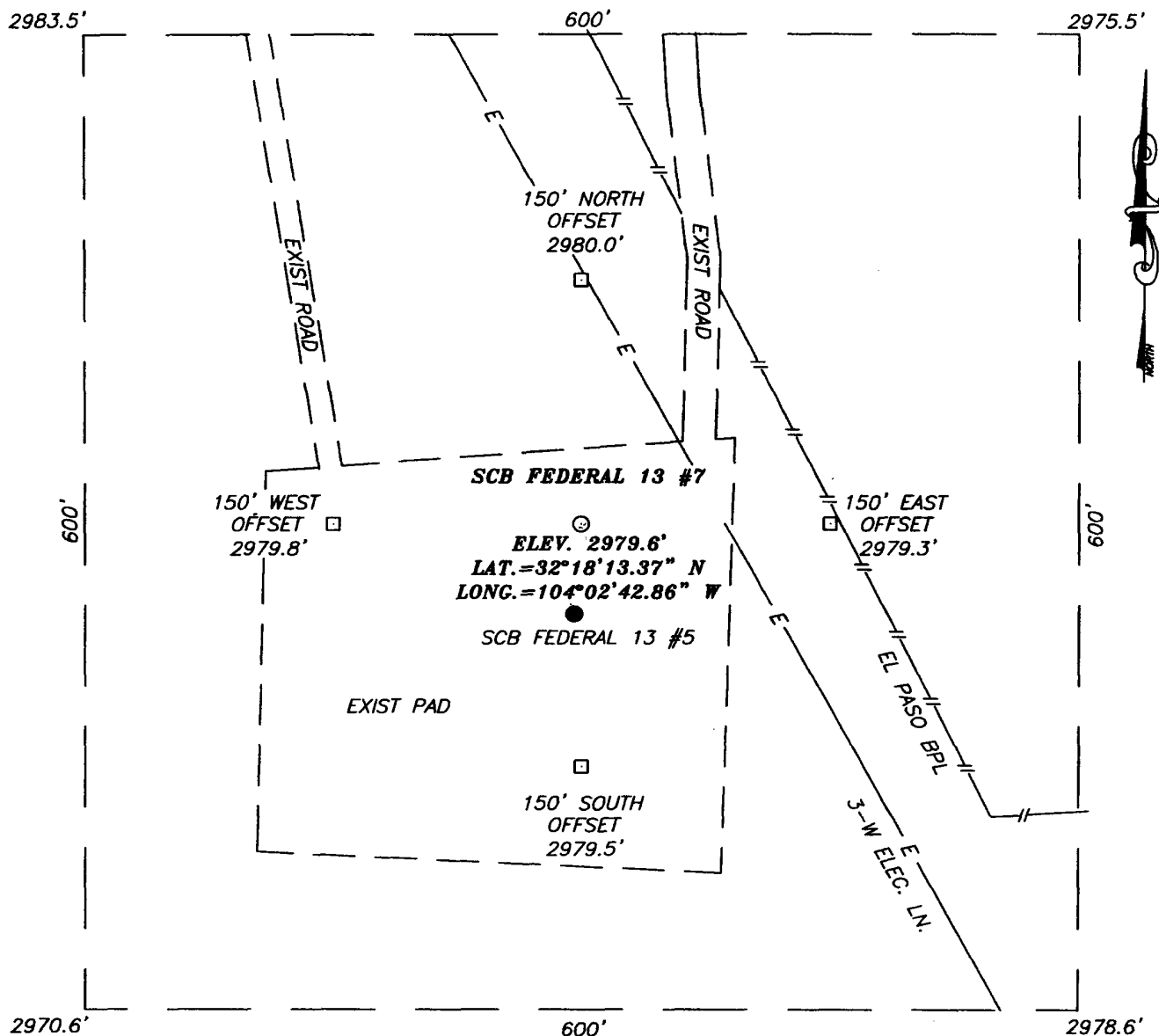
U.S.G.S. TOPOGRAPHIC MAP  
LOVING, N.M.

PLAT 5



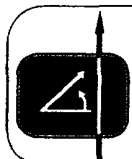


**SECTION 13, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.,**  
 EDDY COUNTY, NEW MEXICO



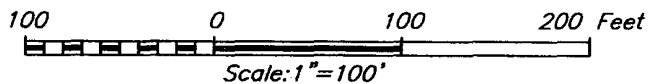
**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF ST. HWY #31 AND  
 EDDY CO. RD. #741 (FISHERMAN'S LAKE RD.) GO  
 SOUTH ON CO. RD. #741 FOR APPROX. 0.8 MILES  
 TO A CALICHE ROAD ON THE RIGHT. TURN RIGHT  
 (WEST) AND GO APPROX. 0.3 MILES TO A ROAD  
 ON THE LEFT. TURN LEFT (SW) AND GO APPROX.  
 0.25 MILES TO AN EXISTING WELL PAD. PROPOSED  
 LOCATION IS APPROX. 50' NORTH.



PROVIDING SURVEYING SERVICES  
 SINCE 1948  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 383-3117

PLAT 6



**R.B. OPERATING**

SCB FEDERAL 13 #8 WELL  
 LOCATED 2030 FEET FROM THE SOUTH LINE  
 AND 1190 FEET FROM THE WEST LINE OF SECTION 13,  
 TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

Survey Date: 08/03/04	Sheet 1 of 1 Sheets
W.O. Number: 04.11.0986	Dr By: J. RIVERO
Date: 08/09/04	Disk: CD#10
04110986	Scale: 1"=100'