

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER


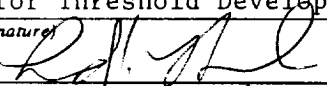
FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-99011
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zones		6. If Indian, Allottee or Tribe Name
2. Name of Operator Threshold Development Company		7. If Unit or CA Agreement, Name and No. 30900
3a. Address 777 Taylor St. - Penthouse II Fort Worth, TX 76102	3b. Phone No. (include area code) 817-870-1483	8. Lease Name and Well No. Chino 31 Federal #1
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 780' FSL & 1691' FWL (Unit N, SESW) At proposed prod. zone		9. API Well No. 30-035-20032
14. Distance in miles and direction from nearest town or post office* Approximately 34 miles northwest of Dell City, Texas		10. Field and Pool, or Exploratory Exploratory
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 780'	16. No. of Acres in lease 1329.36'	11. Sec., T., R., M., or Blk. and Survey or Area Section 31-T24S-R18E
17. Spacing Unit dedicated to this well 160 acres	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	12. County or Parish Otero
19. Proposed Depth 7241'	20. BLM/BIA Bond No. on file 0679796	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4241' GR	22. Approximate date work will start* ASAP after approval	23. Estimated duration 20 days

24. Attachments

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

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

25. Signature 	Name (Printed/Typed) Rusty Klein	Date Aug. 20, 2002
Title Agent for Threshold Development Company		
Approved by (Signature) 	Name (Printed/Typed) LEONARD BROOKS	Date Nov 21, 2002
Title ASST FIELD MGR	Office LCFO	

Application approval does not warrant or certify the 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.

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 reverse)

Cement to cover all oil, gas and  
water bearing zones.  
OCD

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EXPERIMENTAL  
HISTOLOGY

<div><div>LOT 1</div><div>LOT 2</div><div><div>LAT-32°10'07.09"N LON-105°08'43.43"W</div><div><div>LOT 3</div><div><div>4243.8'</div><div>4220.7'</div><div>1691'</div><div>4245.4'</div><div>4232.7'</div><div>780'</div><div>LOT 4</div></div></div></div></div>		<div>OPERATOR CERTIFICATION</div> <div>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</div> <div><div><div><div><div></div><div>Rusty Klein</div><div>Signature</div></div><div><div>Printed Name</div><div>Agent for Threshold Dev.</div><div>Title</div><div>August 20, 2002</div><div>Date</div></div></div></div></div>	
		<div>SURVEYOR CERTIFICATION</div> <div>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.</div> <div>MARCH 8, 2002</div>	
		<div><div>Date Surveyed</div><div><div>Signature &amp; Seal of Professional Surveyor</div><div><div>NEW MEXICO</div><div>7977</div><div>W.D. No. 23656</div></div></div></div>	
		<div><div>Certificate No. Gary L. Jones</div><div>7977</div><div>BASIN SURVEYS</div></div>	

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BUREAU OF LAND MANAGEMENT  
1616 N. 10th St.  
DENVER, CO 80202

THRESHOLD DEVELOPMENT COMPANY

Chino 31 Federal #1  
780' FSL & 1691' FWL  
Section 31-T24S-R18E  
Otero County, New Mexico

1. The estimated tops of geological markers are as follows:

San Andres	Surface
Fusselman	4491'
Basement	5741'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered are:

Water: Nearest well reports fresh water at 268' to 278'

Oil or Gas: All potential zones - Fusselman - 4491' (gas)

3. Pressure Control Equipment:

Shaffer 11" 3000 psi Type B with 2 3" openings below the rams, pipe rams and blind rams.

Shaffer 11" 3000 psi spherical annular preventor, choke manifold with 2 2" adjustable chokes plus 2" flow lines, float in drillpipe and TIW valve on floor

Auxiliary Equipment:

- A. Auxiliary Equipment: kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to pit the drillpipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

4. Proposed Casing and Cementing Program:

A. Casing Program: (New or Used)

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft.</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>
14-3/4"	11-3/4"	42#	H-40	ST&C	Surface - 600'
11"	8-5/8"*	32# & 24#	J-55	ST&C	Surface - 2000'
7-7/8"	5-1/2"	17# & 15.5#	J-55	LT&C	Surface - 7241'

\*Contingency only for loss circulation possibilities

- B. Minimum Casing Design Factors: Collapse 4910 psi; Burst 5320 psi; Tensile Strength 55

Proposed Casing and Cementing Program Continued:

C. Cementing Program:

Surface Casing: Lead with 65-35-6 Poz C with 1/4#/sack celloflake and 2% CaCl<sub>2</sub>. Tail with 250 sacks Class C with 2% CaCl<sub>2</sub> and 1/4#/sack celloflake. Displaced with wooden plug and water.

Intermediate Casing: Lead with 65-35-6 Poz H with additives based on hole conditions. Tail with 250 sacks Class H with additives based on hole conditions. Fill to inside of surface casing.

Production Casing: Class "H", 10% salt and dispersants, fluid loss additives and retarders based on bottom hole temperature (16.0). Cement volume based on caliper + 25% excess. Cement top based on potential pay zones.

5. Mud Program and Auxiliary Equipment:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-600'	Water	8.4	Water	No control
600-2000'	Fresh	9.0	35 sec/qt.	No control
2000-4000'	Fresh & Cut brine	9.5	45 sec/qt.	Less than 14 ml
4000-TD	Brine	9.9+	55 sec/qt.	Less than 10 ml

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the wellsite during drilling operations. Mud will be checked hourly by rig personnel.

6. Evaluation Program:

Samples: 1 dry cut, 1 wet cut every 30' to geologist's request; then every 10' to TD

Logging: FDC/CNL (Schlumberger platform express triple combo), Gamma Ray, Sonic long space full wave form induction log, PE, Dual Laterolog, SP if fresh mud

Coring: Side-wall core at direction of wellsite geologist

DST's: DST as needed to evaluate shows. RT after logging to evaluate reservoir.

7. Abnormal Conditions, Bottom Hole Pressure and Potential Hazards:

Anticipated BHP:

From 3250' to 5200', anticipated max BHP 1100 psig - 1750 psig  
From 5200' to 7241', anticipated max BHP 2080 psig - 2890 psig

Abnormal Pressures Anticipated: None

THRESHOLD DEVELOPMENT COMPANY  
Chino 31 Federal #1  
Page 3:

7. Abnormal Conditions, Bottom Hole Pressure and Potential Hazards continued:

Lost Circulation Zones Anticipated: Possibly at 1850'

H2S Zones Anticipated: None

Maximum Bottom Hole Temperature: 175°F

8. Anticipated Starting Date:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 20 days to drill the well with completion taking another 30 days.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN  
Threshold Development Company  
Chino 31 Federal #1  
780' FSL & 1691' FWL  
Section 31-T24S-R18E  
Otero County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed wellsite is located approximately 34 miles northwest of Dell City, Texas. The access route to the location is indicated in red and green on Exhibit A2. *(Blue on original)*

DIRECTIONS:

From the intersection of Highway 506 and County Road G-4, turn left (west) on G-4 and continue west on G-4 for approximately 6 miles. Turn left (south) onto a two track road that has been upgraded going south and southwest for approximately 1-1/2 mile to where it intersects with the main gravel road. Turn left (southwest) onto main gravelled road and continue on for approximately .3 of a mile. Proposed road to location will start here going easterly and northeasterly for approx. 2-1/2 miles to the southwest edge of the location.

2. PLANNED ACCESS ROAD:

- A. The proposed new access will be approximately 2-1/2 miles in length from the point of origin to the southwest corner of the drilling pad. The road will lie in an easterly, northeasterly and southeasterly direction.
- B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. Existing roads will be maintained in the same or better condition.

3. LOCATION OF EXISTING WELL:

- A. There is no drilling activity within a one-mile radius of the wellsite.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. There are no production facilities on the wellsite at this time.
- B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.



5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A1 & A2.

6. SOURCE OF CONSTRUCTION MATERIALS:

Dirt contractor will locate nearest pit and obtain any permits and materials needed for construction.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to evaporate in the reserve pit until the pits are dry.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary land fill. Burial on site is not approved.

8. ANCILLARY FACILITIES: none

9. WELLSITE LAYOUT:

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The reserve pits will be plastic lined.
- C. A 400' X 400' area has been staked and flagged.

10. PLANS FOR RESTORATION:

- A. After finishing drilling and/or completion operations, all equipment and other materials not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been levelled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level after they have evaporated and dried.

THRESHOLD DEVELOPMENT COMPANY  
Chino 31 Federal #1  
Surface Use & Operations Plan  
Page 3:

11. SURFACE OWNERSHIP: Federal surface - administered by the Bureau of Land Management

GRAZING LESSEE: Pete Lewis  
P. O. Box 368  
Dell City, TX 79837

12. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.  
B. The primary surface use is for grazing.

13. OPERATOR'S REPRESENTATIVE:

- A. Through APD Approval:  
Rusty Klein, Consultant  
Koyote Konsulting Services  
Agent for Threshold Development Company  
P. O. Box 1491  
Artesia, NM 88211-1491  
O: 505-746-6565  
Cellular: 505-365-4245
- B. Through Drilling, Completions and Production:  
Gary Tidmore, Land Manager  
Threshold Development Company  
777 Taylor Street - Penthouse II  
Fort Worth, TX 76102  
O: 817-870-1483

14. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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 Threshold Development 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 18 U.S.C. 1001 for the filing of a false statement.

Aug. 30, 2008  
Date

Rusty Klein  
Rusty Klein, Consultant  
Koyote Konsulting Services  
Agent for Threshold Development Company

6-A

Canyon

School Girl  
Tank

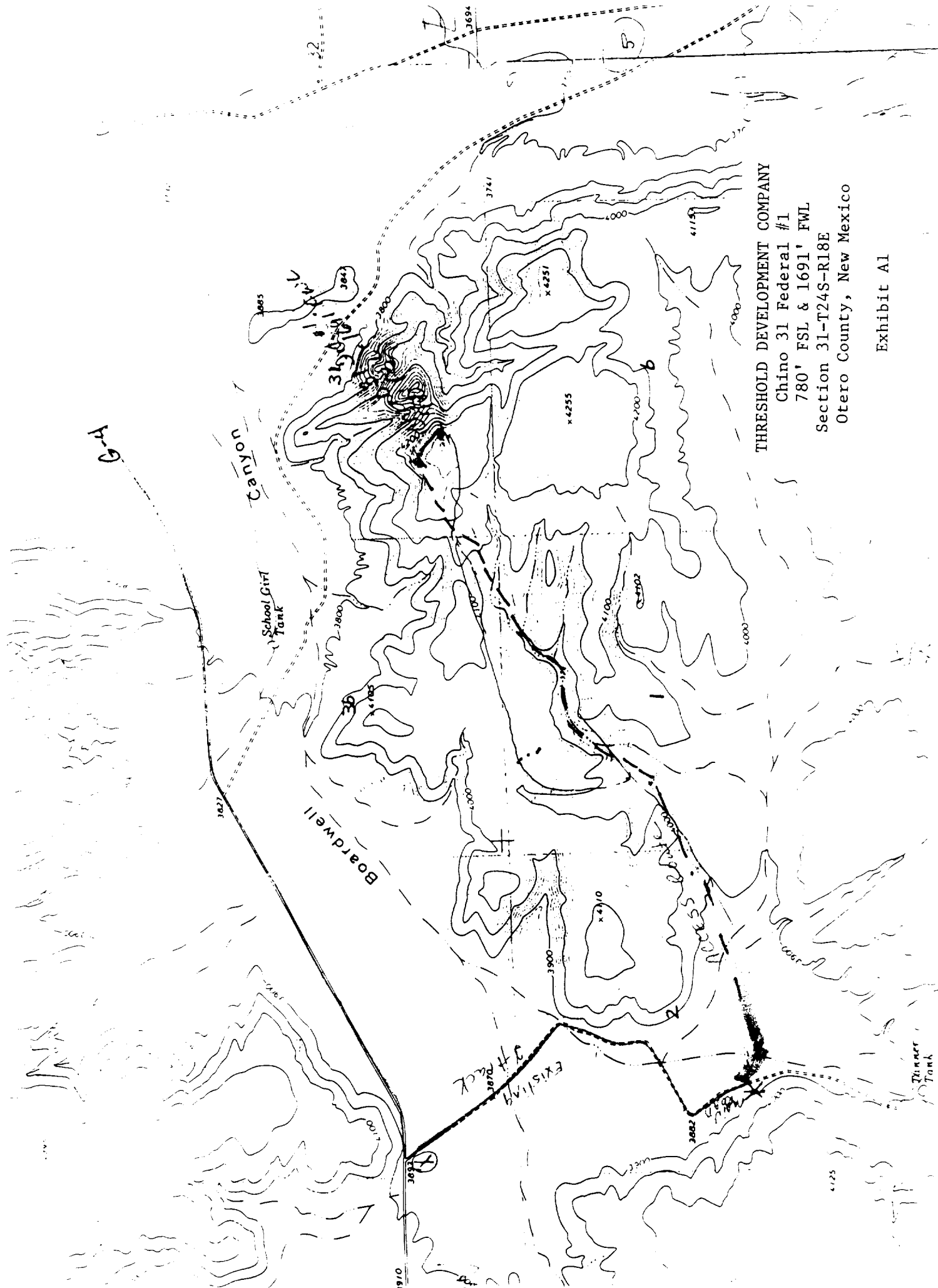
Boardwell

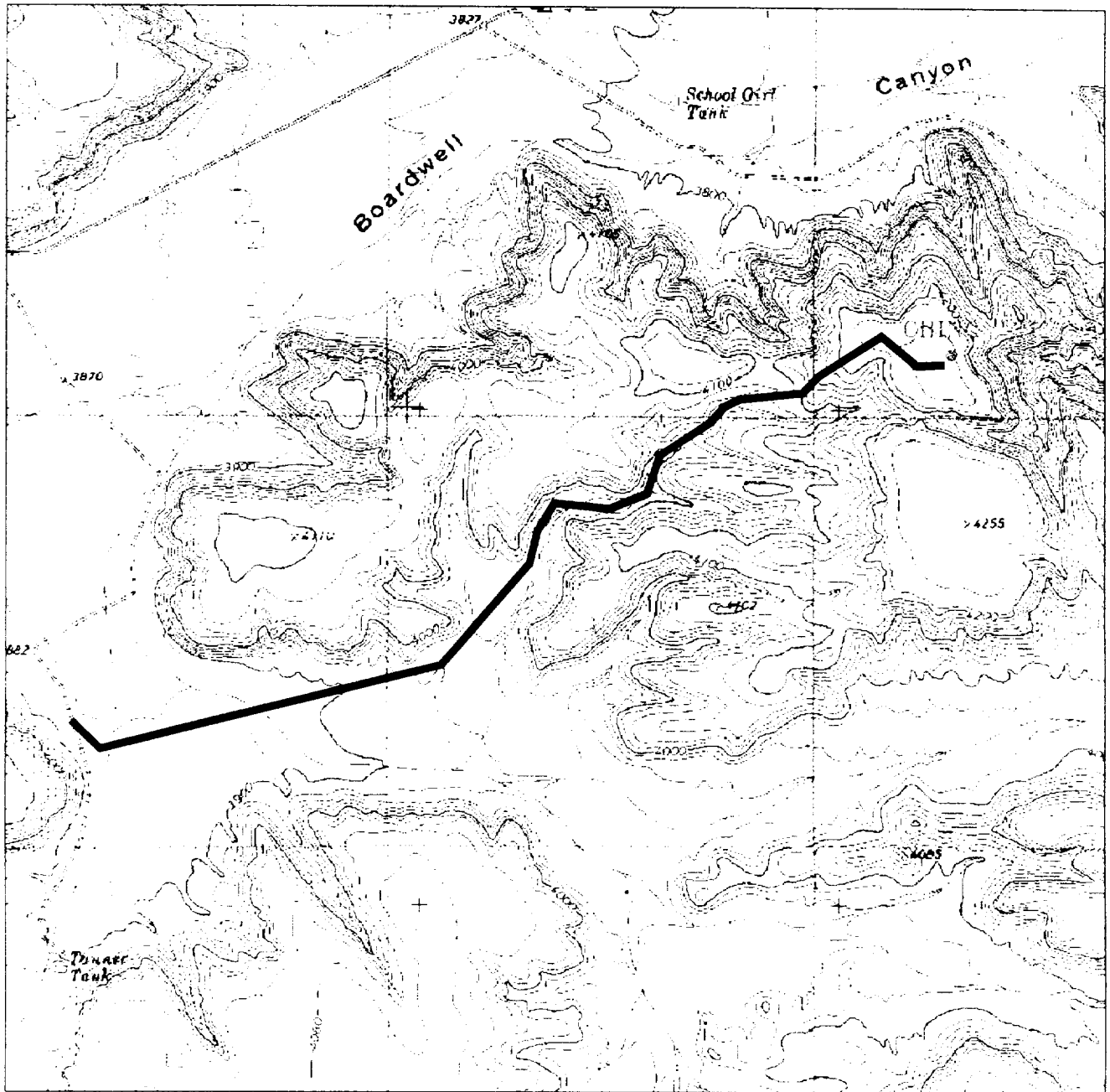
Existing  
3 1/2" Pipe

Runner  
Tank

THRESHOLD DEVELOPMENT COMPANY  
Chino 31 Federal #1  
780' FSL & 1691' FWL  
Section 31-T24S-R18E  
Otero County, New Mexico

Exhibit A1





THRESHOLD DEVELOPMENT COMPANY  
 Chino 31 Federal #1  
 780' FSL & 1691' FWL of  
 Section 31-T24S-R18E  
 Otero Co., NM

Located at 780' FSL and 1691'  
 Section 31, Township 24 South,  
 N.M.P.M., Otero County, New Mexico.

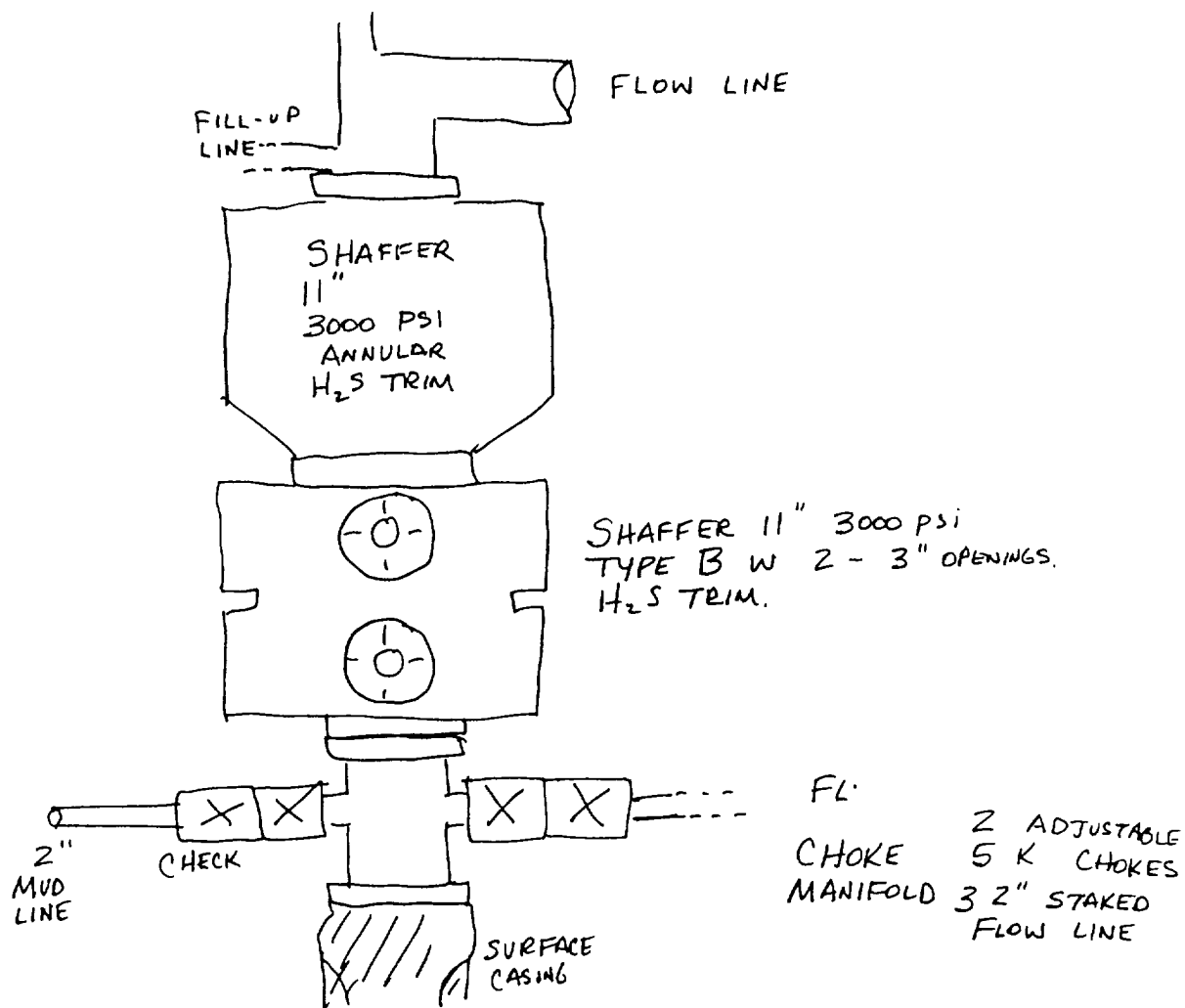
Exhibit A2  
 Red - existing road; Green -  
 upgrade; Orange - proposed road

**Basin**  
**surveys**  
 Based on experience  
 in the field

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basin-surveys.com

W.O. Number: 2549AA - RUG CD#5  
 Survey Date: 06-06-2002  
 Scale: 1" = 2000'  
 Date: 06-06-2002

**THRESHOLD**  
**DEVELOPEMENT**  
**COMPANY**

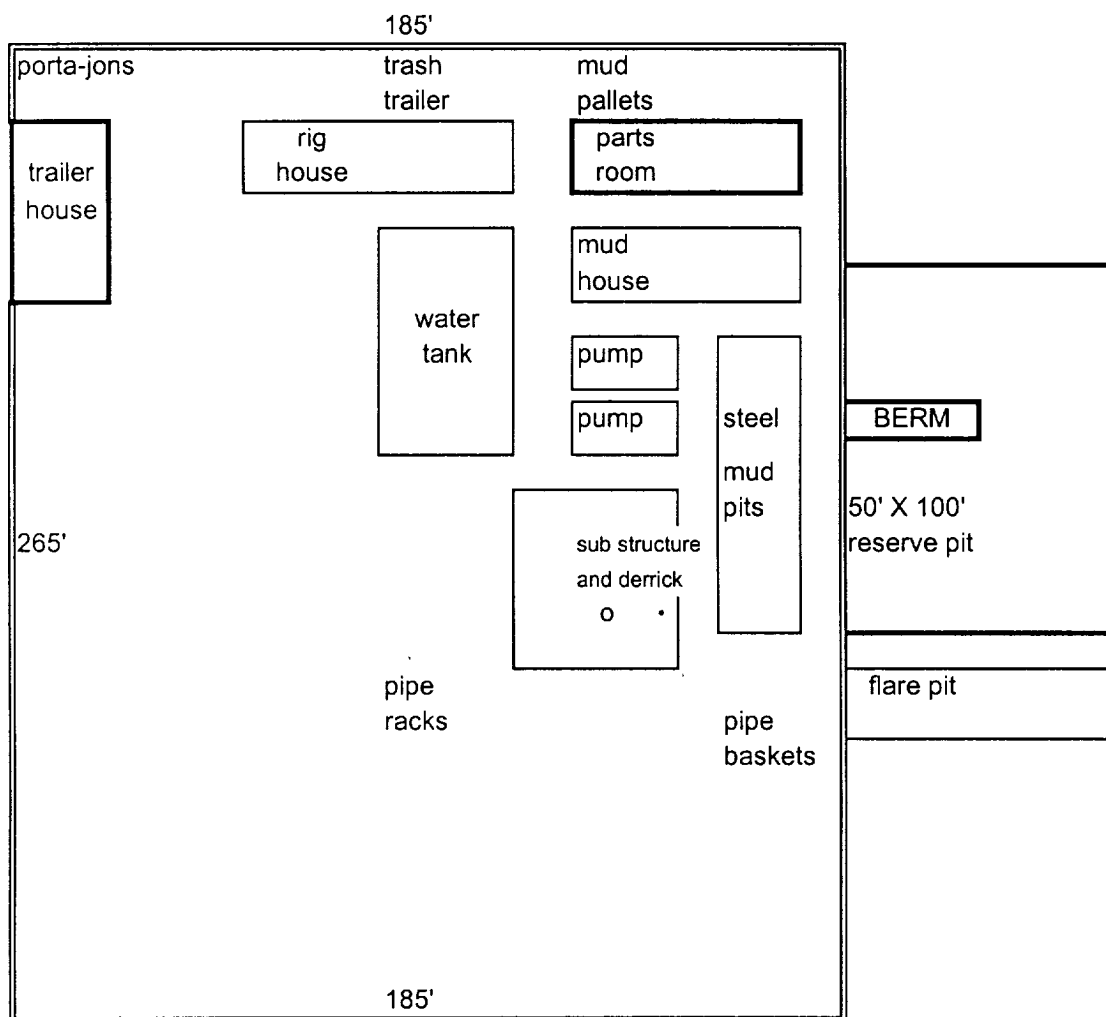


THRESHOLD DEVELOPMENT COMPANY  
 Chino 31 Federal #1  
 780' FSL & 1691' FWL  
 Section 31-T24S-R18E  
 Otero County, New Mexico

Exhibit B

Chino 31 Federal #1  
780' FSL & 1,691' FWL  
Sec 31 T24S R18E  
Otero County, New Mexico

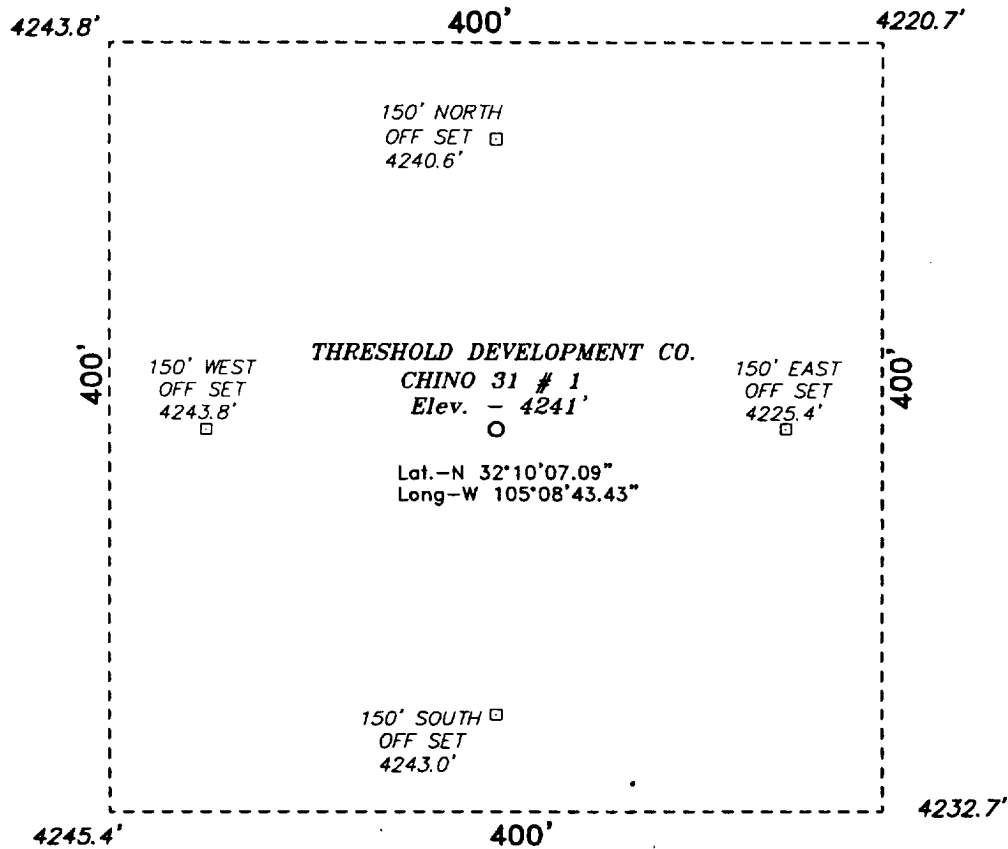
Drilling Rig Location Schematic



THRESHOLD DEVELOPMENT COMPANY  
Chino 31 Federal #1  
780' FSL & 1691' FWL  
Section 31-T24S-R18E  
Otero County, New Mexico

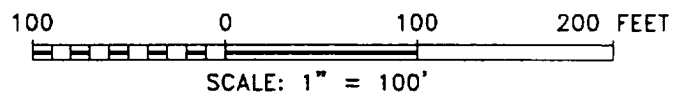
Exhibit C

SECTION 31, TOWNSHIP 24 SOUTH, RANGE 18 EAST, N.M.P.M.,  
OTERO COUNTY, NEW MEXICO.



THRESHOLD DEVELOPMENT COMPANY  
Chino 31 Federal #1  
780' FSL & 1691' FWL  
Section 31-T24S-R18E  
Otero County, New Mexico

Exhibit D



**THRESHOLD DEVELOPMENT COMPANY**

REF: CHINO 31 No. 1 / Well Pad Topo

THE CHINO 31 No. 1 LOCATED 780' FROM THE SOUTH LINE  
AND 1691' FROM THE WEST LINE OF SECTION 31,  
TOWNSHIP 24 SOUTH, RANGE 18 EAST, N.M.P.M.,  
OTERO COUNTY, NEW MEXICO.

**BASIN SURVEYS** P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 2365

Drawn By: **G. SHOULTS**

Date: 03-14-2002

Disk: GWS # 1 - CHINO 31 1 B

Survey Date: 03-08-2002

Sheet 1 of 1 Sheets

24

19

20

30

29

N99011

31

32

N99011

# **THRESHOLD DEVELOPMENT COMPANY**

CHINOFEDERAL 31 #1

LEASE MAP

SECTIONS 30 AND 31  
TOWNSHIP 24 SOUTH - RANGE 18 EAST  
OTERO COUNTY, NEW MEXICO

Exhibit E



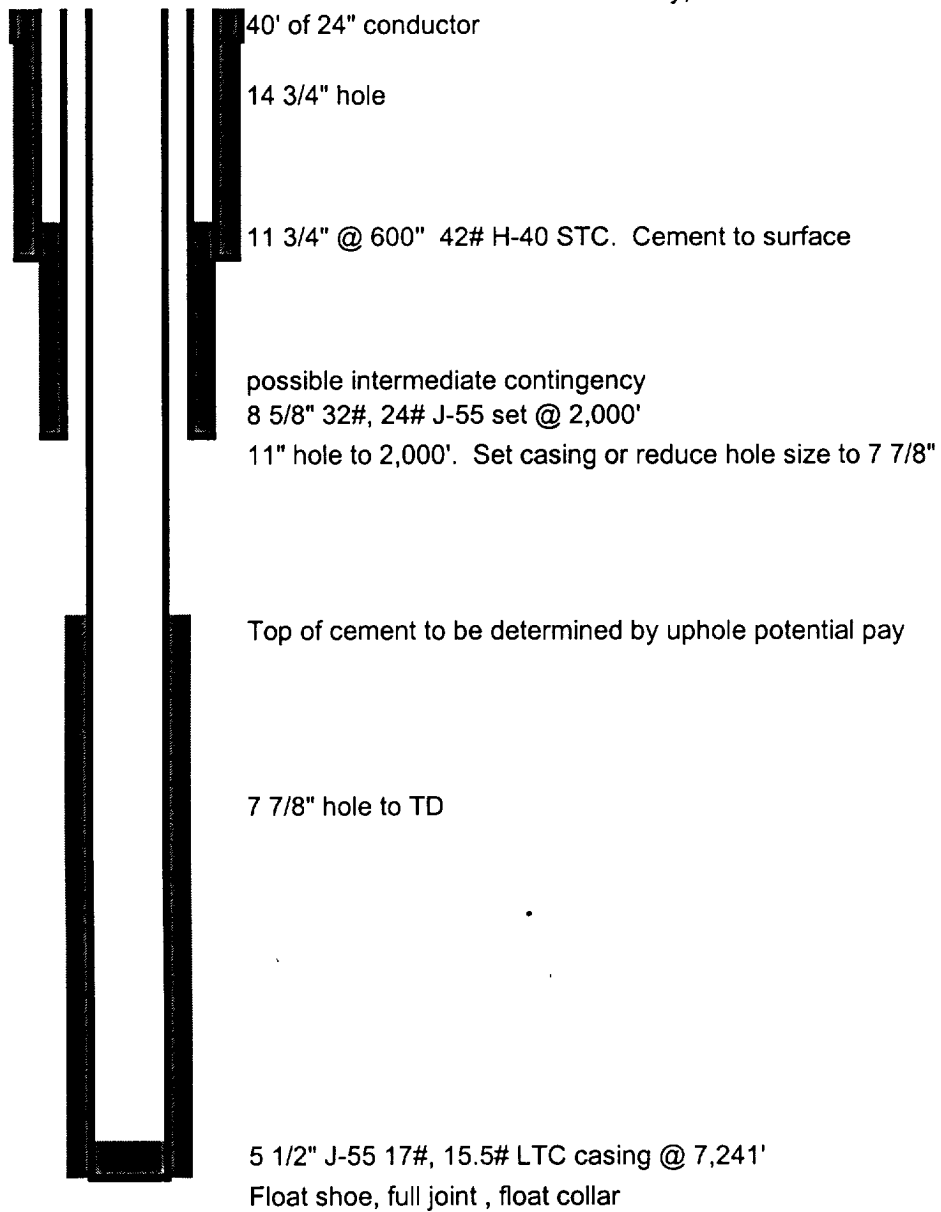
Threshold Development Company

## Chino 31 Federal #1

780" FSL, 1,691' FWL

Section 31 T24S R18E

Ortero County, New Mexico



not to scale

Exhibit F

LIST OF ATTACHMENTS

THRESHOLD DEVELOPMENT COMPANY

Chino 31 Federal #1

780' FSL & 1691' FWL

Section 31-T24S-R18E

Otero County, New Mexico

Exhibit A1	BLM map showing area of location & roads
Exhibit A2	BLM map showing proposed road into location
Exhibit B	BOP Diagram
Exhibit C	Location Layout
Exhibit D	Survey Diagram
Exhibit E	Lease Map
Exhibit F	Diagram of proposed casing strings