

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

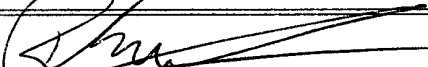
FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

1a. Type of work: <input type="checkbox"/> DRILL <input checked="" type="checkbox"/> REENTER		5. Lease Serial No. <b>NMNM 99705</b>
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator <b>High Plains Operating Company, LLC</b>		7. If Unit or CA Agreement, Name and No.
3a. Address <b>2130 Fillmore Street, #211 San Francisco, CA 94115</b>		8. Lease Name and Well No. <b>Eagle Springs 8 Federal #2M</b>
3b. Phone No. (include area code) <b>415-567-0446</b>		9. API Well No. <b>30-043-20950</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface <b>330' FNL and 2.275' FEL</b> At proposed prod. zone <b>361.3 FNL and 2.310' FEL (original operator Penwell's Gyro Survey)</b>		10. Field and Pool, or Exploratory <b>Arena Blanca Entrada Southeast</b>
14. Distance in miles and direction from nearest town or post office* <b>23 miles west-southwest of Cuba, New Mexico</b>		11. Sec., T. R. M. or Blk. and Survey or Area <b>Section 8 - T19N - R4W</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>330'</b>	16. No. of acres in lease <b>2052.48</b>	17. Spacing Unit dedicated to this well <b>160 NE 1/4</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>244.4</b>	19. Proposed Depth <b>5,900'</b>	20. BLM/BIA Bond No. on file
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>6,720.3 GL</b>	22. Approximate date work will start* <b>04/10/2007</b>	23. Estimated duration <b>Two months</b>

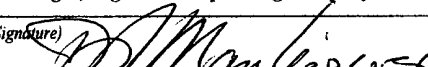
24. Attachments

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

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

25. Signature 	Name (Printed/Typed) <b>Richard Mrlik</b>	Date <b>02/01/2007</b>
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Title  
**Manager, High Plains Operating Company**

Approved by (Signature) 	Name (Printed/Typed) <b>AFE</b>	Date <b>3/30/07</b>
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Title  
**AFE**

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.

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) **Apply for Permit on NMOC Form C-103 Prior to starting any construction on site**  
**HOLD ON FOR NSL**  
RCVD APR 30 2007  
OIL CONS. DIV.

**NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT**

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

**NMOC**

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

**4-5-07**

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

2007 FEB 2 PM 2 19 AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-043-20950	<sup>2</sup> Pool Code 96899	<sup>3</sup> Pool Name AREA BLANCA ENTRADA, SOUTHEAST
<sup>4</sup> Property Code 25148 36428	<sup>5</sup> Property Name EAGLE SPRINGS 8 FEDERAL	<sup>6</sup> Well Number 2M
<sup>7</sup> OCRID No. 246238	<sup>8</sup> Operator Name HIGH PLAINS OPERATING COMPANY, LLC	<sup>9</sup> Elevation 6720'


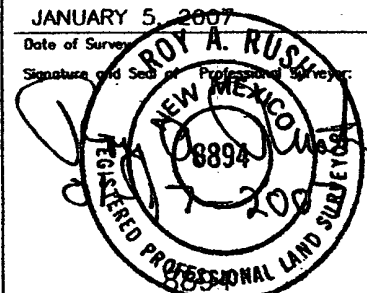
<sup>10</sup> Surface Location

UL or lot no. B	Section 8	Township 19-N	Range 4-W	Lot Idn	Feet from the 330	North/South line NORTH	Feet from the 2275	East/West line EAST	County SANDOVAL
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## 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
<sup>12</sup> Dedicated Acres 160		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code			<sup>15</sup> Order No. R-11374 NSP		

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	<p>LAT: 35.89819° N. (NAD 83) LONG: 107.28084° W. (NAD 83)</p>	FD BLM BRASS CAP 1923	<p>17</p> <p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p style="text-align: right;">               Signature              1-24-07              Date           </p> <p style="text-align: right;">             RICHARD MRLUK              Printed Name           </p>
	<p>330'</p> <p>2275'</p> <p>2644.72'</p> <p>N 00-45-08 E</p> <p>8</p>		<p>18</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plot 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>             JANUARY 5, 2007              Date of Survey           </p> <p>               Signature and Seal of Professional Surveyor           </p> <p>             Certificate Number           </p>

**High Plains Operating Company, LLC**  
**Eagle Springs "8" Federal #2M—Re-entry and deepening program**

**Original API #:** 30-043-20950

**Original well total depth:**

3,850' driller's measured depth,

3,837' logger's measured depth

**Well location:** NW quarter of the NE quarter of section 8—Township 19 North—Range 4 West  
Sandoval County, New Mexico

**Surface location:** 330' FNL and 2,275' FEL

**Bottomhole location:** 361.3' FNL and 2,309.8' FEL at a plugged back measured depth of 3,765.0' and a true vertical depth of 3,764.82' from Scientific Drilling's Gyro Survey

**Federal Lease #:** NM 99705

**DRILLING PROGRAM**

**Synopsis:** High Plains Operating Company, LLC plans to re-enter the Eagle Springs "8" Federal #2M well, drill out the plugs, deepen the well to a new total depth below GL of 5,900' and evaluate the Entrada for productive potential. Depending on structural position and log evaluation, the #2M well will be completed as either an Arena Blanca Entrada, Southeast Pool producing well or as a salt-water disposal well in the lowermost portion of the Entrada formation.

**1. FORMATION TOPS**

Actual geological formation tops penetrated in the original #2M well

<u>FORMATION NAME</u>	<u>MEASURED DEPTH</u>
Ojo Alamo Sandstone	Surface
Cliff House	852'
Menefee	1,425'
Point Lookout Sandstone	2,205'
Mancos	2,470'
Gallup Sandstone	3,270'

Estimated geological formation tops for the deepened #2M well below 3,800'

<u>FORMATION NAME</u>	<u>GL DEPTH</u>
Greenhorn	4,315'
Graneros	4,392'
Dakota Sandstone	4,569'
Morrison	4,763'
Todilto	5,505'
Entrada Sandstone	5,537'
Carmel	5,730'
Total Depth	5,900'

## 2. ZONES OF INTEREST

OIL & GAS ZONES	WATER ZONES	COAL ZONE
Gallup SS (3,300' MD)	Ojo Alamo (Surface)	Fruitland (100' MD)
Dakota Sandstone (4,619' GL)	Point Lookout (2,205' MD)	
Entrada Sandstone (5,537' GL)		

All fresh water zones have been protected behind 7" casing run by the previous operator to a measured depth of 3,850'.

## 3. PRESSURE CONTROL

The drilling contractor has not been selected as of this date, so the exact BOP configuration to be used is not yet known. A typical 2,000 psi stack (900 series) is shown on Exhibit A. A 900 series (2,000# WP) choke manifold system is shown in Exhibit B and will be installed and tested to 1,000psi before drilling out the last plug. Any leaks in the 7" casing left in the hole will be repaired and corrected before drill out occurs.

This BOP and choke manifold will remain in use until the well is plugged or production casing is run. A full opening safety valve shall be on the rig floor at all times in the open position. This valve will have a thread design to be compatible with the drill pipe and drill collars.

All BOP pressure and daily mechanical tests will be recorded in the driller's log. BOP's will be inspected and operated daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casings strings, which are set and cemented in place.

## 4. CASING AND CEMENT

Existing casing left in hole when well was plugged. See wellbore schematic in Exhibit C.

Hole Size	Csg O.D.	Weight/Ft.	Grade	Thread Type	Condition	Depth
12.25"	9 5/8"	36#	J-55	8rd STC	New	353'
8.75"	7"	23#	J-55	8rd STC	New	3,850'

If the well is to be either an Entrada producer or an Entrada SWD, a 4 1/2" liner will be run and tied into existing 7" casing using a 4 1/2" liner hanger with top-setting sleeve. Casing and cement details are as follows:

New production casing liner to be run.

Hole Size	Csg O.D.	Weight/Ft.	Grade	Thread Type	Condition	Depth
6 1/4"	4 1/2"	11.6#	J-55	8rd LTC	New	+/- 3,600' to TD (5,850')

The production casing liner will be cemented in one stage. The liner will be run as follows. First, a 4.5" guide shoe will be run, then a 4.5" shoe joint, followed by a float collar and casing to top of liner interval. Centralizers will be placed according to indicated pay zones. The liner will be cemented as follows: Pump 20 bbls fresh water pre-flush, followed by 120 sacks Type V cement with additives at 12.5 ppg and 2.06 cubic feet/sack followed by 80 sacks Type V pumped at 15.6 ppg and 1.18 cubic feet/sack. Actual cement volumes will be determined using the open hole log caliper plus 25% excess.

## 5. MUD PROGRAM

Depth	Type	Weight/PPG	Viscosity	Fluid Loss	pH
+/- 3,800' – 5,900'	Water based, low solids non- dispersed	7.7–8.4	30-40	<20 cc's	8.0–10

Sufficient material needed to maintain mud properties, control lost circulation, absorbent material and contain any unforeseen pressure control situations will be maintained at the well site during all drilling operations.

## 6. CORING, TESTING & LOGGING PROGRAM

No coring operations or drill stem tests are planned at this time. The logging suite will consist of a Triple-combo log; Gamma Ray-Formation Density Log-Compensated Neutron Log-Spontaneous Potential-Array Induction Log. Logs will be run over the open hole from +/- 3,800' to TD.

## 7. DOWNHOLE CONDITIONS

A research of wells drilled in the area shows no abnormally pressured zones or temperatures will be encountered. No hydrogen sulfide is present in any of the formations that will be penetrated. Maximum expected BHP is +/- 2,200 p.s.i. (from the Entrada DST in the Eagle Springs "8" Federal #1).

## 8. OTHER PERTINENT INFORMATION

Anticipated spud date will be upon approval of the APD by the BLM and rig availability. Approval is expected between February 15<sup>th</sup> and March 1<sup>st</sup>, 2007. Re-entry and deepening of the well is expected to take +/- 14 days. Completions operations as either an Entrada producer or SWD well will take +/- 10 days. Questions concerning down hole operations should be directed to the Albuquerque, NM BLM office at 505-761-8700.