

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

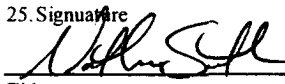
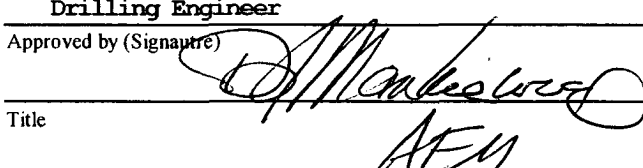
APPLICATION FOR PERMIT TO DRILL OR REENTER

| | | |
|---|--|---|
| 1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. USA SF-079090 |
| 1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone | | 6. Indian, Allottee or Tribe Name Navajo |
| 2. Name of Operator Energex Resources Corporation | | 7. Unit or CA Agreement Name and No. |
| 3a. Address 2198 Bloomfield Highway Farmington, New Mexico 87401 | 3b. Phone No. (include area code) (505) 325-6800 | 8. Lease Name and Well No. Navajo Lake #103 |
| 4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 780' fnl, 2600' fel (B) S24 T32N R6W At proposed prod. zone 2300' fnl, 1200' fwl (E) (S13) T32N R6W | | 9. API Well No. 30-039-29891 |
| 14. Distance in miles and direction from nearest town or post office* Approximately 4 miles south of Arboles, CO | | 10. Field and Pool, or Exploratory Basin Fruitland Coal |
| 15. Distance from proposed* location to nearest property or lease line, ft. 780' (Also to nearest drg. unit line, if any) | 16. No. of Acres in lease 1398.28 | 11. Sec., T., R., M., or Blk. and Survey or Area B S24, T32N, R6W |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 75' | 19. Proposed Depth 6497' (MD) | 12. County or Parish San Juan |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL 6652' | 22. Approximate date work will start* 8/15/06 | 13. State NM |
| 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:

- | | |
|---|--|
| 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  | Name (Printed/Typed) Nathan Smith | Date (Re-submit) 4/27/06 |
| Title Drilling Engineer | | |
| Approved by (Signature)  | Name (Printed/Typed) AFM | Date 9/14/06 |
| Title AFM | | |

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)

HOLD C104 FOR directional survey

✓

NMOCD
6

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

DISTRICT II
811 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

RECEIVED

OTO FARMINGTON NM

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | |
|-----------------------------|---|---------------------|------------------------------------|
| *API Number 30-039-29891 | | *Pool Code 71629 | *Pool Name BASIN FRUITLAND COAL |
| *Property Code 36016 | *Property Name NAVAJO LAKE | | *Well Number 103 |
| *GRID No. 162928 | *Operator Name ENERGEN RESOURCES CORPORATION | | *Elevation 6652' |

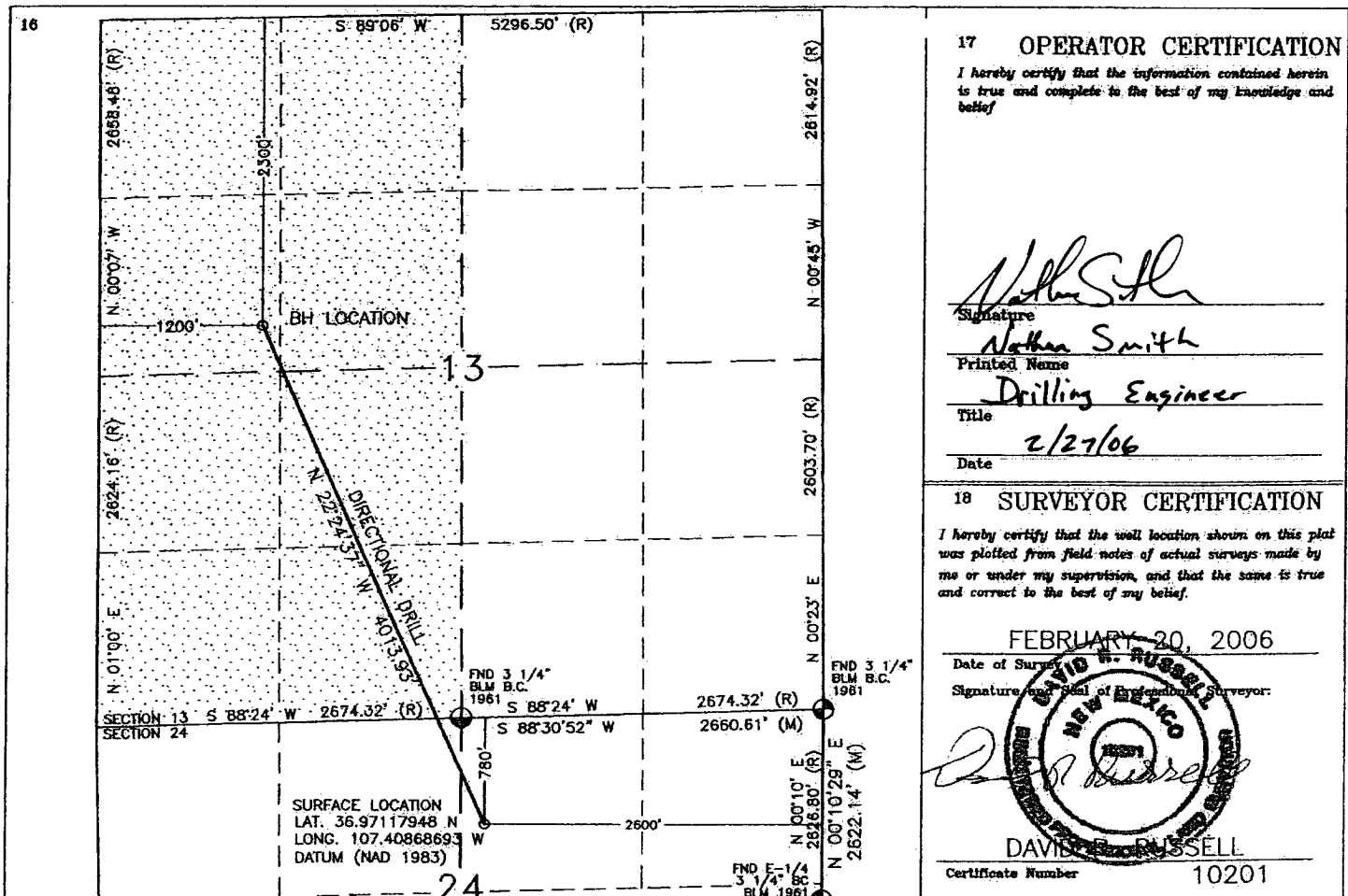
¹⁰ Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| B | 24 | 32N | 6W | | 780' | NORTH | 2600' | EAST | RIO ARRIBA |

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 |
|--|---------|----------|------------------|---------|---------------------|------------------|---------------|----------------|------------|
| E | 13 | 32N | 6W | | 2300' | NORTH | 1200' | WEST | RIO ARRIBA |
| *Dedicated Acres 321.61 Acres - (W/2) | | | *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



Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 87240
District II
1301 W. Grand Ave., 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

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-039-29891

5. Indicate Type of Lease
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.
USA SF-079090

7. Lease Name or Unit Agreement Name:
Navajo Lake

8. Well Number
103

9. OGRID Number
162928

10. Pool name or Wildcat
Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS

DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

Oil Well ☐ Gas Well ☒ Other

2. Name of Operator

Energen Resources Corporation

3. Address of Operator

2198 Bloomfield Highway Farmington, NM 87401

4. Well Location

Unit Letter B : 780 feet from the North line and 2600 feet from the East line

Section 24 Township 32N Range 6W NMPM County Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
6652' GL

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Drill Depth to Groundwater >100' Distance from nearest fresh water well >1000' Distance from nearest surface water 250'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

WELL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Build Drilling Pit ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

3. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Energen Resources plans to build a lined pit according to 'OCD Pit and Below Grade Tank Guidelines' as issued on November 1, 2004. Energen anticipates the submittal of a C-144 for closure of this pit in accordance with BLM and 'OCD Pit and Below Grade Tank Guidelines'.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ , a general permit ☐ or an (attached) alternative OCD-approved plan ☐

SIGNATURE Nathan Smith TITLE Drilling Engineer DATE 2/27/06

Type or print name Nathan Smith E-mail address: nsmith@energen.com Telephone No. 326.6800

For State Use Only DEPUTY OIL & GAS INSPECTOR, DIST. SEP 18 2006

APPROVED BY Nathan Smith TITLE _____ DATE _____

Conditions of Approval, if any:

ENERGEN RESOURCES CORPORATION

NAVAJO LAKE #103

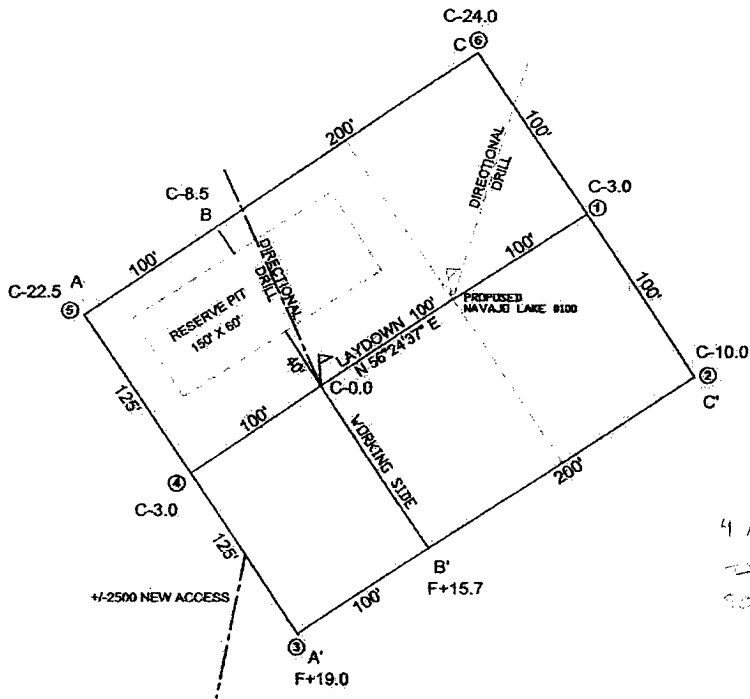
780' FNL & 2600' FEL

LOCATED IN THE NW/4 NE/4 OF SEC. 24,

T32N, R6W, N.M.P.M.,

RIO ARRIBA COUNTY, NEW MEXICO

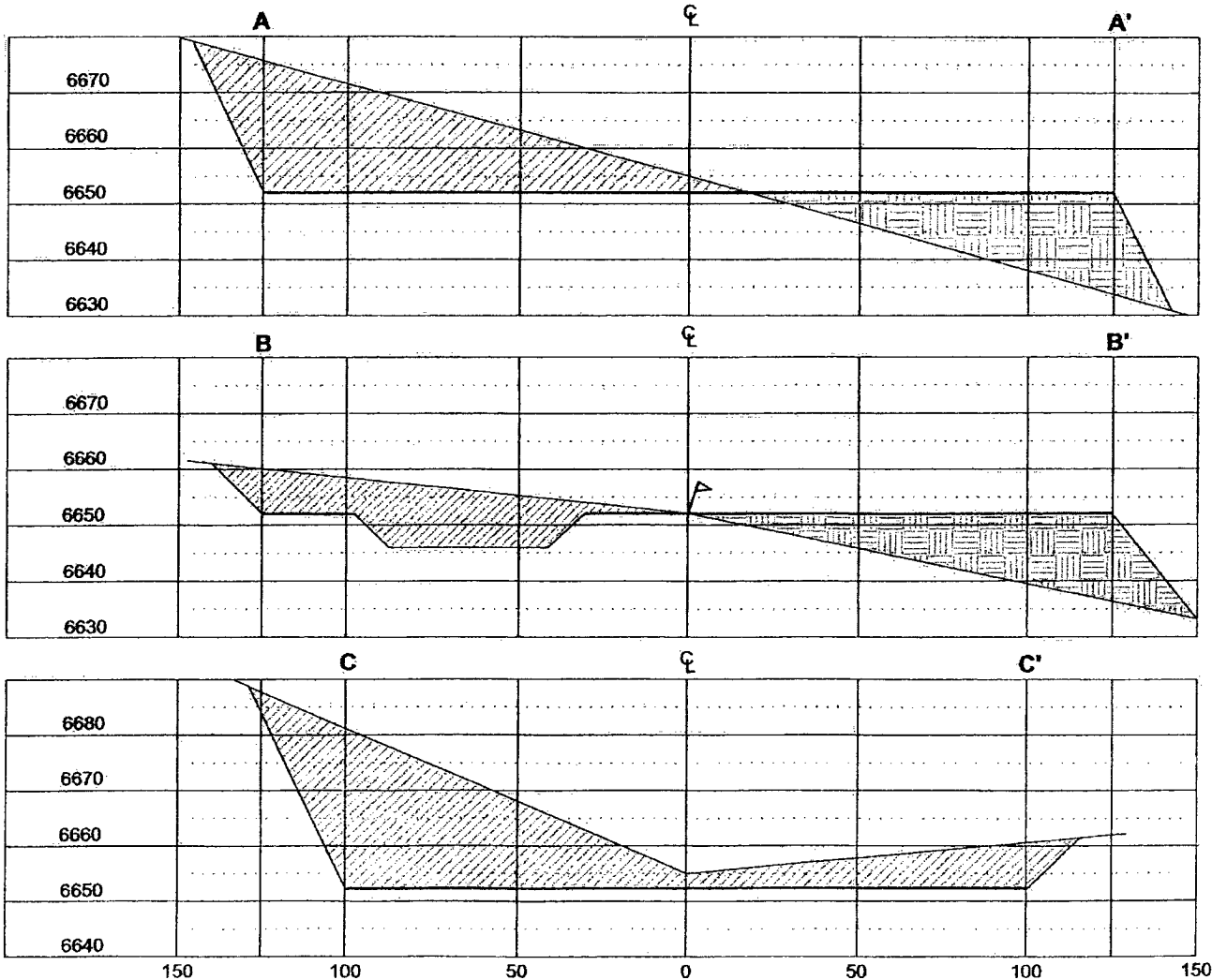
ELEVATION: 6652', NAVD 88



50' 0 50' 100'

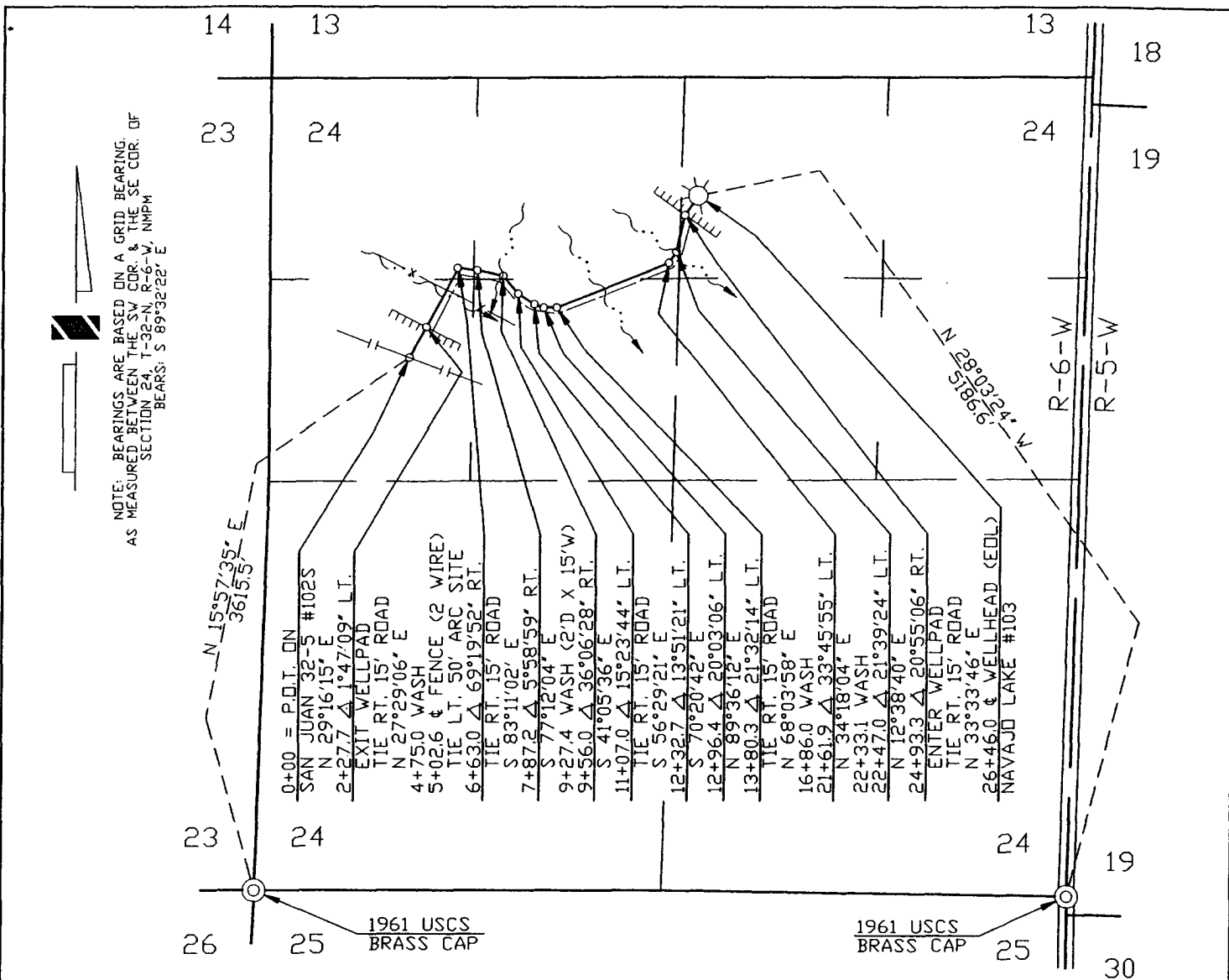
SCALE = 100'

LATITUDE: 36.97117948 N
LONGITUDE: 107.40868693 W
DATUM: NAD 83



HORIZ. SCALE: 1"=50'
VERT. SCALE: 1"=30'

Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410



| PIPE DATA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------|---------------------------|-----|-------------------|---|-------|-------------------------------|------------------|------|----------|-------------|---------|------|-------------|---------|------|------|-----|------|----|-------------|---------|------|------|---|----------|----|--|------------|--|--|--|--|--|--|--|--|--|--|---|---------|-----|--|-------------------|--|--|--|--|--|--|--|--|--|--|
| SUBDIVISION | | OWNER | | FEET | MILES | ACRES | RODS | APPLICATION DWG. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0+00 TO 26+46.0 | | BUREAU OF LAND MANAGEMENT | | 2646.0 | 0.501 | 2.430 | 160.364 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>REVISION</th> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> <th>W.D.NO.</th> <th>CHK.</th> <th>APP.</th> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> <th>W.D.NO.</th> <th>CHK.</th> <th>APP.</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>11/11/05</td> <td>PB</td> <td></td> <td>ADDED #103</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>6/02/05</td> <td>SRB</td> <td></td> <td>ISSUED FOR REVIEW</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | | | | | | REVISION | NO. | DATE | BY | DESCRIPTION | W.D.NO. | CHK. | APP. | NO. | DATE | BY | DESCRIPTION | W.D.NO. | CHK. | APP. | 2 | 11/11/05 | PB | | ADDED #103 | | | | | | | | | | | 1 | 6/02/05 | SRB | | ISSUED FOR REVIEW | | | | | | | | | | |
| REVISION | NO. | DATE | BY | DESCRIPTION | W.D.NO. | CHK. | APP. | NO. | DATE | BY | DESCRIPTION | W.D.NO. | CHK. | APP. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 11/11/05 | PB | | ADDED #103 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 6/02/05 | SRB | | ISSUED FOR REVIEW | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| INFO | | DRAFTING | BY | DATE | STATE: NEW MEXICO | | WILLIAMS FIELD SERVICES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| R/W #: | 06077 | DRAWN BY | SRB | 6/02/05 | COUNTY: RIO ARriba | | ONE OF THE WILLIAMS COMPANIES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| METER #: | | CHECKED BY | PB | 6/03/05 | SAN JUAN GATHERING SYSTEM ENERGEN - NAVAJO LAKE #103 0+00 = POT ON SAN JUAN 32-5 #102S (REF. DWG. 47A765.0-37-1) SEC. 24, T-32-N, R-6-W, NMPM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SURVEYED: | 5/27/05 | APPROVED BY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | ENGINEER | BY | DATE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | DESIGNED BY | | | SCALE: 1"=1000' | | DWG NO. 47A765.0-42-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | PROJ. APPROVED | | | W.D. NO. | | SHEET 1 OF 1 REV 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Operations Plan

Revised April 26, 2006

Navajo Lake #103

General Information

| | |
|---------------------|--|
| Location | 780' fnl, 2600' fel at surface 2300' fnl, 1200' fwl at bottom nwne S24, T32N, R05W at surface S13, T32N, R6W at bottom Rio Arriba County, New Mexico |
| Elevations | 6652' GL |
| Total Depth | 6497' +/- (MD); 3326' +/- (TVD) |
| Formation Objective | Basin Fruitland Coal |

Formation Tops

| | |
|----------------------|---|
| San Jose | Surface |
| Nacimiento | 1182' (TVD) |
| Ojo Alamo Ss | 2552' (TVD), 2650' (MD) |
| Kirtland Sh | 2662' (TVD), 2815' (MD) |
| Fruitland Fm | 3112' (TVD), 3725' (MD) |
| Top Coal | 3241' (TVD), 4024' (MD) |
| Target Coal Top (1) | 3241' (TVD), 4024' (MD) – milled window @ 3221' |
| Target Coal Base (1) | 3261' (TVD), 4040' (MD) |
| Target Coal Top (2) | 3321' (TVD), 4210' (MD) – milled window @ 3294' |
| Target Coal Base (2) | 3326' (TVD) |
| Bottom Coal | 3326' (TVD) |
| Pictured Cliffs Ss | 3326' (TVD) |
| Total Depth | 3326' (TVD), 6497'(MD) |

Drilling

The 12 1/4" wellbore will be drilled with a fresh water mud system.

The 8 3/4" wellbore will be drilled with a low solids fresh water/polymer mud system. Weighting materials will be drill cuttings and if needed barite. Mud density is expected to range from 8.3 ppg to 8.9 ppg. Kick off point is anticipated to be at 1586 ft (TVD). TD is at 3426' (TVD), 4446' (MD).

A whipstock will be set and windows milled 30' +/- above each coal seam. The upper lateral window will be from 3211'-3221' (TVD), and the lower lateral window will be from 3284'-3294' (TVD) as also indicated on the directional plans. Measured depths of window will be determined after the 8 3/4" wellbore is drilled and cased.

The 6 1/4" wellbore will be drilled with a fresh water system or CaCl₂ brine as wellbore and formation pressures dictate.

Blowout Control Specifications:

A 2000 psi minimum double ram or annulus BOP stack (figure 1) will be used following nipple up of casing head. A 2" nominal, 2000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations.

Logging Program

Open hole logs: Gamma Ray, MWD, and mud logs.

Surveys: Surface and every 500' for vertical/200' for deviated portions of wellbore to TD.

Tubulars

Casing, Tubing, & Casing Equipment:

| String | Interval | Wellbore | Casing | Csg Wt | Grade |
|--------------|-------------------|----------|--------|----------|---------------|
| Surface | 0'-200 | 12 1/4" | 9 5/8" | 32.3 ppf | H-40 STC |
| Intermediate | 200'-4446' (MD) | | | | |
| | 3426' (TVD) | 8 3/4" | 7" | 23.0 ppf | J-55 LTC & FJ |
| Production | 4150'-6497' (MD) | 6 1/4" | 4 1/2" | 11.6 ppf | J-55 LTC |
| | 3294'-3324' (TVD) | | | | |
| | 4000'-6480' (MD) | 6 1/4" | 4 1/2" | 11.6 ppf | J-55 LTC |
| | 3221'-3251' (TVD) | | | | |
| Tubing | 0'-3350' (TVD) | | 2 3/8" | 4.7 ppf | J-55 |
| | 4280' (MD) | | | | |

Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Texas Pattern Guide Shoe on bottom. Casing centralization with standard bow spring centralizers to achieve optimal standoff.

Intermediate Casing: Depending on wellbore conditions, a Cement nose guide shoe with self fill insert float collar on top of bottom joint and casing centralization with standard bow spring centralizers to optimize standoff. Two turbolating centralizers at the base of the Ojo Alamo are recommended.

Wellhead

11" 3000 x 9 5/8" casing head. 11" 3000 x 7 1/16" Christmas Tree..

Cementing

Surface Casing: 125 sks Std (class B) with 2.0 % CaCl₂ and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft³/sk 148 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

Intermediate Casing: Before cementing, circulate hole at least 1 1/2 hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 600 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl₂, 10 #/sk Gilsonite, and 1/2 #/sk Flocele (12.3 ppg, 1.96 ft³/sk) and a tail of 150 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and 1/4 #/sk Flocele (15.2ppg, 1.24 ft³/sk). (1356 ft³ of slurry, 100 % excess to circulate to surface).

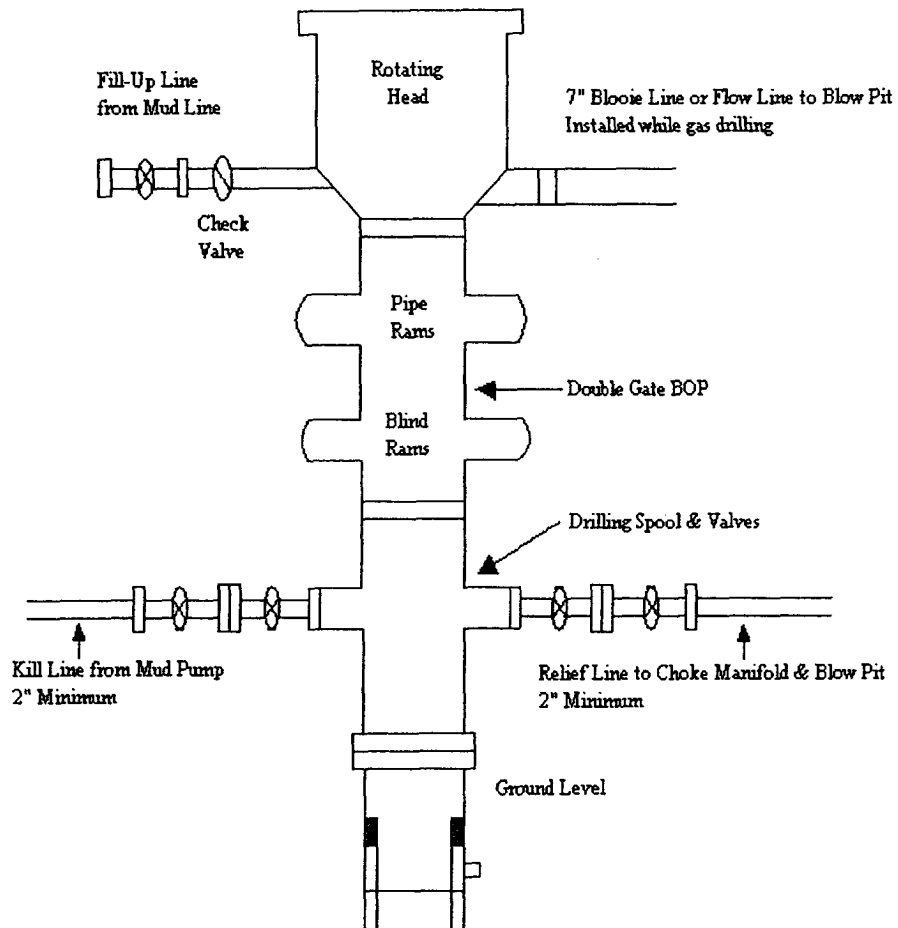
Production Liner – pre-drilled liner with open hole completion, NO CEMENT.

Other Information

- 1) This well will be an open hole completion with pre-drilled liners.
- 2) If lost circulation is encountered, LCM will be added to the mud system to maintain well control.
- 3) If high reservoir pressures or water flows are encountered slurry design may need to be deviated to from those listed above to satisfy wellbore and formation conditions.
- 4) No abnormal temperatures are expected. Expected BHP is 1200 psi.
- 5) This gas is dedicated.

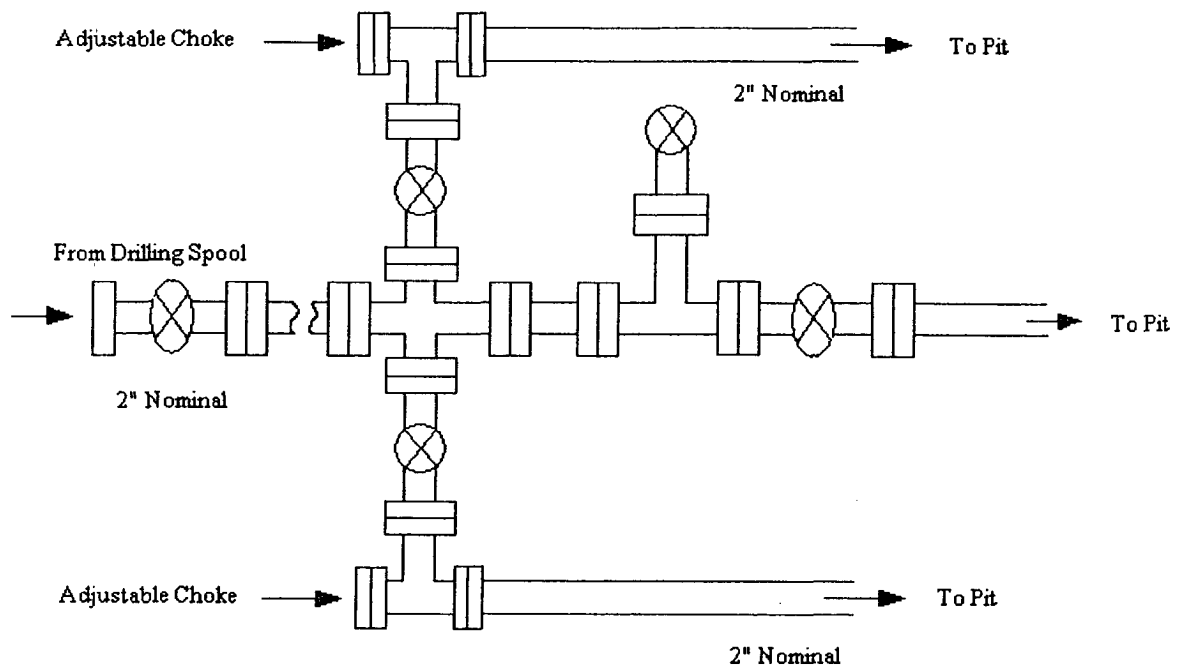
Energen Resources Corporation

Typical BOP Configuration for Gas Drilling



Energen Resources Corporation

Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD



Energen Resources Corporation

Rio Arriba, NM

Sec.24 T32N-R6W

NAVAJO LAKE No.103

Mother Bore

Plan: Plan #1

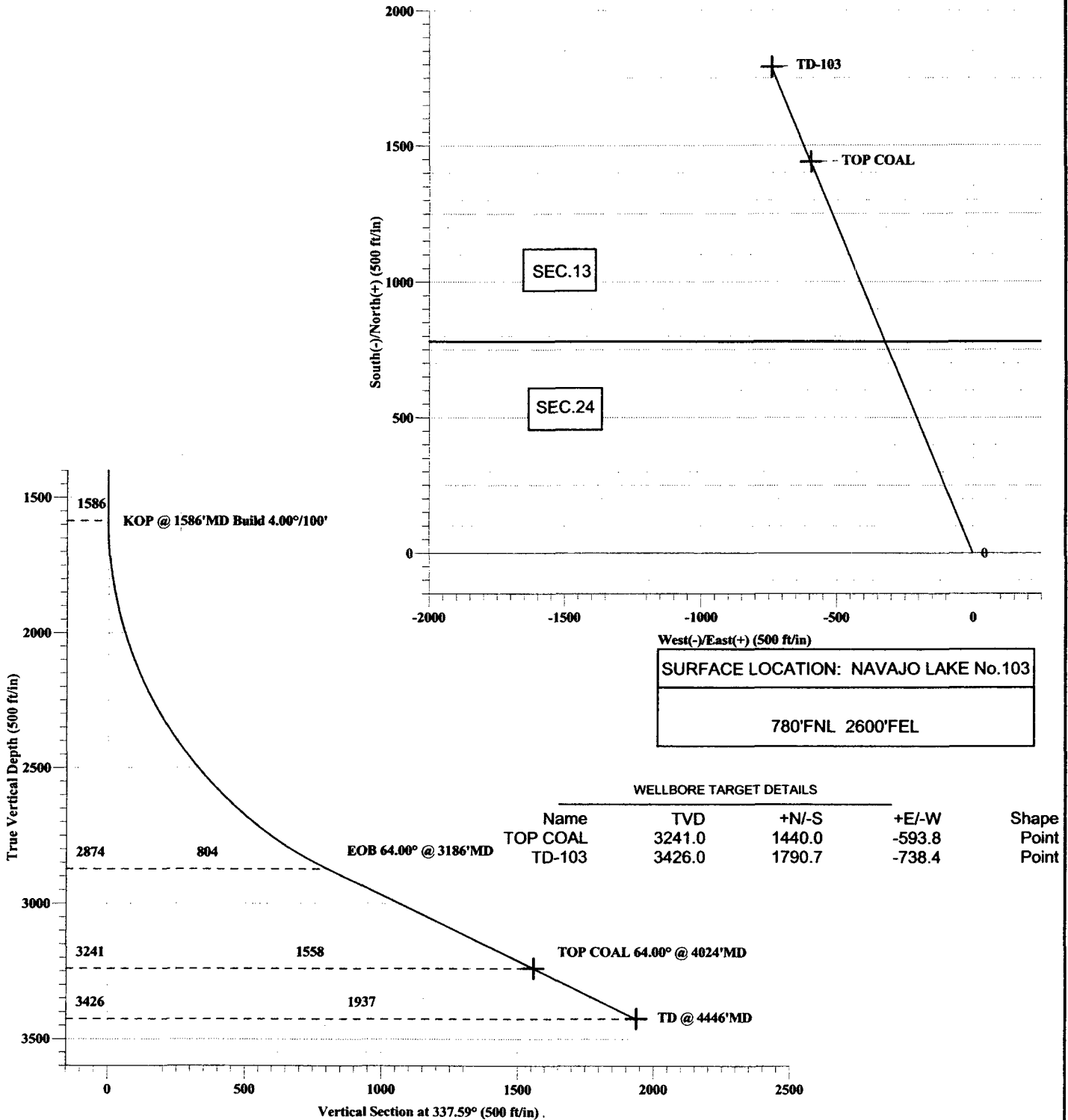
Standard Planning Report

24 February, 2006

Energen Resources Corp.

NAVAJO LAKE No.103
Sec.24 T32N-R6W
RIO ARRIBA Co., NM

PATHFINDER
ENERGY SERVICES

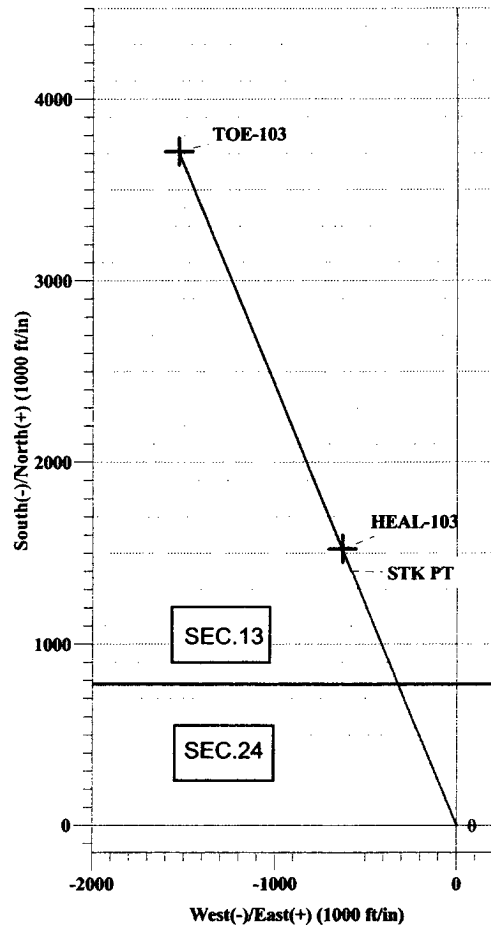


Plan: Plan #1 (NAVAJO LAKE No.103/Mother Bore)

Created By: Frank C. Scardino Date: 1/5/2006

Energen Resources Corp.

NAVAJO LAKE No.103
Sec.24 T32N-R6W
RIO ARRIBA Co., NM

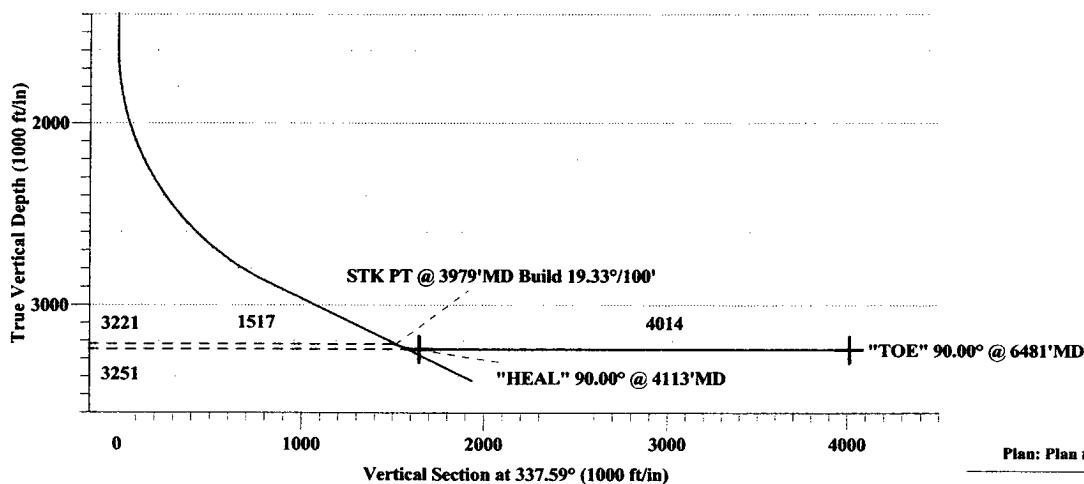


WELLBORE TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Shape |
|----------|--------|--------|---------|-------|
| HEAL-103 | 3251.0 | 1522.2 | -627.7 | Point |
| TOE-103 | 3251.0 | 3710.8 | -1530.2 | Point |

SURFACE LOCATION: NAVAJO LAKE No.103

780'FNL 2600'FEL



Plan: Plan #1 (NAVAJO LAKE No.103/Upper Lateral)

Created By: Frank C. Scardino Date: 1/5/2006