

Boid Energy, LP

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 DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL

GAS

SINGLE

MULTIPLE

WELL ☐WELL ☒

OTHER

ZONE ☒ZONE ☐

2. NAME OF OPERATOR

Boid Energy, LP

233545

3. ADDRESS AND TELEPHONE NO.

415 W. Wall, Suite 500, Midland, Texas 79701, (432) 686-1100

4. LOCATION OF WELL (REPORT LOCATION CLEARLY AND IN ACCORDANCE WITH ANY STATE REQUIREMENTS)

AT SURFACE

1980' FSL & 660' FWL

AT PROPOSED PROD. ZONE

SAME

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

10 MILES ESE OF LAKE ARTHUR, NM

15. DISTANCE FROM PROPOSED

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit line, if any)

660'

16. NO. OF ACRES IN LEASE

320

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320

18. DISTANCE FROM PROPOSED LOCATION

TO NEAREST WELL DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

9200'

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3,537'

APPROX. DATE WORK WILL START

10/15/05

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WT PER FT	SETTING DEPTH	QUANTITY OF CEMENT
30"	20" Conductor	N/A	40'	Cement to surface with Redi-Mix
17 1/2"	13 3/8" H-40	48	375'	425 sx - circulate to surface
11"	8 5/8" M-55	28	1800'	525 sx - circulate to surface
7 7/8"	5 1/2" K-55	17	8700'	625 sx - TOC estimated @ 3600'
4 3/4"	3 1/2" J-55	9.2	8600' - 9200' TD	Uncemented Slotted Liner

ALL CASING WILL BE NEW, OR USED MEETING BLM SPECS.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

PROPOSED MUD PROGRAM

0' - 375'	Freshwater mud	8.8 - 9.2 ppg	32 - 36 vis	No filtrate control
375' - 1800'	Freshwater - native mud	8.5 - 9.2 ppg	28 - 32 vis	No filtrate control
1800' - 8700'	Cut Brine w/ polymer	8.8 - 9.5 ppg	28 - 45 vis	No filtrate control until +/- 8000', WL >10 prior to penetrating objective zones
8700' - 9200'	Air / Foam	NA	NA	NA

MUD PROGRAM SUBJECT TO CHANGE DUE TO HOLE CONDITIONS

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE VP Land DATE 8/15/05

(THIS SPACE FOR FEDERAL OR STATE OFFICE USE)

PERMIT NO.

APPROVAL DATE

CONDITIONS OF APPROVAL IF ANY:

APPROVED BY

TITLE

DATE

Acting
Assistant Field Manager,
Lands And Minerals

SEP 07 2005

TITLE 18 U.S.C. SECTION 1001, MAKES IT A CRIME FOR ANY PERSONS 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

DISTRICT I

1625 N. FRANCH DR., BOBBS, 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 73080	Pool Name Buffalo Valley, Penn
Property Code	Property Name LAZARUS FEDERAL	Well Number 1
OGRID No.	Operator Name BOLD ENERGY, LP	Elevation 3537'

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	25	15-S	27-E		1980	SOUTH	660	WEST	CHAVES

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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>OPERATOR CERTIFICATION</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>[Signature]</i> Signature PEBBY KERR Printed Name VP Land Title 8/30/2005 Date</p>
	<p>SURVEYOR CERTIFICATION</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>JULY 18, 2005</p> <p>Date Surveyed Signature & Seal of Professional Surveyor GARY EIDSON NEW MEXICO 12641 05.11.1125 Certified No. GARY EIDSON 12641</p>

Application for Drilling
Bold Energy, LP
Lazarus Federal #1
Section 25, T15S, R27E
Chaves County, New Mexico

In conjunction with Form 3160-3, Application For Permit To Drill Or Deepen subject well, Bold Energy , LP submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No 10.

1. **Geologic Name of Surface Formation:** Permian

2. **Estimated Tops of Significant Geologic Markers:**

Queen	1001'	Cisco	7217'
San Andres	1728'	Canyon	7622'
Glorieta	3005'	Strawn	8177'
Tubb	4459'	Atoka	8580'
Abo	5249'	Chester	8872'
Wolfcamp	6440'	Total Depth	9200'

3. **Estimated Depths at which Water, Oil, or Gas Formations are expected:**

Water Approximately 200' to 400' for surface water

Oil: San Andres at approximately 1728 ft.

Gas: Atoka at approximately 8580 ft.

4. **Proposed Casing Program:**

See Form 3160-3

5. **Pressure Control Equipment:**

Equip shown on attached EXHIBIT "C" will be installed on the 13 3/8" casing. Casing and BOPE will be tested as per Onshore Oil & Gas Order No. 2 before drilling out the surface casing shoe. BOP rams will be function tested daily and blind rams after each trip out of hole. A 2" kill line and 2" choke manifold will be included as part of the system and one choke will be remotely controlled.

6. **Drilling Fluid Program:**

See Form 3160-3

7. **Auxiliary Equipment:**

H₂S Compliance Package.

8. **Testing, Logging, and Coring Program:**

Drill Stem Tests: One possible in each of the following:

Strawn	8177' - 8277'
Atoka	8580' - 8680'
Morrow	8810' - 8910'

Logging:	Gamma Ray	Surface to TD
	FDC/CNL	Int CSG to TD
	DIL Laterolog	Int CSG to TD

Coring: None

9. **Abnormal Conditions, Pressures, Temperature, or Potential Hazards:**

No abnormal conditions are anticipated in this wellbore. Should abnormal pressures be encountered, the mud program will be modified to control pressures and stabilize the wellbore. Sufficient mud materials to maintain mud properties, address potential lost circulation and increase mud weight will be kept on location or available at the nearest stocking point.

10. **Anticipated Starting Date & Duration of Operation:**

Road and location construction will not begin until approval of the APD has been received from the BLM. The anticipated spud date is October 15, 2005 but will be dependent upon availability of a suitable rig. Once commenced, the operations to 8700' requiring the drilling rig should be finished in approximately 25 days. Completion will consist of moving in a coiled tubing unit and/or well servicing unit to deepen the well from the expected rotary TD of 8700' to 9200'. Stimulation will be dependent on log evaluation but it is expected that the Morrow will require fracturing. The actual start date of completion operations will be dependent on the availability of equipment and may require in excess of two weeks.

Surface Use Plan

Bold Energy, LP

Lazarus Federal #1
1980' FSL and 660' FWL
Section 25 - T15S - R27E
Chaves County, New Mexico

1. Existing Roads:

EXHIBIT "A" is a portion of a New Mexico map showing the proposed location, which is approximately 10 miles ESE of Lake Arthur, NM. From Lake Arthur (1) take CR 507 for 4 1/2 miles east & south to its junction with a paved county road, (2) turn east onto paved road and go 7 miles to unpaved lease road, (3) continue on lease road 1 3/4 miles, (4) turn left (north) 3/4 mile and go to new access road to location.

2. Planned Access Roads:

Approximately 513' of new road will be built to access this location and construction shall comply with BLM requirements.

3. Location of Existing Wells:

See EXHIBIT "B".

4. Location of Tank Batteries, Electric Lines, Etc:

In the event a producing well is drilled, production facilities will be built on the location.

5. Location and Type of Water Supply:

Water will be obtained from commercial sources.

6. Source of Construction Material:

If possible, construction material will be obtained from the excavation of the drill site. If additional material is needed, it will be obtained from a local sources and transported over existing roads to the new access road and drill site.

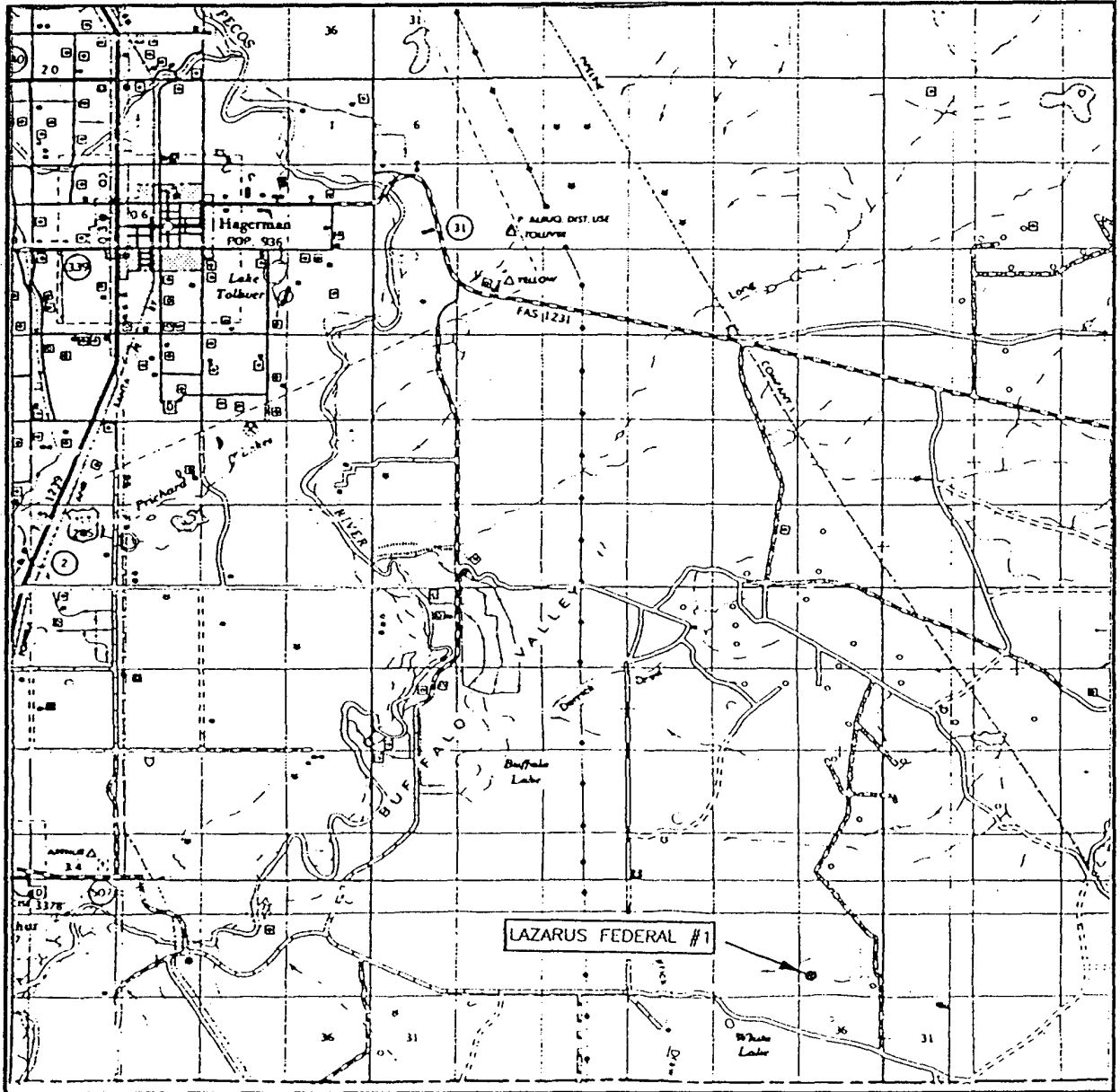
7. Methods of Handling Waste Disposal:

- A. Drill cuttings will be disposed of into the reserve pits.
- B. All trash, junk and other waste material will be contained in trash cages or bins to prevent its scattering. Upon completion of drilling operations, contents of the cages and/or bins will be disposed into an approved sanitary land fill.
- C. Mud materials remaining after completion of drilling operations will be removed by the supplier, including any broken sacks.
- D. Facilities for human waste will be maintained on-site and the waste will be disposed in the manner required by current laws and regulations.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until it is sufficiently dry to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time, the fluid will be hauled to a state approved disposal site and the pits broken out to reduce drying time. Water produced during the completion operations will be put into the reserve pits or collected into tanks and hauled to a state approved disposal site. Oil and/or condensate accumulated during completion testing will be placed into storage tanks and sold.

8. Ancillary Facilities:

No additional facilities are anticipated.

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 25 TWP. 15-S RGE. 27-E

SURVEY N.M.P.M.

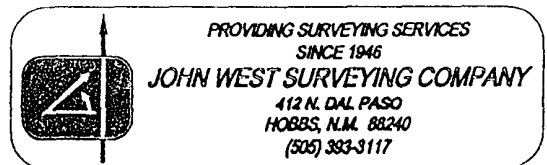
COUNTY CHAVES

DESCRIPTION 1980' FSL & 660' FWL

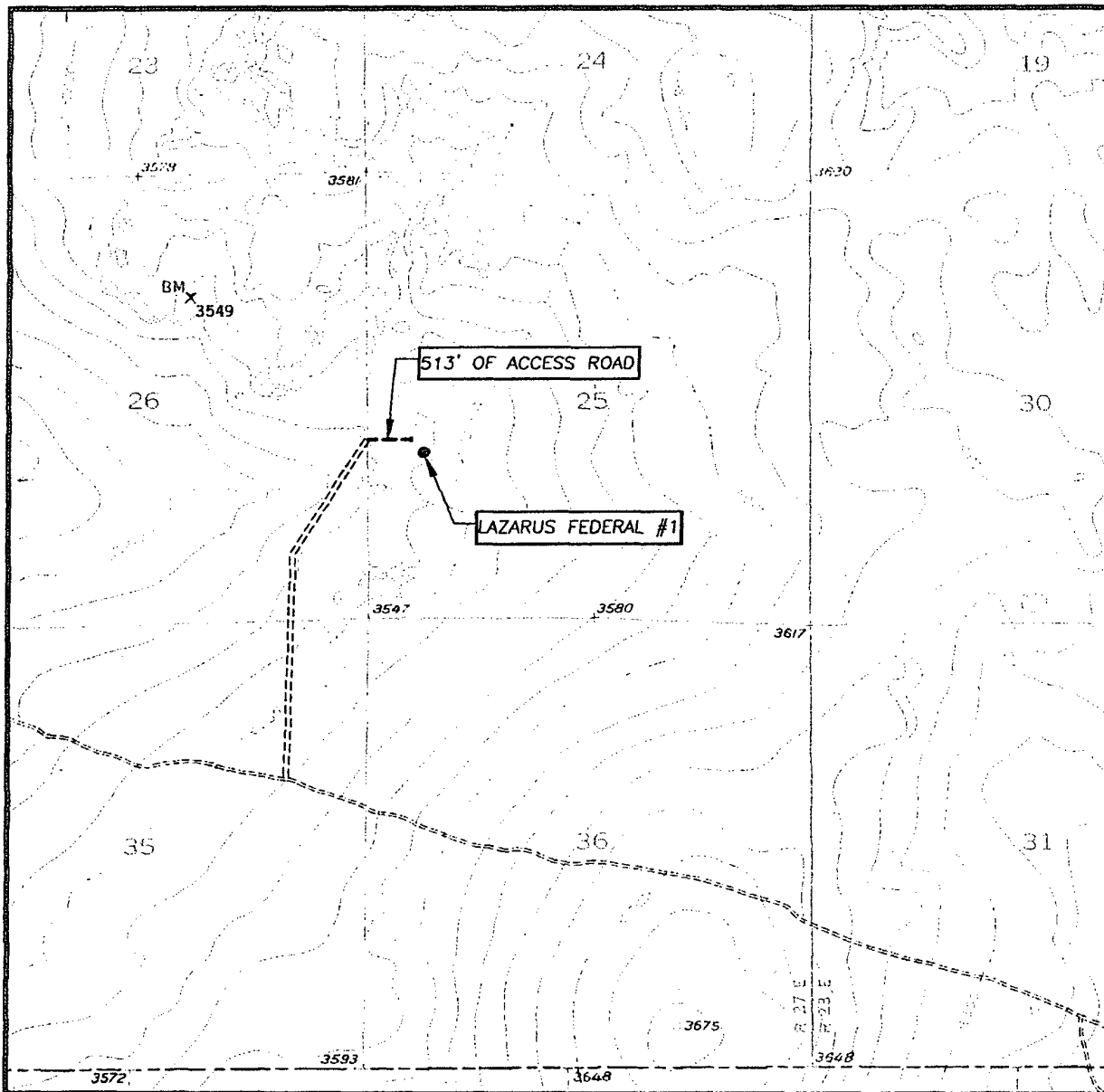
ELEVATION 3537'

OPERATOR BOLD ENERGY, LP

LEASE LAZARUS FEDERAL



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
DIAMOND MOUND, N.M. - 10'

SEC. 25 TWP. 15-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY CHAVES

DESCRIPTION 1980' FSL & 660' FWL

ELEVATION 3537'

OPERATOR BOLD ENERGY, LP

LEASE LAZARUS FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
DIAMOND MOUND, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBES, N.M. 88240
(505) 383-3117

EXHIBIT "C"

BOP EQUIPMENT

Bold Energy, LP
Lazarus Federal #1
1980' FSL & 660' FWL
Section 25 - T15S - R27E
Chaves County, New Mexico

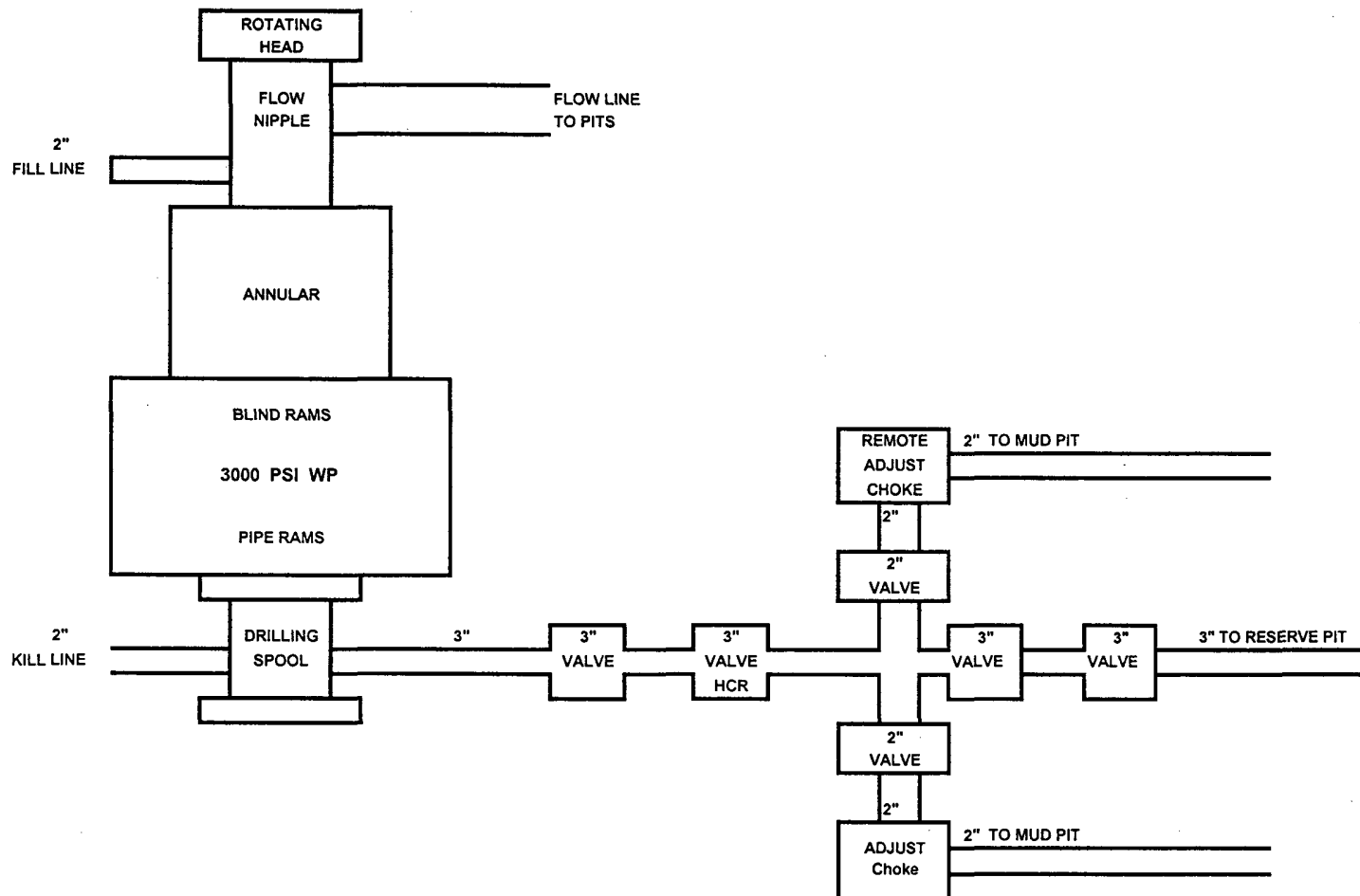
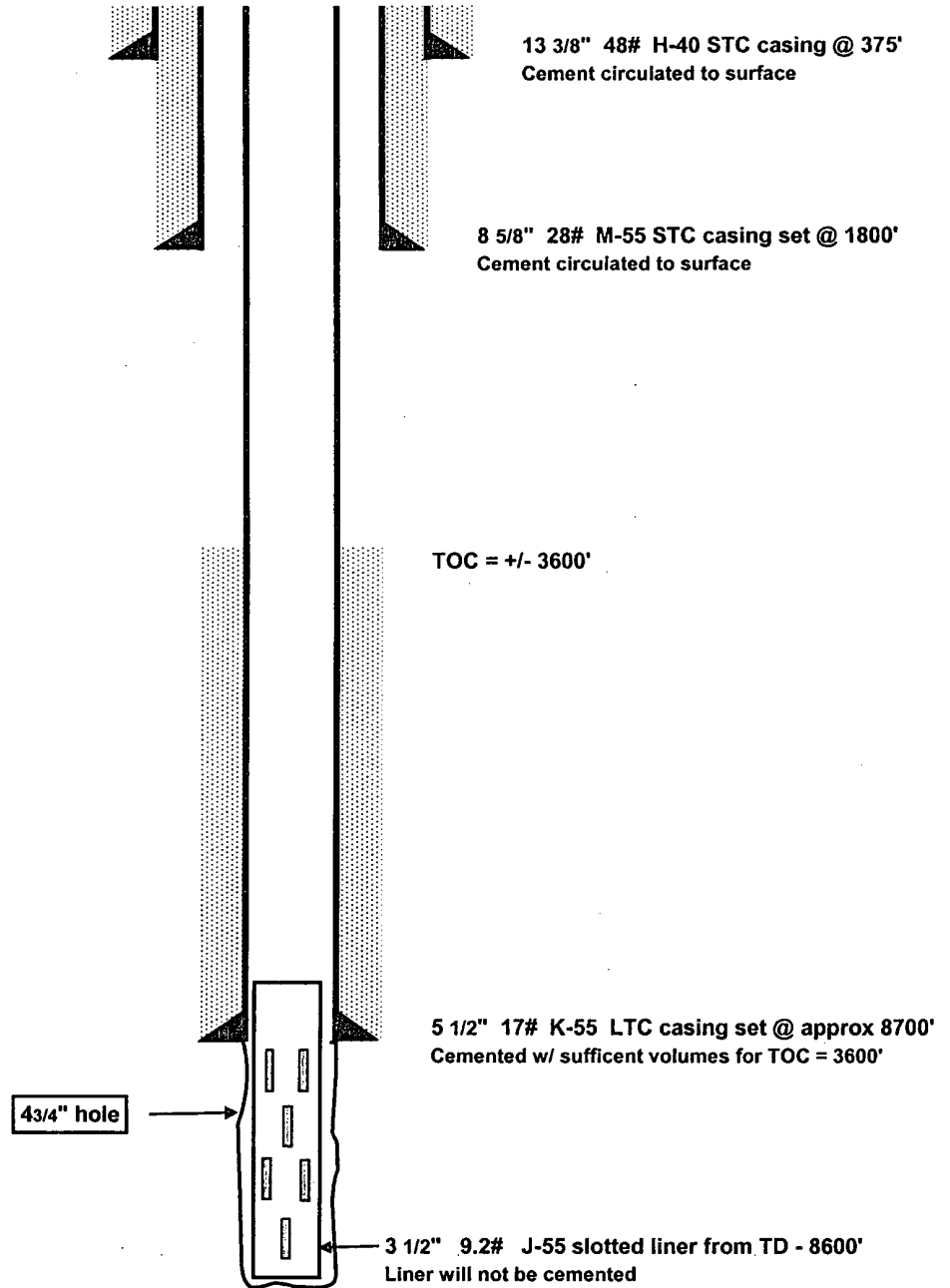


EXHIBIT "E"

Wellbore Plan

Bold Energy, LP
Lazarus Federal #1
1980' FSL & 660' FWL
Section 25 - T15S - R27E
Chaves County, New Mexico



8/3/05

EXHIBIT "F"

Bold Energy, LP
Lazarus Federal #1
1980' FSL & 660' FWL
Section 25 - T15S - R27E
Chaves County, New Mexico

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

I Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis will show proof of training from a qualified instructor in the following areas before commencing any work on the above named well.

1. The hazards and characteristics of hydrogen sulfide (H_2S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H_2S detectors, alarms, warning signs, briefing areas, and evacuation procedures.
4. The proper technique for first aid and rescues.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H_2S on metal components. If high tensile tubulars are used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H_2S Drilling Operations Plan.

The well site is not within 3000' of any public roadway or dwelling; therefore an H_2S Contingency Plan is not necessary.

There will be an initial safety meeting just prior to commencing operations on the well, which shall include a review of the site-specific H_2S Drilling Operations Plan. This plan will be available at the well site. All personnel will be required to carry documentation that they have received the proper H_2S training.

II H_2S Safety Equipment and Systems

All H_2S safety equipment and systems will be installed upon setting 8 5/8" casing at 1800'.

1. Well Control Equipment

- A. Choke manifold with a minimum of two adjustable chokes, one remotely operated.
- B. Blind and pipe rams to accommodate all pipe in use.
- C. Auxiliary equipment to include annular preventer and rotating head.

2. Protective Equipment for Essential Personnel

- A. Four - 5 minute escape units in top dog house.
- B. One - 30 minute SCBA at each briefing area.

II H₂ S Safety Equipment and Systems - cont'd

3. H₂S Detection and Monitoring Equipment

- A. Three-channel monitor located on floor, with detectors located on floor, on flow nipple and on flow line on mud pit.**
- B. The mud logging unit shall have H₂S monitoring equipment.**

4. Visual Warning Systems

- A. Windsock located on floor and mud pits.**
- B. Briefing area signs located on NE & SW corners of pad.**
- C. H₂S Condition sign located at entrance to location.**

5. Mud Program

The mud program has been designed to minimize the volume of possible H₂S circulated to surface. Proper weight, safe drilling practices, and the use of H₂S scavengers will minimize hazards when penetrating possible H₂S bearing zones.

6. Metallurgy

All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifolds, and associated lines and valves shall be suitable for an H₂S environment.

7. Communications

Drilling rig and company vehicles will be equipped with two way radios or cellular telephones.

8. Well Testing

At least One Drill Stem Test is planned for this well.

EXHIBIT "G"

**Bold Energy, LP
Lazarus Federal #1
1980' FSL & 660' FWL
Section 25 - T15S - R27E
Chaves County, New Mexico**

Temporary Condition of Approval:

Drilling Fluids, Casing and Cementing Requirements for Most of Chaves County:

Casing and Cementing

Surface casing is to be set at a sufficient depth to protect useable water zones and cement circulated to surface. In areas where the salt section (Salado) is present, surface casing should be set at least 25 feet into the top of the Rustler Anhydrite and cement circulated to the surface.

As an alternative, surface casing may be set through the Santa Rosa Formation or other potable water bearing zones and circulate cement to surface. For wells requiring an intermediate casing string, such string shall be cemented to the ground surface. In the case where intermediate casing is not required the operator shall case and cement the production hole to the ground surface.

While drilling from the surface casing to the Rustler formation it is recommended that operators periodically sweep the hole with viscous low water loss pills to help build a filter cake across useable water zones in the redbeds.

Drilling Fluid

Fresh water or fresh water spud mud shall be used to drill to surface casing depth. If surface casing is set at a lesser depth than the top of the Rustler formation, fresh water spud mud may be used to drill down to the first salt in the Rustler formation, after which brine or fresh water may be used.

Non-toxic or biodegradable water based polymers, drilling paper, starch and gels may be used in the mud system in order to retard seepage into the redbeds.

Two to five percent diesel or crude oil may be used in the redbed section in order to control heaving shales and mudstones.

Caustics and Lime shall not be used in the red beds but may be added when the Rustler formation is reached. However, sodium carbonate maybe used for alkalinity or ph control while drilling the redbeds above the Rustler formation.

Additionally, questions of whether an additive may be used should be referred to the Roswell Field office.

EXHIBIT A

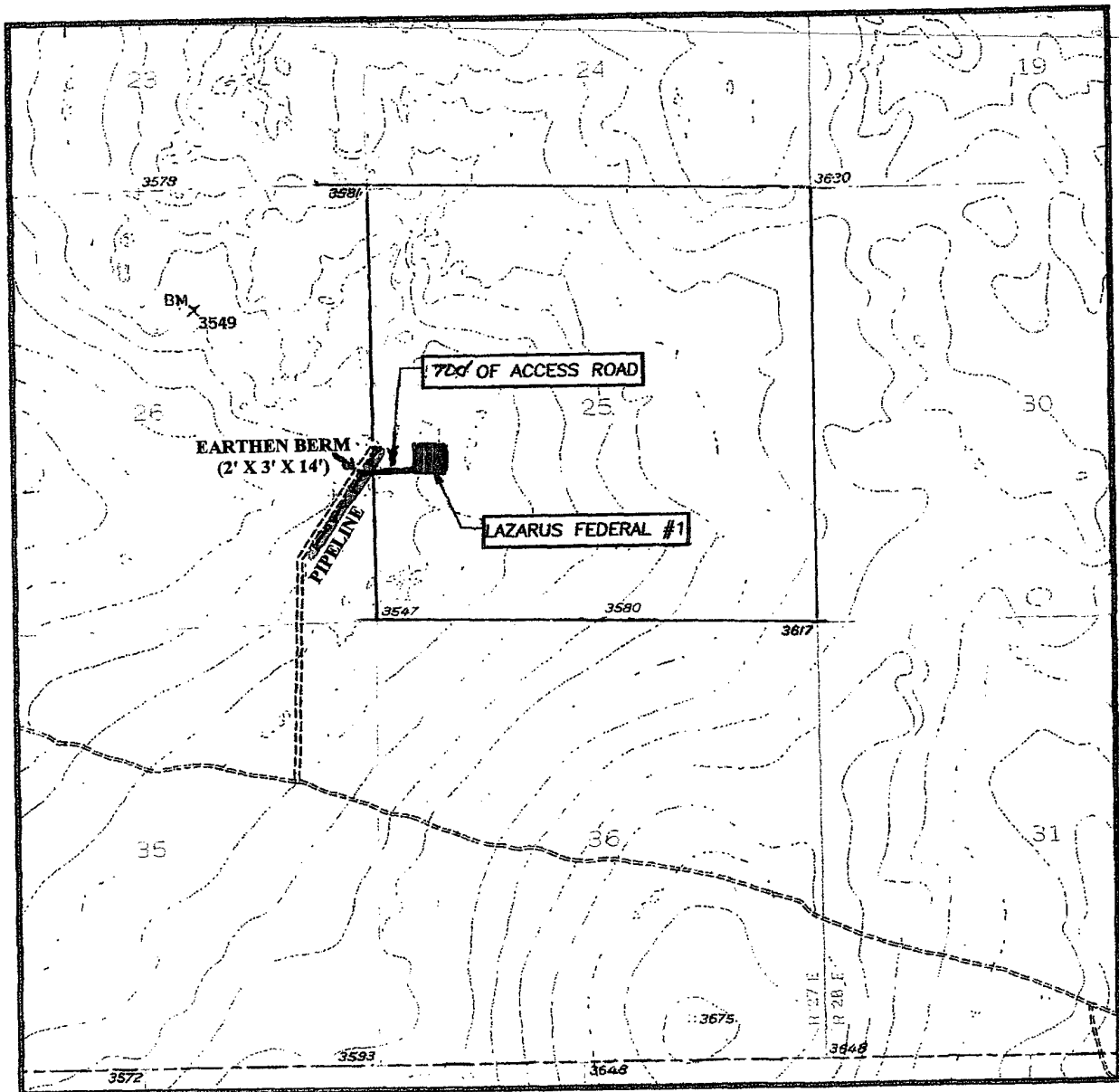
OPERATORS NAME: Bold Energy, LP LEASE NO.: NM-0115465-A

WELL NAME & NO: Lazarus Federal #1

QUARTER/QUARTER & FOOTAGE: NW¼SW¼ - 1980' FSL & 660' FWL

LOCATION: Section 25, T. 15 S., R. 27 E., NMPM

COUNTY: Chaves County, New Mexico



WELL DRILLING REQUIREMENTS

3 of 6 pages

III. DRILLING OPERATION REQUIREMENTS:

A. GENERAL DRILLING REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272, in sufficient time for a representative to witness:
 - A. Spudding
 - B. Cementing casing: 13 $\frac{3}{8}$ inch, 8 $\frac{5}{8}$ inch, 5 $\frac{1}{2}$ inch and 3 $\frac{1}{2}$ inch uncemented slotted liner
 - C. BOP tests
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. ~~Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered.~~ The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

B. CASING:

1. The 13 $\frac{3}{8}$ inch surface casing shall be set at 375' and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
2. The minimum required fill of cement behind the 8 $\frac{5}{8}$ inch intermediate casing is with sufficient amount of cement circulate to surface.
3. The minimum required fill of cement behind the 5 $\frac{1}{2}$ inch production casing is cement shall extend upward a minimum of 500 feet above the uppermost perforation.

C. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13 $\frac{3}{8}$ inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.
3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
 - A. The results of the test shall be reported to the appropriate BLM office.
 - B. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
 - C. Testing must be done in a safe workman-like manner. Hard line connections shall be required.
 - D. BOPE shall be tested before drilling into the Wolfcamp formation.

D. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- A. Recording pit level indicator to indicate volume gains and losses.
- B. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- C. Flow-sensor on the flow-line to warn of abnormal mud returns from the well.