

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 OF FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No. LC065478B

6. If Indian, Allottee or tribe Name

7. If Unit or CA Agreement, Name and No

8. Lease Name and Well No. **34920**
HORSETAIL 9 FEDERAL #1

9. API Well No.
30-015-34171

10. Field and Pool, or Exploratory
MORROW 85000

11. Sec., T., R., M., or Blk. and survey or Area
SECTION 9-T18S-R27E

12. County or Parish
EDDY

13. State
NEW MEXICO

17. Spacing Unit dedicated to this well
320.00

20. BLM/BIA Bond No. on file
WY2924

23. Estimated duration
45 DAYS

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well Gas ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator
BP AMERICA PRODUCTION COMPANY **778 Scagging Draw**

3a. Address
P.O. BOX 3092, RM 6.115
HOUSTON, TX 77253

3b. Phone No. (include area code)
281-366-2052

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface **1261' FSL & 1144' FEL**

At proposed prod. Zone **SAME AS ABOVE**

14. Distance in miles and direction from nearest town or post office*
APPROX. 9 MILES SOUTHEAST OF ARTESIA, NM

15. Distance from proposed*
Location to nearest
Property or lease line, ft.
(Also to nearest drig. Ujnit line, if any) **1144'**

16. No. of Acres in lease
320.00

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

19. Proposed Depth
10,000'

21. Elevations (show whether DF, KDB., RT, GL, etc.)
3505' GL

22. Approximate date work will start*
07/01/05

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 **Sue Sellers** Name (Printed/typed) **SUE SELLERS** Date **05/18/05**

Title
RREGULATORY STAFF ASSISTANT

Approved by (Signature) **/s/ Joe G. Lara** Name (Printed/Typed) **/s/ Joe G. Lara** Date **JUN 2 1 2005**

Title **FIELD MANAGER** Office **CARLSBAD FIELD OFFICE**

Application approval does not warrant or certify 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 reverse)

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

Witness Surface Casing

Reswell Controlled Water Basin

29.5

Over DD, Artesia, NM 88211-0719

 DISTRICT III
 1000 Rio Brazos Rd., Aztec, NM 87410

 OIL CONSERVATION DIVISION
 2040 South Pacheco
 Santa Fe, NM 87505

 DISTRICT IV
 2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

Scaggins Draw, Marrow

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name	Well Number
OGRID No.	Operator Name	Elevation
778	BP AMERICA PRODUCTION COMPANY	3505'
HORSETAIL FEDERAL 9		
EMPIRE, MINNOW CREEK		

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	9	18 S	27 E		1261	SOUTH	1144	EAST	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
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
32c									

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

				320 AC.	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <u>Sue Sellers</u> Signature <u>Sue Sellers</u> Printed Name <u>Regulatory Assistant</u> Title <u>May 16, 2005</u> Date
				Plane Coordinate X = 516,960.6 Y = 639,639.6	SURVEYOR CERTIFICATION 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 upervison and that the same is true and orrect to the best of my belief. <u>May 12, 2005</u> Date Surveyed Signature & Seal of Professional Surveyor <u>W.O. Num 2005-0415</u> Certificate No. MACON McDONALD 12185
NOTE: 1) Plane Coordinates shown hereon are Transverse Mercator Grid and Cnform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.					

**Attachment to BLM Form 3160-1:
Proposed Drilling Plan**

Well Name:	Horsetail 9 Federal #1
Surface / Bottom Hole Location	Section: 9, Township: 18S, Range: 27E 1261' FSL and 1144' FEL
County, State	Eddy County, New Mexico
NM State Plane East Coordinates	X: 516,960.6 Y: 639,639.6
Ground Elevation	3505'
Latitude / Longitude (NAD 27)	32°45'30.42" N / 104°16'41.38"
Proposed Depth:	10,000' MD / TVD (Vertical Well)

1. Surface Geological Formation:

Yates Formation (Sand and Anhydrite)

2. Estimated Tops of Geological Markers:

Formation	Estimated Top (MD/ TVD)
Salt	500' – 600'
San Andres	1,630'
Glorietta	3,200'
Abo	4,900'
Wolfcamp	6,450'
Strawn	8,780'
Atoka	9,255'
Morrow	9,560'
Lower Morrow	9,680'
Mississippian Lime, TD	9,900'

3. Estimated Tops of Possible Water, Oil, Gas or Mineral:

Formation	Estimated Top (MD/ TVD)	Hydrocarbon
Abo	4,900'	Oil
Wolfcamp	6,450'	Oil
Atoka	9,255	GAS
Morrow	9,560	GAS
Lower Morrow	9,680'	GAS
Mississippian Lime, TD	9,900	

4. Pressure Control Equipment:

Interval, (MD/TVD)	Pressure Control Equipment
0' – 400'	No Pressure Control Required
400' – TD (10,000' MD/TVD)	5M psi double ram preventer and 5M psi annular preventer

5. Proposed Casing and Cementing Program:

Casing	Hole Size	Interval MD	Casing Size	Weight / Grade	Cement Sx / type
WITNESS Surface	17 1/2"	0 – 400'	13 3/8"	48 # / J-55	500 sx – class "C"
Intermediate	12 1/4"	400' – 3,000'	8 5/8"	32# / J-55	700 sx (lead 11.9 ppg) / 300 sx (tail 14.8 ppg)
Production	7 7/8"	3,000' – 10,000'	5 1/2"	17# / P-110	900 sx : class H – Poz mix

Note: All casing will be run back to surface. Actual volume of cement for the Production Interval will be based on the caliper log.

6. Mud Program:

Depth	Mud Type	Weight	Funnel Vis.	Water Loss
0' – 400'	Spud Mud	8.4 – 8.9	29 - 34	NC
400' – 3000'	Brine	10.0	28 - 30	NC
3000' - 9600'	Fresh Water	8.3 – 8.4	28 - 29	NC
9600' – 10000'	Cut Brine	10.0	34 - 44	8 – 10 cc

7. Auxiliary Equipment:

Upper Kelly Cock, Lower Kelly Cock, and Full Opening Stabbing Valve

8. Evaluation: Testing, Coring and Logging Program:

Evaluation Program		Interval
Open Hole Logs	GR, Density Neutron, Laterolog	3000' to TD (10,000')
Mud Log	10' dry samples	4000' to TD (10,000')
Samples	Possible Sidewall Samples	Morrow Formation (9,500')
Cased Hole Logs	Possible Temperature log and or CBL	As needed at casing points.
DST	None Planned	
Conventional Cores	None Planned	

9. Anticipated Abnormal Temperature, Pressure, or Hazards:

All zones are expected to be normal pressured. No anticipated abnormal hazards were found when reviewing the offset well records.

10. Anticipated Starting Date and Duration of Operations:

The Notice to Stake was filed for the surface location (4/25/05) and surveyed on 5/10/05. Pending permit approval, construction work on this location would begin in late June of 2005. With a planned spud date in early July 2005.

**Attachment to BLM Form 3160-1:
Proposed Surface Use Plan**

Well Name:	Horsetail 9 Federal #1
Surface / Bottom Hole Location	Section: 9, Township: 18S, Range: 27E 1261' FSL and 1144' FEL
	Eddy County, New Mexico
NM State Plane East Coordinates	X: 516,960.6 Y: 639,639.6
Ground Elevation	3505'
Proposed Depth:	10,000' MD / TVD (Vertical Well)

1. Directions to locations from Existing Roads:

From the intersection of US HWY 82 and County Road 201 about 5 miles east of Artesia, NM go south on said County Road 201 (4.5 miles) to County Road 227, then go east on said County Road 227 (1.4 miles) to a 15' wide caliche road running south, then go south on said caliche road (1.1 miles) to point where road turns to the west, continue west for approximately (0.4 miles) to a point on south edge of existing well pad, said point being approximately 600 feet northwest of proposed location.

2. Planned Access Roads:

Use existing roads and a plan to build access road to pad (shown on plat). Proposed access lease road (388') S 86°09'24" to the proposed southwest well pad corner for the proposed location .

3. Location of Existing Wells:

The existing wells within a 600' rectangle of this location are shown on the attached Survey Plat. No wells are shown. The attached vicinity map shows the existing wells in a 5 mile area.

4. Location of Existing or Proposed Facilities:

- Existing Facilities: No facilities currently exist for this well.
- New Facilities Proposed: If a successful Morrow producer is completed, surface facilities will consist of a Stack Pack, collection tanks for oil and water and possible wellhead compression. The location site for the proposed surface facilities will be on the existing well location.

5. Location and Type of Water Supply:

Fresh and water used in drilling and completion operations will be purchased from the Double Eagle water line. Or brine and freshwater will be trucked in trucked in.

6. Source of Construction Materials:

Caliche for the well pad construction will be from the designated Caliche pit by the State of New Mexico. If possible the Caliche from digging the reserve pit will be used to build part of the location. This Caliche will be used for the 800' of proposed new road. The existing roads will be repaired.

7. Methods of Handling Waste Disposal:

- Drill cuttings will be deep buried on location in the proposed reserve pit. The cuttings will be buried 3' or deeper and covered with a 40 mil liner, extending 3' from the edge of the pit (skirted all around pit).
- Trash, waste paper, garbage and junk will be contained in a fenced trash trailer to prevent scattering by the wind and hauled to a municipal sanitary landfill.
- The Mud supplier will pick up all sacked drilling mud. The empty sacks will be hauled off in the above mentioned trash trailer.
- The drilling contractor will haul away any chemicals that they use while drilling.
- Toilet facilities will be provided for human waste. Sewage disposal facilities will be in accordance with State and Local Regulations.
- Drilling fluids will be handled as follows: The free water will be either hauled to the reserve pit of the next drilling well for re-use or hauled to a permitted SWD. Any liquid mud that is hauled away it will be disposed of at an approved mud disposal site.
- Any fluids produced during swab testing the well while the pulling unit is on location will be collected in a test tank. Produced water will be hauled to a permitted SWD. Oil produced will remain in the test tank until sold and hauled from the site.

8. Auxiliary Facilities:

No new facilities will be built during the drilling of this well. A trailer will be used as an office and temporary living quarters for well site supervision.

9. Well site Layout:

- The attached survey plat shows the proposed well site layout and dimensions.
- Major rig components and reserve pits are not shown. The reserved pits are planned on the North side of location. The V-door on the east side of location. The access road on the SW (shown on plat).
- The reserve pits will be $\pm 10'$ deep by 150' North and 100' Wide.
- The reserve pits will be lined with 12 mil web liner.
- Runway for the flare line and burn pit will be located on the North East of the location.
- Living Quarters on the South side of the location.

10. Plans for Reclamation of the Surface:

- In a timely manner, after finishing the drilling and / or completion operations all equipment and other material not needed for production operations will be removed. The location will be cleared of all trash and debris. The cellar will be covered with a grating catwalk.
- Upon abandonment of the well, surface restoration will be in accordance with the surface owner requirements and will be accomplished as expediently as possible.

11. Surface Ownership:

The surface owner for the well site location is Bureau of Land Management, 620 E. Greene St., Carlsbad, NM 88221.

12. Additional Information:

- Topography: Gently rolling grassland with cap rock mesa formations.
- Vegetation includes Honey mesquite, creosote, broom snakeweed, various cacti, sand sage, various yucca and mixed grasses.
- Soils are of the Reeves-Gypsum land-Cottonwood association as defined by the Soil Conservation Service of the U.S. Department of Agriculture.

- Primary use of the land is livestock grazing and accessing producing wells.
- There are no dwellings in the vicinity.
- A BLM inspector will be scheduled to meet us on location: 5/13/05.
- An Archeological Site Survey will be scheduled and planned for 5/13/05. A BP company representative will be present and the land surveyor's present.
- The selected dirt contractor will be furnished with an approved copy of the Surface Use Plan and any additional stipulations prior to beginning any work.

13. Operator's Representatives:

Joey Roth

BP America Production Company

Senior Drilling Engineer
Permian / Onshore U.S. Business Unit
501 Westlake Park Blvd
P.O.Box 3092 Houston, Texas 77253-3092

Work	281 - 366 - 1202
Cell	713 - 203 - 7428
Pager	888 - 903 - 7347

I hereby certify that I, or person 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.



Joey Roth

5/18/05
Date

Drilling Procedure Summary

1. Mobilize Nabors 399 to location. Rig up.
2. Drill 17 1/2" Surface hole to $\pm 400'$ md / tvd.
3. Run and cement 13 5/8" surface casing to surface.
4. Nipple up MBS wellhead and 13-5/8" 5M BOP stack
5. Test 13 5/8" 5M BOP stack.
6. Test 13 3/8" casing to 1000 psi, hold 30 minutes.
7. Drill 11" hole to 3,000' md / tvd.
8. Run and cement 8 5/8" intermediate casing.
9. Test 8 5/8" casing to 2000 psi.
10. Drill 7 7/8" hole to $\pm 10,000'$ md / tvd.
11. Run wireline logs from $\pm 3000'$ md / tvd to TD.
12. Run and cement 5 1/2" Production casing. Planned TOC $\pm 8,000'$ md.
13. Nipple Down BOP&E
14. Install Dry Hole Tree
15. Move Drilling Rig Off location.

Note:

- A separate permit for completion will be filed.

Blowout Prevention and Testing Program

1. Testing BOP's

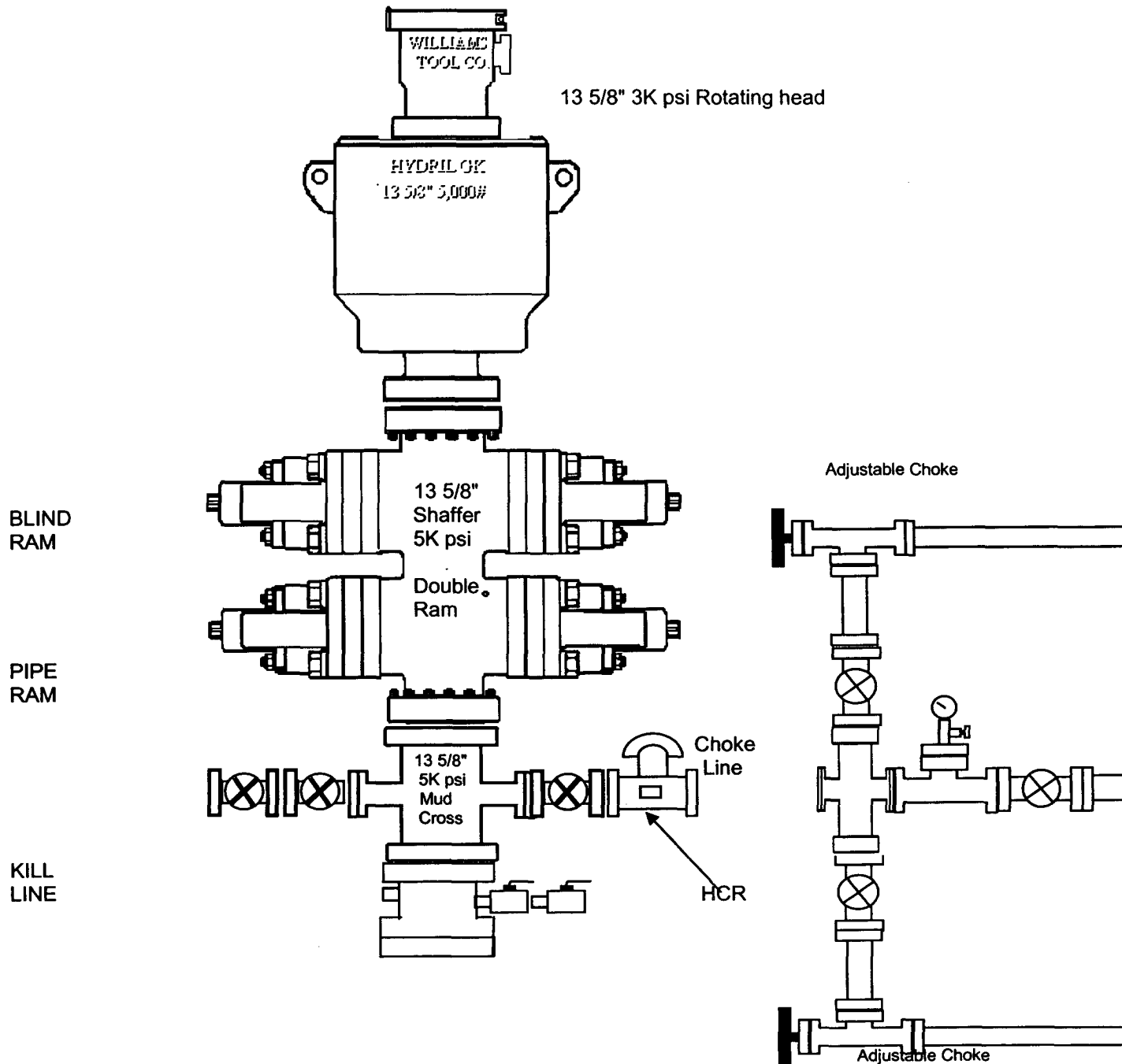
- Prior to any pressure testing, the area shall be isolated. Personnel shall be notified and / or evacuated.
- All pressure tests shall include a low-pressure test (200 – 300 psi) for 5 minutes before proceeding to the full pressure test.
- A satisfactory pressure test is represented by the test pressure held for a minimum of 5 minutes after the pressure has stabilized.
- The stack will be pressure tested when nipped up.
- The BOP's will be pressure and fully function tested every nipple up not to exceed 30 days.
- All wellhead components and pressure containing connections will be pressure tested upon installation and re-tested on the connection break when changing out rams, any stack repair or installation of spools and section pieces in the wellhead.

2. Drilling Practices:

- All drilling breaks shall be flow checked and reported.
- Prior to tripping out of the hole, the drilling fluid shall be circulated and flow checked before pulling off bottom.
- Flow check well on trips out of the hole at (a) after pulling into the casing shoe and (B) before the BHA enters the stack.
- Hole fill-up volumes shall be monitored on every trip in and out of the hole. Any deviation from expected hole fill-up volumes shall be investigated.
- Slow pump pressures with both pumps should be taken:
 - Once a day when drilling
 - Mud weight Increases
 - BHA changes
 - Prior to drilling out casing.

Blow Out Preventer Stack Arrangement

Nabors Drilling: Rig #399: Revised 5/9/05



Horsetail Gas Com Federal #9

Eddy County, New Mexico

Proposed Casing Design

(not to scale)

20", A-55-3-ERW, 51.7#,
Pre-drill conductor set @
±40' MD/TVD

Cement to surface

Estimated GL Elevation: ±3460'
Estimated RKB: ±3475'

17 ½" open hole

Surface Casing: 13 3/8", 48#, H-40,
STC @ ±400' MD/ TVD

Mud: freshwater & gel (8.4 – 8.6 ppg)

Cement to Surface: 500 sacks

Expected Formation Tops

Salt: 500' – 600' MD
San Andres: 1630' MD
Glorietta: 3200' MD
Abo: 4900' MD
Wolfcamp: 6450' MD
Strawn: 8780' MD
Arlow: 9255' MD
Morrow: 9560' MD
Lower Morrow: 9680' MD
Mississippian Lime: 9900' MD

11" open hole

Intermediate Casing: 8 5/8", 32#, J-55,
LTC @ ±3000' MD/ TVD

Mud: Brine (natural) & gel (9.4-10 ppg)

Cement: 700 sacks

7 7/8" open hole

Production Casing: 5 1/2", 17#, P-110, LTC @
±10000'

Mud: freshwater / gel to 8000' (8.5 – 9.0 ppg)

Mud: freshwater / gel / brine / polymer (9.0 -
10.0 ppg)

TOC Cement to ±8000'

Cement: 800 sacks

revision1jr. 5/11/05



**WEST
COMPANY**
of Midland, Inc.

BP AMERICA PRODUCTION COMPANY

HORSETAIL FEDERAL 9 #1

Drawn By: LVA	Date: May 13, 2005
Scale: 1"=100'	Field Book: 303 / 6-10
Revision Date:	Quadrangle: Spring Lake
W.O. No: 2005-0415	Dwg. No.: L-2005-0415-A

This topographic map depicts the Horsetail Federal 9 #1 area, characterized by dense contour lines indicating elevation. The map is divided into sections by a grid, with numbers 3, 4, 5, 9, 10, 15, and 16 visible. Key features include:

- OIL FIELD:** Located in the upper left quadrant, with an elevation of 3470.
- HORSETAIL FEDERAL 9 #1:** A large area in the center, with an elevation of 3520.
- SCORBITH Draw:** A prominent feature on the right side, with an elevation of 3450.
- Sagehen:** A feature on the right side, with an elevation of 3450.
- Oil Wells and Tanks:** Several points are marked, including "Oil Well 3455", "Oil Tank 3468", "Oil Tank 3490", "Oil Tank 3504", and "Oil Well 3488".
- Other Landmarks:** "Pumping Station", "BM 3470", and "3484" are also labeled.

The map uses a grid system with numbers 3, 4, 5, 9, 10, 15, and 16. Elevation contours are marked with values such as 3450, 3500, 3550, and 3600. A dashed line runs diagonally across the map, and a solid line runs horizontally across the middle.

CONTOUR INTERVAL:
SPRING LAKE - 10'

U.S.G.S. TOPOGRAPHIC MAP
SPRING LAKE, N.M.



110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

BP America Production Company

Legals:

Horsetail 9 Federal #1

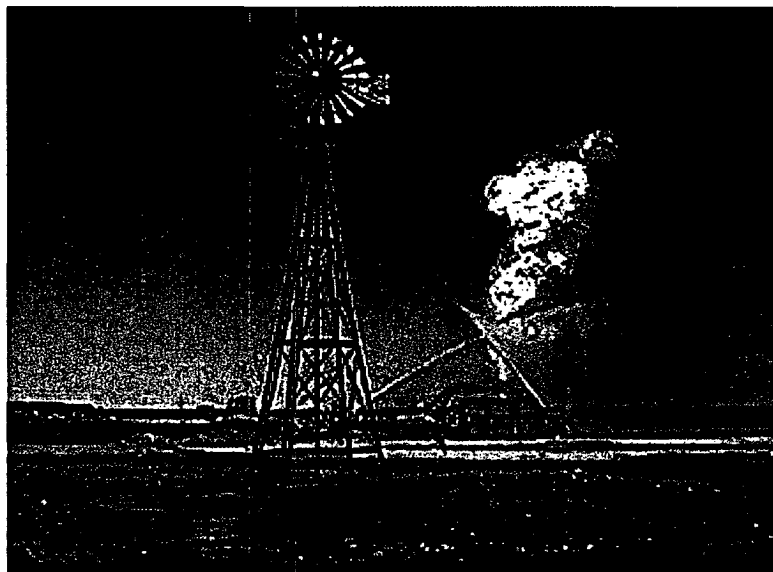
1261' FSL & 1144' FEL

Section – 9, Township – 18S, R – 27E

West Company of Midland, Inc. Survey

N.M.P.M. Eddy County, New Mexico

“CONTINGENCY PLAN”



CALLAWAY SAFETY EQUIPMENT CO. INC.
11020 W. Hwy. 80 East 3229 Industrial Drive
Odessa, Texas 79765 Hobbs, New Mexico 88240
(432) 561-5049 (877) 422-6345 (505) 392-2973

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I. H₂S CONTINGENCY PLAN SECTION

Scope

This contingency plan establishes guidelines for all company employees and contract employees whose work activities may involve exposure to Hydrogen Sulfide gas (H₂S).

Objective

1. Prevent any and all accidents, and prevent the uncontrolled release of H₂S into the atmosphere.
2. Provide proper evacuation procedures to cope with emergencies.
3. Provide immediate and adequate medical attention should an injury occur.

Discussion of Plan

Suspected Problem Zones: San Andres & Cisco Reef

Implementation: This plan, with all details, is to be fully implemented before drilling to the San Andres & Cisco Reef.

Emergency Response Procedure: This section outlines the conditions and denotes steps to be taken in the event of an emergency.

Emergency Equipment and Procedure: This section outlines the safety and emergency equipment that will be required for the drilling of this well.

Training Provisions: This section outlines the training provisions that must be adhered to prior to drilling into the San Andres & Cisco Reef Formations.

Emergency Call Lists: Included are the telephone numbers of all persons that would need to be contacted should an emergency exists.

Briefing: This section deals with the briefing of all people involved in the drilling operation.

Public Safety: Public Safety Personnel will be made aware of the drilling of this well.

CheckLists: Status Check Lists and Procedural Check Lists have been included to insure adherence to the plan.

General Information: A general information section has been included to supply support information.

II. EMERGENCY PROCEDURES SECTION

Emergency Procedures

- I. In the event of any evidence of H₂S level above 10 ppm, take the following steps immediately:
 - A. Secure breathing apparatus.
 - B. Order non-essential personnel out of the danger zone.
 - C. Take steps to determine if the H₂S level can be corrected or suppressed, and if so, proceed with normal operations.
- II. If uncontrollable conditions occur, proceed with the following:
 - A. Take steps to protect and/or remove any public downwind of the rig including partial evacuation or isolation. Notify necessary public safety personnel and the Texas Railroad Commission of the situation.
 - B. Remove all personnel to the Safe Briefing Area.
 - C. Notify public safety personnel for help with maintaining roadblocks and implementing evacuation.
 - D. Determine and proceed with the best possible plan to regain control of the well. Maintain tight security and safety procedures.
- III. Responsibility
 - A. The Company Approved Supervisor shall be responsible for the total implementation of the plan.
 - B. The Company Approved Supervisor shall be in complete command during any emergency.
 - C. The Company Approved Supervisor shall designate a back up Supervisor in the event that he/she is not available.

Emergency Procedure Implementation

- I. Drilling or Tripping
 - A. All Personnel
 - 1. When alarm sounds, don escape unit and report to upwind Safe Briefing Area.
 - 2. Check status of other personnel (buddy system).
 - 3. Secure breathing apparatus.
 - 4. Await orders from Supervisor.
 - B. Drilling Foreman
 - 1. Report to the upwind Safe Briefing Area.
 - 2. Don Breathing Apparatus and return to the point of release with the Tool Pusher or Driller (buddy system).
 - 3. Determine the concentration of H₂S.
 - 4. Assess the situation and take appropriate control measures.
 - C. Tool Pusher
 - 1. Report to the upwind Safe Briefing Area.
 - 2. Don Breathing Apparatus and return to the point of release with the Drilling Foreman or Driller (buddy system).
 - 3. Determine the concentration of H₂S.
 - 4. Assess the situation and take appropriate control measures.
 - D. Driller
 - 1. Don escape unit.
 - 2. Check monitor for point of release.
 - 3. Report to the Safe Briefing Area.
 - 4. Check the status of other personnel (in a rescue attempt, always use the buddy system).
 - 5. Assign the least essential person to notify the Drilling Foreman and Tool Pusher, in the event of their absence.
 - 6. Assume the responsibility of the Drilling Foreman and Tool Pusher until they arrive, in the event of their absence.
 - E. Derrick Man
 - 1. Remain in the Safe Briefing Area until otherwise instructed by Supervisor.
 - F. Mud Engineer
 - 1. Report to Safe Briefing Area.
 - 2. When instructed, begin check of mud for pH level and H₂S level.
 - G. Safety Personnel
 - 1. Don appropriate breathing apparatus.
 - 2. Check status of all personnel
 - 3. Await instructions from Drilling Foreman or Tool Pusher.
- II. Taking A Kick
 - A. All personnel report to Safe Briefing Area.
 - B. Follow standard BOP procedures.
- III. Open Hole Logging
 - A. All unnecessary personnel should leave the rig floor.
 - B. Drilling Foreman and Safety personnel should monitor the conditions and make necessary safety equipment recommendations.
- IV. Running Casing or Plugging
 - A. Follow "Drilling or Tripping" procedures.
 - B. Assure that all personnel have access to protective equipment.

Simulated Blowout Control Drills

All drills will be initiated by activating alarm devices (air horn). One long blast, on air horn, for ACTUAL and SIMULATED Blowout Control Drills. This operation will be performed by the Drilling Foreman or Tool Pusher at least one time per week for each of the following conditions, with each crew:

- | | |
|---------|---------------------|
| Drill 1 | Bottom Drilling |
| Drill 2 | Tripping Drill Pipe |

In each of these drills, the initial reaction time to shutting in the well shall be timed as well as the total time for the crew to complete its entire pit drill assignment. The times must be recorded on the IADC Driller's Log as "Blowout Control Drill".

Drill No.: _____

Reaction Time to Shut-In: _____ minutes, _____ seconds.

Total Time to Complete Assignment: _____ minutes, _____ seconds.

I. Drill Overviews

A. Drill No. 1--Bottom Drilling

1. Sound the alarm immediately.
2. Stop the rotary and hoist kelly joint above the rotary table.
3. Stop the circulatory pump.
4. Close drill pipe rams.
5. Record casing and drill pipe shut-in pressures and pit volume increases.

B. Drill No. 2--Tripping Drill Pipe

1. Sound the alarm immediately.
2. Position the upper tool joint just above the rotary table and set slips.
3. Install a full opening valve or inside blowout preventor tool in order to close the drill pipe.
4. Close the drill pipe rams.
5. Record the shut-in annular pressure.

II. Crew Assignments

A. Drill No. 1--Bottom Drilling

1. Driller
 - a. Stop the rotary and hoist kelly joint above the rotary table.
 - b. Stop the circulatory pump.
 - c. Check flow.
 - d. If flowing, sound the alarm immediately.
 - e. Record the shut-in drill pipe pressure.
 - f. Record all data reported by the crew.
 - g. Determine the mud weight increase needed or other courses of action.
2. Derrickman
 - a. Open choke line valve at BOP.
 - b. Signal Floor Man #1 at accumulator that choke line is open.
 - c. Close choke and upstream valve after pipe tams have been closed.
 - d. Read the shut-in annular pressure and report readings to Driller.
3. Floor Man #1
 - a. Close the pipe trams after receiving the signal from the Derrickman.
 - b. Report to Driller for further instructions.
4. Floor Man #2
 - a. Notify the Tool Pusher and Operator Representative of the H₂S alarms.
 - b. Check for open fires and, if safe to do so, extinguish them.
 - c. Stop all welding operations.
 - d. Turn-off all non-explosion proof lights and instruments.
 - e. Report to Driller for further instructions.
5. Tool Pusher
 - a. Report to the rig floor.
 - b. Have a meeting with all crews.
 - c. Compile and summarize all information.
 - d. Calculate the proper kill weight.
 - e. Ensure that proper well procedures are put into action.
6. Operator Representative
 - a. Notify the Drilling Superintendent.
 - b. Determine if an emergency exists and if so, activate the contingency plan.

- B. Drill No.2--Tripping Pipe
1. Driller
 - a. Sound the alarm immediately when mud volume increase has been detected.
 - b. Position the upper tool joint just above the rotary table and set slips.
 - c. Install a full opening valve or inside blowout preventor tool to close the drill pipe.
 - d. Check flow.
 - e. Record all data reported by the crew.
 - f. Determine the course of action.
 2. Derrickman
 - a. Come down out of derrick.
 - b. Notify Tool Pusher and Operator Representative
 - c. Check for open fires and, if safe to do so, extinguish them.
 - d. Stop all welding operations.
 - e. Report to Driller for further instructions.
 3. Floor Man #1
 - a. Pick up full opening valve or inside blowout preventors and stab into tool joint above rotary table (with Floor Man #2).
 - b. Tighten valve with back-up tongs.
 - c. Close pipe rams after signal from Floor Man #2.
 - d. Read accumulator pressure and check for possible high pressure fluid leaks in valves or piping.
 - e. Report to Driller for further instructions.
 4. Floor Man #2
 - a. Pick-up full opening valve or inside blowout preventors and stab into tool joint above rotary table (with Floor Man #1).
 - b. Position back-up tongs on drill pipe.
 - c. Open choke line valve at BOP.
 - d. Signal Floor Man #1 at accumulator that choke line is open.
 - e. Close choke and upstream valve after pipe rams have been closed.
 - f. Check for leaks on BOP stack and choke manifold.
 - g. Read annular pressure.
 - h. Report readings to the Driller.

5. Tool Pusher
 - a. Report to rig floor.
 - b. Have a meeting with all crews.
 - c. Compile and summarize all information.
 - d. Calculate proper kill weight.
 - e. See that proper well kill procedures are put into action.
6. Operator Representative
 - a. Notify Drilling Superintendent.
 - b. Determine if an emergency exists, and if so, activate the contingency plans.

III. IGNITION PROCEDURES SECTION

Responsibility

The decision to ignite the well is the responsibility of the DRILLING FOREMAN in concurrence with the STATE POLICE. In the event the Drilling Foreman is incapacitated, it becomes the responsibility of the RIG TOOL PUSHER. This decision should be made only as a last resort and in a situation where it is clear that:

1. Human life and property are endangered.
2. There is no hope of controlling the blowout under the prevailing conditions.

If time permits, notify the main office, but do not delay if human life is in danger. Initiate the first phase of the evacuation plan.

Instructions for Igniting the Well

1. Two people are required for the actual igniting operation. Both men must wear self-contained breathing apparatus and attach a safety rope. One man must monitor the atmosphere for explosive gases with the Explosimeter, while the Drilling Foreman is responsible for igniting the well.
2. The primary method to ignite is a 25mm flare gun with a range of approximately 500 feet.
3. Ignite from upwind and do not approach any closer than is warranted.
4. Select the ignition site best suited for protection and which offers an easy escape route.
5. Before igniting, check for the presence of combustible gases.
6. After igniting, continue emergency actions and procedures as before.
7. All unassigned personnel will limit their actions to those directed by the Drilling Foreman.

NOTE: After the well is ignited, burning Hydrogen Sulfide will convert to Sulfur Dioxide, which is also highly toxic. Do not assume the area is safe after the well is ignited.

IV. TRAINING PROGRAM SECTION

Training Requirements

When working in an area where Hydrogen Sulfide gas (H₂S) might be encountered, definite training requirements must be carried out. The Company Supervisor will insure that all personnel, at the well site, have had adequate training in the following:

1. Hazards and characteristics of H₂S.
2. Physical effects of Hydrogen Sulfide on the human body.
3. Toxicity of Hydrogen Sulfide and Sulfur Dioxide.
4. H₂S detection.
5. Emergency rescue.
6. Resuscitators.
7. First aid and artificial resuscitation.
8. The effects of H₂S on metals.
9. Location safety.

Service company personnel and visiting personnel must be notified if the zone contains H₂S, and each service company must provide adequate training and equipment for their employees before they arrive at the well site.

V. EMERGENCY EQUIPMENT SECTION

Emergency Equipment Requirements

- I. Signs
 - A. Located at the location entrance with the following information:
(Lease)
CAUTION-POTENTIAL POISON GAS
HYDROGEN SULFIDE
NO ADMITTANCE WITHOUT AUTHORIZATION
- II. * Fresh air breathing equipment
 - A. Air line units for all rig personnel on location.
 - B. Cascade system with hose lines to rig floor and one to the derrick man and other operation areas. Spare cascade (trailer) on location
- III. Wind socks or wind streamers
 - A. Two 10" windsocks located at strategic locations at a height visible from the rig floor.
 - B. Wind streamers (if preferred) to be placed at various locations on the well site to ensure wind consciousness at all times. (Corners of location).
- IV. Hydrogen Sulfide detector and alarms.
 - A. 1-four channel H₂S monitor with alarms.
 - B. 4 sensors located at floor, bell nipple, shale shaker, and pits
 - * C. Hand operated detectors with tubes.
 - * D. H₂S monitor tester.
- V. Condition sign and flags
 - A. One each of green, yellow, and red condition flags to be displayed to denote conditions:
GREEN--Normal Conditions
YELLOW--Potential Danger
RED--Danger, H₂S Present
 - B. The condition flag shall be posted at the location entrance.
- VI. * Auxiliary rescue equipment
 - A. Stretcher
 - B. Two 100' lengths of 5/8" nylon rope.
- VII. * Mud inspection devices
 - A. Garrett Gas Train or Hach Tester for inspection of Hydrogen Sulfide concentration in the mud system.
- VIII. Fire extinguishers
 - A. Adequate fire extinguishers shall be located at strategic locations.

- IX. Blowout prevention equipment
 - A. The well shall have hydraulic BOP equipment for the anticipated BHP.
 - B. Equipment must be tested upon installation.
 - X. * Combustible gas detectors
 - A. There shall be one combustible gas detector on location at all times.
 - XI. BOP testing
 - A. BOP, Choke Line and Kill Line will be tested as specified by operator.
 - XII. Audio system
 - A. Radio communication shall be available at the rig.
 - B. Radio communication shall be available at the rig floor or trailer.
 - C. Radio communication shall be available on vehicles.
 - XIII. Special control equipment
 - A. Hydraulic BOP equipment with remote control on ground.
 - B. Rotating head at surface casing point.
 - XIV. Evacuation Plan
 - A. Evacuation routes should be established prior to spudding each well.
 - B. Should be discussed with all rig personnel.
 - XV. Designated Areas
 - A. Parking and visitor area.
 - 1. All vehicles are to be parked at a pre-determined safe distance from the wellhead.
 - 2. Designated smoking area.
 - B. Safe Briefing Area
 - 1. Two Safe Briefing Areas shall be designated on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds or they are at a 180 degree angle if wind directions tend to shift in the area.
 - 2. Personal protective equipment should be stored in both protection centers or if a moveable trailer is used, it should be kept upwind of existing winds. When wind is from the prevailing direction, both protection centers should be accessible.
- *Additional equipment will be available at Callaway Safety Midland, Texas.
 - Additional personnel hydrogen sulfide monitors on location for all hands.
 - Automatic Flare ignitor installed on rig

VI. CHECK LIST SECTION

Status Check List

Note: Date each item as they are implemented.

1. Sign at location entrance. _____
2. Two (2) wind socks (in required locations). _____
3. Wind streamers (if required). _____
4. 30 minute pressure demand air packs on location for all rig personnel and mud loggers. _____
5. Air packs, inspected and ready for use. _____
6. Spare bottles for each air pack (if required). _____
7. Cascade system and hose line hook up. _____
8. Cascade system for refilling air bottles. _____
9. Choke manifold hooked-up and tested.
(Before drilling out surface casing.) _____
10. Remote Hydraulic BOP control (hooked-up and tested before drilling out surface casing.) _____
11. BOP Preventor tested (before drilling out surface casing.) _____
12. Mud engineer on location with equipment to test mud for Hydrogen Sulfide. _____
13. Safe Briefing Areas set-up. _____
14. Condition sign and flags on location and ready. _____
15. Hydrogen Sulfide detection system hooked-up. _____
16. Hydrogen Sulfide alarm system hooked-up. _____
17. Stretcher on location at Safe Briefing Area. _____
18. 1-100' length of 5/8" nylon rope on location. _____
19. 1-20 # or 30# ABC fire extinguisher in safety trailer in addition to those on rig. _____

-
- 20. Combustible gas detector on location and tested. _____
 - 21. All rig crews and supervisors trained (as required). _____
 - 22. Access restricted for unauthorized personnel. _____
 - 23. Drills on H₂S and well control procedures. _____
 - 24. All outside service contractors advised of potential
Hydrogen Sulfide on the well. _____
 - 25. NO SMOKING sign posted. _____
 - 26. Hand operated H₂S detector with tubes on location. _____
 - 27. 25mm flare gun with flares. _____
 - 28. Automatic Flare ignitor installed on rig _____

Procedural Check List

Perform the following on each tour:

1. Check fire extinguishers to see that they have the proper charge.
2. Check breathing equipment to insure that it has not been tampered with.
3. Check pressure on supply air bottles to see that they are capable of recharging.
4. Make sure all of the Hydrogen Sulfide detection systems are operative.

Perform the following each week:

1. Check each piece of breathing equipment to make sure that the demand regulator is working. This requires that the bottle be opened and the mask assembly be put on tight enough so that when you inhale, you get air.
2. Blowout preventor skills.
3. Check supply pressure on BOP accumulator stand-by source.
4. Check all work/escape units for operation: demand regulator, escape bottle air volumes, supply bottle of air volume.
5. Check breathing equipment mask assembly to see that straps are loosened and turned back, ready to put on.
6. Check pressure on breathing equipment air bottles to make sure they are charged to full volume.
7. Check breathing equipment air bottles to make sure all demand regulators are working. This requires that the bottles be opened and the mask assembly be put on tight enough so that when you inhale, you get air
8. Confirm pressure on all supply air bottles.
9. Perform breathing equipment drills with on-site personnel.
10. Check the following supplies for availability:
 - a. Stretcher
 - b. Safety belts and ropes
 - c. Emergency telephone lists
 - d. Spare air bottles
 - e. Spare oxygen bottles (if resuscitator required)
 - f. Hand operated H₂S detectors and tubes
11. Test the Explosimeter to verify batteries are good.

VII. BRIEFING PROCEDURES SECTION

Briefing Procedures

The following scheduled briefings will be held to ensure the effective drilling and operation of this project:

Pre-Spud Meeting

Date: Prior to spudding the well.

Attendance: Drilling Supervisor
Drilling Engineer
Drilling Foreman
Rig Pushers
Rig Driller
Mud Engineer
All Safety Personnel
Service Companies

Purpose: Review and discuss the well program, step-by-step, to insure complete understanding of assignments and responsibilities.

VIII. EVACUATION PLAN SECTION

General Plan

The direct lines of action prepared by CALLAWAY SAFETY EQUIPMENT CO., INC. to protect the public from hazardous gas situations are as follows:

1. When the company approved supervisor (Drilling Foreman, Tool Pusher, Driller) determine Hydrogen Sulfide gas cannot be limited to the well location, and the public will be involved, he will activate the evacuation plan. Escape routes are noted on the Area Map.
2. Company safety personnel or designee will notify the appropriate local government agency that a hazardous condition exists and evacuation need to be implemented.
3. Company approved safety personnel that have been trained in the use of Hydrogen Sulfide detection equipment and self-contained breathing equipment will be utilized.
4. Law enforcement personnel (State Police, Local Police Department, Fire Department, and the Sheriff's Department) will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.
NOTE: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.
5. After the discharge of gas has been controlled, "Company" safety personnel will determine when the area is safe for re-entry.

See Emergency Reaction Plan

Emergency Assistance Telephone List

PUBLIC SAFETY

Eddy County Sheriff's Department	(505) 887-7551
New Mexico State Police	(505) 888-3137
Fire Department	(505) 885-2111
Carlsbad Hospital	(505) 887-4100
Southwest Air Ambulance/Carlsbad, NM	(505) 525-2660
Carlsbad City Police	(505) 885-2111
New Mexico D.O.T.	(505) 827-5100
Bureau of Land Management	(505) 393-3612
U.S. Dept. of Labor	(505) 248-5302

BP America

Drilling Supervisor

John Elsen

Office (432) 894-0448

Home (989) 631-4897

Cell (989) 430-2259

Bill Owens

Office (432) 894-0448

Home (915) 584-8888

Cell (817) 707-7112

Sr. Drilling Engineer

Joey Roth

Office (281) 366-1202

Home (956) 931-2196

Cell (713) 203-4083

Drilling Advisor

Gary Martin

Office (432) 688-5230

Cell (432) 238-7008

Challenge Engineer:

William Gutierrez

Office (281) 366-7450

SH&E

David Carrillo

Office (432) 688-5239

Home (432) 699-3272

Cell (432) 664-2095

Nabors Drilling

Nabors Odessa

Office (432) 362-0481

Nabors #399

Rig (432) 664-8099

Drilling Superintendent:

Don Nelson

Home (432) 524-3559

Cell (432) 664-9990

Tool Pushers:

Isidro Garcia

Cell (432) 523-5941

Michael Garcia

Cell (432) ____-____

Safety Contractor

Callaway Safety Equipment

Hobbs (505) 392-2973

Odessa (432) 561-5049

Affected Public Notification List
(within a 65' radius of exposure @100ppm)

The geologic zones that will be encountered during drilling are known to contain hazardous quantities of H₂S. The accompanying map illustrates the affected areas of the community. The residents within this radius will be notified via a hand delivered written notice describing the activities, potential hazards, conditions of evacuation, evacuation drill siren alarms, and other precautionary measures.

Evacuee Description:

Residents

Notification Process:

A continuous siren audible to all residence will be activated, signaling evacuation of previously notified and informed residents.

Evacuation Plan:

All evacuees will migrate lateral to the wind direction.

The Oil Company will identify all home bound or highly susceptible individuals and make special evacuation preparations, interfacing with the local fire and emergency medical service as necessary.

Toxic Effects of Hydrogen Sulfide Poisoning

Hydrogen Sulfide is extremely toxic. The acceptable ceiling concentration for eight-hour exposure is 20 ppm, which is .002% by volume. Hydrogen Sulfide is heavier than air (specific gravity-1.192) and colorless. It forms an explosive mixture with air between 4.3 and 46.0 percent by volume. Hydrogen Sulfide is almost as toxic as Hydrogen Cyanide and is between five and six times more toxic than Carbon Monoxide. Toxicity data for Hydrogen Sulfide and various other gases are compared below in Table I. Physical effects at various Hydrogen Sulfide levels are shown in Table II.

Table I
Toxicity of Various Gases

Common Name	Chemical Formula	Specific Gravity	Limit (A)	Limit (B)	Concentration C)
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Hydrogen Sulfide	H ₂ S	1.18	10 ppm (D) 20 ppm (E)	250 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21	5 ppm		1000 ppm
Chlorine	CL ₂	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO ₂	1.52	5000 ppm	5%	10%
Methane	CH ₄	0.55	90,000 ppm	(9%)	Combustible above 5% in air

-
- A. Threshold Limit--Concentration at which it is believed that all workers may be repeatedly exposed day after day without adverse effects.
 - B. Hazardous Limit--Concentration that may cause death.
 - C. Lethal Concentration--Concentration that will cause death with short-term exposure.
 - D. Threshold Limit--10 ppm, 1972 ACGIH (American Conference of Governmental industrial Hygienists)
 - E. Threshold Limit--20 ppm, 1966 ANSI acceptable ceiling concentration for eight-hour exposure (based on 40-hour week) is 20 ppm. OSHA Rules and Regulations (Federal Register, Volume 37, No. 202, Part II, dated 10/18/72).

Table II
Physical Effects of Hydrogen Sulfide

Percent %	ppm	Physical Effects
0.001	10	Obvious and unpleasant odor.
0.002	20	Safe for 8 hrs. exposure
0.01	100	Kills smell in 3 to 5 minutes; may sting eyes and throat.
0.02	200	Kills smell shortly; stings eyes and throat.
0.03	300	IDLH (Immediately Dangerous to Life & Health) Level
0.05	500	Dizziness; breathing ceases in a few minutes
0.07	700	Unconscious quickly; death will result if not rescued.
0.10	1000	Unconscious at once; followed by death within minutes.

*Caution: Hydrogen Sulfide is a colorless and transparent gas and is highly flammable. It is heavier than air and may accumulate in low places.

Use of Self-Contained Breathing Apparatus

- I. Written procedures shall be prepared covering safe use of respirators in dangerous atmospheric situations which might be encountered in normal operations or in emergencies. Personnel shall be familiar with these procedures and the available respirators.
- II. Respirators shall be inspected frequently, at random, to insure that they are properly used, cleaned, and maintained.
- III. Anyone who may use respirators shall be trained in how to properly seal the face piece. They shall wear respirators in normal air and then in a test atmosphere. (Note: Such items as facial hair (beard or sideburns) and eyeglass temple pieces will not allow a proper seal.) Anyone that may be expected to wear respirators should have these items removed before entering a toxic atmosphere. A special mask must be obtained for anyone who must wear eyeglasses. Contact lenses should not be allowed.
- IV. Maintenance and care of respirators
 - A. A program of maintenance and care of respirators shall include the following:
 1. Inspection for defects, including leak checks.
 2. Cleaning and disinfecting.
 3. Repair.
 4. Storage.
 - B. Inspection: Self-Contained Breathing Apparatus for emergency use shall be inspected monthly, and records maintained, for the following:
 1. Fully charged cylinders.
 2. Regulator and warning device operation.
 3. Condition of face piece and connection.
 4. Elastomer or rubber parts shall be stretched or massaged to keep them pliable and prevent deterioration.
 - C. Routinely used respirators shall be collected, cleaned, and disinfected as frequently as necessary to insure proper protection is provided.
- V. Persons assigned tasks that require the use of Self-Contained Breathing Equipment shall be certified physically fit for breathing equipment usage by the local company physician at least annually.
- VI. Respirators should be worn during the following conditions:
 - A. Any employee who works near the top or on the top of any tank unless tests reveal less than 20 ppm of H₂S.
 - B. When breaking out any line where H₂S can reasonably be expected.
 - C. When sampling air in areas to determine if toxic concentrations of H₂S exist.
 - D. When working in areas where over 20 ppm H₂S has been detected.
 - E. At any time where there is a doubt as to the H₂S level in the area to be entered.

Rescue-First Aid for Hydrogen Sulfide Poisoning

Do Not Panic!!!

Remain Calm--THINK

1. Hold your breath (Do not inhale; stop breathing.) and go to Briefing area.
2. Put on breathing apparatus.
3. Remove victim(s) to fresh air as quickly as possible. (Go upwind from the source or at right angles to the wind; NOT downwind.)
4. Briefly apply chest pressure--arm lift method of artificial respiration to clear the victim's lungs and to avoid inhaling any toxic gas directly from the victim's lungs
5. Provide for prompt transportation to the hospital, and continue giving artificial respiration if needed.
6. Hospital(s) or medical facilities need to be informed, beforehand, of the possibility of H₂S gas poisoning, no matter how remote the possibility.
7. Notify emergency room personnel that the victim(s) have been exposed to H₂S gas.

Besides basic first aid, everyone on location should have a good working knowledge of artificial respiration, as well as first aid for eyes and skin contact with liquid H₂S. Everyone needs to master these necessary skills.

X. MAPS AND PLATS SECTION

See Next (4) Pages – **Map of Wellsite**
Location Verification Map
Vicinity Map
Well Location Plat

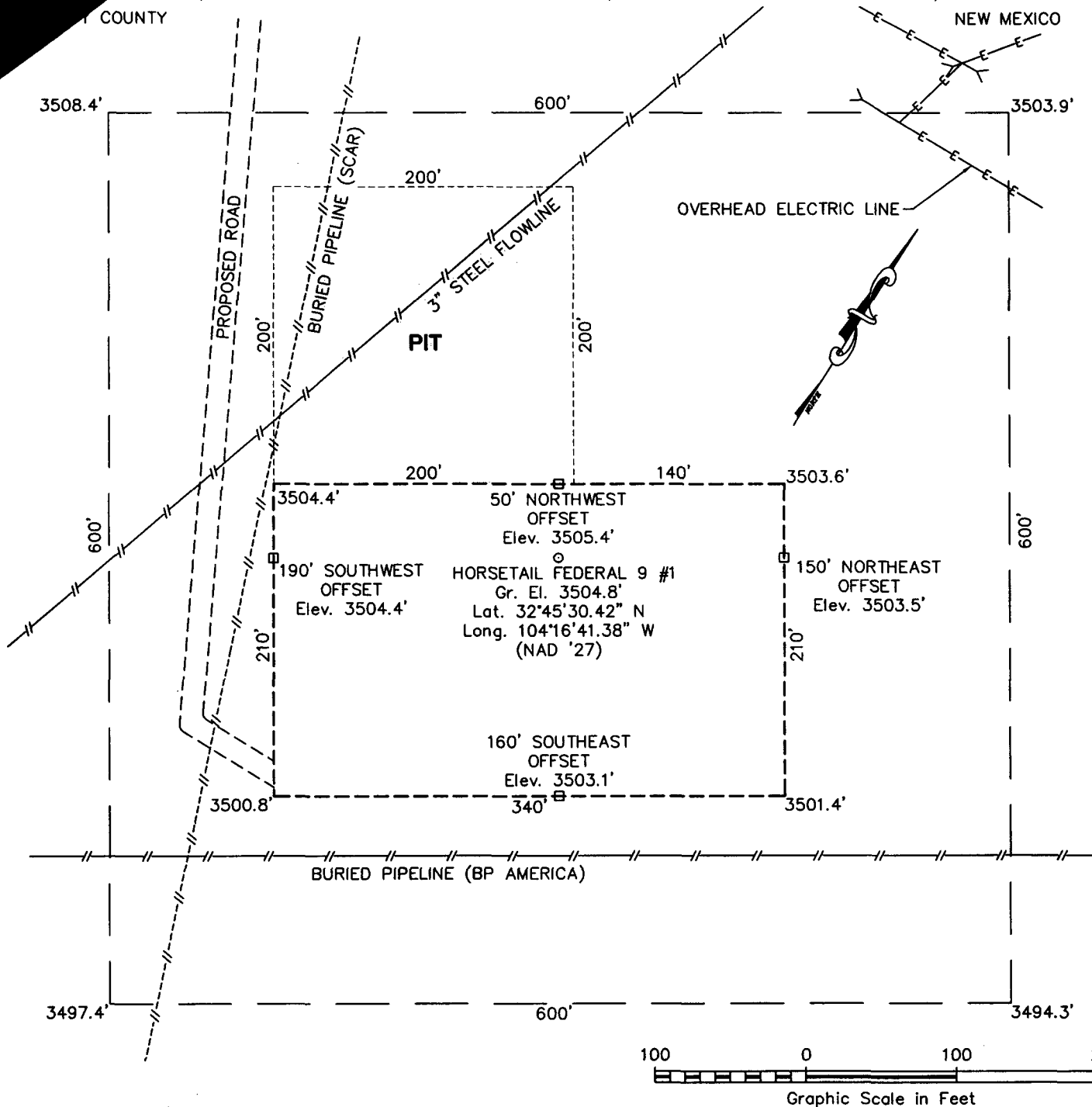
Emergency Call List of Residents and Businesses

SECTION 9, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M.

EDDY COUNTY

NEW MEXICO

L-2005-0415-A



DRIVING DIRECTIONS

FROM THE INTERSECTION OF U.S. HIGHWAY 82 AND COUNTY ROAD 201 ABOUT 5 MILES EAST OF ARTESIA, NM GO SOUTH ON SAID COUNTY ROAD 201 4.5 MILES TO COUNTY ROAD 227, THEN GO EAST ON SAID COUNTY ROAD 227 1.4 MILES TO A 15' WIDE CALICHE ROAD RUNNING SOUTH, THEN GO SOUTH ON SAID CALICHE ROAD 1.1 MILE TO POINT WHERE ROAD TURNS TO THE WEST, CONTINUE WEST FOR APPROXIMATELY 0.4 MILE TO A POINT ON SOUTH EDGE OF EXISTING WELL PAD, SAID POINT BEING APPROXIMATELY 600 FEET NORTHWEST OF PROPOSED LOCATION.

**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

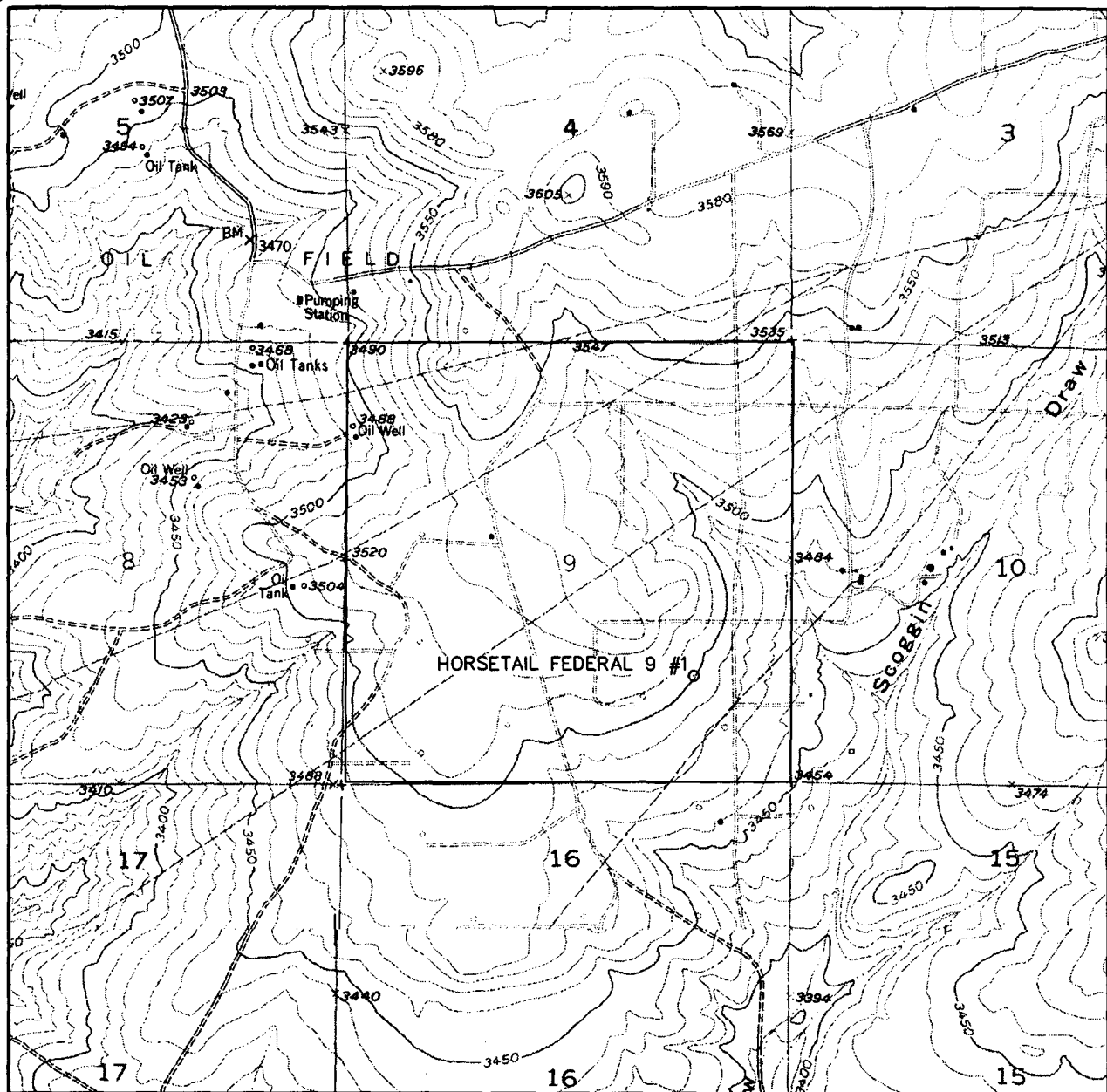
BP AMERICA PRODUCTION COMPANY

HORSETAIL FEDERAL 9 #1

Located 1261' FSL & 1144' FEL, Section 9
Township 18 South, Range 27 East, N.M.P.M.
Eddy County, New Mexico

Drawn By: LVA	Date: May 13, 2005
Scale: 1"=100'	Field Book: 303 / 6-10
Revision Date:	Quadrangle: Spring Lake
W.O. No: 2005-0415	Dwg. No.: L-2005-0415-A

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
SPRING LAKE - 10'

SEC. 9 TWP. 18-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1261' FSL & 1144' FEL

ELEVATION 3504.8'

OPERATOR BP AMERICA PRODUCTION COMPANY

LEASE HORSETAIL FEDERAL 9

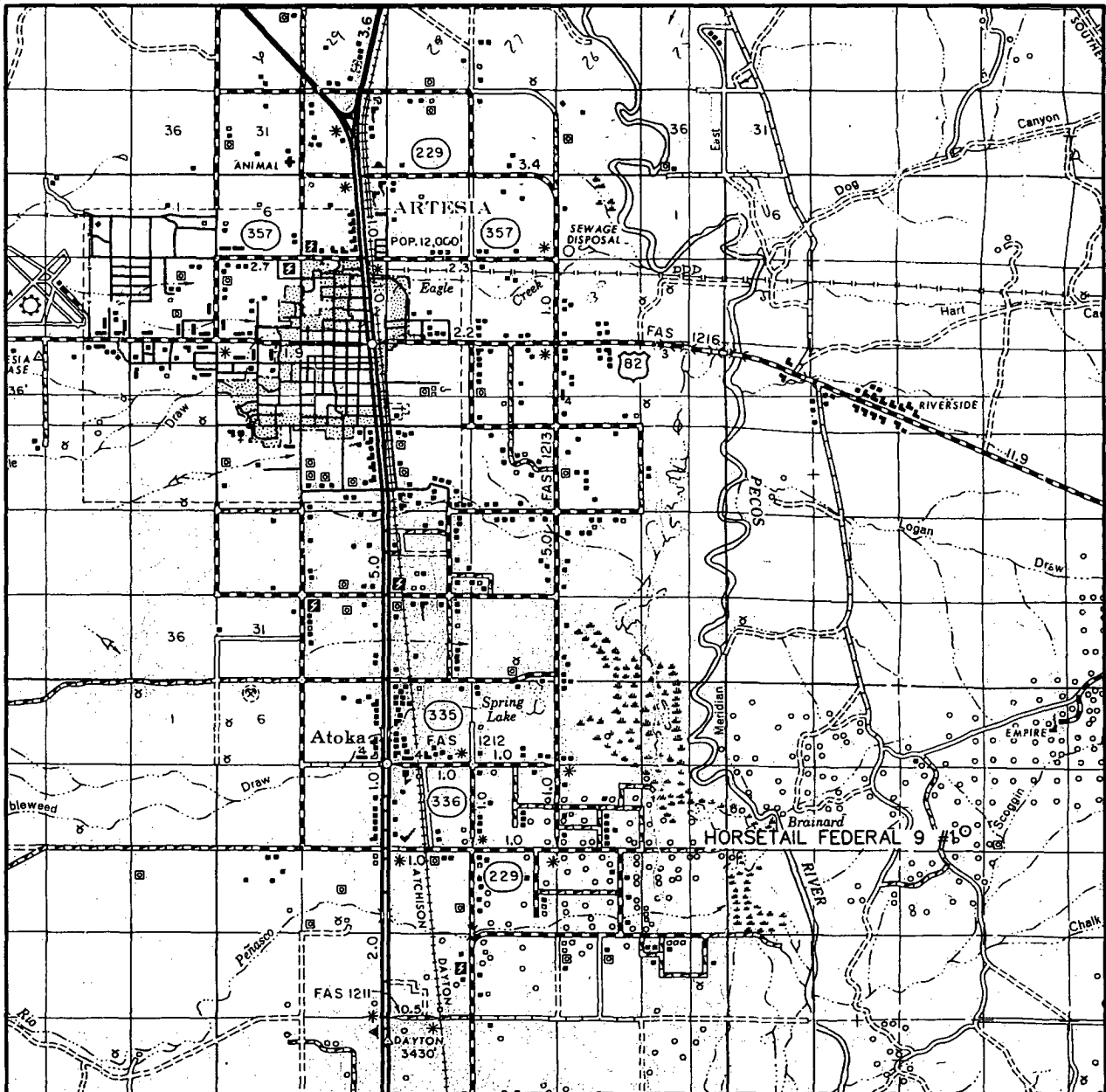
U.S.G.S. TOPOGRAPHIC MAP
SPRING LAKE, N.M.



**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 9 TWP. 18-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1261' FSL & 1144' FEL

ELEVATION 3504.8'

OPERATOR BP AMERICA PRODUCTION COMPANY

LEASE HORSETAIL FEDERAL 9



**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

☐ **AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code 76400	Pool Name Empire, Morrow South (Gas)	
Property Code	Property Name HORSETAIL FEDERAL 9			Well Number 1
OGRID No.	Operator Name BP AMERICA PRODUCTION COMPANY			Elevation 3505'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	9	18 S	27 E		1261	SOUTH	1144	EAST	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
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

			320 AC

NOTE:

1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.

Plane Coordinate
X = 516,960.6
Y = 639,639.6

OPERATOR CERTIFICATION	
<i>I hereby certify the information contained herein is true and complete to the best of my knowledge and belief.</i>	
 Signature	
Sue Sellers Printed Name	
Regulatory Assistant Title	
MAY 16, 2005 Date	
SURVEYOR CERTIFICATION	
<i>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.</i>	
May 12, 2005 Date Surveyed	
Signature & Seal of Professional Surveyor	
 W.O. Num. 2005-0415	
Certificate No. MACON McDONALD 12185	