

July 1992)

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
1301 W. Grand Avenue

(Other Instructions on Rev. 1-18-82)
FORM Oil Cons. Div-Dist. 2
Artesia, NM 88210

FORM APPROVED
 OMB NO. 1004-0136
 Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NM-31936-031963	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME -----	
2. NAME OF OPERATOR POGO PRODUCING COMPANY (RICHARD WRIGHT 432-685-8140)		7. UNIT AGREEMENT NAME -----	
3. ADDRESS AND TELEPHONE NO. p.o. box 10340 MIDLAND, TEXAS 79702-7340 (432-685-8100)		8. FARM OR LEASE NAME, WELL NO. SUNRISE "8" FEDERAL # 2	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1980' FNL & 1980' FEL SECTION 8 T24S-R31E EDDY CO. NM		9. AM WELL NO. 30-015-33646	
At proposed prod. zone SAME		10. FIELD AND POOL, OR WILDCAT SAND DUNES DELAWARE SOUTH	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* Approximately 30 miles East of Carlsbad, New Mexico		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA SECTION 8 T24S-R31E	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660'		12. COUNTY OR PARISH EDDY CO.	
16. NO. OF ACRES IN LEASE 320		13. STATE NEW MEXICO	
17. NO. OF ACRES ASSIGNED TO THIS WELL 40		18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1320'	
19. PROPOSED DEPTH 8400'		20. ROTARY OR CABLE TOOLS ROTARY	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3490' GR.		22. APPROX. DATE WORK WILL START* WHEN APPROVED	

PROPOSED CASING AND CEMENTING PROGRAM

CARLSBAD CONTROLLED WATER BASIN

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor	NA	WITNESS 40'	Cement to surface/Redi-mix
17½"	H-40 13 3/8"	48	WITNESS 975'	800 Sx. circulate cement to sur.
11"	J-55 8 5/8"	32	4200'	1200 Sx. " " " "
7 7/8"	J-55 5½"	17 & 15.5	8400'	1750 Sx. " " " "

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 975'. Run and set 975' of 13 3/8" 48# H-40 ST&C casing. Cement with 600 Sx. of 65/35/6 Class "C" POZ/Gel, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
3. Drill 11" hole to 4200'. Run and set 4200' of 8 5/8" 32# J-55 ST&C casing. Cement with 1000 Sx. of 65/35/6 Class "C" POZ/GEL + 5% Salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
4. Drill 7 7/8" hole to 8400'. Run and set 8400' of 5½" casing as follows: 2400' of 5½" 17# J-55 LT&C, 5000' of 5½" 15.5# J-55 LT&C, 1000' of 5½" 17# J-55 LT&C casing. Cement in 3 stages with DV Tools At 5800' & 3700'±. Cement 1st stage with 650 Sx. of Class "H" cement + additives, cement 2nd stage with 600 Sx. of Class "C" cement + 8# Gilsonite/Sx. Cement 3rd stage with 400 Sx. of 65/35/6 Class "C" POZ/GEL, tail in with 100 Sx. of Class "C" cement + 1% CaCl, circulate cement to surface.

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 <u><i>Jesse J. Juen</i></u> (This space for Federal or State office use) PERMIT NO. _____	Agent APPROVAL SUBJECT TO GENERAL REQUIREMENTS 08/18/04 AND SPECIAL STIPULATIONS ATTACHED
	APPROVAL DATE _____
	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:

ACTING

/s/ Jesse J. Juen

STATE DIRECTOR

27 SEP 2004

APPROVED BY _____

TITLE _____

DATE _____

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

DISTRICT I
1625 N. FRENCH DR., ROBBES, NM 86240

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 53815	Pool Name SAND DUNES DELAWARE-WEST
Property Code	Property Name SUNRISE 8 FEDERAL	Well Number 2
OGRID No. 17891	Operator Name POGO PRODUCING COMPANY	Elevation 3490'

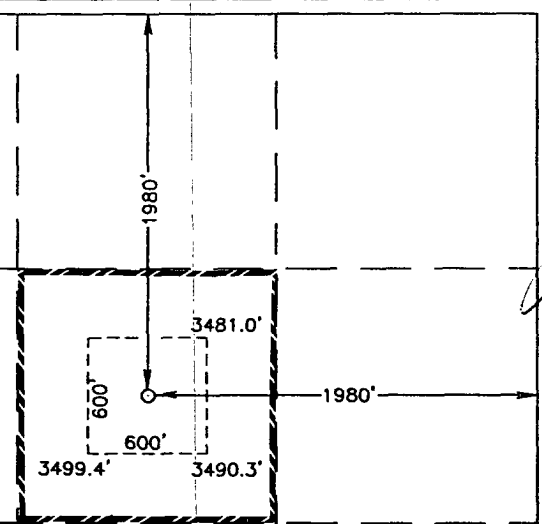
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	8	24-S	31-E		1980'	NORTH	1980'	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 40	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

 <p>GEODETIC COORDINATES NAD 27 NME Y=449094.7 N X=665768.5 E LAT.=32°14'00.75" N LONG.=103°47'50.02" W</p>	<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>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title 08/18/04 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 15, 2004</p> <p>Date Surveyed Signature & Seal of Professional Surveyor <i>Gary Kidson</i> 7/27/04 04.11.0880 Certificate No. GARY KIDSON 12641</p>
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District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-
March 12, 2004

For drilling and production facilities, submit appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Pogo Producing Company Telephone: 432-685-8100 e-mail address: wrightc@pogoproducing.com
Address: P. O. Box 10340, Midland, TX 79702-7340
Facility or well name: Sunrise 8 Fed #2 API #: _____ U/L or Qtr/Qtr G Sec 8 T 24 R 31
County: Eddy Latitude _____ Longitude _____ NAD: 1927 ☒ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐
Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Volume 16000 bbl

Below-grade tank

Volume: _____ bbl Type of fluid: _____

Construction material: _____

Double-walled, with leak detection? Yes ☐ If not, explain why not. _____

RECEIVED
AUG 26 2004
OCD-ARTESIA

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet	(20 points)
50 feet or more, but less than 100 feet	(10 points)
100 feet or more	(0 points)
X	0

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes	(20 points)
No	(0 points)
X	0

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet	(20 points)
200 feet or more, but less than 1000 feet	(10 points)
1000 feet or more	(0 points)
X	0

Ranking Score (Total Points) 0

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility _____ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described 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 ☐.

Date: 08/25/04

Printed Name/Title Cathy Wright, Sr Eng Tech

Signature Cathy Wright

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

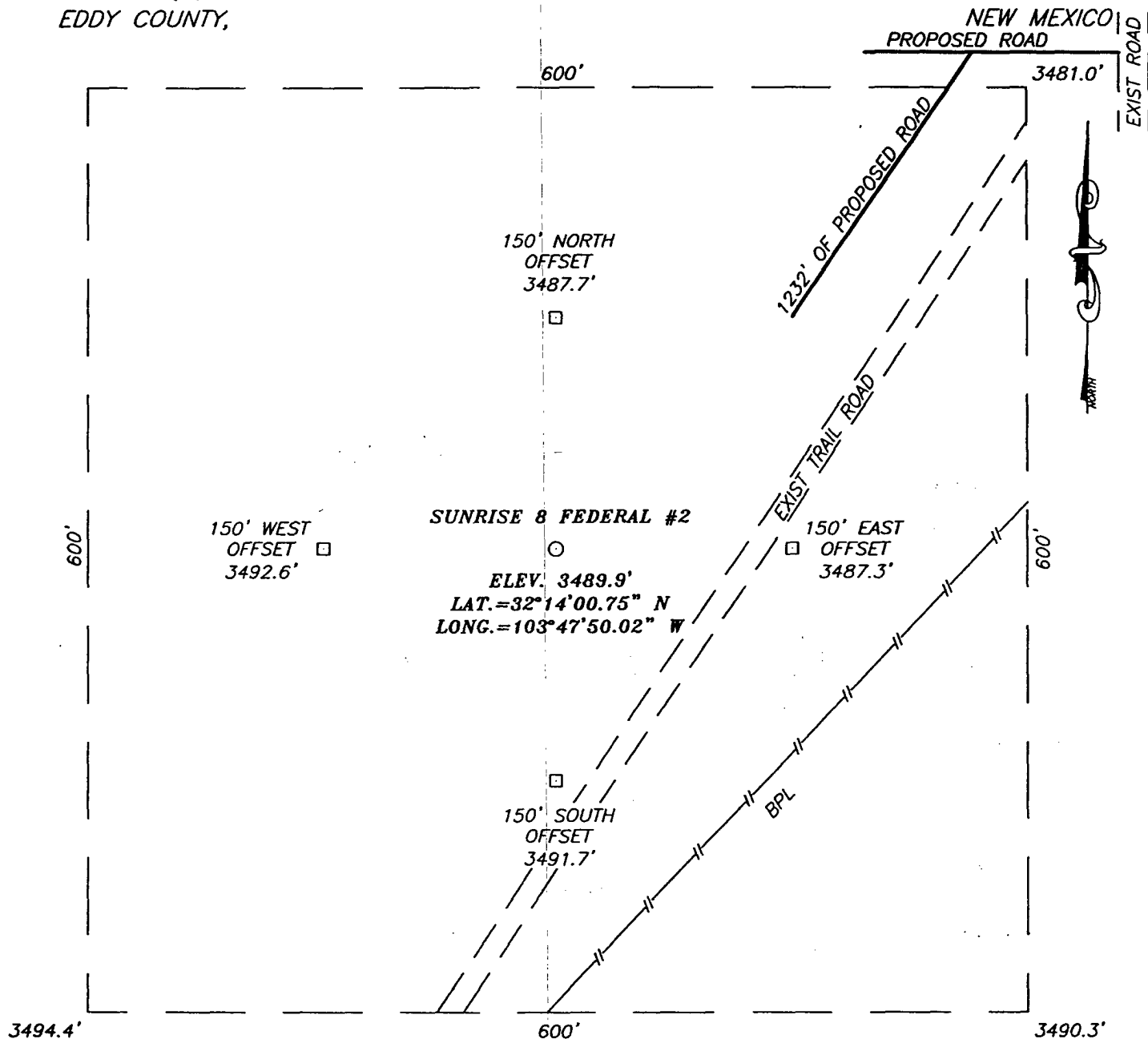
Approved

Date: AUG 26 2004

Printed Name/Title Paul Sep ID

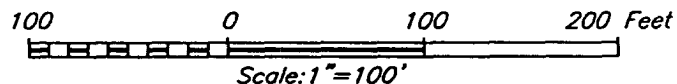
Signature Paul Sep ID

SECTION 8, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.,
EDDY COUNTY,



DIRECTIONS TO LOCATION

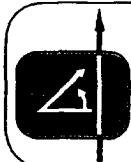
FROM THE INTERSECTION OF ST. HWY #128 AND CO. RD. #787 (TWIN WELLS RD.) GO SE ON ST. HWY #128 FOR APPROX. 1.0 MILE. TURN RIGHT ON CALICHE ROAD AND GO SOUTH FOR APPROX. 4.1 MILES. TURN RIGHT (WEST) AND GO APPROX. 0.4 MILES. PROPOSED LOCATION IS APPROX. 150' WEST.



POGO PRODUCING COMPANY

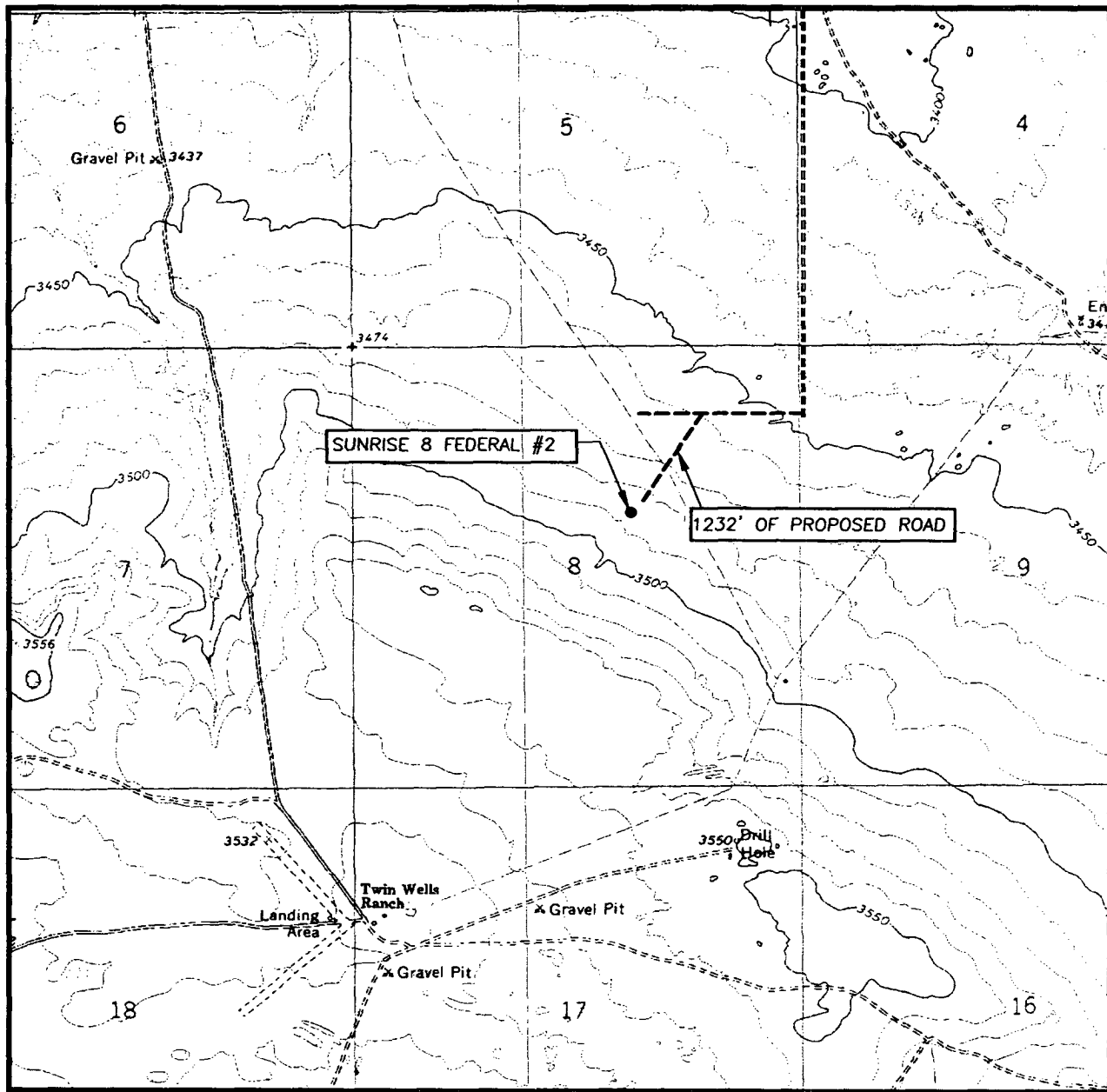
SUNRISE 8 FEDERAL #2 WELL
 LOCATED 1980 FEET FROM THE NORTH LINE
 AND 1980 FEET FROM THE EAST LINE OF SECTION 8,
 TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.

Survey Date: 07/15/04	Sheet 1 of 1 Sheets
W.O. Number: 04.11.0880	Dr By: J. RIVERO Rev 1:N/A
Date: 07/22/04	Disk: CD#10 04110880 Scale: 1"=100'



PROVIDING SURVEYING SERVICES
 SINCE 1948
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (505) 383-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BIG SINKS, N.M. - 10'

SEC. 8 TWP. 24-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

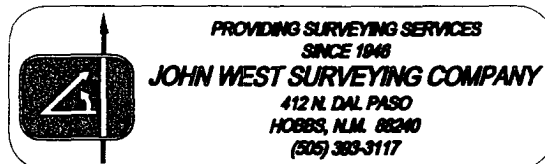
DESCRIPTION 1980' FNL & 1980' FEL

ELEVATION 3490'

POGO
OPERATOR PRODUCING COMPANY

LEASE SUNRISE 8 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
BIG SINKS, N.M.



APPLICATION TO DRILL

POGO PRODUCING COMPANY
 SUNRISE "8" FEDERAL # 2
 UNIT "G" SECTION 8
 T24S-R31E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

1. Location of well: 1980' FNL & 1980' FEL SECTION 8 T24S-R31E EDDY CO. NM

2. Ground Elevation above Sea Level: 3490' GR.

3. Geological age of surface formation: Quaternary Deposits:

4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium to remove solids from hole.

5. Proposed drilling depth: 8400'

6. Estimated tops of geological markers:

Rustler Anhydrite		Cherry Canyon	5160'
Basal Anhydrite	4020'	Manzanita	5340'
Delaware Lime	4240'	Brushy Canyon	6400'
Bell Canyon	4260'	Bone Spring	8070'

7. Possible mineral bearing formations:

Cherry Canyon	Oil	Bone Spring	Oil
Brushy Canyon	Oil		

8. Casing Program:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade
25"	0-40'	20"	NA	NA	NA	Conductor
17½"	0-975'	13 3/8"	48	8-R	ST&C	H-40
11"	0-4200'	8 5/8"	32	8-R	ST&C	J-55
7 7/8"	0-8400'	5½"	17 & 15.5	8-R	LT&C	J-55

APPLICATION TO DRILL

POGO PRODUCING COMPANY
 SUNRISE "8" FEDERAL # 2
 UNIT "G" SECTION 8
 T24S-R31E EDDY CO. NM

9. CASING SETTING DEPTHS & CEMENTING"

20"	Conductor	Set 40' of 20" conductor and cement to surface with Redi-mix.
13 3/8"	Surface	Set 975' of 13 3/8" 48# H-40 ST&C casing. Cement with 600 Sx. of Class "C" 65/35/6 POZ/GEL, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to Surface.
8 5/8"	Intermediate	Set 4200' of 8 5/8" 32# J-55 ST&C casing. Cement with 1000 Sx. of Class "C" 65/35/6 POZ/Gel + 5% NaCl, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cement to surface.
5 1/2"	Production	Set 8400' of 5 1/2" casing as follows: 2400' of 5 1/2" 17# J-55 LT&C, 5000' of 5 1/2" 15.5# J-55 LT&C, 1000' of 5 1/2" 17# J-55 LT&C. Cement in 3 stages with DV Tools at 5800'± & 3700'±. 1st stage cement with 650 Sx. of Class "H" cement + additives, 2nd stage cement with 600 Sx. of Class "C" cement + 8# of Gilsonite/Sx., 3rd stage cement with 400 Sx. of 65/35/6 Class "C" POZ/Gel, tail in with 100 Sx. of Class "C" + 1% CaCl, circulate cement to surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 2000 PSI working pressure B.O.P. consisting of a stripper head instead of an annular preventor, blind rams, and pipe rams. This B.O.P. stack is being used because of sub-structure limitations of the drilling rig being used to drill this well. Pressures encountered while drilling are not expected to exceed 1700 PSI at total depth, Pogo requests permission to 3rd party test of the B.O.P. after setting the intermediate casing at 4200'. The B.O.P. will be tested according to APT specifications. Exhibit "E-1" shows a manually operated choke manifold as no remote B.O.P equipment will be necessary.

11. PROPOSED MUD SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD
40-975'	8.4-8.7	29-34	NC	Fresh water spud mud add paper to control seepage.
975-4200'	10.0-10.2	29-38	NC	Brine water use paper to control seepage and use high viscosity sweeps to clean hole.
4200-8400'	8.4-8.7	29-40	NC*	Fresh water add fresh water Gel to control Visc. use high viscosity sweeps to clean hole.

* The water loss may have to be reduced and controlled in order to protect formation, log, and/or run casing. If water loss control is required use a Polymer system.

Sufficient mud materials to maintain mud properties, for lost circulation, increased weight requirements, will be kept at the well site at all times. In order to run casing, logs, and/or DST's the water loss may have to be controlled. These materials will be on location.

APPLICATION TO DRILL

POGO PRODUCING COMPANY
SUNRISE "8" FEDERAL # 2
UNIT "G" SECTION 8
T24S-R31E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Induction, SNP, LDT, Gamma Ray, Caliper from TD back to 8 5/8" casing shoe.
- B. Cased hole logs: Gamma Ray, Neutron will be run from 8 5/8" casing shoe back to surface.
- C. Mud logger may be rigged up on hole after 8 5/8" casing is cemented in place.
- D. No cores or DST's are planned at this time.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H²S in this area. If H²S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 1700± PSI, and Estimated BHT 145°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 24 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The DELAWARE formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialized as an oil well.

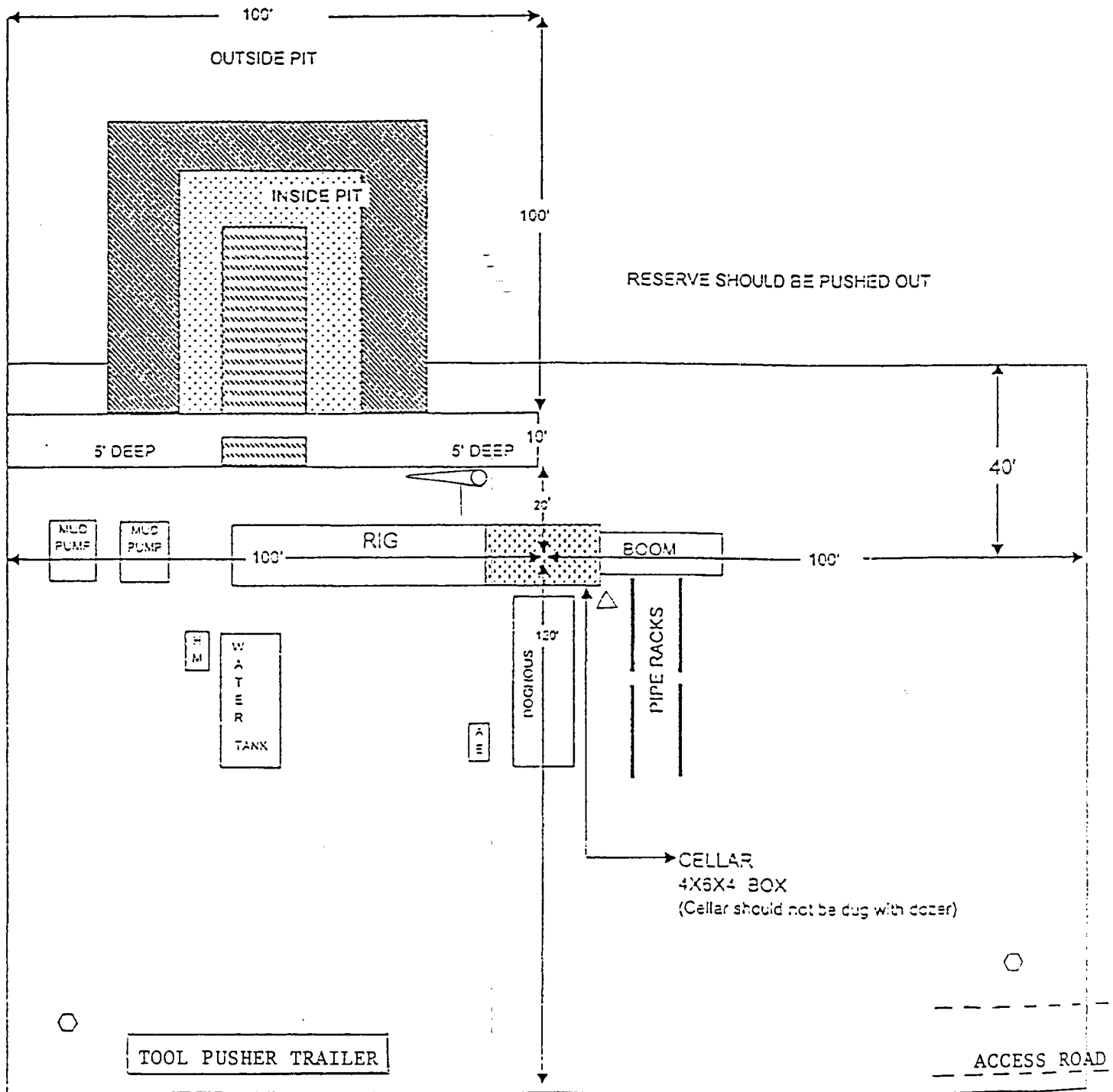
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
3. Windsack and/or wind streamers
 - A. Windsack at mudpit area should be high enough to be visible.
 - B. Windsack at briefing area should be high enough to be visible.
 - C. There should be a windsack at entrance to location.
4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H₂S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
 - A. See exhibit "E" & "E-1"
6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If the location is near to a dwelling a closed DST will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
9. If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary.

LOCATION SPECIFICATIONS AND RIG LAYOUT FOR EARTH PITS



Cellar can be 4X4X4 if using a screw-on wellhead
Working Pits dug 5' below ground level!

- > Wind Direction Indicators
(wind sock or streamers)
- > H2S Monitors
(alarms at bell nipple and shale shaker)
- > Briefing Areas
- > Remote BOP Closing Unit
- > Sign and Condition Flags

Location Specs

EXHIBIT "D" RIG LAY OUT PLAT

POGO PRODUCING COMPANY
SUNRISE "8" FEDERAL # 2
UNIT "G" SECTION 8
T24S-R31E EDDY CO. NM

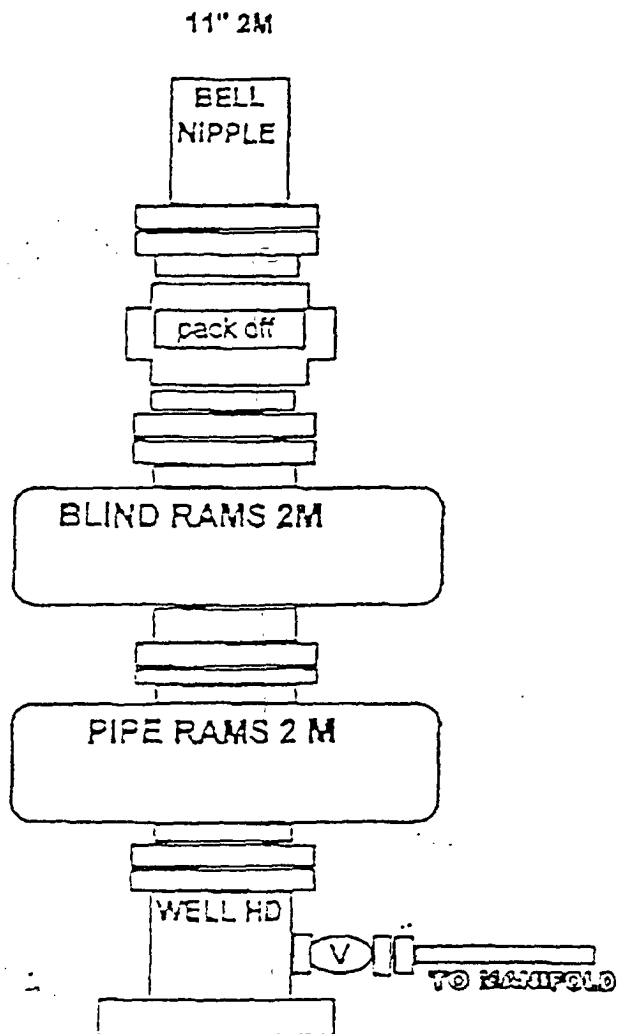


EXHIBIT "E"
 SKETCH OF B.O.P. TO BE USED ON

POGO PRODUCING COMPANY
 SUNRISE "8" FEDERAL # 2
 UNIT "G" SECTION 8
 T24S-R31E EDDY CO. NM

3000 PSI WP

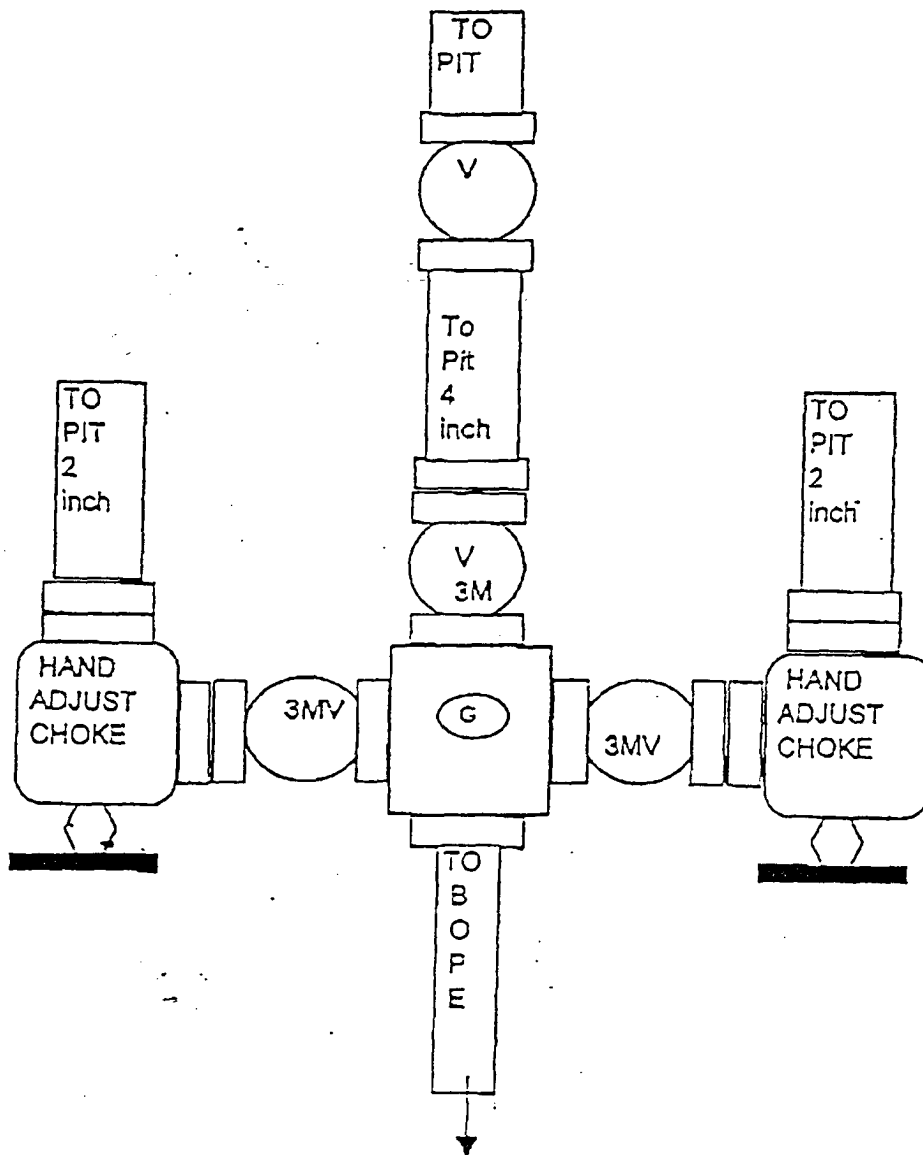


EXHIBIT "E-1"
SKETCH OF CHOKE MANIFOLD

POGO PRODUCING COMPANY
SUNRISE "8" FEDERAL # 2
UNIT "G" SECTION 8
T24S-R31E EDDY CO. NM