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-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
POGO PRODUCING COMPANY P.O. BOX 10340 MIDLAND, TEXAS 79702-7340	17891
RECEIVED MAR 15 2006 OCD-ARTESIA	API Number 30 - 015-34695

[4] Property Code	[5] Property Name	[6] Well No.
13081	H. BUCK STATE	10

[9] Proposed Pool 1	[10] Proposed Pool 2
PIERCE CROSSING-BONE SPRING (50371)	

[7] 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	16	24S	29E		660'	SOUTH	330'	EAST	EDDY

[8] Proposed 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
M	16	~~25S~~ 24S	29E		660'	SOUTH	660'	WEST	EDDY

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	O	ROTARY	S	2927'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
NO	MD10775 TVD7653'	BONE SPRING	CAPSTAR	WHEN APPROVED

Depth to Groundwater	Distance from nearest fresh water well	Distance from nearest surface water
50'-	1 Mi/NW	Pecos River 700' NW

Pit: Liner: Synthetic ☒ 12 mils thick Clay ☐ Pit Volume: 18M bbls Drilling Method:

Closed-Loop System ☐ Fresh Water ☒ Brine ☒ Diesel/Oil-based ☐ Gas/Air ☐

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	Conductor	40'	Redi-mix	Surface
17½"	13 3/8"	48#	265'	350 Sx.	Surface
12¼"	9 5/8"	40#	2860'	1000 Sx.	Surface
8½" - 7 7/8"	5½"	17#	MD-10775'	900 Sx.	2900' FS
			TVD7653		

[22] Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

SEE ATTACHED SHEET

As a condition of approval, if during pit construction water is encountered or if water seeps in pits after construction the OCD MUST BE CONTACTED IMMEDIATEY!

A PIT CLOSURE PLAN MUST BE APPROVED PRIOR TO THE COMMENCEMENT OF CLOSURE OPERATIONS.

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Printed name: Joe T. Janica

Title: Agent

E-mail Address: joejanica@valornet.com

Date: 03/14/06 Phone: 505-391-8503

OIL CONSERVATION DIVISION

Approved by: Jerry W. Sexton
District II Supervisor

Title:

Approval Date: MAR 16 2006 Expiration Date: MAR 16 2007

Conditions of Approval Attached ☐

POGO PRODUCING COMPANY
H. BUCK STATE # 10
SL UNIT "P" SEC. 16
BHL UNIT "M" SEC. 16
T24S-R29E EDDY CO. NM

1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.

2. Drill 17½" hole to 265'. Run and set 265' of 13 3/8" 48# H-40 ST&C casing. Cement with 150 Sx. of 65/35/6 Class "C" POX/GEL,, tail in with 200 Sx. of Class "C" cement + ¼# Flocele/Sx., + 2% CaCl, circulate cement to surface.

3. Drill 12¼" hole to 2860'. Run and set 2860' of 9 5/8" 40# J-55 LT&C casing. Cement with 800 Sx. of Class "C" 65/35/6 POZ/Gel + 5% salt, tail in with 200 Sx. of Class "C" cement + 2% CaCl, circulate cemet to surface. Lead cement volume may be changed after fluid caliper is run.

4. Drill 8½" hole through curve to 7730'. change bit and drill 7 7/8" hole to complete lateral, MD-10,775', TVD-7653'. Run and set 10,775' of 5½" 17# N-80 LT&C & BTC casing.Cement with 900 Sx. of Class "H" Premium Plus cement + additives, estimate top of cement 2900' from surface.

State of New Mexico
Energy, Minerals and Natural Resources Department

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1625 N. FRENCH DR., HOBBS, 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

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005
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	Pool Name
	50371	PIERCE CROSSING-BONE SPRING

Property Code	Property Name	Well Number
13081	H. BUCK STATE	10

OGRID No.	Operator Name	Elevation
017891	POGO PRODUCING COMPANY	2927'

Surface Location

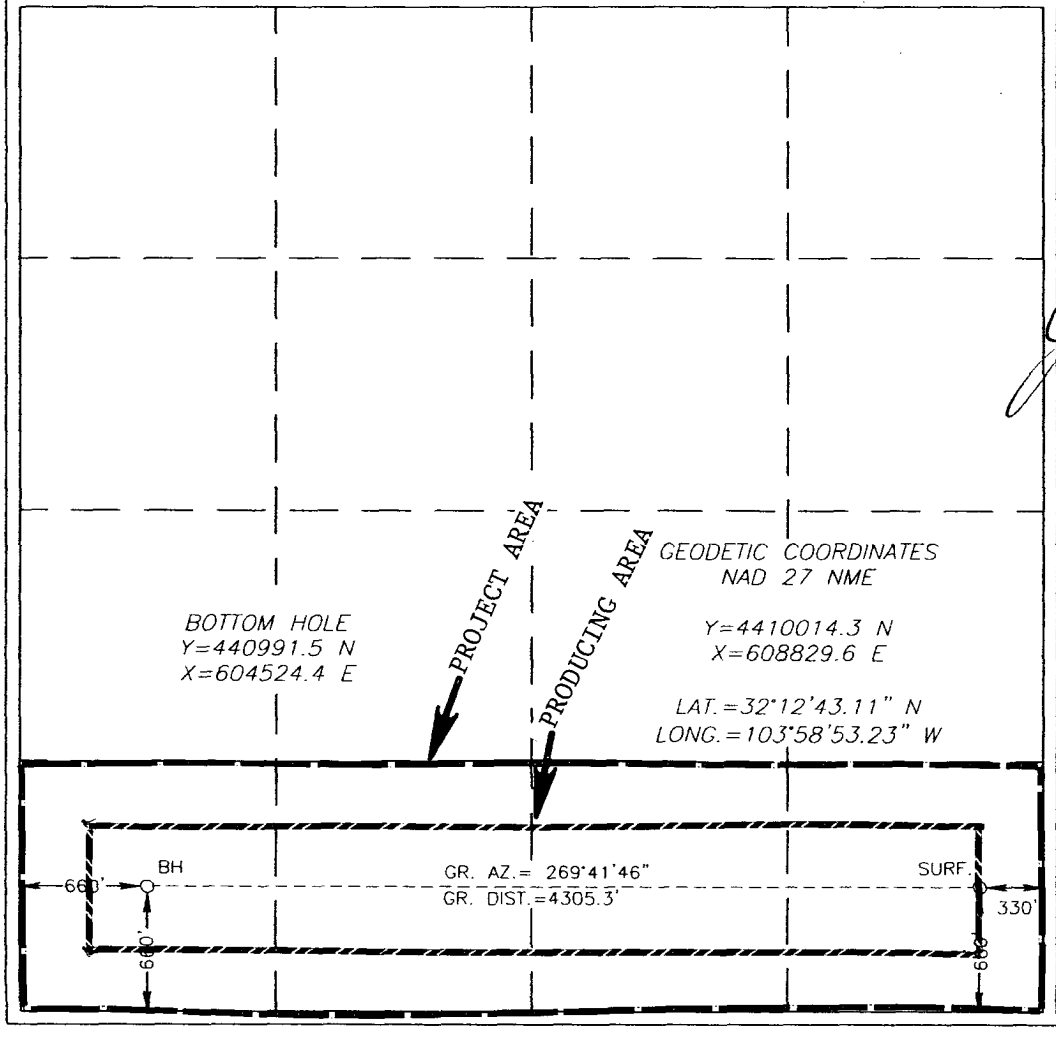
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	16	24-S	29-E		660	SOUTH	330	EAST	EDDY

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
M	16	24-S	29-E		660	SOUTH	660	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Joe T. Janica 03/14/06
Signature Date

Joe T. Janica (Agent)
Printed Name

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 supervision, and that the same is true and correct to the best of my belief.

GARY G. EIDSON
NEW MEXICO
MARCH 10, 2006
REGISTERED PROFESSIONAL SURVEYOR

Date Surveyed MR

Signature & Seal of Professional Surveyor

3/13/06

06.11.0501

Certificate No. GARY EIDSON 12641

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State of New Mexico
Energy Minerals and Natural Resources

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

Form C-144
June 1, 2004

For drilling and production facilities, submit to 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: H. Buck State #10 API #: U/L or Qtr/Qtr P Sec 16 T 24S R 29E
County: Eddy County Latitude 32:12:43.11N Longitude 103:58:53.23W 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 ☐
Pit 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
MAR 16 2006
OCD-ARTESIA

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	X	(20 points) 20
	50 feet or more, but less than 100 feet		(10 points)
	100 feet or more		(0 points)
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	X	(0 points) 0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	X	(20 points) 20
	200 feet or more, but less than 1000 feet		(10 points)
	1000 feet or more		(0 points)
	Ranking Score (Total Points)		40

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: (check the onsite box if your are burying in place) 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.

Additional Comments:

As a condition of approval, if during pit construction water is encountered or if water seeps in pits after construction the OCD MUST BE CONTACTED IMMEDIATEY!

USGS information shows this area to be water sensitive.

A plan must be approved prior to closure of pit.

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 ☐.**

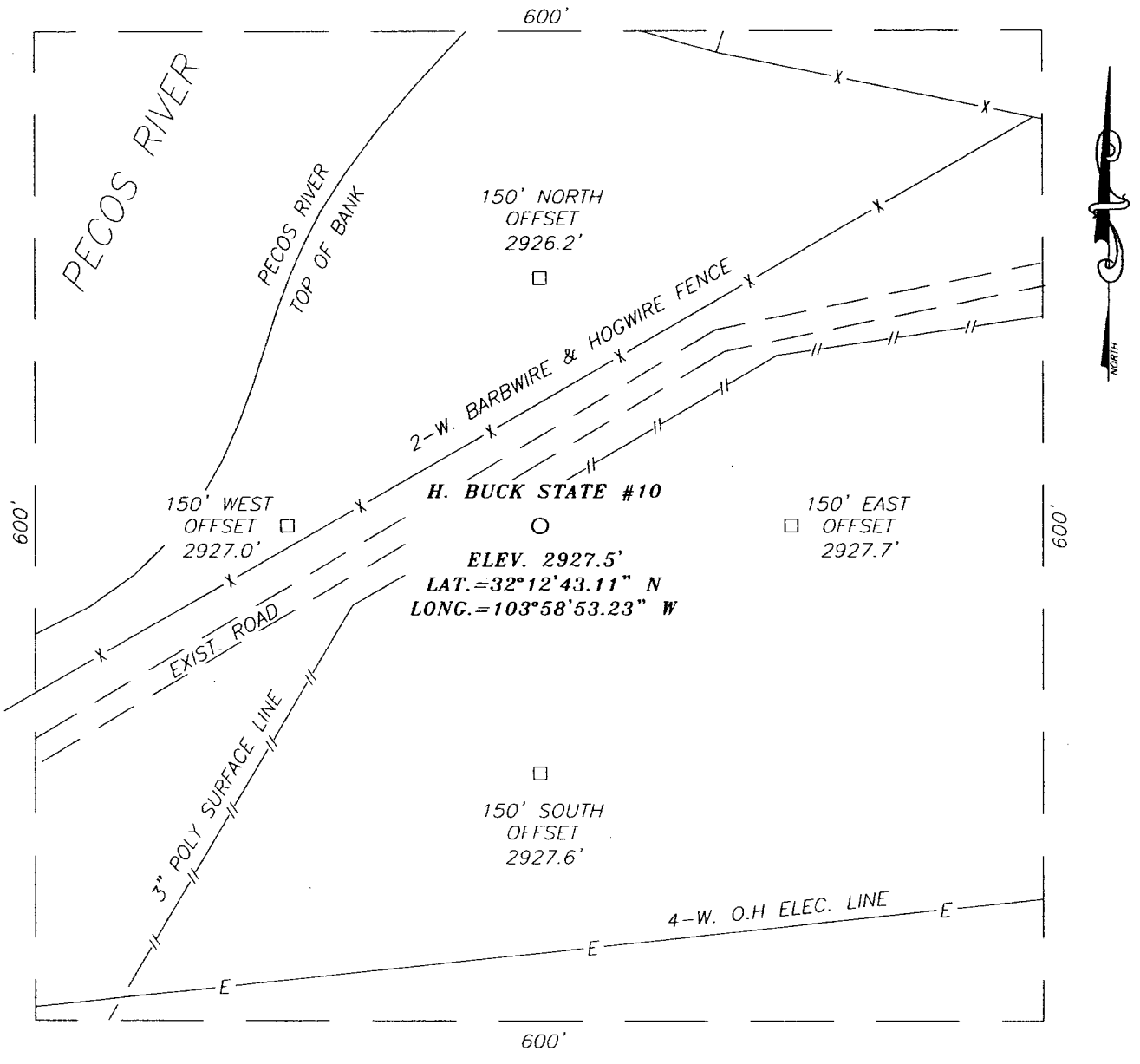
Date: 03-13-06
Printed Name/Title Cathy Wright, Sr Engineering Tech Signature Cathy Wright

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.

Approval:
Printed Name/Title Signature Date: MAR 16 2006

SECTION 16, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. 745 (HARROUN RD.) AND CO. RD. 788 (DOGTOWN), GO SOUTHEAST ON DOGTOWN APPROX. 1.3 MILES. TURN LEFT AND GO EAST APPROX. 0.6 MILES TO A "Y" INTERSECTION. TURN RIGHT AND GO SOUTHEAST APPROX. 0.3 MILES. TO A "Y" INTERSECTION. TURN LEFT AND GO EAST-SOUTHEAST APPROX. 1.2 MILES, ROAD BENDS RIGHT. CONTINUE SOUTH-SOUTHEAST APPROX. 0.45 MILES. TURN RIGHT AND GO WEST APPROX. 0.1 MILES. THIS LOCATION IS APPROX. 40 FEET SOUTH.

100 0 100 200 Feet

Scale: 1"=100'

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO

HOBBS, N.M. 88240

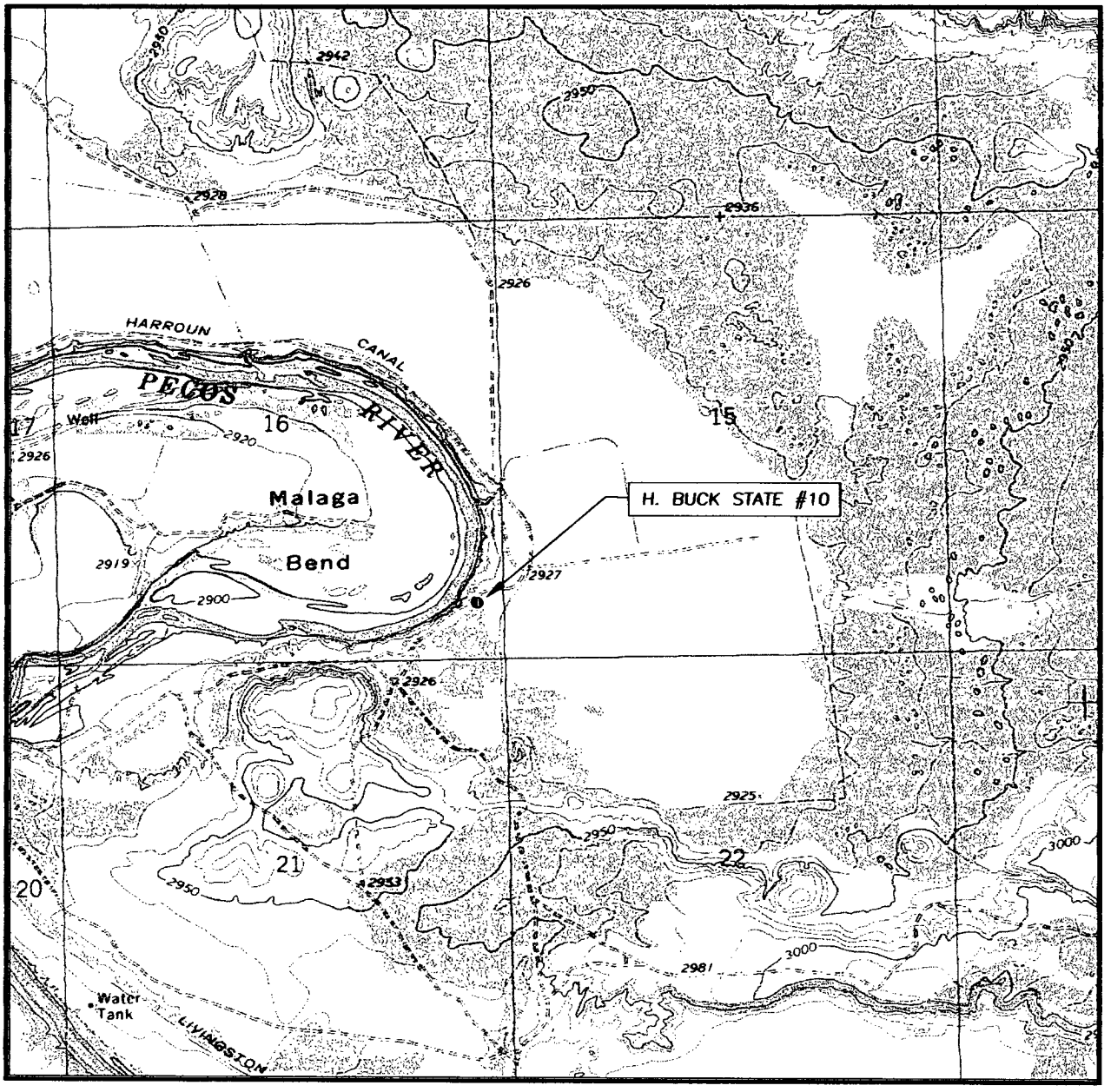
(505) 393-3117

POGO PRODUCING COMPANY

H. BUCK STATE #10
LOCATED 660 FEET FROM THE SOUTH LINE
AND 330 FEET FROM THE EAST LINE OF SECTION 16,
TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 03/10/06	Sheet 1 of 1 Sheets		
W.O. Number: 06.11.0501	Dr By: M.R.	Rev 1:N/A	
Date: 03/13/06	Disk: CD#1	06110501	Scale: 1"=100'

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
PIERCE CANYON, N.M. – 10'

SEC. 16 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 660' FSL & 330' FEL

ELEVATION 2927'

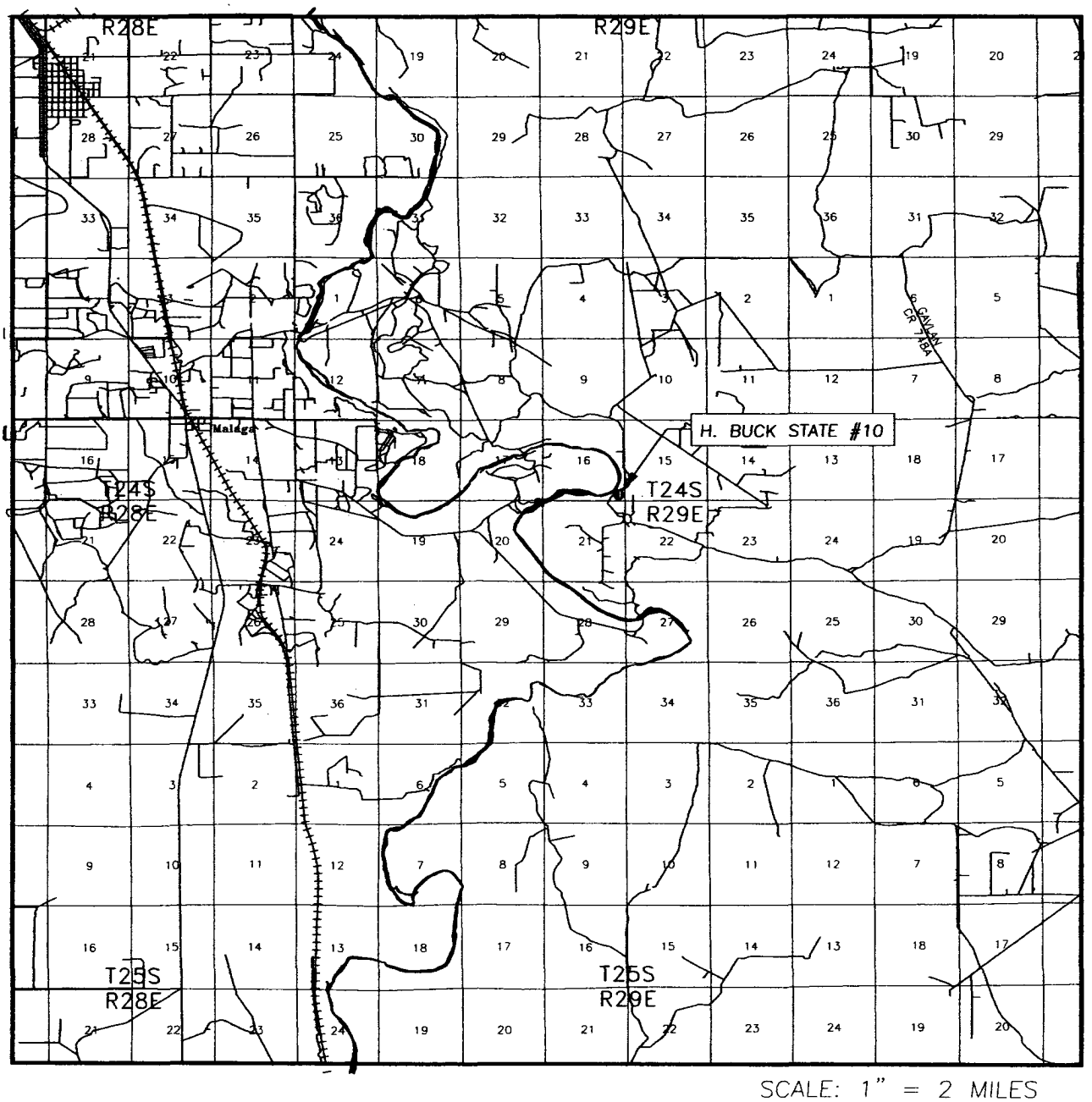
OPERATOR POGO PRODUCING COMPANY

LEASE H. BUCK STATE

U.S.G.S. TOPOGRAPHIC MAP
PIERCE CANYON, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 16 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 660' FSL & 330' FEL

ELEVATION 2927'

OPERATOR POGO PRODUCING COMPANY

LEASE H. BUCK STATE

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
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HOBBS, N.M. 88240
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AFE H. Buck State # 10H.xls

H. Buck #10

MITCHELL ENGINEERING PROGRAMS

LONG's METHOD OF SURVEY COMPUTATION

OBLIQUE CIRCULAR ARC INTERPOLATION

0	MD OF INTERPOLATION DEPTH.(feet)
#N/A	TVD COORDINATE OF THE DEPTH (feet)
#N/A	N/S COORDINATE OF DEPTH (feet)
#N/A	E/W COORDINATE OF DEPTH (feet)

DISTANCE TABLE

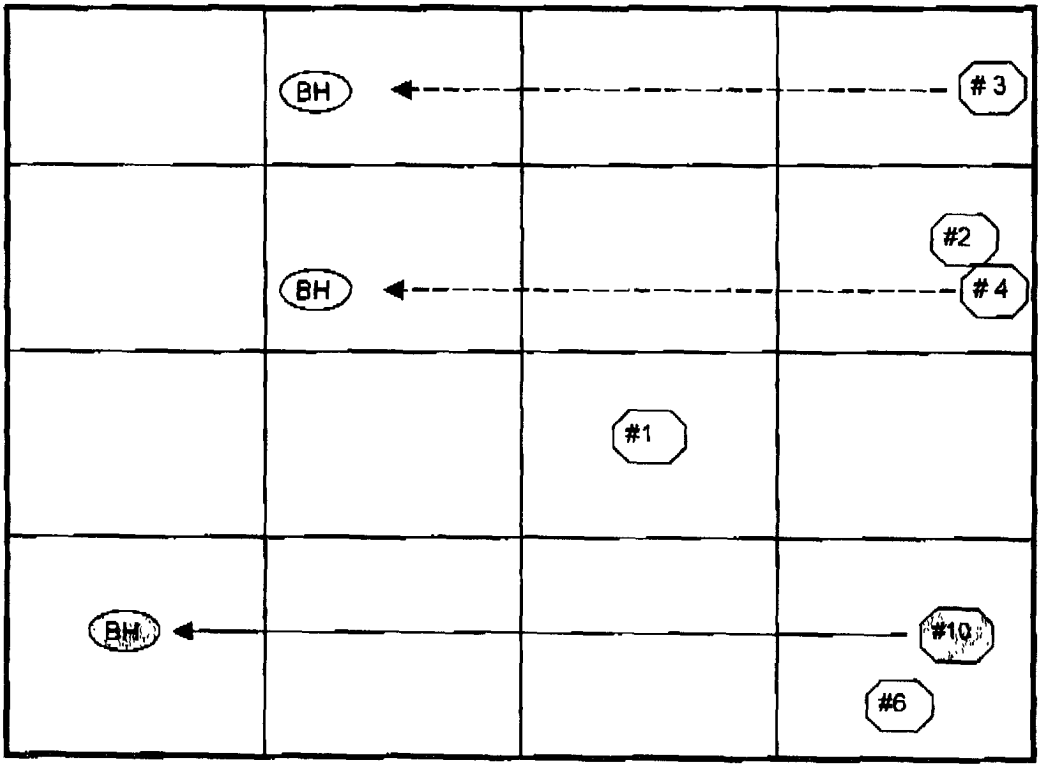
STATION A	STATION B	
3 D DISTANCE BETWEEN STATION A AND STATION B	0.00	ft
	Calculator =	

TABLE OF SURVEY STATIONS

STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+/S- ft	E+/W- ft	DLS deg/100FT
1	TIE POINT =>	0	0	7225.00	7225.00	0.00	0.00	-
2	100	12	270	7325.00	7324.27	0.00	-10.43	12.00
3	100	24	270	7425.00	7419.20	0.00	-41.28	12.00
4	100	36	270	7525.00	7505.65	0.00	-91.19	12.00
5	100	48	270	7625.00	7579.83	0.00	-157.98	12.00
6	100	60	270	7725.00	7638.50	0.00	-238.73	12.00
7	100	72	270	7825.00	7679.10	0.00	-329.92	12.00
8	100	84	270	7925.00	7699.85	0.00	-427.56	12.00
9	50	91	270	7975.00	7702.03	0.00	-477.48	14.00
10	100	91	270	8075.00	7700.28	0.00	-577.46	0.00
11	100	91	270	8175.00	7698.54	0.00	-677.45	0.00
12	100	91	270	8275.00	7696.79	0.00	-777.43	0.00
13	100	91	270	8375.00	7695.05	0.00	-877.42	0.00
14	100	91	270	8475.00	7693.30	0.00	-977.40	0.00
15	100	91	270	8575.00	7691.56	0.00	-1077.39	0.00
16	100	91	270	8675.00	7689.81	0.00	-1177.37	0.00
17	100	91	270	8775.00	7688.07	0.00	-1277.36	0.00
18	100	91	270	8875.00	7686.32	0.00	-1377.34	0.00
19	100	91	270	8975.00	7684.58	0.00	-1477.33	0.00
20	100	91	270	9075.00	7682.83	0.00	-1577.31	0.00
21	100	91	270	9175.00	7681.09	0.00	-1677.29	0.00
22	100	91	270	9275.00	7679.34	0.00	-1777.28	0.00
23	100	91	270	9375.00	7677.60	0.00	-1877.26	0.00
24	100	91	270	9475.00	7675.85	0.00	-1977.25	0.00
25	100	91	270	9575.00	7674.10	0.00	-2077.23	0.00
26	100	91	270	9675.00	7672.36	0.00	-2177.22	0.00
27	100	91	270	9775.00	7670.61	0.00	-2277.20	0.00
28	100	91	270	9875.00	7668.87	0.00	-2377.19	0.00
29	100	91	270	9975.00	7667.12	0.00	-2477.17	0.00
30	100	91	270	10075.00	7665.38	0.00	-2577.16	0.00
31	100	91	270	10175.00	7663.63	0.00	-2677.14	0.00
32	100	91	270	10275.00	7661.89	0.00	-2777.13	0.00
33	100	91	270	10375.00	7660.14	0.00	-2877.11	0.00
34	100	91	270	10475.00	7658.40	0.00	-2977.10	0.00
35	100	91	270	10575.00	7656.65	0.00	-3077.08	0.00
36	100	91	270	10675.00	7654.91	0.00	-3177.07	0.00
37	100	91	270	10775.00	7653.16	0.00	-3277.05	0.00

H. Buck State Well Goupings

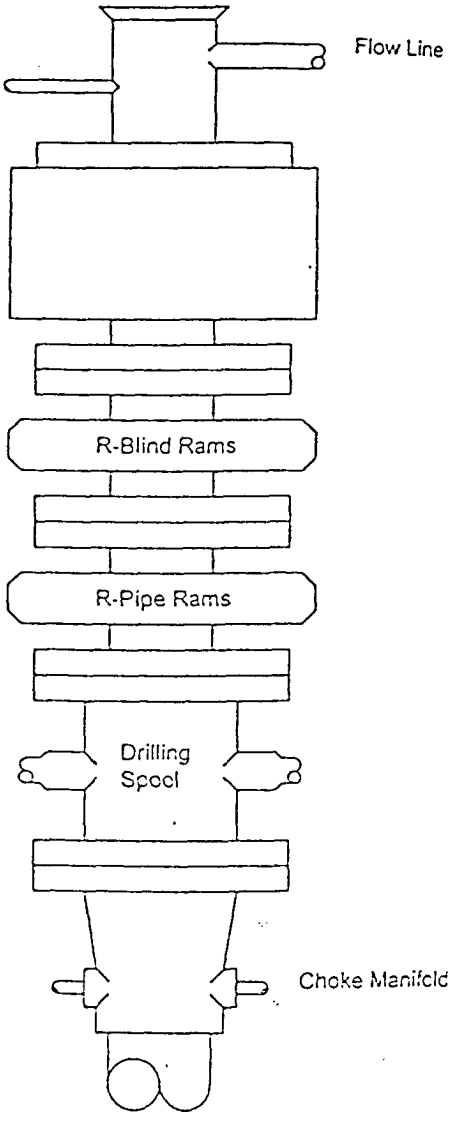
Sec 16, T-24-S, R-29-E, Eddy County, New Mexico



Well Name	Legal Location in 15	Depth and Strata	Current Prod Zone
H. Buck State #10 =	660 FSL & 330 FEL	TD 7700 1st Bone Sand	PROPOSED
H. Buck State # 1 =	1982 FSL & 1961 FEL	TD =7850 1st Bone Sand	Delaware Production
H. Buck State # 2 =	330 FNL & 1980 FEL	TD =7950 1st Bone Sand	Delaware Production
H. Buck State # 6 =	330 FSL & 660 FEL	TD 7815' = 1st Bone Sand	Delaware Production
H. Buck State # 3 =	660 FNL & 330 FEL	TVD 7608 1st Bone Sand	Bone Springs Prod
H. Buck State # 4 =	2310 FNL & 330 FEL	TVD 7608 1st Bone Sand	Bone Springs Prod

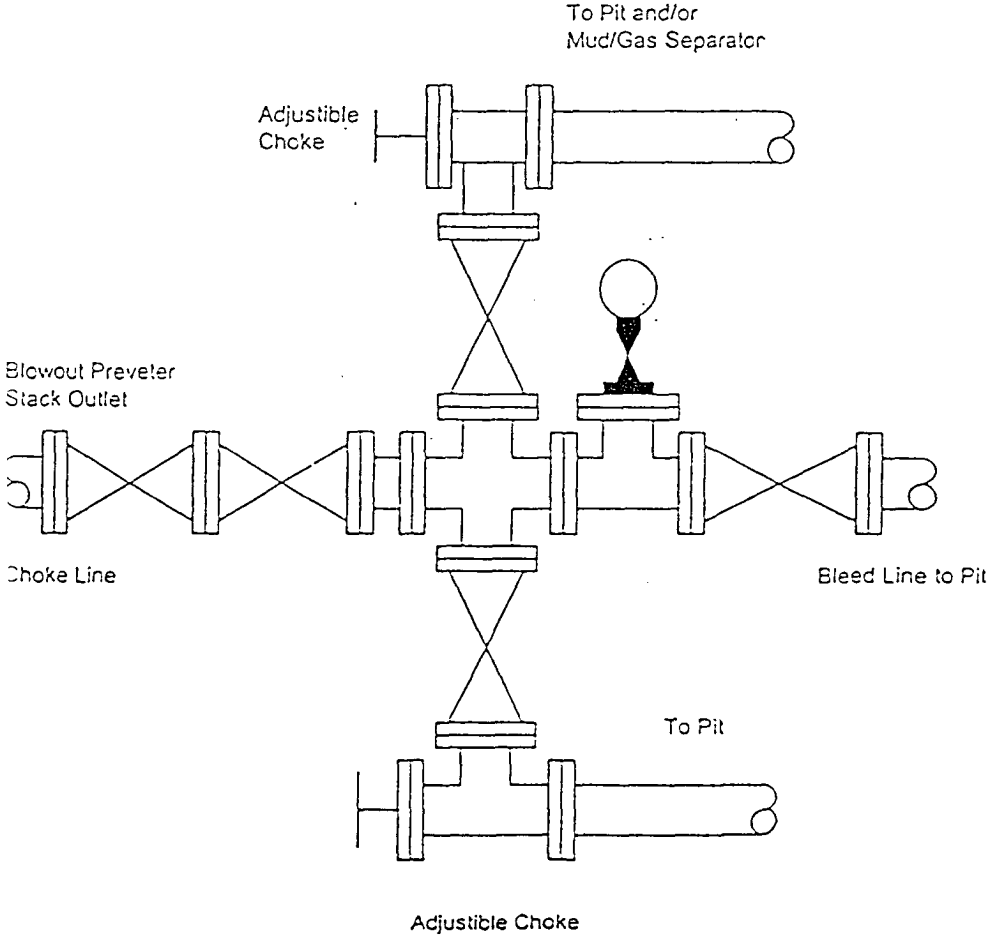
BLOWOUT PREVENTER SYSTEM

3000 PSI



900 SERIES
3000 PSI WP

Choke Manifold Assembly for 5M WP System



POGO PRODUCING COMPANY
H. BUCK STATE # 10
HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOCER/FACILITY

660' FSL & 330' FEL SECTION 16 T24S-R29E EDDY CO. NM

This well and its anticipated facility are not expected to have Hydrogen Sulfide releases. However, there may be Hydrogen Sulfide production in the nearby area. There are no private Residences in the area but a contingency plan has been orchestrated. Pogo Producing Company will have a Company Representative living on location through out the drilling of this well. An un-manned H2S safety trailer and monitoring equipment will also be station on location during the drilling operation below the Surface Casing depth of ± 265 FT. **until the completion of the subject well at ±** 10775 FT

POGO PRODUCING COMPANY
H. BUCK STATE # 10
HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOCER/FACILITY

660' FSL & 330' FEL SECTION 16 T24S-R29E EDDY CO. NM

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POGO PRODUCING COMPANY
H. BUCK STATE # 10
HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOCER/FACILITY

660' FSL & 330' FEL SECTION 16 T24S-R29E EDDY CO. NM

General H2S Emergency Actions:

1. All personnel will immediately evacuate to an up-wind and if possible up-hill "safe area"
2. If for any reason a person must enter the hazardous area, they must wear a SCBA (Self Contained Breathing Apparatus)
3. Always use the "buddy system"
4. Isolate the well/problem if possible
5. Account for all personnel
6. Display the proper colors warning all unsuspection personnel of the danger at hand.
7. Contact the Company personnel as soon as possible if not at the location. (use the enclosed call list as instructed

At this point the company representative will evaluate the situation and coordinate the necessary duties to bring the situation under control, and if necessary, the notification of the emergency response agencies and nearby residents.

EMERGENCY PROCEDURES FOR AN UNCONTROLLABLE RELEASE OF H2S

1. All personnel will don the self contained breathing apparatus.
2. Remove all personnel to the "safe area". (always use the buddy system).
3. Contact company personnel if not on location.
4. Set in motion the steps to protect and or remove the general public to an upwind "safe area". Maintain strict security & safety procedures while dealing with the source.
5. No entry to any unauthorized personnel.
6. Notify the appropriate agencies: City Police-City Street (s)
   State Police- State Rd
   County Sheriff – County Rd.
7. Call the NMOCD

POGO PRODUCING COMPANY
H. BUCK STATE # 10
HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOCER/FACILITY

660' FSL & 330' FEL SECTION 16 T24S-R29E EDDY CO. NM

If at this time the supervising person determines the release of H2S cannot be contained to the site location and the general public is in harms way he will take the necessary steps to protect the workers and the public.
EMERGENCY CALL LIST: (Start and continue until ONE of these people have been contacted)

	OFFICE	MOBILE	HOME
POGO Producing Co.	432 685 8100		
Richard Wright	432 685 8140	432 556 7595	432 699 7108
Barrett Smith	432 685 8141	432 425 0149	432 520 7337
Rex Jasper	432 685 8143	432 631 0127	432 694 1839
Donny Davis	pgr 432 563 6944	432 556 5927	432 570 9555
Jerry Cooper	432 685 8101		432 697 4629

EMERGENCY RESPONSE NUMBERS:

State Police:	Eddy County		505 748 9718
State Police:	Lea County		505 392 5588
Sheriff	Eddy County		505 746 2701
Sheriff	Lea County		
Emergency Medical Ser	Eddy County		911 or 505 746 2701
(Ambulance)	Lea County	Eunice	911 or 505 394 3258
Emergency Response	Eddy County SERC		505 476 9620
	Lea County		
Artesia Police Dept			505 746 5001
Artesia Fire Dept			505 746 5001

POGO PRODUCING COMPANY
H. BUCK STATE # 10
HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOCER/FACILITY

660' FSL & 330' FEL SECTION 16 T24S-R29E EDDY CO. NM

Carlsbad Police Dept		**505 885 2111**
Carlsbad Fire Dept		**505 885 3125**
Loco Hills Police Dept		**505 677 2349**
Jal Police Dept		**505 395 2501**
Jal Fire Dept		**505 395 2221**
Jal ambulance		**505 395 2221**
Eunice Police Dept		**505 394 0112**
Eunice Fire Dept		**505 394 3258**
Eunice Ambulance		**505 394 3258**
Hobbs Police Dept		
NMOCD	**District 1 (Lea, Roosevelt, Curry)**	**505 393 6161**
	District 2 (Eddy Chavez)	**505 748 1283**
Lea County Information		**505 393 8203**
Callaway Safety	**Lea/Eddy County**	**505 392 2973**
BJ Services	**Artesia**	**505 746 3140**
	Hobbs	**505 392 5556**
Halliburton	**Artesia**	**1 800 523 2482**
	Hobbs	**1 800 523 2482**
Wild Well Control	**Midland**	**432 550 6202**
	Mobile	**432 553 1166**

POGO PRODUCING COMPANY
H. BUCK STATE # 10
HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOCER/FACILITY

660' FSL & 330' FEL SECTION 16 T24S-R29E EDDY CO. NM

PROTECTION OF THE GENERAL PUBLIC (ROE):

- 100 ppm at any public area (any place not associated with this site)
- 500 ppm at any public road (any road which the general public may travel)
- 100 ppm radius of ¼ mile in New Mexico will be assumed if there is insufficient data to do the calculations, and there is a reasonable expectation that H2S could be present in concentrations greater than 100 ppm in the gas mixture

CALCULATIONS FOR THE 100 PPM (ROE) "Pasquill-Gifford equation"

X = [(1.589) (mole fraction) (Q- volume in std cu ft)] to the power of (0.6258)

CALCULATION FOR THE 500 PPM ROE:

X = [(.4546) (mole fraction) (Q- volume in std cu ft)] to the power of (0.6258)

Example:

If a well/facility has been determined to have 150 / 500 ppm H2S in the gas mixture and the well/facility is producing at a gas rate of 100 MCFPD then:

150 ppm X= [(1.589) (.00015) (100,000 cfd)] to the power of (.6258)
X= 7 ft

500 ppm X= [(.4546) (.0005) (100,000 cfd)] to the power of (.6258)
X = 3.3 ft.

(These calculations will be forwarded to the appropriate District NMOCD office when Applicable)

PUBLIC EVACUATION PLAN:

- 1. Notification of the emergency response agencies of the hazardous condition and implement evacuation procedures.
- A trained person in H2S safety, shall monitor with detection equipment the H2S concentration, wind and area exposure (ROE). This person will determine the outer perimeter of the hazardous area. The extent of the evacuation area will be determined from the data being collected. Monitoring shall continue until the situation has been resolved. **(All monitoring equipment shall be UL approved, for use in class 1**

groups A,B,C &D, Division 1, hazardous locations. All monitor will have a minimum capability of measuring H2S , oxygen, and flammable values).

- Law enforcement shall be notified to set up necessary barriers and maintain such for the duration of the situation as well as aid in the evacuation procedure.
- The company supervising personnel shall stay in communication with all agencies through out the duration of the situation and inform such agencies when the situation has been contained and the effected area(s) is safe to enter.

PROCEDURE FOR IGNITING AN UNCONTROLABLE CONDITION:

- 1. Human life and/or property are in danger
- 2. There is no hope of bringing the situation under control with the prevailing conditions at the site.

INSTRUCTION FOR IGNITION:

- 1. Two people are required. They must be equipped with positive pressure, self contained breathing apparatus and a "D" ring style full body, OSHA approved safety harness. Non flammable rope will be attached.

- 2. One of the people will be qualified safety person who will test the atmosphere for H2S, Oxygen & LFL. The other person will be the company supervisor; he is responsible for igniting the well.

- 3. Ignite up wind from a distance no closer than necessary. Make sure that where you ignite from has the maximum escape avenue available. A 25 mm flare gun shall be used, with a ± 500 ft. range to ignite the gas.

- 4. Prior to ignition, make a final check for combustible gases.

- 5. Following ignition, continue with the emergency actions & procedures as before.

POGO PRODUCING COMPANY
H. BUCK STATE # 10
HYDROGEN SULFIDE CONTINGENCY PLAN
FOR DRILLING/WORKOCER/FACILITY

660' FSL & 330' FEL SECTION 16 T24S-R29E EDDY CO. NM

REQUIRED EMERGENCY EQUIPMENT:

- **1. Breathing apparatus:**
  - Rescue Packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
  - Work/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
  - Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.

- **2. Signage & Flagging:**
  - One color code condition sign will be placed at the entrance to the site reflection the possible conditions at the site.
  - A colored condition flag will be on display, reflecting the condition at the site at the time.

- **3. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.**

- **4. Wind Socks: Two wind socks will be placed in strategic locations, visible from all angles.**

- **5. H2S detectors and alarms: The stationary detector with thre sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days ora as needed. The sensors will be placed in the following places: (Gas sample tubes will be stored in the safety trailer)**
  - Rig Floor
  - Bell Nipple
  - End of Flow line or where well bore fluid are being discharged.

- **6. Auxiliary Rescue Equipment:**
  - Stretcher
  - Two OSHA full body harness
  - 100 ft 5/8 inch OSHA approved rope

- 1-20# class ABC fire extinguisher
- Communication via cell phones on location and vehicles on location.

USING SELF CONTAINED BREATHING AIR EQUIPMENT (SCBA):

- (SCBA) SHOULD BE WORN WHEN ANY OF THE FOLLOWING ARE PERFORMED:
  - Working near the top or on top of a tank
  - Disconnecting any line where H2S can reasonably be expected
  - Sampling air in the area to determine if toxic concentrations of H2S exist.
  - Working in areas where over 10 ppm on H2S has been detected.
  - At any teim there is a doubt as the level of H2S in the area.

- All personnel shall be trained in the use of SCBA prior to working in a potentially hazardous locaton.
- Facial hair and standard eyeglasses are not allowed with SCBA.
- Contact lenses are never allowed with SCBA.
- Air quality shall be continuously be checked during the entire operation.
- After each use, the SCBA unit shall be cleaned, disinfected, serviced and inspected
- All SCBA shall be inspected monthly.

RESCUE AND FIRST AID FOR VICTIMS OF HYDROGEN SULFIDE (H2S) POISONING:

- Do not panic
- Remain Calm & think
- Get on the breathing apparatus

- Remove the victim to the safe breathing area as quickly as possible. Up wind an uphill from source or cross wind to achieve upwind.
- Notify emergency response personnel.
- Provide artificial respiration and or CPR, as necessary
- Remove all contaminated clothing to avoid further exposure.
- A minimum of two personnel on location shall be trained in CPR and First Aid.

HYDROGEN SULFIDE TOXIC EFFECTS

H2S is extremely toxic. The acceptable ceiling for eight hours of exposure is 10 ppm, which is .001% by volume. H2S is approximately 20% heavier than air (Sp. Gr= 1.19)(Air = 1) and colorless. It forms an explosive mixture with air between 4.3% and 46%. By volume hydrogen sulfide is almost as toxic as hydrogen cyanide and is 5-6 times more toxic than carbon monoxide.

Various Gases

COMMON NAME	CHEMICAL ABBREV.	SPECIFIC GRVTY.	THRESHOLD LIMITS	HAZARDOUS LIMITS	LETHAL CONCENTRATIONS
Hydrogen Sulfide	H2S	1.19	10ppm 15 ppm	100 ppm/hr	600 ppm
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Sulfur Dioxide	SO2	2.21	2 ppm	N/A	1000 ppm
Chlorine	CL2	2.45	1 ppm	4 ppm/hr	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1000 ppm
Carbon Dioxide	CO2	1.52	5000 ppm	5%	10%
Methane	CH4	0.55	90,000	Combustible @ 5%	N/A

Threshold limit: Concentrations at which it is believed that all workers may be repeatedly exposed, day after day without adverse effects.

Hazardous Limit: Concentrations that may cause death

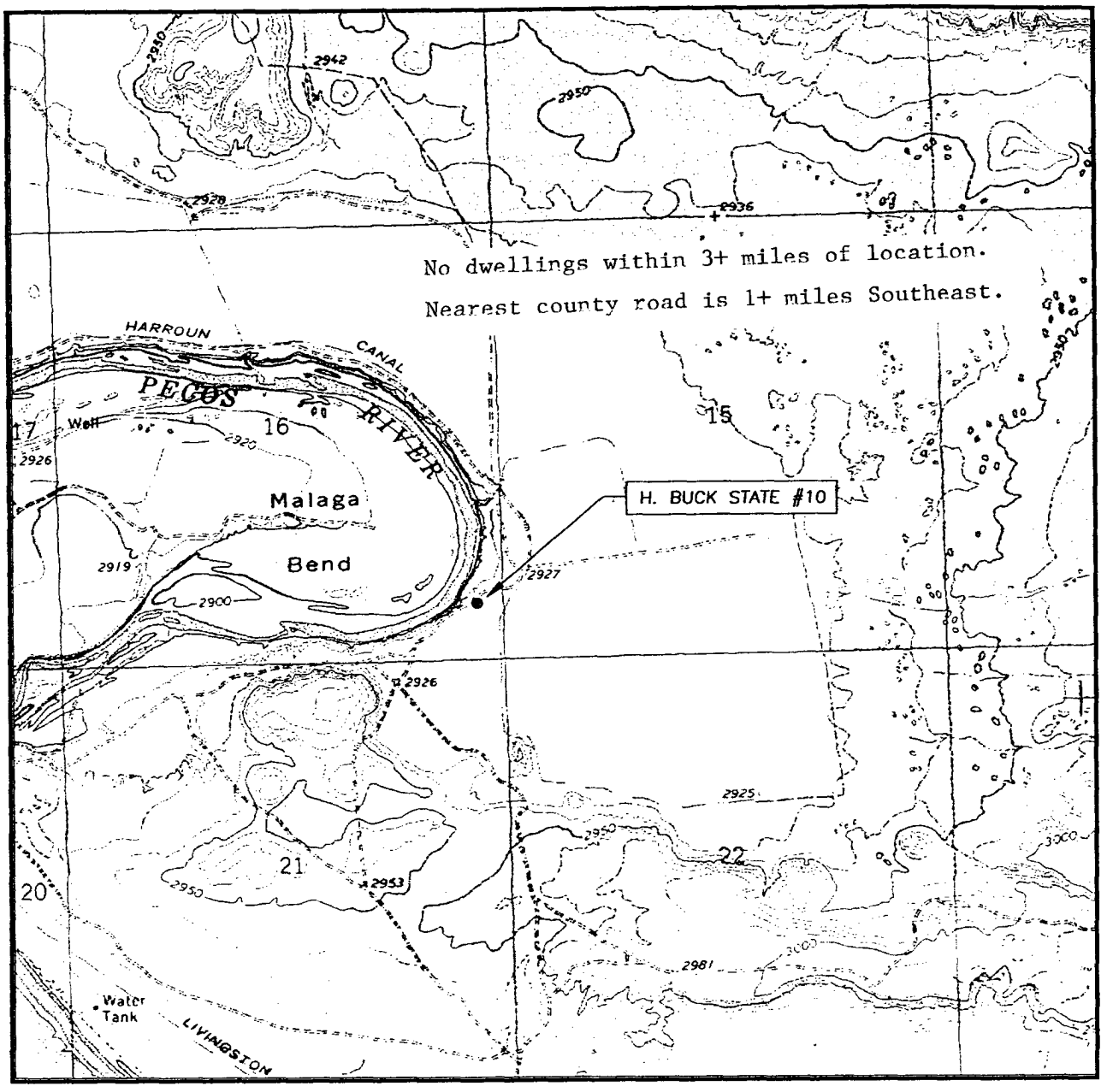
Lethal Concentrations: Concentrations that will cause death with short term exposure

Threshold limit - 10 ppm: NIOSH guide to chemical hazards

PHYSICAL EFFECTS OF HYDROGEN SULFIDE:

CONCENTRATION		PHYSICAL EFFECTS
.001%	10 PPM	Obvious and unpleasant odor. Safe for 8 hr exposure
.005%	50 ppm	Can cause some flu like symptoms and can cause pneumonia
.01%	100 ppm	Kills the sense of smell in 3-15 minutes. May irritate the eyes and throat.
.02%	200 ppm	Kills the sense of smell rapidly. Severly irritates the eyes and throat. Severe flu like symptoms after 4 or more ours. May cause lung damage and or death.
.06%	600 ppm	Loss of consciousness quickly, death will result if not rescued promptly.

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
PIERCE CANYON, N.M. - 10'

SEC. 16 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 660' FSL & 330' FEL

ELEVATION 2927'

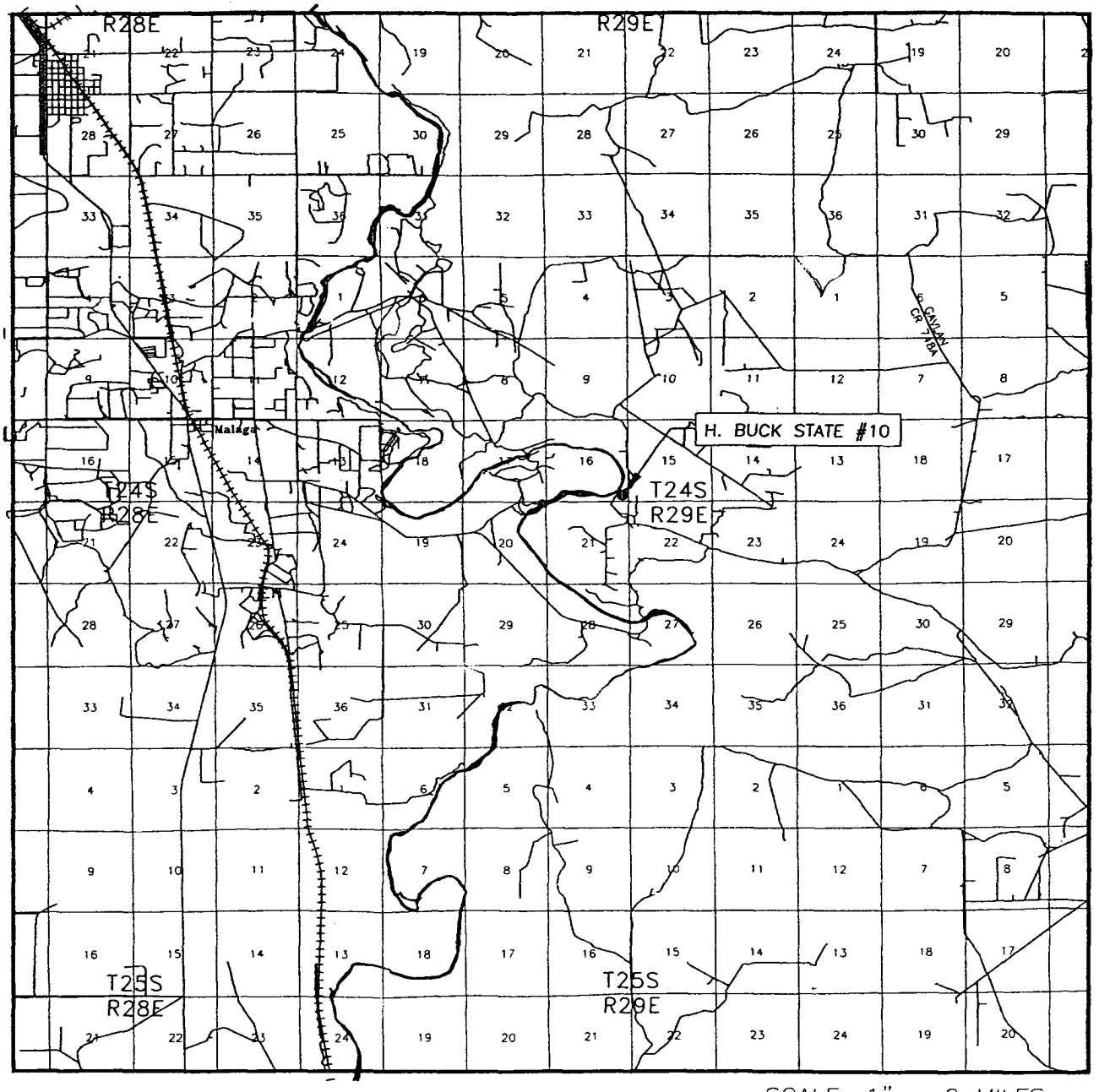
OPERATOR POGO PRODUCING COMPANY

LEASE H. BUCK STATE

U.S.G.S. TOPOGRAPHIC MAP
PIERCE CANYON, N.M.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 16 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 660' FSL & 330' FEL

ELEVATION 2927'

OPERATOR POGO PRODUCING COMPANY

LEASE H. BUCK STATE

PROVIDING SURVEYING SERVICES
SINCE 1946
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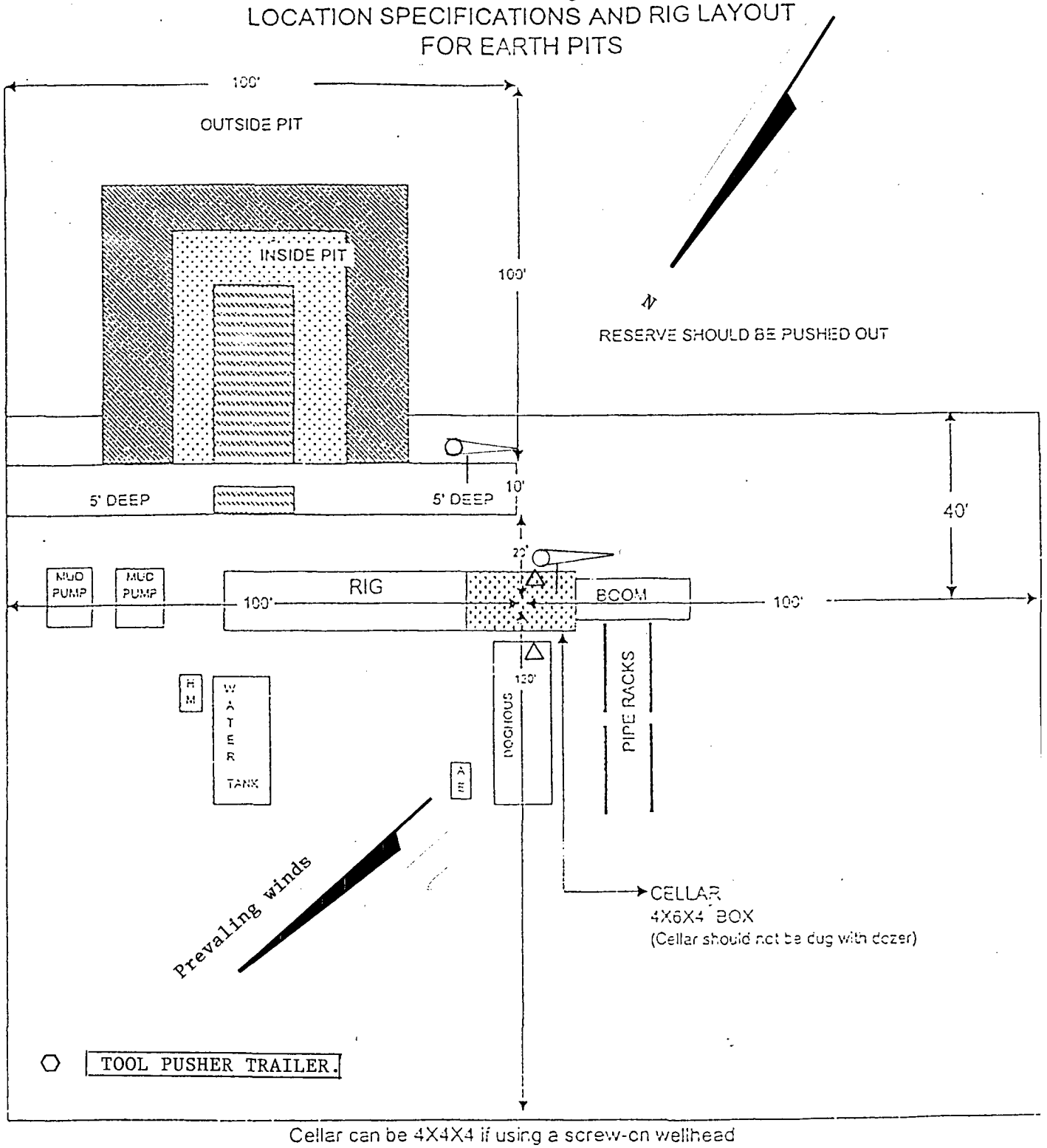
LOCATION SPECIFICATIONS AND RIG LAYOUT FOR EARTH PITS



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

PATHFINDER ENERGY SERVICES

PathFinder
Planning Report - Geographic

Company:	POGO Producing Company	**Date:**	3/16/2006	**Time:**	10:37:09 **Page:** 1
Field:	Pierce Crossing-Bone Spring East	**Co-ordinate(NE) Reference:**	Site: H Buck State #10, Grid North		
Site:	H Buck State #10	**Vertical (TVD) Reference:**	System: Mean Sea Level		
Well:	H-Buck State #10	**Section (VS) Reference:**	Well (0.00N,0.00E,270.00Azi)		
Wellpath:	Original Hole	**Plan:**	Plan #1 3-15-06		

Field: Pierce Crossing-Bone Spring East
Eddy County, New Mexico

Map System:	US State Plane Coordinate System 1927	**Map Zone:**	New Mexico, Eastern Zone
Geo Datum:	NAD27 (Clarke 1866)	**Coordinate System:**	Site Centre
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	igrf2005

Site: H Buck State #10
Eddy County, New Mexico
Section 16; T-24-S; R29-E

Site Position:		**Northing:**	442736.03 ft	**Latitude:**	32	13	0.000 N
From:	Geographic	**Easting:**	613396.96 ft	**Longitude:**	103	58	0.000 W
Position Uncertainty:	0.00 ft			**North Reference:**			Grid
Ground Level:	2927.00 ft			**Grid Convergence:**			0.20 deg

Well: H-Buck State #10 **Slot Name:**
Lats & Longs are Estimated as of 3-16-06

Well Position:	**+N/-S**	0.00 ft	**Northing:**	442736.03 ft	**Latitude:**	32	12	59.999 N
	+E/-W	0.00 ft	**Easting :**	613396.96 ft	**Longitude:**	103	58	0.000 W
Position Uncertainty:		0.00 ft						

Wellpath: Original Hole

Drilled From:	Surface				
Tie-on Depth:	0.00 ft				
Current Datum:	Mean Sea Level	**Height**	0.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	3/16/2006			**Declination:**	8.38 deg
Field Strength:	49133 nT			**Mag Dip Angle:**	60.24 deg

Vertical Section:	**Depth From (TVD)** ft	**+N/-S** ft	**+E/-W** ft	**Direction** deg
	0.00	0.00	0.00	270.00

Plan: Plan #1 3-15-06 **Date Composed:** 3/16/2006
Version: 1
Principal: Yes **Tied-to:** From Surface

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	270.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7223.07	0.00	270.00	7223.07	0.00	0.00	0.00	0.00	0.00	0.00	
7979.40	90.76	270.00	7700.49	0.00	-483.80	12.00	12.00	0.00	270.00	
11785.94	90.76	270.00	7650.00	0.00	-4290.00	0.00	0.00	0.00	0.00	PBHL H. Buck State #10

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.00	0.00	270.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7000.00	0.00	270.00	7000.00	0.00	0.00	0.00	0.00	0.00	0.00	270.00
7200.00	0.00	270.00	7200.00	0.00	0.00	0.00	0.00	0.00	0.00	270.00
7223.00	0.00	270.00	7223.00	0.00	0.00	0.00	0.00	0.00	0.00	270.00
7223.07	0.00	270.00	7223.07	0.00	0.00	0.00	0.00	0.00	0.00	270.00

Section 2 : Start Build 12.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
7400.00	21.23	270.00	7395.98	0.00	-32.41	32.41	12.00	12.00	0.00	0.00
7600.00	45.23	270.00	7562.05	0.00	-141.22	141.22	12.00	12.00	0.00	0.00
7800.00	69.23	270.00	7669.51	0.00	-308.16	308.16	12.00	12.00	0.00	0.00
7979.00	90.71	270.00	7700.50	0.00	-483.40	483.40	12.00	12.00	0.00	0.00
7979.40	90.76	270.00	7700.49	0.00	-483.80	483.80	12.00	12.00	0.00	0.00

Company:	POGO Producing Company	**Date:** 3/16/2006	**Time:** 10:37:09	**Page:**	2
Field:	Pierce Crossing-Bone Spring East	**Co-ordinate(NE) Reference:**	Site: H Buck State #10, Grid North		
Site:	H Buck State #10	**Vertical (TVD) Reference:**	System: Mean Sea Level		
Well:	H-Buck State #10	**Section (VS) Reference:**	Well (0.00N,0.00E,270.00Azi)		
Wellpath:	Original Hole	**Plan:**	Plan #1 3-15-06		

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
8000.00	90.76	270.00	7700.22	0.00	-504.40	504.40	0.00	0.00	0.00	0.00
8200.00	90.76	270.00	7697.56	0.00	-704.38	704.38	0.00	0.00	0.00	0.00
8400.00	90.76	270.00	7694.91	0.00	-904.36	904.36	0.00	0.00	0.00	0.00
8600.00	90.76	270.00	7692.26	0.00	-1104.34	1104.34	0.00	0.00	0.00	0.00
8800.00	90.76	270.00	7689.61	0.00	-1304.32	1304.32	0.00	0.00	0.00	0.00
9000.00	90.76	270.00	7686.95	0.00	-1504.31	1504.31	0.00	0.00	0.00	0.00
9200.00	90.76	270.00	7684.30	0.00	-1704.29	1704.29	0.00	0.00	0.00	0.00
9400.00	90.76	270.00	7681.65	0.00	-1904.27	1904.27	0.00	0.00	0.00	0.00
9600.00	90.76	270.00	7678.99	0.00	-2104.25	2104.25	0.00	0.00	0.00	0.00
9800.00	90.76	270.00	7676.34	0.00	-2304.24	2304.24	0.00	0.00	0.00	0.00
10000.00	90.76	270.00	7673.69	0.00	-2504.22	2504.22	0.00	0.00	0.00	0.00
10200.00	90.76	270.00	7671.04	0.00	-2704.20	2704.20	0.00	0.00	0.00	0.00
10400.00	90.76	270.00	7668.38	0.00	-2904.18	2904.18	0.00	0.00	0.00	0.00
10600.00	90.76	270.00	7665.73	0.00	-3104.17	3104.17	0.00	0.00	0.00	0.00
10800.00	90.76	270.00	7663.08	0.00	-3304.15	3304.15	0.00	0.00	0.00	0.00
11000.00	90.76	270.00	7660.42	0.00	-3504.13	3504.13	0.00	0.00	0.00	0.00
11200.00	90.76	270.00	7657.77	0.00	-3704.11	3704.11	0.00	0.00	0.00	0.00
11400.00	90.76	270.00	7655.12	0.00	-3904.10	3904.10	0.00	0.00	0.00	0.00
11600.00	90.76	270.00	7652.47	0.00	-4104.08	4104.08	0.00	0.00	0.00	0.00
11785.94	90.76	270.00	7650.00	0.00	-4290.00	4290.00	0.00	0.00	0.00	0.00

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<— Latitude —> Deg	Min	Sec		<— Longitude —> Deg	Min	Sec	
7000.00	0.00	270.00	7000.00	0.00	0.00	442736.03	613396.96	32	12	59.999	N	103	58	0.000	W
7200.00	0.00	270.00	7200.00	0.00	0.00	442736.03	613396.96	32	12	59.999	N	103	58	0.000	W
7223.00	0.00	270.00	7223.00	0.00	0.00	442736.03	613396.96	32	12	59.999	N	103	58	0.000	W
7223.07	0.00	270.00	7223.07	0.00	0.00	442736.03	613396.96	32	12	59.999	N	103	58	0.000	W
7400.00	21.23	270.00	7395.98	0.00	-32.41	442736.03	613364.55	32	13	0.001	N	103	58	0.377	W
7600.00	45.23	270.00	7562.05	0.00	-141.22	442736.03	613255.75	32	13	0.005	N	103	58	1.644	W
7800.00	69.23	270.00	7669.51	0.00	-308.16	442736.03	613088.80	32	13	0.010	N	103	58	3.587	W
7979.00	90.71	270.00	7700.50	0.00	-483.40	442736.03	612913.57	32	13	0.016	N	103	58	5.627	W
7979.40	90.76	270.00	7700.49	0.00	-483.80	442736.03	612913.16	32	13	0.016	N	103	58	5.632	W
8000.00	90.76	270.00	7700.22	0.00	-504.40	442736.03	612892.57	32	13	0.017	N	103	58	5.871	W
8200.00	90.76	270.00	7697.56	0.00	-704.38	442736.03	612692.58	32	13	0.024	N	103	58	8.199	W
8400.00	90.76	270.00	7694.91	0.00	-904.36	442736.03	612492.60	32	13	0.030	N	103	58	10.527	W
8600.00	90.76	270.00	7692.26	0.00	-1104.34	442736.03	612292.62	32	13	0.037	N	103	58	12.855	W
8800.00	90.76	270.00	7689.61	0.00	-1304.32	442736.03	612092.64	32	13	0.044	N	103	58	15.183	W
9000.00	90.76	270.00	7686.95	0.00	-1504.31	442736.03	611892.66	32	13	0.050	N	103	58	17.511	W
9200.00	90.76	270.00	7684.30	0.00	-1704.29	442736.03	611692.67	32	13	0.057	N	103	58	19.838	W
9400.00	90.76	270.00	7681.65	0.00	-1904.27	442736.03	611492.69	32	13	0.064	N	103	58	22.166	W
9600.00	90.76	270.00	7678.99	0.00	-2104.25	442736.03	611292.71	32	13	0.070	N	103	58	24.494	W
9800.00	90.76	270.00	7676.34	0.00	-2304.24	442736.03	611092.73	32	13	0.077	N	103	58	26.822	W
10000.00	90.76	270.00	7673.69	0.00	-2504.22	442736.03	610892.74	32	13	0.084	N	103	58	29.150	W
10200.00	90.76	270.00	7671.04	0.00	-2704.20	442736.03	610692.76	32	13	0.090	N	103	58	31.478	W
10400.00	90.76	270.00	7668.38	0.00	-2904.18	442736.03	610492.78	32	13	0.097	N	103	58	33.806	W
10600.00	90.76	270.00	7665.73	0.00	-3104.17	442736.03	610292.80	32	13	0.103	N	103	58	36.134	W
10800.00	90.76	270.00	7663.08	0.00	-3304.15	442736.03	610092.81	32	13	0.110	N	103	58	38.461	W
11000.00	90.76	270.00	7660.42	0.00	-3504.13	442736.03	609892.83	32	13	0.116	N	103	58	40.789	W
11200.00	90.76	270.00	7657.77	0.00	-3704.11	442736.03	609692.85	32	13	0.123	N	103	58	43.117	W
11400.00	90.76	270.00	7655.12	0.00	-3904.10	442736.03	609492.87	32	13	0.130	N	103	58	45.445	W
11600.00	90.76	270.00	7652.47	0.00	-4104.08	442736.03	609292.88	32	13	0.136	N	103	58	47.773	W
11785.94	90.76	270.00	7650.00	0.00	-4290.00	442736.03	609106.96	32	13	0.142	N	103	58	49.937	W

PATHFINDER ENERGY SERVICES

PathFinder

Planning Report - Geographic

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<— Latitude —> Deg	Min	Sec		<— Longitude —> Deg	Min	Sec	
PBHL H. Buck State #10			7650.00	0.00	-4290.00	442736.03	609106.96	32	13	0.142	N	103	58	49.937	W

Annotation

MD ft	TVD ft	
7223.00	7223.00	KOP @ 7223' MD 7223' TVD
7223.00	7223.00	Begin 12°/100' Build Rate
7979.00	7700.50	Land Curve @ 90.76° Inc. 7979' MD 7700' TVD