RESUBMITTAL

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

RECEIVED
FEB 27 2006
OCD-ARTESIA

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, TX 79702-7340	017891
	[3] API Number 30 - 015- 33822

[5] Property Code	[5] Property Name	[6] Well No.
17565	HARROUN "15"	17

[9] Proposed Pool 1	[10] Proposed Pool 2
PIERCE CROSSING BONE SPRING EAST (96473)	

[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
M	15	24S	29E		660	SOUTH	330	WEST	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
O	15	24S	29E		660	SOUTH	1650	EAST	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	R	P	2927'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
NO	TV 8200, MD 10,800'	BONE SPRING	PATTERSON	WHEN APPROVED

Depth to Groundwater	Distance from nearest fresh water well	Distance from nearest surface water

Pit: Liner: Synthetic ☒ 12 mils thick Clay ☐ Pit Volume: 16000bbls 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
25"	20"	Conductor	40'	Redi-mix	Surface
17-1/2"	13-3/8"	48#	300'	650 sxs	Surface
12-1/4"	9-5/8"	32# & 24#	2900'	1000 sxs	Surface
8-1/2"	5-1/2"	17#	10,800' MD	1700 sxs	2000' FS

[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

If an earthen pit(s) will be utilized in association with this work, a permit must be obtained prior to pit construction.

[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: CATHY WRIGHT

Title: SR. ENG TECH

E-mail Address: WRIGHTC@POGOPRODUCING.COM

Date: 02/24/06 Phone: 432-685-8100

OIL CONSERVATION DIVISION

Approved by: District II Supervisor

Title:

Approval Date: MAR 06 2006 Expiration Date: MAR 06 2007

Conditions of Approval Attached ☐

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe & cmt to surface w/ redi- mix.

2. Drill 17-1/2" hole to 300'. Run & set 300' of 13-3/8", 48#, H-40, ST&C csg. Cmt w/ 650 sxs Cl "C" cmt + ¼# Flocele/sx & 2% CaCl2. Circ cmt to surface.

3. Drill 12-1/4" hole to 2900'. Run & set 2900' of 9-5/8", 36#, J-55 csg. Cmt w/ 1000 sxs Cl "C" + add. Circ cmt to surface.

4. Drill 8-1/2" hole to 8200'. Run Gyro & open hole logs. Plug back for kick off point @ 7250'. Drill curve w/ 8-1/2" hole. Drill lateral w/ 7-7/8" hole to a measured depth of 10,800'. BHL 660' FSL & 1650' FEL, Section 15. Run & set 5-1/2" csg as follows: 4000' of 5-1/2", 17#, N-80, BTC and 6800' of 5-1/2", 17#, N-80, LT&C. Cmt w/ 2500 sxs Cl "C" + add. Est TOC 2000' FS.

1. Drill surface hole to 550' w/ fresh water spud mud.

2. Drill intermediate hole w/ brine water to 2900'.

3. Drill production hole w/ cut brine base mud, use paper to control seepage and high viscosity sweeps to clean hole.

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-33822	96473	Pierce Crossing Bone Spring East

[4] Property Code	[5] Property Name	[6] Well Number
17565	Harroun 15	17

[7] OGRID No.	[8] Operator Name	[9] Elevation
017891	Pogo Producing Company	2927'

[10] Surface Location

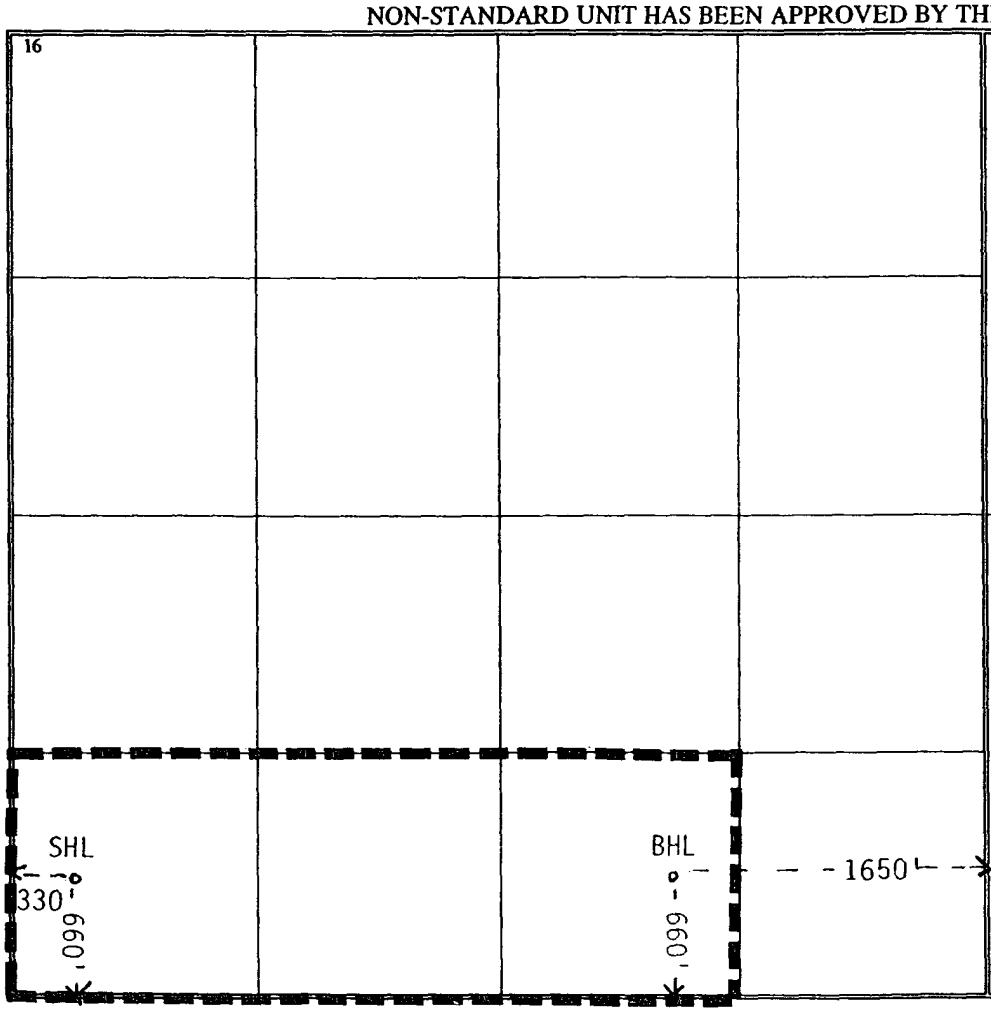
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	15	24S	29E		660	South	330	West	Eddy

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	15	24S	29E		660	South	1650	East	Eddy

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
120			

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



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: Cathy Wright

Printed Name: Cathy Wright

Title and E-mail Address: Sr Eng Tech

Date: 2/23/05

[18] 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.

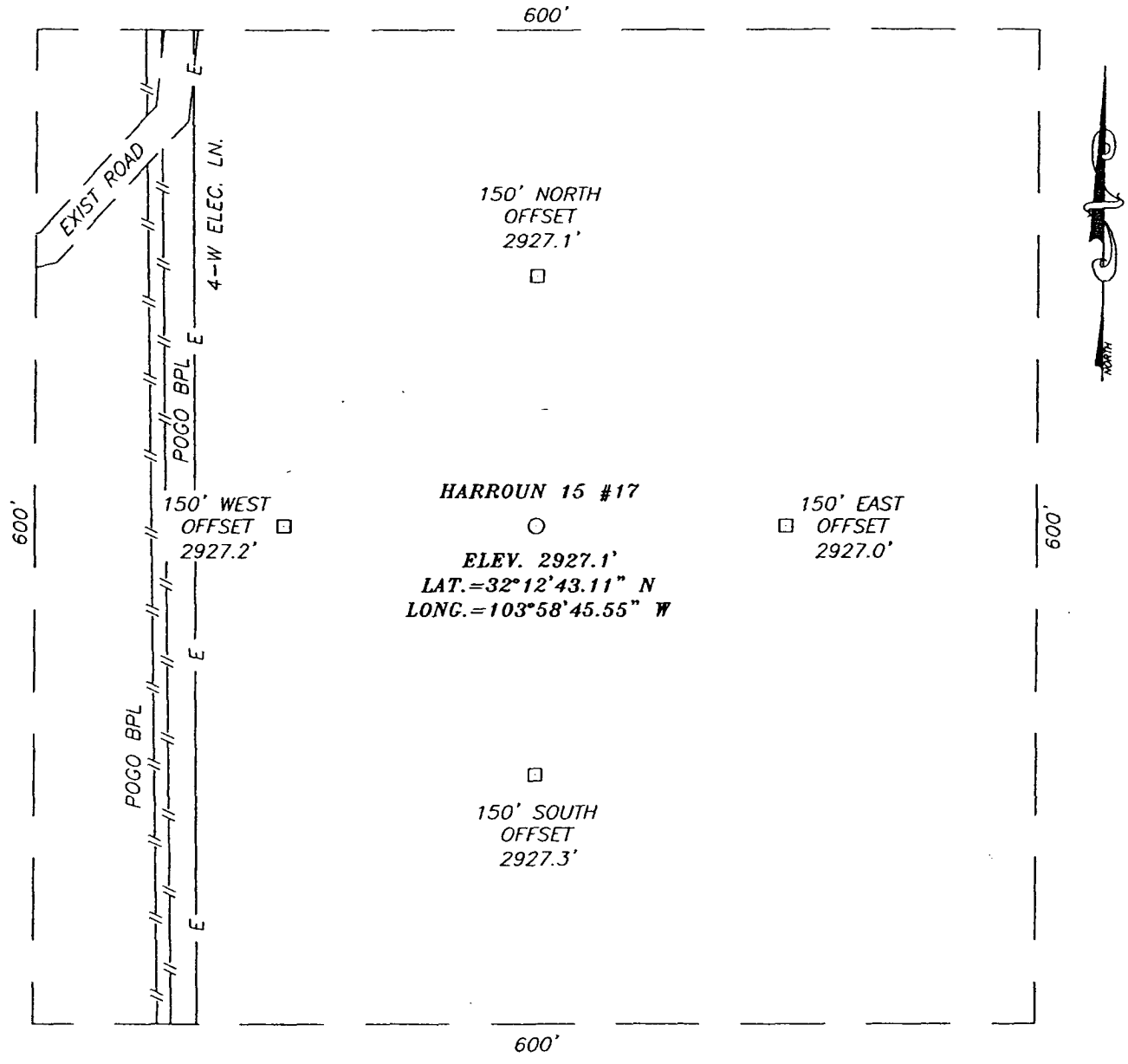
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

SECTION 15, TOWNS. .P 24 SOUTH, RANGE _9 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION CO . RD. #745 (HARROUN RD.) AND CO. RD. #788 (DOG TOWN RD.) GO SE ON CO. RD. #788 FOR APPROX. 1.3 MILES TO A ROAD ON THE LEFT. TURN LEFT (EAST) AND FOLLOW MEANDERING ROAD E/SE FOR APPROX. 2.1 MILES TO A "Y". TAKE RIGHT FORK AND FOLLOW ROAD FOR APPROX. 0.8 MILES. PROPOSED LOCATION IS APPROX. 300' EAST.

100 0 100 200 Feet

Scale:1"=100'

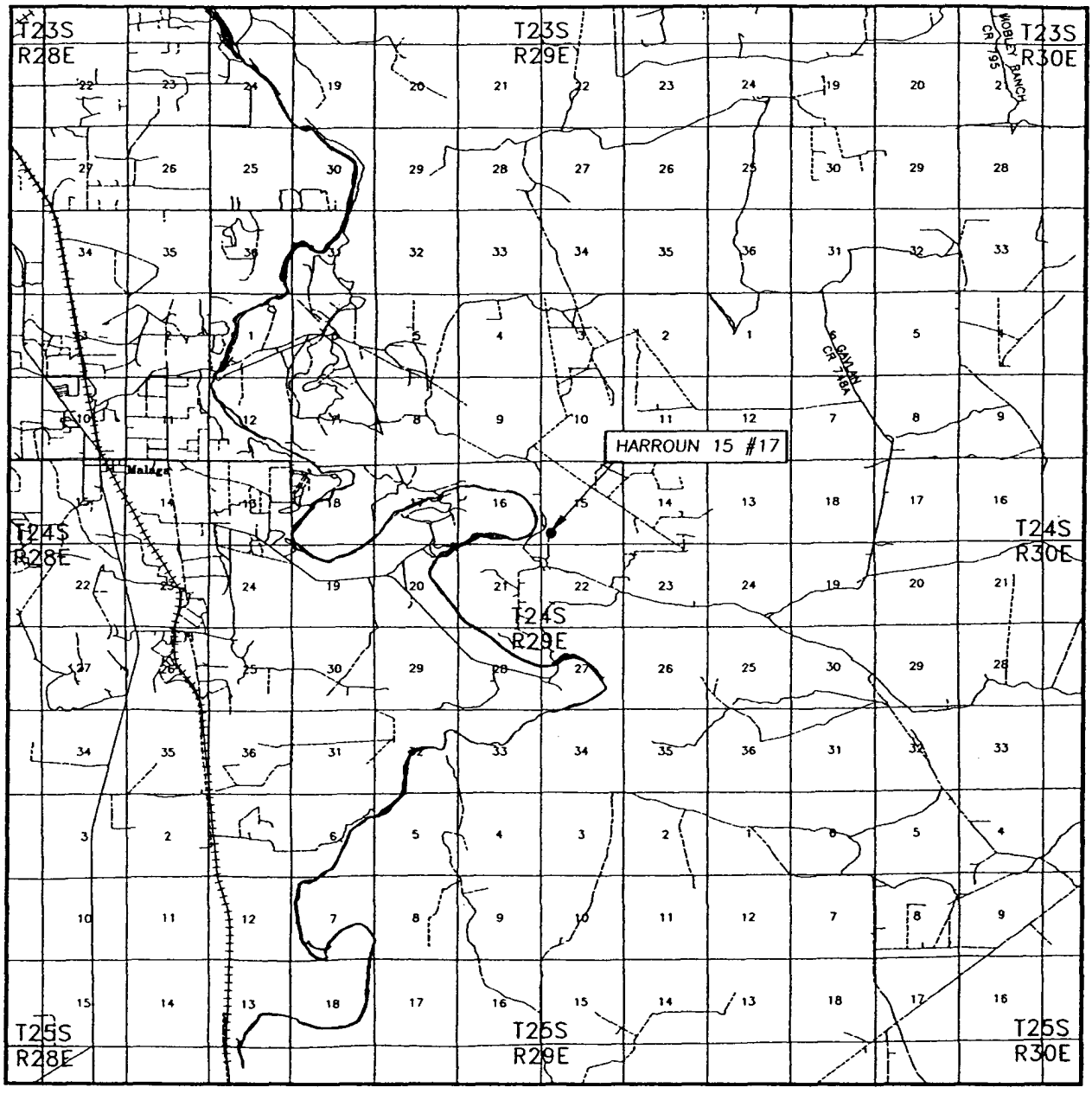
POGO PRODUCING COMPANY

HARROUN 15 #17 WELL
LOCATED 660 FEET FROM THE SOUTH LINE
AND 330 FEET FROM THE WEST LINE OF SECTION 15,
TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 12/2/04	Sheet 1 of 1 Sheets		
W.O. Number: 04.11.1583	Dr By: J.R.	Rev 1:N/A	
Date: 12/7/04	Disk: CD#10	04111583	Scale:1"=100'

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. 15 TWP. 24-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FSL & 330' FWL

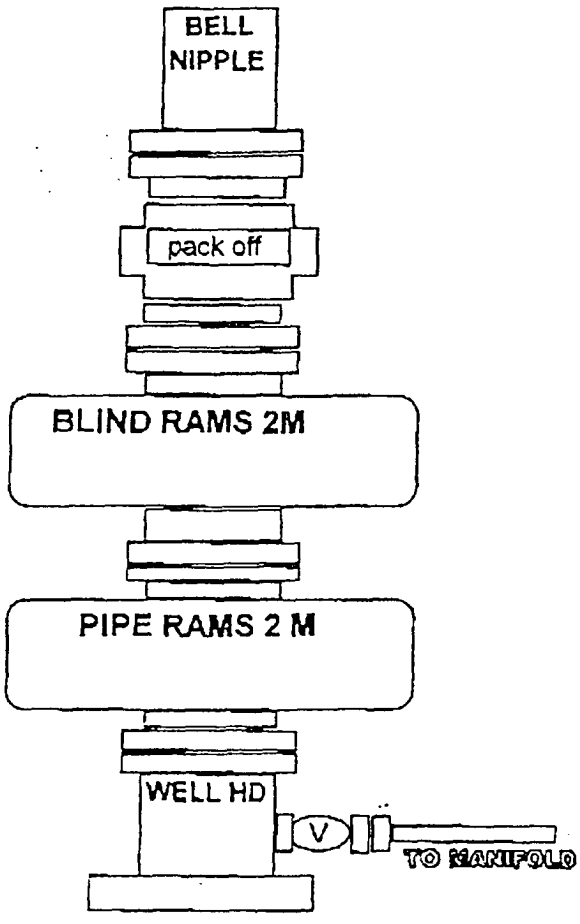
ELEVATION 2927'

OPERATOR POGO PRODUCING COMPANY

LEASE HARROUN 15

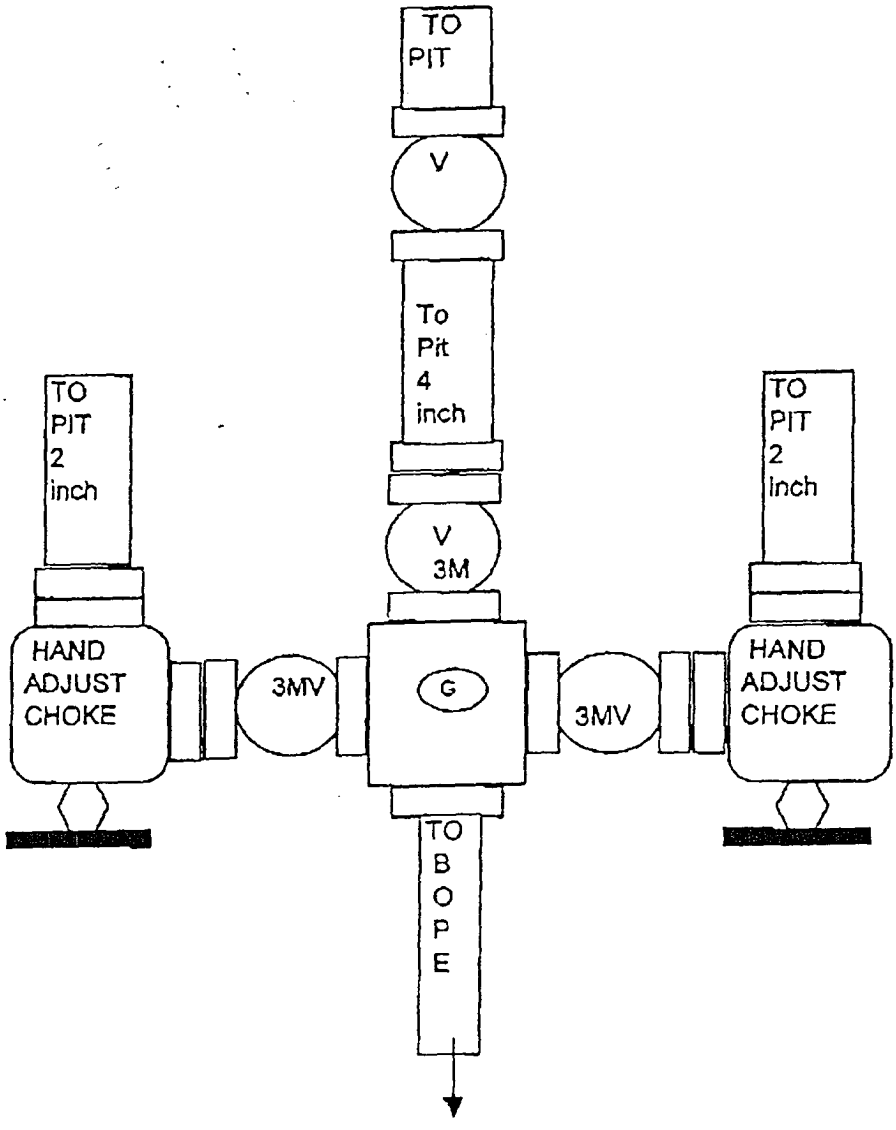
PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

11" 2M


BELL
NIPPLE
pack off
BLIND RAMS 2M
PIPE RAMS 2 M
WELL HD
V
TO MANIFOLD

CHOKE MANIFOLD

3000 PSI WP



HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

APPLICABILITY:

The provisions of this plan are effective when drilling operations are conducted in areas where zones may be penetrated that are known to contain, or may be reasonably expected to contain, hydrogen sulfide gas in concentrations of 100 parts per million or more.

TRAINING REQUIREMENTS:

A. When conducting drilling operations in an area where hydrogen sulfide gas might be encountered, all personnel at the well site will have had proper training in the following areas:

1. The hazards and characteristics of hydrogen sulfide gas (H2S).

2. Toxicity of hydrogen sulfide and sulfur dioxide.

3. Hydrogen sulfide gas detectors, warning systems, evacuation procedures, and proper use and maintenance of personal protective equipment.

4. Proper rescue procedures, first aid, and artificial respiration.

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

1. The effects of hydrogen sulfide on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

2. Corrective action and shut-in procedures when drilling or reworking a well, and blowout prevention and well control procedures.

3. The contents and requirements of the Hydrogen Sulfide Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable hydrogen sulfide zone (within 3 days or 500 feet) and weekly hydrogen sulfide and well control drills for all personnel in each crew. The initial training session will include a review of the site specific Hydrogen Sulfide Drilling Operations Plan and the Public Protection Plan. This plan will be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

A. Attached is a detailed well site diagram showing:

- Drilling rig orientation
- Prevailing wind direction (Southwest)
- Location of briefing areas
- Location of Caution/Danger Signs
- Location of hydrogen sulfide monitors
- Location of wind direction Indicators

HYDROGEN SULFIDE SAFETY EQUIPMENT:

A. All safety equipment and systems will be installed, tested and deemed operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone reasonably expected to contain hydrogen sulfide.

B. During drilling operations, a flare line will be routed from the BOP manifold to the reserve pit. Should suspected sour gas be vented through the flair line, a flare pistol will be used to ignite the flare.

C. Protective equipment for essential personnel will be installed and maintained as follows:

1. 30-minute air packs will be maintained on the rig floor and near the briefing area.

2. 30-minute work units will be maintained at the H2S trailer and/or on the rig floor.

3. 30-minute escape units will be maintained on the rig floor.

4. 300 cu. ft. air cylinders will be maintained in the H2S trailer.

5. Associated breathing air equipment will also be installed and maintained.

6. Hydrogen sulfide monitor will be located in the doghouse on the rig floor with sensors placed on the rig floor, at the bell nipple, the shale shaker, and in the pit area.

7. An audible/visual alarm will be located near the doghouse on the rig floor.

VISUAL WARNING SYSTEMS:

A. High visibility Caution/Danger signs will be posted on roads providing direct access to the well location.

B. Green, yellow, and red condition flags to be displayed to denote Normal Conditions, Potential Danger, and Danger, H2S Present.

C. Wind socks to be located at the protection center and in the pit area to continuously indicate wind direction.

CIRCULATING MEDIUM:

A. Drilling fluid to be conditioned to minimize the volume of H2S circulated to the surface.

SPECIAL WELL CONTROL EQUIPMENT:

A. In addition to the normal BOP stack and choke manifold, a drilling head will be used to help control and H2S contaminated drilling.

WELL TESTING:

A. Drill stem testing of zones known, or reasonably expected, to contain hydrogen sulfide in concentrations of 100 pps or more will use the closed chamber method of testing.

COMMUNICATION:

A. Radio communication will be available at the drilling rig and also in company vehicles.

ADDITIONAL INFORMATION:

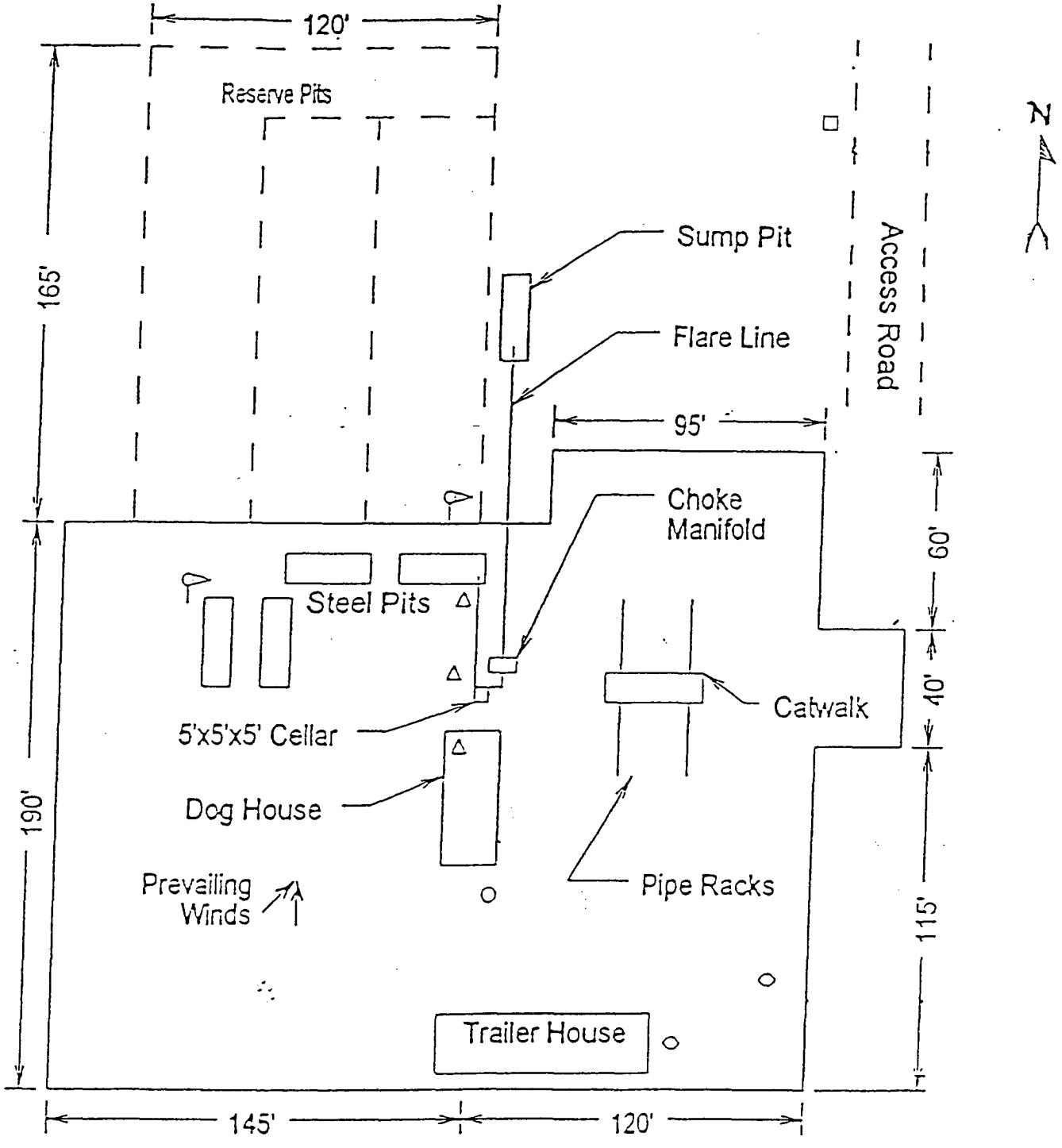
A. Additional information concerning Emergency Reaction Steps, Ignition Procedures, Training Requirements, and Emergency Equipment Requirements will be available on location at the well site.

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:

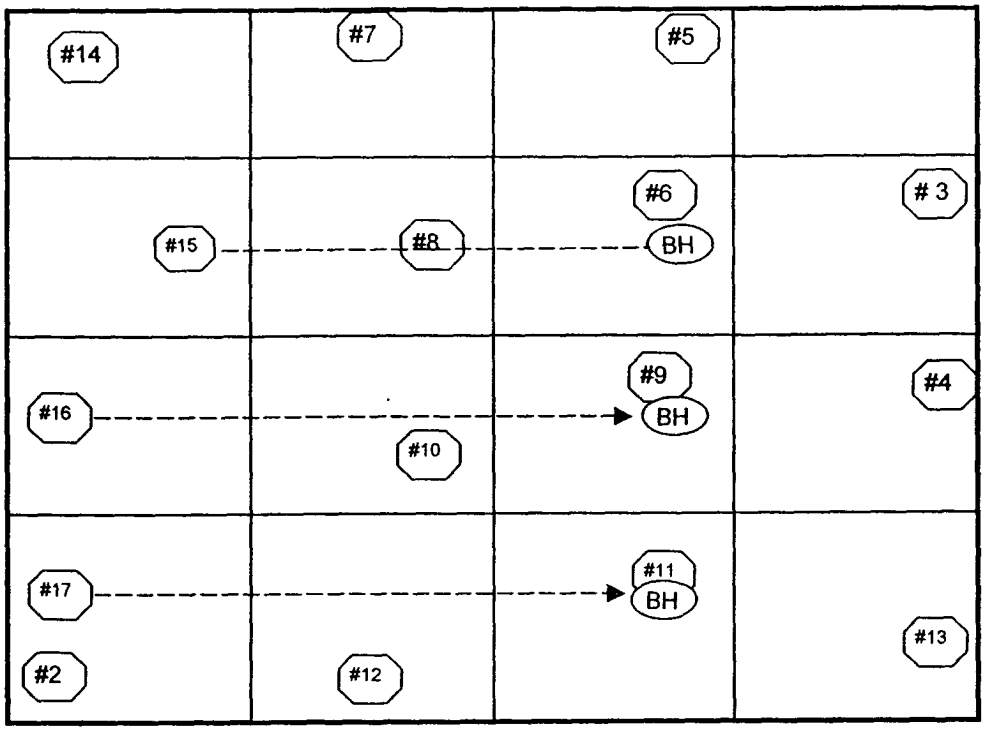
State Police:	Eddy County		505 748 9718
State Police:	Lea County		505 392 5588
Sheriff	Eddy County		505 746 2701
Sheriff	Lea County		
Emergency Medical Ser	Eddy County		911 or 505 746 2701
(Ambulance)	Lea County	Eunice	911 or 505 394 3258
Emergency Response	Eddy County SERC		505 476 9620
	Lea County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



- 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

Harroun well groupings

Sec 15, T-24-S, R-29-E, Eddy County, New Mexico



Well Name	Legal Location in 15	Depth and Strata	Current Prod Zone
Harroun 15 # 15 =	1980 FNL & 990 FWL	PTVD = 7730' 1ST Bone Sand	Bone production
Harroun 15 # 6 =	1650 FNL & 1650 FEL	TD = 6890 Upper Bone Sand	Del production
Harroun 15 # 8 =	1980 FNL & 2310 FWL	TD = 6885 Upper Bone Sand	Del production
Harroun 15 # 3 =	1657 FNL & 330 FEL	TD = 8056 1st Bone Sand	Del production
Harroun 15 # 14 =	660 FNL & 750 FWL	TD = 8000 1st Bone Sand	Bone production
Harroun 15 # 5 =	330 FNL & 1650 FEL	TD = 8050 1st Bone Sand	Del production
Harroun 15 # 7 =	330 FNL & 1980 FWL	TD = 6900 Upper Bone Sand	Del production
Harroun 15 # 10 =	1700 FSL & 2310 FWL	TD = 6879 Upper Bone Sand	Del production
Harroun 15 # 9 =	2260 FSL & 1650 FEL	TD = 6890 Upper Bone Sand	Del production
Harroun 15 # 13 =	660 FSL & 360 FEL	TD = 8020 1st Bone Sand	Del/Bone production
Harroun 15 # 4 =	2260 FSL & 330 FEL	TD = 8022 1st Bone Sand	Del/Bone production
Harroun 15 # 11 =	860 FSL & 1900 FEL	TD = 6390 Upper Bone Sand	Del production
Harroun 15 # 12	330 FSL & 1980 FWL	TD = 5700 Delaware	Del production
Harroun 15 # 2 =	330 FSL & 330 FWL	TD = 5480 Delaware	Del production
Harroun 15 # 16 =	1980 FSL & 330 FWL	PTVD = 7730' 1ST Bone Sand	Anticipated Bone
Harroun 15 # 17 =	660 FSL & 330 FWL	TD 7730' 1st Bone Sand	Anticipated Bone

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	7253.00	7253.00	0.00	0.00	-
2	100	12	90	7353.00	7352.27	0.00	10.43	12.00
3	100	24	90	7453.00	7447.20	0.00	41.28	12.00
4	100	36	90	7553.00	7533.65	0.00	91.19	12.00
5	100	48	90	7653.00	7607.83	0.00	157.98	12.00
6	100	60	90	7753.00	7666.50	0.00	238.73	12.00
7	100	72	90	7853.00	7707.10	0.00	329.92	12.00
8	100	84	90	7953.00	7727.85	0.00	427.56	12.00
9	50	90	90	8003.00	7730.46	0.00	477.46	12.00
10	100	90	90	8103.00	7730.46	0.00	577.46	0.00
11	100	90	90	8203.00	7730.46	0.00	677.46	0.00
12	100	90	90	8303.00	7730.46	0.00	777.46	0.00
13	100	90	90	8403.00	7730.46	0.00	877.46	0.00
14	100	90	90	8503.00	7730.46	0.00	977.46	0.00
15	100	90	90	8603.00	7730.46	0.00	1077.46	0.00
16	100	90	90	8703.00	7730.46	0.00	1177.46	0.00
17	100	90	90	8803.00	7730.46	0.00	1277.46	0.00
18	100	90	90	8903.00	7730.46	0.00	1377.46	0.00
19	100	90	90	9003.00	7730.46	0.00	1477.46	0.00
20	100	90	90	9103.00	7730.46	0.00	1577.46	0.00
21	100	90	90	9203.00	7730.46	0.00	1677.46	0.00
22	100	90	90	9303.00	7730.46	0.00	1777.46	0.00
23	100	90	90	9403.00	7730.46	0.00	1877.46	0.00
24	100	90	90	9503.00	7730.46	0.00	1977.46	0.00
25	100	90	90	9603.00	7730.46	0.00	2077.46	0.00
26	100	90	90	9703.00	7730.46	0.00	2177.46	0.00
27	100	90	90	9803.00	7730.46	0.00	2277.46	0.00
28	100	90	90	9903.00	7730.46	0.00	2377.46	0.00
29	100	90	90	10003.00	7730.46	0.00	2477.46	0.00
30	100	90	90	10103.00	7730.46	0.00	2577.46	0.00
31	100	90	90	10203.00	7730.46	0.00	2677.46	0.00
32	100	90	90	10303.00	7730.46	0.00	2777.46	0.00
33	100	90	90	10403.00	7730.46	0.00	2877.46	0.00
34	100	90	90	10503.00	7730.46	0.00	2977.46	0.00
35	100	90	90	10603.00	7730.46	0.00	3077.46	0.00
36	100	90	90	10703.00	7730.46	0.00	3177.46	0.00
37	100	90	90	10803.00	7730.46	0.00	3277.46	0.00