OCD-ARTESIA

AFS08-174

Form 3160-3
(April 2004)

JAN 15 2008
OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM-015303

6. If Indian, Allotee or Tribe Name

1a. Type of work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.
CORRAL DRAW "10" # 1H

2. Name of Operator
POGO PRODUCING COMPANY (PETE ORTIZ 432-685-8189)

9. API Well No.
30-015-36043

3a. Address P. O. BOX 10340
MIDLAND, TEXAS 79702-7340

3b. Phone No. *(include area code)*
432-685-8100

10. Field and Pool, or Exploratory
CORRAL DRAW-BONE SPRING

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 2250' FSL & 330' FEL SECTION 10 T25S-R29E
At proposed prod. zone 2310' FSL & 660' FWL SECTION 10 T25S-R29E

11. Sec., T. R. M. or Blk. and Survey or Area
SECTION 10 T25S-R29E

14. Distance in miles and direction from nearest town or post office*
Approximately 10 miles Southeast of Malaga New Mexico

12. County or Parish
EDDY CO.

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
330'

16. No. of acres in lease
640

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
1500'

19. Proposed Depth
MD 9233
TVD-5147'

20. BLM/BIA Bond No. on file
WYB-000238

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3062' GL

22. Approximate date work will start*
WHEN APPROVED

23. Estimated duration
45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

Signature	Name *(Printed/Typed)*	Date
Joe T. Janica	Joe T. Janica	11/14/07

Title: Permit Engineer

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Don Peterson	/s/ Don Peterson	JAN 11 2008

Title	Office
FIELD MANAGER	CARLSBAD FIELD OFFICE

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, are attached.

APPROVAL FOR TWO YEARS

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 page 2)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Carlsbad Controlled Water Basin

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

DISTRICT I
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

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 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
	96238	CORRAL DRAW-BONE SPRING

Property Code	Property Name	Well Number
36952	CORRAL DRAW 10	1H

OGRID No.	Operator Name	Elevation
17891	POGO PRODUCING COMPANY	3062'

Surface Location

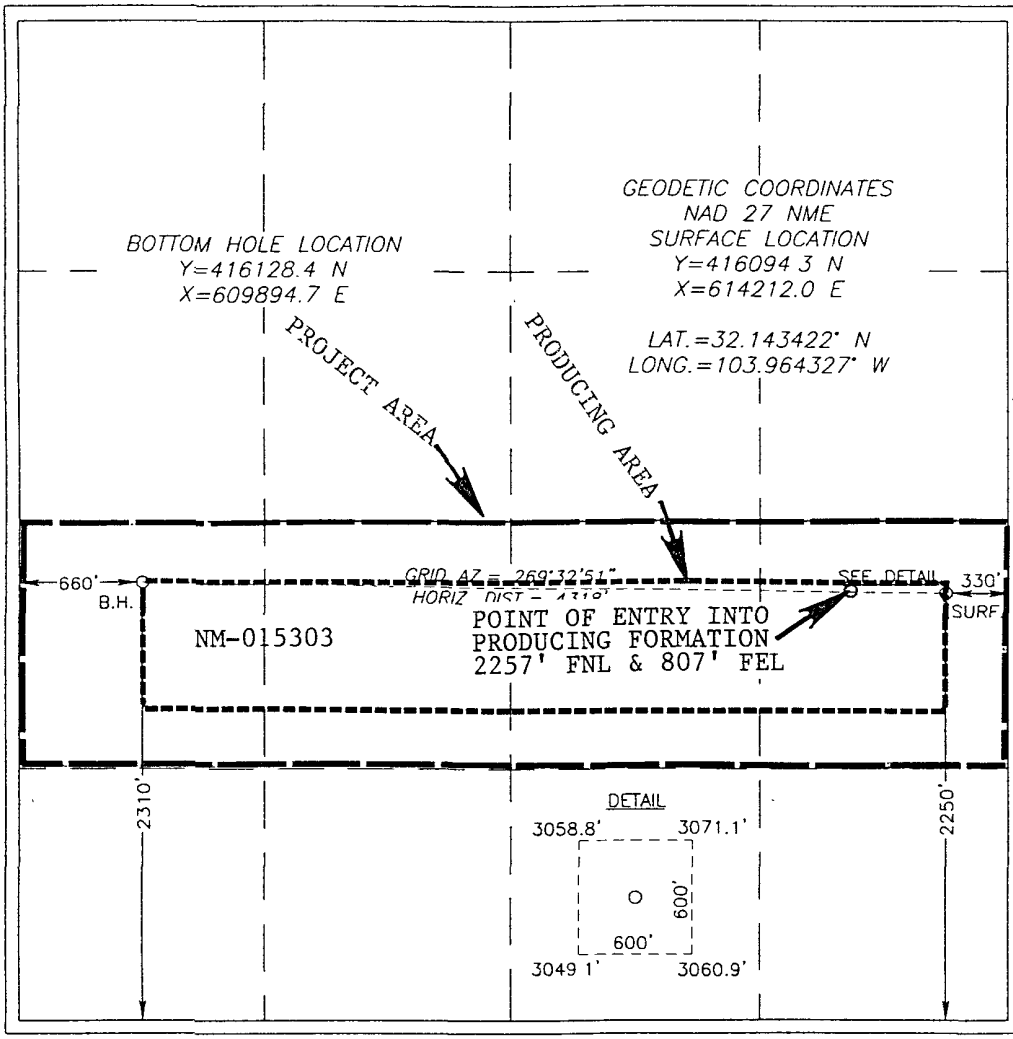
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	10	25-S	29-E		2250	SOUTH	330	EAST	EDDY

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
L	10	25-S	29-E		2310	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.

Signature — Date 11/14/07

Joe T. Janica
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.

SEPTEMBER 19, 2007
Date Surveyed AR

Signature & Seal of Professional Surveyor

NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Eidson 9/27/07

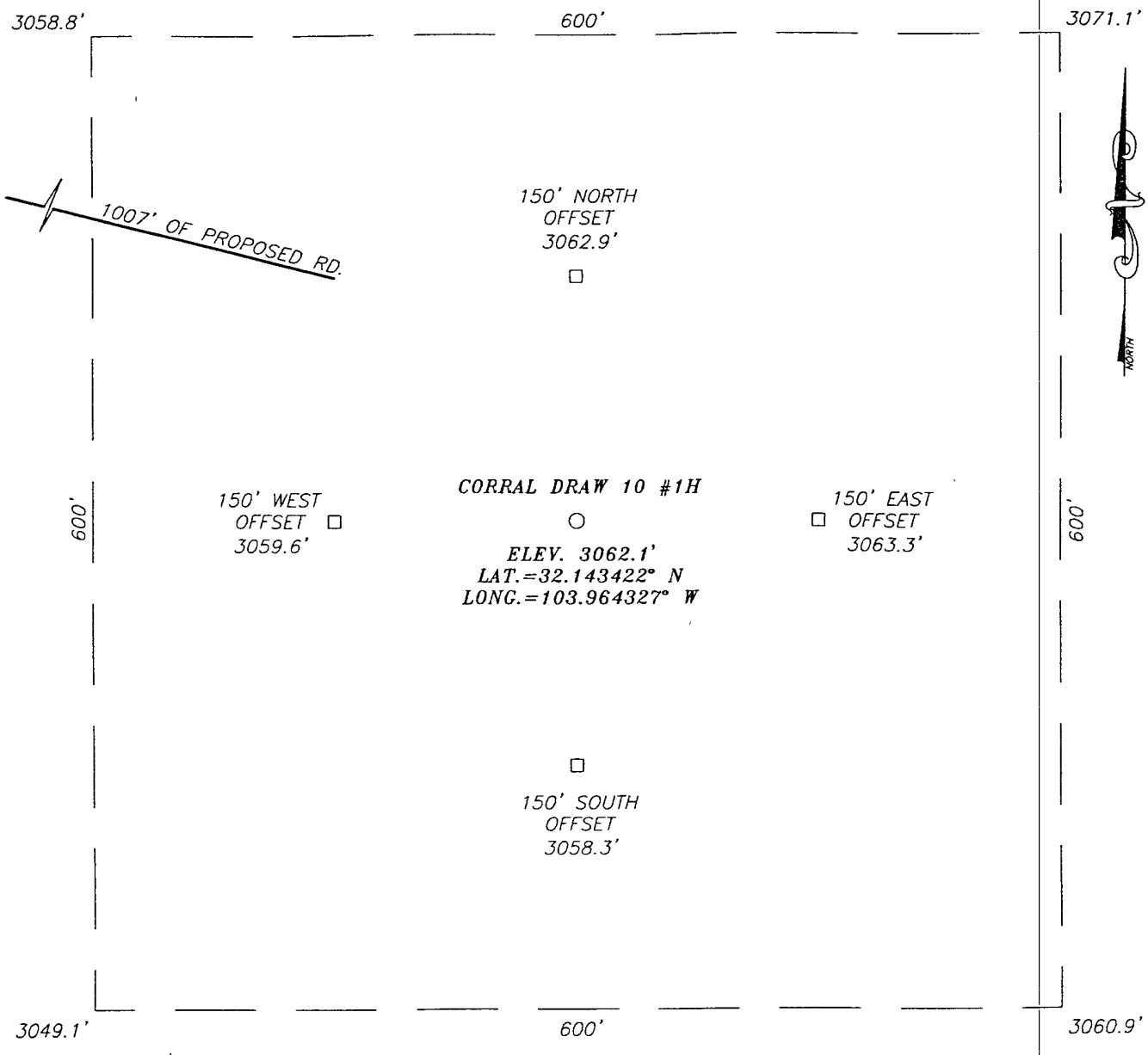
07.11.1289

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

EXHIBIT "A"

SECTION 10, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #285 AND CO. RD. #725 (WHITEHORN), GO NORTHEAST ON CO RD. #725 APPROX. 4.0 MILES. TURN LEFT AND GO NORTHEAST APPROX. 1.75 MILES. TURN LEFT AND GO NORTHWEST APPROX. 0.2 MILES. TAKE RIGHT FORK AND GO 2.0 MILES. TAKE LEFT FORK IN ROAD AND GO APPROX. 2.2 MILES. TURN RIGHT AND GO APPROX. 0.1 MILE TO PROPOSED ROAD SURVEY. FOLLOW ROAD SURVEY APPROX. 1007 FEET SOUTHEAST TO THE NORTHWEST CORNER OF PROPOSED PAD.

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

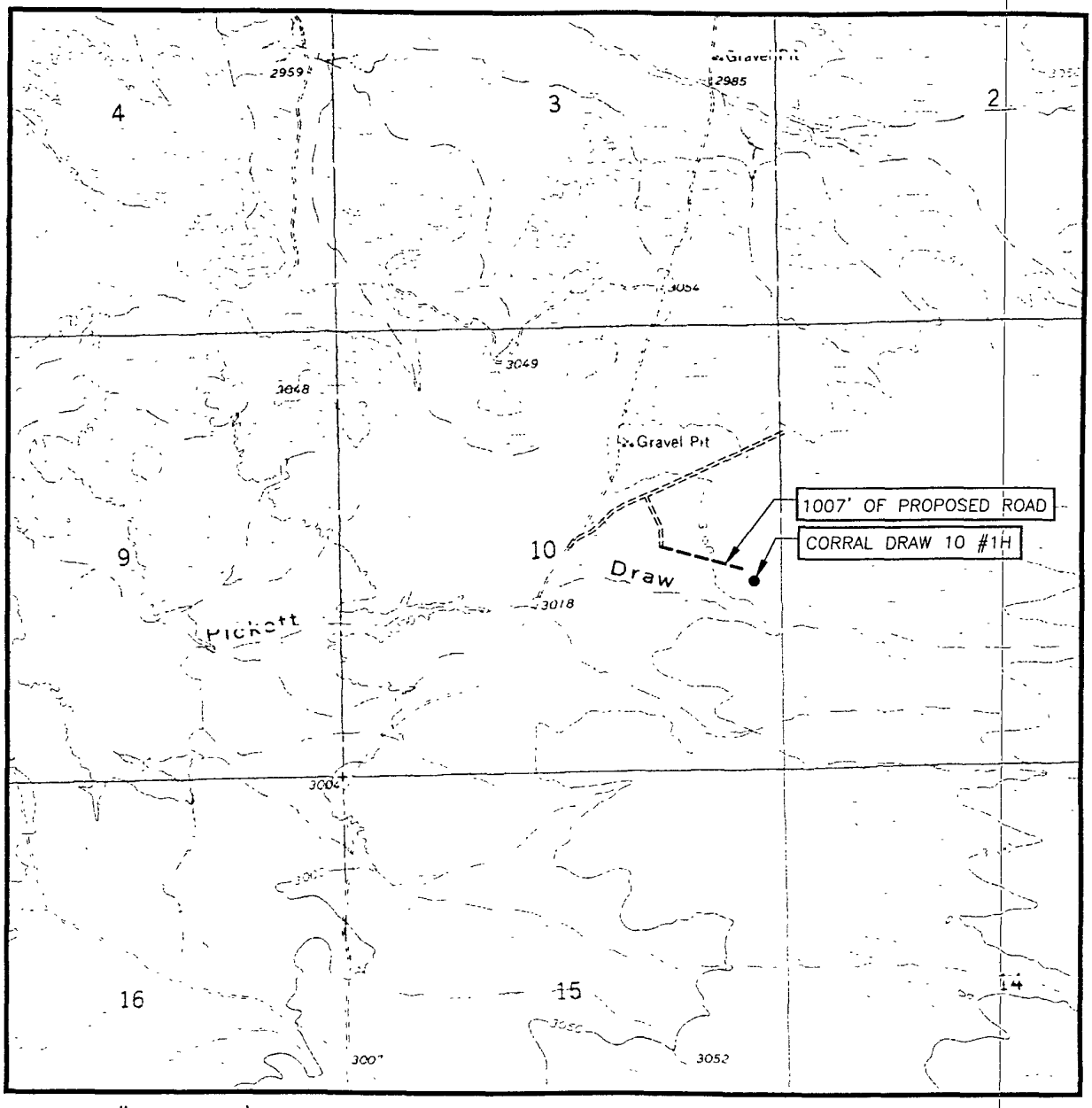
(505) 393-3117

POGO PRODUCING COMPANY

CORRAL DRAW 10 #1H WELL
LOCATED 2250 FEET FROM THE SOUTH LINE
AND 330 FEET FROM THE EAST LINE OF SECTION 10,
TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 9/19/07	Sheet 1 of 1 Sheets		
W.O. Number: 07.11.1289	Dr By: AR		Rev 1:N/A
Date: 9/26/07	Disk:	07111289	Scale: 1"=100'

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

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

SEC. 10 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2250' FSL & 330' FEL

ELEVATION 3062'

OPERATOR POGO PRODUCING COMPANY

LEASE CORRAL DRAW 10

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

APPLICATION TO DRILL

POGO PRODUCING COMPANY
CORRAL DRAW "10" #1H
UNIT "I" SECTION 10
T25S-R29E EDDY CO. NM

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

1. LOCATION: 2250' FSL & 330' FEL SECTION 10 T25S-R29E EDDY CO. NM

2. ELEVATION ABOVE SEA LEVEL: 3062' GL

3. GEOLOGIC NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits.

4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.

5. PROPOSED DRILLING DEPTH: MD-9233' TVD-5147'

6. ESTIMATED TOPS OF GELOOGICAL MARKERS:

Basal Anhydrite	3100'	Cherry Canyon	5100'
Delaware Lime	3320'	TVD	5147'
Bell Canyon	4308'	MD-	9233'

7. POSSIBLE MINERAL BEARING FORMATION:

Delaware Lime	Oil
Cherry Canyon	Oil

8. CASING PROGRAM:

Hole Size	Interval	OD of Casing	Weight	Thread	Collar	Grade	
26"	0-40'	20"	NA	NA	NA	Conductor	New
12¼"	0-750'	9 5/8"	36#	8-R	ST&C	J-55	New
8½"/7 7/8"	0-9233'	5½"	17#	8-R BUTT.	LT&C BT&C	K-55	New

Design Factors: Collapse 1.125 Burst 1.00 Tension 8-R 1.8
BUTT. 1.6
Body 1.6

APPLICATION TO DRILL

POGO PRODUCING COMPANY
CORRAL DRAW "10" #1H
UNIT "I" SECTION 10
T25S-R29E EDDY CO. NM

9. CASING SETTING DEPTHS & CEMENTING:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
9 5/8"	Surface	Set 750' of 9 5/8" 36# J-55 ST&C casing. Cement with 550 Sx. of Class "C" 65/35/6 POZ cement + 5% Salt + 6% Gel Yield 1.89, tail in with 200 Sx. of Class "C" cement + 2% CaCl, Yield 1.32, circulate cement.
5½"	Production	Set 9233' of 5½" 17# casing as follows: 3933 3937+ of 5½" 17# K-55 BT&C, 5300' 5½" K-55 LT&C casing. Cement in two stages with DV Tool at 2500'±. Cement 1st stage with 1300 Sx. of Class "C" 35/65/6 POZ cement + 5% Salt + 8# of Gilsonite/Sx. Yield 2.05, cement 2nd stage with 500 Sx of Class "C" Light cement 35/65/6 POZ + 5% Salt Yield 2.09, tail in with 100 Sx. of Class "C" cement Yield 1.32. circulate cement.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The B.O.P. will be nipplled up on the 9 5/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when the drill pipe is out of the hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 3" 5000 PSI working pressure choke manifold with dual adjustable chokes. No abnormal pressure or temperatures are expected while drilling this well.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-750'	8.4-8.8	29-34	NC	Fresh water Spud mud add paper to control seepage.
750-9233'	10.1-10.2	29-38	NC*	Brine water add paper to control seepage and use high viscosity sweeps to clean hole.

* Water loss control may be necessary in order to run logs and casing. In such a case go to a polymer mud system to maintain the hole.

Sufficiant mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DST's, open hole logs, and casing the viscosity, and water loss may have to be adjusted to meet these needs.

12. LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs: Dual Laterolog, SNP, LDT, Gamma Ray, Caliper from TD (5470') back to 9 5/8" casing shoe.

B. Run Gamma Ray, Neutron from 9 5/8" casing shoe back to surface.

C. No DST's or cores are planned at this time.

D. Mud logger may be placed on the hole at approximately 3300'.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H^2S in this area. If H^2S 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 2050 PSI, and Estimated BHT 155°.

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 30 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 potentialed as an oil well.

Well name:	**Corral Draw 10 Fd # 1**
Operator:	**Pogo Producing Company**
String type:	Surface
Location:	New Mexico

Design parameters:

Collapse

Mud weight: 9.500 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 1,671 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 1,761 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 645 ft

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 86 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 750 ft

Cement top: ~~-10,181~~ SURFACE ft

Non-directional string.

Re subsequent strings:

Next setting depth: 4,670 ft
Next mud weight: 9.200 ppg
Next setting BHP: 2,232 psi
Fracture mud wt: 11.000 ppg
Fracture depth: 4,670 ft
Injection pressure 2,669 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	750	9.625	36.00	J-55	LT&C	750	750	8.796	325.5

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	370	2020	5.458	1761	3520	2.00	23	453	19.52 J

Well name:	**Corral Draw 10 Fd # 1**
Operator:	**Pogo Producing Company**
String type:	Production: Frac
Location:	New Mexico

Design parameters:

Collapse
- Mud weight: 9.500 ppg
- Design is based on evacuated pipe.

Burst
- Max anticipated surface pressure: 1,924 psi
- Internal gradient: 0.120 psi/ft
- Calculated BHP 2,542 psi
- No backup mud specified.

Minimum design factors:

Collapse:
- Design factor 1.125

Burst:
- Design factor 1.00

Tension:
- 8 Round STC: 1.80 (J)
- 8 Round LTC: 1.80 (J)
- Buttress: 1.60 (J)
- Premium: 1.50 (J)
- Body yield: 1.60 (B)

Tension is based on buoyed weight.
- Neutral point: 4,408 ft

Estimated cost: 44,706 ($)

Environment:
- H2S considered? No
- Surface temperature: 75 °F
- Bottom hole temperature: 147 °F
- Temperature gradient: 1.40 °F/100ft
- Minimum section length: 1,500 ft
- Cement top: ~~6287~~ SURFACE ft

Directional Info - Build & Hold
- Kick-off point 4670 ft
- Departure at shoe: 4294 ft
- Maximum dogleg: 12 °/100ft
- Inclination at shoe: 89.96 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
2	5300	5.5	17.00	K-55	LT&C	5132	5300	4.767	24906
1	3937	5.5	17.00	K-55	Buttress	5150	9237	4.767	19800

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	2533	4417	1.744	1622	5320	3.28	74.9	272	3.63 J
1	2542	4910	1.932	1624	5320	3.28	-12.3	272.9	-22.16 B

1. **Corral Draw 10 # 1H**
SURFACE LOCATION =2100 FSL & 330 FEL, Sec 10, T-25-S, R-29-E, EDDY COUNTY, NEW MEXICO. TOTAL VERTICAL DEPTH **5300'. ANTICIPATED MEASURED DEPTH = 9237 FT. ANTICIPATED LATERAL DEPTH = ± 5150 FT TVD. Effective Lateral 3767'.**
160 ACRE PRORATION HORIZONTAL OIL WELL. BHL = 2310 FSL & 660 FWL, SEC 10, T-25-S, R-29-E.

SURFACE CASING:
12 ¼ " HOLE DRILLED W/ FRESH WATER. SET 9 5/8" 36# J-55 CASING @ 750 ft. CMT'D W/ 750 SKS "C". CMT CIRCULATED TO SURFACE.
CEMENT CSG:
LEAD = 200 SKS "C" 65:35 POZ + 6% GEL + 5% SALT MIXED @ 12.8 PPG.
TAIL = 200 SKS "C" W/ 2% CACL2 MIXED @ 14.8 PPG.

PRODUCTION CASING:
8 ½ " HOLE DRILLED W/ 10 PPG BRINE WATER & HIGH VIS SWEEPS TO TOTAL MEASURED DEPTH OF 5800'. RUN GYRO & LOGS. PLUG BACK TO KOP @ ± 4670'. DRILL CURVE WITH 8 ½" BIT TO ± 5470'. THIS SHOULD BE THE END OF CURVE. CHANGE BHA & DRILL 7 7/8" HOLE TO COMPLETE LATERAL. 2M BOPE REQUIRED. RUN A STRING OF 5 ½" 17# J-55 LTC & BTC TO 9250'. CEMENT CASING W/ "C" CEMENT TOC @ SURFACE. STAGE TOOL @ 2500'. APPROXIMATELY 1800 SKS CEMENT.
1ST STAGE = 1300 SKS "C" W/ 8 PPS GILSONITE MIXED @ 14.09 PPG
2ND STAGE = 500 SKS "C" LITE 65:35:6+ 5% SALT MIXED @ 12. 4 PPG TAILED W/ 100 SKS "C" NEAT MIXED @ 14.8 PPG.

CASING DETAIL =
SURFACE TO 4500 = 17# J-55 LTC
4500 TO 9250' = 17# J-55 BTC

LONG's METHOD OF SURVEY COMPUTATION

OBLIQUE CIRCULAR ARC INTERPOLATION

5800	MD OF INTERPOLATION DEPTH,(feet)
5147.46	TVD COORDINATE OF THE DEPTH (feet)
11.99	N/S COORDINATE OF DEPTH (feet)
-857.38	E/W COORDINATE OF DEPTH (feet)

DISTANCE TABLE

STATION A	STATION B	
400.00	600.00	
300.00	400.00	
100.00	300.00	
3 D DISTANCE BETWEEN STATION A AND STATION B	300.00	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	4670.00	4670.00	0.00	0.00	-
2	100	12	270.8013	4770.00	4769.27	0.15	-10.43	12.00
3	100	24	270.8013	4870.00	4864.20	0.58	-41.27	12.00
4	100	36	270.8013	4970.00	4950.65	1.28	-91.18	12.00
5	100	48	270.8013	5070.00	5024.83	2.21	-157.96	12.00
6	100	60	270.8013	5170.00	5083.50	3.34	-238.71	12.00
7	100	72	270.8013	5270.00	5124.10	4.61	-329.89	12.00
8	100	84	270.8013	5370.00	5144.85	5.98	-427.51	12.00
9	50	90	270.8013	5420.00	5147.46	6.68	-477.42	12.00
10	100	90	270.8013	5520.00	5147.46	8.08	-577.41	0.00
11	100	90	270.8013	5620.00	5147.46	9.47	-677.40	0.00
12	100	90	270.8013	5720.00	5147.46	10.87	-777.39	0.00
13	100	90	270.8013	5820.00	5147.46	12.27	-877.38	0.00
14	100	90	270.8013	5920.00	5147.46	13.67	-977.37	0.00
15	100	90	270.8013	6020.00	5147.46	15.07	-1077.36	0.00
16	100	90	270.8013	6120.00	5147.46	16.47	-1177.35	0.00
17	100	90	270.8013	6220.00	5147.46	17.86	-1277.34	0.00
18	100	90	270.8013	6320.00	5147.46	19.26	-1377.33	0.00
19	100	90	270.8013	6420.00	5147.46	20.66	-1477.32	0.00
20	100	90	270.8013	6520.00	5147.46	22.06	-1577.31	0.00
21	100	90	270.8013	6620.00	5147.46	23.46	-1677.30	0.00
22	100	90	270.8013	6720.00	5147.46	24.86	-1777.29	0.00
23	100	90	270.8013	6820.00	5147.46	26.26	-1877.28	0.00
24	100	90	270.8013	6920.00	5147.46	27.65	-1977.27	0.00
25	100	90	270.8013	7020.00	5147.46	29.05	-2077.26	0.00
26	100	90	270.8013	7120.00	5147.46	30.45	-2177.25	0.00
27	100	90	270.8013	7220.00	5147.46	31.85	-2277.24	0.00
28	100	90	270.8013	7320.00	5147.46	33.25	-2377.23	0.00
29	100	90	270.8013	7420.00	5147.46	34.65	-2477.22	0.00
30	100	90	270.8013	7520.00	5147.46	36.04	-2577.21	0.00
31	100	90	270.8013	7620.00	5147.46	37.44	-2677.20	0.00
32	100	90	270.8013	7720.00	5147.46	38.84	-2777.19	0.00
33	100	90	270.8013	7820.00	5147.46	40.24	-2877.18	0.00
34	100	90	270.8013	7920.00	5147.46	41.64	-2977.17	0.00
35	100	90	270.8013	8020.00	5147.46	43.04	-3077.16	0.00
36	100	90	270.8013	8120.00	5147.46	44.44	-3177.15	0.00
37	100	90	270.8013	8220.00	5147.46	45.83	-3277.14	0.00
38	100	90	270.8013	8320.00	5147.46	47.23	-3377.13	0.00
39	100	90	270.8013	8420.00	5147.46	48.63	-3477.12	0.00
40	100	90	270.8013	8520.00	5147.46	50.03	-3577.11	0.00
41	100	90	270.8013	8620.00	5147.46	51.43	-3677.11	0.00
42	100	90	270.8013	8720.00	5147.46	52.83	-3777.10	0.00
43	100	90	270.8013	8820.00	5147.46	54.22	-3877.09	0.00
44	100	90	270.8013	8920.00	5147.46	55.62	-3977.08	0.00
45	100	90	270.8013	9020.00	5147.46	57.02	-4077.07	0.00
46	100	90	270.8013	9120.00	5147.46	58.42	-4177.06	0.00

STA #	ΔMD ft	INCL deg	AZIM deg	MD ft	TVD ft	N+/S- ft	E+/W- ft	DLS deg/100FT
47	113	90	270.8013	9233.00	5147.46	60.00	-4290.05	0.00

BRADLEY 10 # 1H

TVD	N/S	E/W	A2+B2 =C2	SQRT OF D
4500	0	0	0	0
4670.00	**0.00**	**0.00**	0	0
4769.27	**0.15**	**-10.43**	108.86318	10.43375208
4864.20	**0.58**	**-41.27**	1703.95611	41.27900331
4950.65	**1.28**	**-91.18**	8315.19083	91.18766818
5024.83	**2.21**	**-157.96**	24957.20600	157.97849855
5083.50	**3.34**	**-238.71**	56993.16580	238.73241464
5124.10	**4.61**	**-329.89**	108847.26104	329.92008281
5144.85	**5.98**	**-427.51**	182804.27372	427.55616441
5147.46	**6.68**	**-477.42**	227972.66320	477.46482928
5147.46	**8.08**	**-577.41**	333465.62905	577.46482928
5147.46	**9.47**	**-677.40**	458958.59491	677.46482928
5147.46	**10.87**	**-777.39**	604451.56076	777.46482928
5147.46	**12.27**	**-877.38**	769944.52662	877.46482928
5147.46	**13.67**	**-977.37**	955437.49247	977.46482928
5147.46	**15.07**	**-1077.36**	1160930.45833	1077.46482928
5147.46	**16.47**	**-1177.35**	1386423.42418	1177.46482928
5147.46	**17.86**	**-1277.34**	1631916.39004	1277.46482928
5147.46	**19.26**	**-1377.33**	1897409.35589	1377.46482928
5147.46	**20.66**	**-1477.32**	2182902.32175	1477.46482928
5147.46	**22.06**	**-1577.31**	2488395.28760	1577.46482928
5147.46	**23.46**	**-1677.30**	2813888.25346	1677.46482928
5147.46	**24.86**	**-1777.29**	3159381.21931	1777.46482928
5147.46	**26.26**	**-1877.28**	3524874.18517	1877.46482928
5147.46	**27.65**	**-1977.27**	3910367.15102	1977.46482928
5147.46	**29.05**	**-2077.26**	4315860.11688	2077.46482928
5147.46	**30.45**	**-2177.25**	4741353.08273	2177.46482928
5147.46	**31.85**	**-2277.24**	5186846.04859	2277.46482928
5147.46	**33.25**	**-2377.23**	5652339.01444	2377.46482928
5147.46	**34.65**	**-2477.22**	6137831.98030	2477.46482928
5147.46	**36.04**	**-2577.21**	6643324.94615	2577.46482928
5147.46	**37.44**	**-2677.20**	7168817.91201	2677.46482928
5147.46	**38.84**	**-2777.19**	7714310.87786	2777.46482928
5147.46	**40.24**	**-2877.18**	8279803.84372	2877.46482928
5147.46	**41.64**	**-2977.17**	8865296.80957	2977.46482928
5147.46	**43.04**	**-3077.16**	9470789.77543	3077.46482928
5147.46	**44.44**	**-3177.15**	10096282.74128	3177.46482928
5147.46	**45.83**	**-3277.14**	10741775.70714	3277.46482928
5147.46	**47.23**	**-3377.13**	11407268.67299	3377.46482928
5147.46	**48.63**	**-3477.12**	12092761.63885	3477.46482928
5147.46	**50.03**	**-3577.11**	12798254.60470	3577.46482928
5147.46	**51.43**	**-3677.11**	13523747.57056	3677.46482928
5147.46	**52.83**	**-3777.10**	14269240.53641	3777.46482928
5147.46	**54.22**	**-3877.09**	15034733.50227	3877.46482928

5147.46	55.62	-3977.08	15820226.46813	3977.46482928
5147.46	57.02	-4077.07	16625719.43398	4077.46482928
5147.46	58.42	-4177.06	17451212.39984	4177.46482928
5147.46	60.00	-4290.05	18408088.45125	4290.46482928
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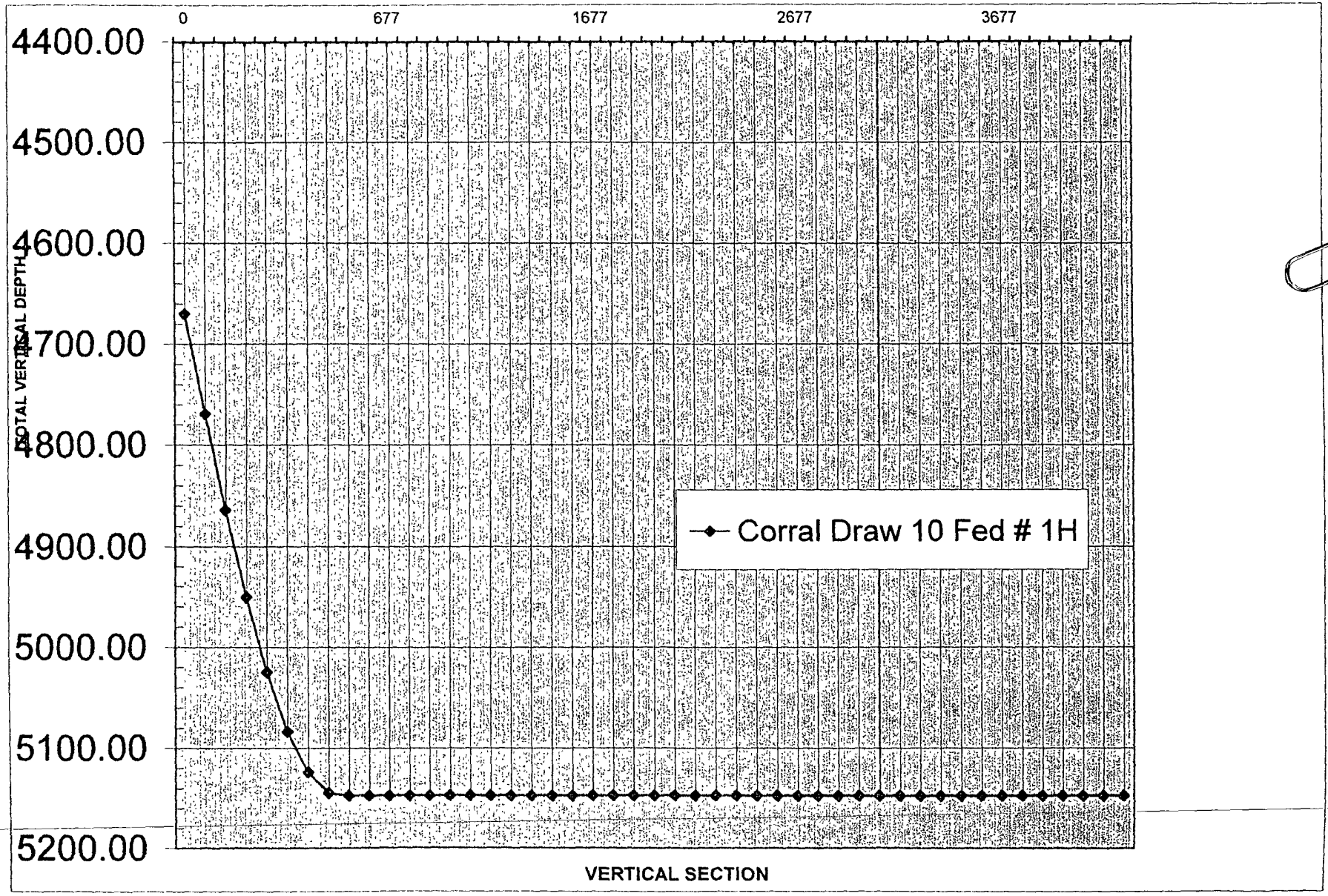
			0	0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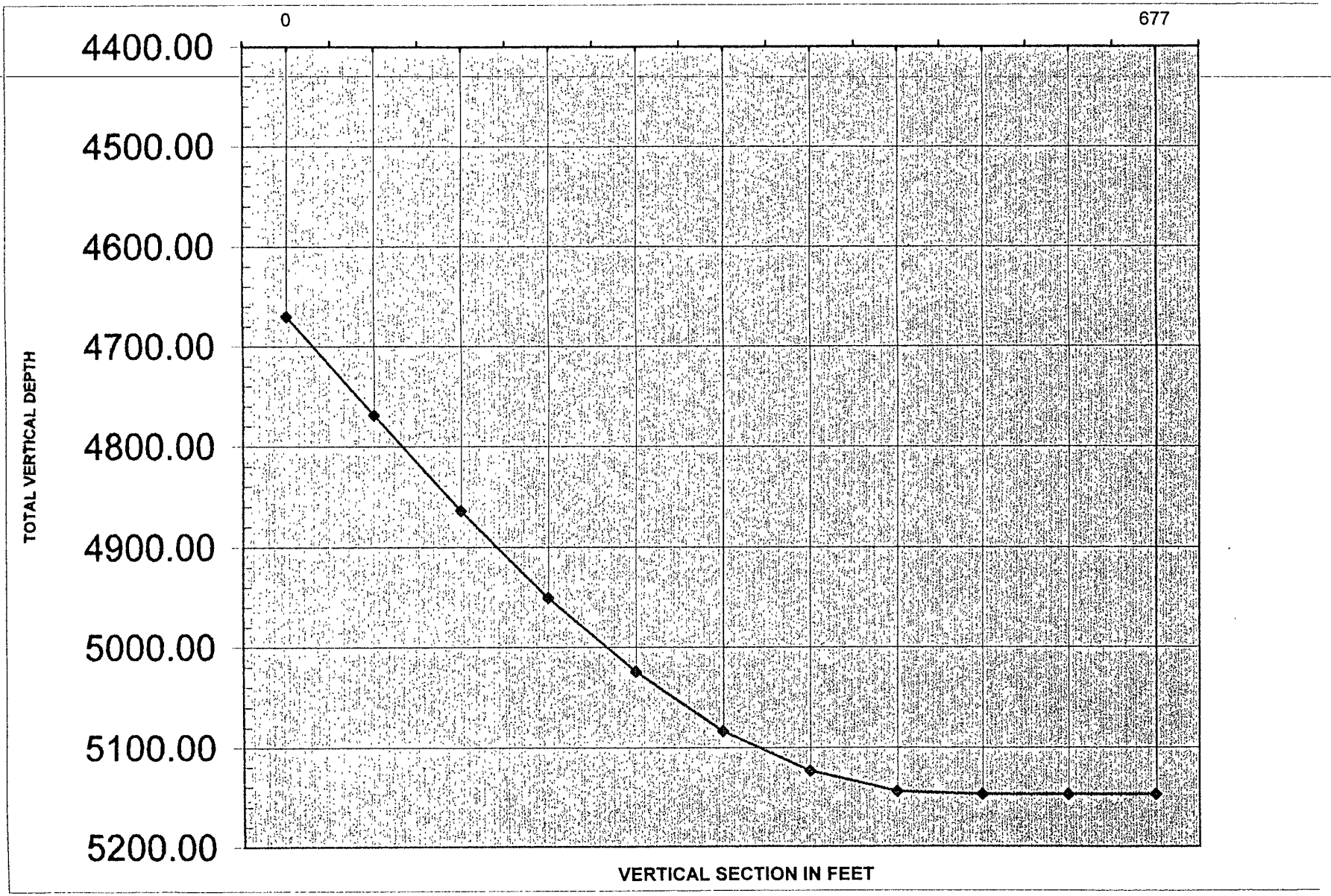
TOTAL VERTICAL DEPTH
Corral Draw 10 Fed # 1H
VERTICAL SECTION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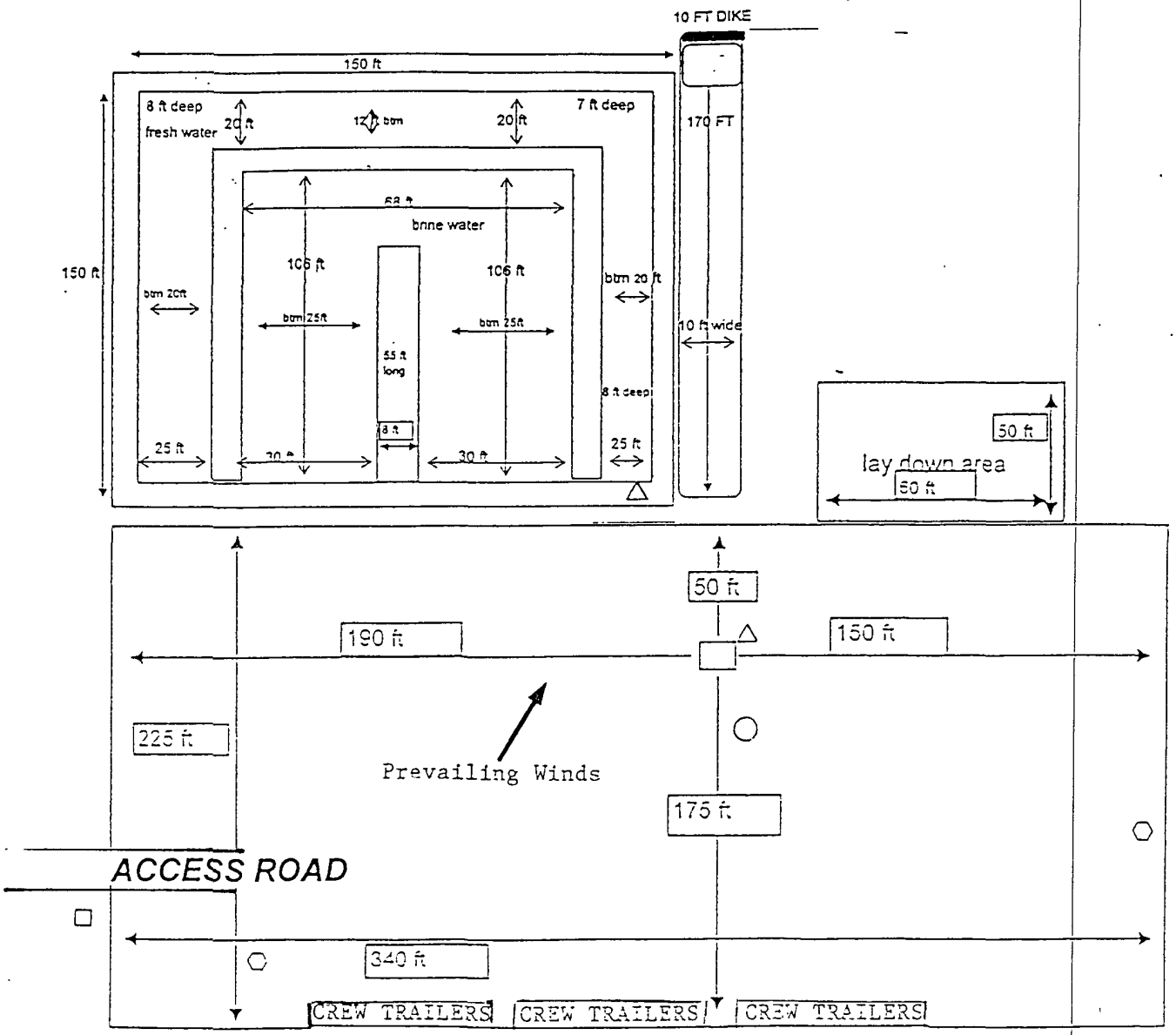
TOTAL VERTICAL DEPTH
VERTICAL SECTION IN FEET

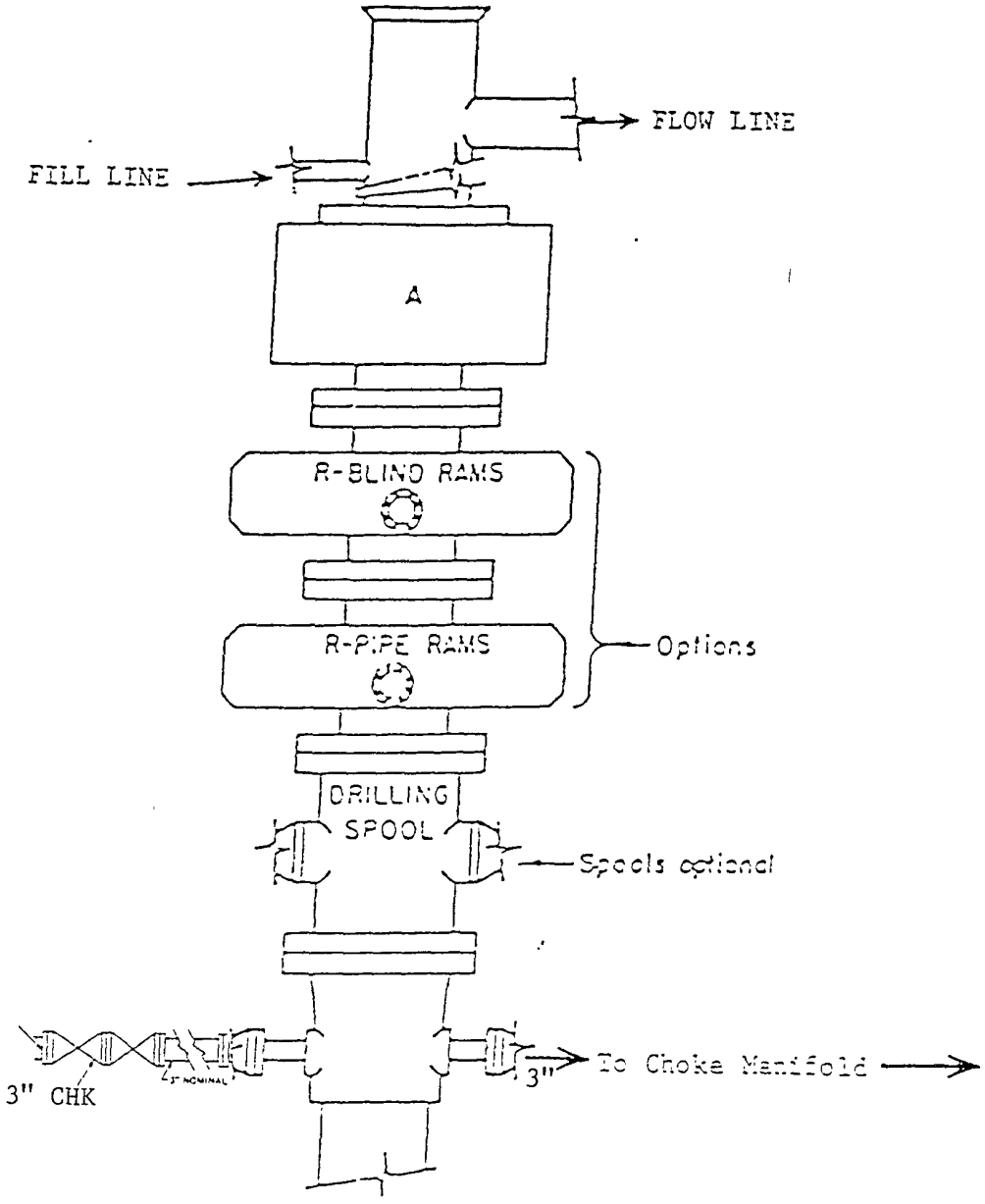
See COA's



- 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

EXHIBIT "D"
RIG LAY OUT PLAT

POGO PRODUCING COMPANY
CORRAL DRAW "10" #1H
UNIT "I" SECTION 10
T25S-R29E EDDY CO. NM



ARRANGEMENT SRRA

900 Series
3000 PSI WP

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

POGO PRODUCING COMPANY
CORRAL DRAW "10" #1H
UNIT "I" SECTION 10
T25S-R29E EDDY CO. NM

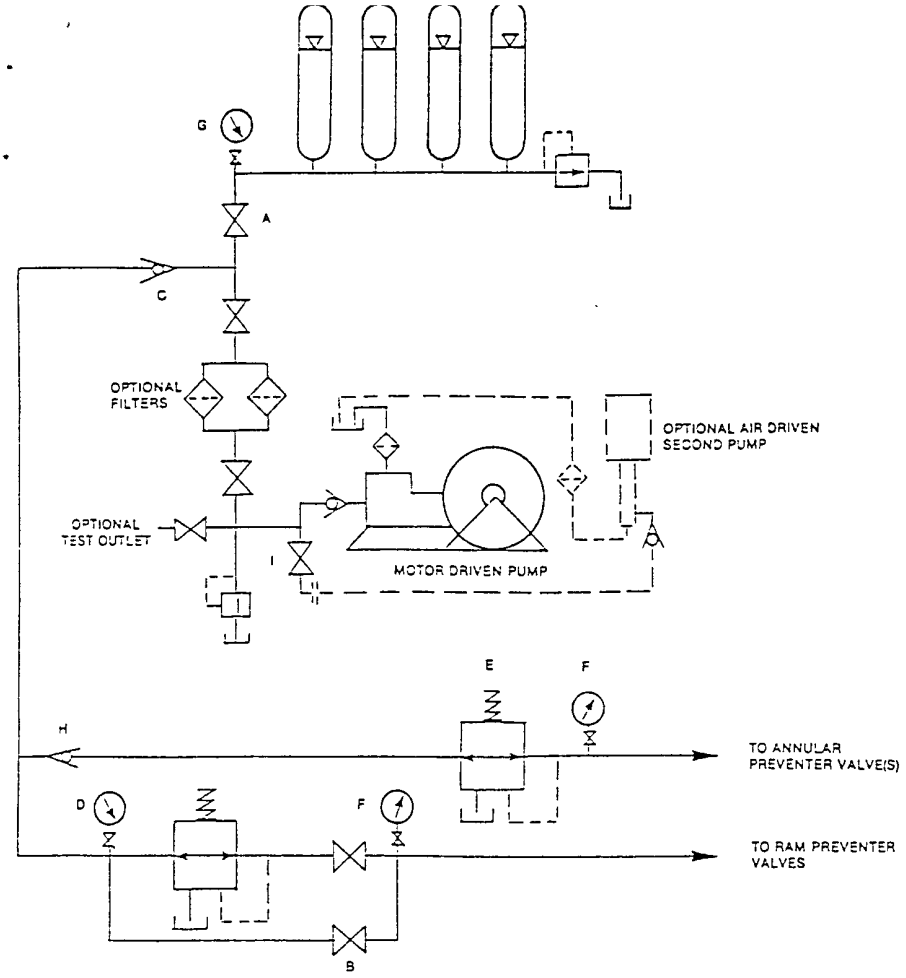


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

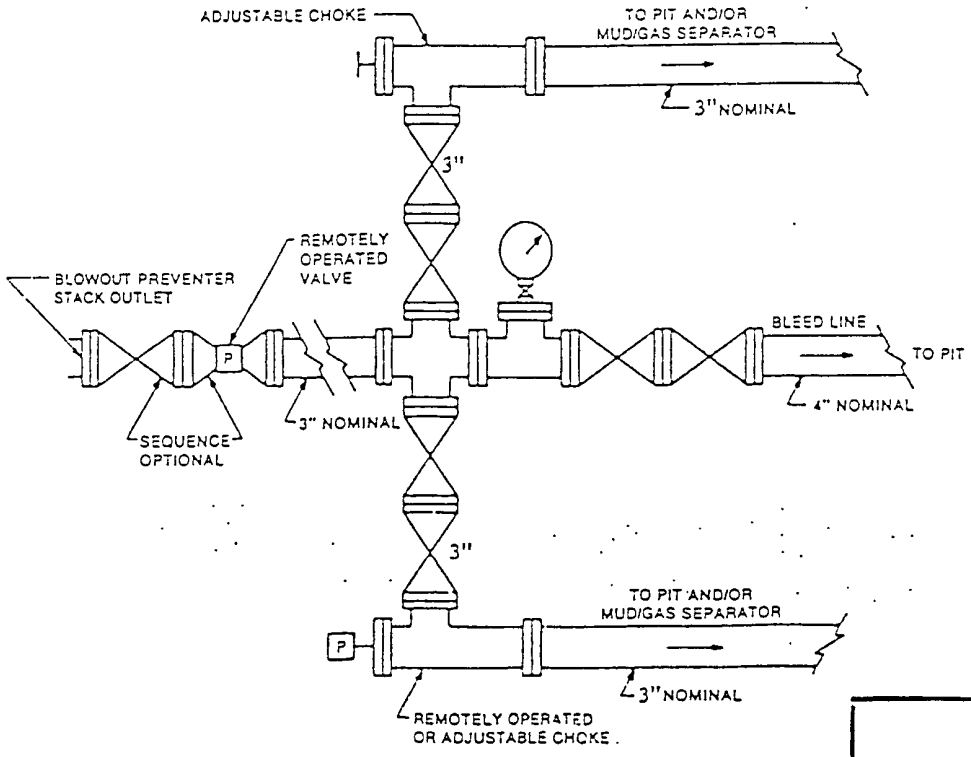


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

POGO PRODUCING COMPANY
CORRAL DRAW "10" #1H
UNIT "I" SECTION 10
T25S-R29E EDDY CO. NM

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:

   A. Characteristics of H_2S
   B. Physical effects and hazzards
   C. Proper use of safety equipment and life support systems.
   D. Principle and operation of H_2S detectors, warning system and briefing areas.
   E. Evacuation procedure, routes and first aid.
   F. Proper use of 30 minute pressure demand air pack.

2. H_2S Detection and Alarm Systems

   A. H_2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers

   A. Windsock at mudpit area should be high enough to be visible.
   B. Windsock at briefing area should be high enough to be visible.
   C. There should be a windsock 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, H_2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well control equipment

   A. See exhibit "E"

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 location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H_2S scavengers if necessary.

SURFACE USE PLAN

POGO PRODUCING COMPANY
CORRAL DRAW "10" #1H
UNIT "I" SECTION 10
T25S-R29E EDDY CO. NM

1. EXISTING AND PROPOSED ROADS:

A. Exhibit "B" is a reporduction of a County General Hi-way map showing existing roads. Exhibit "C" is a reproduction of a USGS topographic map showing existing roads and and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. All new roads will be constructed to BLM specifications.

B. Exhibit "A" shows the proposed well site as staked.

C. Directions to location: From Loving New Mexico take U. S. Hi-way 285 South 17.5 miles to CO. Road 725 turn Left (East) go 4.1 miles, turn Left (Northeast) go 1.8 miles, turn Left (North) go 5.1 miles on main road, turn Right at well #1, bear Left and follow new road 1000'± to location.

D. Exhibit "C" shows a topographic map with roads and proposed roads to location.

2. PLANNED ACCESS ROADS: Approximately 1000' of new road will be constructed.

A. The access roads will be crowned and sitched to a 14' wide travel surface, within a 30' R-O-W.

B. Gradient of all roads will be less than 5%.

C. Turn-outs will be constructed where necessary.

D. If require new access roads will be surface with a minimum of 4-6" of caliche. this material will be obtained from a local source.

E. Center line for new roads will be flagged, road construction will be done as field conditions require.

F. Culverts will be placed in the access road as drainage conditions require. Roads will be constructed to use low water crossings for drainage as required by the topographic conditions.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS: EXHIBIT "A-1"

A. Water wells	- One approximately 1.75 miles Southwest of location
B. Disposal wells	- None known
C. Drilling wells	-- None known
D. Producing wells	- As shown on Exhibit "A-1"
E. Abandoned wells	- As shown on Exhibit "A-1"

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Exhibit "C" shows possible gas flowline to sales point.

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of drill site, if additional material is needed it will be obtained from a local source and transported over the access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE MATERIAL:

A. Drill cuttings will be disposed of in the reserve pits.

B. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.

C. Salts remaining after completion of well will be picked up by the supplier, including broken sacks.

D. Waste water from living quaters will be drained into holes with a minium of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-John will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

E. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for furthed drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approve disposal site. Later pips will be broken out to speed drying. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in storage tanks and sold.

8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on location.

9. WELL SITE LAYOUT

A. Exhibit "D" shows the proposed well site layout.

B. This exhibit indicated proposed location of reserve and sump pits and living facilities.

C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.

D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 12mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.

E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

CERTIFICATION

I HEREBY CERTIFY THAT I OR PERSONS UNDER MY SUPERVISION HAVE INSPECTED THE PROPOSED DRILL SITE AND ACCESS ROAD ROUTES, THAT I AM FAMILIAR WITH THE CONDITIONS THAT CURRENTLY EXIST, AND THAT THE STATEMENTS MADE IN THIS PLAN ARE TO THE BEST OF MY KNOWLEDGE ARE TRUE AND CORRECT, AND THAT THE WORK ASSOCIATED WITH THE OPERATIONS PROPOSED HEREIN WILL BE PERFORMED BY POGO PRODUCING COMPANY, ITS CONTRACTORS OR ITS SUB-CONTRACTORS IS IN THE CONFORMITY WITH THIS PLAN AND THE TERMS AND THE CONDITIONS UNDER WHICH IT IS APPROVED. THIS STATEMENT IS SUBJECT TO THE PROVISIONS OF U.S.C. 1001 FOR THE FILING OF A FALSE STATEMENT.

OPERATORS REPRESENTIVEVES:

BEFORE CONSTRUCTION

JOE T. JANICA
TIERRA EXPLORATION, INC.
P.O. BOX 2188
HOBBS, NEW MEXICO 8241
OFFICE PHONE 505-391-8503
CELL 505-390-1598

DURING & AFTER CONSTRUCTION

RICHARD WRIGHT
POGO PRODUCING COMPANY
P.O. BOX 10340
MIDLAND, TEXAS 79702-7340
OFFICE PHONE 432-685-8140
CELL 432-556-1653

NAME: JOE T. JANICA Joe T. Janica

DATE: 11/14/07

TITLE: Permit Engineer

;

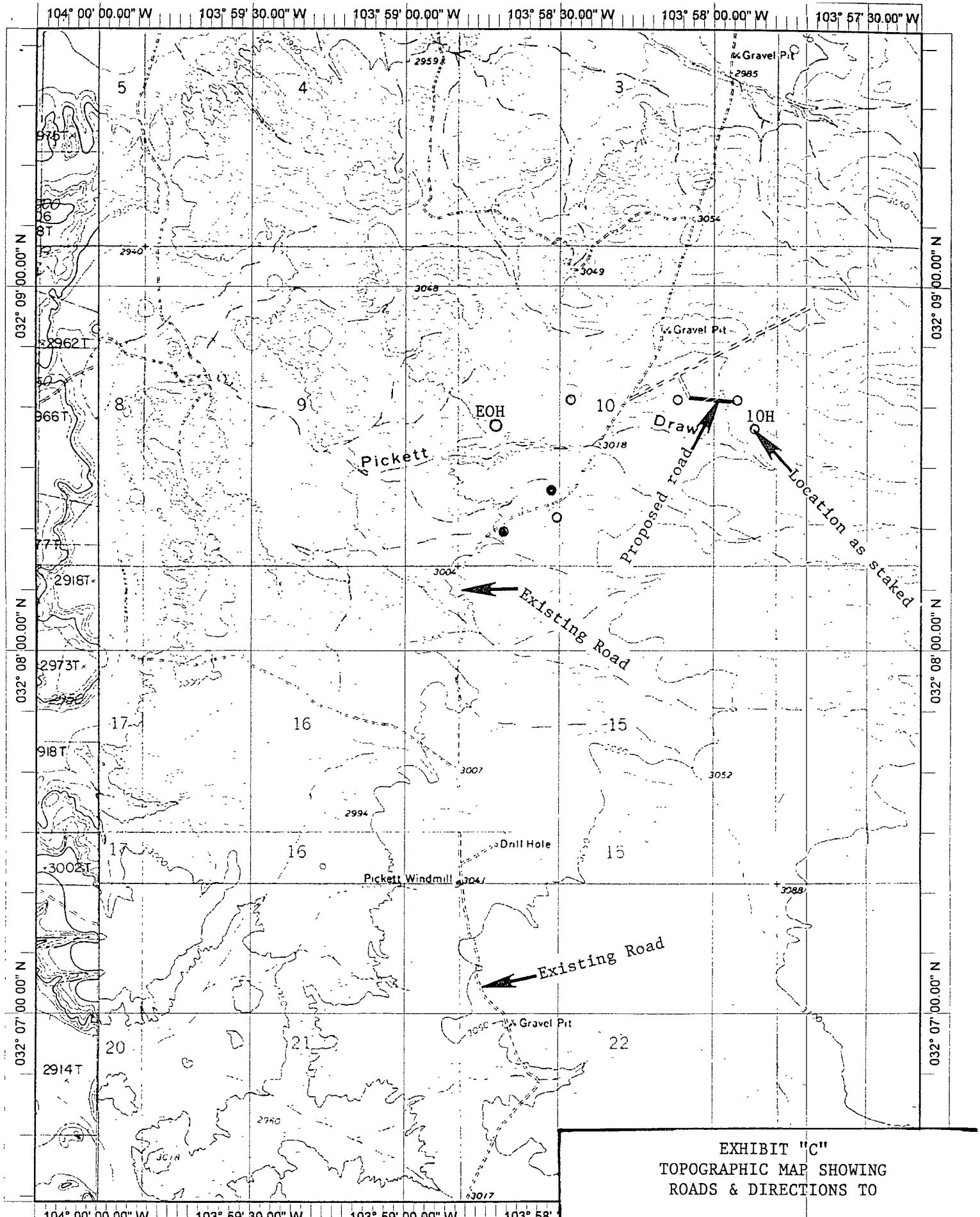
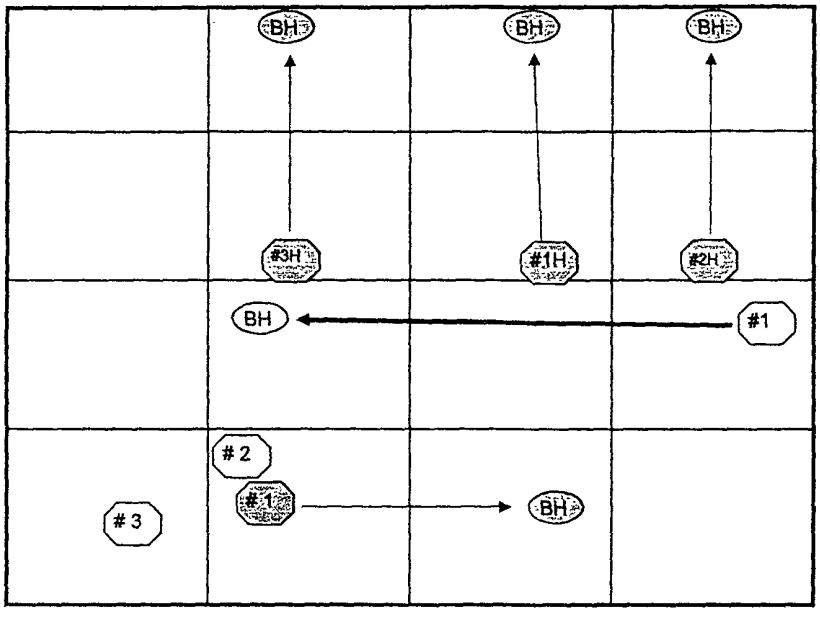


EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

POGO PRODUCING COMPANY
CORRAL DRAW "10" #1H
UNIT "I" SECTION 10
T25S-R29E EDDY CO. NM

CORRAL DRAW WELL GROUPINGS

Sec 10, T-25-S, R-29-E, Eddy County, New Mexico



Well Name	Legal Location in 10	Depth and Strata	Current Prod Zone	BHL
CORRAL DRAW 10 FD # 1	2250 FSL & 330 FEL	5150 FT TVD CHERRY CNYN	PROPOSED BY POGO	2310 FSL & 660 FW
PICKETT DRAW FD # 2	1235 FSL & 1515 FWL	14000 FT MORROW TEST	5184-5204' DELAWARE	SAME AS SURF
PICKETT DRAW FD # 3	582 FSL & 738 FWL	5202 FT DELAWARE	5130-5202' DELAWARE	SAME AS SURF
CORRAL DRAW 10 FD # 1	800 FSL & 1650 FWL	13214 FT MORROW DIRECTIONAL	PROPOSED NOT DRILLED	800 FSL &1650 FEL
CORRAL FLY FD # 2H	2520 FNL & 660 FEL	5300 TVD DEL & 7415 MD	PROPOSED NOT DRILLED	200 FNL & 660 FEL
CORRAL FLY FD # 1H	2520 FNL & 1650 FEL	5650 VERTICAL CHERRY CNYN	DRILL'D & NOW GOING HORIZ	200 FNL & 1860 FEL
CORRAL FLY FD # 3H	2520 FNL & 1880 FWL	5209 TVD DEL & 7324 MD	PROPOSED NOT DRILLED	200 FNL & 1880 FW

VI. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 2 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

1. The **9-5/8** inch surface casing shall be set **a minimum of 25 feet into the Rustler and above the salt at approximately 750** feet and cemented to the surface.

   a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

   b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement). **Please provide WOC times to inspector for cement slurries.**

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial action will be done prior to drilling out that string.

Medium cave/karst.
Possible lost circulation in the Delaware Mountain Group
Possible water flows in the Salado and Delaware Mountain Groups.

2. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Both stages to circulate. Please provide WOC times to inspector for cement slurries.**

3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.

   a. The tests shall be done by an independent service company.

   b. The results of the test shall be reported to the appropriate BLM office.

   c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

   d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

Engineer on call phone (after hours): Carlsbad: (575) 706-2779
WWI 122107