

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
Revised March 17, 1999

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

Operator Name and Address ARCH PETROLEUM INC. P.O. BOX 10340 MIDLAND, TEXAS 79702-7340		OGRID Number 962
Property Code 26213		API Number 30-025-35090
Property Name HENSON		Well No. 1

Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	5	22S	37E		2097	NORTH	1750'	EAST	LEA

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
G	5	22S	37E		2043'	NORTH	1650'	EAST	
Proposed Pool 1 BRUNSON-FUSSELMAN (8005)					Proposed Pool 2				

Work Type Code N	Well Type Code O	Cable/Rotary ROTARY	Lease Type Code P	Ground Level Elevation 3436'
Multiple NO	Proposed Depth 7800'	Formation FUSSELMAN	Contractor UNKNOWN	Spud Date WHEN APPROVED

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
17½"	13 3/8"	48	500'	550 Sx.	SURFACE
11"	8 5/8"	24 & 32	3500'	1200Sx.	SURFACE
7 7/8"	5½"	15.5 & 17	7800'	1000 Sx.	2500'

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.

1. Drill 25" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 17½" hole to 500'. Run and set 500' of 13 3/8" 48# H-40 ST&C casing. Cement with 550 Sx. of Class "C" cement, circulate cement to surface.
3. Drill 11" hole to 3500'. Run and set 3500' of 8 5/8" J-55 ST&C casing as follows: 1300' of 32#, 1200' of 24#, 1000' of 32#. Cement with 1200 Sx. of Class "C" cement, circulate cement to surface.
4. Drill 7 7/8" hole to 7800'. Run and set 7800' of 5½" J-55 LT&C casing as follows: 1800' of 17#, 5000' of 15.5#, and 1000' of 17#. Cement in two stages, with DV tool at 5000'±, cement with 1000 Sx. of Class "C" cement + additives, estimate top of cement 2500' from surface.

Permit Expires 1 Year From Approval
Date Unless Drilling Underway

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Joe T. Janica</i>		OIL CONSERVATION DIVISION	
Printed name: Joe T. Janica		Approved by: <i>[Signature]</i>	
Title: Agent		Title:	
Date: 07/12/00		Approval Date: <i>7/12/2000</i> Expiration Date:	
Phone: 505-391-8503		Conditions of Approval: Attached ☐	

DISTRICT I
P.O. Box 1000, Hobbs, NM 88241-1000

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-35090	Pool Code 8005	Pool Name BRUNSON-FUSSELMAN
Property Code 26213	Property Name HENSON	Well Number 1
OGRID No. 962	Operator Name ARCH PETROLEUM, INC.	Elevation 3436

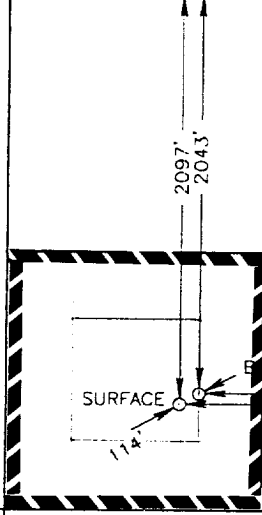
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	5	22 S	37 E		2097	NORTH	1750	EAST	LEA

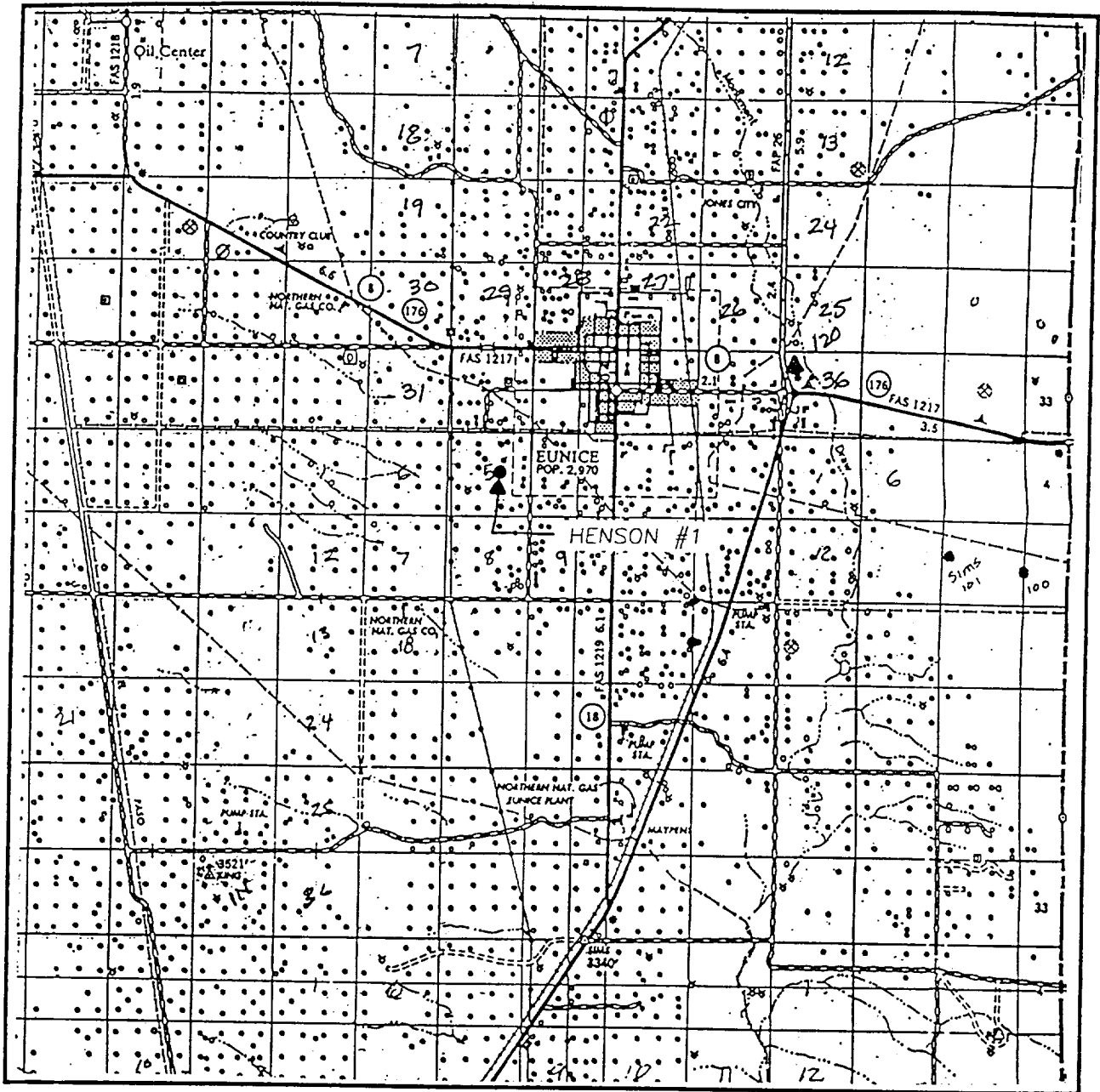
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	5	22 S	37 E		2043	NORTH	1650	EAST	LEA
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Joe T. Janica</i> Signature Joe T. Janica Printed Name Agent Title Date 07/12/00
SURFACE LOCATION GEODETIC COORDINATES NAD 27 NME Y=519244 X=855340	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. JUNE 7, 2000 Date Surveyed _____ DC Signature & Seal of Professional Surveyor <i>Gary E. Edson</i> 7/6/2000 00-11-0362 Certificate No. RONALD J. EDSON 3239 GARY EDSON 12641 MAGNUS McDONALD 12185

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 5 TWP. 22-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 2097' FNL & 1750' FEL

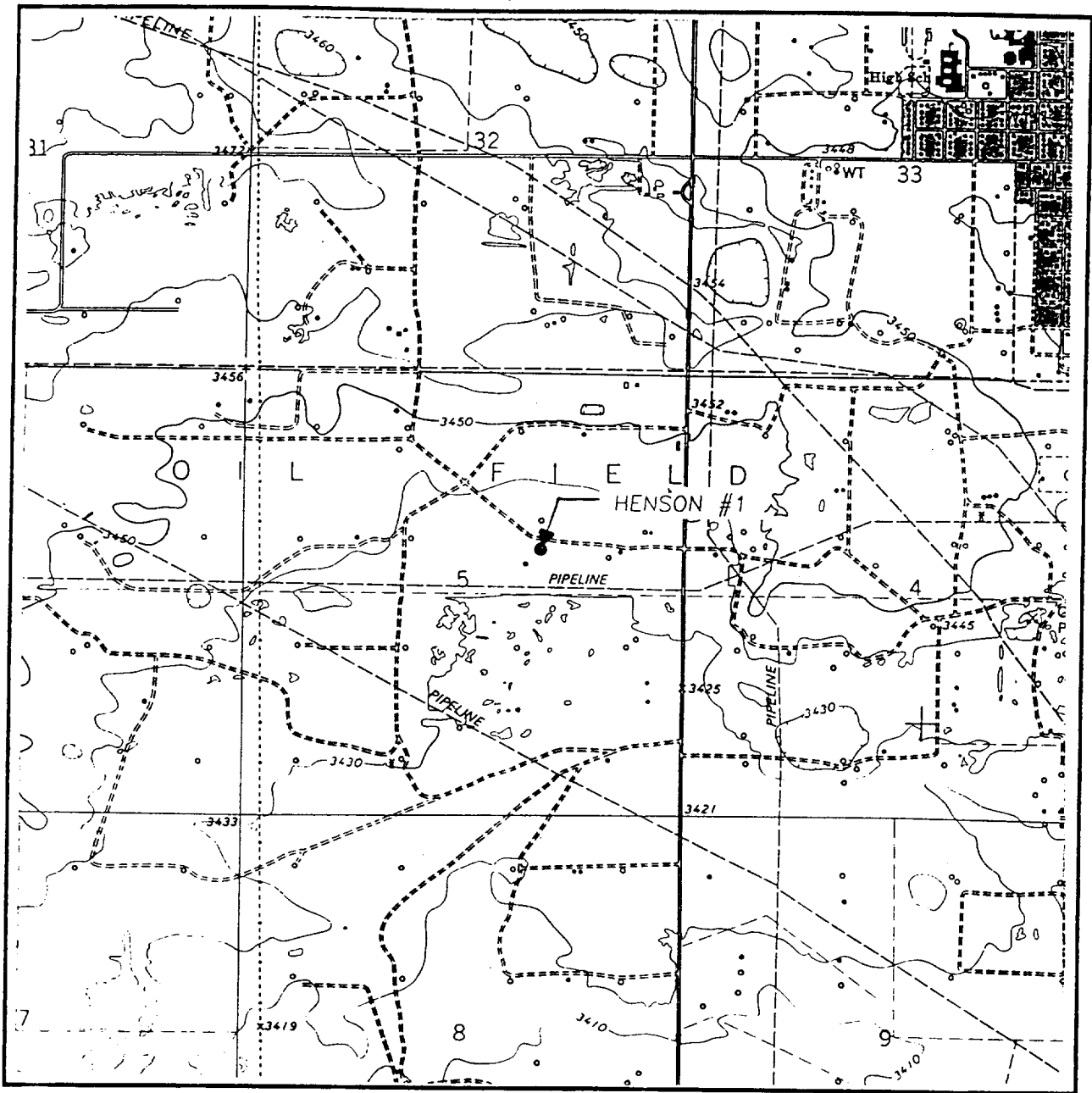
ELEVATION 3436

OPERATOR ARCH PETROLEUM, INC.

LEASE HENSON

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505 393-3117)

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
EUNICE - 10'

SEC. 5 TWP. 22-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 2097' FNL & 1750' FEL

ELEVATION 3436

OPERATOR ARCH PETROLEUM, INC.

LEASE HENSON

U.S.G.S. TOPOGRAPHIC MAP

EUNICE, N.M.

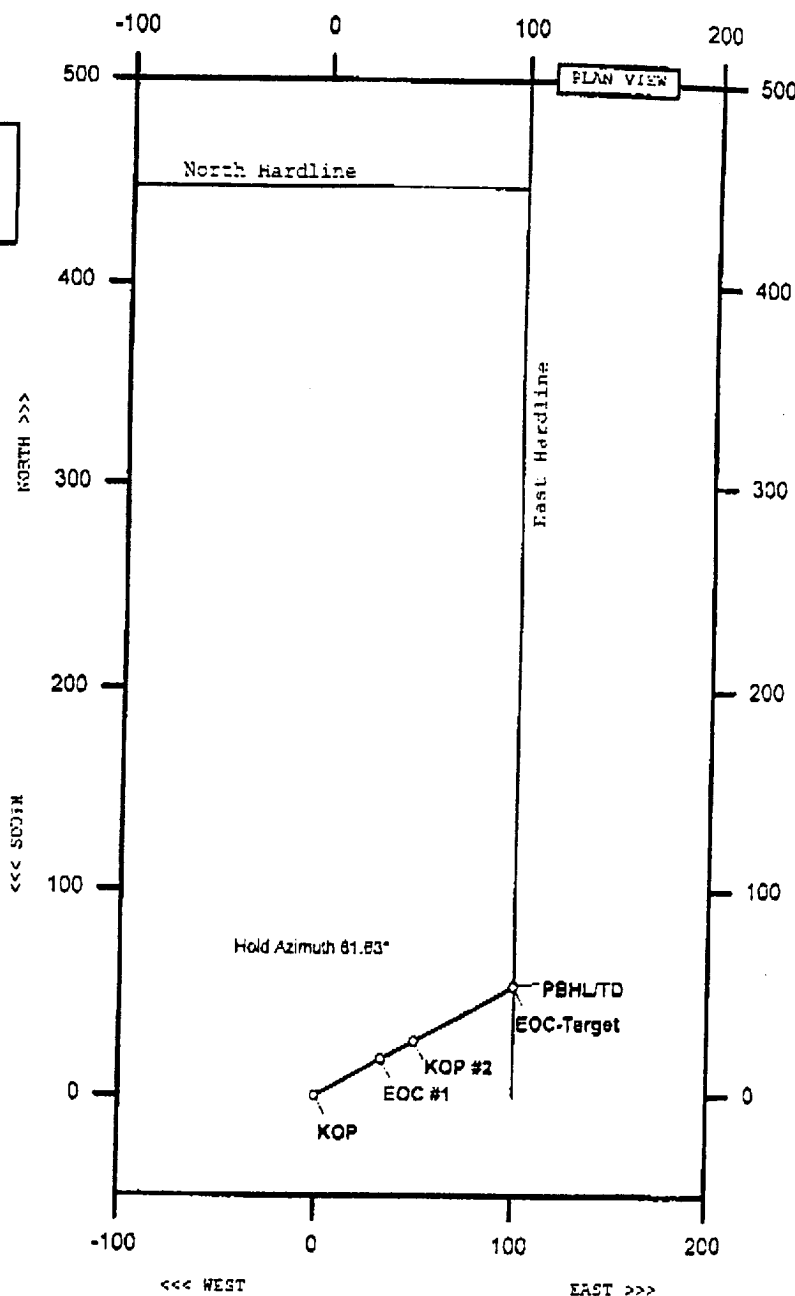
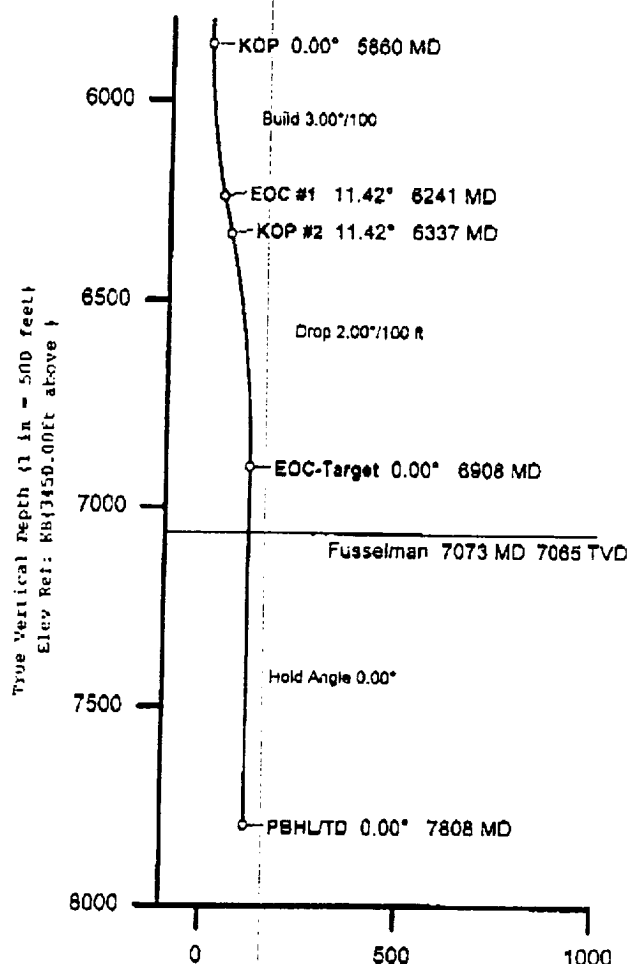
JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505 393-3117)

Schlumberger**Pogo Production**

WELL Henson #1	FIELD Lea County, NM	STRUCTURE Henson #1
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Grid North
Tot Corr (E 8.07°)
Mag Dec (E 8.89°)
Grid Conv (E 0.82°)

Vertical Section View

Quality Control
Date Drawn: 05-Jul-2000
Drawn by: Ernie Fontenot
Checked by: _____
Client OK: _____

Vertical Section Departure at 61.63 deg from (0,0,0). (1 in = 500 feet)

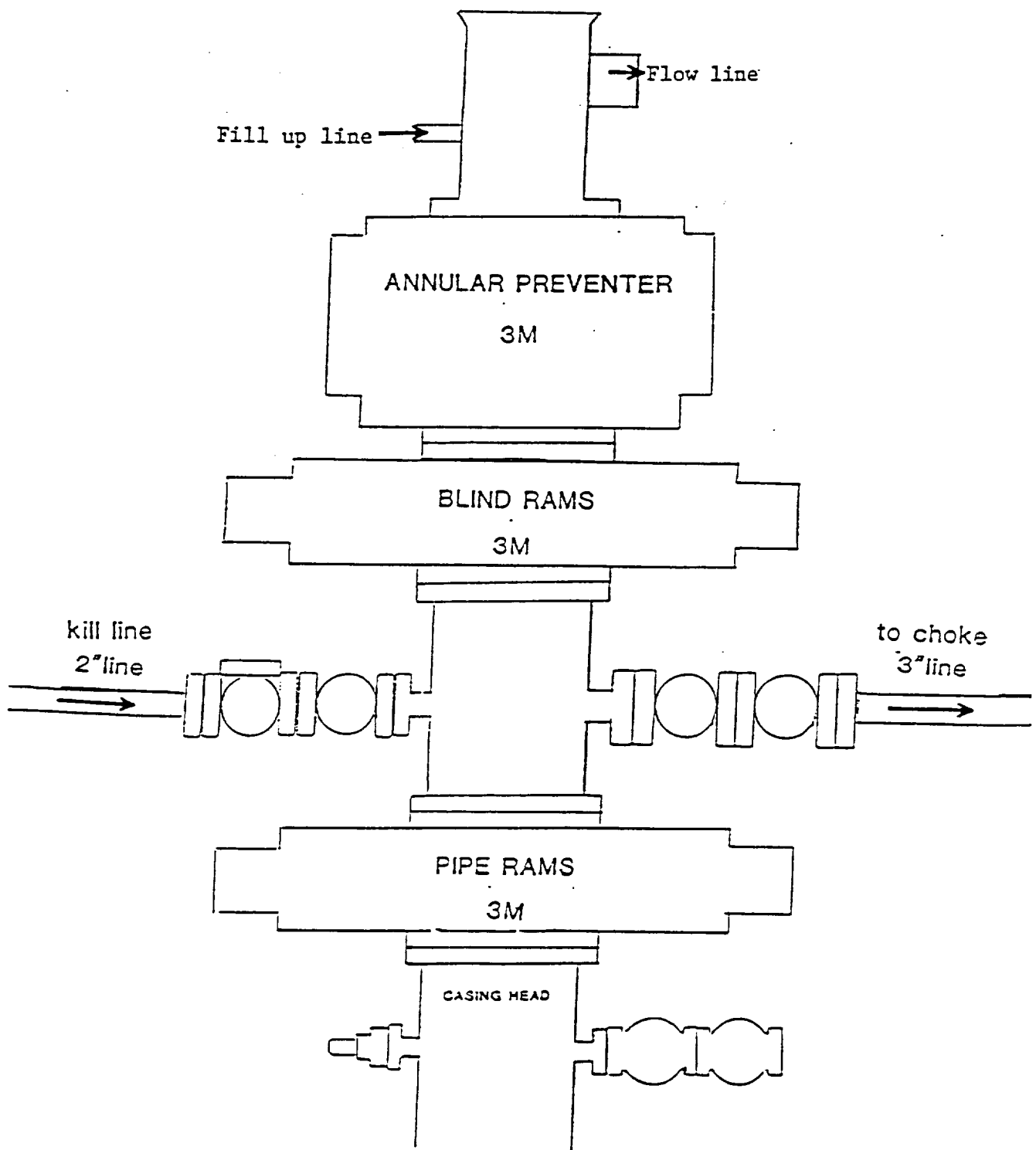
Proposed Well Profile

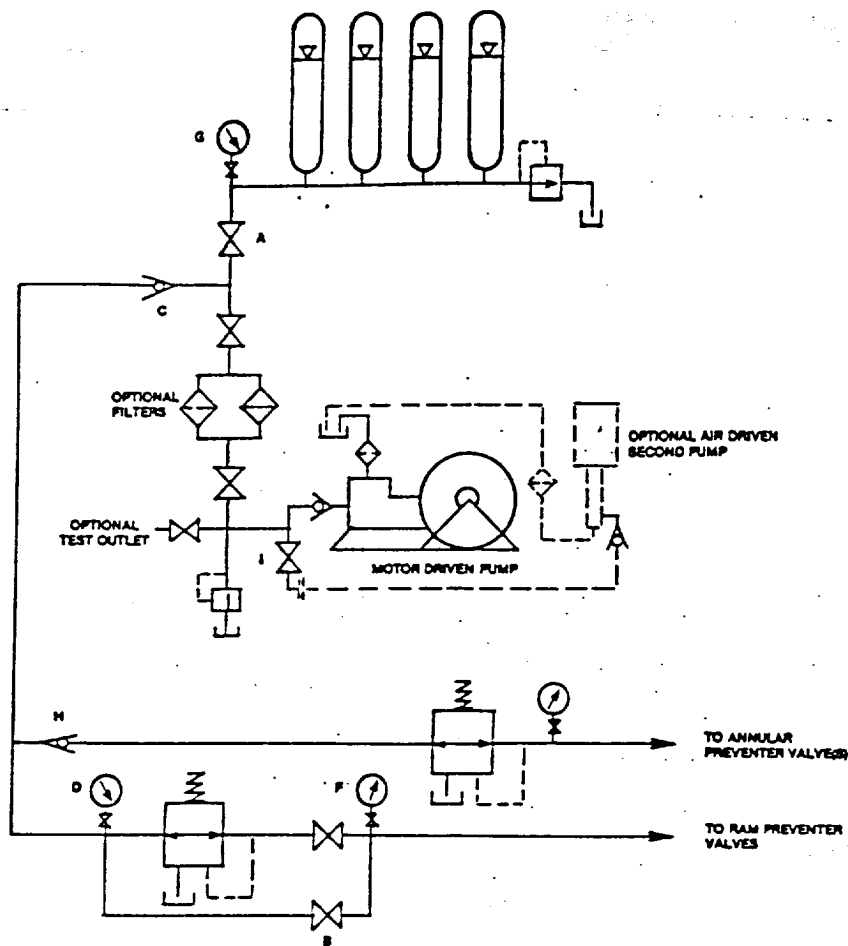
Report Date: July 5, 2000	Survey / DLS Computation Method: Minimum Curvature / Lubinsk
Client: Pogo Production	Vertical Section Azimuth: 61.630°
Field: Lea County, NM	Vertical Section Origin: N 0.000 ft, E 0.000 ft
Structure / Slot: Henson #1 / Henson #1	TVD Reference Datum: KB
Well: Henson #1	TVD Reference Elevation: 3450.0 ft relative to
Borehole: Henson #1	Sea Bed / Ground Level Elevation: 0.000 ft relative to
UWI/API#: Rev 1 / July 5, 2000	Magnetic Declination: 8.689°
Proposal Name / Modified Date: 22.848° / 113.65 ft / 3.415 / 0.015	Total Field Strength: 49900.600 nT
Tort / AHD / DD / ERD ratio: NAD27 New Mexico State Planes, Eastern Zone, US Feet	Magnetic Dip: 60.775°
Grid Coordinate System: Location Lat/Long: N 32 25 20.107, W 103 10 54.409	Declination Date: July 05, 2000
Location Grid N/E Y/X: N 519244.000 ftUS, E 855340.000 ftUS	Magnetic Declination Model: BGCM 1999
Grid Convergence Angle: +0.61747065°	North Reference: Grid North
Grid Scale Factor: 1.0005370	Total Corr Mag North -> Grid North: +8.072°
	Local Coordinates Referenced To: Structure Reference Point

Station ID	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSec (ft)	N/S (ft)	E/W (ft)	Closure (ft)	at Azim (°)	DLS (°/100ft)	TF (°)
Tie-In	5700.00	0.00	61.63	5700.00	0.00	0.00	0.00	0.00	0.00	0.00	61.6MTF
KOP	5800.00	0.00	61.63	5800.00	0.00	0.00	0.00	0.00	0.00	0.00	61.6MTF
	5860.00	0.00	61.63	5860.00	0.00	0.00	0.00	0.00	0.00	0.00	61.6MTF
	5900.00	1.20	61.63	5900.00	0.42	0.20	0.37	0.42	61.63	3.00	61.6MTF
	6000.00	4.20	61.63	5999.87	5.13	2.44	4.51	5.13	61.63	3.00	61.6MTF
	6100.00	7.20	61.63	6099.37	15.06	7.16	13.25	15.06	61.63	3.00	0.0
EOC #1	6200.00	10.20	61.63	6198.21	30.18	14.34	26.56	30.18	61.63	3.00	0.0
	6240.81	11.42	61.63	6238.29	37.84	17.98	33.29	37.84	61.63	3.00	0.0
	6300.00	11.42	61.63	6296.31	49.56	23.55	43.61	49.56	61.63	0.00	0.0
KOP #2	6336.99	11.42	61.63	6332.57	56.89	27.03	50.06	56.89	61.63	0.00	180.0
	6400.00	10.16	61.63	6394.46	68.69	32.64	60.44	68.69	61.63	2.00	180.0
	6500.00	8.16	61.63	6493.18	84.62	40.21	74.45	84.62	61.63	2.00	180.0
	6600.00	6.16	61.63	6592.39	97.09	46.13	85.43	97.09	61.63	2.00	180.0

EOC-Target	6700.00	4.16	61.63	6691.98	106.09	50.41	93.35	106.09	61.63	2.00	61.6MTF
	6800.00	2.16	61.63	6791.82	111.61	53.03	98.20	111.61	61.63	2.00	61.6MTF
Fusselman	6900.00	0.16	61.63	6891.80	113.64	53.99	99.99	113.64	61.63	2.00	61.6MTF
	6908.20	0.00	61.63	6900.00	113.65	54.00	100.00	113.65	61.63	2.00	61.6MTF
	7000.00	0.00	61.63	6991.80	113.65	54.00	100.00	113.65	61.63	0.00	61.6MTF
	7073.20	0.00	61.63	7065.00	113.65	54.00	100.00	113.65	61.63	0.00	61.6MTF
	7100.00	0.00	61.63	7091.80	113.65	54.00	100.00	113.65	61.63	0.00	61.6MTF
	7200.00	0.00	61.63	7191.80	113.65	54.00	100.00	113.65	61.63	0.00	61.6MTF
PBHL/TD	7300.00	0.00	61.63	7291.80	113.65	54.00	100.00	113.65	61.63	0.00	61.6MTF
	7400.00	0.00	61.63	7391.80	113.65	54.00	100.00	113.65	61.63	0.00	61.6MTF
	7500.00	0.00	61.63	7491.80	113.65	54.00	100.00	113.65	61.63	0.00	61.6MTF
	7600.00	0.00	61.63	7591.80	113.65	54.00	100.00	113.65	61.63	0.00	61.6MTF
	7700.00	0.00	61.63	7691.80	113.65	54.00	100.00	113.65	61.63	0.00	61.6MTF
	7800.00	0.00	61.63	7791.80	113.65	54.00	100.00	113.65	61.63	0.00	61.6MTF
	7808.20	0.00	61.63	7800.00	113.65	54.00	100.00	113.65	61.63	0.00	0.0MTF

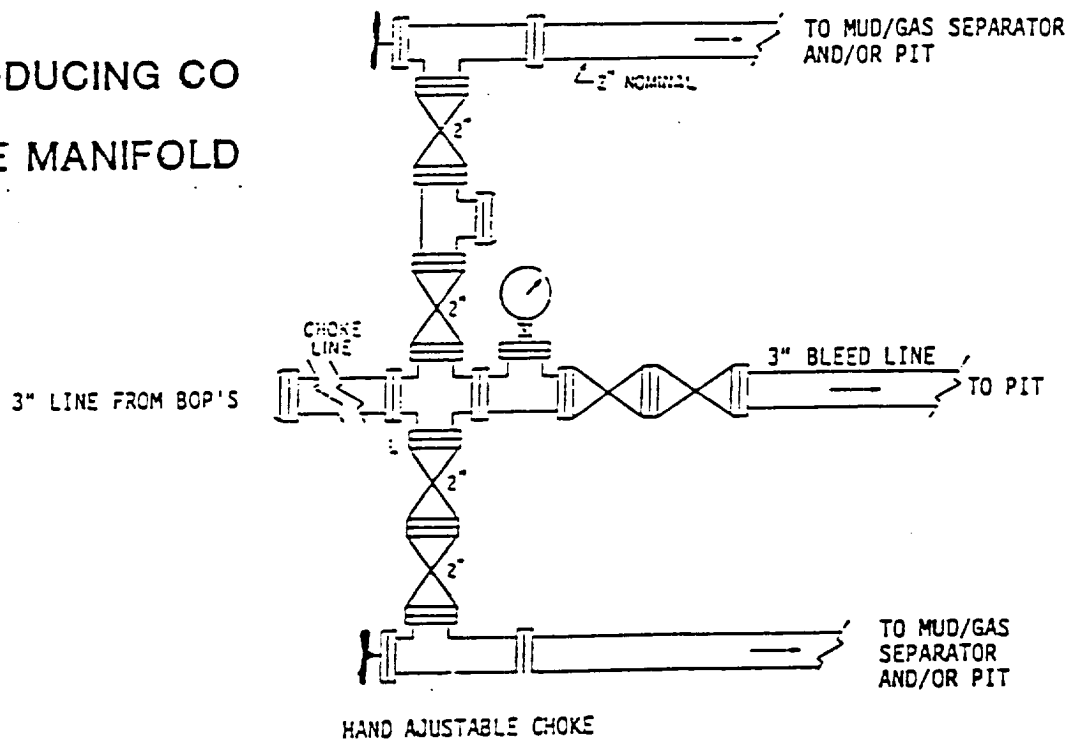
Survey Error Model: (No Error Model Selected)





HAND AJUSTABLE CHOKE

POGO PRODUCING CO
3M CHOKE MANIFOLD



CONFIDENTIAL LOGS
WILL BE RELEASED
INDICATE WHEN
ABOVE LINE WHEN NOT
10/2/01