

EC

OCD-ARTESIA

Form 3160-3
(August 1999)FORM APPROVED
OMB No. 1004-0136
Expires November 30, 20000397
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. BAD AXE 23 FEDERAL COM 1
2. Name of Operator DEVON ENERGY PRODUCTION CO L P Contact: LINDA GUTHRIE E-Mail: linda.guthrie@dmv.com		9. API Well No. 30-015-33359
3a. Address 20 NORTH BROADWAY SUITE 1500 OKLAHOMA CITY, OK 73102	3b. Phone No. (include area code) Ph: 405.228.8209 Fx: 405.552.1319	10. Field and Pool, or Exploratory INDIAN BASIN Morrow
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NENW 660FNL 2110FWL At proposed prod. zone		11. Sec., T., R., M., or Blk. and Survey or Area Sec 23 T21S R23E Mer NMP SME: BLM
14. Distance in miles and direction from nearest town or post office* 17 1/2 MILES WEST OF CARLSBAD, NM		12. County or Parish EDDY
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		13. State NM
16. No. of Acres in Lease 640.00		17. Spacing Unit dedicated to this well 320.00
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/BIA Bond No. on file
19. Proposed Depth 9500 MD		23. Estimated duration 45 DAYS
21. Elevations (Show whether DF, KB, RT, GL, etc.) 3817 GL		22. Approximate date work will start 03/15/2004
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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) LINDA GUTHRIE	Date 02/17/2004
Title OPERATIONS ASSOCIATE		
Approved by (Signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date 23 MAR 2004
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify 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 1 YEAR

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.

Additional Operator Remarks (see next page)

Witness Surface Casing

Electronic Submission #28000 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION CO L P, sent to the Carlsbad
Committed to AFMSS for processing by ARMANDO LOPEZ on 02/17/2004 (04AL0105AE)APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

ROSWELL CONTROLLED WATER BASIN

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Additional Operator Remarks:

Devon Energy proposes to drill to a depth sufficient to test the Morrow for commercial quantities of oil and gas. All depths assumed MD unless otherwise qualified. If the well is deemed noncommercial, the well bore will be plugged and abandoned per Federal regulations. Programs to adhere to onshore oil and gas regulations are outlines in the following exhibits and attachments.

Please note this APD is a resubmittal after the expiration on 11/13/03 of a 1 year extension.

DISTRICT I
P. O. Box 1980
Hobbs, NM 88241-1980

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, NM 87507-2088

State of New Mexico
Energy, Minerals, and Natural Resources Department

Form C-102
Revised 02-10-94

Instructions on back

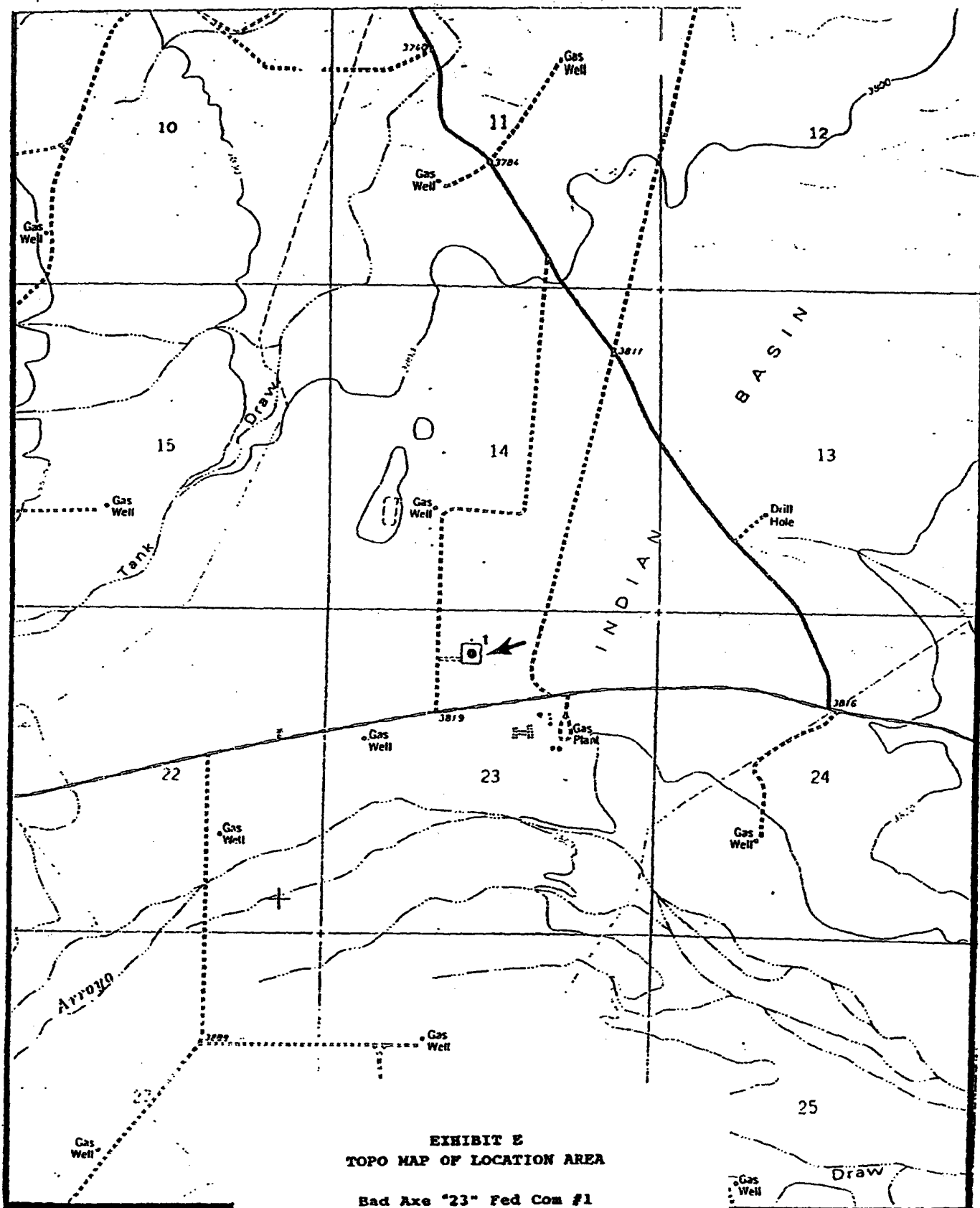
Submit to the Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

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

[*] AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name Indian Basin (Morrow)					
4 Property Code		5 Property Name BAD AXE '23' FEDERAL COM						6 Well Number 1	
7 OGRID No. 6137		8 Operator Name DEVON ENERGY PRODUCTION COMPANY, LP						9 Elevation 3817'	
* SURFACE LOCATION									
UL or lot no. C	Section 23	Township 21 SOUTH	Range 23 EAST, N.M.P.M.	Lot 1da	Feet from the 660'	North/South line NORTH	Feet from the 2110'	East/West line WEST	County EDDY
"BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE									
UL or lot no.	Section	Township	Range	Lot 1da	Feet from the	North/South line	Feet from the	East/West line	County
11 Dedicated Acres 640									
12 Consolidation Code									
13 Order No.									
NO ALLOWABLE WELL 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 contained herein is true and complete to the best of my knowledge and belief.			
						Signature Linda B. Guthrie			
						Printed Name Linda B. Guthrie			
						Title Operations Associate			
						Date 02/06/04			
						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 JUNE 15, 2000			
						Signature and Seal of Professional Surveyor V. LYNN BEZNER NO. 7920			
						Certification V. LYNN BEZNER NO. 7920			
						JOB 768941 / S. NE / J.C.P.			



**EXHIBIT E
TOPO MAP OF LOCATION AREA**

Bad Axe "23" Fed Com #1
660' FNL & 2310' FNL
Section 23, T-21-S, R-23-E
Eddy County, New Mexico

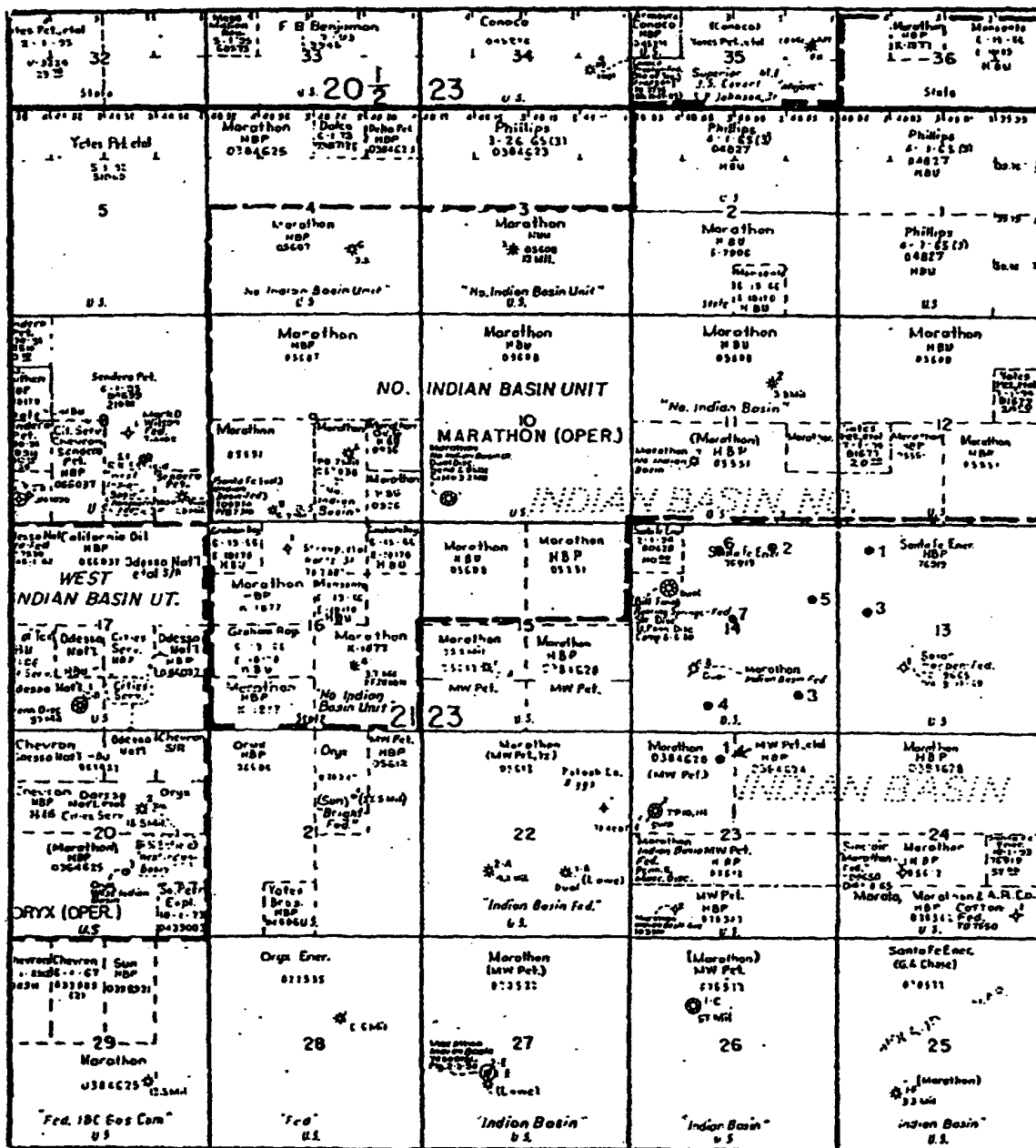


EXHIBIT F
EXISTING WELLS

Bad Axe "23" Fed Com #1
660' FNL & 2310' FWL
Section 23, T-21-S, R-23-E
Eddy County, New Mexico

DRILLING PROGRAM
DEVON ENERGY PRODUCTION CO., LP

Bad Axe "23" Fed Com #1

In conjunction with Form 3160-3, Application to Drill the subject well, Devon Energy Production Co., LP submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 1.

1. **Geologic Name of Surface Formation: Alluvium**
2. **Estimated Tops of Significant Geologic Markers:**

San Andres	980'	Strawn	8604'
Glorieta	2100'	Atoka	8929'
Bone Spring	3600'	Morrow	9254'
Wolfcamp	6200'	Lower Morrow	9497'
Cisco	7400'	ETD	9500'
Canyon	7900'		

3. **The estimated depths at which water, oil or gas formations are expected:**

Water	None expected in area
Oil/Gas/Water	Cisco/Canyon 7400'-8000'
Gas	Morrow 9200-9500'

4. **Proposed Casing Program: See Form 3160-3 and Exhibit A**
5. **Pressure Control Equipment: See Exhibit B**
6. **Drilling Fluid Program: See Exhibit C**
7. **Auxiliary Equipment: A mud logging unit will be utilized to monitor penetration rate and hydrocarbon shows while drilling below 2100'.**
8. **Testing, Logging and Coring Program:**

Drill Stem Tests: (all DST's to be justified on the basis of valid show of oil or gas):

Logging:

	1st run	2nd run
Dual Laterolog W/MSFL and Gamma Ray	1200'- 8500	to TD
Compensated Neutron/Litho-Density/Gamma Ray	1200'- 8500	to TD
Compensated Neutron/Gamma Ray (thru csg)	Surface-1200'	

Coring: None Planned

DRILLING PROGRAM

Bad Axe "23" Fed Com #1

Page 2

9. Abnormal Conditions, Pressures, Temperatures & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature is 130 degrees Fahrenheit and the estimated bottom hole pressure is 2500 psi. A Blow Out Preventer System as outlined in Exhibit B will be utilized should the need arise to shut the well in prior to running and cementing production casing. The Cisco/Canyon zones are our primary objective. The zone is hydrogen sulfide productive in the area. Our plan is to have everyone on location trained in H₂S safety procedures and install monitors and Scott Air Packs at strategic locations around the rig by 7000', prior to encountering the Cisco/Canyon. It is our understanding that H₂S is only detected in the area whenever the reservoir fluids are produced up the wellbore. Our drilling fluid hydrostatic head will prevent fluid entry due to the reservoir being overbalanced. We will have monitors operational during the drilling of the Cisco/Canyon zone. Due to the remote location of this drillsite, H₂S warning signs will be placed prior to entry of the drillsite, a public protection plan is not required for this location.

10. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the B.L.M. The anticipated spud date is March, 2004. Once spudded, the drilling operation should be completed in approximately 20 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.

Exhibit A

OPERATIONS PLAN

Bad Axe "23" Fed Com #1

WITNESS

1. Drill a 12-1/4" hole to approximately 1200'.
2. Run 9-5/8" 36.0 ppf H-40 ST&C casing. Cement with 490 sx Pozmix-- with 2% CaCl₂. Run guide shoe on bottom and float collar two joints of bottom. Centralize every other joint above the shoe. Thread lock bottom 2 joints.
3. Wait on cement for six hours prior to cutting off.
4. Nipple up and install a 3000 psi. Double Ram and Annular BOP system with choke manifold. WOC 18 hours prior to drilling out.
5. Test BOP system to 1500 psi with the rig pump. Test casing to 1500 psi.
6. Drill 8-3/4" hole to 8500' Run logs.
7. ~~Run~~ Run and cement 8500' of 7" 23.0 PPF LT&C casing with 300 sx 50/50 Pozmix with 6 pps salt.

CIRCULATE

Exhibit "A"

Devon Energy Production Co., LP
Bad Axe "23" Fed Com #1
Section 23, T-21-S, R-23-E
Eddy County, New Mexico

8. Drill 6-1/8" hole to total depth. Run logs.
9. Run and cement 4-1/2" 11.6# N-80 LT&C liner with 230 sx Class H or plug and abandon as per BLM requirements.

Please see the casing data sheets following.

Well name:	Bad Axe 23-1
Operator:	Devon Energy Production Co., LP
String type:	Surface
Location:	Section 23, T21S, R23E

Design parameters:
Collapse

Mud weight: 8.500 ppg
Design is based on evacuated pipe.

Minimum design factors:
Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 80 °F
Bottom hole temperature: 90 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft
Minimum Drift: 8.750 in

Burst

Max anticipated surface pressure: 714 psi
Internal gradient: 0.000 psi/ft
Calculated BHP: 714 psi
Annular backup: 8.50 ppg

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)

Non-directional string.

Tension is based on air weight.
Neutral point: 1,093 ft

Re subsequent strings:

Next setting depth: 9,500 ft
Next mud weight: 9.500 ppg
Next setting BHP: 4,688 psi
Fracture mud wt: 11.000 ppg
Fracture depth: 1,250 ft
Injection pressure: 714 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)	Est. Cost (\$)
1	1250	9.625	36.00	H-40	ST&C	1250	1250	8.765	11228

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	552	1720	3.12	714	2560	3.58	45	294	6.53 J

Prepared by: David Spitz
Devon Energy

Phone: (405) 235-3611
FAX: (405) 552-4621

Date: 02/06/04
Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 1250 ft, a mud weight of 8.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	Bad Axe 23-1
Operator:	Devon Energy Production Company, LP
String type:	Production
Location:	Section 23, T21S, R23E

Design parameters:
Collapse

Mud weight: 8.600 ppg
Design is based on evacuated pipe.

Minimum design factors:
Collapse:

Design factor 1.125

Environment:

H2S considered? Yes
Surface temperature: 80 °F
Bottom hole temperature: 148 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft

Burst:

Design factor 1.00

Burst

Max anticipated surface pressure: 3,797 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 3,797 psi

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)

Non-directional string.

Annular backup: 8.60 ppg

Tension is based on air weight.
Neutral point: 7,401 ft

Estimated cost: 59,476 (\$)

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 (\$)
3	1000	7	23.00	L-80	LT&C	1000	1000	6.25	8969
2	5000	7	23.00	J-55	LT&C	6000	6000	6.25	26235
1	2500	7	23.00	HCL-80	LT&C	8500	8500	6.25	24272

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
3	447	3315	7.42	3797	6340	1.67	195.5	435	2.23 J
2	2681	3099	1.16	3351	4360	1.30	172.5	313	1.81 J
1	3797	5650	1.49	1117	6340	5.68	57.5	485	8.43 J

Prepared by: David Spitz
Devon Energy

Phone: (405) 235-3611
FAX: (405) 552-4621

Date: 02/06/04
Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 8500 ft, a mud weight of 8.6 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name: **Bad Axe 23-1**
 Operator: Devon Energy Production Company, LP
 String type: Liner: Production
 Location: Section 23, T21S, R23E

Design parameters:

Collapse

Mud weight: 8.100 ppg
 Design is based on evacuated pipe.

Surface pressure: 750 psi

Burst

Max anticipated surface pressure: 3,997 psi
 Internal gradient: 0.000 psi/ft
 Calculated BHP: 3,997 psi
 Annular backup: 9.60 ppg

Packer fluid details:
 Fluid density: 8.600 ppg
 Packer depth: 9,000 ft

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 air weight.
 Neutral point: 8,350 ft

Estimated cost:

Environment:

H2S considered? No
 Surface temperature: 80 °F
 Bottom hole temperature: 156 °F
 Temperature gradient: 0.80 °F/100ft
 Minimum section length: 1,000 ft
 Minimum Drift: 3.500 in

Non-directional string.

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 (\$)
1	1300	4.5	11.60	N-80	LT&C	9500	9500	3.875	5354
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	4747	6350	1.34	3571	7780	2.18	15.1	223	14.79 J

Prepared by: David Spitz
 by: Devon Energy

Phone: (405) 235-3611
 FAX: (405) 552-4621

Date: 02/04/04
 Oklahoma City, Oklahoma

Remarks:

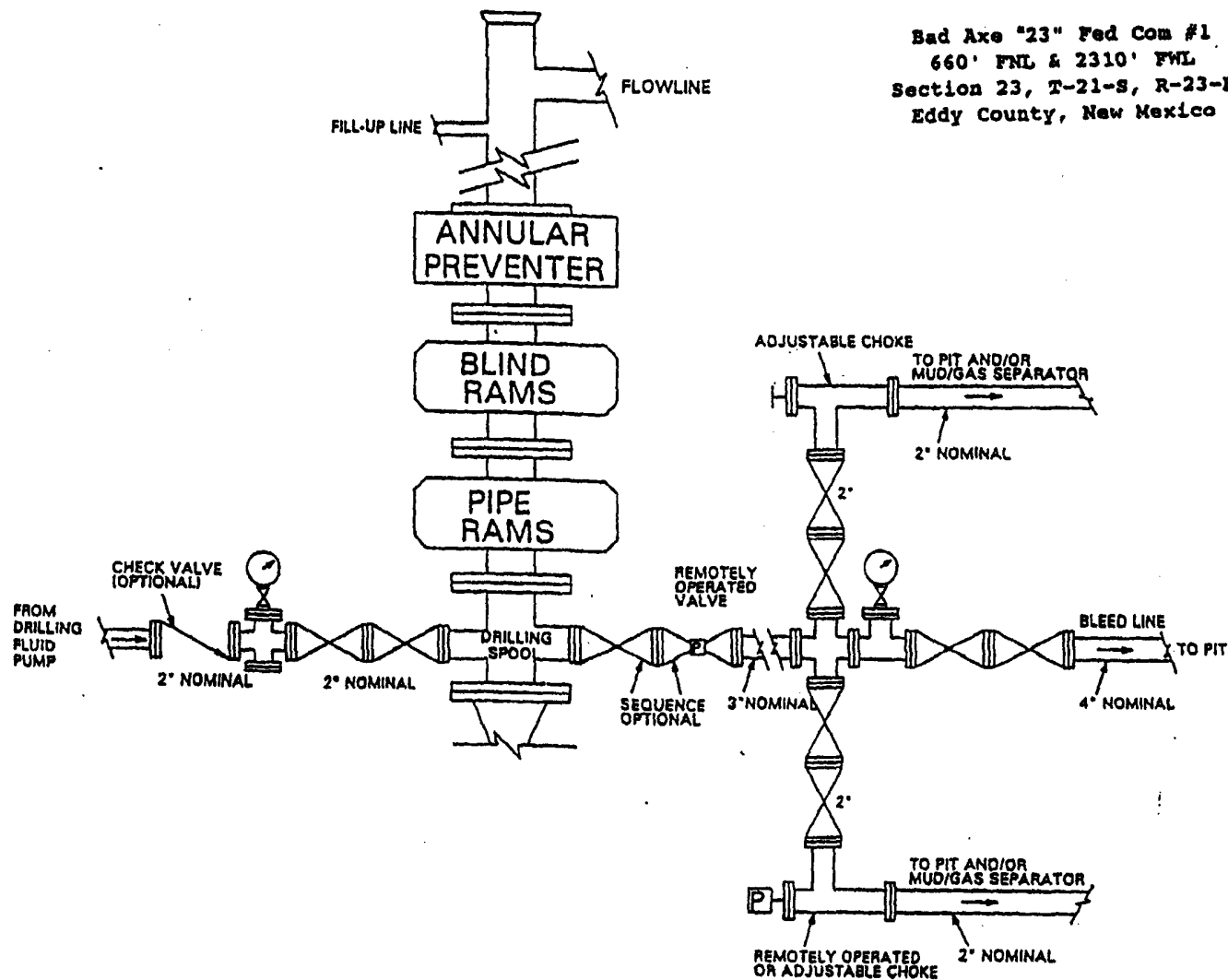
Collapse is based on a vertical depth of 9500 ft, a mud weight of 8.1 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

EXHIBIT B

Bad Axe "23" Fed Com #1
660' FNL & 2310' FWL
Section 23, T-21-S, R-23-E
Eddy County, New Mexico



PROPOSED DRILLING FLUID PROGRAM

0 - 1200'

Spud with air - air mist to 1200' if possible. If it becomes necessary to mud up due to hole conditions, utilize a fresh water gel system. Use ground paper for seepage control and to sweep the hole. MW-8.5 ppg and Vis-40.

1200 - 8100'

Drill out with fresh water circulating the reserve pit. Maintain pH at 8.5-9.5 with caustic and sweep the hole as necessary with ground paper. If it becomes necessary to mud up due to hole conditions, utilize a fresh water/Drispac system for 15-20 WL and a Vis of 30-32. MW-8.3/8.5 ppg.

8100' - total depth

Will continue with the fresh water Drispac system adding starch for 8-12 WL and a Vis of 28-38. MW 9.2-9.8 ppg.
Exhibit "C"

Bad Axe "23" Fed Com #1
Section 23, T-21-S,R-23-E
Eddy County, New Mexico

AUXILIARY EQUIPMENT

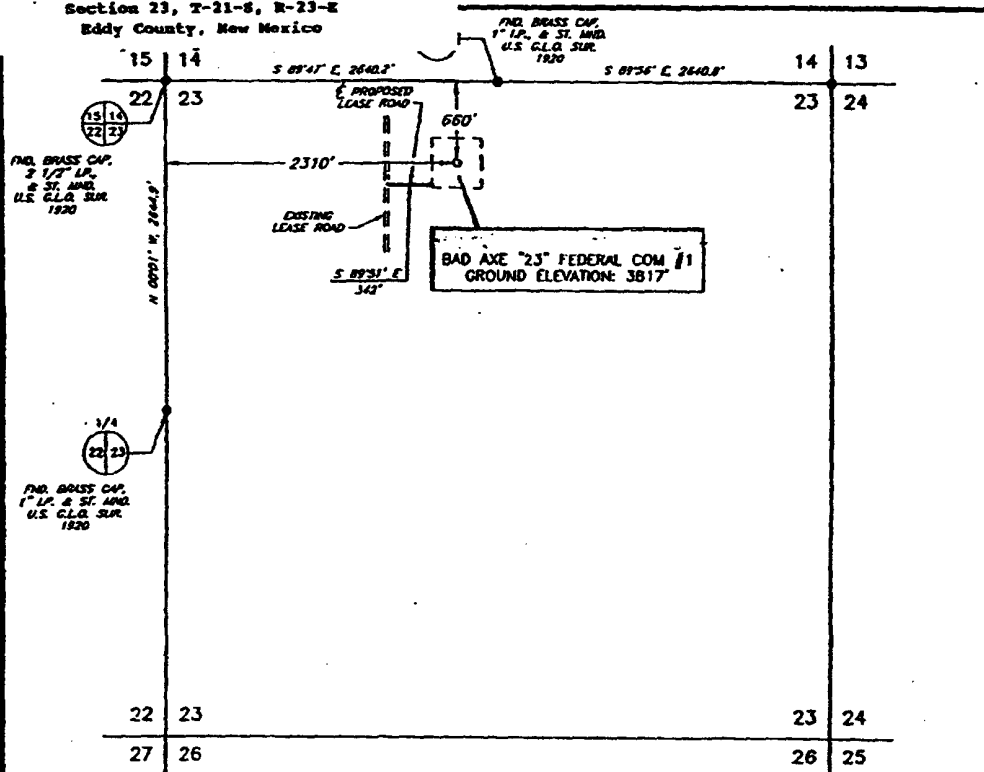
DRAWWORKS	BDW 650 HP, with Parmac Hydromatic brake
ENGINES	Two Caterpillar D-353 diesels rated at 425 HP each
ROTARY	Ideco 23", 300 ton capacity
MAST/SUB	Ideal 132', 550,000 lb. rated static hook load with 10 lines. Wagner 15' high substructure
TRAVELING EQUIPMENT	Gardner-Denver, 300 ton, 5 sheave w/BJ 250 ton hook Brewster Model 7 SX 300 ton swivel
PUMPS	Continental-EMSCO DC-700 and DB-550, 5-1/2 X 16" Duplex, Compound driven.
PIT SYSTEM	1-Shale Pit 6X7X35', 1-Setting Pit 6X7X38', 1-Suction Pit 6X7X34' w/5 mud agitators, Two Centrifugal mud mixing pumps and a Double Screen Shale Shaker.
LIGHT PLANT	Two CAT 3306 diesel electric sets 18 KW prime power
BOP EQUIP.	13-5/8" 3000 psi WP double ram and 13-5/8" 3000 psi WP Shaffer Annular Preventer. Choke manifold rated at 5000 psi. Valvcon 5-station 80 gallon closing unit.

Exhibit "D"

Bad Axe "23" Fed Com #1
Section 23, T-21-S, R-23-E
Eddy County, New Mexico

**EXHIBIT F(A)
PLAT OF LOCATION**

Red Axe "23" Fed Com
660' FWL & 2310' FWL
Section 23, T-21-S, R-23-E
Eddy County, New Mexico



PLAN VIEW
1" = 1000'

DATE OF FIELD WORK: MAY 18, 2000

I, V. L. BEZNER, A PROFESSIONAL SURVEYOR IN THE STATE OF NEW MEXICO AND AUTHORIZED AGENT OF TOPOGRAPHIC LAND SURVEYORS, HEREBY CERTIFY THIS PLAT TO BE A TRUE REPRESENTATION OF A SURVEY PERFORMED IN THE FIELD UNDER MY SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND THAT THIS PLAT AND FIELD SURVEY UPON WHICH IT IS BASED MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO. (RULE 500.6 EASEMENT SURVEYING)

V. L. BEZNER, P.S. NO. 7920

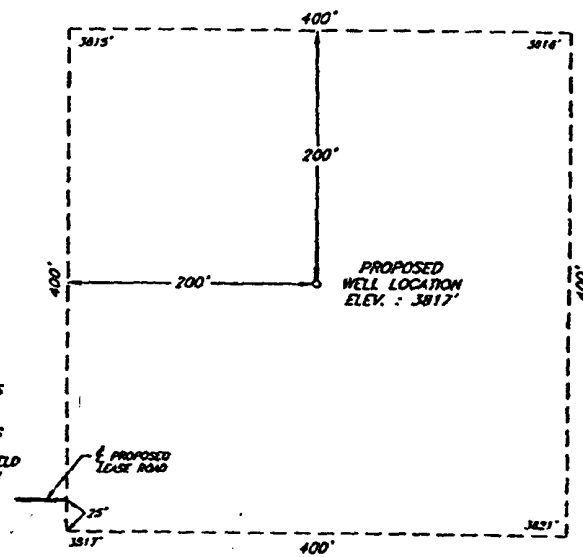
DEVON-

NO.	REVISION	DATE	BY
SURVEYED BY:	B.R.B.		
DRAWN BY:	V.H.B.		
APPROVED BY:	V.L.B.		

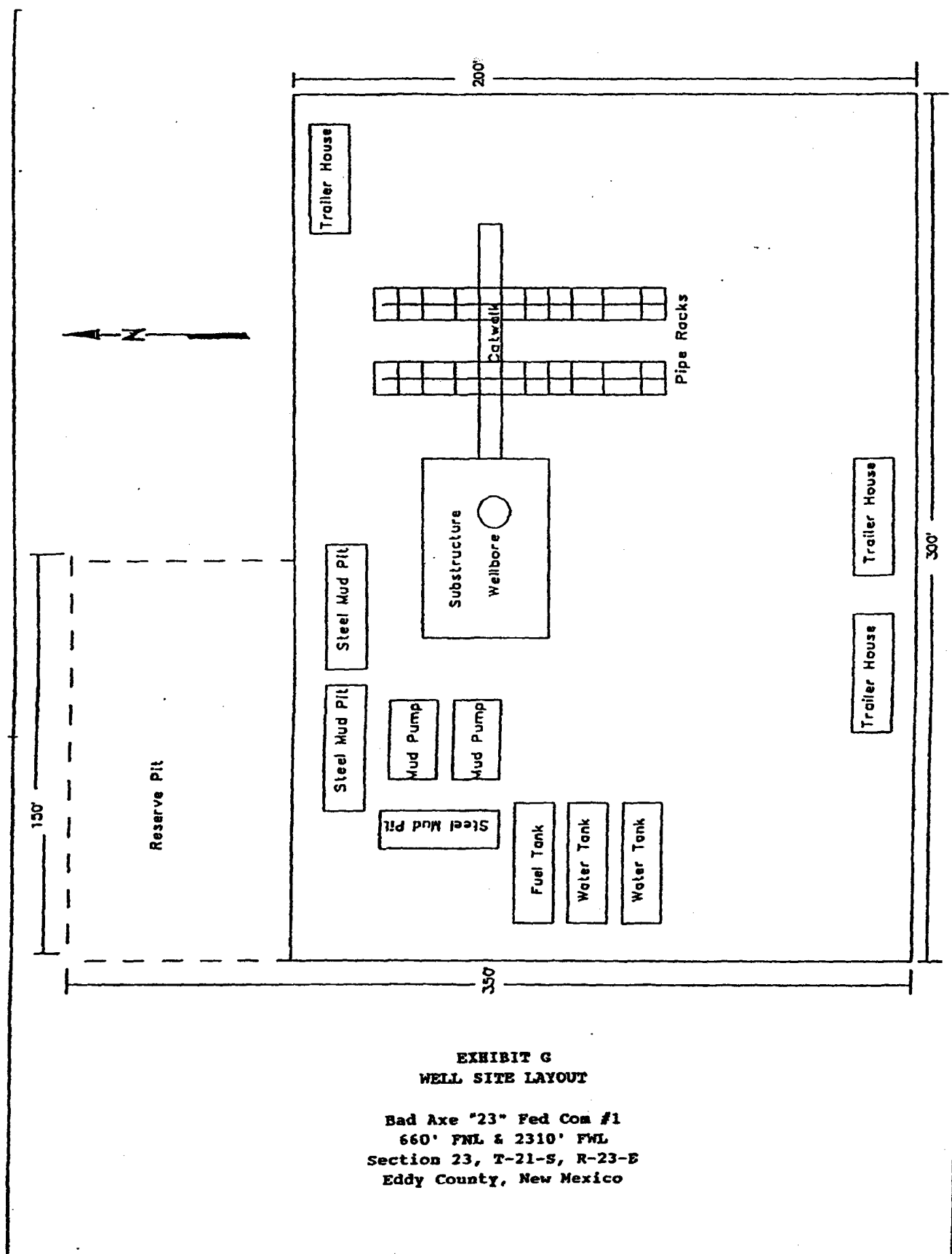
SURVEYING AND MAPPING BY
TOPOGRAPHIC LAND SURVEYORS
MIDLAND, TEXAS

SCALE: AS SHOWN
DATE: MAY 18, 2000
JOB NO.: 69314-F

QUAD NO.: 51 NE
SHEET: 1 OF 1



DETAIL VIEW
1" = 100'



**EXHIBIT G
WELL SITE LAYOUT**

Bad Axe "23" Fed Com #1
660' FNL & 2310' FNL
Section 23, T-21-S, R-23-E
Eddy County, New Mexico

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Bad Axe "23" Fed Com #1
Section 23, T-21-S,R-23-E
Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed by rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS.

- A. Exhibit E is a 15 minute topo map which shows the location of the proposed wellsite and roads in the vicinity. The proposed location is situated approximately 17-1/2 miles West of Carlsbad, New Mexico.

DIRECTIONS

1. From Carlsbad, go north 12 miles to intersection of Hwy. 285 and 137. Turn west onto Hwy 137, travel southwest for 8.8 miles and turn right on County Road 401 for 5.0 miles. Turn north on lease road .1 miles to location on right.

2. PLANNED ACCESS ROAD.

- A. ± 400' of new access road will be necessary.

3. LOCATION OF EXISTING WELLS.

- A. Location of existing wells is shown on Exhibit F.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. In the event the well is productive, the necessary production equipment will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY.

- A. It is planned to drill the well with fresh water systems. The water will be hauled to the location by truck over existing roads. It will be obtained from commercial sources.

6. SOURCES OF CONSTRUCTION MATERIALS.

- A. Any caliche required for construction of the drilling pad will be obtained from a pit located off the wellsite.

7. METHODS OF HANDLING WASTE DISPOSAL.

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be either placed in the reserve pits and allowed to evaporate or collected in tanks until hauled to an approved disposal system or a separate disposal application will be submitted to the BLM for appropriate approval.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Human waste will be disposed of per current standards.
- F. Trash, waste paper, garbage, and junk will be collected in trash trailers and disposed of in an approved waste facility such as a land fill. The trash trailers will contain all of the material to prevent scattering by the wind.
- G. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES

- A. None required at this time.

9. WELLSITE LAYOUT

- A. Exhibit G shows the dimensions of the well pad and reserve pits, and the location of major rig components.
- B. The ground surface of the location is situated on a relatively flat area. The location will be constructed by leveling the necessary area and covering the area with at least six inches of compacted caliche.
- C. The reserve pits will be plastic lined.
- D. A 400' X 400' work area which will contain the pad and pit area has been staked and flagged.

10. PLAN FOR RESTORATION OF THE SURFACE

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleared of all trash and junk, to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluid will be fenced until they have been filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 300 days after abandonment.

11. TOPOGRAPHY

- A. The wellsite and access route are located on a relatively flat area and $\pm 400'$ from an existing lease road.
- B. The top soil at the wellsite is alluvium from the surrounding hills.
- C. The vegetation cover at the wellsite is moderately sparse, with prairie grasses, some yucca and miscellaneous weeds.
- D. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- E. There are no ponds, lakes, streams or rivers within one mile of the wellsite.
- F. There is no evidence of any archaeological, historical, or cultural sites in the vicinity of the location.

12. OPERATOR'S REPRESENTATIVES

- A. The field representatives responsible for assuring compliance with the approved surface use plan are:

Robert Elliott
Operations Engineering Advisor
Devon Energy Corporation
20 North Broadway, Ste 1500
Oklahoma City, OK 73102-8260
405-228-8609 office
405-323-4616 cellular

DEVON-
Mr. Cecil Thurmond
POB 250, Artesia, NM 88211-0250
(505) 748-3371 office
(505) 887-1479 home

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Devon Energy Production Company, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed: Linda Guthrie Date: February 9, 2004
Linda Guthrie
Operations Associate

DEVON-SFS OPERATING, INC.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

Bad Axe "23" Fed Com #1

Section 23, T-21-S, R-23-E

Eddy County, New Mexico

In drilling the Cisco/Canyon formation there is very remote possibility that H₂S will be encountered. The zone is hydrogen sulfide productive in the area. It is our understanding that hydrogen sulfide is only detected in the area whenever the reservoir fluids are produced up the wellbore. Our drilling fluid hydrostatic head will prevent fluid entry due to the reservoir being overbalanced. The following is our plan for drilling the Cisco/Canyon formation.

1. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on the well:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuations procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

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

1. The effects of H₂S 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.

There will be an initial training session prior to encountering the Cisco/Canyon (training will take place within 3 days or 500 feet) and will have weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H₂S Safety Equipment and Systems

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the Cisco/Canyon zone at 7700'.

1. Well Control Equipment:

- A. An annular preventer capable of accommodating all pipe sizes with properly sized closing unit.

2. Protective Equipment for Personnel:

- A. Scott Air-Pack Units located on the rig floor and at briefing areas, as indicated on well site diagram.

3. H₂S Detection and Monitoring Equipment:

- A. 2-portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 200 ppm are reached.

4. Visual Warning Systems:

- A. Wind direction indicators as shown on well site diagram.
- B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. See Example Attached.

5. Mud Program:

- A. The mud program is designed to minimize any H₂S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H₂S scavengers will be used to minimize hazards when penetrating H₂S bearing zones (Cisco/Canyon).

6. Metallurgy:

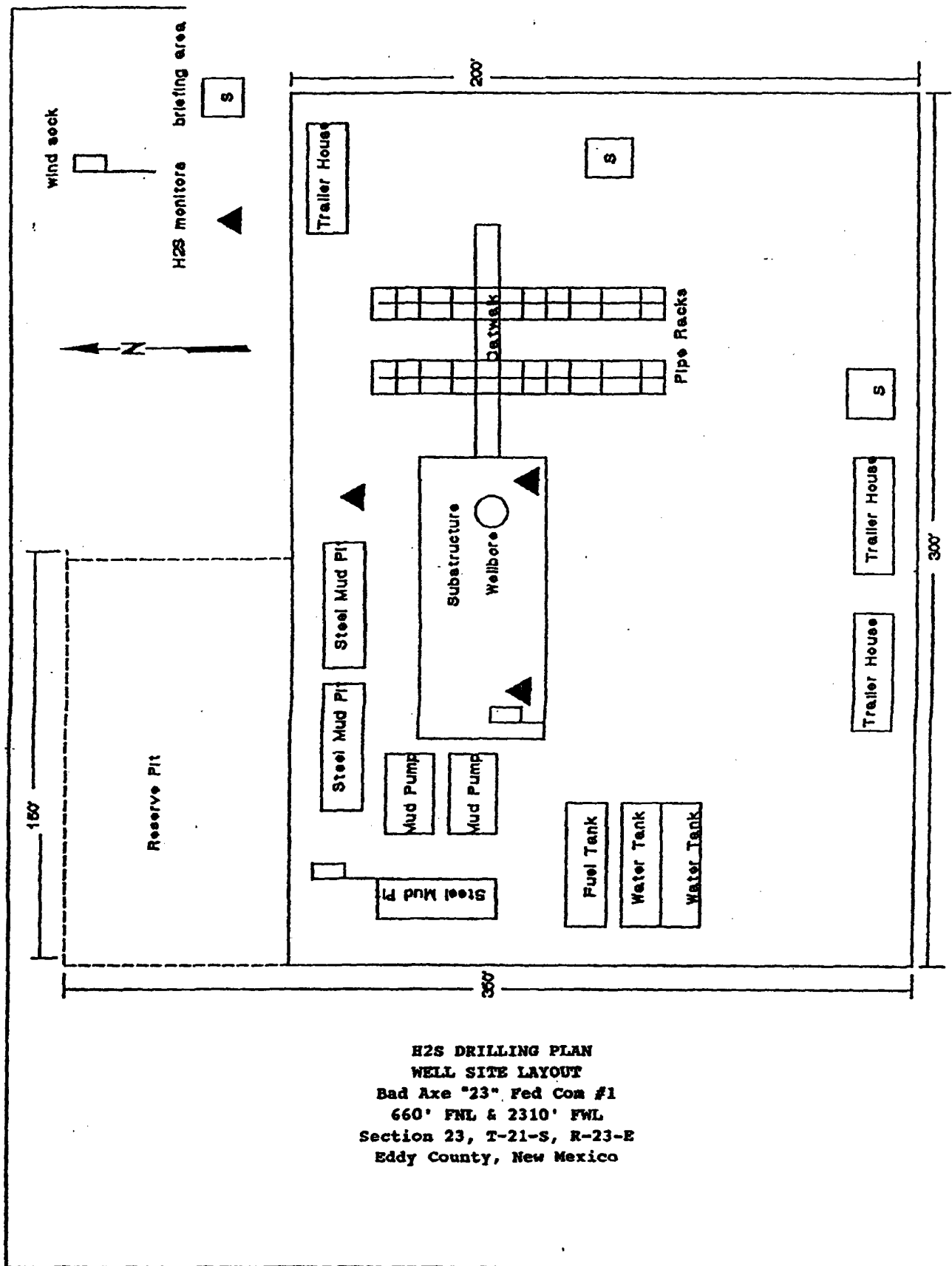
- A. All of the drill string, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- B. All elastomers used for packing and seals shall be H₂S trim.

7. Communication:

- A. Cellular phone communications in company vehicles.
- B. Radio communications on the drilling rig.

8. Well Testing:

- A. All tests in the Cisco/Canyon formation will be conducted using the closed chamber method of drill stem testing.



H2S DRILLING PLAN
WELL SITE LAYOUT
 Bad Axe "23" Fed Com #1
 660' FNL & 2310' FWL
 Section 23, T-21-S, R-23-E
 Eddy County, New Mexico



**Devon Energy Corporation
20 North Broadway
Oklahoma City, Oklahoma 73102-8260**

Hydrogen Sulfide (H₂S) Contingency Plan

For

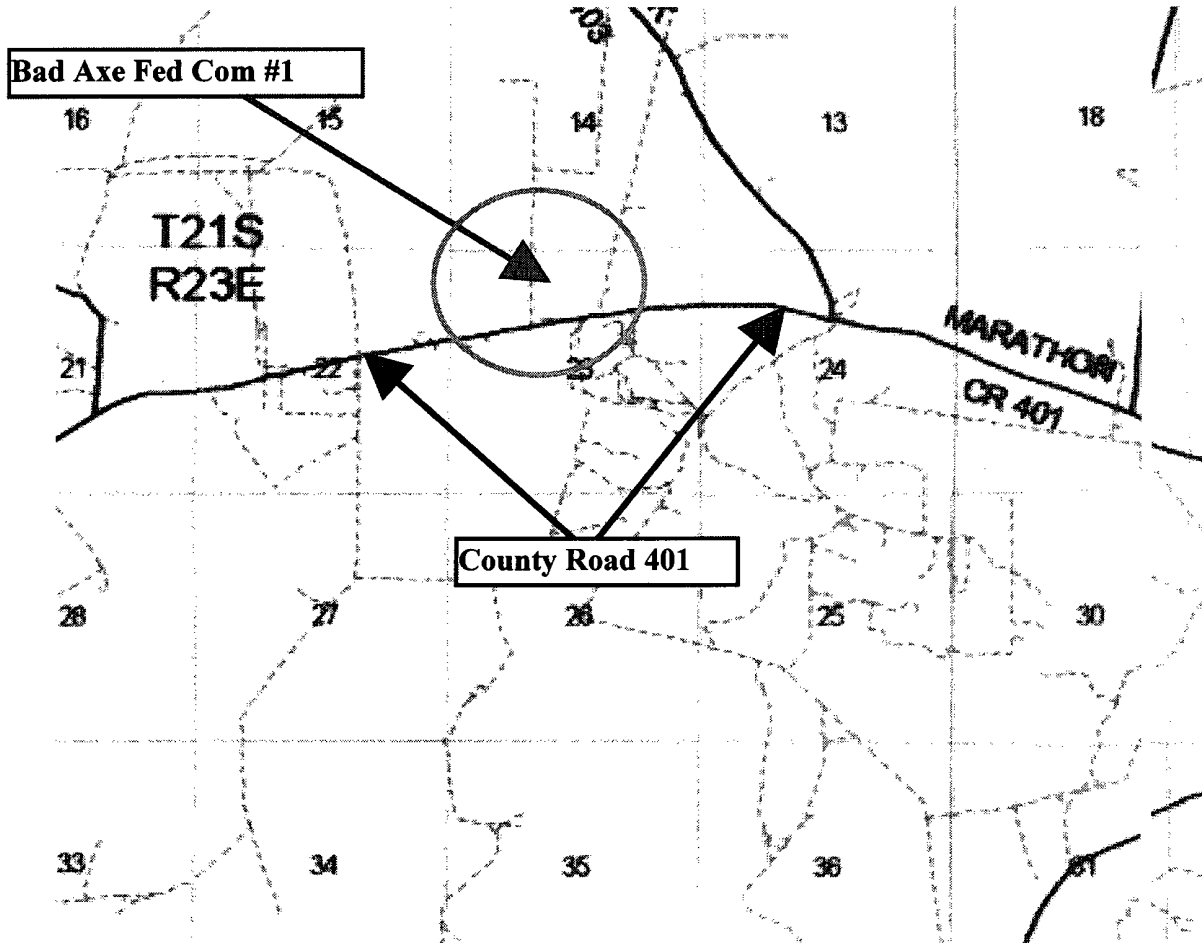
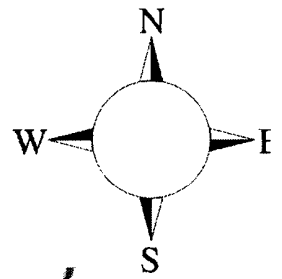
Bad Axe Fed Com # 1

**660' FNL & 2310' FWL,
Sec-23, T-21S R-23E**

Eddy County NM

Bad AXE Fed Com #1

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.



Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H₂S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated south on lease road to county road 401 (preferably east). Crews should then block entrance to the ROE in both directions so as not to allow anyone traversing into a hazardous area. There are no homes or buildings in or near the ROE.

Emergency Procedures

In the case of a release of gas containing H₂S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H₂S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H₂S monitors and air packs in order to control the release. Use the "buddy system" to ensure no injuries during the response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Devon Energy Corp. Company Call List

<u>Artesia (505)</u>	<u>Cellular</u>	<u>Office</u>	<u>Home</u>
Foreman – BJ Cathey	390-5893	748-0176	887-6026
Asst. Foreman – Bobby Jones.....	748-7447	748-0176	746-3194
Cecil Thurmond	748-7180	748-0171	887-1479
David Purdy	(432)631-2969.....	(432)495-7279	(432)683-0735
Engineer – Tom Pepper	(405) 203-2242....	(405) 552-4513 ...	(405) 728-8641

Agency Call List

Eddy County (505)

Artesia

State Police.....	746-2703
City Police.....	746-2703
Sheriff's Office	746-9888
Ambulance	911
Fire Department	746-2701
LEPC (Local Emergency Planning Committee)	746-2122
NMOCD.....	748-1283

Carlsbad

State Police.....	885-3137
City Police.....	885-2111
Sheriff's Office	887-7551
Ambulance	911
Fire Department	885-2111
LEPC (Local Emergency Planning Committee).....	887-3798
US Bureau of Land Management.....	887-6544

New Mexico Emergency Response Commission (Santa Fe)	(505)476-9600
24 HR	(505) 827-9126
National Emergency Response Center (Washington, DC)	...(800) 424-8802

Other

Boots & Coots IWC	1-800-256-9688 or (281) 931-8884
Cudd Pressure Control.....	(915) 699-0139 or (915) 563-3356
Halliburton	(505) 746-2757
B. J. Services.....	(505) 746-3569
Flight For Life -4000 24th St, Lubbock, TX	(806) 743-9911
Aerocare -Rr 3 Box 49f, Lubbock, TX	(806) 747-8923
Med Flight Air Amb 2301 Yale Blvd SE #D3, Albuq, NM	(505) 842-4433
S B Air Med Svc 2505 Clark Carr Loop SE, Albuq, NM	(505) 842-4949

Prepared in conjunction with
Wade Rohloff of;

