Form 3160-3
(July 1992)

N. M. OIL CONS. COMMISSION
P. O. BOX 1980
HOBBS, NEW MEXICO 88240

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Original APD approved 1/12/96

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK: DRILL ☐ DEEPEN ☐ RE-ENTER ☑ Change of procedures & bottom hole location

b. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ OTHER — SINGLE ZONE ☐ MULTIPLE ZONE ☐

2. NAME OF OPERATOR
SDX Resources, Inc.

3. ADDRESS AND TELEPHONE NO.
PO Box 5061, Midland TX 79704

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
1980' FNL & 1980' FWL
At proposed prod. zone
1480' FNL & 1846' FWL

5. LEASE DESIGNATION AND SERIAL NO.
NM 60052

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
Mescalero Federal #1

9. API WELL NO.
30-005-21052

10. FIELD AND POOL, OR WILDCAT
Graham Springs Devonian

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Unit F
Sec 11, T12S, R30E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
28 miles NE of Dexter, NM

12. COUNTY OR PARISH: Chaves — 13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1480' (160')

16. NO. OF ACRES IN LEASE: 640

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 990' Surf Loc ** 508' Btm Loc

19. PROPOSED DEPTH: 10,202'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 4003' GL

22. APPROX. DATE WORK WILL START*: July 15, 1996

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
16"	NA 13-3/8"	48#	429'	350 sx
12-1/4"	K-55, 9-5/8"	36#	4300'	2113 sx
8-3/4-7-7/8"	N80&K55, 5-1/2"	17#	10100'	500 sx

It is proposed to re-enter this well, See attached procedure.

Attachments:
- Planned Procedure
- Supplemental Drilling & Directional Data
- Surface Use & Operations Plan on file & approved 1-12-96.
- H2S Plan
- BOP Sketch

**Culp Ranch #1 is permanently abandoned in the Devonian & is being held for possible salt water disposal well.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
SIGNED Chuck Morgan TITLE Chuck Morgan Engineer DATE May 23, 1996

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED
PETER W. CHESTER
JUN 6 1996
BUREAU OF LAND MANAGEMENT
ROSWELL RESOURCE AREA

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: SUBJECT TO LIKE APPROVAL BY STATE NMOCD approval needed for unorthodox location

APPROVED BY _____ TITLE _____ DATE _____

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
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
30-005-21052	28410	Graham Springs, Devonian

[4] Property Code	[5] Property Name	[6] Well Number
18291	Mescalero Federal	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
020451	SDX Resources, Inc.	4003' GL

[10] Surface Location

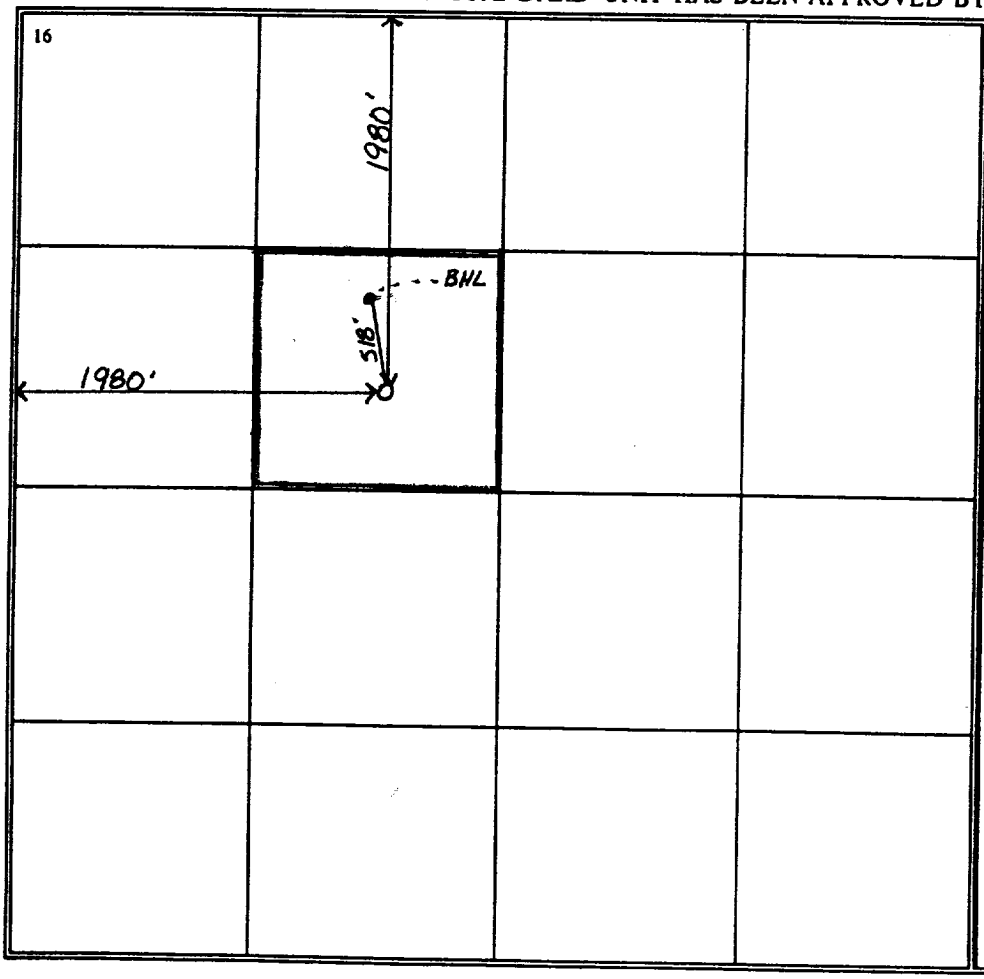
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	11	12S	30E		1980	North	1980	West	Chaves

[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
F	11	12S	30E		1480	North	1846	West	Chaves

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
40			

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

Chuck Morgan
Signature

Chuck Morgan
Printed Name

Engineer
Title

May 23, 1996
Date

[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 Surveyer:

Certificate Number

SDX RESOURCES, INC.
Mescalero Federal #1
1980' FNL & 1980' FWL
Sec. 11, T12S, R30E
Chaves Co., NM

Casing - 13-3/8" 48#/ft @ 429', cemented w/350 sxs, circ.

9-5/8" 36#/ft @ 4300', cemented w/2113 sxs, circ.

8-3/4" hole to 10,259'

Plugs - 85 sxs Cl H @ 7670'-7470'
105 sxs Cl H @ 4375 -4225'
45 sxs Cl H @ 1675'-1575'
45 sxs Cl H @ 833'- 733'
20 sxs Cl H @ 50'- 0'

PROCEDURE

1) Dig out old cellar & remove marker. Strip out 13-3/8" stub. Weld 9-5/8" 36# stub onto 9-5/8" casing. Weld on flange. Back fill if necessary.

2) Repair location & dig pits. Line reserve pit (and working pits if not steel).

3) MIRU rig. Drill out cement plugs w/8-3/4" bit & 10# brine to 9450'. Set cement plug Cl H 9450'-9250' and dress off top of plug to good hard cement. Drill to KOP of 9350'.

4) TIH w/steering assembly and motors w/7-7/8" bit. Kick off N 81 deg W following horizontal plan. Drilling fluid will be salt water gel w/3%-5% oil.

5) RU mud logger at 9350'.

6) T.D. well in top 5' of Devonian and run open hole logs. Run Halliburton DST tool and test zone.

7) Run 5-1/2" casing to T.D. and cement to 8000'.

CM/jdc
5/01/96

MESFED.SDX

SUPPLEMENTAL DRILLING DATA

SDX RESOURCES, INC.
MESCALERO FEDERAL #1
UNIT F, SECTION 11, T12S, R30E
CHAVES COUNTY, NEW MEXICO

1. SURFACE FORMATION: Quaternary

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS:

Yates	1556	Canyon	8520
San Andres	2840	Strawn	8922
Glorieta	4098	Atoka	9250
Tubb	5600	Mississippian	9580
Abo Shale	6450	Woodford	10235
Wolfcamp	7595	Siluro/Dev	10260
Cisco	8188		

3. ANTICIPATED HYDROCARBON BEARING ZONES:

Devonian 10260'

4. PROPOSED CASING AND CEMENTING PROGRAM:

CASING SIZE	FROM	TO	WEIGHT	GRADE	JOINT
5-1/2"	0	2500	17#	N-80	LT&C
	2500	7500	17#	K-55	LT&C
	7500	10300	17#	N-80	LT&C

Equivalent or adequate grade and weights of casing may be substituted at time casing is run, depending on availability.

5-1/2" casing will be cemented with 500 sacks Class H containing 0.8% fluid loss additive, 0.03% dispersant and 0.3% free water control. Cement designed for a top of 8000'. It is possible a stage tool may be run based on shows. If required, it will be positioned to best suit hole conditions.

Cement volumes and additives on all strings may be modified based on hole conditions.

5. PRESSURE CONTROL EQUIPMENT:

Blowout equipment while drilling below the 9-5/8" casing seat will be a 3000 psi working pressure BOP stack. A BOP sketch is attached.

6. CIRCULATING MEDIUM:

0′ to 4300′: Drill out from under surface with fresh water adding brine for makeup. Viscosity of 32-34 to clean hole.

4300′ to 6400′: Drill out from under intermediate with fresh water with a viscosity of 28-30. Add brine water below 5000′.

7. AUXILIARY EQUIPMENT:

A mug logging trailer will be in use when drilling below 9000′.

8. TESTING, LOGGING AND CORING PROGRAMS:

Drill stem tests will be made when well data indicates a test is warranted.

Electric logs will include CNL-FDC-GR and DLL-GR.

No coring is planned.

9. ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE GAS:

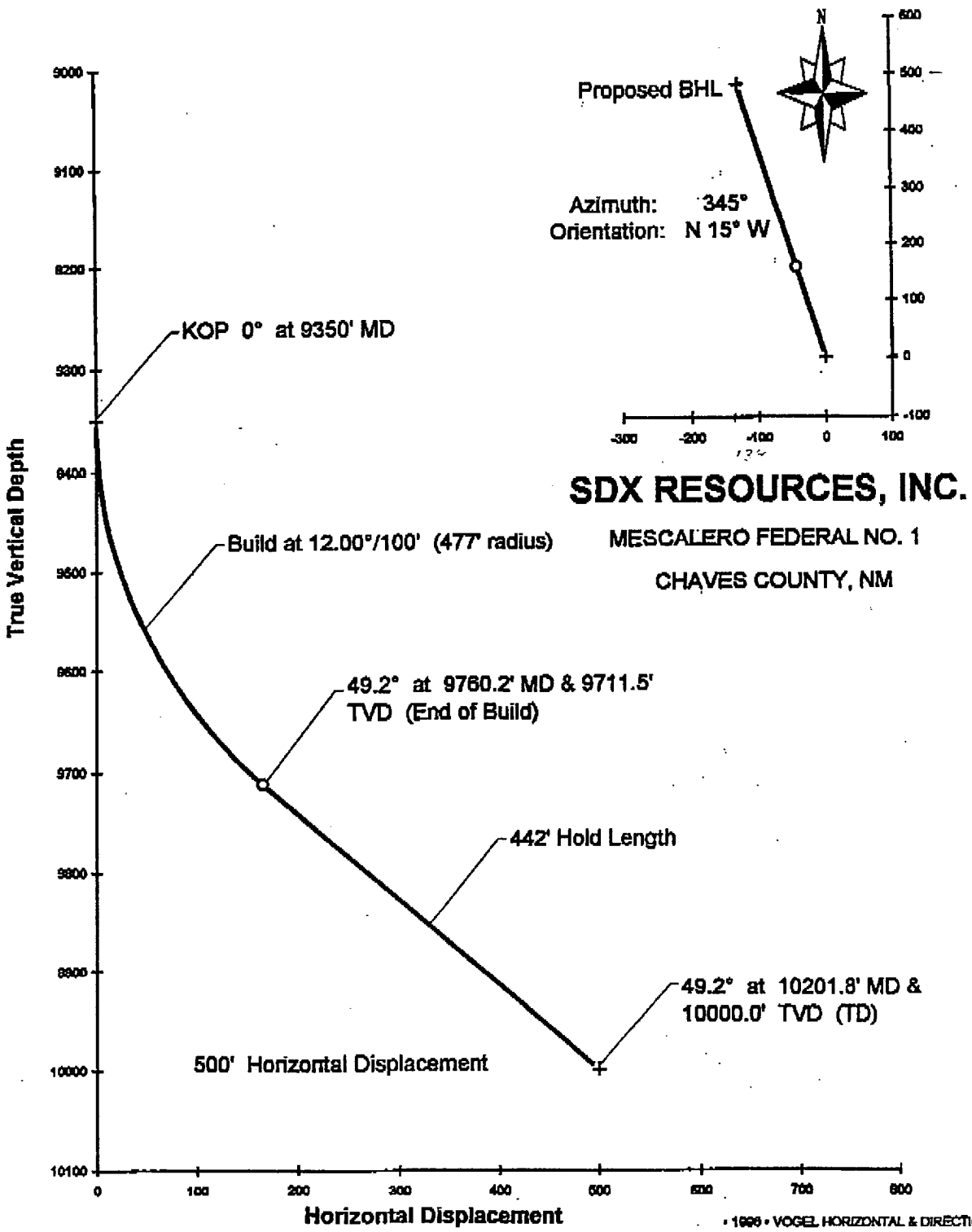
None anticipated. Based on other offset wells, bottomhole pressure at TD is expected to be 4000 psi with a bottomhole temperature of 170 degrees.

The BLM was contacted regarding H2S occurrences. None have been encountered in this area.

10. ANTICIPATED STARTING DATE:

Drilling operations should begin within 30 days after approval of this application. Drilling and completion operations should be completed within 60 days after spudding.

VOGEL HORIZONTAL AND DIRECTIONAL DRILLING
415 WEST WALL ST. MIDLAND TX 79707
915-570-4719



SDX RESOURCES, INC.

MESCALERO FEDERAL NO. 1

CHAVES COUNTY, NM

DATE 5-9-88

PRESENT

WELL DATA SHEET

Well No. 1

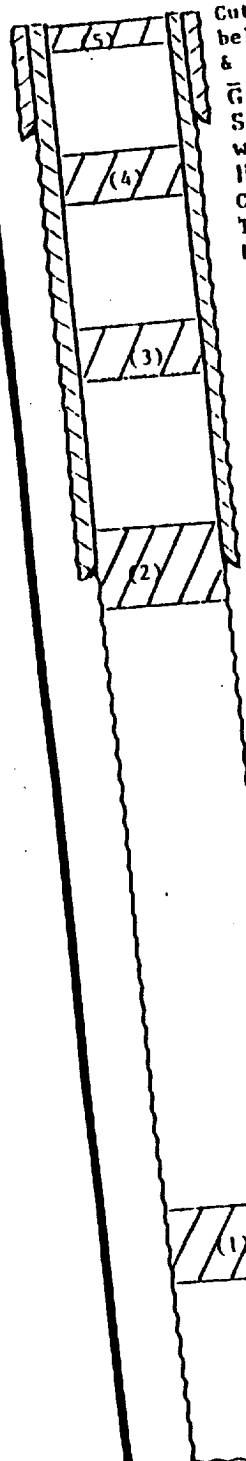
Lease Mescalero Federal County Chaves State New Mexico

Location 1980' FNL & 1980' FWL, Sec. 11, T-12-S, R-30-E (F)

K.B. Elev. 4022'
G.L. Elev. 4003'
D.F. Elev. 4021'

Date Plugged 3-22-86
Formation(s) All zones non-commercial.

The primary objective was the Devonian. . .



Cut 13-3/8" & 9-5/8" csg off 4' below GL. Weld plate on 13-3/8" & install marker.

~~13-3/8~~ N.A. #
Gr. N.A. Thd. ST&C
Set @ 429'
w/ 350 Sks.
Hole Size 16"
Cement circulated.
Tested csg to 600#
Held O.K.

9-5/8 " 36 #
Gr. K-55 Thd. LT&C
Set @ 4300
w/ 2113 Sks.
Hole Size 12-1/4"
Cement circulated.
Tested csg to 1040#
Held O.K.

Top of Devonian 10,259'
Well P&A. Did not run prod. csg.

Hole Size 8-3/4"

3-22-86

Set Cmt Plugs Set as Follows:

(1) Set 85 sx "H" cmt plug from 7670' - 7470'
(2) Set 105 sx "H" cmt plug from 4375' - 4225'. Found top w/wire line at 4231'
(3) Set 45 sx "H" cmt plug from 1675' - 1575'
(4) Set 45 sx "H" plug from 833' - 733'
(5) Set 20 sx "H" plug from 50' - 0'

DST Results

UNDESIGNATED - DEVONIAN - CHAVES COUNTY, NEW MEXICO - 1.0000000
API NUMBER: 30-005-21052 AFE NUMBER: 40-20-4785
D & T MESCALERO 11 NO. 1 - OBJECTIVE: 10,700' DEVONIAN
LOCATION: 1980' FNL & 1980' FWL OF SECTION 11, T-21S, R-30E
TD: 10,554'PBTD: NA RMV: NAGL ELEV: NA DATE SPUD: 1/14/86
RIG REL: 3/22/86 COMPLETED: P&A FORMATION: DEVONIAN PERFS:
HOWE WORK DONE: Ran 13 jts 13-3/8" surface csg. RU Dowell. Cemented csg w/350 sx class "C" w/4% gel. Returns to surface. Tested to 600 psi w/no leaks. RU Schlumberger. Logged well w/GR-DLL-MSFL-CAL & NGT-LDT-CNL-FDC from 4296'-1500' (GR-CAL to 500'). 2nd run w/GR-LSS from 4296'-2200'. Ran 103 jts 9-5/8", 36#, K-55 LT&C intermediate csg. RU Dowell. Cmtd csg w/1163 sx class "C" light + 10% salt & 950 sx class "C" + 2% CACL2. Returns to surface. Tested to 1040 psi w/no leaks. RU Schlumberger. Logged well w/DLL-MSFL-GR-CAL from 10,683'-4300' & CNL-LDT-FDC-GR-CAL from 10,404'-4300'. 3rd run w/LSS-GR from 8970'-4300'. DST #2: Fingerrel-Johnston 10,222'-10,550'. Surface performance: Steady increasing blow to 15.37 psi during IF; increased to 69.45 psi during FF. Drill Pipe Recovery: 8571' total fluid; slightly oil cut mud. Sample chamber recovery: Pressure: 40 psi Cu.Ft. Gas: 10.01 C.C. Oil: 520 C.C. Water: 1870 C.C. Mud: 10 Tot. Liq.: 2400 API Gravity: 39.4 at 60°F 40 at 68°F. Drill Pipe Recovery: 486' gas & Scavenger cut drilling fluid: 2.67 bbls. Total fluid sample chamber recovery: Pressure: 200 psi DST #3. Baker-Lynes Testing 10,259'-10,305'. Surface Performance: First flow inc. to 1.5 oz.; second flow incr. to 51 psi, third flow 21 psi, ran nitrogen to blow down drill pipe, ran third flow to get fluid to surface-no pressure data. Drill Pipe Recovery: 640' oil, 5694' heavy oil cut water; 1500' water. Pit Recovery: 23 BO, 113 BW Sample Chamber Recovery: Chamber contaminated - not reported. Set blanced cmt plug from 10,259'-9540' w/410 sx class "H" cmt. DST #4, no test, ptrs failed. DST #5: Fingerrel-Johnston 9322-9543'. Surface Performance: Initial Flow inc to 81 psi; second flow inc from 1.37 psi to 4.07 psi; third flow inc from 3.47 psi to 3.81 psi. Drill Pipe Recovery: 486' gas & scavenger cut drilling fluid; 2.67 bbls total fluid. Sample Chamber Recovery: Pressure 200 psi. All zones non-commercial. PU Dowell. Set 85 sx "H" cmt plug from 7670'-7470'. Set 105 sx class "H" cmt plug from 4375'-4225'. PU wireline & tagged top of cmt top at 4231'. Set 45 sx class "H" cmt plug from 1675'-1575'. Set 45 sx class "H" cmt plug from 833'-733'. Cut off 13-3/8" & 9-5/8" csg 4' below GL. Set 50' class "H" surface plug w/20 sx & 2% CACL2. Welded plate onto 13-3/8" csg & placed well abandonment marker 4' above GL.
Final Report

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN
SDX RESOURCES, INC.
MESCALERO FEDERAL #1
1980' FNL & 1980 FWL
UNIT F, SEC. 11, T12S, R30E
CHAVES COUNTY, NEW MEXICO

I. 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 this well:

1. The hazards and characteristics of hydrogen sulfide (H2S).
2. The proper use and maintenance of personal protective equipment and life support system.
3. The proper use of H2S detectors, alarms, warning systems, briefing areas, evacuation 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 H2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial safety session just prior to commencing operations on the well. The initial session shall include a review of the site's specific H2S Drilling Operations Plan and the Public Protection 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.

II. 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.

1. Well Control Equipment:

   A. Annular Preventer to accommodate all pipe sizes with properly sized closing unit.

2. Protective equipment for essential personnel:

   A. Mark II Surviveair 30-minute units located in the dog house.

3. H2S detection and monitoring equipment:

   A. 1 - portable H2S monitor positioned on location for best coverage and response.

   B. Mud logging trailer shall have H2S monitoring equipment.

4. Visual warning systems:

   A. Guy lines will be flagged and a wind sock will be positioned on location.

   B. Caution/Danger signs shall be posted on roads providing direct access to location.

5. Mud program:

The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices, will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

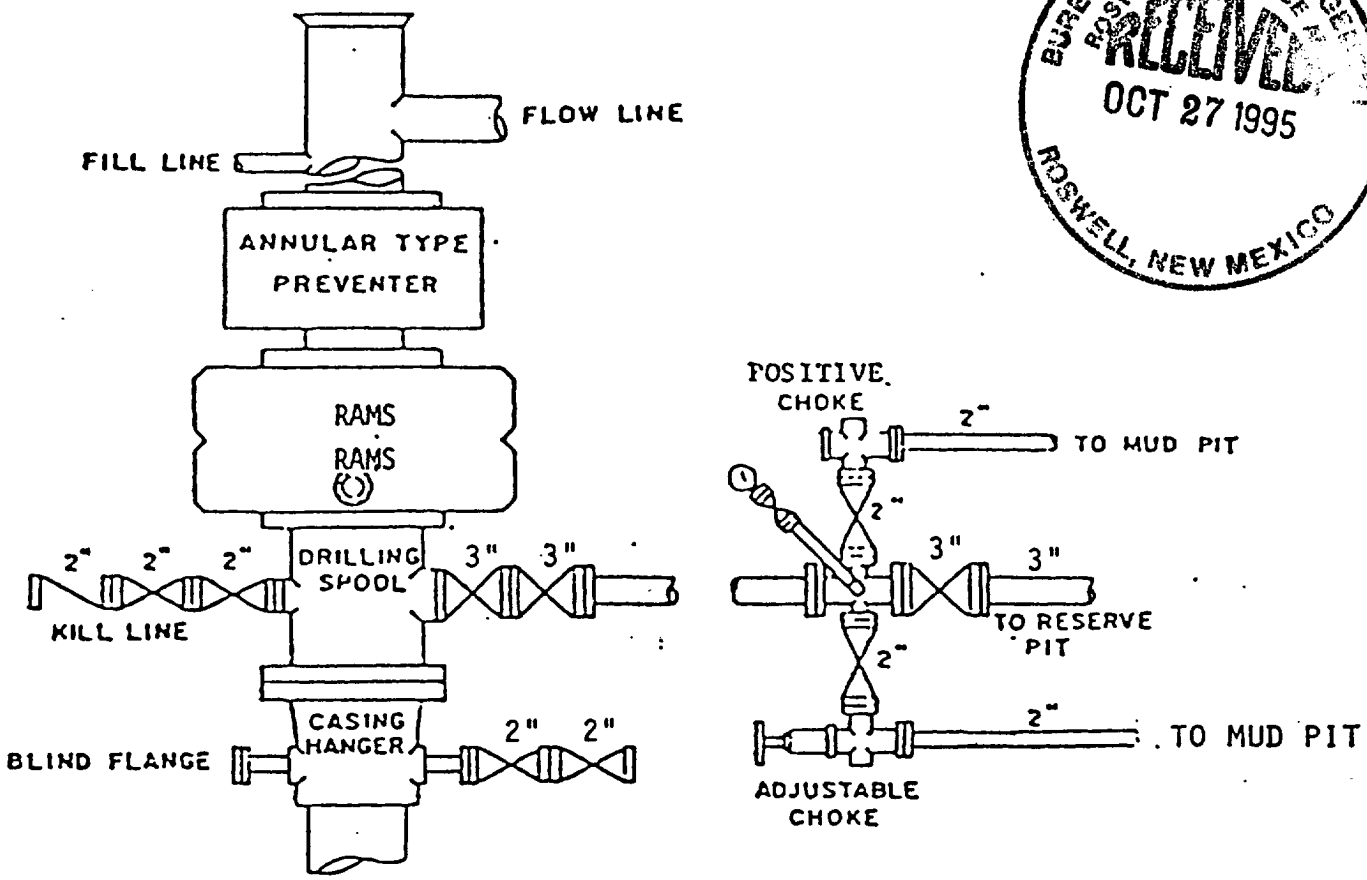
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service as necessary.

7. Communication:

Radio communications in company vehicles including cellular telephone and 2-way radio.

8. Well Testing:

No DST's are planned.



BOP STACK

3000 PSI WORKING PRESSURE

BOP ARRANGEMENT