Form 3160-3 (July 1992)

UNITED STATES DEPARTMENT OF THE INTERIOR

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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

FORM APPROVED

BUREAU OF LAND MANAGEMENT					5. LEASE DESIGNATION AND SERIAL NO. NM025527		
APPLICATION FOR PERMIT TO DRILL OR DEEPEN				6. IF INDIAN, ALLOTTEE OF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
1a. TYPE OF WORK DRILL DEEPEN				-			
b. TYPE OF WELL					7. UNIT AGREEMENT NAM	E ~ ~ // /	
OIL X	GAS		SINGLE	MULTIPLE X	Ž	2554/	
	WELL OTHER		ZONE	ZONE 🔼	8. FARM OR LEASE NAME,	8. FARM OR LEASE NAME, WELL NO.	
2. NAME OF OPERATOR	9 × 10-1				Berry Federa	l # 35	
SDX Resources,					9. API WELL NO.		
3. ADDRESS AND TELEPHO					30-015		
PO Box 5061, Midland, TX 79704 915/685-1761					10. FIELD AND POOL, OR V	WILDCAT	
	port location clearly and in accordance	with any State requireme	ints.*)		Red Lake, QN-	GB-SA	
At surface 2310' FS	L 1650' FEL				11. SEC., T., R., M., OR BLK.		
At proposed prod. zone	• /\				AND SURVEY OR AREA		
Same	\cup ν	117			23-17S-27E	Ξ, J	
14. DISTANCE IN MILES AN	D DIRECTION FROM NEAREST TO	WN OR POST OFFICE*			12. COUNTY OR PARISH	13. STATE	
9 miles SE of Arte	esia, NM				Eddy	NM	
15. DISTANCE FROM PROP	POSED*	50/	6. NO. OF ACRES IN LEASE	17. NO. O	F ACRES ASSIGNED		
LOCATION TO NEAREST		50' 1330')	640		IIS WELL		
PROPERTY OR LEASE L (Also to nearest drig. unit li					40		
DISTANCE FROM PROP TO NEAREST WELL, DRI	ILLING COMPLETED		9. PROPOSED DEPTH	20 . ROTAI	RY OR CABLE TOOLS		
OR APPLIED FOR, ON TH		320'	3100'		Rotary		
21. ELEVATIONS (Show whe	ether DF, RT, GR, etc.)				22. APPROX. DATE WORK WILL START*		
3538' GR					04/15/00		
23.		PROPOSED CASIN	IG AND CEMENTING PRO	CRAM			
SIZE OF HOLE	ODADE SIZE OF CARNO						
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOO		Ή	QUANTITY OF CEMENT		
12-1/4"	8-5/8", J-55	24#	/ 350'		325 sx		
7-7/8"	5-1 <i>/2</i> ", J-55	14# - 17#	3100'		700 sx		
	'		SEE SI	TIPS!			
Plan to drill a 12-1/4	4" hole to approximately 3	50'. Set 8-5/8" sur	face csg. Circ Cl C cr	mt. Drill 7-7/8" h	ole to 3100'. Set 5-1/2	2" csg & circ	
cmt to surface. Per	f & stimmulate as necessa	ary for optimum pr	oduction.			2 esg & circ 5678970772	
C:E		0 1 44 4			1234	26780	
Specific programs a	as per Onshore Oil & Gas	Order #1 are out	ined in the following a	ttachments:		4 %	
Drilling Program					JUN SS SUN	7 3	
Surface Use & Ope	erating Plan				/8° JIN	1200 5	
•	•				N Prop	<i><000</i> ₺	
H2S Drilling Operating Plan Exhibit #1 - Location & Elevation Plat						VED 3	
Surface Use & Operating Plan H2S Drilling Operating Plan Exhibit #1 - Location & Elevation Plat Exhibit #2 - BOP Equipment Exhibit #3 - Planned Access Roads Exhibit #4 - One Mile Radius Map						TECH 5	
Exhibit #3 - Planned					/3	LOIA 8	
Exhibit #4 - One Mil					\j2\	IVED ITESIA	
Exhibit #5 - Drilling	•				\$50×	-6\8\V	
Letter of Responsib					ાર્ડેક્ટર	2000	
IN ABOVE SPACE DESC deepen directionally, give	RIBE PROGRAM: If proposal is pertinent data on subsurface lo	to deepen, give data cations and measured	on present productive zone and true vertical depths. G	e and proposed new Sive blowout preven	v productive zone. If proposa	al is to drill or	
24.	<u> </u>		-	· · · · · · · · · · · · · · · · · · ·			
SIGNED BOW	nie (Itwa	TITLE	Regulatory Tech		DATE 03/01/0	0	
(This space for Federal	l or State office use)						

/S/LARRY D. BRAY

Assistant Field Manager, Lands And Minerals

APPROVED BY

*See Instructions On Reverse Side

APPROVAL DATE

ACTIVITATION TOTAL 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 United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

TITLE

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:

SOSMELL OFFICE

22 :11 A €- MAN 0235

RECEIVED

District ! 1625 N. French Dr., Hobbs, NM 88240 District II 811 South First, Artesia, NM 88210

State of New Mexico Energy, Minerals & Natural Resources

Form C-102 Revised March 17, 1999

District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe. NM 87505

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

District IV Fee Lease - 3 Copies 2040 South Pacheco, Santa Fe, NM 87505 WELL LOCATION AND ACREAGE DEDICATION PLAT API Number ¹ Pool Code 51300 Pool Name Red Lake Property Code Property Name Well Number BERRY FEDERAL 35 OGRID No. Operator Name ¹ Elevation 020451 SDX RESOURCES, INC. 3538. Surface Location UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County J 23 17-S 27-E 2310 SOUTH 1650 EAST **EDDY**

UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County

"Dedicated Acres 1" Joint or Infill "Consolidation Code 1" 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

	NON-STAN	NDARD UNIT HAS BI	EEN APPROVED BY	THE DIVISION
16				17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief
				- Bonnie Atuater Signature
				Printed Name Bonnie Atwater Title Regulatory Tech Date 3/1/00
			1650'	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.
				FEBRUARY 18 3000 Date of Survey Signature and September Surveyer
		0165		SEE SAIL SAIL SAIL SAIL SAIL SAIL SAIL SAIL

DRILLING PROGRAM SDX Resources Inc. **Berry Federal # 35** 2310' FSL, 1650' FEL Unit J, Sec. 23, T17S, R27E Eddy Co., NM

1. Geologic Name of Surface Formation:

Permian

2. <u>Estimated Tops of Important Geologic Markers:</u>

7- Rivers 396' Queen 880' Grayburg 1310' San Andres 1660'

3. Estimated Depth of Anticipated Fresh Water, Oil or Gas:

Water Sand	100' – 150'	Fresh Water
7-Rivers	450	Oil & Gas
Queen	1100'	Oil & Gas
Grayburg	1530'	Oil & Gas
San Andres	2100'	Oil & Gas

Fresh water sands will be protected by running 8-5/8" casing to a minimum depth of 350' and circulating cement. All other zones will be isolated by running 4-1/2" or 5-1/2" production casing and circulating cement.

4. Casing Program:

Hole Size	<u>Interval</u>	OC Csg	Weight Grade Jt Cond Type
12-1/4"	0 - 350	8-5/8"	24#, J55, New
7-7/8"	0 - TD	4-1/2" – 5-1/2"	9.5# - 17#, J55, Used

Cement Program:

8-5/8" Surface Casing:	Cemented to surface with 325 sx of Class C with 2% CaCl and ¼#/sx Flocele.
5-1/2" Production Casing:	Cemented with 300 sx of Class C and 400 sx of Lite C with 6# salt/sx and ½#/sx Flocele. This should circulate cement to the surface

5. <u>Minimum Specifications for Pressure Control:</u>

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of an annular bag type preventer (2000 psi WP). Unit will be hydraulically operated. BOP will be nippled up on the 8-5/8" surface csg and used continuously until TD is reached. BOP and accessory equipment will be tested to 1000 psi before drilling out of surface casing. A 2" kill line and a 2" choke line will be included in the drilling spool. Other accessories to the BOP equipment will include a kelly cock.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of fresh water and brine water mud system. The applicable depth and properties of this system are as follows:

<u>Depth</u>	Type	Weight _(ppg)_	Viscosity (sec)	Waterloss (cc)
0 - 350	Fresh Water (spud)	8.5	40 – 45	N/C
350 - TD	Brine water, SWG, Starch	10.0	30	24

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- A. A kelly cock will be kept in the drill string at all times.
- B. A mud logging unit complete with H2S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 1000' to TD.

8. Logging, Testing and Coring Program:

- A. Drillstem tests will be run on the basis of drilling shows.
- B. The electric logging program will consist of GR-Dual Laterolog and GR-Compensated Neutron-Density from TD to surface casing.
- C. Conventional coring may be performed in select intervals if deemed necessary.
- D. Further testing procedures will be determined after the production casing has been cemented at TD based on drill shows and log evaluation.

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

No abnormal pressure or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 94° and estimated maximum bottom-hole pressure (BHP) is 1000 psig. No abnormal concentrations of hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. All H2S operation precautions will be followed (see attached H2S drilling operations plans). No major loss circulation zones have been reported in offsetting wells.

10. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is April 15, 2000. Once commenced, the drilling operation should be finished in approximately 10 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

SURFACE USE AND OPERATIONS PLAN SDX RESOURCES, INC.

Berry Federal # 35

2310' FSL, 1650' FEL Unit J, Sec. 23, T17S, R27E Eddy Co., NM

1. Existing Roads:

- A. The well site and elevation plat for the proposed well is shown in Exhibit #2. It was staked by Dan Reddy, Carlsbad, New Mexico.
- B. All roads to the location are shown in Exhibit #3A. The existing rods are labeled and upgrading of the road prior to drilling will be done where necessary as determined during the onsite inspection.
- C. Directions to location: E. of Artesia on Hwy. 82 ~ 8 miles . Turn right on CR 202. Go .5 M on 202 and turn left. Go .45 M and turn left to location.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. Proposed Access Road:

Exhibit #3A shows the existing road.

100' of new road will be needed. It is shown on Exhibit #3 A & B.

3. <u>Location of Existing Wells:</u>

Exhibit #4 shows all existing wells within a one-mile radius of this well.

- 4. Location of Existing and/or Proposed Facilities and ROW's:
 - A. If the well is productive:
 - 1. The well will be tested and if commercial production exist a 2 or 3" SDR-11 poly flowline will be laid beside the road ROW to the battery at the Berry Federal #34.
 - 2. A Power line will be built to location and will be permitted by Central Valley Electric Company.
 - B. If the well is productive, rehabilitation plans are as follows:
 - 1. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after the well is complete).
 - 2. Topsoil removed from the drill site will be used to raconteur the pit area to the original natural level, as nearly as possible, and reseeded as per BLM specifications.

5. <u>Location and Type of Water Supply:</u>

The well will be drilled with a combination brine and fresh water mud systems as outlined in the drilling program. The brine and fresh water will be obtained from commercial water stations in the area and hauled to roads shown in Exhibit #3. No water well will be drilled on the location.

6. Source of Construction Materials:

All caliche required for construction of the drill pad and any new access road will be obtained from the drilling pits and/or on site when possible. Any additional caliche will be obtained from approved caliche pits. All roads and pads will be constructed of 6" rolled and compacted caliche.

7. <u>Methods of Handling Water Disposal:</u>

- A. Drill cuttings not retained for evaluation purposes will be disposed into the reserve pit.
- B. Drilling fluids will be contained in plastic lined pits. The reserve pit will contain any excess drilling fluid or flow from the well during drilling, cementing and completion operations. The reserve pit will be an earthen pit, approximately 80' x 55' x 6' deep, fenced, and plastic-lined (5-7 mil thickness).
- C. Water produced from the well during completion may be disposed into the reserve pit. After the well is permanently placed on production, produced water will be trucked to an approved disposal site.
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash trailer by a contractor. All water and fluids will be disposed of into the reserve pit. Salts and other chemicals produced during drilling or testing will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be produced by this operations.
- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned-up within 90 days. No adverse materials will be left on the location. The reserve pit will be completely fenced and kept closed until it has dried. When the reserve pit is dry enough to breakout and fill and as weather permits the unused portion of the well site will be leveled and reseeded as per BLM specifications. Only that part of the pad required for production facilities will be kept in use.

8. <u>Ancillary Facilities:</u>

None

9. Well Site Layout:

A. The drill pad layout is shown in Exhibit #5. Dimensions of the pad and pits and location of major rig components are shown. Top soil, if available, will be stockpiled per BLM specifications as determined at the on-site inspection. Because the pad is almost level no major cuts will be required.

- B. Exhibit #5 shows the planned orientation for the rig and associated drilling equipment, reserve pit, trash pit, pipe racks, turn-around, parking areas and access road. No permanent living facilities are planned but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.
- C. The reserve pit will be lined with high-quality plastic sheeting (5-7 mil thickness).

10. Plan for Restoration of the Surface:

A. Upon completion of the proposed operation, if the well is to be abandoned, the pit area, after allowing to dry, will be broken out and leveled. The original top soil will be returned to the entire location which will be leveled and contoured to as nearly the original topography as possible.

All trash and garbage will be hauled away in order to leave the location in an anesthetically pleasing condition. All pits will be filled and the location leveled within 120 days after abandonment.

- B. The disturbed area will be revegetated by reseeding during the proper growing season with a seed mixture of native grasses as recommended by the BLM.
- C. The reserve pit will be fenced prior to and during drilling operations. The fencing will remain in place until the pit area is cleaned-up and leveled. No oil will be left on the surface of the fluid in the pit.
- D. Upon completion of the proposed operations, if the well is completed, the reserve pit area will be treated as outlined above within the same prescribed time. The caliche from any area of the original drill site not needed for production operations or facilities will be removed and used for construction of thicker pads. Any additional caliche required for facilities will be obtained from an approved caliche pit. Topsoil removed from the drill site will be used to raconteur the pit area and any unused portions of the drill pad to the original natural level and reseeded as per BLM specifications.

11. Surface Ownership:

BLM

Grazing Leased to Bogle, LTD

Surface leasee has been notified.

12. Other Information:

- A. The area around the well site is grassland. The vegetation is native scrub grasses with abundant catclaw and mesquite.
- B. There is no permanent or live water in the immediate area.

C. An archaeological survey has been requested and will be forwarded to the BLM when completed.

13. <u>Lessee's and Operator's Representative:</u>

The SDX Resources Inc. representative for assuring compliance with the surface use plan is as follows:

Chuck Morgan SDX Resources Inc. PO Box 5061 Midland, TX 79704 915/685-1761 Office 915/685-0533 Fax

Certification:

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

SDX Resources Inc.

John Pool Vice-President

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

SDX Resources Inc.

Berry Federal # 35

2310' FSL, 1650' FEL Sec. 23, T17S, R27E, Unit J Eddy Co., NM

I. <u>Hydrogen Sulfide Training</u>

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 EQUIPEMNT AND SYSTEMS

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500'.

- 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.

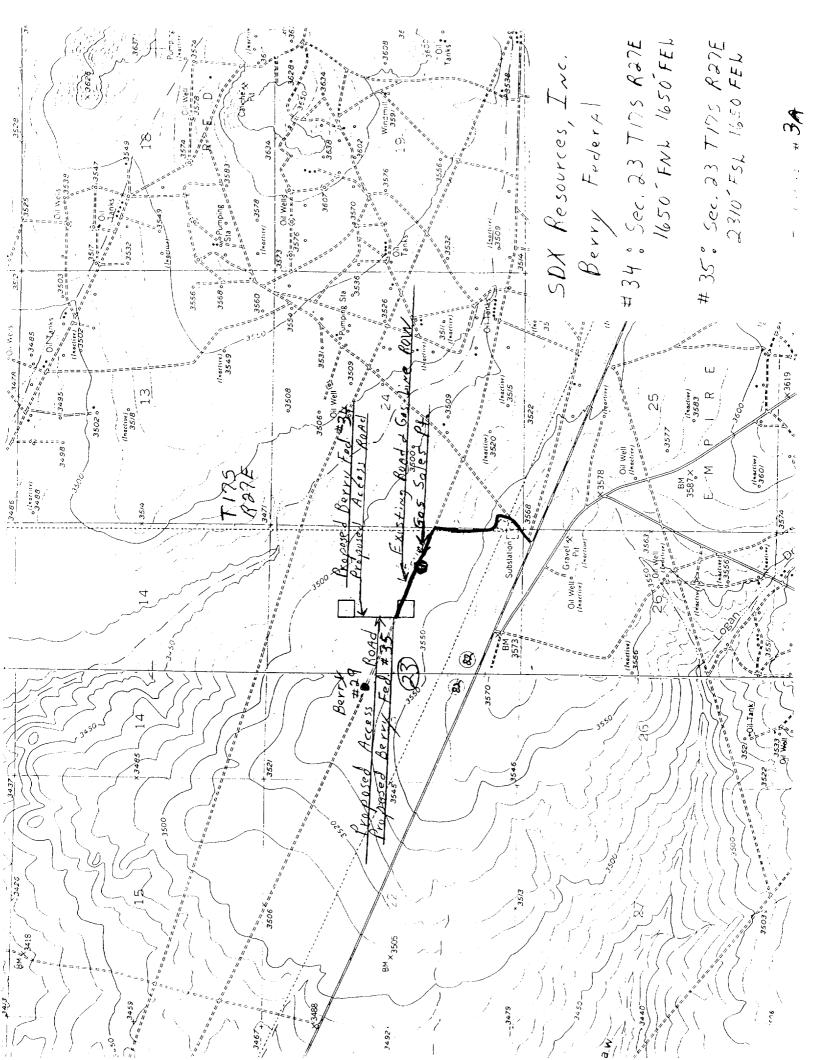
7. Communication:

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

8. Well Testing:

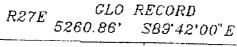
No DST's are planned.

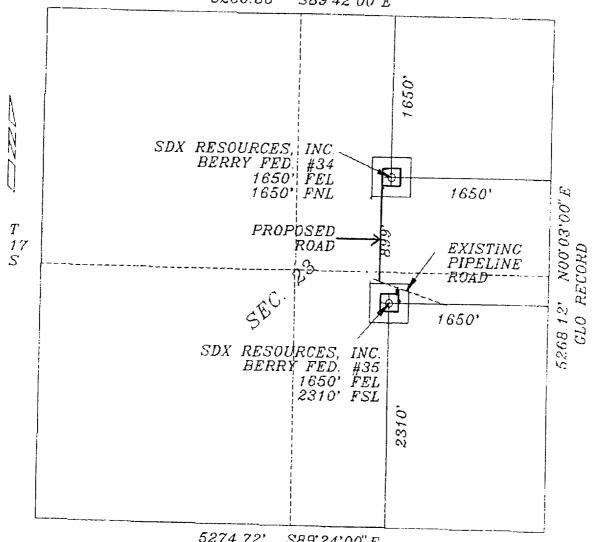
₹.



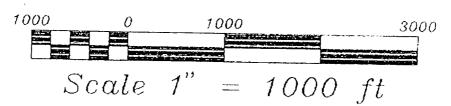
WELL LOCATION SKETCH (2)

LOCATION OF PROPOSED WELLS SECTION 23. T17S, R27E, N.M.P.M., EDDY COUNTY, NEW MEXICO.

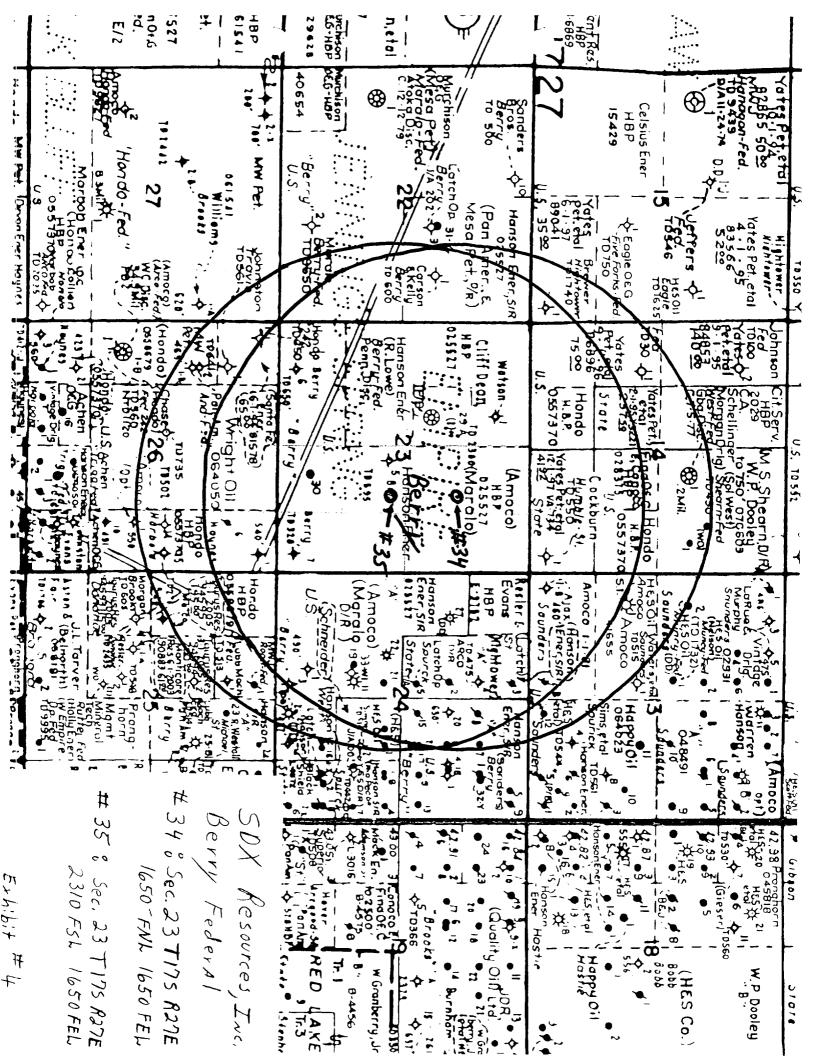


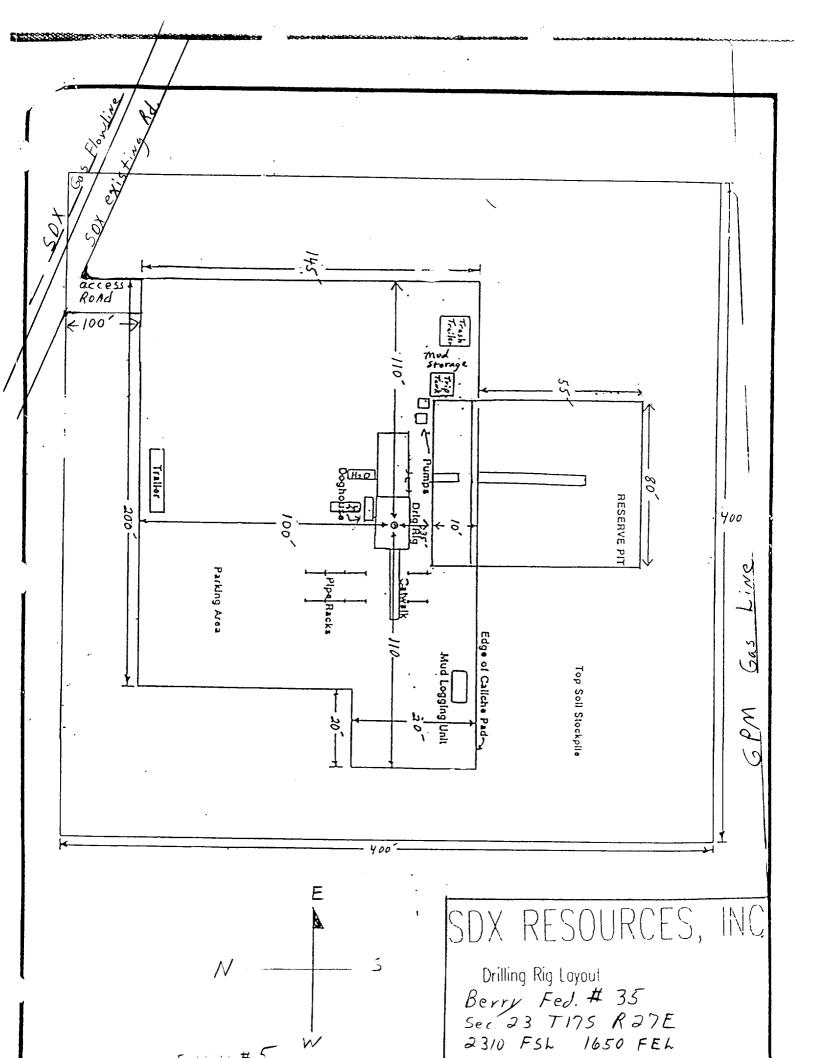


5274.72' S89'24'00"E GLO RECORD



PREPARED BY: DAN R. REDDY NM PE & PS PREPARED FOR: SDX RESOURCES, INC. 2/22/2000





STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

SDX Resources Inc. PO Box 5061 Midland, TX 79704

March 1, 2000

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NM025527

Lease Name: Berry Federal #35

Legal Description of Land: Unit J, 2310' FSL 1650' FEL

Sec. 23, T17S, R27E

Eddy Co., NM

Formation (s): Red Lake

Bond Coverage: Statewide Bond – State of New Mexico

BLM Bond File No.: NM2307

Authorized Signature:

John Pool Vice-President