

Form 3160-1
(August 1998)



N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

5. Lease Serial No.
NM-75501
6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator
CBS OPERATING CORPORATION

3a. Address P.O. BOX 2236
MIDLAND, TX 79702

3b. Phone No. (include area code)
915/685-0878

4. Location of Well (Report location clearly and in accordance with any State requirements. *)
At surface 1330' FNL & 1330' FEL Unit G
At proposed prod. zone same

7. If Unit or CA Agreement, Name and No.
NORTH SQUARE LAKE UNIT

8. Lease Name and Well No.
NORTH SQUARE LAKE UNIT 176

9. API Well No.
30-015-32906

10. Field and Pool, or Exploratory
SQUARE LAKE GB-SA

11. Sec., T., R., M., or Blk. and Survey or Area
Sec. 29, T16S, R31E

14. Distance in miles and direction from nearest town or post office*
7.6 miles NE of Loco Hills

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)
10'

16. No. of Acres in lease
Approx 6125 ac
in Unit

17. Spacing Unit dedicated to this well
40 acres

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.
900' +-

19. Proposed Depth
3500'

20. BLM/BIA Bond No. on file
NM B000024

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3960' GR

22. Approximate date work will start*
January 1, 2003

23. Estimated duration
Drill & Complete 30 days

24. Attachments
Kornell Controlled Water Basin

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.

25. Signature

Name (Printed/Typed)
M. A. SIRGO, III

Date
DEC. 10, 2002

Title
AGENT FOR CBS OPERATING CORP

Approved by (Signature)
/s/ LESLIE A. THEISS

Name (Printed/Typed)
/s/ LESLIE A. THEISS

Date
JUL 08 2003

Title
FIELD MANAGER

Office
CARLSBAD FIELD OFFICE

Application approval does not warrant or certify the 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.

*(Instructions on reverse)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

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

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

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 57570	Pool Name SQUARE LAKE GB-SA
Property Code 30768	Property Name NORTH SQUARE LAKE UNIT	Well Number 176
OGRID No. 216852	Operator Name CBS OPERATING CORP.	Elevation 3960'

Surface Location

UL or lot No. G	Section 29	Township 16-S	Range 31-E	Lot Idn	Feet from the 1330	North/South line NORTH	Feet from the 1330	East/West line EAST	County EDDY
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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
Dedicated Acres		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

GEOGRAPHIC COORDINATES SPC NME NAD 1927 Y = 689990.7 X = 636942.8 LAT. - 32°53'45.84"N LONG. - 103°53'13.88"W	1330' 3955.0' 3963.7' 1330' 3956.0' 3964.3'	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>M. A. Sirgo, III</i> Signature M. A. SIRGO, III Printed Name AGENT Title DECEMBER 10, 2002 Date 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. NOVEMBER 14, 2002 Date Surveyed Signature & Seal of Professional Surveyor <i>Ronald J. Edson</i> 02-11-0861 Certificate No. RONALD J. EDSON 3239 GARY EDSON 12641
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OPERATIONS COPY

RECEIVED
DEC 27 2002

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

CBS OPERATING CORPORATION

3a. Address P. O. BOX 2236

MIDLAND TX 79702

3b. Phone No. (include area code)

915/685-0878

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

NORTH SQUARE LAKE UNIT

8. Well Name and No.

NORTH SQUARE LAKE UNIT

9. API Well No.

10. Field and Pool, or Exploratory Area
SQUARE LAKE GB-SA

11. County or Parish, State

EDDY, NEW MEXICO

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other <u>Master</u>
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	<u>Drilling Plan</u>
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Attached for your review and approval is a Master Drilling Plan for the North Square Lake Unit. CBS Operating Corporation will conduct all unit drilling operations subject to this Master Drilling Plan.

Any unique data to specific well locations will be presented in each individual well 3160-3 applications on the pertinent information data sheet.

NOTE: Depth of surface casing may vary depending on geology. Check Conditions of Approval for surface casing setting depth.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

M. A. SIRGO, III

Title AGENT

Signature

Date DECEMBER 10, 2002

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Alexis C. Swoboda

PETROLEUM ENGINEER

Title Date DEC

Conditions of approval, if any, are attached. Approval of this notice 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.

Office



**CBS OPERATING CORPORATION
DECEMBER 2002
MASTER DRILLING PROGRAM
NORTH SQUARE LAKE UNIT
EDDY COUNTY, NEW MEXICO**

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil & Gas Order No. 1.

1) This Master Drilling Plan is submitted to cover new wells drilled within the North Square Lake Unit boundary as defined below:

County – Eddy

T-16S R30-E
E/2 Section 25
N/2 Section 36

T-16S R31-E
S/2 Section 19
S/2 Section 20
NW/4 NW/4 Section 27
S/2 Section 27
SW/4 NE/4 Section 27
SW/4 Section 27
W/2 SE/4 Section 27
SE/4 SE/4 Section 27
All Section 28
All Section 29
All Section 30
All Section 31
All Section 32
All Section 33
All Section 34

2) SURFACE FORMATION: Current

3) ESTIMATED TOPS OF GEOLOGIC MARKERS:

Top of Salt 525'
Base of Salt 1360'
Yates 1570'
Seven Rivers 1590'

Queen 2200'
Grayburg 2852'
San Andres 3208'

MASTER DRILLING PLAN
PAGE 2

4) ESTIMATED DEPTHS TO WATER OIL OR GAS FORMATION:

Water – Possible groundwater from 0' to 75'
Oil - 2100' to TD
Gas - None anticipated

No other intervals are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 8-5/8" casing at 400' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a float shoe joint into the 5-1/2" production casing which will be run at TD.

5) CASING PROGRAM:

<u>HOLE SIZE</u>	<u>INTERVAL</u>	<u>OD CASING</u>	<u>WEIGHT</u>	<u>GRADE</u>	<u>JT.</u>	<u>TYPE</u>
12-1/4"	0-400'	8-5/8"	24#	J-55	LTC	R-3
7-7/8"	0-TD	5-1/2"	15.5#	J-55	LTC	R-3

All strings of casing will be satisfactorily tested to 1000 psi.

CEMENT PROGRAM:

8-5/8" Surface Casing: Cemented to surface with 330 sx of Class C w/2% Calcium Chloride

5-1/2" Production Casing: Cemented with 830 sx Class C. Will attempt to circulate to surface.

6) PRESSURE CONTROL EQUIPMENT:

Install a 3000# 10" Shaffer double hydraulic BOP on the 8-5/8" casing prior to drilling into the Queen. Due to depleted nature of the reservoir, it is requested that a waiver be granted to test pressure control equipment to 1000 psi, using rig pump instead of the normal 2000 psi test. Exhibit D is a diagrammatic sketch of the BOP equipment.

7) CIRCULATING MEDIUM:

Drill with fresh water from surface to setting depth of surface casing. Drill remainder of hole with brine water, using additives to control water loss, viscosity and mud weight.

MASTER DRILLING PLAN
PAGE 3

8) AUXILIARY EQUIPMENT:

Equipment will include a gas detector, pit level monitor and a full-opening safety valve.

9) TESTING, LOGGING AND CORING PROGRAM:

Samples: Samples will be caught at 10' intervals from below the surface casing to total depth.

DST and Cores: None anticipated

Logging: Density-Neutron Log, Gamma Ray-Neutron Log

10) ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE:

No abnormal pressure or temperatures anticipated. Precautions will be taken to monitor possible traces of hydrogen sulfide gas in the Grayburg. See H2S plan attachment.

11) ANTICIPATED STARTING DATE:

Drilling will commence upon Federal and State approval. Drilling and completion will require about 30 days.

CBS OPERATING CORP.

ATTACHMENT

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

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 person protective equipment and life support systems.
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 training session just prior to encountering a known or probably H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site 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 above, or three days prior to penetrating the first zone containing or reasonable expected to contain H₂S.

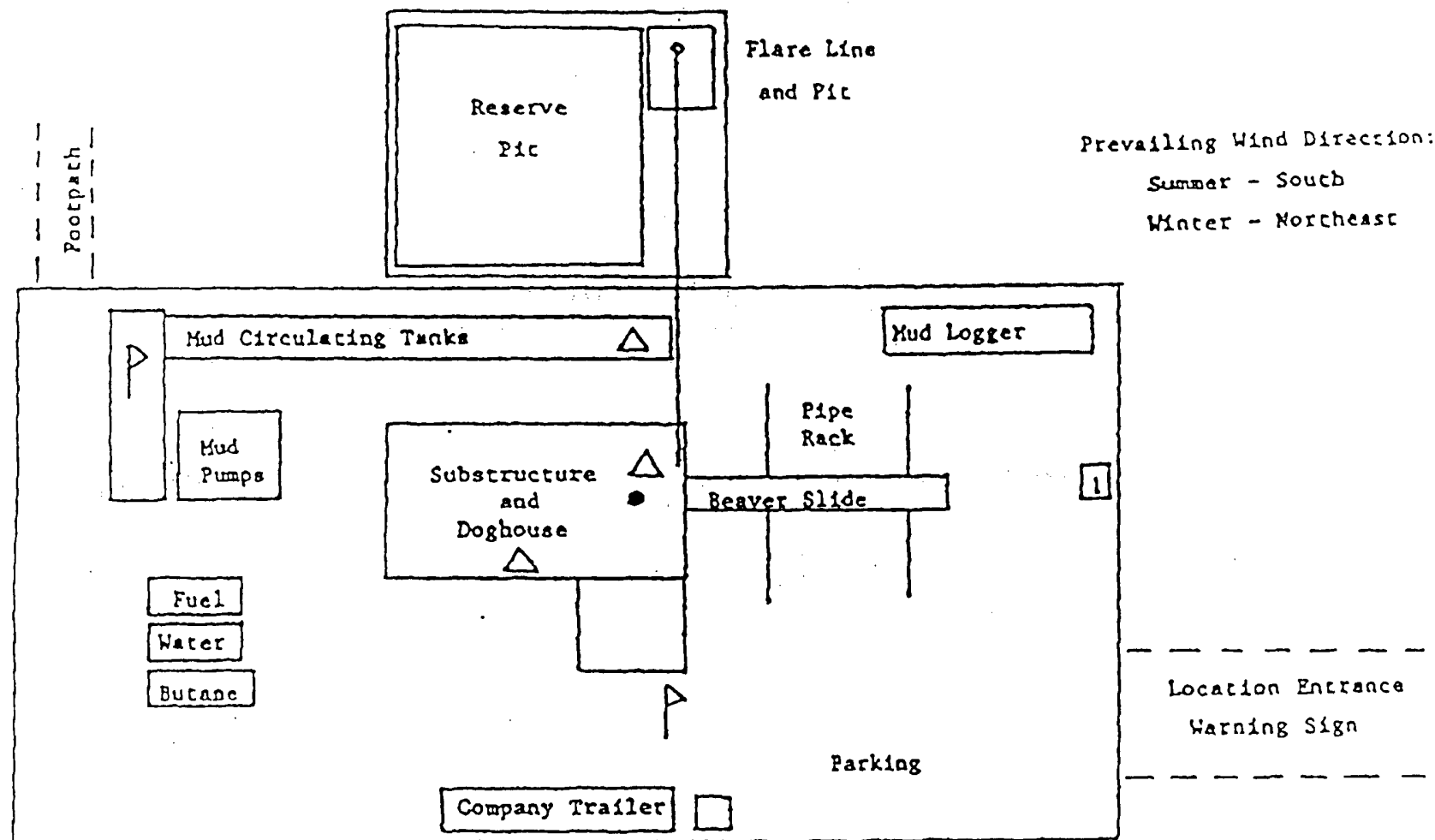
1. Well Control Equipment:
 - A. Flare line with electronic igniter or continuous pilot.
 - B. Choke manifold with a minimum of one remote choke.
 - C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - D. Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head, and flare gun with flares.
2. Protective Equipment for Essential Personnel:
 - A. Mark II Surviveair 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.
3. H2S Detection and Monitoring Equipment:
 - A. Two portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
 - B. One portable SO2 monitor positioned near flare line.
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 a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
5. Mud Program:
 - A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.
 - B. A mud-gas separator and an H2S gas buster will be utilized.
6. Metallurgy:
 - A. All drill strings, casings, tubing, wellhead, blowout preventors, 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. Radio communications in company vehicles including cellular telephone and two-way radio.
- B. Land line (telephone) communications at field office.

8. Well Testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H₂S environment will use the closed chamber method of testing.



- △ - H2S Monitors with alarms at the bell nipple and shale shaker
- P - Wind Direction Indicators
- - Safe Briefing areas with caution signs and protective breaching equipment
Min. 150 feet from wellhead. 1 designates primary area

WARNING

YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY

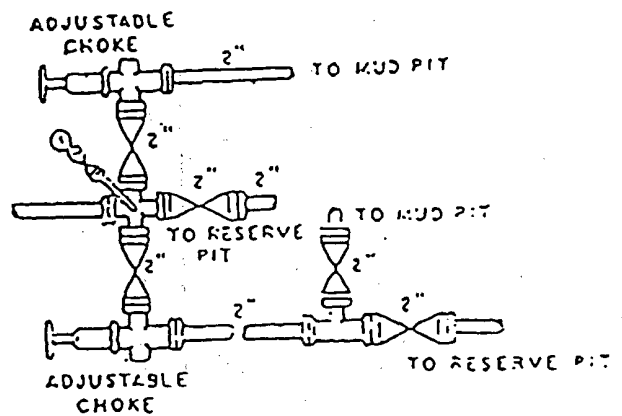
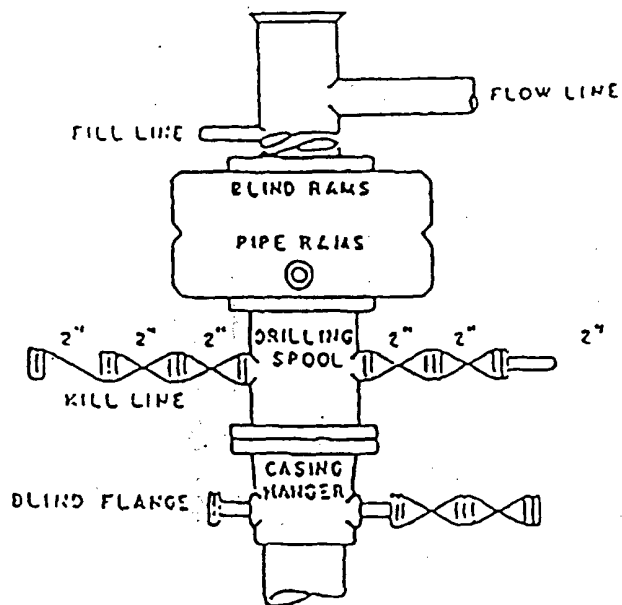
1. BEARDS OR CONTACT LENSES NOT ALLOWED
2. HARD HATS REQUIRED
3. SMOKING IN DESIGNATED AREAS ONLY
4. BE WIND CONSCIOUS AT ALL TIMES
5. CHECK WITH CBS OPERATING BEFORE ENTERING

CBS Operating Corp.

1-915-685-0878



Scale: 1"=40' 1-15-92



BOP DIAGRAM

3000# Working Pressure
Rams Operated Daily

Attachment to Exhibit D
NOTES REGARDING THE BLOWOUT PREVENTERS

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 3000 psi W.P. minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi W.P. minimum.
6. All choke and fill lines to be securely anchored, especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on kelly.
9. Extension wrenches and hand wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 40 gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

CBS OPERATING CORP.

P. O. BOX 2236, MIDLAND, TX 79702 432/685-0878 FAX 685-1945

July 28, 2003

VIA FAX 505/748-9720

NM OIL CONSERVATION DIVISION
Energy, Minerals & Natural Resource Dept.
1301 W. Grand Ave.
Artesia, New Mexico 88210

Attention: Mr. Bryan Arrant

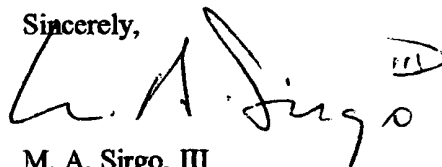
Re: Hydrogen Sulfide Contingency Plan
North Square Lake Unit
Eddy County, NM

Dear Mr. Arrant:

Reference is made to that certain Master Drilling Plan filed by CBS Operating Corp. for the North Square Lake Unit. This plan was approved by the BLM on December 23, 2002.

This Master Drilling Plan contains a Hydrogen Sulfide Drilling Operations Plan. CBS currently feels that this plan is comprehensive with regard to H₂S safety and that expected H₂S levels in the field do not warrant an additional contingency plan at this time.

Sincerely,



M. A. Sirgo, III

MAS/pr