OCD-ARTESIA

Form 3160-3
(December 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

RECEIVED
2006
OCD-ARTESIA

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-14840

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL ☒ DEEPEN ☐ RE-ENTER

7. UNIT AGREEMENT NAME:

b. TYPE OF WELL: OIL WELL ☐ Gas Well ☒ OTHER SWD SINGLE ZONE ☐ MULTIPLE ZONE ☐

8. FARM OR LEASE NAME, WELL NO.: Blue Streak Federal #1

2. NAME OF OPERATOR: COG Operating LLC

9. API WELL NO.: 30-015-21308

3. ADDRESS AND TELEPHONE NO.: 550 W. Texas, Suite 1300, Midland, TX 79701 (432) 685-4372

10. FIELD AND POOL, OR WILDCAT: SWD; Cisco

4. LOCATION OF WELL (Report location clearly and in accordance with any state requirement.*)
At surface: 1980 FSL & 660 FEL
At proposed prod. zone: ROSWELL CONTROLLED WATER BASIN

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 29 T17S R29E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 6.25 miles West 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 drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO OF ACRES IN LEASE TO THIS WELL
660	40	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
330	9500	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3582' GR

22. APPROX. DATE WORK WILL START*: 12/1/2006

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2	11 3/4	42	344	300sx
11	8 5/8	24 & 32	2657	300sx
7 7/8	5 1/2	15.5 & 17	10,497	750sx

COG Operating LLC proposes to re-enter and convert this well in to a SWD at a depth of 9500' perforate and acidize the Cisco formation. If non-productive, the well will be plugged and abandoned in a manor consistent with federal regulation. Specific details well drilled out 4 3/4" bit, 9.1# mud and 2000# BOP. See attached wellbore schematic.

1. Drill out 4 squeeze jobs @ 349', 900', 2707' and 5000'.
2. Drill out CIBP's @ 7150' squeeze perfs from 7170-7209', CIBP @ 8525' squeeze perfs from 8575-8587', CIBP @ 8798' squeeze perfs from 9074-9090'.
3. Perforate and acidize disposal zone @ 9150-9400'.

A workover pit will be dug 50' north of the wellbore, dimensions are 12' W X 30' L X 8' D and lined with 12 mil liner.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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 Jerry W. Sherrell TITLE Production Clerk DATE 11/9/2006

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lea

CONDITIONS OF APPROVAL, IF ANY:

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

APPROVED BY /s/ James Stovall TITLE ACTING FIELD MANAGER DATE DEC 14 2006

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

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.

United State Department of the Interior

BUREAU OF LAND MANAGEMENT
Roswell Resource Area
P.O. Drawer 1857
Roswell, New Mexico 88202-1857

Statement Accepting Responsibility for Operations

Operator name: COG Operating LLC
Street or box : 550 W. Texas Suite 1300
City, State : Midland, TX
Zip Code, : 79701

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.: NM-14840 Blue Streak Federal #1

Legal Description of land: Sec 29 T17S R29E NE/4 SE/4

Formation(s) (if applicable): Cisco

Bond Coverage: (State if individually bonded or another's bond)
Statewide Bond

BLM Bond File No.: NM000215

Authorized Signature: Jerry W. Sherrell
Jerry W. Sherrell

Title: Production Clerk

Date: 11/10/2006

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

State of New Mexico
EnerRy, Minerals & Natural Resources

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe. NM 87505

Form C-102
Revised March 17, 1999

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number	' Pool Code	'Pool Name
30-015-21308	96099	SWD; Cisco

' Property Code	' Property Name	'Well Number
	Blue Streak Federal	1

'OGRID No.	' Operator Name	' Elevation
229137	COG Operating LLC	3582

HI Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	29	17S	29E		1980	South	660	East	Eddy

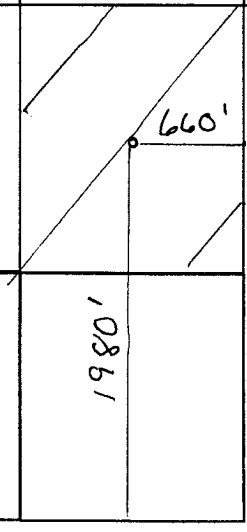
" Bottom Hole Location If Different From Surface

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.
40			

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

16



" OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best ofiny knowledge and belief

Jerry W. Sherrell
Signature

Jerry W. Sherrell
Printed Name

Production Clerk
Title

11/10/06
Date

"SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes ofactuai 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 ProfessionalSurveyer.

Certificate Number

DRILLING PROGRAM

1. **Casing Program:**

Hole Size	Interval	OD Casing	Weight
In place 17 ½"	0-344'	11 3/4"	42#
In place 11"	0-2657'	8 5/8"	24 & 32#
In place 7 7/8"	0-10,497'	5 ½"	15.5 & 17#

2. **Minimum Specifications for Pressure Control:**

The blowout preventer equipment (BOP) shown in Exhibit #9 will consist of a double ram-type (2000 psi WP) preventer. This unit will be nippled up on the 5 1/2" casing.

3. **Types and Characteristics of the Proposed Mud System:**

The well will be drilled to TD with cut brine and polymer mud system:

DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0-TD	Cut Brine	9.1	29	N.C.

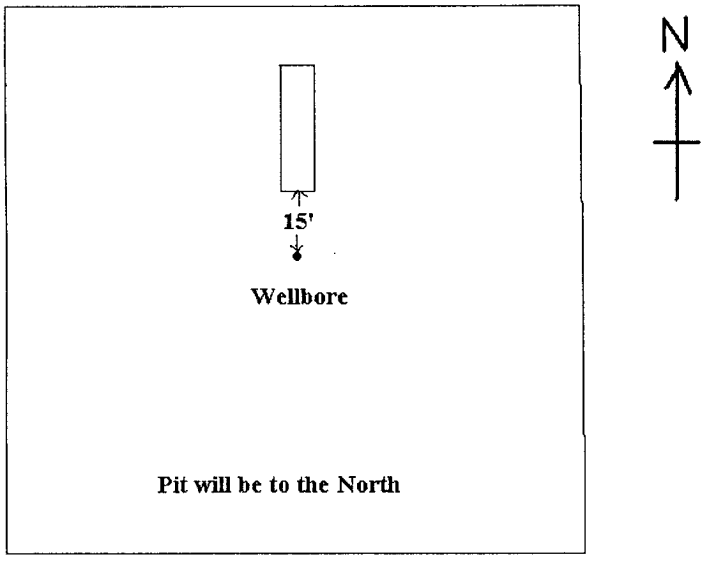
4. **Abnormal Conditions, Pressures, Temperatures and Potential Hazards:**

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 120 degrees and estimated maximum bottom hole pressure is 2300 psig. Low levels of Hydrogen sulfide have been monitors in producing wells in the area, so H2S may be present while drilling of the well a plan is attached to the Drilling program.

5. **Anticipated Starting Date and Duration of Operations:**

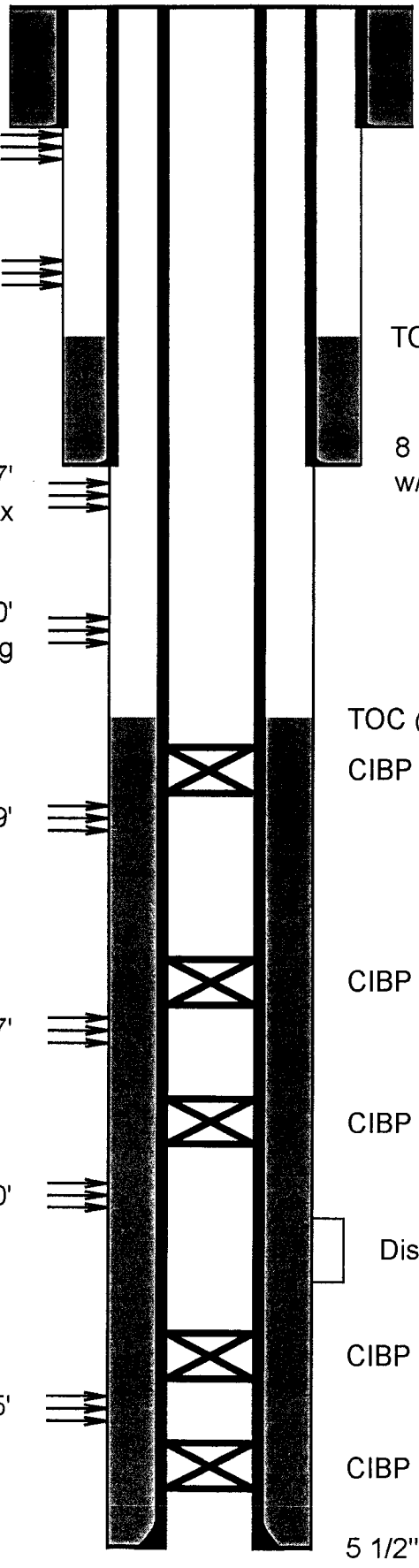
Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is December 1, 2006. Once commenced, the drilling operation should be finished in approximately 2 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

12' Wide x 30' Long x 8' Deep
Lined Workover/Plugging Pit



Blue Streak Federal #1

1980 FSL & 660 FEL
Sec. 29-T17S-R29E



TOC @ Surface

11 3/4 casing set @ 344' w/300sx cmt.

Perf @ 349'
Squeeze 175sx to surface

Perf 4 holes @ 900'
Squeeze 40sx

TOC @ 1620' (Calc.)

8 5/8" casing set @ 2657' w/300sx cmt.

Perf 4 holes @ 2707'
Squeeze 40sx

Perf 4 holes @ 5000'
Squeeze 40sx + 10sx on top plug

TOC @ 6689' (Calc.)

CIBP set @ 7150'

Perf 7170-7209'

CIBP set @ 8525'

Perf 8575-8587'

CIBP set @ 8798'

Perf 9074-9090'

Disposal Zone @ 9150-9400'

CIBP set @ 10,100'

Perf 10,228-10245'

CIBP set @ 10,315'

5 1/2" casing set @ 10,497'

Drill out 4 squeeze jobs, drill out 3 CIBPs & squeeze 3 sets of perfs, then perforate & acidize Disposal Zone.

COG Operating LLC

Hydrogen Sulfide Drilling operation 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 an 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, 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 tubular are to be used, personnel well 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 Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable 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.

   B. Choke manifold.

   C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

   D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

2. **Protective equipment for essential personnel:**

   A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

3. **H2S detection and monitoring equipment:**

   A. 1 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.

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 surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

A. All drill strings, casings, tubing, wellhead, blowout preventer, 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 2-way radio.

B. Land line (telephone) communication at Office.

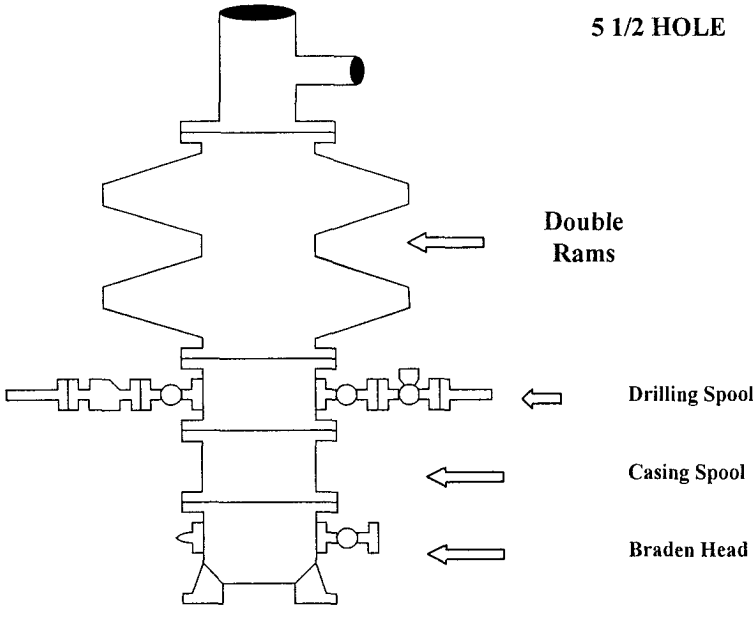
8. Well testing:

A. There will be no drill stem testing.

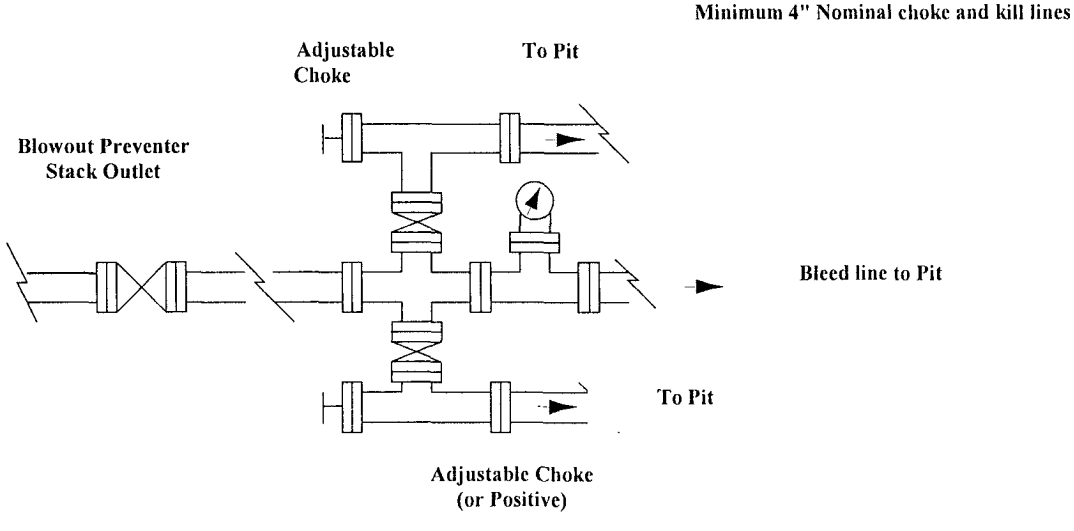
COG Operating LLC

Exhibit #9

BOPE Schematic



Choke Manifold Requirement (2000 psi WP)
No Annular Required



COG Operating LLC

Minimum Blowout Preventer Requirements

2000 psi Working Pressure

2 MWP

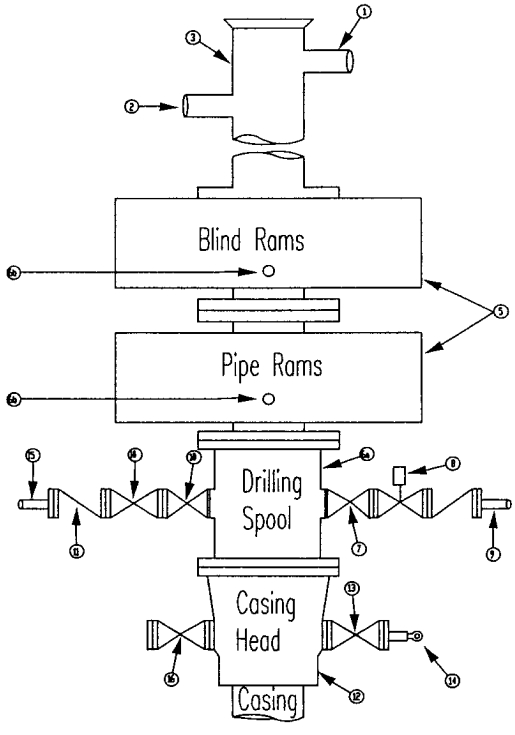
EXHIBIT #10

Stack Requirements

NO.	Items	Min. I.D.	Min. Nominal
1	Flowline		2"
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		2" Choke
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above)		
7	Valve Gate Plug	3 1/8	
8	Gate valve-power operated	3 1/8	
9	Line to choke manifold		3"
10	Valve Gate Plug	2 1/16	
11	Check valve	2 1/16	
12	Casing head		
13	Valve Gate Plug	1 13/16	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

OPTIONAL

16	Flanged Valve	1 13/16	



CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 2000 psi minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers' position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

COG TO FURNISH:

1. Bradenhead or casing head and side valves.
2. Wear bushing. If required.

GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of COG's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, or bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with hand-wheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (2000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill up operations.

SURFACE USE AND OPERATING PLAN

1. Existing & Proposed Access Roads

A. This well site and proposed access road will be constructed in the same location as the original road and location. Upgrading existing roads prior to working on the well will be done where necessary.

B. 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. Location of Existing and/or Proposed Facilities:

A. COG Operating LLC does not operate a production facility on this lease.

B. If the well conversion is successful, contemplated facilities will be as follows:

1) SWD; Cisco Completion: Will be used to dispose of produced water.

2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.

3) Any additional caliche will be obtained from a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.

4) It will be necessary to run electric power if this well is productive. Power will be run by CVE and they will send in a separate plan for power.

A. If the well is productive, rehabilitation plans are as follows:

1) The workover pit will be back filled after the contents of the pit are dry (within 120 days after the well is completed).

2) Topsoil removed from the drill site will be used to recontour the pit area to the original natural level, as nearly as possible, and reseeded as per BLM specifications.

3. Methods of Handling Water Disposal:

A. Drill cuttings not retained for evaluation purposes will be disposed into the workover pit.

B. Drilling fluids will be contained in a lined working pit. The pit will be an earthen pit, approximately 12' X 30' X 8' deep and fenced on three sides. It will be fenced on the fourth side immediately following rig removal. The working pit will be lined (12-mil thickness) to minimize loss of drilling fluids and saturation of the ground with brine water.

C. Water produced from the well during completion may be disposed into the pit or a steel tank (depending on the rates). After the well is permanently placed on

production, produced water will be collected in tanks (fiberglass) until pumped into this wellbore.

4. Well Site Layout:

A. The drill pad layout, will stay the same as previously approved in the original APD.

5. Plans for Restoration of the Surface:

A. Upon completion of the proposed operations, The pit, will be closed according to OCD's pit and below grade tank guidelines..

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. No oil will be left on the surface of the fluid in the pit.

6. Surface Ownership:

The well site and lease for the Blue Streak Federal #1 is located entirely on Federal surface. We have notified the surface lessee of the impending operations. According to BLM the leasee is Bogel Farms, Lewis Derrick, P.O. Box 441 Artesia, NM 88210.

7. Lessee's and Operator's Representative:

The COG Operating LLC representative responsible for assuring compliance with the surface use plan is as follows:

Jerry W. Sherrell
COG Operating LLC
P.O. Box 960
Artesia, NM 88211-0960
Phone (505) 748-1288 (office)

CERTIFICATION

I hereby certify that I, or person 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 COG Operating LLC and its contractors and subcontractors in conformity with this plan and the terms and conditions which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 11-14-06 Signed: Jerry W. Sherrell
Jerry W. Sherrell

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic.
Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.
The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

(1) Lined as specified above and

(2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be re-contoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

CONDITIONS OF APPROVAL - DRILLING

Well Name & No. 1-Blue Streak Federal
Operator's Name: COG Operating LLC
Location: 1980FSL, 0660FEL, Section 29, T-17-S, R-29-E
Lease: NM-14840

I. DRILLING OPERATIONS REQUIREMENTS:

NB! RE-ENTRY

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding - **Done**

B. Cementing casing: **11-3/4** inch **8-5/8** inch **5-1/2** inch **Casing existing.**

C. BOP tests

2. **H2S reported in range to the east in amounts ranging from 190-10,000 ppm in gas streams and 20-4000 ppm in STVs in the Grayburg Jackson, San Andres, Queen formations.**

II. CASING:

1. The **13-3/8** inch surface casing has been set at **344 feet and cement circulated to the surface.**

2. The fill of cement behind the **8-5/8** inch casing is **top of cement at 1620 feet.**

3. The fill of cement behind the **5-1/2** inch production casing is **a calculated TOC of 6689 feet.**

MIT required prior to perforating new zone to verify casing integrity.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling through the **5-1/2** inch casing and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling through the **5-1/2** inch casing shall be **3M** psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

Engineer on call phone: 505-706-2779

WWI 121306