

OCT 11 2011

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COG OPERATING LLC
MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Peashooter 4 Federal Com #1H
SHL: 380' FNL & 760' FWL
BHL: 330' FSL & 380' FWL
Section 4 T19S R32E
Lea 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 the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

- a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by John West Surveying Company.
- b. Exhibit 2 is a portion of a topo map showing the well and roads in the vicinity of the proposed location. The proposed wellsite and the access route to the location are indicated in red on Exhibit 2. Right of way using this proposed route is being requested if necessary.
- c. 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.

DIRECTIONS:

From the intersection of Co. Rd. #H126 (Maljamar Rd.) and Co. Rd. #H126 (Dry Lake Rd.) go north on Co. Rd. #H126 (Maljamar Rd.) approx. 1.8 miles. Turn right and go east approx. 0.9 miles. Turn left and go north approx. 0.4 miles. Turn right and go east approx. 0.2 miles. Turn left and go north approx. 0.25 miles. Turn left and go northwest approx. 300 feet to the existing Vahalla 4 Federal Com #1 well. Follow proposed road stakes northwest approx. 69 feet, then north approx. 317 feet, then northeast approx. 209 feet to this location.

PLANNED ACCESS ROAD:

COG will be using a proposed access road of 595' coming in from the west side of the pad.

2. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. In the event the well is found productive, the Peashooter 4 Federal Com #1H tank battery would be utilized and the necessary production equipment will be installed at the well site. See Exhibit #4.
- B. All flowlines will adhere to API standards
- C. If electricity is needed, power will be obtained from Central Valley Electric. Central Valley Electric will apply for ROW for their power lines.
- D. If the well is productive, rehabilitation plans are as follows:
 - i. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

3. LOCATION AND TYPES OF WATER SUPPLY:

This location will be drilled using a combination of water mud systems (outlined in the Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing and proposed roads shown in Exhibit #2. On occasion, water will be obtained from a pre-existing water well, running a pump directly to the drill rig. In these cases where a poly pipeline is used to transport water for drilling purposes, the existing and proposed road shown in Exhibit "2" will be utilized.

5. CONSTRUCTION MATERIALS:

All Caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit or from prevailing deposits found under the location. All roads will be constructed of 6" rolled and compacted caliche. Will use BLM recommended use of extra caliche from other locations close by for roads, if available.

6. METHODS OF HANDLING WASTE MATERIAL:

- a. All trash, junk and other waste material will be removed from the wellsite within 30 days after finishing drilling and/or completion operations. All waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed, all contents will be removed and disposed of in an approved sanitary landfill.
- b. The supplier, including broken sacks, will pick up slats remaining after completion of well.
- c. A porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- d. Disposal of fluids to be transported by an approved disposal company.

6. ANCILLARY FACILITIES:

No campsite or other facilities will be constructed as a result of this well.

7. WELLSITE LAYOUT:

- a. Exhibit 1 shows the proposed well site layout with dimensions of the pad layout.
- b. This exhibit indicates proposed location of reserve and sump pits if utilized and living facilities.

- c. Mud pits in the active circulating system will be steel pits and a closed loop system will be utilized.

8. PLANS FOR SURFACE RECLAMATION:

- a. After finishing drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original top soil will again be returned to the pad and contoured, as close as possible, to the original state.
- b. The location and road will be rehabilitated as recommended by the BLM.
- c. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

9. SURFACE OWNERSHIP:

The surface is owned by the US Government and is administered by the Bureau of Land Management. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas. The proposed road routes and the surface location will be restored as directed by the BLM.

10. OTHER INFORMATION:

- a. The area surrounding the well site is grassland. The vegetation is moderately sparse with native prairie grass and mesquite bushes. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- b. There is no permanent or live water in the general proximity of the location.
- c. If the well is deemed commercially productive, caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography. Reserve pit will not be used on this location therefore no reclamation is needed.
- d. Topsoil will be stockpiled on the EAST SIDE of the location until it is needed for interim reclamation described in paragraph above.

12. OPERATOR'S REPRESENTATIVE:

A. Through A.P.D. Approval:

Rand French, Regulatory Supervisor
COG Operating LLC
Artesia, NM 88210
Phone (575)748-6940
Cell (432) 254-5556

B. Through Drilling Operations

Sheryl Baker, Drilling Supervisor
COG Operating LLC
Artesia, NM 88210
Phone (575)748-6940
Cell (432)934-7873

HOBBS OCD

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CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which 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 COG Operating LLC and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

8/4/11
Date

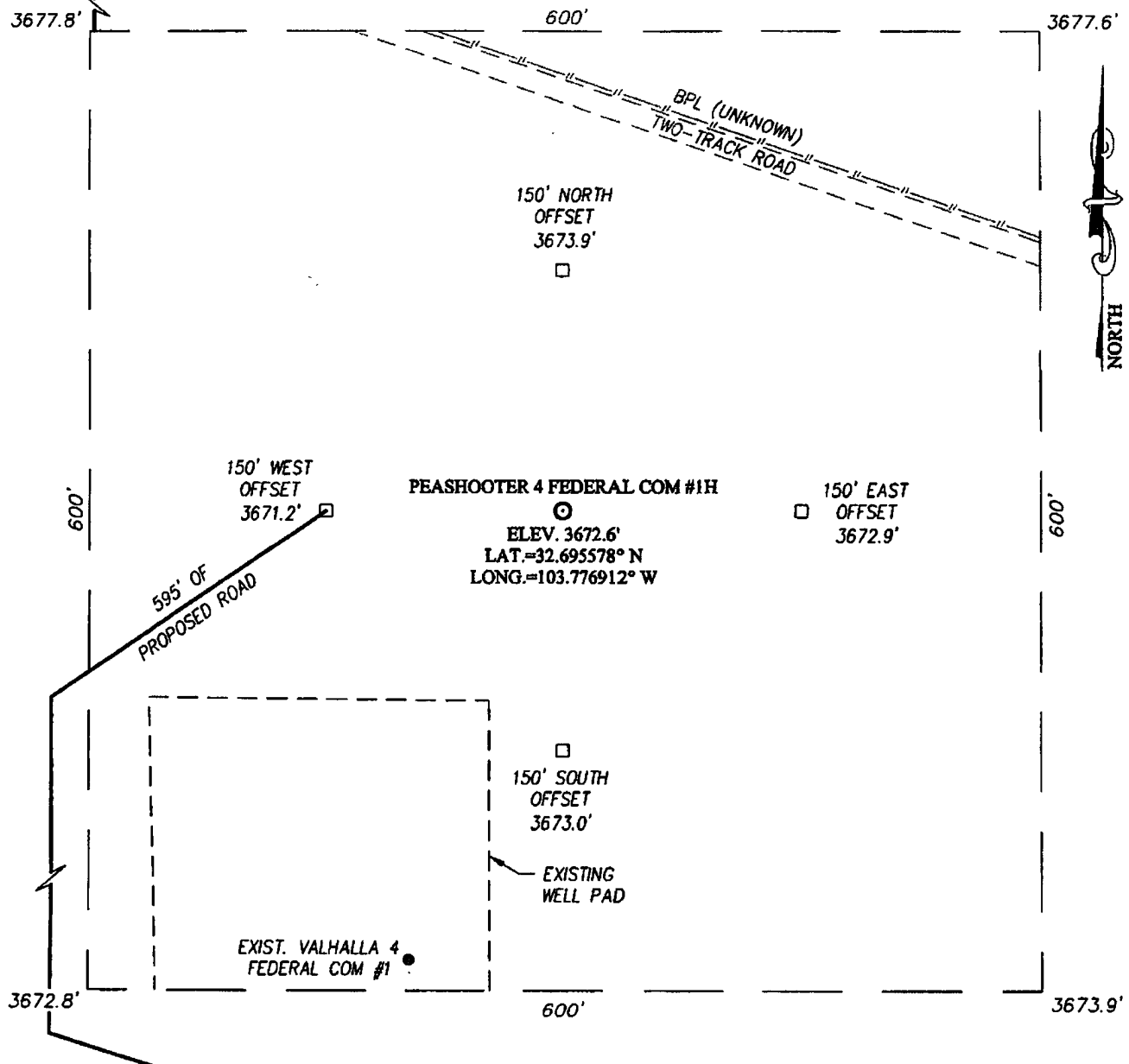
COG OPERATING LLC


Rand French
Regulatory Supervisor

SECTION 4, TOWNSHIP 19 SOUTH, RANGE 32 EAST, N.M.P.M.

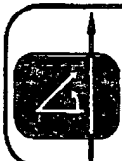
LEA COUNTY

NEW MEXICO

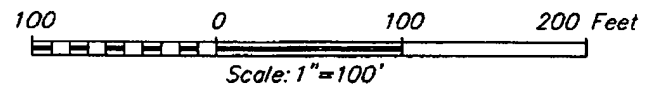


DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. #H126 (MALJAMAR RD.) AND CO. RD. #H126 (DRY LAKE RD.), GO NORTH ON CO. RD. #H126 (MALJAMAR RD.) APPROX. 1.8 MILES. TURN RIGHT AND GO EAST APPROX. 0.9 MILES. TURN LEFT AND GO NORTH APPROX. 0.4 MILES. TURN RIGHT AND GO EAST APPROX. 0.2 MILES. TURN LEFT AND GO NORTH APPROX. 0.25 MILES. TURN LEFT AND GO NORTHWEST APPROX. 300 FEET TO THE EXISTING VALHALLA 4 FEDERAL COM #1 WELL. FOLLOW PROPOSED ROAD STAKES NORTHWEST APPROX. 69 FEET, THEN NORTH APPROX. 317 FEET, THEN NORTHEAST APPROX. 209 FEET TO THIS LOCATION.



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

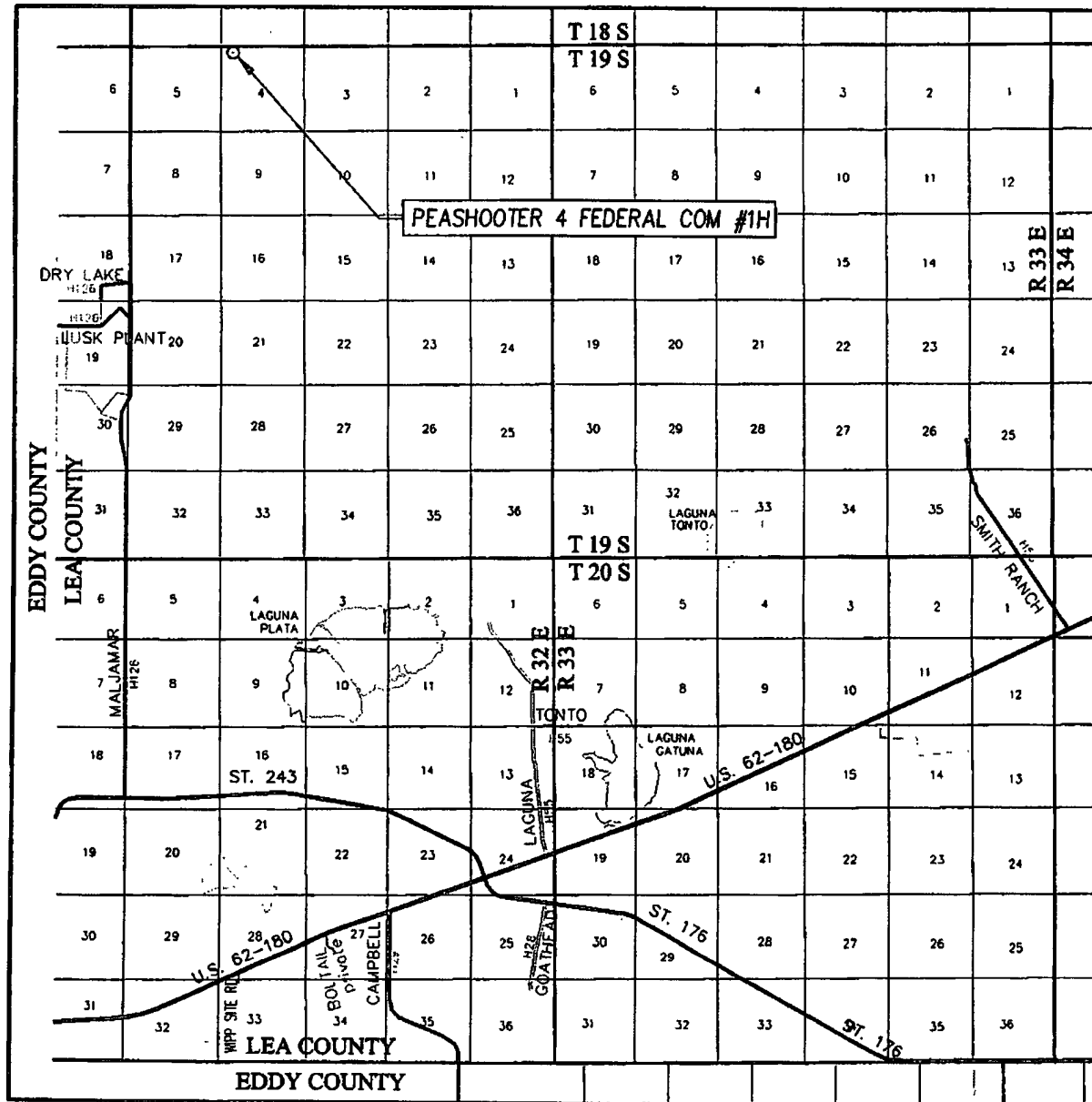


COG OPERATING, LLC

PEASHOOTER 4 FEDERAL COM #1H WELL
LOCATED 380 FEET FROM THE NORTH LINE
AND 760 FEET FROM THE WEST LINE OF SECTION 4,
TOWNSHIP 19 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

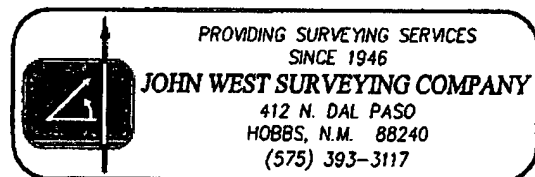
Survey Date: 7/7/11	Sheet 1 of 1 Sheets
W.O. Number: 11.11.1451	Dr. By: DSS
Date: 7/13/11	Rev 1:
Rel. W.O.:	11111451
	Scale: 1"=100'

VICINITY MAP

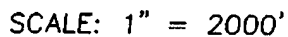


SCALE: 1" = 2 MILES

SEC. 4 TWP. 19-S RGE. 32-E
 SURVEY N.M.P.M.
 COUNTY LEA STATE NEW MEXICO
 DESCRIPTION 380' FNL & 760' FWL
 ELEVATION 3673'
 OPERATOR COG OPERATING, LLC
 LEASE PEASHOOTER 4 FEDERAL COM



NORTH



CONTOUR INTERVAL:
GREENWOOD LAKE, N.M. - 10'

SEC. 4 TWP. 19-S RGE. 32-E

SURVEY_____ N.M.P.M.

COUNTY LEA STATE NEW MEXICO

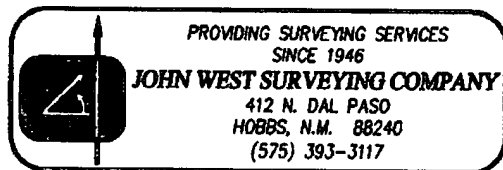
DESCRIPTION 380' FNL & 760' FWL

ELEVATION..... 3673'

OPERATOR COG OPERATING, LLC

LEASE PEASHOOTER 4 FEDERAL COM

U.S.G.S. TOPOGRAPHIC MAP
GREENWOOD LAKE, N.M.



Peashooter 4 Federal Com #1H
Sec4-19S-32E Unit Letter "D"

GREENWOOD NE.

19 32

LUCK

EAST LUCK

S Lusk 33 Fed

BOB (OPER.)
SEV. RIV'S UNIT

"Dorothy McKay Fed"

19 32

CIMAREX (OPER)
LUCK WEST (DEL) UNIT

EAST LUCK

"SE Lusk 33 Fed"

BOB (OPER.)
SEV. RIV'S UNIT

"Dorothy McKay Fed"

19 32

CIMAREX (OPER)
LUCK WEST (DEL) UNIT

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