

## Devon Energy Corporation 20 North Broadway Oklahoma City, Oklahoma 73102-8260

# Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan

For

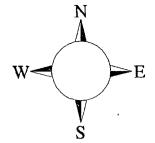
Softshell "22" Federal 1H

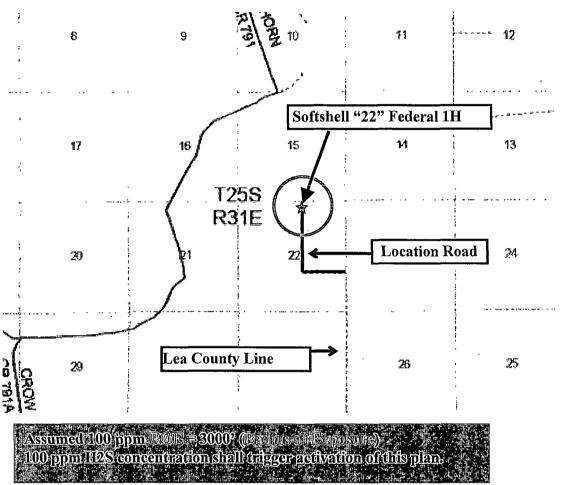
LAT. = 32.1221919° N (NAD83) LONG = 103.7627012°"W 330'FNL & 1660' FEL, Sec-22, T-25S R-31E

**Eddy County NM** 

#### Softshell "22" Federal 1H

This is an open drilling site. H<sub>2</sub>S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H<sub>2</sub>S, including warning signs, wind indicators and H<sub>2</sub>S monitor.





#### Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated by traveling .5 miles south on access road. Crews should then block entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. Evacuation should continue if necessary East .3 miles then South on lease road approximately to Orla Rd (CR 1). There are no homes or buildings in the ROE.

Assumed 100 ppm ROE = 3000'
100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

#### **Emergency Procedures**

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
  - o Detection of H<sub>2</sub>S, and
  - Measures for protection against the gas,
  - o Equipment used for protection and emergency response.

#### **Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

#### Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

#### **Contacting Authorities**

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

#### Devon Energy Corp. Company Call List

Artesia (575)	Cellular	Office	<u>Home</u>
Foreman – Robert Bell	748-7448	748-0178	746-2991
Asst. Foreman –Tommy Poll			
Don Mayberry	748-5235	748-0164	746-4945
Montral Walker	390-5182	748-0193	936-414-6246
Engineer - Marcos Ortiz(	405) 317-0666	.(405) 552-8152	(405) 381-4350

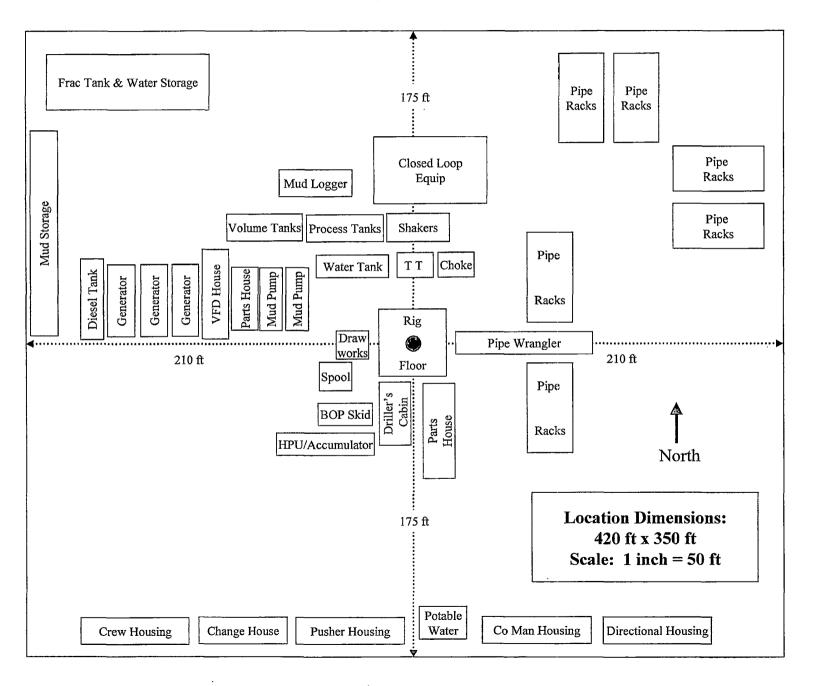
### **Agency Call List**

Lea	Hobbs						
County	State Police						
(575)	City Police						
10.101	Sheriff's Office						
	Ambulance 911						
	Fire Department						
	LEPC (Local Emergency Planning Committee)						
	NMOCD						
	US Bureau of Land Management						
Eddy	Carlsbad						
County	State Police						
(575)	City Police						
<del></del>	Sheriff's Office						
	Ambulance911						
	Fire Department						
	LEPC (Local Emergency Planning Committee) 887-3798						
	US Bureau of Land Management						
	New Mexico Emergency Response Commission (Santa Fe) (505)476-9600 24 HR						
	National Emergency Response Center (Washington, DC) (800) 424						
	reational Emergency response Center (washington, DC) (800) 424	-0002					
	Emergency Services						
	Boots & Coots IWC1-800-256-9688 or (281) 93	1-8884					
	Cudd Pressure Control(915) 699-0139 or (915) 56	3-3356					
	Halliburton(575) 746-2757						
	B. J. Services(575) 746-3569						
Give	Flight For Life - Lubbock, TX(806) 743	-9911					
GPS	Aerocare - Lubbock, TX(806) 747						
position:	Med Flight Air Amb - Albuquerque, NM(575) 842						
•	Lifeguard Air Med Svc. Albuquerque, NM (575) 272						

Prepared in conjunction with Wade Rohloff



# H&P Flex Rig Location Layout



#### SURFACE USE PLAN

Devon Energy Production Company, LP Softshell 22 Federal 1H

Surface Location: 330' FNL & 1660' FEL, Unit B, Sec 22 T25S R31E, Eddy, NM Bottom Hole Location: 330' FSL & 1660' FEL, Unit O, Sec 22 T25S R31E, Eddy, NM

#### 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 Madron Surveying, Inc.
- b. All roads into the location are depicted on Exhibit 3.
- c. Directions to Location: From the junction of Hwy 128 and Orla, go south on CR #1 10.0 miles turn right on caliche road (Ross Lane) and go west 4.8 miles turn right and go north 3.3 miles turn left and go west 0.3 miles to a proposed road survey, follow flags north 2961' to the SW pad corner.

#### 2. New or Reconstructed Access Roads:

- a. The well site layout, Form C-102 shows the existing County road. Approximately 2961' of new access road will be constructed as follows. The maximum width of the road will be 15'. It will be crowned and made of 6" rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
- b. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
- c. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

#### 3. Location of Existing Wells:

One Mile Radius Plat shows all existing and proposed wells within a one-mile radius of the proposed location. See attached plat.

#### 4. Location of Existing and/or Proposed Production Facilities:

- a. In the event the well is found productive, a tank battery will be utilized and the necessary production equipment will be installed at the well site. See Production Facilities Layout diagram.
- b. If necessary, the well will be operated by means of an electric prime mover. Electric power poles will be set along side of the access road.
- c. All flow lines will adhere to API standards.
- 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

#### 5. 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 the C-102. 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, proper authorizations will be secured. If a poly pipeline is used, the size, distance, and map showing route will be provided to the BLM via sundry notice.

#### 6. Construction Materials:

The caliche utilized for the drilling pad and proposed access road will be from minerals that are located onsite or will be used onsite. If minerals are not available onsite, then an established mineral pit will be used to build the location and stem road.

#### 7. Methods of Handling Waste Material:

- a. Drill cuttings will be disposed.
- b. All trash, junk and other 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.
- The supplier, including broken sacks, will pick up salts remaining after completion of well.
   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 the following companies:
  - i. American Production Service Inc, Odessa TX
  - ii. Gandy Corporation, Lovington NM
  - iii. I & W Inc, Loco Hill NM
  - iv. Jims Water Service of Co Inc, Denver CO
- 8. Ancillary Facilities: No campsite or other facilities will be constructed as a result of this well.

#### 9. Well Site Layout

- a. Exhibit D shows the proposed well site layout with dimensions of the pad layout.
- b. This exhibit indicated proposed location of sump pits and living facilities.
- c. Mud pits in the active circulating system will be steel pits.
- d. A closed loop system will be utilized.
- e. If a pit or closed loop system is utilized, Devon will comply with the NMOCD requirements 19.15.17 and submit form C-144 to the appropriate NMOCD District Office. A copy to be provided to the BLM.

#### 10. Plans for Surface Reclamation:

- a. After concluding the 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 topography.
- b. The location and road will be rehabilitated as recommended by the BLM.
- 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.

#### 11. Surface Ownership

- a. 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.
- b. The proposed road routes and the surface location will be restored as directed by the BLM.

#### 12. Other Information:

- a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sage bush, yucca and miscellaneous weeds. 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. There are no dwellings within 2 miles of location.
- d. A Cultural Resources Examination will be completed by the Permian Basin Cultural Resource Fund in lieu of being required to conduct a Class III Survey for cultural resources associated with their project within the BLM office in Carlsbad, New Mexico.

#### 13. Bond Coverage:

Bond Coverage is Nationwide; Bond # is CO-1104

#### **Operators Representative:**

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

Jim Cromer - Operations Engineer Advisor Devon Energy Production Company, L.P. 20 North Broadway Oklahoma City, OK 73102-8260 (405) 228-4464 (office) (405) 694-7718 (Cellular) Don Mayberry - Superintendent Devon Energy Production Company, L.P. Post Office Box 250 Artesia, NM 88211-0250 (575) 748-3371 (office) (575) 746-4945 (home)



# Proposed Interim Site Reclamation

Devon Energy Production Co.

Softshell 22 Fed #1H

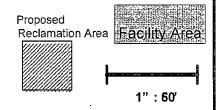
330' FNL & 1660' FEL

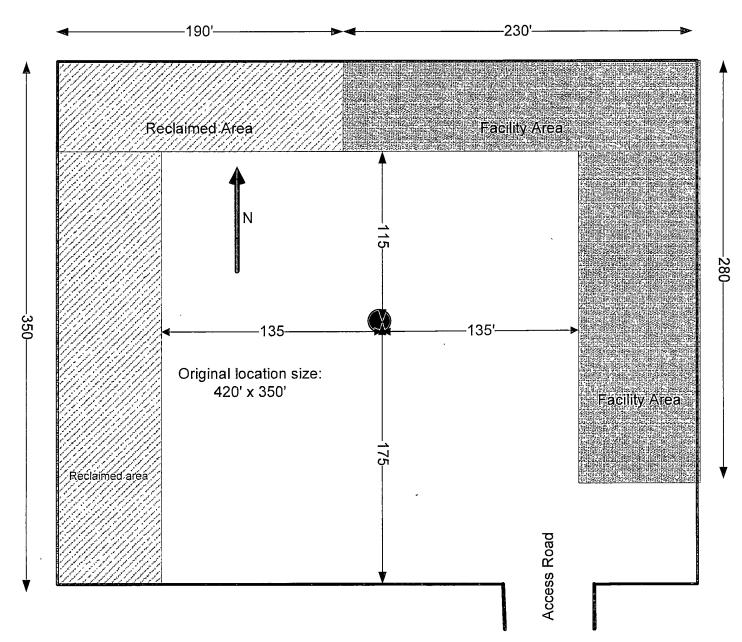
Sec. 22 T25S R31E

Eddy County,

NM

Dimensions are approximate





#### Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or Devon Energy Production Company, L.P. am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

I hereby also certify that I, or Devon Energy Production Company, L.P. have made a good faith effort to provide the surface owner with a copy of the Surface Use Plan of Operations and any Conditions of Approval that are attached to the APD.

Executed this \_9th\_\_\_ day of \_\_May, 2011.

Printed Name: Judy A. Barnett

Signed Name:
Position Title: Regulatory Specialist

Address: 20 North Broadway, OKC OK 73102

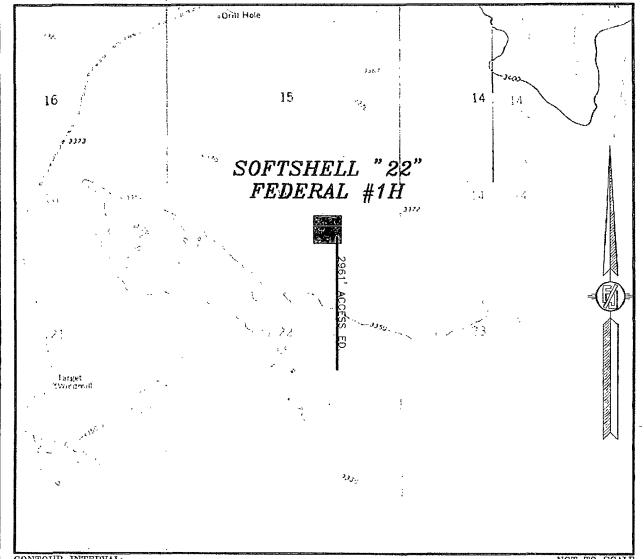
Telephone: (405)-228-8699

Field Representative (if not above signatory):

Address (if different from above): Telephone (if different from above):



# VERIFICATION MAP



CONTOUR INTERVAL: PHANTOM BANKS

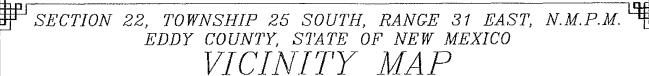
NOT TO SCALE

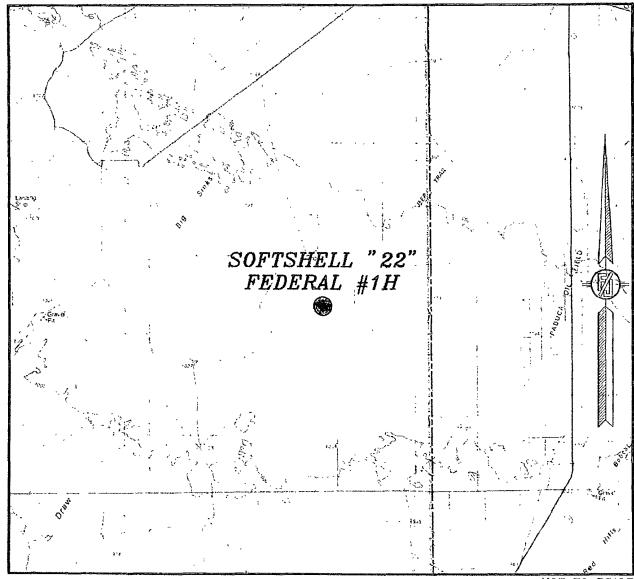
DEVON ENERGY PRODUCTION COMPANY, L.P. SOFTSHELL "22" FEDERAL #1H LOCATED 330 FT. FROM THE NORTH LINE AND 1660 FT. FROM THE EAST LINE OF SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

MARCH 17, 2011

SURVEY NO. 413

MADRON SURVEYING, INC. (5/5) BB7 5550 CARLSBAD, NEW MEXICO





NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

SOFTSHELL "22" FEDERAL #1H

LOCATED 330 FT. FROM THE NORTH LINE

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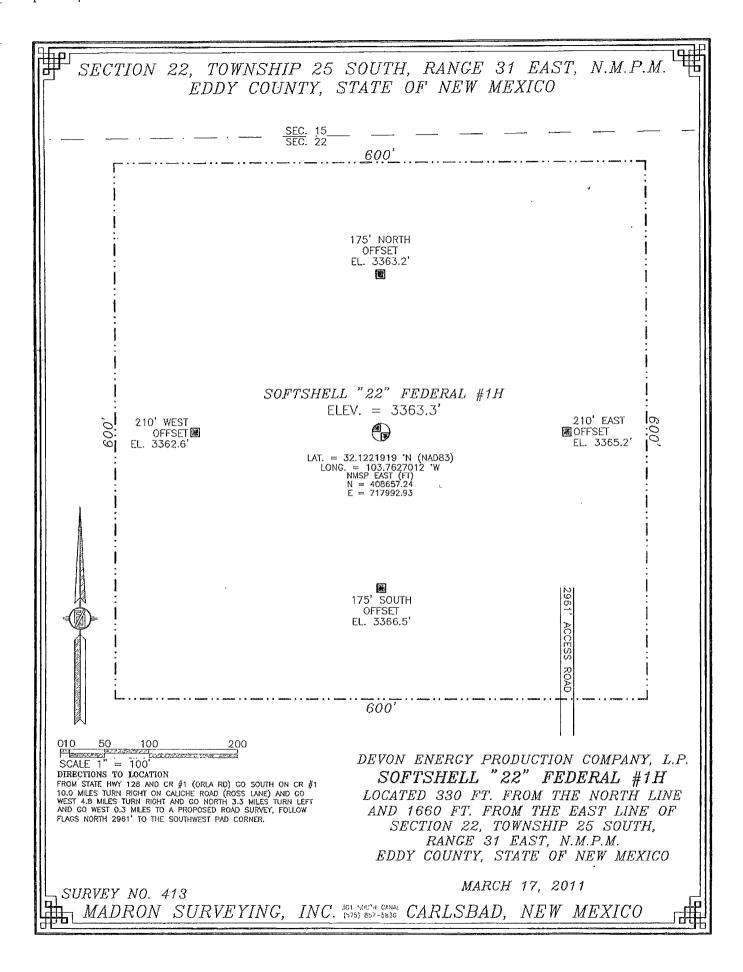
RANGE 31 EAST, N.M.P.M.

EDDY COUNTY, STATE OF NEW MEXICO

MARCH 17, 2011

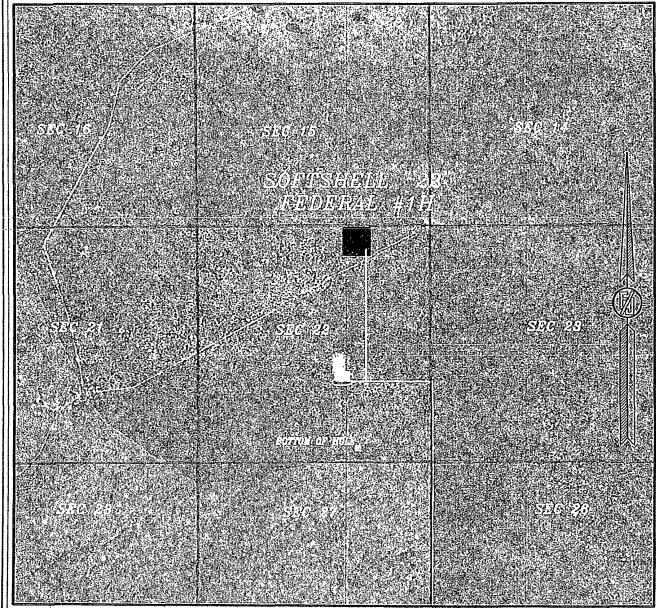
SURVEY NO. 413

MADRON SURVEYING, INC. (575) 857-2815 CARLSBAD, NEW MEXICO



# SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

## *AERIAL PHOTO*



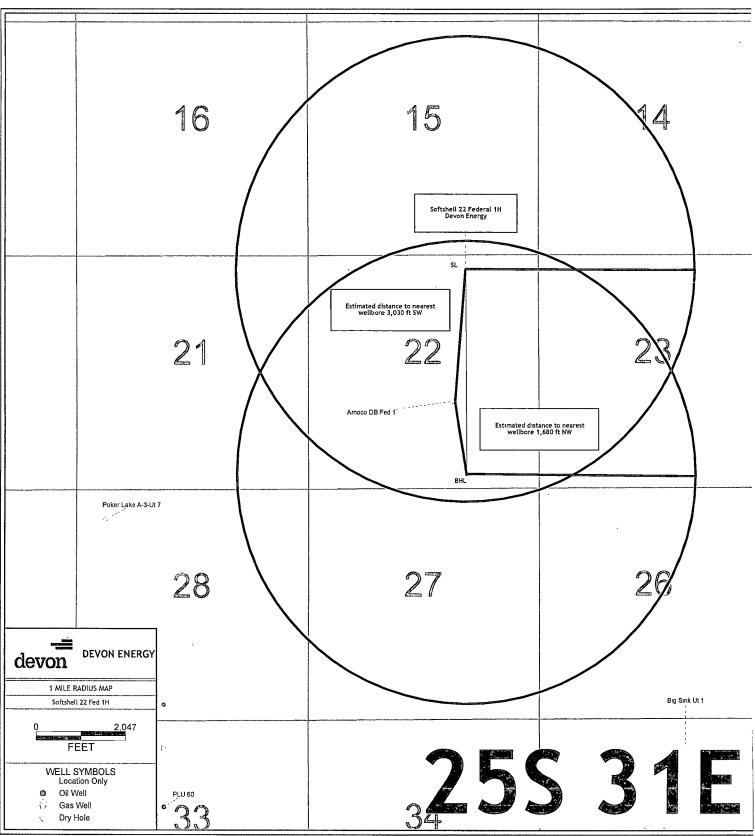
NOT TO SCALE AERIAL PHOTO: GOOGLE EARTH USDA - AUG, 2009 DEVON ENERGY PRODUCTION COMPANY, L.P. SOFTSHELL "22" FEDERAL #1H LOCATED 330 FT. FROM THE NORTH LINE AND 1660 FT. FROM THE EAST LINE OF SECTION 22, TOWNSHIP 25 SOUTH. RANGE 31 EAST, N.M.P.M.

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