

Well Permitting & Approvals

Thomas Donohue, PG



Authority?

Most of our authority comes from:

- Act 223 Pennsylvania's Oil and Gas Act
- Act 214 Coal and Gas Resource Coordination Act
- Act 359 Oil and Gas Conservation Law
- Act 394 The Clean Streams Law



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL & GAS MANAGEMENT PROGRAM

DEP USE ONLY	
AUTH #	
Check #	Amount \$

PERMIT APPLICATION FOR DRILLING OR ALTERING A WELL

Notes		DEP USE ONLY	
OGO #	Bond #	Objection Date - Do not issue before:	Well Permit #
C: G:	INV:	Date Approved:	Special Cond. A B C D E F
			Watershed Name: Designation: HQ EV

Please read instructions before you begin filling in this form.

Applicant (Operator) Name		DEP Client ID#	Phone	FAX	Check if new address. <input type="checkbox"/>
Mailing Address (Street or PO Box)		City	State	Zip +4	Country (if not USA)
(Well) Farm Name	Well #	Serial #	PERMIT TYPE Check applicable. Application is to: <input type="checkbox"/> Drill a new well <input type="checkbox"/> Deepen a well <input type="checkbox"/> Redrill a well <input type="checkbox"/> Alter a well <input type="checkbox"/> E&S Control Module <input type="checkbox"/> Other (specify)	TYPE OF WELL Check one. <input type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Comb. (gas & oil) <input type="checkbox"/> Injection, recovery <input type="checkbox"/> Injection, disposal <input type="checkbox"/> Coalbed Methane <input type="checkbox"/> Gas Storage <input type="checkbox"/> Other (specify)	APPLICATION FEE Check applicable. <input type="checkbox"/> Marcellus Well: Non-Vertical <input type="checkbox"/> Marcellus Well: Vertical <input type="checkbox"/> Non-Marcellus Well: Non-Vertical <input type="checkbox"/> Non-Marcellus Well: Vertical <input type="checkbox"/> \$200 (Home Use Well) <input type="checkbox"/> \$500 E&S Fee <input type="checkbox"/> \$ 0 (Rehab orphan) <input type="checkbox"/> Vertical: Length _____ ft. <input type="checkbox"/> Marcellus: Length _____ ft. <input type="checkbox"/> Non-Vertical: Length _____ ft. Total Application Fee \$ _____
County	Municipality	Project # (from DEP)			
If you are applying for a permit to redrill, drill deeper, or alter a well that was previously permitted or registered, or for a well site that was previously permitted but not drilled , check this box <input type="checkbox"/> and enter the permit or registration number here:					
If applying for a permit to rework an existing well not registered or permitted, check this box <input type="checkbox"/> and enter date drilled, if known: _____ (see instructions)					
PNDI Attached: <input type="checkbox"/> Any "hit" must include accepted mitigation plan from applicable agency.					
COORDINATION WITH REGULATIONS AND OTHER PERMITS					DEP USE ONLY
1. Will the well be subject to the Oil and Gas Conservation Law? If "No," go to 2).					Date Stamps/Notes

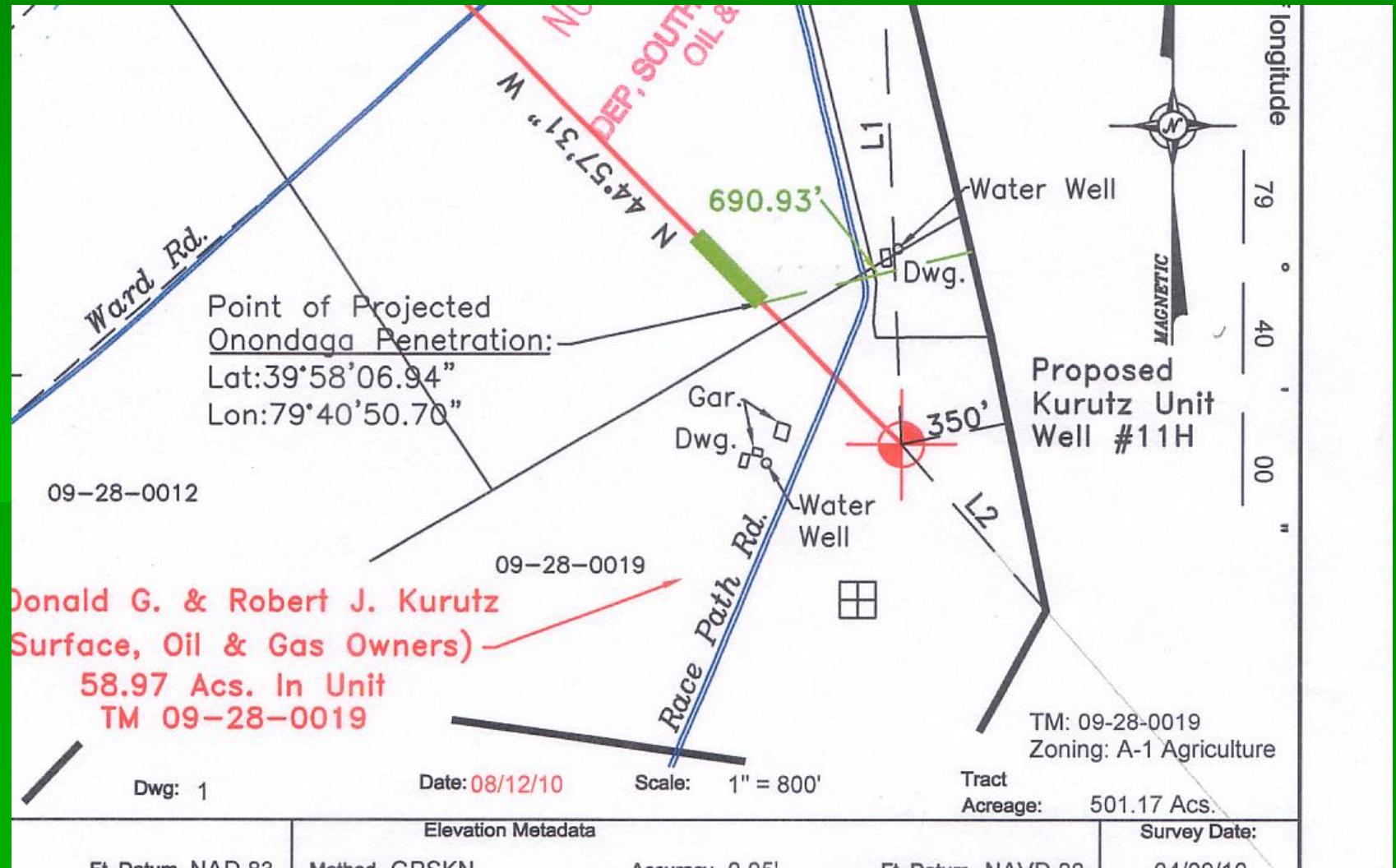
FEE CALCULATOR:

<http://www.dep.state.pa.us/dep/deputate/minres/oilgas/2011Permitcalculator.htm>

a. If "No," is the required exception request attached? (Check here if re-working an existing well: ☐ N/A)

☐ ☐ Acct

- a. If “Yes” to #1, is the well at least 330 feet from outside lease or unit boundary?
- b. Does the location fall within an area covered by a spacing order?

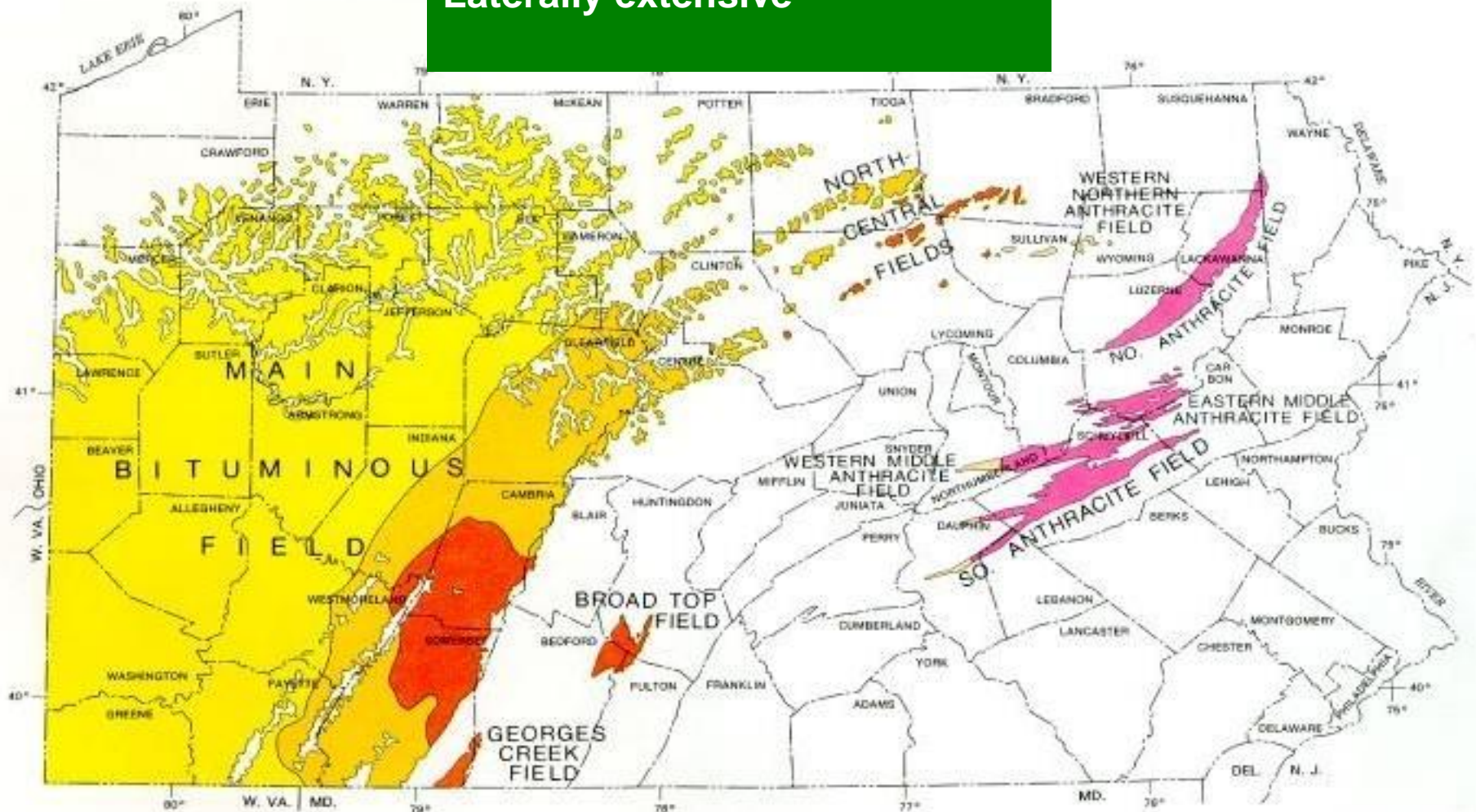


2. Will the well penetrate a **workable coal seam**? If “No,” include justification and supporting documentation.

>28 in. thick

>100 ft. from the surface

Laterally extensive



3. If the well will penetrate a **workable coal seam**, and the well is a “non-conservation” gas well, does the location comply with the distance requirements of Section 7 of the Coal and Gas Resource Coordination Act? (At least 1,000 feet from all existing wells).

a. If “No,” is the required exception request attached? (Check here if re-working an existing well: ___ N/A)



If well is ≥ 900 ft & ≤ 1000 ft from another well:

- need signed request by operator and signed acknowledgement by coal owner(s)

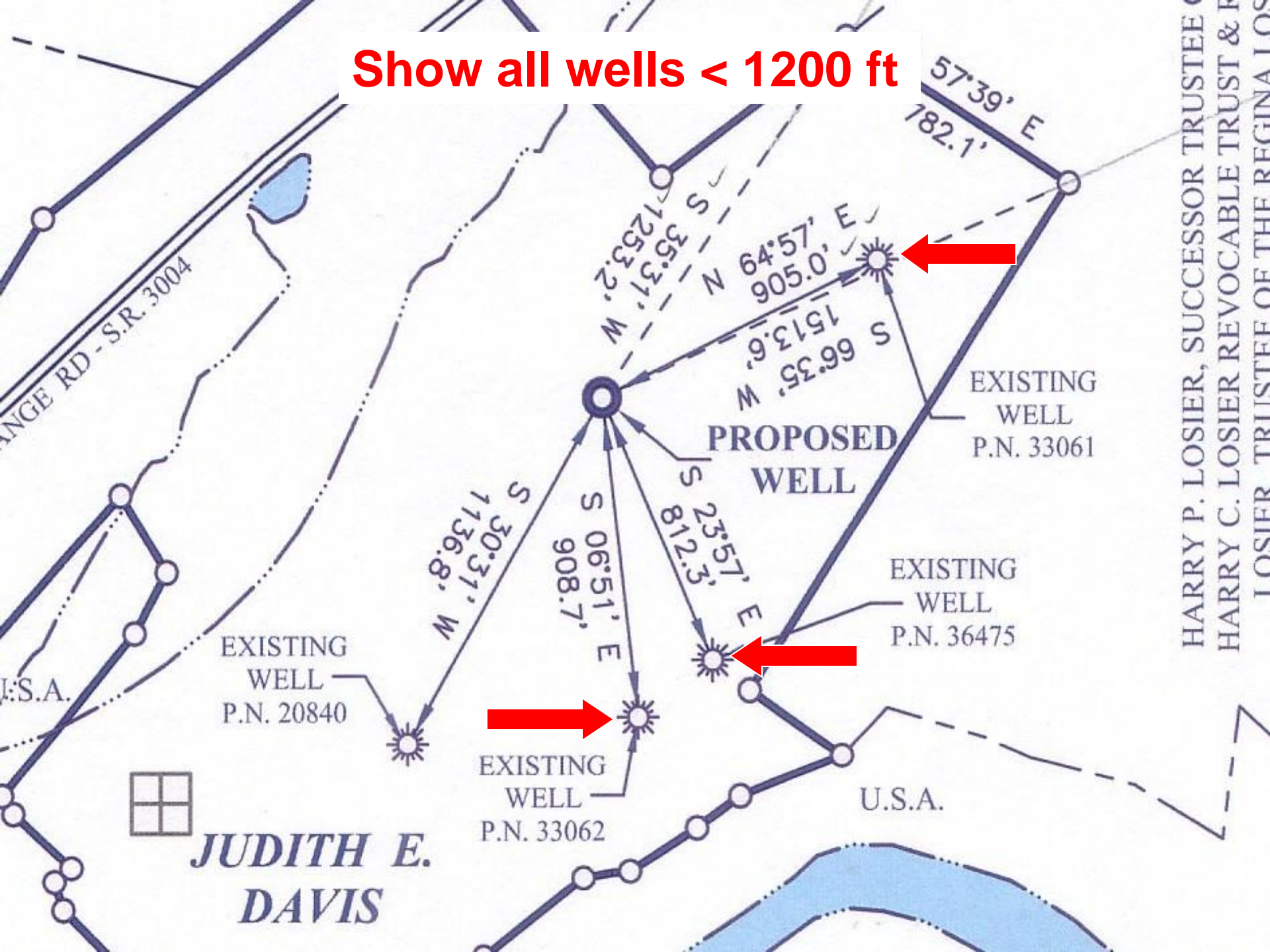


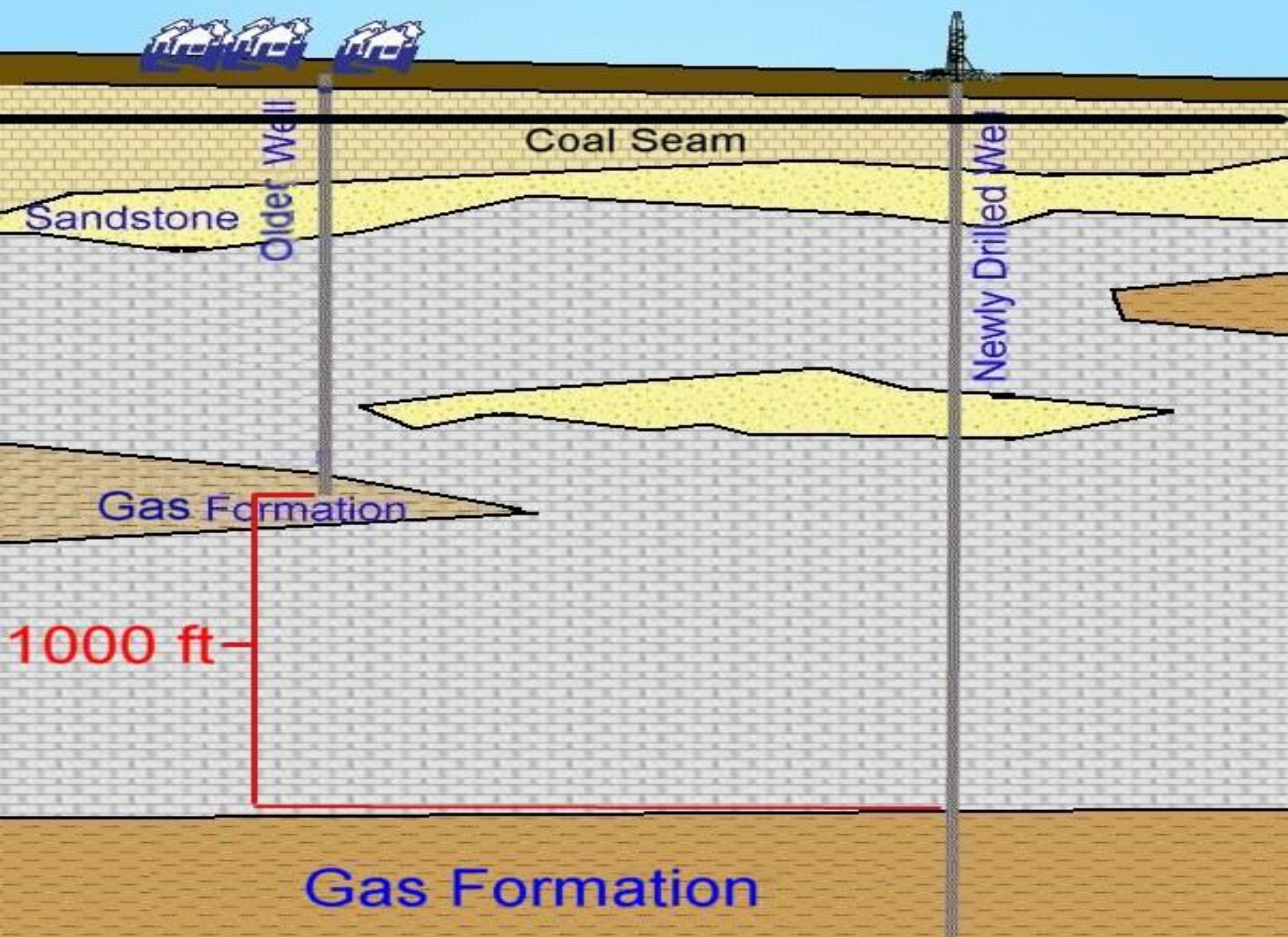
If well is < 900 ft from another well:

- need signed request by operator and signed acknowledgement by coal owner(s)
- + well record and completion report(s) (need elevation, producing intervals).



Show all wells < 1200 ft





4. Will the well be drilled at a location where the **coal** has been removed?

Mine must be permanently sealed if drilling through a void



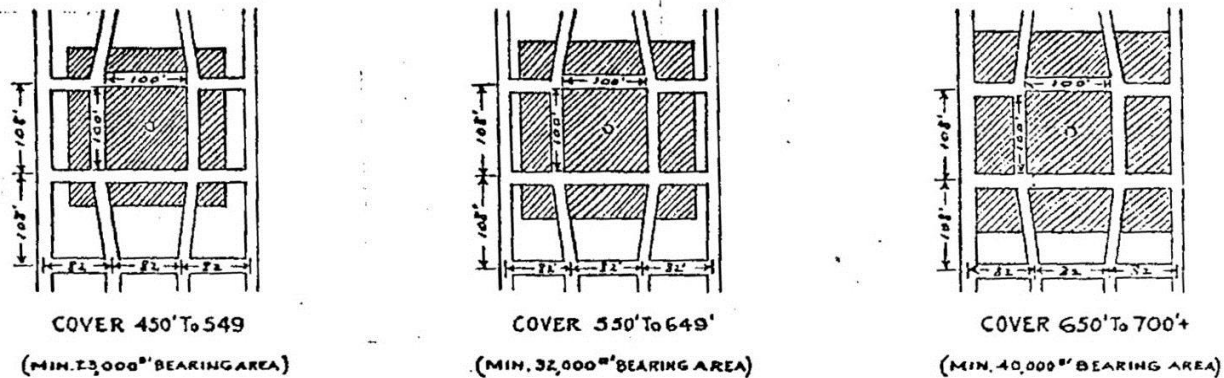
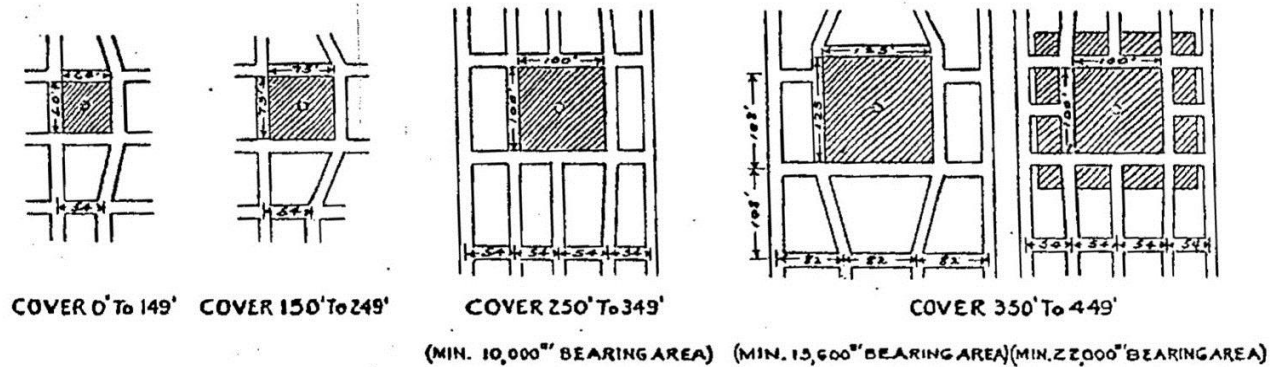
5. Will the well be drilled through an **active (operating or projected) coalmine**, or within 1,000 feet of the boundary?

a. If "Yes," print the names of: Mine:

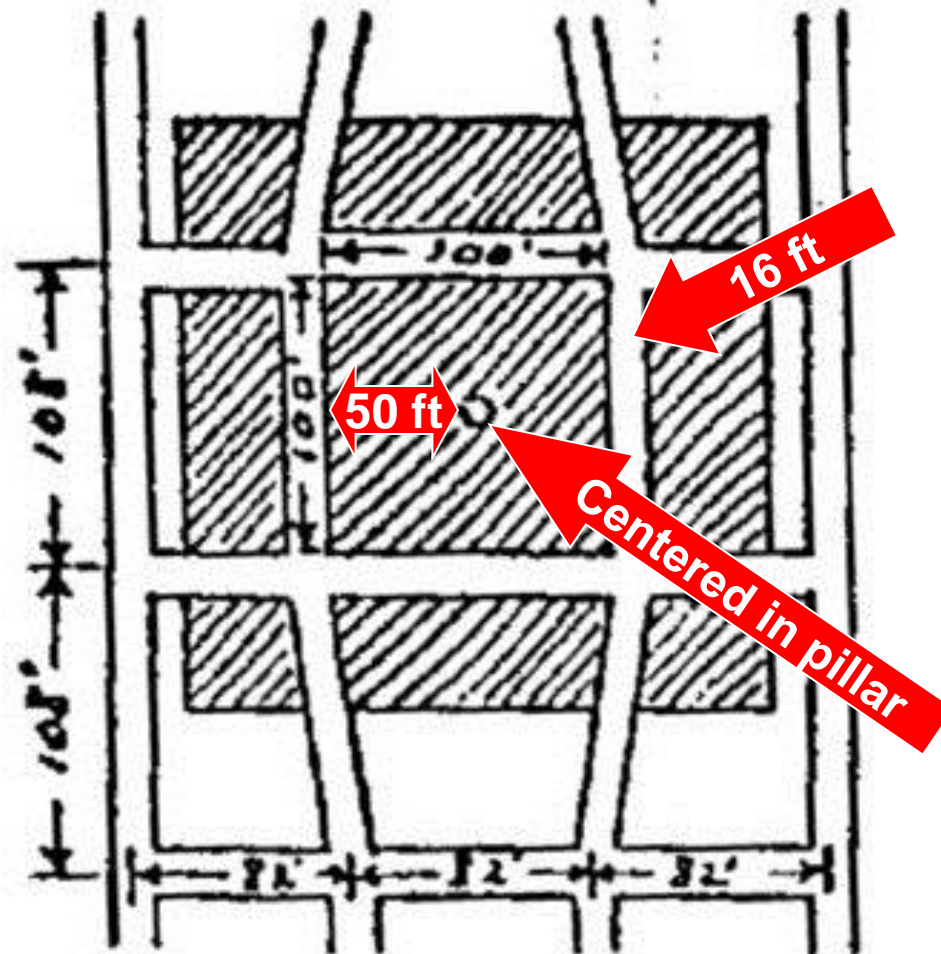
Operator:



JOINT COAL AND GAS COMMITTEE
GAS WELL PILLAR STUDY
EXAMPLES OF PILLAR PLANS FOR VARIOUS DEPTHS OF COVER



NOTE:
NO PLACE TO EXCEED 15' IN WIDTH.
PILLARS TO BE A MINIMUM OF TWICE THE
WIDTH OF THE EXCAVATION DRIVEN.
SCALE 1 INCH = 200 FEET



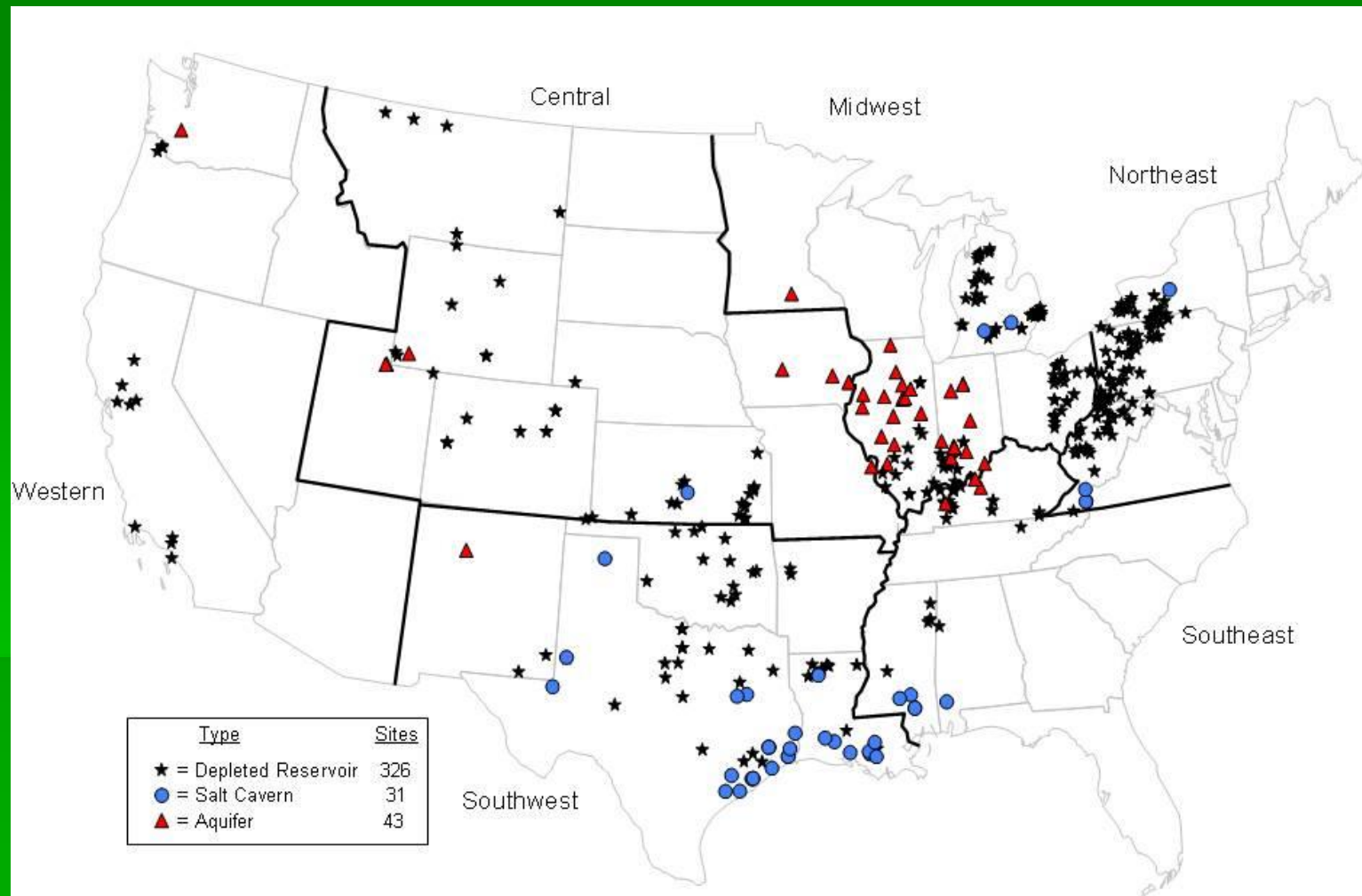
COVER 550' To 649'

(MIN. 32,000^{sq}' BEARING AREA)

6. Will the well penetrate or be within 2,000 feet of an active **gas storage reservoir** boundary?

a. If Yes, print the names of: Storage Field:

Operator:



Source: Energy Information Administration, Office of Oil & Gas, Natural Gas Division Gas, Gas Transportation Information System, December 2008.

7. Is the proposed well location within the permitted area of a **landfill**?



8. Will the well site be within 100 feet (measured horizontally) of a **stream, spring or body of water** identified on the most current 7½' topographic map?

a. If “Yes,” is a request for a waiver (form 5500-FM-OG0057), and E&S control plan attached?



9. Will the well site be within 100 feet of a **wetland** or in a **wetland**?

a. Is the well site within 100 feet of a wetland greater than one acre in size?

If yes, is a waiver request (form 5500-FM-OG0057) and E&S control plan attached?

Waivers & E&S Plans for streams, springs, bodies of water & wetlands
to be approved by Water Quality Specialist



10. Will the well be drilled within 200 feet (horizontally) from any existing **building** or an existing **water supply**?

a. If “Yes,” is written consent from the owner attached?

b. If written consent is not attached, is a variance request (form 5500-FM-OG0058) attached?





COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL & GAS MANAGEMENT PROGRAM

Farm Name - Well #

Applicant Name

DEP ID#

DEP USE
ONLY

APS #

PERMIT APPLICATION FOR DRILLING OR ALTERING A WELL

Page 2 --- Record of Notification / Written Consent

List the following: surface landowner; all landowners or water purveyors whose water supplies are within 1,000 feet of this proposed well location; gas storage operator if within 2000 feet; all coal owners and lessees of all underlying workable coal seams; operators of underground coal mines at the proposed location; and coal operators with a deep mine within 1,000 feet. Mark the boxes, "X," which show the parties' interests. Use additional forms if you need more space. You are required to notify each of these parties.

Name:	Address:	Surface Landowner	Coal Owner	Coal Lessee	Coal Mine Operator	Gas Storage Operator	Within 1,000 feet			Notification Note the means and attach proof.			
							Surf Owner with Water	Water Purveyor	Coal Mine Operator	Certified Mail Dates		Address Affidavit	Written Consent
										Sent	Return Receipt		
Name:	Address:												
Name:	Address:												
Name:	Address:												
Name:	Address:												
Name:	Address:												
Name:	Address:												
Name:	Address:												

Optional: Signature below indicates the party's approval of the well location, and waives the 15-day objection period. Check applicable box.

<input type="checkbox"/> Water Purveyor or <input type="checkbox"/> Landowner with water supply within 1,000 ft.	Date	Coal <input type="checkbox"/> Operator, <input type="checkbox"/> Owner, or <input type="checkbox"/> Lessee	Date	Signature below indicates written consent. Check applicable box.	Owner of: <input type="checkbox"/> water supply, or <input type="checkbox"/> building within 200 feet	Date
<input type="checkbox"/> Water Purveyor or <input type="checkbox"/> Landowner with water supply within 1,000 ft.	Date	Coal <input type="checkbox"/> Operator, <input type="checkbox"/> Owner, or <input type="checkbox"/> Lessee	Date		Address (of above)	Date
<input type="checkbox"/> Water Purveyor or <input type="checkbox"/> Landowner with water supply within 1,000 ft.	Date	Coal <input type="checkbox"/> Operator, <input type="checkbox"/> Owner, or <input type="checkbox"/> Lessee	Date			
<input type="checkbox"/> Water Purveyor or <input type="checkbox"/> Landowner with water supply within 1,000 ft.	Date	Coal <input type="checkbox"/> Operator, <input type="checkbox"/> Owner, or <input type="checkbox"/> Lessee	Date	Owner of: <input type="checkbox"/> water supply, or <input type="checkbox"/> building within 200 feet	Date	
Surface Landowner at proposed location	Date	Coal Operator within 1,000 feet of proposed location	Date	Address (of above)		
Surface Landowner at proposed location	Date	Gas Storage Operator within 2,000 feet	Date			

11. Will the well be located where it may impact a public resource as outlined in the “**Coordination of a Well Location with Public Resources**” form 5500-PM-OG0076? If yes, attach a completed copy of the form.

Submit this form if the site will impact any of the following:

- Publicly owned parks, forests, gamelands & wildlife areas
- National or State scenic rivers
- National natural landmarks
- Habitats of rare & endangered flora & fauna & other critical communities
- Historical & archaeological sites listed on the Federal or State list of historic places

12. Is the well site in a **Special Protection High Quality (HQ)** or **Exceptional Value (EV)** watershed?

5500-FM-OG0001A Rev. 11/2007



COMMONWEALTH OF PENNSYLVANIA
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OIL AND GAS MANAGEMENT PROGRAM

WELL PERMIT

DEP USE ONLY	
Permittee's eFACTS ID 2181	Auth ID NC-845607
Watershed Name BEAVER RUN RESERVOIR	Quality HQ

MARCELLUS

Permittee CONSOL GAS CO	OGO.# OGO-33918	Permit Number 37-129-28430	Date Issued 08/31/2010
Address 280 INDIAN SPRINGS RD STE 333		Farm Name HUTCHINSON 4J	Well Serial # PA1290298HS
INDIANA, PA 15701-3655		Municipality Washington	County Westmoreland
		7½' Quadrangle Name Slickville	Map Section # 2
Phone (724) 349-4450	Project #	Latitude 40-29-23.3100	Longitude -79-34-42.9500
Surf Elev at Site 1195 feet	Anticipated Total Depth 7485 feet	Well Type GS	Offset distances referenced to NE corner of map section. South 3712 feet West 10270 feet

This permit covering the well operator and well location shown above is evidence of permission granted to conduct activities in accordance with the Oil and Gas Act and the Oil and Gas Conservation Law, if the well is subject to that act and any rules and regulations promulgated thereunder, subject to the conditions contained herein and in accordance with the application submitted for this permit. This permit does not convey any property rights. This permit and the permittee's authority to conduct the activities authorized by this permit are conditioned upon operator's compliance with applicable law and regulations.

Notification must be given to the district oil and gas inspector, the surface landowner and political subdivision of the date well drilling will begin at least 24 hours prior to commencement of drilling activities.

The permittee hereby authorizes and consents to allow, without delay, employees or agents of the Department to have access to and to inspect all areas upon presentation of appropriate credentials, without advance notice or a search warrant. This includes any property, facility, operation or activity governed by the Oil and Gas Act, the Oil and Gas Conservation Law, the Coal and Gas Resource Coordination Act and other statutes applicable to oil and gas activities administered by the Department. The authorization and consent shall include consent to the Department to collect samples of wastewaters or gases, to take photographs, to perform measurements, surveys, and other tests, to inspect any monitoring equipment, to inspect the methods of operation and disposal, and to inspect and copy documents required by the Department to be maintained. The authorization and consent includes consent to the Department to examine books, papers, and records pertinent to any matter under investigation pursuant to the Oil and Gas Act or pertinent to a determination of whether the operator is in compliance with the above referenced statutes. This condition in no way limits any other powers granted to the Department under the Oil and Gas Act and other statutes, rules and regulations applicable to these activities as administered by the Department.

This permit does not relieve the operator from the obligation to comply with the Clean Streams Law and all statutes, rules and regulations administered

13. Is this well part of a development where you need an **Earth Disturbance Permit** for Oil and Gas Activities disturbing more than 5 acres? If yes, attach a completed Erosion Sediment and Stormwater Control Module or list the number and date of the ESCGP-1 Approval. _____

Expedited review - Needs a PE, PG, or PLS seal. _____

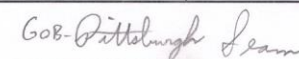
- Must attend DEP sponsored training.
- DEP has 15 days to approve.

Regular review - DEP has 60 days to review

Questions on ESCGP-1? _____

Contact an engineer in Pittsburgh, Meadville, or Williamsport

- Well & Onondaga Fm. Penetration
- Topo mark & offsets
- Courses & distances to 2 permanent identifiable points on gas tract boundary
- Angle & course of drilling
- Gas tract boundary
- Gas tract acreage
- Surface landowner(s)
- Coal owner(s) & mine operator(s) of workable coal seam(s)
- Names of workable coal seam(s)
- Water supply owner(s) <1000ft
- Courses & distances to water supplies
- TVD & TMD
- County & municipality
- Scale & accuracy
- Target Formation(s)
- Other wells
- Streams, bodies of water, wetlands
- Buildings
- etc.



PNDI

<http://www.naturalheritage.state.pa.us/>

PNDI Receipt

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graph TD; A[PNDI Receipt] --> B{Threatened or Endangered Species?}; A --> C{Special Concern Species?}; B --> D[Submit to PA jurisdictional agency]; D --> E[Obtain "clearance letter"]; E --> F[Submit "clearance letter" with app.]; C --> G[Notify PA jurisdictional agency]; G --> H[Submit notification proof with app.];
```

Threatened or Endangered Species?

Submit to PA jurisdictional agency

Obtain "clearance letter"

Submit "clearance letter" with app.

Special Concern Species?

Notify PA jurisdictional agency

Submit notification proof with app.

Farm Name - Well #	
Applicant Name	DEP ID#
DEP USE ONLY	APS #

PERMIT APPLICATION FOR DRILLING OR ALTERING A WELL
 Page 2 — Record of Notification / Written Consent

List the following: surface landowner; all land proposed well location; gas storage operator; operators of underground coal mine. Mark the boxes, "X," which show the required to notify each of these parties.

Name:

Name:

Name:

Name:

Name:

Address:

Name:

Name:

Notifications?

- Surface Landowners
- Water supply owners with a supply ≤ 1000 ft
- Coal Owners & Mine Operators
- Storage Field Operators

Must be notified by certified mail or sign here



Notification Note the means and attach proof.			
Certified Mail Dates		Address Affidavit	Written Consent
Sent	Return Receipt		

Optional: Signature below indicates the party's approval of the well location, and waives the 15-day objection period. Check applicable box.

<input type="checkbox"/> Water Purveyor or <input type="checkbox"/> Landowner with water supply within 1,000 ft.	Date	Coal <input type="checkbox"/> Operator, <input type="checkbox"/> Owner, or <input type="checkbox"/> Lessee	Date
<input type="checkbox"/> Water Purveyor or <input type="checkbox"/> Landowner with water supply within 1,000 ft.	Date	Coal <input type="checkbox"/> Operator, <input type="checkbox"/> Owner, or <input type="checkbox"/> Lessee	Date
<input type="checkbox"/> Water Purveyor or <input type="checkbox"/> Landowner with water supply within 1,000 ft.	Date	Coal <input type="checkbox"/> Operator, <input type="checkbox"/> Owner, or <input type="checkbox"/> Lessee	Date
<input type="checkbox"/> Water Purveyor or <input type="checkbox"/> Landowner with water supply within 1,000 ft.	Date	Coal <input type="checkbox"/> Operator, <input type="checkbox"/> Owner, or <input type="checkbox"/> Lessee	Date
Surface Landowner at proposed location	Date	Coal Operator within 1,000 feet of proposed location	Date
Surface Landowner at proposed location	Date	Gas Storage Operator within 2,000 feet	Date

Signature below indicates written consent. Check applicable box.

Owner of: <input type="checkbox"/> water supply, or <input type="checkbox"/> building within 200 feet	Date
Address (of above)	Date
Owner of: <input type="checkbox"/> water supply, or <input type="checkbox"/> building within 200 feet	Date
Address (of above)	Date

OBJECTIONS & CONFERENCES

15-day objection period from the time the objection is received

Act 223 Section 202 - surface owner & coal owner/operator may request a conference

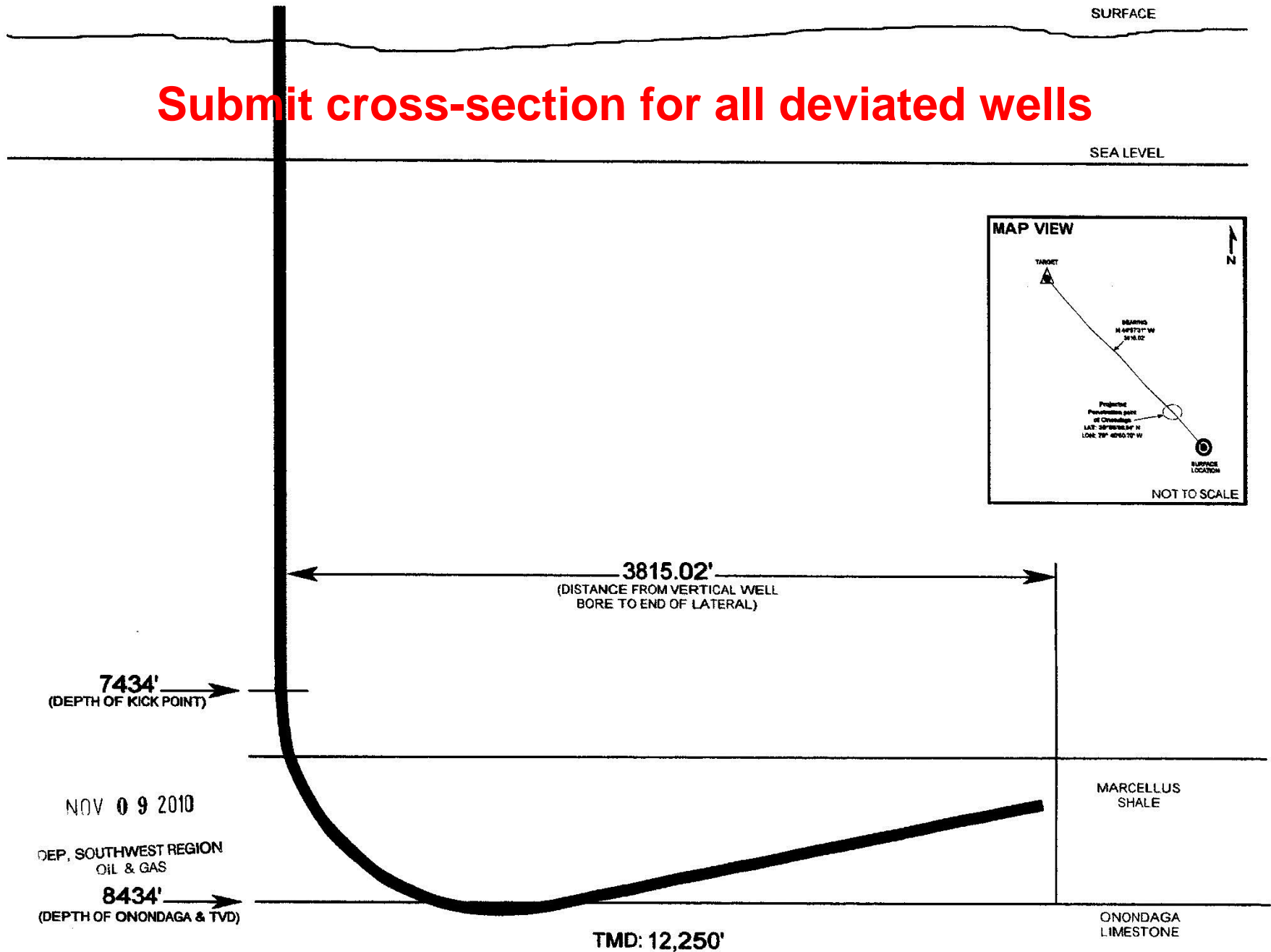
- DEP shall fix a time & place within 10 days after a conference request is received

Act 223 Section 501 - any persons having a direct interest in the subject matter of Act 223 may request a conference

- Shall be held within 90 days after a conference request is received

KURUTZ UNIT #11H (CONSERVATION WELL)

Submit cross-section for all deviated wells



Water Management Plans

(Submit for all shale wells)

- Identify water withdrawal sources
- Identify impacts
- Identify wastewater sources

Questions on WMP's?

Contact a biologist in Pittsburgh, Meadville, or Williamsport

Special Conditions

- Shale & Horizontal Wells
- PNDI
- Spacing
- H₂S
- Wellhead Protection
- etc.

Timeframes After Completion:

Within 30 days after well completion:

- Submit Well Record & Completion Report
- Submit Deviation Survey for deviated wells

Within 9 months after completion of drilling:

- Operator shall restore the well site

QUESTIONS?

