PPDM™

PROFESSIONAL PETROLEUM
DATA MANAGEMENT ASSOCIATION

Revising the API Numbering Standard for Today's Drilling

IOGCC

October 2011

TODAY'S TALK

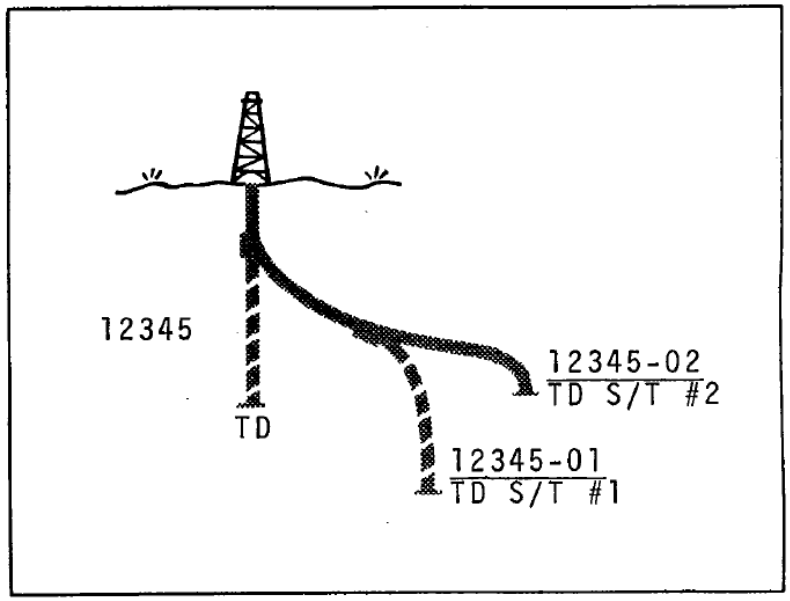
- Describe the Project
  - Bismark Introduction
- Why is this important to Regulatory Agencies?
- Examples
- Call to Action
  - Requesting Interviews with Regulatory Agencies

Revising the API Number Standard

- API Number standard last updated 1979
- API has agreed that PPDM is steward of Well Numbering Standard
- Project team includes operators, regulators, information vendors
- Issue: Many wellbores are not being identified in regulatory filings or in regulatory databases
- Lack of information on these wellbores presents issues for regulators and operators

Original API Process (D12A Standard)

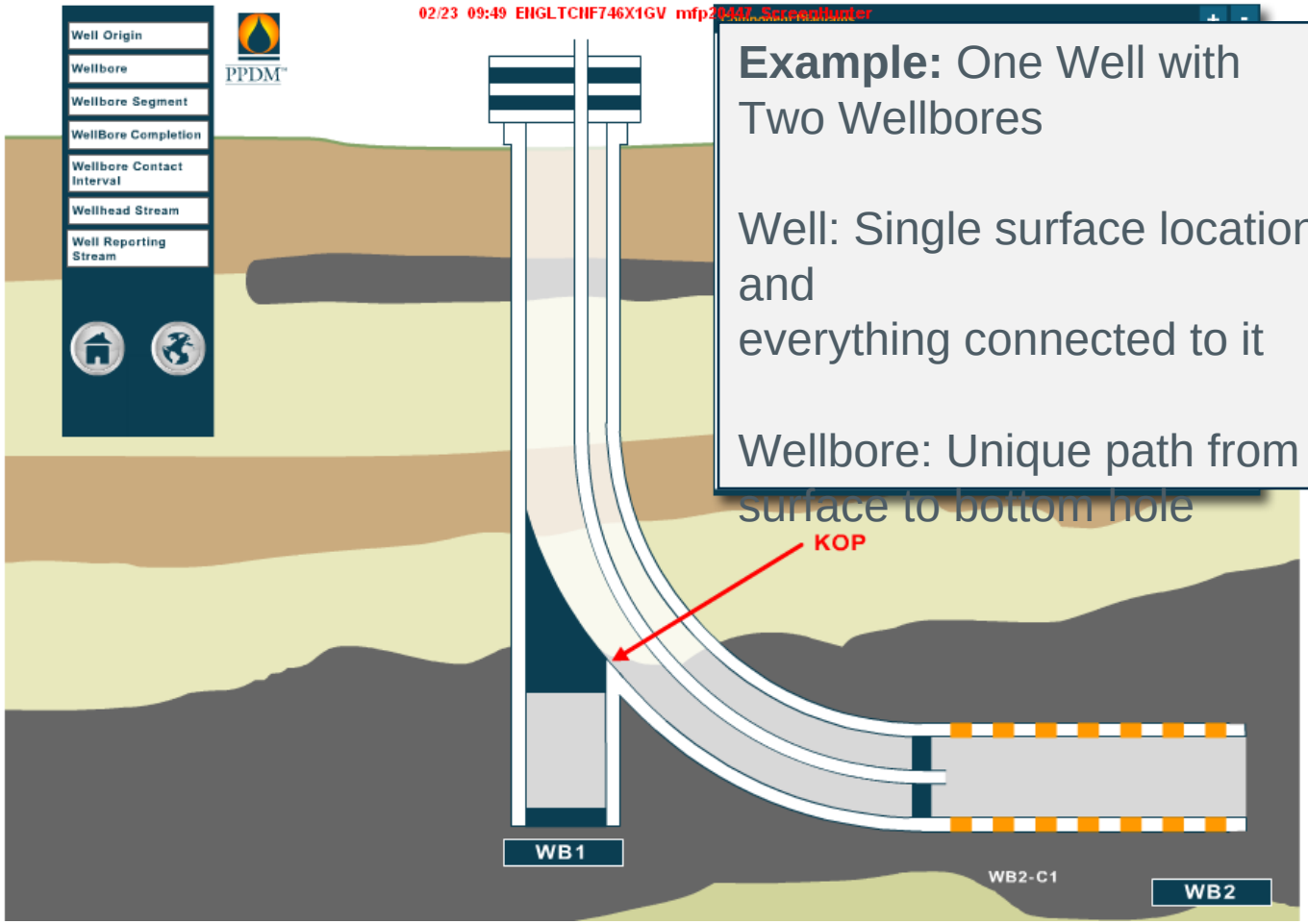
CASE 4: MULTIPLE DIRECTIONAL SIDETRACK NUMBERING



STATE	COUNTY	WELL	S/T
ORIGINAL HOLE:			
42	201	12345	(Blank)
FIRST SIDETRACK:			
42	201	12345	01
SECOND SIDETRACK:			
42	201	12345	02

(NOTE: IN 2ND SIDETRACK, THE CODE NUMBER, "02", IDENTIFIES THE SECTION OF THE HOLE FROM THE WHIPSTOCK IN S/T #1 TO TD S/T #2.)

Definition: Well vs. Wellbore

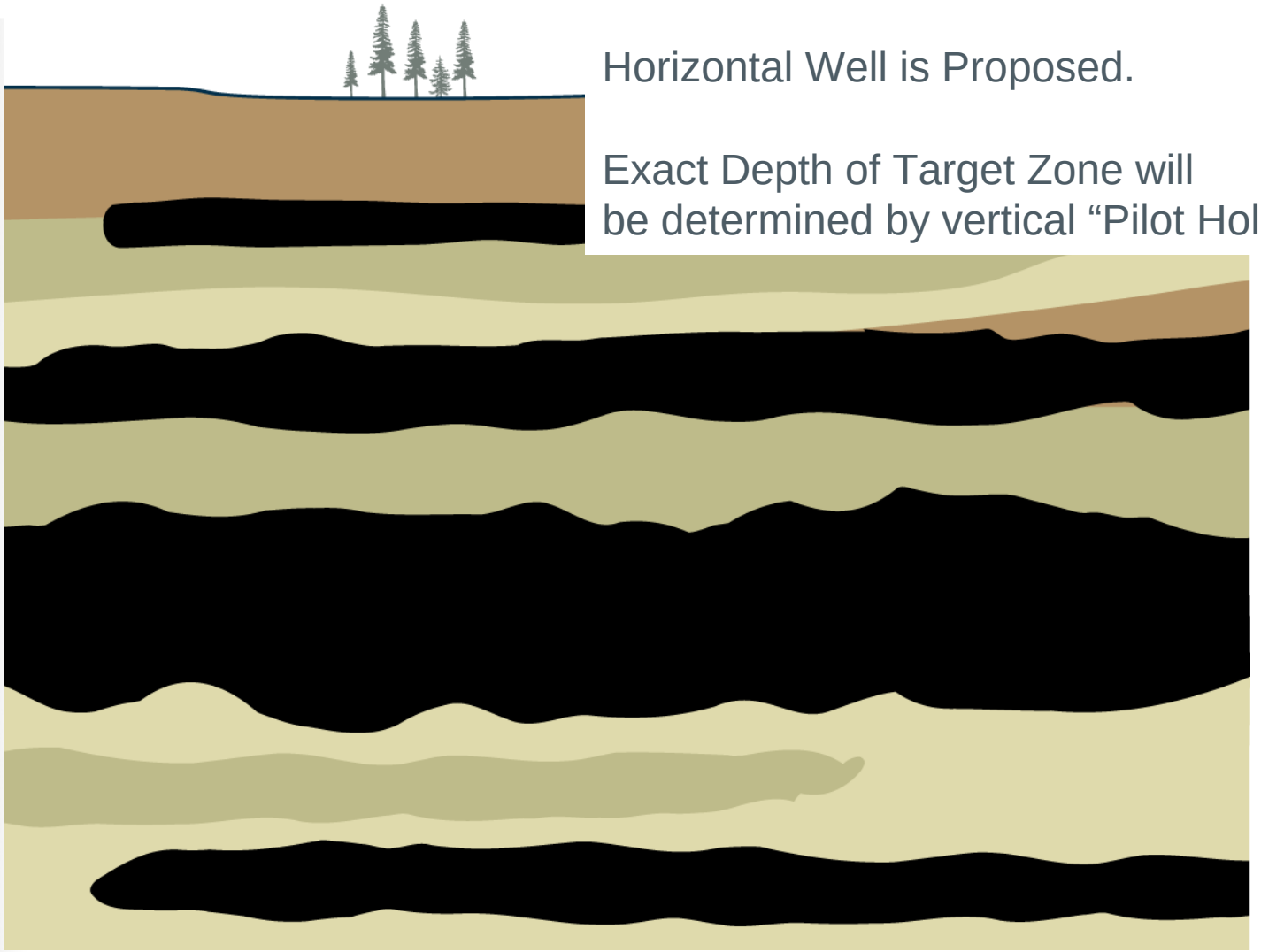


Example: One Well with Two Wellbores

Well: Single surface location and
everything connected to it

Wellbore: Unique path from surface to bottom hole

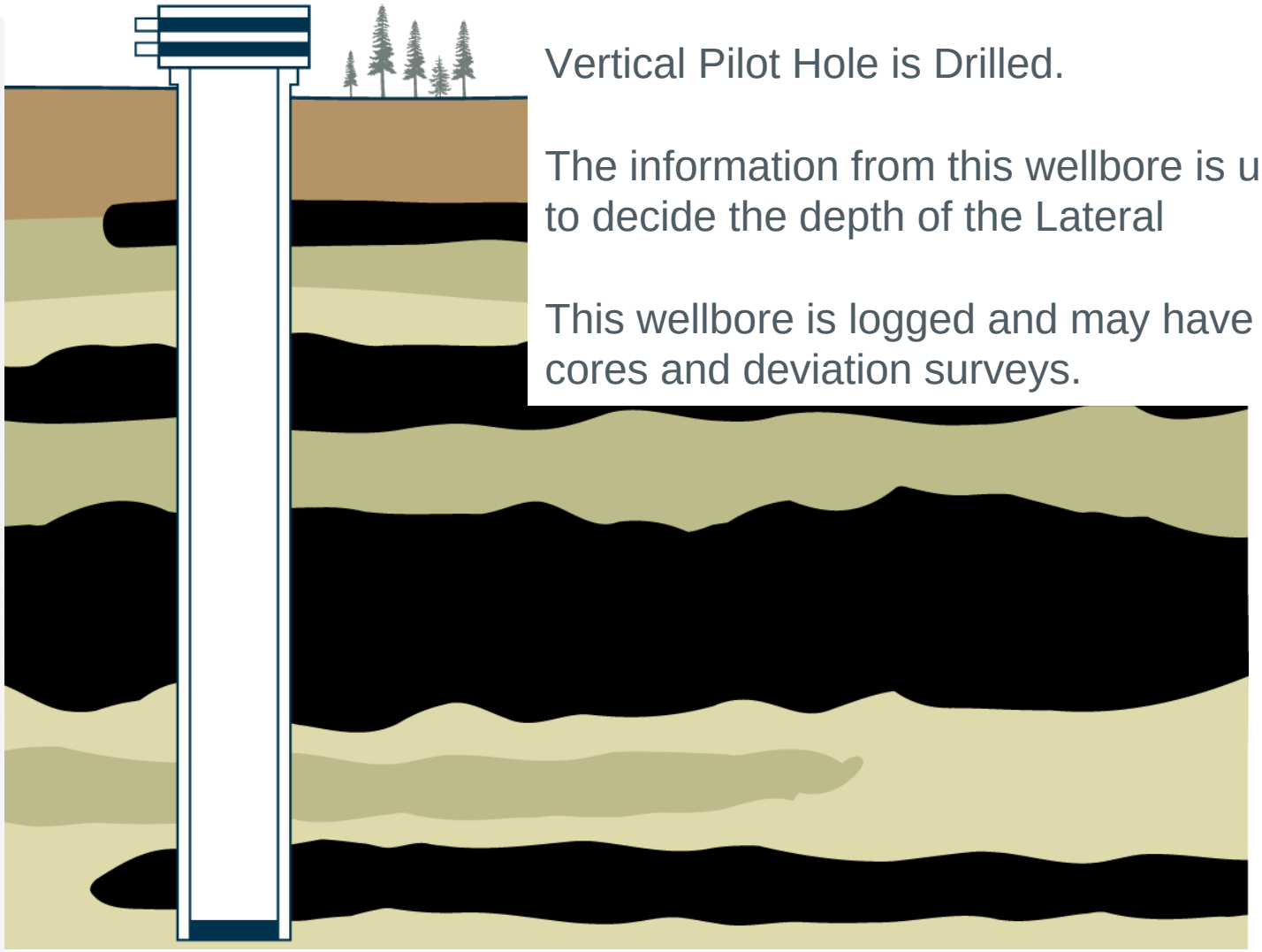
Example Horizontal Well: Permit to Drill



Horizontal Well is Proposed.

Exact Depth of Target Zone will be determined by vertical “Pilot Hole”

Example Horizontal Well: Vertical Pilot Hole

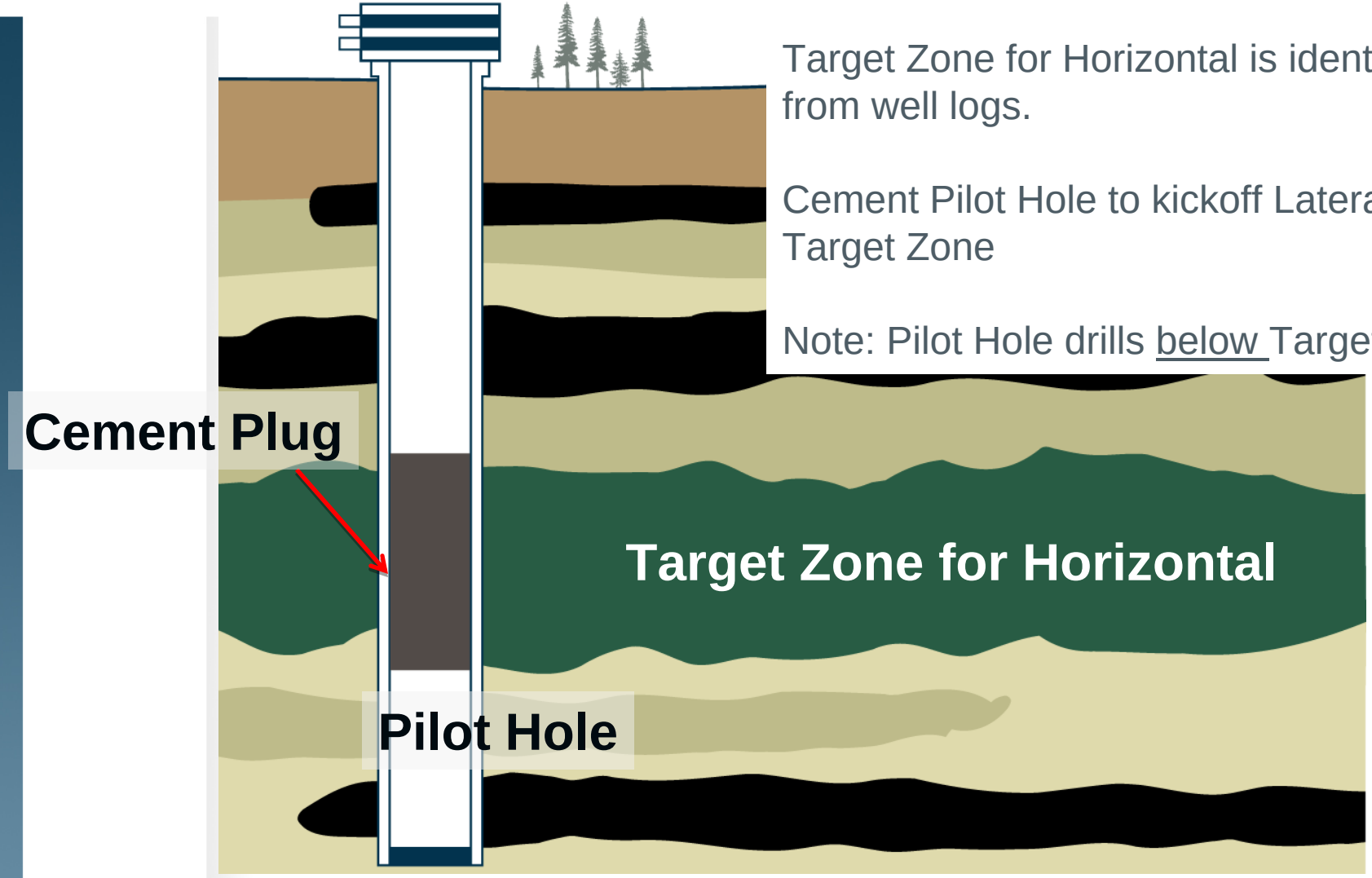


Vertical Pilot Hole is Drilled.

The information from this wellbore is used to decide the depth of the Lateral

This wellbore is logged and may have cores and deviation surveys.

Example Horizontal Well: Identify Target Zone

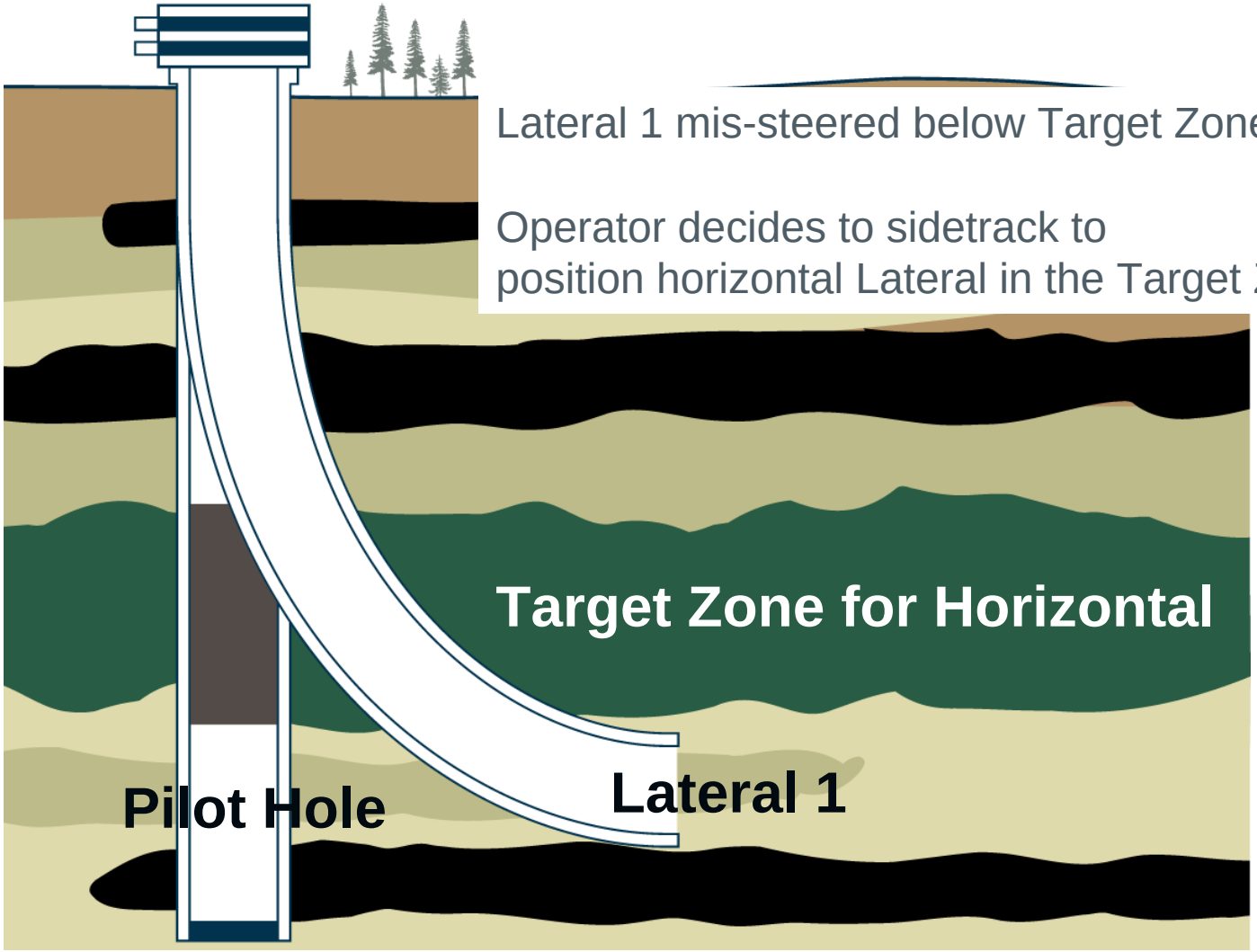


Target Zone for Horizontal is identified from well logs.

Cement Pilot Hole to kickoff Lateral into Target Zone

Note: Pilot Hole drills below Target Zone

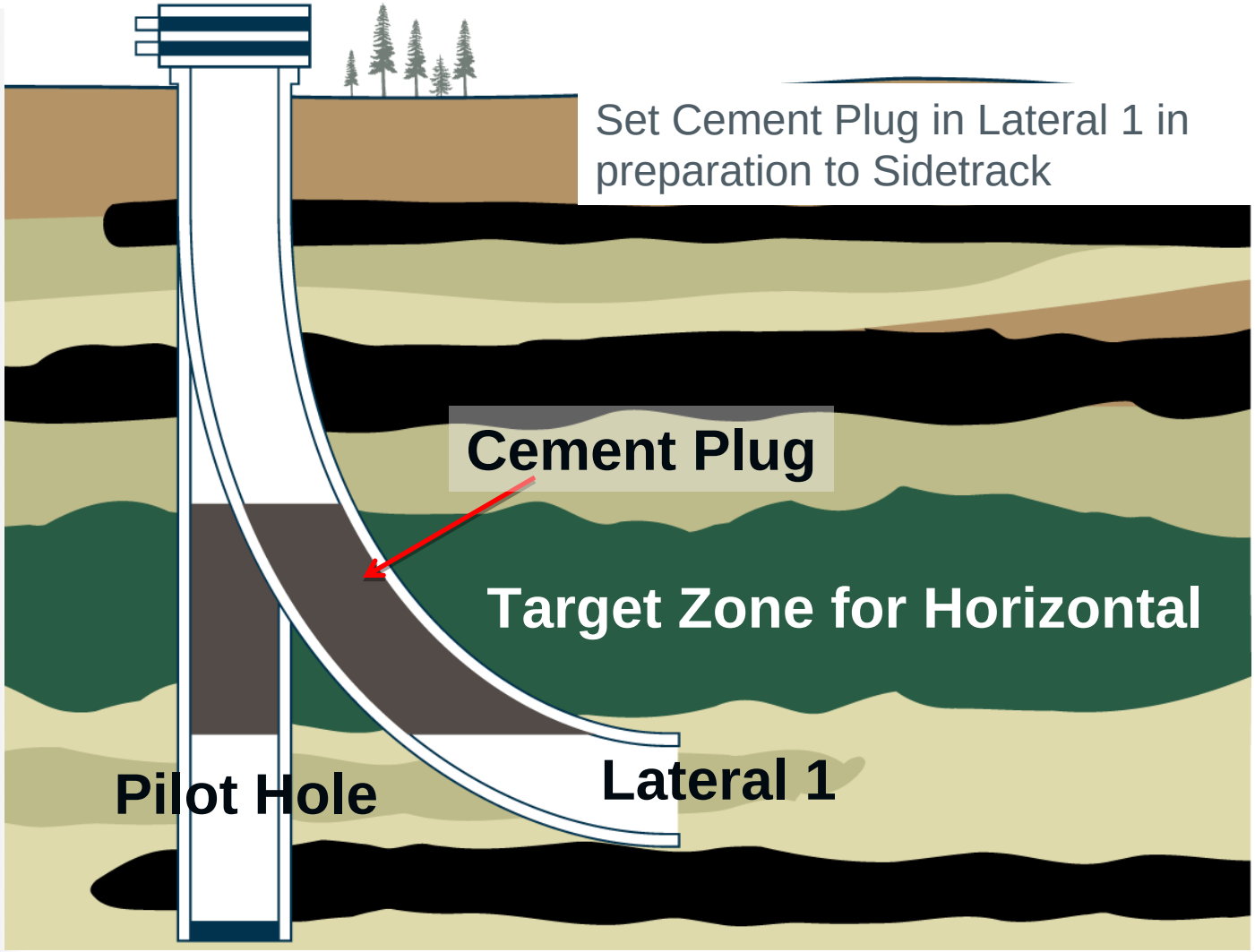
Example Horizontal Well: Drill Lateral



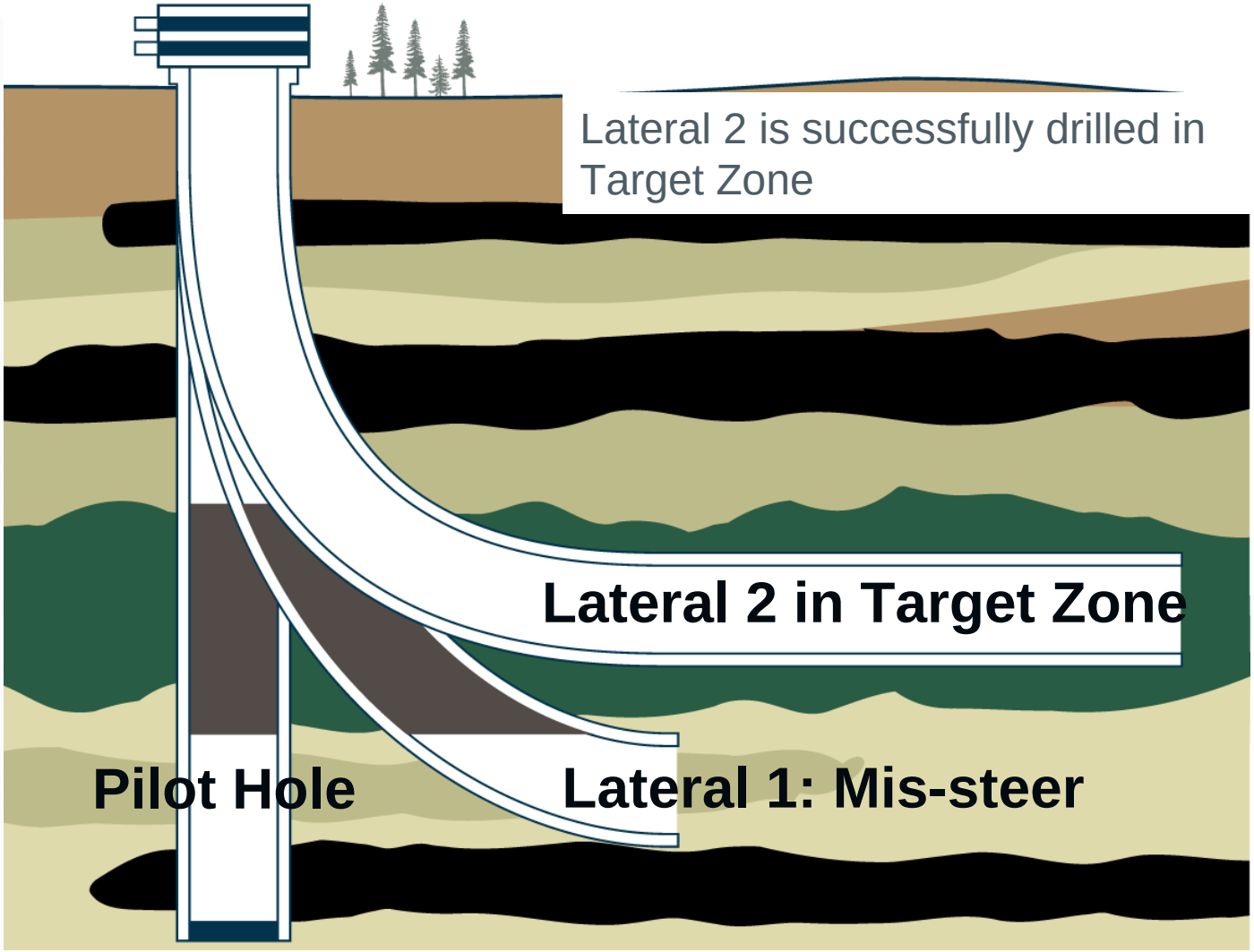
Lateral 1 mis-steered below Target Zone.

Operator decides to sidetrack to position horizontal Lateral in the Target Zone

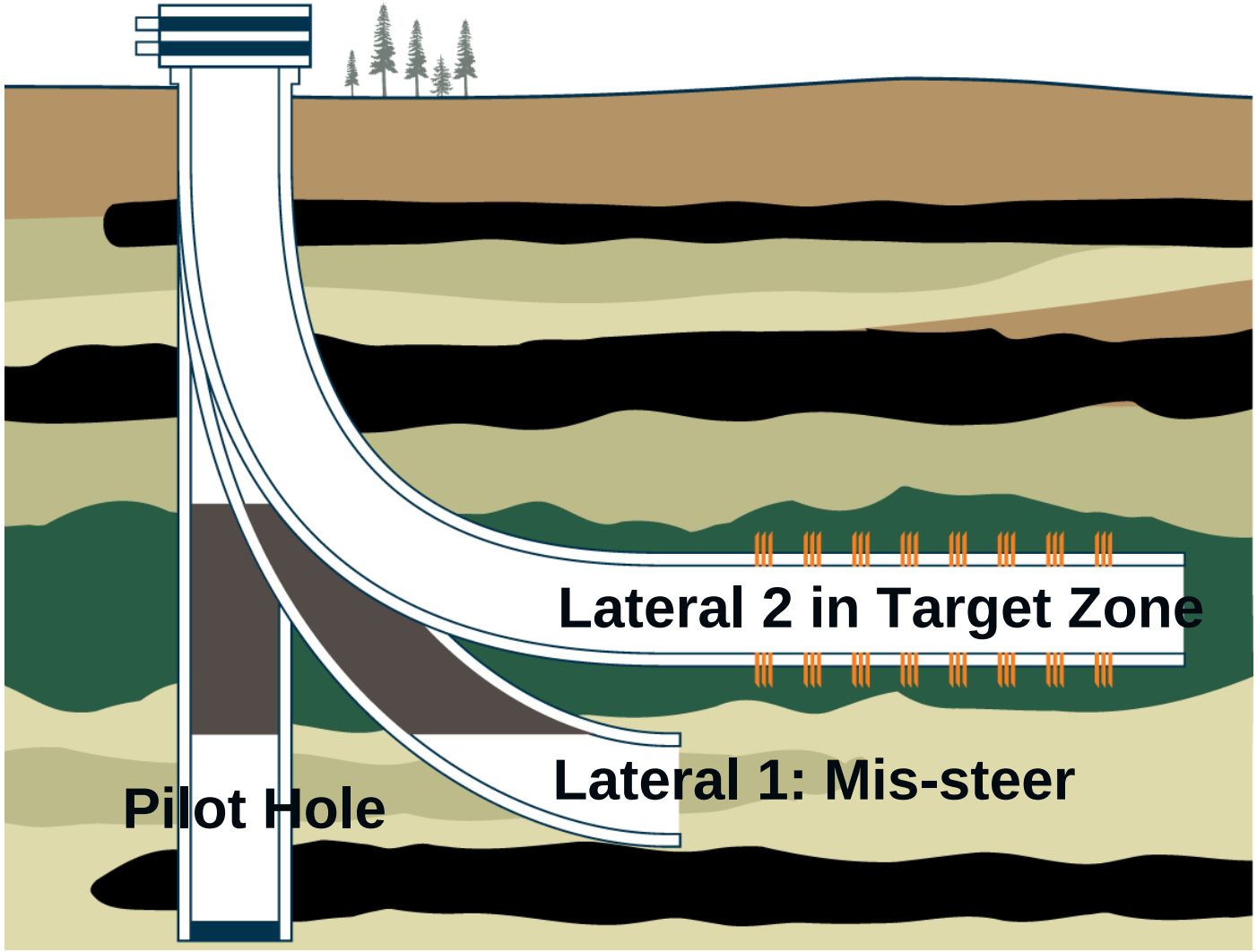
Example Horizontal Well: Prepare to Sidetrack



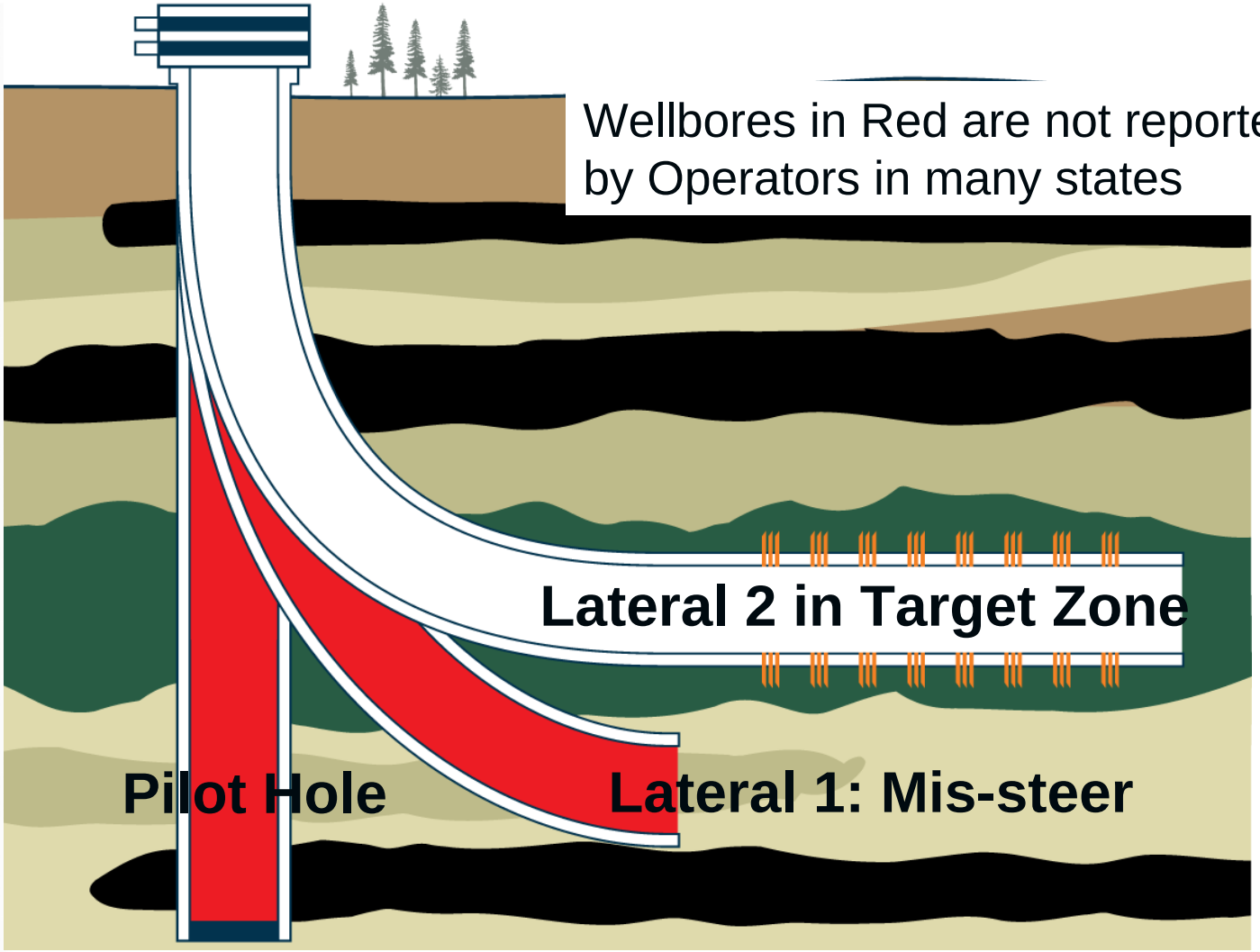
Example Horizontal Well: Drill Lateral 2



Example Horizontal Well: Complete Lateral 2



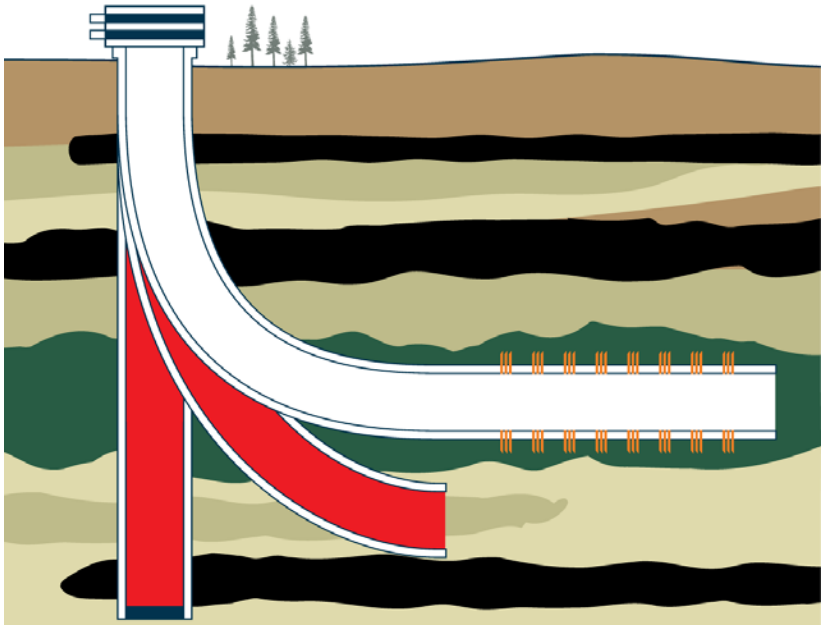
Example Horizontal Well: "Missing" Wellbores



5 Reasons that Missing Wellbores Matter

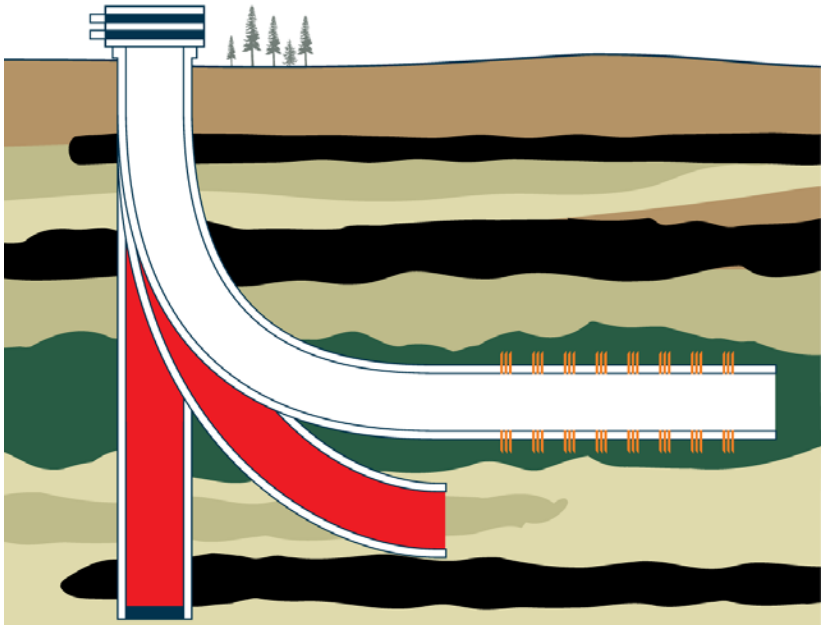
Why “Missing” Wellbores Matter

1. All wellbores have plugging obligations--not just the producing wellbore



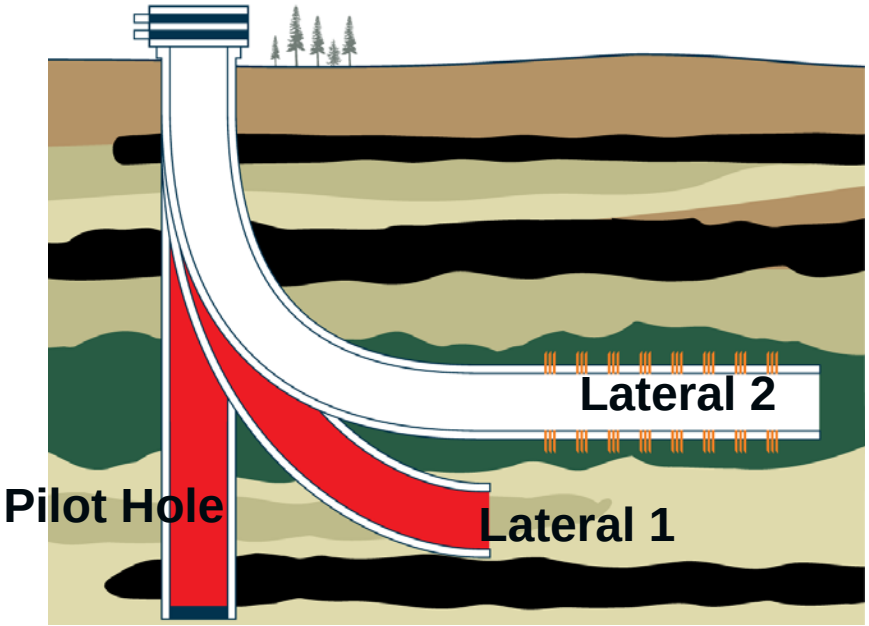
Why “Missing” Wellbores Matter

2. Fluid movement—injected fluids can follow pathway of any wellbore



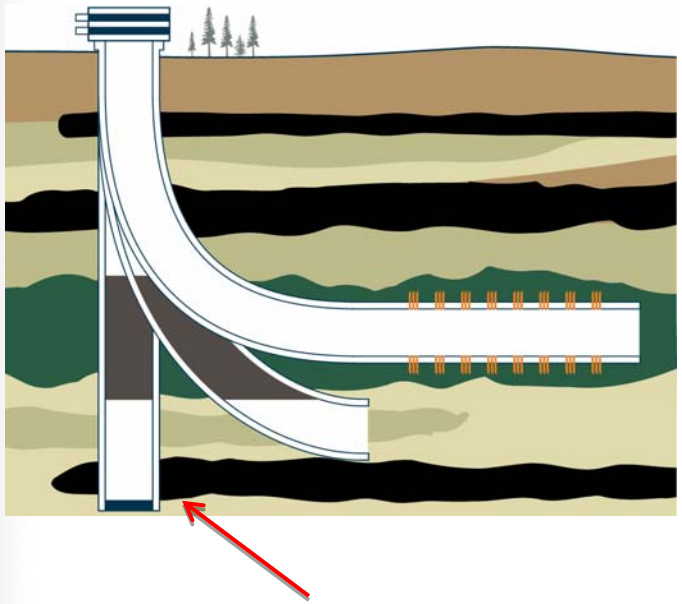
Why “Missing” Wellbores Matter

3. Operators may be required to file information such as well logs for all wellbores, not just producing wellbores.

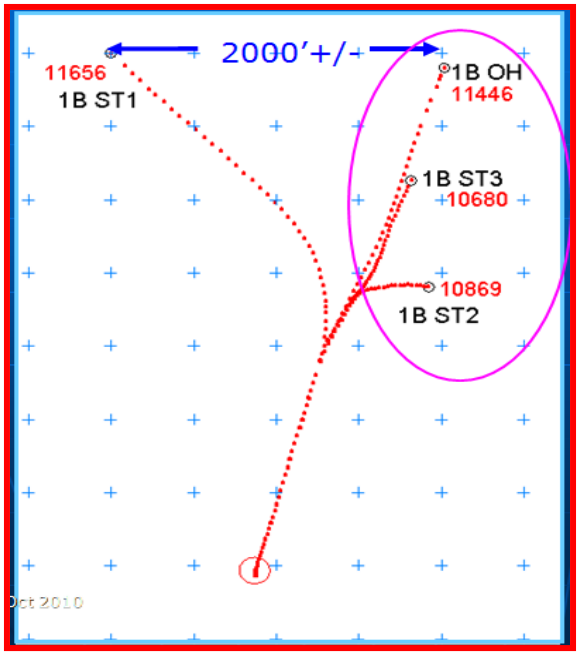


Why “Missing” Wellbores Matter

4. All wellbores must stay within the permitted lease boundaries and the permitted depths.



Pilot Hole is deeper than the Lateral

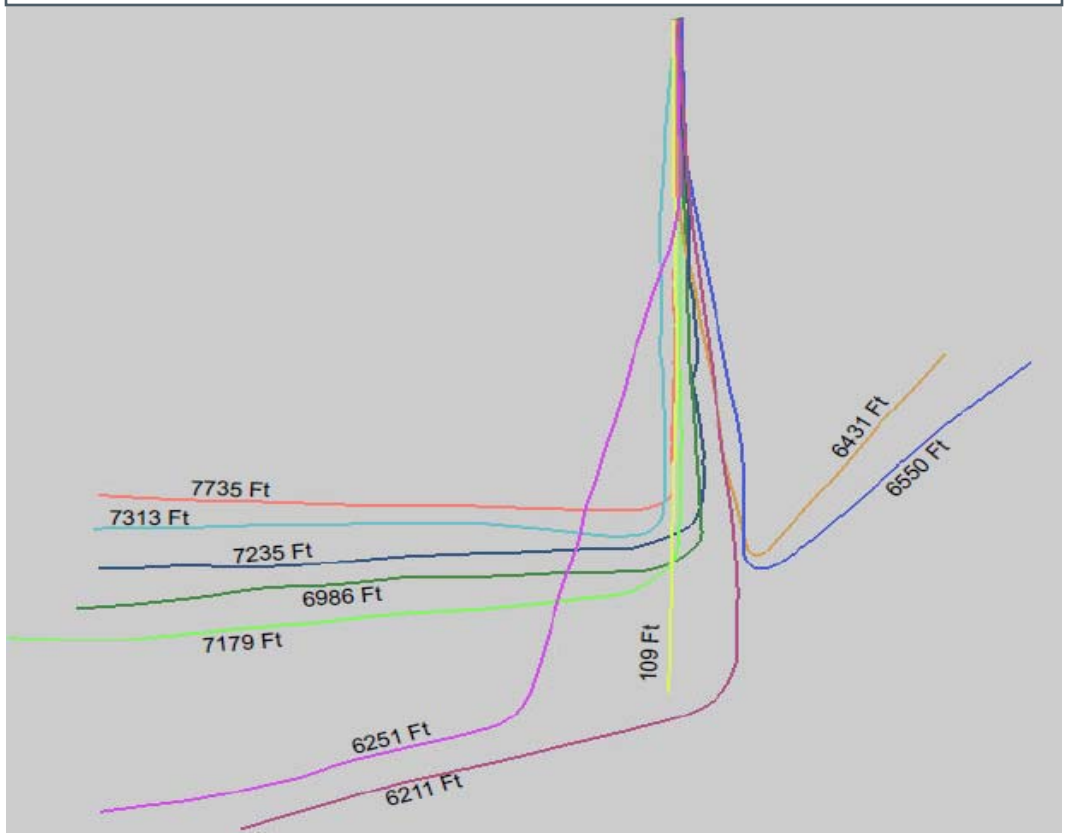


Map view shows bottom hole locations of each wellbore

Why “Missing” Wellbores Matter

5. Anti-collision measures require all wellbores to be identified and have known paths

3-D Diagram of 9 wells drilled from a single pad



GWPC Resolution 11-1 in Support of Project

"BE IT FURTHER RESOLVED that GWPC work with PPDM Association's Well Identification Workgroup in its effort to develop methods for consistently identifying all wellbores in the US."

GROUNDWATER PROTECTION COUNCIL

RESOLUTION 11-1
REGARDING PARTICIPATION WITH THE PROFESSIONAL PETROLEUM DATA MANAGEMENT ASSOCIATION (PPDM)

WHEREAS, The Ground Water Protection Council (GWPC) is a national association of state ground water and underground injection control agencies whose mission is to promote the protection and conservation of ground water resources for all beneficial uses, and

WHEREAS, The Professional Petroleum Data Management (PPDM) Association is a global, not-for-profit standards organization that works collaboratively with industry to create and publish data management standards for the resource industry, and

WHEREAS, the PPDM Association is the custodian of the oil and gas related well numbering standard formerly known as the API D12A number, and

WHEREAS, both organizations recognize the importance of accurately and consistently identifying every wellbore in a well's configuration;

THERFORE NOW BE IT RESOLVED that the GWPC be an active participant in the PPDM Association Well Identification project, and

BE IT FURTHER RESOLVED that the GWPC work with the PPDM Association's Well Identification Workgroup in its effort to develop methods for consistently identifying all wellbores in the US.

May 3rd, 2011
Passed by the Board

Attest_____

Michel J. Paque, Secretary

Asking Regulatory Agencies to Participate

- Our team is interviewing Regulatory Agencies about current practice and any plans for change
- We will be contacting your agency in next 2 weeks to set up a 20-minute interview
- PPDM Workgroup will work with IOGCC, GWPC and Regulatory Agencies to develop practical solutions
  - Development of best practices
  - Support of PPDM process (revised D12 a)
  - Potential model process

Today: Please see Don Drazan NY DEC or Bruce Smith with PPDM to set up a time for an interview.

Or we will call you in the next 2 weeks to set up a time with your staff

Contact Information

Bruce Smith, PPDM
303 549 0772
Bruce.Smith@ppdm.org

Don Drazan, NY DEC
518 402 8056
djdrazan@gw.dec.state.ny.us

5 Reasons why “Missing” Wellbores matter

1. All wellbores have plugging obligations--not just producing wellbores.
2. Fluid movement—injected fluids can follow pathway of these wellbores
3. Operators may be required to file information such as well logs for all wellbores, not just producing wellbores.
4. All wellbores must stay within the permitted lease boundaries and the permitted depths.
5. Anti-collision measures require all wellbores to be identified and have known paths.