

Site Safety Plan Table of Contents

For H6A Well Work Permits and Deep Well Work Permits

Please prepare a Site Safety Plan to accompany each H6A and/or Deep well work permit, adhering to the following organizational and informational structure

1. Introduction

- A. Detailed written descriptions of well work and procedure to be used during the drilling, completion, and production phases, including schematic plan views of each
- B. Statement detailing how a copy of the plan will be provided to the local emergency planning committee or county emergency services office within at least 7 days from land disturbance or well work

2. Contacts, Schedules, and Meetings

- A. Emergency point of contact for the well operator covering all phases of activities and including 24 hour contact information
- B. List of telephone numbers for:
 - 1. Operator
 - 2. Contractors
 - 3. DEP office and oil/gas inspector
 - 4. Local emergency response units
 - 5. Local ER personnel
 - 6. All schools and public facilities within a one mile radius of proposed well site
- C. Pre-spud meeting held prior to drilling operations, including:
 - 1. Personnel to be employed and involved in the drilling operations
 - 2. County oil and gas inspector or other designated Office of Oil and Gas representative
 - 3. List of all persons involved in the pre-spud meeting
- D. Describe schedule for conducting regular well site safety meetings. Log attendance at all meetings and also initiate check in check out during drilling, completion, and workover phases

3. Maps and Diagrams

- A. Plan view map of location, access road, pit(s), flare lines, nearby dwellings, note the north direction and the prevailing wind direction
- B. Topographic map of well location, including
 - 1. 1 mile radius of well location
 - 2. UTM NAD 83 coordinates of well site entrance
 - 3. UTM NAD 83 coordinates of the point the access road intersects the public route
 - 4. Identify public route number and/or route name
- C. Evacuation plan for the removal of personnel from the drilling location and residents in the surrounding area should the need arise

4. Chemical Inventory & MSDS

- A. Material Safety Data Sheets for all chemicals anticipated to be used in all aspects of the operation (can be provided on CD or USB drive)
- B. Statement that all MSDS are to be readily available at the well site and their location indicated in the site safety plan including contact information for person(s) responsible maintaining them on site.
- C. Inventory of all materials on site for mixing of mud including numbers and type of mixing units - mixed mud amount and weight, amount of weighting material and volume of mixing fluid

5. BOP and Well Control

- A. BOP equipment and casing heads with types, sizes and ratings to be utilized and available during the drilling for both intermediate and lateral drilling phases
- B. Procedure and schedule for testing the BOP stack for intermediate drilling phase the BOP tested upon initial set up and the annular tested to 70% of capacity and the ram preventers tested to 80%. Same testing % for bottom and horizontal phase except testing to be done upon initial installation, weekly and after each bit trip
- C. BOP equipment and assembly installation schedule
- D. List and names of all personnel with well control training
- E. Description of system of maintaining detailed records of and for immediate notification to OOG inspector for all significant drilling issues, including but not limited to:
 - 1. Lost circulation
 - 2. Hydrogen sulfide gas
 - 3. Fluid entry
 - 4. Abnormal pressures
- F. Notification of the oil and gas inspector or designated representative as soon as possible of any unusual drilling events, hydrogen sulfide gas* or large kicks that occur during drilling operations).
*(Mandatory immediate notification is required of any encounter of hydrogen sulfide gas - 22-6A wells >10ppm H₂S Gasses!)
- G. Schematic and detailed written description of the wellhead assembly to be placed on the well upon completion
- H. Method and type of kill procedures

6. Hydrogen Sulfide (H₂S)

- A. Detection, monitoring and warning equipment including location of the monitoring detection equipment on the site
- B. Statement of H₂S personnel training provided
- C. Method to notify the OOG of H₂S presence
- D. Method to notification of public of H₂S gas presence and how access will be controlled. (applicable horizontal wells include all residents and emergency response personnel who may be affected by an event. Such events may include the presence of H₂S, blow-outs, and flaring)
- E. Establish and maintain Protection Zones. Describe detailed written general procedures proposed in drilling phases. (application horizontal wells must include the completion, work-over, and production phases)
- F. List of personal protective equipment (PPE) and the amount of each piece of PPE that will be maintained and available on site.

7. Flaring

- A. Proposed written description and plan including schematic of installation for duration of flaring activities

8. Collision Avoidance

- A. Protocol and established safeguard designed to prevent underground collisions during any drilling on multi-well pads

9. Deep Well Additional Requirements

- A. List of anticipated freshwater, saltwater, oil and gas, hydrogen sulfide, thief zones, high pressure and volume zones and their expected depths
- B. Detailed casing and cementing program that employs a minimum of three strings of casing which are sufficient weight and quality for the anticipated conditions
- C. Flaring activities: Size, construction and length of flare line-anchor method and choke assembly description, Flare lighting system and back up igniters, Notify local fire department (if possible) prior to igniting flares, Minimum clearing distance beyond end of flare.
- D. List of names, addresses, and telephone numbers of all residents, businesses, churches, schools and emergency facilities within 1 mile radius that may be affected by specific events during the drilling process. Such events may include presence of hydrogen sulfide, and flaring, etc.