

PATTERSON WELL SERVICE



Standard Operating Procedure – Rig Personnel Job Descriptions

1. *Purpose*

This manual is intended to clearly and concisely identify the steps required by employees to complete any given operation in a manner that is consistent with Patterson Well Service standards. It will document progressive steps required in sequence that are to be followed, an authorizing company department or position, and an author that is to be consulted if there are questions in any portion of the SOP standards.

2. *Scope*

RIG PERSONNEL

3. *Prerequisites*

Personnel are required to wear proper personal protective equipment, follow job safety rules, and have the appropriate experience and certifications to carry out their job functions satisfactorily.

4. *Responsibilities*

Rig Superintendents: The number one priority is to maintain and promote **SAFETY**. It's your job to make sure the tool pusher is doing his job. If the pusher is not capable of performing their tasks adequately and following through accordingly, then you will be required to be on location 24/7 while you determine if the pusher is capable of his assigned duties and completing his duties to PWS standards or until a replacement has been found. Your responsibility is to oversee all that occurs on your assigned rigs through the tool-pushers and includes advising on all rig matters including operations, maintenance, staffing, crew direction, and logistics, operational safety, i.e. everything that happens on the rig. You are at the top echelon in the field so you are ultimately a reflection of the rigs you are supervising and will be held responsible for assuring the PWS standard is met on your rigs.

PATTERSON WELL SERVICE

Tool Pusher: The number one priority is to maintain and promote SAFETY.

Overall supervision of the rig is your main responsibility. Responsible directly for coordination of all operations with company man, scheduling all work, handling personnel, terminations, maintaining supplies and assisting drilling crews to maintain efficiency and completing tasks in a complete, precise, cost productive, and timely manner. They are also responsible for PASON reports and paperwork related to the crew and rig personnel. The Rig Manager is involved with the training of the crews and providing direction and leadership keeping operation running smoothly. Exhibiting superior leadership, excellent managerial skills and precise organizational skills are all necessary attributes in a Rig Manager.

- Ensuring the drilling crew is thoroughly trained in their roles and responsibilities and that their performance consistently meets all PWS, State, and Federal Safety regulations.
- Coordinating all drilling activities, optimizing drilling practices ensuring costs are minimized, equipment is running smoothly, and all necessary repairs are done in a timely fashion.
- Supervise a crew of 4 members at a minimum ensuring their safety and their jobs are conducted in an efficient manner.
- Ensuring that operations comply with company policies and government regulations.
- Discuss and ensure that emergency evacuation and medical procedures are posted, understood and practiced.
- Communicate effectively to Drilling Superintendent any issues that may arise, but is not limited to, needed maintenance, required equipment or parts and safety concerns.
- Discuss and coordinate staffing needs and crew changes with the appropriate Human Resource Coordinator.
- Conduct safety meetings on a daily basis
- Ensure all appropriate paperwork is completed and maintained.
- Organizing the rig crew in moving and rigging up of the drilling rig and camp.
- Other duties as required by the Drilling Superintendents
- Liaison with client representative
- Liaison with third party service companies.

Driller: The number one priority is to maintain and promote SAFETY. The driller is in charge of the operation of the rig floor and controls of the drilling process. He has a very responsible position and is required to have a great deal of technical knowledge. The safety of everyone on the rig is often dependent on his decisions. He has to be thoroughly familiar with drilling fluids, well pressures, well characteristics, and emergency procedures. He also updates PASON data throughout the drilling operation.

PATTERSON WELL SERVICE

The driller is responsible for his crew's actions including their work routines and performance of job duties.

The driller is primarily in control of operating the drilling and hoisting equipment, and managing the rig floor and driller's console which includes brakes, throttles, clutches and various gauges. The Driller is responsible for ensuring that the drilling crew performs their job safely and efficiently, and within the PWS, State and Federal regulatory requirements.

- Responsible for monitoring the progress of the drilling operation, determine when drilling bits need to be changed while operating pumps, rotary table, draw-works, top drive, etc.
- Ensuring the drilling crew is thoroughly trained in their roles and responsibilities and that their performance consistently meets all safety regulations.
- Becoming familiar with the BOP system and ascertain the operating position of the BOP's when coming on shift.
- Adjust mud pumps to maintain the proper circulation rate.
- Ensure all appropriate paperwork is completed and maintained.
- Responsible for conducting drills in: evacuation, BOP, firefighting, spill response and other critical conditions that may arise.
- Organizing the rig crew in moving and setting up of the drilling rig and camp.
- Maintaining a close liaison and adhering to proper procedures with the Rig Manager and crew.
- Learn and adhere to all company safety policies, procedures and practices as well as all government safety regulations.

Assistant Driller: The number one priority is to maintain and promote SAFETY.

The AD is the next in line for a drilling position. The AD's job duties are to run the pipe handler, learn the responsibilities of the driller's position and its duties. The AD is also responsible for the daily up keep of the JSA's system, STOP cards, tour meetings and overall safety aspects of the rig. The AD is the designated safety official on the crew that is responsible for the overall safety of the crew. He is to maintain the JSA system, STOP cards, rig safety audits and conduct the morning safety meetings. Additional responsibilities include the planning of all functions to assure that the transition between the current crew and next crew are seamless. This includes planning ahead to assure all tools, materials, information is available to the incoming crew. The AD is responsible to brief the incoming crew concerning the outgoing crews progress, any issues, changes in operation, equipment, or materials. The AD is also responsible for pre-planning of necessary items/crew duties/tools/materials/etc for upcoming rig operations such as cementing, tripping out of the hole, etc (whatever is the next step in the drilling

PATTERSON WELL SERVICE

operations). AD is responsible to try to plan and predict our next step in the drilling operation whatever that may be with the goal of making the upcoming procedure go as smoothly as possible through preparation.

Derricks: The number one priority is to maintain and promote SAFETY. The Derrick is responsible for all derrick operations when tripping pipe or drilling. Derrick hand operations include but are not limited to top drive maintenance, crown maintenance, ALL mud pump maintenance and service issues. Along with derrick operation he is also responsible for maintaining the mud pits and all fluids associated with the pits. He is to be present for all fluid transfers and responsible for all mud mixing operations, is to be present on all fluid transfers.

- Learn and adhere to all Company and Government safety regulations pertaining to the worksite.
- Participate in all safety initiatives & meetings
- Watching and maintaining proper drilling fluid characteristics, the rate of fluid circulation, mud handling equipment, particularly safety belts.
- Select and assign crew members to tasks related to the circulation system.
- Responsible for Rig-ups and preparing circulating equipment prior to drilling.
- Responsible for proper fluid drainage at shut-downs and rig-outs to prevent freezing.
- Other duties as assigned by the driller.
- Other duties as assigned by the Rig Manager.

Motorman: The number one priority is to maintain and promote SAFETY. The motorman is responsible for all motors, compressors and pumps on location. He is to maintain schedules oil; fuel and air filter changes and check fluid consumption periodically throughout his shift. He is to report all engine problems to the driller ASAP for corrective measures. When not servicing engines he is to assist on the floor and any operation in progress. Log all fuel and oil consumption daily. To ensure that all engines and other machinery are properly maintained, operating and functioning properly. Doing repair work when capable and notifying the Driller and Rig manager for major repairs needed or done.

- Learn and adhere to all Company and Government safety regulations pertaining to the worksite.
- Participate in all safety initiatives & meetings
- Assisting the Derrick-hand and Driller on the drill floor while making trips.

PATTERSON WELL SERVICE

- Ensuring all equipment is kept clean, performing preventative maintenance on the various engines.
- Filling out log sheets and maintenance cards correctly and ensuring they are kept up to date
- Working alongside of the Floor-hands ensuring preventative maintenance on appropriate equipment is performed.
- Training and supervising Floor-hands, reporting any issues to the Driller and Rig Manager
- Other duties as assigned

Floors: The number one priority is to maintain and promote SAFETY. Floor-hands are general laborers on the rig floor. During a pipe trip or connection they are to dope pipe, stab joints together, pull slips and maintain floor/tool room housekeeping. When they are not on the floor they are to be painting, washing and organizing the rig. They are also to assist any operation in progress.

- Learning and adhering to all Company and Government safety regulations pertaining to the worksite.
- Participate in all safety initiatives
- Becoming familiar with drill floor operations.
- Assisting in cleaning and painting as required by the Driller.
- General labor of digging trenches, building fences, loading/unloading trucks.
- Assisting in moving the rig, rigging up and rigging out.
- Ensure all field work is carried out to the highest standard of safety.
- Maintains good housekeeping and safety practices on and around the rig.
- Ensuring the Drill floor is scrubbed and clean while drilling is taking place.
- Conducting the preventative maintenance on equipment (as per maintenance manual).
- Catching samples of the drilled cuttings to be analyzed by the Geologist.

5. Procedure

The procedure is dependent upon the position listed above and specific operation being conducted. Individual task specific SOP should be consulted for every job task as personnel will be accountable to the standards found there.

6. References

PWS Employee Handbook