Regulatory Process for Permitting and Tracking an Oil or Gas Well

As requested, this briefly summarizes the process that the Colorado Oil and Gas Conservation Commission (OGCC) follows for permitting and tracking an oil or gas well. It focuses on the submittal and review of forms for the operator and the well itself, including Forms 1 (Registration for Oil and Gas Operations), 1A (Designation of Agent), 2 (Application for Permit to Drill, Deepen, Recomplete, Re-Enter, and Operate), 2A (Location Assessment), 5 (Drilling Completion Report), 5A (Completed Interval Report), 6 (Well Abandonment Report), 7 (Operators Report of Monthly Operations), 8 (Conservation Levy), and 10 (Certificate of Clearance and/or Change of Operator).

If you wish, we can prepare a subsequent memorandum to summarize additional components of the OGCC's regulatory program for oil and gas wells, which go beyond the submittal and review of these forms. These additional OGCC regulatory processes include: review and approval of drilling, production, and special purpose pits that often accompany oil and gas wells; periodic inspection of the wells; review and approval of interim reclamation of the well pad; review and approval of final reclamation of the well pad; and consultation with the operator, the local government, and the surface owner, which may occur at multiple points from planning to plugging of the well as issues arise.

In addition to the regulatory processes that are summarized below and in the potential subsequent memorandum, additional regulatory processes sometimes apply to particular operators and wells. Depending on the circumstances, these additional regulatory processes may include: hearings before the Commission; variance and exception requests; mechanical integrity tests; bradenhead tests; static bottom hole pressure tests; water well samples; coal outcrop and coal mine monitoring; accident reports; spill reports; remediation work plans; stormwater programs; centralized exploration and production (E&P) waste management facility permits; comprehensive drilling plan approvals; and underground injection well permits.

• Form 1: Registration for Oil and Gas Operations

- Required prior to conducting any oil and gas operations in the State (well operator, gatherer, transporter, levy payer, seismic operator, financial assurance provider, etc. – all need to submit a Form 1).
 - Staff responsibility:
 - · Form goes to Financial Assurance Section,
 - Quickly review to determine purpose
 - If update of operator's address, name, or type of operations: updates are entered into the system.
 - If new operator: new operator number will be assigned and all form data will be entered into the system.
 - Impact of backlog:
 - System cannot accept data from new operator.
 - The OGCC & general public will be unable to find operator contact information in the OGCC's database.
 - Delays industry operations and corporate acquisitions, because regulatory reports, including APDs, cannot be processed.
 - Timing requirements: None established by statute or regulation.
 - Note: Company must receive operator number from OGCC prior to conducting any operations in the State, including the buying and selling of properties.

Form 1A: Designation of Agent

- o Required for any company acting as an agent for another company (e.g. "Permits-R-Us" will file APDs on behalf of "Jones Operating Company").
- o Filed by operator to identify employees authorized to submit forms.
 - Staff responsibility:
 - Financial Assurance Section reviews and updates database with information on form, which may include multiple employees listed as signatories.
 - May require adding the agent company to the database.

- Create relationship between operator and agency.
- Create signatories for agent company.
- Impact of backlog: Operator/agent cannot file forms, including APDs, until correct agent information is in the system.
- Timing requirements: None established by statute or regulation.
- Note: this form typically arrives with the Form 1 and the two are processed sequentially. Failure to have a Form 1 or Form 1A on record can prevent processing and approval of other operatorsubmitted forms.

Financial Assurance (Bonds):

- Required prior to operations of wells, seismic, centralized waste management facilities, and gas gathering.
 - Staff responsibility:
 - Review financial assurance document for its validity and correctness.
 - Input essential info into system and associate with appropriate operations.
 - Route to Director for signature on documents related to insurance bonds or deposits of cash or financial instruments at the Treasury.
 - All financial assurance is accounted for monthly with the OGCC's accountant, State
 Treasury, and COFRS (Colorado Financial Reporting System) and validated annually
 with the financial assurance provider.
 - Release of financial assurance requires a review of operations to ensure no outstanding obligations exist. Release of obligation requires a transfer of ownership or field inspection that confirms site is fully reclaimed.
 - Impact of backlog:
 - Operators cannot conduct operations until financial assurance is accepted.
 - Operator's funds are held by the OGCC until financial assurance release process is completed.
 - Timing requirements: None established by statute or regulation.
 - Note: 50% of bonds do not pass initial release, and this requires additional hours of staff time.
 Staff work includes preparation of release letter, review of operations, on-site inspection, and retrieval of paper instrument.

Form 2: Application for Permit to Drill, Deepen, Recomplete, Re-Enter, and Operate (APD)

- Required prior to drilling a new well or completing an existing well in a new formation. An approved Form 2 permits the downhole construction of the well.
 - Staff responsibility:
 - Operator submits APD
 - o If paper APD is submitted:
 - Staff scans APD document and all attachments.
 - Records Admin staff links, electronically, scanned APD and attachments.
 - APD is data entered into the Workflow Database (external server).
 - Permit staff verifies data entry with scanned image of paper copy of APD.
 - If APD is submitted electronically by operator:
 - Electronic submission is noted by the permit staff.
 - Permit staff performs initial completeness review
 - If initial review indicates deficiencies, staff contacts operator by phone and/or email to request additional information. Operator has 30 days to respond.

- o If APD passes initial review, it is imported from the external Workflow Database to the Workflow Database on the internal server.
- Permit staff posts notice of the Form 2 on the OGCC website and provides concurrent notice to the local government and in certain circumstances the Colorado Division of Wildlife (CDOW) and the Colorado Department of Public Health and Environment (CDPHE).
- Permit staff and engineering staff perform concurrent detailed review.
 - If detailed review indicates deficiencies, staff contacts operator by phone and/or email to request additional information. Operator has 30 days to respond. APD can be withdrawn by staff if deficiencies are not addressed in 30 days.
 - Public comments, if any, are reviewed for appropriateness and posted to the website. Potential health, safety and welfare issues are considered during the permit process. Conditions of approval are added as necessary.
 - o If the permitting and engineering tasks are found to be adequate, the respective tasks are passed and the APD is ready for the Director's approval.
 - After approval, the APD is subject to a 10 day appeal period before issuance.
- Impact of backlog:
 - Operators cannot drill the well until the APD is approved.
 - Approval delays can potentially affect the operator's drilling schedule and rig mobilization costs.
- Timing requirements: Per new OGCC rules, Form 2s cannot be approved in less than 21 days and the operator can request a prompt hearing after 75 days.
- Note:
 - Location must be staked and surveyed prior to submitting the APD.
 - If operator objects to the conditions of approval attached to the APD they have 10 days to appeal by requesting a hearing. The local government and the surface owner also have 10 days to request a hearing.

• Form 2A: Location Assessment

- Required prior to building a location, e.g. well pad, for any oil and gas facility to ensure impacts to the
 public, environment, and wildlife are minimized. For wells in certain areas, the OGCC must approve the
 Form 2A and may attach special conditions to such approval. For wells in other areas the OGCC uses
 the Form 2A to determine whether special conditions should be added to the APD.
 - Staff responsibility:
 - Operator submits Form 2A
 - o If paper Form 2A is submitted:
 - Records Admin Staff scans Form 2A document and all attachments.
 - Records Admin staff links, electronically, scanned Form 2A and attachments
 - Form 2A is data entered into the Workflow Database (external server).
 - Permit staff verifies data entry with scanned image of paper copy of Form 2A.
 - o If Form 2A is submitted electronically by operator:
 - Electronic submission is noted by the permit staff.
 - Permit staff performs initial completeness review
 - If initial review indicates deficiencies, staff contacts operator by phone and/or email to request additional information. Operator has 30 days to respond.
 - If Form 2A passes initial review, it is imported from the external Workflow Database to the Workflow Database on the internal server.
 - Permit staff posts the Form 2A on the OGCC website and provides concurrent notice to the local government and in some circumstances to the CDOW and CDPHE.

- Permit staff and Oil and Gas Location Assessment (OGLA) staff perform concurrent detailed review.
 - If detailed review indicates deficiencies, staff contacts operator by phone and/or email to request additional information. Operator has 30 days to respond. Form 2A can be withdrawn by staff if deficiencies are not addressed in 30 days.
 - o OGLA staff's environmental review may include an on-site visit.
 - When reviews are complete, conditions of approval may be attached to the Form 2A or APD, as applicable. When the respective tasks are passed, the Form 2A is ready for the Director's approval, if such approval is required.
 - After approval, Form 2A is subject to a 10-day appeal period before issuance.
- Impact of backlog:
 - Operators cannot construct the location until the Form 2A is approved. Operator's
 construction schedules may potentially be affected by the turnaround time for the Form
 2A; rescheduling because of approval delays can affect rig mobilization costs.
- Timing requirements: Per new OGCC rules, Form 2As cannot be approved in less than 21 days and the operator can request a prompt hearing after 75 days.
- Note:
 - Location must be staked and surveyed prior to submitting the Form 2A.
 - If operator objects to the conditions of approval attached to the Form 2A, they have 10 days to appeal by request of hearing. The local government and surface owner also have 10 days to request a hearing.

• Form 5: Drilling Completion Report

- Describes the "as-built" construction of the well.
- Contains the log tops of significant geologic formations.
- o Paper and electronic versions of electric logs are required to be submitted with the form.
- o Directional survey is required to be submitted with the form if the well is directional or horizontal.
- Cement tickets are required so cement may be verified in the hole.
- Lists actual casing/cementing results of drilling the hole.
- Contains timing of spud, reaching total depth (TD), and setting casing or plugging.
- Lists drilled location of top of production and bottom hole location.
- Lists the actual drilled depth and plug back depth.
- Records drill stem test results and core analysis.
 - Staff responsibility:
 - Permitting staff:
 - Compare with the APD to verify operator name, API number, well name/number, county, section, township and range, section line setbacks and field name.
 - Use footage calculator to determine if as-drilled location is within tolerable limits of proposed location. If it is not, request new survey from operator.
 - Verify that the submitted as-drilled lat/long are post spud.
 - If the well is directional or horizontal, use the submitted directional survey to verify the submitted locations of the top of production and bottom hole.
 - Enter the directional Bottom Hole Location (BHL) survey information into the directional tool in order to get the BHL plotted on MAPS from the BHL database.
 - Verify that the well was spud during the valid period of the APD.
 - Verify that the drilled depth was within reasonable limits of the permitted TD.
 - Verify ground and KB elevations from log headings.
 - Verify that the logs listed match the logs submitted with the Form 5. If they were not submitted, request copies from the operator.
 - Check and validate digital versions of uploaded logs. If they were not submitted, request that they be uploaded by the operator.
 - Verify that significant log formation tops are listed.

- Engineering staff:
 - Verify casing depths and cement coverage from log headings and analysis of the Cement Bond Long (CBL) and cementing tickets.
- Impact of backlog:
 - Unprotected groundwater, due to poor cementing procedures, is not detected in a timely manner.
 - Listed data is not available to interested operators and general public.
 - Drilling results are not available for monthly/annual summary of drilling activity.
 - Up-to-date information is lacking for permitting offset wells.
- Timing requirements: Operator must submit within 30 days of completing well.

• Form 5A: Completed Interval Report

- Required for each formation that is completed or attempted to complete.
- This report is submitted if a well is re-perforated and/or re-stimulated, or changes status.
 - Staff responsibility:
 - Permitting staff:
 - Compare with the APD to verify operator name, API number, well name/number, county, section, township and range.
 - Verify from well file that completed formation is legal to complete.
 - Check that all required fields are completed and request any missing data from operator.
 - Verify information from paper form with data entry in Forms Processor.
 - Electronically approve form; manually approve paper form.
 - Impact of backlog:
 - Delays database input of monthly production reports.
 - Delays timely error reports for missing production data.
 - Delays verification of production reports for levy payments.
 - Timing requirements: Operator is required to submit the report within 30 days of completing a
 formation (successful or not), when a formation is temporarily abandoned or permanently
 abandoned, for a recompletion, reperforation or restimulation, or when a formation is
 commingled.

Form 6: Well Abandonment Report

- Required before and after a well is plugged and abandoned (Intent to Abandon and Subsequent Report of Abandonment are covered on same form)
 - Staff responsibility:
 - Permitting staff:
 - For an Intent to Abandon and Subsequent Report of Abandonment:
 - Verify well name, API number and location information.
 - Verify as-built lat/long information.
 - Gather information from daily field reports.
 - Gather third party cement verification tickets.
 - Engineering:
 - For an Intent to Abandon: Review original construction of well bore, aquifers around well bore, and producing zones in the well bore to determine appropriate depth of cement plug and ensure oil, gas, or water is confined to the reservoir in which it originally occurred. 90% of all forms are corrected by staff (plugs are often set at wrong depths).
 - Subsequent Report of Abandonment: Evaluate cement tickets to determine volume, depth, and quality of cement. If the operator fails to submit all required

data, follow-up phone calls requesting additional data are required before the form can be processed.

- Impact of backlog:
 - Plugging operations are delayed.
 - Bond release is delayed.
 - Delay in substantiating sufficient cement coverage to protect water sources.
- Timing requirements: None established by statute or regulation.
- Note: Approval of the Intent to Abandon portion of the Form 6 can be urgent if something goes wrong with the well and it needs to be plugged immediately. In these situations the operator will provide the Form 6 information to the engineer over the phone and receive approval to plug and abandon (P&A) the well right away.

Form 7: Operators Report of Monthly Operations

- Operators are required to report every well and every well completion each month from the day the well is spud for the life of the well including one month as plugged. Important information, such as well status, production volume, and number of days active are reported each month for each completed formation
 - Staff responsibility:
 - Gather and input each operator's report, troubleshoot errors, and resolve delinquencies.
 All errors are corrected through contact with operator. Staff must complete process within 30 days or they will not be ready for the next month's reports and backlog is established.
 - About 45,000 records are currently submitted and processed each month, 85% electronically and 15% by mail. There are a large number of records that have significant errors that remain unresolved and there is a large number of delinquent records. These issues are not getting resolved due to staffing problems, because they require multiple phone calls, emails, and data review, and sometimes compliance action before issue can be resolved and production records are updated.
 - Impact of backlog:
 - When records are not current, all people, companies, and government entities that receive income from oil and gas operations cannot project or validate revenue.
 - Impacts industry exploration and acquisition efforts, because the OGCC is sole source of production information for wells in the state.
 - Timing requirements: Operators must report monthly, within 45 days of end of each month.

Form 8: Conservation Levy (as above, but quarterly)

- Required quarterly by first purchaser for each operator
 - Staff responsibility:
 - Process checks for deposit
 - Input approx. 600 forms quarterly, troubleshoot and resolve errors with payers
 - Impact of backlog:
 - The OGCC is unaware of over/under payments
 - Bonds cannot be released if levy is not current.
 - Timing requirements: Levy reports and payments are due quarterly.

• Form 10: Certificate of Clearance and/or Change of Operator

- Certificate of Clearance
 - Staff responsibility:
 - Permitting staff:
 - o Verify operator, well name and number, location.

- Check for date of first production and first sales.
- Check that gatherer's name and number are listed. If not, request registration of gatherer.
- Impact of backlog: Operator, transporter, and gatherer are unsure if movement and sales of product are authorized.
- Timing requirements: Due within 30 days of first sales.
- o Change of Operator, Gatherer, or Transporter
 - Staff responsibility:
 - Permitting (single well) / Information Supervisor (multiple wells):
 - Verify new operator name, adequate bonding, effective date of change and well name and number, location in the form heading.
 - Verify that financial assurance is provided for each well.
 - o Check if previous operator has any outstanding compliance issues.
 - Resolve compliance issues or confirm in writing that new operator has assumed responsibility.
 - Check that gatherer's name and number are listed. If not, request registration of gatherer. If gatherer not listed, request that information.
 - o Check for buyer's and seller's signatures.
 - Approve form electronically and manually; mail out operator's copy.
 - Impact of backlog: Operator, transporter, and gatherer are unsure if movement and sales of product is authorized.
 - Timing requirements: Due within 30 days of change of operator.

Notes:

- All forms require general administration, such as receiving, date stamping, bar coding, routing to appropriate staff member, scanning, indexing, and filing for permanent repository.
- All staff provides general service to the public. Approximately 20-25% of staff time is spent responding to queries from operators, government agencies, and the general public.