COGCC approval is required prior to drilling any well (Rule 303.a.(1)) and prior to plugging any well (Rule 311 and Rule 319.a.(6)). The operator must obtain verbal approval from an authorized COGCC representative prior to plugging a lost hole, skidding the rig, and spudding an unplanned replacement well. The operator must submit required forms and data after the operations have started.

1. OPERATOR

- a. Contact (by phone & email) COGCC Engineering to request approval to plug a lost hole, skid the rig, and drill an unplanned well as a replacement
 - i. Eastern Supervisor = Diana Burn 303-918-6320 (diana.burn@state.co.us)
 - ii. Northwestern Supervisor = Dave Andrews 970-456-5262 (david.andrews@state.co.us)
 - iii. Southwestern Engineer = Mark Weems 970-749-0624 (mark.weems@state.co.us)
 - iv. Alternate: If unable to reach the contacts designated above, Stuart Ellsworth 303-489-2977 (stuart.ellsworth@state.co.us)
- b. Provide all of the following information by email to the appropriate COGCC Engineer shown above in Step 1.a.
 - i. Explanation of the situation that has resulted in a lost hole and the need to plug the lost hole
 - ii. Total measured depth reached in the lost hole
 - iii. Casing set size(s) and measured depth(s)
 - iv. Description of fish in the hole (if any) including top and bottom measured depths
 - v. Description of proposed plugs: setting measured depths, heights, and cement volumes
 - vi. Type of cement to be used for all plugs, including slurry weight (ppg) and yield (cf/sk)
 - vii. Proposed objective formation(s) for replacement well new or same as lost hole
 - viii. BHL target for replacement well new or same as lost hole (NOTE: a change in the BHL must be reviewed and approved by COGCC Permitting prior to completing the replacement well. Drilling a well to an unapproved BHL could result in an NOAV, plugging the well, or both).

2. COGCC Engineering

- a. Evaluate proposed plugging procedure, and discuss with operator if necessary
- b. Provide verbal approval (by phone & email) to the operator for the plugging procedure, rig skid and spud of the unplanned replacement well
 - i. Send email to operator and to COGCC area engineer, permit supervisor, area permit tech, field inspection supervisor, and area field inspector
 - ii. ALWAYS attach PDF of most recent version of this Lost Hole Rig Skid: Approval and Reporting Process document to the email
 - iii. Identify new objective formation(s) and/or new BHL for replacement well as necessary
 - iv. If BHL of replacement well differs from BHL for lost hole, then include a statement in the email that indicates: "Verbal approval to proceed is contingent upon the assumption that the BHL and wellbore path remain at a legal location for completion (COGCC permitting staff will evaluate prior to formal approval of the forthcoming APD Form 2 for the replacement well). If the BHL or the productive portion of the replacement well extends into locations that are not legal, then [INSERT OPERATOR NAME] may have to plug back portion(s) of the well that are not legal or obtain waivers from offset mineral interests."

c. Add a RemindmE for the well, indicating "[ENGINEER NAME] provided verbal approval for a request to plug lost hole, skid rig, and drill replacement well on [XX/XX/XXXX]. See scanned email correspondence for details." Insert appropriate date in the bracketed item. The RemindmE should be entered the same day as the approval or as soon as possible thereafter.

3. OPERATOR

- a. Proceed with plugging lost hole, rig skid, and spudding replacement well following receipt of verbal approval from COGCC Engineering
- b. Submit required forms and data (see details below) to the COGCC area permit tech in Denver for these operations as follows:
 - i. Within 24 hours (or end of next business day) submit Well Abandonment Report Form 6 Notice of Intent to Abandon for Lost Hole. Information contained on this Form 6 should be consistent with the information provided to COGCC Engineering staff for the verbal approval described in Step 1.b., and this Form 6 will formally document COGCC's approval to plug the lost hole: <u>Submit the Form 6</u> <u>electronically via eForm, and immediately notify COGCC area permit tech by sending an email with the</u> <u>eForm Document Number, OR Send a scanned copy of the signed Form 6 via email directly to COGCC</u> <u>area permit tech</u> (do not submit hard copy)
 - Within 24 hours (or end of next business day) submit Application for Permit to Drill, Form 2 for Replacement Well for COGCC approval of the new well: <u>Submit the Form 2 electronically via eForm,</u> <u>and immediately notify COGCC area permit tech by sending an email with the eForm Document</u> <u>Number, OR Send a scanned copy of the signed Form 2 via email directly to COGCC area permit tech</u> (do not submit hard copy)
 - iii. Within 24 hours (or end of next business day) submit Sundry Notice, Form 4 for the Location to add a new well: amend the Form 2A for the addition of the Replacement Well. <u>Submit the Form 4</u> electronically via eForm, and immediately notify COGCC area permit tech by sending an email with the eForm Document Number, OR Send a scanned copy of the signed Form 4 via email directly to COGCC area permit tech (do not submit hard copy)
 - iv. Within 30 days, submit Drilling Completion Report, Form 5 for the lost hole to report operations associated with drilling of the lost hole
 - v. Within 30 days submit Well Abandonment Report, Form 6 Subsequent Report of Abandonment for lost hole to report the actual depths, materials, and quantities used for plugging the lost hole
- 4. <u>COGCC Permitting</u> Upon receipt of the email described in Step 2.b.i. from COGCC engineering:
 - a. Contact operator to confirm operator's plans for 24-hour submittal of Form 6 Notice of Intent, Form 2, and Form 4, and the 30-day submittal of Form 5 and Form 6 Subsequent Report of Abandonment.
 - b. Expedite data entry and processing of Form 6 Notice of Intent, Form 2, and Form 4 submittals from operator if paper forms submitted
 - c. Pass completeness on Form 2
 - d. Set due dates to today and waive tasks for LGD and Public Comment eForm tasks on Form 2
 - e. Send email to COGCC engineering after passing eForm tasks on Form 6 Notice of Intent and Form 2, and coordinate processing and approval of Form 6 Notice of Intent and Form 2 with COGCC engineering
 - f. Expedite approval of Form 2 by the Director

g. Coordinate processing and approval of Sundry Notice Form 4 for Location with OGLA staff

DETAILED OPERATOR INSTRUCTIONS for REQUIRED FORMS

<u>Well Abandonment Report, Form 6 – Notice of Intent to Abandon for Lost Hole</u>: for COGCC approval to plug the lost hole

- 1. Submit within 24 hours (or end of next business day) to COGCC in Denver
- 2. <u>Send a scanned copy of the signed Form 6 via email directly to COGCC area permit tech OR Submit the</u> Form 6 electronically via eForm, and immediately notify COGCC area permit tech by sending an email with <u>the eForm Document Number</u>
- 3. <u>ALL</u> information is <u>**REQUIRED</u>** and <u>ALL</u> casing and casing cement information must be the <u>ACTUAL</u> data: This wellbore has been drilled and abandoned, do not submit the Form 6 with the proposed casing and casing cement information from the Form 2, which may differ from the actual casing and cement information.</u>
- 4. Enter planned plug data, consistent with the information provided to COGCC Engineering staff for the verbal approval described in Step 1.
- 5. REQUIRED ATTACHMENTS:
 - a. Wellbore diagram: Current/Prior to Plugging Wellbore diagram: Proposed/After Plugging
- 6. <u>REQUIRED COMMENTS</u>:
 - a. Brief description of lost hole, rig skid, and the unplanned replacement well
 - b. Verbal/email approval to plug, skid rig, and spud replacement well indicate the name of the COGCC Engineer who granted verbal/email approval, as described in Step 1.b., and the date approval granted.

<u>Application for Permit to Drill, Form 2 for Replacement Well</u>: for COGCC approval of the unplanned replacement well

- Submit within 24 hours (or end of next business day) to COGCC in Denver: <u>Submit the Form 2</u> <u>electronically via eForm, and immediately notify COGCC area permit tech by sending an email with the</u> <u>eForm Document Number, OR Send a scanned copy of the signed Form 2 via email directly to COGCC area</u> <u>permit tech (do not submit hard copy)</u>
- 2. REQUIRED ATTACHMENTS:
 - a. Plat hand revision of plat from lost hole is acceptable
 - b. Deviated drilling plan (if directional well)
 - c. Convert engineer's verbal approval email to a PDF and attach to the Form 2 as "CORRESPONDENCE"

3. <u>REQUIRED OPERATOR COMMENTS</u>:

- a. Brief description of plugging lost hole, rig skid, and the unplanned replacement well
- b. Verbal/email approval to plug, skid rig, and spud replacement well indicate the name of the COGCC Engineer who granted verbal/email approval, as described in Step 1.b., and the date approval granted

Sundry Notice, Form 4 for the Location: for amending the Form 2A with addition of the Replacement Well

1. Submit within 24 hours (or end of next business day) to COGCC in Denver: <u>Submit the Form 4</u> <u>electronically via eForm, and immediately notify COGCC area permit tech by sending an email with the</u>

<u>eForm Document Number, OR send a scanned copy of the signed Form 4 via email directly to COGCC area</u> <u>permit tech (do not submit hard copy)</u>

- 2. Creation of the Form 4: use the Location ID Number for the Location, **<u>NOT</u>** an API Number for a well
- 3. ENGINEERING AND ENVIRONMENTAL WORK section of Form 4
 - a. Check "NOTICE OF INTENT" box and provide "Approximate Start Date:"
 - b. Check "Other" box and enter "Replacement Well"
 - c. <u>REQUIRED OPERATOR COMMENTS:</u>
 - i. Brief description of the situation that has resulted in plugging a lost hole, skidding the rig, and drilling a replacement well
 - ii. Statement requesting increase number of wells on the location from "X" to "Y"
 - iii. Well Name and Number of plugged lost hole
 - iv. Well Name and Number of replacement well
 - v. Impact of adding the replacement well to the location configuration, indication that no new additional surface disturbance will be made
 - vi. Verbal/email approval to plug, skid rig, and spud replacement well indicate the name of the COGCC Engineer who granted verbal/email approval, as described in Step 1.b., and the date approval granted.
- 4. REQUIRED ATTACHMENT:
 - a. Location Drawing showing location of replacement well (hand revision of Location Drawing from previous Form 2A is acceptable)

Drilling Completion Report, Form 5 for Lost Hole: to report the completion of the drilling of the lost hole

- 1. Submit within 30 days to COGCC in Denver
- 2. Submit one original paper Form 5 <u>or</u> submit Form 5 electronically in eForm
- 3. <u>ALL</u> information is <u>**REQUIRED</u>** and <u>**ALL**</u> casing, casing cement, and total depth information must be the <u>**ACTUAL**</u> data: This wellbore has been drilled, do not submit the Form 5 with the proposed casing and cement information from the Form 2, which may differ from the actual casing and cement information.</u>
- 4. Provide actual total depth reached and calculate the footages from section lines for the BHL at that TD
- 5. Enter all actual plug data, which should match plug data shown on Form 6 Subsequent Report of Abandonment
 - a. For an eForm submittal use Stage/Top Out/Remedial Cement section of the form
 - b. For a paper submittal use Casing, Liner and Cement (Line 20) section of the form
- 6. REQUIRED ATTACHMENTS:
 - a. Cement job summaries for all primary casing cement jobs and any remedial casing cement jobs
 - b. Directional survey
 - c. Logs LAS and PDF/TIFF (State on Form 5 if no logs were run.)
- 7. <u>REQUIRED OPERATOR COMMENTS</u>:
 - a. Brief description of plugging lost hole, rig skid, and the unplanned replacement well

<u>Well Abandonment Report, Form 6 – Subsequent Report of Abandonment for Lost Hole</u>: to report the plugging of the lost hole

- 1. Submit within 30 days to COGCC in Denver
- 2. Submit one original paper Form 6 *or* submit Form 6 electronically in eForm

- 3. <u>ALL</u> information is <u>**REQUIRED</u>** and <u>ALL</u> casing, casing cement, and cement plug information must be the <u>**ACTUAL**</u> data: Do not submit the Form 6 with the proposed casing and cement information from the Form 2, which may differ from the actual casing and cement information.</u>
- 4. Enter all actual plug data, which should match plug data shown on Form 5
- 5. REQUIRED ATTACHMENTS:
 - a. Cement job summaries for all plugs
 - b. Wireline job summaries for any wireline-set plugs
 - c. Final Wellbore Diagram, showing actual plugs after plugging

6. REQUIRED OPERATOR COMMENT:

a. Brief description of lost hole, rig skid, and the unplanned replacement well