



COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

NOTICE OF GENERAL MEETING OF THE BOARD OF EXAMINERS
AGENDA

Date April 1, 2025

Location Hybrid In Person/Virtual Meeting

In Person: 1313 Sherman Street, Room 318, Denver, CO 80203

Please Call Nolan Tanguma, 303-607-8283
for access to the building

Virtual Link: [Join with Google Meet](#)

Oral Examinations (In-Person or Virtual) - updated 3/20/25

8:00 am - Randy Conrad, Pompano Beach, FL, Special License to Construct Monitoring Wells that do and do not penetrate through a Confining Layer using Sonic Drilling Methods (In-Person)

8:30 am - Brant McCoy, Salida, CO, Air Rotary Well Construction (In-Person)

9:00 am - Tom Dea, Denver, CO, Pumps Both (In-Person)

Regular Meeting 9:30 am

Chairperson - Christopher Sanchez, PG


Vice Chairperson - Robert Hillegas, CDPHE

The Board may refer any item contained or discussed under an agenda item to Agenda Item 18 for discussion in Executive Session

1. Call to Order
2. Establish a Quorum
3. Distribute [Google Form](#) to Attendees to sign-in and request public comment,
4. Review Agenda
5. Approval of previous meeting minutes
 - a. February 4, 2025
6. Report from the State Engineer's Office
7. Report from the Water Quality Control Division
8. Report from the CWWCA Liaison



9. Staff Report -

- a. Update on Examination and Licensing Activities - updated 3/14/25
 - i. current contractors - 241, lapsed contractors - 10
 - ii. Licensing Applicants (since last BOE meeting 2/4/25) - 5 approved, 4 pending
- b. Continuing Education Update - updated 3/14/2025
 - i.  2025 CE Log of Courses - total of 59 courses/meetings to date (38 online, 21 in person, 3 pending)
 - ii. Jason Fegel has replaced Josh Weaver on the BOE CE Committee
- c. Well Inspection Program
 - i. Well Permit Counts
 - ii. Well Inspection Report
 - iii. Variance Report

10. Proposed Well Construction Rule Changes

- a. Introduce Latest Draft and Upcoming Process
- b. [Public Comment](#)
- c. Request Board Direct Staff to File Draft Rules with the Secretary of State

11. Variance Requests - (Request: Approval, Approval with Modifications to Request, Approval with Requirements for Correction/Repair, Request Additional Details and Reconsider at a Later Date, Denial, Denial with Requirements for Correction/Repair, or Denial with Requirements to Abandon Existing Well/Hole)

- a. USDA Forest Service, Buckhorn Ranger Station Well; [Receipt 10034376](#); GWS-31 Denial Appeal.
- b. Tom Dea of Pumpman Colorado on Behalf of Owner; Receipt C620254, [Permit 254-WCB](#); Appeal of Denial of Variance for Methods to Abandon a well with Stuck Equipment.
- c. BBA Water Consultants, LLC on Behalf of Owner; Appeal of Variance Request Denial for Relief from Rule 14.2.2. and Request to Approve Monitoring Well Construction Information for Proposed Conversion to Production Well:
 - i. [Permit 121346](#);
 - ii. [Permit 121351](#);
 - iii. [Permit 121356](#); and
 - iv. [Permit 121348](#).
- d. BBA Water Consultants, LLC on Behalf of Owner; Appeal of Denial of Monitoring Well Construction Information for the Purpose of Conversion to Production Well.
 - i. [Permit 164780](#); and
 - ii. [Permit 164914](#).

- e. Ojo Springs Drilling and Well Service, LLC and Owner Michael Howard, [Permit 336820](#); Appeal of Denial of Variance to Rules 10.4.5.2.b and 10.4.5.2.c for Non-Standard Construction of Type I Aquifer Penetrating Multiple Confining Layers.
 - f. BBA Water Consultants; Creekside Ranch; [Permit 67267-F](#); Non-Continuous Supervision by Authorized Individual for Pond Well Reconstruction; Variance Request to Rules 5.2.3 and 9.1.
12. Review of Active Complaints and Settlement Recommendations
- a. Requested Board Action
 - i. 24-BC-035 - Josh Nothnagle; [Permit 88062-F](#); Installation of a Pump as an Unlicensed Contractor; Request Board Direct Staff to have AG pursue this matter in DC.
 - ii. 25-BC-001 - Daniel Weber; [Receipt 10011375](#); Construction of a Well as an Unlicensed Contractor; Request Board Direct Staff to have AG pursue this matter in DC.
 - b. Status Updates
 - i. 24-BC-027 - Howard Crandall Jr; Lic No 1229; [Permit 331925](#); Stipulated Settlement to Replace well Misconstructed in a Type I single aquifer. Replacement well constructed; waiting on evidence of Abandonment of original well.
13. Report from the Attorney General's Office
- a. John Newman Attorney General Report - This is a background briefing on legal issues in the written report.
14. Old Business
- a. DWR Legislative Updates
 - i. [HB25-1014 Increase Efficiency In Division Of Water Resources Processes](#)
 - ii. [HB25-1165 Carbon Management & Geothermal Regulation in Colorado](#)
 - b. Greg Kennedy, Contractor License Application Review for Pump Installation in Water Systems Less than or Equal to 100 gpm. Board Review for Experience gained while working as unlicensed contractor and when experience cannot be verified because of deceased Contractors.
15. New Business
- a. Draft Policy 2025-1 - Clarification of Grouting Requirements for Wells Constructed with Driven Casing; Request Board Comment and Approval
16. [Public Comment \(Click Here to Sign Up\)](#)
17. Future Meetings
- a. Tuesday May 27 - Wednesday May 28, 2025, 1313 Sherman St., Room 318 & Online Potential Well Construction Rulemaking Hearing
 - b. Tuesday, June 3, 2025, 1313 Sherman St., Room 318 & Online

c. Tuesday, August 5, 2025, 1313 Sherman St., Room 318 & Online

18. Executive Session (if needed)


- a. 19-BC-052, 20-BC-002, 23-BC-012, 23-BC-018, David J. Weber Hearing VS District Court
- b. Douglas Hasser et. al.: 23-BC-032
- c. Questions About Rulemaking Hearing Process.

19. Report from Executive Session

20. Adjournment

Virtual Meeting Instructions

To join the meeting click the [link](#) and follow the onscreen prompt to join the meeting.

- *Chrome is the preferred browser*
- You can use your computer for audio (camera/computer speakers) or join with a phone.
 - *Using your computer for audio and/or video is preferred*
- If using your phone:
 - Have Meet call your phone
 - Depending on whether or not you're already in a meeting, choose an option:
 - If you're in the meeting, click More  > Use a phone for audio.
 - From meet.google.com, select the meeting and click Join and use a phone for audio.
If you're in a different domain than the meeting owner, someone in the meeting might need to approve you.
 - Click Call me. Enter your phone number. Click Call me. When prompted, press 1 on your phone.
 - Dial in by Phone
 - (US) +1 406-838-3164 PIN: 969 359 572#
 - Please remember to use *6 to unmute yourself if you are using your phone.
- Google Meet training and help:
<https://support.google.com/a/users/answer/9282720?hl=en#>

AGENDA ITEM 5

Approval of previous meeting
minutes

February 4, 2025



COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

**Board of Examiners of Water Well Construction
and Pump Installation Contractors**

Please find the link to the recording here:
Recording Link

MINUTES
February 4, 2025

Oral Examinations February 4, 2025 -

The below individuals appeared before the Board of Examiners to take their respective oral examinations

- Jonathan Glover, Fort Lupton, CO, Mud Rotary Well Construction and Pumps Equal To or Less than 100 GPM (Virtual)(re-examination from December 3, 2024)
- Jeff Hacking, Elko, NV, Air, Mud and Reverse Rotary Well Construction (In-Person)
- Ciriaco Vaught, Brighton, CO, Pumps Equal to or Less than 100 GPM & Pumps Greater than 100 GPM (In-Person)

Regular Meeting 9:30 am

Chairperson - Christopher Sanchez, PG

Vice Chairperson - Robert Hillegas, CDPHE

The Board may refer any item contained or discussed under an agenda item to Agenda Item 19 for discussion in Executive Session

1. Call to Order

Attendees - On February 4, 2025, the Board of Examiners held its first regular meeting for 2025. Chris Sanchez called the meeting to order at 9:34 am. Other Board members present were Todd Hunter (Online), Tim Kunau, Robert Hillegas, and John Hunyadi. Chris Jones, Shaylee Andreatta (Online), and Laura Kalafus attended as staff of the State Engineer. Jen Mele and John Newman attended from the Attorney General's Office. Also attending were Kevin Donegan, Andy Flor, Marques Hatfield, and Nolan Tanguma, staff with the DWR Hydrogeology Section. Licensed Contractor Josh Weaver represented the Colorado Water Well Contractors Association (CWWCA).

In-person: Alex Powell, Larry Finney, Cathy Finney, Joel Hellwege, Josh Weaver, Larry Hersh, Mario Gomez, Greg Kennedy



Virtual: David Schiowitz, Derek Turner, Doug Stephenson, Jamie Krezelok, John Shuler, Juan Londono, Kendall Burgemeister, Lawrence Fullenkamp, Lisa Voorhis, Matt Hengel, Tony Rabbio, Travis Day

2. **Establish a Quorum**
 - a. All members present
3. **Hearing, Robert Young; 23-BC-004**
 - a. Staff requested to vacate the hearing
4. **Review Agenda**
 - a. No changes
 - b. Robert Hillegas motioned to approve the agenda. John Hunyadi seconded. Motion carried.
5. **Approval of previous meeting minutes**
 - a. December 3, 2024
 - i. Chris Sanchez motioned to approve the December 3, 2024 minutes. Robert Hillegas seconded. Motion carried.
6. **Report from the State Engineer's Office**
 - a. John Hunyadi provided the report
 - i. Nothing to report
7. **Report from the Water Quality Control Division**
 - a. Robert Hillegas provided the report
 - i. Nothing to report
8. **Report from the CWWCA Liaison**
 - a. Josh Weaver provided the report
 - i. Held annual conference from January 8th through the 10th, where new officers were elected
9. **Staff Report**
 - a. Licensing Packet
 - b. Update on Examination and Licensing Activities - updated 2/3/2025
 - i. current contractors - processed 214 complete license renewals, 22 incomplete renewals, 7 missing renewals, 3 not renewing license
 - ii. Licensing Applicants (since last BOE meeting 12/3/24) - 7 approved, 3 pending
 - c. Continuing Education Update - updated 1/24/2025
 - i. [2024 CE Log of Courses](#) - total of 57 courses/meetings to date (25 online, 32 in person)
 - ii. [2025 CE Log of Courses](#) - total of 36 courses/meetings to date (18 online, 18 in person)

d. Well Inspection Program

i. Well Permit Counts

1. Chris Jones provided the report
2. Issue with the generated reports identified
3. Numbers for past years may still change, but general trends appear to remain unchanged
4. This year's counts may change, but slightly fewer construction reports generally submitted, while pump installations, repairs, and abandonments generally increased

ii. Well Inspection Report

1. Chris Jones provided the report
2. Total number of inspections are comparable to previous years

iii. Variance Report

1. Marques Hatfield provided the report

10. Proposed Well Construction Rule Changes

a. Potential Timeline Update - Final Draft Now Expected March 2025

- i. Kevin Donegan provided an overview of the proposed timeline
- ii. Chris Sanchez confirmed that Board should plan to review the near final draft of the Rules in March
- iii. Jen Mele confirmed that the Basis and Purpose would also be completed and ready for review in March
- iv. Discussion regarding the previous hearing timeline and what should be expected for this process

b. Public Comment

i. Travis Day

1. Requested that Board be transparent if a special meeting is held before the hearing
2. Stated that contractors have been much more involved in this process as opposed to the last rulemaking process

ii. Josh Weaver

1. Stated that he has the same concern as Travis about the virtual meeting being advertised so contractors have a chance to attend

iii. Joel Hellwege

1. Provided demonstration and statement about the inefficacy of steel casing on Type I wells
2. Proposed that the Rules allow for PVC casing in Type I wells

3. Proposed that Division Water Commissioners go out to do a quick, basic inspection of wells with advance notice on a limited basis per month
4. Stated that, based on his current research, nine states allow driven steel casing with just a bentonite seal at the bottom
5. Stated that the drilling community could approach manufacturers to produce thicker, heat resistant PVC casing
6. Tim Kunau and Joel Hellwege discuss construction practices and state preference that Rules reflect different requirements for different areas

11. Variance Requests - (Request: Approval, Approval with Modifications to Request, Approval with Requirements for Correction/Repair, Request Additional Details and Reconsider at a Later Date, Denial, Denial with Requirements for Correction/Repair, or Denial with Requirements to Abandon Existing Well/Hole)

- a. USDA Forest Service, Buckhorn Ranger Station Well; [Receipt 10034376](#); GWS-31 Denial Appeal.
 - i. Chris Jones presented background information
 - ii. Lawrence Fullenkamp provided further information
 1. Provided history of the well
 2. Stated that well provides safe water
 - iii. Mr. Fullenkamp clarified that water supply will primarily serve the rental residences, and staffed visitor information center
 - iv. Chris Sanchez clarified with Chris Jones that the well was constructed by the owner without a valid permit, and the current request is essentially a late registration of a well
 - v. Discussion regarding water quality tests, resulting disinfection actions, and future plans for operation/treatment
 - vi. Josh Weaver stated that well owners are protecting the public, but not the groundwater resource
 - vii. Board expressed that they would like to hold off on action until further chemistry results are obtained

Break from 10:51 to 10:56

- b. Mr. Sanchez confirmed with Todd Hunter that he will be abstaining from voting on items 12.b, c, e, f, g, h, i, j, and k
- c. Dave Bomhoff/Tom Dea on behalf of Well Owner; [Permit 22066](#); Abandonment Variance - Perforated and Grouted Interval Different than that Required by Rule 16.2 and Policy 2018-2.
 - i. Chris Jones provided background information

- ii. Chris Jones clarified with Tom Dea that the broken PVC pipe was unable to be removed from the well
- iii. Discussion regarding present aquifers and possible abandonment procedures
- iv. Chris Sanchez motioned that the Board approves a variance to Rule 16.2 and Policy 2018-2 to allow for perforation of the casing above the Fox Hills estimated to be on the order of 550 to 600 feet as well as an additional set of perforations below the base of the Lower Arapahoe estimated to be on the order of 310 to 330 feet
 - 1. Chris Jones clarified with Tom Dea that he would be pushing a tremie as deep as possible then pumping the well full of neat cement grout from the bottom to the surface
 - 2. Motion amended to include perforated interval as determined by Staff
 - 3. Motion amended to include allowance to not have to remove the pump stuck in the well
 - 4. John Hunyadi seconded
 - 5. Motion carried
- d. Dave Bomhoff/Tom Dea on behalf of Well Owner; [Permit 34842](#); Abandonment Variance - Perforated and Grouted Interval Different than that Required by Rule 16.2 and Policy 2018-2.
 - i. Chris Jones presented background information.
 - ii. Chris Sanchez motioned that Board approves a variance to Rule 16.2 and Policy 2018-2 to allow for the abandonment of the well such that the well is perforated near the base of the Laramie and at the top of the Laramie, as determined by Board staff, then filled from bottom to surface using tremie pipe and neat cement. Robert Hillegas seconded. Motion carried.
- e. Dennis Blair, Lic 1221, Continuing Education Variance for In-Person Hours
 - i. Chris Jones presented background information.
 - ii. Discussion regarding relevance of AllStar Training programs and Mr. Blair's circumstances
 - iii. John Hunyadi motioned to approve a variance to Rule 8.1b and BOE Policy 2023-2 to allow the requester to utilize 8 hours of online training to satisfy the requirements. Tim Kunau seconded. Motion carried.
- f. Jackson/Shaw Taylor River Ranches LLC, [Permit 310295](#), Monitoring Well conversion to Production Well denial appeal - inadequate annulus Rule 10.4.4.
 - i. Chris Jones presented background information
 - ii. Board expressed preference that, if the issues are similar, they be reviewed in a batch
 - iii. Kendall Burgemeister presented overview of area, showing generally sparse development immediately surrounding these wells

- iv. David Schiowitz noted the SWL of 275 feet, perforations starting at 320 feet, with no encountered water noted above the grouted zone.
- v. Doug Stephenson stated that he does not have the notes on this situation anymore, but that he would not have provided a blanket allowance for the smaller annulus on all wells
- vi. Frank Williams stated he was not part of the discussion between Frank Roper and Doug Stephenson, but that approval would have been verbal
- vii. Chris Sanchez clarified with Chris Jones that these wells are compliant with the monitoring well requirements, but not with production well requirements.
- g. Jackson/Shaw Taylor River Ranches LLC, [Permit 311521](#), Monitoring Well conversion to Production Well Variance - inadequate annulus Rule 10.4.4, no grout in interval required by Rule 10.4.2.1.a for driven casing.
 - i. Chris Jones presented background information
 - ii. David Schiowitz noted the SWL of 268 feet, perforations starting at 280 feet, with no encountered water noted above the grouted zone.
 - iii. Discussion regarding local geology, initial construction, and possible action
 - iv. David Schiowitz commented that the “soft ss” referred to on the geologic log could be one of the mapped dykes in the area
 - 1. Chris Sanchez agreed with this interpretation
- h. Jackson/Shaw Taylor River Ranches LLC, [Permit 334117](#), Monitoring Well conversion to Production Well Variance - no grout in interval required by Rule 10.4.2.1.a for driven casing.
 - i. Chris Jones presented background information
 - ii. David Schiowitz noted the SWL of 155 feet, perforations starting at 180 feet, with no encountered water noted above the grouted zone.
 - iii. Discussion regarding local geology, initial construction, and possible action
 - iv. Travis Day stated that, the previous understanding was that, if the surface seal is present with driven casing, drillers do not need to provide a grout overlap at the base of the driven casing
 - 1. Further stated that, if they do need that overlap, it has major implications for construction methods
 - a. Chris Jones stated that he could agree with the interpretation, but that the wording of Rule 10.4.2.1.a requires the presence of that overlap.

Break from 12:00 to 12:45

- v. Chris Sanchez asked why the wells were not originally permitted as production wells
 - 1. David Schiowitz responded that a number of these wells were drilled as an exploratory effort
- vi. Chris Jones asked if Board is asking Staff to interpret Rule 10.4.2.1 as requiring either a surface seal or a basal overlap, but not both
 - 1. Board stated support for Staff to draft a policy to remove the requirement of a basal grout seal on driven casing if a proper surface seal is in place
- vii. Discussion regarding construction methodology for these wells, specifically the method of grouting the driven casing at the surface
 - 1. Question over the applicability of the Rules to driven casing with a grout seal.
- viii. Chris Sanchez motioned to approve the variance to convert permit 334117 to a production well. John Hunyadi seconded. Motion carried
- i. Jackson/Shaw Taylor River Ranches LLC, [Permit 309571](#), Monitoring Well conversion to Production Well Variance - Multiple potential construction deficiencies related to Rules 10.1.c, 10.1.d, 10.4.2.1.a, 10.4.4, 10.4.5.1.c, 14.1.1, Policy 2017-2.
 - i. Chris Jones provided background information
 - ii. David Schiowitz noted the SWL of 49 feet, perforations starting at 200 feet, with no encountered water noted above the grouted zone.
 - iii. Chris Jones confirmed that the geologic log was created with the help of a hydrogeologist
 - iv. Discussion regarding local geology, initial construction, and possible action
 - v. Chris Sanchez motioned that the Board not approve the requested variance and that they order the contractor to repair or abandon the well in accordance with the rules within a 90 day period.
 - 1. Motion amended to specify a 120-day time period.
 - 2. Robert Hillegas seconded
 - 3. Motion carried
- j. Jackson/Shaw Taylor River Ranches LLC, [Permit 309409](#), Monitoring Well conversion to Production Well Variance - Inadequate annulus Rule 10.4.4.
 - i. Chris Jones provided background information.
 - ii. David Schiowitz noted the SWL of 30 feet, perforations starting at 60 feet, with no encountered water noted above the grouted zone.
 - iii. Discussion regarding summary of violations for each well still without action and what actions can or should be taken

- iv. John Hunyadi motioned that Board approve a variance to Rule 10.4.4 to allow a smaller annular space on permits 310295, 311521, 334117, 309409
 - 1. Motion amended to disinclude permit 334117
 - 2. Tim Kunau seconded
 - 3. Motion carried
- k. Larry Hersch, [Permit 417-R](#), Unconventional Abandonment of Well, Rule 16.1 and 16.3.
 - i. Chris Jones presented background information
 - ii. Larry Hersch and Mario Gomez provided more information regarding construction plan
 - iii. Discussion regarding current state of the well, local geology, potential construction actions, and possibility of future action with the well should the proposed “abandonment” occur
 - iv. Chris Sanchez motioned that, for permit 417-R, the Board approve the unconventional abandonment of the well with the conditions that the PVC casing is centralized in the hole at the time of grouting, that the pumping assembly is not structurally supported by the PVC casing, and that if the well falls into disrepair or is not used as part of the irrigation system for more than 2 years, then it will be plugged with neat cement.
 - 1. Robert Hillegas asked if a future condition can be put on an abandoned well
 - a. Jen Mele clarified that it is permissible as a requirement of the abandonment
 - 2. Tim Kunau seconded
 - 3. Motion carried
 - v. Chris Jones relayed a warning from the permitting group that the additional storage of the well may need to be accounted for
- l. Joel Hellweg on Behalf of GWD Rainbow MLV LLC (Valerie Groves), Receipt No. 10040393 - Window Casing Grouting with Base of Cement Grout <19’ bgs - Rules 10.4.2, 10.4.3 and 10.4.7.
 - i. Joel Hellweg presented background information
 - ii. Chris Sanchez confirmed with Staff that the intent of the Board was to still hear these variances during Board meetings
 - iii. Discussion regarding “window casing” construction practice and plans for this well
 - iv. Chris Sanchez motioned to approve the variance as requested. Tim Kunau seconded.
 - 1. Todd Hunter asked if a new rule is being written for wells with window casing

- a. Staff and Board generally agreed that this construction type can still be granted by variance
2. Joel Hellweg asked if Board can provide Staff with the ability to grant these variances without them being heard by the Board
 - a. Board expressed preference that these types of variances still be heard by the Board
3. Motion carried

12. Review of Active Complaints and Settlement Recommendations

- a. Requested Board Action
- b. Status Updates
 - i. James Logue, Lic No. 1372, Complaint 23-BC-014 - Resolution
 1. Chris Jones confirmed with the Board that he will be informing the bonding company that this complaint has been resolved

13. Report from the Attorney General's Office

- a. Derek Turner/John Newman Attorney General Report - This is a background briefing on legal issues in the written report.
 - i. Derek Turner stated that the Peterson matter was resolved while he was covering for John Newman
 - ii. Mr. Turner stated that the rest of the matters can be covered in Executive Session

14. Old Business

- a. Geothermal Regulatory Study
 - i. Kevin Donegan provided an update on the geothermal regulatory study
- b. DWR Legislative Updates
 - i. [HB25-1014 Increase Efficiency In Division Of Water Resources Processes](#)
 1. Kevin Donegan summarized the bill
 - ii. [HB25-1165 Carbon Management & Geothermal Regulation in Colorado](#)
 1. Kevin Donegan summarized the bill
- c. Greg Kennedy, Contractor License Application Review for Pump Installation in Water Systems Less than or Equal to 100 gpm. Board Review for Experience gained while working as unlicensed contractor and when experience cannot be verified because of deceased Contractors.
 - i. Chris Jones presented background information
 1. No additional information was obtained from the contractor
 - ii. Todd Hunter asked if more information regarding the number of illegal installations under Greg Kennedy was ever found
 1. Chris Jones stated that no more information on this topic was found.

15. New Business

16. Public Comment

- a. Travis Day
 - i. Stated that monitoring well rules and production well rules need to be the same
 - ii. Stated that, if Staff changes the interpretation on the requirement for a grout plug overlap at the bottom of driven surface casing, it will significantly impact contractor practices
 - 1. Discussion regarding potential action for the drafting of a policy or change in enforcement
 - a. Board expressed that they have directed Staff to prepare a policy, and that their intent is not to have Travis seek a variance for these existing wells
- b. Josh Weaver
 - i. Stated that intent is not for the new geothermal Board member to just be a part of the geothermal world, but to have geothermal drilling experience
 - ii. Asked for Todd Hunter's reasoning for abstaining from the vote on several action items
 - 1. Todd Hunter responded that he has been called out for his discussion on several items before, specifically discussions related to the items he abstained from during this meeting
 - a. Travis Day stated that, although there may be disagreements, Mr. Hunter's input is very useful.

17. Future Meetings

- a. Tuesday, Apr 1, 2025, 1313 Sherman St., Room 318 & Online
 - i. Tim Kunau stated he will not be able to attend in-person
- b. Tuesday May 27 - Wednesday May 28, 2025, 1313 Sherman St., Room 318 & Online
Potential Well Construction Rulemaking Hearing
- c. Tuesday, Jun 3, 2025, 1313 Sherman St., Room 318 & Online

18. Executive Session

- a. Chris Sanchez motioned to enter executive session. Robert Hillegas seconded. Motion carried. Entered executive session at 2:50
- b. Grover Excavating and Pete Grover, Case No. 21CV30073, Garfield County District Court
- c. Bugle Mountain Custom Wood Works and Bryan Pickering, 21CV30158, La Plata County District Court.
- d. James Sykes, formerly d/b/a Triton Services: 23CV30043 (21-BC-014)

- e. 19-BC-052, 20-BC-002, 23-BC-012, 23-BC-018, David J. Weber Hearing VS District Court
- f. Douglas Hasser et. al.: 23-BC-032
- g. Chris Sanchez motioned to exit executive session. Tim Kunau seconded. Motion carried.

19. Report from Executive Session

- a. Jen Mele provided the report

20. Adjournment

- a. Meeting adjourned at 3:00 pm

AGENDA ITEM 9.c.i

Well Permit Counts

AGENDA ITEM 9.c.ii

Well Inspection Report

AGENDA ITEM 9.c.iii

Variance Report

Summary of Variances - 2025 to Date	
Total WCV Requests	30
Number Approved	22
Infiltration Galleries	5
Casing and Grout	7
Contamination Offset	2
Well Vault	1
Abandonment	4
Sump/rathole	2
Misc.	9

AGENDA ITEM 10.a

Introduce Latest Draft and
Upcoming Process

[Documents](#)

(Under “Rulemaking” Tab)



Rulemaking Webpage and Notification List

<https://dwr.colorado.gov/services/well-construction-inspection#rulemaking>

Water Well Construction Rulemaking

▼ Rulemaking - Water Well Construction Rules (2 CCR 402-2)

The Board of Examiners (Board) will be opening the Rules and Regulations for Water Well Construction, Pump Installation, Cistern Installation, and Monitoring and Observation Well/Hole Construction (Construction Rules) 2 CCR 402-2 in 2023. Board Staff is developing proposed changes and would like to hear from the contractors, suppliers, scientists, and engineers in the industry.

1. Sign up for the Rulemaking email listserv to receive notifications on proposed changes and the Rulemaking process.
 - Visit the [Notification Lists Webpage](#).
 - New Users, click [Register for DWR Notifications](#) to register for an account.
 - Existing Users, click [Login/Manage DWR Notifications](#) to subscribe to the “BOE Info/News” notification list.
2. Submit comments to the Board and Board Staff using the following Google Form
 - [2024 BOE Construction Rulemaking Comment Form](#)
3. For additional information on Stakeholder Meetings, please visit the [Board of Examiners Meetings Webpage](#).
4. For documents associated with this rulemaking, please use the subject search box below to filter by document titles.

Subject Search (filter keywords in subject field) How to

	Topic	Subject	Document Date	Effective Date	Year Initiated	Document Type
Open	Water Well Construction Rules (2CCR-402-2)	How to Participate in the Formal Rulemaking Process			2023	Rulemaking Timelines

1. Sign up to receive notifications,
<https://dwr.colorado.gov/public-information/notification-lists>
2. Submit comments using comment form, <https://forms.gle/VaAJhNRxrqPmdP7s8>
3. BOE Meetings Webpage,
<https://dwr.colorado.gov/public-information/boards-commissions/board-of-examiners-meetings>
4. Download “How to Participate in the Formal Rulemaking Process” document,
<https://dnrweblink.state.co.us/dwr/ElectronicFile.aspx?docid=4317961&dbid=0>



Search and Download Latest Draft (March 2025)

4. For documents associated with this rulemaking, please use the subject search box below to filter by document titles.

Subject Search (filter keywords in subject field)

	Topic	Subject	Document Date	Effective Date	Year Initiated	Document Type
Open	Water Well Construction Rules (2CCR-402-2)	March 2025 Proposed Basis and Purpose Clean Version			2023	Draft, Proposed and Redlined Rules
Open	Water Well Construction Rules (2CCR-402-2)	March 2025 Proposed Basis and Purpose Redline			2023	Draft, Proposed and Redlined Rules
Open	Water Well Construction Rules (2CCR-402-2)	March 2025 Proposed Rules Clean Version			2023	Draft, Proposed and Redlined Rules
Open	Water Well Construction Rules (2CCR-402-2)	March 2025 Proposed Rules Redline			2023	Draft, Proposed and Redlined Rules

[March 2025 Proposed Rules Clean Version](#)

[March 2025 Proposed Rules Redline](#)

[March 2025 Basis & Purpose Clean](#)

[March 2025 Basis & Purpose Redline](#)

Estimated Timeline, Subject to Change

- April 1, 2025 (BOE Meeting)
 - Present Final Draft to Board
 - Board Direct Staff to File with SoS
- Between April 1-15, 2025
 - File Notice of Proposed Rulemaking with Sec of State and COPRRR
- April 25, 2025
 - Notice Published in CO Register

Estimated Timeline (Continued)

- May 9, 2025
 - Deadline to file Notice of Intent to Participate in Hearing
 - Identify Which Rules and Length of Oral Testimony at Hearing
- May 16, 2025
 - Hearing Officer - Prehearing Order
 - Order and Timing of Testimony at Hearing
- May 20, 2025
 - Deadline to file Written Testimony and Exhibits
- May 27 & 28, 2025
 - Proposed Rulemaking Hearing
 - Hold May 29, 2025 for overflow
- June 3, 2025 (BOE Meeting)
 - Board Adopts Rules
- January 1, 2026
 - Effective Date?

Colorado Register: 2024 - 2026 Publishing Calendar

REMEMBER: You must still complete your filing within 20 days of adoption, regardless of publication deadline.

Date Filed On: Deadlines are 15 th and last day of month	To Be Published On: Volume/Issue No.		Earliest Hearing Date, or Earliest Effective Date:
FEB 01 - FEB 15, 2025	FEB 25, 2025	Vol. 48, No. 04	MAR 17, 2025
FEB 16 - FEB 28, 2025	MAR 10, 2025	Vol. 48, No. 05	MAR 30, 2025
MAR 01 - MAR 15, 2025	MAR 25, 2025	Vol. 48, No. 06	APR 14, 2025
MAR 16 - MAR 31, 2025	APR 10, 2025	Vol. 48, No. 07	APR 30, 2025
APR 01 - APR 15, 2025	APR 25, 2025	Vol. 48, No. 08	MAY 15, 2025
APR 16 - APR 30, 2025	MAY 10, 2025	Vol. 48, No. 09	MAY 30, 2025

AGENDA ITEM 11.a

USDA Forest Service - Buckhorn
Ranger Station Well

[Receipt 10034376](#)

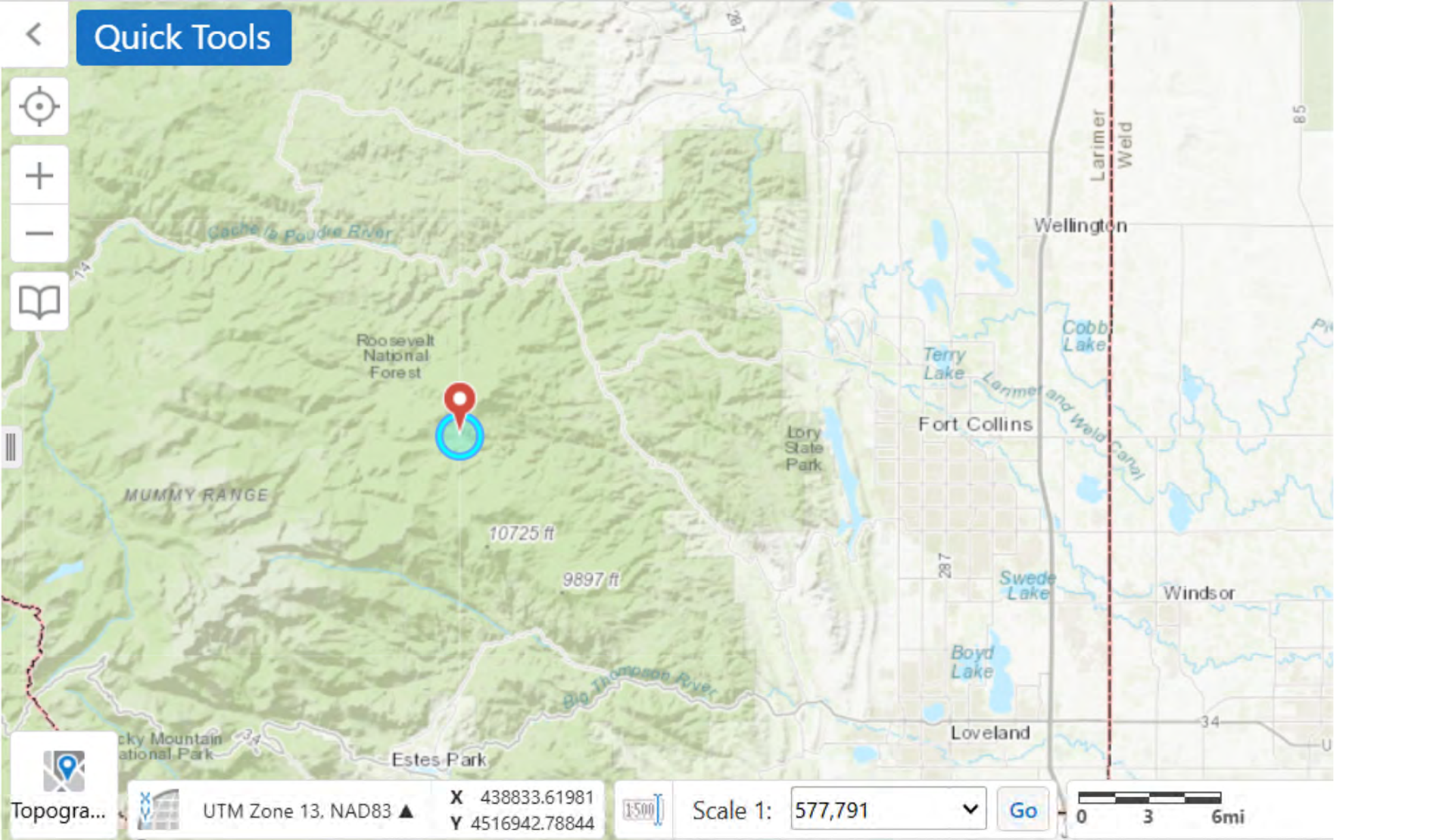
GWS-31 Denial Appeal

Summary

- Deficiencies Found by Staff Review
 - Annulus Rule 10.4.1 of the 1988 Rules
 - Casing Size 10.4.3 of the 1988 Rules
 - Sewerline Offset 10.2.2 of the 2016 Rules
- At February 2025 BOE meeting Board requested Forest Service Provide additional water quality test results (nitrates and nitrites)
- Forest Service to provide the Board with updates and results of the water quality tests.



Quick Tools



Topogra...



UTM Zone 13, NAD83 ▲

X 438833.61981
Y 4516942.78844



Scale 1: 577,791

Go





COLORADO
Division of Water Resources

Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

April 26, 2024

United States of America, USDA - Forest Service
% Brian Sugg
1617 Cole Boulevard, Bldg 17
Lakewood, CO 80401

RE: GWS-31 Denial, Buckhorn Ranger Station Well, 32317 West County Road 44H, Larimer County, CO, Receipt No. 10034376

An undated form GWS-31 was completed by Chris Ida on behalf of the United States of America USDA - Forest Service (owner) which documents the construction information for a water well reportedly completed on July 5, 1993. Additional documentation submitted by the Forest Service suggests Permit No. 79940 may have been issued for the property, but that permit had expired in 1977 and did not authorize the construction of a well in 1993. An email dated February 23, 2024, from Lawrence Fullenkamp of the Forest Service, indicates the well was constructed by the Bureau of Reclamation. At the time the well was reportedly constructed, the 1988 version of the well construction Rules was in effect.

Based on a review of the provided information, the well construction documented on the GWS-31 does not meet following minimum requirements of the well construction Rules:

- The construction report indicates cement grout was placed from 7 to 18.5 feet below ground surface presumably between the 8 inch diameter borehole and the 6 5/8" outside diameter steel casing (borehole is 1 3/8 inches larger than casing). The borehole is less than 1.75 inches larger than the outside of the steel casing and does not meet the minimum annulus requirements presented in Rule 10.4.1 of the 1988 Rules.
- The construction report indicates the "OD" (outside diameter) of the PVC casing is 4 inches with a wall thickness of 0.265 inches. Rule 10.4.3 of the 1988 Rules requires the "nominal" diameter of the casing be no less than 4 inches. For pipes up to 12 inches in size, nominal pipe size is reported as the approximate inside diameter. The construction report appears to suggest the PVC casing has an inside (nominal) diameter of less than 4 inches.
- In an email dated April 13, 2024, Mr. Fullenkamp indicated the well is located about 41.5 feet from a sewer line. The 1988 Rule 10.2.2 requires the base of the grouted interval, be at least 100 feet from potential sources of contaminants. It is estimated the base of grout is about 45 feet from the nearest sewer line. The current well construction Rule 10.2.2 clarifies the minimum offset requirements between the well and sewer lines be at least 50 feet from the nearest sewer line. The well is located closer than the required minimum offset from the nearest sewer line.

A repair of the well does not seem feasible to correct these deficiencies. Modifications to increase annular space, change the grouted interval or change the casing size would be considered replacement of the well rather than repair.

Form GWS-31 is denied due to one or more of the deficiencies described above, and because repairs do not appear feasible to bring the well into compliance with the minimum standard of the Rules. Unless



you have other information that may clarify or correct our understanding of the well, we recommend that this well be abandoned in accordance with the requirements of the well construction Rules and that a well abandonment report (form GWS-09) be completed and submitted to the State. The Board of Examiners of Water Well Construction and Pump Installation Contractors may be notified about the status of this unregistered well.


If you have any questions or concerns please contact me (720)618-9982 or at chris.jones@state.co.us.

Sincerely,

Christopher A Jones

Christopher A Jones, PE. PG.
Chief Well Inspector
Administrator to the Board of Examiners

Enclosures: GWS-31, photos, emails
ec: lawrence.fullenkamp@usda.gov

PERM NO. WS-31 11/90	WELL CONSTRUCTION AND TEST REPORT STATE OF COLORADO, OFFICE OF THE STATE ENGINEER	For Office Use only																									
1. WELL PERMIT NUMBER _____																											
2. OWNER NAME(S) <u>UNITED STATES OF AMERICA</u> <u>USDA - Forest Service</u> Mailing Address <u>P.O. Box 25127</u> City, St. Zip <u>Lakewood, Colorado 80225</u> Phone (303) <u>275-5108</u>																											
3. WELL LOCATION AS DRILLED: <u>NW 1/4 NE 1/4, Sec. 16 Twp. 7 N, Range 72 W</u> DISTANCES FROM SEC. LINES: <u>350</u> ft. from <u>North</u> Sec. line. and <u>2145</u> ft. from <u>West</u> Sec. line. OR <small>(north or south) (east or west)</small> SUBDIVISION: _____ LOT _____ BLOCK _____ FILING(UNIT) _____ STREET ADDRESS AT WELL LOCATION: _____																											
4. GROUND SURFACE ELEVATION <u>8290</u> ft. DRILLING METHOD <u>Pneumatic Hammer</u> DATE COMPLETED <u>7/5/93</u> TOTAL DEPTH <u>250.2</u> ft. DEPTH COMPLETED <u>250.2</u> ft.																											
5. GEOLOGIC LOG: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:15%;">Depth</th> <th>Description of Material (Type, Size, Color, Water Location)</th> </tr> </thead> <tbody> <tr> <td colspan="2"><u>Quaternary</u></td> </tr> <tr> <td><u>0.0 - 7.4</u></td> <td><u>Colluvium</u> <u>75% fine to medium sand, 25%</u> <u>nonplastic fines</u></td> </tr> <tr> <td colspan="2"><u>Precambrian</u></td> </tr> <tr> <td><u>7.4 - 250.2</u></td> <td><u>Granitic Rock</u> <u>Fine to coarse sand in a silty</u> <u>matrix; moderate to intensely</u> <u>weathered 7.4 to 70.0; slightly</u> <u>weathered to fresh 70.0 to</u> <u>250.2; brown, red brown, and</u> <u>grey.</u></td> </tr> </tbody> </table>	Depth	Description of Material (Type, Size, Color, Water Location)	<u>Quaternary</u>		<u>0.0 - 7.4</u>	<u>Colluvium</u> <u>75% fine to medium sand, 25%</u> <u>nonplastic fines</u>	<u>Precambrian</u>		<u>7.4 - 250.2</u>	<u>Granitic Rock</u> <u>Fine to coarse sand in a silty</u> <u>matrix; moderate to intensely</u> <u>weathered 7.4 to 70.0; slightly</u> <u>weathered to fresh 70.0 to</u> <u>250.2; brown, red brown, and</u> <u>grey.</u>	<table style="width:100%; border-collapse: collapse;"> <tr> <th style="width:15%;">6. HOLE DIAM. (in.)</th> <th style="width:20%;">From (ft)</th> <th style="width:20%;">To (ft)</th> </tr> <tr> <td><u>8"</u></td> <td><u>0.0</u></td> <td><u>7.6</u></td> </tr> <tr> <td><u>8"</u></td> <td><u>7.6</u></td> <td><u>250.2</u></td> </tr> </table>		6. HOLE DIAM. (in.)	From (ft)	To (ft)	<u>8"</u>	<u>0.0</u>	<u>7.6</u>	<u>8"</u>	<u>7.6</u>	<u>250.2</u>						
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REMARKS: _____ _____ _____	7. PLAIN CASING <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:15%;">OD (in)</th> <th style="width:15%;">Kind</th> <th style="width:15%;">Wall Size</th> <th style="width:15%;">From(ft)</th> <th style="width:15%;">To(ft)</th> </tr> </thead> <tbody> <tr> <td><u>6-5/8"</u></td> <td><u>Steel</u></td> <td><u>0.258</u></td> <td><u>+1.5</u></td> <td><u>19.5</u></td> </tr> <tr> <td><u>4"</u></td> <td><u>PVC</u></td> <td><u>0.265</u></td> <td><u>6.5</u></td> <td><u>136.5</u></td> </tr> <tr> <td><u>4"</u></td> <td><u>PVC</u></td> <td><u>0.265</u></td> <td><u>236.5</u></td> <td><u>246.5</u></td> </tr> </tbody> </table> PERF. CASING: Screen Slot Size: <u>0.010</u> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">4"</td> <td style="width:15%;">PVC</td> <td style="width:15%;">0.265</td> <td style="width:15%;">136.5</td> <td style="width:15%;">236.5</td> </tr> </table>		OD (in)	Kind	Wall Size	From(ft)	To(ft)	<u>6-5/8"</u>	<u>Steel</u>	<u>0.258</u>	<u>+1.5</u>	<u>19.5</u>	<u>4"</u>	<u>PVC</u>	<u>0.265</u>	<u>6.5</u>	<u>136.5</u>	<u>4"</u>	<u>PVC</u>	<u>0.265</u>	<u>236.5</u>	<u>246.5</u>	4"	PVC	0.265	136.5	236.5
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8. FILTER PACK: Material _____ Size _____ Interval _____		9. PACKER PLACEMENT: Type <u>K Packer</u> Depth <u>19.5</u>																									
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1. DISINFECTION: Type <u>Liquid Chlorine</u> Amt. Used <u>100 Oz.</u>																											
2. WELL TEST DATA: <input type="checkbox"/> Check box if Test Data is submitted on Supplemental Form. TESTING METHOD <u>Submersible Pump</u> Static Level <u>9.9</u> ft. Date/Time measured <u>7/5/93</u> , Production Rate <u>5.0</u> gpm. Pumping level <u>230.0</u> ft. Date/Time measured <u>7/5/93</u> , Test length (hrs.) <u>7.0</u> Remarks _____																											
3. I have read the statements made herein and know the contents thereof, and that they are true to my knowledge. [Pursuant to Section 24-4-104 (13)(a) C.R.S., the making of false statements herein constitutes a felony in the second degree and is punishable as a class 1 misdemeanor.] CONTRACTOR <u>USDA - Forest Service</u> Phone <u>(303) 275-5108</u> Lic. No. <u>Owner</u> Mailing Address <u>P.O. Box 25127, Lakewood, Colorado 80225</u>																											
Name/Title (Please type or print) <u>Chris Ida</u> <u>Civil Engineer</u>	Signature 	Date _____																									







STATE OF
COLORADO

Jones - DNR, Chris <chris.jones@state.co.us>

RE: GWS-31 Denial - Receipt No. 10034376 - Request for Appeal to BOE

2 messages

Fullenkamp, Lawrence - FS, CO <lawrence.fullenkamp@usda.gov>

Fri, Jan 24, 2025 at 4:31 PM

To: "Jones - DNR, Chris" <chris.jones@state.co.us>

Cc: "Sugg, Brian - FS, CO" <brian.a.sugg@usda.gov>, "Krezelok, Jamie - FS, CO"

<jamie.krezelok@usda.gov>, "Weddle, Tracy - FS, CO" <tracy.weddle@usda.gov>, "Cantrell, Erin - FS, CO" <Erin.Cantrell@usda.gov>, "Chavarria, Gerardo - FS, CO" <gerardo.chavarria@usda.gov>, "Box, Kamber - FS, CO" <kamber.box@usda.gov>, "Londono, Juan - FS, CO" <Juan.Londono@usda.gov>

Dear Chris Jones and Board of Examiners of Well Drillers and Pump Installers:

The Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARP) desires to operate and maintain a safe and functioning water system at the Buckhorn Ranger Station. The Canyon Lakes Ranger District of the ARP worked to update water treatment systems for the Buckhorn Ranger Station with a Licensed Pump Installer (Lic# 1292 Wayne's Pump Service). Updated inspections of the well with licensed well drillers have not been possible without a permit. The ARP has contracted with an Operator in Responsible Charge (ORC) for other water systems on the Forest for transient non-community water systems like the Buckhorn Ranger Station. The ARP's current ORC, Richard Hopp (Operator ID#2939), visited the Buckhorn Ranger Station in September of 2024. He provided guidance on maintaining the system to safe standards. Current water testing results from 2024 through the Weld County Department of Public Health and Environment (on behalf of Larimer County) do not show the presence of bacteria. Chlorination levels were tested weekly while the site was occupied in 2024. The Forest maintained chlorination levels at or above 0.4 mg/L. Drinking water was not served from the water system to employees or contractors in 2023 or 2024 until test results showed the absence of contaminants. The new treatment system was completed on June 20th, 2024. The facility is undergoing historic preservation efforts paid for in part by the State Historical Fund. The Forest Service wishes to obtain the proper permits for the well so that licensed professionals can provide the guidance and services to keep the water system safe.

The well is 122 feet from the nearest septic tank. This exceeds the minimum requirements of CCR 402-2 Rule 2 10.2.2. The well is more than 500 feet from the nearest leach field. This exceeds the minimum requirements of Rule 10.2.2. The base of the grout exceeds 50 feet from the nearest sewer line based on the calculations provided on page 20 of 2 CCR 402-2 (Figure 2). This meets the requirements of 10.2.2. The wells casing is estimated to be 1 3/8" thick. This is under 1.75" larger than the outside of the steel casing and does not meet the minimum annulus requirements presented in Rule 10.4.1 of the 1988 Rules. The outside diameter of the PVC casing was misstated in the well permit application. Without a permit the Forest Service has not been able to acquire the services of Licensed Well Drillers to inspect the well. The well has been in operation for over 30 years. Past and recent testing results are being provided with this appeal. Documentation of the installed treatment equipment upgraded in 2024 is being provided with this appeal.

The Forest Service would like to appeal the well permit application denial in hopes that we can obtain a valid well permit and can continue to work with the State and Licensed contractors and professionals to operate and maintain a safe water system. We sincerely appreciate the consideration of the appeal.



Lawrence Fullenkamp
Archaeologist

Forest Service

Arapaho and Roosevelt National Forests and Pawnee National Grassland

p: 970-295-6619
c: 970-278-6962
lawrence.fullenkamp@usda.gov

[2150 Centre Ave Building E](#)
Fort Collins, CO 80526
www.fs.fed.us



Caring for the land and serving people

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2 attachments



Buckhorn Water Testing Results.pdf
4510K



Buckhorn Water Treatment Upgrades 2024 Drawings.pdf
943K

Jones - DNR, Chris <chris.jones@state.co.us>

Fri, Jan 24, 2025 at 4:39 PM

To: "Fullenkamp, Lawrence - FS, CO" <lawrence.fullenkamp@usda.gov>

Cc: "Sugg, Brian - FS, CO" <brian.a.sugg@usda.gov>, "Krezelok, Jamie - FS, CO"

<jamie.krezelok@usda.gov>, "Weddle, Tracy - FS, CO" <tracy.weddle@usda.gov>, "Cantrell, Erin - FS, CO"

<Erin.Cantrell@usda.gov>, "Chavarria, Gerardo - FS, CO" <gerardo.chavarria@usda.gov>, "Box, Kamber - FS, CO" <kamber.box@usda.gov>, "Londono, Juan - FS, CO" <Juan.Londono@usda.gov>

Received. I'll include the email and attachments to the Board information packet. We will email you the agenda and packet on Monday when it goes out.

Here is a link to the BOE meeting webpage where you can find information about the location of the meeting and a link for the virtual meeting: <https://dwr.colorado.gov/public-information/boards-commissions/board-of-examiners-meetings>

Thanks

Chris Jones
Chief Well Inspector
Hydrogeology Section



O 303.866.3581 x8270
P 720.618.9982 (mobile)
1313 Sherman St., Room 821, Denver, CO 80203
chris.jones@state.co.us | dwr.colorado.gov

[Quoted text hidden]



DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

1555 North 17th Avenue
Greeley, CO 80631

www.weldhealth.org



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Services

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Fax: 970-304-6411

Communication,
Education & Planning

Tele: 970-304-6470
Fax: 970-304-6452

Emergency Preparedness
& Response

Tele: 970-304-6420
Fax: 970-304-6469

Our vision: Together with the communities we serve, we are working to make Weld County the healthiest place to live, learn, work, and play.

Lab ID: ENS241009-045

Collected: 10/8/2024 2:55 PM

Received: 10/9/2024 10:43 AM

Sample Site: Lawrence Fullenkamp 32317 Buckhorn Rd

Purpose:

Sample Point: basement tap

Sample Point ID:

Facility ID:

PWSID:

Collected By: Public, General

Temp Upon Receipt,C: 4.8

Sample Comment:

Result Name	Result	Unit	Flag	MDL	MQL	MCL	Method:	Analyst	Date Analyzed	Limit Comment
Free Chlorine	0.40	mg/L		0.02	0.2	4	SM 4500-Cl G	GP	10/8/2024 2:55 PM	
Coliform	Absent	CFU/100mL					SM 9223B	CRS	10/10/2024 11:55 AM	
E. Coli	Absent	CFU/100mL					SM 9223B	CRS	10/10/2024 11:55 AM	

Laboratory
Manager:

APPROVED

Department of Public Health and Environment

'Approved' means that data has met laboratory Quality Assurance/Quality Control criteria. This document is intended only for the person or entity to which it is provided. Any disclosure, copying, distribution or the taking of any action concerning the contents of this document by anyone other than the intended recipient is strictly prohibited.

Report Key; MDL=Minimum Detection Limit

MQL=Minimum Quantitation Limit

MCL=Maximum Contamination Level

2024 Chain of Custody

Microbiology samples accepted Monday-Thursday until 4:30pm. Do NOT submit samples the day before a holiday.



Weld County

Department of Public Health and Environment

1555 N. 17th Avenue
Greeley, CO 80631
Phone: (970) 304-6410
weldhealth.org

Client		Larimer County Health Department						<p>This Chain of Custody (COC) is a LEGAL DOCUMENT. All fields must be completed accurately for Drinking Water Compliance.</p> <p>A completed COC indicating the tests requested must accompany all samples, up to seven (7) samples may be submitted on one COC. All containers should be tightly capped and properly identified. If you are a Public Water System you must include your PWSID on the COC and indicate Sample Type, Sample Point ID, and Facility ID according to the system's Monitoring Schedule available at https://cdphe.colorado.gov/dwschedules. Failure to provide this information may prevent compliance data from being reported to Colorado Department of Public Health and Environment.</p>																				
Address		1525 Blue Spruce Dr																										
City		Fort Collins																										
State, Zip		CO 80524		Compliance Samples		Yes	No																					
County		Larimer		PWSID		CO0																						
Phone		970-498-6775		NPDES																								
Email		lawrence.fullenkamp@usda.gov																										
Contact Information (Check if Same as Above)																												
Name		Lawrence Fullenkamp																										
Address		2150 Centre Ave Bldg E																										
City		Fort Collins		State, Zip		CO 80526																						
Email		lawrence.fullenkamp@usda.gov		Phone		970-278-6962																						
Sample Type	Sample Point ID	Facility ID	Sample Site Address			Sample Site Description		Collected Date	Time																			
1	PLA	1	0501	32317 Buckhorn Rd			basement tap		10/8/24	2:55	Raw	Chlorinated	Free Chlorine Residual	pH	Temperature °C	Number of Containers	Composite Sample	Grab Sample	Coliform/E. coli P/A	Coliform/E. coli Quantitative	Ammonia as N	BOD	Gravel Pit Package	Nitrate as N	Nutrients Package	pH/Temperature	Suspended Solids	Other (Select on Back)
2																												
3																												
4																												
5																												
6																												
7																												
Comments																												
<p>ENSG241009-005 Client: LARIMER COUNTY HEALTH</p> <p>ENSG241009-045 Lawrence Fullenkamp 32317 Buckhorn Rd</p> <p>basement tap</p> <p>Total Coliform and E. coli</p> <p>Collection Date: 10/8/2024 2:55:00 PM</p>																												
LEGAL DISCLOSURE																												
By signing this Chain of Custody, I have reviewed and acknowledge that all the information is true and correct.																												
Weld County Use Only														SAMPLER NAME AND SIGNATURE														
<p>Print Name of Sampler Lawrence Fullenkamp</p> <p>Signature of Sampler <i>[Signature]</i></p> <p>Date Signed 10/8/24</p>														<p>Chain of Custody Procedural Signatures</p> <p>Relinquished By <i>[Signature]</i></p> <p>Accepted By <i>[Signature]</i></p> <p>Relinquished By <i>[Signature]</i></p> <p>Accepted By Katrina Alsum</p>														
SAMPLE CONDITION		Sample Volume Upon Arrival		Ok	Low	Excess											Date		Time									
Arrival Temperature (Range °C)	4.8	Holding Time		In	Out	Analyte											10/8/24		4:12									
Received on Ice	Yes	No	Appropriate Sample Bottles	Yes	No												10/8/24		4:12									
Sample Sealed/Intact	Yes	No	Preservatives	Yes	No	Type																						
Paid	Yes	No	Na ₂ S ₂ O ₃	H ₂ SO ₄	HCl	HNO ₃											10/9/24		10:43									



Public Health





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Education & Planning**

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Fax: 970-304-6452

**Emergency Preparedness
& Response**

Tele: 970-304-6420
Fax: 970-304-6469

Our vision: Together with the communities we serve, we are working to make Weld County the healthiest place to live, learn, work, and play.

Customer: LARIMER COUNTY HEALTH
1525 BLUE SPRUCE DR
FT COLLINS, CO 80524

PWSID:
NPDES:
Facility:

Analysis Report

Report Number: ENSG240814-008

Sample Group Comment:

Lab ID: ENS240814-021

Collected: 8/13/2024 1:25 PM

Received: 8/14/2024 9:46 AM

Sample Site: Lawrence Fullenkamp 32317 Buckhorn Rd

Purpose:

Sample Point: Ranger Bath w/o screen

Sample Point ID:

Facility ID:

PWSID:

Collected By: Public, General

Temp Upon Receipt,C: 7.7

Sample Comment:

Result Name	Result	Unit	Flag	MDL	MQL	MCL	Method	Analyst	Date Analyzed	Limit Comment
Coliform	Absent	CFU/100mL					SM 9223B	KA	8/15/2024 10:37 AM	
E. Coli	Absent	CFU/100mL					SM 9223B	KA	8/15/2024 10:37 AM	

Laboratory
Manager:

APPROVED

Department of Public Health and Environment

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Report Key: MDL=Minimum Detection Limit

MQL=Minimum Quantitation Limit

MCL=Maximum Contamination Level

2024 Chain of Custody

Microbiology samples accepted Monday-Thursday until 4:30pm. Do NOT submit samples the day before a holiday.



Weld County

Department of Public Health and Environment

1555 N. 17th Avenue
Greeley, CO 80631
Phone: (970) 304-6410
weldhealth.org

3

Client	Larimer County Health Department						This Chain of Custody (COC) is a LEGAL DOCUMENT. All fields must be completed accurately for Drinking Water Compliance.																																																																																																																					
Address	1525 Blue Spruce Dr						A completed COC indicating the tests requested must accompany all samples, up to seven (7) samples may be submitted on one COC. All containers should be tightly capped and properly identified. If you are a Public Water System you must include your PWSID on the COC and indicate Sample Type, Sample Point ID, and Facility ID according to the system's Monitoring Schedule available at https://cdphe.colorado.gov/dwschedules . Failure to provide this information may prevent compliance data from being reported to Colorado Department of Public Health and Environment.																																																																																																																					
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Email	lawrence.fullenkamp@uscg.gov		Phone		970-481-6645																																																																																																																							
Sample Type	Sample Point ID	Facility ID	Sample Site Address		Sample Site Description		Collected Date	Time																																																																																																																				
1	P/A	B3	32317 Buckhorn Rd		Ranger Bath		8/13/24	1:25	Raw	Chlorinated	Free Chlorine Residual	pH	Temperature °C	Number of Containers	Composite Sample	Grab Sample	Coliform/E.coli P/A	Coliform/E.coli Quantitative	Ammonia as N	BOD	Gravel Pit Package	Nitrate as N	Nutrients Package	pH/Temperature	Suspended Solids	Other (Select on Back)																																																																																																		
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<div> <div>LEGAL DISCLOSURE</div> <div>By signing this Chain of Custody, I have reviewed and acknowledge that all the information is true and correct.</div> </div> <div> <div>Weld County Use Only</div> <table border="1"> <tr> <td colspan="2">SAMPLE CONDITION</td> <td colspan="2">Sample Volume Upon Arrival</td> <td>Ok</td> <td>Low</td> <td>Excess</td> <td colspan="10">Chain of Custody Procedural Signatures</td> <td>Date</td> <td>Time</td> </tr> <tr> <td>Arrival Temperature (Range °C)</td> <td>7.7</td> <td colspan="2">Holding Time</td> <td>In</td> <td>Out</td> <td>Analyte</td> <td colspan="10">Relinquished By</td> <td>8/13/24</td> <td>4:11</td> </tr> <tr> <td>Received on Ice</td> <td>Yes</td> <td>No</td> <td colspan="2">Appropriate Sample Bottles</td> <td>Yes</td> <td>No</td> <td colspan="10">Accepted By</td> <td>8-13-24</td> <td>4:11</td> </tr> <tr> <td>Sample Sealed/Intact</td> <td>Yes</td> <td>No</td> <td colspan="2">Preservatives</td> <td>Yes</td> <td>No</td> <td>Type</td> <td colspan="10">Relinquished By</td> <td></td> <td></td> </tr> <tr> <td>Paid</td> <td>Yes</td> <td>No</td> <td colspan="2">Na2S2O3</td> <td>H2SO4</td> <td>HCl</td> <td>HNO3</td> <td colspan="10">Accepted By</td> <td>8/14/24</td> <td>0946</td> </tr> </table> </div>																												SAMPLE CONDITION		Sample Volume Upon Arrival		Ok	Low	Excess	Chain of Custody Procedural Signatures										Date	Time	Arrival Temperature (Range °C)	7.7	Holding Time		In	Out	Analyte	Relinquished By										8/13/24	4:11	Received on Ice	Yes	No	Appropriate Sample Bottles		Yes	No	Accepted By										8-13-24	4:11	Sample Sealed/Intact	Yes	No	Preservatives		Yes	No	Type	Relinquished By												Paid	Yes	No	Na2S2O3		H2SO4	HCl	HNO3	Accepted By										8/14/24	0946
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DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

1555 North 17th Avenue
Greeley, CO 80631

www.weldhealth.org



Public Health
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Our vision: Together with the communities we serve, we are working to make Weld County the healthiest place to live, learn, work, and play.

Customer: LARIMER COUNTY HEALTH
1525 BLUE SPRUCE DR
FT COLLINS, CO 80524

PWSID:
NPDES:
Facility:

Analysis Report

Report Number: ENSG240807-004

Sample Group Comment:

Lab ID: ENS240807-017

Collected: 8/6/2024 2:45 PM

Received: 8/7/2024 1:26 PM

Sample Site: Lawrence Fullenkamp 32317 Buckhorn Rd Bellvue, CO 80512

Purpose:

Sample Point: Basement tap 1 BRS

Sample Point ID:

Facility ID:

PWSID:

Collected By: Public, General

Temp Upon Receipt,C: 8.7

Sample Comment:

Result Name	Result	Unit	Flag	MDL	MQL	MCL	Method	Analyst	Date Analyzed	Limit Comment
Free Chlorine	0.40	mg/L		0.02	0.2	4	SM 4500-Cl G	GP	8/6/2024 2:45 PM	
Coliform	Absent	CFU/100mL					SM 9223B	KA	8/8/2024 2:59 PM	
E. Coli	Absent	CFU/100mL					SM 9223B	KA	8/8/2024 2:59 PM	

Laboratory
Manager:

APPROVED

Department of Public Health and Environment

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Report Key: MDL=Minimum Detection Limit

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MCL=Maximum Contamination Level

2024 Chain of Custody

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Address	1525 Blue Spruce Dr															
City	Fort Collins															
State, Zip	CO 80524	Compliance Samples		Yes <input type="checkbox"/> No <input type="checkbox"/>												
County	Larimer	PWSID	CO0													
Phone	970-498-6775	NPDES														
Email																

Contact Information (Check if Same as Above)							Field Data							Requested Analysis										
Name	Lawrence Fullenkamp						Raw	Chlorinated	Free Chlorine Residual	pH	Temperature °C	Number of Containers	Composite Sample	Grab Sample	Coliform/E.coli P/A	Coliform/E.coli Quantitative	Ammonia as N	BOD	Gravel Pit Package	Nitrate as N	Nutrients Package	pH/Temperature	Suspended Solids	Other (Select on Back)
Address	2150 Centre Ave Bldg E																							
City	Fort Collins		State, Zip	CO 80526																				
Email	Lawrence.Fullenkamp@OSPA.gov		Phone	970-481-6645																				
Sample Type	Sample Point ID	Facility ID	Sample Site Address	Sample Site Description	Collected Date	Time																		
1			1 BRS	32317 Buckhorn Rd	Basement tap	8/6/24	2:45	X	0.4		57	1			X									
2				Bellevue, CO 80512																				
3																								
4																								
5																								
6																								
7																								

Comments																							
ENSG240807-004 Client: LARIMER COUNTY HEALTH ENS240807-017 Lawrence Fullenkamp 32317 Buckhorn Rd Bellevue, CO Basement tap 1 BRS Free Chlorine, Total Coliform and E. coli Collection Date: 8/6/2024 2:45:00 PM																							

LEGAL DISCLOSURE												Weld County Use Only											
By signing this Chain of Custody, I have reviewed and acknowledge that all the information is true and correct.												PRINT NAME OF SAMPLER: Lawrence Fullenkamp SIGNATURE OF SAMPLER: <i>[Signature]</i> DATE SIGNED: 8/6/24											
SAMPLE CONDITION				Sample Volume Upon Arrival				Chain of Custody Procedural Signatures				Date		Time									
Arrival Temperature (Range °C)	7.6			Holding Time	In	Out	Analyte	Relinquished By	<i>[Signature]</i>			8/6/24		4:02									
Received on Ice	Yes	No		Appropriate Sample Bottles	Yes	No		Accepted By	<i>[Signature]</i>			8/6/24		4:02									
Sample Sealed/Intact	Yes	No		Preservatives	Yes	No	Type	Relinquished By	<i>[Signature]</i>														
Paid	Yes	No		Na2S2O3		H2SO4	HCl	HNO3	Accepted By	Katrina Alsom			8/7/24		13:5626								



Public Health





DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

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Our vision: Together with the communities we serve, we are working to make Weld County the healthiest place to live, learn, work, and play.

Lab ID: ENS230524-012

Collected: 5/23/2023 12:50 PM

Received: 5/24/2023 9:58 AM

Sample Site: Lawrence Fullenkamp 32317 W CR 44H

Purpose:

Sample Point: Exterior Pump

Sample Point ID:

Facility ID:

PWSID:

Collected By: Public, General

Temp Upon Receipt, C: 11.3-11.9

Sample Comment: WCDPHE: Upon arrival sample appears discolored.

If you have any questions about these results, please contact Larimer County Health Department, 1525 Blue Spruce Drive, Fort Collins, CO 80524 (970)498-6775.

Coliform /E.coli test: In accordance with the microbiological standards of the Colorado Primary Drinking Water Regulation and the Standard Methods for Drinking Water and Wastewater, the presence of any coliform bacteria renders the water potentially unsatisfactory and unsafe or non-potable. Information how to treat your well or shock chlorinate your well as well as other information can be found on the state website at: <https://www.colorado.gov/cdphe/drinking-water-private-wells>. After well shock chlorination conformation testing is recommended to ensure the well has been disinfected.

Result Name	Result	Unit	Flag	MDL	MQL	MCL	Method:	Analyst	Date Analyzed	Limit Comment
Coliform	Present	CFU/100mL					SM 9223B	EV	5/25/2023 11:18 AM	
E. Coli	Absent	CFU/100mL					SM 9223B	EV	5/25/2023 11:18 AM	

Laboratory
Manager:

APPROVED

Department of Public Health and Environment

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Report Key; MDL=Minimum Detection Limit

MQL=Minimum Quantitation Limit

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970-400-2278

2023 Chain of Custody

Microbiology samples accepted Monday-Thursday until 4:30pm. Do NOT submit samples the day before a holiday.



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Greeley, CO 80631
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2			32317 W CR 44 H		Exterior pump	5/23/23	12:50																																																																																																																																																																														
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Public Health



Environmental Quality Laboratory

154 General Services Building
Environmental Health Services
Fort Collins, CO 80523-6021
(970) 491-4837 or (970) 491-6503

**To: USDA Forest Service**

2150 Centre Ave Bldg. E
Fort Collins, Colorado 80526-

Date: Dec 26, 2022

LABORATORY RESULTS REPORT

Project Overview:

Sample(s) were submitted to Environmental Quality Laboratory for analyses on December-02-2022. We performed the following tests: Total Coliform Count SM: 9222-B, 21st Ed. (Num. of samples 1).

Project Sample Results

Project Number: 22-257P

<i>EQL ID</i>	<i>Client ID</i>	<i>Site Name</i>	<i>Samp Type</i>
22-605		Buckhorn Ranger Station	Well
		<i>Test Performed</i>	<i>Results</i>
		Total Coliform Count	0 per 100 mL

Project QA/QC Report

<i>EQL ID</i>	<i>Collected</i>	<i>Received</i>	<i>BY</i>	<i>Run</i>	<i>BY</i>	<i>Reported</i>	<i>BY</i>	<i>Samp. Cond.</i>	<i>Samp. Pres</i>
22-605	12/2/2022	12/2/2022 11:32:00 AM	JN	12/2/2022	JN	12/3/2022	JN	Good	4C

Project Conclusions:

This sample was free of Coliform and E. Coli, but had a dirty background. This sample is potable and meets USEPA Standards.

Douglas A. Rice, Ph.D.
Laboratory Director

ANALYSIS FOR WATERBORNE PARTICULATES

CH Diagnostic and Consulting Service, Inc.
214 SE 19th Street, Loveland, CO 80537

Invoice 20040632

Brec L. Clay, President/Treasurer; Gregory D. Sturbaum, President/Secretary
(970) 667-9789

Customer 20031455
Walsh Environmental
4888 Pearl E. Circle, Suite 108
Boulder, CO 80301

Laboratory Information

Hand Delivery; 7/26/2004; 0800 Hrs; 3°C; Wound
Results submitted by:

Gregory D. Sturbaum President & Secretary

Sample Identification: Buckhorn Work Center, 072404

Sample Information: SOURCE: Drilled Well; 230' deep; 120' from surface water. Unchlorinated; pH 6.43 → pH 6.68;
10.1°C → 8.8°C; 24.68 NTU → 15.03 NTU

Sample Date & Time: 7/24/2004 02:17 PM → 7/25/2004 11:15 AM

Sampler: Allison Haines

Amount: 3796.355 L (1003 gal)

Filter Color: Brown

Filter Type: Polypropylene wound cartridge

Date/Time Eluted: 7/26/2004 02:55 PM

Centrifugate: 0.158 mL/100 L

RESULTS OF MICROSCOPIC PARTICULATE ANALYSIS

Amount of sample assayed: 1.6 L

Amorphous Debris	silt (2-50 µm), clay (1-2 µm), inorganic precipitate
Algae	ND
Diatoms	ND
Plant debris	ND
Rotifers	ND
Nematodes	ND
Pollen (pine)	ND
Ameba	ND
Ciliates	ND
Colorless Flagellates	ND
Crustaceans	ND
Other Arthropods	ND
Other	ND

Giardia and *Coccidia* are none detected (ND) by MPA unless reported under "Other".

This sample was analyzed for particulates following the Environmental Protection Agency Consensus Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA). 1992. USEPA, Port Orchard, WA, EPA 910/9-92-029. All limitations stated in the methods apply. If HV capsule or foam filter was received, method was modified by filtering sample through a Pall Envirochek™ HV capsule or IDEXX Filta-Max™ filter at the sample site. If *Giardia* and *Cryptosporidium* Analysis was also performed, particulate extraction was modified.

COMMENTS: Score: 0-Low Risk per EPA Consensus Method referenced above.

Colorado Department of Health - Drinking Water Section
REPORTING FORM FOR ORIGINAL PHASE II, V IN ORGANIC ANALYSES

SAMPLER: PLEASE FILL OUT ONE FORM - FOR EACH INDIVIDUAL SOURCE/PLANT or COMPOSITE SET

YES ☐ or NO ☐ THESE RESULTS ARE TO BE USED TO FULFILL STATE SAMPLING REQUIREMENTS

**** INSTRUCTIONS/DEFINITIONS ON BACK OF FORM ****

PWSID #: _____ COUNTY: Larimer DATE COLLECTED: 8 / 2 / 94

SYSTEM/ESTABLISHMENT NAME: U.S. Forest Service/Buckhorn Work Center

SYSTEM ADDRESS: 1311 South College Avenue. Ft. Collins, CO 80524

Street address/PO Box CITY STATE ZIP

CONTACT PERSON: Stephen Ellsperman PHONE: (303) 498-2775

SAMPLE COLLECTED BY: Stephen Ellsperman TIME COLLECTED: 12:40 pm am/pm

WATER TYPE: RAW (No chlorine or other treatment) ☐ or CHLORINATED ☒ or OTHER TREATMENT ☐

SOURCE(S):

LOCATION(S): - Address

SAMPLE POINT(S):

(SEE BACK OF FORM)

DO SAMPLES NEED TO BE COMPOSITED BY LABORATORY ? YES ☐ or NO ☐

For Laboratory Use Only Below This Line

LABORATORY SAMPLE # 940802-9365 CLIENT NAME or ID# USDA Forest Service

LABORATORY NAME Stewart Environmental Consultants, Inc LAB PHONE # (303) 482-1348

DATE RECEIVED IN LABORATORY 8 / 2 / 94 DATE ANALYZED 8 / 8-10 / 94

COMMENTS: _____ 12,13,15,16,18,22-24, 25

PARAMETER	(mg/l) RESULT	(mg/l) MCL	EPA METHOD	(mg/l) Lab MDL
ANTIMONY	< 0.005	0.006	204.2	0.005
ARSENIC	< 0.002	0.05	206.2	0.002
BARIUM	< 0.5	2.0	208.1	0.2
BERYLLIUM	< 0.0005	0.004	210.2	0.0005
CADMIUM	< 0.0005	0.005	213.2	0.0005
CHROMIUM	< 0.04	0.1	218.2	0.04
COPPER	0.11	1.3*	220.1	0.01
CYANIDE	< 0.03	0.2	335.2	0.03
FLUORIDE	1.0	4.0	340.2	0.1
LEAD	0.029	0.015*	239.2	0.002
MERCURY	< 0.0002	0.002	245.1	0.0002
NICKEL	< 0.02	0.1	249.1	0.02
SELENIUM	< 0.005	0.05	270.2	0.01
SODIUM	6.6	**	273.1	0.5
SULFATE	14.0	500.0**	375.4	1.0
THALLIUM	< 0.001	0.002	279.2	0.001

NT = Not Tested for compound

B = The analyte is found in the associated blank as well as in the sample

MCL = Maximum Contaminant Level

Lab MDL = Laboratory Method Detection Limit

mg/L = Milligrams per Liter

* = NOT an MCL, "Action Level"

** = NOT an MCL, "Monitoring Requirement Only"

H = Holding time has been exceeded

[Signature]
Reviewed & Approved by

Operations Manager

Title

9 / 19 / 94

Date



STEWART ENVIRONMENTAL CONSULTANTS, INC.

Consulting Engineers and Scientists

Office & Laboratory:
214 North Howes Street
P.O. Box 2285
Fort Collins, Colorado 80522
(303) 482-1348
FAX (303) 482-0531

September 19, 1994


Mr. Stephen Ellsperman
U.S. Forest Service
1311 South College Avenue
Ft. Collins, Colorado 80524

Subject: Laboratory Testing Results
SEC Job No.: 1162-002

Dear Mr. Ellsperman:

Please find enclosed the Colorado Department of Health form including the laboratory testing results for the sample received at our laboratory on August 2, 1994. We have filled in only the blanks with information available to us. Please complete the form before sending it to the Colorado Department of Health.

We appreciate the opportunity to provide these analytical services and look forward to working with you in the future. If you have any questions regarding this report, do not hesitate to contact us.


Richard G. Patterson, P.E.
Operations Manager

Enc.

19sep94.lab

515699
BUCKHORN W.C.

Colorado State University
Soil, Water, & Plant Testing Laboratory
Domestic Water Analysis Report

Date Received: 11-03-93

Date Reported: 12-15-93

Lab NO. W 1150

NAME USDA Forest Service/Chris Ida

ADDRESS 240 W. Prospect

Fort Collins, CO 80526

LOCATION Larimer County, Well (Sample #2 - 11/02/93)

Conductivity 195 μ mhos/cm (E.C. x 1,000,000)

pH 7.0

	Result	Recommended Limits		Result	Recommended Limits
	(mg/l)	(mg/l)		(mg/l)	(mg/l)
Calcium	23.5		Carbonate	<0.1	
Magnesium	4.2		Bicarbonate	78.5	
Sodium	6.8	20	Chloride	14.4	250
Potassium	0.7		Sulfate	8.1	250
			Nitrate	1.4	45
Total Alkalinity as CaCO ₃	64	400	Nitrate as N	0.3	10
			Total Dissolved Solids	138	500
Hardness as CaCO ₃	76	300			

Additional Tests:

	(mg/l)		(mg/l)		(mg/l)
Boron	0.01	Copper	<0.01	Chromium	<0.01
Phosphorus	<0.1	Zinc	2.07	Barium	0.02
Aluminum	0.9	Nickel	<0.01	Lead	<0.05
Iron	0.91	Molybdenum	0.01	Arsenic	<0.001
Manganese	0.23	Cadmium	<0.005	Fluoride	<0.1
Mercury	<0.001	Selenium	<0.001		

COMMENTS:

Aluminum exceeds the recommended limit of 0.2 mg/l for domestic use.

Iron exceeds the recommended limit of 0.3 mg/l for domestic use.

Manganese exceeds the recommended limit of 0.05 mg/l for domestic use.

STATE OF
COLORADO

Jones - DNR, Chris <chris.jones@state.co.us>

Fwd: Well Name Correction and Status of Application #10034376

1 message

Banks - DNR, Garrett <garrett.banks@state.co.us>
 To: Chris Jones - DNR <chris.jones@state.co.us>

Sun, Apr 14, 2024 at 11:45 AM

Hi Chris,

Please see below response from applicant regarding septic, sewer line, and other sources of contamination.

Regards.

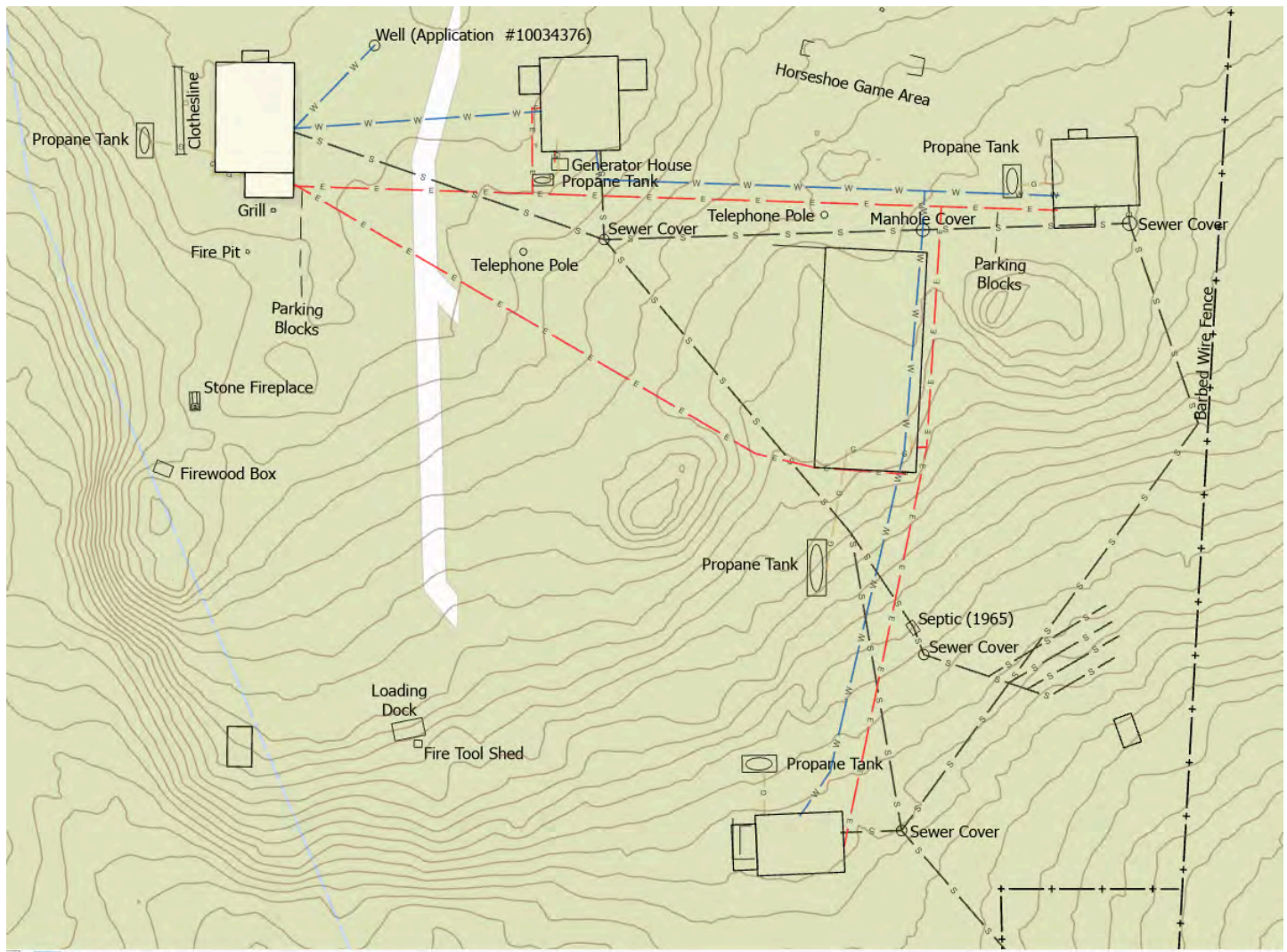
Garrett

----- Forwarded message -----

From: **Fullenkamp, Lawrence - FS, CO** <lawrence.fullenkamp@usda.gov>
 Date: Sat, Apr 13, 2024 at 9:22 AM
 Subject: RE: Well Name Correction and Status of Application #10034376
 To: Banks - DNR, Garrett <garrett.banks@state.co.us>

Hi Garrett,

The sewer line that feeds into the septic system is located 41.5 feet southwest from the well. The nearest Septic tank is located 105 feet to the southeast. The leech field currently used is located 425 feet southeast of the well. There is also a historic leech field from 1965 that is located 311 feet southeast of the well.



The 1965 leech field is abandoned and the currently used leech line runs to the southeast of the complex see highlighted section below:



We are not aware of any other sources of contaminants near the well. Let me know if you need any additional information or documentation. Thanks!

Larry






Lawrence Fullenkamp
Archaeologist

Forest Service

Arapaho and Roosevelt National Forests and Pawnee National Grassland

p: 970-295-6619
c: 970-278-6962
lawrence.fullenkamp@usda.gov

2150 Centre Ave Building E
Fort Collins, CO 80526
www.fs.fed.us
  

Caring for the land and serving people

From: Banks - DNR, Garrett <garrett.banks@state.co.us>
Sent: Friday, April 12, 2024 3:58 PM

4/26/24, 9:40 AM

State.co.us Executive Branch Mail - Fwd: Well Name Correction and Status of Application #10034376

To: Fullenkamp, Lawrence - FS, CO <lawrence.fullenkamp@usda.gov>

Subject: Re: Well Name Correction and Status of Application # 1

Dear Mr. Fullenkamp,

I'm contacting you to request some additional information about the well. Could you please tell me the distance between the well and the nearest leach field, septic tank, and/or sewer line, or other source of contaminants?

Thank you,

Garrett

On Thu, Apr 4, 2024 at 6:51 PM Fullenkamp, Lawrence - FS, CO <lawrence.fullenkamp@usda.gov> wrote:

Thank you Garrett!

Lawrence Fullenkamp

he/him

Archaeologist

Forest Service

Canyon Lakes Ranger District

Arapaho and Roosevelt National Forests and

Pawnee National Grassland

p: 970-295-6619

c: 970-278-6962

lawrence.fullenkamp@usda.gov

[2150 Centre Ave Building E](#)

Fort Collins, CO 80526

www.fs.fed.us

Caring for the land and serving people

I j

From: garrett.banks@state.co.us <garrett.banks@state.co.us>

Sent: Thursday, April 4, 2024 6:20:22 PM

To: Fullenkamp, Lawrence - FS, CO <lawrence.fullenkamp@usda.gov>

Subject: Well Name Correction and Status of Application # 1

Dear Mr. Fullenkamp,

The application and well construction you submitted is being reviewed. I will contact you if additional information is needed. I've made the change on the well name in our records.

Regards,

Garrett

ORIGINAL MESSAGE BELOW -----

Date: 4/4/2024

Name: Lawrence Fullenkamp

Request:

Hello, I wanted to provide a correction for the Buckhorn Ranger Station Well. The well is listed as BUCKHOM instead of BUCKHORN. I also wanted to check on the status of the application. Thank you! - Larry Fullenkamp

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or disclosure of the information it contains may violate the law and subject the violator to civil or criminal penalties. If you believe you have received this message in error, please notify the sender and delete the email immediately.

--

Garrett Banks

Water Resource Engineer



P 303.866.3581 x 8222

1313 Sherman St., Suite 821, Denver, CO 80203

Garrett.Banks@state.co.us | dwr.colorado.gov

--

Garrett Banks

Water Resource Engineer



P 303.866.3581 x 8222

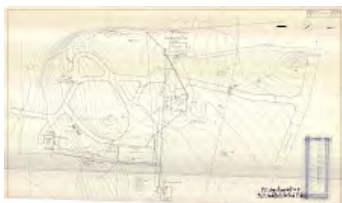
1313 Sherman St., Suite 821, Denver, CO 80203

Garrett.Banks@state.co.us | dwr.colorado.gov

2 attachments



1986 Buckhorn Septic_small.jpg
6960K



1965 Buckhorn_Utility Plan_smaller.jpg
708K

STATE OF
COLORADO

DWR - DNR, Permitsonline <dnr_dwrpermitsonline@state.co.us>

GWS-44 Well Permit Application USDA Forest Service Buckhorn Ranger Station

Fullenkamp, Lawrence - FS, CO <lawrence.fullenkamp@usda.gov>
To: "DWRPermitsOnline@state.co.us" <DWRPermitsOnline@state.co.us>

Fri, Feb 23, 2024 at 8:28 AM

To Whom it May Concern:

The USDA Forest Service would like to submit the attached GWS-44 Well Permit Application for the Buckhorn Ranger Station. The Buckhorn Ranger Station well was drilled in 1993 by the Bureau of Reclamation. The Buckhorn Ranger Station is located in T. 7N, R. 72W Section 16 in Larimer County Colorado. If you need additional information to process the well permit application please let us know. Thank you!

Larry



Lawrence Fullenkamp
Archaeologist

Forest Service

Arapaho and Roosevelt National Forests and Pawnee National Grassland

p: 970-295-6619

c: 970-278-6962

lawrence.fullenkamp@usda.gov

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STATE OF
COLORADO

Jones - DNR, Chris <chris.jones@state.co.us>

RE: GWS-31 Denial - Receipt No. 10034376 - Additional Information from Forest Service Unit

4 messages

Fullenkamp, Lawrence - FS, CO <lawrence.fullenkamp@usda.gov>

Mon, May 6, 2024 at 1:04 PM

To: "Jones - DNR, Chris" <chris.jones@state.co.us>, "Banks - DNR, Garrett" <garrett.banks@state.co.us>

Cc: "Sugg, Brian - FS, CO" <brian.a.sugg@usda.gov>, "Krezelok, Jamie - FS, CO" <jamie.krezelok@usda.gov>, "Chavarria, Gerardo - FS, CO" <gerardo.chavarria@usda.gov>, "Box, Kamber - FS, CO" <kamber.box@usda.gov>, "Leyva, Doug - FS, CO" <Douglas.Leyva@usda.gov>

Dear Christopher Jones:

Thank you for your letter dated April 26, 2024. The letter indicated that application 10034376 "is denied due to one or more of the deficiencies described above, and because repairs do not appear feasible to bring the well into compliance with the minimum standard of the Rules. Unless you have other information that may clarify or correct our understanding of the well". We do have additional information to provide that we hope will clarify some of the deficiencies identified.

- The distance from the well to the sewer line was measured on the ground. The distance on the ground is 47' 10" (we measured using both a tape measure and a laser range finder on a Trimble Geo7X). It is estimated that the base of the grout is 51.36 feet away from the nearest sewer line. Our previous calculations were based on GPS recordings of the well and georeferenced 1960s development and utility maps measured within a GIS system. Our previous measurements were not accurate. Here are photos of the measurements:
<https://photos.app.goo.gl/LogHRphkwqKPxLKM6>
- The construction report indicated an "OD" of 4". This was an error or generalization. The PVC installed was standard Schedule 40 4" PVC that was an outside diameter of 4.5" and an inside diameter of 4.029. The Forest did not order any specialized schedule 40 PVC that does not meet the standard. The OD was misstated. It does appear that this was a common generalization at the time (examples nearby include [35182-MH](#), [268928-](#), [200569-](#)). The Forest Service will make sure that any future statements by staff or contractors uses the correct and accurate measurements for "OD".
- Our Regional Office is providing guidance to the District office on how best to proceed with the deficiency by 1/8" of the annular space as specified by Rule 10.4.1 of the 1988 rules.

Our Regional Water Rights and Uses Program Manager has indicated that we have applied for variances throughout the state on other Forest units. Would the distance to the sewer line and PVC "OD" need to be addressed in a variance request? Or would the provided clarification and additional information that you requested be sufficient to resolve those deficiencies?

Thank you again for your letter. We share the goal of safeguarding public health and protecting the resources of the state of Colorado. We look forward to coordinating with you and value your role and assistance. Thank you.

**Lawrence Fullenkamp**
Archaeologist**Forest Service****Arapaho and Roosevelt National Forests and Pawnee National Grassland**

p: 970-295-6619

c: 970-278-6962

lawrence.fullenkamp@usda.gov

2150 Centre Ave Building E

Fort Collins, CO 80526

www.fs.fed.us**Caring for the land and serving people**

From: Jones - DNR, Chris <chris.jones@state.co.us>
Sent: Friday, April 26, 2024 3:25 PM
To: Fullenkamp, Lawrence - FS, CO <lawrence.fullenkamp@usda.gov>; Banks - DNR, Garrett <garrett.banks@state.co.us>
Subject: GWS-31 Denial - Receipt No. 10034376

Garrett and Lawrence,

Kindly forward this to Mr. Brian Sugg who signed the application for late registration of the Buckhorn Ranger Station Well, receipt No 10034376. The documentation I have does not include his email address.

Attached is a denial letter for the well construction documented on form GWS-31 submitted for the Buckhorn Ranger Station Well. The letter explains the deficiencies in the well construction and why it doesn't meet the minimum standards of the well construction Rules.

Thanks

Chris Jones

Chief Well Inspector

Hydrogeology Section



P 720.618.9982 (mobile)

1313 Sherman St., Suite 821

Denver, CO 80203

chris.jones@state.co.us | dwr.colorado.gov

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Jones - DNR, Chris <chris.jones@state.co.us>

Mon, May 6, 2024 at 1:47 PM

To: "Fullenkamp, Lawrence - FS, CO" <lawrence.fullenkamp@usda.gov>

Cc: "Banks - DNR, Garrett" <garrett.banks@state.co.us>, "Sugg, Brian - FS, CO" <brian.a.sugg@usda.gov>, "Krezelok, Jamie - FS, CO" <jamie.krezelok@usda.gov>, "Chavarria, Gerardo - FS, CO" <gerardo.chavarria@usda.gov>, "Box, Kamber - FS, CO" <kamber.box@usda.gov>, "Leyva, Doug - FS, CO" <Douglas.Leyva@usda.gov>

Lawrence,

Thank you for the additional information for the Buckhorn Ranger Station Well. Your explanation for the 4" PVC casing sounds reasonable; many contractors make similar mistakes in reporting the casing size on our reports. I do not have the authority to grant a post-construction variance for the offset between the well and sewerline or for the annular space in the grouted interval, thus I am unable to approve the well construction documented on the provided GWS-31 with the application under receipt 10034376. If you desire to keep this well, I recommend appealing the denial of the construction documented on the GWS-31 to the Board of Examiners of Water Well Construction and Pump Installation Contractors who have the authority to reconsider the well construction and should they choose, approve the GWS-31 for the late registration of the well.

That appeal can be heard at a regularly scheduled Board meeting. The next such meeting is May 23, 2024 and the following meeting is in August 2024. We are currently finalizing the agenda for the May 23, 2024 meeting. If you want to appeal the denial, I will need you to send me a written request (email if fine) to appeal the decision, any other information that may help the Board make their decision and any repairs you might propose (if any) by May 12 when I plan to send out the Board meeting packet. If you are successful in your appeal, I would write a letter on behalf of the Board documenting their approval of the construction to DWR so that DWR could proceed with their review of the application to late register the well.

Please let me know if that is a route you would like to consider. If you would like to wait until the August BOE meeting, that is not an issue.

Thanks

Chris Jones
Chief Well Inspector
Hydrogeology Section



COLORADO
Division of Water Resources
 Department of Natural Resources

P 720.618.9982 (mobile)
 1313 Sherman St., Suite 821
 Denver, CO 80203
chris.jones@state.co.us | dwr.colorado.gov

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Fullenkamp, Lawrence - FS, CO <lawrence.fullenkamp@usda.gov>

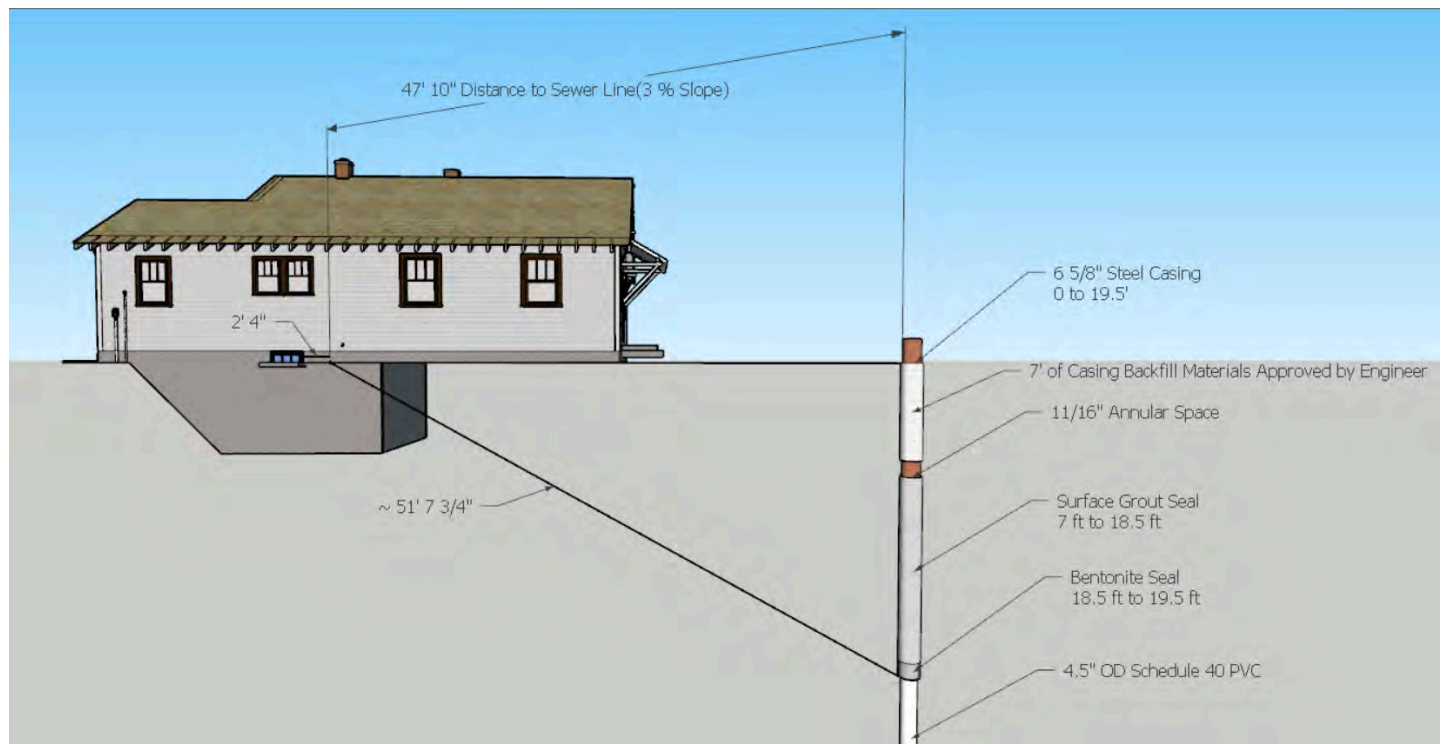
Sat, May 11, 2024 at 12:47 PM

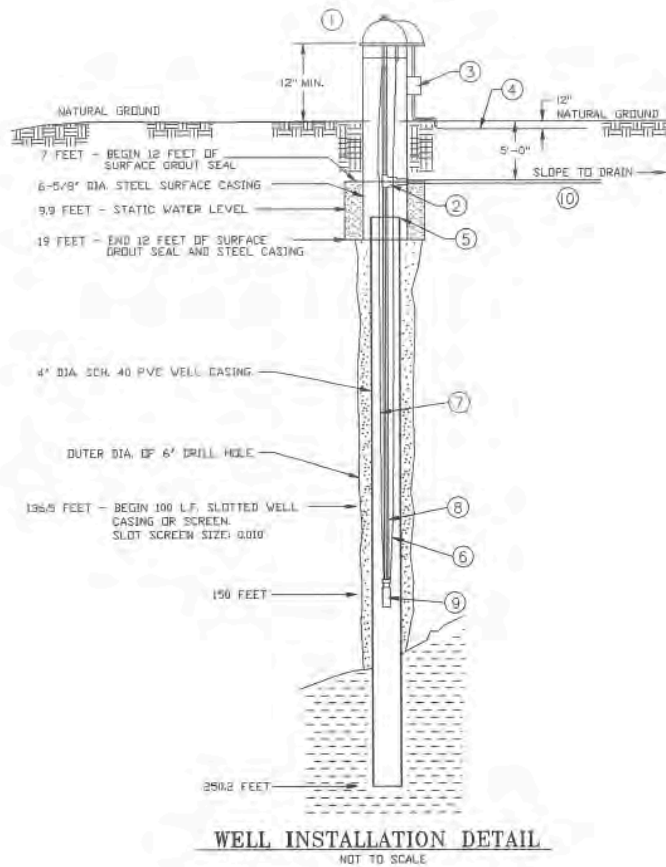
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Cc: "Banks - DNR, Garrett" <garrett.banks@state.co.us>, "Sugg, Brian - FS, CO" <brian.a.sugg@usda.gov>, "Krezelok, Jamie - FS, CO" <jamie.krezelok@usda.gov>, "Chavarria, Gerardo - FS, CO" <gerardo.chavarria@usda.gov>, "Box, Kamber - FS, CO" <kamber.box@usda.gov>, "Leyva, Doug - FS, CO" <Douglas.Leyva@usda.gov>

Hi Chris,

Thank you for your phone call yesterday 5/10/2024. While the Forest Service is interested in appealing to the BOE Board meeting, it looks like we need more time to fully document and get professional guidance. We would like to delay presenting to the board until August. As I mentioned to you we have reached out to Ingram Drilling but have not heard back from them to determine if they have time available prior to the May 23rd board meeting to assist us with a professional assessment of the Buckhorn Work Center Well. You provided the Forest Service with the list of approved and licensed contractors we could contact. We will continue compiling information so that we can present an organized and concise appeal. The current status of compliance with the 2 CCR 402-2 rules and the identified deficiency with rule 10.4.1 is summarized in the drawings below:





We will be compiling the water testing results as you recommended as well as other information to be fully prepared to present to the BOE. Thank you for your assistance.

Larry

[Quoted text hidden]

Jones - DNR, Chris <chris.jones@state.co.us>

Sat, May 11, 2024 at 3:53 PM

To: "Fullenkamp, Lawrence - FS, CO" <lawrence.fullenkamp@usda.gov>

Cc: "Banks - DNR, Garrett" <garrett.banks@state.co.us>, "Sugg, Brian - FS, CO" <brian.a.sugg@usda.gov>, "Krezelok, Jamie - FS, CO" <jamie.krezelok@usda.gov>, "Chavarria, Gerardo - FS, CO" <gerardo.chavarria@usda.gov>, "Box, Kamber - FS, CO" <kamber.box@usda.gov>, "Leyva, Doug - FS, CO" <Douglas.Leyva@usda.gov>

Thanks Larry. I'll make a note to put the Buckhorn well on the agenda for the August 13 meeting.

Chris Jones
Chief Well Inspector
Hydrogeology Section



COLORADO
Division of Water Resources
Department of Natural Resources

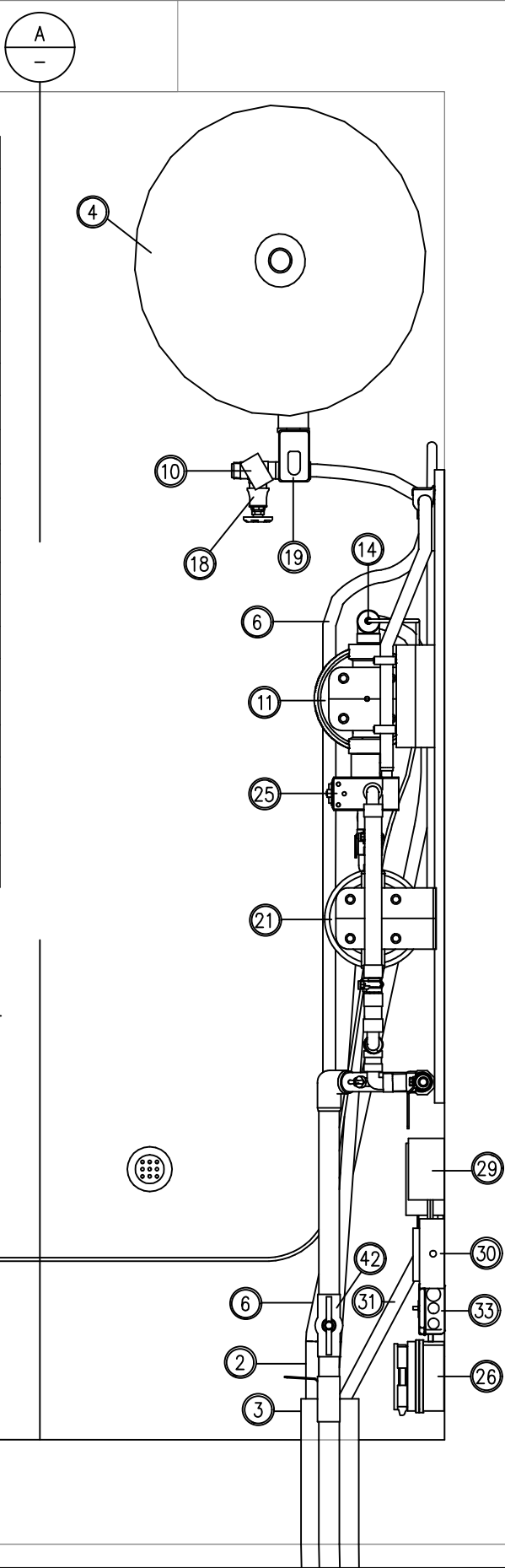
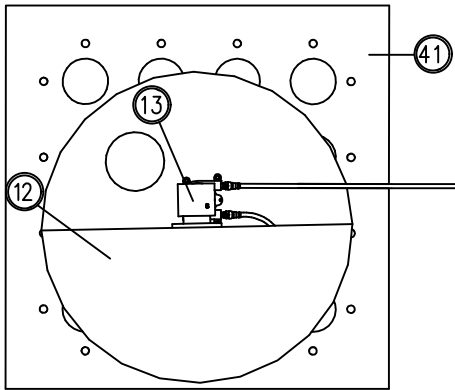
P 720.618.9982 (mobile)
1313 Sherman St., Suite 821
Denver, CO 80203
chris.jones@state.co.us | dwr.colorado.gov

[Quoted text hidden]

1/23/25 14:55 LF\\LENKAMP C:\\USERS\\LF\\LENKAMP\\BOX00500-BUCKHORN WORK CENTER\\SITE CONTRACTS AND PROJECTS(2024) ELECTRICAL & WATER UPGRADES\\WATER SYSTEM\\DRAWINGS\\BUCKHORN WATER SYSTEM\\DWG:

EQUIPMENT SCHEDULE						
ID	COUNT / SIZE	DESCRIPTION		ID	COUNT / SIZE	DESCRIPTION
1	1	1500 GALLON CONCRETE CISTERN		22	1	1.25" IRON FPT T FITTING
2	50' X3	1" HDPE PIPE NSF 14 POTABLE		23	1	1.25" NPT THREADED NIPPLE
3	3	4" NONMETALIC CONDUIT 10'		24	1	1.25 FNPT X FNPT BALL VALVE
4	1	4" NONMETALIC SWEEP 90		25	1	SMART WATER MONITOR
5	10 LBS	SODIUM BENTONITE HOLE PLUG SEALER		26	1	NEMA 6-15R OUTLET 230V
6	10'	1" PEX A POTABLE NSF 14		27	1	20 AMP GFCI CONVIENCE PLUG
7	1	1.25" SCHEDULE 80 FPT 90		28	85' X 3	12/2 AWG UF BURIAL WIRE
8	2	1.25" SCHEDULE 80 MPT X MPT NIPPLE		29	1	10 GPM 1/2 HP CISTERN PUMP
9	3	1.25" SCHEDULE 80 T FITTING FPT		30	1	12 AMP 115V 1/2 HP PUMP CONTROLLER
10	2	PRESSURE GAUGE		31	3'	1" FLEXIBLE NONMETALIC CONDUIT
11	1	30 MICRON SEDIMENT FILTER		32	10'	1" FLEXIBLE METALIC CONDUIT
12	1	7.5 GALLON CHLORINE SOLUTION TANK		33	1	230V PUMP SHUTOFF SWITCH
13	1	PERISTALIC CHEMICAL METERING PUMP		34	20' X3	12 AWG
14	1	CHLORINE INJECTION CHECK VALVE		35	20'	RIGID METAL CONDUIT
15	2	BALL VALVE SAMPLE TAP		36	1	4" X 4" PVC JUNCTION BOX
16	1	5GPM FLOW RESTRICTOR (FPT X FPT)		37	1	4" X 4" ELECTRICAL JUNCTION BOX
17	4	1" PEX A FPT ADAPTER		38	1	1" STAINLESS STEEL CHECK VALVE
18	1	MPT DRAIN SPIGOT		39	1	PUMP SHROUD AND FLOAT SWITCHES
19	1	PRESSURE SWITCH (40-60)		40	1	CISTERN VENT
20	1	65 GALLON PRESSURE TANK		41	1	SPILL CONTAINMENT PALLET
21	1	20 MICRON WATER FILTER		42	1	1.25" PVC BALL VALVE

WATER TREATMENT PLAN VIEW



United States Department of Agriculture
Forest Service

(R02)
ROCKY MOUNTAIN REGION

STAMPS, LOGOS, AND SEALS

4		
3		
2		
1		
NO.	REVISION / ISSUE	DATE

PROJECT NAME

BUCKHORN
SANITARY
WATER SYSTEM
UPDATES

ARAPAHO AND
ROOSEVELT NATIONAL
FORESTS AND PAWNEE
NATIONAL GRASSLAND

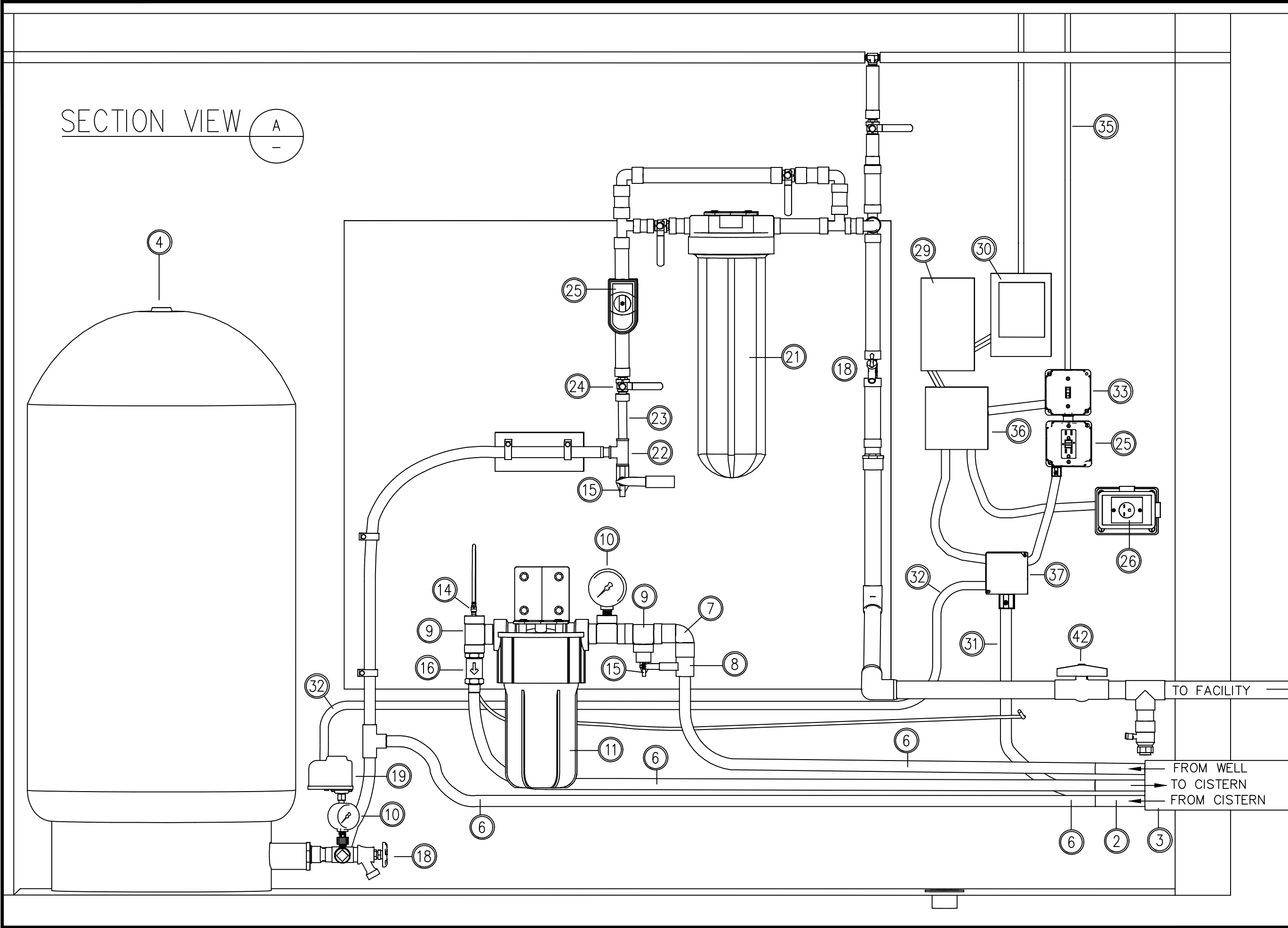
CANYON LAKES RANGER DISTRICT

DRAWING TITLE

WATER TREATMENT
INTERIOR PLAN VIEW

DATE 01/21/2025	ARCHIVE NO.
DESIGNER X.XXX	DRAWING SHEET NO. P-01
DRAWN X.XXX	
CHECKED X.XXX	
PROJECT NO.	SHEET 001 OF 4

1/23/25 14:55 L:\LLENKAMP C:\USERS\LLENKAMP\BOX0050-BUCKHORN WORK CENTER\SITE CONTRACTS AND PROJECTS (2024) ELECTRICAL & WATER UPGRADES\WATER SYSTEM\DRAWINGS\BUCKHORN WATER SYSTEM.DWG;



United States Department of Agriculture
Forest Service

(R02)
ROCKY MOUNTAIN REGION

STAMPS, LOGOS, AND SEALS

4		
3		
2		
1		
NO.	REVISION / ISSUE	DATE

PROJECT NAME

**BUCKHORN
SANITARY
WATER SYSTEM
UPDATES**

**ARAPAHO AND
ROOSEVELT NATIONAL
FORESTS AND PAWNEE
NATIONAL GRASSLAND**

CANYON LAKES RANGER DISTRICT

DRAWING TITLE

**WATER TREATMENT
SYSTEM INTERIOR
SECTION VIEW**

DATE 01/21/2025	ARCHIVE NO.
DESIGNER X.XXX	DRAWING SHEET NO. P-02
DRAWN X.XXX	
CHECKED X.XXX	
PROJECT NO.	SHEET 002 OF 4

(R02)
ROCKY MOUNTAIN REGION

STAMPS, LOGOS, AND SEALS

4		
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NO.	REVISION / ISSUE	DATE

PROJECT NAME

BUCKHORN SANITARY WATER SYSTEM UPDATES

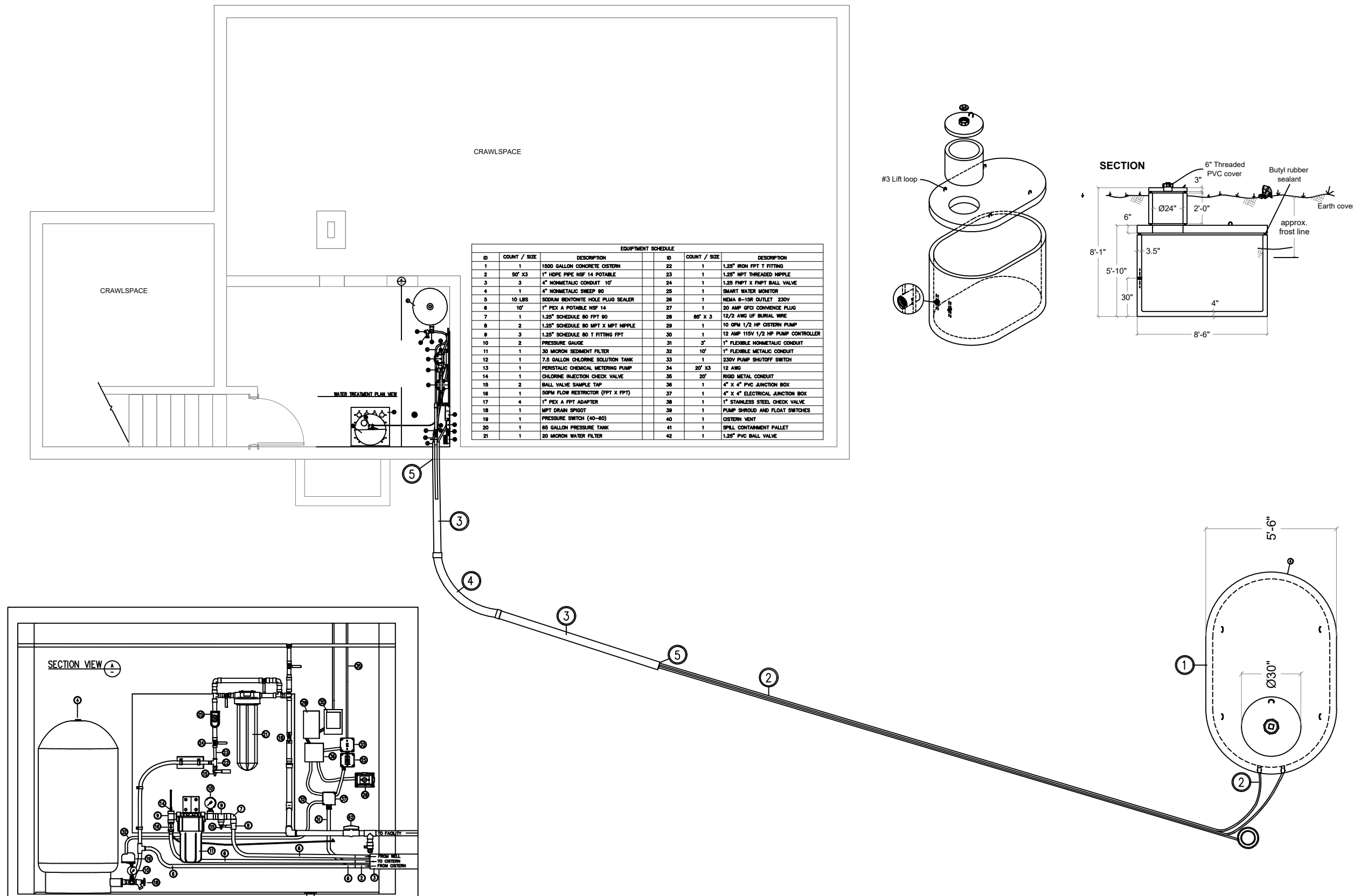
**ARAPAHO AND
ROOSEVELT NATIONAL
FORESTS AND PAWNEE
NATIONAL GRASSLAND**

CANYON LAKES RANGER DISTRICT

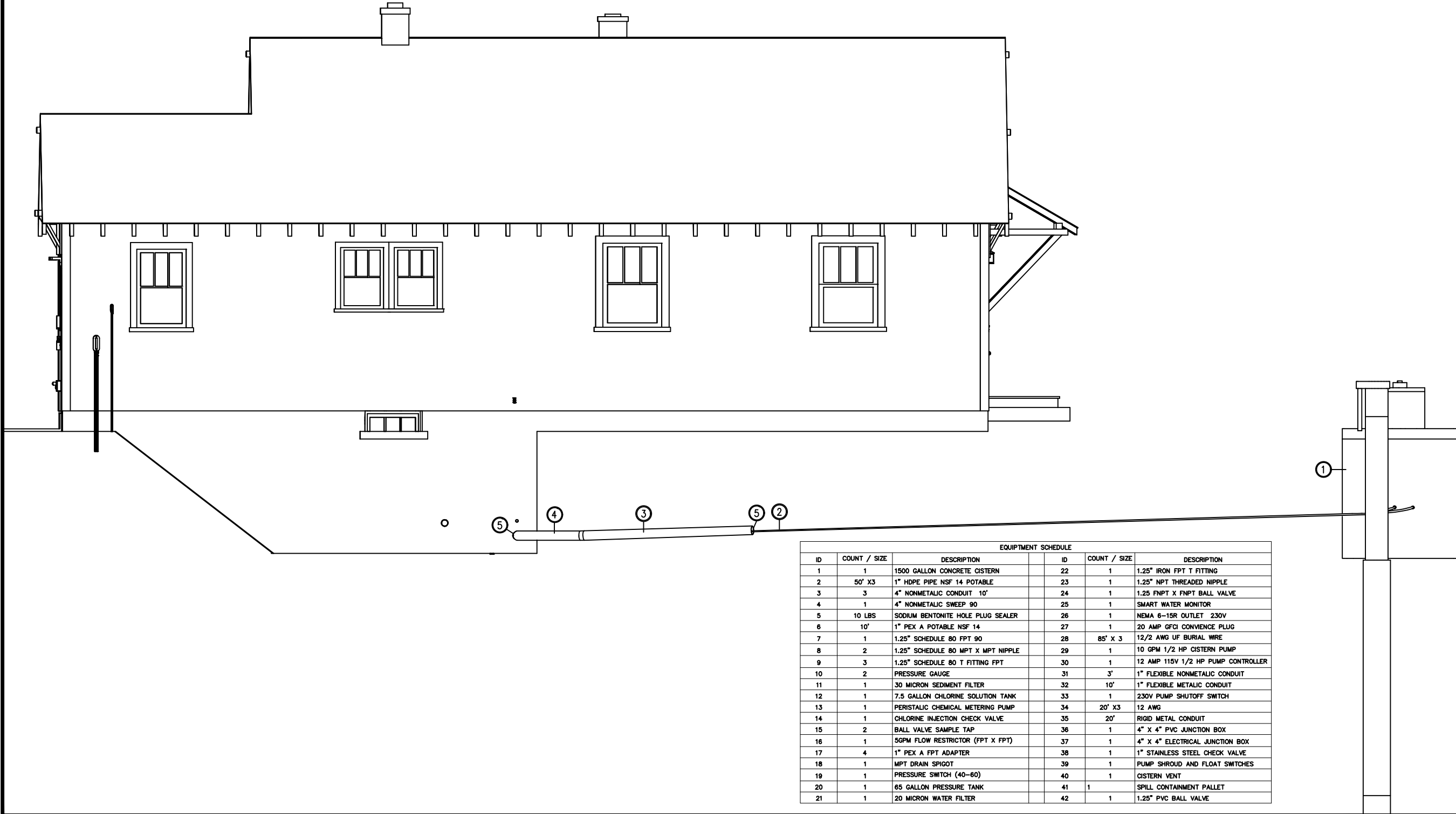
DRAWING TITLE

**WATER TREATMENT
SYSTEM EXTERIOR PLAN
VIEW**

DATE 01/21/2025	ARCHIVE NO.	
DESIGNER X.XXX	DRAWING SHEET NO. P-03	
DRAWN X.XXX		
CHECKED X.XXX		
PROJECT NO.		
		SHEET 003 OF 4



1/23/25 14:55 LF\\LENKAMP C:\\USERS\\LF\\LENKAMP\\BOX00500-BUCKHORN WORK CENTER\\SITE CONTRACTS AND PROJECTS\\2024\\ELECTRICAL & WATER UPGRADES\\WATER SYSTEM\\DRAWINGS\\BUCKHORN WATER SYSTEM.DWG;



EQUIPMENT SCHEDULE					
ID	COUNT / SIZE	DESCRIPTION	ID	COUNT / SIZE	DESCRIPTION
1	1	1500 GALLON CONCRETE CISTERN	22	1	1.25" IRON FPT T FITTING
2	50' X3	1" HDPE PIPE NSF 14 POTABLE	23	1	1.25" NPT THREADED NIPPLE
3	3	4" NONMETALIC CONDUIT 10'	24	1	1.25 FNPT X FNPT BALL VALVE
4	1	4" NONMETALIC SWEEP 90	25	1	SMART WATER MONITOR
5	10 LBS	SODIUM BENTONITE HOLE PLUG SEALER	26	1	NEMA 6-15R OUTLET 230V
6	10'	1" PEX A POTABLE NSF 14	27	1	20 AMP GFCI CONVENIENCE PLUG
7	1	1.25" SCHEDULE 80 FPT 90	28	85' X 3	12/2 AWG UF BURIAL WIRE
8	2	1.25" SCHEDULE 80 MPT X MPT NIPPLE	29	1	10 GPM 1/2 HP CISTERN PUMP
9	3	1.25" SCHEDULE 80 T FITTING FPT	30	1	12 AMP 115V 1/2 HP PUMP CONTROLLER
10	2	PRESSURE GAUGE	31	3'	1" FLEXIBLE NONMETALIC CONDUIT
11	1	30 MICRON SEDIMENT FILTER	32	10'	1" FLEXIBLE METALIC CONDUIT
12	1	7.5 GALLON CHLORINE SOLUTION TANK	33	1	230V PUMP SHUTOFF SWITCH
13	1	PERISTALTIC CHEMICAL METERING PUMP	34	20' X3	12 AWG
14	1	CHLORINE INJECTION CHECK VALVE	35	20'	RIGID METAL CONDUIT
15	2	BALL VALVE SAMPLE TAP	36	1	4" X 4" PVC JUNCTION BOX
16	1	5GPM FLOW RESTRICTOR (FPT X FPT)	37	1	4" X 4" ELECTRICAL JUNCTION BOX
17	4	1" PEX A FPT ADAPTER	38	1	1" STAINLESS STEEL CHECK VALVE
18	1	MPT DRAIN SPIGOT	39	1	PUMP SHROUD AND FLOAT SWITCHES
19	1	PRESSURE SWITCH (40-60)	40	1	CISTERN VENT
20	1	65 GALLON PRESSURE TANK	41	1	SPILL CONTAINMENT PALLET
21	1	20 MICRON WATER FILTER	42	1	1.25" PVC BALL VALVE



United States Department of Agriculture
Forest Service

(R02)
ROCKY MOUNTAIN REGION

STAMPS, LOGOS, AND SEALS

4		
3		
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1		
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PROJECT NAME

BUCKHORN
SANITARY
WATER SYSTEM
UPDATES

ARAPAHO AND
ROOSEVELT NATIONAL
FORESTS AND PAWNEE
NATIONAL GRASSLAND

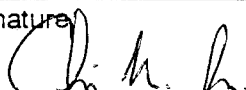
CANYON LAKES RANGER DISTRICT

DRAWING TITLE

WATER TREATMENT
SYSTEM EAST
ELEVATION

DATE 01/21/2025	ARCHIVE NO.
DESIGNER X.XXX	DRAWING SHEET NO. P-04
DRAWN X.XXX	
CHECKED X.XXX	
PROJECT NO.	SHEET 004 OF 4

COLORADO DIVISION OF WATER RESOURCES DEPARTMENT OF NATURAL RESOURCES 1313 SHERMAN ST., Ste 821, DENVER, CO 80203 Main: (303) 866-3581 dwrpermitsonline@state.co.us		Office Use Only		Form GWS-44 (01/2020)	
RESIDENTIAL Note: Also use this form to apply for livestock watering Water Well Permit Application Review form instructions prior to completing form. Hand completed forms must be completed in black or blue ink or typed.		RECEIVED 02/23/2024 WATER RESOURCES STATE ENGINEER COLO			
1. Applicant Information Name(s) United States of America, USDA Forest Service Mailing address 1617 Cole Boulevard, Bldg. 17 City State Zip code Lakewood CO 80401 Telephone (w/area code) E-mail 303-275-5153 andrea.rogers@usda.gov		6. Use Of Well (check applicable boxes) See instructions to determine use(s) for which you may qualify <input type="checkbox"/> A. Ordinary household use in one single-family dwelling (no outside use) <input checked="" type="checkbox"/> B. Ordinary household use in 1 to 3 single-family dwellings: Number of dwellings: 3 <input checked="" type="checkbox"/> Home garden/lawn irrigation, not to exceed one acre: area irrigated 1 sq. ft. <input checked="" type="checkbox"/> acre <input type="checkbox"/> Domestic animal watering – (non-commercial) <input type="checkbox"/> C. Livestock watering (on farm/ranch/range/pasture)			
2. Type Of Application (check applicable boxes) <input type="checkbox"/> Construct new well <input type="checkbox"/> Change source (aquifer) <input type="checkbox"/> Replace existing well <input type="checkbox"/> Reapplication (expired permit) <input checked="" type="checkbox"/> Use existing well <input type="checkbox"/> Rooftop precip. collection <input type="checkbox"/> Change or increase use <input type="checkbox"/> Other:		7. Well Data (proposed) Maximum pumping rate Annual amount to be withdrawn 5 gpm 1/3 acre-feet Total depth Aquifer 250 feet Groundwater			
3. Refer To (if applicable) Well permit # Water Court case # Designated Basin Determination # Well name or # Buckhorn Ranger Station Well		8. Water Supplier Is this parcel within boundaries of a water service area? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If yes, provide name of supplier:			
4. Location Of Proposed Well (Important! See Instructions) County Larimer NW 1/4 of the NE 1/4 Section Township N or S Range E or W Principal Meridian 16 7 <input checked="" type="checkbox"/> <input type="checkbox"/> 72 <input type="checkbox"/> <input checked="" type="checkbox"/> Distance of well from section lines (section lines are typically not property lines) 350 Ft. from <input checked="" type="checkbox"/> N <input type="checkbox"/> S 2145 Ft. from <input type="checkbox"/> E <input checked="" type="checkbox"/> W For replacement wells only – distance and direction from old well to new well feet Direction Well location address (Include City, State, Zip) <input type="checkbox"/> Check if well address is same as in Item 1. 32317 West County Road 44H Optional: GPS well location information in UTM format. GPS unit settings are as follows: Format must be UTM <input type="checkbox"/> Zone 12 or <input checked="" type="checkbox"/> Zone 13 Easting: 460320 Units must be Meters Northing: 4492331 Datum must be NAD83 Remember to set Datum to NAD83 Unit must be set to true north Was GPS unit checked for above? <input checked="" type="checkbox"/> YES		9. Type Of Sewage System <input checked="" type="checkbox"/> Septic tank / absorption leach field <input type="checkbox"/> Central system: District name: _____ <input type="checkbox"/> Vault: Location sewage to be hauled to: _____ <input type="checkbox"/> Other (explain) _____			
5. Parcel On Which Well Will Be Located (You must attach a current deed for the subject parcel) A. You must check and complete one of the following: <input type="checkbox"/> Subdivision: Name _____ Lot _____ Block _____ Filing/Unit _____ <input type="checkbox"/> County exemption (attach copy of county approval & survey) Name/# _____ Lot # _____ <input type="checkbox"/> Parcel less than 35 acres, not in a subdivision attach a deed with metes & bounds description recorded prior to June 1, 1972, and current deed <input type="checkbox"/> Mining claim (attach copy of deed or survey) Name/#: _____ <input checked="" type="checkbox"/> Square 40 acre parcel as described in Item 4 <input type="checkbox"/> Parcel of 35 or more acres (attach metes & bounds description or survey) <input type="checkbox"/> Other: (attach metes & bounds description or survey) B. # of acres in parcel C. Are you the owner of this parcel? 40 <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO D. Will this be the only well on this parcel? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (if no – list other wells) E. State Parcel ID# (optional):		10. Proposed Well Driller License #(optional): 11. Sign or Enter Name of Applicant(s) or Authorized Agent The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge. Sign or enter name(s) of person(s) submitting application Date (mm/dd/yyyy) BRIAN SUGG Digitally signed by BRIAN SUGG 02/22/2024 Date: 2024.02.22 12:24:19 -07'00' If signing print name and title Brian Sugg, Acting Canyon Lakes District Ranger			
Office Use Only USGS map name DWR map no. Surface elev. Receipt area only 10034376 AQUAMAP WE WR CWCB TOPO MYLAR SB5 DIV _____ WD _____ BA _____ MD _____					

CRM NO. 32 /90	PUMP INSTALLATION AND TEST REPORT		For Office Use only
STATE OF COLORADO, OFFICE THE STATE ENGINEER			
WELL PERMIT NUMBER _____			
UNITED STATES OF AMERICA			
OWNER NAME(S) <u>USDA - Forest Service</u>			
Mailing Address <u>P.O. Box 25127</u>			
City, St. Zip <u>Lakewood, Colorado 80225</u>			
Phone (303) <u>275-5108</u>			
WELL LOCATION AS DRILLED: <u>NW</u> <u>1/4</u> <u>NE</u> <u>1/4</u> , Sec. <u>16</u> Twp. <u>7</u> <u>N</u> , Range <u>72</u> <u>W</u>			
DISTANCES FROM SEC. LINES: <u>350</u> ft. from <u>North</u> Sec. line. and <u>2145</u> ft. from <u>West</u> Sec. line. (north or south) (east or west)			
SUBDIVISION: _____ LOT _____ BLOCK _____ FILING(UNIT) _____			
STREET ADDRESS AT WELL LOCATION: _____			
PUMP DATA: Type <u>Submersible</u> Installation Completed <u>5/29/94</u>			
Pump Manufacturer <u>Goulds</u> Pump Model No. <u>5ES03411</u>			
Design GPM <u>5.0</u> at RPM <u>3450</u> , HP <u>1/3</u> , Volts <u>115</u> , Full Load Amps <u>8.0</u>			
Pump Intake Depth <u>160.0</u> Feet, Drop/Column Pipe Size <u>1-1/4"</u> Inches, Kind <u>PVC, Schedule 80</u> Serial #2145024416			
ADDITIONAL INFORMATION FOR PUMPS GREATER THAN 50 GPM:			
TURBINE DRIVER TYPE: <input type="checkbox"/> Electric <input type="checkbox"/> Engine <input type="checkbox"/> Other _____			
Design Head _____ feet, Number of Stages _____, Shaft size _____ inches.			
OTHER EQUIPMENT:			
Airline Installed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, Orifice Depth ft. _____ Monitor Tube Installed <input type="checkbox"/> Yes <input type="checkbox"/> No, Depth ft. _____			
Flow Meter Mfg. _____ Meter Serial No. _____			
Meter Readout <input type="checkbox"/> Gallons, <input type="checkbox"/> Thousand Gallons, <input type="checkbox"/> Acre feet, <input type="checkbox"/> Beginning Reading _____			
TEST DATA: <input type="checkbox"/> Check box if Test data is submitted on Supplemental Form.			
Total Well Depth <u>250.2 Feet</u>		Date _____	
Static Level <u>9.9 Feet</u>		Time _____	
Date Measured <u>7/5/93</u>		Rate (GPM) _____	
		Pumping Lvl. _____	
DISINFECTION: Type <u>Liquid Chlorine</u> Amt. Used <u>100 oz.</u>			
Water Quality analysis available. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Remarks _____ _____ _____ _____ _____ _____			
I have read the statements made herein and know the contents thereof, and that they are true to my knowledge. [Pursuant to Section 24-4-104 (13)(a) C.R.S., the making of false statements herein constitutes perjury in the second degree and is punishable as a class 1 misdemeanor.]			
UNITED STATES OF AMERICA			
CONTRACTOR <u>USDA - Forest Service</u> Phone (<u>303</u>) <u>275-5108</u> Lic. No. <u>Owner.</u>			
Mailing Address <u>P.O. Box 25127, Lakewood, Colorado 80225</u>			
Name/Title (Please type or print) <u>Chris N. Ida</u> <u>Civil Engineer</u>		Signature 	Date <u>3-9-95</u>



DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

1555 North 17th Avenue
Greeley, CO 80631

www.weldhealth.org



Public Health
Prevent. Promote. Protect.

**Health Administration
Vital Records**

Tele: 970-304-6410
Fax: 970-304-6412

**Public Health &
Clinical Services**

Tele: 970-304-6420
Fax: 970-304-6416

**Environmental Health
Services**

Tele: 970-304-6415
Fax: 970-304-6411

**Communication,
Education & Planning**

Tele: 970-304-6470
Fax: 970-304-6452

**Emergency Preparedness
& Response**

Tele: 970-304-6420
Fax: 970-304-6469

Our vision: Together with the communities we serve, we are working to make Weld County the healthiest place to live, learn, work, and play.

Customer: USDA FS ARAPAHOE ROOSEVELT NF CANYON LAKES RV
2150 CENTRE AVE BLDG E
FORT COLLINS, CO 80526

PWSID:
NPDES:
Facility:

Analysis Report

Report Number: ENSG250320-004

Sample Group Comment:

Lab ID: ENS250320-008

Collected: 3/20/2025 1:30 PM

Received: 3/20/2025 3:58 PM

Sample Site: 32317 W CR 44

Purpose:

Sample Point: BATHROOM

Sample Point ID:

Facility ID:

PWSID:

Collected By: Public, General

Temp Upon Receipt,C: 11.8-15.5

Sample Comment:

Result Name	Result	Unit	Flag	MDL	MQL	MCL	Method	Analyst	Date Analyzed	Limit Comment
Temperature	14.4	'C					SM 4500-H B	SY	3/20/2025 3:59 PM	
pH	8.01	SU					SM 4500-H B	SY	3/20/2025 3:59 PM	
Total Dissolved Solids	311	mg/L		9	9		SM 2540C	KA	3/24/2025 4:30 PM	
Coliform	Absent	CFU/100mL					SM 9223B	KA	3/21/2025 4:17 PM	
E. Coli	Absent	CFU/100mL					SM 9223B	KA	3/21/2025 4:17 PM	
Nitrate as N	0.10	mg/L	<MQL	0.03	0.4	10	EPA 300.0	CRS	3/20/2025 5:02 PM	
Free Chlorine by Customer on COC	0.77	mg/L					EPA 300.0	CRS	3/20/2025 5:02 PM	
Nitrite as N	<0.02	mg/L	<MDL	0.02	0.4	1	EPA 300.0	CRS	3/20/2025 5:02 PM	

Laboratory
Manager:

APPROVED

Department of Public Health and Environment

'Approved' means that data has met laboratory Quality Assurance/Quality Control criteria. This document is intended only for the person or entity to which it is provided. Any disclosure, copying, distribution or the taking of any action concerning the contents of this document by anyone other than the intended recipient is strictly prohibited.

Report Key: MDL=Minimum Detection Limit

MQL=Minimum Quantitation Limit

MCL=Maximum Contamination Level

2025 Chain of Custody

Microbiology samples accepted Monday-Thursday until 4:00pm. Do NOT submit samples the day before a holiday.



Weld County

1555 N. 17th Avenue
Greeley, CO 80631
Phone: (970) 400-6410
weldhealth.org

Department of Public Health and Environment

Client	USDA FS Arapahoe Roosevelt NF Canyon Lakes RV		
Address	2150 Centre Ave Bldg E		
City	Fort Collins		
State, Zip	CO 80526	Compliance Samples	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
County	Larimer	PWSID	CO0
Phone	970-278-6962	NPDES	
Email	L.Follen Lawrence.Follenkamp@usda.gov		

This Chain of Custody (COC) is a LEGAL DOCUMENT. All fields must be completed accurately for Drinking Water Compliance.

A completed COC indicating the tests requested must accompany all samples, up to seven (7) samples may be submitted on one COC. All containers should be tightly capped and properly identified. If you are a Public Water System you must include your PWSID on the COC and indicate Sample Type, Sample Point ID, and Facility ID according to the system's Monitoring Schedule available at <https://cdphe.colorado.gov/dwschedules>. Failure to provide this information may prevent compliance data from being reported to Colorado Department of Public Health and Environment.

Contact Information (Check if Same as Above) ☒

Name	Lawrence Follenkamp		
Address			
City		State, Zip	
Email		Phone	

Sample Type	Sample Point ID	Facility ID	Sample Site Address	Sample Site Description	Collected Date	Time
1	1		32317 W. CR #44	Bathroom	3/20	1530
2	2		"	Basement sample tap	3/20	1535
3						
4						
5						
6						
7						

Field Data										Requested Analysis									
Raw	Chlorinated	Free Chlorine Residual	pH	Temperature °C	Number of Containers	Composite Sample	Grab Sample	Coliform/E.coli P/A	Coliform/E.coli Quantitative	Ammonia as N	BOD	Gravel Pit Package	Nitrate as N	Nutrients Package	pH/Temperature	Suspended Solids	Other (Select on Back)		
	X	0.77			2														
	X	"			1														

Comments

Buckhorn Work Center non-PWS, TNC

ENSG250320-001 Client: USDA FS ARAPAHOE ROOSEVELT NF
ENSG250320-008 32317 W CR 44
BATHROOM
Nitrate as N, Nitrite as N, pH & Temperature, Total Coliform and E. coli, Total Dissolved Solids
Collection Date: 3/20/2025 1:30:00 PM

LEGAL DISCLOSURE

By signing this Chain of Custody, I have reviewed and acknowledge that all the information is true and correct.

PRINT NAME OF SAMPLER

SAMPLER NAME AND SIGNATURE

SIGNATURE OF SAMPLER

DATE SIGNED

Weld County Use Only

SAMPLE CONDITION		Sample Volume Upon Arrival		Ok <input checked="" type="radio"/>	Low	Excess
Arrival Temperature (Range °C)	11.2 - 15.5	Holding Time	In <input checked="" type="radio"/>	Out	Analyte	
Received on Ice	Yes <input checked="" type="radio"/> No <input type="radio"/>	Appropriate Sample Bottles	Yes <input checked="" type="radio"/> No <input type="radio"/>			
Sample Sealed/Intact	Yes <input checked="" type="radio"/> No <input type="radio"/>	Preservatives	Yes <input checked="" type="radio"/> No <input type="radio"/>	Type		
Paid	Yes <input checked="" type="radio"/> No <input type="radio"/>	Na ₂ S ₂ O ₃	H ₂ SO ₄	HCl	HNO ₃	

Chain of Custody Procedural Signatures

Relinquished By

Date

Time

Accepted By

Relinquished By

Accepted By

3/20/25 1540
3/20/2025 15:40

RCOD WOPHE LAB 57
MAR 20 '25 PM 3:53



Public Health
Protect. Promote. Prevent.



2025 Approved Pricing. Payment is due when samples are submitted for testing. Indicate the associated sample line number (Line #) from front page.

Microbiology Tests			Cost	Metals: Indicate Potentially Dissolved (PD), Dissolved (D), or Total (T)		Cost	Water Quality Packages Continued		Cost
Line #	Total Coliform/E.coli Present/Absent (P/A)		\$22.50	Line #	Arsenic (PD) (D) (T)	\$22.50	Line #	EPA Recommended Private Drinking Water Well	\$349.50 Total Coliform/E.coli P/A, Total Dissolved Solids, pH/Temperature, Fluoride, Nitrate as N, Nitrite as N, Chloride, Sulfate, Total Alkalinity, Total Hardness, Calcium as CaCO ₃ , Magnesium (calc), Lead, Copper, Iron, Manganese, Sodium, Langelier Index (calc), Sodium Adsorption Ratio, VOC Screen (N/C)
Line #	Total Coliform/E.coli Quant.		\$24.50	Line #	Chromium (PD) (D) (T)	\$22.50			
Line #	Autoclave Spore		\$13.50	Line #	Copper (PD) (D) (T)	\$22.50			
Water Quality Tests				Line #	Iron (PD) (D) (T)	\$22.50			
Line #	Alkalinity, Total		\$17.50	Line #	Lead (PD) (D) (T)	\$23.00			
Line #	Alkalinity, Phenolphthalien		\$17.50	Line #	Manganese (PD) (D) (T)	\$22.50			
Line #	Ammonia as N		\$24.00	Line #	Selenium (PD) (D) (T)	\$23.00			
Line #	Biochemical Oxygen Demand		\$67.00	Line #	Sodium (PD) (D) (T)	\$23.00			
Line #	Bromide		\$21.00	Line #	Zinc (PD) (D) (T)	\$22.50			
Line #	BTEX		\$110.00	Line #	*Uranium	*Market Rate			
Line #	Calcium as CaCO ₃		\$22.50	Line #	*Other Metals	*Market Rate			
Line #	Chloride		\$21.50	Please List:			Line #	Private Drinking Water Well	\$259.00
Line #	Chlorine, Free and Total		\$17.50	Additional Laboratory Fees			Line #	Total Coliform/E.coli P/A, Total Dissolved Solids, pH/Temperature, Fluoride, Nitrate as N, Nitrite as N, Chloride, Sulfate, Total Alkalinity, Total Hardness, Calcium as CaCO ₃ , Magnesium (calc), Sodium, Langelier Index, Sodium Adsorption Ratio, VOC Screen (N/C)	
Line #	Conductivity		\$17.50	Line #	Sampling/Courier Fee	\$27.50			
Line #	Dissolved Oxygen		\$15.50	Line #	After Hours/Rush Fee	3X Fee			
Line #	Fluoride		\$21.50	Line #	Shipping Fee	\$16.00			
Line #	*Haloacetic Acids		*Market Rate	*Market Rate Quote from Reference Lab			Line #	Livestock Well	\$254.00 Total Dissolved Solids, pH/Temperature, Conductivity, Nitrate as N, Nitrite as N, Fluoride, Chloride, Sulfate, Total Alkalinity, Total Hardness, Calcium as CaCO ₃ , Magnesium (calc), Sodium, Sodium Adsorption Ratio
Line #	Hardness, Total		\$22.50	Water Quality Packages					
Line #	Hexavalent Chromium		\$31.00	Line #	X Annual Package	\$101.50			
Line #	Magnesium (calc)		\$7.50	Total Coliform/E.coli P/A, Nitrate as N, Nitrite as N, pH/Temperature, Total Dissolved Solids					
Line #	Nitrate as N		\$21.50	Line #	HUD/Real Estate Package	\$88.50			
Line #	Nitrite as N		\$21.50	Total Coliform/E.coli P/A, Nitrate as N, Nitrite as N, Lead					
Line #	Oil & Grease Visual		\$2.00	Line #	Sodium Adsorption Ratio (SAR)	\$75.50			
Line #	Orthophosphate		\$27.50	Sodium, Total Hardness, Calcium as CaCO ₃ , Magnesium (calc), Sodium Adsorption Ratio					
Line #	Total Orthophosphate as P		\$36.00	Line #	Gravel Pit	\$38.00			
Line #	pH/Temperature		\$17.50	Total Suspended Solids, pH/Temperature, Oil & Grease Visual					
Line #	Solids, Total		\$17.50						
Line #	Solids, Total Dissolved		\$18.50						
Line #	Solids, Total Suspended		\$18.50						
Line #	Sulfate		\$21.50						
Line #	Total Kjeldahl Nitrogen		\$50.00						
Line #	Total Trihalomethanes		\$89.00						
Line #	Turbidity		\$19.00						
Line #	Volatile Organic Compounds (VOC)-Weld County Residents		No Charge						
Line #	VOC -Non Weld County Residents		\$167.00						
Line #	Volatile Organics Group		\$147.00						
Line #	*Other Analyses		*Market Rate						
Please List:									

MICROBIOLOGY WATER SAMPLING

- 1 Use only the sterile bottle provided, no others will be accepted.
- 2 Remove all attachments from faucet. Collect samples from cold water tap after allowing to run freely for 3-5 minutes.
- 3 Do not rinse preservative from sterile bottle. Aseptically fill to the 100 mL line and cap. Do not overfill.
- 4 Microbiological sample holding time for drinking water is 30 hours from time of collection. Wastewater is 6 hours and raw water is 8 hours.
- 5 Samples should be kept cool on ice until receipt in the laboratory. Do not allow samples to freeze.

WATER QUALITY SAMPLING

- 1 Obtain appropriate sample bottles from the laboratory.
- 2 Collect samples for other water quality parameters after sampling for microbiological samples, or allow water to run freely for 3-5 minutes.
*For Lead and Copper sampling, see instructions on the certified metals-free sample bottle.
- 3 Return all water quality samples to the laboratory as soon as possible, not to exceed 48 hours.
- 4 For VOC screen, the lab will test for the compounds listed in the EPA testing procedure employed by the Weld County Laboratory (EPA Method 524.2). If additional compounds are detected during testing, the submitting party will be notified of the potential that additional compounds exist. However, it is the responsibility of the submitting party to seek follow-up tests to confirm the presence and quantity of any additional compounds.

AGENDA ITEM 11.b

Tom Dea of Pumpman Colorado on
Behalf of Owner

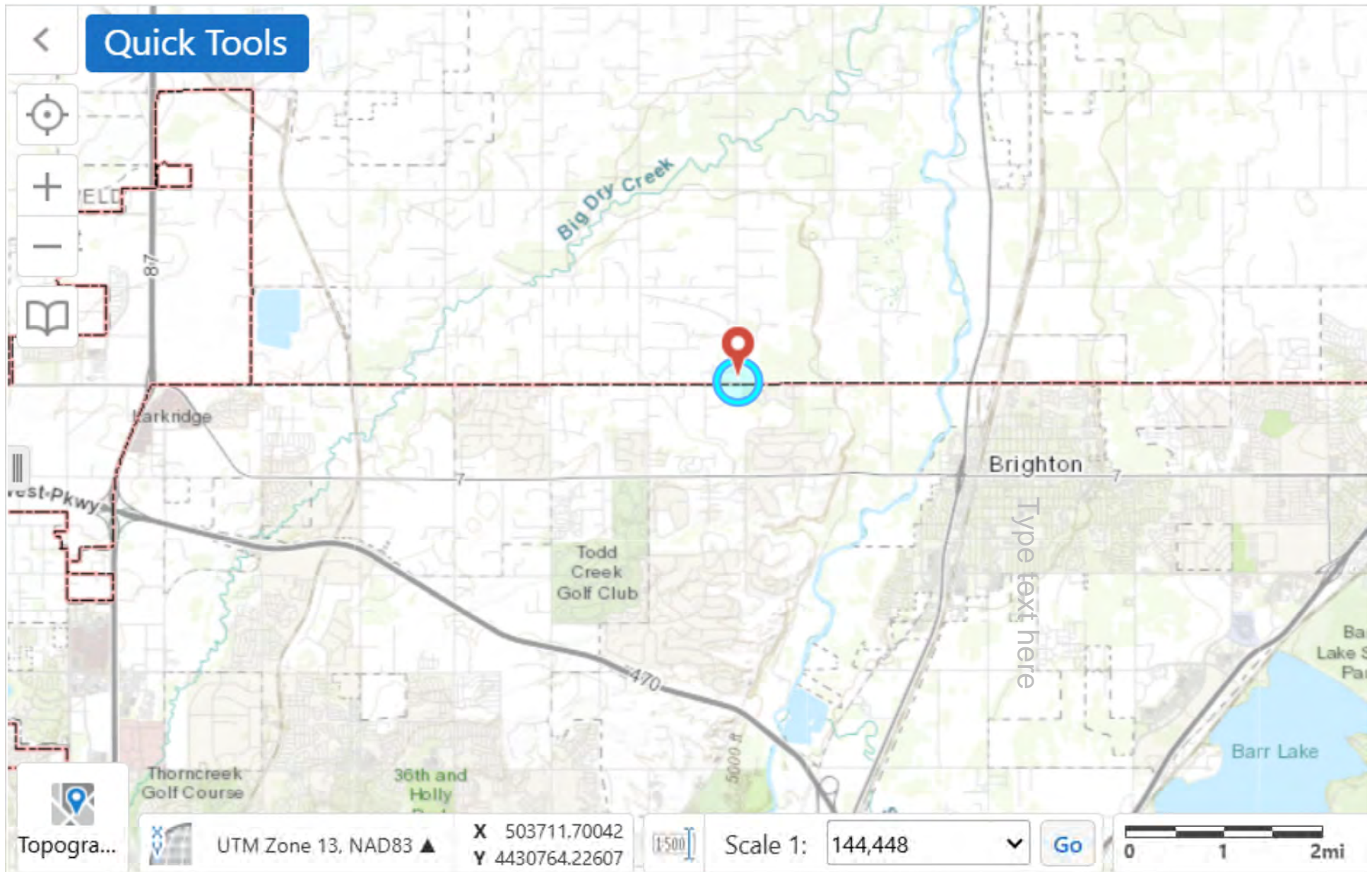
[Permit 254-WCB](#)

Appeal of Denial of Variance for
Methods to Abandon a well with
Stuck Equipment

Summary

- Contractor requested that Staff provide guidance on abandonment of Permit 245-WCB. Staff provided intervals for ripping/perforating casing and grouting intervals based on hydrogeo review for Type 1 aquifer well (LFH) needing abandonment per Rule 16.2 and Policy 2018-2.
- Contractor claims windmill column pipe and shaft stuck in well about 42” bgs and requested variance to pour grout from the surface.
- Staff denied variance because the proposed placement methods would be unlikely to result in grout placement through the identified confining layer interval or below static.
- Staff and contractor now question if Permit 254-WCB is for the subject well; Contractor indicates he picked the closest one and suggests the well might be unregistered.
- Board to consider request to appeal the denied variance for Permit 254-WCB, or consider same requested abandonment procedures for a possible unregistered well at this location.

Permit 254-WCB Receipt C620254 - Vicinity Map





COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

Well Construction Variance
Receipt No. C620254
Permit No. 254-WCB

February 13, 2025

Lloyd Perkins
% PumpMan Colorado
daveb@pumpmancolorado.com
tom@pumpmancolorado.com

RE: BOE Variance Denial 2025-006A, Permit No. 254-WCB, Receipt C620254

On February 4, 2025 the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board) received a variance request from PumpMan Colorado (PumpMan) to allow for the non-standard abandonment of a well constructed under permit number 254-WCB. Board Staff identified one interval requiring perforating/grouting of the casing through the confining layer between the Lower Arapahoe aquifer and the Laramie-Fox Hill aquifer from approximately 295-615 feet below ground surface (ft bgs) where the placement of grout at the time of construction was not documented. PumpMan requested the variance due to a stuck pump, pump column, and pump shaft.

The well was drilled to a depth of 760 feet, penetrating through the Lower Arapahoe (approximately surface to 295 feet), through the Laramie Formation (approximately 295-615 feet), and into the Laramie-Fox Hills (approximately 615-760 feet and extending below). The well has perforated well screen from 700-760 feet below ground surface (bgs), indicating production from the Laramie-Fox Hills. The outermost 6-5/8-inch surface casing was set in heavy drilling mud, surrounding the annulus from surface to 105 feet bgs and no recorded grouted interval was indicated in the well permit file. Rule 16.2 requires the casing to be perforated or ripped opposite each confining layer (approximately 295-615 feet) if well construction records do not show that the casing opposite each confining layer was grouted when originally installed. The rule also requires the placement of a grout plug (at least 60 feet thick) at the confining layer above each aquifer (again, approximately 295-615 feet).

During an attempt to begin the well abandonment process, PumpMan began pulling up the pump, pump column, and pump shaft (windmill) with a pump rig when the pump column broke off near the ground surface and the pump column became stuck approximately 42 inches below the top of the casing. PumpMan then excavated around the wellhead with an excavator and cut off a portion of the well casing so they could get hold of the pump column. PumpMan was then able to pull up on the pump column with a crane using approximately 15,000 lbs of force when the pump column rose approximately 36 inches before becoming stuck again with PumpMan not able to lift it any further or cause it to move downward.

PumpMan proposed to abandon the well as it currently sits by cutting off the pump column and pump shaft flush with the present top of the casing. They would then flow neat cement slowly



into the space between the well casing and the pump column. Once the neat cement reaches the top of the well casing, they propose to mushroom cap the well casing with neat cement. The variance requests a waiver from the requirement to perforate the interval from 295 through 615 feet due to a stuck pump, pump column, and pump shaft.

The stuck equipment prevents the placement of grout via positive displacement at the required intervals across from the confining layer because a tremie cannot be placed down the well casing. The proposal to pour grout from the surface introduces significant uncertainty in what interval will actually be plugged using the methods proposed even when the utmost care is taken. The static water level reported on the construction report suggest the water table could be well above the top and bottom of the confining layer interval; the presence of water in the casing could present a challenge for a grout poured from the surface to completely displace the water and maintain mix properties consistent with those expected of a cement grout meeting the requirements of Rule 10.5.1.

Pursuant to Rule 18 and the authority granted by the Board, the request for a variance is denied for the following reason:

- The methods of abandonment are insufficient to properly place grout inside and outside of the well casing, as required by Rule 16.2, or otherwise meet the intent of the rule.
- The proposed plan does not adequately demonstrate that the method of abandonment described in the variance request will protect the health and safety of the public and prevent contamination to Colorado's groundwater.

Please note that the individual who requested the variance may request the Board's reconsideration of Board Staff's written decision at the next regularly scheduled Board meeting, April 1, 2025.

If you have any questions, please contact this office.

Sincerely,

ANDY FLOR, MS, PG

Hydrogeology Section

ec: Well Permit File, <https://dwr.state.co.us/Tools/WellPermits/C620254>
Chris Jones, Chief Well Inspector, chris.jones@state.co.us
Shaylee Andreatta, Well Inspector, shaylee.andreatta@state.co.us

STATE OF
COLORADO

Flor - DNR, Andrew <andrew.flor@state.co.us>

Well Permit 254 WCB

Tom Dea <tom@pumpmancolorado.com>

Thu, Feb 6, 2025 at 7:49 AM

To: "Donegan - DNR, Kevin" <kevin.donegan@state.co.us>, "Jones - DNR, Chris" <chris.jones@state.co.us>

Cc: Chris Sanchez <csanchez@bbawater.com>, "Flor - DNR, Andrew" <andrew.flor@state.co.us>

All,

Attached are photos of the stuck pump in 254 WCB.

I was incorrect when I stated we had a 10,000 pound pull on the column pipe. We actually put a 15,000 pound pull on the pipe. It came up approximately 36" and then would not come up any further or go down.

We propose to cut the column and shafting off flush with the current top of the casing and flow neat cement slowly into the space between the casing and column pipe. Once we reach top of casing we propose to mushroom cap with cement.

Is this acceptable?

Call my cell with any questions.

Sincerely,

Tom Dea

HELP PREVENT FRAUD NOTE: Colorado Water Well will never request a wire transfer via email or a change in payment instructions without confirmation by our finance department. Please contact our billing department if you have any questions on a payment. If any emails are suspicious, look carefully at the email address which may be similar to a known address but in fact not a match.



Tom Dea

PumpMan Colorado | 2001 E 58th Ave. Denver, CO 80216
O: 303-892-9053 | M: 303-882-3749
tom@pumpmancolorado.com | www.pumpmancolorado.com

STATE OF
COLORADO

Flor - DNR, Andrew <andrew.flor@state.co.us>

Well Permit 254 WCB

Flor - DNR, Andrew <andrew.flor@state.co.us>

Wed, Feb 5, 2025 at 3:53 PM

To: Tom Dea <tom@pumpmancolorado.com>

Cc: Chris Jones - DNR <chris.jones@state.co.us>, Kevin Donegan - DNR <kevin.donegan@state.co.us>, Marques Hatfield - DNR <marques.hatfield@state.co.us>, Nolan Tanguma - DNR <nolan.tanguma@state.co.us>

Hi Tom,

Based on your verbal request at the Board meeting yesterday, and this email string, I understand you're looking for an abandonment variance for permit 254-WCB. You mentioned that as you started to pull the windmill pump out of the well the pump column broke off near the surface. You then used an excavator to expose and open more of the casing which allowed you to pull on the pump column once again. Despite pulling with 10,000 lbs of force on the pump column it did not move.

Based on the review from 22066 & 34842 we're finding:

- Upper Arapahoe likely not present at this location
- Lower Arapahoe from near surface to approximately 295 ft
- Laramie-Fox Hills aquifer beginning at approximately 615 ft
- Grout (heavy drilling mud?) from surface to 105 ft, no grout below 105 ft
- Perforations or ripped casing required from 295-615 ft

Can you clarify what your requested next steps would be to abandon this well, outlining the practical difficulties or unusual hardship that makes complying with Rule 16.2 not possible?

Let me know what you come up with and I'll work on the rest of your variance request. Thanks.

On Tue, Feb 4, 2025 at 10:31 AM Tom Dea <tom@pumpmancolorado.com> wrote:

[Quoted text hidden]

[Quoted text hidden]



Photo 1 – Removing pump with pump rig - Pump column and shafting broke



Photo 2 – Pulling Head Off – Pump Broke



Photo 3 – Column Pipe and Windmill Shaft – Both Broken



Photo 4 – Column Pipe and Windmill shaft broken below head – see clean steel break

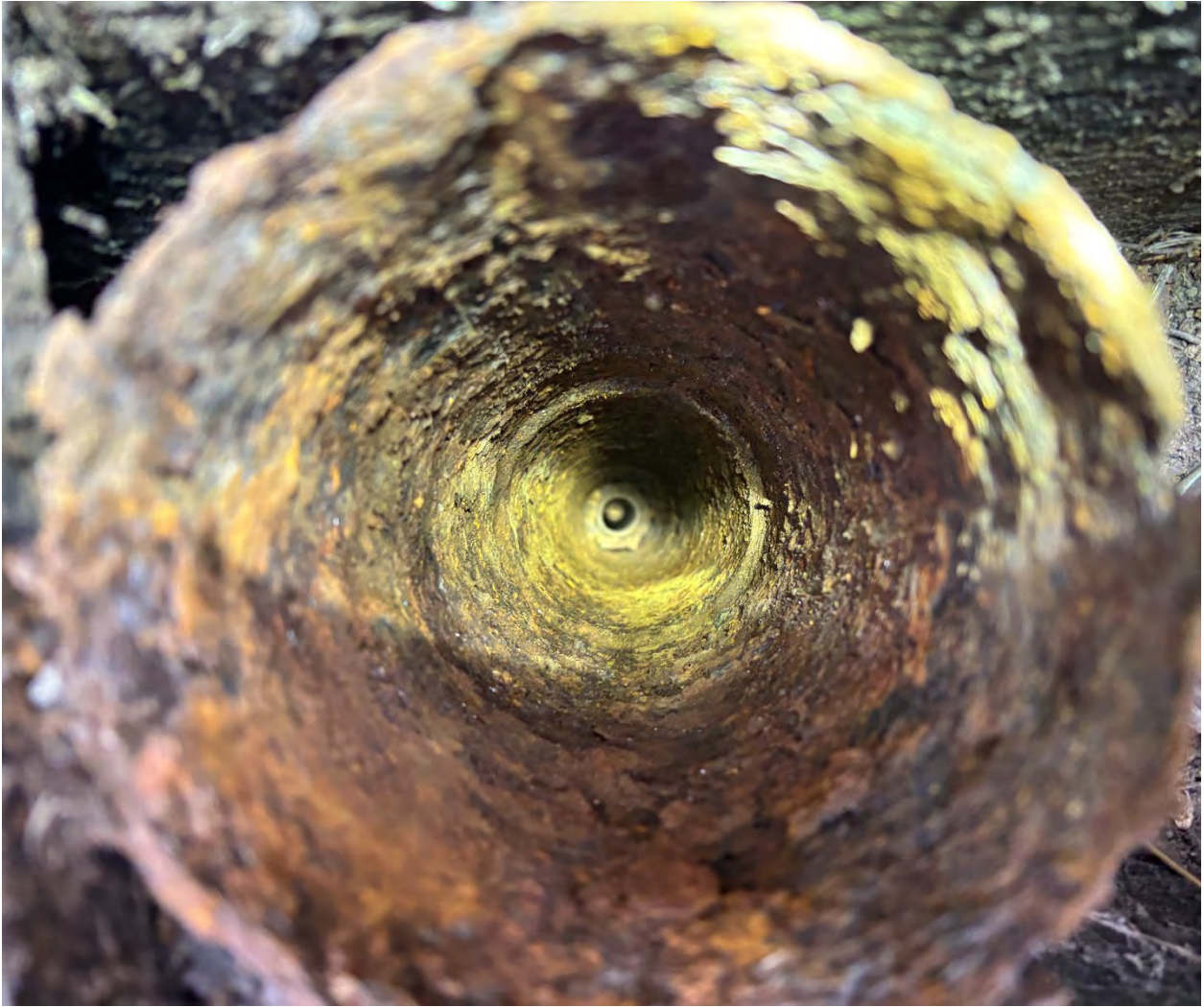


Photo 5 – Stuck at break – approximately 42” below top of casing



Photo 6 – Secured Casing prior to excavating to make another attempt with crane



Photo 7 – Excavated and cut casing off so we could get hold of stuck column pipe



Photo 8 – Crane pull – came up approximately 36” and stuck solid – would not go up or down



String pull - 15,000 pounds – no more upward movement – no downward movement

COLORADO WATER CONSERVATION BOARD
LOG AND HISTORY

254

Ward

- (1) Location: Sec. 35 T. 1N. R. 16W. P.M. 6 1/4 Sec NW (2) County: Adams
- (3) or Street Address: City:
- (4) Owned by Lloyd Perkins Address: Brighton, Colo.
- (5) Tenant: " " Address: " "
- (6) Drilled by Holden & Holden Address: Hudson, Colo.
- (7) Water Well Driller's License No. 1 (8) Name or No. of Well: 54-1
- (9) Type of Well: Domestic ☒, Municipal ☐, Stock ☐, Irrigation ☐,
Industrial ☐, Drainage ☐, Other:
- (10) Cased: 0 ft. to 105 ft. Type: steel Size: 6 5/8" Wt. of Casing: Lbs./Ft. 13.00
Cased: 105 ft. to 760 ft. Type: steel Size: 4 1/2" Wt. of Casing: Lbs./Ft. 7.25
Cased: ft. to ft. Type: Size: Wt. of Casing: Lbs./Ft.
- (11) Perforated or Screened: Ft. 700 to Ft. 760; Ft. to Ft.
- (12) Type of Screen or Perforation: Torch slotted
- (13) Date Started: Dec. 7, 1954 (14) Date Completed: Dec. 12, 1954
- (15) { Static Water Level: 145 Ft.
or
Shut in Pressure: lbs./sq. in. (16) Date:
- (17) Pumping Water Level: 200 Ft. at (18) 14 G P M yield.
- (19) How Tested: Bailed (20) Length of Test: 2 Hours,

Put Formation Log on Reverse Side

- (21) REMARKS: (Gravel Packing, Cementing, Packers, Type of Shut-off, Depth of Shut-off, Method Drilling, etc.)

Pipe set in heavy drill mud and driven into shale
Shut-off at 105
Notary

JAN 19 1956

TO BE MADE IN QUADRUPLICATE: Original Blue and Green Duplicate to Colorado Water Conservation Board. White Copy to Owner and Yellow Copy to Driller.

LOG OF WELL

DESCRIPTION OF MATERIAL DRILLED

(ADD OTHER LINES AS NEEDED)

METHOD OF DRILLING

Rotary

Feet			
00	to	14	clay
14		35	sandy clay
35	to	50	shale formation
50		64	clay, sandy
64	to	70	clay
70		130	shale
130	to	134	coal
134		175	shale
175	to	178	rock
178		287	shale
287	to	289	rock
289		394	shale
394		398	sand, fine sticky
398		399	rock
399		414	shale
414	415	415	rock
415		454	shale
454		455	rock
455		533	shale, soft
533		534	rock
534		557	shale
557		559	rock
559		564	shale, hard
564		566	rock
566		595	shale
595		602	sandstone, soft
602		612	shale, brown
612		617	shale, blue
617		620	sand, sticky
620		621	rock
621		640	shale
640		648	coal
648		670	shale
670		710	sand
710		721	shale, hard
721		726	shale, soft
726		728	rock
728		750	sand, sticky
750		760	shale

COLORADO WATER CONSERVATION BOARD
NOTIFICATION OF INTENTION TO DRILL ☒ REDRILL ☐,
RECASE ☐, OR DEEPEN ☐ A WATER WELL.

District No. Name or Number of Well..... 54-1

Name of Driller Holden & Holden Phone No. Lenox 6-4431

Address Hudson, Colo.

Well Driller's License No. 1 Date Start of Work Dec. 7, 1954

Land Owner's Name Lloyd Perkins

Address Brighton, Colo.

Estimated Depth of Well 760 Ft. LOCATION OF WELL

Diameter of Well 5 3/4 In. Section No. 35 County Adams

Diameter of Casing 4 3/8 In. Twp. 1N Range 67W P.M. 6

Weight of Casing 7.25 Lbs./Ft. Please mark well location to nearest 40 acres
(small square) below.

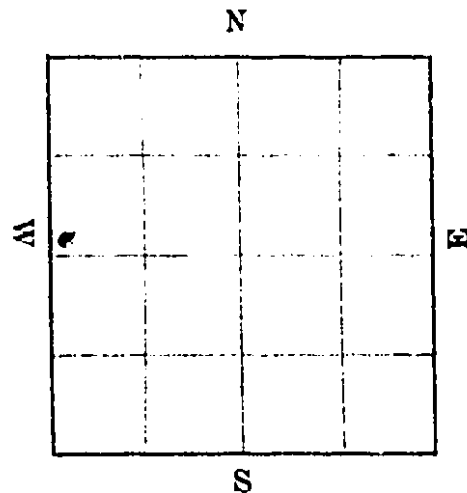
Type of Well: Domestic ☒

Irrigation ☐

Municipal ☐

Stock ☐

Other



Method to be used in drilling: Notary

If above location is unknown, complete the following:

Estimated Depth of Bottom and Top

of Shutoff 0-105

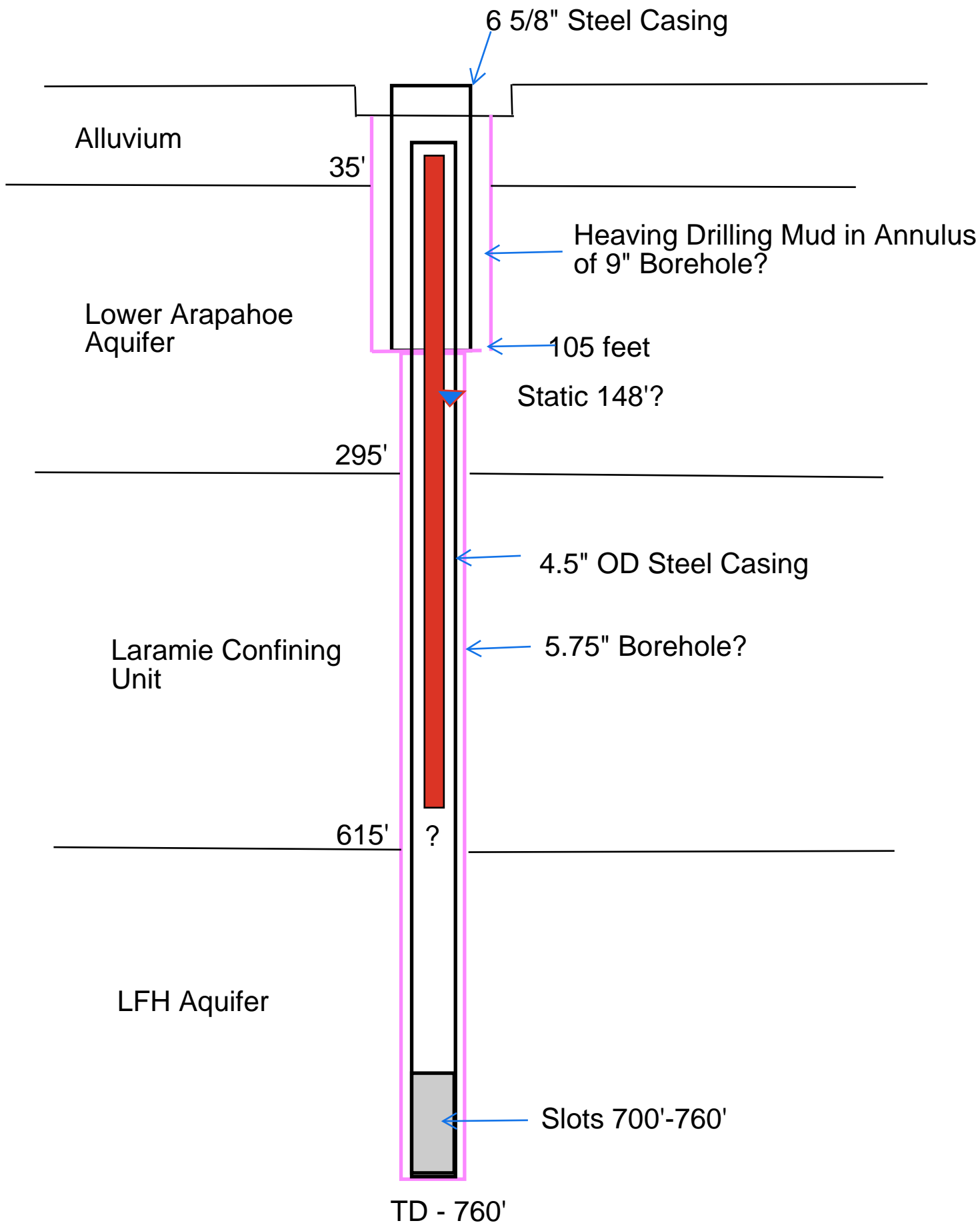
County

City, Town or Subdivision

Type of Shutoff Pipe set in heavy drill
mud and driven into shale.

Street Address of Well Location

JAN 13 1955



AGENDA ITEM 11.c

BBA Water Consultants, LLC on
Behalf of Owner

Permit Nos. [121346](#), [121351](#),
[121356](#), and [121348](#)

Appeal of Variance Request Denial
for Relief from Rule 14.2.2 and
Request to Approve Monitoring
Well Construction Information for
Proposed Conversion to Production
Well

Summary

- 4 monitoring wells constructed with permits in 1982 were requested to be converted to production wells.
 - Staff denied variance request because it is the owners self-inflicted hardship to apparently hire an unlicensed contractor.
- 3 construction reports signed by Raun Samuelson a licensed pump installation contractor (not a licensed well construction contractor).
 - Raun claimed no knowledge of the well construction,
 - Raun claimed to have only added a ground wire for the pump.
- 1 construction report signed by Larry Crimm in 1984 after he was licensed in 1983.
- Staff did not object to the well construction apparent from the reports, but question truthfulness and accuracy of the information if Raun claims ignorance.



DWR Division 5
Received
1/29/2025
10040463 - 10040468

Christopher J. Sanchez
Jeffrey A. Clark
Daniel O. Niemela
Jonathan D. George
Kristina L. Wynne
Austin P. Malotte
Michael A. Saylor
Charles E. Stanzione

January 27, 2025

Dwight Whitehead
Well Commissioner
Division 5 Water Resources
PO Box 396
Glenwood Springs, CO 81602

RE: Re-permitting of QB Energy monitoring wells with permit nos. 121346, 121348, 121351, and 121356

Dear Dwight:

The purpose of this letter is to request, on behalf of our client, QB Energy, the re-permitting of four existing permitted monitoring wells to production well permits and to request a variance for the construction of the wells which were not completed by a licensed well driller. If approved, these wells will be used for stock watering and wildlife. A GWS-44 form for each well is attached, along with the original files.

Three of these four wells (permit nos. 121346, 121351, and 121356) were drilled by an outfit out of Wyoming whose licensure was not in the State's list of licensed well drillers at the time. To remedy this, it is our understanding that Raun Samuelson, who is an experienced pump installer, was asked to install the pumps and sign off on the wells. Because of this, the Colorado Decision Support System database incorrectly states that Raun Samuelson was the well driller, since his name is the only one found on the forms on file.

The fourth well (permit no. 121348) was drilled by Larry Crimm who may not have had a license to construct wells at the time of drilling, although, per communication with the DWR, records on this matter are incomplete. The records that the DWR does have show that, in later years, Larry Crimm did have his well construction license. Without complete records, it is not possible to know the actual status of the licensure of these two drilling outfits at the time of drilling. Despite this, we believe these monitoring holes can be re-permitted in accordance with the rules and regulations.

Rule 18 of the current Board of Examiners Rules and Regulations for Water Well Construction, Pump Installation, Cistern Installation, and Monitoring and Observation Hole/Well Construction (Well Construction Rules) states that variance requests are allowed so that the Board may “approve alternate methods of construction or abandonment of an excavation over which it has jurisdiction, in the event that the individual requesting such alternative to the minimum standards can adequately demonstrate that the variance will protect the health and safety of the public and prevent contamination to Colorado’s groundwater.” All four of these wells have been properly permitted, were constructed in accordance with all construction regulations, and are not located close to sources of contamination. We believe they can be converted to production wells while protecting the health and safety of the public and preventing contamination of the State’s groundwater resources.

Requirements for re-permitting of a monitoring well to a water well

The following three requirements, laid out in Rule 14.2.2.1 by the current Well Construction Rules, must be met in order to re-permit a monitoring well to a production well:

1. *Monitoring well permit.* Each monitoring well must have been constructed after the proper monitoring well permit from the state engineer was obtained.
2. *Approved contractor.* Each monitoring well must have been constructed by a licensed well construction contractor.
3. *Construction rules.* Each monitoring well must have been constructed in accordance with the well construction rules that applied at the time of well construction.

Based on communications with the DWR, it is our understanding that wells being evaluated for re-permitting will be evaluated by the standards in place at the time of construction. At the time these monitoring wells were constructed in 1982, the Well Construction Rules that would have applied to their construction were the 1972 Rules, first published on December 15, 1972 and republished February 17, 1987. We have attached a copy of these rules for your reference.

Per Rule 4 of the 1972 Well Construction Rules, the relevant construction regulations applicable for these monitoring wells are as follows:

- 1.) The well was constructed using every reasonable protection to promote sanitary conditions.
- 2.) The well was constructed in such a manner as to maintain existing natural protection against pollution of water bearing formations by ingress through the drill hole.
 - a. The well casing has a grout seal in accordance with the provisions of Table 1 of the 1972 Well Construction Rules.

- b. The well casing terminates not less than one foot above ground surface and shall be sealed.
- 3.) The well casing is adequate in size to accept a pump capable of delivering the quantity of water requested and the inside diameter is not less than 4 inches.
- 4.) The well has watertight casing from the ground surface to the top of the production zone, unless otherwise authorized by table 1.
- 5.) The well will have centralizers on casing when hole diameter is in excess of 3 inches of the diameter of the casing.
- 6.) Confined waters have been separated from each other and from unconfined waters by grouting with approved materials.

To the best of our knowledge, the rules not listed here, which generally pertain to best practices for cleaning and site maintenance during and after the construction process, avoidance of contact with pollution or toxic materials, and deliverance of proper notice to the State Engineer, were followed in the construction process for the four wells in question.

While all four of the monitoring holes in question meet requirements 1 and 3, we believe none of the four wells definitively meet requirement 2 based on communication with the DWR regarding their current records. As such, we are applying for a variance to approve the re-permitting of these wells even though they may not have been drilled by a well construction contractor whose license was on file with the State at the time of construction.

Permit No. 121346

Well permit no. 121346 (original file including well completion and pump installation report attached) was contemplated in 1981 when a permit application to construct a well and install a pump was submitted to the DWR on 5/11/1981 and the well was completed and tested on 9/19/1982. The permit was approved for use as a monitoring well on 8/11/1981. At the time of permitting the well owner had intended to use a licensed well driller as evidenced by the permit application. It is our belief that the well owner had every intention of fulfilling this requirement and acted in good faith when they contracted with the well drilling company from Wyoming.

Well permit no. 121346 was constructed to a total depth of 615 ft. on 9/18/1982, before the expiration of the permit and in accordance with section 4 of the 1972 Well Construction Rules. Specifically, the well was constructed to promote sanitary conditions and protect against pollution of water bearing formations. This is evidenced by the installation of a grout seal extending from 0 to 570 feet below the top of the casing, which exceeded the minimum grouting requirements presented in Table 1. The well would probably be classified today as a Type 1 multi aquifer well, and the grout seal makes the well construction compliant with Type 1 construction. Our client has confirmed that the casing for this well extends above the ground surface by at least a foot and is

properly sealed. The diameter of the well casing, 6.4 inches, is large enough to accept a pump and exceeds the minimum inside diameter required by the 1972 Well Construction Rules of 4 inches. The grout seal prevents any comingling between any multiple aquifers that may have been penetrated. Lastly, our client has confirmed that well permit no. 121346 is located more than 100 feet from any sources of contamination.

Per the attached well construction report and communication with the client, we believe well permit no. 121346 meets all construction standards and has a history of proper permitting. As such, re-permitting this well will protect the health and safety of the public and prevent contamination of Colorado's groundwater resources. We are requesting a variance for this well so that it can be re-permitted to a production well for stock and wildlife uses even though it was originally drilled by a well drilling company whose licensure was not on file with the State at the time of drilling.

Permit No. 121348

Well permit no. 121348 (original file attached) was applied for at the same time as permit no. 121346 (5/11/1981) and the permit was approved on 8/11/1981 for use as a monitoring well. As evidenced by the permit application, the well owner's intent was to use a licensed driller to construct this well. This well was constructed on 9/18/1982 after the issuance of the monitoring well permit and before the well permit expired.

The well was constructed to promote sanitary conditions and protect against pollution of water bearing formations. A grout seal was installed from 0 to 550 feet below the top of the casing, exceeding the minimum grouting requirements presented in Table 1. Our client has confirmed that the casing for this well extends above the ground surface by at least a foot and is properly sealed. The diameter of the well casing, 4.33 inches, is large enough to accept a pump and exceeds the minimum inside diameter of 4 inches. Due to the existing grout seal, there will be no comingling between multiple aquifers that may have been penetrated by the well borehole. Our client has confirmed that well permit no. 121348 is located more than 100 feet away from any sources of contamination.

Per the attached well construction report and communication with the client, we believe well permit no. 121348 meets all construction standards and has a history of proper permitting. As such, re-permitting this well will protect the health and safety of the public and prevent contamination of Colorado's groundwater resources. We are requesting a variance for this well so that it can be re-permitted to a production well for stock and wildlife uses despite the fact that it was originally drilled by a well drilling company whose licensure was not on file with the State at the time of drilling.

Permit No. 121351

Well permit no. 121351 (original file attached) was applied for and approved on the same dates as the other monitoring holes. Also like the others, the permit suggests our client had contemplated

the use of a licensed well construction contractor. This well was constructed on 9/18/1982, to a total depth of 975 ft., before the well permit expired.

The well was constructed to promote sanitary conditions and protect against pollution of water bearing formations. A grout seal was installed from 0 to 936 feet below the top of the casing and exceeding the minimum grouting requirements presented in Table 1. Our client has confirmed that the casing for this well extends above the ground surface by at least a foot and is properly sealed. The diameter of the well casing, 6.4 inches, is large enough to accept a pump and exceeds the minimum inside diameter of 4 inches. Additionally, the casing of the well is entirely watertight, extending from the ground surface down to the production zone. The extensive grout seal prevents any comingling of multiple aquifers that may have been penetrated by the well borehole. Lastly, our client has confirmed that well permit no. 121351 is located more than 100 feet from any source of contamination.

Per the attached well construction report and communication with the client, we believe well permit no. 121351 meets all construction standards and has a history of proper permitting. As such, re-permitting this well will protect the health and safety of the public and prevent contamination of Colorado's groundwater resources. We are requesting a variance for this well so that it can be re-permitted to a production well for stock and residential uses even though it was originally drilled by a well drilling company whose licensure was not on file with the state at the time of drilling.

Permit No. 121356

Well permit no. 121356 (original file attached) was applied for and approved on the same dates as the other monitoring holes. Also like the others, the permit suggests our client had contemplated use of a licensed well construction contractor. This well was constructed on 9/18/1982, to a total depth of 600 ft., before the well permit expired.

The well was constructed to promote sanitary conditions and protect against pollution of water bearing formations. A grout seal was installed from 0 to 540 feet below the top of the casing and exceeding the minimum grouting requirements presented in Table 1. Our client has confirmed that the casing for this well extends above the ground surface by at least a foot and is properly sealed. The diameter of the well casing, 4.33 inches, is large enough to accept a pump and exceeds the minimum inside diameter of 4 inches. Due to the extensive grout seal, there will be no comingling of multiple aquifers that may have been penetrated by the well borehole. Lastly, our client has confirmed that well permit no. 121356 is located more than 100 feet from any sources of contamination.

Per the attached well construction report and communication with the client, we believe well permit no. 121356 meets all construction standards and has a history of proper permitting. As such, re-permitting this well will protect the health and safety of the public and prevent contamination of Colorado's groundwater resources. We are requesting a variance for this well so that it can be re-permitted as a production well for stock and residential uses despite the fact that it was originally drilled by a licensed pump installer rather than a licensed well construction contractor.

We note that the four wells were constructed with fiberglass including the stickup portion of the wells. Well construction with fiberglass was allowed in accordance with the rules that were in place at the time of well construction.

To the extent that a parcel of 35 acres or greater needs to be specified on the well permit applications, please assign the quarter quarter sections on which the wells are located to the well permits. We have reviewed the DWR's Mapviewer tool and confirmed that there are no other production wells permitted within these quarter quarters.

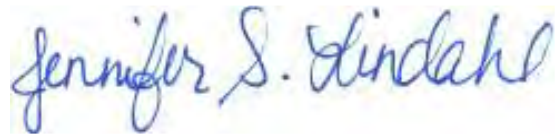
If you have questions or need additional information please do not hesitate to contact us.

Very truly yours,

BBA Water Consultants, Inc.



Nicholas Hoch
Hydrologist



Jennifer S. Lindahl, P.E.
Project Manager – Water Resources Engineer

NH/JSL/jeb
Enclosure
1732.00

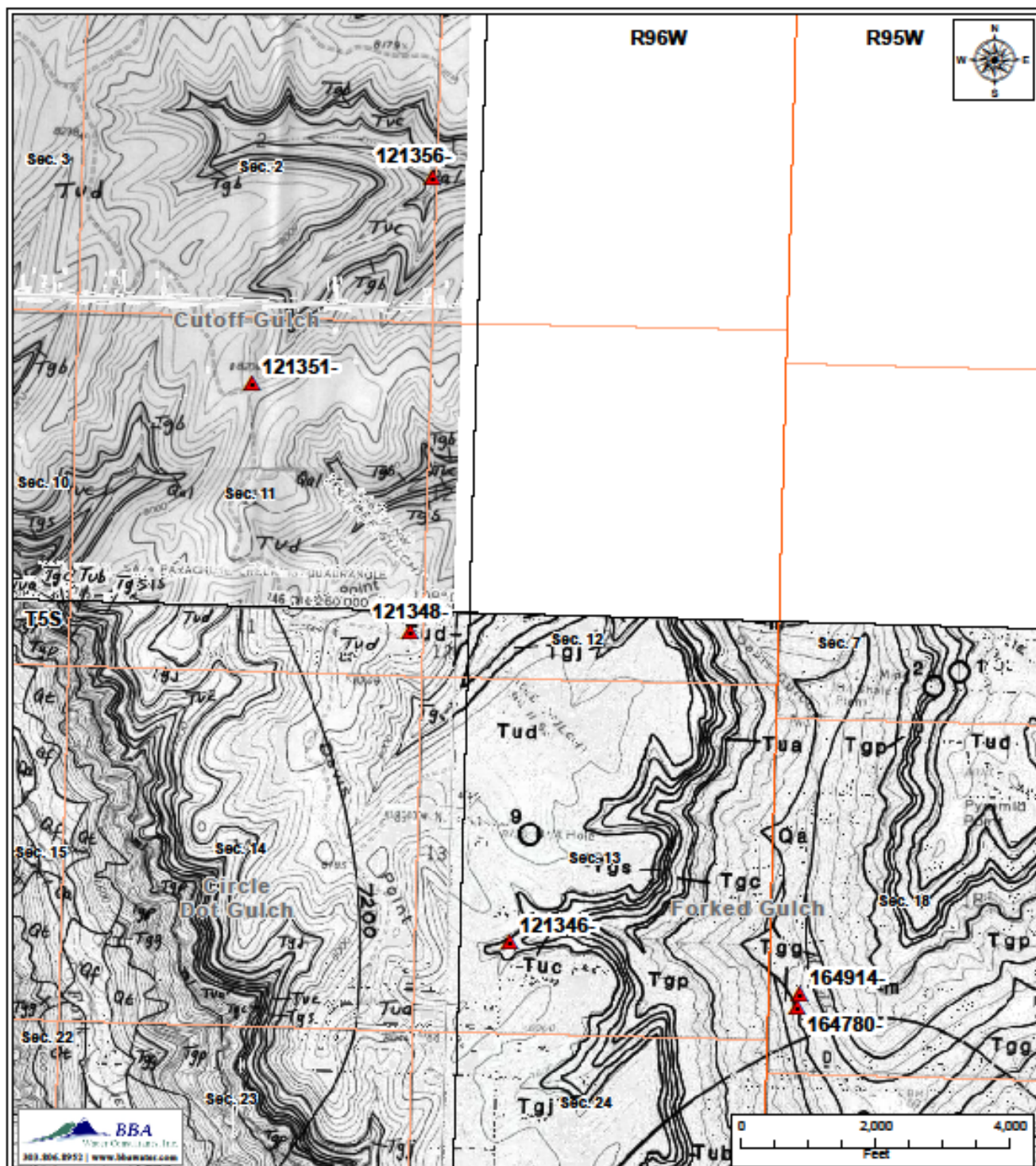


Figure 1
QB Energy Operating, LLC
Well Locations and
Geologic Map

Date: 3/25/2025 | Job No. 1732.00

Legend
▲ Well Permit

Geologic Map Background: MF-891, 1:24,000, USGS; 1975, MF-1293, 1:24,000, USGS; 1982, MF-1953, 1:24,000, USGS; 1987
Data Source: CDSS, CDOT, BLM, USGS

COLORADO



Permit Nos. 121346, 121348, 121351, and 121356

Requesting a variance to Rule: 14.2.2.1

Rule 14.2.2.1 defines three requirements for the re-permitting of a monitoring hole to a production well.

- (1) The monitoring well must have been constructed after the proper well permit was obtained
- (2) The monitoring well must have been constructed by a licensed well construction contractor**
- (3) The monitoring well must have been constructed in accordance with the well construction rules at the time of construction

Three of the four wells were signed by Raun Samuelson, a licensed pump installer and one was signed by Larry Crimm, who may not have had his drilling license at the time of well construction.

BBA investigations suggest all four of these wells were drilled by Larry Crimm in 1982, who operated out of Wyoming. State records are incomplete but suggest Larry Crimm was not licensed until 1983.

Re-permitting argument:

Rule 18 of the current rules state that the Board of Examiners may approve variance requests if “the variance will protect the health and safety of the public and prevent contamination to Colorado’s groundwater.”

All four of these wells have been properly permitted, were constructed in accordance with all construction regulations in place at the time (1972 rules) and are not located close to sources of contamination. The use of the water from these wells will be limited to stock watering.

It is our opinion that these wells can be converted to production wells while protecting the health and safety of the public and preventing contamination of the State’s groundwater resources.

Permit Nos. 121346, 121348, 121351, and 121356

Rules governing well construction in 1982:

1. The well was constructed in such a manner as to maintain existing natural protection against pollution of water bearing formations by ingress through the drill hole.
 - a. **BBA comments in support of variance approval:** The well casing has a grout seal in accordance with the provisions of Table 1 of the 1972 Well Construction Rules.
 - b. **BBA comments in support of variance approval:** The well casing terminates not less than one foot above ground surface and shall be sealed.
2. The well casing is adequate in size to accept a pump capable of delivering the quantity of water requested and the inside diameter is not less than 4 inches.
3. The well has watertight casing from the ground surface to the top of the production zone, unless otherwise authorized by table 1.
4. Confined waters have been separated from each other and from unconfined waters by grouting with approved materials.

TABLE 1
CONSTRUCTION AND GROUTING TABULATION*

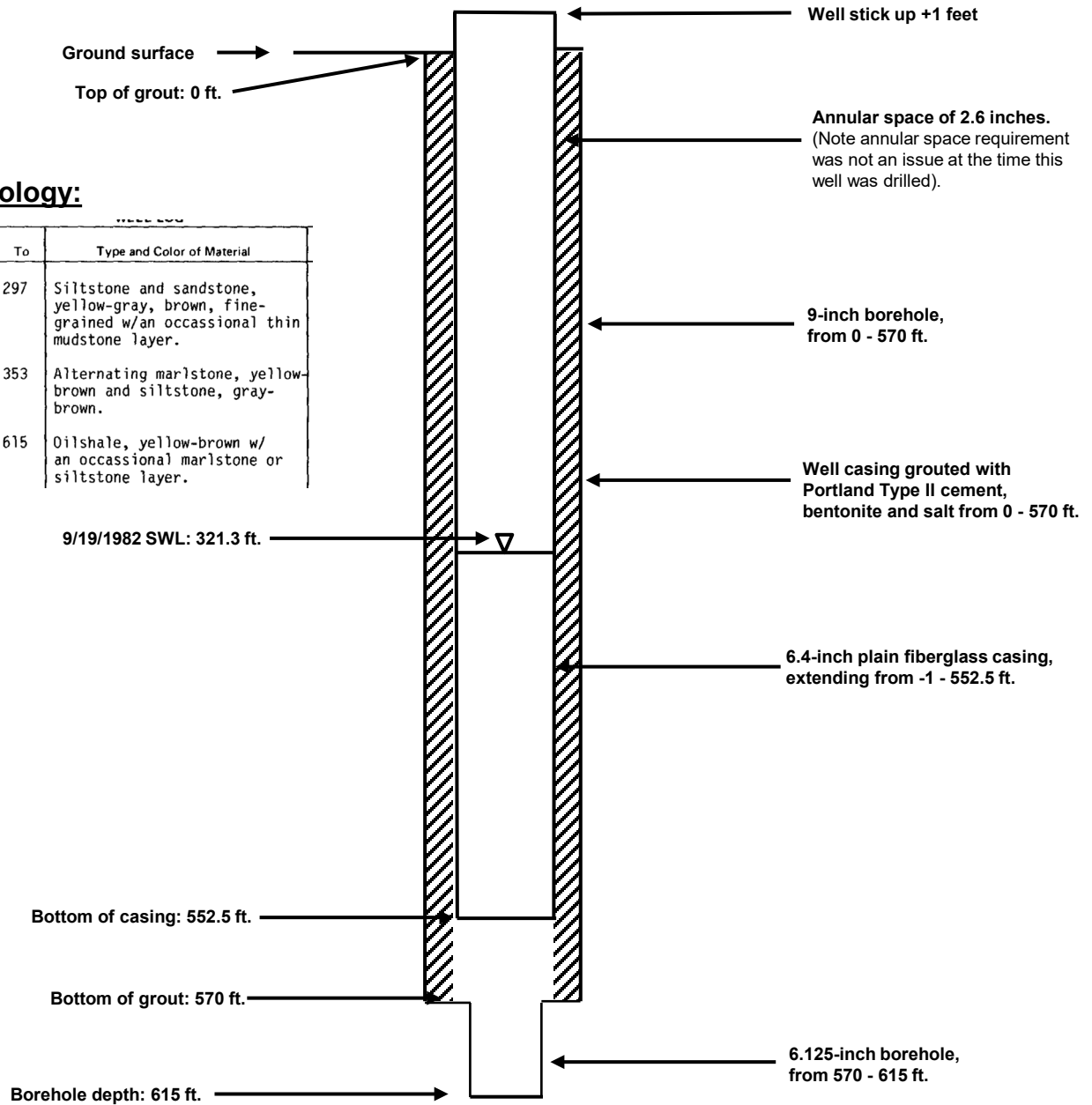
Water Bearing Formation	Overburden	Grouting Minimum	Minimum Casing Depth (Water Tight)
Sand, Gravel, or Decomposed Igneous Rock	Unconsolidated Material, Clay, Shale, Sand, Etc.	10 Feet to Surface	5 Feet Below Pumping Water Level
Confined Aquifers (Dakota, Morrison Fox Hill, Dawson, Etc.)	Mixed Deposits of Clay, Shale, Sand, Gravel	10 Feet to Surface & Grouted 10 Feet Into an Impervious Formation (See Sub-Section 4(9))	Top of Production Zone
Crevice, Shattered or Fractured Hard Rock	Unconsolidated	10 Feet to Surface	Top of Production Zone
Crevice, Shattered or Fractured Hard Rock	Consolidated Rock	20 Feet to Surface	20 Feet

*NOTE: Revisions and Deletions are not indicated.

All four of the monitoring holes list sandstone, siltstone, marlstone, and oil shale in their lithologic logs and are Type 2 construction. All four wells are properly grouted, all the way down to the production zone.

Lithology:

From	To	Type and Color of Material
0	297	Siltstone and sandstone, yellow-gray, brown, fine-grained w/an occasional thin mudstone layer.
297	353	Alternating marlstone, yellow-brown and siltstone, gray-brown.
353	615	Oilshale, yellow-brown w/ an occasional marlstone or siltstone layer.



Notes: All depths below ground surface. Not to scale.

QB Energy

Well Permit No. 121346

Schematic of Well Construction – Type 2 Construction

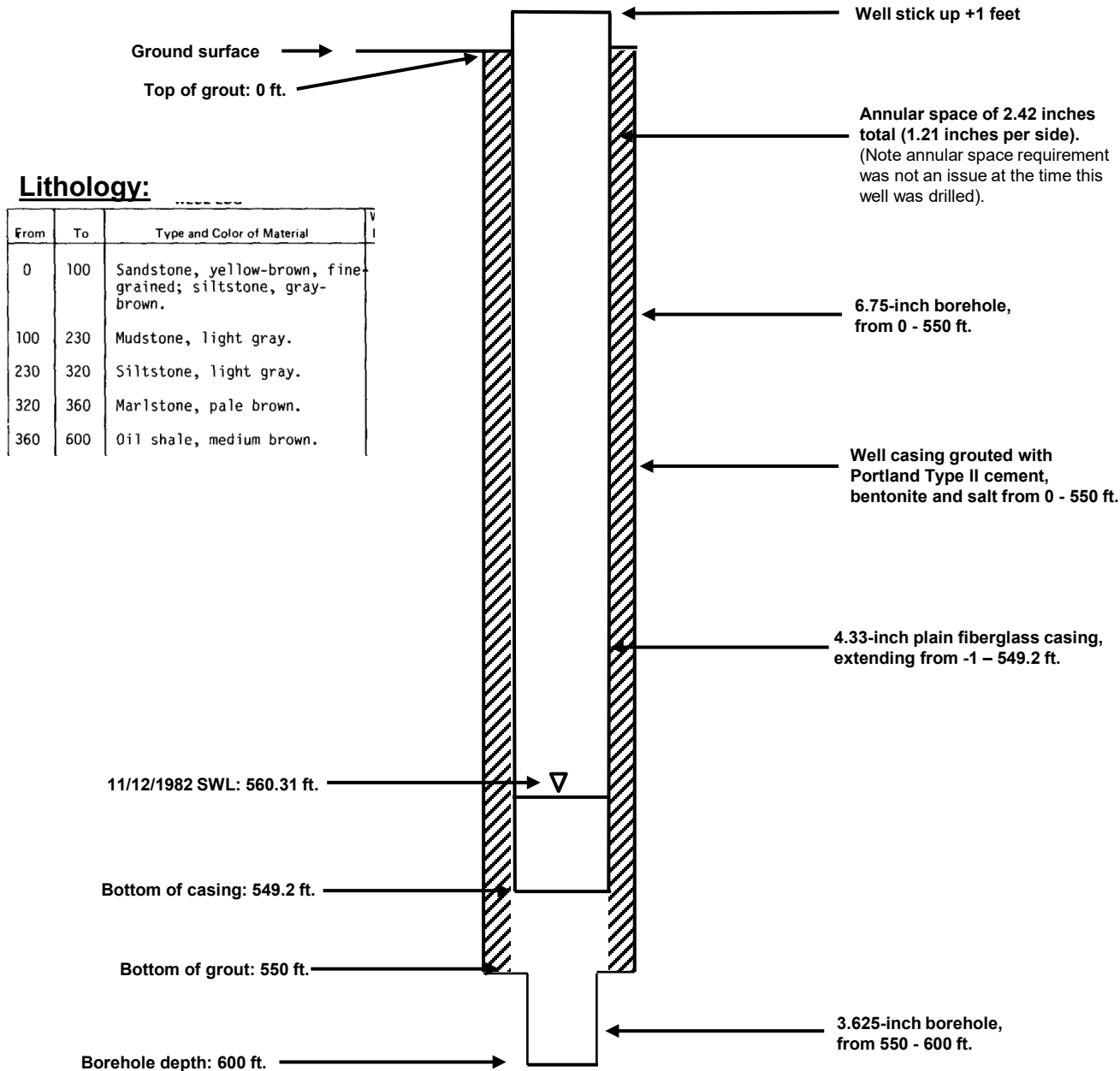
Date: March 24, 2025

Job No. 1732.00

Figure 1



333 W. Hampden Ave., Suite. 1050
Englewood, CO 80110
(303) 806-8952
www.bbawater.com



Notes: All depths below ground surface. Not to scale.

QB Energy
Well Permit No. 121348
Schematic of Well Construction – Type 2 Construction

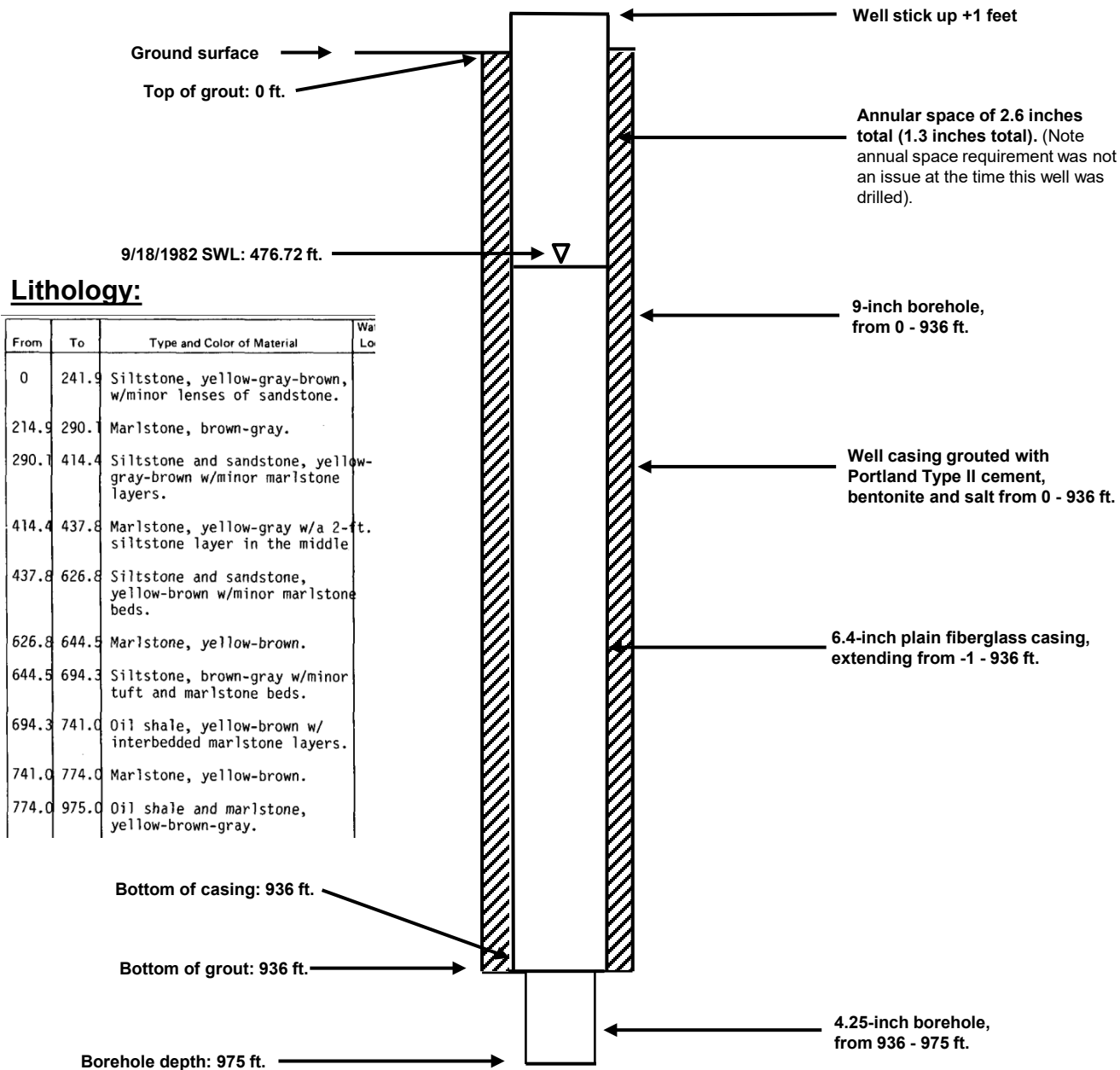
Date: March 24, 2025

Job No. 1732.00

Figure 2



333 W. Hampden Ave., Suite. 1050
 Englewood, CO 80110
 (303) 806-8952
 www.bbawater.com



Notes: All depths below ground surface. Not to scale.

QB Energy
Well Permit No. 121351
Schematic of Well Construction – Type 2 Construction

Date: March 24, 2025

Job No. 1732.00

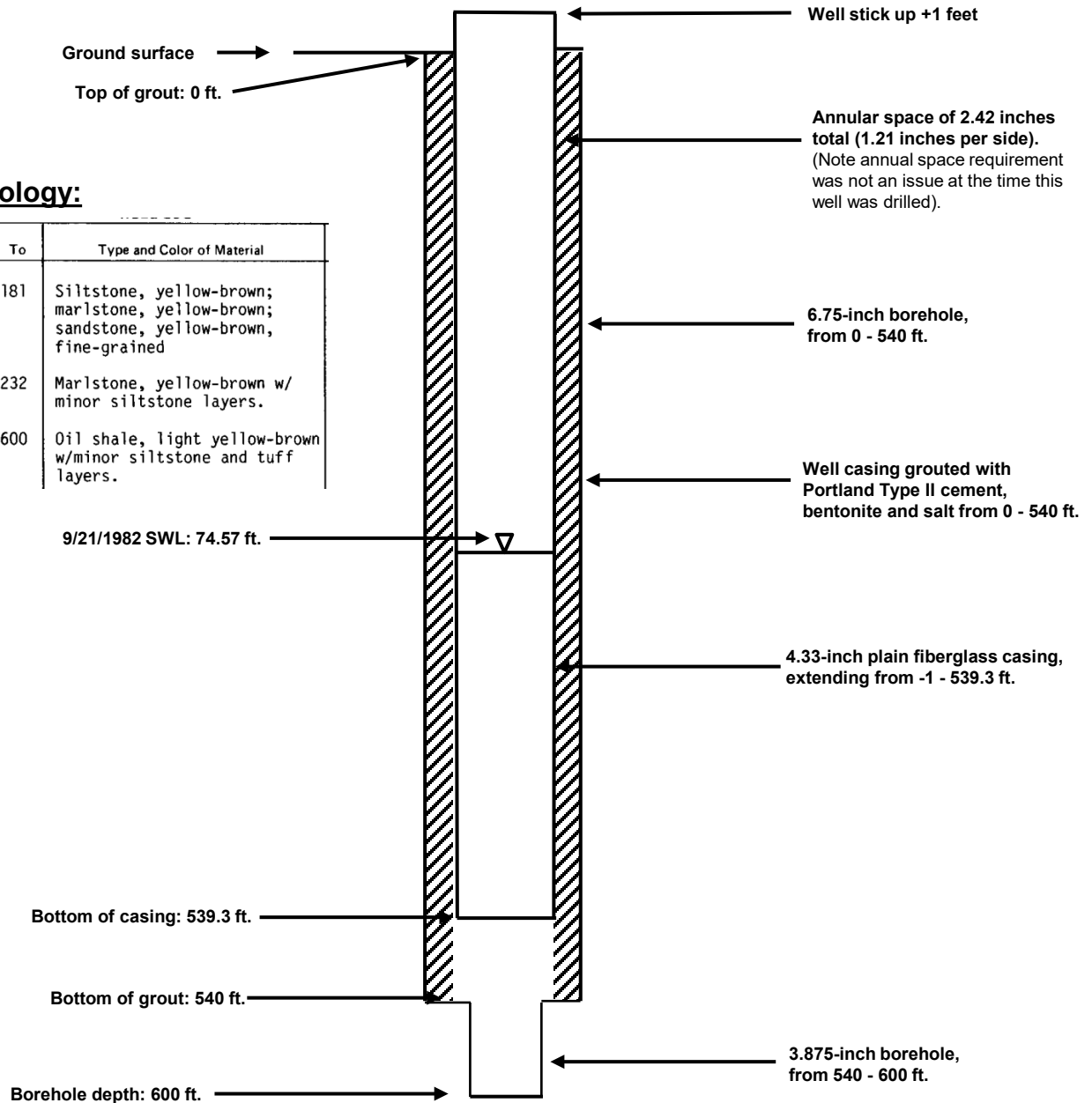
Figure 3



333 W. Hampden Ave., Suite. 1050
 Englewood, CO 80110
 (303) 806-8952
 www.bbawater.com

Lithology:

From	To	Type and Color of Material
0	181	Siltstone, yellow-brown; marlstone, yellow-brown; sandstone, yellow-brown, fine-grained
181	232	Marlstone, yellow-brown w/ minor siltstone layers.
232	600	Oil shale, light yellow-brown w/minor siltstone and tuff layers.



Notes: All depths below ground surface. Not to scale.

QB Energy

Well Permit No. 121356

Schematic of Well Construction – Type 2 Construction

Date: March 24, 2025

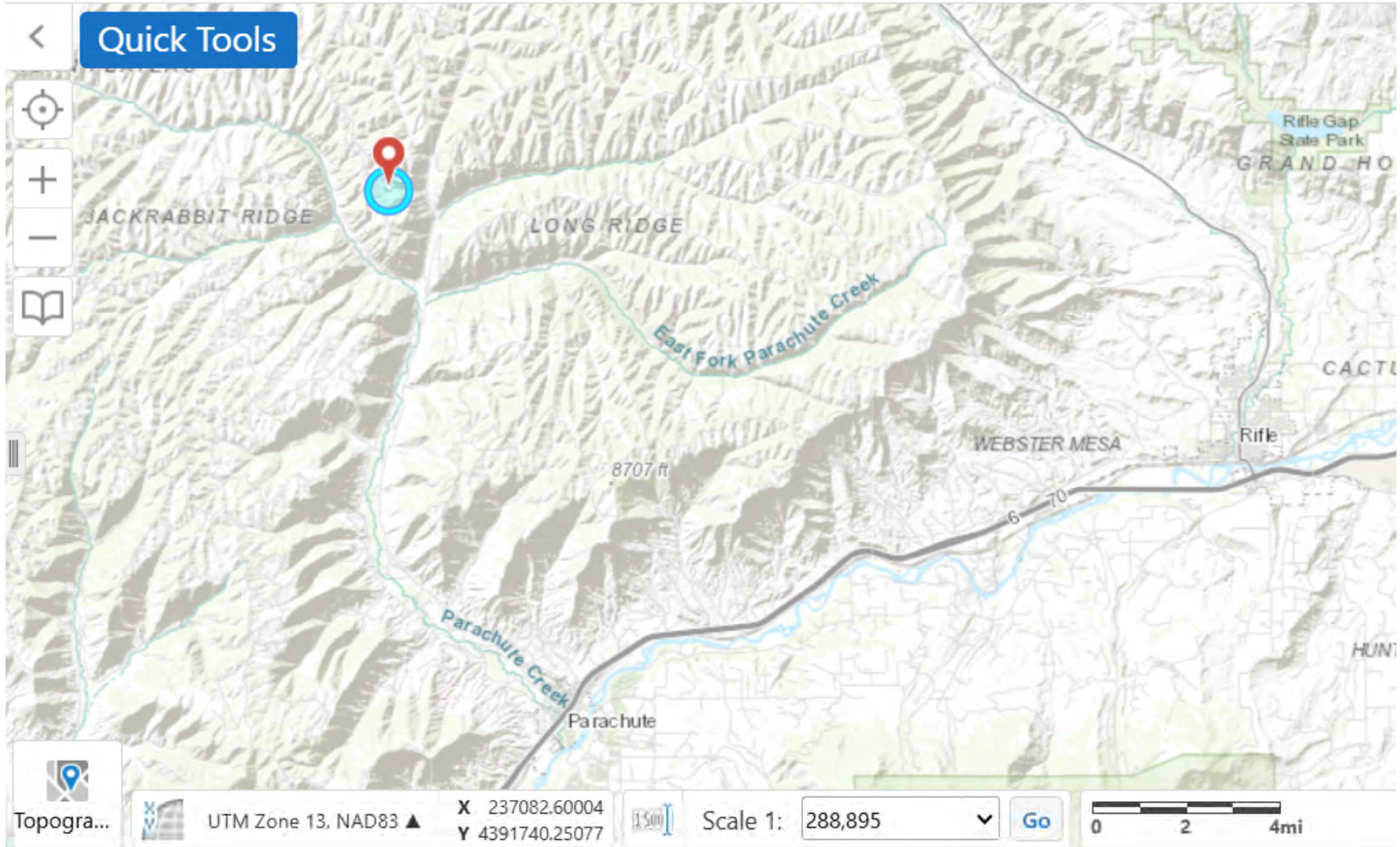
Job No. 1732.00

Figure 4



333 W. Hampden Ave., Suite. 1050
Englewood, CO 80110
(303) 806-8952
www.bbawater.com

Permit 121346 - Vicinity Map





COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

Well Construction Variance
Receipt No. 0215078C
Permit No. 121346

March 19, 2025

QB Energy Operating LLC
% BBA Water Consultants LLC
nhoch@bbawater.com

RE: BOE Variance Denial 2025-027D, Permit No. 121346, Receipt 0215078C

On March 6, 2025 the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board) received a variance request (attached) dated January 27, 2025 from BBA Water Consultants, LLC on behalf of QB Energy Operating LLC associated with an application to convert the monitoring well constructed under Permit 121346 to a production well under application receipt number 10040463. The request states BBA Water Consultants LLC is “applying for a variance to approve the re-permitting of these wells even though they may not have been drilled by a well construction contractor whose license was on file with the State at the time of construction”. The Board cannot provide a variance to the permit application evaluation as the Board does not have the ability to permit water wells. We understand the intent of the variance request was to request a variance to the current well construction Rule 14.2.2.1 for a monitoring well where no evidence exists that it was completed by a licensed well construction contractor licensed by the Board, so that the well construction information can be approved for the purpose of providing input to the Division of Water Resources in their review of the permit applications.

The well completion and pump installation report for Permit 121346 was signed by Raun Samuelson, (Lic No. 1050), a licensed pump installation contractor, who has not held a license issued by the Board to construct water wells. We agree with your assessment that a well construction contractor licensed in Colorado by the Board did not submit the well construction information to the State Engineer. During a phone conversation with Raun Samuelson on March 18, 2025, Raun claimed he installed neither the well nor the pump and was only involved in installing ground wires for the pump. Mr. Samuelson claimed his involvement in the project occurred after the well and pump were installed and stated he has no knowledge of the well construction or pump installation details documented on the well construction or pump installation report in spite of his signature attesting to the “contractor statement” on the work report. Mr. Samuelson claimed he is uncertain why the construction report has his name on them.

Your variance request indicates that you believe a well driller from Wyoming constructed the well. We do not see the evidence for this statement, but would not contest your assertion that a record indicating the construction of the monitoring well was performed by a water well contractor licensed by the Board is absent.

Evidence is not available to prove that the monitoring well [test hole as defined in the Section



2(22) of the 1972 Rules] was constructed by a licensed water well contractor as required in Section 3(2) of the 1972 Rules or a licensed well construction contractor per Rule 14.2.2.1 of the current Rules.

Pursuant to Rule 18 and the authority granted by the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board), the request for a variance is denied by Staff of the Board for the following reasons:

- The variance request opines on the owners intent based on the response “licensed” to question 4 of the permit application asking about the proposed “driller” as being in good faith. The intent of the owner to have the well constructed in accordance with the rules and regulations of the Board from his response to question 4 of the application is conjecture. The owner’s apparent neglect to follow the requirements of the Rules allowing only a contractor licensed by the Board to construct water wells or test holes at the time this well was constructed is a self inflicted hardship and is not a valid practical difficulty or unusual hardship in the Board Staff’s opinion.
- Raun Samuelson did not construct the well, and claims to have no knowledge of the well construction information on the form; therefore, the truthfulness and accuracy of the information on the work report is suspect.
- It is the opinion of the Board Staff that a variance from Rule 14.2.2.1 relieving the monitoring well of the requirement of having been constructed by a well construction contractor licensed by the Board could encourage other unlicensed contractors to perform work on wells, or owners to hire unlicensed contractors. Allowing the conversion of monitoring wells to production wells without evidence that it was constructed by a licensed well construction contractor or that the individual on the work report had knowledge of the construction does not represent a practice that will promote the enforcement of the protection of the health and safety of the public and prevention of contamination to Colorado’s groundwater.

Because the variance was denied, Staff does not approve the construction information on the well construction and pump installation report for the purpose of the requested conversion of the monitoring well to a production well.

Please note that the owner or individual who requested the variance may request the Board’s reconsideration of Board Staff’s written decision at the next regularly scheduled Board meeting, April 1, 2025.

If you have any questions, please contact this office.

Sincerely,

CHRISTOPHER JONES

Chief Well Inspector

Administrator to the Board of Examiners

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WW-6

THIS FORM MUST BE SUBMITTED
WITHIN 60 DAYS OF COMPLETION
OF THE WORK DESCRIBED HERE-
ON. TYPE OR PRINT IN BLACK
INK.

COLORADO DIVISION OF WATER RESOURCES

1313 Sherman Street - Room 818
Denver, Colorado 80203

WELL COMPLETION AND PUMP INSTALLATION REPORT

PERMIT NUMBER 121346

RECEIVED

DEC 21 1982

**WATER RESOURCES
ENGINEER**

WELL OWNER Exxon Company, U.S.A.

NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Sec. 13

ADDRESS P.O. Box 440342, Aurora, CO 80044

T. 5 S. R. 96 W. 6th P.M.

DATE COMPLETED September 19, 19 82

HOLE DIAMETER

9 in. from 0 to 570 ft.

6.125 in. from 570 to 615 ft.

_____ in. from _____ to _____ ft.

DRILLING METHOD Rotary air

CASING RECORD: Plain Casing

Size 6.40 & kind fiberglass from 0 to 552.5 ft.

Size _____ & kind _____ from _____ to _____ ft.

Size _____ & kind _____ from _____ to _____ ft.

Perforated Casing

Size _____ & kind _____ from _____ to _____ ft.

Size _____ & kind _____ from _____ to _____ ft.

Size _____ & kind _____ from _____ to _____ ft.

GROUTING RECORD

Material Portland-Type II, bentonite and salt

Intervals 0-570 ft. B.T.C.

Placement Method Pumped down casing and up annulus.

GRAVEL PACK: Size None

Interval _____

TEST DATA

Date Tested September 19, 19 82

Static Water Level Prior to Test 321.33 B.T.C. ft.

Type of Test Pump None

Length of Test _____

Sustained Yield (Metered) _____

Final Pumping Water Level _____

WELL LOG

From	To	Type and Color of Material	Water Loc.
0	297	Siltstone and sandstone, yellow-gray, brown, fine-grained w/an occasional thin mudstone layer.	
297	353	Alternating marlstone, yellow-brown and siltstone, gray-brown.	
353	615	Oilshale, yellow-brown w/ an occasional marlstone or siltstone layer.	
TOTAL DEPTH <u>615 ft.</u>			

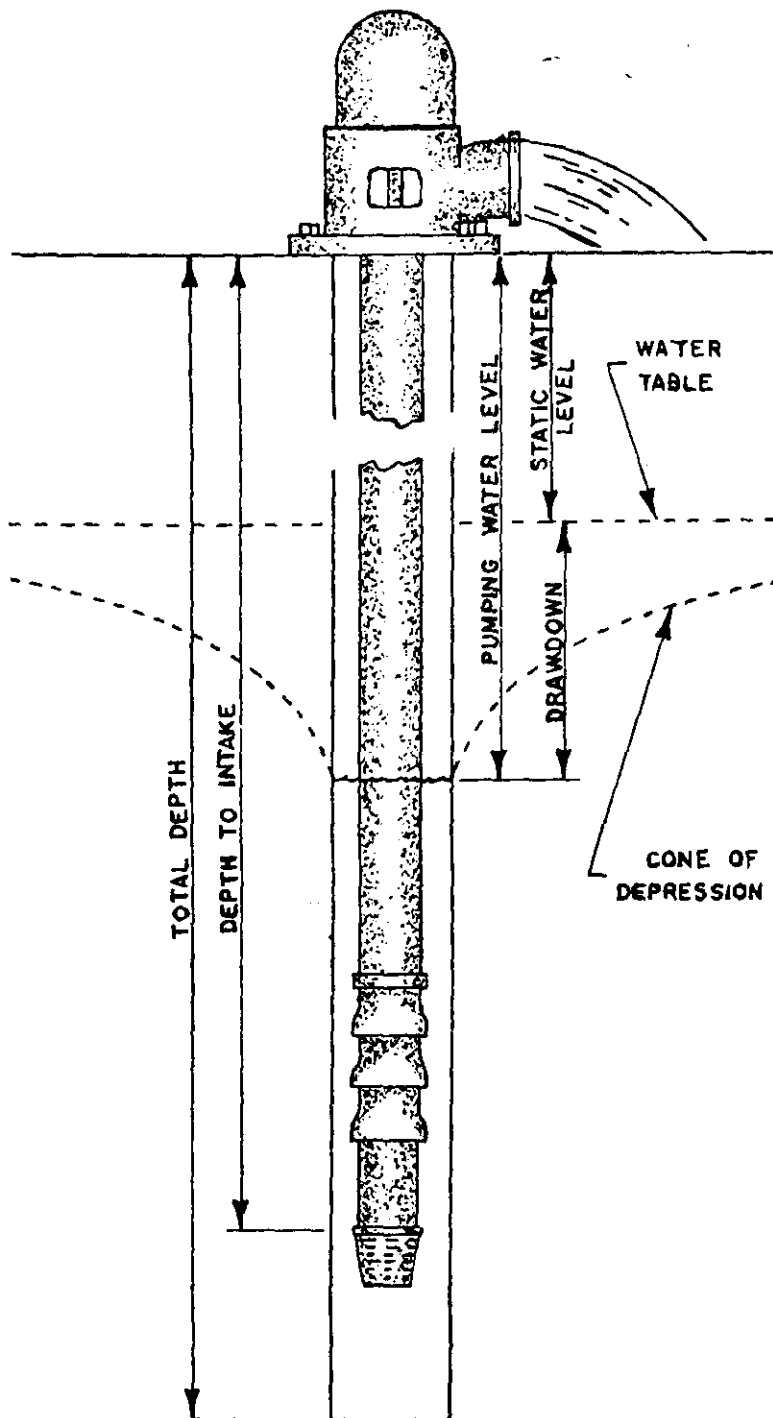
Use additional pages necessary to complete log.

PUMP INSTALLATION REPORT

Pump Make Grunfos
 Type SP2-34
 Powered by generator HP 2
 Pump Serial No. T8142M-22
 Motor Serial No. T8142M-22
 Date Installed 9-18-82
 Pump Intake Depth 527.6 ft. B.T.C.
 Remarks _____

WELL TEST DATA WITH PERMANENT PUMP

Date Tested 9-18-82
 Static Water Level Prior to Test 321.33 ft. B.T.C.
 Length of Test None Hours
 Sustained yield (Metered) _____ GPM
 Pumping Water Level _____
 Remarks _____



CONTRACTORS STATEMENT

The undersigned, being duly sworn upon oath, deposes and says that he is the contractor of the well or pump installation described hereon; that he has read the statement made hereon; knows the content thereof, and that the same is true of his own knowledge.

Signature John Samuelson License No. 1050

State of Colorado, County of Garfield SS

Subscribed and sworn to before me this 30th day of November, 1982.

My Commission expires 3/20, 19 85.

Notary Public Linda J. Schuerman

Box 520, Glenwood Springs, CO 81602

FORM TO BE MADE OUT IN QUADRUPLICATE: WHITE FORM must be an original copy on both sides and signed. WHITE AND GREEN copies must be filed with the State Engineer. PINK COPY is for the Owner and YELLOW COPY is for the Driller.

COLORADO DIVISION OF WATER RESOURCES
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203

RECEIVED
MAY 11 1981

WATER RESOURCES
STATE ENGINEER
COLO.

PERMIT APPLICATION FORM

Application must be complete where applicable. Type or print in **BLACK INK**. No overstrikes or erasures unless initialed.

() A PERMIT TO USE GROUND WATER
 (X) A PERMIT TO CONSTRUCT A WELL
 FOR: (X) A PERMIT TO INSTALL A PUMP

() REPLACEMENT FOR NO. _____
 () OTHER _____

WATER COURT CASE NO. _____

(1) APPLICANT - mailing address

NAME Exxon Co., USA as operator of
the COLONY SHALE OIL PROJECT
 STREET P. O. Box 14342
 CITY Aurora, CO 80014
 Attn: Gerald D. Ortloff
 TELEPHONE NO. (303) 695-2201

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. 15078^C

Basin _____ Dist. _____

(2) LOCATION OF PROPOSED WELL

County Garfield
NE $\frac{1}{4}$ of the SW $\frac{1}{4}$, Section 13
 Twp. 5 S. Rng. 96 N. 6th P.M.
(N.S.) (E.W.)

(3) WATER USE AND WELL DATA

Proposed maximum pumping rate (gpm) Less than 10gpm
 Average annual amount of ground water to be appropriated (acre-feet): Zero
 Number of acres to be irrigated: None
 Proposed total depth (feet): 650

Aquifer ground water is to be obtained from:

Upper Parachute Creek Member, Green River FM

Owner's well designation WW-6

GROUND WATER TO BE USED FOR:

() HOUSEHOLD USE ONLY - no irrigation (0)
 () DOMESTIC (1) () INDUSTRIAL (5)
 () LIVESTOCK (2) () IRRIGATION (6)
 () COMMERCIAL (4) () MUNICIPAL (8)

(X) OTHER (9) Monitoring Well

DETAIL THE USE ON BACK IN (11)

(4) DRILLER

Name Licensed
 Street _____
 City _____ (State) _____ (Zip) _____
 Telephone No. _____ Lic. No. _____

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

- 1) PERMISSION IS HEREBY GRANTED TO DRILL THIS WELL FOR THE PURPOSE OF MONITORING WATER LEVELS AND PERIODIC SAMPLING FOR WATER QUALITY.
- 2) THE GROUND WATER BEING TESTED SHALL BE OBTAINED FROM THE UPPER PARACHUTE MEMBER OF THE GREEN RIVER FORMATION ONLY.
- 3) A LITHOLOGIC LOG OF THIS WELL MUST BE SUBMITTED TO THE DIVISION OF WATER RESOURCES.
- 4) THIS WELL MUST BE PLUGGED AND ABANDONED ACCORDING TO THE REVISED AND AMENDED RULES AND REGULATIONS FOR WATER WELL AND PUMP INSTALLATION CONTRACTORS UPON COMPLETION OF THE MONITORING PROGRAM.

APPLICATION APPROVED

PERMIT NUMBER 121346

DATE ISSUED AUG 11 1981

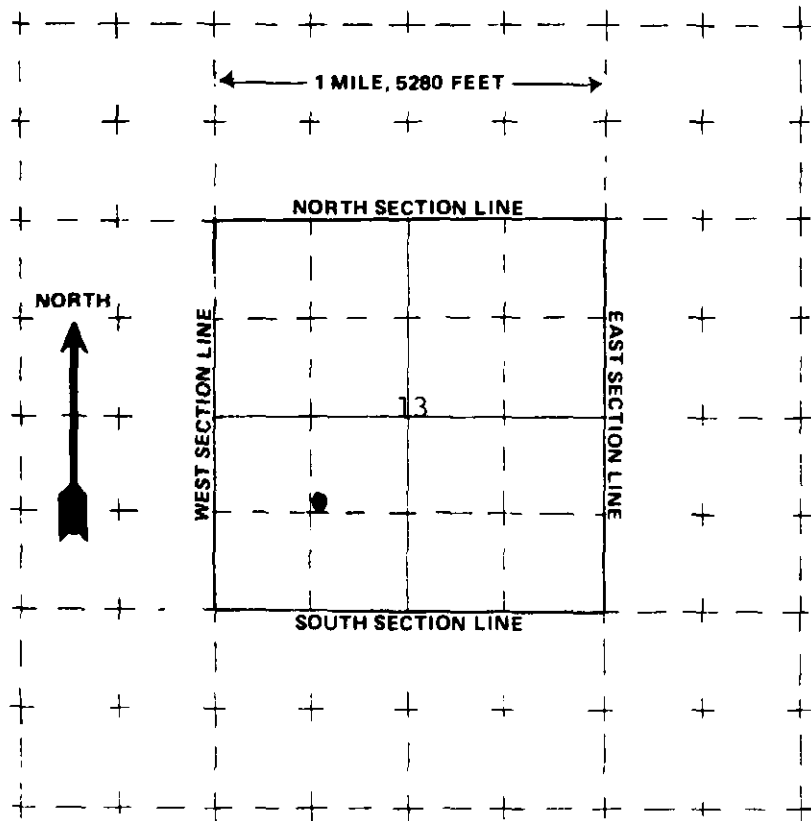
EXPIRATION DATE AUG 11 1983

Robert G. Longenbaugh
 Assistant (STATE ENGINEER)

BY R. L. Stallman

I.D. 5-39 COUNTY 23

(5) **THE LOCATION OF THE PROPOSED WELL** and the area on which the water will be used must be indicated on the diagram below. Use the **CENTER SECTION** (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile
Each small square represents 40 acres.

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep
1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm)
A family of 5 will require approximately 1 acre-foot of water per year.
1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) **THE WELL MUST BE LOCATED BELOW** by distances from section lines.

1350 ft. from South sec. line
(north or south)

1400 ft. from West sec. line
(east or west)

LOT BLOCK FILING #

SUBDIVISION

(7) **TRACT ON WHICH WELL WILL BE LOCATED** Owner: Applicant

No. of acres 8836 . Will this be the only well on this tract? No

(8) **PROPOSED CASING PROGRAM**

Plain Casing

6.4 in. from 0 ft. to 550 ft.

 in. from ft. to ft.

Perforated casing

 in. from ft. to ft.

 in. from ft. to ft.

(9) **FOR REPLACEMENT WELLS** give distance and direction from old well and plans for plugging it:

N/A

(10) **LAND ON WHICH GROUND WATER WILL BE USED:**

Owner(s): Exxon Co., USA as operator of the Colony Shale Oil Project No. of acres: 8836
That property known as the Dow Property and located in Secs. 3, 5, 6, 7, 8,
Legal description: 15, 16, 17, & 18, T5S, R95W, & Secs. 1, 2, 11, 12, 13, & 14, T5S, R96W, 6th

(11) **DETAILED DESCRIPTION** of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used

Monitoring well for purposes of monitoring groundwater quality

as required by Mined Land Reclamation permit.

(12) **OTHER WATER RIGHTS** used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right

Used for (purpose)

Description of land on which used

(13) **THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.**

EXXON COMPANY, U. S. A.

By: Gerald D. Ortloff

SIGNATURE OF APPLICANT(S)

Gerald D. Ortloff

Regulatory Affairs Manager

Date: 3-12-2025

Hydrogeology Section Consultation

Evaluator: CAJ Replacement Application? []
Receipt No: 0215078C Permit: 121346 Applicant:

Location: 1/4 1/4 Section , Township , Range , 6th PM
Easting: 231946.8 Northing: 4389308.7 Elevation: 7,764 Rule
6.2.3: []

Aquifer(s) Requested: Please determine aquifer type and interval of any confining layers for the existing monitoring well the owner wants to convert to a production well.

Research:

Mapped as Stewart Gulch Tongue of the Green River Formation.

Stewart Gulch Tongue merges with the Parachute Creek Member west of Parachute Creek.

Parachute Creek Member is part of both the Upp and Lower Piceance Basin Aquifers, which are separated by the Mahogany confining unit.

The Mahogany confining unit thickness is estimated at approximately 160 feet.

USGS mapping for the Forked Gulch Quadrangle shows structure contour mapping for the top of the Mahogany confining unit: approximately 7,170 feet.

Estimated base of the Mahogany confining unit: 7,010 feet.

The total depth of the well is 615 feet (approximately 7,150 feet).

The lithology described on the well construction log is consistent with the oil-shale rich zone of the Mahogany confining unit.

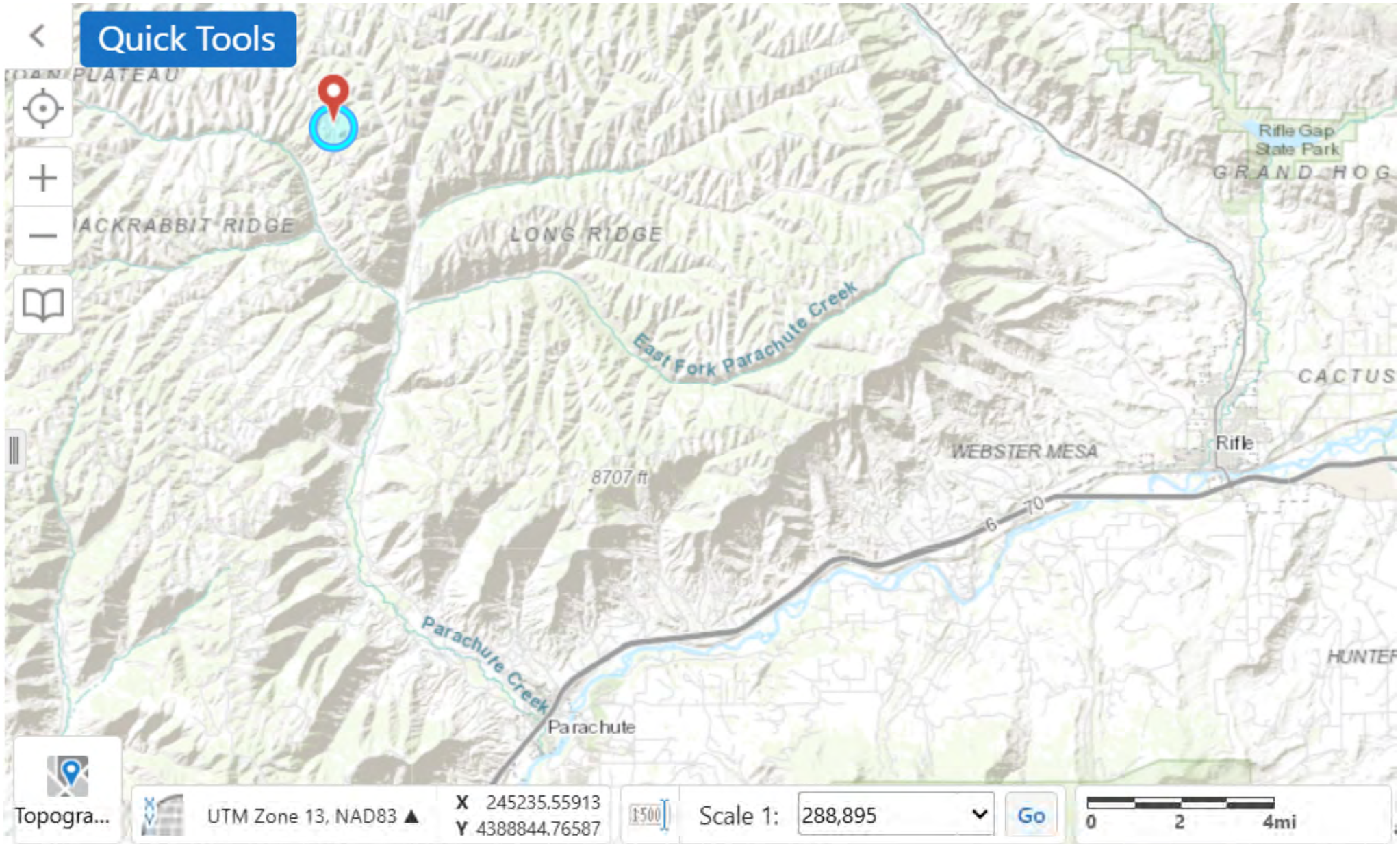
Recommended Permit Conditions and Notes:

This is a Type 2 well completed into the Mahogany confining unit of the Parachute Member of the Green River Formation.

Hydrogeologist Signature: Marques Hatfield

Date: 3/19/2025

Permit 121351 - Vicnity Map





COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

Well Construction Variance
Receipt No. 0215078H
Permit No. 121351

March 19, 2025

QB Energy Operating LLC
% BBA Water Consultants LLC
nhoch@bbawater.com

RE: BOE Variance Denial 2025-028D, Permit No. 121351, Receipt 0215078H

On March 6, 2025 the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board) received a variance request (attached) dated January 27, 2025 from BBA Water Consultants, LLC on behalf of QB Energy Operating LLC associated with an application to convert the monitoring well constructed under Permit 121351 to a production well under application receipt number 10040465. The request states BBA Water Consultants LLC is “applying for a variance to approve the re-permitting of these wells even though they may not have been drilled by a well construction contractor whose license was on file with the State at the time of construction”. The Board cannot provide a variance to the permit application evaluation as the Board does not have the ability to permit water wells. We understand the intent of the variance request was to request a variance to the current well construction Rule 14.2.2.1 for a monitoring well where no evidence exists that it was completed by a licensed well construction contractor licensed by the Board, so that the well construction information can be approved for the purpose of providing input to the Division of Water Resources in their review of the permit applications.

The well completion and pump installation report for Permit 121351 was signed by Raun Samuelson, (Lic No. 1050), a licensed pump installation contractor, who has not held a license issued by the Board to construct water wells. We agree with your assessment that a well construction contractor licensed in Colorado by the Board did not submit the well construction information to the State Engineer. During a phone conversation with Raun Samuelson on March 18, 2025, Raun claimed he installed neither the well nor the pump and was only involved in installing ground wires for the pump. Mr. Samuelson claimed his involvement in the project occurred after the well and pump were installed and stated he has no knowledge of the well construction or pump installation details documented on the well construction or pump installation report in spite of his signature attesting to the “contractor statement” on the work report. Mr. Samuelson claimed he is uncertain why the construction report has his name on them.

Your variance request indicates that you believe a well driller from Wyoming constructed the well. We do not see the evidence for this statement, but would not contest your assertion that a record indicating the construction of the monitoring well was performed by a water well contractor licensed by the Board is absent.

Evidence is not available to prove that the monitoring well [test hole as defined in the Section



2(22) of the 1972 Rules] was constructed by a licensed water well contractor as required in Section 3(2) of the 1972 Rules or a licensed well construction contractor per Rule 14.2.2.1 of the current Rules.

Pursuant to Rule 18 and the authority granted by the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board), the request for a variance is denied by Staff of the Board for the following reasons:

- The variance request opines on the owners intent based on the response “licensed” to question 4 of the permit application asking about the proposed “driller” as being in good faith. The intent of the owner to have the well constructed in accordance with the rules and regulations of the Board from his response to question 4 of the application is conjecture. The owner’s apparent neglect to follow the requirements of the Rules allowing only a contractor licensed by the Board to construct water wells or test holes at the time this well was constructed is a self inflicted hardship and is not a valid practical difficulty or unusual hardship in the Board Staff’s opinion.
- Raun Samuelson did not construct the well, and claims to have no knowledge of the well construction information on the form; therefore, the truthfulness and accuracy of the information on the work report is suspect.
- It is the opinion of the Board Staff that a variance from Rule 14.2.2.1 relieving the monitoring well of the requirement of having been constructed by a well construction contractor licensed by the Board could encourage other unlicensed contractors to perform work on wells, or owners to hire unlicensed contractors. Allowing the conversion of monitoring wells to production wells without evidence that it was constructed by a licensed well construction contractor or that the individual on the work report had knowledge of the construction does not represent a practice that will promote the enforcement of the protection of the health and safety of the public and prevention of contamination to Colorado’s groundwater.

Because the variance was denied, Staff does not approve the construction information on the well construction and pump installation report for the purpose of the requested conversion of the monitoring well to a production well.

Please note that the owner or individual who requested the variance may request the Board’s reconsideration of Board Staff’s written decision at the next regularly scheduled Board meeting, April 1, 2025.

If you have any questions, please contact this office.

Sincerely,

CHRISTOPHER JONES

Chief Well Inspector

Administrator to the Board of Examiners

E

COLORADO DIVISION OF WATER RESOURCES

1313 Sherman Street - Room 818
Denver, Colorado 80203

WW-8A

RECEIVED**DEC 21 1982**

WATER RESOURCES
ENGINEER
STATE - ENGINEER
801A

THIS FORM MUST BE SUBMITTED
WITHIN 60 DAYS OF COMPLETION
OF THE WORK DESCRIBED HERE-
ON. TYPE OR PRINT IN BLACK
INK.

WELL COMPLETION AND PUMP INSTALLATION REPORTPERMIT NUMBER 121351WELL OWNER Exxon Company, U.S.A.NE ¼ of the NW ¼ of Sec. 11ADDRESS P.O. Box 440342, Aurora, CO 80044T. 5 S. R. 96 W. 6th P.M.DATE COMPLETED September 18, 19 82**HOLE DIAMETER**9 in. from 0 to 936 ft.4.25 in. from 936 to 975 ft. in. from to ft.DRILLING METHOD Rotary airCASING RECORD: Plain CasingSize 6.40 & kind fiberglass from 0 to 936 ft.Size & kind from to ft.Size & kind from to ft.**Perforated Casing**Size & kind from to ft.Size & kind from to ft.Size & kind from to ft.**GROUTING RECORD**Material Portland-Type II, bentonite and salt.Intervals 0-936 ft.Placement Method pumped down casing and up annulus.GRAVEL PACK: Size NoneInterval **TEST DATA**Date Tested September 18, 19 82Static Water Level Prior to Test 476.72 B.T.C. ft.Type of Test Pump NoneLength of Test Sustained Yield (Metered) Final Pumping Water Level **WELL LOG**

From	To	Type and Color of Material	Water Loc.
0	241.9	Siltstone, yellow-gray-brown, w/minor lenses of sandstone.	
214.9	290.1	Marlstone, brown-gray.	
290.1	414.4	Siltstone and sandstone, yellow-gray-brown w/minor marlstone layers.	
414.4	437.8	Marlstone, yellow-gray w/a 2-ft. siltstone layer in the middle	
437.8	626.8	Siltstone and sandstone, yellow-brown w/minor marlstone beds.	
626.8	644.5	Marlstone, yellow-brown.	
644.5	694.3	Siltstone, brown-gray w/minor tuft and marlstone beds.	
694.3	741.0	Oil shale, yellow-brown w/interbedded marlstone layers.	
741.0	774.0	Marlstone, yellow-brown.	
774.0	975.0	Oil shale and marlstone, yellow-brown-gray.	
TOTAL DEPTH <u>975 ft.</u>			

Use additional pages necessary to complete log.

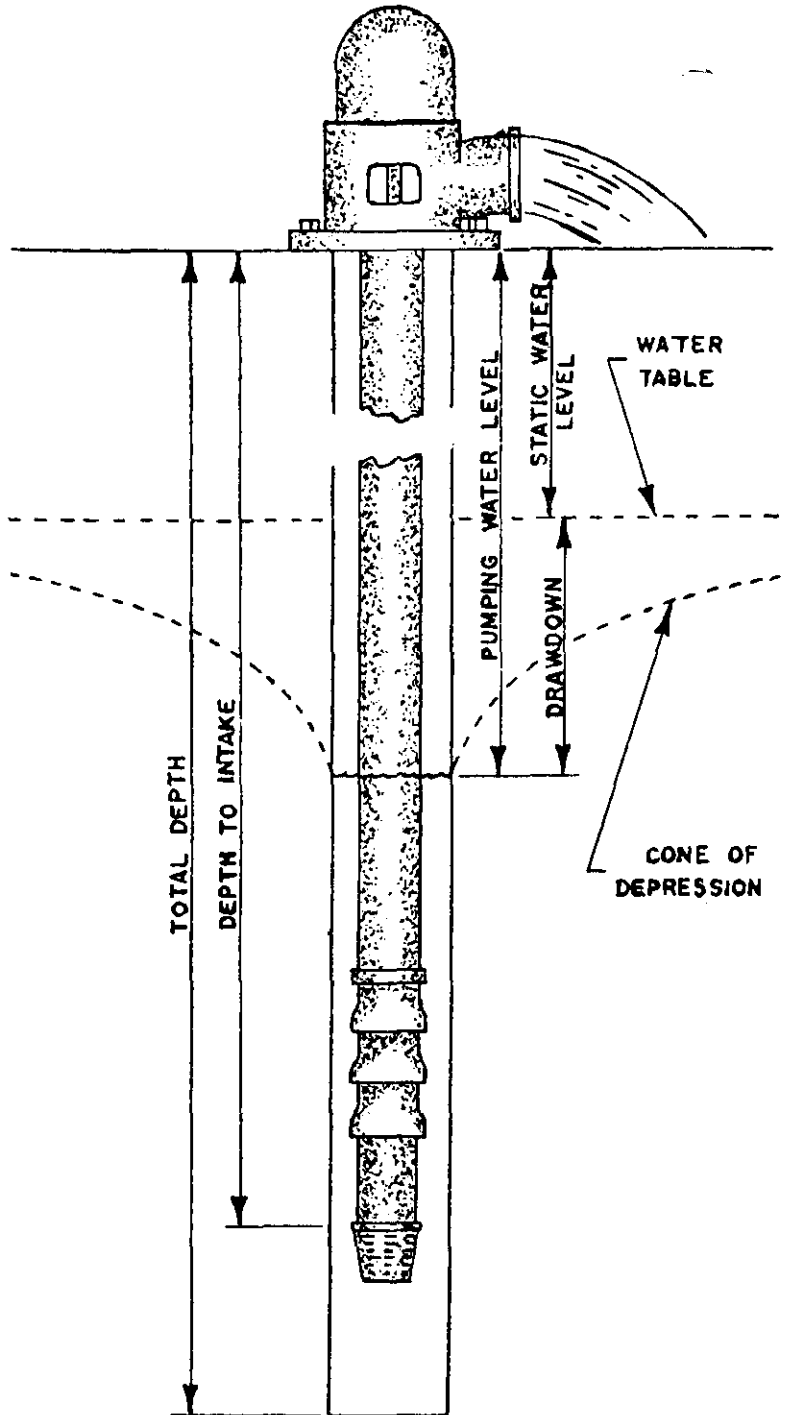
PUMP INSTALLATION REPORT

RECEIVED

Pump Make Grunfos
 Type SP2-46
 Powered by generator HP 3
 Pump Serial No. 8142T-7
 Motor Serial No. 8142T-7
 Date Installed 9-18-82
 Pump Intake Depth 803.4 ft. B.T.C.
 Remarks _____

WELL TEST DATA WITH PERMANENT PUMP

Date Tested 9-18-82
 Static Water Level Prior to Test 476.72 ft. B.T.C.
 Length of Test NO TEST Hours
 Sustained yield (Metered) _____ GPM
 Pumping Water Level _____
 Remarks _____



CONTRACTORS STATEMENT

The undersigned, being duly sworn upon oath, deposes and says that he is the contractor of the well or pump installation described hereon; that he has read the statement made hereon; knows the content thereof, and that the same is true of his own knowledge.

Signature Ram Samuelson License No. 1050

State of Colorado, County of Garfield SS

Subscribed and sworn to before me this 30th day of November, 19 82.

My Commission expires: 3/20, 19 85.

Notary Public Linda J. Schuemaker
 Box 520, Glenwood Springs, CO 81602

FORM TO BE MADE OUT IN QUADRUPLICATE: WHITE FORM must be an original copy on both sides and signed. WHITE AND GREEN copies must be filed with the State Engineer. PINK COPY is for the Owner and YELLOW COPY is for the Driller.

COLORADO DIVISION OF WATER RESOURCES
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203

PERMIT APPLICATION FORM

Application must be complete where applicable. Type or print in **BLACK INK**. No overstrikes or erasures unless initialed.

() A PERMIT TO USE GROUND WATER
 (X) A PERMIT TO CONSTRUCT A WELL
 FOR: (X) A PERMIT TO INSTALL A PUMP

() REPLACEMENT FOR NO. _____
 () OTHER _____
 WATER COURT CASE NO. _____

*Rec'd
May 11, 1981*

(1) APPLICANT - mailing address

NAME Exxon Co., USA as operator of
the COLONY SHALE OIL PROJECT
 STREET P. O. Box 14342
 CITY Aurora, CO 80014
Attn: Gerald D. Ortloff
 TELEPHONE NO. (303) 695-2201

(2) LOCATION OF PROPOSED WELL

County Garfield
NE $\frac{1}{4}$ of the NW $\frac{1}{4}$, Section 11
 Twp. 5 S, Rng. 96 W, 6th P.M.
 (N.S.) (E.W.)

(3) WATER USE AND WELL DATA

Proposed maximum pumping rate (gpm) < 10 gpm
 Average annual amount of ground water
 to be appropriated (acre-feet): Zero
 Number of acres to be irrigated: None
 Proposed total depth (feet): 1030

Aquifer ground water is to be obtained from:
Upper Parachute Creek Member, Green River FM

Owner's well designation WW-8A

GROUND WATER TO BE USED FOR:

() HOUSEHOLD USE ONLY - no irrigation (0)
 () DOMESTIC (1) () INDUSTRIAL (5)
 () LIVESTOCK (2) () IRRIGATION (6)
 () COMMERCIAL (4) () MUNICIPAL (8)

(X) OTHER (9) Monitoring Well

DETAIL THE USE ON BACK IN (11)

(4) DRILLER

Name Licensed
 Street _____
 City _____ (State) (Zip)
 Telephone No. _____ Lic. No. _____

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. 15078 H

Basin _____ Dist. _____

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

- 1) PERMISSION IS HEREBY GRANTED TO DRILL THIS WELL FOR THE PURPOSE OF MONITORING WATER LEVELS AND PERIODIC SAMPLING FOR WATER QUALITY.
- 2) THE GROUND WATER BEING TESTED SHALL BE OBTAINED FROM THE UPPER PARACHUTE MEMBER OF THE GREEN RIVER FORMATION ONLY.
- 3) A LITHOLOGIC LOG OF THIS WELL MUST BE SUBMITTED TO THE DIVISION OF WATER RESOURCES.
- 4) THIS WELL MUST BE PLUGGED AND ABANDONED ACCORDING TO THE REVISED AND AMENDED RULES AND REGULATIONS FOR WATER WELL AND PUMP INSTALLATION CONTRACTORS UPON COMPLETION OF THE MONITORING PROGRAM.

APPLICATION APPROVED

PERMIT NUMBER 121351

DATE ISSUED AUG 11 1981

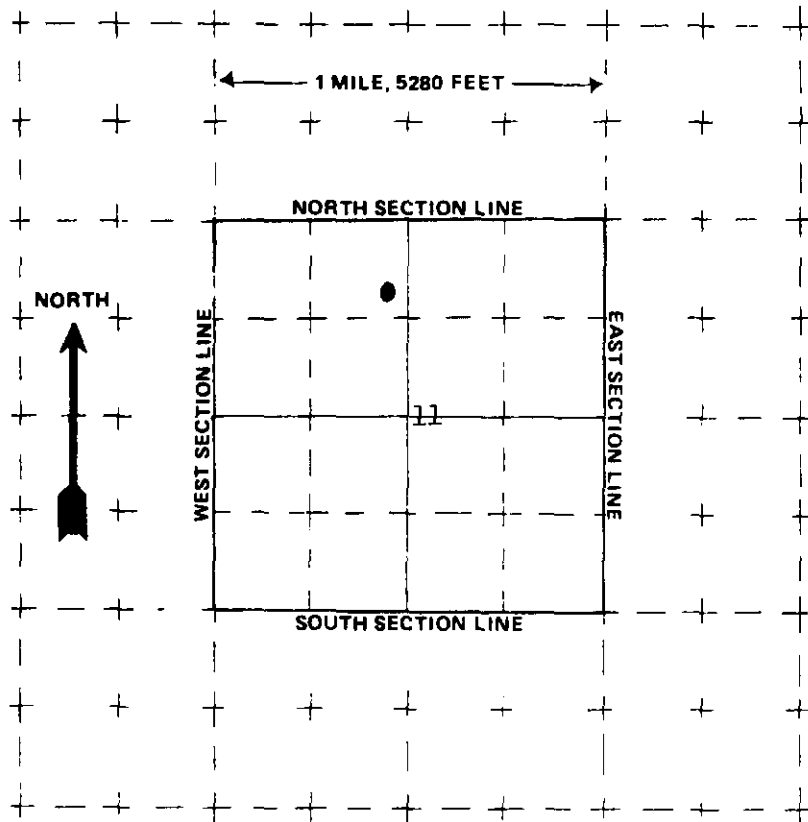
EXPIRATION DATE AUG 11 1983

Robert G. Longmire
 (STATE ENGINEER)

Assistant BY *R. H. Hallman*

I.D. 5-39 COUNTY 23

(5) **THE LOCATION OF THE PROPOSED WELL** and the area on which the water will be used must be indicated on the diagram below. Use the **CENTER SECTION** (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile
Each small square represents 40 acres.

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep
1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm)
A family of 5 will require approximately 1 acre-foot of water per year.
1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) **THE WELL MUST BE LOCATED BELOW** by distances from section lines.

1000 ft. from North sec. line
(north or south)

2600 ft. from West sec. line
(east or west)

LOT --- BLOCK --- FILING # ---

SUBDIVISION ---

(7) **TRACT ON WHICH WELL WILL BE LOCATED** Owner: Applicant

No. of acres 8836 Will this be the only well on this tract? No

(8) **PROPOSED CASING PROGRAM**

Plain Casing

6.4 in. from 0 ft. to 980 ft.

--- in. from --- ft. to --- ft.

Perforated casing

--- in. from --- ft. to --- ft.

--- in. from --- ft. to --- ft.

(9) **FOR REPLACEMENT WELLS** give distance and direction from old well and plans for plugging it:

N/A

(10) **LAND ON WHICH GROUND WATER WILL BE USED:**

Owner(s): Exxon Co., USA as operator of the Colony Shale Oil Project No. of acres: 8836
That property known as the Dow Property and located in Secs. 3, 5, 6, 7, 8,
Legal description: 15, 16, 17, & 18, T5S, R95W, & Secs. 1, 2, 11, 12, 13, & 14, T5S, R96W, 6th

(11) **DETAILED DESCRIPTION** of the use of ground water: Household use and domestic wells must indicate type of disposal system, to be used.

Monitoring well for purposes of monitoring groundwater quality

as required by Mined Land Reclamation permit.

(12) **OTHER WATER RIGHTS** used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right

Used for (purpose)

Description of land on which used

(13) **THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.**

EXXON COMPANY, U. S. A.

By: Gerald D. Ortloff

SIGNATURE OF APPLICANT(S)

Gerald D. Ortloff

Regulatory Affairs Manager

Date: 3-12-25

Hydrogeology Section Consultation

Evaluator: CAJ Replacement Application? []
Receipt No: 0215078H Permit: 121351 Applicant:

Location: 1/4 1/4 Section , Township , Range , 6th PM
Easting: 230792.7 Northing: 4391847.9 Elevation: 8,143 Rule
6.2.3: []

Aquifer(s) Requested: Please evaluate the aquifer Type and any confining layer interval within the constructed interval of the existing monitoring well.

Research:

Mapped as Unit D of the Uinta Formation.

The Uinta Formation overlies the Green River Formation and the lithology on the well construction log is consistent with the mapped description.

The Mahogany confining unit thickness is estimated at approximately 160 feet.

USGS mapping for the Cutoff Gulch Quadrangle shows structure contour mapping for the top of the Mahogany confining unit: approximately 7,175 feet.

Estimated base of the Mahogany confining unit: 7,015 feet.

The total depth of the well is 975 feet (approximately 7,168 feet).

The lithology described on the well construction log is consistent with the oil-shale rich zone of the Mahogany confining unit from 694 feet to total depth (975 feet) below ground surface (bgs). While the Mahogany zone is the richest oil-shale interval, oil-shale is also present outside of this zone, interbedded with other lithologies.

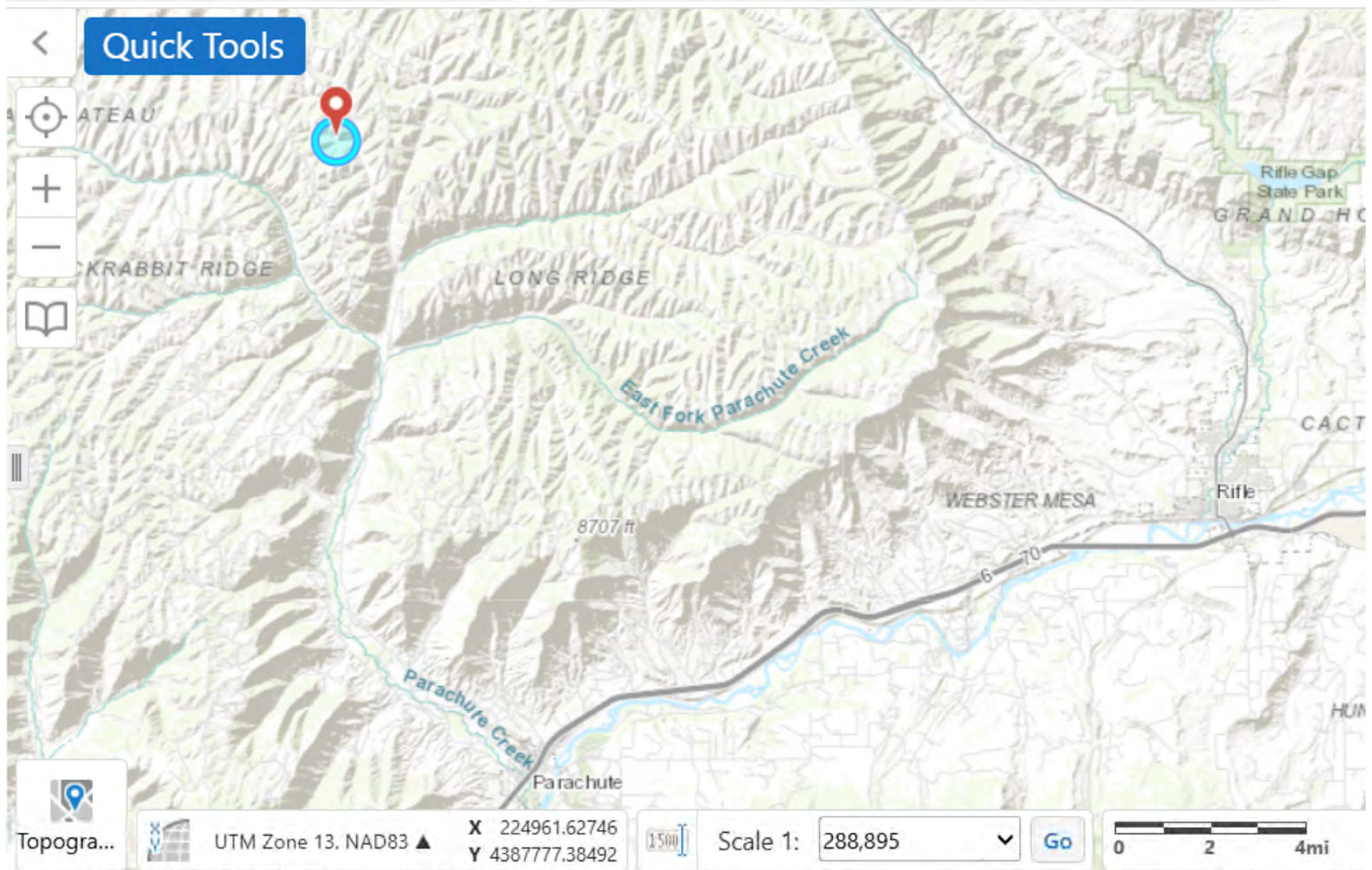
Recommended Permit Conditions and Notes:

This is a Type 2 well completed into the Mahogany confining unit of the Parachute Member of the Green River Formation.

Hydrogeologist Signature: Marques Hatfield

Date: 3/19/2025

Permit 121356 - Vicinity Map





COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

Well Construction Variance
Receipt No. 0215078M
Permit No. 121356

March 19, 2025

QB Energy Operating LLC
% BBA Water Consultants LLC
nhoch@bbawater.com

RE: BOE Variance Denial 2025-029D, Permit No. 121356, Receipt 0215078M

On March 6, 2025 the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board) received a variance request (attached) dated January 27, 2025 from BBA Water Consultants, LLC on behalf of QB Energy Operating LLC associated with an application to convert the monitoring well constructed under Permit 121351 to a production well under application receipt number 10040466. The request states BBA Water Consultants LLC is “applying for a variance to approve the re-permitting of these wells even though they may not have been drilled by a well construction contractor whose license was on file with the State at the time of construction”. The Board cannot provide a variance to the permit application evaluation as the Board does not have the ability to permit water wells. We understand the intent of the variance request was to request a variance to the current well construction Rule 14.2.2.1 for a monitoring well where no evidence exists that it was completed by a licensed well construction contractor licensed by the Board, so that the well construction information can be approved for the purpose of providing input to the Division of Water Resources in their review of the permit applications.

The well completion and pump installation report for Permit 121356 was signed by Raun Samuelson, (Lic No. 1050), a licensed pump installation contractor, who has not held a license issued by the Board to construct water wells. We agree with your assessment that a well construction contractor licensed in Colorado by the Board did not submit the well construction information to the State Engineer. During a phone conversation with Raun Samuelson on March 18, 2025, Raun claimed he installed neither the well nor the pump and was only involved in installing ground wires for the pump. Mr. Samuelson claimed his involvement in the project occurred after the well and pump were installed and stated he has no knowledge of the well construction or pump installation details documented on the well construction or pump installation report in spite of his signature attesting to the “contractor statement” on the work report. Mr. Samuelson claimed he is uncertain why the construction report has his name on them.

Your variance request indicates that you believe a well driller from Wyoming constructed the well. We do not see the evidence for this statement, but would not contest your assertion that a record indicating the construction of the monitoring well was performed by a water well contractor licensed by the Board is absent.

Evidence is not available to prove that the monitoring well [test hole as defined in the Section



2(22) of the 1972 Rules] was constructed by a licensed water well contractor as required in Section 3(2) of the 1972 Rules or a licensed well construction contractor per Rule 14.2.2.1 of the current Rules.

Pursuant to Rule 18 and the authority granted by the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board), the request for a variance is denied by Staff of the Board for the following reasons:

- The variance request opines on the owners intent based on the response “licensed” to question 4 of the permit application asking about the proposed “driller” as being in good faith. The intent of the owner to have the well constructed in accordance with the rules and regulations of the Board from his response to question 4 of the application is conjecture. The owner’s apparent neglect to follow the requirements of the Rules allowing only a contractor licensed by the Board to construct water wells or test holes at the time this well was constructed is a self inflicted hardship and is not a valid practical difficulty or unusual hardship in the Board Staff’s opinion.
- Raun Samuelson did not construct the well, and claims to have no knowledge of the well construction information on the form; therefore, the truthfulness and accuracy of the information on the work report is suspect.
- It is the opinion of the Board Staff that a variance from Rule 14.2.2.1 relieving the monitoring well of the requirement of having been constructed by a well construction contractor licensed by the Board could encourage other unlicensed contractors to perform work on wells, or owners to hire unlicensed contractors. Allowing the conversion of monitoring wells to production wells without evidence that it was constructed by a licensed well construction contractor or that the individual on the work report had knowledge of the construction does not represent a practice that will promote the enforcement of the protection of the health and safety of the public and prevention of contamination to Colorado’s groundwater.

Because the variance was denied, Staff does not approve the construction information on the well construction and pump installation report for the purpose of the requested conversion of the monitoring well to a production well.

Please note that the owner or individual who requested the variance may request the Board’s reconsideration of Board Staff’s written decision at the next regularly scheduled Board meeting, April 1, 2025.

If you have any questions, please contact this office.

Sincerely,

CHRISTOPHER JONES

Chief Well Inspector

Administrator to the Board of Examiners

E

COLORADO DIVISION OF WATER RESOURCES

1313 Sherman Street - Room 818

Denver, Colorado 80203

WELL COMPLETION AND PUMP INSTALLATION REPORT

PERMIT NUMBER 121356

WW-4B

RECEIVED**DEC 21 1982**WATER RESOURCES
ENGINEER
DWA

THIS FORM MUST BE SUBMITTED
WITHIN 60 DAYS OF COMPLETION
OF THE WORK DESCRIBED HERE-
ON. TYPE OR PRINT IN BLACK
INK.

WELL OWNER Exxon Company, U.S.A.NE % of the SE % of Sec. 2ADDRESS P.O. Box 440342, Aurora, CO 80044T. 5 S. R. 96 W. 6th P.M.DATE COMPLETED September 21, 19 82

HOLE DIAMETER

6.75 in. from 0 to 540 ft.3.875 in. from 540 to 600 ft. in. from to ft.DRILLING METHOD Rotary airCASING RECORD: Plain CasingSize 4.33 & kind fiberglass from 0 to 539.3 ft.Size & kind from to ft.Size & kind from to ft.Perforated CasingSize & kind from to ft.Size & kind from to ft.Size & kind from to ft.

GROUTING RECORD

Material Portland-Type II, bentonite and saltIntervals 0-540 ft. B.T.C.Placement Method PUMPED DOWN CASING AND UP
ANNULUSGRAVEL PACK: Size NoneInterval

TEST DATA

Date Tested September 21, 19 82Static Water Level Prior to Test 74.57 B.T.C. ft.Type of Test Pump Length of Test not testedSustained Yield (Metered) Final Pumping Water Level

WELL LOG

From	To	Type and Color of Material	Water Loc.
0	181	Siltstone, yellow-brown; marlstone, yellow-brown; sandstone, yellow-brown, fine-grained	
181	232	Marlstone, yellow-brown w/ minor siltstone layers.	
232	600	Oil shale, light yellow-brown w/minor siltstone and tuff layers.	
TOTAL DEPTH <u>600 ft.</u>			

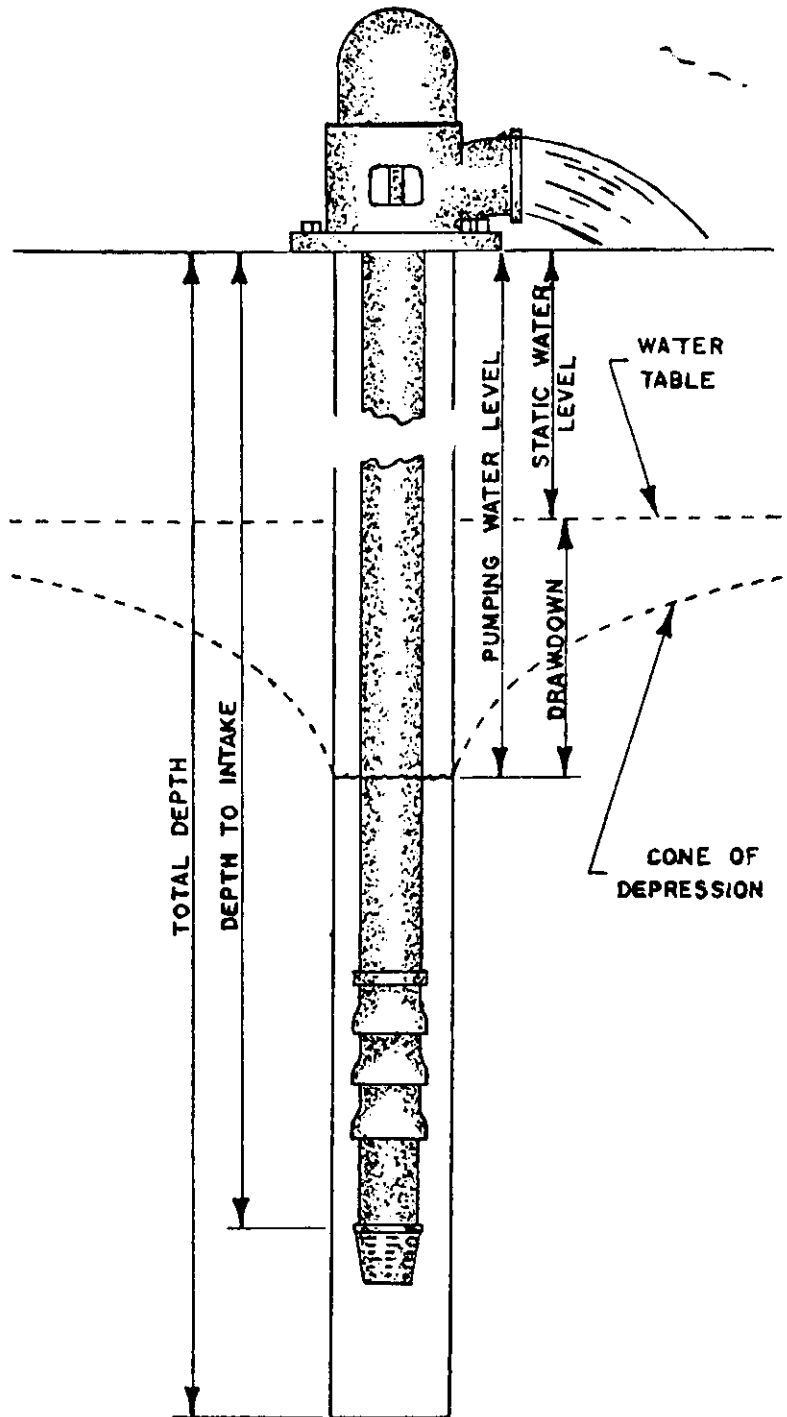
Use additional pages necessary to complete log.

PUMP INSTALLATION REPORT

Pump Make Grunfos
 Type SP2-10
 Powered by generator HP 1/2
 Pump Serial No. T8142M-8
 Motor Serial No. T8142M-8
 Date Installed 9/21/82
 Pump Intake Depth 526 ft. B.T.C.
 Remarks _____

WELL TEST DATA WITH PERMANENT PUMP

Date Tested 9/21/82
 Static Water Level Prior to Test 74.57 ft. B.T.C.
 Length of Test not tested Hours
 Sustained yield (Metered) _____ GPM
 Pumping Water Level _____
 Remarks _____



CONTRACTORS STATEMENT

The undersigned, being duly sworn upon oath, deposes and says that he is the contractor of the well or pump installation described hereon; that he has read the statement made hereon; knows the content thereof, and that the same is true of his own knowledge.

Signature Ken Samuels License No. 1050

State of Colorado, County of Garfield SS

Subscribed and sworn to before me this 30th day of November, 19 82.

My Commission expires: 3/20, 19 85.

Notary Public Linda J. Schumacher

Box 520, Glenwood Springs, CO 81602

FORM TO BE MADE OUT IN QUADRUPPLICATE: WHITE FORM must be an original copy on both sides and signed. WHITE AND GREEN copies must be filed with the State Engineer. PINK COPY is for the Owner and YELLOW COPY is for the Driller.

COLORADO DIVISION OF WATER RESOURCES
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203

PERMIT APPLICATION FORM

Application must be complete where applicable. Type or print in **BLACK INK**. No overstrikes or erasures unless initialed.

() A PERMIT TO USE GROUND WATER
 (X) A PERMIT TO CONSTRUCT A WELL
 FOR: (X) A PERMIT TO INSTALL A PUMP

() REPLACEMENT FOR NO. _____
 () OTHER _____

WATER COURT CASE NO. _____

*Rec.
May 11, 1981*

(1) APPLICANT - mailing address

NAME Exxon Co., USA as operator of
the COLONY SHALE OIL PROJECT
 STREET P. O. Box 14342
 CITY Aurora, CO 80014
Attn: Gerald D. Ortloff
 TELEPHONE NO. (303) 695-2201

(2) LOCATION OF PROPOSED WELL

County Garfield
NE $\frac{1}{4}$ of the SE $\frac{1}{4}$, Section 2
 Twp. 5 S, Rng. 96 W, 6th P.M.
(N.S.) (E.W.)

(3) WATER USE AND WELL DATA

Proposed maximum pumping rate (gpm) < 10 gpm
 Average annual amount of ground water to be appropriated (acre-feet): Zero
 Number of acres to be irrigated: None
 Proposed total depth (feet): 640

Aquifer ground water is to be obtained from:

Upper Parachute Creek Member, Green River FM

Owner's well designation WW-4B

GROUND WATER TO BE USED FOR:

() HOUSEHOLD USE ONLY - no irrigation (0)
 () DOMESTIC (1) () INDUSTRIAL (5)
 () LIVESTOCK (2) () IRRIGATION (6)
 () COMMERCIAL (4) () MUNICIPAL (8)

(X) OTHER (9) Monitoring Well

DETAIL THE USE ON BACK IN (11)

(4) DRILLER

Name Licensed
 Street _____
 City _____ (State) _____ (Zip) _____
 Telephone No. _____ Lic. No. _____

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. 15078 M

Basin _____ Dist. _____

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

- 1) PERMISSION IS HEREBY GRANTED TO DRILL THIS WELL FOR THE PURPOSE OF MONITORING WATER LEVELS AND PERIODIC SAMPLING FOR WATER QUALITY.
- 2) THE GROUND WATER BEING TESTED SHALL BE OBTAINED FROM THE UPPER PARACHUTE MEMBER OF THE GREEN RIVER FORMATION ONLY.
- 3) A LITHOLOGIC LOG OF THIS WELL MUST BE SUBMITTED TO THE DIVISION OF WATER RESOURCES.
- 4) THIS WELL MUST BE PLUGGED AND ABANDONED ACCORDING TO THE REVISED AND AMENDED RULES AND REGULATIONS FOR WATER WELL AND PUMP INSTALLATION CONTRACTORS UPON COMPLETION OF THE MONITORING PROGRAM.

APPLICATION APPROVED

PERMIT NUMBER 121356

DATE ISSUED AUG 11 1981

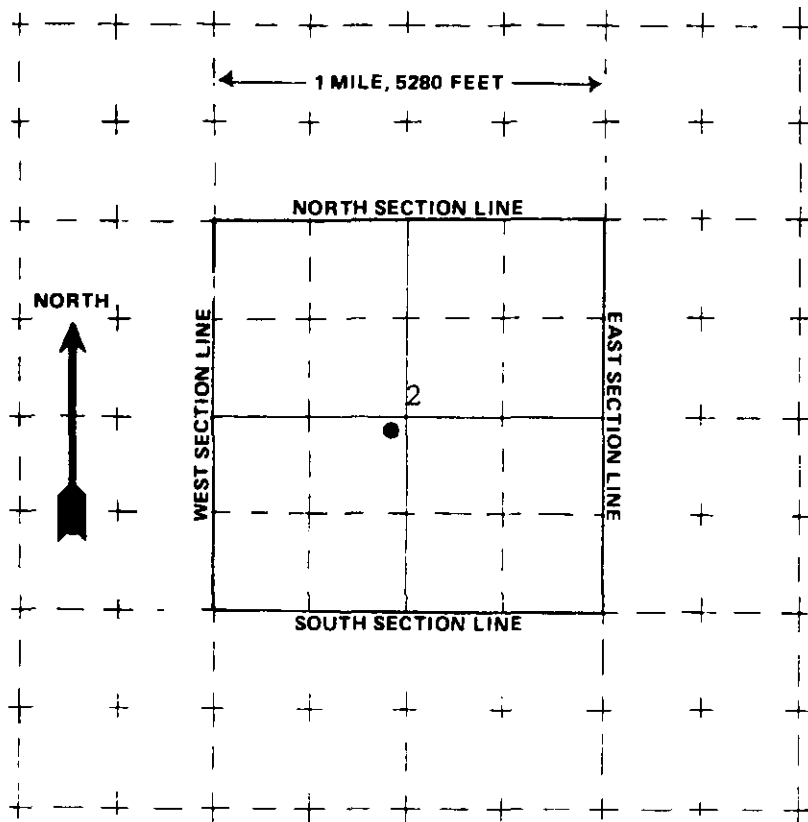
EXPIRATION DATE AUG 11 1983

Robert G. Longenbaugh
 (STATE ENGINEER)

BY Assistant

I.D. 5-39 COUNTY 23

(5) **THE LOCATION OF THE PROPOSED WELL** and the area on which the water will be used must be indicated on the diagram below. Use the **CENTER SECTION** (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile
Each small square represents 40 acres.

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep
1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm)
A family of 5 will require approximately 1 acre-foot of water per year.
1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) **THE WELL MUST BE LOCATED BELOW** by distances from section lines.

2150 ft. from South sec. line
(north or south)

100 ft. from East sec. line
(east or west)

LOT -- BLOCK -- FILING # --

SUBDIVISION --

(7) **TRACT ON WHICH WELL WILL BE LOCATED** Owner: Applicant

No. of acres 8836 Will this be the only well on this tract? No

(8) **PROPOSED CASING PROGRAM**

Plain Casing

6.4 in. from 0 ft. to 600 ft.

 in. from ft. to ft.

Perforated casing

 in. from ft. to ft.

 in. from ft. to ft.

(9) **FOR REPLACEMENT WELLS** give distance and direction from old well and plans for plugging it:

N/A

(10) **LAND ON WHICH GROUND WATER WILL BE USED:**

Owner(s): Exxon Co., USA as operator of the Colony Shale Oil Project No. of acres: 8836
That property known as the Dow Property and located in Secs. 3, 5, 6, 7, 8,
Legal description: 15, 16, 17, & 18, T5S, R95W, & Secs. 1, 2, 11, 12, 13, & 14, T5S, R96W, 6th

(11) **DETAILED DESCRIPTION** of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used. Monitoring well for purposes of monitoring groundwater quality

as required by Mined Land Reclamation permit.

(12) **OTHER WATER RIGHTS** used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right

Used for (purpose)

Description of land on which used

(13) **THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE**

EXXON COMPANY, U. S. A.

By: Gerald D. Orloff
Gerald D. Orloff

SIGNATURE OF APPLICANT(S)

Regulatory Affairs Manager

Date: 3-12-2025

Hydrogeology Section Consultation

Evaluator: CAJ Replacement Application? []
Receipt No: 0215078M Permit: 121356 Applicant:

Location: 1/4 1/4 Section , Township , Range , 6th PM
Easting: 231615.6 Northing: 4392780 Elevation: 7,687 Rule 6.2.3: []

Aquifer(s) Requested: MW conversion to production well application. Please evaluate the aquifer Type the well was constructed into and any confining unit intervals within the completed depth.

Research:

Mapped as Unit D of the Uinta Formation.

The Uinta Formation overlies the Green River Formation and the lithology on the well construction log is consistent with the mapped description.

The Mahogany confining unit thickness is estimated at approximately 160 feet.

USGS mapping for the Cutoff Gulch Quadrangle shows structure contour mapping for the top of the Mahogany confining unit: approximately 7,150 feet.

Estimated base of the Mahogany confining unit: 6,990 feet.

The total depth of the well is 600 feet (approximately 7,087 feet).

The lithology described on the well construction log is consistent with the oil-shale rich zone of the Mahogany confining unit from 232 feet to total depth (600 feet) below ground surface (bgs).

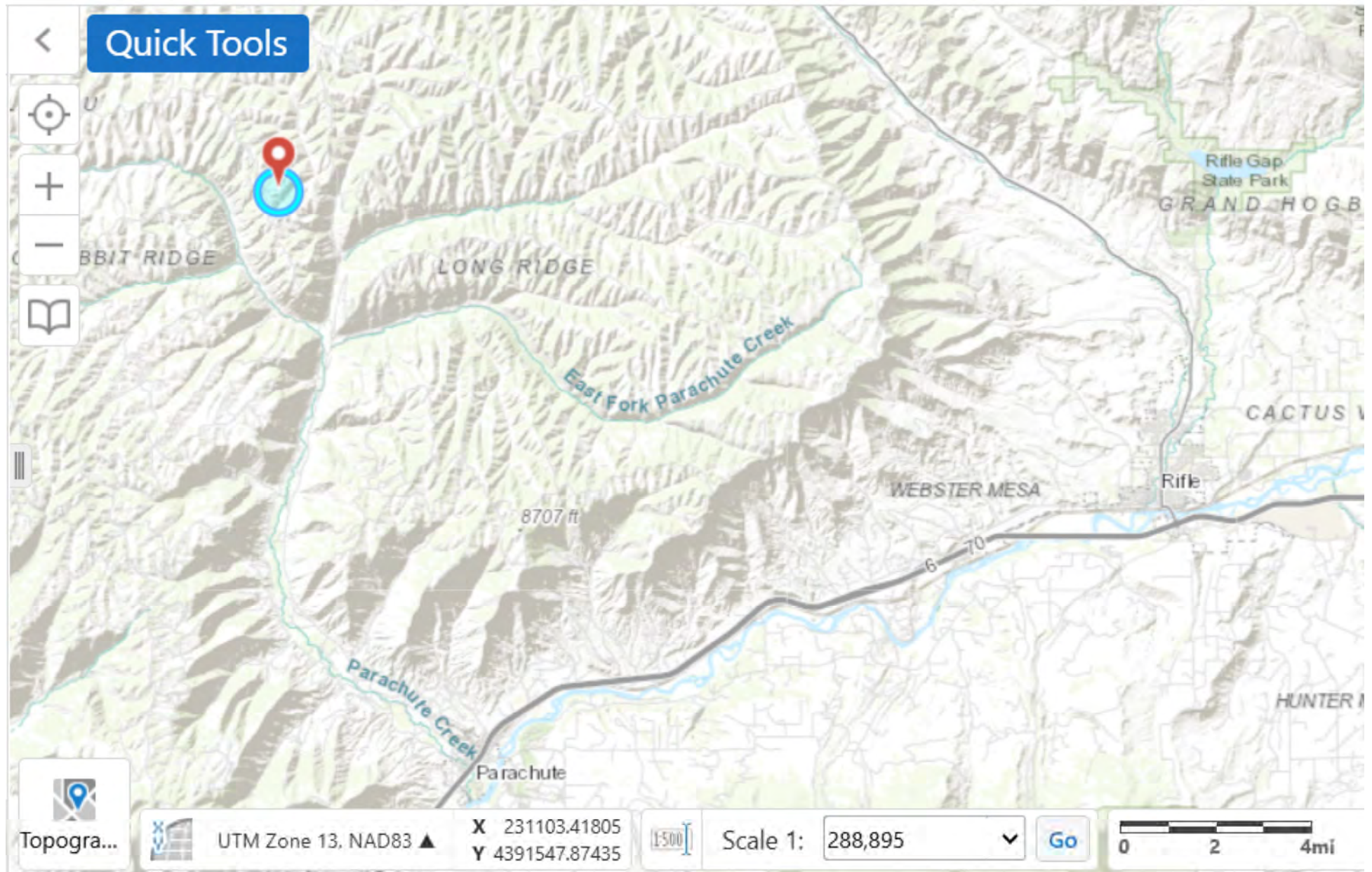
Recommended Permit Conditions and Notes:

This is a Type 2 well completed into the Mahogany confining unit of the Parachute Member of the Green River Formation.

Hydrogeologist Signature: Marques Hatfield

Date: 3/19/2025

Permit 121348 - Vicinity Map





COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

Well Construction Variance
Receipt No. 0215078E
Permit No. 121348

March 19, 2025

QB Energy Operating LLC
% BBA Water Consultants LLC
nhoch@bbawater.com

RE: BOE Variance Denial 2025-030D, Permit No. 121348, Receipt 0215078E

On March 6, 2025 the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board) received a variance request (attached) dated January 27, 2025 from BBA Water Consultants, LLC on behalf of QB Energy Operating LLC associated with an application to convert the monitoring well constructed under Permit 121351 to a production well under application receipt number 10040464. The request states BBA Water Consultants LLC is “applying for a variance to approve the re-permitting of these wells even though they may not have been drilled by a well construction contractor whose license was on file with the State at the time of construction”. The Board cannot provide a variance to the permit application evaluation as the Board does not have the ability to permit water wells. We understand the intent of the variance request was to request a variance to the current well construction Rule 14.2.2.1 for a monitoring well where no evidence exists that it was completed by a licensed well construction contractor licensed by the Board, so that the well construction information can be approved for the purpose of providing input to the Division of Water Resources in their review of the permit applications.

The well completion and pump installation report for Permit 121348 was signed by Larry Crimm, (Lic No. 1128), a licensed well construction contractor. Available licensing information indicates Mr. Crimm’s date of first license was October 31, 1983 and that his last renewal was February 22, 1984 suggesting his license lapsed January, 1985. The well construction and pump installation report signed by Mr. Crimm and notarized in 1984, indicates the well completion occurred on September 19, 1982, which is prior to the date the available records suggest Mr. Crimm first obtained his license from the Board.

Evidence is not available to prove that the monitoring well [test hole as defined in the Section 2(22) of the 1972 Rules] was constructed by a water well contractor licensed by the Board at the time of well construction as required in Section 3(2) of the 1972 Rules or a licensed well construction contractor per Rule 14.2.2.1 of the current Rules.

Pursuant to Rule 18 and the authority granted by the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board), the request for a variance is denied by Staff of the Board for the following reasons:

- The variance request opines on the owners intent based on the response “licensed” to



question 4 of the permit application asking about the proposed “driller” as being in good faith. The intent of the owner to have the well constructed in accordance with the rules and regulations of the Board from his response to question 4 of the application is conjecture. The owner's apparent neglect to follow the requirements of the Rules allowing only a contractor licensed by the Board to construct water wells or test holes at the time this well was constructed is a self inflicted hardship and is not a valid practical difficulty or unusual hardship in the Board Staff's opinion.

- It is the opinion of the Board Staff that a variance from Rule 14.2.2.1 relieving the monitoring well of the requirement of having been constructed by a well construction contractor licensed by the Board could encourage other unlicensed contractors to perform work on wells, or owners to hire unlicensed contractors. Allowing the conversion of monitoring wells to production wells without evidence that it was constructed by a licensed well construction contractor or that the individual on the work report had knowledge of the construction does not represent a practice that will promote the enforcement of the protection of the health and safety of the public and prevention of contamination to Colorado's groundwater.

Because the variance was denied, Staff does not approve the construction information on the well construction and pump installation report for the purpose of the requested conversion of the monitoring well to a production well.

Please note that the owner or individual who requested the variance may request the Board's reconsideration of Board Staff's written decision at the next regularly scheduled Board meeting, April 1, 2025.

If you have any questions, please contact this office.

Sincerely,

CHRISTOPHER JONES

Chief Well Inspector

Administrator to the Board of Examiners

(720) 618-9982

enclosure: Variance Request

ec: Well Permit File, <https://dwr.state.co.us/Tools/WellPermits/0215078E>

COLORADO DIVISION OF WATER RESOURCES

1313 Sherman Street - Room 818
Denver, Colorado 80203

THIS FORM MUST BE SUBMITTED
WITHIN 60 DAYS OF COMPLETION
OF THE WORK DESCRIBED HERE-
ON. TYPE OR PRINT IN BLACK
INK.

WELL COMPLETION AND PUMP INSTALLATION REPORT

PERMIT NUMBER 121348

RECEIVED

MAY - 4 1984

WATER RESOURCES
STATE - ENGINEER
C.O.D.

WELL OWNER Exxon Company, U.S.A.

SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Sec. 11

ADDRESS P.O. Box 440342, Aurora, CO 80044

T. 5 S. R. 96 W. 6th P.M.

DATE COMPLETED September 19, 1982

HOLE DIAMETER

6.75 in. from 0 to 550 ft.

3.625 in. from 550 to 600 ft.

_____ in. from _____ to _____ ft.

DRILLING METHOD Rotary air

CASING RECORD: Plain Casing

Size 4.33 & kind fiberglass from 0 to 549.2 ft.

Size _____ & kind _____ from _____ to _____ ft.

Size _____ & kind _____ from _____ to _____ ft.

Perforated Casing

Size _____ & kind _____ from _____ to _____ ft.

Size _____ & kind _____ from _____ to _____ ft.

Size _____ & kind _____ from _____ to _____ ft.

GROUTING RECORD

Material Portland-type II, bentonite and salt.

Intervals 0-550 ft. B.T.C.

Placement Method pumped down casing and up annulus

GRAVEL PACK: Size _____

Interval _____

TEST DATA

Date Tested November 12, 1982

Static Water Level Prior to Test 560.31 B.T.C. ft.

Type of Test Pump _____

Length of Test _____

Sustained Yield (Metered) _____

Final Pumping Water Level _____

WELL LOG

From	To	Type and Color of Material	Water Loc.
0	100	Sandstone, yellow-brown, fine-grained; siltstone, gray-brown.	
100	230	Mudstone, light gray.	
230	320	Siltstone, light gray.	
320	360	Marlstone, pale brown.	
360	600	Oil shale, medium brown.	
TOTAL DEPTH <u>600 ft.</u>			

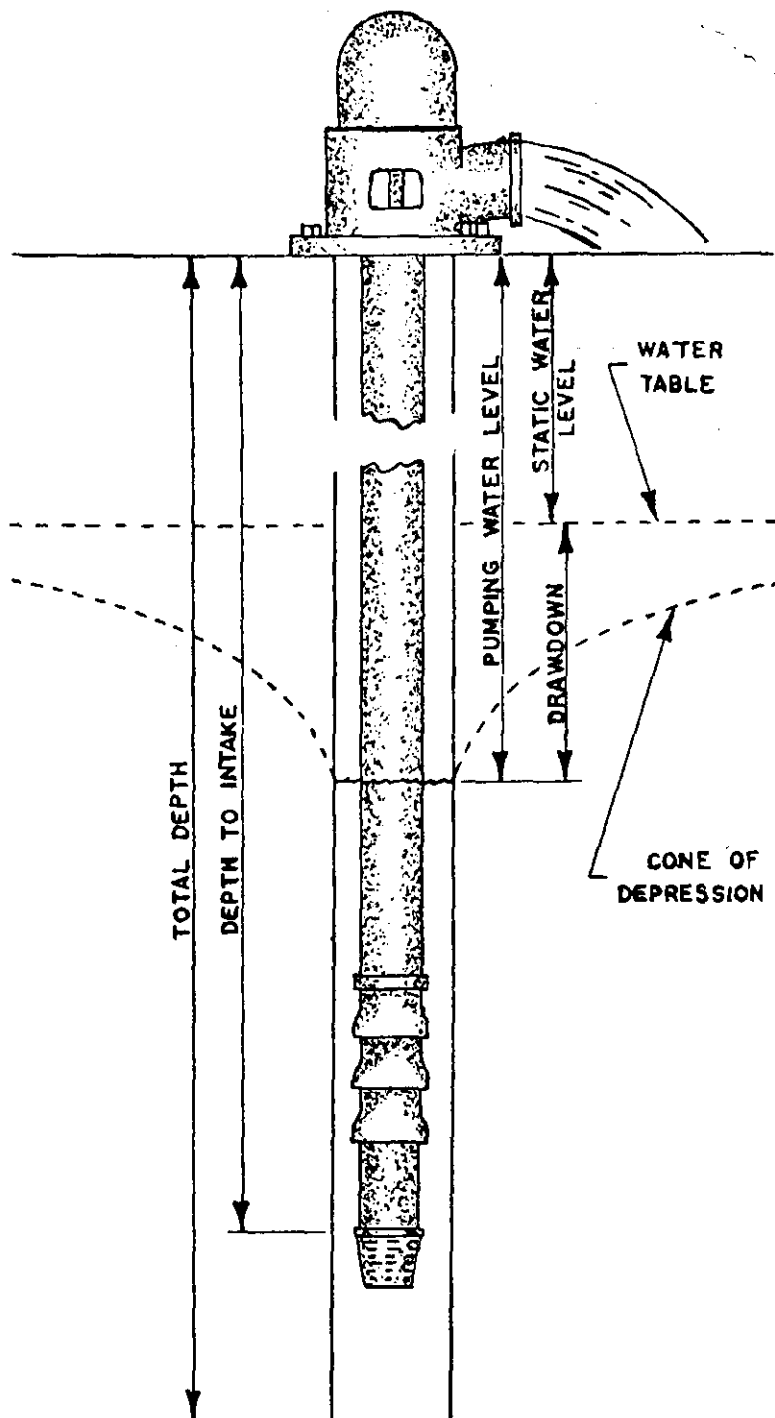
Use additional pages necessary to complete log.

PUMP INSTALLATION REPORT

Pump Make None
 Type _____
 Powered by _____ HP _____
 Pump Serial No. _____
 Motor Serial No. _____
 Date Installed _____
 Pump Intake Depth _____
 Remarks _____

WELL TEST DATA WITH PERMANENT PUMP

Date Tested None
 Static Water Level Prior to Test _____
 Length of Test _____ Hours
 Sustained yield (Metered) _____ GPM
 Pumping Water Level _____
 Remarks _____



CONTRACTORS STATEMENT

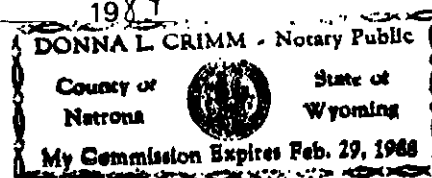
The undersigned, being duly sworn upon oath, deposes and says that he is the contractor of the well or pump installation described hereon; that he has read the statement made hereon; knows the content thereof, and that the same is true of his own knowledge.

Signature Larry Crimm License No. 1122
 State of Colorado, County of Natrona SS

Subscribed and sworn to before me this 11th day of April, 1984

My Commission expires: Feb. 29, 1988

Notary Public Donna L. Crimm



FORM TO BE MADE OUT IN QUADRUPLICATE: WHITE FORM must be an original copy on both sides and signed. WHITE AND GREEN copies must be filed with the State Engineer. PINK COPY is for the Owner and YELLOW COPY is for the Driller.

COLORADO DIVISION OF WATER RESOURCES
818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203

PERMIT APPLICATION FORM

RECEIVED
MAY 11 1981

WATER RESOURCES
STATE ENGINEER
COLO.

Application must be complete where applicable. Type or print in **BLACK INK**. No overstrikes or erasures unless initialed.

() A PERMIT TO USE GROUND WATER
 (X) A PERMIT TO CONSTRUCT A WELL
 FOR: (X) A PERMIT TO INSTALL A PUMP

() REPLACEMENT FOR NO. _____
 () OTHER _____
 WATER COURT CASE NO. _____

(1) APPLICANT - mailing address

NAME Exxon Co., USA as operator of
the COLONY SHALE OIL PROJECT
 STREET P. O. Box 14342
 CITY Aurora, CO 80014
 Attn: Gerald D. Ortloff
 TELEPHONE NO. (303) 695-2201

(2) LOCATION OF PROPOSED WELL

County Garfield
SE $\frac{1}{4}$ of the SE $\frac{1}{4}$, Section 11
 Twp. 5 S., Rng. 96 W., 6th P.M.
 (N.S.) (E.W.)

(3) WATER USE AND WELL DATA

Proposed maximum pumping rate (gpm) < 10 gpm

Average annual amount of ground water to be appropriated (acre-feet): Zero

Number of acres to be irrigated: None

Proposed total depth (feet): 685

Aquifer ground water is to be obtained from:
Lower Uinta Formation

Owner's well designation WW-5B

GROUND WATER TO BE USED FOR:

() HOUSEHOLD USE ONLY - no irrigation (0)
 () DOMESTIC (1) () INDUSTRIAL (5)
 () LIVESTOCK (2) () IRRIGATION (6)
 () COMMERCIAL (4) () MUNICIPAL (8)

(X) OTHER (9) Monitoring Well

DETAIL THE USE ON BACK IN (11)

(4) DRILLER

Name Licensed
 Street _____
 City _____ (State) (Zip)
 Telephone No. _____ Lic. No. _____

FOR OFFICE USE ONLY: DO NOT WRITE IN THIS COLUMN

Receipt No. 15078 E

Basin _____ Dist. _____

CONDITIONS OF APPROVAL

This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.

- 1) PERMISSION IS HEREBY GRANTED TO DRILL THIS WELL FOR THE PURPOSE OF MONITORING WATER LEVELS AND PERIODIC SAMPLING FOR WATER QUALITY.
- 2) THE GROUND WATER BEING TESTED SHALL BE OBTAINED FROM THE LOWER UINTA MEMBER OF THE GREEN RIVER FORMATION ONLY.
- 3) A LITHOLOGIC LOG OF THIS WELL MUST BE SUBMITTED TO THE DIVISION OF WATER RESOURCES.
- 4) THIS WELL MUST BE PLUGGED AND ABANDONED ACCORDING TO THE REVISED AND AMENDED RULES AND REGULATIONS FOR WATER WELL AND PUMP INSTALLATION CONTRACTORS UPON COMPLETION OF THE MONITORING PROGRAM.

APPLICATION APPROVED

PERMIT NUMBER 121348

DATE ISSUED AUG 11 1981

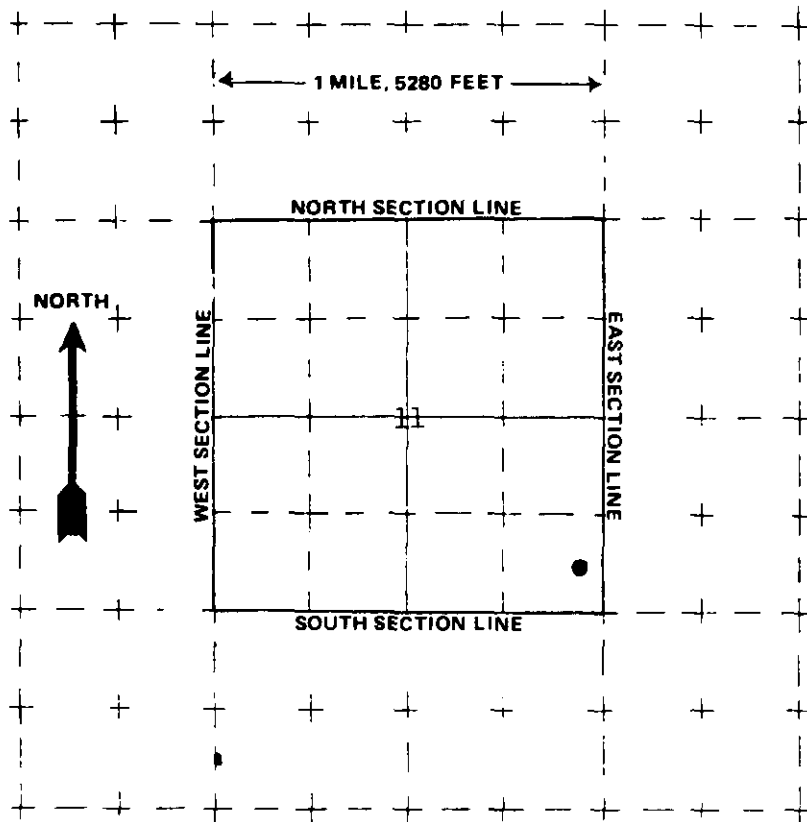
EXPIRATION DATE AUG 11 1983

Robert G. Longenbaugh
 (STATE ENGINEER)

BY A. H. Stillman

I.D. 5-39 COUNTY 23

(5) **THE LOCATION OF THE PROPOSED WELL** and the area on which the water will be used must be indicated on the diagram below. Use the **CENTER SECTION** (1 section, 640 acres) for the well location.



The scale of the diagram is 2 inches = 1 mile
Each small square represents 40 acres.

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep
1 cubic foot per second (cfs) . . . 449 gallons per minute (gpm)
A family of 5 will require approximately 1 acre-foot of water per year.
1 acre-foot . . . 43,560 cubic feet . . . 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.

(6) **THE WELL MUST BE LOCATED BELOW** by distances from section lines.

650 ft. from South sec. line
(north or south)
200 ft. from EAST sec. line
(east or west)

LOT _____ BLOCK _____ FILING # _____

SUBDIVISION _____

(7) **TRACT ON WHICH WELL WILL BE LOCATED** Owner: Applicant

No. of acres 8836 Will this be the only well on this tract? No

(8) **PROPOSED CASING PROGRAM**

Plain Casing

6.4 in. from 0 ft. to 635 ft.

_____ in. from _____ ft. to _____ ft.

Perforated casing

_____ in. from _____ ft. to _____ ft.

_____ in. from _____ ft. to _____ ft.

(9) **FOR REPLACEMENT WELLS** give distance and direction from old well and plans for plugging it:

N/A

(10) **LAND ON WHICH GROUND WATER WILL BE USED:**

Owner(s): Exxon Co., USA as operator of the Colony Shale Oil Project No. of acres: 8836
That property known as the Dow Property and located in Secs. 3, 5, 6, 7, 8,
Legal description: 15, 16, 17, & 18, T5S, R95W, & Secs. 1, 2, 11, 12, 13, & 14, T5S, R96W, 6th

(11) **DETAILED DESCRIPTION** of the use of ground water: Household use and domestic wells must indicate type of disposal system to be used. Monitoring well for purposes of monitoring groundwater quality

as required by Mined Land Reclamation permit.

(12) **OTHER WATER RIGHTS** used on this land, including wells. Give Registration and Water Court Case Numbers.

Type or right

Used for (purpose)

Description of land on which used

(13) **THE APPLICANT(S) STATE(S) THAT THE INFORMATION SET FORTH HEREON IS TRUE TO THE BEST OF HIS KNOWLEDGE.**

EXXON COMPANY, U. S. A.
By: Gerald D. Ortloff

SIGNATURE OF APPLICANT(S)

Gerald D. Ortloff
Regulatory Affairs Manager

Date: 3-12-2025

Hydrogeology Section Consultation

Evaluator: CAJ Replacement Application? []
Receipt No: 0215078E Permit: 121348 Applicant:

Location: 1/4 1/4 Section , Township , Range , 6th PM
Easting: 231503.3 Northing: 4390717.7 Elevation: 8,200 Rule
6.2.3: []

Aquifer(s) Requested: MW to production well conversion application. Please evaluate the aquifer type the well was constructed into and any confining unit intervals within the depth of the well.

Research:

Mapped as Unit D of the Uinta Formation.

The Uinta Formation overlies the Green River Formation and the lithology on the well construction log is consistent with the mapped description of the Uinta down to approximately 320 feet below ground surface (bgs).

The Mahogany confining unit thickness is estimated at approximately 160 feet.

USGS mapping for the Cutoff Gulch Quadrangle shows structure contour mapping for the top of the Mahogany confining unit: approximately 7,180 feet.

Estimated base of the Mahogany confining unit: 7,020 feet.

The total depth of the well is 600 feet (approximately 7,600 feet).

The lithology described on the well construction log from 360 feet to 600 feet bgs is consistent with the oil-shale described in the Green River Formation, above the Mahogany confining unit.

Recommended Permit Conditions and Notes:

This is a Type 2 well completed into the Upper Parachute Member of the Green River Formation.

Hydrogeologist Signature: Marques Hatfield

Date: 3/19/2025

Piceance Basin				
Geologic Period	Phase	Stratigraphic Unit		Hydrogeologic Unit
Quaternary	Modern-Glaciation	Alluvium associated with present rivers		Alluvial Aquifers
Neogene	Extension	Basalt flows		Volcanics
Paleogene	Transition	No strata		
	Laramide	Uinta Formation		Upper Piceance Basin Aquifer
		Green River Formation	Parachute Creek Member	Mahogany confining unit
			Anvil Points Member	Lower Piceance Basin Aquifer
			Garden Gulch Member	Green River confining unit
			Douglas Creek Member	
		Wasatch Formation		Wasatch-Fort Union Aquifer
		Fort Union Formation		
	Cretaceous	Interior Seaway	Mesaverde Group	Hunter Canyon/ Williams Form Formatation
Mt. Garfield/Iles Formation				
Lower Mesaverde Group, undivided				
Mancos Shale			Mancos confining unit	
Regional Cretaceous Seaway shale-dominated formations form multiple hydrogeologic units, most are confining units		Colorado Plateaus Regional and Eagle Basin-Central Colorado Trough hydrogeologic units		
Jurassic	Mesozoic Sandstones		Multiple sedimentary units deposited in the stable continent interior may be present that may form aquifers	
Triassic				
Permian	Ancestral Rocky Mountains		Ancestral Rocky Mountains event marine and non-marine sedimentary formations form multiple hydrogeologic units in the Eagle Basin-Central Colorado Trough and may be present, depending on location	
Pennsylvanian				
Mississippian	Paleozoic Carbonates	Lower Paleozoic sedimentary formations that are dominantly limestone and dolomite form multiple aquifers preserved in the Eagle Basin-Central Colorado Trough may be present depending on location		
Devonian				
Silurian				
Ordovician				
Cambrian				
Precambrian	Precambrian	Crystalline rocks of igneous and metamorphic origin in mountainous region		Crystalline bedrock
Table 11b-02-05-01. Piceance Basin stratigraphic chart.				

Piceance Basin							
Geologic Period	Phase	Stratigraphic Unit		Unit Thickness (ft)	Physical Characteristics	Hydrogeologic Unit	Hydrologic Characteristics
Quaternary	Modern-Glaciation	Alluvium associated with present rivers				Alluvial Aquifers	
Neogene	Extension	Basalt flows				Volcanics	
Paleogene	Transition	No strata					
	Laramide	Uinta Formation		0-1,400	Silty sandstone, siltstone and marlstone	Upper Piceance Basin Aquifer	
		Green River Formation	Parachute Creek Member	500-1,800	Kerogenous, dolomitic marlstone and shale, nahcolite and halite	Mahogany confining unit	
			Anvil Points Member	0-1,870	Shale, fine-grained sandstone and marlstone	Lower Piceance Basin Aquifer	
			Garden Gulch Member	0-900	Claystone, siltstone, clay-rich oil shale and marlstone	Green River confining unit	
			Douglas Creek Member	0-900	Siltstone, shale and channel sandstone		
		Wasatch Formation		About 5,000	Shale, lenticular sandstone, and conglomerate	Wasatch-Fort Union Aquifer	
		Fort Union Formation		Very thin	Coarse-grained sandstone		
	Cretaceous	Interior Seaway	Mesaverde Group	Hunter Canyon/Williams Form Formation	up to 1,400	Interbedded sandstone, mudstone,carbonaceous claystone, shale and Cameo Coal	Mesaverde Aquifer
Mt. Garfield/Iles Formation				up to 400	Interbedded sandstone, siltstone, shale and Pallisade or Cameo-Fairfield Coal		
Lower Mesaverde Group, undivided				up to 3,000	Sandstone interbedded shale and Anchor Coal		
Mancos Shale			More than 7,000	Mainly shale but Frontier Sandstone may be local aquifer	Mancos confining unit		
Regional Cretaceous Seaway shale-dominated formations form multiple hydrogeologic units, most are confining units					Colorado Plateaus Regional and Eagle Basin-Central Colorado Trough hydrogeologic units		
Jurassic	Mesozoic Sandstones	Multiple sedimentary units deposited in the stable continent interior may be present that may form aquifers					
Triassic							
Permian	Ancestral Rocky Mountains	Ancestral Rocky Mountains event marine and non-marine sedimentary formations form multiple hydrogeologic units in the Eagle Basin-Central Colorado Trough and may be present, depending on location					
Pennsylvanian							
Mississippian	Paleozoic Carbonates	Lower Paleozoic sedimentary formations that are dominantly limestone and dolomite form multiple aquifers preserved in the Eagle Basin-Central Colorado Trough may be present depending on location					
Devonian							
Silurian							
Ordovician							
Cambrian							
Precambrian	Precambrian	Crystalline rocks of igneous and metamorphic origin in mountainous region				Crystalline bedrock	

Table 11b-02-05-01. Piceance Basin stratigraphic chart, detailed. Colorado Geological Survey ON-010 Colorado Groundwater Atlas.

Sources: Taylor and others (1986); Freethey and Cordy (1991); Glover and others (1998); Raynolds and Hagadorn (2017)

AGENDA ITEM 11.d

BBA Water Consultants, LLC on
Behalf of Owner

Permit Nos. [164780](#) and [164914](#)

Appeal of Denial of Monitoring
Well Construction Information for
the Purpose of Conversion to
Production Well

Summary

- 2 monitoring wells constructed by a licensed well construction contractor with permits in 1992 were requested to be converted to production wells.
- The well construction information was denied for conversion because it did not comply with the requirements for a water well at the time of construction (1988 Rules).
 - Grouted annulus smaller than that allowed by 1988 Rules 10.4.1 and 10.5.3.2
 - PVC wall thickness not reported and/or reported to be less than the minimum thickness required by 1988 Rule 10.3.5.1.b.
- Consultant asking for variance to the cited Rules and approval of the construction information for the purpose of converting the MW to production well.

Permit Nos. 164780 and 164914

We are seeking a variance to Rule 14.2.2.1

Rule 14.2.2.1 lays out three requirements for the re-permitting of a monitoring hole to a water well.

- (1) The monitoring well must have been constructed after the proper well permit was obtained
- (2) The monitoring well must have been constructed by a licensed well construction contractor
- (3) The monitoring well must have been constructed in accordance with the well construction rules at the time of construction**

Re-permitting argument:

Rule 18 of the current rules state that the Board of Examiners may approve variance requests if “the variance will protect the health and safety of the public and prevent contamination to Colorado’s groundwater.”

While both wells were properly permitted and constructed by a licensed well construction contractor in 1992, **neither meets the construction standards laid out by the 1988 rules in regard to annular space (rules 10.4.1 and 10.5.3.2 of the 1988 rules, listed below).**

Despite this, we believe these wells can be converted to production wells while protecting the health and safety of the public and preventing contamination of the State’s groundwater resources as the wells are conservatively grouted and not located near potential sources of contamination. The intended use is limited to stock watering.

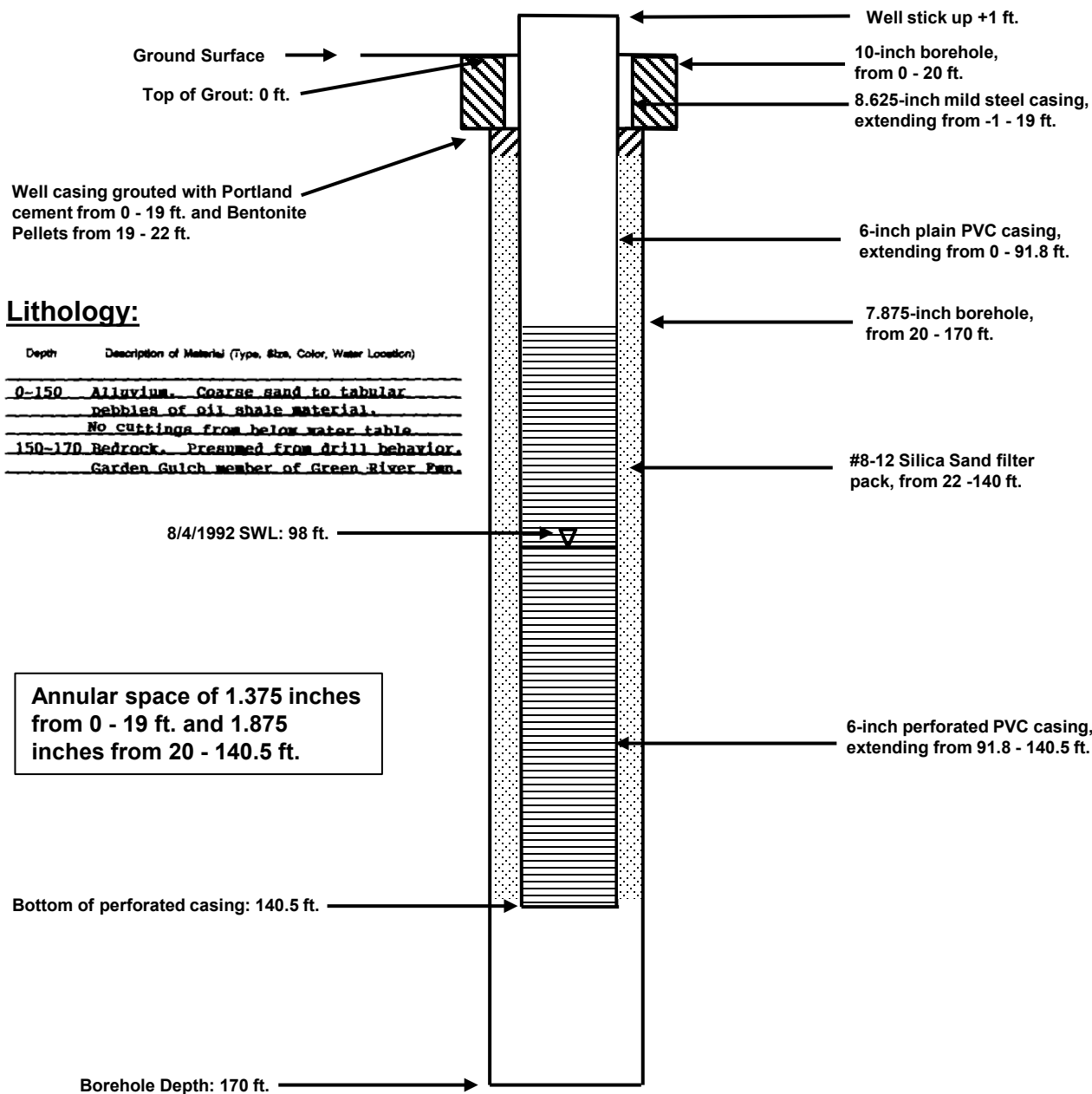
Rules for which Well Permit Nos. 164780 and 164914 need a variance:

10.4.1:

The borehole shall be at least-one-and-three-quarters (1.75) inches in diameter larger than the nominal diameter of the casing when grout is required in the annulus.

10.5.3.2

Only neat cement or cement-bentonite grouts can be poured and then only into a dry annulus where the borehole diameter is at least two (2) inches larger than the outside diameter of the casing and the placement depth does not exceed thirty (30) feet. The borehole diameter need only be one and three quarters (1.75) inches larger than the nominal casing size when the cement is placed into the annulus and the casing is vibrated using a down hole air hammer.



Notes: All depths below ground surface. Not to scale.

QB Energy
Well Permit No. 164780
Schematic of Well Construction – Type 3 Construction

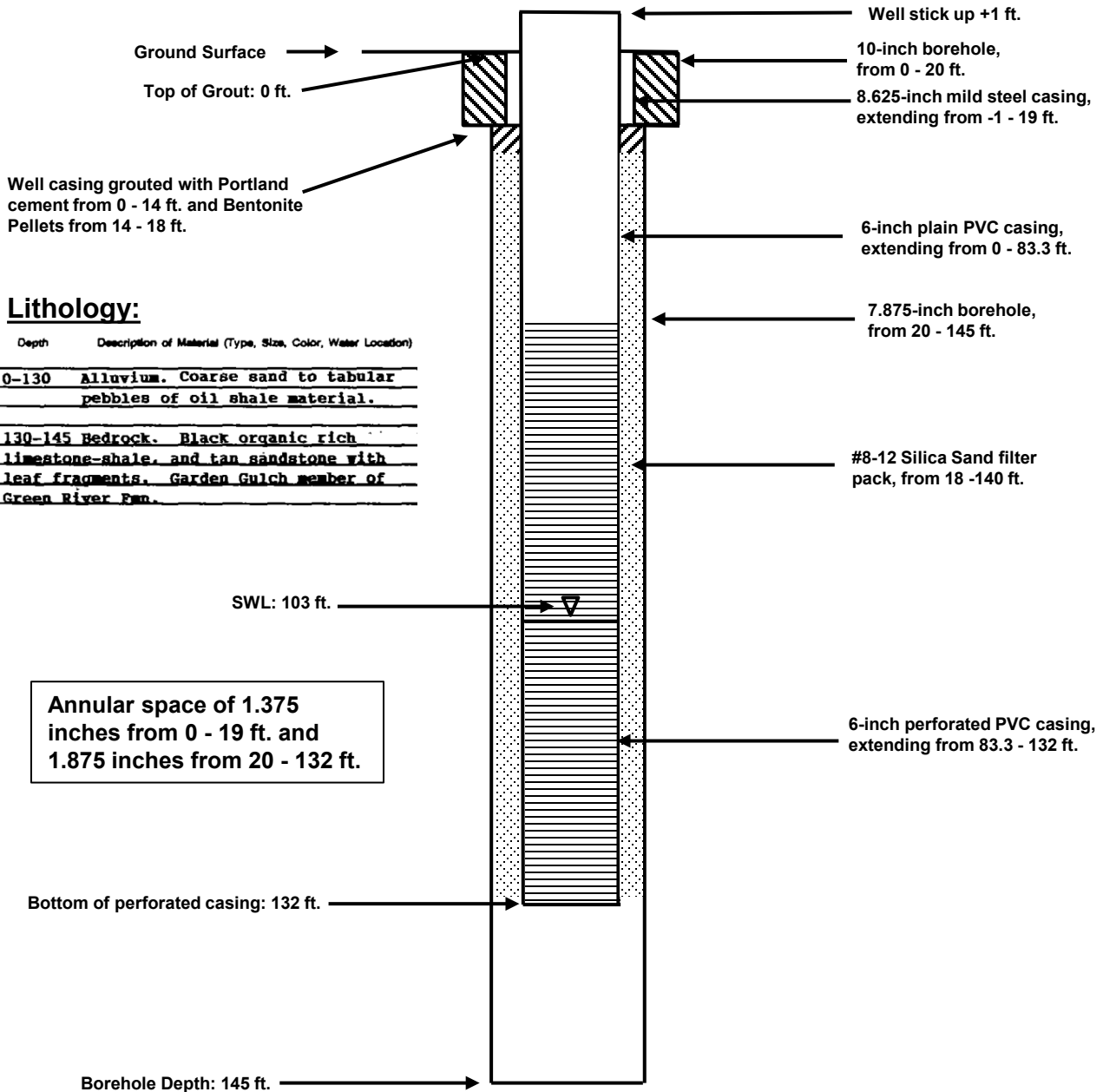
Date: March 24, 2025

Job No. 1732.00

Figure 5



333 W. Hampden Ave., Suite. 1050
 Englewood, CO 80110
 (303) 806-8952
 www.bbawater.com



Notes: All depths below ground surface. Not to scale.

QB Energy
Well Permit No. 164914
Schematic of Well Construction – Type 3 Construction

Date: March 24, 2025

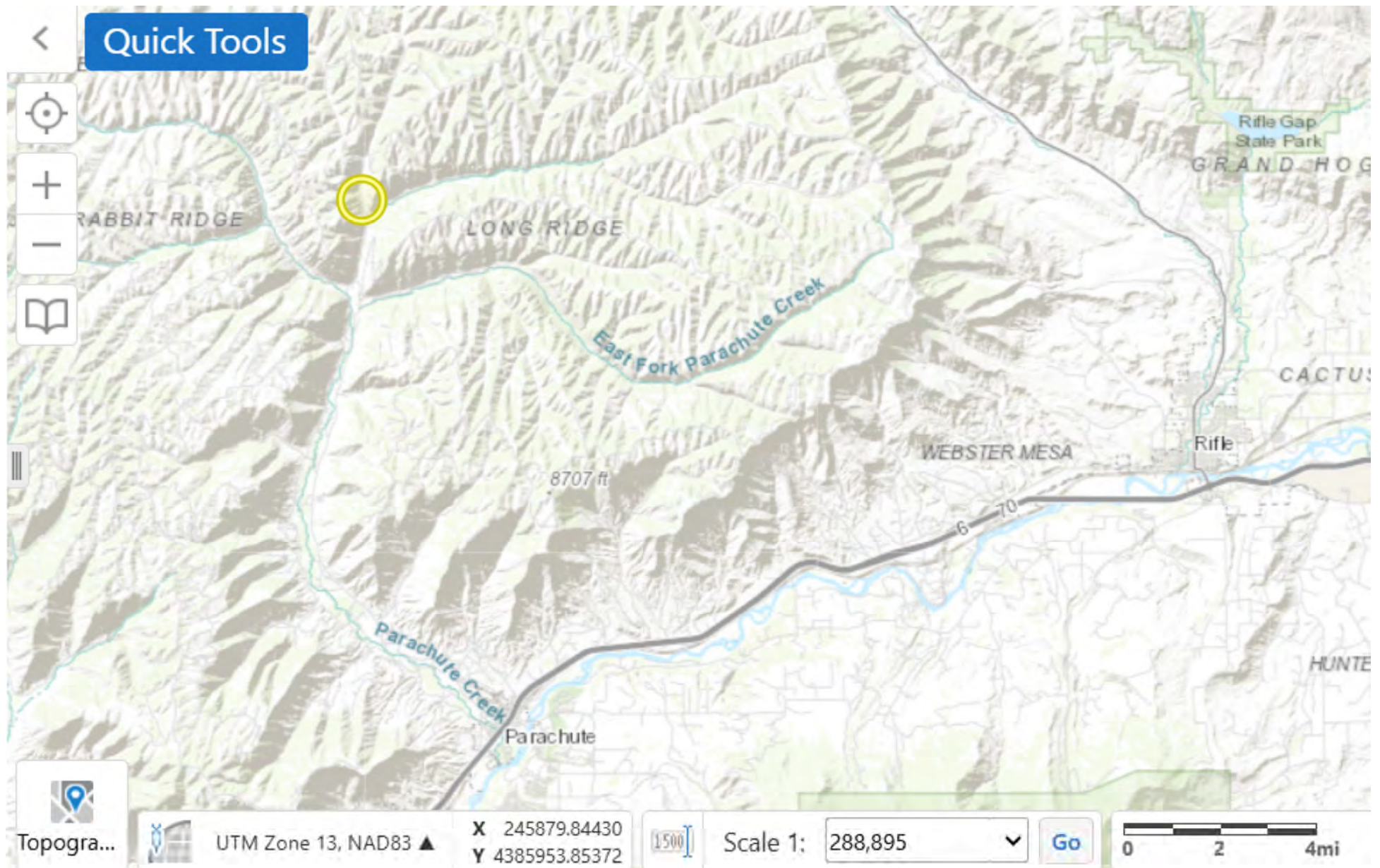
Job No. 1732.00

Figure 6



333 W. Hampden Ave., Suite. 1050
 Englewood, CO 80110
 (303) 806-8952
 www.bbawater.com

Permit 164780 - Vicinity Map





COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

March 19, 2025

QB Energy Operating LLC
% BBA Water Consultants LLC
nhoch@bbawater.com

RE: GWS-31 Construction Information Review for Conversion of a Monitoring and Observation Well Constructed Under Permit 164780 to a Production Well Under Receipt No. 10040467 - Denial

BBA Water Consultants, LLC on behalf of QB Energy Operating LLC has applied to convert the monitoring and observation well completed on July 31, 1992 under Permit 164780 to a production well (water well) under application receipt number 10040467. At the time the monitoring and observation well was reportedly constructed, the 1988 version of the well construction Rules (2 CCR 402-2) was in effect. Based on a review of the well construction and test report (Form GWS-31), the well construction documented on the GWS-31 did not meet the following minimum standards for water well construction required by the 1988 version of the Rules in place at the time of construction:

- 10.4.1 *The borehole shall be at least one-and-three-quarters (1.75) inches in diameter larger than the nominal diameter of the casing when grout is required in the annulus.*
 - We interpret the information in Boxes 6, 7 and 10 of the GWS-31 to indicate that the 8 5/8 inch outside diameter (OD) steel casing was placed in the 10 inch diameter borehole and grouted from 19 feet below ground surface up to the ground surface.
 - The 10 inch borehole is only 1 3/8" larger than the 8 5/8" outside diameter (OD) steel casing which is less than the 1.75 inch required by Rule 10.4.1.
- 10.5.3.2 *Only neat cement or cement-bentonite grouts can be poured and then only into a dry annulus where the borehole diameter is at least two (2) inches larger than the outside diameter of the casing and the placement depth does not exceed thirty (30) feet. The borehole diameter need only be one and three quarters (1.75) inches larger than the nominal casing size when the cement is placed into the annulus and the casing is vibrated using a down hole air hammer.*
 - The grouting record in Box 10 is interpreted to indicate Portland cement grout was "dropped" into the annulus between the 8 5/8 inch OD steel casing and the



- 10 inch borehole. No evidence exists that the casing was vibrated with an air hammer
- The 10 inch borehole is only 1 3/8" larger than the 8 5/8" outside diameter (OD) steel casing which is less than the 2 inches required by Rule 10.5.3.2 for a casing that was not vibrated.
- 10.3.5.1 *Except for monitoring and observation wells the following minimum wall thicknesses shall be applicable to well casings:* b. *Thermoplastic well casing: 0.200 inches*
 - Solid PVC wall thickness was not reported. Though not required for the wells' current permitted use as a monitoring and observation well, the minimum standards for wall thickness existed for a water well. The required well construction information requested by the State Engineer on form GWS-31 was not provided.
 - Perforated PVC wall thickness was reported as 0.02 inches which is less than 0.200 inches required by 10.3.5.1.b for a water well. Though this might be a typo, the information presented on the form does not show compliance with the well construction Rules in place at the time of construction.

The construction information on Form GWS-31 is not approved for the proposed conversion to a production well due to the above described aspects of the construction not meeting the standards for a water well at the time of construction, and because repairs do not appear feasible to bring the well into compliance with the minimum water well construction standards of the Rules in place at the time of construction. If you have other information that may clarify or correct our understanding of the well please send it to this office.

If you have any questions or concerns please contact me (720)618-9982 or at chris.jones@state.co.us.

Sincerely,

Christopher A Jones

Christopher A Jones, PE. PG.
Chief Well Inspector
Administrator to the Board of Examiners

ec: Well Permit File, <https://dwr.state.co.us/Tools/WellPermits/0339460A>

868

WATPERCO, Inc.

Date 9-3-91

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

817

APPLICANT

EXXON COAL & MINERALS CO
P O BOX 1314
HOUSTON, TX 77251

(713) 978-5525

WELL PERMIT NUMBER **164780**
DIV. 5 CNTY. 23 WD 39 DES. BASIN MD

Lot: Block: Filing: Subdiv:

APPROVED WELL LOCATION

COUNTY GARFIELD
SW 1/4 SW 1/4 Section 18
Twp 5 S , Range 95 W 6th P.M.

DISTANCES FROM SECTION LINES

970 Ft. from South Section Line
465 Ft. from West Section Line

PERMIT TO CONSTRUCT MONITORING WELL MW-13

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction and Pump Installation Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 17.
- 3) Approved pursuant to CRS 37-92-602(3)(b)(1) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
- 4) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be kept locked at all times except during sampling or measuring.
- 5) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
- 6) Upon conclusion of the monitoring program the well owner shall plug and abandon this well in accordance with the Water Well Construction and Pump Installation Rules.
- 7) The owner shall mark the well in a conspicuous place with well permit number and name of aquifer as appropriate. He shall take necessary means and precautions to preserve these markings.
- 8) This well must be constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction and Pump Installation Rules.
- 9) A well completion report including lithologic log must be submitted by the individual authorized to construct the well. For non-standard construction the report must include an as built drawing showing details; such as depth, casing, perforated zones, and a description of the grouting type and interval.
- 10) This well shall be constructed not more than 200 feet from the location specified on this permit.

APPROVED:
FNL

State Engineer (Acting)

By

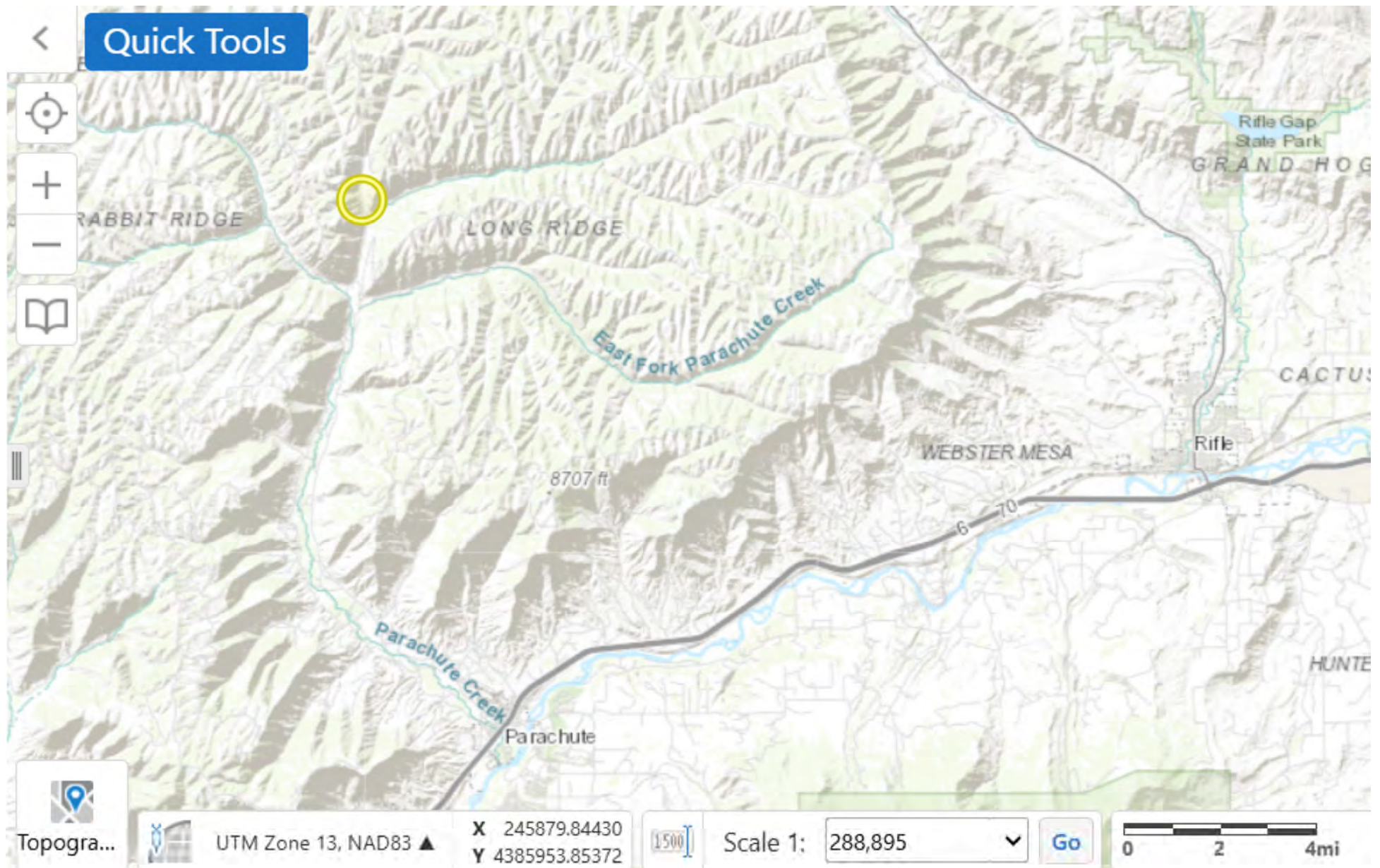
Receipt No.

0339460A

DATE ISSUED JUN 18 1992

EXPIRATION DATE JUN 18 1994

Permit 164914 - Vicinity Map





COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

March 19, 2025

QB Energy Operating LLC
% BBA Water Consultants LLC
nhoch@bbawater.com

RE: GWS-31 Construction Information Review for Conversion of a Monitoring and Observation Well Constructed Under Permit 164914 to a Production Well Under Receipt No. 10040468 - Denial

BBA Water Consultants, LLC on behalf of QB Energy Operating LLC has applied to convert the monitoring and observation well completed on August 4, 1992 under Permit 164914 to a production well (water well) under application receipt number 10040468. At the time the monitoring and observation well was reportedly constructed, the 1988 version of the well construction Rules (2 CCR 402-2) was in effect. Based on a review of the well construction and test report (Form GWS-31), the well construction documented on the GWS-31 did not meet the following minimum standards for water well construction required by the 1988 version of the Rules in place at the time of construction:

- 10.4.1 *The borehole shall be at least one-and-three-quarters (1.75) inches in diameter larger than the nominal diameter of the casing when grout is required in the annulus.*
 - We interpret the information in Boxes 6, 7 and 10 of the GWS-31 to indicate that the 8 5/8 inch outside diameter (OD) steel casing was placed in the 10 inch diameter borehole and grouted from 19 feet below ground surface up to the ground surface.
 - The 10 inch borehole is only 1 3/8" larger than the 8 5/8" outside diameter (OD) steel casing which is less than the 1.75 inch required by Rule 10.4.1.
- 10.5.3.2 *Only neat cement or cement-bentonite grouts can be poured and then only into a dry annulus where the borehole diameter is at least two (2) inches larger than the outside diameter of the casing and the placement depth does not exceed thirty (30) feet. The borehole diameter need only be one and three quarters (1.75) inches larger than the nominal casing size when the cement is placed into the annulus and the casing is vibrated using a down hole air hammer.*
 - The grouting record in Box 10 is interpreted to indicate Portland cement grout was "dropped" into the annulus between the 8 5/8 inch OD steel casing and the



- 10 inch borehole. No evidence exists that the casing was vibrated with an air hammer
- The 10 inch borehole is only 1 3/8" larger than the 8 5/8" outside diameter (OD) steel casing which is less than the 2 inches required by Rule 10.5.3.2 for a casing that was not vibrated.
- 10.3.5.1 *Except for monitoring and observation wells the following minimum wall thicknesses shall be applicable to well casings:* *b. Thermoplastic well casing: 0.200 inches*
 - Solid PVC wall thickness was not reported. Though not required for the wells' current permitted use as a monitoring and observation well, the minimum standards for wall thickness existed for a water well. The required well construction information requested by the State Engineer on form GWS-31 was not provided.
 - Perforated PVC wall thickness was reported as 0.02 inches which is less than 0.200 inches required by 10.3.5.1.b for a water well. Though this might be a typo, the information presented on the form does not show compliance with the well construction Rules in place at the time of construction.

The construction information on Form GWS-31 is not approved for the proposed conversion to a production well due to the above described aspects of the construction not meeting the standards for a water well at the time of construction, and because repairs do not appear feasible to bring the well into compliance with the minimum water well construction standards of the Rules in place at the time of construction. If you have other information that may clarify or correct our understanding of the well please send it to this office.

If you have any questions or concerns please contact me (720)618-9982 or at chris.jones@state.co.us.

Sincerely,

Christopher A Jones

Christopher A Jones, PE. PG.
Chief Well Inspector
Administrator to the Board of Examiners

ec: Well Permit File, <https://dwr.state.co.us/Tools/WellPermits/0339460B>

[illegible]

OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES

818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203
(303) 866-3581

817

WELL PERMIT NUMBER 164914
DIV. 5 CNTY. 23 WD 39 DES. BASIN MD

APPLICANT

Lot: Block: Filing: Subdiv:

EXXON COAL & MINERALS CO
P O BOX 1314
HOUSTON, TX 77251

(713) 978-5525

APPROVED WELL LOCATION

COUNTY GARFIELD
SW 1/4 SW 1/4 Section 18
Twp 5 S, Range 95 W 6thP.M.

DISTANCES FROM SECTION LINES

1150 Ft. from South Section Line
500 Ft. from West Section Line

PERMIT TO CONSTRUCT MONITORING WELL MW-12

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction and Pump Installation Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 17.
- 3) Approved pursuant to CRS 37-92-602(3)(b)(1) for uses as described in CRS 37-92-602(1)(f). Use of this well is limited to monitoring water levels and/or water quality sampling.
- 4) This well must be equipped with a locking cap or seal to prevent well contamination or possible hazards as an open well. The well must be kept locked at all times except during sampling or measuring.
- 5) Records of water level measurements and water quality analyses shall be maintained by the well owner and submitted to the Division of Water Resources upon request.
- 6) Upon conclusion of the monitoring program the well owner shall plug and abandon this well in accordance with the Water Well Construction and Pump Installation Rules.
- 7) The owner shall mark the well in a conspicuous place with well permit number and name of aquifer as appropriate. He shall take necessary means and precautions to preserve these markings.
- 8) This well must be constructed by or under the supervision of a licensed well driller or other authorized individual according to the Water Well Construction and Pump Installation Rules.
- 9) A well completion report including lithologic log must be submitted by the individual authorized to construct the well. For non-standard construction the report must include an as built drawing showing details; such as depth, casing, perforated zones, and a description of the grouting type and interval.
- 10) This well shall be constructed not more than 200 feet from the location specified on this permit.

APPROVED:
FML

Hal D. Simpson
State Engineer (Acting)

Gene M. Loy
By

Receipt No.

0339460B

DATE ISSUED JUN 30 1992

EXPIRATION DATE JUN 30 1994

AGENDA ITEM 11.e

Ojo Springs Drilling and Well
Service, LLC and Owner Michael
Howard,

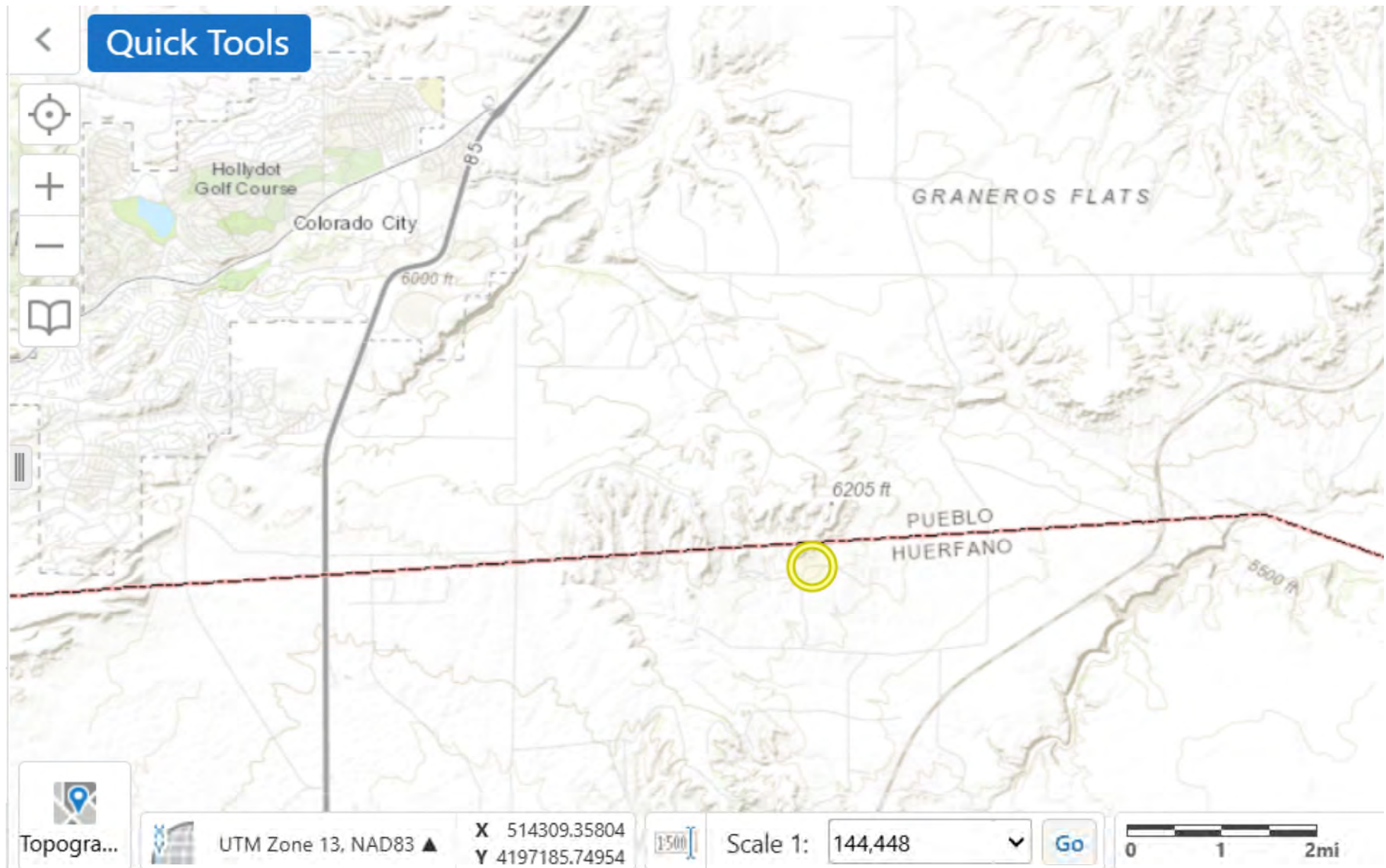
[Permit 336820](#)

Appeal of Denial of Variance to
Rules 10.4.5.2.b and 10.4.5.2.c
for Non-Standard Construction of
Type I Aquifer Penetrating
Multiple Confining layers

Summary

- Ojo Springs Drilling constructed a dry hole into the Dakota Formation, then requested a variance from the Type I aquifer penetrating more than one confining layer Rules to construct a well into the Morrison Formation using:
 - PVC casing where Steel casing is required, and
 - a 60' grout plug at top of the Morrison Formation and a 60' grout plug at confining layer beginning at the top of Dakota Formation rather than continuous grout from base of the confining above production zone in Morrison to 60' above the base of the confining layer above the Dakota.
- 7" surface casing and the 6.5" borehole chosen for the dry hole allows only 4.5" OD production casing while maintaining 1 inch annulus.

Permit 336820 - Vicinity Map





COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

Well Construction Variance
Receipt No. 10039690
Permit No. 336820

March 17, 2025

Michael Howard
% Ojo Springs Drilling and Well Service, Inc.
ojowater@outlook.com
dblouinrn@hotmail.com

RE: BOE Variance Denial 2025-026D, Permit No. 336820, Receipt 10039690

On March 13, 2025 the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board) received a variance request (attached) from Ojo Springs Drilling and Well Service, Inc. (Ojo Springs Drilling) from Rules 10.4.5.2.b and 10.4.5.2.c of the Rules and Regulations for Water Well Construction, Pump Installation, Cistern Installation, and Monitoring and Observation Well/Hole Construction (Construction Rules) 2 CCR 402-2, to allow for the non-standard construction of a well into the Morrison Formation. The fourth note listed on Permit 336820 describes that the Morrison Formation could be a confining unit or aquifer, and a well constructed into the Morrison Formation should be constructed per the requirements of Rule 10.4.5.2 for a Type 1 aquifer overlain by multiple confining units. The hydrogeologic review on page 6 of the original permit file further clarifies that a well producing from the Morrison Formation must comply with Rule 10.1 to prevent the intermingling of groundwater from different sources and limit production to one aquifer.

This variance request followed the construction of an alleged dry hole by Ojo Springs Drilling on March 12, 2025. We understand that the dry hole consists of a drilled 10 inch surface hole and grouted 7 inch surface casing from 0 to 39 feet, then a 6.5 inch borehole drilled to a depth of about 445 feet.

The proposed construction of the well requested by the variance would include using 4.5 inch outside diameter PVC casing instead of steel casing inside the 6.5 inch borehole, and two 60-foot zones of grout; one at the top of the Morrison Formation and another at the top of the Dakota Formation (Dakota Group Aquifer) instead of a continuous grout seal extending from the confining layer above the production zone in the Morrison Formation up to a point at least 60 feet above the base of the confining layer above the Dakota Group Aquifer. Grouting was proposed to be accomplished by placing a grout basket at the base of each 60-foot grout plug and attaching using two 0.75 inch tremies attached to the 4.5 inch outside diameter PVC well casing with pump installation tape then attempting to pull each tremie after the completion of grouting each respective plug.

It is inherently difficult to grout multiple confining layers separately in a single annulus. The BOE Construction Basis and Purpose clarifies the reasoning for construction Rule 10.4.5.2 as follows



(underline added for emphasis): *“Because these wells require the sealing of more than one overlying aquifer, the only way to ensure a proper grout seal across all confining layers is to grout the entire annular space from the production zone to a level above the uppermost (shallowest) confining layer. Due to the heat from hydration and weight of grout, steel casing is required for wells completed in these aquifers.”*

Pursuant to Rule 18 and the authority granted by the Board of Examiners of Water Well Construction and Pump Installation Contractors (Board), the request for a variance is denied by Staff of the Board for the following reasons:

- The borehole was drilled in a manner to attempt to construct a well in the Dakota Group aquifer in accordance with Rule 10.4.5.1 for a well completed in Type I aquifer penetrating one confining layer. Variance requests may be granted when the strict application of any provision of the construction Rules presents practical difficulties or unusual hardship. The presence or absence of water or lack of sufficient water for beneficial use produced by the well desired by the owner is a difficulty faced by many owners, and is not an unusual hardship for wells constructed in this region.
- The well permit notes and hydrogeologic review provide anticipated aquifer intervals and aquifer types based on available data. The hydrogeologic aquifer evaluation information or the issuance of a well permit do not guarantee the presence or usable quantity of water. Aquifer information listed in the well permit notes or hydrogeologic review do not constitute a practical difficulty or unusual hardship.
- The proposed grouting method associated with the two separate zones in the same annulus outside the PVC production casing directly conflicts with the reasoning for the grouted interval required for Type I aquifers penetrating more than one confining layer described in the basis and purpose. The proposed grout method specifically prevents the contractor from physically evaluating if the grout plug proposed at the top of the Morrison, the lower grout zone, was successfully placed through the proposed 60' interval. The proposed grout placement method presents a higher risk than a single continuously-placed grout plug through the interval required by Rule 10.4.5.2.c (against casing that can support the continuous grout) or through staged grouting that did not use additional baskets above the lower-most grout stage/zone.
 - This higher risk results from an inability to repair the lower grout plug if the initial placement fails to fill the requested 60 foot interval and a separate higher grout plug and/or grout basket obstructs the annulus.
 - The difficulty for the contractor to confirm grout was actually placed through the lower interval requested in the variance also increases the risk of the proposed variance request.

This decrease in ability to assess the actual grouted interval and lack of ability to repair the lower proposed grout plug following removal of the deeper tremie does not represent a plan as protective of the groundwater resources as a single continuous grouted interval where repairs could be performed through an open annulus above the plug, as otherwise required by Rule 10.4.5.2.

Please note that the owner or individual who requested the variance may request the Board's reconsideration of Board Staff's written decision at the next regularly scheduled Board meeting, April 1, 2025.

If you have any questions, please contact this office.

Sincerely,

CHRISTOPHER JONES

Chief Well Inspector

Administrator to the Board of Examiners

(720) 618-9982

enclosures: variance request

ec: Well Permit File, <https://dwr.state.co.us/Tools/WellPermits/10039690>
Chris Jones, Chief Well Inspector, chris.jones@state.co.us
Shaylee Andreatta, Well Inspector, shaylee.andreatta@state.co.us
Michael Howard, owner, michael@ineversurrender.com



Notification of AskDWR Request: Well Construction Variance Request

5 messages

dnr_askDWR@state.co.us <dnr_askDWR@state.co.us>

Thu, Mar 13, 2025 at 12:43 PM

To: ANDREW.FLOR@state.co.us, CHRIS.JONES@state.co.us, KEVIN.DONEGAN@state.co.us,
MARQUES.HATFIELD@state.co.us, NOLAN.TANGUMA@state.co.us

Contact Information

Time Received: 03/13/2025 12:43 PM

Full Name: Octave Blouin

Information Request

Subject: Well Construction Variance Request

Topic: Well Construction Variance Request

Office: Main Office

Request: Ojo Springs Drilling and Well Service, Inc. License #1416 Permit #336820 Variance request to construct well as type I multiple with 4.5" OD PVC well casing in a 6.5" borehole. Installing a 60' grout plug at the top of the Morrison formation, and a 60' grout plug at the top of the Dakota formation, assuming water is encountered in the Morrison. 0-5 Clay Brown 5-6 Limestone White 6-220 Shale Black 220-225 Sandstone White 225-245 Shale/black Siltstone/gray 245-337 Sandstone/white Shale/black 337-445 Sandstone White AskDWR page loaded from a link on: <https://dwr.colorado.gov/services/well-construction-inspection>

This request has been routed to you; please open HBDMC and go to the "My HBDMC" tab to respond.

Jones - DNR, Chris <chris.jones@state.co.us>

Thu, Mar 13, 2025 at 1:48 PM

To: ojowater@outlook.com

OG,

Please send the following:

- a statement of hardship why you are asking for the variance.
- specific Rules you are requesting a variance from (steel casing rule, grout from base of lowermost confining to 60' above top of uppermost)
- a description of how you will accomplish the grouting of the two plugs (describe packer types, if tremie will be used, size of tremie how you plan to get the tremie down the hole and back out, staging of grout plugs, if any tremie is planned to be abandoned in the well, etc).

Boarding plane now might not respond until late tonight.

Chris Jones
Chief Well Inspector
Hydrogeology Section



COLORADO
Division of Water Resources
Department of Natural Resources

O 303.866.3581 x8270
P 720.618.9982 (mobile)
1313 Sherman St., Room 821, Denver, CO 80203
chris.jones@state.co.us | dwr.colorado.gov

[Quoted text hidden]

Jones - DNR, Chris <chris.jones@state.co.us>
To: debby blouin <dblouinrn@hotmail.com>

Thu, Mar 13, 2025 at 4:29 PM

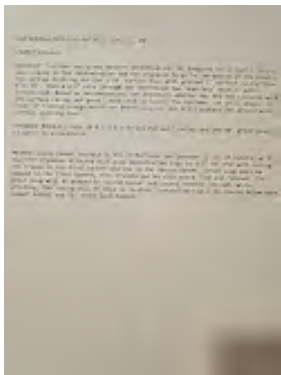
[Quoted text hidden]

debby blouin <dblouinrn@hotmail.com>
To: "Jones - DNR, Chris" <chris.jones@state.co.us>

Thu, Mar 13, 2025 at 8:02 PM

Attached is an addition to variance request for permit 336820. Was having trouble with scanner. Hope this is sufficientplease let me know if you need anything additional.

Sent from my Verizon, Samsung Galaxy smartphone
[Quoted text hidden]



20250313_200016.jpg
3068K

debby blouin <dblouinrn@hotmail.com>
To: "Jones - DNR, Chris" <chris.jones@state.co.us>

Fri, Mar 14, 2025 at 11:40 AM

Good morning Chris,
Here is a better copy of additional variance request info. Sent the one last night just to get it to you, but had no scanner.
Let me know if you need anything else.

From: Jones - DNR, Chris <chris.jones@state.co.us>
Sent: Thursday, March 13, 2025 4:29 PM
To: debby blouin <dblouinrn@hotmail.com>
[Quoted text hidden]

Ojo Springs Drilling and Well Service, Inc.

PERMIT # 336820

HARDSHIP: Customer was given aquifer determination. He budgeted for a type I single well, based on determination and was prepared to go to the bottom of the Dakota. Ojo Springs Drilling drilled 10" surface hole with grouted 7" surface casing from 0 to 39', then a 6.5" hole through the determined 2 "aquifers" with no water encountered. Based on determination, Greenhorn aquifer was dry and isolated with surface casing and grout. With this variance, customer can drill deeper in hopes of finding enough water for beneficial use and still protect the ground water, without starting over.

VARIANCE REQUEST : Rule 10.4.5.2.b,c to use PVC well casing and two 60' grout plugs if water is encountered.

METHOD: Using cement baskets at top of Morrison and another at top of Dakota, with two 3/4" tremmies attached to 4.5" OD PVC well casing with pump installation tape, one to first basket and one to second basket. Grout plug will be pumped to first basket, then tremmie pulled with winch line and removed, then grout plug will be pumped to second basket and tremmie removed. While grouting, casing will be held in tension. Centralizers will be placed below each cement basket and 50' above each basket.



ORIGINAL PERMIT APPLICANT(S)

MICHAEL HOWARD

APPROVED WELL LOCATION

Water Division: 2 Water District: 79

Designated Basin: N/A

Management District: N/A

County: HUERFANO

Parcel Name: GHOST RIVER RANCH

Lot: 146

Block:

Filing: 3

Physical Address: N/A

NW 1/4 NW 1/4 Section 12 Township 25.0 S Range 66.0 W Sixth P.M.

Well to be constructed on specified tract of land

PERMIT TO CONSTRUCT A NEW WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT

CONDITIONS OF APPROVAL

- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not ensure that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
- 3) Approved pursuant to CRS 37-92-602(3)(b)(II)(A) as the only well on a tract of land of 35.14 acres described as Lot 146, Filing 3, Ghost River Ranch division of land, Huerfano County.
- 4) The use of groundwater from this well is limited to fire protection, ordinary household purposes inside not more than three (3) single-family dwellings, the watering of poultry, domestic animals and livestock on a farm or ranch and the irrigation of not more than one (1) acre of home gardens and lawns.
- 5) The pumping rate of this well shall not exceed 15 GPM.
- 6) The return flow from the use of this well must be through an individual wastewater disposal system of the non-evaporative type where the water is returned to the same stream system in which the well is located.
- 7) Pursuant to Rule 6.2.3 of the Water Well Construction Rules, the well construction contractor shall submit the as-built well location on work reports required by Rule 17.1 within 60 days of completion of the well. The provided as-built well location must be accurate to within 50 feet of the actual well location.
- 8) **ADVANCE NOTICE REQUIRED** - Pursuant to Construction Rule 6.2.2.1 (2 CCR 402-2), licensed or private drillers and pump installers must provide advance notification (by 11:59 pm the day before) to the State Engineer prior to each of the following for this well: the start of well construction, the initial installation of the first permanent pump, and the initial installation of a cistern connected to the water well supply system. Any change in the date of construction/installation must be re-noticed prior to the activity (by 11:59 pm the day before). Information regarding the notification process and a link to the electronic notification form can be found on the Division of Water Resources website at dwr.colorado.gov

NOTE: A hydrogeologic aquifer evaluation has been completed for this permit and the details of the evaluation can be viewed in the hydrogeologic aquifer evaluation imaged document located in the well permit file.

NOTE: At the location on the hydrogeologic aquifer evaluation, Greenhorn Limestone aquifer is located at or near the ground surface and extends to a depth of approximately 10 feet. Wells completed in the Greenhorn Limestone must be constructed in accordance with Well Construction Rule 10.4.6 (2 CCR 402-2) for a Type II aquifer.

NOTE: At the location on the hydrogeologic aquifer evaluation, the top of the Dakota Group aquifer is located approximately 215 feet below the ground surface and extends to approximately 425 below the ground surface. Should this well be completed in the Dakota Group aquifer at this location, this well will be completed in a Type I aquifer penetrating only one confining layer and must be constructed in accordance with Well Construction Rule 10.4.5.1 (2 CCR 402-2).

WELL PERMIT NUMBER 336820-

RECEIPT NUMBER 10039690

NOTE: At the location on the hydrogeologic aquifer evaluation, the Morrison Formation is located approximately 425 feet below ground surface and extends to a depth of approximately 725 feet and may act as either a confining unit or an aquifer, depending on lithology. Wells producing from the Morrison Formation at this location must be constructed with solid steel casing and grouted in accordance with Well Construction Rule 10.4.5.2 (2 CCR 402-2) for a Type 1 aquifer overlain by multiple confining layers.

NOTE: This permit will expire on the expiration date unless the well is constructed by that date. A Well Construction and Yield Estimate Report (GWS-31) must be submitted to the Division of Water Resources (DWR) to verify the well has been constructed. An extension of the expiration date may be available. Contact the DWR for additional information or refer to the extension request form (GWS-64) available at: dwr.colorado.gov

NOTICE: This permit has been approved subject to the following changes: The quarter/quarter and quarter section were determined from mapping software used by this office. You are hereby notified that you have the right to appeal the issuance of this permit, by filing a written request with this office within sixty (60) days of the date of issuance, pursuant to the State Administrative Procedures Act. (See Section 24-4-104 through 106, C.R.S.)

NOTE: This parcel is located in the NW 1/4 of the NW 1/4, the NE 1/4 of the NW 1/4, the SW 1/4 of the NW 1/4, the SE 1/4 of the NW 1/4, the NW 1/4 of the SW 1/4 and the NE 1/4 of the SW 1/4 of Section 12, Township 25 South, Range 66 West of the Sixth Principal Meridian. The well may be constructed anywhere on the parcel.



Issued By GEOFFREY DAVIS

Date Issued: 12/17/2024

Expiration Date: 12/17/2026

MARRED AS CARLILE, GREENHORN, GRANITE (Kegg)

Hydrogeology Section Consultation

7/23/2024
Date

Evaluator: ANDY FIOR

Receipt No: Permit: Applicant: MICHAEL HOWARD

Location: NW 1/4 NW 1/4 Section 12, Township 25 S, Range 66 W, 6th PM

Easting: 523548 Northing: 4193797 Elevation: 5890 Rule 6.2.3:

Aquifer(s) Requested: WELL CONSTRUCTION REQUIREMENTS?

Research Permit	ELEV	BASE KID	TOP KID	BASE KID	TD
281609	5900	55750	5645	5425	5260
265717	5930	5885	5680	5470	5470
271027-A	5865	5840	5705	5435	5395
269642	5845	—	5715	5460	5340
274796	5900	—	—	5470	5310
CGS	—	—	5780	5490	—

Recommended Permit Conditions and Notes:

GREENHORN LIMESTONE FROM SURFACE TO APPROX 10 FEET
* BASE 10.46 - TYPE 2 (5890-5880 FEET)

DARPA GRAP AQUIFER FROM APPROX 215-425 FEET
* BASE 10.51 - TYPE 1 SINGLE (5675-5465 FEET)

MORRISON FORMATION EXTEND FROM APPROX 425-725 FEET
* MAY ACT AS EITHER A CONFINING (5465-5165 FEET)

UNIT OR AN AQUIFER DEPENDING ON LITHOLOGY

* IF CONSTRUCTING A WELL TO PRODUCE FROM

THE MORRISON FORMATION, MUST COMPLY

WITH RULE 10.1 TO PREVENT THE INTERMIXING

OF GROUNDWATER FROM DIFFERENT SOURCES

AND LIMIT PRODUCTION TO ONE AQUIFER

Hydrogeologist Signature: Andy Fior

Date: 7/23/2024

AGENDA ITEM 11.f

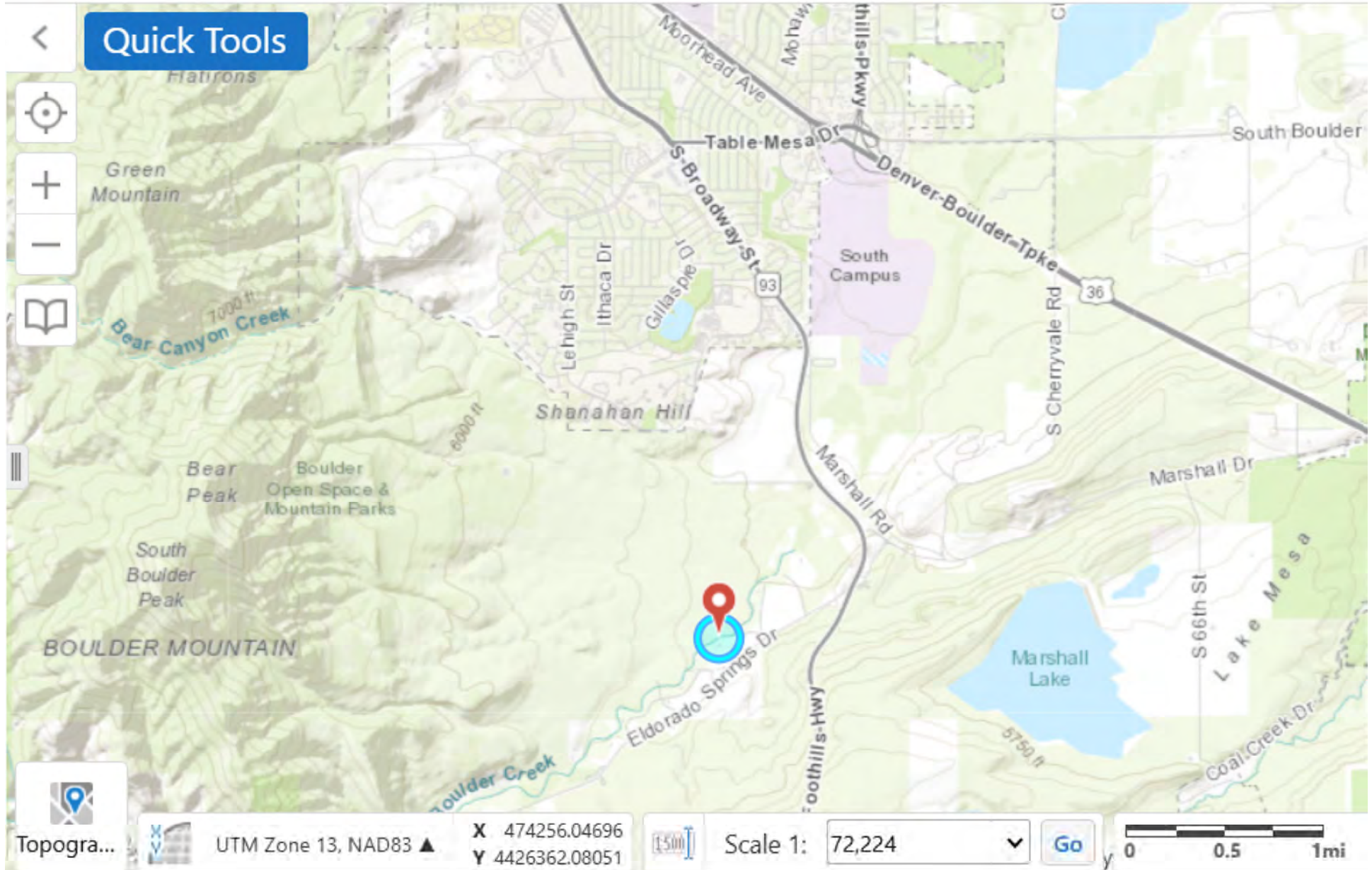
BBA Water Consultants; Creekside
Ranch

[Permit 67267-F](#)

Non-Continuous Supervision by
Authorized Individual for Pond
Well Reconstruction

Variance Request to Rules 5.2.3
and 9.1

Permit 67267-F - Vicinity Map





Variance Request for Creekside Ranch Pond well

Lauren Tiedemann Loob <ltiedemann@bbawater.com>
To: "Chris.Jones@state.co.us" <Chris.Jones@state.co.us>
Cc: Kristina Wynne <kwynne@bbawater.com>

Mon, Mar 17, 2025 at 5:15 PM

Chris,

Attached please find a variance request letter for the Creekside Ranch Pond well. I understand the next Board of Examiners meeting is on April 1st and I would appreciate it if you could make sure this is included on the agenda.

Please let me know if you have any questions.

Thanks,

Lauren

Lauren Tiedemann Loob, P.E.

Senior Water Resources Engineer

ltiedemann@bbawater.com

BBA Water Consultants, Inc.

333 W. Hampden Ave., Suite
1050 Englewood, Colorado
80110

Office: 303.806.8952

www.bbawater.com



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0717.00 BBA Letter - Creekside Ranch Pond Well Variance Request 2025-03-17 (ID 133177).pdf
3280K



March 17, 2025

Board of Examiners of Water Well Construction and Pump Installation Contractors
Colorado Division of Water Resources
1313 Sherman St., Suite 821
Denver, CO 80203

RE: Request of Variance to Water Well Construction Rules 5.2.3 and 9.1 for Creekside Ranch Pond
Well Permit No. 67267-F

Dear Board of Examiners:

This letter requests a variance for the re-construction of the Creekside Ranch Pond, a permitted well and decreed underground water right covered under the augmentation plan in Case No. 07CW232, Division 1. This variance requests seeks a variance from the Colorado Water Well Construction Rules 2 CCR. 402-2 ("Rules"): supervision by an authorized individual as contemplated by Rules 5.2.3 and 9.1.

Introduction

This variance is requested on behalf of our client, Jon Jiles, who owns Creekside Ranch, a property adjacent to South Boulder Creek in Boulder, CO. In Case No. 07CW232, Division 1 (Attachment A), several absolute water rights and an augmentation plan were decreed for Creekside Ranch. These water rights include, but are not limited to, the change of use and change of location for $\frac{1}{4}$ share of Howard Ditch water ("Howard $\frac{1}{4}$ Share"), an underground water right for Creekside Ranch Pond, and a surface water diversion for the Creekside Ranch Pond ("Creekside Ranch Pond Diversion").

The Creekside Ranch Pond (WDID 0606112) water right is for an excavated pond which intercepts groundwater and is administered as a groundwater well under Well Permit No. 67267-F (Attachment B). The decree in Case No. 07CW232 limits Creekside Ranch Pond to a maximum surface area of 1,400 square feet (0.032 acres) and a maximum depth of less than 10 feet. The Creekside Ranch Pond Diversion water right allows for freshening flows of up to 1 cfs from May 1st through September 30th and up to 0.2 cfs from October 1st through April 30th. The augmentation plan uses the Howard $\frac{1}{4}$ Share to augment out-of-priority evaporative depletions from Creekside Ranch Pond.

Diversions to the Creekside Ranch Pond were initiated in the 1950s and the pond was operated consistent with various approved Substitute Water Supply Plans and consistent with Case No.

07CW232 augmentation plan¹ until it filled in with sediment during the September 2013 floods in Boulder County. The well permit has remained active and Mr. Jiles is now seeking to reconstruct Creekside Ranch Pond.

Well Re-Construction

Mr. Jiles has lined up a team of professional contractors to re-construct Creekside Ranch Pond and install a fire protection system for his property that will be plumbed to the pond. The construction project will consist of the following:

- Re-construction of Creekside Ranch Pond consistent with the decree in Case No. 07CW232. The decree specifies that the surface area of the pond be limited to a maximum of 0.032 acres and the distance between the Creekside Ranch Pond Diversion and the pond outlet not exceed 300 feet along South Boulder Creek. Additionally, as in the original pond, groundwater will be exposed and the pond will not exceed a maximum depth of 10 feet as limited by the decree.
- Installation of pond intake piping and headgate. A 6” pipe with a control valve will control the pond inlet and will be outfitted with a backflow prevention device, a two-way cleanout, and a flow meter.
- Installation of sump vault and pump. A concrete sump vault will be constructed to house the fire protection system pump and pond outlet. Two 6” pipes will serve as the pond outlet and will be outfitted with backflow prevention devices, two-way cleanouts, and a flow meter.
- Connection of existing cisterns to fire protection system. Creekside Ranch’s two cisterns will be plumbed into the fire protection system and backflow prevention devices will be installed.
- Fire protection system water level monitoring. Transducers or other water level monitoring equipment will be installed in the pond and the cisterns to meet fire protection system requirements.
- Installation of submersible pump in cistern. The submersible pump will be added to one of the cisterns to ensure sufficient water supply to meet the fire protection system requirements.

Variance Request

While the contractors Mr. Jiles has lined up for the above work are licensed in their respective professions, they are not licensed well drillers. It is our understanding from discussions with the Division of Water Resources (“DWR”) and review of the Rules, that in addition to a licensed well driller there are three options for who can construct a well of this type². Per Rule 9.1, construction of the well can be done by the well owner with personally owned equipment, by a contractor holding a special license, or by anyone as overseen by an authorized individual. We understand that an authorized individual is defined as a professional engineer registered in Colorado, a professional geologist as

¹ While the Creekside Ranch Pond filled in with sediment prior to the decree in Case No. 07CW232 being signed in April 2014, the pond was operated from 2008-2013 under various approved Substitute Water Supply Plans (“SWSP”) pursuant to C.R.S. § 37-92-308(4). These SWSPs were consistent with the operations ultimately approved in the augmentation plan in Case No. 07CW232.

² I.e. excavations that do not penetrate through a confining layer between aquifers

defined in section 23-41-208(b), C.R.S., or a person directly employed by or under the supervision of a registered professional engineer or professional geologist. The owner intends for the construction to occur by a skilled excavation contractor overseen by an engineer or geologist employed by BBA Water Consultants, Inc, functioning as an authorized individual. We are seeking variance from the provision that an authorized individual must supervise the entirety of construction by someone that is not a licensed well driller for the following reasons:

1. The pond well is covered by an existing and functional augmentation plan.
2. The pond well is covered by an active well permit.
3. We are proposing to re-construct the pond well how it existed previously.
4. As a licensed P.E. in the State of Colorado, I will verify that the final exposed surface area and depth do not exceed the decreed limits.
5. The re-establishment of Creekside Ranch Pond is a simple construction project for an excavator that does not need the round-the-clock oversight that construction of a more standard well would entail. The expense associated with having an authorized individual on-site for the entirety of construction is overly burdensome for this scale of project.

We propose that an authorized individual from our firm will be on-site at least twice during the pond construction process and will verify that the pond well is constructed in accordance with Well Permit No. 67267-F and the decree in Case No. 07CW232. BBA Water Consultants will prepare the well completion report, including a cross-sectional diagram of the pond well, and submit it to the DWR once the pond well has been constructed.

Very truly yours,

BBA Water Consultants, Inc.



Lauren Tiedemann Loob, P.E.
Senior Water Resources Engineer



Kristina Wynne, P.H.
Principal - Hydrologist

LTL/KLW/jeb
Enclosures
Case No. 07CW232 decree
Well Permit No. 67267-F
0717.00

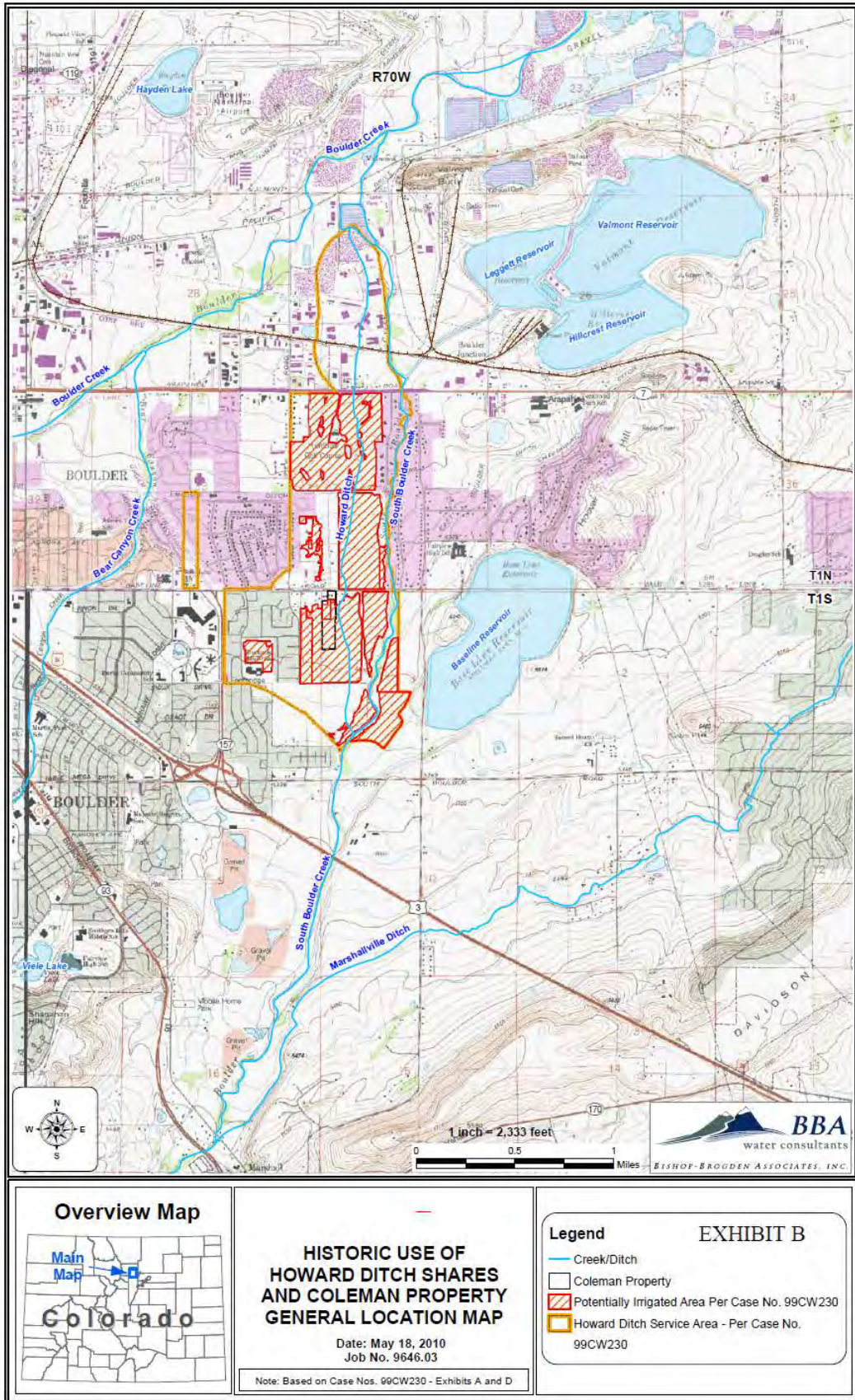


ATTACHMENT A



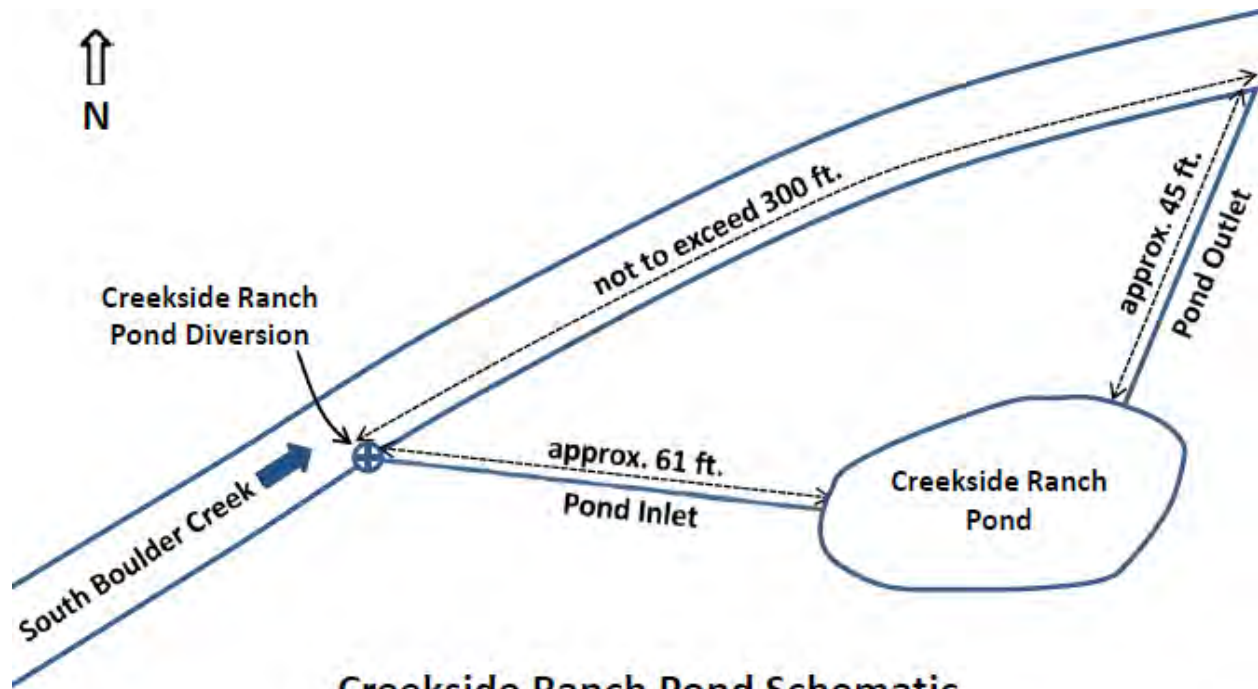
Cynthia E. Johnson, et al.
07CW232

EXHIBIT A



Cynthia E. Johnson, et al.
07CW232

EXHIBIT B



Creekside Ranch Pond Schematic

11/14/13

(Note: Schematic is not to scale.)

EXHIBIT F



ATTACHMENT B



COLORADO
Division of Water Resources
Department of Natural Resources

WELL PERMIT NUMBER 67267-F
RECEIPT NUMBER 3627554

ORIGINAL PERMIT APPLICANT(S)

MONTGOMERY F. MORAN

APPROVED WELL LOCATION

Water Division: 1 Water District: 6
Designated Basin: N/A
Management District: N/A
County: BOULDER
Parcel Name: N/A
Physical Address: 4651 ELDORADO SPRINGS DRIVE
BOULDER, CO 80303

NE 1/4 SE 1/4 Section 20 Township 1.0 S Range 70.0 W Sixth P.M.

UTM COORDINATES (Meters, Zone:13, NAD83)

Easting: 479046.9 Northing: 4422108.6

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT
CONDITIONS OF APPROVAL

- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of this permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 18.
- 3) Approved pursuant to CRS 37-90-137(2) on the condition that this well (Creekside Ranch Pond) is operated in accordance with the Cynthia E. and Richard A. Johnson substitute water supply plan approved by the State Engineer on June 17, 2008. This well shall not be operated unless it is included in a substitute water supply plan approved by the State Engineer or a plan for augmentation approved by the water court. The subject water supply plan is currently valid through April 30, 2009, and if not extended or if a court approved plan for augmentation is not in operation, diversion of ground water from this well must cease immediately.
- 4) This well is subject to administration by the Division Engineer in accordance with applicable decrees, statutes, rules, and regulations.
- 5) The average annual amount of ground water to be appropriated by this well shall not exceed 0.11 acre-feet with the total surface area of the ground water pond limited to 0.032 acres.
- 6) The use of ground water, in addition to evaporation, is limited to non-consumptive use of recreation, fish and wildlife, and piscatorial. No other use of water is allowed unless a permit therefor is approved.
- 7) The owner shall mark the well (pond) in a conspicuous place with well permit number(s) and court case number(s) as appropriate. The owner shall take necessary means and precautions to preserve these markings.
- 8) Pursuant to Policy 2000-4 (as amended October 1, 2002) of the State Board of Examiners of Water Well Construction and Pump Installation Contractors (Board), the minimum construction standards in Rule 10 of the Water Well Construction Rules shall be waived for pond wells except Rule 10.1 and its subsections 10.1.2, 10.1.4., 10.1.6 and Rule 10.2 and its subsection 10.2.1. The owner of the pond shall take necessary means and precautions to prevent contaminants from entering the pond well.
- 9) Pursuant to Policy 2000-4 (as amended October 1, 2002) of the Board, the disinfection standards of Rule 15 of the Water Well Construction Rules shall be waived and the well construction report requirement of Rule 17 shall be waived, except compliance with Rules 17.1.4, 17.3, and 17.4 is required.
- 10) The boundaries of the pond shall be located not more than 200 feet from the location specified on this permit and not less than 600 feet from any existing well, completed in the same aquifer, that is not owned by the applicant, excluding well permit nos. 246221, 63268-A, 147495, and two unregistered wells (spacing waivers submitted by the well owners).
- 11) Pursuant to Policy 2000-4(as amended October 1, 2002) of the Board, no pumping equipment shall be installed in the gravel pit pond well to withdraw water for any beneficial use, unless a separate written request for a variance has been approved by the Board.

WELL PERMIT NUMBER 67267-F

RECEIPT NUMBER 3627554

See Original Permit

Date Issued: 6/24/2008

Expiration Date: 6/24/2009

Issued By _____

PERMIT HISTORY

10-26-2023 CHANGE IN OWNER NAME/MAILING ADDRESS. CHANGED TO JK HOLDCO JJ LLC
12-09-2015 CHANGE IN OWNER NAME/MAILING ADDRESS



March 28th, 2025

To Whom It May Concern,

Since its inception, Triple L Contracting and Excavating has specialized in pond construction, with Chad Lipari leading the charge on every project.

With over 20 years of extensive experience in the design, construction, and rehabilitation of ponds, stock tanks, and water storage systems, Chad has successfully managed a diverse range of projects. His expertise encompasses the creation and renovation of ponds of various sizes, from expansive six-acre reservoirs to smaller landscape ponds, as well as settlement basins and irrigation ponds. His proficiency in site assessment, soil composition analysis, and drainage techniques ensures the delivery of efficient and durable water retention solutions.

Core Skills and Expertise:

- **Pond Design and Construction:** Tailored designs based on topography, soil conditions, and water table levels to ensure optimal placement and retention.
- **Excavation and Grading:** Establishing stable embankments, slopes, and spillways to effectively manage water levels and reduce erosion.
- **Keyway Construction:** Creating keyways in pond dams to prevent seepage and enhance overall dam stability.
- **Installation of Drainage Systems:** Implementing overflow structures, culverts, and drainage systems to maintain functionality and safeguard against structural failures.
- **Stock Tank Development:** Designing agricultural water storage solutions with compacted clay liners to minimize seepage and maximize water retention.
- **Settlement Basins and Retention Ponds:** Constructing systems that support irrigation, sediment control, and stormwater management.
- **Pond Rehabilitation:** Performing dredging, deepening, and reshaping activities to restore capacity and enhance water quality.
- **Erosion Control:** Utilizing riprap, vegetation barriers, and other stabilization techniques to prevent soil erosion.



- **Heavy Equipment Operation:** Skilled in the use of excavators, bulldozers, backhoes, and graders for precision excavation work.
- **Laser Technology Use:** Employing lasers to achieve accurate depth, slope, and grading specifications.

Project Coordination: Overseeing material sourcing, hauling logistics, and efficient site management to ensure project success.

Chad's strong background in excavation and water storage solutions allows him to focus on functionality, durability, and site-specific requirements, ensuring high-quality results for every project. His problem-solving skills, attention to detail, and ability to adapt designs to unique site conditions enable him to create effective water retention systems that endure over time.

He takes pride in delivering well-constructed ponds and stock tanks that enhance agricultural operations, improve land management, and promote water conservation. Committed to quality workmanship and customer satisfaction, Chad strives to provide practical and sustainable solutions for long-term success.

AGENDA ITEM 12.a

Requested Board Action

24-BC-035

25-BC-001

AGENDA ITEM 12.a.i

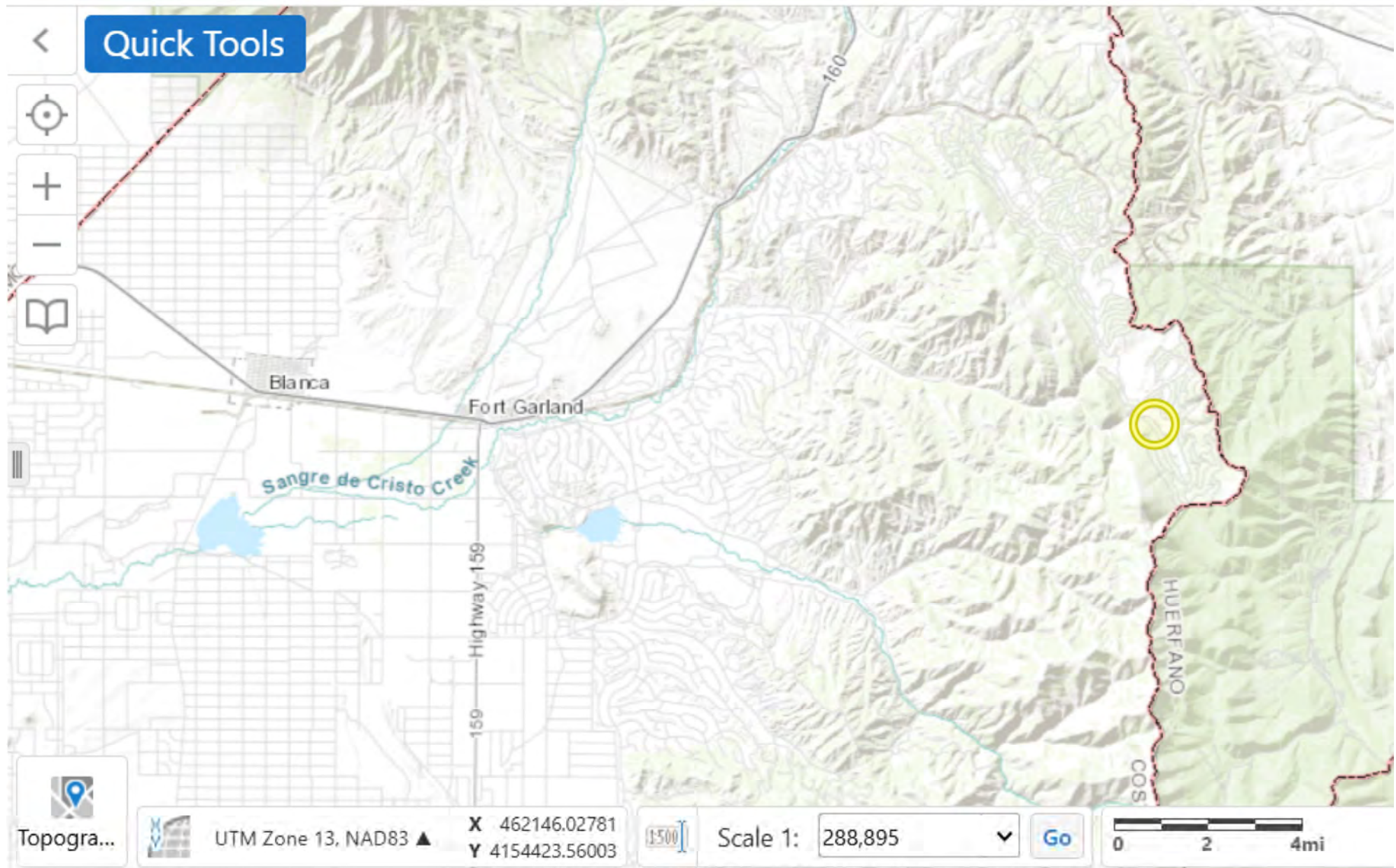
24-BC-035 - Josh Nothnagle

[Permit 88062-F](#)

Installation of a Pump as an
Unlicensed Contractor

Request Board Direct Staff to have
AG pursue this matter in DC

Permit 88062-F - Complaint 25-BC-001



January 8, 2025

Joshua Nothnagle
Nothnagle Construction Services
22402 LUVIE RD
Fort Garland CO, 81133

File No.: 24-BC-035

CEASE AND DESIST

Dear Mr. Nothnagle:

Based on a review of a form GWS-32 (pump installation and production equipment test report), it has come to the attention of Staff for the Colorado State Engineer's Office ("Staff") that you installed pumping equipment for a water well and are not licensed by the Board of Examiners of Water Well Construction and Pump Installation Contractors ("Board") as a Pump Installation Contractor in Colorado. Though you indicate that you are a licensed plumber (lic. no. 4007), a separate license from the Board is required to be a licensed pump installation contractor in order to lawfully perform the work you reported on form GWS-32.

Specifically, it is hereby alleged that you installed pumping equipment in the well associated with Permit No. 88062-F, located at 2900 Henderson Drive, Fort Garland, Colorado on July 1, 2024 for the well owner Jeremi Keyser.

Section 37-91-105(1), C.R.S., states:

"Every person, before engaging in the business of contracting either for the construction of wells or for the installation of pumping equipment, shall obtain a license for one or more methods of well construction or pump installation from the board and shall secure a registration from the board for each well-drilling or pump-installing rig to be operated or leased by him or his employee."

"Contracting" is defined in the Board's Rules and Regulations for Administration of Licensing, Financial Responsibility, Continuing Education and Remedial Action for Well Construction and Pump Installation Contractors (Admin Rules) 2 CCR 402-14, Rule 4.2.8 as:

"Contracting" means undertaking, or offering, bartering, or bargaining to construct a well, install pumping equipment, or install a cistern connected to a water well supply system by any person, firm, corporation, partnership, association or other organization, for another.

Section 37-91-111(1)(d), C.R.S., states:



(1) It is unlawful:

(d) For any person not licensed or whose license is suspended to install pumping equipment unless he is a private pump installer or directly employed by or under the supervision of a licensed pump installation contractor, except as excluded pursuant to section 37-91-106 (4); or

Furthermore, Rule 6.1 of the Admin Rules states:

“Every individual, before engaging in the business of contracting for and performing either the construction and/or the repair of wells, the installation and/or repair of pumping equipment, or the installation and/or repair of cisterns shall obtain a license for one or more methods of well construction or pump installation from the Board. Individuals who use special equipment or perform limited procedures in well construction or pump installation shall obtain a special license from the Board prior to engaging in such specialized services.”

It is also hereby alleged that you did not disinfect the well after the installation of pumping equipment based on the absence of information presented in the provided form GWS-32 as required by the Rules and Regulations for Water Well Construction, Pump Installation, Cistern Installation, and Monitoring and Observation Well/Hole Construction (Construction Rules) 2 CCR 402-2, Rules 11.11, 15.3 and 15.4.2:

11.11 Disinfection *After installing a pump or cistern, and prior to placing the well in service, the person authorized to install pumping equipment must disinfect the well, all pumping equipment, and the water supply system up to the pressure tank according to the provisions of Rule 15.*

15.3 Placement *All wells and cisterns must be disinfected after completion of well construction, cistern installation, and after installation of production equipment. After completion of construction of the well, agitation of the solution is best accomplished through use of a pump and recirculation. If no pump is available, a bailer or plunger must be used. After installation of the pumping equipment, the disinfectant solution must be thoroughly circulated through the entire well and installed water well supply system.*

15.4.2 *Following the installation of a new pump in an existing well or cistern, the well, cistern, pump, and the distribution system must be disinfected. After placement, mixing, and circulation, the disinfectant solution must remain undisturbed in the well and distribution system for as long as possible, but not less than three (3) hours, after which time, the residual chlorine concentration must be at least twenty five (25) milligrams per liter.*

Finally, you report that the pump was installed on 7/1/2024 and the report was received by the State on 10/8/2024, 99 days after the pump was installed. It is therefore also hereby alleged that you did not submit the pump installation and production equipment test report in a timely manner after the installation of the pump as required by Construction Rule 17.3:

Timely Submittal *Work reports must be submitted to the State Engineer within sixty (60) days after completion of the well construction, pump installation, or other work required to be reported or within seven (7) days after the expiration of the permit or other authorization, whichever is sooner.*

Order

You are hereby ordered to immediately cease installing pumping equipment in water wells, or conducting any other work in violation of article 91 of title 37, until you are properly licensed as a Pump Installation Contractor in the State of Colorado.

Your written response regarding the alleged installation of pumping equipment in a water well is required within 20 days of receipt of this letter.

You may also, in addition to your written response, contact Christopher Jones of this office within 20 days of receipt of this letter if you believe that you are licensed, don't believe that you have been engaging in such activities, or if you have any other questions. This matter may be referred to the Colorado Attorney General's Office for appropriate legal action, including proceedings pursuant to sections 37-91-111 and 37-91-112, C.R.S.

Sincerely,

John Hunyadi, PE

Secretary, Board of Examiners of Water Well Construction and Pump Installation Contractors

cc: Christopher Jones, Chief Well Inspector

John Newman, Assistant Attorney General

Attachment: GWS-32

Form No. GWS-32 10/2016	PUMP INSTALLATION AND PRODUCTION EQUIPMENT TEST REPORT State of Colorado, Office of the State Engineer 1313 Sherman St., Room 821, Denver, CO 80203 303.866.3581 dwr.colorado.gov and dwrpermitsonline@state.co.us	For Office Use Only
1. Well Permit Number: 88062-F Receipt Number: 10026976		
2. Owner's Well Designation:		
3. Well Owner Name: Jeremi Keyser		
4. Well Location Street Address: 2900 Henderson Dr, Fort Garland, CO 81133		
5. GPS Well Location: <input type="checkbox"/> Zone 12 <input checked="" type="checkbox"/> Zone 13 Easting: 485298.0 Northing: 4142072 County: Costilla		
6. Legal Well Location: SE 1/4, NE 1/4, Sec. 24 Twp. 30 <input type="checkbox"/> N or S <input checked="" type="checkbox"/> , Range 70 <input type="checkbox"/> E or W <input checked="" type="checkbox"/> Distances from Section Lines: _____ ft. from <input type="checkbox"/> N or S <input type="checkbox"/> sec. line, and _____ ft. from <input type="checkbox"/> E or W <input type="checkbox"/> sec. line Subdivision: Forbes Park , Lot 2900 , Block 170 , Filing (Unit) L2		
7. Check Installation Type: <input checked="" type="checkbox"/> Initial Pump Installation <input type="checkbox"/> Replacement Pump <input type="checkbox"/> Change in Depth Only <input type="checkbox"/> Repair		
8. Pump Data: Type: Deep Well Submersible Date Installed(mm/dd/yyyy): 07/01/2024 Pump Manufacturer: Red Lion Pump Model No. SM051152 Design GPM: 12 at RPM 3450 HP 1/2 Volts 115 Full Load Amps 12 Pump Intake Depth: 86 Feet, Drop/Column Pipe Size Inches, 1" Kind of Drop Pipe PVC Additional Information for Pumps Greater Than 50 GPM: Turbine Driver Type: <input type="checkbox"/> Electric <input type="checkbox"/> Engine <input type="checkbox"/> Other _____ Design Head: _____ feet Number of Stages: _____ Shaft size: _____ inches		
9. Other Equipment: Airline Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, Orifice Depth ft. _____ Monitor Tube Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, Depth ft. _____ Flow Meter Mfg. _____ Meter Serial No. _____ Meter Readout: <input type="checkbox"/> Gallons, <input type="checkbox"/> Thousand Gallons, <input type="checkbox"/> Acre feet Beginning Reading: _____		
10. Cistern Information: Material: _____ Capacity: _____ gallons Date Installed: _____		
11. Production Equipment Test Data: <input type="checkbox"/> check box if data is submitted on Form Number GWS-39 Well Yield Test Report. <div style="display: flex; justify-content: space-between;"> <div> Date: 9/28/24 Total Well Depth: 110' ft. Static Level: 60' ft. Date Measured: 07/06/2023 </div> <div> Time: 08:00 Rate (gpm): 9.5 Pumping Level (ft): 86' </div> </div>		
12. Disinfection: Type: _____ Amt. Used: _____		
13. Notification: Was Advanced Notification Required Prior to Installation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No, Date Notification Given: _____		
14. Water Quality analysis available: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please submit with this report.		
15. Remarks: <div style="height: 40px;"></div>		
16. I have read the statements made herein and know the contents thereof, and they are true to my knowledge. This document is signed (or name entered if filing online) and certified in accordance with Rule 17.4 of the Water Well Construction Rules, 2 CCR 402-2. The filing of a document that contains false statements is a violation of section 37-91-108(1)(e), C.R.S., and is punishable by fines up to \$1,000 and/or revocation of the contracting license. If filing online, the State Engineer considers the entry of the licensed contractor's name to be compliance with Rule 17.4.		
Company Name: Nothnagle Construction Services	Email: jtnothnagle@gmail.com	Phone w/area code: (720) 220-5707
		License Number: 4007
Mailing Address: P.O. Box 728 Fort Garland, CO 81133		
Sign (or enter name if filing online) 	Print Name and Title Josh Nothnagle - Colorado Master Plumber	Date: 10/01/2024

AGENDA ITEM 12.a.ii

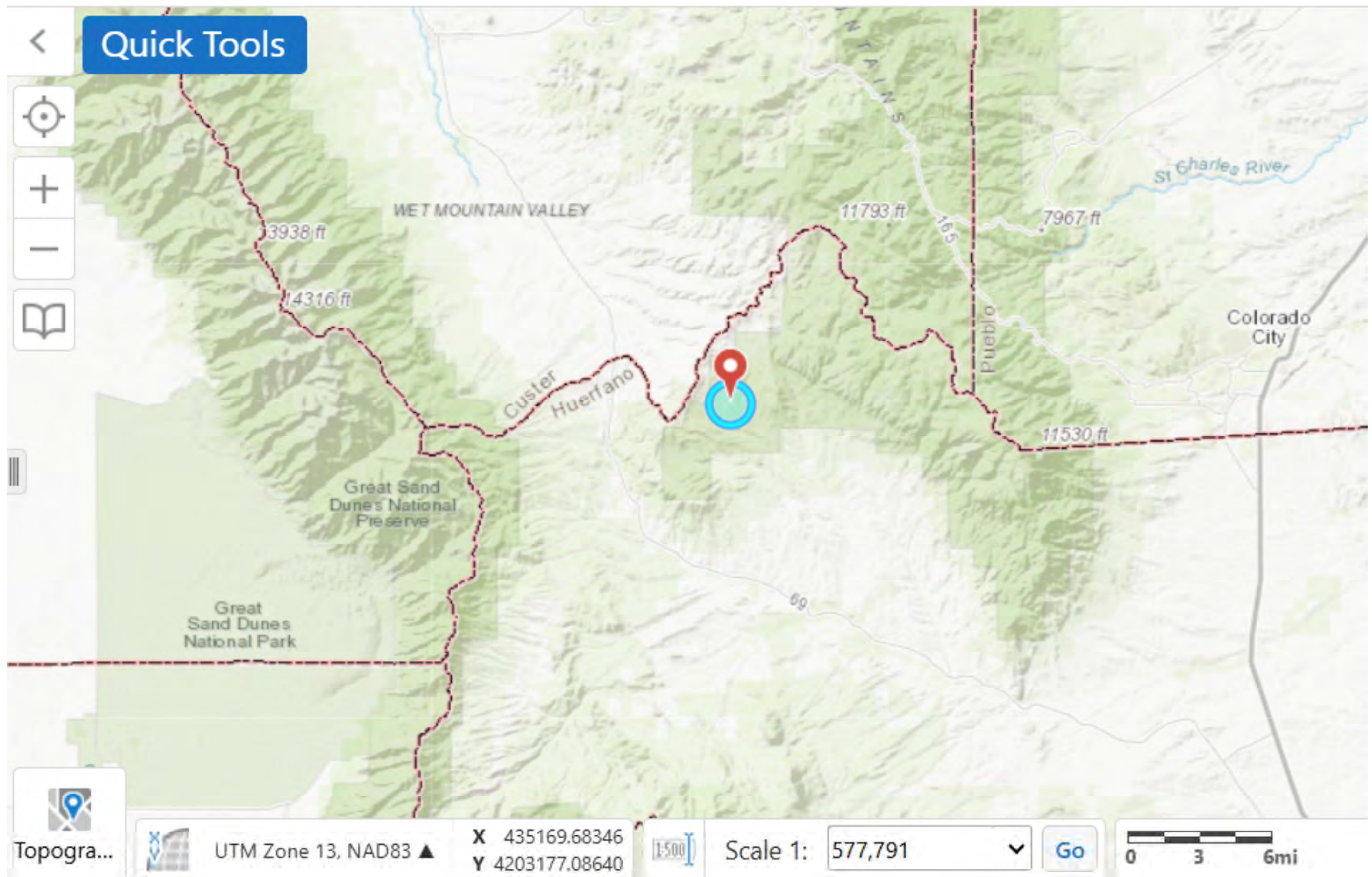
25-BC-001 - Daniel Weber

[Receipt 10011375](#)

Construction of a Well as an
Unlicensed Contractor

Request Board Direct Staff to have
AG pursue this matter in DC

Permit 321819 - Complaint 25-BC-001





COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

March 9, 2025

Daniel Weber
811 W. 7TH St
Walsenburg CO, 81089

File No.: 25-BC-001

CEASE AND DESIST

Dear Mr. Weber:

It has come to the attention of Staff for the Colorado State Engineer's Office ("Staff") that as an employee of Weber Water Well Drilling and Pump Services, LLC, you performed work on water wells that only a well construction or pump installation contractor, or an individual directly employed by a licensed water well contractor licensed by the Board of Examiners of Water Well Construction and Pump Installation Contractors ("Board") could perform. As you are aware, David Weber's license was suspended by Order from the Board on October 29, 2021. Any work you performed on wells or pumping equipment while David Weber's license was suspended, that was not as a direct employee of another license contractor or while under a licensed contractor's direct onsite supervision, would be outside that allowed by the Rules and Regulations for Water Well Construction, Pump Installation, Cistern Installation, and Monitoring and Observation Well/Hole Construction (Construction Rules) 2 CCR 402-2 and/or the Rules and Regulations for Administration of Licensing, Financial Responsibility, Continuing Education and Remedial Action for Well Construction and Pump Installation Contractors (Admin Rules) 2 CCR 402-14.

Specifically, it is alleged that you constructed a water well under Permit 321819 in or about November 2022 for Dennis and Mary Baltiski at 9580 CR 634, Gardner, CO. This allegation is based on statements and photos provided by Dennis Baltiski; Mr. Baltiski named you specifically as the individual onsite who constructed his well. Since David Weber's license was suspended during the time the well was allegedly constructed, you were unlicensed and were not one of the other status of individuals that are authorized to construct a well as defined in Admin Rule 6.1.5.:

6.1.5 The Board will not recognize as lawful any operating agreements, business agreements, or any other contractual agreements between a licensed contractor and any individuals not licensed by the Board, where such an agreement purports to authorize the unlicensed individual to construct water wells or install pumping equipment under the license of the licensed individual. An unlicensed individual may construct water wells and install pumping equipment only if that individual is a private driller, is directly employed by a licensed contractor, or is supervised



continuously on-the-site by a licensed contractor, as those terms are defined in section 37-91-102, C.R.S. Supervision means personal and continuous on-the-site direction by a licensed well construction contractor or licensed pump installation contractor, unless the licensed contractor has applied for and received from the board an exemption from continuous on-the-site direction for a specific task. § 37-91-102(15.5)

It is alleged you were an unlicensed contractor who performed work on the well for Permit 321819. Unlicensed contractors may not construct wells per Admin Rule Rule 6.1:

6.1 License Required - Every individual, before engaging in the business of contracting for and performing either the construction and/or the repair of wells, the installation and/or repair of pumping equipment, or the installation and/or repair of cisterns connected to water well supply systems, must obtain a license for one or more methods of well construction or pump installation from the Board. Individuals who use special equipment or perform limited procedures in well construction, pump installation, or cistern installation must obtain a special license from the Board prior to engaging in such specialized services.

Therefore, it is alleged that you have violated Section 37-91-105.(1), C.R.S., which states:

"Every person, before engaging in the business of contracting either for the construction of wells or for the installation of pumping equipment, shall obtain a license for one or more methods of well construction or pump installation from the board and shall secure a registration from the board for each well-drilling or pump-installing rig to be operated or leased by him or his employee."

It is also alleged that you violated Section 37-91-111 C.R.S. which states:

37-91-111. Violations and penalties (1) It is unlawful:

(c) For any person not licensed or whose license is suspended to construct wells unless he is a private driller or directly employed by or under the supervision of a licensed well construction contractor;

Order

You are hereby ordered to immediately cease installing or repairing wells, installing or repairing cisterns, installing or repairing pumping equipment in water wells, advertising for such work, or conducting any other work in violation of article 91 of title 37, until you are properly licensed as a Well Construction Contractor and/or Pump Installation Contractor in the State of Colorado or until you are directly employed by or continuously supervised by a properly licensed Well Construction Contractor and/or Pump Installation Contractor.

Your written response regarding the alleged unlicensed well construction is required within 20 days of receipt of this letter. Please provide any information that will clarify or correct the situation described in the paragraphs above. You may contact Christopher Jones, Chief Well Inspector, at (720) 618-9982 or at chris.jones@state.co.us, if you have questions regarding this matter. Thank you for your cooperation.

Sincerely,

John Hunyadi, PE
Secretary, Board of Examiners of
Water Well Construction and Pump Installation Contractors

cc: Christopher Jones, Chief Well Inspector
John Newman, Assistant Attorney General

Attachment: Photos



Photo 1: File dated Nov 9, 22; Well owners photo of Weber Water drill rig at the property associated with Permit 321819



Photo 2: File dated Nov 9, 22; Well owners photo of Weber Water drill rig at the property associated with Permit 321819



Photo 3: File dated Dec 18, 22; Well owners photo of wellhead associated with Permit 321819



Photo 4: File dated Dec 18, 22; Well owners photo of Weber Water equipment truck adjacent to the wellhead at the property associated with Permit 321819

AGENDA ITEM 12.b

Status Updates

24-BC-027

Staff Status Report for Active Complaints

Board of Examiners Meeting - 4/1/2025

Unlicensed Contractors

23-BC-012

DAVID J. WEBER

Date of Complaint:

County: Huerfano

License No.: 1418

Permit No.: 322629, 321357 and

2/14/2023

Complaint initiated by: Various Contractors

Description of complaint: Unlicensed Pump Installation and Well Construction

Status:

05-2021 David Weber's license was suspended by the BOE.

11-10-22 Doug requested I inspect Permit 318614 based on verbal complaint from licensed contractor (Craig Andreatta) of unlicensed contractor. Found Weber Drilling's equipment set up on well.

2-3-2023 Received a call from Lyle Sharpe regarding knowledge of Weber Drilling constructing a well for Permit 321357.

2-13-2022 Received call and texts from OG who saw and photo'd Weber Drilling's pump rig and equipment at site of Permit 322629.

2-14-2022 sent letters to owners of Permit 322629 and 321357 requesting information about Weber Drilling's work on the property.

3-15-2023 Alan Bonds of Permit 321357 responded to my inquiry with invoices from after Weber's Lic was suspended.

5-18-2023 requested additional information from Mr. Bonds. Need statement from him.

6-20-2023 Called Mr. Bonds, He indicated he will send invoices for work as well as photos of the well construction from 2022.

8-28-2023 Sent Cease and desist for work on Permit 321357. Received email from David's lawyer Mr. Wolf that since 6-27-2023 Mr. Weber was no longer doing things that violated the 10-29-2021 Order.

8-31-2023 BOE set hearing date of Nov 14 for Mr. Weber.

10-24-23 BOE vacated hearing on request of Mr. Weber and Staff to allow staff and Weber to negotiate terms of stipulated settlement.

11-1-2023 Virtual meeting with Mr. Weber and his lawyer. Presented proposed stipulated settlement terms. Lawyer to respond back to us.

1-16-2024 Sent email to Lawyer received response that he is still conferring with Mr. Weber.

1-19-2024 Received email from Lawyer that Mr. Weber had let his license expire. No response about stip set terms.

1-22-2024 Again requested information about proposed stip set terms from Weber and his lawyer, no response.

Recommendation: Request hearing date be rest by the Board during 5-23-24 meeting

23-BC-018

DAVID J. WEBER

Date of Complaint:

County: Las Animas

License No.: 1418

Permit No.: 214285

3/13/2023

Complaint initiated by: Wellowners

Description of complaint: Unlicensed Contractor, Advertising Violation

Status:

3-6-2023 John Wenkman called following up about complaint against David Weber made with Doug Stephenson. Did not find record of complaint. Received photos and documents supporting that Mr. Weber had attempted to repair well after his license had been suspended.

3-13-2023 sent cease and desist letter.

5-12-2023 Received email from Tom Wolfe, weber's lawyer wanting to discuss Weber's license. Staff AG set meeting for 5-30-2023.

5-31-2023 Advised Board and requested referral to AG and action against license.

6-9-2023 Sent RLS letter to Tracy Koslof for review.

6-13-2023 Tracy Koslof requested that Staff hold the Request for Legal services until August due to lack of AG staffing.

8-31-2023 BOE set hearing date of Nov 14 for Mr. Weber.

10-24-23 BOE vacated hearing on request of mr. Weber and Staff to allow staff and Weber to negotiate terms of stipulated settlement.

1-16-2024 Sent email to Lawyer received response that he is still conferring with Mr. Weber.

1-19-2024 Received email from Lawyer that Mr. Weber had let his license expire. No response about stip set terms.

1-22-2024 Again requested information about proposed stip set terms from Weber and his lawyer, no response.

Recommendation: Request hearing date be rest by the Board during 5-23-24 meeting

23-BC-032

DOUGLAS HASSER

Date of Complaint:

County: Baca

License No.:

Permit No.:

9/3/2023

Complaint initiated by: Licensed Contractor

Description of complaint: Advertising for work while unlicensed

Status:

9-3-2023 Received email complaint from Lance James with photo of advertisement for Hasser Well Service, Douglas Hasser in May 22, 2022 issue of "The Tri-State Exchange" which serves "SE Colorado".

9-22-2023 Left message for Mr. Hasser advising him that advertisement for work on pumps in water wells requires a license and requested a call back to discuss. No response.

12-13-23 received an invoice from Lance James showing Hasser Well Service working on a pump in Baca County CO. Note Previous Injunction associated with 18-BC-002 and Prowers County court case 18CV30044

12-14-2023 mailed letter to owner Trahern requesting information about location of the subject well. No response.

2-22-2024 Called John of Semco about his license number on Hasser's paper advertisement.

2-26-2024 sent John of Semco inquiry about Hasser and if he was associated with Semco or a direct employee.

2-29-2024 John of Semco responded indicating Hasser was not a direct employee and not authorized to use his license number.

3-5-2024 Received an add from the Tri-State Exchange from John of Semco, showing Hasser Well Services advertising on February 28, 2024 continuing to use John's license number illegally.

Recommendation: Work with AG to file contempt charges for violation of previous consent decree.

23-BC-033

LANCE YOCAM

Date of Complaint:

County: El Paso

License No.:

Permit No.: 15029-F?

8/15/2023

Complaint initiated by: Licensed Contractor

Description of complaint: Unlicensed Contractor work on pumps

Status:

8-15-2023 Received phone then text complaint from Lance James regarding Yocam Well Services LLC, Lance Yocam, working as a pump contractor without a license. Received two invoices (dated 8-6-2022 and 5-2-2023) from Yocam to Russel Freeman.

9-25-23 mailed letter to Russell Freeman (owner) to confirm scope and location of work.

Recommendation: Continue to Investigate.

24-BC-035

JOSH NOTHNAGLE

Date of Complaint:

County: Costilla

License No.:

Permit No.: 88062-F

11/1/2024

Complaint initiated by: Well Owner

Description of complaint: Unlicensed Contractor Installed a Pump; Submitted a Late Work Report

Status:

10/31/2024 received email complaint from records about late report (Rule 17.3) and unlicensed contractor Josh Nothnagle plumber (Rule 11.1, 13.3; Admin Rule 6.1; 37-91-105(1), 37-91-111(1)(d)). Upon review also found no disinfection (Rule 15.3, 15.4.2). Found the pump was install on 7/1/2024, production equipment test performed on 9/28/2024 and reported submitted on 10/1/2024. Rule 17.3 says must be submitted within 60 days of any other work required to be reported so report is not late.

11/1/2024 called Josh Nothnagle who is a licensed plumber but not a licensed pump installation contractor. Josh admitted to helping the well owner install the pump. Called Jeremi Keyser, the well owner, who indicated that Josh did physically help install the pump and pumping equipment.

11/1/2024 sent draft letter to AG for review.

12-23-2024 accepted suggestions form John and sent letter to John Hunyadi for signature.

1-10-2025 sent to 3 addresses via certified mail. Also emailed to Josh.

1-28-2025 Certified mail tracking indicates all 3 hard copies were picked up at the post office by customer.

3-3-2025 sent email to Josh asking if he had a response.

Recommendation: Advise BOE and Request Staff work with AG to pursue in DC.

25-BC-001

DANIEL WEBER

Date of Complaint:

County: Huerfano

License No.:

Permit No.: 321819

2/20/2024

Complaint initiated by: Well Owner

Description of complaint: Unlicensed Contractor Installed a Well as an Employee of Weber Water Well During Period David Weber's License was Suspended

Status:

2-20-2024 While investigating a complaint against Weber Water from Dennis Balitden (permit 321819), became aware that Daniel Weber (David Weber's son) was the individual onsite performing work while David's license was suspended. See email string from Mr. Balitden.

2-21-2025 sent AG draft cease and desist letter. Wait for review. Sent email to Allen Bonds inquiring if Dan was the individual who constructed that well. Might include in cease and desist.

3-6-2025 received response from AG.

3-9-2025 sent Chris Sanchez copy to sign.

3-12-2025 called Daniel, voicemail was full. Texted Daniel asking for call to discuss complaint. Sent cease and desist via certified mail.

3-19-2025 certified mail tracking indicates letter was delivered.

Recommendation: Advise BOE and Request Staff work with AG to pursue in DC.

Licensed Contractors

23-BC-030

HALSEY R. NEWMYER

Date of Complaint:

County: La Plata

License No.: 736

Permit No.: 321914

7/27/2023

Complaint initiated by: Wellowners

Description of complaint: Late Report

Status:

4-14-2023 Received email from Mr. Fonesca, well owner, that NWP Drilling had not submitted a GWS-31 or GWS-32 and that his permit was expiring.

4-18-2023 Sent Ray Newmyer an email inquiring about reports.

4-20-2023 Ray responded via email and indicated he would look into it.

7-25-2023 owner inquired about status.

7-26-2023 No response from Ray sent another email.

7-27-2023 Sent allegation letter.

9-8-2023 DWR received GWS-31 but not GWS-32.

2-1-2024 No response sent email reminder to Ray.

2-2-2024 Sent Stipulated Settlement offer.

4-29-2024 Called Ray he indicated he had received all the documents and would respond prior to the May 23, 2024 BOE meeting.

5-15-2024 received signed stipulated settlement offer via email. I replied to email same day requesting he provide the work reports.

6-10-2024 sent another email requesting work reports. Also sent request to Erica to send invoice.

6-11-2024 Erica emailed invoice to Ray.

7-30-2024 payment not yet received; Erica emailed reminder

7-31-2024 invoice paid

10-24-2024 Called Ray. He promised to have the remaining work report submitted by end of next week. Sent email recapping the phone call.

11-19-2024 Ray sent another GWS-31. The construction information does not match the original GWS-31.

11-21-24 Called Ray who said he would confirm with Seth. Sent email to Ray asking if he was willing to pull the pump while Larry onsite then measure well. Received GWS-32.

11-22-24 Ray called and said the most recent GWS-31 was the correct one. Ray agreed to pull pump while inspector was present and measure well.

1-15-2024 Ray indicated he has not yet been able to make contact with the owner to arrange the work.

1-24-2025 sent email to owner, Ray and Larry in attempt to coordinate pulling pump and inspection.

Recommendation: wait for confirmation of total depth

23-BC-034

DAVID BRINKERHOFF

Date of Complaint:

County: Routt

License No.: 1567

Permit No.: 326018

10/20/2023

Complaint initiated by: Contractor

Description of complaint: Construction Violation

Status:

10-20-23 a contractor brought me the construction report and indicated he felt there were construction violations. My review suggests David perforated steel casing from 20-35' which is through two units, alluvium and mancos shale violating Rule 10.1.a, .c and .d. See nearby wells constructed in Mancos at depths <340'. Annular space <1" from 12-20'.

Inadequate grout for Type II, but appears he felt he was constructed in Type III. Inadequate disinfectant calc needed about 16.7 oz for entire borehole. Pump installation report also indicates insufficient disinfectant.

3-1-2024 sent email to David requesting call to discuss well construction and pump installation.

3-4-2024 Spoke to David on the phone. He indicated 8 5/8" casing was driven from 12-40'. Acknowledged problem with grout and disinfection.

4-9-2024 Received response to allegation and contractor acknowledged the deficiencies

7-14-2024 received variance request.

7-25-2024 variance issued to abandon sump to 40' with granular bentonite and for discontinuous grout from 2-12' bgs after pitless is moved up from 4' bgs to 2' bgs and grout is backfilled from 4'-2'.

1-23-2025 sent an email to David asking for information about status of repairs.

1-24-2025 David indicated the repairs would occur early spring.

Recommendation: Send stipulated settlement once timing of repairs settled.

24-BC-008

County: Archuleta

MATTHEW BEEMAN

License No.: 1374

Permit No.: 320230

Date of Complaint:

2/22/2024

Complaint initiated by: Staff

Description of complaint: Late Report, Low Grout Density, Inaccurate Information on Work Report

Status:

2-22-2024 Late report, Review of report found grout density of cement (presumed neat cement) was 12 lbs (presumed 12 lbs/gal), also found aquifer type listed as Type 1 single when construction and log suggests Type II overlain by Type III (inaccurate information provided). Confirm aquifer with hydrogeo group.

5-10-2024 Found allegation letter in file but don't see evidence it was sent.

9-24-2024 sent revised allegation letter via mail and email. 12-18-2024 sent email proposing stip set for late report and grout.

1-14-2025 Talked with Matt and educated him about the aquifer type. Discussed the density of the grout indicated on the report and he explained he was unsure what the 12 lbs actually meant as he didn't actually measure it and that is just what he always put on reports, but he did not use water in excess of 6 gal/ sac in the mix. Provided education on how to measure and calculate density of grout mix. Indicated I would send a stipulated settlement only for the late report and not further pursue the allegations for inaccurate information and grout density.

1-23-2025 sent stipulated settlement offer via email and certified mail.

Recommendation: Wait for Response to stipulated settlement

24-BC-013

County: Alamosa

JOE GEIMAN

License No.: 1551

Permit No.: 86372-F, 86409-F and 2/26/2024

Date of Complaint:

Complaint initiated by: Staff

Description of complaint: Late Reports

Status:

2-26-2024 wrote allegation letter. 3-26-2024 mailed allegation letter via regular mail.

4-2-2024 Received call from Joe indicating he thought he turned those in on time. He will review his records.

9-25-2024 sent email to Joe asking if he had found evidence in his records.

10-18-2024 Joe sent two emails claiming his signature date showed the reports were submitted ontime.

10-24-2024 sent Joe two emails indicating that the date he put on the reports next to the signature does not prove that he emailed the reports to the State on that day.

10-24-24 sent email to Jen and Yolanda to see if they have any emails from 7/20/22 or 8/2/22 from Joe that would support his claim.

12-18-2024 sent stip set via certified mail and email.

Recommendation: wait for response to stipulated settlement offer

24-BC-023

County: Park

JACK R. ALLEN

License No.: 763

Permit No.: 86850-F

Date of Complaint:

2/13/2024

Complaint initiated by: Staff

Description of complaint: Construction Violation - insufficient isolation of Type III above Type II

Status:

3-29-2024 emailed jack to confirm the 7" surface casing was not driven casing. Jack confirmed not driven casing.

4-2-2024 mailed letter via regular mail, but it contained a typo citing Permit 87983-F.

5-6-2024 Notified jack of the Typo and that I would resend the allegation letter.

5-7-2024 Sent allegation letter via email and regular mail.

5-14-2024 received written response in mail suggesting the geologic log was wrong and revised the log to show shale starting at 25 feet.

7-30-2024 requested hydrogeo group evaluate the geology to determine if this is reasonable.

9-7-2024 emailed and mailed supplemental allegation letter for Rules 17.2 and 17.4

9-17-2024 talked to Jack on phone, who indicated maybe he shouldn't have changed geologic log.

10-17-2024 received signed stipulated settlement and payment of fine.

10-25-2024 Received call from Shaylee while observing repairs that some grout may have made it into the well casing and that contractor had not placed grout to minimum depth required by the variance

12-18-2024 didn't see revised construction report in file. Sent email to Shaylee requesting info on status of repair.
12-18-2024 contractor emailed copy of revised report.
12-19-2024 forwarded revised GWS-31 to records. Shaylee to schedule inspection once snow clears to attempt to tag top of grout.
Recommendation: wait for confirmation of repair.

24-BC-024

HOWARD H. CRANDALL JR.

Date of Complaint:

County: Weld

License No.: 1229

Permit No.: multiple

5/14/2024

Complaint initiated by: Staff

Description of complaint: Failure to provide advance notice for well construction: 82352-A, 315401, 325943, 326007, 327002, 327327, 327512, 328974, 329032, 329033, 329034, 329035, 329054, 329062, 329711, 329985, 330011, 330013, 330157, 330442, 330541, 330654, 330665, 330899, 331489, 331622, 331623, 331897, 331925, 332030, 332121, 332140, 332992

Status:

5-14-2024 Brian previously wrote the allegation letter. CAJ reviewed letter.
5-16-2024 mailed and emailed allegation letter.
5-22-2024 Contractor called and acknowledged violation.
12-19-2024 sent stipulated settlement offer via mail and email.
1-24-2025 received paper copy of stip set back in the mail as "unclaimed". Sent email to Howard asking for an address where certified mail can be delivered.
2-3-2025 Sent email explaining to Howard how the fine was calculated.
3-24-2025 sent email asking for signed stipulated settlement.

Recommendation: send stipulated settlement offer

24-BC-027

HOWARD H. CRANDALL JR.

Date of Complaint:

County: Weld

License No.: 1229

Permit No.: 331925

3/11/2024

Complaint initiated by: Staff

Description of complaint: Well Construction Violation - failure to grout at confining layer; inaccurate information on work report; failure to provide advance notice prior to well construction

Status:

3-11-2024 contractor submitted a GWS-31 without providing advance notice prior to well construction.
4-2024 Brian found construction violations on review of GWS-31.
5-16-2024 mailed and emailed allegation letter.
5-22-2024 Contractor called and acknowledged violation of the construction Rules by failing to grout confining layer above the Upper Pierre aquifer.
5-24-2024 Called contractor to negotiate stipulated settlement for abandonment. Contractor wanted alternative to abandonment but the annulus is too small to repair and be in accordance with the Rules. Unable to come to agreement.
7-30-2024 called Howard to inform him this complaint will be discussed at the 8-13-24 BOE meeting
8-20-2024 Sent stipulated settlement offer via certified mail and email.
8-20-2024 contractor returned a signed pdf of the stipulated settlement.

Recommendation: Advise Board

24-BC-028

HOWARD H. CRANDALL JR.

Date of Complaint:

County: Weld

License No.: 1229

Permit No.: Multiple

5/28/2024

Complaint initiated by: Staff

Description of complaint: No Advance notice 82352-A, 318431, 327002, 327327, 328974, 329032, 329033, 329034, 329062, 329283, 329711, 329985, 330013, 330157, 330442, 330541, 330654, 330665, 330899, 331489, 331622, 331623, 331897, 332140, 332923-A

Status:

5-28-2024 Staff compiled no advance notice complaints for initial pump installation.

12-19-2024 sent stipulated settlement offer via email and mail.

1-24-2025 received paper copy of stip set back in the mail as "unclaimed". Sent email to Howard asking for an address where certified mail can be delivered.

Recommendation: Wait for response to stipulated settlement

24-BC-036

TAYLOR WINEGAR

Date of Complaint:

County: Douglas

License No.: 1576

Permit No.: 336228

11/2/2024

Complaint initiated by: Well Owner

Description of complaint: Construction of Well prior to date permit was issued; construction of well without a valid permit

Status:

11/1/2024 received call from owner Steve Hathaway complaining that contractor Taylor Winegar had not sent him the well construction report for a well constructed in mid September 2024. Owner cited Permit 336228. Upon review found that the permit was issued on 10/21/2024 apparently after the reported date of completion (construction without a valid permit Rule 6.2.1, 6.2.2; knowingly construct well without a permit 37-91-108(1)(d)). Requested owner send evidence that well completion occurred in September.

11/2/2024 Steve sent email containing an image of a text string allegedly between Taylor and Steve on September 13 that the rig had moved out, "everything was gone and the well cap is on. All done." following construction of an apparent 600' well. The email from Steve also contained a photo of Winegar's rig onsite taken September 12, 2024, a photo of a geologic log and a copy of an invoice dated September 19, 2024 from Winegar to Steve at 363 Hill Drive Sedalia.

11/4/2024 invoice suggests a 8.75" hole was drilled to 82 feet and 82.82' of 7" steel casing was billed. The annulus between an 8.75" hole and 7" OD steel casing is less than 2" (Rule 10.4.4)

11-4-2024 talked to Taylor, he needs to look into his records and will call me back.

11-18-2024 no response, called Taylor who admitted the well was unknowingly constructed prior to the permit being issued.

1-17-2025 Steve Hathaway called inquiring about status. Found that records intake received the GWS-31 today. Sent email to Taylor asking about differences in the material lengths and borehole sizes on the invoice vs construction report. Shaylee to coordinate inspection with owner. Sent owner copy of GWS-31.

Recommendation: Send allegation letter.

25-BC-003

DOUG RATHJEN

Date of Complaint:

County: La Plata

License No.: 858

Permit No.: 334236

3/4/2025

Complaint initiated by: Licensed Contractor

Description of complaint: Inaccurate Information On Construction Report; Well Construction Violations

Status:

3-4-2025 Received written complaint from Licensed contractor about inaccuracies found between the information on the GWS-31 and the well in the field. Complaints included inaccurate casing OD, inaccurate depth, failure to include perforation size, use of concrete grout when Portland was reported.

3-24-2025 responded to contractors email and will continue to investigate. Asked for photos or if "concrete" was still present onsite.

Recommendation: Send Larry to inspect.

Well Owner

24-BC-036

ADAM MICHELI

Date of Complaint:

County: Boulder

License No.: NA

Permit No.: 21029-A

11/7/2024

Complaint initiated by: Staff

Description of complaint: Construction of Gallery Well without a Variance

Status:

11/7/2024 Received question from Records intake regarding a gallery well without a permit. GWS-31 for the gallery well was incomplete and it was sent back to the owner Adam Micheli for revisions. Requested Shaylee Inspect the well.

Recommendation: waiting for inspection results.

25-BC-002

ASPEN SPRINGS METRO DISTRICT

Date of Complaint:

County: Archuleta

License No.: NA

Permit No.: NA

3/6/2025

Complaint initiated by: Licensed Contractor

Description of complaint: Open Well In Unsanitary Condition; Complainant is asking for well abandonment.

Status:

3/6/2025 Received written complaint from licensed contractor that an open well existed on the property of 86 Oak Drive Pagosa Springs, CO. Utms provided by contractor suggest the well is on the eastern adjacent property owned by the Aspen Springs Sub 1. 3-23-2025 Archuleta County Road and Bridge says Oak Drive is owned by the Aspen Springs Metro District.

Recommendation: Attempt to get acknowledgement from Aspen Springs Metro District of ownership of property the well is on.

AGENDA ITEM 14.a

DWR Legislative Updates
(link only)


- i. [HB25-1014 Increase Efficiency In Division Of Water Resources Processes](#)
- ii. [HB25-1165 Carbon Management & Geothermal Regulation in Colorado](#)

AGENDA ITEM 14.b

Greg Kennedy

Contractor License Application Review for Pump Installation in Water Systems Less Than or Equal to 100 gpm

- Board Review for Experience gained while working as an unlicensed contractor. (Approve, Deny, Continue to Wait)
- Board deferred decision at 12-2024 and 2-2025 BOE meetings because contractor has not responded.
- No Response since last meeting.

FORM NO. GWS-26 4/11	Colorado Water Well Construction and Pump Installation Contractors Board of Examiners-Office of the State Engineer 818 Centennial Bldg., 1313 Sherman St., Denver, Colorado 80203 (303) 866-3581	For Office Use Only
SEE ENCLOSED INSTRUCTIONS		
CONTRACTOR LICENSE APPLICATION		
1. APPLICANT NAME <u>Greg Kennedy</u> Mailing Address <u>PO Box 627</u> City, State Zip <u>Bennett, CO 80102</u> Phone <u>(303) 710-1417</u> Email (if applicable) <u>Gtkennedy@aol.com</u>		
2. CURRENT WELL CONSTRUCTION OR PUMP CONTRACTOR EMPLOYER NAME <u>Kennedy Plumbing Inc</u> Mailing Address <u>PO Box 627</u> City, State Zip <u>Bennett, CO 80102</u> Phone <u>(303) 710-1417</u>		
3. TYPE(S) OF LICENSE(S) (Check all for which you are applying) <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> WELL CONSTRUCTION CONTRACTOR <input type="checkbox"/> Air Rotary Construction <input type="checkbox"/> Mud Rotary Construction <input type="checkbox"/> Reverse Rotary Construction <input type="checkbox"/> Cable Tool Construction <input type="checkbox"/> SPECIAL LICENSE – Describe below the type of license you are applying for: </div> <div style="width: 45%;"> PUMP INSTALLATION CONTRACTOR <input checked="" type="checkbox"/> Pump Installation in Water Systems less than or equal to 100 GPM <input type="checkbox"/> Pump Installation in Water Systems over 100 GPM </div> </div>		
4. Colorado Resident? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> At least 21 years old? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> U.S. Citizen? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Current contractor license in Colorado? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> If yes, list license number <u>PC2424</u> <u>MP 188016</u> Licensed in another State? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If yes, please list State, License No., Inception date of license and Type of license. _____ (Include copy of license)		
5. Total number of years experience constructing wells <u>40</u> Average number of wells constructed each year <u>12</u>		
6. Total number of years experience installing pumps <u>40</u> Average number of pumps installed each year <u>12</u>		
7. I have read the statements made herein, know their contents, and state that they are true to my knowledge. [Pursuant to Section 24-4-104 (13)(a) C.R.S., the making of false statements herein constitutes perjury in the second degree and is Punishable as a class 1 misdemeanor.]		
Name (Please type or print) <u>Greg Kennedy</u>	Signature 	Date <u>11-5-24</u>

Complete experience blocks on the reverse side of this form TM

8. Describe in detail your well construction and/or pump installation work experience. Affidavits from previous employers must be submitted to substantiate two years experience for each type of license applied for.

Company Name/Employer <u>Kennedy Plumbing Inc</u>	Telephone: (<u>303</u>) <u>710-1417</u>	From <u> </u> / <u> </u> / <u>1983</u> To <u>Present</u> Supervisor Name <u>Self</u> No. of Hours per Month <u>200</u>
Complete Address <u>PO Box 627 Bennett, CO 80102</u>		
Your Title <u> </u>		
Duties <u>Install Pump, Tanks and Piping</u>		
Equipment Operated <u>Backhoe, skid steer, Smeal</u>		

Company Name/Employer <u> </u>	Telephone: (<u> </u>) <u> </u>	From <u> </u> / <u> </u> / <u> </u> To <u> </u> / <u> </u> / <u> </u> Supervisor Name <u> </u> No. of Hours per Month <u> </u>
Complete Address <u> </u>		
Your Title <u> </u>		
Duties <u> </u>		
Equipment Operated <u> </u>		

Company Name/Employer <u> </u>	Telephone: (<u> </u>) <u> </u>	From <u> </u> / <u> </u> / <u> </u> To <u> </u> / <u> </u> / <u> </u> Supervisor Name <u> </u> No. of Hours per Month <u> </u>
Complete Address <u> </u>		
Your Title <u> </u>		
Duties <u> </u>		
Equipment Operated <u> </u>		

Company Name/Employer <u> </u>	Telephone: (<u> </u>) <u> </u>	From <u> </u> / <u> </u> / <u> </u> To <u> </u> / <u> </u> / <u> </u> Supervisor Name <u> </u> No. of Hours per Month <u> </u>
Complete Address <u> </u>		
Your Title <u> </u>		
Duties <u> </u>		
Equipment Operated <u> </u>		

Attach additional sheets if you have additional periods of employment appropriate to this application.



COLORADO
Division of Water Resources
Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

July, 2020

VERIFICATION OF EMPLOYMENT & EXPERIENCE

APPLICANT:

Name: Greg Kennedy
Address: PO Box 627
City: Bennett, CO 80102 State: CO Zip: 80102
Type of License(s) applied for: Pump Installer

CONTRACTOR'S VERIFICATION:

The person identified above was employed by me ☒ _____,
☐ company Kennedy Plb Inc.
(company name)

Dates of employment: from 1983 to present
(provide month, day and year)

Full time employment ☒ or part time employment ☐

Employment position: owner, master plumber, pump installer
(job title)

Description of work: (i.e. type of duties; # & types of wells/year; # & types of pumps/year; etc.)





COLORADO
Division of Water Resources
Department of Natural Resources

CERTIFICATION:

I am aware that this form is considered an open record pursuant to Colorado law. I certify that the information provided on this form is true, complete and correct to the best of my knowledge and belief, and are made in good faith.

Date: 10-1-24

License No.: _____ State: _____

(Provide copy of license)

Name: Greg Kenney
(print or type)

[Signature]
(signature)

Phone: 303-710-1417



STATE OF
COLORADO

Jones - DNR, Chris <chris.jones@state.co.us>

Pump Installation Contractor application

3 messages

Jones - DNR, Chris <chris.jones@state.co.us>
To: "gtykennedy@aol.com" <gtykennedy@aol.com>
Cc: Laura Kalafus - DNR <laura.kalafus@state.co.us>

Tue, Nov 19, 2024 at 5:19 PM

Greg,

Per our phone conversation today you indicated you have other experience you wanted to be considered that you did not list on the application or provide an employment/verification letter for. Can you submit any other experience/employment information at this time that you would like considered in addition to your self reported work as an unlicensed contractor?

I intend to put your application on the agenda for the next regularly scheduled Board of Examiners meeting, December 3, 2024, to allow the Board to review your application. The Board packet is going out at the end of day Friday 11/22/24.

For the unlicensed pump installation work alleged to have performed in Colorado while not under the direct, onsite supervision of a licensed contractor or not directly employed by a licensed contractor, can you provide me with a detailed description of the work performed related to pump installation or pumping equipment installation including the permit number of the well or address the work was performed?

Thanks

Chris Jones
Chief Well Inspector
Hydrogeology Section



COLORADO
Division of Water Resources
Department of Natural Resources

O 303.866.3581 x8270
P 720.618.9982 (mobile)
1313 Sherman St., Room 821, Denver, CO 80203
chris.jones@state.co.us | dwr.colorado.gov

gtykennedy@aol.com <gtykennedy@aol.com>
To: "Jones - DNR, Chris" <chris.jones@state.co.us>
Cc: Laura Kalafus - DNR <laura.kalafus@state.co.us>

Tue, Nov 19, 2024 at 8:15 PM

please provide me a path for appeal. your attitude is typical of government overreach

[Quoted text hidden]

Jones - DNR, Chris <chris.jones@state.co.us>
To: "gtykennedy@aol.com" <gtykennedy@aol.com>
Cc: Laura Kalafus - DNR <laura.kalafus@state.co.us>

Wed, Nov 20, 2024 at 8:42 AM

Greg,

The path for your application's review is through the Board of Examiners as I indicated. If you have additional information you would like the Board to consider please send it to me and I will include it with your application. I would encourage you to attend the Dec 3, 2024 Board meeting so that the Board has the opportunity to ask you questions if they have any about your application.

Thanks



STATE OF
COLORADO

Jones - DNR, Chris <chris.jones@state.co.us>

Pump Installation Contractor application

Jones - DNR, Chris <chris.jones@state.co.us>

Wed, Dec 11, 2024 at 11:35 AM

To: "gtykennedy@aol.com" <gtykennedy@aol.com>

Greg,

The Board considered your application at the December 3, 2024 BOE meeting and indicated they would like more information about your experience related to the license you are applying for. They would like to reevaluate your application at the February 4, 2025 BOE meeting.

Written information that would be helpful to the Board would include a detailed description of:

- the work performed and experience you gained related to pumping equipment installation demonstrating you have the specific skills to install pumps in water wells and associated pumping equipment;
- any problems encountered and solutions developed during pumping equipment installation;
- knowledge of and ability to operate pump installation equipment; and
- the permit number of the wells or addresses the work was performed for pumping equipment installations in Colorado.

Here is a link to the Board of Examiners webpage where you can find links to the well construction Rules (2 CCR 402-2) and the BOE Administrative Rules (2 CCR 402-14).

Please send the additional requested information, or other information you would like the Board to consider to me at least two weeks prior to the date of the next Board meeting so that it can be incorporated into the information packet for the Board.

Thanks

Chris Jones
Chief Well Inspector
Hydrogeology Section



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AGENDA ITEM 15.a

Draft Policy 2025-1 - Clarification
of Grouting Requirements for
Wells Constructed with Driven
Casing

Request Board Comment and
Approval



COLORADO

Division of Water Resources

Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors

April 1, 2025

Policy 2025-1

CLARIFICATION OF THE GROUTING REQUIREMENTS FOR WELLS CONSTRUCTED WITH DRIVEN SURFACE CASING

Background

The Board of Examiners of Water Well Construction and Pump Installation Contractors (“Board” or “BOE”) was created under section 37-91-103, C.R.S., and is tasked with adopting rules as necessary to protect the public health and the protection and preservation of groundwater resources provided in article 91, title 37, C.R.S. Well construction methods using driven surface casing or casing advance systems are allowed by the Water Well construction Rules 2 CCR 402-2. Such construction methods typically result in a very narrow to non-existent annulus outside of the steel casing leaving insufficient annular space to grout per the requirements of Rule 10.4.4. The annular space requirements in Rule 10.4.4 are intended for “open hole” drilling methods where casing is placed after drilling and grout is placed between the borehole and the outside of the casing. It is acknowledged that the majority of the requirements for grouting in Rules 10.4.5 through 10.4.8 are written for casing placed in an open borehole where grouting occurs in an annulus between the borehole wall and the outside of the casing.

Requirements for grouting between an interval below and above the base of the driven surface casing was first included in the 2000 version of the Construction Rules. Requirements to grout an interval overlapping the base of the driven surface casing in Type II and Type III aquifers has persisted through the current version of the Rules.

Rule 10.4.2.1 states:

Driven Surface Casing for wells in Type II and Type III aquifers- The annular space between surface casing that is driven and the production casing string must be grouted in accordance with the following requirements for Type II and Type III aquifers. Additional grouting below the base of the driven surface casing may be necessary to comply with the requirements for a particular type of aquifer. See Figure 3.

a. For Type II aquifers (unconfined bedrock aquifers) with driven surface casing, the grout interval must extend from at least twenty (20) feet below to at least ten (10) feet above the base of the surface casing.

b. For Type III aquifers (unconsolidated aquifers) with driven surface casing, the grout interval must extend from at least ten (10) feet below to at least ten (10)



feet above the base of the surface casing. See Figure 3.

Rule 10.4.7.2.a for wells completed into Type III aquifers states:

In wells constructed with surface casing into Type III aquifers (unconsolidated aquifer), the annulus between the borehole wall and the surface casing must be grouted from a depth of at least nineteen (19) feet up to the depth required by Rule 10.5.2.1. If the surface casing is driven, grout must be placed between the production casing and driven casing from not less than ten (10) feet below to at least ten (10) feet above the base of the driven casing (see Figure 3). At least ten (10) feet of continuous grout is required.

Rule 10.5.2.1.c states:

At or near the ground surface, the annulus between the borehole and the outermost casing must be sealed with at least the minimum amount of continuous cement grout required for the particular type of aquifer in which the well is constructed (see Rule 10.4), and considering whether a pitless adapter or unit will be installed. The top of the grout seal must not exceed the depths below ground level as set forth below:

c. Not less than ten (10) feet above the base of the surface casing that has been driven for a well in a Type II or Type III aquifer. If the well is constructed into a Type II aquifer, the grout interval must extend at least twenty (20) feet below the base of the surface casing. If the well is constructed into a Type III aquifer, the grout interval must extend at least ten (10) feet below the base of surface casing. See Rule 10.4.2.1.

Those Rules define a required interval of grout overlapping the base of the driven surface casing. The Rules do not contain limitations or relief from the required grouted intervals defined in 10.4.2.1, 10.4.7.2.a and 10.5.2.1.c under any circumstances where driven surface casing is used.

Some contractors utilize a well construction method/sequence not specifically addressed or contemplated in the Construction Rules, where the steel surface casing is driven but grout is not placed in the intervals required by 10.4.2.1, 10.4.7.2.a and 10.5.2.1.c because the steel surface casing is either:

1. placed into a previously drilled open borehole, then driven to the depth necessary to support the formation, then grout is placed in the annulus between the drilled borehole and the driven casing to depths required by Rule 10.4.6.2 for wells completed in Type II aquifers or required by Rule 10.4.7 for wells completed in Type III aquifers; or
2. driven from the surface to the depth necessary to support the formation then the contractor overreams outside of the driven surface casing to create sufficient annulus to grout.

In such well construction methods, grouting of an adequately-sized annulus outside the driven steel casing could satisfy the grouting requirements of Rules 10.4.6, 10.4.6.2, 10.4.6.3, 10.4.7,

10.4.7.2.a, 10.5.2.1.a and/or 10.5.2.1.b and ostensibly accomplishes the intent of the Rules for an open hole construction method, but would remain in violation of Rules 10.4.2.1, 10.4.7.2.a and/or 10.5.2.1.c for not grouting the interval overlapping the base of the driven surface casing.

Furthermore, the Construction Rules do not expressly define a limit on the depth driven surface casing can penetrate from one aquifer or hydrogeologic unit into another prior to requiring a grout seal per Rules 10.4.2.1, 10.4.7.2.a and/or 10.5.2.1.c. Excessive penetration of driven surface casing from one aquifer into another without a grout seal could cause intermingling of water or the migration of contaminants along the outside of the driven casing. It is acknowledged that some penetration into the underlying formation is inevitable and necessary during drilling for contractors to log cuttings allowing confirmation of different material types. As with all drilling methods, the method of well construction must be protective of the groundwater resources as outlined in Rule 10.1 is required; therefore this policy is necessary to set a maximum limit on the penetration of driven surface casing below the interface between two aquifers or between an aquifer and a confining unit prior to requiring a grout seal.

Objective

This policy will provide clarification on circumstances where driven surface casing may be used without the requirements to grout the interval overlapping the base of the driven casing as required by Rules 10.4.2.1, 10.4.7.2.a and/or 10.5.2.1.c for Type II and Type III aquifer wells where the grouting requirements for open annulus intervals are otherwise followed.

This policy will also provide clarification for the maximum allowable penetration of driven surface casing below the interface between two aquifers/geologic units prior to grouting per the requirements of 10.4.2.1.a.

Policy

Driven surface casing must be associated with one or more grouted intervals to control the movement of water vertically through the annulus left by the drilling process. Unless the method of well construction results in the grouting of an open annulus between the steel casing and the borehole meeting the minimum depths, intervals and sizes required by Rule 10.4.4, 10.4.6, 10.4.7 and 10.5.2 and 10.5.3, the driven surface casing must be grouted in accordance with the requirements of Rules 10.4.2.1, 10.4.7.2.a and/or 10.5.2.1.c for Type II and Type III aquifer wells.

Centralizers must be used on all casing in required grouted intervals in accordance with the spacing and locations described in Rule 10.4.1.

Driven surface casing alone is not sufficient to isolate a Type III aquifer material from an underlying bedrock aquifer. For wells constructed into a Type II aquifer overlain by Type III aquifer, if the grout placed in an appropriately-sized (see Rule 10.4.4 and 10.5.3) open annulus outside the driven surface casing does not extend to or below the top of the bedrock and back up to the depth required by Rule 10.5.2, the requirements of Rules 10.4.2.1.a must be followed.

Unless an open annulus exists outside of the driven casing at the interface between the aquifers and the annulus is properly grouted per the requirements of the Well Construction Rules (as discussed in the paragraph above), the base of driven surface casing shall not extend more than 20

feet below the interface between two aquifers or between an aquifer and a confining unit prior to grouting per the requirements of Rule 10.4.2.1.a. In no case shall the driven casing penetrate through a confining layer. This policy does not eliminate the requirement to place grout seals from at least from the base of a confining layer for Type I aquifer wells up to the depths required by Rules 10.4.5, 10.4.8 and 10.5.2.1.

Approval

This policy may only be modified or revoked in writing by the Board of Examiners of Water Well Construction and Pump Installation Contractors.

Approved _____
Christopher J. Sanchez, P.G., Chairperson
Board of Examiners of Water Well Construction
and Pump Installation Contractors