

**APPLICATION FOR PERMIT TO:**

**Drill**       Deepen       Re-enter       Recomplete and Operate

TYPE OF WELL    OIL <input type="checkbox"/> GAS <input type="checkbox"/> COALBED <input type="checkbox"/> OTHER <u>Gas Storage</u>	Refiling <input type="checkbox"/>
ZONE TYPE    SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONES <input type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Sidetrack <input type="checkbox"/>

Date Received:  
06/13/2014

Well Name: ECGS      Well Number: 6-21 WPD004-2

Name of Operator: EAST CHEYENNE GAS STORAGE LLC      COGCC Operator Number: 10322

Address: 999 18TH STREET #925 NORTH

City: DENVER      State: CO      Zip: 80202

Contact Name: Greg Francis      Phone: (720)351-4003      Fax: (720)351-4206

Email: gfrancis@mehllc.com

**RECLAMATION FINANCIAL ASSURANCE**  
Plugging and Abandonment Bond Surety ID: 20090106

**WELL LOCATION INFORMATION**

QtrQtr: NESW      Sec: 6      Twp: 11N      Rng: 52W      Meridian: 6

Latitude: 40.953120      Longitude: -103.220640

Footage at Surface: 1440 feet      FNL/FSL FSL 2297 feet      FEL/FWL FWL

Field Name: PEETZ WEST      Field Number: 68300

Ground Elevation: 4558      County: LOGAN

GPS Data:  
Date of Measurement: 06/07/2014      PDOP Reading: 1.4      Instrument Operator's Name: Darren Veal

If well is  Directional       Horizontal (highly deviated)      **submit deviated drilling plan.**

Footage at Top of Prod Zone:	FNL/FSL	FEL/FWL	Bottom Hole:	FNL/FSL	FEL/FWL
<u>484</u>	<u>FSL</u> <u>2236</u>	<u>FWL</u>	<u>484</u>	<u>FSL</u> <u>2236</u>	<u>FWL</u>
Sec: <u>6</u>	Twp: <u>11N</u>	Rng: <u>52W</u>	Sec: <u>6</u>	Twp: <u>11N</u>	Rng: <u>52W</u>

**LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT**

Surface Ownership:  Fee       State       Federal       Indian

The Surface Owner is:  is the mineral owner beneath the location.  
(check all that apply)  is committed to an Oil and Gas Lease.  
 has signed the Oil and Gas Lease.  
 is the applicant.

The Mineral Owner beneath this Oil and Gas Location is:  Fee       State       Federal       Indian

The Minerals beneath this Oil and Gas Location will be developed by this Well: No

The right to construct the Oil and Gas Location is granted by: oil and gas lease

Surface damage assurance if no agreement is in place: \_\_\_\_\_      Surface Surety ID: \_\_\_\_\_

**LEASE INFORMATION**

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

NW1/4 & SW1/4 Sec 6 T11N R52W (320Ac)

Total Acres in Described Lease: 320 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # \_\_\_\_\_

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 240 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 490 Feet

Building Unit: 5280 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 1440 Feet

Above Ground Utility: 2297 Feet

Railroad: 5280 Feet

Property Line: 301 Feet

**INSTRUCTIONS:**

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).

- Enter 5280 for distance greater than 1 mile.

- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.

- Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

**DESIGNATED SETBACK LOCATION INFORMATION**

Check all that apply. This location is within a:  Buffer Zone  
 Exception Zone  
 Urban Mitigation Area

- Buffer Zone – as described in Rule 604.a.(2), within 1,000' of a Building Unit

- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.

- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: \_\_\_\_\_

Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: \_\_\_\_\_

**SPACING and UNIT INFORMATION**

Distance from Completed Portion of Wellbore to Nearest Wellbore Permitted or Completed in the same formation: 922 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary \_\_\_\_\_ Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

**SPACING & FORMATIONS COMMENTS**

\_\_\_\_\_

**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
D SAND	DSND			

**DRILLING PROGRAM**

Proposed Total Measured Depth: 5407 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 922 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H<sub>2</sub>S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

Will salt based (>15,000 ppm Cl) drilling fluids be used? No

Will oil based drilling fluids be used? No

BOP Equipment Type:  Annular Preventor  Double Ram  Rotating Head  None

### GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

### DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Land application

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Cuttings trench

Other Disposal Description:

Beneficial reuse or land application plan submitted?                     

Reuse Facility ID:                      or Document Number:                     

### CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
SURF	13+1/2	9+5/8	36	0	1200	493	1200	0
1ST	8+3/4	7+0/0	26	0	5407	70	5407	4857

Conductor Casing is NOT planned

### DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

### GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

### RULE 502.b VARIANCE REQUEST

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number                     

### OTHER LOCATION EXCEPTIONS

Check all that apply:

- Rule 318.c. Exception Location from Rule or Spacing Order Number
- Rule 603.a.(2) Exception Location (Property Line Setback).

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

### OPERATOR COMMENTS AND SUBMITTAL

Comments

The ECGS 6-21 WPD004-2 proposed well is to be drilled as an gas storage injection-withdrawal well East Cheyenne Gas Storage field of Logan County, Colorado. The well is being drilled to increase the gas storage capacity and deliverability of the Dakota D Formation.

Form 2 is being smitted under the COGCC permitting guidelines date May 27, 2010. The document is entitled "East Cheyenne Gas Storage Project Permitting & Reporting Requirements". Well will be on the same drill pad as the ECGS 6-12 well.

This application is in a Comprehensive Drilling Plan \_\_\_\_\_ CDP #: \_\_\_\_\_

Location ID: 428763

Is this application being submitted with an Oil and Gas Location Assessment application? No

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Greg Francis

Title: Project Geologist Date: 6/13/2014 Email: gfrancis@mehllc.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: *Matthew Lee* Director of COGCC Date: 7/18/2014

Expiration Date: 07/17/2016

<b>API NUMBER</b>
05 075 09426 00

### Conditions Of Approval

**All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.**

<u>COA Type</u>	<u>Description</u>
	1) Provide 48 hr notice prior to spud via electronic Form 42. 2) Provide cement coverage from TD to a minimum of 200' above D-Sand. Verify coverage with cement bond log.

### Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	General Housekeeping	Housekeeping will consist of neat and orderly storage of materials and fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at offsite or suitable facilities. Cleanup of trash and discarded materials will be conducted at the end of each work day. Cleanup will consist of patrolling the roadway, access areas, and other work areas to pick-up trash, scrap debris, other discarded materials, and any contaminated soil. A commercial size trash bin for removing debris will be located on site. This bin will be for use by all parties affiliated with the operation. The well site will be fenced after drilling to restrict public and wildlife access. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by the surface owner and during planting period suggested by the landowner. All surface restoration shall be accomplished and completed to the reasonable satisfaction of the surface owner, as soon as practical after installation (weather permitting), and in accordance with regulatory agencies' standards.

2	Storm Water/Erosion Control	<p>Storm water management plans (SWMP) are in place to address construction, drilling and operations associated with oil &amp; gas development in accordance with Colorado Department of Public Health and Environment. Storm water and erosion control will be constructed around the perimeter of the site prior to, or at the beginning of construction. BMP's used will vary according to the specific drill pad location, and will remain in place until the pad reaches final reclamation. Site will be inspected every fourteen (14) days during construction activities, every thirty (30) days after construction is completed, and after any major weather event. Apply biodegradable mulch, netting or soil stabilizers if required to stabilize surface material.</p>
3	Material Handling and Spill Prevention	<p>Spill Prevention Control and Countermeasures (SPCC) plans are in place to address possible spill associated with oil &amp; gas operations in accordance with Colorado CFR 112.</p> <p>Properly label, secure, handle and store hazardous materials. If spills occur, prompt cleanup would be done to minimize any commingling of waste materials with storm water runoff. Routine maintenance will be limited to fueling and lubrication of equipment. Drip pans will be used during routine fueling and maintenance to contain spills or leaks. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling. There will be no major equipment overhauls conducted onsite. Equipment will be transported offsite for major overhauls. ECGS, LLC will ensure that any material that might be deemed a fire hazard will remain no less than twenty-five (25) feet from the wellhead(s), tanks and separator(s).</p> <p>A pumper will visit the location daily to visually monitor the production facilities for leaks.</p>
4	Noise mitigation	<p>General construction noise mitigation measures that will be required of the contractor is to require all equipment is in good working order, adequately muffled and maintained in accordance with the manufactures' recommendations. Noise levels will be one of the factors considered during equipment and contractor selection.</p> <p>Semi-permanent stationary (generators, lights, etc) equipment may be available in "quiet" mode packages. To the extent possible, ECGS, LLC will use such equipment and also station such equipment as far from sensitive areas as possible.</p> <p>Erection of temporary barriers may also be employed utilizing materials such as intermodal containers or frac tanks, plywood walls, mass-loaded vinyl and hay bales.</p> <p>Alternative temporary accommodations also may be offered to those residences adversely impacted.</p>
5	Drilling/Completion Operations	<p>Authorized representatives or East Cheyenne personnel shall be on-site during drilling and completion operations.</p> <p>Construction: Avoid disturbing soil and vegetation, when possible. Remove only the minimum amount of vegetation necessary for the construction of roads and facilities, leaving as much vegetation (grasses) in ditches, on road shoulder areas and on cut or fill slopes. Conserve top soil during excavation and reuse as cover on disturbed areas to facilitate re-growth of vegetation. No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment. Snow and frozen soil material will not be used in construction of fill areas, dikes, or berms.</p> <p>Upon initial rig-up, BOPEs will be tested at a minimum of every 30 days. Blowout prevention equipment will include a double ram and an annular preventer. The drilling company will have a valid blowout prevention certification. Adequate BOPE will be used for well servicing operations.</p> <p>Lighting will be provided during drilling and completion operations to ensure worker safety and compliance with all regulations. To the extent practicable, site lighting shall be directed downward and inward and shielded so as to avoid glare on public roads and building units within one thousand (1000) feet.</p>

6	Drilling/Completion Operations	Open hole resistivity log with gamma ray will be run on this well to describe the stratigraphy of the vertical section of the wellbore and to adequately verify the setting depth of the surface casing and aquifer coverage.
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Total: 6 comment(s)

**Applicable Policies and Notices to Operators**

Notice Concerning Operating Requirements for Wildlife Protection.

**Attachment Check List**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
400624645	FORM 2 SUBMITTED
400626354	DEVIATED DRILLING PLAN
400626369	WELL LOCATION PLAT
400626373	LOCATION DRAWING
400626375	REFERENCE AREA PICTURES
400626378	TOPO MAP
400627963	DIRECTIONAL DATA

Total Attach: 7 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
Permit	Corrected dist. to bldg. Oper. added open hole logging BMP. No LGD or public comments. Final Review--passed.	7/9/2014 2:38:08 PM
Permit	Corrected SHL footage FSL per attached well location plat.	7/8/2014 7:19:11 AM
Permit	Passed completeness. All corrections made.	6/17/2014 4:11:45 PM
Permit	Return to draft: 1. Missing directional data 2. Surface and mineral owner both FEE, but it is not checked that the surface owner is the mineral owner 3. Location ID is blank	6/16/2014 2:48:45 PM

Total: 4 comment(s)