

APPLICATION FOR PERMIT TO:

Drill

 Deepen

 Re-enter

 Recomplete and Operate

TYPE OF WELL OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> COALBED <input type="checkbox"/> OTHER _____	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:
08/08/2013

Well Name: <u>MITCHEK</u>	Well Number: <u>44-11-1445</u>
Name of Operator: <u>RESOURCE DEVELOPMENT TECHNOLOGY LLC</u>	COGCC Operator Number: <u>74250</u>
Address: <u>PO BOX 1020</u>	
City: <u>MORRISON</u>	State: <u>CO</u>
	Zip: <u>80465</u>
Contact Name: <u>TOM BOWMAN</u>	Phone: <u>(303)716-3200</u>
	Fax: <u>(303)716-5780</u>
Email: <u>colorado@usermail.com</u>	

RECLAMATION FINANCIAL ASSURANCE
 Plugging and Abandonment Bond Surety ID: 20100202

WELL LOCATION INFORMATION

QtrQtr: SESE Sec: 11 Twp: 14S Rng: 45W Meridian: 6
 Latitude: 38.845110 Longitude: -102.410660

Footage at Surface: 1300 feet FNL/FSL FSL 945 feet FEL/FWL FEL

Field Name: HIDDEN ARROW Field Number: 35125
 Ground Elevation: 4322.6 County: CHEYENNE

GPS Data:
 Date of Measurement: 06/13/2013 PDOP Reading: 2.1 Instrument Operator's Name: ELIJAH FRANE

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 _____
 Sec: _____ Twp: _____ Rng: _____ Sec: _____ Twp: _____ Rng: _____

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: Yes

The right to construct the Oil and Gas Location is granted by: Surface Use Agreement

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.)

E/2SE4 11-14S-45W, 6 p.m. Cheyenne County, CO

Total Acres in Described Lease: 80 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: 375 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 4956 Feet

Building Unit: 4956 Feet

High Occupancy Building Unit: 5280 Feet

Designated Outside Activity Area: 5280 Feet

Public Road: 4110 Feet

Above Ground Utility: 3685 Feet

Railroad: 5280 Feet

Property Line: 945 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: 1005 Feet

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

Federal or State Unit Name (if appl): _____ Unit Number: _____

SPACING & FORMATIONS COMMENTS

TWO EXCEPTION LOCATION REQUESTS AND TWO EXCEPTION LOCATION WAIVERS ARE ATTACHED.

OBJECTIVE FORMATIONS

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
ATOKA	ATOK			
MISSISSIPPIAN-OSAGE-WARSAW	M-O-W			

DRILLING PROGRAM

Proposed Total Measured Depth: 5600 Feet

Distance to nearest permitted or existing wellbore penetrating objective formation: 1005 Feet (Including plugged wells)

Will a closed-loop drilling system be used? No

Is H₂S gas reasonably expected to be encountered during drilling operations at concentrations greater than

or equal to 100 ppm? No (If Yes, attach an H2S 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: ONSITE Drilling Fluids Disposal Methods: Other

Cuttings Disposal: ONSITE Cuttings Disposal Method: Other

Other Disposal Description:

DRY & BURY

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	12+1/4	8+5/8	24	0	300	200	300	0
1ST	7+7/8	5+1/2	15.5	0	5600	250	5600	4100
	7+7/8	5+1/2	Stage Tool	0	3050	450	3050	0

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 318.a.

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 **TWO EXCEPTION LOCATION REQUESTS AND TWO EXCEPTION LOCATION WAIVERS ARE ATTACHED. WELL IS NOT IN DJ BASIN AND IS NOT HORIZONTAL. DOES NOT REQUIRE OFFSET WELL EVALUATION. THERE IS A VERTICAL WELL 1005' AWAY, API# 05-017-07428. THERE ARE NO AVAILABLE WATER SOURCES WITHIN 1/2 MILE RADIUS OF PROPOSED WELL.**

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: _____

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: _____ Print Name: KARL WALTER

Title: LAND MANAGER Date: 8/8/2013 Email: karlwalterjr@gmail.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: 9/13/2013

Expiration Date: 09/12/2015

API NUMBER
05 017 07770 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.

COA Type

Description

	<p>1) Provide 48 hour notice prior to spud via Form 42.</p> <p>2) Set at least 370' of surface casing due to WW depths w/in 1 mile.</p> <p>3) If production casing is set provide cement coverage from TD to 200' above the shallowest completed interval or Morrow whichever is higher and stage cement Cheyenne/Dakota (minimum 2550' to 1950'). Run and submit CBL to verify cemented intervals.</p> <p>4) If well is a dry hole set plugs at the following depths: 40 sks cement +/- 50' above the MSSP, 40 sks cement +/- 50' above the MRRW, 40 sks cement across any DST w/ show, 40 sks cement at 2550' up, 40 sks cement at 1950' up, 50 sks cement from 50' below surface casing shoe up into surface casing, 15 sks cement in top of surface casing, cut 4 ft below GL, weld on plate, 5 sks cement each in rat hole and mouse hole.</p>
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Best Management Practices

No BMP/COA Type

Description

1	Planning	<ul style="list-style-type: none"> · CONDUCT INITIAL SITE ASSESSMENT o Identification of nearby water bodies o Identification of vegetation types o Identification of protected wildlife species o Identification of potential access routes to minimize disturbances o Identification of nearby improvements
2	Pre-Construction	<ul style="list-style-type: none"> · Preparation of a Storm Water Pollution Prevention Plan. Acquisition of a Storm Water Discharge Permit · Consultation with the surface owner or appointed agent · Finalize access routes · Finalize well pad location to minimize surface grade impacts · Finalize well pad layout to minimize disturbances · Develop wildlife management plan if protected species are present
3	General Housekeeping	<ul style="list-style-type: none"> · Drilling and production operations conducted in safe workmanlike manner. Safety expectations include good housekeeping. · During drilling/completion operations, debris stored in caged container which is removed from the site · During production operations, the lease is inspected daily by RDT personnel.
4	Wildlife	<ul style="list-style-type: none"> · Development and implementation of a Wildlife Management Plan if protected species are present
5	Storm Water/Erosion Control	<ul style="list-style-type: none"> · During drilling/completion operations, implementation of Storm Water Pollution Prevention Plan · Following drilling/completion operations, prompt reclamation of disturbed areas · During production operations, implementation of RDT's Post Construction Storm Water Management Plan <p>SITE SPECIFIC</p> <p>1 Per ephemeral stream 338 feet northwest of proposed well pad – structural practices will be implemented at the site to minimize erosion and sediment transport. Practices may include but are not limited to: straw bales, wattles/sediment control logs, silt fences, earth dikes, drainage swales, sediment traps, subsurface drains, inlet protection, outlet protection, gabions and temporary sediment basins.</p>

6	Material Handling and Spill Prevention	<ul style="list-style-type: none"> · During drilling/completion operations, storage areas graded towards pit · During production operations, implementation of Spill Prevention, Control and Countermeasure Plan & daily inspection · All stock and produced water tanks have secondary containment
7	Construction	<ul style="list-style-type: none"> · Access road, well pad and pit disturbances minimized · Soils segregated by type to facilitate reclamation · Storm water controls deployed and routinely inspected
8	Drilling/Completion Operations	<ul style="list-style-type: none"> · Implement Storm Water Pollution Prevention Plan, including routine inspections and evaluation of effectiveness · Locate tank batteries at safe distance from public roadways and railhead · Full containment of stock tanks and separators · Installation of pipelines in common trenches when practical · Installation of pipelines at right angles to water bodies (drainages, wetlands, perennial water bodies) where practical
9	Interim Reclamation	<ul style="list-style-type: none"> · Debris and waste material removed · Areas not in use reclaimed promptly; pits closed using segregated material; well pad and other compacted surfaces ripped · Noxious weeds controlled
10	Final Reclamation	<ul style="list-style-type: none"> · All equipment and debris removed · All remaining disturbed areas, including access roads, reclaimed · Noxious Weed Control Plan developed if appropriate

Total: 10 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2518535	OFFSET WELL EVALUATION
400464519	FORM 2 SUBMITTED
400464580	30 DAY NOTICE LETTER
400464583	LGD CONSULTATION
400464585	SURFACE AGRMT/SURETY
400464587	EXCEPTION LOC REQUEST
400464589	EXCEPTION LOC WAIVERS
400464590	EXCEPTION LOC WAIVERS
400464593	EXCEPTION LOC REQUEST
400464927	PLAT
400464955	OTHER
400465194	H2S CONTINGENCY PLAN
400465219	WELL LOCATION PLAT

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review completed; no LGD or public comment received.	9/13/2013 6:24:19 AM
Permit	Resource Development Technology requests approval of a Rule 318a. exception location citing geologic reasons. Wellhead is to be located less than 1200' (1005') from the nearest well producing/permitted to the same common source of supply. Resource Development Technology also requests approval of a Rule 318a. exception location. Wellhead is located less than 600' (375') from described lease boundary. Waivers have been provided per rule 318c. allowing for the lease line encroachment and the distance between wells.	9/6/2013 3:10:28 PM

Total: 2 comment(s)