



RULE 304.E. SUBSTANTIALLY EQUIVALENT INFORMATION COVER SHEET

Oil and Gas Development Plan Shelduck South Pad, Docket #211000200

Shelduck South Pad: Lot 6 Section 6, Township 7 North, Range 60 West

Loc ID 455769, Form 2A Doc #402657658

Weld County, Colorado

The attached Weld County Access Permit is being submitted as a substantially equivalent document to the Transportation Plan required by COGCC Rule 304.c.(6).

This document was developed for the Weld County as part of 1041WOGLA20-0059.

This document does not conform to COGCC rules or guidance in the following ways:

None.

This document should be accepted as substantially equivalent:

The attached Weld County Access permit was accepted as APOG20-0072 by Weld County as part of approved 1041WOGLA20-0059. Additional traffic planning information from the Required Information of the approved WOGLA is also attached for reference.

the future a lockbox with a key will be on location so that the county and the fire district have access.

11. How will noxious weeds be controlled at this location?

The location will be inspected for weed infested areas and prompt action consisting of spraying will be taken to mitigate any identified infested areas. All noxious weeds identified will not be allowed to reach the flowering or seed dispersal stage. Vehicles will not be allowed to drive through, and machinery will not be parked, within weed infested areas.

In addition to the above-mentioned best management practices, Mallard is committed to the protection of the health, safety, and welfare of Weld County through detailed design of the production facility. The Shelduck South facility will feature the following:

- All tank vapors from the tank vents are captured via a closed vent system to be safely and efficiently combusted to meet all regulatory destruction efficiency requirements. This will eliminate any venting of tank vapors to the environment.
- The location will utilize air compressors for all air operated instruments and control valves, which will eliminate any venting of natural gas and greenhouse gases.
- All the natural gas from the production equipment is captured and routed to a pipeline eliminating any un-necessary gas destruction via emission control devices (ECD) and therefore is not released into the environment. The location will be designed with multiple ECDs in order to provide flexibility to minimize air emissions yet maximize throughput efficiencies.
- Electricity will be brought to the location to power the facility. Use of electricity eliminates the air emissions that were associated from “typical” or “older” well pad equipment such as generators and natural gas compressors.
- Prior to initial use, all flowlines are pressure tested using a high-pressure pump and water. All flowlines are then tested annually or if a leak or defect is suspected. A corrosion inhibitor will be run on all steel flowlines. Within the production facility, all flowlines will be installed above ground on a rack, allowing daily visual inspections. Any drain line that is buried will be constructed using poly pipe.

C. A statement describing the kind of vehicles (type, size, weight) that will access the Oil and Gas Facility during drilling and completion operations, and a defined access route. This shall include a traffic narrative with the following information:

- 1. The number of roundtrips/day expected for each vehicle type: Passenger Cars/Pickups, Tandem Trucks, Semi-Truck/Trailer/RV (Roundtrip=1 trip in and 1 trip out of site).**

The traffic associated with the proposed location will depend on the phase of the project. The duration of each phase will ultimately depend on the number of wells drilled. The average daily traffic associated with each phase of development is estimated below.

	Pad Construction	Facility Construction	Drilling	Completions	Flowback
Duration (Days)	20	60	52	56	10
Operating Hours	Daylight Hours	Daylight Hours	24 hours	24 hours	24 hours
Truck Traffic	8	2	10	84	6
Employee Traffic	5	8	18	21	4

Table 1: Average Number of Roundtrips per Day during Construction, Drilling & Completions Operations for full development (8 wells)

It is anticipated that the majority of trucks accessing the site will be Combo Units (class 8-13), however some Single Units (class 4-7) are also expected. For employee traffic, it is assumed supervisors will be driving pickup trucks and contract employees will be driving personal vehicles.

2. The expected travel routes or haul routes for the site traffic.

The main transportation route to the location will be from the intersection of Highway 14 and CR 97, south on CR 97 for 2 miles, south on the oil and gas access road 4,000 feet into the location.

3. The travel distribution along the routes (e.g. 50% of traffic will come from the north, 20% from the south, 30% from the east, etc.)

It is anticipated that 50% of the truck traffic will come from the east on Highway 14 and that 50% of the truck traffic will come from the west on Highway 14.

4. The time of day when the highest traffic volumes are expected.

It is anticipated that the employees working during the drilling and completion phases will work in shifts. Therefore, peak site trips will most likely occur at shift change hours and will consist mostly of passenger cars or equivalent vehicles. Truck activity will occur randomly throughout the 24-hour day.

5. If the drilling waste (cuttings and fluids) will be disposed of on the oil and gas location, include a statement describing the location and disposal method.

Water-based bentonitic drilling fluids and oil-based drilling fluids and cuttings will be hauled off site by a licensed third-party transporter to be disposed of at a properly permitted commercial waste facility.

D. What analysis was done in choosing this location? Explain why this location was selected.

Mallard is working diligently to create a development plan for our leasehold in this area that best protects the agricultural lands of Weld County, preserves Surface Owners property, and protects public health, safety, and welfare. In 2018, Mallard submitted permits to the COGCC to develop Sections 5 and 6 of T7N, R60W. At the time, this development was to occur using two (2) different surface locations, known as Shelduck South and Shelduck North, shown in Figure 2.

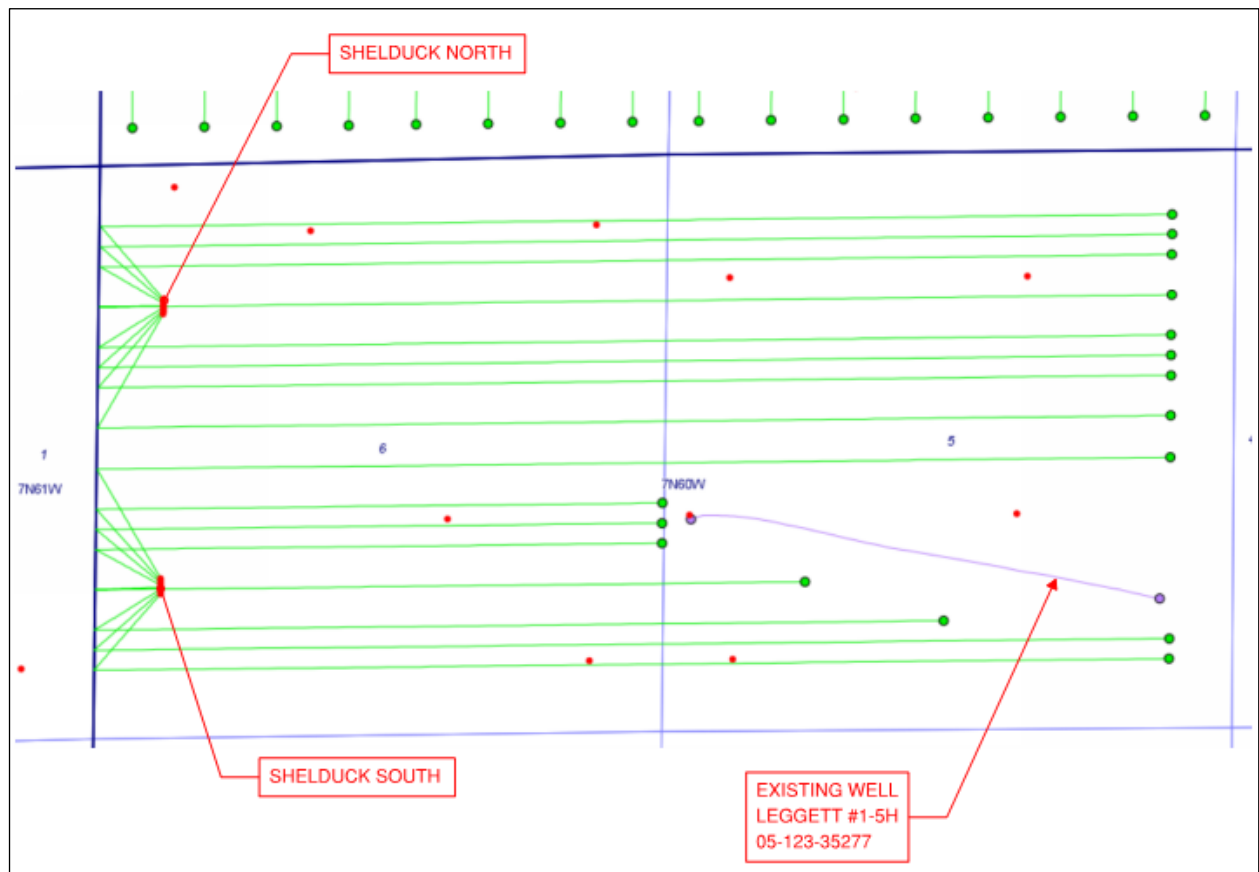


Figure 2: Permitted Development of Sections 5 & 6, T7N, R60W

In an effort to reduce surface disturbance and to maximize distance from the nearest building unit, Mallard is re-planning the development of Sections 5 and 6 from the Shelduck South pad only. The Shelduck North location will be abandoned with the COGCC upon approval of this 1041WOGLA application. In addition to the Shelduck South and Shelduck North locations, development from the



Weld County Public Works Dept.
1111 H Street
P.O. Box 758
Greeley, CO 80632
Phone: (970)304-6496
Fax: (970)304-6497

ACCESS PERMIT APPLICATION FORM

Property Owner

Name _____
Company _____
Address _____
City _____ State _____ Zip _____
Phone _____
E-mail _____

Information

The access is on CR _____
Nearest intersection: CR _____ & CR _____
Distance from intersection: _____ ft.
Parcel number: _____
Section/Township/Range: _____
Total number of existing accesses to parcel: _____
Total number of proposed accesses: _____
Latitude _____ Longitude _____
Planning/building case number _____

Description of Work

Authorized Agent/Applicant (if different from Owner)

Name _____
Company _____
Address _____
City _____ State _____ Zip _____
Phone _____
E-mail _____

Proposed Access Information

Culvert size & type (15" CMP/RCP min.) _____
Materials used to construct access _____
Access construction schedule _____
Approx. width of access _____

Proposed Access Count

Residential _____
Commercial _____
Oil and Gas _____
Agricultural _____
Temporary _____

Existing Access Count

Residential _____
Commercial _____
Oil and Gas _____
Agricultural _____

Required Attached Documents

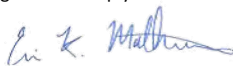
Property map or sketch (template available on pg. 2) indicating all proposed and existing accesses
Access Pictures (N, S, E, & W at the location where the access meets a county maintained road)
Access Authorization Form (Not required if the application is signed by the property owner)
Additional application materials may be required by the Public Works Department

Fee schedule

\$150 - Temporary, Small Commercial & Residential
\$300 - Industrial & Large Commercial

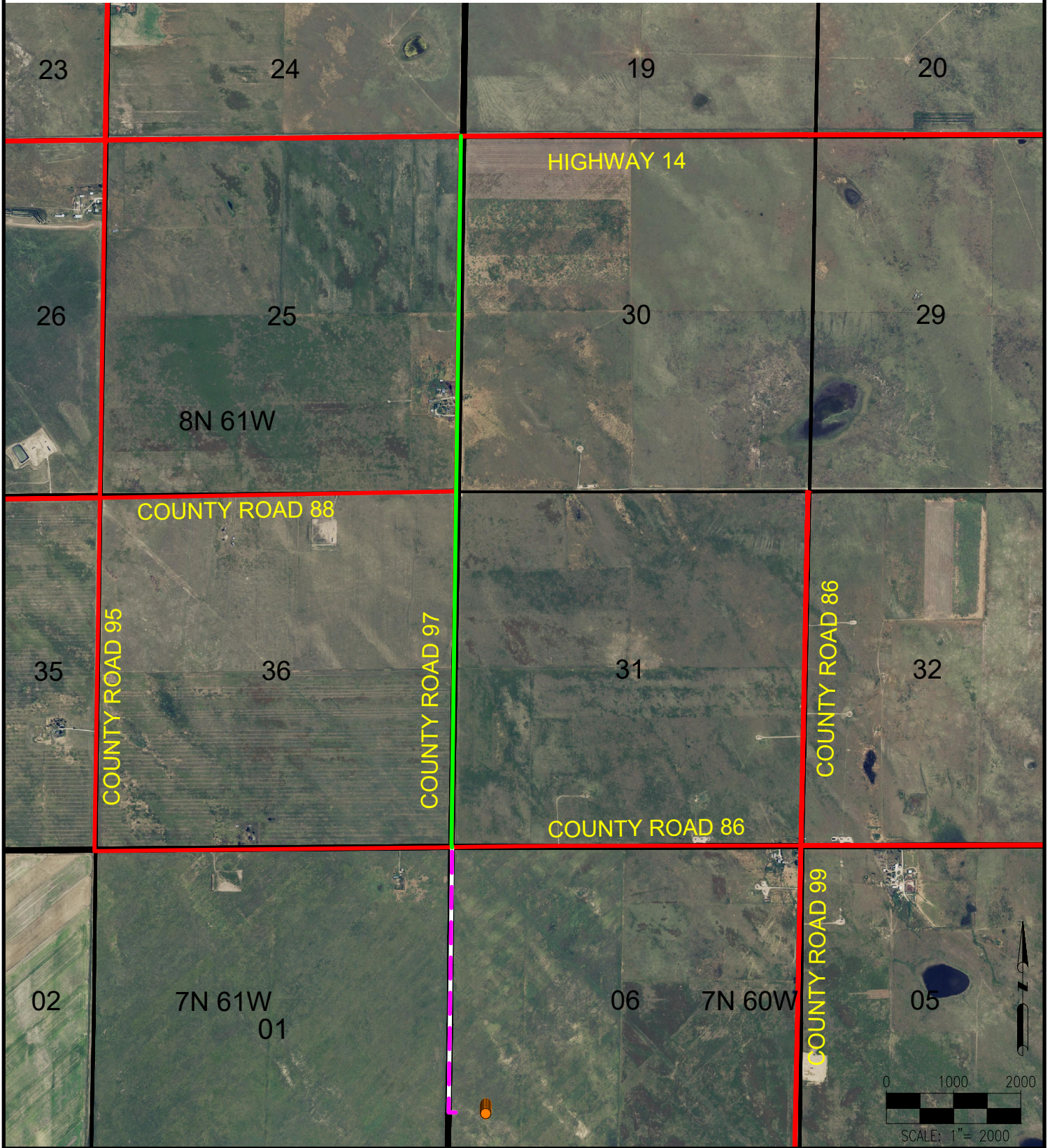
Submit application to accesspermits@weldgov.com

By accepting this permit, the undersigned Property Owner/Authorized Agent, under penalty of perjury, verifies they have received all pages of the permit application; they have read and understand all the permit requirements and provisions set forth on all pages. By virtue of their signature the Property Owner/Authorized Agent is bound by and agrees to comply with all said permit requirements and provisions, all Weld County ordinances, and state laws regarding access construction.

Signature  Printed Name _____ Date _____
Signature _____ Printed Name _____ Date _____
(In case of multiple Property Owners/Authorized Agents)

Accesses must be constructed within 1 year of issuance. An extension can be requested from the Weld County Public Works Department.
Accesses must be in accordance to Chapter 12, Article V and Appendix 12-A of County Code

SHELDUCK SOUTH PAD ACCESS ROAD MAP



LEGEND:

- = PROPOSED WELL
- = HAUL ROUTE
- = SECTION LINE
- = PROPOSED ACCESS ROAD
- = PUBLIC ROAD

DISCLAIMER:
THIS PLOT DOES NOT REPRESENT A MONUMENTED LAND SURVEY AND SHOULD NOT BE
RELIED UPON TO DETERMINE BOUNDARY LINES, PROPERTY OWNERSHIP OR OTHER
PROPERTY INTERESTS. PARCEL LINES, IF DEPICTED HAVE NOT BEEN FIELD VERIFIED AND
MAY BE BASED UPON PUBLICLY AVAILABLE DATA THAT ALSO HAS NOT BEEN
INDEPENDENTLY VERIFIED.

DATA SOURCE:
AERIAL IMAGERY: NAIP 2015
PLSS: BLM
PUBLICLY AVAILABLE DATA SOURCES HAVE NOT BEEN
INDEPENDENTLY VERIFIED BY ASCENT.



FIELD DATE:
12-14-17

DRAWING DATE:
12-27-17

BY:
DJP

CHECKED:
CLP

SITE NAME:
SHELDUCK SOUTH PAD

SURFACE LOCATION:
LOT 6 SW 1/4 SEC. 6, T7N, R60W, 6TH P.M.
WELD COUNTY, COLORADO



ACCESS ROAD PHOTOS



Looking from the roadway into the access location



Looking down the roadway to the left of the access



Looking from the access to the roadway



Looking down the roadway to the right of the access

Well Pad Name: SHELDUCK SOUTH PAD

Operator: MALLARD EXPLORATION

Access Location: T7N R60W S6 LOT 6 SW 1/4

Date Taken: 12/14/17

LAT: 40.611380° N LONG: 104.144782° W



7535 Hilltop Circle
Denver, CO 80221
(303) 928-7128
www.ascentgeomatics.com





DEPARTMENT OF PUBLIC WORKS
1111 H STREET
GREELEY, CO 80632

AUTHORIZATION FORM FOR ACCESS PERMITS

I, (We), Donald James West, give permission to Mallard Exploration (Erin Mathews)
(Owner – please print) (Applicant/Agent – please print)

to apply for Access permits on our behalf, for the property located at (address and parcel numbers):

07N-60W-06: W/2 Parcel Number: 071906000001

Property Owners Information:

Address: _____ City: _____ Zip: _____

Phone: _____ E-mail: _____

Applicant/Agent Contact Information:

Main Contact: Erin Mathews Company: Mallard Exploration

Address: 1821 Blake St. Ste 2B City: Denver Zip: 80202

Phone: 720-543-7579 E-Mail: emathews@mallardexploration.com

Email correspondence to be sent to: Owner _____ Applicant/Agent ☒ Both _____

Postal service correspondence to be sent to: (choose only one) Owner _____ Applicant/Agent ☒

Additional Info: _____

Owner Signature: Donald James West Date: 1-25-18

Owner Signature: _____ Date: _____



DEPARTMENT OF PUBLIC WORKS
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GREELEY, CO 80632

AUTHORIZATION FORM FOR ACCESS PERMITS

I, (We), Alice M. Jones, give permission to Mallard Exploration (Erin Mathews)
(Owner – please print) (Applicant/Agent – please print)

to apply for Access permits on our behalf, for the property located at (address and parcel numbers):

07N-60W-06: W/2 Parcel Number: 071906000001

Property Owners Information:

Address: 425 NE ELDER COURT City: CEADARIDGE CO Zip: 81413

Phone: (402) 686-2282 E-mail: ajonesaz@aol.com

Applicant/Agent Contact Information:

Main Contact: Erin Mathews Company: Mallard Exploration

Address: 1821 Blake St. Ste 2B City: Denver Zip: 80202

Phone: 720-543-7579 E-Mail: emathews@mallardexploration.com

Email correspondence to be sent to: Owner _____ Applicant/Agent x Both _____

Postal service correspondence to be sent to: (choose only one) Owner _____ Applicant/Agent x

Additional Info: _____

Owner Signature: Alice M. Jones Date: 01-25-2018

Owner Signature: _____ Date: _____



DEPARTMENT OF PUBLIC WORKS
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GREELEY, CO 80632

AUTHORIZATION FORM FOR ACCESS PERMITS

I, (We), Neil Stewart West, give permission to Mallard Exploration (Erin Mathews)
(Owner – please print) (Applicant/Agent – please print)

to apply for Access permits on our behalf, for the property located at (address and parcel numbers):

07N-60W-06: W/2 Parcel Number: 071906000001

Property Owners Information:

Address: _____ City: _____ Zip: _____

Phone: _____ E-mail: _____

Applicant/Agent Contact Information:

Main Contact: Erin Mathews Company: Mallard Exploration

Address: 1821 Blake St. Ste 2B City: Denver Zip: 80202

Phone: 720-543-7579 E-Mail: emathews@mallardexploration.com

Email correspondence to be sent to: Owner _____ Applicant/Agent ☒ Both _____

Postal service correspondence to be sent to: (choose only one) Owner _____ Applicant/Agent ☒

Additional Info: _____

Owner Signature: Neil Stewart West Date: Jan 24, 2018
MSD

Owner Signature: _____ Date: _____



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GREELEY, CO 80632

AUTHORIZATION FORM FOR ACCESS PERMITS

I, (We), Terrence O. Bolton, give permission to Mallard Exploration (Erin Mathews)
(Owner – please print) (Applicant/Agent – please print)

to apply for Access permits on our behalf, for the property located at (address and parcel numbers):

07N-60W-06: W/2 Parcel Number: 071906000001

Property Owners Information:

Address: 160 County Road 6236W City: Granby, Co Zip: 80446

Phone: 970-531-7914 E-mail: boltscustom@aol.com

Applicant/Agent Contact Information:

Main Contact: Erin Mathews Company: Mallard Exploration

Address: 1821 Blake St. Ste 2B City: Denver Zip: 80202

Phone: 720-543-7579 E-Mail: emathews@mallardexploration.com

Email correspondence to be sent to: Owner _____ Applicant/Agent ☒ Both _____

Postal service correspondence to be sent to: (choose only one) Owner _____ Applicant/Agent ☒

Additional Info: _____

Owner Signature: [Signature] Date: 1/23/2017

Owner Signature: _____ Date: _____