

## **STORM WATER POLLUTION PREVENTION PLAN**

UTE JAQUES No. 34-14 Well Pad

La Plata County, Colorado

Black Hills Exploration & Production

3200 North 1<sup>st</sup> Street

PO Box 249

Bloomfield, NM. 87413

June 2010

## **Contents**

The organization of this plan follows Part IV D of the National Pollution Discharge Elimination System (NPDES) General Permits for Storm Water Discharges from Construction Activities in Region VI, issued July 6, 1998. This section is entitled "Storm Water Pollution Prevention Plans, Contents of Plan".

### **EPA part**

- |      |                            |
|------|----------------------------|
| D. 1 | Site Description           |
| D. 2 | Controls                   |
| D.3  | Maintenance                |
| D.4  | Inspections                |
| D.5  | Non-Storm Water Discharges |

## **List of Appendices**

1. Site Map
2. Owner and Contractor Certifications
3. Completed Notices Of Intent (NOI), Permit, and Termination Forms, when available
4. Control Specifications
5. Blank Inspection Sheets
6. Text of NPDES General Permit for Construction Activities
7. Completed Inspection Reports

## **Project Name and Location**

|                                  |  |
|----------------------------------|--|
| <b>Project Name</b>              | Black Hills Exploration and Production<br>UTE No. 34-21 Well Pad   |
| <b>Location</b>                  | La Plata County, Colorado<br>Township 33 North, Range 8 West, Sec. 34, SW/4  |
| <b>Operator Name and Address</b> | Black Hills Exploration & Production<br>3200 North 1 <sup>st</sup> Street – PO Box 249<br>Bloomfield, NM. 87413  |
| <b>Owner Name and Address</b>    | Danny R. Jaques<br>Ignacio, Colorado 81137   |
| <b>General Contractor</b>        | Black Hills Exploration & Production<br>3200 North 1 <sup>st</sup> Street – PO Box 249<br>Bloomfield, NM. 87413  |
| <b>Stormwater Manager</b>        | Daniel Manus<br>Black Hills Exploration & Production<br>3200 North 1 <sup>st</sup> Street – PO Box 249<br>Bloomfield, NM. 87413<br>Phone: (505)-634-1111 |
| <b>SWPPP Prepared By:</b>        | Interior West Consulting, LLC<br>PO Box 1331<br>Mancos, CO 81328   |
| <b>Subcontractors:</b>           | Hocker Construction  |

## **D1. Site Description**

### **a. Nature of Construction Activity**

Black Hills Exploration & Production (BHEP) plans to construct and drill the UTE JAQUES #34-14 natural gas well located on private property in La Plata County, Colorado. The proposed well pad would measure 250 feet by 250 feet (1.43 acres) and would be constructed on the existing JAQUES UTE #34-7 well pad. New surface disturbance would be associated with minor well pad expansions and improvements (See Appendix 1). Maps and photographs are presented Appendix 1. A complete set of survey plats, diagrams, and legal descriptions was submitted with the application for permit to drill (APD).

### **b. Intended Sequence of Major Activities**

Generally, the sequence of soil disturbing activities will be:

- Closing of existing wellheads
- Removal of existing production equipment
- Preparing and leveling the well pad
- Drilling and casing
- Facility construction, testing, production
- Cleanup, site restoration and seeding

### **c. Total Area of Site Expected to Undergo Excavation**

The total area disturbed by proposed well pad construction (250 feet by 250 feet) is approximately 1.43 acres. However, the well pad will be constructed within previously disturbed ground on the existing JAQUES UTE #34-7 well pad (Appendix 1).

### **d. Runoff Coefficient of Site after Construction**

The final coefficient of runoff for the proposed project area will be approximately 0.20 for revegetated, non-road, unimproved areas. This is similar to the existing coefficient of runoff.

### **e. Location and Site Map**

The project is located in Township 33 North, Range 8 West, Section 34 (NE ¼), New Mexico Prime Meridian (NMPM), La Plata County, Colorado. Project location and site plan maps are provided in

Appendix 1. At a minimum, maps illustrate general location, drainage patterns, area of soil disturbance, major structural or nonstructural controls (if any), and surface waters.

Appendix 1 contains a map of the project showing:

- General location
- Drainage patterns
- Area of soil disturbance
- Major structural or nonstructural controls (if any)
- Surface waters

**f. Location and Description of Discharge Associated with Industrial Activity other than Construction**

There will be no discharge associated with industrial activity other than the proposed excavation of the well pad. A reserves pit measuring 120 feet x 65 feet x 8 feet deep will be excavated in the west half of the well pad area for temporary storage of waste fluids and cuttings from the drilling phase. Water produced by the well, if any, will be temporarily stored in above-ground tanks and then trucked away from the site for disposal.

**g. Name of Receiving Water (s)**

The project is located in the Mesa Mountains within the northeastern San Juan Basin, approximately 15 miles north of the San Juan River. The project is located in the Los Piños River watershed, a major tributary of the San Juan River system. The project area consists of upland mesas cut by multiple canyons and arroyos. Storm water flows are expected to occur from the south around the well pad. These storm flows drain into unnamed arroyos and then the Los Piños River. There are no wetlands or aquatic sites onsite, or near the project, or receiving discharge from the project area.

**h. Copy of the Permit Requirements**

A copy of the completed Notices of Intent (NOI) under the revised regulations was filed with the Southern Ute Indian Tribe Water Quality Program.

**i. Information on Listed Endangered or Threatened Species**

Prior to approval of the APD, a biological assessment of the project area was completed by a professional biologist, and no listed endangered or threatened species, or their potential habitats, occurs in proximity to the construction activity. Storm water discharges, or storm water discharge related activities will not affect listed species.

#### **j. Effect on Property Listed or Eligible for the National Register of Historic Places**

Prior to approval of the APD, a cultural resource inventory of the project area was completed by a professional archaeologist, and the proposed project area does not contain any cultural properties eligible for or listed on the National Register of Historic Places. No cultural resources are present within the proposed well pad area.

#### **k. Existing Soil or Storm Water Data**

The underlying geology consists of sandstone, conglomerate and shale members of the Animas Formation. Soils are mixed residual colluvial deposits. Soil texture ranges from gravelly silt loam to clay loam. Soils are classified as belonging to the Zyme-Rock outcrop complex, generally shallow and well drained deposits. Typically, the soils have slow permeability, low water retention capacity, rapid runoff, and the hazard of erosion is high (Soil Survey of La Plata County, NRCS). The complex is 50 percent Zyme clay loam and 30 percent decomposed shale. Average annual precipitation for the project area is 14 to 18 inches per year, elevation of the proposed project area ranges from 7,255-7,240 feet above mean sea level (amsl).

### **D2. Controls**

#### **a. Stabilization Practices for all Areas Disturbed by Construction**

Control measures will be implemented as part of the construction activity to control pollutants in storm water discharges during these activities:

- Clearing, leveling, drilling, casing
- Testing, facility construction, production
- Cleanup and restoration

#### **(1) Control Measures and General Timing that will be Implemented**

The stabilization practices that will be used are as follow:

- No vegetative cover will be disturbed outside of the project boundaries, and no new previously undisturbed vegetation will be impacted.
- All staging and parking activities will be confined to previously disturbed or stabilized areas
- Final stabilization of the project area will utilize BLM Gold Book Standards, and Best Management Practices (BMPs), and Conditions of Approval.

The proposed well pad project will be constructed on an existing well pad location. The existing well location was constructed with appropriate control measures and the site is currently stable. The proposed well project will minimize all surface disturbances and thereby maintain the current integrity of the location.

Proposed Mitigation and control measures for the well project include:

- Minimize disturbance along north side of location, protect existing vegetation
- Maintain existing drainage channels around south side of location
- Excavation of a reserves pit for fluids and cuttings during the drilling phase.

Storm Water measures will be implemented as needed during the progress of construction activities.

## **(2) Responsible Permittee**

BHEP, as the NPDES Storm Water Pollution Prevention permittee on this project, will be responsible for the installation and maintenance of these control measures. This responsibility may be delegated to contractor or subcontractor, but BHEP will inspect all control measures as described in section D4 of this plan.

## **b. Erosion and Sediment Controls**

### **(1) Short and Long Term Goals and Criteria**

- The construction phase erosion and sediment controls will be designed to retain sediment onsite to the most practicable extent while still allowing adequate drainage.
- Litter, construction debris, and construction chemicals exposed to storm water will be prevented from becoming a pollutant source for storm water discharges.
- BLM Gold Book Standards and BMPs will be utilized during all construction phases.

### **(2) Stabilization Practices**

Existing vegetation will be preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to:

- Establishment of permanent 70% vegetative cover using approved seed mixes
- Hydro-mulching on fill along north side of pad where over 3 feet deep.
- Imported gravel
- Vegetative buffer strips
- Protection of trees, preservation of vegetation

The following records will be maintained and attached to this SWPPP in the Attached Appendices:

- The dates when major stabilization measures are initiated
- The dates when construction activities cease on the site
- The dates when final stabilization measures are initiated

### **(3) Structural Practices**

The project area is an existing well pad location. The proposed project will occur within the previous disturbance footprint. Actual new surface disturbance as a result of the project will be minimized. The proposed well project will not impact the current stable site conditions. Measures that may be used to control stormwater during construction activities include:

- Maintain vegetative cover (wheatgrass) on fill slope along north side of existing pad by placing an adequate layer of straw prior to covering with backdirt to allow preservation of the grasses until the backdirt is skimmed off and used in interim reclamation and the reserves pit is backfilled.
- The extensive fill matrix from the northern portions of the well pad will be effectively stabilized (e.g., Bonded Fiber Matrix, geo-textile mesh, or hydro-mulch) during the construction phase.
- Construct a 4-5" dike lined with excelsior logs at the top of the fill slope along the north edge of the pad.
- Install continuous line of excelsior logs across the entire toe of the slope.
- Construct two ditches and berms at the top of the cut slope along the south side of the pad. From the well pad centerline, one ditch will divert water to the southeast and one will divert to the northwest around the well pad area.
- Install a minimum 18" culvert or swale across access road just west of pad to divert stormwater to the northwest away from the pad area.

### **c. Storm Water Management**

Pollutants occurring in storm water discharges after construction will be controlled in accordance with BMPs and all disturbed ground will be restored and reseeded.

#### **(1) Post-Construction BMPs**

Storm water flows will not exceed pre-construction levels.

#### **(2) Velocity Dissipation Devices**

The proposed well pad site is nearly level.

#### **d. Other Controls**

##### **(1) Solid Materials**

No solid materials, including building materials, will be discharged into waters of the United States.

##### **(2) Off-Site Vehicles**

Off-Site vehicle tracking of sediments, and the generation of dust will be minimized. Controls may include watering of the project site.

##### **(3) Local Waste Disposal Regulations**

All trash and construction debris from the site will be hauled to an approved landfill. No hazardous waste or materials will be stored onsite. This SWPPP is consistent with all applicable State, Tribal, and local waste disposal, sanitary sewer or septic system regulations.

The onsite BHEP inspector will be responsible for oversight of all contractors and site personnel implementing the above procedures.

##### **(4) Construction and Waste Materials Expected to be Stored Onsite**

- Petroleum based products
- Cleaning solvents

##### **(5) Pollutant Sources from Other Areas**

There are not expected to be any pollutant sources other than the project site.

##### **(6) Measures to Protect Listed Endangered or Threatened Species**

There are no listed endangered or threatened species in the proposed project area.

#### **e. Approved State, Tribal or Local Plans**

##### **(1) Plan Consistent with Local Plans**

This SWPPP is consistent with EPA, State, Tribal, and local plans.

##### **(2) Updates**

This plan will be updated as necessary to protect surface water resources.

### **D3. Maintenance**

All erosion and sediment control measures and other protective measures identified in this SWPPP will be maintained in effective operating condition. If site inspections identify BMPs that are not operating effectively, maintenance will be performed before the next anticipated storm event.

#### **D4. Inspection**

Qualified personnel (provided by BHEP) will inspect:

- Disturbed areas of the project site that have not been finally stabilized
- Areas used for storage of materials that are exposed to precipitation
- Structural control measures
- Locations where vehicles access the site at least once every fourteen (14) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater

Inspections shall be conducted at least once every month when:

- Sites have been finally or temporarily stabilized
- Runoff is unlikely due to winter conditions
- Seasonal arid periods in arid areas (areas with an average annual rainfall of 0 to 10 inches) and semi-arid areas (areas with an average annual rainfall of 10 to 14 inches)

NOTE: This project is located in a semi-arid area.

Blank forms for inspections are included in Appendix 5. Completed inspection forms will be attached to the SWPPP in Appendix 7.

#### **D.5 Non-Storm Water Discharges**

Except for flows from fire fighting activities, there is no non-storm water discharges expected on this project. Should a change occur, this SWPPP will be amended.

#### **Retention of Records**

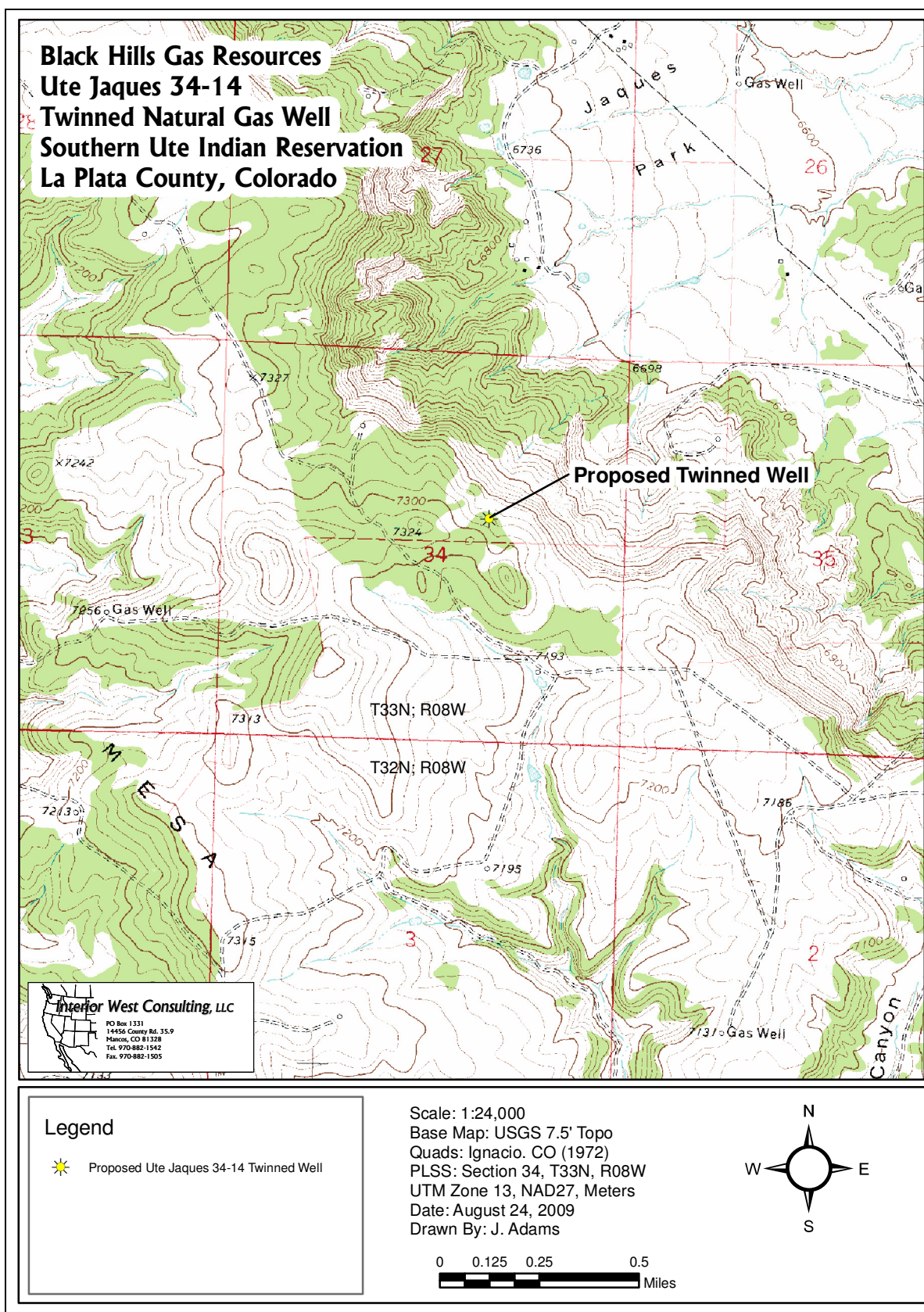
##### **a. Documents**

BHEP will retain copies of storm water pollution prevention plans and all reports required by this permit, and records of all data used to complete the Notice of Intent (NOI) to be covered by this permit, for a period of three years from the date that the site is finally stabilized. This period may be extended by request of the Director at any time.

**b. Accessibility**

BHEP will retain a copy of this SWPPP at the project site. Permittees with day-to-day operational control over SWPPP implementation shall have a copy of the SWPPP available onsite for the use of all operators identified as having responsibilities under the SWPPP whenever they are on the project site.

## Appendix 1: Project Location Map



## **Project Photographs**

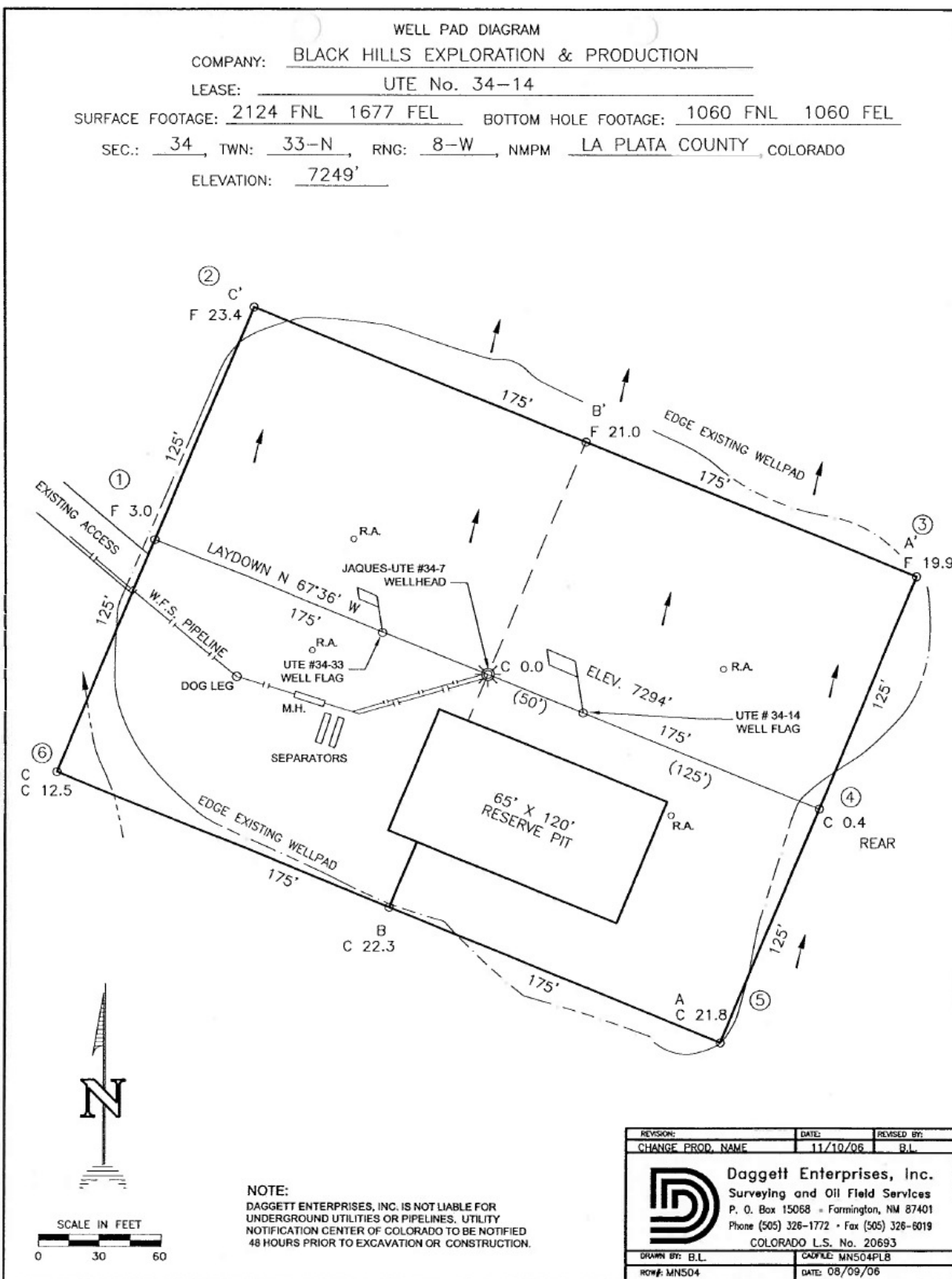


Existing drainage structure at base of cut slope along south side of well pad.



Stabilizing vegetation on fill slope along north side of well pad.

## Well Pad Diagram



## **Appendix 2: Owner and Contractor Certifications**

Documents on-file at Black Hills Exploration & Production and Bureau of Land Management.

## **Appendix 3: Notice(s) of Intent NOI**

See Attached.

## **Appendix 4: Control Specifications**

All controls would be constructed according to EPA Guidelines, Gold Book Standards, and APD COAs.

## **Appendix 5: Blank Inspection Reports**

Available for download at [http://www.epa.gov/npdes/pubs/sw\\_swppp\\_inspection\\_form.doc](http://www.epa.gov/npdes/pubs/sw_swppp_inspection_form.doc).

## **Appendix 6: Completed Inspection Reports**

See Attached File.