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Proposed BMP's

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**Construction of the Martinez GU A # 2 & 4 Wells
Supplemental STORM WATER MANAGEMENT PLAN (SWMP)**

Appendix MC 9 April 2010

1.0 SITE AND PROJECT INFORMATION

- Project Name: Martinez GU A # 2&4
- Project Location: The project is located on private lands located in Sec 8;
T33N, R08W SUL La Plata County, Colorado N.M.P.M.
#2 Lat/Long: 37°07'42.27600" N 107°43'36.19200" W
#4 Lat/Long: 37°07'42.23999" N 107°43'36.69599" W
- Owner Name and Address: BP America Production Company
380 Airport Road
Durango, CO 81301
- Facility Contact and Telephone Number: Dan Fauth
(970) 247-6800
- Project Specifics**
- a. Description of the Construction Activity: Construction of a well pad for a natural gas well on a 300' x 195' level well pad. Construction of ~450' of new access road.
- b. Sequence of Major Construction Activities:
- . Access Road Construction
 - . Well Pad Construction
 - . Well Drilling and Completion
 - . Interim Pad/Access Road Reclamation
- c. Estimated Total Area of Site disturbance ~1.34 Acres
- d_a. Estimated Runoff Coefficient, Before and After
- | Resource: | Before: | After: |
|-----------------|---------|-----------|
| Sagebrush shrub | 0.35 | 0.35/0.75 |
- d_b. Existing Soil Data:
- | Soil: | Area: | Erosion: |
|----------------|--------------------------------|----------|
| Arboles Clay | Southern 95% of Pad/New Access | Moderate |
| Zyme Clay Loam | Northern 5% of Pad | High |
- e. Description of Existing Vegetation and Estimate of Percent Aerial Cover:
- Sagebrush Shrub ~ 55 %

- f. Description of Potential Pollution Sources: 1) Diesel fuel and gasoline for equipment and vehicles; 2) Lubricating oil 3) Drilling mud (bentonite -based viscous fluid); 4) Casing cement.
- g. Description of Anticipated Non-storm water Discharges: None Anticipated
- h. Name of Receiving Water and Type of Outfalls: Unknown Intermittent Stream via overland flow

2.0 SITE MAPS

The attached maps (Exhibit C) illustrate the approximate location of the well pad and new road alignment. Construction activities and areas of cut and fill and soil disturbance are limited to the area surveyed for the location. The maps illustrate the features required by the CDPS General Permit for field wide construction activities on fee lands under the field wide permit. There are no point-source outfall structures; runoff enters the receiving watersheds and water bodies by overland flow.

3.0 BEST MANAGEMENT PRACTICES FOR STORMWATER POLLUTION PREVENTION

The Best Management Practices (BMP) to be employed during the construction of this well site and pipeline project are outlined in the field wide Storm Water Management Plan. Specific BMPs to be implemented during the proposed project are described in Exhibit B.

4.0 INSPECTION AND MAINTENANCE

Inspections of the project site and maintenance of BMPs installed shall be conducted in accordance with the CDPHE CDPS permit and the field wide plan.

5.0 TERMINATION

At this time no formal permit termination is necessary as the PHASE II rule under the CDPHE is covered under a field wide permit. Upon final stabilization of the site covered under this supplemental plan, the plan and its associated inspections should be kept for at least three years following the date of final stabilization.

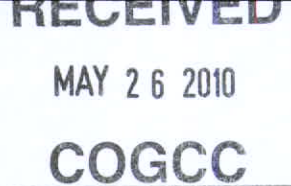
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EXHIBIT A

Implementation Responsibility Transfer Log



By signing below, I certify under penalty of law that I understand and am responsible for the maintenance and implementation of the terms and conditions of the general Colorado Discharge Pollutant System (CDPS) permit and measures identified by the above site specific Storm Water Management Plan (SWMP) that may authorize the storm water discharges associated with my activities from the construction site identified in Section 6.0 of this site specific SWMP.

Site Responsibilities:

Name and Title (type or print): _____

Signature: _____

Date: _____

By signing below, I certify under penalty of law that I understand and am responsible for the maintenance and implementation of the terms and conditions of the general Colorado Discharge Pollutant System (CDPS) permit and measures identified by the above site specific Storm Water Management Plan (SWMP) that may authorize the storm water discharges associated with my activities from the construction site identified in Section 6.0 of this site specific SWMP.

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Name and Title (type or print): _____

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Date: _____

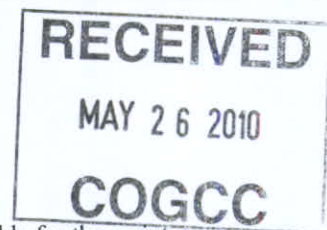
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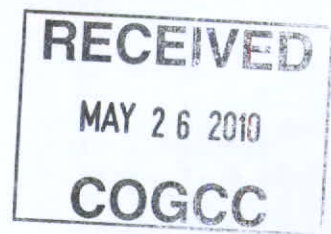
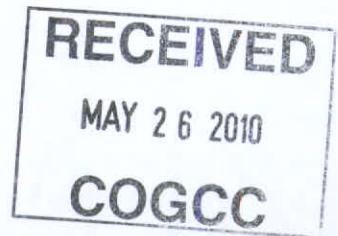


EXHIBIT B
Detailed BMPs & BMP Alterations Log



BMPs

Identified Implementation Locations:

1. **Access Road Construction (See attached Figure 1)**

BMPs: 2, 14, 24 & 40

- Implement wattles where shown on map
- Avoid filling low depressions and swale with spoils.
- Install 18" Diameter CMP at access off County Road per county specs.
- Install inlet and outlet protection (wattle) in borrow ditch of culvert.
- Install Check Dams where indicated in newly constructed borrow ditch as indicated.
- Establish base lift gravel crown road @2% min.

2. **Drilling Pad Construction (See attached Figure 2)**

BMPs: 2, 14, 24 & 40

- Implement wattles where shown on maps.
- Establish sub-base to route surface water as sheet flow off the south end of location.
- Establish base lift gravel to accommodate level drilling operations and stabilize pad surface.
- Store Top soil as shown on map

3. **Drilling and Completion Operations**

BMPs: Spill and Contaminated Soil Management

- Fuel, Mud Products, drill cutting spoils, Trailer Septic Tanks, etc. that may contribute to storm water run-off shall be maintained within the graveled well pad area and contained in proper containers and/or sheltered from exposure.
- Any equipment maintenance shall be avoided during drilling and completion—in the event maintenance must occur, it shall be conducted within the graveled pad area, fluids shall be captured within spill proof containers, and absorbent mats shall be utilized beneath maintenance operations.
- Contaminated soil should be collected and disposed of at an appropriate soil farm or similar facility.

4. **Interim Pad Reclaim (See attached Figure 3)**

BMPs: 2, 24, & 34

- Reclaim cut slopes to 3:1 or less.
- Trench and bury remaining drill cuttings when material is 95-100% dry.
- Re-establish run-on diversion dike to NE corner
- Spread top-soil over fill slopes & blend to existing grade areas where sloping meets pre-disturbance grade.
- Repair, replace, or install pad wattles if necessary or as shown.

5. **Re-seeding & BMP Removal**

- Re-seed as soon as possible following reclamation of pad-provided season and weather permits and cover with 2 tons/acre of weed free straw mulch. Tackify or crimp the mulch to the exposed soil surfaces.
 - Cut/Fill Slopes, access foreslopes, & Top-Soil Storage Area.
- Seed mix should implement an annual cover or triticale.
- Upon 70% Re-Vegetation across site, remove wattles and any other temporary erosion and sediment control BMP.

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EXHIBIT C
Maps

STORM WATER CONTROL MAP-DRILL PAD LAYOUT CLEARING AND GRADING

Figure 1



NOTES

1. TOPOLINE & T.B. PROJECT: NADZ (JUN08)
2. This map is informational in nature, not suitable for engineering standards, and is provided without representations or warranties by Proterra Environmental Consulting, Inc.

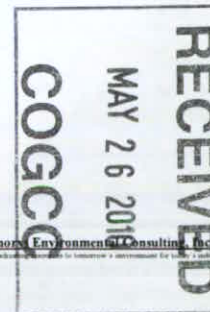


Sec. 8, T.13N, R.8W
N.M.P.M.
(La Plata County, CO.)

LEGEND

- Limit of Disturbance
- Sediment Control Log (Wattle)
- Check Dam (Wattle)
- Outlet Protection (Wattle)
- Inlet Protection (Wattle)
- Offsite Water Flow Pattern
- Onsite Water Flow Pattern
- Proposed Well Pad Access

April 9, 2010



Proterra Environmental Consulting, Inc.
"Creating a better world for tomorrow's environment"

**STORM WATER CONTROL MAP-DRILL PAD LAYOUT
CLEARING AND GRADING
Figure 1**



NOTES:

1. TOPO LINES 4-7.6. PROJECTION NAD83 (GCSN83)
2. This map is informational in nature, not accurate by surveying standards, and is presented without representation or warranty by Primoris Environmental Consulting, Inc.

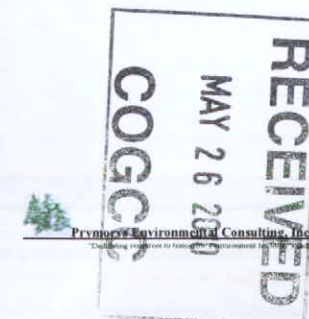


Sec. 8, T.33N. R.8W
N.M.P.M.
(La Plata County, CO.)

LEGEND

- Limit of Disturbance
- Sediment Control Log (Wattle)
- Offsite Water Flow Pattern
- Onsite Water Flow Pattern
- Proposed Well Pad Access

8 April 2010



STORM WATER CONTROL MAP- INTERIM RECLAIM

Figure 2



NOTES

1. TOPOLINE & B. PROJECTION: NAD83 (2011)
2. This map is informational in nature, not accurate by surveying standards, and is presented without representation or warranty by Prymors Environmental Consulting, Inc.



Sec. 8, T. 33N, R. 8W
N.M.P.M.
(La Plata County, CO)

LEGEND

- Limit of Disturbance
- Sediment Control Log
- Permanent Seeding & Mulching (2 tons/acre of weed free straw mulch)
- Onsite Water Flow Pattern
- Offsite Water Flow Pattern
- Proposed Well Pad Access

8 April 2010

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