
Wright GU 01-19 #2 PAD
Supplemental STORM WATER MANAGEMENT PLAN (SWMP)
Appendix OY March 2, 2012

1.0 SITE AND PROJECT INFORMATION

Project Name: Wright GU 01-19 #2

Project Location: The project is located on fee land in Sec 19; T34N, R06W
SUL, La Plata County, Colorado N.M.P.M.
Well Head: 37°10'45.578" N 107°32'34.430" 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 Activities: Construction of a natural gas well pad ~260' x 220'
- b. Sequence of Major Construction
- . Access Road Improvements
 - . Drilling Pad Construction
 - . Drilling and Completion Operations
 - . Interim Pad Reclamation
 - . Re-seeding & BMP Removal
- c. Estimated Total Area of Site disturbance ~0.7 Acres beyond original disturbance
- d. Estimated Runoff Coefficient, Before and After
- | Resource: | Before: | After |
|--------------------------|---------|-------|
| Pinyon Juniper shrubland | 0.63 | 0.85 |
- Existing Soil Data:
- | Soil: | Area: | Erosion: |
|------------------------------|-------|----------|
| Assumed: Bayfield silty loam | 100% | Slight |
- e. Description of Existing Vegetation and Estimate of Percent Aerial Cover: Sage/Shrubland ~45%
- 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: | Pine River via Ute Creek |

2.0 SITE MAPS

The attached maps (Exhibit C) illustrate the approximate location of the well pad. 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.

3.0 BEST MANAGEMENT PRACTICES FOR STORMWATER POLLUTION PREVENTION

The Best Management Practices (BMP) to be employed during the construction of this well site 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.

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 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 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 this site specific SWMP.

Site Responsibilities:

Name and Title (type or print):

Signature:

Date:

EXHIBIT B
Detailed BMPs & BMP Alterations Log

BMPs

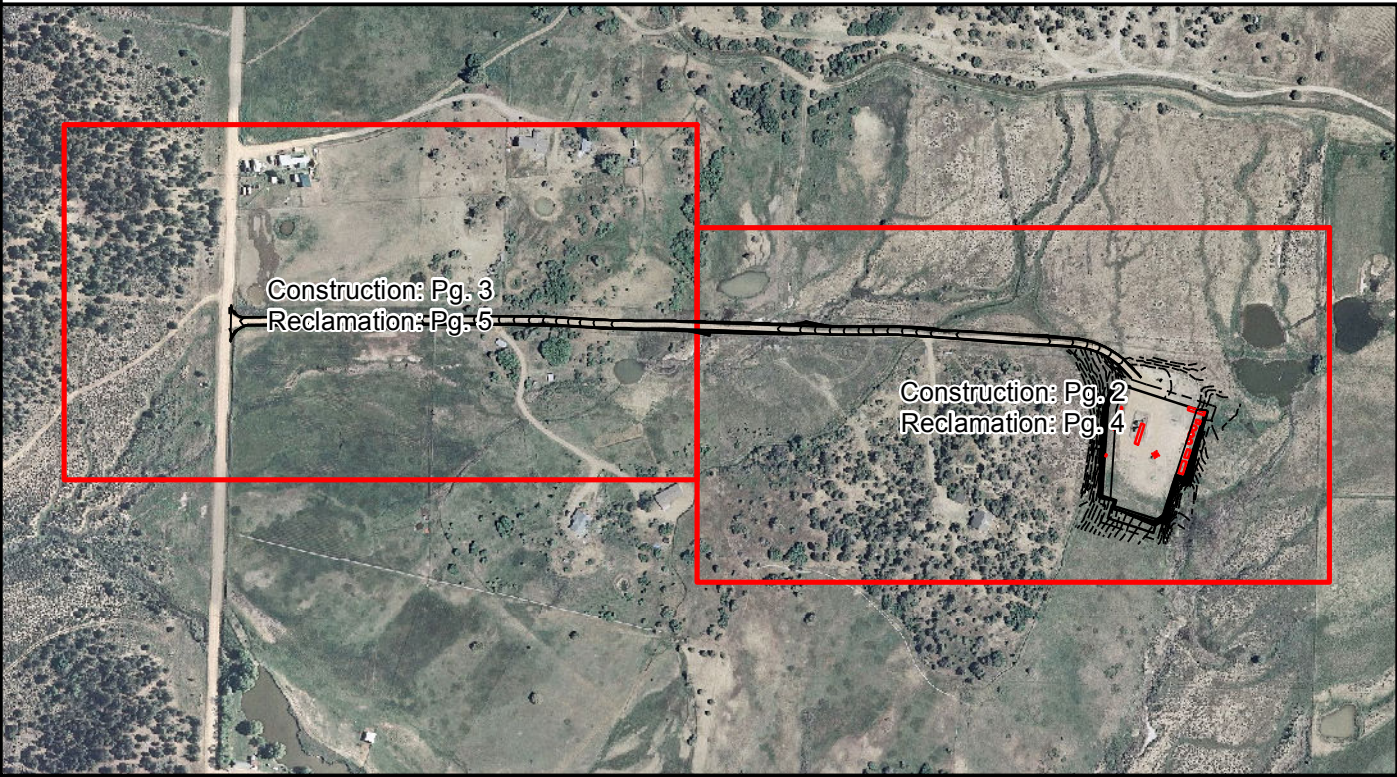
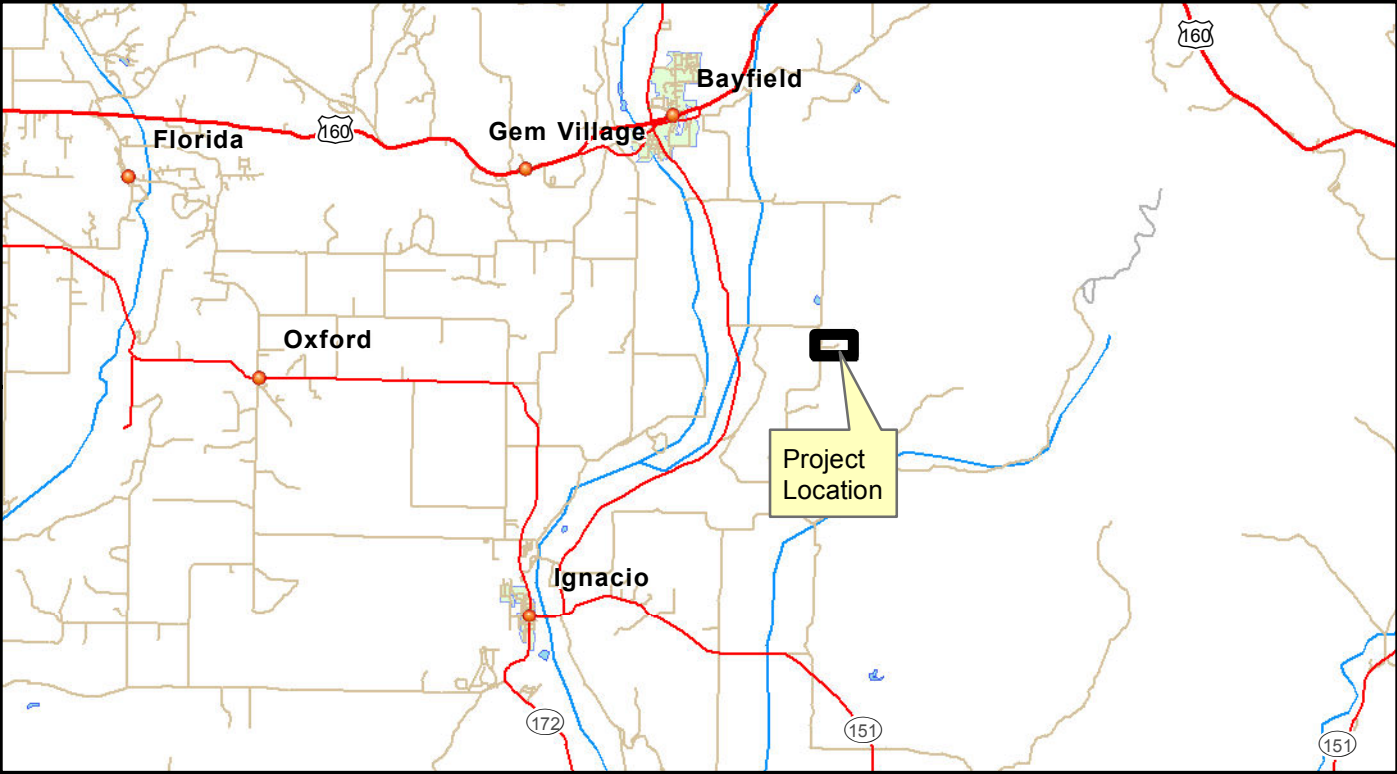
Identified Implementation Locations:

1. **Access Road Construction (See attached map, pages 2-3)**
 - Avoid filling low depressions with spoils.
 - Install steel line pipe culverts as shown.
 - Install SF at surveyed edge of disturbance to delineate the limits of permitted wetland fill and insure fills do not enter wetland. See USACOE permit for additional conditions.
 - Establish base lift gravel crown road @2% min.
2. **Drilling Pad Construction (See attached map page 2)**
 - Install silt fence and SCLs as shown on map to act as a delineator of wetland so that no spoils enter wetland beyond permitted temporary fills. See USACOE permit for additional conditions.
 - Establish subbase to route surface water as sheet flow to the south end of location.
 - Establish base lift gravel to accommodate level drilling operations and stabilize pad surface.
 - Store topsoil on south end of pad 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 runoff shall be maintained within the graveled wellpad 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.
5. **Interim Reclamation (See attached map, pages 4-5)**
 - Remove SF and replace with SCLs.
 - Install ECB.
 - Reclaim cut slopes to 3:1 or less. Reclaim temporary fills out of wetland. See USACOE permit for additional conditions.
 - Dispose of drill cuttings in accordance with COGCC 900 series rules.
 - Spread topsoil 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.
6. **Re-seeding & BMP Removal**
 - Following reclamation of pad, reseed and cover with 2 tons/acre of weed free straw mulch as soon as the season and weather allows. Tackify or crimp the mulch to the exposed soil surfaces.
 - Cut/fill slopes & topsoil 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 BMPs.

EXHIBIT C
Maps



- SCL

CD

CD

CD

CD

SF

CV

FL

CMP

IP

IP

OP

OP

SCE

DV

DD

RD

Sediment control log "wattle"

Sediment control log as a check dam

Rock check dam

Straw bale check dam

Rock reinforced straw bale check dam

Silt Fence

Culvert

Flume

Corrugated Metal Pipe

Sediment control log as inlet protection

Rock (Rip-Rap) inlet protection

Sediment control log as outlet protection

Rock (Rip-Rap) outlet protection

Stabilized construction entrance

Diversion Ditch

Diversion Dike

Rundown or spill way (Rip Rap)
- WB

CWA

TS

PS

SR

ECM

ECB

DW

TSS

SMZ

VB

Water bar or slope break

Concrete wash area

Temporary Seeding

Permanent seeding and Mulching (Straw, Hay, Hydro-Mulch)

Surface roughening or Track Depressions

Erosion control matting

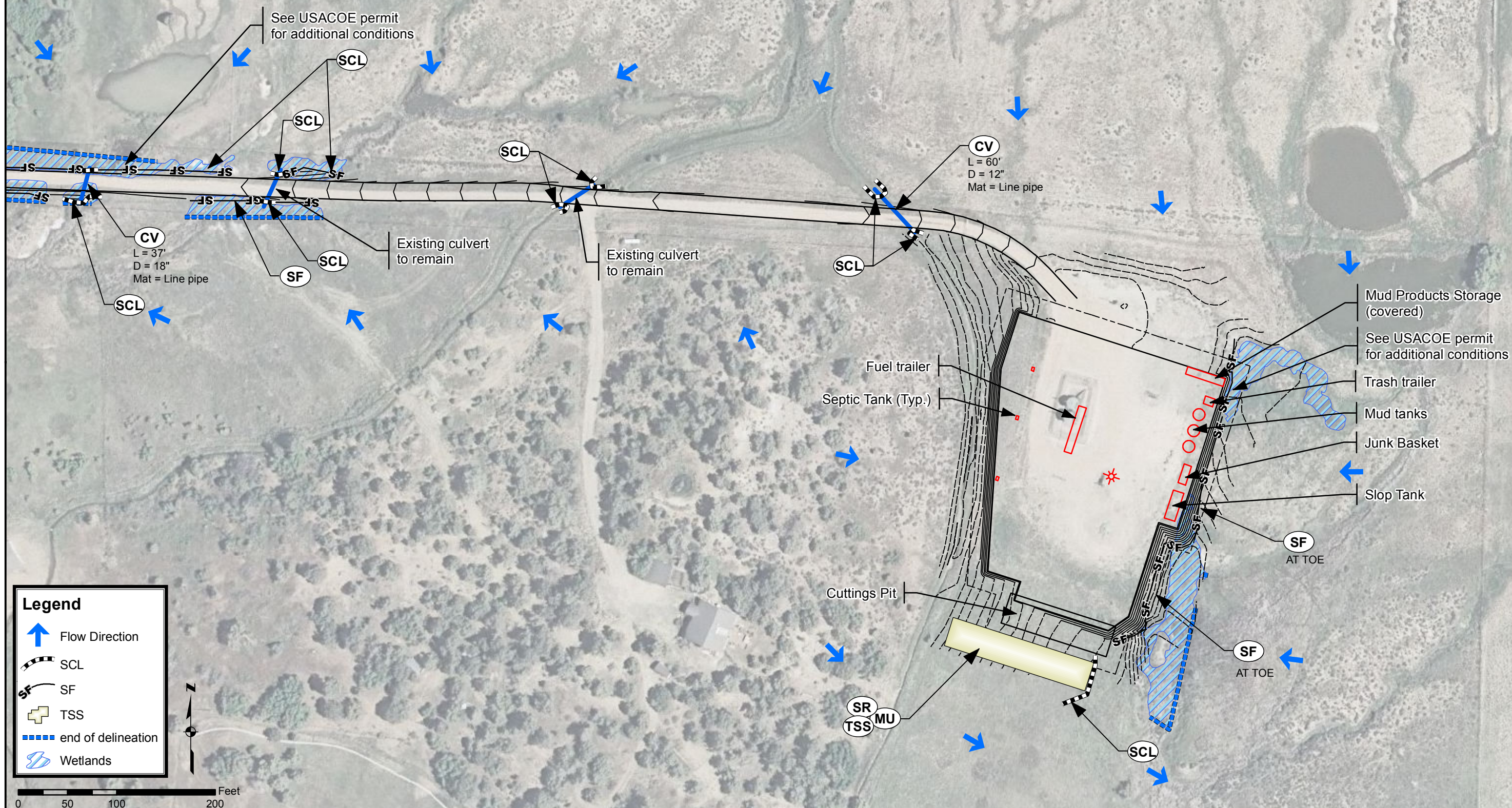
Erosion control blanket

Dewatering location

Topsoil Storage

Stream managment zone

Vegitated buffer



CLEARING/GRADING/CONSTRUCTION SUPPLEMENTAL STORM WATER MANAGEMENT PLAN

Scale: 1"=100'

File: BP_WrightGU1-19#2_SWMP2_12-0228MW.mxd

Revision:

BP AMERICA PRODUCTION Co.
WRIGHT GU 1-19 #2

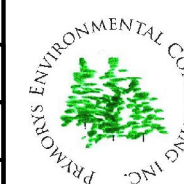
LA PLATA COUNTY, COLORADO

DRAWN BY: MW

CHECKED BY: CK

DATE: 3/2/2012

PAGE 2 OF 5



"Dedicating resources to tomorrow's environment for today's industry."
150 ROCKPOINT DR DURANGO, CO (970) 385-4732

Note:
Prymors Environmental Consulting is not responsible for the accuracy of the data provided for this project. This map is to be used as a reference drawing only not established for surveying or engineering. No underground utilities are outlined on this map contractors are encouraged to make a "one call" prior to ground disturbance activities.



Legend


- ↑ Flow Direction
- SCL
- SF
- + TSS
- end of delineation
- Wetlands

0 50 100 200 Feet

CLEARING/GRADING/CONSTRUCTION SUPPLEMENTAL STORM WATER MANAGEMENT PLAN		
Scale: 1"=100'	File BP_WrightGU1-19#2_SWMP2_12-0228MW.mxd	Revision

BP AMERICA PRODUCTION Co. WRIGHT GU 1-19 #2
LA PLATA COUNTY, COLORADO

DRAWN BY: MW
CHECKED BY: CK
DATE: 3/2/2012
PAGE 3 OF 5



PRYMORS ENVIRONMENTAL CONSULTING INC.

"Dedicating resources to tomorrow's environment for today's industry."
150 ROCKPOINT DR DURANGO, CO (970) 385-4732

Note:
Prymors Environmental Consulting is not responsible for the accuracy of the data provided for this project. This map is to be used as a reference drawing only not established for surveying or engineering. No underground utilities are outlined on this map contractors are encouraged to make a "one call" prior to ground disturbance activities.



POST CONSTRUCTION/RECLAMATION SUPPLEMENTAL STORM WATER MANAGEMENT PLAN

BP AMERICA PRODUCTION Co.
WRIGHT GU 1-19 #2

LA PLATA COUNTY, COLORADO

DRAWN BY: MW

CHECKED BY: CK

DATE: 3/2/2012

PAGE 4 OF 5



"Dedicating resources to tomorrow's environment for today's industry."
150 ROCKPOINT DR DURANGO, CO (970) 385-4732


Note:
Prymors Environmental Consulting is not responsible for the accuracy of the data provided for this project. This map is to be used as a reference drawing only not established for surveying or engineering. No underground utilities are outlined on this map contractors are encouraged to make a "one call" prior to ground disturbance activities.



POST CONSTRUCTION/RECLAMATION SUPPLEMENTAL STORM WATER MANAGEMENT PLAN		
Scale: 1"=100'	File BP_WrightGU1-19#2_SWMP3_12-0228MW.mxd	Revision

BP AMERICA PRODUCTION Co. WRIGHT GU 1-19 #2
LA PLATA COUNTY, COLORADO

DRAWN BY: MW
CHECKED BY: CK
DATE: 3/2/2012
PAGE 5 OF 5



"Dedicating resources to tomorrow's environment for today's industry."
150 ROCKPOINT DR DURANGO, CO (970) 385-4732

Note:
Prymors Environmental Consulting is not responsible for the accuracy of the data provided for this project. This map is to be used as a reference drawing only not established for surveying or engineering. No underground utilities are outlined on this map contractors are encouraged to make a "one call" prior to ground disturbance activities.