



	<b>Twp</b>	<b>Rng</b>	<b>Sec</b>	<b>Well Name</b>	<b>Well#</b>	<b>Qtr</b>	<b>Lease</b>
34	43N	75W	35	ALL DAY PEPPERSTONE CS	5	SWNW	WYW141656
35	43N	75W	35	ALL DAY PEPPERSTONE CS COM	6	NESE	WYW141656
36	43N	75W	35	ALL DAY PEPPERSTONE CS COM	7	SWSE	WYW141656
37	43N	76W	12	ALL DAY ENDLESS CS	2	SWNE	WYW130096
38	43N	76W	12	ALL DAY ENDLESS CS	3	NESE	WYW130096
39	43N	76W	12	ALL DAY ENDLESS CS	4	SWSE	WYW130096
40	43N	76W	13	ALL DAY ENDLESS CS	5	NENE	WYW130096
41	43N	76W	13	ALL DAY ENDLESS CS	6	SWNE	WYW130096
42	43N	76W	13	ALL DAY ENDLESS CS	7	NESE	WYW130096

List of Approved Impoundments:

	<b>IMPOUNDMENT Name / Number</b>	<b>Qtr/Qtr</b>	<b>Section</b>	<b>TWP</b>	<b>RNG</b>	<b>Capacity (Acre Feet)</b>	<b>Surface Disturbance (Acres)</b>	<b>Lease #</b>
1	City Bowl	NWSW	14	42	75	14.5	4.3	WYW159992
2	Claus	SENE	6	42	74	3.4	2.1	WDEQ
3	Cosner	NWNW	12	42	75	16.0	4.1	WYW142823
4	Drilling	SWSE	17	42	74	19.4	6.5	WYW131722
5	East Eychaner	SENE	14	42	75	19.0	2.9	WYW138135
6	East Pasture #2	SWNE	3	42	75	12.2	1.8	WYW128603
7	East Pasture #3	NWSW	3	42	75	19.0	4.6	WYW128603
8	East Pasture #4	NWNE	2	42	75	15.1	2.7	WDEQ
9	East Pasture #6	NENE	36	42	75	6.8	1.7	WDEQ
10	Enl of Dangel	SENE	24	42	75	19.9	3.0	WDEQ
11	Enl T-Chair 41-1-4275	NENE	1	42	75	8.8	2.0	WDEQ
12	North Dump	NESE	13	42	76	18.9	2.8	WYW130096
13	North Pinnacle	SESE	14	42	75	19.9	3.8	WYW142078
14	Ox Bar	NESW	18	42	75	6.3	1.3	WYW153068
15	Snow Fence	NWNW	17	42	74	19.9	2.8	WYW131722
16	South Dry Willow #1	NESW	7	42	75	15.6	2.4	WDEQ
17	South Dry Willow #2	NWSE	7	42	75	8.1	1.4	WDEQ
18	South Pinnacle	NESE	23	42	75	4.2	0.9	WYW159992
19	Wagoneer	NWSW	6	42	74	18.2	3.7	WYW141222
20	Little Black Butte #1	NENE	34	43	75	16.7	4.4	WDEQ
21	Little Black Butte #2	NWSE	35	42	75	17.4	2.7	WYW141656
22	Little Black Butte #4	SWSW	34	42	75	18.6	2.8	WYW135911
23	Little Black Butte #5	NWSE	33	42	75	16.7	2.5	WYW135911
24	Little Black Butte #6	SWNE	35	42	75	8.1	3.7	WDEQ
25	Little Black Butte #7	NENE	35	42	75	14.8	2.4	WDEQ
26	North Black Butte	NWSE	27	42	75	13.8	2.3	WYW141656

List of Approved Right-of Ways:

Right-of-Way	Qtr/Qtr	Sec	TWP	RNG	Use/Type	Surface Disturbance (Acres)
WYW-170032	SENW	3	43N	75W	Access Road	2

**Limitations.**

The following APDs are denied:

1	43N	75W	9	ALL DAY CINNABAR CS	13	SESE	WYW130608
2	43N	76W	12	ALL DAY ENDLESS CS	1	NENE	WYW130096

The use of federal water in the following impoundments is denied:

1	Pumpkin Pie	SESW	9	42	75	4.8	0.9	WYW130608
2	Little Black Butte #3	SENE	35	42	75	14.0	1.3	WDEQ

**I Programmatic mitigation measures identified in the PRB FEIS ROD**

**Water Management**

**Groundwater**

1. In order to address the potential impacts from infiltration on shallow ground water, the Wyoming DEQ has developed a guidance document, "Compliance Monitoring and Siting Requirements for Unlined Coalbed Methane Produced Water Impoundments" which was approved September, 2006. For WYPDES permits received by DEQ after the August 1st effective date, the BLM requires that operators comply with the current approved DEQ compliance monitoring guidance document prior to discharge of federally-produced water into newly constructed or upgraded impoundments.

**Surface Water**

1. Concerns regarding the quality of the discharged CBNG water on downstream irrigation use may require operators to increase the amount of storage of CBNG water during the irrigation months and allow more surface discharge during the non-irrigation months.
2. The operator will supply two copies of the complete approved SW-4, SW-3, or SW-CBNG permits to BLM as they are issued by WSEO for impoundments.
3. The operator will supply two copies of the WYPDES permits to the BLM for this POD as soon as they are available from WDEQ and before discharging CBNG production water from this POD.

**Wetland/Riparian**

1. No waste material will be deposited in riparian areas, flood plains, or in natural drainage ways.
2. Soil and other material stockpiles will be located outside the active floodplain.
3. Disturbed channels will be re-shaped to their approximate original configuration or stable geomorphological configuration and properly stabilized.
4. Reclamation of disturbed wetland/riparian areas will begin immediately after project activities are complete.

**Wildlife**

1. The Companies will locate facilities so that noise from the facilities at any nearby sage grouse or

sharp-tailed grouse display grounds does not exceed 49 decibels (10 dBA above background noise) at the display ground.

2. All stock tanks shall include a ramp to enable trapped small birds and mammals to escape. See Idaho BLM Technical Bulletin 89-4 entitled Wildlife Watering and Escape Ramps on Livestock Water Developments: Suggestions and Recommendations.

### **Threatened, Endangered, or Sensitive Species**

#### **Bald Eagle**

1. A minimum disturbance-free buffer zone of 0.5 mile (i.e., no surface occupancy) will be established year-round for all bald eagle nest sites. A seasonal minimal disturbance buffer zone of one mile will be established for all bald eagle nest sites (February 15 – August 15).
2. A seasonal minimal disturbance buffer zone of 1 mile will be established for all bald eagle winter roost sites (November 1 – April 1). These buffer zones and timing may be adjusted based on site-specific information through coordination with, and written approval from, the USFWS.

### **Visual Resources**

1. The Companies will mount lights at compressor stations and other facilities on a pole or building and direct them downward to illuminate key areas within the facility while minimizing the amount of light projected outside the facility.

### **Air Quality**

1. During construction, emissions of particulate matter from well pad and resource road construction will be minimized by application of water, or other dust suppressants, with at least 50 percent control efficiency. Roads and well locations constructed on soils susceptible to wind erosion could be appropriately surfaced or otherwise stabilized to reduce the amount of fugitive dust generated by traffic or other activities, and dust inhibitors (surfacing materials, non-saline dust suppressants, and water) could be used as necessary on unpaved collector, local and resource roads that present a fugitive dust problem. The use of chemical dust suppressants on BLM surface will require prior approval from the BLM authorized officer.

## **II. Site Specific Conditions of Approval**

1. All permanent above-ground structures (e.g., production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color which simulates “Standard Environmental Colors.” The color selected for this POD is Covert Green 18-0617 TPX.
2. Topsoil will be salvaged for use in reclamation on all areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Proposed disturbance areas shall be stabilized in a manner which eliminates accelerated erosion until a self-perpetuating non-weed, native plant community has stabilized the site in accordance with the Wyoming Reclamation Policy.
3. Any mulch utilized for reclamation needs to be certified weed free.
4. The operator will follow the guidance provided in the Wyoming Policy on Reclamation (IM WY-90-231) specifically the following:  
Reclamation Standards:
  - C. 3 The reclaimed area shall be stable and exhibit none of the following characteristics:
    - a. Large rills or gullies.
    - b. Perceptible soil movement or head cutting in drainages.

- c. Slope instability on, or adjacent to, the reclaimed area in question.
- C.4. The soil surface must be stable and have adequate surface roughness to reduce runoff and capture rainfall and snow melt. Additional short-term measures, such as the application of mulch, shall be used to reduce surface soil movement.
- C.5. Vegetation canopy cover (on unforested sites), production and species diversity (including shrubs) shall approximate the surrounding undisturbed area. The vegetation shall stabilize the site and support the planned post disturbance land use, provide for natural plant community succession and development, and be capable of renewing itself. This shall be demonstrated by:
  - a. Successful onsite establishment of species included in the planting mixture or other desirable species.
  - b. Evidence of vegetation reproduction, either spreading by rhizomatous species or seed production.
- C.6. The reclaimed landscape shall have characteristics that approximate the visual quality of the adjacent area with regard to location, scale, shape, color and orientation of major landscape features and meet the needs of the planned post disturbance land use.
- 5. If storage of construction equipment on well locations becomes necessary beyond typical construction timeframes, a sundry will be submitted to designate this area for long term storage.
- 6. If there are no site specific conflicts with production and/or development, then interim reclamation will include seeding up to the well housing.
- 7. The operator will drill seed on the contour to a depth of 0.5 inch, followed by cultipaction to compact the seedbed, preventing soil and seed losses. To maintain quality and purity, the current years tested, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used. On BLM surface or in lieu of a different specific mix desired by the surface owner, use the following:

<b>Species - Cultivar</b>	<b>% in Mix</b>	<b>Lbs PLS</b>
Western Wheatgrass - <i>Rosana</i>	30	3.6
Bluebunch Wheatgrass – <i>Secar or P-7</i>	10	1.2
Green needlegrass - <i>Lodorm</i>	25	3.0
Slender Wheatgrass	20	2.4
White – <i>Antelope</i> or Purple Prairie Clover – <i>Bismarck</i>	5	0.6
Prairie coneflower	5	0.6
Rocky Mountain beeplant	5	0.6
<b>Totals</b>	100%	12 lbs/acre

This is a recommended seed mix based on the native plant species listed in the NRCS Ecological Site descriptions, U.W. College of Ag. and seed market availability.

**Wildlife**

***Bald Eagles***

The following conditions will alleviate impacts to bald eagles:

- Surveys for active Bald eagle nests and winter roost sites will be conducted within suitable habitat by a BLM approved biologist. Surface disturbing activities will not be permitted within one mile of suitable habitat prior to survey completion. This applies to habitat along Dry Willow Creek and will affect the following permitted POD items:

Township/Range/Section	Wells and Infrastructure
T43N R75W Sections 12	ALL DAY ENDLESS CS 2, ALL DAY ENDLESS CS 3 wells and associated corridors in the NE of section 12
T43N R75W Sections 7	South Dry Willow Reservoir 1 and 2

- A minimum disturbance-free buffer zone of 0.5 mile (i.e., no surface occupancy) will be established year-round for all bald eagle nest sites. A seasonal minimum disturbance-free buffer zone of one mile will be established for all bald eagle nest sites (February 15 – August 15).
- A seasonal minimum disturbance-free buffer zone of 1 mile will be established for all bald eagle winter roost sites (November 1 – April 1). These buffer zones and timing may be adjusted based on site-specific information through coordination with, and written approval from, the USFWS. This will be applied specifically to the known roost in SWSW of Section 6, T43N, R75W. This will apply to the following permitted POD items:

Township/Range/Section	Wells and Infrastructure
T43N R76W Section 12	ALL DAY ENDLESS CS 2, ALL DAY ENDLESS CS 3 wells and associated corridors in the NE of section 12

- Within 0.5 mile of bald eagle winter roost sites additional measures such as remote monitoring and restricting maintenance visitation to between 9:00am and 3:00pm are necessary to prevent disturbance (November 1 – April 1).

### ***Raptors***

The following conditions will alleviate impacts to raptors:

1. Nest occupancy checks shall be completed for nests within a 0.5 mile of any surface disturbing activities (e.g., well drilling or pipeline installation) across the entire POD for as long as the POD is under construction. Once construction of the POD has ceased, nest occupancy checks shall continue for the first five years on all nests that are within a 0.5 mile of locations where any surface-disturbing activities took place. Survey results will be submitted to a Buffalo BLM biologist in writing no later than July 31 of each survey year.
2. No surface disturbing activity shall occur within 0.5 mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season. This timing limitation will affect the following:

BLM ID	Infrastructure
2409	1, 2, 3, and 4 Marauder wells
2410	4, and 5 Marauder wells
3132	Ox Bar Reservoir
3133	Ox Bar Reservoir
3398	1 All Day well
4228	4 Endless well
4249	2 Endless well, 3 Endless well, 4 Endless well.
4530	14 Cinnabar well
4531	South Dry Willow Reservoirs #1 and #2.
4532	16 Cinnabar well

<b>BLM ID</b>	<b>Infrastructure</b>
4533	5 Endless well, South Dry Willow Reservoir #1, Access corridor
4534	Access corridor section 17 T43NR75W
4536	4, and 5 Endless wells
4538	Access corridor NE section 16 T43NR75W
4541	1,2,7 Forever wells
4546	4 Forever well, City Bowl Reservoir
4553	6 Pepperstone well
4556	Access Corridor, Section 36, SE section 35 T43NR75W
4557	7 Pepperstone well, East Pasture 4 Reservoir
4559	4 Vindicator well
4560	East Pasture 3 Reservoir, 4 Vindicator well
4561	1 Marauder well, Cosner Reservoir
4562	1, 2 Marauder well
4696	4 Pepperstone well, Little Black Butte # 1 Reservoir
5219	4 Pepperstone well, Little Black Butte # 1 Reservoir
5220 (6339)	All Day CS 9 well and road section
6156	East Pasture Reservoir 4
6185	5 and 6 Endless wells
6200	5, 6, and 7 Endless well
6499	6 Forever well
6504	4, 5, Endless well
6518	South Dry Willow #2 Reservoir
6519	Oxbow Reservoir
6521	South Dry Willow #2 Reservoir
6522	South Dry Willow #2 Reservoir
6523	South Dry Willow #2 Reservoir
6524	South Dry Willow #2 Reservoir
6525	South Dry Willow #2 Reservoir, access corridor in section 17 T43NR75W
6529	Oxbow Reservoir
6534	South Dry Willow # 2
6535	South Dry Willow # 2
6541(6503)	4, 5, 6 Forever wells, and corridor in section 23 T43NR75W
6542	Corridor in SE 35, SW 36, T43NR74W

The following site-specific COAs apply to the following wells: ALL DAY ENDLESS CS 4; ALL DAY ENDLESS CS 5; ALL DAY ENDLESS CS 6.

1. No surface disturbing activity shall occur within 0.5 mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season.
2. Surveys to document nest occupancy shall be conducted by a biologist following BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities. Surveys outside this window may not depict nesting activity. If a survey identifies active raptor nests, a 0.5 mile timing buffer will be implemented. The timing buffer restricts surface disturbing activities within 0.5 mile of occupied raptor nests from February 1 to July 31.

The following site-specific COAs apply to the following wells: ALL DAY FOREVER CS 1 and ALL DAY FOREVER CS 2:

1. No surface disturbing activity shall occur within 0.5 mile of the removed raptor nest #4151 from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season.
2. Surveys to document nest occupancy shall be conducted by a biologist following BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities. Surveys outside this window may not depict nesting activity. If a survey identifies active raptor nests, a 0.5 mile timing buffer will be implemented. The timing buffer restricts surface disturbing activities within 0.5 mile of occupied raptor nests from February 1 to July 31.

The following site-specific COAs apply to ALL DAY CS 9 Well:

1. No surface disturbing activity shall occur within 0.5 mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season.
2. Surveys to document nest occupancy shall be conducted by a biologist following BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities. Surveys outside this window may not depict nesting activity. If a survey identifies active raptor nests, a 0.5 mile timing buffer will be implemented. The timing buffer restricts surface disturbing activities within 0.5 mile of occupied raptor nests from February 1 to July 31.

### **Greater Sage-grouse**

The following conditions will alleviate impacts to sage-grouse:

1. (WY-2010-012 IM) Surface disturbing activities or surface occupancy is prohibited or restricted on or within one quarter (0.25) mile radius of the perimeter of occupied or undetermined Sage-grouse leks.  
Specifically, no surface occupancy (e.g. above ground structure) is permitted within 0.25 miles of the Little Black Butte Lek.
2. (WY-2010-012 IM) Disruptive activity is restricted on or within one quarter (0.25) mile radius of the perimeter of occupied or undetermined Sage-grouse leks from 6 PM to 8 AM from March 15-May 15.  
Specifically, POD related travel within 0.25 miles of the Little Black Butte lek will be prohibited between 6 PM and 8 AM, from March 15 to May 15.
3. For any surface-disturbing activities proposed in sagebrush shrublands, the Companies will conduct clearance surveys for sage grouse breeding activity during the sage grouse's breeding season before initiating the activities. The surveys must encompass all sagebrush shrublands within 0.5 mile of the proposed activities.
4. To further minimize impacts to sage-grouse using habitat affected by the proposed action, surface-disturbing activities will be restricted during sage-grouse breeding and nesting periods (March 15 to June 30) for project components located in sage-grouse habitat for the life of the project. These restrictions will affect the entire POD with the exception of the following:  
Impoundments:  
Cosner, Snow Fence, Drilling, End of T-Chair, East Pasture #2 and East Pasture #3  
Well locations:  
ALL DAY CS 2, ALL DAY CS 3, ALL DAY CS COM 4, ALL DAY CS 5, ALL DAY CS 6, ALL DAY CS 7, ALL DAY CS 8, ALL DAY MARAUDER CS 1, ALL DAY MARAUDER CS 2, ALL DAY MARAUDER CS 3, ALL DAY MARAUDER CS 4 and ALL DAY MARAUDER CS COM 5.

- a. A sage-grouse lek survey will be conducted for all known leks within 2 miles of the POD by a biologist following the most current WGFD protocol. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities.

**Water Management**

1. Impoundments constructed over Federal minerals or on Federal surface to manage CBNG-produced water will be evaluated for reclamation once the production phase concludes. Structures will be assessed according to BFO “Impoundment Reclamation Guidance” issued July 19, 2010. In order to establish soil chemistry goals for reclamation, baseline soil samples will be collected from the impoundments listed below. This baseline analysis will characterize existing soil chemistry and set reclamation target ranges. If the operator does not establish baseline parameters prior to impoundment construction, they would be required to do so at the time of reclamation by sampling locations upstream of the facility.

	<b>Impoundment Name</b>	<b>Qtr/Qtr</b>	<b>Section</b>	<b>Township</b>	<b>Range</b>	<b>Capacity (Acre Feet)</b>	<b>Surface Disturbance (Acres)</b>	<b>Lease Number</b>
1	City Bowl	NWSW	14	42	75	14.5	4.3	WYW159992
2	Cosner	NWNW	12	42	75	16	4.1	WYW142823
3	Drilling	SWSE	17	42	74	19.4	6.5	WYW131722
4	East Eychaner	SENE	14	42	75	19	2.9	WYW138135
5	East Pasture #2	SWNE	3	42	75	12.2	1.8	WYW128603
6	East Pasture #3	NWSW	3	42	75	19	4.6	WYW128603
7	North Dump	NESE	13	42	76	18.9	2.8	WYW130096
8	North Pinnacle	SESE	14	42	75	19.9	3.8	WYW142078
9	Ox Bar	NESW	18	42	75	6.3	1.3	WYW153068
10	Snow Fence	NWNW	17	42	74	19.9	2.8	WYW131722
11	South Pinnacle	NESE	23	42	75	4.2	0.9	WYW159992
12	Wagoneer	NWSW	6	42	74	18.2	3.7	WYW141222
13	East Pasture #1	SESE	3	42	75	41.2	5.8	WYW145149
14	West Side	SWSW	9	43	75	14.6	3.1	WYW130608
15	Little Black Butte #2	NWSE	35	42	75	17.4	2.7	WYW141656
16	Little Black Butte #4	SWSW	34	42	75	18.6	2.8	WYW135911
17	Little Black Butte #5	NWSE	33	42	75	16.7	2.5	WYW135911
18	North Black Butte	NWSE	27	42	75	13.8	2.3	WYW141656

Samples will be taken from the approximate proposed deepest point in the pool area prior to any construction. The recommended location is 10 feet upstream of the proposed low level outlet within the reservoir pool. Discrete samples will be taken from 0-6 inches, 6 to 24 inches and 24 to 48 inches for analysis for the following parameters:

- Texture
- pH
- EC

- Soluble Ca
- Soluble Mg
- Soluble Na
- Soluble K
- SAR
- Total Organic Carbon (TOC)
- Total metals including:
  - Al
  - Ba
  - B
  - Cd
  - Cu
  - Fe
  - Mn
  - Mo
  - Ra-226
  - Se
  - Zn

Standard soil sampling protocol will be used. Two copies of the analysis results will be sent to the BLM BFO Authorized Officer.

After the construction of the impoundment, an additional surface sample will be taken from 0 to 6 inches at the lowest point in the pool area and analyzed for the same parameters, with two copies of the analysis results sent to the BLM BFO Authorized Officer.

2. No water from the Federal Development, the All Day POD will be used, stored, deposited in, or cycled through the basin proposed as the LBB 3 impoundment.

### **Cultural**

1. All surface disturbing activity in the following areas will be monitored by a BLM cultural resource use permit (CRUP) holder or permitted crew chief. The Bureau has identified these areas as having a high potential for buried cultural deposits due to the presence of alluvial deposits or the presence of nearby historic properties with buried components. If any cultural resources are discovered during monitoring, work must be halted and the BLM must be notified. Submission of two copies of a monitoring report to BFO is required within 30 days of the completion of all monitoring work. Exact monitored areas must be plotted on a map provided with the monitoring report.
  - a) All surface disturbing activity associated with construction of any facilities in alluvial deposits near the North Fork of Cottonwood Creek including:
    - i) All surface disturbing activities in and within 100 feet of eligible sites 48CA6644, 48CA6646, 48CA6650, 48CA6908, 48CA6910.
    - ii) All utility corridors within 0.25 mile of North Fork of Cottonwood Creek. Some portions of the monitoring areas as described may lie outside alluvial deposits and exact monitoring areas are left to the discretion of the archeological monitor.
    - iii) All surface disturbing activities associated with the construction of the Little Black Butte #1 reservoir. Some portions of the monitoring area may lie outside alluvial deposits and exact monitoring area is left to the discretion of the archeological monitor.
  - b) All surface disturbing activity associated with the construction of the South Pinnacle Reservoir and any surface disturbing activity within 100 feet of eligible site 48CA5225.
  - c) All surface disturbing activity associated with the construction of the utility corridor in and within

- 100 feet of eligible site 48CA6488.
- d) All surface disturbing activity associated with the construction of the ALL DAY FOREVER CS 4 well and the utility corridor in and within 100 feet of eligible site 48CA6441. No surface disturbance is authorized on the west side of the existing two track during construction of the well and utility corridor.
  - e) All surface disturbing activity associated with the construction of the utility corridor within 300 feet of eligible site 48CA6658.
  - f) All surface disturbing activity associated with the construction of the utility corridor within 100 feet of eligible site 48CA6665.
2. Due to cultural issues surrounding ALL DAY FOREVER CS 4 well the operator will surface the road with rock before construction begins. Due to sensitive cultural issues, the operator must use rock that blends with the natural colors, do not use scoria, use Crazy Woman gravel or other gravel that blends with soil.

### **III STANDARD**

#### **General**

1. A pre-construction field meeting shall be conducted prior to beginning any dirt work approved under this POD. The operator shall contact the BLM Authorized Officer NRS Name Here at NRS Phone number Here at least 4-days prior to beginning operations so that the meeting can be scheduled. The operator is responsible for having all contractors present (dirt contractors, drilling contractor, pipeline contractor, project oversight personnel, etc.) including the overall field operations superintendent, and for providing all contractors copies of the approved POD, project map and BLM Conditions of Approval pertinent to the work that each will be doing.
2. If any cultural values [sites, artifacts, human remains (Appendix L FEIS)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:
  - whether the materials appear eligible for the National Register of Historic Places;
  - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
  - a time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.
3. If paleontological resources, either large or conspicuous, and/or a significant scientific value are discovered during construction, the find will be reported to the Authorized Officer immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the

cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during the operation.

4. Please contact Casey Freise, Supervisory Natural Resource Specialist, at (307) 684-1100, Bureau of Land Management, Buffalo, if there are any questions concerning the following surface use COAs.
5. The first well drilled to each targeted coal zone will be designated as the POD reference well. Designated reference wells must have the ability to be sampled at the wellhead. Water quality samples will be collected by the operator and submitted for analysis using WDEQ NPDES criteria within 30-60 days of initial water production. Results of the analysis will be submitted to the BFO-BLM Authorized Officer as soon as they become available.

#### **DRILLING AND PRODUCTION OPERATIONS**

1. The operator shall complete wells (case, cement and under ream) as soon as possible, but no later than 30 days after drilling operations, unless an extension is given by the BLM Authorized Officer.
2. If in the process of air drilling the wells there is a need to utilize mud, all circulating fluids will be contained either in an approved pit or in an aboveground containment tank. The pit or containment tank will be large enough to safely contain the capacity of all expected fluids without danger of overflow. Fluid and cuttings will not be squeezed out of the pit, and the pit will be reclaimed in an expedient manner.

#### **Well Control Equipment**

1. The flow line shall be a minimum of 30 feet from the well bore and securely anchored. The 30-foot length of line is a minimum and operators must make consideration for increasing this length for topography and/or wind direction.
2. The flow line shall be a straight run.
3. The flow line must be constructed from non-flammable material.
4. All cuttings and circulating medium shall be directed to and contained in a reserve pit.
5. The nearest edge of the pits shall be a minimum of 25' from the rig.
6. A minimum of 2' of freeboard shall be maintained in the pits at all times.
7. The authorized officer may modify these requirements at any time if it is determined that increased pressure control is deemed necessary.
8. Verbal notification shall be given to the Authorized Officer at least 24 hours before formation tests, BOP tests, running and cementing casing, and drilling over lease expiration dates.

#### **Cement Program**

1. If there are indications of inadequate primary cementing of the surface, intermediate, or production casing strings; such as but not limited to no returns to surface, cement channeling, fallback or mechanical failure of equipment, the operator will evaluate the adequacy of the cementing operations. This evaluation will consist of running a cement bond log (CBL) or an alternate method approved by the Authorized Officer (AO) no sooner than 12 hours and no later than 24 hours from the time the cement was first pumped.

2. If the evaluation indicates inadequate cementing, the operator shall contact a BLM Buffalo Field Office Petroleum Engineer for approval of remedial cementing work.
3. The adequacy of the remedial cementing operations shall be verified by a cement bond log (CBL) or an alternate method approved by the Authorized Officer (AO). All remedial work shall be completed and verified prior to drilling out the casing shoe or perforating the casing for purposes other than remedial cementing.
4. The cement mix water used must be of the same water quality used to develop the cement program.

**Production Equipment**

1. Other actions such as off-lease measurement, commingling, allocation, etc. shall be approved via a Notice of Intent sundry (Form No. 3160-5). Submission of additional information in the POD shall not be construed as permission for these items. If the operator wishes to utilize off-lease gas measurement for wells approved in this POD, they are required to obtain approval via a Notice of Intent sundry (Form No. 3160-5) prior to any gas production.

**Well and POD Building Identification**

1. From the time a well pad is constructed or a well is spudded (if no well pad needed), until abandonment, all well locations must be properly identified with a legible sign. The sign will include the well name and number, operator name, lease number, and the surveyed location.
2. At each POD building site where federal wells are metered, the operator is required to maintain a legible sign displayed in a conspicuous place. This sign is required to be in place at the time metering goes online. The sign shall include: POD name, Operator, Federal well names and numbers, Federal lease numbers being metered at the POD building, and surveyed location of the building.

**Protection of Fresh Water Resources**

1. All oil and gas operations shall be conducted in a manner to prevent the pollution of all freshwater resources. All fresh waters and waters of present or probable future value for domestic, municipal, commercial, stock or agricultural purposes will be confined to their respective strata and shall be adequately protected. Special precautions will be taken to guard against any loss of artesian water from the strata in which it occurs and the contamination of fresh water by objectionable water, oil, condensate, gas or other deleterious substance to such fresh water.

**Miscellaneous Conditions**

1. Any changes to the approved drilling plan and/or these conditions of approval shall be approved by the BLM-Buffalo Field Office Petroleum Engineer prior to being implemented.

After hour's numbers:

Supervisory Petroleum Engineer: Matthew Warren      Cell Telephone: 307-620-0103

2. If any cores are collected, a copy of all analysis performed shall be submitted to the BLM-Buffalo Field Office Petroleum Engineer.

**SURFACE USE STANDARD**

**A. Construction**

1. Construction and drilling activity will not be conducted using frozen or saturated soil material during periods when watershed damage or excessive rutting is likely to occur.
2. Remove all available topsoil from constructed well locations including areas of cut and fill, and

stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for one year or longer will be signed and stabilized with annual ryegrass or other suitable cover crop.

3. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
4. Construct the backslope no steeper than ½:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.
5. Maintain a minimum 20-foot undisturbed vegetative border between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.
6. To minimize electrocution potential to birds of prey, all overhead electrical power lines will be constructed to standards identified by the Avian Power Line Interaction Committee (2009).
7. Reserve pit will be adequately fenced during and after drilling operations until reclaimed so as to effectively keep out wildlife and livestock. This requires that it be fenced on the three nonworking sides prior to drilling and on the remaining side immediately following rig release. Fencing will be constructed in accordance with BLM specifications. (Plastic snow fence is not acceptable fencing material for conventional wells.)
8. The reserve pit will be oriented to prevent collection of surface runoff. After the drilling rig is removed, the operator may need to construct a trench on the uphill side of the reserve pit to divert surface drainage around it. If constructed, the trench will be left intact until the pit is closed.
9. The reserve pit will be lined with an impermeable liner if permeable subsurface material is encountered. An impermeable liner is any liner having a permeability less than  $10^{-7}$  cm/sec. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand will be used prior to installing the liner.
10. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).
11. Reserve pits will be adequately fenced during and after drilling operations until pit is reclaimed so as to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:
  - Construction materials will consist of steel or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc. Electric fences will not be allowed.
  - Construction standards: Posts shall be firmly set in ground. If wire is used it must be taut and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taut and sturdy. Fence must be at least 2-feet from edge of pit. 3 sides fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.

12. Reserve pits will be closed as soon as possible, but no later than 90 days from time of drilling/well completion, unless the BLM Authorized Officer gives an extension. Squeezing of pit fluids and cuttings is prohibited. Pits must be dry of fluids or they must be removed via vac truck or other environmentally acceptable method prior to backfilling, recontouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet below recontoured grade. The operator will be responsible for recontouring any subsidence areas that develop from closing a pit before it is sufficiently dry.
13. Culverts will be placed on channel bottoms on firm, uniform beds, which have been shaped to accept them, and aligned parallel to the channel to minimize erosion. Backfill will be thoroughly compacted.
14. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
15. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
16. Maximum design speed on all operator constructed and maintained roads will not exceed 25 miles per hour.
17. Pipeline construction shall not block nor change the natural course of any drainage. Pipelines shall cross perpendicular to drainages. Pipelines shall not be run parallel in drainage bottoms. Suspended pipelines shall provide adequate clearance for maximum runoff.
18. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.
19. Operators are required to obtain a National Pollution Discharge Elimination System (NPDES) Storm Water Permit from the Wyoming DEQ for any projects that disturb five or more acres (changing to one acre in March 2005). This general construction storm water permit must be obtained from WDEQ prior to any surface disturbing activities and can be obtained by following directions on the WDEQ website at <http://deq.state.wy.us>. Further information can be obtained by contacting Wyoming DEQ at (307) 777-7570.
20. The operator shall submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface disturbing activities that are not specifically addressed in the approved APD or POD Surface Use Plan.
21. During construction, emissions of particulate matter from well pad and road construction would be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.

#### **B. Operations/Maintenance**

1. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD or POD.
2. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to a State approved waste disposal site immediately upon completion of

drilling operations. No trash or empty barrels will be placed in the reserve pit or buried on location. Operators and their contractors will comply with all state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.

3. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads, water management facilities, etc.) Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer to such use.
4. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.
5. The operator and their contractors shall ensure that all use, production, storage, transport and disposal of hazardous and extremely hazardous materials associated with the drilling, completion and production of these wells will be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines. All project-related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. In accordance with OSHA requirements, a file will be maintained onsite containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion and production operations.
6. Produced fluids shall be put in test tanks on location during completion work. Produced water will be put in the reserve pit during completion work per Onshore Order #7.
7. The only fluids/waste materials which are authorized to go into the reserve pit are RCRA exempt exploration and production wastes. These include:
  - drilling muds & cuttings
  - rigwash
  - excess cement and certain completion & stimulation fluids defined by EPA as exemptIt does not include drilling rig waste, such as:
  - spent hydraulic fluids
  - used engine oil
  - used oil filter
  - empty cement, drilling mud, or other product sacks
  - empty paint, pipe dope, chemical or other product containers
  - excess chemicals or chemical rinsateAny evidence of non-exempt wastes being put into the reserve pit may result in the BLM Authorized Officer requiring specific testing and closure requirements.
8. The operator shall restrict travel on unimproved two-track roads during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage (e.g., rutting in excess of 4-inches, travel outside two-track roadway, etc.).

### **C. Producing Well**

1. Landscape those areas not required for production to the surrounding topography as soon as possible.

The fluids and mud must be dry in the reserve pit before re-contouring pit area. The operator will be responsible for re-contouring and reseeding of any subsidence areas that develop.

2. Reduce the backslope to 2:1 and the foreslope to 3:1, unless otherwise directed by the BLM Authorized Officer. Reduce slopes by pulling fill material up from foreslope into the toe of cut slopes.
3. Any spilled or leaked oil, produced water or treatment chemicals must be reported in accordance with NTL-3A and immediately cleaned up in accordance with BLM requirements. This includes clean-up and proper disposition of soils contaminated as a result of such spills/leaks.
4. Distribute stockpiled topsoil evenly over those areas not required for production (ie.,cut/fill slopes, road ditches, pipelines, etc.) and reseed with approved seed mix.
5. Upgrade and maintain access roads and drainage control (e.g., culverts, drainage dips, ditching, crowning, surfacing, etc.) as necessary and as directed by the BLM Authorized Officer to prevent soil erosion and accommodate safe, environmentally-sound access.
6. Prior to construction of production facilities not specifically addressed in the APD/POD, the operator shall submit a Sundry Notice to the BLM Authorized Officer for approval.
7. Waterbars shall be installed on all reclaimed pipeline corridors per the guidelines in A.4.2.4 #6.

**D. Reclamation/Dry Hole**

1. Disturbed lands will be re-contoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.
2. The fluids and mud must be dry in the reserve pit before re-contouring pit area. The operator will be responsible for re-contouring of any subsidence areas that develop from closing a pit before it is completely dry. The plastic pit liner (if any) will be cut off below grade and properly disposed of at a state authorized landfill before beginning to re-contour the site.
3. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling area and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.
4. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking to a depth of 4-to-6 inches following the contour.
5. Waterbars are to be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

<b>Slope (percent)</b>	<b>Spacing Interval (feet)</b>
< 2	<b>200</b>
<b>2 - 4</b>	<b>100</b>
<b>4 - 5</b>	<b>75</b>
> 5	50

6. BLM will not release the performance bond until all disturbed areas associated with the APD/POD have been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
7. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
8. For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.
9. Phased reclamation plans will be submitted to BLM for approval prior to individual POD facility abandonment via a Notice of Intent (NOI) Sundry Notice. Individual facilities, such as well locations, pipelines, discharge points, impoundments, etc. need to be addressed in these plans as they are no longer needed. Individual items that will need to be addressed in reclamation plans include:
  - Pit closure (Close ASAP after suitably dry, but no later than 90 days from time of drilling unless an extension is given by BLM Authorized Officer.) BLM may require closure prior to 90 days in some cases due to land use or environmental concerns.
  - Configuration of reshaped topography, drainage systems, and other surface manipulations
  - Waste disposal
  - Revegetation methods, including specific seed mix (pounds pure live seed/acre) and soil treatments (seedbed preparation, fertilization, mulching, etc.). On private surface, the landowner should be consulted for the specific seed mix.
  - Other practices that will be used to reclaim and stabilize all disturbed areas, such as water bars, erosion fabric, hydro-mulching, etc.
  - An estimate of the timetables for beginning and completing various reclamation operations relative to weather and local land uses.
  - Methods and measures that will be used to control noxious weeds, addressing both ingress and egress to the individual well or POD.
  - Decommissioning/removal of all surface facilities
  - Closure and reclamation of areas utilized or impacted by produced CBM water, including discharge points, reservoirs, off-channel pits, land application areas, livestock/wildlife watering facilities, surface discharge stream channels, etc.
10. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
11. Any mulch utilized for reclamation needs to be certified weed free.