APPENDIX D: Conditions of Approval for the Application(S) for Permit to Drill
ENVIRONMENTAL ASSESSMENT –WY-070-EA10-280
Yates Petroleum Corporation, Napier Road POD
Bureau of Land Management, Buffalo Field Office

POD Name: Napier Road

Field Office: Buffalo Field Office
Address: 1425 Fort Street
Buffalo, Wyoming 82834
Office Telephone Number: 307-684-1100

BLM approves the following 48 CBNG and 3 water injection APDs and associated infrastructure:

No	Well Name	Well #	Qtr/Qtr	Section	Township	Range	Lease
1	Schofield CS Federal	1	SWNE	11	47	75	WYW132922
2	Schofield CS Federal	2	NESE	11	47	75	WYW132922
3	Cubicle CS Federal Com	1	NESW	7	47	75	WYW145186
4	Napier Road CS Federal	1	SWSE	11	47	75	WYW108587
5	Napier Road CS Federal	2	NENE	11	47	75	WYW108587
6	Hamlet CS Federal Com	1	SWNW	11	47	75	WYW150756
7	Hamlet CS Federal Com	2	NENW	14	47	75	WYW150756
8	Mahalo CS Federal Com	1	SWNE	6	47	75	WYW130081
9	Mahalo CS Federal	2	NESE	6	47	75	WYW130081
10	Mahalo CS Federal	3	NESW	6	47	75	WYW130081
11	Mahalo CS Federal	4	SWSE	6	47	75	WYW130081
12	Mahalo CS Federal	5	NESE	7	47	75	WYW130081
13	Mahalo CS Federal	6	SWSE	7	47	75	WYW130081
14	Niche CS Federal Com	1	NESE	2	47	75	WYW146277
15	Niche CS Federal Com	2	NESW	2	47	75	WYW146277
16	Niche CS Federal	3	SWNW	6	47	75	WYW146277
17	Niche CS Federal	4	NENE	8	47	75	WYW146277
18	Niche CS Federal Com	5	NENW	8	47	75	WYW146277
19	Niche CS Federal	6	SWNE	8	47	75	WYW146277
20	Niche CS Federal Com	7	SWSW	8	47	75	WYW146277
21	Niche CS Federal Com	8	SWSE	8	47	75	WYW146277
22	Niche CS Federal Com	10	NESE	31	48	75	WYW146277
23	Niche CS Federal	11	NESW	31	48	75	WYW146277
24	Niche CS Federal	12	SWSE	31	48	75	WYW146277
25	Waikiki CS Federal	1	NENE	17	47	75	WYW145582
26	Waikiki CS Federal	2	SWNE	17	47	75	WYW145582
27	Waikiki CS Federal	3	NESE	17	47	75	WYW145582
28	Waikiki CS Federal	4	SWSE	17	47	75	WYW145582
29	Waikiki CS Federal	5	NENE	21	47	75	WYW145582

No	Well Name	Well #	Qtr/Qtr	Section	Township	Range	Lease
30	Waikiki CS Federal	6	NENW	21	47	75	WYW145582
31	Waikiki CS Federal	7	SWNW	21	47	75	WYW145582
32	Waikiki CS Federal	8	SWNE	21	47	75	WYW145582
33	Waikiki CS Federal	9	NESE	21	47	75	WYW145582
34	Waikiki CS Federal	10	NESW	21	47	75	WYW145582
35	Waikiki CS Federal	11	SWSW	21	47	75	WYW145582
36	Waikiki CS Federal	12	SWSE	21	47	75	WYW145582
37	Mandarin CS Federal	1	NENE	22	47	75	WYW128095
38	Mandarin CS Federal	2	NENW	24	47	75	WYW128095
39	Mandarin CS Federal	3	SWNW	24	47	75	WYW128095
40	Mandarin CS Federal	4	NESW	24	47	75	WYW128095
41	Mandarin CS Federal	5	SWSW	24	47	75	WYW128095
42	Mandarin CS Federal	6	NENW	25	47	75	WYW128095
43	Pineapple CS Federal	1	NENE	23	47	75	WYW132249
44	Pineapple CS Federal	2	SWNW	23	47	75	WYW132249
45	Pineapple CS Federal	3	SWNE	23	47	75	WYW132249
46	Pineapple CS Federal	4	NESW	23	47	75	WYW132249
47	Pineapple CS Federal	5	SWSE	23	47	75	WYW132249
48	Lani CS Federal	2	SWSW	30	48	75	WYW149796
49	Mahalo Injector Federal	7	NWSE	7	47	75	WYW130081
50	Waikiki Injector Federal	13	SWNW	21	47	75	WYW145582
51	Pineapple Injector Federal	6	NWSW	23	47	75	WYW132249

Water Management:
The approved water management plan (WMP) includes 12 reservoirs proposed for use with this POD. Yates bonded 2 reservoirs. BLM approves those 2 for the use of federal water with this POD.

No	Reservoir Name	Qtr/Qtr	Sec	TWP	RNG	Capacity (ac-ft)	Surface Disturbance (ac)	Lease
1	Firecracker	NENW	21	47	75	19.9	3.5	WYW145582
2	Nobama	SESW	23	47	75	19.7	4.9	WYW132249

Rights-of-Way:
BLM will approve the following rights-of-way once the rights-of-way offers are accepted by Yates:

ROW Grant	ROW Action	Township	Range	Section	Length (ft)	Width (ft)
WYW-170229	Gas	47N/48N	75W	2,7, 8,21, 23, 30	19,100’	NTE 45’
WYW-170228	Road, Water, Power	47N	75W	2,7,21,23	12,650’	NTE 45’

NTE: Not to Exceed

Limitations: The following 10 approved reservoirs will not be used for federal water until after Yates applies for a sundry and provides proof of bonding to the BLM. There are 2 CBNG APD denials.

Water Management:

No	Reservoir Name	Qtr/Qtr	Sec	TWP	RNG	Capacity (ac-ft)	Surface Disturbance (ac)	Lease
1	Hide	NWSE	24	47	75	96.4	10.1	WYW145187
2	Jebediah	NWNE	21	47	75	15.1	2.4	WYW145582
3	Poncho	NESW	7	47	75	10.9	1.6	WYW145186
4	Powerline	SWSE	14	47	75	69.2	7.7	WYW145190
5	Soldier	NESE	11	47	75	19.9	3.9	WYW132922
6	Spring Fling	SWNE	11	47	75	49.9	6.2	WYW132922
7	Turtle	SWSE	23	47	75	82	9	WYW132249
8	Twister	NWNE	8	47	75	11.5	2	WYW146277
9	Vicki's Pond	SESE	10	47	75	98.3	9.8	WYW041522
10	War Paint	SWNW	11	47	75	11.1	1.7	WYW150756

Denials:
BLM denies the following 2 APDs and associated infrastructure.

#	Well Name	Well #	Environmental Issue/Justification
1	Lani CS Federal	1	Impacts to soils rated as limited reclamation absent mitigating design features and / or mitigation.
2	Niche CS Federal Com.	9	Impacts to ferruginous hawk nesting absent mitigating design features and / or mitigation.

Mitigation Measures and Conditions of Approval, Napier Road

Site-Specific Conditions of Approval
In addition to the operator committed measures, and those incorporated from the PRB FEIS, the BLM is including the site-specific COAs to alleviate environmental impacts.

Surface Use

1. A 30-day stabilization requirement is applied to wells and access/pipelines which impact sands and sandy ecological sites (map unit symbols 165 and 188). This 30-day COA is applied to access/pipeline corridors in the SESW and the SWSE of Section 2 and the NENW and NWNE of Section 11 T47N R75W. Niche 2 well will receive a 30-day stabilization requirement.

2. A 30-day stabilization requirement is applied to the Niche11 location on the engineered section due to an existing sandy head cut which will be impacted by the engineered road. These measures must be applied to the head cut 30-days from the start of construction on the engineered section.

3. The operator is responsible for having the licensed professional engineer(s) certify that the actual construction of the road meets the design criteria and is constructed to Bureau standards.

4. Place a minimum average of 4 inches of aggregate on road segments where grades exceed 8%.

5. All permanent above-ground structures (e.g., production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the landscape's natural color. The paint used will be a color which simulates "Standard Environmental Colors." The color selected for the Napier Road POD

is Carlsbad Canyon, 2.5Y 6/2. This color selection will match Napier POD to the Beaver Creek POD's approved color which is Carlsbad Canyon and blends with the landscape's natural color.

6. BLM has developed seed mixes for each ecological site identified within the project area based on the NRCS ecological site description, the reference plant community and desired species richness with the intent of maximizing re-vegetation potential. The operator will drill seed on the contour, 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 on all locations and infrastructure except for the sandy sites which is identified below this mixture Note: Slopes too steep for machinery shall be hand broadcast and raked with twice the specified amount of seed.

Loamy Seed Mix

Species - *Cultivar*	**Seeding (lbs/ac)**	**% in Mix**	**Lbs PLS***
Western Wheatgrass - *Rosana*	12	25	3
Blue grama	12	25	3
Green needlegrass - *Lodorm*	12	25	3
Purple Prairie Clover – *Bismarck*	12	10	1.2
Prairie coneflower	12	10	1.2
Fourwing Saltbush – *Open Range*	12	5	0.6
Total		**100%**	**12 lbs/acre**

Use the sandy seed mix for the following locations and infrastructure which are proposed in sandy soils:

1. The sandy seed mix is applied to wells and access/pipelines which impact sands and sandy ecological sites. This seed mix is applied to access/pipeline corridors in the SESW and the SWSE of Section 2 and the NENW and NWNE of Section 11 T47N R75W. Niche 2 well will receive a sandy seed mix.

Sandy Seed Mix

Species - *Cultivar*	**Seeding (lbs/ac PLS*)**	**% in Mix**	**Lbs PLS***
Western Wheatgrass - *Rosana*	12	20	2.4
Blue grama	12	20	2.4
Prairie Sandreed - Goshon	12	20	2.4
NeedleandThread Grass	12	20	2.4
Purple Prairie Clover – *Bismarck*	12	10	1.2
Prairie coneflower	12	5	0.6
Fourwing Saltbush – *Open Range*	12	5	0.6
Totals		**100%**	**12 lbs/acre**

Wildlife

1. 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.

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.

Burrowing Owls

The following conditions will alleviate impacts to burrowing owls:

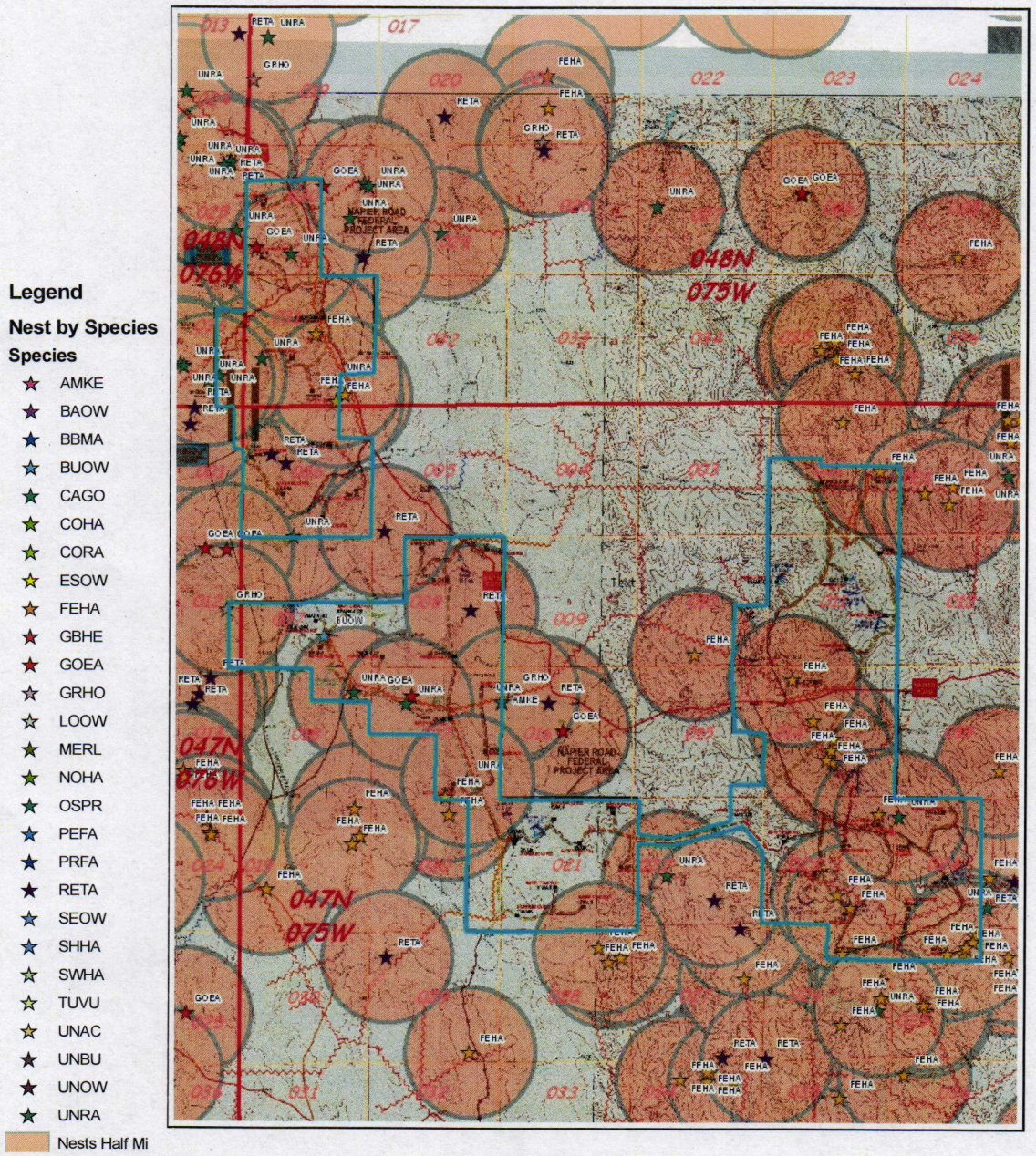
1. No surface disturbing activity shall occur within 0.25 miles of the identified prairie dog colony (see table below) from April 15 to August 31, annually, prior to a burrowing owl nest occupancy survey for the current breeding season. A 0.25 mile buffer will be applied to the burrow if a burrowing owl nest is identified. This condition will be implemented on an annual basis for the duration of surface disturbing activities within the prairie dog town(s). This timing limitation will be in effect unless surveys determine the nest(s) to be inactive.

Location	Well and /or Infrastructure
SE Section 7 T47N R75W	6 Mahalo, 7 Mahalo Injection, 5 Mahalo, Pipeline

Raptors

The following conditions will alleviate impacts to raptors:

1. No surface disturbing activity shall occur within 0.5 mile of all raptor nests depicted in the map below, from February 1 through July 31, annually, prior to a raptor nest occupancy survey.



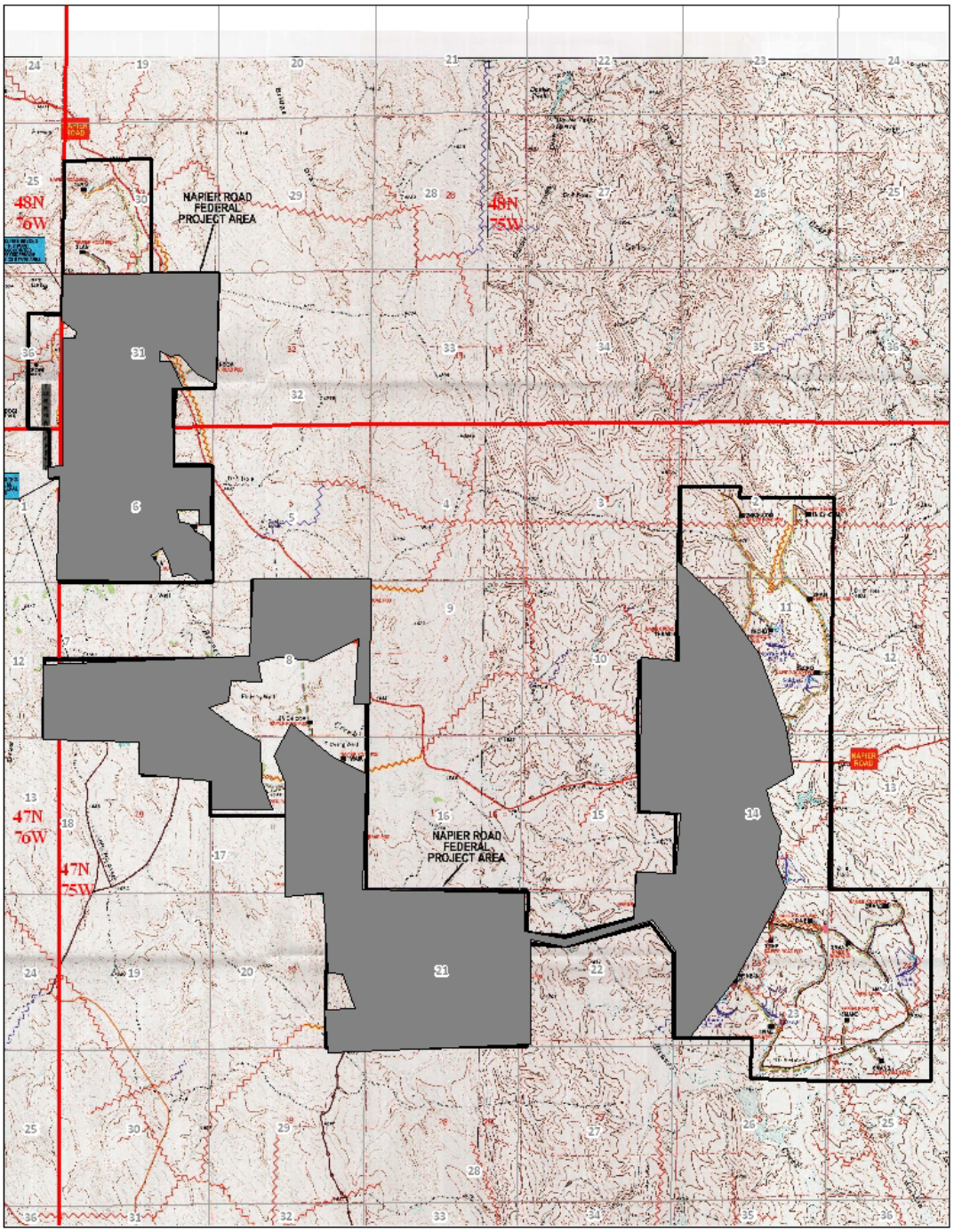
a. Surveys to document nest occupancy shall be conducted by a biologist, following the most current BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities. A 0.5 mile timing restriction will be applied if a nest is identified as active.

b. Surveys for new raptor nests shall be conducted during the construction phase of the project and 5 years following completion of the project within the POD. Surveys shall occur throughout the entire POD and 0.5 mile outside of the POD boundary between April 15 and June 30, and prior to or during the first nest occupancy check. A seasonal timing restriction (February 1 through July 31) will be added to surface disturbing activities within 0.5 miles of any newly discovered nests.

2. If an undocumented raptor nest is located during project construction or operation, the Buffalo Field Office (307-684-1100) shall be notified within 24 hours.

Sage Grouse

1. No surface disturbing activities are permitted during sage-grouse breeding and nesting periods (March 15 – June 30), for project components located in the sage-grouse habitat depicted as shaded areas in map below. This condition will be implemented on an annual basis for the duration of surface disturbing activities.



2. A sage-grouse survey will be conducted by a biologist following the most current WGFD protocol. All survey results shall be submitted in writing to a Buffalo BLM biologist no later than July 31of the current year. This condition will be implemented on an annual basis for the duration of surface disturbing activities.
   a. If a previously unknown lek is identified during surveys (April 1-May 7), a Buffalo BLM biologist shall be notified.

Swift Fox

1. No surface disturbing activities are permitted in suitable swift fox habitat from March 1 to August 31, annually, unless a survey for swift foxes has been conducted during the current breeding season. The survey period is April 15 to June 15. This condition will be implemented on an annual basis for the duration of surface disturbing activities. This timing limitation will affect the following:

Location	Well and /or Infrastructure
Sections 14 and 23 T47N R75W	All wells and associated infrastructure

2. If a swift fox den is identified, then a seasonal disturbance-free buffer of 0.25 mile from the den shall be maintained between March 1 to August 31. If no swift fox dens are identified, then surface disturbing activities may be permitted within suitable habitat until the following breeding season (March 1).

Water Management

1. The operator will submit a sundry notice and appropriate bonding for each secondary impoundment prior to conversion to primary and subsequent use of federal produced water in that impoundment.

2. Impoundments constructed over federal minerals or on federal surface to manage CBNG-produced water must be reclaimed when the production phase concludes. In order to establish soil chemistry goals for eventual reclamation (or released to the private landowner), baseline soil samples will be collected from all impoundments carrying water from this federal action located over federal minerals or on federal surface.

   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 to 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. 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.

   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, it would be required to do so at the time of reclamation by sampling a location upstream of the facility.

Cultural

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 (areas containing alluvial deposits along or near Beaver 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. All monitored areas must be plotted on the map provided with the monitoring report. The submission of two copies of a monitoring report to BFO is required within 30 days of the completion of all monitoring work.

1. In the south half of Sec.6 T47N R75W, the drainage crossing of the proposed pipeline between the 3 Mahalo and the 4 Mahalo wells.

2. In the ESE of Sec.8 T47N R75W, the Beaver Creek crossing of the proposed pipeline between the 8 Niche and the 6 Niche wells

3. In the center of Sec.14 T47N R75W, the drainage crossing of the proposed pipeline.

4. In the SENW of Sec.17 T47N R75W, the drainage crossing of the proposed.

5. In the NW of Sec.21 T47N R75W, the drainage crossing of the proposed pipeline from the 8 Waikiki eastward.

6. In the north half of Sec.22 T47N R75W, the Beaver Creek crossing of the proposed pipeline from the 1 Mandarin well westward.

Programmatic mitigation measures identified in the PRB FEIS ROD

Programmatic mitigation measures are those, determined through analysis, which may be appropriate to apply at the time of APD approval if site specific conditions warrant. These mitigation measures can be applied by BLM, as determined necessary at the site-specific NEPA APD stage, as COAs and will be in addition to stipulations applied at the time of lease issuance and any standard COA. This will include the submission of as-built maps to the BLM.

Surface Water

1. Channel crossings by pipelines will be constructed so that the pipe is buried at least four feet below the channel bottom.

Wetland/Riparian

1. Wetland areas will be disturbed only during dry conditions (that is, during late summer or fall), or when the ground is frozen during the winter.

2. Disturbed channels will be re-shaped to their approximate original configuration or stable geo-morphological configuration and properly stabilized.

3. 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.

Threatened, Endangered, or Sensitive Species

1. A mountain plover nesting survey following U.S. Fish and Wildlife Service protocol shall be

conducted during the first available survey period (May 1 – June 15). Additional measures such as monitoring and activity restrictions may be applied if mountain plovers are documented.

2. A disturbance-free buffer zone of 0.25 mile will be established around all occupied mountain plover nesting habitat between March 15 and July 31.

3. Work schedules and shift changes will be set to avoid the periods from 30 minutes before to 30 minutes after sunrise and sunset during June and July, when mountain plovers and other wildlife are most active.

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.

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 Travis Kern at 307-684-1074, 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 Travis Kern, Natural Resource Specialist, at (307) 684-1074, 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. 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 (2006).

7. 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.
8. The reserve pit will be lined with an impermeable liner if permeable subsurface material is encountered. An impermeable liner is any liner having 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.

9. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).

10. 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.

11. 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.

12. 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.

13. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.

14. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.

15. Maximum design speed on all operator constructed and maintained roads will not exceed 25 miles per hour.

16. 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.

17. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.

18. 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.

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 Barb Sahl 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.

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. 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 (site, project), is (name and Munsell Soil Color Number).

5. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.

6. 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.
7. 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.

8. 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 exempt

   It 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 rinsate

   Any evidence of non-exempt wastes being put into the reserve pit may result in the BLM Authorized Officer requiring specific testing and closure requirements.

9. 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 from closing a pit before it is completely dry.

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. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc will be expediently reclaimed and reseeded in accordance with the surface use plan and any pertinent site-specific COAs.

2. Disturbed lands will be re-contoured back to conform to existing undisturbed topography. No depressions will be left that trap water or form ponds.

3. 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.

4. 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.

5. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking following the contour.

6. 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:

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

7. BLM will not release the performance bond until the area has 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.

8. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.

9. 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.

10. 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.

11. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.

12. Any mulch utilized for reclamation needs to be certified weed free.