UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT Buffalo Field Office Buffalo, Wyoming

SURFACE USE CONDITIONS OF APPROVAL

POD Name: BBC Pumpkin Creek II

Operator: Bill Barrett Corporation

List of Wells:

#	Well Name	Well #	Qtr/Qtr	Sec	TWP	RNG	Lease #
1	BBC PUMPKIN CR II IBERLIN	12-1BG*	SWNW	1	46N	76W	WYW0311402
2	BBC PUMPKIN CR II IBERLIN	14-1BG	SWSW	1	46N	76W	WYW0311402
3	BBC PUMPKIN CR II IBERLIN	12-2BG	SWNW	2	46N	76W	WYW0311402
4	BBC PUMPKIN CR II IBERLIN	14-2BG	SWSW	2	46N	76W	WYW0311402
5	BBC PUMPKIN CR II IBERLIN	21-2BG	NENW	2	46N	76W	WYW0311402
6	BBC PUMPKIN CR II IBERLIN	23-2BG	NESW	2	46N	76W	WYW0311402
7	BBC PUMPKIN CR II IBERLIN	21-3BG	NENW	3	46N	76W	WYW161359
8	BBC PUMPKIN CR II IBERLIN	41-3BG	NENE	3	46N	76W	WYW161359
9	BBC PUMPKIN CR II MANKIN	12-14BG	SWNW	14	47N	76W	WYW28680
10	BBC PUMPKIN CR II MANKIN	14-14BG	SWSW	14	47N	76W	WYW28680
11	BBC PUMPKIN CR II MANKIN	21-14BG	NENW	14	47N	76W	WYW28680
12	BBC PUMPKIN CR II MANKIN	23-14BG	NESW	14	47N	76W	WYW28680
13	BBC PUMPKIN CR II MANKIN	32-14BG	SWNE	14	47N	76W	WYW28680
14	BBC PUMPKIN CR II MANKIN	34-14BG	SWSE	14	47N	76W	WYW28680
15	BBC PUMPKIN CR II MANKIN	41-14BG	NENE	14	47N	76W	WYW28680
16	BBC PUMPKIN CR II MANKIN	43-14BG	NESE	14	47N	76W	WYW28680
17	BBC PUMPKIN CR II MARY HEY	23-15BG	NESW	15	47N	76W	WYW0301379
18	BBC PUMPKIN CR II FEDERAL	32-22BG	SWNE	22	47N	76W	WYW0301379
19	BBC PUMPKIN CR II FEDERAL	34-22BG	SWSE	22	47N	76W	WYW0301379
20	BBC PUMPKIN CR II FEDERAL	41-22BG	NENE	22	47N	76W	WYW0301379
21	BBC PUMPKIN CR II FEDERAL	43-22BG	NESE	22	47N	76W	WYW0301379
22	BBC PUMPKIN CR II FEDERAL	14-23BG	SWSW	23	47N	76W	WYW0301379
23	BBC PUMPKIN CR II MANKIN	23-23BG	NESW	23	47N	76W	WYW0301379
24	BBC PUMPKIN CR II FEDERAL	34-23BG	SWSE	23	47N	76W	WYW0301379
25	BBC PUMPKIN CR II MANKIN	43-23BG	NESE	23	47N	76W	WYW0301379
26	BBC PUMPKIN CR II FEDERAL	12-26BG	SWNW	26	47N	76W	WYW0301379
27	BBC PUMPKIN CR II FEDERAL	14-26BG	SWSW	26	47N	76W	WYW0301379
28	BBC PUMPKIN CR II FEDERAL	21-26BG	NENW	26	47N	76W	WYW0301379
29	BBC PUMPKIN CR II FEDERAL	23-26BG	NESW	26	47N	76W	WYW0301379
30	BBC PUMPKIN CR II FEDERAL	32-26BG	SWNE	26	47N	76W	WYW0301379
31	BBC PUMPKIN CR II FEDERAL	34-26BG	SWSE	26	47N	76W	WYW0301379
32	BBC PUMPKIN CR II FEDERAL	41-26BG	NENE	26	47N	76W	WYW0301379

#	Well Name	Well #	Qtr/Qtr	Sec	TWP	RNG	Lease #
33	BBC PUMPKIN CR II FEDERAL	43-26BG	NESE	26	47N	76W	WYW0301379
34	BBC PUMPKIN CR II IBERLIN	14-27BG	SWSW	27	47N	76W	WYW58944
35	BBC PUMPKIN CR II FEDERAL	23-27BG	NESW	27	47N	76W	WYW58944
36	BBC PUMPKIN CR II FEDERAL	32-27BG	SWNE	27	47N	76W	WYW0301379
37	BBC PUMPKIN CR II FEDERAL	34-27BG	SWSE	27	47N	76W	WYW0301379
38	BBC PUMPKIN CR II FEDERAL	41-27BG	NENE	27	47N	76W	WYW0301379
39	BBC PUMPKIN CR II FEDERAL	43-27BG	NESE	27	47N	76W	WYW0301379
40	BBC PUMPKIN CR II IBERLIN	21-34BG	NENW	34	47N	76W	WYW71546
41	BBC PUMPKIN CR II IBERLIN	32-34BG	SWNE	34	47N	76W	WYW71546
42	BBC PUMPKIN CR II IBERLIN	41-34BG	NENE	34	47N	76W	WYW71546
43	BBC PUMPKIN CR II IBERLIN	43-34BG	NESE	34	47N	76W	WYW71546
44	BBC PUMPKIN CR II IBERLIN	12-35BG	SWNW	35	47N	76W	WYW71546
45	BBC PUMPKIN CR II FEDERAL	14-35BG	SWSW	35	47N	76W	WYW71546
46	BBC PUMPKIN CR II IBERLIN	21-35BG	NENW	35	47N	76W	WYW71546
47	BBC PUMPKIN CR II IBERLIN	23-35BG	NESW	35	47N	76W	WYW71546
48	BBC PUMPKIN CR II IBERLIN	32-35BG	SWNE	35	47N	76W	WYW71546
49	BBC PUMPKIN CR II IBERLIN	34-35BG	SWSE	35	47N	76W	WYW71546
50	BBC PUMPKIN CR II IBERLIN	41-35BG	NENE	35	47N	76W	WYW71546
51	BBC PUMPKIN CR II IBERLIN	43-35BG	NESE	35	47N	76W	WYW71546

List of Impoundments:

	IMPOUNDMENT Name / Number	Qtr/Qtr	Section	TWP	RNG	Capacity (Acre Feet)	Surface Disturbance (Acres)	Lease Number
1	Mary Hey	NESW	15	47	76	2.35	3.525	WYW0301379
2	EX34-1-76	NWNW	34	47	76	18.1	27.15	WYW071546
3	P34-1-47-76	SWSW	34	47	76	15.3	22.95	Fee
4	EX35-1-47-76	SESW	35	47	76	20	30	WYW071546
5	P35-1-47-76	SWSW	35	47	76	13	19.5	WYW071546
6	P2-1-46-76	SWNW	2	46	76	20	30	WYW0311402
7	EX 11-1-47-76	SWSE	11	47	76	0.6	0.9	Fee
8	P14-1-47-76	NESE	14	47	76	15.3	22.95	WYW028680
9	P14-2-47-76	NWNE	14	47	76	17	25.5	WYW028680
10	P23-1-47-76	NESW	23	47	76	5.7	8.55	WYW0301379
11	P33-1-47-76	NENE	33	47	76	15.9	23.85	Fee
12	EX3-1-46-76	NENE	3	46	76	13.6	20.4	WYW153363
13	P3-1-46-76	SENE	3	46	76	10.8	16.2	WYW161359
14	POCP14-1-47-76	SESW	23	47	76	48.5	72.75	WYW028680

I Programmatic mitigation measures identified in the PRB FEIS ROD

Groundwater

 In order to address the potential impacts from infiltration on shallow ground water, the Wyoming DEQ has developed a guidance document, "Compliance Monitoring for Ground Water Protection Beneath Unlined Coalbed Methane Produced Water Impoundments" (June 14, 2004) which can be accessed on their website. This guidance document became effective August 1, 2004. For WYPDES permits received by DEQ after the August 1st effective date, the BLM will require that operators comply with the latest DEQ standards and monitoring guidance.

Surface Water

- 1. Channel Crossings:
 - a) Minimize channel disturbance as much as possible by limiting pipeline and road crossings.
 - b) Avoid running pipelines and access roads within floodplains or parallel to a stream channel.
 - c) Channel crossings by road and pipelines will be constructed perpendicular to flow. Culverts will be installed at appropriate locations for streams and channels crossed by roads as specified in the BLM Manual 9112-Bridges and Major Culverts and Manual 9113-Roads. Streams will be crossed perpendicular to flow, where possible, and all stream crossing structures will be designed to carry the 25-year discharge event or other capacities as directed by the BLM.
 - d) Channel crossings by pipelines will be constructed so that the pipe is buried at least four feet below the channel bottom.
- 2. Low water crossings will be constructed at original streambed elevation in a manner that will prevent any blockage or restriction of the existing channel. Material removed will be stockpiled for use in reclamation of the crossings.
- 3. 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.
- 4. The operator will supply a copy of the complete approved SW-4, SW-3, or SW-CBNG permits to BLM as they are issued by WSEO for impoundments.
- 5. The operator will supply to the BLM copies of the WYPDES permits and approval letters for watershed permits for this POD as soon as they available from WDEQ.

Soils

1. The Companies, on a case by case basis depending upon water and soil characteristics, will test sediments deposited in impoundments before reclaiming the impoundments. Tests will include the standard suite of cations, ions, and nutrients that will be monitored in surface water testing and any trace metals found in the CBNG discharges at concentrations exceeding detectable limits.

Vegetation

1. Temporarily fence reseeded areas, if not already fenced, for at least two complete growing seasons to insure reclamation success on problematic sites (e.g. close to livestock watering source, erosive soils etc.).

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. No waste material will be deposited in riparian areas, flood plains, or in natural drainage ways.
- 3. Soil or other material stockpiles will be located outside the active floodplain.
- 4. Disturbed channels will be re-shaped to their approximate original configuration or stable

geomorphological configuration and properly stabilized.

5. 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. The Companies will construct power lines to minimize the potential for raptor collisions with the lines. Potential modifications include burying the lines, avoiding areas of high avian use (for example, wetlands, prairie dog towns, and grouse leks), and increasing the visibility of the individual conductors.
- 3. The Companies will locate aboveground power lines, where practical, at least 0.5 mile from any sage grouse breeding or nesting grounds to prevent raptor predation and sage grouse collision with the conductors. Power poles within 0.5 mile of any sage grouse breeding ground will be raptor-proofed to prevent raptors from perching on the poles.
- 4. Containment impoundments will be fenced to exclude wildlife and livestock. If they are not fenced, they will be designed and constructed to prevent entrapment and drowning.
- 5. All stock tanks shall include a ramp to enable trapped small birds and mammals to escape. See Idaho BLM Technical Bulletin 89-4 entitled <u>Wildlife Watering and Escape Ramps on Livestock</u> <u>Water Developments: Suggestions and Recommendations</u>.

Threatened, Endangered, or Sensitive Species Mountain Plover

1. Reclamation of areas of previously suitable mountain plover habitat will include the seeding of vegetation to produce suitable habitat for mountain plover.

Ute Ladies'-tresses Orchid

1. Moist soils near wetlands, streams, lakes, or springs in the project area will be promptly revegetated if construction activities impact the vegetation in these areas. Revegetation will be designed to avoid the establishment of noxious weeds.

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.

Noise

- 1. Noise mufflers will be installed on the exhaust of compressor engines to reduce the exhaust noise.
- 2. Where noise impacts to existing sensitive receptors are an issue, noise levels will be required to be no greater than 55 decibels measured at a distance of one-quarter mile from the appropriate booster (field) compressor. When background noise exceeds 55dBA, noise levels will be no greater than 5dBA above background. This may require the installation of electrical compressor motors at these locations.

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 form the BLM authorized officer.

II Site Specific Conditions of Approval

Please contact Bill Ostheimer, @ (307) 684-1117 Bureau of Land Management, Buffalo, if there are any questions concerning these COAs.

1. All changes made at the onsite will be followed. They have all been incorporated into the operator's plan of development.

#	Well #	QTR	Sec	TWP	RNG	Lease	changes
1	32-22BG	SWNE	22	47N	76W	WYW0301379	follow road with pipeline.
2	34-22BG	SWSE	22	47N	76W	WYW0301379	use 10 inch poly pipe for relief culverts. Sandy soils on road may need extraordinary measures to prevent erosion.
3	43-22BG	NESE	22	47N	76W	WYW0301379	Shorten access.
4	14-23BG	SWSW	23	47N	76W	WYW0301379	Sandy soils on road may need extraordinary measures to prevent erosion.
5	34-23BG	SWSE	23	47N	76W	WYW0301379	Moved well 300' and changed access to minimize impacts to sage-grouse nesting and brood rearing habitat
6	12-26BG	SWNW	26	47N	76W	WYW0301379	2 raptor nests within 1/2 mile in line of sight. No well maintenance will be allowed 2/1-7/31 without written approval from the Buffalo BLM
7	21-26BG	NENW	26	47N	76W	WYW0301379	Well moved 480' to avoid raptor nest. Sandy soils on ridge road may need extraordinary measures to prevent erosion.
8	23-26BG	NESW	26	47N	76W	WYW0301379	BBC moved 300' to south side of road to reduce wind erosion.
9	32-26BG	SWNE	26	47N	76W	WYW0301379	Moved 300' to road to minimize impacts to sage-grouse nesting habitat.
10	34-26BG	SWSE	26	47N	76W	WYW0301379	Sandy soils on road may need extraordinary measures to prevent erosion.
11	41-26BG	NENE	26	47N	76W	WYW0301379	Moved 200' to minimize impacts to sage-grouse nesting habitat
12	43-26BG	NESE	26	47N	76W	WYW0301379	Moved 240' to minimize impacts to sage-grouse nesting habitat

#	Well #	QTR	Sec	TWP	RNG	Lease	changes
13	41-27BG	NENE	27	47N	76W	WYW0301379	Moved 480' and removed reservoir to minimize impacts to sage-grouse nesting and brood rearing habitat
14	14-35BG	SWSW	35	47N	76W	WYW71546	Moved 275' to place it behind a conventional well tank and out of sight of a raptor nest.
15	12-1BG*	SWNW	1	46N	76W	WYW0311402	Moved 150' to minimize impacts to sage-grouse nesting habitat
16	34-1BG	SWSE	1	46N	76W	WYW0311402	Moved 400' to edge of sage-grouse CSU. Changed pipeline route to use existing road and fence line.
17	12-2BG	SWNW	2	46N	76W	WYW0311402	Changed pipeline to follow road
18	23-2BG	NESW	2	46N	76W	WYW0311402	Moved well 330' to minimize impacts to sage-grouse nesting habitat
19	14-27BG	SWSW	27	47N	76W	WYW58944	Moved 60' east
20	41-34BG	NENE	34	47N	76W	WYW71546	Moved 100' to minimize impacts to sage-grouse nesting habitat
21	21-35BG	NENW	35	47N	76W	WYW71546	Moved well 220' to minimize impacts to sage-grouse nesting habitat
22	23-35BG	NESW	35	47N	76W	WYW71546	Moved well 300' and access to minimize impacts to sage-grouse nesting habitat.
23	32-35BG	SWNE	35	47N	76W	WYW71546	Moved 700' out of view of golden eagle nest. Sandy road.
24	41-35BG	NENE	35	47N	76W	WYW71546	Moved 200' to minimize impacts to sage-grouse nesting habitat.
25	43-35BG	NESE	35	47N	76W	WYW71546	Moved 260' to adjust for the 32-35 move. Pipeline to 34-35
26	14-14BG	SWSW	14	47N	76W	WYW28680	Moved 250' to minimize impacts to raptor nest
27	23-23BG	NESW	23	47N	76W	WYW0301379	Moved 500' out of view of raptor nest.

Surface

- 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 Carlsbad Canyon, 2.5Y 6/2.
- 2. 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:

Species	% in Mix	Lbs PLS*
<i>Thickspike Wheatgrass</i> (Elymus lanceolatus ssp. lanceolatus)	20	2.4
Bluebunch Wheatgrass (Pseudoroegneria spicata ssp. Spicata)	15	1.8
Prairie sandreed (Calamovilfa longifolia)	30	3.6
Needleandthread (Hesperostipa comata ssp. comata)	20	2.4
Prairie coneflower (Ratibida columnifera)	5	0.6
White or Purple Prairie Clover (Dalea candidum, purpureum)	5	0.6
<i>Scarlet Globemallow</i> (Sphaeralcea coccinea) / or <i>Blue flax</i> (Linum lewisii)	5	0.6
Total	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.

- 3. To prevent rilling, and decrease impacts from vehicle traffic; 4" of aggregate will be placed where grades exceed 8%.
- 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.

Water Management:

1. The operator will contact Chris Williams (Hydrologist) 307-684-1195 when the first discharge point becomes active for this POD to enable BLM personnel to schedule future site visits to periodically observe channel conditions downstream of discharge points.

Wildlife

- 1. The Record of Decision for the Powder River Basin EIS includes a programmatic mitigation measure that states, "The companies will conduct clearance surveys for threatened and endangered or other special-concern species at the optimum time". The measure requires companies to coordinate with the BLM before November 1 annually to review the potential for disturbance and to agree on inventory parameters. Should this project not be completed by November 1, Bill Barrett Corporation will coordinate with the BLM to determine if additional surveys will be required.
- 2. The following conditions will minimize impacts to raptors;
 - a. No surface disturbance shall occur within ¹/₂ mile of all identified nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season. This affects the following wells and associated infrastructure, pipelines, low water crossings, culverts, temporary access roads, discharge points, and overhead power and drops;

NEST ID	UTM_E	UTM_N	QQ	Sec	Т	R	Project elements w/in 0.5 mile
638	422265	4870870	NWSW	2	46	76	12-2, 14-2, 23-2, P2-1, P3-1
3121	422560	4876995	SWSW	14	47	76	12-14, 14-14, 23-14, 34-14, 41-22, Pit BC 007
4606	422723	4877154	SESW	14	47	76	12-14, 14-14, 23-14, 34-14, Pit BC 007
4290	422054	4877771	SENE	15	47	76	12-14
4601	420021	4878257	NWNE	16	47	76	water line to P.C. I
4759	420163	4878319	NWNE	16	47	76	water line to P.C. I
4755	420280	4876803	NENE	21	47	76	water line to P.C. I
4293	421000	4876193	SWNW	22	47	76	32-22
4756	422545	4876530	NWNW	23	47	76	14-14, 41-22, 23-23, P23-1, BC007&Pit
4603	422549	4876013	SWNW	23	47	76	41-22, 43-22, 14-23, 23-23, BC 004&005, P23-1
4757	422586	4874866	NWNW	26	47	76	14-23, 12-26, 21-26, 23-26, 32-26, 41-27, BC 005&006
4758	422612	4874813	NWNW	26	47	76	14-23, 12-26, 21-26, 23-26, 32-26, 41-27, BC 005&006
640	422629	4874696	SENW	26	47	76	12-26, 21-26, 23-26, 32-26, 41-27, BC 006
4604	421401	4874211	NESW	27	47	76	14-27, 23-27, 32-27, 34-27, 21-34
3119	420541	4873396	NENE	33	47	76	14-27, 21-34
3112	423096	4873042	SWNE	35	47	76	34-26, 12-35, 21-35, 23-35, 32-35, 41-35, 43-35, PC 004&005
3118	423186	4872911	SWNE	35	47	76	21-35, 23-35, 32-35, 34-35, 41-35, 43-35, PC 004&005

Project elements within 0.5 miles or raptor nests.

NEST ID	UTM_E	UTM_N	QQ	Sec	Т	R	Project elements w/in 0.5 mile
3135	422381	4872521	NWSW	35	47	76	43-34, 12-35, 14-35, 23-35, 41-3, P35-1, 35-1, PC 003&004
4294	423127	4873154	NWNE	35	47	76	34-26, 12-35, 21-35, 23-35, 32-35, 41-35, PC 004

- b. 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. Surveys outside this window may not depict nesting activity. If a survey identifies active raptor nests, a ½ mile timing buffer will be implemented. The timing buffer restricts surface disturbing activities within ½ mile of occupied raptor nests from February 1 to July 31.
- c. Maintenance activities requiring more than checking the well must be approved by the BLM prior to a nest productivity check for the following wells: 12-26, 32-35, and 14-14.
- d. Nest productivity checks shall be completed for all raptor nests within the POD listed in the table below. The productivity checks shall be completed for the first five years following project completion. The productivity checks shall be conducted no earlier than June 1 or later than June 30 and any evidence of nesting success/production shall be recorded. Survey results will be submitted to a Buffalo BLM biologist in writing no later than July 31 of each survey year.

NEST	UTM E	UTM N	QQ	Sec	T N	R W	Spec	Sub	Status	Cond
ID		_			_	_				
638	422265	4870870	NWSW	2	46	76	UNRA	CTL	INAC	FAIR
4754	421050	4879231	NWSW	10	47	76	GHOW	CTL	ACTI	GOOD
3121	422560	4876995	SWSW	14	47	76	UNRA	CTL	INAC	FAIR
4606	422723	4877154	SESW	14	47	76	UNK	CTL	UNK	GOOD
4290	422054	4877771	SENE	15	47	76	RTHA	CTL	UNK	UNK
4601	420021	4878257	NWNE	16	47	76	UNRA	MMS	INAL	FAIR
4759	420163	4878319	NWNE	16	47	76	RTHA	MMS	ACTI	GOOD
4755	420280	4876803	NENE	21	47	76	UNRA	JUN	INAC	GOOD
4293	421000	4876193	SWNW	22	47	76	UNK	CTL	INACT	POOR
4603	422549	4876013	SWNW	23	47	76	LEOW	JUN	ACTI	GOOD
4756	422545	4876530	NWNW	23	47	76	FEHA	CLF	ACTI	GOOD
3353	424795	4874183	NWSE	25	47	76	UNRA	CTL	INAC	GOOD
640	422629	4874696	SENW	26	47	76	N/A	CTL	DNLO	UNK
4757	422586	4874866	NWNW	26	47	76	UNRA	CTL	INAC	GOOD
4758	422612	4874813	NWNW	26	47	76	UNRA	CTL	INAC	REMN
4604	421401	4874211	NESW	27	47	76	UNK	CTL	UNK	GOOD
3119	420541	4873396	NENE	33	47	76	UNRA	CTL	INAC	FAIR
4295	420168	4872348	SWSE	33	47	76	UNRA	CTL	INAC	GOOD
4752	420170	4872337	SWSE	33	47	76	UNRA	CTL	INAC	GOOD
4753	419965	4872049	SWSE	33	47	76	UNRA	CTL	INAC	GOOD
3112	423096	4873042	SWNE	35	47	76	GOEA	CTL	ACTI	GOOD
3118	423186	4872911	SWNE	35	47	76	AMKE	CTL	ACTI	UNK
3135	422381	4872521	NWSW	35	47	76	RTHA	CTL	ACTI	GOOD

Raptor nest location and 2007 status for the project area

1	NEST	UTM_E	UTM_N	QQ	Sec	T_N	R_W	Spec	Sub	Status	Cond
	ID										
	4294	423127	4873154	NWNE	35	47	76	UNK	CTL	UNK	UNK

- 3. Where the operator ties into existing power poles, the existing pole shall be fitted to meet or exceed 2006 APLIC standards.
- 4. The following conditions will minimize impacts to sage-grouse:
 - a. A survey is required for sage-grouse between April 1 and May 7, annually, within the project area for the duration of surface disturbing activities. The required 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 and reviewed prior to surface disturbing activities.
 - b. If an active lek is identified during the survey, the 2 mile timing restriction (March 1-June 15) will be applied and surface disturbing activities will not be permitted until after the nesting season. If surveys indicate that the identified lek is inactive during the current breeding season, surface disturbing activities may be permitted within the 2 mile buffer until the following breeding season (March 1).
 - c. Creation of raptor hunting perches will be avoided within 0.5-mile of documented sage grouse lek sites. Perch inhibitors will be installed to deter avian predators from preying on sage grouse.
 - d. Well metering, maintenance and other site visits within 0.5 miles of documented sage grouse lek sites shall be minimized as much as possible during the breeding season (March 1– June 15), and restricted to between 8 AM to 8 PM (Mountain Standard Time). This will apply to the 14-1 well. Maintenance activities requiring more than checking the well must be approved by the BLM during this time period.
 - e. In order to protect sage-grouse nesting habitat within the POD, disturbance widths including mowing will be limited to 30 feet on access and 35 feet radius around the well for; 12-1, 14-1, 23-2, 23-15, 23-23, 43-23, 34-26, 32-27, 43-27, 41-27, 41-34, 41-35, 12-35, 23-35, 43-35, 34-35.

LEK NAME	Project elements w/in 2 miles
County Line N	21-3, P34-1
Gilkie Ranch	12-1, 14-1, 12-2, 14-2, 21-2, 23-2, P2-1, 41-3, 43-34, 12-35, 14-35, 23-35, 32-35, 34-35, 41-35, 43-35, PC003,004&005, P35-1
Kaufman Draw	12-14, 21-14, 23-14, 32-14, 34-14, 41-14, 43-14, BC002, P14-1, P14-2, BC007&Pit, 43-23, BC003, 43-23
Upper Kauffman Draw	23-14, 32-14, 34-14, 41-14, 43-14, BC002, P14-1, BC007&Pit, 41-22, 43- 22, 14-23, 23-23, 34-23, 43-23, BC003-005, P23-1, 12-26, 14-26, 21-26, 23-26, 32-26, 34-26, 41-26, 43-26, 41-27, 21-35, 32-35, 41-35.

Project elements within 2 miles of leks for the project area

III Standard Conditions of Approval

A. General

- 1. 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.
- 2. 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.
- 3. 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.).
- 4. The first producing well drilled to each targeted coal zone will be designated as the POD "Reference Well". Reference wells will not be required for PODs within a 6 mile radius of the first reference well designated by the operator, nor for co-mingled coal zones. The designated reference well must be equipped to be sampled at the well head. A reference well sample will be collected from the wellhead and submitted for analysis; using the list of analytes identified in WDEQ WYPDES Application for Permit to Surface Discharge Produced Water from CBM New Discharges, Renewals, or Major Modifications, within 30 to 60 days of initial water production. Results of the analysis will be submitted to the BFO-BLM authorized Officer as they become available.
- 5. By November 1 each year, companies will provide georeferenced spatial data depicting asbuilt locations of all facilities, wells, roads, pipelines, power lines, reservoirs, discharge

points, and other related facilities to the BLM for all PODs where construction and development have been completed.

- 6. If any dead or injured threatened, endangered, proposed, or candidate species is located during construction or operation, the U.S. Fish and Wildlife Service's Wyoming Field Office (307-772-2374), their law enforcement office (307-261-6365), and the BLM Buffalo Field Office (307-684-1100) shall be notified within 24 hours. If any dead or injured sensitive species is located during construction or operation, the BLM Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
- 7. Wildlife species are dynamic and new individuals may have moved into the Pumpkin Creek II POD area after the initial wildlife surveys were completed. The Record of Decision for the PRB FEIS includes a programmatic mitigation measure that states, "The companies will conduct clearance surveys for threatened and endangered or other special-concern species at the optimum time". The measure requires companies to coordinate with the BLM before November 1 annually to review the potential for disturbance and to agree on inventory parameters. Should this project not be completed by January 15, and surface disturbance is planned for that year, a Bill Barrett company representative will coordinate with the BLM to discuss required surveys.
- 8. All other conservation measures and terms and conditions identified in the Powder River Basin Oil and Gas Project Biological Opinion (WY6633) shall be complied with.
- 9. 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.
- 10. All contractors will have a copy of the pod map and conditions of approval with them at all times.

B. Construction

- 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 Bill Ostheimer @ 307-684-1117 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. The operator will limit vegetation removal and the degree of surface disturbance wherever possible. Where surface disturbance cannot be avoided, all practicable measures will be utilized to minimize erosion and stabilize disturbed soils.
- 3. 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.
- 4. Remove all available topsoil (depths vary from 4 inches on ridges to 12+ inches in bottoms) 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.
- 5. 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.

- 6. Construct the backslope no steeper than 1½:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.
- 7. 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.
- 8. With the overall objective of minimizing surface disturbance and retaining land stability and productivity, the operator shall utilize equipment that is appropriate to the scope and scale of work being done for roads and well pads (utilize equipment no larger than needed for the job).
- 9. To minimize electrocution potential to raptors, all overhead electrical power lines will be constructed to Avian Power Line Interaction Committee (1996) standards and additional standards identified in the PRB FEIS Biological Opinion (Volume 3, Appendix K, page 43).
- 10. The operator shall utilize wheel trenchers or ditchers to construct all pipeline trenches, except where extreme topography or other environmental factors preclude their use.
- 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. 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.
- 13. 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.
- 14. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).
- 15. 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.

- 16. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
- 17. Construction and other project-related traffic will be restricted to approved routes. Crosscountry vehicle travel will not be allowed.
- 18. Maximum design speed on all operator-constructed and maintained roads will not exceed 25 miles per hour.
- 19. 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.
- 20. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.
- 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.
- 22. 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.
- 23. 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.
- 24. Weed educational material will be reviewed with operators during pre-construction on-site meetings with operators, subcontractors, and landowners and will also be attached to approved APDs and PODs.
- 25. Companies will contact the counties to pursue development of maintenance agreements to ensure county roads are adequately maintained for the projected increase in use.

C. Operations/Maintenance

- 1. The operator shall complete coal bed natural gas 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.

- 3. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD or POD.
- 4. 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. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.
- 5. Rat and mouse holes shall be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location.
- 6. 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.
- 7. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.
- 8. 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.
- 9. 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.
- 10. 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.

- 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, re-contouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet below re-contoured grade. The operator will be responsible for re-contouring any subsidence areas that develop from closing a pit before it is sufficiently dry.
- 12. Operators are advised that prior to installation of any oil and gas well production equipment which has the potential to emit air contaminants, the owner or operator of the equipment must notify the Wyoming Department of Environmental Quality, Air Quality Division (phone 307-777-7391) to determine permit requirements. Examples of pertinent well production equipment include fuel-fired equipment (e.g., diesel generators), separators, storage tanks, engines and dehydrators.
- 13. If this well is drilled during the fire season (June-October), the operator shall institute all necessary precautions to ensure that fire hazard is minimized, including but not limited to mowing vegetation on the access route(s) and well location(s), keeping fire fighting equipment readily available when drilling, etc.

D. Dry Hole/Reclamation

- 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 with 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 platform 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 to a depth of 4-to-6 inches following the contour.
- 6. 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
- 7. 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.
- 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. 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.
- 12. 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	Spacing Interval
(percent)	(feet)
≤2 - 4	310
5 - 8	260
9 - 12	200

E. 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. Production facilities (including dikes) must be placed on the cut portion of the location and a minimum of 15 feet from the toe of the back cut unless otherwise approved by the BLM Authorized Officer.
- 4. 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.
- 5. Distribute stockpiled topsoil evenly over those areas not required for production and reseed as recommended.
- 6. 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.
- 7. 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.
- 8. If not already required prior to constructing and drilling the well location, the operator shall immediately upgrade the entire access road to BLM standards (including topsoiling, crowning, ditching, drainage culverts, surfacing, etc.) to ensure safe, environmentally-sound, year-round access. This requirement does not supercede or apply where specific road requirements are addressed in the APD/POD surface use plan (e.g., two track road, spot upgrade, etc.)
- 9. Waterbars shall be installed on all reclaimed pipeline corridors per the guidelines in D #12.