

Appendix A
Master Surface Use Plan and Conditions of Approval

8/25/2004

MASTER SURFACE USE (MSUP)**JOLLY ROGER ALPHA Pod****OPERATORS:****Warren E & P, Inc.****Anadarko E & P Company****Surface Use Program and Plan of Development for the subject wells listed below:****Lease WYW-148977**

AR Federal 1990-SE 32	1277	FEL	1310	FSL	SE/4	32	19N	90W
AR Federal 1990-SW 32	1582	FSL	1409	FWL	SW/4	32	19N	90W

Lease WYW-148973

AR Federal 1890-NE 6	1208	FNL	1300	FEL	NE/4	6	18N	90W
AR Federal 1890-SE 6	1308	FSL	1092	FEL	SE/4	6	18N	90W
AR Federal 1890-NW 4	1502	FNL	1487	FWL	NW/4	4	18N	90W
AR Federal 1890-SW 4	1437	FSL	1125	FWL	SW/4	4	18N	90W

Lease WYW-129066

AR Federal 1890-NE 8	1262	FNL	1304	FEL	NE/4	8	18N	90W
AR Federal 1890-SW 8	1198	FSL	1433	FWL	SW/4	8	18N	90W
AR Federal 1890-SE 8	1320	FSL	1125	FEL	SE/4	8	18N	90W
AR Federal 1890-NE 18	1246	FNL	1411	FEL	NE/4	18	18N	90W

Plan of Development for the facilities listed below:**Proposed Road ROWs on BLM lands to Fee Gas Wells****Fee Well: Location and Length of Road on Federal land:**

AR Fee 1890-NE 7: NW NW 8-18N-90W, approximately 100 feet

AR Fee 1890-SE 7: SW SW 4-18N-90W, approximately 500 feet

SW SE 8-18N-90W, approximately 1300 feet

NE NE 18-18N-90W, approximately 1100 feet

AR Fee 1990-SE 31: NE NE 6-18N-90W, approximately 800 feet

AF Fee 1990-SW 33: NE SE 32-19N-90W, approximately 1300 feet

Proposed ROW (BLM surface ownership lands): Buried Electrical Utility, Water and Gas Lines in T18N and T19N R90W (all pipeline corridors will parallel roads)

The MSUP contains surface operating procedures for the Companies' Federal Applications for Permits to Drill (APDs), as required under Onshore Order No. 1. The enclosed **Project Map** shows all proposed interim drilling activities associated with the Jolly Roger Alpha Pod. Additional information on each federal well is contained in the **BLM APD Form 3160-3** and **Well Survey Plat**.

This MSUP is intended to serve as the application for the gas and water lines, access roads to well locations, and electric lines in the Pod. Roads and gathering lines will occupy a 80 foot

wide common corridor. Roads will require a 50-foot wide disturbance. Gas-gathering and water-gathering lines will require a 20-foot wide disturbance and electric lines a 10-foot wide disturbance. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining sound construction and installation practices. Roadways will be used as working space for installation of gathering lines. Please refer to the schematic for the layout of pipelines and roads.

An allocation meter will be used to measure raw produced gas volumes for each well in the Pod. A sales meter will be located downstream of the final compressor and dehydration unit, at the compressor station, and will be used to measure dry salable-quality gas. A request for variance from Onshore Order No. 5, if needed, along with a description of the measurement equipment, will be submitted in a Sundry Notice if the wells are deemed producible.

During well testing associated with this project, natural gas, to the extent it is produced, will be vented or flared on-location in accordance with the applicable BLM Onshore Orders, Notices To Lessees, and WOGCC regulations, and authorized by the WOGCC and the BLM in Sundry Notices. During testing, produced water from the proposed wells will be transported off-location to an approved injection well for disposal.

1. EXISTING ROADS AND TRAVELWAYS

The project area is accessible from Rawlins, Wyoming, by traveling approximately 16 miles south on Carbon County 605 (Twentymile Road), which intersects Interstate 80 (I-80) near Rawlins. In Section 3, T18N R90W, County Road 605 is intersected by the Fillmore Ranch road which runs southwest for approximately .75 mile and then west for approximately 1 mile. This road provides access into the project area.

Maintenance of the roads used to access the well locations will continue until final abandonment and reclamation of the well locations occur. A regular maintenance program will include, but is not limited to, blading, ditching, culvert installation and cleanout, and gravel surfacing where excessive rutting or erosion may occur. The existing roads will be maintained in a safe and usable condition.

Culverts (a minimum of 18-inches in diameter) will be placed in the existing BLM roads as the need arises or as directed by BLM's Authorized Officer. (Refer to individual well area maps).

2. PROPOSED ACCESS ROUTES

Well Access

New access roads have been sited to avoid sensitive resource areas, such as leks, and areas susceptible to increased resource damage from the proposed project, such as areas of steep terrain or poor vegetative cover.

Newly constructed access roads will be crowned, ditched, and graveled. All equipment and vehicles will be confined to identified travel corridors and other areas specified in this MSUP.

The access roads will be surfaced with an appropriate grade of aggregate or gravel to a depth of 4 inches before the drilling equipment or rig is moved onto the pad.

Unless otherwise exempted, free and unrestricted public access will be maintained on the access road. Access roads will be maintained in a safe and usable condition. A regular maintenance program will include, but is not limited to, blading, ditching, installing or cleaning culverts, and surfacing.

All existing and proposed access roads will be constructed to minimum standards for a BLM Resource Road, as outlined in BLM Manual 9113. The minimum travelway width of the road will be 14 feet with turnouts. No structure will be allowed to narrow the road top. The inside and outside slope will be 4:1. Turnouts will be spaced at a maximum distance of 1,000 feet and will be intervisible.

Wing ditches will be constructed as deemed necessary to divert water from the road ditches as outlined in BLM Manual 9113 and the 10 erosion index shall be used. Wing ditches will be constructed at a slope of .5 percent to 1 percent.

Topsoil and vegetation will be windrowed to the side of the newly constructed access roads. After the roads are crowned and ditched, the topsoil will be pulled back onto the cut slopes of the road right-of-way so no berm is left at the top of the cut slope.

Drainage crossings on the access routes will be low water crossings or crossings using culverts. Low water crossings would be used in shallow channel crossings. Crossings of the main channel would consist of excavating an area approximately 4 feet deep under the travelway and filling it with rock and gravel to the level of the drainage bottom. Channel banks on either side of these crossings would be cut down to reduce grade where necessary. Culverts would be installed on smaller, steeper channel crossings. Rip-rap may be added at the outlet of each culvert to minimize erosion. Topsoil would be conserved before channel crossing construction occurs. Additional culverts would be placed as the need arises.

Culverts will be covered with a minimum of 12 inches of fill or one-half the diameter of the pipe, whichever is greater. The inlet and outlet will be set flush with existing ground and lined up in the center of the draw. Before the area is backfilled, the bottom of the pipe will be bedded on stable ground that does not contain expansive or clay soils, protruding rocks that would damage the pipe or unevenly sized material that would not form a good seat for the pipe. The site will be backfilled with unfrozen material and rocks no larger than 2 inches in diameter. Care will be exercised to thoroughly compact the backfill under the haunches of the conduit. The backfill will be brought up evenly in 6-inch layers on both sides of the conduit and thoroughly compacted. A permanent marker will be installed at both ends of the culvert to help keep traffic from running over the ends. Culverts will be installed in a manner that minimizes erosion or head-cutting and may include rip rapping or other measures as required. Additional culverts will be placed in the access road as the need arises.

The access roads will be winterized by providing a well-drained travelway to minimize erosion and other damage to the roadway or the surrounding public land. Construction activity or

routine maintenance will not be conducted using frozen or saturated soil material or during periods when watershed damage is likely to occur.

No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of 4 inches deep, the soil will be deemed too wet to adequately support construction equipment, and construction and maintenance will be temporarily suspended.

The written approval of the Authorized Officer will be obtained before snow removal is undertaken outside the new and existing roadways. If approval is given, equipment used for snow removal operations outside the road ditches will be equipped with shoes to keep the blade off the ground surface. Special precautions will be taken where the surface of the ground is uneven to ensure that equipment blades do not destroy the vegetation.

If drilling is productive, all access roads to the well site would remain in place for well servicing (such as maintenance and improvements). Any portions of the ROW for the access road that are no longer needed would be reclaimed. The outside ditch cuts would be seeded and reclaimed.

3. LOCATION OF EXISTING WELLS

Eight permitted water wells are located within 1 mile of the project area (**Permitted Water Wells Within 1 Mile of the Jolly Roger Alpha Project Area**).

The enclosed **Project Map** shows locations of disposal, drilling, producing, injection, and abandoned oil and gas wells within 1 mile of the Jolly Roger Alpha Pod wells. The well locations were obtained by a search of the WOGCC website.

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**PERMITTED WATER WELLS WITHIN
1 MILE OF THE JOLLY ROGER ALPHA PROJECT AREA**

Permit No.	Sec-Tns-Rng	Qtr/Qtr	Applicant	Facility Name	Use	Yield (gpm)	Well Depth	Static Depth
P108373W	10-18N-90W	NE SW	USDI, BLM, PH Livestock Co.	BLM Alamosa #1	Stock	10	4	-4
P108375W	16-18N-90W	SESE	USDI, BLM, PH Livestock Co.	Alamosa #3	Stock	15	4	-4
P131616W	6-18N-90W	SENE	P H Livestock Co.	Fillmore Ranch #1	Domestic Stock	15	100	10
P55867W	5-18N-90W	NENW	P H Livestock Co.	Fillmore #3	Stock	10	300	35
P96832W	15-18N-90W	NWSW	P H Livestock Co.	Alamosa #1	Stock	5	4	-4
P96833W	15-18N-90W	NWNE	P H Livestock Co.	Slide Draw #1	Stock	5	4	-4
P136890W	31-19N-90W	NWSE	P H Livestock Co.	Fillmore #4	Stock	10	220	135
P34582W	1-18N-91W	SE NW	P H Livestock Co.	CBW 3	Monitoring	0	190	70

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES, IF WELLS ARE PRODUCTIVE

On Well Pad

Wellhead facilities would be installed if the wells are productive. Natural gas and produced water would be collected and transported from the wellhead via buried pipelines.

The long-term surface disturbance at the location of each productive well would encompass approximately 0.25 acre, including cut and fill slopes. Typically, only the production facilities at the well site would be fenced or otherwise removed from existing uses. A loop road or a small, graveled pad area would provide a safe turnaround area for vehicles.

The wellhead facilities would be contained within an area covering approximately 15 feet by 15 feet. The surface equipment at each well will consist of the wellhead, a pump panel, and an insulated wellhead cover. Additionally, a vertical separator at some well sites would separate gas from the water stream. Each productive well is expected to require installation of an electric submersible pump below ground level, which will be used to produce water necessary to lower pressure within the coal seams.

All production facilities installed on location that have the potential to leak or spill oil, glycol, produced water, or other fluid, which may constitute a hazard to public health or safety, shall be placed within an appropriate containment or diversionary structure. The structure shall be sufficiently impervious to oil, glycol, produced water, or other hazardous fluid. It shall be

installed so that any spill or leakage would not drain infiltrate, or otherwise escape to ground water, surface water, or navigable waters before cleanup is completed.

The Companies will paint structures at wells and central facilities with flat colors that blend with the adjacent undisturbed terrain. The paint used will be a color specified by the BLM. This measure does not apply to structures that require safety coloration in accordance with the requirements of the Occupational Safety and Health administration (OSHA).

Electricity would be used to power pumps during well development and to initiate and maintain production. A centrally located electrical generator located at the compressor station will be utilized to provide electricity to the wells. The distribution system will consist of utility lines buried in the road/pipeline corridor. These lines would be installed in trenches approximately 3 feet deep.

Off Well Pad

Pipelines (Gathering Lines and Delivery Pipeline)/Compressor Station/ Water Handling and Disposal Facilities/Injection Wells/Tanks

Pipelines

The corridors for the gathering systems will parallel access roads. ROWs located in the same corridor will overlap each other to the maximum extent possible, while maintaining sound construction and installation practices. Where ROW corridors are located along a road, working space for installation of facilities will be along the road.

The exterior boundaries of the pipeline right-of-way shall be marked with stakes and/or lath at 100 foot intervals. The tops of the stakes or laths shall be painted or flagged in a distinctive color, and remain in place until final construction cleanup is completed.

Clearing along the pipeline route shall be limited to removal of above ground vegetative parts within the area comprising the ditch and backfill.

Trenches will be excavated to install the flowlines and electrical lines. (Refer to the attached schematic for layout of lines) Trenches excavated for well gathering lines and electrical lines (which would require ROWs of 20 feet in width for gas lines and water lines, and 10 feet in width for electrical lines) which would be reclaimed as soon as practical after trenching and backfilling are completed. About 8.5 miles of gathering lines would be located on BLM surface ownership lands.

A gas-gathering pipeline system (low pressure) would be constructed from the wellheads to the compressor station. This system would use high-density polyethylene (HDPE) pipe, starting with 4-inch diameter pipe at the wellhead and graduating up to 20-inch diameter pipe at the inlet to the compressor. Although there is no plan to use additional area for installation of the larger size pipe, should additional pipeline corridor right-of-way width be required on Federal land, application will be made to the BLM.

A produced water-gathering pipeline system (low pressure) would be constructed from the wellheads to the centralized facilities for injection. This network of water lines would use 4-inch through 20-inch diameter pipe made of HDPE. Although there is no plan to use additional area for installation of the larger size pipe, should additional pipeline corridor right-of-way width be required on Federal land, application will be made to the BLM.

All produced water used to test the integrity of the gas delivery pipeline (500 barrels [bbls] or 21,000 gallons) would be injected in injection wells. Pipeline corridors would be reclaimed as soon as practical after construction of the pipeline is complete.

Where it is necessary to remove above ground vegetation, the top 6-inches of top soil material will be stripped, windrowed, and stockpiled to the side and segregated if the pipeline to be installed is 8-inches or greater O.D. Top soil material will not be mixed or covered with subsurface material. After construction cut and fill slopes will be waterbarred or regraded to conform to the adjacent terrain as specified by BLM.

A maximum of 1000 feet unattended or unprotected open trench shall be allowed at any given time. Construction trenches and other openings left overnight shall be covered. Covers shall be secured in place and strong enough to prevent livestock or wildlife from falling through. During the period when a trench is open, warning devices, such as signs, flares, or warning lights shall be posted to warn the public of the hazard.

Drainage crossings shall be constructed to prevent any blocking, diversion, or restriction of the existing channel. Material removed shall be stockpiled for use in reclamation of the crossing.

In order to minimize surface disturbance, the operator will use wheel trenchers (ditchers) or ditch witches, where possible, to construct all pipeline trenches associated with this project. Track hoes or other equipment will be used where topographic or other factors require their use. Trenches shall be compacted during backfilling.

Construction related traffic shall be restricted to approved routes. Cross-country vehicle travel shall not be allowed.

No hydrostatic testing water shall be discharged to the surface.

Water Handling and Disposal Facilities and Injection Wells

Within 90 days of initial production start-up, the operator will submit an analysis of the produced water to the BLM's Authorized Officer. Approval of this Pod includes approval for Onshore Order No. 7 to dispose of produced water. Produced water will be injected into an authorized injection well. Any changes in the produced water disposal method or location must receive written approval from BLM's Authorized Officer before the changes take place.

Water produced at the well sites will be pumped to an injection well on private land for disposal.

5. LOCATION AND TYPE OF WATER SUPPLY FOR DRILLING

Water to drill the first well will be trucked using County Road 605 and Fillmore Ranch Road to the Jolly Roger Alpha project area from the Red Rim pod water facilities located in T20N R89W.

Water produced from project wells will be transported to nearby drilling locations and used to drill subsequent wells.

Any changes in the water source or method of transportation must receive written approval from BLM's Authorized Officer before the changes take place.

6. CONSTRUCTION MATERIALS

Construction materials (mineral material aggregate suitable for surfacing material) will be purchased from a nearby private source or a local supplier having a permitted source of materials in the area. No construction materials will be removed from federal and/or Indian lands without prior approval from the BLM.

7. METHODS FOR HANDLING WASTE DISPOSAL

Drill cuttings (rock fragments generated during drilling) will be produced during drilling of the borehole. Cuttings will be buried in the reserve pit upon closure of the reserve pit.

No oil or other oil-based drilling additives, chromium/metals-based muds, or saline muds will be used during drilling of these wells. Only fresh water, biodegradable polymer soap, bentonite clay, and non-toxic additives will be used in the mud system. Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling or well testing, all liquid petroleum hydrocarbons will be contained in test tanks on the well site.

A portable, self-contained chemical toilet will be provided on location during drilling and completion operations. Upon completion of operations, or as required, the contents of toilet holding tanks will be disposed of at an authorized sewage treatment and disposal facility. Disposal will be in accordance with State of Wyoming, Carbon County, and BLM requirements regarding sewage treatment and disposal. The Companies will comply with all state and local laws and regulations pertaining to disposal of human and solid wastes.

No trash will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and hauled to an authorized disposal site.

Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash barrels will be cleaned up and removed from the well location. No potentially adverse materials or substances will be left on the drill locations.

Hazardous Materials Management

All project-related activities involving hazardous materials will be conducted in a manner that minimizes potential environmental impacts. An on-site file will be maintained containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, or substances that are used in the course of construction, drilling, completion, production, and reclamation operations. Netting will be placed over any pits that may contain hazardous substances (Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] Section 101(14)), as determined by visual observation or testing. The mesh diameter shall be no larger than 1 inch.

No hazardous substance, as defined by CERCLA, will be used in the construction or drilling operations associated with these wells. No Resource Conservation and Recovery Act (RCRA) hazardous wastes will be generated by well-drilling operations. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment (regardless of quantity) listed as hazardous under CERCLA of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; (2) any hazardous waste as defined in RCRA of 1976, as amended; and (3) any nuclear or nuclear byproduct as defined by the Atomic Energy Act of 1954, as amended, 42 U.D.C. 2001 et seq. The operator will be required to provide a referenced list of hazardous materials that could be used, produced, transported, disposed of, or stored on the well location including a discussion on the management of the hazardous materials.

Any spills of oil, gas, or any other potentially hazardous substance will be reported immediately to the BLM, landowner, local authorities, and other responsible parties and will be mitigated immediately, as appropriate, through cleanup or removal to an approved disposal site.

8. ANCILLARY FACILITIES

Several self-contained travel-type trailers may be used onsite during drilling operations. No facilities other than those described in this MSUP will be constructed to support the operations associated with the wells.

9. WELL SITE LAYOUT

Information on each federal well is contained in the **BLM APD Form 3160-3, Well Survey Plat, Typical Drill Site and Drill Pad Cross Section** on file with BLM. The cross section shows the orientation of the drill pad with respect to the topographic features (cut and fill), facilities, and access to the pad.

At each drill location, surface disturbance will be kept to a minimum. The areal extent of each drill pad is approximately 200 feet by 300 feet. Each drill pad will be leveled using cut and fill construction techniques. Prior to constructing the drill pad the top 6 to 8 inches of soil (more if available) and associated vegetative material will be removed and stockpiled. A water diversion ditch will be constructed around the up slope side of the well pad to divert storm water away from each pad. No spoil material shall be pushed into drainages.

Each reserve pit will be approximately 10 feet deep (including 2 feet of freeboard), and will be 30 feet wide and 75 feet long (at the surface). Each pit will be excavated within the "cut area" of the drill site to minimize any potential for slope failure. Each pit will be designed to prevent collection of surface runoff and will be closely monitored to ensure no pit overflows occur. The reserve pit will be open for an estimated 2 to 8 weeks to allow for evaporation of pit fluids. During this time the pit will be closed off from wildlife and livestock by two strands of barbed wire above a 32-inch woven wire fence. The reserve pit will be fenced on three sides during drilling, and the working side will be fenced immediately after the drilling rig is moved. Fencing will meet the following specifications.

The woven wire shall be no more than four inches above the ground. The first strand of barbed wire shall be about three inches above the woven wire. Total height of the fence shall be at least 42-inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. The maximum distance between any two posts shall be no greater than sixteen feet. All wire shall be stretched using a stretching device before it is attached to the corner posts.

Netting will be placed over any pits that have been identified as containing oil, as determined by visual observation or testing. The mesh diameter will be no larger than 1 inch. For the protection of livestock and wildlife, all pits and open cellars will be fenced. Fencing shall be in accordance with BLM specifications.

10. PROGRAMS FOR RECLAMATION OF THE SURFACE

BLM surface ownership lands that contain disturbed areas or facilities that are no longer needed would be reclaimed at the earliest opportunity in accordance with applicable regulations and agency guidance.

As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned and site and road reclamation will commence. A joint inspection of the disturbed area to be reclaimed may be requested. The primary purpose of this inspection shall be to review the existing, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After abandonment of nonproductive wells, all wellhead equipment that is no longer needed will be removed, and the well sites will be restored.

Any areas, including the drilling locations, reserve pits, or access routes, that are disturbed by earthwork will be recontoured to a natural appearance as near to the original contour as possible as soon as practical after the conclusion of operations. Any flowline trenches that may be constructed will be backfilled completely.

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Pits containing drilling muds and fluids shall be allowed to dry. Fluids remaining after two years shall be moved to an approved site. Other options, if approved by the Authorized Officer, may include fly-ash solidification or sprinkler evaporation over the pit containing the fluid.

The reserve pit, upon being allowed to properly dry, shall be backfilled and compacted with a minimum cover of five feet of soil, void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden and saturated, partially or completely frozen shall not be used for backfill or cover. The pit area shall be mounded to allow for settling and to promote positive surface drainage away from the pit.

Should the well become productive, all disturbed areas not needed for production operations shall be re-contoured and re-vegetated as outlined in the MSUP, under an interim or temporary reclamation plan. This shall be performed after placing the well into production but within two years of completion of drilling. If not previously reclaimed, the access road and pipeline right-of-way may be included in this reclamation. Re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site, and reestablishing the natural contours where desirable and practical. Fill and stockpiled soil no longer needed or necessary to the operation shall be spread on the cut slopes and covered with stockpiled topsoil. Final contouring shall blend with and follow as closely as possible the natural terrain and contours of the original site and surrounding areas. The production pad and facilities shall occupy as small an area as possible, but not larger than 0.8 acres unless otherwise approved by the BLM Authorized Officer.

Should the well be put into production or upon final abandonment of the well, fencing of the reseeded well site will be erected as necessary to exclude grazing and to help vegetation success.

After recontouring the site to the original contour that existed prior to pad construction, final grading and replacement of topsoil over the entire surface of the well site and access road will be conducted. The area will be ripped to a depth of 18-24 inches on 18-24-inch centers.

The surface soil material shall be pitted with small depressions to form longitudinal depressions 12-18 inches deep. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

The travelway of the access road to be rehabilitated will be ripped to a depth of 18 inches, recontoured to approximate the original contour of the ground and seeded in accordance with the reclamation portions of the MSUP.

Water control structures will be designed and constructed at drainage crossings to prevent excessive erosion within the drainage.

Waterbars will be constructed on all disturbed areas to: (1) simulate the imaginary contour lines of the slope with a grade of 1-2 percent; (2) drain away from the disturbed areas; and (3) begin and end in undisturbed vegetation or soil.

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Recontoured areas will be graded to be outsloped, and waterbreaks will be constructed where needed to avoid concentrating surface waters and producing gullies. The land surface will be left “rough” after recontouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

All topsoil conserved during earthwork will be redistributed evenly and left “rough” over these recontoured areas. BLM goals for vegetative cover will guide revegetation efforts. Common goals are erosion control, weed control, palatable and nutritious forage for livestock and wildlife, and visual aesthetics.

Seeding will occur in the fall after September, prior to ground frost, or in the spring after frost has left the ground. The seed mixture, including fertilizer and mulching requirements, seeding depth, and seed drilling specifications, have been developed in consultation with the BLM. Seed will be drilled on the contour using a seed drill equipped with a depth regulator to ensure even depths of planting. Seed will be planted between one-quarter to one-half inch deep. The anticipated seed mix to be applied and rates of application are listed below.

SEED MIX FOR RECLAMATION

Species	Rate of Application*
Western Wheatgrass	4 lbs./Acre
Green Needlegrass	4 lbs./Acre
Indian Ricegrass	4 lbs./Acre
Sandberg Bluegrass	0.5 lbs./Acre
Gardner's Saltbush	1 lb./Acre
Winterfat	0.5 lbs./Acre

These rates of application apply to pure live seed (PLS) that is used for drill seeding. For broadcast seeding, the rates of application will be doubled.

11. SURFACE OWNERSHIP

U.S. Bureau of Land Management
Rawlins Field Office
1300 North Third
Rawlins, Wyoming 82301-2407
(307) 328-4200

P.H. Livestock Co.
Niels Hansen, President
P.O. Box 937
Rawlins, WY 82301
(307) 324-3203

12. OTHER INFORMATION

The Companies are the lessee or operator for the federal oil and gas leases associated with this MSUP and these APDs.

No slopes in excess of 25 percent would be affected by this proposal. No activities are planned near existing highways, railroads, pipelines, or powerlines. There are no occupied buildings or residences within one-quarter mile of the proposed drill sites.

Any road crossings of dry drainages, riparian, or other wetland areas will use appropriate Best Management Practices (BMP) to minimize impacts to these areas.

Dust abatement using produced water will comply with all applicable WOGCC, WDEQ or BLM requirements. Only water suitable for livestock use would be used for dust abatement. Only disturbed areas will be sprayed. Spraying will be done to reduce runoff and channeled flow.

The presence, distribution, and density of noxious weeds in the project area will be monitored by the Companies. The well access roads and well pads will be inspected regularly to ensure that noxious weeds do not become established in newly disturbed areas. Control methods will be based on available technology, taking into consideration the weed species present. Methods of noxious weed control may include revegetation of disturbed areas to reduce the potential for and success of weed establishment, mowing, hand-pulling, or application of appropriate herbicides. The control methods shall be in accordance with guidelines established by the Environmental Protection Agency (EPA), BLM, and state and local authorities or agencies. Prior to the use of any herbicides or pesticides on Federal lands, the Companies will obtain written approval from the BLM Authorized Officer. The Companies will also prepare and submit a proposal and plan to the BLM Authorized Officer for an annual weed control program that satisfies the requirements established in the MSUP and any additional Conditions of Approval.

A cultural/historical resource inventory has been conducted on the public lands by a qualified archaeologist permitted in Wyoming by the BLM. The findings have been submitted under separate cover. Any additional areas of potential effect identified subsequent to the completion of these reports will be inventoried as specified by the BLM, and a supplemental report will be prepared.

During the construction phase of the well pad and access road, the operator shall have onsite, a qualified inspector other than the dirt contractor to serve as Compliance Coordinator. This individual will be responsible for assuring that all requirements of the MSUP and appropriate Conditions of Approval are enforced.

Approved facilities no longer included within the lease-unit boundaries due to a change in the lease or unit boundary will be authorized with a right-of-way.

The Companies will be responsible for the prevention and suppression of fires on public lands caused by its employees, contractors, or subcontractors. During conditions of extreme fire

danger, surface use operations may be either limited or suspended in specific areas, or additional measures may be required by the Authorized Officer.

Landowner Notification

The Companies have obtained a surface use agreement with the landowner.

13. SITE-SPECIFIC CONDITIONS OF APPROVAL

Wildlife Stipulations

Lease WYW129066 contains a no surface occupancy stipulation in the NW, N2SW of Section 8 to protect sage grouse breeding habitat and a timing limitation stipulation to protect nesting habitat for raptors and greater sage grouse, from February 1 through July 31.

Lease WYW148973 contains a timing limitation stipulation to protect big game crucial winter range from November 15 to April 30 and a timing limitation stipulation to protect nesting habitat for raptors and greater sage grouse, from February 1 through July 31. The lease also contains controlled surface use stipulations: (1) within ¼ mile of a sage/sharp-tailed grouse lek; (2) within Baggs elk crucial winter range special management area; and (3) within the Jep Canyon ACEC.

Lease WYW148977 contains a timing limitation stipulation to protect nesting habitat for raptors and greater sage grouse, from February 1 through July 31, and a controlled surface use stipulation within the Baggs elk crucial winter range special management area.

14. LESSEE'S REPRESENTATIVE AND CERTIFICATIONS

Representative for Anadarko E & P Company

Name: Cathy Flansburg
Title: Senior Environmental and Regulatory Analyst
Address: 2515 Foothill Boulevard, Suite 300
City/State/Zip: Rock Springs, WY 82901
Phone: (307) 352-3328

Bonding

BLM Nationwide Bond, WY 1280, \$150,000

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill sites and access routes; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by AEPC and its contractors and subcontractors in conformity with this plan and the terms and conditions under

which it is approved. This statement is subject to the provisions of 18 U.S.C 1001 for the filing of a false statement.

I also certify that AEPC will comply with the provisions of the law or the regulations governing the Federal or Indian right of reentry to the surface under 43 CFR 3814.

I also certify that AEPC has reached or will reach an agreement with the surface owner(s) and surface lessee(s) regarding the requirements for the protection of surface resources and reclamation of disturbed areas and/or damages in lieu thereof, or if an agreement cannot be reached, will comply with the provisions of the law or the regulations governing Federal or Indian right of reentry to the surface under 43 CFR 3814.

I also certify that:

- A. All potentially affected landowners having properly permitted water wells with the WSEO within each producible well's Circle of Influence (one-half mile radius) will be offered a Water Well Agreement; and
- B. If a Water Well Agreement is not reached with the landowner, AEPC agrees to mitigate the impacts of its producible wells in accordance with State of Wyoming water laws; and
- C. Permits to Appropriate Groundwater have been applied for from the Wyoming State Engineer's Office, concurrently with these Applications for Permits to Drill.

I also certify that AEPC shall use its best efforts to conduct its approved operations in a manner that avoids adverse effects on any properties which are listed, or may be eligible for listing, in the National Register of Historic Places (NRHP). If historic or archaeological materials are uncovered during construction, the operator will immediately stop work that might further disturb such materials, and contact the authorized officer (or his/her representative) at the BLM Rawlins Field Office. Any paleontological resources or fossils discovered as a result of operations associated with these wells will be brought to the attention of the authorized officer or his/her representative immediately. All activities in the vicinity of such discoveries will be suspended until notified to proceed by the Authorized Officer.

I also certify that AEPC shall use its best efforts to conduct its approved operations in accordance with the Project-wide Mitigation Measures and procedures outlined in Chapter 2 of the Environmental Assessment (EA) for this project.

By: _____

Cathy Flansburg
Senior Environmental and Regulatory Analyst
Anadarko E & P Company

Date: _____

CONDITIONS OF APPROVAL
Jolly Roger Pod

Lease Number	Well Name	Well Number	Location
Lease WYW-148977	AR Federal	1990 SE 32	T19N R90W Section 32 SE¼
		1990-SW 32	T19N R90W Section 32 SW¼

Lease WYW-148973	AR Federal	1890-NE 6	T18N R90W Section 6 NE¼
		1890-SE 6	T18N R90W Section 6 SE¼
		1890-NW 4	T18N R90W Section 4 NW¼
		1890-SW 4	T18N R90W Section 4 SW¼

Lease WYW-129066	AR Federal	1890-NE 8	T18N R90W Section 8 NE¼
		1890-SW 8	T18N R90W Section 8 SW¼
		1890-SE 8	T18N R90W Section 8 SE¼
		1890-NE 18	T18N R90W Section 18 NE¼

GOVERNMENT CONTACTS

USDI, BUREAU OF LAND MANAGEMENT

Field Office: Rawlins
Address: P.O. Box 2407, Rawlins, Wyoming 82301
Office Hours: 7:45 am to 4:30 pm

Authorized Officer's Designated Representatives:

Assistant Field Manager: Clare Miller Home Phone (307) 324-2372
(Minerals & Lands) Work Phone (307) 328-4245

Petroleum Engineer: Bob Hartman Home Phone (307) 321-3439
Work Phone (307) 328-4254

Petroleum Engineer: Jon Dull Work Phone (307) 328-4227
Cell Phone (307) 321-1687

Pet. Engineer Tech.: Cole Thomas Home Phone (307) 328-1901
Work Phone (307) 328-4249
Cell Phone (307) 320-8594

Pet. Engineer Tech.: Chuck Ross Home Phone (307) 324-9123
Work Phone (307) 328-4230
Cell Phone (307) 320-7778

Pet. Engineer Tech.: Bill Ashline Home Phone (307) 324-6355
Work Phone (307) 328-4263
Cell Phone (307) 320-7777

Pet. Engineer Tech.: Bryan Hurst Home Phone (307) 324-5066
Office Phone (307) 328-4277
Cell Phone (307) 320-5414

Resource Specialist: Larry Jackson Work Phone (307) 328-4231

In the event that the Petroleum Engineer named above is not available please contact the following:

Petroleum Engineer: Stuart Cerovski Home Phone (307) 332-2408
Work Phone (307) 332-8426

A COPY OF THE APPLICATION FOR PERMIT TO DRILL AND THESE CONDITIONS OF APPROVAL MUST BE FURNISHED TO YOUR FIELD REPRESENTATIVE AND BE AVAILABLE ON SITE.

GENERAL PERMITTING REQUIREMENTS

1. All lease operations are subject to the terms of the lease and the lease stipulations, the regulations of 43 CFR Part 3100, Onshore Oil and Gas Orders, Notices to Lessees (NTL's), the approved APD and any written instructions or orders of the authorized officer. The following requirements are emphasized.

Abandonment: In the event abandonment of the hole is desired, oral approval may be granted by this office but must be followed within 5 days with a **Notice of Intention to Abandon (Form 3160-5)**. Unless the plugging is to take place immediately upon receipt of oral approval, the BLM Branch of Minerals must be notified at least 24 hours in advance of the plugging of the well in order that a representative can witness the plugging operation. The **Subsequent Report of Abandonment (Form 3160-5)** must be submitted within 30 days after the actual plugging of the wellbore, reporting where the plugs were placed and volumes of cement used, along with copies of the service company invoice and job log.

The operator shall promptly plug and abandon each newly completed, recompleted or producing well which is not capable of producing in paying quantities. No well may be temporarily abandoned for more than 30 days without prior approval of the authorized officer. When justified by the operator, the authorized officer may authorize additional delays, no one of which may exceed an additional 12 months. Upon removal of drilling or producing equipment from the site of a well, which is to be permanently abandoned, the surface of the lands disturbed shall be reclaimed in accordance with a plan first approved or prescribed by the authorized officer.

Completion Report: If the well is completed as a dryhole or as a producer, **Well Completion or Recompletion Report and Log (Form 3160-4)** must be submitted within 30 days after completion of the well or after completion of operations being performed, in accordance with **43 CFR 3160**. Copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample descriptions, daily drilling reports, daily completion reports, and all other surveys or data obtained and compiled during the drilling, completion, and/or workover operations, will be filed with **Form 3160-4**.

2. Approval of this APD does not warrant that any party holds equitable or legal lease title.
3. This permit is valid for a period of one year from the day of approval or until lease expiration/termination,

whichever is shorter. If the permit terminates, any surface disturbance created under the application shall be reclaimed in accordance with the approved plan.

4. The spud date shall be reported to the BLM authorized officer's representative within 24 hours following spudding. A follow-up report on Form 3160-5 confirming the date of spud shall be promptly submitted to this office within 5 working days from date of spud.
5. Verbal notification shall be given to the BLM authorized officer's representative at least 24 hours in advance of pluggings, DST's and/or other formation tests, BOP tests, running and cementing casing (other than conductor casing), and drilling over lease expiration dates.
6. Verbal notification shall be given to the BLM's resource specialist at least 48 hours in advance of access road/well pad construction, seeding, and the initiation of any reclamation work.
7. Operations that deviate from the approved APD shall receive prior written approval from the authorized officer. Emergency approval may be obtained orally but such approval does not waive the written report requirement.
8. All lease exploration, development, production and construction operations shall be conducted in a manner which conforms with all applicable Federal, State, and local laws and regulations.
9. Historic, Cultural, and Paleontological Resources

The operator shall be responsible for informing all persons associated with this project that they shall be subject to prosecution for damaging, altering, excavating or removing any archaeological, historical, or vertebrate fossil objects or site. If archaeological, historical, or vertebrate fossil materials are discovered, the operator shall suspend all operations that further disturb such materials and immediately contact the authorized officer. Operations shall not resume until written authorization to proceed is issued by the authorized officer.

Within five (5) working days, the authorized officer will evaluate the discovery and inform the operator of actions that will be necessary to prevent loss of significant cultural or scientific values.

The operator shall be responsible for the cost of any mitigation required by the authorized officer. The authorized officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the authorized officer that the required mitigation has been completed, the operator shall be allowed to resume operations.

10. Hazardous Waste: Those wastes that qualify as exempt, under the Resource Conservation and Recovery Act (RCRA), Oil and Gas Exemption, may be disposed of in the reserve pit. Generally, oil or gas wastes are exempt if they 1) have been sent downhole and then returned to the surface during oil/gas operations involving exploration, development, or production, or 2) have been generated during the removal of produced water or other contaminants from the oil/gas production stream. The term hazardous waste, as referred to above, is defined as a listed (40 CFR 261.31-33) or characteristic (40 CFR 261.20-24) hazardous waste under RCRA. These are part of the proposed action along with the MSUP

ADDITIONAL PERMITTING REQUIREMENTS

MASTER SURFACE USE PLAN OF OPERATIONS

The **Project-Wide Mitigation Measures and Procedures** in section 2.1.10 of Chapter 2 are considered as part of the MSUP.

Existing Roads:

1. Anadarko shall have permission the use (cross) the private land involved in this project.

Access Roads to be Constructed and Reconstructed:

1. The road(s) shall be surveyed and staked with stations set continuously along the centerline at maximum 100-foot intervals (less where needed to be visible) and at all tangent and curve control points, fence or utility crossings, and culverts
2. Prior to moving the drilling equipment onto the well pad the access road shall be thoroughly compacted, completed to an appropriate grade, and surfaced to the degree necessary to support heavy vehicular traffic during all drilling operations. This may include at a minimum the thorough compaction of the road's sub-base to at least 85% of its maximum dry density, prior to surfacing with a minimum of a four (4) inch layer of compacted gravel. The existing road(s) as well as the newly constructed road(s) may require additional compaction and surfacing to ensure the roads will stand up to the heavy equipment used during the drilling of the well.

Location of Existing and/or Proposed Facilities

1. The Standard Environmental Color selected for all above-ground structures, production equipment, tanks, transformers, insulators, not subject to safety requirements is Shale Green (5Y 4/2).

Plans for Reclamation of the Surface:

Seed Mix for Reclamation

The following shall be added to the seed mix:

Thickspike wheatgrass (*Elymus dasystachyum*) @ 2 lbs./Acre

Bluebunch wheatgrass (*Elymus spicatum*) 2 lbs./Acre

Slender wheatgrass (*Elymus dasystachyum*) @ 2 lbs./Acre may also be added.

Indian Ricegrass may be reduced to 2 lbs./Acre

Green Needlegrass and Winterfat may be dropped from the seed mix.

Other Information:

1. Construction, drilling and other activities potentially disruptive to strutting and nesting Greater Sage grouse are prohibited during the period of March 1 to June 30 for the protection of Greater Sage grouse nesting areas. This applies to all wells, pipelines or other facilities associated with the Jolly Roger Pod.
2. Construction, drilling and other activities potentially disruptive to nesting raptors are prohibited during the period of February 1 to July 31 for the protection of raptor nesting areas.