

**DECISION RECORD
FINDING OF NO SIGNIFICANT IMPACT
For
LOWER BUSH CREEK COAL BED METHANE
EXPLORATORY PILOT PROJECT**

INTRODUCTION

On August 15, 2003, the State Director remanded the Decision Record for the Lower Bush Creek Coal Bed Methane Exploratory Pilot Project to the Rock Springs Field Office in resolution of a request for State Director Review (SDR) on the original Decision Record, Finding of No Significant Impact, and Environmental Assessment dated June 24, 2003. Remand of the original decision involves the cumulative impact analysis only. All other points brought forth in the SDR were affirmed.

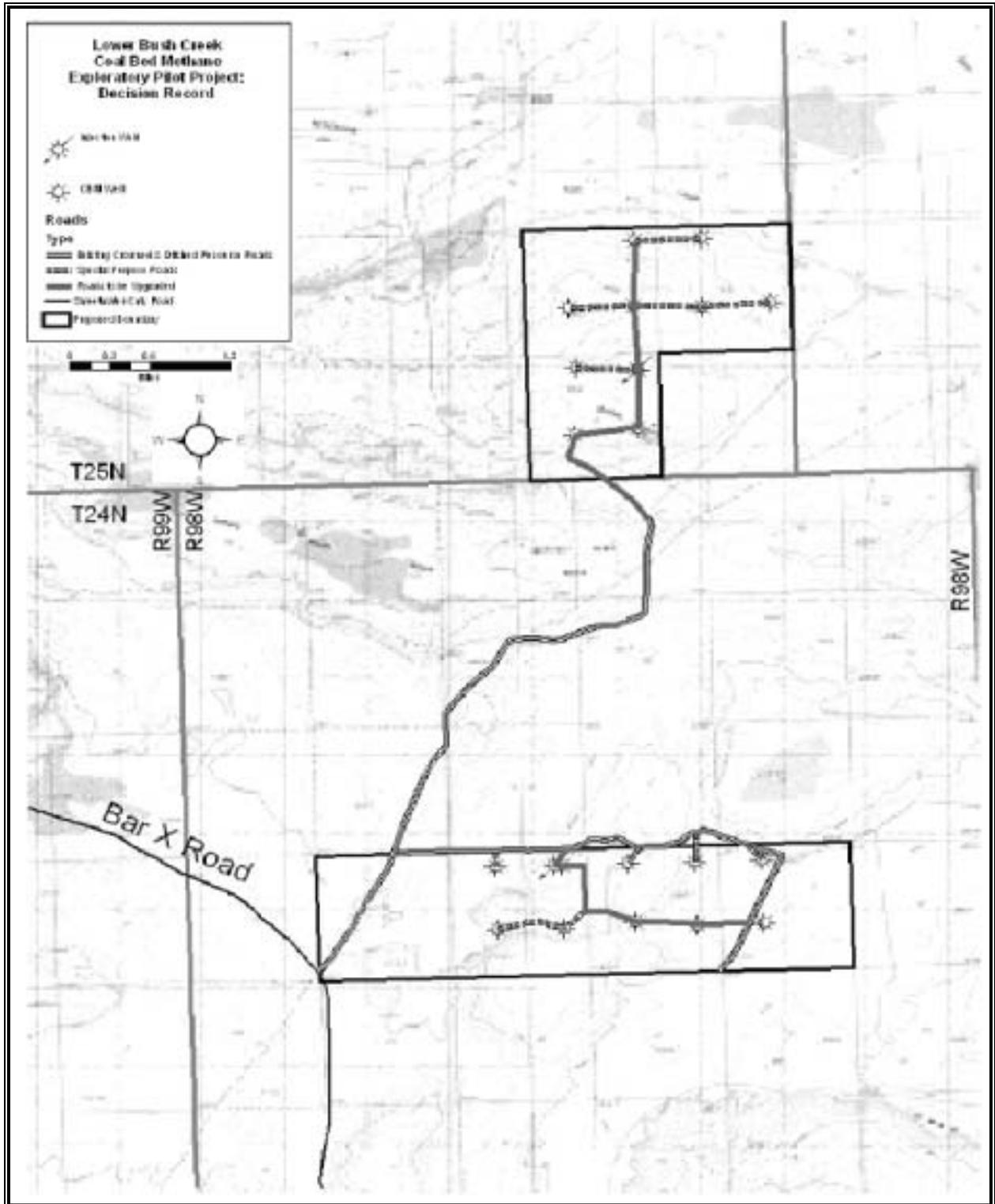
This Decision Record, Finding of No Significant Impact and Environmental Assessment supercedes and replaces the decision of June 24, 2003.

Kennedy Oil (Kennedy) of Gillette, Wyoming, notified the Bureau of Land Management (BLM), Rock Springs Field Office (RSFO), that the company proposes an exploratory pilot project to explore for and potentially develop coal bed methane (CBM) wells. The proposal would allow the proponent to determine whether there is commercial production potential of oil and gas leases issued by the BLM. Two 10-well groupings, known as pods, comprise the proposal and are located on public lands administered by the BLM within the Great Divide Basin located in south-central Wyoming (see Figure 1.1 of the attached Environmental Assessment). The project is within the administrative boundary of the Rock Springs Field Office (RSFO) in Townships 24 and 25 North, Range 98 West, Sweetwater County, Wyoming.

Access to the area is by Interstate Highway 80 and Sweetwater County Road 4-21 (Bar X Road). Driving directions are as follows: travel approximately 60 miles west from Rawlins, Wyoming, on I-80 to Exit 152 access to Sweetwater County Road 4-21 (Bar X Road); travel north on the Bar X Road for approximately 33 miles to the project areas.

The proposal involves drilling and testing commercial CBM production potential of the Big Red Coal with two pods of 10 exploratory CBM wells on 160-acre spacing (see Decision Record Map). This well number and spacing is believed to be the minimum necessary to sufficiently de-water the coal, allow the gas to desorb through reduced pressure in the coal seam, and determine whether natural gas production is economically viable in this coal at this location. All produced water would be reinjected into a sand formation containing water of lesser or equal quality as compared with the injected water. The proposal would require the construction of access roads, well pads, completion of injection wells and related production facilities for each pod. The pods are known as the North Sweetwater Pilot and the Central Sweetwater Pilot. The project area, here defined as the sections directly affected by the Proposed Action, encompasses approximately 3,500 acres.

Approved Project Map



BLM released a scoping notice to the public on February 28, 2002 (a copy of the scoping notice can be found in Appendix E of the attached Environmental Assessment). Sixteen comment letters were received. All issues identified during public scoping have been considered. Comments received in response to public scoping and the BLM response to those comments can be found in Appendix A of this decision. Based on the analysis and review of the regulations contained in 43 CFR 1501.4 (2), the BLM is releasing the Decision Record and Finding of No Significant Impact with the Environmental Assessment. The action proposed is not or closely similar to one which normally requires an environmental impact statement under the procedures adopted by the agency pursuant to 1507.3 (Department Manual 516 DM 6, Appendix 5: 5.3, Actions Normally Requiring an EIS); nor is the proposal one without precedent (oil and gas activity is an approved and on-going activity in the general area).

ALTERNATIVES CONSIDERED

The attached Environmental Assessment for the Lower Bush Creek Coal Bed Methane Exploratory Pilot Project analyzed two alternatives. The Proposed Action involves drilling wells to the Big Red Coal in the Fort Union formation and testing the commercial potential for CBM production of that zone. Two proposed pods, each containing 10 exploratory wells on 160-acre spacing and one injection well. These pods are known as the North Sweetwater Pilot and the Central Sweetwater Pilot. The proposed well number and spacing is believed to be the minimum necessary to sufficiently de-water the coal, allow the gas to desorb through reduced pressure in the coal seam, and allow the determination of the zone's commercial production potential in this geographic region. The exploratory pilot project is expected to provide additional data about the natural gas resources in this area.

Associated facilities required include use of existing and development of new access roads including collector, resource, and special purpose roads, drill pads, water disposal pipelines, injection wells, and associated equipment (i.e., tanks if needed, valves) on the well site.

Regulations contained in 40 CFR 1508.9 states that alternatives as required by Section 102(2)(E) of the National Environmental Policy Act directs agencies to study, develop, and describe appropriate alternatives for proposals which involve unresolved conflicts concerning alternative uses of available resources. One alternative was analyzed in the attached EA.

The other alternative documented in the attached Environmental Assessment is the No Action alternative which analyzed the impacts of denying the proposal.

Alternatives Considered but Eliminated Detailed Study

No Upgrade or Construction of Roads. This alternative was based on the Proposed Action with no allowance for upgrading of existing roads or construction of roads. Such an alternative would reduce surface disturbance caused by road upgrading or construction. However, the GRRMP requires roads to be constructed according to BLM standards (BLM Manual 9113 and BLM Wyoming Supplemental Manual 9113) to protect the health and safety of those working on or visiting public lands in the area. Since neither a no upgrade nor construction of road alternative would be in

conformance with the Green River Resource Management Plan, this alternative was determined to be unreasonable.

Alternative of Ninety-three wells in 2 pods: In September 2001 when Kennedy first approached BLM, their tentative proposal consisted of 93 wells, located in two pods, to test the viability of CBM production. The two pods included 35 wells including 3 injection wells in T24NR98W and 58 wells including 4 injection wells in T25N, R 97/98W. However, bids to write the document were considerably higher than the company wanted to pay; thus, Kennedy chose to scale their proposal down to the minimum necessary to test CBM production. Hence, the Proposed Action was developed. Because Kennedy found the cost to complete the necessary study to be uneconomic and modified their proposal, this alternative was drop from detailed study.

Directional or Horizontal Drilling Method Alternative: Directional drilling refers to a technique of drilling on an angle from the vertical that allows the completion of multiple wells from one drill pad. The success of this method is dependent on well depth, gas pressure and down-hole pump needs. Directional drilling is generally used to gain access to a part of an oil and/or gas reservoir that is not directly below the surface well location. It is also generally used in areas where surface locations are expensive or prohibitive. Directional drilling is used extensively offshore and in remote areas such as the Middle East, Alaska's North Slope where mobilization and site preparation costs are much higher than in the pilot project area. In these remote areas directional drilling is often justified from an economic standpoint.

Horizontal drilling is a method of completing a well with a long horizontal wellbore segment in the target formation. This method has been used extensively to increase hydrocarbon recovery from low permeability fractured reservoirs. Although the density of horizontal wells may be less than the density of vertical wells, usually only one horizontal well is drilled from each surface location. Horizontal drilling has been used extensively to develop low permeability fractured oil and gas reservoirs in Texas, North Dakota, and southeast Wyoming. In all three of these areas vertical wells were drilled initially.

The purpose of a pilot project, such as the one proposed by Kennedy, is to gather data and determine the economic feasibility of more extensive development. At this stage, it would be very difficult to evaluate the feasibility of directional drilling, or horizontal completion techniques in the project area as little data or information is available. Requiring directional drilling or horizontal completions would complicate the pilot project in that the purpose of it is to collect reliable information on reservoir heterogeneity, coal thickness, coal gas content, gas chemistry, recovery efficiency, coal permeability, water quality and quantity, plus drilling, completion, and processing costs. This data must be collected before an assessment of the feasibility of drilling directional wells from a central location or using horizontal completions can be properly evaluated. Neither directional nor horizontal drilling methods are successful in low-pressure coal bed methane wells, as is the character of the Big Red Coal. Due to these factors, a directional or horizontal drilling program was determined to be unreasonable.

DECISION

Based upon the analysis of the potential environmental impacts described in the Environmental Assessment for the Lower Bush Creek Coal Bed Methane Exploratory Pilot Project, and in consideration of internal, public, industry, and governmental agency comments received during public scoping and that no unresolved issues remain after analysis, BLM approves the Proposed Action alternative as described in Chapter 2 (and Appendix D) as mitigated in Chapter 4 in the attached Environmental Assessment. Approval of the project will allow Kennedy Oil to gain authorization of the required permits to drill and rights-of-way to implement project components. Project-wide applicant committed measures or conditions of approval required to eliminate or reduce impacts are identified in Appendices B and C of this decision. Appendix C of this decision modifies the Master Surface Use Plan found in Appendix D of the attached Environmental Assessment.

Approved Project Components

This decision authorizes processing of applications for permit to drill or right-of-way applications for the following project components on BLM-administered public lands and minerals within the project area, subject to the requirements identified in Appendices B and C of this decision. Approval of component permits is required prior to surface disturbing activities.

- Two 10-well CBM pods located on public lands administered by the BLM within the project area and one injection well located adjacent to a well in each pod. Well name, lease, and location are identified in Table 1.

Table 1

Lower Bush Creek Coal Bed Methane Exploratory Pilot Project

Project Area	Lease No.	Well Name	Location	
North Sweetwater Pilot	WYW154200	Kennedy North SW Fed 21-25	NENW Sec. 25, T25N R98W	
		Kennedy North SW Fed 23-25	NESW Sec. 25, T25N R98W	
		Kennedy North SW Fed 43-25	NESE Sec. 25, T25N R98W	
		Kennedy North SW Fed 41-26	NENE Sec. 26, T25N R98W	
		Kennedy North SW Fed 23-26	NESW Sec. 26, T25N R98W	
		Kennedy North SW Fed 43-26	NESE Sec. 26, T25N R98W	
		Kennedy North SW Fed 21-35	NENW Sec. 35, T25N R98W	
		Kennedy North SW Fed 41-35	NENE Sec. 35, T25N R98W	
		Kennedy North SW Fed 23-35	NESW Sec. 35, T25N R98W	
		Kennedy North SW Fed 43-35	NENE Sec. 35, T25N R98W	
		Injection well	Kennedy North SW Fed 41-35i	NENE Sec. 35, T25N R98W
Central Sweetwater Pilot	WYW153613	Central Sweetwater Fed 21-22	NENW Sec. 22, T24N R98W	
		Central Sweetwater Fed 23-22	NESW Sec. 22, T24N R98W	
		Central Sweetwater Fed 41-22	NENE Sec. 22, T24N R98W	
		Central Sweetwater Fed 43-22	NESE Sec. 22, T24N R98W	
		Central Sweetwater Fed 21-23	NENW Sec. 23, T24N R98W	
		Central Sweetwater Fed 23-23	NESW Sec. 23, T24N R98W	
		WYW152180	Central Sweetwater Fed 21-21	NENW Sec. 21, T24N R98W
			Central Sweetwater Fed 23-21	NESW Sec. 21, T24N R98W
			Central Sweetwater Fed 41-21	NENE Sec. 21, T24N R98W
		Central Sweetwater Fed 43-21	NESE Sec. 21, T24N R98W	

Injection well Central Sweetwater Fed 41-21i NENE Sec. 21, T24N R98W

- Use or reconstruction of approximately 7.87 miles of existing access road and construction of approximately 8.10 miles of new access road. The BLM will allow Kennedy Oil to test the use of special purpose roads to certain wells (as reflected on the map in this decision). All other roads within each pod will be constructed to resource road standard (16 ft subgrade width, 14 ft surfaced travelway, with borrow ditches) including a 10 ft by 100 ft turnout every 1,000 ft and will be designed under the direction of or by a licensed engineer and meet the requirements found in Appendix C this decision. All special purpose roads will be surveyed. Construction and use of special purpose roads will be closely monitored by BLM. Should resource damage become evident, activity will be stopped, the road designed by or under the direction of a licensed engineer and constructed accordingly prior to resuming operations.
- Construction of buried water injection pipelines (if testing proves viable) will be placed adjacent to access roads (no cross-country placement of pipelines). Estimated initial surface disturbance from access roads and pipeline rights-of-way is approximately 72.64 acres (includes disturbance from existing roads). All pipelines will be reclaimed after construction is completed. Access road life-of-project disturbance should production occur would be limited to no more than 48.40 acres (includes disturbance from existing roads).
- A portion of the access road leading to the North Sweetwater pod will require maintenance (re-establishment of roadbed) prior to use and another portion of the route leading to the pod will require construction. All maintenance/construction of this road within the existing prairie dog town will be done within the confines of the previously disturbed area.
- A pipeline (compression or other related facilities) right-of-way to market produced gas could be required if testing proves successful. Such proposals will be subject to the appropriate level of environmental analysis at the time it is proposed.
- Twenty-two (22) wells located in two pods (10 CBM wells and 1 injection well in each pod). Initial disturbance of each well pad will be approximately 1.39 acres and 2.14 acres for well pads having injection wells for a total initial disturbance from well pad construction of 25.02 and 4.28 acres respectively. Life-of-project disturbance would be no more than 0.7 acres per well except for well pads having injection wells. Such disturbance would be no more than 0.92 acres per well. Total life-of-project disturbance from well pads should production occur would be 12.6 acres and 1.84 acres for well pads having injection wells.
- Any required staging or storage areas will be located on the well site unless an alternative location is approved subject to appropriate environmental analysis.
- Disturbance from the project is summarized in Table 2 below.

TABLE 2

SURFACE DISTURBANCE SUMMARY

Facility	Length (feet)	Estimated Width (feet)	Initial Disturbance (Acres)	Production Disturbance Should Exploratory Drilling Prove Successful (Acres)
Special Purpose Roads and parallel water gathering line	20,964	30 (initial) 12 (LOP)	14.44	5.78
Maintenance of existing access road to North Sweetwater pod	17,686	40 (initial/ LOP)	16.24	16.24
Use of existing crowned and ditched collector roads and construction of adjacent parallel water gathering line	19,119	40 (initial) 24 (LOP)	17.56	10.53
Construction of Resource Road without parallel water gathering pipelines	4,750	40 (initial/ LOP)	4.36	4.36
Construction of Resource Roads and parallel water gathering pipeline	21,826	40 (initial) 24 (LOP)	20.04	12.03
Each Producing Well Pad (18 pads total)	295 (init.) 175 (prod.)	205 (initial) 175 (LOP)	1.39 (well) 25.02 (total)	0.7 (well) 12.6 (total)
Each Pad for Producing and Injection Well Locations (2 locations total)	455 (init.) 200 (prod.)	205 (initial) 200 (LOP)	2.14 (well) 4.28 (total)	0.92 (well) 1.84 (total)
Total Disturbance (Acres)			101.94	63.38

Approval of the Proposed Action is conditional upon and subject to applicant-committed environmental practices found in Appendix B and additional mitigation measures including conditions of approval described in Appendix C of this decision, and adherence to any additional conditions of approval attached to the approved application for permit to drill, adherence to oil and gas leases, and adherence to right-of-way grant stipulations.

MANAGEMENT CONSIDERATION/RATIONALE FOR THE DECISION

The decision to approve the Proposed Action is based on the following factors.

1. Consistency with Land Use and Resource Management Plans

The Proposed Action is in conformance with the Green River Resource Management Plan (RMP). The objective for oil and gas management is to “provide consideration for oil and gas leasing, exploration, and development of oil and gas while protecting other values.” The

objective of the realty program is to “manage the public lands to support the goals and objectives of other resource programs” and “to respond to public demand for land use authorizations.” In addition, management actions for the Red Desert Watershed Management Area allow for surface disturbing activities, including mineral exploration and development where acceptable subject to the management guidelines provided in the Minerals section of the RMP. All public lands affected by the proposal are leased for oil and gas with appropriate mitigation including the requirement for an acceptable plan of which the criteria can be found in Appendix A of the attached Environmental Assessment.

2. National Policy

Private exploration and development of federal oil and gas leases is an integral part of the BLM oil and gas leasing program under the authority of the Mineral Leasing Act of 1920, as amended and the Federal Land Policy and Management Act of 1976, as amended. The United States continues to rely on foreign energy sources. The BLM oil and gas program is designed to encourage development of domestic oil and gas reserves. This decision is consistent with national policy. In addition, analyzing a comprehensive drilling program complies with existing policy to utilize one master drilling and surface use plan for a cluster of wells [pod], or analyzing proposed development within a geographic area.

3. Agency Statutory Requirements

This decision is consistent with all federal, state, and county authorizing actions required to implement the Proposed Action. All pertinent statutory requirements applicable to this proposal were considered. Informal conferencing for proposed species and formal consultation for listed species with U.S. Fish and Wildlife Service has been completed (see Appendix D of this decision). Compliance with Section 106 of the Historic Preservation Act will be completed prior to approval of permits for individual components.

4. Relevant Resource and Economic Issues

Potential impacts from Kennedy’s proposal to surface and subsurface resources identified in the attached Environmental Assessment are considered to be insignificant (necessary and due) with mitigation identified in Appendices B and C. The economic benefits derived from implementation of the Proposed Action in the form of continuing employment opportunities, equipment, services, and potential revenues should production of natural gas ensue are considered important.

5. Application of Measures to Avoid or Minimize Environmental Impacts

Federal environmental protection laws (e.g., Clean Air Act, Clean Water Act, etc.) apply to all public lands administered by the BLM and are included as part of the standard oil and gas lease terms and the terms and conditions of right-of-way grants. In addition, adoption of measures found in Appendices B and C of this decision provide a practicable means to avoid or minimize potential impacts to environment. These measures will be attached to approved

permits. Should conditions warrant, additional measures could be applied to individual permits or rights-of-way subject to additional analysis.

6. Opportunity for Public Involvement

BLM initiated public scoping on February 28, 2002. Sixteen comment letters were received in response. All issues, concerns, and alternatives brought forth during public scoping have been considered during the analysis and no unresolved issues remain. BLM has provided responses to individual scoping comment letters in Appendix A of this decision.

7. Acceptable Plan Criteria

The Proposed Action including measures identified in Appendices B and C of this decision meet the acceptable plan criteria (see Appendix A of the attached Environmental Assessment) for federal oil and gas lease WYW 153613.

FINDING OF NO SIGNIFICANT IMPACT

Based upon the analysis contained in the attached *Lower Bush Creek Coal Bed Methane Exploratory Pilot Project Environmental Assessment* and with implementation of the protective measures identified in Appendices B and C of this decision, the selected alternative will not cause a significant impact to the quality of the human, natural, and physical environment. Therefore, an environmental impact statement is not necessary.

APPEAL

Under BLM regulations, this decision is subject to administrative review in accordance with 43 CFR 3165. Any request for administrative review of this decision must include the information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. Such a request must be filed in writing to the State Director (920), Bureau of Land Management, P.O. Box 1828, Cheyenne, Wyoming 82003, within 20 business days of the date such notice of decision was received or considered to have been received. This decision will be considered to have been received seven (7) business days after the date it is mailed.

The decision of the State Director could be appealed to the Interior Board of Land Appeals in accordance with the regulations contained in 43 CFR 3165.4 and 43 CFR Part 4. Each adverse party to any such appeal must be provided with all documentation in accordance with 43 CFR 4.413(a). The adverse party to any appeal of the decision by the State Director includes:

Kennedy Oil
700 West 6th Street
Gillette, Wyoming 82716

SIGNATURE

/s/ Ted A. Murphy
Acting Field Manager

August 22, 2003
Date